

# Instructions

## Running WinDAM C Example Input Files

**Q: How do I start running WinDAM C with some example files?**

**A:** Here are steps to start using WinDAM C software and viewing example input files:

- 1) **Download WinDAM C software and WinDAM C example files.**  
Install WinDAM C software.  
Then unzip the WinDAM C example files onto your computer.
- 2) **Run WinDAM C.exe.**  
Picture of earth dam and reservoir appears.  
Screen title on top bar is: WinDAM C
- 3) **Create a new project directory for the WinDAM C input examples.**  
(File-->New Project--> browse and type in a new project name)
- 4) **Import unzipped \*.wdc example input files into the newly-created WinDAM C project.**  
(File-->Import File--> browse and select \*.wdc example input files)
- 5) **Run the example files now located in the WinDAM C project directory.**  
(Run-->Simulate All Files)
- 6) **View the example files output summary in WinDAM C.**  
(View-->Summary Table)
- 7) **To view graphs or additional text output of the example output:**  
Left-click a filename in summary table.  
Column becomes highlighted in blue.  
Click bottom-row buttons to View Graphs/View Text/View Aux Spillway #.

# **Example Filenames**

<b>WinDAM C Example Filename</b>	<b>Example File Description</b>
01-PSwDD.WDC	Principal spillway routing with drawdown
02-SDHstability.WDC	Earth spillway stability or integrity design
03-TH-Overtop.WDC	Embankment overtopped, but not breached, Maintenance Code 1, Temple/Hanson energy model
04-HR-Overtop.WDC	Embankment overtopped, but not breached, Maintenance Code 1, Hanson/Robinson. stress model,
05-HR-OvertopBreach.WDC	Embankment overtops & breaches, Maintenance Code 3, Hanson/Robinson stress model
05-HR-OvertopBreach.WDC	Embankment overtops & breaches, Maintenance Code 3 Temple/Hanson energy model
07-FBIntegrity.WDC	Integrity Design, Maintenance Code 2
08-FBIntegritywBarrier.WDC	Integrity Design, Maintenance Code 2
09-FBIntegrityNoBarrierSand.WDC	Integrity design, no barrier, sandy auxiliary spillway (RTside) breaches. Auxiliary spillway BREACH halts auxiliary spillway erosion computations, however, hydraulic computations continue.
10-FBIntegrity2AuxSpwy.WDC	Stability/integrity design, two auxiliary spillways
11-FBIntegrity2AuxSpwyTailwater.WDC	Stability/integrity design, two auxiliary spillways, tailwater added
12-FBIntegrity2AS1Structural.WDC	Two auxiliary spillways, one auxiliary spillways is a structural spillway
13-IE-slowKd005.WDC	Internal erosion, low erodibility ( $K_d = 0.05 \text{ ft/hr/psf}$ )
14-IE-medKd050.WDC	Internal erosion, medium erodibility ( $K_d = 0.50 \text{ ft/hr/psf}$ )
15-IE-fastKd500.WDC	Internal erosion, high erodibility ( $K_d = 5 \text{ ft/hr/psf}$ )

# **Summary Table Output**

WinDAM C 1.1.7 July 21, 2017	01-PSwDD	02-SDHstability	03-TH Overtop	04-HR Overtop	05-HR Overtop Breach	06-TH Overtop Breach
Site ID	Example 01	Example 02	Example 03	Example 04	Exam 05HR	Exam 06 TH
PS Crest Elevation (ft)	604.0 ft	604.0 ft	604.0 ft	604.0 ft	604.0 ft	604.0 ft
AS [1] Crest Elev. (ft)	609.0 ft	609.0 ft	609.0 ft	609.0 ft	609.0 ft	609.0 ft
AS [2] Crest Elev. (ft)	N/A	N/A	N/A	N/A	N/A	N/A
AS [3] Crest Elev. (ft)	N/A	N/A	N/A	N/A	N/A	N/A
Top of Dam (ft)	613.0 ft	613.0 ft	613.0 ft	613.0 ft	613.0 ft	613.0 ft
Length of Dam (ft)	1,200 ft	1,200 ft	1,200 ft	1,200 ft	1,200 ft	1,200 ft
Hydrograph Label	PSH	SDH Stab	FBH	FBH	FBH	FBH
Peak Inflow (cfs)	4,725 cfs	18,440 cfs	20,009 cfs	20,007 cfs	20,007 cfs	20,007 cfs
Elevation to Start Routing	604.1 ft	604.1 ft	604.1 ft	604.1 ft	604.1 ft	604.1 ft
Maximum Pool Elevation (ft)	608.2 ft	610.8 ft	614.3 ft	614.3 ft	614.0 ft	614.2 ft
Peak Total Outflow (cfs)	139 cfs	345 cfs	2,707 cfs	32,689 cfs	33,667 cfs	32,630 cfs
Peak Principal Spillway Discharge (cfs)	139 cfs	150 cfs	162 cfs	162 cfs	161 cfs	162 cfs
AS [1] Peak Outflow (cfs)	0 cfs	196 cfs	1,602 cfs	1,604 cfs	1,466 cfs	1,572 cfs
AS [2] Peak Outflow (cfs)	N/A	N/A	N/A	N/A	N/A	N/A
AS [3] Peak Outflow (cfs)	N/A	N/A	N/A	N/A	N/A	N/A
Peak Overtopping/Breach Outflow (cfs)	0 cfs	0 cfs	942 cfs	32,489 cfs	33,461 cfs	32,458 cfs
- Peak Conduit Outflow (cfs)	N/A	N/A	N/A	N/A	N/A	N/A
Initial Internal Flow Path Height (ft)	N/A	N/A	N/A	N/A	N/A	N/A
Initial Internal Flow Path Width (ft)	N/A	N/A	N/A	N/A	N/A	N/A
Initial Internal Flow Path Elevation (ft)	N/A	N/A	N/A	N/A	N/A	N/A
Initial Internal Flow Path Station (ft)	N/A	N/A	N/A	N/A	N/A	N/A
Initial Length of Flow Path (ft)	N/A	N/A	N/A	N/A	N/A	N/A
Time of Internal Flow Initiation(hrs)	N/A	N/A	N/A	N/A	N/A	N/A
Time of Overtopping Flow Initiation (hrs)	N/A	N/A	12.2 hr	14.8 hr	14.8 hr	14.8 hr
Maximum Overtopping Head (ft)	-4.76 ft	-2.17 ft	1.28 ft	1.28 ft	1.02 ft	1.22 ft
Overtopping Flow Duration (hrs)	N/A	N/A	14.6 hr	4.4 hr	1.6 hr	3.0 hr
Maximum Overtopping/Breach q (cfs/ft)	N/A	N/A	3.5 cfs/ft	588.5 cfs/ft	584.6 cfs/ft	575.9 cfs/ft
Dam Face Ret. Curve Index	5.6	5.6	5.6	5.6	5.6	5.6
Dam Face Vegetal Cover Factor	0.8	0.8	0.9	0.9	0.9	0.9
Dam Face Maintenance Code	2	2	1	2	3	3
Dam Face Rip Rap Diameter (ft)	N/A	N/A	N/A	N/A	N/A	N/A
Max. Gross Stress on Dam Face (lb/ft^2)	N/A	N/A	7.44 psf	7.45 psf	4.92 psf	4.92 psf
Percent Allowable Gross Stress on Dam Face	N/A	N/A	55%	55%	36%	36%
Percent Allowable Er. Eff. Stress on Dam Face	N/A	N/A	24%	100%	104%	104%
Percent Allowable Unit Discharge on Dam Face	N/A	N/A	N/A	N/A	N/A	N/A
Time of Slope Prot. Failure (hr)	N/A	N/A	N/A	N/A	N/A	N/A
Dam Breach Model	N/A	N/A	Temple/Han	Hanson/Rob	Hanson/Rob	Temple/Han
Dam Fill Total Unit Weight (lb/ft^3)	N/A	N/A	N/A	105 pcf	105 pcf	N/A
Dam Fill Erodibility ([ft/hr]/lb/ft^2)	N/A	N/A	10.0	10.0	10.0	10.0
Dam Fill Undrained Shear Strength (lb/ft^2)	N/A	N/A	N/A	200	200	N/A
Dam Fill Critical Shear Stress (lb/ft^2)	N/A	N/A	0.10 psf	0.10 psf	0.10 psf	0.10 psf
Dam Fill Advance Rate Coeff ([ft/hr]/[ft/s^1/3])	N/A	N/A	5	N/A	N/A	5
Time of Breach Initiation (hr)	N/A	N/A	0.0 hr	18.7 hr	16.0 hr	16.5 hr
Time of Breach Formation (hr)	N/A	N/A	0.0 hr	19.1 hr	16.4 hr	17.9 hr
Final Breach Width (ft)	N/A	N/A	0 ft	111 ft	121 ft	115 ft
Time of Conduit Collapse (hr)	N/A	N/A	N/A	N/A	N/A	N/A
Number of Errors	0	0	0	0	0	0
Number of Warnings	0	0	0	1	1	1

WinDAM C 1.1.7 July 21, 2017	07- FBIntegrity	08- FBIntegrity wBarrier	09-FBIntegrity NoBarrierSand	10-FBIntegrity 2AuxSpwy	11- FBIntegrity2AuxS pwyTailwater	12- FBIntegrity2AS1 Structural
Site ID	Example 07	Example 08	Example 09	Example 10	Example 11	Example 12
PS Crest Elevation (ft)	604.0 ft	604.0 ft	604.0 ft	604.0 ft	604.0 ft	604.0 ft
AS [1] Crest Elev. (ft)	609.0 ft	609.0 ft	609.0 ft	609.0 ft	609.0 ft	609.0 ft
AS [2] Crest Elev. (ft)	N/A	N/A	N/A	609.0 ft	609.0 ft	609.0 ft
AS [3] Crest Elev. (ft)	N/A	N/A	N/A	N/A	N/A	N/A
Top of Dam (ft)	614.0 ft	614.0 ft	614.0 ft	614.0 ft	614.0 ft	614.0 ft
Length of Dam (ft)	1,200 ft	1,200 ft	1,200 ft	1,200 ft	1,200 ft	1,200 ft
Hydrograph Label	FBH	FBH	FBH	FBH	FBH	FBH
Peak Inflow (cfs)	20,009 cfs	20,009 cfs	20,009 cfs	20,009 cfs	20,009 cfs	20,009 cfs
Elevation to Start Routing	604.1 ft	604.1 ft	604.1 ft	604.1 ft	604.1 ft	604.1 ft
Maximum Pool Elevation (ft)	613.8 ft	613.8 ft	613.8 ft	613.8 ft	613.8 ft	613.7 ft
Peak Total Outflow (cfs)	3,231 cfs	3,231 cfs	3,231 cfs	3,378 cfs	3,367 cfs	3,357 cfs
Peak Principal Spillway Discharge (cfs)	161 cfs	161 cfs	161 cfs	161 cfs	149 cfs	160 cfs
AS [1] Peak Outflow (cfs)	3,070 cfs	3,070 cfs	3,070 cfs	1,609 cfs	1,612 cfs	1,598 cfs
AS [2] Peak Outflow (cfs)	N/A	N/A	N/A	1,609 cfs	1,612 cfs	1,599 cfs
AS [3] Peak Outflow (cfs)	N/A	N/A	N/A	N/A	N/A	N/A
Peak Overtopping/Breach Outflow (cfs)	0 cfs	0 cfs	0 cfs	0 cfs	0 cfs	0 cfs
- Peak Conduit Outflow (cfs)	N/A	N/A	N/A	N/A	N/A	N/A
Initial Internal Flow Path Height (ft)	N/A	N/A	N/A	N/A	N/A	N/A
Initial Internal Flow Path Width (ft)	N/A	N/A	N/A	N/A	N/A	N/A
Initial Internal Flow Path Elevation (ft)	N/A	N/A	N/A	N/A	N/A	N/A
Initial Internal Flow Path Station (ft)	N/A	N/A	N/A	N/A	N/A	N/A
Initial Length of Flow Path (ft)	N/A	N/A	N/A	N/A	N/A	N/A
Time of Internal Flow Initiation(hrs)	N/A	N/A	N/A	N/A	N/A	N/A
Time of Overtopping Flow Initiation (hrs)	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Overtopping Head (ft)	-0.20 ft	-0.20 ft	-0.20 ft	-0.25 ft	-0.25 ft	-0.27 ft
Overtopping Flow Duration (hrs)	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Overtopping/Breach q (cfs/ft)	N/A	N/A	N/A	N/A	N/A	N/A
Dam Face Ret. Curve Index	5.6	5.6	5.6	5.6	5.6	5.6
Dam Face Vegetal Cover Factor	0.8	0.8	0.8	0.8	0.8	0.8
Dam Face Maintenance Code	2	2	2	2	2	2
Dam Face Rip Rap Diameter (ft)	N/A	N/A	N/A	N/A	N/A	N/A
Max. Gross Stress on Dam Face (lb/ft^2)	N/A	N/A	N/A	N/A	N/A	N/A
Percent Allowable Gross Stress on Dam Face	N/A	N/A	N/A	N/A	N/A	N/A
Percent Allowable Er. Eff. Stress on Dam Face	N/A	N/A	N/A	N/A	N/A	N/A
Percent Allowable Unit Discharge on Dam Face	N/A	N/A	N/A	N/A	N/A	N/A
Time of Slope Prot. Failure (hr)	N/A	N/A	N/A	N/A	N/A	N/A
Dam Breach Model	N/A	N/A	N/A	N/A	N/A	N/A
Dam Fill Total Unit Weight (lb/ft^3)	N/A	N/A	N/A	N/A	N/A	N/A
Dam Fill Erodibility ([ft/hr]/lb/ft^2)	N/A	N/A	N/A	N/A	N/A	N/A
Dam Fill Undrained Shear Strength (lb/ft^2)	N/A	N/A	N/A	N/A	N/A	N/A
Dam Fill Critical Shear Stress (lb/ft^2)	N/A	N/A	N/A	N/A	N/A	N/A
Dam Fill Advance Rate Coeff ([ft/hr]/[ft/s^1/3])	N/A	N/A	N/A	N/A	N/A	N/A
Time of Breach Initiation (hr)	N/A	N/A	N/A	N/A	N/A	N/A
Time of Breach Formation (hr)	N/A	N/A	N/A	N/A	N/A	N/A
Final Breach Width (ft)	N/A	N/A	N/A	N/A	N/A	N/A
Time of Conduit Collapse (hr)	N/A	N/A	N/A	N/A	N/A	N/A
Number of Errors	0	0	0	0	0	0
Number of Warnings	0	0	0	0	0	0

WinDAM C 1.1.7 July 21, 2017	13-IE- slowKd005	14-IE- medKd050	15-IE- fastKd500
Site ID	Example 13	Example 14	Example 15
PS Crest Elevation (ft)	604.0 ft	604.0 ft	604.0 ft
AS [1] Crest Elev. (ft)	609.0 ft	609.0 ft	609.0 ft
AS [2] Crest Elev. (ft)	N/A	N/A	N/A
AS [3] Crest Elev. (ft)	N/A	N/A	N/A
Top of Dam (ft)	614.0 ft	614.0 ft	614.0 ft
Length of Dam (ft)	1,200 ft	1,200 ft	1,200 ft
Hydrograph Label	FBH	FBH	FBH
Peak Inflow (cfs)	20,009 cfs	20,009 cfs	20,009 cfs
Elevation to Start Routing	604.1 ft	604.1 ft	604.1 ft
Maximum Pool Elevation (ft)	613.7 ft	606.6 ft	604.1 ft
Peak Total Outflow (cfs)	3,308 cfs	8,244 cfs	9,077 cfs
Peak Principal Spillway Discharge (cfs)	146 cfs	65 cfs	2 cfs
AS [1] Peak Outflow (cfs)	3,177 cfs	0 cfs	0 cfs
AS [2] Peak Outflow (cfs)	N/A	N/A	N/A
AS [3] Peak Outflow (cfs)	N/A	N/A	N/A
Peak Overtopping/Breach Outflow (cfs)	0 cfs	0 cfs	0 cfs
- Peak Conduit Outflow (cfs)	N/A	N/A	N/A
Initial Internal Flow Path Height (ft)	0.5 ft	0.5 ft	0.5 ft
Initial Internal Flow Path Width (ft)	0.5 ft	0.5 ft	0.5 ft
Initial Internal Flow Path Elevation (ft)	590.0 ft	590.0 ft	590.0 ft
Initial Internal Flow Path Station (ft)	550.0 ft	550.0 ft	550.0 ft
Initial Length of Flow Path (ft)	N/A	N/A	N/A
Time of Internal Flow Initiation(hrs)	N/A	N/A	N/A
Time of Overtopping Flow Initiation (hrs)	N/A	N/A	N/A
Maximum Overtopping Head (ft)	-0.28 ft	-7.45 ft	-9.90 ft
Overtopping Flow Duration (hrs)	N/A	N/A	N/A
Maximum Overtopping/Breach q (cfs/ft)	N/A	N/A	N/A
Dam Face Ret. Curve Index	5.6	5.6	5.6
Dam Face Vegetal Cover Factor	0.8	0.8	0.8
Dam Face Maintenance Code	2	2	2
Dam Face Rip Rap Diameter (ft)	N/A	N/A	N/A
Max. Gross Stress on Dam Face (lb/ft^2)	N/A	N/A	N/A
Percent Allowable Gross Stress on Dam Face	N/A	N/A	N/A
Percent Allowable Er. Eff. Stress on Dam Face	N/A	N/A	N/A
Percent Allowable Unit Discharge on Dam Face	N/A	N/A	N/A
Time of Slope Prot. Failure (hr)	N/A	N/A	N/A
Dam Breach Model	Hanson/Rob	Hanson/Rob	Hanson/Rob
Dam Fill Total Unit Weight (lb/ft^3)	100 pcf	110 pcf	120 pcf
Dam Fill Erodibility ([ft/hr]/lb/ft^2)	0.05	0.50	5.00
Dam Fill Undrained Shear Strength (lb/ft^2)	800	400	100
Dam Fill Critical Shear Stress (lb/ft^2)	0.85 psf	0.01 psf	0.00 psf
Dam Fill Advance Rate Coeff ([ft/hr]/[ft/s^1/3])	N/A	N/A	N/A
Time of Breach Initiation (hr)	N/A	N/A	N/A
Time of Breach Formation (hr)	N/A	N/A	N/A
Final Breach Width (ft)	N/A	N/A	N/A
Time of Conduit Collapse (hr)	N/A	N/A	N/A
Number of Errors	0	0	0
Number of Warnings	1	1	1



# **Selected output for these files:**

**03-HR-Overtop.WDC**

**04-TH-Overtop.WDC**

**05-HR-OvertopBreach.WDC**

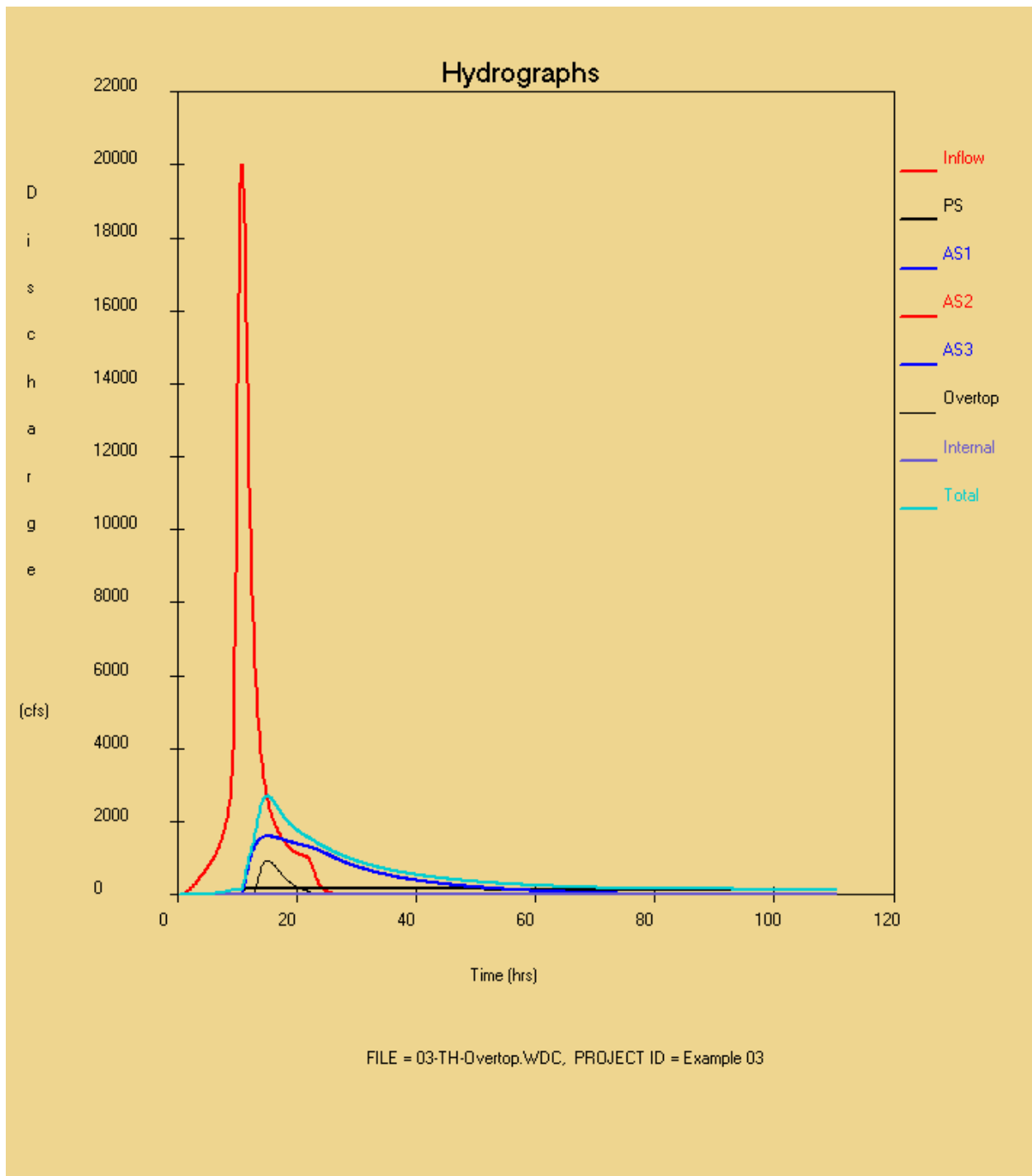
**06-TH-OvertopBreach.WDC**

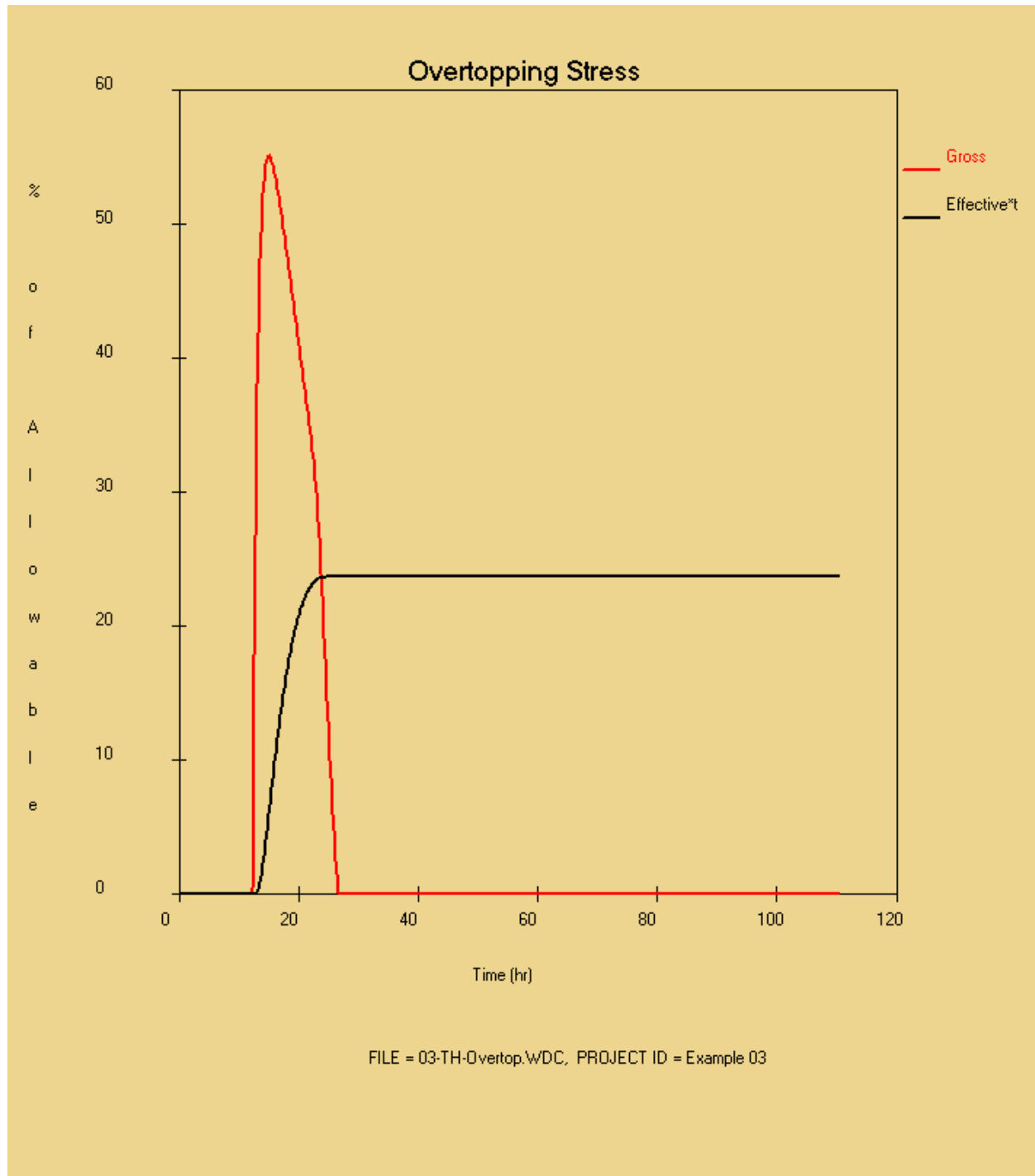
**13-IE-slowKd005.WDC**

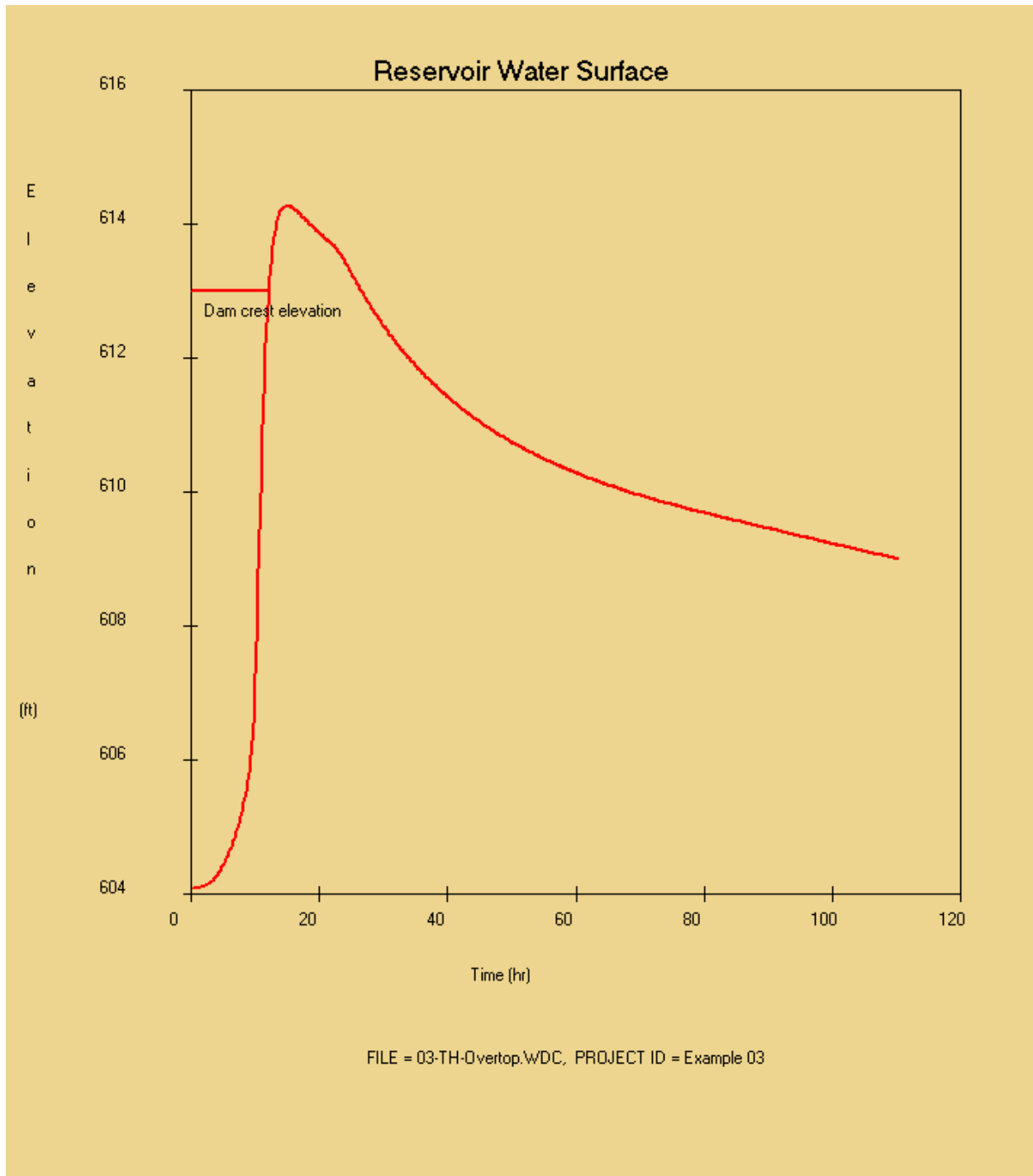
**14-IE-medKd050.WDC**

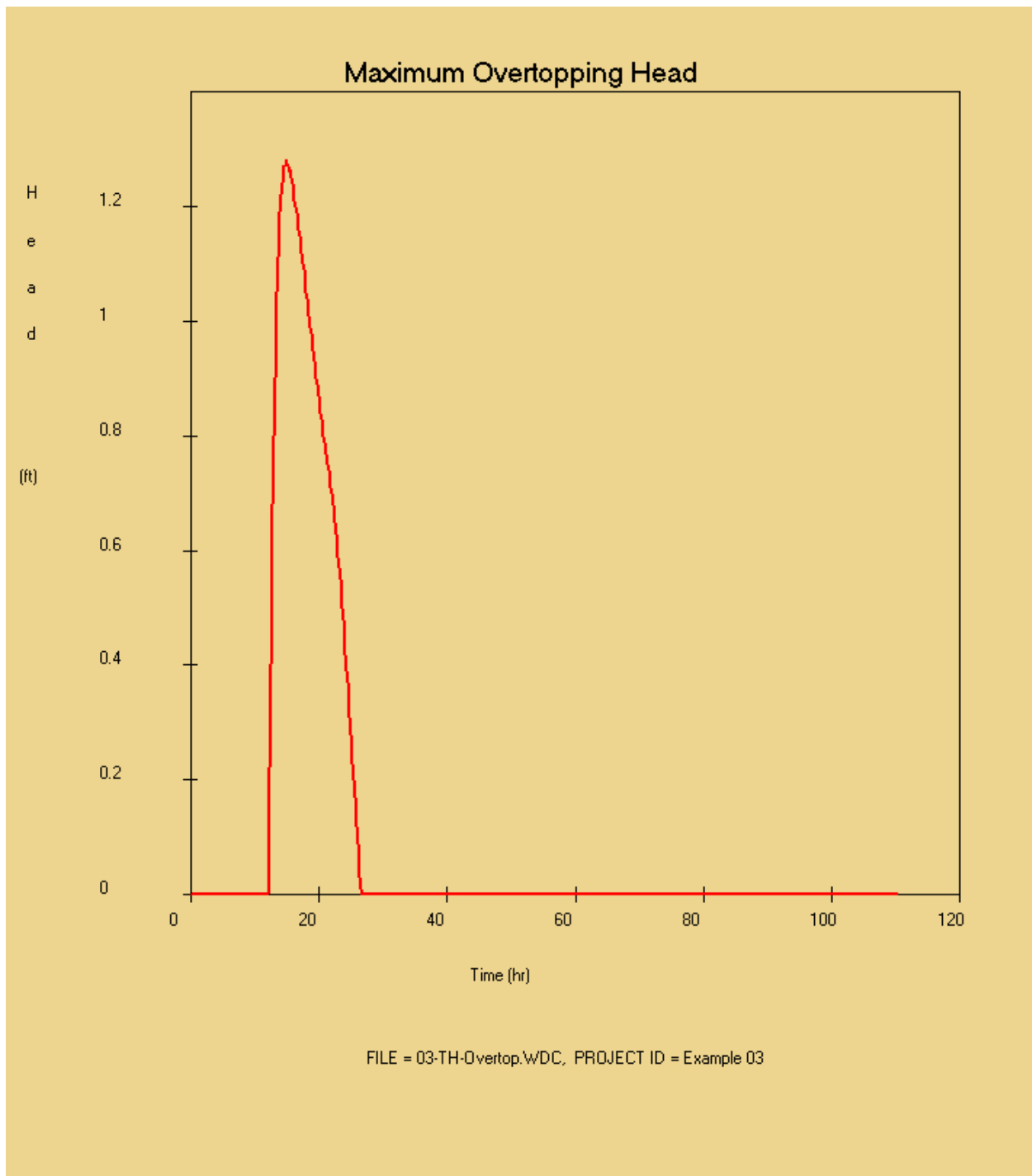
**15-IE-fastKd500.WDC**

# **03-HR-Overtop**









Windows Dam Analysis Program

Program Date-01/01/2009

Execution Date-07/26/2017

Version Date-2008.01.01

Time-13: 21: 09

Listing of Input Data-Example 03

WINDAM 01/01/2009Example 03

OPTION SIMPLE EARTH BREACH

\* WinDAM Example 03 - Existing Dam 07/26/2017

\* Typical Design for checking integrity.

\* OVERTOPPING for breach analysis-Temple\Hanson energy model

\* Std single stage riser, 36" dia conduit

\* PS crest: 604.0'

\* Start Routing: 604.1'

\* AS crest: 609.0'

\* AS bottom width: 40'

\* Dam crest: 613.0'

\* Dam face Maintenance Code: 1 (uniform surface & cover)

\* Spillway Maintenance Code: 1 (uniform surface & cover)

\* 24-hr FBH Inflow peak: 20,000 cfs @ 13.4 hr

\* Embankment of dam overtops, but does not breach

\* Aux Spwy does not erode

\* END of input comments-----

HCMODEL 1 10 .1 5

HYD FBH .162 0 OV

0 0

0.162 2.05

0.324 4.27

0.486 7.94

0.648 13.49

0.81 21.25

0.972 31.43

1.134 44.09

1.296 59.2

1.458 76.67

1.62 96.3

1.782 117.91

1.944 141.29

2.106 166.19

2.268 192.41

2.43 219.81

2.592 248.29

2.754 277.79

2.916 308.26

3.078 339.64

3.24 371.89

3.402 404.96

3.564 438.77

3.726 473.28

3.888 508.43

4.05 544.15

4.212 580.38

4.374 617.06

4.536 654.15

4.698 691.6

4.86 729.37

5.022 767.42

5.184 805.71

5.346 844.21

5.508 883.01

5.67 922.4

5.832 962.86

5.994 1005.06

6. 156	1049. 89
6. 318	1098. 5
6. 48	1151. 9
6. 642	1210. 65
6. 804	1274. 77
6. 966	1343. 9
7. 128	1417. 62
7. 29	1495. 44
7. 452	1577. 05
7. 614	1662. 99
7. 776	1754. 86
7. 938	1854. 94
8. 1	1966. 14
8. 262	2091. 9
8. 424	2236. 09
8. 586	2404. 24
8. 748	2603. 67
8. 91	2852. 99
9. 072	3236. 61
9. 234	3969. 87
9. 396	5171. 58
9. 55800000	6780. 08
9. 72000000	8811. 47
9. 88200000	11291. 61
10. 044	14009. 39
10. 206	16477. 03
10. 368	18343. 15
10. 53	19510
10. 692	20008. 95
10. 854	19962. 27
11. 016	19374. 39
11. 178	18418. 29
11. 34	17208. 44
11. 502	15720. 4
11. 664	14046. 82
11. 826	12475. 51
11. 988	11164. 77
12. 15	10045. 39
12. 312	9072. 22
12. 474	8237. 55
12. 636	7498. 24
12. 798	6822. 66
12. 96	6226. 47
13. 122	5713. 4
13. 284	5259. 68
13. 446	4856
13. 608	4497. 88
13. 77	4180. 52
13. 932	3893. 07
14. 094	3639. 11
14. 256	3414. 2
14. 418	3212. 11
14. 58	3032. 03
14. 742	2871. 29
14. 904	2725. 09
15. 066	2593. 97
15. 228	2475. 93
15. 39	2371. 16
15. 552	2276. 01
15. 714	2188. 82
15. 876	2112. 57



16.038	2043.22
16.2	1977.17
16.362	1913.76
16.524	1852.44
16.686	1792.93
16.848	1735.03
17.01	1678.94
17.172	1626.62
17.334	1581.9
17.496	1541.52
17.658	1502.55
17.82	1464.85
17.982	1428.33
18.144	1393.15
18.306	1359.58
18.468	1327.9
18.63	1298.33
18.792	1270.99
18.954	1245.91
19.116	1223.06
19.278	1202.33
19.44	1183.55
19.602	1166.55
19.764	1151.13
19.926	1137.04
20.088	1124.05
20.25	1112
20.412	1100.72
20.574	1090.1
20.736	1080.04
20.898	1070.47
21.06	1061.31
21.222	1052.49
21.384	1043.21
21.546	1031.07
21.708	1013.69
21.87	989.43
22.032	955.92
22.194	910.62
22.356	852.94
22.518	785.59
22.68	712.19
22.842	636.31
23.004	560.79
23.166	487.79
23.328	419.84
23.49	357.61
23.652	302.02
23.814	254.45
23.976	215.27
24.138	182.74
24.3	155.18
24.462	131.84
24.624	111.96
24.786	94.88
24.948	80.31
25.11	68.04
25.272	57.64
25.434	48.75
25.596	41.2
25.758	34.79

	25.92	29.35							
	26.082	24.72							
	26.244	20.84							
	26.406	20.03							
	26.568	20.03							
	26.73	20.03							
	26.892	20.03							
	27.054	20.03							
	27.216	20.03							
	27.378	20.03							
	27.54	20.03							
	27.702	20.03							
	27.864	20.03							
	28.026	20.03							
	28.188	20.03							
	28.35	20.03							
	28.512	20.03							
	28.674	20.03							
	28.836	20.03							
	28.998	20.03							
	29.16	20.03							
	29.322	20.03							
	29.484	20.03							
	29.646	20.03							
	29.808	20.03							
ENDTABLE									
CRESTPRFL									
	0	613.							
	550	614							
	1200	613.5							
ENDTABLE									
STROUTE	604.1	580	ELEV						
STRUCTURE	SR1								
		591		250		76.6			
		593				106.9			
		595				142.8			
		597				180.6			
		601				262.7			
		605				360.3			
		609				456.9			
		613				557.7			
		615				607.7			
ENDTABLE									
UPSTREAM	2.5	5.6							
DAMCREST	14	5.6							
DWNSTREAM	3	5.6	.9	1	5	.01			
PSpI NLET	0.7	18	604						
PSpDATA	1	250	36	.013	590	582.5	SC		
PSpCOEFFS	0.6				3.1	6			
TAI LWATER									
	581	0							
ENDTABLE									
ASSURFACE	1RTsi de	2.5	40	11	1000				
	0	598.4	4.9	.9	1	1			
	325	609	4.9	.9	1	1			
	375	609	5.6	.9	1	1			
	1187	580							
ENDTABLE									
OUTPUT	ALL								
ENDRUN									

Windows Dam Analysis Program      Execution Date - 07/26/2017  
Program Date - 01/01/2009      Version Number - 2008.01.01      Time - 13:21:09  
Input File - h:\WinDAM\Examples\Examples20170721chk\03-TH Overtop.D2D

\*\*\*\*\* Elevation Summary 1 \*\*\*\*\*  
Dam Base Elevation:                    580.00 feet  
Max Tailwater Elevation:              581.00 feet  
Prin Spwy Crest Elevation:            604.00 feet  
Start Routing Elevation:              604.10 feet  
Aux Spwy # 1 Crest Elevation:        609.00 feet  
Aux Spwy # 2 Crest Elevation:        none  
Aux Spwy # 3 Crest Elevation:        none  
Max Pool Elevation:                   614.28 feet  
Initial Low Point in Dam Crest:       613.00 feet  
Ending Low Point in Dam Crest:       613.00 feet  
\*\*\*\*\*

\*\*\*\*\* Flow Summary 2 \*\*\*\*\*  
Peak Inflow:                           20008.950 cfs @      10.692 hours  
Peak Outflow:                          2707.014 cfs @      14.904 hours  
Max Flow Principal Spwy:              162.362 cfs @      14.904 hours  
Max Flow Aux Spwy # 1:               1602.312 cfs @      14.904 hours  
Max Flow Aux Spwy # 2:               none  
Max Flow Aux Spwy # 3:               none  
Maximum flow over top of dam:        942.340 cfs @      14.904 hours  
Duration of dam overtopping:                                   14.580 hours  
Max unit discharge, low point or breach:      3.464 cfs/ft  
Maximum internal erosion conduit flow:      0.000 cfs  
\*\*\*\*\*

\*\*\*\*\* Spillways Summary 3 \*\*\*\*\*  
Principal Spillway Type:              Single Stage Inlet, Circular Conduit  
Principal Spillway Crest Elev:        604.00 feet  
Prin. Spw. Weir Length:               18.00 feet  
Conduit Diameter:                      36.00 inches  
Conduit Manning's n value:            0.013  
-----  
Aux Spwy #1 Label:                      RTside  
Aux Spwy #1 Crest Elev:                609.00 feet  
Aux Spwy #1 Bottom Width:              40.00 feet  
Aux Spwy #1 Max Flow:                  1602.312 cfs @      14.904 hours  
Aux Spwy #1 Max Hp:                    5.28 feet  
Aux Spwy #1 Erosion Analysis:           Integrity  
-----  
Aux Spwy #2 Label:                      none  
Aux Spwy #2 Crest Elev:                none  
Aux Spwy #2 Bottom Width:              none  
Aux Spwy #2 Max Flow:                  none  
Aux Spwy #2 Max Hp:                    none  
Aux Spwy #2 Erosion Analysis:           none  
-----  
Aux Spwy #3 Label:                      none  
Aux Spwy #3 Crest Elev:                none  
Aux Spwy #3 Bottom Width:              none  
Aux Spwy #3 Max Flow:                  none  
Aux Spwy #3 Max Hp:                    none  
Aux Spwy #3 Erosion Analysis:           none  
\*\*\*\*\*

\*\*\*\*\* Overtopping Summary Table 4 \*\*\*\*\*

Dam Breach Analysis Type:	Overtopping		
Dam Headcut Model	Temple/Hanson		
Initial Low Point in Dam Crest Profile:	613.00	feet	
Maximum Pool Elevation:	614.28	feet @	14.904 hours
Ending Low Point in Dam Crest Profile:	613.00	feet @	0.000 hours
Overtopping Duration:			14.580 hours
Overtopping Initiation:			12.150 hours
Maximum Flow Over Top if Dam were Intact:	942.34	cfs @	14.904 hours
Maximum Unit Discharge, lowpoint or breach:	3.464	cfs/ft	
Dam Embankment Slope Protection:	Vegetation		
Surface Cover Failed at:	0.000	hours	
Breach Initiated at:	0.000	hours	
Breach Completed at:	0.000	hours	
Maximum Width of Embankment Breach:	0.00	feet	
Max. Disch. thru Breach and/or Over Dam:	942.340	cfs	

\*\*\*\*\*

\*\*\*\*\* Internal Erosion Summary Table 5 \*\*\*\*\*

<<<<<< Internal Erosion was not an option for this embankment. >>>>>>

\*\*\*\*\*

\*\*\*\*\* Drawdown Summary Table 6 \*\*\*\*\*

<<<<<< Drawdown calculation was not an option for this embankment. >>>>>>

\*\*\*\*\*

Time (hr)	Stress on Vegetated Embankment Slope (3.00H: 1V)					
	Max Disch (cfs/ft)	Total Value lb/sqft	Stress % Allow (Percent)	Effective Value lb/sqft	Stress Time Intgrl lb/sqft-hr	% Allow (Percent)
12.150	0.00	0.0612	0.5	0.0000	0.0000	0.0
12.312	0.03	1.1357	8.4	0.0004	0.0000	0.0
12.474	0.10	2.3982	17.8	0.0009	0.0001	0.0
12.636	0.24	3.6125	26.8	0.0021	0.0002	0.0
12.798	0.71	4.4867	33.2	0.0110	0.0006	0.0
12.960	1.18	5.1410	38.1	0.0219	0.0024	0.1
13.122	1.60	5.6522	41.9	0.0325	0.0059	0.3
13.284	1.98	6.0652	44.9	0.0422	0.0112	0.6
13.446	2.32	6.4007	47.4	0.0507	0.0180	0.9
13.608	2.60	6.6719	49.4	0.0580	0.0262	1.3
13.770	2.83	6.8875	51.0	0.0640	0.0356	1.8
13.932	3.02	7.0565	52.3	0.0688	0.0460	2.3
14.094	3.17	7.1876	53.2	0.0726	0.0571	2.9
14.256	3.28	7.2846	54.0	0.0754	0.0689	3.5
14.418	3.37	7.3554	54.5	0.0775	0.0811	4.1
14.580	3.42	7.4011	54.8	0.0789	0.0937	4.7
14.742	3.45	7.4277	55.0	0.0797	0.1064	5.4
14.904	3.46	7.4369	55.1*	0.0800	0.1194	6.0
15.066	3.46	7.4322	55.1	0.0798	0.1323	6.7
15.228	3.44	7.4154	54.9	0.0793	0.1452	7.3
15.390	3.41	7.3895	54.7	0.0786	0.1581	8.0
15.552	3.37	7.3556	54.5	0.0775	0.1708	8.6
15.714	3.32	7.3151	54.2	0.0763	0.1834	9.3
15.876	3.26	7.2681	53.8	0.0750	0.1958	9.9
16.038	3.21	7.2177	53.5	0.0735	0.2079	10.5
16.200	3.14	7.1640	53.1	0.0719	0.2198	11.1
16.362	3.08	7.1074	52.6	0.0703	0.2314	11.7
16.524	3.01	7.0480	52.2	0.0685	0.2428	12.3
16.686	2.94	6.9858	51.7	0.0668	0.2539	12.8
16.848	2.87	6.9197	51.3	0.0649	0.2648	13.4
17.010	2.80	6.8538	50.8	0.0630	0.2753	13.9
17.172	2.72	6.7847	50.3	0.0611	0.2855	14.4
17.334	2.65	6.7158	49.7	0.0592	0.2954	14.9
17.496	2.57	6.6455	49.2	0.0573	0.3050	15.4
17.658	2.50	6.5747	48.7	0.0553	0.3142	15.9
17.820	2.42	6.5034	48.2	0.0534	0.3232	16.3
17.982	2.35	6.4311	47.6	0.0515	0.3319	16.8
18.144	2.27	6.3590	47.1	0.0496	0.3402	17.2
18.306	2.20	6.2856	46.6	0.0477	0.3482	17.6
18.468	2.13	6.2134	46.0	0.0459	0.3560	18.0
18.630	2.06	6.1398	45.5	0.0440	0.3634	18.4
18.792	1.98	6.0665	44.9	0.0422	0.3705	18.7
18.954	1.91	5.9904	44.4	0.0404	0.3774	19.1
19.116	1.84	5.9157	43.8	0.0386	0.3839	19.4
19.278	1.77	5.8401	43.3	0.0368	0.3902	19.7
19.440	1.70	5.7635	42.7	0.0350	0.3961	20.0
19.602	1.63	5.6883	42.1	0.0333	0.4018	20.3
19.764	1.57	5.6137	41.6	0.0316	0.4072	20.6
19.926	1.50	5.5383	41.0	0.0300	0.4123	20.8
20.088	1.44	5.4631	40.5	0.0284	0.4172	21.1
20.250	1.38	5.3871	39.9	0.0268	0.4218	21.3
20.412	1.31	5.3123	39.4	0.0252	0.4261	21.5
20.574	1.26	5.2393	38.8	0.0238	0.4302	21.7
20.736	1.20	5.1651	38.3	0.0223	0.4340	21.9
20.898	1.14	5.0916	37.7	0.0210	0.4377	22.1
21.060	1.08	5.0156	37.2	0.0196	0.4411	22.3
21.222	1.03	4.9431	36.6	0.0183	0.4442	22.4

Time (hr)	Stress on Vegetated Embankment Slope (3.00H:1V)					
	Max Disch (cfs/ft)	Total Value lb/sqft	Stress % Allow (Percent)	Effective Value lb/sqft	Stress Time Intgrl lb/sqft-hr	% Allow (Percent)
21.384	0.97	4.8692	36.1	0.0170	0.4472	22.6
21.546	0.92	4.7947	35.5	0.0157	0.4499	22.7
21.708	0.87	4.7194	35.0	0.0145	0.4525	22.9
21.870	0.82	4.6441	34.4	0.0133	0.4548	23.0
22.032	0.76	4.5625	33.8	0.0121	0.4570	23.1
22.194	0.71	4.4752	33.1	0.0109	0.4590	23.2
22.356	0.65	4.3879	32.5	0.0097	0.4607	23.3
22.518	0.59	4.2850	31.7	0.0084	0.4623	23.3
22.680	0.53	4.1759	30.9	0.0071	0.4637	23.4
22.842	0.46	4.0554	30.0	0.0058	0.4648	23.5
23.004	0.39	3.9208	29.0	0.0045	0.4657	23.5
23.166	0.32	3.7726	27.9	0.0032	0.4665	23.6
23.328	0.24	3.6104	26.7	0.0021	0.4670	23.6
23.490	0.18	3.4284	25.4	0.0013	0.4673	23.6
23.652	0.16	3.2224	23.9	0.0013	0.4676	23.6
23.814	0.15	3.0157	22.3	0.0012	0.4678	23.6
23.976	0.13	2.8002	20.7	0.0011	0.4679	23.6
24.138	0.11	2.5902	19.2	0.0010	0.4681	23.6
24.300	0.10	2.3763	17.6	0.0009	0.4683	23.7
24.462	0.08	2.1661	16.0	0.0008	0.4684	23.7
24.624	0.07	1.9608	14.5	0.0008	0.4686	23.7
24.786	0.06	1.7533	13.0	0.0007	0.4687	23.7
24.948	0.05	1.5545	11.5	0.0006	0.4688	23.7
25.110	0.04	1.3565	10.0	0.0005	0.4689	23.7
25.272	0.03	1.1693	8.7	0.0005	0.4690	23.7
25.434	0.02	0.9857	7.3	0.0004	0.4691	23.7
25.596	0.02	0.8089	6.0	0.0003	0.4691	23.7
25.758	0.01	0.6454	4.8	0.0003	0.4692	23.7
25.920	0.01	0.4871	3.6	0.0002	0.4692	23.7
26.082	0.00	0.3428	2.5	0.0001	0.4692	23.7
26.244	0.00	0.2109	1.6	0.0001	0.4693	23.7
26.406	0.00	0.1010	0.7	0.0000	0.4693	23.7
26.568	0.00	0.0188	0.1	0.0000	0.4693	23.7
26.730					0.4693	23.7#

Footnotes: \* -- Maximum Total Stress.  
# -- Maximum Effective Stress.



Hydrograph ID=FBH										
Time (hrs)	Inflow (cfs)	Principal	Auxiliary	Auxiliary	Hydrograph Routing		Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir	Tailwater Elevation (feet)
		Spillway Outflow (cfs)	RTside Outflow (cfs)	Outflow (cfs)	Auxiliary Outflow (cfs)	OverTop Outflow (cfs)			Surface Elevation (feet)	
0.000	0.000	1.765	0.000			0.000		1.765	604.10	581.00
0.162	2.050	1.762	0.000			0.000		1.762	604.10	581.00
0.324	4.270	1.763	0.000			0.000		1.763	604.10	581.00
0.486	7.940	1.766	0.000			0.000		1.766	604.10	581.00
0.648	13.490	1.774	0.000			0.000		1.774	604.10	581.00
0.810	21.250	1.792	0.000			0.000		1.792	604.10	581.00
0.972	31.430	1.820	0.000			0.000		1.820	604.10	581.00
1.134	44.090	1.859	0.000			0.000		1.859	604.10	581.00
1.296	59.200	1.912	0.000			0.000		1.912	604.11	581.00
1.458	76.670	1.985	0.000			0.000		1.985	604.11	581.00
1.620	96.300	2.077	0.000			0.000		2.077	604.11	581.00
1.782	117.910	2.192	0.000			0.000		2.192	604.12	581.00
1.944	141.290	2.337	0.000			0.000		2.337	604.12	581.00
2.106	166.190	2.512	0.000			0.000		2.512	604.13	581.00
2.268	192.410	2.722	0.000			0.000		2.722	604.13	581.00
2.430	219.810	2.970	0.000			0.000		2.970	604.14	581.00
2.592	248.290	3.261	0.000			0.000		3.261	604.15	581.00
2.754	277.790	3.602	0.000			0.000		3.602	604.16	581.00
2.916	308.260	3.990	0.000			0.000		3.990	604.17	581.00
3.078	339.640	4.436	0.000			0.000		4.436	604.18	581.00
3.240	371.890	4.945	0.000			0.000		4.945	604.20	581.00
3.402	404.960	5.512	0.000			0.000		5.512	604.21	581.00
3.564	438.770	6.153	0.000			0.000		6.153	604.23	581.00
3.726	473.280	6.872	0.000			0.000		6.872	604.25	581.00
3.888	508.430	7.674	0.000			0.000		7.674	604.27	581.00
4.050	544.150	8.566	0.000			0.000		8.566	604.29	581.00
4.212	580.380	9.553	0.000			0.000		9.553	604.31	581.00
4.374	617.060	10.634	0.000			0.000		10.634	604.33	581.00
4.536	654.150	11.824	0.000			0.000		11.824	604.36	581.00
4.698	691.600	13.128	0.000			0.000		13.128	604.38	581.00
4.860	729.370	14.548	0.000			0.000		14.548	604.41	581.00
5.022	767.420	16.085	0.000			0.000		16.085	604.44	581.00
5.184	805.710	17.758	0.000			0.000		17.758	604.47	581.00
5.346	844.210	19.568	0.000			0.000		19.568	604.50	581.00
5.508	883.010	21.508	0.000			0.000		21.508	604.53	581.00
5.670	922.400	23.596	0.000			0.000		23.596	604.56	581.00
5.832	962.860	25.836	0.000			0.000		25.836	604.60	581.00
5.994	1005.060	28.227	0.000			0.000		28.227	604.63	581.00
6.156	1049.890	30.797	0.000			0.000		30.797	604.67	581.00
6.318	1098.500	33.552	0.000			0.000		33.552	604.71	581.00
6.480	1151.900	36.500	0.000			0.000		36.500	604.75	581.00
6.642	1210.650	39.690	0.000			0.000		39.690	604.80	581.00
6.804	1274.770	43.106	0.000			0.000		43.106	604.84	581.00
6.966	1343.900	46.803	0.000			0.000		46.803	604.89	581.00
7.128	1417.620	50.784	0.000			0.000		50.784	604.94	581.00
7.290	1495.440	55.090	0.000			0.000		55.090	604.99	581.00
7.452	1577.050	59.723	0.000			0.000		59.723	605.05	581.00
7.614	1662.990	64.730	0.000			0.000		64.730	605.10	581.00
7.776	1754.860	70.119	0.000			0.000		70.119	605.16	581.00
7.938	1854.940	75.940	0.000			0.000		75.940	605.23	581.00
8.100	1966.140	82.233	0.000			0.000		82.233	605.30	581.00
8.262	2091.900	89.047	0.000			0.000		89.047	605.37	581.00
8.424	2236.090	96.471	0.000			0.000		96.471	605.44	581.00
8.586	2404.240	104.617	0.000			0.000		104.617	605.52	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	Internal	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)	
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)				
8.748	2603.670	113.598	0.000			0.000	113.598	605.61	581.00	
8.910	2852.990	123.592	0.000			0.000	123.592	605.70	581.00	
9.072	3236.610	128.664	0.000			0.000	128.664	605.80	581.00	
9.234	3969.870	129.211	0.000			0.000	129.211	605.92	581.00	
9.396	5171.580	129.902	0.000			0.000	129.902	606.08	581.00	
9.558	6780.080	130.796	0.000			0.000	130.796	606.28	581.00	
9.720	8811.470	131.942	0.000			0.000	131.942	606.54	581.00	
9.882	11291.610	133.385	0.000			0.000	133.385	606.87	581.00	
10.044	14009.390	135.145	0.000			0.000	135.145	607.28	581.00	
10.206	16477.030	137.186	0.000			0.000	137.186	607.76	581.00	
10.368	18343.150	139.418	0.000			0.000	139.418	608.29	581.00	
10.530	19510.000	141.736	0.000			0.000	141.736	608.86	581.00	
10.692	20008.950	144.046	5.543			0.000	149.589	609.43	581.00	
10.854	19962.270	146.274	48.272			0.000	194.546	609.99	581.00	
11.016	19374.390	148.365	149.241			0.000	297.606	610.52	581.00	
11.178	18418.290	150.283	271.744			0.000	422.027	611.01	581.00	
11.340	17208.440	152.013	401.526			0.000	553.539	611.46	581.00	
11.502	15720.400	153.546	534.252			0.000	687.798	611.87	581.00	
11.664	14046.820	154.877	661.971			0.000	816.848	612.22	581.00	
11.826	12475.510	156.016	780.511			0.000	936.526	612.53	581.00	
11.988	11164.770	156.992	888.712			0.000	1045.704	612.79	581.00	
12.150	10045.390	157.834	987.214			0.001	1145.049	613.02	581.00	
12.312	9072.220	158.565	1077.543			1.005	1237.114	613.22	581.00	
12.474	8237.550	159.201	1158.966			6.235	1324.402	613.40	581.00	
12.636	7498.240	159.755	1232.089			21.025	1412.869	613.55	581.00	
12.798	6822.660	160.236	1297.202			77.869	1535.308	613.68	581.00	
12.960	6226.470	160.649	1351.998			153.520	1666.166	613.80	581.00	
13.122	5713.400	161.001	1403.270			239.923	1804.194	613.90	581.00	
13.284	5259.680	161.300	1446.920			331.290	1939.510	613.98	581.00	
13.446	4856.000	161.551	1483.328			432.057	2076.936	614.05	581.00	
13.608	4497.880	161.758	1513.710			545.158	2220.626	614.11	581.00	
13.770	4180.520	161.926	1538.451			645.902	2346.278	614.15	581.00	
13.932	3893.070	162.059	1555.973			731.496	2449.527	614.19	581.00	
14.094	3639.110	162.163	1571.671			801.103	2534.938	614.22	581.00	
14.256	3414.200	162.240	1583.485			855.066	2600.791	614.24	581.00	
14.418	3212.110	162.296	1592.001			895.254	2649.551	614.26	581.00	
14.580	3032.030	162.333	1595.667			921.387	2679.387	614.27	581.00	
14.742	2871.290	162.354	1601.168			937.040	2700.562	614.27	581.00	
14.904	2725.090	162.362	1602.312			942.340	2707.014	614.28	581.00	
15.066	2593.970	162.358	1601.723			939.768	2703.849	614.27	581.00	
15.228	2475.930	162.345	1599.739			930.072	2692.156	614.27	581.00	
15.390	2371.160	162.324	1595.213			915.190	2672.727	614.26	581.00	
15.552	2276.010	162.296	1592.053			895.436	2649.786	614.26	581.00	
15.714	2188.820	162.264	1587.041			871.880	2621.185	614.25	581.00	
15.876	2112.570	162.227	1581.391			845.867	2589.485	614.24	581.00	
16.038	2043.220	162.187	1575.302			817.822	2555.311	614.23	581.00	
16.200	1977.170	162.144	1568.810			787.904	2518.858	614.21	581.00	
16.362	1913.760	162.099	1561.991			758.066	2482.156	614.20	581.00	
16.524	1852.440	162.052	1554.849			726.857	2443.758	614.19	581.00	
16.686	1792.930	162.003	1549.836			695.007	2406.845	614.17	581.00	
16.848	1735.030	161.952	1542.290			662.130	2366.373	614.16	581.00	
17.010	1678.940	161.900	1534.566			629.527	2325.993	614.15	581.00	
17.172	1626.620	161.846	1526.655			597.148	2285.649	614.13	581.00	
17.334	1581.900	161.792	1518.720			564.924	2245.437	614.12	581.00	
17.496	1541.520	161.738	1510.715			533.392	2205.845	614.10	581.00	
17.658	1502.550	161.683	1502.710			502.940	2167.334	614.09	581.00	



Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
17.820	1464.850	161.629	1494.705			472.763		2129.097	614.07	581.00
17.982	1428.330	161.574	1486.706			443.761		2092.041	614.05	581.00
18.144	1393.150	161.520	1478.783			415.954		2056.257	614.04	581.00
18.306	1359.580	161.465	1470.813			391.454		2023.732	614.02	581.00
18.468	1327.900	161.410	1462.912			371.050		1995.372	614.01	581.00
18.630	1298.330	161.355	1454.953			350.038		1966.346	613.99	581.00
18.792	1270.990	161.300	1447.004			331.557		1939.862	613.98	581.00
18.954	1245.910	161.245	1439.015			313.164		1913.424	613.96	581.00
19.116	1223.060	161.190	1431.070			295.731		1887.990	613.95	581.00
19.278	1202.330	161.135	1423.002			278.818		1862.955	613.93	581.00
19.440	1183.550	161.081	1415.021			262.598		1838.700	613.92	581.00
19.602	1166.550	161.027	1407.114			247.172		1815.314	613.90	581.00
19.764	1151.130	160.974	1399.281			232.477		1792.731	613.89	581.00
19.926	1137.040	160.921	1391.493			218.250		1770.664	613.87	581.00
20.088	1124.050	160.868	1383.838			204.780		1749.486	613.86	581.00
20.250	1112.000	160.816	1376.296			191.803		1728.915	613.84	581.00
20.412	1100.720	160.765	1368.902			179.576		1709.243	613.83	581.00
20.574	1090.100	160.715	1361.596			168.080		1690.391	613.82	581.00
20.736	1080.040	160.665	1354.388			157.031		1672.084	613.80	581.00
20.898	1070.470	160.616	1347.295			146.559		1654.470	613.79	581.00
21.060	1061.310	160.567	1342.976			136.304		1639.847	613.77	581.00
21.222	1052.490	160.519	1336.275			126.916		1623.711	613.76	581.00
21.384	1043.210	160.471	1329.643			117.838		1607.953	613.75	581.00
21.546	1031.070	160.424	1323.115			109.172		1592.711	613.74	581.00
21.708	1013.690	160.377	1316.592			100.861		1577.830	613.72	581.00
21.870	989.430	160.330	1310.054			92.934		1563.318	613.71	581.00
22.032	955.920	160.281	1303.325			84.907		1548.513	613.70	581.00
22.194	910.620	160.229	1296.271			76.835		1533.335	613.68	581.00
22.356	852.940	160.175	1288.876			69.159		1518.210	613.67	581.00
22.518	785.590	160.117	1280.950			60.905		1501.973	613.65	581.00
22.680	712.190	160.055	1272.445			52.792		1485.292	613.63	581.00
22.842	636.310	159.987	1263.260			44.626		1467.873	613.61	581.00
23.004	560.790	159.914	1253.435			36.461		1449.810	613.59	581.00
23.166	487.790	159.836	1242.934			28.505		1431.274	613.57	581.00
23.328	419.840	159.754	1231.920			20.929		1412.603	613.55	581.00
23.490	357.610	159.668	1220.420			14.975		1395.063	613.53	581.00
23.652	302.020	159.578	1208.497			12.868		1380.944	613.50	581.00
23.814	254.450	159.485	1196.121			10.929		1366.535	613.48	581.00
23.976	215.270	159.389	1183.491			9.121		1352.001	613.45	581.00
24.138	182.740	159.291	1170.705			7.531		1337.527	613.42	581.00
24.300	155.180	159.192	1157.740			6.100		1323.032	613.39	581.00
24.462	131.840	159.091	1142.149			4.861		1306.102	613.37	581.00
24.624	111.960	158.990	1131.623			3.806		1294.419	613.34	581.00
24.786	94.880	158.888	1118.552			2.898		1280.338	613.31	581.00
24.948	80.310	158.786	1105.485			2.157		1266.428	613.28	581.00
25.110	68.040	158.683	1092.432			1.548		1252.663	613.25	581.00
25.272	57.640	158.580	1079.487			1.076		1239.143	613.23	581.00
25.434	48.750	158.478	1066.665			0.709		1225.852	613.20	581.00
25.596	41.200	158.376	1050.689			0.439		1209.504	613.17	581.00
25.758	34.790	158.275	1038.751			0.252		1197.278	613.14	581.00
25.920	29.350	158.174	1026.269			0.127		1184.570	613.12	581.00
26.082	24.720	158.073	1013.892			0.054		1172.020	613.09	581.00
26.244	20.840	157.973	1004.143			0.017		1162.133	613.06	581.00
26.406	20.030	157.873	992.167			0.003		1150.042	613.03	581.00
26.568	20.030	157.774	980.137			0.000		1137.912	613.01	581.00
26.730	20.030	157.676	968.578			0.000		1126.254	612.98	581.00

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir	
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)			Surface Elevation (feet)	Tailwater Elevation (feet)
26.892	20.030	157.579	957.162			0.000	1114.742	612.95	581.00
27.054	20.030	157.483	945.904			0.000	1103.387	612.93	581.00
27.216	20.030	157.388	934.757			0.000	1092.145	612.90	581.00
27.378	20.030	157.293	923.694			0.000	1080.987	612.88	581.00
27.540	20.030	157.199	912.845			0.000	1070.044	612.85	581.00
27.702	20.030	157.106	902.092			0.000	1059.198	612.82	581.00
27.864	20.030	157.014	891.334			0.000	1048.348	612.80	581.00
28.026	20.030	156.922	880.448			0.000	1037.371	612.77	581.00
28.188	20.030	156.832	869.741			0.000	1026.572	612.75	581.00
28.350	20.030	156.742	859.147			0.000	1015.889	612.73	581.00
28.512	20.030	156.653	848.676			0.000	1005.329	612.70	581.00
28.674	20.030	156.564	840.728			0.000	997.293	612.68	581.00
28.836	20.030	156.477	830.977			0.000	987.454	612.65	581.00
28.998	20.030	156.390	821.353			0.000	977.743	612.63	581.00
29.160	20.030	156.304	811.869			0.000	968.172	612.61	581.00
29.322	20.030	156.218	802.525			0.000	958.744	612.58	581.00
29.484	20.030	156.134	793.304			0.000	949.438	612.56	581.00
29.646	20.030	156.050	784.192			0.000	940.241	612.54	581.00
29.808	20.030	155.966	775.222			0.000	931.188	612.52	581.00
29.970	20.030	155.884	766.369			0.000	922.253	612.49	581.00
30.132	20.030	155.801	757.580			0.000	913.381	612.47	581.00
30.294	20.030	155.720	748.946			0.000	904.666	612.45	581.00
30.456	20.030	155.640	740.441			0.000	896.081	612.43	581.00
30.618	20.030	155.560	732.058			0.000	887.618	612.41	581.00
30.780	20.030	155.481	723.778			0.000	879.259	612.39	581.00
30.942	20.030	155.402	712.889			0.000	868.291	612.36	581.00
31.104	20.030	155.324	707.514			0.000	862.838	612.34	581.00
31.266	20.030	155.247	699.548			0.000	854.795	612.32	581.00
31.428	20.030	155.170	691.694			0.000	846.864	612.30	581.00
31.590	20.030	155.094	683.910			0.000	839.004	612.28	581.00
31.752	20.030	155.018	676.237			0.000	831.255	612.26	581.00
31.914	20.030	154.943	668.666			0.000	823.609	612.24	581.00
32.076	20.030	154.869	661.182			0.000	816.050	612.22	581.00
32.238	20.030	154.795	653.559			0.000	808.354	612.20	581.00
32.400	20.030	154.721	646.487			0.000	801.208	612.18	581.00
32.562	20.030	154.649	639.303			0.000	793.952	612.16	581.00
32.724	20.030	154.577	632.200			0.000	786.777	612.14	581.00
32.886	20.030	154.506	625.202			0.000	779.707	612.12	581.00
33.048	20.030	154.435	618.323			0.000	772.758	612.11	581.00
33.210	20.030	154.365	611.483			0.000	765.848	612.09	581.00
33.372	20.030	154.295	604.722			0.000	759.017	612.07	581.00
33.534	20.030	154.226	598.077			0.000	752.303	612.05	581.00
33.696	20.030	154.157	591.493			0.000	745.651	612.03	581.00
33.858	20.030	154.090	585.018			0.000	739.107	612.01	581.00
34.020	20.030	154.022	578.617			0.000	732.639	612.00	581.00
34.182	20.030	153.955	570.960			0.000	724.915	611.98	581.00
34.344	20.030	153.888	565.994			0.000	719.882	611.96	581.00
34.506	20.030	153.822	559.800			0.000	713.622	611.94	581.00
34.668	20.030	153.757	553.695			0.000	707.452	611.93	581.00
34.830	20.030	153.692	547.669			0.000	701.361	611.91	581.00
34.992	20.030	153.627	541.705			0.000	695.332	611.89	581.00
35.154	20.030	153.563	535.830			0.000	689.394	611.87	581.00
35.316	20.030	153.500	530.025			0.000	683.525	611.86	581.00
35.478	20.030	153.437	524.255			0.000	677.692	611.84	581.00
35.640	20.030	153.374	518.567			0.000	671.941	611.82	581.00
35.802	20.030	153.312	512.979			0.000	666.292	611.81	581.00

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir	
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)			Surface Elevation (feet)	Tailwater Elevation (feet)
35.964	20.030	153.251	507.350			0.000	660.601	611.79	581.00
36.126	20.030	153.189	501.644			0.000	654.833	611.77	581.00
36.288	20.030	153.128	496.006			0.000	649.134	611.76	581.00
36.450	20.030	153.068	490.445			0.000	643.513	611.74	581.00
36.612	20.030	153.008	484.984			0.000	637.992	611.73	581.00
36.774	20.030	152.949	477.922			0.000	630.872	611.71	581.00
36.936	20.030	152.891	472.780			0.000	625.671	611.70	581.00
37.098	20.030	152.832	467.674			0.000	620.506	611.68	581.00
37.260	20.030	152.774	462.632			0.000	615.406	611.67	581.00
37.422	20.030	152.717	457.648			0.000	610.365	611.65	581.00
37.584	20.030	152.660	452.712			0.000	605.372	611.63	581.00
37.746	20.030	152.603	447.856			0.000	600.460	611.62	581.00
37.908	20.030	152.547	444.770			0.000	597.317	611.61	581.00
38.070	20.030	152.491	441.685			0.000	594.176	611.59	581.00
38.232	20.030	152.435	436.982			0.000	589.417	611.58	581.00
38.394	20.030	152.380	432.354			0.000	584.734	611.56	581.00
38.556	20.030	152.325	427.760			0.000	580.084	611.55	581.00
38.718	20.030	152.271	423.247			0.000	575.517	611.53	581.00
38.880	20.030	152.217	418.778			0.000	570.994	611.52	581.00
39.042	20.030	152.163	414.361			0.000	566.524	611.50	581.00
39.204	20.030	152.110	409.959			0.000	562.069	611.49	581.00
39.366	20.030	152.056	407.107			0.000	559.164	611.48	581.00
39.528	20.030	152.004	401.042			0.000	553.046	611.46	581.00
39.690	20.030	151.952	397.065			0.000	549.017	611.45	581.00
39.852	20.030	151.900	392.888			0.000	544.788	611.43	581.00
40.014	20.030	151.849	389.008			0.000	540.857	611.42	581.00
40.176	20.030	151.798	384.947			0.000	536.745	611.41	581.00
40.338	20.030	151.747	380.895			0.000	532.642	611.39	581.00
40.500	20.030	151.697	376.895			0.000	528.592	611.38	581.00
40.662	20.030	151.646	372.939			0.000	524.586	611.37	581.00
40.824	20.030	151.597	369.032			0.000	520.629	611.36	581.00
40.986	20.030	151.547	365.170			0.000	516.717	611.34	581.00
41.148	20.030	151.498	361.344			0.000	512.842	611.33	581.00
41.310	20.030	151.450	357.554			0.000	509.003	611.32	581.00
41.472	20.030	151.401	353.806			0.000	505.207	611.30	581.00
41.634	20.030	151.353	350.109			0.000	501.462	611.29	581.00
41.796	20.030	151.305	346.411			0.000	497.717	611.28	581.00
41.958	20.030	151.258	342.829			0.000	494.087	611.27	581.00
42.120	20.030	151.211	338.084			0.000	489.295	611.25	581.00
42.282	20.030	151.164	334.683			0.000	485.847	611.24	581.00
42.444	20.030	151.118	331.304			0.000	482.422	611.23	581.00
42.606	20.030	151.072	327.957			0.000	479.028	611.22	581.00
42.768	20.030	151.026	325.382			0.000	476.408	611.21	581.00
42.930	20.030	150.980	321.994			0.000	472.974	611.19	581.00
43.092	20.030	150.935	318.616			0.000	469.551	611.18	581.00
43.254	20.030	150.890	315.309			0.000	466.199	611.17	581.00
43.416	20.030	150.845	312.013			0.000	462.858	611.16	581.00
43.578	20.030	150.801	308.751			0.000	459.552	611.15	581.00
43.740	20.030	150.757	305.555			0.000	456.312	611.14	581.00
43.902	20.030	150.714	302.388			0.000	453.101	611.12	581.00
44.064	20.030	150.670	299.243			0.000	449.913	611.11	581.00
44.226	20.030	150.627	296.146			0.000	446.773	611.10	581.00
44.388	20.030	150.585	293.083			0.000	443.668	611.09	581.00
44.550	20.030	150.542	290.019			0.000	440.561	611.08	581.00
44.712	20.030	150.500	285.875			0.000	436.374	611.07	581.00
44.874	20.030	150.457	283.964			0.000	434.421	611.06	581.00



Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir	
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)			Surface Elevation (feet)	Tailwater Elevation (feet)
45.036	20.030	150.416	281.044			0.000	431.459	611.05	581.00
45.198	20.030	150.374	278.116			0.000	428.490	611.04	581.00
45.360	20.030	150.333	275.211			0.000	425.544	611.03	581.00
45.522	20.030	150.292	272.332			0.000	422.624	611.01	581.00
45.684	20.030	150.251	269.486			0.000	419.736	611.00	581.00
45.846	20.030	150.210	266.663			0.000	416.873	610.99	581.00
46.008	20.030	150.170	263.853			0.000	414.023	610.98	581.00
46.170	20.030	150.130	261.109			0.000	411.239	610.97	581.00
46.332	20.030	150.090	258.374			0.000	408.464	610.96	581.00
46.494	20.030	150.051	255.680			0.000	405.730	610.95	581.00
46.656	20.030	150.011	253.002			0.000	403.013	610.94	581.00
46.818	20.030	149.972	250.345			0.000	400.317	610.93	581.00
46.980	20.030	149.934	247.744			0.000	397.678	610.92	581.00
47.142	20.030	149.895	245.160			0.000	395.055	610.91	581.00
47.304	20.030	149.857	242.619			0.000	392.477	610.90	581.00
47.466	20.030	149.819	240.063			0.000	389.883	610.89	581.00
47.628	20.030	149.781	237.530			0.000	387.312	610.88	581.00
47.790	20.030	149.743	235.027			0.000	384.770	610.87	581.00
47.952	20.030	149.706	232.572			0.000	382.278	610.86	581.00
48.114	20.030	149.669	230.134			0.000	379.803	610.85	581.00
48.276	20.030	149.633	227.726			0.000	377.359	610.84	581.00
48.438	20.030	149.596	225.347			0.000	374.943	610.83	581.00
48.600	20.030	149.560	222.968			0.000	372.527	610.83	581.00
48.762	20.030	149.523	220.606			0.000	370.130	610.82	581.00
48.924	20.030	149.487	218.286			0.000	367.773	610.81	581.00
49.086	20.030	149.452	215.987			0.000	365.439	610.80	581.00
49.248	20.030	149.416	213.694			0.000	363.110	610.79	581.00
49.410	20.030	149.380	211.412			0.000	360.793	610.78	581.00
49.572	20.030	149.345	209.186			0.000	358.531	610.77	581.00
49.734	20.030	149.311	206.985			0.000	356.296	610.76	581.00
49.896	20.030	149.276	204.781			0.000	354.057	610.75	581.00
50.058	20.030	149.241	202.611			0.000	351.852	610.74	581.00
50.220	20.030	149.207	200.459			0.000	349.666	610.73	581.00
50.382	20.030	149.173	198.332			0.000	347.505	610.73	581.00
50.544	20.030	149.139	196.237			0.000	345.377	610.72	581.00
50.706	20.030	149.106	194.162			0.000	343.268	610.71	581.00
50.868	20.030	149.072	192.096			0.000	341.168	610.70	581.00
51.030	20.030	149.039	190.026			0.000	339.065	610.69	581.00
51.192	20.030	149.005	187.973			0.000	336.979	610.68	581.00
51.354	20.030	148.972	185.969			0.000	334.942	610.67	581.00
51.516	20.030	148.940	183.972			0.000	332.911	610.67	581.00
51.678	20.030	148.907	181.997			0.000	330.905	610.66	581.00
51.840	20.030	148.875	180.046			0.000	328.921	610.65	581.00
52.002	20.030	148.843	178.106			0.000	326.948	610.64	581.00
52.164	20.030	148.811	176.206			0.000	325.017	610.63	581.00
52.326	20.030	148.779	174.311			0.000	323.090	610.62	581.00
52.488	20.030	148.748	172.450			0.000	321.198	610.62	581.00
52.650	20.030	148.717	170.599			0.000	319.315	610.61	581.00
52.812	20.030	148.686	168.769			0.000	317.455	610.60	581.00
52.974	20.030	148.655	166.951			0.000	315.606	610.59	581.00
53.136	20.030	148.624	165.119			0.000	313.743	610.58	581.00
53.298	20.030	148.593	163.302			0.000	311.894	610.58	581.00
53.460	20.030	148.562	162.020			0.000	310.582	610.57	581.00
53.622	20.030	148.532	158.135			0.000	306.667	610.56	581.00
53.784	20.030	148.502	156.729			0.000	305.230	610.55	581.00
53.946	20.030	148.472	155.201			0.000	303.672	610.55	581.00

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir	
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)			Surface Elevation (feet)	Tailwater Elevation (feet)
54.108	20.030	148.442	153.003			0.000	301.445	610.54	581.00
54.270	20.030	148.412	151.961			0.000	300.373	610.53	581.00
54.432	20.030	148.383	150.136			0.000	298.519	610.52	581.00
54.594	20.030	148.354	148.833			0.000	297.187	610.51	581.00
54.756	20.030	148.325	148.185			0.000	296.510	610.51	581.00
54.918	20.030	148.296	146.583			0.000	294.878	610.50	581.00
55.080	20.030	148.266	144.973			0.000	293.240	610.49	581.00
55.242	20.030	148.238	143.409			0.000	291.647	610.49	581.00
55.404	20.030	148.209	141.828			0.000	290.037	610.48	581.00
55.566	20.030	148.180	140.256			0.000	288.436	610.47	581.00
55.728	20.030	148.152	138.717			0.000	286.869	610.46	581.00
55.890	20.030	148.124	137.180			0.000	285.304	610.46	581.00
56.052	20.030	148.096	135.658			0.000	283.753	610.45	581.00
56.214	20.030	148.068	134.140			0.000	282.207	610.44	581.00
56.376	20.030	148.040	132.638			0.000	280.678	610.43	581.00
56.538	20.030	148.012	131.136			0.000	279.148	610.43	581.00
56.700	20.030	147.985	129.648			0.000	277.633	610.42	581.00
56.862	20.030	147.957	128.180			0.000	276.137	610.41	581.00
57.024	20.030	147.930	126.722			0.000	274.652	610.41	581.00
57.186	20.030	147.903	125.264			0.000	273.168	610.40	581.00
57.348	20.030	147.876	123.811			0.000	271.688	610.39	581.00
57.510	20.030	147.850	122.385			0.000	270.235	610.39	581.00
57.672	20.030	147.823	120.960			0.000	268.783	610.38	581.00
57.834	20.030	147.797	119.553			0.000	267.349	610.37	581.00
57.996	20.030	147.770	118.148			0.000	265.919	610.37	581.00
58.158	20.030	147.744	116.743			0.000	264.487	610.36	581.00
58.320	20.030	147.718	115.359			0.000	263.077	610.35	581.00
58.482	20.030	147.692	113.794			0.000	261.487	610.35	581.00
58.644	20.030	147.667	112.498			0.000	260.164	610.34	581.00
58.806	20.030	147.641	111.179			0.000	258.820	610.33	581.00
58.968	20.030	147.616	109.871			0.000	257.487	610.33	581.00
59.130	20.030	147.591	108.503			0.000	256.093	610.32	581.00
59.292	20.030	147.565	107.122			0.000	254.687	610.31	581.00
59.454	20.030	147.541	106.005			0.000	253.545	610.31	581.00
59.616	20.030	147.516	104.701			0.000	252.217	610.30	581.00
59.778	20.030	147.491	103.393			0.000	250.883	610.29	581.00
59.940	20.030	147.466	102.016			0.000	249.482	610.29	581.00
60.102	20.030	147.441	100.453			0.000	247.894	610.28	581.00
60.264	20.030	147.416	98.879			0.000	246.296	610.28	581.00
60.426	20.030	147.392	97.351			0.000	244.743	610.27	581.00
60.588	20.030	147.368	95.809			0.000	243.177	610.26	581.00
60.750	20.030	147.344	95.440			0.000	242.784	610.26	581.00
60.912	20.030	147.320	94.096			0.000	241.416	610.25	581.00
61.074	20.030	147.296	92.982			0.000	240.279	610.24	581.00
61.236	20.030	147.273	92.980			0.000	240.253	610.24	581.00
61.398	20.030	147.249	91.874			0.000	239.123	610.23	581.00
61.560	20.030	147.226	90.775			0.000	238.001	610.23	581.00
61.722	20.030	147.202	89.684			0.000	236.887	610.22	581.00
61.884	20.030	147.179	88.588			0.000	235.767	610.21	581.00
62.046	20.030	147.156	87.506			0.000	234.661	610.21	581.00
62.208	20.030	147.133	86.431			0.000	233.564	610.20	581.00
62.370	20.030	147.109	85.355			0.000	232.465	610.20	581.00
62.532	20.030	147.087	84.300			0.000	231.386	610.19	581.00
62.694	20.030	147.064	83.244			0.000	230.308	610.19	581.00
62.856	20.030	147.041	82.197			0.000	229.238	610.18	581.00
63.018	20.030	147.019	81.165			0.000	228.184	610.17	581.00

Time (hrs)	Inflow (cfs)	Principal	Auxiliary	Auxiliary	Hydrograph Routing		Internal	Total Outflow (cfs)	Reservoir	Tailwater Elevation (feet)
		Spillway Outflow (cfs)	RTside Outflow (cfs)	Outflow (cfs)	Auxiliary Outflow (cfs)	OverTop Outflow (cfs)	Erosion Outflow (cfs)		Surface Elevation (feet)	
63.180	20.030	146.996	80.131			0.000		227.127	610.17	581.00
63.342	20.030	146.974	79.106			0.000		226.080	610.16	581.00
63.504	20.030	146.951	78.080			0.000		225.031	610.16	581.00
63.666	20.030	146.929	77.069			0.000		223.998	610.15	581.00
63.828	20.030	146.907	76.063			0.000		222.970	610.15	581.00
63.990	20.030	146.885	74.912			0.000		221.796	610.14	581.00
64.152	20.030	146.863	73.944			0.000		220.807	610.13	581.00
64.314	20.030	146.841	72.989			0.000		219.830	610.13	581.00
64.476	20.030	146.819	72.023			0.000		218.842	610.12	581.00
64.638	20.030	146.798	71.071			0.000		217.869	610.12	581.00
64.800	20.030	146.776	70.092			0.000		216.868	610.11	581.00
64.962	20.030	146.755	69.111			0.000		215.865	610.11	581.00
65.124	20.030	146.733	68.147			0.000		214.880	610.10	581.00
65.286	20.030	146.712	67.317			0.000		214.029	610.10	581.00
65.448	20.030	146.691	66.382			0.000		213.072	610.09	581.00
65.610	20.030	146.670	65.469			0.000		212.139	610.09	581.00
65.772	20.030	146.649	64.554			0.000		211.203	610.08	581.00
65.934	20.030	146.628	63.642			0.000		210.271	610.08	581.00
66.096	20.030	146.608	62.742			0.000		209.349	610.07	581.00
66.258	20.030	146.587	61.835			0.000		208.422	610.06	581.00
66.420	20.030	146.566	60.934			0.000		207.501	610.06	581.00
66.582	20.030	146.546	60.049			0.000		206.595	610.05	581.00
66.744	20.030	146.526	59.171			0.000		205.696	610.05	581.00
66.906	20.030	146.505	58.304			0.000		204.810	610.04	581.00
67.068	20.030	146.485	57.439			0.000		203.925	610.04	581.00
67.230	20.030	146.465	56.339			0.000		202.804	610.03	581.00
67.392	20.030	146.445	55.114			0.000		201.559	610.03	581.00
67.554	20.030	146.425	55.257			0.000		201.683	610.02	581.00
67.716	20.030	146.406	53.763			0.000		200.168	610.02	581.00
67.878	20.030	146.386	52.955			0.000		199.341	610.01	581.00
68.040	20.030	146.367	51.522			0.000		197.889	610.01	581.00
68.202	20.030	146.347	51.276			0.000		197.623	610.00	581.00
68.364	20.030	146.327	50.475			0.000		196.802	610.00	581.00
68.526	20.030	146.308	49.677			0.000		195.984	609.99	581.00
68.688	20.030	146.289	48.892			0.000		195.181	609.99	581.00
68.850	20.030	146.270	48.075			0.000		194.345	609.98	581.00
69.012	20.030	146.250	47.166			0.000		193.416	609.98	581.00
69.174	20.030	146.232	46.295			0.000		192.527	609.97	581.00
69.336	20.030	146.213	45.436			0.000		191.649	609.97	581.00
69.498	20.030	146.194	45.074			0.000		191.269	609.97	581.00
69.660	20.030	146.175	44.301			0.000		190.476	609.96	581.00
69.822	20.030	146.156	43.988			0.000		190.144	609.96	581.00
69.984	20.030	146.137	43.308			0.000		189.445	609.95	581.00
70.146	20.030	146.119	42.638			0.000		188.757	609.95	581.00
70.308	20.030	146.101	41.980			0.000		188.081	609.94	581.00
70.470	20.030	146.082	41.320			0.000		187.402	609.94	581.00
70.632	20.030	146.064	40.654			0.000		186.717	609.93	581.00
70.794	20.030	146.045	40.003			0.000		186.048	609.93	581.00
70.956	20.030	146.027	39.356			0.000		185.383	609.92	581.00
71.118	20.030	146.009	38.710			0.000		184.719	609.92	581.00
71.280	20.030	145.991	38.074			0.000		184.065	609.91	581.00
71.442	20.030	145.973	37.445			0.000		183.417	609.91	581.00
71.604	20.030	145.955	36.822			0.000		182.777	609.90	581.00
71.766	20.030	145.937	36.194			0.000		182.131	609.90	581.00
71.928	20.030	145.918	35.562			0.000		181.480	609.90	581.00
72.090	20.030	145.900	34.936			0.000		180.836	609.89	581.00



Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir	
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)			Surface Elevation (feet)	Tailwater Elevation (feet)
72.252	20.030	145.882	34.319			0.000	180.201	609.89	581.00
72.414	20.030	145.864	33.711			0.000	179.576	609.88	581.00
72.576	20.030	145.847	33.116			0.000	178.963	609.88	581.00
72.738	20.030	145.829	32.515			0.000	178.344	609.87	581.00
72.900	20.030	145.812	31.932			0.000	177.744	609.87	581.00
73.062	20.030	145.794	31.350			0.000	177.145	609.86	581.00
73.224	20.030	145.777	30.775			0.000	176.552	609.86	581.00
73.386	20.030	145.760	30.194			0.000	175.954	609.86	581.00
73.548	20.030	145.743	29.630			0.000	175.372	609.85	581.00
73.710	20.030	145.725	29.059			0.000	174.784	609.85	581.00
73.872	20.030	145.708	28.498			0.000	174.206	609.84	581.00
74.034	20.030	145.691	27.947			0.000	173.638	609.84	581.00
74.196	20.030	145.674	27.393			0.000	173.067	609.83	581.00
74.358	20.030	145.657	26.851			0.000	172.509	609.83	581.00
74.520	20.030	145.640	26.304			0.000	171.944	609.83	581.00
74.682	20.030	145.623	25.761			0.000	171.384	609.82	581.00
74.844	20.030	145.606	25.220			0.000	170.826	609.82	581.00
75.006	20.030	145.590	24.687			0.000	170.277	609.81	581.00
75.168	20.030	145.573	24.198			0.000	169.771	609.81	581.00
75.330	20.030	145.556	23.685			0.000	169.241	609.80	581.00
75.492	20.030	145.539	23.150			0.000	168.689	609.80	581.00
75.654	20.030	145.523	22.601			0.000	168.124	609.80	581.00
75.816	20.030	145.506	22.059			0.000	167.565	609.79	581.00
75.978	20.030	145.489	21.766			0.000	167.255	609.79	581.00
76.140	20.030	145.472	21.309			0.000	166.781	609.78	581.00
76.302	20.030	145.456	20.862			0.000	166.318	609.78	581.00
76.464	20.030	145.439	20.427			0.000	165.866	609.78	581.00
76.626	20.030	145.423	20.005			0.000	165.428	609.77	581.00
76.788	20.030	145.407	19.582			0.000	164.990	609.77	581.00
76.950	20.030	145.391	19.164			0.000	164.555	609.76	581.00
77.112	20.030	145.375	18.085			0.000	163.459	609.76	581.00
77.274	20.030	145.359	17.521			0.000	162.880	609.75	581.00
77.436	20.030	145.343	16.926			0.000	162.269	609.75	581.00
77.598	20.030	145.327	16.313			0.000	161.640	609.75	581.00
77.760	20.030	145.311	16.341			0.000	161.652	609.74	581.00
77.922	20.030	145.295	15.913			0.000	161.208	609.74	581.00
78.084	20.030	145.279	15.391			0.000	160.670	609.73	581.00
78.246	20.030	145.264	14.805			0.000	160.069	609.73	581.00
78.408	20.030	145.248	14.213			0.000	159.461	609.73	581.00
78.570	20.030	145.232	14.204			0.000	159.436	609.72	581.00
78.732	20.030	145.217	13.782			0.000	158.998	609.72	581.00
78.894	20.030	145.201	13.373			0.000	158.574	609.72	581.00
79.056	20.030	145.186	12.915			0.000	158.101	609.71	581.00
79.218	20.030	145.170	12.544			0.000	157.715	609.71	581.00
79.380	20.030	145.155	12.138			0.000	157.293	609.70	581.00
79.542	20.030	145.139	12.232			0.000	157.371	609.70	581.00
79.704	20.030	145.124	11.910			0.000	157.034	609.70	581.00
79.866	20.030	145.109	11.588			0.000	156.697	609.69	581.00
80.028	20.030	145.093	11.346			0.000	156.440	609.69	581.00
80.190	20.030	145.078	11.026			0.000	156.104	609.68	581.00
80.352	20.030	145.062	10.896			0.000	155.958	609.68	581.00
80.514	20.030	145.047	10.024			0.000	155.071	609.68	581.00
80.676	20.030	145.032	9.946			0.000	154.977	609.67	581.00
80.838	20.030	145.017	9.628			0.000	154.644	609.67	581.00
81.000	20.030	145.001	9.303			0.000	154.304	609.67	581.00
81.162	20.030	144.986	8.986			0.000	153.972	609.66	581.00

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir	
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)			Surface Elevation (feet)	Tailwater Elevation (feet)
81.324	20.030	144.971	8.668			0.000	153.639	609.66	581.00
81.486	20.030	144.956	8.767			0.000	153.723	609.65	581.00
81.648	20.030	144.941	8.498			0.000	153.439	609.65	581.00
81.810	20.030	144.926	8.424			0.000	153.349	609.65	581.00
81.972	20.030	144.911	8.349			0.000	153.260	609.64	581.00
82.134	20.030	144.896	8.259			0.000	153.155	609.64	581.00
82.296	20.030	144.881	8.260			0.000	153.141	609.64	581.00
82.458	20.030	144.866	8.203			0.000	153.069	609.63	581.00
82.620	20.030	144.851	8.154			0.000	153.005	609.63	581.00
82.782	20.030	144.836	8.106			0.000	152.942	609.62	581.00
82.944	20.030	144.821	7.993			0.000	152.814	609.62	581.00
83.106	20.030	144.806	8.048			0.000	152.854	609.62	581.00
83.268	20.030	144.791	7.959			0.000	152.750	609.61	581.00
83.430	20.030	144.776	7.909			0.000	152.684	609.61	581.00
83.592	20.030	144.761	7.860			0.000	152.620	609.61	581.00
83.754	20.030	144.746	7.834			0.000	152.579	609.60	581.00
83.916	20.030	144.730	7.762			0.000	152.492	609.60	581.00
84.078	20.030	144.716	7.714			0.000	152.429	609.59	581.00
84.240	20.030	144.701	7.665			0.000	152.365	609.59	581.00
84.402	20.030	144.685	7.616			0.000	152.301	609.59	581.00
84.564	20.030	144.670	7.566			0.000	152.237	609.58	581.00
84.726	20.030	144.655	7.579			0.000	152.234	609.58	581.00
84.888	20.030	144.640	7.468			0.000	152.109	609.57	581.00
85.050	20.030	144.625	7.420			0.000	152.045	609.57	581.00
85.212	20.030	144.610	7.370			0.000	151.980	609.57	581.00
85.374	20.030	144.595	7.322			0.000	151.916	609.56	581.00
85.536	20.030	144.580	7.272			0.000	151.852	609.56	581.00
85.698	20.030	144.564	7.223			0.000	151.788	609.56	581.00
85.860	20.030	144.549	7.174			0.000	151.723	609.55	581.00
86.022	20.030	144.534	7.126			0.000	151.660	609.55	581.00
86.184	20.030	144.520	7.078			0.000	151.597	609.54	581.00
86.346	20.030	144.505	7.029			0.000	151.533	609.54	581.00
86.508	20.030	144.490	6.980			0.000	151.469	609.54	581.00
86.670	20.030	144.475	6.932			0.000	151.406	609.53	581.00
86.832	20.030	144.460	6.883			0.000	151.343	609.53	581.00
86.994	20.030	144.445	6.795			0.000	151.240	609.53	581.00
87.156	20.030	144.430	6.782			0.000	151.211	609.52	581.00
87.318	20.030	144.415	6.737			0.000	151.152	609.52	581.00
87.480	20.030	144.400	6.689			0.000	151.089	609.51	581.00
87.642	20.030	144.385	6.640			0.000	151.024	609.51	581.00
87.804	20.030	144.370	6.591			0.000	150.961	609.51	581.00
87.966	20.030	144.355	6.543			0.000	150.897	609.50	581.00
88.128	20.030	144.340	6.495			0.000	150.835	609.50	581.00
88.290	20.030	144.325	6.445			0.000	150.770	609.50	581.00
88.452	20.030	144.310	6.398			0.000	150.708	609.49	581.00
88.614	20.030	144.295	6.350			0.000	150.645	609.49	581.00
88.776	20.030	144.280	6.301			0.000	150.581	609.49	581.00
88.938	20.030	144.265	6.253			0.000	150.518	609.48	581.00
89.100	20.030	144.250	6.204			0.000	150.454	609.48	581.00
89.262	20.030	144.235	6.156			0.000	150.391	609.47	581.00
89.424	20.030	144.221	6.108			0.000	150.329	609.47	581.00
89.586	20.030	144.205	6.059			0.000	150.265	609.47	581.00
89.748	20.030	144.191	6.011			0.000	150.202	609.46	581.00
89.910	20.030	144.176	5.963			0.000	150.138	609.46	581.00
90.072	20.030	144.161	5.914			0.000	150.074	609.46	581.00
90.234	20.030	144.146	5.866			0.000	150.011	609.45	581.00



Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir	
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)			Surface Elevation (feet)	Tailwater Elevation (feet)
90.396	20.030	144.131	5.818			0.000	149.949	609.45	581.00
90.558	20.030	144.116	5.771			0.000	149.887	609.44	581.00
90.720	20.030	144.101	5.722			0.000	149.824	609.44	581.00
90.882	20.030	144.086	5.674			0.000	149.760	609.44	581.00
91.044	20.030	144.072	5.627			0.000	149.698	609.43	581.00
91.206	20.030	144.057	5.579			0.000	149.635	609.43	581.00
91.368	20.030	144.042	5.530			0.000	149.572	609.43	581.00
91.530	20.030	144.027	5.483			0.000	149.510	609.42	581.00
91.692	20.030	144.012	5.382			0.000	149.395	609.42	581.00
91.854	20.030	143.998	5.367			0.000	149.364	609.41	581.00
92.016	20.030	143.983	5.380			0.000	149.363	609.41	581.00
92.178	20.030	143.968	5.291			0.000	149.259	609.41	581.00
92.340	20.030	143.953	5.243			0.000	149.196	609.40	581.00
92.502	20.030	143.938	5.195			0.000	149.133	609.40	581.00
92.664	20.030	143.923	5.146			0.000	149.068	609.40	581.00
92.826	20.030	143.908	5.098			0.000	149.006	609.39	581.00
92.988	20.030	143.893	5.050			0.000	148.943	609.39	581.00
93.150	20.030	143.878	5.002			0.000	148.880	609.38	581.00
93.312	20.030	143.863	4.953			0.000	148.816	609.38	581.00
93.474	20.030	143.848	4.905			0.000	148.753	609.38	581.00
93.636	20.030	143.833	4.856			0.000	148.690	609.37	581.00
93.798	20.030	143.819	4.809			0.000	148.627	609.37	581.00
93.960	20.030	143.804	4.761			0.000	148.565	609.37	581.00
94.122	20.030	143.789	4.713			0.000	148.502	609.36	581.00
94.284	20.030	143.774	4.665			0.000	148.439	609.36	581.00
94.446	20.030	143.759	4.618			0.000	148.377	609.36	581.00
94.608	20.030	143.744	4.569			0.000	148.313	609.35	581.00
94.770	20.030	143.729	4.521			0.000	148.251	609.35	581.00
94.932	20.030	143.715	4.474			0.000	148.188	609.34	581.00
95.094	20.030	143.700	4.425			0.000	148.125	609.34	581.00
95.256	20.030	143.685	4.377			0.000	148.061	609.34	581.00
95.418	20.030	143.670	4.329			0.000	147.999	609.33	581.00
95.580	20.030	143.655	4.281			0.000	147.936	609.33	581.00
95.742	20.030	143.640	4.234			0.000	147.874	609.33	581.00
95.904	20.030	143.625	4.186			0.000	147.811	609.32	581.00
96.066	20.030	143.610	4.137			0.000	147.748	609.32	581.00
96.228	20.030	143.596	4.090			0.000	147.685	609.31	581.00
96.390	20.030	143.581	4.068			0.000	147.649	609.31	581.00
96.552	20.030	143.566	3.994			0.000	147.559	609.31	581.00
96.714	20.030	143.551	3.946			0.000	147.497	609.30	581.00
96.876	20.030	143.536	3.898			0.000	147.434	609.30	581.00
97.038	20.030	143.522	3.851			0.000	147.373	609.30	581.00
97.200	20.030	143.507	3.803			0.000	147.310	609.29	581.00
97.362	20.030	143.492	3.755			0.000	147.247	609.29	581.00
97.524	20.030	143.477	3.707			0.000	147.183	609.29	581.00
97.686	20.030	143.462	3.658			0.000	147.120	609.28	581.00
97.848	20.030	143.447	3.609			0.000	147.056	609.28	581.00
98.010	20.030	143.432	3.561			0.000	146.992	609.27	581.00
98.172	20.030	143.417	3.513			0.000	146.930	609.27	581.00
98.334	20.030	143.402	3.466			0.000	146.867	609.27	581.00
98.496	20.030	143.387	3.417			0.000	146.804	609.26	581.00
98.658	20.030	143.372	3.370			0.000	146.742	609.26	581.00
98.820	20.030	143.358	3.323			0.000	146.680	609.26	581.00
98.982	20.030	143.343	3.275			0.000	146.618	609.25	581.00
99.144	20.030	143.328	3.228			0.000	146.556	609.25	581.00
99.306	20.030	143.313	3.180			0.000	146.494	609.24	581.00

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir	
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)			Surface Elevation (feet)	Tailwater Elevation (feet)
99.468	20.030	143.299	3.134			0.000	146.432	609.24	581.00
99.630	20.030	143.284	3.087			0.000	146.371	609.24	581.00
99.792	20.030	143.270	3.040			0.000	146.309	609.23	581.00
99.954	20.030	143.255	2.992			0.000	146.247	609.23	581.00
100.116	20.030	143.240	2.945			0.000	146.186	609.23	581.00
100.278	20.030	143.226	2.899			0.000	146.124	609.22	581.00
100.440	20.030	143.211	2.851			0.000	146.061	609.22	581.00
100.602	20.030	143.196	2.804			0.000	146.001	609.22	581.00
100.764	20.030	143.182	2.757			0.000	145.938	609.21	581.00
100.926	20.030	143.167	2.708			0.000	145.875	609.21	581.00
101.088	20.030	143.152	2.661			0.000	145.813	609.20	581.00
101.250	20.030	143.137	2.613			0.000	145.750	609.20	581.00
101.412	20.030	143.122	2.565			0.000	145.688	609.20	581.00
101.574	20.030	143.107	2.517			0.000	145.624	609.19	581.00
101.736	20.030	143.093	2.471			0.000	145.563	609.19	581.00
101.898	20.030	143.078	2.424			0.000	145.502	609.19	581.00
102.060	20.030	143.063	2.328			0.000	145.391	609.18	581.00
102.222	20.030	143.049	2.301			0.000	145.350	609.18	581.00
102.384	20.030	143.034	2.269			0.000	145.303	609.18	581.00
102.546	20.030	143.019	2.231			0.000	145.250	609.17	581.00
102.708	20.030	143.005	2.211			0.000	145.216	609.17	581.00
102.870	20.030	142.990	2.141			0.000	145.130	609.16	581.00
103.032	20.030	142.975	2.094			0.000	145.069	609.16	581.00
103.194	20.030	142.960	2.046			0.000	145.007	609.16	581.00
103.356	20.030	142.946	1.999			0.000	144.945	609.15	581.00
103.518	20.030	142.931	1.952			0.000	144.883	609.15	581.00
103.680	20.030	142.916	1.905			0.000	144.821	609.15	581.00
103.842	20.030	142.902	1.859			0.000	144.760	609.14	581.00
104.004	20.030	142.887	1.812			0.000	144.699	609.14	581.00
104.166	20.030	142.873	1.765			0.000	144.637	609.14	581.00
104.328	20.030	142.858	1.718			0.000	144.576	609.13	581.00
104.490	20.030	142.844	1.672			0.000	144.515	609.13	581.00
104.652	20.030	142.829	1.624			0.000	144.453	609.13	581.00
104.814	20.030	142.814	1.577			0.000	144.391	609.12	581.00
104.976	20.030	142.800	1.531			0.000	144.330	609.12	581.00
105.138	20.030	142.785	1.484			0.000	144.270	609.11	581.00
105.300	20.030	142.770	1.437			0.000	144.208	609.11	581.00
105.462	20.030	142.756	1.391			0.000	144.147	609.11	581.00
105.624	20.030	142.741	1.344			0.000	144.086	609.10	581.00
105.786	20.030	142.727	1.298			0.000	144.025	609.10	581.00
105.948	20.030	142.712	1.251			0.000	143.963	609.10	581.00
106.110	20.030	142.697	1.203			0.000	143.901	609.09	581.00
106.272	20.030	142.682	1.155			0.000	143.837	609.09	581.00
106.434	20.030	142.668	1.109			0.000	143.777	609.09	581.00
106.596	20.030	142.653	1.062			0.000	143.716	609.08	581.00
106.758	20.030	142.639	1.016			0.000	143.654	609.08	581.00
106.920	20.030	142.624	0.969			0.000	143.593	609.07	581.00
107.082	20.030	142.610	0.923			0.000	143.532	609.07	581.00
107.244	20.030	142.595	0.875			0.000	143.470	609.07	581.00
107.406	20.030	142.580	0.828			0.000	143.408	609.06	581.00
107.568	20.030	142.566	0.782			0.000	143.347	609.06	581.00
107.730	20.030	142.551	0.735			0.000	143.286	609.06	581.00
107.892	20.030	142.537	0.688			0.000	143.225	609.05	581.00
108.054	20.030	142.522	0.642			0.000	143.164	609.05	581.00
108.216	20.030	142.508	0.596			0.000	143.103	609.05	581.00
108.378	20.030	142.493	0.548			0.000	143.041	609.04	581.00

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir	
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)			Surface Elevation (feet)	Tailwater Elevation (feet)
108.540	20.030	142.478	0.502			0.000	142.980	609.04	581.00
108.702	20.030	142.464	0.456			0.000	142.920	609.04	581.00
108.864	20.030	142.449	0.409			0.000	142.858	609.03	581.00
109.026	20.030	142.434	0.362			0.000	142.796	609.03	581.00
109.188	20.030	142.420	0.316			0.000	142.736	609.02	581.00
109.350	20.030	142.406	0.270			0.000	142.676	609.02	581.00
109.512	20.030	142.391	0.277			0.000	142.668	609.02	581.00
109.674	20.030	142.377	0.196			0.000	142.572	609.01	581.00
109.836	20.030	142.362	0.124			0.000	142.486	609.01	581.00
109.998	20.030	142.348	0.065			0.000	142.413	609.01	581.00
110.160	20.030	142.333	0.019			0.000	142.352	609.00	581.00
110.322	20.030	142.319	0.000			0.000	142.319	609.00	581.00

Note: Discharge exceeded maximum Tailwater table value. The maximum discharge ( 0.0) in table is used to set tailwater elevation.

July 26, 2017



July 26, 2017

Spillway and Overtop Discharge Rating					
Elevation	Prin. Spw.	RTside	Overtop	Total	TW Elev
602.80	0.000	0.000	0.000	0.000	580.00
602.90	0.000	0.000	0.000	0.000	580.00
603.00	0.000	0.000	0.000	0.000	580.00
603.10	0.000	0.000	0.000	0.000	580.00
603.20	0.000	0.000	0.000	0.000	580.00
603.30	0.000	0.000	0.000	0.000	580.00
603.40	0.000	0.000	0.000	0.000	580.00
603.50	0.000	0.000	0.000	0.000	580.00
603.60	0.000	0.000	0.000	0.000	580.00
603.70	0.000	0.000	0.000	0.000	580.00
603.80	0.000	0.000	0.000	0.000	580.00
603.90	0.000	0.000	0.000	0.000	580.00
604.00	0.000	0.000	0.000	0.000	580.00
604.10	1.765	0.000	0.000	1.765	580.00
604.20	4.991	0.000	0.000	4.991	580.00
604.30	9.169	0.000	0.000	9.169	580.00
604.40	14.116	0.000	0.000	14.116	580.00
604.50	19.728	0.000	0.000	19.728	580.00
604.60	25.933	0.000	0.000	25.933	580.00
604.70	32.680	0.000	0.000	32.680	580.00
604.80	39.927	0.000	0.000	39.927	580.00
604.90	47.643	0.000	0.000	47.643	580.00
605.00	55.800	0.000	0.000	55.800	580.00
605.10	64.376	0.000	0.000	64.376	580.00
605.20	73.351	0.000	0.000	73.351	580.00
605.30	82.708	0.000	0.000	82.708	580.00
605.40	92.433	0.000	0.000	92.433	580.00
605.50	102.511	0.000	0.000	102.511	580.00
605.60	112.931	0.000	0.000	112.931	580.00
605.70	123.682	0.000	0.000	123.682	580.00
605.80	128.653	0.000	0.000	128.653	580.00
605.90	129.102	0.000	0.000	129.102	580.00
606.00	129.549	0.000	0.000	129.549	580.00
606.10	129.995	0.000	0.000	129.995	580.00
606.20	130.440	0.000	0.000	130.440	580.00
606.30	130.883	0.000	0.000	130.883	580.00
606.40	131.324	0.000	0.000	131.324	580.00
606.50	131.764	0.000	0.000	131.764	580.00
606.60	132.202	0.000	0.000	132.202	580.00
606.70	132.639	0.000	0.000	132.639	580.00
606.80	133.075	0.000	0.000	133.075	580.00
606.90	133.509	0.000	0.000	133.509	580.00
607.00	133.942	0.000	0.000	133.942	580.00
607.10	134.373	0.000	0.000	134.373	580.00
607.20	134.803	0.000	0.000	134.803	580.00
607.30	135.232	0.000	0.000	135.232	580.00
607.40	135.659	0.000	0.000	135.659	580.00
607.50	136.085	0.000	0.000	136.085	580.00
607.60	136.510	0.000	0.000	136.510	580.00
607.70	136.933	0.000	0.000	136.933	580.00
607.80	137.355	0.000	0.000	137.355	580.00
607.90	137.776	0.000	0.000	137.776	580.00
608.00	138.195	0.000	0.000	138.195	580.00
608.10	138.613	0.000	0.000	138.613	580.00
608.20	139.030	0.000	0.000	139.030	580.00
608.30	139.446	0.000	0.000	139.446	580.00
608.40	139.860	0.000	0.000	139.860	580.00
608.50	140.273	0.000	0.000	140.273	580.00
608.60	140.685	0.000	0.000	140.685	580.00

Spillway and Overtop Discharge Rating					
Elevation	Prin. Spw.	RTside	Overtop	Total	TW Elev
608.70	141.096	0.000	0.000	141.096	580.00
608.80	141.506	0.000	0.000	141.506	580.00
608.90	141.914	0.000	0.000	141.914	580.00
609.00	142.321	0.000	0.000	142.321	580.00
609.10	142.727	1.300	0.000	144.027	580.00
609.20	143.132	2.600	0.000	145.732	580.00
609.30	143.536	3.900	0.000	147.436	580.00
609.40	143.939	5.199	0.000	149.138	580.00
609.50	144.340	6.499	0.000	150.839	580.00
609.60	144.741	7.799	0.000	152.540	580.00
609.70	145.140	12.231	0.000	157.371	580.00
609.80	145.538	23.335	0.000	168.873	580.00
609.90	145.935	36.200	0.000	182.135	580.00
610.00	146.331	50.915	0.000	197.246	580.00
610.10	146.726	68.023	0.000	214.749	580.00
610.20	147.120	85.860	0.000	232.980	580.00
610.30	147.513	104.554	0.000	252.067	580.00
610.40	147.905	125.387	0.000	273.292	580.00
610.50	148.295	146.515	0.000	294.811	580.00
610.60	148.685	168.725	0.000	317.410	580.00
610.70	149.074	192.189	0.000	341.263	580.00
610.80	149.462	216.624	0.000	366.085	580.00
610.90	149.848	242.004	0.000	391.852	580.00
611.00	150.234	268.309	0.000	418.543	580.00
611.10	150.619	295.522	0.000	446.141	580.00
611.20	151.002	323.629	0.000	474.632	580.00
611.30	151.385	352.586	0.000	503.971	580.00
611.40	151.767	382.476	0.000	534.243	580.00
611.50	152.148	413.099	0.000	565.247	580.00
611.60	152.528	443.375	0.000	595.903	580.00
611.70	152.907	474.169	0.000	627.076	580.00
611.80	153.285	510.493	0.000	663.778	580.00
611.90	153.662	544.888	0.000	698.550	580.00
612.00	154.038	580.118	0.000	734.156	580.00
612.10	154.413	616.177	0.000	770.590	580.00
612.20	154.788	652.871	0.000	807.659	580.00
612.30	155.161	690.771	0.000	845.932	580.00
612.40	155.534	729.301	0.000	884.834	580.00
612.50	155.905	768.650	0.000	924.555	580.00
612.60	156.276	808.815	0.000	965.091	580.00
612.70	156.646	847.814	0.000	1004.460	580.00
612.80	157.015	891.463	0.000	1048.478	580.00
612.90	157.383	934.185	0.000	1091.568	580.00
613.00	157.750	977.275	0.000	1135.026	580.00
613.10	158.117	1019.233	0.081	1177.431	580.00
613.20	158.482	1067.141	0.723	1226.347	580.00
613.30	158.847	1113.305	2.580	1274.732	580.00
613.40	159.211	1160.236	6.377	1325.823	580.00
613.50	159.574	1207.938	12.811	1380.323	580.00
613.60	159.936	1256.412	38.880	1455.228	580.00
613.70	160.298	1305.661	87.724	1553.682	580.00
613.80	160.658	1353.396	155.488	1669.542	580.00
613.90	161.018	1405.780	244.677	1811.475	580.00
614.00	161.377	1458.098	357.727	1977.201	580.00
614.10	161.735	1510.355	531.920	2204.011	580.00
614.20	162.093	1561.052	754.242	2477.387	580.00
614.30	162.449	1615.537	1008.003	2785.989	580.00
614.40	162.805	1670.825	1291.217	3124.848	580.00
614.50	163.160	1726.906	1601.123	3491.189	580.00

Spillway and Overtop Discharge Rating					
Elevation	Prin. Spw.	RTside	Overtop	Total	TW Elev
614.60	163.515	1783.782	2110.506	4057.803	580.00
614.70	163.868	1841.456	2724.994	4730.318	580.00
614.80	164.221	1899.929	3355.503	5419.654	580.00
614.90	164.573	1959.205	4003.256	6127.034	580.00
615.00	164.924	2019.285	4668.497	6852.706	580.00
615.10	165.275	2080.171	5352.822	7598.269	580.00
615.20	165.625	2141.865	6053.423	8360.913	580.00
615.30	165.974	2204.360	6772.074	9142.408	580.00
615.40	166.322	2267.652	7510.140	9944.114	580.00
615.50	166.670	2334.704	8266.441	10767.814	580.00
615.60	167.016	2396.714	9038.450	11602.181	580.00
615.70	167.363	2458.890	9832.325	12458.577	580.00
615.80	167.708	2529.517	10639.749	13336.974	580.00
615.90	168.053	2598.377	11467.197	14233.627	580.00
616.00	168.397	2668.034	12310.548	15146.979	580.00
616.10	168.740	2737.144	13171.214	16077.098	580.00
616.20	169.083	2806.954	14049.298	17025.335	580.00
616.30	169.425	2875.477	14943.039	17987.941	580.00
616.40	169.766	2947.702	15853.420	18970.888	580.00
616.50	170.106	3020.781	16781.062	19971.950	580.00
616.60	170.446	3094.716	17722.513	20987.675	580.00
616.70	170.786	3169.489	18680.484	22020.759	580.00
616.80	171.124	3245.112	19653.279	23069.515	580.00
616.90	171.462	3321.622	20642.537	24135.620	580.00
617.00	171.799	3399.035	21645.418	25216.252	580.00
617.10	172.136	3477.316	22662.731	26312.183	580.00
617.20	172.472	3556.468	23695.292	27424.232	580.00
617.30	172.807	3636.492	24742.353	28551.652	580.00
617.40	173.141	3717.391	25802.674	29693.206	580.00
617.50	173.475	3799.166	26877.681	30850.323	580.00
617.60	173.809	3881.820	27966.386	32022.015	580.00
617.70	174.141	3965.355	29067.807	33207.304	580.00
617.80	174.473	4049.772	30184.698	34408.943	580.00
617.90	174.805	4135.074	31314.355	35624.234	580.00
618.00	175.135	4221.262	32457.172	36853.570	580.00
618.10	175.465	4308.340	33613.011	38096.816	580.00
618.20	175.795	4402.180	34778.941	39356.916	580.00
618.30	176.124	4485.109	35961.581	40622.814	580.00
618.40	176.452	4578.429	37155.362	41910.243	580.00
618.50	176.780	4665.523	38361.585	43203.887	580.00
618.60	177.107	4757.126	39580.542	44514.775	580.00
618.70	177.433	4849.632	40811.422	45838.487	580.00
618.80	177.759	4943.043	42054.474	47175.276	580.00
618.90	178.084	5037.360	43310.966	48526.411	580.00
619.00	178.409	5132.587	44576.888	49887.884	580.00
619.10	178.733	5228.724	45856.510	51263.968	580.00
619.20	179.057	5325.775	47146.799	52651.631	580.00
619.30	179.380	5423.740	48450.039	54053.159	580.00
619.40	179.702	5522.622	49766.440	55468.764	580.00
619.50	180.024	5622.423	51091.918	56894.365	580.00
619.60	180.345	5723.214	52429.601	58333.160	580.00
619.70	180.666	5826.316	53779.989	59786.970	580.00
619.80	180.986	5930.319	55141.375	61252.680	580.00
619.90	181.305	6032.678	56513.045	62727.028	580.00
620.00	181.624	6137.441	57896.030	64215.095	580.00
620.10	181.896	6242.827	59291.126	65715.849	580.00



Listing of Tabular Data-Expanded Area										
1	591.00	76.60	591.10	78.12	591.20	79.63	591.30	81.14	591.40	82.66
6	591.50	84.17	591.60	85.69	591.70	87.21	591.80	88.72	591.90	90.23
11	592.00	91.75	592.10	93.27	592.20	94.78	592.30	96.29	592.40	97.81
16	592.50	99.33	592.60	100.84	592.70	102.36	592.80	103.87	592.90	105.38
21	593.00	106.90	593.10	108.70	593.20	110.49	593.30	112.28	593.40	114.08
26	593.50	115.88	593.60	117.67	593.70	119.47	593.80	121.26	593.90	123.05
31	594.00	124.85	594.10	126.65	594.20	128.44	594.30	130.23	594.40	132.03
36	594.50	133.83	594.60	135.62	594.70	137.42	594.80	139.21	594.90	141.00
41	595.00	142.80	595.10	144.69	595.20	146.58	595.30	148.47	595.40	150.36
46	595.50	152.25	595.60	154.14	595.70	156.03	595.80	157.92	595.90	159.81
51	596.00	161.70	596.10	163.59	596.20	165.48	596.30	167.37	596.40	169.26
56	596.50	171.15	596.60	173.04	596.70	174.93	596.80	176.82	596.90	178.71
61	597.00	180.60	597.10	182.65	597.20	184.71	597.30	186.76	597.40	188.81
66	597.50	190.86	597.60	192.92	597.70	194.97	597.80	197.02	597.90	199.07
71	598.00	201.12	598.10	203.18	598.20	205.23	598.30	207.28	598.40	209.33
76	598.50	211.39	598.60	213.44	598.70	215.49	598.80	217.54	598.90	219.60
81	599.00	221.65	599.10	223.70	599.20	225.76	599.30	227.81	599.40	229.86
86	599.50	231.91	599.60	233.97	599.70	236.02	599.80	238.07	599.90	240.12
91	600.00	242.17	600.10	244.23	600.20	246.28	600.30	248.33	600.40	250.38
96	600.50	252.44	600.60	254.49	600.70	256.54	600.80	258.59	600.90	260.65
101	601.00	262.70	601.10	265.14	601.20	267.58	601.30	270.02	601.40	272.46
106	601.50	274.90	601.60	277.34	601.70	279.78	601.80	282.22	601.90	284.66
111	602.00	287.10	602.10	289.54	602.20	291.98	602.30	294.42	602.40	296.86
116	602.50	299.30	602.60	301.74	602.70	304.18	602.80	306.62	602.90	309.06
121	603.00	311.50	603.10	313.94	603.20	316.38	603.30	318.82	603.40	321.26
126	603.50	323.70	603.60	326.14	603.70	328.58	603.80	331.02	603.90	333.46
131	604.00	335.90	604.10	338.34	604.20	340.78	604.30	343.22	604.40	345.66
136	604.50	348.10	604.60	350.54	604.70	352.98	604.80	355.42	604.90	357.86
141	605.00	360.30	605.10	362.72	605.20	365.13	605.30	367.54	605.40	369.96
146	605.50	372.38	605.60	374.79	605.70	377.21	605.80	379.62	605.90	382.03
151	606.00	384.45	606.10	386.87	606.20	389.28	606.30	391.69	606.40	394.11
156	606.50	396.52	606.60	398.94	606.70	401.36	606.80	403.77	606.90	406.18
161	607.00	408.60	607.10	411.02	607.20	413.43	607.30	415.84	607.40	418.26
166	607.50	420.68	607.60	423.09	607.70	425.51	607.80	427.92	607.90	430.33
171	608.00	432.75	608.10	435.17	608.20	437.58	608.30	439.99	608.40	442.41
176	608.50	444.82	608.60	447.24	608.70	449.66	608.80	452.07	608.90	454.48
181	609.00	456.90	609.10	459.42	609.20	461.94	609.30	464.46	609.40	466.98
186	609.50	469.50	609.60	472.02	609.70	474.54	609.80	477.06	609.90	479.58
191	610.00	482.10	610.10	484.62	610.20	487.14	610.30	489.66	610.40	492.18
196	610.50	494.70	610.60	497.22	610.70	499.74	610.80	502.26	610.90	504.78
201	611.00	507.30	611.10	509.82	611.20	512.34	611.30	514.86	611.40	517.38
206	611.50	519.90	611.60	522.42	611.70	524.94	611.80	527.46	611.90	529.98
211	612.00	532.50	612.10	535.02	612.20	537.54	612.30	540.06	612.40	542.58
216	612.50	545.10	612.60	547.62	612.70	550.14	612.80	552.66	612.90	555.18
221	613.00	557.70	613.10	560.20	613.20	562.70	613.30	565.20	613.40	567.70
226	613.50	570.20	613.60	572.70	613.70	575.20	613.80	577.70	613.90	580.20
231	614.00	582.70	614.10	585.20	614.20	587.70	614.30	590.20	614.40	592.70
236	614.50	595.20	614.60	597.70	614.70	600.20	614.80	602.70	614.90	605.20
241	615.00	607.70	615.10	610.20	615.20	612.70	615.30	615.20	615.40	617.70
246	615.50	620.20	615.60	622.70	615.70	625.20	615.80	627.70	615.90	630.20
251	616.00	632.70	616.10	635.20	616.20	637.70	616.30	640.20	616.40	642.70
256	616.50	645.20	616.60	647.70	616.70	650.20	616.80	652.70	616.90	655.20
261	617.00	657.70	617.10	660.20	617.20	662.70	617.30	665.20	617.40	667.70
266	617.50	670.20	617.60	672.70	617.70	675.20	617.80	677.70	617.90	680.20
271	618.00	682.70	618.10	685.20	618.20	687.70	618.30	690.20	618.40	692.70
276	618.50	695.20	618.60	697.70	618.70	700.20	618.80	702.70	618.90	705.20
281	619.00	707.70	619.10	710.20	619.20	712.70	619.30	715.20	619.40	717.70
286	619.50	720.20	619.60	722.70	619.70	725.20	619.80	727.70	619.90	730.20
291	620.00	732.70	620.10	735.20						

Listing of Tabular Data-Generated Volume

1	591.00	250.00	593.00	433.50	595.00	683.20	597.00	1006.60	601.00	1893.20
6	605.00	3139.20	609.00	4773.60	613.00	6802.80	615.00	7968.20		

Listing of Tabular Data-Expanded Low Volume

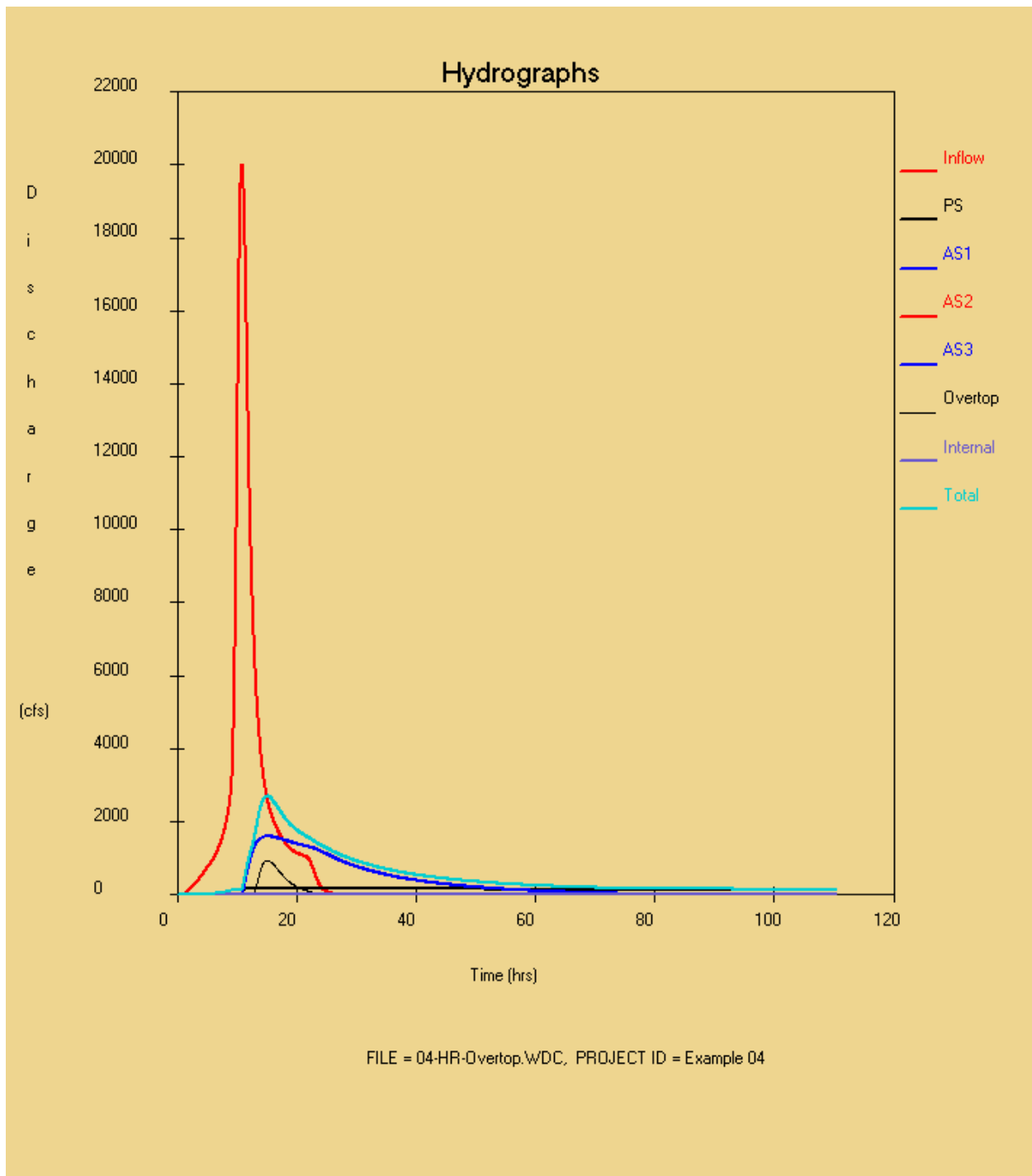
1	580.00	0.00	580.10	2.27	580.20	4.55	580.30	6.82	580.40	9.09
6	580.50	11.36	580.60	13.64	580.70	15.91	580.80	18.18	580.90	20.45
11	581.00	22.73	581.10	25.00	581.20	27.27	581.30	29.55	581.40	31.82
16	581.50	34.09	581.60	36.36	581.70	38.64	581.80	40.91	581.90	43.18
21	582.00	45.45	582.10	47.73	582.20	50.00	582.30	52.27	582.40	54.55
26	582.50	56.82	582.60	59.09	582.70	61.36	582.80	63.64	582.90	65.91
31	583.00	68.18	583.10	70.45	583.20	72.73	583.30	75.00	583.40	77.27
36	583.50	79.55	583.60	81.82	583.70	84.09	583.80	86.36	583.90	88.64
41	584.00	90.91	584.10	93.18	584.20	95.45	584.30	97.73	584.40	100.00
46	584.50	102.27	584.60	104.55	584.70	106.82	584.80	109.09	584.90	111.36
51	585.00	113.64	585.10	115.91	585.20	118.18	585.30	120.45	585.40	122.73
56	585.50	125.00	585.60	127.27	585.70	129.55	585.80	131.82	585.90	134.09
61	586.00	136.36	586.10	138.64	586.20	140.91	586.30	143.18	586.40	145.45
66	586.50	147.73	586.60	150.00	586.70	152.27	586.80	154.55	586.90	156.82
71	587.00	159.09	587.10	161.36	587.20	163.64	587.30	165.91	587.40	168.18
76	587.50	170.45	587.60	172.73	587.70	175.00	587.80	177.27	587.90	179.55
81	588.00	181.82	588.10	184.09	588.20	186.36	588.30	188.64	588.40	190.91
86	588.50	193.18	588.60	195.45	588.70	197.73	588.80	200.00	588.90	202.27
91	589.00	204.55	589.10	206.82	589.20	209.09	589.30	211.36	589.40	213.64
96	589.50	215.91	589.60	218.18	589.70	220.45	589.80	222.73	589.90	225.00
101	590.00	227.27	590.10	229.55	590.20	231.82	590.30	234.09	590.40	236.36
106	590.50	238.64	590.60	240.91	590.70	243.18	590.80	245.45	590.90	247.73

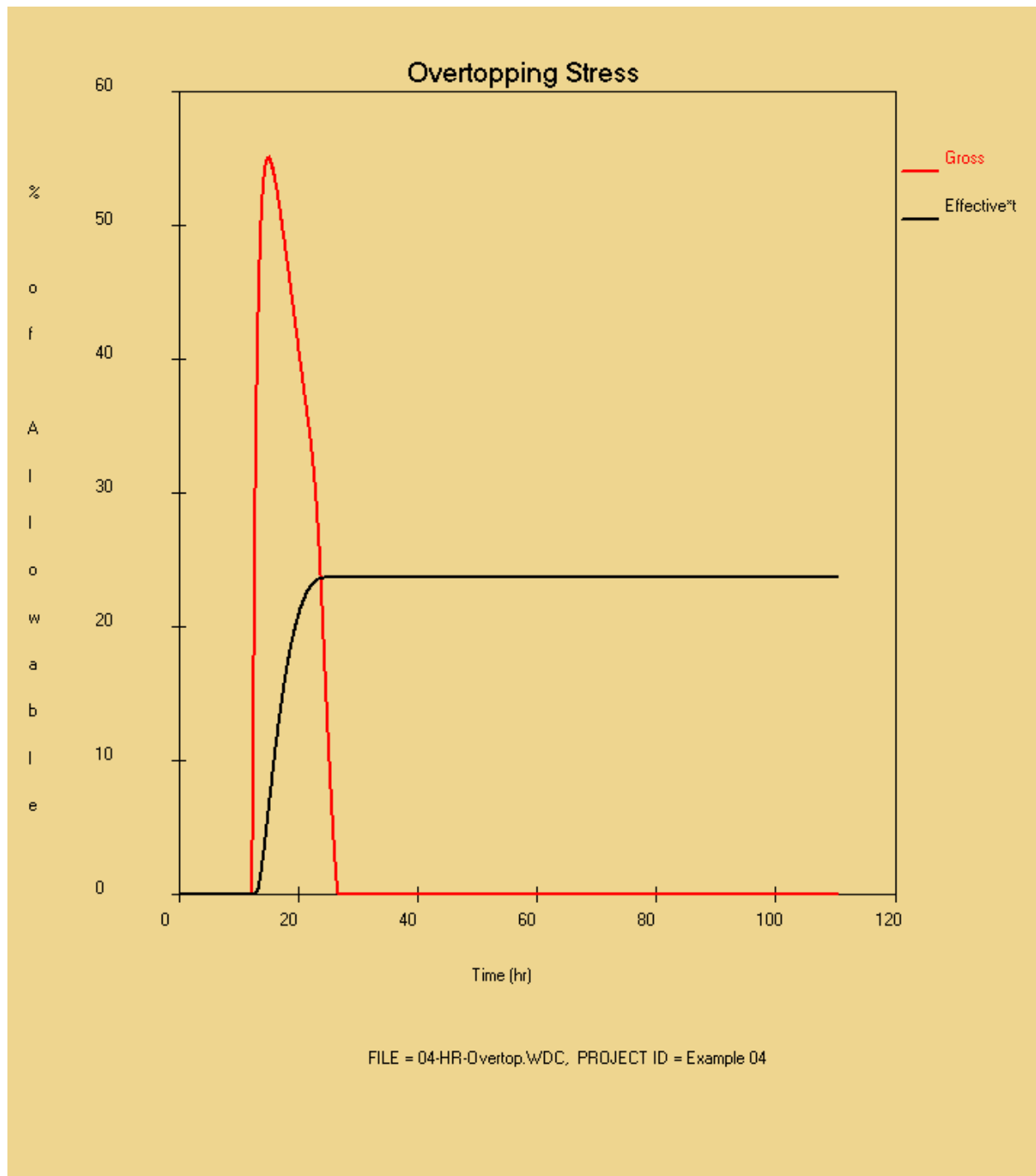
Listing of Tabular Data-Expanded Volume

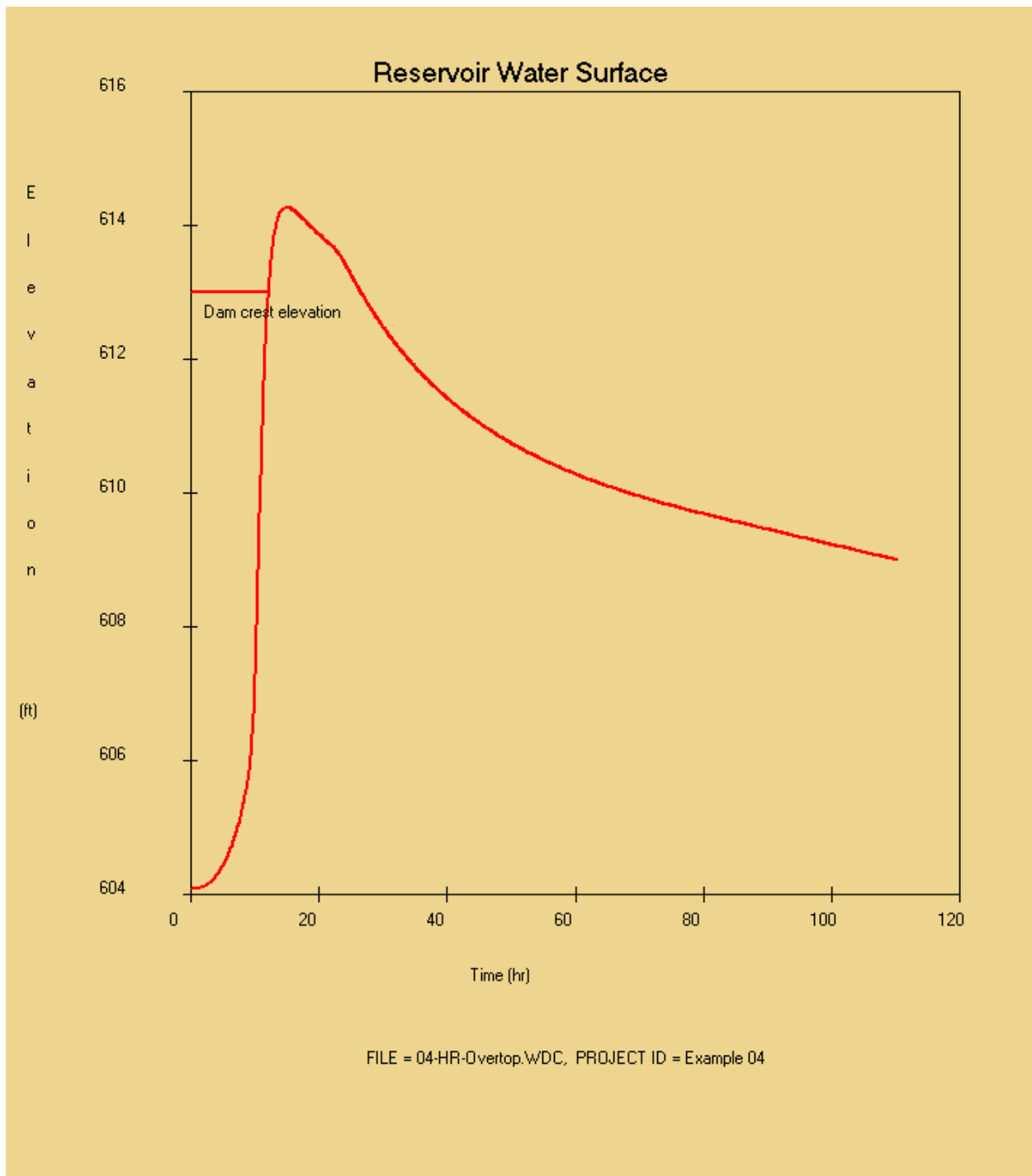
1	591.00	250.	591.10	258.	591.20	266.	591.30	274.	591.40	282.
6	591.50	290.	591.60	299.	591.70	307.	591.80	316.	591.90	325.
11	592.00	334.	592.10	343.	592.20	353.	592.30	362.	592.40	372.
16	592.50	382.	592.60	392.	592.70	402.	592.80	412.	592.90	423.
21	593.00	434.	593.10	444.	593.20	455.	593.30	466.	593.40	478.
26	593.50	489.	593.60	501.	593.70	513.	593.80	525.	593.90	537.
31	594.00	549.	594.10	562.	594.20	575.	594.30	588.	594.40	601.
36	594.50	614.	594.60	628.	594.70	641.	594.80	655.	594.90	669.
41	595.00	683.	595.10	698.	595.20	712.	595.30	727.	595.40	742.
46	595.50	757.	595.60	772.	595.70	788.	595.80	803.	595.90	819.
51	596.00	835.	596.10	852.	596.20	868.	596.30	885.	596.40	902.
56	596.50	919.	596.60	936.	596.70	953.	596.80	971.	596.90	989.
61	597.00	1007.	597.10	1025.	597.20	1043.	597.30	1062.	597.40	1080.
66	597.50	1099.	597.60	1119.	597.70	1138.	597.80	1158.	597.90	1177.
71	598.00	1197.	598.10	1218.	598.20	1238.	598.30	1259.	598.40	1280.
76	598.50	1301.	598.60	1322.	598.70	1343.	598.80	1365.	598.90	1387.
81	599.00	1409.	599.10	1431.	599.20	1454.	599.30	1476.	599.40	1499.
86	599.50	1522.	599.60	1546.	599.70	1569.	599.80	1593.	599.90	1617.
91	600.00	1641.	600.10	1665.	600.20	1690.	600.30	1714.	600.40	1739.
96	600.50	1764.	600.60	1790.	600.70	1815.	600.80	1841.	600.90	1867.
101	601.00	1893.	601.10	1920.	601.20	1946.	601.30	1973.	601.40	2000.
106	601.50	2028.	601.60	2055.	601.70	2083.	601.80	2111.	601.90	2140.
111	602.00	2168.	602.10	2197.	602.20	2226.	602.30	2255.	602.40	2285.
116	602.50	2315.	602.60	2345.	602.70	2375.	602.80	2406.	602.90	2436.
121	603.00	2467.	603.10	2499.	603.20	2530.	603.30	2562.	603.40	2594.
126	603.50	2626.	603.60	2659.	603.70	2691.	603.80	2724.	603.90	2758.
131	604.00	2791.	604.10	2825.	604.20	2859.	604.30	2893.	604.40	2927.
136	604.50	2962.	604.60	2997.	604.70	3032.	604.80	3068.	604.90	3103.
141	605.00	3139.	605.10	3175.	605.20	3212.	605.30	3248.	605.40	3285.
146	605.50	3322.	605.60	3360.	605.70	3397.	605.80	3435.	605.90	3473.
151	606.00	3512.	606.10	3550.	606.20	3589.	606.30	3628.	606.40	3667.
156	606.50	3707.	606.60	3747.	606.70	3787.	606.80	3827.	606.90	3867.
161	607.00	3908.	607.10	3949.	607.20	3990.	607.30	4032.	607.40	4073.
166	607.50	4115.	607.60	4158.	607.70	4200.	607.80	4243.	607.90	4286.
171	608.00	4329.	608.10	4372.	608.20	4416.	608.30	4460.	608.40	4504.
176	608.50	4548.	608.60	4593.	608.70	4638.	608.80	4683.	608.90	4728.
181	609.00	4774.	609.10	4819.	609.20	4865.	609.30	4912.	609.40	4958.
186	609.50	5005.	609.60	5052.	609.70	5100.	609.80	5147.	609.90	5195.
191	610.00	5243.	610.10	5291.	610.20	5340.	610.30	5389.	610.40	5438.
196	610.50	5487.	610.60	5537.	610.70	5587.	610.80	5637.	610.90	5687.
201	611.00	5738.	611.10	5789.	611.20	5840.	611.30	5891.	611.40	5943.
206	611.50	5995.	611.60	6047.	611.70	6099.	611.80	6152.	611.90	6205.
211	612.00	6258.	612.10	6311.	612.20	6365.	612.30	6419.	612.40	6473.
216	612.50	6527.	612.60	6582.	612.70	6637.	612.80	6692.	612.90	6747.
221	613.00	6803.	613.10	6859.	613.20	6915.	613.30	6971.	613.40	7028.
226	613.50	7085.	613.60	7142.	613.70	7199.	613.80	7257.	613.90	7315.
231	614.00	7373.	614.10	7431.	614.20	7490.	614.30	7549.	614.40	7608.
236	614.50	7667.	614.60	7727.	614.70	7787.	614.80	7847.	614.90	7908.
241	615.00	7968.	615.10	8029.	615.20	8090.	615.30	8152.	615.40	8213.
246	615.50	8275.	615.60	8337.	615.70	8400.	615.80	8462.	615.90	8525.
251	616.00	8588.	616.10	8652.	616.20	8715.	616.30	8779.	616.40	8843.
256	616.50	8908.	616.60	8973.	616.70	9037.	616.80	9103.	616.90	9168.
261	617.00	9234.	617.10	9299.	617.20	9366.	617.30	9432.	617.40	9499.
266	617.50	9566.	617.60	9633.	617.70	9700.	617.80	9768.	617.90	9836.
271	618.00	9904.	618.10	9972.	618.20	10041.	618.30	10110.	618.40	10179.
276	618.50	10248.	618.60	10318.	618.70	10388.	618.80	10458.	618.90	10528.
281	619.00	10599.	619.10	10670.	619.20	10741.	619.30	10812.	619.40	10884.
286	619.50	10956.	619.60	11028.	619.70	11101.	619.80	11173.	619.90	11246.
291	620.00	11319.	620.10	11393.						

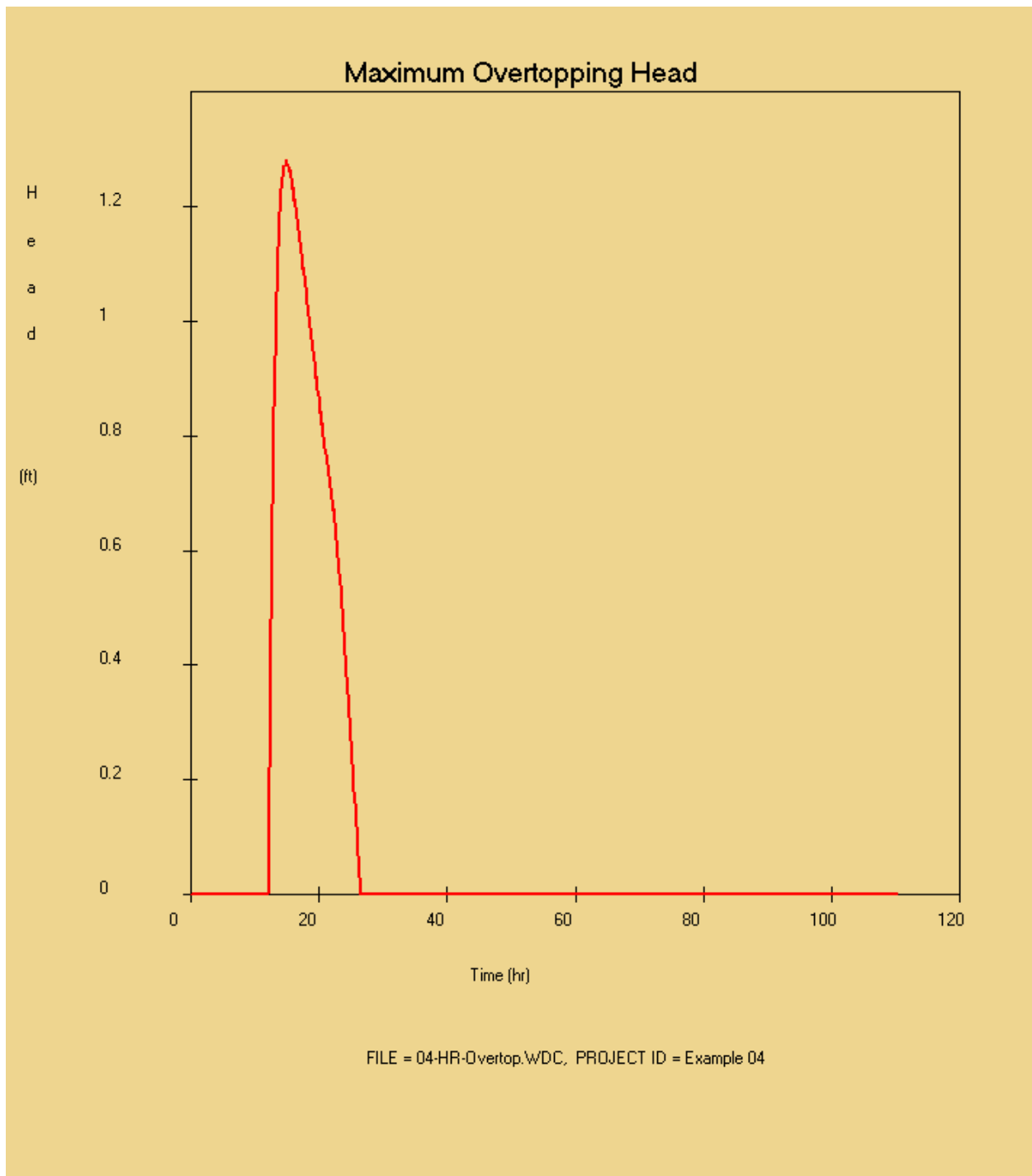
End of Run

**04-TH-Overtop**











Windows Dam Analysis Program

Program Date-01/01/2009

Execution Date-07/26/2017

Version Date-2008.01.01

Time-13:21:14

Listing of Input Data-Example 04

WINDAM01/01/2009Example 04

OPTIONSIMPLEEARTHBREACH

\*WindAM Example 04 - Existing Dam07/26/2017

\*Typical Design for checking integrity.

\*OVERTOPPING breach analysis - Hanson/Robinson stress model

\*Std single stage riser, 36" dia conduit

\*PS crest:604.0'

\*Start Routing:604.1'

\*AS crest:609.0'

\*AS bottom width:40'

\*Dam crest:613.0'

\*Dam face Maintenance Code - 1 (uniform surface & cover)

\*Aux Spwy Maintenance Code - 1 (uniform surface & cover)

\*24-hr FBH Inflow peak: 20,000 cfs @ 13.4 hr

\*Embankment of dam overtops and breaches

\*Aux Spwy erodes, but does not breach

\*END of input comments-----

HCMODEL210510200.1

HYDFBH0.1621V20.01

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0.1622.05

0.2433.16

0.3244.27

0.4056.105

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0.56710.715

0.64813.49

0.72917.37

0.8121.25

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0.97231.43

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2.268192.41

2.349206.11

2.43219.81

2. 511	234. 05
2. 592	248. 29
2. 673	263. 04
2. 754	277. 79
2. 835	293. 025
2. 916	308. 26
2. 997	323. 95
3. 078	339. 64
3. 159	355. 765
3. 24	371. 89
3. 321	388. 425
3. 402	404. 96
3. 483	421. 865
3. 564	438. 77
3. 645	456. 025
3. 726	473. 28
3. 807	490. 855
3. 888	508. 43
3. 969	526. 29
4. 05	544. 15
4. 131	562. 265
4. 212	580. 38
4. 293	598. 72
4. 374	617. 06
4. 455	635. 605
4. 536	654. 15
4. 617	672. 875
4. 698	691. 6
4. 779	710. 485
4. 86	729. 37
4. 941	748. 395
5. 022	767. 42
5. 103	786. 565
5. 184	805. 71
5. 265	824. 96
5. 346	844. 21
5. 427	863. 61
5. 508	883. 01
5. 589	902. 705
5. 67	922. 4
5. 751	942. 63
5. 832	962. 86
5. 913	983. 96
5. 994	1005. 06
6. 075	1027. 475
6. 156	1049. 89
6. 237	1074. 195
6. 318	1098. 5
6. 399	1125. 2
6. 48	1151. 9
6. 561	1181. 275
6. 642	1210. 65
6. 723	1242. 71
6. 804	1274. 77

6. 885	1309. 335
6. 966	1343. 9
7. 047	1380. 76
7. 128	1417. 62
7. 209	1456. 53
7. 29	1495. 44
7. 371	1536. 245
7. 452	1577. 05
7. 533	1620. 02
7. 614	1662. 99
7. 695	1708. 925
7. 776	1754. 86
7. 857	1804. 9
7. 938	1854. 94
8. 019	1910. 54
8. 1	1966. 14
8. 181	2029. 02
8. 262	2091. 9
8. 343	2163. 995
8. 424	2236. 09
8. 505	2320. 165
8. 586	2404. 24
8. 667	2503. 955
8. 748	2603. 67
8. 829	2728. 33
8. 91	2852. 99
8. 991	3044. 8
9. 072	3236. 61
9. 153	3603. 24
9. 234	3969. 87
9. 315	4570. 72500
9. 396	5171. 58
9. 477	5975. 83
9. 55800000	6780. 08
9. 639	7795. 77499
9. 72000000	8811. 47
9. 801	10051. 54
9. 88200000	11291. 61
9. 963	12650. 5
10. 044	14009. 39
10. 125	15243. 21
10. 206	16477. 03
10. 287	17410. 09
10. 368	18343. 15
10. 449	18926. 575
10. 53	19510
10. 611	19759. 475
10. 692	20008. 95
10. 773	19985. 61
10. 854	19962. 27
10. 935	19668. 33
11. 016	19374. 39
11. 097	18896. 34
11. 178	18418. 29

11. 259	17813. 365
11. 34	17208. 44
11. 421	16464. 42
11. 502	15720. 4
11. 583	14883. 61
11. 664	14046. 82
11. 745	13261. 165
11. 826	12475. 51
11. 907	11820. 14
11. 988	11164. 77
12. 069	10605. 08
12. 15	10045. 39
12. 231	9558. 805
12. 312	9072. 22
12. 393	8654. 88499
12. 474	8237. 55
12. 555	7867. 895
12. 636	7498. 24
12. 717	7160. 45
12. 798	6822. 66
12. 879	6524. 565
12. 96	6226. 47
13. 041	5969. 935
13. 122	5713. 4
13. 203	5486. 54
13. 284	5259. 68
13. 365	5057. 84
13. 446	4856
13. 527	4676. 94
13. 608	4497. 88
13. 689	4339. 2
13. 77	4180. 52
13. 851	4036. 795
13. 932	3893. 07
14. 013	3766. 09
14. 094	3639. 11
14. 175	3526. 655
14. 256	3414. 2
14. 337	3313. 155
14. 418	3212. 11
14. 499	3122. 07
14. 58	3032. 03
14. 661	2951. 66
14. 742	2871. 29
14. 823	2798. 19
14. 904	2725. 09
14. 985	2659. 53
15. 066	2593. 97
15. 147	2534. 95
15. 228	2475. 93
15. 309	2423. 545
15. 39	2371. 16
15. 471	2323. 585
15. 552	2276. 01

15. 633	2232. 415
15. 714	2188. 82
15. 795	2150. 695
15. 876	2112. 57
15. 957	2077. 895
16. 038	2043. 22
16. 119	2010. 195
16. 2	1977. 17
16. 281	1945. 465
16. 362	1913. 76
16. 443	1883. 1
16. 524	1852. 44
16. 605	1822. 685
16. 686	1792. 93
16. 767	1763. 98
16. 848	1735. 03
16. 929	1706. 985
17. 01	1678. 94
17. 091	1652. 78
17. 172	1626. 62
17. 253	1604. 26
17. 334	1581. 9
17. 415	1561. 71
17. 496	1541. 52
17. 577	1522. 035
17. 658	1502. 55
17. 739	1483. 7
17. 82	1464. 85
17. 901	1446. 59
17. 982	1428. 33
18. 063	1410. 74
18. 144	1393. 15
18. 225	1376. 365
18. 306	1359. 58
18. 387	1343. 74
18. 468	1327. 9
18. 549	1313. 115
18. 63	1298. 33
18. 711	1284. 66
18. 792	1270. 99
18. 873	1258. 45
18. 954	1245. 91
19. 035	1234. 485
19. 116	1223. 06
19. 197	1212. 695
19. 278	1202. 33
19. 359	1192. 94
19. 44	1183. 55
19. 521	1175. 05
19. 602	1166. 55
19. 683	1158. 84
19. 764	1151. 13
19. 845	1144. 085
19. 926	1137. 04

20.007	1130.545
20.088	1124.05
20.169	1118.025
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20.331	1106.36
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21.546	1031.07
21.627	1022.38
21.708	1013.69
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23.49	357.61
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24.219	168.96
24.3	155.18

24. 381	143. 51
24. 462	131. 84
24. 543	121. 9
24. 624	111. 96
24. 705	103. 42
24. 786	94. 88
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24. 948	80. 31
25. 029	74. 175
25. 11	68. 04
25. 191	62. 84
25. 272	57. 64
25. 353	53. 1949999
25. 434	48. 75
25. 515	44. 975
25. 596	41. 2
25. 677	37. 995
25. 758	34. 79
25. 839	32. 0700000
25. 92	29. 35
26. 001	27. 035
26. 082	24. 72
26. 163	22. 78
26. 244	20. 84
26. 325	20. 435
26. 406	20. 03
26. 487	20. 03
26. 568	20. 03
26. 649	20. 03
26. 73	20. 03
26. 811	20. 03
26. 892	20. 03
26. 973	20. 03
27. 054	20. 03
27. 135	20. 03
27. 216	20. 03
27. 297	20. 03
27. 378	20. 03
27. 459	20. 03
27. 54	20. 03
27. 621	20. 03
27. 702	20. 03
27. 783	20. 03
27. 864	20. 03
27. 945	20. 03
28. 026	20. 03
28. 107	20. 03
28. 188	20. 03
28. 269	20. 03
28. 35	20. 03
28. 431	20. 03
28. 512	20. 03
28. 593	20. 03
28. 674	20. 03

	28.755	20.03							
	28.836	20.03							
	28.917	20.03							
	28.998	20.03							
	29.079	20.03							
	29.16	20.03							
	29.241	20.03							
	29.322	20.03							
	29.403	20.03							
	29.484	20.03							
	29.565	20.03							
	29.646	20.03							
	29.727	20.03							
	29.808	20.03							
ENDTABLE									
CRESTPRFL									
	0	613.							
	550	614							
	1200	613.5							
ENDTABLE									
STROUTE	604.1	580	ELEV						
STRUCTURE	SR1								
		591		250		76.6			
		593				106.9			
		595				142.8			
		597				180.6			
		601				262.7			
		605				360.3			
		609				456.9			
		613				557.7			
		615				607.7			
ENDTABLE									
UPSTREAM	2.5	5.6							
DAMCREST	14	5.6							
DWNSTREAM	3	5.6	.9	1	5	.01			
PSpI NLET	0.7	18	604						
PSpDATA	1	250	36	.013	590	582.5	SC		
PSpCOEFFS	.6				3.1	6			
TAI LWATER									
	581	0							
ENDTABLE									
ASSURFACE	1RTsi de	2.5	40	11	1000				
	0	598.4	4.9	.9	2	1			
	325	609	4.9	.9	2	1			
	375	609	5.6	.9	2	1			
	1187	580							
ENDTABLE									
OUTPUT	ALL								
ENDRUN									



```
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Windows Dam Analysis Program      Execution Date - 07/26/2017
Program Date - 01/01/2009         Version Number - 2008.01.01      Time - 13:21:14
Input File - h:\WinDAM\Examples\Examples20170721chk\04-HR Overtop370.D2D
-----

***** Elevation Summary 1 *****
Dam Base Elevation:                580.00 feet
Max Tailwater Elevation:           581.00 feet
Prin Spwy Crest Elevation:         604.00 feet
Start Routing Elevation:           604.10 feet
Aux Spwy # 1 Crest Elevation:      609.00 feet
Aux Spwy # 2 Crest Elevation:      none
Aux Spwy # 3 Crest Elevation:      none
Max Pool Elevation:                614.28 feet
Initial Low Point in Dam Crest:    613.00 feet
Ending Low Point in Dam Crest:     613.00 feet
*****

***** Flow Summary 2 *****
Peak Inflow:                       20008.950 cfs @      10.692 hours
Peak Outflow:                      2707.417 cfs @      14.904 hours
Max Flow Principal Spwy:           162.362 cfs @      14.904 hours
Max Flow Aux Spwy # 1:             1602.377 cfs @      14.904 hours
Max Flow Aux Spwy # 2:             none
Max Flow Aux Spwy # 3:             none
Maximum flow over top of dam:      942.677 cfs @      14.904 hours
Duration of dam overtopping:       14.499 hours
Max unit discharge, low point or breach: 3.465 cfs/ft
Maximum internal erosion conduit flow: 0.000 cfs
*****
```

\*\*\*\*\* Spillways Summary 3 \*\*\*\*\*

Principal Spillway Type:	Single Stage Inlet, Circular Conduit		
Principal Spillway Crest Elev:	604.00 feet		
Prin. Spw. Weir Length:	18.00 feet		
Conduit Diameter:	36.00 inches		
Conduit Manning's n value:	0.013		
-----			
Aux Spwy #1 Label :	RTside		
Aux Spwy #1 Crest Elev:	609.00 feet		
Aux Spwy #1 Bottom Width:	40.00 feet		
Aux Spwy #1 Max Flow:	1602.377 cfs @	14.904 hours	
Aux Spwy #1 Max Hp:	5.28 feet		
Aux Spwy #1 Erosion Analysis:	Integrity		
-----			
Aux Spwy #2 Label :	none		
Aux Spwy #2 Crest Elev:	none		
Aux Spwy #2 Bottom Width:	none		
Aux Spwy #2 Max Flow:	none		
Aux Spwy #2 Max Hp:	none		
Aux Spwy #2 Erosion Analysis:	none		
-----			
Aux Spwy #3 Label :	none		
Aux Spwy #3 Crest Elev:	none		
Aux Spwy #3 Bottom Width:	none		
Aux Spwy #3 Max Flow:	none		
Aux Spwy #3 Max Hp:	none		
Aux Spwy #3 Erosion Analysis:	none		
*****			

\*\*\*\*\* Overtopping Summary Table 4 \*\*\*\*\*

Dam Breach Analysis Type:	Overtopping		
Dam Headcut Model	Hanson/Robinson		
Initial Low Point in Dam Crest Profile:	613.00 feet		
Maximum Pool Elevation:	614.28 feet @	14.904 hours	
Ending Low Point in Dam Crest Profile:	613.00 feet @	0.000 hours	
Overtopping Duration:	14.499 hours		
Overtopping Initiation:	12.150 hours		
Maximum Flow Over Top if Dam were Intact:	942.68 cfs @	14.904 hours	
Maximum Unit Discharge, lowpoint or breach:	3.465 cfs/ft		
Dam Embankment Slope Protection:	Vegetation		
Surface Cover Failed at:	0.000 hours		
Breach Initiated at:	0.000 hours		
Breach Completed at:	0.000 hours		
Maximum Width of Embankment Breach:	0.00 feet		
Max. Disch. thru Breach and/or Over Dam:	942.677 cfs		
*****			

\*\*\*\*\* Internal Erosion Summary Table 5 \*\*\*\*\*

<<<<< Internal Erosion was not an option for this embankment. >>>>>

\*\*\*\*\*

\*\*\*\*\* Drawdown Summary Table 6 \*\*\*\*\*

<<<<< Drawdown calculation was not an option for this embankment. >>>>>

\*\*\*\*\*

Time (hr)	Stress on Vegetated Embankment Slope (3.00H: 1V)					
	Max Disch (cfs/ft)	Total Stress Value lb/sqft	% Allow (Percent)	Effective Stress Value lb/sqft	Time Intgrl lb/sqft-hr	% Allow (Percent)
12.150	0.00	0.0622	0.5	0.0000	0.0000	0.0
12.231	0.01	0.5472	4.1	0.0002	0.0000	0.0
12.312	0.03	1.1381	8.4	0.0004	0.0000	0.0
12.393	0.06	1.7695	13.1	0.0007	0.0001	0.0
12.474	0.10	2.4003	17.8	0.0009	0.0001	0.0
12.555	0.15	3.0250	22.4	0.0012	0.0002	0.0
12.636	0.24	3.6149	26.8	0.0021	0.0003	0.0
12.717	0.48	4.0877	30.3	0.0061	0.0005	0.0
12.798	0.72	4.4903	33.3	0.0111	0.0010	0.0
12.879	0.95	4.8368	35.8	0.0164	0.0018	0.1
12.960	1.18	5.1412	38.1	0.0219	0.0032	0.2
13.041	1.39	5.4101	40.1	0.0273	0.0050	0.3
13.122	1.60	5.6523	41.9	0.0325	0.0072	0.4
13.203	1.80	5.8703	43.5	0.0375	0.0098	0.5
13.284	1.98	6.0666	44.9	0.0422	0.0128	0.6
13.365	2.16	6.2417	46.2	0.0466	0.0162	0.8
13.446	2.32	6.4014	47.4	0.0507	0.0200	1.0
13.527	2.46	6.5448	48.5	0.0545	0.0241	1.2
13.608	2.60	6.6723	49.4	0.0580	0.0286	1.4
13.689	2.72	6.7864	50.3	0.0611	0.0332	1.7
13.770	2.83	6.8879	51.0	0.0640	0.0382	1.9
13.851	2.93	6.9784	51.7	0.0666	0.0434	2.2
13.932	3.02	7.0573	52.3	0.0688	0.0488	2.5
14.013	3.10	7.1265	52.8	0.0708	0.0543	2.7
14.094	3.17	7.1879	53.2	0.0726	0.0601	3.0
14.175	3.23	7.2406	53.6	0.0741	0.0660	3.3
14.256	3.28	7.2851	54.0	0.0755	0.0720	3.6
14.337	3.33	7.3230	54.2	0.0766	0.0781	3.9
14.418	3.37	7.3555	54.5	0.0775	0.0843	4.3
14.499	3.40	7.3809	54.7	0.0783	0.0906	4.6
14.580	3.42	7.4013	54.8	0.0789	0.0969	4.9
14.661	3.44	7.4163	54.9	0.0794	0.1033	5.2
14.742	3.45	7.4283	55.0	0.0797	0.1097	5.5
14.823	3.46	7.4349	55.1	0.0799	0.1162	5.9
14.904	3.46	7.4378	55.1*	0.0800	0.1227	6.2
14.985	3.46	7.4369	55.1	0.0800	0.1291	6.5
15.066	3.46	7.4322	55.1	0.0798	0.1356	6.8
15.147	3.45	7.4263	55.0	0.0797	0.1421	7.2
15.228	3.44	7.4154	54.9	0.0793	0.1485	7.5
15.309	3.42	7.4035	54.8	0.0790	0.1550	7.8
15.390	3.41	7.3896	54.7	0.0786	0.1614	8.1
15.471	3.39	7.3735	54.6	0.0781	0.1677	8.5
15.552	3.37	7.3557	54.5	0.0776	0.1740	8.8
15.633	3.34	7.3366	54.3	0.0770	0.1803	9.1
15.714	3.32	7.3152	54.2	0.0763	0.1866	9.4
15.795	3.29	7.2928	54.0	0.0757	0.1928	9.7
15.876	3.26	7.2685	53.8	0.0750	0.1989	10.0
15.957	3.24	7.2442	53.7	0.0743	0.2050	10.4
16.038	3.21	7.2188	53.5	0.0735	0.2110	10.7
16.119	3.18	7.1918	53.3	0.0727	0.2169	11.0

Time (hr)	Stress on Vegetated Embankment Slope (3.00H: 1V)					
	Max Disch (cfs/ft)	Total Stress Value lb/sqft	% Allow (Percent)	Effective Stress Value lb/sqft	Time Intgrl lb/sqft-hr	% Allow (Percent)
16.200	3.14	7.1646	53.1	0.0719	0.2228	11.3
16.281	3.11	7.1366	52.9	0.0711	0.2286	11.5
16.362	3.08	7.1078	52.7	0.0703	0.2344	11.8
16.443	3.05	7.0781	52.4	0.0694	0.2401	12.1
16.524	3.01	7.0493	52.2	0.0686	0.2457	12.4
16.605	2.98	7.0175	52.0	0.0677	0.2513	12.7
16.686	2.94	6.9861	51.7	0.0668	0.2567	13.0
16.767	2.91	6.9539	51.5	0.0659	0.2622	13.2
16.848	2.87	6.9211	51.3	0.0649	0.2675	13.5
16.929	2.83	6.8877	51.0	0.0640	0.2728	13.8
17.010	2.80	6.8538	50.8	0.0630	0.2779	14.0
17.091	2.76	6.8196	50.5	0.0621	0.2830	14.3
17.172	2.72	6.7857	50.3	0.0611	0.2881	14.5
17.253	2.68	6.7508	50.0	0.0602	0.2930	14.8
17.334	2.65	6.7157	49.7	0.0592	0.2979	15.0
17.415	2.61	6.6804	49.5	0.0582	0.3027	15.3
17.496	2.57	6.6456	49.2	0.0573	0.3074	15.5
17.577	2.53	6.6109	49.0	0.0563	0.3120	15.8
17.658	2.50	6.5750	48.7	0.0553	0.3166	16.0
17.739	2.46	6.5403	48.4	0.0544	0.3211	16.2
17.820	2.42	6.5039	48.2	0.0534	0.3255	16.4
17.901	2.38	6.4686	47.9	0.0525	0.3298	16.7
17.982	2.35	6.4318	47.6	0.0515	0.3341	16.9
18.063	2.31	6.3961	47.4	0.0506	0.3382	17.1
18.144	2.27	6.3589	47.1	0.0496	0.3423	17.3
18.225	2.24	6.3232	46.8	0.0487	0.3464	17.5
18.306	2.20	6.2874	46.6	0.0478	0.3503	17.7
18.387	2.16	6.2505	46.3	0.0468	0.3542	17.9
18.468	2.13	6.2139	46.0	0.0459	0.3580	18.1
18.549	2.09	6.1769	45.8	0.0450	0.3617	18.3
18.630	2.06	6.1406	45.5	0.0441	0.3653	18.5
18.711	2.02	6.1045	45.2	0.0432	0.3689	18.6
18.792	1.98	6.0665	44.9	0.0422	0.3724	18.8
18.873	1.95	6.0291	44.7	0.0413	0.3758	19.0
18.954	1.91	5.9917	44.4	0.0404	0.3792	19.1
19.035	1.88	5.9533	44.1	0.0395	0.3824	19.3
19.116	1.84	5.9160	43.8	0.0386	0.3856	19.5
19.197	1.81	5.8783	43.5	0.0377	0.3888	19.6
19.278	1.77	5.8406	43.3	0.0368	0.3918	19.8
19.359	1.74	5.8022	43.0	0.0359	0.3948	19.9
19.440	1.70	5.7644	42.7	0.0350	0.3977	20.1
19.521	1.67	5.7262	42.4	0.0341	0.4005	20.2
19.602	1.64	5.6892	42.1	0.0333	0.4033	20.4
19.683	1.60	5.6522	41.9	0.0325	0.4060	20.5
19.764	1.57	5.6134	41.6	0.0316	0.4086	20.6
19.845	1.54	5.5763	41.3	0.0308	0.4112	20.8
19.926	1.50	5.5380	41.0	0.0300	0.4137	20.9
20.007	1.47	5.5006	40.7	0.0292	0.4161	21.0
20.088	1.44	5.4628	40.5	0.0284	0.4185	21.1
20.169	1.41	5.4250	40.2	0.0276	0.4208	21.3



Time (hr)	Stress on Vegetated Embankment Slope (3.00H: 1V)					
	Max Disch (cfs/ft)	Total Stress Value lb/sqft	% Allow (Percent)	Effective Stress Value lb/sqft	Time Intgrl lb/sqft-hr	% Allow (Percent)
20.250	1.38	5.3879	39.9	0.0268	0.4230	21.4
20.331	1.35	5.3500	39.6	0.0260	0.4252	21.5
20.412	1.31	5.3130	39.4	0.0253	0.4273	21.6
20.493	1.29	5.2767	39.1	0.0245	0.4293	21.7
20.574	1.25	5.2387	38.8	0.0238	0.4313	21.8
20.655	1.23	5.2017	38.5	0.0231	0.4332	21.9
20.736	1.20	5.1648	38.3	0.0223	0.4351	22.0
20.817	1.17	5.1281	38.0	0.0216	0.4369	22.1
20.898	1.14	5.0908	37.7	0.0209	0.4387	22.2
20.979	1.11	5.0532	37.4	0.0202	0.4404	22.2
21.060	1.08	5.0152	37.1	0.0196	0.4420	22.3
21.141	1.05	4.9794	36.9	0.0189	0.4436	22.4
21.222	1.03	4.9426	36.6	0.0183	0.4451	22.5
21.303	1.00	4.9061	36.3	0.0176	0.4466	22.6
21.384	0.97	4.8688	36.1	0.0170	0.4480	22.6
21.465	0.95	4.8319	35.8	0.0164	0.4494	22.7
21.546	0.92	4.7939	35.5	0.0157	0.4507	22.8
21.627	0.89	4.7566	35.2	0.0151	0.4520	22.8
21.708	0.87	4.7203	35.0	0.0145	0.4532	22.9
21.789	0.84	4.6813	34.7	0.0139	0.4544	22.9
21.870	0.82	4.6427	34.4	0.0133	0.4555	23.0
21.951	0.79	4.6012	34.1	0.0127	0.4566	23.1
22.032	0.76	4.5627	33.8	0.0121	0.4576	23.1
22.113	0.74	4.5208	33.5	0.0115	0.4586	23.2
22.194	0.71	4.4758	33.2	0.0109	0.4595	23.2
22.275	0.68	4.4338	32.8	0.0103	0.4604	23.3
22.356	0.65	4.3870	32.5	0.0097	0.4613	23.3
22.437	0.62	4.3388	32.1	0.0091	0.4620	23.3
22.518	0.59	4.2842	31.7	0.0084	0.4628	23.4
22.599	0.56	4.2306	31.3	0.0077	0.4635	23.4
22.680	0.53	4.1750	30.9	0.0071	0.4641	23.4
22.761	0.49	4.1155	30.5	0.0064	0.4647	23.5
22.842	0.46	4.0544	30.0	0.0058	0.4652	23.5
22.923	0.42	3.9884	29.5	0.0051	0.4656	23.5
23.004	0.39	3.9190	29.0	0.0045	0.4661	23.5
23.085	0.35	3.8480	28.5	0.0039	0.4664	23.6
23.166	0.32	3.7726	27.9	0.0032	0.4667	23.6
23.247	0.28	3.6925	27.4	0.0027	0.4670	23.6
23.328	0.24	3.6074	26.7	0.0021	0.4672	23.6
23.409	0.20	3.5237	26.1	0.0016	0.4674	23.6
23.490	0.18	3.4272	25.4	0.0013	0.4675	23.6
23.571	0.17	3.3276	24.6	0.0013	0.4676	23.6
23.652	0.16	3.2223	23.9	0.0013	0.4677	23.6
23.733	0.15	3.1210	23.1	0.0012	0.4678	23.6
23.814	0.15	3.0149	22.3	0.0012	0.4679	23.6
23.895	0.14	2.9136	21.6	0.0011	0.4680	23.6
23.976	0.13	2.7993	20.7	0.0011	0.4681	23.6
24.057	0.12	2.6941	20.0	0.0010	0.4682	23.6
24.138	0.11	2.5889	19.2	0.0010	0.4683	23.7
24.219	0.11	2.4827	18.4	0.0010	0.4684	23.7

Stress on Vegetated Embankment Slope (3.00H: 1V)						
Time (hr)	Max	Total	Stress	Effective Stress		
	Disch (cfs/ft)	Value lb/sqft	% Allow (Percent)	Value lb/sqft	Time Intgrl lb/sqft-hr	% Allow (Percent)
24.300	0.10	2.3750	17.6	0.0009	0.4684	23.7
24.381	0.09	2.2706	16.8	0.0009	0.4685	23.7
24.462	0.08	2.1662	16.0	0.0008	0.4686	23.7
24.543	0.08	2.0639	15.3	0.0008	0.4687	23.7
24.624	0.07	1.9605	14.5	0.0008	0.4687	23.7
24.705	0.07	1.8565	13.8	0.0007	0.4688	23.7
24.786	0.06	1.7520	13.0	0.0007	0.4688	23.7
24.867	0.05	1.6530	12.2	0.0006	0.4689	23.7
24.948	0.05	1.5466	11.5	0.0006	0.4690	23.7
25.029	0.04	1.4523	10.8	0.0006	0.4690	23.7
25.110	0.04	1.3556	10.0	0.0005	0.4690	23.7
25.191	0.03	1.2582	9.3	0.0005	0.4691	23.7
25.272	0.03	1.1675	8.6	0.0005	0.4691	23.7
25.353	0.03	1.0759	8.0	0.0004	0.4692	23.7
25.434	0.02	0.9831	7.3	0.0004	0.4692	23.7
25.515	0.02	0.8955	6.6	0.0003	0.4692	23.7
25.596	0.02	0.8064	6.0	0.0003	0.4693	23.7
25.677	0.01	0.7250	5.4	0.0003	0.4693	23.7
25.758	0.01	0.6438	4.8	0.0003	0.4693	23.7
25.839	0.01	0.5627	4.2	0.0002	0.4693	23.7
25.920	0.01	0.4853	3.6	0.0002	0.4693	23.7
26.001	0.01	0.4136	3.1	0.0002	0.4694	23.7
26.082	0.00	0.3408	2.5	0.0001	0.4694	23.7
26.163	0.00	0.2725	2.0	0.0001	0.4694	23.7
26.244	0.00	0.2119	1.6	0.0001	0.4694	23.7
26.325	0.00	0.1491	1.1	0.0001	0.4694	23.7
26.406	0.00	0.0996	0.7	0.0000	0.4694	23.7
26.487	0.00	0.0508	0.4	0.0000	0.4694	23.7
26.568	0.00	0.0174	0.1	0.0000	0.4694	23.7
26.649					0.4694	23.7#

Footnotes: \* -- Maximum Total Stress.  
# -- Maximum Effective Stress.



Hydrograph ID=FBH

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)				
0.000	0.000	1.765	0.000			0.000	1.765	604.10	581.00
0.081	1.440	1.762	0.000			0.000	1.762	604.10	581.00
0.162	2.050	1.759	0.000			0.000	1.759	604.10	581.00
0.243	3.160	1.762	0.000			0.000	1.762	604.10	581.00
0.324	4.270	1.763	0.000			0.000	1.763	604.10	581.00
0.405	6.105	1.766	0.000			0.000	1.766	604.10	581.00
0.486	7.940	1.768	0.000			0.000	1.768	604.10	581.00
0.567	10.715	1.771	0.000			0.000	1.771	604.10	581.00
0.648	13.490	1.779	0.000			0.000	1.779	604.10	581.00
0.729	17.370	1.787	0.000			0.000	1.787	604.10	581.00
0.810	21.250	1.794	0.000			0.000	1.794	604.10	581.00
0.891	26.340	1.807	0.000			0.000	1.807	604.10	581.00
0.972	31.430	1.820	0.000			0.000	1.820	604.10	581.00
1.053	37.760	1.838	0.000			0.000	1.838	604.10	581.00
1.134	44.090	1.861	0.000			0.000	1.861	604.10	581.00
1.215	51.645	1.884	0.000			0.000	1.884	604.10	581.00
1.296	59.200	1.912	0.000			0.000	1.912	604.11	581.00
1.377	67.935	1.944	0.000			0.000	1.944	604.11	581.00
1.458	76.670	1.982	0.000			0.000	1.982	604.11	581.00
1.539	86.485	2.024	0.000			0.000	2.024	604.11	581.00
1.620	96.300	2.071	0.000			0.000	2.071	604.11	581.00
1.701	107.105	2.126	0.000			0.000	2.126	604.11	581.00
1.782	117.910	2.186	0.000			0.000	2.186	604.12	581.00
1.863	129.600	2.255	0.000			0.000	2.255	604.12	581.00
1.944	141.290	2.331	0.000			0.000	2.331	604.12	581.00
2.025	153.740	2.415	0.000			0.000	2.415	604.12	581.00
2.106	166.190	2.506	0.000			0.000	2.506	604.13	581.00
2.187	179.300	2.608	0.000			0.000	2.608	604.13	581.00
2.268	192.410	2.718	0.000			0.000	2.718	604.13	581.00
2.349	206.110	2.836	0.000			0.000	2.836	604.14	581.00
2.430	219.810	2.964	0.000			0.000	2.964	604.14	581.00
2.511	234.050	3.104	0.000			0.000	3.104	604.15	581.00
2.592	248.290	3.256	0.000			0.000	3.256	604.15	581.00
2.673	263.040	3.418	0.000			0.000	3.418	604.16	581.00
2.754	277.790	3.595	0.000			0.000	3.595	604.16	581.00
2.835	293.025	3.784	0.000			0.000	3.784	604.17	581.00
2.916	308.260	3.986	0.000			0.000	3.986	604.17	581.00
2.997	323.950	4.201	0.000			0.000	4.201	604.18	581.00
3.078	339.640	4.434	0.000			0.000	4.434	604.18	581.00
3.159	355.765	4.681	0.000			0.000	4.681	604.19	581.00
3.240	371.890	4.945	0.000			0.000	4.945	604.20	581.00
3.321	388.425	5.224	0.000			0.000	5.224	604.21	581.00
3.402	404.960	5.515	0.000			0.000	5.515	604.21	581.00
3.483	421.865	5.828	0.000			0.000	5.828	604.22	581.00
3.564	438.770	6.159	0.000			0.000	6.159	604.23	581.00
3.645	456.025	6.510	0.000			0.000	6.510	604.24	581.00
3.726	473.280	6.878	0.000			0.000	6.878	604.25	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total Outflow (cfs)	Reservoir Surface El evati on	Tail water El evati on
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)		El evati on (feet)	El evati on (feet)
3. 807	490. 855	7. 267	0. 000			0. 000		7. 267	604. 26	581. 00
3. 888	508. 430	7. 681	0. 000			0. 000		7. 681	604. 27	581. 00
3. 969	526. 290	8. 117	0. 000			0. 000		8. 117	604. 28	581. 00
4. 050	544. 150	8. 576	0. 000			0. 000		8. 576	604. 29	581. 00
4. 131	562. 265	9. 059	0. 000			0. 000		9. 059	604. 30	581. 00
4. 212	580. 380	9. 564	0. 000			0. 000		9. 564	604. 31	581. 00
4. 293	598. 720	10. 096	0. 000			0. 000		10. 096	604. 32	581. 00
4. 374	617. 060	10. 653	0. 000			0. 000		10. 653	604. 33	581. 00
4. 455	635. 605	11. 234	0. 000			0. 000		11. 234	604. 34	581. 00
4. 536	654. 150	11. 843	0. 000			0. 000		11. 843	604. 36	581. 00
4. 617	672. 875	12. 482	0. 000			0. 000		12. 482	604. 37	581. 00
4. 698	691. 600	13. 148	0. 000			0. 000		13. 148	604. 38	581. 00
4. 779	710. 485	13. 845	0. 000			0. 000		13. 845	604. 39	581. 00
4. 860	729. 370	14. 567	0. 000			0. 000		14. 567	604. 41	581. 00
4. 941	748. 395	15. 324	0. 000			0. 000		15. 324	604. 42	581. 00
5. 022	767. 420	16. 109	0. 000			0. 000		16. 109	604. 44	581. 00
5. 103	786. 565	16. 925	0. 000			0. 000		16. 925	604. 45	581. 00
5. 184	805. 710	17. 780	0. 000			0. 000		17. 780	604. 47	581. 00
5. 265	824. 960	18. 666	0. 000			0. 000		18. 666	604. 48	581. 00
5. 346	844. 210	19. 590	0. 000			0. 000		19. 590	604. 50	581. 00
5. 427	863. 610	20. 548	0. 000			0. 000		20. 548	604. 51	581. 00
5. 508	883. 010	21. 531	0. 000			0. 000		21. 531	604. 53	581. 00
5. 589	902. 705	22. 559	0. 000			0. 000		22. 559	604. 55	581. 00
5. 670	922. 400	23. 620	0. 000			0. 000		23. 620	604. 56	581. 00
5. 751	942. 630	24. 718	0. 000			0. 000		24. 718	604. 58	581. 00
5. 832	962. 860	25. 862	0. 000			0. 000		25. 862	604. 60	581. 00
5. 913	983. 960	27. 041	0. 000			0. 000		27. 041	604. 62	581. 00
5. 994	1005. 060	28. 260	0. 000			0. 000		28. 260	604. 64	581. 00
6. 075	1027. 475	29. 520	0. 000			0. 000		29. 520	604. 65	581. 00
6. 156	1049. 890	30. 834	0. 000			0. 000		30. 834	604. 67	581. 00
6. 237	1074. 195	32. 190	0. 000			0. 000		32. 190	604. 69	581. 00
6. 318	1098. 500	33. 587	0. 000			0. 000		33. 587	604. 71	581. 00
6. 399	1125. 200	35. 034	0. 000			0. 000		35. 034	604. 73	581. 00
6. 480	1151. 900	36. 535	0. 000			0. 000		36. 535	604. 75	581. 00
6. 561	1181. 275	38. 093	0. 000			0. 000		38. 093	604. 78	581. 00
6. 642	1210. 650	39. 718	0. 000			0. 000		39. 718	604. 80	581. 00
6. 723	1242. 710	41. 391	0. 000			0. 000		41. 391	604. 82	581. 00
6. 804	1274. 770	43. 138	0. 000			0. 000		43. 138	604. 84	581. 00
6. 885	1309. 335	44. 946	0. 000			0. 000		44. 946	604. 87	581. 00
6. 966	1343. 900	46. 831	0. 000			0. 000		46. 831	604. 89	581. 00
7. 047	1380. 760	48. 787	0. 000			0. 000		48. 787	604. 91	581. 00
7. 128	1417. 620	50. 816	0. 000			0. 000		50. 816	604. 94	581. 00
7. 209	1456. 530	52. 924	0. 000			0. 000		52. 924	604. 97	581. 00
7. 290	1495. 440	55. 116	0. 000			0. 000		55. 116	604. 99	581. 00
7. 371	1536. 245	57. 390	0. 000			0. 000		57. 390	605. 02	581. 00
7. 452	1577. 050	59. 754	0. 000			0. 000		59. 754	605. 05	581. 00
7. 533	1620. 020	62. 209	0. 000			0. 000		62. 209	605. 08	581. 00
7. 614	1662. 990	64. 760	0. 000			0. 000		64. 760	605. 10	581. 00
7. 695	1708. 925	67. 398	0. 000			0. 000		67. 398	605. 13	581. 00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir	Tailwater El evati on (feet)
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Surface El evati on (feet)	
7. 776	1754. 860	70. 138	0. 000			0. 000		70. 138	605. 16	581. 00
7. 857	1804. 900	72. 991	0. 000			0. 000		72. 991	605. 20	581. 00
7. 938	1854. 940	75. 951	0. 000			0. 000		75. 951	605. 23	581. 00
8. 019	1910. 540	79. 035	0. 000			0. 000		79. 035	605. 26	581. 00
8. 100	1966. 140	82. 253	0. 000			0. 000		82. 253	605. 30	581. 00
8. 181	2029. 020	85. 584	0. 000			0. 000		85. 584	605. 33	581. 00
8. 262	2091. 900	89. 060	0. 000			0. 000		89. 060	605. 37	581. 00
8. 343	2163. 995	92. 695	0. 000			0. 000		92. 695	605. 40	581. 00
8. 424	2236. 090	96. 481	0. 000			0. 000		96. 481	605. 44	581. 00
8. 505	2320. 165	100. 454	0. 000			0. 000		100. 454	605. 48	581. 00
8. 586	2404. 240	104. 621	0. 000			0. 000		104. 621	605. 52	581. 00
8. 667	2503. 955	108. 985	0. 000			0. 000		108. 985	605. 56	581. 00
8. 748	2603. 670	113. 590	0. 000			0. 000		113. 590	605. 61	581. 00
8. 829	2728. 330	118. 433	0. 000			0. 000		118. 433	605. 65	581. 00
8. 910	2852. 990	123. 589	0. 000			0. 000		123. 589	605. 70	581. 00
8. 991	3044. 800	128. 423	0. 000			0. 000		128. 423	605. 75	581. 00
9. 072	3236. 610	128. 663	0. 000			0. 000		128. 663	605. 80	581. 00
9. 153	3603. 240	128. 923	0. 000			0. 000		128. 923	605. 86	581. 00
9. 234	3969. 870	129. 211	0. 000			0. 000		129. 211	605. 92	581. 00
9. 315	4570. 725	129. 534	0. 000			0. 000		129. 534	606. 00	581. 00
9. 396	5171. 580	129. 901	0. 000			0. 000		129. 901	606. 08	581. 00
9. 477	5975. 830	130. 320	0. 000			0. 000		130. 320	606. 17	581. 00
9. 558	6780. 080	130. 795	0. 000			0. 000		130. 795	606. 28	581. 00
9. 639	7795. 775	131. 334	0. 000			0. 000		131. 334	606. 40	581. 00
9. 720	8811. 470	131. 941	0. 000			0. 000		131. 941	606. 54	581. 00
9. 801	10051. 540	132. 623	0. 000			0. 000		132. 623	606. 70	581. 00
9. 882	11291. 610	133. 385	0. 000			0. 000		133. 385	606. 87	581. 00
9. 963	12650. 500	134. 225	0. 000			0. 000		134. 225	607. 07	581. 00
10. 044	14009. 390	135. 144	0. 000			0. 000		135. 144	607. 28	581. 00
10. 125	15243. 210	136. 134	0. 000			0. 000		136. 134	607. 51	581. 00
10. 206	16477. 030	137. 186	0. 000			0. 000		137. 186	607. 76	581. 00
10. 287	17410. 090	138. 284	0. 000			0. 000		138. 284	608. 02	581. 00
10. 368	18343. 150	139. 418	0. 000			0. 000		139. 418	608. 29	581. 00
10. 449	18926. 575	140. 573	0. 000			0. 000		140. 573	608. 57	581. 00
10. 530	19510. 000	141. 736	0. 000			0. 000		141. 736	608. 86	581. 00
10. 611	19759. 475	142. 898	1. 845			0. 000		144. 743	609. 14	581. 00
10. 692	20008. 950	144. 046	5. 543			0. 000		149. 589	609. 43	581. 00
10. 773	19985. 610	145. 174	12. 643			0. 000		157. 817	609. 71	581. 00
10. 854	19962. 270	146. 275	48. 307			0. 000		194. 582	609. 99	581. 00
10. 935	19668. 330	147. 340	95. 218			0. 000		242. 558	610. 26	581. 00
11. 016	19374. 390	148. 366	149. 303			0. 000		297. 669	610. 52	581. 00
11. 097	18896. 340	149. 348	209. 378			0. 000		358. 727	610. 77	581. 00
11. 178	18418. 290	150. 284	271. 824			0. 000		422. 109	611. 01	581. 00
11. 259	17813. 365	151. 173	335. 344			0. 000		486. 517	611. 24	581. 00
11. 340	17208. 440	152. 014	401. 580			0. 000		553. 594	611. 46	581. 00
11. 421	16464. 420	152. 806	465. 383			0. 000		618. 189	611. 67	581. 00
11. 502	15720. 400	153. 547	534. 355			0. 000		687. 902	611. 87	581. 00
11. 583	14883. 610	154. 238	599. 221			0. 000		753. 459	612. 05	581. 00
11. 664	14046. 820	154. 878	662. 097			0. 000		816. 975	612. 22	581. 00



Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	El evati on (feet)	El evati on (feet)
11. 745	13261. 165	155. 470	722. 659			0. 000		878. 129	612. 38	581. 00
11. 826	12475. 510	156. 017	780. 651			0. 000		936. 668	612. 53	581. 00
11. 907	11820. 140	156. 523	836. 091			0. 000		992. 613	612. 67	581. 00
11. 988	11164. 770	156. 993	888. 864			0. 000		1045. 857	612. 79	581. 00
12. 069	10605. 080	157. 430	939. 622			0. 000		1097. 052	612. 91	581. 00
12. 150	10045. 390	157. 836	987. 365			0. 001		1145. 202	613. 02	581. 00
12. 231	9558. 805	158. 214	1031. 212			0. 169		1189. 595	613. 13	581. 00
12. 312	9072. 220	158. 566	1077. 700			1. 011		1237. 277	613. 22	581. 00
12. 393	8654. 885	158. 895	1119. 433			2. 961		1281. 288	613. 31	581. 00
12. 474	8237. 550	159. 202	1159. 072			6. 248		1324. 522	613. 40	581. 00
12. 555	7867. 895	159. 489	1196. 628			11. 009		1367. 126	613. 48	581. 00
12. 636	7498. 240	159. 756	1232. 187			21. 122		1413. 065	613. 55	581. 00
12. 717	7160. 450	160. 005	1265. 730			46. 747		1472. 482	613. 62	581. 00
12. 798	6822. 660	160. 236	1297. 235			78. 126		1535. 597	613. 68	581. 00
12. 879	6524. 565	160. 451	1326. 756			114. 010		1601. 216	613. 74	581. 00
12. 960	6226. 470	160. 649	1352. 078			153. 574		1666. 301	613. 80	581. 00
13. 041	5969. 935	160. 832	1378. 606			195. 667		1735. 105	613. 85	581. 00
13. 122	5713. 400	161. 002	1403. 358			240. 009		1804. 368	613. 90	581. 00
13. 203	5486. 540	161. 157	1426. 266			285. 564		1872. 987	613. 94	581. 00
13. 284	5259. 680	161. 301	1447. 017			331. 584		1939. 902	613. 98	581. 00
13. 365	5057. 840	161. 432	1466. 007			380. 580		2008. 020	614. 02	581. 00
13. 446	4856. 000	161. 551	1483. 406			432. 317		2077. 274	614. 05	581. 00
13. 527	4676. 940	161. 660	1499. 310			490. 147		2151. 116	614. 08	581. 00
13. 608	4497. 880	161. 758	1513. 743			545. 243		2220. 744	614. 11	581. 00
13. 689	4339. 200	161. 847	1526. 787			597. 706		2286. 340	614. 13	581. 00
13. 770	4180. 520	161. 926	1538. 535			646. 028		2346. 490	614. 15	581. 00
13. 851	4036. 795	161. 997	1548. 986			691. 465		2402. 448	614. 17	581. 00
13. 932	3893. 070	162. 060	1556. 040			731. 705		2449. 804	614. 19	581. 00
14. 013	3766. 090	162. 115	1564. 378			768. 474		2494. 966	614. 21	581. 00
14. 094	3639. 110	162. 163	1571. 678			801. 267		2535. 108	614. 22	581. 00
14. 175	3526. 655	162. 205	1578. 027			830. 216		2570. 447	614. 23	581. 00
14. 256	3414. 200	162. 240	1583. 460			855. 178		2600. 878	614. 24	581. 00
14. 337	3313. 155	162. 271	1588. 110			876. 958		2627. 339	614. 25	581. 00
14. 418	3212. 110	162. 296	1592. 007			895. 419		2649. 723	614. 26	581. 00
14. 499	3122. 070	162. 317	1594. 867			909. 949		2667. 133	614. 26	581. 00
14. 580	3032. 030	162. 333	1595. 676			921. 448		2679. 457	614. 27	581. 00
14. 661	2951. 660	162. 346	1599. 891			930. 881		2693. 118	614. 27	581. 00
14. 742	2871. 290	162. 354	1601. 204			937. 303		2700. 861	614. 27	581. 00
14. 823	2798. 190	162. 360	1602. 011			940. 930		2705. 300	614. 27	581. 00
14. 904	2725. 090	162. 362	1602. 377			942. 677		2707. 417	614. 28	581. 00
14. 985	2659. 530	162. 361	1602. 260			942. 173		2706. 794	614. 28	581. 00
15. 066	2593. 970	162. 358	1601. 750			939. 831		2703. 939	614. 27	581. 00
15. 147	2534. 950	162. 353	1600. 934			935. 908		2699. 195	614. 27	581. 00
15. 228	2475. 930	162. 345	1599. 751			930. 082		2692. 177	614. 27	581. 00
15. 309	2423. 545	162. 335	1595. 772			922. 803		2680. 910	614. 27	581. 00
15. 390	2371. 160	162. 324	1595. 226			915. 414		2672. 964	614. 26	581. 00
15. 471	2323. 585	162. 311	1594. 299			905. 561		2662. 171	614. 26	581. 00
15. 552	2276. 010	162. 297	1592. 114			895. 717		2650. 128	614. 26	581. 00
15. 633	2232. 415	162. 281	1589. 709			884. 064		2636. 054	614. 25	581. 00

Time (hrs)	Inflow (cfs)	Hydrograph Routing					Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)	OverTop Outflow (cfs)				
15. 714	2188. 820	162. 264	1587. 097			872. 133		2621. 494	614. 25	581. 00
15. 795	2150. 695	162. 246	1584. 393			859. 496		2606. 135	614. 24	581. 00
15. 876	2112. 570	162. 227	1581. 513			846. 176		2589. 916	614. 24	581. 00
15. 957	2077. 895	162. 208	1578. 509			832. 426		2573. 143	614. 23	581. 00
16. 038	2043. 220	162. 187	1575. 400			818. 172		2555. 759	614. 23	581. 00
16. 119	2010. 195	162. 166	1572. 173			803. 509		2537. 847	614. 22	581. 00
16. 200	1977. 170	162. 145	1568. 911			788. 728		2519. 784	614. 21	581. 00
16. 281	1945. 465	162. 122	1565. 502			773. 511		2501. 134	614. 21	581. 00
16. 362	1913. 760	162. 099	1562. 060			758. 369		2482. 528	614. 20	581. 00
16. 443	1883. 100	162. 076	1558. 563			742. 898		2463. 538	614. 20	581. 00
16. 524	1852. 440	162. 053	1554. 990			727. 592		2444. 635	614. 19	581. 00
16. 605	1822. 685	162. 028	1553. 633			711. 233		2426. 895	614. 18	581. 00
16. 686	1792. 930	162. 003	1549. 940			695. 034		2406. 978	614. 17	581. 00
16. 767	1763. 980	161. 978	1546. 175			678. 914		2387. 067	614. 17	581. 00
16. 848	1735. 030	161. 952	1542. 348			662. 573		2366. 873	614. 16	581. 00
16. 929	1706. 985	161. 926	1538. 493			645. 826		2346. 245	614. 15	581. 00
17. 010	1678. 940	161. 900	1534. 608			629. 608		2326. 116	614. 15	581. 00
17. 091	1652. 780	161. 873	1530. 667			613. 148		2305. 689	614. 14	581. 00
17. 172	1626. 620	161. 847	1526. 732			597. 545		2286. 124	614. 13	581. 00
17. 253	1604. 260	161. 819	1522. 729			581. 074		2265. 622	614. 12	581. 00
17. 334	1581. 900	161. 792	1518. 713			564. 860		2245. 365	614. 12	581. 00
17. 415	1561. 710	161. 765	1514. 696			549. 282		2225. 743	614. 11	581. 00
17. 496	1541. 520	161. 738	1510. 728			533. 695		2206. 161	614. 10	581. 00
17. 577	1522. 035	161. 711	1506. 749			518. 347		2186. 807	614. 09	581. 00
17. 658	1502. 550	161. 684	1502. 786			503. 179		2167. 649	614. 09	581. 00
17. 739	1483. 700	161. 657	1498. 797			488. 168		2148. 621	614. 08	581. 00
17. 820	1464. 850	161. 629	1494. 766			473. 272		2129. 668	614. 07	581. 00
17. 901	1446. 590	161. 602	1490. 780			458. 766		2111. 148	614. 06	581. 00
17. 982	1428. 330	161. 574	1486. 773			444. 012		2092. 360	614. 06	581. 00
18. 063	1410. 740	161. 547	1482. 813			429. 626		2073. 985	614. 05	581. 00
18. 144	1393. 150	161. 520	1478. 800			415. 964		2056. 283	614. 04	581. 00
18. 225	1376. 365	161. 493	1474. 870			401. 939		2038. 302	614. 03	581. 00
18. 306	1359. 580	161. 465	1470. 901			391. 837		2024. 203	614. 02	581. 00
18. 387	1343. 740	161. 438	1466. 946			382. 985		2011. 370	614. 02	581. 00
18. 468	1327. 900	161. 411	1462. 969			371. 167		1995. 547	614. 01	581. 00
18. 549	1313. 115	161. 383	1458. 973			364. 904		1985. 260	614. 00	581. 00
18. 630	1298. 330	161. 356	1454. 999			350. 217		1966. 572	613. 99	581. 00
18. 711	1284. 660	161. 328	1451. 042			340. 985		1953. 356	613. 99	581. 00
18. 792	1270. 990	161. 301	1447. 060			331. 603		1939. 965	613. 98	581. 00
18. 873	1258. 450	161. 273	1443. 038			322. 353		1926. 665	613. 97	581. 00
18. 954	1245. 910	161. 245	1439. 059			313. 386		1913. 690	613. 96	581. 00
19. 035	1234. 485	161. 218	1435. 169			304. 418		1900. 805	613. 96	581. 00
19. 116	1223. 060	161. 190	1431. 110			295. 813		1888. 113	613. 95	581. 00
19. 197	1212. 695	161. 163	1427. 092			287. 338		1875. 594	613. 94	581. 00
19. 278	1202. 330	161. 136	1423. 046			278. 995		1863. 177	613. 93	581. 00
19. 359	1192. 940	161. 108	1419. 027			270. 729		1850. 864	613. 93	581. 00
19. 440	1183. 550	161. 081	1415. 038			262. 727		1838. 846	613. 92	581. 00
19. 521	1175. 050	161. 054	1411. 094			254. 865		1827. 013	613. 91	581. 00
19. 602	1166. 550	161. 027	1407. 149			247. 296		1815. 472	613. 90	581. 00

Time (hrs)	Inflow (cfs)	Hydrograph Routing					Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)	OverTop Outflow (cfs)				
19.683	1158.840	161.001	1403.215			239.884		1804.100	613.90	581.00
19.764	1151.130	160.974	1399.252			232.427		1792.653	613.89	581.00
19.845	1144.085	160.947	1395.336			225.330		1781.613	613.88	581.00
19.926	1137.040	160.921	1391.510			218.226		1770.657	613.87	581.00
20.007	1130.545	160.894	1387.660			211.427		1759.981	613.87	581.00
20.088	1124.050	160.868	1383.865			204.754		1749.487	613.86	581.00
20.169	1118.025	160.842	1380.074			198.221		1739.138	613.85	581.00
20.250	1112.000	160.817	1376.364			191.935		1729.116	613.84	581.00
20.331	1106.360	160.791	1372.632			185.680		1719.104	613.84	581.00
20.412	1100.720	160.765	1368.906			179.651		1709.322	613.83	581.00
20.493	1095.410	160.740	1365.235			173.854		1699.830	613.82	581.00
20.574	1090.100	160.715	1361.578			168.009		1690.302	613.82	581.00
20.655	1085.070	160.690	1357.964			162.409		1681.064	613.81	581.00
20.736	1080.040	160.665	1354.359			156.980		1672.004	613.80	581.00
20.817	1075.255	160.640	1350.787			151.668		1663.096	613.79	581.00
20.898	1070.470	160.616	1347.266			146.465		1654.346	613.79	581.00
20.979	1065.890	160.591	1346.328			141.314		1648.233	613.78	581.00
21.060	1061.310	160.567	1342.933			136.281		1639.781	613.77	581.00
21.141	1056.900	160.543	1339.603			131.557		1631.704	613.77	581.00
21.222	1052.490	160.519	1336.239			126.860		1623.618	613.76	581.00
21.303	1047.850	160.495	1332.910			122.304		1615.709	613.75	581.00
21.384	1043.210	160.471	1329.625			117.802		1607.898	613.75	581.00
21.465	1037.140	160.448	1326.385			113.451		1600.284	613.74	581.00
21.546	1031.070	160.424	1323.097			109.098		1592.620	613.74	581.00
21.627	1022.380	160.401	1319.855			104.917		1585.173	613.73	581.00
21.708	1013.690	160.377	1316.606			100.936		1577.919	613.72	581.00
21.789	1001.560	160.353	1313.310			96.805		1570.468	613.72	581.00
21.870	989.430	160.329	1309.991			92.819		1563.139	613.71	581.00
21.951	972.675	160.305	1306.641			88.696		1555.642	613.70	581.00
22.032	955.920	160.280	1303.231			84.894		1548.406	613.70	581.00
22.113	933.270	160.255	1299.778			80.942		1540.975	613.69	581.00
22.194	910.620	160.229	1296.241			76.870		1533.340	613.68	581.00
22.275	881.780	160.203	1292.602			73.104		1525.908	613.67	581.00
22.356	852.940	160.175	1288.801			69.088		1518.064	613.67	581.00
22.437	819.265	160.146	1284.893			65.103		1510.142	613.66	581.00
22.518	785.590	160.116	1280.844			60.832		1501.793	613.65	581.00
22.599	748.890	160.086	1276.679			56.773		1493.537	613.64	581.00
22.680	712.190	160.054	1272.353			52.727		1485.133	613.63	581.00
22.761	674.250	160.021	1267.830			48.604		1476.455	613.62	581.00
22.842	636.310	159.986	1263.142			44.560		1467.687	613.61	581.00
22.923	598.550	159.950	1258.329			40.445		1458.725	613.60	581.00
23.004	560.790	159.914	1253.347			36.366		1449.626	613.59	581.00
23.085	524.290	159.875	1248.213			32.419		1440.508	613.58	581.00
23.166	487.790	159.836	1242.873			28.497		1431.205	613.57	581.00
23.247	453.815	159.795	1237.422			24.621		1421.838	613.56	581.00
23.328	419.840	159.753	1231.843			20.809		1412.405	613.55	581.00
23.409	388.725	159.711	1226.176			17.313		1403.200	613.54	581.00
23.490	357.610	159.667	1220.358			14.962		1394.987	613.53	581.00
23.571	329.815	159.623	1214.457			13.911		1387.991	613.51	581.00



Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)				
23.652	302.020	159.578	1208.421			12.863	1380.862	613.50	581.00
23.733	278.235	159.532	1202.308			11.886	1373.726	613.49	581.00
23.814	254.450	159.484	1196.066			10.921	1366.472	613.48	581.00
23.895	234.860	159.437	1189.771			10.031	1359.239	613.46	581.00
23.976	215.270	159.388	1183.430			9.114	1351.932	613.45	581.00
24.057	199.005	159.339	1177.024			8.294	1344.657	613.44	581.00
24.138	182.740	159.291	1170.619			7.521	1337.430	613.42	581.00
24.219	168.960	159.241	1164.166			6.788	1330.195	613.41	581.00
24.300	155.180	159.191	1157.683			6.093	1322.968	613.39	581.00
24.381	143.510	159.141	1151.183			5.456	1315.780	613.38	581.00
24.462	131.840	159.091	1142.129			4.861	1306.081	613.37	581.00
24.543	121.900	159.040	1135.578			4.314	1298.932	613.35	581.00
24.624	111.960	158.990	1131.580			3.804	1294.373	613.34	581.00
24.705	103.420	158.939	1125.034			3.330	1287.303	613.33	581.00
24.786	94.880	158.887	1118.476			2.893	1280.257	613.31	581.00
24.867	87.595	158.836	1111.932			2.507	1273.276	613.30	581.00
24.948	80.310	158.785	1105.370			2.137	1266.292	613.28	581.00
25.029	74.175	158.734	1098.875			1.829	1259.438	613.27	581.00
25.110	68.040	158.682	1092.369			1.545	1252.596	613.25	581.00
25.191	62.840	158.631	1085.868			1.289	1245.788	613.24	581.00
25.272	57.640	158.580	1079.380			1.072	1239.031	613.23	581.00
25.353	53.195	158.528	1072.943			0.877	1232.349	613.21	581.00
25.434	48.750	158.477	1066.515			0.705	1225.697	613.20	581.00
25.515	44.975	158.426	1056.732			0.561	1215.719	613.18	581.00
25.596	41.200	158.375	1050.644			0.436	1209.455	613.17	581.00
25.677	37.995	158.324	1044.924			0.335	1203.583	613.16	581.00
25.758	34.790	158.274	1038.604			0.251	1197.128	613.14	581.00
25.839	32.070	158.223	1032.346			0.181	1190.750	613.13	581.00
25.920	29.350	158.173	1026.114			0.126	1184.413	613.12	581.00
26.001	27.035	158.122	1019.904			0.085	1178.111	613.10	581.00
26.082	24.720	158.072	1013.709			0.053	1171.834	613.09	581.00
26.163	22.780	158.021	1009.898			0.031	1167.951	613.07	581.00
26.244	20.840	157.971	1003.971			0.017	1161.959	613.06	581.00
26.325	20.435	157.921	997.976			0.007	1155.904	613.05	581.00
26.406	20.030	157.872	992.000			0.003	1149.874	613.03	581.00
26.487	20.030	157.822	985.770			0.000	1143.593	613.02	581.00
26.568	20.030	157.773	979.961			0.000	1137.734	613.01	581.00
26.649	20.030	157.724	974.143			0.000	1131.867	612.99	581.00
26.730	20.030	157.675	968.383			0.000	1126.058	612.98	581.00
26.811	20.030	157.626	962.670			0.000	1120.296	612.97	581.00
26.892	20.030	157.577	956.939			0.000	1114.517	612.95	581.00
26.973	20.030	157.529	951.260			0.000	1108.789	612.94	581.00
27.054	20.030	157.481	945.617			0.000	1103.098	612.93	581.00
27.135	20.030	157.433	940.054			0.000	1097.487	612.91	581.00
27.216	20.030	157.386	934.529			0.000	1091.915	612.90	581.00
27.297	20.030	157.338	929.000			0.000	1086.339	612.89	581.00
27.378	20.030	157.291	923.527			0.000	1080.819	612.88	581.00
27.459	20.030	157.244	918.047			0.000	1075.291	612.86	581.00
27.540	20.030	157.197	912.632			0.000	1069.830	612.85	581.00



Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)				
27.621	20.030	157.151	907.242			0.000	1064.393	612.84	581.00
27.702	20.030	157.104	901.896			0.000	1059.000	612.82	581.00
27.783	20.030	157.058	896.559			0.000	1053.617	612.81	581.00
27.864	20.030	157.012	891.103			0.000	1048.114	612.80	581.00
27.945	20.030	156.966	885.621			0.000	1042.587	612.79	581.00
28.026	20.030	156.920	880.170			0.000	1037.090	612.77	581.00
28.107	20.030	156.875	874.810			0.000	1031.685	612.76	581.00
28.188	20.030	156.829	869.443			0.000	1026.272	612.75	581.00
28.269	20.030	156.785	864.151			0.000	1020.936	612.74	581.00
28.350	20.030	156.740	858.878			0.000	1015.618	612.73	581.00
28.431	20.030	156.695	853.645			0.000	1010.340	612.71	581.00
28.512	20.030	156.651	848.429			0.000	1005.080	612.70	581.00
28.593	20.030	156.607	845.453			0.000	1002.060	612.69	581.00
28.674	20.030	156.563	840.515			0.000	997.078	612.68	581.00
28.755	20.030	156.519	835.620			0.000	992.139	612.67	581.00
28.836	20.030	156.475	830.747			0.000	987.222	612.65	581.00
28.917	20.030	156.431	825.902			0.000	982.333	612.64	581.00
28.998	20.030	156.388	821.113			0.000	977.501	612.63	581.00
29.079	20.030	156.345	816.372			0.000	972.717	612.62	581.00
29.160	20.030	156.302	811.675			0.000	967.977	612.61	581.00
29.241	20.030	156.259	806.987			0.000	963.246	612.60	581.00
29.322	20.030	156.217	802.343			0.000	958.560	612.58	581.00
29.403	20.030	156.174	797.736			0.000	953.910	612.57	581.00
29.484	20.030	156.132	793.134			0.000	949.266	612.56	581.00
29.565	20.030	156.090	788.544			0.000	944.634	612.55	581.00
29.646	20.030	156.048	783.980			0.000	940.028	612.54	581.00
29.727	20.030	156.006	779.507			0.000	935.513	612.53	581.00
29.808	20.030	155.965	775.025			0.000	930.990	612.52	581.00
29.889	20.030	155.923	770.565			0.000	926.488	612.50	581.00
29.970	20.030	155.882	766.151			0.000	922.032	612.49	581.00
30.051	20.030	155.841	761.759			0.000	917.600	612.48	581.00
30.132	20.030	155.800	757.384			0.000	913.184	612.47	581.00
30.213	20.030	155.759	753.051			0.000	908.810	612.46	581.00
30.294	20.030	155.718	748.738			0.000	904.456	612.45	581.00
30.375	20.030	155.678	744.507			0.000	900.185	612.44	581.00
30.456	20.030	155.638	740.248			0.000	895.885	612.43	581.00
30.537	20.030	155.598	736.028			0.000	891.626	612.42	581.00
30.618	20.030	155.558	731.847			0.000	887.405	612.41	581.00
30.699	20.030	155.518	727.693			0.000	883.211	612.40	581.00
30.780	20.030	155.479	723.582			0.000	879.061	612.39	581.00
30.861	20.030	155.439	716.803			0.000	872.242	612.37	581.00
30.942	20.030	155.400	712.709			0.000	868.109	612.36	581.00
31.023	20.030	155.361	711.349			0.000	866.710	612.35	581.00
31.104	20.030	155.322	707.331			0.000	862.654	612.34	581.00
31.185	20.030	155.283	703.339			0.000	858.622	612.33	581.00
31.266	20.030	155.245	699.377			0.000	854.622	612.32	581.00
31.347	20.030	155.207	695.439			0.000	850.645	612.31	581.00
31.428	20.030	155.168	691.536			0.000	846.704	612.30	581.00
31.509	20.030	155.130	687.627			0.000	842.757	612.29	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Surface El evati on (feet)	El evati on (feet)
31.590	20.030	155.092	683.779			0.000		838.871	612.28	581.00
31.671	20.030	155.055	679.939			0.000		834.994	612.27	581.00
31.752	20.030	155.017	676.108			0.000		831.125	612.26	581.00
31.833	20.030	154.979	672.328			0.000		827.308	612.25	581.00
31.914	20.030	154.942	668.567			0.000		823.509	612.24	581.00
31.995	20.030	154.905	664.829			0.000		819.734	612.23	581.00
32.076	20.030	154.868	661.120			0.000		815.988	612.22	581.00
32.157	20.030	154.831	657.433			0.000		812.264	612.21	581.00
32.238	20.030	154.795	653.548			0.000		808.343	612.20	581.00
32.319	20.030	154.758	650.040			0.000		804.798	612.19	581.00
32.400	20.030	154.721	646.461			0.000		801.182	612.18	581.00
32.481	20.030	154.685	642.853			0.000		797.538	612.17	581.00
32.562	20.030	154.649	639.259			0.000		793.908	612.16	581.00
32.643	20.030	154.612	635.699			0.000		790.311	612.15	581.00
32.724	20.030	154.576	632.155			0.000		786.731	612.14	581.00
32.805	20.030	154.540	628.615			0.000		783.155	612.13	581.00
32.886	20.030	154.505	625.131			0.000		779.636	612.12	581.00
32.967	20.030	154.469	621.663			0.000		776.132	612.12	581.00
33.048	20.030	154.434	618.210			0.000		772.644	612.11	581.00
33.129	20.030	154.399	614.769			0.000		769.168	612.10	581.00
33.210	20.030	154.364	611.386			0.000		765.749	612.09	581.00
33.291	20.030	154.329	607.966			0.000		762.295	612.08	581.00
33.372	20.030	154.294	604.595			0.000		758.888	612.07	581.00
33.453	20.030	154.259	601.250			0.000		755.509	612.06	581.00
33.534	20.030	154.224	597.908			0.000		752.132	612.05	581.00
33.615	20.030	154.190	594.592			0.000		748.781	612.04	581.00
33.696	20.030	154.156	591.329			0.000		745.485	612.03	581.00
33.777	20.030	154.121	588.058			0.000		742.179	612.02	581.00
33.858	20.030	154.087	584.796			0.000		738.883	612.01	581.00
33.939	20.030	154.054	581.596			0.000		735.650	612.00	581.00
34.020	20.030	154.020	578.388			0.000		732.408	612.00	581.00
34.101	20.030	153.986	574.739			0.000		728.724	611.99	581.00
34.182	20.030	153.953	570.672			0.000		724.625	611.98	581.00
34.263	20.030	153.919	568.913			0.000		722.833	611.97	581.00
34.344	20.030	153.886	565.776			0.000		719.662	611.96	581.00
34.425	20.030	153.853	562.678			0.000		716.531	611.95	581.00
34.506	20.030	153.820	559.570			0.000		713.390	611.94	581.00
34.587	20.030	153.787	556.490			0.000		710.276	611.93	581.00
34.668	20.030	153.754	553.467			0.000		707.222	611.92	581.00
34.749	20.030	153.721	550.412			0.000		704.133	611.92	581.00
34.830	20.030	153.689	547.410			0.000		701.099	611.91	581.00
34.911	20.030	153.657	544.437			0.000		698.094	611.90	581.00
34.992	20.030	153.625	541.454			0.000		695.079	611.89	581.00
35.073	20.030	153.592	538.492			0.000		692.085	611.88	581.00
35.154	20.030	153.560	535.541			0.000		689.101	611.87	581.00
35.235	20.030	153.528	532.607			0.000		686.135	611.86	581.00
35.316	20.030	153.497	529.715			0.000		683.212	611.86	581.00
35.397	20.030	153.465	526.826			0.000		680.291	611.85	581.00
35.478	20.030	153.434	523.973			0.000		677.407	611.84	581.00

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)				
35.559	20.030	153.403	521.145			0.000	674.548	611.83	581.00
35.640	20.030	153.372	518.329			0.000	671.700	611.82	581.00
35.721	20.030	153.341	515.538			0.000	668.879	611.81	581.00
35.802	20.030	153.310	512.757			0.000	666.067	611.81	581.00
35.883	20.030	153.279	509.977			0.000	663.256	611.80	581.00
35.964	20.030	153.248	507.101			0.000	660.349	611.79	581.00
36.045	20.030	153.217	504.221			0.000	657.439	611.78	581.00
36.126	20.030	153.187	501.384			0.000	654.570	611.77	581.00
36.207	20.030	153.156	498.578			0.000	651.734	611.77	581.00
36.288	20.030	153.126	495.766			0.000	648.891	611.76	581.00
36.369	20.030	153.096	492.986			0.000	646.082	611.75	581.00
36.450	20.030	153.066	490.237			0.000	643.303	611.74	581.00
36.531	20.030	153.036	487.472			0.000	640.507	611.73	581.00
36.612	20.030	153.006	484.727			0.000	637.733	611.73	581.00
36.693	20.030	152.976	482.023			0.000	634.999	611.72	581.00
36.774	20.030	152.947	477.668			0.000	630.615	611.71	581.00
36.855	20.030	152.917	475.070			0.000	627.987	611.70	581.00
36.936	20.030	152.888	472.492			0.000	625.380	611.69	581.00
37.017	20.030	152.858	469.945			0.000	622.804	611.69	581.00
37.098	20.030	152.829	467.384			0.000	620.213	611.68	581.00
37.179	20.030	152.800	464.850			0.000	617.650	611.67	581.00
37.260	20.030	152.771	462.335			0.000	615.106	611.66	581.00
37.341	20.030	152.742	459.845			0.000	612.588	611.66	581.00
37.422	20.030	152.714	457.364			0.000	610.078	611.65	581.00
37.503	20.030	152.685	454.890			0.000	607.575	611.64	581.00
37.584	20.030	152.656	452.432			0.000	605.088	611.63	581.00
37.665	20.030	152.628	449.993			0.000	602.621	611.63	581.00
37.746	20.030	152.600	447.560			0.000	600.160	611.62	581.00
37.827	20.030	152.572	444.997			0.000	597.569	611.61	581.00
37.908	20.030	152.544	444.518			0.000	597.062	611.60	581.00
37.989	20.030	152.516	442.689			0.000	595.205	611.60	581.00
38.070	20.030	152.488	441.457			0.000	593.946	611.59	581.00
38.151	20.030	152.460	439.081			0.000	591.541	611.58	581.00
38.232	20.030	152.432	436.752			0.000	589.184	611.57	581.00
38.313	20.030	152.405	434.447			0.000	586.852	611.57	581.00
38.394	20.030	152.378	432.158			0.000	584.536	611.56	581.00
38.475	20.030	152.350	429.854			0.000	582.204	611.55	581.00
38.556	20.030	152.323	427.567			0.000	579.890	611.55	581.00
38.637	20.030	152.296	425.325			0.000	577.620	611.54	581.00
38.718	20.030	152.268	423.048			0.000	575.316	611.53	581.00
38.799	20.030	152.241	420.806			0.000	573.048	611.52	581.00
38.880	20.030	152.215	418.604			0.000	570.819	611.52	581.00
38.961	20.030	152.188	416.386			0.000	568.574	611.51	581.00
39.042	20.030	152.161	414.202			0.000	566.363	611.50	581.00
39.123	20.030	152.135	412.002			0.000	564.137	611.50	581.00
39.204	20.030	152.108	409.793			0.000	561.901	611.49	581.00
39.285	20.030	152.081	407.716			0.000	559.797	611.48	581.00
39.366	20.030	152.055	406.819			0.000	558.874	611.48	581.00
39.447	20.030	152.029	402.299			0.000	554.328	611.47	581.00



Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)				
39.528	20.030	152.002	398.995			0.000	550.998	611.46	581.00
39.609	20.030	151.976	397.386			0.000	549.362	611.45	581.00
39.690	20.030	151.950	396.960			0.000	548.910	611.45	581.00
39.771	20.030	151.924	394.841			0.000	546.765	611.44	581.00
39.852	20.030	151.898	392.728			0.000	544.627	611.43	581.00
39.933	20.030	151.872	390.639			0.000	542.511	611.43	581.00
40.014	20.030	151.847	388.822			0.000	540.669	611.42	581.00
40.095	20.030	151.821	386.761			0.000	538.582	611.41	581.00
40.176	20.030	151.795	384.734			0.000	536.529	611.41	581.00
40.257	20.030	151.770	382.705			0.000	534.475	611.40	581.00
40.338	20.030	151.745	380.708			0.000	532.452	611.39	581.00
40.419	20.030	151.719	378.677			0.000	530.397	611.39	581.00
40.500	20.030	151.694	376.692			0.000	528.386	611.38	581.00
40.581	20.030	151.669	374.717			0.000	526.386	611.37	581.00
40.662	20.030	151.644	372.731			0.000	524.375	611.37	581.00
40.743	20.030	151.619	370.766			0.000	522.385	611.36	581.00
40.824	20.030	151.594	368.815			0.000	520.409	611.35	581.00
40.905	20.030	151.569	366.884			0.000	518.454	611.35	581.00
40.986	20.030	151.545	364.946			0.000	516.490	611.34	581.00
41.067	20.030	151.520	363.029			0.000	514.549	611.34	581.00
41.148	20.030	151.495	361.124			0.000	512.619	611.33	581.00
41.229	20.030	151.471	359.233			0.000	510.704	611.32	581.00
41.310	20.030	151.447	357.333			0.000	508.780	611.32	581.00
41.391	20.030	151.422	355.457			0.000	506.880	611.31	581.00
41.472	20.030	151.398	353.594			0.000	504.993	611.30	581.00
41.553	20.030	151.374	351.735			0.000	503.109	611.30	581.00
41.634	20.030	151.350	349.649			0.000	500.999	611.29	581.00
41.715	20.030	151.326	347.905			0.000	499.231	611.28	581.00
41.796	20.030	151.302	346.164			0.000	497.467	611.28	581.00
41.877	20.030	151.278	344.393			0.000	495.672	611.27	581.00
41.958	20.030	151.255	341.242			0.000	492.497	611.27	581.00
42.039	20.030	151.232	339.612			0.000	490.843	611.26	581.00
42.120	20.030	151.208	337.892			0.000	489.100	611.25	581.00
42.201	20.030	151.185	336.175			0.000	487.360	611.25	581.00
42.282	20.030	151.162	334.488			0.000	485.650	611.24	581.00
42.363	20.030	151.138	332.792			0.000	483.930	611.24	581.00
42.444	20.030	151.115	331.115			0.000	482.230	611.23	581.00
42.525	20.030	151.092	329.438			0.000	480.530	611.22	581.00
42.606	20.030	151.069	327.790			0.000	478.859	611.22	581.00
42.687	20.030	151.047	326.147			0.000	477.194	611.21	581.00
42.768	20.030	151.023	325.198			0.000	476.221	611.21	581.00
42.849	20.030	151.001	323.505			0.000	474.506	611.20	581.00
42.930	20.030	150.978	321.814			0.000	472.792	611.19	581.00
43.011	20.030	150.955	320.122			0.000	471.077	611.19	581.00
43.092	20.030	150.933	318.443			0.000	469.375	611.18	581.00
43.173	20.030	150.910	316.789			0.000	467.699	611.18	581.00
43.254	20.030	150.888	315.130			0.000	466.018	611.17	581.00
43.335	20.030	150.865	313.486			0.000	464.351	611.16	581.00
43.416	20.030	150.843	311.839			0.000	462.682	611.16	581.00

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)				
43.497	20.030	150.821	310.216			0.000	461.037	611.15	581.00
43.578	20.030	150.799	308.583			0.000	459.381	611.15	581.00
43.659	20.030	150.777	306.965			0.000	457.742	611.14	581.00
43.740	20.030	150.755	305.369			0.000	456.124	611.14	581.00
43.821	20.030	150.733	303.765			0.000	454.498	611.13	581.00
43.902	20.030	150.711	302.165			0.000	452.876	611.12	581.00
43.983	20.030	150.689	300.578			0.000	451.267	611.12	581.00
44.064	20.030	150.667	299.015			0.000	449.682	611.11	581.00
44.145	20.030	150.646	297.458			0.000	448.103	611.11	581.00
44.226	20.030	150.624	295.900			0.000	446.524	611.10	581.00
44.307	20.030	150.602	294.340			0.000	444.942	611.10	581.00
44.388	20.030	150.581	292.818			0.000	443.399	611.09	581.00
44.469	20.030	150.560	291.289			0.000	441.848	611.08	581.00
44.550	20.030	150.538	289.765			0.000	440.304	611.08	581.00
44.631	20.030	150.517	287.535			0.000	438.052	611.07	581.00
44.712	20.030	150.496	285.541			0.000	436.037	611.07	581.00
44.793	20.030	150.475	285.192			0.000	435.667	611.06	581.00
44.874	20.030	150.454	283.722			0.000	434.175	611.06	581.00
44.955	20.030	150.433	282.262			0.000	432.695	611.05	581.00
45.036	20.030	150.412	280.802			0.000	431.214	611.05	581.00
45.117	20.030	150.392	279.353			0.000	429.744	611.04	581.00
45.198	20.030	150.371	277.899			0.000	428.270	611.04	581.00
45.279	20.030	150.350	276.449			0.000	426.800	611.03	581.00
45.360	20.030	150.330	274.996			0.000	425.326	611.02	581.00
45.441	20.030	150.309	273.555			0.000	423.864	611.02	581.00
45.522	20.030	150.289	272.137			0.000	422.426	611.01	581.00
45.603	20.030	150.269	270.715			0.000	420.983	611.01	581.00
45.684	20.030	150.248	269.304			0.000	419.552	611.00	581.00
45.765	20.030	150.228	267.908			0.000	418.136	611.00	581.00
45.846	20.030	150.208	266.494			0.000	416.702	610.99	581.00
45.927	20.030	150.188	265.110			0.000	415.297	610.99	581.00
46.008	20.030	150.168	263.713			0.000	413.881	610.98	581.00
46.089	20.030	150.147	262.317			0.000	412.464	610.98	581.00
46.170	20.030	150.127	260.931			0.000	411.058	610.97	581.00
46.251	20.030	150.107	259.566			0.000	409.673	610.97	581.00
46.332	20.030	150.087	258.196			0.000	408.283	610.96	581.00
46.413	20.030	150.068	256.838			0.000	406.906	610.96	581.00
46.494	20.030	150.048	255.479			0.000	405.527	610.95	581.00
46.575	20.030	150.028	254.139			0.000	404.167	610.95	581.00
46.656	20.030	150.009	252.826			0.000	402.834	610.94	581.00
46.737	20.030	149.989	251.486			0.000	401.475	610.94	581.00
46.818	20.030	149.969	250.163			0.000	400.133	610.93	581.00
46.899	20.030	149.950	248.867			0.000	398.817	610.93	581.00
46.980	20.030	149.931	247.561			0.000	397.492	610.92	581.00
47.061	20.030	149.912	246.277			0.000	396.189	610.92	581.00
47.142	20.030	149.893	244.989			0.000	394.882	610.91	581.00
47.223	20.030	149.874	243.705			0.000	393.578	610.91	581.00
47.304	20.030	149.854	242.415			0.000	392.270	610.90	581.00
47.385	20.030	149.836	241.159			0.000	390.995	610.90	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Surface El evati on (feet)	El evati on (feet)
47.466	20.030	149.816	239.868			0.000		389.684	610.89	581.00
47.547	20.030	149.797	238.600			0.000		388.397	610.89	581.00
47.628	20.030	149.779	237.358			0.000		387.136	610.88	581.00
47.709	20.030	149.760	236.105			0.000		385.865	610.88	581.00
47.790	20.030	149.741	234.852			0.000		384.593	610.87	581.00
47.871	20.030	149.722	233.608			0.000		383.330	610.87	581.00
47.952	20.030	149.703	232.384			0.000		382.087	610.86	581.00
48.033	20.030	149.685	231.155			0.000		380.840	610.86	581.00
48.114	20.030	149.666	229.937			0.000		379.603	610.85	581.00
48.195	20.030	149.648	228.717			0.000		378.364	610.85	581.00
48.276	20.030	149.629	227.502			0.000		377.132	610.84	581.00
48.357	20.030	149.611	226.283			0.000		375.893	610.84	581.00
48.438	20.030	149.592	225.087			0.000		374.679	610.83	581.00
48.519	20.030	149.574	223.907			0.000		373.481	610.83	581.00
48.600	20.030	149.556	222.721			0.000		372.276	610.82	581.00
48.681	20.030	149.538	221.549			0.000		371.087	610.82	581.00
48.762	20.030	149.520	220.372			0.000		369.892	610.82	581.00
48.843	20.030	149.502	219.213			0.000		368.715	610.81	581.00
48.924	20.030	149.484	218.059			0.000		367.543	610.81	581.00
49.005	20.030	149.466	216.915			0.000		366.381	610.80	581.00
49.086	20.030	149.448	215.759			0.000		365.207	610.80	581.00
49.167	20.030	149.430	214.611			0.000		364.041	610.79	581.00
49.248	20.030	149.412	213.475			0.000		362.887	610.79	581.00
49.329	20.030	149.395	212.355			0.000		361.750	610.78	581.00
49.410	20.030	149.377	211.216			0.000		360.593	610.78	581.00
49.491	20.030	149.360	210.104			0.000		359.463	610.77	581.00
49.572	20.030	149.342	208.986			0.000		358.328	610.77	581.00
49.653	20.030	149.325	207.873			0.000		357.198	610.76	581.00
49.734	20.030	149.307	206.773			0.000		356.080	610.76	581.00
49.815	20.030	149.290	205.664			0.000		354.954	610.76	581.00
49.896	20.030	149.272	204.561			0.000		353.833	610.75	581.00
49.977	20.030	149.255	203.464			0.000		352.718	610.75	581.00
50.058	20.030	149.237	202.375			0.000		351.613	610.74	581.00
50.139	20.030	149.221	201.313			0.000		350.534	610.74	581.00
50.220	20.030	149.204	200.255			0.000		349.458	610.73	581.00
50.301	20.030	149.187	199.193			0.000		348.380	610.73	581.00
50.382	20.030	149.170	198.135			0.000		347.304	610.72	581.00
50.463	20.030	149.153	197.085			0.000		346.238	610.72	581.00
50.544	20.030	149.136	196.030			0.000		345.166	610.72	581.00
50.625	20.030	149.119	194.992			0.000		344.112	610.71	581.00
50.706	20.030	149.103	193.962			0.000		343.064	610.71	581.00
50.787	20.030	149.086	192.922			0.000		342.008	610.70	581.00
50.868	20.030	149.069	191.897			0.000		340.967	610.70	581.00
50.949	20.030	149.052	190.859			0.000		339.911	610.69	581.00
51.030	20.030	149.035	189.824			0.000		338.859	610.69	581.00
51.111	20.030	149.019	188.796			0.000		337.815	610.69	581.00
51.192	20.030	149.002	187.779			0.000		336.782	610.68	581.00
51.273	20.030	148.986	186.777			0.000		335.763	610.68	581.00
51.354	20.030	148.969	185.757			0.000		334.726	610.67	581.00



Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)				
51.435	20.030	148.953	184.761			0.000	333.714	610.67	581.00
51.516	20.030	148.936	183.761			0.000	332.697	610.66	581.00
51.597	20.030	148.920	182.765			0.000	331.685	610.66	581.00
51.678	20.030	148.904	181.780			0.000	330.683	610.66	581.00
51.759	20.030	148.888	180.813			0.000	329.701	610.65	581.00
51.840	20.030	148.872	179.847			0.000	328.719	610.65	581.00
51.921	20.030	148.855	178.860			0.000	327.716	610.64	581.00
52.002	20.030	148.839	177.882			0.000	326.721	610.64	581.00
52.083	20.030	148.823	176.927			0.000	325.750	610.64	581.00
52.164	20.030	148.807	175.976			0.000	324.783	610.63	581.00
52.245	20.030	148.791	175.021			0.000	323.812	610.63	581.00
52.326	20.030	148.775	174.070			0.000	322.845	610.62	581.00
52.407	20.030	148.759	173.126			0.000	321.886	610.62	581.00
52.488	20.030	148.743	172.178			0.000	320.921	610.61	581.00
52.569	20.030	148.728	171.245			0.000	319.972	610.61	581.00
52.650	20.030	148.712	170.318			0.000	319.030	610.61	581.00
52.731	20.030	148.696	169.384			0.000	318.080	610.60	581.00
52.812	20.030	148.681	168.472			0.000	317.153	610.60	581.00
52.893	20.030	148.665	167.564			0.000	316.229	610.59	581.00
52.974	20.030	148.650	166.651			0.000	315.301	610.59	581.00
53.055	20.030	148.634	165.737			0.000	314.372	610.59	581.00
53.136	20.030	148.619	164.827			0.000	313.445	610.58	581.00
53.217	20.030	148.603	163.922			0.000	312.526	610.58	581.00
53.298	20.030	148.588	162.947			0.000	311.535	610.58	581.00
53.379	20.030	148.573	162.042			0.000	310.615	610.57	581.00
53.460	20.030	148.557	161.351			0.000	309.909	610.57	581.00
53.541	20.030	148.542	160.149			0.000	308.691	610.56	581.00
53.622	20.030	148.527	157.936			0.000	306.464	610.56	581.00
53.703	20.030	148.512	157.223			0.000	305.735	610.56	581.00
53.784	20.030	148.497	156.513			0.000	305.010	610.55	581.00
53.865	20.030	148.482	155.795			0.000	304.277	610.55	581.00
53.946	20.030	148.467	154.860			0.000	303.327	610.54	581.00
54.027	20.030	148.452	153.753			0.000	302.205	610.54	581.00
54.108	20.030	148.437	152.654			0.000	301.091	610.54	581.00
54.189	20.030	148.422	151.577			0.000	299.999	610.53	581.00
54.270	20.030	148.408	151.726			0.000	300.134	610.53	581.00
54.351	20.030	148.393	150.784			0.000	299.177	610.53	581.00
54.432	20.030	148.378	149.837			0.000	298.215	610.52	581.00
54.513	20.030	148.364	149.421			0.000	297.785	610.52	581.00
54.594	20.030	148.349	148.541			0.000	296.890	610.51	581.00
54.675	20.030	148.334	148.716			0.000	297.051	610.51	581.00
54.756	20.030	148.320	147.928			0.000	296.248	610.51	581.00
54.837	20.030	148.306	147.143			0.000	295.449	610.50	581.00
54.918	20.030	148.291	146.338			0.000	294.629	610.50	581.00
54.999	20.030	148.276	145.532			0.000	293.809	610.50	581.00
55.080	20.030	148.262	144.757			0.000	293.020	610.49	581.00
55.161	20.030	148.248	143.974			0.000	292.222	610.49	581.00
55.242	20.030	148.234	143.186			0.000	291.420	610.48	581.00
55.323	20.030	148.219	142.396			0.000	290.615	610.48	581.00



Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)				
55.404	20.030	148.205	141.608			0.000	289.813	610.48	581.00
55.485	20.030	148.190	140.824			0.000	289.015	610.47	581.00
55.566	20.030	148.176	140.048			0.000	288.224	610.47	581.00
55.647	20.030	148.162	139.282			0.000	287.444	610.47	581.00
55.728	20.030	148.148	138.501			0.000	286.649	610.46	581.00
55.809	20.030	148.134	137.739			0.000	285.873	610.46	581.00
55.890	20.030	148.120	136.972			0.000	285.091	610.46	581.00
55.971	20.030	148.106	136.207			0.000	284.312	610.45	581.00
56.052	20.030	148.092	135.449			0.000	283.541	610.45	581.00
56.133	20.030	148.077	134.675			0.000	282.753	610.44	581.00
56.214	20.030	148.064	133.924			0.000	281.988	610.44	581.00
56.295	20.030	148.050	133.167			0.000	281.216	610.44	581.00
56.376	20.030	148.036	132.414			0.000	280.450	610.43	581.00
56.457	20.030	148.022	131.679			0.000	279.701	610.43	581.00
56.538	20.030	148.009	130.946			0.000	278.955	610.43	581.00
56.619	20.030	147.995	130.210			0.000	278.205	610.42	581.00
56.700	20.030	147.981	129.465			0.000	277.447	610.42	581.00
56.781	20.030	147.968	128.738			0.000	276.706	610.42	581.00
56.862	20.030	147.954	128.005			0.000	275.960	610.41	581.00
56.943	20.030	147.941	127.274			0.000	275.215	610.41	581.00
57.024	20.030	147.927	126.530			0.000	274.457	610.41	581.00
57.105	20.030	147.913	125.801			0.000	273.714	610.40	581.00
57.186	20.030	147.900	125.065			0.000	272.965	610.40	581.00
57.267	20.030	147.886	124.356			0.000	272.242	610.40	581.00
57.348	20.030	147.873	123.632			0.000	271.505	610.39	581.00
57.429	20.030	147.859	122.897			0.000	270.756	610.39	581.00
57.510	20.030	147.846	122.191			0.000	270.037	610.39	581.00
57.591	20.030	147.833	121.477			0.000	269.310	610.38	581.00
57.672	20.030	147.819	120.759			0.000	268.578	610.38	581.00
57.753	20.030	147.806	120.040			0.000	267.845	610.37	581.00
57.834	20.030	147.792	119.322			0.000	267.114	610.37	581.00
57.915	20.030	147.779	118.609			0.000	266.388	610.37	581.00
57.996	20.030	147.766	117.902			0.000	265.668	610.36	581.00
58.077	20.030	147.753	117.205			0.000	264.958	610.36	581.00
58.158	20.030	147.740	116.517			0.000	264.257	610.36	581.00
58.239	20.030	147.727	115.821			0.000	263.548	610.35	581.00
58.320	20.030	147.714	114.865			0.000	262.579	610.35	581.00
58.401	20.030	147.700	114.208			0.000	261.909	610.35	581.00
58.482	20.030	147.688	113.565			0.000	261.252	610.34	581.00
58.563	20.030	147.675	112.929			0.000	260.604	610.34	581.00
58.644	20.030	147.662	112.259			0.000	259.922	610.34	581.00
58.725	20.030	147.650	111.612			0.000	259.262	610.33	581.00
58.806	20.030	147.637	110.964			0.000	258.601	610.33	581.00
58.887	20.030	147.624	110.300			0.000	257.924	610.33	581.00
58.968	20.030	147.611	109.627			0.000	257.238	610.33	581.00
59.049	20.030	147.599	108.935			0.000	256.534	610.32	581.00
59.130	20.030	147.586	108.259			0.000	255.845	610.32	581.00
59.211	20.030	147.574	107.585			0.000	255.158	610.32	581.00
59.292	20.030	147.561	106.892			0.000	254.453	610.31	581.00

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)				
59.373	20.030	147.549	106.433			0.000	253.982	610.31	581.00
59.454	20.030	147.536	105.772			0.000	253.308	610.31	581.00
59.535	20.030	147.523	105.106			0.000	252.629	610.30	581.00
59.616	20.030	147.511	104.459			0.000	251.970	610.30	581.00
59.697	20.030	147.498	103.802			0.000	251.300	610.30	581.00
59.778	20.030	147.486	103.167			0.000	250.653	610.29	581.00
59.859	20.030	147.474	102.516			0.000	249.990	610.29	581.00
59.940	20.030	147.462	101.765			0.000	249.226	610.29	581.00
60.021	20.030	147.449	100.981			0.000	248.431	610.28	581.00
60.102	20.030	147.437	100.185			0.000	247.622	610.28	581.00
60.183	20.030	147.425	99.419			0.000	246.843	610.28	581.00
60.264	20.030	147.413	98.643			0.000	246.055	610.27	581.00
60.345	20.030	147.400	97.861			0.000	245.261	610.27	581.00
60.426	20.030	147.388	97.076			0.000	244.464	610.27	581.00
60.507	20.030	147.376	96.293			0.000	243.668	610.27	581.00
60.588	20.030	147.363	95.512			0.000	242.875	610.26	581.00
60.669	20.030	147.351	95.854			0.000	243.205	610.26	581.00
60.750	20.030	147.339	95.169			0.000	242.509	610.26	581.00
60.831	20.030	147.328	94.505			0.000	241.832	610.25	581.00
60.912	20.030	147.316	93.838			0.000	241.153	610.25	581.00
60.993	20.030	147.304	93.184			0.000	240.488	610.25	581.00
61.074	20.030	147.292	93.004			0.000	240.296	610.24	581.00
61.155	20.030	147.280	92.395			0.000	239.675	610.24	581.00
61.236	20.030	147.269	92.791			0.000	240.060	610.24	581.00
61.317	20.030	147.257	92.232			0.000	239.489	610.23	581.00
61.398	20.030	147.245	91.668			0.000	238.913	610.23	581.00
61.479	20.030	147.233	91.109			0.000	238.341	610.23	581.00
61.560	20.030	147.221	90.562			0.000	237.783	610.23	581.00
61.641	20.030	147.209	90.017			0.000	237.226	610.22	581.00
61.722	20.030	147.198	89.478			0.000	236.676	610.22	581.00
61.803	20.030	147.186	88.924			0.000	236.110	610.22	581.00
61.884	20.030	147.174	88.382			0.000	235.556	610.21	581.00
61.965	20.030	147.163	87.837			0.000	235.000	610.21	581.00
62.046	20.030	147.151	87.293			0.000	234.444	610.21	581.00
62.127	20.030	147.140	86.762			0.000	233.902	610.20	581.00
62.208	20.030	147.128	86.234			0.000	233.362	610.20	581.00
62.289	20.030	147.117	85.706			0.000	232.823	610.20	581.00
62.370	20.030	147.105	85.159			0.000	232.264	610.20	581.00
62.451	20.030	147.094	84.628			0.000	231.722	610.19	581.00
62.532	20.030	147.082	84.114			0.000	231.197	610.19	581.00
62.613	20.030	147.071	83.584			0.000	230.655	610.19	581.00
62.694	20.030	147.060	83.072			0.000	230.132	610.18	581.00
62.775	20.030	147.049	82.546			0.000	229.595	610.18	581.00
62.856	20.030	147.037	82.010			0.000	229.047	610.18	581.00
62.937	20.030	147.026	81.494			0.000	228.520	610.18	581.00
63.018	20.030	147.014	80.970			0.000	227.985	610.17	581.00
63.099	20.030	147.003	80.441			0.000	227.444	610.17	581.00
63.180	20.030	146.992	79.934			0.000	226.926	610.17	581.00
63.261	20.030	146.981	79.424			0.000	226.404	610.16	581.00

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)				
63.342	20.030	146.969	78.913			0.000	225.882	610.16	581.00
63.423	20.030	146.958	78.403			0.000	225.361	610.16	581.00
63.504	20.030	146.947	77.896			0.000	224.843	610.16	581.00
63.585	20.030	146.936	77.395			0.000	224.331	610.15	581.00
63.666	20.030	146.925	76.882			0.000	223.806	610.15	581.00
63.747	20.030	146.914	76.364			0.000	223.277	610.15	581.00
63.828	20.030	146.902	75.847			0.000	222.749	610.14	581.00
63.909	20.030	146.892	75.214			0.000	222.105	610.14	581.00
63.990	20.030	146.881	74.744			0.000	221.625	610.14	581.00
64.071	20.030	146.870	74.252			0.000	221.121	610.14	581.00
64.152	20.030	146.859	73.771			0.000	220.629	610.13	581.00
64.233	20.030	146.848	73.302			0.000	220.150	610.13	581.00
64.314	20.030	146.837	72.826			0.000	219.663	610.13	581.00
64.395	20.030	146.827	72.353			0.000	219.180	610.13	581.00
64.476	20.030	146.816	71.882			0.000	218.699	610.12	581.00
64.557	20.030	146.805	71.399			0.000	218.205	610.12	581.00
64.638	20.030	146.794	70.921			0.000	217.715	610.12	581.00
64.719	20.030	146.783	70.422			0.000	217.205	610.11	581.00
64.800	20.030	146.773	69.941			0.000	216.714	610.11	581.00
64.881	20.030	146.762	69.458			0.000	216.220	610.11	581.00
64.962	20.030	146.752	68.981			0.000	215.733	610.11	581.00
65.043	20.030	146.741	68.497			0.000	215.238	610.10	581.00
65.124	20.030	146.731	68.145			0.000	214.876	610.10	581.00
65.205	20.030	146.720	67.679			0.000	214.399	610.10	581.00
65.286	20.030	146.710	67.225			0.000	213.935	610.10	581.00
65.367	20.030	146.699	66.752			0.000	213.451	610.09	581.00
65.448	20.030	146.689	66.292			0.000	212.981	610.09	581.00
65.529	20.030	146.678	65.815			0.000	212.493	610.09	581.00
65.610	20.030	146.667	65.354			0.000	212.021	610.09	581.00
65.691	20.030	146.657	64.906			0.000	211.564	610.08	581.00
65.772	20.030	146.647	64.445			0.000	211.092	610.08	581.00
65.853	20.030	146.637	64.000			0.000	210.636	610.08	581.00
65.934	20.030	146.626	63.543			0.000	210.169	610.07	581.00
66.015	20.030	146.615	63.077			0.000	209.693	610.07	581.00
66.096	20.030	146.605	62.629			0.000	209.234	610.07	581.00
66.177	20.030	146.595	62.174			0.000	208.769	610.07	581.00
66.258	20.030	146.584	61.714			0.000	208.299	610.06	581.00
66.339	20.030	146.574	61.274			0.000	207.848	610.06	581.00
66.420	20.030	146.564	60.831			0.000	207.395	610.06	581.00
66.501	20.030	146.554	60.388			0.000	206.942	610.06	581.00
66.582	20.030	146.543	59.946			0.000	206.489	610.05	581.00
66.663	20.030	146.533	59.507			0.000	206.040	610.05	581.00
66.744	20.030	146.523	59.081			0.000	205.605	610.05	581.00
66.825	20.030	146.513	58.644			0.000	205.158	610.05	581.00
66.906	20.030	146.503	58.200			0.000	204.703	610.04	581.00
66.987	20.030	146.493	57.752			0.000	204.245	610.04	581.00
67.068	20.030	146.483	57.331			0.000	203.814	610.04	581.00
67.149	20.030	146.473	56.820			0.000	203.293	610.04	581.00
67.230	20.030	146.463	56.195			0.000	202.657	610.03	581.00



Hydrograph Routing										
Time (hrs)	Infl ow (cfs)	Princi pal Spi ll way	Auxi li ary RTside	Auxi li ary	Auxi li ary	OverTop	Internal Erosi on	Total	Reservoi r	Tai l water
		Outfl ow (cfs)	Outfl ow (cfs)	Outfl ow (cfs)	Outfl ow (cfs)	Outfl ow (cfs)	Outfl ow (cfs)	Outfl ow (cfs)	Surface El evati on (feet)	El evati on (feet)
67.311	20.030	146.453	55.585			0.000		202.037	610.03	581.00
67.392	20.030	146.443	54.994			0.000		201.437	610.03	581.00
67.473	20.030	146.433	54.399			0.000		200.832	610.03	581.00
67.554	20.030	146.423	55.194			0.000		201.617	610.02	581.00
67.635	20.030	146.414	54.845			0.000		201.259	610.02	581.00
67.716	20.030	146.404	53.678			0.000		200.082	610.02	581.00
67.797	20.030	146.394	53.268			0.000		199.661	610.02	581.00
67.878	20.030	146.384	52.416			0.000		198.800	610.01	581.00
67.959	20.030	146.374	51.911			0.000		198.285	610.01	581.00
68.040	20.030	146.364	51.403			0.000		197.767	610.01	581.00
68.121	20.030	146.355	52.340			0.000		198.695	610.01	581.00
68.202	20.030	146.345	51.187			0.000		197.532	610.00	581.00
68.283	20.030	146.335	50.792			0.000		197.127	610.00	581.00
68.364	20.030	146.325	50.391			0.000		196.717	610.00	581.00
68.445	20.030	146.316	50.002			0.000		196.318	610.00	581.00
68.526	20.030	146.306	49.592			0.000		195.898	609.99	581.00
68.607	20.030	146.296	49.195			0.000		195.491	609.99	581.00
68.688	20.030	146.287	48.808			0.000		195.095	609.99	581.00
68.769	20.030	146.277	48.406			0.000		194.682	609.99	581.00
68.850	20.030	146.267	47.947			0.000		194.214	609.98	581.00
68.931	20.030	146.258	47.503			0.000		193.760	609.98	581.00
69.012	20.030	146.248	47.045			0.000		193.293	609.98	581.00
69.093	20.030	146.238	46.606			0.000		192.844	609.98	581.00
69.174	20.030	146.229	46.155			0.000		192.384	609.97	581.00
69.255	20.030	146.219	45.567			0.000		191.787	609.97	581.00
69.336	20.030	146.209	45.283			0.000		191.492	609.97	581.00
69.417	20.030	146.200	44.861			0.000		191.061	609.97	581.00
69.498	20.030	146.191	44.927			0.000		191.117	609.96	581.00
69.579	20.030	146.181	44.550			0.000		190.732	609.96	581.00
69.660	20.030	146.172	44.559			0.000		190.731	609.96	581.00
69.741	20.030	146.162	44.215			0.000		190.377	609.96	581.00
69.822	20.030	146.153	43.868			0.000		190.021	609.95	581.00
69.903	20.030	146.143	43.522			0.000		189.665	609.95	581.00
69.984	20.030	146.134	43.191			0.000		189.325	609.95	581.00
70.065	20.030	146.125	42.868			0.000		188.994	609.95	581.00
70.146	20.030	146.116	42.534			0.000		188.650	609.95	581.00
70.227	20.030	146.106	42.191			0.000		188.297	609.94	581.00
70.308	20.030	146.097	41.867			0.000		187.964	609.94	581.00
70.389	20.030	146.088	41.537			0.000		187.626	609.94	581.00
70.470	20.030	146.079	41.206			0.000		187.285	609.94	581.00
70.551	20.030	146.070	40.875			0.000		186.945	609.93	581.00
70.632	20.030	146.061	40.547			0.000		186.607	609.93	581.00
70.713	20.030	146.051	40.225			0.000		186.276	609.93	581.00
70.794	20.030	146.042	39.894			0.000		185.936	609.93	581.00
70.875	20.030	146.033	39.576			0.000		185.609	609.92	581.00
70.956	20.030	146.024	39.264			0.000		185.288	609.92	581.00
71.037	20.030	146.015	38.932			0.000		184.947	609.92	581.00
71.118	20.030	146.006	38.613			0.000		184.619	609.92	581.00
71.199	20.030	145.997	38.292			0.000		184.289	609.92	581.00

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)				
71.280	20.030	145.988	37.980			0.000	183.967	609.91	581.00
71.361	20.030	145.979	37.669			0.000	183.648	609.91	581.00
71.442	20.030	145.970	37.346			0.000	183.315	609.91	581.00
71.523	20.030	145.961	37.034			0.000	182.995	609.91	581.00
71.604	20.030	145.952	36.720			0.000	182.671	609.90	581.00
71.685	20.030	145.943	36.403			0.000	182.345	609.90	581.00
71.766	20.030	145.934	36.088			0.000	182.022	609.90	581.00
71.847	20.030	145.925	35.781			0.000	181.706	609.90	581.00
71.928	20.030	145.916	35.482			0.000	181.398	609.90	581.00
72.009	20.030	145.907	35.164			0.000	181.071	609.89	581.00
72.090	20.030	145.898	34.855			0.000	180.753	609.89	581.00
72.171	20.030	145.889	34.554			0.000	180.443	609.89	581.00
72.252	20.030	145.880	34.261			0.000	180.142	609.89	581.00
72.333	20.030	145.871	33.953			0.000	179.825	609.88	581.00
72.414	20.030	145.863	33.654			0.000	179.517	609.88	581.00
72.495	20.030	145.854	33.363			0.000	179.217	609.88	581.00
72.576	20.030	145.845	33.060			0.000	178.905	609.88	581.00
72.657	20.030	145.836	32.766			0.000	178.602	609.88	581.00
72.738	20.030	145.827	32.461			0.000	178.288	609.87	581.00
72.819	20.030	145.819	32.166			0.000	177.985	609.87	581.00
72.900	20.030	145.810	31.862			0.000	177.672	609.87	581.00
72.981	20.030	145.801	31.569			0.000	177.370	609.87	581.00
73.062	20.030	145.792	31.269			0.000	177.061	609.86	581.00
73.143	20.030	145.783	30.979			0.000	176.763	609.86	581.00
73.224	20.030	145.774	30.685			0.000	176.459	609.86	581.00
73.305	20.030	145.766	30.401			0.000	176.167	609.86	581.00
73.386	20.030	145.757	30.114			0.000	175.871	609.86	581.00
73.467	20.030	145.748	29.824			0.000	175.573	609.85	581.00
73.548	20.030	145.740	29.533			0.000	175.273	609.85	581.00
73.629	20.030	145.731	29.262			0.000	174.993	609.85	581.00
73.710	20.030	145.723	28.977			0.000	174.700	609.85	581.00
73.791	20.030	145.714	28.706			0.000	174.420	609.84	581.00
73.872	20.030	145.706	28.425			0.000	174.131	609.84	581.00
73.953	20.030	145.697	28.137			0.000	173.834	609.84	581.00
74.034	20.030	145.689	27.864			0.000	173.553	609.84	581.00
74.115	20.030	145.680	27.587			0.000	173.267	609.84	581.00
74.196	20.030	145.671	27.308			0.000	172.979	609.83	581.00
74.277	20.030	145.663	27.030			0.000	172.693	609.83	581.00
74.358	20.030	145.654	26.754			0.000	172.409	609.83	581.00
74.439	20.030	145.646	26.484			0.000	172.130	609.83	581.00
74.520	20.030	145.637	26.207			0.000	171.844	609.82	581.00
74.601	20.030	145.629	25.946			0.000	171.575	609.82	581.00
74.682	20.030	145.621	25.684			0.000	171.305	609.82	581.00
74.763	20.030	145.613	25.426			0.000	171.039	609.82	581.00
74.844	20.030	145.604	25.157			0.000	170.762	609.82	581.00
74.925	20.030	145.596	24.886			0.000	170.482	609.81	581.00
75.006	20.030	145.587	24.622			0.000	170.210	609.81	581.00
75.087	20.030	145.579	24.367			0.000	169.946	609.81	581.00
75.168	20.030	145.571	24.150			0.000	169.721	609.81	581.00

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)				
75.249	20.030	145.563	23.884			0.000	169.447	609.81	581.00
75.330	20.030	145.555	23.635			0.000	169.189	609.80	581.00
75.411	20.030	145.547	23.386			0.000	168.932	609.80	581.00
75.492	20.030	145.538	23.112			0.000	168.650	609.80	581.00
75.573	20.030	145.530	22.844			0.000	168.374	609.80	581.00
75.654	20.030	145.522	22.583			0.000	168.105	609.80	581.00
75.735	20.030	145.514	22.306			0.000	167.819	609.79	581.00
75.816	20.030	145.505	22.036			0.000	167.542	609.79	581.00
75.897	20.030	145.497	21.984			0.000	167.481	609.79	581.00
75.978	20.030	145.489	21.762			0.000	167.251	609.79	581.00
76.059	20.030	145.480	21.528			0.000	167.008	609.79	581.00
76.140	20.030	145.472	21.301			0.000	166.774	609.78	581.00
76.221	20.030	145.464	21.082			0.000	166.546	609.78	581.00
76.302	20.030	145.456	20.869			0.000	166.325	609.78	581.00
76.383	20.030	145.448	20.646			0.000	166.094	609.78	581.00
76.464	20.030	145.440	20.427			0.000	165.867	609.78	581.00
76.545	20.030	145.432	20.223			0.000	165.655	609.77	581.00
76.626	20.030	145.423	20.007			0.000	165.431	609.77	581.00
76.707	20.030	145.415	19.799			0.000	165.214	609.77	581.00
76.788	20.030	145.407	19.584			0.000	164.991	609.77	581.00
76.869	20.030	145.399	19.377			0.000	164.776	609.77	581.00
76.950	20.030	145.391	19.166			0.000	164.556	609.76	581.00
77.031	20.030	145.383	18.348			0.000	163.731	609.76	581.00
77.112	20.030	145.375	18.087			0.000	163.462	609.76	581.00
77.193	20.030	145.367	17.806			0.000	163.172	609.76	581.00
77.274	20.030	145.359	17.509			0.000	162.868	609.75	581.00
77.355	20.030	145.351	17.217			0.000	162.568	609.75	581.00
77.436	20.030	145.343	16.917			0.000	162.260	609.75	581.00
77.517	20.030	145.334	16.604			0.000	161.938	609.75	581.00
77.598	20.030	145.326	16.303			0.000	161.629	609.75	581.00
77.679	20.030	145.319	16.014			0.000	161.333	609.74	581.00
77.760	20.030	145.311	16.334			0.000	161.644	609.74	581.00
77.841	20.030	145.303	16.124			0.000	161.427	609.74	581.00
77.922	20.030	145.295	15.908			0.000	161.203	609.74	581.00
78.003	20.030	145.287	15.682			0.000	160.969	609.74	581.00
78.084	20.030	145.279	15.389			0.000	160.668	609.73	581.00
78.165	20.030	145.271	15.091			0.000	160.362	609.73	581.00
78.246	20.030	145.263	14.791			0.000	160.054	609.73	581.00
78.327	20.030	145.255	14.492			0.000	159.747	609.73	581.00
78.408	20.030	145.247	14.193			0.000	159.441	609.73	581.00
78.489	20.030	145.240	13.897			0.000	159.137	609.73	581.00
78.570	20.030	145.231	14.187			0.000	159.418	609.72	581.00
78.651	20.030	145.224	13.981			0.000	159.205	609.72	581.00
78.732	20.030	145.216	13.776			0.000	158.992	609.72	581.00
78.813	20.030	145.208	13.559			0.000	158.768	609.72	581.00
78.894	20.030	145.201	13.353			0.000	158.554	609.72	581.00
78.975	20.030	145.193	12.988			0.000	158.181	609.71	581.00
79.056	20.030	145.185	12.823			0.000	158.008	609.71	581.00
79.137	20.030	145.178	12.740			0.000	157.918	609.71	581.00



Hydrograph Routing									
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Surface Elevation (feet)
									Tailwater Elevation (feet)
79.218	20.030	145.170	12.609			0.000		157.778	609.71
79.299	20.030	145.162	12.326			0.000		157.487	609.71
79.380	20.030	145.154	12.118			0.000		157.272	609.70
79.461	20.030	145.146	12.185			0.000		157.331	609.70
79.542	20.030	145.139	12.221			0.000		157.360	609.70
79.623	20.030	145.131	12.063			0.000		157.195	609.70
79.704	20.030	145.123	11.894			0.000		157.018	609.70
79.785	20.030	145.115	11.730			0.000		156.845	609.69
79.866	20.030	145.108	11.569			0.000		156.676	609.69
79.947	20.030	145.100	11.411			0.000		156.512	609.69
80.028	20.030	145.093	11.356			0.000		156.449	609.69
80.109	20.030	145.085	11.297			0.000		156.382	609.69
80.190	20.030	145.077	11.015			0.000		156.092	609.68
80.271	20.030	145.070	10.805			0.000		155.875	609.68
80.352	20.030	145.062	10.898			0.000		155.960	609.68
80.433	20.030	145.054	10.269			0.000		155.324	609.68
80.514	20.030	145.047	10.020			0.000		155.067	609.68
80.595	20.030	145.039	10.107			0.000		155.146	609.67
80.676	20.030	145.031	9.941			0.000		154.973	609.67
80.757	20.030	145.024	9.779			0.000		154.803	609.67
80.838	20.030	145.016	9.622			0.000		154.638	609.67
80.919	20.030	145.009	9.457			0.000		154.465	609.67
81.000	20.030	145.001	9.296			0.000		154.297	609.67
81.081	20.030	144.994	9.141			0.000		154.134	609.66
81.162	20.030	144.986	8.979			0.000		153.965	609.66
81.243	20.030	144.979	8.822			0.000		153.801	609.66
81.324	20.030	144.971	8.580			0.000		153.551	609.66
81.405	20.030	144.963	8.505			0.000		153.469	609.66
81.486	20.030	144.956	8.772			0.000		153.728	609.65
81.567	20.030	144.948	8.669			0.000		153.618	609.65
81.648	20.030	144.941	8.497			0.000		153.438	609.65
81.729	20.030	144.934	8.465			0.000		153.398	609.65
81.810	20.030	144.926	8.426			0.000		153.353	609.65
81.891	20.030	144.919	8.378			0.000		153.297	609.64
81.972	20.030	144.911	8.350			0.000		153.262	609.64
82.053	20.030	144.904	8.341			0.000		153.245	609.64
82.134	20.030	144.896	8.257			0.000		153.154	609.64
82.215	20.030	144.889	8.236			0.000		153.125	609.64
82.296	20.030	144.882	8.263			0.000		153.145	609.64
82.377	20.030	144.874	8.229			0.000		153.103	609.63
82.458	20.030	144.867	8.204			0.000		153.071	609.63
82.539	20.030	144.859	8.180			0.000		153.039	609.63
82.620	20.030	144.851	8.155			0.000		153.006	609.63
82.701	20.030	144.844	8.130			0.000		152.974	609.63
82.782	20.030	144.836	8.106			0.000		152.942	609.62
82.863	20.030	144.828	8.080			0.000		152.909	609.62
82.944	20.030	144.821	8.057			0.000		152.878	609.62
83.025	20.030	144.814	8.009			0.000		152.823	609.62
83.106	20.030	144.806	8.049			0.000		152.855	609.62



Hydrograph Routing									
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Surface Elevation (feet)
									Tailwater Elevation (feet)
83.187	20.030	144.799	7.984			0.000		152.783	609.61
83.268	20.030	144.791	7.960			0.000		152.751	609.61
83.349	20.030	144.784	7.935			0.000		152.719	609.61
83.430	20.030	144.776	7.910			0.000		152.686	609.61
83.511	20.030	144.768	7.886			0.000		152.654	609.61
83.592	20.030	144.761	7.861			0.000		152.622	609.61
83.673	20.030	144.754	7.837			0.000		152.591	609.60
83.754	20.030	144.746	7.836			0.000		152.582	609.60
83.835	20.030	144.738	7.788			0.000		152.527	609.60
83.916	20.030	144.731	7.764			0.000		152.495	609.60
83.997	20.030	144.724	7.741			0.000		152.464	609.60
84.078	20.030	144.716	7.715			0.000		152.431	609.59
84.159	20.030	144.708	7.690			0.000		152.398	609.59
84.240	20.030	144.701	7.666			0.000		152.366	609.59
84.321	20.030	144.693	7.642			0.000		152.335	609.59
84.402	20.030	144.686	7.618			0.000		152.304	609.59
84.483	20.030	144.678	7.593			0.000		152.271	609.58
84.564	20.030	144.671	7.568			0.000		152.239	609.58
84.645	20.030	144.663	7.516			0.000		152.180	609.58
84.726	20.030	144.656	7.514			0.000		152.170	609.58
84.807	20.030	144.648	7.496			0.000		152.144	609.58
84.888	20.030	144.641	7.471			0.000		152.112	609.58
84.969	20.030	144.634	7.447			0.000		152.081	609.57
85.050	20.030	144.626	7.422			0.000		152.048	609.57
85.131	20.030	144.618	7.398			0.000		152.016	609.57
85.212	20.030	144.611	7.374			0.000		151.985	609.57
85.293	20.030	144.603	7.349			0.000		151.952	609.57
85.374	20.030	144.596	7.325			0.000		151.921	609.56
85.455	20.030	144.588	7.300			0.000		151.888	609.56
85.536	20.030	144.581	7.275			0.000		151.856	609.56
85.617	20.030	144.573	7.252			0.000		151.825	609.56
85.698	20.030	144.566	7.227			0.000		151.793	609.56
85.779	20.030	144.558	7.238			0.000		151.796	609.55
85.860	20.030	144.551	7.178			0.000		151.729	609.55
85.941	20.030	144.543	7.154			0.000		151.697	609.55
86.022	20.030	144.536	7.129			0.000		151.665	609.55
86.103	20.030	144.528	7.106			0.000		151.634	609.55
86.184	20.030	144.521	7.081			0.000		151.601	609.55
86.265	20.030	144.513	7.057			0.000		151.570	609.54
86.346	20.030	144.505	7.031			0.000		151.537	609.54
86.427	20.030	144.498	7.007			0.000		151.505	609.54
86.508	20.030	144.490	6.982			0.000		151.473	609.54
86.589	20.030	144.483	6.959			0.000		151.442	609.54
86.670	20.030	144.475	6.934			0.000		151.410	609.53
86.751	20.030	144.468	6.909			0.000		151.377	609.53
86.832	20.030	144.460	6.884			0.000		151.344	609.53
86.913	20.030	144.453	6.824			0.000		151.276	609.53
86.994	20.030	144.446	6.795			0.000		151.240	609.53
87.075	20.030	144.438	6.794			0.000		151.232	609.52

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)				
87.156	20.030	144.431	6.784			0.000	151.215	609.52	581.00
87.237	20.030	144.423	6.775			0.000	151.198	609.52	581.00
87.318	20.030	144.416	6.741			0.000	151.157	609.52	581.00
87.399	20.030	144.408	6.717			0.000	151.125	609.52	581.00
87.480	20.030	144.401	6.692			0.000	151.092	609.52	581.00
87.561	20.030	144.393	6.668			0.000	151.061	609.51	581.00
87.642	20.030	144.386	6.644			0.000	151.030	609.51	581.00
87.723	20.030	144.379	6.620			0.000	150.998	609.51	581.00
87.804	20.030	144.371	6.596			0.000	150.967	609.51	581.00
87.885	20.030	144.364	6.571			0.000	150.935	609.51	581.00
87.966	20.030	144.356	6.547			0.000	150.902	609.50	581.00
88.047	20.030	144.348	6.522			0.000	150.870	609.50	581.00
88.128	20.030	144.341	6.498			0.000	150.839	609.50	581.00
88.209	20.030	144.333	6.474			0.000	150.807	609.50	581.00
88.290	20.030	144.326	6.450			0.000	150.776	609.50	581.00
88.371	20.030	144.319	6.427			0.000	150.746	609.49	581.00
88.452	20.030	144.311	6.402			0.000	150.713	609.49	581.00
88.533	20.030	144.304	6.377			0.000	150.680	609.49	581.00
88.614	20.030	144.296	6.353			0.000	150.649	609.49	581.00
88.695	20.030	144.289	6.329			0.000	150.618	609.49	581.00
88.776	20.030	144.282	6.306			0.000	150.587	609.49	581.00
88.857	20.030	144.274	6.281			0.000	150.555	609.48	581.00
88.938	20.030	144.266	6.257			0.000	150.523	609.48	581.00
89.019	20.030	144.259	6.233			0.000	150.492	609.48	581.00
89.100	20.030	144.252	6.209			0.000	150.461	609.48	581.00
89.181	20.030	144.244	6.185			0.000	150.429	609.48	581.00
89.262	20.030	144.237	6.164			0.000	150.401	609.47	581.00
89.343	20.030	144.229	6.137			0.000	150.366	609.47	581.00
89.424	20.030	144.222	6.112			0.000	150.334	609.47	581.00
89.505	20.030	144.214	6.088			0.000	150.302	609.47	581.00
89.586	20.030	144.207	6.065			0.000	150.272	609.47	581.00
89.667	20.030	144.199	6.040			0.000	150.239	609.46	581.00
89.748	20.030	144.192	6.016			0.000	150.208	609.46	581.00
89.829	20.030	144.184	5.991			0.000	150.176	609.46	581.00
89.910	20.030	144.177	5.967			0.000	150.144	609.46	581.00
89.991	20.030	144.169	5.942			0.000	150.112	609.46	581.00
90.072	20.030	144.162	5.918			0.000	150.080	609.46	581.00
90.153	20.030	144.154	5.894			0.000	150.048	609.45	581.00
90.234	20.030	144.147	5.870			0.000	150.017	609.45	581.00
90.315	20.030	144.139	5.846			0.000	149.985	609.45	581.00
90.396	20.030	144.132	5.821			0.000	149.953	609.45	581.00
90.477	20.030	144.125	5.798			0.000	149.923	609.45	581.00
90.558	20.030	144.117	5.774			0.000	149.891	609.44	581.00
90.639	20.030	144.110	5.750			0.000	149.860	609.44	581.00
90.720	20.030	144.102	5.725			0.000	149.827	609.44	581.00
90.801	20.030	144.095	5.701			0.000	149.796	609.44	581.00
90.882	20.030	144.087	5.677			0.000	149.764	609.44	581.00
90.963	20.030	144.080	5.653			0.000	149.733	609.44	581.00
91.044	20.030	144.072	5.629			0.000	149.702	609.43	581.00

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)				
91.125	20.030	144.065	5.605			0.000	149.669	609.43	581.00
91.206	20.030	144.057	5.580			0.000	149.637	609.43	581.00
91.287	20.030	144.050	5.555			0.000	149.605	609.43	581.00
91.368	20.030	144.042	5.531			0.000	149.573	609.43	581.00
91.449	20.030	144.035	5.506			0.000	149.541	609.42	581.00
91.530	20.030	144.027	5.483			0.000	149.511	609.42	581.00
91.611	20.030	144.020	5.460			0.000	149.480	609.42	581.00
91.692	20.030	144.013	5.383			0.000	149.395	609.42	581.00
91.773	20.030	144.006	5.377			0.000	149.383	609.42	581.00
91.854	20.030	143.998	5.368			0.000	149.366	609.41	581.00
91.935	20.030	143.990	5.353			0.000	149.344	609.41	581.00
92.016	20.030	143.983	5.360			0.000	149.343	609.41	581.00
92.097	20.030	143.976	5.347			0.000	149.323	609.41	581.00
92.178	20.030	143.968	5.293			0.000	149.261	609.41	581.00
92.259	20.030	143.961	5.269			0.000	149.231	609.41	581.00
92.340	20.030	143.954	5.245			0.000	149.199	609.40	581.00
92.421	20.030	143.946	5.222			0.000	149.168	609.40	581.00
92.502	20.030	143.939	5.197			0.000	149.136	609.40	581.00
92.583	20.030	143.931	5.173			0.000	149.105	609.40	581.00
92.664	20.030	143.924	5.149			0.000	149.074	609.40	581.00
92.745	20.030	143.917	5.126			0.000	149.043	609.39	581.00
92.826	20.030	143.909	5.101			0.000	149.010	609.39	581.00
92.907	20.030	143.901	5.076			0.000	148.978	609.39	581.00
92.988	20.030	143.894	5.052			0.000	148.946	609.39	581.00
93.069	20.030	143.887	5.028			0.000	148.915	609.39	581.00
93.150	20.030	143.879	5.005			0.000	148.885	609.39	581.00
93.231	20.030	143.872	4.980			0.000	148.852	609.38	581.00
93.312	20.030	143.864	4.956			0.000	148.820	609.38	581.00
93.393	20.030	143.857	4.932			0.000	148.789	609.38	581.00
93.474	20.030	143.850	4.909			0.000	148.759	609.38	581.00
93.555	20.030	143.842	4.884			0.000	148.726	609.38	581.00
93.636	20.030	143.835	4.860			0.000	148.695	609.37	581.00
93.717	20.030	143.827	4.837			0.000	148.664	609.37	581.00
93.798	20.030	143.820	4.812			0.000	148.632	609.37	581.00
93.879	20.030	143.812	4.788			0.000	148.600	609.37	581.00
93.960	20.030	143.805	4.764			0.000	148.569	609.37	581.00
94.041	20.030	143.797	4.740			0.000	148.537	609.36	581.00
94.122	20.030	143.790	4.716			0.000	148.506	609.36	581.00
94.203	20.030	143.782	4.691			0.000	148.473	609.36	581.00
94.284	20.030	143.775	4.667			0.000	148.442	609.36	581.00
94.365	20.030	143.767	4.644			0.000	148.411	609.36	581.00
94.446	20.030	143.760	4.620			0.000	148.380	609.36	581.00
94.527	20.030	143.753	4.596			0.000	148.349	609.35	581.00
94.608	20.030	143.745	4.573			0.000	148.318	609.35	581.00
94.689	20.030	143.738	4.548			0.000	148.286	609.35	581.00
94.770	20.030	143.730	4.524			0.000	148.254	609.35	581.00
94.851	20.030	143.723	4.501			0.000	148.224	609.35	581.00
94.932	20.030	143.715	4.476			0.000	148.192	609.34	581.00
95.013	20.030	143.708	4.452			0.000	148.160	609.34	581.00



Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)				
95.094	20.030	143.700	4.427			0.000	148.128	609.34	581.00
95.175	20.030	143.693	4.404			0.000	148.097	609.34	581.00
95.256	20.030	143.685	4.379			0.000	148.064	609.34	581.00
95.337	20.030	143.678	4.355			0.000	148.033	609.34	581.00
95.418	20.030	143.671	4.331			0.000	148.002	609.33	581.00
95.499	20.030	143.663	4.307			0.000	147.970	609.33	581.00
95.580	20.030	143.656	4.283			0.000	147.939	609.33	581.00
95.661	20.030	143.649	4.260			0.000	147.909	609.33	581.00
95.742	20.030	143.641	4.237			0.000	147.878	609.33	581.00
95.823	20.030	143.634	4.212			0.000	147.846	609.32	581.00
95.904	20.030	143.626	4.189			0.000	147.815	609.32	581.00
95.985	20.030	143.619	4.165			0.000	147.784	609.32	581.00
96.066	20.030	143.612	4.141			0.000	147.752	609.32	581.00
96.147	20.030	143.604	4.117			0.000	147.721	609.32	581.00
96.228	20.030	143.597	4.094			0.000	147.691	609.32	581.00
96.309	20.030	143.590	4.070			0.000	147.660	609.31	581.00
96.390	20.030	143.582	4.080			0.000	147.663	609.31	581.00
96.471	20.030	143.575	4.022			0.000	147.597	609.31	581.00
96.552	20.030	143.567	3.998			0.000	147.565	609.31	581.00
96.633	20.030	143.560	3.973			0.000	147.533	609.31	581.00
96.714	20.030	143.552	3.948			0.000	147.500	609.30	581.00
96.795	20.030	143.545	3.925			0.000	147.470	609.30	581.00
96.876	20.030	143.537	3.902			0.000	147.439	609.30	581.00
96.957	20.030	143.530	3.878			0.000	147.407	609.30	581.00
97.038	20.030	143.522	3.854			0.000	147.376	609.30	581.00
97.119	20.030	143.515	3.830			0.000	147.346	609.29	581.00
97.200	20.030	143.508	3.808			0.000	147.316	609.29	581.00
97.281	20.030	143.500	3.783			0.000	147.283	609.29	581.00
97.362	20.030	143.493	3.759			0.000	147.251	609.29	581.00
97.443	20.030	143.486	3.735			0.000	147.220	609.29	581.00
97.524	20.030	143.478	3.711			0.000	147.190	609.29	581.00
97.605	20.030	143.471	3.689			0.000	147.160	609.28	581.00
97.686	20.030	143.464	3.664			0.000	147.128	609.28	581.00
97.767	20.030	143.456	3.640			0.000	147.096	609.28	581.00
97.848	20.030	143.449	3.617			0.000	147.066	609.28	581.00
97.929	20.030	143.442	3.594			0.000	147.036	609.28	581.00
98.010	20.030	143.434	3.570			0.000	147.004	609.27	581.00
98.091	20.030	143.427	3.546			0.000	146.973	609.27	581.00
98.172	20.030	143.420	3.523			0.000	146.942	609.27	581.00
98.253	20.030	143.412	3.498			0.000	146.910	609.27	581.00
98.334	20.030	143.405	3.475			0.000	146.879	609.27	581.00
98.415	20.030	143.398	3.451			0.000	146.849	609.27	581.00
98.496	20.030	143.390	3.427			0.000	146.817	609.26	581.00
98.577	20.030	143.383	3.404			0.000	146.787	609.26	581.00
98.658	20.030	143.375	3.379			0.000	146.755	609.26	581.00
98.739	20.030	143.368	3.356			0.000	146.724	609.26	581.00
98.820	20.030	143.360	3.331			0.000	146.692	609.26	581.00
98.901	20.030	143.353	3.308			0.000	146.661	609.25	581.00
98.982	20.030	143.345	3.284			0.000	146.629	609.25	581.00

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)				
99.063	20.030	143.338	3.260			0.000	146.598	609.25	581.00
99.144	20.030	143.330	3.236			0.000	146.566	609.25	581.00
99.225	20.030	143.323	3.212			0.000	146.535	609.25	581.00
99.306	20.030	143.316	3.189			0.000	146.505	609.25	581.00
99.387	20.030	143.308	3.165			0.000	146.473	609.24	581.00
99.468	20.030	143.301	3.142			0.000	146.443	609.24	581.00
99.549	20.030	143.294	3.117			0.000	146.411	609.24	581.00
99.630	20.030	143.286	3.094			0.000	146.380	609.24	581.00
99.711	20.030	143.279	3.070			0.000	146.349	609.24	581.00
99.792	20.030	143.272	3.047			0.000	146.318	609.23	581.00
99.873	20.030	143.264	3.023			0.000	146.287	609.23	581.00
99.954	20.030	143.257	2.999			0.000	146.256	609.23	581.00
100.035	20.030	143.249	2.975			0.000	146.224	609.23	581.00
100.116	20.030	143.242	2.950			0.000	146.192	609.23	581.00
100.197	20.030	143.234	2.926			0.000	146.161	609.23	581.00
100.278	20.030	143.227	2.902			0.000	146.129	609.22	581.00
100.359	20.030	143.220	2.879			0.000	146.099	609.22	581.00
100.440	20.030	143.213	2.856			0.000	146.069	609.22	581.00
100.521	20.030	143.205	2.833			0.000	146.039	609.22	581.00
100.602	20.030	143.198	2.810			0.000	146.008	609.22	581.00
100.683	20.030	143.191	2.786			0.000	145.977	609.21	581.00
100.764	20.030	143.183	2.762			0.000	145.945	609.21	581.00
100.845	20.030	143.176	2.738			0.000	145.913	609.21	581.00
100.926	20.030	143.169	2.715			0.000	145.883	609.21	581.00
101.007	20.030	143.161	2.692			0.000	145.853	609.21	581.00
101.088	20.030	143.154	2.668			0.000	145.822	609.21	581.00
101.169	20.030	143.147	2.645			0.000	145.792	609.20	581.00
101.250	20.030	143.139	2.621			0.000	145.760	609.20	581.00
101.331	20.030	143.132	2.596			0.000	145.728	609.20	581.00
101.412	20.030	143.124	2.572			0.000	145.696	609.20	581.00
101.493	20.030	143.117	2.549			0.000	145.665	609.20	581.00
101.574	20.030	143.110	2.525			0.000	145.635	609.19	581.00
101.655	20.030	143.103	2.503			0.000	145.605	609.19	581.00
101.736	20.030	143.095	2.478			0.000	145.573	609.19	581.00
101.817	20.030	143.087	2.454			0.000	145.541	609.19	581.00
101.898	20.030	143.080	2.430			0.000	145.510	609.19	581.00
101.979	20.030	143.073	2.407			0.000	145.480	609.19	581.00
102.060	20.030	143.066	2.331			0.000	145.397	609.18	581.00
102.141	20.030	143.058	2.319			0.000	145.377	609.18	581.00
102.222	20.030	143.051	2.306			0.000	145.356	609.18	581.00
102.303	20.030	143.043	2.291			0.000	145.334	609.18	581.00
102.384	20.030	143.036	2.275			0.000	145.311	609.18	581.00
102.465	20.030	143.029	2.256			0.000	145.285	609.17	581.00
102.546	20.030	143.021	2.237			0.000	145.258	609.17	581.00
102.627	20.030	143.014	2.281			0.000	145.296	609.17	581.00
102.708	20.030	143.007	2.226			0.000	145.232	609.17	581.00
102.789	20.030	142.999	2.172			0.000	145.171	609.17	581.00
102.870	20.030	142.992	2.148			0.000	145.140	609.17	581.00
102.951	20.030	142.985	2.124			0.000	145.109	609.16	581.00

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)				
103.032	20.030	142.977	2.101			0.000	145.078	609.16	581.00
103.113	20.030	142.970	2.077			0.000	145.046	609.16	581.00
103.194	20.030	142.962	2.053			0.000	145.016	609.16	581.00
103.275	20.030	142.955	2.029			0.000	144.984	609.16	581.00
103.356	20.030	142.948	2.005			0.000	144.953	609.15	581.00
103.437	20.030	142.940	1.981			0.000	144.921	609.15	581.00
103.518	20.030	142.933	1.958			0.000	144.891	609.15	581.00
103.599	20.030	142.925	1.933			0.000	144.859	609.15	581.00
103.680	20.030	142.918	1.910			0.000	144.828	609.15	581.00
103.761	20.030	142.911	1.887			0.000	144.798	609.15	581.00
103.842	20.030	142.903	1.863			0.000	144.766	609.14	581.00
103.923	20.030	142.896	1.840			0.000	144.736	609.14	581.00
104.004	20.030	142.888	1.816			0.000	144.704	609.14	581.00
104.085	20.030	142.881	1.792			0.000	144.674	609.14	581.00
104.166	20.030	142.874	1.768			0.000	144.642	609.14	581.00
104.247	20.030	142.867	1.745			0.000	144.612	609.13	581.00
104.328	20.030	142.859	1.722			0.000	144.581	609.13	581.00
104.409	20.030	142.852	1.698			0.000	144.550	609.13	581.00
104.490	20.030	142.844	1.674			0.000	144.518	609.13	581.00
104.571	20.030	142.837	1.650			0.000	144.486	609.13	581.00
104.652	20.030	142.829	1.626			0.000	144.455	609.13	581.00
104.733	20.030	142.822	1.601			0.000	144.423	609.12	581.00
104.814	20.030	142.815	1.579			0.000	144.394	609.12	581.00
104.895	20.030	142.808	1.556			0.000	144.364	609.12	581.00
104.976	20.030	142.800	1.533			0.000	144.333	609.12	581.00
105.057	20.030	142.793	1.510			0.000	144.303	609.12	581.00
105.138	20.030	142.786	1.486			0.000	144.272	609.11	581.00
105.219	20.030	142.778	1.462			0.000	144.240	609.11	581.00
105.300	20.030	142.771	1.438			0.000	144.209	609.11	581.00
105.381	20.030	142.764	1.415			0.000	144.179	609.11	581.00
105.462	20.030	142.756	1.392			0.000	144.149	609.11	581.00
105.543	20.030	142.749	1.368			0.000	144.117	609.11	581.00
105.624	20.030	142.742	1.346			0.000	144.088	609.10	581.00
105.705	20.030	142.734	1.322			0.000	144.056	609.10	581.00
105.786	20.030	142.727	1.297			0.000	144.024	609.10	581.00
105.867	20.030	142.719	1.273			0.000	143.992	609.10	581.00
105.948	20.030	142.712	1.249			0.000	143.961	609.10	581.00
106.029	20.030	142.705	1.226			0.000	143.931	609.09	581.00
106.110	20.030	142.697	1.204			0.000	143.901	609.09	581.00
106.191	20.030	142.690	1.179			0.000	143.869	609.09	581.00
106.272	20.030	142.682	1.155			0.000	143.837	609.09	581.00
106.353	20.030	142.675	1.131			0.000	143.806	609.09	581.00
106.434	20.030	142.668	1.108			0.000	143.775	609.09	581.00
106.515	20.030	142.661	1.085			0.000	143.746	609.08	581.00
106.596	20.030	142.653	1.061			0.000	143.714	609.08	581.00
106.677	20.030	142.645	1.037			0.000	143.682	609.08	581.00
106.758	20.030	142.638	1.014			0.000	143.652	609.08	581.00
106.839	20.030	142.631	0.991			0.000	143.622	609.08	581.00
106.920	20.030	142.624	0.967			0.000	143.590	609.07	581.00



Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir	Tailwater Elevation (feet)
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Surface El evati on (feet)	
107.001	20.030	142.616	0.943			0.000		143.559	609.07	581.00
107.082	20.030	142.609	0.920			0.000		143.529	609.07	581.00
107.163	20.030	142.601	0.896			0.000		143.497	609.07	581.00
107.244	20.030	142.594	0.872			0.000		143.466	609.07	581.00
107.325	20.030	142.587	0.849			0.000		143.436	609.07	581.00
107.406	20.030	142.579	0.825			0.000		143.404	609.06	581.00
107.487	20.030	142.572	0.802			0.000		143.374	609.06	581.00
107.568	20.030	142.565	0.779			0.000		143.344	609.06	581.00
107.649	20.030	142.558	0.755			0.000		143.313	609.06	581.00
107.730	20.030	142.550	0.733			0.000		143.283	609.06	581.00
107.811	20.030	142.543	0.709			0.000		143.252	609.05	581.00
107.892	20.030	142.536	0.686			0.000		143.222	609.05	581.00
107.973	20.030	142.529	0.663			0.000		143.191	609.05	581.00
108.054	20.030	142.521	0.638			0.000		143.159	609.05	581.00
108.135	20.030	142.513	0.614			0.000		143.128	609.05	581.00
108.216	20.030	142.506	0.592			0.000		143.098	609.05	581.00
108.297	20.030	142.499	0.567			0.000		143.066	609.04	581.00
108.378	20.030	142.491	0.544			0.000		143.036	609.04	581.00
108.459	20.030	142.484	0.522			0.000		143.006	609.04	581.00
108.540	20.030	142.477	0.498			0.000		142.975	609.04	581.00
108.621	20.030	142.470	0.476			0.000		142.946	609.04	581.00
108.702	20.030	142.463	0.453			0.000		142.916	609.03	581.00
108.783	20.030	142.455	0.429			0.000		142.884	609.03	581.00
108.864	20.030	142.448	0.406			0.000		142.855	609.03	581.00
108.945	20.030	142.441	0.383			0.000		142.824	609.03	581.00
109.026	20.030	142.434	0.360			0.000		142.794	609.03	581.00
109.107	20.030	142.427	0.337			0.000		142.763	609.03	581.00
109.188	20.030	142.419	0.314			0.000		142.733	609.02	581.00
109.269	20.030	142.412	0.290			0.000		142.703	609.02	581.00
109.350	20.030	142.405	0.267			0.000		142.671	609.02	581.00
109.431	20.030	142.397	0.243			0.000		142.640	609.02	581.00
109.512	20.030	142.390	0.271			0.000		142.660	609.02	581.00
109.593	20.030	142.383	0.229			0.000		142.612	609.02	581.00
109.674	20.030	142.375	0.189			0.000		142.564	609.01	581.00
109.755	20.030	142.368	0.151			0.000		142.519	609.01	581.00
109.836	20.030	142.360	0.116			0.000		142.476	609.01	581.00
109.917	20.030	142.353	0.086			0.000		142.439	609.01	581.00
109.998	20.030	142.346	0.058			0.000		142.404	609.01	581.00
110.079	20.030	142.339	0.034			0.000		142.373	609.00	581.00
110.160	20.030	142.331	0.015			0.000		142.346	609.00	581.00
110.241	20.030	142.324	0.000			0.000		142.324	609.00	581.00
110.322	20.030	142.317	0.000			0.000		142.317	609.00	581.00

Note: Discharge exceeded maximum Tailwater table value. The maximum discharge ( 0.0) in table is used to set tailwater elevation.

Spillway and Overtop Discharge Rating					
Elevation	Pri n.	Spw.	RTside	OverTop	Total
591.00		0.000	0.000	0.000	580.00
591.10		0.000	0.000	0.000	580.00
591.20		0.000	0.000	0.000	580.00
591.30		0.000	0.000	0.000	580.00
591.40		0.000	0.000	0.000	580.00
591.50		0.000	0.000	0.000	580.00
591.60		0.000	0.000	0.000	580.00
591.70		0.000	0.000	0.000	580.00
591.80		0.000	0.000	0.000	580.00
591.90		0.000	0.000	0.000	580.00
592.00		0.000	0.000	0.000	580.00
592.10		0.000	0.000	0.000	580.00
592.20		0.000	0.000	0.000	580.00
592.30		0.000	0.000	0.000	580.00
592.40		0.000	0.000	0.000	580.00
592.50		0.000	0.000	0.000	580.00
592.60		0.000	0.000	0.000	580.00
592.70		0.000	0.000	0.000	580.00
592.80		0.000	0.000	0.000	580.00
592.90		0.000	0.000	0.000	580.00
593.00		0.000	0.000	0.000	580.00
593.10		0.000	0.000	0.000	580.00
593.20		0.000	0.000	0.000	580.00
593.30		0.000	0.000	0.000	580.00
593.40		0.000	0.000	0.000	580.00
593.50		0.000	0.000	0.000	580.00
593.60		0.000	0.000	0.000	580.00
593.70		0.000	0.000	0.000	580.00
593.80		0.000	0.000	0.000	580.00
593.90		0.000	0.000	0.000	580.00
594.00		0.000	0.000	0.000	580.00
594.10		0.000	0.000	0.000	580.00
594.20		0.000	0.000	0.000	580.00
594.30		0.000	0.000	0.000	580.00
594.40		0.000	0.000	0.000	580.00
594.50		0.000	0.000	0.000	580.00
594.60		0.000	0.000	0.000	580.00
594.70		0.000	0.000	0.000	580.00
594.80		0.000	0.000	0.000	580.00
594.90		0.000	0.000	0.000	580.00
595.00		0.000	0.000	0.000	580.00
595.10		0.000	0.000	0.000	580.00
595.20		0.000	0.000	0.000	580.00
595.30		0.000	0.000	0.000	580.00
595.40		0.000	0.000	0.000	580.00
595.50		0.000	0.000	0.000	580.00
595.60		0.000	0.000	0.000	580.00
595.70		0.000	0.000	0.000	580.00
595.80		0.000	0.000	0.000	580.00
595.90		0.000	0.000	0.000	580.00
596.00		0.000	0.000	0.000	580.00
596.10		0.000	0.000	0.000	580.00

Spillway and Overtop Discharge Rating					
Elevation	Pri n.	Spw.	RTside	OverTop	Total
596.20		0.000	0.000	0.000	580.00
596.30		0.000	0.000	0.000	580.00
596.40		0.000	0.000	0.000	580.00
596.50		0.000	0.000	0.000	580.00
596.60		0.000	0.000	0.000	580.00
596.70		0.000	0.000	0.000	580.00
596.80		0.000	0.000	0.000	580.00
596.90		0.000	0.000	0.000	580.00
597.00		0.000	0.000	0.000	580.00
597.10		0.000	0.000	0.000	580.00
597.20		0.000	0.000	0.000	580.00
597.30		0.000	0.000	0.000	580.00
597.40		0.000	0.000	0.000	580.00
597.50		0.000	0.000	0.000	580.00
597.60		0.000	0.000	0.000	580.00
597.70		0.000	0.000	0.000	580.00
597.80		0.000	0.000	0.000	580.00
597.90		0.000	0.000	0.000	580.00
598.00		0.000	0.000	0.000	580.00
598.10		0.000	0.000	0.000	580.00
598.20		0.000	0.000	0.000	580.00
598.30		0.000	0.000	0.000	580.00
598.40		0.000	0.000	0.000	580.00
598.50		0.000	0.000	0.000	580.00
598.60		0.000	0.000	0.000	580.00
598.70		0.000	0.000	0.000	580.00
598.80		0.000	0.000	0.000	580.00
598.90		0.000	0.000	0.000	580.00
599.00		0.000	0.000	0.000	580.00
599.10		0.000	0.000	0.000	580.00
599.20		0.000	0.000	0.000	580.00
599.30		0.000	0.000	0.000	580.00
599.40		0.000	0.000	0.000	580.00
599.50		0.000	0.000	0.000	580.00
599.60		0.000	0.000	0.000	580.00
599.70		0.000	0.000	0.000	580.00
599.80		0.000	0.000	0.000	580.00
599.90		0.000	0.000	0.000	580.00
600.00		0.000	0.000	0.000	580.00
600.10		0.000	0.000	0.000	580.00
600.20		0.000	0.000	0.000	580.00
600.30		0.000	0.000	0.000	580.00
600.40		0.000	0.000	0.000	580.00
600.50		0.000	0.000	0.000	580.00
600.60		0.000	0.000	0.000	580.00
600.70		0.000	0.000	0.000	580.00
600.80		0.000	0.000	0.000	580.00
600.90		0.000	0.000	0.000	580.00
601.00		0.000	0.000	0.000	580.00
601.10		0.000	0.000	0.000	580.00
601.20		0.000	0.000	0.000	580.00
601.30		0.000	0.000	0.000	580.00

Spillway and Overtop Discharge Rating					
Elevation	Pri n.	Spw.	RTside	OverTop	Total
601.40		0.000	0.000	0.000	580.00
601.50		0.000	0.000	0.000	580.00
601.60		0.000	0.000	0.000	580.00
601.70		0.000	0.000	0.000	580.00
601.80		0.000	0.000	0.000	580.00
601.90		0.000	0.000	0.000	580.00
602.00		0.000	0.000	0.000	580.00
602.10		0.000	0.000	0.000	580.00
602.20		0.000	0.000	0.000	580.00
602.30		0.000	0.000	0.000	580.00
602.40		0.000	0.000	0.000	580.00
602.50		0.000	0.000	0.000	580.00
602.60		0.000	0.000	0.000	580.00
602.70		0.000	0.000	0.000	580.00
602.80		0.000	0.000	0.000	580.00
602.90		0.000	0.000	0.000	580.00
603.00		0.000	0.000	0.000	580.00
603.10		0.000	0.000	0.000	580.00
603.20		0.000	0.000	0.000	580.00
603.30		0.000	0.000	0.000	580.00
603.40		0.000	0.000	0.000	580.00
603.50		0.000	0.000	0.000	580.00
603.60		0.000	0.000	0.000	580.00
603.70		0.000	0.000	0.000	580.00
603.80		0.000	0.000	0.000	580.00
603.90		0.000	0.000	0.000	580.00
604.00		0.000	0.000	0.000	580.00
604.10	1.765	0.000	0.000	1.765	580.00
604.20	4.991	0.000	0.000	4.991	580.00
604.30	9.169	0.000	0.000	9.169	580.00
604.40	14.116	0.000	0.000	14.116	580.00
604.50	19.728	0.000	0.000	19.728	580.00
604.60	25.933	0.000	0.000	25.933	580.00
604.70	32.680	0.000	0.000	32.680	580.00
604.80	39.927	0.000	0.000	39.927	580.00
604.90	47.643	0.000	0.000	47.643	580.00
605.00	55.800	0.000	0.000	55.800	580.00
605.10	64.376	0.000	0.000	64.376	580.00
605.20	73.351	0.000	0.000	73.351	580.00
605.30	82.708	0.000	0.000	82.708	580.00
605.40	92.433	0.000	0.000	92.433	580.00
605.50	102.511	0.000	0.000	102.511	580.00
605.60	112.931	0.000	0.000	112.931	580.00
605.70	123.682	0.000	0.000	123.682	580.00
605.80	128.653	0.000	0.000	128.653	580.00
605.90	129.102	0.000	0.000	129.102	580.00
606.00	129.549	0.000	0.000	129.549	580.00
606.10	129.995	0.000	0.000	129.995	580.00
606.20	130.440	0.000	0.000	130.440	580.00
606.30	130.883	0.000	0.000	130.883	580.00
606.40	131.324	0.000	0.000	131.324	580.00
606.50	131.764	0.000	0.000	131.764	580.00



Spillway and Overtop Discharge Rating					
Elevation	Pri n. Spw.	RTside	OverTop	Total	TW Elev
606.60	132.202	0.000	0.000	132.202	580.00
606.70	132.639	0.000	0.000	132.639	580.00
606.80	133.075	0.000	0.000	133.075	580.00
606.90	133.509	0.000	0.000	133.509	580.00
607.00	133.942	0.000	0.000	133.942	580.00
607.10	134.373	0.000	0.000	134.373	580.00
607.20	134.803	0.000	0.000	134.803	580.00
607.30	135.232	0.000	0.000	135.232	580.00
607.40	135.659	0.000	0.000	135.659	580.00
607.50	136.085	0.000	0.000	136.085	580.00
607.60	136.510	0.000	0.000	136.510	580.00
607.70	136.933	0.000	0.000	136.933	580.00
607.80	137.355	0.000	0.000	137.355	580.00
607.90	137.776	0.000	0.000	137.776	580.00
608.00	138.195	0.000	0.000	138.195	580.00
608.10	138.613	0.000	0.000	138.613	580.00
608.20	139.030	0.000	0.000	139.030	580.00
608.30	139.446	0.000	0.000	139.446	580.00
608.40	139.860	0.000	0.000	139.860	580.00
608.50	140.273	0.000	0.000	140.273	580.00
608.60	140.685	0.000	0.000	140.685	580.00
608.70	141.096	0.000	0.000	141.096	580.00
608.80	141.506	0.000	0.000	141.506	580.00
608.90	141.914	0.000	0.000	141.914	580.00
609.00	142.321	0.000	0.000	142.321	580.00
609.10	142.727	1.300	0.000	144.027	580.00
609.20	143.132	2.600	0.000	145.732	580.00
609.30	143.536	3.900	0.000	147.436	580.00
609.40	143.939	5.199	0.000	149.138	580.00
609.50	144.340	6.499	0.000	150.839	580.00
609.60	144.741	7.799	0.000	152.540	580.00
609.70	145.140	12.231	0.000	157.371	580.00
609.80	145.538	23.335	0.000	168.873	580.00
609.90	145.935	36.200	0.000	182.135	580.00
610.00	146.331	50.915	0.000	197.246	580.00
610.10	146.726	68.023	0.000	214.749	580.00
610.20	147.120	85.860	0.000	232.980	580.00
610.30	147.513	104.554	0.000	252.067	580.00
610.40	147.905	125.387	0.000	273.292	580.00
610.50	148.295	146.515	0.000	294.811	580.00
610.60	148.685	168.725	0.000	317.410	580.00
610.70	149.074	192.189	0.000	341.263	580.00
610.80	149.462	216.624	0.000	366.085	580.00
610.90	149.848	242.004	0.000	391.852	580.00
611.00	150.234	268.309	0.000	418.543	580.00
611.10	150.619	295.522	0.000	446.141	580.00
611.20	151.002	323.629	0.000	474.632	580.00
611.30	151.385	352.586	0.000	503.971	580.00
611.40	151.767	382.476	0.000	534.243	580.00
611.50	152.148	413.099	0.000	565.247	580.00
611.60	152.528	443.375	0.000	595.903	580.00
611.70	152.907	474.169	0.000	627.076	580.00



Spillway and Overtop Discharge Rating					
Elevation	Pri n. Spw.	RTside	OverTop	Total	TW Elev
611.80	153.285	510.493	0.000	663.778	580.00
611.90	153.662	544.888	0.000	698.550	580.00
612.00	154.038	580.118	0.000	734.156	580.00
612.10	154.413	616.177	0.000	770.590	580.00
612.20	154.788	652.871	0.000	807.659	580.00
612.30	155.161	690.771	0.000	845.932	580.00
612.40	155.534	729.301	0.000	884.834	580.00
612.50	155.905	768.650	0.000	924.555	580.00
612.60	156.276	808.815	0.000	965.091	580.00
612.70	156.646	847.814	0.000	1004.460	580.00
612.80	157.015	891.463	0.000	1048.478	580.00
612.90	157.383	934.185	0.000	1091.568	580.00
613.00	157.750	977.275	0.000	1135.026	580.00
613.10	158.117	1019.233	0.081	1177.431	580.00
613.20	158.482	1067.141	0.723	1226.347	580.00
613.30	158.847	1113.305	2.580	1274.732	580.00
613.40	159.211	1160.236	6.377	1325.823	580.00
613.50	159.574	1207.938	12.811	1380.323	580.00
613.60	159.936	1256.412	38.880	1455.228	580.00
613.70	160.298	1305.661	87.724	1553.682	580.00
613.80	160.658	1353.396	155.488	1669.542	580.00
613.90	161.018	1405.780	244.677	1811.475	580.00
614.00	161.377	1458.098	357.727	1977.201	580.00
614.10	161.735	1510.355	531.920	2204.011	580.00
614.20	162.093	1561.052	754.242	2477.387	580.00
614.30	162.449	1615.537	1008.003	2785.989	580.00
614.40	162.805	1670.825	1291.217	3124.848	580.00
614.50	163.160	1726.906	1601.123	3491.189	580.00
614.60	163.515	1783.782	2110.506	4057.803	580.00
614.70	163.868	1841.456	2724.994	4730.318	580.00
614.80	164.221	1899.929	3355.503	5419.654	580.00
614.90	164.573	1959.205	4003.256	6127.034	580.00
615.00	164.924	2019.285	4668.497	6852.706	580.00
615.10	165.275	2080.171	5352.822	7598.269	580.00
615.20	165.625	2141.865	6053.423	8360.913	580.00
615.30	165.974	2204.360	6772.074	9142.408	580.00
615.40	166.322	2267.652	7510.140	9944.114	580.00
615.50	166.670	2334.704	8266.441	10767.814	580.00
615.60	167.016	2396.714	9038.450	11602.181	580.00
615.70	167.363	2458.890	9832.325	12458.577	580.00
615.80	167.708	2529.517	10639.749	13336.974	580.00
615.90	168.053	2598.377	11467.197	14233.627	580.00
616.00	168.397	2668.034	12310.548	15146.979	580.00
616.10	168.740	2737.144	13171.214	16077.098	580.00
616.20	169.083	2806.954	14049.298	17025.335	580.00
616.30	169.425	2875.477	14943.039	17987.941	580.00
616.40	169.766	2947.702	15853.420	18970.888	580.00
616.50	170.106	3020.781	16781.062	19971.950	580.00
616.60	170.446	3094.716	17722.513	20987.675	580.00
616.70	170.786	3169.489	18680.484	22020.759	580.00
616.80	171.124	3245.112	19653.279	23069.515	580.00
616.90	171.462	3321.622	20642.537	24135.620	580.00

Spillway and Overtop Discharge Rating					
Elevation	Pri n.	Spw.	RTside	OverTop	Total
617.00	171.799		3399.035	21645.418	25216.252
617.10	172.136		3477.316	22662.731	26312.183
617.20	172.472		3556.468	23695.292	27424.232
617.30	172.807		3636.492	24742.353	28551.652
617.40	173.141		3717.391	25802.674	29693.206
617.50	173.475		3799.166	26877.681	30850.323
617.60	173.809		3881.820	27966.386	32022.015
617.70	174.141		3965.355	29067.807	33207.304
617.80	174.473		4049.772	30184.698	34408.943
617.90	174.805		4135.074	31314.355	35624.234
618.00	175.135		4221.262	32457.172	36853.570
618.10	175.465		4308.340	33613.011	38096.816
618.20	175.795		4402.180	34778.941	39356.916
618.30	176.124		4485.109	35961.581	40622.814
618.40	176.452		4578.429	37155.362	41910.243
618.50	176.780		4665.523	38361.585	43203.887
618.60	177.107		4757.126	39580.542	44514.775
618.70	177.433		4849.632	40811.422	45838.487
618.80	177.759		4943.043	42054.474	47175.276
618.90	178.084		5037.360	43310.966	48526.411
619.00	178.409		5132.587	44576.888	49887.884
619.10	178.733		5228.724	45856.510	51263.968
619.20	179.057		5325.775	47146.799	52651.631
619.30	179.380		5423.740	48450.039	54053.159
619.40	179.702		5522.622	49766.440	55468.764
619.50	180.024		5622.423	51091.918	56894.365
619.60	180.345		5723.214	52429.601	58333.160
619.70	180.666		5826.316	53779.989	59786.970
619.80	180.986		5930.319	55141.375	61252.680
619.90	181.305		6032.678	56513.045	62727.028
620.00	181.624		6137.441	57896.030	64215.095
620.10	181.896		6242.827	59291.126	65715.849

Listing of Tabular Data-Expanded Area

1	591.00	76.60	591.10	78.12	591.20	79.63	591.30	81.14	591.40	82.66
6	591.50	84.17	591.60	85.69	591.70	87.21	591.80	88.72	591.90	90.23
11	592.00	91.75	592.10	93.27	592.20	94.78	592.30	96.29	592.40	97.81
16	592.50	99.33	592.60	100.84	592.70	102.36	592.80	103.87	592.90	105.38
21	593.00	106.90	593.10	108.70	593.20	110.49	593.30	112.28	593.40	114.08
26	593.50	115.88	593.60	117.67	593.70	119.47	593.80	121.26	593.90	123.05
31	594.00	124.85	594.10	126.65	594.20	128.44	594.30	130.23	594.40	132.03
36	594.50	133.83	594.60	135.62	594.70	137.42	594.80	139.21	594.90	141.00
41	595.00	142.80	595.10	144.69	595.20	146.58	595.30	148.47	595.40	150.36
46	595.50	152.25	595.60	154.14	595.70	156.03	595.80	157.92	595.90	159.81
51	596.00	161.70	596.10	163.59	596.20	165.48	596.30	167.37	596.40	169.26
56	596.50	171.15	596.60	173.04	596.70	174.93	596.80	176.82	596.90	178.71
61	597.00	180.60	597.10	182.65	597.20	184.71	597.30	186.76	597.40	188.81
66	597.50	190.86	597.60	192.92	597.70	194.97	597.80	197.02	597.90	199.07
71	598.00	201.12	598.10	203.18	598.20	205.23	598.30	207.28	598.40	209.33
76	598.50	211.39	598.60	213.44	598.70	215.49	598.80	217.54	598.90	219.60
81	599.00	221.65	599.10	223.70	599.20	225.76	599.30	227.81	599.40	229.86
86	599.50	231.91	599.60	233.97	599.70	236.02	599.80	238.07	599.90	240.12
91	600.00	242.17	600.10	244.23	600.20	246.28	600.30	248.33	600.40	250.38
96	600.50	252.44	600.60	254.49	600.70	256.54	600.80	258.59	600.90	260.65
101	601.00	262.70	601.10	265.14	601.20	267.58	601.30	270.02	601.40	272.46
106	601.50	274.90	601.60	277.34	601.70	279.78	601.80	282.22	601.90	284.66
111	602.00	287.10	602.10	289.54	602.20	291.98	602.30	294.42	602.40	296.86
116	602.50	299.30	602.60	301.74	602.70	304.18	602.80	306.62	602.90	309.06
121	603.00	311.50	603.10	313.94	603.20	316.38	603.30	318.82	603.40	321.26
126	603.50	323.70	603.60	326.14	603.70	328.58	603.80	331.02	603.90	333.46
131	604.00	335.90	604.10	338.34	604.20	340.78	604.30	343.22	604.40	345.66
136	604.50	348.10	604.60	350.54	604.70	352.98	604.80	355.42	604.90	357.86
141	605.00	360.30	605.10	362.72	605.20	365.13	605.30	367.54	605.40	369.96
146	605.50	372.38	605.60	374.79	605.70	377.21	605.80	379.62	605.90	382.03
151	606.00	384.45	606.10	386.87	606.20	389.28	606.30	391.69	606.40	394.11
156	606.50	396.52	606.60	398.94	606.70	401.36	606.80	403.77	606.90	406.18
161	607.00	408.60	607.10	411.02	607.20	413.43	607.30	415.84	607.40	418.26
166	607.50	420.68	607.60	423.09	607.70	425.51	607.80	427.92	607.90	430.33
171	608.00	432.75	608.10	435.17	608.20	437.58	608.30	439.99	608.40	442.41
176	608.50	444.82	608.60	447.24	608.70	449.66	608.80	452.07	608.90	454.48
181	609.00	456.90	609.10	459.42	609.20	461.94	609.30	464.46	609.40	466.98
186	609.50	469.50	609.60	472.02	609.70	474.54	609.80	477.06	609.90	479.58
191	610.00	482.10	610.10	484.62	610.20	487.14	610.30	489.66	610.40	492.18
196	610.50	494.70	610.60	497.22	610.70	499.74	610.80	502.26	610.90	504.78
201	611.00	507.30	611.10	509.82	611.20	512.34	611.30	514.86	611.40	517.38
206	611.50	519.90	611.60	522.42	611.70	524.94	611.80	527.46	611.90	529.98
211	612.00	532.50	612.10	535.02	612.20	537.54	612.30	540.06	612.40	542.58
216	612.50	545.10	612.60	547.62	612.70	550.14	612.80	552.66	612.90	555.18
221	613.00	557.70	613.10	560.20	613.20	562.70	613.30	565.20	613.40	567.70
226	613.50	570.20	613.60	572.70	613.70	575.20	613.80	577.70	613.90	580.20
231	614.00	582.70	614.10	585.20	614.20	587.70	614.30	590.20	614.40	592.70
236	614.50	595.20	614.60	597.70	614.70	600.20	614.80	602.70	614.90	605.20
241	615.00	607.70	615.10	610.20	615.20	612.70	615.30	615.20	615.40	617.70
246	615.50	620.20	615.60	622.70	615.70	625.20	615.80	627.70	615.90	630.20
251	616.00	632.70	616.10	635.20	616.20	637.70	616.30	640.20	616.40	642.70
256	616.50	645.20	616.60	647.70	616.70	650.20	616.80	652.70	616.90	655.20
261	617.00	657.70	617.10	660.20	617.20	662.70	617.30	665.20	617.40	667.70

266	617.50	670.20	617.60	672.70	617.70	675.20	617.80	677.70	617.90	680.20
271	618.00	682.70	618.10	685.20	618.20	687.70	618.30	690.20	618.40	692.70
276	618.50	695.20	618.60	697.70	618.70	700.20	618.80	702.70	618.90	705.20
281	619.00	707.70	619.10	710.20	619.20	712.70	619.30	715.20	619.40	717.70
286	619.50	720.20	619.60	722.70	619.70	725.20	619.80	727.70	619.90	730.20
291	620.00	732.70	620.10	735.20						

Li sting of Tabul ar Data-Generated Vol ume

1	591.00	250.00	593.00	433.50	595.00	683.20	597.00	1006.60	601.00	1893.20
6	605.00	3139.20	609.00	4773.60	613.00	6802.80	615.00	7968.20		

Li sting of Tabul ar Data-Expanded Low Vol ume

1	580.00	0.00	580.10	2.27	580.20	4.55	580.30	6.82	580.40	9.09
6	580.50	11.36	580.60	13.64	580.70	15.91	580.80	18.18	580.90	20.45
11	581.00	22.73	581.10	25.00	581.20	27.27	581.30	29.55	581.40	31.82
16	581.50	34.09	581.60	36.36	581.70	38.64	581.80	40.91	581.90	43.18
21	582.00	45.45	582.10	47.73	582.20	50.00	582.30	52.27	582.40	54.55
26	582.50	56.82	582.60	59.09	582.70	61.36	582.80	63.64	582.90	65.91
31	583.00	68.18	583.10	70.45	583.20	72.73	583.30	75.00	583.40	77.27
36	583.50	79.55	583.60	81.82	583.70	84.09	583.80	86.36	583.90	88.64
41	584.00	90.91	584.10	93.18	584.20	95.45	584.30	97.73	584.40	100.00
46	584.50	102.27	584.60	104.55	584.70	106.82	584.80	109.09	584.90	111.36
51	585.00	113.64	585.10	115.91	585.20	118.18	585.30	120.45	585.40	122.73
56	585.50	125.00	585.60	127.27	585.70	129.55	585.80	131.82	585.90	134.09
61	586.00	136.36	586.10	138.64	586.20	140.91	586.30	143.18	586.40	145.45
66	586.50	147.73	586.60	150.00	586.70	152.27	586.80	154.55	586.90	156.82
71	587.00	159.09	587.10	161.36	587.20	163.64	587.30	165.91	587.40	168.18
76	587.50	170.45	587.60	172.73	587.70	175.00	587.80	177.27	587.90	179.55
81	588.00	181.82	588.10	184.09	588.20	186.36	588.30	188.64	588.40	190.91
86	588.50	193.18	588.60	195.45	588.70	197.73	588.80	200.00	588.90	202.27
91	589.00	204.55	589.10	206.82	589.20	209.09	589.30	211.36	589.40	213.64
96	589.50	215.91	589.60	218.18	589.70	220.45	589.80	222.73	589.90	225.00
101	590.00	227.27	590.10	229.55	590.20	231.82	590.30	234.09	590.40	236.36
106	590.50	238.64	590.60	240.91	590.70	243.18	590.80	245.45	590.90	247.73



## Listing of Tabular Data-Expanded Volume

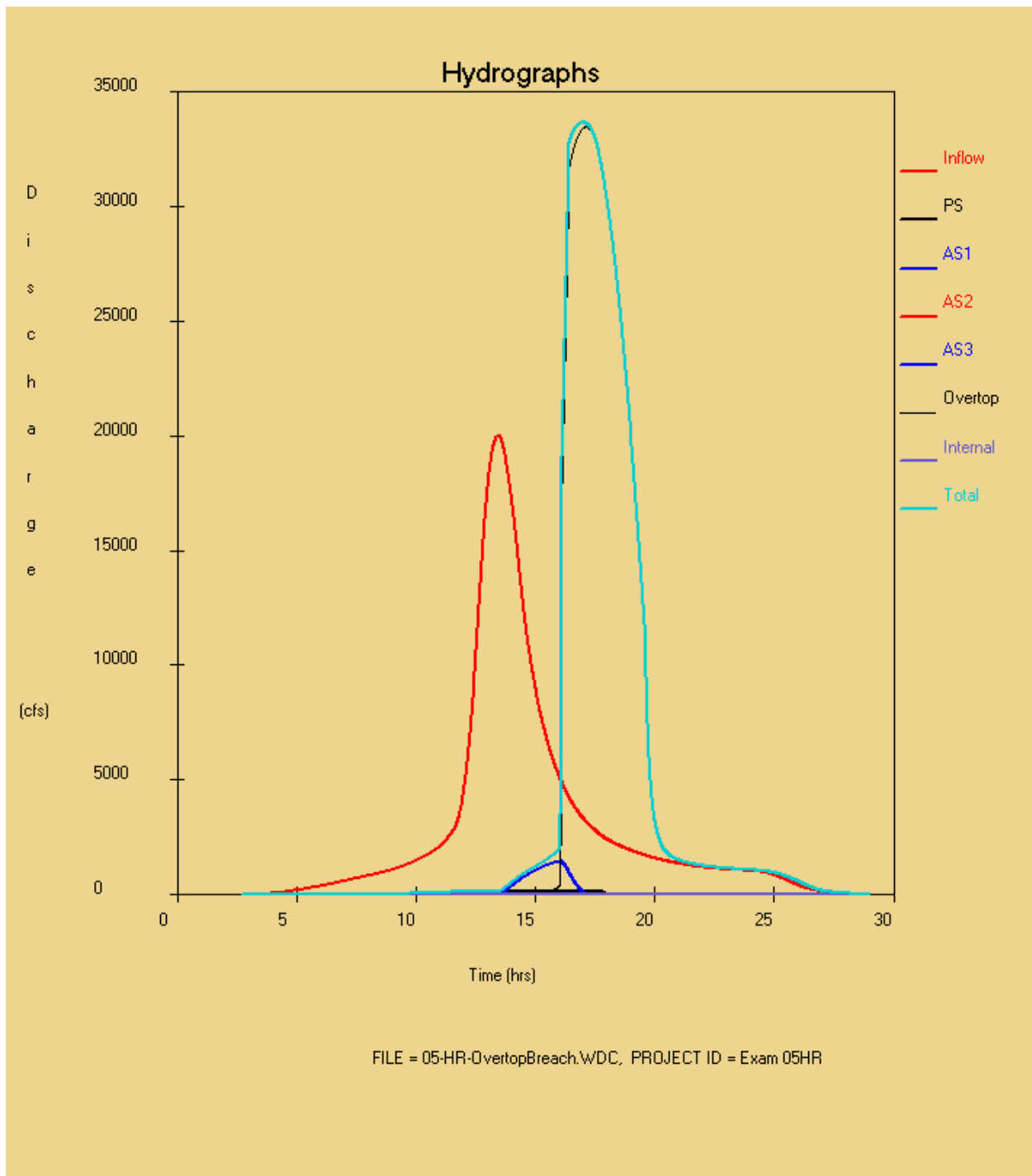
1	591.00	250.	591.10	258.	591.20	266.	591.30	274.	591.40	282.
6	591.50	290.	591.60	299.	591.70	307.	591.80	316.	591.90	325.
11	592.00	334.	592.10	343.	592.20	353.	592.30	362.	592.40	372.
16	592.50	382.	592.60	392.	592.70	402.	592.80	412.	592.90	423.
21	593.00	434.	593.10	444.	593.20	455.	593.30	466.	593.40	478.
26	593.50	489.	593.60	501.	593.70	513.	593.80	525.	593.90	537.
31	594.00	549.	594.10	562.	594.20	575.	594.30	588.	594.40	601.
36	594.50	614.	594.60	628.	594.70	641.	594.80	655.	594.90	669.
41	595.00	683.	595.10	698.	595.20	712.	595.30	727.	595.40	742.
46	595.50	757.	595.60	772.	595.70	788.	595.80	803.	595.90	819.
51	596.00	835.	596.10	852.	596.20	868.	596.30	885.	596.40	902.
56	596.50	919.	596.60	936.	596.70	953.	596.80	971.	596.90	989.
61	597.00	1007.	597.10	1025.	597.20	1043.	597.30	1062.	597.40	1080.
66	597.50	1099.	597.60	1119.	597.70	1138.	597.80	1158.	597.90	1177.
71	598.00	1197.	598.10	1218.	598.20	1238.	598.30	1259.	598.40	1280.
76	598.50	1301.	598.60	1322.	598.70	1343.	598.80	1365.	598.90	1387.
81	599.00	1409.	599.10	1431.	599.20	1454.	599.30	1476.	599.40	1499.
86	599.50	1522.	599.60	1546.	599.70	1569.	599.80	1593.	599.90	1617.
91	600.00	1641.	600.10	1665.	600.20	1690.	600.30	1714.	600.40	1739.
96	600.50	1764.	600.60	1790.	600.70	1815.	600.80	1841.	600.90	1867.
101	601.00	1893.	601.10	1920.	601.20	1946.	601.30	1973.	601.40	2000.
106	601.50	2028.	601.60	2055.	601.70	2083.	601.80	2111.	601.90	2140.
111	602.00	2168.	602.10	2197.	602.20	2226.	602.30	2255.	602.40	2285.
116	602.50	2315.	602.60	2345.	602.70	2375.	602.80	2406.	602.90	2436.
121	603.00	2467.	603.10	2499.	603.20	2530.	603.30	2562.	603.40	2594.
126	603.50	2626.	603.60	2659.	603.70	2691.	603.80	2724.	603.90	2758.
131	604.00	2791.	604.10	2825.	604.20	2859.	604.30	2893.	604.40	2927.
136	604.50	2962.	604.60	2997.	604.70	3032.	604.80	3068.	604.90	3103.
141	605.00	3139.	605.10	3175.	605.20	3212.	605.30	3248.	605.40	3285.
146	605.50	3322.	605.60	3360.	605.70	3397.	605.80	3435.	605.90	3473.
151	606.00	3512.	606.10	3550.	606.20	3589.	606.30	3628.	606.40	3667.
156	606.50	3707.	606.60	3747.	606.70	3787.	606.80	3827.	606.90	3867.
161	607.00	3908.	607.10	3949.	607.20	3990.	607.30	4032.	607.40	4073.
166	607.50	4115.	607.60	4158.	607.70	4200.	607.80	4243.	607.90	4286.
171	608.00	4329.	608.10	4372.	608.20	4416.	608.30	4460.	608.40	4504.
176	608.50	4548.	608.60	4593.	608.70	4638.	608.80	4683.	608.90	4728.
181	609.00	4774.	609.10	4819.	609.20	4865.	609.30	4912.	609.40	4958.
186	609.50	5005.	609.60	5052.	609.70	5100.	609.80	5147.	609.90	5195.
191	610.00	5243.	610.10	5291.	610.20	5340.	610.30	5389.	610.40	5438.
196	610.50	5487.	610.60	5537.	610.70	5587.	610.80	5637.	610.90	5687.
201	611.00	5738.	611.10	5789.	611.20	5840.	611.30	5891.	611.40	5943.
206	611.50	5995.	611.60	6047.	611.70	6099.	611.80	6152.	611.90	6205.
211	612.00	6258.	612.10	6311.	612.20	6365.	612.30	6419.	612.40	6473.
216	612.50	6527.	612.60	6582.	612.70	6637.	612.80	6692.	612.90	6747.
221	613.00	6803.	613.10	6859.	613.20	6915.	613.30	6971.	613.40	7028.
226	613.50	7085.	613.60	7142.	613.70	7199.	613.80	7257.	613.90	7315.
231	614.00	7373.	614.10	7431.	614.20	7490.	614.30	7549.	614.40	7608.
236	614.50	7667.	614.60	7727.	614.70	7787.	614.80	7847.	614.90	7908.
241	615.00	7968.	615.10	8029.	615.20	8090.	615.30	8152.	615.40	8213.
246	615.50	8275.	615.60	8337.	615.70	8400.	615.80	8462.	615.90	8525.
251	616.00	8588.	616.10	8652.	616.20	8715.	616.30	8779.	616.40	8843.
256	616.50	8908.	616.60	8973.	616.70	9037.	616.80	9103.	616.90	9168.
261	617.00	9234.	617.10	9299.	617.20	9366.	617.30	9432.	617.40	9499.

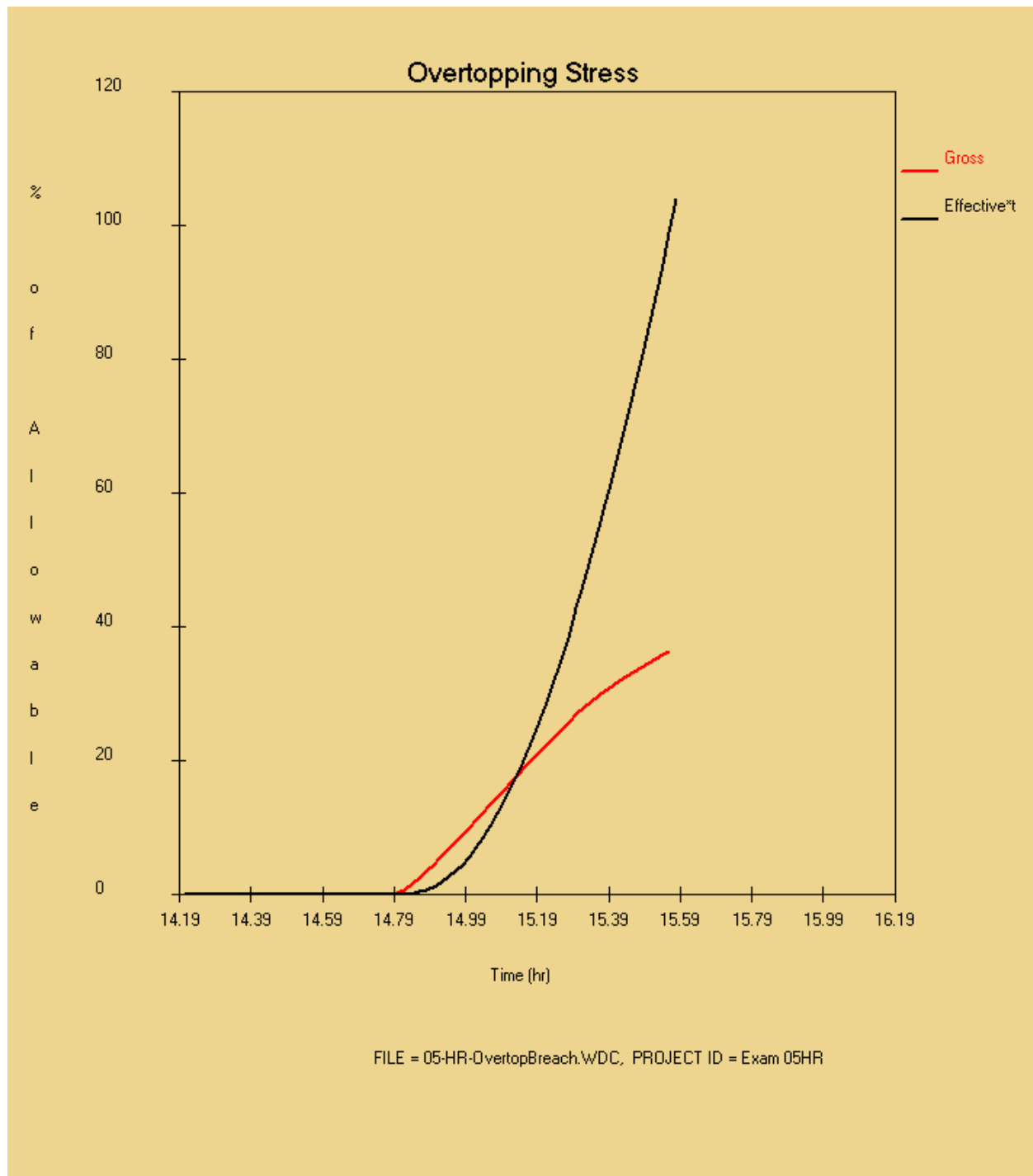


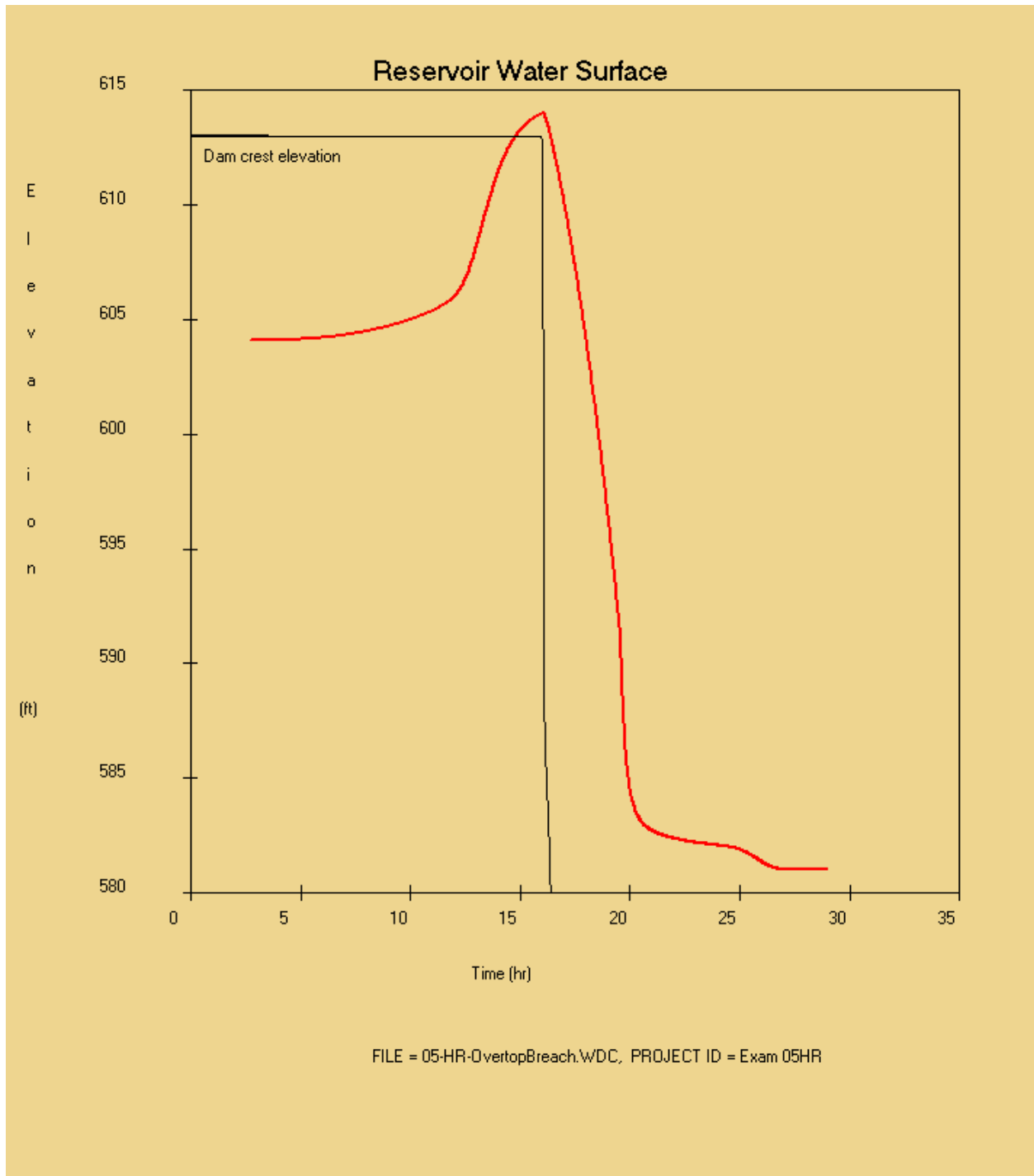
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End of Run

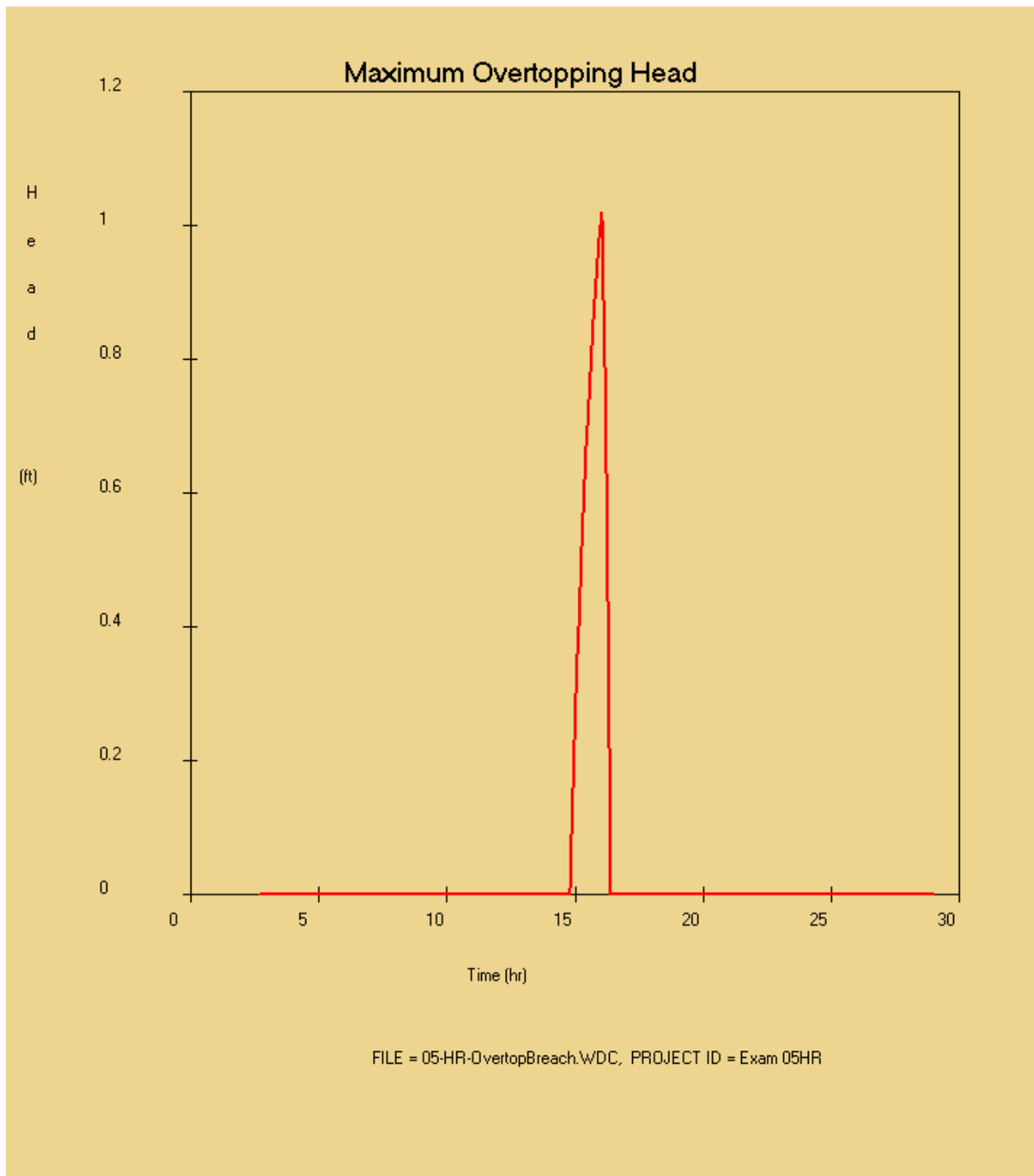
**05-HR-OvertopBreach**











Listing of Input Data-Exam 05HR

WINDAM 01/01/2009Exam 05HR

OPTION SIMPLE EARTH BREACH

\* WinDAM Example 05 - Existing Dam 07/26/2017

\* Typical Design for integrity.

\* OVERTOPPING for breach analysis

\* Hanson/Robinson Stress model

\* Std single stage riser, 36" dia conduit

\* PS crest: 604.0'

\* Start Routing: 604.1'

\* AS crest: 609.0'

\* AS bottom width: 40'

\* Dam crest: 613.0'

\* Dam face Maintenance Code - 3 (major discontinuities)

\* Aux Spwy Maintenance Code - 2 (minor discontinuities)

\* 24-hr FBH Inflow peak: 20,000 cfs @ 13.4 hr

\* Embankment overtops and breaches

\* Aux Spwy does not erode

\* END of Input comments-----

HCMODEL 2 105 10 200 .1

HYD FBH 0.02 2.6720 OC

0.83 0.9806172 1.1312345 1.2818518 1.4324691

1.5830864 1.7337037 1.8843209 2.0349382 2.2966666

2.5707407 2.8448148 3.1188888 3.3929629 3.6670370

3.9411111 4.2151851 4.6324691 5.0855555 5.5386419

5.9917283 6.4448148 6.8979012 7.3509876 7.8040740

8.4196296 9.1048148 9.79 10.475185 11.160370

11.845555 12.530740 13.215925 14.064814 15.022839

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33.618148 35.181111 36.744074 38.307037 39.87

41.432962 42.995925 44.649629 46.515061 48.380493

50.245925 52.111358 53.976790 55.842222 57.707654

59.631358 61.788148 63.944938 66.101728 68.258518

70.415308 72.572098 74.728888 76.912345 79.335802

81.759259 84.182716 86.606172 89.029629 91.453086

93.876543 96.3 98.967901 101.63580 104.30370

106.97160 109.63950 112.30740 114.97530 117.64320

120.50777 123.39419 126.28061 129.16703 132.05345

134.93987 137.82629 140.71271 143.74925 146.82333

149.89740 152.97148 156.04555 159.11962 162.19370

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425.41296 429.58703 433.76111 437.93518 442.17839

446.43888 450.69938 454.95987 459.22037 463.48086

467.74135 472.00185 476.31765 480.65716 484.99666

489.33617 493.67567 498.01518 502.35469 506.69419

511.07592 515.48580 519.89567 524.30555 528.71543

533.12530 537.53518 541.94506 546.38641 550.85925

555.33209 559.80493 564.27777 568.75061 573.22345

577.69629 582.19135 586.71975 591.24814 595.77654

600.30493 604.83333 609.36172 613.89012 618.43370

623.01271 627.59172 632.17074 636.74975 641.32876

645.90777 650.48679 655.07469 659.69814 664.32160

668.94506 673.56851 678.19197 682.81543 687.43888

692.06629 696.72925 701.39222 706.05518 710.71814

715.38111	720.04407	724.70703	729.37	734.06753
738.76506	743.46259	748.16012	752.85765	757.55518
762.25271	766.95024	771.67444	776.40160	781.12876
785.85592	790.58308	795.31024	800.03740	804.76456
809.51246	814.26555	819.01864	823.77172	828.52481
833.27790	838.03098	842.78407	847.56308	852.35320
857.14333	861.93345	866.72358	871.51370	876.30382
881.09395	885.92777	890.79074	895.65370	900.51666
905.37962	910.24259	915.10555	919.96851	924.89753
929.89259	934.88765	939.88271	944.87777	949.87283
954.86790	959.86296	964.94395	970.15382	975.36370
980.57358	985.78345	990.99333	996.20320	1001.4130
1006.7203	1012.2549	1017.7895	1023.3240	1028.8586
1034.3932	1039.9277	1045.4623	1051.0902	1057.0914
1063.0927	1069.0939	1075.0951	1081.0964	1087.0976
1093.0988	1099.1592	1105.7518	1112.3444	1118.9370
1125.5296	1132.1222	1138.7148	1145.3074	1151.9
1159.1530	1166.4061	1173.6592	1180.9123	1188.1654
1195.4185	1202.6716	1209.9246	1217.7744	1225.6904
1233.6065	1241.5225	1249.4386	1257.3546	1265.2707
1273.1867	1281.5976	1290.1322	1298.6667	1307.2013
1315.7359	1324.2704	1332.8050	1341.3396	1350.2708
1359.3720	1368.4733	1377.5745	1386.6758	1395.7770
1404.8782	1413.9795	1423.3844	1432.9918	1442.5992
1452.2066	1461.8140	1471.4214	1481.0288	1490.6362
1500.4776	1510.5529	1520.6282	1530.7035	1540.7788
1550.8541	1560.9295	1571.0048	1581.2939	1591.9038
1602.5137	1613.1235	1623.7334	1634.3433	1644.9532
1655.5630	1666.3925	1677.7345	1689.0765	1700.4185
1711.7604	1723.1024	1734.4444	1745.7864	1757.3311
1769.6866	1782.0422	1794.3977	1806.7533	1819.1088
1831.4644	1843.82	1856.3128	1870.0412	1883.7696
1897.4980	1911.2264	1924.9548	1938.6832	1952.4116
1966.14	1981.6659	1997.1918	2012.7177	2028.2437
2043.7696	2059.2955	2074.8214	2090.3474	2107.9211
2125.7223	2143.5235	2161.3248	2179.1260	2196.9272
2214.7285	2232.5297	2252.6974	2273.4566	2294.2159
2314.9751	2335.7344	2356.4937	2377.2529	2398.0122
2421.4746	2446.0956	2470.7166	2495.3376	2519.9586
2544.5796	2569.2006	2593.8216	2622.1381	2652.9183
2683.6986	2714.4788	2745.2591	2776.0393	2806.8196
2837.5998	2876.6702	2924.0307	2971.3912	3018.7517
3066.1122	3113.4727	3160.8332	3208.1937	3272.8203
3363.3462	3453.8722	3544.3981	3634.9240	3725.45
3815.9759	3906.5018	4014.3777	4162.7370	4311.0962
4459.4555	4607.8148	4756.1740	4904.5333	5052.8925
5211.2960	5409.8762	5608.4565	5807.0367	6005.6170
6204.1972	6402.7775	6601.3577	6805.1588	7055.9477
7306.7366	7557.5255	7808.3144	8059.1033	8309.8922
8560.6811	8811.47	9117.6601	9423.8502	9730.0403
10036.230	10342.420	10648.610	10954.800	11260.990
11593.585	11929.113	12264.642	12600.170	12935.699
13271.227	13606.755	13942.284	14253.107	14557.754
14862.401	15167.048	15471.695	15776.342	16080.989
16385.635	16638.299	16868.684	17099.07	17329.455
17559.840	17790.225	18020.610	18250.995	18429.583
18573.638	18717.694	18861.75	19005.805	19149.861
19293.916	19437.972	19540.799	19602.398	19663.996
19725.595	19787.194	19848.793	19910.391	19971.990
20006.644	20000.881	19995.118	19989.355	19983.592
19977.83	19972.067	19966.304	19940.496	19867.918
19795.341	19722.763	19650.185	19577.607	19505.03
19432.452	19350.782	19232.745	19114.708	18996.671
18878.634	18760.597	18642.560	18524.523	18403.353
18253.989	18104.625	17955.260	17805.896	17656.532
17507.168	17357.804	17208.44	17024.731	16841.022
16657.314	16473.605	16289.896	16106.188	15922.479
15738.770	15534.446	15327.831	15121.217	14914.602
14707.987	14501.372	14294.757	14088.142	13891.628
13697.64	13503.651	13309.662	13115.673	12921.684
12727.695	12533.706	12362.236	12200.416	12038.596
11876.776	11714.957	11553.137	11391.317	11229.497

11081.852	10943.657	10805.462	10667.267	10529.072
10390.877	10252.682	10114.487	9985.3177	9865.1733
9745.0288	9624.8844	9504.74	9384.5955	9264.4511
9144.3066	9031.0017	8927.9560	8824.9103	8721.8646
8618.8190	8515.7733	8412.7276	8309.6819	8210.1681
8118.8953	8027.6224	7936.3496	7845.0767	7753.8039
7662.5311	7571.2582	7481.5590	7398.1540	7314.7491
7231.3441	7147.9392	7064.5343	6981.1293	6897.7244
6815.2996	6741.6959	6668.0922	6594.4885	6520.8848
6447.2811	6373.6774	6300.0737	6226.47	6163.1280
6099.7860	6036.4440	5973.1020	5909.7601	5846.4181
5783.0761	5719.7341	5662.9866	5606.9718	5550.9570
5494.9422	5438.9274	5382.9125	5326.8977	5270.8829
5219.8103	5169.9733	5120.1362	5070.2992	5020.4622
4970.6251	4920.7881	4870.9511	4825.0513	4780.8390
4736.6266	4692.4143	4648.2019	4603.9896	4559.7772
4515.5649	4474.3718	4435.1916	4396.0113	4356.8311
4317.6508	4278.4706	4239.2903	4200.1101	4162.7761
4127.2885	4091.8008	4056.3132	4020.8255	3985.3379
3949.8502	3914.3625	3880.5287	3849.1756	3817.8225
3786.4695	3755.1164	3723.7633	3692.4102	3661.0571
3630.78	3603.0133	3575.2466	3547.48	3519.7133
3491.9466	3464.18	3436.4133	3409.2101	3384.2607
3359.3113	3334.3619	3309.4125	3284.4632	3259.5138
3234.5644	3209.8867	3187.6546	3165.4225	3143.1904
3120.9583	3098.7262	3076.4941	3054.2620	3032.03
3012.1855	2992.3411	2972.4966	2952.6522	2932.8077
2912.9633	2893.1188	2873.2744	2855.0455	2836.9961
2818.9467	2800.8974	2782.8480	2764.7986	2746.7492
2728.6998	2712.1398	2695.9522	2679.7645	2663.5769
2647.3892	2631.2016	2615.0139	2598.8262	2583.7690
2569.1961	2554.6233	2540.0504	2525.4776	2510.9048
2496.3319	2481.7591	2468.1692	2455.2346	2442.3001
2429.3655	2416.4309	2403.4964	2390.5618	2377.6272
2365.2865	2353.5396	2341.7927	2330.0458	2318.2988
2306.5519	2294.8050	2283.0581	2271.7043	2260.9401
2250.1759	2239.4117	2228.6475	2217.8833	2207.1191
2196.3549	2185.9959	2176.5823	2167.1687	2157.7551
2148.3416	2138.9280	2129.5144	2120.1008	2110.8576
2102.2959	2093.7341	2085.1724	2076.6107	2068.0490
2059.4872	2050.9255	2042.4045	2034.2502	2026.0959
2017.9416	2009.7872	2001.6329	1993.4786	1985.3243
1977.17	1969.3416	1961.5132	1953.6848	1945.8564
1938.0280	1930.1996	1922.3712	1914.5428	1906.9466
1899.3762	1891.8059	1884.2355	1876.6651	1869.0948
1861.5244	1853.9540	1846.5624	1839.2155	1831.8686
1824.5217	1817.1748	1809.8279	1802.4809	1795.1340
1787.9262	1780.7781	1773.63	1766.4818	1759.3337
1752.1855	1745.0374	1737.8892	1730.8751	1723.9504
1717.0258	1710.1011	1703.1764	1696.2517	1689.3270
1682.4023	1675.7103	1669.2511	1662.7918	1656.3325
1649.8733	1643.4140	1636.9548	1630.4955	1624.4116
1618.8906	1613.3696	1607.8486	1602.3276	1596.8066
1591.2856	1585.7646	1580.4044	1575.4192	1570.4340
1565.4488	1560.4637	1555.4785	1550.4933	1545.5081
1540.5577	1535.7466	1530.9355	1526.1244	1521.3133
1516.5022	1511.6911	1506.88	1502.0845	1497.4302
1492.7759	1488.1216	1483.4672	1478.8129	1474.1586
1469.5043	1464.85	1460.3413	1455.8327	1451.3240
1446.8154	1442.3067	1437.7981	1433.2895	1428.7808
1424.4211	1420.0779	1415.7346	1411.3914	1407.0482
1402.7050	1398.3618	1394.0186	1389.8344	1385.69
1381.5455	1377.4011	1373.2566	1369.1122	1364.9677
1360.8233	1356.8422	1352.9311	1349.02	1345.1088
1341.1977	1337.2866	1333.3755	1329.4644	1325.7096
1322.0590	1318.4083	1314.7577	1311.1071	1307.4565
1303.8059	1300.1553	1296.6423	1293.2670	1289.8917
1286.5164	1283.1411	1279.7658	1276.3904	1273.0151
1269.7514	1266.6551	1263.5588	1260.4625	1257.3662
1254.27	1251.1737	1248.0774	1245.0637	1242.2427
1239.4217	1236.6007	1233.7797	1230.9587	1228.1377
1225.3167	1222.5481	1219.9888	1217.4296	1214.8703



1212.3111	1209.7518	1207.1925	1204.6333	1202.0981
1199.7796	1197.4611	1195.1425	1192.8240	1190.5055
1188.1870	1185.8685	1183.55	1181.4512	1179.3524
1177.2537	1175.1549	1173.0561	1170.9574	1168.8586
1166.7598	1164.8366	1162.9329	1161.0292	1159.1255
1157.2218	1155.3181	1153.4144	1151.5107	1149.7383
1147.9988	1146.2593	1144.5198	1142.7803	1141.0408
1139.3013	1137.5618	1135.9174	1134.3137	1132.71
1131.1062	1129.5025	1127.8988	1126.2951	1124.6914
1123.1574	1121.6697	1120.1820	1118.6944	1117.2067
1115.7191	1114.2314	1112.7438	1111.3037	1109.9111
1108.5185	1107.1259	1105.7333	1104.3407	1102.9481
1101.5555	1100.1955	1098.8844	1097.5733	1096.2622
1094.9511	1093.64	1092.3288	1091.0177	1089.7274
1088.4854	1087.2434	1086.0014	1084.7595	1083.5175
1082.2755	1081.0335	1079.8037	1078.6222	1077.4407
1076.2592	1075.0777	1073.8962	1072.7148	1071.5333
1070.3569	1069.2260	1068.0951	1066.9643	1065.8334
1064.7025	1063.5717	1062.4408	1061.31	1060.2211
1059.1322	1058.0433	1056.9544	1055.8655	1054.7766
1053.6877	1052.5988	1051.4588	1050.3132	1049.1675
1048.0218	1046.8761	1045.7304	1044.5848	1043.4391
1042.0109	1040.5122	1039.0134	1037.5146	1036.0159
1034.5171	1033.0183	1031.5196	1029.5680	1027.4223
1025.2766	1023.1309	1020.9853	1018.8396	1016.6939
1014.5482	1011.8929	1008.8979	1005.9028	1002.9077
999.91271	996.91765	993.92259	990.92753	987.36148
983.22444	979.08740	974.95037	970.81333	966.67629
962.53925	958.40222	953.68296	948.09037	942.49777
936.90518	931.31259	925.72	920.12740	914.53481
908.48370	901.36271	894.24172	887.12074	879.99975
872.87876	865.75777	858.63679	851.27703	842.96222
834.64740	826.33259	818.01777	809.70296	801.38814
793.07333	784.68382	775.62209	766.56037	757.49864
748.43691	739.37518	730.31345	721.25172	712.19
702.82209	693.45419	684.08629	674.71839	665.35049
655.98259	646.61469	637.24679	627.91888	618.59543
609.27197	599.94851	590.62506	581.30160	571.97814
562.65469	553.58012	544.56777	535.55543	526.54308
517.53074	508.51839	499.50604	490.49370	481.91777
473.52888	465.14	456.75111	448.36222	439.97333
431.58444	423.19555	415.23037	407.54765	399.86493
392.18222	384.49950	376.81679	369.13407	361.45135
354.17851	347.31555	340.45259	333.58962	326.72666
319.86370	313.00074	306.13777	299.67086	293.79802
287.92518	282.05234	276.17950	270.30666	264.43382
258.56098	252.99888	248.16185	243.32481	238.48777
233.65074	228.81370	223.97666	219.13962	214.46679
210.45074	206.43469	202.41864	198.40259	194.38654
190.37049	186.35444	182.39975	178.99728	175.59481
172.19234	168.78987	165.38740	161.98493	158.58246
155.18	152.29851	149.41703	146.53555	143.65407
140.77259	137.89111	135.00962	132.12814	129.63111
127.17679	124.72246	122.26814	119.81382	117.35950
114.90518	112.45086	110.27308	108.16444	106.05580
103.94716	101.83851	99.729876	97.621234	95.512592
93.620864	91.822098	90.023333	88.224567	86.425802
84.627037	82.828271	81.029506	79.401111	77.886296
76.371481	74.856666	73.341851	71.827037	70.312222
68.797407	67.398024	66.114074	64.830123	63.546172
62.262222	60.978271	59.694320	58.410370	57.200987
56.103456	55.005925	53.908395	52.810864	51.713333
50.615802	49.518271	48.470370	47.538271	46.606172
45.674074	44.741975	43.809876	42.877777	41.945679
41.041728	40.250370	39.459012	38.667654	37.876296
37.084938	36.293580	35.502222	34.722839	34.051234
33.379629	32.708024	32.036419	31.364814	30.693209
30.021604	29.35	28.778395	28.206790	27.635185
27.063580	26.491975	25.920370	25.348765	24.777160
24.288888	23.809876	23.330864	22.851851	22.372839
21.893827	21.414814	20.935802	20.76	20.66
20.56	20.46	20.36	20.26	20.16



July 26, 2017

^^^^ Warning: Entered stage-storage table is not sufficient for the requested run.  
Volume set to zero at dam base and linear interpolation used.

Windows Dam Analysis Program      Execution Date - 07/26/2017  
Program Date - 01/01/2009      Version Number - 2008.01.01      Time - 13:21:18  
Input File - h:\WiNDAM\Examples\Examples20170721chk\05-HR OvertopBreach.WDC

```
***** Elevation Summary 1 *****
Dam Base Elevation:                580.00 feet
Max Tailwater Elevation:          581.00 feet
Prin Spwy Crest Elevation:        604.00 feet
Start Routing Elevation:          604.10 feet
Aux Spwy # 1 Crest Elevation:     609.00 feet
Aux Spwy # 2 Crest Elevation:     none
Aux Spwy # 3 Crest Elevation:     none
Max Pool Elevation:               614.02 feet
Initial Low Point in Dam Crest:   613.00 feet
Ending Low Point in Dam Crest:    580.00 feet @      32.15 hours
*****
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***** Flow Summary 2 *****
Peak Inflow:                20006.644 cfs @      13.37 hours
Peak Outflow:               33667.411 cfs @      16.95 hours
Max Flow Principal Spwy:    161.432 cfs @      16.05 hours
Max Flow Aux Spwy # 1:     1466.027 cfs @      16.05 hours
Max Flow Aux Spwy # 2:      none
Max Flow Aux Spwy # 3:      none
Maximum flow over top of dam: 380.690 cfs @      16.05 hours
Duration of dam overtopping: 1.60 hours
Max unit discharge, low point or breach: 584.647 cfs/ft
Maximum internal erosion conduit flow: 0.000 cfs
*****

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***** Spillways Summary 3 *****
Principal Spillway Type:                Single Stage Inlet, Circular Conduit
Principal Spillway Crest Elev:          604.00 feet
Prin. Spw. Weir Length:                 18.00 feet
Conduit Diameter:                       36.00 inches
Conduit Manning's n value:              0.013

```

Aux Spwy #1	Label :	RTsi de	
Aux Spwy #1	Crest Elev:	609.00	feet
Aux Spwy #1	Bottom Width:	40.00	feet
Aux Spwy #1	Max Flow:	1466.027	cfs @ 16.05 hours
Aux Spwy #1	Max Hp:	5.02	feet
Aux Spwy #1	Erosion Analysis:	Integri ty	

Aux Spwy #2	Label :	none
Aux Spwy #2	Crest Elev:	none
Aux Spwy #2	Bottom Width:	none
Aux Spwy #2	Max Flow:	none
Aux Spwy #2	Max Hp:	none
Aux Spwy #2	Erosion Analysis:	none

Aux Spwy #3	Label :	none
Aux Spwy #3	Crest Elev:	none
Aux Spwy #3	Bottom Width:	none
Aux Spwy #3	Max Flow:	none
Aux Spwy #3	Max Hp:	none
Aux Spwy #3	Erosion Analysis:	none

\*\*\*\*\* Overtopping Summary Table 4 \*\*\*\*\*  
Dam Breach Analysis Type: Overtopping  
Dam Headcut Model: Hanson/Robinson  
Initial Low Point in Dam Crest Profile: 613.00 feet  
Maximum Pool Elevation: 614.02 feet @ 16.05 hours  
Ending Low Point in Dam Crest Profile: 580.00 feet @ 32.15 hours  
Overtopping Duration: 1.60 hours  
Overtopping Initiation: 14.81 hours  
Maximum Flow Over Top if Dam were Intact: 380.69 cfs @ 16.05 hours  
Maximum Unit Discharge, lowpoint or breach: 584.647 cfs/ft  
Dam Embankment Slope Protection: Vegetation  
Surface Cover Failed at: 15.59 hours  
Breach Initiated at: 15.98 hours  
Breach Completed at: 16.41 hours  
Maximum Width of Embankment Breach: 120.95 feet  
Max. Disch. thru Breach and/or Over Dam: 33460.760 cfs  
\*\*\*\*\*

\*\*\*\*\* Internal Erosion Summary Table 5 \*\*\*\*\*

<<<<<< Internal Erosion was not an option for this embankment. >>>>>>

\*\*\*\*\*

\*\*\*\*\* Drawdown Summary Table 6 \*\*\*\*\*

<<<<<< Drawdown calculation was not an option for this embankment. >>>>>>

\*\*\*\*\*

Time (hr)	Stress on Vegetated Embankment Slope (3.00H:1V)					
	Max Disch (cfs/ft)	Total Stress Value lb/sqft	% Allow (Percent)	Effective Stress Value lb/sqft	Time Intgrl lb/sqft-hr	% Allow (Percent)
14.81	0.00	0.0204	0.2	0.0204	0.0000	0.0
14.83	0.00	0.1081	0.8	0.1081	0.0004	0.0
14.85	0.00	0.2202	1.6	0.2202	0.0026	0.1
14.87	0.00	0.3414	2.5	0.3414	0.0070	0.4
14.89	0.01	0.4741	3.5	0.4741	0.0138	0.7
14.91	0.01	0.6102	4.5	0.6102	0.0233	1.2
14.93	0.01	0.7567	5.6	0.7567	0.0355	1.8
14.95	0.02	0.9046	6.7	0.9046	0.0506	2.6
14.97	0.03	1.0490	7.8	1.0490	0.0687	3.5
14.99	0.03	1.2047	8.9	1.2047	0.0897	4.5
15.01	0.04	1.3564	10.0	1.3564	0.1138	5.7
15.03	0.05	1.5100	11.2	1.5100	0.1409	7.1
15.05	0.05	1.6645	12.3	1.6645	0.1711	8.6
15.07	0.06	1.8264	13.5	1.8264	0.2044	10.3
15.09	0.07	1.9779	14.7	1.9779	0.2409	12.2
15.11	0.08	2.1314	15.8	2.1314	0.2805	14.2
15.13	0.09	2.2897	17.0	2.2897	0.3231	16.3
15.15	0.10	2.4486	18.1	2.4486	0.3689	18.6
15.17	0.11	2.6034	19.3	2.6034	0.4179	21.1
15.19	0.13	2.7603	20.4	2.7603	0.4700	23.7
15.21	0.14	2.9099	21.6	2.9099	0.5252	26.5
15.23	0.15	3.0664	22.7	3.0664	0.5834	29.5
15.25	0.16	3.2173	23.8	3.2173	0.6447	32.6
15.27	0.18	3.3660	24.9	3.3660	0.7090	35.8
15.29	0.20	3.5112	26.0	3.5112	0.7763	39.2
15.31	0.26	3.6412	27.0	3.6412	0.8466	42.8
15.33	0.31	3.7642	27.9	3.7642	0.9194	46.4
15.35	0.37	3.8835	28.8	3.8835	0.9947	50.2
15.37	0.43	3.9970	29.6	3.9970	1.0724	54.2
15.39	0.49	4.1063	30.4	4.1063	1.1523	58.2
15.41	0.55	4.2098	31.2	4.2098	1.2344	62.3
15.43	0.60	4.3098	31.9	4.3098	1.3186	66.6
15.45	0.66	4.4087	32.7	4.4087	1.4048	70.9
15.47	0.72	4.4975	33.3	4.4975	1.4930	75.4
15.49	0.78	4.5904	34.0	4.5904	1.5829	79.9
15.51	0.84	4.6771	34.6	4.6771	1.6747	84.6
15.53	0.90	4.7598	35.3	4.7598	1.7683	89.3
15.55	0.95	4.8410	35.9	4.8410	1.8635	94.1
15.57	1.01	4.9206	36.4*	4.9206	1.9603	99.0
15.59					2.0587	104.0#

Footnotes: \* -- Maximum Total Stress.  
# -- Maximum Effective Stress.

Hydrograph ID=FBH

Hydrograph Routing									
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Surface Elevation (feet)
									Tailwater Elevation (feet)
2. 67	0. 830	1. 765	0. 000			0. 000		1. 765	604. 10
2. 69	0. 981	1. 762	0. 000			0. 000		1. 762	604. 10
2. 71	1. 131	1. 759	0. 000			0. 000		1. 759	604. 10
2. 73	1. 282	1. 757	0. 000			0. 000		1. 757	604. 10
2. 75	1. 432	1. 754	0. 000			0. 000		1. 754	604. 10
2. 77	1. 583	1. 752	0. 000			0. 000		1. 752	604. 10
2. 79	1. 734	1. 749	0. 000			0. 000		1. 749	604. 10
2. 81	1. 884	1. 751	0. 000			0. 000		1. 751	604. 10
2. 83	2. 035	1. 753	0. 000			0. 000		1. 753	604. 10
2. 85	2. 297	1. 754	0. 000			0. 000		1. 754	604. 10
2. 87	2. 571	1. 757	0. 000			0. 000		1. 757	604. 10
2. 89	2. 845	1. 759	0. 000			0. 000		1. 759	604. 10
2. 91	3. 119	1. 760	0. 000			0. 000		1. 760	604. 10
2. 93	3. 393	1. 762	0. 000			0. 000		1. 762	604. 10
2. 95	3. 667	1. 763	0. 000			0. 000		1. 763	604. 10
2. 97	3. 941	1. 764	0. 000			0. 000		1. 764	604. 10
2. 99	4. 215	1. 764	0. 000			0. 000		1. 764	604. 10
3. 01	4. 632	1. 767	0. 000			0. 000		1. 767	604. 10
3. 03	5. 086	1. 769	0. 000			0. 000		1. 769	604. 10
3. 05	5. 539	1. 772	0. 000			0. 000		1. 772	604. 10
3. 07	5. 992	1. 775	0. 000			0. 000		1. 775	604. 10
3. 09	6. 445	1. 777	0. 000			0. 000		1. 777	604. 10
3. 11	6. 898	1. 780	0. 000			0. 000		1. 780	604. 10
3. 13	7. 351	1. 782	0. 000			0. 000		1. 782	604. 10
3. 15	7. 804	1. 785	0. 000			0. 000		1. 785	604. 10
3. 17	8. 420	1. 788	0. 000			0. 000		1. 788	604. 10
3. 19	9. 105	1. 790	0. 000			0. 000		1. 790	604. 10
3. 21	9. 790	1. 793	0. 000			0. 000		1. 793	604. 10
3. 23	10. 475	1. 795	0. 000			0. 000		1. 795	604. 10
3. 25	11. 160	1. 798	0. 000			0. 000		1. 798	604. 10
3. 27	11. 846	1. 800	0. 000			0. 000		1. 800	604. 10
3. 29	12. 531	1. 803	0. 000			0. 000		1. 803	604. 10
3. 31	13. 216	1. 805	0. 000			0. 000		1. 805	604. 10
3. 33	14. 065	1. 808	0. 000			0. 000		1. 808	604. 10
3. 35	15. 023	1. 811	0. 000			0. 000		1. 811	604. 10
3. 37	15. 981	1. 813	0. 000			0. 000		1. 813	604. 10
3. 39	16. 939	1. 816	0. 000			0. 000		1. 816	604. 10
3. 41	17. 897	1. 818	0. 000			0. 000		1. 818	604. 10
3. 43	18. 855	1. 821	0. 000			0. 000		1. 821	604. 10
3. 45	19. 813	1. 823	0. 000			0. 000		1. 823	604. 10
3. 47	20. 771	1. 826	0. 000			0. 000		1. 826	604. 10
3. 49	21. 878	1. 829	0. 000			0. 000		1. 829	604. 10
3. 51	23. 135	1. 831	0. 000			0. 000		1. 831	604. 10
3. 53	24. 392	1. 834	0. 000			0. 000		1. 834	604. 10
3. 55	25. 649	1. 836	0. 000			0. 000		1. 836	604. 10
3. 57	26. 906	1. 839	0. 000			0. 000		1. 839	604. 10
3. 59	28. 162	1. 841	0. 000			0. 000		1. 841	604. 10
3. 61	29. 419	1. 844	0. 000			0. 000		1. 844	604. 10
3. 63	30. 676	1. 846	0. 000			0. 000		1. 846	604. 10
3. 65	32. 055	1. 849	0. 000			0. 000		1. 849	604. 10
3. 67	33. 618	1. 851	0. 000			0. 000		1. 851	604. 10
3. 69	35. 181	1. 854	0. 000			0. 000		1. 854	604. 10
3. 71	36. 744	1. 857	0. 000			0. 000		1. 857	604. 10
3. 73	38. 307	1. 859	0. 000			0. 000		1. 859	604. 10
3. 75	39. 870	1. 862	0. 000			0. 000		1. 862	604. 10
3. 77	41. 433	1. 869	0. 000			0. 000		1. 869	604. 10
3. 79	42. 996	1. 877	0. 000			0. 000		1. 877	604. 10
3. 81	44. 650	1. 884	0. 000			0. 000		1. 884	604. 10
3. 83	46. 515	1. 892	0. 000			0. 000		1. 892	604. 10
3. 85	48. 380	1. 900	0. 000			0. 000		1. 900	604. 11
3. 87	50. 246	1. 907	0. 000			0. 000		1. 907	604. 11
3. 89	52. 111	1. 915	0. 000			0. 000		1. 915	604. 11
3. 91	53. 977	1. 922	0. 000			0. 000		1. 922	604. 11
3. 93	55. 842	1. 930	0. 000			0. 000		1. 930	604. 11
3. 95	57. 708	1. 937	0. 000			0. 000		1. 937	604. 11



Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
3.97	59.631	1.945	0.000			0.000		1.945	604.11	581.00
3.99	61.788	1.952	0.000			0.000		1.952	604.11	581.00
4.01	63.945	1.960	0.000			0.000		1.960	604.11	581.00
4.03	66.102	1.967	0.000			0.000		1.967	604.11	581.00
4.05	68.259	1.975	0.000			0.000		1.975	604.11	581.00
4.07	70.415	1.982	0.000			0.000		1.982	604.11	581.00
4.09	72.572	1.989	0.000			0.000		1.989	604.11	581.00
4.11	74.729	1.997	0.000			0.000		1.997	604.11	581.00
4.13	76.912	2.009	0.000			0.000		2.009	604.11	581.00
4.15	79.336	2.021	0.000			0.000		2.021	604.11	581.00
4.17	81.759	2.034	0.000			0.000		2.034	604.11	581.00
4.19	84.183	2.046	0.000			0.000		2.046	604.11	581.00
4.21	86.606	2.058	0.000			0.000		2.058	604.11	581.00
4.23	89.030	2.070	0.000			0.000		2.070	604.11	581.00
4.25	91.453	2.082	0.000			0.000		2.082	604.11	581.00
4.27	93.877	2.094	0.000			0.000		2.094	604.11	581.00
4.29	96.300	2.106	0.000			0.000		2.106	604.11	581.00
4.31	98.968	2.118	0.000			0.000		2.118	604.11	581.00
4.33	101.636	2.130	0.000			0.000		2.130	604.11	581.00
4.35	104.304	2.142	0.000			0.000		2.142	604.11	581.00
4.37	106.972	2.154	0.000			0.000		2.154	604.11	581.00
4.39	109.639	2.171	0.000			0.000		2.171	604.11	581.00
4.41	112.307	2.187	0.000			0.000		2.187	604.12	581.00
4.43	114.975	2.204	0.000			0.000		2.204	604.12	581.00
4.45	117.643	2.220	0.000			0.000		2.220	604.12	581.00
4.47	120.508	2.237	0.000			0.000		2.237	604.12	581.00
4.49	123.394	2.253	0.000			0.000		2.253	604.12	581.00
4.51	126.281	2.269	0.000			0.000		2.269	604.12	581.00
4.53	129.167	2.285	0.000			0.000		2.285	604.12	581.00
4.55	132.053	2.301	0.000			0.000		2.301	604.12	581.00
4.57	134.940	2.322	0.000			0.000		2.322	604.12	581.00
4.59	137.826	2.342	0.000			0.000		2.342	604.12	581.00
4.61	140.713	2.362	0.000			0.000		2.362	604.12	581.00
4.63	143.749	2.382	0.000			0.000		2.382	604.12	581.00
4.65	146.823	2.403	0.000			0.000		2.403	604.12	581.00
4.67	149.897	2.422	0.000			0.000		2.422	604.12	581.00
4.69	152.971	2.442	0.000			0.000		2.442	604.12	581.00
4.71	156.046	2.462	0.000			0.000		2.462	604.12	581.00
4.73	159.120	2.486	0.000			0.000		2.486	604.13	581.00
4.75	162.194	2.510	0.000			0.000		2.510	604.13	581.00
4.77	165.268	2.533	0.000			0.000		2.533	604.13	581.00
4.79	168.456	2.556	0.000			0.000		2.556	604.13	581.00
4.81	171.693	2.580	0.000			0.000		2.580	604.13	581.00
4.83	174.930	2.603	0.000			0.000		2.603	604.13	581.00
4.85	178.167	2.630	0.000			0.000		2.630	604.13	581.00
4.87	181.404	2.656	0.000			0.000		2.656	604.13	581.00
4.89	184.641	2.683	0.000			0.000		2.683	604.13	581.00
4.91	187.878	2.709	0.000			0.000		2.709	604.13	581.00
4.93	191.115	2.735	0.000			0.000		2.735	604.13	581.00
4.95	194.440	2.765	0.000			0.000		2.765	604.13	581.00
4.97	197.822	2.794	0.000			0.000		2.794	604.14	581.00
4.99	201.205	2.823	0.000			0.000		2.823	604.14	581.00
5.01	204.588	2.852	0.000			0.000		2.852	604.14	581.00
5.03	207.970	2.884	0.000			0.000		2.884	604.14	581.00
5.05	211.353	2.916	0.000			0.000		2.916	604.14	581.00
5.07	214.736	2.947	0.000			0.000		2.947	604.14	581.00
5.09	218.119	2.978	0.000			0.000		2.978	604.14	581.00
5.11	221.568	3.012	0.000			0.000		3.012	604.14	581.00
5.13	225.084	3.046	0.000			0.000		3.046	604.14	581.00
5.15	228.600	3.079	0.000			0.000		3.079	604.14	581.00
5.17	232.116	3.115	0.000			0.000		3.115	604.15	581.00
5.19	235.632	3.150	0.000			0.000		3.150	604.15	581.00
5.21	239.148	3.189	0.000			0.000		3.189	604.15	581.00
5.23	242.664	3.226	0.000			0.000		3.226	604.15	581.00
5.25	246.180	3.261	0.000			0.000		3.261	604.15	581.00
5.27	249.747	3.302	0.000			0.000		3.302	604.15	581.00
5.29	253.389	3.342	0.000			0.000		3.342	604.15	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal	Auxiliary	Auxiliary	Auxiliary	OverTop	Internal	Total	Reservoir	Tailwater
		Spillway Outflow (cfs)	RTside Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Erosion Outflow (cfs)		Surface Elevation (feet)	Elevation (feet)
5.31	257.031	3.381	0.000			0.000		3.381	604.15	581.00
5.33	260.673	3.419	0.000			0.000		3.419	604.16	581.00
5.35	264.315	3.463	0.000			0.000		3.463	604.16	581.00
5.37	267.957	3.505	0.000			0.000		3.505	604.16	581.00
5.39	271.599	3.546	0.000			0.000		3.546	604.16	581.00
5.41	275.241	3.591	0.000			0.000		3.591	604.16	581.00
5.43	278.919	3.635	0.000			0.000		3.635	604.16	581.00
5.45	282.680	3.683	0.000			0.000		3.683	604.16	581.00
5.47	286.442	3.729	0.000			0.000		3.729	604.16	581.00
5.49	290.204	3.778	0.000			0.000		3.778	604.17	581.00
5.51	293.965	3.826	0.000			0.000		3.826	604.17	581.00
5.53	297.727	3.876	0.000			0.000		3.876	604.17	581.00
5.55	301.489	3.924	0.000			0.000		3.924	604.17	581.00
5.57	305.251	3.974	0.000			0.000		3.974	604.17	581.00
5.59	309.035	4.026	0.000			0.000		4.026	604.17	581.00
5.61	312.909	4.078	0.000			0.000		4.078	604.17	581.00
5.63	316.783	4.130	0.000			0.000		4.130	604.18	581.00
5.65	320.657	4.186	0.000			0.000		4.186	604.18	581.00
5.67	324.531	4.238	0.000			0.000		4.238	604.18	581.00
5.69	328.405	4.292	0.000			0.000		4.292	604.18	581.00
5.71	332.279	4.348	0.000			0.000		4.348	604.18	581.00
5.73	336.153	4.405	0.000			0.000		4.405	604.18	581.00
5.75	340.038	4.465	0.000			0.000		4.465	604.19	581.00
5.77	344.020	4.524	0.000			0.000		4.524	604.19	581.00
5.79	348.001	4.585	0.000			0.000		4.585	604.19	581.00
5.81	351.983	4.645	0.000			0.000		4.645	604.19	581.00
5.83	355.964	4.706	0.000			0.000		4.706	604.19	581.00
5.85	359.946	4.770	0.000			0.000		4.770	604.19	581.00
5.87	363.927	4.835	0.000			0.000		4.835	604.20	581.00
5.89	367.909	4.901	0.000			0.000		4.901	604.20	581.00
5.91	371.890	4.966	0.000			0.000		4.966	604.20	581.00
5.93	375.973	5.035	0.000			0.000		5.035	604.20	581.00
5.95	380.055	5.104	0.000			0.000		5.104	604.20	581.00
5.97	384.138	5.172	0.000			0.000		5.172	604.20	581.00
5.99	388.221	5.240	0.000			0.000		5.240	604.21	581.00
6.01	392.304	5.313	0.000			0.000		5.313	604.21	581.00
6.03	396.386	5.384	0.000			0.000		5.384	604.21	581.00
6.05	400.469	5.455	0.000			0.000		5.455	604.21	581.00
6.07	404.552	5.531	0.000			0.000		5.531	604.21	581.00
6.09	408.717	5.606	0.000			0.000		5.606	604.22	581.00
6.11	412.891	5.680	0.000			0.000		5.680	604.22	581.00
6.13	417.065	5.758	0.000			0.000		5.758	604.22	581.00
6.15	421.239	5.835	0.000			0.000		5.835	604.22	581.00
6.17	425.413	5.916	0.000			0.000		5.916	604.22	581.00
6.19	429.587	5.996	0.000			0.000		5.996	604.23	581.00
6.21	433.761	6.079	0.000			0.000		6.079	604.23	581.00
6.23	437.935	6.161	0.000			0.000		6.161	604.23	581.00
6.25	442.178	6.246	0.000			0.000		6.246	604.23	581.00
6.27	446.439	6.334	0.000			0.000		6.334	604.23	581.00
6.29	450.699	6.420	0.000			0.000		6.420	604.24	581.00
6.31	454.960	6.509	0.000			0.000		6.509	604.24	581.00
6.33	459.220	6.599	0.000			0.000		6.599	604.24	581.00
6.35	463.481	6.692	0.000			0.000		6.692	604.24	581.00
6.37	467.741	6.781	0.000			0.000		6.781	604.25	581.00
6.39	472.002	6.872	0.000			0.000		6.872	604.25	581.00
6.41	476.318	6.969	0.000			0.000		6.969	604.25	581.00
6.43	480.657	7.063	0.000			0.000		7.063	604.25	581.00
6.45	484.997	7.162	0.000			0.000		7.162	604.25	581.00
6.47	489.336	7.263	0.000			0.000		7.263	604.26	581.00
6.49	493.676	7.360	0.000			0.000		7.360	604.26	581.00
6.51	498.015	7.459	0.000			0.000		7.459	604.26	581.00
6.53	502.355	7.559	0.000			0.000		7.559	604.26	581.00
6.55	506.694	7.660	0.000			0.000		7.660	604.27	581.00
6.57	511.076	7.766	0.000			0.000		7.766	604.27	581.00
6.59	515.486	7.870	0.000			0.000		7.870	604.27	581.00
6.61	519.896	7.976	0.000			0.000		7.976	604.27	581.00
6.63	524.306	8.083	0.000			0.000		8.083	604.28	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal	Auxiliary	Auxiliary	Auxiliary	OverTop	Internal	Total	Reservoir	Tailwater
		Spillway	RTside				Erosion		Surface	
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
6.65	528.715	8.196	0.000			0.000		8.196	604.28	581.00
6.67	533.125	8.304	0.000			0.000		8.304	604.28	581.00
6.69	537.535	8.421	0.000			0.000		8.421	604.28	581.00
6.71	541.945	8.533	0.000			0.000		8.533	604.29	581.00
6.73	546.386	8.649	0.000			0.000		8.649	604.29	581.00
6.75	550.859	8.766	0.000			0.000		8.766	604.29	581.00
6.77	555.332	8.888	0.000			0.000		8.888	604.29	581.00
6.79	559.805	9.006	0.000			0.000		9.006	604.30	581.00
6.81	564.278	9.131	0.000			0.000		9.131	604.30	581.00
6.83	568.751	9.253	0.000			0.000		9.253	604.30	581.00
6.85	573.223	9.381	0.000			0.000		9.381	604.30	581.00
6.87	577.696	9.506	0.000			0.000		9.506	604.31	581.00
6.89	582.191	9.636	0.000			0.000		9.636	604.31	581.00
6.91	586.720	9.763	0.000			0.000		9.763	604.31	581.00
6.93	591.248	9.895	0.000			0.000		9.895	604.32	581.00
6.95	595.777	10.023	0.000			0.000		10.023	604.32	581.00
6.97	600.305	10.155	0.000			0.000		10.155	604.32	581.00
6.99	604.833	10.291	0.000			0.000		10.291	604.32	581.00
7.01	609.362	10.429	0.000			0.000		10.429	604.33	581.00
7.03	613.890	10.569	0.000			0.000		10.569	604.33	581.00
7.05	618.434	10.711	0.000			0.000		10.711	604.33	581.00
7.07	623.013	10.854	0.000			0.000		10.854	604.34	581.00
7.09	627.592	10.998	0.000			0.000		10.998	604.34	581.00
7.11	632.171	11.141	0.000			0.000		11.141	604.34	581.00
7.13	636.750	11.289	0.000			0.000		11.289	604.34	581.00
7.15	641.329	11.436	0.000			0.000		11.436	604.35	581.00
7.17	645.908	11.585	0.000			0.000		11.585	604.35	581.00
7.19	650.487	11.733	0.000			0.000		11.733	604.35	581.00
7.21	655.075	11.883	0.000			0.000		11.883	604.36	581.00
7.23	659.698	12.040	0.000			0.000		12.040	604.36	581.00
7.25	664.322	12.194	0.000			0.000		12.194	604.36	581.00
7.27	668.945	12.352	0.000			0.000		12.352	604.37	581.00
7.29	673.569	12.510	0.000			0.000		12.510	604.37	581.00
7.31	678.192	12.674	0.000			0.000		12.674	604.37	581.00
7.33	682.815	12.837	0.000			0.000		12.837	604.38	581.00
7.35	687.439	13.000	0.000			0.000		13.000	604.38	581.00
7.37	692.066	13.168	0.000			0.000		13.168	604.38	581.00
7.39	696.729	13.340	0.000			0.000		13.340	604.39	581.00
7.41	701.392	13.512	0.000			0.000		13.512	604.39	581.00
7.43	706.055	13.686	0.000			0.000		13.686	604.39	581.00
7.45	710.718	13.864	0.000			0.000		13.864	604.40	581.00
7.47	715.381	14.041	0.000			0.000		14.041	604.40	581.00
7.49	720.044	14.214	0.000			0.000		14.214	604.40	581.00
7.51	724.707	14.393	0.000			0.000		14.393	604.41	581.00
7.53	729.370	14.576	0.000			0.000		14.576	604.41	581.00
7.55	734.068	14.762	0.000			0.000		14.762	604.41	581.00
7.57	738.765	14.952	0.000			0.000		14.952	604.42	581.00
7.59	743.463	15.134	0.000			0.000		15.134	604.42	581.00
7.61	748.160	15.328	0.000			0.000		15.328	604.42	581.00
7.63	752.858	15.521	0.000			0.000		15.521	604.43	581.00
7.65	757.555	15.715	0.000			0.000		15.715	604.43	581.00
7.67	762.253	15.907	0.000			0.000		15.907	604.43	581.00
7.69	766.950	16.106	0.000			0.000		16.106	604.44	581.00
7.71	771.674	16.308	0.000			0.000		16.308	604.44	581.00
7.73	776.402	16.512	0.000			0.000		16.512	604.44	581.00
7.75	781.129	16.716	0.000			0.000		16.716	604.45	581.00
7.77	785.856	16.920	0.000			0.000		16.920	604.45	581.00
7.79	790.583	17.129	0.000			0.000		17.129	604.46	581.00
7.81	795.310	17.342	0.000			0.000		17.342	604.46	581.00
7.83	800.037	17.557	0.000			0.000		17.557	604.46	581.00
7.85	804.765	17.769	0.000			0.000		17.769	604.47	581.00
7.87	809.512	17.984	0.000			0.000		17.984	604.47	581.00
7.89	814.266	18.203	0.000			0.000		18.203	604.47	581.00
7.91	819.019	18.423	0.000			0.000		18.423	604.48	581.00
7.93	823.772	18.641	0.000			0.000		18.641	604.48	581.00
7.95	828.525	18.864	0.000			0.000		18.864	604.49	581.00
7.97	833.278	19.089	0.000			0.000		19.089	604.49	581.00



		Hydrograph Routing						Reservoir		
		Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Surface	Tailwater
Time (hrs)	Inflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
7.99	838.031	19.313	0.000			0.000		19.313	604.49	581.00
8.01	842.784	19.543	0.000			0.000		19.543	604.50	581.00
8.03	847.563	19.772	0.000			0.000		19.772	604.50	581.00
8.05	852.353	20.008	0.000			0.000		20.008	604.50	581.00
8.07	857.143	20.246	0.000			0.000		20.246	604.51	581.00
8.09	861.933	20.486	0.000			0.000		20.486	604.51	581.00
8.11	866.724	20.727	0.000			0.000		20.727	604.52	581.00
8.13	871.514	20.967	0.000			0.000		20.967	604.52	581.00
8.15	876.304	21.215	0.000			0.000		21.215	604.52	581.00
8.17	881.094	21.461	0.000			0.000		21.461	604.53	581.00
8.19	885.928	21.711	0.000			0.000		21.711	604.53	581.00
8.21	890.791	21.963	0.000			0.000		21.963	604.54	581.00
8.23	895.654	22.216	0.000			0.000		22.216	604.54	581.00
8.25	900.517	22.475	0.000			0.000		22.475	604.55	581.00
8.27	905.380	22.736	0.000			0.000		22.736	604.55	581.00
8.29	910.243	22.999	0.000			0.000		22.999	604.55	581.00
8.31	915.106	23.263	0.000			0.000		23.263	604.56	581.00
8.33	919.969	23.525	0.000			0.000		23.525	604.56	581.00
8.35	924.898	23.789	0.000			0.000		23.789	604.57	581.00
8.37	929.893	24.058	0.000			0.000		24.058	604.57	581.00
8.39	934.888	24.330	0.000			0.000		24.330	604.58	581.00
8.41	939.883	24.609	0.000			0.000		24.609	604.58	581.00
8.43	944.878	24.881	0.000			0.000		24.881	604.58	581.00
8.45	949.873	25.164	0.000			0.000		25.164	604.59	581.00
8.47	954.868	25.445	0.000			0.000		25.445	604.59	581.00
8.49	959.863	25.731	0.000			0.000		25.731	604.60	581.00
8.51	964.944	26.015	0.000			0.000		26.015	604.60	581.00
8.53	970.154	26.297	0.000			0.000		26.297	604.61	581.00
8.55	975.364	26.592	0.000			0.000		26.592	604.61	581.00
8.57	980.574	26.885	0.000			0.000		26.885	604.61	581.00
8.59	985.783	27.176	0.000			0.000		27.176	604.62	581.00
8.61	990.993	27.473	0.000			0.000		27.473	604.62	581.00
8.63	996.203	27.775	0.000			0.000		27.775	604.63	581.00
8.65	1001.413	28.078	0.000			0.000		28.078	604.63	581.00
8.67	1006.720	28.381	0.000			0.000		28.381	604.64	581.00
8.69	1012.255	28.689	0.000			0.000		28.689	604.64	581.00
8.71	1017.789	28.998	0.000			0.000		28.998	604.65	581.00
8.73	1023.324	29.312	0.000			0.000		29.312	604.65	581.00
8.75	1028.859	29.629	0.000			0.000		29.629	604.66	581.00
8.77	1034.393	29.952	0.000			0.000		29.952	604.66	581.00
8.79	1039.928	30.273	0.000			0.000		30.273	604.67	581.00
8.81	1045.462	30.594	0.000			0.000		30.594	604.67	581.00
8.83	1051.090	30.921	0.000			0.000		30.921	604.67	581.00
8.85	1057.091	31.255	0.000			0.000		31.255	604.68	581.00
8.87	1063.093	31.593	0.000			0.000		31.593	604.68	581.00
8.89	1069.094	31.927	0.000			0.000		31.927	604.69	581.00
8.91	1075.095	32.261	0.000			0.000		32.261	604.69	581.00
8.93	1081.096	32.608	0.000			0.000		32.608	604.70	581.00
8.95	1087.098	32.947	0.000			0.000		32.947	604.70	581.00
8.97	1093.099	33.297	0.000			0.000		33.297	604.71	581.00
8.99	1099.159	33.643	0.000			0.000		33.643	604.71	581.00
9.01	1105.752	33.995	0.000			0.000		33.995	604.72	581.00
9.03	1112.344	34.351	0.000			0.000		34.351	604.72	581.00
9.05	1118.937	34.707	0.000			0.000		34.707	604.73	581.00
9.07	1125.530	35.071	0.000			0.000		35.071	604.73	581.00
9.09	1132.122	35.438	0.000			0.000		35.438	604.74	581.00
9.11	1138.715	35.804	0.000			0.000		35.804	604.74	581.00
9.13	1145.307	36.180	0.000			0.000		36.180	604.75	581.00
9.15	1151.900	36.562	0.000			0.000		36.562	604.75	581.00
9.17	1159.153	36.945	0.000			0.000		36.945	604.76	581.00
9.19	1166.406	37.331	0.000			0.000		37.331	604.76	581.00
9.21	1173.659	37.718	0.000			0.000		37.718	604.77	581.00
9.23	1180.912	38.107	0.000			0.000		38.107	604.78	581.00
9.25	1188.165	38.496	0.000			0.000		38.496	604.78	581.00
9.27	1195.418	38.891	0.000			0.000		38.891	604.79	581.00
9.29	1202.672	39.291	0.000			0.000		39.291	604.79	581.00
9.31	1209.925	39.693	0.000			0.000		39.693	604.80	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal	Auxiliary	Auxiliary	Auxiliary	OverTop	Internal	Total	Reservoir	Tailwater Elevation (feet)
		Spillway Outflow (cfs)	RTside Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Erosion Outflow (cfs)		Surface Elevation (feet)	
9.33	1217.774	40.104	0.000			0.000		40.104	604.80	581.00
9.35	1225.690	40.512	0.000			0.000		40.512	604.81	581.00
9.37	1233.607	40.926	0.000			0.000		40.926	604.81	581.00
9.39	1241.523	41.342	0.000			0.000		41.342	604.82	581.00
9.41	1249.439	41.769	0.000			0.000		41.769	604.82	581.00
9.43	1257.355	42.202	0.000			0.000		42.202	604.83	581.00
9.45	1265.271	42.635	0.000			0.000		42.635	604.84	581.00
9.47	1273.187	43.072	0.000			0.000		43.072	604.84	581.00
9.49	1281.598	43.516	0.000			0.000		43.516	604.85	581.00
9.51	1290.132	43.958	0.000			0.000		43.958	604.85	581.00
9.53	1298.667	44.406	0.000			0.000		44.406	604.86	581.00
9.55	1307.201	44.863	0.000			0.000		44.863	604.86	581.00
9.57	1315.736	45.320	0.000			0.000		45.320	604.87	581.00
9.59	1324.270	45.784	0.000			0.000		45.784	604.88	581.00
9.61	1332.805	46.254	0.000			0.000		46.254	604.88	581.00
9.63	1341.340	46.724	0.000			0.000		46.724	604.89	581.00
9.65	1350.271	47.204	0.000			0.000		47.204	604.89	581.00
9.67	1359.372	47.682	0.000			0.000		47.682	604.90	581.00
9.69	1368.473	48.170	0.000			0.000		48.170	604.91	581.00
9.71	1377.574	48.657	0.000			0.000		48.657	604.91	581.00
9.73	1386.676	49.156	0.000			0.000		49.156	604.92	581.00
9.75	1395.777	49.658	0.000			0.000		49.658	604.93	581.00
9.77	1404.878	50.159	0.000			0.000		50.159	604.93	581.00
9.79	1413.979	50.663	0.000			0.000		50.663	604.94	581.00
9.81	1423.384	51.172	0.000			0.000		51.172	604.94	581.00
9.83	1432.992	51.685	0.000			0.000		51.685	604.95	581.00
9.85	1442.599	52.202	0.000			0.000		52.202	604.96	581.00
9.87	1452.207	52.724	0.000			0.000		52.724	604.96	581.00
9.89	1461.814	53.254	0.000			0.000		53.254	604.97	581.00
9.91	1471.421	53.793	0.000			0.000		53.793	604.98	581.00
9.93	1481.029	54.332	0.000			0.000		54.332	604.98	581.00
9.95	1490.636	54.875	0.000			0.000		54.875	604.99	581.00
9.97	1500.478	55.431	0.000			0.000		55.431	605.00	581.00
9.99	1510.553	55.990	0.000			0.000		55.990	605.00	581.00
10.01	1520.628	56.542	0.000			0.000		56.542	605.01	581.00
10.03	1530.704	57.104	0.000			0.000		57.104	605.02	581.00
10.05	1540.779	57.669	0.000			0.000		57.669	605.02	581.00
10.07	1550.854	58.242	0.000			0.000		58.242	605.03	581.00
10.09	1560.929	58.826	0.000			0.000		58.826	605.04	581.00
10.11	1571.005	59.409	0.000			0.000		59.409	605.04	581.00
10.13	1581.294	59.999	0.000			0.000		59.999	605.05	581.00
10.15	1591.904	60.599	0.000			0.000		60.599	605.06	581.00
10.17	1602.514	61.206	0.000			0.000		61.206	605.06	581.00
10.19	1613.123	61.815	0.000			0.000		61.815	605.07	581.00
10.21	1623.733	62.437	0.000			0.000		62.437	605.08	581.00
10.23	1634.343	63.064	0.000			0.000		63.064	605.08	581.00
10.25	1644.953	63.693	0.000			0.000		63.693	605.09	581.00
10.27	1655.563	64.328	0.000			0.000		64.328	605.10	581.00
10.29	1666.392	64.958	0.000			0.000		64.958	605.11	581.00
10.31	1677.735	65.609	0.000			0.000		65.609	605.11	581.00
10.33	1689.076	66.256	0.000			0.000		66.256	605.12	581.00
10.35	1700.418	66.918	0.000			0.000		66.918	605.13	581.00
10.37	1711.760	67.581	0.000			0.000		67.581	605.14	581.00
10.39	1723.102	68.254	0.000			0.000		68.254	605.14	581.00
10.41	1734.444	68.929	0.000			0.000		68.929	605.15	581.00
10.43	1745.786	69.605	0.000			0.000		69.605	605.16	581.00
10.45	1757.331	70.295	0.000			0.000		70.295	605.17	581.00
10.47	1769.687	70.990	0.000			0.000		70.990	605.17	581.00
10.49	1782.042	71.693	0.000			0.000		71.693	605.18	581.00
10.51	1794.398	72.397	0.000			0.000		72.397	605.19	581.00
10.53	1806.753	73.120	0.000			0.000		73.120	605.20	581.00
10.55	1819.109	73.841	0.000			0.000		73.841	605.21	581.00
10.57	1831.464	74.564	0.000			0.000		74.564	605.21	581.00
10.59	1843.820	75.292	0.000			0.000		75.292	605.22	581.00
10.61	1856.313	76.027	0.000			0.000		76.027	605.23	581.00
10.63	1870.041	76.781	0.000			0.000		76.781	605.24	581.00
10.65	1883.770	77.543	0.000			0.000		77.543	605.25	581.00



Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal	Auxiliary	Auxiliary	Auxiliary	OverTop	Internal	Total	Reservoir	Tailwater Elevation (feet)
		Spillway Outflow (cfs)	RTside Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Erosion Outflow (cfs)		Surface Elevation (feet)	
10.67	1897.498	78.307	0.000			0.000		78.307	605.25	581.00
10.69	1911.226	79.084	0.000			0.000		79.084	605.26	581.00
10.71	1924.955	79.865	0.000			0.000		79.865	605.27	581.00
10.73	1938.683	80.656	0.000			0.000		80.656	605.28	581.00
10.75	1952.412	81.447	0.000			0.000		81.447	605.29	581.00
10.77	1966.140	82.250	0.000			0.000		82.250	605.30	581.00
10.79	1981.666	83.065	0.000			0.000		83.065	605.30	581.00
10.81	1997.192	83.884	0.000			0.000		83.884	605.31	581.00
10.83	2012.718	84.715	0.000			0.000		84.715	605.32	581.00
10.85	2028.244	85.555	0.000			0.000		85.555	605.33	581.00
10.87	2043.770	86.399	0.000			0.000		86.399	605.34	581.00
10.89	2059.296	87.257	0.000			0.000		87.257	605.35	581.00
10.91	2074.821	88.124	0.000			0.000		88.124	605.36	581.00
10.93	2090.347	89.002	0.000			0.000		89.002	605.37	581.00
10.95	2107.921	89.889	0.000			0.000		89.889	605.37	581.00
10.97	2125.722	90.786	0.000			0.000		90.786	605.38	581.00
10.99	2143.523	91.692	0.000			0.000		91.692	605.39	581.00
11.01	2161.325	92.600	0.000			0.000		92.600	605.40	581.00
11.03	2179.126	93.525	0.000			0.000		93.525	605.41	581.00
11.05	2196.927	94.451	0.000			0.000		94.451	605.42	581.00
11.07	2214.729	95.392	0.000			0.000		95.392	605.43	581.00
11.09	2232.530	96.348	0.000			0.000		96.348	605.44	581.00
11.11	2252.697	97.309	0.000			0.000		97.309	605.45	581.00
11.13	2273.457	98.287	0.000			0.000		98.287	605.46	581.00
11.15	2294.216	99.280	0.000			0.000		99.280	605.47	581.00
11.17	2314.975	100.280	0.000			0.000		100.280	605.48	581.00
11.19	2335.734	101.298	0.000			0.000		101.298	605.49	581.00
11.21	2356.494	102.312	0.000			0.000		102.312	605.50	581.00
11.23	2377.253	103.344	0.000			0.000		103.344	605.51	581.00
11.25	2398.012	104.388	0.000			0.000		104.388	605.52	581.00
11.27	2421.475	105.435	0.000			0.000		105.435	605.53	581.00
11.29	2446.096	106.501	0.000			0.000		106.501	605.54	581.00
11.31	2470.717	107.578	0.000			0.000		107.578	605.55	581.00
11.33	2495.338	108.669	0.000			0.000		108.669	605.56	581.00
11.35	2519.959	109.787	0.000			0.000		109.787	605.57	581.00
11.37	2544.580	110.908	0.000			0.000		110.908	605.58	581.00
11.39	2569.201	112.052	0.000			0.000		112.052	605.59	581.00
11.41	2593.822	113.210	0.000			0.000		113.210	605.60	581.00
11.43	2622.138	114.371	0.000			0.000		114.371	605.61	581.00
11.45	2652.918	115.549	0.000			0.000		115.549	605.62	581.00
11.47	2683.699	116.752	0.000			0.000		116.752	605.64	581.00
11.49	2714.479	117.967	0.000			0.000		117.967	605.65	581.00
11.51	2745.259	119.204	0.000			0.000		119.204	605.66	581.00
11.53	2776.039	120.449	0.000			0.000		120.449	605.67	581.00
11.55	2806.820	121.715	0.000			0.000		121.715	605.68	581.00
11.57	2837.600	123.013	0.000			0.000		123.013	605.69	581.00
11.59	2876.670	124.319	0.000			0.000		124.319	605.71	581.00
11.61	2924.031	125.638	0.000			0.000		125.638	605.72	581.00
11.63	2971.391	126.987	0.000			0.000		126.987	605.73	581.00
11.65	3018.752	128.364	0.000			0.000		128.364	605.74	581.00
11.67	3066.112	128.452	0.000			0.000		128.452	605.76	581.00
11.69	3113.473	128.510	0.000			0.000		128.510	605.77	581.00
11.71	3160.833	128.569	0.000			0.000		128.569	605.78	581.00
11.73	3208.194	128.630	0.000			0.000		128.630	605.79	581.00
11.75	3272.820	128.690	0.000			0.000		128.690	605.81	581.00
11.77	3363.346	128.753	0.000			0.000		128.753	605.82	581.00
11.79	3453.872	128.817	0.000			0.000		128.817	605.84	581.00
11.81	3544.398	128.882	0.000			0.000		128.882	605.85	581.00
11.83	3634.924	128.949	0.000			0.000		128.949	605.87	581.00
11.85	3725.450	129.019	0.000			0.000		129.019	605.88	581.00
11.87	3815.976	129.090	0.000			0.000		129.090	605.90	581.00
11.89	3906.502	129.162	0.000			0.000		129.162	605.91	581.00
11.91	4014.378	129.236	0.000			0.000		129.236	605.93	581.00
11.93	4162.737	129.312	0.000			0.000		129.312	605.95	581.00
11.95	4311.096	129.391	0.000			0.000		129.391	605.96	581.00
11.97	4459.456	129.473	0.000			0.000		129.473	605.98	581.00
11.99	4607.815	129.558	0.000			0.000		129.558	606.00	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal	Auxiliary	Auxiliary	Auxiliary	OverTop	Internal	Total	Reservoir	Tailwater
		Spillway	RTside				Erosion		Surface	
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
12.01	4756.174	129.645	0.000			0.000		129.645	606.02	581.00
12.03	4904.533	129.735	0.000			0.000		129.735	606.04	581.00
12.05	5052.892	129.828	0.000			0.000		129.828	606.06	581.00
12.07	5211.296	129.923	0.000			0.000		129.923	606.08	581.00
12.09	5409.876	130.022	0.000			0.000		130.022	606.11	581.00
12.11	5608.457	130.123	0.000			0.000		130.123	606.13	581.00
12.13	5807.037	130.229	0.000			0.000		130.229	606.15	581.00
12.15	6005.617	130.338	0.000			0.000		130.338	606.18	581.00
12.17	6204.197	130.451	0.000			0.000		130.451	606.20	581.00
12.19	6402.778	130.567	0.000			0.000		130.567	606.23	581.00
12.21	6601.358	130.686	0.000			0.000		130.686	606.26	581.00
12.23	6805.159	130.809	0.000			0.000		130.809	606.28	581.00
12.25	7055.948	130.936	0.000			0.000		130.936	606.31	581.00
12.27	7306.737	131.067	0.000			0.000		131.067	606.34	581.00
12.29	7557.525	131.203	0.000			0.000		131.203	606.37	581.00
12.31	7808.314	131.343	0.000			0.000		131.343	606.40	581.00
12.33	8059.103	131.486	0.000			0.000		131.486	606.44	581.00
12.35	8309.892	131.635	0.000			0.000		131.635	606.47	581.00
12.37	8560.681	131.787	0.000			0.000		131.787	606.51	581.00
12.39	8811.470	131.943	0.000			0.000		131.943	606.54	581.00
12.41	9117.660	132.104	0.000			0.000		132.104	606.58	581.00
12.43	9423.850	132.270	0.000			0.000		132.270	606.62	581.00
12.45	9730.040	132.441	0.000			0.000		132.441	606.65	581.00
12.47	10036.230	132.617	0.000			0.000		132.617	606.69	581.00
12.49	10342.420	132.797	0.000			0.000		132.797	606.74	581.00
12.51	10648.610	132.982	0.000			0.000		132.982	606.78	581.00
12.53	10954.800	133.172	0.000			0.000		133.172	606.82	581.00
12.55	11260.990	133.367	0.000			0.000		133.367	606.87	581.00
12.57	11593.585	133.566	0.000			0.000		133.566	606.91	581.00
12.59	11929.113	133.771	0.000			0.000		133.771	606.96	581.00
12.61	12264.642	133.980	0.000			0.000		133.980	607.01	581.00
12.63	12600.170	134.194	0.000			0.000		134.194	607.06	581.00
12.65	12935.699	134.414	0.000			0.000		134.414	607.11	581.00
12.67	13271.227	134.637	0.000			0.000		134.637	607.16	581.00
12.69	13606.755	134.866	0.000			0.000		134.866	607.21	581.00
12.71	13942.284	135.100	0.000			0.000		135.100	607.27	581.00
12.73	14253.107	135.337	0.000			0.000		135.337	607.32	581.00
12.75	14557.754	135.579	0.000			0.000		135.579	607.38	581.00
12.77	14862.401	135.825	0.000			0.000		135.825	607.44	581.00
12.79	15167.048	136.074	0.000			0.000		136.074	607.50	581.00
12.81	15471.695	136.327	0.000			0.000		136.327	607.56	581.00
12.83	15776.342	136.584	0.000			0.000		136.584	607.62	581.00
12.85	16080.989	136.844	0.000			0.000		136.844	607.68	581.00
12.87	16385.635	137.108	0.000			0.000		137.108	607.74	581.00
12.89	16638.299	137.375	0.000			0.000		137.375	607.80	581.00
12.91	16868.684	137.645	0.000			0.000		137.645	607.87	581.00
12.93	17099.070	137.917	0.000			0.000		137.917	607.93	581.00
12.95	17329.455	138.191	0.000			0.000		138.191	608.00	581.00
12.97	17559.840	138.467	0.000			0.000		138.467	608.06	581.00
12.99	17790.225	138.745	0.000			0.000		138.745	608.13	581.00
13.01	18020.610	139.026	0.000			0.000		139.026	608.20	581.00
13.03	18250.995	139.308	0.000			0.000		139.308	608.27	581.00
13.05	18429.583	139.592	0.000			0.000		139.592	608.34	581.00
13.07	18573.638	139.877	0.000			0.000		139.877	608.40	581.00
13.09	18717.694	140.162	0.000			0.000		140.162	608.47	581.00
13.11	18861.750	140.447	0.000			0.000		140.447	608.54	581.00
13.13	19005.805	140.734	0.000			0.000		140.734	608.61	581.00
13.15	19149.861	141.020	0.000			0.000		141.020	608.68	581.00
13.17	19293.916	141.307	0.000			0.000		141.307	608.75	581.00
13.19	19437.972	141.595	0.000			0.000		141.595	608.82	581.00
13.21	19540.799	141.883	0.000			0.000		141.883	608.89	581.00
13.23	19602.398	142.171	0.000			0.000		142.171	608.96	581.00
13.25	19663.996	142.457	0.434			0.000		142.891	609.03	581.00
13.27	19725.595	142.743	1.350			0.000		144.094	609.10	581.00
13.29	19787.194	143.029	2.256			0.000		145.285	609.17	581.00
13.31	19848.793	143.313	3.179			0.000		146.492	609.24	581.00
13.33	19910.391	143.597	4.092			0.000		147.689	609.32	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal	Auxiliary	Auxiliary	Auxiliary	OverTop	Internal	Total	Reservoir	Tailwater Elevation (feet)
		Spillway Outflow (cfs)	RTside Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Erosion Outflow (cfs)		Surface Elevation (feet)	
13.35	19971.990	143.880	5.006			0.000		148.885	609.39	581.00
13.37	20006.644	144.161	5.916			0.000		150.077	609.46	581.00
13.39	20000.881	144.442	6.796			0.000		151.238	609.53	581.00
13.41	19995.118	144.720	7.729			0.000		152.450	609.59	581.00
13.43	19989.355	144.997	9.216			0.000		154.214	609.66	581.00
13.45	19983.592	145.273	15.153			0.000		160.425	609.73	581.00
13.47	19977.830	145.546	23.383			0.000		168.929	609.80	581.00
13.49	19972.067	145.818	32.140			0.000		177.958	609.87	581.00
13.51	19966.304	146.088	41.530			0.000		187.618	609.94	581.00
13.53	19940.496	146.357	52.410			0.000		198.767	610.01	581.00
13.55	19867.918	146.623	63.389			0.000		210.012	610.07	581.00
13.57	19795.341	146.886	74.982			0.000		221.868	610.14	581.00
13.59	19722.763	147.148	87.132			0.000		234.279	610.21	581.00
13.61	19650.185	147.406	98.243			0.000		245.650	610.27	581.00
13.63	19577.607	147.663	112.293			0.000		259.956	610.34	581.00
13.65	19505.030	147.917	125.981			0.000		273.897	610.40	581.00
13.67	19432.452	148.168	139.597			0.000		287.765	610.47	581.00
13.69	19350.782	148.417	152.198			0.000		300.615	610.53	581.00
13.71	19232.745	148.663	167.445			0.000		316.108	610.59	581.00
13.73	19114.708	148.907	181.968			0.000		330.875	610.66	581.00
13.75	18996.671	149.147	196.736			0.000		345.883	610.72	581.00
13.77	18878.634	149.385	211.730			0.000		361.115	610.78	581.00
13.79	18760.597	149.620	226.891			0.000		376.511	610.84	581.00
13.81	18642.560	149.852	242.250			0.000		392.102	610.90	581.00
13.83	18524.523	150.081	257.742			0.000		407.822	610.96	581.00
13.85	18403.353	150.308	273.447			0.000		423.754	611.02	581.00
13.87	18253.989	150.532	289.276			0.000		439.807	611.08	581.00
13.89	18104.625	150.752	305.196			0.000		455.948	611.13	581.00
13.91	17955.260	150.970	321.214			0.000		472.184	611.19	581.00
13.93	17805.896	151.185	336.189			0.000		487.373	611.25	581.00
13.95	17656.532	151.397	353.485			0.000		504.881	611.30	581.00
13.97	17507.168	151.606	369.720			0.000		521.326	611.36	581.00
13.99	17357.804	151.812	386.063			0.000		537.875	611.41	581.00
14.01	17208.440	152.015	401.623			0.000		553.638	611.47	581.00
14.03	17024.731	152.215	418.666			0.000		570.881	611.52	581.00
14.05	16841.022	152.412	435.057			0.000		587.469	611.57	581.00
14.07	16657.314	152.606	448.127			0.000		600.734	611.62	581.00
14.09	16473.605	152.797	464.622			0.000		617.420	611.67	581.00
14.11	16289.896	152.985	482.861			0.000		635.846	611.72	581.00
14.13	16106.188	153.170	499.839			0.000		653.008	611.77	581.00
14.15	15922.479	153.351	516.509			0.000		669.860	611.82	581.00
14.17	15738.770	153.530	532.763			0.000		686.293	611.87	581.00
14.19	15534.446	153.706	548.939			0.000		702.645	611.91	581.00
14.21	15327.831	153.878	565.026			0.000		718.904	611.96	581.00
14.23	15121.217	154.047	581.003			0.000		735.051	612.00	581.00
14.25	14914.602	154.214	596.878			0.000		751.092	612.05	581.00
14.27	14707.987	154.377	612.635			0.000		767.012	612.09	581.00
14.29	14501.372	154.537	628.250			0.000		782.786	612.13	581.00
14.31	14294.757	154.694	643.738			0.000		798.432	612.17	581.00
14.33	14088.142	154.848	659.097			0.000		813.945	612.22	581.00
14.35	13891.628	154.999	674.274			0.000		829.273	612.26	581.00
14.37	13697.640	155.147	689.379			0.000		844.527	612.30	581.00
14.39	13503.651	155.292	704.266			0.000		859.558	612.34	581.00
14.41	13309.662	155.435	716.338			0.000		871.773	612.37	581.00
14.43	13115.673	155.575	733.638			0.000		889.213	612.41	581.00
14.45	12921.684	155.712	748.091			0.000		903.803	612.45	581.00
14.47	12727.695	155.847	762.383			0.000		918.229	612.48	581.00
14.49	12533.706	155.978	776.482			0.000		932.460	612.52	581.00
14.51	12362.236	156.107	790.405			0.000		946.512	612.55	581.00
14.53	12200.416	156.234	804.232			0.000		960.467	612.59	581.00
14.55	12038.596	156.359	817.897			0.000		974.255	612.62	581.00
14.57	11876.776	156.481	831.399			0.000		987.880	612.66	581.00
14.59	11714.957	156.601	844.809			0.000		1001.410	612.69	581.00
14.61	11553.137	156.719	856.412			0.000		1013.131	612.72	581.00
14.63	11391.317	156.834	870.030			0.000		1026.864	612.75	581.00
14.65	11229.497	156.948	883.537			0.000		1040.485	612.78	581.00
14.67	11081.852	157.060	896.784			0.000		1053.843	612.81	581.00



Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal	Auxiliary	Auxiliary	Auxiliary	OverTop Outflow (cfs)	Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir	Tailwater Elevation (feet)
		Spillway Outflow (cfs)	RTside Outflow (cfs)	Outflow (cfs)	Outflow (cfs)				Surface Elevation (feet)	
14.69	10943.657	157.169	909.393			0.000		1066.563	612.84	581.00
14.71	10805.462	157.277	921.831			0.000		1079.108	612.87	581.00
14.73	10667.267	157.383	934.161			0.000		1091.544	612.90	581.00
14.75	10529.072	157.487	946.284			0.000		1103.770	612.93	581.00
14.77	10390.877	157.588	958.214			0.000		1115.803	612.96	581.00
14.79	10252.682	157.689	970.003			0.000		1127.692	612.98	581.00
14.81	10114.487	157.787	981.637			0.000		1139.424	613.01	581.00
14.83	9985.318	157.883	993.418			0.003		1151.304	613.04	581.00
14.85	9865.173	157.978	1004.842			0.018		1162.839	613.06	581.00
14.87	9745.029	158.072	1013.764			0.053		1171.889	613.09	581.00
14.89	9624.884	158.164	1025.078			0.119		1183.361	613.11	581.00
14.91	9504.740	158.255	1036.255			0.221		1194.730	613.14	581.00
14.93	9384.595	158.343	1047.270			0.372		1205.985	613.16	581.00
14.95	9264.451	158.430	1057.245			0.574		1216.250	613.19	581.00
14.97	9144.307	158.516	1071.397			0.828		1230.741	613.21	581.00
14.99	9031.002	158.600	1081.938			1.157		1241.694	613.23	581.00
15.01	8927.956	158.683	1092.405			1.547		1252.636	613.25	581.00
15.03	8824.910	158.764	1102.713			2.012		1263.489	613.28	581.00
15.05	8721.865	158.844	1112.932			2.555		1274.330	613.30	581.00
15.07	8618.819	158.923	1122.982			3.197		1285.102	613.32	581.00
15.09	8515.773	159.000	1132.778			3.893		1295.672	613.34	581.00
15.11	8412.728	159.076	1140.202			4.679		1303.957	613.36	581.00
15.13	8309.682	159.151	1152.468			5.572		1317.191	613.38	581.00
15.15	8210.168	159.225	1162.009			6.559		1327.792	613.40	581.00
15.17	8118.895	159.297	1171.414			7.622		1338.333	613.42	581.00
15.19	8027.622	159.367	1180.681			8.789		1348.837	613.44	581.00
15.21	7936.350	159.437	1189.889			10.015		1359.342	613.46	581.00
15.23	7845.077	159.506	1198.935			11.375		1369.816	613.48	581.00
15.25	7753.804	159.574	1207.903			12.802		1380.278	613.50	581.00
15.27	7662.531	159.640	1216.703			14.309		1390.652	613.52	581.00
15.29	7571.258	159.705	1225.384			16.817		1401.906	613.54	581.00
15.31	7481.559	159.769	1233.928			22.280		1415.977	613.55	581.00
15.33	7398.154	159.832	1242.384			28.085		1430.300	613.57	581.00
15.35	7314.749	159.894	1250.732			34.354		1444.980	613.59	581.00
15.37	7231.344	159.955	1258.958			40.967		1459.880	613.61	581.00
15.39	7147.939	160.015	1267.072			47.974		1475.060	613.62	581.00
15.41	7064.534	160.073	1274.984			55.217		1490.274	613.64	581.00
15.43	6981.129	160.131	1282.834			62.834		1505.799	613.65	581.00
15.45	6897.724	160.187	1290.529			70.922		1521.638	613.67	581.00
15.47	6815.300	160.243	1298.115			78.867		1537.225	613.68	581.00
15.49	6741.696	160.297	1305.572			87.593		1553.462	613.70	581.00
15.51	6668.092	160.350	1312.913			96.354		1569.618	613.71	581.00
15.53	6594.489	160.402	1320.100			105.264		1585.767	613.73	581.00
15.55	6520.885	160.454	1327.193			114.529		1602.175	613.74	581.00
15.57	6447.281	160.504	1334.210			124.103		1618.817	613.76	581.00
15.59	6373.677	160.554	1341.116			133.682		1635.351	613.77	581.00<-SurfFail
15.61	6300.074	160.602	1347.851			143.596		1652.050	613.78	581.00
15.63	6226.470	160.650	1352.162			153.698		1666.510	613.80	581.00
15.65	6163.128	160.696	1358.879			163.807		1683.382	613.81	581.00
15.67	6099.786	160.742	1365.488			174.144		1700.374	613.82	581.00
15.69	6036.444	160.786	1371.954			184.561		1717.301	613.84	581.00
15.71	5973.102	160.831	1378.374			195.378		1734.583	613.85	581.00
15.73	5909.760	160.874	1384.648			206.193		1751.714	613.86	581.00
15.75	5846.418	160.916	1390.786			217.054		1768.756	613.87	581.00
15.77	5783.076	160.957	1396.842			227.961		1785.760	613.88	581.00
15.79	5719.734	160.998	1402.810			239.073		1802.881	613.89	581.00
15.81	5662.987	161.038	1408.656			250.438		1820.132	613.91	581.00
15.83	5606.972	161.077	1414.359			261.894		1837.329	613.92	581.00
15.85	5550.957	161.114	1419.935			273.589		1854.638	613.93	581.00
15.87	5494.942	161.152	1425.421			285.363		1871.936	613.94	581.00
15.89	5438.927	161.188	1430.852			297.477		1889.518	613.95	581.00
15.91	5382.913	161.224	1436.166			309.904		1907.295	613.96	581.00
15.93	5326.898	161.259	1441.066			322.479		1924.804	613.97	581.00
15.95	5270.883	161.294	1446.014			335.437		1942.745	613.98	581.00
15.97	5219.810	161.327	1450.870			349.208		1961.406	613.99	581.00
15.98	5207.351	161.336	1452.083			359.193		1972.612	613.99	581.00<-Brchl nlt
15.98	5194.892	161.344	1453.257			373.116		1987.717	613.99	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
15.99	5182.433	161.352	1454.429			390.866		2006.647	613.99	581.00
15.99	5169.973	161.360	1455.604			413.712		2030.676	614.00	581.00
16.00	5157.514	161.368	1456.733			443.389		2061.490	614.00	581.00
16.00	5145.055	161.376	1457.884			482.198		2101.458	614.00	581.00
16.01	5132.595	161.383	1458.955			538.305		2158.643	614.00	581.00
16.01	5120.136	161.390	1460.003			599.967		2221.360	614.00	581.00
16.02	5107.677	161.397	1461.030			689.687		2312.115	614.01	581.00
16.02	5095.218	161.404	1462.036			815.194		2438.634	614.01	581.00
16.03	5082.758	161.411	1463.022			973.838		2598.271	614.01	581.00
16.03	5070.299	161.417	1463.896			1190.737		2816.050	614.01	581.00
16.04	5057.840	161.422	1464.663			1482.858		3108.944	614.01	581.00
16.04	5045.381	161.427	1465.329			1877.025		3503.781	614.01	581.00
16.05	5032.921	161.430	1465.811			2411.197		4038.438	614.01	581.00
16.05	5020.462	161.432	1466.027			3130.479		4757.938	614.02	581.00
16.06	5008.003	161.431	1465.934			4102.202		5729.567	614.02	581.00
16.06	4995.544	161.428	1465.413			5412.559		7039.400	614.01	581.00
16.07	4983.084	161.420	1464.355			7184.165		8809.940	614.01	581.00
16.07	4970.625	161.408	1462.546			9573.342		11197.295	614.01	581.00
16.08	4958.166	161.388	1459.661			12788.284		14409.333	614.00	581.00
16.08	4945.707	161.359	1455.400			17114.958		18731.717	613.99	581.00
16.09	4933.247	161.323	1450.258			17317.615		18929.196	613.98	581.00
16.09	4920.788	161.287	1445.058			17521.398		19127.743	613.97	581.00
16.11	4870.951	161.138	1423.355			18349.843		19934.336	613.93	581.00
16.13	4825.051	160.979	1400.098			19196.043		20757.120	613.89	581.00
16.15	4780.839	160.811	1375.541			20058.926		21595.278	613.84	581.00
16.17	4736.627	160.634	1349.817			20939.028		22449.478	613.79	581.00
16.19	4692.414	160.446	1326.084			21835.466		23321.995	613.74	581.00
16.21	4648.202	160.248	1298.855			22748.049		24207.152	613.69	581.00
16.23	4603.990	160.040	1270.399			23675.617		25106.056	613.63	581.00
16.25	4559.777	159.820	1240.808			24617.535		26018.164	613.57	581.00
16.27	4515.565	159.591	1210.142			25574.310		26944.042	613.50	581.00
16.29	4474.372	159.349	1178.292			26541.850		27879.491	613.44	581.00
16.31	4435.192	159.097	1145.392			27514.840		28819.329	613.37	581.00
16.33	4396.011	158.832	1111.387			28490.856		29761.075	613.30	581.00
16.35	4356.831	158.556	1076.373			29466.477		30701.407	613.22	581.00
16.37	4317.651	158.268	1037.855			30436.825		31632.947	613.14	581.00
16.39	4278.471	157.967	1003.512			31394.877		32556.356	613.06	581.00
16.41	4239.290	157.659	966.511			31692.199		32816.369	612.98	581.00<-BrchForm
16.43	4200.110	157.346	929.895			31793.138		32880.379	612.89	581.00
16.45	4162.776	157.031	893.355			31891.157		32941.542	612.80	581.00
16.47	4127.288	156.712	855.580			31986.112		32998.403	612.72	581.00
16.49	4091.801	156.390	821.393			32078.288		33056.072	612.63	581.00
16.51	4056.313	156.066	785.931			32167.490		33109.487	612.54	581.00
16.53	4020.825	155.738	750.864			32253.831		33160.433	612.46	581.00
16.55	3985.338	155.408	713.527			32337.288		33206.222	612.37	581.00
16.57	3949.850	155.074	681.915			32417.648		33254.638	612.28	581.00
16.59	3914.363	154.738	648.098			32495.309		33298.145	612.19	581.00
16.61	3880.529	154.398	614.719			32569.868		33338.986	612.10	581.00
16.63	3849.176	154.055	581.756			32641.354		33377.165	612.00	581.00
16.65	3817.823	153.709	549.287			32709.944		33412.939	611.91	581.00
16.67	3786.470	153.360	517.329			32775.642		33446.331	611.82	581.00
16.69	3755.116	153.009	484.986			32838.362		33476.356	611.73	581.00
16.71	3723.763	152.653	452.182			32898.127		33502.962	611.63	581.00
16.73	3692.410	152.295	425.308			32954.956		33532.559	611.54	581.00
16.75	3661.057	151.934	395.640			33008.777		33556.352	611.44	581.00
16.77	3630.780	151.570	366.901			33059.560		33578.031	611.35	581.00
16.79	3603.013	151.202	337.428			33107.345		33595.974	611.25	581.00
16.81	3575.247	150.830	310.917			33152.011		33613.759	611.16	581.00
16.83	3547.480	150.456	283.902			33193.891		33628.250	611.06	581.00
16.85	3519.713	150.079	257.602			33232.554		33640.235	610.96	581.00
16.87	3491.947	149.698	232.011			33268.269		33649.978	610.86	581.00
16.89	3464.180	149.314	207.200			33301.107		33657.621	610.76	581.00
16.91	3436.413	148.926	183.170			33330.820		33662.916	610.66	581.00
16.93	3409.210	148.536	159.758			33357.557		33665.851	610.56	581.00
16.95	3384.261	148.141	138.147			33381.122		33667.411	610.46	581.00
16.97	3359.311	147.744	116.719			33401.721		33666.184	610.36	581.00
16.99	3334.362	147.342	95.334			33419.207		33661.883	610.26	581.00



Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
17.01	3309.412	146.937	77.448			33433.581		33657.967	610.15	581.00
17.03	3284.463	146.529	59.312			33444.921		33650.761	610.05	581.00
17.05	3259.514	146.117	42.574			33453.345		33642.036	609.95	581.00
17.07	3234.564	145.701	28.283			33458.522		33632.506	609.84	581.00
17.09	3209.887	145.282	15.510			33460.760		33621.553	609.74	581.00
17.11	3187.655	144.859	8.181			33459.882		33612.923	609.63	581.00
17.13	3165.423	144.433	6.790			33455.890		33607.113	609.52	581.00
17.15	3143.190	144.002	5.373			33448.719		33598.094	609.42	581.00
17.17	3120.958	143.567	3.998			33438.244		33585.809	609.31	581.00
17.19	3098.726	143.128	2.586			33424.671		33570.386	609.20	581.00
17.21	3076.494	142.686	1.165			33407.955		33551.806	609.09	581.00
17.23	3054.262	142.238	0.000			33387.850		33530.088	608.98	581.00
17.25	3032.030	141.787	0.000			33364.689		33506.476	608.87	581.00
17.27	3012.186	141.332	0.000			33338.424		33479.755	608.76	581.00
17.29	2992.341	140.872	0.000			33309.023		33449.896	608.65	581.00
17.31	2972.497	140.409	0.000			33276.681		33417.090	608.53	581.00
17.33	2952.652	139.942	0.000			33241.183		33381.125	608.42	581.00
17.35	2932.808	139.470	0.000			33202.544		33342.014	608.31	581.00
17.37	2912.963	138.994	0.000			33160.822		33299.816	608.19	581.00
17.39	2893.119	138.514	0.000			33115.942		33254.455	608.08	581.00
17.41	2873.274	138.029	0.000			33067.892		33205.921	607.96	581.00
17.43	2855.046	137.540	0.000			33016.915		33154.455	607.84	581.00
17.45	2836.996	137.047	0.000			32962.879		33099.926	607.73	581.00
17.47	2818.947	136.549	0.000			32905.666		33042.215	607.61	581.00
17.49	2800.897	136.046	0.000			32845.289		32981.335	607.49	581.00
17.51	2782.848	135.539	0.000			32781.786		32917.325	607.37	581.00
17.53	2764.799	135.028	0.000			32715.339		32850.366	607.25	581.00
17.55	2746.749	134.511	0.000			32645.789		32780.300	607.13	581.00
17.57	2728.700	133.990	0.000			32573.128		32707.118	607.01	581.00
17.59	2712.140	133.464	0.000			32497.445		32630.909	606.89	581.00
17.61	2695.952	132.934	0.000			32418.710		32551.644	606.77	581.00
17.63	2679.765	132.398	0.000			32336.945		32469.343	606.64	581.00
17.65	2663.577	131.858	0.000			32252.282		32384.140	606.52	581.00
17.67	2647.389	131.313	0.000			32164.605		32295.918	606.40	581.00
17.69	2631.202	130.762	0.000			32073.754		32204.516	606.27	581.00
17.71	2615.014	130.206	0.000			31979.905		32110.112	606.15	581.00
17.73	2598.826	129.645	0.000			31882.978		32012.623	606.02	581.00
17.75	2583.769	129.079	0.000			31783.029		31912.108	605.89	581.00
17.77	2569.196	128.507	0.000			31680.089		31808.596	605.77	581.00
17.79	2554.623	117.179	0.000			31574.328		31691.507	605.64	581.00
17.81	2540.050	103.683	0.000			31465.541		31569.223	605.51	581.00
17.83	2525.478	90.688	0.000			31353.826		31444.514	605.38	581.00
17.85	2510.905	78.228	0.000			31239.181		31317.409	605.25	581.00
17.87	2496.332	66.355	0.000			31121.897		31188.252	605.12	581.00
17.89	2481.759	55.099	0.000			31001.686		31056.786	604.99	581.00
17.91	2468.169	44.515	0.000			30878.567		30923.082	604.86	581.00
17.93	2455.235	34.666	0.000			30752.553		30787.219	604.73	581.00
17.95	2442.300	25.635	0.000			30623.706		30649.341	604.60	581.00
17.97	2429.365	17.518	0.000			30491.721		30509.238	604.46	581.00
17.99	2416.431	10.478	0.000			30357.052		30367.530	604.33	581.00
18.01	2403.496	4.743	0.000			30219.623		30224.365	604.19	581.00
18.03	2390.562	0.777	0.000			30078.953		30079.730	604.06	581.00
18.05	2377.627	0.000	0.000			29935.537		29935.537	603.92	581.00
18.07	2365.287	0.000	0.000			29789.213		29789.213	603.79	581.00
18.09	2353.540	0.000	0.000			29639.955		29639.955	603.65	581.00
18.11	2341.793	0.000	0.000			29488.018		29488.018	603.51	581.00
18.13	2330.046	0.000	0.000			29332.854		29332.854	603.37	581.00
18.15	2318.299	0.000	0.000			29174.909		29174.909	603.23	581.00
18.17	2306.552	0.000	0.000			29014.068		29014.068	603.09	581.00
18.19	2294.805	0.000	0.000			28850.181		28850.181	602.95	581.00
18.21	2283.058	0.000	0.000			28683.474		28683.474	602.81	581.00
18.23	2271.704	0.000	0.000			28513.807		28513.807	602.67	581.00
18.25	2260.940	0.000	0.000			28341.338		28341.338	602.52	581.00
18.27	2250.176	0.000	0.000			28165.938		28165.938	602.38	581.00
18.29	2239.412	0.000	0.000			27987.472		27987.472	602.23	581.00
18.31	2228.648	0.000	0.000			27806.254		27806.254	602.09	581.00
18.33	2217.883	0.000	0.000			27621.802		27621.802	601.94	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
18.35	2207.119	0.000	0.000			27434.926		27434.926	601.79	581.00
18.37	2196.355	0.000	0.000			27244.624		27244.624	601.64	581.00
18.39	2185.996	0.000	0.000			27051.944		27051.944	601.50	581.00
18.41	2176.582	0.000	0.000			26855.977		26855.977	601.35	581.00
18.43	2167.169	0.000	0.000			26657.368		26657.368	601.19	581.00
18.45	2157.755	0.000	0.000			26455.429		26455.429	601.04	581.00
18.47	2148.342	0.000	0.000			26250.982		26250.982	600.89	581.00
18.49	2138.928	0.000	0.000			26044.118		26044.118	600.74	581.00
18.51	2129.514	0.000	0.000			25835.062		25835.062	600.58	581.00
18.53	2120.101	0.000	0.000			25623.425		25623.425	600.43	581.00
18.55	2110.858	0.000	0.000			25409.727		25409.727	600.27	581.00
18.57	2102.296	0.000	0.000			25193.660		25193.660	600.12	581.00
18.59	2093.734	0.000	0.000			24975.461		24975.461	599.96	581.00
18.61	2085.172	0.000	0.000			24755.216		24755.216	599.80	581.00
18.63	2076.611	0.000	0.000			24532.311		24532.311	599.65	581.00
18.65	2068.049	0.000	0.000			24307.661		24307.661	599.49	581.00
18.67	2059.487	0.000	0.000			24080.442		24080.442	599.33	581.00
18.69	2050.925	0.000	0.000			23851.225		23851.225	599.17	581.00
18.71	2042.405	0.000	0.000			23619.889		23619.889	599.01	581.00
18.73	2034.250	0.000	0.000			23386.147		23386.147	598.85	581.00
18.75	2026.096	0.000	0.000			23150.439		23150.439	598.69	581.00
18.77	2017.942	0.000	0.000			22912.579		22912.579	598.52	581.00
18.79	2009.787	0.000	0.000			22672.394		22672.394	598.36	581.00
18.81	2001.633	0.000	0.000			22430.379		22430.379	598.20	581.00
18.83	1993.479	0.000	0.000			22185.707		22185.707	598.03	581.00
18.85	1985.324	0.000	0.000			21939.163		21939.163	597.87	581.00
18.87	1977.170	0.000	0.000			21690.588		21690.588	597.70	581.00
18.89	1969.342	0.000	0.000			21439.530		21439.530	597.53	581.00
18.91	1961.513	0.000	0.000			21186.327		21186.327	597.36	581.00
18.93	1953.685	0.000	0.000			20931.085		20931.085	597.19	581.00
18.95	1945.856	0.000	0.000			20673.253		20673.253	597.02	581.00
18.97	1938.028	0.000	0.000			20413.456		20413.456	596.85	581.00
18.99	1930.200	0.000	0.000			20151.981		20151.981	596.68	581.00
19.01	1922.371	0.000	0.000			19888.935		19888.935	596.51	581.00
19.03	1914.543	0.000	0.000			19623.630		19623.630	596.33	581.00
19.05	1906.947	0.000	0.000			19356.837		19356.837	596.16	581.00
19.07	1899.376	0.000	0.000			19088.255		19088.255	595.98	581.00
19.09	1891.806	0.000	0.000			18817.858		18817.858	595.81	581.00
19.11	1884.236	0.000	0.000			18545.274		18545.274	595.63	581.00
19.13	1876.665	0.000	0.000			18271.095		18271.095	595.45	581.00
19.15	1869.095	0.000	0.000			17995.065		17995.065	595.27	581.00
19.17	1861.524	0.000	0.000			17717.181		17717.181	595.09	581.00
19.19	1853.954	0.000	0.000			17437.056		17437.056	594.91	581.00
19.21	1846.562	0.000	0.000			17155.160		17155.160	594.72	581.00
19.23	1839.216	0.000	0.000			16871.792		16871.792	594.54	581.00
19.25	1831.869	0.000	0.000			16586.639		16586.639	594.35	581.00
19.27	1824.522	0.000	0.000			16299.879		16299.879	594.17	581.00
19.29	1817.175	0.000	0.000			16011.340		16011.340	593.98	581.00
19.31	1809.828	0.000	0.000			15720.992		15720.992	593.79	581.00
19.33	1802.481	0.000	0.000			15428.551		15428.551	593.60	581.00
19.35	1795.134	0.000	0.000			15133.801		15133.801	593.41	581.00
19.37	1787.926	0.000	0.000			14837.034		14837.034	593.22	581.00
19.39	1780.778	0.000	0.000			14538.039		14538.039	593.02	581.00
19.41	1773.630	0.000	0.000			14237.431		14237.431	592.82	581.00
19.43	1766.482	0.000	0.000			13936.009		13936.009	592.62	581.00
19.45	1759.334	0.000	0.000			13633.822		13633.822	592.42	581.00
19.47	1752.186	0.000	0.000			13330.723		13330.723	592.22	581.00
19.49	1745.037	0.000	0.000			13026.597		13026.597	592.02	581.00
19.51	1737.889	0.000	0.000			12721.407		12721.407	591.82	581.00
19.53	1730.875	0.000	0.000			12415.216		12415.216	591.61	581.00
19.55	1723.950	0.000	0.000			12107.696		12107.696	591.41	581.00
19.57	1717.026	0.000	0.000			11798.794		11798.794	591.20	581.00
19.59	1710.101	0.000	0.000			11451.995		11451.995	590.97	581.00
19.61	1703.176	0.000	0.000			10434.035		10434.035	590.29	581.00
19.63	1696.252	0.000	0.000			9546.691		9546.691	589.69	581.00
19.65	1689.327	0.000	0.000			8769.641		8769.641	589.15	581.00
19.67	1682.402	0.000	0.000			8086.441		8086.441	588.66	581.00



Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
19.69	1675.710	0.000	0.000			7483.331		7483.331	588.21	581.00
19.71	1669.251	0.000	0.000			6948.960		6948.960	587.81	581.00
19.73	1662.792	0.000	0.000			6473.777		6473.777	587.44	581.00
19.75	1656.332	0.000	0.000			6049.993		6049.993	587.11	581.00
19.77	1649.873	0.000	0.000			5670.759		5670.759	586.80	581.00
19.79	1643.414	0.000	0.000			5330.446		5330.446	586.52	581.00
19.81	1636.955	0.000	0.000			5024.184		5024.184	586.27	581.00
19.83	1630.495	0.000	0.000			4747.867		4747.867	586.03	581.00
19.85	1624.412	0.000	0.000			4497.899		4497.899	585.81	581.00
19.87	1618.891	0.000	0.000			4271.225		4271.225	585.61	581.00
19.89	1613.370	0.000	0.000			4065.278		4065.278	585.43	581.00
19.91	1607.849	0.000	0.000			3877.754		3877.754	585.25	581.00
19.93	1602.328	0.000	0.000			3706.698		3706.698	585.09	581.00
19.95	1596.807	0.000	0.000			3550.196		3550.196	584.95	581.00
19.97	1591.286	0.000	0.000			3406.938		3406.938	584.81	581.00
19.99	1585.765	0.000	0.000			3275.420		3275.420	584.68	581.00
20.01	1580.404	0.000	0.000			3154.584		3154.584	584.56	581.00
20.03	1575.419	0.000	0.000			3043.351		3043.351	584.45	581.00
20.05	1570.434	0.000	0.000			2940.779		2940.779	584.35	581.00
20.07	1565.449	0.000	0.000			2846.059		2846.059	584.25	581.00
20.09	1560.464	0.000	0.000			2758.420		2758.420	584.16	581.00
20.11	1555.478	0.000	0.000			2677.220		2677.220	584.08	581.00
20.13	1550.493	0.000	0.000			2601.870		2601.870	584.00	581.00
20.15	1545.508	0.000	0.000			2532.009		2532.009	583.93	581.00
20.17	1540.558	0.000	0.000			2466.947		2466.947	583.86	581.00
20.19	1535.747	0.000	0.000			2406.444		2406.444	583.79	581.00
20.21	1530.936	0.000	0.000			2349.999		2349.999	583.73	581.00
20.23	1526.124	0.000	0.000			2297.240		2297.240	583.67	581.00
20.25	1521.313	0.000	0.000			2247.990		2247.990	583.62	581.00
20.27	1516.502	0.000	0.000			2201.895		2201.895	583.57	581.00
20.29	1511.691	0.000	0.000			2158.787		2158.787	583.52	581.00
20.31	1506.880	0.000	0.000			2118.271		2118.271	583.47	581.00
20.33	1502.084	0.000	0.000			2080.278		2080.278	583.43	581.00
20.35	1497.430	0.000	0.000			2044.546		2044.546	583.39	581.00
20.37	1492.776	0.000	0.000			2010.994		2010.994	583.35	581.00
20.39	1488.122	0.000	0.000			1979.389		1979.389	583.31	581.00
20.41	1483.467	0.000	0.000			1949.620		1949.620	583.28	581.00
20.43	1478.813	0.000	0.000			1921.520		1921.520	583.25	581.00
20.45	1474.159	0.000	0.000			1894.930		1894.930	583.21	581.00
20.47	1469.504	0.000	0.000			1869.769		1869.769	583.18	581.00
20.49	1464.850	0.000	0.000			1846.033		1846.033	583.16	581.00
20.51	1460.341	0.000	0.000			1823.496		1823.496	583.13	581.00
20.53	1455.833	0.000	0.000			1802.152		1802.152	583.10	581.00
20.55	1451.324	0.000	0.000			1781.924		1781.924	583.08	581.00
20.57	1446.815	0.000	0.000			1762.663		1762.663	583.05	581.00
20.59	1442.307	0.000	0.000			1744.344		1744.344	583.03	581.00
20.61	1437.798	0.000	0.000			1726.889		1726.889	583.01	581.00
20.63	1433.290	0.000	0.000			1710.308		1710.308	582.99	581.00
20.65	1428.781	0.000	0.000			1694.438		1694.438	582.97	581.00
20.67	1424.421	0.000	0.000			1679.263		1679.263	582.95	581.00
20.69	1420.078	0.000	0.000			1664.867		1664.867	582.93	581.00
20.71	1415.735	0.000	0.000			1650.988		1650.988	582.92	581.00
20.73	1411.391	0.000	0.000			1637.762		1637.762	582.90	581.00
20.75	1407.048	0.000	0.000			1625.101		1625.101	582.88	581.00
20.77	1402.705	0.000	0.000			1612.903		1612.903	582.87	581.00
20.79	1398.362	0.000	0.000			1601.208		1601.208	582.85	581.00
20.81	1394.019	0.000	0.000			1589.953		1589.953	582.84	581.00
20.83	1389.834	0.000	0.000			1579.109		1579.109	582.82	581.00
20.85	1385.690	0.000	0.000			1568.687		1568.687	582.81	581.00
20.87	1381.545	0.000	0.000			1558.676		1558.676	582.80	581.00
20.89	1377.401	0.000	0.000			1549.059		1549.059	582.78	581.00
20.91	1373.257	0.000	0.000			1539.715		1539.715	582.77	581.00
20.93	1369.112	0.000	0.000			1530.693		1530.693	582.76	581.00
20.95	1364.968	0.000	0.000			1521.941		1521.941	582.75	581.00
20.97	1360.823	0.000	0.000			1513.430		1513.430	582.74	581.00
20.99	1356.842	0.000	0.000			1505.167		1505.167	582.73	581.00
21.01	1352.931	0.000	0.000			1497.214		1497.214	582.72	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
21.03	1349.020	0.000	0.000			1489.506		1489.506	582.71	581.00
21.05	1345.109	0.000	0.000			1481.980		1481.980	582.70	581.00
21.07	1341.198	0.000	0.000			1474.764		1474.764	582.69	581.00
21.09	1337.287	0.000	0.000			1467.687		1467.687	582.68	581.00
21.11	1333.376	0.000	0.000			1460.769		1460.769	582.67	581.00
21.13	1329.464	0.000	0.000			1454.065		1454.065	582.66	581.00
21.15	1325.710	0.000	0.000			1447.479		1447.479	582.65	581.00
21.17	1322.059	0.000	0.000			1441.090		1441.090	582.64	581.00
21.19	1318.408	0.000	0.000			1434.869		1434.869	582.63	581.00
21.21	1314.758	0.000	0.000			1428.785		1428.785	582.62	581.00
21.23	1311.107	0.000	0.000			1422.874		1422.874	582.61	581.00
21.25	1307.457	0.000	0.000			1417.105		1417.105	582.61	581.00
21.27	1303.806	0.000	0.000			1411.397		1411.397	582.60	581.00
21.29	1300.155	0.000	0.000			1405.821		1405.821	582.59	581.00
21.31	1296.642	0.000	0.000			1400.314		1400.314	582.58	581.00
21.33	1293.267	0.000	0.000			1394.945		1394.945	582.58	581.00
21.35	1289.892	0.000	0.000			1389.773		1389.773	582.57	581.00
21.37	1286.516	0.000	0.000			1384.634		1384.634	582.56	581.00
21.39	1283.141	0.000	0.000			1379.639		1379.639	582.55	581.00
21.41	1279.766	0.000	0.000			1374.714		1374.714	582.55	581.00
21.43	1276.390	0.000	0.000			1369.894		1369.894	582.54	581.00
21.45	1273.015	0.000	0.000			1365.129		1365.129	582.53	581.00
21.47	1269.751	0.000	0.000			1360.459		1360.459	582.53	581.00
21.49	1266.655	0.000	0.000			1355.870		1355.870	582.52	581.00
21.51	1263.559	0.000	0.000			1351.371		1351.371	582.51	581.00
21.53	1260.463	0.000	0.000			1346.950		1346.950	582.51	581.00
21.55	1257.366	0.000	0.000			1342.604		1342.604	582.50	581.00
21.57	1254.270	0.000	0.000			1338.308		1338.308	582.49	581.00
21.59	1251.174	0.000	0.000			1334.170		1334.170	582.49	581.00
21.61	1248.077	0.000	0.000			1330.059		1330.059	582.48	581.00
21.63	1245.064	0.000	0.000			1326.011		1326.011	582.48	581.00
21.65	1242.243	0.000	0.000			1322.060		1322.060	582.47	581.00
21.67	1239.422	0.000	0.000			1318.122		1318.122	582.47	581.00
21.69	1236.601	0.000	0.000			1314.250		1314.250	582.46	581.00
21.71	1233.780	0.000	0.000			1310.401		1310.401	582.45	581.00
21.73	1230.959	0.000	0.000			1306.641		1306.641	582.45	581.00
21.75	1228.138	0.000	0.000			1302.993		1302.993	582.44	581.00
21.77	1225.317	0.000	0.000			1299.287		1299.287	582.44	581.00
21.79	1222.548	0.000	0.000			1295.665		1295.665	582.43	581.00
21.81	1219.989	0.000	0.000			1292.150		1292.150	582.43	581.00
21.83	1217.430	0.000	0.000			1288.637		1288.637	582.42	581.00
21.85	1214.870	0.000	0.000			1285.147		1285.147	582.42	581.00
21.87	1212.311	0.000	0.000			1281.712		1281.712	582.41	581.00
21.89	1209.752	0.000	0.000			1278.286		1278.286	582.41	581.00
21.91	1207.193	0.000	0.000			1275.047		1275.047	582.40	581.00
21.93	1204.633	0.000	0.000			1271.815		1271.815	582.40	581.00
21.95	1202.098	0.000	0.000			1268.616		1268.616	582.39	581.00
21.97	1199.780	0.000	0.000			1265.465		1265.465	582.39	581.00
21.99	1197.461	0.000	0.000			1262.373		1262.373	582.38	581.00
22.01	1195.142	0.000	0.000			1259.224		1259.224	582.38	581.00
22.03	1192.824	0.000	0.000			1256.170		1256.170	582.37	581.00
22.05	1190.505	0.000	0.000			1253.108		1253.108	582.37	581.00
22.07	1188.187	0.000	0.000			1250.172		1250.172	582.36	581.00
22.09	1185.869	0.000	0.000			1247.269		1247.269	582.36	581.00
22.11	1183.550	0.000	0.000			1244.333		1244.333	582.36	581.00
22.13	1181.451	0.000	0.000			1241.492		1241.492	582.35	581.00
22.15	1179.352	0.000	0.000			1238.726		1238.726	582.35	581.00
22.17	1177.254	0.000	0.000			1235.955		1235.955	582.34	581.00
22.19	1175.155	0.000	0.000			1233.231		1233.231	582.34	581.00
22.21	1173.056	0.000	0.000			1230.486		1230.486	582.33	581.00
22.23	1170.957	0.000	0.000			1227.799		1227.799	582.33	581.00
22.25	1168.859	0.000	0.000			1225.149		1225.149	582.33	581.00
22.27	1166.760	0.000	0.000			1222.515		1222.515	582.32	581.00
22.29	1164.837	0.000	0.000			1219.867		1219.867	582.32	581.00
22.31	1162.933	0.000	0.000			1217.304		1217.304	582.31	581.00
22.33	1161.029	0.000	0.000			1214.809		1214.809	582.31	581.00
22.35	1159.126	0.000	0.000			1212.314		1212.314	582.31	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
22.37	1157.222	0.000	0.000			1209.833		1209.833	582.30	581.00
22.39	1155.318	0.000	0.000			1207.357		1207.357	582.30	581.00
22.41	1153.414	0.000	0.000			1204.995		1204.995	582.29	581.00
22.43	1151.511	0.000	0.000			1202.599		1202.599	582.29	581.00
22.45	1149.738	0.000	0.000			1200.321		1200.321	582.29	581.00
22.47	1147.999	0.000	0.000			1198.022		1198.022	582.28	581.00
22.49	1146.259	0.000	0.000			1195.715		1195.715	582.28	581.00
22.51	1144.520	0.000	0.000			1193.410		1193.410	582.28	581.00
22.53	1142.780	0.000	0.000			1191.236		1191.236	582.27	581.00
22.55	1141.041	0.000	0.000			1189.075		1189.075	582.27	581.00
22.57	1139.301	0.000	0.000			1186.938		1186.938	582.27	581.00
22.59	1137.562	0.000	0.000			1184.733		1184.733	582.26	581.00
22.61	1135.917	0.000	0.000			1182.579		1182.579	582.26	581.00
22.63	1134.314	0.000	0.000			1180.486		1180.486	582.26	581.00
22.65	1132.710	0.000	0.000			1178.375		1178.375	582.25	581.00
22.67	1131.106	0.000	0.000			1176.347		1176.347	582.25	581.00
22.69	1129.503	0.000	0.000			1174.296		1174.296	582.25	581.00
22.71	1127.899	0.000	0.000			1172.283		1172.283	582.24	581.00
22.73	1126.295	0.000	0.000			1170.325		1170.325	582.24	581.00
22.75	1124.691	0.000	0.000			1168.319		1168.319	582.24	581.00
22.77	1123.157	0.000	0.000			1166.418		1166.418	582.23	581.00
22.79	1121.670	0.000	0.000			1164.532		1164.532	582.23	581.00
22.81	1120.182	0.000	0.000			1162.609		1162.609	582.23	581.00
22.83	1118.694	0.000	0.000			1160.709		1160.709	582.22	581.00
22.85	1117.207	0.000	0.000			1158.922		1158.922	582.22	581.00
22.87	1115.719	0.000	0.000			1157.065		1157.065	582.22	581.00
22.89	1114.231	0.000	0.000			1155.260		1155.260	582.21	581.00
22.91	1112.744	0.000	0.000			1153.437		1153.437	582.21	581.00
22.93	1111.304	0.000	0.000			1151.614		1151.614	582.21	581.00
22.95	1109.911	0.000	0.000			1149.846		1149.846	582.21	581.00
22.97	1108.518	0.000	0.000			1148.087		1148.087	582.20	581.00
22.99	1107.126	0.000	0.000			1146.343		1146.343	582.20	581.00
23.01	1105.733	0.000	0.000			1144.663		1144.663	582.20	581.00
23.03	1104.341	0.000	0.000			1143.044		1143.044	582.19	581.00
23.05	1102.948	0.000	0.000			1141.341		1141.341	582.19	581.00
23.07	1101.555	0.000	0.000			1139.704		1139.704	582.19	581.00
23.09	1100.196	0.000	0.000			1137.996		1137.996	582.19	581.00
23.11	1098.884	0.000	0.000			1136.359		1136.359	582.18	581.00
23.13	1097.573	0.000	0.000			1134.790		1134.790	582.18	581.00
23.15	1096.262	0.000	0.000			1133.165		1133.165	582.18	581.00
23.17	1094.951	0.000	0.000			1131.611		1131.611	582.17	581.00
23.19	1093.640	0.000	0.000			1130.013		1130.013	582.17	581.00
23.21	1092.329	0.000	0.000			1128.490		1128.490	582.17	581.00
23.23	1091.018	0.000	0.000			1126.934		1126.934	582.17	581.00
23.25	1089.727	0.000	0.000			1125.353		1125.353	582.16	581.00
23.27	1088.485	0.000	0.000			1123.855		1123.855	582.16	581.00
23.29	1087.243	0.000	0.000			1122.342		1122.342	582.16	581.00
23.31	1086.001	0.000	0.000			1120.823		1120.823	582.16	581.00
23.33	1084.759	0.000	0.000			1119.391		1119.391	582.15	581.00
23.35	1083.517	0.000	0.000			1117.961		1117.961	582.15	581.00
23.37	1082.275	0.000	0.000			1116.540		1116.540	582.15	581.00
23.39	1081.034	0.000	0.000			1115.023		1115.023	582.15	581.00
23.41	1079.804	0.000	0.000			1113.612		1113.612	582.14	581.00
23.43	1078.622	0.000	0.000			1112.166		1112.166	582.14	581.00
23.45	1077.441	0.000	0.000			1110.703		1110.703	582.14	581.00
23.47	1076.259	0.000	0.000			1109.357		1109.357	582.14	581.00
23.49	1075.078	0.000	0.000			1108.009		1108.009	582.13	581.00
23.51	1073.896	0.000	0.000			1106.675		1106.675	582.13	581.00
23.53	1072.715	0.000	0.000			1105.271		1105.271	582.13	581.00
23.55	1071.533	0.000	0.000			1103.919		1103.919	582.13	581.00
23.57	1070.357	0.000	0.000			1102.550		1102.550	582.12	581.00
23.59	1069.226	0.000	0.000			1101.154		1101.154	582.12	581.00
23.61	1068.095	0.000	0.000			1099.805		1099.805	582.12	581.00
23.63	1066.964	0.000	0.000			1098.526		1098.526	582.12	581.00
23.65	1065.833	0.000	0.000			1097.230		1097.230	582.12	581.00
23.67	1064.703	0.000	0.000			1095.975		1095.975	582.11	581.00
23.69	1063.572	0.000	0.000			1094.649		1094.649	582.11	581.00



Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
23.71	1062.441	0.000	0.000			1093.342		1093.342	582.11	581.00
23.73	1061.310	0.000	0.000			1092.097		1092.097	582.11	581.00
23.75	1060.221	0.000	0.000			1090.791		1090.791	582.10	581.00
23.77	1059.132	0.000	0.000			1089.529		1089.529	582.10	581.00
23.79	1058.043	0.000	0.000			1088.215		1088.215	582.10	581.00
23.81	1056.954	0.000	0.000			1086.941		1086.941	582.10	581.00
23.83	1055.866	0.000	0.000			1085.704		1085.704	582.10	581.00
23.85	1054.777	0.000	0.000			1084.504		1084.504	582.09	581.00
23.87	1053.688	0.000	0.000			1083.341		1083.341	582.09	581.00
23.89	1052.599	0.000	0.000			1082.075		1082.075	582.09	581.00
23.91	1051.459	0.000	0.000			1080.850		1080.850	582.09	581.00
23.93	1050.313	0.000	0.000			1079.666		1079.666	582.08	581.00
23.95	1049.168	0.000	0.000			1078.520		1078.520	582.08	581.00
23.97	1048.022	0.000	0.000			1077.288		1077.288	582.08	581.00
23.99	1046.876	0.000	0.000			1076.099		1076.099	582.08	581.00
24.01	1045.730	0.000	0.000			1074.953		1074.953	582.08	581.00
24.03	1044.585	0.000	0.000			1073.732		1073.732	582.07	581.00
24.05	1043.439	0.000	0.000			1072.558		1072.558	582.07	581.00
24.07	1042.011	0.000	0.000			1071.320		1071.320	582.07	581.00
24.09	1040.512	0.000	0.000			1070.133		1070.133	582.07	581.00
24.11	1039.013	0.000	0.000			1068.891		1068.891	582.07	581.00
24.13	1037.515	0.000	0.000			1067.604		1067.604	582.06	581.00
24.15	1036.016	0.000	0.000			1066.375		1066.375	582.06	581.00
24.17	1034.517	0.000	0.000			1065.111		1065.111	582.06	581.00
24.19	1033.018	0.000	0.000			1063.818		1063.818	582.06	581.00
24.21	1031.520	0.000	0.000			1062.504		1062.504	582.05	581.00
24.23	1029.568	0.000	0.000			1061.178		1061.178	582.05	581.00
24.25	1027.422	0.000	0.000			1059.847		1059.847	582.05	581.00
24.27	1025.277	0.000	0.000			1058.404		1058.404	582.05	581.00
24.29	1023.131	0.000	0.000			1056.909		1056.909	582.04	581.00
24.31	1020.985	0.000	0.000			1055.380		1055.380	582.04	581.00
24.33	1018.840	0.000	0.000			1053.833		1053.833	582.04	581.00
24.35	1016.694	0.000	0.000			1052.285		1052.285	582.04	581.00
24.37	1014.548	0.000	0.000			1050.639		1050.639	582.03	581.00
24.39	1011.893	0.000	0.000			1049.039		1049.039	582.03	581.00
24.41	1008.898	0.000	0.000			1047.304		1047.304	582.03	581.00
24.43	1005.903	0.000	0.000			1045.495		1045.495	582.03	581.00
24.45	1002.908	0.000	0.000			1043.671		1043.671	582.02	581.00
24.47	999.913	0.000	0.000			1041.781		1041.781	582.02	581.00
24.49	996.918	0.000	0.000			1039.823		1039.823	582.02	581.00
24.51	993.923	0.000	0.000			1037.812		1037.812	582.01	581.00
24.53	990.928	0.000	0.000			1035.740		1035.740	582.01	581.00
24.55	987.361	0.000	0.000			1033.625		1033.625	582.01	581.00
24.57	983.224	0.000	0.000			1031.378		1031.378	582.00	581.00
24.59	979.087	0.000	0.000			1029.019		1029.019	582.00	581.00
24.61	974.950	0.000	0.000			1026.633		1026.633	582.00	581.00
24.63	970.813	0.000	0.000			1024.056		1024.056	581.99	581.00
24.65	966.676	0.000	0.000			1021.458		1021.458	581.99	581.00
24.67	962.539	0.000	0.000			1018.719		1018.719	581.98	581.00
24.69	958.402	0.000	0.000			1015.996		1015.996	581.98	581.00
24.71	953.683	0.000	0.000			1013.180		1013.180	581.98	581.00
24.73	948.090	0.000	0.000			1010.185		1010.185	581.97	581.00
24.75	942.498	0.000	0.000			1007.061		1007.061	581.97	581.00
24.77	936.905	0.000	0.000			1003.756		1003.756	581.96	581.00
24.79	931.313	0.000	0.000			1000.338		1000.338	581.96	581.00
24.81	925.720	0.000	0.000			996.790		996.790	581.95	581.00
24.83	920.127	0.000	0.000			993.198		993.198	581.95	581.00
24.85	914.535	0.000	0.000			989.539		989.539	581.94	581.00
24.87	908.484	0.000	0.000			985.700		985.700	581.94	581.00
24.89	901.363	0.000	0.000			981.760		981.760	581.93	581.00
24.91	894.242	0.000	0.000			977.563		977.563	581.93	581.00
24.93	887.121	0.000	0.000			973.246		973.246	581.92	581.00
24.95	880.000	0.000	0.000			968.741		968.741	581.91	581.00
24.97	872.879	0.000	0.000			964.156		964.156	581.91	581.00
24.99	865.758	0.000	0.000			959.386		959.386	581.90	581.00
25.01	858.637	0.000	0.000			954.545		954.545	581.89	581.00
25.03	851.277	0.000	0.000			949.523		949.523	581.89	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
25.05	842.962	0.000	0.000			944.419		944.419	581.88	581.00
25.07	834.647	0.000	0.000			939.095		939.095	581.87	581.00
25.09	826.333	0.000	0.000			933.601		933.601	581.86	581.00
25.11	818.018	0.000	0.000			928.022		928.022	581.85	581.00
25.13	809.703	0.000	0.000			922.314		922.314	581.85	581.00
25.15	801.388	0.000	0.000			916.447		916.447	581.84	581.00
25.17	793.073	0.000	0.000			910.458		910.458	581.83	581.00
25.19	784.684	0.000	0.000			904.390		904.390	581.82	581.00
25.21	775.622	0.000	0.000			898.214		898.214	581.81	581.00
25.23	766.560	0.000	0.000			891.902		891.902	581.80	581.00
25.25	757.499	0.000	0.000			885.438		885.438	581.79	581.00
25.27	748.437	0.000	0.000			878.867		878.867	581.79	581.00
25.29	739.375	0.000	0.000			872.128		872.128	581.78	581.00
25.31	730.313	0.000	0.000			865.321		865.321	581.77	581.00
25.33	721.252	0.000	0.000			858.397		858.397	581.76	581.00
25.35	712.190	0.000	0.000			851.361		851.361	581.75	581.00
25.37	702.822	0.000	0.000			844.235		844.235	581.74	581.00
25.39	693.454	0.000	0.000			837.022		837.022	581.73	581.00
25.41	684.086	0.000	0.000			829.687		829.687	581.72	581.00
25.43	674.718	0.000	0.000			822.241		822.241	581.70	581.00
25.45	665.350	0.000	0.000			814.748		814.748	581.69	581.00
25.47	655.983	0.000	0.000			807.183		807.183	581.68	581.00
25.49	646.615	0.000	0.000			799.499		799.499	581.67	581.00
25.51	637.247	0.000	0.000			791.792		791.792	581.66	581.00
25.53	627.919	0.000	0.000			783.989		783.989	581.65	581.00
25.55	618.595	0.000	0.000			776.096		776.096	581.64	581.00
25.57	609.272	0.000	0.000			768.226		768.226	581.63	581.00
25.59	599.949	0.000	0.000			760.280		760.280	581.61	581.00
25.61	590.625	0.000	0.000			752.262		752.262	581.60	581.00
25.63	581.302	0.000	0.000			744.195		744.195	581.59	581.00
25.65	571.978	0.000	0.000			736.134		736.134	581.58	581.00
25.67	562.655	0.000	0.000			727.982		727.982	581.57	581.00
25.69	553.580	0.000	0.000			719.839		719.839	581.56	581.00
25.71	544.568	0.000	0.000			711.640		711.640	581.54	581.00
25.73	535.555	0.000	0.000			703.419		703.419	581.53	581.00
25.75	526.543	0.000	0.000			695.196		695.196	581.52	581.00
25.77	517.531	0.000	0.000			686.959		686.959	581.51	581.00
25.79	508.518	0.000	0.000			678.749		678.749	581.49	581.00
25.81	499.506	0.000	0.000			670.379		670.379	581.48	581.00
25.83	490.494	0.000	0.000			661.801		661.801	581.47	581.00
25.85	481.918	0.000	0.000			653.115		653.115	581.46	581.00
25.87	473.529	0.000	0.000			644.326		644.326	581.44	581.00
25.89	465.140	0.000	0.000			635.474		635.474	581.43	581.00
25.91	456.751	0.000	0.000			626.455		626.455	581.42	581.00
25.93	448.362	0.000	0.000			617.389		617.389	581.41	581.00
25.95	439.973	0.000	0.000			608.128		608.128	581.39	581.00
25.97	431.584	0.000	0.000			598.835		598.835	581.38	581.00
25.99	423.196	0.000	0.000			589.459		589.459	581.37	581.00
26.01	415.230	0.000	0.000			579.882		579.882	581.36	581.00
26.03	407.548	0.000	0.000			570.323		570.323	581.35	581.00
26.05	399.865	0.000	0.000			560.643		560.643	581.34	581.00
26.07	392.182	0.000	0.000			550.982		550.982	581.32	581.00
26.09	384.500	0.000	0.000			541.227		541.227	581.31	581.00
26.11	376.817	0.000	0.000			531.375		531.375	581.30	581.00
26.13	369.134	0.000	0.000			521.538		521.538	581.29	581.00
26.15	361.451	0.000	0.000			511.663		511.663	581.28	581.00
26.17	354.179	0.000	0.000			501.684		501.684	581.27	581.00
26.19	347.316	0.000	0.000			491.652		491.652	581.26	581.00
26.21	340.453	0.000	0.000			481.622		481.622	581.25	581.00
26.23	333.590	0.000	0.000			471.678		471.678	581.24	581.00
26.25	326.727	0.000	0.000			461.712		461.712	581.23	581.00
26.27	319.864	0.000	0.000			451.724		451.724	581.22	581.00
26.29	313.001	0.000	0.000			441.805		441.805	581.21	581.00
26.31	306.138	0.000	0.000			431.828		431.828	581.20	581.00
26.33	299.671	0.000	0.000			421.809		421.809	581.19	581.00
26.35	293.798	0.000	0.000			411.910		411.910	581.18	581.00
26.37	287.925	0.000	0.000			402.226		402.226	581.17	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
26.39	282.052	0.000	0.000			392.509		392.509	581.16	581.00
26.41	276.180	0.000	0.000			382.930		382.930	581.16	581.00
26.43	270.307	0.000	0.000			373.376		373.376	581.15	581.00
26.45	264.434	0.000	0.000			363.903		363.903	581.14	581.00
26.47	258.561	0.000	0.000			354.640		354.640	581.13	581.00
26.49	252.999	0.000	0.000			345.372		345.372	581.13	581.00
26.51	248.162	0.000	0.000			336.366		336.366	581.12	581.00
26.53	243.325	0.000	0.000			327.530		327.530	581.11	581.00
26.55	238.488	0.000	0.000			318.873		318.873	581.11	581.00
26.57	233.651	0.000	0.000			310.346		310.346	581.10	581.00
26.59	228.814	0.000	0.000			301.896		301.896	581.10	581.00
26.61	223.977	0.000	0.000			293.677		293.677	581.09	581.00
26.63	219.140	0.000	0.000			285.681		285.681	581.09	581.00
26.65	214.467	0.000	0.000			277.903		277.903	581.08	581.00
26.67	210.451	0.000	0.000			270.337		270.337	581.08	581.00
26.69	206.435	0.000	0.000			262.977		262.977	581.07	581.00
26.71	202.419	0.000	0.000			255.817		255.817	581.07	581.00
26.73	198.403	0.000	0.000			248.852		248.852	581.07	581.00
26.75	194.387	0.000	0.000			242.077		242.077	581.06	581.00
26.77	190.370	0.000	0.000			235.486		235.486	581.06	581.00
26.79	186.354	0.000	0.000			229.075		229.075	581.06	581.00
26.81	182.400	0.000	0.000			222.838		222.838	581.05	581.00
26.83	178.997	0.000	0.000			216.771		216.771	581.05	581.00
26.85	175.595	0.000	0.000			210.978		210.978	581.05	581.00
26.87	172.192	0.000	0.000			205.339		205.339	581.04	581.00
26.89	168.790	0.000	0.000			199.852		199.852	581.04	581.00
26.91	165.387	0.000	0.000			194.511		194.511	581.04	581.00
26.93	161.985	0.000	0.000			189.313		189.313	581.04	581.00
26.95	158.582	0.000	0.000			184.254		184.254	581.04	581.00
26.97	155.180	0.000	0.000			179.699		179.699	581.03	581.00
26.99	152.299	0.000	0.000			175.257		175.257	581.03	581.00
27.01	149.417	0.000	0.000			170.925		170.925	581.03	581.00
27.03	146.536	0.000	0.000			166.699		166.699	581.03	581.00
27.05	143.654	0.000	0.000			162.579		162.579	581.03	581.00
27.07	140.773	0.000	0.000			158.560		158.560	581.03	581.00
27.09	137.891	0.000	0.000			154.640		154.640	581.03	581.00
27.11	135.010	0.000	0.000			151.281		151.281	581.02	581.00
27.13	132.128	0.000	0.000			147.390		147.390	581.02	581.00
27.15	129.631	0.000	0.000			144.189		144.189	581.02	581.00
27.17	127.177	0.000	0.000			141.057		141.057	581.02	581.00
27.19	124.722	0.000	0.000			137.993		137.993	581.02	581.00
27.21	122.268	0.000	0.000			134.996		134.996	581.02	581.00
27.23	119.814	0.000	0.000			132.064		132.064	581.02	581.00
27.25	117.359	0.000	0.000			129.195		129.195	581.02	581.00
27.27	114.905	0.000	0.000			125.872		125.872	581.02	581.00
27.29	112.451	0.000	0.000			123.138		123.138	581.02	581.00
27.31	110.273	0.000	0.000			120.464		120.464	581.02	581.00
27.33	108.164	0.000	0.000			117.847		117.847	581.01	581.00
27.35	106.056	0.000	0.000			115.288		115.288	581.01	581.00
27.37	103.947	0.000	0.000			112.783		112.783	581.01	581.00
27.39	101.839	0.000	0.000			110.334		110.334	581.01	581.00
27.41	99.730	0.000	0.000			107.937		107.937	581.01	581.00
27.43	97.621	0.000	0.000			104.944		104.944	581.01	581.00
27.45	95.513	0.000	0.000			102.874		102.874	581.01	581.00
27.47	93.621	0.000	0.000			100.845		100.845	581.01	581.00
27.49	91.822	0.000	0.000			98.856		98.856	581.01	581.00
27.51	90.023	0.000	0.000			96.115		96.115	581.01	581.00
27.53	88.225	0.000	0.000			94.219		94.219	581.01	581.00
27.55	86.426	0.000	0.000			92.360		92.360	581.01	581.00
27.57	84.627	0.000	0.000			90.538		90.538	581.01	581.00
27.59	82.828	0.000	0.000			88.028		88.028	581.01	581.00
27.61	81.030	0.000	0.000			86.291		86.291	581.01	581.00
27.63	79.401	0.000	0.000			84.589		84.589	581.01	581.00
27.65	77.886	0.000	0.000			82.244		82.244	581.01	581.00
27.67	76.371	0.000	0.000			80.621		80.621	581.01	581.00
27.69	74.857	0.000	0.000			79.031		79.031	581.01	581.00
27.71	73.342	0.000	0.000			77.472		77.472	581.01	581.00



Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
27.73	71.827	0.000	0.000			75.635		75.635	581.01	581.00
27.75	70.312	0.000	0.000			73.841		73.841	581.01	581.00
27.77	68.797	0.000	0.000			72.089		72.089	581.01	581.00
27.79	67.398	0.000	0.000			70.379		70.379	581.01	581.00
27.81	66.114	0.000	0.000			68.710		68.710	581.01	581.00
27.83	64.830	0.000	0.000			67.080		67.080	581.00	581.00
27.85	63.546	0.000	0.000			65.489		65.489	581.00	581.00
27.87	62.262	0.000	0.000			63.936		63.936	581.00	581.00
27.89	60.978	0.000	0.000			63.434		63.434	581.00	581.00
27.91	59.694	0.000	0.000			61.930		61.930	581.00	581.00
27.93	58.410	0.000	0.000			60.461		60.461	581.00	581.00
27.95	57.201	0.000	0.000			59.027		59.027	581.00	581.00
27.97	56.103	0.000	0.000			57.627		57.627	581.00	581.00
27.99	55.006	0.000	0.000			56.260		56.260	581.00	581.00
28.01	53.908	0.000	0.000			55.819		55.819	581.00	581.00
28.03	52.811	0.000	0.000			54.495		54.495	581.00	581.00
28.05	51.713	0.000	0.000			53.637		53.637	581.00	581.00
28.07	50.616	0.000	0.000			52.792		52.792	581.00	581.00
28.09	49.518	0.000	0.000			51.960		51.960	581.00	581.00
28.11	48.470	0.000	0.000			51.142		51.142	581.00	581.00
28.13	47.538	0.000	0.000			50.337		50.337	581.00	581.00
28.15	46.606	0.000	0.000			47.919		47.919	581.00	581.00
28.17	45.674	0.000	0.000			47.164		47.164	581.00	581.00
28.19	44.742	0.000	0.000			46.422		46.422	581.00	581.00
28.21	43.810	0.000	0.000			45.691		45.691	581.00	581.00
28.23	42.878	0.000	0.000			44.971		44.971	581.00	581.00
28.25	41.946	0.000	0.000			44.263		44.263	581.00	581.00
28.27	41.042	0.000	0.000			42.137		42.137	581.00	581.00
28.29	40.250	0.000	0.000			41.473		41.473	581.00	581.00
28.31	39.459	0.000	0.000			40.820		40.820	581.00	581.00
28.33	38.668	0.000	0.000			40.177		40.177	581.00	581.00
28.35	37.876	0.000	0.000			39.544		39.544	581.00	581.00
28.37	37.085	0.000	0.000			37.645		37.645	581.00	581.00
28.39	36.294	0.000	0.000			36.450		36.450	581.00	581.00
28.41	35.502	0.000	0.000			35.292		35.292	581.00	581.00
28.43	34.723	0.000	0.000			34.172		34.172	581.00	581.00
28.45	34.051	0.000	0.000			35.475		35.475	581.00	581.00
28.47	33.380	0.000	0.000			34.349		34.349	581.00	581.00
28.49	32.708	0.000	0.000			33.258		33.258	581.00	581.00
28.51	32.036	0.000	0.000			32.202		32.202	581.00	581.00
28.53	31.365	0.000	0.000			31.179		31.179	581.00	581.00
28.55	30.693	0.000	0.000			30.189		30.189	581.00	581.00
28.57	30.022	0.000	0.000			31.661		31.661	581.00	581.00
28.59	29.350	0.000	0.000			30.656		30.656	581.00	581.00
28.61	28.778	0.000	0.000			29.682		29.682	581.00	581.00
28.63	28.207	0.000	0.000			28.740		28.740	581.00	581.00
28.65	27.635	0.000	0.000			27.827		27.827	581.00	581.00
28.67	27.064	0.000	0.000			26.944		26.944	581.00	581.00
28.69	26.492	0.000	0.000			25.203		25.203	581.00	581.00
28.71	25.920	0.000	0.000			26.954		26.954	581.00	581.00
28.73	25.349	0.000	0.000			25.213		25.213	581.00	581.00
28.75	24.777	0.000	0.000			23.585		23.585	581.00	581.00
28.77	24.289	0.000	0.000			25.448		25.448	581.00	581.00
28.79	23.810	0.000	0.000			23.805		23.805	581.00	581.00
28.81	23.331	0.000	0.000			22.267		22.267	581.00	581.00
28.83	22.852	0.000	0.000			24.234		24.234	581.00	581.00
28.85	22.373	0.000	0.000			22.669		22.669	581.00	581.00
28.87	21.894	0.000	0.000			21.205		21.205	581.00	581.00
28.89	21.415	0.000	0.000			23.262		23.262	581.00	581.00
28.91	20.936	0.000	0.000			21.760		21.760	581.00	581.00
28.93	20.760	0.000	0.000			20.354		20.354	581.00	581.00
28.95	20.660	0.000	0.000			22.490		22.490	581.00	581.00
28.97	20.560	0.000	0.000			21.038		21.038	581.00	581.00

Note: Discharge exceeded maximum Tailwater table value. The maximum discharge ( 0.0)  
In table is used to set tailwater elevation.

Elevation	Prin.	Spw.	Spillway and Overtop Discharge Rating	OverTop	Total	TW Elev
			RTside			
591.00		0.000	0.000	0.000	0.000	580.00
591.10		0.000	0.000	0.000	0.000	580.00
591.20		0.000	0.000	0.000	0.000	580.00
591.30		0.000	0.000	0.000	0.000	580.00
591.40		0.000	0.000	0.000	0.000	580.00
591.50		0.000	0.000	0.000	0.000	580.00
591.60		0.000	0.000	0.000	0.000	580.00
591.70		0.000	0.000	0.000	0.000	580.00
591.80		0.000	0.000	0.000	0.000	580.00
591.90		0.000	0.000	0.000	0.000	580.00
592.00		0.000	0.000	0.000	0.000	580.00
592.10		0.000	0.000	0.000	0.000	580.00
592.20		0.000	0.000	0.000	0.000	580.00
592.30		0.000	0.000	0.000	0.000	580.00
592.40		0.000	0.000	0.000	0.000	580.00
592.50		0.000	0.000	0.000	0.000	580.00
592.60		0.000	0.000	0.000	0.000	580.00
592.70		0.000	0.000	0.000	0.000	580.00
592.80		0.000	0.000	0.000	0.000	580.00
592.90		0.000	0.000	0.000	0.000	580.00
593.00		0.000	0.000	0.000	0.000	580.00
593.10		0.000	0.000	0.000	0.000	580.00
593.20		0.000	0.000	0.000	0.000	580.00
593.30		0.000	0.000	0.000	0.000	580.00
593.40		0.000	0.000	0.000	0.000	580.00
593.50		0.000	0.000	0.000	0.000	580.00
593.60		0.000	0.000	0.000	0.000	580.00
593.70		0.000	0.000	0.000	0.000	580.00
593.80		0.000	0.000	0.000	0.000	580.00
593.90		0.000	0.000	0.000	0.000	580.00
594.00		0.000	0.000	0.000	0.000	580.00
594.10		0.000	0.000	0.000	0.000	580.00
594.20		0.000	0.000	0.000	0.000	580.00
594.30		0.000	0.000	0.000	0.000	580.00
594.40		0.000	0.000	0.000	0.000	580.00
594.50		0.000	0.000	0.000	0.000	580.00
594.60		0.000	0.000	0.000	0.000	580.00
594.70		0.000	0.000	0.000	0.000	580.00
594.80		0.000	0.000	0.000	0.000	580.00
594.90		0.000	0.000	0.000	0.000	580.00
595.00		0.000	0.000	0.000	0.000	580.00
595.10		0.000	0.000	0.000	0.000	580.00
595.20		0.000	0.000	0.000	0.000	580.00
595.30		0.000	0.000	0.000	0.000	580.00
595.40		0.000	0.000	0.000	0.000	580.00
595.50		0.000	0.000	0.000	0.000	580.00
595.60		0.000	0.000	0.000	0.000	580.00
595.70		0.000	0.000	0.000	0.000	580.00
595.80		0.000	0.000	0.000	0.000	580.00
595.90		0.000	0.000	0.000	0.000	580.00
596.00		0.000	0.000	0.000	0.000	580.00
596.10		0.000	0.000	0.000	0.000	580.00
596.20		0.000	0.000	0.000	0.000	580.00
596.30		0.000	0.000	0.000	0.000	580.00
596.40		0.000	0.000	0.000	0.000	580.00
596.50		0.000	0.000	0.000	0.000	580.00
596.60		0.000	0.000	0.000	0.000	580.00
596.70		0.000	0.000	0.000	0.000	580.00
596.80		0.000	0.000	0.000	0.000	580.00
596.90		0.000	0.000	0.000	0.000	580.00
597.00		0.000	0.000	0.000	0.000	580.00
597.10		0.000	0.000	0.000	0.000	580.00
597.20		0.000	0.000	0.000	0.000	580.00
597.30		0.000	0.000	0.000	0.000	580.00
597.40		0.000	0.000	0.000	0.000	580.00
597.50		0.000	0.000	0.000	0.000	580.00
597.60		0.000	0.000	0.000	0.000	580.00



Elevation	Pri n.	Spw.	Spillway and Overtop Discharge Rating		Total	TW Elev
			RTside	OverTop		
597.70		0.000	0.000	0.000	0.000	580.00
597.80		0.000	0.000	0.000	0.000	580.00
597.90		0.000	0.000	0.000	0.000	580.00
598.00		0.000	0.000	0.000	0.000	580.00
598.10		0.000	0.000	0.000	0.000	580.00
598.20		0.000	0.000	0.000	0.000	580.00
598.30		0.000	0.000	0.000	0.000	580.00
598.40		0.000	0.000	0.000	0.000	580.00
598.50		0.000	0.000	0.000	0.000	580.00
598.60		0.000	0.000	0.000	0.000	580.00
598.70		0.000	0.000	0.000	0.000	580.00
598.80		0.000	0.000	0.000	0.000	580.00
598.90		0.000	0.000	0.000	0.000	580.00
599.00		0.000	0.000	0.000	0.000	580.00
599.10		0.000	0.000	0.000	0.000	580.00
599.20		0.000	0.000	0.000	0.000	580.00
599.30		0.000	0.000	0.000	0.000	580.00
599.40		0.000	0.000	0.000	0.000	580.00
599.50		0.000	0.000	0.000	0.000	580.00
599.60		0.000	0.000	0.000	0.000	580.00
599.70		0.000	0.000	0.000	0.000	580.00
599.80		0.000	0.000	0.000	0.000	580.00
599.90		0.000	0.000	0.000	0.000	580.00
600.00		0.000	0.000	0.000	0.000	580.00
600.10		0.000	0.000	0.000	0.000	580.00
600.20		0.000	0.000	0.000	0.000	580.00
600.30		0.000	0.000	0.000	0.000	580.00
600.40		0.000	0.000	0.000	0.000	580.00
600.50		0.000	0.000	0.000	0.000	580.00
600.60		0.000	0.000	0.000	0.000	580.00
600.70		0.000	0.000	0.000	0.000	580.00
600.80		0.000	0.000	0.000	0.000	580.00
600.90		0.000	0.000	0.000	0.000	580.00
601.00		0.000	0.000	0.000	0.000	580.00
601.10		0.000	0.000	0.000	0.000	580.00
601.20		0.000	0.000	0.000	0.000	580.00
601.30		0.000	0.000	0.000	0.000	580.00
601.40		0.000	0.000	0.000	0.000	580.00
601.50		0.000	0.000	0.000	0.000	580.00
601.60		0.000	0.000	0.000	0.000	580.00
601.70		0.000	0.000	0.000	0.000	580.00
601.80		0.000	0.000	0.000	0.000	580.00
601.90		0.000	0.000	0.000	0.000	580.00
602.00		0.000	0.000	0.000	0.000	580.00
602.10		0.000	0.000	0.000	0.000	580.00
602.20		0.000	0.000	0.000	0.000	580.00
602.30		0.000	0.000	0.000	0.000	580.00
602.40		0.000	0.000	0.000	0.000	580.00
602.50		0.000	0.000	0.000	0.000	580.00
602.60		0.000	0.000	0.000	0.000	580.00
602.70		0.000	0.000	0.000	0.000	580.00
602.80		0.000	0.000	0.000	0.000	580.00
602.90		0.000	0.000	0.000	0.000	580.00
603.00		0.000	0.000	0.000	0.000	580.00
603.10		0.000	0.000	0.000	0.000	580.00
603.20		0.000	0.000	0.000	0.000	580.00
603.30		0.000	0.000	0.000	0.000	580.00
603.40		0.000	0.000	0.000	0.000	580.00
603.50		0.000	0.000	0.000	0.000	580.00
603.60		0.000	0.000	0.000	0.000	580.00
603.70		0.000	0.000	0.000	0.000	580.00
603.80		0.000	0.000	0.000	0.000	580.00
603.90		0.000	0.000	0.000	0.000	580.00
604.00		0.000	0.000	0.000	0.000	580.00
604.10		1.765	0.000	0.000	1.765	580.00
604.20		4.991	0.000	0.000	4.991	580.00
604.30		9.169	0.000	0.000	9.169	580.00
604.40		14.116	0.000	0.000	14.116	580.00
604.50		19.728	0.000	0.000	19.728	580.00
604.60		25.933	0.000	0.000	25.933	580.00

Elevation	Prin. Spw.	Spillway and Overtop Discharge Rating	OverTop	Total	TW Elev
		RTside			
604.70	32.680	0.000	0.000	32.680	580.00
604.80	39.927	0.000	0.000	39.927	580.00
604.90	47.643	0.000	0.000	47.643	580.00
605.00	55.800	0.000	0.000	55.800	580.00
605.10	64.376	0.000	0.000	64.376	580.00
605.20	73.351	0.000	0.000	73.351	580.00
605.30	82.708	0.000	0.000	82.708	580.00
605.40	92.433	0.000	0.000	92.433	580.00
605.50	102.511	0.000	0.000	102.511	580.00
605.60	112.931	0.000	0.000	112.931	580.00
605.70	123.682	0.000	0.000	123.682	580.00
605.80	128.653	0.000	0.000	128.653	580.00
605.90	129.102	0.000	0.000	129.102	580.00
606.00	129.549	0.000	0.000	129.549	580.00
606.10	129.995	0.000	0.000	129.995	580.00
606.20	130.440	0.000	0.000	130.440	580.00
606.30	130.883	0.000	0.000	130.883	580.00
606.40	131.324	0.000	0.000	131.324	580.00
606.50	131.764	0.000	0.000	131.764	580.00
606.60	132.202	0.000	0.000	132.202	580.00
606.70	132.639	0.000	0.000	132.639	580.00
606.80	133.075	0.000	0.000	133.075	580.00
606.90	133.509	0.000	0.000	133.509	580.00
607.00	133.942	0.000	0.000	133.942	580.00
607.10	134.373	0.000	0.000	134.373	580.00
607.20	134.803	0.000	0.000	134.803	580.00
607.30	135.232	0.000	0.000	135.232	580.00
607.40	135.659	0.000	0.000	135.659	580.00
607.50	136.085	0.000	0.000	136.085	580.00
607.60	136.510	0.000	0.000	136.510	580.00
607.70	136.933	0.000	0.000	136.933	580.00
607.80	137.355	0.000	0.000	137.355	580.00
607.90	137.776	0.000	0.000	137.776	580.00
608.00	138.195	0.000	0.000	138.195	580.00
608.10	138.613	0.000	0.000	138.613	580.00
608.20	139.030	0.000	0.000	139.030	580.00
608.30	139.446	0.000	0.000	139.446	580.00
608.40	139.860	0.000	0.000	139.860	580.00
608.50	140.273	0.000	0.000	140.273	580.00
608.60	140.685	0.000	0.000	140.685	580.00
608.70	141.096	0.000	0.000	141.096	580.00
608.80	141.506	0.000	0.000	141.506	580.00
608.90	141.914	0.000	0.000	141.914	580.00
609.00	142.321	0.000	0.000	142.321	580.00
609.10	142.727	1.300	0.000	144.027	580.00
609.20	143.132	2.600	0.000	145.732	580.00
609.30	143.536	3.900	0.000	147.436	580.00
609.40	143.939	5.199	0.000	149.138	580.00
609.50	144.340	6.499	0.000	150.839	580.00
609.60	144.741	7.799	0.000	152.540	580.00
609.70	145.140	12.231	0.000	157.371	580.00
609.80	145.538	23.335	0.000	168.873	580.00
609.90	145.935	36.200	0.000	182.135	580.00
610.00	146.331	50.915	0.000	197.246	580.00
610.10	146.726	68.023	0.000	214.749	580.00
610.20	147.120	85.860	0.000	232.980	580.00
610.30	147.513	104.554	0.000	252.067	580.00
610.40	147.905	125.387	0.000	273.292	580.00
610.50	148.295	146.515	0.000	294.811	580.00
610.60	148.685	168.725	0.000	317.410	580.00
610.70	149.074	192.189	0.000	341.263	580.00
610.80	149.462	216.624	0.000	366.085	580.00
610.90	149.848	242.004	0.000	391.852	580.00
611.00	150.234	268.309	0.000	418.543	580.00
611.10	150.619	295.522	0.000	446.141	580.00
611.20	151.002	323.629	0.000	474.632	580.00
611.30	151.385	352.586	0.000	503.971	580.00
611.40	151.767	382.476	0.000	534.243	580.00
611.50	152.148	413.099	0.000	565.247	580.00
611.60	152.528	443.375	0.000	595.903	580.00

Elevation	Prin. Spw.	Spillway and Overtop Discharge Rating	OverTop	Total	TW Elev
611.70	152.907	RTside	0.000	627.076	580.00
611.80	153.285	474.169	0.000	663.778	580.00
611.90	153.662	510.493	0.000	698.550	580.00
612.00	154.038	544.888	0.000	734.156	580.00
612.10	154.413	580.118	0.000	770.590	580.00
612.20	154.788	616.177	0.000	807.659	580.00
612.30	155.161	652.871	0.000	845.932	580.00
612.40	155.534	690.771	0.000	884.834	580.00
612.50	155.905	729.301	0.000	924.555	580.00
612.60	156.276	768.650	0.000	965.091	580.00
612.70	156.646	808.815	0.000	1004.460	580.00
612.80	157.015	847.814	0.000	1048.478	580.00
612.90	157.383	891.463	0.000	1091.568	580.00
613.00	157.750	934.185	0.000	1135.026	580.00
613.10	158.117	977.275	0.081	1177.431	580.00
613.20	158.482	1019.233	0.723	1226.347	580.00
613.30	158.847	1067.141	2.580	1274.732	580.00
613.40	159.211	1113.305	6.377	1325.823	580.00
613.50	159.574	1160.236	12.811	1380.323	580.00
613.60	159.936	1207.938	38.880	1455.228	580.00
613.70	160.298	1256.412	87.724	1553.682	580.00
613.80	160.658	1305.661	155.488	1669.542	580.00
613.90	161.018	1353.396	244.677	1811.475	580.00
614.00	161.377	1405.780	357.727	1977.201	580.00
614.10	161.735	1458.098	531.920	2204.011	580.00
614.20	162.093	1510.355	754.242	2477.387	580.00
614.30	162.449	1561.052	1008.003	2785.989	580.00
614.40	162.805	1615.537	1291.217	3124.848	580.00
614.50	163.160	1670.825	1601.123	3491.189	580.00
614.60	163.515	1726.906	2110.506	4057.803	580.00
614.70	163.868	1783.782	2724.994	4730.318	580.00
614.80	164.221	1841.456	3355.503	5419.654	580.00
614.90	164.573	1899.929	4003.256	6127.034	580.00
615.00	164.924	1959.205	4668.497	6852.706	580.00
615.10	165.275	2019.285	5352.822	7598.269	580.00
615.20	165.625	2080.171	6053.423	8360.913	580.00
615.30	165.974	2141.865	6772.074	9142.408	580.00
615.40	166.322	2204.360	7510.140	9944.114	580.00
615.50	166.670	2267.652	8266.441	10767.814	580.00
615.60	167.016	2334.704	9038.450	11602.181	580.00
615.70	167.363	2396.714	9832.325	12458.577	580.00
615.80	167.708	2458.890	10639.749	13336.974	580.00
615.90	168.053	2529.517	11467.197	14233.627	580.00
616.00	168.397	2598.377	12310.548	15146.979	580.00
616.10	168.740	2668.034	13171.214	16077.098	580.00
616.20	169.083	2737.144	14049.298	17025.335	580.00
616.30	169.425	2806.954	14943.039	17987.941	580.00
616.40	169.766	2875.477	15853.420	18970.888	580.00
616.50	170.106	2947.702	16781.062	19971.950	580.00
616.60	170.446	3020.781	17722.513	20987.675	580.00
616.70	170.786	3094.716	18680.484	22020.759	580.00
616.80	171.124	3169.489	19653.279	23069.515	580.00
616.90	171.462	3245.112	20642.537	24135.620	580.00
617.00	171.799	3321.622	21645.418	25216.252	580.00
617.10	172.136	3399.035	22662.731	26312.183	580.00
617.20	172.472	3477.316	23695.292	27424.232	580.00
617.30	172.807	3556.468	24742.353	28551.652	580.00
617.40	173.141	3636.492	25802.674	29693.206	580.00
617.50	173.475	3717.391	26877.681	30850.323	580.00
617.60	173.809	3799.166	27966.386	32022.015	580.00
617.70	174.141	3881.820	29067.807	33207.304	580.00
617.80	174.473	3965.355	30184.698	34408.943	580.00
617.90	174.805	4049.772	31314.355	35624.234	580.00
618.00	175.135	4135.074	32457.172	36853.570	580.00
618.10	175.465	4221.262	33613.011	38096.816	580.00
618.20	175.795	4308.340	34778.941	39356.916	580.00
618.30	176.124	4402.180	35961.581	40622.814	580.00
618.40	176.452	4485.109	37155.362	41910.243	580.00
618.50	176.780	4578.429	38361.585	43203.887	580.00
618.60	177.107	4665.523	39580.542	44514.775	580.00
		4757.126			

Spillway and Overtop Discharge Rating					
Elevation	Prin. Spw.	RTside	OverTop	Total	TW Elev
618.70	177.433	4849.632	40811.422	45838.487	580.00
618.80	177.759	4943.043	42054.474	47175.276	580.00
618.90	178.084	5037.360	43310.966	48526.411	580.00
619.00	178.409	5132.587	44576.888	49887.884	580.00
619.10	178.733	5228.724	45856.510	51263.968	580.00
619.20	179.057	5325.775	47146.799	52651.631	580.00
619.30	179.380	5423.740	48450.039	54053.159	580.00
619.40	179.702	5522.622	49766.440	55468.764	580.00
619.50	180.024	5622.423	51091.918	56894.365	580.00
619.60	180.345	5723.214	52429.601	58333.160	580.00
619.70	180.666	5826.316	53779.989	59786.970	580.00
619.80	180.986	5930.319	55141.375	61252.680	580.00
619.90	181.305	6032.678	56513.045	62727.028	580.00
620.00	181.624	6137.441	57896.030	64215.095	580.00
620.10	181.896	6242.827	59291.126	65715.849	580.00



Listing of Tabular Data-Expanded Area

1	591.00	76.60	591.10	78.12	591.20	79.63	591.30	81.14	591.40	82.66
6	591.50	84.17	591.60	85.69	591.70	87.21	591.80	88.72	591.90	90.23
11	592.00	91.75	592.10	93.27	592.20	94.78	592.30	96.29	592.40	97.81
16	592.50	99.33	592.60	100.84	592.70	102.36	592.80	103.87	592.90	105.38
21	593.00	106.90	593.10	108.70	593.20	110.49	593.30	112.28	593.40	114.08
26	593.50	115.88	593.60	117.67	593.70	119.47	593.80	121.26	593.90	123.05
31	594.00	124.85	594.10	126.65	594.20	128.44	594.30	130.23	594.40	132.03
36	594.50	133.83	594.60	135.62	594.70	137.42	594.80	139.21	594.90	141.00
41	595.00	142.80	595.10	144.69	595.20	146.58	595.30	148.47	595.40	150.36
46	595.50	152.25	595.60	154.14	595.70	156.03	595.80	157.92	595.90	159.81
51	596.00	161.70	596.10	163.59	596.20	165.48	596.30	167.37	596.40	169.26
56	596.50	171.15	596.60	173.04	596.70	174.93	596.80	176.82	596.90	178.71
61	597.00	180.60	597.10	182.65	597.20	184.71	597.30	186.76	597.40	188.81
66	597.50	190.86	597.60	192.92	597.70	194.97	597.80	197.02	597.90	199.07
71	598.00	201.12	598.10	203.18	598.20	205.23	598.30	207.28	598.40	209.33
76	598.50	211.39	598.60	213.44	598.70	215.49	598.80	217.54	598.90	219.60
81	599.00	221.65	599.10	223.70	599.20	225.76	599.30	227.81	599.40	229.86
86	599.50	231.91	599.60	233.97	599.70	236.02	599.80	238.07	599.90	240.12
91	600.00	242.17	600.10	244.23	600.20	246.28	600.30	248.33	600.40	250.38
96	600.50	252.44	600.60	254.49	600.70	256.54	600.80	258.59	600.90	260.65
101	601.00	262.70	601.10	265.14	601.20	267.58	601.30	270.02	601.40	272.46
106	601.50	274.90	601.60	277.34	601.70	279.78	601.80	282.22	601.90	284.66
111	602.00	287.10	602.10	289.54	602.20	291.98	602.30	294.42	602.40	296.86
116	602.50	299.30	602.60	301.74	602.70	304.18	602.80	306.62	602.90	309.06
121	603.00	311.50	603.10	313.94	603.20	316.38	603.30	318.82	603.40	321.26
126	603.50	323.70	603.60	326.14	603.70	328.58	603.80	331.02	603.90	333.46
131	604.00	335.90	604.10	338.34	604.20	340.78	604.30	343.22	604.40	345.66
136	604.50	348.10	604.60	350.54	604.70	352.98	604.80	355.42	604.90	357.86
141	605.00	360.30	605.10	362.72	605.20	365.13	605.30	367.54	605.40	369.96
146	605.50	372.38	605.60	374.79	605.70	377.21	605.80	379.62	605.90	382.03
151	606.00	384.45	606.10	386.87	606.20	389.28	606.30	391.69	606.40	394.11
156	606.50	396.52	606.60	398.94	606.70	401.36	606.80	403.77	606.90	406.18
161	607.00	408.60	607.10	411.02	607.20	413.43	607.30	415.84	607.40	418.26
166	607.50	420.68	607.60	423.09	607.70	425.51	607.80	427.92	607.90	430.33
171	608.00	432.75	608.10	435.17	608.20	437.58	608.30	439.99	608.40	442.41
176	608.50	444.82	608.60	447.24	608.70	449.66	608.80	452.07	608.90	454.48
181	609.00	456.90	609.10	459.42	609.20	461.94	609.30	464.46	609.40	466.98
186	609.50	469.50	609.60	472.02	609.70	474.54	609.80	477.06	609.90	479.58
191	610.00	482.10	610.10	484.62	610.20	487.14	610.30	489.66	610.40	492.18
196	610.50	494.70	610.60	497.22	610.70	499.74	610.80	502.26	610.90	504.78
201	611.00	507.30	611.10	509.82	611.20	512.34	611.30	514.86	611.40	517.38
206	611.50	519.90	611.60	522.42	611.70	524.94	611.80	527.46	611.90	529.98
211	612.00	532.50	612.10	535.02	612.20	537.54	612.30	540.06	612.40	542.58
216	612.50	545.10	612.60	547.62	612.70	550.14	612.80	552.66	612.90	555.18
221	613.00	557.70	613.10	560.20	613.20	562.70	613.30	565.20	613.40	567.70
226	613.50	570.20	613.60	572.70	613.70	575.20	613.80	577.70	613.90	580.20
231	614.00	582.70	614.10	585.20	614.20	587.70	614.30	590.20	614.40	592.70
236	614.50	595.20	614.60	597.70	614.70	600.20	614.80	602.70	614.90	605.20
241	615.00	607.70	615.10	610.20	615.20	612.70	615.30	615.20	615.40	617.70
246	615.50	620.20	615.60	622.70	615.70	625.20	615.80	627.70	615.90	630.20
251	616.00	632.70	616.10	635.20	616.20	637.70	616.30	640.20	616.40	642.70
256	616.50	645.20	616.60	647.70	616.70	650.20	616.80	652.70	616.90	655.20
261	617.00	657.70	617.10	660.20	617.20	662.70	617.30	665.20	617.40	667.70
266	617.50	670.20	617.60	672.70	617.70	675.20	617.80	677.70	617.90	680.20
271	618.00	682.70	618.10	685.20	618.20	687.70	618.30	690.20	618.40	692.70
276	618.50	695.20	618.60	697.70	618.70	700.20	618.80	702.70	618.90	705.20
281	619.00	707.70	619.10	710.20	619.20	712.70	619.30	715.20	619.40	717.70
286	619.50	720.20	619.60	722.70	619.70	725.20	619.80	727.70	619.90	730.20
291	620.00	732.70	620.10	735.20						

Listing of Tabular Data-Generated Volume

1	591.00	250.00	593.00	433.50	595.00	683.20	597.00	1006.60	601.00	1893.20
6	605.00	3139.20	609.00	4773.60	613.00	6802.80	615.00	7968.20		

Listing of Tabular Data-Expanded Low Volume										
1	580.00	0.00	580.10	2.27	580.20	4.55	580.30	6.82	580.40	9.09
6	580.50	11.36	580.60	13.64	580.70	15.91	580.80	18.18	580.90	20.45
11	581.00	22.73	581.10	25.00	581.20	27.27	581.30	29.55	581.40	31.82
16	581.50	34.09	581.60	36.36	581.70	38.64	581.80	40.91	581.90	43.18
21	582.00	45.45	582.10	47.73	582.20	50.00	582.30	52.27	582.40	54.55
26	582.50	56.82	582.60	59.09	582.70	61.36	582.80	63.64	582.90	65.91
31	583.00	68.18	583.10	70.45	583.20	72.73	583.30	75.00	583.40	77.27
36	583.50	79.55	583.60	81.82	583.70	84.09	583.80	86.36	583.90	88.64
41	584.00	90.91	584.10	93.18	584.20	95.45	584.30	97.73	584.40	100.00
46	584.50	102.27	584.60	104.55	584.70	106.82	584.80	109.09	584.90	111.36
51	585.00	113.64	585.10	115.91	585.20	118.18	585.30	120.45	585.40	122.73
56	585.50	125.00	585.60	127.27	585.70	129.55	585.80	131.82	585.90	134.09
61	586.00	136.36	586.10	138.64	586.20	140.91	586.30	143.18	586.40	145.45
66	586.50	147.73	586.60	150.00	586.70	152.27	586.80	154.55	586.90	156.82
71	587.00	159.09	587.10	161.36	587.20	163.64	587.30	165.91	587.40	168.18
76	587.50	170.45	587.60	172.73	587.70	175.00	587.80	177.27	587.90	179.55
81	588.00	181.82	588.10	184.09	588.20	186.36	588.30	188.64	588.40	190.91
86	588.50	193.18	588.60	195.45	588.70	197.73	588.80	200.00	588.90	202.27
91	589.00	204.55	589.10	206.82	589.20	209.09	589.30	211.36	589.40	213.64
96	589.50	215.91	589.60	218.18	589.70	220.45	589.80	222.73	589.90	225.00
101	590.00	227.27	590.10	229.55	590.20	231.82	590.30	234.09	590.40	236.36
106	590.50	238.64	590.60	240.91	590.70	243.18	590.80	245.45	590.90	247.73

Listing of Tabular Data-Expanded Volume										
1	591.00	250.	591.10	258.	591.20	266.	591.30	274.	591.40	282.
6	591.50	290.	591.60	299.	591.70	307.	591.80	316.	591.90	325.
11	592.00	334.	592.10	343.	592.20	353.	592.30	362.	592.40	372.
16	592.50	382.	592.60	392.	592.70	402.	592.80	412.	592.90	423.
21	593.00	434.	593.10	444.	593.20	455.	593.30	466.	593.40	478.
26	593.50	489.	593.60	501.	593.70	513.	593.80	525.	593.90	537.
31	594.00	549.	594.10	562.	594.20	575.	594.30	588.	594.40	601.
36	594.50	614.	594.60	628.	594.70	641.	594.80	655.	594.90	669.
41	595.00	683.	595.10	698.	595.20	712.	595.30	727.	595.40	742.
46	595.50	757.	595.60	772.	595.70	788.	595.80	803.	595.90	819.
51	596.00	835.	596.10	852.	596.20	868.	596.30	885.	596.40	902.
56	596.50	919.	596.60	936.	596.70	953.	596.80	971.	596.90	989.
61	597.00	1007.	597.10	1025.	597.20	1043.	597.30	1062.	597.40	1080.
66	597.50	1099.	597.60	1119.	597.70	1138.	597.80	1158.	597.90	1177.
71	598.00	1197.	598.10	1218.	598.20	1238.	598.30	1259.	598.40	1280.
76	598.50	1301.	598.60	1322.	598.70	1343.	598.80	1365.	598.90	1387.
81	599.00	1409.	599.10	1431.	599.20	1454.	599.30	1476.	599.40	1499.
86	599.50	1522.	599.60	1546.	599.70	1569.	599.80	1593.	599.90	1617.
91	600.00	1641.	600.10	1665.	600.20	1690.	600.30	1714.	600.40	1739.
96	600.50	1764.	600.60	1790.	600.70	1815.	600.80	1841.	600.90	1867.
101	601.00	1893.	601.10	1920.	601.20	1946.	601.30	1973.	601.40	2000.
106	601.50	2028.	601.60	2055.	601.70	2083.	601.80	2111.	601.90	2140.
111	602.00	2168.	602.10	2197.	602.20	2226.	602.30	2255.	602.40	2285.
116	602.50	2315.	602.60	2345.	602.70	2375.	602.80	2406.	602.90	2436.
121	603.00	2467.	603.10	2499.	603.20	2530.	603.30	2562.	603.40	2594.
126	603.50	2626.	603.60	2659.	603.70	2691.	603.80	2724.	603.90	2758.
131	604.00	2791.	604.10	2825.	604.20	2859.	604.30	2893.	604.40	2927.
136	604.50	2962.	604.60	2997.	604.70	3032.	604.80	3068.	604.90	3103.
141	605.00	3139.	605.10	3175.	605.20	3212.	605.30	3248.	605.40	3285.
146	605.50	3322.	605.60	3360.	605.70	3397.	605.80	3435.	605.90	3473.
151	606.00	3512.	606.10	3550.	606.20	3589.	606.30	3628.	606.40	3667.
156	606.50	3707.	606.60	3747.	606.70	3787.	606.80	3827.	606.90	3867.
161	607.00	3908.	607.10	3949.	607.20	3990.	607.30	4032.	607.40	4073.
166	607.50	4115.	607.60	4158.	607.70	4200.	607.80	4243.	607.90	4286.
171	608.00	4329.	608.10	4372.	608.20	4416.	608.30	4460.	608.40	4504.
176	608.50	4548.	608.60	4593.	608.70	4638.	608.80	4683.	608.90	4728.
181	609.00	4774.	609.10	4819.	609.20	4865.	609.30	4912.	609.40	4958.
186	609.50	5005.	609.60	5052.	609.70	5100.	609.80	5147.	609.90	5195.
191	610.00	5243.	610.10	5291.	610.20	5340.	610.30	5389.	610.40	5438.
196	610.50	5487.	610.60	5537.	610.70	5587.	610.80	5637.	610.90	5687.
201	611.00	5738.	611.10	5789.	611.20	5840.	611.30	5891.	611.40	5943.
206	611.50	5995.	611.60	6047.	611.70	6099.	611.80	6152.	611.90	6205.
211	612.00	6258.	612.10	6311.	612.20	6365.	612.30	6419.	612.40	6473.
216	612.50	6527.	612.60	6582.	612.70	6637.	612.80	6692.	612.90	6747.
221	613.00	6803.	613.10	6859.	613.20	6915.	613.30	6971.	613.40	7028.
226	613.50	7085.	613.60	7142.	613.70	7199.	613.80	7257.	613.90	7315.

231	614.00	7373.	614.10	7431.	614.20	7490.	614.30	7549.	614.40	7608.
236	614.50	7667.	614.60	7727.	614.70	7787.	614.80	7847.	614.90	7908.
241	615.00	7968.	615.10	8029.	615.20	8090.	615.30	8152.	615.40	8213.
246	615.50	8275.	615.60	8337.	615.70	8400.	615.80	8462.	615.90	8525.
251	616.00	8588.	616.10	8652.	616.20	8715.	616.30	8779.	616.40	8843.
256	616.50	8908.	616.60	8973.	616.70	9037.	616.80	9103.	616.90	9168.
261	617.00	9234.	617.10	9299.	617.20	9366.	617.30	9432.	617.40	9499.
266	617.50	9566.	617.60	9633.	617.70	9700.	617.80	9768.	617.90	9836.
271	618.00	9904.	618.10	9972.	618.20	10041.	618.30	10110.	618.40	10179.
276	618.50	10248.	618.60	10318.	618.70	10388.	618.80	10458.	618.90	10528.
281	619.00	10599.	619.10	10670.	619.20	10741.	619.30	10812.	619.40	10884.
286	619.50	10956.	619.60	11028.	619.70	11101.	619.80	11173.	619.90	11246.
291	620.00	11319.	620.10	11393.						

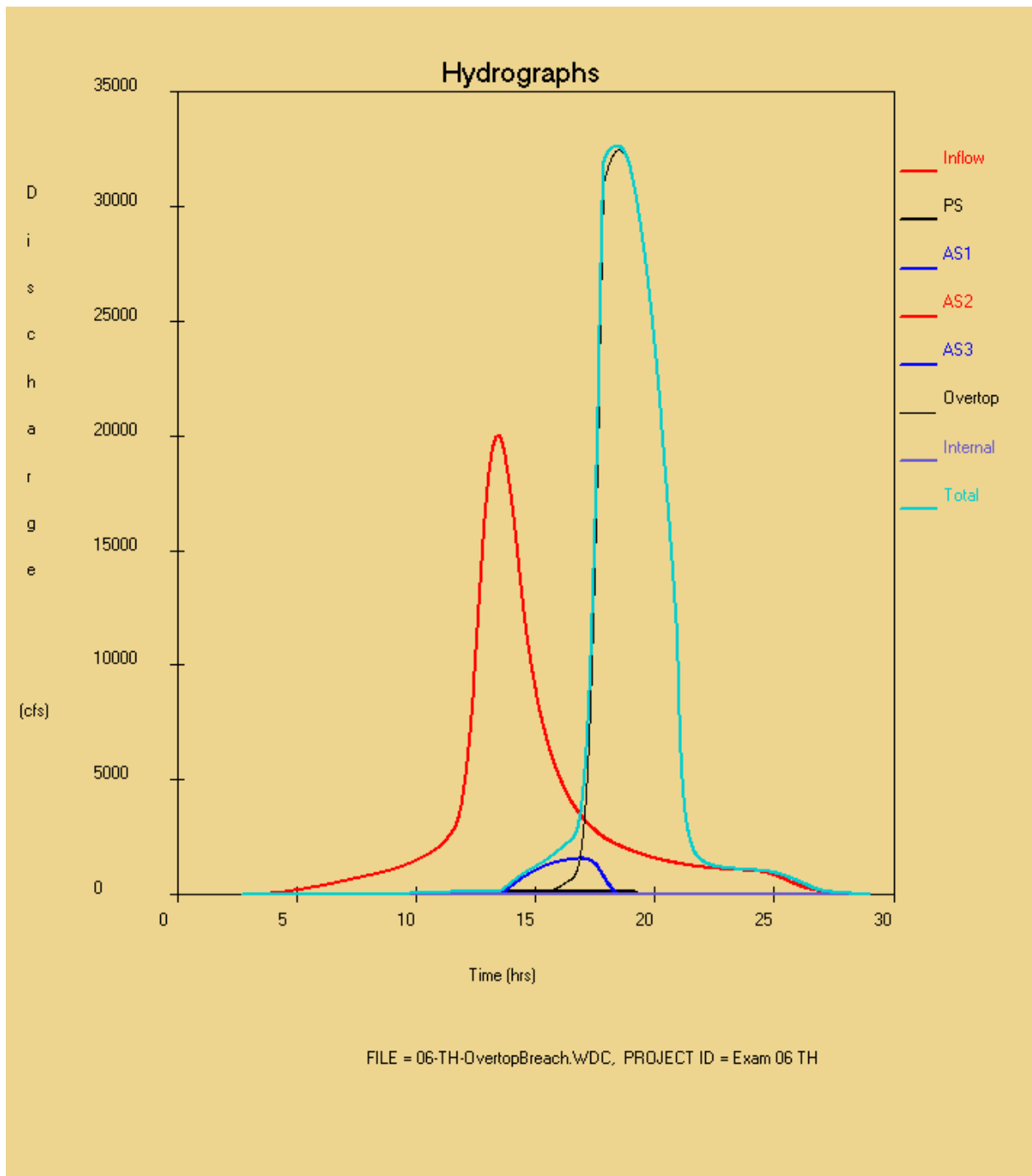
5-HR OvertopBreach.OUT

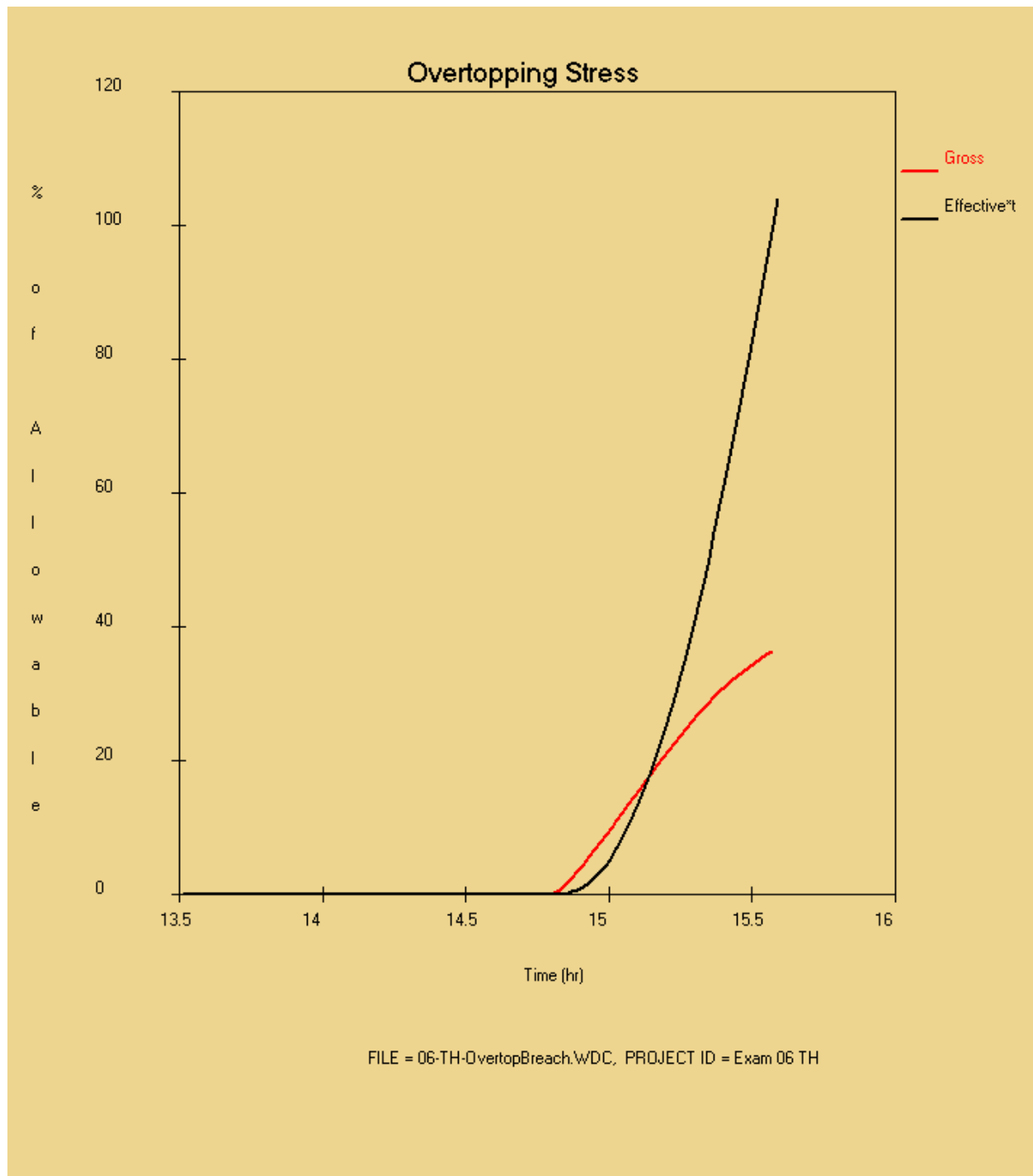
WinDAM C

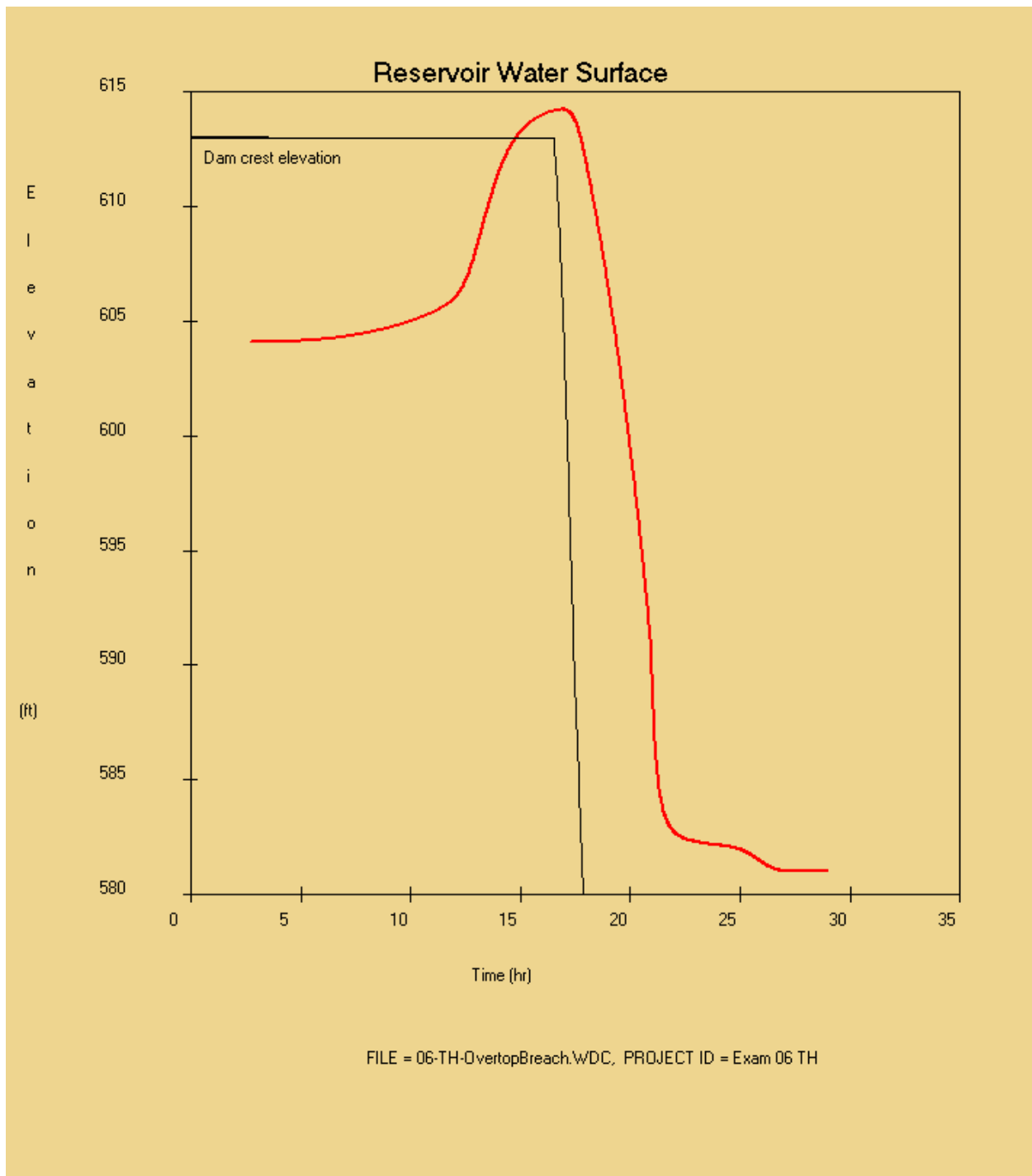
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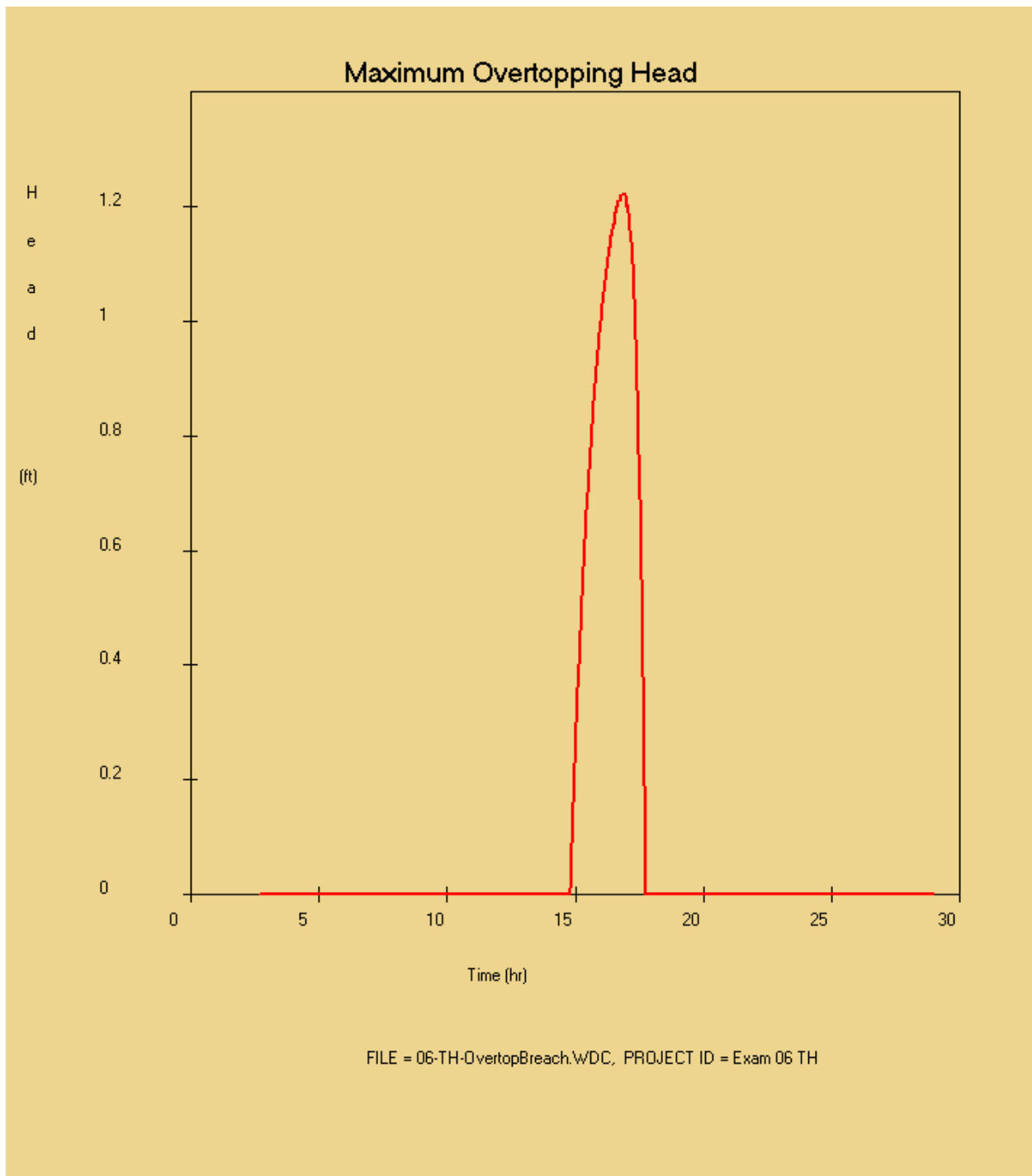
**06-TH-OvertopBreach**













Listing of Input Data-Exam 06 TH

WINDAM 01/01/2009Exam 06 TH

OPTION SIMPLE EARTH BREACH

\* WinDAM B Example 06 - Existing Dam 06/22/2012

\* Typical Design for integrity.

\* OVERTOPPING for breach analysis

\* Temple/Hanson Energy model

\* Std single stage riser, 36" dia conduit

\* PS crest: 604.0'

\* Start Routing: 604.1'

\* AS crest: 609.0'

\* AS bottom width: 40'

\* Dam crest: 613.0'

\* Dam face Maintenance Code - 3 (major discontinuities)

\* Aux Spwy Maintenance Code - 2 (minor discontinuities)

\* 24-hr FBH Inflow peak: 20,000 cfs @ 13.4 hr

\* Embankment overtops and breaches

\* Aux Spwy erodes, but does not breach

\* END of Input comments-----

HCMODEL 1 10 .1 5

HYD FBH 0.02 2.6720 OC

0.83 0.9806172 1.1312345 1.2818518 1.4324691

1.5830864 1.7337037 1.8843209 2.0349382 2.2966666

2.5707407 2.8448148 3.1188888 3.3929629 3.6670370

3.9411111 4.2151851 4.6324691 5.0855555 5.5386419

5.9917283 6.4448148 6.8979012 7.3509876 7.8040740

8.4196296 9.1048148 9.79 10.475185 11.160370

11.845555 12.530740 13.215925 14.064814 15.022839

15.980864 16.938888 17.896913 18.854938 19.812962

20.770987 21.878395 23.135185 24.391975 25.648765

26.905555 28.162345 29.419135 30.675925 32.055185

33.618148 35.181111 36.744074 38.307037 39.87

41.432962 42.995925 44.649629 46.515061 48.380493

50.245925 52.111358 53.976790 55.842222 57.707654

59.631358 61.788148 63.944938 66.101728 68.258518

70.415308 72.572098 74.728888 76.912345 79.335802

81.759259 84.182716 86.606172 89.029629 91.453086

93.876543 96.3 98.967901 101.63580 104.30370

106.97160 109.63950 112.30740 114.97530 117.64320

120.50777 123.39419 126.28061 129.16703 132.05345

134.93987 137.82629 140.71271 143.74925 146.82333

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165.26777 168.45592 171.69296 174.93 178.16703

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286.44197 290.20370 293.96543 297.72716 301.48888

305.25061 309.03481 312.90888 316.78296 320.65703

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467.74135 472.00185 476.31765 480.65716 484.99666

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511.07592 515.48580 519.89567 524.30555 528.71543

533.12530 537.53518 541.94506 546.38641 550.85925

555.33209 559.80493 564.27777 568.75061 573.22345

577.69629 582.19135 586.71975 591.24814 595.77654

600.30493 604.83333 609.36172 613.89012 618.43370

623.01271 627.59172 632.17074 636.74975 641.32876

645.90777 650.48679 655.07469 659.69814 664.32160

668.94506 673.56851 678.19197 682.81543 687.43888

692.06629 696.72925 701.39222 706.05518 710.71814

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833.27790	838.03098	842.78407	847.56308	852.35320
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1063.0927	1069.0939	1075.0951	1081.0964	1087.0976
1093.0988	1099.1592	1105.7518	1112.3444	1118.9370
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1159.1530	1166.4061	1173.6592	1180.9123	1188.1654
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1233.6065	1241.5225	1249.4386	1257.3546	1265.2707
1273.1867	1281.5976	1290.1322	1298.6667	1307.2013
1315.7359	1324.2704	1332.8050	1341.3396	1350.2708
1359.3720	1368.4733	1377.5745	1386.6758	1395.7770
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1550.8541	1560.9295	1571.0048	1581.2939	1591.9038
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1769.6866	1782.0422	1794.3977	1806.7533	1819.1088
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1966.14	1981.6659	1997.1918	2012.7177	2028.2437
2043.7696	2059.2955	2074.8214	2090.3474	2107.9211
2125.7223	2143.5235	2161.3248	2179.1260	2196.9272
2214.7285	2232.5297	2252.6974	2273.4566	2294.2159
2314.9751	2335.7344	2356.4937	2377.2529	2398.0122
2421.4746	2446.0956	2470.7166	2495.3376	2519.9586
2544.5796	2569.2006	2593.8216	2622.1381	2652.9183
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2837.5998	2876.6702	2924.0307	2971.3912	3018.7517
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3363.3462	3453.8722	3544.3981	3634.9240	3725.45
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13697.64	13503.651	13309.662	13115.673	12921.684
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8618.8190	8515.7733	8412.7276	8309.6819	8210.1681
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3359.3113	3334.3619	3309.4125	3284.4632	3259.5138
3234.5644	3209.8867	3187.6546	3165.4225	3143.1904
3120.9583	3098.7262	3076.4941	3054.2620	3032.03
3012.1855	2992.3411	2972.4966	2952.6522	2932.8077
2912.9633	2893.1188	2873.2744	2855.0455	2836.9961
2818.9467	2800.8974	2782.8480	2764.7986	2746.7492
2728.6998	2712.1398	2695.9522	2679.7645	2663.5769
2647.3892	2631.2016	2615.0139	2598.8262	2583.7690
2569.1961	2554.6233	2540.0504	2525.4776	2510.9048
2496.3319	2481.7591	2468.1692	2455.2346	2442.3001
2429.3655	2416.4309	2403.4964	2390.5618	2377.6272
2365.2865	2353.5396	2341.7927	2330.0458	2318.2988
2306.5519	2294.8050	2283.0581	2271.7043	2260.9401
2250.1759	2239.4117	2228.6475	2217.8833	2207.1191
2196.3549	2185.9959	2176.5823	2167.1687	2157.7551
2148.3416	2138.9280	2129.5144	2120.1008	2110.8576
2102.2959	2093.7341	2085.1724	2076.6107	2068.0490
2059.4872	2050.9255	2042.4045	2034.2502	2026.0959
2017.9416	2009.7872	2001.6329	1993.4786	1985.3243
1977.17	1969.3416	1961.5132	1953.6848	1945.8564
1938.0280	1930.1996	1922.3712	1914.5428	1906.9466
1899.3762	1891.8059	1884.2355	1876.6651	1869.0948
1861.5244	1853.9540	1846.5624	1839.2155	1831.8686
1824.5217	1817.1748	1809.8279	1802.4809	1795.1340
1787.9262	1780.7781	1773.63	1766.4818	1759.3337
1752.1855	1745.0374	1737.8892	1730.8751	1723.9504
1717.0258	1710.1011	1703.1764	1696.2517	1689.3270
1682.4023	1675.7103	1669.2511	1662.7918	1656.3325
1649.8733	1643.4140	1636.9548	1630.4955	1624.4116
1618.8906	1613.3696	1607.8486	1602.3276	1596.8066
1591.2856	1585.7646	1580.4044	1575.4192	1570.4340
1565.4488	1560.4637	1555.4785	1550.4933	1545.5081
1540.5577	1535.7466	1530.9355	1526.1244	1521.3133
1516.5022	1511.6911	1506.88	1502.0845	1497.4302
1492.7759	1488.1216	1483.4672	1478.8129	1474.1586
1469.5043	1464.85	1460.3413	1455.8327	1451.3240
1446.8154	1442.3067	1437.7981	1433.2895	1428.7808
1424.4211	1420.0779	1415.7346	1411.3914	1407.0482
1402.7050	1398.3618	1394.0186	1389.8344	1385.69
1381.5455	1377.4011	1373.2566	1369.1122	1364.9677
1360.8233	1356.8422	1352.9311	1349.02	1345.1088
1341.1977	1337.2866	1333.3755	1329.4644	1325.7096
1322.0590	1318.4083	1314.7577	1311.1071	1307.4565
1303.8059	1300.1553	1296.6423	1293.2670	1289.8917
1286.5164	1283.1411	1279.7658	1276.3904	1273.0151
1269.7514	1266.6551	1263.5588	1260.4625	1257.3662
1254.27	1251.1737	1248.0774	1245.0637	1242.2427
1239.4217	1236.6007	1233.7797	1230.9587	1228.1377
1225.3167	1222.5481	1219.9888	1217.4296	1214.8703



1212.3111	1209.7518	1207.1925	1204.6333	1202.0981
1199.7796	1197.4611	1195.1425	1192.8240	1190.5055
1188.1870	1185.8685	1183.55	1181.4512	1179.3524
1177.2537	1175.1549	1173.0561	1170.9574	1168.8586
1166.7598	1164.8366	1162.9329	1161.0292	1159.1255
1157.2218	1155.3181	1153.4144	1151.5107	1149.7383
1147.9988	1146.2593	1144.5198	1142.7803	1141.0408
1139.3013	1137.5618	1135.9174	1134.3137	1132.71
1131.1062	1129.5025	1127.8988	1126.2951	1124.6914
1123.1574	1121.6697	1120.1820	1118.6944	1117.2067
1115.7191	1114.2314	1112.7438	1111.3037	1109.9111
1108.5185	1107.1259	1105.7333	1104.3407	1102.9481
1101.5555	1100.1955	1098.8844	1097.5733	1096.2622
1094.9511	1093.64	1092.3288	1091.0177	1089.7274
1088.4854	1087.2434	1086.0014	1084.7595	1083.5175
1082.2755	1081.0335	1079.8037	1078.6222	1077.4407
1076.2592	1075.0777	1073.8962	1072.7148	1071.5333
1070.3569	1069.2260	1068.0951	1066.9643	1065.8334
1064.7025	1063.5717	1062.4408	1061.31	1060.2211
1059.1322	1058.0433	1056.9544	1055.8655	1054.7766
1053.6877	1052.5988	1051.4588	1050.3132	1049.1675
1048.0218	1046.8761	1045.7304	1044.5848	1043.4391
1042.0109	1040.5122	1039.0134	1037.5146	1036.0159
1034.5171	1033.0183	1031.5196	1029.5680	1027.4223
1025.2766	1023.1309	1020.9853	1018.8396	1016.6939
1014.5482	1011.8929	1008.8979	1005.9028	1002.9077
999.91271	996.91765	993.92259	990.92753	987.36148
983.22444	979.08740	974.95037	970.81333	966.67629
962.53925	958.40222	953.68296	948.09037	942.49777
936.90518	931.31259	925.72	920.12740	914.53481
908.48370	901.36271	894.24172	887.12074	879.99975
872.87876	865.75777	858.63679	851.27703	842.96222
834.64740	826.33259	818.01777	809.70296	801.38814
793.07333	784.68382	775.62209	766.56037	757.49864
748.43691	739.37518	730.31345	721.25172	712.19
702.82209	693.45419	684.08629	674.71839	665.35049
655.98259	646.61469	637.24679	627.91888	618.59543
609.27197	599.94851	590.62506	581.30160	571.97814
562.65469	553.58012	544.56777	535.55543	526.54308
517.53074	508.51839	499.50604	490.49370	481.91777
473.52888	465.14	456.75111	448.36222	439.97333
431.58444	423.19555	415.23037	407.54765	399.86493
392.18222	384.49950	376.81679	369.13407	361.45135
354.17851	347.31555	340.45259	333.58962	326.72666
319.86370	313.00074	306.13777	299.67086	293.79802
287.92518	282.05234	276.17950	270.30666	264.43382
258.56098	252.99888	248.16185	243.32481	238.48777
233.65074	228.81370	223.97666	219.13962	214.46679
210.45074	206.43469	202.41864	198.40259	194.38654
190.37049	186.35444	182.39975	178.99728	175.59481
172.19234	168.78987	165.38740	161.98493	158.58246
155.18	152.29851	149.41703	146.53555	143.65407
140.77259	137.89111	135.00962	132.12814	129.63111
127.17679	124.72246	122.26814	119.81382	117.35950
114.90518	112.45086	110.27308	108.16444	106.05580
103.94716	101.83851	99.729876	97.621234	95.512592
93.620864	91.822098	90.023333	88.224567	86.425802
84.627037	82.828271	81.029506	79.401111	77.886296
76.371481	74.856666	73.341851	71.827037	70.312222
68.797407	67.398024	66.114074	64.830123	63.546172
62.262222	60.978271	59.694320	58.410370	57.200987
56.103456	55.005925	53.908395	52.810864	51.713333
50.615802	49.518271	48.470370	47.538271	46.606172
45.674074	44.741975	43.809876	42.877777	41.945679
41.041728	40.250370	39.459012	38.667654	37.876296
37.084938	36.293580	35.502222	34.722839	34.051234
33.379629	32.708024	32.036419	31.364814	30.693209
30.021604	29.35	28.778395	28.206790	27.635185
27.063580	26.491975	25.920370	25.348765	24.777160
24.288888	23.809876	23.330864	22.851851	22.372839
21.893827	21.414814	20.935802	20.76	20.66
20.56	20.46	20.36	20.26	20.16



July 26, 2017

^^^^ Warning: Entered stage-storage table is not sufficient for the requested run.  
Volume set to zero at dam base and linear interpolation used.

Windows Dam Analysis Program		Execution Date - 07/26/2017	
Program Date - 01/01/2009		Version Number - 2008.01.01	
Input File - h:\WinDAM\Examples\Examples20170721chk\06-TH OvertopBreach.WDC		Time - 13:21:20	
-----			
***** Elevation Summary 1 *****			
Dam Base Elevation:		580.00 feet	
Max Tailwater Elevation:		581.00 feet	
Prin Spwy Crest Elevation:		604.00 feet	
Start Routing Elevation:		604.10 feet	
Aux Spwy # 1 Crest Elevation:		609.00 feet	
Aux Spwy # 2 Crest Elevation:		none	
Aux Spwy # 3 Crest Elevation:		none	
Max Pool Elevation:		614.22 feet	
Initial Low Point in Dam Crest:		613.00 feet	
Ending Low Point in Dam Crest:		580.00 feet @ 32.17 hours	
*****			
***** Flow Summary 2 *****			
Peak Inflow:		20006.644 cfs @ 13.37 hours	
Peak Outflow:		32629.558 cfs @ 18.37 hours	
Max Flow Principal Spwy:		162.167 cfs @ 16.87 hours	
Max Flow Aux Spwy # 1:		1572.246 cfs @ 16.87 hours	
Max Flow Aux Spwy # 2:		none	
Max Flow Aux Spwy # 3:		none	
Maximum flow over top of dam:		803.846 cfs @ 16.87 hours	
Duration of dam overtopping:		2.96 hours	
Max unit discharge, low point or breach:		575.897 cfs/ft	
Maximum internal erosion conduit flow:		0.000 cfs	
*****			
***** Spillways Summary 3 *****			
Principal Spillway Type:		Single Stage Inlet, Circular Conduit	
Principal Spillway Crest Elev:		604.00 feet	
Prin. Spw. Weir Length:		18.00 feet	
Conduit Diameter:		36.00 inches	
Conduit Manning's n value:		0.013	
-----			
Aux Spwy #1 Label:		RTside	
Aux Spwy #1 Crest Elev:		609.00 feet	
Aux Spwy #1 Bottom Width:		40.00 feet	
Aux Spwy #1 Max Flow:		1572.246 cfs @ 16.87 hours	
Aux Spwy #1 Max Hp:		5.22 feet	
Aux Spwy #1 Erosion Analysis:		Integrity	
-----			
Aux Spwy #2 Label:		none	
Aux Spwy #2 Crest Elev:		none	
Aux Spwy #2 Bottom Width:		none	
Aux Spwy #2 Max Flow:		none	
Aux Spwy #2 Max Hp:		none	
Aux Spwy #2 Erosion Analysis:		none	
-----			
Aux Spwy #3 Label:		none	
Aux Spwy #3 Crest Elev:		none	
Aux Spwy #3 Bottom Width:		none	
Aux Spwy #3 Max Flow:		none	
Aux Spwy #3 Max Hp:		none	
Aux Spwy #3 Erosion Analysis:		none	
*****			

\*\*\*\*\* Overtopping Summary Table 4 \*\*\*\*\*

Dam Breach Analysis Type:	Overtopping
Dam Headcut Model	Temple/Hanson
Initial Low Point in Dam Crest Profile:	613.00 feet
Maximum Pool Elevation:	614.22 feet @ 16.87 hours
Ending Low Point in Dam Crest Profile:	580.00 feet @ 32.17 hours
Overtopping Duration:	2.96 hours
Overtopping Initiation:	14.81 hours
Maximum Flow Over Top if Dam were Intact:	803.85 cfs @ 16.87 hours
Maximum Unit Discharge, lowpoint or breach:	575.897 cfs/ft
Dam Embankment Slope Protection:	Vegetation
Surface Cover Failed at:	15.59 hours
Breach Initiated at:	16.51 hours
Breach Completed at:	17.85 hours
Maximum Width of Embankment Breach:	115.33 feet
Max. Disch. thru Breach and/or Over Dam:	32457.564 cfs

\*\*\*\*\*

\*\*\*\*\* Internal Erosion Summary Table 5 \*\*\*\*\*

<<<<<< Internal Erosion was not an option for this embankment. >>>>>>

\*\*\*\*\*

\*\*\*\*\* Drawdown Summary Table 6 \*\*\*\*\*

<<<<<< Drawdown calculation was not an option for this embankment. >>>>>>

\*\*\*\*\*

Time (hr)	Stress on Vegetated Embankment Slope (3.00H:1V)					
	Max Disch	Total Stress Value	% Allow	Effective Stress Value	Time Intgrl	% Allow
	(cfs/ft)	lb/sqft	(Percent)	lb/sqft	lb/sqft-hr	(Percent)
14.81	0.00	0.0204	0.2	0.0204	0.0000	0.0
14.83	0.00	0.1081	0.8	0.1081	0.0004	0.0
14.85	0.00	0.2202	1.6	0.2202	0.0026	0.1
14.87	0.00	0.3414	2.5	0.3414	0.0070	0.4
14.89	0.01	0.4741	3.5	0.4741	0.0138	0.7
14.91	0.01	0.6102	4.5	0.6102	0.0233	1.2
14.93	0.01	0.7567	5.6	0.7567	0.0355	1.8
14.95	0.02	0.9046	6.7	0.9046	0.0506	2.6
14.97	0.03	1.0490	7.8	1.0490	0.0687	3.5
14.99	0.03	1.2047	8.9	1.2047	0.0897	4.5
15.01	0.04	1.3564	10.0	1.3564	0.1138	5.7
15.03	0.05	1.5100	11.2	1.5100	0.1409	7.1
15.05	0.05	1.6645	12.3	1.6645	0.1711	8.6
15.07	0.06	1.8264	13.5	1.8264	0.2044	10.3
15.09	0.07	1.9779	14.7	1.9779	0.2409	12.2
15.11	0.08	2.1314	15.8	2.1314	0.2805	14.2
15.13	0.09	2.2897	17.0	2.2897	0.3231	16.3
15.15	0.10	2.4486	18.1	2.4486	0.3689	18.6
15.17	0.11	2.6034	19.3	2.6034	0.4179	21.1
15.19	0.13	2.7603	20.4	2.7603	0.4700	23.7
15.21	0.14	2.9099	21.6	2.9099	0.5252	26.5
15.23	0.15	3.0664	22.7	3.0664	0.5834	29.5
15.25	0.16	3.2173	23.8	3.2173	0.6447	32.6
15.27	0.18	3.3660	24.9	3.3660	0.7090	35.8
15.29	0.20	3.5112	26.0	3.5112	0.7763	39.2
15.31	0.26	3.6412	27.0	3.6412	0.8466	42.8
15.33	0.31	3.7642	27.9	3.7642	0.9194	46.4
15.35	0.37	3.8835	28.8	3.8835	0.9947	50.2
15.37	0.43	3.9970	29.6	3.9970	1.0724	54.2
15.39	0.49	4.1063	30.4	4.1063	1.1523	58.2
15.41	0.55	4.2098	31.2	4.2098	1.2344	62.3
15.43	0.60	4.3098	31.9	4.3098	1.3186	66.6
15.45	0.66	4.4087	32.7	4.4087	1.4048	70.9
15.47	0.72	4.4975	33.3	4.4975	1.4930	75.4
15.49	0.78	4.5904	34.0	4.5904	1.5829	79.9
15.51	0.84	4.6771	34.6	4.6771	1.6747	84.6
15.53	0.90	4.7598	35.3	4.7598	1.7683	89.3
15.55	0.95	4.8410	35.9	4.8410	1.8635	94.1
15.57	1.01	4.9206	36.4*	4.9206	1.9603	99.0
15.59					2.0587	104.0#

Footnotes: \* -- Maximum Total Stress.  
# -- Maximum Effective Stress.



Hydrograph ID=FBH

Hydrograph Routing									
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Surface Elevation (feet)
									Tailwater Elevation (feet)
2.67	0.830	1.765	0.000			0.000		1.765	604.10
2.69	0.981	1.762	0.000			0.000		1.762	604.10
2.71	1.131	1.759	0.000			0.000		1.759	604.10
2.73	1.282	1.757	0.000			0.000		1.757	604.10
2.75	1.432	1.754	0.000			0.000		1.754	604.10
2.77	1.583	1.752	0.000			0.000		1.752	604.10
2.79	1.734	1.749	0.000			0.000		1.749	604.10
2.81	1.884	1.751	0.000			0.000		1.751	604.10
2.83	2.035	1.753	0.000			0.000		1.753	604.10
2.85	2.297	1.754	0.000			0.000		1.754	604.10
2.87	2.571	1.757	0.000			0.000		1.757	604.10
2.89	2.845	1.759	0.000			0.000		1.759	604.10
2.91	3.119	1.760	0.000			0.000		1.760	604.10
2.93	3.393	1.762	0.000			0.000		1.762	604.10
2.95	3.667	1.763	0.000			0.000		1.763	604.10
2.97	3.941	1.764	0.000			0.000		1.764	604.10
2.99	4.215	1.764	0.000			0.000		1.764	604.10
3.01	4.632	1.767	0.000			0.000		1.767	604.10
3.03	5.086	1.769	0.000			0.000		1.769	604.10
3.05	5.539	1.772	0.000			0.000		1.772	604.10
3.07	5.992	1.775	0.000			0.000		1.775	604.10
3.09	6.445	1.777	0.000			0.000		1.777	604.10
3.11	6.898	1.780	0.000			0.000		1.780	604.10
3.13	7.351	1.782	0.000			0.000		1.782	604.10
3.15	7.804	1.785	0.000			0.000		1.785	604.10
3.17	8.420	1.788	0.000			0.000		1.788	604.10
3.19	9.105	1.790	0.000			0.000		1.790	604.10
3.21	9.790	1.793	0.000			0.000		1.793	604.10
3.23	10.475	1.795	0.000			0.000		1.795	604.10
3.25	11.160	1.798	0.000			0.000		1.798	604.10
3.27	11.846	1.800	0.000			0.000		1.800	604.10
3.29	12.531	1.803	0.000			0.000		1.803	604.10
3.31	13.216	1.805	0.000			0.000		1.805	604.10
3.33	14.065	1.808	0.000			0.000		1.808	604.10
3.35	15.023	1.811	0.000			0.000		1.811	604.10
3.37	15.981	1.813	0.000			0.000		1.813	604.10
3.39	16.939	1.816	0.000			0.000		1.816	604.10
3.41	17.897	1.818	0.000			0.000		1.818	604.10
3.43	18.855	1.821	0.000			0.000		1.821	604.10
3.45	19.813	1.823	0.000			0.000		1.823	604.10
3.47	20.771	1.826	0.000			0.000		1.826	604.10
3.49	21.878	1.829	0.000			0.000		1.829	604.10
3.51	23.135	1.831	0.000			0.000		1.831	604.10
3.53	24.392	1.834	0.000			0.000		1.834	604.10
3.55	25.649	1.836	0.000			0.000		1.836	604.10
3.57	26.906	1.839	0.000			0.000		1.839	604.10
3.59	28.162	1.841	0.000			0.000		1.841	604.10
3.61	29.419	1.844	0.000			0.000		1.844	604.10
3.63	30.676	1.846	0.000			0.000		1.846	604.10
3.65	32.055	1.849	0.000			0.000		1.849	604.10
3.67	33.618	1.851	0.000			0.000		1.851	604.10
3.69	35.181	1.854	0.000			0.000		1.854	604.10
3.71	36.744	1.857	0.000			0.000		1.857	604.10
3.73	38.307	1.859	0.000			0.000		1.859	604.10
3.75	39.870	1.862	0.000			0.000		1.862	604.10
3.77	41.433	1.869	0.000			0.000		1.869	604.10
3.79	42.996	1.877	0.000			0.000		1.877	604.10
3.81	44.650	1.884	0.000			0.000		1.884	604.10
3.83	46.515	1.892	0.000			0.000		1.892	604.10
3.85	48.380	1.900	0.000			0.000		1.900	604.11
3.87	50.246	1.907	0.000			0.000		1.907	604.11
3.89	52.111	1.915	0.000			0.000		1.915	604.11
3.91	53.977	1.922	0.000			0.000		1.922	604.11
3.93	55.842	1.930	0.000			0.000		1.930	604.11
3.95	57.708	1.937	0.000			0.000		1.937	604.11

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Reservoir		
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)		Total Outflow (cfs)	Surface Elevation (feet)	Tailwater Elevation (feet)
3.97	59.631	1.945	0.000			0.000	1.945	604.11	581.00
3.99	61.788	1.952	0.000			0.000	1.952	604.11	581.00
4.01	63.945	1.960	0.000			0.000	1.960	604.11	581.00
4.03	66.102	1.967	0.000			0.000	1.967	604.11	581.00
4.05	68.259	1.975	0.000			0.000	1.975	604.11	581.00
4.07	70.415	1.982	0.000			0.000	1.982	604.11	581.00
4.09	72.572	1.989	0.000			0.000	1.989	604.11	581.00
4.11	74.729	1.997	0.000			0.000	1.997	604.11	581.00
4.13	76.912	2.009	0.000			0.000	2.009	604.11	581.00
4.15	79.336	2.021	0.000			0.000	2.021	604.11	581.00
4.17	81.759	2.034	0.000			0.000	2.034	604.11	581.00
4.19	84.183	2.046	0.000			0.000	2.046	604.11	581.00
4.21	86.606	2.058	0.000			0.000	2.058	604.11	581.00
4.23	89.030	2.070	0.000			0.000	2.070	604.11	581.00
4.25	91.453	2.082	0.000			0.000	2.082	604.11	581.00
4.27	93.877	2.094	0.000			0.000	2.094	604.11	581.00
4.29	96.300	2.106	0.000			0.000	2.106	604.11	581.00
4.31	98.968	2.118	0.000			0.000	2.118	604.11	581.00
4.33	101.636	2.130	0.000			0.000	2.130	604.11	581.00
4.35	104.304	2.142	0.000			0.000	2.142	604.11	581.00
4.37	106.972	2.154	0.000			0.000	2.154	604.11	581.00
4.39	109.639	2.171	0.000			0.000	2.171	604.11	581.00
4.41	112.307	2.187	0.000			0.000	2.187	604.12	581.00
4.43	114.975	2.204	0.000			0.000	2.204	604.12	581.00
4.45	117.643	2.220	0.000			0.000	2.220	604.12	581.00
4.47	120.508	2.237	0.000			0.000	2.237	604.12	581.00
4.49	123.394	2.253	0.000			0.000	2.253	604.12	581.00
4.51	126.281	2.269	0.000			0.000	2.269	604.12	581.00
4.53	129.167	2.285	0.000			0.000	2.285	604.12	581.00
4.55	132.053	2.301	0.000			0.000	2.301	604.12	581.00
4.57	134.940	2.322	0.000			0.000	2.322	604.12	581.00
4.59	137.826	2.342	0.000			0.000	2.342	604.12	581.00
4.61	140.713	2.362	0.000			0.000	2.362	604.12	581.00
4.63	143.749	2.382	0.000			0.000	2.382	604.12	581.00
4.65	146.823	2.403	0.000			0.000	2.403	604.12	581.00
4.67	149.897	2.422	0.000			0.000	2.422	604.12	581.00
4.69	152.971	2.442	0.000			0.000	2.442	604.12	581.00
4.71	156.046	2.462	0.000			0.000	2.462	604.12	581.00
4.73	159.120	2.486	0.000			0.000	2.486	604.13	581.00
4.75	162.194	2.510	0.000			0.000	2.510	604.13	581.00
4.77	165.268	2.533	0.000			0.000	2.533	604.13	581.00
4.79	168.456	2.556	0.000			0.000	2.556	604.13	581.00
4.81	171.693	2.580	0.000			0.000	2.580	604.13	581.00
4.83	174.930	2.603	0.000			0.000	2.603	604.13	581.00
4.85	178.167	2.630	0.000			0.000	2.630	604.13	581.00
4.87	181.404	2.656	0.000			0.000	2.656	604.13	581.00
4.89	184.641	2.683	0.000			0.000	2.683	604.13	581.00
4.91	187.878	2.709	0.000			0.000	2.709	604.13	581.00
4.93	191.115	2.735	0.000			0.000	2.735	604.13	581.00
4.95	194.440	2.765	0.000			0.000	2.765	604.13	581.00
4.97	197.822	2.794	0.000			0.000	2.794	604.14	581.00
4.99	201.205	2.823	0.000			0.000	2.823	604.14	581.00
5.01	204.588	2.852	0.000			0.000	2.852	604.14	581.00
5.03	207.970	2.884	0.000			0.000	2.884	604.14	581.00
5.05	211.353	2.916	0.000			0.000	2.916	604.14	581.00
5.07	214.736	2.947	0.000			0.000	2.947	604.14	581.00
5.09	218.119	2.978	0.000			0.000	2.978	604.14	581.00
5.11	221.568	3.012	0.000			0.000	3.012	604.14	581.00
5.13	225.084	3.046	0.000			0.000	3.046	604.14	581.00
5.15	228.600	3.079	0.000			0.000	3.079	604.14	581.00
5.17	232.116	3.115	0.000			0.000	3.115	604.15	581.00
5.19	235.632	3.150	0.000			0.000	3.150	604.15	581.00
5.21	239.148	3.189	0.000			0.000	3.189	604.15	581.00
5.23	242.664	3.226	0.000			0.000	3.226	604.15	581.00
5.25	246.180	3.261	0.000			0.000	3.261	604.15	581.00
5.27	249.747	3.302	0.000			0.000	3.302	604.15	581.00
5.29	253.389	3.342	0.000			0.000	3.342	604.15	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal	Auxiliary	Auxiliary	Auxiliary	OverTop	Internal	Total	Reservoir	Tailwater
		Spillway Outflow (cfs)	RTside Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Erosion Outflow (cfs)		Surface Elevation (feet)	Elevation (feet)
5.31	257.031	3.381	0.000			0.000		3.381	604.15	581.00
5.33	260.673	3.419	0.000			0.000		3.419	604.16	581.00
5.35	264.315	3.463	0.000			0.000		3.463	604.16	581.00
5.37	267.957	3.505	0.000			0.000		3.505	604.16	581.00
5.39	271.599	3.546	0.000			0.000		3.546	604.16	581.00
5.41	275.241	3.591	0.000			0.000		3.591	604.16	581.00
5.43	278.919	3.635	0.000			0.000		3.635	604.16	581.00
5.45	282.680	3.683	0.000			0.000		3.683	604.16	581.00
5.47	286.442	3.729	0.000			0.000		3.729	604.16	581.00
5.49	290.204	3.778	0.000			0.000		3.778	604.17	581.00
5.51	293.965	3.826	0.000			0.000		3.826	604.17	581.00
5.53	297.727	3.876	0.000			0.000		3.876	604.17	581.00
5.55	301.489	3.924	0.000			0.000		3.924	604.17	581.00
5.57	305.251	3.974	0.000			0.000		3.974	604.17	581.00
5.59	309.035	4.026	0.000			0.000		4.026	604.17	581.00
5.61	312.909	4.078	0.000			0.000		4.078	604.17	581.00
5.63	316.783	4.130	0.000			0.000		4.130	604.18	581.00
5.65	320.657	4.186	0.000			0.000		4.186	604.18	581.00
5.67	324.531	4.238	0.000			0.000		4.238	604.18	581.00
5.69	328.405	4.292	0.000			0.000		4.292	604.18	581.00
5.71	332.279	4.348	0.000			0.000		4.348	604.18	581.00
5.73	336.153	4.405	0.000			0.000		4.405	604.18	581.00
5.75	340.038	4.465	0.000			0.000		4.465	604.19	581.00
5.77	344.020	4.524	0.000			0.000		4.524	604.19	581.00
5.79	348.001	4.585	0.000			0.000		4.585	604.19	581.00
5.81	351.983	4.645	0.000			0.000		4.645	604.19	581.00
5.83	355.964	4.706	0.000			0.000		4.706	604.19	581.00
5.85	359.946	4.770	0.000			0.000		4.770	604.19	581.00
5.87	363.927	4.835	0.000			0.000		4.835	604.20	581.00
5.89	367.909	4.901	0.000			0.000		4.901	604.20	581.00
5.91	371.890	4.966	0.000			0.000		4.966	604.20	581.00
5.93	375.973	5.035	0.000			0.000		5.035	604.20	581.00
5.95	380.055	5.104	0.000			0.000		5.104	604.20	581.00
5.97	384.138	5.172	0.000			0.000		5.172	604.20	581.00
5.99	388.221	5.240	0.000			0.000		5.240	604.21	581.00
6.01	392.304	5.313	0.000			0.000		5.313	604.21	581.00
6.03	396.386	5.384	0.000			0.000		5.384	604.21	581.00
6.05	400.469	5.455	0.000			0.000		5.455	604.21	581.00
6.07	404.552	5.531	0.000			0.000		5.531	604.21	581.00
6.09	408.717	5.606	0.000			0.000		5.606	604.22	581.00
6.11	412.891	5.680	0.000			0.000		5.680	604.22	581.00
6.13	417.065	5.758	0.000			0.000		5.758	604.22	581.00
6.15	421.239	5.835	0.000			0.000		5.835	604.22	581.00
6.17	425.413	5.916	0.000			0.000		5.916	604.22	581.00
6.19	429.587	5.996	0.000			0.000		5.996	604.23	581.00
6.21	433.761	6.079	0.000			0.000		6.079	604.23	581.00
6.23	437.935	6.161	0.000			0.000		6.161	604.23	581.00
6.25	442.178	6.246	0.000			0.000		6.246	604.23	581.00
6.27	446.439	6.334	0.000			0.000		6.334	604.23	581.00
6.29	450.699	6.420	0.000			0.000		6.420	604.24	581.00
6.31	454.960	6.509	0.000			0.000		6.509	604.24	581.00
6.33	459.220	6.599	0.000			0.000		6.599	604.24	581.00
6.35	463.481	6.692	0.000			0.000		6.692	604.24	581.00
6.37	467.741	6.781	0.000			0.000		6.781	604.25	581.00
6.39	472.002	6.872	0.000			0.000		6.872	604.25	581.00
6.41	476.318	6.969	0.000			0.000		6.969	604.25	581.00
6.43	480.657	7.063	0.000			0.000		7.063	604.25	581.00
6.45	484.997	7.162	0.000			0.000		7.162	604.25	581.00
6.47	489.336	7.263	0.000			0.000		7.263	604.26	581.00
6.49	493.676	7.360	0.000			0.000		7.360	604.26	581.00
6.51	498.015	7.459	0.000			0.000		7.459	604.26	581.00
6.53	502.355	7.559	0.000			0.000		7.559	604.26	581.00
6.55	506.694	7.660	0.000			0.000		7.660	604.27	581.00
6.57	511.076	7.766	0.000			0.000		7.766	604.27	581.00
6.59	515.486	7.870	0.000			0.000		7.870	604.27	581.00
6.61	519.896	7.976	0.000			0.000		7.976	604.27	581.00
6.63	524.306	8.083	0.000			0.000		8.083	604.28	581.00



Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal	Auxiliary	Auxiliary	Auxiliary	OverTop Outflow (cfs)	Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir	Tailwater Elevation (feet)
		Spillway Outflow (cfs)	RTside Outflow (cfs)						Surface Elevation (feet)	
6.65	528.715	8.196	0.000			0.000		8.196	604.28	581.00
6.67	533.125	8.304	0.000			0.000		8.304	604.28	581.00
6.69	537.535	8.421	0.000			0.000		8.421	604.28	581.00
6.71	541.945	8.533	0.000			0.000		8.533	604.29	581.00
6.73	546.386	8.649	0.000			0.000		8.649	604.29	581.00
6.75	550.859	8.766	0.000			0.000		8.766	604.29	581.00
6.77	555.332	8.888	0.000			0.000		8.888	604.29	581.00
6.79	559.805	9.006	0.000			0.000		9.006	604.30	581.00
6.81	564.278	9.131	0.000			0.000		9.131	604.30	581.00
6.83	568.751	9.253	0.000			0.000		9.253	604.30	581.00
6.85	573.223	9.381	0.000			0.000		9.381	604.30	581.00
6.87	577.696	9.506	0.000			0.000		9.506	604.31	581.00
6.89	582.191	9.636	0.000			0.000		9.636	604.31	581.00
6.91	586.720	9.763	0.000			0.000		9.763	604.31	581.00
6.93	591.248	9.895	0.000			0.000		9.895	604.32	581.00
6.95	595.777	10.023	0.000			0.000		10.023	604.32	581.00
6.97	600.305	10.155	0.000			0.000		10.155	604.32	581.00
6.99	604.833	10.291	0.000			0.000		10.291	604.32	581.00
7.01	609.362	10.429	0.000			0.000		10.429	604.33	581.00
7.03	613.890	10.569	0.000			0.000		10.569	604.33	581.00
7.05	618.434	10.711	0.000			0.000		10.711	604.33	581.00
7.07	623.013	10.854	0.000			0.000		10.854	604.34	581.00
7.09	627.592	10.998	0.000			0.000		10.998	604.34	581.00
7.11	632.171	11.141	0.000			0.000		11.141	604.34	581.00
7.13	636.750	11.289	0.000			0.000		11.289	604.34	581.00
7.15	641.329	11.436	0.000			0.000		11.436	604.35	581.00
7.17	645.908	11.585	0.000			0.000		11.585	604.35	581.00
7.19	650.487	11.733	0.000			0.000		11.733	604.35	581.00
7.21	655.075	11.883	0.000			0.000		11.883	604.36	581.00
7.23	659.698	12.040	0.000			0.000		12.040	604.36	581.00
7.25	664.322	12.194	0.000			0.000		12.194	604.36	581.00
7.27	668.945	12.352	0.000			0.000		12.352	604.37	581.00
7.29	673.569	12.510	0.000			0.000		12.510	604.37	581.00
7.31	678.192	12.674	0.000			0.000		12.674	604.37	581.00
7.33	682.815	12.837	0.000			0.000		12.837	604.38	581.00
7.35	687.439	13.000	0.000			0.000		13.000	604.38	581.00
7.37	692.066	13.168	0.000			0.000		13.168	604.38	581.00
7.39	696.729	13.340	0.000			0.000		13.340	604.39	581.00
7.41	701.392	13.512	0.000			0.000		13.512	604.39	581.00
7.43	706.055	13.686	0.000			0.000		13.686	604.39	581.00
7.45	710.718	13.864	0.000			0.000		13.864	604.40	581.00
7.47	715.381	14.041	0.000			0.000		14.041	604.40	581.00
7.49	720.044	14.214	0.000			0.000		14.214	604.40	581.00
7.51	724.707	14.393	0.000			0.000		14.393	604.41	581.00
7.53	729.370	14.576	0.000			0.000		14.576	604.41	581.00
7.55	734.068	14.762	0.000			0.000		14.762	604.41	581.00
7.57	738.765	14.952	0.000			0.000		14.952	604.42	581.00
7.59	743.463	15.134	0.000			0.000		15.134	604.42	581.00
7.61	748.160	15.328	0.000			0.000		15.328	604.42	581.00
7.63	752.858	15.521	0.000			0.000		15.521	604.43	581.00
7.65	757.555	15.715	0.000			0.000		15.715	604.43	581.00
7.67	762.253	15.907	0.000			0.000		15.907	604.43	581.00
7.69	766.950	16.106	0.000			0.000		16.106	604.44	581.00
7.71	771.674	16.308	0.000			0.000		16.308	604.44	581.00
7.73	776.402	16.512	0.000			0.000		16.512	604.44	581.00
7.75	781.129	16.716	0.000			0.000		16.716	604.45	581.00
7.77	785.856	16.920	0.000			0.000		16.920	604.45	581.00
7.79	790.583	17.129	0.000			0.000		17.129	604.46	581.00
7.81	795.310	17.342	0.000			0.000		17.342	604.46	581.00
7.83	800.037	17.557	0.000			0.000		17.557	604.46	581.00
7.85	804.765	17.769	0.000			0.000		17.769	604.47	581.00
7.87	809.512	17.984	0.000			0.000		17.984	604.47	581.00
7.89	814.266	18.203	0.000			0.000		18.203	604.47	581.00
7.91	819.019	18.423	0.000			0.000		18.423	604.48	581.00
7.93	823.772	18.641	0.000			0.000		18.641	604.48	581.00
7.95	828.525	18.864	0.000			0.000		18.864	604.49	581.00
7.97	833.278	19.089	0.000			0.000		19.089	604.49	581.00



Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal	Auxiliary	Auxiliary	Auxiliary	OverTop	Internal	Total	Reservoir	Tailwater
		Spillway	RTside				Erosion		Surface	
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
7.99	838.031	19.313	0.000			0.000		19.313	604.49	581.00
8.01	842.784	19.543	0.000			0.000		19.543	604.50	581.00
8.03	847.563	19.772	0.000			0.000		19.772	604.50	581.00
8.05	852.353	20.008	0.000			0.000		20.008	604.50	581.00
8.07	857.143	20.246	0.000			0.000		20.246	604.51	581.00
8.09	861.933	20.486	0.000			0.000		20.486	604.51	581.00
8.11	866.724	20.727	0.000			0.000		20.727	604.52	581.00
8.13	871.514	20.967	0.000			0.000		20.967	604.52	581.00
8.15	876.304	21.215	0.000			0.000		21.215	604.52	581.00
8.17	881.094	21.461	0.000			0.000		21.461	604.53	581.00
8.19	885.928	21.711	0.000			0.000		21.711	604.53	581.00
8.21	890.791	21.963	0.000			0.000		21.963	604.54	581.00
8.23	895.654	22.216	0.000			0.000		22.216	604.54	581.00
8.25	900.517	22.475	0.000			0.000		22.475	604.55	581.00
8.27	905.380	22.736	0.000			0.000		22.736	604.55	581.00
8.29	910.243	22.999	0.000			0.000		22.999	604.55	581.00
8.31	915.106	23.263	0.000			0.000		23.263	604.56	581.00
8.33	919.969	23.525	0.000			0.000		23.525	604.56	581.00
8.35	924.898	23.789	0.000			0.000		23.789	604.57	581.00
8.37	929.893	24.058	0.000			0.000		24.058	604.57	581.00
8.39	934.888	24.330	0.000			0.000		24.330	604.58	581.00
8.41	939.883	24.609	0.000			0.000		24.609	604.58	581.00
8.43	944.878	24.881	0.000			0.000		24.881	604.58	581.00
8.45	949.873	25.164	0.000			0.000		25.164	604.59	581.00
8.47	954.868	25.445	0.000			0.000		25.445	604.59	581.00
8.49	959.863	25.731	0.000			0.000		25.731	604.60	581.00
8.51	964.944	26.015	0.000			0.000		26.015	604.60	581.00
8.53	970.154	26.297	0.000			0.000		26.297	604.61	581.00
8.55	975.364	26.592	0.000			0.000		26.592	604.61	581.00
8.57	980.574	26.885	0.000			0.000		26.885	604.61	581.00
8.59	985.783	27.176	0.000			0.000		27.176	604.62	581.00
8.61	990.993	27.473	0.000			0.000		27.473	604.62	581.00
8.63	996.203	27.775	0.000			0.000		27.775	604.63	581.00
8.65	1001.413	28.078	0.000			0.000		28.078	604.63	581.00
8.67	1006.720	28.381	0.000			0.000		28.381	604.64	581.00
8.69	1012.255	28.689	0.000			0.000		28.689	604.64	581.00
8.71	1017.789	28.998	0.000			0.000		28.998	604.65	581.00
8.73	1023.324	29.312	0.000			0.000		29.312	604.65	581.00
8.75	1028.859	29.629	0.000			0.000		29.629	604.66	581.00
8.77	1034.393	29.952	0.000			0.000		29.952	604.66	581.00
8.79	1039.928	30.273	0.000			0.000		30.273	604.67	581.00
8.81	1045.462	30.594	0.000			0.000		30.594	604.67	581.00
8.83	1051.090	30.921	0.000			0.000		30.921	604.67	581.00
8.85	1057.091	31.255	0.000			0.000		31.255	604.68	581.00
8.87	1063.093	31.593	0.000			0.000		31.593	604.68	581.00
8.89	1069.094	31.927	0.000			0.000		31.927	604.69	581.00
8.91	1075.095	32.261	0.000			0.000		32.261	604.69	581.00
8.93	1081.096	32.608	0.000			0.000		32.608	604.70	581.00
8.95	1087.098	32.947	0.000			0.000		32.947	604.70	581.00
8.97	1093.099	33.297	0.000			0.000		33.297	604.71	581.00
8.99	1099.159	33.643	0.000			0.000		33.643	604.71	581.00
9.01	1105.752	33.995	0.000			0.000		33.995	604.72	581.00
9.03	1112.344	34.351	0.000			0.000		34.351	604.72	581.00
9.05	1118.937	34.707	0.000			0.000		34.707	604.73	581.00
9.07	1125.530	35.071	0.000			0.000		35.071	604.73	581.00
9.09	1132.122	35.438	0.000			0.000		35.438	604.74	581.00
9.11	1138.715	35.804	0.000			0.000		35.804	604.74	581.00
9.13	1145.307	36.180	0.000			0.000		36.180	604.75	581.00
9.15	1151.900	36.562	0.000			0.000		36.562	604.75	581.00
9.17	1159.153	36.945	0.000			0.000		36.945	604.76	581.00
9.19	1166.406	37.331	0.000			0.000		37.331	604.76	581.00
9.21	1173.659	37.718	0.000			0.000		37.718	604.77	581.00
9.23	1180.912	38.107	0.000			0.000		38.107	604.78	581.00
9.25	1188.165	38.496	0.000			0.000		38.496	604.78	581.00
9.27	1195.418	38.891	0.000			0.000		38.891	604.79	581.00
9.29	1202.672	39.291	0.000			0.000		39.291	604.79	581.00
9.31	1209.925	39.693	0.000			0.000		39.693	604.80	581.00

Hydrograph Routing										Reservoir	
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Surface	Tailwater Elevation (feet)	
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)		
9.33	1217.774	40.104	0.000			0.000		40.104	604.80	581.00	
9.35	1225.690	40.512	0.000			0.000		40.512	604.81	581.00	
9.37	1233.607	40.926	0.000			0.000		40.926	604.81	581.00	
9.39	1241.523	41.342	0.000			0.000		41.342	604.82	581.00	
9.41	1249.439	41.769	0.000			0.000		41.769	604.82	581.00	
9.43	1257.355	42.202	0.000			0.000		42.202	604.83	581.00	
9.45	1265.271	42.635	0.000			0.000		42.635	604.84	581.00	
9.47	1273.187	43.072	0.000			0.000		43.072	604.84	581.00	
9.49	1281.598	43.516	0.000			0.000		43.516	604.85	581.00	
9.51	1290.132	43.958	0.000			0.000		43.958	604.85	581.00	
9.53	1298.667	44.406	0.000			0.000		44.406	604.86	581.00	
9.55	1307.201	44.863	0.000			0.000		44.863	604.86	581.00	
9.57	1315.736	45.320	0.000			0.000		45.320	604.87	581.00	
9.59	1324.270	45.784	0.000			0.000		45.784	604.88	581.00	
9.61	1332.805	46.254	0.000			0.000		46.254	604.88	581.00	
9.63	1341.340	46.724	0.000			0.000		46.724	604.89	581.00	
9.65	1350.271	47.204	0.000			0.000		47.204	604.89	581.00	
9.67	1359.372	47.682	0.000			0.000		47.682	604.90	581.00	
9.69	1368.473	48.170	0.000			0.000		48.170	604.91	581.00	
9.71	1377.574	48.657	0.000			0.000		48.657	604.91	581.00	
9.73	1386.676	49.156	0.000			0.000		49.156	604.92	581.00	
9.75	1395.777	49.658	0.000			0.000		49.658	604.93	581.00	
9.77	1404.878	50.159	0.000			0.000		50.159	604.93	581.00	
9.79	1413.979	50.663	0.000			0.000		50.663	604.94	581.00	
9.81	1423.384	51.172	0.000			0.000		51.172	604.94	581.00	
9.83	1432.992	51.685	0.000			0.000		51.685	604.95	581.00	
9.85	1442.599	52.202	0.000			0.000		52.202	604.96	581.00	
9.87	1452.207	52.724	0.000			0.000		52.724	604.96	581.00	
9.89	1461.814	53.254	0.000			0.000		53.254	604.97	581.00	
9.91	1471.421	53.793	0.000			0.000		53.793	604.98	581.00	
9.93	1481.029	54.332	0.000			0.000		54.332	604.98	581.00	
9.95	1490.636	54.875	0.000			0.000		54.875	604.99	581.00	
9.97	1500.478	55.431	0.000			0.000		55.431	605.00	581.00	
9.99	1510.553	55.990	0.000			0.000		55.990	605.00	581.00	
10.01	1520.628	56.542	0.000			0.000		56.542	605.01	581.00	
10.03	1530.704	57.104	0.000			0.000		57.104	605.02	581.00	
10.05	1540.779	57.669	0.000			0.000		57.669	605.02	581.00	
10.07	1550.854	58.242	0.000			0.000		58.242	605.03	581.00	
10.09	1560.929	58.826	0.000			0.000		58.826	605.04	581.00	
10.11	1571.005	59.409	0.000			0.000		59.409	605.04	581.00	
10.13	1581.294	59.999	0.000			0.000		59.999	605.05	581.00	
10.15	1591.904	60.599	0.000			0.000		60.599	605.06	581.00	
10.17	1602.514	61.206	0.000			0.000		61.206	605.06	581.00	
10.19	1613.123	61.815	0.000			0.000		61.815	605.07	581.00	
10.21	1623.733	62.437	0.000			0.000		62.437	605.08	581.00	
10.23	1634.343	63.064	0.000			0.000		63.064	605.08	581.00	
10.25	1644.953	63.693	0.000			0.000		63.693	605.09	581.00	
10.27	1655.563	64.328	0.000			0.000		64.328	605.10	581.00	
10.29	1666.392	64.958	0.000			0.000		64.958	605.11	581.00	
10.31	1677.735	65.609	0.000			0.000		65.609	605.11	581.00	
10.33	1689.076	66.256	0.000			0.000		66.256	605.12	581.00	
10.35	1700.418	66.918	0.000			0.000		66.918	605.13	581.00	
10.37	1711.760	67.581	0.000			0.000		67.581	605.14	581.00	
10.39	1723.102	68.254	0.000			0.000		68.254	605.14	581.00	
10.41	1734.444	68.929	0.000			0.000		68.929	605.15	581.00	
10.43	1745.786	69.605	0.000			0.000		69.605	605.16	581.00	
10.45	1757.331	70.295	0.000			0.000		70.295	605.17	581.00	
10.47	1769.687	70.990	0.000			0.000		70.990	605.17	581.00	
10.49	1782.042	71.693	0.000			0.000		71.693	605.18	581.00	
10.51	1794.398	72.397	0.000			0.000		72.397	605.19	581.00	
10.53	1806.753	73.120	0.000			0.000		73.120	605.20	581.00	
10.55	1819.109	73.841	0.000			0.000		73.841	605.21	581.00	
10.57	1831.464	74.564	0.000			0.000		74.564	605.21	581.00	
10.59	1843.820	75.292	0.000			0.000		75.292	605.22	581.00	
10.61	1856.313	76.027	0.000			0.000		76.027	605.23	581.00	
10.63	1870.041	76.781	0.000			0.000		76.781	605.24	581.00	
10.65	1883.770	77.543	0.000			0.000		77.543	605.25	581.00	

Hydrograph Routing										Reservoir	
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Surface	Tailwater Elevation (feet)	
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)		
10. 67	1897. 498	78. 307	0. 000			0. 000		78. 307	605. 25	581. 00	
10. 69	1911. 226	79. 084	0. 000			0. 000		79. 084	605. 26	581. 00	
10. 71	1924. 955	79. 865	0. 000			0. 000		79. 865	605. 27	581. 00	
10. 73	1938. 683	80. 656	0. 000			0. 000		80. 656	605. 28	581. 00	
10. 75	1952. 412	81. 447	0. 000			0. 000		81. 447	605. 29	581. 00	
10. 77	1966. 140	82. 250	0. 000			0. 000		82. 250	605. 30	581. 00	
10. 79	1981. 666	83. 065	0. 000			0. 000		83. 065	605. 30	581. 00	
10. 81	1997. 192	83. 884	0. 000			0. 000		83. 884	605. 31	581. 00	
10. 83	2012. 718	84. 715	0. 000			0. 000		84. 715	605. 32	581. 00	
10. 85	2028. 244	85. 555	0. 000			0. 000		85. 555	605. 33	581. 00	
10. 87	2043. 770	86. 399	0. 000			0. 000		86. 399	605. 34	581. 00	
10. 89	2059. 296	87. 257	0. 000			0. 000		87. 257	605. 35	581. 00	
10. 91	2074. 821	88. 124	0. 000			0. 000		88. 124	605. 36	581. 00	
10. 93	2090. 347	89. 002	0. 000			0. 000		89. 002	605. 37	581. 00	
10. 95	2107. 921	89. 889	0. 000			0. 000		89. 889	605. 37	581. 00	
10. 97	2125. 722	90. 786	0. 000			0. 000		90. 786	605. 38	581. 00	
10. 99	2143. 523	91. 692	0. 000			0. 000		91. 692	605. 39	581. 00	
11. 01	2161. 325	92. 600	0. 000			0. 000		92. 600	605. 40	581. 00	
11. 03	2179. 126	93. 525	0. 000			0. 000		93. 525	605. 41	581. 00	
11. 05	2196. 927	94. 451	0. 000			0. 000		94. 451	605. 42	581. 00	
11. 07	2214. 729	95. 392	0. 000			0. 000		95. 392	605. 43	581. 00	
11. 09	2232. 530	96. 348	0. 000			0. 000		96. 348	605. 44	581. 00	
11. 11	2252. 697	97. 309	0. 000			0. 000		97. 309	605. 45	581. 00	
11. 13	2273. 457	98. 287	0. 000			0. 000		98. 287	605. 46	581. 00	
11. 15	2294. 216	99. 280	0. 000			0. 000		99. 280	605. 47	581. 00	
11. 17	2314. 975	100. 280	0. 000			0. 000		100. 280	605. 48	581. 00	
11. 19	2335. 734	101. 298	0. 000			0. 000		101. 298	605. 49	581. 00	
11. 21	2356. 494	102. 312	0. 000			0. 000		102. 312	605. 50	581. 00	
11. 23	2377. 253	103. 344	0. 000			0. 000		103. 344	605. 51	581. 00	
11. 25	2398. 012	104. 388	0. 000			0. 000		104. 388	605. 52	581. 00	
11. 27	2421. 475	105. 435	0. 000			0. 000		105. 435	605. 53	581. 00	
11. 29	2446. 096	106. 501	0. 000			0. 000		106. 501	605. 54	581. 00	
11. 31	2470. 717	107. 578	0. 000			0. 000		107. 578	605. 55	581. 00	
11. 33	2495. 338	108. 669	0. 000			0. 000		108. 669	605. 56	581. 00	
11. 35	2519. 959	109. 787	0. 000			0. 000		109. 787	605. 57	581. 00	
11. 37	2544. 580	110. 908	0. 000			0. 000		110. 908	605. 58	581. 00	
11. 39	2569. 201	112. 052	0. 000			0. 000		112. 052	605. 59	581. 00	
11. 41	2593. 822	113. 210	0. 000			0. 000		113. 210	605. 60	581. 00	
11. 43	2622. 138	114. 371	0. 000			0. 000		114. 371	605. 61	581. 00	
11. 45	2652. 918	115. 549	0. 000			0. 000		115. 549	605. 62	581. 00	
11. 47	2683. 699	116. 752	0. 000			0. 000		116. 752	605. 64	581. 00	
11. 49	2714. 479	117. 967	0. 000			0. 000		117. 967	605. 65	581. 00	
11. 51	2745. 259	119. 204	0. 000			0. 000		119. 204	605. 66	581. 00	
11. 53	2776. 039	120. 449	0. 000			0. 000		120. 449	605. 67	581. 00	
11. 55	2806. 820	121. 715	0. 000			0. 000		121. 715	605. 68	581. 00	
11. 57	2837. 600	123. 013	0. 000			0. 000		123. 013	605. 69	581. 00	
11. 59	2876. 670	124. 319	0. 000			0. 000		124. 319	605. 71	581. 00	
11. 61	2924. 031	125. 638	0. 000			0. 000		125. 638	605. 72	581. 00	
11. 63	2971. 391	126. 987	0. 000			0. 000		126. 987	605. 73	581. 00	
11. 65	3018. 752	128. 364	0. 000			0. 000		128. 364	605. 74	581. 00	
11. 67	3066. 112	128. 452	0. 000			0. 000		128. 452	605. 76	581. 00	
11. 69	3113. 473	128. 510	0. 000			0. 000		128. 510	605. 77	581. 00	
11. 71	3160. 833	128. 569	0. 000			0. 000		128. 569	605. 78	581. 00	
11. 73	3208. 194	128. 630	0. 000			0. 000		128. 630	605. 79	581. 00	
11. 75	3272. 820	128. 690	0. 000			0. 000		128. 690	605. 81	581. 00	
11. 77	3363. 346	128. 753	0. 000			0. 000		128. 753	605. 82	581. 00	
11. 79	3453. 872	128. 817	0. 000			0. 000		128. 817	605. 84	581. 00	
11. 81	3544. 398	128. 882	0. 000			0. 000		128. 882	605. 85	581. 00	
11. 83	3634. 924	128. 949	0. 000			0. 000		128. 949	605. 87	581. 00	
11. 85	3725. 450	129. 019	0. 000			0. 000		129. 019	605. 88	581. 00	
11. 87	3815. 976	129. 090	0. 000			0. 000		129. 090	605. 90	581. 00	
11. 89	3906. 502	129. 162	0. 000			0. 000		129. 162	605. 91	581. 00	
11. 91	4014. 378	129. 236	0. 000			0. 000		129. 236	605. 93	581. 00	
11. 93	4162. 737	129. 312	0. 000			0. 000		129. 312	605. 95	581. 00	
11. 95	4311. 096	129. 391	0. 000			0. 000		129. 391	605. 96	581. 00	
11. 97	4459. 456	129. 473	0. 000			0. 000		129. 473	605. 98	581. 00	
11. 99	4607. 815	129. 558	0. 000			0. 000		129. 558	606. 00	581. 00	



Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal	Auxiliary	Auxiliary	Auxiliary	OverTop Outflow (cfs)	Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir	Tailwater Elevation (feet)
		Spillway Outflow (cfs)	RTside Outflow (cfs)						Surface Elevation (feet)	
12.01	4756.174	129.645	0.000			0.000		129.645	606.02	581.00
12.03	4904.533	129.735	0.000			0.000		129.735	606.04	581.00
12.05	5052.892	129.828	0.000			0.000		129.828	606.06	581.00
12.07	5211.296	129.923	0.000			0.000		129.923	606.08	581.00
12.09	5409.876	130.022	0.000			0.000		130.022	606.11	581.00
12.11	5608.457	130.123	0.000			0.000		130.123	606.13	581.00
12.13	5807.037	130.229	0.000			0.000		130.229	606.15	581.00
12.15	6005.617	130.338	0.000			0.000		130.338	606.18	581.00
12.17	6204.197	130.451	0.000			0.000		130.451	606.20	581.00
12.19	6402.778	130.567	0.000			0.000		130.567	606.23	581.00
12.21	6601.358	130.686	0.000			0.000		130.686	606.26	581.00
12.23	6805.159	130.809	0.000			0.000		130.809	606.28	581.00
12.25	7055.948	130.936	0.000			0.000		130.936	606.31	581.00
12.27	7306.737	131.067	0.000			0.000		131.067	606.34	581.00
12.29	7557.525	131.203	0.000			0.000		131.203	606.37	581.00
12.31	7808.314	131.343	0.000			0.000		131.343	606.40	581.00
12.33	8059.103	131.486	0.000			0.000		131.486	606.44	581.00
12.35	8309.892	131.635	0.000			0.000		131.635	606.47	581.00
12.37	8560.681	131.787	0.000			0.000		131.787	606.51	581.00
12.39	8811.470	131.943	0.000			0.000		131.943	606.54	581.00
12.41	9117.660	132.104	0.000			0.000		132.104	606.58	581.00
12.43	9423.850	132.270	0.000			0.000		132.270	606.62	581.00
12.45	9730.040	132.441	0.000			0.000		132.441	606.65	581.00
12.47	10036.230	132.617	0.000			0.000		132.617	606.69	581.00
12.49	10342.420	132.797	0.000			0.000		132.797	606.74	581.00
12.51	10648.610	132.982	0.000			0.000		132.982	606.78	581.00
12.53	10954.800	133.172	0.000			0.000		133.172	606.82	581.00
12.55	11260.990	133.367	0.000			0.000		133.367	606.87	581.00
12.57	11593.585	133.566	0.000			0.000		133.566	606.91	581.00
12.59	11929.113	133.771	0.000			0.000		133.771	606.96	581.00
12.61	12264.642	133.980	0.000			0.000		133.980	607.01	581.00
12.63	12600.170	134.194	0.000			0.000		134.194	607.06	581.00
12.65	12935.699	134.414	0.000			0.000		134.414	607.11	581.00
12.67	13271.227	134.637	0.000			0.000		134.637	607.16	581.00
12.69	13606.755	134.866	0.000			0.000		134.866	607.21	581.00
12.71	13942.284	135.100	0.000			0.000		135.100	607.27	581.00
12.73	14253.107	135.337	0.000			0.000		135.337	607.32	581.00
12.75	14557.754	135.579	0.000			0.000		135.579	607.38	581.00
12.77	14862.401	135.825	0.000			0.000		135.825	607.44	581.00
12.79	15167.048	136.074	0.000			0.000		136.074	607.50	581.00
12.81	15471.695	136.327	0.000			0.000		136.327	607.56	581.00
12.83	15776.342	136.584	0.000			0.000		136.584	607.62	581.00
12.85	16080.989	136.844	0.000			0.000		136.844	607.68	581.00
12.87	16385.635	137.108	0.000			0.000		137.108	607.74	581.00
12.89	16638.299	137.375	0.000			0.000		137.375	607.80	581.00
12.91	16868.684	137.645	0.000			0.000		137.645	607.87	581.00
12.93	17099.070	137.917	0.000			0.000		137.917	607.93	581.00
12.95	17329.455	138.191	0.000			0.000		138.191	608.00	581.00
12.97	17559.840	138.467	0.000			0.000		138.467	608.06	581.00
12.99	17790.225	138.745	0.000			0.000		138.745	608.13	581.00
13.01	18020.610	139.026	0.000			0.000		139.026	608.20	581.00
13.03	18250.995	139.308	0.000			0.000		139.308	608.27	581.00
13.05	18429.583	139.592	0.000			0.000		139.592	608.34	581.00
13.07	18573.638	139.877	0.000			0.000		139.877	608.40	581.00
13.09	18717.694	140.162	0.000			0.000		140.162	608.47	581.00
13.11	18861.750	140.447	0.000			0.000		140.447	608.54	581.00
13.13	19005.805	140.734	0.000			0.000		140.734	608.61	581.00
13.15	19149.861	141.020	0.000			0.000		141.020	608.68	581.00
13.17	19293.916	141.307	0.000			0.000		141.307	608.75	581.00
13.19	19437.972	141.595	0.000			0.000		141.595	608.82	581.00
13.21	19540.799	141.883	0.000			0.000		141.883	608.89	581.00
13.23	19602.398	142.171	0.000			0.000		142.171	608.96	581.00
13.25	19663.996	142.457	0.434			0.000		142.891	609.03	581.00
13.27	19725.595	142.743	1.350			0.000		144.094	609.10	581.00
13.29	19787.194	143.029	2.256			0.000		145.285	609.17	581.00
13.31	19848.793	143.313	3.179			0.000		146.492	609.24	581.00
13.33	19910.391	143.597	4.092			0.000		147.689	609.32	581.00



Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal	Auxiliary	Auxiliary	Auxiliary	OverTop	Internal	Total	Reservoir	Tailwater Elevation (feet)
		Spillway Outflow (cfs)	RTside Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Erosion Outflow (cfs)		Surface Elevation (feet)	
13.35	19971.990	143.880	5.006			0.000		148.885	609.39	581.00
13.37	20006.644	144.161	5.916			0.000		150.077	609.46	581.00
13.39	20000.881	144.442	6.796			0.000		151.238	609.53	581.00
13.41	19995.118	144.720	7.729			0.000		152.450	609.59	581.00
13.43	19989.355	144.997	9.216			0.000		154.214	609.66	581.00
13.45	19983.592	145.273	15.153			0.000		160.425	609.73	581.00
13.47	19977.830	145.546	23.383			0.000		168.929	609.80	581.00
13.49	19972.067	145.818	32.140			0.000		177.958	609.87	581.00
13.51	19966.304	146.088	41.530			0.000		187.618	609.94	581.00
13.53	19940.496	146.357	52.410			0.000		198.767	610.01	581.00
13.55	19867.918	146.623	63.389			0.000		210.012	610.07	581.00
13.57	19795.341	146.886	74.982			0.000		221.868	610.14	581.00
13.59	19722.763	147.148	87.132			0.000		234.279	610.21	581.00
13.61	19650.185	147.406	98.243			0.000		245.650	610.27	581.00
13.63	19577.607	147.663	112.293			0.000		259.956	610.34	581.00
13.65	19505.030	147.917	125.981			0.000		273.897	610.40	581.00
13.67	19432.452	148.168	139.597			0.000		287.765	610.47	581.00
13.69	19350.782	148.417	152.198			0.000		300.615	610.53	581.00
13.71	19232.745	148.663	167.445			0.000		316.108	610.59	581.00
13.73	19114.708	148.907	181.968			0.000		330.875	610.66	581.00
13.75	18996.671	149.147	196.736			0.000		345.883	610.72	581.00
13.77	18878.634	149.385	211.730			0.000		361.115	610.78	581.00
13.79	18760.597	149.620	226.891			0.000		376.511	610.84	581.00
13.81	18642.560	149.852	242.250			0.000		392.102	610.90	581.00
13.83	18524.523	150.081	257.742			0.000		407.822	610.96	581.00
13.85	18403.353	150.308	273.447			0.000		423.754	611.02	581.00
13.87	18253.989	150.532	289.276			0.000		439.807	611.08	581.00
13.89	18104.625	150.752	305.196			0.000		455.948	611.13	581.00
13.91	17955.260	150.970	321.214			0.000		472.184	611.19	581.00
13.93	17805.896	151.185	336.189			0.000		487.373	611.25	581.00
13.95	17656.532	151.397	353.485			0.000		504.881	611.30	581.00
13.97	17507.168	151.606	369.720			0.000		521.326	611.36	581.00
13.99	17357.804	151.812	386.063			0.000		537.875	611.41	581.00
14.01	17208.440	152.015	401.623			0.000		553.638	611.47	581.00
14.03	17024.731	152.215	418.666			0.000		570.881	611.52	581.00
14.05	16841.022	152.412	435.057			0.000		587.469	611.57	581.00
14.07	16657.314	152.606	448.127			0.000		600.734	611.62	581.00
14.09	16473.605	152.797	464.622			0.000		617.420	611.67	581.00
14.11	16289.896	152.985	482.861			0.000		635.846	611.72	581.00
14.13	16106.188	153.170	499.839			0.000		653.008	611.77	581.00
14.15	15922.479	153.351	516.509			0.000		669.860	611.82	581.00
14.17	15738.770	153.530	532.763			0.000		686.293	611.87	581.00
14.19	15534.446	153.706	548.939			0.000		702.645	611.91	581.00
14.21	15327.831	153.878	565.026			0.000		718.904	611.96	581.00
14.23	15121.217	154.047	581.003			0.000		735.051	612.00	581.00
14.25	14914.602	154.214	596.878			0.000		751.092	612.05	581.00
14.27	14707.987	154.377	612.635			0.000		767.012	612.09	581.00
14.29	14501.372	154.537	628.250			0.000		782.786	612.13	581.00
14.31	14294.757	154.694	643.738			0.000		798.432	612.17	581.00
14.33	14088.142	154.848	659.097			0.000		813.945	612.22	581.00
14.35	13891.628	154.999	674.274			0.000		829.273	612.26	581.00
14.37	13697.640	155.147	689.379			0.000		844.527	612.30	581.00
14.39	13503.651	155.292	704.266			0.000		859.558	612.34	581.00
14.41	13309.662	155.435	716.338			0.000		871.773	612.37	581.00
14.43	13115.673	155.575	733.638			0.000		889.213	612.41	581.00
14.45	12921.684	155.712	748.091			0.000		903.803	612.45	581.00
14.47	12727.695	155.847	762.383			0.000		918.229	612.48	581.00
14.49	12533.706	155.978	776.482			0.000		932.460	612.52	581.00
14.51	12362.236	156.107	790.405			0.000		946.512	612.55	581.00
14.53	12200.416	156.234	804.232			0.000		960.467	612.59	581.00
14.55	12038.596	156.359	817.897			0.000		974.255	612.62	581.00
14.57	11876.776	156.481	831.399			0.000		987.880	612.66	581.00
14.59	11714.957	156.601	844.809			0.000		1001.410	612.69	581.00
14.61	11553.137	156.719	856.412			0.000		1013.131	612.72	581.00
14.63	11391.317	156.834	870.030			0.000		1026.864	612.75	581.00
14.65	11229.497	156.948	883.537			0.000		1040.485	612.78	581.00
14.67	11081.852	157.060	896.784			0.000		1053.843	612.81	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal	Auxiliary	Auxiliary	Auxiliary	OverTop	Internal	Total	Reservoir	Tailwater
		Spillway Outflow (cfs)	RTside Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Erosion Outflow (cfs)	Outflow (cfs)	Surface Elevation (feet)	Elevation (feet)
14.69	10943.657	157.169	909.393			0.000		1066.563	612.84	581.00
14.71	10805.462	157.277	921.831			0.000		1079.108	612.87	581.00
14.73	10667.267	157.383	934.161			0.000		1091.544	612.90	581.00
14.75	10529.072	157.487	946.284			0.000		1103.770	612.93	581.00
14.77	10390.877	157.588	958.214			0.000		1115.803	612.96	581.00
14.79	10252.682	157.689	970.003			0.000		1127.692	612.98	581.00
14.81	10114.487	157.787	981.637			0.000		1139.424	613.01	581.00
14.83	9985.318	157.883	993.418			0.003		1151.304	613.04	581.00
14.85	9865.173	157.978	1004.842			0.018		1162.839	613.06	581.00
14.87	9745.029	158.072	1013.764			0.053		1171.889	613.09	581.00
14.89	9624.884	158.164	1025.078			0.119		1183.361	613.11	581.00
14.91	9504.740	158.255	1036.255			0.221		1194.730	613.14	581.00
14.93	9384.595	158.343	1047.270			0.372		1205.985	613.16	581.00
14.95	9264.451	158.430	1057.245			0.574		1216.250	613.19	581.00
14.97	9144.307	158.516	1071.397			0.828		1230.741	613.21	581.00
14.99	9031.002	158.600	1081.938			1.157		1241.694	613.23	581.00
15.01	8927.956	158.683	1092.405			1.547		1252.636	613.25	581.00
15.03	8824.910	158.764	1102.713			2.012		1263.489	613.28	581.00
15.05	8721.865	158.844	1112.932			2.555		1274.330	613.30	581.00
15.07	8618.819	158.923	1122.982			3.197		1285.102	613.32	581.00
15.09	8515.773	159.000	1132.778			3.893		1295.672	613.34	581.00
15.11	8412.728	159.076	1140.202			4.679		1303.957	613.36	581.00
15.13	8309.682	159.151	1152.468			5.572		1317.191	613.38	581.00
15.15	8210.168	159.225	1162.009			6.559		1327.792	613.40	581.00
15.17	8118.895	159.297	1171.414			7.622		1338.333	613.42	581.00
15.19	8027.622	159.367	1180.681			8.789		1348.837	613.44	581.00
15.21	7936.350	159.437	1189.889			10.015		1359.342	613.46	581.00
15.23	7845.077	159.506	1198.935			11.375		1369.816	613.48	581.00
15.25	7753.804	159.574	1207.903			12.802		1380.278	613.50	581.00
15.27	7662.531	159.640	1216.703			14.309		1390.652	613.52	581.00
15.29	7571.258	159.705	1225.384			16.817		1401.906	613.54	581.00
15.31	7481.559	159.769	1233.928			22.280		1415.977	613.55	581.00
15.33	7398.154	159.832	1242.384			28.085		1430.300	613.57	581.00
15.35	7314.749	159.894	1250.732			34.354		1444.980	613.59	581.00
15.37	7231.344	159.955	1258.958			40.967		1459.880	613.61	581.00
15.39	7147.939	160.015	1267.072			47.974		1475.060	613.62	581.00
15.41	7064.534	160.073	1274.984			55.217		1490.274	613.64	581.00
15.43	6981.129	160.131	1282.834			62.834		1505.799	613.65	581.00
15.45	6897.724	160.187	1290.529			70.922		1521.638	613.67	581.00
15.47	6815.300	160.243	1298.115			78.867		1537.225	613.68	581.00
15.49	6741.696	160.297	1305.572			87.593		1553.462	613.70	581.00
15.51	6668.092	160.350	1312.913			96.354		1569.618	613.71	581.00
15.53	6594.489	160.402	1320.100			105.264		1585.767	613.73	581.00
15.55	6520.885	160.454	1327.193			114.529		1602.175	613.74	581.00
15.57	6447.281	160.504	1334.210			124.103		1618.817	613.76	581.00
15.59	6373.677	160.554	1341.116			133.682		1635.351	613.77	581.00<-SurfFail
15.61	6300.074	160.602	1347.851			143.597		1652.051	613.78	581.00
15.63	6226.470	160.650	1352.162			153.701		1666.513	613.80	581.00
15.65	6163.128	160.696	1358.879			163.813		1683.389	613.81	581.00
15.67	6099.786	160.742	1365.488			174.153		1700.383	613.82	581.00
15.69	6036.444	160.786	1371.954			184.574		1717.315	613.84	581.00
15.71	5973.102	160.831	1378.374			195.398		1734.603	613.85	581.00
15.73	5909.760	160.874	1384.648			206.216		1751.738	613.86	581.00
15.75	5846.418	160.916	1390.786			217.085		1768.787	613.87	581.00
15.77	5783.076	160.957	1396.842			228.005		1785.804	613.88	581.00
15.79	5719.734	160.998	1402.810			239.108		1802.915	613.89	581.00
15.81	5662.987	161.038	1408.656			250.288		1819.982	613.91	581.00
15.83	5606.972	161.077	1414.359			261.467		1836.902	613.92	581.00
15.85	5550.957	161.114	1419.935			272.770		1853.820	613.93	581.00
15.87	5494.942	161.152	1425.421			284.016		1870.589	613.94	581.00
15.89	5438.927	161.188	1430.852			295.410		1887.451	613.95	581.00
15.91	5382.913	161.224	1436.166			306.913		1904.304	613.96	581.00
15.93	5326.898	161.259	1441.066			318.284		1920.609	613.97	581.00
15.95	5270.883	161.294	1446.014			329.577		1936.884	613.98	581.00
15.97	5219.810	161.327	1450.870			340.933		1953.131	613.99	581.00
15.99	5169.973	161.360	1455.640			352.262		1969.262	614.00	581.00
16.01	5120.136	161.392	1460.291			362.853		1984.537	614.00	581.00



## Overtopping Workshop

Hydrograph Routing										Reservoir	
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Surface	Tailwater Elevation (feet)	
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)		
17.03	3284.463	162.110	1563.681			3187.515		4913.306	614.20	581.00	
17.05	3259.514	162.092	1560.994			3446.801		5169.888	614.20	581.00	
17.07	3234.564	162.072	1557.883			3724.522		5444.477	614.19	581.00	
17.09	3209.887	162.048	1554.258			4022.845		5739.151	614.19	581.00	
17.11	3187.655	162.021	1552.516			4341.841		6056.378	614.18	581.00	
17.13	3165.423	161.990	1547.926			4681.803		6391.719	614.17	581.00	
17.15	3143.190	161.955	1542.807			5044.726		6749.489	614.16	581.00	
17.17	3120.958	161.917	1537.117			5429.300		7128.334	614.15	581.00	
17.19	3098.726	161.875	1530.883			5837.631		7530.388	614.14	581.00	
17.21	3076.494	161.828	1523.936			6269.105		7954.869	614.13	581.00	
17.23	3054.262	161.776	1516.318			6724.805		8402.900	614.11	581.00	
17.25	3032.030	161.719	1508.000			7204.007		8873.726	614.10	581.00	
17.27	3012.186	161.658	1498.943			7707.828		9368.429	614.08	581.00	
17.29	2992.341	161.591	1489.137			8236.119		9886.847	614.06	581.00	
17.31	2972.497	161.518	1478.534			8788.869		10428.922	614.04	581.00	
17.33	2952.652	161.439	1467.067			9371.869		11000.376	614.02	581.00	
17.35	2932.808	161.354	1454.773			9980.422		11596.549	613.99	581.00	
17.37	2912.963	161.263	1441.553			10615.342		12218.157	613.97	581.00	
17.39	2893.119	161.165	1427.326			11273.520		12862.011	613.94	581.00	
17.41	2873.274	161.059	1411.787			11954.004		13526.850	613.91	581.00	
17.43	2855.046	160.946	1395.252			12656.412		14212.611	613.88	581.00	
17.45	2836.996	160.826	1377.665			13379.120		14917.612	613.85	581.00	
17.47	2818.947	160.698	1359.119			14121.487		15641.303	613.81	581.00	
17.49	2800.897	160.562	1342.211			14890.697		16393.469	613.77	581.00	
17.51	2782.848	160.417	1322.135			15678.037		17160.589	613.73	581.00	
17.53	2764.799	160.264	1301.030			16483.368		17944.662	613.69	581.00	
17.55	2746.749	160.102	1278.859			17306.470		18745.431	613.65	581.00	
17.57	2728.700	159.931	1255.650			18147.266		19562.847	613.60	581.00	
17.59	2712.140	159.750	1231.374			19005.186		20396.310	613.55	581.00	
17.61	2695.952	159.560	1206.066			19882.390		21248.016	613.50	581.00	
17.63	2679.765	159.360	1179.707			20774.546		22113.613	613.44	581.00	
17.65	2663.577	159.150	1152.319			21679.056		22990.525	613.38	581.00	
17.67	2647.389	158.930	1123.881			22594.861		23877.671	613.32	581.00	
17.69	2631.202	158.698	1094.398			23521.035		24774.132	613.26	581.00	
17.71	2615.014	158.456	1060.382			24455.759		25674.597	613.19	581.00	
17.73	2598.826	158.203	1029.912			25397.447		26585.562	613.12	581.00	
17.75	2583.769	157.939	1000.105			26344.464		27502.508	613.05	581.00	
17.77	2569.196	157.663	967.011			27294.690		28419.364	612.98	581.00	
17.79	2554.623	157.376	933.343			28245.792		29336.511	612.90	581.00	
17.81	2540.050	157.077	898.711			29194.462		30250.250	612.82	581.00	
17.83	2525.478	156.766	861.917			30135.925		31154.607	612.73	581.00	
17.85	2510.905	156.443	827.243			30953.487		31937.173	612.65	581.00<-BrchForm	
17.87	2496.332	156.114	791.132			31045.558		31992.804	612.56	581.00	
17.89	2481.759	155.782	755.474			31134.884		32046.140	612.47	581.00	
17.91	2468.169	155.446	717.540			31221.236		32094.223	612.38	581.00	
17.93	2455.235	155.109	685.434			31304.818		32145.361	612.29	581.00	
17.95	2442.300	154.768	650.992			31385.445		32191.205	612.19	581.00	
17.97	2429.365	154.424	617.223			31463.175		32234.822	612.10	581.00	
17.99	2416.431	154.077	583.864			31538.092		32276.033	612.01	581.00	
18.01	2403.496	153.728	551.006			31610.083		32314.817	611.92	581.00	
18.03	2390.562	153.375	518.687			31679.243		32351.306	611.82	581.00	
18.05	2377.627	153.020	486.050			31745.492		32384.562	611.73	581.00	
18.07	2365.287	152.662	452.899			31808.838		32414.399	611.64	581.00	
18.09	2353.540	152.300	425.719			31869.218		32447.237	611.54	581.00	
18.11	2341.793	151.936	395.810			31926.815		32474.561	611.44	581.00	
18.13	2330.046	151.569	366.830			31981.334		32499.733	611.35	581.00	
18.15	2318.299	151.198	337.162			32032.979		32521.339	611.25	581.00	
18.17	2306.552	150.825	310.487			32081.733		32543.045	611.15	581.00	
18.19	2294.805	150.448	283.303			32127.522		32561.273	611.06	581.00	
18.21	2283.058	150.068	256.860			32170.262		32577.189	610.96	581.00	
18.23	2271.704	149.685	231.151			32210.121		32590.957	610.86	581.00	
18.25	2260.940	149.299	206.240			32247.143		32602.681	610.76	581.00	
18.27	2250.176	148.909	182.125			32281.092		32612.127	610.66	581.00	
18.29	2239.412	148.517	157.437			32312.127		32618.081	610.56	581.00	
18.31	2228.648	148.120	137.006			32340.076		32625.202	610.46	581.00	
18.33	2217.883	147.721	115.516			32365.153		32628.390	610.35	581.00	
18.35	2207.119	147.318	93.989			32387.235		32628.542	610.25	581.00	



Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
18.37	2196.355	146.912	76.305			32406.341		32629.558	610.15	581.00
18.39	2185.996	146.502	58.177			32422.325		32627.004	610.04	581.00
18.41	2176.582	146.090	41.587			32435.487		32623.163	609.94	581.00
18.43	2167.169	145.673	27.363			32445.590		32618.627	609.83	581.00
18.45	2157.755	145.253	14.394			32452.536		32612.183	609.73	581.00
18.47	2148.342	144.829	8.082			32456.550		32609.460	609.62	581.00
18.49	2138.928	144.402	6.695			32457.564		32608.660	609.52	581.00
18.51	2129.514	143.970	5.298			32455.381		32604.649	609.41	581.00
18.53	2120.101	143.535	3.893			32450.122		32597.550	609.30	581.00
18.55	2110.858	143.096	2.481			32441.833		32587.410	609.19	581.00
18.57	2102.296	142.653	1.060			32430.413		32574.126	609.08	581.00
18.59	2093.734	142.206	0.000			32415.869		32558.075	608.97	581.00
18.61	2085.172	141.755	0.000			32398.263		32540.018	608.86	581.00
18.63	2076.611	141.299	0.000			32377.512		32518.811	608.75	581.00
18.65	2068.049	140.840	0.000			32353.668		32494.508	608.64	581.00
18.67	2059.487	140.377	0.000			32326.816		32467.193	608.53	581.00
18.69	2050.925	139.909	0.000			32296.927		32436.837	608.41	581.00
18.71	2042.405	139.438	0.000			32263.995		32403.433	608.30	581.00
18.73	2034.250	138.962	0.000			32227.889		32366.851	608.18	581.00
18.75	2026.096	138.482	0.000			32188.728		32327.210	608.07	581.00
18.77	2017.942	137.998	0.000			32146.547		32284.545	607.95	581.00
18.79	2009.787	137.509	0.000			32101.357		32238.866	607.84	581.00
18.81	2001.633	137.017	0.000			32053.200		32190.217	607.72	581.00
18.83	1993.479	136.520	0.000			32002.083		32138.603	607.60	581.00
18.85	1985.324	136.018	0.000			31947.828		32083.846	607.48	581.00
18.87	1977.170	135.512	0.000			31890.579		32026.091	607.37	581.00
18.89	1969.342	135.002	0.000			31830.385		31965.388	607.25	581.00
18.91	1961.513	134.487	0.000			31767.285		31901.772	607.13	581.00
18.93	1953.685	133.968	0.000			31701.042		31835.010	607.01	581.00
18.95	1945.856	133.443	0.000			31631.763		31765.207	606.88	581.00
18.97	1938.028	132.914	0.000			31559.512		31692.426	606.76	581.00
18.99	1930.200	132.380	0.000			31484.224		31616.604	606.64	581.00
19.01	1922.371	131.841	0.000			31405.906		31537.747	606.52	581.00
19.03	1914.543	131.298	0.000			31324.800		31456.098	606.39	581.00
19.05	1906.947	130.749	0.000			31240.560		31371.309	606.27	581.00
19.07	1899.376	130.196	0.000			31153.455		31283.650	606.15	581.00
19.09	1891.806	129.637	0.000			31063.428		31193.064	606.02	581.00
19.11	1884.236	129.073	0.000			30970.420		31099.493	605.89	581.00
19.13	1876.665	128.503	0.000			30874.350		31002.853	605.77	581.00
19.15	1869.095	117.140	0.000			30775.431		30892.571	605.64	581.00
19.17	1861.524	103.708	0.000			30673.729		30777.436	605.51	581.00
19.19	1853.954	90.768	0.000			30569.060		30659.828	605.38	581.00
19.21	1846.562	78.350	0.000			30461.328		30539.678	605.25	581.00
19.23	1839.216	66.519	0.000			30351.050		30417.569	605.12	581.00
19.25	1831.869	55.300	0.000			30237.901		30293.200	604.99	581.00
19.27	1824.522	44.735	0.000			30121.640		30166.375	604.86	581.00
19.29	1817.175	34.906	0.000			30002.662		30037.568	604.73	581.00
19.31	1809.828	25.894	0.000			29881.082		29906.976	604.60	581.00
19.33	1802.481	17.779	0.000			29756.261		29774.040	604.47	581.00
19.35	1795.134	10.727	0.000			29628.817		29639.544	604.33	581.00
19.37	1787.926	4.956	0.000			29498.595		29503.551	604.20	581.00
19.39	1780.778	0.909	0.000			29365.240		29366.149	604.06	581.00
19.41	1773.630	0.000	0.000			29229.077		29229.077	603.93	581.00
19.43	1766.482	0.000	0.000			29090.071		29090.071	603.79	581.00
19.45	1759.334	0.000	0.000			28948.069		28948.069	603.66	581.00
19.47	1752.186	0.000	0.000			28803.141		28803.141	603.52	581.00
19.49	1745.037	0.000	0.000			28655.301		28655.301	603.38	581.00
19.51	1737.889	0.000	0.000			28504.654		28504.654	603.24	581.00
19.53	1730.875	0.000	0.000			28351.263		28351.263	603.10	581.00
19.55	1723.950	0.000	0.000			28194.696		28194.696	602.96	581.00
19.57	1717.026	0.000	0.000			28035.383		28035.383	602.82	581.00
19.59	1710.101	0.000	0.000			27873.014		27873.014	602.68	581.00
19.61	1703.176	0.000	0.000			27707.964		27707.964	602.53	581.00
19.63	1696.252	0.000	0.000			27539.975		27539.975	602.39	581.00
19.65	1689.327	0.000	0.000			27368.895		27368.895	602.25	581.00
19.67	1682.402	0.000	0.000			27195.072		27195.072	602.10	581.00
19.69	1675.710	0.000	0.000			27017.965		27017.965	601.96	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
19. 71	1669. 251	0. 000	0. 000			26838. 482		26838. 482	601. 81	581. 00
19. 73	1662. 792	0. 000	0. 000			26655. 693		26655. 693	601. 66	581. 00
19. 75	1656. 332	0. 000	0. 000			26470. 117		26470. 117	601. 51	581. 00
19. 77	1649. 873	0. 000	0. 000			26281. 533		26281. 533	601. 36	581. 00
19. 79	1643. 414	0. 000	0. 000			26090. 182		26090. 182	601. 21	581. 00
19. 81	1636. 955	0. 000	0. 000			25895. 636		25895. 636	601. 06	581. 00
19. 83	1630. 495	0. 000	0. 000			25698. 656		25698. 656	600. 91	581. 00
19. 85	1624. 412	0. 000	0. 000			25498. 854		25498. 854	600. 76	581. 00
19. 87	1618. 891	0. 000	0. 000			25297. 193		25297. 193	600. 60	581. 00
19. 89	1613. 370	0. 000	0. 000			25092. 774		25092. 774	600. 45	581. 00
19. 91	1607. 849	0. 000	0. 000			24886. 500		24886. 500	600. 29	581. 00
19. 93	1602. 328	0. 000	0. 000			24677. 434		24677. 434	600. 14	581. 00
19. 95	1596. 807	0. 000	0. 000			24466. 344		24466. 344	599. 98	581. 00
19. 97	1591. 286	0. 000	0. 000			24253. 093		24253. 093	599. 83	581. 00
19. 99	1585. 765	0. 000	0. 000			24037. 477		24037. 477	599. 67	581. 00
20. 01	1580. 404	0. 000	0. 000			23819. 757		23819. 757	599. 51	581. 00
20. 03	1575. 419	0. 000	0. 000			23599. 510		23599. 510	599. 35	581. 00
20. 05	1570. 434	0. 000	0. 000			23377. 439		23377. 439	599. 19	581. 00
20. 07	1565. 449	0. 000	0. 000			23152. 968		23152. 968	599. 03	581. 00
20. 09	1560. 464	0. 000	0. 000			22926. 332		22926. 332	598. 87	581. 00
20. 11	1555. 478	0. 000	0. 000			22697. 501		22697. 501	598. 71	581. 00
20. 13	1550. 493	0. 000	0. 000			22466. 175		22466. 175	598. 55	581. 00
20. 15	1545. 508	0. 000	0. 000			22232. 878		22232. 878	598. 38	581. 00
20. 17	1540. 558	0. 000	0. 000			21997. 272		21997. 272	598. 22	581. 00
20. 19	1535. 747	0. 000	0. 000			21759. 479		21759. 479	598. 06	581. 00
20. 21	1530. 936	0. 000	0. 000			21519. 619		21519. 619	597. 89	581. 00
20. 23	1526. 124	0. 000	0. 000			21277. 304		21277. 304	597. 72	581. 00
20. 25	1521. 313	0. 000	0. 000			21032. 854		21032. 854	597. 56	581. 00
20. 27	1516. 502	0. 000	0. 000			20786. 329		20786. 329	597. 39	581. 00
20. 29	1511. 691	0. 000	0. 000			20537. 556		20537. 556	597. 22	581. 00
20. 31	1506. 880	0. 000	0. 000			20286. 253		20286. 253	597. 05	581. 00
20. 33	1502. 084	0. 000	0. 000			20032. 889		20032. 889	596. 88	581. 00
20. 35	1497. 430	0. 000	0. 000			19777. 723		19777. 723	596. 70	581. 00
20. 37	1492. 776	0. 000	0. 000			19520. 422		19520. 422	596. 53	581. 00
20. 39	1488. 122	0. 000	0. 000			19261. 372		19261. 372	596. 36	581. 00
20. 41	1483. 467	0. 000	0. 000			19000. 769		19000. 769	596. 18	581. 00
20. 43	1478. 813	0. 000	0. 000			18738. 172		18738. 172	596. 01	581. 00
20. 45	1474. 159	0. 000	0. 000			18473. 458		18473. 458	595. 83	581. 00
20. 47	1469. 504	0. 000	0. 000			18206. 890		18206. 890	595. 65	581. 00
20. 49	1464. 850	0. 000	0. 000			17938. 468		17938. 468	595. 47	581. 00
20. 51	1460. 341	0. 000	0. 000			17668. 122		17668. 122	595. 29	581. 00
20. 53	1455. 833	0. 000	0. 000			17395. 742		17395. 742	595. 11	581. 00
20. 55	1451. 324	0. 000	0. 000			17121. 166		17121. 166	594. 93	581. 00
20. 57	1446. 815	0. 000	0. 000			16844. 863		16844. 863	594. 74	581. 00
20. 59	1442. 307	0. 000	0. 000			16566. 844		16566. 844	594. 56	581. 00
20. 61	1437. 798	0. 000	0. 000			16287. 160		16287. 160	594. 37	581. 00
20. 63	1433. 290	0. 000	0. 000			16005. 607		16005. 607	594. 19	581. 00
20. 65	1428. 781	0. 000	0. 000			15722. 127		15722. 127	594. 00	581. 00
20. 67	1424. 421	0. 000	0. 000			15436. 514		15436. 514	593. 81	581. 00
20. 69	1420. 078	0. 000	0. 000			15148. 797		15148. 797	593. 62	581. 00
20. 71	1415. 735	0. 000	0. 000			14858. 998		14858. 998	593. 42	581. 00
20. 73	1411. 391	0. 000	0. 000			14566. 830		14566. 830	593. 23	581. 00
20. 75	1407. 048	0. 000	0. 000			14272. 242		14272. 242	593. 03	581. 00
20. 77	1402. 705	0. 000	0. 000			13975. 753		13975. 753	592. 83	581. 00
20. 79	1398. 362	0. 000	0. 000			13678. 311		13678. 311	592. 63	581. 00
20. 81	1394. 019	0. 000	0. 000			13379. 906		13379. 906	592. 43	581. 00
20. 83	1389. 834	0. 000	0. 000			13080. 447		13080. 447	592. 23	581. 00
20. 85	1385. 690	0. 000	0. 000			12779. 898		12779. 898	592. 03	581. 00
20. 87	1381. 545	0. 000	0. 000			12478. 138		12478. 138	591. 82	581. 00
20. 89	1377. 401	0. 000	0. 000			12174. 988		12174. 988	591. 62	581. 00
20. 91	1373. 257	0. 000	0. 000			11870. 451		11870. 451	591. 41	581. 00
20. 93	1369. 112	0. 000	0. 000			11564. 149		11564. 149	591. 20	581. 00
20. 95	1364. 968	0. 000	0. 000			11199. 165		11199. 165	590. 95	581. 00
20. 97	1360. 823	0. 000	0. 000			10191. 897		10191. 897	590. 27	581. 00
20. 99	1356. 842	0. 000	0. 000			9312. 335		9312. 335	589. 66	581. 00
21. 01	1352. 931	0. 000	0. 000			8541. 000		8541. 000	589. 11	581. 00
21. 03	1349. 020	0. 000	0. 000			7861. 920		7861. 920	588. 61	581. 00



Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
21.05	1345.109	0.000	0.000			7261.675		7261.675	588.16	581.00
21.07	1341.198	0.000	0.000			6729.263		6729.263	587.75	581.00
21.09	1337.287	0.000	0.000			6255.304		6255.304	587.37	581.00
21.11	1333.376	0.000	0.000			5832.120		5832.120	587.03	581.00
21.13	1329.464	0.000	0.000			5453.158		5453.158	586.71	581.00
21.15	1325.710	0.000	0.000			5112.697		5112.697	586.43	581.00
21.17	1322.059	0.000	0.000			4806.082		4806.082	586.16	581.00
21.19	1318.408	0.000	0.000			4529.350		4529.350	585.92	581.00
21.21	1314.758	0.000	0.000			4278.755		4278.755	585.69	581.00
21.23	1311.107	0.000	0.000			4051.446		4051.446	585.49	581.00
21.25	1307.457	0.000	0.000			3844.716		3844.716	585.30	581.00
21.27	1303.806	0.000	0.000			3656.342		3656.342	585.12	581.00
21.29	1300.155	0.000	0.000			3484.426		3484.426	584.95	581.00
21.31	1296.642	0.000	0.000			3327.075		3327.075	584.80	581.00
21.33	1293.267	0.000	0.000			3182.989		3182.989	584.66	581.00
21.35	1289.892	0.000	0.000			3050.640		3050.640	584.52	581.00
21.37	1286.516	0.000	0.000			2928.962		2928.962	584.40	581.00
21.39	1283.141	0.000	0.000			2816.900		2816.900	584.28	581.00
21.41	1279.766	0.000	0.000			2713.403		2713.403	584.18	581.00
21.43	1276.390	0.000	0.000			2617.866		2617.866	584.08	581.00
21.45	1273.015	0.000	0.000			2529.382		2529.382	583.98	581.00
21.47	1269.751	0.000	0.000			2447.535		2447.535	583.89	581.00
21.49	1266.655	0.000	0.000			2371.563		2371.563	583.81	581.00
21.51	1263.559	0.000	0.000			2301.030		2301.030	583.73	581.00
21.53	1260.463	0.000	0.000			2235.398		2235.398	583.66	581.00
21.55	1257.366	0.000	0.000			2174.276		2174.276	583.59	581.00
21.57	1254.270	0.000	0.000			2117.384		2117.384	583.53	581.00
21.59	1251.174	0.000	0.000			2064.232		2064.232	583.46	581.00
21.61	1248.077	0.000	0.000			2014.508		2014.508	583.41	581.00
21.63	1245.064	0.000	0.000			1968.044		1968.044	583.35	581.00
21.65	1242.243	0.000	0.000			1924.557		1924.557	583.30	581.00
21.67	1239.422	0.000	0.000			1883.894		1883.894	583.25	581.00
21.69	1236.601	0.000	0.000			1845.741		1845.741	583.21	581.00
21.71	1233.780	0.000	0.000			1809.903		1809.903	583.16	581.00
21.73	1230.959	0.000	0.000			1776.232		1776.232	583.12	581.00
21.75	1228.138	0.000	0.000			1744.550		1744.550	583.09	581.00
21.77	1225.317	0.000	0.000			1714.800		1714.800	583.05	581.00
21.79	1222.548	0.000	0.000			1686.644		1686.644	583.01	581.00
21.81	1219.989	0.000	0.000			1660.195		1660.195	582.98	581.00
21.83	1217.430	0.000	0.000			1635.201		1635.201	582.95	581.00
21.85	1214.870	0.000	0.000			1611.592		1611.592	582.92	581.00
21.87	1212.311	0.000	0.000			1589.311		1589.311	582.89	581.00
21.89	1209.752	0.000	0.000			1568.263		1568.263	582.87	581.00
21.91	1207.193	0.000	0.000			1548.399		1548.399	582.84	581.00
21.93	1204.633	0.000	0.000			1529.565		1529.565	582.82	581.00
21.95	1202.098	0.000	0.000			1511.745		1511.745	582.79	581.00
21.97	1199.780	0.000	0.000			1494.778		1494.778	582.77	581.00
21.99	1197.461	0.000	0.000			1478.726		1478.726	582.75	581.00
22.01	1195.142	0.000	0.000			1463.510		1463.510	582.73	581.00
22.03	1192.824	0.000	0.000			1449.025		1449.025	582.71	581.00
22.05	1190.505	0.000	0.000			1435.265		1435.265	582.69	581.00
22.07	1188.187	0.000	0.000			1422.159		1422.159	582.68	581.00
22.09	1185.869	0.000	0.000			1409.709		1409.709	582.66	581.00
22.11	1183.550	0.000	0.000			1397.855		1397.855	582.64	581.00
22.13	1181.451	0.000	0.000			1386.595		1386.595	582.63	581.00
22.15	1179.352	0.000	0.000			1375.850		1375.850	582.61	581.00
22.17	1177.254	0.000	0.000			1365.542		1365.542	582.60	581.00
22.19	1175.155	0.000	0.000			1355.752		1355.752	582.59	581.00
22.21	1173.056	0.000	0.000			1346.355		1346.355	582.57	581.00
22.23	1170.957	0.000	0.000			1337.393		1337.393	582.56	581.00
22.25	1168.859	0.000	0.000			1328.812		1328.812	582.55	581.00
22.27	1166.760	0.000	0.000			1320.649		1320.649	582.54	581.00
22.29	1164.837	0.000	0.000			1312.799		1312.799	582.53	581.00
22.31	1162.933	0.000	0.000			1305.316		1305.316	582.52	581.00
22.33	1161.029	0.000	0.000			1298.097		1298.097	582.51	581.00
22.35	1159.126	0.000	0.000			1291.186		1291.186	582.50	581.00
22.37	1157.222	0.000	0.000			1284.591		1284.591	582.49	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
22.39	1155.318	0.000	0.000			1278.198		1278.198	582.48	581.00
22.41	1153.414	0.000	0.000			1272.097		1272.097	582.47	581.00
22.43	1151.511	0.000	0.000			1266.259		1266.259	582.46	581.00
22.45	1149.738	0.000	0.000			1260.603		1260.603	582.45	581.00
22.47	1147.999	0.000	0.000			1255.123		1255.123	582.44	581.00
22.49	1146.259	0.000	0.000			1249.847		1249.847	582.44	581.00
22.51	1144.520	0.000	0.000			1244.770		1244.770	582.43	581.00
22.53	1142.780	0.000	0.000			1239.874		1239.874	582.42	581.00
22.55	1141.041	0.000	0.000			1235.169		1235.169	582.41	581.00
22.57	1139.301	0.000	0.000			1230.643		1230.643	582.41	581.00
22.59	1137.562	0.000	0.000			1226.265		1226.265	582.40	581.00
22.61	1135.917	0.000	0.000			1222.002		1222.002	582.39	581.00
22.63	1134.314	0.000	0.000			1217.908		1217.908	582.39	581.00
22.65	1132.710	0.000	0.000			1213.991		1213.991	582.38	581.00
22.67	1131.106	0.000	0.000			1210.134		1210.134	582.38	581.00
22.69	1129.503	0.000	0.000			1206.368		1206.368	582.37	581.00
22.71	1127.899	0.000	0.000			1202.826		1202.826	582.37	581.00
22.73	1126.295	0.000	0.000			1199.312		1199.312	582.36	581.00
22.75	1124.691	0.000	0.000			1195.963		1195.963	582.35	581.00
22.77	1123.157	0.000	0.000			1192.631		1192.631	582.35	581.00
22.79	1121.670	0.000	0.000			1189.488		1189.488	582.34	581.00
22.81	1120.182	0.000	0.000			1186.320		1186.320	582.34	581.00
22.83	1118.694	0.000	0.000			1183.336		1183.336	582.33	581.00
22.85	1117.207	0.000	0.000			1180.363		1180.363	582.33	581.00
22.87	1115.719	0.000	0.000			1177.513		1177.513	582.33	581.00
22.89	1114.231	0.000	0.000			1174.685		1174.685	582.32	581.00
22.91	1112.744	0.000	0.000			1171.956		1171.956	582.32	581.00
22.93	1111.304	0.000	0.000			1169.317		1169.317	582.31	581.00
22.95	1109.911	0.000	0.000			1166.719		1166.719	582.31	581.00
22.97	1108.518	0.000	0.000			1164.205		1164.205	582.30	581.00
22.99	1107.126	0.000	0.000			1161.741		1161.741	582.30	581.00
23.01	1105.733	0.000	0.000			1159.276		1159.276	582.30	581.00
23.03	1104.341	0.000	0.000			1156.932		1156.932	582.29	581.00
23.05	1102.948	0.000	0.000			1154.567		1154.567	582.29	581.00
23.07	1101.555	0.000	0.000			1152.323		1152.323	582.28	581.00
23.09	1100.196	0.000	0.000			1150.071		1150.071	582.28	581.00
23.11	1098.884	0.000	0.000			1147.942		1147.942	582.28	581.00
23.13	1097.573	0.000	0.000			1145.815		1145.815	582.27	581.00
23.15	1096.262	0.000	0.000			1143.701		1143.701	582.27	581.00
23.17	1094.951	0.000	0.000			1141.714		1141.714	582.27	581.00
23.19	1093.640	0.000	0.000			1139.748		1139.748	582.26	581.00
23.21	1092.329	0.000	0.000			1137.813		1137.813	582.26	581.00
23.23	1091.018	0.000	0.000			1135.916		1135.916	582.26	581.00
23.25	1089.727	0.000	0.000			1133.981		1133.981	582.25	581.00
23.27	1088.485	0.000	0.000			1132.108		1132.108	582.25	581.00
23.29	1087.243	0.000	0.000			1130.341		1130.341	582.25	581.00
23.31	1086.001	0.000	0.000			1128.572		1128.572	582.24	581.00
23.33	1084.759	0.000	0.000			1126.821		1126.821	582.24	581.00
23.35	1083.517	0.000	0.000			1125.102		1125.102	582.24	581.00
23.37	1082.275	0.000	0.000			1123.319		1123.319	582.24	581.00
23.39	1081.034	0.000	0.000			1121.616		1121.616	582.23	581.00
23.41	1079.804	0.000	0.000			1119.910		1119.910	582.23	581.00
23.43	1078.622	0.000	0.000			1118.235		1118.235	582.23	581.00
23.45	1077.441	0.000	0.000			1116.622		1116.622	582.22	581.00
23.47	1076.259	0.000	0.000			1114.995		1114.995	582.22	581.00
23.49	1075.078	0.000	0.000			1113.383		1113.383	582.22	581.00
23.51	1073.896	0.000	0.000			1111.852		1111.852	582.22	581.00
23.53	1072.715	0.000	0.000			1110.275		1110.275	582.21	581.00
23.55	1071.533	0.000	0.000			1108.681		1108.681	582.21	581.00
23.57	1070.357	0.000	0.000			1107.227		1107.227	582.21	581.00
23.59	1069.226	0.000	0.000			1105.737		1105.737	582.20	581.00
23.61	1068.095	0.000	0.000			1104.282		1104.282	582.20	581.00
23.63	1066.964	0.000	0.000			1102.783		1102.783	582.20	581.00
23.65	1065.833	0.000	0.000			1101.336		1101.336	582.20	581.00
23.67	1064.703	0.000	0.000			1099.940		1099.940	582.19	581.00
23.69	1063.572	0.000	0.000			1098.593		1098.593	582.19	581.00
23.71	1062.441	0.000	0.000			1097.159		1097.159	582.19	581.00



Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
23.73	1061.310	0.000	0.000			1095.780		1095.780	582.19	581.00
23.75	1060.221	0.000	0.000			1094.453		1094.453	582.18	581.00
23.77	1059.132	0.000	0.000			1093.053		1093.053	582.18	581.00
23.79	1058.043	0.000	0.000			1091.711		1091.711	582.18	581.00
23.81	1056.954	0.000	0.000			1090.423		1090.423	582.18	581.00
23.83	1055.866	0.000	0.000			1089.076		1089.076	582.17	581.00
23.85	1054.777	0.000	0.000			1087.787		1087.787	582.17	581.00
23.87	1053.688	0.000	0.000			1086.450		1086.450	582.17	581.00
23.89	1052.599	0.000	0.000			1085.175		1085.175	582.17	581.00
23.91	1051.459	0.000	0.000			1083.861		1083.861	582.16	581.00
23.93	1050.313	0.000	0.000			1082.612		1082.612	582.16	581.00
23.95	1049.168	0.000	0.000			1081.334		1081.334	582.16	581.00
23.97	1048.022	0.000	0.000			1080.034		1080.034	582.16	581.00
23.99	1046.876	0.000	0.000			1078.806		1078.806	582.16	581.00
24.01	1045.730	0.000	0.000			1077.564		1077.564	582.15	581.00
24.03	1044.585	0.000	0.000			1076.317		1076.317	582.15	581.00
24.05	1043.439	0.000	0.000			1075.108		1075.108	582.15	581.00
24.07	1042.011	0.000	0.000			1073.834		1073.834	582.15	581.00
24.09	1040.512	0.000	0.000			1072.644		1072.644	582.14	581.00
24.11	1039.013	0.000	0.000			1071.408		1071.408	582.14	581.00
24.13	1037.515	0.000	0.000			1070.141		1070.141	582.14	581.00
24.15	1036.016	0.000	0.000			1068.857		1068.857	582.14	581.00
24.17	1034.517	0.000	0.000			1067.573		1067.573	582.13	581.00
24.19	1033.018	0.000	0.000			1066.201		1066.201	582.13	581.00
24.21	1031.520	0.000	0.000			1064.869		1064.869	582.13	581.00
24.23	1029.568	0.000	0.000			1063.502		1063.502	582.13	581.00
24.25	1027.422	0.000	0.000			1062.132		1062.132	582.12	581.00
24.27	1025.277	0.000	0.000			1060.680		1060.680	582.12	581.00
24.29	1023.131	0.000	0.000			1059.175		1059.175	582.12	581.00
24.31	1020.985	0.000	0.000			1057.685		1057.685	582.12	581.00
24.33	1018.840	0.000	0.000			1056.171		1056.171	582.11	581.00
24.35	1016.694	0.000	0.000			1054.567		1054.567	582.11	581.00
24.37	1014.548	0.000	0.000			1053.018		1053.018	582.11	581.00
24.39	1011.893	0.000	0.000			1051.364		1051.364	582.11	581.00
24.41	1008.898	0.000	0.000			1049.668		1049.668	582.10	581.00
24.43	1005.903	0.000	0.000			1047.918		1047.918	582.10	581.00
24.45	1002.908	0.000	0.000			1046.121		1046.121	582.10	581.00
24.47	999.913	0.000	0.000			1044.250		1044.250	582.09	581.00
24.49	996.918	0.000	0.000			1042.317		1042.317	582.09	581.00
24.51	993.923	0.000	0.000			1040.332		1040.332	582.09	581.00
24.53	990.928	0.000	0.000			1038.181		1038.181	582.08	581.00
24.55	987.361	0.000	0.000			1036.010		1036.010	582.08	581.00
24.57	983.224	0.000	0.000			1033.716		1033.716	582.08	581.00
24.59	979.087	0.000	0.000			1031.324		1031.324	582.07	581.00
24.61	974.950	0.000	0.000			1028.861		1028.861	582.07	581.00
24.63	970.813	0.000	0.000			1026.354		1026.354	582.06	581.00
24.65	966.676	0.000	0.000			1023.733		1023.733	582.06	581.00
24.67	962.539	0.000	0.000			1021.042		1021.042	582.06	581.00
24.69	958.402	0.000	0.000			1018.239		1018.239	582.05	581.00
24.71	953.683	0.000	0.000			1015.383		1015.383	582.05	581.00
24.73	948.090	0.000	0.000			1012.426		1012.426	582.04	581.00
24.75	942.498	0.000	0.000			1009.293		1009.293	582.04	581.00
24.77	936.905	0.000	0.000			1006.001		1006.001	582.03	581.00
24.79	931.313	0.000	0.000			1002.618		1002.618	582.03	581.00
24.81	925.720	0.000	0.000			999.170		999.170	582.02	581.00
24.83	920.127	0.000	0.000			995.546		995.546	582.02	581.00
24.85	914.535	0.000	0.000			991.876		991.876	582.01	581.00
24.87	908.484	0.000	0.000			988.087		988.087	582.01	581.00
24.89	901.363	0.000	0.000			984.101		984.101	582.00	581.00
24.91	894.242	0.000	0.000			979.963		979.963	581.99	581.00
24.93	887.121	0.000	0.000			975.701		975.701	581.99	581.00
24.95	880.000	0.000	0.000			971.250		971.250	581.98	581.00
24.97	872.879	0.000	0.000			966.702		966.702	581.97	581.00
24.99	865.758	0.000	0.000			962.033		962.033	581.97	581.00
25.01	858.637	0.000	0.000			957.258		957.258	581.96	581.00
25.03	851.277	0.000	0.000			952.334		952.334	581.95	581.00
25.05	842.962	0.000	0.000			947.293		947.293	581.95	581.00

Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Reservoir		
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)		Total Outflow (cfs)	Surface Elevation (feet)	Tailwater Elevation (feet)
25.07	834.647	0.000	0.000				942.003	581.94	581.00
25.09	826.333	0.000	0.000				936.600	581.93	581.00
25.11	818.018	0.000	0.000				931.044	581.92	581.00
25.13	809.703	0.000	0.000				925.394	581.91	581.00
25.15	801.388	0.000	0.000				919.566	581.91	581.00
25.17	793.073	0.000	0.000				913.663	581.90	581.00
25.19	784.684	0.000	0.000				907.571	581.89	581.00
25.21	775.622	0.000	0.000				901.470	581.88	581.00
25.23	766.560	0.000	0.000				895.157	581.87	581.00
25.25	757.499	0.000	0.000				888.767	581.86	581.00
25.27	748.437	0.000	0.000				882.214	581.85	581.00
25.29	739.375	0.000	0.000				875.486	581.84	581.00
25.31	730.313	0.000	0.000				868.704	581.83	581.00
25.33	721.252	0.000	0.000				861.845	581.82	581.00
25.35	712.190	0.000	0.000				854.853	581.81	581.00
25.37	702.822	0.000	0.000				847.777	581.80	581.00
25.39	693.454	0.000	0.000				840.630	581.79	581.00
25.41	684.086	0.000	0.000				833.315	581.78	581.00
25.43	674.718	0.000	0.000				825.981	581.77	581.00
25.45	665.350	0.000	0.000				818.537	581.76	581.00
25.47	655.983	0.000	0.000				811.010	581.74	581.00
25.49	646.615	0.000	0.000				803.449	581.73	581.00
25.51	637.247	0.000	0.000				795.791	581.72	581.00
25.53	627.919	0.000	0.000				788.029	581.71	581.00
25.55	618.595	0.000	0.000				780.239	581.70	581.00
25.57	609.272	0.000	0.000				772.361	581.69	581.00
25.59	599.949	0.000	0.000				764.434	581.67	581.00
25.61	590.625	0.000	0.000				756.454	581.66	581.00
25.63	581.302	0.000	0.000				748.484	581.65	581.00
25.65	571.978	0.000	0.000				740.466	581.64	581.00
25.67	562.655	0.000	0.000				732.416	581.63	581.00
25.69	553.580	0.000	0.000				724.325	581.61	581.00
25.71	544.568	0.000	0.000				716.209	581.60	581.00
25.73	535.555	0.000	0.000				708.024	581.59	581.00
25.75	526.543	0.000	0.000				699.864	581.58	581.00
25.77	517.531	0.000	0.000				691.726	581.56	581.00
25.79	508.518	0.000	0.000				683.508	581.55	581.00
25.81	499.506	0.000	0.000				675.262	581.54	581.00
25.83	490.494	0.000	0.000				667.017	581.53	581.00
25.85	481.918	0.000	0.000				658.778	581.51	581.00
25.87	473.529	0.000	0.000				650.584	581.50	581.00
25.89	465.140	0.000	0.000				642.322	581.49	581.00
25.91	456.751	0.000	0.000				633.925	581.47	581.00
25.93	448.362	0.000	0.000				625.441	581.46	581.00
25.95	439.973	0.000	0.000				616.820	581.45	581.00
25.97	431.584	0.000	0.000				608.103	581.44	581.00
25.99	423.196	0.000	0.000				599.246	581.42	581.00
26.01	415.230	0.000	0.000				590.258	581.41	581.00
26.03	407.548	0.000	0.000				581.194	581.40	581.00
26.05	399.865	0.000	0.000				572.042	581.38	581.00
26.07	392.182	0.000	0.000				562.842	581.37	581.00
26.09	384.500	0.000	0.000				553.481	581.36	581.00
26.11	376.817	0.000	0.000				544.081	581.35	581.00
26.13	369.134	0.000	0.000				534.640	581.34	581.00
26.15	361.451	0.000	0.000				525.075	581.32	581.00
26.17	354.179	0.000	0.000				515.465	581.31	581.00
26.19	347.316	0.000	0.000				505.777	581.30	581.00
26.21	340.453	0.000	0.000				496.149	581.29	581.00
26.23	333.590	0.000	0.000				486.402	581.28	581.00
26.25	326.727	0.000	0.000				476.663	581.27	581.00
26.27	319.864	0.000	0.000				466.985	581.26	581.00
26.29	313.001	0.000	0.000				457.220	581.24	581.00
26.31	306.138	0.000	0.000				447.481	581.23	581.00
26.33	299.671	0.000	0.000				437.650	581.22	581.00
26.35	293.798	0.000	0.000				427.969	581.21	581.00
26.37	287.925	0.000	0.000				418.228	581.20	581.00
26.39	282.052	0.000	0.000				408.593	581.20	581.00

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary RTside	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
26.41	276.180	0.000	0.000			399.067		399.067	581.19	581.00
26.43	270.307	0.000	0.000			389.500		389.500	581.18	581.00
26.45	264.434	0.000	0.000			380.029		380.029	581.17	581.00
26.47	258.561	0.000	0.000			370.622		370.622	581.16	581.00
26.49	252.999	0.000	0.000			361.302		361.302	581.15	581.00
26.51	248.162	0.000	0.000			352.013		352.013	581.14	581.00
26.53	243.325	0.000	0.000			342.858		342.858	581.14	581.00
26.55	238.488	0.000	0.000			333.910		333.910	581.13	581.00
26.57	233.651	0.000	0.000			325.079		325.079	581.12	581.00
26.59	228.814	0.000	0.000			316.393		316.393	581.12	581.00
26.61	223.977	0.000	0.000			307.761		307.761	581.11	581.00
26.63	219.140	0.000	0.000			299.420		299.420	581.10	581.00
26.65	214.467	0.000	0.000			291.193		291.193	581.10	581.00
26.67	210.451	0.000	0.000			282.973		282.973	581.09	581.00
26.69	206.435	0.000	0.000			274.984		274.984	581.09	581.00
26.71	202.419	0.000	0.000			267.221		267.221	581.08	581.00
26.73	198.403	0.000	0.000			259.678		259.678	581.08	581.00
26.75	194.387	0.000	0.000			252.347		252.347	581.07	581.00
26.77	190.370	0.000	0.000			245.223		245.223	581.07	581.00
26.79	186.354	0.000	0.000			238.300		238.300	581.07	581.00
26.81	182.400	0.000	0.000			231.573		231.573	581.06	581.00
26.83	178.997	0.000	0.000			225.035		225.035	581.06	581.00
26.85	175.595	0.000	0.000			218.682		218.682	581.06	581.00
26.87	172.192	0.000	0.000			212.729		212.729	581.05	581.00
26.89	168.790	0.000	0.000			206.937		206.937	581.05	581.00
26.91	165.387	0.000	0.000			201.407		201.407	581.05	581.00
26.93	161.985	0.000	0.000			196.024		196.024	581.04	581.00
26.95	158.582	0.000	0.000			190.786		190.786	581.04	581.00
26.97	155.180	0.000	0.000			185.687		185.687	581.04	581.00
26.99	152.299	0.000	0.000			180.725		180.725	581.04	581.00
27.01	149.417	0.000	0.000			175.895		175.895	581.04	581.00
27.03	146.536	0.000	0.000			171.194		171.194	581.03	581.00
27.05	143.654	0.000	0.000			166.962		166.962	581.03	581.00
27.07	140.773	0.000	0.000			162.835		162.835	581.03	581.00
27.09	137.891	0.000	0.000			158.810		158.810	581.03	581.00
27.11	135.010	0.000	0.000			154.884		154.884	581.03	581.00
27.13	132.128	0.000	0.000			151.055		151.055	581.03	581.00
27.15	129.631	0.000	0.000			147.321		147.321	581.03	581.00
27.17	127.177	0.000	0.000			143.532		143.532	581.02	581.00
27.19	124.722	0.000	0.000			139.840		139.840	581.02	581.00
27.21	122.268	0.000	0.000			136.803		136.803	581.02	581.00
27.23	119.814	0.000	0.000			133.284		133.284	581.02	581.00
27.25	117.359	0.000	0.000			130.389		130.389	581.02	581.00
27.27	114.905	0.000	0.000			127.557		127.557	581.02	581.00
27.29	112.451	0.000	0.000			124.276		124.276	581.02	581.00
27.31	110.273	0.000	0.000			121.577		121.577	581.02	581.00
27.33	108.164	0.000	0.000			118.936		118.936	581.02	581.00
27.35	106.056	0.000	0.000			116.353		116.353	581.02	581.00
27.37	103.947	0.000	0.000			113.826		113.826	581.02	581.00
27.39	101.839	0.000	0.000			111.353		111.353	581.01	581.00
27.41	99.730	0.000	0.000			108.935		108.935	581.01	581.00
27.43	97.621	0.000	0.000			106.133		106.133	581.01	581.00
27.45	95.513	0.000	0.000			103.827		103.827	581.01	581.00
27.47	93.621	0.000	0.000			101.779		101.779	581.01	581.00
27.49	91.822	0.000	0.000			98.957		98.957	581.01	581.00
27.51	90.023	0.000	0.000			97.005		97.005	581.01	581.00
27.53	88.225	0.000	0.000			95.092		95.092	581.01	581.00
27.55	86.426	0.000	0.000			93.216		93.216	581.01	581.00
27.57	84.627	0.000	0.000			90.631		90.631	581.01	581.00
27.59	82.828	0.000	0.000			88.843		88.843	581.01	581.00
27.61	81.030	0.000	0.000			87.091		87.091	581.01	581.00
27.63	79.401	0.000	0.000			84.676		84.676	581.01	581.00
27.65	77.886	0.000	0.000			83.006		83.006	581.01	581.00
27.67	76.371	0.000	0.000			81.368		81.368	581.01	581.00
27.69	74.857	0.000	0.000			79.763		79.763	581.01	581.00
27.71	73.342	0.000	0.000			78.190		78.190	581.01	581.00
27.73	71.827	0.000	0.000			76.022		76.022	581.01	581.00



Time (hrs)	Inflow (cfs)	Hydrograph Routing				Internal Erosion Outflow (cfs)	Reservoir		
		Principal Spillway Outflow (cfs)	Auxiliary RTside Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)		Total Outflow (cfs)	Surface Elevation (feet)	Tailwater Elevation (feet)
27.75	70.312	0.000	0.000			74.522	74.522	581.01	581.00
27.77	68.797	0.000	0.000			73.052	73.052	581.01	581.00
27.79	67.398	0.000	0.000			71.320	71.320	581.01	581.00
27.81	66.114	0.000	0.000			69.628	69.628	581.01	581.00
27.83	64.830	0.000	0.000			67.976	67.976	581.01	581.00
27.85	63.546	0.000	0.000			66.364	66.364	581.01	581.00
27.87	62.262	0.000	0.000			64.790	64.790	581.00	581.00
27.89	60.978	0.000	0.000			63.253	63.253	581.00	581.00
27.91	59.694	0.000	0.000			61.753	61.753	581.00	581.00
27.93	58.410	0.000	0.000			60.288	60.288	581.00	581.00
27.95	57.201	0.000	0.000			58.858	58.858	581.00	581.00
27.97	56.103	0.000	0.000			57.462	57.462	581.00	581.00
27.99	55.006	0.000	0.000			57.012	57.012	581.00	581.00
28.01	53.908	0.000	0.000			55.659	55.659	581.00	581.00
28.03	52.811	0.000	0.000			54.339	54.339	581.00	581.00
28.05	51.713	0.000	0.000			53.050	53.050	581.00	581.00
28.07	50.616	0.000	0.000			51.792	51.792	581.00	581.00
28.09	49.518	0.000	0.000			50.976	50.976	581.00	581.00
28.11	48.470	0.000	0.000			50.174	50.174	581.00	581.00
28.13	47.538	0.000	0.000			49.383	49.383	581.00	581.00
28.15	46.606	0.000	0.000			48.606	48.606	581.00	581.00
28.17	45.674	0.000	0.000			47.840	47.840	581.00	581.00
28.19	44.742	0.000	0.000			47.087	47.087	581.00	581.00
28.21	43.810	0.000	0.000			46.345	46.345	581.00	581.00
28.23	42.878	0.000	0.000			44.119	44.119	581.00	581.00
28.25	41.946	0.000	0.000			43.424	43.424	581.00	581.00
28.27	41.042	0.000	0.000			42.741	42.741	581.00	581.00
28.29	40.250	0.000	0.000			42.067	42.067	581.00	581.00
28.31	39.459	0.000	0.000			41.405	41.405	581.00	581.00
28.33	38.668	0.000	0.000			40.753	40.753	581.00	581.00
28.35	37.876	0.000	0.000			38.796	38.796	581.00	581.00
28.37	37.085	0.000	0.000			38.185	38.185	581.00	581.00
28.39	36.294	0.000	0.000			37.583	37.583	581.00	581.00
28.41	35.502	0.000	0.000			36.991	36.991	581.00	581.00
28.43	34.723	0.000	0.000			35.817	35.817	581.00	581.00
28.45	34.051	0.000	0.000			34.679	34.679	581.00	581.00
28.47	33.380	0.000	0.000			33.578	33.578	581.00	581.00
28.49	32.708	0.000	0.000			32.512	32.512	581.00	581.00
28.51	32.036	0.000	0.000			31.479	31.479	581.00	581.00
28.53	31.365	0.000	0.000			32.765	32.765	581.00	581.00
28.55	30.693	0.000	0.000			31.725	31.725	581.00	581.00
28.57	30.022	0.000	0.000			30.718	30.718	581.00	581.00
28.59	29.350	0.000	0.000			29.742	29.742	581.00	581.00
28.61	28.778	0.000	0.000			28.798	28.798	581.00	581.00
28.63	28.207	0.000	0.000			27.883	27.883	581.00	581.00
28.65	27.635	0.000	0.000			29.331	29.331	581.00	581.00
28.67	27.064	0.000	0.000			28.399	28.399	581.00	581.00
28.69	26.492	0.000	0.000			27.498	27.498	581.00	581.00
28.71	25.920	0.000	0.000			26.624	26.624	581.00	581.00
28.73	25.349	0.000	0.000			25.779	25.779	581.00	581.00
28.75	24.777	0.000	0.000			24.114	24.114	581.00	581.00
28.77	24.289	0.000	0.000			25.778	25.778	581.00	581.00
28.79	23.810	0.000	0.000			24.113	24.113	581.00	581.00
28.81	23.331	0.000	0.000			22.556	22.556	581.00	581.00
28.83	22.852	0.000	0.000			24.328	24.328	581.00	581.00
28.85	22.373	0.000	0.000			22.757	22.757	581.00	581.00
28.87	21.894	0.000	0.000			21.287	21.287	581.00	581.00
28.89	21.415	0.000	0.000			23.157	23.157	581.00	581.00
28.91	20.936	0.000	0.000			21.662	21.662	581.00	581.00
28.93	20.760	0.000	0.000			20.263	20.263	581.00	581.00
28.95	20.660	0.000	0.000			22.221	22.221	581.00	581.00
28.97	20.560	0.000	0.000			20.786	20.786	581.00	581.00

Note: Discharge exceeded maximum Tailwater table value. The maximum discharge ( 0.0)  
in table is used to set tailwater elevation.



Elevation	Prin.	Spw.	Spillway and Overtop Discharge Rating		Total	TW Elev
			RTside	OverTop		
591.00		0.000	0.000	0.000	0.000	580.00
591.10		0.000	0.000	0.000	0.000	580.00
591.20		0.000	0.000	0.000	0.000	580.00
591.30		0.000	0.000	0.000	0.000	580.00
591.40		0.000	0.000	0.000	0.000	580.00
591.50		0.000	0.000	0.000	0.000	580.00
591.60		0.000	0.000	0.000	0.000	580.00
591.70		0.000	0.000	0.000	0.000	580.00
591.80		0.000	0.000	0.000	0.000	580.00
591.90		0.000	0.000	0.000	0.000	580.00
592.00		0.000	0.000	0.000	0.000	580.00
592.10		0.000	0.000	0.000	0.000	580.00
592.20		0.000	0.000	0.000	0.000	580.00
592.30		0.000	0.000	0.000	0.000	580.00
592.40		0.000	0.000	0.000	0.000	580.00
592.50		0.000	0.000	0.000	0.000	580.00
592.60		0.000	0.000	0.000	0.000	580.00
592.70		0.000	0.000	0.000	0.000	580.00
592.80		0.000	0.000	0.000	0.000	580.00
592.90		0.000	0.000	0.000	0.000	580.00
593.00		0.000	0.000	0.000	0.000	580.00
593.10		0.000	0.000	0.000	0.000	580.00
593.20		0.000	0.000	0.000	0.000	580.00
593.30		0.000	0.000	0.000	0.000	580.00
593.40		0.000	0.000	0.000	0.000	580.00
593.50		0.000	0.000	0.000	0.000	580.00
593.60		0.000	0.000	0.000	0.000	580.00
593.70		0.000	0.000	0.000	0.000	580.00
593.80		0.000	0.000	0.000	0.000	580.00
593.90		0.000	0.000	0.000	0.000	580.00
594.00		0.000	0.000	0.000	0.000	580.00
594.10		0.000	0.000	0.000	0.000	580.00
594.20		0.000	0.000	0.000	0.000	580.00
594.30		0.000	0.000	0.000	0.000	580.00
594.40		0.000	0.000	0.000	0.000	580.00
594.50		0.000	0.000	0.000	0.000	580.00
594.60		0.000	0.000	0.000	0.000	580.00
594.70		0.000	0.000	0.000	0.000	580.00
594.80		0.000	0.000	0.000	0.000	580.00
594.90		0.000	0.000	0.000	0.000	580.00
595.00		0.000	0.000	0.000	0.000	580.00
595.10		0.000	0.000	0.000	0.000	580.00
595.20		0.000	0.000	0.000	0.000	580.00
595.30		0.000	0.000	0.000	0.000	580.00
595.40		0.000	0.000	0.000	0.000	580.00
595.50		0.000	0.000	0.000	0.000	580.00
595.60		0.000	0.000	0.000	0.000	580.00
595.70		0.000	0.000	0.000	0.000	580.00
595.80		0.000	0.000	0.000	0.000	580.00
595.90		0.000	0.000	0.000	0.000	580.00
596.00		0.000	0.000	0.000	0.000	580.00
596.10		0.000	0.000	0.000	0.000	580.00
596.20		0.000	0.000	0.000	0.000	580.00
596.30		0.000	0.000	0.000	0.000	580.00
596.40		0.000	0.000	0.000	0.000	580.00
596.50		0.000	0.000	0.000	0.000	580.00
596.60		0.000	0.000	0.000	0.000	580.00
596.70		0.000	0.000	0.000	0.000	580.00
596.80		0.000	0.000	0.000	0.000	580.00
596.90		0.000	0.000	0.000	0.000	580.00
597.00		0.000	0.000	0.000	0.000	580.00
597.10		0.000	0.000	0.000	0.000	580.00
597.20		0.000	0.000	0.000	0.000	580.00
597.30		0.000	0.000	0.000	0.000	580.00
597.40		0.000	0.000	0.000	0.000	580.00
597.50		0.000	0.000	0.000	0.000	580.00
597.60		0.000	0.000	0.000	0.000	580.00
597.70		0.000	0.000	0.000	0.000	580.00
597.80		0.000	0.000	0.000	0.000	580.00
597.90		0.000	0.000	0.000	0.000	580.00

El evati on	Pri n.	Spw.	Spillway and Overtop Discharge Rating		Total	TW El ev
			RTside	OverTop		
598.00		0.000	0.000	0.000	0.000	580.00
598.10		0.000	0.000	0.000	0.000	580.00
598.20		0.000	0.000	0.000	0.000	580.00
598.30		0.000	0.000	0.000	0.000	580.00
598.40		0.000	0.000	0.000	0.000	580.00
598.50		0.000	0.000	0.000	0.000	580.00
598.60		0.000	0.000	0.000	0.000	580.00
598.70		0.000	0.000	0.000	0.000	580.00
598.80		0.000	0.000	0.000	0.000	580.00
598.90		0.000	0.000	0.000	0.000	580.00
599.00		0.000	0.000	0.000	0.000	580.00
599.10		0.000	0.000	0.000	0.000	580.00
599.20		0.000	0.000	0.000	0.000	580.00
599.30		0.000	0.000	0.000	0.000	580.00
599.40		0.000	0.000	0.000	0.000	580.00
599.50		0.000	0.000	0.000	0.000	580.00
599.60		0.000	0.000	0.000	0.000	580.00
599.70		0.000	0.000	0.000	0.000	580.00
599.80		0.000	0.000	0.000	0.000	580.00
599.90		0.000	0.000	0.000	0.000	580.00
600.00		0.000	0.000	0.000	0.000	580.00
600.10		0.000	0.000	0.000	0.000	580.00
600.20		0.000	0.000	0.000	0.000	580.00
600.30		0.000	0.000	0.000	0.000	580.00
600.40		0.000	0.000	0.000	0.000	580.00
600.50		0.000	0.000	0.000	0.000	580.00
600.60		0.000	0.000	0.000	0.000	580.00
600.70		0.000	0.000	0.000	0.000	580.00
600.80		0.000	0.000	0.000	0.000	580.00
600.90		0.000	0.000	0.000	0.000	580.00
601.00		0.000	0.000	0.000	0.000	580.00
601.10		0.000	0.000	0.000	0.000	580.00
601.20		0.000	0.000	0.000	0.000	580.00
601.30		0.000	0.000	0.000	0.000	580.00
601.40		0.000	0.000	0.000	0.000	580.00
601.50		0.000	0.000	0.000	0.000	580.00
601.60		0.000	0.000	0.000	0.000	580.00
601.70		0.000	0.000	0.000	0.000	580.00
601.80		0.000	0.000	0.000	0.000	580.00
601.90		0.000	0.000	0.000	0.000	580.00
602.00		0.000	0.000	0.000	0.000	580.00
602.10		0.000	0.000	0.000	0.000	580.00
602.20		0.000	0.000	0.000	0.000	580.00
602.30		0.000	0.000	0.000	0.000	580.00
602.40		0.000	0.000	0.000	0.000	580.00
602.50		0.000	0.000	0.000	0.000	580.00
602.60		0.000	0.000	0.000	0.000	580.00
602.70		0.000	0.000	0.000	0.000	580.00
602.80		0.000	0.000	0.000	0.000	580.00
602.90		0.000	0.000	0.000	0.000	580.00
603.00		0.000	0.000	0.000	0.000	580.00
603.10		0.000	0.000	0.000	0.000	580.00
603.20		0.000	0.000	0.000	0.000	580.00
603.30		0.000	0.000	0.000	0.000	580.00
603.40		0.000	0.000	0.000	0.000	580.00
603.50		0.000	0.000	0.000	0.000	580.00
603.60		0.000	0.000	0.000	0.000	580.00
603.70		0.000	0.000	0.000	0.000	580.00
603.80		0.000	0.000	0.000	0.000	580.00
603.90		0.000	0.000	0.000	0.000	580.00
604.00		0.000	0.000	0.000	0.000	580.00
604.10		1.765	0.000	0.000	1.765	580.00
604.20		4.991	0.000	0.000	4.991	580.00
604.30		9.169	0.000	0.000	9.169	580.00
604.40		14.116	0.000	0.000	14.116	580.00
604.50		19.728	0.000	0.000	19.728	580.00
604.60		25.933	0.000	0.000	25.933	580.00
604.70		32.680	0.000	0.000	32.680	580.00
604.80		39.927	0.000	0.000	39.927	580.00
604.90		47.643	0.000	0.000	47.643	580.00

Elevation	Prin. Spw.	Spillway and Overtop Discharge Rating		Total	TW Elev
		RTside	Overtop		
605.00	55.800	0.000	0.000	55.800	580.00
605.10	64.376	0.000	0.000	64.376	580.00
605.20	73.351	0.000	0.000	73.351	580.00
605.30	82.708	0.000	0.000	82.708	580.00
605.40	92.433	0.000	0.000	92.433	580.00
605.50	102.511	0.000	0.000	102.511	580.00
605.60	112.931	0.000	0.000	112.931	580.00
605.70	123.682	0.000	0.000	123.682	580.00
605.80	128.653	0.000	0.000	128.653	580.00
605.90	129.102	0.000	0.000	129.102	580.00
606.00	129.549	0.000	0.000	129.549	580.00
606.10	129.995	0.000	0.000	129.995	580.00
606.20	130.440	0.000	0.000	130.440	580.00
606.30	130.883	0.000	0.000	130.883	580.00
606.40	131.324	0.000	0.000	131.324	580.00
606.50	131.764	0.000	0.000	131.764	580.00
606.60	132.202	0.000	0.000	132.202	580.00
606.70	132.639	0.000	0.000	132.639	580.00
606.80	133.075	0.000	0.000	133.075	580.00
606.90	133.509	0.000	0.000	133.509	580.00
607.00	133.942	0.000	0.000	133.942	580.00
607.10	134.373	0.000	0.000	134.373	580.00
607.20	134.803	0.000	0.000	134.803	580.00
607.30	135.232	0.000	0.000	135.232	580.00
607.40	135.659	0.000	0.000	135.659	580.00
607.50	136.085	0.000	0.000	136.085	580.00
607.60	136.510	0.000	0.000	136.510	580.00
607.70	136.933	0.000	0.000	136.933	580.00
607.80	137.355	0.000	0.000	137.355	580.00
607.90	137.776	0.000	0.000	137.776	580.00
608.00	138.195	0.000	0.000	138.195	580.00
608.10	138.613	0.000	0.000	138.613	580.00
608.20	139.030	0.000	0.000	139.030	580.00
608.30	139.446	0.000	0.000	139.446	580.00
608.40	139.860	0.000	0.000	139.860	580.00
608.50	140.273	0.000	0.000	140.273	580.00
608.60	140.685	0.000	0.000	140.685	580.00
608.70	141.096	0.000	0.000	141.096	580.00
608.80	141.506	0.000	0.000	141.506	580.00
608.90	141.914	0.000	0.000	141.914	580.00
609.00	142.321	0.000	0.000	142.321	580.00
609.10	142.727	1.300	0.000	144.027	580.00
609.20	143.132	2.600	0.000	145.732	580.00
609.30	143.536	3.900	0.000	147.436	580.00
609.40	143.939	5.199	0.000	149.138	580.00
609.50	144.340	6.499	0.000	150.839	580.00
609.60	144.741	7.799	0.000	152.540	580.00
609.70	145.140	12.231	0.000	157.371	580.00
609.80	145.538	23.335	0.000	168.873	580.00
609.90	145.935	36.200	0.000	182.135	580.00
610.00	146.331	50.915	0.000	197.246	580.00
610.10	146.726	68.023	0.000	214.749	580.00
610.20	147.120	85.860	0.000	232.980	580.00
610.30	147.513	104.554	0.000	252.067	580.00
610.40	147.905	125.387	0.000	273.292	580.00
610.50	148.295	146.515	0.000	294.811	580.00
610.60	148.685	168.725	0.000	317.410	580.00
610.70	149.074	192.189	0.000	341.263	580.00
610.80	149.462	216.624	0.000	366.085	580.00
610.90	149.848	242.004	0.000	391.852	580.00
611.00	150.234	268.309	0.000	418.543	580.00
611.10	150.619	295.522	0.000	446.141	580.00
611.20	151.002	323.629	0.000	474.632	580.00
611.30	151.385	352.586	0.000	503.971	580.00
611.40	151.767	382.476	0.000	534.243	580.00
611.50	152.148	413.099	0.000	565.247	580.00
611.60	152.528	443.375	0.000	595.903	580.00
611.70	152.907	474.169	0.000	627.076	580.00
611.80	153.285	510.493	0.000	663.778	580.00
611.90	153.662	544.888	0.000	698.550	580.00



Elevation	Prin. Spw.	Spillway and Overtop Discharge Rating	OverTop	Total	TW Elev
612.00	154.038	RTside	0.000	734.156	580.00
612.10	154.413	580.118	0.000	770.590	580.00
612.20	154.788	616.177	0.000	807.659	580.00
612.30	155.161	652.871	0.000	845.932	580.00
612.40	155.534	690.771	0.000	884.834	580.00
612.50	155.905	729.301	0.000	924.555	580.00
612.60	156.276	768.650	0.000	965.091	580.00
612.70	156.646	808.815	0.000	1004.460	580.00
612.80	157.015	847.814	0.000	1048.478	580.00
612.90	157.383	891.463	0.000	1091.568	580.00
613.00	157.750	934.185	0.000	1135.026	580.00
613.10	158.117	977.275	0.081	1177.431	580.00
613.20	158.482	1019.233	0.723	1226.347	580.00
613.30	158.847	1067.141	2.580	1274.732	580.00
613.40	159.211	1113.305	6.377	1325.823	580.00
613.50	159.574	1160.236	12.811	1380.323	580.00
613.60	159.936	1207.938	38.880	1455.228	580.00
613.70	160.298	1256.412	87.724	1553.682	580.00
613.80	160.658	1305.661	155.488	1669.542	580.00
613.90	161.018	1353.396	244.677	1811.475	580.00
614.00	161.377	1405.780	357.727	1977.201	580.00
614.10	161.735	1458.098	531.920	2204.011	580.00
614.20	162.093	1510.355	754.242	2477.387	580.00
614.30	162.449	1561.052	1008.003	2785.989	580.00
614.40	162.805	1615.537	1291.217	3124.848	580.00
614.50	163.160	1670.825	1601.123	3491.189	580.00
614.60	163.515	1726.906	2110.506	4057.803	580.00
614.70	163.868	1783.782	2724.994	4730.318	580.00
614.80	164.221	1841.456	3355.503	5419.654	580.00
614.90	164.573	1899.929	4003.256	6127.034	580.00
615.00	164.924	1959.205	4668.497	6852.706	580.00
615.10	165.275	2019.285	5352.822	7598.269	580.00
615.20	165.625	2080.171	6053.423	8360.913	580.00
615.30	165.974	2141.865	6772.074	9142.408	580.00
615.40	166.322	2204.360	7510.140	9944.114	580.00
615.50	166.670	2267.652	8266.441	10767.814	580.00
615.60	167.016	2334.704	9038.450	11602.181	580.00
615.70	167.363	2396.714	9832.325	12458.577	580.00
615.80	167.708	2458.890	10639.749	13336.974	580.00
615.90	168.053	2529.517	11467.197	14233.627	580.00
616.00	168.397	2598.377	12310.548	15146.979	580.00
616.10	168.740	2668.034	13171.214	16077.098	580.00
616.20	169.083	2737.144	14049.298	17025.335	580.00
616.30	169.425	2806.954	14943.039	17987.941	580.00
616.40	169.766	2875.477	15853.420	18970.888	580.00
616.50	170.106	2947.702	16781.062	19971.950	580.00
616.60	170.446	3020.781	17722.513	20987.675	580.00
616.70	170.786	3094.716	18680.484	22020.759	580.00
616.80	171.124	3169.489	19653.279	23069.515	580.00
616.90	171.462	3245.112	20642.537	24135.620	580.00
617.00	171.799	3321.622	21645.418	25216.252	580.00
617.10	172.136	3399.035	22662.731	26312.183	580.00
617.20	172.472	3477.316	23695.292	27424.232	580.00
617.30	172.807	3556.468	24742.353	28551.652	580.00
617.40	173.141	3636.492	25802.674	29693.206	580.00
617.50	173.475	3717.391	26877.681	30850.323	580.00
617.60	173.809	3799.166	27966.386	32022.015	580.00
617.70	174.141	3881.820	29067.807	33207.304	580.00
617.80	174.473	3965.355	30184.698	34408.943	580.00
617.90	174.805	4049.772	31314.355	35624.234	580.00
618.00	175.135	4135.074	32457.172	36853.570	580.00
618.10	175.465	4221.262	33613.011	38096.816	580.00
618.20	175.795	4308.340	34778.941	39356.916	580.00
618.30	176.124	4402.180	35961.581	40622.814	580.00
618.40	176.452	4485.109	37155.362	41910.243	580.00
618.50	176.780	4578.429	38361.585	43203.887	580.00
618.60	177.107	4665.523	39580.542	44514.775	580.00
618.70	177.433	4757.126	40811.422	45838.487	580.00
618.80	177.759	4849.632	42054.474	47175.276	580.00
618.90	178.084	4943.043	43310.966	48526.411	580.00
		5037.360			



Spillway and Overtop Discharge Rating						
Elevation	Prin. Spw.	RTside	OverTop	Total	TW Elev	
619.00	178.409	5132.587	44576.888	49887.884	580.00	
619.10	178.733	5228.724	45856.510	51263.968	580.00	
619.20	179.057	5325.775	47146.799	52651.631	580.00	
619.30	179.380	5423.740	48450.039	54053.159	580.00	
619.40	179.702	5522.622	49766.440	55468.764	580.00	
619.50	180.024	5622.423	51091.918	56894.365	580.00	
619.60	180.345	5723.214	52429.601	58333.160	580.00	
619.70	180.666	5826.316	53779.989	59786.970	580.00	
619.80	180.986	5930.319	55141.375	61252.680	580.00	
619.90	181.305	6032.678	56513.045	62727.028	580.00	
620.00	181.624	6137.441	57896.030	64215.095	580.00	
620.10	181.896	6242.827	59291.126	65715.849	580.00	

Listing of Tabular Data-Expanded Area

1	591.00	76.60	591.10	78.12	591.20	79.63	591.30	81.14	591.40	82.66
6	591.50	84.17	591.60	85.69	591.70	87.21	591.80	88.72	591.90	90.23
11	592.00	91.75	592.10	93.27	592.20	94.78	592.30	96.29	592.40	97.81
16	592.50	99.33	592.60	100.84	592.70	102.36	592.80	103.87	592.90	105.38
21	593.00	106.90	593.10	108.70	593.20	110.49	593.30	112.28	593.40	114.08
26	593.50	115.88	593.60	117.67	593.70	119.47	593.80	121.26	593.90	123.05
31	594.00	124.85	594.10	126.65	594.20	128.44	594.30	130.23	594.40	132.03
36	594.50	133.83	594.60	135.62	594.70	137.42	594.80	139.21	594.90	141.00
41	595.00	142.80	595.10	144.69	595.20	146.58	595.30	148.47	595.40	150.36
46	595.50	152.25	595.60	154.14	595.70	156.03	595.80	157.92	595.90	159.81
51	596.00	161.70	596.10	163.59	596.20	165.48	596.30	167.37	596.40	169.26
56	596.50	171.15	596.60	173.04	596.70	174.93	596.80	176.82	596.90	178.71
61	597.00	180.60	597.10	182.65	597.20	184.71	597.30	186.76	597.40	188.81
66	597.50	190.86	597.60	192.92	597.70	194.97	597.80	197.02	597.90	199.07
71	598.00	201.12	598.10	203.18	598.20	205.23	598.30	207.28	598.40	209.33
76	598.50	211.39	598.60	213.44	598.70	215.49	598.80	217.54	598.90	219.60
81	599.00	221.65	599.10	223.70	599.20	225.76	599.30	227.81	599.40	229.86
86	599.50	231.91	599.60	233.97	599.70	236.02	599.80	238.07	599.90	240.12
91	600.00	242.17	600.10	244.23	600.20	246.28	600.30	248.33	600.40	250.38
96	600.50	252.44	600.60	254.49	600.70	256.54	600.80	258.59	600.90	260.65
101	601.00	262.70	601.10	265.14	601.20	267.58	601.30	270.02	601.40	272.46
106	601.50	274.90	601.60	277.34	601.70	279.78	601.80	282.22	601.90	284.66
111	602.00	287.10	602.10	289.54	602.20	291.98	602.30	294.42	602.40	296.86
116	602.50	299.30	602.60	301.74	602.70	304.18	602.80	306.62	602.90	309.06
121	603.00	311.50	603.10	313.94	603.20	316.38	603.30	318.82	603.40	321.26
126	603.50	323.70	603.60	326.14	603.70	328.58	603.80	331.02	603.90	333.46
131	604.00	335.90	604.10	338.34	604.20	340.78	604.30	343.22	604.40	345.66
136	604.50	348.10	604.60	350.54	604.70	352.98	604.80	355.42	604.90	357.86
141	605.00	360.30	605.10	362.72	605.20	365.13	605.30	367.54	605.40	369.96
146	605.50	372.38	605.60	374.79	605.70	377.21	605.80	379.62	605.90	382.03
151	606.00	384.45	606.10	386.87	606.20	389.28	606.30	391.69	606.40	394.11
156	606.50	396.52	606.60	398.94	606.70	401.36	606.80	403.77	606.90	406.18
161	607.00	408.60	607.10	411.02	607.20	413.43	607.30	415.84	607.40	418.26
166	607.50	420.68	607.60	423.09	607.70	425.51	607.80	427.92	607.90	430.33
171	608.00	432.75	608.10	435.17	608.20	437.58	608.30	439.99	608.40	442.41
176	608.50	444.82	608.60	447.24	608.70	449.66	608.80	452.07	608.90	454.48
181	609.00	456.90	609.10	459.42	609.20	461.94	609.30	464.46	609.40	466.98
186	609.50	469.50	609.60	472.02	609.70	474.54	609.80	477.06	609.90	479.58
191	610.00	482.10	610.10	484.62	610.20	487.14	610.30	489.66	610.40	492.18
196	610.50	494.70	610.60	497.22	610.70	499.74	610.80	502.26	610.90	504.78
201	611.00	507.30	611.10	509.82	611.20	512.34	611.30	514.86	611.40	517.38
206	611.50	519.90	611.60	522.42	611.70	524.94	611.80	527.46	611.90	529.98
211	612.00	532.50	612.10	535.02	612.20	537.54	612.30	540.06	612.40	542.58
216	612.50	545.10	612.60	547.62	612.70	550.14	612.80	552.66	612.90	555.18
221	613.00	557.70	613.10	560.20	613.20	562.70	613.30	565.20	613.40	567.70
226	613.50	570.20	613.60	572.70	613.70	575.20	613.80	577.70	613.90	580.20
231	614.00	582.70	614.10	585.20	614.20	587.70	614.30	590.20	614.40	592.70
236	614.50	595.20	614.60	597.70	614.70	600.20	614.80	602.70	614.90	605.20
241	615.00	607.70	615.10	610.20	615.20	612.70	615.30	615.20	615.40	617.70
246	615.50	620.20	615.60	622.70	615.70	625.20	615.80	627.70	615.90	630.20
251	616.00	632.70	616.10	635.20	616.20	637.70	616.30	640.20	616.40	642.70
256	616.50	645.20	616.60	647.70	616.70	650.20	616.80	652.70	616.90	655.20
261	617.00	657.70	617.10	660.20	617.20	662.70	617.30	665.20	617.40	667.70
266	617.50	670.20	617.60	672.70	617.70	675.20	617.80	677.70	617.90	680.20
271	618.00	682.70	618.10	685.20	618.20	687.70	618.30	690.20	618.40	692.70
276	618.50	695.20	618.60	697.70	618.70	700.20	618.80	702.70	618.90	705.20
281	619.00	707.70	619.10	710.20	619.20	712.70	619.30	715.20	619.40	717.70
286	619.50	720.20	619.60	722.70	619.70	725.20	619.80	727.70	619.90	730.20
291	620.00	732.70	620.10	735.20						

Listing of Tabular Data-Generated Volume

1	591.00	250.00	593.00	433.50	595.00	683.20	597.00	1006.60	601.00	1893.20
6	605.00	3139.20	609.00	4773.60	613.00	6802.80	615.00	7968.20		

Listing of Tabular Data-Expanded Low Volume										
1	580.00	0.00	580.10	2.27	580.20	4.55	580.30	6.82	580.40	9.09
6	580.50	11.36	580.60	13.64	580.70	15.91	580.80	18.18	580.90	20.45
11	581.00	22.73	581.10	25.00	581.20	27.27	581.30	29.55	581.40	31.82
16	581.50	34.09	581.60	36.36	581.70	38.64	581.80	40.91	581.90	43.18
21	582.00	45.45	582.10	47.73	582.20	50.00	582.30	52.27	582.40	54.55
26	582.50	56.82	582.60	59.09	582.70	61.36	582.80	63.64	582.90	65.91
31	583.00	68.18	583.10	70.45	583.20	72.73	583.30	75.00	583.40	77.27
36	583.50	79.55	583.60	81.82	583.70	84.09	583.80	86.36	583.90	88.64
41	584.00	90.91	584.10	93.18	584.20	95.45	584.30	97.73	584.40	100.00
46	584.50	102.27	584.60	104.55	584.70	106.82	584.80	109.09	584.90	111.36
51	585.00	113.64	585.10	115.91	585.20	118.18	585.30	120.45	585.40	122.73
56	585.50	125.00	585.60	127.27	585.70	129.55	585.80	131.82	585.90	134.09
61	586.00	136.36	586.10	138.64	586.20	140.91	586.30	143.18	586.40	145.45
66	586.50	147.73	586.60	150.00	586.70	152.27	586.80	154.55	586.90	156.82
71	587.00	159.09	587.10	161.36	587.20	163.64	587.30	165.91	587.40	168.18
76	587.50	170.45	587.60	172.73	587.70	175.00	587.80	177.27	587.90	179.55
81	588.00	181.82	588.10	184.09	588.20	186.36	588.30	188.64	588.40	190.91
86	588.50	193.18	588.60	195.45	588.70	197.73	588.80	200.00	588.90	202.27
91	589.00	204.55	589.10	206.82	589.20	209.09	589.30	211.36	589.40	213.64
96	589.50	215.91	589.60	218.18	589.70	220.45	589.80	222.73	589.90	225.00
101	590.00	227.27	590.10	229.55	590.20	231.82	590.30	234.09	590.40	236.36
106	590.50	238.64	590.60	240.91	590.70	243.18	590.80	245.45	590.90	247.73

Listing of Tabular Data-Expanded Volume										
1	591.00	250.	591.10	258.	591.20	266.	591.30	274.	591.40	282.
6	591.50	290.	591.60	299.	591.70	307.	591.80	316.	591.90	325.
11	592.00	334.	592.10	343.	592.20	353.	592.30	362.	592.40	372.
16	592.50	382.	592.60	392.	592.70	402.	592.80	412.	592.90	423.
21	593.00	434.	593.10	444.	593.20	455.	593.30	466.	593.40	478.
26	593.50	489.	593.60	501.	593.70	513.	593.80	525.	593.90	537.
31	594.00	549.	594.10	562.	594.20	575.	594.30	588.	594.40	601.
36	594.50	614.	594.60	628.	594.70	641.	594.80	655.	594.90	669.
41	595.00	683.	595.10	698.	595.20	712.	595.30	727.	595.40	742.
46	595.50	757.	595.60	772.	595.70	788.	595.80	803.	595.90	819.
51	596.00	835.	596.10	852.	596.20	868.	596.30	885.	596.40	902.
56	596.50	919.	596.60	936.	596.70	953.	596.80	971.	596.90	989.
61	597.00	1007.	597.10	1025.	597.20	1043.	597.30	1062.	597.40	1080.
66	597.50	1099.	597.60	1119.	597.70	1138.	597.80	1158.	597.90	1177.
71	598.00	1197.	598.10	1218.	598.20	1238.	598.30	1259.	598.40	1280.
76	598.50	1301.	598.60	1322.	598.70	1343.	598.80	1365.	598.90	1387.
81	599.00	1409.	599.10	1431.	599.20	1454.	599.30	1476.	599.40	1499.
86	599.50	1522.	599.60	1546.	599.70	1569.	599.80	1593.	599.90	1617.
91	600.00	1641.	600.10	1665.	600.20	1690.	600.30	1714.	600.40	1739.
96	600.50	1764.	600.60	1790.	600.70	1815.	600.80	1841.	600.90	1867.
101	601.00	1893.	601.10	1920.	601.20	1946.	601.30	1973.	601.40	2000.
106	601.50	2028.	601.60	2055.	601.70	2083.	601.80	2111.	601.90	2140.
111	602.00	2168.	602.10	2197.	602.20	2226.	602.30	2255.	602.40	2285.
116	602.50	2315.	602.60	2345.	602.70	2375.	602.80	2406.	602.90	2436.
121	603.00	2467.	603.10	2499.	603.20	2530.	603.30	2562.	603.40	2594.
126	603.50	2626.	603.60	2659.	603.70	2691.	603.80	2724.	603.90	2758.
131	604.00	2791.	604.10	2825.	604.20	2859.	604.30	2893.	604.40	2927.
136	604.50	2962.	604.60	2997.	604.70	3032.	604.80	3068.	604.90	3103.
141	605.00	3139.	605.10	3175.	605.20	3212.	605.30	3248.	605.40	3285.
146	605.50	3322.	605.60	3360.	605.70	3397.	605.80	3435.	605.90	3473.
151	606.00	3512.	606.10	3550.	606.20	3589.	606.30	3628.	606.40	3667.
156	606.50	3707.	606.60	3747.	606.70	3787.	606.80	3827.	606.90	3867.
161	607.00	3908.	607.10	3949.	607.20	3990.	607.30	4032.	607.40	4073.
166	607.50	4115.	607.60	4158.	607.70	4200.	607.80	4243.	607.90	4286.
171	608.00	4329.	608.10	4372.	608.20	4416.	608.30	4460.	608.40	4504.
176	608.50	4548.	608.60	4593.	608.70	4638.	608.80	4683.	608.90	4728.
181	609.00	4774.	609.10	4819.	609.20	4865.	609.30	4912.	609.40	4958.
186	609.50	5005.	609.60	5052.	609.70	5100.	609.80	5147.	609.90	5195.
191	610.00	5243.	610.10	5291.	610.20	5340.	610.30	5389.	610.40	5438.
196	610.50	5487.	610.60	5537.	610.70	5587.	610.80	5637.	610.90	5687.
201	611.00	5738.	611.10	5789.	611.20	5840.	611.30	5891.	611.40	5943.
206	611.50	5995.	611.60	6047.	611.70	6099.	611.80	6152.	611.90	6205.
211	612.00	6258.	612.10	6311.	612.20	6365.	612.30	6419.	612.40	6473.
216	612.50	6527.	612.60	6582.	612.70	6637.	612.80	6692.	612.90	6747.
221	613.00	6803.	613.10	6859.	613.20	6915.	613.30	6971.	613.40	7028.
226	613.50	7085.	613.60	7142.	613.70	7199.	613.80	7257.	613.90	7315.

231	614.00	7373.	614.10	7431.	614.20	7490.	614.30	7549.	614.40	7608.
236	614.50	7667.	614.60	7727.	614.70	7787.	614.80	7847.	614.90	7908.
241	615.00	7968.	615.10	8029.	615.20	8090.	615.30	8152.	615.40	8213.
246	615.50	8275.	615.60	8337.	615.70	8400.	615.80	8462.	615.90	8525.
251	616.00	8588.	616.10	8652.	616.20	8715.	616.30	8779.	616.40	8843.
256	616.50	8908.	616.60	8973.	616.70	9037.	616.80	9103.	616.90	9168.
261	617.00	9234.	617.10	9299.	617.20	9366.	617.30	9432.	617.40	9499.
266	617.50	9566.	617.60	9633.	617.70	9700.	617.80	9768.	617.90	9836.
271	618.00	9904.	618.10	9972.	618.20	10041.	618.30	10110.	618.40	10179.
276	618.50	10248.	618.60	10318.	618.70	10388.	618.80	10458.	618.90	10528.
281	619.00	10599.	619.10	10670.	619.20	10741.	619.30	10812.	619.40	10884.
286	619.50	10956.	619.60	11028.	619.70	11101.	619.80	11173.	619.90	11246.
291	620.00	11319.	620.10	11393.						

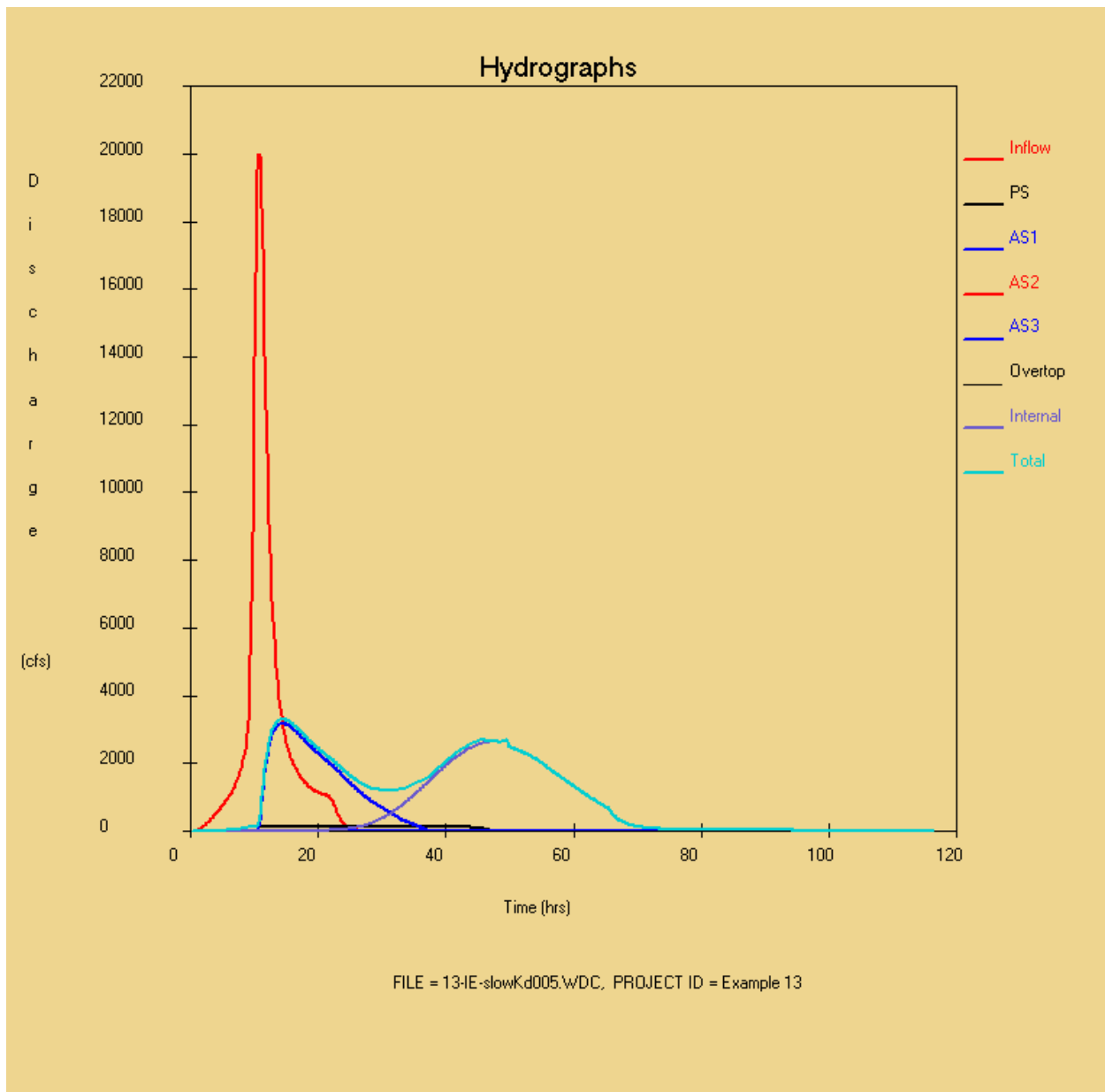
6-TH OvertopBreach.OUT

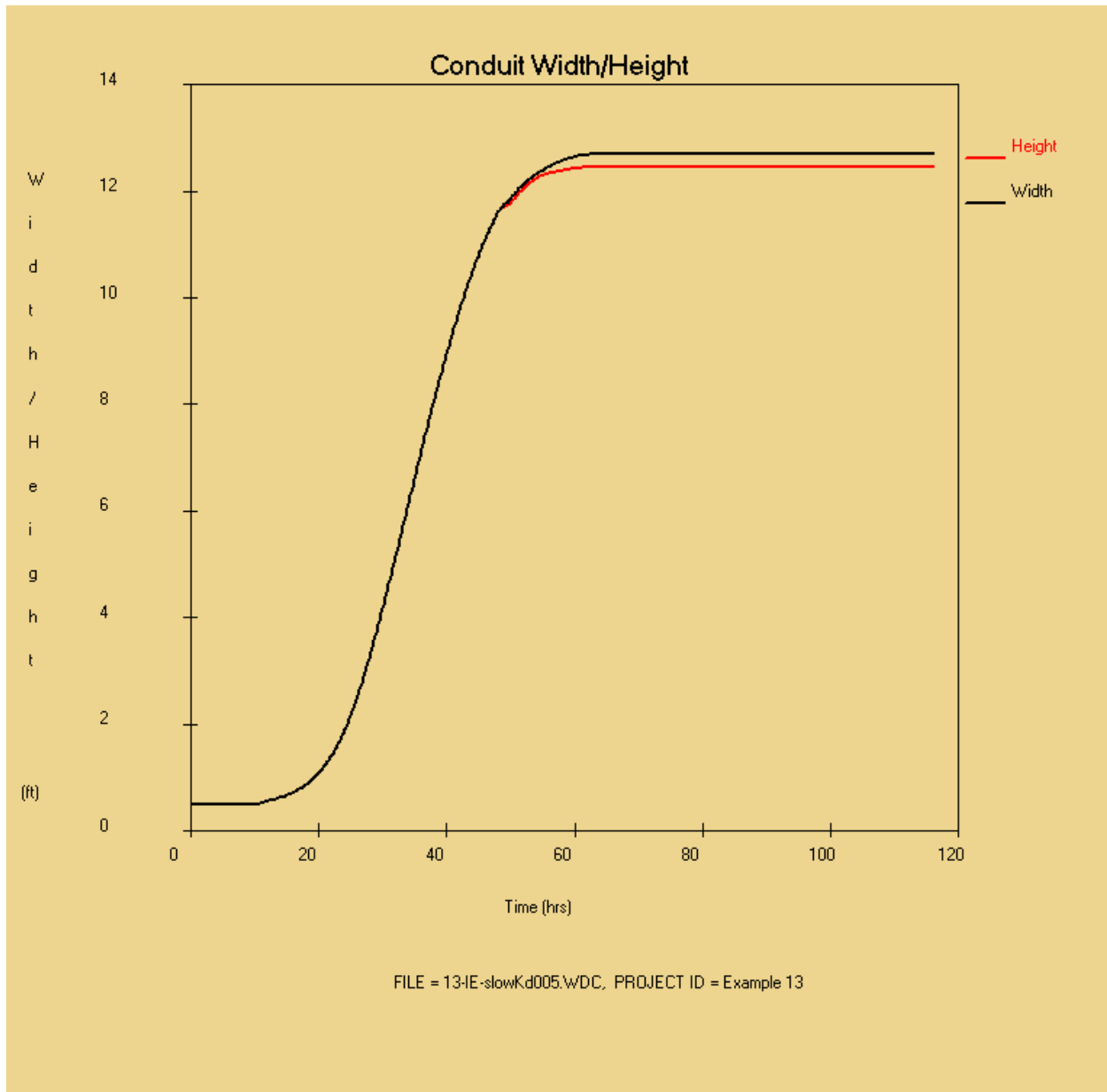
WinDAM C

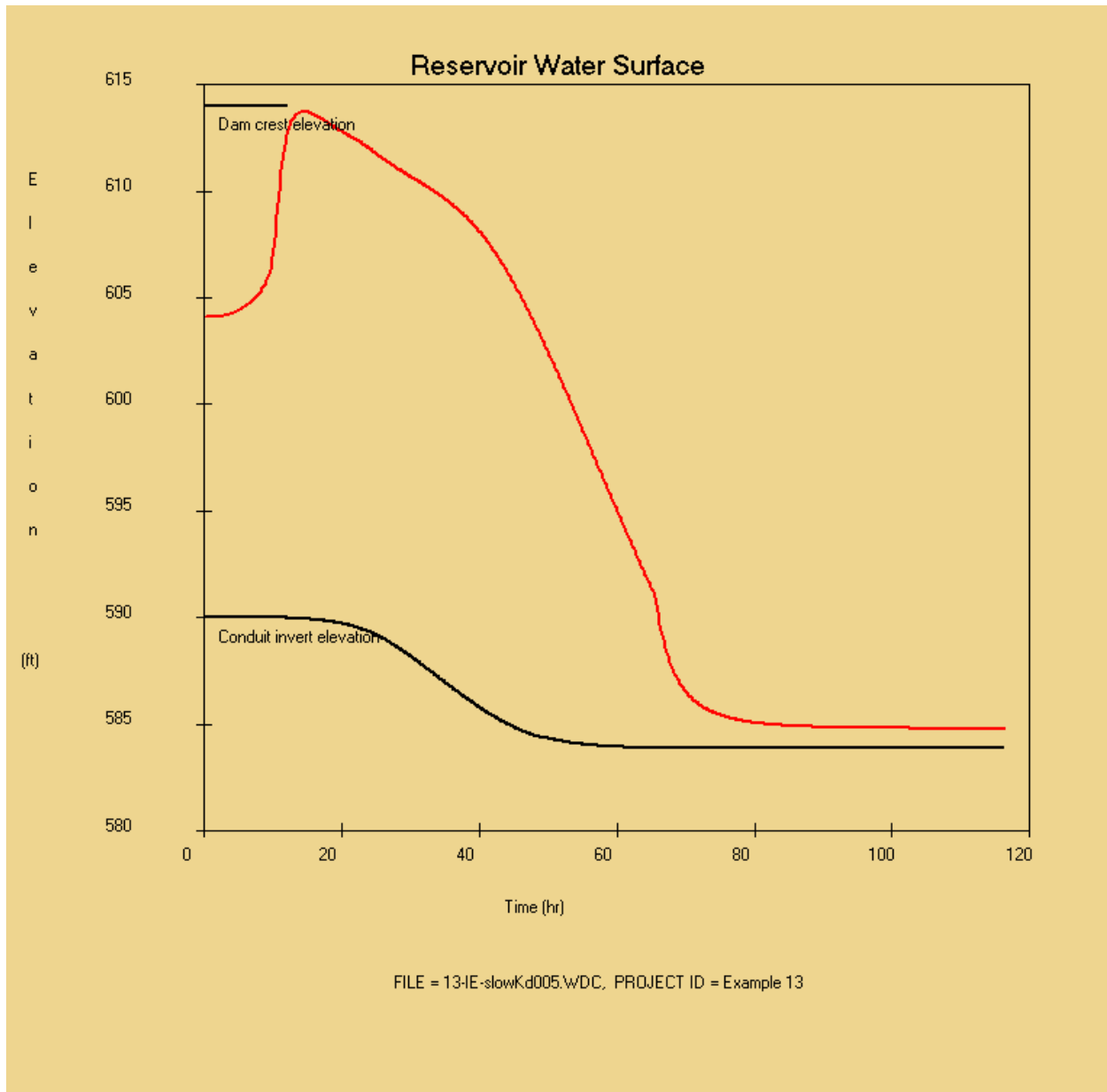
End of Run



**13-IE-slowKd005**









Listing of Input Data- Example 13

WINDAM 01/01/2009Example 13

OPTION SIMPLE EARTH INTERNAL

\* WinDAM C Example 13 - Proposed Dam 07/25/2017

\* Internal Erosion Analysis

\* Int Erosion Conduit elevation 590.0'

\* Conduit size: 0.5 ft x 0.5 ft

\* Kd @ low erosion rate: 0.05 ft/hr/psf

\* Critical shear: 0.8500 psf

\* Hanson/Robinson method

\* Std single stage riser, 36" conduit

\* 1 x 100' wide auxiliary spillway - structural, rating

\* Dam Base: 580.0'

\* IE Conduit: 590.0'

\* PS crest: 604.0'

\* Start Routing: 604.1'

\* AS1 crest: 609.0' structural (rating tbl)

\* AS1 bottom width: 100'

\* Dam crest: 614.0' raised

\* Dam face Maintenance Code - 2 (minor discontinuities)

\* Aux Spwy Maintenance Code - 2 (minor discontinuities)

\* 24-hr FBH Inflow peak: 20,000 cfs @ 13.4 hr

\* Dam embankment not overtopped

\* Aux Spwy 1 is structural, has rating tbl

\* no erosion estimated

\* End of my input comments-----

IEMODEL 2 100 0.05 800 0.8500

HYD FBH .162 0 OV

0 0

0.162 2.05

0.324 4.27

0.486 7.94

0.648 13.49

0.81 21.25

0.972 31.43

1.134 44.09

1.296 59.2

1.458 76.67

1.62 96.3

1.782 117.91

1.944 141.29

2.106 166.19

2.268 192.41

2.43 219.81

2.592 248.29

2.754 277.79

2.916 308.26

3.078 339.64

3.24 371.89

3.402 404.96

3.564 438.77

3.726 473.28

3.888 508.43

4.05 544.15

4.212 580.38

4.374 617.06

4.536 654.15

4.698 691.6

4.86 729.37

5.022 767.42

5.184 805.71

5.346 844.21

5.508 883.01

5.67 922.4

5.832 962.86

5.994 1005.06

6.156 1049.89

6.318 1098.5

6.48 1151.9

6.642 1210.65

6.804 1274.77

6.966 1343.9

7.128 1417.62

7.29 1495.44

7.452 1577.05

7.614 1662.99

7.776 1754.86

7. 938	1854. 94
8. 1	1966. 14
8. 262	2091. 9
8. 424	2236. 09
8. 586	2404. 24
8. 748	2603. 67
8. 91	2852. 99
9. 072	3236. 61
9. 234	3969. 87
9. 396	5171. 58
9. 558000006	780. 08
9. 720000008	811. 47
9. 882000001	1291. 61
10. 044	14009. 39
10. 206	16477. 03
10. 368	18343. 15
10. 53	19510
10. 692	20008. 95
10. 854	19962. 27
11. 016	19374. 39
11. 178	18418. 29
11. 34	17208. 44
11. 502	15720. 4
11. 664	14046. 82
11. 826	12475. 51
11. 988	11164. 77
12. 15	10045. 39
12. 312	9072. 22
12. 474	8237. 55
12. 636	7498. 24
12. 798	6822. 66
12. 96	6226. 47
13. 122	5713. 4
13. 284	5259. 68
13. 446	4856
13. 608	4497. 88
13. 77	4180. 52
13. 932	3893. 07
14. 094	3639. 11
14. 256	3414. 2
14. 418	3212. 11
14. 58	3032. 03
14. 742	2871. 29
14. 904	2725. 09
15. 066	2593. 97
15. 228	2475. 93
15. 39	2371. 16
15. 552	2276. 01
15. 714	2188. 82
15. 876	2112. 57
16. 038	2043. 22
16. 2	1977. 17
16. 362	1913. 76
16. 524	1852. 44
16. 686	1792. 93
16. 848	1735. 03
17. 01	1678. 94
17. 172	1626. 62
17. 334	1581. 9
17. 496	1541. 52
17. 658	1502. 55
17. 82	1464. 85
17. 982	1428. 33
18. 144	1393. 15
18. 306	1359. 58
18. 468	1327. 9
18. 63	1298. 33
18. 792	1270. 99
18. 954	1245. 91
19. 116	1223. 06
19. 278	1202. 33
19. 44	1183. 55
19. 602	1166. 55
19. 764	1151. 13
19. 926	1137. 04
20. 088	1124. 05
20. 25	1112
20. 412	1100. 72
20. 574	1090. 1
20. 736	1080. 04

	20.898	1070.47							
	21.06	1061.31							
	21.222	1052.49							
	21.384	1043.21							
	21.546	1031.07							
	21.708	1013.69							
	21.87	989.43							
	22.032	955.92							
	22.194	910.62							
	22.356	852.94							
	22.518	785.59							
	22.68	712.19							
	22.842	636.31							
	23.004	560.79							
	23.166	487.79							
	23.328	419.84							
	23.49	357.61							
	23.652	302.02							
	23.814	254.45							
	23.976	215.27							
	24.138	182.74							
	24.3	155.18							
	24.462	131.84							
	24.624	111.96							
	24.786	94.88							
	24.948	80.31							
	25.11	68.04							
	25.272	57.64							
	25.434	48.75							
	25.596	41.2							
	25.758	34.79							
	25.92	29.35							
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	26.244	20.84							
	26.406	20.03							
	26.568	20.03							
	26.73	20.03							
	26.892	20.03							
	27.054	20.03							
	27.216	20.03							
	27.378	20.03							
	27.54	20.03							
	27.702	20.03							
	27.864	20.03							
	28.026	20.03							
	28.188	20.03							
	28.35	20.03							
	28.512	20.03							
	28.674	20.03							
	28.836	20.03							
	28.998	20.03							
	29.16	20.03							
	29.322	20.03							
	29.484	20.03							
	29.646	20.03							
	29.808	20.03							
ENDTABLE									
CRESTPRFL									
	0	614							
	550	614.5							
	1200	614.2							
ENDTABLE									
STROUTE	604.1	580	ELEV						
STRUCTURE	SR1								
		591		250		76.6			
		593				106.9			
		595				142.8			
		597				180.6			
		601				262.7			
		605				360.3			
		609				456.9			
		613				557.7			
		615				607.7			
ENDTABLE									
UPSTREAM	2.5	5.6							
DAMCREST	14	5.6							
DWNSTREAM	2.5	5.6	.8	2	5	.01			
CONDUIT	0.5	0.5	590	550					
PSPINLET	0.7	18	604						
PSPDATA	1	36		.013	590	582.5	SC		
	250								

PSpCOEFFS 0. 6  
TAI LWATER  
581 0  
590 1000  
600 5000  
610 20000  
ENDTABLE  
ASRATI NG 1Struct 0  
609 0  
610 310  
611 880  
612 1610  
613 2480  
614 3450  
615 4550  
ENDTABLE  
OUTPUT ALL  
ENDRUN

3. 1 6

13-IE-slowKd005.OUT

WinDAM C

^^^^ Warning: Entered stage-storage table is not sufficient for the requested run.  
Volume set to zero at dam base and linear interpolation used.



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-----
Windows Dam Analysis Program      Execution Date - 07/25/2017
Program Date - 01/01/2009        Version Number - 2008.01.01      Time - 11:01:41
Input File - H:\WinDAM\Examples\Examples20170721chk\13-IE-slowKd005.D2D
-----

***** Elevation Summary 1 *****
Dam Base Elevation:                580.00 feet
Max Tailwater Elevation:          595.77 feet
Prin Spwy Crest Elevation:        604.00 feet
Start Routing Elevation:          604.10 feet
Aux Spwy # 1 Crest Elevation:      609.00 feet
Aux Spwy # 2 Crest Elevation:      none
Aux Spwy # 3 Crest Elevation:      none
Max Pool Elevation:               613.72 feet
Initial Low Point in Dam Crest:    614.00 feet
Ending Low Point in Dam Crest:     614.00 feet
*****

***** Flow Summary 2 *****
Peak Inflow:                      20008.950 cfs @      10.692 hours
Peak Outflow:                    3308.138 cfs @      14.418 hours
Max Flow Principal Spwy:         146.236 cfs @      10.854 hours
Max Flow Aux Spwy # 1:           3176.638 cfs @      14.418 hours
Max Flow Aux Spwy # 2:           none
Max Flow Aux Spwy # 3:           none
Maximum flow over top of dam:     0.000 cfs @      0.000 hours
Duration of dam overtopping:      0.000 hours
Max unit discharge, low point or breach: 237.390 cfs/ft
Maximum internal erosion conduit flow: 2684.237 cfs
*****

***** Spillways Summary 3 *****
Principal Spillway Type:          Single Stage Inlet, Circular Conduit
Principal Spillway Crest Elev:    604.00 feet
Prin. Spw. Weir Length:           18.00 feet
Conduit Diameter:                 36.00 inches
Conduit Manning's n value:        0.013
-----
Aux Spwy #1 Label:                Struct
Aux Spwy #1 Crest Elev:           609.00 feet
Aux Spwy #1 Bottom Width:         0.00 feet
Aux Spwy #1 Max Flow:             3176.638 cfs @      14.418 hours
Aux Spwy #1 Max Hp:               4.72 feet
Aux Spwy #1 Erosion Analysis:     none
-----
Aux Spwy #2 Label:                none
Aux Spwy #2 Crest Elev:           none
Aux Spwy #2 Bottom Width:         none
Aux Spwy #2 Max Flow:             none
Aux Spwy #2 Max Hp:               none
Aux Spwy #2 Erosion Analysis:     none
-----
Aux Spwy #3 Label:                none
Aux Spwy #3 Crest Elev:           none
Aux Spwy #3 Bottom Width:         none
Aux Spwy #3 Max Flow:             none
Aux Spwy #3 Max Hp:               none
Aux Spwy #3 Erosion Analysis:     none
*****

***** Overtopping Summary Table 4 *****

<<<<<<  Overtopping did not occur for this embankment.  >>>>>>

*****
```

\*\*\*\*\* Internal Erosion Summary Table 5 \*\*\*\*\*  
Dam Breach Analysis type: Internal Erosion  
Initial Conduit Elevation: 590.00 feet  
Initial Conduit Station: 550.00 feet  
Initial Conduit Width: 0.50 feet  
Initial Conduit Height: 0.50 feet  
Max. Internal Erosion conduit flow: 2684.237 cfs @ 49.410 hours  
Initial Low Point in Dam Crest Profile: 614.00 feet  
Maximum Pool Elevation: 613.72 feet @ 14.418 hours  
Ending Low Point in Dam Crest Profile: 614.00 feet @ 0.000 hours  
\*\*\*\*\*

\*\*\*\*\* Drawdown Summary Table 6 \*\*\*\*\*

<<<<<< Drawdown calculation was not an option for this embankment. >>>>>>

\*\*\*\*\*

No stress occurred on embankment face.

Hydrograph ID=FBH

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary Struct	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
0.000	0.00	1.76	0.00			0.00	1.45	3.22	604.10	581.03
0.162	2.05	1.76	0.00			0.00	1.45	3.22	604.10	581.03
0.324	4.27	1.76	0.00			0.00	1.45	3.21	604.10	581.03
0.486	7.94	1.76	0.00			0.00	1.45	3.22	604.10	581.03
0.648	13.49	1.77	0.00			0.00	1.45	3.22	604.10	581.03
0.810	21.25	1.78	0.00			0.00	1.45	3.24	604.10	581.03
0.972	31.43	1.81	0.00			0.00	1.45	3.26	604.10	581.03
1.134	44.09	1.84	0.00			0.00	1.45	3.30	604.10	581.03
1.296	59.20	1.90	0.00			0.00	1.45	3.35	604.10	581.03
1.458	76.67	1.97	0.00			0.00	1.45	3.42	604.11	581.03
1.620	96.30	2.06	0.00			0.00	1.45	3.51	604.11	581.03
1.782	117.91	2.17	0.00			0.00	1.46	3.63	604.11	581.03
1.944	141.29	2.31	0.00			0.00	1.46	3.77	604.12	581.03
2.106	166.19	2.49	0.00			0.00	1.46	3.94	604.13	581.04
2.268	192.41	2.69	0.00			0.00	1.46	4.15	604.13	581.04
2.430	219.81	2.94	0.00			0.00	1.46	4.40	604.14	581.04
2.592	248.29	3.23	0.00			0.00	1.46	4.68	604.15	581.04
2.754	277.79	3.56	0.00			0.00	1.46	5.02	604.16	581.05
2.916	308.26	3.95	0.00			0.00	1.46	5.41	604.17	581.05
3.078	339.64	4.39	0.00			0.00	1.46	5.85	604.18	581.05
3.240	371.89	4.90	0.00			0.00	1.46	6.36	604.20	581.06
3.402	404.96	5.47	0.00			0.00	1.46	6.93	604.21	581.06
3.564	438.77	6.10	0.00			0.00	1.46	7.56	604.23	581.07
3.726	473.28	6.81	0.00			0.00	1.46	8.28	604.25	581.07
3.888	508.43	7.61	0.00			0.00	1.46	9.08	604.27	581.08
4.050	544.15	8.50	0.00			0.00	1.46	9.97	604.29	581.09
4.212	580.38	9.49	0.00			0.00	1.47	10.95	604.31	581.10
4.374	617.06	10.56	0.00			0.00	1.47	12.03	604.33	581.11
4.536	654.15	11.75	0.00			0.00	1.47	13.22	604.35	581.12
4.698	691.60	13.05	0.00			0.00	1.47	14.52	604.38	581.13
4.860	729.37	14.47	0.00			0.00	1.47	15.94	604.41	581.14
5.022	767.42	16.00	0.00			0.00	1.47	17.47	604.43	581.16
5.184	805.71	17.66	0.00			0.00	1.47	19.13	604.46	581.17
5.346	844.21	19.46	0.00			0.00	1.48	20.94	604.50	581.19
5.508	883.01	21.40	0.00			0.00	1.48	22.87	604.53	581.21
5.670	922.40	23.47	0.00			0.00	1.48	24.95	604.56	581.22
5.832	962.86	25.71	0.00			0.00	1.48	27.19	604.60	581.24
5.994	1005.06	28.10	0.00			0.00	1.48	29.59	604.63	581.27
6.156	1049.89	30.66	0.00			0.00	1.48	32.15	604.67	581.29
6.318	1098.50	33.41	0.00			0.00	1.49	34.90	604.71	581.31
6.480	1151.90	36.36	0.00			0.00	1.49	37.85	604.75	581.34
6.642	1210.65	39.54	0.00			0.00	1.49	41.03	604.79	581.37
6.804	1274.77	42.95	0.00			0.00	1.49	44.44	604.84	581.40
6.966	1343.90	46.63	0.00			0.00	1.50	48.13	604.89	581.43
7.128	1417.62	50.61	0.00			0.00	1.50	52.11	604.94	581.47
7.290	1495.44	54.90	0.00			0.00	1.50	56.40	604.99	581.51
7.452	1577.05	59.52	0.00			0.00	1.50	61.03	605.04	581.55
7.614	1662.99	64.52	0.00			0.00	1.51	66.03	605.10	581.59
7.776	1754.86	69.90	0.00			0.00	1.51	71.41	605.16	581.64
7.938	1854.94	75.71	0.00			0.00	1.51	77.22	605.23	581.70
8.100	1966.14	81.99	0.00			0.00	1.52	83.51	605.29	581.75
8.262	2091.90	88.80	0.00			0.00	1.52	90.32	605.36	581.81
8.424	2236.09	96.23	0.00			0.00	1.52	97.75	605.44	581.88
8.586	2404.24	104.36	0.00			0.00	1.53	105.89	605.52	581.95
8.748	2603.67	113.33	0.00			0.00	1.53	114.86	605.60	582.03
8.910	2852.99	123.32	0.00			0.00	1.54	124.86	605.70	582.12
9.072	3236.61	128.65	0.00			0.00	1.54	130.19	605.80	582.17
9.234	3969.87	129.20	0.00			0.00	1.55	130.75	605.92	582.18
9.396	5171.58	129.89	0.00			0.00	1.56	131.45	606.08	582.18
9.558	6780.08	130.78	0.00			0.00	1.57	132.36	606.28	582.19
9.720	8811.47	131.93	0.00			0.00	1.59	133.52	606.54	582.20
9.882	11291.61	133.37	0.00			0.00	1.61	134.99	606.87	582.21
10.044	14009.39	135.13	0.00			0.00	1.64	136.78	607.28	582.23
10.206	16477.03	137.17	0.00			0.00	1.68	138.85	607.76	582.25
10.368	18343.15	139.41	0.00			0.00	1.72	141.13	608.29	582.27
10.530	19510.00	141.73	0.00			0.00	1.77	143.50	608.85	582.29
10.692	20008.95	144.03	130.91			0.00	1.83	276.77	609.42	583.49
10.854	19962.27	146.24	302.55			0.00	1.89	450.67	609.98	585.06
11.016	19374.39	144.65	594.47			0.00	1.96	741.08	610.50	587.67
11.178	18418.29	138.59	869.09			0.00	2.04	1009.71	610.98	590.02
11.340	17208.44	137.43	1183.61			0.00	2.10	1323.14	611.42	590.81
11.502	15720.40	136.38	1464.14			0.00	2.15	1602.67	611.80	591.51
11.664	14046.82	135.31	1724.30			0.00	2.20	1861.81	612.13	592.15

Time (hrs)	Inflow (cfs)	Principal Spillway Outflow (cfs)	Auxiliary Structure Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)	OverTop Outflow (cfs)	Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
11.826	12475.51	134.20	1967.88			0.00	2.24	2104.32	612.41	592.76
11.988	11164.77	133.26	2172.96			0.00	2.29	2308.50	612.65	593.27
12.150	10045.39	132.46	2346.42			0.00	2.33	2481.21	612.85	593.70
12.312	9072.22	131.76	2494.68			0.00	2.38	2628.83	613.02	594.07
12.474	8237.55	131.06	2632.76			0.00	2.43	2766.25	613.16	594.42
12.636	7498.24	130.47	2749.06			0.00	2.48	2882.01	613.28	594.71
12.798	6822.66	129.97	2846.11			0.00	2.54	2978.61	613.38	594.95
12.960	6226.47	129.56	2926.28			0.00	2.59	3058.43	613.46	595.15
13.122	5713.40	129.22	2991.82			0.00	2.65	3123.69	613.53	595.31
13.284	5259.68	128.94	3044.93			0.00	2.71	3176.59	613.58	595.44
13.446	4856.00	128.72	3087.10			0.00	2.78	3218.60	613.63	595.55
13.608	4497.88	128.55	3119.75			0.00	2.85	3251.15	613.66	595.63
13.770	4180.52	128.43	3144.05			0.00	2.92	3275.40	613.68	595.69
13.932	3893.07	128.34	3161.05			0.00	2.99	3292.38	613.70	595.73
14.094	3639.11	128.28	3171.53			0.00	3.07	3302.88	613.71	595.76
14.256	3414.20	128.25	3176.56			0.00	3.16	3307.97	613.72	595.77
14.418	3212.11	128.25	3176.64			0.00	3.25	3308.14	613.72	595.77
14.580	3032.03	128.27	3172.44			0.00	3.34	3304.05	613.71	595.76
14.742	2871.29	128.31	3164.62			0.00	3.44	3296.37	613.71	595.74
14.904	2725.09	128.37	3153.54			0.00	3.54	3285.45	613.69	595.71
15.066	2593.97	128.44	3139.51			0.00	3.65	3271.60	613.68	595.68
15.228	2475.93	128.53	3123.08			0.00	3.77	3255.37	613.66	595.64
15.390	2371.16	128.62	3104.41			0.00	3.89	3236.92	613.64	595.59
15.552	2276.01	128.73	3083.95			0.00	4.02	3216.70	613.62	595.54
15.714	2188.82	128.84	3061.94			0.00	4.15	3194.93	613.60	595.49
15.876	2112.57	128.96	3038.56			0.00	4.30	3171.81	613.58	595.43
16.038	2043.22	129.09	3013.92			0.00	4.45	3147.45	613.55	595.37
16.200	1977.17	129.22	2988.41			0.00	4.61	3122.24	613.52	595.31
16.362	1913.76	129.35	2961.89			0.00	4.78	3096.03	613.50	595.24
16.524	1852.44	129.49	2934.48			0.00	4.96	3068.93	613.47	595.17
16.686	1792.93	129.64	2906.37			0.00	5.16	3041.16	613.44	595.10
16.848	1735.03	129.78	2877.52			0.00	5.36	3012.66	613.41	595.03
17.010	1678.94	129.93	2847.92			0.00	5.57	2983.43	613.38	594.96
17.172	1626.62	130.08	2817.80			0.00	5.80	2953.69	613.35	594.88
17.334	1581.90	130.24	2787.18			0.00	6.05	2923.47	613.32	594.81
17.496	1541.52	130.40	2756.29			0.00	6.31	2892.99	613.28	594.73
17.658	1502.55	130.55	2725.03			0.00	6.58	2862.16	613.25	594.66
17.820	1464.85	130.71	2693.68			0.00	6.87	2831.27	613.22	594.58
17.982	1428.33	130.87	2662.06			0.00	7.18	2800.11	613.19	594.50
18.144	1393.15	131.03	2630.25			0.00	7.51	2768.79	613.15	594.42
18.306	1359.58	131.19	2598.37			0.00	7.86	2737.42	613.12	594.34
18.468	1327.90	131.35	2566.41			0.00	8.23	2705.99	613.09	594.27
18.630	1298.33	131.51	2534.43			0.00	8.63	2674.56	613.06	594.19
18.792	1270.99	131.66	2502.48			0.00	9.05	2643.20	613.02	594.11
18.954	1245.91	131.81	2471.54			0.00	9.50	2612.86	612.99	594.03
19.116	1223.06	131.94	2442.93			0.00	9.98	2584.85	612.96	593.96
19.278	1202.33	132.07	2414.50			0.00	10.49	2557.06	612.92	593.89
19.440	1183.55	132.20	2386.16			0.00	11.03	2529.38	612.89	593.82
19.602	1166.55	132.32	2357.90			0.00	11.60	2501.83	612.86	593.75
19.764	1151.13	132.45	2329.97			0.00	12.21	2474.64	612.83	593.69
19.926	1137.04	132.57	2302.28			0.00	12.87	2447.72	612.80	593.62
20.088	1124.05	132.69	2274.71			0.00	13.56	2420.97	612.76	593.55
20.250	1112.00	132.81	2247.45			0.00	14.30	2394.57	612.73	593.49
20.412	1100.72	132.93	2220.50			0.00	15.09	2368.52	612.70	593.42
20.574	1090.10	133.05	2193.79			0.00	15.93	2342.77	612.67	593.36
20.736	1080.04	133.16	2167.42			0.00	16.83	2317.41	612.64	593.29
20.898	1070.47	133.27	2141.34			0.00	17.78	2292.40	612.61	593.23
21.060	1061.31	133.38	2115.51			0.00	18.80	2267.70	612.58	593.17
21.222	1052.49	133.49	2089.97			0.00	19.89	2243.34	612.55	593.11
21.384	1043.21	133.60	2064.72			0.00	21.04	2219.36	612.52	593.05
21.546	1031.07	133.70	2039.76			0.00	22.28	2195.74	612.49	592.99
21.708	1013.69	133.80	2014.93			0.00	23.59	2172.32	612.47	592.93
21.870	989.43	133.91	1990.08			0.00	24.99	2148.98	612.44	592.87
22.032	955.92	134.01	1965.08			0.00	26.49	2125.58	612.41	592.81
22.194	910.62	134.11	1939.68			0.00	28.08	2101.87	612.38	592.75
22.356	852.94	134.21	1913.72			0.00	29.78	2077.72	612.35	592.69
22.518	785.59	134.32	1886.94			0.00	31.59	2052.85	612.32	592.63
22.680	712.19	134.43	1859.14			0.00	33.52	2027.10	612.29	592.57
22.842	636.31	134.55	1830.16			0.00	35.58	2000.29	612.25	592.50
23.004	560.79	134.67	1800.18			0.00	37.78	1972.63	612.22	592.43
23.166	487.79	134.79	1769.10			0.00	40.12	1944.01	612.18	592.36
23.328	419.84	134.91	1737.06			0.00	42.62	1914.59	612.15	592.29
23.490	357.61	135.04	1704.28			0.00	45.28	1884.60	612.11	592.21
23.652	302.02	135.17	1670.72			0.00	48.12	1854.01	612.07	592.14
23.814	254.45	135.30	1636.62			0.00	51.14	1823.06	612.03	592.06
23.976	215.27	135.41	1603.52			0.00	54.36	1793.29	611.99	591.98



Time (hrs)	Inflow (cfs)	Principal Spillway Outflow (cfs)	Auxiliary Struct Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)	OverTop Outflow (cfs)	Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
24.138	182.74	135.49	1574.48			0.00	57.76	1767.74	611.95	591.92
24.300	155.18	135.57	1545.31			0.00	61.38	1742.27	611.91	591.86
24.462	131.84	135.65	1516.05			0.00	65.23	1716.94	611.87	591.79
24.624	111.96	135.73	1486.82			0.00	69.32	1691.87	611.83	591.73
24.786	94.88	135.80	1457.67			0.00	73.66	1667.13	611.79	591.67
24.948	80.31	135.88	1428.57			0.00	78.26	1642.70	611.75	591.61
25.110	68.04	135.94	1399.70			0.00	83.14	1618.78	611.71	591.55
25.272	57.64	136.01	1370.93			0.00	88.31	1595.26	611.67	591.49
25.434	48.75	136.07	1342.35			0.00	93.79	1572.21	611.63	591.43
25.596	41.20	136.13	1314.07			0.00	99.46	1549.66	611.59	591.38
25.758	34.79	136.19	1285.94			0.00	105.35	1527.48	611.56	591.32
25.920	29.35	136.24	1258.07			0.00	111.53	1505.85	611.52	591.27
26.082	24.72	136.29	1230.46			0.00	118.02	1484.77	611.48	591.21
26.244	20.84	136.34	1203.11			0.00	124.81	1464.26	611.44	591.16
26.406	20.03	136.38	1176.07			0.00	131.92	1444.37	611.41	591.11
26.568	20.03	136.42	1149.31			0.00	139.36	1425.09	611.37	591.06
26.730	20.03	136.45	1122.93			0.00	147.14	1406.52	611.33	591.02
26.892	20.03	136.48	1096.85			0.00	155.26	1388.59	611.30	590.97
27.054	20.03	136.51	1071.04			0.00	163.73	1371.29	611.26	590.93
27.216	20.03	136.53	1045.49			0.00	172.57	1354.59	611.23	590.89
27.378	20.03	136.55	1020.24			0.00	181.77	1338.57	611.19	590.85
27.540	20.03	136.57	995.22			0.00	191.35	1323.14	611.16	590.81
27.702	20.03	136.58	970.44			0.00	201.32	1308.34	611.12	590.77
27.864	20.03	136.58	945.93			0.00	211.67	1294.19	611.09	590.74
28.026	20.03	136.58	921.53			0.00	222.43	1280.54	611.06	590.70
28.188	20.03	136.58	897.40			0.00	233.58	1267.56	611.02	590.67
28.350	20.03	136.56	874.94			0.00	245.14	1256.65	610.99	590.64
28.512	20.03	136.51	856.32			0.00	257.12	1249.96	610.96	590.63
28.674	20.03	136.45	837.81			0.00	269.52	1243.78	610.93	590.61
28.836	20.03	136.39	819.40			0.00	282.33	1238.12	610.89	590.60
28.998	20.03	136.33	800.99			0.00	295.57	1232.89	610.86	590.58
29.160	20.03	136.26	782.64			0.00	309.24	1228.15	610.83	590.57
29.322	20.03	136.19	764.34			0.00	323.35	1223.87	610.80	590.56
29.484	20.03	136.11	746.02			0.00	337.88	1220.01	610.76	590.55
29.646	20.03	136.03	727.76			0.00	352.85	1216.65	610.73	590.54
29.808	20.03	135.95	709.55			0.00	368.26	1213.76	610.70	590.54
29.970	20.03	135.86	691.28			0.00	384.11	1211.25	610.67	590.53
30.132	20.03	135.77	673.06			0.00	400.39	1209.22	610.64	590.52
30.294	20.03	135.68	654.84			0.00	417.11	1207.62	610.60	590.52
30.456	20.03	135.58	636.58			0.00	434.26	1206.42	610.57	590.52
30.618	20.03	135.48	618.35			0.00	451.85	1205.68	610.54	590.51
30.780	20.03	135.37	600.06			0.00	469.87	1205.31	610.51	590.51
30.942	20.03	135.26	581.73			0.00	488.33	1205.32	610.48	590.51
31.104	20.03	135.15	563.41			0.00	507.21	1205.77	610.44	590.52
31.266	20.03	135.03	545.10			0.00	526.52	1206.65	610.41	590.52
31.428	20.03	134.91	526.66			0.00	546.24	1207.82	610.38	590.52
31.590	20.03	134.79	508.16			0.00	566.39	1209.33	610.35	590.52
31.752	20.03	134.66	489.65			0.00	586.94	1211.25	610.32	590.53
31.914	20.03	134.53	471.09			0.00	607.91	1213.53	610.28	590.53
32.076	20.03	134.40	452.46			0.00	629.27	1216.13	610.25	590.54
32.238	20.03	134.26	433.73			0.00	651.03	1219.02	610.22	590.55
32.400	20.03	134.12	414.93			0.00	673.18	1222.23	610.18	590.56
32.562	20.03	133.98	396.07			0.00	695.71	1225.75	610.15	590.57
32.724	20.03	133.83	377.05			0.00	718.61	1229.49	610.12	590.57
32.886	20.03	133.68	357.96			0.00	741.88	1233.53	610.08	590.58
33.048	20.03	133.53	338.81			0.00	765.52	1237.85	610.05	590.60
33.210	20.03	133.38	319.51			0.00	789.50	1242.38	610.02	590.61
33.372	20.03	133.18	304.59			0.00	813.82	1251.59	609.98	590.63
33.534	20.03	132.94	293.92			0.00	838.48	1265.34	609.95	590.66
33.696	20.03	132.70	283.11			0.00	863.45	1279.26	609.91	590.70
33.858	20.03	132.46	272.15			0.00	888.73	1293.34	609.88	590.73
34.020	20.03	132.21	261.04			0.00	914.31	1307.56	609.84	590.77
34.182	20.03	131.96	249.81			0.00	940.17	1321.94	609.81	590.81
34.344	20.03	131.71	238.39			0.00	966.31	1336.40	609.77	590.84
34.506	20.03	131.45	226.84			0.00	992.71	1351.00	609.73	590.88
34.668	20.03	131.19	215.17			0.00	1019.36	1365.73	609.69	590.92
34.830	20.03	130.93	203.29			0.00	1046.25	1380.47	609.66	590.95
34.992	20.03	130.66	191.29			0.00	1073.37	1395.32	609.62	590.99
35.154	20.03	130.39	179.11			0.00	1100.70	1410.21	609.58	591.03
35.316	20.03	130.12	166.80			0.00	1128.23	1425.15	609.54	591.06
35.478	20.03	129.85	154.32			0.00	1155.96	1440.13	609.50	591.10
35.640	20.03	129.57	141.68			0.00	1183.85	1455.10	609.46	591.14
35.802	20.03	129.29	128.89			0.00	1211.92	1470.10	609.42	591.18
35.964	20.03	129.01	115.94			0.00	1240.13	1485.08	609.37	591.21
36.126	20.03	128.73	102.83			0.00	1268.48	1500.04	609.33	591.25
36.288	20.03	128.44	89.57			0.00	1296.95	1514.97	609.29	591.29

Time (hrs)	Inflow (cfs)	Principal Spillway Outflow (cfs)	Auxiliary Structure Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)	OverTop Outflow (cfs)	Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
36.450	20.03	128.16	76.14			0.00	1325.54	1529.83	609.25	591.33
36.612	20.03	127.87	62.52			0.00	1354.22	1544.61	609.20	591.36
36.774	20.03	127.58	48.70			0.00	1382.97	1559.25	609.16	591.40
36.936	20.03	127.28	34.79			0.00	1411.80	1573.87	609.11	591.44
37.098	20.03	126.99	20.67			0.00	1440.69	1588.35	609.07	591.47
37.260	20.03	126.69	6.40			0.00	1469.61	1602.70	609.02	591.51
37.422	20.03	126.32	0.00			0.00	1498.56	1624.88	608.97	591.56
37.584	20.03	125.89	0.00			0.00	1527.50	1653.39	608.93	591.63
37.746	20.03	125.45	0.00			0.00	1556.42	1681.88	608.88	591.71
37.908	20.03	125.01	0.00			0.00	1585.31	1710.32	608.83	591.78
38.070	20.03	124.57	0.00			0.00	1614.13	1738.70	608.78	591.85
38.232	20.03	124.12	0.00			0.00	1642.87	1766.99	608.73	591.92
38.394	20.03	123.66	0.00			0.00	1671.53	1795.19	608.67	591.99
38.556	20.03	123.20	0.00			0.00	1700.08	1823.28	608.62	592.06
38.718	20.03	122.74	0.00			0.00	1728.50	1851.24	608.57	592.13
38.880	20.03	122.27	0.00			0.00	1756.78	1879.06	608.51	592.20
39.042	20.03	121.80	0.00			0.00	1784.90	1906.71	608.45	592.27
39.204	20.03	121.33	0.00			0.00	1812.85	1934.18	608.40	592.34
39.366	20.03	120.85	0.00			0.00	1840.60	1961.45	608.34	592.40
39.528	20.03	120.37	0.00			0.00	1868.14	1988.50	608.28	592.47
39.690	20.03	119.88	0.00			0.00	1895.45	2015.33	608.22	592.54
39.852	20.03	119.39	0.00			0.00	1922.51	2041.90	608.16	592.61
40.014	20.03	118.90	0.00			0.00	1949.31	2068.21	608.09	592.67
40.176	20.03	118.40	0.00			0.00	1975.83	2094.23	608.03	592.74
40.338	20.03	117.90	0.00			0.00	2002.05	2119.95	607.97	592.80
40.500	20.03	117.40	0.00			0.00	2027.97	2145.36	607.90	592.86
40.662	20.03	116.89	0.00			0.00	2053.54	2170.43	607.83	592.93
40.824	20.03	116.38	0.00			0.00	2078.78	2195.16	607.77	592.99
40.986	20.03	115.87	0.00			0.00	2103.67	2219.54	607.70	593.05
41.148	20.03	115.35	0.00			0.00	2128.17	2243.53	607.63	593.11
41.310	20.03	114.84	0.00			0.00	2152.28	2267.11	607.56	593.17
41.472	20.03	114.32	0.00			0.00	2175.98	2290.30	607.49	593.23
41.634	20.03	113.80	0.00			0.00	2199.25	2313.05	607.41	593.28
41.796	20.03	113.27	0.00			0.00	2222.07	2335.34	607.34	593.34
41.958	20.03	112.75	0.00			0.00	2244.43	2357.18	607.26	593.39
42.120	20.03	112.22	0.00			0.00	2266.33	2378.56	607.19	593.45
42.282	20.03	111.69	0.00			0.00	2287.74	2399.44	607.11	593.50
42.444	20.03	111.16	0.00			0.00	2308.64	2419.81	607.03	593.55
42.606	20.03	110.63	0.00			0.00	2329.03	2439.67	606.95	593.60
42.768	20.03	110.10	0.00			0.00	2348.89	2458.99	606.87	593.65
42.930	20.03	109.57	0.00			0.00	2368.21	2477.77	606.79	593.69
43.092	20.03	109.03	0.00			0.00	2386.96	2495.99	606.71	593.74
43.254	20.03	108.50	0.00			0.00	2405.13	2513.63	606.63	593.78
43.416	20.03	107.96	0.00			0.00	2422.72	2530.68	606.54	593.83
43.578	20.03	107.42	0.00			0.00	2439.70	2547.12	606.46	593.87
43.740	20.03	106.89	0.00			0.00	2456.07	2562.96	606.37	593.91
43.902	20.03	106.35	0.00			0.00	2471.82	2578.16	606.29	593.95
44.064	20.03	105.81	0.00			0.00	2486.93	2592.74	606.20	593.98
44.226	20.03	105.27	0.00			0.00	2501.37	2606.65	606.11	594.02
44.388	20.03	104.74	0.00			0.00	2515.15	2619.88	606.02	594.05
44.550	20.03	104.20	0.00			0.00	2528.25	2632.45	605.93	594.08
44.712	20.03	103.66	0.00			0.00	2540.66	2644.33	605.84	594.11
44.874	20.03	103.13	0.00			0.00	2552.38	2655.51	605.74	594.14
45.036	20.03	102.59	0.00			0.00	2563.39	2665.98	605.65	594.17
45.198	20.03	102.06	0.00			0.00	2573.68	2675.74	605.55	594.19
45.360	20.03	98.37	0.00			0.00	2583.25	2681.62	605.46	594.20
45.522	20.03	88.80	0.00			0.00	2592.10	2680.91	605.36	594.20
45.684	20.03	79.52	0.00			0.00	2600.26	2679.78	605.27	594.20
45.846	20.03	70.52	0.00			0.00	2607.70	2678.22	605.17	594.20
46.008	20.03	61.85	0.00			0.00	2614.42	2676.27	605.07	594.19
46.170	20.03	53.52	0.00			0.00	2620.43	2673.95	604.97	594.18
46.332	20.03	45.56	0.00			0.00	2625.70	2671.26	604.87	594.18
46.494	20.03	38.00	0.00			0.00	2630.24	2668.24	604.77	594.17
46.656	20.03	30.86	0.00			0.00	2634.03	2664.89	604.67	594.16
46.818	20.03	24.21	0.00			0.00	2637.06	2661.27	604.57	594.15
46.980	20.03	18.08	0.00			0.00	2639.34	2657.42	604.47	594.14
47.142	20.03	12.55	0.00			0.00	2640.84	2653.40	604.37	594.13
47.304	20.03	7.72	0.00			0.00	2641.59	2649.30	604.27	594.12
47.466	20.03	3.72	0.00			0.00	2641.54	2645.26	604.16	594.11
47.628	20.03	0.83	0.00			0.00	2640.69	2641.52	604.06	594.10
47.790	20.03	0.00	0.00			0.00	2639.05	2639.05	603.96	594.10
47.952	20.03	0.00	0.00			0.00	2636.59	2636.59	603.85	594.09
48.114	20.03	0.00	0.00			0.00	2633.30	2633.30	603.75	594.08
48.276	20.03	0.00	0.00			0.00	2629.18	2629.18	603.64	594.07
48.438	20.03	0.00	0.00			0.00	2642.60	2642.60	603.53	594.11
48.600	20.03	0.00	0.00			0.00	2649.52	2649.52	603.42	594.12

Time (hrs)	Inflow (cfs)	Principal Spillway Outflow (cfs)	Auxiliary Struct Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)	OverTop Outflow (cfs)	Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
48.762	20.03	0.00	0.00			0.00	2657.02	2657.02	603.31	594.14
48.924	20.03	0.00	0.00			0.00	2663.25	2663.25	603.20	594.16
49.086	20.03	0.00	0.00			0.00	2671.09	2671.09	603.09	594.18
49.248	20.03	0.00	0.00			0.00	2677.66	2677.66	602.98	594.19
49.410	20.03	0.00	0.00			0.00	2684.24	2684.24	602.86	594.21
49.572	20.03	0.00	0.00			0.00	2664.21	2664.21	602.74	594.16
49.734	20.03	0.00	0.00			0.00	2647.48	2647.48	602.63	594.12
49.896	20.03	0.00	0.00			0.00	2492.59	2492.59	602.51	593.73
50.058	20.03	0.00	0.00			0.00	2480.93	2480.93	602.40	593.70
50.220	20.03	0.00	0.00			0.00	2468.45	2468.45	602.29	593.67
50.382	20.03	0.00	0.00			0.00	2455.13	2455.13	602.18	593.64
50.544	20.03	0.00	0.00			0.00	2441.01	2441.01	602.07	593.60
50.706	20.03	0.00	0.00			0.00	2425.84	2425.84	601.96	593.56
50.868	20.03	0.00	0.00			0.00	2409.85	2409.85	601.84	593.52
51.030	20.03	0.00	0.00			0.00	2398.00	2398.00	601.73	593.50
51.192	20.03	0.00	0.00			0.00	2390.26	2390.26	601.62	593.48
51.354	20.03	0.00	0.00			0.00	2376.71	2376.71	601.50	593.44
51.516	20.03	0.00	0.00			0.00	2367.25	2367.25	601.39	593.42
51.678	20.03	0.00	0.00			0.00	2352.04	2352.04	601.27	593.38
51.840	20.03	0.00	0.00			0.00	2341.00	2341.00	601.16	593.35
52.002	20.03	0.00	0.00			0.00	2324.26	2324.26	601.04	593.31
52.164	20.03	0.00	0.00			0.00	2311.82	2311.82	600.92	593.28
52.326	20.03	0.00	0.00			0.00	2298.78	2298.78	600.80	593.25
52.488	20.03	0.00	0.00			0.00	2283.87	2283.87	600.69	593.21
52.650	20.03	0.00	0.00			0.00	2269.72	2269.72	600.57	593.17
52.812	20.03	0.00	0.00			0.00	2255.15	2255.15	600.45	593.14
52.974	20.03	0.00	0.00			0.00	2237.56	2237.56	600.33	593.09
53.136	20.03	0.00	0.00			0.00	2222.21	2222.21	600.21	593.06
53.298	20.03	0.00	0.00			0.00	2206.59	2206.59	600.09	593.02
53.460	20.03	0.00	0.00			0.00	2190.71	2190.71	599.97	592.98
53.622	20.03	0.00	0.00			0.00	2174.68	2174.68	599.85	592.94
53.784	20.03	0.00	0.00			0.00	2158.56	2158.56	599.73	592.90
53.946	20.03	0.00	0.00			0.00	2139.45	2139.45	599.61	592.85
54.108	20.03	0.00	0.00			0.00	2123.28	2123.28	599.49	592.81
54.270	20.03	0.00	0.00			0.00	2104.10	2104.10	599.36	592.76
54.432	20.03	0.00	0.00			0.00	2084.92	2084.92	599.24	592.71
54.594	20.03	0.00	0.00			0.00	2062.89	2062.89	599.12	592.66
54.756	20.03	0.00	0.00			0.00	2040.87	2040.87	599.00	592.60
54.918	20.03	0.00	0.00			0.00	2018.81	2018.81	598.88	592.55
55.080	20.03	0.00	0.00			0.00	1996.83	1996.83	598.75	592.49
55.242	20.03	0.00	0.00			0.00	1971.15	1971.15	598.63	592.43
55.404	20.03	0.00	0.00			0.00	1949.28	1949.28	598.51	592.37
55.566	20.03	0.00	0.00			0.00	1927.52	1927.52	598.39	592.32
55.728	20.03	0.00	0.00			0.00	1904.86	1904.86	598.27	592.26
55.890	20.03	0.00	0.00			0.00	1881.20	1881.20	598.14	592.20
56.052	20.03	0.00	0.00			0.00	1859.97	1859.97	598.02	592.15
56.214	20.03	0.00	0.00			0.00	1836.58	1836.58	597.90	592.09
56.376	20.03	0.00	0.00			0.00	1813.26	1813.26	597.78	592.03
56.538	20.03	0.00	0.00			0.00	1792.74	1792.74	597.65	591.98
56.700	20.03	0.00	0.00			0.00	1769.80	1769.80	597.53	591.92
56.862	20.03	0.00	0.00			0.00	1747.07	1747.07	597.41	591.87
57.024	20.03	0.00	0.00			0.00	1724.49	1724.49	597.29	591.81
57.186	20.03	0.00	0.00			0.00	1702.06	1702.06	597.17	591.76
57.348	20.03	0.00	0.00			0.00	1679.84	1679.84	597.04	591.70
57.510	20.03	0.00	0.00			0.00	1656.84	1656.84	596.92	591.64
57.672	20.03	0.00	0.00			0.00	1634.80	1634.80	596.80	591.59
57.834	20.03	0.00	0.00			0.00	1612.61	1612.61	596.68	591.53
57.996	20.03	0.00	0.00			0.00	1589.77	1589.77	596.55	591.47
58.158	20.03	0.00	0.00			0.00	1566.96	1566.96	596.43	591.42
58.320	20.03	0.00	0.00			0.00	1546.05	1546.05	596.31	591.37
58.482	20.03	0.00	0.00			0.00	1524.71	1524.71	596.19	591.31
58.644	20.03	0.00	0.00			0.00	1500.22	1500.22	596.07	591.25
58.806	20.03	0.00	0.00			0.00	1479.07	1479.07	595.94	591.20
58.968	20.03	0.00	0.00			0.00	1457.97	1457.97	595.82	591.14
59.130	20.03	0.00	0.00			0.00	1436.94	1436.94	595.70	591.09
59.292	20.03	0.00	0.00			0.00	1412.93	1412.93	595.58	591.03
59.454	20.03	0.00	0.00			0.00	1392.07	1392.07	595.46	590.98
59.616	20.03	0.00	0.00			0.00	1371.24	1371.24	595.34	590.93
59.778	20.03	0.00	0.00			0.00	1350.50	1350.50	595.22	590.88
59.940	20.03	0.00	0.00			0.00	1326.99	1326.99	595.10	590.82
60.102	20.03	0.00	0.00			0.00	1306.43	1306.43	594.97	590.77
60.264	20.03	0.00	0.00			0.00	1285.92	1285.92	594.85	590.71
60.426	20.03	0.00	0.00			0.00	1262.81	1262.81	594.73	590.66
60.588	20.03	0.00	0.00			0.00	1242.56	1242.56	594.61	590.61
60.750	20.03	0.00	0.00			0.00	1222.38	1222.38	594.49	590.56
60.912	20.03	0.00	0.00			0.00	1202.27	1202.27	594.37	590.51

Time (hrs)	Inflow (cfs)	Principal Spillway Outflow (cfs)	Auxiliary Struct Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)	OverTop Outflow (cfs)	Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
61.074	20.03	0.00	0.00			0.00	1179.72	1179.72	594.25	590.45
61.236	20.03	0.00	0.00			0.00	1159.86	1159.86	594.13	590.40
61.398	20.03	0.00	0.00			0.00	1140.09	1140.09	594.01	590.35
61.560	20.03	0.00	0.00			0.00	1118.01	1118.01	593.89	590.30
61.722	20.03	0.00	0.00			0.00	1098.46	1098.46	593.77	590.25
61.884	20.03	0.00	0.00			0.00	1076.67	1076.67	593.65	590.19
62.046	20.03	0.00	0.00			0.00	1057.36	1057.36	593.53	590.14
62.208	20.03	0.00	0.00			0.00	1035.93	1035.93	593.41	590.09
62.370	20.03	0.00	0.00			0.00	1016.89	1016.89	593.30	590.04
62.532	20.03	0.00	0.00			0.00	995.75	995.75	593.18	589.96
62.694	20.03	0.00	0.00			0.00	979.03	979.03	593.06	589.81
62.856	20.03	0.00	0.00			0.00	960.24	960.24	592.94	589.64
63.018	20.03	0.00	0.00			0.00	939.59	939.59	592.82	589.46
63.180	20.03	0.00	0.00			0.00	921.20	921.20	592.70	589.29
63.342	20.03	0.00	0.00			0.00	902.93	902.93	592.59	589.13
63.504	20.03	0.00	0.00			0.00	882.91	882.91	592.47	588.95
63.666	20.03	0.00	0.00			0.00	865.01	865.01	592.35	588.79
63.828	20.03	0.00	0.00			0.00	845.44	845.44	592.24	588.61
63.990	20.03	0.00	0.00			0.00	827.93	827.93	592.12	588.45
64.152	20.03	0.00	0.00			0.00	808.81	808.81	592.00	588.28
64.314	20.03	0.00	0.00			0.00	791.68	791.68	591.89	588.13
64.476	20.03	0.00	0.00			0.00	773.04	773.04	591.78	587.96
64.638	20.03	0.00	0.00			0.00	756.32	756.32	591.66	587.81
64.800	20.03	0.00	0.00			0.00	738.17	738.17	591.55	587.64
64.962	20.03	0.00	0.00			0.00	721.87	721.87	591.43	587.50
65.124	20.03	0.00	0.00			0.00	704.19	704.19	591.32	587.34
65.286	20.03	0.00	0.00			0.00	688.29	688.29	591.21	587.19
65.448	20.03	0.00	0.00			0.00	671.08	671.08	591.10	587.04
65.610	20.03	0.00	0.00			0.00	651.25	651.25	590.96	586.86
65.772	20.03	0.00	0.00			0.00	599.85	599.85	590.60	586.40
65.934	20.03	0.00	0.00			0.00	553.87	553.87	590.27	585.98
66.096	20.03	0.00	0.00			0.00	512.64	512.64	589.97	585.61
66.258	20.03	0.00	0.00			0.00	475.54	475.54	589.69	585.28
66.420	20.03	0.00	0.00			0.00	442.08	442.08	589.43	584.98
66.582	20.03	0.00	0.00			0.00	411.79	411.79	589.19	584.71
66.744	20.03	0.00	0.00			0.00	384.32	384.32	588.97	584.46
66.906	20.03	0.00	0.00			0.00	360.16	360.16	588.76	584.24
67.068	20.03	0.00	0.00			0.00	337.31	337.31	588.57	584.04
67.230	20.03	0.00	0.00			0.00	316.46	316.46	588.39	583.85
67.392	20.03	0.00	0.00			0.00	297.37	297.37	588.22	583.68
67.554	20.03	0.00	0.00			0.00	279.88	279.88	588.06	583.52
67.716	20.03	0.00	0.00			0.00	263.81	263.81	587.91	583.37
67.878	20.03	0.00	0.00			0.00	249.04	249.04	587.77	583.24
68.040	20.03	0.00	0.00			0.00	235.40	235.40	587.64	583.12
68.202	20.03	0.00	0.00			0.00	223.34	223.34	587.52	583.01
68.364	20.03	0.00	0.00			0.00	211.66	211.66	587.40	582.90
68.526	20.03	0.00	0.00			0.00	200.84	200.84	587.29	582.81
68.688	20.03	0.00	0.00			0.00	190.81	190.81	587.19	582.72
68.850	20.03	0.00	0.00			0.00	181.48	181.48	587.09	582.63
69.012	20.03	0.00	0.00			0.00	172.81	172.81	587.00	582.56
69.174	20.03	0.00	0.00			0.00	165.13	165.13	586.91	582.49
69.336	20.03	0.00	0.00			0.00	157.56	157.56	586.83	582.42
69.498	20.03	0.00	0.00			0.00	150.49	150.49	586.75	582.35
69.660	20.03	0.00	0.00			0.00	143.89	143.89	586.67	582.30
69.822	20.03	0.00	0.00			0.00	137.71	137.71	586.60	582.24
69.984	20.03	0.00	0.00			0.00	132.24	132.24	586.53	582.19
70.146	20.03	0.00	0.00			0.00	126.78	126.78	586.47	582.14
70.308	20.03	0.00	0.00			0.00	121.66	121.66	586.41	582.09
70.470	20.03	0.00	0.00			0.00	117.13	117.13	586.35	582.05
70.632	20.03	0.00	0.00			0.00	112.59	112.59	586.29	582.01
70.794	20.03	0.00	0.00			0.00	108.30	108.30	586.24	581.97
70.956	20.03	0.00	0.00			0.00	104.52	104.52	586.19	581.94
71.118	20.03	0.00	0.00			0.00	100.70	100.70	586.14	581.91
71.280	20.03	0.00	0.00			0.00	97.09	97.09	586.09	581.87
71.442	20.03	0.00	0.00			0.00	93.91	93.91	586.05	581.85
71.604	20.03	0.00	0.00			0.00	90.67	90.67	586.01	581.82
71.766	20.03	0.00	0.00			0.00	87.82	87.82	585.97	581.79
71.928	20.03	0.00	0.00			0.00	84.91	84.91	585.93	581.76
72.090	20.03	0.00	0.00			0.00	82.35	82.35	585.89	581.74
72.252	20.03	0.00	0.00			0.00	79.71	79.71	585.85	581.72
72.414	20.03	0.00	0.00			0.00	77.41	77.41	585.82	581.70
72.576	20.03	0.00	0.00			0.00	75.02	75.02	585.79	581.68
72.738	20.03	0.00	0.00			0.00	72.94	72.94	585.75	581.66
72.900	20.03	0.00	0.00			0.00	70.95	70.95	585.72	581.64
73.062	20.03	0.00	0.00			0.00	68.88	68.88	585.69	581.62
73.224	20.03	0.00	0.00			0.00	67.08	67.08	585.67	581.60



Time (hrs)	Infl ow (cfs)	Princi pal Spill way Outfl ow (cfs)	Auxili ary Struct Outfl ow (cfs)	Auxili ary Outfl ow (cfs)	Auxili ary Outfl ow (cfs)	OverTop Outfl ow (cfs)	Internal Erosion Outfl ow (cfs)	Total Outflow (cfs)	Reservoi r Surface El evati on (feet)	Tai lwater El evation (feet)
73.386	20.03	0.00	0.00			0.00	65.36	65.36	585.64	581.59
73.548	20.03	0.00	0.00			0.00	63.55	63.55	585.61	581.57
73.710	20.03	0.00	0.00			0.00	61.99	61.99	585.59	581.56
73.872	20.03	0.00	0.00			0.00	60.49	60.49	585.56	581.54
74.034	20.03	0.00	0.00			0.00	58.91	58.91	585.54	581.53
74.196	20.03	0.00	0.00			0.00	57.54	57.54	585.52	581.52
74.358	20.03	0.00	0.00			0.00	56.23	56.23	585.50	581.51
74.520	20.03	0.00	0.00			0.00	54.98	54.98	585.48	581.49
74.682	20.03	0.00	0.00			0.00	53.78	53.78	585.46	581.48
74.844	20.03	0.00	0.00			0.00	52.62	52.62	585.44	581.47
75.006	20.03	0.00	0.00			0.00	51.51	51.51	585.42	581.46
75.168	20.03	0.00	0.00			0.00	50.31	50.31	585.40	581.45
75.330	20.03	0.00	0.00			0.00	49.29	49.29	585.38	581.44
75.492	20.03	0.00	0.00			0.00	48.31	48.31	585.36	581.43
75.654	20.03	0.00	0.00			0.00	47.37	47.37	585.35	581.43
75.816	20.03	0.00	0.00			0.00	46.46	46.46	585.33	581.42
75.978	20.03	0.00	0.00			0.00	45.58	45.58	585.32	581.41
76.140	20.03	0.00	0.00			0.00	44.75	44.75	585.30	581.40
76.302	20.03	0.00	0.00			0.00	43.94	43.94	585.29	581.40
76.464	20.03	0.00	0.00			0.00	43.16	43.16	585.27	581.39
76.626	20.03	0.00	0.00			0.00	42.41	42.41	585.26	581.38
76.788	20.03	0.00	0.00			0.00	41.80	41.80	585.25	581.38
76.950	20.03	0.00	0.00			0.00	41.10	41.10	585.23	581.37
77.112	20.03	0.00	0.00			0.00	40.42	40.42	585.22	581.36
77.274	20.03	0.00	0.00			0.00	39.76	39.76	585.21	581.36
77.436	20.03	0.00	0.00			0.00	39.13	39.13	585.20	581.35
77.598	20.03	0.00	0.00			0.00	38.52	38.52	585.19	581.35
77.760	20.03	0.00	0.00			0.00	37.93	37.93	585.18	581.34
77.922	20.03	0.00	0.00			0.00	37.46	37.46	585.17	581.34
78.084	20.03	0.00	0.00			0.00	36.91	36.91	585.16	581.33
78.246	20.03	0.00	0.00			0.00	36.38	36.38	585.15	581.33
78.408	20.03	0.00	0.00			0.00	35.86	35.86	585.14	581.32
78.570	20.03	0.00	0.00			0.00	35.46	35.46	585.13	581.32
78.732	20.03	0.00	0.00			0.00	34.97	34.97	585.12	581.31
78.894	20.03	0.00	0.00			0.00	34.50	34.50	585.11	581.31
79.056	20.03	0.00	0.00			0.00	34.14	34.14	585.10	581.31
79.218	20.03	0.00	0.00			0.00	33.69	33.69	585.09	581.30
79.380	20.03	0.00	0.00			0.00	33.25	33.25	585.09	581.30
79.542	20.03	0.00	0.00			0.00	32.83	32.83	585.08	581.30
79.704	20.03	0.00	0.00			0.00	32.52	32.52	585.07	581.29
79.866	20.03	0.00	0.00			0.00	32.13	32.13	585.06	581.29
80.028	20.03	0.00	0.00			0.00	31.84	31.84	585.06	581.29
80.190	20.03	0.00	0.00			0.00	31.46	31.46	585.05	581.28
80.352	20.03	0.00	0.00			0.00	31.09	31.09	585.04	581.28
80.514	20.03	0.00	0.00			0.00	30.83	30.83	585.04	581.28
80.676	20.03	0.00	0.00			0.00	30.48	30.48	585.03	581.27
80.838	20.03	0.00	0.00			0.00	30.24	30.24	585.02	581.27
81.000	20.03	0.00	0.00			0.00	29.91	29.91	585.02	581.27
81.162	20.03	0.00	0.00			0.00	29.68	29.68	585.01	581.27
81.324	20.03	0.00	0.00			0.00	29.37	29.37	585.01	581.26
81.486	20.03	0.00	0.00			0.00	29.15	29.15	585.00	581.26
81.648	20.03	0.00	0.00			0.00	28.85	28.85	585.00	581.26
81.810	20.03	0.00	0.00			0.00	28.65	28.65	584.99	581.26
81.972	20.03	0.00	0.00			0.00	28.36	28.36	584.99	581.26
82.134	20.03	0.00	0.00			0.00	28.18	28.18	584.98	581.25
82.296	20.03	0.00	0.00			0.00	27.91	27.91	584.98	581.25
82.458	20.03	0.00	0.00			0.00	27.73	27.73	584.97	581.25
82.620	20.03	0.00	0.00			0.00	27.56	27.56	584.97	581.25
82.782	20.03	0.00	0.00			0.00	27.31	27.31	584.96	581.25
82.944	20.03	0.00	0.00			0.00	27.14	27.14	584.96	581.24
83.106	20.03	0.00	0.00			0.00	26.90	26.90	584.95	581.24
83.268	20.03	0.00	0.00			0.00	26.75	26.75	584.95	581.24
83.430	20.03	0.00	0.00			0.00	26.60	26.60	584.95	581.24
83.592	20.03	0.00	0.00			0.00	26.38	26.38	584.94	581.24
83.754	20.03	0.00	0.00			0.00	26.24	26.24	584.94	581.24
83.916	20.03	0.00	0.00			0.00	26.02	26.02	584.94	581.23
84.078	20.03	0.00	0.00			0.00	25.89	25.89	584.93	581.23
84.240	20.03	0.00	0.00			0.00	25.77	25.77	584.93	581.23
84.402	20.03	0.00	0.00			0.00	25.64	25.64	584.93	581.23
84.564	20.03	0.00	0.00			0.00	25.44	25.44	584.92	581.23
84.726	20.03	0.00	0.00			0.00	25.33	25.33	584.92	581.23
84.888	20.03	0.00	0.00			0.00	25.21	25.21	584.92	581.23
85.050	20.03	0.00	0.00			0.00	25.02	25.02	584.91	581.23
85.212	20.03	0.00	0.00			0.00	24.92	24.92	584.91	581.22
85.374	20.03	0.00	0.00			0.00	24.81	24.81	584.91	581.22
85.536	20.03	0.00	0.00			0.00	24.63	24.63	584.90	581.22

Time (hrs)	Inflow (cfs)	Principal Spillway Outflow (cfs)	Auxiliary Struct Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)	OverTop Outflow (cfs)	Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
85.698	20.03	0.00	0.00			0.00	24.53	24.53	584.90	581.22
85.860	20.03	0.00	0.00			0.00	24.44	24.44	584.90	581.22
86.022	20.03	0.00	0.00			0.00	24.34	24.34	584.90	581.22
86.184	20.03	0.00	0.00			0.00	24.17	24.17	584.89	581.22
86.346	20.03	0.00	0.00			0.00	24.08	24.08	584.89	581.22
86.508	20.03	0.00	0.00			0.00	23.99	23.99	584.89	581.22
86.670	20.03	0.00	0.00			0.00	23.91	23.91	584.89	581.22
86.832	20.03	0.00	0.00			0.00	23.75	23.75	584.88	581.21
86.994	20.03	0.00	0.00			0.00	23.67	23.67	584.88	581.21
87.156	20.03	0.00	0.00			0.00	23.59	23.59	584.88	581.21
87.318	20.03	0.00	0.00			0.00	23.51	23.51	584.88	581.21
87.480	20.03	0.00	0.00			0.00	23.36	23.36	584.88	581.21
87.642	20.03	0.00	0.00			0.00	23.29	23.29	584.87	581.21
87.804	20.03	0.00	0.00			0.00	23.22	23.22	584.87	581.21
87.966	20.03	0.00	0.00			0.00	23.15	23.15	584.87	581.21
88.128	20.03	0.00	0.00			0.00	23.09	23.09	584.87	581.21
88.290	20.03	0.00	0.00			0.00	22.95	22.95	584.87	581.21
88.452	20.03	0.00	0.00			0.00	22.89	22.89	584.86	581.21
88.614	20.03	0.00	0.00			0.00	22.83	22.83	584.86	581.21
88.776	20.03	0.00	0.00			0.00	22.77	22.77	584.86	581.20
88.938	20.03	0.00	0.00			0.00	22.71	22.71	584.86	581.20
89.100	20.03	0.00	0.00			0.00	22.58	22.58	584.86	581.20
89.262	20.03	0.00	0.00			0.00	22.53	22.53	584.86	581.20
89.424	20.03	0.00	0.00			0.00	22.48	22.48	584.86	581.20
89.586	20.03	0.00	0.00			0.00	22.42	22.42	584.85	581.20
89.748	20.03	0.00	0.00			0.00	22.37	22.37	584.85	581.20
89.910	20.03	0.00	0.00			0.00	22.33	22.33	584.85	581.20
90.072	20.03	0.00	0.00			0.00	22.21	22.21	584.85	581.20
90.234	20.03	0.00	0.00			0.00	22.17	22.17	584.85	581.20
90.396	20.03	0.00	0.00			0.00	22.12	22.12	584.85	581.20
90.558	20.03	0.00	0.00			0.00	22.08	22.08	584.85	581.20
90.720	20.03	0.00	0.00			0.00	22.04	22.04	584.84	581.20
90.882	20.03	0.00	0.00			0.00	22.00	22.00	584.84	581.20
91.044	20.03	0.00	0.00			0.00	21.96	21.96	584.84	581.20
91.206	20.03	0.00	0.00			0.00	21.92	21.92	584.84	581.20
91.368	20.03	0.00	0.00			0.00	21.82	21.82	584.84	581.20
91.530	20.03	0.00	0.00			0.00	21.78	21.78	584.84	581.20
91.692	20.03	0.00	0.00			0.00	21.75	21.75	584.84	581.20
91.854	20.03	0.00	0.00			0.00	21.71	21.71	584.84	581.20
92.016	20.03	0.00	0.00			0.00	21.68	21.68	584.84	581.20
92.178	20.03	0.00	0.00			0.00	21.65	21.65	584.84	581.19
92.340	20.03	0.00	0.00			0.00	21.62	21.62	584.83	581.19
92.502	20.03	0.00	0.00			0.00	21.59	21.59	584.83	581.19
92.664	20.03	0.00	0.00			0.00	21.56	21.56	584.83	581.19
92.826	20.03	0.00	0.00			0.00	21.53	21.53	584.83	581.19
92.988	20.03	0.00	0.00			0.00	21.43	21.43	584.83	581.19
93.150	20.03	0.00	0.00			0.00	21.40	21.40	584.83	581.19
93.312	20.03	0.00	0.00			0.00	21.38	21.38	584.83	581.19
93.474	20.03	0.00	0.00			0.00	21.35	21.35	584.83	581.19
93.636	20.03	0.00	0.00			0.00	21.32	21.32	584.83	581.19
93.798	20.03	0.00	0.00			0.00	21.30	21.30	584.83	581.19
93.960	20.03	0.00	0.00			0.00	21.28	21.28	584.83	581.19
94.122	20.03	0.00	0.00			0.00	21.25	21.25	584.83	581.19
94.284	20.03	0.00	0.00			0.00	21.23	21.23	584.83	581.19
94.446	20.03	0.00	0.00			0.00	21.21	21.21	584.82	581.19
94.608	20.03	0.00	0.00			0.00	21.18	21.18	584.82	581.19
94.770	20.03	0.00	0.00			0.00	21.16	21.16	584.82	581.19
94.932	20.03	0.00	0.00			0.00	21.14	21.14	584.82	581.19
95.094	20.03	0.00	0.00			0.00	21.05	21.05	584.82	581.19
95.256	20.03	0.00	0.00			0.00	21.03	21.03	584.82	581.19
95.418	20.03	0.00	0.00			0.00	21.01	21.01	584.82	581.19
95.580	20.03	0.00	0.00			0.00	20.99	20.99	584.82	581.19
95.742	20.03	0.00	0.00			0.00	20.97	20.97	584.82	581.19
95.904	20.03	0.00	0.00			0.00	20.95	20.95	584.82	581.19
96.066	20.03	0.00	0.00			0.00	20.93	20.93	584.82	581.19
96.228	20.03	0.00	0.00			0.00	20.91	20.91	584.82	581.19
96.390	20.03	0.00	0.00			0.00	20.90	20.90	584.82	581.19
96.552	20.03	0.00	0.00			0.00	20.88	20.88	584.82	581.19
96.714	20.03	0.00	0.00			0.00	20.86	20.86	584.82	581.19
96.876	20.03	0.00	0.00			0.00	20.85	20.85	584.82	581.19
97.038	20.03	0.00	0.00			0.00	20.83	20.83	584.82	581.19
97.200	20.03	0.00	0.00			0.00	20.82	20.82	584.82	581.19
97.362	20.03	0.00	0.00			0.00	20.80	20.80	584.82	581.19
97.524	20.03	0.00	0.00			0.00	20.79	20.79	584.81	581.19
97.686	20.03	0.00	0.00			0.00	20.78	20.78	584.81	581.19
97.848	20.03	0.00	0.00			0.00	20.76	20.76	584.81	581.19

Time (hrs)	Inflow (cfs)	Principal Spillway Outflow (cfs)	Auxiliary Struct Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)	OverTop Outflow (cfs)	Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
98.010	20.03	0.00	0.00			0.00	20.68	20.68	584.81	581.19
98.172	20.03	0.00	0.00			0.00	20.67	20.67	584.81	581.19
98.334	20.03	0.00	0.00			0.00	20.66	20.66	584.81	581.19
98.496	20.03	0.00	0.00			0.00	20.65	20.65	584.81	581.19
98.658	20.03	0.00	0.00			0.00	20.64	20.64	584.81	581.19
98.820	20.03	0.00	0.00			0.00	20.63	20.63	584.81	581.19
98.982	20.03	0.00	0.00			0.00	20.62	20.62	584.81	581.19
99.144	20.03	0.00	0.00			0.00	20.61	20.61	584.81	581.19
99.306	20.03	0.00	0.00			0.00	20.60	20.60	584.81	581.19
99.468	20.03	0.00	0.00			0.00	20.59	20.59	584.81	581.19
99.630	20.03	0.00	0.00			0.00	20.58	20.58	584.81	581.19
99.792	20.03	0.00	0.00			0.00	20.58	20.58	584.81	581.19
99.954	20.03	0.00	0.00			0.00	20.57	20.57	584.81	581.19
100.116	20.03	0.00	0.00			0.00	20.56	20.56	584.81	581.19
100.278	20.03	0.00	0.00			0.00	20.55	20.55	584.81	581.18
100.440	20.03	0.00	0.00			0.00	20.53	20.53	584.81	581.18
100.602	20.03	0.00	0.00			0.00	20.52	20.52	584.81	581.18
100.764	20.03	0.00	0.00			0.00	20.51	20.51	584.81	581.18
100.926	20.03	0.00	0.00			0.00	20.50	20.50	584.81	581.18
101.088	20.03	0.00	0.00			0.00	20.49	20.49	584.81	581.18
101.250	20.03	0.00	0.00			0.00	20.48	20.48	584.81	581.18
101.412	20.03	0.00	0.00			0.00	20.47	20.47	584.81	581.18
101.574	20.03	0.00	0.00			0.00	20.46	20.46	584.81	581.18
101.736	20.03	0.00	0.00			0.00	20.45	20.45	584.81	581.18
101.898	20.03	0.00	0.00			0.00	20.44	20.44	584.81	581.18
102.060	20.03	0.00	0.00			0.00	20.43	20.43	584.81	581.18
102.222	20.03	0.00	0.00			0.00	20.42	20.42	584.81	581.18
102.384	20.03	0.00	0.00			0.00	20.41	20.41	584.81	581.18
102.546	20.03	0.00	0.00			0.00	20.41	20.41	584.81	581.18
102.708	20.03	0.00	0.00			0.00	20.33	20.33	584.80	581.18
102.870	20.03	0.00	0.00			0.00	20.32	20.32	584.80	581.18
103.032	20.03	0.00	0.00			0.00	20.32	20.32	584.80	581.18
103.194	20.03	0.00	0.00			0.00	20.31	20.31	584.80	581.18
103.356	20.03	0.00	0.00			0.00	20.30	20.30	584.80	581.18
103.518	20.03	0.00	0.00			0.00	20.29	20.29	584.80	581.18
103.680	20.03	0.00	0.00			0.00	20.29	20.29	584.80	581.18
103.842	20.03	0.00	0.00			0.00	20.28	20.28	584.80	581.18
104.004	20.03	0.00	0.00			0.00	20.28	20.28	584.80	581.18
104.166	20.03	0.00	0.00			0.00	20.27	20.27	584.80	581.18
104.328	20.03	0.00	0.00			0.00	20.27	20.27	584.80	581.18
104.490	20.03	0.00	0.00			0.00	20.26	20.26	584.80	581.18
104.652	20.03	0.00	0.00			0.00	20.26	20.26	584.80	581.18
104.814	20.03	0.00	0.00			0.00	20.26	20.26	584.80	581.18
104.976	20.03	0.00	0.00			0.00	20.25	20.25	584.80	581.18
105.138	20.03	0.00	0.00			0.00	20.25	20.25	584.80	581.18
105.300	20.03	0.00	0.00			0.00	20.25	20.25	584.80	581.18
105.462	20.03	0.00	0.00			0.00	20.25	20.25	584.80	581.18
105.624	20.03	0.00	0.00			0.00	20.24	20.24	584.80	581.18
105.786	20.03	0.00	0.00			0.00	20.24	20.24	584.80	581.18
105.948	20.03	0.00	0.00			0.00	20.24	20.24	584.80	581.18
106.110	20.03	0.00	0.00			0.00	20.24	20.24	584.80	581.18
106.272	20.03	0.00	0.00			0.00	20.23	20.23	584.80	581.18
106.434	20.03	0.00	0.00			0.00	20.23	20.23	584.80	581.18
106.596	20.03	0.00	0.00			0.00	20.23	20.23	584.80	581.18
106.758	20.03	0.00	0.00			0.00	20.23	20.23	584.80	581.18
106.920	20.03	0.00	0.00			0.00	20.23	20.23	584.80	581.18
107.082	20.03	0.00	0.00			0.00	20.22	20.22	584.80	581.18
107.244	20.03	0.00	0.00			0.00	20.22	20.22	584.80	581.18
107.406	20.03	0.00	0.00			0.00	20.21	20.21	584.80	581.18
107.568	20.03	0.00	0.00			0.00	20.21	20.21	584.80	581.18
107.730	20.03	0.00	0.00			0.00	20.21	20.21	584.80	581.18
107.892	20.03	0.00	0.00			0.00	20.20	20.20	584.80	581.18
108.054	20.03	0.00	0.00			0.00	20.20	20.20	584.80	581.18
108.216	20.03	0.00	0.00			0.00	20.20	20.20	584.80	581.18
108.378	20.03	0.00	0.00			0.00	20.20	20.20	584.80	581.18
108.540	20.03	0.00	0.00			0.00	20.19	20.19	584.80	581.18
108.702	20.03	0.00	0.00			0.00	20.19	20.19	584.80	581.18
108.864	20.03	0.00	0.00			0.00	20.19	20.19	584.80	581.18
109.026	20.03	0.00	0.00			0.00	20.19	20.19	584.80	581.18
109.188	20.03	0.00	0.00			0.00	20.19	20.19	584.80	581.18
109.350	20.03	0.00	0.00			0.00	20.18	20.18	584.80	581.18
109.512	20.03	0.00	0.00			0.00	20.18	20.18	584.80	581.18
109.674	20.03	0.00	0.00			0.00	20.18	20.18	584.80	581.18
109.836	20.03	0.00	0.00			0.00	20.18	20.18	584.80	581.18
109.998	20.03	0.00	0.00			0.00	20.17	20.17	584.80	581.18
110.160	20.03	0.00	0.00			0.00	20.17	20.17	584.80	581.18

Time (hrs)	Infl ow (cfs)	Princi pal Spill way Outfl ow (cfs)	Auxili ary Struct Outfl ow (cfs)	Auxili ary Outfl ow (cfs)	Auxili ary Outfl ow (cfs)	OverTop Outfl ow (cfs)	Internal Erosion Outfl ow (cfs)	Total Outfl ow (cfs)	Reservoi r Surface El evati on (feet)	Tai l water El evati on (feet)
110.322	20.03	0.00	0.00			0.00	20.17	20.17	584.80	581.18
110.484	20.03	0.00	0.00			0.00	20.17	20.17	584.80	581.18
110.646	20.03	0.00	0.00			0.00	20.16	20.16	584.80	581.18
110.808	20.03	0.00	0.00			0.00	20.16	20.16	584.80	581.18
110.970	20.03	0.00	0.00			0.00	20.16	20.16	584.80	581.18
111.132	20.03	0.00	0.00			0.00	20.16	20.16	584.80	581.18
111.294	20.03	0.00	0.00			0.00	20.15	20.15	584.80	581.18
111.456	20.03	0.00	0.00			0.00	20.15	20.15	584.80	581.18
111.618	20.03	0.00	0.00			0.00	20.15	20.15	584.80	581.18
111.780	20.03	0.00	0.00			0.00	20.14	20.14	584.80	581.18
111.942	20.03	0.00	0.00			0.00	20.14	20.14	584.80	581.18
112.104	20.03	0.00	0.00			0.00	20.14	20.14	584.80	581.18
112.266	20.03	0.00	0.00			0.00	20.13	20.13	584.80	581.18
112.428	20.03	0.00	0.00			0.00	20.13	20.13	584.80	581.18
112.590	20.03	0.00	0.00			0.00	20.13	20.13	584.80	581.18
112.752	20.03	0.00	0.00			0.00	20.12	20.12	584.80	581.18
112.914	20.03	0.00	0.00			0.00	20.12	20.12	584.80	581.18
113.076	20.03	0.00	0.00			0.00	20.12	20.12	584.80	581.18
113.238	20.03	0.00	0.00			0.00	20.11	20.11	584.80	581.18
113.400	20.03	0.00	0.00			0.00	20.11	20.11	584.80	581.18
113.562	20.03	0.00	0.00			0.00	20.11	20.11	584.80	581.18
113.724	20.03	0.00	0.00			0.00	20.10	20.10	584.80	581.18
113.886	20.03	0.00	0.00			0.00	20.10	20.10	584.80	581.18
114.048	20.03	0.00	0.00			0.00	20.10	20.10	584.80	581.18
114.210	20.03	0.00	0.00			0.00	20.09	20.09	584.80	581.18
114.372	20.03	0.00	0.00			0.00	20.09	20.09	584.80	581.18
114.534	20.03	0.00	0.00			0.00	20.09	20.09	584.80	581.18
114.696	20.03	0.00	0.00			0.00	20.08	20.08	584.80	581.18
114.858	20.03	0.00	0.00			0.00	20.08	20.08	584.80	581.18
115.020	20.03	0.00	0.00			0.00	20.08	20.08	584.80	581.18
115.182	20.03	0.00	0.00			0.00	20.07	20.07	584.80	581.18
115.344	20.03	0.00	0.00			0.00	20.07	20.07	584.80	581.18
115.506	20.03	0.00	0.00			0.00	20.07	20.07	584.80	581.18
115.668	20.03	0.00	0.00			0.00	20.06	20.06	584.80	581.18
115.830	20.03	0.00	0.00			0.00	20.06	20.06	584.80	581.18
115.992	20.03	0.00	0.00			0.00	20.06	20.06	584.80	581.18
116.154	20.03	0.00	0.00			0.00	20.06	20.06	584.80	581.18
116.316	20.03	0.00	0.00			0.00	20.05	20.05	584.80	581.18



Spillway and Overtop Discharge Rating					
Elevation	Prin. Spw.	Struct	OverTop	Total	TW Elev
591.00	0.000	0.000	0.000	0.000	580.00
591.10	0.000	0.000	0.000	0.000	580.00
591.20	0.000	0.000	0.000	0.000	580.00
591.30	0.000	0.000	0.000	0.000	580.00
591.40	0.000	0.000	0.000	0.000	580.00
591.50	0.000	0.000	0.000	0.000	580.00
591.60	0.000	0.000	0.000	0.000	580.00
591.70	0.000	0.000	0.000	0.000	580.00
591.80	0.000	0.000	0.000	0.000	580.00
591.90	0.000	0.000	0.000	0.000	580.00
592.00	0.000	0.000	0.000	0.000	580.00
592.10	0.000	0.000	0.000	0.000	580.00
592.20	0.000	0.000	0.000	0.000	580.00
592.30	0.000	0.000	0.000	0.000	580.00
592.40	0.000	0.000	0.000	0.000	580.00
592.50	0.000	0.000	0.000	0.000	580.00
592.60	0.000	0.000	0.000	0.000	580.00
592.70	0.000	0.000	0.000	0.000	580.00
592.80	0.000	0.000	0.000	0.000	580.00
592.90	0.000	0.000	0.000	0.000	580.00
593.00	0.000	0.000	0.000	0.000	580.00
593.10	0.000	0.000	0.000	0.000	580.00
593.20	0.000	0.000	0.000	0.000	580.00
593.30	0.000	0.000	0.000	0.000	580.00
593.40	0.000	0.000	0.000	0.000	580.00
593.50	0.000	0.000	0.000	0.000	580.00
593.60	0.000	0.000	0.000	0.000	580.00
593.70	0.000	0.000	0.000	0.000	580.00
593.80	0.000	0.000	0.000	0.000	580.00
593.90	0.000	0.000	0.000	0.000	580.00
594.00	0.000	0.000	0.000	0.000	580.00
594.10	0.000	0.000	0.000	0.000	580.00
594.20	0.000	0.000	0.000	0.000	580.00
594.30	0.000	0.000	0.000	0.000	580.00
594.40	0.000	0.000	0.000	0.000	580.00
594.50	0.000	0.000	0.000	0.000	580.00
594.60	0.000	0.000	0.000	0.000	580.00
594.70	0.000	0.000	0.000	0.000	580.00
594.80	0.000	0.000	0.000	0.000	580.00
594.90	0.000	0.000	0.000	0.000	580.00
595.00	0.000	0.000	0.000	0.000	580.00
595.10	0.000	0.000	0.000	0.000	580.00
595.20	0.000	0.000	0.000	0.000	580.00
595.30	0.000	0.000	0.000	0.000	580.00
595.40	0.000	0.000	0.000	0.000	580.00
595.50	0.000	0.000	0.000	0.000	580.00
595.60	0.000	0.000	0.000	0.000	580.00
595.70	0.000	0.000	0.000	0.000	580.00
595.80	0.000	0.000	0.000	0.000	580.00
595.90	0.000	0.000	0.000	0.000	580.00
596.00	0.000	0.000	0.000	0.000	580.00
596.10	0.000	0.000	0.000	0.000	580.00
596.20	0.000	0.000	0.000	0.000	580.00
596.30	0.000	0.000	0.000	0.000	580.00
596.40	0.000	0.000	0.000	0.000	580.00
596.50	0.000	0.000	0.000	0.000	580.00
596.60	0.000	0.000	0.000	0.000	580.00
596.70	0.000	0.000	0.000	0.000	580.00
596.80	0.000	0.000	0.000	0.000	580.00
596.90	0.000	0.000	0.000	0.000	580.00
597.00	0.000	0.000	0.000	0.000	580.00
597.10	0.000	0.000	0.000	0.000	580.00
597.20	0.000	0.000	0.000	0.000	580.00
597.30	0.000	0.000	0.000	0.000	580.00
597.40	0.000	0.000	0.000	0.000	580.00
597.50	0.000	0.000	0.000	0.000	580.00
597.60	0.000	0.000	0.000	0.000	580.00
597.70	0.000	0.000	0.000	0.000	580.00
597.80	0.000	0.000	0.000	0.000	580.00
597.90	0.000	0.000	0.000	0.000	580.00
598.00	0.000	0.000	0.000	0.000	580.00
598.10	0.000	0.000	0.000	0.000	580.00
598.20	0.000	0.000	0.000	0.000	580.00
598.30	0.000	0.000	0.000	0.000	580.00
598.40	0.000	0.000	0.000	0.000	580.00
598.50	0.000	0.000	0.000	0.000	580.00
598.60	0.000	0.000	0.000	0.000	580.00
598.70	0.000	0.000	0.000	0.000	580.00

Spillway and Overtop Discharge Rating					
Elevation	Prin. Spw.	Struct	Overtop	Total	TW Elev
598.80	0.000	0.000	0.000	0.000	580.00
598.90	0.000	0.000	0.000	0.000	580.00
599.00	0.000	0.000	0.000	0.000	580.00
599.10	0.000	0.000	0.000	0.000	580.00
599.20	0.000	0.000	0.000	0.000	580.00
599.30	0.000	0.000	0.000	0.000	580.00
599.40	0.000	0.000	0.000	0.000	580.00
599.50	0.000	0.000	0.000	0.000	580.00
599.60	0.000	0.000	0.000	0.000	580.00
599.70	0.000	0.000	0.000	0.000	580.00
599.80	0.000	0.000	0.000	0.000	580.00
599.90	0.000	0.000	0.000	0.000	580.00
600.00	0.000	0.000	0.000	0.000	580.00
600.10	0.000	0.000	0.000	0.000	580.00
600.20	0.000	0.000	0.000	0.000	580.00
600.30	0.000	0.000	0.000	0.000	580.00
600.40	0.000	0.000	0.000	0.000	580.00
600.50	0.000	0.000	0.000	0.000	580.00
600.60	0.000	0.000	0.000	0.000	580.00
600.70	0.000	0.000	0.000	0.000	580.00
600.80	0.000	0.000	0.000	0.000	580.00
600.90	0.000	0.000	0.000	0.000	580.00
601.00	0.000	0.000	0.000	0.000	580.00
601.10	0.000	0.000	0.000	0.000	580.00
601.20	0.000	0.000	0.000	0.000	580.00
601.30	0.000	0.000	0.000	0.000	580.00
601.40	0.000	0.000	0.000	0.000	580.00
601.50	0.000	0.000	0.000	0.000	580.00
601.60	0.000	0.000	0.000	0.000	580.00
601.70	0.000	0.000	0.000	0.000	580.00
601.80	0.000	0.000	0.000	0.000	580.00
601.90	0.000	0.000	0.000	0.000	580.00
602.00	0.000	0.000	0.000	0.000	580.00
602.10	0.000	0.000	0.000	0.000	580.00
602.20	0.000	0.000	0.000	0.000	580.00
602.30	0.000	0.000	0.000	0.000	580.00
602.40	0.000	0.000	0.000	0.000	580.00
602.50	0.000	0.000	0.000	0.000	580.00
602.60	0.000	0.000	0.000	0.000	580.00
602.70	0.000	0.000	0.000	0.000	580.00
602.80	0.000	0.000	0.000	0.000	580.00
602.90	0.000	0.000	0.000	0.000	580.00
603.00	0.000	0.000	0.000	0.000	580.00
603.10	0.000	0.000	0.000	0.000	580.00
603.20	0.000	0.000	0.000	0.000	580.00
603.30	0.000	0.000	0.000	0.000	580.00
603.40	0.000	0.000	0.000	0.000	580.00
603.50	0.000	0.000	0.000	0.000	580.00
603.60	0.000	0.000	0.000	0.000	580.00
603.70	0.000	0.000	0.000	0.000	580.00
603.80	0.000	0.000	0.000	0.000	580.00
603.90	0.000	0.000	0.000	0.000	580.00
604.00	0.000	0.000	0.000	0.000	580.00
604.10	1.765	0.000	0.000	1.765	580.00
604.20	4.991	0.000	0.000	4.991	580.00
604.30	9.169	0.000	0.000	9.169	580.00
604.40	14.116	0.000	0.000	14.116	580.00
604.50	19.728	0.000	0.000	19.728	580.00
604.60	25.933	0.000	0.000	25.933	580.00
604.70	32.680	0.000	0.000	32.680	580.00
604.80	39.927	0.000	0.000	39.927	580.00
604.90	47.643	0.000	0.000	47.643	580.00
605.00	55.800	0.000	0.000	55.800	580.00
605.10	64.376	0.000	0.000	64.376	580.00
605.20	73.351	0.000	0.000	73.351	580.00
605.30	82.708	0.000	0.000	82.708	580.00
605.40	92.433	0.000	0.000	92.433	580.00
605.50	102.511	0.000	0.000	102.511	580.00
605.60	112.931	0.000	0.000	112.931	580.00
605.70	123.682	0.000	0.000	123.682	580.00
605.80	128.653	0.000	0.000	128.653	580.00
605.90	129.102	0.000	0.000	129.102	580.00
606.00	129.549	0.000	0.000	129.549	580.00
606.10	129.995	0.000	0.000	129.995	580.00
606.20	130.440	0.000	0.000	130.440	580.00
606.30	130.883	0.000	0.000	130.883	580.00
606.40	131.324	0.000	0.000	131.324	580.00
606.50	131.764	0.000	0.000	131.764	580.00

Spillway and Overtop Discharge Rating					
Elevation	Prin. Spw.	Struct	OverTop	Total	TW Elev
606.60	132.202	0.000	0.000	132.202	580.00
606.70	132.639	0.000	0.000	132.639	580.00
606.80	133.075	0.000	0.000	133.075	580.00
606.90	133.509	0.000	0.000	133.509	580.00
607.00	133.942	0.000	0.000	133.942	580.00
607.10	134.373	0.000	0.000	134.373	580.00
607.20	134.803	0.000	0.000	134.803	580.00
607.30	135.232	0.000	0.000	135.232	580.00
607.40	135.659	0.000	0.000	135.659	580.00
607.50	136.085	0.000	0.000	136.085	580.00
607.60	136.510	0.000	0.000	136.510	580.00
607.70	136.933	0.000	0.000	136.933	580.00
607.80	137.355	0.000	0.000	137.355	580.00
607.90	137.776	0.000	0.000	137.776	580.00
608.00	138.195	0.000	0.000	138.195	580.00
608.10	138.613	0.000	0.000	138.613	580.00
608.20	139.030	0.000	0.000	139.030	580.00
608.30	139.446	0.000	0.000	139.446	580.00
608.40	139.860	0.000	0.000	139.860	580.00
608.50	140.273	0.000	0.000	140.273	580.00
608.60	140.685	0.000	0.000	140.685	580.00
608.70	141.096	0.000	0.000	141.096	580.00
608.80	141.506	0.000	0.000	141.506	580.00
608.90	141.914	0.000	0.000	141.914	580.00
609.00	142.321	0.000	0.000	142.321	580.00
609.10	142.727	31.000	0.000	173.727	580.00
609.20	143.132	62.000	0.000	205.132	580.00
609.30	143.536	93.000	0.000	236.536	580.00
609.40	143.939	124.000	0.000	267.939	580.00
609.50	144.340	155.000	0.000	299.340	580.00
609.60	144.741	186.000	0.000	330.741	580.00
609.70	145.140	217.000	0.000	362.140	580.00
609.80	145.538	248.000	0.000	393.538	580.00
609.90	145.935	279.000	0.000	424.935	580.00
610.00	146.331	310.000	0.000	456.331	580.00
610.10	146.726	367.000	0.000	513.726	580.00
610.20	147.120	424.000	0.000	571.120	580.00
610.30	147.513	481.000	0.000	628.513	580.00
610.40	147.905	538.000	0.000	685.905	580.00
610.50	148.295	595.000	0.000	743.295	580.00
610.60	148.685	652.000	0.000	800.685	580.00
610.70	149.074	709.000	0.000	858.074	580.00
610.80	149.462	766.000	0.000	915.462	580.00
610.90	149.848	823.000	0.000	972.848	580.00
611.00	150.234	880.000	0.000	1030.234	580.00
611.10	150.619	953.000	0.000	1103.619	580.00
611.20	151.002	1026.000	0.000	1177.002	580.00
611.30	151.385	1099.000	0.000	1250.385	580.00
611.40	151.767	1172.000	0.000	1323.767	580.00
611.50	152.148	1245.000	0.000	1397.148	580.00
611.60	152.528	1318.000	0.000	1470.528	580.00
611.70	152.907	1391.000	0.000	1543.907	580.00
611.80	153.285	1464.000	0.000	1617.285	580.00
611.90	153.662	1537.000	0.000	1690.662	580.00
612.00	154.038	1610.000	0.000	1764.038	580.00
612.10	154.413	1697.000	0.000	1851.413	580.00
612.20	154.788	1784.000	0.000	1938.788	580.00
612.30	155.161	1871.000	0.000	2026.161	580.00
612.40	155.534	1958.000	0.000	2113.534	580.00
612.50	155.905	2045.000	0.000	2200.905	580.00
612.60	156.276	2132.000	0.000	2288.276	580.00
612.70	156.646	2219.000	0.000	2375.646	580.00
612.80	157.015	2306.000	0.000	2463.015	580.00
612.90	157.383	2393.000	0.000	2550.383	580.00
613.00	157.750	2480.000	0.000	2637.750	580.00
613.10	158.117	2577.000	0.000	2735.117	580.00
613.20	158.482	2674.000	0.000	2832.482	580.00
613.30	158.847	2771.000	0.000	2929.847	580.00
613.40	159.211	2868.000	0.000	3027.211	580.00
613.50	159.574	2965.000	0.000	3124.574	580.00
613.60	159.936	3062.000	0.000	3221.936	580.00
613.70	160.298	3159.000	0.000	3319.298	580.00
613.80	160.658	3256.000	0.000	3416.658	580.00
613.90	161.018	3353.000	0.000	3514.018	580.00
614.00	161.377	3450.000	0.000	3611.377	580.00
614.10	161.735	3560.000	0.160	3721.895	580.00
614.20	162.093	3670.000	1.447	3833.540	580.00
614.30	162.449	3780.000	5.476	3947.926	580.00

Spillway and Overtop Discharge Rating					
Elevation	Prin. Spw.	Struct	OverTop	Total	TW Elev
614.40	162.805	3890.000	15.605	4068.410	580.00
614.50	163.160	4000.000	35.811	4198.971	580.00
614.60	163.515	4110.000	104.551	4378.066	580.00
614.70	163.868	4220.000	214.436	4598.305	580.00
614.80	164.221	4330.000	393.042	4887.263	580.00
614.90	164.573	4440.000	628.673	5233.246	580.00
615.00	164.924	4550.000	896.448	5611.372	580.00
615.10	165.275	4660.000	1332.138	6157.413	580.00
615.20	165.625	4770.000	1867.822	6803.446	580.00
615.30	165.974	4880.000	2430.673	7476.646	580.00
615.40	166.322	4990.000	3019.294	8175.616	580.00
615.50	166.670	5100.000	3631.263	8897.932	580.00
615.60	167.016	5210.000	4264.971	9641.988	580.00
615.70	167.363	5320.000	4921.339	10408.702	580.00
615.80	167.708	5430.000	5597.362	11195.070	580.00
615.90	168.053	5540.000	6295.347	12003.399	580.00
616.00	168.397	5650.000	7012.670	12831.067	580.00
616.10	168.740	5760.000	7748.348	13677.088	580.00
616.20	169.083	5870.000	8506.320	14545.403	580.00
616.30	169.425	5980.000	9279.441	15428.866	580.00
616.40	169.766	6090.000	10073.485	16333.251	580.00
616.50	170.106	6200.000	10885.994	17256.101	580.00
616.60	170.446	6310.000	11715.605	18196.052	580.00
616.70	170.786	6420.000	12563.427	19154.212	580.00
616.80	171.124	6530.000	13427.554	20128.678	580.00
616.90	171.462	6640.000	14309.007	21120.468	580.00
617.00	171.799	6750.000	15207.790	22129.589	580.00
617.10	172.136	6860.000	16121.459	23153.595	580.00
617.20	172.472	6970.000	17052.656	24195.127	580.00
617.30	172.807	7080.000	17999.793	25252.600	580.00
617.40	173.141	7190.000	18961.437	26324.578	580.00
617.50	173.475	7300.000	19939.137	27412.612	580.00
617.60	173.809	7410.000	20931.137	28514.945	580.00
617.70	174.141	7520.000	21938.647	29632.788	580.00
617.80	174.473	7630.000	22960.820	30765.293	580.00
617.90	174.805	7740.000	23997.667	31912.472	580.00
618.00	175.135	7850.000	25048.434	33073.569	580.00
618.10	175.465	7960.000	26112.955	34248.421	580.00
618.20	175.795	8070.000	27191.689	35437.484	580.00
618.30	176.124	8180.000	28285.555	36641.678	580.00
618.40	176.452	8290.000	29392.418	37858.870	580.00
618.50	176.780	8400.000	30512.220	39089.000	580.00
618.60	177.107	8510.000	31644.991	40332.098	580.00
618.70	177.433	8620.000	32791.022	41588.455	580.00
618.80	177.759	8730.000	33950.999	42858.759	580.00
618.90	178.084	8840.000	35123.596	44141.681	580.00
619.00	178.409	8950.000	36308.001	45436.410	580.00
619.10	178.733	9060.000	37507.363	46746.097	580.00
619.20	179.057	9170.000	38717.142	48066.199	580.00
619.30	179.380	9280.000	39938.301	49397.680	580.00
619.40	179.702	9390.000	41174.436	50744.138	580.00
619.50	180.024	9500.000	42420.142	52100.166	580.00
619.60	180.345	9610.000	43679.141	53469.486	580.00
619.70	180.666	9720.000	44951.073	54851.739	580.00
619.80	180.986	9830.000	46232.932	56243.918	580.00
619.90	181.305	9940.000	47528.084	57649.389	580.00
620.00	181.624	10050.000	48835.227	59066.851	580.00
620.10	181.896	10160.000	50153.460	60495.356	580.00



Li st ing of Tabular Data-Expanded Area										
1	591.00	76.60	591.10	78.12	591.20	79.63	591.30	81.14	591.40	82.66
6	591.50	84.17	591.60	85.69	591.70	87.21	591.80	88.72	591.90	90.23
11	592.00	91.75	592.10	93.27	592.20	94.78	592.30	96.29	592.40	97.81
16	592.50	99.33	592.60	100.84	592.70	102.36	592.80	103.87	592.90	105.38
21	593.00	106.90	593.10	108.70	593.20	110.49	593.30	112.28	593.40	114.08
26	593.50	115.88	593.60	117.67	593.70	119.47	593.80	121.26	593.90	123.05
31	594.00	124.85	594.10	126.65	594.20	128.44	594.30	130.23	594.40	132.03
36	594.50	133.83	594.60	135.62	594.70	137.42	594.80	139.21	594.90	141.00
41	595.00	142.80	595.10	144.69	595.20	146.58	595.30	148.47	595.40	150.36
46	595.50	152.25	595.60	154.14	595.70	156.03	595.80	157.92	595.90	159.81
51	596.00	161.70	596.10	163.59	596.20	165.48	596.30	167.37	596.40	169.26
56	596.50	171.15	596.60	173.04	596.70	174.93	596.80	176.82	596.90	178.71
61	597.00	180.60	597.10	182.65	597.20	184.71	597.30	186.76	597.40	188.81
66	597.50	190.86	597.60	192.92	597.70	194.97	597.80	197.02	597.90	199.07
71	598.00	201.12	598.10	203.18	598.20	205.23	598.30	207.28	598.40	209.33
76	598.50	211.39	598.60	213.44	598.70	215.49	598.80	217.54	598.90	219.60
81	599.00	221.65	599.10	223.70	599.20	225.76	599.30	227.81	599.40	229.86
86	599.50	231.91	599.60	233.97	599.70	236.02	599.80	238.07	599.90	240.12
91	600.00	242.17	600.10	244.23	600.20	246.28	600.30	248.33	600.40	250.38
96	600.50	252.44	600.60	254.49	600.70	256.54	600.80	258.59	600.90	260.65
101	601.00	262.70	601.10	265.14	601.20	267.58	601.30	270.02	601.40	272.46
106	601.50	274.90	601.60	277.34	601.70	279.78	601.80	282.22	601.90	284.66
111	602.00	287.10	602.10	289.54	602.20	291.98	602.30	294.42	602.40	296.86
116	602.50	299.30	602.60	301.74	602.70	304.18	602.80	306.62	602.90	309.06
121	603.00	311.50	603.10	313.94	603.20	316.38	603.30	318.82	603.40	321.26
126	603.50	323.70	603.60	326.14	603.70	328.58	603.80	331.02	603.90	333.46
131	604.00	335.90	604.10	338.34	604.20	340.78	604.30	343.22	604.40	345.66
136	604.50	348.10	604.60	350.54	604.70	352.98	604.80	355.42	604.90	357.86
141	605.00	360.30	605.10	362.72	605.20	365.13	605.30	367.54	605.40	369.96
146	605.50	372.38	605.60	374.79	605.70	377.21	605.80	379.62	605.90	382.03
151	606.00	384.45	606.10	386.87	606.20	389.28	606.30	391.69	606.40	394.11
156	606.50	396.52	606.60	398.94	606.70	401.36	606.80	403.77	606.90	406.18
161	607.00	408.60	607.10	411.02	607.20	413.43	607.30	415.84	607.40	418.26
166	607.50	420.68	607.60	423.09	607.70	425.51	607.80	427.92	607.90	430.33
171	608.00	432.75	608.10	435.17	608.20	437.58	608.30	439.99	608.40	442.41
176	608.50	444.82	608.60	447.24	608.70	449.66	608.80	452.07	608.90	454.48
181	609.00	456.90	609.10	459.42	609.20	461.94	609.30	464.46	609.40	466.98
186	609.50	469.50	609.60	472.02	609.70	474.54	609.80	477.06	609.90	479.58
191	610.00	482.10	610.10	484.62	610.20	487.14	610.30	489.66	610.40	492.18
196	610.50	494.70	610.60	497.22	610.70	499.74	610.80	502.26	610.90	504.78
201	611.00	507.30	611.10	509.82	611.20	512.34	611.30	514.86	611.40	517.38
206	611.50	519.90	611.60	522.42	611.70	524.94	611.80	527.46	611.90	529.98
211	612.00	532.50	612.10	535.02	612.20	537.54	612.30	540.06	612.40	542.58
216	612.50	545.10	612.60	547.62	612.70	550.14	612.80	552.66	612.90	555.18
221	613.00	557.70	613.10	560.20	613.20	562.70	613.30	565.20	613.40	567.70
226	613.50	570.20	613.60	572.70	613.70	575.20	613.80	577.70	613.90	580.20
231	614.00	582.70	614.10	585.20	614.20	587.70	614.30	590.20	614.40	592.70
236	614.50	595.20	614.60	597.70	614.70	600.20	614.80	602.70	614.90	605.20
241	615.00	607.70	615.10	610.20	615.20	612.70	615.30	615.20	615.40	617.70
246	615.50	620.20	615.60	622.70	615.70	625.20	615.80	627.70	615.90	630.20
251	616.00	632.70	616.10	635.20	616.20	637.70	616.30	640.20	616.40	642.70
256	616.50	645.20	616.60	647.70	616.70	650.20	616.80	652.70	616.90	655.20
261	617.00	657.70	617.10	660.20	617.20	662.70	617.30	665.20	617.40	667.70
266	617.50	670.20	617.60	672.70	617.70	675.20	617.80	677.70	617.90	680.20
271	618.00	682.70	618.10	685.20	618.20	687.70	618.30	690.20	618.40	692.70
276	618.50	695.20	618.60	697.70	618.70	700.20	618.80	702.70	618.90	705.20
281	619.00	707.70	619.10	710.20	619.20	712.70	619.30	715.20	619.40	717.70
286	619.50	720.20	619.60	722.70	619.70	725.20	619.80	727.70	619.90	730.20
291	620.00	732.70	620.10	735.20						

Li st ing of Tabular Data-Generated Volume										
1	591.00	250.00	593.00	433.50	595.00	683.20	597.00	1006.60	601.00	1893.20
6	605.00	3139.20	609.00	4773.60	613.00	6802.80	615.00	7968.20		

Li st ing of Tabular Data-Expanded Low Vol ume										
1	580.00	0.00	580.10	2.27	580.20	4.55	580.30	6.82	580.40	9.09
6	580.50	11.36	580.60	13.64	580.70	15.91	580.80	18.18	580.90	20.45
11	581.00	22.73	581.10	25.00	581.20	27.27	581.30	29.55	581.40	31.82
16	581.50	34.09	581.60	36.36	581.70	38.64	581.80	40.91	581.90	43.18
21	582.00	45.45	582.10	47.73	582.20	50.00	582.30	52.27	582.40	54.55
26	582.50	56.82	582.60	59.09	582.70	61.36	582.80	63.64	582.90	65.91
31	583.00	68.18	583.10	70.45	583.20	72.73	583.30	75.00	583.40	77.27
36	583.50	79.55	583.60	81.82	583.70	84.09	583.80	86.36	583.90	88.64
41	584.00	90.91	584.10	93.18	584.20	95.45	584.30	97.73	584.40	100.00
46	584.50	102.27	584.60	104.55	584.70	106.82	584.80	109.09	584.90	111.36
51	585.00	113.64	585.10	115.91	585.20	118.18	585.30	120.45	585.40	122.73
56	585.50	125.00	585.60	127.27	585.70	129.55	585.80	131.82	585.90	134.09

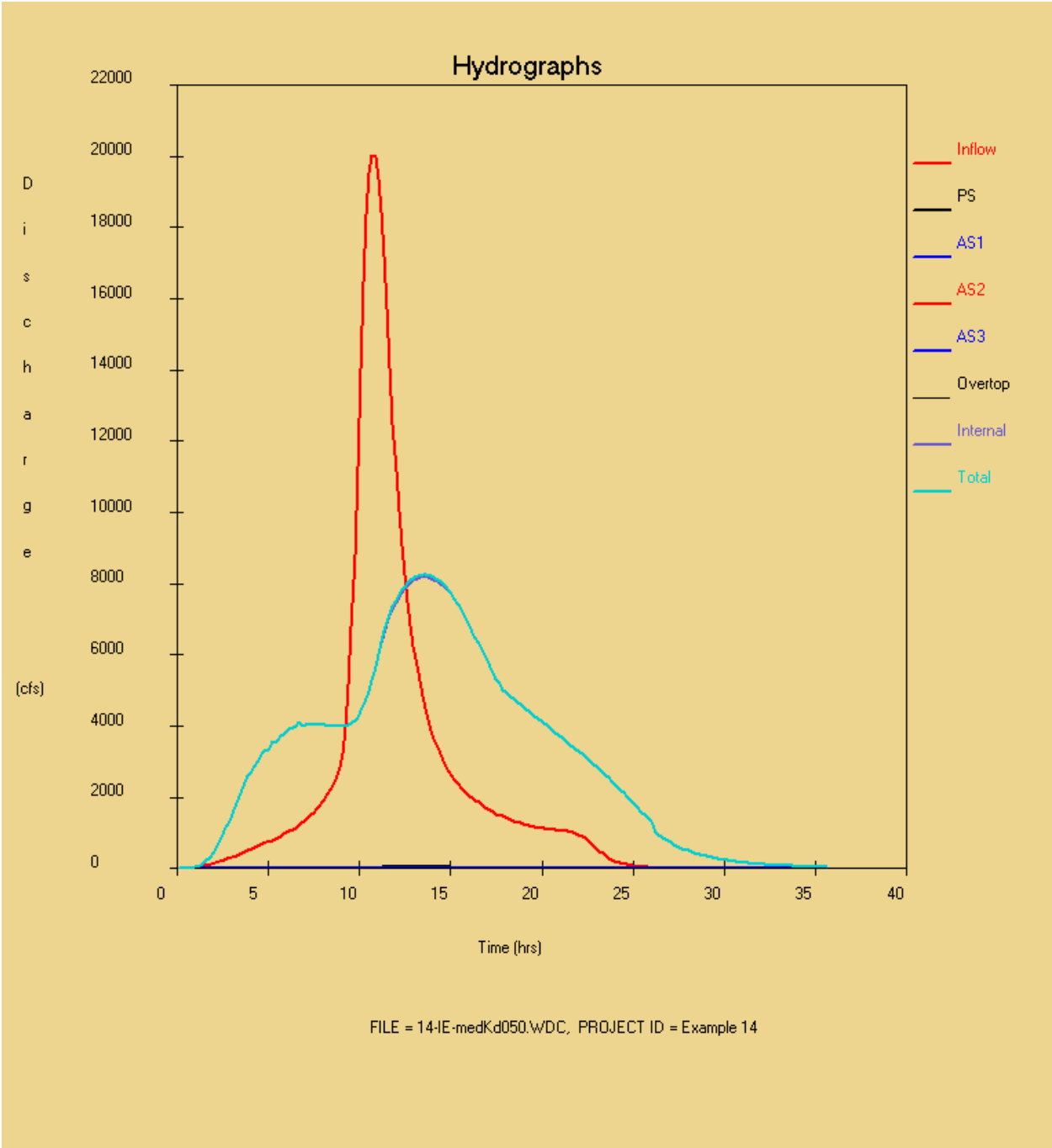
61	586.00	136.36	586.10	138.64	586.20	140.91	586.30	143.18	586.40	145.45
66	586.50	147.73	586.60	150.00	586.70	152.27	586.80	154.55	586.90	156.82
71	587.00	159.09	587.10	161.36	587.20	163.64	587.30	165.91	587.40	168.18
76	587.50	170.45	587.60	172.73	587.70	175.00	587.80	177.27	587.90	179.55
81	588.00	181.82	588.10	184.09	588.20	186.36	588.30	188.64	588.40	190.91
86	588.50	193.18	588.60	195.45	588.70	197.73	588.80	200.00	588.90	202.27
91	589.00	204.55	589.10	206.82	589.20	209.09	589.30	211.36	589.40	213.64
96	589.50	215.91	589.60	218.18	589.70	220.45	589.80	222.73	589.90	225.00
101	590.00	227.27	590.10	229.55	590.20	231.82	590.30	234.09	590.40	236.36
106	590.50	238.64	590.60	240.91	590.70	243.18	590.80	245.45	590.90	247.73

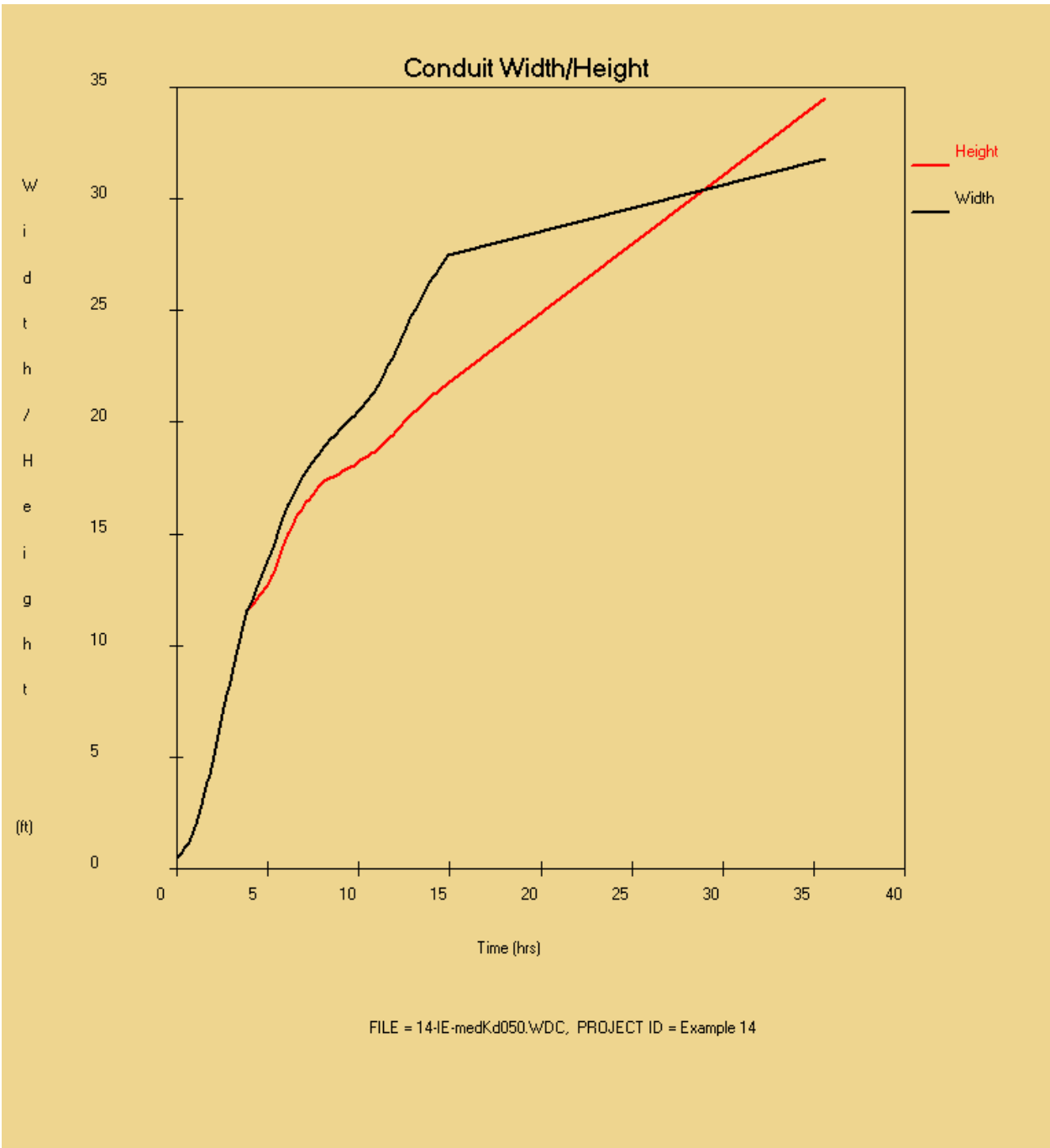
Listing of Tabular Data-Expanded Volume									
1	591.00	250.	591.10	258.	591.20	266.	591.30	274.	591.40
6	591.50	290.	591.60	299.	591.70	307.	591.80	316.	591.90
11	592.00	334.	592.10	343.	592.20	353.	592.30	362.	592.40
16	592.50	382.	592.60	392.	592.70	402.	592.80	412.	592.90
21	593.00	434.	593.10	444.	593.20	455.	593.30	466.	593.40
26	593.50	489.	593.60	501.	593.70	513.	593.80	525.	593.90
31	594.00	549.	594.10	562.	594.20	575.	594.30	588.	594.40
36	594.50	614.	594.60	628.	594.70	641.	594.80	655.	594.90
41	595.00	683.	595.10	698.	595.20	712.	595.30	727.	595.40
46	595.50	757.	595.60	772.	595.70	788.	595.80	803.	595.90
51	596.00	835.	596.10	852.	596.20	868.	596.30	885.	596.40
56	596.50	919.	596.60	936.	596.70	953.	596.80	971.	596.90
61	597.00	1007.	597.10	1025.	597.20	1043.	597.30	1062.	597.40
66	597.50	1099.	597.60	1119.	597.70	1138.	597.80	1158.	597.90
71	598.00	1197.	598.10	1218.	598.20	1238.	598.30	1259.	598.40
76	598.50	1301.	598.60	1322.	598.70	1343.	598.80	1365.	598.90
81	599.00	1409.	599.10	1431.	599.20	1454.	599.30	1476.	599.40
86	599.50	1522.	599.60	1546.	599.70	1569.	599.80	1593.	599.90
91	600.00	1641.	600.10	1665.	600.20	1690.	600.30	1714.	600.40
96	600.50	1764.	600.60	1790.	600.70	1815.	600.80	1841.	600.90
101	601.00	1893.	601.10	1920.	601.20	1946.	601.30	1973.	601.40
106	601.50	2028.	601.60	2055.	601.70	2083.	601.80	2111.	601.90
111	602.00	2168.	602.10	2197.	602.20	2226.	602.30	2255.	602.40
116	602.50	2315.	602.60	2345.	602.70	2375.	602.80	2406.	602.90
121	603.00	2467.	603.10	2499.	603.20	2530.	603.30	2562.	603.40
126	603.50	2626.	603.60	2659.	603.70	2691.	603.80	2724.	603.90
131	604.00	2791.	604.10	2825.	604.20	2859.	604.30	2893.	604.40
136	604.50	2962.	604.60	2997.	604.70	3032.	604.80	3068.	604.90
141	605.00	3139.	605.10	3175.	605.20	3212.	605.30	3248.	605.40
146	605.50	3322.	605.60	3360.	605.70	3397.	605.80	3435.	605.90
151	606.00	3512.	606.10	3550.	606.20	3589.	606.30	3628.	606.40
156	606.50	3707.	606.60	3747.	606.70	3787.	606.80	3827.	606.90
161	607.00	3908.	607.10	3949.	607.20	3990.	607.30	4032.	607.40
166	607.50	4115.	607.60	4158.	607.70	4200.	607.80	4243.	607.90
171	608.00	4329.	608.10	4372.	608.20	4416.	608.30	4460.	608.40
176	608.50	4548.	608.60	4593.	608.70	4638.	608.80	4683.	608.90
181	609.00	4774.	609.10	4819.	609.20	4865.	609.30	4912.	609.40
186	609.50	5005.	609.60	5052.	609.70	5100.	609.80	5147.	609.90
191	610.00	5243.	610.10	5291.	610.20	5340.	610.30	5389.	610.40
196	610.50	5487.	610.60	5537.	610.70	5587.	610.80	5637.	610.90
201	611.00	5738.	611.10	5789.	611.20	5840.	611.30	5891.	611.40
206	611.50	5995.	611.60	6047.	611.70	6099.	611.80	6152.	611.90
211	612.00	6258.	612.10	6311.	612.20	6365.	612.30	6419.	612.40
216	612.50	6527.	612.60	6582.	612.70	6637.	612.80	6692.	612.90
221	613.00	6803.	613.10	6859.	613.20	6915.	613.30	6971.	613.40
226	613.50	7085.	613.60	7142.	613.70	7199.	613.80	7257.	613.90
231	614.00	7373.	614.10	7431.	614.20	7490.	614.30	7549.	614.40
236	614.50	7667.	614.60	7727.	614.70	7787.	614.80	7847.	614.90
241	615.00	7968.	615.10	8029.	615.20	8090.	615.30	8152.	615.40
246	615.50	8275.	615.60	8337.	615.70	8400.	615.80	8462.	615.90
251	616.00	8588.	616.10	8652.	616.20	8715.	616.30	8779.	616.40
256	616.50	8908.	616.60	8973.	616.70	9037.	616.80	9103.	616.90
261	617.00	9234.	617.10	9299.	617.20	9366.	617.30	9432.	617.40
266	617.50	9566.	617.60	9633.	617.70	9700.	617.80	9768.	617.90
271	618.00	9904.	618.10	9972.	618.20	10041.	618.30	10110.	618.40
276	618.50	10248.	618.60	10318.	618.70	10388.	618.80	10458.	618.90
281	619.00	10599.	619.10	10670.	619.20	10741.	619.30	10812.	619.40
286	619.50	10956.	619.60	11028.	619.70	11101.	619.80	11173.	619.90
291	620.00	11319.	620.10	11393.					

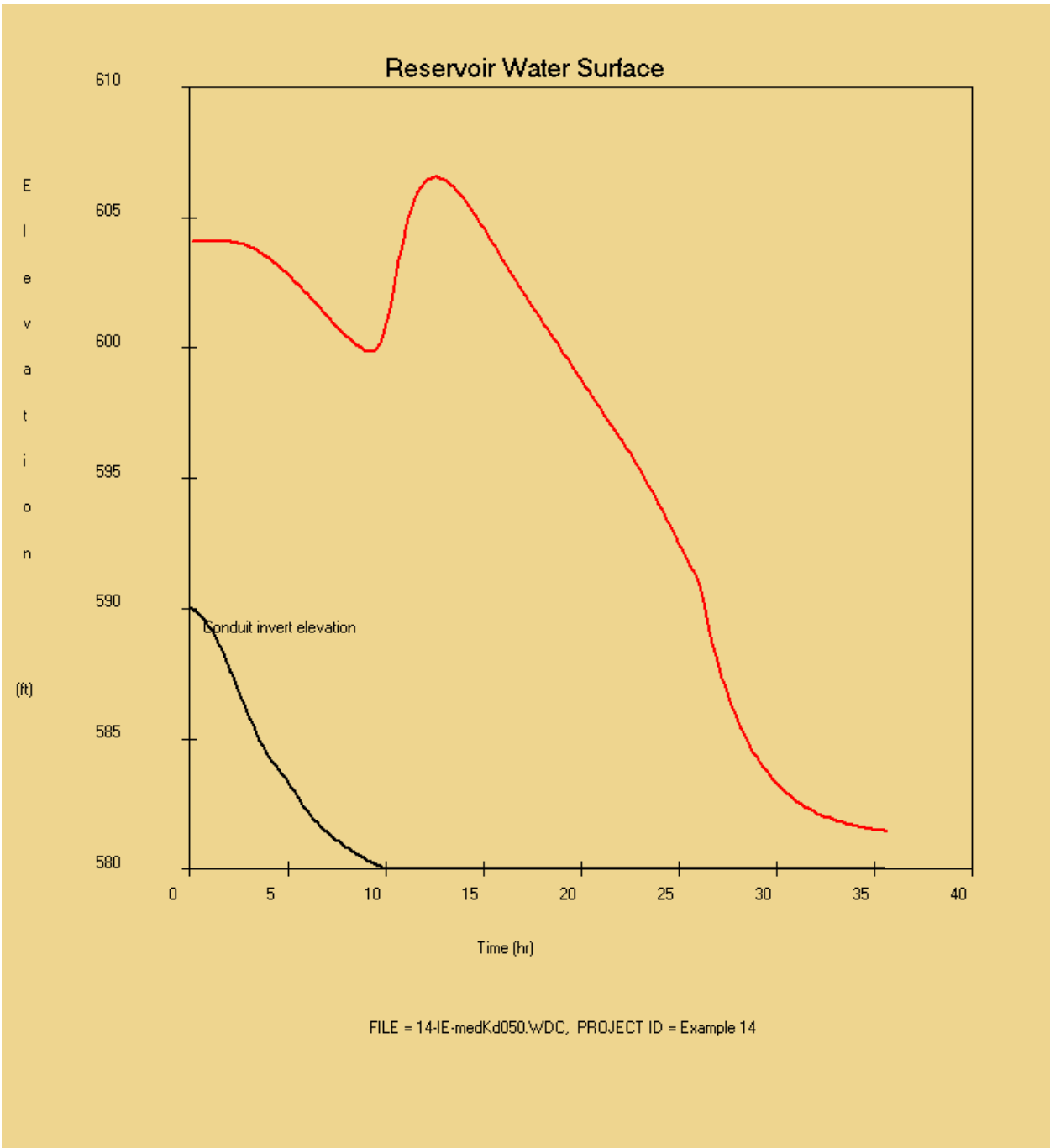
End of Run

**14-IE-medKd050**









Windows Dam Analysis Program  
Program Date-01/01/2009

Execution Date-07/25/2017  
Version Date-2008.01.01

Time-11:04:30

```

Listing of Input Data-      Example 14
WINDAM 01/01/2009Example 14
OPTION SIMPLE EARTH      INTERNAL
*      WINDAM C Example 13 - Proposed Dam 07/25/2017
*      Internal Erosion Analysis
*      Int Erosion Conduit elevation 590.0'
*      Conduit size: 0.5 ft x 0.5 ft
*      Kd @ med erosion rate: 0.50 ft/hr/psf
*      Critical shear: 0.0080 psf
*      Hanson/Robinson method
*      Std single stage riser, 36" conduit
*      1 x 100' wide auxiliary spillway - structural, rating
*      Dam Base:      580.0'
*      IE Conduit:    590.0'
*      PS crest:      604.0'
*      Start Routing: 604.1'
*      AS1 crest:      609.0' structural (rating tbl)
*      AS1 bottom width: 100'
*      Dam crest:      614.0' raised
*      Dam face Maintenance Code - 2 (minor discontinuities)
*      Aux Spwy Maintenance Code - 2 (minor discontinuities)
*      24-hr FBH Inflow peak: 20,000 cfs @ 13.4 hr
*      Dam embankment not overtopped
*      Aux Spwy 1 is structural, has rating tbl
*      no erosion estimated
*      End of my input comments-----
IEMODEL 2      110      0.50      400      0.0080
HYD      FBH      .162      0      OV
0      0
0.162      2.05
0.324      4.27
0.486      7.94
0.648      13.49
0.81      21.25
0.972      31.43
1.134      44.09
1.296      59.2
1.458      76.67
1.62      96.3
1.782      117.91
1.944      141.29
2.106      166.19
2.268      192.41
2.43      219.81
2.592      248.29
2.754      277.79
2.916      308.26
3.078      339.64
3.24      371.89
3.402      404.96
3.564      438.77
3.726      473.28
3.888      508.43
4.05      544.15
4.212      580.38
4.374      617.06
4.536      654.15

```



4. 698	691. 6
4. 86	729. 37
5. 022	767. 42
5. 184	805. 71
5. 346	844. 21
5. 508	883. 01
5. 67	922. 4
5. 832	962. 86
5. 994	1005. 06
6. 156	1049. 89
6. 318	1098. 5
6. 48	1151. 9
6. 642	1210. 65
6. 804	1274. 77
6. 966	1343. 9
7. 128	1417. 62
7. 29	1495. 44
7. 452	1577. 05
7. 614	1662. 99
7. 776	1754. 86
7. 938	1854. 94
8. 1	1966. 14
8. 262	2091. 9
8. 424	2236. 09
8. 586	2404. 24
8. 748	2603. 67
8. 91	2852. 99
9. 072	3236. 61
9. 234	3969. 87
9. 396	5171. 58
9. 55800000	6780. 08
9. 72000000	8811. 47
9. 88200000	11291. 61
10. 044	14009. 39
10. 206	16477. 03
10. 368	18343. 15
10. 53	19510
10. 692	20008. 95
10. 854	19962. 27
11. 016	19374. 39
11. 178	18418. 29
11. 34	17208. 44
11. 502	15720. 4
11. 664	14046. 82
11. 826	12475. 51
11. 988	11164. 77
12. 15	10045. 39
12. 312	9072. 22
12. 474	8237. 55
12. 636	7498. 24
12. 798	6822. 66
12. 96	6226. 47
13. 122	5713. 4
13. 284	5259. 68
13. 446	4856
13. 608	4497. 88
13. 77	4180. 52
13. 932	3893. 07
14. 094	3639. 11
14. 256	3414. 2

14. 418	3212. 11
14. 58	3032. 03
14. 742	2871. 29
14. 904	2725. 09
15. 066	2593. 97
15. 228	2475. 93
15. 39	2371. 16
15. 552	2276. 01
15. 714	2188. 82
15. 876	2112. 57
16. 038	2043. 22
16. 2	1977. 17
16. 362	1913. 76
16. 524	1852. 44
16. 686	1792. 93
16. 848	1735. 03
17. 01	1678. 94
17. 172	1626. 62
17. 334	1581. 9
17. 496	1541. 52
17. 658	1502. 55
17. 82	1464. 85
17. 982	1428. 33
18. 144	1393. 15
18. 306	1359. 58
18. 468	1327. 9
18. 63	1298. 33
18. 792	1270. 99
18. 954	1245. 91
19. 116	1223. 06
19. 278	1202. 33
19. 44	1183. 55
19. 602	1166. 55
19. 764	1151. 13
19. 926	1137. 04
20. 088	1124. 05
20. 25	1112
20. 412	1100. 72
20. 574	1090. 1
20. 736	1080. 04
20. 898	1070. 47
21. 06	1061. 31
21. 222	1052. 49
21. 384	1043. 21
21. 546	1031. 07
21. 708	1013. 69
21. 87	989. 43
22. 032	955. 92
22. 194	910. 62
22. 356	852. 94
22. 518	785. 59
22. 68	712. 19
22. 842	636. 31
23. 004	560. 79
23. 166	487. 79
23. 328	419. 84
23. 49	357. 61
23. 652	302. 02
23. 814	254. 45
23. 976	215. 27

24.138	182.74						
24.3	155.18						
24.462	131.84						
24.624	111.96						
24.786	94.88						
24.948	80.31						
25.11	68.04						
25.272	57.64						
25.434	48.75						
25.596	41.2						
25.758	34.79						
25.92	29.35						
26.082	24.72						
26.244	20.84						
26.406	20.03						
26.568	20.03						
26.73	20.03						
26.892	20.03						
27.054	20.03						
27.216	20.03						
27.378	20.03						
27.54	20.03						
27.702	20.03						
27.864	20.03						
28.026	20.03						
28.188	20.03						
28.35	20.03						
28.512	20.03						
28.674	20.03						
28.836	20.03						
28.998	20.03						
29.16	20.03						
29.322	20.03						
29.484	20.03						
29.646	20.03						
29.808	20.03						
ENDTABLE							
CRESTPRFL							
0	614						
550	614.5						
1200	614.2						
ENDTABLE							
STROUTE	604.1	580	ELEV				
STRUCTURE	SR1						
	591	250		76.6			
	593			106.9			
	595			142.8			
	597			180.6			
	601			262.7			
	605			360.3			
	609			456.9			
	613			557.7			
	615			607.7			
ENDTABLE							
UPSTREAM	2.5	5.6					
DAMCREST	14	5.6					
DWNSTREAM	2.5	5.6	.8	2	5	.01	
CONDUIT	0.5	0.5	590	550			
PSpI NLET	0.7		604				
PSpDATA	1	250	36	.013	590	582.5	SC

PSPCOEFFS 0.6  
 TAILWATER  
 581 0  
 590 1000  
 600 5000  
 610 20000  
 ENDTABLE  
 ASRATING 1Struct 0  
 609 0  
 610 310  
 611 880  
 612 1610  
 613 2480  
 614 3450  
 615 4550  
 ENDTABLE  
 OUTPUT ALL  
 ENDRUN

3.1

^^^^ Warning: Entered stage-storage table is not sufficient for the requested run.  
 Volume set to zero at dam base and linear interpolation used.

-----  
 Windows Dam Analysis Program      Execution Date - 07/25/2017  
 Program Date - 01/01/2009      Version Number - 2008.01.01      Time - 11:04:30  
 Input File - H:\WinDAM\Examples\Examples20170721chk\14-IE-medKd050.D2D  
 -----

\*\*\*\*\* Elevation Summary 1 \*\*\*\*\*

Dam Base Elevation:	580.00 feet
Max Tailwater Elevation:	602.16 feet
Prin Spwy Crest Elevation:	604.00 feet
Start Routing Elevation:	604.10 feet
Aux Spwy # 1 Crest Elevation:	609.00 feet
Aux Spwy # 2 Crest Elevation:	none
Aux Spwy # 3 Crest Elevation:	none
Max Pool Elevation:	606.55 feet
Initial Low Point in Dam Crest:	614.00 feet
Ending Low Point in Dam Crest:	614.00 feet

\*\*\*\*\* Flow Summary 2 \*\*\*\*\*

Peak Inflow:	20008.950 cfs @	10.692 hours
Peak Outflow:	8243.601 cfs @	13.446 hours
Max Flow Principal Spwy:	65.445 cfs @	12.150 hours
Max Flow Aux Spwy # 1:	0.000 cfs @	0.000 hours
Max Flow Aux Spwy # 2:	none	
Max Flow Aux Spwy # 3:	none	
Maximum flow over top of dam:	0.000 cfs @	0.000 hours
Duration of dam overtopping:		0.000 hours
Max unit discharge, low point or breach:	327.580 cfs/ft	
Maximum internal erosion conduit flow:	8183.825 cfs	

\*\*\*\*\* Spillways Summary 3 \*\*\*\*\*

Principal Spillway Type:	Single Stage Inlet, Circular Conduit
Principal Spillway Crest Elev:	604.00 feet
Prin. Spw. Weir Length:	18.00 feet
Conduit Diameter:	36.00 inches
Conduit Manning's n value:	0.013

Aux Spwy #1 Label:	Struct
Aux Spwy #1 Crest Elev:	609.00 feet
Aux Spwy #1 Bottom Width:	0.00 feet
Aux Spwy #1 Max Flow:	0.000 cfs @
Aux Spwy #1 Max Hp:	0.00 feet
Aux Spwy #1 Erosion Analysis:	none

Aux Spwy #2 Label:	none
Aux Spwy #2 Crest Elev:	none
Aux Spwy #2 Bottom Width:	none
Aux Spwy #2 Max Flow:	none
Aux Spwy #2 Max Hp:	none
Aux Spwy #2 Erosion Analysis:	none

Aux Spwy #3 Label:	none
Aux Spwy #3 Crest Elev:	none
Aux Spwy #3 Bottom Width:	none
Aux Spwy #3 Max Flow:	none
Aux Spwy #3 Max Hp:	none
Aux Spwy #3 Erosion Analysis:	none



\*\*\*\*\*

\*\*\*\*\* Overtopping Summary Table 4 \*\*\*\*\*

<<<<<< Overtopping did not occur for this embankment. >>>>>>

\*\*\*\*\*

\*\*\*\*\* Internal Erosion Summary Table 5 \*\*\*\*\*

Dam Breach Analysis type:	Internal Erosion	
Initial Conduit Elevation:	590.00 feet	
Initial Conduit Station:	550.00 feet	
Initial Conduit Width:	0.50 feet	
Initial Conduit Height:	0.50 feet	
Max. Internal Erosion conduit flow:	8183.825 cfs @	13.608 hours
Initial Low Point in Dam Crest Profile:	614.00 feet	
Maximum Pool Elevation:	606.55 feet @	12.474 hours
Ending Low Point in Dam Crest Profile:	614.00 feet @	0.000 hours

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\*\*\*\*\* Drawdown Summary Table 6 \*\*\*\*\*

<<<<<< Drawdown calculation was not an option for this embankment. >>>>>>

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No stress occurred on embankment face.

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Time (hrs)	Inflow (cfs)	Principal	Auxiliary	Auxiliary	Auxiliary	OverTop Outflow (cfs)	Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir	
		Spillway Outflow (cfs)	Struct Outflow (cfs)	Outflow (cfs)	Outflow (cfs)				Surface Elevation (feet)	Tailwater Elevation (feet)
6.156	1049.89	0.00	0.00			0.00	3906.62	3906.62	601.93	597.27
6.318	1098.50	0.00	0.00			0.00	3952.58	3952.58	601.80	597.38
6.480	1151.90	0.00	0.00			0.00	3990.79	3990.79	601.66	597.48
6.642	1210.65	0.00	0.00			0.00	4100.24	4100.24	601.53	597.56
6.804	1274.77	0.00	0.00			0.00	4026.36	4026.36	601.39	597.57
6.966	1343.90	0.00	0.00			0.00	4014.20	4014.20	601.25	597.67
7.128	1417.62	0.00	0.00			0.00	4081.12	4081.12	601.12	597.70
7.290	1495.44	0.00	0.00			0.00	4039.00	4039.00	600.99	597.59
7.452	1577.05	0.00	0.00			0.00	4043.34	4043.34	600.86	597.61
7.614	1662.99	0.00	0.00			0.00	4054.74	4054.74	600.73	597.62
7.776	1754.86	0.00	0.00			0.00	4049.20	4049.20	600.61	597.63
7.938	1854.94	0.00	0.00			0.00	4046.44	4046.44	600.49	597.61
8.100	1966.14	0.00	0.00			0.00	4029.19	4029.19	600.38	597.58
8.262	2091.90	0.00	0.00			0.00	4017.55	4017.55	600.27	597.55
8.424	2236.09	0.00	0.00			0.00	4013.26	4013.26	600.17	597.52
8.586	2404.24	0.00	0.00			0.00	4000.17	4000.17	600.08	597.50
8.748	2603.67	0.00	0.00			0.00	3997.79	3997.79	600.00	597.48
8.910	2852.99	0.00	0.00			0.00	3989.19	3989.19	599.93	597.47
9.072	3236.61	0.00	0.00			0.00	3991.92	3991.92	599.87	597.48
9.234	3969.87	0.00	0.00			0.00	4004.08	4004.08	599.85	597.50
9.396	5171.58	0.00	0.00			0.00	4024.49	4024.49	599.88	597.56
9.558	6780.08	0.00	0.00			0.00	4075.93	4075.93	599.99	597.70
9.720	8811.47	0.00	0.00			0.00	4160.79	4160.79	600.19	597.90
9.882	11291.61	0.00	0.00			0.00	4230.39	4230.39	600.50	598.21
10.044	14009.39	0.00	0.00			0.00	4406.88	4406.88	600.94	598.52
10.206	16477.03	0.00	0.00			0.00	4572.11	4572.11	601.48	598.93
10.368	18343.15	0.00	0.00			0.00	4757.23	4757.23	602.08	599.39
10.530	19510.00	0.00	0.00			0.00	4951.43	4951.43	602.72	599.88
10.692	20008.95	0.00	0.00			0.00	5288.22	5288.22	603.34	600.19
10.854	19962.27	0.00	0.00			0.00	5657.08	5657.08	603.94	600.44
11.016	19374.39	18.64	0.00			0.00	5995.55	6014.19	604.48	600.68
11.178	18418.29	52.72	0.00			0.00	6302.29	6355.01	604.96	600.90
11.340	17208.44	62.60	0.00			0.00	6590.06	6652.66	605.38	601.10
11.502	15720.40	63.84	0.00			0.00	6852.48	6916.32	605.73	601.28
11.664	14046.82	64.71	0.00			0.00	7084.93	7149.64	606.00	601.43
11.826	12475.51	65.22	0.00			0.00	7287.54	7352.76	606.21	601.57
11.988	11164.77	65.44	0.00			0.00	7462.76	7528.21	606.36	601.69
12.150	10045.39	65.45	0.00			0.00	7615.52	7680.97	606.46	601.79
12.312	9072.22	65.26	0.00			0.00	7748.01	7813.28	606.52	601.87
12.474	8237.55	64.92	0.00			0.00	7860.01	7924.93	606.55	601.95
12.636	7498.24	64.45	0.00			0.00	7954.75	8019.20	606.54	602.01
12.798	6822.66	63.87	0.00			0.00	8032.40	8096.27	606.51	602.06
12.960	6226.47	63.19	0.00			0.00	8092.55	8155.74	606.46	602.10
13.122	5713.40	62.43	0.00			0.00	8138.01	8200.44	606.39	602.13
13.284	5259.68	61.60	0.00			0.00	8167.02	8228.62	606.29	602.15
13.446	4856.00	60.71	0.00			0.00	8182.89	8243.60	606.18	602.16
13.608	4497.88	59.77	0.00			0.00	8183.82	8243.59	606.06	602.16
13.770	4180.52	58.79	0.00			0.00	8172.22	8231.00	605.92	602.15
13.932	3893.07	57.77	0.00			0.00	8148.15	8205.91	605.78	602.14
14.094	3639.11	56.71	0.00			0.00	8111.34	8168.05	605.62	602.11
14.256	3414.20	55.63	0.00			0.00	8063.01	8118.64	605.46	602.08
14.418	3212.11	54.52	0.00			0.00	8003.30	8057.82	605.28	602.04
14.580	3032.03	53.39	0.00			0.00	7933.50	7986.89	605.10	601.99
14.742	2871.29	48.97	0.00			0.00	7855.63	7904.60	604.92	601.94
14.904	2725.09	34.55	0.00			0.00	7773.37	7807.92	604.73	601.87
15.066	2593.97	21.63	0.00			0.00	7706.71	7728.35	604.53	601.81

Time (hrs)	Inflow (cfs)	Principal Spillway Outflow (cfs)	Auxiliary Struct Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)	OverTop Outflow (cfs)	Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
15.228	2475.93	10.77	0.00			0.00	7567.24	7578.01	604.33	601.72
15.390	2371.16	2.77	0.00			0.00	7412.09	7414.86	604.14	601.62
15.552	2276.01	0.00	0.00			0.00	7275.82	7275.82	603.94	601.52
15.714	2188.82	0.00	0.00			0.00	7119.12	7119.12	603.74	601.41
15.876	2112.57	0.00	0.00			0.00	6981.59	6981.59	603.53	601.31
16.038	2043.22	0.00	0.00			0.00	6824.66	6824.66	603.33	601.21
16.200	1977.17	0.00	0.00			0.00	6649.16	6649.16	603.13	601.10
16.362	1913.76	0.00	0.00			0.00	6493.63	6493.63	602.94	601.00
16.524	1852.44	0.00	0.00			0.00	6338.96	6338.96	602.74	600.89
16.686	1792.93	0.00	0.00			0.00	6166.84	6166.84	602.54	600.78
16.848	1735.03	0.00	0.00			0.00	6014.70	6014.70	602.35	600.67
17.010	1678.94	0.00	0.00			0.00	5845.77	5845.77	602.16	600.56
17.172	1626.62	0.00	0.00			0.00	5678.84	5678.84	601.97	600.45
17.334	1581.90	0.00	0.00			0.00	5514.11	5514.11	601.78	600.34
17.496	1541.52	0.00	0.00			0.00	5334.20	5334.20	601.59	600.23
17.658	1502.55	0.00	0.00			0.00	5192.23	5192.23	601.41	600.12
17.820	1464.85	0.00	0.00			0.00	5017.55	5017.55	601.23	600.01
17.982	1428.33	0.00	0.00			0.00	4948.31	4948.31	601.05	599.86
18.144	1393.15	0.00	0.00			0.00	4878.73	4878.73	600.87	599.70
18.306	1359.58	0.00	0.00			0.00	4809.14	4809.14	600.69	599.53
18.468	1327.90	0.00	0.00			0.00	4755.96	4755.96	600.51	599.37
18.630	1298.33	0.00	0.00			0.00	4685.94	4685.94	600.33	599.21
18.792	1270.99	0.00	0.00			0.00	4615.98	4615.98	600.15	599.04
18.954	1245.91	0.00	0.00			0.00	4546.06	4546.06	599.97	598.87
19.116	1223.06	0.00	0.00			0.00	4476.28	4476.28	599.78	598.70
19.278	1202.33	0.00	0.00			0.00	4406.89	4406.89	599.60	598.54
19.440	1183.55	0.00	0.00			0.00	4337.55	4337.55	599.42	598.37
19.602	1166.55	0.00	0.00			0.00	4283.92	4283.92	599.23	598.21
19.764	1151.13	0.00	0.00			0.00	4214.99	4214.99	599.05	598.04
19.926	1137.04	0.00	0.00			0.00	4146.43	4146.43	598.86	597.87
20.088	1124.05	0.00	0.00			0.00	4078.13	4078.13	598.68	597.70
20.250	1112.00	0.00	0.00			0.00	4024.84	4024.84	598.50	597.53
20.412	1100.72	0.00	0.00			0.00	3957.11	3957.11	598.31	597.36
20.574	1090.10	0.00	0.00			0.00	3875.88	3875.88	598.13	597.20
20.736	1080.04	0.00	0.00			0.00	3809.41	3809.41	597.94	597.03
20.898	1070.47	0.00	0.00			0.00	3757.19	3757.19	597.76	596.86
21.060	1061.31	0.00	0.00			0.00	3678.04	3678.04	597.58	596.70
21.222	1052.49	0.00	0.00			0.00	3613.26	3613.26	597.40	596.53
21.384	1043.21	0.00	0.00			0.00	3548.98	3548.98	597.22	596.37
21.546	1031.07	0.00	0.00			0.00	3472.21	3472.21	597.03	596.20
21.708	1013.69	0.00	0.00			0.00	3409.25	3409.25	596.85	596.04
21.870	989.43	0.00	0.00			0.00	3346.64	3346.64	596.67	595.87
22.032	955.92	0.00	0.00			0.00	3284.20	3284.20	596.49	595.71
22.194	910.62	0.00	0.00			0.00	3221.65	3221.65	596.31	595.54
22.356	852.94	0.00	0.00			0.00	3158.66	3158.66	596.12	595.37
22.518	785.59	0.00	0.00			0.00	3083.31	3083.31	595.93	595.20
22.680	712.19	0.00	0.00			0.00	3007.68	3007.68	595.74	595.02
22.842	636.31	0.00	0.00			0.00	2931.65	2931.65	595.54	594.84
23.004	560.79	0.00	0.00			0.00	2866.40	2866.40	595.34	594.66
23.166	487.79	0.00	0.00			0.00	2789.12	2789.12	595.13	594.47
23.328	419.84	0.00	0.00			0.00	2700.66	2700.66	594.91	594.28
23.490	357.61	0.00	0.00			0.00	2623.18	2623.18	594.69	594.08
23.652	302.02	0.00	0.00			0.00	2555.90	2555.90	594.47	593.87
23.814	254.45	0.00	0.00			0.00	2458.03	2458.03	594.24	593.67
23.976	215.27	0.00	0.00			0.00	2391.04	2391.04	594.01	593.46
24.138	182.74	0.00	0.00			0.00	2304.70	2304.70	593.78	593.25

Time (hrs)	Inflow (cfs)	Principal Spillway Outflow (cfs)	Auxiliary Struct Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)	OverTop Outflow (cfs)	Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
24.300	155.18	0.00	0.00			0.00	2219.57	2219.57	593.54	593.03
24.462	131.84	0.00	0.00			0.00	2126.78	2126.78	593.30	592.82
24.624	111.96	0.00	0.00			0.00	2035.99	2035.99	593.07	592.60
24.786	94.88	0.00	0.00			0.00	1955.95	1955.95	592.83	592.39
24.948	80.31	0.00	0.00			0.00	1869.33	1869.33	592.59	592.17
25.110	68.04	0.00	0.00			0.00	1785.09	1785.09	592.35	591.96
25.272	57.64	0.00	0.00			0.00	1703.35	1703.35	592.12	591.75
25.434	48.75	0.00	0.00			0.00	1608.74	1608.74	591.88	591.54
25.596	41.20	0.00	0.00			0.00	1525.26	1525.26	591.65	591.33
25.758	34.79	0.00	0.00			0.00	1452.12	1452.12	591.42	591.12
25.920	29.35	0.00	0.00			0.00	1367.16	1367.16	591.19	590.92
26.082	24.72	0.00	0.00			0.00	1268.07	1268.07	590.91	590.66
26.244	20.84	0.00	0.00			0.00	1030.14	1030.14	590.25	590.06
26.406	20.03	0.00	0.00			0.00	940.18	940.18	589.68	589.50
26.568	20.03	0.00	0.00			0.00	885.84	885.84	589.15	588.98
26.730	20.03	0.00	0.00			0.00	829.90	829.90	588.66	588.48
26.892	20.03	0.00	0.00			0.00	777.82	777.82	588.20	588.02
27.054	20.03	0.00	0.00			0.00	733.58	733.58	587.76	587.59
27.216	20.03	0.00	0.00			0.00	684.57	684.57	587.36	587.19
27.378	20.03	0.00	0.00			0.00	642.96	642.96	586.98	586.81
27.540	20.03	0.00	0.00			0.00	607.43	607.43	586.62	586.45
27.702	20.03	0.00	0.00			0.00	571.06	571.06	586.29	586.12
27.864	20.03	0.00	0.00			0.00	531.81	531.81	585.97	585.81
28.026	20.03	0.00	0.00			0.00	503.60	503.60	585.68	585.52
28.188	20.03	0.00	0.00			0.00	472.30	472.30	585.40	585.24
28.350	20.03	0.00	0.00			0.00	441.28	441.28	585.15	584.99
28.512	20.03	0.00	0.00			0.00	414.97	414.97	584.91	584.75
28.674	20.03	0.00	0.00			0.00	390.64	390.64	584.68	584.53
28.836	20.03	0.00	0.00			0.00	368.07	368.07	584.47	584.32
28.998	20.03	0.00	0.00			0.00	347.21	347.21	584.27	584.12
29.160	20.03	0.00	0.00			0.00	326.35	326.35	584.08	583.94
29.322	20.03	0.00	0.00			0.00	307.15	307.15	583.91	583.76
29.484	20.03	0.00	0.00			0.00	289.48	289.48	583.74	583.60
29.646	20.03	0.00	0.00			0.00	273.17	273.17	583.59	583.45
29.808	20.03	0.00	0.00			0.00	255.73	255.73	583.45	583.31
29.970	20.03	0.00	0.00			0.00	242.06	242.06	583.31	583.18
30.132	20.03	0.00	0.00			0.00	228.35	228.35	583.18	583.06
30.294	20.03	0.00	0.00			0.00	214.71	214.71	583.07	582.94
30.456	20.03	0.00	0.00			0.00	204.11	204.11	582.95	582.83
30.618	20.03	0.00	0.00			0.00	192.44	192.44	582.85	582.73
30.780	20.03	0.00	0.00			0.00	181.72	181.72	582.75	582.63
30.942	20.03	0.00	0.00			0.00	171.05	171.05	582.66	582.55
31.104	20.03	0.00	0.00			0.00	162.79	162.79	582.57	582.46
31.266	20.03	0.00	0.00			0.00	153.64	153.64	582.49	582.38
31.428	20.03	0.00	0.00			0.00	145.22	145.22	582.41	582.31
31.590	20.03	0.00	0.00			0.00	138.14	138.14	582.34	582.24
31.752	20.03	0.00	0.00			0.00	130.92	130.92	582.28	582.18
31.914	20.03	0.00	0.00			0.00	124.25	124.25	582.21	582.12
32.076	20.03	0.00	0.00			0.00	118.07	118.07	582.15	582.06
32.238	20.03	0.00	0.00			0.00	112.34	112.34	582.10	582.01
32.400	20.03	0.00	0.00			0.00	107.02	107.02	582.04	581.96
32.562	20.03	0.00	0.00			0.00	101.54	101.54	581.99	581.91
32.724	20.03	0.00	0.00			0.00	96.46	96.46	581.95	581.87
32.886	20.03	0.00	0.00			0.00	92.22	92.22	581.90	581.83
33.048	20.03	0.00	0.00			0.00	87.79	87.79	581.86	581.79
33.210	20.03	0.00	0.00			0.00	83.66	83.66	581.82	581.76



Time (hrs)	Inflow (cfs)	Principal Spillway Outflow (cfs)	Auxiliary Struct Outflow (cfs)	Auxiliary Outflow (cfs)	Auxiliary Outflow (cfs)	OverTop Outflow (cfs)	Internal Erosion Outflow (cfs)	Total Outflow (cfs)	Reservoir Surface Elevation (feet)	Tailwater Elevation (feet)
33.372	20.03	0.00	0.00			0.00	80.26	80.26	581.79	581.72
33.534	20.03	0.00	0.00			0.00	76.63	76.63	581.75	581.69
33.696	20.03	0.00	0.00			0.00	73.23	73.23	581.72	581.66
33.858	20.03	0.00	0.00			0.00	70.45	70.45	581.69	581.63
34.020	20.03	0.00	0.00			0.00	67.43	67.43	581.66	581.61
34.182	20.03	0.00	0.00			0.00	64.59	64.59	581.63	581.58
34.344	20.03	0.00	0.00			0.00	61.92	61.92	581.61	581.56
34.506	20.03	0.00	0.00			0.00	59.39	59.39	581.58	581.54
34.668	20.03	0.00	0.00			0.00	57.38	57.38	581.56	581.52
34.830	20.03	0.00	0.00			0.00	55.11	55.11	581.54	581.50
34.992	20.03	0.00	0.00			0.00	52.97	52.97	581.52	581.48
35.154	20.03	0.00	0.00			0.00	50.93	50.93	581.50	581.46
35.316	20.03	0.00	0.00			0.00	49.35	49.35	581.48	581.44
35.478	20.03	0.00	0.00			0.00	47.49	47.49	581.47	581.43
35.640	20.03	0.00	0.00			0.00	46.06	46.06	581.45	581.42

Spillway and Overtop Discharge Rating					
Elevation	Prin.	Spw.	Struct	Overtop	Total
					TW Elev
591.00		0.000	0.000	0.000	580.00
591.10		0.000	0.000	0.000	580.00
591.20		0.000	0.000	0.000	580.00
591.30		0.000	0.000	0.000	580.00
591.40		0.000	0.000	0.000	580.00
591.50		0.000	0.000	0.000	580.00
591.60		0.000	0.000	0.000	580.00
591.70		0.000	0.000	0.000	580.00
591.80		0.000	0.000	0.000	580.00
591.90		0.000	0.000	0.000	580.00
592.00		0.000	0.000	0.000	580.00
592.10		0.000	0.000	0.000	580.00
592.20		0.000	0.000	0.000	580.00
592.30		0.000	0.000	0.000	580.00
592.40		0.000	0.000	0.000	580.00
592.50		0.000	0.000	0.000	580.00
592.60		0.000	0.000	0.000	580.00
592.70		0.000	0.000	0.000	580.00
592.80		0.000	0.000	0.000	580.00
592.90		0.000	0.000	0.000	580.00
593.00		0.000	0.000	0.000	580.00
593.10		0.000	0.000	0.000	580.00
593.20		0.000	0.000	0.000	580.00
593.30		0.000	0.000	0.000	580.00
593.40		0.000	0.000	0.000	580.00
593.50		0.000	0.000	0.000	580.00
593.60		0.000	0.000	0.000	580.00
593.70		0.000	0.000	0.000	580.00
593.80		0.000	0.000	0.000	580.00
593.90		0.000	0.000	0.000	580.00
594.00		0.000	0.000	0.000	580.00
594.10		0.000	0.000	0.000	580.00
594.20		0.000	0.000	0.000	580.00
594.30		0.000	0.000	0.000	580.00
594.40		0.000	0.000	0.000	580.00
594.50		0.000	0.000	0.000	580.00
594.60		0.000	0.000	0.000	580.00
594.70		0.000	0.000	0.000	580.00
594.80		0.000	0.000	0.000	580.00
594.90		0.000	0.000	0.000	580.00
595.00		0.000	0.000	0.000	580.00
595.10		0.000	0.000	0.000	580.00
595.20		0.000	0.000	0.000	580.00
595.30		0.000	0.000	0.000	580.00
595.40		0.000	0.000	0.000	580.00
595.50		0.000	0.000	0.000	580.00
595.60		0.000	0.000	0.000	580.00
595.70		0.000	0.000	0.000	580.00
595.80		0.000	0.000	0.000	580.00
595.90		0.000	0.000	0.000	580.00
596.00		0.000	0.000	0.000	580.00
596.10		0.000	0.000	0.000	580.00
596.20		0.000	0.000	0.000	580.00
596.30		0.000	0.000	0.000	580.00
596.40		0.000	0.000	0.000	580.00
596.50		0.000	0.000	0.000	580.00
596.60		0.000	0.000	0.000	580.00
596.70		0.000	0.000	0.000	580.00

Elevation	Prin. Spw.	Struct	OverTop	Total	TW Elev
596.80	0.000	0.000	0.000	0.000	580.00
596.90	0.000	0.000	0.000	0.000	580.00
597.00	0.000	0.000	0.000	0.000	580.00
597.10	0.000	0.000	0.000	0.000	580.00
597.20	0.000	0.000	0.000	0.000	580.00
597.30	0.000	0.000	0.000	0.000	580.00
597.40	0.000	0.000	0.000	0.000	580.00
597.50	0.000	0.000	0.000	0.000	580.00
597.60	0.000	0.000	0.000	0.000	580.00
597.70	0.000	0.000	0.000	0.000	580.00
597.80	0.000	0.000	0.000	0.000	580.00
597.90	0.000	0.000	0.000	0.000	580.00
598.00	0.000	0.000	0.000	0.000	580.00
598.10	0.000	0.000	0.000	0.000	580.00
598.20	0.000	0.000	0.000	0.000	580.00
598.30	0.000	0.000	0.000	0.000	580.00
598.40	0.000	0.000	0.000	0.000	580.00
598.50	0.000	0.000	0.000	0.000	580.00
598.60	0.000	0.000	0.000	0.000	580.00
598.70	0.000	0.000	0.000	0.000	580.00
598.80	0.000	0.000	0.000	0.000	580.00
598.90	0.000	0.000	0.000	0.000	580.00
599.00	0.000	0.000	0.000	0.000	580.00
599.10	0.000	0.000	0.000	0.000	580.00
599.20	0.000	0.000	0.000	0.000	580.00
599.30	0.000	0.000	0.000	0.000	580.00
599.40	0.000	0.000	0.000	0.000	580.00
599.50	0.000	0.000	0.000	0.000	580.00
599.60	0.000	0.000	0.000	0.000	580.00
599.70	0.000	0.000	0.000	0.000	580.00
599.80	0.000	0.000	0.000	0.000	580.00
599.90	0.000	0.000	0.000	0.000	580.00
600.00	0.000	0.000	0.000	0.000	580.00
600.10	0.000	0.000	0.000	0.000	580.00
600.20	0.000	0.000	0.000	0.000	580.00
600.30	0.000	0.000	0.000	0.000	580.00
600.40	0.000	0.000	0.000	0.000	580.00
600.50	0.000	0.000	0.000	0.000	580.00
600.60	0.000	0.000	0.000	0.000	580.00
600.70	0.000	0.000	0.000	0.000	580.00
600.80	0.000	0.000	0.000	0.000	580.00
600.90	0.000	0.000	0.000	0.000	580.00
601.00	0.000	0.000	0.000	0.000	580.00
601.10	0.000	0.000	0.000	0.000	580.00
601.20	0.000	0.000	0.000	0.000	580.00
601.30	0.000	0.000	0.000	0.000	580.00
601.40	0.000	0.000	0.000	0.000	580.00
601.50	0.000	0.000	0.000	0.000	580.00
601.60	0.000	0.000	0.000	0.000	580.00
601.70	0.000	0.000	0.000	0.000	580.00
601.80	0.000	0.000	0.000	0.000	580.00
601.90	0.000	0.000	0.000	0.000	580.00
602.00	0.000	0.000	0.000	0.000	580.00
602.10	0.000	0.000	0.000	0.000	580.00
602.20	0.000	0.000	0.000	0.000	580.00
602.30	0.000	0.000	0.000	0.000	580.00
602.40	0.000	0.000	0.000	0.000	580.00
602.50	0.000	0.000	0.000	0.000	580.00
602.60	0.000	0.000	0.000	0.000	580.00

Elevation	Prin. Spw.	Struct	OverTop	Total	TW El ev
602.70	0.000	0.000	0.000	0.000	580.00
602.80	0.000	0.000	0.000	0.000	580.00
602.90	0.000	0.000	0.000	0.000	580.00
603.00	0.000	0.000	0.000	0.000	580.00
603.10	0.000	0.000	0.000	0.000	580.00
603.20	0.000	0.000	0.000	0.000	580.00
603.30	0.000	0.000	0.000	0.000	580.00
603.40	0.000	0.000	0.000	0.000	580.00
603.50	0.000	0.000	0.000	0.000	580.00
603.60	0.000	0.000	0.000	0.000	580.00
603.70	0.000	0.000	0.000	0.000	580.00
603.80	0.000	0.000	0.000	0.000	580.00
603.90	0.000	0.000	0.000	0.000	580.00
604.00	0.000	0.000	0.000	0.000	580.00
604.10	1.765	0.000	0.000	1.765	580.00
604.20	4.991	0.000	0.000	4.991	580.00
604.30	9.169	0.000	0.000	9.169	580.00
604.40	14.116	0.000	0.000	14.116	580.00
604.50	19.728	0.000	0.000	19.728	580.00
604.60	25.933	0.000	0.000	25.933	580.00
604.70	32.680	0.000	0.000	32.680	580.00
604.80	39.927	0.000	0.000	39.927	580.00
604.90	47.643	0.000	0.000	47.643	580.00
605.00	55.800	0.000	0.000	55.800	580.00
605.10	64.376	0.000	0.000	64.376	580.00
605.20	73.351	0.000	0.000	73.351	580.00
605.30	82.708	0.000	0.000	82.708	580.00
605.40	92.433	0.000	0.000	92.433	580.00
605.50	102.511	0.000	0.000	102.511	580.00
605.60	112.931	0.000	0.000	112.931	580.00
605.70	123.682	0.000	0.000	123.682	580.00
605.80	128.653	0.000	0.000	128.653	580.00
605.90	129.102	0.000	0.000	129.102	580.00
606.00	129.549	0.000	0.000	129.549	580.00
606.10	129.995	0.000	0.000	129.995	580.00
606.20	130.440	0.000	0.000	130.440	580.00
606.30	130.883	0.000	0.000	130.883	580.00
606.40	131.324	0.000	0.000	131.324	580.00
606.50	131.764	0.000	0.000	131.764	580.00
606.60	132.202	0.000	0.000	132.202	580.00
606.70	132.639	0.000	0.000	132.639	580.00
606.80	133.075	0.000	0.000	133.075	580.00
606.90	133.509	0.000	0.000	133.509	580.00
607.00	133.942	0.000	0.000	133.942	580.00
607.10	134.373	0.000	0.000	134.373	580.00
607.20	134.803	0.000	0.000	134.803	580.00
607.30	135.232	0.000	0.000	135.232	580.00
607.40	135.659	0.000	0.000	135.659	580.00
607.50	136.085	0.000	0.000	136.085	580.00
607.60	136.510	0.000	0.000	136.510	580.00
607.70	136.933	0.000	0.000	136.933	580.00
607.80	137.355	0.000	0.000	137.355	580.00
607.90	137.776	0.000	0.000	137.776	580.00
608.00	138.195	0.000	0.000	138.195	580.00
608.10	138.613	0.000	0.000	138.613	580.00
608.20	139.030	0.000	0.000	139.030	580.00
608.30	139.446	0.000	0.000	139.446	580.00
608.40	139.860	0.000	0.000	139.860	580.00
608.50	140.273	0.000	0.000	140.273	580.00

Elevation	Prin. Spw.	Struct	OverTop	Total	TW Elev
608.60	140.685	0.000	0.000	140.685	580.00
608.70	141.096	0.000	0.000	141.096	580.00
608.80	141.506	0.000	0.000	141.506	580.00
608.90	141.914	0.000	0.000	141.914	580.00
609.00	142.321	0.000	0.000	142.321	580.00
609.10	142.727	31.000	0.000	173.727	580.00
609.20	143.132	62.000	0.000	205.132	580.00
609.30	143.536	93.000	0.000	236.536	580.00
609.40	143.939	124.000	0.000	267.939	580.00
609.50	144.340	155.000	0.000	299.340	580.00
609.60	144.741	186.000	0.000	330.741	580.00
609.70	145.140	217.000	0.000	362.140	580.00
609.80	145.538	248.000	0.000	393.538	580.00
609.90	145.935	279.000	0.000	424.935	580.00
610.00	146.331	310.000	0.000	456.331	580.00
610.10	146.726	367.000	0.000	513.726	580.00
610.20	147.120	424.000	0.000	571.120	580.00
610.30	147.513	481.000	0.000	628.513	580.00
610.40	147.905	538.000	0.000	685.905	580.00
610.50	148.295	595.000	0.000	743.295	580.00
610.60	148.685	652.000	0.000	800.685	580.00
610.70	149.074	709.000	0.000	858.074	580.00
610.80	149.462	766.000	0.000	915.462	580.00
610.90	149.848	823.000	0.000	972.848	580.00
611.00	150.234	880.000	0.000	1030.234	580.00
611.10	150.619	953.000	0.000	1103.619	580.00
611.20	151.002	1026.000	0.000	1177.002	580.00
611.30	151.385	1099.000	0.000	1250.385	580.00
611.40	151.767	1172.000	0.000	1323.767	580.00
611.50	152.148	1245.000	0.000	1397.148	580.00
611.60	152.528	1318.000	0.000	1470.528	580.00
611.70	152.907	1391.000	0.000	1543.907	580.00
611.80	153.285	1464.000	0.000	1617.285	580.00
611.90	153.662	1537.000	0.000	1690.662	580.00
612.00	154.038	1610.000	0.000	1764.038	580.00
612.10	154.413	1697.000	0.000	1851.413	580.00
612.20	154.788	1784.000	0.000	1938.788	580.00
612.30	155.161	1871.000	0.000	2026.161	580.00
612.40	155.534	1958.000	0.000	2113.534	580.00
612.50	155.905	2045.000	0.000	2200.905	580.00
612.60	156.276	2132.000	0.000	2288.276	580.00
612.70	156.646	2219.000	0.000	2375.646	580.00
612.80	157.015	2306.000	0.000	2463.015	580.00
612.90	157.383	2393.000	0.000	2550.383	580.00
613.00	157.750	2480.000	0.000	2637.750	580.00
613.10	158.117	2577.000	0.000	2735.117	580.00
613.20	158.482	2674.000	0.000	2832.482	580.00
613.30	158.847	2771.000	0.000	2929.847	580.00
613.40	159.211	2868.000	0.000	3027.211	580.00
613.50	159.574	2965.000	0.000	3124.574	580.00
613.60	159.936	3062.000	0.000	3221.936	580.00
613.70	160.298	3159.000	0.000	3319.298	580.00
613.80	160.658	3256.000	0.000	3416.658	580.00
613.90	161.018	3353.000	0.000	3514.018	580.00
614.00	161.377	3450.000	0.000	3611.377	580.00
614.10	161.735	3560.000	0.160	3721.895	580.00
614.20	162.093	3670.000	1.447	3833.540	580.00
614.30	162.449	3780.000	5.476	3947.926	580.00
614.40	162.805	3890.000	15.605	4068.410	580.00



Elevation	Prin. Spw.	Struct	OverTop	Total	TW El ev
614.50	163.160	4000.000	35.811	4198.971	580.00
614.60	163.515	4110.000	104.551	4378.066	580.00
614.70	163.868	4220.000	214.436	4598.305	580.00
614.80	164.221	4330.000	393.042	4887.263	580.00
614.90	164.573	4440.000	628.673	5233.246	580.00
615.00	164.924	4550.000	896.448	5611.372	580.00
615.10	165.275	4660.000	1332.138	6157.413	580.00
615.20	165.625	4770.000	1867.822	6803.446	580.00
615.30	165.974	4880.000	2430.673	7476.646	580.00
615.40	166.322	4990.000	3019.294	8175.616	580.00
615.50	166.670	5100.000	3631.263	8897.932	580.00
615.60	167.016	5210.000	4264.971	9641.988	580.00
615.70	167.363	5320.000	4921.339	10408.702	580.00
615.80	167.708	5430.000	5597.362	11195.070	580.00
615.90	168.053	5540.000	6295.347	12003.399	580.00
616.00	168.397	5650.000	7012.670	12831.067	580.00
616.10	168.740	5760.000	7748.348	13677.088	580.00
616.20	169.083	5870.000	8506.320	14545.403	580.00
616.30	169.425	5980.000	9279.441	15428.866	580.00
616.40	169.766	6090.000	10073.485	16333.251	580.00
616.50	170.106	6200.000	10885.994	17256.101	580.00
616.60	170.446	6310.000	11715.605	18196.052	580.00
616.70	170.786	6420.000	12563.427	19154.212	580.00
616.80	171.124	6530.000	13427.554	20128.678	580.00
616.90	171.462	6640.000	14309.007	21120.468	580.00
617.00	171.799	6750.000	15207.790	22129.589	580.00
617.10	172.136	6860.000	16121.459	23153.595	580.00
617.20	172.472	6970.000	17052.656	24195.127	580.00
617.30	172.807	7080.000	17999.793	25252.600	580.00
617.40	173.141	7190.000	18961.437	26324.578	580.00
617.50	173.475	7300.000	19939.137	27412.612	580.00
617.60	173.809	7410.000	20931.137	28514.945	580.00
617.70	174.141	7520.000	21938.647	29632.788	580.00
617.80	174.473	7630.000	22960.820	30765.293	580.00
617.90	174.805	7740.000	23997.667	31912.472	580.00
618.00	175.135	7850.000	25048.434	33073.569	580.00
618.10	175.465	7960.000	26112.955	34248.421	580.00
618.20	175.795	8070.000	27191.689	35437.484	580.00
618.30	176.124	8180.000	28285.555	36641.678	580.00
618.40	176.452	8290.000	29392.418	37858.870	580.00
618.50	176.780	8400.000	30512.220	39089.000	580.00
618.60	177.107	8510.000	31644.991	40332.098	580.00
618.70	177.433	8620.000	32791.022	41588.455	580.00
618.80	177.759	8730.000	33950.999	42858.759	580.00
618.90	178.084	8840.000	35123.596	44141.681	580.00
619.00	178.409	8950.000	36308.001	45436.410	580.00
619.10	178.733	9060.000	37507.363	46746.097	580.00
619.20	179.057	9170.000	38717.142	48066.199	580.00
619.30	179.380	9280.000	39938.301	49397.680	580.00
619.40	179.702	9390.000	41174.436	50744.138	580.00
619.50	180.024	9500.000	42420.142	52100.166	580.00
619.60	180.345	9610.000	43679.141	53469.486	580.00
619.70	180.666	9720.000	44951.073	54851.739	580.00
619.80	180.986	9830.000	46232.932	56243.918	580.00
619.90	181.305	9940.000	47528.084	57649.389	580.00
620.00	181.624	10050.000	48835.227	59066.851	580.00
620.10	181.896	10160.000	50153.460	60495.356	580.00

## Listing of Tabular Data-Expanded Area

1	591.00	76.60	591.10	78.12	591.20	79.63	591.30	81.14	591.40	82.66
6	591.50	84.17	591.60	85.69	591.70	87.21	591.80	88.72	591.90	90.23
11	592.00	91.75	592.10	93.27	592.20	94.78	592.30	96.29	592.40	97.81
16	592.50	99.33	592.60	100.84	592.70	102.36	592.80	103.87	592.90	105.38
21	593.00	106.90	593.10	108.70	593.20	110.49	593.30	112.28	593.40	114.08
26	593.50	115.88	593.60	117.67	593.70	119.47	593.80	121.26	593.90	123.05
31	594.00	124.85	594.10	126.65	594.20	128.44	594.30	130.23	594.40	132.03
36	594.50	133.83	594.60	135.62	594.70	137.42	594.80	139.21	594.90	141.00
41	595.00	142.80	595.10	144.69	595.20	146.58	595.30	148.47	595.40	150.36
46	595.50	152.25	595.60	154.14	595.70	156.03	595.80	157.92	595.90	159.81
51	596.00	161.70	596.10	163.59	596.20	165.48	596.30	167.37	596.40	169.26
56	596.50	171.15	596.60	173.04	596.70	174.93	596.80	176.82	596.90	178.71
61	597.00	180.60	597.10	182.65	597.20	184.71	597.30	186.76	597.40	188.81
66	597.50	190.86	597.60	192.92	597.70	194.97	597.80	197.02	597.90	199.07
71	598.00	201.12	598.10	203.18	598.20	205.23	598.30	207.28	598.40	209.33
76	598.50	211.39	598.60	213.44	598.70	215.49	598.80	217.54	598.90	219.60
81	599.00	221.65	599.10	223.70	599.20	225.76	599.30	227.81	599.40	229.86
86	599.50	231.91	599.60	233.97	599.70	236.02	599.80	238.07	599.90	240.12
91	600.00	242.17	600.10	244.23	600.20	246.28	600.30	248.33	600.40	250.38
96	600.50	252.44	600.60	254.49	600.70	256.54	600.80	258.59	600.90	260.65
101	601.00	262.70	601.10	265.14	601.20	267.58	601.30	270.02	601.40	272.46
106	601.50	274.90	601.60	277.34	601.70	279.78	601.80	282.22	601.90	284.66
111	602.00	287.10	602.10	289.54	602.20	291.98	602.30	294.42	602.40	296.86
116	602.50	299.30	602.60	301.74	602.70	304.18	602.80	306.62	602.90	309.06
121	603.00	311.50	603.10	313.94	603.20	316.38	603.30	318.82	603.40	321.26
126	603.50	323.70	603.60	326.14	603.70	328.58	603.80	331.02	603.90	333.46
131	604.00	335.90	604.10	338.34	604.20	340.78	604.30	343.22	604.40	345.66
136	604.50	348.10	604.60	350.54	604.70	352.98	604.80	355.42	604.90	357.86
141	605.00	360.30	605.10	362.72	605.20	365.13	605.30	367.54	605.40	369.96
146	605.50	372.38	605.60	374.79	605.70	377.21	605.80	379.62	605.90	382.03
151	606.00	384.45	606.10	386.87	606.20	389.28	606.30	391.69	606.40	394.11
156	606.50	396.52	606.60	398.94	606.70	401.36	606.80	403.77	606.90	406.18
161	607.00	408.60	607.10	411.02	607.20	413.43	607.30	415.84	607.40	418.26
166	607.50	420.68	607.60	423.09	607.70	425.51	607.80	427.92	607.90	430.33
171	608.00	432.75	608.10	435.17	608.20	437.58	608.30	439.99	608.40	442.41
176	608.50	444.82	608.60	447.24	608.70	449.66	608.80	452.07	608.90	454.48
181	609.00	456.90	609.10	459.42	609.20	461.94	609.30	464.46	609.40	466.98
186	609.50	469.50	609.60	472.02	609.70	474.54	609.80	477.06	609.90	479.58
191	610.00	482.10	610.10	484.62	610.20	487.14	610.30	489.66	610.40	492.18
196	610.50	494.70	610.60	497.22	610.70	499.74	610.80	502.26	610.90	504.78
201	611.00	507.30	611.10	509.82	611.20	512.34	611.30	514.86	611.40	517.38
206	611.50	519.90	611.60	522.42	611.70	524.94	611.80	527.46	611.90	529.98
211	612.00	532.50	612.10	535.02	612.20	537.54	612.30	540.06	612.40	542.58
216	612.50	545.10	612.60	547.62	612.70	550.14	612.80	552.66	612.90	555.18
221	613.00	557.70	613.10	560.20	613.20	562.70	613.30	565.20	613.40	567.70
226	613.50	570.20	613.60	572.70	613.70	575.20	613.80	577.70	613.90	580.20
231	614.00	582.70	614.10	585.20	614.20	587.70	614.30	590.20	614.40	592.70
236	614.50	595.20	614.60	597.70	614.70	600.20	614.80	602.70	614.90	605.20
241	615.00	607.70	615.10	610.20	615.20	612.70	615.30	615.20	615.40	617.70
246	615.50	620.20	615.60	622.70	615.70	625.20	615.80	627.70	615.90	630.20
251	616.00	632.70	616.10	635.20	616.20	637.70	616.30	640.20	616.40	642.70
256	616.50	645.20	616.60	647.70	616.70	650.20	616.80	652.70	616.90	655.20
261	617.00	657.70	617.10	660.20	617.20	662.70	617.30	665.20	617.40	667.70
266	617.50	670.20	617.60	672.70	617.70	675.20	617.80	677.70	617.90	680.20
271	618.00	682.70	618.10	685.20	618.20	687.70	618.30	690.20	618.40	692.70
276	618.50	695.20	618.60	697.70	618.70	700.20	618.80	702.70	618.90	705.20
281	619.00	707.70	619.10	710.20	619.20	712.70	619.30	715.20	619.40	717.70
286	619.50	720.20	619.60	722.70	619.70	725.20	619.80	727.70	619.90	730.20
291	620.00	732.70	620.10	735.20						

## Listing of Tabular Data-Generated Volume

1	591.00	250.00	593.00	433.50	595.00	683.20	597.00	1006.60	601.00	1893.20
6	605.00	3139.20	609.00	4773.60	613.00	6802.80	615.00	7968.20		

## Listing of Tabular Data-Expanded Low Volume

1	580.00	0.00	580.10	2.27	580.20	4.55	580.30	6.82	580.40	9.09
6	580.50	11.36	580.60	13.64	580.70	15.91	580.80	18.18	580.90	20.45
11	581.00	22.73	581.10	25.00	581.20	27.27	581.30	29.55	581.40	31.82
16	581.50	34.09	581.60	36.36	581.70	38.64	581.80	40.91	581.90	43.18
21	582.00	45.45	582.10	47.73	582.20	50.00	582.30	52.27	582.40	54.55
26	582.50	56.82	582.60	59.09	582.70	61.36	582.80	63.64	582.90	65.91
31	583.00	68.18	583.10	70.45	583.20	72.73	583.30	75.00	583.40	77.27
36	583.50	79.55	583.60	81.82	583.70	84.09	583.80	86.36	583.90	88.64
41	584.00	90.91	584.10	93.18	584.20	95.45	584.30	97.73	584.40	100.00
46	584.50	102.27	584.60	104.55	584.70	106.82	584.80	109.09	584.90	111.36
51	585.00	113.64	585.10	115.91	585.20	118.18	585.30	120.45	585.40	122.73
56	585.50	125.00	585.60	127.27	585.70	129.55	585.80	131.82	585.90	134.09
61	586.00	136.36	586.10	138.64	586.20	140.91	586.30	143.18	586.40	145.45
66	586.50	147.73	586.60	150.00	586.70	152.27	586.80	154.55	586.90	156.82
71	587.00	159.09	587.10	161.36	587.20	163.64	587.30	165.91	587.40	168.18
76	587.50	170.45	587.60	172.73	587.70	175.00	587.80	177.27	587.90	179.55
81	588.00	181.82	588.10	184.09	588.20	186.36	588.30	188.64	588.40	190.91
86	588.50	193.18	588.60	195.45	588.70	197.73	588.80	200.00	588.90	202.27
91	589.00	204.55	589.10	206.82	589.20	209.09	589.30	211.36	589.40	213.64
96	589.50	215.91	589.60	218.18	589.70	220.45	589.80	222.73	589.90	225.00
101	590.00	227.27	590.10	229.55	590.20	231.82	590.30	234.09	590.40	236.36
106	590.50	238.64	590.60	240.91	590.70	243.18	590.80	245.45	590.90	247.73

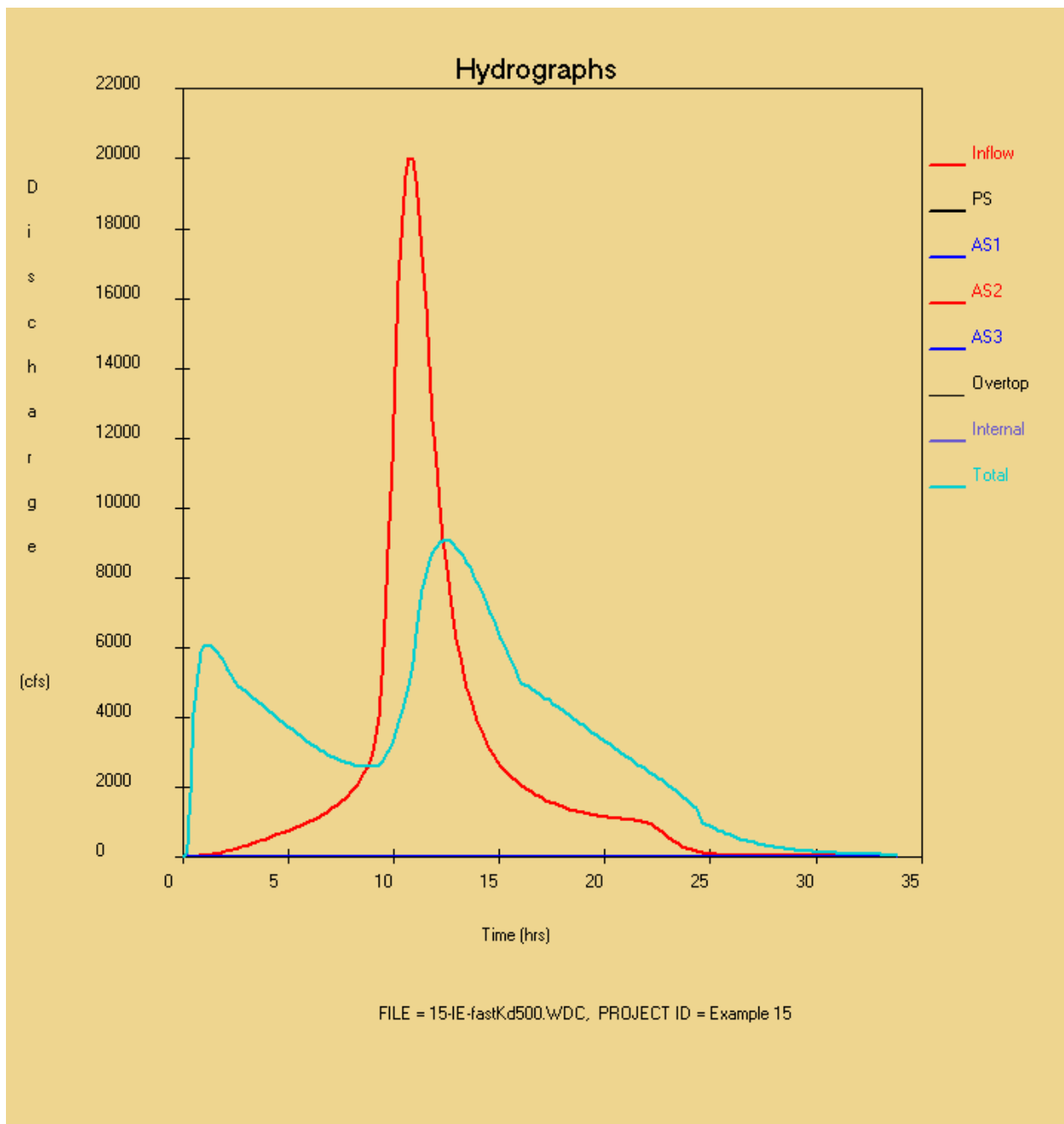
## Listing of Tabular Data-Expanded Volume

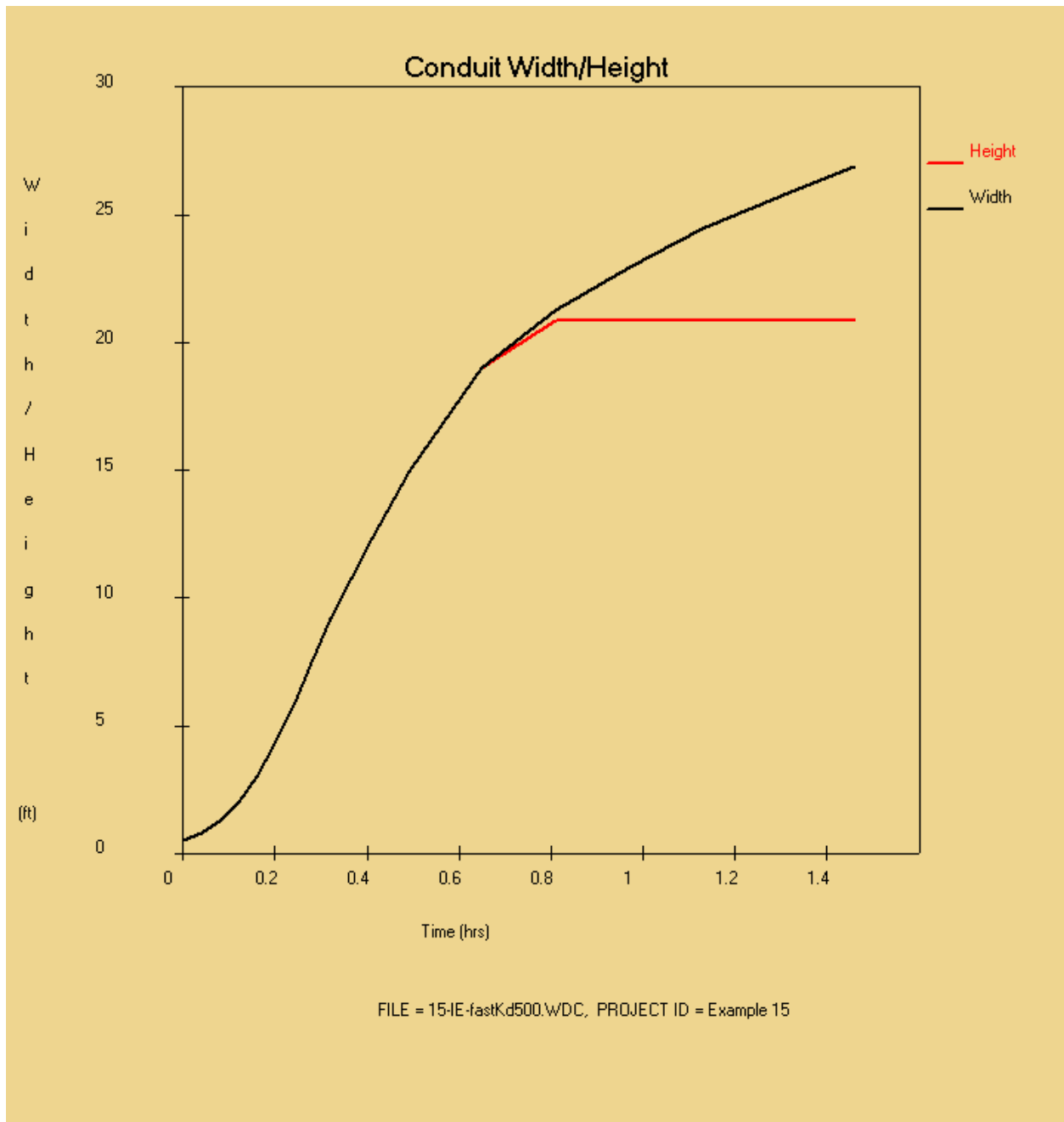
1	591.00	250.	591.10	258.	591.20	266.	591.30	274.	591.40	282.
6	591.50	290.	591.60	299.	591.70	307.	591.80	316.	591.90	325.
11	592.00	334.	592.10	343.	592.20	353.	592.30	362.	592.40	372.
16	592.50	382.	592.60	392.	592.70	402.	592.80	412.	592.90	423.
21	593.00	434.	593.10	444.	593.20	455.	593.30	466.	593.40	478.
26	593.50	489.	593.60	501.	593.70	513.	593.80	525.	593.90	537.
31	594.00	549.	594.10	562.	594.20	575.	594.30	588.	594.40	601.
36	594.50	614.	594.60	628.	594.70	641.	594.80	655.	594.90	669.
41	595.00	683.	595.10	698.	595.20	712.	595.30	727.	595.40	742.
46	595.50	757.	595.60	772.	595.70	788.	595.80	803.	595.90	819.
51	596.00	835.	596.10	852.	596.20	868.	596.30	885.	596.40	902.
56	596.50	919.	596.60	936.	596.70	953.	596.80	971.	596.90	989.
61	597.00	1007.	597.10	1025.	597.20	1043.	597.30	1062.	597.40	1080.
66	597.50	1099.	597.60	1119.	597.70	1138.	597.80	1158.	597.90	1177.
71	598.00	1197.	598.10	1218.	598.20	1238.	598.30	1259.	598.40	1280.
76	598.50	1301.	598.60	1322.	598.70	1343.	598.80	1365.	598.90	1387.
81	599.00	1409.	599.10	1431.	599.20	1454.	599.30	1476.	599.40	1499.
86	599.50	1522.	599.60	1546.	599.70	1569.	599.80	1593.	599.90	1617.
91	600.00	1641.	600.10	1665.	600.20	1690.	600.30	1714.	600.40	1739.
96	600.50	1764.	600.60	1790.	600.70	1815.	600.80	1841.	600.90	1867.
101	601.00	1893.	601.10	1920.	601.20	1946.	601.30	1973.	601.40	2000.
106	601.50	2028.	601.60	2055.	601.70	2083.	601.80	2111.	601.90	2140.
111	602.00	2168.	602.10	2197.	602.20	2226.	602.30	2255.	602.40	2285.
116	602.50	2315.	602.60	2345.	602.70	2375.	602.80	2406.	602.90	2436.
121	603.00	2467.	603.10	2499.	603.20	2530.	603.30	2562.	603.40	2594.
126	603.50	2626.	603.60	2659.	603.70	2691.	603.80	2724.	603.90	2758.
131	604.00	2791.	604.10	2825.	604.20	2859.	604.30	2893.	604.40	2927.
136	604.50	2962.	604.60	2997.	604.70	3032.	604.80	3068.	604.90	3103.
141	605.00	3139.	605.10	3175.	605.20	3212.	605.30	3248.	605.40	3285.
146	605.50	3322.	605.60	3360.	605.70	3397.	605.80	3435.	605.90	3473.
151	606.00	3512.	606.10	3550.	606.20	3589.	606.30	3628.	606.40	3667.
156	606.50	3707.	606.60	3747.	606.70	3787.	606.80	3827.	606.90	3867.
161	607.00	3908.	607.10	3949.	607.20	3990.	607.30	4032.	607.40	4073.
166	607.50	4115.	607.60	4158.	607.70	4200.	607.80	4243.	607.90	4286.
171	608.00	4329.	608.10	4372.	608.20	4416.	608.30	4460.	608.40	4504.
176	608.50	4548.	608.60	4593.	608.70	4638.	608.80	4683.	608.90	4728.
181	609.00	4774.	609.10	4819.	609.20	4865.	609.30	4912.	609.40	4958.
186	609.50	5005.	609.60	5052.	609.70	5100.	609.80	5147.	609.90	5195.
191	610.00	5243.	610.10	5291.	610.20	5340.	610.30	5389.	610.40	5438.
196	610.50	5487.	610.60	5537.	610.70	5587.	610.80	5637.	610.90	5687.
201	611.00	5738.	611.10	5789.	611.20	5840.	611.30	5891.	611.40	5943.
206	611.50	5995.	611.60	6047.	611.70	6099.	611.80	6152.	611.90	6205.
211	612.00	6258.	612.10	6311.	612.20	6365.	612.30	6419.	612.40	6473.
216	612.50	6527.	612.60	6582.	612.70	6637.	612.80	6692.	612.90	6747.
221	613.00	6803.	613.10	6859.	613.20	6915.	613.30	6971.	613.40	7028.
226	613.50	7085.	613.60	7142.	613.70	7199.	613.80	7257.	613.90	7315.
231	614.00	7373.	614.10	7431.	614.20	7490.	614.30	7549.	614.40	7608.
236	614.50	7667.	614.60	7727.	614.70	7787.	614.80	7847.	614.90	7908.
241	615.00	7968.	615.10	8029.	615.20	8090.	615.30	8152.	615.40	8213.
246	615.50	8275.	615.60	8337.	615.70	8400.	615.80	8462.	615.90	8525.
251	616.00	8588.	616.10	8652.	616.20	8715.	616.30	8779.	616.40	8843.
256	616.50	8908.	616.60	8973.	616.70	9037.	616.80	9103.	616.90	9168.
261	617.00	9234.	617.10	9299.	617.20	9366.	617.30	9432.	617.40	9499.
266	617.50	9566.	617.60	9633.	617.70	9700.	617.80	9768.	617.90	9836.
271	618.00	9904.	618.10	9972.	618.20	10041.	618.30	10110.	618.40	10179.
276	618.50	10248.	618.60	10318.	618.70	10388.	618.80	10458.	618.90	10528.
281	619.00	10599.	619.10	10670.	619.20	10741.	619.30	10812.	619.40	10884.
286	619.50	10956.	619.60	11028.	619.70	11101.	619.80	11173.	619.90	11246.
291	620.00	11319.	620.10	11393.						

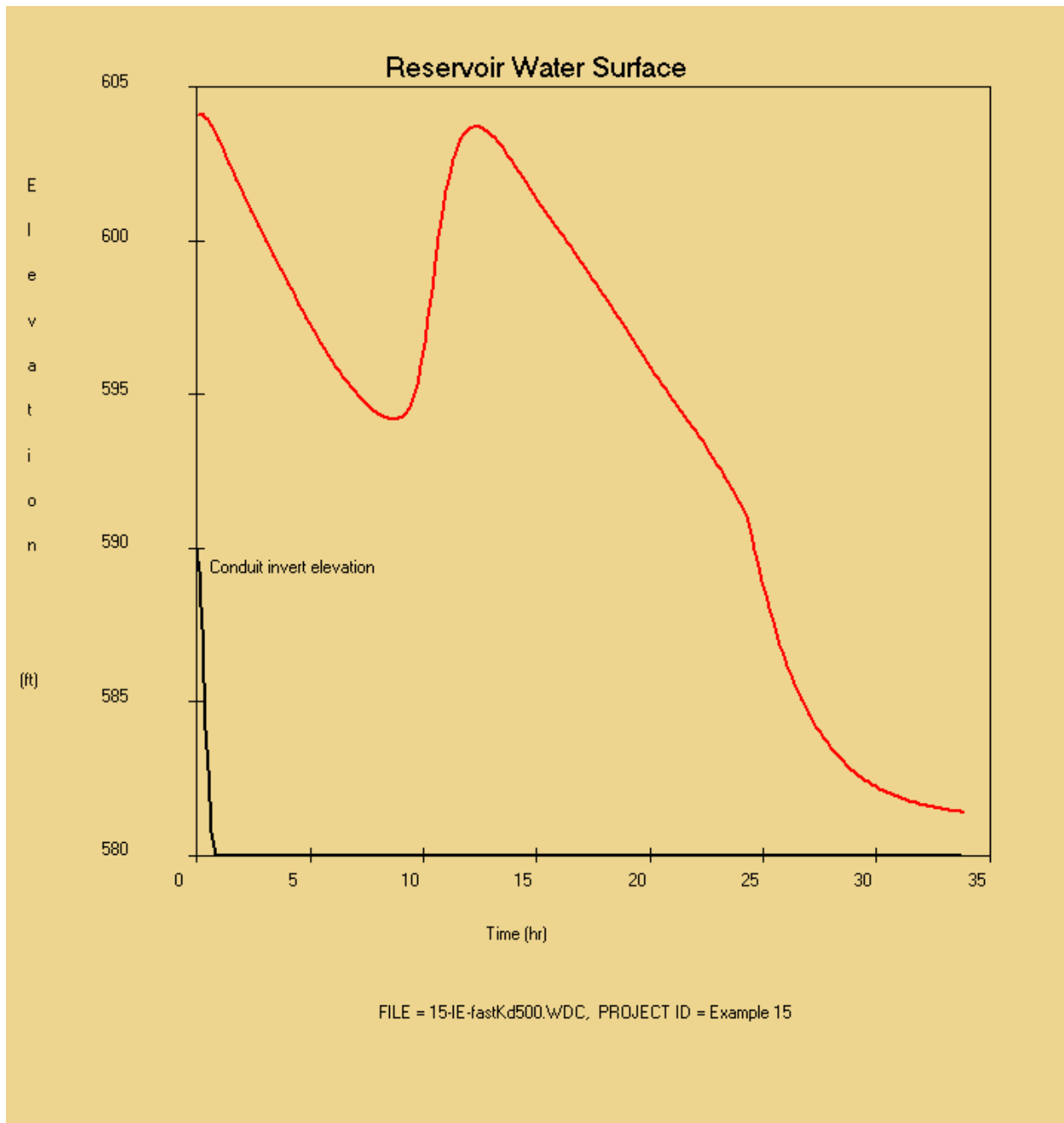
End of Run



**15-IE-fastKd500**







Windows Dam Analysis Program

Program Date-01/01/2009

Execution Date-07/25/2017

Version Date-2008.01.01

Time-11:06:58

Listing of Input Data-Example 15

WinDAM 01/01/2009Example 15

OPTION SIMPLE EARTH INTERNAL

\* WinDAM C Example 13 - Proposed Dam 07/27/2017

\* Internal Erosion Analysis

\* Int Erosion Conduit elevation 590.0'

\* Conduit size: 0.5 ft x 0.5 ft

\* Kd @ fast erosion rate: 5.00 ft/hr/psf

\* Critical shear: 0.0001 psf

\* Hanson/Robinson method

\* Std single stage riser, 36" conduit

\* 1 x 100' wide auxiliary spillway - structural, rating

\* Dam Base: 580.0'

\* IE Conduit: 590.0'

\* PS crest: 604.0'

\* Start Routing: 604.1'

\* AS1 crest: 609.0' structural (rating tbl)

\* AS1 bottom width: 100'

\* Dam crest: 614.0' raised

\* Dam face Maintenance Code - 2 (minor discontinuities)

\* Aux Spwy Maintenance Code - 2 (minor discontinuities)

\* 24-hr FBH Inflow peak: 20,000 cfs @ 13.4 hr

\* Dam embankment not overtopped

\* Aux Spwy 1 is structural, has rating tbl

\* no erosion estimated

\* End of my input comments-----

IEMODEL	2	120	5.00	100	0.0001
HYD	FBH	.162	0	OV	
	0	0			
	0.162	2.05			
	0.324	4.27			
	0.486	7.94			
	0.648	13.49			
	0.81	21.25			
	0.972	31.43			
	1.134	44.09			
	1.296	59.2			
	1.458	76.67			
	1.62	96.3			
	1.782	117.91			
	1.944	141.29			
	2.106	166.19			
	2.268	192.41			
	2.43	219.81			
	2.592	248.29			
	2.754	277.79			
	2.916	308.26			
	3.078	339.64			
	3.24	371.89			
	3.402	404.96			
	3.564	438.77			
	3.726	473.28			
	3.888	508.43			
	4.05	544.15			
	4.212	580.38			
	4.374	617.06			
	4.536	654.15			
	4.698	691.6			
	4.86	729.37			
	5.022	767.42			
	5.184	805.71			
	5.346	844.21			
	5.508	883.01			
	5.67	922.4			
	5.832	962.86			
	5.994	1005.06			
	6.156	1049.89			
	6.318	1098.5			



6.48	1151.9
6.642	1210.65
6.804	1274.77
6.966	1343.9
7.128	1417.62
7.29	1495.44
7.452	1577.05
7.614	1662.99
7.776	1754.86
7.938	1854.94
8.1	1966.14
8.262	2091.9
8.424	2236.09
8.586	2404.24
8.748	2603.67
8.91	2852.99
9.072	3236.61
9.234	3969.87
9.396	5171.58
9.55800000	6780.08
9.72000000	8811.47
9.88200000	11291.61
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10.368	18343.15
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10.692	20008.95
10.854	19962.27
11.016	19374.39
11.178	18418.29
11.34	17208.44
11.502	15720.4
11.664	14046.82
11.826	12475.51
11.988	11164.77
12.15	10045.39
12.312	9072.22
12.474	8237.55
12.636	7498.24
12.798	6822.66
12.96	6226.47
13.122	5713.4
13.284	5259.68
13.446	4856
13.608	4497.88
13.77	4180.52
13.932	3893.07
14.094	3639.11
14.256	3414.2
14.418	3212.11
14.58	3032.03
14.742	2871.29
14.904	2725.09
15.066	2593.97
15.228	2475.93
15.39	2371.16
15.552	2276.01
15.714	2188.82
15.876	2112.57
16.038	2043.22
16.2	1977.17
16.362	1913.76
16.524	1852.44
16.686	1792.93
16.848	1735.03
17.01	1678.94
17.172	1626.62
17.334	1581.9
17.496	1541.52
17.658	1502.55
17.82	1464.85

17. 982	1428. 33
18. 144	1393. 15
18. 306	1359. 58
18. 468	1327. 9
18. 63	1298. 33
18. 792	1270. 99
18. 954	1245. 91
19. 116	1223. 06
19. 278	1202. 33
19. 44	1183. 55
19. 602	1166. 55
19. 764	1151. 13
19. 926	1137. 04
20. 088	1124. 05
20. 25	1112
20. 412	1100. 72
20. 574	1090. 1
20. 736	1080. 04
20. 898	1070. 47
21. 06	1061. 31
21. 222	1052. 49
21. 384	1043. 21
21. 546	1031. 07
21. 708	1013. 69
21. 87	989. 43
22. 032	955. 92
22. 194	910. 62
22. 356	852. 94
22. 518	785. 59
22. 68	712. 19
22. 842	636. 31
23. 004	560. 79
23. 166	487. 79
23. 328	419. 84
23. 49	357. 61
23. 652	302. 02
23. 814	254. 45
23. 976	215. 27
24. 138	182. 74
24. 3	155. 18
24. 462	131. 84
24. 624	111. 96
24. 786	94. 88
24. 948	80. 31
25. 11	68. 04
25. 272	57. 64
25. 434	48. 75
25. 596	41. 2
25. 758	34. 79
25. 92	29. 35
26. 082	24. 72
26. 244	20. 84
26. 406	20. 03
26. 568	20. 03
26. 73	20. 03
26. 892	20. 03
27. 054	20. 03
27. 216	20. 03
27. 378	20. 03
27. 54	20. 03
27. 702	20. 03
27. 864	20. 03
28. 026	20. 03
28. 188	20. 03
28. 35	20. 03
28. 512	20. 03
28. 674	20. 03
28. 836	20. 03
28. 998	20. 03
29. 16	20. 03
29. 322	20. 03

	29.484	20.03						
	29.646	20.03						
	29.808	20.03						
ENDTABLE								
CRESTPRFL	0	614						
	550	614.5						
	1200	614.2						
ENDTABLE								
STROUT	604.1	580	ELEV					
STRUCTURE	SR1							
		591		250	76.6			
		593			106.9			
		595			142.8			
		597			180.6			
		601			262.7			
		605			360.3			
		609			456.9			
		613			557.7			
		615			607.7			
ENDTABLE								
UPSTREAM	2.5	5.6						
DAMCREST	14	5.6						
DWNSTREAM	2.5	5.6	.8	2	5	.01		
CONDUIT	0.5	0.5	590	550				
PSPINLET	0.7	18	604					
PSPDATA	1	250	36	.013	590	582.5	SC	
PSPCOEFFS	0.6				3.1	6		
TAILWATER								
	581	0						
	590	1000						
	600	5000						
	610	20000						
ENDTABLE								
ASRATING	1Struct	0						
	609	0						
	610	310						
	611	880						
	612	1610						
	613	2480						
	614	3450						
	615	4550						
ENDTABLE								
OUTPUT	ALL							
ENDRUN								

^^^^ Warning: Entered stage-storage table is not sufficient for the requested run.  
Volume set to zero at dam base and linear interpolation used.

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Windows Dam Analysis Program      Execution Date - 07/25/2017
Program Date - 01/01/2009        Version Number - 2008.01.01      Time - 11:06:58
Input File - H:\WinDAM\Examples\Examples20170721chk\15-IE-fastKd500.D2D
-----

***** Elevation Summary 1 *****
Dam Base Elevation:                580.00 feet
Max Tailwater Elevation:           602.71 feet
Prin Spwy Crest Elevation:          604.00 feet
Start Routing Elevation:           604.10 feet
Aux Spwy # 1 Crest Elevation:       609.00 feet
Aux Spwy # 2 Crest Elevation:       none
Aux Spwy # 3 Crest Elevation:       none
Max Pool Elevation:                604.10 feet
Initial Low Point in Dam Crest:     614.00 feet
Ending Low Point in Dam Crest:      614.00 feet
*****

***** Flow Summary 2 *****
Peak Inflow:                       20008.950 cfs @      10.692 hours
Peak Outflow:                      9077.225 cfs @      12.474 hours
Max Flow Principal Spwy:            1.765 cfs @       0.000 hours
Max Flow Aux Spwy # 1:              0.000 cfs @       0.000 hours
Max Flow Aux Spwy # 2:              none
Max Flow Aux Spwy # 3:              none
Maximum flow over top of dam:       0.000 cfs @       0.000 hours
Duration of dam overtopping:        0.000 hours
Max unit discharge, low point or breach: 277.177 cfs/ft
Maximum internal erosion conduit flow: 9077.225 cfs
*****

***** Spillways Summary 3 *****
Principal Spillway Type:            Single Stage Inlet, Circular Conduit
Principal Spillway Crest Elev:      604.00 feet
Prin. Spw. Weir Length:             18.00 feet
Conduit Diameter:                  36.00 inches
Conduit Manning's n value:         0.013
-----
Aux Spwy #1 Label:                  Struct
Aux Spwy #1 Crest Elev:             609.00 feet
Aux Spwy #1 Bottom Width:           0.00 feet
Aux Spwy #1 Max Flow:               0.000 cfs @       0.000 hours
Aux Spwy #1 Max Hp:                 0.00 feet
Aux Spwy #1 Erosion Analysis:       none
-----
Aux Spwy #2 Label:                  none
Aux Spwy #2 Crest Elev:             none
Aux Spwy #2 Bottom Width:           none
Aux Spwy #2 Max Flow:               none
Aux Spwy #2 Max Hp:                 none
Aux Spwy #2 Erosion Analysis:       none
-----
Aux Spwy #3 Label:                  none
Aux Spwy #3 Crest Elev:             none
Aux Spwy #3 Bottom Width:           none
Aux Spwy #3 Max Flow:               none
Aux Spwy #3 Max Hp:                 none
Aux Spwy #3 Erosion Analysis:       none
*****

***** Overtopping Summary Table 4 *****

<<<<<< Overtopping did not occur for this embankment. >>>>>>

*****
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\*\*\*\*\* Internal Erosion Summary Table 5 \*\*\*\*\*  
Dam Breach Analysis type: Internal Erosion  
Initial Conduit Elevation: 590.00 feet  
Initial Conduit Station: 550.00 feet  
Initial Conduit Width: 0.50 feet  
Initial Conduit Height: 0.50 feet  
Max. Internal Erosion conduit flow: 9077.225 cfs @ 12.474 hours  
Initial Low Point in Dam Crest Profile: 614.00 feet  
Maximum Pool Elevation: 604.10 feet @ 0.000 hours  
Ending Low Point in Dam Crest Profile: 614.00 feet @ 0.000 hours  
\*\*\*\*\*

\*\*\*\*\* Drawdown Summary Table 6 \*\*\*\*\*

<<<<<< Drawdown calculation was not an option for this embankment. >>>>>>  
  
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No stress occurred on embankment face.



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Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal	Auxiliary	Auxiliary	Auxiliary	OverTop	Internal	Total	Reservoir	Tailwater Elevation (feet)
		Spillway Outflow (cfs)	Struct Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Erosion Outflow (cfs)	Outflow (cfs)	Surface Elevation (feet)	
9.234	3969.87	0.00	0.00			0.00	2619.91	2619.91	594.38	594.08
9.396	5171.58	0.00	0.00			0.00	2711.60	2711.60	594.57	594.27
9.558	6780.08	0.00	0.00			0.00	2824.67	2824.67	594.88	594.56
9.720	8811.47	0.00	0.00			0.00	2997.62	2997.62	595.33	595.00
9.882	11291.61	0.00	0.00			0.00	3239.08	3239.08	595.93	595.58
10.044	14009.39	0.00	0.00			0.00	3501.08	3501.08	596.68	596.30
10.206	16477.03	0.00	0.00			0.00	3828.14	3828.14	597.52	597.12
10.368	18343.15	0.00	0.00			0.00	4187.55	4187.55	598.42	597.98
10.530	19510.00	0.00	0.00			0.00	4540.78	4540.78	599.31	598.85
10.692	20008.95	0.00	0.00			0.00	4869.67	4869.67	600.16	599.68
10.854	19962.27	0.00	0.00			0.00	5552.37	5552.37	600.94	600.37
11.016	19374.39	0.00	0.00			0.00	6364.07	6364.07	601.62	600.92
11.178	18418.29	0.00	0.00			0.00	7049.63	7049.63	602.19	601.38
11.340	17208.44	0.00	0.00			0.00	7644.00	7644.00	602.66	601.76
11.502	15720.40	0.00	0.00			0.00	8099.37	8099.37	603.04	602.07
11.664	14046.82	0.00	0.00			0.00	8462.36	8462.36	603.32	602.31
11.826	12475.51	0.00	0.00			0.00	8693.54	8693.54	603.51	602.48
11.988	11164.77	0.00	0.00			0.00	8890.50	8890.50	603.64	602.59
12.150	10045.39	0.00	0.00			0.00	9024.52	9024.52	603.70	602.67
12.312	9072.22	0.00	0.00			0.00	9028.95	9028.95	603.73	602.71
12.474	8237.55	0.00	0.00			0.00	9077.22	9077.22	603.71	602.71
12.636	7498.24	0.00	0.00			0.00	9034.48	9034.48	603.66	602.69
12.798	6822.66	0.00	0.00			0.00	8971.88	8971.88	603.59	602.64
12.960	6226.47	0.00	0.00			0.00	8856.40	8856.40	603.49	602.57
13.122	5713.40	0.00	0.00			0.00	8725.41	8725.41	603.37	602.49
13.284	5259.68	0.00	0.00			0.00	8616.79	8616.79	603.24	602.39
13.446	4856.00	0.00	0.00			0.00	8426.60	8426.60	603.09	602.28
13.608	4497.88	0.00	0.00			0.00	8262.27	8262.27	602.93	602.16
13.770	4180.52	0.00	0.00			0.00	8020.50	8020.50	602.77	602.04
13.932	3893.07	0.00	0.00			0.00	7843.00	7843.00	602.59	601.90
14.094	3639.11	0.00	0.00			0.00	7625.68	7625.68	602.42	601.76
14.256	3414.20	0.00	0.00			0.00	7439.62	7439.62	602.24	601.61
14.418	3212.11	0.00	0.00			0.00	7216.57	7216.57	602.05	601.46
14.580	3032.03	0.00	0.00			0.00	6958.58	6958.58	601.87	601.31
14.742	2871.29	0.00	0.00			0.00	6734.64	6734.64	601.68	601.16
14.904	2725.09	0.00	0.00			0.00	6511.39	6511.39	601.49	601.01
15.066	2593.97	0.00	0.00			0.00	6256.20	6256.20	601.31	600.86
15.228	2475.93	0.00	0.00			0.00	6036.40	6036.40	601.13	600.70
15.390	2371.16	0.00	0.00			0.00	5818.65	5818.65	600.95	600.55
15.552	2276.01	0.00	0.00			0.00	5636.01	5636.01	600.78	600.40
15.714	2188.82	0.00	0.00			0.00	5391.74	5391.74	600.61	600.26
15.876	2112.57	0.00	0.00			0.00	5151.81	5151.81	600.44	600.12
16.038	2043.22	0.00	0.00			0.00	4979.10	4979.10	600.28	599.98
16.200	1977.17	0.00	0.00			0.00	4933.14	4933.14	600.12	599.82
16.362	1913.76	0.00	0.00			0.00	4886.04	4886.04	599.96	599.66
16.524	1852.44	0.00	0.00			0.00	4807.36	4807.36	599.79	599.51
16.686	1792.93	0.00	0.00			0.00	4758.33	4758.33	599.63	599.34
16.848	1735.03	0.00	0.00			0.00	4648.49	4648.49	599.46	599.18
17.010	1678.94	0.00	0.00			0.00	4598.65	4598.65	599.29	599.01
17.172	1626.62	0.00	0.00			0.00	4518.34	4518.34	599.11	598.84
17.334	1581.90	0.00	0.00			0.00	4496.06	4496.06	598.94	598.67
17.496	1541.52	0.00	0.00			0.00	4385.94	4385.94	598.76	598.50
17.658	1502.55	0.00	0.00			0.00	4334.06	4334.06	598.59	598.33
17.820	1464.85	0.00	0.00			0.00	4281.40	4281.40	598.41	598.15
17.982	1428.33	0.00	0.00			0.00	4200.24	4200.24	598.23	597.98
18.144	1393.15	0.00	0.00			0.00	4119.55	4119.55	598.05	597.80
18.306	1359.58	0.00	0.00			0.00	4066.04	4066.04	597.86	597.62
18.468	1327.90	0.00	0.00			0.00	3959.12	3959.12	597.68	597.45
18.630	1298.33	0.00	0.00			0.00	3905.69	3905.69	597.50	597.27
18.792	1270.99	0.00	0.00			0.00	3826.27	3826.27	597.32	597.09
18.954	1245.91	0.00	0.00			0.00	3772.82	3772.82	597.13	596.91
19.116	1223.06	0.00	0.00			0.00	3693.98	3693.98	596.95	596.73
19.278	1202.33	0.00	0.00			0.00	3615.98	3615.98	596.77	596.55
19.440	1183.55	0.00	0.00			0.00	3538.91	3538.91	596.58	596.37
19.602	1166.55	0.00	0.00			0.00	3462.67	3462.67	596.40	596.20
19.764	1151.13	0.00	0.00			0.00	3411.12	3411.12	596.22	596.02

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary Struct	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
19.926	1137.04	0.00	0.00			0.00	3336.21	3336.21	596.04	595.84
20.088	1124.05	0.00	0.00			0.00	3285.19	3285.19	595.85	595.66
20.250	1112.00	0.00	0.00			0.00	3211.93	3211.93	595.67	595.49
20.412	1100.72	0.00	0.00			0.00	3117.25	3117.25	595.49	595.31
20.574	1090.10	0.00	0.00			0.00	3046.54	3046.54	595.32	595.14
20.736	1080.04	0.00	0.00			0.00	2977.17	2977.17	595.14	594.97
20.898	1070.47	0.00	0.00			0.00	2908.97	2908.97	594.97	594.80
21.060	1061.31	0.00	0.00			0.00	2841.96	2841.96	594.79	594.63
21.222	1052.49	0.00	0.00			0.00	2776.21	2776.21	594.62	594.46
21.384	1043.21	0.00	0.00			0.00	2731.79	2731.79	594.45	594.30
21.546	1031.07	0.00	0.00			0.00	2647.73	2647.73	594.29	594.13
21.708	1013.69	0.00	0.00			0.00	2585.37	2585.37	594.12	593.97
21.870	989.43	0.00	0.00			0.00	2523.85	2523.85	593.95	593.81
22.032	955.92	0.00	0.00			0.00	2444.06	2444.06	593.79	593.65
22.194	910.62	0.00	0.00			0.00	2384.22	2384.22	593.62	593.49
22.356	852.94	0.00	0.00			0.00	2324.12	2324.12	593.45	593.32
22.518	785.59	0.00	0.00			0.00	2263.81	2263.81	593.28	593.15
22.680	712.19	0.00	0.00			0.00	2185.03	2185.03	593.10	592.98
22.842	636.31	0.00	0.00			0.00	2106.57	2106.57	592.91	592.80
23.004	560.79	0.00	0.00			0.00	2045.35	2045.35	592.72	592.61
23.166	487.79	0.00	0.00			0.00	1983.42	1983.42	592.53	592.42
23.328	419.84	0.00	0.00			0.00	1904.76	1904.76	592.32	592.22
23.490	357.61	0.00	0.00			0.00	1811.22	1811.22	592.12	592.02
23.652	302.02	0.00	0.00			0.00	1719.68	1719.68	591.91	591.82
23.814	254.45	0.00	0.00			0.00	1645.29	1645.29	591.70	591.61
23.976	215.27	0.00	0.00			0.00	1572.10	1572.10	591.48	591.40
24.138	182.74	0.00	0.00			0.00	1486.41	1486.41	591.27	591.19
24.300	155.18	0.00	0.00			0.00	1403.30	1403.30	591.05	590.98
24.462	131.84	0.00	0.00			0.00	1184.20	1184.20	590.49	590.44
24.624	111.96	0.00	0.00			0.00	983.52	983.52	589.92	589.88
24.786	94.88	0.00	0.00			0.00	921.08	921.08	589.42	589.38
24.948	80.31	0.00	0.00			0.00	872.57	872.57	588.94	588.90
25.110	68.04	0.00	0.00			0.00	825.59	825.59	588.49	588.45
25.272	57.64	0.00	0.00			0.00	780.34	780.34	588.05	588.01
25.434	48.75	0.00	0.00			0.00	729.29	729.29	587.64	587.60
25.596	41.20	0.00	0.00			0.00	696.04	696.04	587.25	587.21
25.758	34.79	0.00	0.00			0.00	643.37	643.37	586.87	586.83
25.920	29.35	0.00	0.00			0.00	613.80	613.80	586.52	586.48
26.082	24.72	0.00	0.00			0.00	567.69	567.69	586.19	586.15
26.244	20.84	0.00	0.00			0.00	536.19	536.19	585.88	585.84
26.406	20.03	0.00	0.00			0.00	506.47	506.47	585.58	585.54
26.568	20.03	0.00	0.00			0.00	478.65	478.65	585.31	585.27
26.730	20.03	0.00	0.00			0.00	448.30	448.30	585.04	585.01
26.892	20.03	0.00	0.00			0.00	416.32	416.32	584.80	584.77
27.054	20.03	0.00	0.00			0.00	394.68	394.68	584.57	584.54
27.216	20.03	0.00	0.00			0.00	367.60	367.60	584.36	584.33
27.378	20.03	0.00	0.00			0.00	346.14	346.14	584.16	584.13
27.540	20.03	0.00	0.00			0.00	329.28	329.28	583.98	583.94
27.702	20.03	0.00	0.00			0.00	307.81	307.81	583.80	583.77
27.864	20.03	0.00	0.00			0.00	288.23	288.23	583.64	583.61
28.026	20.03	0.00	0.00			0.00	272.80	272.80	583.48	583.45
28.188	20.03	0.00	0.00			0.00	256.10	256.10	583.34	583.31
28.350	20.03	0.00	0.00			0.00	240.85	240.85	583.21	583.18
28.512	20.03	0.00	0.00			0.00	228.85	228.85	583.08	583.05
28.674	20.03	0.00	0.00			0.00	213.87	213.87	582.96	582.93
28.836	20.03	0.00	0.00			0.00	203.81	203.81	582.85	582.82
28.998	20.03	0.00	0.00			0.00	191.03	191.03	582.74	582.72
29.160	20.03	0.00	0.00			0.00	179.37	179.37	582.65	582.62
29.322	20.03	0.00	0.00			0.00	170.23	170.23	582.56	582.53
29.484	20.03	0.00	0.00			0.00	160.31	160.31	582.47	582.45
29.646	20.03	0.00	0.00			0.00	152.59	152.59	582.39	582.37
29.808	20.03	0.00	0.00			0.00	144.10	144.10	582.31	582.29
29.970	20.03	0.00	0.00			0.00	135.05	135.05	582.24	582.22
30.132	20.03	0.00	0.00			0.00	127.96	127.96	582.18	582.16
30.294	20.03	0.00	0.00			0.00	122.57	122.57	582.12	582.10
30.456	20.03	0.00	0.00			0.00	116.42	116.42	582.06	582.04

Hydrograph Routing										
Time (hrs)	Inflow (cfs)	Principal Spillway	Auxiliary Struct	Auxiliary	Auxiliary	OverTop	Internal Erosion	Total	Reservoir Surface	Tailwater
		Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Outflow (cfs)	Elevation (feet)	Elevation (feet)
30.618	20.03	0.00	0.00			0.00	109.66	109.66	582.00	581.98
30.780	20.03	0.00	0.00			0.00	104.48	104.48	581.95	581.93
30.942	20.03	0.00	0.00			0.00	99.63	99.63	581.90	581.89
31.104	20.03	0.00	0.00			0.00	93.24	93.24	581.86	581.84
31.266	20.03	0.00	0.00			0.00	89.19	89.19	581.82	581.80
31.428	20.03	0.00	0.00			0.00	84.53	84.53	581.78	581.76
31.590	20.03	0.00	0.00			0.00	81.04	81.04	581.74	581.73
31.752	20.03	0.00	0.00			0.00	76.94	76.94	581.71	581.69
31.914	20.03	0.00	0.00			0.00	73.11	73.11	581.67	581.66
32.076	20.03	0.00	0.00			0.00	70.32	70.32	581.64	581.63
32.238	20.03	0.00	0.00			0.00	66.94	66.94	581.61	581.60
32.400	20.03	0.00	0.00			0.00	64.52	64.52	581.59	581.58
32.562	20.03	0.00	0.00			0.00	62.25	62.25	581.56	581.55
32.724	20.03	0.00	0.00			0.00	57.93	57.93	581.54	581.53
32.886	20.03	0.00	0.00			0.00	56.70	56.70	581.52	581.51
33.048	20.03	0.00	0.00			0.00	54.14	54.14	581.50	581.49
33.210	20.03	0.00	0.00			0.00	52.40	52.40	581.48	581.47
33.372	20.03	0.00	0.00			0.00	50.09	50.09	581.46	581.45
33.534	20.03	0.00	0.00			0.00	48.54	48.54	581.44	581.43
33.696	20.03	0.00	0.00			0.00	46.43	46.43	581.42	581.42
33.858	20.03	0.00	0.00			0.00	44.42	44.42	581.41	581.40



Spillway and Overtop Discharge Rating					
Elevation	Prin.	Spw.	Struct	Overtop	Total
591.00		0.000	0.000	0.000	580.00
591.10		0.000	0.000	0.000	580.00
591.20		0.000	0.000	0.000	580.00
591.30		0.000	0.000	0.000	580.00
591.40		0.000	0.000	0.000	580.00
591.50		0.000	0.000	0.000	580.00
591.60		0.000	0.000	0.000	580.00
591.70		0.000	0.000	0.000	580.00
591.80		0.000	0.000	0.000	580.00
591.90		0.000	0.000	0.000	580.00
592.00		0.000	0.000	0.000	580.00
592.10		0.000	0.000	0.000	580.00
592.20		0.000	0.000	0.000	580.00
592.30		0.000	0.000	0.000	580.00
592.40		0.000	0.000	0.000	580.00
592.50		0.000	0.000	0.000	580.00
592.60		0.000	0.000	0.000	580.00
592.70		0.000	0.000	0.000	580.00
592.80		0.000	0.000	0.000	580.00
592.90		0.000	0.000	0.000	580.00
593.00		0.000	0.000	0.000	580.00
593.10		0.000	0.000	0.000	580.00
593.20		0.000	0.000	0.000	580.00
593.30		0.000	0.000	0.000	580.00
593.40		0.000	0.000	0.000	580.00
593.50		0.000	0.000	0.000	580.00
593.60		0.000	0.000	0.000	580.00
593.70		0.000	0.000	0.000	580.00
593.80		0.000	0.000	0.000	580.00
593.90		0.000	0.000	0.000	580.00
594.00		0.000	0.000	0.000	580.00
594.10		0.000	0.000	0.000	580.00
594.20		0.000	0.000	0.000	580.00
594.30		0.000	0.000	0.000	580.00
594.40		0.000	0.000	0.000	580.00
594.50		0.000	0.000	0.000	580.00
594.60		0.000	0.000	0.000	580.00
594.70		0.000	0.000	0.000	580.00
594.80		0.000	0.000	0.000	580.00
594.90		0.000	0.000	0.000	580.00
595.00		0.000	0.000	0.000	580.00
595.10		0.000	0.000	0.000	580.00
595.20		0.000	0.000	0.000	580.00
595.30		0.000	0.000	0.000	580.00
595.40		0.000	0.000	0.000	580.00
595.50		0.000	0.000	0.000	580.00
595.60		0.000	0.000	0.000	580.00
595.70		0.000	0.000	0.000	580.00
595.80		0.000	0.000	0.000	580.00
595.90		0.000	0.000	0.000	580.00
596.00		0.000	0.000	0.000	580.00
596.10		0.000	0.000	0.000	580.00
596.20		0.000	0.000	0.000	580.00
596.30		0.000	0.000	0.000	580.00
596.40		0.000	0.000	0.000	580.00
596.50		0.000	0.000	0.000	580.00
596.60		0.000	0.000	0.000	580.00
596.70		0.000	0.000	0.000	580.00
596.80		0.000	0.000	0.000	580.00
596.90		0.000	0.000	0.000	580.00
597.00		0.000	0.000	0.000	580.00
597.10		0.000	0.000	0.000	580.00
597.20		0.000	0.000	0.000	580.00
597.30		0.000	0.000	0.000	580.00
597.40		0.000	0.000	0.000	580.00
597.50		0.000	0.000	0.000	580.00
597.60		0.000	0.000	0.000	580.00
597.70		0.000	0.000	0.000	580.00
597.80		0.000	0.000	0.000	580.00



Elevation	Spillway and Overtop Discharge Rating		Struct	OverTop	Total	TW Elev
	Prin.	Spw.				
597.90		0.000	0.000	0.000	0.000	580.00
598.00		0.000	0.000	0.000	0.000	580.00
598.10		0.000	0.000	0.000	0.000	580.00
598.20		0.000	0.000	0.000	0.000	580.00
598.30		0.000	0.000	0.000	0.000	580.00
598.40		0.000	0.000	0.000	0.000	580.00
598.50		0.000	0.000	0.000	0.000	580.00
598.60		0.000	0.000	0.000	0.000	580.00
598.70		0.000	0.000	0.000	0.000	580.00
598.80		0.000	0.000	0.000	0.000	580.00
598.90		0.000	0.000	0.000	0.000	580.00
599.00		0.000	0.000	0.000	0.000	580.00
599.10		0.000	0.000	0.000	0.000	580.00
599.20		0.000	0.000	0.000	0.000	580.00
599.30		0.000	0.000	0.000	0.000	580.00
599.40		0.000	0.000	0.000	0.000	580.00
599.50		0.000	0.000	0.000	0.000	580.00
599.60		0.000	0.000	0.000	0.000	580.00
599.70		0.000	0.000	0.000	0.000	580.00
599.80		0.000	0.000	0.000	0.000	580.00
599.90		0.000	0.000	0.000	0.000	580.00
600.00		0.000	0.000	0.000	0.000	580.00
600.10		0.000	0.000	0.000	0.000	580.00
600.20		0.000	0.000	0.000	0.000	580.00
600.30		0.000	0.000	0.000	0.000	580.00
600.40		0.000	0.000	0.000	0.000	580.00
600.50		0.000	0.000	0.000	0.000	580.00
600.60		0.000	0.000	0.000	0.000	580.00
600.70		0.000	0.000	0.000	0.000	580.00
600.80		0.000	0.000	0.000	0.000	580.00
600.90		0.000	0.000	0.000	0.000	580.00
601.00		0.000	0.000	0.000	0.000	580.00
601.10		0.000	0.000	0.000	0.000	580.00
601.20		0.000	0.000	0.000	0.000	580.00
601.30		0.000	0.000	0.000	0.000	580.00
601.40		0.000	0.000	0.000	0.000	580.00
601.50		0.000	0.000	0.000	0.000	580.00
601.60		0.000	0.000	0.000	0.000	580.00
601.70		0.000	0.000	0.000	0.000	580.00
601.80		0.000	0.000	0.000	0.000	580.00
601.90		0.000	0.000	0.000	0.000	580.00
602.00		0.000	0.000	0.000	0.000	580.00
602.10		0.000	0.000	0.000	0.000	580.00
602.20		0.000	0.000	0.000	0.000	580.00
602.30		0.000	0.000	0.000	0.000	580.00
602.40		0.000	0.000	0.000	0.000	580.00
602.50		0.000	0.000	0.000	0.000	580.00
602.60		0.000	0.000	0.000	0.000	580.00
602.70		0.000	0.000	0.000	0.000	580.00
602.80		0.000	0.000	0.000	0.000	580.00
602.90		0.000	0.000	0.000	0.000	580.00
603.00		0.000	0.000	0.000	0.000	580.00
603.10		0.000	0.000	0.000	0.000	580.00
603.20		0.000	0.000	0.000	0.000	580.00
603.30		0.000	0.000	0.000	0.000	580.00
603.40		0.000	0.000	0.000	0.000	580.00
603.50		0.000	0.000	0.000	0.000	580.00
603.60		0.000	0.000	0.000	0.000	580.00
603.70		0.000	0.000	0.000	0.000	580.00
603.80		0.000	0.000	0.000	0.000	580.00
603.90		0.000	0.000	0.000	0.000	580.00
604.00		0.000	0.000	0.000	0.000	580.00
604.10		1.765	0.000	0.000	1.765	580.00
604.20		4.991	0.000	0.000	4.991	580.00
604.30		9.169	0.000	0.000	9.169	580.00
604.40		14.116	0.000	0.000	14.116	580.00
604.50		19.728	0.000	0.000	19.728	580.00
604.60		25.933	0.000	0.000	25.933	580.00
604.70		32.680	0.000	0.000	32.680	580.00

Spillway and Overtop Discharge Rating					
Elevation	Prin. Spw.	Struct	Overtop	Total	TW Elev
604.80	39.927	0.000	0.000	39.927	580.00
604.90	47.643	0.000	0.000	47.643	580.00
605.00	55.800	0.000	0.000	55.800	580.00
605.10	64.376	0.000	0.000	64.376	580.00
605.20	73.351	0.000	0.000	73.351	580.00
605.30	82.708	0.000	0.000	82.708	580.00
605.40	92.433	0.000	0.000	92.433	580.00
605.50	102.511	0.000	0.000	102.511	580.00
605.60	112.931	0.000	0.000	112.931	580.00
605.70	123.682	0.000	0.000	123.682	580.00
605.80	128.653	0.000	0.000	128.653	580.00
605.90	129.102	0.000	0.000	129.102	580.00
606.00	129.549	0.000	0.000	129.549	580.00
606.10	129.995	0.000	0.000	129.995	580.00
606.20	130.440	0.000	0.000	130.440	580.00
606.30	130.883	0.000	0.000	130.883	580.00
606.40	131.324	0.000	0.000	131.324	580.00
606.50	131.764	0.000	0.000	131.764	580.00
606.60	132.202	0.000	0.000	132.202	580.00
606.70	132.639	0.000	0.000	132.639	580.00
606.80	133.075	0.000	0.000	133.075	580.00
606.90	133.509	0.000	0.000	133.509	580.00
607.00	133.942	0.000	0.000	133.942	580.00
607.10	134.373	0.000	0.000	134.373	580.00
607.20	134.803	0.000	0.000	134.803	580.00
607.30	135.232	0.000	0.000	135.232	580.00
607.40	135.659	0.000	0.000	135.659	580.00
607.50	136.085	0.000	0.000	136.085	580.00
607.60	136.510	0.000	0.000	136.510	580.00
607.70	136.933	0.000	0.000	136.933	580.00
607.80	137.355	0.000	0.000	137.355	580.00
607.90	137.776	0.000	0.000	137.776	580.00
608.00	138.195	0.000	0.000	138.195	580.00
608.10	138.613	0.000	0.000	138.613	580.00
608.20	139.030	0.000	0.000	139.030	580.00
608.30	139.446	0.000	0.000	139.446	580.00
608.40	139.860	0.000	0.000	139.860	580.00
608.50	140.273	0.000	0.000	140.273	580.00
608.60	140.685	0.000	0.000	140.685	580.00
608.70	141.096	0.000	0.000	141.096	580.00
608.80	141.506	0.000	0.000	141.506	580.00
608.90	141.914	0.000	0.000	141.914	580.00
609.00	142.321	0.000	0.000	142.321	580.00
609.10	142.727	31.000	0.000	173.727	580.00
609.20	143.132	62.000	0.000	205.132	580.00
609.30	143.536	93.000	0.000	236.536	580.00
609.40	143.939	124.000	0.000	267.939	580.00
609.50	144.340	155.000	0.000	299.340	580.00
609.60	144.741	186.000	0.000	330.741	580.00
609.70	145.140	217.000	0.000	362.140	580.00
609.80	145.538	248.000	0.000	393.538	580.00
609.90	145.935	279.000	0.000	424.935	580.00
610.00	146.331	310.000	0.000	456.331	580.00
610.10	146.726	367.000	0.000	513.726	580.00
610.20	147.120	424.000	0.000	571.120	580.00
610.30	147.513	481.000	0.000	628.513	580.00
610.40	147.905	538.000	0.000	685.905	580.00
610.50	148.295	595.000	0.000	743.295	580.00
610.60	148.685	652.000	0.000	800.685	580.00
610.70	149.074	709.000	0.000	858.074	580.00
610.80	149.462	766.000	0.000	915.462	580.00
610.90	149.848	823.000	0.000	972.848	580.00
611.00	150.234	880.000	0.000	1030.234	580.00
611.10	150.619	953.000	0.000	1103.619	580.00
611.20	151.002	1026.000	0.000	1177.002	580.00
611.30	151.385	1099.000	0.000	1250.385	580.00
611.40	151.767	1172.000	0.000	1323.767	580.00
611.50	152.148	1245.000	0.000	1397.148	580.00
611.60	152.528	1318.000	0.000	1470.528	580.00

Spillway and Overtop Discharge Rating					
Elevation	Prin. Spw.	Struct	Overtop	Total	TW Elev
611.70	152.907	1391.000	0.000	1543.907	580.00
611.80	153.285	1464.000	0.000	1617.285	580.00
611.90	153.662	1537.000	0.000	1690.662	580.00
612.00	154.038	1610.000	0.000	1764.038	580.00
612.10	154.413	1697.000	0.000	1851.413	580.00
612.20	154.788	1784.000	0.000	1938.788	580.00
612.30	155.161	1871.000	0.000	2026.161	580.00
612.40	155.534	1958.000	0.000	2113.534	580.00
612.50	155.905	2045.000	0.000	2200.905	580.00
612.60	156.276	2132.000	0.000	2288.276	580.00
612.70	156.646	2219.000	0.000	2375.646	580.00
612.80	157.015	2306.000	0.000	2463.015	580.00
612.90	157.383	2393.000	0.000	2550.383	580.00
613.00	157.750	2480.000	0.000	2637.750	580.00
613.10	158.117	2577.000	0.000	2735.117	580.00
613.20	158.482	2674.000	0.000	2832.482	580.00
613.30	158.847	2771.000	0.000	2929.847	580.00
613.40	159.211	2868.000	0.000	3027.211	580.00
613.50	159.574	2965.000	0.000	3124.574	580.00
613.60	159.936	3062.000	0.000	3221.936	580.00
613.70	160.298	3159.000	0.000	3319.298	580.00
613.80	160.658	3256.000	0.000	3416.658	580.00
613.90	161.018	3353.000	0.000	3514.018	580.00
614.00	161.377	3450.000	0.000	3611.377	580.00
614.10	161.735	3560.000	0.160	3721.895	580.00
614.20	162.093	3670.000	1.447	3833.540	580.00
614.30	162.449	3780.000	5.476	3947.926	580.00
614.40	162.805	3890.000	15.605	4068.410	580.00
614.50	163.160	4000.000	35.811	4198.971	580.00
614.60	163.515	4110.000	104.551	4378.066	580.00
614.70	163.868	4220.000	214.436	4598.305	580.00
614.80	164.221	4330.000	393.042	4887.263	580.00
614.90	164.573	4440.000	628.673	5233.246	580.00
615.00	164.924	4550.000	896.448	5611.372	580.00
615.10	165.275	4660.000	1332.138	6157.413	580.00
615.20	165.625	4770.000	1867.822	6803.446	580.00
615.30	165.974	4880.000	2430.673	7476.646	580.00
615.40	166.322	4990.000	3019.294	8175.616	580.00
615.50	166.670	5100.000	3631.263	8897.932	580.00
615.60	167.016	5210.000	4264.971	9641.988	580.00
615.70	167.363	5320.000	4921.339	10408.702	580.00
615.80	167.708	5430.000	5597.362	11195.070	580.00
615.90	168.053	5540.000	6295.347	12003.399	580.00
616.00	168.397	5650.000	7012.670	12831.067	580.00
616.10	168.740	5760.000	7748.348	13677.088	580.00
616.20	169.083	5870.000	8506.320	14545.403	580.00
616.30	169.425	5980.000	9279.441	15428.866	580.00
616.40	169.766	6090.000	10073.485	16333.251	580.00
616.50	170.106	6200.000	10885.994	17256.101	580.00
616.60	170.446	6310.000	11715.605	18196.052	580.00
616.70	170.786	6420.000	12563.427	19154.212	580.00
616.80	171.124	6530.000	13427.554	20128.678	580.00
616.90	171.462	6640.000	14309.007	21120.468	580.00
617.00	171.799	6750.000	15207.790	22129.589	580.00
617.10	172.136	6860.000	16121.459	23153.595	580.00
617.20	172.472	6970.000	17052.656	24195.127	580.00
617.30	172.807	7080.000	17999.793	25252.600	580.00
617.40	173.141	7190.000	18961.437	26324.578	580.00
617.50	173.475	7300.000	19939.137	27412.612	580.00
617.60	173.809	7410.000	20931.137	28514.945	580.00
617.70	174.141	7520.000	21938.647	29632.788	580.00
617.80	174.473	7630.000	22960.820	30765.293	580.00
617.90	174.805	7740.000	23997.667	31912.472	580.00
618.00	175.135	7850.000	25048.434	33073.569	580.00
618.10	175.465	7960.000	26112.955	34248.421	580.00
618.20	175.795	8070.000	27191.689	35437.484	580.00
618.30	176.124	8180.000	28285.555	36641.678	580.00
618.40	176.452	8290.000	29392.418	37858.870	580.00
618.50	176.780	8400.000	30512.220	39089.000	580.00

Spillway and Overtop Discharge Rating					
Elevation	Prin. Spw.	Struct	Overtop	Total	TW Elev
618.60	177.107	8510.000	31644.991	40332.098	580.00
618.70	177.433	8620.000	32791.022	41588.455	580.00
618.80	177.759	8730.000	33950.999	42858.759	580.00
618.90	178.084	8840.000	35123.596	44141.681	580.00
619.00	178.409	8950.000	36308.001	45436.410	580.00
619.10	178.733	9060.000	37507.363	46746.097	580.00
619.20	179.057	9170.000	38717.142	48066.199	580.00
619.30	179.380	9280.000	39938.301	49397.680	580.00
619.40	179.702	9390.000	41174.436	50744.138	580.00
619.50	180.024	9500.000	42420.142	52100.166	580.00
619.60	180.345	9610.000	43679.141	53469.486	580.00
619.70	180.666	9720.000	44951.073	54851.739	580.00
619.80	180.986	9830.000	46232.932	56243.918	580.00
619.90	181.305	9940.000	47528.084	57649.389	580.00
620.00	181.624	10050.000	48835.227	59066.851	580.00
620.10	181.896	10160.000	50153.460	60495.356	580.00



Listing of Tabular Data-Expanded Area

1	591.00	76.60	591.10	78.12	591.20	79.63	591.30	81.14	591.40	82.66
6	591.50	84.17	591.60	85.69	591.70	87.21	591.80	88.72	591.90	90.23
11	592.00	91.75	592.10	93.27	592.20	94.78	592.30	96.29	592.40	97.81
16	592.50	99.33	592.60	100.84	592.70	102.36	592.80	103.87	592.90	105.38
21	593.00	106.90	593.10	108.70	593.20	110.49	593.30	112.28	593.40	114.08
26	593.50	115.88	593.60	117.67	593.70	119.47	593.80	121.26	593.90	123.05
31	594.00	124.85	594.10	126.65	594.20	128.44	594.30	130.23	594.40	132.03
36	594.50	133.83	594.60	135.62	594.70	137.42	594.80	139.21	594.90	141.00
41	595.00	142.80	595.10	144.69	595.20	146.58	595.30	148.47	595.40	150.36
46	595.50	152.25	595.60	154.14	595.70	156.03	595.80	157.92	595.90	159.81
51	596.00	161.70	596.10	163.59	596.20	165.48	596.30	167.37	596.40	169.26
56	596.50	171.15	596.60	173.04	596.70	174.93	596.80	176.82	596.90	178.71
61	597.00	180.60	597.10	182.65	597.20	184.71	597.30	186.76	597.40	188.81
66	597.50	190.86	597.60	192.92	597.70	194.97	597.80	197.02	597.90	199.07
71	598.00	201.12	598.10	203.18	598.20	205.23	598.30	207.28	598.40	209.33
76	598.50	211.39	598.60	213.44	598.70	215.49	598.80	217.54	598.90	219.60
81	599.00	221.65	599.10	223.70	599.20	225.76	599.30	227.81	599.40	229.86
86	599.50	231.91	599.60	233.97	599.70	236.02	599.80	238.07	599.90	240.12
91	600.00	242.17	600.10	244.23	600.20	246.28	600.30	248.33	600.40	250.38
96	600.50	252.44	600.60	254.49	600.70	256.54	600.80	258.59	600.90	260.65
101	601.00	262.70	601.10	265.14	601.20	267.58	601.30	270.02	601.40	272.46
106	601.50	274.90	601.60	277.34	601.70	279.78	601.80	282.22	601.90	284.66
111	602.00	287.10	602.10	289.54	602.20	291.98	602.30	294.42	602.40	296.86
116	602.50	299.30	602.60	301.74	602.70	304.18	602.80	306.62	602.90	309.06
121	603.00	311.50	603.10	313.94	603.20	316.38	603.30	318.82	603.40	321.26
126	603.50	323.70	603.60	326.14	603.70	328.58	603.80	331.02	603.90	333.46
131	604.00	335.90	604.10	338.34	604.20	340.78	604.30	343.22	604.40	345.66
136	604.50	348.10	604.60	350.54	604.70	352.98	604.80	355.42	604.90	357.86
141	605.00	360.30	605.10	362.72	605.20	365.13	605.30	367.54	605.40	369.96
146	605.50	372.38	605.60	374.79	605.70	377.21	605.80	379.62	605.90	382.03
151	606.00	384.45	606.10	386.87	606.20	389.28	606.30	391.69	606.40	394.11
156	606.50	396.52	606.60	398.94	606.70	401.36	606.80	403.77	606.90	406.18
161	607.00	408.60	607.10	411.02	607.20	413.43	607.30	415.84	607.40	418.26
166	607.50	420.68	607.60	423.09	607.70	425.51	607.80	427.92	607.90	430.33
171	608.00	432.75	608.10	435.17	608.20	437.58	608.30	439.99	608.40	442.41
176	608.50	444.82	608.60	447.24	608.70	449.66	608.80	452.07	608.90	454.48
181	609.00	456.90	609.10	459.42	609.20	461.94	609.30	464.46	609.40	466.98
186	609.50	469.50	609.60	472.02	609.70	474.54	609.80	477.06	609.90	479.58
191	610.00	482.10	610.10	484.62	610.20	487.14	610.30	489.66	610.40	492.18
196	610.50	494.70	610.60	497.22	610.70	499.74	610.80	502.26	610.90	504.78
201	611.00	507.30	611.10	509.82	611.20	512.34	611.30	514.86	611.40	517.38
206	611.50	519.90	611.60	522.42	611.70	524.94	611.80	527.46	611.90	529.98
211	612.00	532.50	612.10	535.02	612.20	537.54	612.30	540.06	612.40	542.58
216	612.50	545.10	612.60	547.62	612.70	550.14	612.80	552.66	612.90	555.18
221	613.00	557.70	613.10	560.20	613.20	562.70	613.30	565.20	613.40	567.70
226	613.50	570.20	613.60	572.70	613.70	575.20	613.80	577.70	613.90	580.20
231	614.00	582.70	614.10	585.20	614.20	587.70	614.30	590.20	614.40	592.70
236	614.50	595.20	614.60	597.70	614.70	600.20	614.80	602.70	614.90	605.20
241	615.00	607.70	615.10	610.20	615.20	612.70	615.30	615.20	615.40	617.70
246	615.50	620.20	615.60	622.70	615.70	625.20	615.80	627.70	615.90	630.20
251	616.00	632.70	616.10	635.20	616.20	637.70	616.30	640.20	616.40	642.70
256	616.50	645.20	616.60	647.70	616.70	650.20	616.80	652.70	616.90	655.20
261	617.00	657.70	617.10	660.20	617.20	662.70	617.30	665.20	617.40	667.70
266	617.50	670.20	617.60	672.70	617.70	675.20	617.80	677.70	617.90	680.20
271	618.00	682.70	618.10	685.20	618.20	687.70	618.30	690.20	618.40	692.70
276	618.50	695.20	618.60	697.70	618.70	700.20	618.80	702.70	618.90	705.20
281	619.00	707.70	619.10	710.20	619.20	712.70	619.30	715.20	619.40	717.70
286	619.50	720.20	619.60	722.70	619.70	725.20	619.80	727.70	619.90	730.20
291	620.00	732.70	620.10	735.20						

Listing of Tabular Data-Generated Volume

1	591.00	250.00	593.00	433.50	595.00	683.20	597.00	1006.60	601.00	1893.20
6	605.00	3139.20	609.00	4773.60	613.00	6802.80	615.00	7968.20		



Listing of Tabular Data-Expanded Low Volume										
1	580.00	0.00	580.10	2.27	580.20	4.55	580.30	6.82	580.40	9.09
6	580.50	11.36	580.60	13.64	580.70	15.91	580.80	18.18	580.90	20.45
11	581.00	22.73	581.10	25.00	581.20	27.27	581.30	29.55	581.40	31.82
16	581.50	34.09	581.60	36.36	581.70	38.64	581.80	40.91	581.90	43.18
21	582.00	45.45	582.10	47.73	582.20	50.00	582.30	52.27	582.40	54.55
26	582.50	56.82	582.60	59.09	582.70	61.36	582.80	63.64	582.90	65.91
31	583.00	68.18	583.10	70.45	583.20	72.73	583.30	75.00	583.40	77.27
36	583.50	79.55	583.60	81.82	583.70	84.09	583.80	86.36	583.90	88.64
41	584.00	90.91	584.10	93.18	584.20	95.45	584.30	97.73	584.40	100.00
46	584.50	102.27	584.60	104.55	584.70	106.82	584.80	109.09	584.90	111.36
51	585.00	113.64	585.10	115.91	585.20	118.18	585.30	120.45	585.40	122.73
56	585.50	125.00	585.60	127.27	585.70	129.55	585.80	131.82	585.90	134.09
61	586.00	136.36	586.10	138.64	586.20	140.91	586.30	143.18	586.40	145.45
66	586.50	147.73	586.60	150.00	586.70	152.27	586.80	154.55	586.90	156.82
71	587.00	159.09	587.10	161.36	587.20	163.64	587.30	165.91	587.40	168.18
76	587.50	170.45	587.60	172.73	587.70	175.00	587.80	177.27	587.90	179.55
81	588.00	181.82	588.10	184.09	588.20	186.36	588.30	188.64	588.40	190.91
86	588.50	193.18	588.60	195.45	588.70	197.73	588.80	200.00	588.90	202.27
91	589.00	204.55	589.10	206.82	589.20	209.09	589.30	211.36	589.40	213.64
96	589.50	215.91	589.60	218.18	589.70	220.45	589.80	222.73	589.90	225.00
101	590.00	227.27	590.10	229.55	590.20	231.82	590.30	234.09	590.40	236.36
106	590.50	238.64	590.60	240.91	590.70	243.18	590.80	245.45	590.90	247.73

Listing of Tabular Data-Expanded Volume									
1	591.00	250.	591.10	258.	591.20	266.	591.30	274.	591.40
6	591.50	290.	591.60	299.	591.70	307.	591.80	316.	591.90
11	592.00	334.	592.10	343.	592.20	353.	592.30	362.	592.40
16	592.50	382.	592.60	392.	592.70	402.	592.80	412.	592.90
21	593.00	434.	593.10	444.	593.20	455.	593.30	466.	593.40
26	593.50	489.	593.60	501.	593.70	513.	593.80	525.	593.90
31	594.00	549.	594.10	562.	594.20	575.	594.30	588.	594.40
36	594.50	614.	594.60	628.	594.70	641.	594.80	655.	594.90
41	595.00	683.	595.10	698.	595.20	712.	595.30	727.	595.40
46	595.50	757.	595.60	772.	595.70	788.	595.80	803.	595.90
51	596.00	835.	596.10	852.	596.20	868.	596.30	885.	596.40
56	596.50	919.	596.60	936.	596.70	953.	596.80	971.	596.90
61	597.00	1007.	597.10	1025.	597.20	1043.	597.30	1062.	597.40
66	597.50	1099.	597.60	1119.	597.70	1138.	597.80	1158.	597.90
71	598.00	1197.	598.10	1218.	598.20	1238.	598.30	1259.	598.40
76	598.50	1301.	598.60	1322.	598.70	1343.	598.80	1365.	598.90
81	599.00	1409.	599.10	1431.	599.20	1454.	599.30	1476.	599.40
86	599.50	1522.	599.60	1546.	599.70	1569.	599.80	1593.	599.90
91	600.00	1641.	600.10	1665.	600.20	1690.	600.30	1714.	600.40
96	600.50	1764.	600.60	1790.	600.70	1815.	600.80	1841.	600.90
101	601.00	1893.	601.10	1920.	601.20	1946.	601.30	1973.	601.40
106	601.50	2028.	601.60	2055.	601.70	2083.	601.80	2111.	601.90
111	602.00	2168.	602.10	2197.	602.20	2226.	602.30	2255.	602.40
116	602.50	2315.	602.60	2345.	602.70	2375.	602.80	2406.	602.90
121	603.00	2467.	603.10	2499.	603.20	2530.	603.30	2562.	603.40
126	603.50	2626.	603.60	2659.	603.70	2691.	603.80	2724.	603.90
131	604.00	2791.	604.10	2825.	604.20	2859.	604.30	2893.	604.40
136	604.50	2962.	604.60	2997.	604.70	3032.	604.80	3068.	604.90
141	605.00	3139.	605.10	3175.	605.20	3212.	605.30	3248.	605.40
146	605.50	3322.	605.60	3360.	605.70	3397.	605.80	3435.	605.90
151	606.00	3512.	606.10	3550.	606.20	3589.	606.30	3628.	606.40
156	606.50	3707.	606.60	3747.	606.70	3787.	606.80	3827.	606.90
161	607.00	3908.	607.10	3949.	607.20	3990.	607.30	4032.	607.40
166	607.50	4115.	607.60	4158.	607.70	4200.	607.80	4243.	607.90
171	608.00	4329.	608.10	4372.	608.20	4416.	608.30	4460.	608.40
176	608.50	4548.	608.60	4593.	608.70	4638.	608.80	4683.	608.90
181	609.00	4774.	609.10	4819.	609.20	4865.	609.30	4912.	609.40
186	609.50	5005.	609.60	5052.	609.70	5100.	609.80	5147.	609.90
191	610.00	5243.	610.10	5291.	610.20	5340.	610.30	5389.	610.40
196	610.50	5487.	610.60	5537.	610.70	5587.	610.80	5637.	610.90
201	611.00	5738.	611.10	5789.	611.20	5840.	611.30	5891.	611.40
206	611.50	5995.	611.60	6047.	611.70	6099.	611.80	6152.	611.90
211	612.00	6258.	612.10	6311.	612.20	6365.	612.30	6419.	612.40
216	612.50	6527.	612.60	6582.	612.70	6637.	612.80	6692.	612.90
221	613.00	6803.	613.10	6859.	613.20	6915.	613.30	6971.	613.40
226	613.50	7085.	613.60	7142.	613.70	7199.	613.80	7257.	613.90
231	614.00	7373.	614.10	7431.	614.20	7490.	614.30	7549.	614.40
236	614.50	7667.	614.60	7727.	614.70	7787.	614.80	7847.	614.90
241	615.00	7968.	615.10	8029.	615.20	8090.	615.30	8152.	615.40
246	615.50	8275.	615.60	8337.	615.70	8400.	615.80	8462.	615.90
251	616.00	8588.	616.10	8652.	616.20	8715.	616.30	8779.	616.40
256	616.50	8908.	616.60	8973.	616.70	9037.	616.80	9103.	616.90
261	617.00	9234.	617.10	9299.	617.20	9366.	617.30	9432.	617.40
266	617.50	9566.	617.60	9633.	617.70	9700.	617.80	9768.	617.90
271	618.00	9904.	618.10	9972.	618.20	10041.	618.30	10110.	618.40
276	618.50	10248.	618.60	10318.	618.70	10388.	618.80	10458.	618.90
281	619.00	10599.	619.10	10670.	619.20	10741.	619.30	10812.	619.40
286	619.50	10956.	619.60	11028.	619.70	11101.	619.80	11173.	619.90
291	620.00	11319.	620.10	11393.					

End of Run