HYDROLOGIC REPORT FOR

GLEN EAGLE GOLF COURSE

DETENTION AND LAKE DESIGN

25 YEAR/20 MIN.STORM

LAKE #12

PREPARED BY:

PICKETT RAY & SILVER, INC.

333 MID RIVERS MALL DRIVE

ST. PETERS, MO. 63376

DESIGNER: TANYA DIETZ

HYDROLOGIC REPORT

GLEN EAGLE GOLF COURSE
LAKE #12.....
INFLOW.....

Hyd. No. 1

Hydrograph type = RATIONAL
Storm frequency = 25 yr
Time of conc. = 20 min
Runoff coeff. = .56114

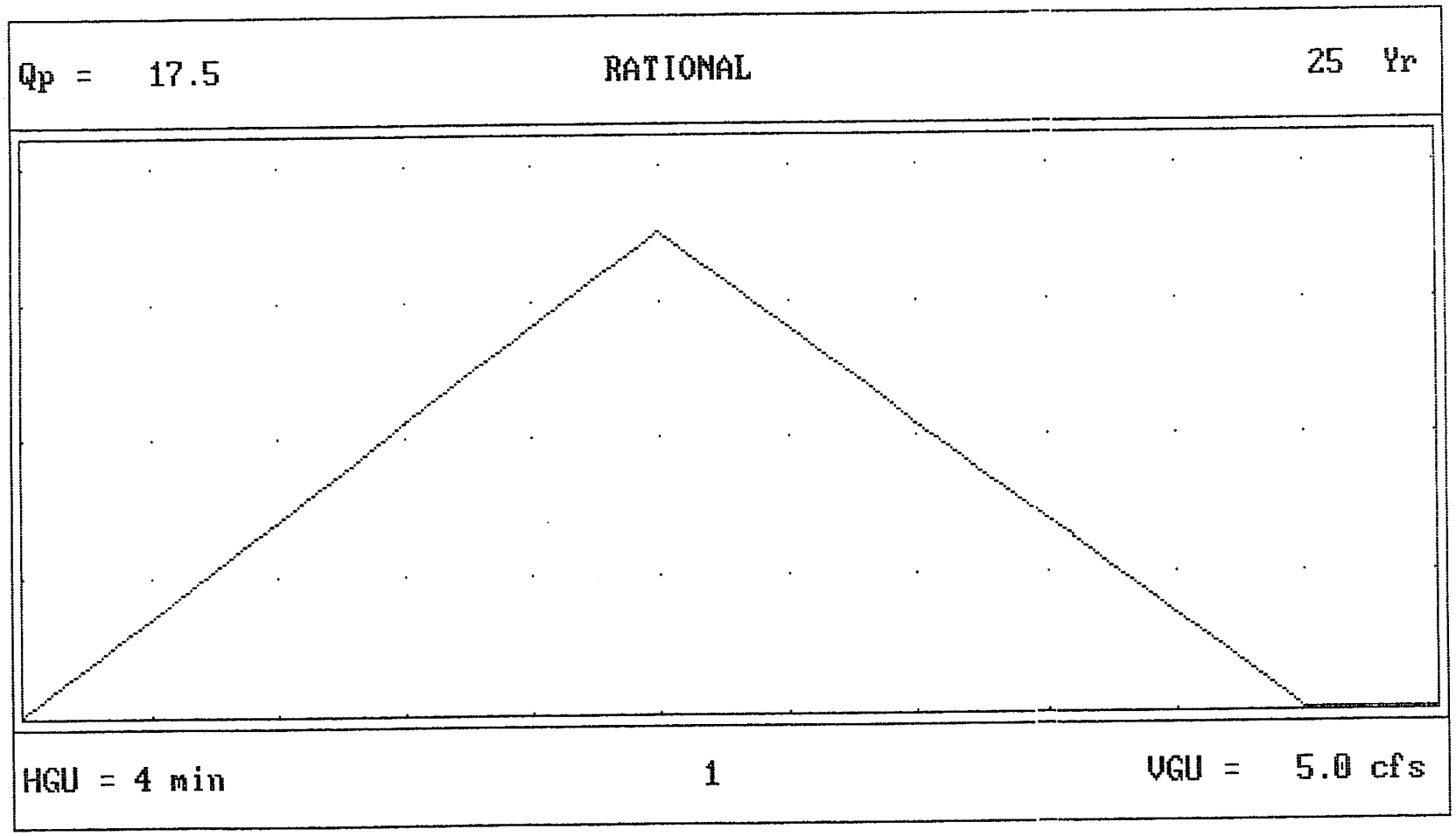
Peak ~~discharge~~ INFLOW = 17.51 cfs
Time interval = 1 min
Intensity = 5.03 in/hr
Basin area = 6.2 ac

HYDROGRAPH DISCHARGE TABLE

TIME--OUTFLOW (min	cfs)	TIME--OUTFLOW (min	cfs)	TIME--OUTFLOW (min	cfs)	TIME--OUTFLOW (min	cfs)
1.00	0.88	2.00	1.75	3.00	2.63	4.00	3.50
5.00	4.38	6.00	5.25	7.00	6.13	8.00	7.01
9.00	7.88	10.00	8.76	11.00	9.63	12.00	10.51
13.00	11.38	14.00	12.26	15.00	13.14	16.00	14.01
17.00	14.89	18.00	15.76	19.00	16.64	20.00	17.51
21.00	16.64	22.00	15.76	23.00	14.89	24.00	14.01
25.00	13.14	26.00	12.26	27.00	11.38	28.00	10.51
29.00	9.63	30.00	8.76	31.00	7.88	32.00	7.01
33.00	6.13	34.00	5.25	35.00	4.38	36.00	3.50
37.00	2.63	38.00	1.75	39.00	0.88	40.00	0.00

PEAK INFLOW:		
OFFSITE (RES.)	1.0 Ac. x 3.26	= 3.3 cfs
ONSITE (RES.)	2.3 Ac. x 3.26	= 7.5 cfs
ONSITE (GOLF)	2.9 Ac. x 2.31	= 6.7 cfs
TOTAL	6.2 Acres	= 17.5 cfs

NOTE: Offsite areas are calculated as being developed under their current zoning classification.



VOL = (cuft/acft) = 21017 / 0.482

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IMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM5 OUTLET STRUCTURES FMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM;
 Reservoir:  6                                                                    :
CULVERT STRUC  A. Q=CoA[2gh/k]^.5        CULVERT STRUC  B. Q=CoA[2gh/k]^.5        :
                                                                                  :
1. WIDTH  (in)      = 12.                  9. WIDTH  (in)       = 0..             :
2. HEIGHT (in)      = 12.                 10. HEIGHT (in)       = 0..             :
3. No. BARRELS      = 1..                 11. No. BARRELS       = 0..             :
4. INVERT ELEV.     = 591.5....           12. INVERT ELEV.      = 0........       :
5. Co = 0.60                              13. Co = 0.60                           :
6. CULVERT LENGTH (ft) = 250.             14. CULVERT LENGTH (ft) = 0...          :
7. CULVERT SLOPE (%)   = 10..             15. CULVERT SLOPE (%)   = 0...          :
8. MANNING'S N-VALUE   = .013             16. MANNING'S N-VALUE   = .013          :
                                          17. MULTI-STAGE OPTION ? (Y/N) N        :
:                                                                                 :
: WEIR STRUCTURE A.       Q=CwLH^EXP      WEIR STRUCTURE B.       Q=CwLH^EXP      :
:                                                                                 :
: 18. CREST LENGTH (ft)   = 0......       23. CREST LENGTH (ft)   = 0......       :
: 19. CREST ELEVATION     = 0......       24. CREST ELEVATION     = 0......       :
: 20. Cw = 3.00                           25. Cw = 3.00                           :
: 21. EXP = 1.50                          26. EXP = 1.50                          :
: 22. MULTI-STAGE OPTION ? (Y/N) N        27. MULTI-STAGE OPTION ? (Y/N) N        :
:                                                                                 :
:                                                                                 :
HMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM<
Change item number: 0                                              DY to cont
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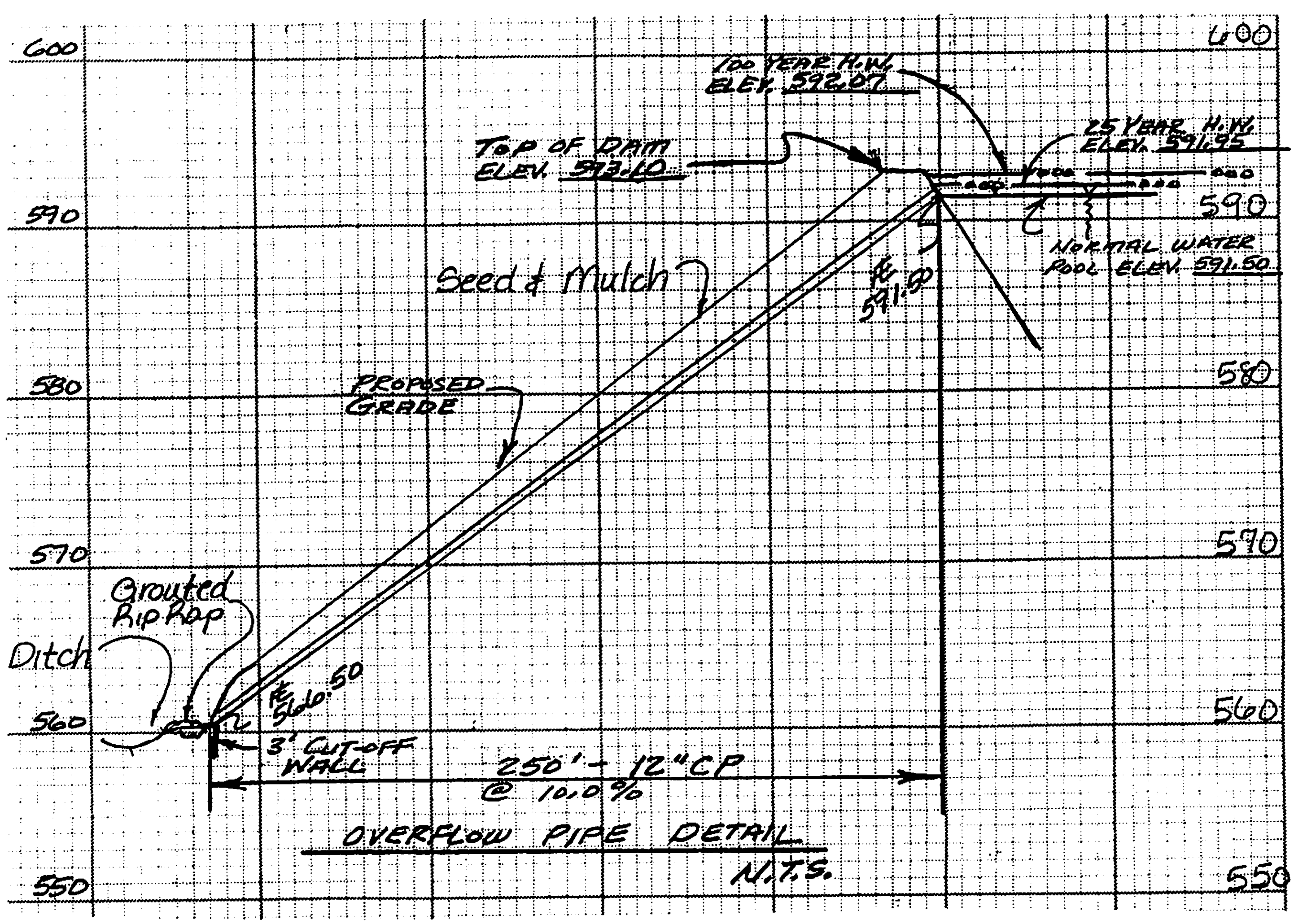


HYDROLOGIC REPORT

STAGE / STORAGE / DISCHARGE

RESERVOIR NUMBER = 6

RESERVOIR NAME = LAKE #12....
STORAGE VALUES WERE INPUT MANUALLY

DISCHARGE VALUES: CULVERT STRUCT A. Q = .6 *A*[2gh/k]^.5 * 1
CULVERT STRUCT B. Q = .6 *A*[2gh/k]^.5 * 0
WEIR STRUCT A. Q = 3 * 0 * H ^ 1.5
WEIR STRUCT B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs)			
	CULVERT A	CULVERT B	WEIR A	WEIR B
591.50	0.00	0.00	0.00	0.00
592.00	1.13	0.00	0.00	0.00
592.50	2.67	0.00	0.00	0.00
593.00	3.78	0.00	0.00	0.00
593.50	4.63	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00

STAGE	ELEVATION	INC STOR cu ft	TOT STOR cu ft	OUTFLOW cfs
0.00	591.50	0	0	0.00
0.50	592.00	22325	22325	1.13
1.00	592.50	22975	45300	2.67
1.50	593.00	23625	68925	3.78
2.00	593.50	24275	93200	4.63
0.00	0.00	0	0	0.00
0.00	0.00	0	0	0.00
0.00	0.00	0	0	0.00
0.00	0.00	0	0	0.00
0.00	0.00	0	0	0.00
0.00	0.00	0	0	0.00

Reservoir No. 6 STAGE / STORAGE / DISCHARGE LAKE #12....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 1
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 0 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs)				
	CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
591.50	0.00	0.00 -	0.00	0.00	0.00
591.55	0.01 IC	0.00 -	0.00	0.00	0.01
591.60	0.08 IC	0.00 -	0.00	0.00	0.08
591.65	0.15 IC	0.00 -	0.00	0.00	0.15
591.70	0.18 IC	0.00 -	0.00	0.00	0.18
591.75	0.30 IC	0.00 -	0.00	0.00	0.30
591.80	0.45 IC	0.00 -	0.00	0.00	0.45
591.85	0.63 IC	0.00 -	0.00	0.00	0.63
591.90	0.68 IC	0.00 -	0.00	0.00	0.68
591.95	0.90 IC	0.00 -	0.00	0.00	0.90
592.00	1.13 IC	0.00 -	0.00	0.00	1.13

[PgDn] [Esc] to exit

Reservoir No. 6 STAGE / STORAGE / DISCHARGE LAKE #12....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 1
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 0 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs)				
	CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
592.00	1.13 IC	0.00 -	0.00	0.00	1.13
592.05	1.19 IC	0.00 -	0.00	0.00	1.19
592.10	1.44 IC	0.00 -	0.00	0.00	1.44
592.15	1.49 IC	0.00 -	0.00	0.00	1.49
592.20	1.74 IC	0.00 -	0.00	0.00	1.74
592.25	1.97 IC	0.00 -	0.00	0.00	1.97
592.30	2.17 IC	0.00 -	0.00	0.00	2.17
592.35	2.24 IC	0.00 -	0.00	0.00	2.24
592.40	2.41 IC	0.00 -	0.00	0.00	2.41
592.45	2.59 IC	0.00 -	0.00	0.00	2.59
592.50	2.67 IC	0.00 -	0.00	0.00	2.67

[PgDn] [Esc] to exit

Reservoir No. 6 STAGE / STORAGE / DISCHARGE LAKE #12....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 1
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 0 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs) CULVERT A		CULVERT B		WEIR A	WEIR B	TOTAL
592.50	2.67	IC	0.00	-	0.00	0.00	2.67
592.55	2.80	IC	0.00	-	0.00	0.00	2.80
592.60	2.93	IC	0.00	-	0.00	0.00	2.93
592.65	3.05	IC	0.00	-	0.00	0.00	3.05
592.70	3.16	IC	0.00	-	0.00	0.00	3.16
592.75	3.27	IC	0.00	-	0.00	0.00	3.27
592.80	3.38	IC	0.00	-	0.00	0.00	3.38
592.85	3.49	IC	0.00	-	0.00	0.00	3.49
592.90	3.59	IC	0.00	-	0.00	0.00	3.59
592.95	3.69	IC	0.00	-	0.00	0.00	3.69
593.00	3.78	IC	0.00	-	0.00	0.00	3.78

[PgDn] [Esc] to exit

Reservoir No. 6 STAGE / STORAGE / DISCHARGE LAKE #12....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 1
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 0 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs) CULVERT A		CULVERT B		WEIR A	WEIR B	TOTAL
593.00	3.78	IC	0.00	-	0.00	0.00	3.78
593.05	3.87	IC	0.00	-	0.00	0.00	3.87
593.10	3.97	IC	0.00	-	0.00	0.00	3.97
593.15	4.05	IC	0.00	-	0.00	0.00	4.05
593.20	4.14	IC	0.00	-	0.00	0.00	4.14
593.25	4.23	IC	0.00	-	0.00	0.00	4.23
593.30	4.31	IC	0.00	-	0.00	0.00	4.31
593.35	4.39	IC	0.00	-	0.00	0.00	4.39
593.40	4.47	IC	0.00	-	0.00	0.00	4.47
593.45	4.55	IC	0.00	-	0.00	0.00	4.55
593.50	4.63	IC	0.00	-	0.00	0.00	4.63

[PgDn] [Esc] to exit

5 STAGE / STORAGE TABLE F

1. RESERVOIR No = 6.   2. RESERVOIR NAME = LAKE #12....

3. S = Ks * Z^b

Ks = 0............   b = 0..........

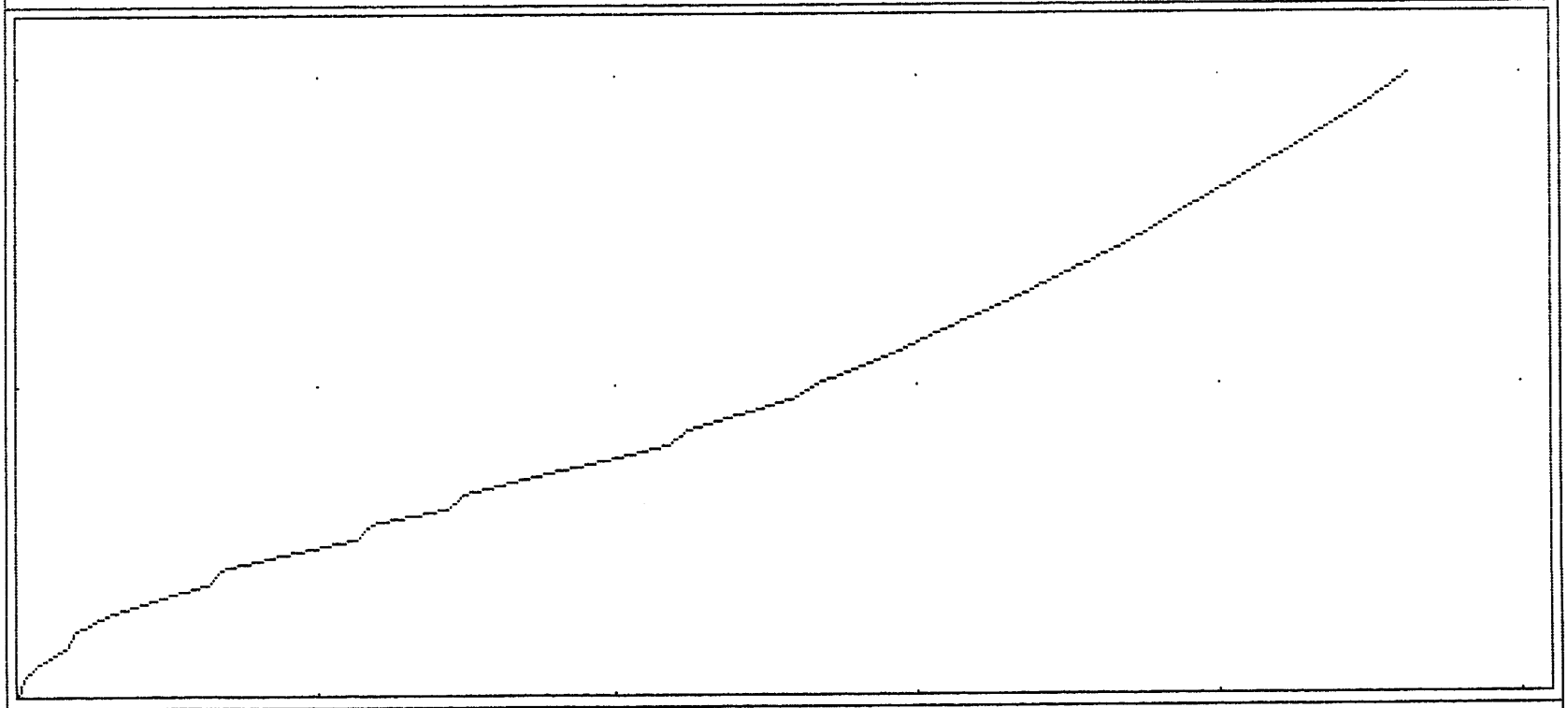
START ELEV = 0.....   INCREMENT = 0...

	STAGE ft	ELEVATION ft	CO AREA sq ft	INC STORAGE cu ft	TOT STORAGE cu ft
4	0.00	591.50.	44000...	0	0
5	0.50	592.00.	45300...	22325	22325
6	1.00	592.50.	46600...	22975	45300
7	1.50	593.00.	47900...	23625	68925
8	2.00	593.50.	49200...	24275	93200
9	0.00	0.00.	0.......	0	0
10	0.00	0.00.	0.......	0	0
11	0.00	0.00.	0.......	0	0
12	0.00	0.00.	0.......	0	0
13	0.00	0.00.	0.......	0	0
14	0.00	0.00.	0.......	0	0

R to reset

Change item number: 0   DY to cont

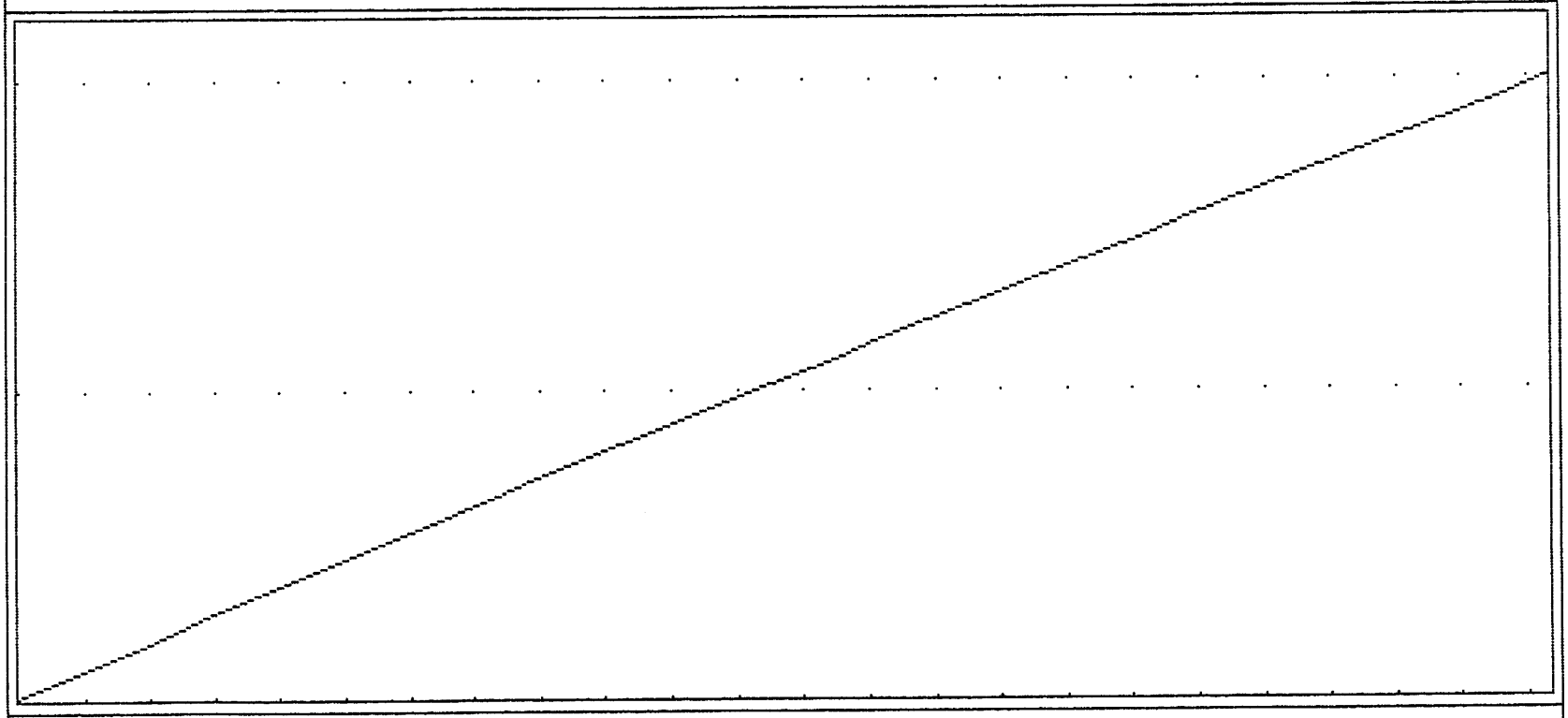
STAGE / DISCHARGE CURVE



HGU = 1.0 cfs VGU = 1.0 ft

[↵] Cont [Esc] Exit

STAGE / STORAGE CURVE



HGU = 4000 cu ft VGU = 1.0 ft

[↵] Cont [Esc] Exit

HYDROLOGIC REPORT

GLEN EAGLE GOLF COURSE
.....
LAKE #12.....

Hyd. No. 2

Hydrograph type = RESERVOIR ROUTE
Storm frequency = 25 yr
Inflow hyd. no. = 1

Peak discharge = 0.90 cfs
Time interval = 1 min
Reservoir no. = 6

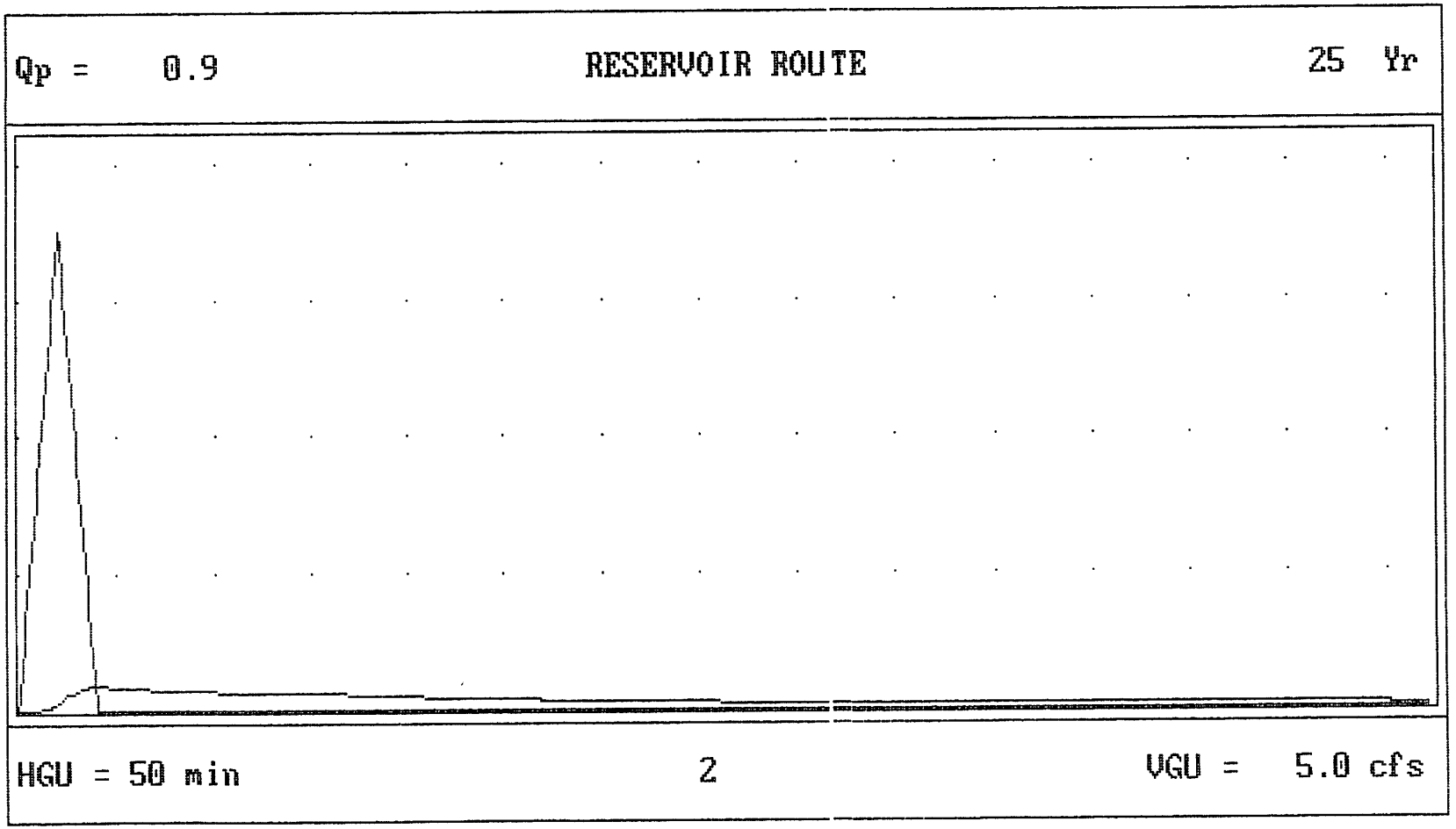
HYDROGRAPH DISCHARGE TABLE

TIME min	INFLOW (i) cfs	INFLOW (j) cfs	2S/dt-O (i) cfs	2S/dt+O (j) cfs	OUTFLOW cfs
2.00	1.75	2.63	3.50	3.50	0.00
3.00	2.63	3.50	7.88	7.88	0.00
4.00	3.50	4.38	14.00	14.01	0.00
5.00	4.38	5.25	21.88	21.88	0.00
6.00	5.25	6.13	31.50	31.51	0.01
7.00	6.13	7.01	42.87	42.88	0.01
8.00	7.01	7.88	55.99	56.00	0.01
9.00	7.88	8.76	70.85	70.87	0.01
10.00	8.76	9.63	87.44	87.49	0.02
11.00	9.63	10.51	105.75	105.83	0.04
12.00	10.51	11.38	125.78	125.89	0.06
13.00	11.38	12.26	147.52	147.67	0.08
14.00	12.26	13.14	170.96	171.16	0.10
15.00	13.14	14.01	196.11	196.36	0.13
16.00	14.01	14.89	222.95	223.26	0.15
17.00	14.89	15.76	251.52	251.85	0.16
18.00	15.76	16.64	281.83	282.17	0.17
19.00	16.64	17.51	313.82	314.23	0.20
20.00	17.51	16.64	347.46	347.98	0.26
21.00	16.64	15.76	380.99	381.61	0.31
22.00	15.76	14.89	412.63	413.39	0.38
23.00	14.89	14.01	442.40	443.28	0.44
24.00	14.01	13.14	470.28	471.30	0.51
25.00	13.14	12.26	496.28	497.43	0.57
26.00	12.26	11.38	520.41	521.68	0.63

HYDROGRAPH DISCHARGE TABLE Cont'd

TIME min	INFLOW (i) cfs	INFLOW (j) cfs	2S/dt-O (i) cfs	2S/dt+O (j) cfs	OUTFLOW cfs
27.00	11.38	10.51	542.76	544.05	0.65
28.00	10.51	9.63	563.34	564.65	0.66
29.00	9.63	8.76	582.14	583.48	0.67
30.00	8.76	7.88	599.15	600.53	0.69
31.00	7.88	7.01	614.32	615.79	0.74
32.00	7.01	6.13	627.65	629.20	0.77
33.00	6.13	5.25	639.17	640.79	0.81
34.00	5.25	4.38	648.88	650.56	0.84
35.00	4.38	3.50	656.80	658.52	0.86
36.00	3.50	2.63	662.92	664.68	0.88
37.00	2.63	1.75	667.27	669.05	0.89
38.00	1.75	0.88	669.85	671.65	0.90

Maximum outflow (cfs) = 0.90
Maximum storage (cu ft) = 20147
Maximum elevation (ft) = 591.95



MAX STORAGE = 20147

MAX ELEVATION = 591.95

HYDROLOGIC REPORT FOR

GLEN EAGLE GOLF COURSE

DETENTION AND LAKE DESIGN

100 YEAR/20 MIN. STORM

LAKE #12

PREPARED BY:

PICKETT RAY & SILVER, INC.

333 MID RIVERS MALL DRIVE

ST. PETERS, MO. 63376

DESIGNER: TANYA DIETZ

HYDROLOGIC REPORT

GLEN EAGLE GOLF COURSE
LAKE #12.....
INFLOW.....

Hyd. No. 3

Hydrograph type	= RATIONAL	Peak ~~discharge~~ INFLOW	= 22.41 cfs
Storm frequency	= 100 yr	Time interval	= 1 min
Time of conc.	= 20 min	Intensity	= 6.17 in/hr
Runoff coeff.	= .585555	Basin area	= 6.2 ac

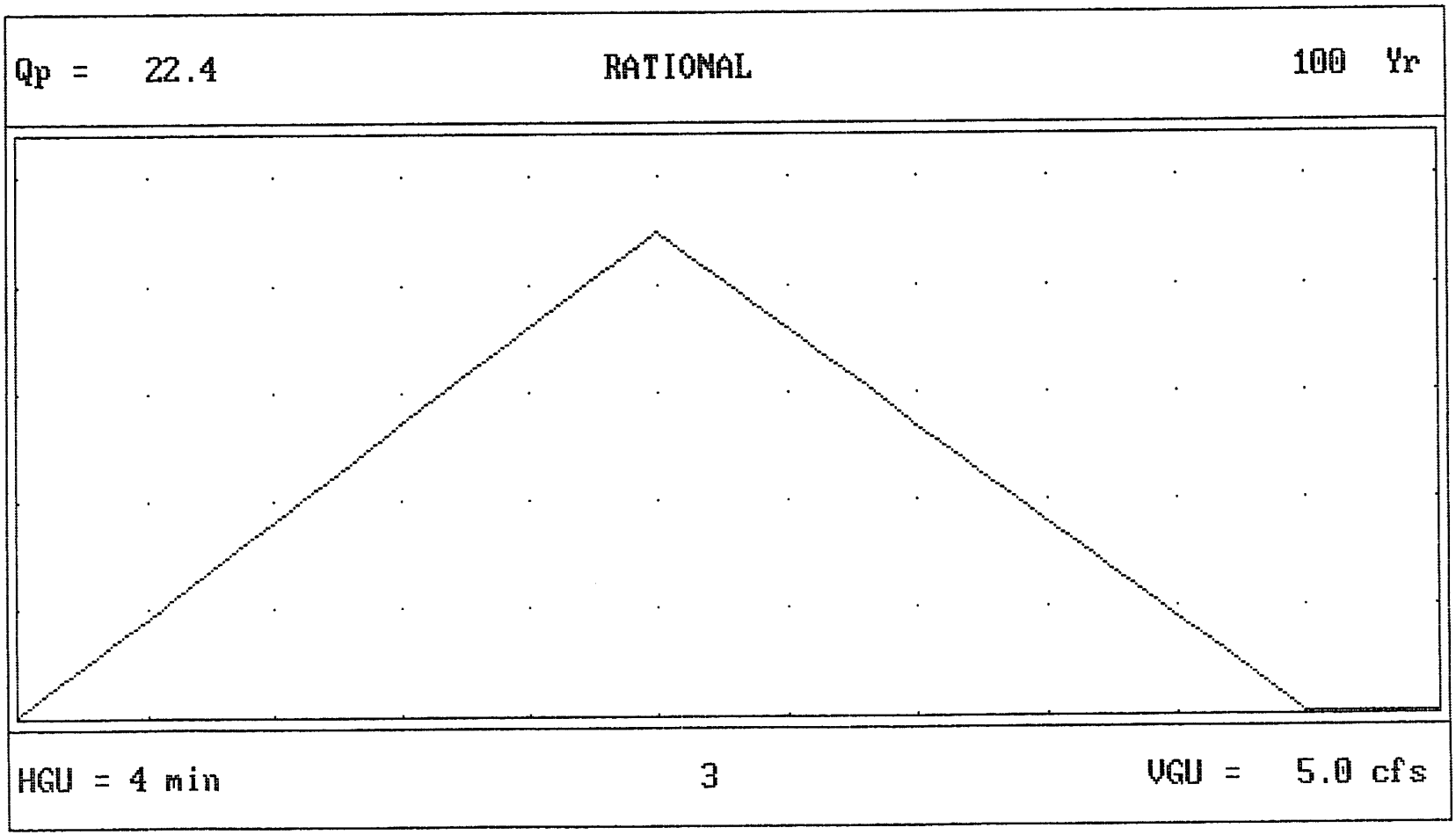
HYDROGRAPH DISCHARGE TABLE

TIME--OUTFLOW (min cfs)		TIME--OUTFLOW (min cfs)		TIME--OUTFLOW (min cfs)		TIME--OUTFLOW (min cfs)	
1.00	1.12	2.00	2.24	3.00	3.36	4.00	4.48
5.00	5.60	6.00	6.72	7.00	7.84	8.00	8.97
9.00	10.09	10.00	11.21	11.00	12.33	12.00	13.45
13.00	14.57	14.00	15.69	15.00	16.81	16.00	17.93
17.00	19.05	18.00	20.17	19.00	21.29	20.00	22.41
21.00	21.29	22.00	20.17	23.00	19.05	24.00	17.93
25.00	16.81	26.00	15.69	27.00	14.57	28.00	13.45
29.00	12.33	30.00	11.21	31.00	10.09	32.00	8.97
33.00	7.84	34.00	6.72	35.00	5.60	36.00	4.48
37.00	3.36	38.00	2.24	39.00	1.12	40.00	0.00

PEAK INFLOW:

OFFSITE (RES.)	1.0 Ac. x 4.17 =	4.2 cfs
ONSITE (RES.)	2.3 Ac. x 4.17 =	9.6 cfs
ONSITE (GOLF)	2.9 Ac. x 2.95 =	8.6 cfs
TOTAL	6.2 Acres	= 22.4 cfs

NOTE: Offsite areas are calculated as being developed under their current zoning classification.



VOL = (cuft/acft) = 26897 / 0.617

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IMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM5 OUTLET STRUCTURES FMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM;
 Reservoir:  6
 CULVERT STRUC   A. Q=CoA[2gh/k]^.5       CULVERT STRUC   B. Q=CoA[2gh/k]^.5

 1. WIDTH   (in)      = 12.                9. WIDTH   (in)      = 0..
 2. HEIGHT (in)       = 12.               10. HEIGHT (in)       = 0..
 3. No. BARRELS       = 1..               11. No. BARRELS       = 0..
 4. INVERT ELEV.      = 591.5....         12. INVERT ELEV.      = 0........
 5. Co = 0.60                             13. Co = 0.60
 6. CULVERT LENGTH (ft) = 250.            14. CULVERT LENGTH (ft) = 0...
 7. CULVERT SLOPE (%)   = 10..            15. CULVERT SLOPE (%)   = 0...
 8. MANNING'S N-VALUE   = .013            16. MANNING'S N-VALUE   = .013
                                          17. MULTI-STAGE OPTION ? (Y/N) N

 WEIR STRUCTURE A.       Q=CwLH^EXP       WEIR STRUCTURE B.       Q=CwLH^EXP

 18. CREST LENGTH (ft)   = 0......        23. CREST LENGTH (ft)   = 0......
 19. CREST ELEVATION     = 0......        24. CREST ELEVATION     = 0......
 20. Cw = 3.00                            25. Cw = 3.00
 21. EXP = 1.50                           26. EXP = 1.50
 22. MULTI-STAGE OPTION ? (Y/N) N         27. MULTI-STAGE OPTION ? (Y/N) N

HMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM<
Change item number: 0                                                     DY to cont
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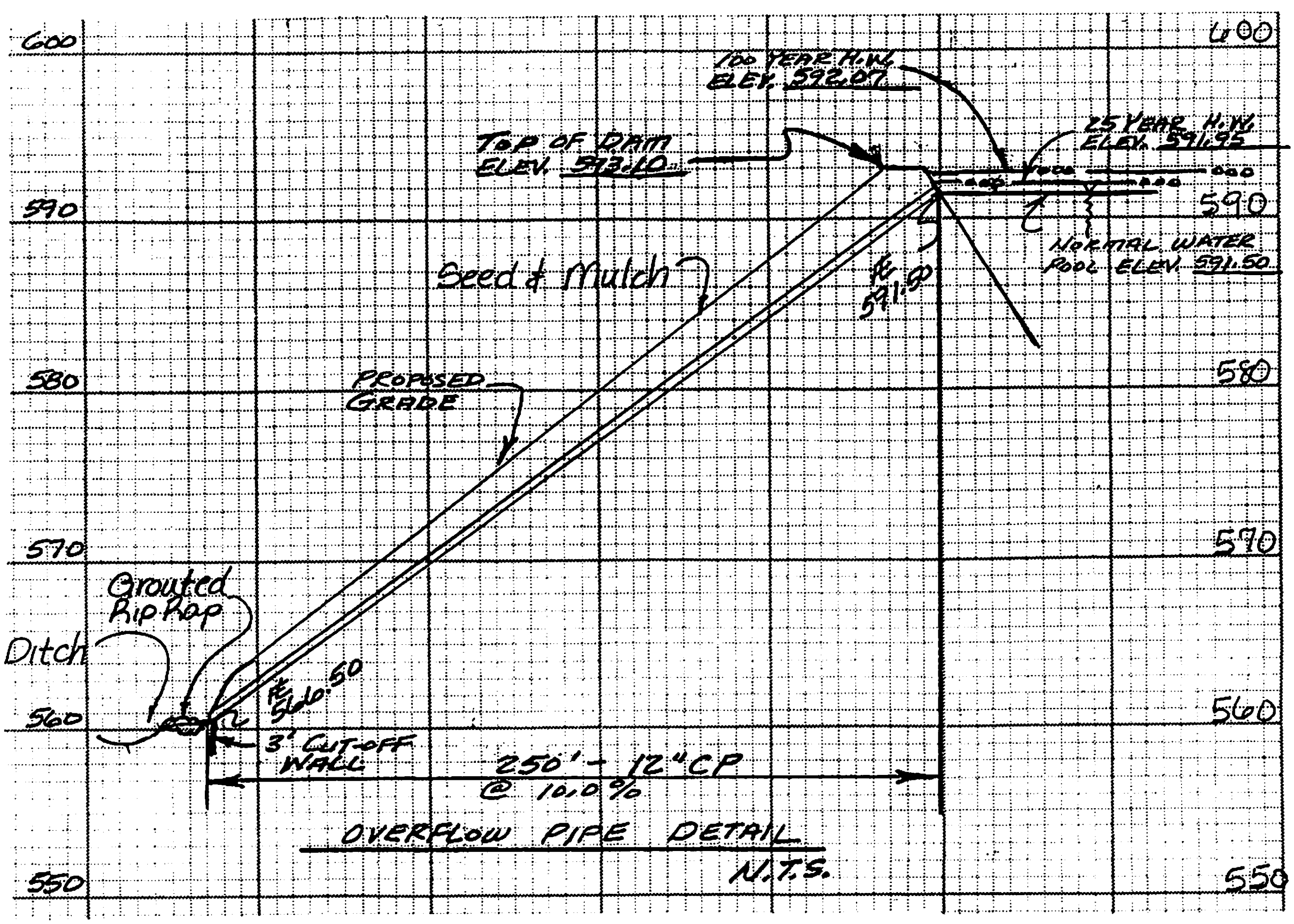


HYDROLOGIC REPORT

STAGE / STORAGE / DISCHARGE

RESERVOIR NUMBER = 6

RESERVOIR NAME = LAKE #12....
STORAGE VALUES WERE INPUT MANUALLY

DISCHARGE VALUES: CULVERT STRUCT A. Q = .6 *A*[2gh/k]^.5 * 1
CULVERT STRUCT B. Q = .6 *A*[2gh/k]^.5 * 0
WEIR STRUCT A. Q = 3 * 0 * H ^ 1.5
WEIR STRUCT B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs)			
	CULVERT A	CULVERT B	WEIR A	WEIR B
591.50	0.00	0.00	0.00	0.00
592.00	1.13	0.00	0.00	0.00
592.50	2.67	0.00	0.00	0.00
593.00	3.78	0.00	0.00	0.00
593.50	4.63	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00

STAGE	ELEVATION	INC STOR cu ft	TOT STOR cu ft	OUTFLOW cfs
0.00	591.50	0	0	0.00
0.50	592.00	22325	22325	1.13
1.00	592.50	22975	45300	2.67
1.50	593.00	23625	68925	3.78
2.00	593.50	24275	93200	4.63
0.00	0.00	0	0	0.00
0.00	0.00	0	0	0.00
0.00	0.00	0	0	0.00
0.00	0.00	0	0	0.00
0.00	0.00	0	0	0.00
0.00	0.00	0	0	0.00

Reservoir No. 6 STAGE / STORAGE / DISCHARGE LAKE #12....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 1
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 0 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs) CULVERT A		CULVERT B		WEIR A	WEIR B	TOTAL
591.50	0.00		0.00	-	0.00	0.00	0.00
591.55	0.01	IC	0.00	-	0.00	0.00	0.01
591.60	0.08	IC	0.00	-	0.00	0.00	0.08
591.65	0.15	IC	0.00	-	0.00	0.00	0.15
591.70	0.18	IC	0.00	-	0.00	0.00	0.18
591.75	0.30	IC	0.00	-	0.00	0.00	0.30
591.80	0.45	IC	0.00	-	0.00	0.00	0.45
591.85	0.63	IC	0.00	-	0.00	0.00	0.63
591.90	0.68	IC	0.00	-	0.00	0.00	0.68
591.95	0.90	IC	0.00	-	0.00	0.00	0.90
592.00	1.13	IC	0.00	-	0.00	0.00	1.13

[PgDn] [Esc] to exit

Reservoir No. 6 STAGE / STORAGE / DISCHARGE LAKE #12....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 1
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 0 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs) CULVERT A		CULVERT B		WEIR A	WEIR B	TOTAL
592.00	1.13	IC	0.00	-	0.00	0.00	1.13
592.05	1.19	IC	0.00	-	0.00	0.00	1.19
592.10	1.44	IC	0.00	-	0.00	0.00	1.44
592.15	1.49	IC	0.00	-	0.00	0.00	1.49
592.20	1.74	IC	0.00	-	0.00	0.00	1.74
592.25	1.97	IC	0.00	-	0.00	0.00	1.97
592.30	2.17	IC	0.00	-	0.00	0.00	2.17
592.35	2.24	IC	0.00	-	0.00	0.00	2.24
592.40	2.41	IC	0.00	-	0.00	0.00	2.41
592.45	2.59	IC	0.00	-	0.00	0.00	2.59
592.50	2.67	IC	0.00	-	0.00	0.00	2.67

[PgDn] [Esc] to exit

Reservoir No. 6 STAGE / STORAGE / DISCHARGE LAKE #12....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 1
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 0 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs) CULVERT A		CULVERT B		WEIR A	WEIR B	TOTAL
592.50	2.67	IC	0.00	-	0.00	0.00	2.67
592.55	2.80	IC	0.00	-	0.00	0.00	2.80
592.60	2.93	IC	0.00	-	0.00	0.00	2.93
592.65	3.05	IC	0.00	-	0.00	0.00	3.05
592.70	3.16	IC	0.00	-	0.00	0.00	3.16
592.75	3.27	IC	0.00	-	0.00	0.00	3.27
592.80	3.38	IC	0.00	-	0.00	0.00	3.38
592.85	3.49	IC	0.00	-	0.00	0.00	3.49
592.90	3.59	IC	0.00	-	0.00	0.00	3.59
592.95	3.69	IC	0.00	-	0.00	0.00	3.69
593.00	3.78	IC	0.00	-	0.00	0.00	3.78

[PgDn] [Esc] to exit

Reservoir No. 6 STAGE / STORAGE / DISCHARGE LAKE #12....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 1
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 0 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs) CULVERT A		CULVERT B		WEIR A	WEIR B	TOTAL
593.00	3.78	IC	0.00	-	0.00	0.00	3.78
593.05	3.87	IC	0.00	-	0.00	0.00	3.87
593.10	3.97	IC	0.00	-	0.00	0.00	3.97
593.15	4.05	IC	0.00	-	0.00	0.00	4.05
593.20	4.14	IC	0.00	-	0.00	0.00	4.14
593.25	4.23	IC	0.00	-	0.00	0.00	4.23
593.30	4.31	IC	0.00	-	0.00	0.00	4.31
593.35	4.39	IC	0.00	-	0.00	0.00	4.39
593.40	4.47	IC	0.00	-	0.00	0.00	4.47
593.45	4.55	IC	0.00	-	0.00	0.00	4.55
593.50	4.63	IC	0.00	-	0.00	0.00	4.63

[PgDn] [Esc] to exit

STAGE / STORAGE TABLE

1. RESERVOIR No = 6.   2. RESERVOIR NAME = LAKE #12....

3. S = Ks * Z^b

Ks = 0............   b = 0..........

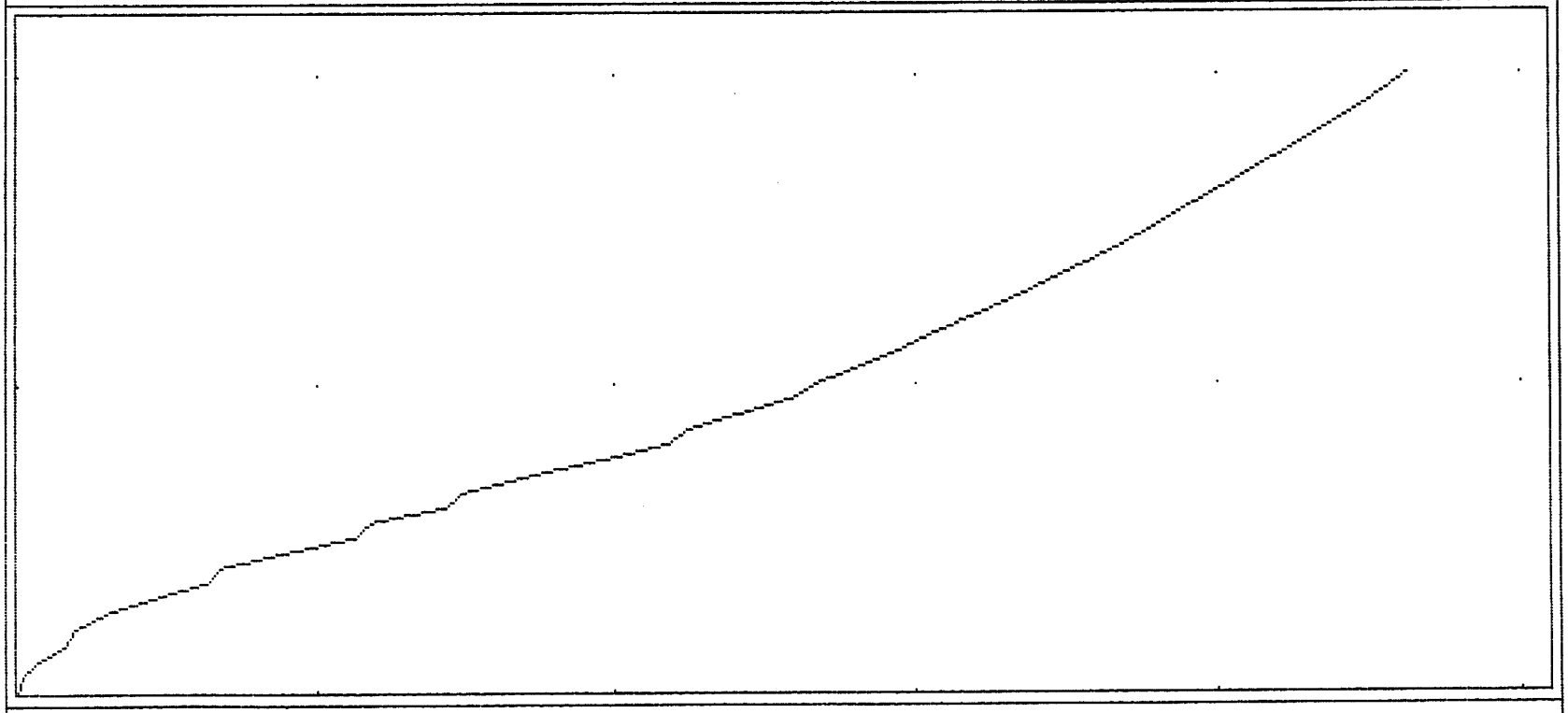
START ELEV = 0.....   INCREMENT = 0...

	STAGE ft	ELEVATION ft	CO AREA sq ft	INC STORAGE cu ft	TOT STORAGE cu ft
4	0.00	591.50.	44000...	0	0
5	0.50	592.00.	45300...	22325	22325
6	1.00	592.50.	46600...	22975	45300
7	1.50	593.00.	47900...	23625	68925
8	2.00	593.50.	49200...	24275	93200
9	0.00	0.00.	0.......	0	0
10	0.00	0.00.	0.......	0	0
11	0.00	0.00.	0.......	0	0
12	0.00	0.00.	0.......	0	0
13	0.00	0.00.	0.......	0	0
14	0.00	0.00.	0.......	0	0

R to reset

Change item number: 0   DY to cont

STAGE / DISCHARGE CURVE



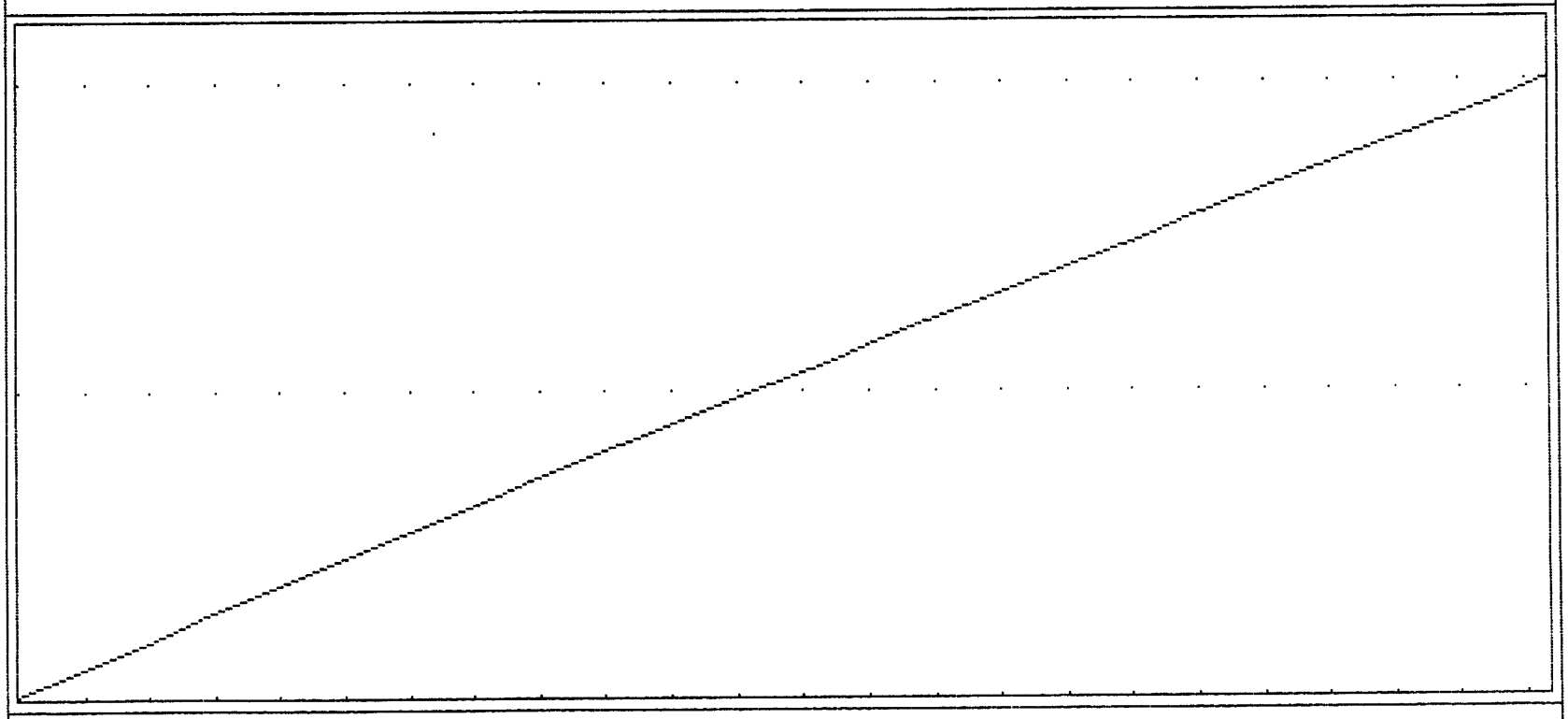
HGU = 1.0 cfs

VGU = 1.0 ft

[↵] Cont

[Esc] Exit

STAGE / STORAGE CURVE



HGU = 4000 cu ft VGU = 1.0 ft

[↵] Cont [Esc] Exit

HYDROLOGIC REPORT

GLEN EAGLE GOLF COURSE
.....
LAKE #12.....

Hyd. No. 4

Hydrograph type = RESERVOIR ROUTE
Storm frequency = 100 yr
Inflow hyd. no. = 3

Peak discharge = 1.29 cfs
Time interval = 1 min
Reservoir no. = 6

HYDROGRAPH DISCHARGE TABLE

TIME min	INFLOW (i) cfs	INFLOW (j) cfs	2S/dt-O (i) cfs	2S/dt+O (j) cfs	OUTFLOW cfs
1.00	1.12	2.24	1.12	1.12	0.00
2.00	2.24	3.36	4.48	4.48	0.00
3.00	3.36	4.48	10.08	10.08	0.00
4.00	4.48	5.60	17.92	17.93	0.00
5.00	5.60	6.72	28.00	28.01	0.00
6.00	6.72	7.84	40.31	40.32	0.01
7.00	7.84	8.97	54.86	54.88	0.01
8.00	8.97	10.09	71.65	71.67	0.01
9.00	10.09	11.21	90.65	90.70	0.03
10.00	11.21	12.33	111.85	111.94	0.04
11.00	12.33	13.45	135.25	135.39	0.07
12.00	13.45	14.57	160.85	161.03	0.09
13.00	14.57	15.69	188.63	188.87	0.12
14.00	15.69	16.81	218.60	218.89	0.15
15.00	16.81	17.93	250.77	251.10	0.16
16.00	17.93	19.05	285.17	285.51	0.17
17.00	19.05	20.17	321.72	322.15	0.22
18.00	20.17	21.29	360.39	360.94	0.28
19.00	21.29	22.41	401.14	401.85	0.36
20.00	22.41	21.29	443.96	444.85	0.44
21.00	21.29	20.17	486.57	487.67	0.55
22.00	20.17	19.05	526.76	528.04	0.64
23.00	19.05	17.93	564.67	565.99	0.66
24.00	17.93	16.81	600.27	601.65	0.69
25.00	16.81	15.69	633.43	635.01	0.79

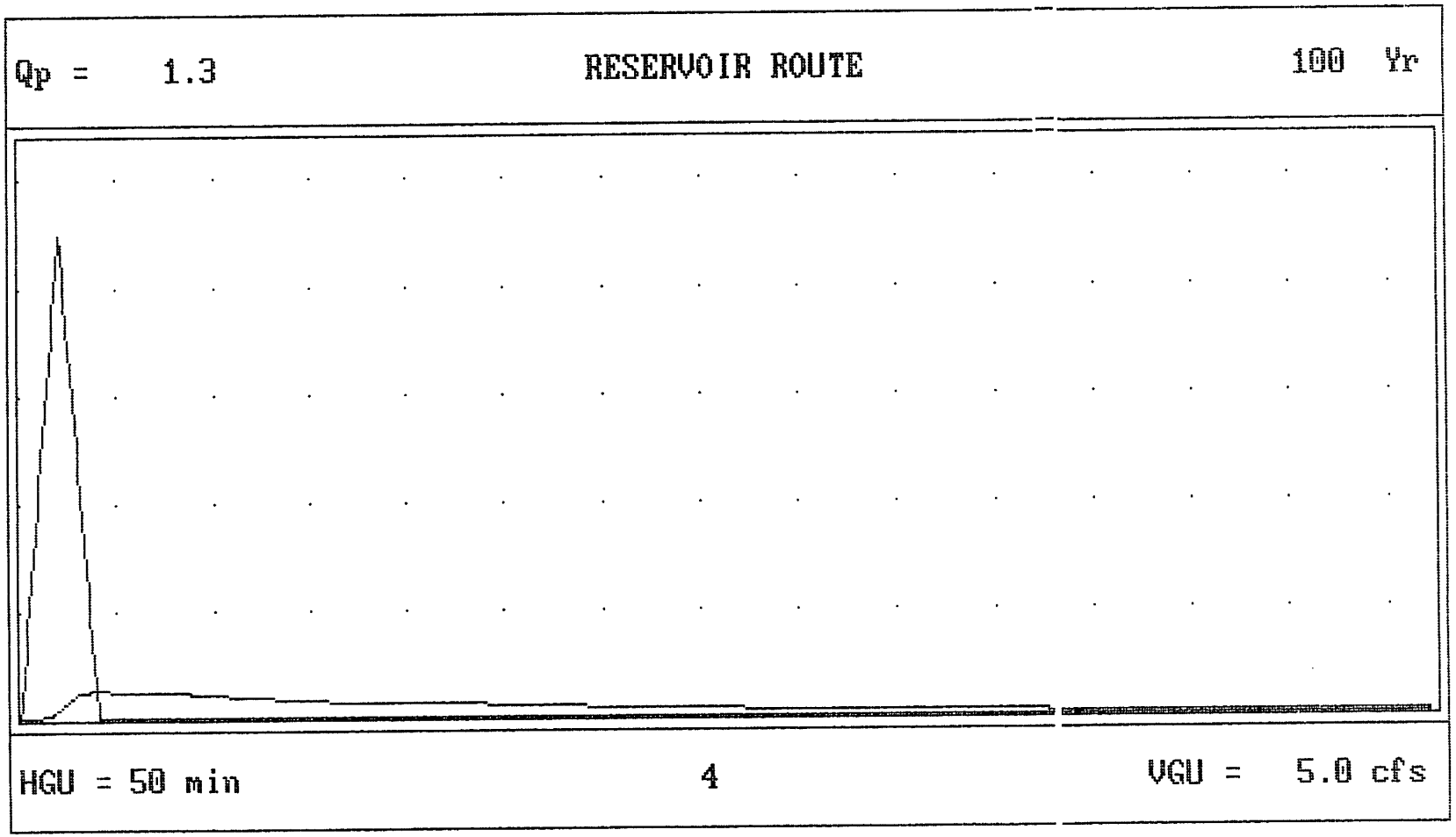
HYDROGRAPH DISCHARGE TABLE Cont'd

TIME min	INFLOW (i) cfs	INFLOW (j) cfs	2S/dt-O (i) cfs	2S/dt+O (j) cfs	OUTFLOW cfs
26.00	15.69	14.57	664.16	665.93	0.88
27.00	14.57	13.45	692.48	694.42	0.97
28.00	13.45	12.33	718.39	720.50	1.05
29.00	12.33	11.21	741.91	744.17	1.13
30.00	11.21	10.09	763.15	765.44	1.15
31.00	10.09	8.97	782.13	784.45	1.16
32.00	8.97	7.84	798.83	801.18	1.17
33.00	7.84	6.72	813.28	815.64	1.18
34.00	6.72	5.60	825.43	827.85	1.21
35.00	5.60	4.48	835.29	837.76	1.24
36.00	4.48	3.36	842.85	845.37	1.26
37.00	3.36	2.24	848.13	850.69	1.28
38.00	2.24	1.12	851.16	853.74	1.29
39.00	1.12	0.00	851.93	854.52	1.29
40.00	0.00	0.00	850.48	853.05	1.29
41.00	0.00	0.00	847.92	850.48	1.28
42.00	0.00	0.00	845.38	847.92	1.27
43.00	0.00	0.00	842.85	845.38	1.26
44.00	0.00	0.00	840.34	842.85	1.25
45.00	0.00	0.00	837.85	840.34	1.25
46.00	0.00	0.00	835.37	837.85	1.24
47.00	0.00	0.00	832.91	835.37	1.23
48.00	0.00	0.00	830.47	832.91	1.22
49.00	0.00	0.00	828.04	830.47	1.21
50.00	0.00	0.00	825.62	828.04	1.21
51.00	0.00	0.00	823.22	825.62	1.20
52.00	0.00	0.00	820.84	823.22	1.19
53.00	0.00	0.00	818.47	820.84	1.19
54.00	0.00	0.00	816.10	818.47	1.18
55.00	0.00	0.00	813.73	816.10	1.18
56.00	0.00	0.00	811.37	813.73	1.18
57.00	0.00	0.00	809.01	811.37	1.18
58.00	0.00	0.00	806.66	809.01	1.18
59.00	0.00	0.00	804.30	806.66	1.18
60.00	0.00	0.00	801.95	804.30	1.17
61.00	0.00	0.00	799.61	801.95	1.17
62.00	0.00	0.00	797.27	799.61	1.17
63.00	0.00	0.00	794.93	797.27	1.17
64.00	0.00	0.00	792.59	794.93	1.17
65.00	0.00	0.00	790.26	792.59	1.17
66.00	0.00	0.00	787.93	790.26	1.16
67.00	0.00	0.00	785.61	787.93	1.16

HYDROGRAPH DISCHARGE TABLE Cont'd

TIME min	INFLOW (i) cfs	INFLOW (j) cfs	2S/dt-O (i) cfs	2S/dt+O (j) cfs	OUTFLOW cfs
68.00	0.00	0.00	783.28	785.61	1.16
69.00	0.00	0.00	780.97	783.28	1.16
70.00	0.00	0.00	778.65	780.97	1.16
71.00	0.00	0.00	776.34	778.65	1.16
72.00	0.00	0.00	774.03	776.34	1.15
73.00	0.00	0.00	771.73	774.03	1.15
74.00	0.00	0.00	769.42	771.73	1.15
75.00	0.00	0.00	767.12	769.42	1.15
76.00	0.00	0.00	764.83	767.12	1.15
77.00	0.00	0.00	762.54	764.83	1.15
78.00	0.00	0.00	760.25	762.54	1.14
79.00	0.00	0.00	757.96	760.25	1.14
80.00	0.00	0.00	755.68	757.96	1.14
81.00	0.00	0.00	753.40	755.68	1.14
82.00	0.00	0.00	751.13	753.40	1.14
83.00	0.00	0.00	748.85	751.13	1.14
84.00	0.00	0.00	746.59	748.85	1.13
85.00	0.00	0.00	744.32	746.59	1.13
86.00	0.00	0.00	742.06	744.32	1.13
87.00	0.00	0.00	739.82	742.06	1.12
88.00	0.00	0.00	737.59	739.82	1.11
89.00	0.00	0.00	735.37	737.59	1.11
90.00	0.00	0.00	733.17	735.37	1.10
91.00	0.00	0.00	730.99	733.17	1.09
92.00	0.00	0.00	728.81	730.99	1.09
93.00	0.00	0.00	726.65	728.81	1.08
94.00	0.00	0.00	724.51	726.65	1.07
95.00	0.00	0.00	722.38	724.51	1.07
96.00	0.00	0.00	720.26	722.38	1.06
97.00	0.00	0.00	718.15	720.26	1.05
98.00	0.00	0.00	716.06	718.15	1.05
99.00	0.00	0.00	713.98	716.06	1.04
100.00	0.00	0.00	711.91	713.98	1.03
101.00	0.00	0.00	709.86	711.91	1.03
102.00	0.00	0.00	707.82	709.86	1.02
103.00	0.00	0.00	705.79	707.82	1.01
104.00	0.00	0.00	703.78	705.79	1.01
105.00	0.00	0.00	701.78	703.78	1.00

Maximum outflow (cfs) = 1.29
Maximum storage (cu ft) = 25597
Maximum elevation (ft) = 592.07



MAX STORAGE = 25597

MAX ELEVATION = 592.07