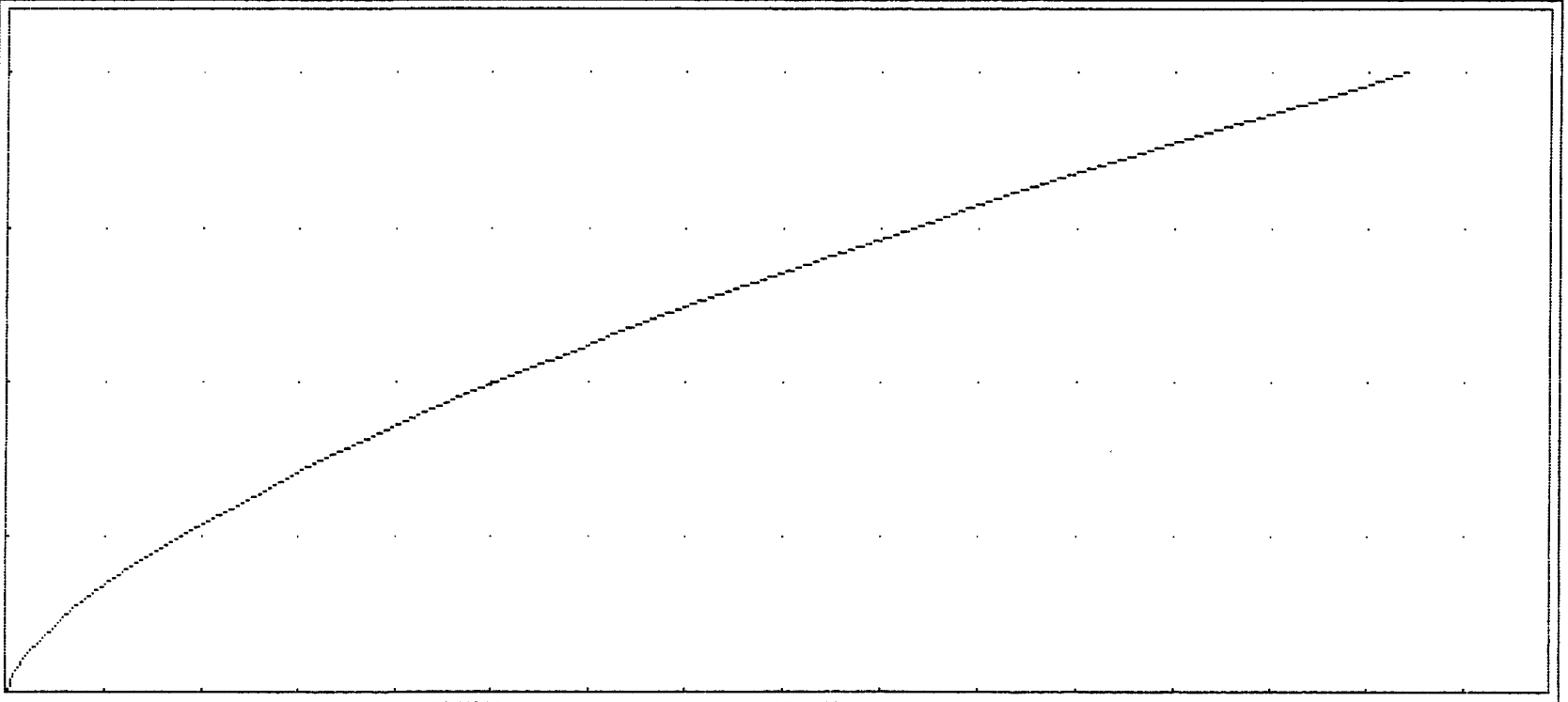
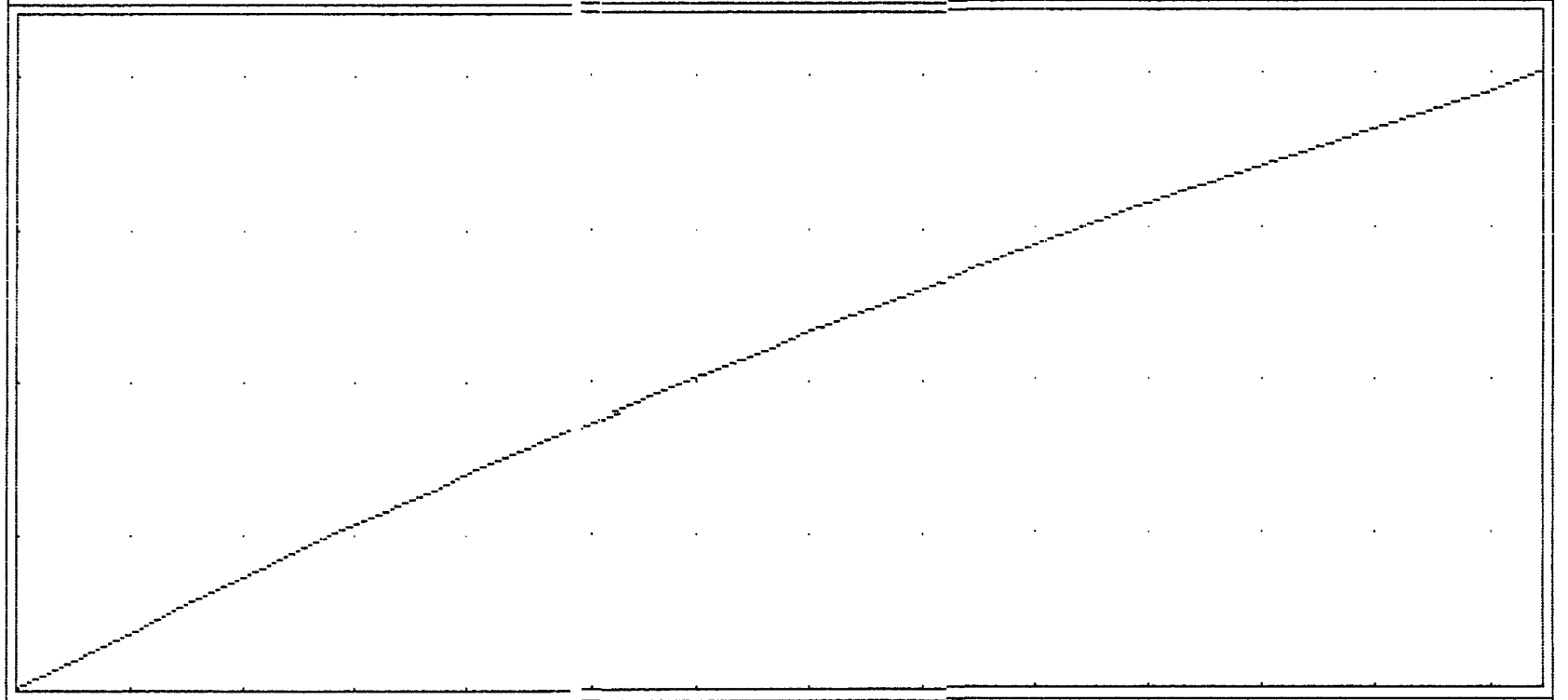
STAGE / DISCHARGE CURVE



HGU = 10.0 cfs VGU = 1.0 ft

[↵] Cont [Esc] Exit

STAGE / STORAGE CURVE



HGU = 10000 cu ft

VGU = 1.0 ft

[↵] Cont

[Esc] Exit

HYDROLOGIC REPORT

GLEN EAGLE GOLF COURSE
.....
LAKE #17.....

Hyd. No. 20

Hydrograph type = RESERVOIR ROUTE Peak discharge = 48.35 cfs
Storm frequency = 100 yr Time interval = 1 min
Inflow hyd. no. = 19 Reservoir no. = 5

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	4.50	8.99	4.44	4.50	0.03
2.00	8.99	13.49	17.72	17.94	0.11
3.00	13.49	17.99	39.71	40.20	0.25
4.00	17.99	22.49	70.33	71.20	0.43
5.00	22.49	26.98	109.28	110.80	0.76
6.00	26.98	31.48	156.16	158.75	1.29
7.00	31.48	35.98	210.62	214.63	2.00
8.00	35.98	40.48	272.26	278.08	2.91
9.00	40.48	44.97	340.52	348.72	4.10
10.00	44.97	49.47	414.94	425.97	5.52
11.00	49.47	53.97	495.00	509.39	7.19
12.00	53.97	58.47	580.18	598.45	9.13
13.00	58.47	62.96	669.93	692.62	11.34
14.00	62.96	67.46	763.70	791.36	13.83
15.00	67.46	71.96	860.97	894.13	16.58
16.00	71.96	76.46	961.58	1000.39	19.41
17.00	76.46	80.95	1065.42	1109.99	22.29
18.00	80.95	85.45	1172.06	1222.83	25.38
19.00	85.45	89.95	1281.10	1338.47	28.69
20.00	89.95	85.45	1392.11	1456.50	32.19
21.00	85.45	80.95	1496.31	1567.52	35.61
22.00	80.95	76.46	1585.47	1662.71	38.62
23.00	76.46	71.96	1660.43	1742.88	41.22
24.00	71.96	67.46	1722.06	1808.85	43.39
25.00	67.46	62.96	1771.15	1861.49	45.17

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	62.96	58.47	1808.53	1901.57	46.52
27.00	58.47	53.97	1834.98	1929.96	47.49
28.00	53.97	49.47	1851.22	1947.41	48.10
29.00	49.47	44.97	1857.96	1954.66	48.35
30.00	44.97	40.48	1855.86	1952.41	48.27
31.00	40.48	35.98	1845.54	1941.32	47.89
32.00	35.98	31.48	1827.57	1922.00	47.22
33.00	31.48	26.98	1802.43	1895.03	46.30
34.00	26.98	22.49	1770.60	1860.89	45.15
35.00	22.49	17.99	1732.53	1820.07	43.77
36.00	17.99	13.49	1688.58	1773.01	42.21
37.00	13.49	8.99	1639.12	1720.06	40.47
38.00	8.99	4.50	1584.43	1661.60	38.59
39.00	4.50	0.00	1524.82	1597.92	36.55
40.00	0.00	0.00	1460.47	1529.31	34.42
41.00	0.00	0.00	1395.85	1460.47	32.31
42.00	0.00	0.00	1335.11	1395.85	30.37
43.00	0.00	0.00	1277.93	1335.11	28.59
44.00	0.00	0.00	1224.07	1277.93	26.93
45.00	0.00	0.00	1173.23	1224.07	25.42
46.00	0.00	0.00	1125.24	1173.23	24.00
47.00	0.00	0.00	1079.84	1125.24	22.70
48.00	0.00	0.00	1036.89	1079.84	21.48
49.00	0.00	0.00	996.20	1036.89	20.35
50.00	0.00	0.00	957.59	996.20	19.30
51.00	0.00	0.00	920.97	957.59	18.31
52.00	0.00	0.00	886.33	920.97	17.32
53.00	0.00	0.00	853.60	886.33	16.36
54.00	0.00	0.00	822.68	853.60	15.46
55.00	0.00	0.00	793.39	822.68	14.65
56.00	0.00	0.00	765.63	793.39	13.88
57.00	0.00	0.00	739.31	765.63	13.16
58.00	0.00	0.00	714.33	739.31	12.49
59.00	0.00	0.00	690.57	714.33	11.88
60.00	0.00	0.00	667.98	690.57	11.29
61.00	0.00	0.00	646.50	667.98	10.74
62.00	0.00	0.00	626.04	646.50	10.23
63.00	0.00	0.00	606.51	626.04	9.76
64.00	0.00	0.00	587.87	606.51	9.32
65.00	0.00	0.00	570.09	587.87	8.89
66.00	0.00	0.00	553.13	570.09	8.48
67.00	0.00	0.00	536.90	553.13	8.11

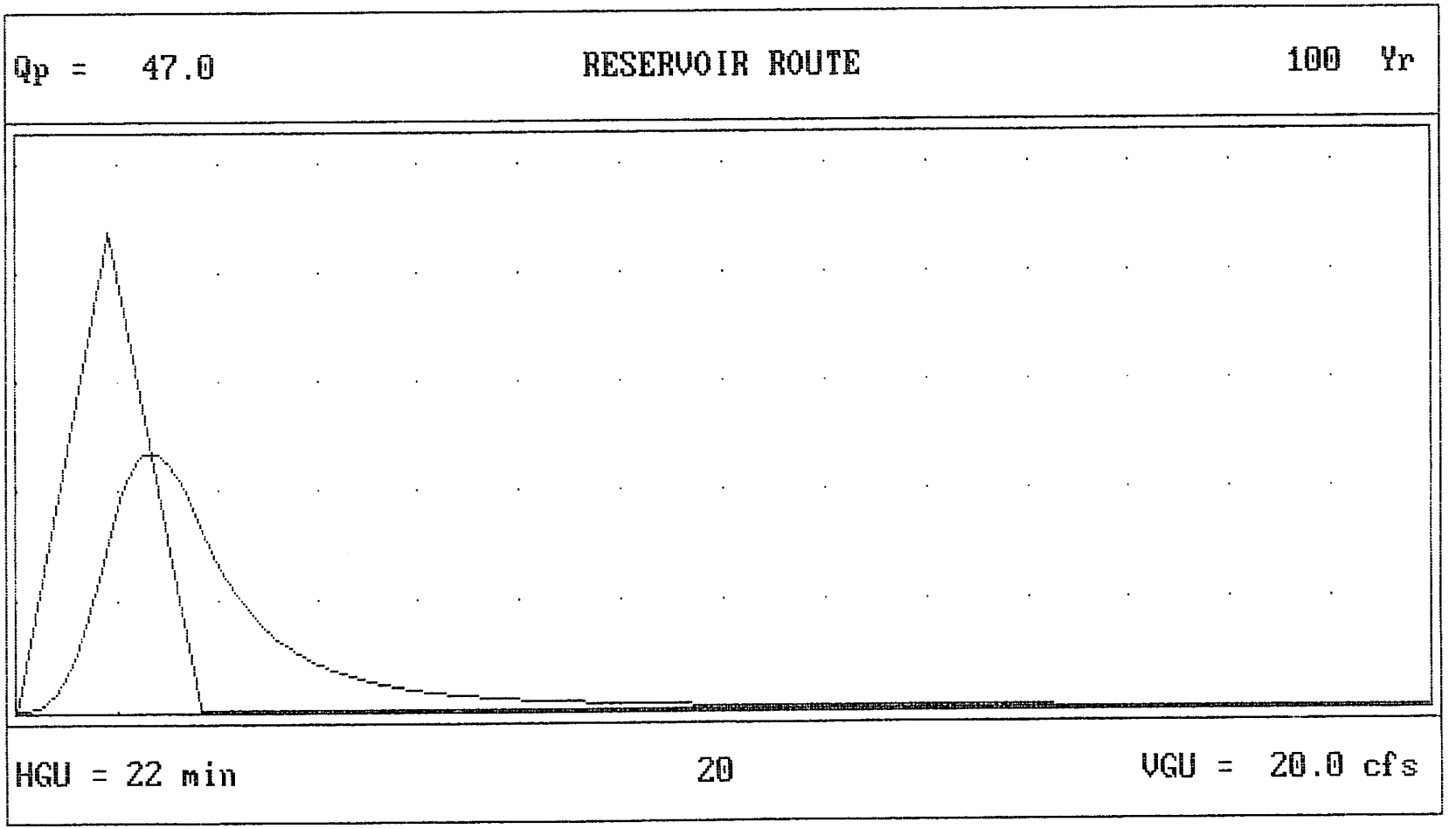
HYDROGRAPH DISCHARGE TABLE Cont'd

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	521.36	536.90	7.77
69.00	0.00	0.00	506.47	521.36	7.44
70.00	0.00	0.00	492.21	506.47	7.13
71.00	0.00	0.00	478.55	492.21	6.83
72.00	0.00	0.00	465.47	478.55	6.54
73.00	0.00	0.00	452.93	465.47	6.27
74.00	0.00	0.00	440.86	452.93	6.03
75.00	0.00	0.00	429.26	440.86	5.80
76.00	0.00	0.00	418.10	429.26	5.58
77.00	0.00	0.00	407.37	418.10	5.37
78.00	0.00	0.00	397.04	407.37	5.16
79.00	0.00	0.00	387.12	397.04	4.96
80.00	0.00	0.00	377.57	387.12	4.77
81.00	0.00	0.00	368.39	377.57	4.59
82.00	0.00	0.00	359.53	368.39	4.43
83.00	0.00	0.00	350.97	359.53	4.28
84.00	0.00	0.00	342.69	350.97	4.14
85.00	0.00	0.00	334.70	342.69	4.00
86.00	0.00	0.00	326.98	334.70	3.86
87.00	0.00	0.00	319.52	326.98	3.73
88.00	0.00	0.00	312.31	319.52	3.60
89.00	0.00	0.00	305.34	312.31	3.48
90.00	0.00	0.00	298.61	305.34	3.36
91.00	0.00	0.00	292.11	298.61	3.25
92.00	0.00	0.00	285.83	292.11	3.14
93.00	0.00	0.00	279.76	285.83	3.03
94.00	0.00	0.00	273.89	279.76	2.94
95.00	0.00	0.00	268.18	273.89	2.85
96.00	0.00	0.00	262.64	268.18	2.77
97.00	0.00	0.00	257.26	262.64	2.69
98.00	0.00	0.00	252.03	257.26	2.61
99.00	0.00	0.00	246.96	252.03	2.54
100.00	0.00	0.00	242.02	246.96	2.47
101.00	0.00	0.00	237.23	242.02	2.40
102.00	0.00	0.00	232.58	237.23	2.33
103.00	0.00	0.00	228.06	232.58	2.26
104.00	0.00	0.00	223.67	228.06	2.20
105.00	0.00	0.00	219.40	223.67	2.13
106.00	0.00	0.00	215.26	219.40	2.07
107.00	0.00	0.00	211.23	215.26	2.01
108.00	0.00	0.00	207.32	211.23	1.95
109.00	0.00	0.00	203.53	207.32	1.90

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
110.00	0.00	0.00	199.84	203.53	1.84
111.00	0.00	0.00	196.25	199.84	1.79
112.00	0.00	0.00	192.77	196.25	1.74
113.00	0.00	0.00	189.39	192.77	1.69
114.00	0.00	0.00	186.11	189.39	1.64
115.00	0.00	0.00	182.91	186.11	1.60
116.00	0.00	0.00	179.79	182.91	1.56
117.00	0.00	0.00	176.73	179.79	1.53
118.00	0.00	0.00	173.74	176.73	1.49
119.00	0.00	0.00	170.82	173.74	1.46
120.00	0.00	0.00	167.96	170.82	1.43
121.00	0.00	0.00	165.17	167.96	1.40
122.00	0.00	0.00	162.44	165.17	1.37
123.00	0.00	0.00	159.76	162.44	1.34
124.00	0.00	0.00	157.15	159.76	1.31
125.00	0.00	0.00	154.60	157.15	1.28
126.00	0.00	0.00	152.10	154.60	1.25
127.00	0.00	0.00	149.66	152.10	1.22
128.00	0.00	0.00	147.27	149.66	1.19
129.00	0.00	0.00	144.94	147.27	1.17
130.00	0.00	0.00	142.65	144.94	1.14
131.00	0.00	0.00	140.42	142.65	1.12
132.00	0.00	0.00	138.24	140.42	1.09
133.00	0.00	0.00	136.10	138.24	1.07
134.00	0.00	0.00	134.02	136.10	1.04
135.00	0.00	0.00	131.97	134.02	1.02

Maximum outflow (cfs) = 48.35
Maximum storage (cu ft) = 57189
Maximum elevation (ft) = 570.93



MAX STORAGE = 56030

MAX ELEVATION = 570.90

HYDROLOGIC REPORT FOR

GLEN EAGLE GOLF COURSE

DETENTION AND LAKE DESIGN

25 YEAR/20 MIN. STORM

LAKE #5

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 #5.....
INFLOW.....

Hyd. No. 1

Hydrograph type = RATIONAL
Storm frequency = 25 yr
Time of conc. = 20 min
Runoff coeff. = .7315

Peak ~~discharge~~ INFLOW = 386.30 cfs
Time interval = 1 min
Intensity = 5.03 in/hr
Basin area = 104.9 ac

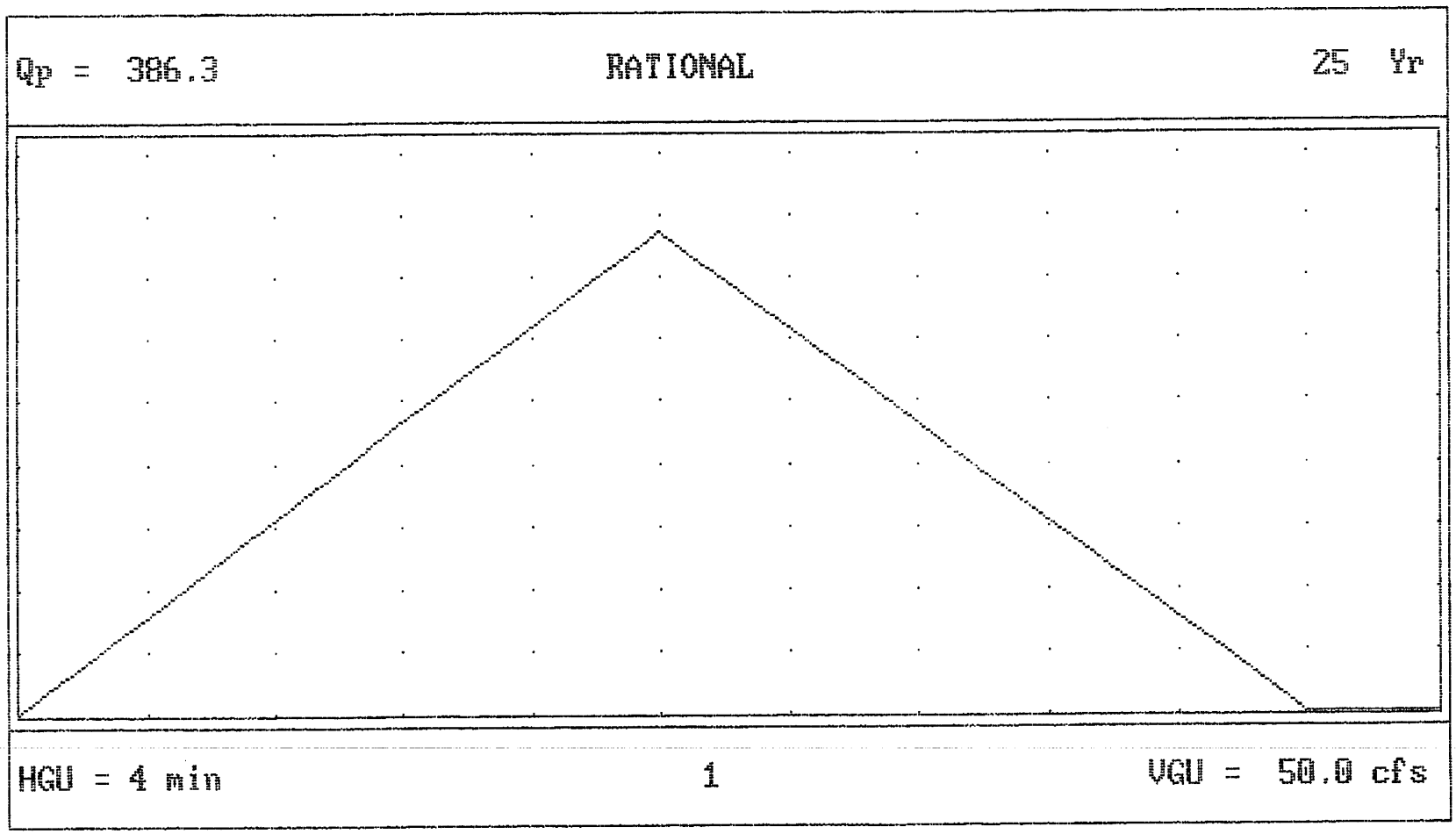
HYDROGRAPH DISCHARGE TABLE

TIME--OUTFLOW (min cfs)		TIME--OUTFLOW (min cfs)		TIME--OUTFLOW (min cfs)		TIME--OUTFLOW (min cfs)	
1.00	19.31	2.00	38.63	3.00	57.94	4.00	77.26
5.00	96.57	6.00	115.89	7.00	135.20	8.00	154.52
9.00	173.83	10.00	193.15	11.00	212.46	12.00	231.78
13.00	251.09	14.00	270.41	15.00	289.72	16.00	309.04
17.00	328.35	18.00	347.67	19.00	366.98	20.00	386.30
21.00	366.98	22.00	347.67	23.00	328.35	24.00	309.04
25.00	289.72	26.00	270.41	27.00	251.09	28.00	231.78
29.00	212.46	30.00	193.15	31.00	173.83	32.00	154.52
33.00	135.20	34.00	115.89	35.00	96.57	36.00	77.26
37.00	57.94	38.00	38.63	39.00	19.31	40.00	0.00

Peak Inflow:

Offsite (Res.)	28.30 Ac.	x 3.26 =	92.30 cfs	Q25
Offsite (Res.)	13.20 Ac.	x 4.07 =	53.72 cfs	Q25
Offsite (Com.)	28.00 Ac.	x 4.75 =	133.00 cfs	Q25
Onsite (Res.)	26.80 Ac.	x 3.26 =	87.40 cfs	Q25
Onsite (Golf)	8.60 Ac.	x 2.31 =	19.88 cfs	Q25
Total = 104.90 Acres		=	386.30 cfs	Q25

NOTE: Offsite Areas Are Calculated As Being Developed Under Their Current Zoning Classification.



VOL = (cuft/acft) = 463557 / 10.642

```
MMMMMMMMMMMMMMMMMMMMMMMMMMMMMM5 OUTLET STRUCTURES FMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM;
 Reservoir:  1                                                                   :
CULVERT STRUC  A. Q=CoA[2gh/k]^.5     CULVERT STRUC  B. Q=CoA[2gh/k]^.5          :
                                                                                 :
1. WIDTH  (in)     = 0..               9. WIDTH  (in)     = 0..                  :
2. HEIGHT (in)     = 0..              10. HEIGHT (in)     = 0..                  :
3. No. BARRELS     = 0..              11. No. BARRELS     = 0..                  :
4. INVERT ELEV.    = 0........        12. INVERT ELEV.    = 0........            :
5. Co = 0.60                          13. Co = 0.60                              :
6. CULVERT LENGTH (ft) = 0...         14. CULVERT LENGTH (ft) = 0...             :
7. CULVERT SLOPE (%)   = 0...         15. CULVERT SLOPE (%)   = 0...             :
8. MANNING'S N-VALUE   = .013         16. MANNING'S N-VALUE   = .013             :
                                      17. MULTI-STAGE OPTION ? (Y/N) N           :
                                                                                 :
WEIER STRUCTURE A.       Q=CwLH^EXP    WEIR STRUCTURE B.       Q=CwLH^EXP        :
                                                                                 :
18. CREST LENGTH (ft)  = 17.3...       23. CREST LENGTH (ft)  = 0......          :
19. CREST ELEVATION    = 544....       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          :
                                                                                 :
MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM<
hange item number: 0                                                 DY to cont
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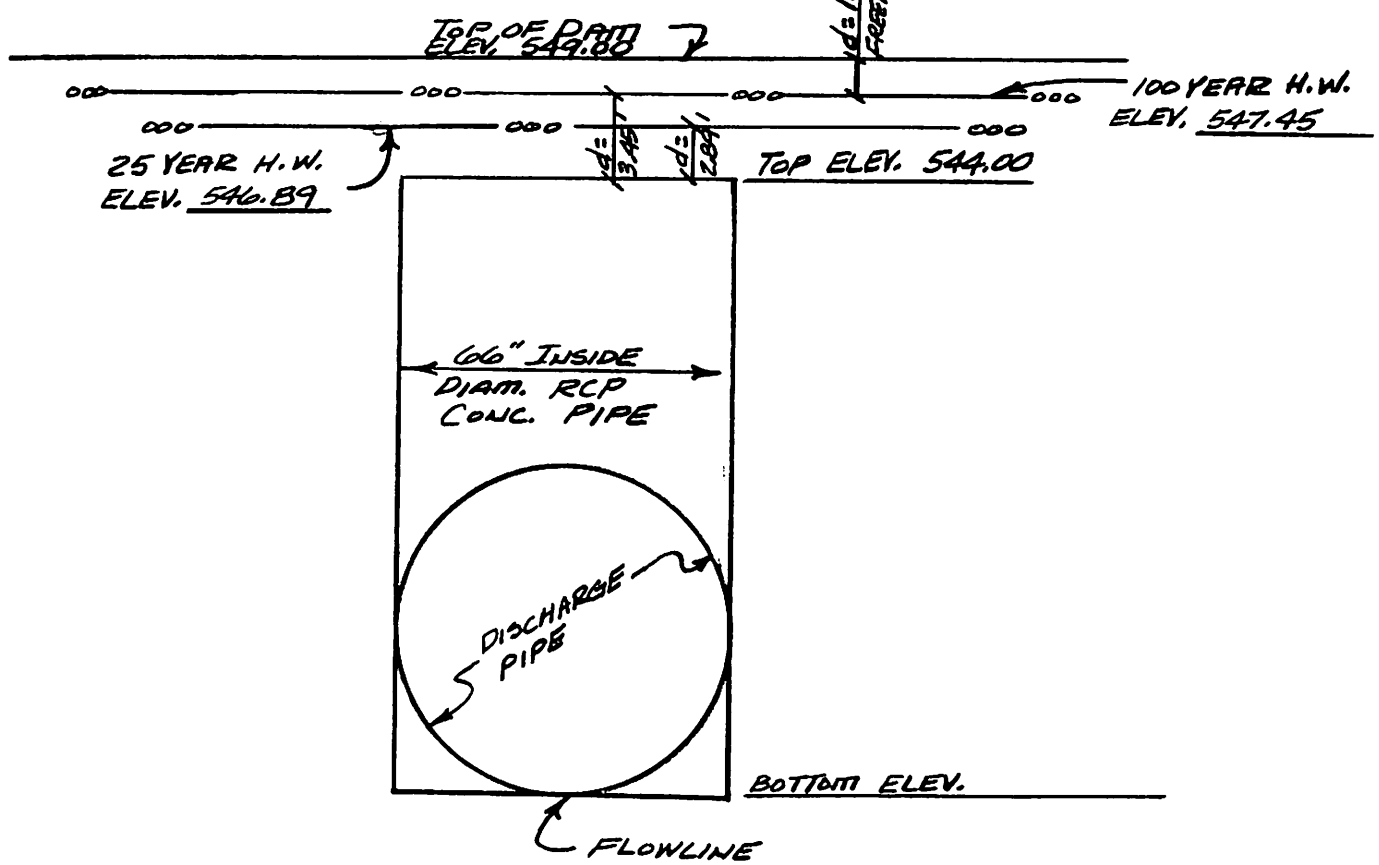


HYDROLOGIC REPORT

STAGE / STORAGE / DISCHARGE

RESERVOIR NUMBER = 1

RESERVOIR NAME = LAKE #5.....
STORAGE VALUES WERE INPUT MANUALLY

DISCHARGE VALUES: CULVERT STRUCT A. Q = .6 *A*[2gh/k]^.5 * 0
CULVERT STRUCT B. Q = .6 *A*[2gh/k]^.5 * 0
WEIR STRUCT A. Q = 3 * 17.3 * H ^ 1.5
WEIR STRUCT B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs)			
	CULVERT A	CULVERT B	WEIR A	WEIR B
544.00	0.00	0.00	0.00	0.00
545.00	0.00	0.00	51.90	0.00
546.00	0.00	0.00	146.80	0.00
547.00	0.00	0.00	269.68	0.00
548.00	0.00	0.00	415.20	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	544.00	0	0	0.00
1.00	545.00	62915	62915	51.90
2.00	546.00	66846	129761	146.80
3.00	547.00	72406	202167	269.68
4.00	548.00	79906	282073	415.20
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. 1 STAGE / STORAGE / DISCHARGE LAKE #5.....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 0
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 17.3 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs) CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
544.00	0.00	0.00 -	0.00	0.00	0.00
544.10	0.00	0.00 -	1.64	0.00	1.64
544.20	0.00	0.00 -	4.64	0.00	4.64
544.30	0.00	0.00 -	8.52	0.00	8.52
544.40	0.00	0.00 -	13.12	0.00	13.12
544.50	0.00	0.00 -	18.34	0.00	18.34
544.60	0.00	0.00 -	24.11	0.00	24.11
544.70	0.00	0.00 -	30.38	0.00	30.38
544.80	0.00	0.00 -	37.12	0.00	37.12
544.90	0.00	0.00 -	44.30	0.00	44.30
545.00	0.00	0.00 -	51.90	0.00	51.90

[PgDn] [Esc] to exit

Reservoir No. 1 STAGE / STORAGE / DISCHARGE LAKE #5.....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 0
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 17.3 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs) CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
545.00	0.00	0.00 -	51.90	0.00	51.90
545.10	0.00	0.00 -	59.87	0.00	59.87
545.20	0.00	0.00 -	68.22	0.00	68.22
545.30	0.00	0.00 -	76.92	0.00	76.92
545.40	0.00	0.00 -	85.96	0.00	85.96
545.50	0.00	0.00 -	95.33	0.00	95.33
545.60	0.00	0.00 -	105.02	0.00	105.02
545.70	0.00	0.00 -	115.02	0.00	115.02
545.80	0.00	0.00 -	125.32	0.00	125.32
545.90	0.00	0.00 -	135.90	0.00	135.90
546.00	0.00	0.00 -	146.80	0.00	146.80

[PgDn] [Esc] to exit

Reservoir No. 1 STAGE / STORAGE / DISCHARGE LAKE #5.....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 0
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 17.3 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs) CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
546.00	0.00	0.00 -	146.80	0.00	146.80
546.10	0.00	0.00 -	157.94	0.00	157.94
546.20	0.00	0.00 -	169.35	0.00	169.35
546.30	0.00	0.00 -	181.02	0.00	181.02
546.40	0.00	0.00 -	192.96	0.00	192.96
546.50	0.00	0.00 -	205.14	0.00	205.14
546.60	0.00	0.00 -	217.57	0.00	217.57
546.70	0.00	0.00 -	230.24	0.00	230.24
546.80	0.00	0.00 -	243.14	0.00	243.14
546.90	0.00	0.00 -	256.28	0.00	256.28
547.00	0.00	0.00 -	269.68	0.00	269.68

[PgDn] [Esc] to exit

Reservoir No. 1 STAGE / STORAGE / DISCHARGE LAKE #5.....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 0
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 17.3 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs) CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
547.00	0.00	0.00 -	269.68	0.00	269.68
547.10	0.00	0.00 -	283.27	0.00	283.27
547.20	0.00	0.00 -	297.09	0.00	297.09
547.30	0.00	0.00 -	311.12	0.00	311.12
547.40	0.00	0.00 -	325.36	0.00	325.36
547.50	0.00	0.00 -	339.82	0.00	339.82
547.60	0.00	0.00 -	354.48	0.00	354.48
547.70	0.00	0.00 -	369.35	0.00	369.35
547.80	0.00	0.00 -	384.42	0.00	384.42
547.90	0.00	0.00 -	399.69	0.00	399.69
548.00	0.00	0.00 -	415.20	0.00	415.20

[PgDn] [Esc] to exit

MMMMMMMMMMMMMMMMMMMMMMMMMMM5 STAGE / STORAGE TABLE FMMMMMMMMMMMMMMMMMMMMMMMMMMM;

1. RESERVOIR No = 1.   2. RESERVOIR NAME = LAKE #5.....

3. S = Ks * Z^b

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

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

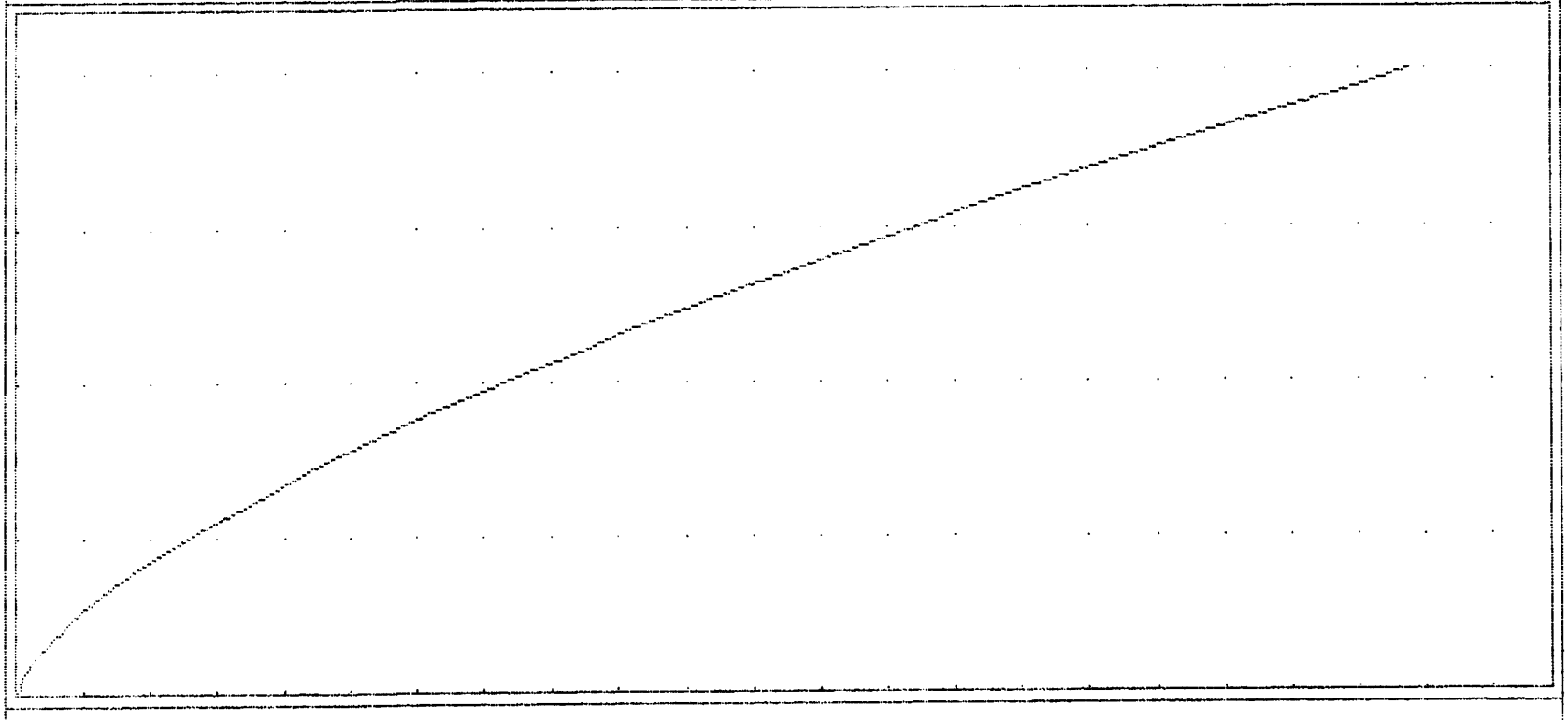
	STAGE ft	ELEVATION ft	CO AREA sq ft	INC STORAGE cu ft	TOT STORAGE cu ft
4	0.00	544.00.	60950...	0	0
5	1.00	545.00.	64881...	62915	62915
6	2.00	546.00.	68812...	66846	129761
7	3.00	547.00.	76000...	72406	202167
8	4.00	548.00.	83813...	79906	282073
9	0.00	0.00.	0.......	0	0
10	0.00	0.00.	0.......	0	0
11	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

MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM<

hange item number: 0   DY to cont

STAGE / DISCHARGE CURVE



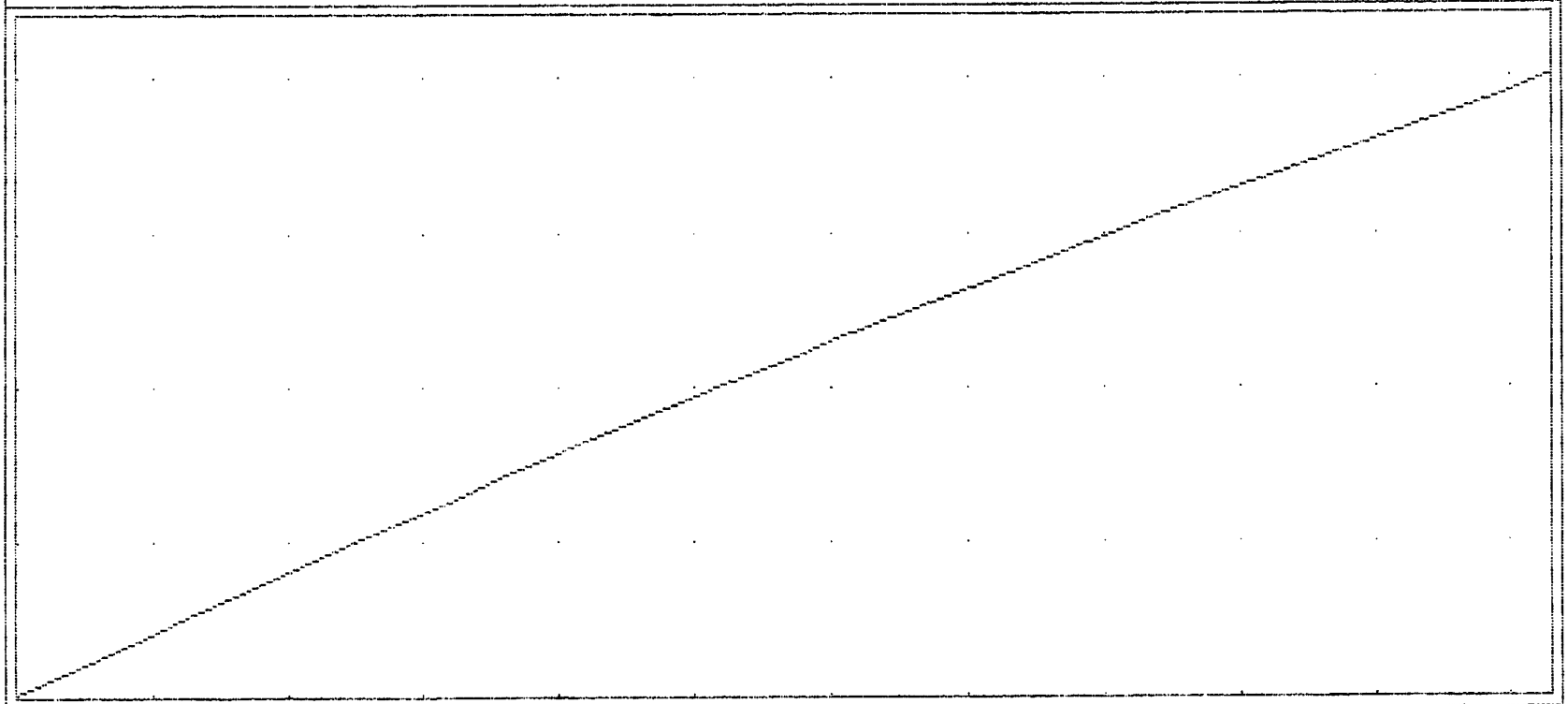
HGU = 20.0 cfs

VGU = 1.0 ft

[↵] Cont

[Esc] Exit

STAGE / STORAGE CURVE



HGU = 25000 cu ft VGU = 1.0 ft

[↵] Cont [Esc] Exit

HYDROLOGIC REPORT

GLEN EAGLE GOLF COURSE
.....
LAKE #5.....

Hyd. No. 2

Hydrograph type = RESERVOIR ROUTE Peak discharge = 255.32 cfs
Storm frequency = 25 yr Time interval = 1 min
Inflow hyd. no. = 1 Reservoir no. = 1

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	19.31	38.63	19.02	19.31	0.15
2.00	38.63	57.94	75.76	76.96	0.60
3.00	57.94	77.26	169.66	172.34	1.34
4.00	77.26	96.57	298.95	304.87	2.96
5.00	96.57	115.89	461.73	472.78	5.53
6.00	115.89	135.20	655.58	674.19	9.31
7.00	135.20	154.52	877.77	906.67	14.45
8.00	154.52	173.83	1125.42	1167.49	21.04
9.00	173.83	193.15	1395.60	1453.77	29.09
10.00	193.15	212.46	1685.18	1762.58	38.70
11.00	212.46	231.78	1991.07	2090.79	49.86
12.00	231.78	251.09	2311.56	2435.31	61.88
13.00	251.09	270.41	2644.20	2794.43	75.11
14.00	270.41	289.72	2986.41	3165.71	89.65
15.00	289.72	309.04	3335.85	3546.54	105.34
16.00	309.04	328.35	3690.21	3934.62	122.21
17.00	328.35	347.67	4047.48	4327.60	140.06
18.00	347.67	366.98	4407.73	4723.51	157.89
19.00	366.98	386.30	4770.30	5122.38	176.04
20.00	386.30	366.98	5133.84	5523.58	194.87
21.00	366.98	347.67	5462.17	5887.12	212.48
22.00	347.67	328.35	5723.16	6176.82	226.83
23.00	328.35	309.04	5923.07	6399.18	238.06
24.00	309.04	289.72	6067.86	6560.46	246.30
25.00	289.72	270.41	6163.07	6666.62	251.78

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	270.41	251.09	6213.80	6723.20	254.70
27.00	251.09	231.78	6224.66	6735.30	255.32
28.00	231.78	212.46	6199.75	6707.53	253.89
29.00	212.46	193.15	6142.77	6643.99	250.61
30.00	193.15	173.83	6057.04	6548.38	245.67
31.00	173.83	154.52	5945.38	6424.02	239.32
32.00	154.52	135.20	5810.35	6273.74	231.69
33.00	135.20	115.89	5654.07	6100.08	223.00
34.00	115.89	96.57	5478.45	5905.17	213.36
35.00	96.57	77.26	5285.09	5690.91	202.91
36.00	77.26	57.94	5075.35	5458.92	191.79
37.00	57.94	38.63	4850.34	5210.55	180.11
38.00	38.63	19.31	4610.97	4946.91	167.97
39.00	19.31	0.00	4357.96	4668.91	155.48
40.00	0.00	0.00	4092.53	4377.27	142.37
41.00	0.00	0.00	3833.96	4092.53	129.28
42.00	0.00	0.00	3598.44	3833.96	117.76
43.00	0.00	0.00	3383.30	3598.44	107.57
44.00	0.00	0.00	3186.24	3383.30	98.53
45.00	0.00	0.00	3005.28	3186.24	90.48
46.00	0.00	0.00	2838.75	3005.28	83.27
47.00	0.00	0.00	2685.19	2838.75	76.78
48.00	0.00	0.00	2543.18	2685.19	71.01
49.00	0.00	0.00	2411.63	2543.18	65.77
50.00	0.00	0.00	2289.59	2411.63	61.02
51.00	0.00	0.00	2176.08	2289.59	56.76
52.00	0.00	0.00	2070.41	2176.08	52.83
53.00	0.00	0.00	1972.12	2070.41	49.15
54.00	0.00	0.00	1880.70	1972.12	45.71
55.00	0.00	0.00	1795.48	1880.70	42.61
56.00	0.00	0.00	1715.90	1795.48	39.79
57.00	0.00	0.00	1641.59	1715.90	37.16
58.00	0.00	0.00	1571.90	1641.59	34.84
59.00	0.00	0.00	1506.56	1571.90	32.67
60.00	0.00	0.00	1445.28	1506.56	30.64
61.00	0.00	0.00	1387.60	1445.28	28.84
62.00	0.00	0.00	1333.26	1387.60	27.17
63.00	0.00	0.00	1282.08	1333.26	25.59
64.00	0.00	0.00	1233.88	1282.08	24.10
65.00	0.00	0.00	1188.25	1233.88	22.81
66.00	0.00	0.00	1145.07	1188.25	21.59
67.00	0.00	0.00	1104.20	1145.07	20.43

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	1065.52	1104.20	19.34
69.00	0.00	0.00	1028.90	1065.52	18.31
70.00	0.00	0.00	994.06	1028.90	17.42
71.00	0.00	0.00	960.92	994.06	16.57
72.00	0.00	0.00	929.38	960.92	15.77
73.00	0.00	0.00	899.37	929.38	15.00
74.00	0.00	0.00	870.82	899.37	14.28
75.00	0.00	0.00	843.66	870.82	13.58
76.00	0.00	0.00	817.76	843.66	12.95
77.00	0.00	0.00	792.98	817.76	12.39
78.00	0.00	0.00	769.27	792.98	11.86
79.00	0.00	0.00	746.57	769.27	11.35
80.00	0.00	0.00	724.84	746.57	10.86
81.00	0.00	0.00	704.05	724.84	10.40
82.00	0.00	0.00	684.15	704.05	9.95
83.00	0.00	0.00	665.11	684.15	9.52
84.00	0.00	0.00	646.88	665.11	9.11
85.00	0.00	0.00	629.43	646.88	8.72
86.00	0.00	0.00	612.68	629.43	8.38
87.00	0.00	0.00	596.54	612.68	8.07
88.00	0.00	0.00	580.99	596.54	7.78
89.00	0.00	0.00	566.00	580.99	7.49
90.00	0.00	0.00	551.56	566.00	7.22
91.00	0.00	0.00	537.64	551.56	6.96
92.00	0.00	0.00	524.23	537.64	6.71
93.00	0.00	0.00	511.31	524.23	6.46
94.00	0.00	0.00	498.85	511.31	6.23
95.00	0.00	0.00	486.85	498.85	6.00
96.00	0.00	0.00	475.29	486.85	5.78
97.00	0.00	0.00	464.14	475.29	5.57
98.00	0.00	0.00	453.41	464.14	5.37
99.00	0.00	0.00	443.06	453.41	5.17
100.00	0.00	0.00	433.09	443.06	4.99
101.00	0.00	0.00	423.48	433.09	4.80
102.00	0.00	0.00	414.21	423.48	4.63
103.00	0.00	0.00	405.21	414.21	4.50
104.00	0.00	0.00	396.46	405.21	4.37
105.00	0.00	0.00	387.96	396.46	4.25
106.00	0.00	0.00	379.70	387.96	4.13
107.00	0.00	0.00	371.67	379.70	4.01
108.00	0.00	0.00	363.87	371.67	3.90
109.00	0.00	0.00	356.28	363.87	3.79

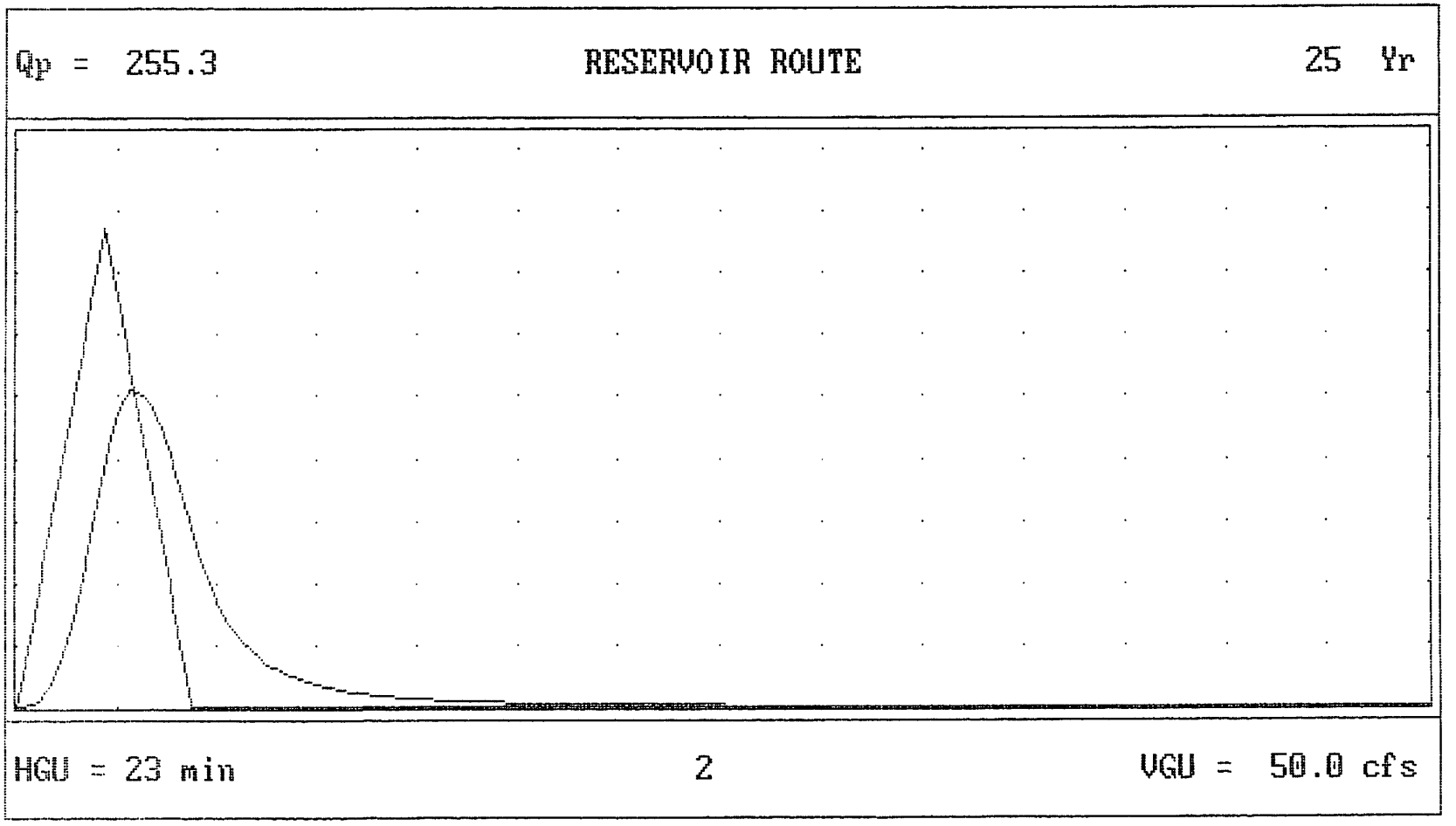
HYDROGRAPH DISCHARGE TABLE Cont'd

TIME min	INFLOW (i) cfs	INFLOW (j) cfs	2S/dt-O (i) cfs	2S/dt+O (j) cfs	OUTFLOW cfs
110.00	0.00	0.00	348.92	356.28	3.68
111.00	0.00	0.00	341.75	348.92	3.58
112.00	0.00	0.00	334.80	341.75	3.48
113.00	0.00	0.00	328.03	334.80	3.38
114.00	0.00	0.00	321.46	328.03	3.29
115.00	0.00	0.00	315.07	321.46	3.19
116.00	0.00	0.00	308.87	315.07	3.10
117.00	0.00	0.00	302.84	308.87	3.02
118.00	0.00	0.00	296.97	302.84	2.93
119.00	0.00	0.00	291.28	296.97	2.85
120.00	0.00	0.00	285.74	291.28	2.77
121.00	0.00	0.00	280.36	285.74	2.69
122.00	0.00	0.00	275.14	280.36	2.61
123.00	0.00	0.00	270.06	275.14	2.54
124.00	0.00	0.00	265.12	270.06	2.47
125.00	0.00	0.00	260.32	265.12	2.40
126.00	0.00	0.00	255.66	260.32	2.33
127.00	0.00	0.00	251.13	255.66	2.27
128.00	0.00	0.00	246.73	251.13	2.20
129.00	0.00	0.00	242.45	246.73	2.14
130.00	0.00	0.00	238.29	242.45	2.08
131.00	0.00	0.00	234.25	238.29	2.02
132.00	0.00	0.00	230.32	234.25	1.96
133.00	0.00	0.00	226.51	230.32	1.91
134.00	0.00	0.00	222.80	226.51	1.85
135.00	0.00	0.00	219.19	222.80	1.80
136.00	0.00	0.00	215.69	219.19	1.75
137.00	0.00	0.00	212.29	215.69	1.70
138.00	0.00	0.00	208.98	212.29	1.65
139.00	0.00	0.00	205.74	208.98	1.62
140.00	0.00	0.00	202.54	205.74	1.60
141.00	0.00	0.00	199.40	202.54	1.57
142.00	0.00	0.00	196.30	199.40	1.55
143.00	0.00	0.00	193.25	196.30	1.52
144.00	0.00	0.00	190.25	193.25	1.50
145.00	0.00	0.00	187.30	190.25	1.48
146.00	0.00	0.00	184.39	187.30	1.45
147.00	0.00	0.00	181.53	184.39	1.43
148.00	0.00	0.00	178.71	181.53	1.41
149.00	0.00	0.00	175.94	178.71	1.39
150.00	0.00	0.00	173.21	175.94	1.37
151.00	0.00	0.00	170.52	173.21	1.34

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
152.00	0.00	0.00	167.87	170.52	1.32
153.00	0.00	0.00	165.26	167.87	1.30
154.00	0.00	0.00	162.70	165.26	1.28
155.00	0.00	0.00	160.17	162.70	1.26
156.00	0.00	0.00	157.69	160.17	1.24
157.00	0.00	0.00	155.24	157.69	1.22
158.00	0.00	0.00	152.83	155.24	1.21
159.00	0.00	0.00	150.45	152.83	1.19
160.00	0.00	0.00	148.12	150.45	1.17
161.00	0.00	0.00	145.82	148.12	1.15
162.00	0.00	0.00	143.56	145.82	1.13
163.00	0.00	0.00	141.33	143.56	1.11
164.00	0.00	0.00	139.13	141.33	1.10
165.00	0.00	0.00	136.97	139.13	1.08
166.00	0.00	0.00	134.85	136.97	1.06
167.00	0.00	0.00	132.75	134.85	1.05
168.00	0.00	0.00	130.69	132.75	1.03
169.00	0.00	0.00	128.66	130.69	1.01

Maximum outflow (cfs) = 255.32
Maximum storage (cu ft) = 194399
Maximum elevation (ft) = 546.89



MAX STORAGE = 194399

MAX ELEVATION = 546.89

HYDROLOGIC REPORT FOR

GLEN EAGLE GOLF COURSE

DETENTION AND LAKE DESIGN

100 YEAR/20 MIN. STORM

LAKE #5

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 #5.....
INFLOW.....

Hyd. No. 3

Hydrograph type = RATIONAL
Storm frequency = 100 yr
Time of conc. = 20 min
Runoff coeff. = .763

Peak ~~discharge~~ INFLOW = 494.16 cfs
Time interval = 1 min
Intensity = 6.17 in/hr
Basin area = 104.9 ac

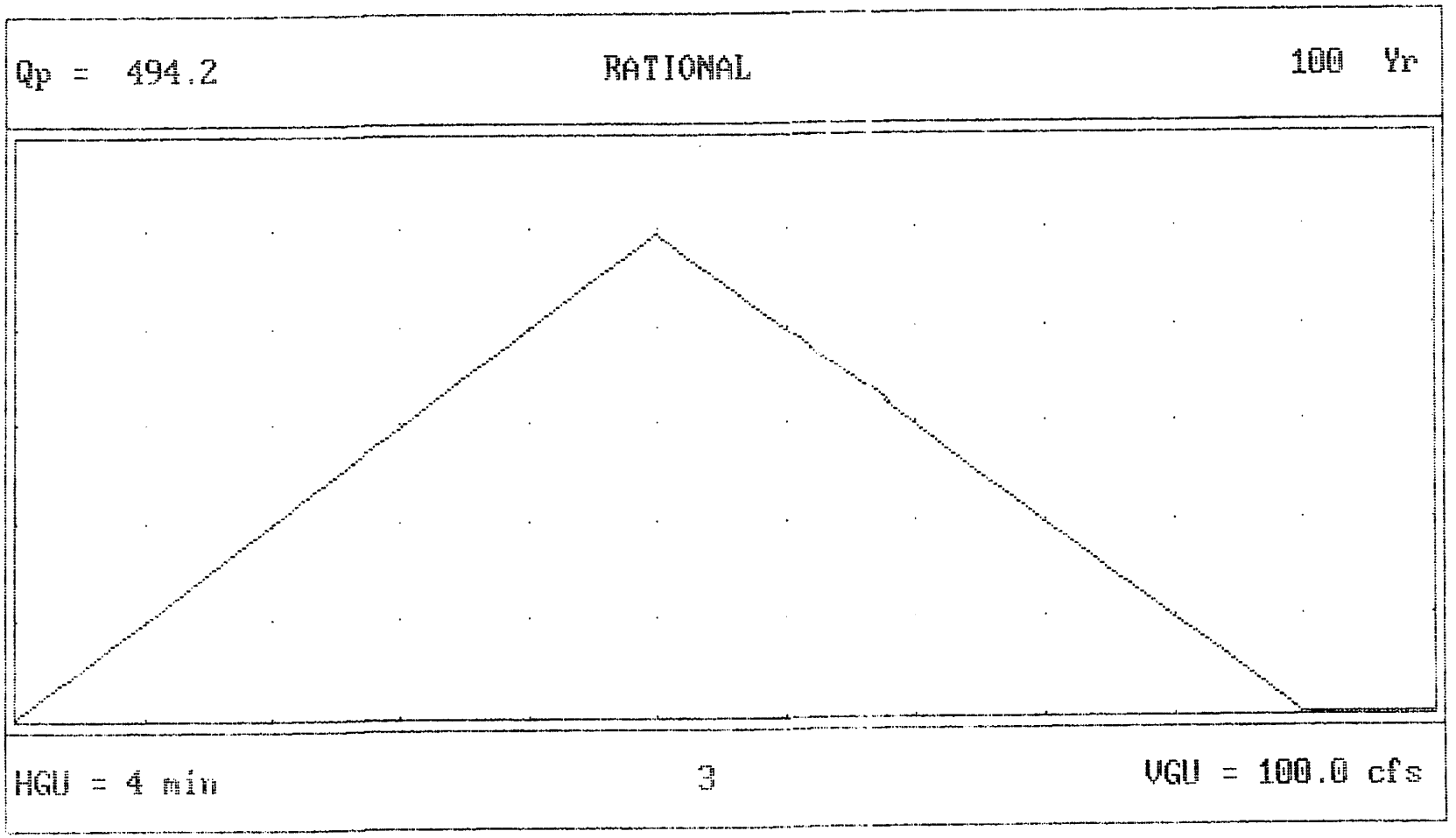
HYDROGRAPH DISCHARGE TABLE

TIME--OUTFLOW (min cfs)		TIME--OUTFLOW (min cfs)		TIME--OUTFLOW (min cfs)		TIME--OUTFLOW (min cfs)	
1.00	24.71	2.00	49.42	3.00	74.12	4.00	98.83
5.00	123.54	6.00	148.25	7.00	172.95	8.00	197.66
9.00	222.37	10.00	247.08	11.00	271.79	12.00	296.49
13.00	321.20	14.00	345.91	15.00	370.62	16.00	395.33
17.00	420.03	18.00	444.74	19.00	469.45	20.00	494.16
21.00	469.45	22.00	444.74	23.00	420.03	24.00	395.33
25.00	370.62	26.00	345.91	27.00	321.20	28.00	296.49
29.00	271.79	30.00	247.08	31.00	222.37	32.00	197.66
33.00	172.95	34.00	148.25	35.00	123.54	36.00	98.83
37.00	74.12	38.00	49.42	39.00	24.71	40.00	0.00

Peak Inflow:

Offsite (Res.)	28.30 Ac. x 4.17	= 118.01 cfs	Q100
Offsite (Res.)	13.20 Ac. x 5.21	= 68.77 cfs	Q100
Offsite (Com.)	28.00 Ac. x 6.08	= 170.24 cfs	Q100
Onsite (Res.)	26.80 Ac. x 4.17	= 111.76 cfs	Q100
Onsite (Golf)	8.60 Ac. x 2.95	= 25.38 cfs	Q100
Total = 104.90 Acres		= 494.16 cfs	Q100

NOTE: Offsite Areas Are Calculated As Being Developed Under Their Current Zoning Classification.



VOL = (cuft/acft) = 592988 / 13.613

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MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM5 OUTLET STRUCTURES FMMMMMMMMMMMMMMMMMMMMMMMMMMMMM;
 Reservoir:  1
CULVERT STRUC  A. Q=CoA[2gh/k]^.5      CULVERT STRUC  B. Q=CoA[2gh/k]^.5

1. WIDTH  (in)     = 0..                9. WIDTH  (in)     = 0..
2. HEIGHT (in)     = 0..               10. HEIGHT (in)     = 0..
3. No. BARRELS     = 0..               11. No. BARRELS     = 0..
4. INVERT ELEV.    = 0........         12. INVERT ELEV.    = 0........
5. Co = 0.60                           13. Co = 0.60
6. CULVERT LENGTH (ft) = 0...          14. CULVERT LENGTH (ft) = 0...
7. CULVERT SLOPE (%)   = 0...          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)   = 17.3...      23. CREST LENGTH (ft)   = 0......
19. CREST ELEVATION     = 544....      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

MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM<
hange item number: 0                                                 DY to cont
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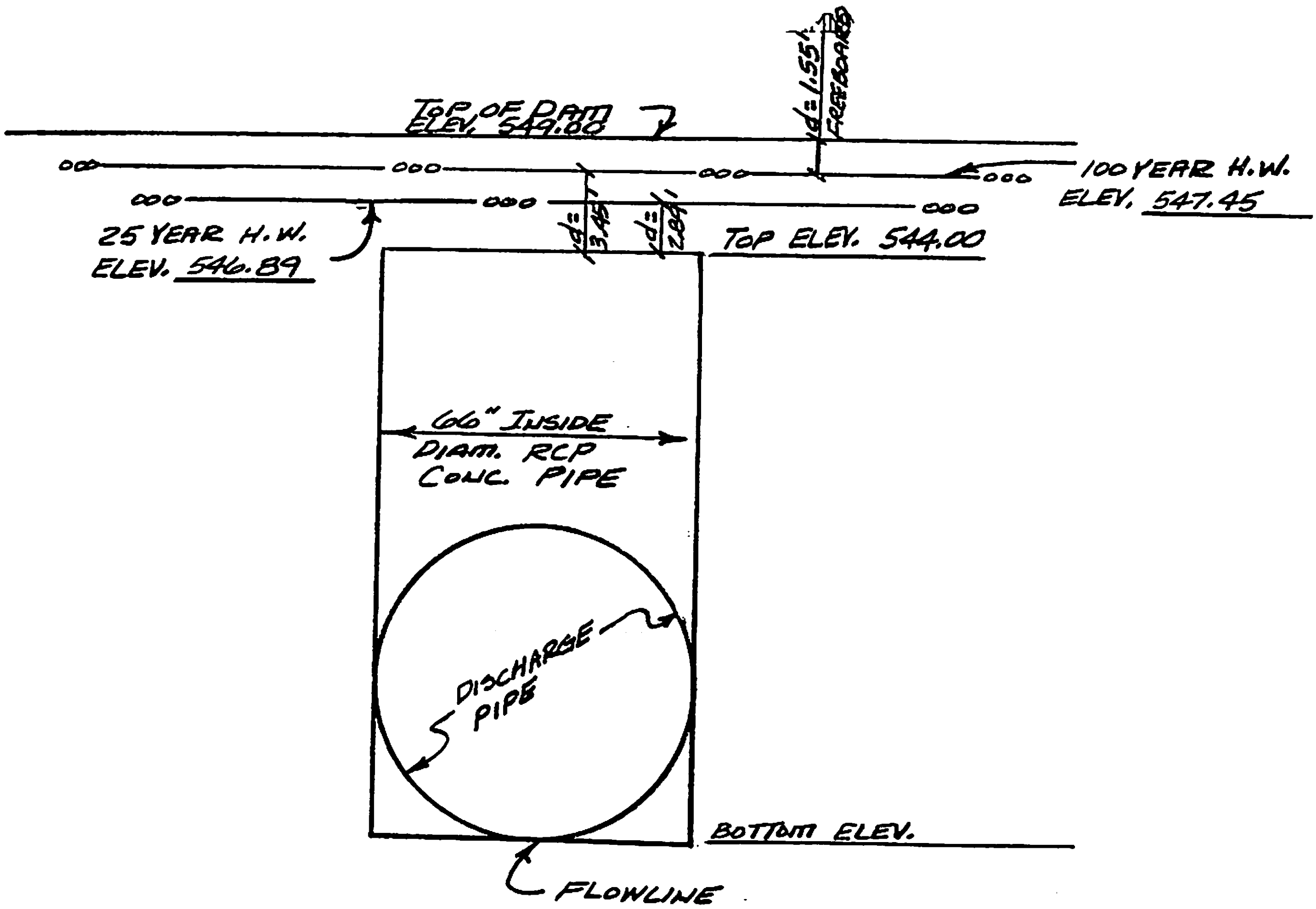


HYDROLOGIC REPORT

STAGE / STORAGE / DISCHARGE

RESERVOIR NUMBER = 1

RESERVOIR NAME = LAKE #5.....
STORAGE VALUES WERE INPUT MANUALLY

DISCHARGE VALUES: CULVERT STRUCT A. Q = .6 *A*[2gh/k]^.5 * 0
CULVERT STRUCT B. Q = .6 *A*[2gh/k]^.5 * 0
WEIR STRUCT A. Q = 3 * 17.3 * H ^ 1.5
WEIR STRUCT B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs)			
	CULVERT A	CULVERT B	WEIR A	WEIR B
544.00	0.00	0.00	0.00	0.00
545.00	0.00	0.00	51.90	0.00
546.00	0.00	0.00	146.80	0.00
547.00	0.00	0.00	269.68	0.00
548.00	0.00	0.00	415.20	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	544.00	0	0	0.00
1.00	545.00	62915	62915	51.90
2.00	546.00	66846	129761	146.80
3.00	547.00	72406	202167	269.68
4.00	548.00	79906	282073	415.20
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. 1 STAGE / STORAGE / DISCHARGE LAKE #5.....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 0
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 17.3 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs)				
	CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
544.00	0.00	0.00 -	0.00	0.00	0.00
544.10	0.00	0.00 -	1.64	0.00	1.64
544.20	0.00	0.00 -	4.64	0.00	4.64
544.30	0.00	0.00 -	8.52	0.00	8.52
544.40	0.00	0.00 -	13.12	0.00	13.12
544.50	0.00	0.00 -	18.34	0.00	18.34
544.60	0.00	0.00 -	24.11	0.00	24.11
544.70	0.00	0.00 -	30.38	0.00	30.38
544.80	0.00	0.00 -	37.12	0.00	37.12
544.90	0.00	0.00 -	44.30	0.00	44.30
545.00	0.00	0.00 -	51.90	0.00	51.90

[PgDn] [Esc] to exit

Reservoir No. 1 STAGE / STORAGE / DISCHARGE LAKE #5.....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 0
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 17.3 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs)				
	CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
545.00	0.00	0.00 -	51.90	0.00	51.90
545.10	0.00	0.00 -	59.87	0.00	59.87
545.20	0.00	0.00 -	68.22	0.00	68.22
545.30	0.00	0.00 -	76.92	0.00	76.92
545.40	0.00	0.00 -	85.96	0.00	85.96
545.50	0.00	0.00 -	95.33	0.00	95.33
545.60	0.00	0.00 -	105.02	0.00	105.02
545.70	0.00	0.00 -	115.02	0.00	115.02
545.80	0.00	0.00 -	125.32	0.00	125.32
545.90	0.00	0.00 -	135.90	0.00	135.90
546.00	0.00	0.00 -	146.80	0.00	146.80

[PgDn] [Esc] to exit

Reservoir No. 1 STAGE / STORAGE / DISCHARGE LAKE #5.....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * O
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * O
Weir struct A. Q = 3 * 17.3 * H ^ 1.5
Weir struct B. Q = 3 * O * H ^ 1.5

ELEVATION	DISCHARGE (cfs)				
	CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
546.00	0.00	0.00 -	146.80	0.00	146.80
546.10	0.00	0.00 -	157.94	0.00	157.94
546.20	0.00	0.00 -	169.35	0.00	169.35
546.30	0.00	0.00 -	181.02	0.00	181.02
546.40	0.00	0.00 -	192.96	0.00	192.96
546.50	0.00	0.00 -	205.14	0.00	205.14
546.60	0.00	0.00 -	217.57	0.00	217.57
546.70	0.00	0.00 -	230.24	0.00	230.24
546.80	0.00	0.00 -	243.14	0.00	243.14
546.90	0.00	0.00 -	256.28	0.00	256.28
547.00	0.00	0.00 -	269.68	0.00	269.68

[PgDn] [Esc] to exit

Reservoir No. 1 STAGE / STORAGE / DISCHARGE LAKE #5.....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * O
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * O
Weir struct A. Q = 3 * 17.3 * H ^ 1.5
Weir struct B. Q = 3 * O * H ^ 1.5

ELEVATION	DISCHARGE (cfs)				
	CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
547.00	0.00	0.00 -	269.68	0.00	269.68
547.10	0.00	0.00 -	283.27	0.00	283.27
547.20	0.00	0.00 -	297.09	0.00	297.09
547.30	0.00	0.00 -	311.12	0.00	311.12
547.40	0.00	0.00 -	325.36	0.00	325.36
547.50	0.00	0.00 -	339.82	0.00	339.82
547.60	0.00	0.00 -	354.48	0.00	354.48
547.70	0.00	0.00 -	369.35	0.00	369.35
547.80	0.00	0.00 -	384.42	0.00	384.42
547.90	0.00	0.00 -	399.69	0.00	399.69
548.00	0.00	0.00 -	415.20	0.00	415.20

[PgDn] [Esc] to exit

MMMMMMMMMMMMMMMMMMMMMMMMMMMM5 STAGE / STORAGE TABLE FMMMMMMMMMMMMMMMMMMMMMMMMMMMM;

1. RESERVOIR No = 1.   2. RESERVOIR NAME = LAKE #5.....
3. S = Ks * Z^b
   Ks = 0............   b = 0..........
   START ELEV = 0.....   INCREMENT = 0...

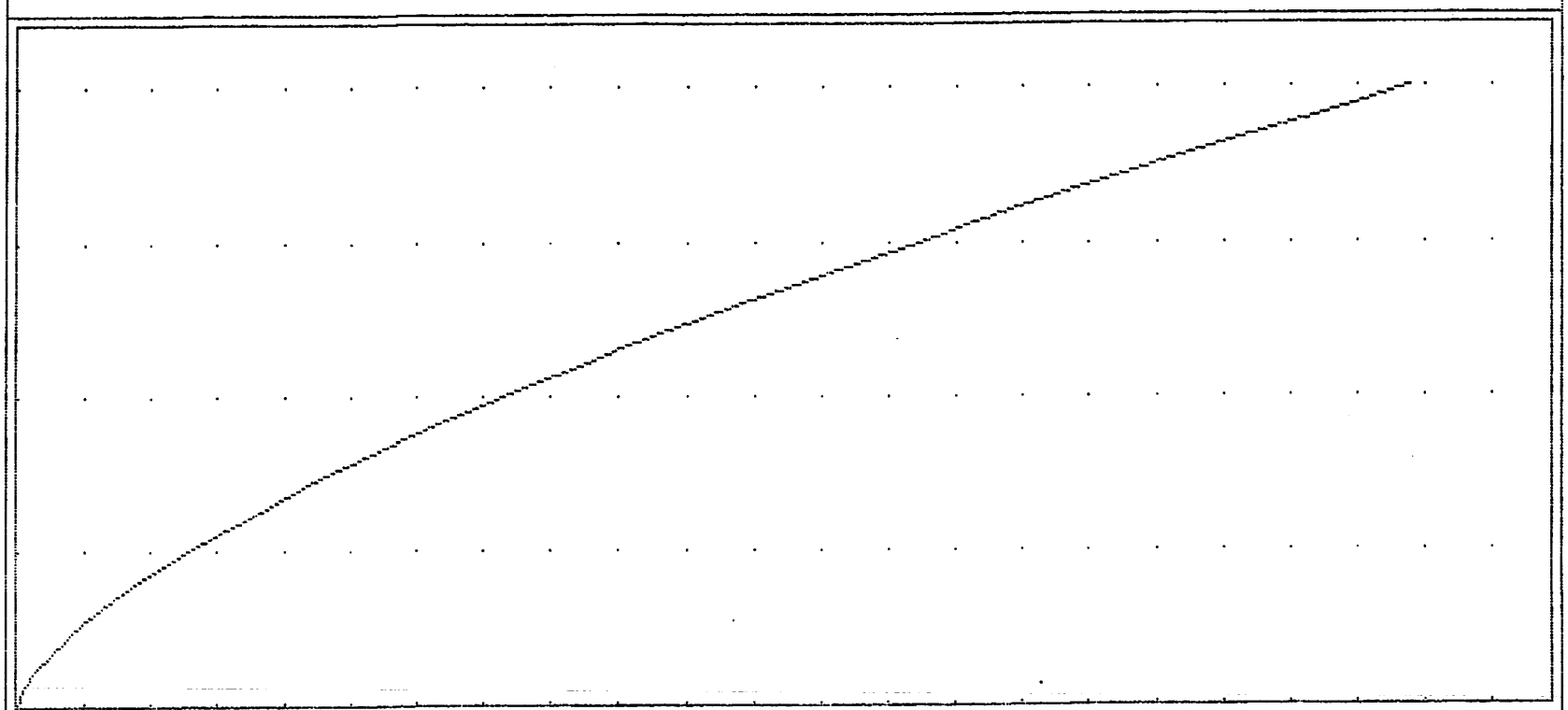
	STAGE ft	ELEVATION ft	CO AREA sq ft	INC STORAGE cu ft	TOT STORAGE cu ft
4	0.00	544.00.	60950...	0	0
5	1.00	545.00.	64881...	62915	62915
6	2.00	546.00.	68812...	66846	129761
7	3.00	547.00.	76000...	72406	202167
8	4.00	548.00.	83813...	79906	282073
9	0.00	0.00.	0.......	0	0
10	0.00	0.00.	0.......	0	0
11	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

MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM<

hange item number: 0   DY to cont

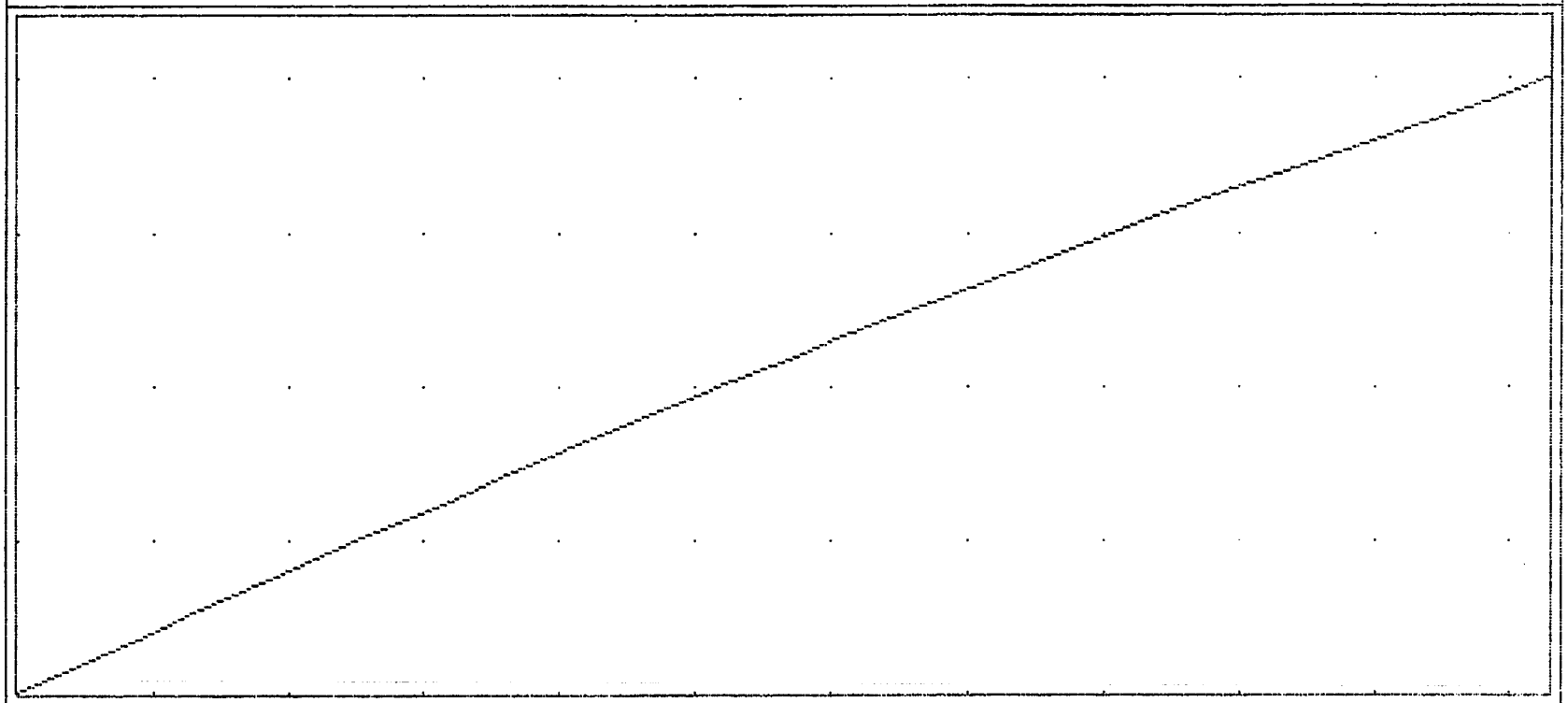
STAGE / DISCHARGE CURVE



HGU = 20.0 cfs VGU = 1.0 ft

[←┘] Cont [Esc] Exit

STAGE / STORAGE CURVE



HGU = 25000 cu ft VGU = 1.0 ft

[↵] Cont [Esc] Exit

HYDROLOGIC REPORT

GLEN EAGLE GOLF COURSE
.....
LAKE #5.....

Hyd. No. 4

Hydrograph type = RESERVOIR ROUTE Peak discharge = 332.92 cfs
Storm frequency = 100 yr Time interval = 1 min
Inflow hyd. no. = 3 Reservoir no. = 1

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	24.71	49.42	24.32	24.71	0.19
2.00	49.42	74.12	96.92	98.45	0.76
3.00	74.12	98.83	216.92	220.46	1.77
4.00	98.83	123.54	381.56	389.88	4.16
5.00	123.54	148.25	588.11	603.93	7.91
6.00	148.25	172.95	833.26	859.89	13.32
7.00	172.95	197.66	1113.09	1154.46	20.69
8.00	197.66	222.37	1423.79	1483.71	29.96
9.00	222.37	247.08	1761.05	1843.82	41.39
10.00	247.08	271.79	2121.07	2230.49	54.71
11.00	271.79	296.49	2501.32	2639.93	69.31
12.00	296.49	321.20	2898.05	3069.60	85.78
13.00	321.20	345.91	3307.64	3515.74	104.05
14.00	345.91	370.62	3726.80	3974.75	123.98
15.00	370.62	395.33	4152.42	4443.33	145.45
16.00	395.33	420.03	4585.00	4918.37	166.68
17.00	420.03	444.74	5022.30	5400.35	189.03
18.00	444.74	469.45	5462.13	5887.07	212.47
19.00	469.45	494.16	5902.52	6376.31	236.90
20.00	494.16	469.45	6341.75	6866.13	262.19
21.00	469.45	444.74	6737.15	7305.36	284.10
22.00	444.74	420.03	7048.90	7651.34	301.22
23.00	420.03	395.33	7284.88	7913.67	314.40
24.00	395.33	370.62	7452.50	8100.24	323.87
25.00	370.62	345.91	7558.58	8218.44	329.93

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	345.91	321.20	7609.41	8275.11	332.85
27.00	321.20	296.49	7610.68	8276.52	332.92
28.00	296.49	271.79	7567.49	8228.37	330.44
29.00	271.79	247.08	7484.42	8135.77	325.68
30.00	247.08	222.37	7365.39	8003.28	318.95
31.00	222.37	197.66	7214.03	7834.84	310.40
32.00	197.66	172.95	7033.35	7634.06	300.36
33.00	172.95	148.25	6826.04	7403.96	288.96
34.00	148.25	123.54	6594.41	7147.24	276.41
35.00	123.54	98.83	6341.82	6866.20	262.19
36.00	98.83	74.12	6071.21	6564.19	246.49
37.00	74.12	49.42	5783.78	6244.16	230.19
38.00	49.42	24.71	5480.39	5907.32	213.47
39.00	24.71	0.00	5161.80	5554.52	196.36
40.00	0.00	0.00	4828.52	5186.51	179.00
41.00	0.00	0.00	4503.26	4828.52	162.63
42.00	0.00	0.00	4206.92	4503.26	148.17
43.00	0.00	0.00	3937.98	4206.92	134.47
44.00	0.00	0.00	3693.27	3937.98	122.35
45.00	0.00	0.00	3469.99	3693.27	111.64
46.00	0.00	0.00	3265.70	3469.99	102.14
47.00	0.00	0.00	3078.33	3265.70	93.68
48.00	0.00	0.00	2906.09	3078.33	86.12
49.00	0.00	0.00	2747.29	2906.09	79.40
50.00	0.00	0.00	2600.61	2747.29	73.34
51.00	0.00	0.00	2464.92	2600.61	67.84
52.00	0.00	0.00	2339.03	2464.92	62.95
53.00	0.00	0.00	2222.10	2339.03	58.46
54.00	0.00	0.00	2113.26	2222.10	54.42
55.00	0.00	0.00	2011.96	2113.26	50.65
56.00	0.00	0.00	1917.75	2011.96	47.10
57.00	0.00	0.00	1830.09	1917.75	43.83
58.00	0.00	0.00	1748.22	1830.09	40.93
59.00	0.00	0.00	1671.77	1748.22	38.23
60.00	0.00	0.00	1600.20	1671.77	35.78
61.00	0.00	0.00	1533.09	1600.20	33.55
62.00	0.00	0.00	1470.17	1533.09	31.46
63.00	0.00	0.00	1411.04	1470.17	29.56
64.00	0.00	0.00	1355.34	1411.04	27.85
65.00	0.00	0.00	1302.88	1355.34	26.23
66.00	0.00	0.00	1253.47	1302.88	24.71
67.00	0.00	0.00	1206.79	1253.47	23.34

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	1162.62	1206.79	22.09
69.00	0.00	0.00	1120.81	1162.62	20.90
70.00	0.00	0.00	1081.24	1120.81	19.79
71.00	0.00	0.00	1043.79	1081.24	18.73
72.00	0.00	0.00	1008.22	1043.79	17.78
73.00	0.00	0.00	974.39	1008.22	16.92
74.00	0.00	0.00	942.20	974.39	16.10
75.00	0.00	0.00	911.57	942.20	15.31
76.00	0.00	0.00	882.42	911.57	14.57
77.00	0.00	0.00	854.70	882.42	13.86
78.00	0.00	0.00	828.32	854.70	13.19
79.00	0.00	0.00	803.08	828.32	12.62
80.00	0.00	0.00	778.93	803.08	12.08
81.00	0.00	0.00	755.82	778.93	11.56
82.00	0.00	0.00	733.70	755.82	11.06
83.00	0.00	0.00	712.52	733.70	10.59
84.00	0.00	0.00	692.26	712.52	10.13
85.00	0.00	0.00	672.87	692.26	9.70
86.00	0.00	0.00	654.31	672.87	9.28
87.00	0.00	0.00	636.54	654.31	8.88
88.00	0.00	0.00	619.54	636.54	8.50
89.00	0.00	0.00	603.15	619.54	8.20
90.00	0.00	0.00	587.35	603.15	7.90
91.00	0.00	0.00	572.13	587.35	7.61
92.00	0.00	0.00	557.47	572.13	7.33
93.00	0.00	0.00	543.33	557.47	7.07
94.00	0.00	0.00	529.72	543.33	6.81
95.00	0.00	0.00	516.59	529.72	6.56
96.00	0.00	0.00	503.95	516.59	6.32
97.00	0.00	0.00	491.76	503.95	6.09
98.00	0.00	0.00	480.02	491.76	5.87
99.00	0.00	0.00	468.70	480.02	5.66
100.00	0.00	0.00	457.80	468.70	5.45
101.00	0.00	0.00	447.29	457.80	5.25
102.00	0.00	0.00	437.17	447.29	5.06
103.00	0.00	0.00	427.41	437.17	4.88
104.00	0.00	0.00	418.01	427.41	4.70
105.00	0.00	0.00	408.90	418.01	4.55
106.00	0.00	0.00	400.04	408.90	4.43
107.00	0.00	0.00	391.44	400.04	4.30
108.00	0.00	0.00	383.08	391.44	4.18
109.00	0.00	0.00	374.96	383.08	4.06

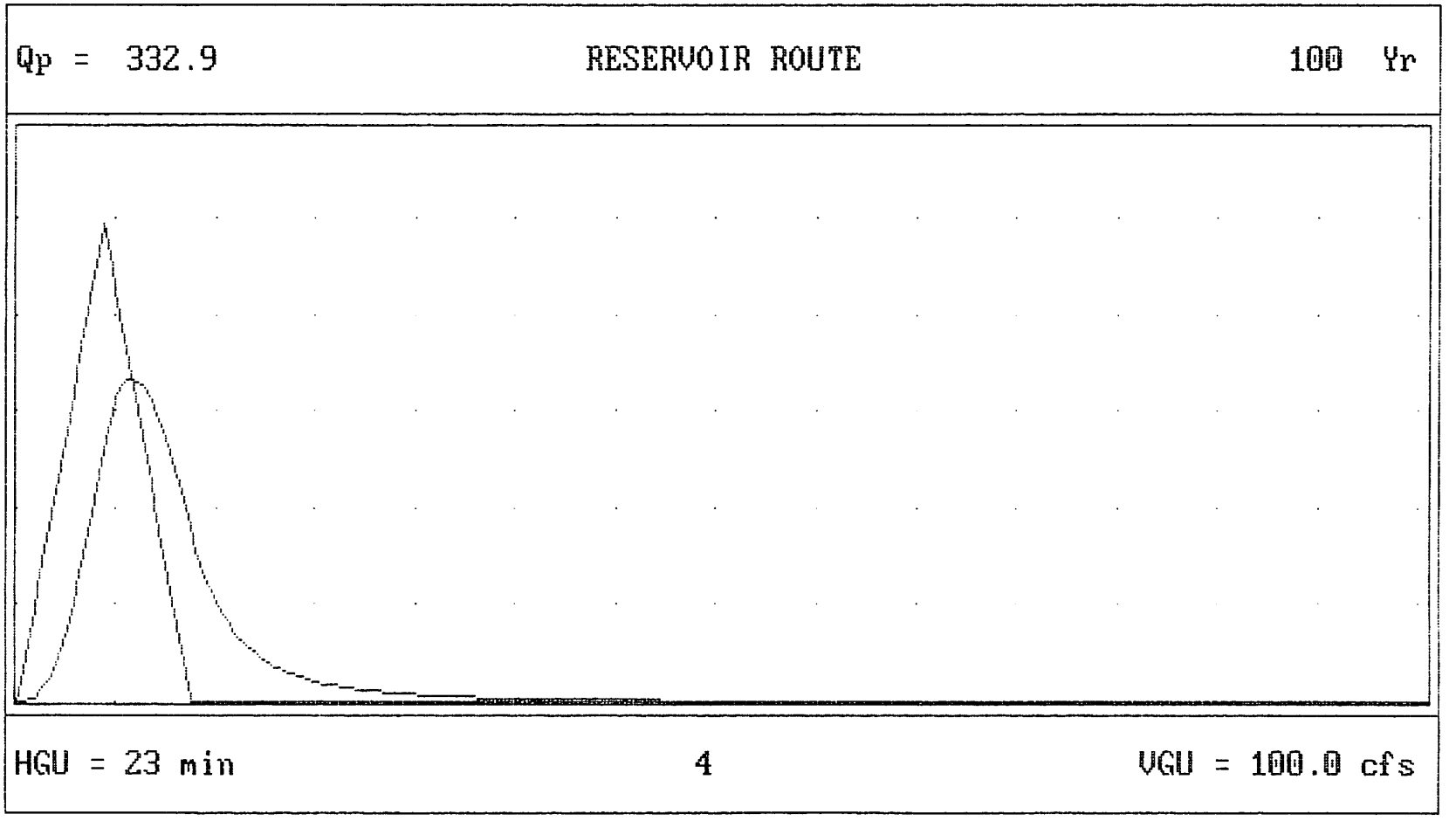
HYDROGRAPH DISCHARGE TABLE Cont'd

TIME min	INFLOW (i) cfs	INFLOW (j) cfs	2S/dt-O (i) cfs	2S/dt+O (j) cfs	OUTFLOW cfs
110.00	0.00	0.00	367.06	374.96	3.95
111.00	0.00	0.00	359.39	367.06	3.84
112.00	0.00	0.00	351.93	359.39	3.73
113.00	0.00	0.00	344.69	351.93	3.62
114.00	0.00	0.00	337.64	344.69	3.52
115.00	0.00	0.00	330.80	337.64	3.42
116.00	0.00	0.00	324.15	330.80	3.33
117.00	0.00	0.00	317.69	324.15	3.23
118.00	0.00	0.00	311.41	317.69	3.14
119.00	0.00	0.00	305.31	311.41	3.05
120.00	0.00	0.00	299.37	305.31	2.97
121.00	0.00	0.00	293.61	299.37	2.88
122.00	0.00	0.00	288.01	293.61	2.80
123.00	0.00	0.00	282.57	288.01	2.72
124.00	0.00	0.00	277.28	282.57	2.64
125.00	0.00	0.00	272.14	277.28	2.57
126.00	0.00	0.00	267.14	272.14	2.50
127.00	0.00	0.00	262.29	267.14	2.43
128.00	0.00	0.00	257.57	262.29	2.36
129.00	0.00	0.00	252.98	257.57	2.29
130.00	0.00	0.00	248.53	252.98	2.23
131.00	0.00	0.00	244.20	248.53	2.16
132.00	0.00	0.00	239.99	244.20	2.10
133.00	0.00	0.00	235.90	239.99	2.04
134.00	0.00	0.00	231.93	235.90	1.99
135.00	0.00	0.00	228.07	231.93	1.93
136.00	0.00	0.00	224.31	228.07	1.88
137.00	0.00	0.00	220.67	224.31	1.82
138.00	0.00	0.00	217.12	220.67	1.77
139.00	0.00	0.00	213.68	217.12	1.72
140.00	0.00	0.00	210.33	213.68	1.67
141.00	0.00	0.00	207.07	210.33	1.63
142.00	0.00	0.00	203.85	207.07	1.61
143.00	0.00	0.00	200.69	203.85	1.58
144.00	0.00	0.00	197.57	200.69	1.56
145.00	0.00	0.00	194.51	197.57	1.53
146.00	0.00	0.00	191.49	194.51	1.51
147.00	0.00	0.00	188.51	191.49	1.49
148.00	0.00	0.00	185.59	188.51	1.46
149.00	0.00	0.00	182.71	185.59	1.44
150.00	0.00	0.00	179.87	182.71	1.42
151.00	0.00	0.00	177.08	179.87	1.40

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
152.00	0.00	0.00	174.33	177.08	1.37
153.00	0.00	0.00	171.62	174.33	1.35
154.00	0.00	0.00	168.96	171.62	1.33
155.00	0.00	0.00	166.33	168.96	1.31
156.00	0.00	0.00	163.75	166.33	1.29
157.00	0.00	0.00	161.21	163.75	1.27
158.00	0.00	0.00	158.71	161.21	1.25
159.00	0.00	0.00	156.24	158.71	1.23
160.00	0.00	0.00	153.82	156.24	1.21
161.00	0.00	0.00	151.43	153.82	1.19
162.00	0.00	0.00	149.08	151.43	1.18
163.00	0.00	0.00	146.76	149.08	1.16
164.00	0.00	0.00	144.49	146.76	1.14
165.00	0.00	0.00	142.24	144.49	1.12
166.00	0.00	0.00	140.03	142.24	1.10
167.00	0.00	0.00	137.86	140.03	1.09
168.00	0.00	0.00	135.72	137.86	1.07
169.00	0.00	0.00	133.61	135.72	1.05
170.00	0.00	0.00	131.54	133.61	1.04
171.00	0.00	0.00	129.50	131.54	1.02
172.00	0.00	0.00	127.49	129.50	1.01

Maximum outflow (cfs) = 332.92
Maximum storage (cu ft) = 238308
Maximum elevation (ft) = 547.45



MAX STORAGE = 238308

MAX ELEVATION = 547.45

HYDROLOGIC REPORT FOR

GLEN EAGLE GOLF COURSE

DETENTION AND LAKE DESIGN

25 YEAR/20 MIN. STORM

LAKE #8

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 #8.....
INFLOW.....

Hyd. No. 5

Hydrograph type = RATIONAL
Storm frequency = 25 yr
Time of conc. = 20 min
Runoff coeff. = .7943

Peak INFLOW ~~discharge~~ = 535.82 cfs
Time interval = 1 min
Intensity = 5.03 in/hr
Basin area = 134 ac

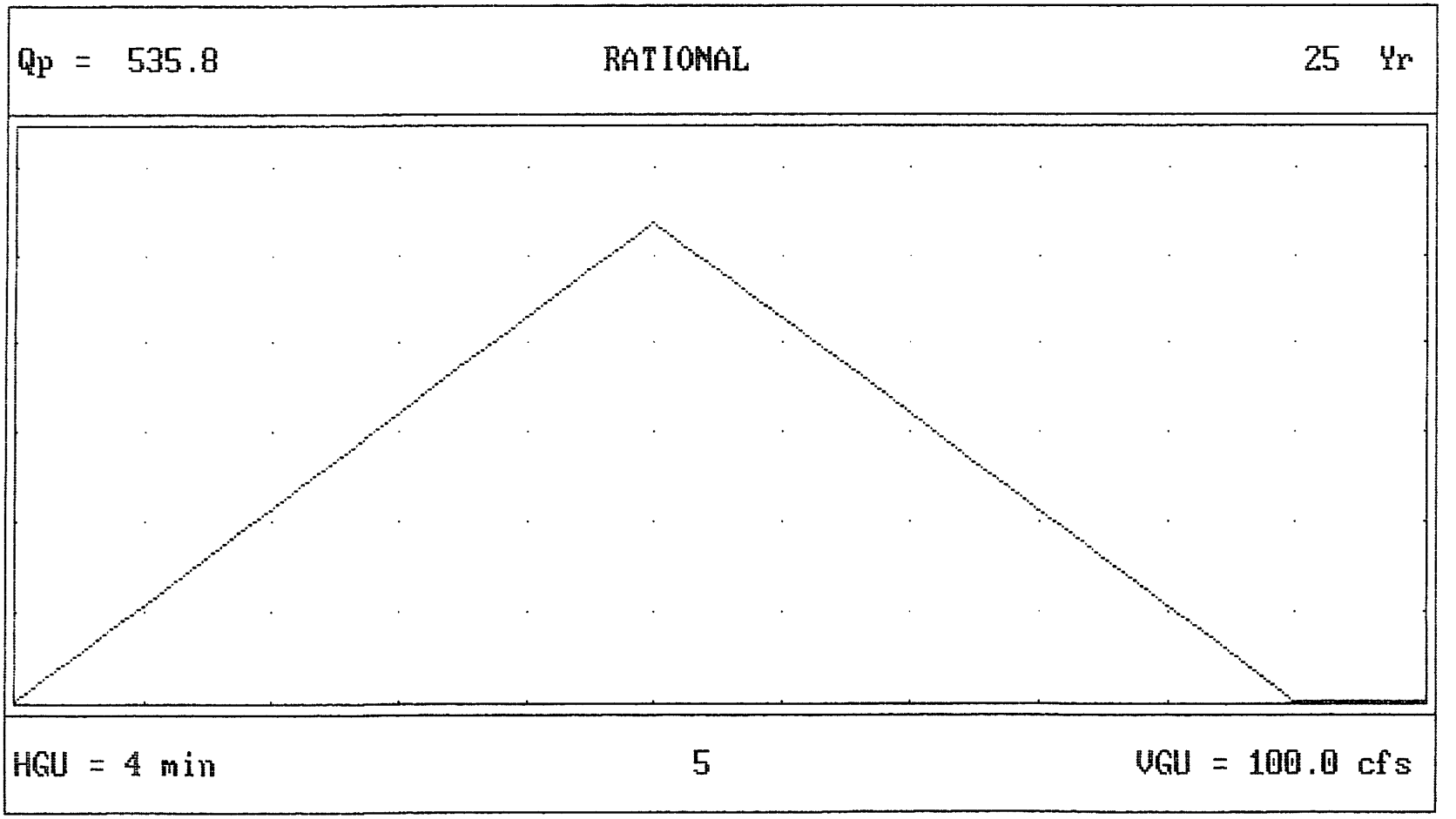
HYDROGRAPH DISCHARGE TABLE

TIME--OUTFLOW (min cfs)		TIME--OUTFLOW (min cfs)		TIME--OUTFLOW (min cfs)		TIME--OUTFLOW (min cfs)	
1.00	26.79	2.00	53.58	3.00	80.37	4.00	107.16
5.00	133.96	6.00	160.75	7.00	187.54	8.00	214.33
9.00	241.12	10.00	267.91	11.00	294.70	12.00	321.49
13.00	348.29	14.00	375.08	15.00	401.87	16.00	428.66
17.00	455.45	18.00	482.24	19.00	509.03	20.00	535.82
21.00	509.03	22.00	482.24	23.00	455.45	24.00	428.66
25.00	401.87	26.00	375.08	27.00	348.29	28.00	321.49
29.00	294.70	30.00	267.91	31.00	241.12	32.00	214.33
33.00	187.54	34.00	160.75	35.00	133.96	36.00	107.16
37.00	80.37	38.00	53.58	39.00	26.79	40.00	0.00

Peak Inflow:

Offsite (Res.)	18.60 Ac.	x 3.26 =	60.70 cfs	Q25
Offsite (Res.)	56.10 Ac.	x 4.07 =	228.40 cfs	Q25
Offsite (Com.)	40.30 Ac.	x 4.75 =	191.43 cfs	Q25
Onsite (Res.)	12.00 Ac.	x 3.26 =	39.12 cfs	Q25
Onsite (Golf)	7.00 Ac.	x 2.31 =	16.17 cfs	Q25
Total = 134.00 Acres		=	535.82 cfs	Q25

NOTE: Offsite Areas Are Calculated As Being Developed Under Their Current Zoning Classification.



VOL = (cuft/acft) = 642988 / 14.761

Rev. 3-31-92 [illegible]

```
MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM5 OUTLET STRUCTURES FMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM:
:  Reservoir:  2                                                                      :
 CULVERT STRUC  A. Q=CoA[2gh/k]^.5    CULVERT STRUC  B. Q=CoA[2gh/k]^.5              :
                                                                                      :
 1. WIDTH  (in)      = 0..             9. WIDTH  (in)      = 0..                       :
 2. HEIGHT (in)      = 0..            10. HEIGHT (in)      = 0..                       :
 3. No. BARRELS      = 0..            11. No. BARRELS      = 0..                       :
 4. INVERT ELEV.     = 0........      12. INVERT ELEV.     = 0........                 :
 5. Co = 0.60                         13. Co = 0.60                                    :
 6. CULVERT LENGTH (ft) = 0...        14. CULVERT LENGTH (ft) = 0...                   :
 7. CULVERT SLOPE (%)   = 0...        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)  = 52.....     23. CREST LENGTH (ft)  = 0......                 :
 19. CREST ELEVATION    = 555.5..     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                 :
                                                                                      :
                                                                                      :
MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM<
Change item number: 0                                                        DY to cont
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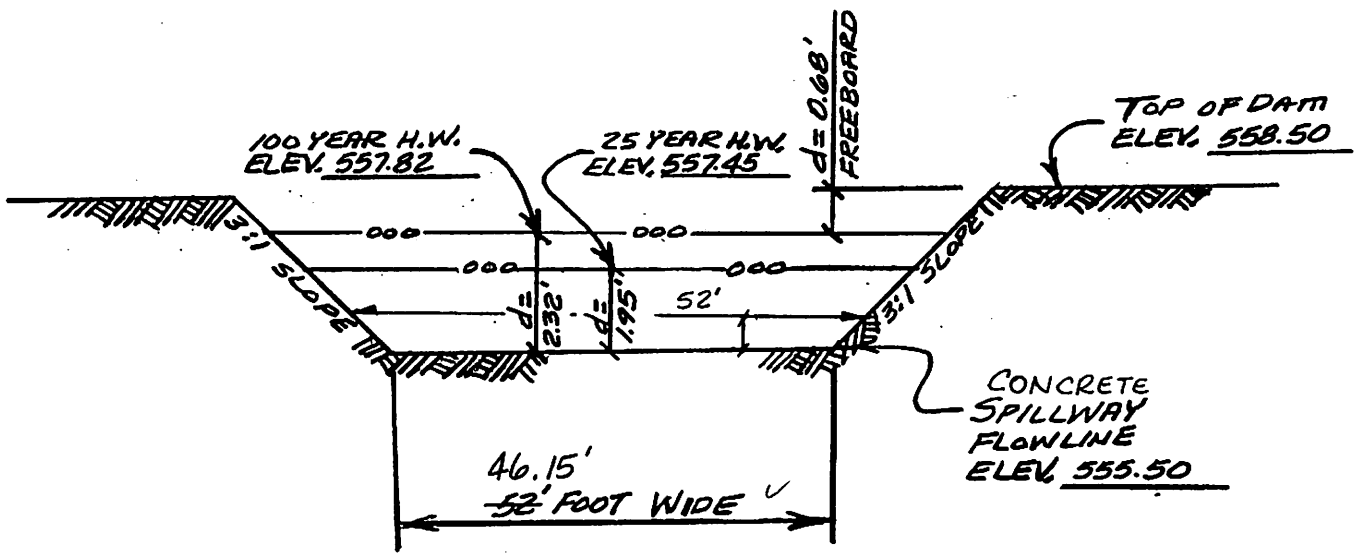


SPILLWAY DETAIL

N.T.S.

HYDROLOGIC REPORT

STAGE / STORAGE / DISCHARGE

RESERVOIR NUMBER = 2

RESERVOIR NAME = LAKE #8.....
STORAGE VALUES WERE INPUT MANUALLY

DISCHARGE VALUES: CULVERT STRUCT A. Q = .6 *A*[2gh/k]^.5 * 0
CULVERT STRUCT B. Q = .6 *A*[2gh/k]^.5 * 0
WEIR STRUCT A. Q = 3 * 52 * H ^ 1.5
WEIR STRUCT B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs)			
	CULVERT A	CULVERT B	WEIR A	WEIR B
555.50	0.00	0.00	0.00	0.00
556.00	0.00	0.00	55.15	0.00
557.00	0.00	0.00	286.59	0.00
557.50	0.00	0.00	441.23	0.00
558.00	0.00	0.00	616.64	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	555.50	0	0	0.00
0.50	556.00	43951	43951	55.15
1.50	557.00	98019	141970	286.59
2.00	557.50	52783	194753	441.23
2.50	558.00	55298	250051	616.64
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. 2 STAGE / STORAGE / DISCHARGE LAKE #8.....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 0
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 52 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs) CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
555.50	0.00	0.00 -	0.00	0.00	0.00
555.55	0.00	0.00 -	1.74	0.00	1.74
555.60	0.00	0.00 -	4.93	0.00	4.93
555.65	0.00	0.00 -	9.06	0.00	9.06
555.70	0.00	0.00 -	13.95	0.00	13.95
555.75	0.00	0.00 -	19.49	0.00	19.49
555.80	0.00	0.00 -	25.62	0.00	25.62
555.85	0.00	0.00 -	32.29	0.00	32.29
555.90	0.00	0.00 -	39.45	0.00	39.45
555.95	0.00	0.00 -	47.07	0.00	47.07
556.00	0.00	0.00 -	55.15	0.00	55.15

[PgDn] [Esc] to exit

Reservoir No. 2 STAGE / STORAGE / DISCHARGE LAKE #8.....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 0
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 52 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs) CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
556.00	0.00	0.00 -	55.15	0.00	55.15
556.10	0.00	0.00 -	72.50	0.00	72.50
556.20	0.00	0.00 -	91.35	0.00	91.35
556.30	0.00	0.00 -	111.61	0.00	111.61
556.40	0.00	0.00 -	133.17	0.00	133.17
556.50	0.00	0.00 -	155.97	0.00	155.97
556.60	0.00	0.00 -	179.94	0.00	179.94
556.70	0.00	0.00 -	205.02	0.00	205.02
556.80	0.00	0.00 -	231.18	0.00	231.18
556.90	0.00	0.00 -	258.35	0.00	258.35
557.00	0.00	0.00 -	286.59	0.00	286.59

[PgDn] [Esc] to exit

Reservoir No. 2 STAGE / STORAGE / DISCHARGE LAKE #8.....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 0
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 52 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs)				
	CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
557.00	0.00	0.00 -	286.59	0.00	286.59
557.05	0.00	0.00 -	301.04	0.00	301.04
557.10	0.00	0.00 -	315.71	0.00	315.71
557.15	0.00	0.00 -	330.63	0.00	330.63
557.20	0.00	0.00 -	345.76	0.00	345.76
557.25	0.00	0.00 -	361.13	0.00	361.13
557.30	0.00	0.00 -	376.71	0.00	376.71
557.35	0.00	0.00 -	392.51	0.00	392.51
557.40	0.00	0.00 -	408.53	0.00	408.53
557.45	0.00	0.00 -	424.76	0.00	424.76
557.50	0.00	0.00 -	441.23	0.00	441.23

[PgDn] [Esc] to exit

Reservoir No. 2 STAGE / STORAGE / DISCHARGE LAKE #8.....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 0
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 52 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs)				
	CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
557.50	0.00	0.00 -	441.23	0.00	441.23
557.55	0.00	0.00 -	457.88	0.00	457.88
557.60	0.00	0.00 -	474.73	0.00	474.73
557.65	0.00	0.00 -	491.78	0.00	491.78
557.70	0.00	0.00 -	509.03	0.00	509.03
557.75	0.00	0.00 -	526.48	0.00	526.48
557.80	0.00	0.00 -	544.12	0.00	544.12
557.85	0.00	0.00 -	561.96	0.00	561.96
557.90	0.00	0.00 -	579.98	0.00	579.98
557.95	0.00	0.00 -	598.20	0.00	598.20
558.00	0.00	0.00 -	616.64	0.00	616.64

[PgDn] [Esc] to exit

STAGE / STORAGE TABLE

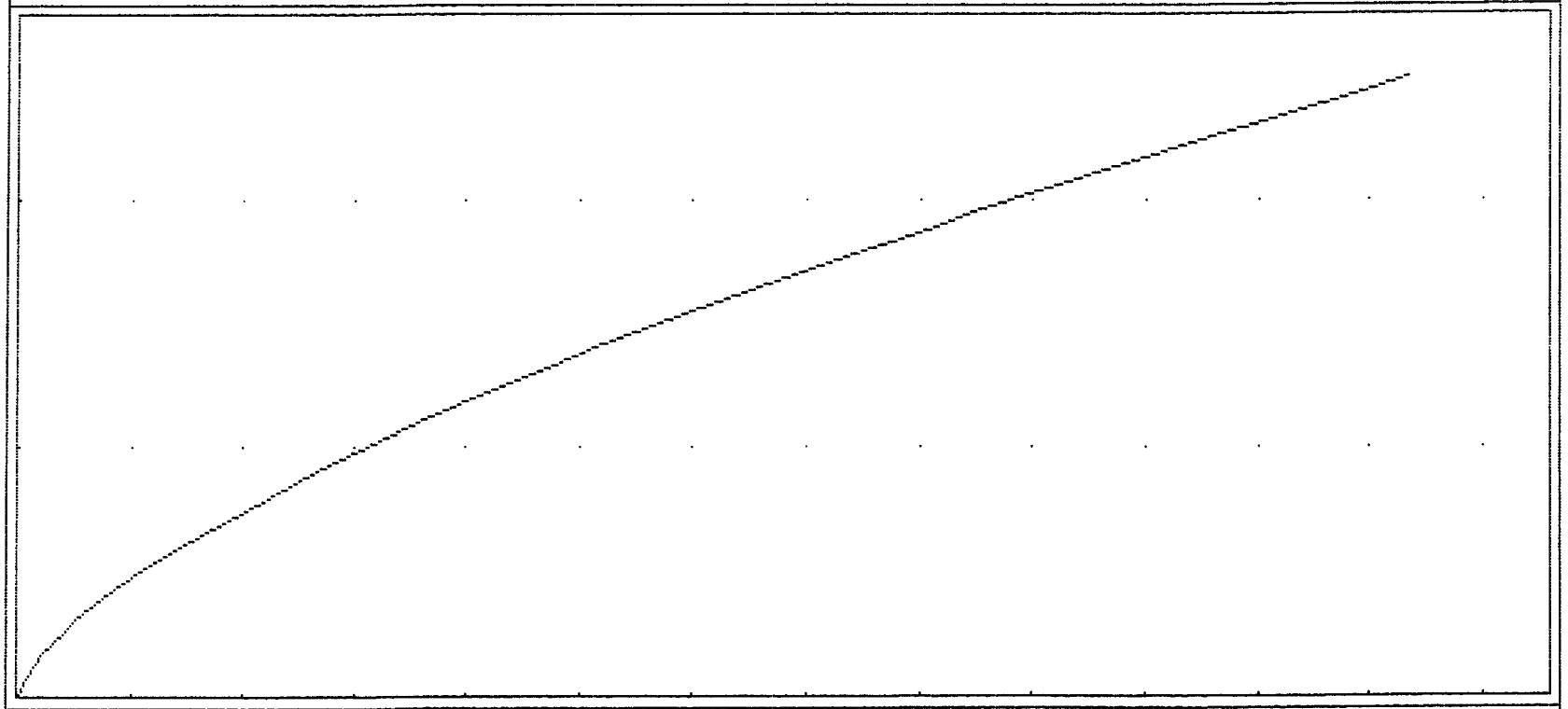
1. RESERVOIR No = 2. 2. RESERVOIR NAME = LAKE #8.....
3. S = Ks * Z^b
   Ks = 0..... b = 0.....
   START ELEV = 0..... INCREMENT = 0...

	STAGE ft	ELEVATION ft	CO AREA sq ft	INC STORAGE cu ft	TOT STORAGE cu ft
4	0.00	555.50.	82819...	0	0
5	0.50	556.00.	92988...	43951	43951
6	1.50	557.00.	103050..	98019	141970
7	2.00	557.50.	108082..	52783	194753
8	2.50	558.00.	113113..	55298	250051
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

hange item number: 0 DY to cont

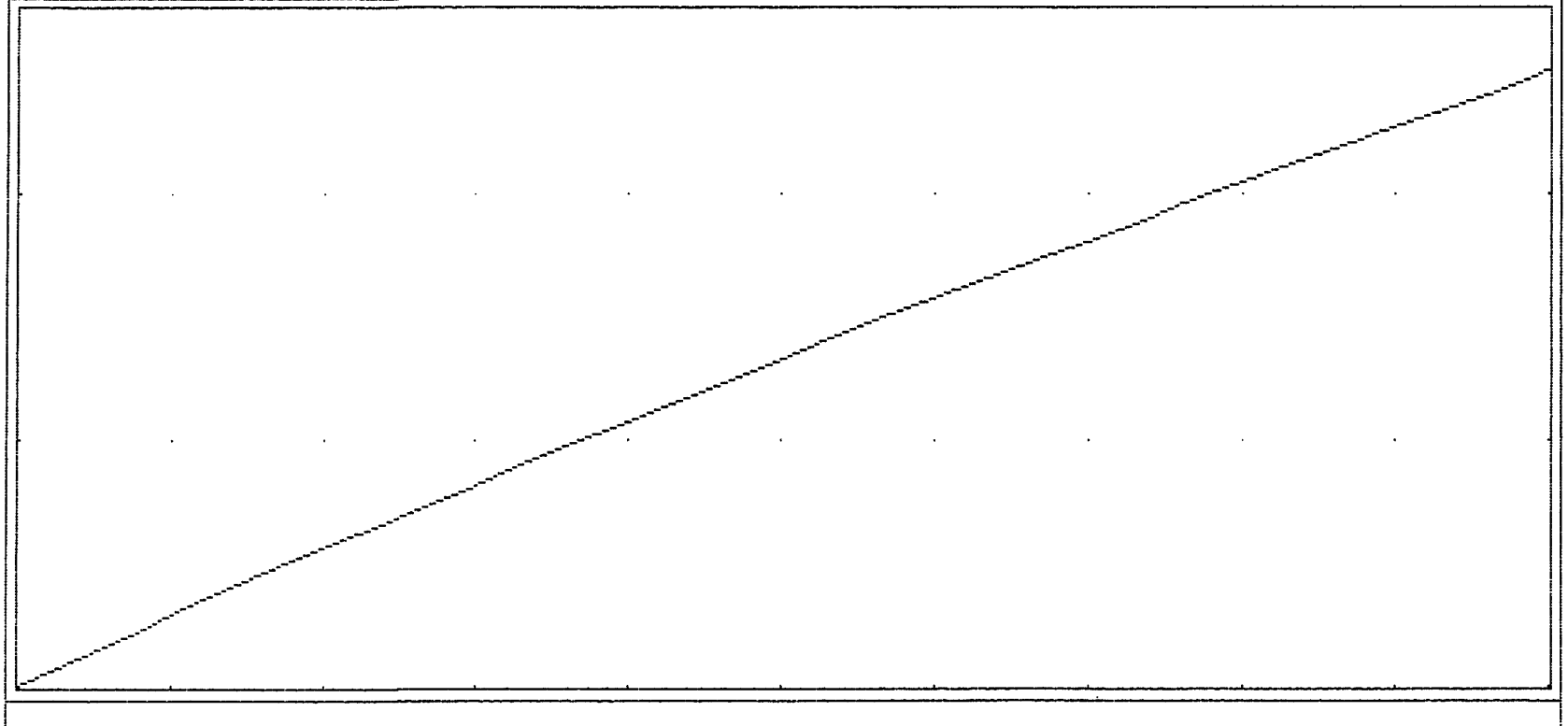
STAGE / DISCHARGE CURVE



HGU = 50.0 cfs VGU = 1.0 ft

[↵] Cont [Esc] Exit

STAGE / STORAGE CURVE



HGU = 25000 cu ft VGU = 1.0 ft

[↵] Cont [Esc] Exit

HYDROLOGIC REPORT

GLEN EAGLE GOLF COURSE
.....
LAKE #8.....

Hyd. No. 6

Hydrograph type = RESERVOIR ROUTE Peak discharge = 424.11 cfs
Storm frequency = 25 yr Time interval = 1 min
Inflow hyd. no. = 5 Reservoir no. = 2

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	26.79	53.58	26.16	26.79	0.32
2.00	53.58	80.37	104.03	106.53	1.25
3.00	80.37	107.16	230.68	237.98	3.65
4.00	107.16	133.96	401.76	418.21	8.23
5.00	133.96	160.75	611.85	642.88	15.51
6.00	160.75	187.54	855.14	906.56	25.71
7.00	187.54	214.33	1125.28	1203.43	39.08
8.00	214.33	241.12	1416.13	1527.14	55.50
9.00	241.12	267.91	1725.79	1871.58	72.90
10.00	267.91	294.70	2049.20	2234.82	92.81
11.00	294.70	321.49	2381.79	2611.81	115.01
12.00	321.49	348.29	2719.52	2997.98	139.23
13.00	348.29	375.08	3058.95	3389.30	165.17
14.00	375.08	401.87	3397.20	3782.32	192.56
15.00	401.87	428.66	3731.94	4174.15	221.10
16.00	428.66	455.45	4061.35	4562.46	250.56
17.00	455.45	482.24	4383.96	4945.45	280.75
18.00	482.24	509.03	4702.28	5321.65	309.69
19.00	509.03	535.82	5016.02	5693.55	338.77
20.00	535.82	509.03	5324.35	6060.88	368.26
21.00	509.03	482.24	5582.06	6369.21	393.58
22.00	482.24	455.45	5752.06	6573.33	410.63
23.00	455.45	428.66	5848.83	6689.76	420.46
24.00	428.66	401.87	5884.71	6732.94	424.11
25.00	401.87	375.08	5870.01	6715.24	422.62

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	375.08	348.29	5813.25	6646.95	416.85
27.00	348.29	321.49	5721.53	6536.61	407.54
28.00	321.49	294.70	5600.47	6391.31	395.42
29.00	294.70	267.91	5454.68	6216.66	380.99
30.00	267.91	241.12	5287.86	6017.30	364.72
31.00	241.12	214.33	5102.96	5796.90	346.97
32.00	214.33	187.54	4902.21	5558.41	328.10
33.00	187.54	160.75	4687.42	5304.08	308.33
34.00	160.75	133.96	4459.98	5035.70	287.86
35.00	133.96	107.16	4223.54	4754.68	265.57
36.00	107.16	80.37	3978.56	4464.66	243.05
37.00	80.37	53.58	3725.08	4166.10	220.51
38.00	53.58	26.79	3462.99	3859.04	198.03
39.00	26.79	0.00	3191.95	3543.36	175.70
40.00	0.00	0.00	2911.49	3218.75	153.63
41.00	0.00	0.00	2644.31	2911.49	133.59
42.00	0.00	0.00	2410.26	2644.31	117.03
43.00	0.00	0.00	2204.15	2410.26	103.05
44.00	0.00	0.00	2022.07	2204.15	91.04
45.00	0.00	0.00	1859.85	2022.07	81.11
46.00	0.00	0.00	1715.30	1859.85	72.28
47.00	0.00	0.00	1585.32	1715.30	64.99
48.00	0.00	0.00	1468.45	1585.32	58.44
49.00	0.00	0.00	1363.55	1468.45	52.45
50.00	0.00	0.00	1269.60	1363.55	46.97
51.00	0.00	0.00	1184.95	1269.60	42.33
52.00	0.00	0.00	1108.52	1184.95	38.21
53.00	0.00	0.00	1039.22	1108.52	34.65
54.00	0.00	0.00	976.25	1039.22	31.48
55.00	0.00	0.00	918.77	976.25	28.74
56.00	0.00	0.00	866.30	918.77	26.24
57.00	0.00	0.00	818.13	866.30	24.08
58.00	0.00	0.00	773.83	818.13	22.15
59.00	0.00	0.00	733.09	773.83	20.37
60.00	0.00	0.00	695.49	733.09	18.80
61.00	0.00	0.00	660.62	695.49	17.43
62.00	0.00	0.00	628.30	660.62	16.16
63.00	0.00	0.00	598.34	628.30	14.98
64.00	0.00	0.00	570.55	598.34	13.90
65.00	0.00	0.00	544.55	570.55	13.00
66.00	0.00	0.00	520.23	544.55	12.16
67.00	0.00	0.00	497.49	520.23	11.37

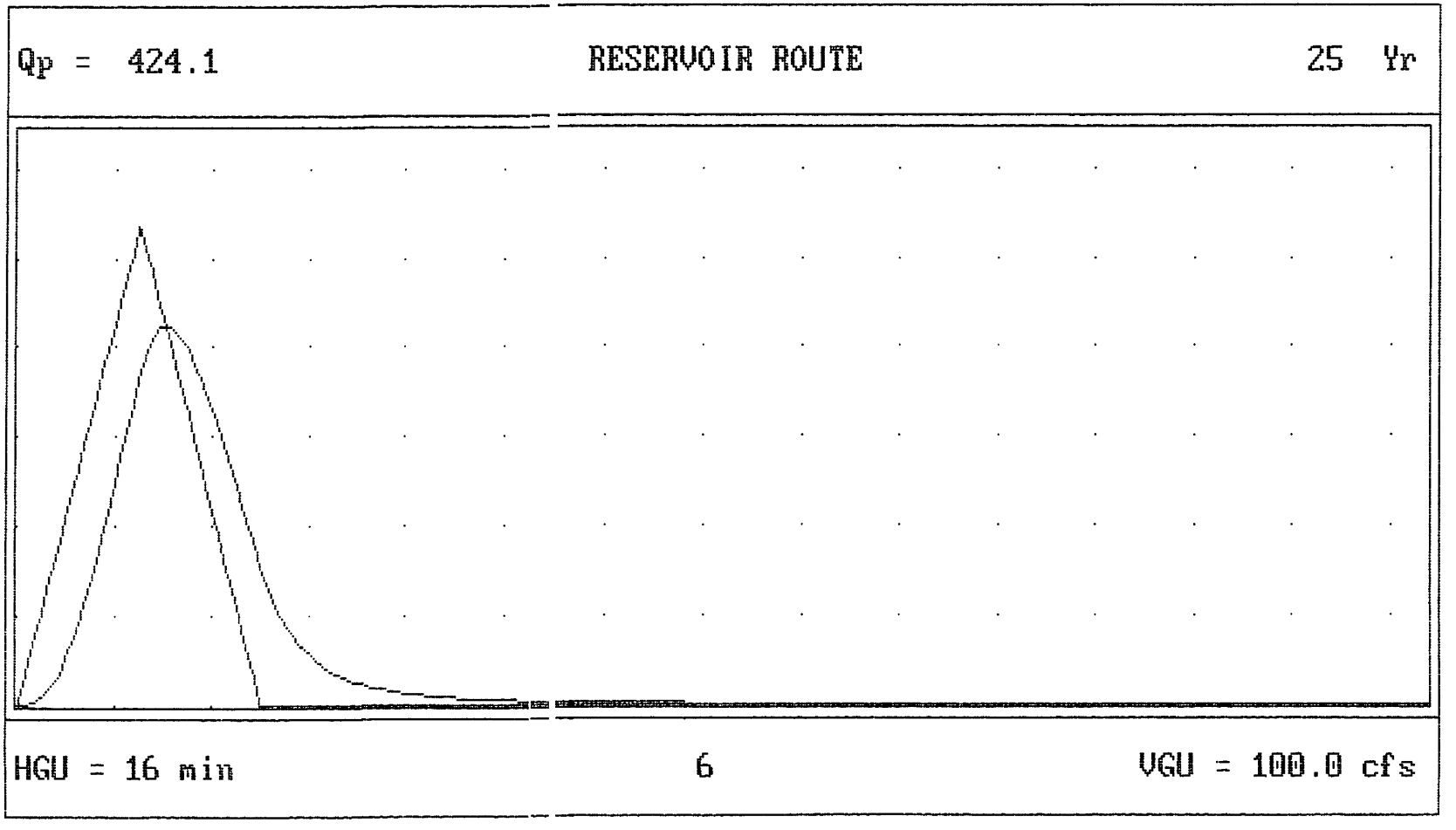
HYDROGRAPH DISCHARGE TABLE Cont'd

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	476.21	497.49	10.64
69.00	0.00	0.00	456.31	476.21	9.95
70.00	0.00	0.00	437.69	456.31	9.31
71.00	0.00	0.00	420.16	437.69	8.76
72.00	0.00	0.00	403.60	420.16	8.28
73.00	0.00	0.00	387.95	403.60	7.83
74.00	0.00	0.00	373.15	387.95	7.40
75.00	0.00	0.00	359.17	373.15	6.99
76.00	0.00	0.00	345.95	359.17	6.61
77.00	0.00	0.00	333.45	345.95	6.25
78.00	0.00	0.00	321.64	333.45	5.90
79.00	0.00	0.00	310.48	321.64	5.58
80.00	0.00	0.00	299.93	310.48	5.28
81.00	0.00	0.00	289.96	299.93	4.99
82.00	0.00	0.00	280.44	289.96	4.76
83.00	0.00	0.00	271.32	280.44	4.56
84.00	0.00	0.00	262.59	271.32	4.36
85.00	0.00	0.00	254.23	262.59	4.18
86.00	0.00	0.00	246.23	254.23	4.00
87.00	0.00	0.00	238.57	246.23	3.83
88.00	0.00	0.00	231.24	238.57	3.67
89.00	0.00	0.00	224.22	231.24	3.51
90.00	0.00	0.00	217.49	224.22	3.36
91.00	0.00	0.00	211.06	217.49	3.22
92.00	0.00	0.00	204.89	211.06	3.08
93.00	0.00	0.00	199.00	204.89	2.95
94.00	0.00	0.00	193.35	199.00	2.82
95.00	0.00	0.00	187.94	193.35	2.70
96.00	0.00	0.00	182.76	187.94	2.59
97.00	0.00	0.00	177.80	182.76	2.48
98.00	0.00	0.00	173.06	177.80	2.37
99.00	0.00	0.00	168.51	173.06	2.27
100.00	0.00	0.00	164.16	168.51	2.18
101.00	0.00	0.00	160.00	164.16	2.08
102.00	0.00	0.00	156.01	160.00	1.99
103.00	0.00	0.00	152.19	156.01	1.91
104.00	0.00	0.00	148.54	152.19	1.83
105.00	0.00	0.00	145.04	148.54	1.75
106.00	0.00	0.00	141.63	145.04	1.71
107.00	0.00	0.00	138.30	141.63	1.67
108.00	0.00	0.00	135.04	138.30	1.63
109.00	0.00	0.00	131.87	135.04	1.59

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
110.00	0.00	0.00	128.77	131.87	1.55
111.00	0.00	0.00	125.74	128.77	1.51
112.00	0.00	0.00	122.78	125.74	1.48
113.00	0.00	0.00	119.89	122.78	1.44
114.00	0.00	0.00	117.07	119.89	1.41
115.00	0.00	0.00	114.32	117.07	1.38
116.00	0.00	0.00	111.63	114.32	1.34
117.00	0.00	0.00	109.00	111.63	1.31
118.00	0.00	0.00	106.44	109.00	1.28
119.00	0.00	0.00	103.94	106.44	1.25
120.00	0.00	0.00	101.49	103.94	1.22
121.00	0.00	0.00	99.10	101.49	1.19
122.00	0.00	0.00	96.77	99.10	1.17
123.00	0.00	0.00	94.50	96.77	1.14
124.00	0.00	0.00	92.27	94.50	1.11
125.00	0.00	0.00	90.10	92.27	1.09
126.00	0.00	0.00	87.98	90.10	1.06
127.00	0.00	0.00	85.91	87.98	1.03
128.00	0.00	0.00	83.89	85.91	1.01

Maximum outflow (cfs) = 424.11
Maximum storage (cu ft) = 189265
Maximum elevation (ft) = 557.45



MAX STORAGE = 189265

MAX ELEVATION = 557.45

HYDROLOGIC REPORT FOR

GLEN EAGLE GOLF COURSE

DETENTION AND LAKE DESIGN

100 YEAR/20 MIN. STORM

LAKE #8

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 #8.....
INFLOW.....

Hyd. No. 7

Hydrograph type	= RATIONAL	Peak ~~discharge~~ INFLOW	= 685.59 cfs
Storm frequency	= 100 yr	Time interval	= 1 min
Time of conc.	= 20 min	Intensity	= 6.17 in/hr
Runoff coeff.	= .8287	Basin area	= 134 ac

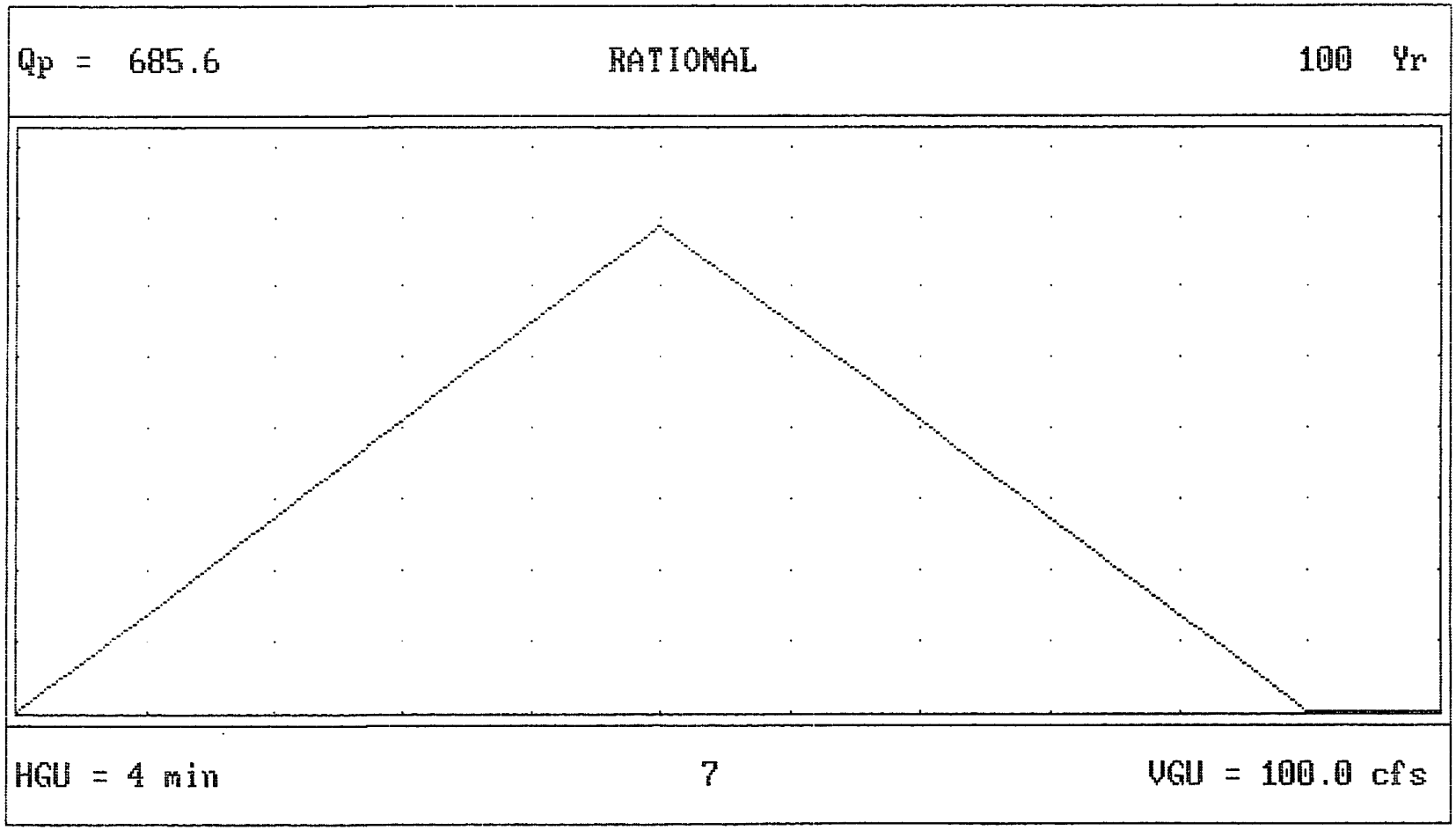
HYDROGRAPH DISCHARGE TABLE

TIME--OUTFLOW (min cfs)		TIME--OUTFLOW (min cfs)		TIME--OUTFLOW (min cfs)		TIME--OUTFLOW (min cfs)	
1.00	34.28	2.00	68.56	3.00	102.84	4.00	137.12
5.00	171.40	6.00	205.68	7.00	239.96	8.00	274.24
9.00	308.52	10.00	342.80	11.00	377.08	12.00	411.36
13.00	445.64	14.00	479.92	15.00	514.20	16.00	548.47
17.00	582.75	18.00	617.03	19.00	651.31	20.00	685.59
21.00	651.31	22.00	617.03	23.00	582.75	24.00	548.47
25.00	514.20	26.00	479.92	27.00	445.64	28.00	411.36
29.00	377.08	30.00	342.80	31.00	308.52	32.00	274.24
33.00	239.96	34.00	205.68	35.00	171.40	36.00	137.12
37.00	102.84	38.00	68.56	39.00	34.28	40.00	0.00

Peak Inflow:

Offsite (Res.)	18.60 Ac.	x 4.17	=	77.56 cfs Q100
Offsite (Res.)	56.10 Ac.	x 5.21	=	292.30 cfs Q100
Offsite (Com.)	40.30 Ac.	x 6.08	=	245.04 cfs Q100
Onsite (Res.)	12.00 Ac.	x 4.17	=	50.04 cfs Q100
Onsite (Golf)	7.00 Ac.	x 2.95	=	20.65 cfs Q100
Total = 134.00 Acres			=	685.59 cfs Q100

NOTE: Offsite Areas Are Calculated As Being Developed Under Their Current Zoning Classification.



VOL = (cuft/acft) = 822712 / 18.887

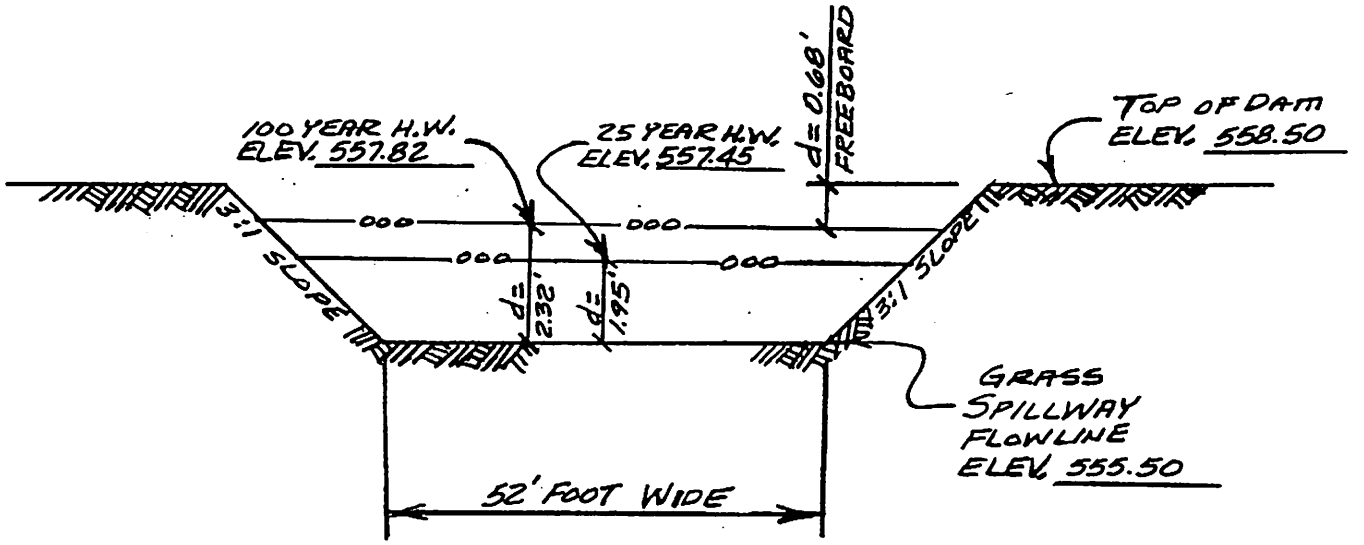
OUTLET STRUCTURES

Reservoir: 2

CULVERT STRUC A. Q=CoA[2gh/k]^.5		CULVERT STRUC B. Q=CoA[2gh/k]^.5	
1. WIDTH (in)	= 0..	9. WIDTH (in)	= 0..
2. HEIGHT (in)	= 0..	10. HEIGHT (in)	= 0..
3. No. BARRELS	= 0..	11. No. BARRELS	= 0..
4. INVERT ELEV.	= 0.....	12. INVERT ELEV.	= 0.....
5. Co = 0.60		13. Co = 0.60	
6. CULVERT LENGTH (ft)	= 0...	14. CULVERT LENGTH (ft)	= 0...
7. CULVERT SLOPE (%)	= 0...	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)	= 52.....	23. CREST LENGTH (ft)	= 0.....
19. CREST ELEVATION	= 555.5..	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

hange item number: 0 DY to cont



SPILLWAY DETAIL

N.T.S.

HYDROLOGIC REPORT

STAGE / STORAGE / DISCHARGE

RESERVOIR NUMBER = 2

RESERVOIR NAME = LAKE #8.....
STORAGE VALUES WERE INPUT MANUALLY

DISCHARGE VALUES: CULVERT STRUCT A. Q = .6 *A*[2gh/k]^.5 * 0
CULVERT STRUCT B. Q = .6 *A*[2gh/k]^.5 * 0
WEIR STRUCT A. Q = 3 * 52 * H ^ 1.5
WEIR STRUCT B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs)			
	CULVERT A	CULVERT B	WEIR A	WEIR B
555.50	0.00	0.00	0.00	0.00
556.00	0.00	0.00	55.15	0.00
557.00	0.00	0.00	286.59	0.00
557.50	0.00	0.00	441.23	0.00
558.00	0.00	0.00	616.64	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	555.50	0	0	0.00
0.50	556.00	43951	43951	55.15
1.50	557.00	98019	141970	286.59
2.00	557.50	52783	194753	441.23
2.50	558.00	55298	250051	616.64
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. 2 STAGE / STORAGE / DISCHARGE LAKE #8.....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 0
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 52 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs)				
	CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
555.50	0.00	0.00 -	0.00	0.00	0.00
555.55	0.00	0.00 -	1.74	0.00	1.74
555.60	0.00	0.00 -	4.93	0.00	4.93
555.65	0.00	0.00 -	9.06	0.00	9.06
555.70	0.00	0.00 -	13.95	0.00	13.95
555.75	0.00	0.00 -	19.49	0.00	19.49
555.80	0.00	0.00 -	25.62	0.00	25.62
555.85	0.00	0.00 -	32.29	0.00	32.29
555.90	0.00	0.00 -	39.45	0.00	39.45
555.95	0.00	0.00 -	47.07	0.00	47.07
556.00	0.00	0.00 -	55.15	0.00	55.15

[PgDn] [Esc] to exit

Reservoir No. 2 STAGE / STORAGE / DISCHARGE LAKE #8.....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 0
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 52 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs)				
	CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
556.00	0.00	0.00 -	55.15	0.00	55.15
556.10	0.00	0.00 -	72.50	0.00	72.50
556.20	0.00	0.00 -	91.35	0.00	91.35
556.30	0.00	0.00 -	111.61	0.00	111.61
556.40	0.00	0.00 -	133.17	0.00	133.17
556.50	0.00	0.00 -	155.97	0.00	155.97
556.60	0.00	0.00 -	179.94	0.00	179.94
556.70	0.00	0.00 -	205.02	0.00	205.02
556.80	0.00	0.00 -	231.18	0.00	231.18
556.90	0.00	0.00 -	258.35	0.00	258.35
557.00	0.00	0.00 -	286.59	0.00	286.59

[PgDn] [Esc] to exit

Reservoir No. 2 STAGE / STORAGE / DISCHARGE LAKE #8.....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 0
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 52 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs)				
	CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
557.00	0.00	0.00 -	286.59	0.00	286.59
557.05	0.00	0.00 -	301.04	0.00	301.04
557.10	0.00	0.00 -	315.71	0.00	315.71
557.15	0.00	0.00 -	330.63	0.00	330.63
557.20	0.00	0.00 -	345.76	0.00	345.76
557.25	0.00	0.00 -	361.13	0.00	361.13
557.30	0.00	0.00 -	376.71	0.00	376.71
557.35	0.00	0.00 -	392.51	0.00	392.51
557.40	0.00	0.00 -	408.53	0.00	408.53
557.45	0.00	0.00 -	424.76	0.00	424.76
557.50	0.00	0.00 -	441.23	0.00	441.23

[PgDn] [Esc] to exit

Reservoir No. 2 STAGE / STORAGE / DISCHARGE LAKE #8.....

Storage values were input manually
Discharge values: Culvert struct A. Q = .6 * A * [2gh/k]^.5 * 0
Culvert struct B. Q = .6 * A * [2gh/k]^.5 * 0
Weir struct A. Q = 3 * 52 * H ^ 1.5
Weir struct B. Q = 3 * 0 * H ^ 1.5

ELEVATION	DISCHARGE (cfs)				
	CULVERT A	CULVERT B	WEIR A	WEIR B	TOTAL
557.50	0.00	0.00 -	441.23	0.00	441.23
557.55	0.00	0.00 -	457.88	0.00	457.88
557.60	0.00	0.00 -	474.73	0.00	474.73
557.65	0.00	0.00 -	491.78	0.00	491.78
557.70	0.00	0.00 -	509.03	0.00	509.03
557.75	0.00	0.00 -	526.48	0.00	526.48
557.80	0.00	0.00 -	544.12	0.00	544.12
557.85	0.00	0.00 -	561.96	0.00	561.96
557.90	0.00	0.00 -	579.98	0.00	579.98
557.95	0.00	0.00 -	598.20	0.00	598.20
558.00	0.00	0.00 -	616.64	0.00	616.64

[PgDn] [Esc] to exit

STAGE / STORAGE TABLE

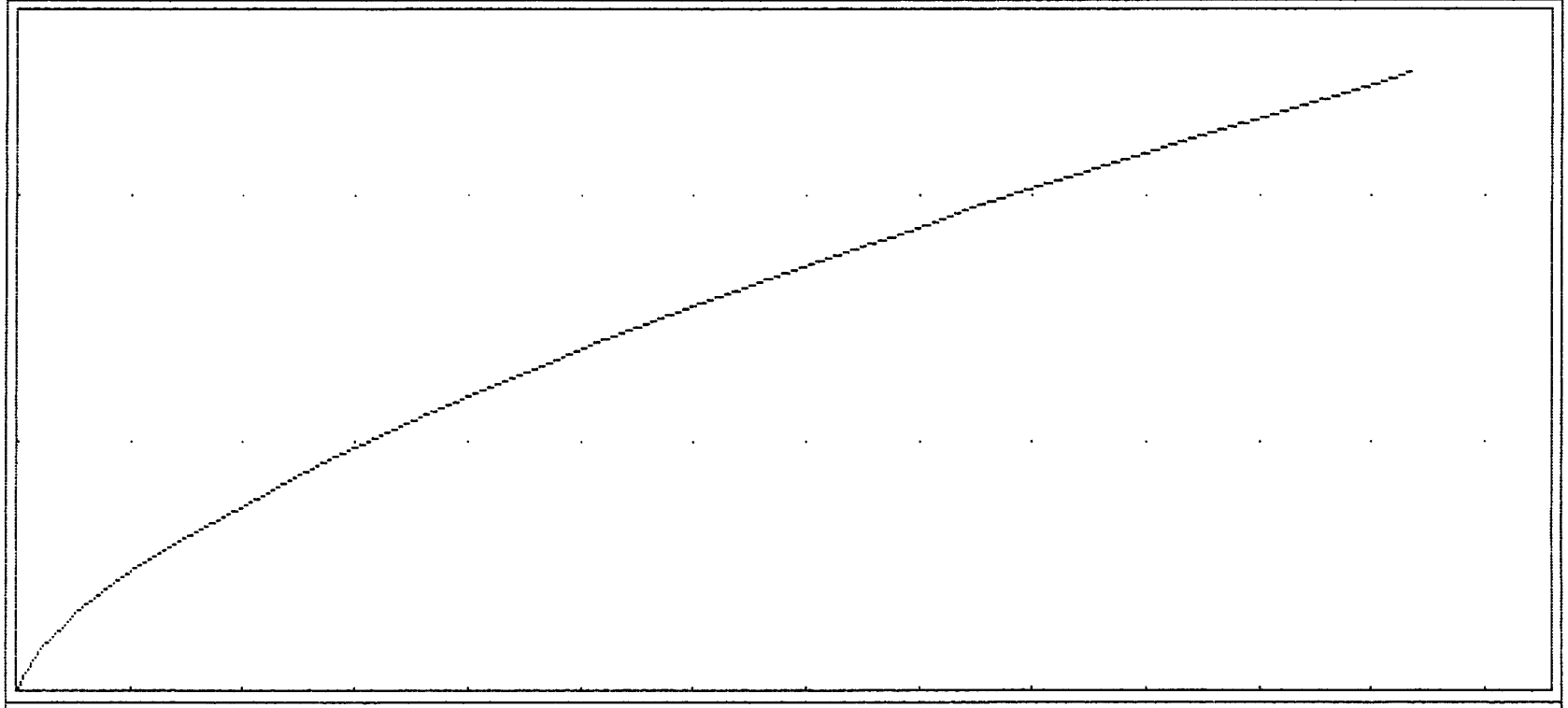
1. RESERVOIR No = 2. 2. RESERVOIR NAME = LAKE #8.....
3. S = Ks * Z^b
Ks = 0..... b = 0.....
START ELEV = 0..... INCREMENT = 0...

	STAGE ft	ELEVATION ft	CO AREA sq ft	INC STORAGE cu ft	TOT STORAGE cu ft
4	0.00	555.50.	82819...	0	0
5	0.50	556.00.	92988...	43951	43951
6	1.50	557.00.	103050..	98019	141970
7	2.00	557.50.	108082..	52783	194753
8	2.50	558.00.	113113..	55298	250051
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

hange item number: 0 DY to cont

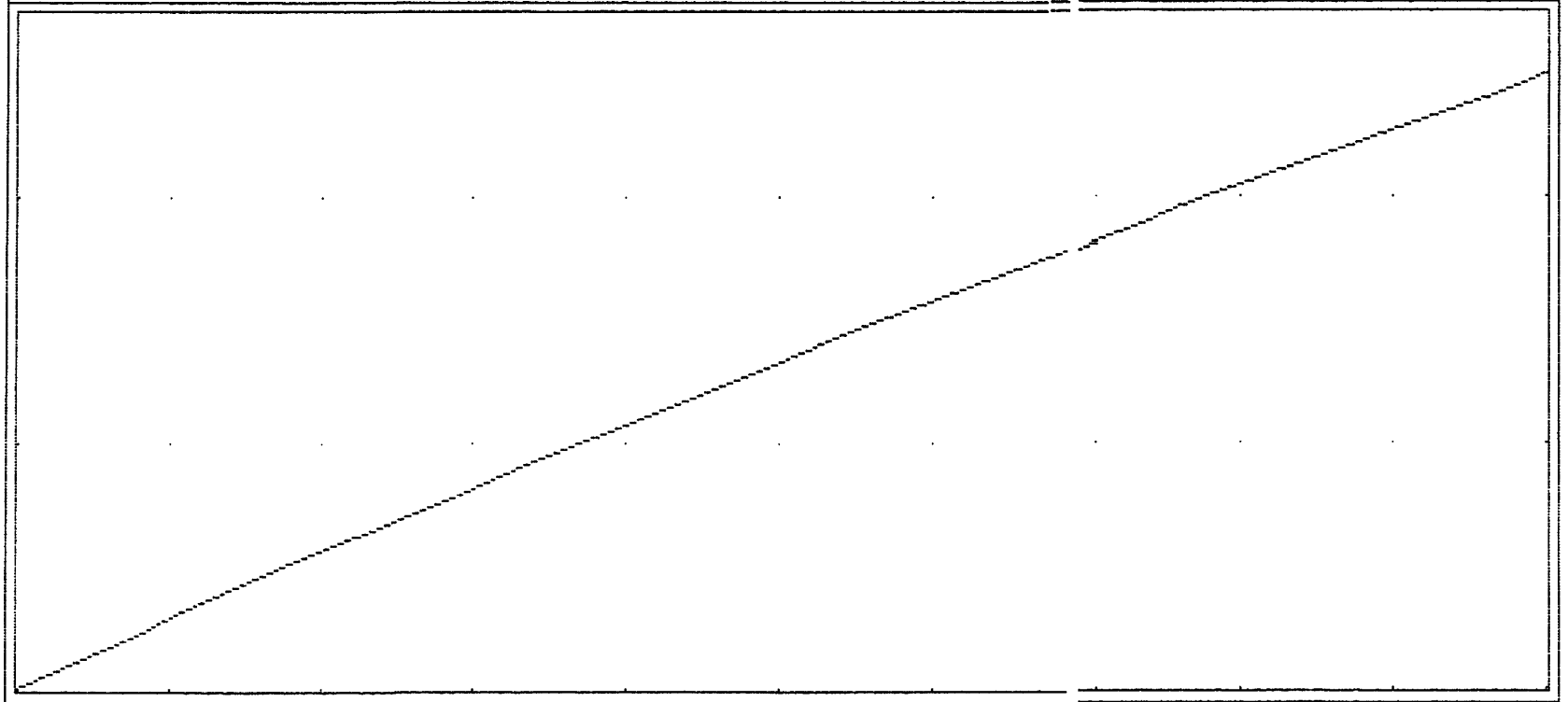
STAGE / DISCHARGE CURVE



HGU = 50.0 cfs VGU = 1.0 ft

[↵] Cont [Esc] Exit

STAGE / STORAGE CURVE



HGU = 25000 cu ft

VGU = 1.0 ft

[↵] Cont

[Esc] Exit

HYDROLOGIC REPORT

GLEN EAGLE GOLF COURSE
.....
LAKE #8.....

Hyd. No. 8

Hydrograph type = RESERVOIR ROUTE Peak discharge = 550.76 cfs
Storm frequency = 100 yr Time interval = 1 min
Inflow hyd. no. = 7 Reservoir no. = 2

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	34.28	68.56	33.47	34.28	0.40
2.00	68.56	102.84	133.11	136.31	1.60
3.00	102.84	137.12	294.28	304.50	5.11
4.00	137.12	171.40	510.59	534.24	11.83
5.00	171.40	205.68	774.73	819.11	22.19
6.00	205.68	239.96	1078.47	1151.81	36.67
7.00	239.96	274.24	1413.40	1524.10	55.35
8.00	274.24	308.52	1775.69	1927.59	75.95
9.00	308.52	342.80	2158.38	2358.44	100.03
10.00	342.80	377.08	2555.17	2809.70	127.27
11.00	377.08	411.36	2960.31	3275.04	157.36
12.00	411.36	445.64	3368.42	3748.74	190.16
13.00	445.64	479.92	3775.60	4225.41	224.90
14.00	479.92	514.20	4178.53	4701.15	261.31
15.00	514.20	548.47	4576.13	5172.64	298.25
16.00	548.47	582.75	4969.95	5638.80	334.43
17.00	582.75	617.03	5358.09	6101.17	371.54
18.00	617.03	651.31	5739.23	6557.88	409.33
19.00	651.31	685.59	6112.75	7007.57	447.41
20.00	685.59	651.31	6480.81	7449.66	484.43
21.00	651.31	617.03	6785.89	7817.72	515.92
22.00	617.03	582.75	6981.30	8054.23	536.47
23.00	582.75	548.47	7085.92	8181.09	547.58
24.00	548.47	514.20	7115.62	8217.15	550.76
25.00	514.20	479.92	7083.62	8178.29	547.34

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	479.92	445.64	7000.69	8077.73	538.52
27.00	445.64	411.36	6875.64	7926.24	525.30
28.00	411.36	377.08	6715.51	7732.63	508.56
29.00	377.08	342.80	6525.90	7503.94	489.02
30.00	342.80	308.52	6311.28	7245.77	467.24
31.00	308.52	274.24	6075.23	6962.60	443.69
32.00	274.24	239.96	5822.42	6657.98	417.78
33.00	239.96	205.68	5554.86	6336.61	390.88
34.00	205.68	171.40	5273.80	6000.50	363.35
35.00	171.40	137.12	4980.10	5650.88	335.39
36.00	137.12	102.84	4674.34	5288.62	307.14
37.00	102.84	68.56	4357.76	4914.29	278.27
38.00	68.56	34.28	4033.15	4529.16	248.00
39.00	34.28	0.00	3699.44	4135.99	218.28
40.00	0.00	0.00	3355.54	3733.72	189.09
41.00	0.00	0.00	3029.80	3355.54	162.87
42.00	0.00	0.00	2747.19	3029.80	141.31
43.00	0.00	0.00	2500.40	2747.19	123.40
44.00	0.00	0.00	2283.77	2500.40	108.32
45.00	0.00	0.00	2092.43	2283.77	95.67
46.00	0.00	0.00	1922.54	2092.43	84.95
47.00	0.00	0.00	1771.18	1922.54	75.68
48.00	0.00	0.00	1635.57	1771.18	67.81
49.00	0.00	0.00	1513.63	1635.57	60.97
50.00	0.00	0.00	1404.01	1513.63	54.81
51.00	0.00	0.00	1305.84	1404.01	49.08
52.00	0.00	0.00	1217.61	1305.84	44.12
53.00	0.00	0.00	1138.10	1217.61	39.75
54.00	0.00	0.00	1066.04	1138.10	36.03
55.00	0.00	0.00	1000.69	1066.04	32.67
56.00	0.00	0.00	941.08	1000.69	29.80
57.00	0.00	0.00	886.66	941.08	27.21
58.00	0.00	0.00	836.86	886.66	24.90
59.00	0.00	0.00	791.06	836.86	22.90
60.00	0.00	0.00	748.93	791.06	21.06
61.00	0.00	0.00	710.17	748.93	19.38
62.00	0.00	0.00	674.24	710.17	17.97
63.00	0.00	0.00	640.93	674.24	16.66
64.00	0.00	0.00	610.04	640.93	15.44
65.00	0.00	0.00	581.41	610.04	14.32
66.00	0.00	0.00	554.71	581.41	13.35
67.00	0.00	0.00	529.74	554.71	12.49

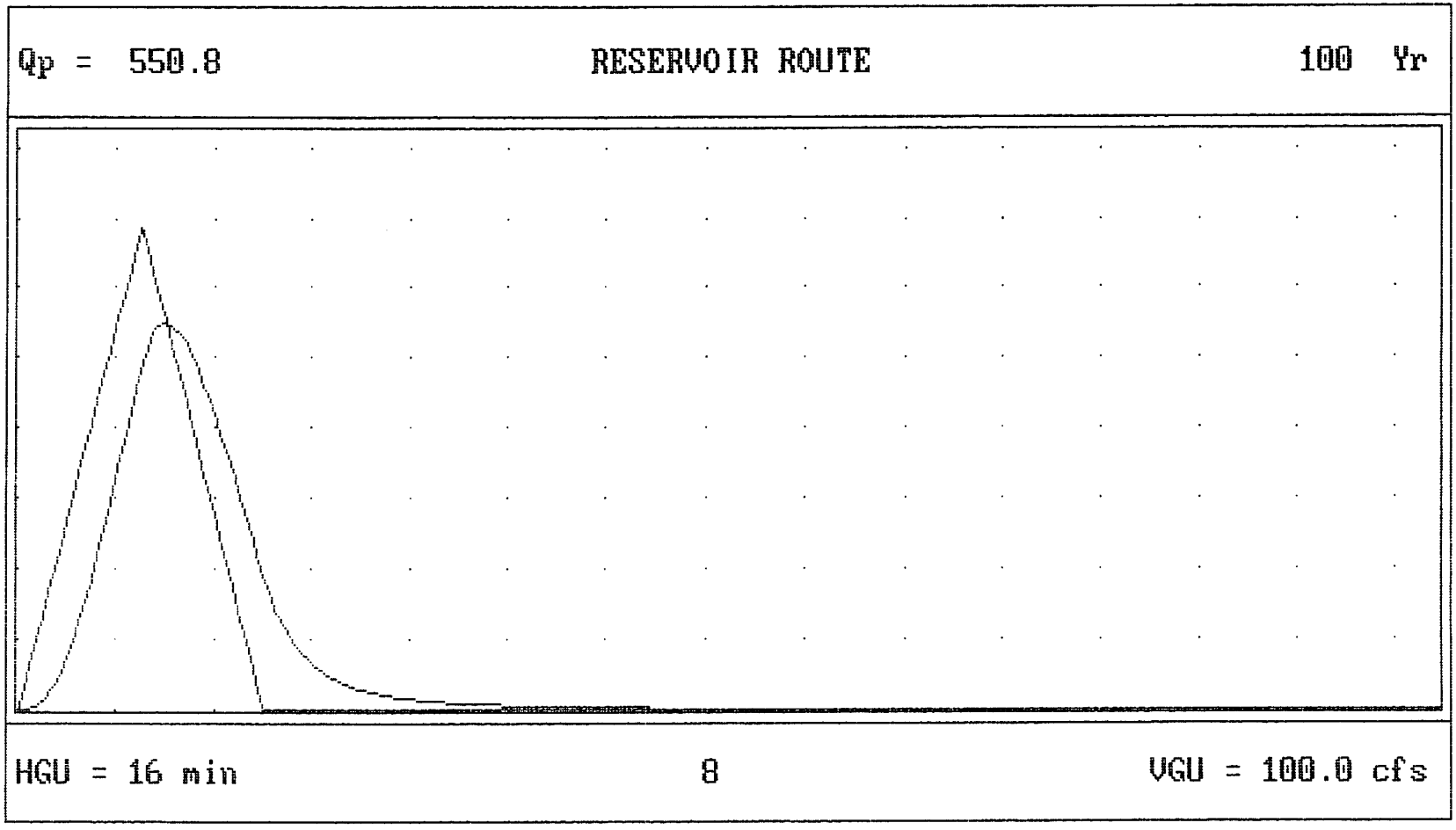
HYDROGRAPH DISCHARGE TABLE Cont'd

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	506.38	529.74	11.68
69.00	0.00	0.00	484.53	506.38	10.93
70.00	0.00	0.00	464.08	484.53	10.22
71.00	0.00	0.00	444.96	464.08	9.56
72.00	0.00	0.00	427.04	444.96	8.96
73.00	0.00	0.00	410.10	427.04	8.47
74.00	0.00	0.00	394.09	410.10	8.01
75.00	0.00	0.00	378.96	394.09	7.57
76.00	0.00	0.00	364.66	378.96	7.15
77.00	0.00	0.00	351.14	364.66	6.76
78.00	0.00	0.00	338.36	351.14	6.39
79.00	0.00	0.00	326.28	338.36	6.04
80.00	0.00	0.00	314.86	326.28	5.71
81.00	0.00	0.00	304.07	314.86	5.40
82.00	0.00	0.00	293.87	304.07	5.10
83.00	0.00	0.00	284.18	293.87	4.84
84.00	0.00	0.00	274.91	284.18	4.64
85.00	0.00	0.00	266.03	274.91	4.44
86.00	0.00	0.00	257.52	266.03	4.25
87.00	0.00	0.00	249.38	257.52	4.07
88.00	0.00	0.00	241.59	249.38	3.90
89.00	0.00	0.00	234.12	241.59	3.73
90.00	0.00	0.00	226.98	234.12	3.57
91.00	0.00	0.00	220.14	226.98	3.42
92.00	0.00	0.00	213.59	220.14	3.27
93.00	0.00	0.00	207.32	213.59	3.14
94.00	0.00	0.00	201.32	207.32	3.00
95.00	0.00	0.00	195.57	201.32	2.87
96.00	0.00	0.00	190.07	195.57	2.75
97.00	0.00	0.00	184.80	190.07	2.63
98.00	0.00	0.00	179.75	184.80	2.52
99.00	0.00	0.00	174.93	179.75	2.41
100.00	0.00	0.00	170.30	174.93	2.31
101.00	0.00	0.00	165.88	170.30	2.21
102.00	0.00	0.00	161.64	165.88	2.12
103.00	0.00	0.00	157.58	161.64	2.03
104.00	0.00	0.00	153.70	157.58	1.94
105.00	0.00	0.00	149.98	153.70	1.86
106.00	0.00	0.00	146.42	149.98	1.78
107.00	0.00	0.00	142.97	146.42	1.72
108.00	0.00	0.00	139.61	142.97	1.68
109.00	0.00	0.00	136.33	139.61	1.64

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
110.00	0.00	0.00	133.12	136.33	1.60
111.00	0.00	0.00	129.99	133.12	1.57
112.00	0.00	0.00	126.93	129.99	1.53
113.00	0.00	0.00	123.95	126.93	1.49
114.00	0.00	0.00	121.03	123.95	1.46
115.00	0.00	0.00	118.18	121.03	1.42
116.00	0.00	0.00	115.40	118.18	1.39
117.00	0.00	0.00	112.69	115.40	1.36
118.00	0.00	0.00	110.04	112.69	1.33
119.00	0.00	0.00	107.45	110.04	1.29
120.00	0.00	0.00	104.92	107.45	1.26
121.00	0.00	0.00	102.45	104.92	1.23
122.00	0.00	0.00	100.04	102.45	1.20
123.00	0.00	0.00	97.69	100.04	1.18
124.00	0.00	0.00	95.39	97.69	1.15
125.00	0.00	0.00	93.15	95.39	1.12
126.00	0.00	0.00	90.96	93.15	1.10
127.00	0.00	0.00	88.82	90.96	1.07
128.00	0.00	0.00	86.73	88.82	1.04
129.00	0.00	0.00	84.69	86.73	1.02

Maximum outflow (cfs) = 550.76
Maximum storage (cu ft) = 229992
Maximum elevation (ft) = 557.82



MAX STORAGE = 229992

MAX ELEVATION = 557.82

RAINFALL DATA CHART

EASTERN & CENTRAL UNITED STATES

1. FILENAME GLEN EAGLE GOLF COURSE
2. 2-Yr / 5-Min (in) = .45.....
3. 2-Yr / 15-Min (in) = .9.....
4. 2-Yr / 60-Min (in) = 1.56....
5. 100-Yr / 5-Min (in) = .82.....
6. 100-Yr / 15-Min (in) = 1.75....
7. 100-Yr / 60-Min (in) = 3.3.....

Change item number: 0 DY to cont

INTERMEDIATE INTENSITY-DURATION VALUES (in/hr)

FILENAME: GLEN EAGLE GOLF COURSE

	5-Min	15-Min	30-Min	60-Min
2-Yr	5.39	3.57	2.45	1.56
5-Yr	6.37	4.36	3.04	1.97
10-Yr	7.08	4.92	3.47	2.26
25-Yr	8.14	5.74	4.07	2.66
50-Yr	8.99	6.38	4.55	2.98
100-Yr	9.82	7.01	5.02	3.30

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