

Hydrograph Return Period Recap

Hydraflow Hydrographs by Intelisolve v9.2

Hyd. No.	Hydrograph type (origin)	Inflow Hyd(s)	Peak Outflow (cfs)								Hydrograph description
			1-Yr	2-Yr	3-Yr	5-Yr	10-Yr	25-Yr	50-Yr	100-Yr	
1	SCS Runoff	-----	-----	0.053	-----	-----	0.133	0.208	-----	0.373	E-1
2	SCS Runoff	-----	-----	0.001	-----	-----	0.022	0.109	-----	0.579	E-2
3	SCS Runoff	-----	-----	0.005	-----	-----	0.055	0.134	-----	0.341	P-1
4	SCS Runoff	-----	-----	0.001	-----	-----	0.017	0.074	-----	0.345	P-2
5	SCS Runoff	-----	-----	0.324	-----	-----	0.511	0.665	-----	0.974	P-3
6	Reservoir	5	-----	0.000	-----	-----	0.000	0.000	-----	0.000	Roof Sys Performance
7	Combine	4, 6	-----	0.001	-----	-----	0.017	0.074	-----	0.345	Combined Flow to SP-B

Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.2

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description	
1	SCS Runoff	0.053	1	725	184	---	----	----	E-1	
2	SCS Runoff	0.001	1	1324	13	---	----	----	E-2	
3	SCS Runoff	0.005	1	744	62	---	----	----	P-1	
4	SCS Runoff	0.001	1	1324	12	---	----	----	P-2	
5	SCS Runoff	0.324	1	724	1,035	---	----	----	P-3	
6	Reservoir	0.000	1	700	0	5	91.31	158	Roof Sys Performance	
7	Combine	0.001	1	1324	12	4, 6	----	----	Combined Flow to SP-B	
15 Tufts hydro.gpw					Return Period: 2 Year			Wednesday, Jun 1, 2022		

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

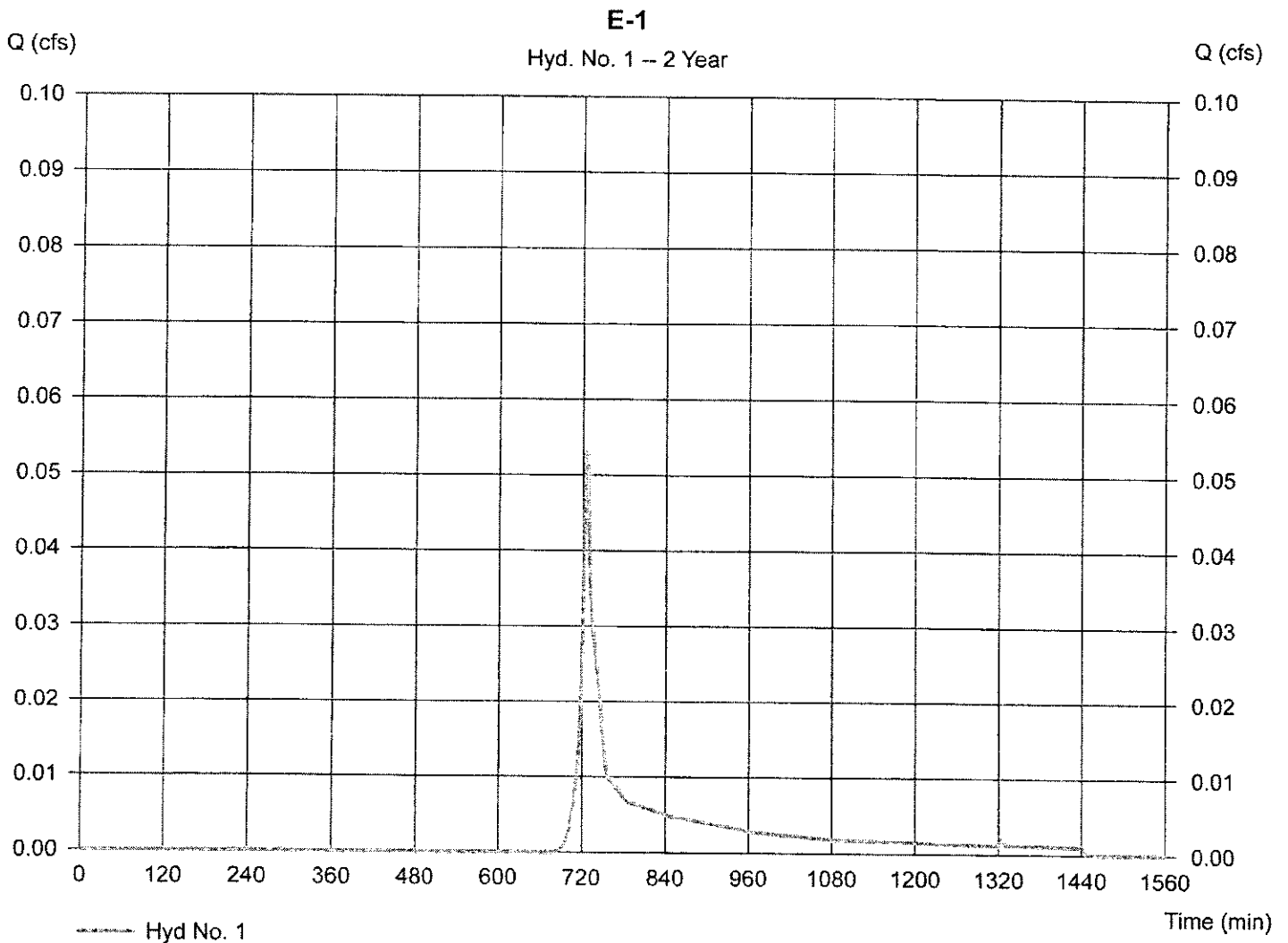
Wednesday, Jun 1, 2022

Hyd. No. 1

E-1

Hydrograph type = SCS Runoff
Storm frequency = 2 yrs
Time interval = 1 min
Drainage area = 0.060 ac
Basin Slope = 0.0 %
Tc method = USER
Total precip. = 3.27 in
Storm duration = 24 hrs

Peak discharge = 0.053 cfs
Time to peak = 725 min
Hyd. volume = 184 cuft
Curve number = 69
Hydraulic length = 0 ft
Time of conc. (Tc) = 6.00 min
Distribution = Type III
Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

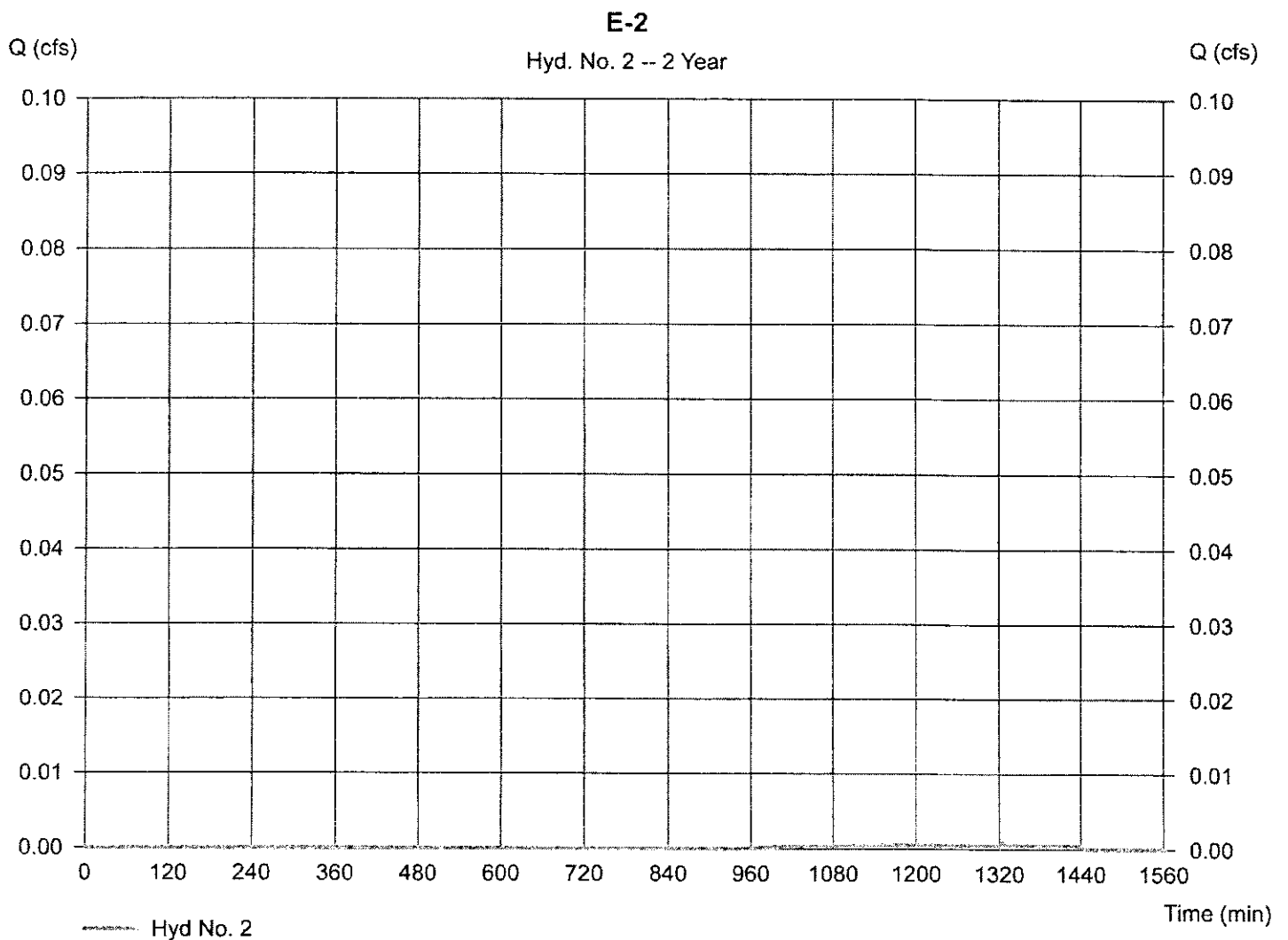
Wednesday, Jun 1, 2022

Hyd. No. 2

E-2

Hydrograph type = SCS Runoff
Storm frequency = 2 yrs
Time interval = 1 min
Drainage area = 0.330 ac
Basin Slope = 0.0 %
Tc method = USER
Total precip. = 3.27 in
Storm duration = 24 hrs

Peak discharge = 0.001 cfs
Time to peak = 1324 min
Hyd. volume = 13 cuft
Curve number = 41
Hydraulic length = 0 ft
Time of conc. (Tc) = 6.00 min
Distribution = Type III
Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

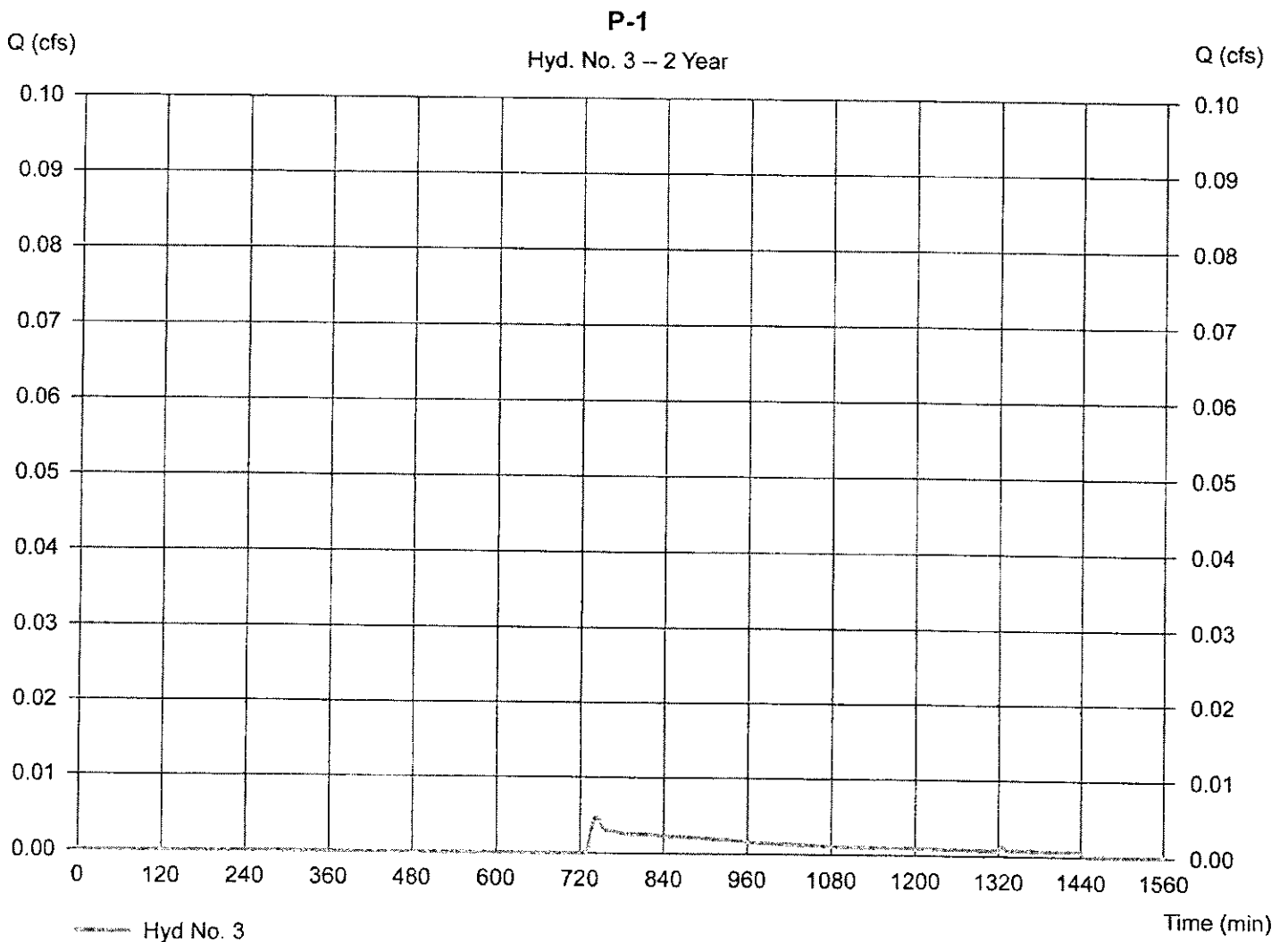
Wednesday, Jun 1, 2022

Hyd. No. 3

P-1

Hydrograph type = SCS Runoff
Storm frequency = 2 yrs
Time interval = 1 min
Drainage area = 0.100 ac
Basin Slope = 0.0 %
Tc method = USER
Total precip. = 3.27 in
Storm duration = 24 hrs

Peak discharge = 0.005 cfs
Time to peak = 744 min
Hyd. volume = 62 cuft
Curve number = 51
Hydraulic length = 0 ft
Time of conc. (Tc) = 6.00 min
Distribution = Type III
Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

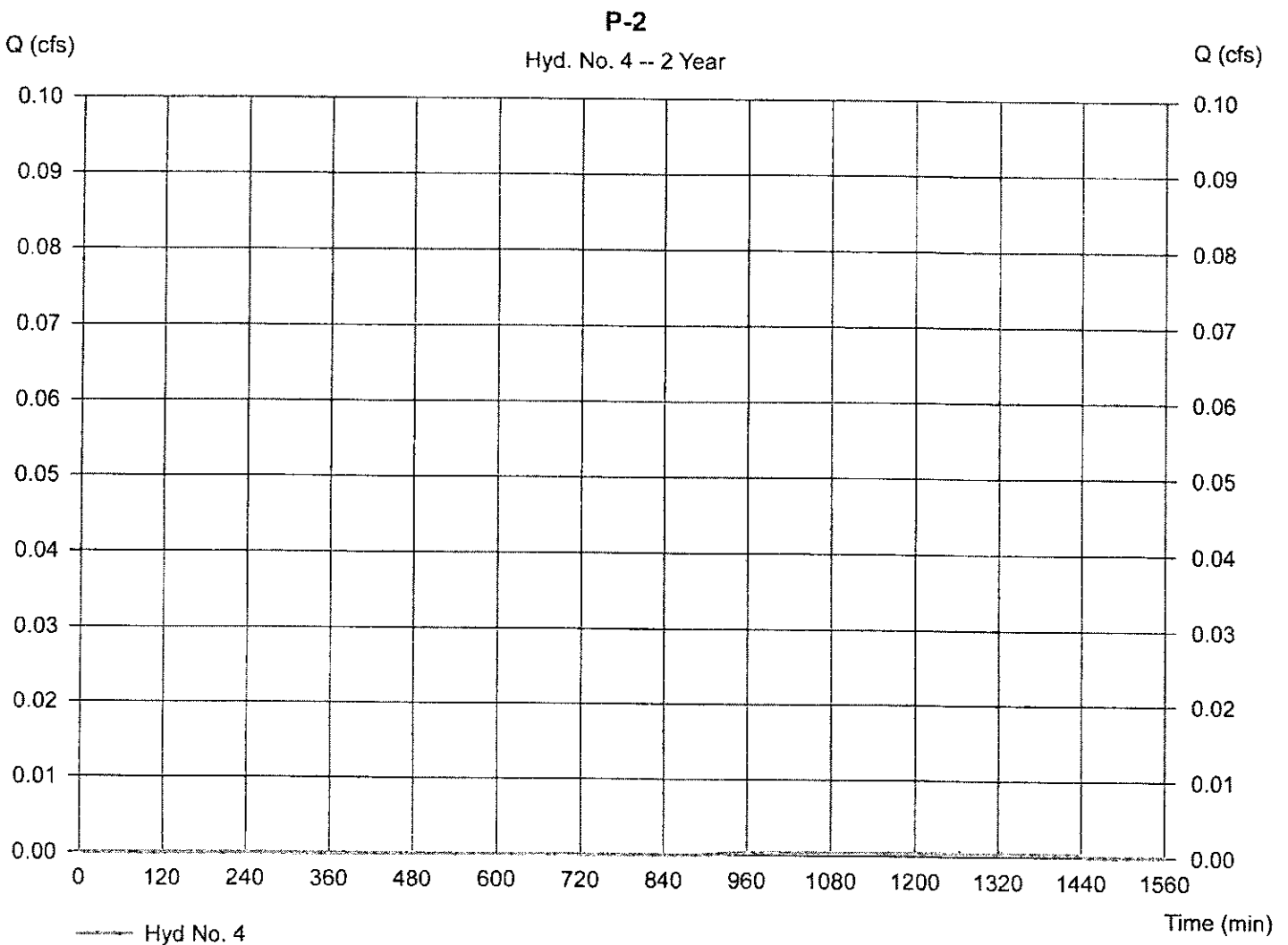
Wednesday, Jun 1, 2022

Hyd. No. 4

P-2

Hydrograph type = SCS Runoff
Storm frequency = 2 yrs
Time interval = 1 min
Drainage area = 0.180 ac
Basin Slope = 0.0 %
Tc method = USER
Total precip. = 3.27 in
Storm duration = 24 hrs

Peak discharge = 0.001 cfs
Time to peak = 1324 min
Hyd. volume = 12 cuft
Curve number = 42
Hydraulic length = 0 ft
Time of conc. (Tc) = 6.00 min
Distribution = Type III
Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

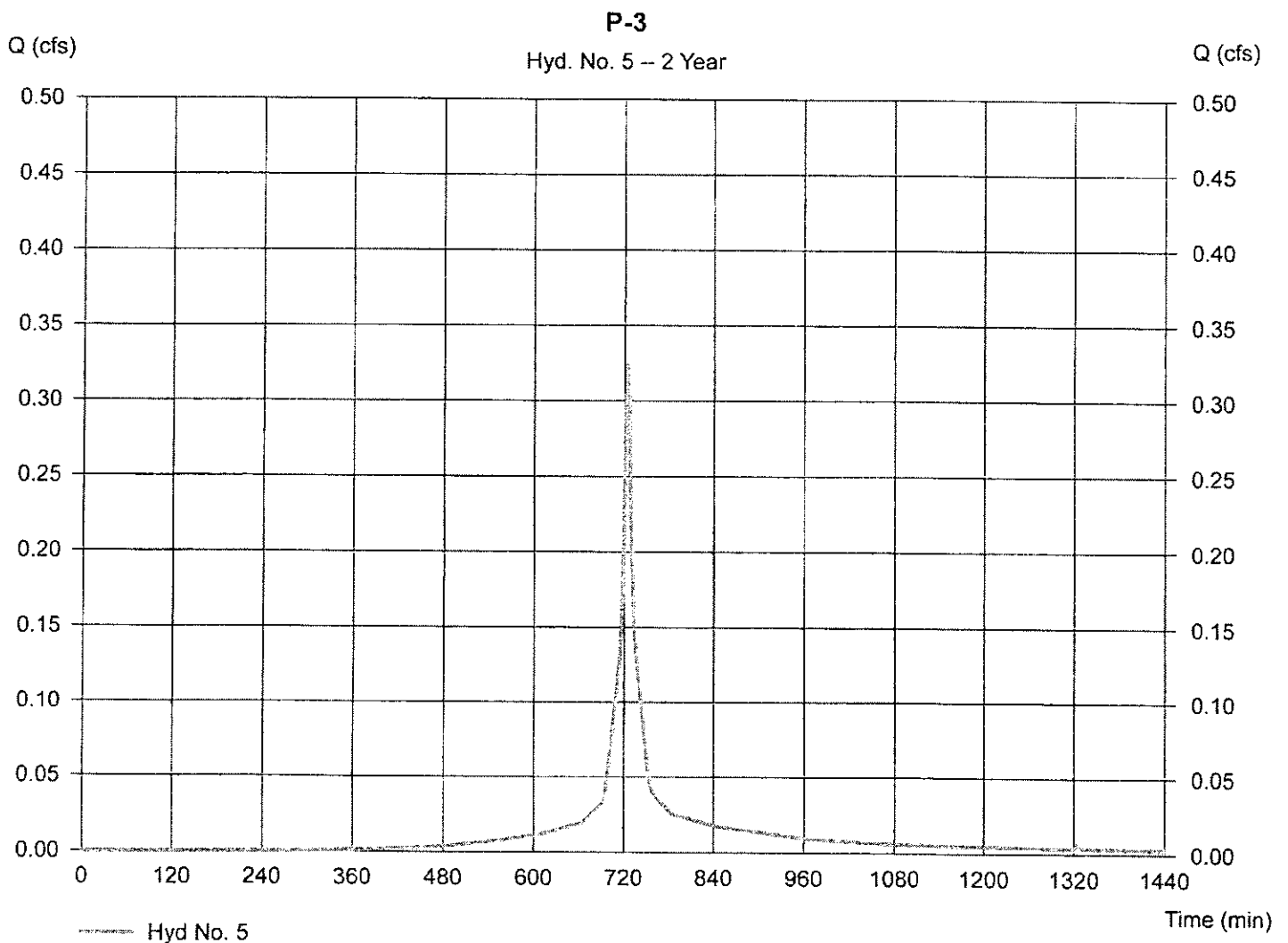
Wednesday, Jun 1, 2022

Hyd. No. 5

P-3

Hydrograph type = SCS Runoff
Storm frequency = 2 yrs
Time interval = 1 min
Drainage area = 0.110 ac
Basin Slope = 0.0 %
Tc method = USER
Total precip. = 3.27 in
Storm duration = 24 hrs

Peak discharge = 0.324 cfs
Time to peak = 724 min
Hyd. volume = 1,035 cuft
Curve number = 93
Hydraulic length = 0 ft
Time of conc. (Tc) = 6.00 min
Distribution = Type III
Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

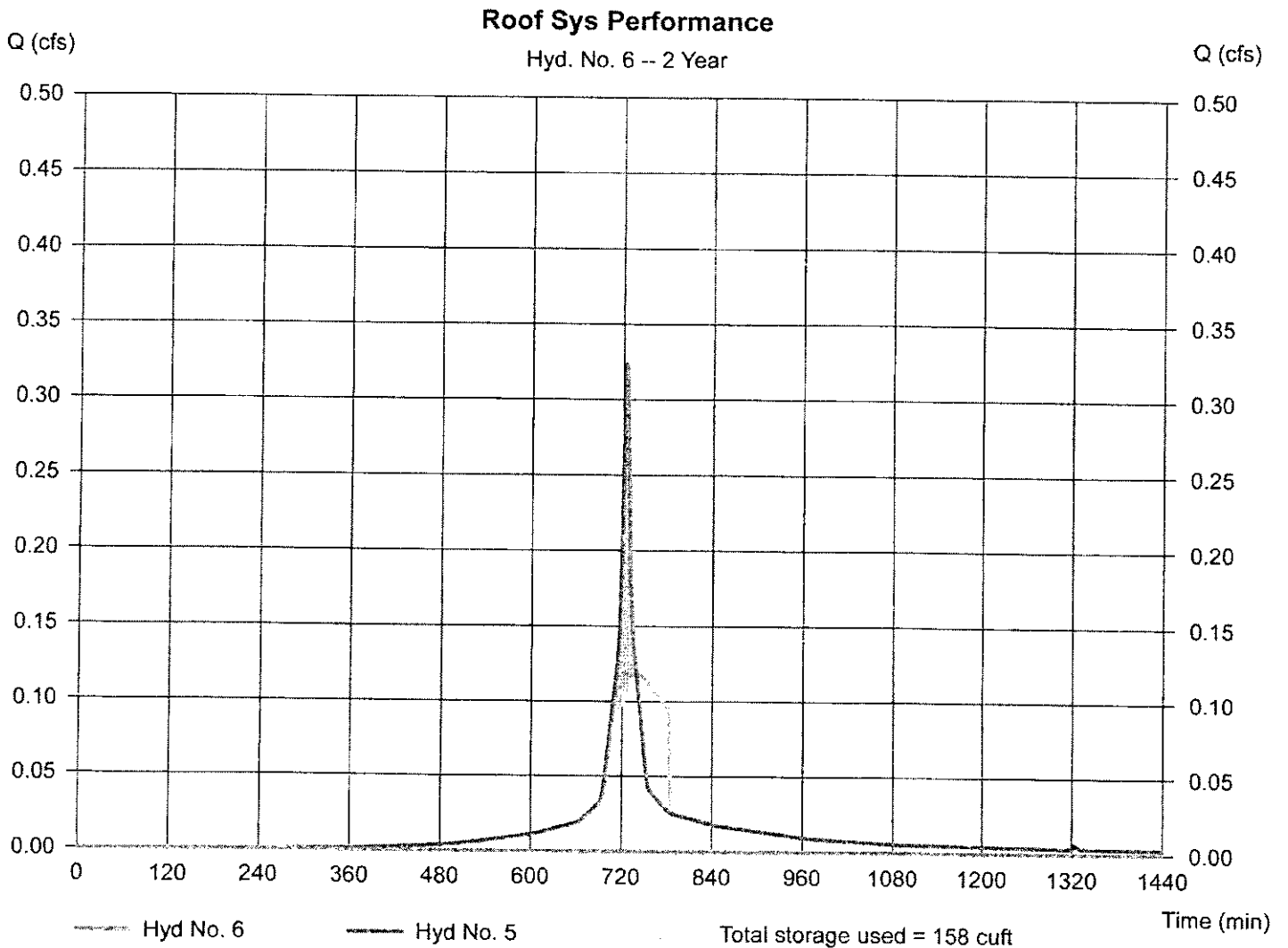
Wednesday, Jun 1, 2022

Hyd. No. 6

Roof Sys Performance

Hydrograph type	= Reservoir	Peak discharge	= 0.000 cfs
Storm frequency	= 2 yrs	Time to peak	= 700 min
Time interval	= 1 min	Hyd. volume	= 0 cuft
Inflow hyd. No.	= 5 - P-3	Max. Elevation	= 91.31 ft
Reservoir name	= Infiltration System	Max. Storage	= 158 cuft

Storage Indication method used. Exfiltration extracted from Outflow.



Pond Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Jun 1, 2022

Pond No. 2 - Infiltration System

Pond Data

UG Chambers - Invert elev. = 91.50 ft, Rise x Span = 2.50 x 4.33 ft, Barrel Len = 38.00 ft, No. Barrels = 2, Slope = 0.00%, Headers = No
 Encasement - Invert elev. = 90.50 ft, Width = 6.33 ft, Height = 4.00 ft, Voids = 40.00%

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	90.50	n/a	0	0
0.40	90.90	n/a	77	77
0.80	91.30	n/a	77	154
1.20	91.70	n/a	116	270
1.60	92.10	n/a	155	425
2.00	92.50	n/a	152	577
2.40	92.90	n/a	146	723
2.80	93.30	n/a	137	861
3.20	93.70	n/a	124	985
3.60	94.10	n/a	96	1,081
4.00	94.50	n/a	77	1,158

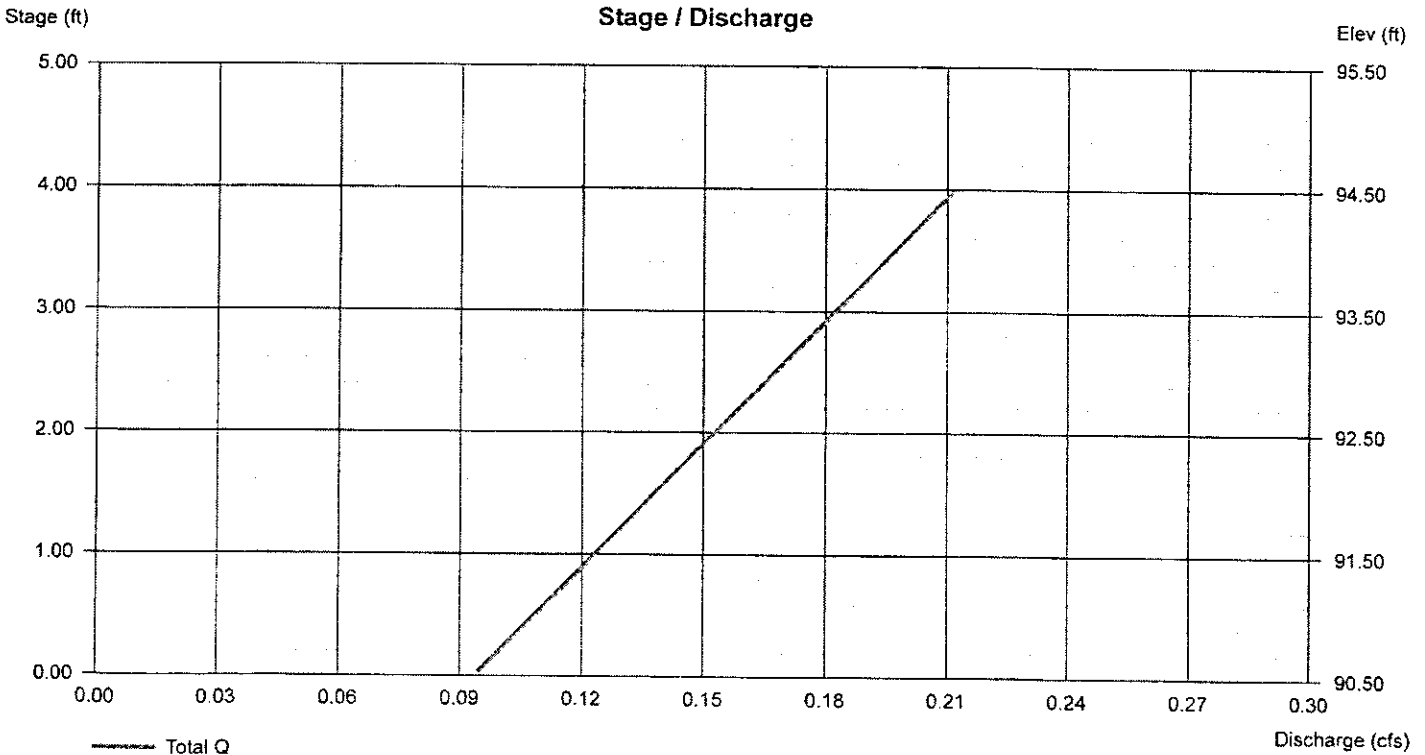
Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 0.00	0.00	0.00	0.00
Span (in)	= 0.00	0.00	0.00	0.00
No. Barrels	= 0	0	0	0
Invert El. (ft)	= 0.00	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	Inactive	0.00	0.00	0.00
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 2.60	3.33	3.33	3.33
Weir Type	= Broad	---	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 8.410 (by Wet area)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

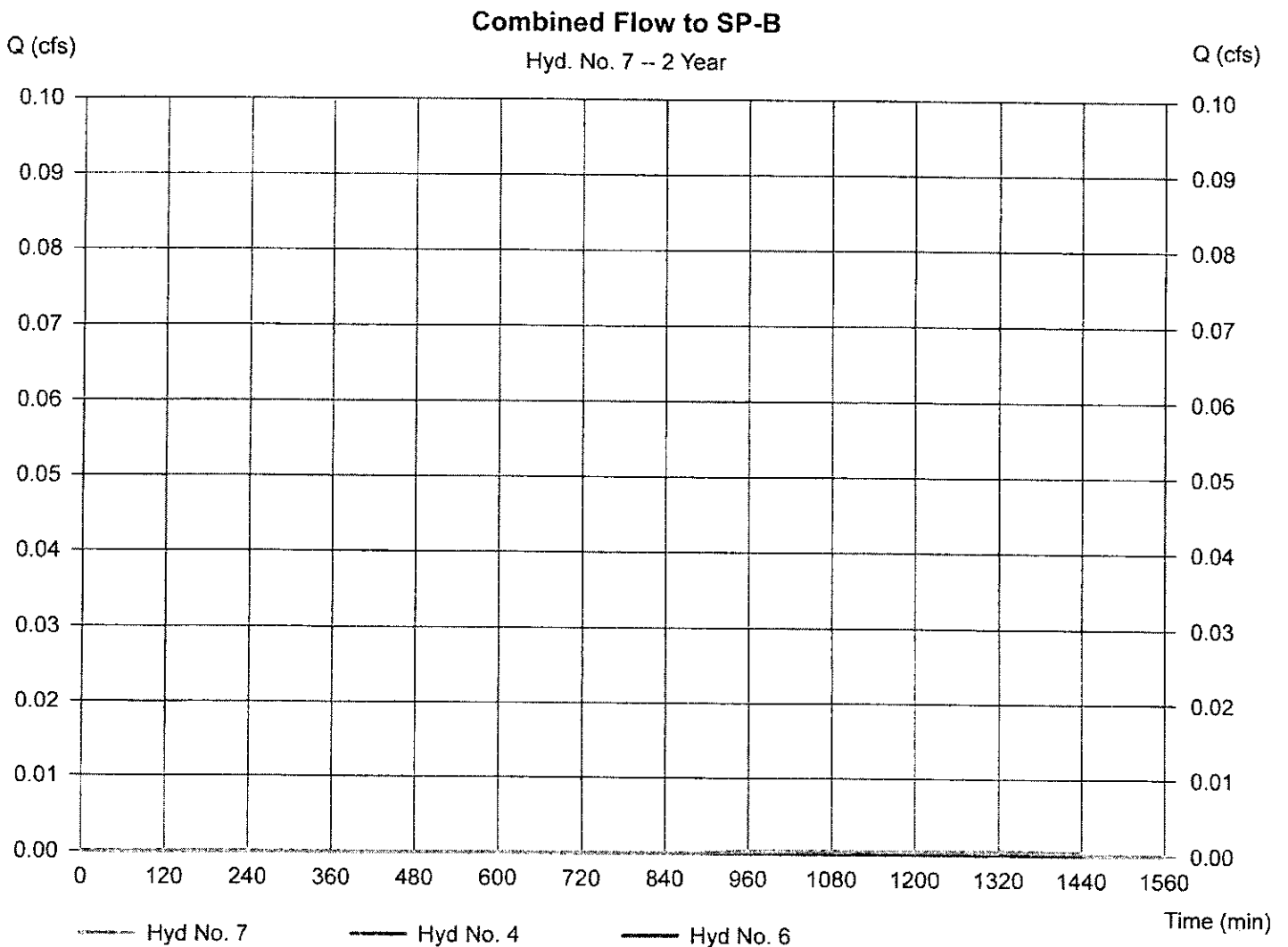
Wednesday, Jun 1, 2022

Hyd. No. 7

Combined Flow to SP-B

Hydrograph type = Combine
Storm frequency = 2 yrs
Time interval = 1 min
Inflow hyds. = 4, 6

Peak discharge = 0.001 cfs
Time to peak = 1324 min
Hyd. volume = 12 cuft
Contrib. drain. area = 0.180 ac



Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.2

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description	
1	SCS Runoff	0.133	1	725	419	---	-----	-----	E-1	
2	SCS Runoff	0.022	1	745	299	---	-----	-----	E-2	
3	SCS Runoff	0.055	1	727	259	---	-----	-----	P-1	
4	SCS Runoff	0.017	1	743	188	---	-----	-----	P-2	
5	SCS Runoff	0.511	1	724	1,676	---	-----	-----	P-3	
6	Reservoir	0.000	1	699	0	5	91.94	362	Roof Sys Performance	
7	Combine	0.017	1	743	188	4, 6	-----	-----	Combined Flow to SP-B	
15 Tufts hydro.gpw					Return Period: 10 Year			Wednesday, Jun 1, 2022		

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

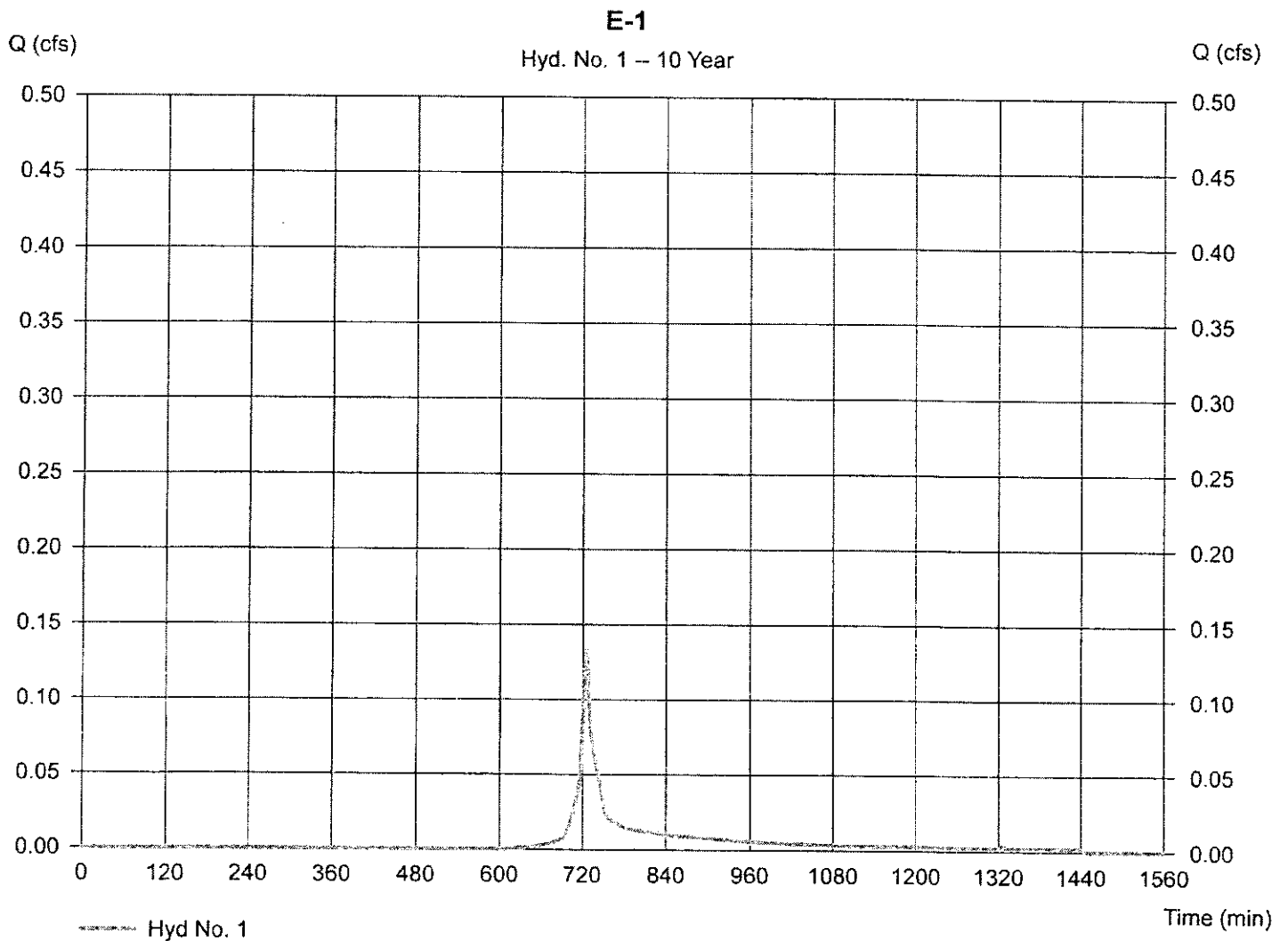
Wednesday, Jun 1, 2022

Hyd. No. 1

E-1

Hydrograph type = SCS Runoff
Storm frequency = 10 yrs
Time interval = 1 min
Drainage area = 0.060 ac
Basin Slope = 0.0 %
Tc method = USER
Total precip. = 4.87 in
Storm duration = 24 hrs

Peak discharge = 0.133 cfs
Time to peak = 725 min
Hyd. volume = 419 cuft
Curve number = 69
Hydraulic length = 0 ft
Time of conc. (Tc) = 6.00 min
Distribution = Type III
Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.2

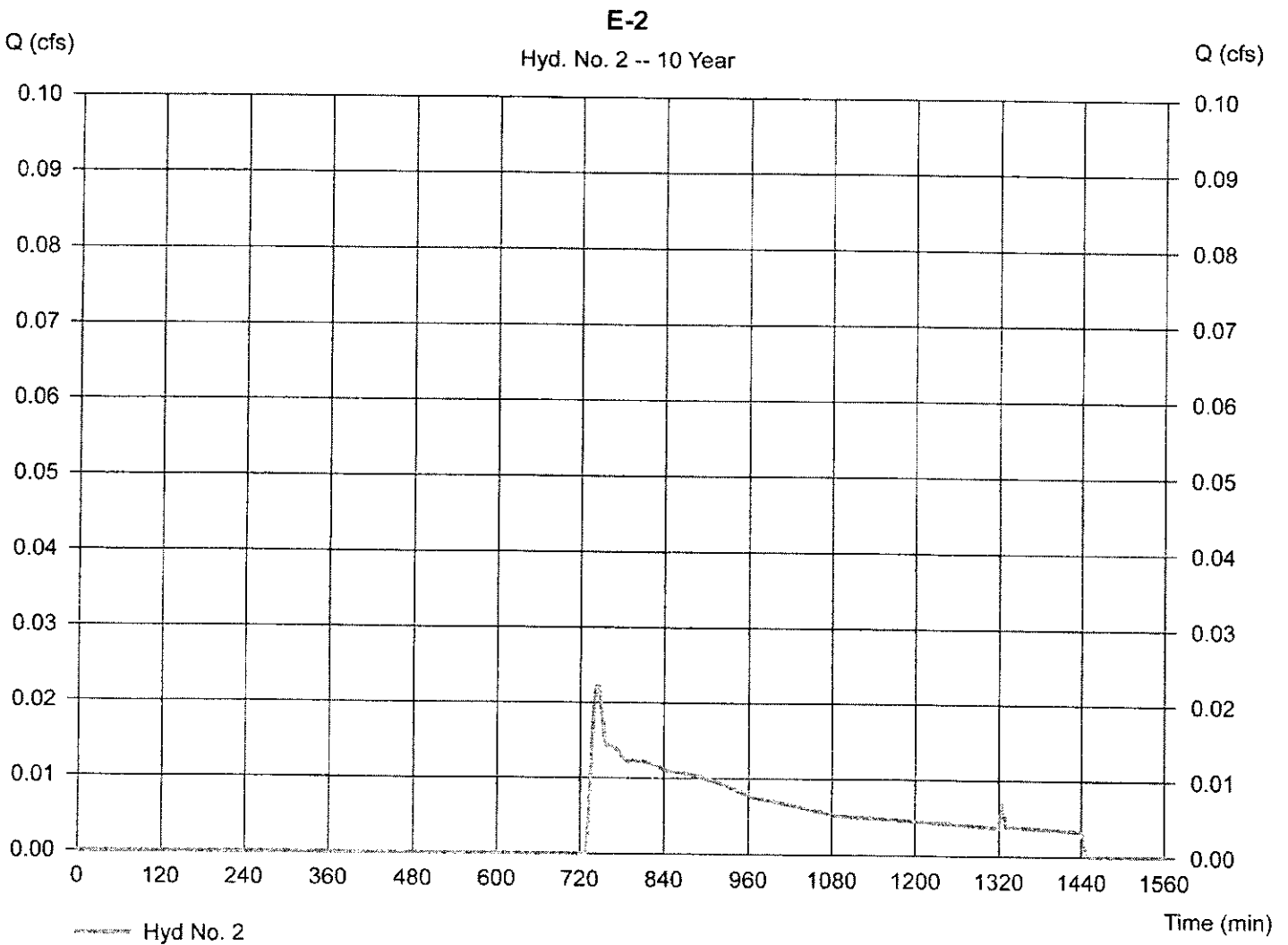
Wednesday, Jun 1, 2022

Hyd. No. 2

E-2

Hydrograph type = SCS Runoff
Storm frequency = 10 yrs
Time interval = 1 min
Drainage area = 0.330 ac
Basin Slope = 0.0 %
Tc method = USER
Total precip. = 4.87 in
Storm duration = 24 hrs

Peak discharge = 0.022 cfs
Time to peak = 745 min
Hyd. volume = 299 cuft
Curve number = 41
Hydraulic length = 0 ft
Time of conc. (Tc) = 6.00 min
Distribution = Type III
Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

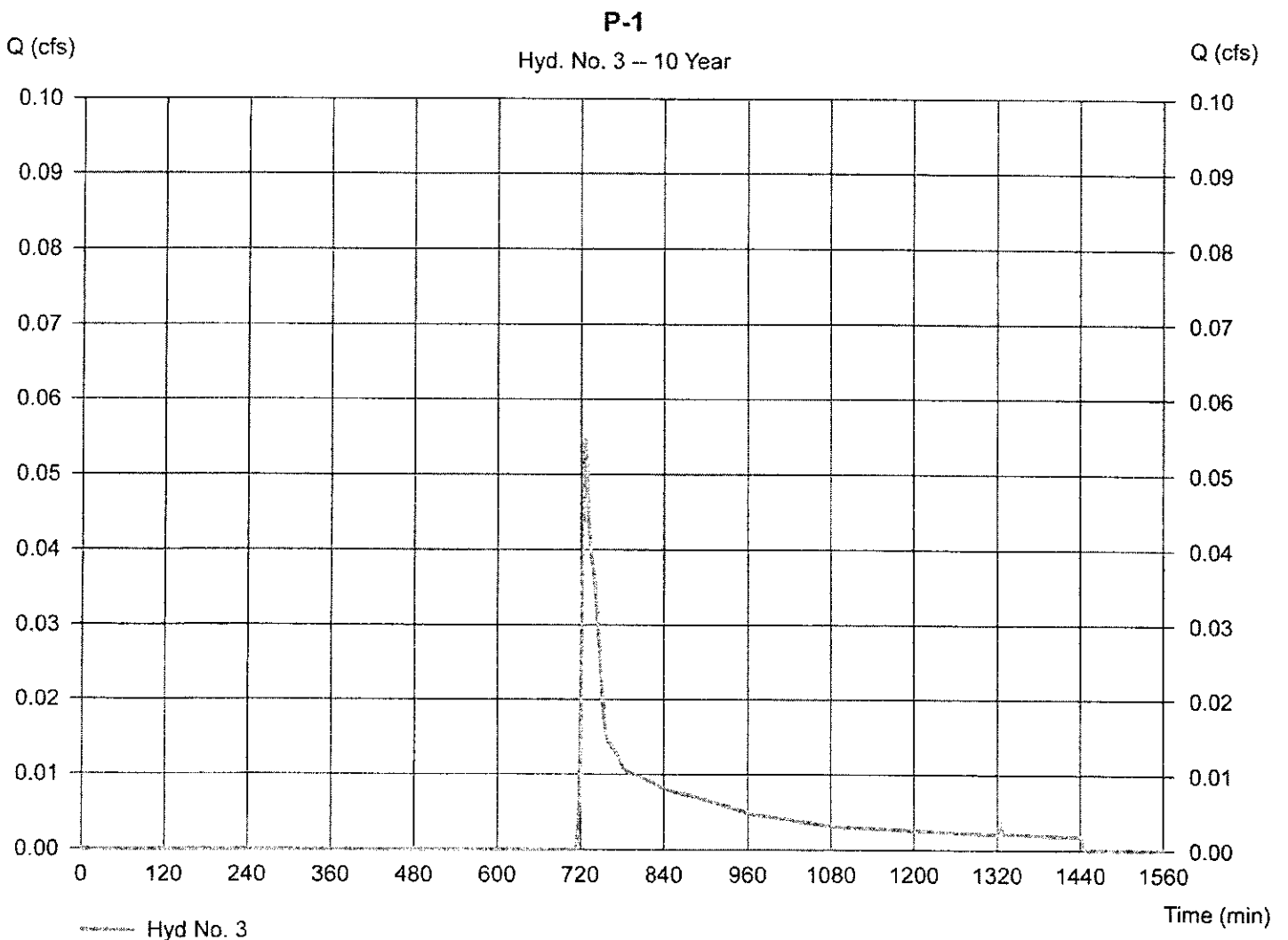
Wednesday, Jun 1, 2022

Hyd. No. 3

P-1

Hydrograph type = SCS Runoff
Storm frequency = 10 yrs
Time interval = 1 min
Drainage area = 0.100 ac
Basin Slope = 0.0 %
Tc method = USER
Total precip. = 4.87 in
Storm duration = 24 hrs

Peak discharge = 0.055 cfs
Time to peak = 727 min
Hyd. volume = 259 cuft
Curve number = 51
Hydraulic length = 0 ft
Time of conc. (Tc) = 6.00 min
Distribution = Type III
Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

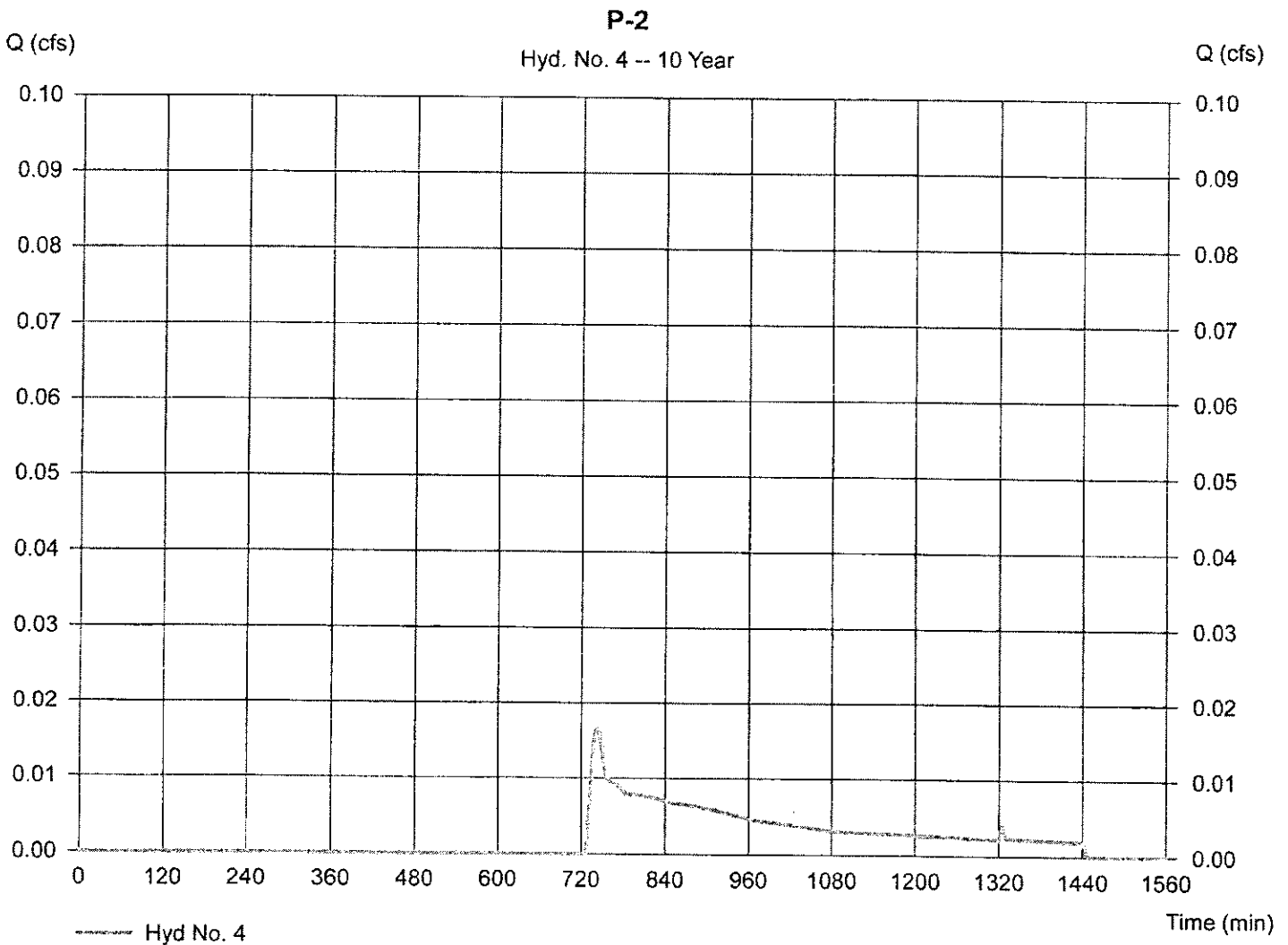
Wednesday, Jun 1, 2022

Hyd. No. 4

P-2

Hydrograph type = SCS Runoff
Storm frequency = 10 yrs
Time interval = 1 min
Drainage area = 0.180 ac
Basin Slope = 0.0 %
Tc method = USER
Total precip. = 4.87 in
Storm duration = 24 hrs

Peak discharge = 0.017 cfs
Time to peak = 743 min
Hyd. volume = 188 cuft
Curve number = 42
Hydraulic length = 0 ft
Time of conc. (Tc) = 6.00 min
Distribution = Type III
Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

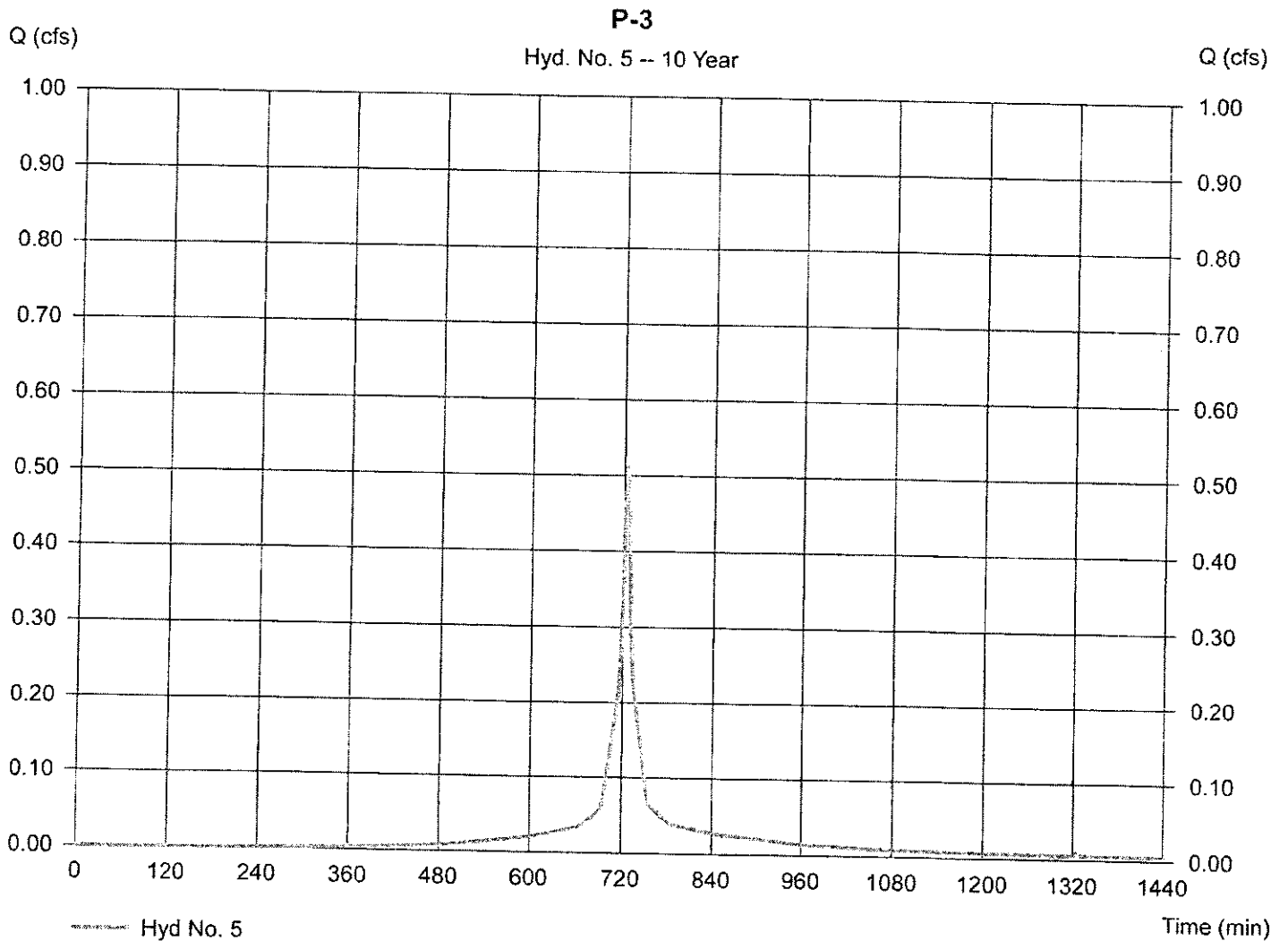
Wednesday, Jun 1, 2022

Hyd. No. 5

P-3

Hydrograph type = SCS Runoff
Storm frequency = 10 yrs
Time interval = 1 min
Drainage area = 0.110 ac
Basin Slope = 0.0 %
Tc method = USER
Total precip. = 4.87 in
Storm duration = 24 hrs

Peak discharge = 0.511 cfs
Time to peak = 724 min
Hyd. volume = 1,676 cuft
Curve number = 93
Hydraulic length = 0 ft
Time of conc. (Tc) = 6.00 min
Distribution = Type III
Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

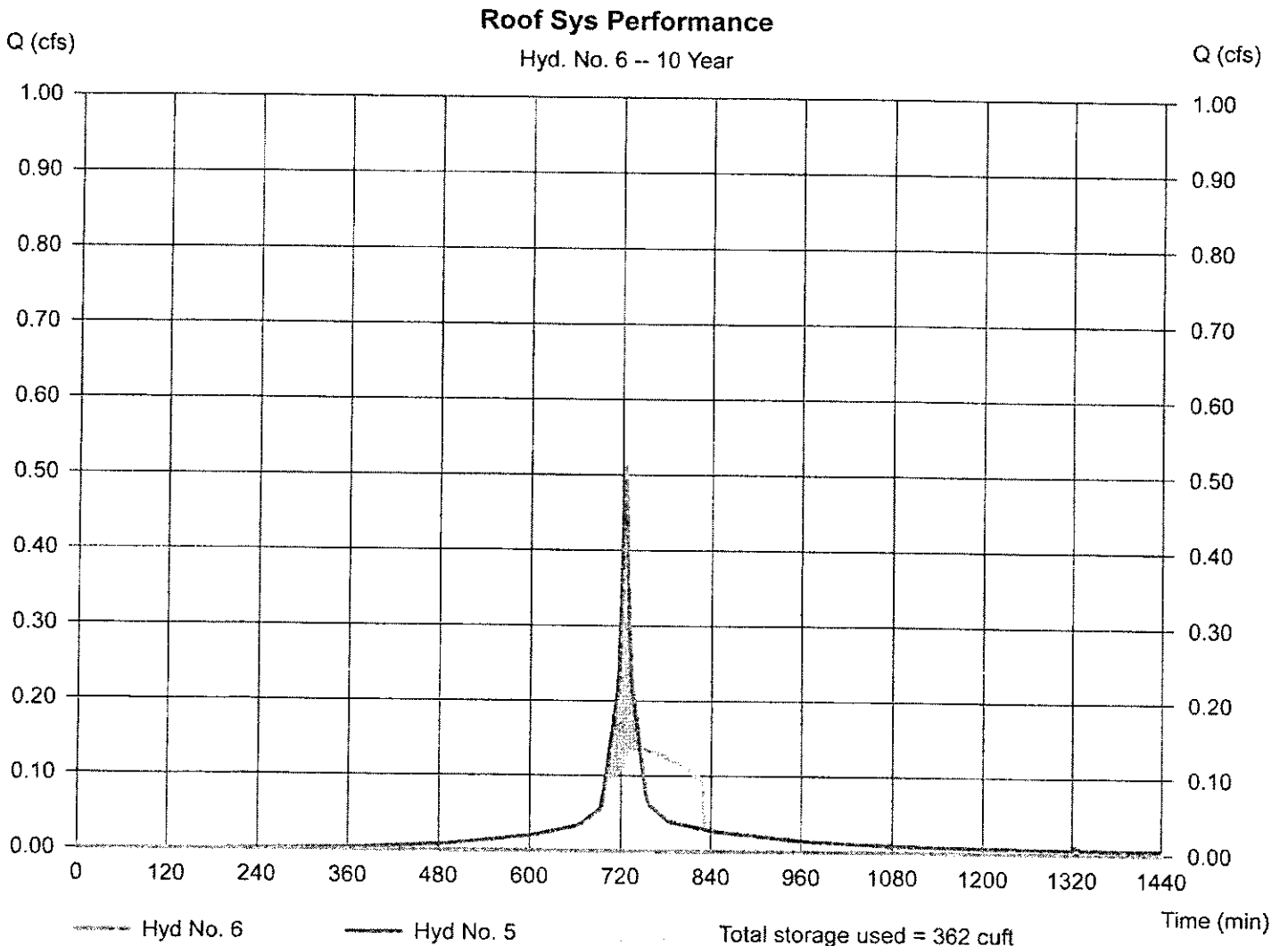
Wednesday, Jun 1, 2022

Hyd. No. 6

Roof Sys Performance

Hydrograph type	= Reservoir	Peak discharge	= 0.000 cfs
Storm frequency	= 10 yrs	Time to peak	= 699 min
Time interval	= 1 min	Hyd. volume	= 0 cuft
Inflow hyd. No.	= 5 - P-3	Max. Elevation	= 91.94 ft
Reservoir name	= Infiltration System	Max. Storage	= 362 cuft

Storage Indication method used. Exfiltration extracted from Outflow.



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

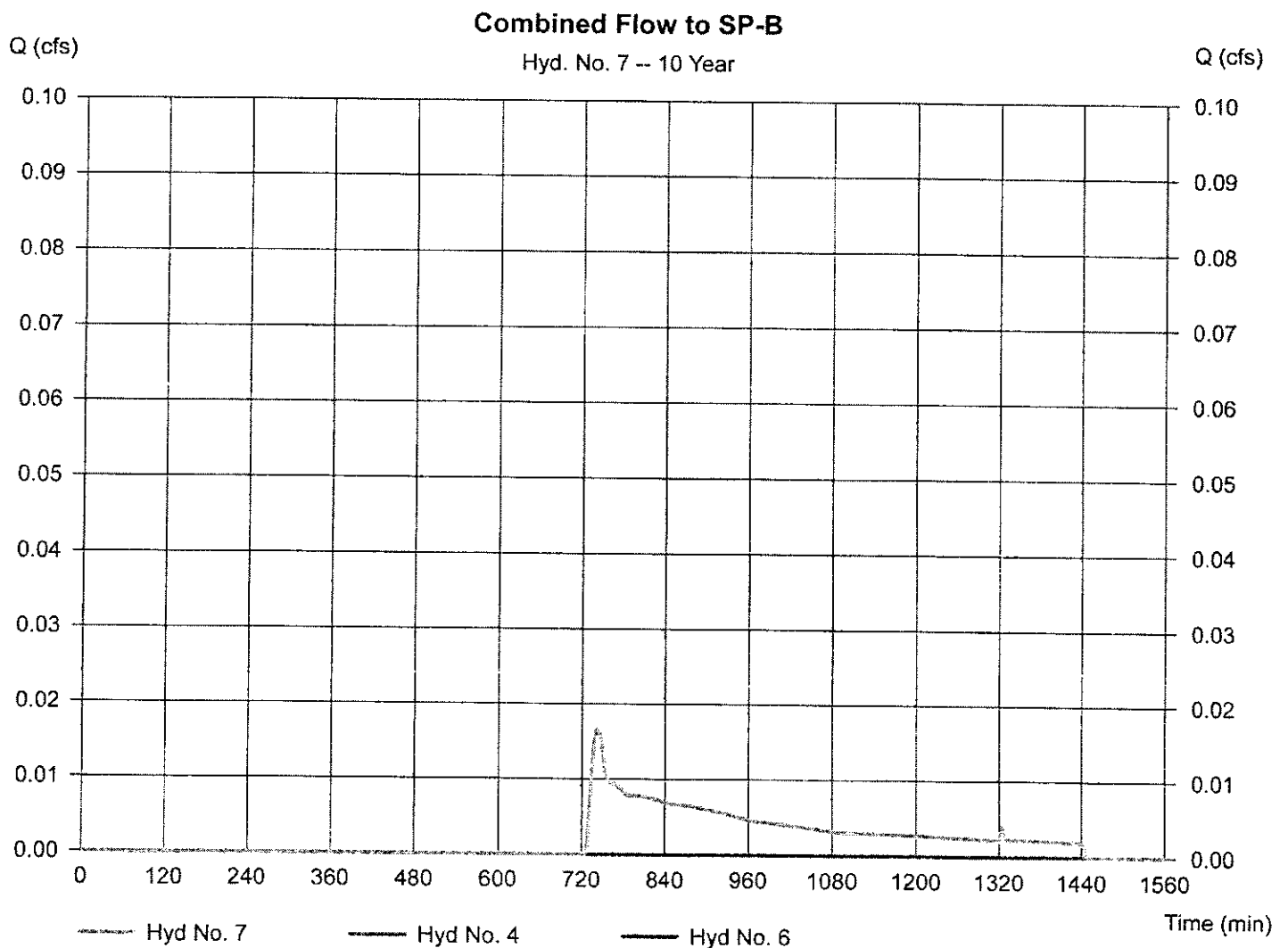
Wednesday, Jun 1, 2022

Hyd. No. 7

Combined Flow to SP-B

Hydrograph type = Combine
Storm frequency = 10 yrs
Time interval = 1 min
Inflow hyds. = 4, 6

Peak discharge = 0.017 cfs
Time to peak = 743 min
Hyd. volume = 188 cuft
Contrib. drain. area = 0.180 ac



Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.2

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description	
1	SCS Runoff	0.208	1	725	645	---	----	-----	E-1	
2	SCS Runoff	0.109	1	729	770	---	----	-----	E-2	
3	SCS Runoff	0.134	1	726	493	---	----	-----	P-1	
4	SCS Runoff	0.074	1	728	462	---	----	-----	P-2	
5	SCS Runoff	0.665	1	724	2,215	---	----	-----	P-3	
6	Reservoir	0.000	1	640	0	5	92.42	548	Roof Sys Performance	
7	Combine	0.074	1	728	462	4, 6	----	-----	Combined Flow to SP-B	
15 Tufts hydro.gpw					Return Period: 25 Year			Wednesday, Jun 1, 2022		

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Jun 1, 2022

Hyd. No. 1

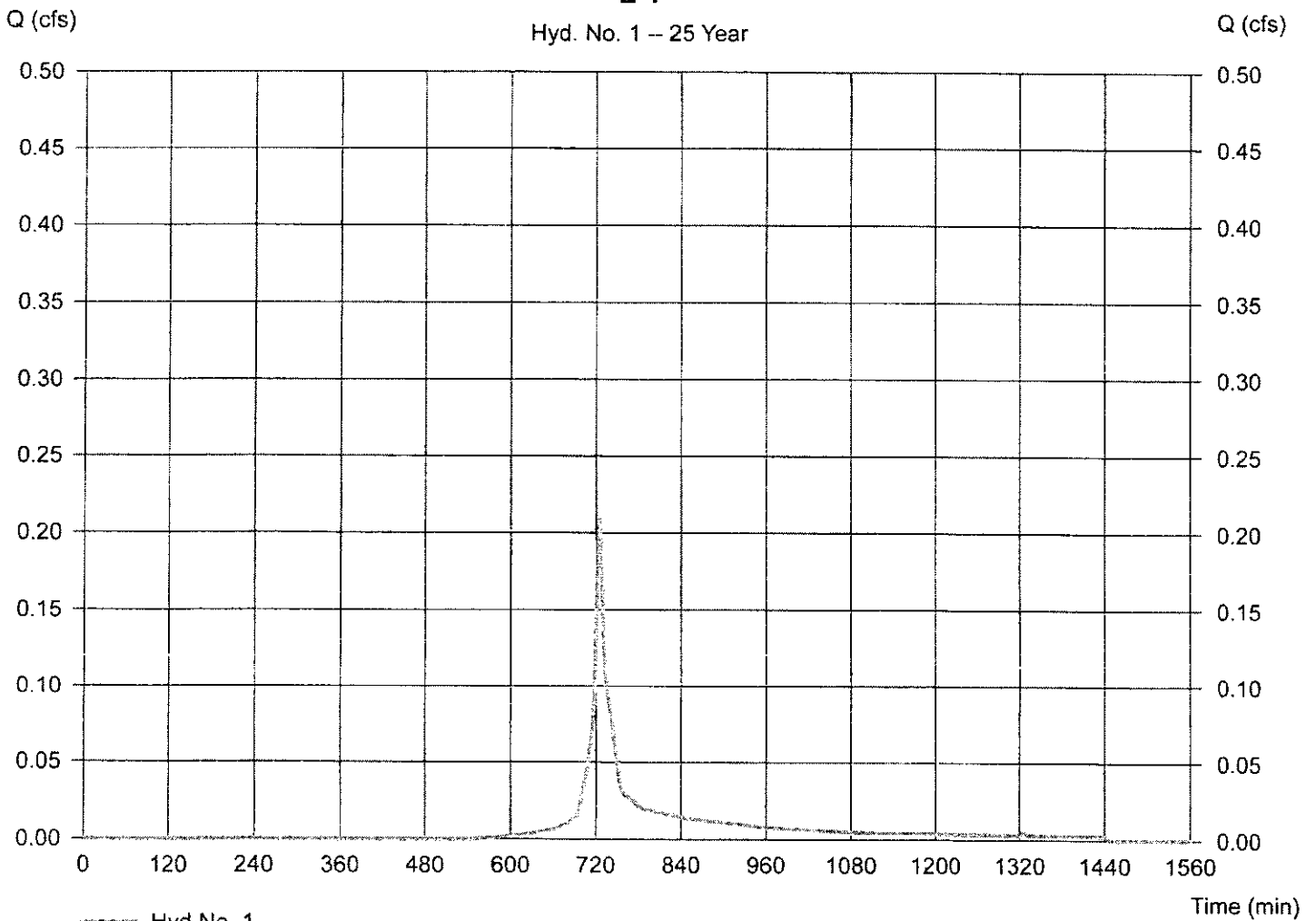
E-1

Hydrograph type = SCS Runoff
Storm frequency = 25 yrs
Time interval = 1 min
Drainage area = 0.060 ac
Basin Slope = 0.0 %
Tc method = USER
Total precip. = 6.20 in
Storm duration = 24 hrs

Peak discharge = 0.208 cfs
Time to peak = 725 min
Hyd. volume = 645 cuft
Curve number = 69
Hydraulic length = 0 ft
Time of conc. (Tc) = 6.00 min
Distribution = Type III
Shape factor = 484

E-1

Hyd. No. 1 -- 25 Year



Hyd No. 1

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

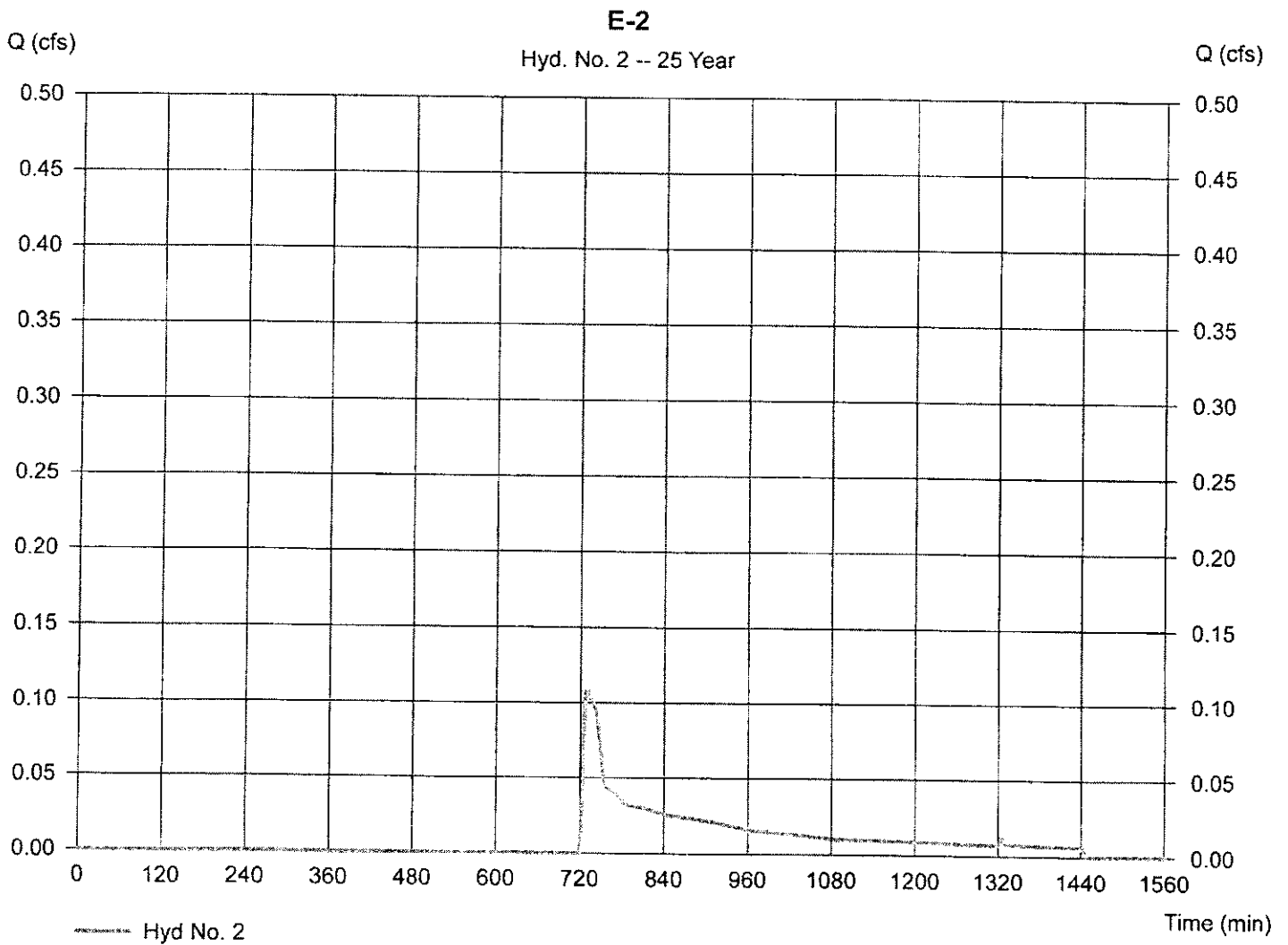
Wednesday, Jun 1, 2022

Hyd. No. 2

E-2

Hydrograph type = SCS Runoff
Storm frequency = 25 yrs
Time interval = 1 min
Drainage area = 0.330 ac
Basin Slope = 0.0 %
Tc method = USER
Total precip. = 6.20 in
Storm duration = 24 hrs

Peak discharge = 0.109 cfs
Time to peak = 729 min
Hyd. volume = 770 cuft
Curve number = 41
Hydraulic length = 0 ft
Time of conc. (Tc) = 6.00 min
Distribution = Type III
Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

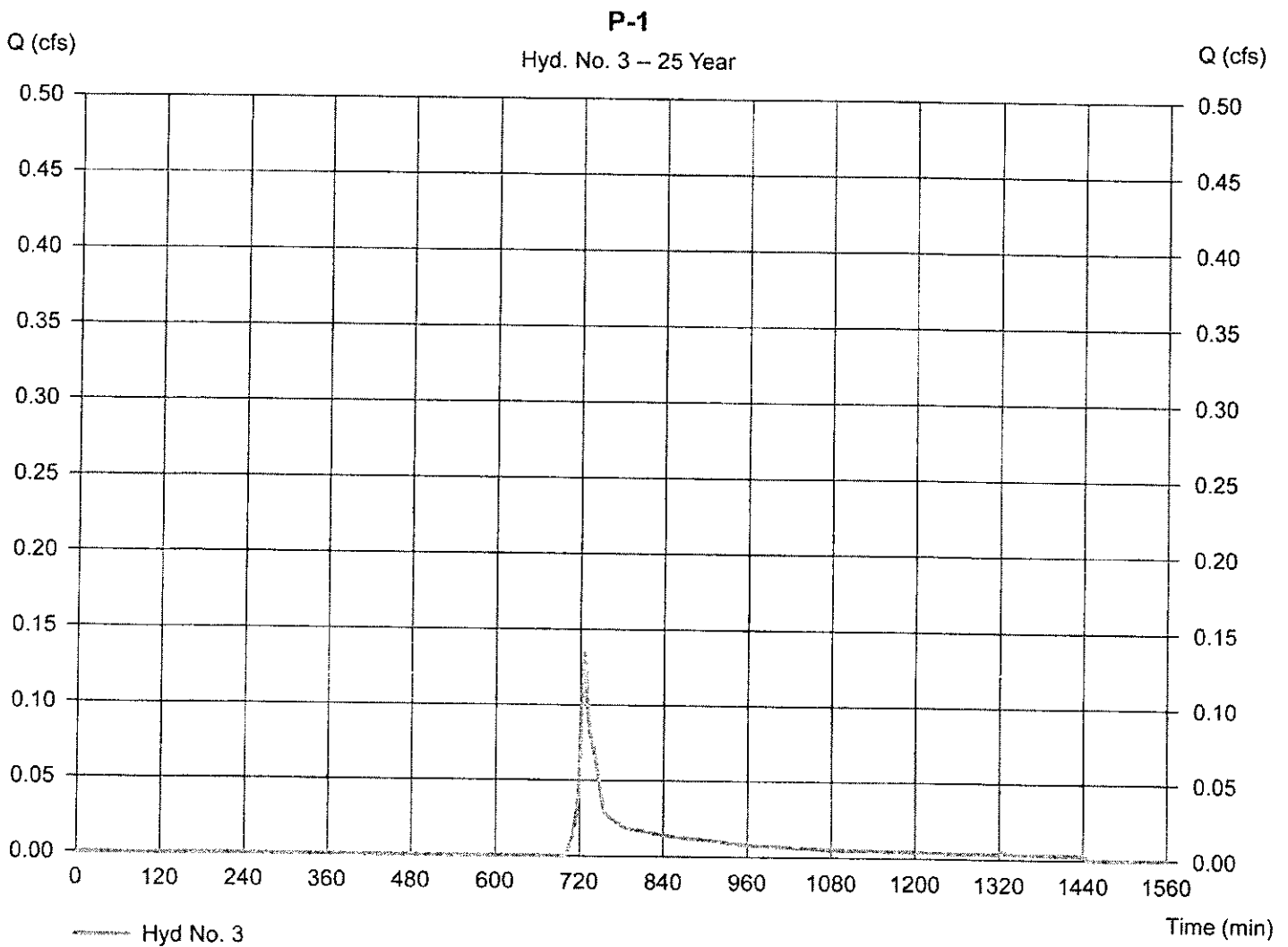
Wednesday, Jun 1, 2022

Hyd. No. 3

P-1

Hydrograph type = SCS Runoff
Storm frequency = 25 yrs
Time interval = 1 min
Drainage area = 0.100 ac
Basin Slope = 0.0 %
Tc method = USER
Total precip. = 6.20 in
Storm duration = 24 hrs

Peak discharge = 0.134 cfs
Time to peak = 726 min
Hyd. volume = 493 cuft
Curve number = 51
Hydraulic length = 0 ft
Time of conc. (Tc) = 6.00 min
Distribution = Type III
Shape factor = 484



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.2

Wednesday, Jun 1, 2022

Hyd. No. 4

P-2

Hydrograph type = SCS Runoff
Storm frequency = 25 yrs
Time interval = 1 min
Drainage area = 0.180 ac
Basin Slope = 0.0 %
Tc method = USER
Total precip. = 6.20 in
Storm duration = 24 hrs

Peak discharge = 0.074 cfs
Time to peak = 728 min
Hyd. volume = 462 cuft
Curve number = 42
Hydraulic length = 0 ft
Time of conc. (Tc) = 6.00 min
Distribution = Type III
Shape factor = 484

