APPENDIX H

DISTFW NLFIT calibration plots for 1993 Ripped Plot data, and tables containing fitted parameters and their standard deviations

DISTFW NLFIT Calibrated Parameters for Ripped Plots

Ripped Plot 1

Parameter	Group A		Group B	
	mean	standard deviation	mean	standard deviation
C_r	1.3420	0.4648	0.9400	0.2109
e_m	1.1596	0.0896	1.1617	0.0647
S_ϕ	4.0704	1.0826	4.0704	0.0
ϕ	87.9357	4.8274	60.0316	3.2295

Ripped Plot 2

Parameter	Group A		Group B	
	mean	standard deviation	mean	standard deviation
C_r	4.2450	1.2017	36.0141	23.0659
e_m	1.5726	0.0856	2.0870	0.1758
S_ϕ	0.2385	4.2460	0.2385	0.0000
ϕ	0.0000	7.7916	23.6146	4.4660

Ripped Plot 3

Parameter	Group A		Group B	
	mean	standard deviation	mean	standard deviation
C_r	27.9480	132.687	2.1090	4.9196
e_m	2.4523	1.5673	1.6071	0.7857
S_ϕ	0.001	59.8234	0.001	0.000
ϕ	80.7289	37.8077	55.5382	30.2254

Ripped Plot 4

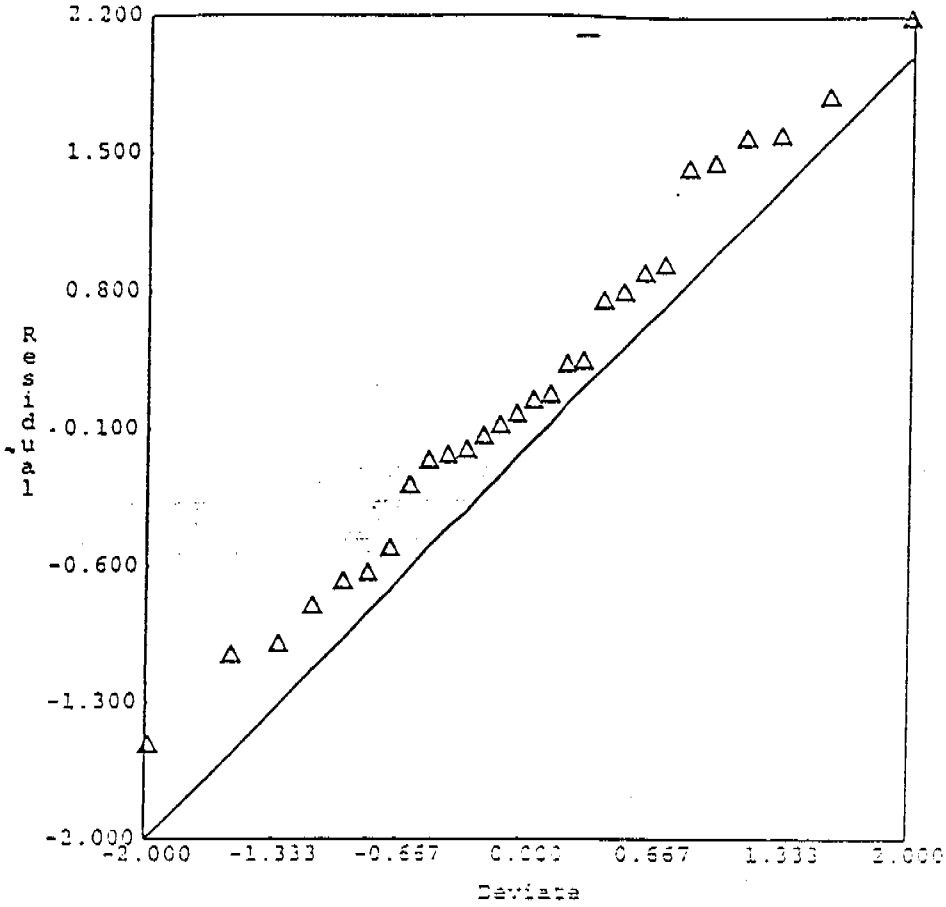
Parameter	Group A		Group B	
	mean	standard deviation	mean	standard deviation
C_r	2.0142	0.5359	1.4680	3.0204
e_m	1.4701	0.0828	1.4268	0.6751
S_ϕ	0.001	6.6990	0.001	0.0000
ϕ	26.5734	5.0890	5.1311	35.7443

Ripped Plot 5

Parameter	Group A		Group B	
	mean	standard deviation	mean	standard deviation
C_r	37.699	72.4690	4.9016	28.3485
e_m	2.4558	0.3542	1.73511	1.63461
S_ϕ	0.001	28.2019	0.001	0.0000
ϕ	212.15	69.8024	162.937	27.9301

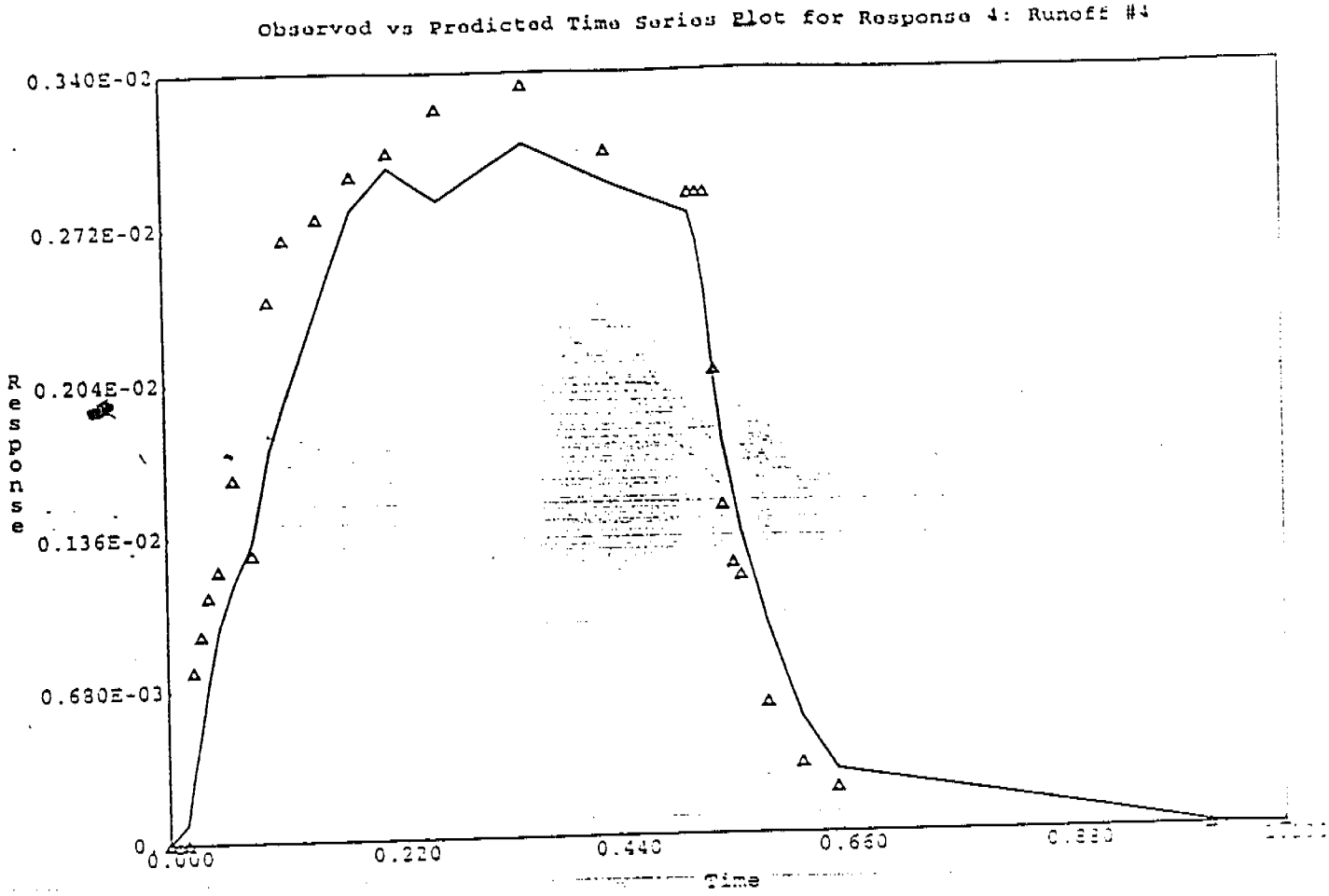
Ripped Plot 6

Parameter	Group A		Group B	
	mean	standard deviation	mean	standard deviation
C_r	0.1781	0.0602	36.1798	79.3934
e_m	0.8260	0.205	2.4111	0.7962
S_ϕ	0.0623	34.9242	0.0623	0.0000
ϕ	131.357	79.3871	62.2728	19.6887



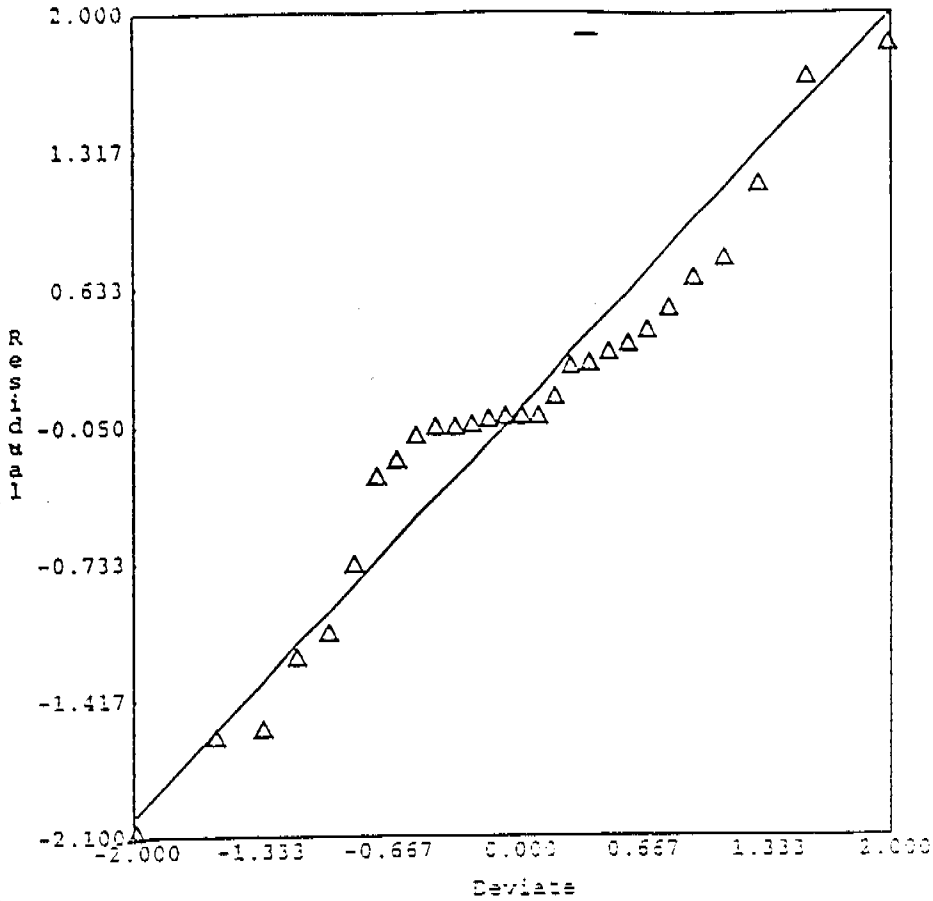
Kolmogorov-Smirnov statistic = 0.069 5% exceedance value = 0.164

RIP4 RUN7


Observed vs Predicted Time Series Plot for Response 4: Runoff #4
0.340E-02
0.272E-02
0.204E-02
0.136E-02
0.680E-03
0
Response
0.000
0.220
0.440
0.660
Time

RIP4 RUN7

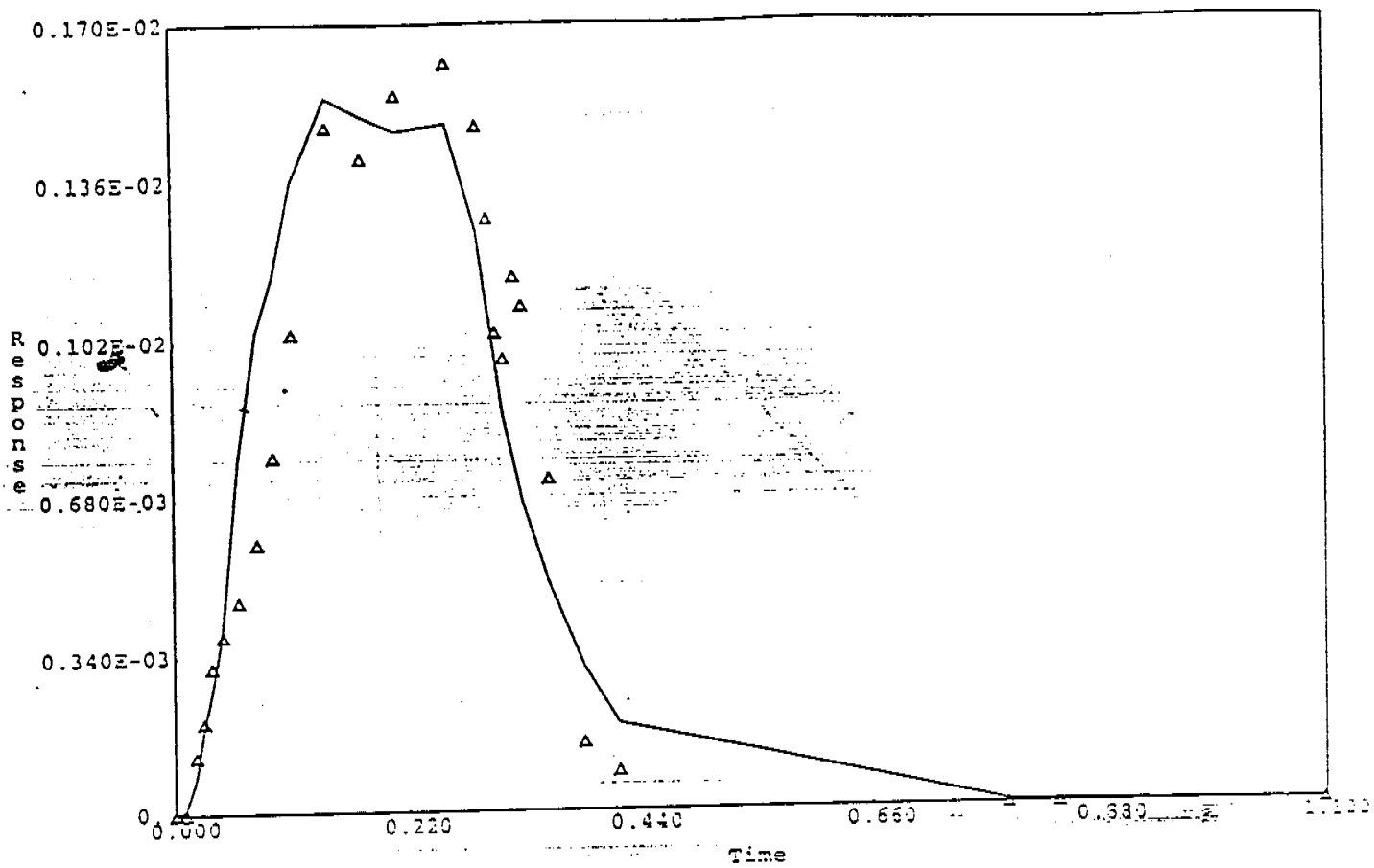
Normal Probability Plot of Response 3. Model #3



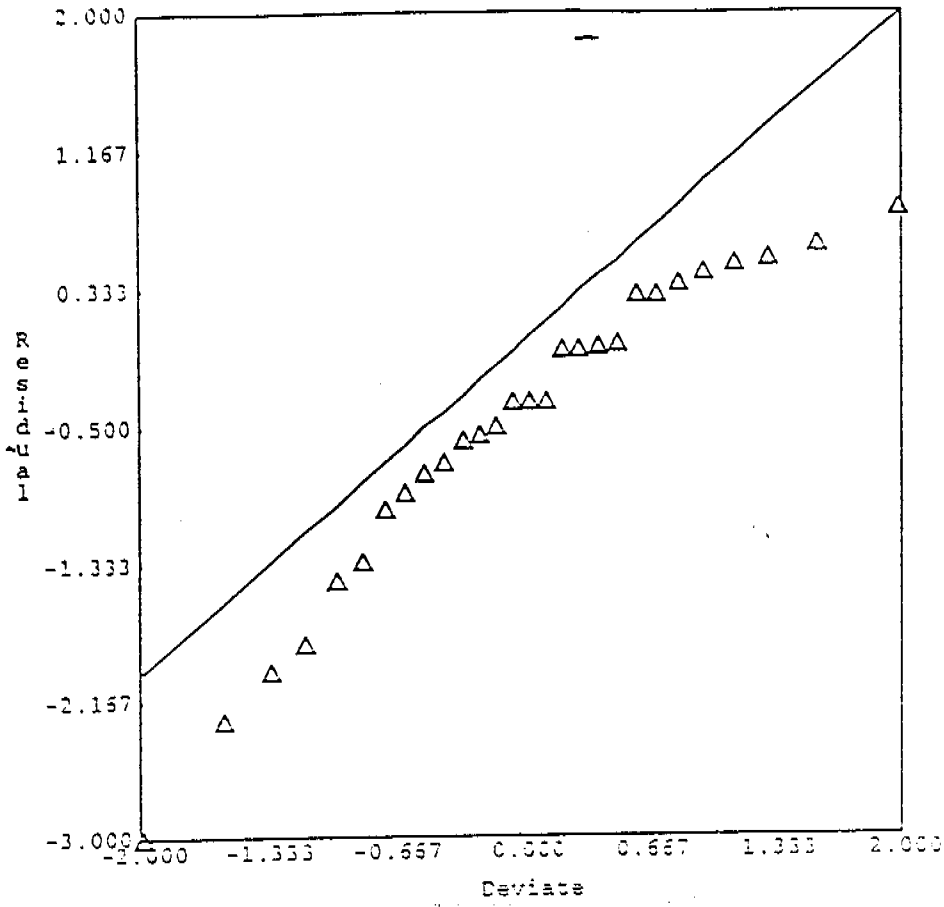
Kolmogorov-Smirnov statistic = 0.164 5% exceedance value = 0.164

RIP4 RUN6

Observed vs Predicted Time Series Plot for Response 3: Runoff #3



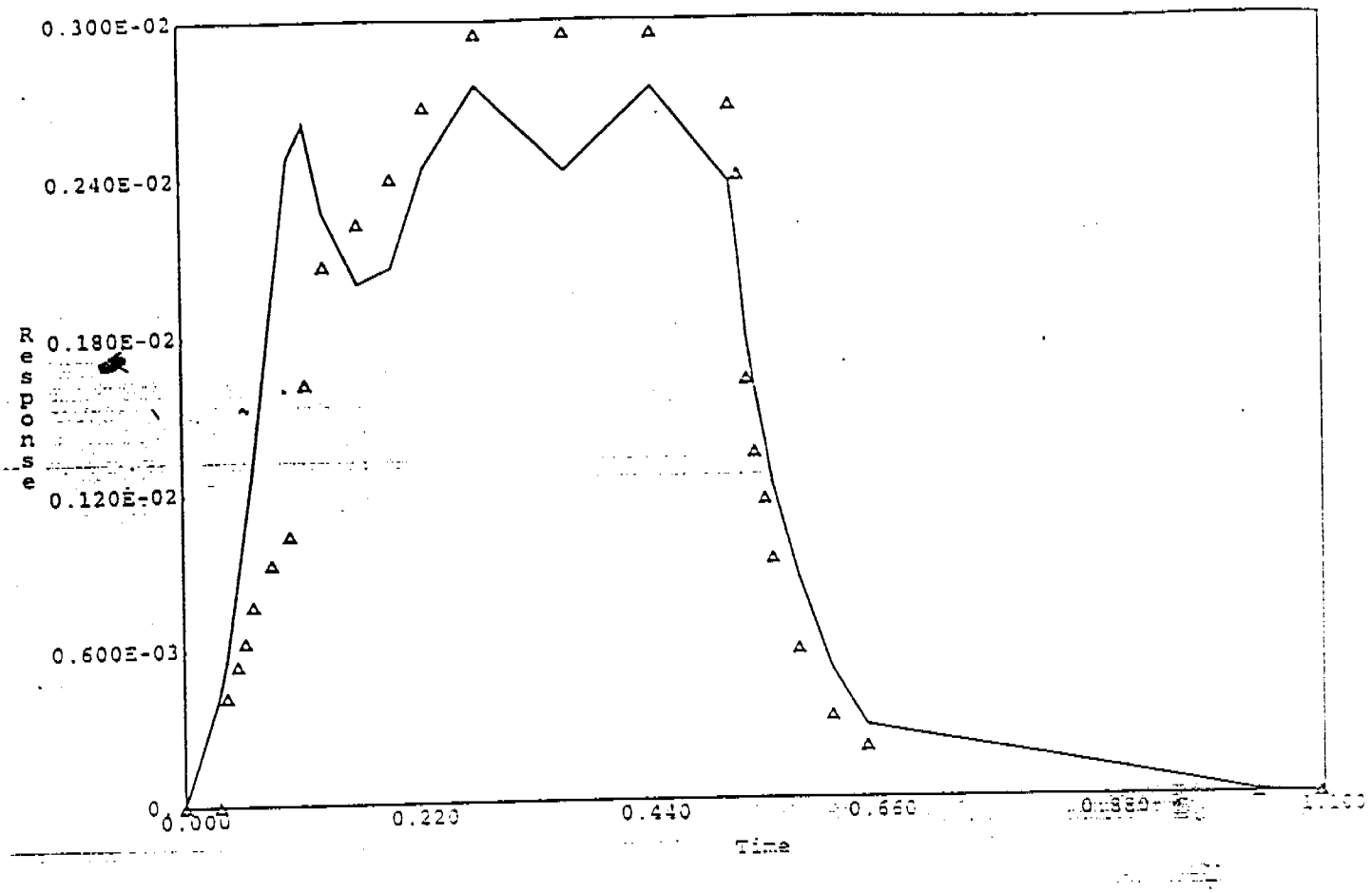
RIP4 RUN6



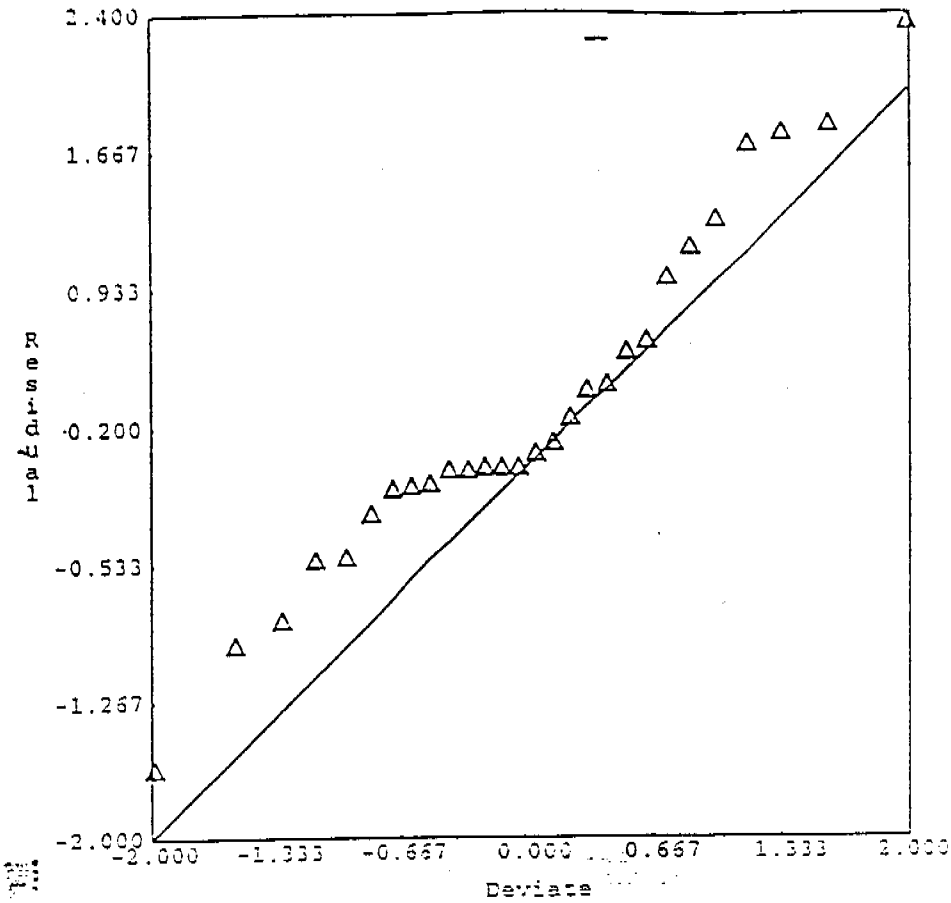
Kolmogorov-Smirnov statistic = 0.094 5% exceedance value = 0.164

RIP+ RUN 5

Observed vs Predicted Time Series Plot for Response 2: Runoff #2



RIP4 RUN5

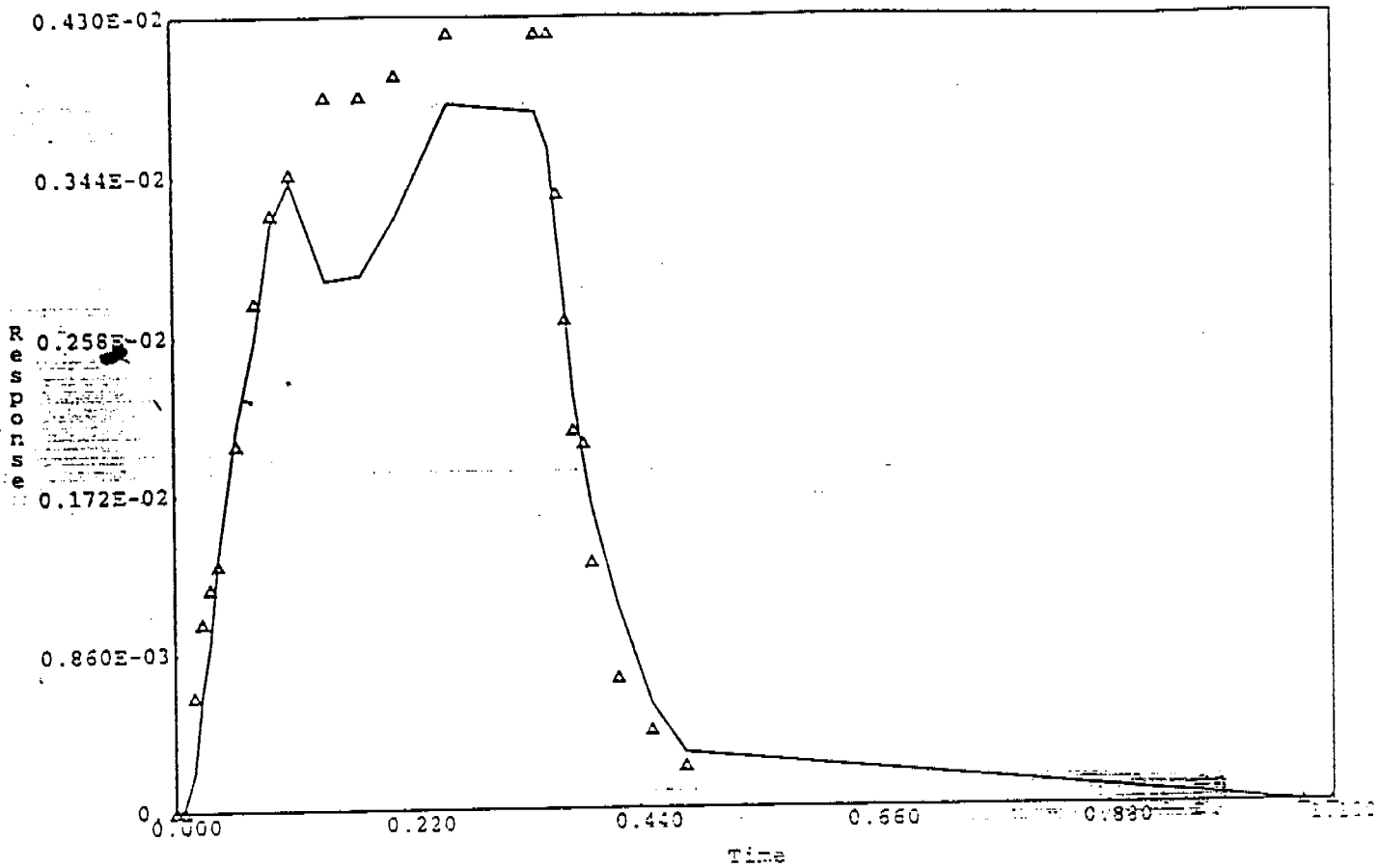


Kolmogorov-Smirnov statistic = 0.127 5% exceedance value = 0.164

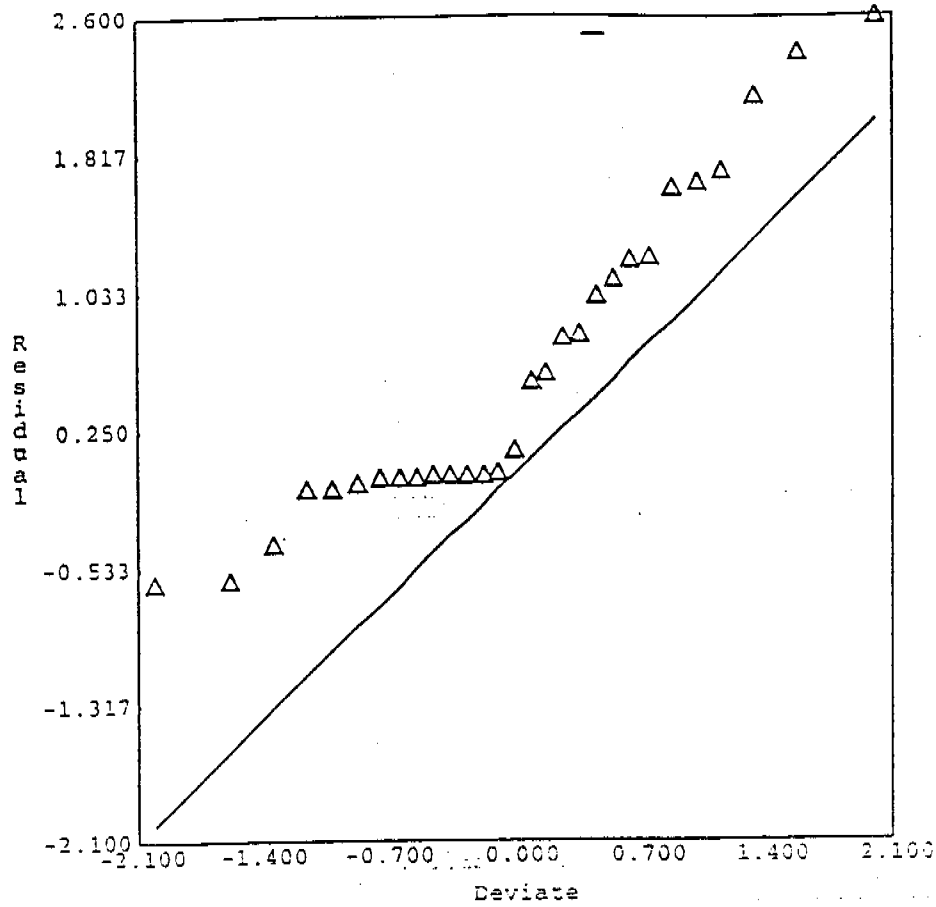
RIP4 RUN4

RESULTS FOR RIP4D FW

Observed vs Predicted Time Series ~~Plot~~ for Response 1: Runoff #1



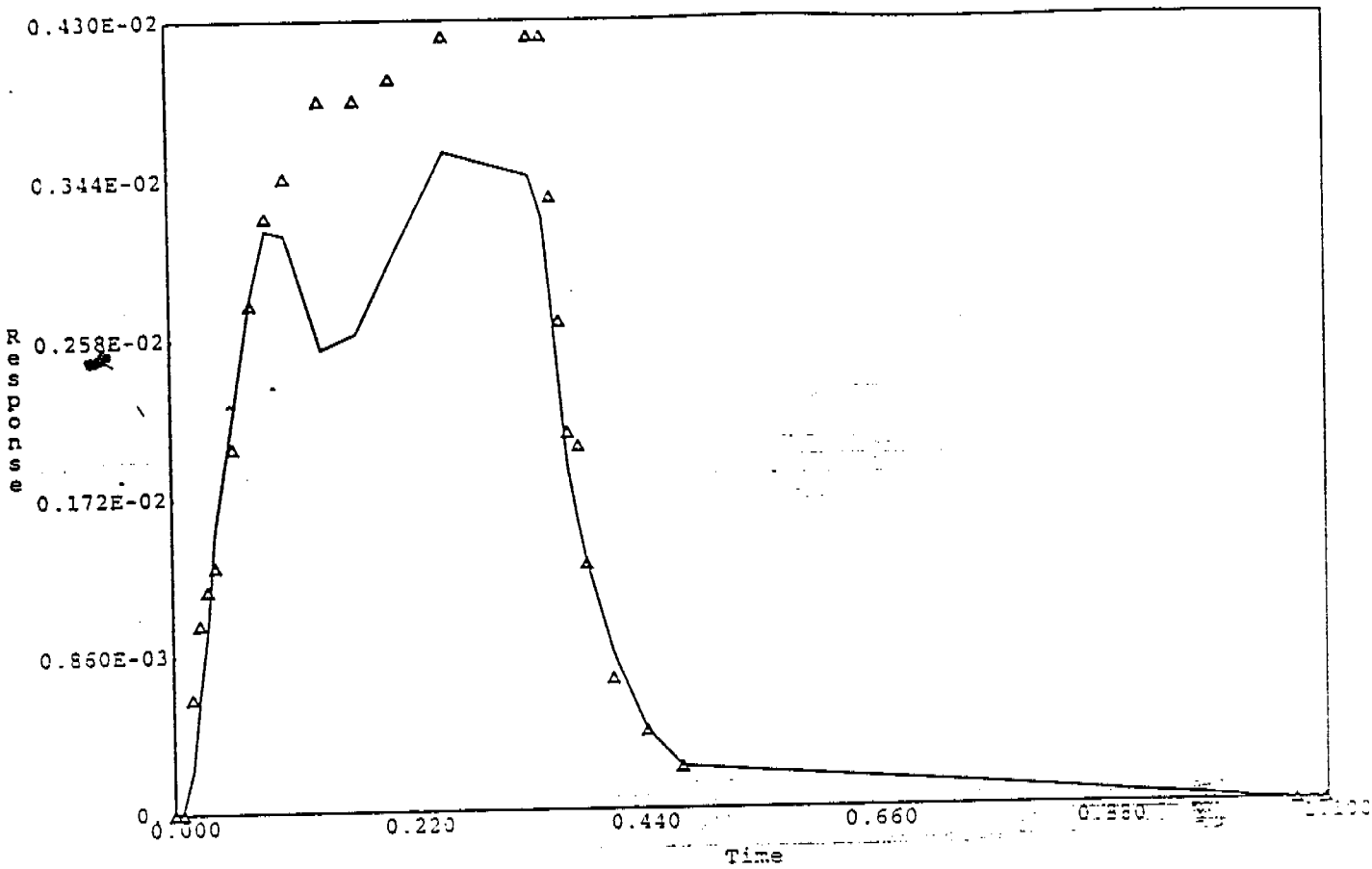
RIP 4 RUN4



Kolmogorov-Smirnov statistic = 0.189 5% exceedance value = 0.162

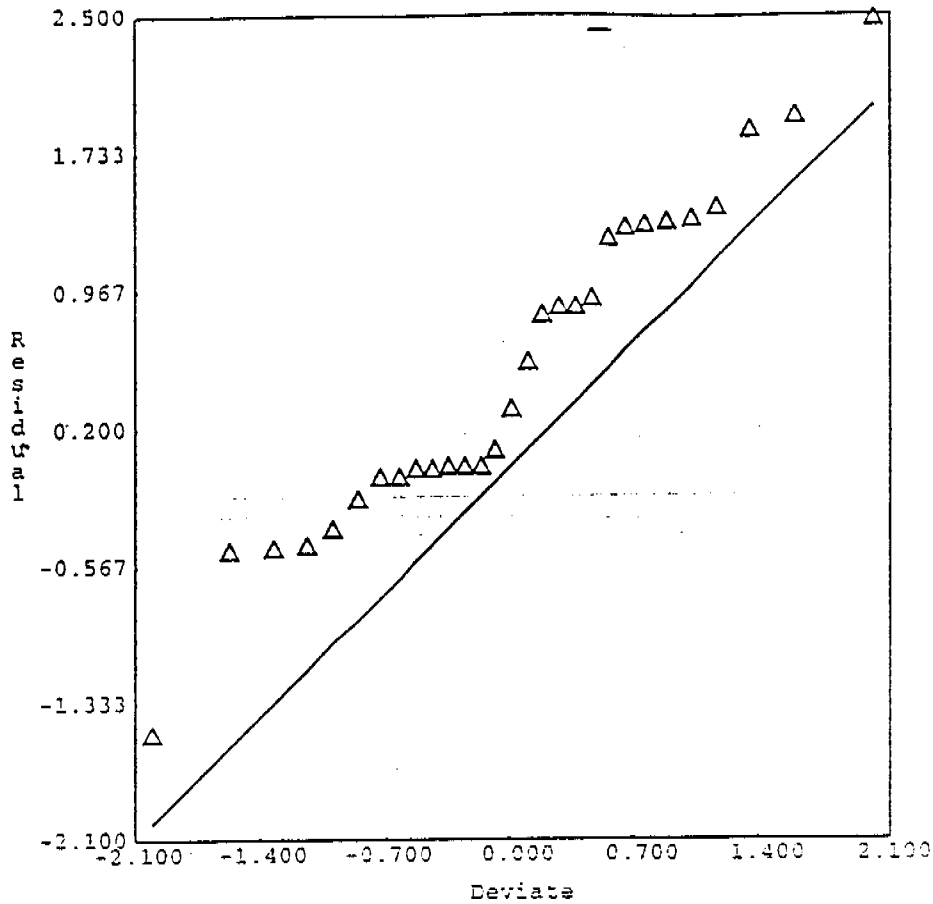
RIP4 RUN4

Observed vs Predicted Time Series Plot for Response 4: Runoff #4



RIP4 RUN4

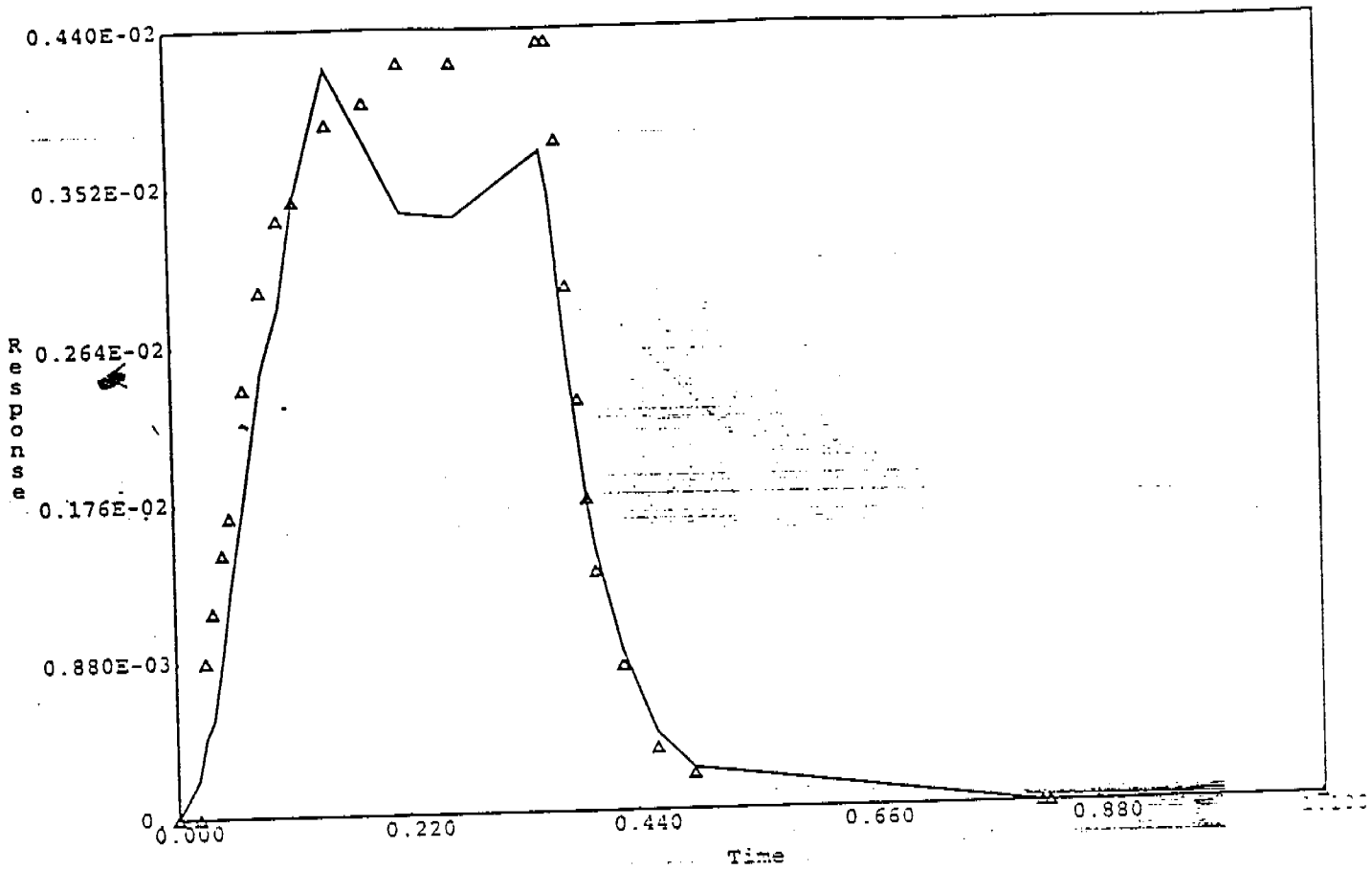
Normal Probability Plot for Response 3: Runoff #3



Kolmogorov-Smirnov statistic = 0.138 5% exceedance value = 0.162

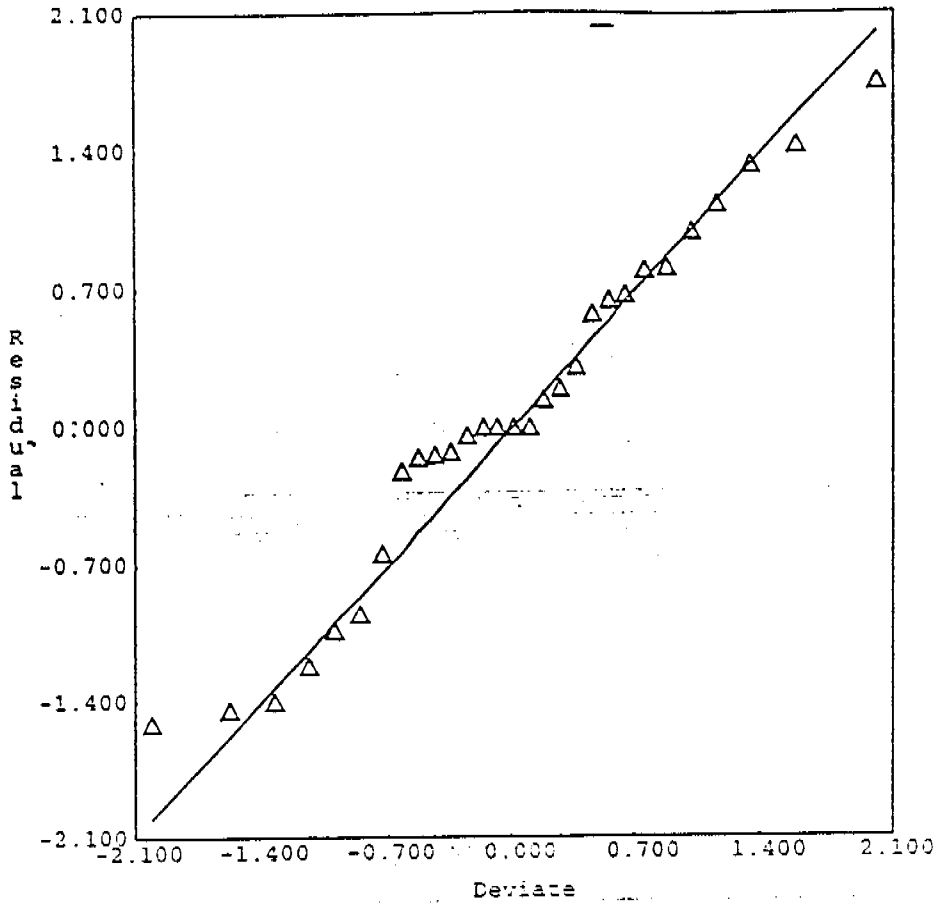
RIP4 RUN3

Observed vs Predicted Time Series Plot for Response 3: Runoff #3



RIP4 RUN3

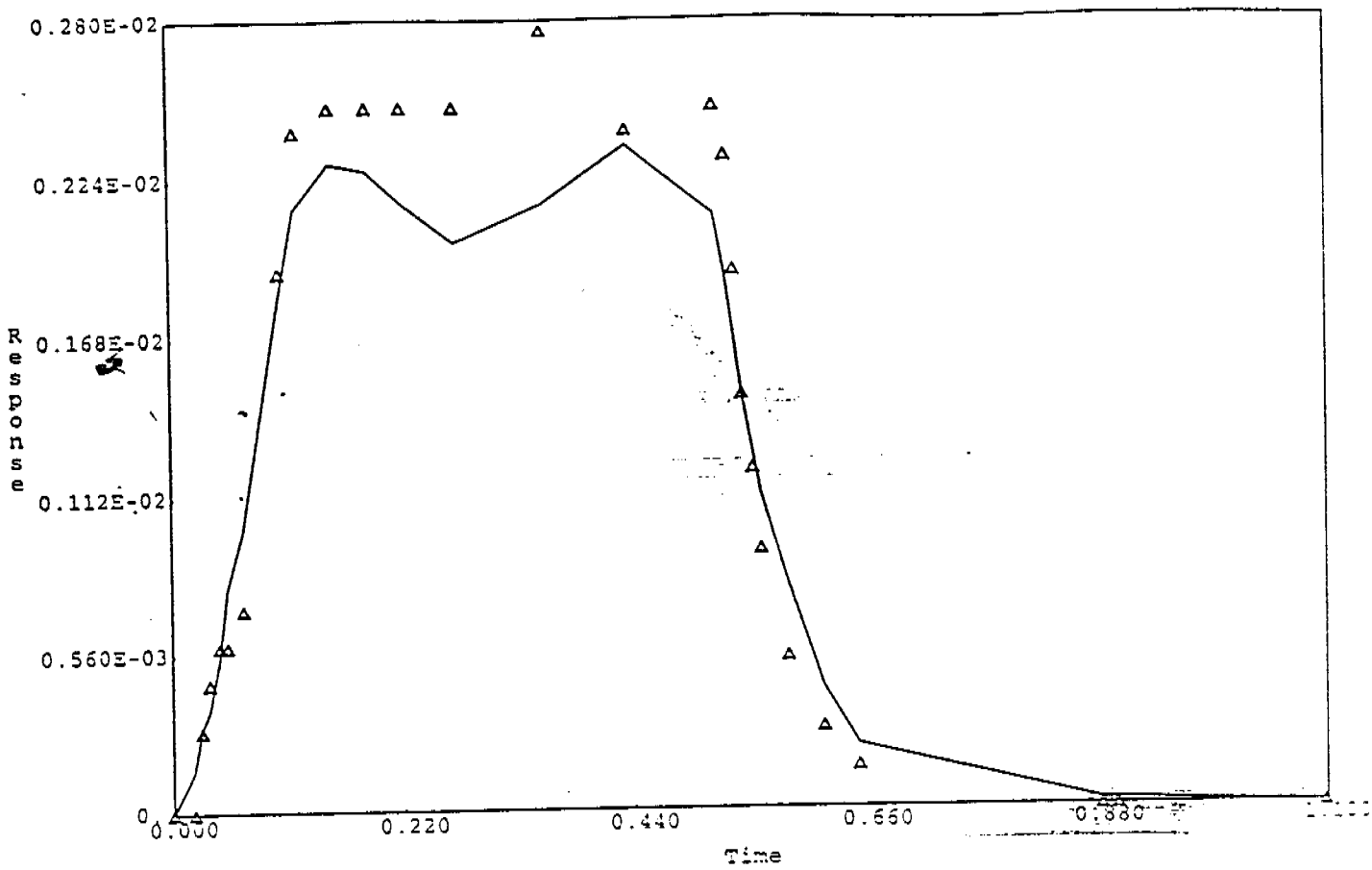
Normal Probability Plot for Response 2: Rdno



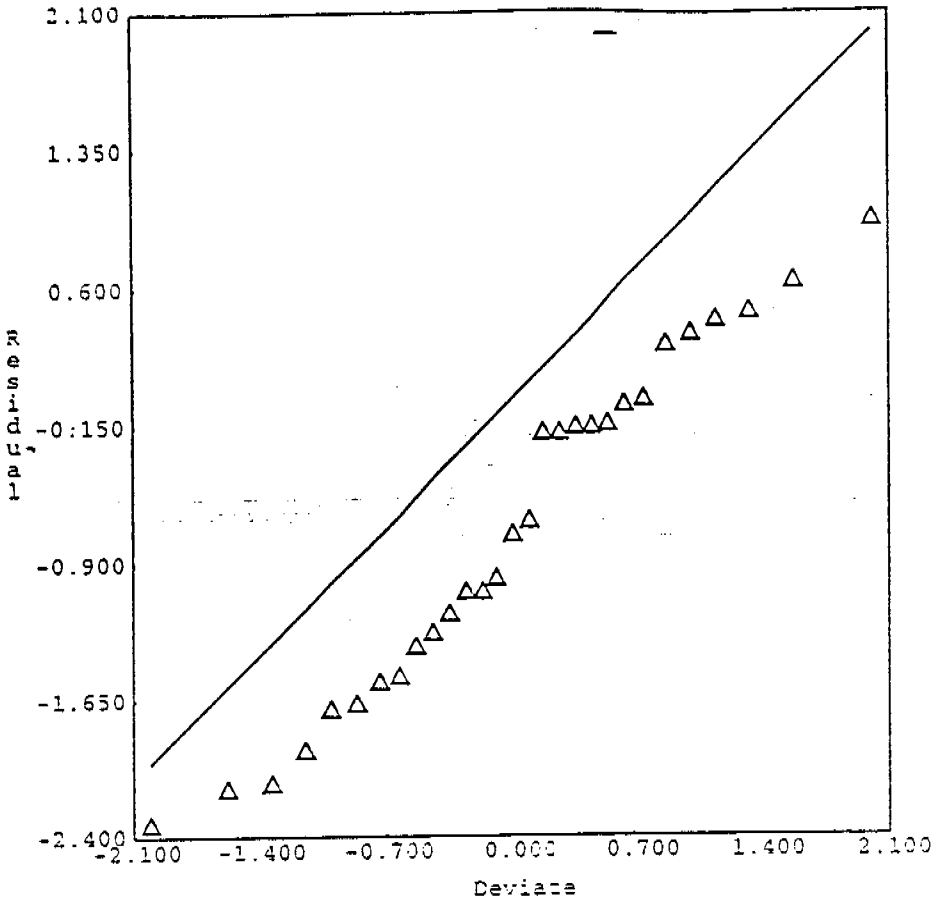
Kolmogorov-Smirnov statistic = 0.124 5% exceedance value = 0.162

RIP4 RUN2

Observed vs Predicted Time Series Plot for Response 2: Runoff #2



RIP4 RUN2

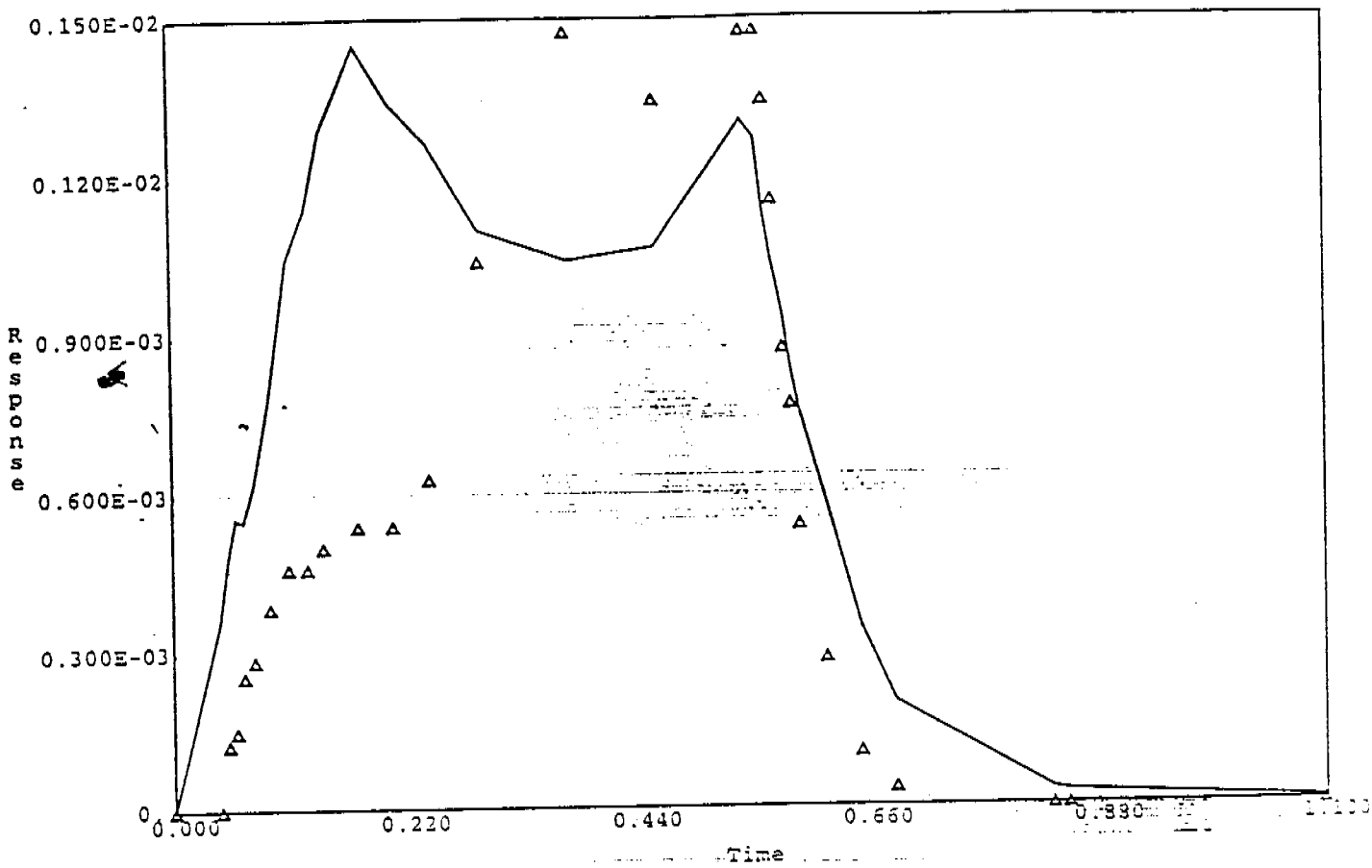


Kolmogorov-Smirnov statistic = 0.134 5% exceedance value = 0.162

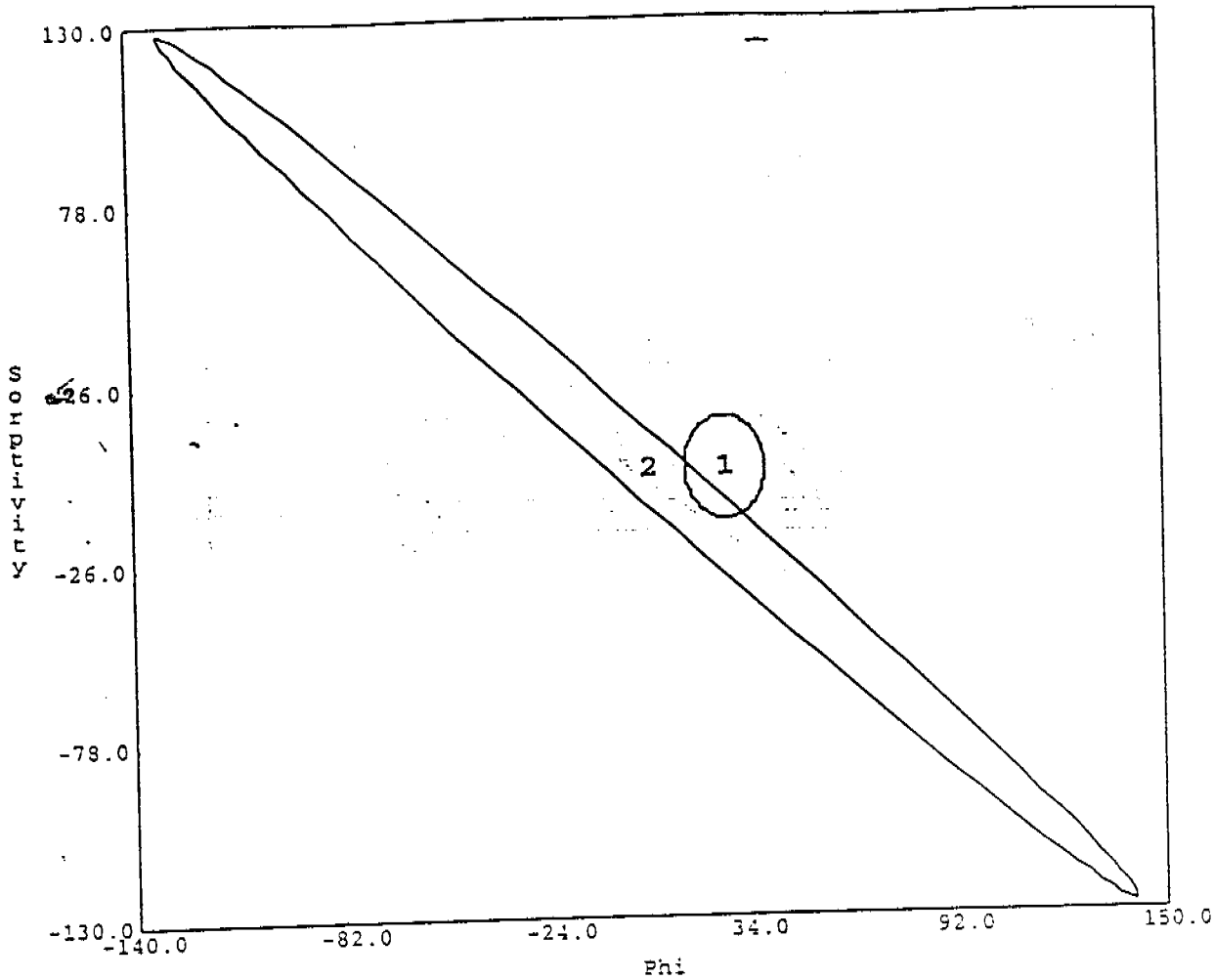
RIP4 RUN1

RESULTS FROM RIP4

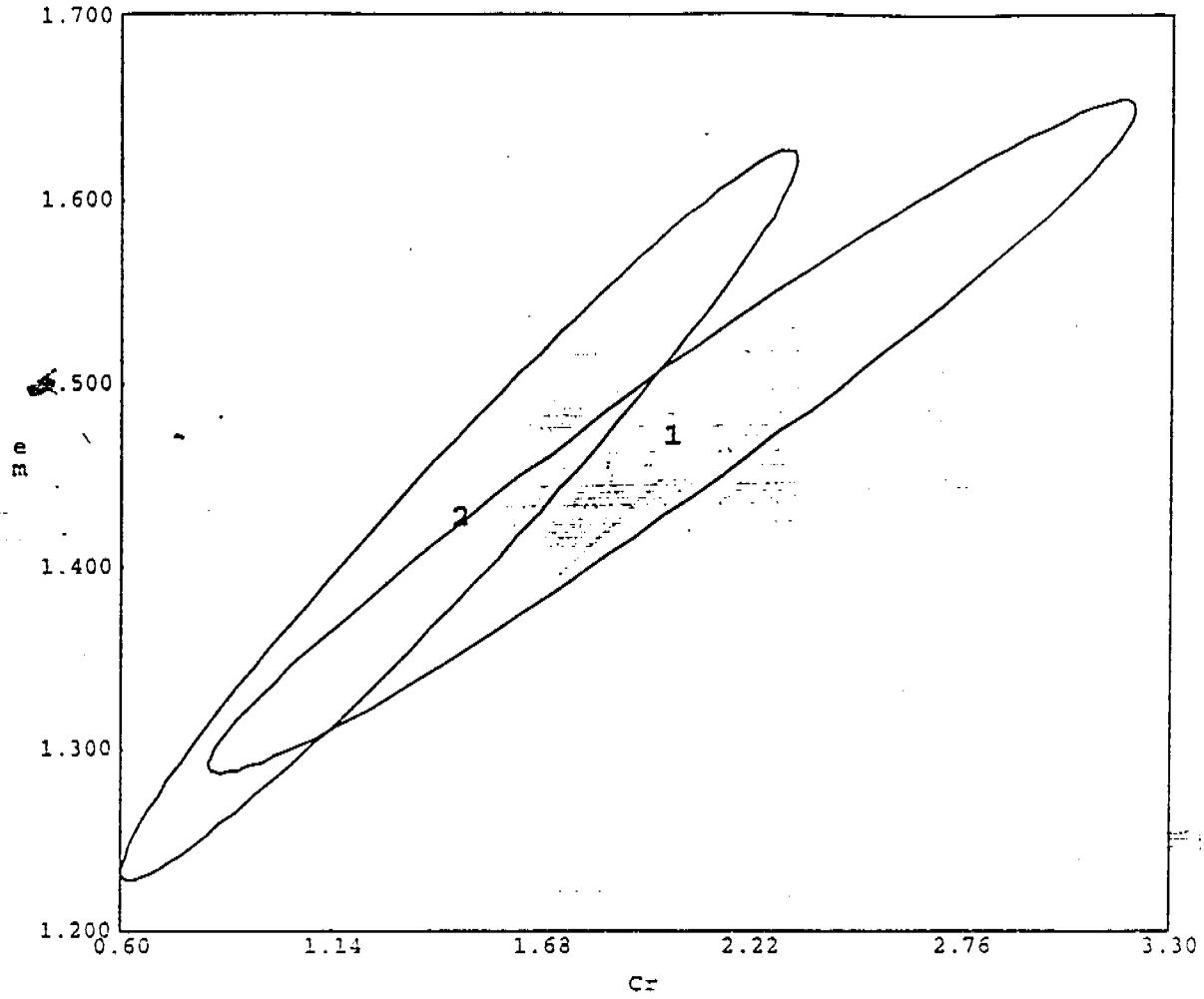
Observed vs Predicted Time Series Plot for Response 1: Runoff #1

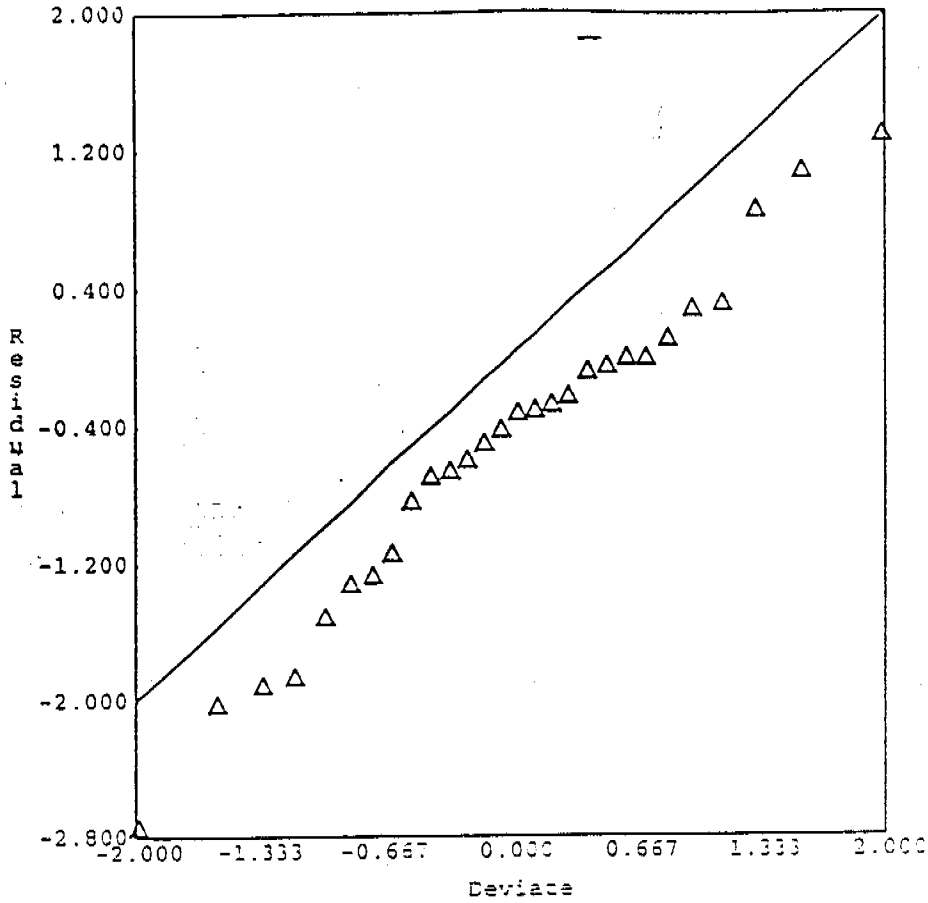


RIP4 RUN1


130.0
78.0
-26.0
-78.0
-130.0
Psi
-140.0
-82.0
-24.0
34.0
92.0
150.0
Phi
1
2

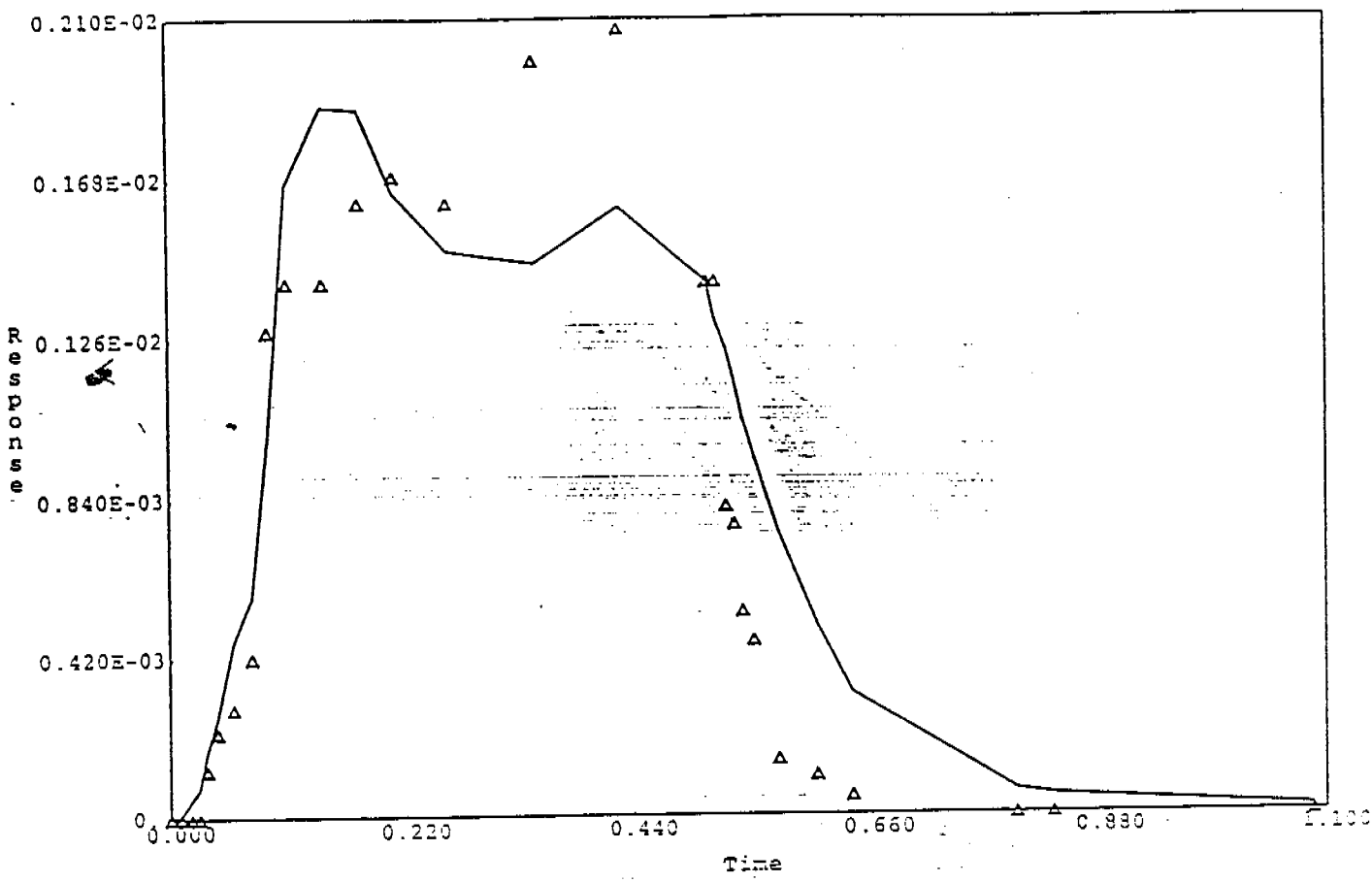
Approximate 95.0% Posterior Probability Regions





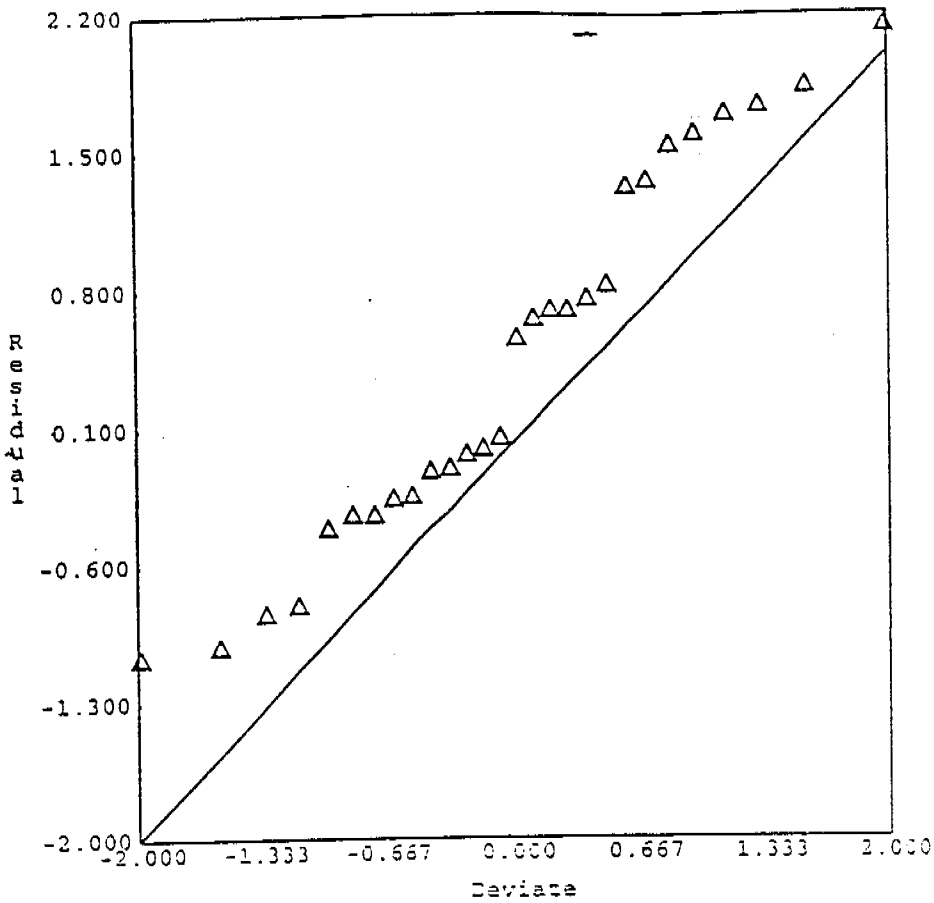
Kolmogorov-Smirnov statistic = 0.097 5% exceedance value = 0.164

RIP3 RUN7


Observed vs Predicted Time Series Plot for Response 4: Runoff #4
0.210E-02
0.168E-02
0.126E-02
0.840E-03
0.420E-03
0
Response
0.000
0.220
0.440
0.660
0.880
1.100
Time

RIP3 RUN7

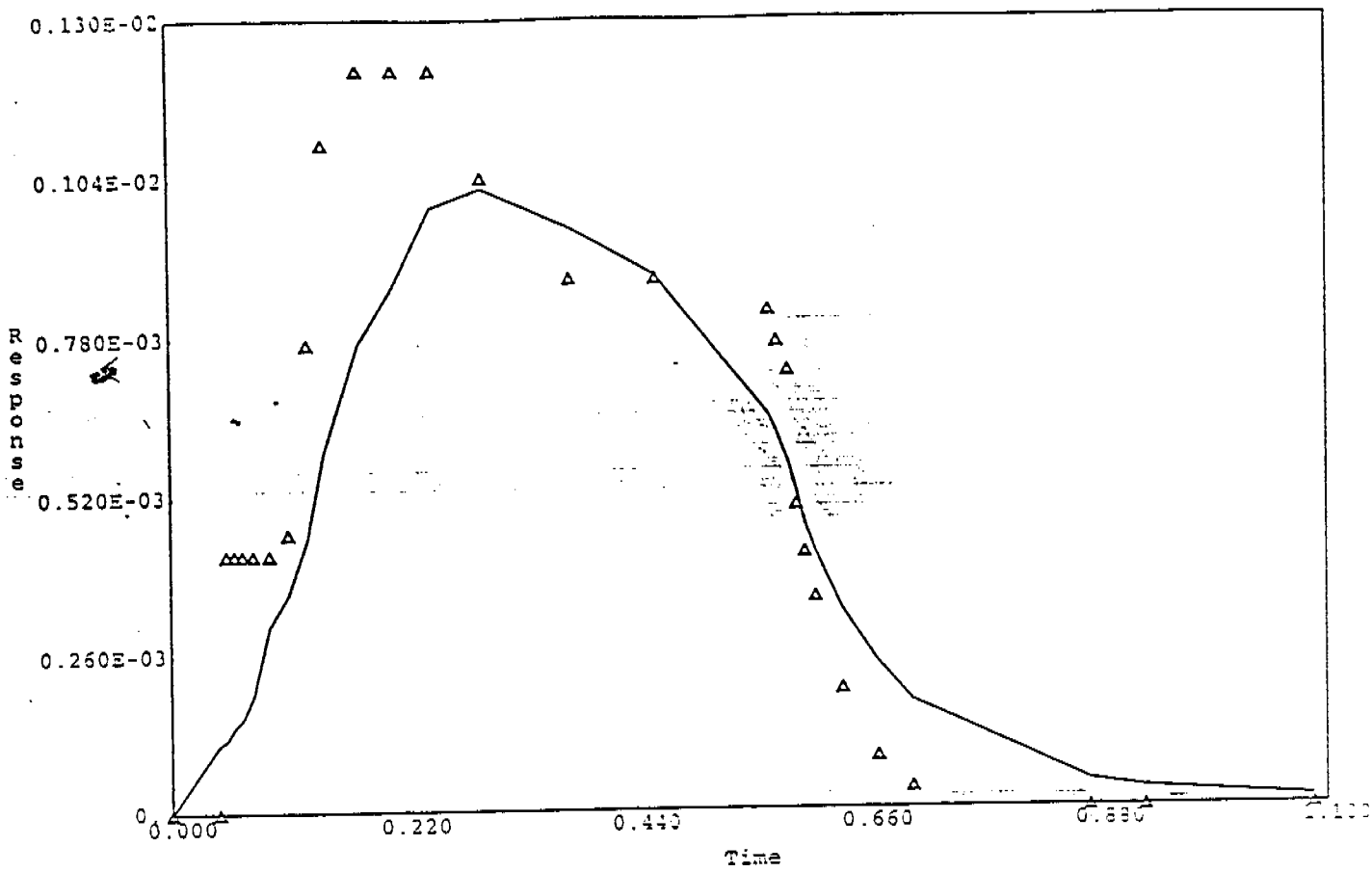
Normal Probability Plot for Response 3: Run011 #3



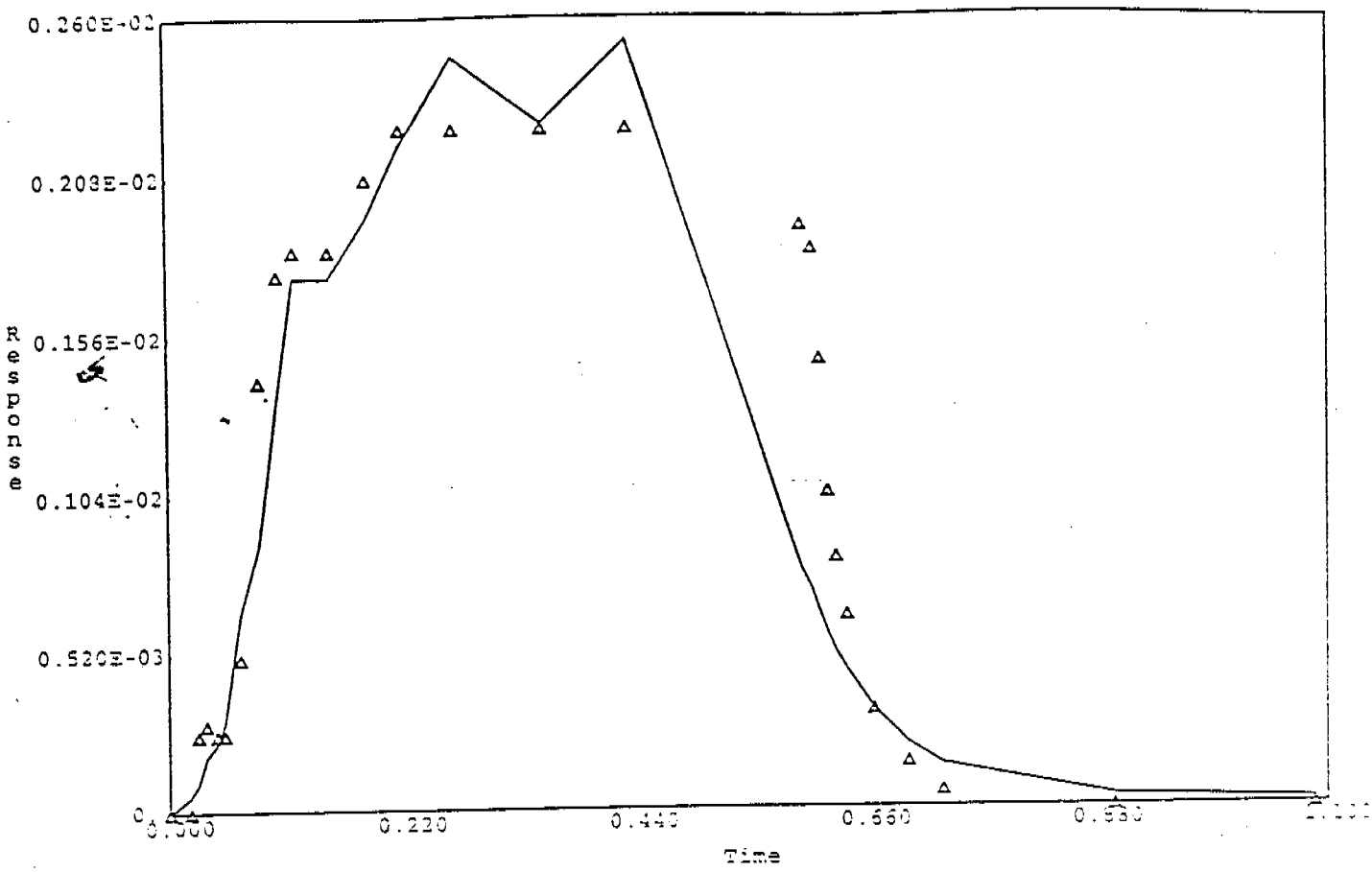
Kolmogorov-Smirnov statistic = 0.127 5% exceedance value = 0.164

RIP3 RUN6

Observed vs Predicted Time Series Plot for Response 3: Runoff #3

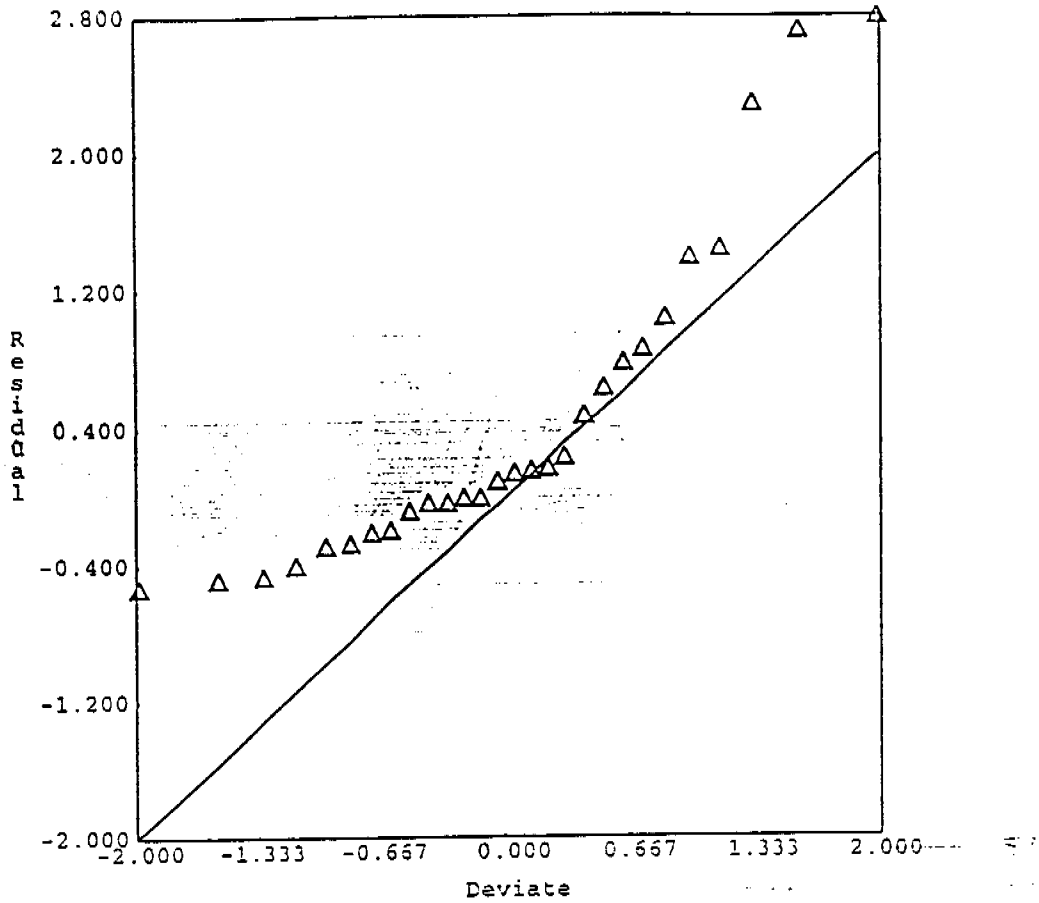


RIP3 RUN6


0.260E-02
0.208E-02
0.156E-02
0.104E-02
0.520E-03
0
Response
0.000
0.220
0.440
0.660
Time

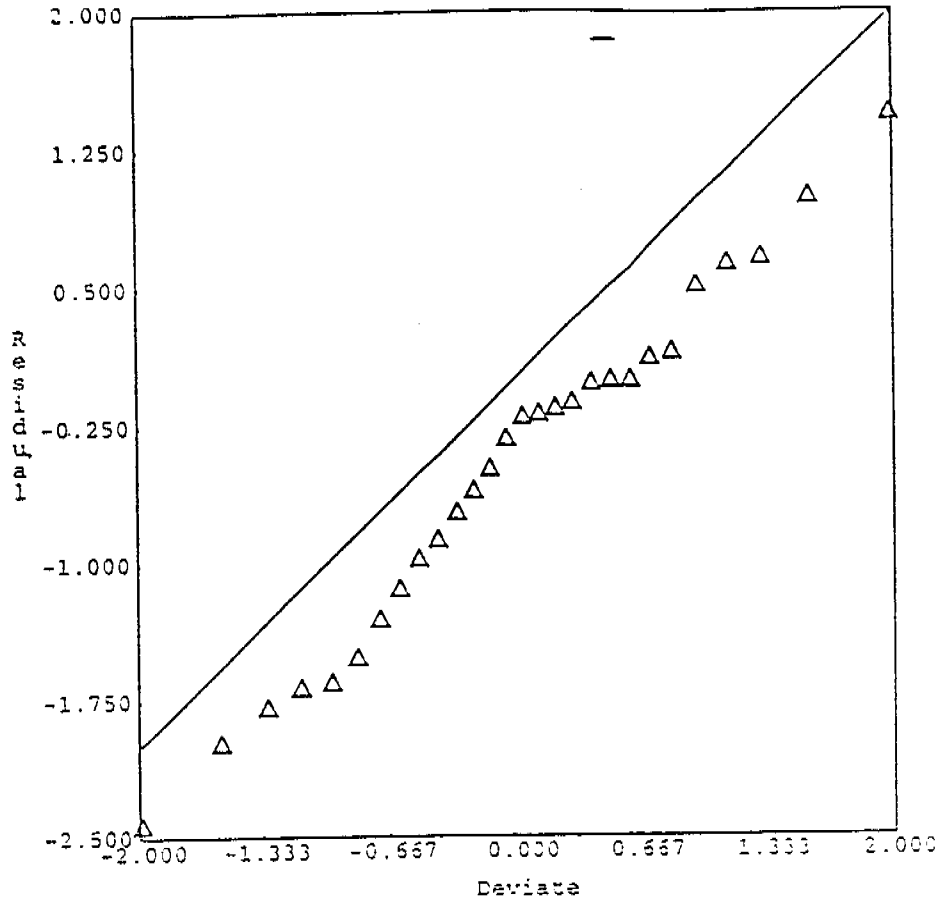
RIP3 RUNS

Normal Probability Plot for_Response 2: Runoff #2



Kolmogorov-Smirnov statistic = 0.203 5% exceedance value = 0.164

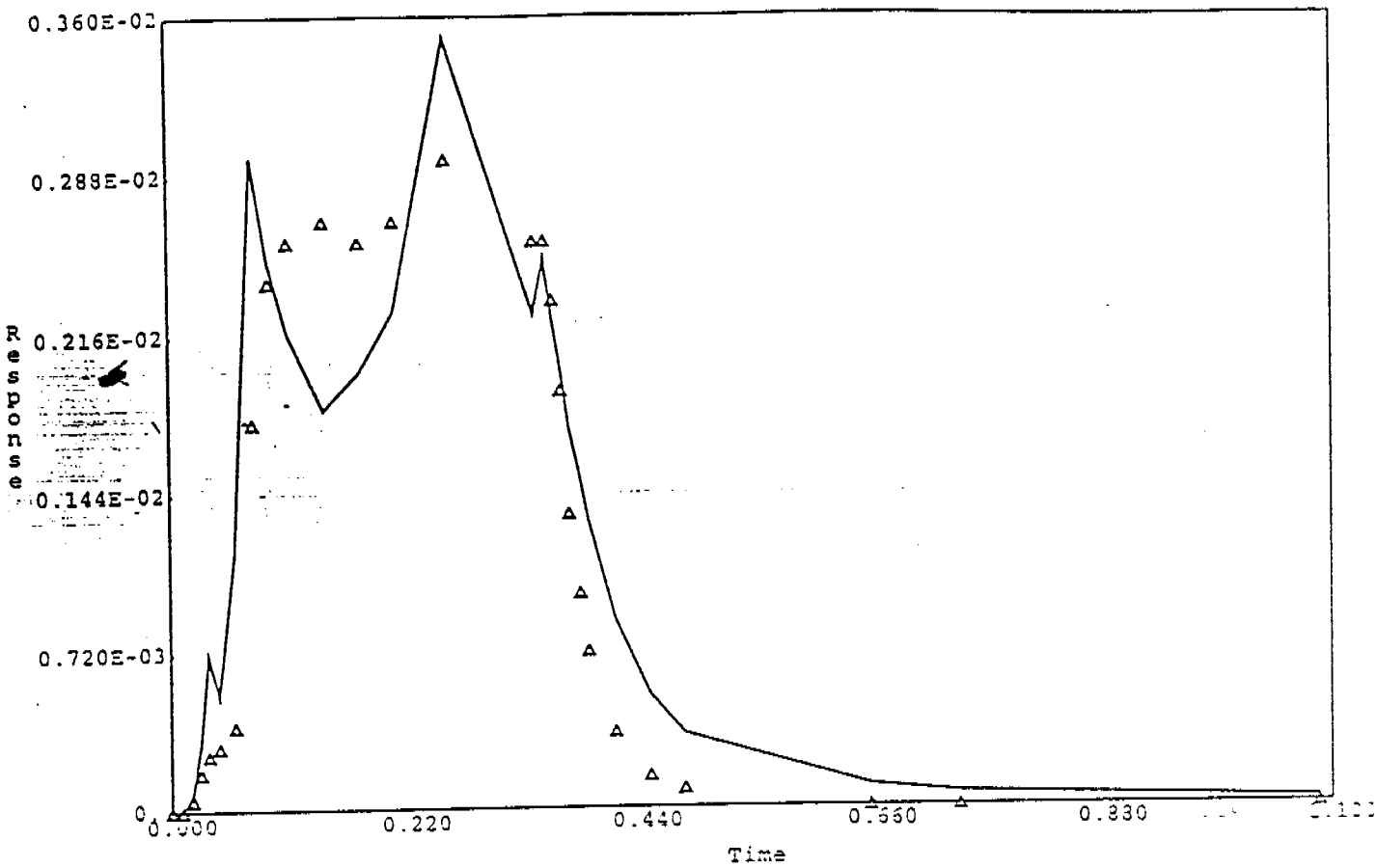
RIP 3 RUN5



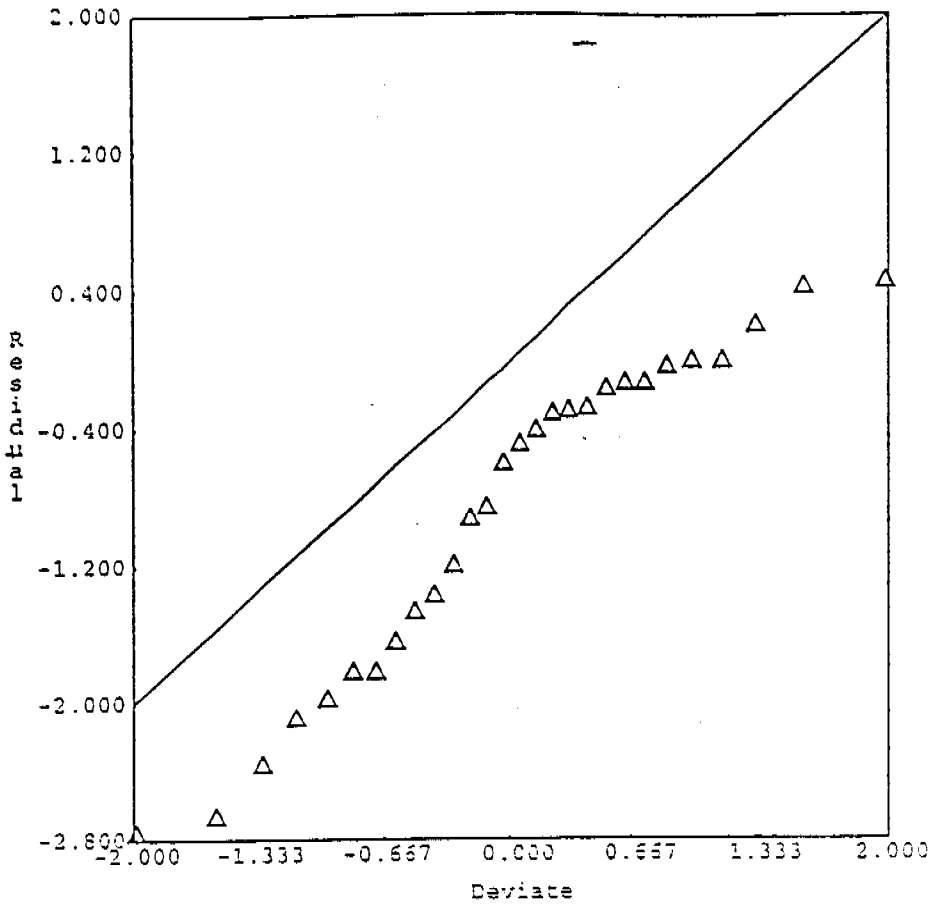
Kolmogorov-Smirnov statistic = 0.096 5% exceedance value = 0.164

RIP3 RUN4

Observed vs Predicted Time Series Plot for Response 4: Runoff #4



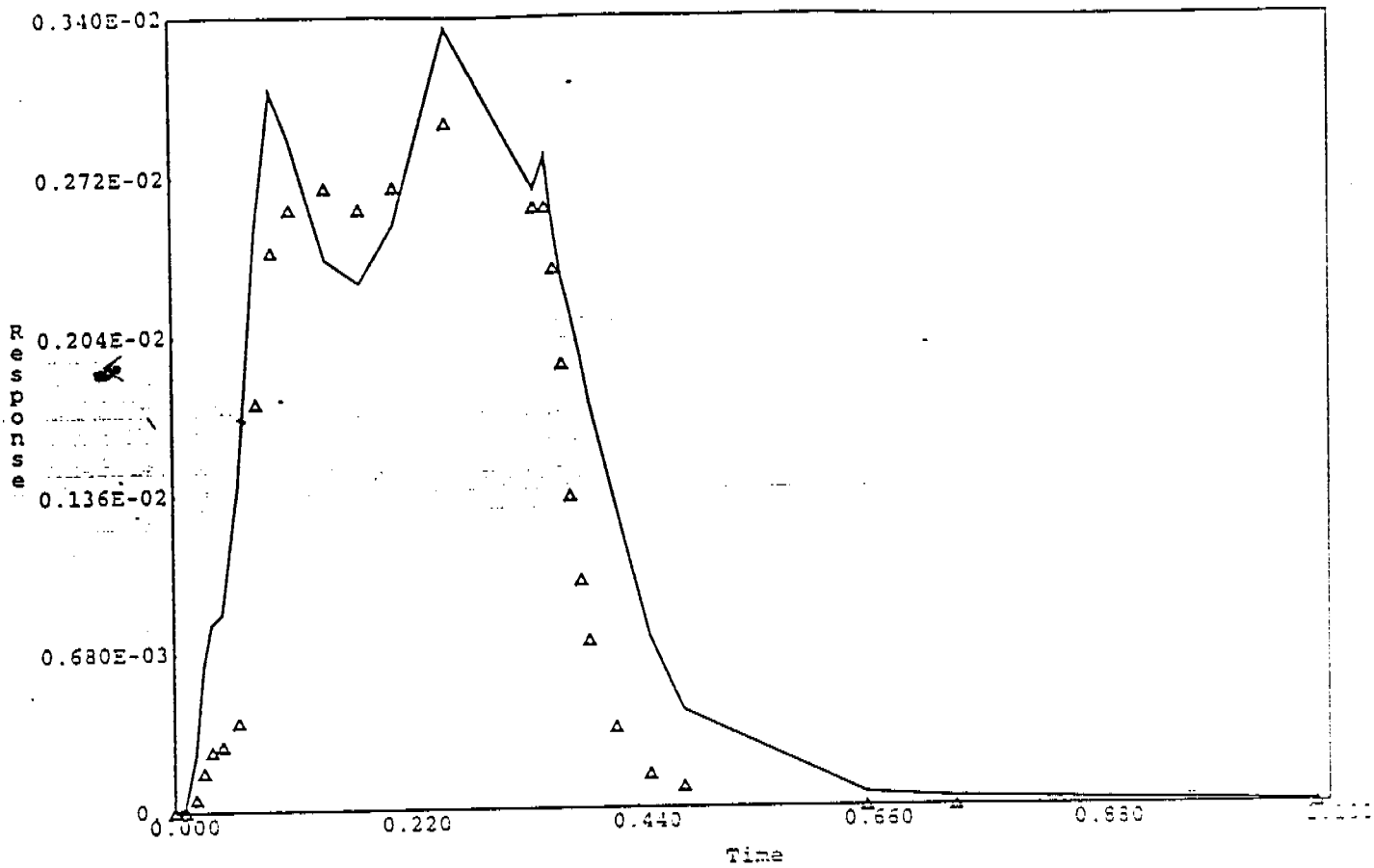
RIP3 RUN4



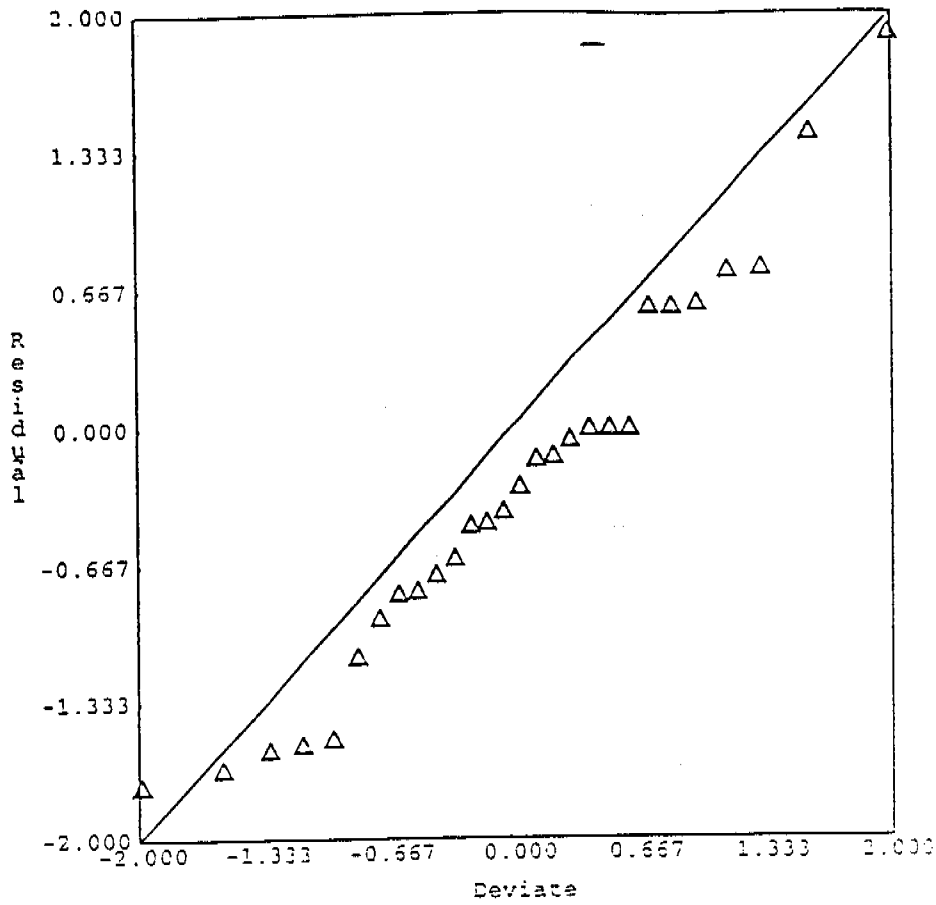
Kolmogorov-Smirnov statistic = 0.135 5% exceedance value = 0.164

RIP3 RUN4

Observed vs Predicted Time Series Plot for Response 1: Runoff #1

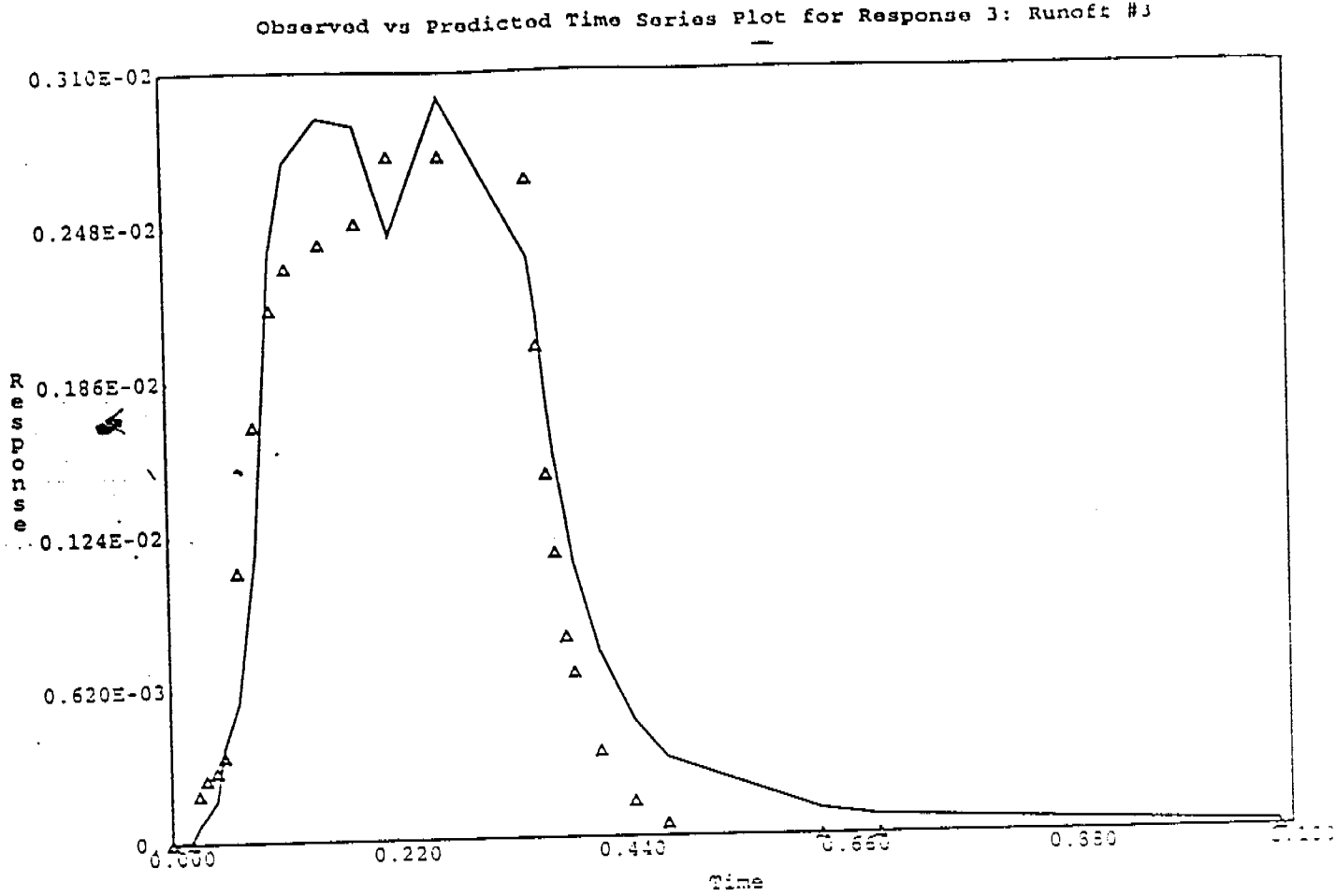


RIP3 RUN4

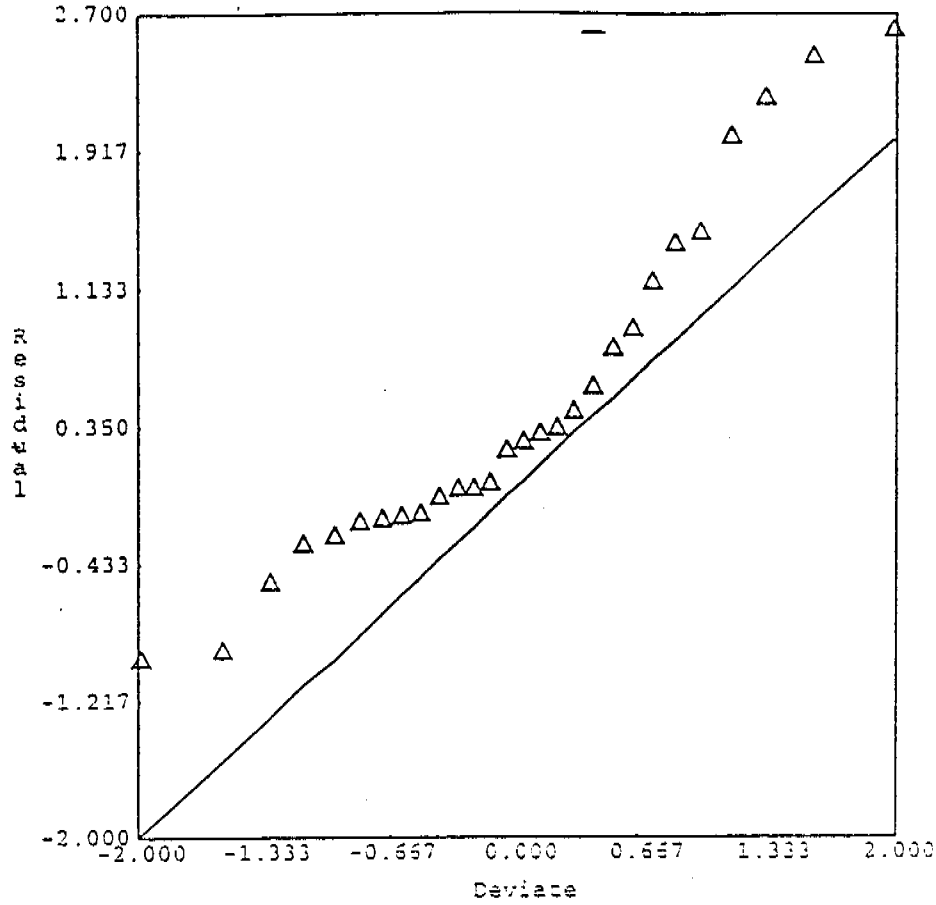


Kolmogorov-Smirnov statistic = 0.113 5% exceedance value = 0.164

RIP3 RUN3


Observed vs Predicted Time Series Plot for Response 3: Runoff #3
0.310E-02
0.248E-02
0.186E-02
0.124E-02
0.620E-03
0
Response
0.000
0.220
0.440
0.660
0.880
Time

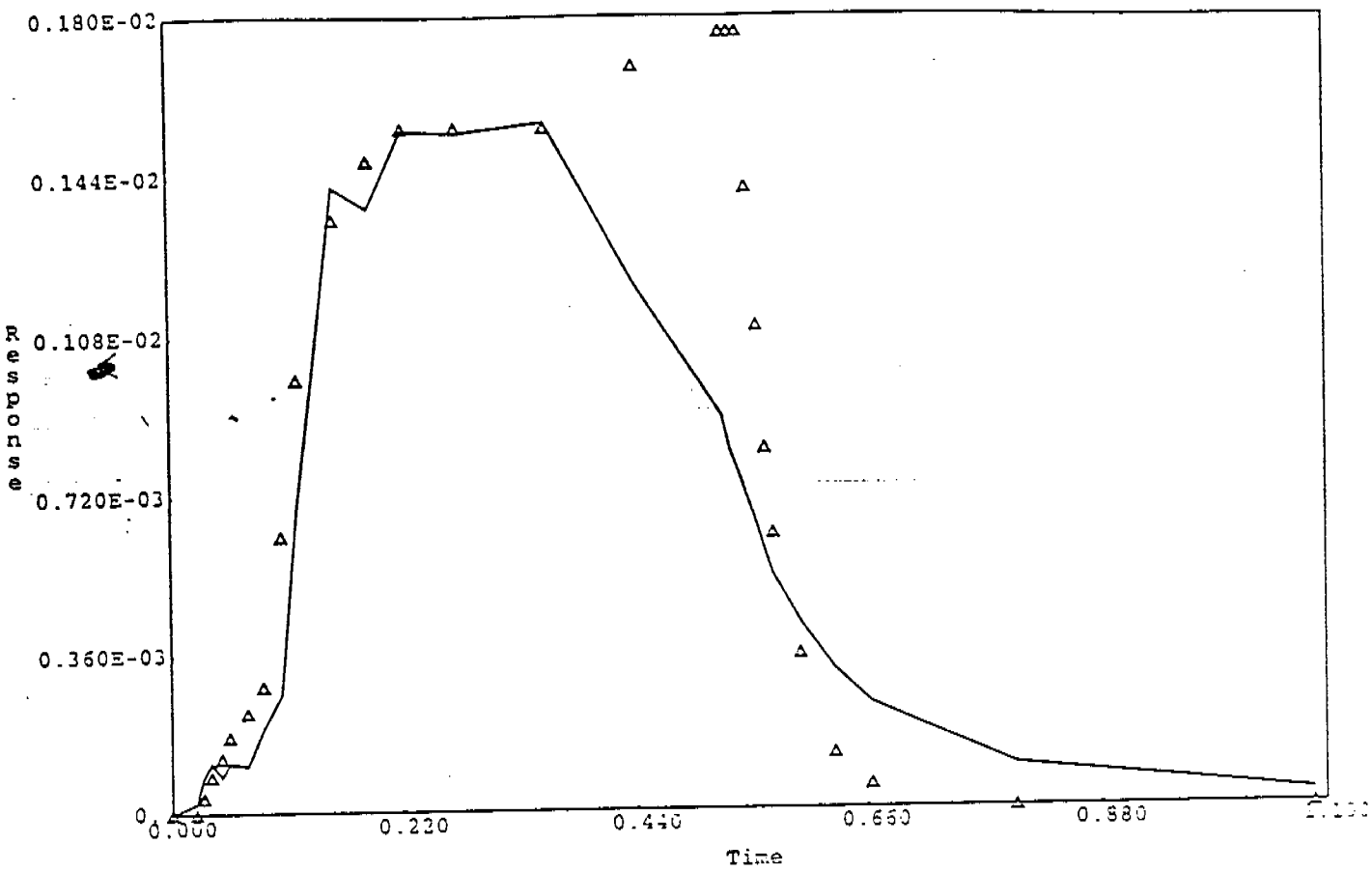
RIP3 RUN3



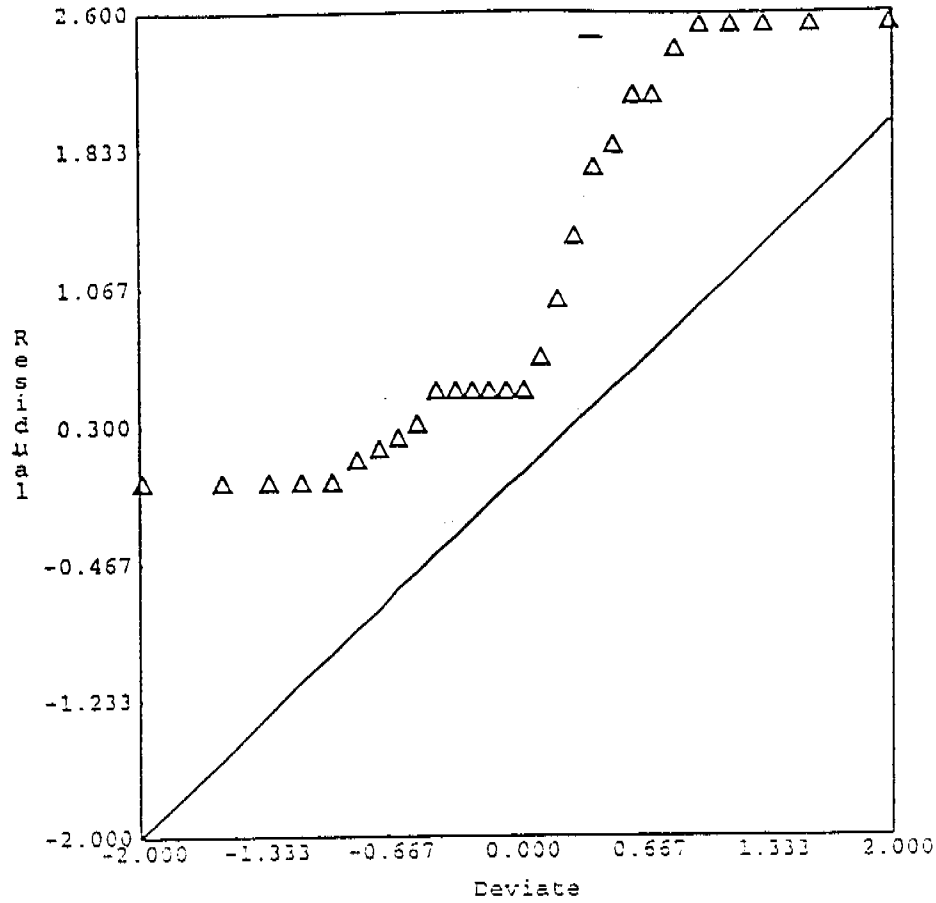
Kolmogorov-Smirnov statistic = 0.144 5% exceedance value = 0.164

RIP3 RUN2

Observed vs Predicted Time Series Plot for Response 2: Runoff #2



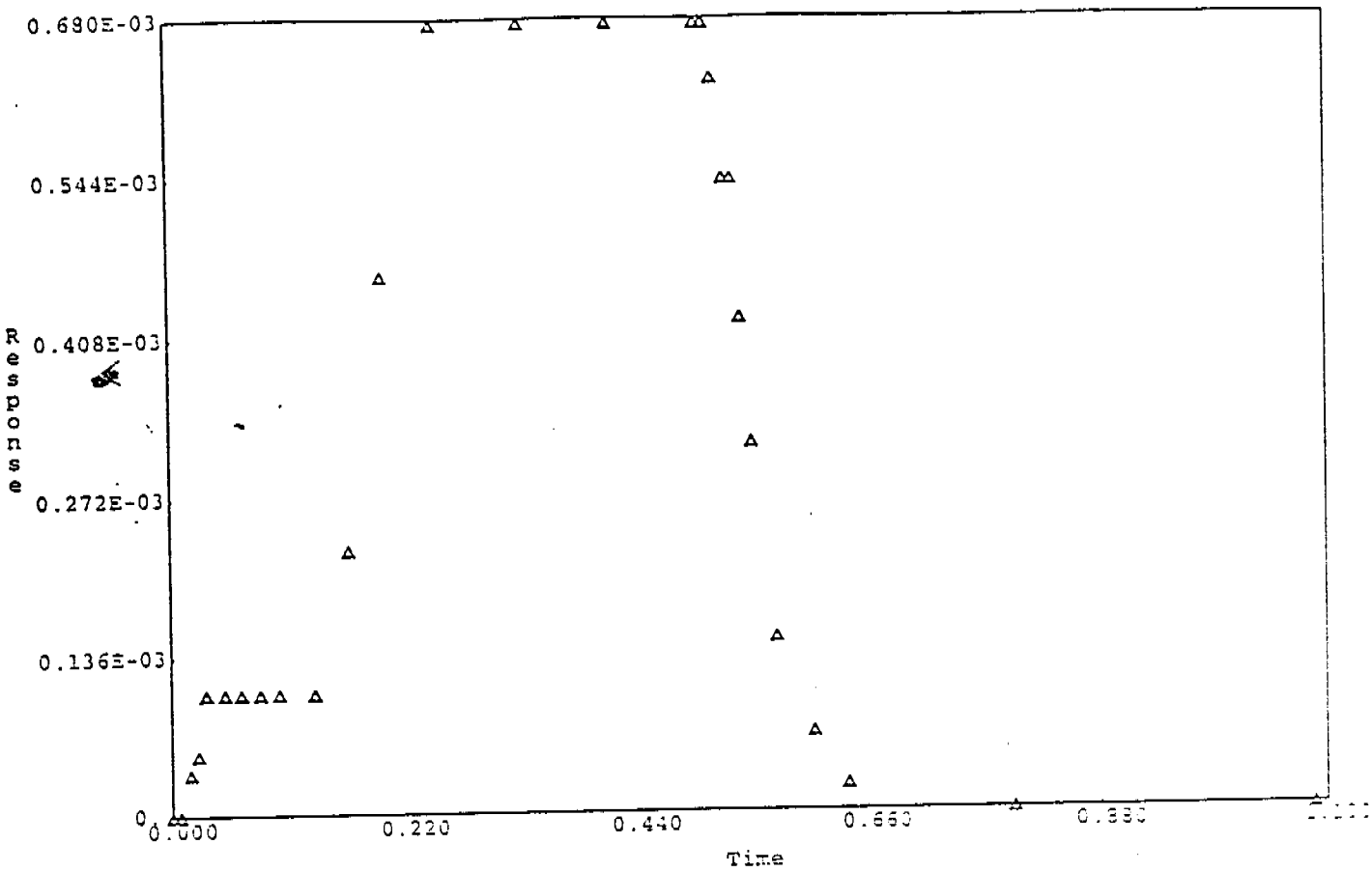
RIP3 RUN2



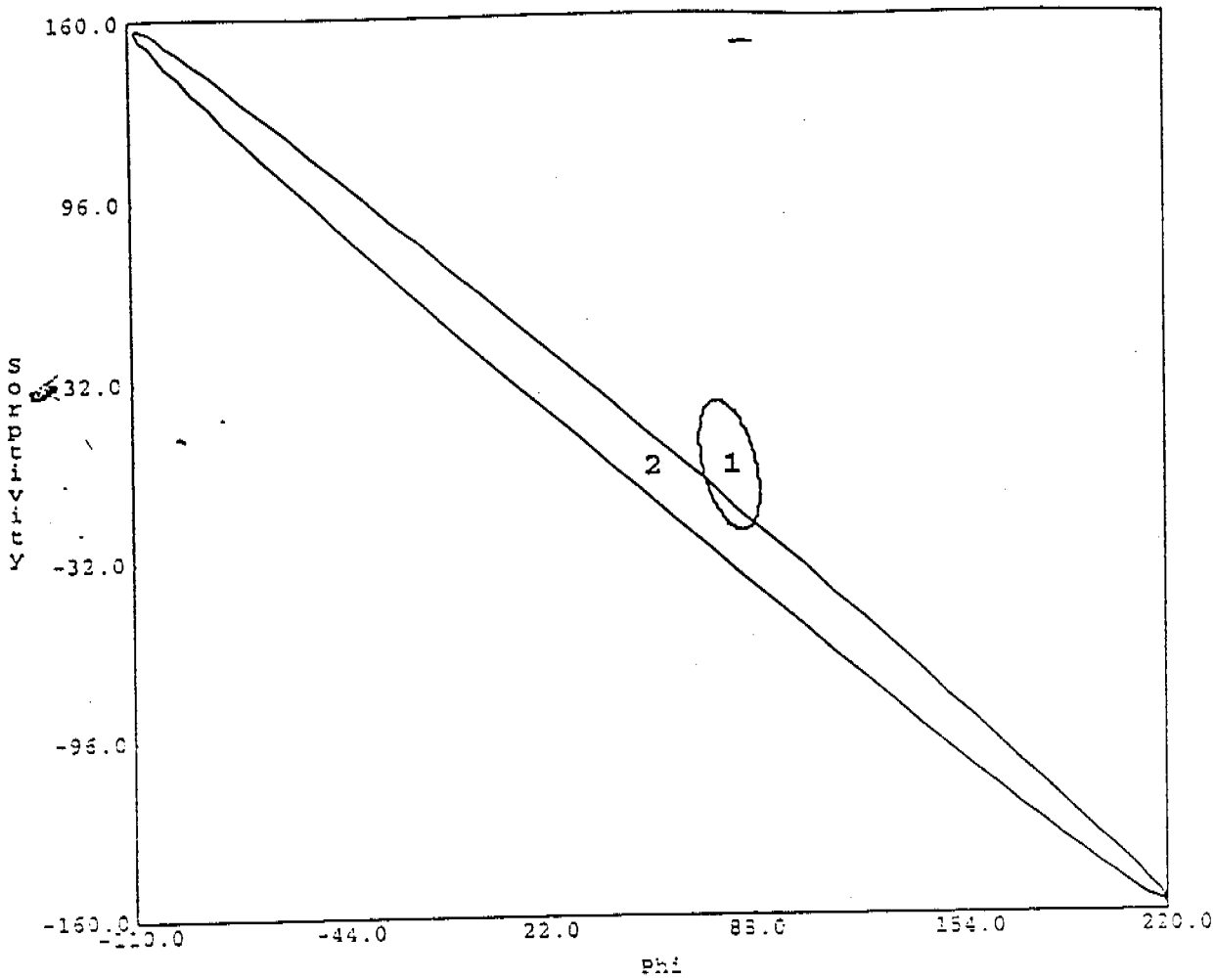
Kolmogorov-Smirnov statistic = 0.234 5% exceedance value = 0.164

RIP3 RUN1

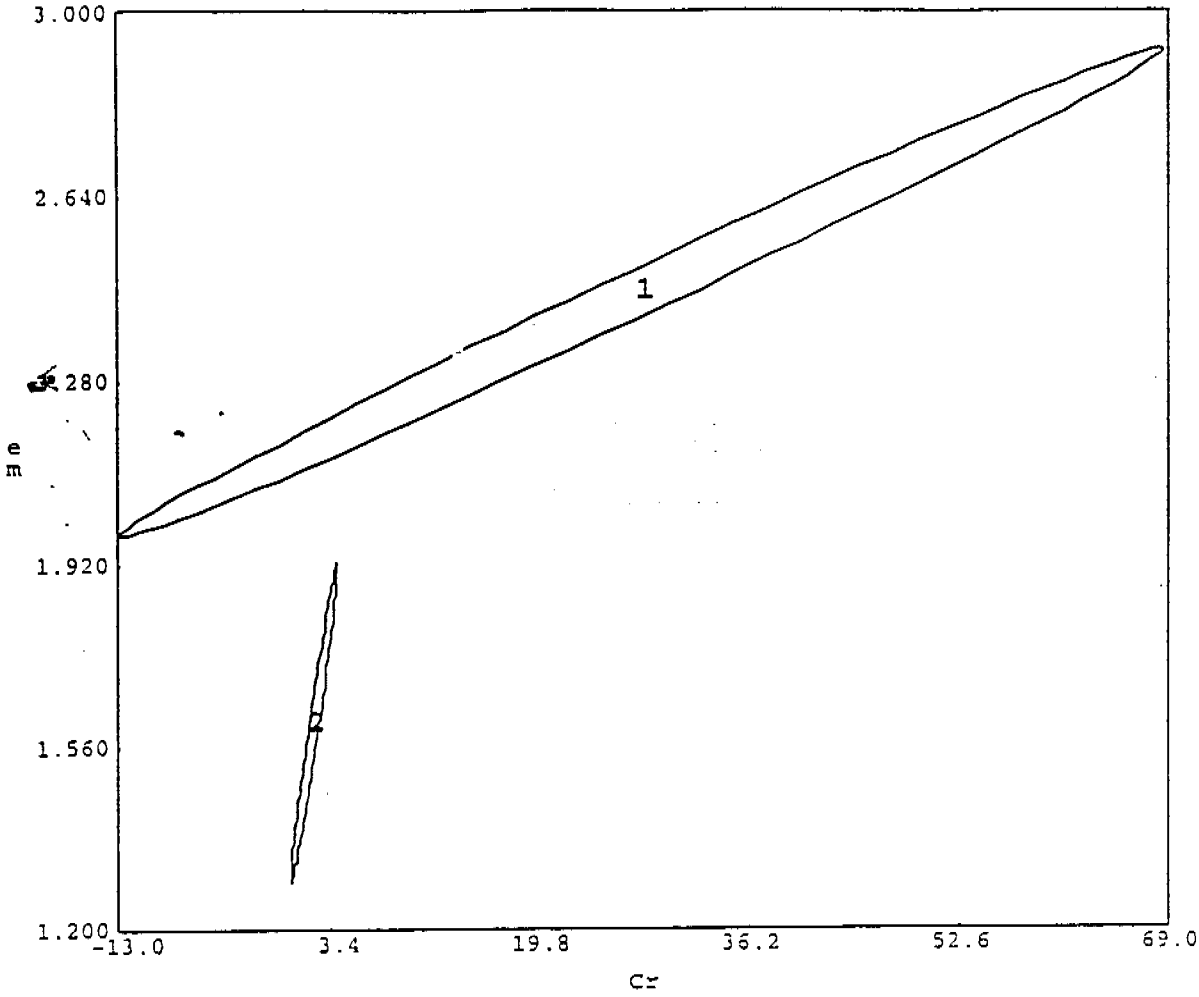
Observed vs Predicted Time Series Plot for Response 1: Runoff #1

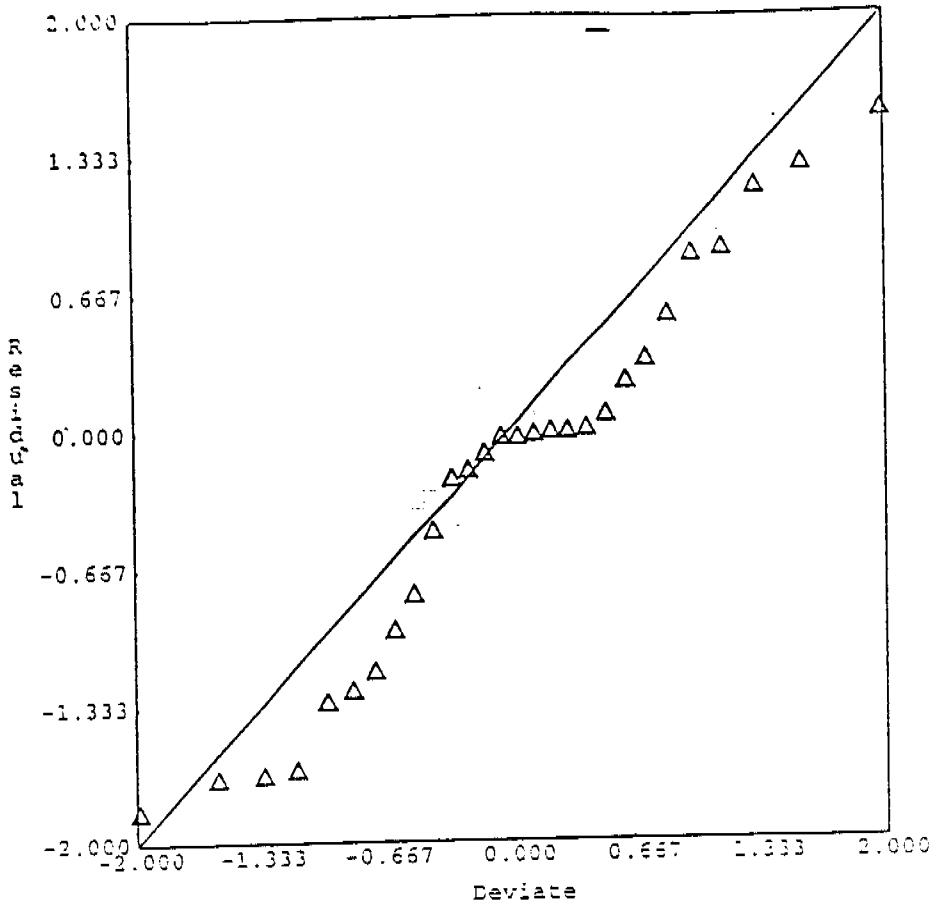


RIP3 RUN1


160.0
96.0
32.0
-32.0
-96.0
-160.0
Sorption
-110.0
-44.0
22.0
88.0
154.0
220.0
Phi
1
2

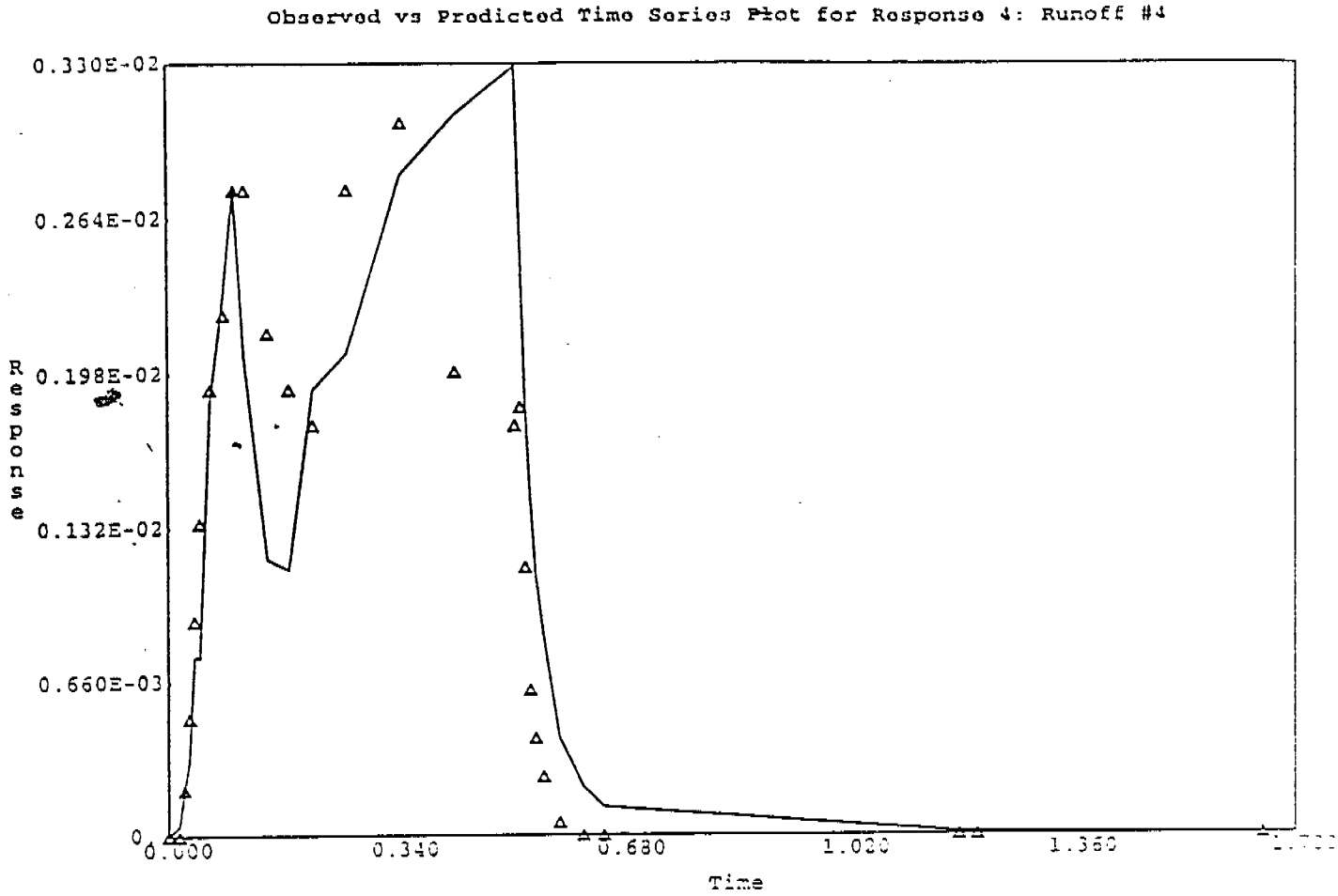
Approximate 95.0% Posterior Probability Regions



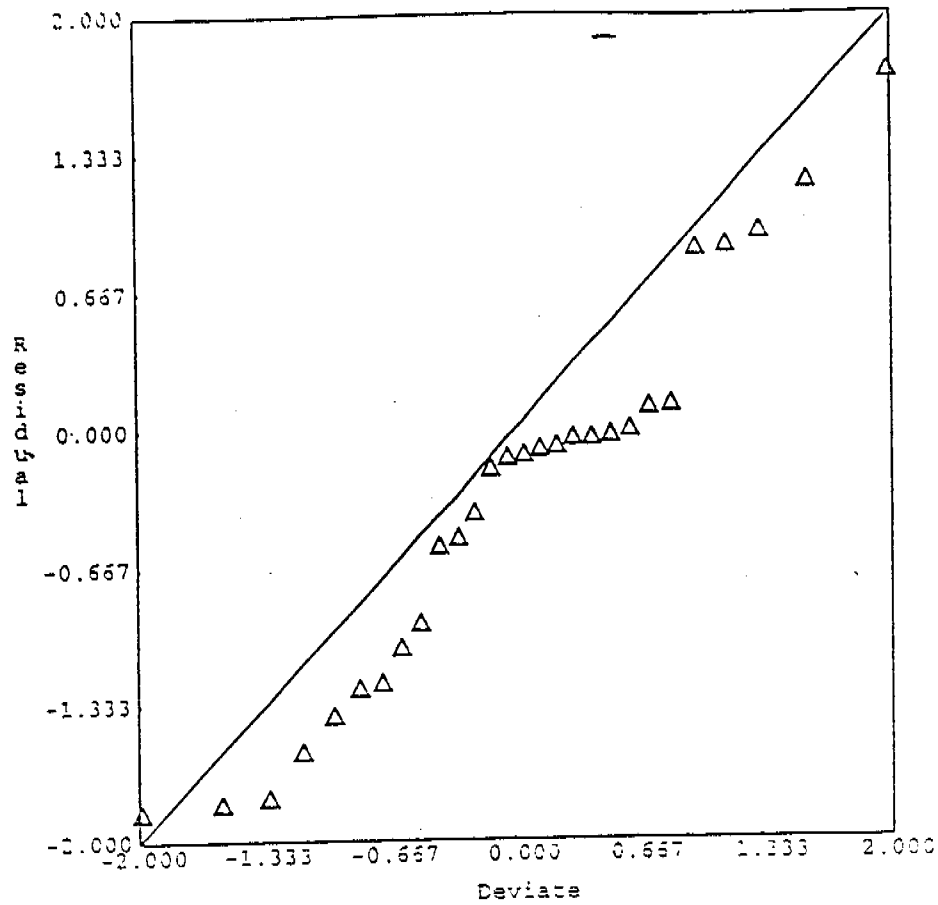


Kolmogorov-Smirnov statistic = 0.125 5% exceedance value = 0.164

RIP2 RUN7

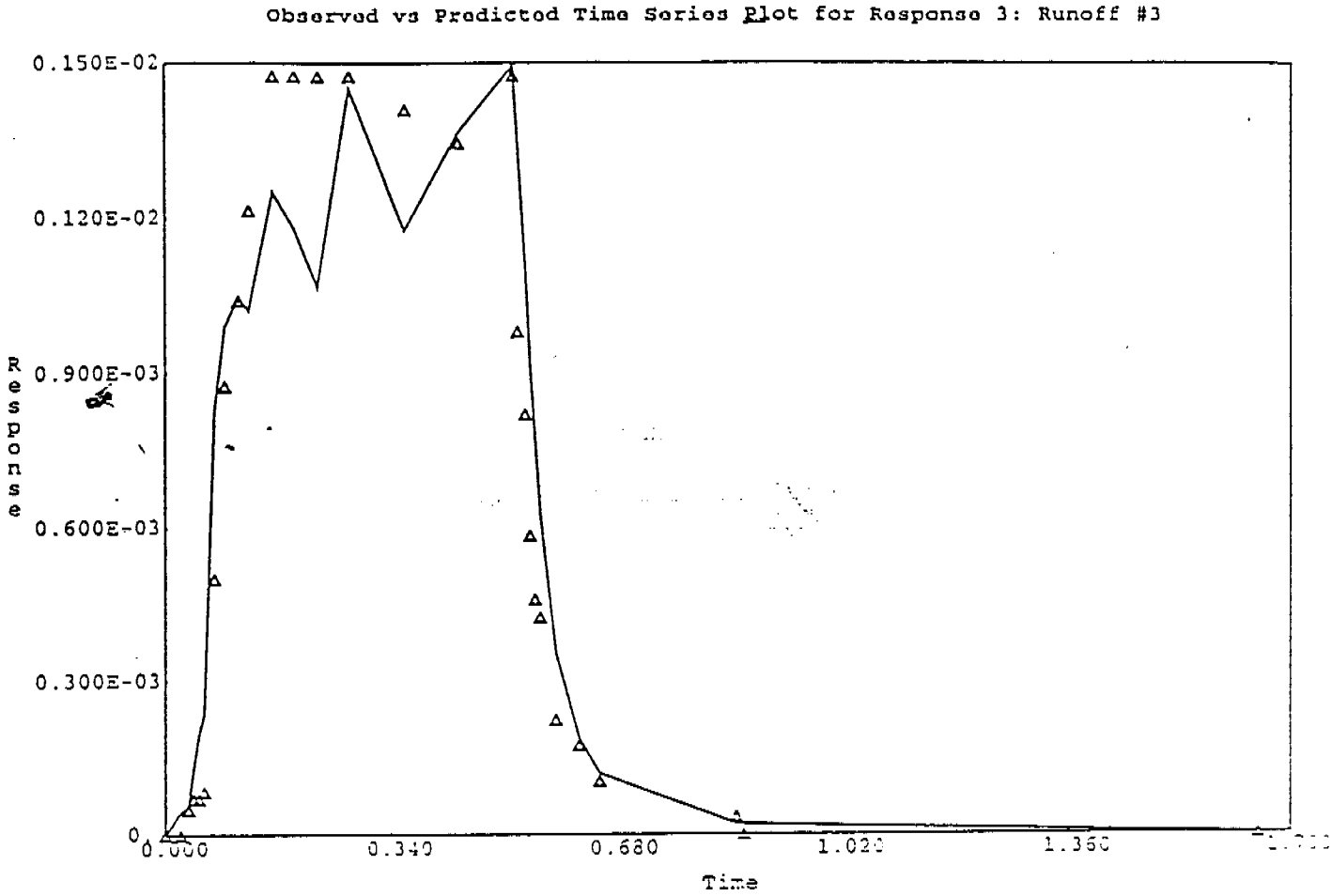

Observed vs Predicted Time Series Plot for Response 4: Runoff #4
0.330E-02
0.264E-02
0.198E-02
0.132E-02
0.660E-03
0
Response
0.000
0.340
0.680
1.020
1.360
Time

RIP2 RUN7

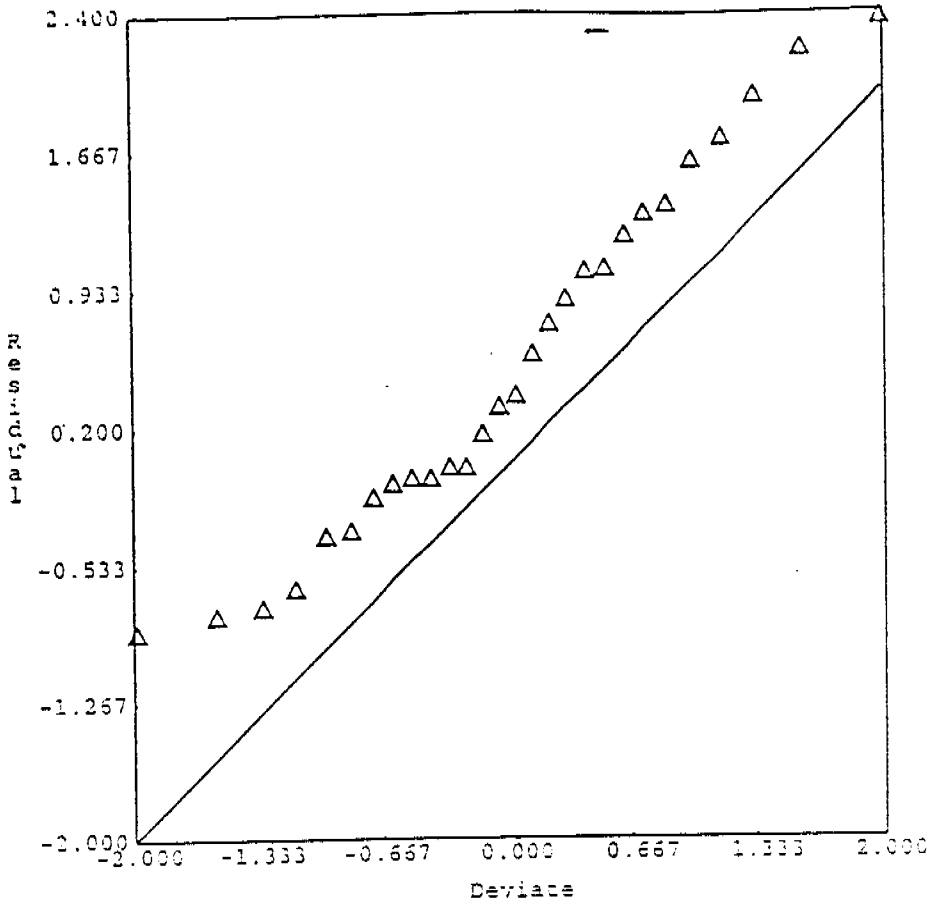


Kolmogorov-Smirnov statistic = 0.126 5% exceedance value = 0.164

RIP2 RUN6

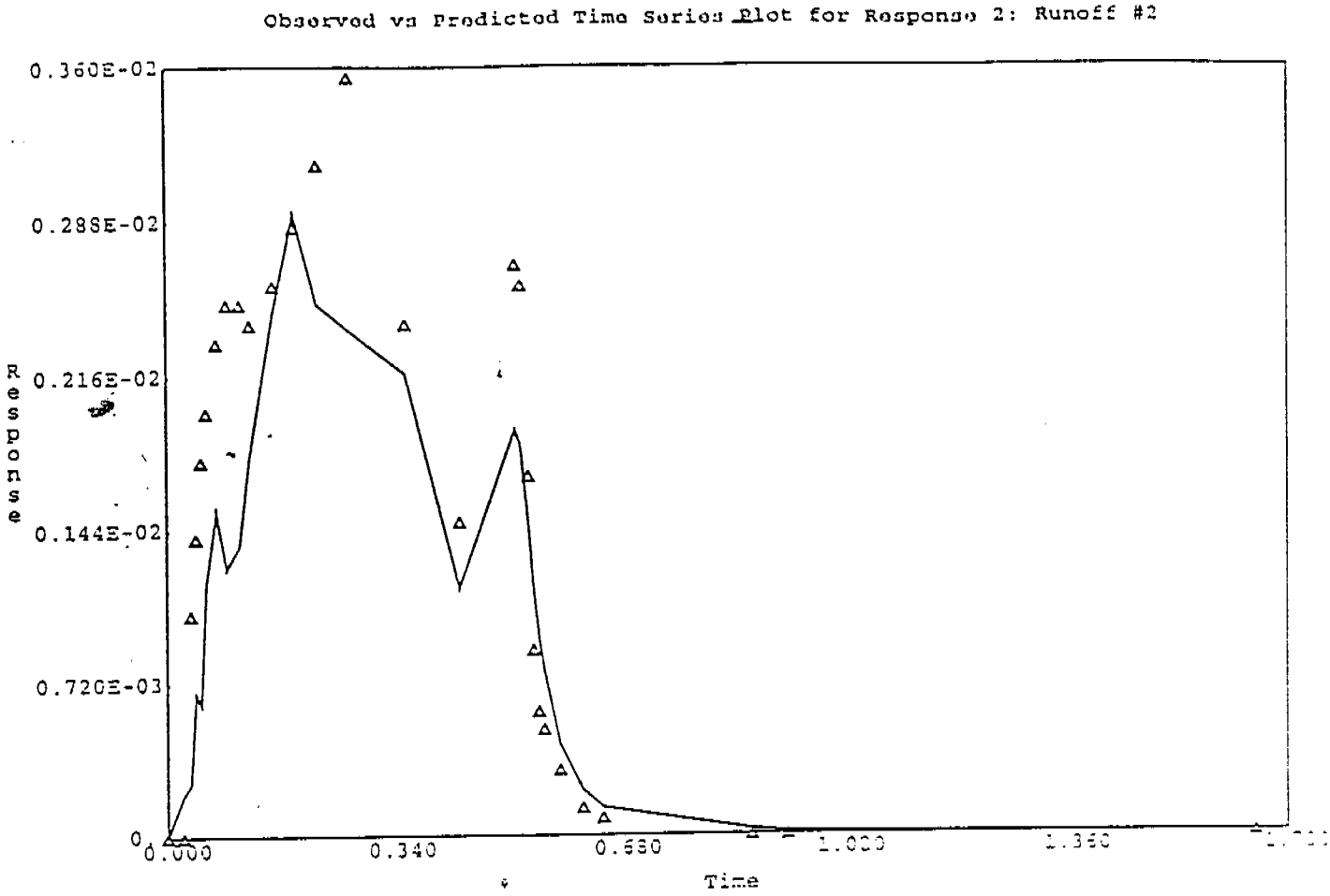

Observed vs Predicted Time Series Plot for Response 3: Runoff #3
0.150E-02
0.120E-02
0.900E-03
0.600E-03
0.300E-03
0
Response
0.000
0.340
0.680
1.020
1.360
Time

RIP2 RUN6



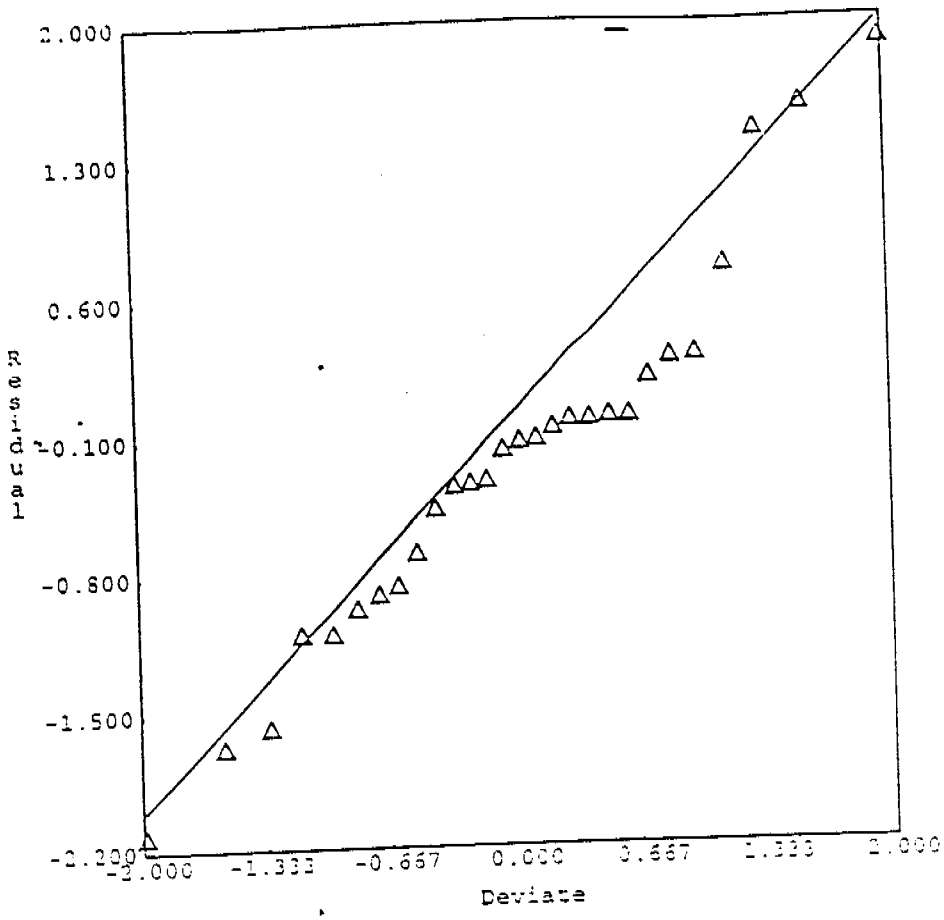
Kolmogorov-Smirnov statistic = 0.114 5% exceedance value = 0.164

RIP2 RUN5


Observed vs Predicted Time Series Plot for Response 2: Runoff #2
0.360E-02
0.288E-02
0.216E-02
0.144E-02
0.720E-03
0
Response
0.000
0.340
0.680
1.020
1.360
Time

R1P2 RUN5

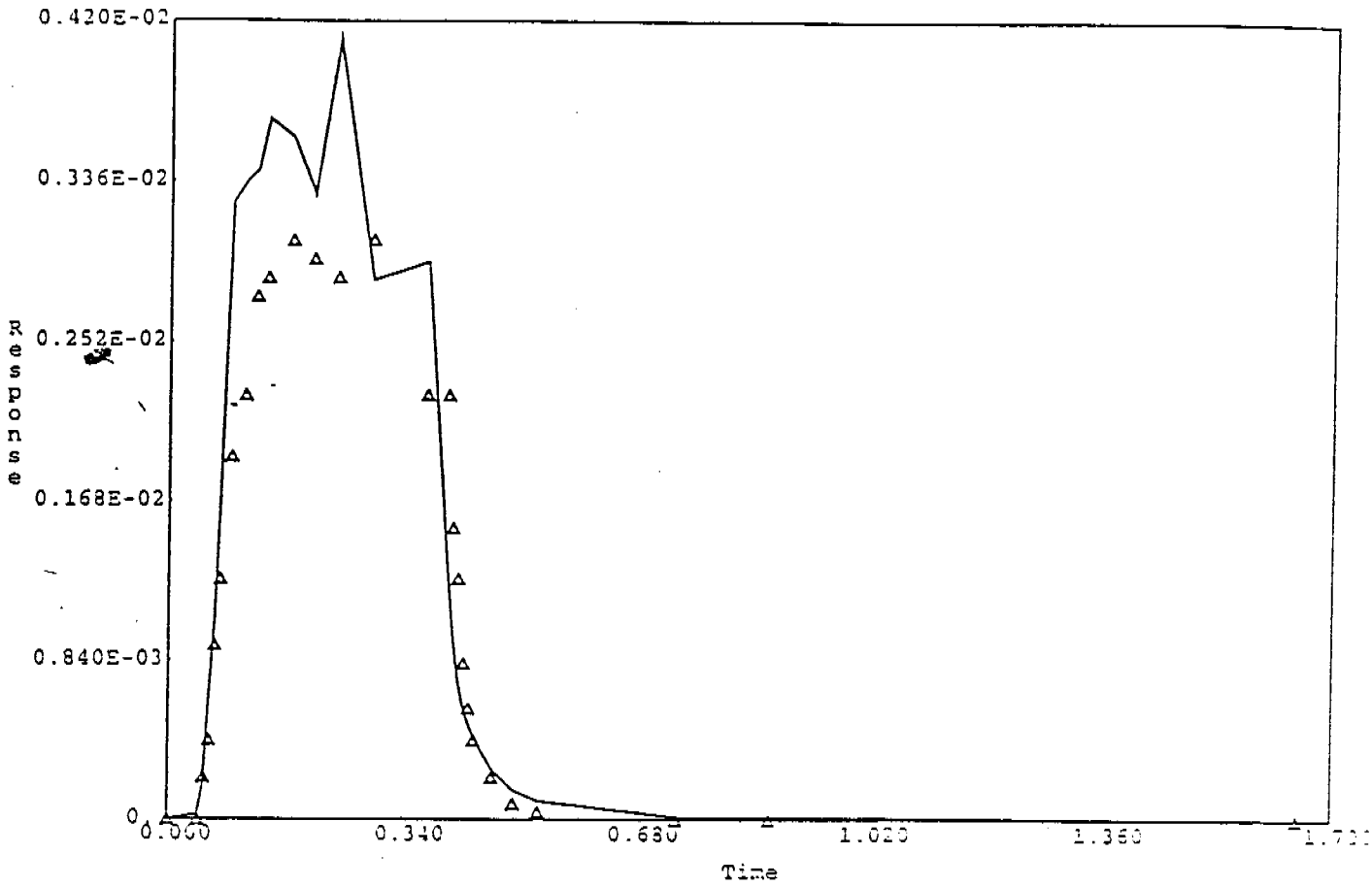
Normal Plot



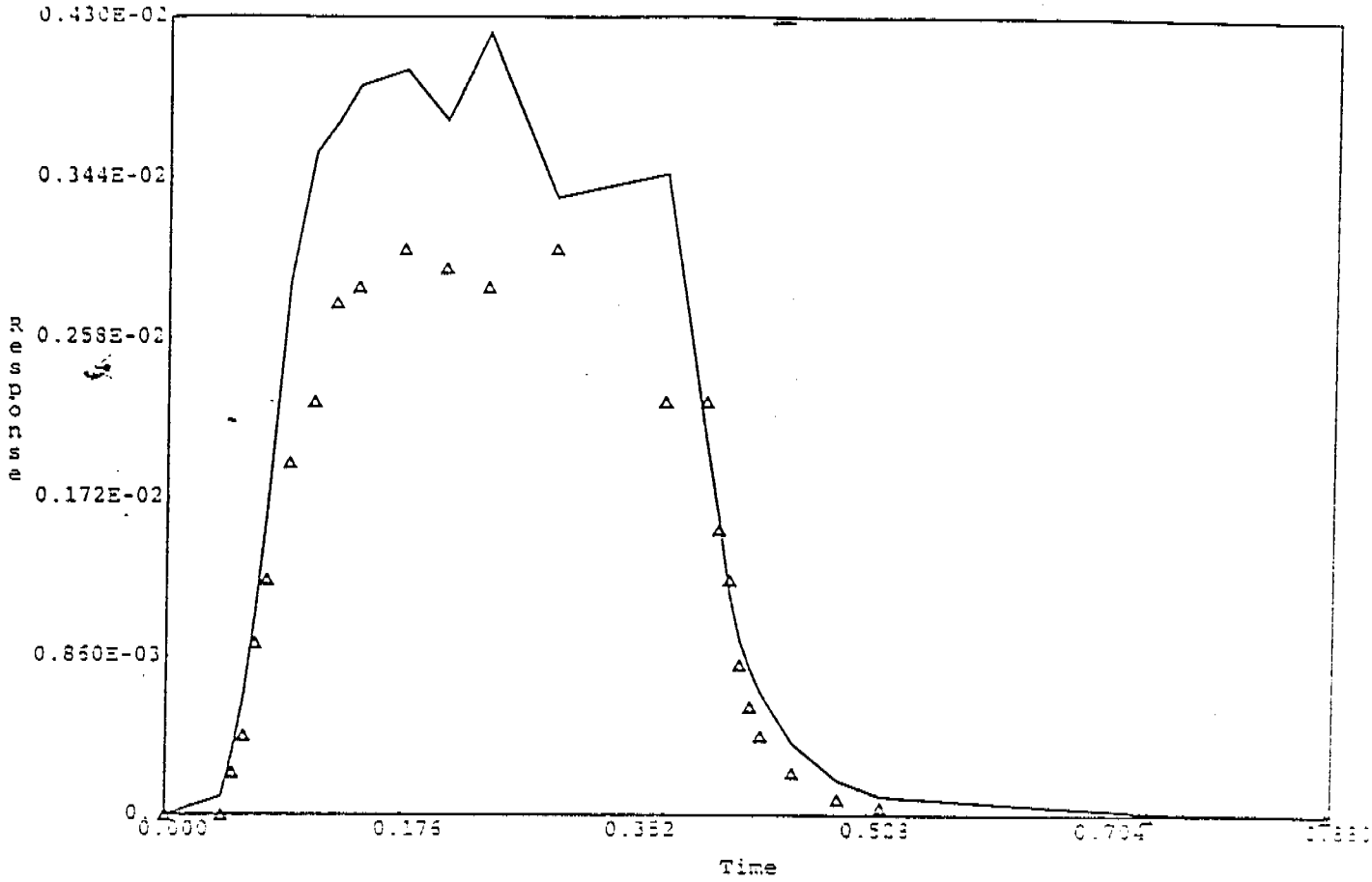
Kolmogorov-Smirnov statistic = 0.137 5% exceedance value = 0.164

RIP2 RUN4

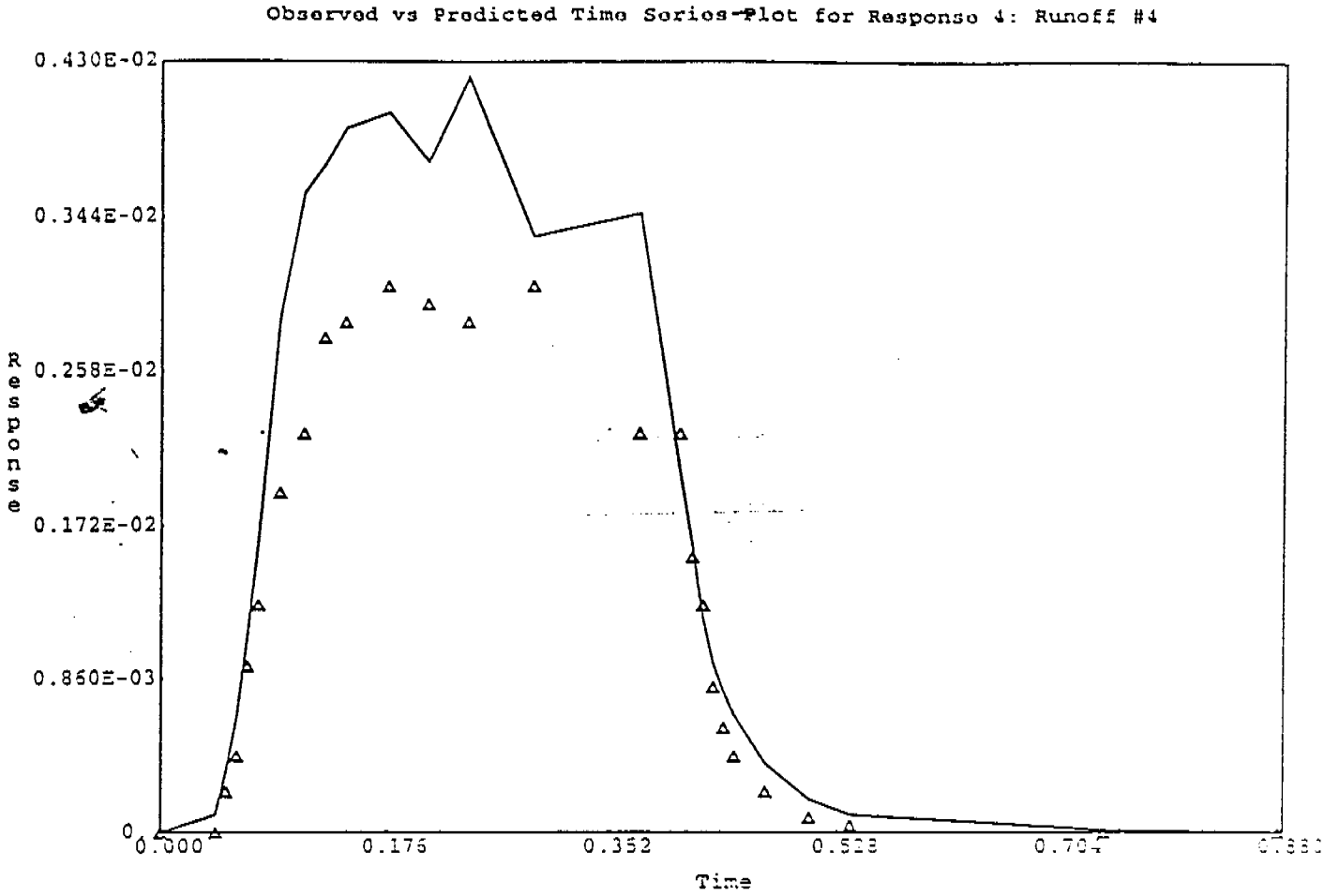
RESULTS FROM RIP2.RUN



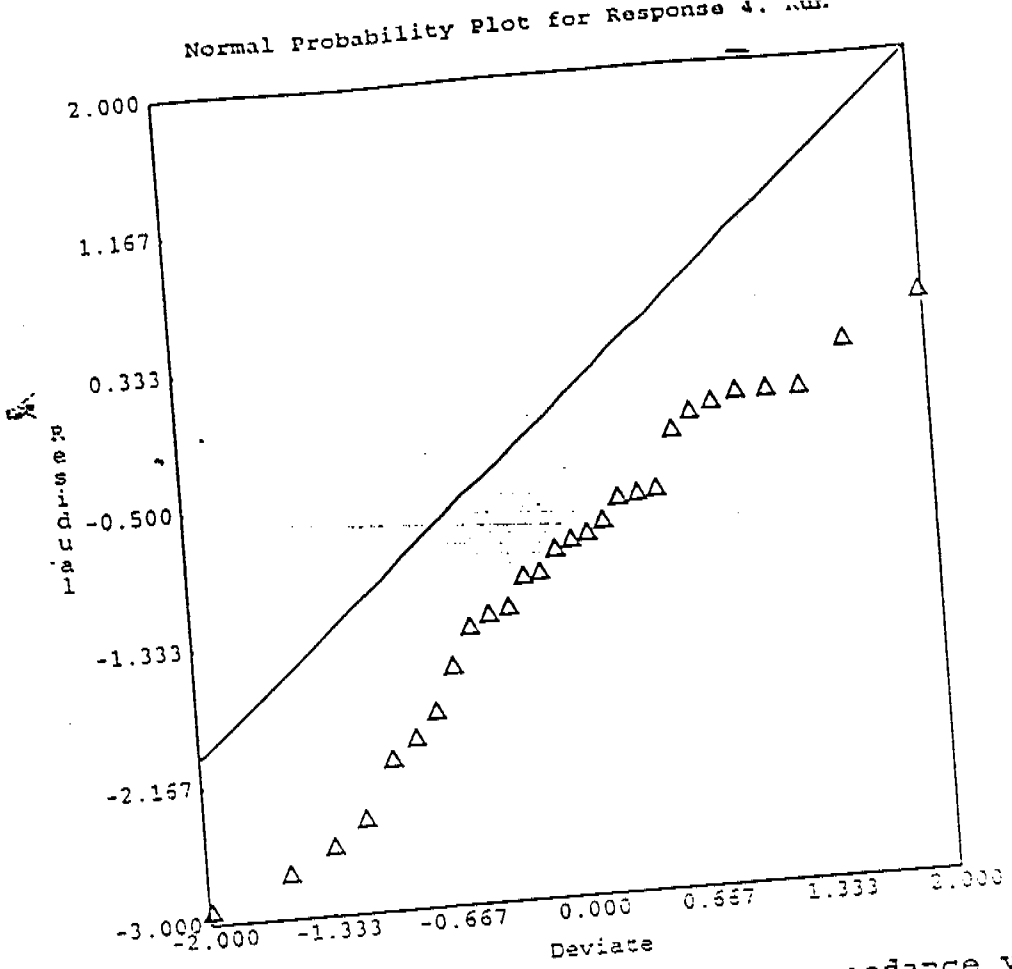
RIP2 RUN4


0.430E-02
0.344E-02
0.258E-02
0.172E-02
0.860E-03
0
Response
0.000
0.176
0.352
0.528
0.704
Time

RIP2 RUN4

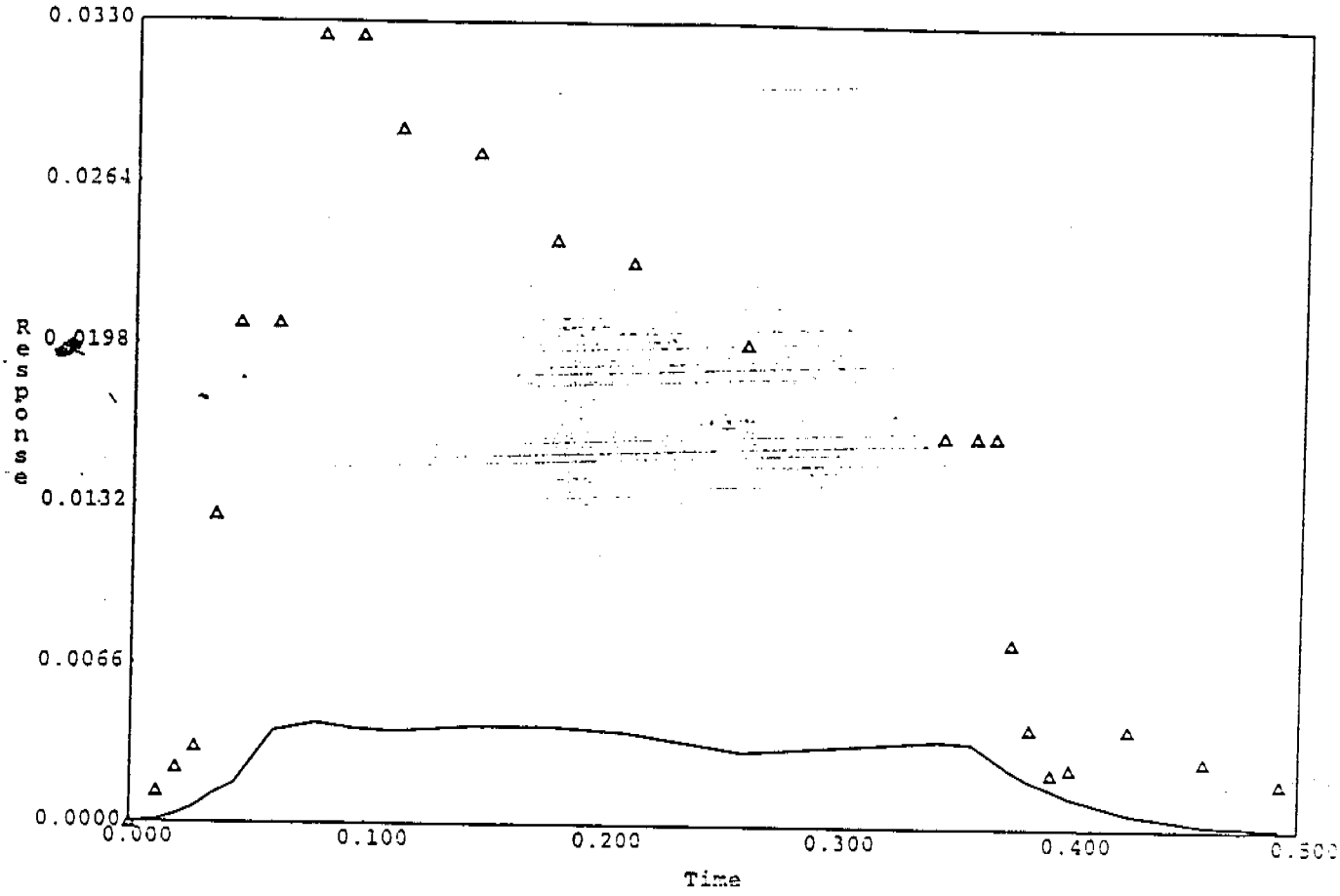

Observed vs Predicted Time Series Plot for Response 4: Runoff #4
0.430E-02
0.344E-02
0.258E-02
0.172E-02
0.860E-03
0
Response
0.000
0.176
0.352
0.528
0.704
Time

RIP2 RUN4



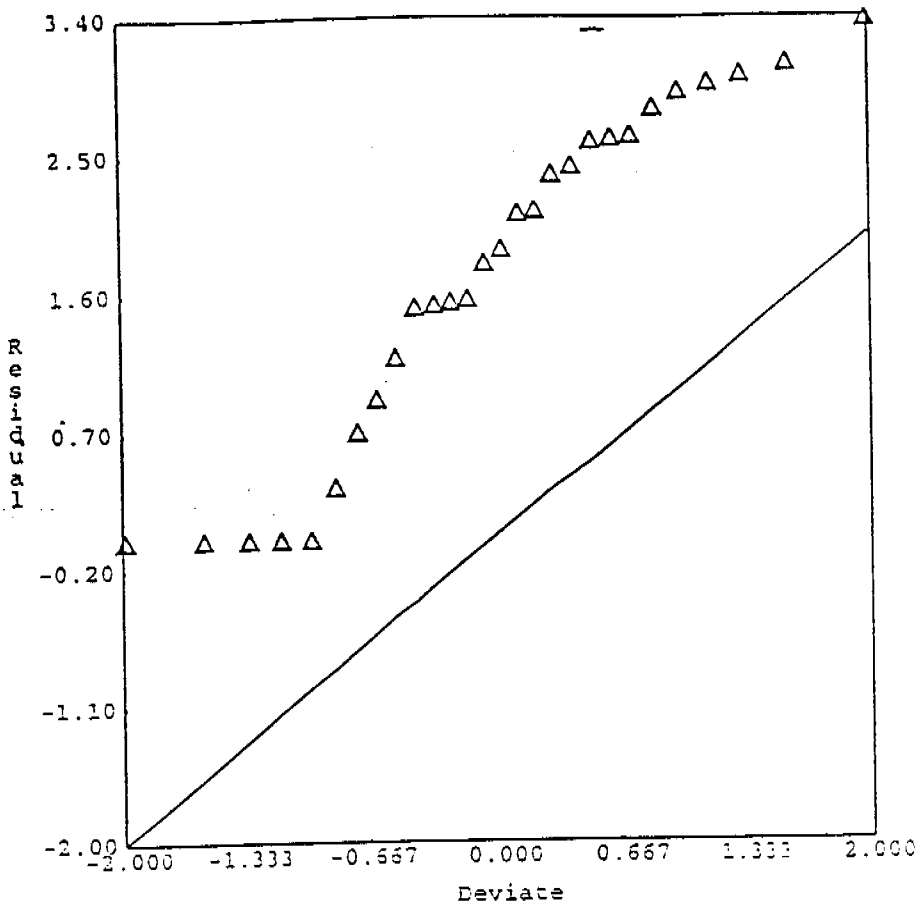
Kolmogorov-Smirnov statistic = 0.083 5% exceedance value = 0.164

RIP2 RUN3


Observed vs Predicted Time Series Plot for Response 3: Runoff #3
0.0330
0.0264
0.0198
0.0132
0.0066
0.0000
Response
0.000
0.100
0.200
0.300
0.400
0.500
Time

RIP2 RUN3

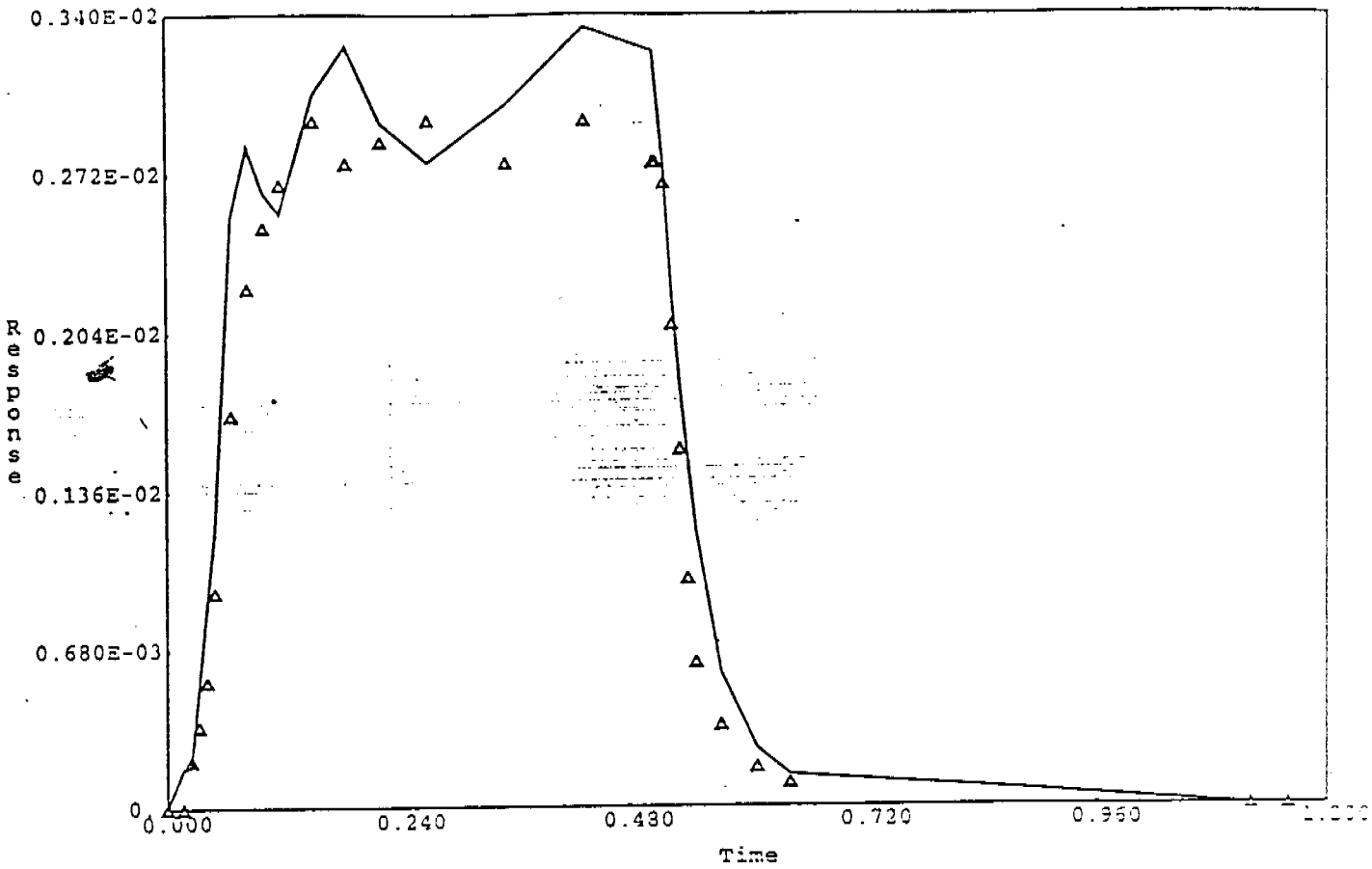
Normal Prob. Plt



Kolmogorov-Smirnov statistic = 0.122 5% exceedance value = 0.164

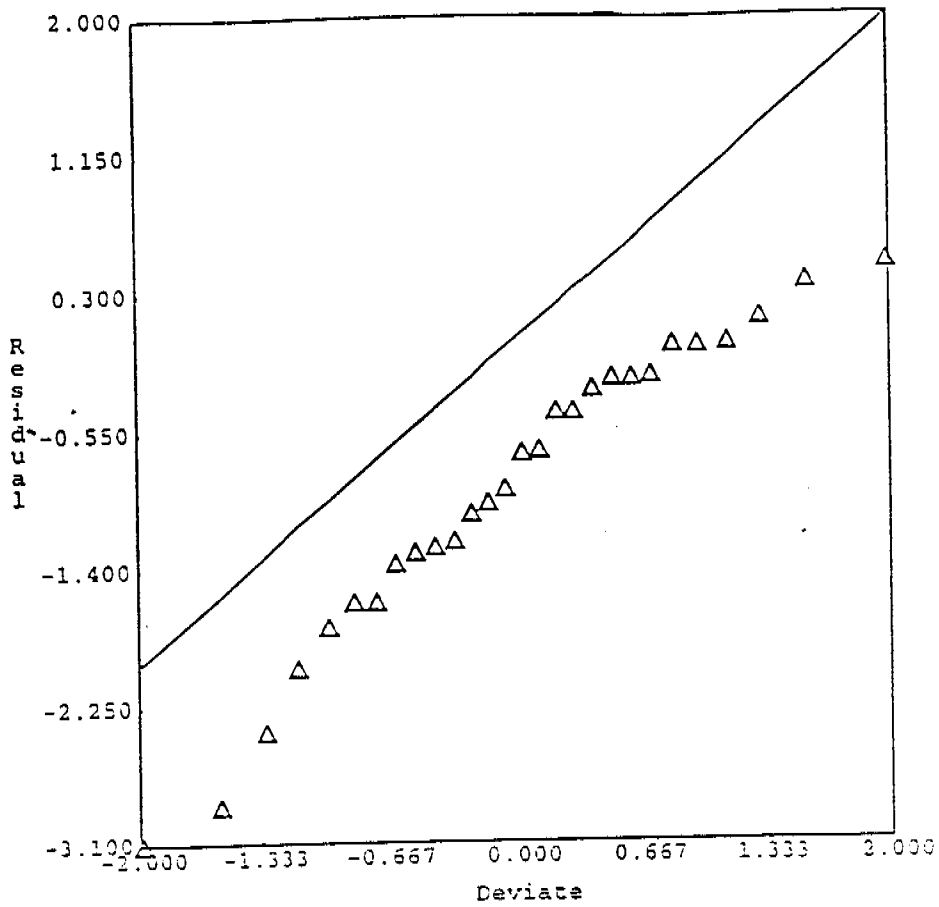
RIP2 RUN2

Observed vs Predicted Time Series Plot for Response 2: Runoff #2



RIP2 RUN2

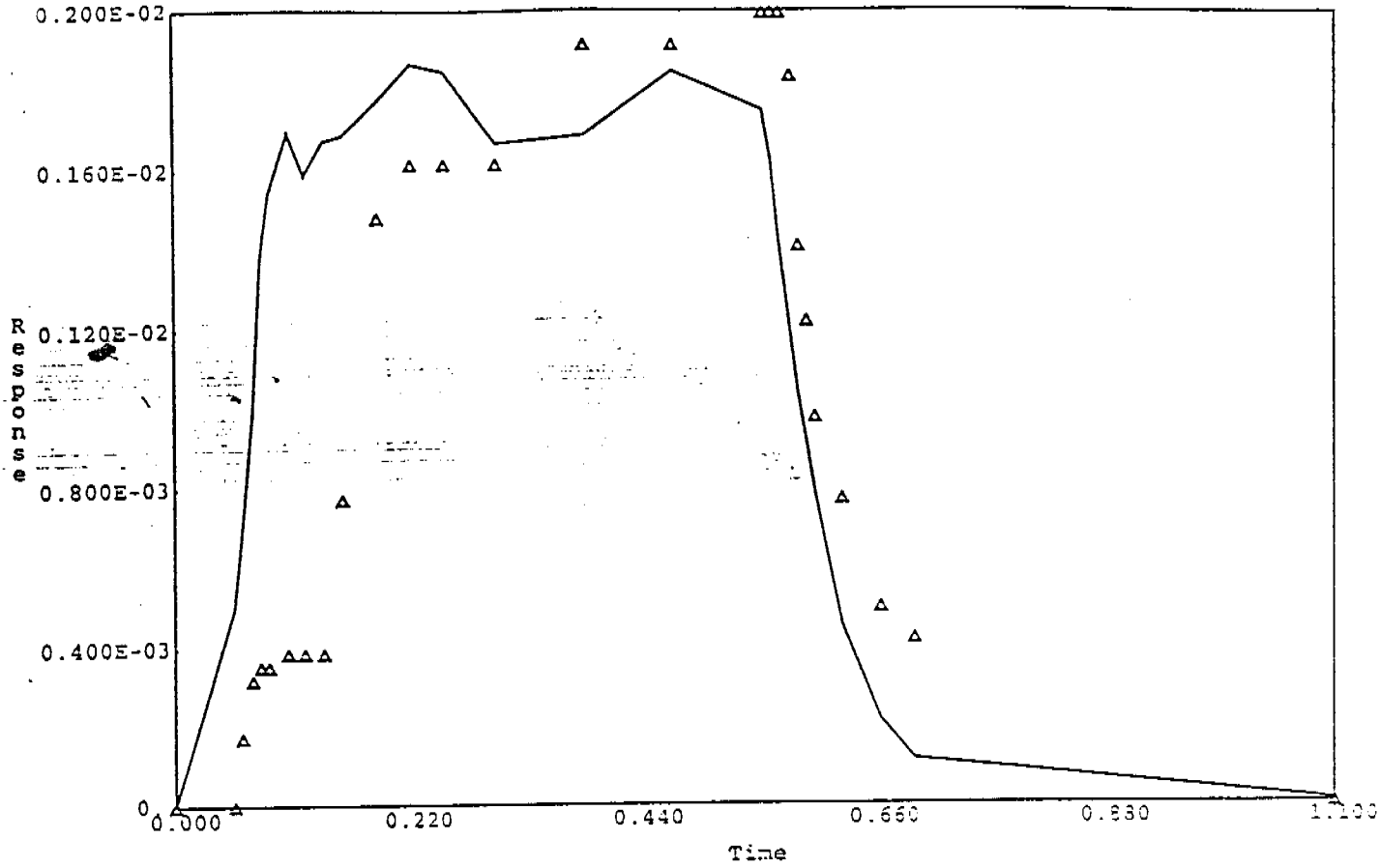
Normal Probability Plot for Response 2: Runoff #2



Kolmogorov-Smirnov statistic = 0.097 5% exceedance value = 0.164

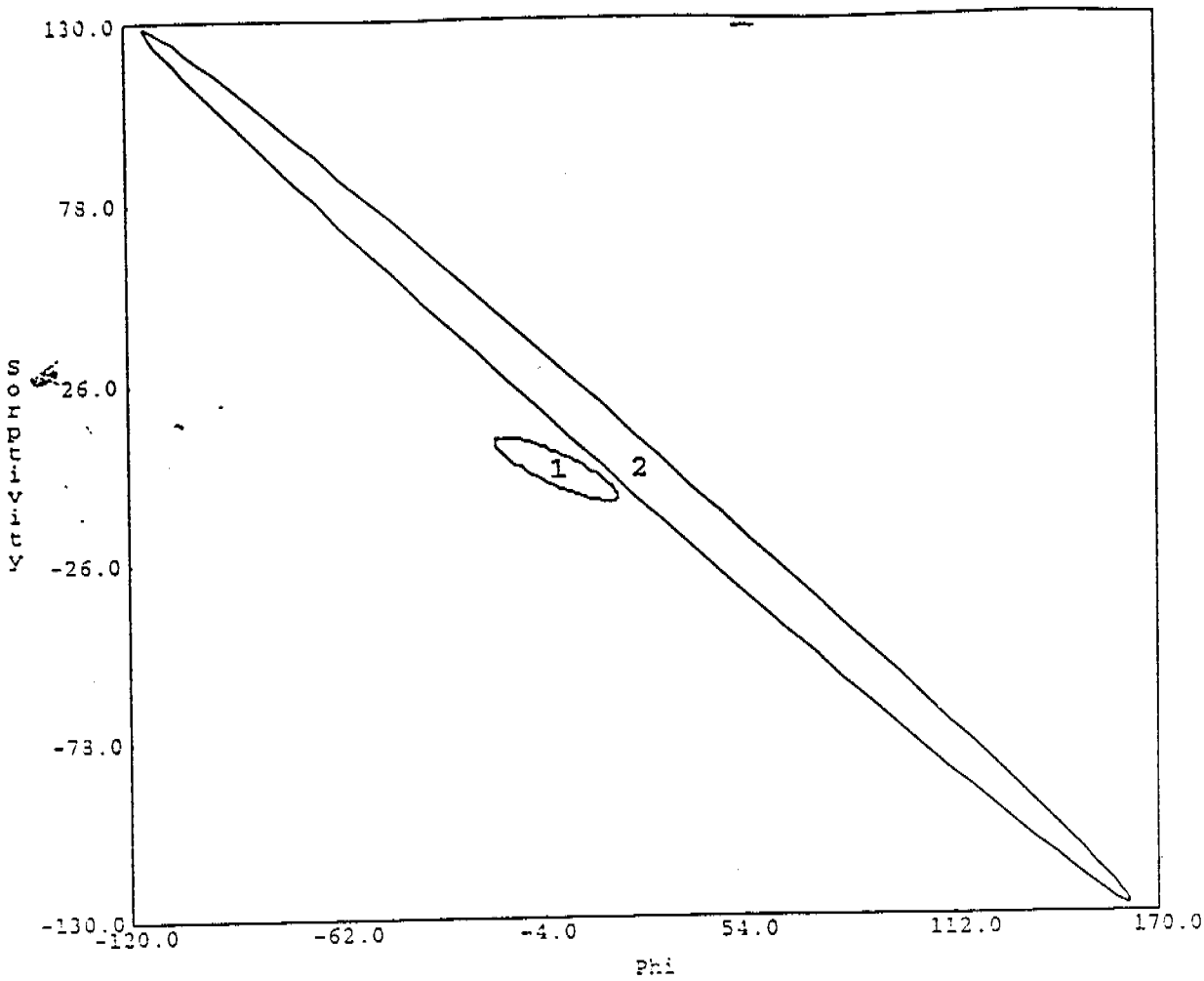
RIP2 RUN1

RESULTS FROM RIP2a fw

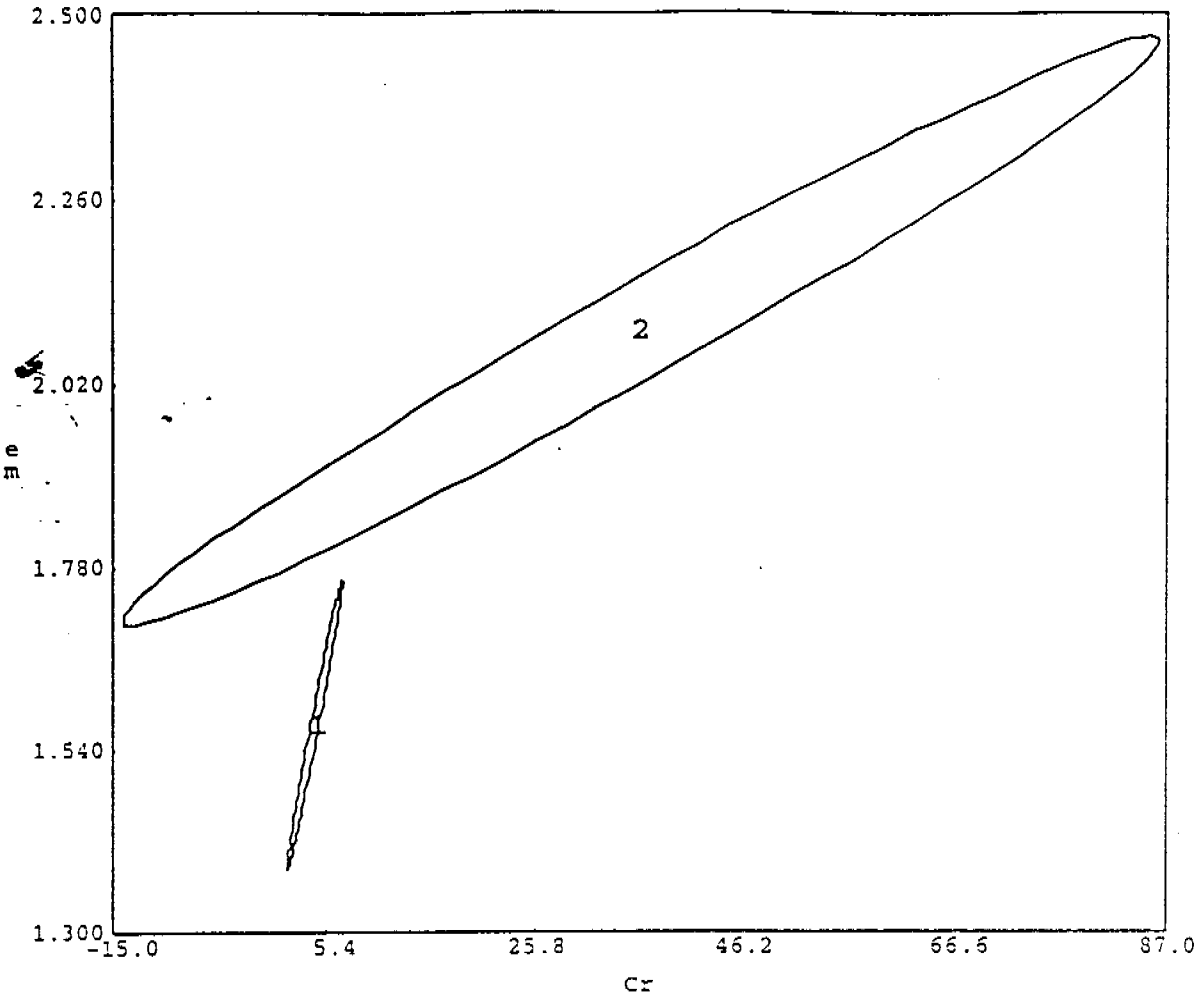


RIP2 RUN1

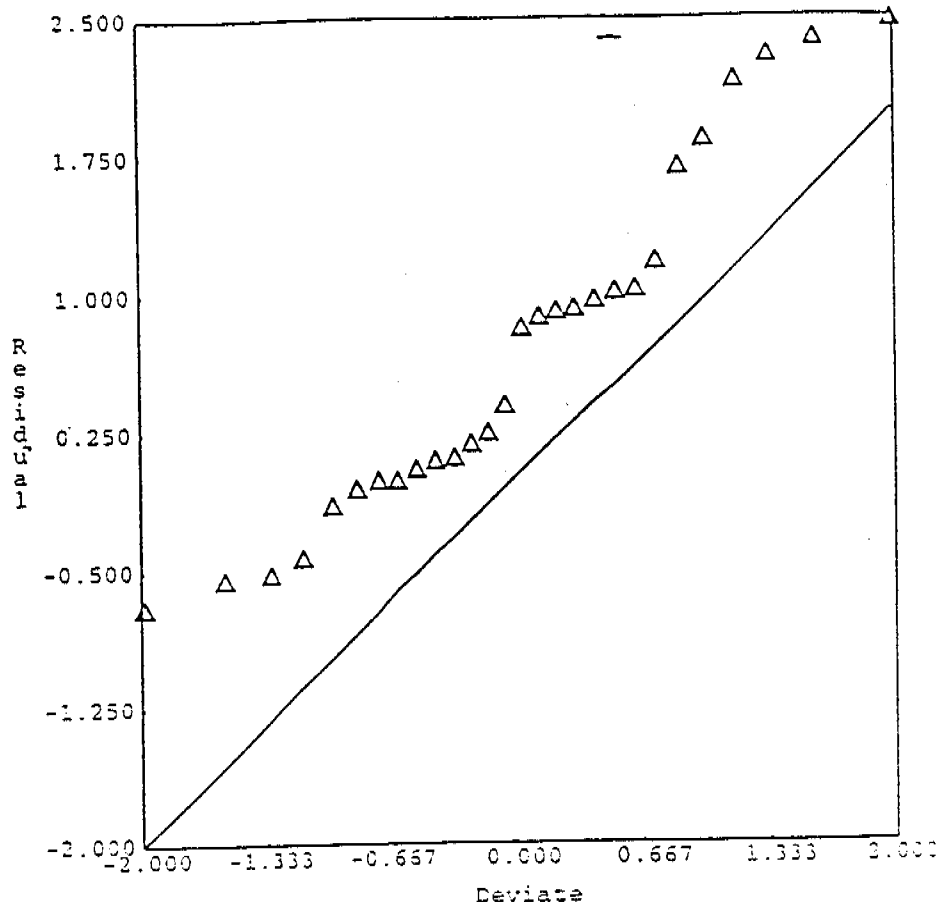
Approximate [illegible]



COMPARISON OF RIP2a fw AND RIP2b fw



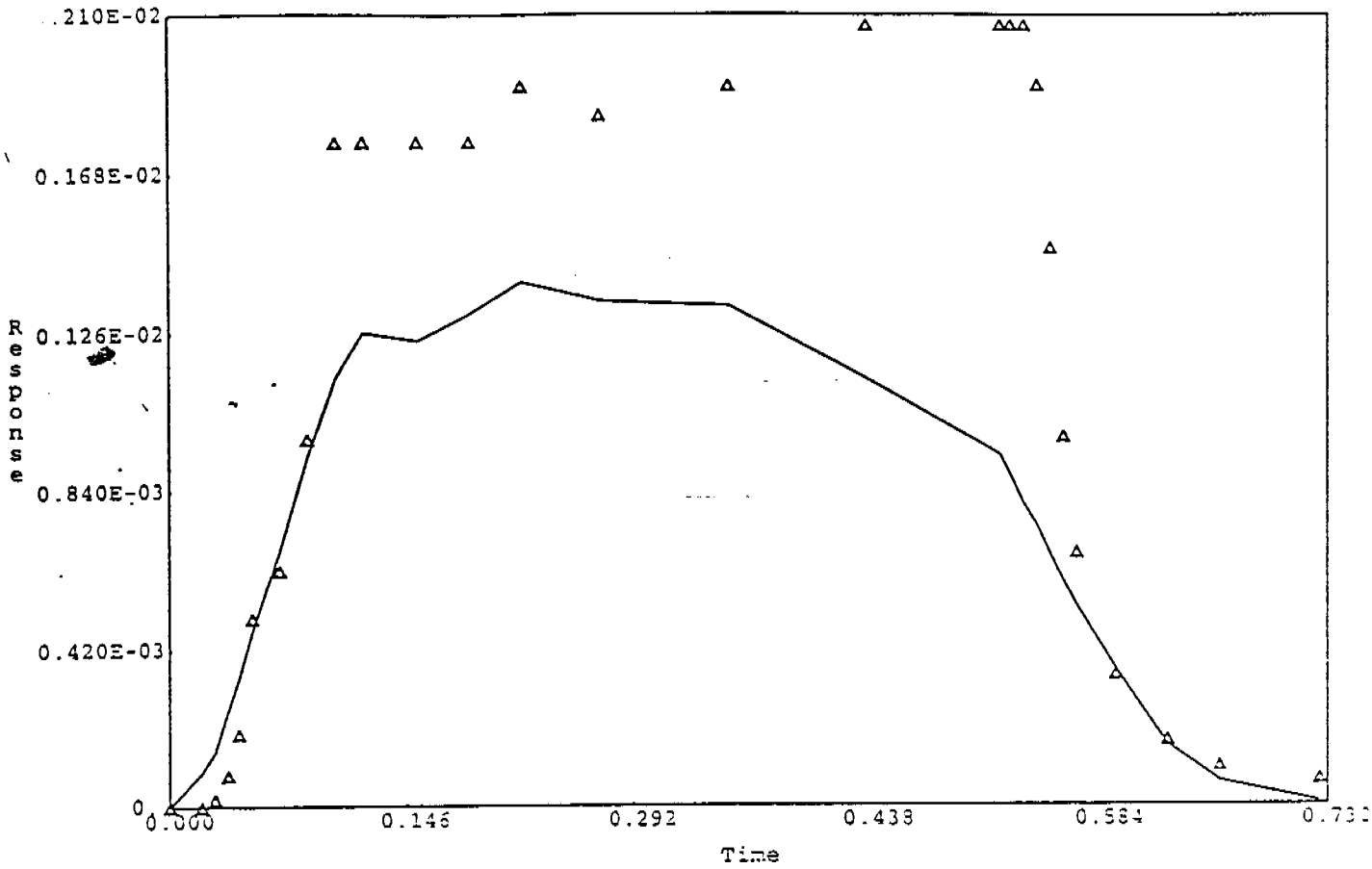
Normal Probability Plot for Response 4: Rubber [illegible]



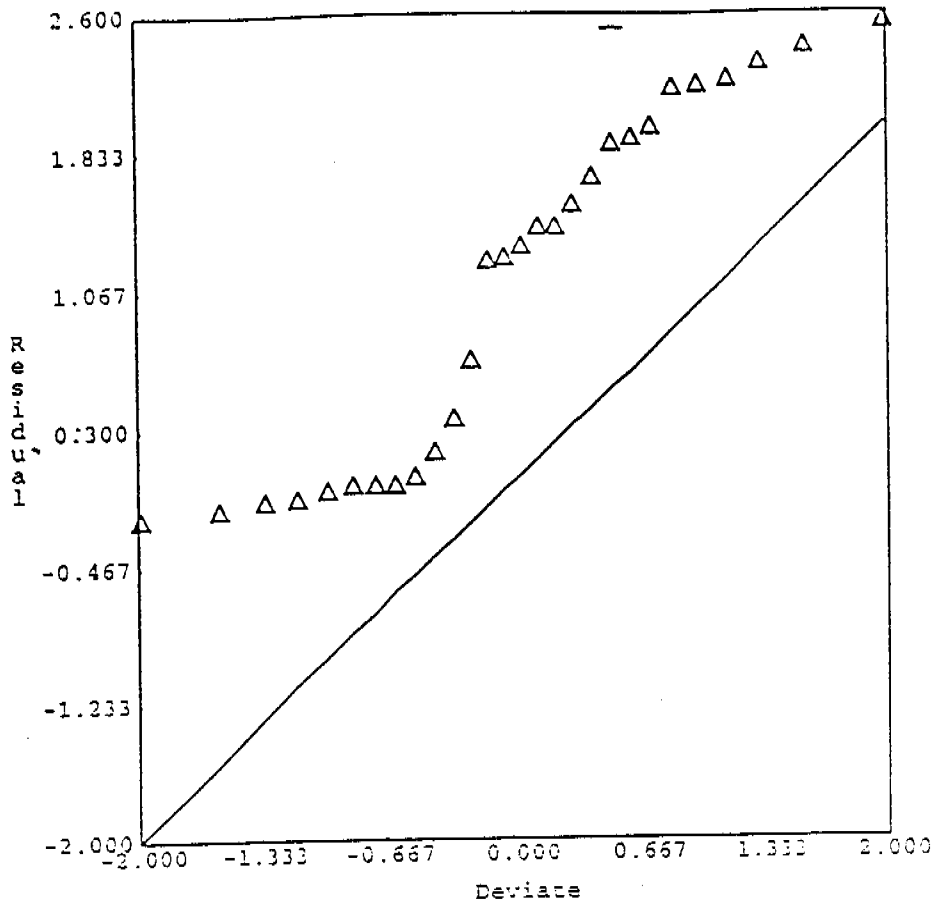
Kolmogorov-Smirnov statistic = 0.116 5% exceedance value = 0.164

RIP1 RUN7

Observed vs Predicted Time Series Plot for Response 4: Runoff #4



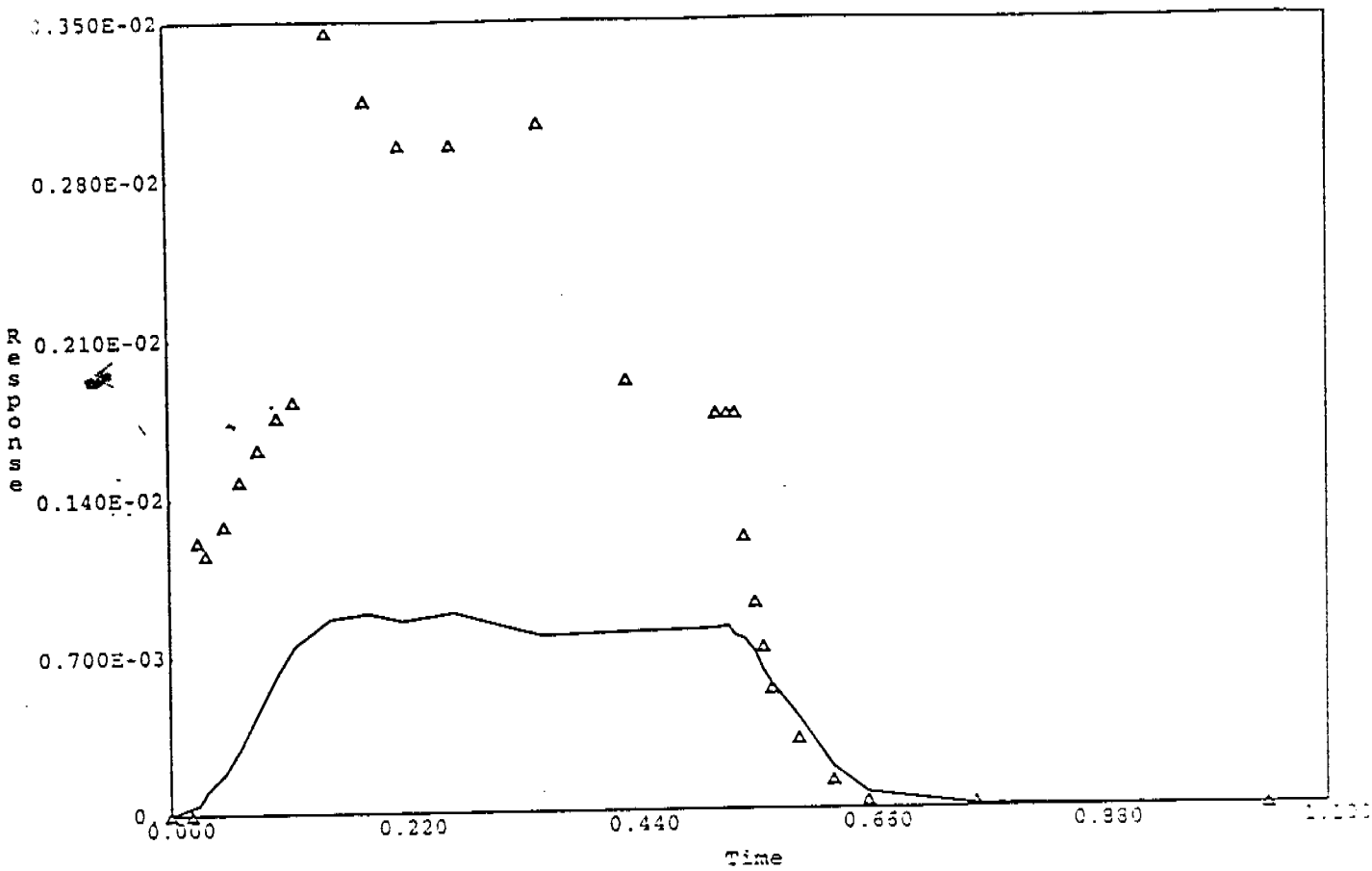
RIP1 RUN7



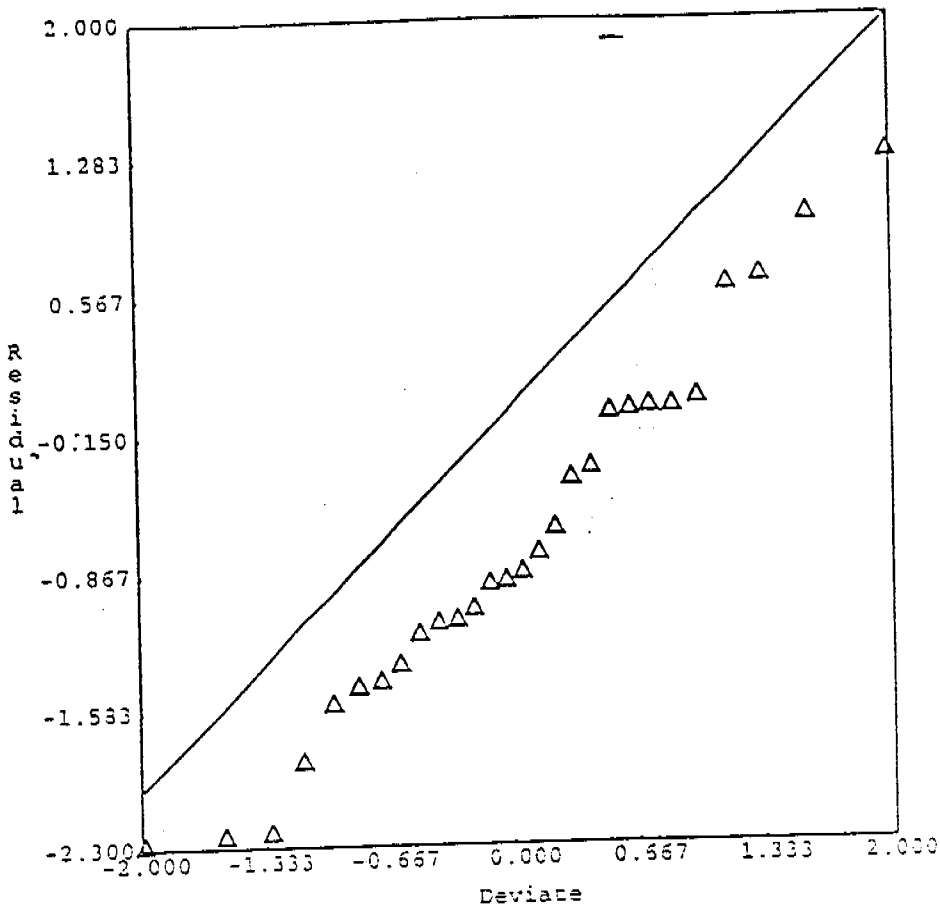
Kolmogorov-Smirnov statistic = 0.159 5% exceedance value = 0.164

RIP1 RUNG

Observed vs Predicted Time Series Plot for Response 3: Runoff #3

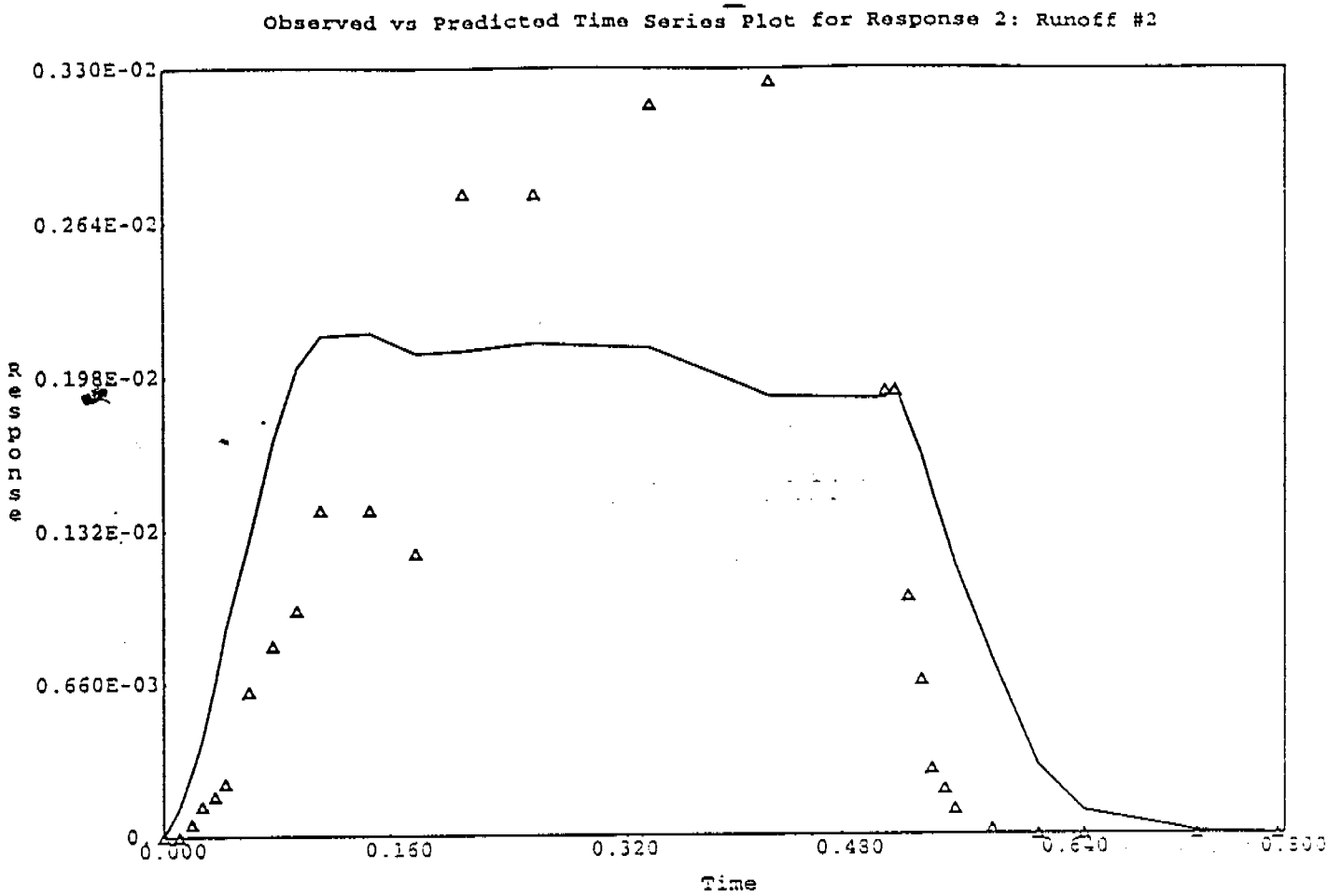


RIP1 RUN6

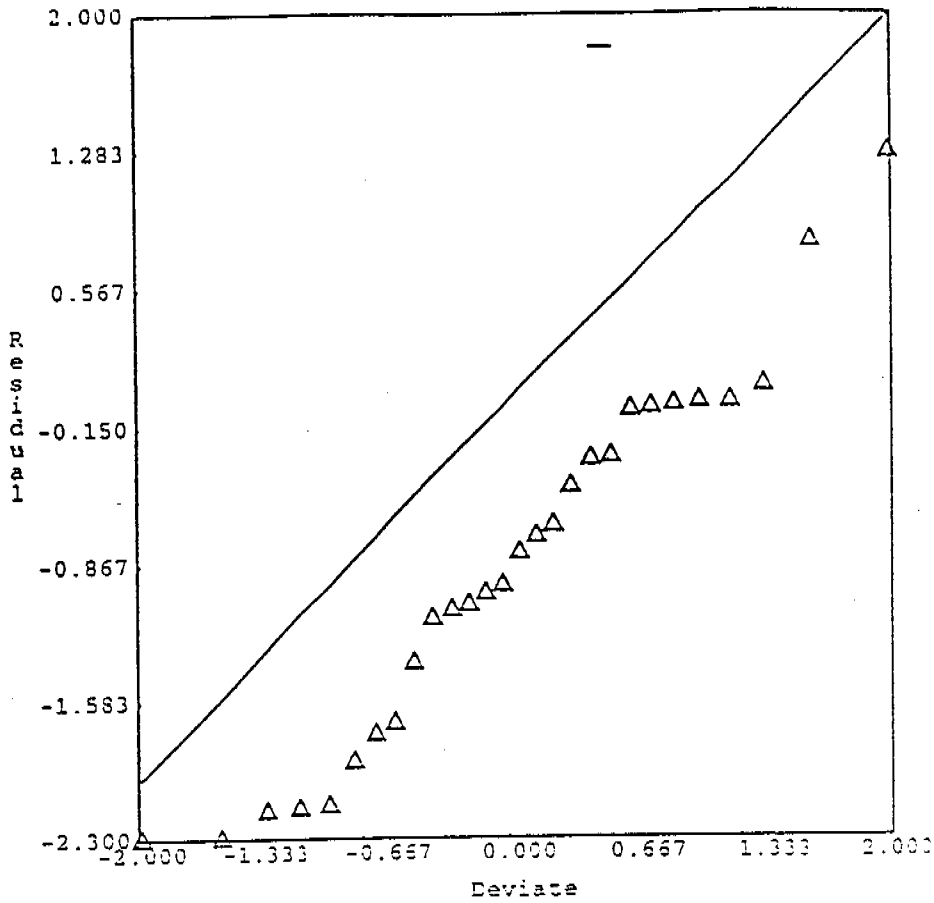


Kolmogorov-Smirnov statistic = 0.078 5% exceedance value = 0.164

RIP1 RUN5


Observed vs Predicted Time Series Plot for Response 2: Runoff #2
0.330E-02
0.264E-02
0.198E-02
0.132E-02
0.660E-03
0
Response
0.000
0.160
0.320
0.480
0.640
0.800
Time

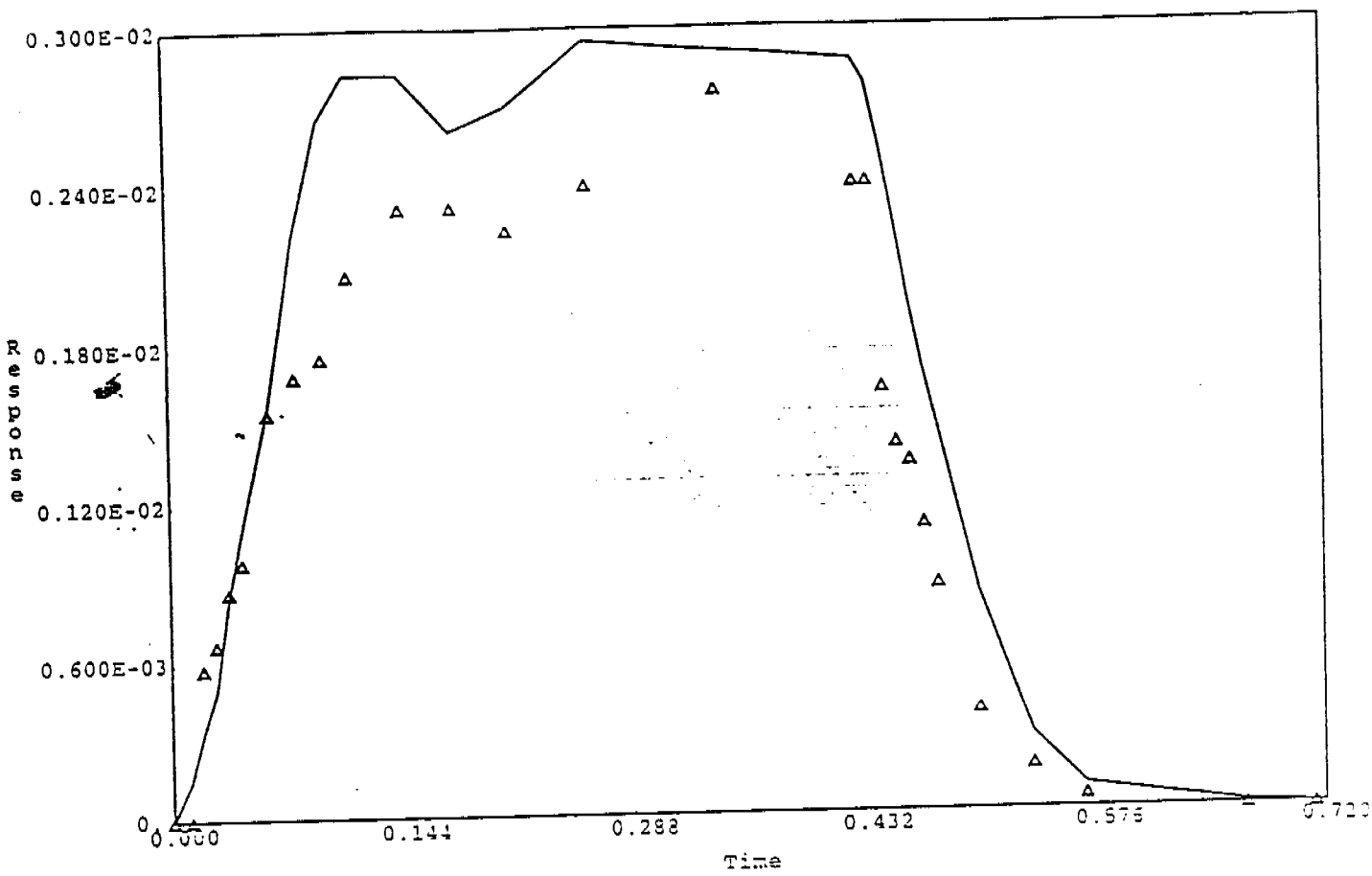
RIP1 RUN5



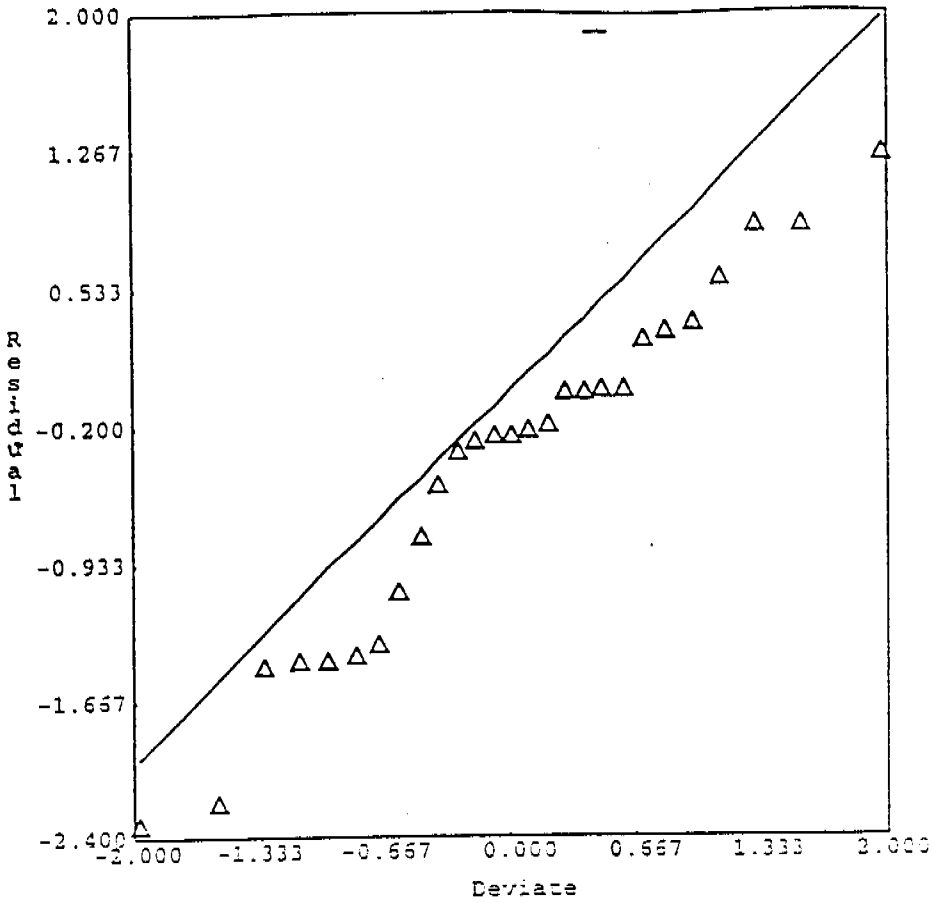
Kolmogorov-Smirnov statistic = 0.079 5% exceedance value = 0.164

RIP1 RUN4

RESULTS FROM RIP1.RW



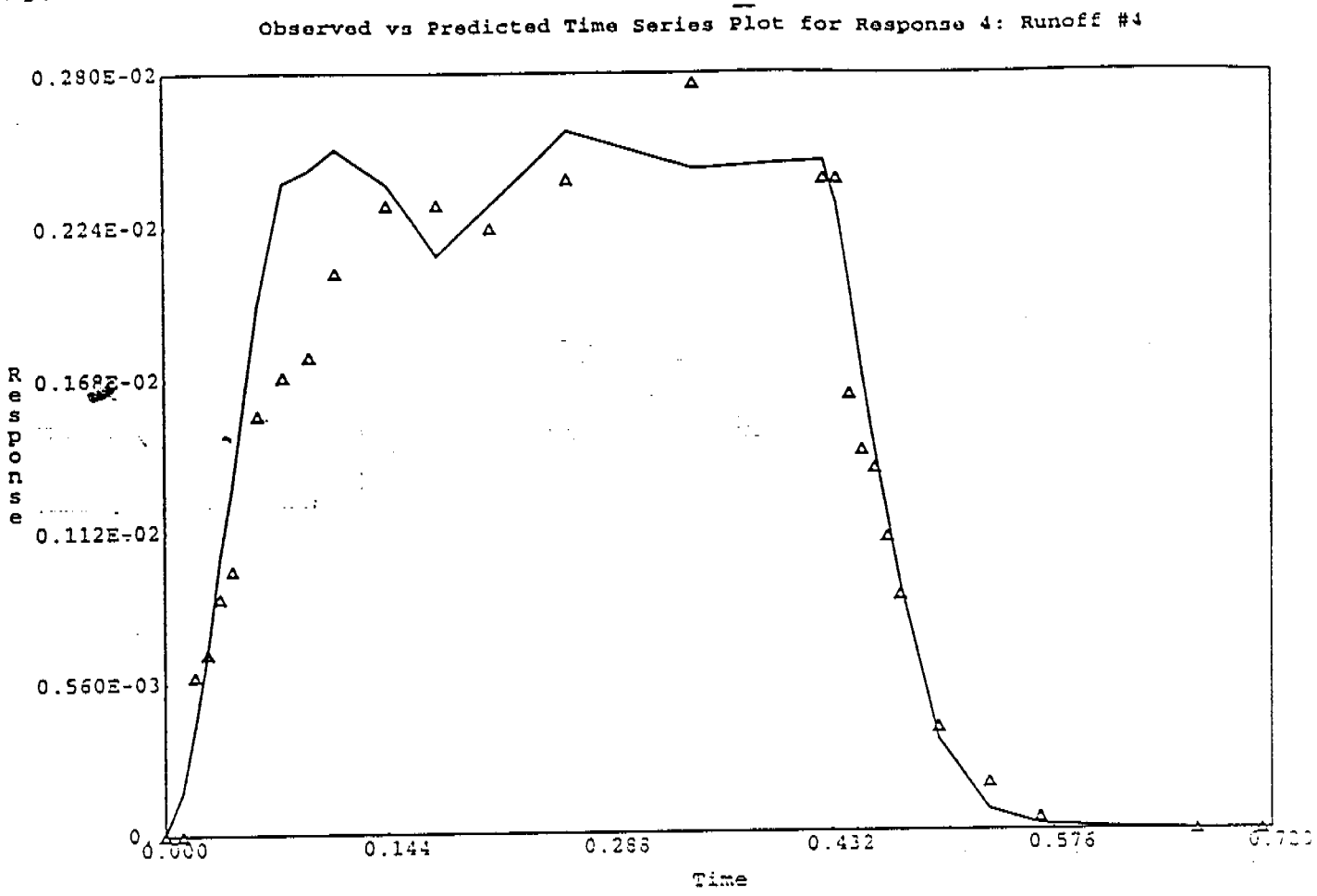
RIP1 RUN4



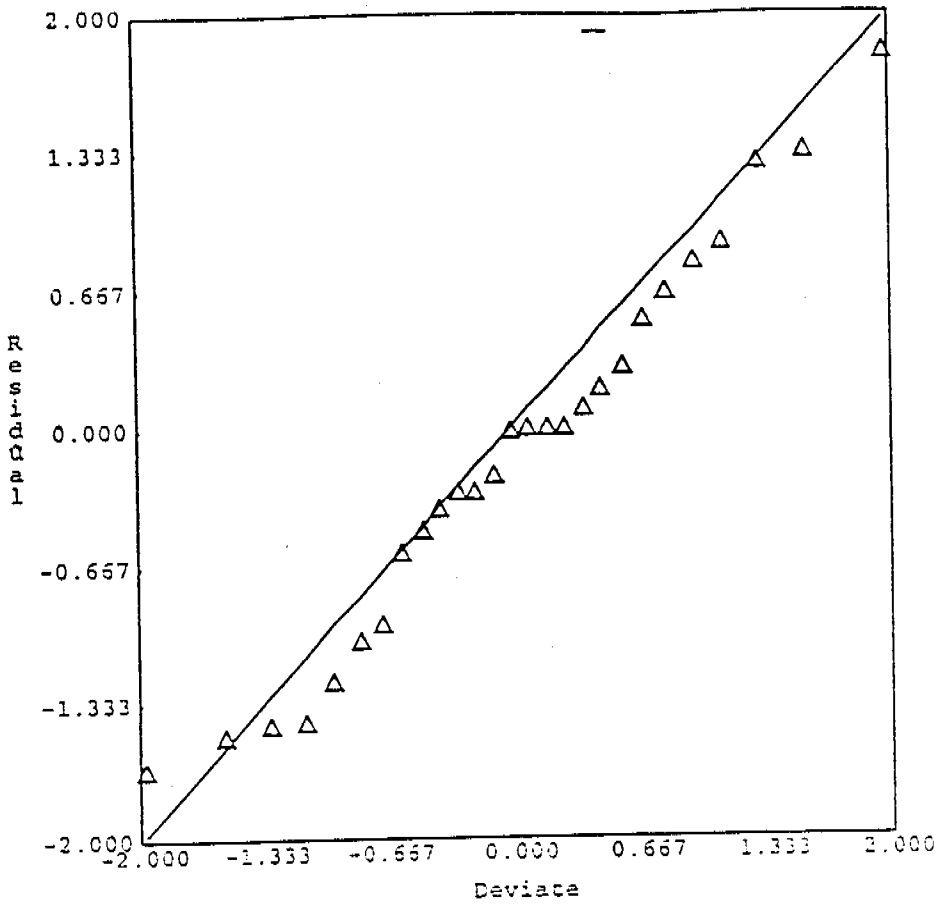
Kolmogorov-Smirnov statistic = 0.140 5% exceedance value = 0.167

RIP1 RUN4

RIP1a fw



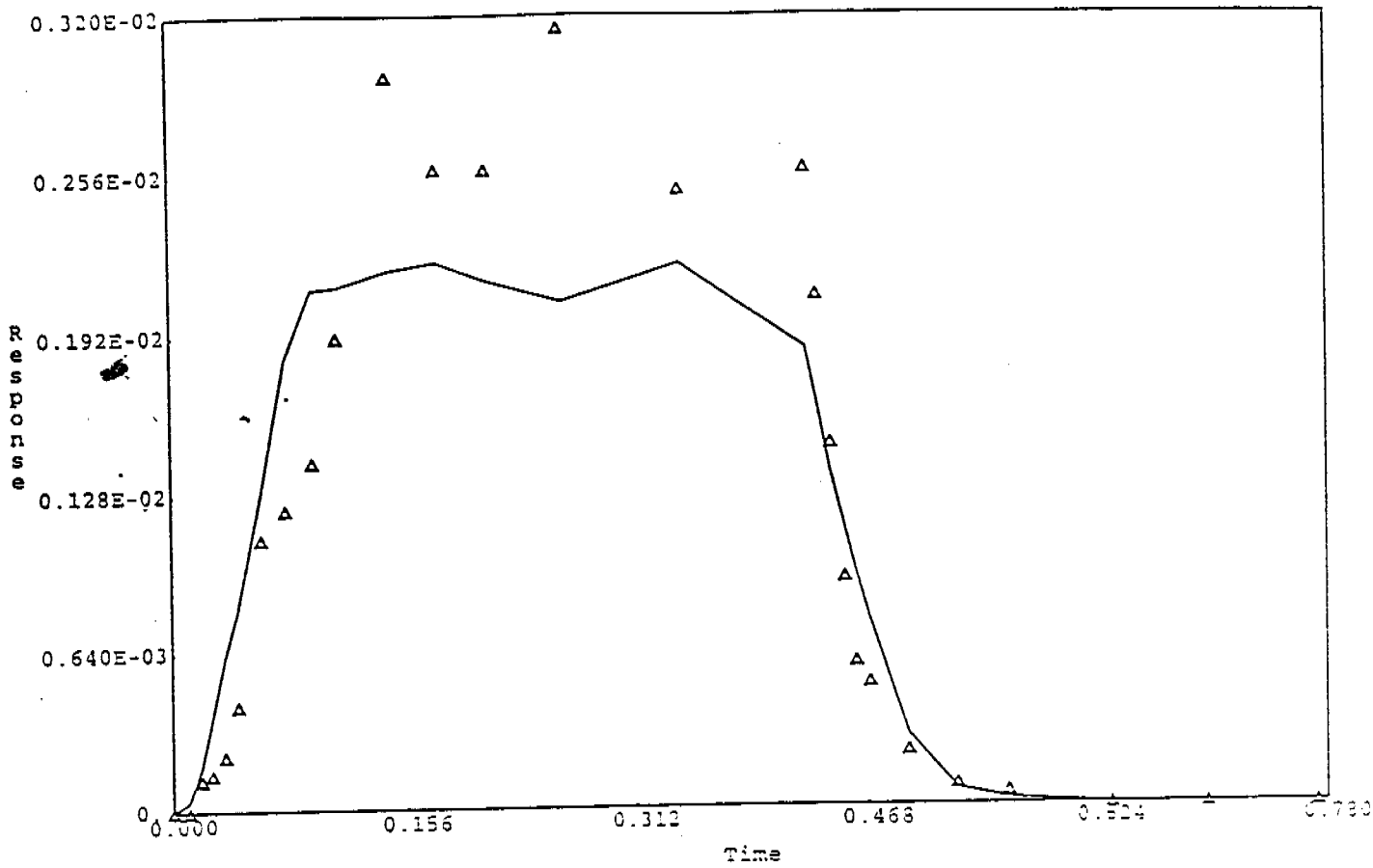
RIP1 RUN4



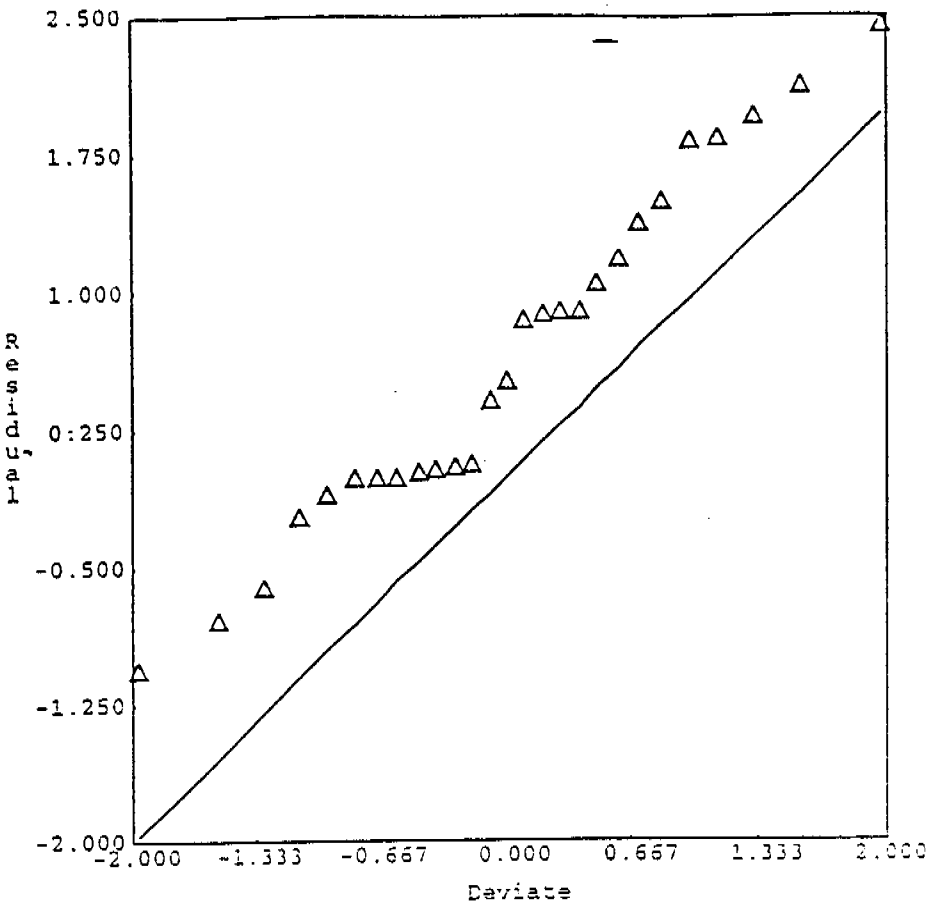
Kolmogorov-Smirnov statistic = 0.056 5% exceedance value = 0.167

RIP1 RUN3

Observed vs Predicted Time Series Plot for Response 3: Runoff #3

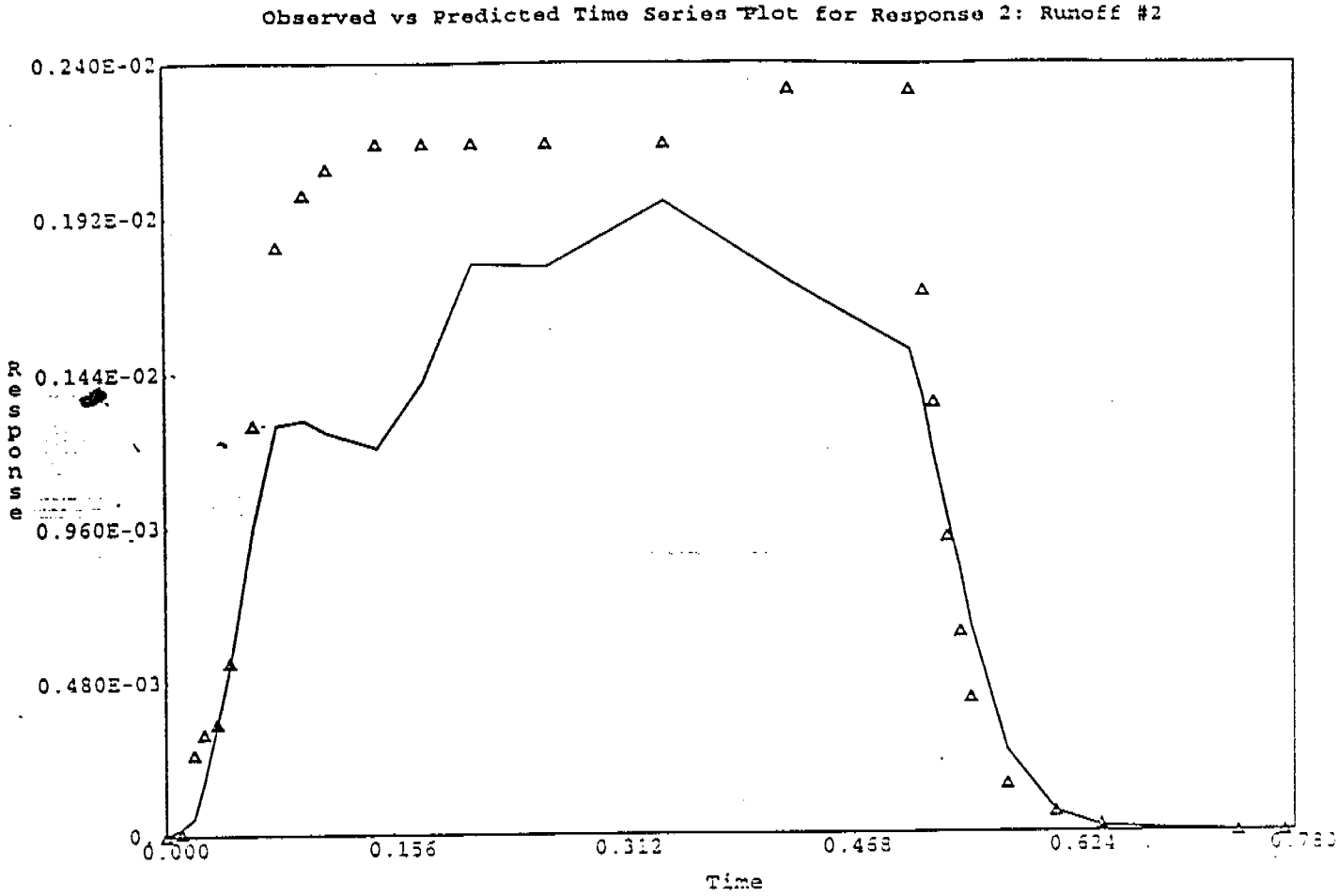


RIP1 RUN3



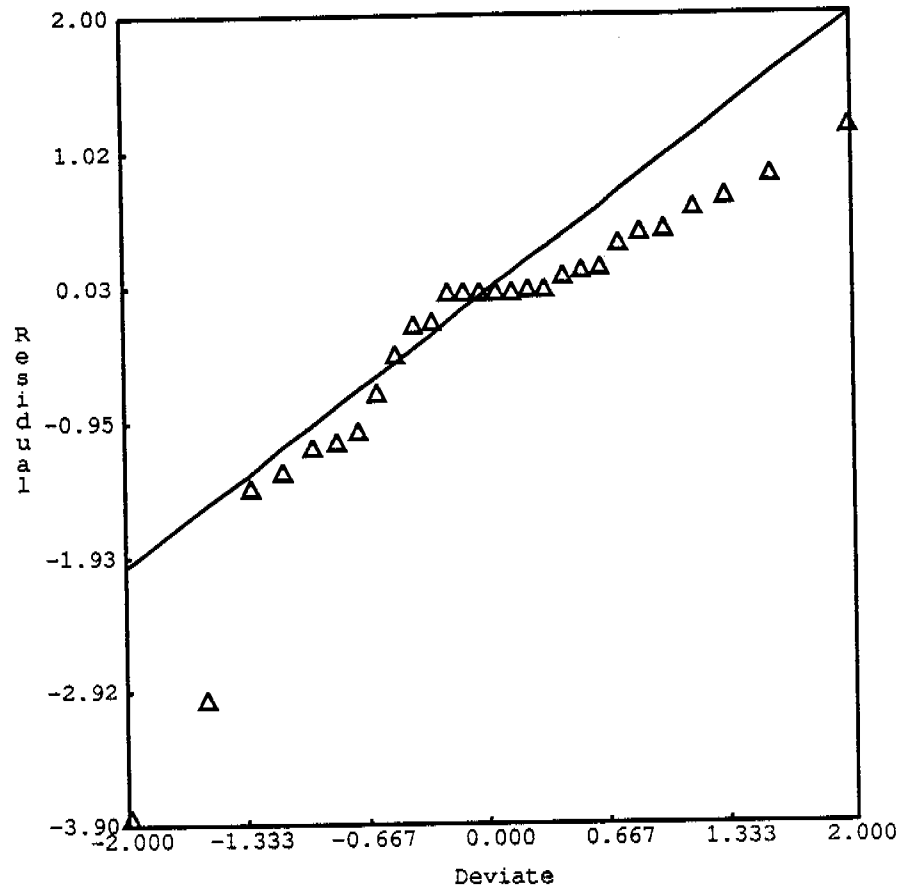
Kolmogorov-Smirnov statistic = 0.141 5% exceedance value = 0.167

RIP1 RUN2


Observed vs Predicted Time Series Plot for Response 2: Runoff #2
0.240E-02
0.192E-02
0.144E-02
0.960E-03
0.480E-03
0
Response
0.000
0.156
0.312
0.468
0.624
Time

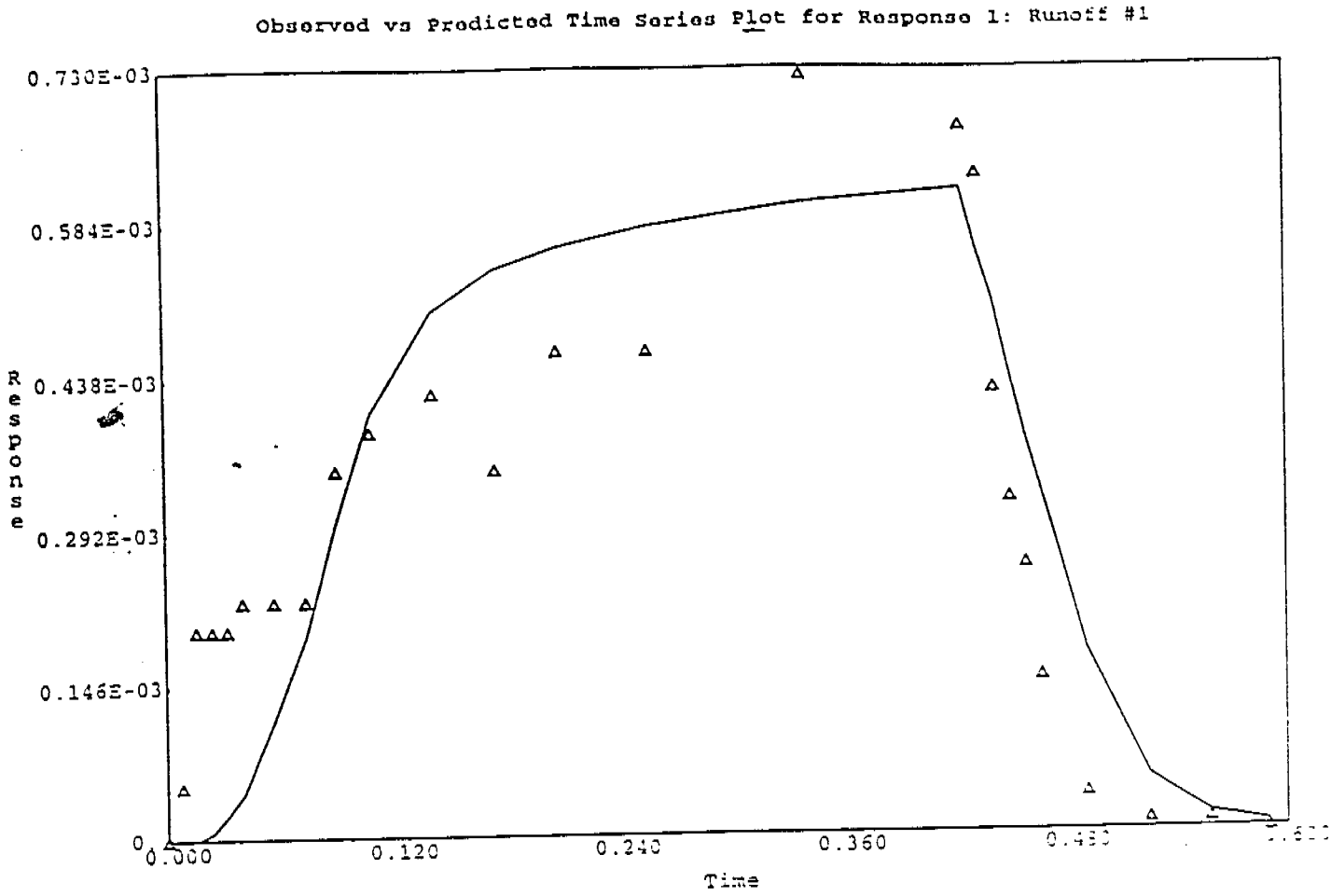
RIP1 RUN2

Normal Probability Plot for Response 3: Runoff #3

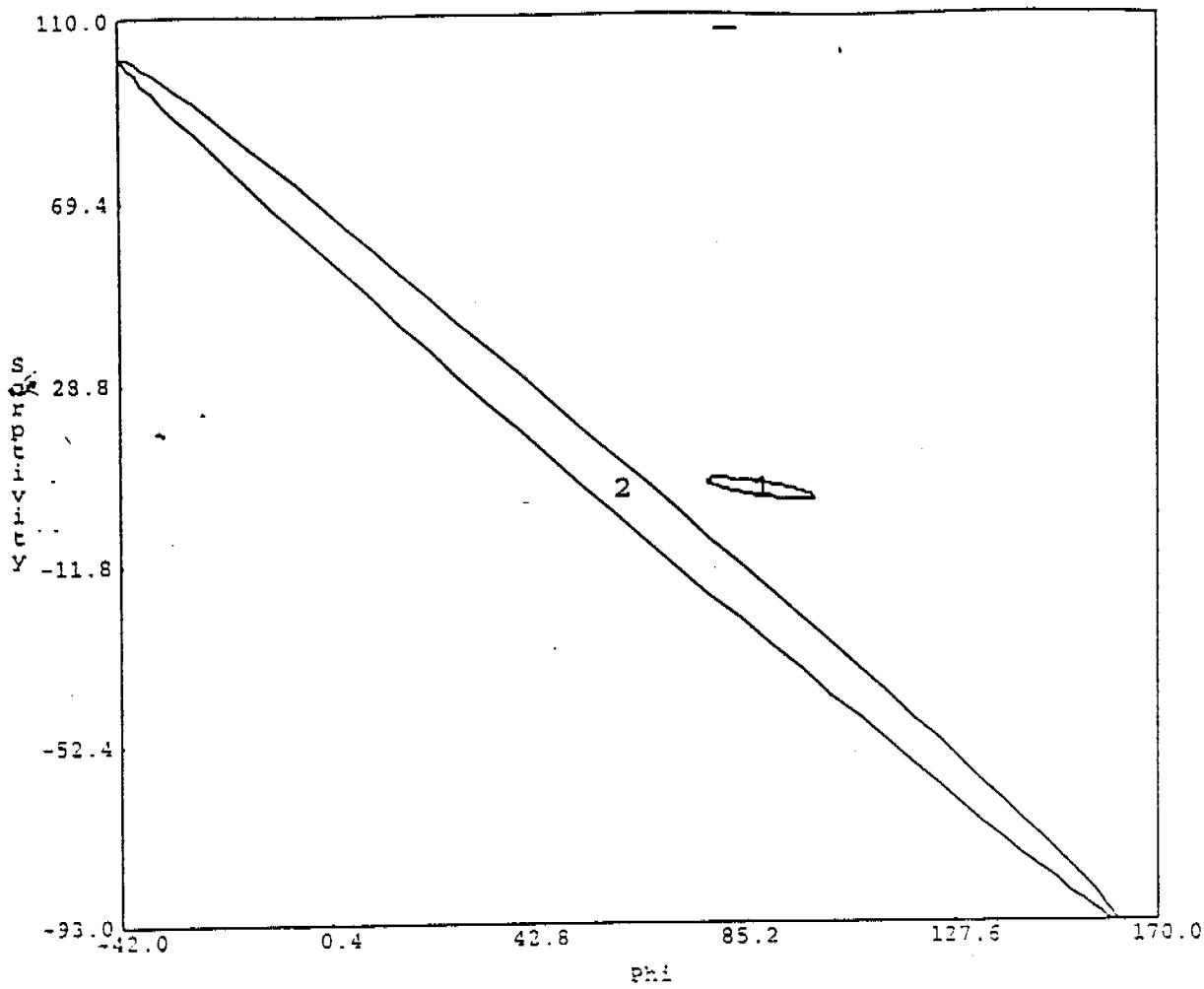


Kolmogorov-Smirnov statistic = 0.220 5% exceedance value = 0.164

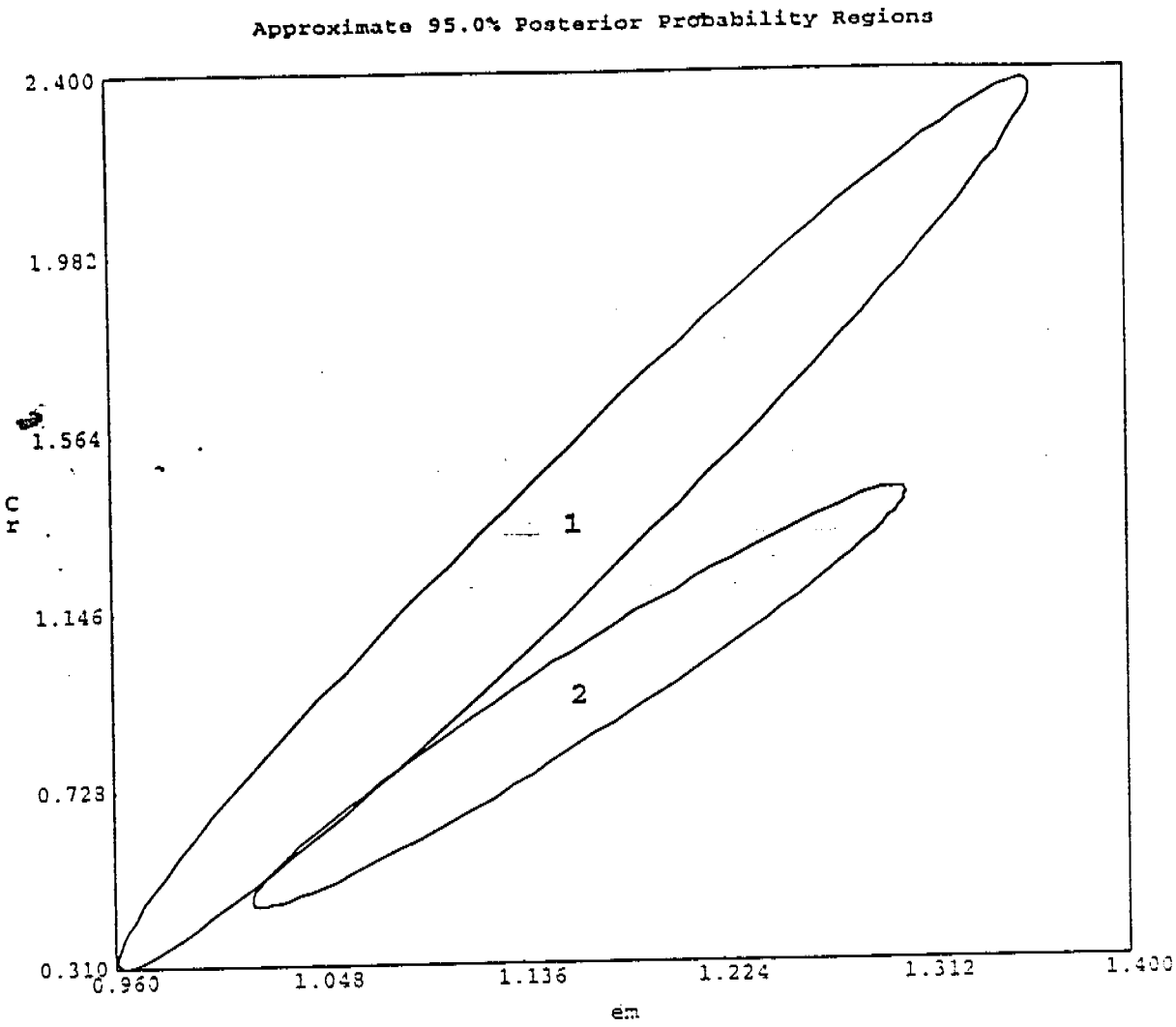
RIPG RUN3


Observed vs Predicted Time Series Plot for Response 1: Runoff #1
0.730E-03
0.584E-03
0.438E-03
0.292E-03
0.146E-03
0
Response
0.000
0.120
0.240
0.360
Time

RIP 1 RUN1

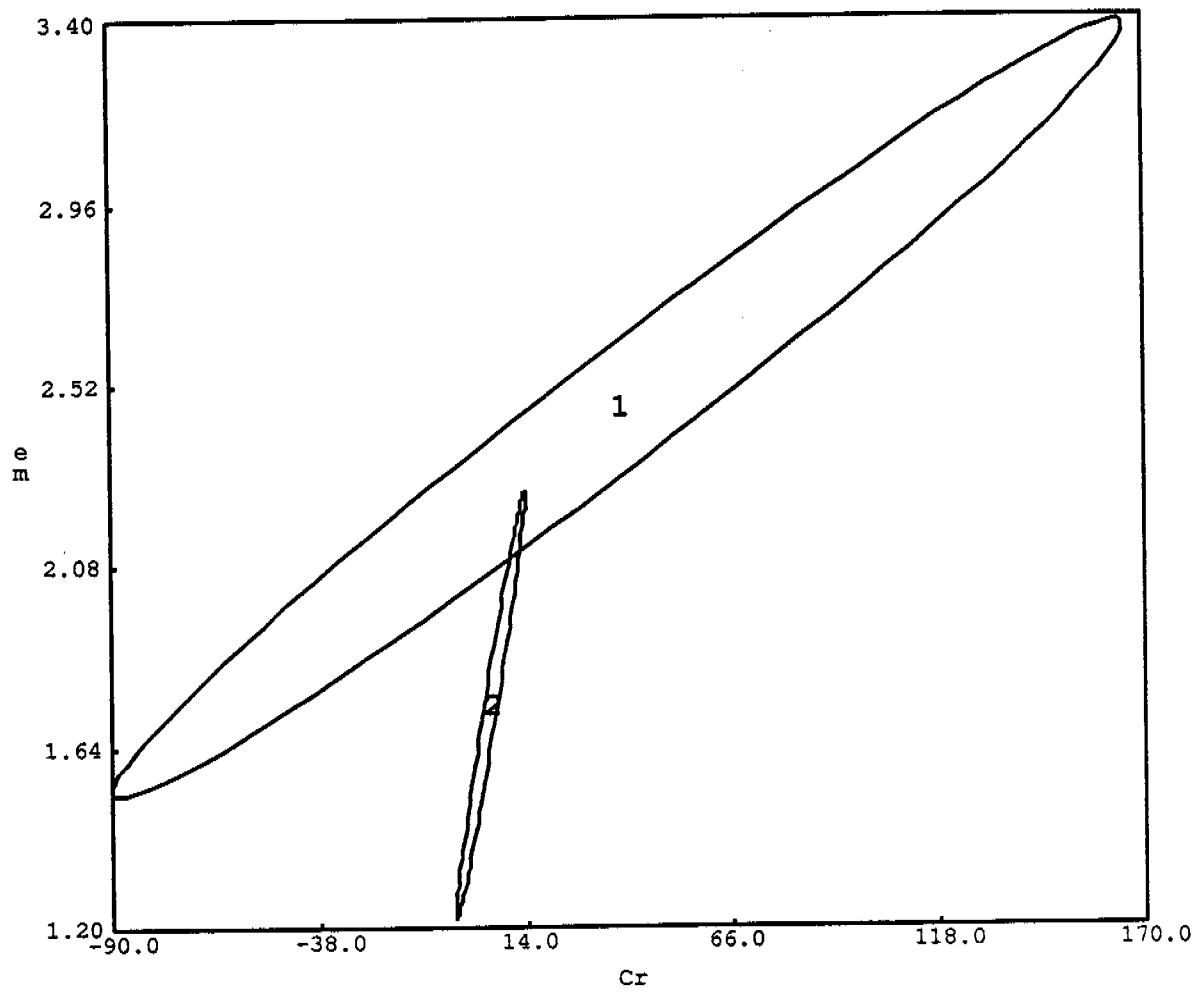

110.0
69.4
28.8
-11.8
-52.4
-93.0
Susceptibility
-42.0
0.4
42.8
85.2
127.6
170.0
phi
2
1

COMPARISON OF RIPLEY AND RIPLEY



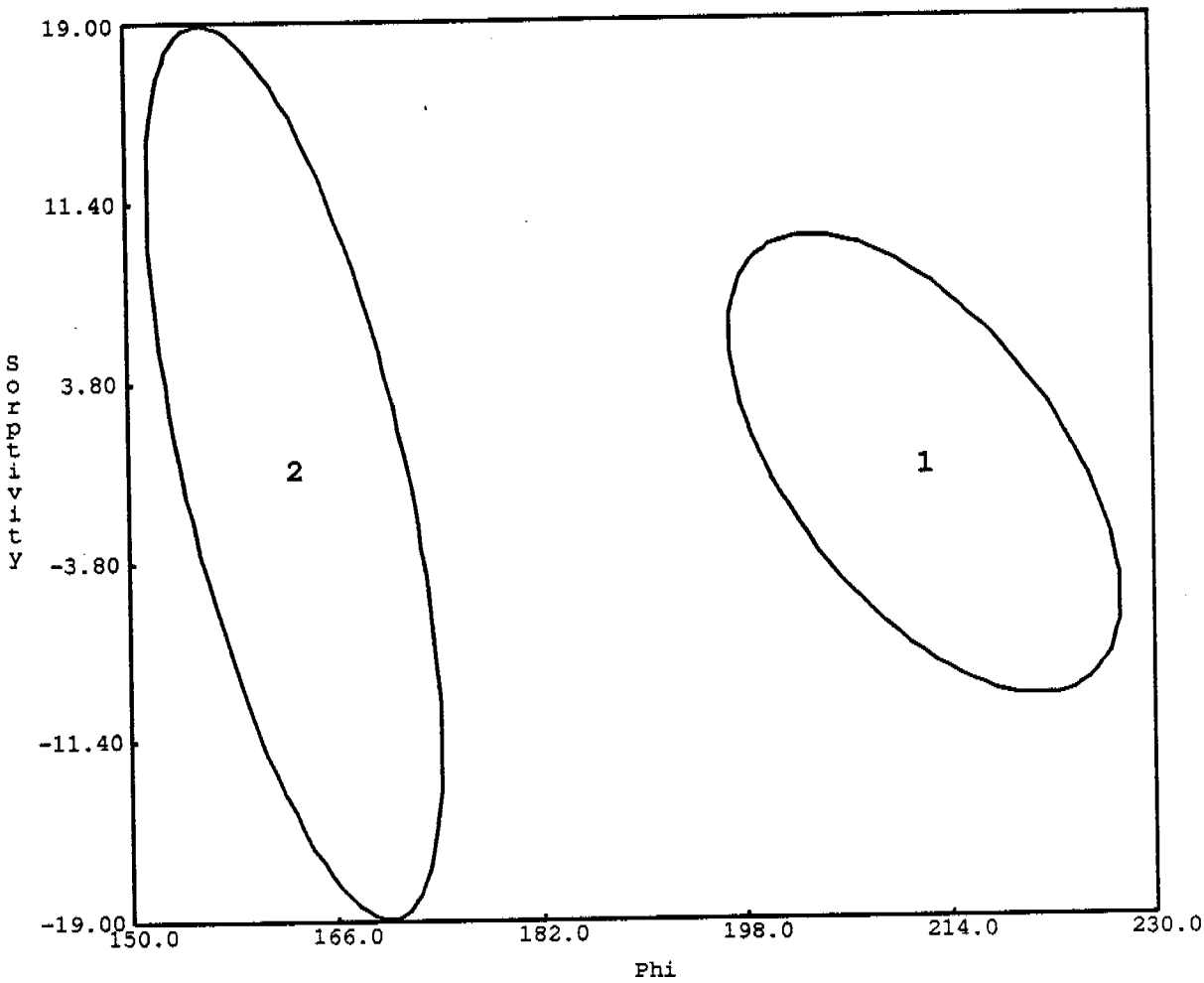
COMPARISON OF RIP5a.fw AND RIP5b.fw

Approximate 95.0% Posterior Probability Regions



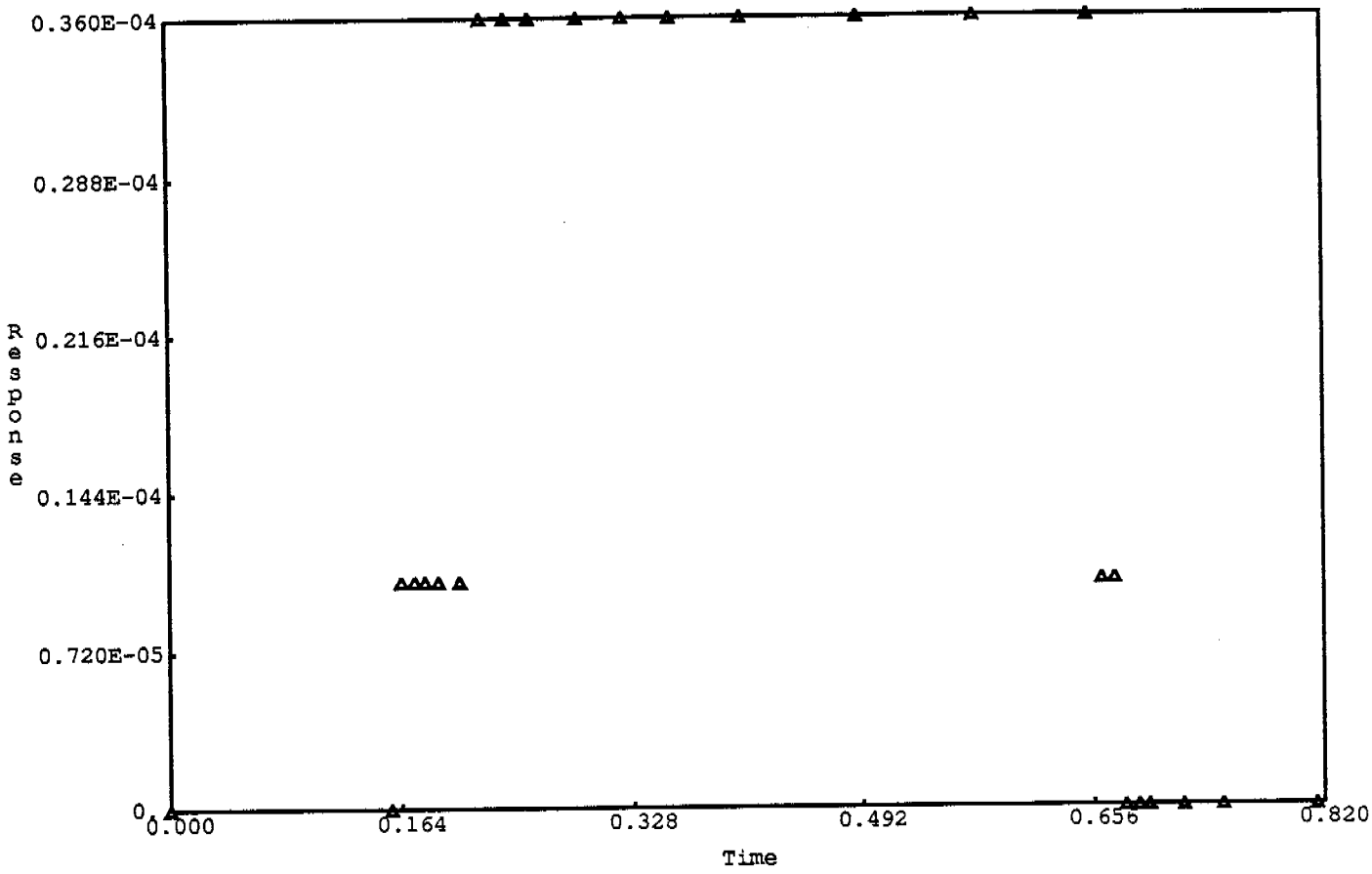
COMPARISON OF RIP5a.fw AND RIP5b.fw

Approximate 95.0% Posterior Probability Regions



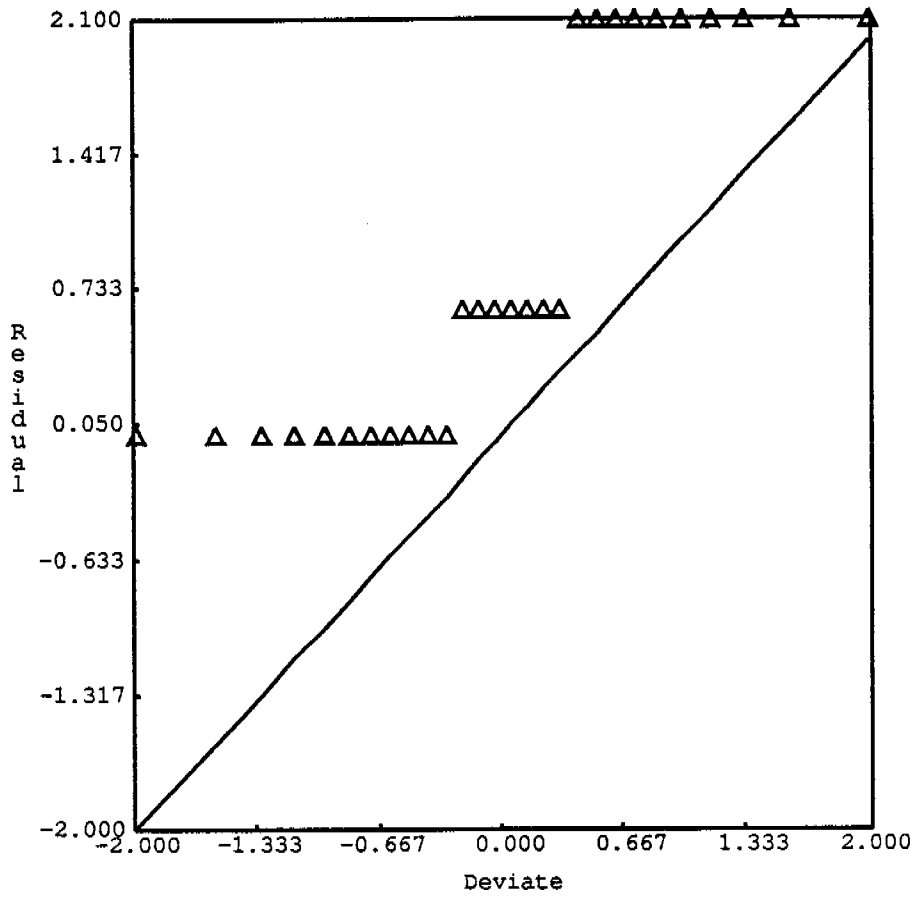
RIP5a.fw RESULTS

Observed vs Predicted Time Series Plot for Response 1: Runoff #1



RIP5 RUN1

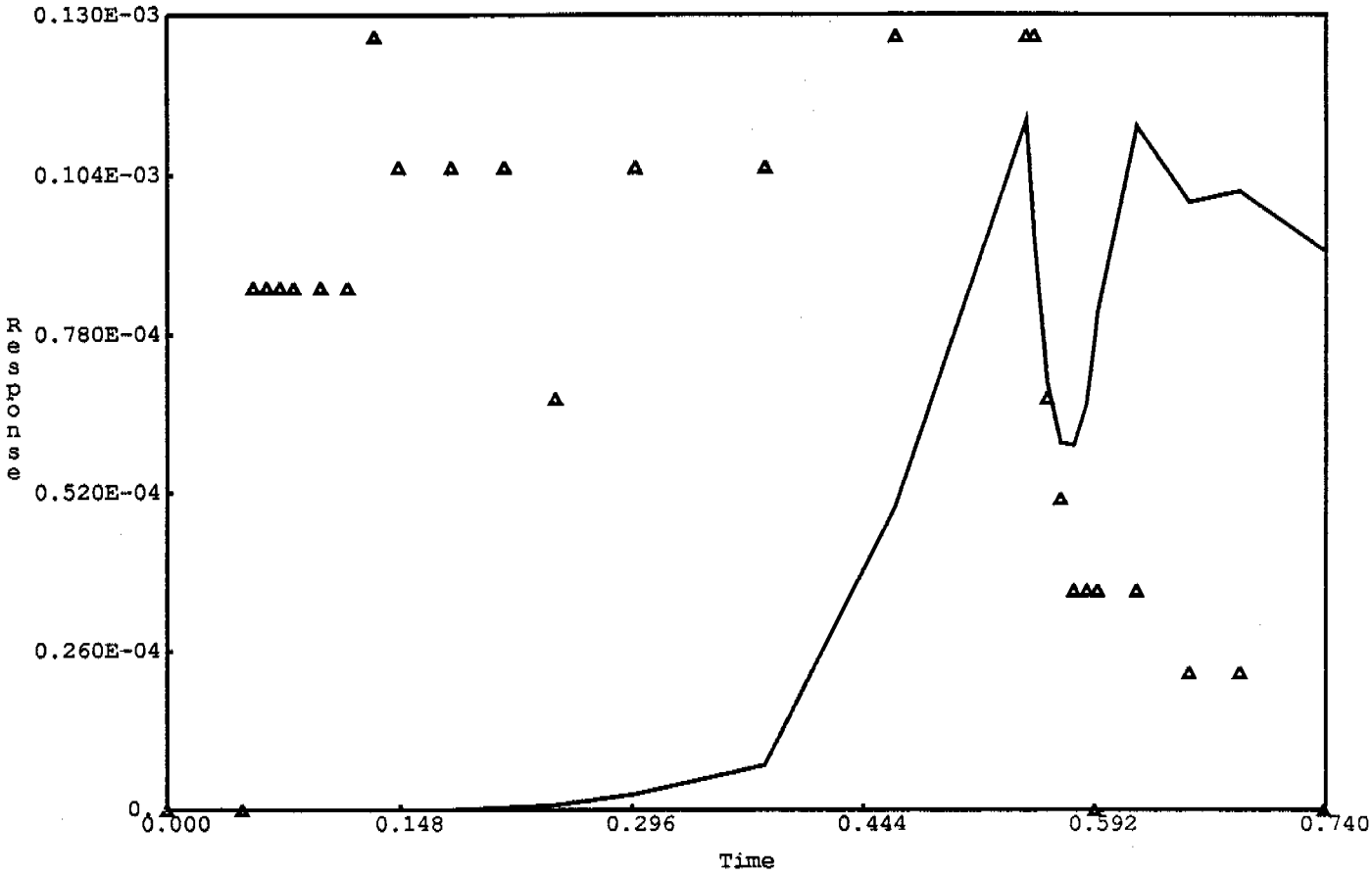
Normal Probability Plot for Response 1: Runoff #1



Kolmogorov-Smirnov statistic = 0.236 5% exceedance value = 0.164

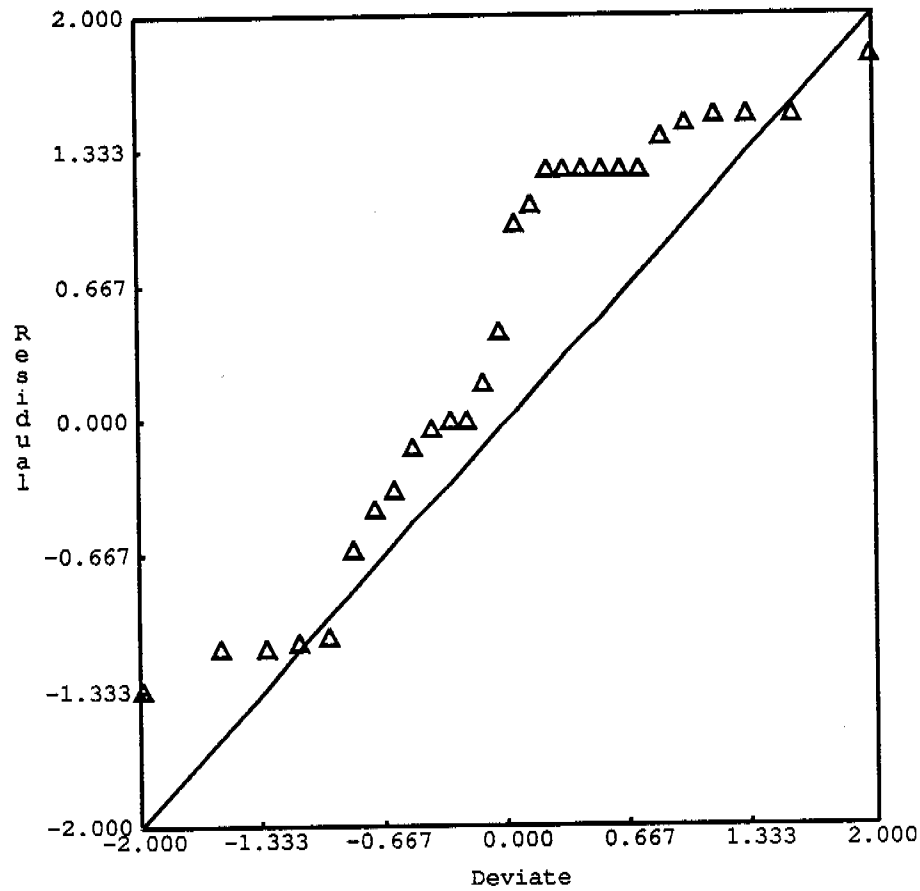
RIP5 RUN1

Observed vs Predicted Time Series Plot for Response 2: Runoff #2



RIF5 RUN2

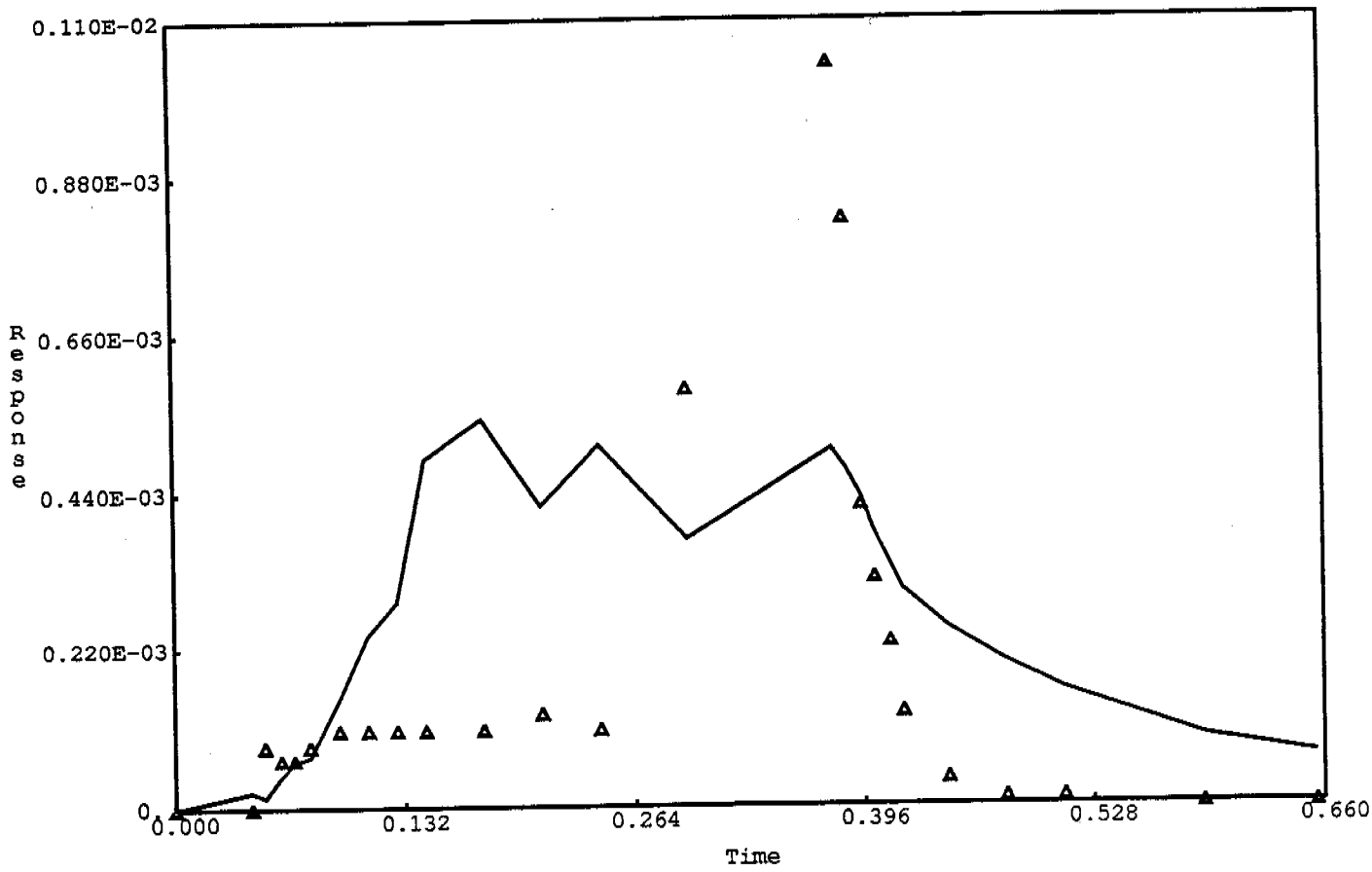
Normal Probability Plot for Response 2: Runoff #2



Kolmogorov-Smirnov statistic = 0.203 5% exceedance value = 0.164

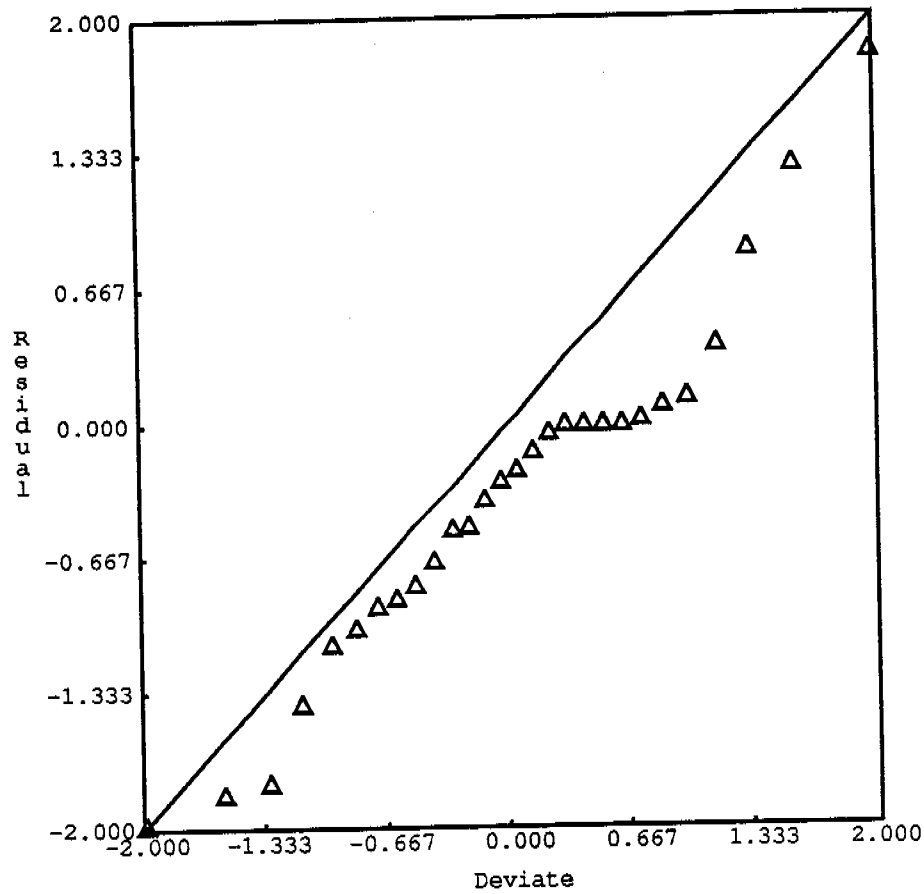
RIPS RUN2

Observed vs Predicted Time Series Plot for Response 3: Runoff #3



RIP5 RUN3

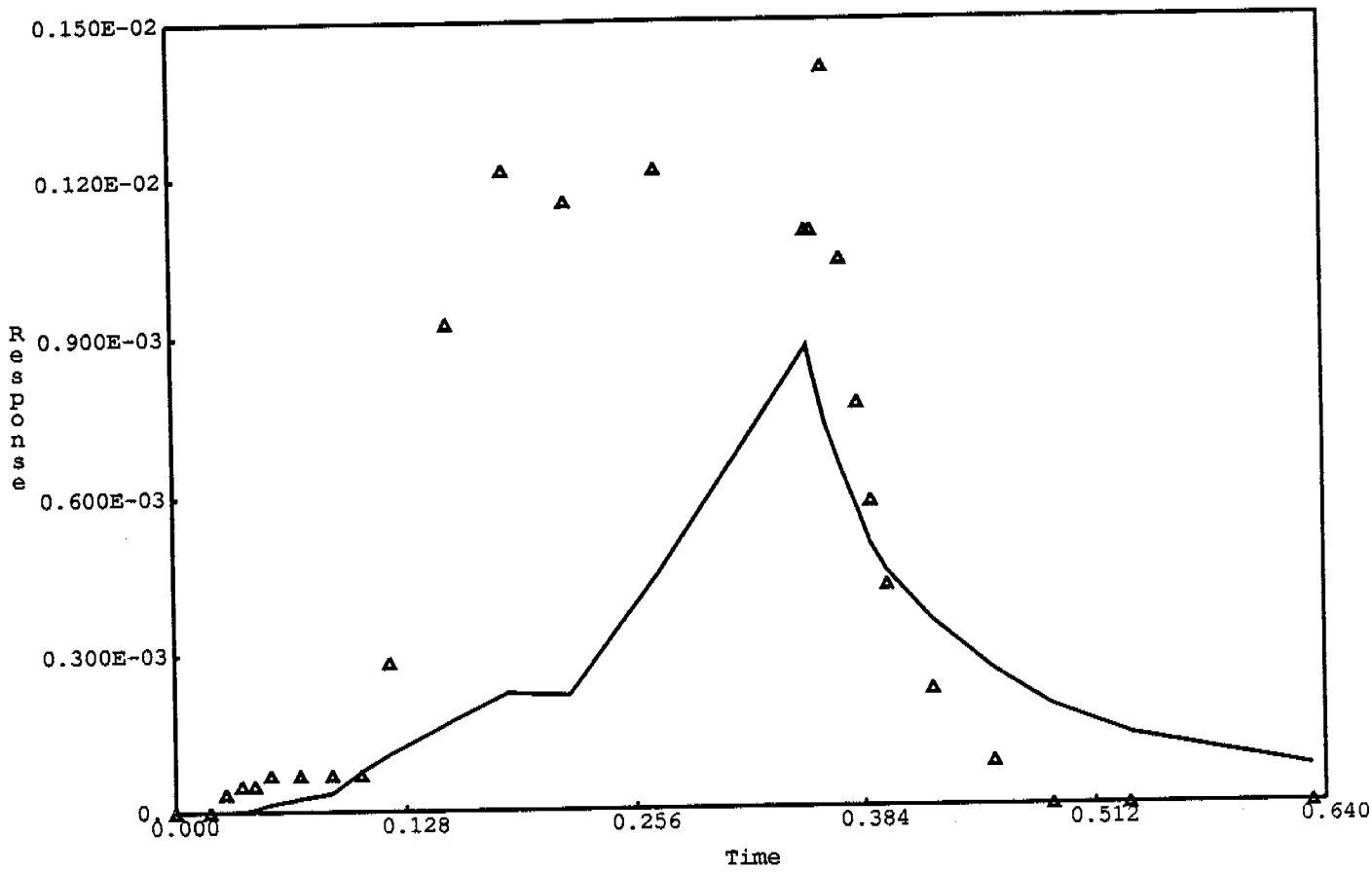
Normal Probability Plot for Response 3: Runoff #3



Kolmogorov-Smirnov statistic = 0.151 5% exceedance value = 0.164

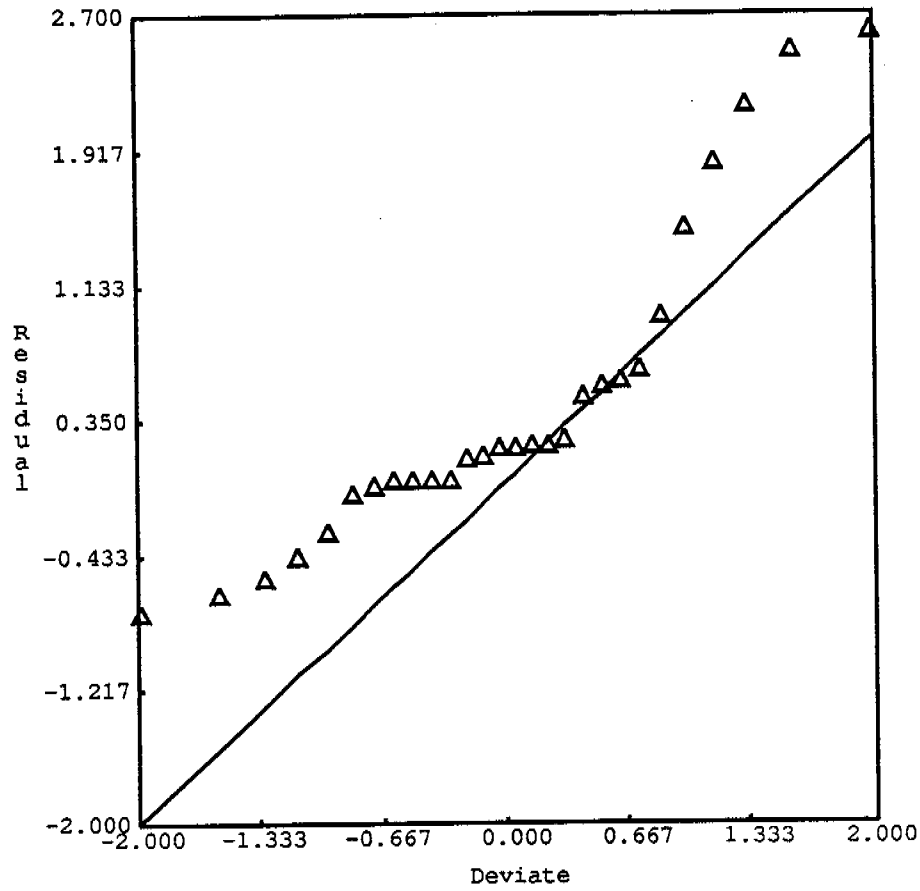
RIP5 RUN 3

Observed vs Predicted Time Series Plot for Response 4: Runoff #4



RIP5 RUN4

Normal Probability Plot for Response 4: Runoff #4

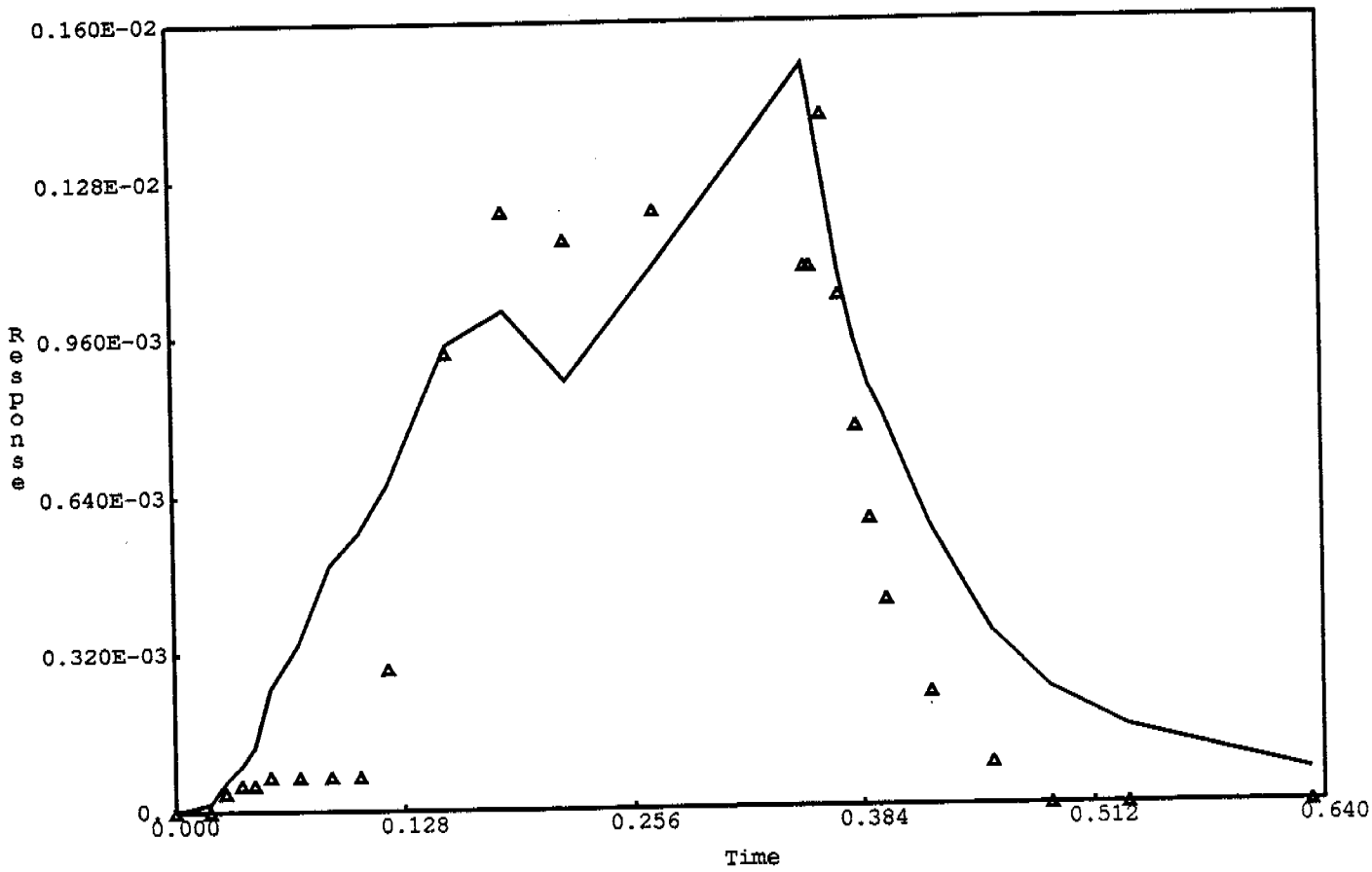


Kolmogorov-Smirnov statistic = 0.201 5% exceedance value = 0.164

RIP5 KUN4-

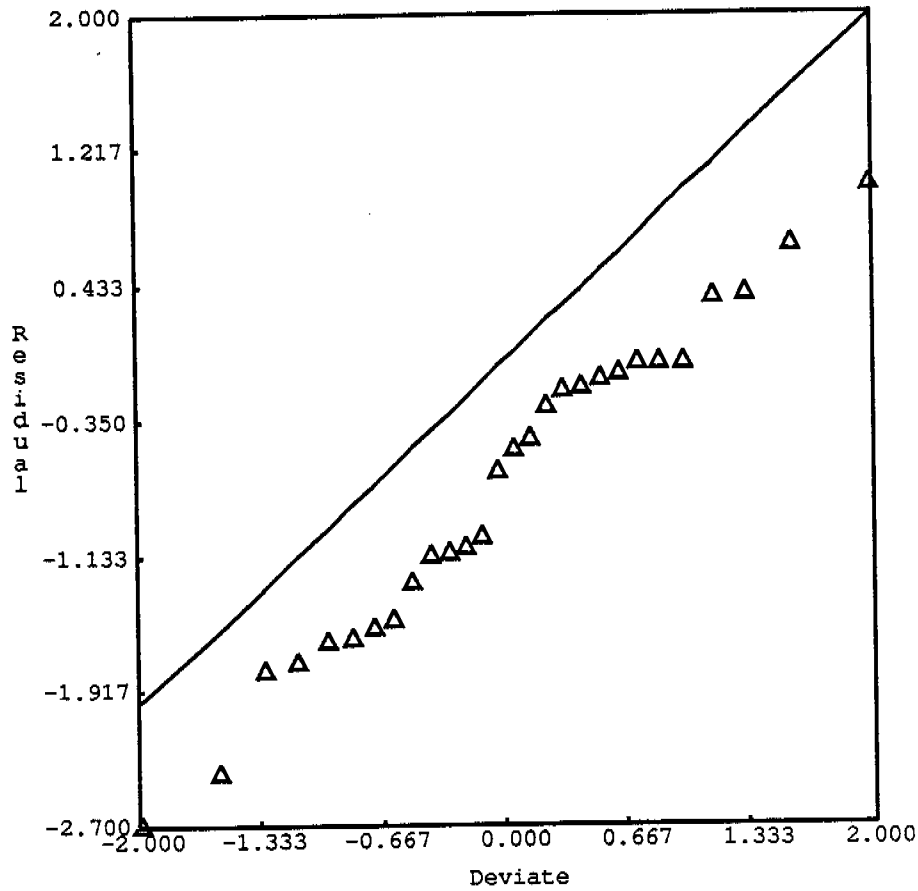
RIP5b.fw RESULTS

Observed vs Predicted Time Series Plot for Response 1: Runoff #1



RIP5 RUN4

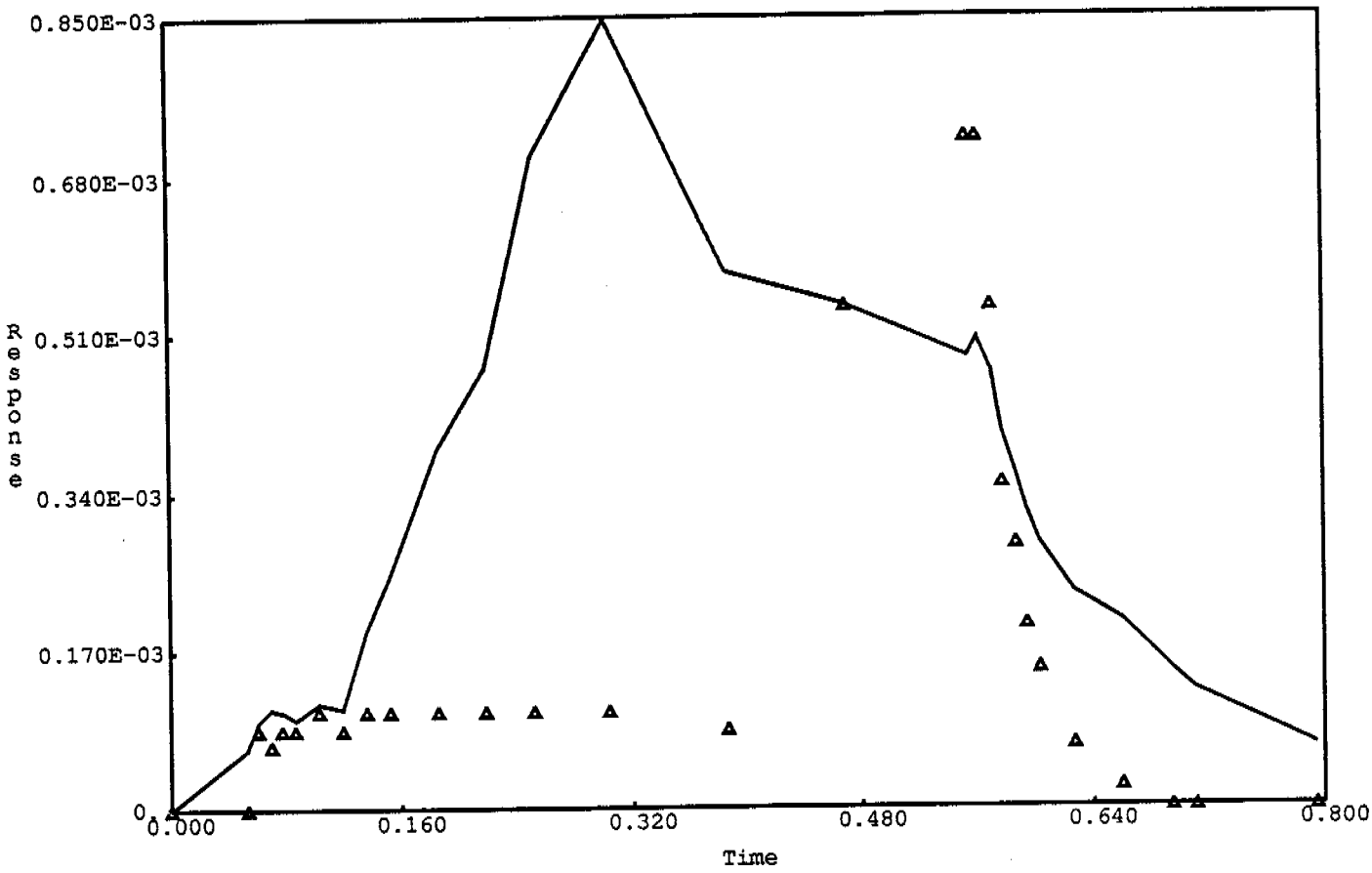
Normal Probability Plot for Response 1: Runoff #1



Kolmogorov-Smirnov statistic = 0.092 5% exceedance value = 0.164

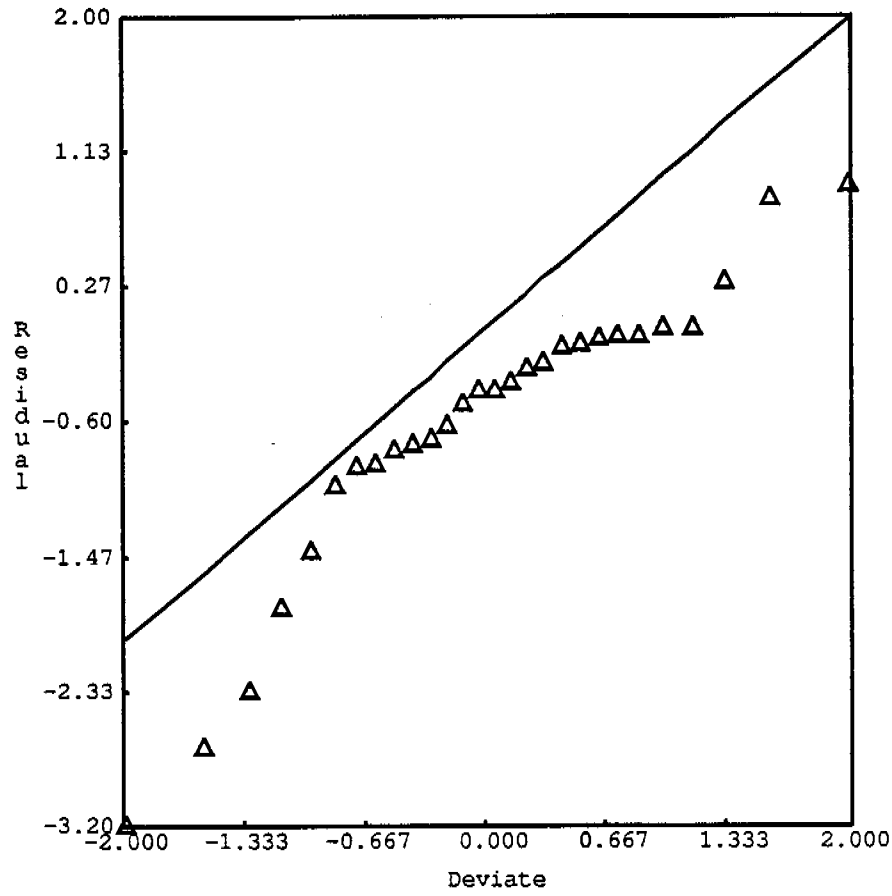
RIP5 RUN4

Observed vs Predicted Time Series Plot for Response 2: Runoff #2



RIPS RUNS

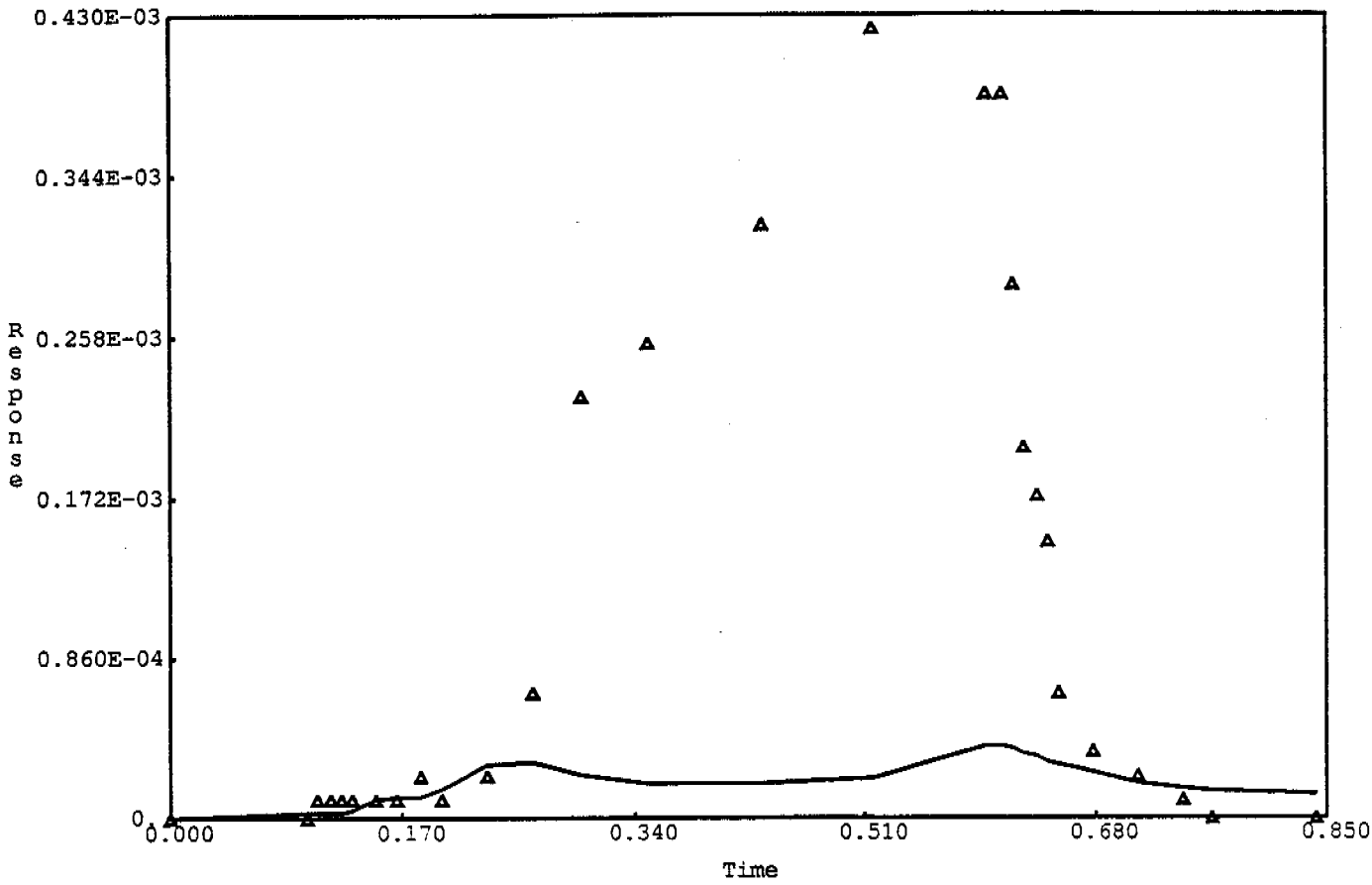
Normal Probability Plot for Response 2: Runoff #2



Kolmogorov-Smirnov statistic = 0.160 5% exceedance value = 0.164

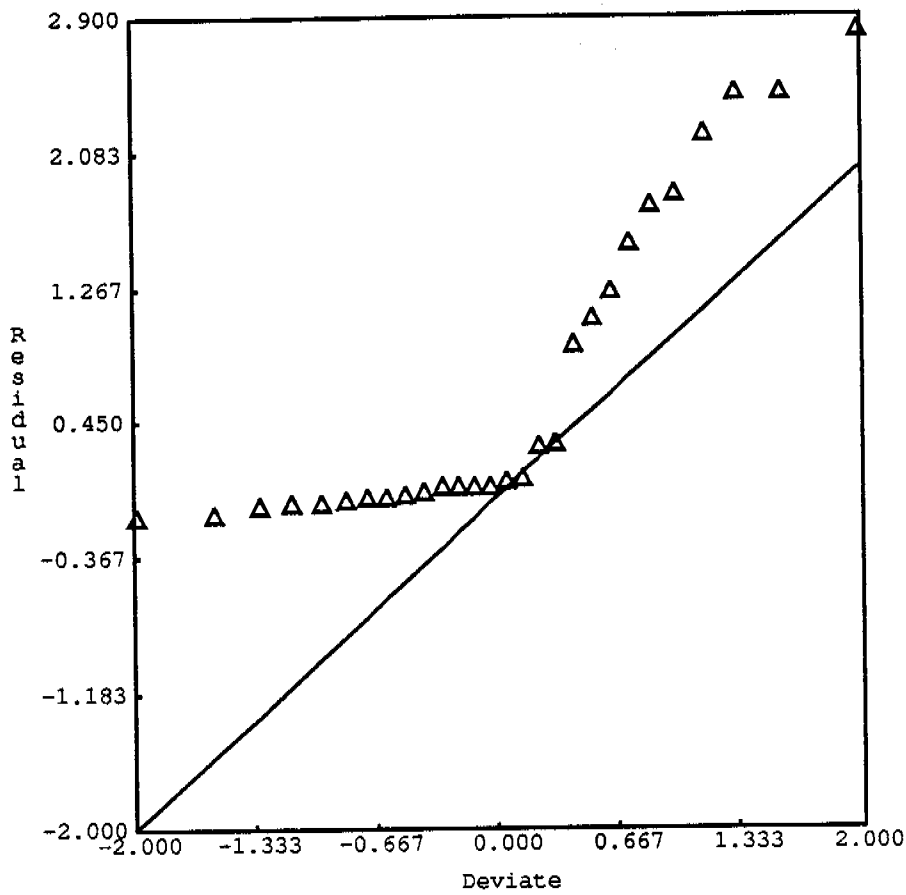
RIPS RUNS

Observed vs Predicted Time Series Plot for Response 3: Runoff #3



RIPS RUNG

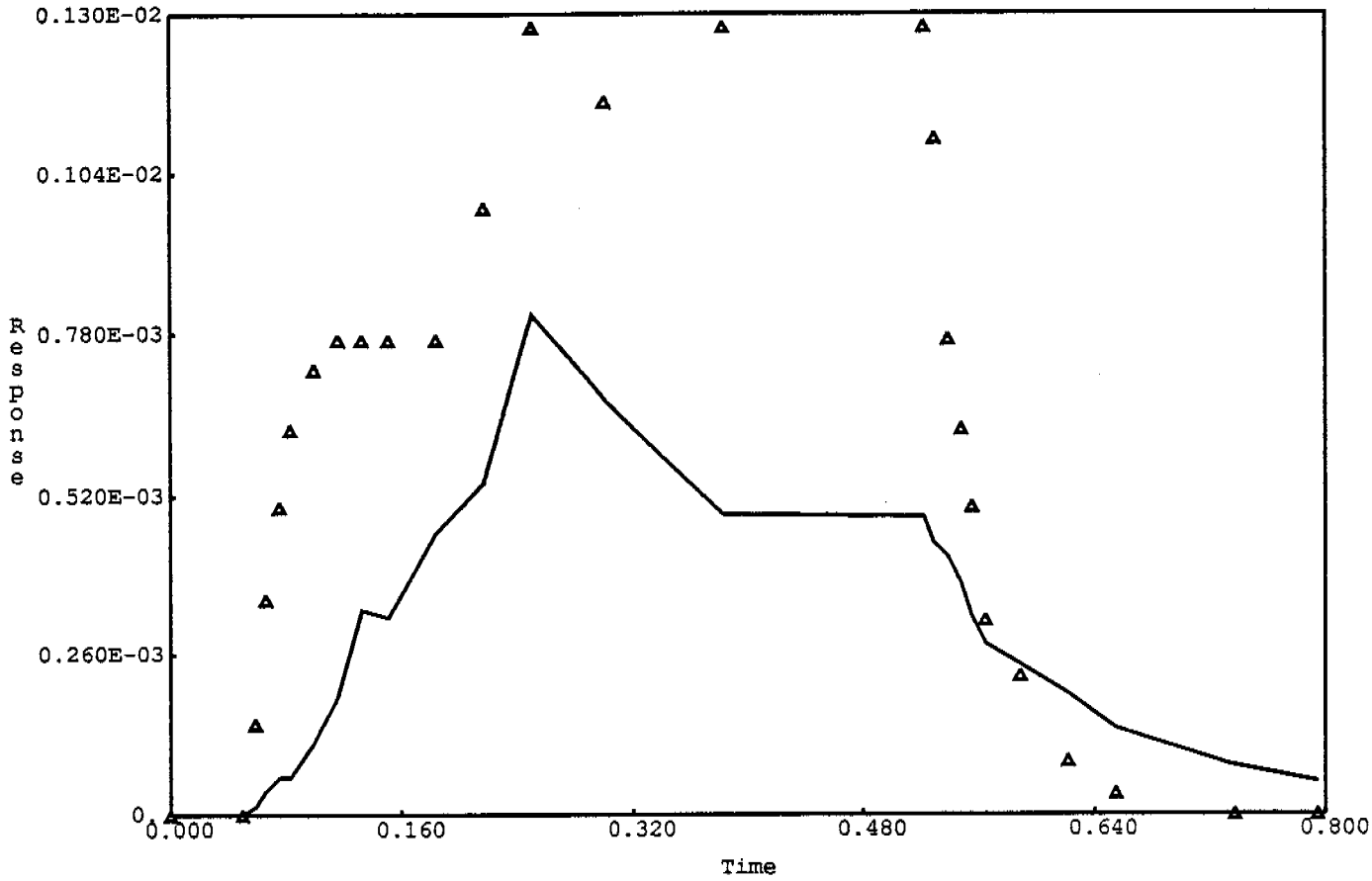
Normal Probability Plot for Response 3: Runoff #3



Kolmogorov-Smirnov statistic = 0.272 5% exceedance value = 0.164

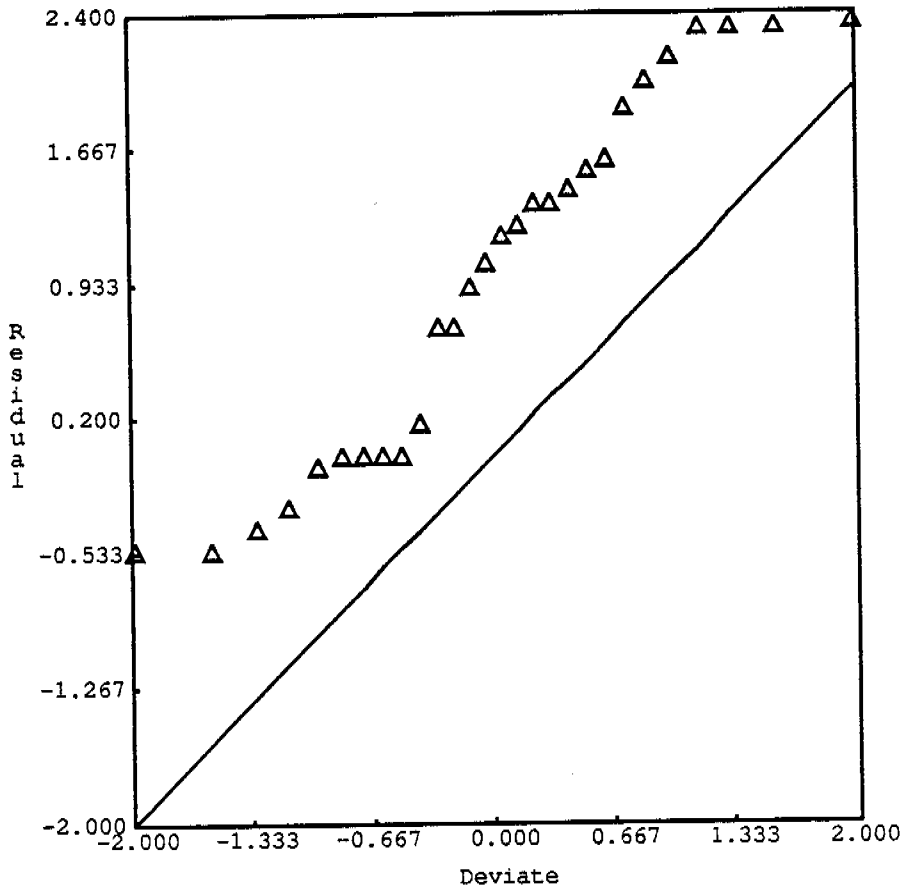
RIPS KUNG

Observed vs Predicted Time Series Plot for Response 4: Runoff #4



RIP5 RUN7

Normal Probability Plot for Response 4: Runoff #4

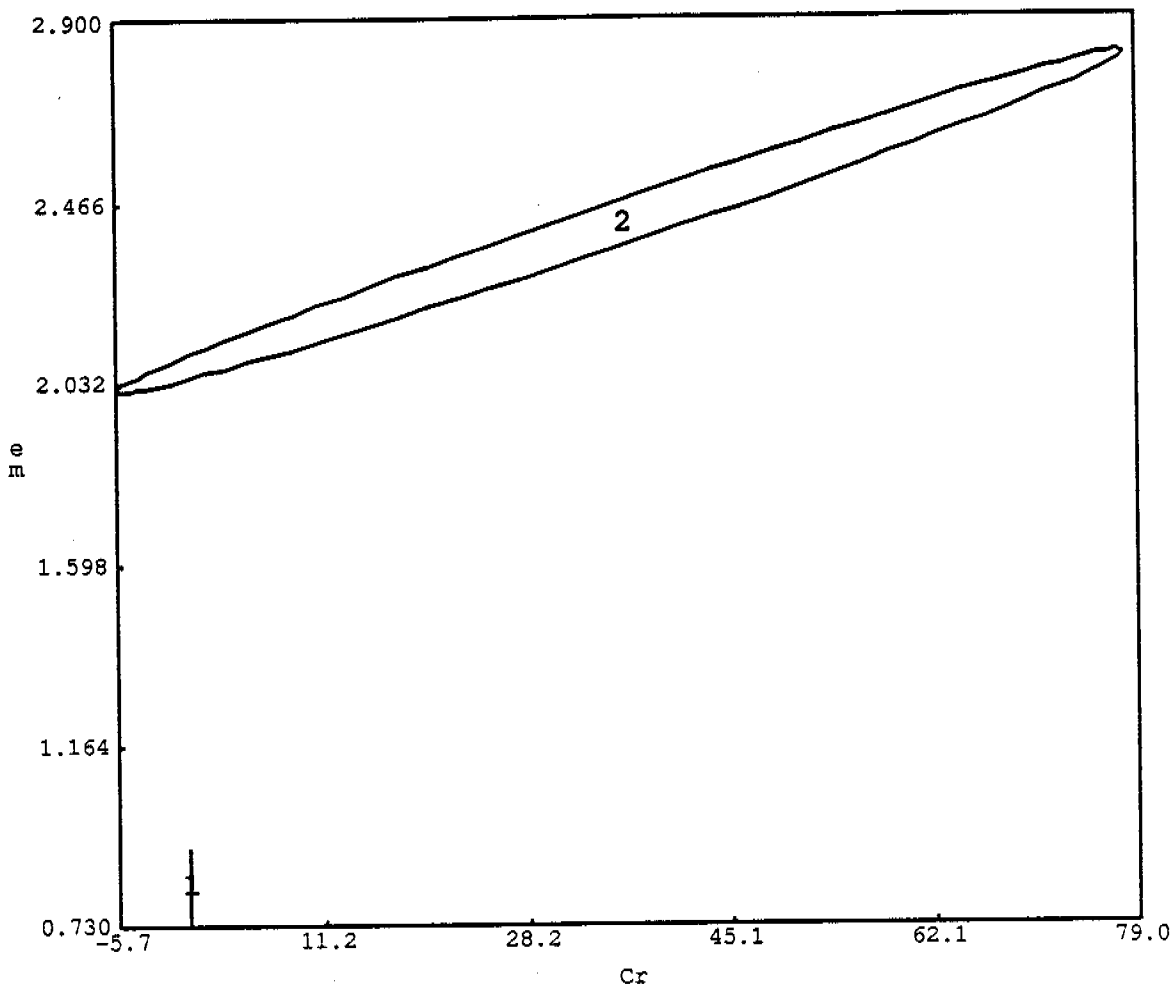


Kolmogorov-Smirnov statistic = 0.138 5% exceedance value = 0.164

RIPS RUN7

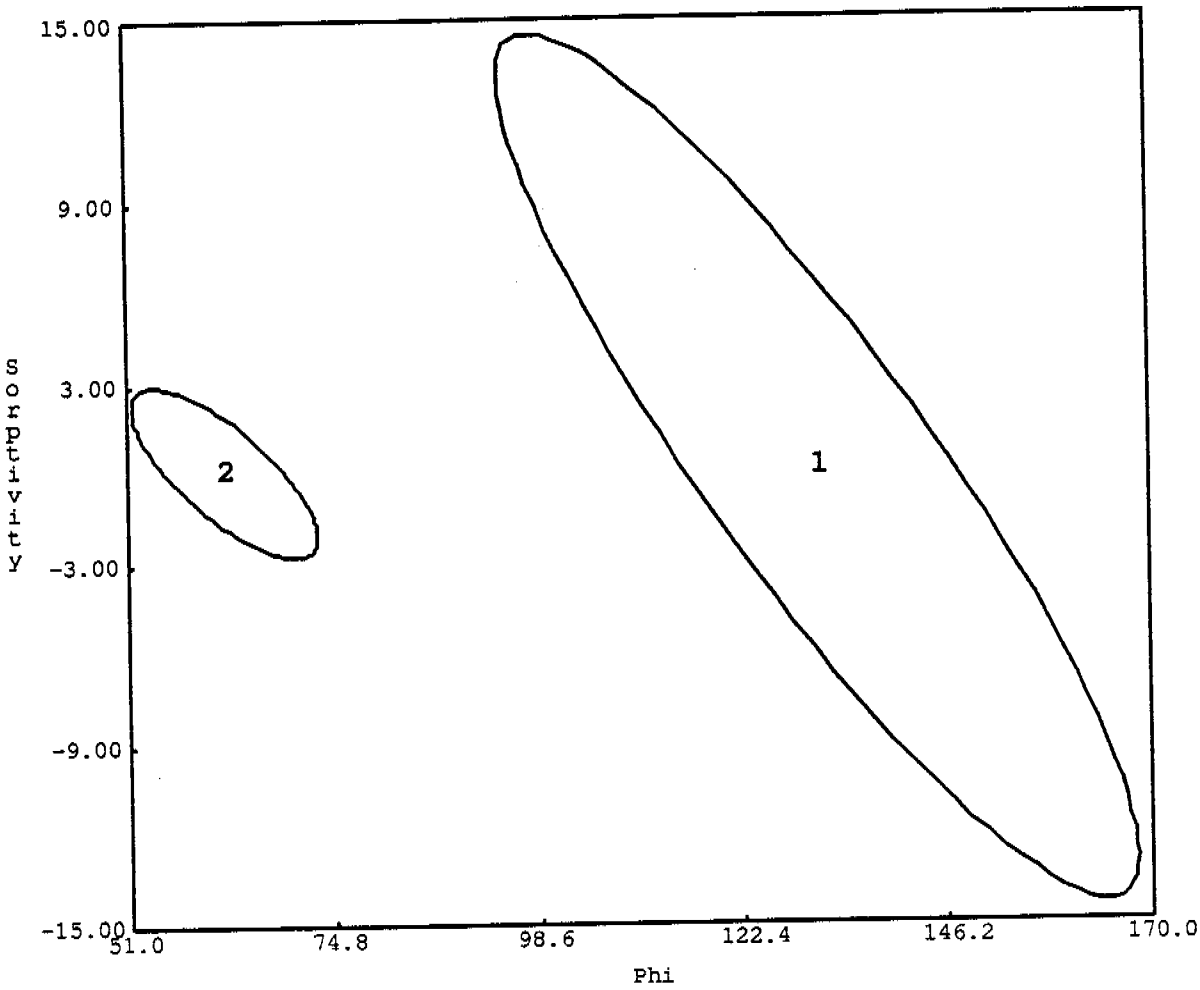
COMPARISON OF RIP6a.fw AND RIP6b.fw

Approximate 95.0% Posterior Probability Regions



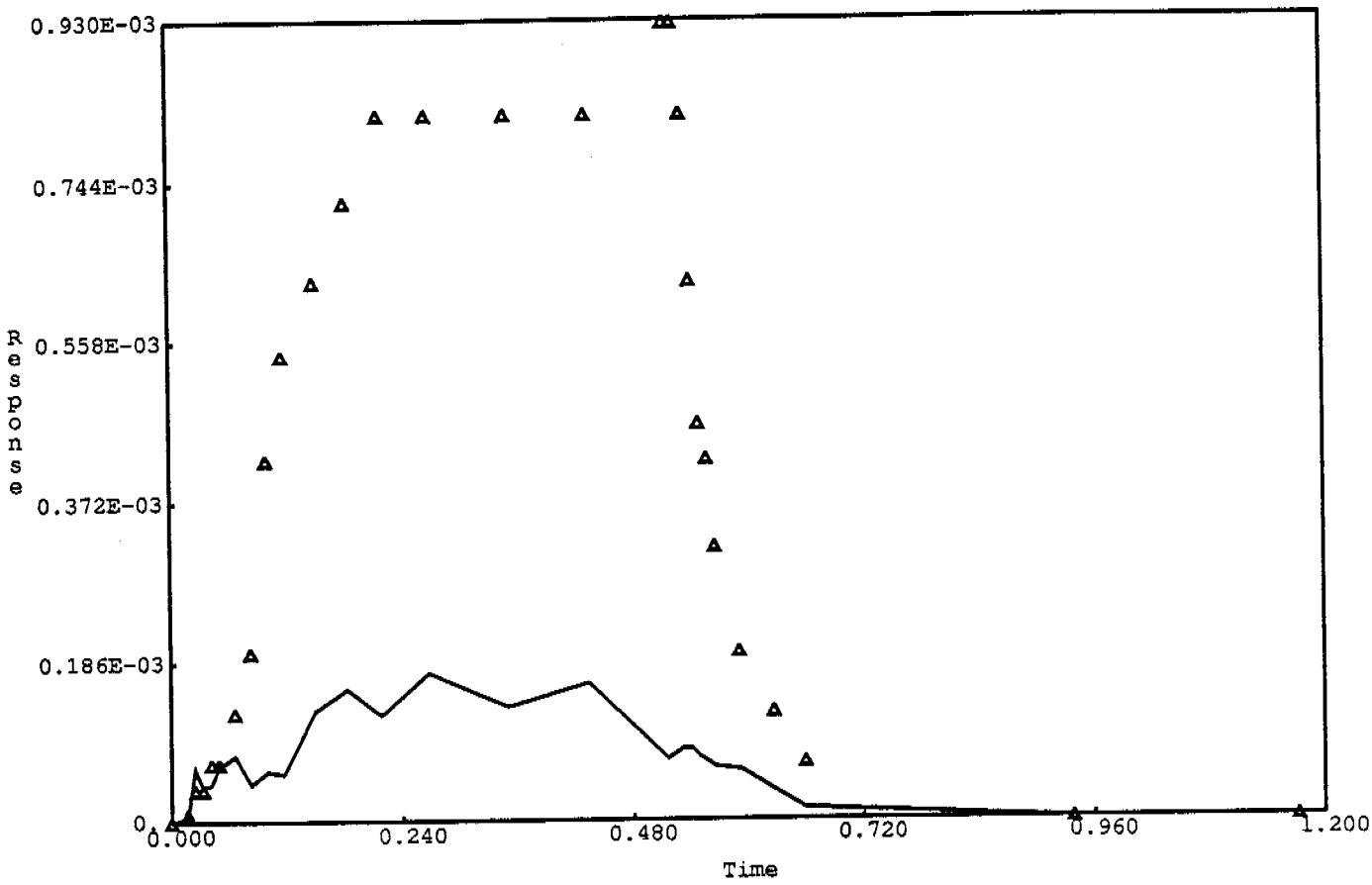
COMPARISON OF RIP6a.fw AND RIP6b.fw

Approximate 95.0% Posterior Probability Regions



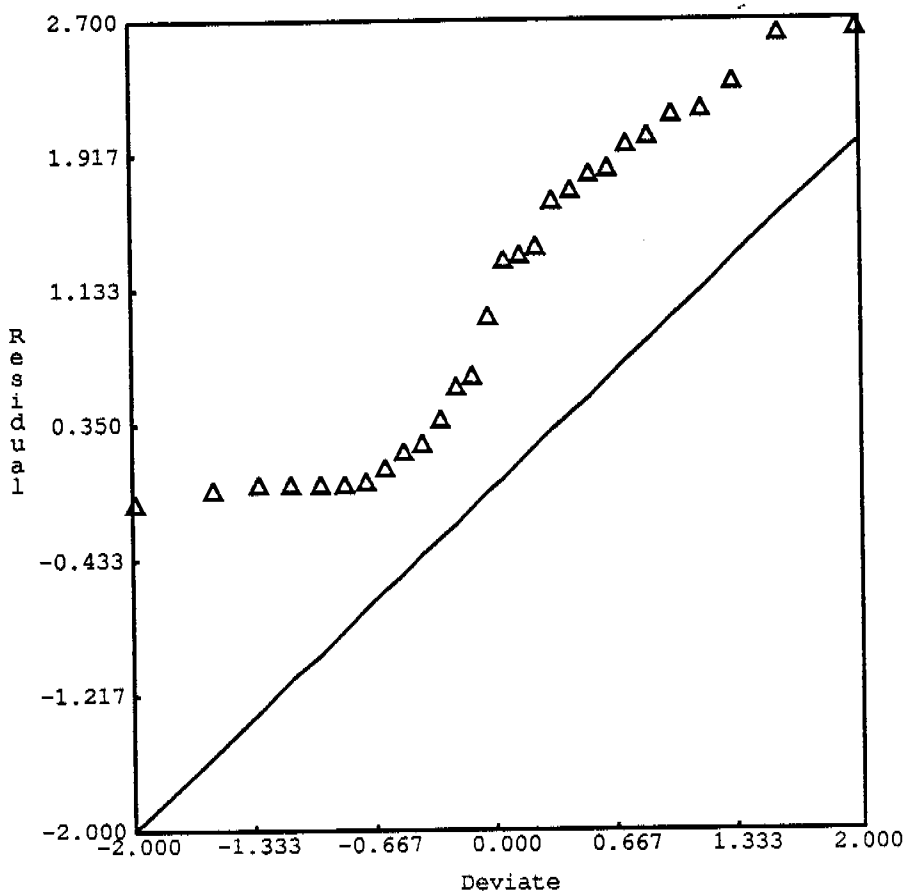
RIP6a.fw

Observed vs Predicted Time Series Plot for Response 1: Runoff #1



RIP6 RUN1

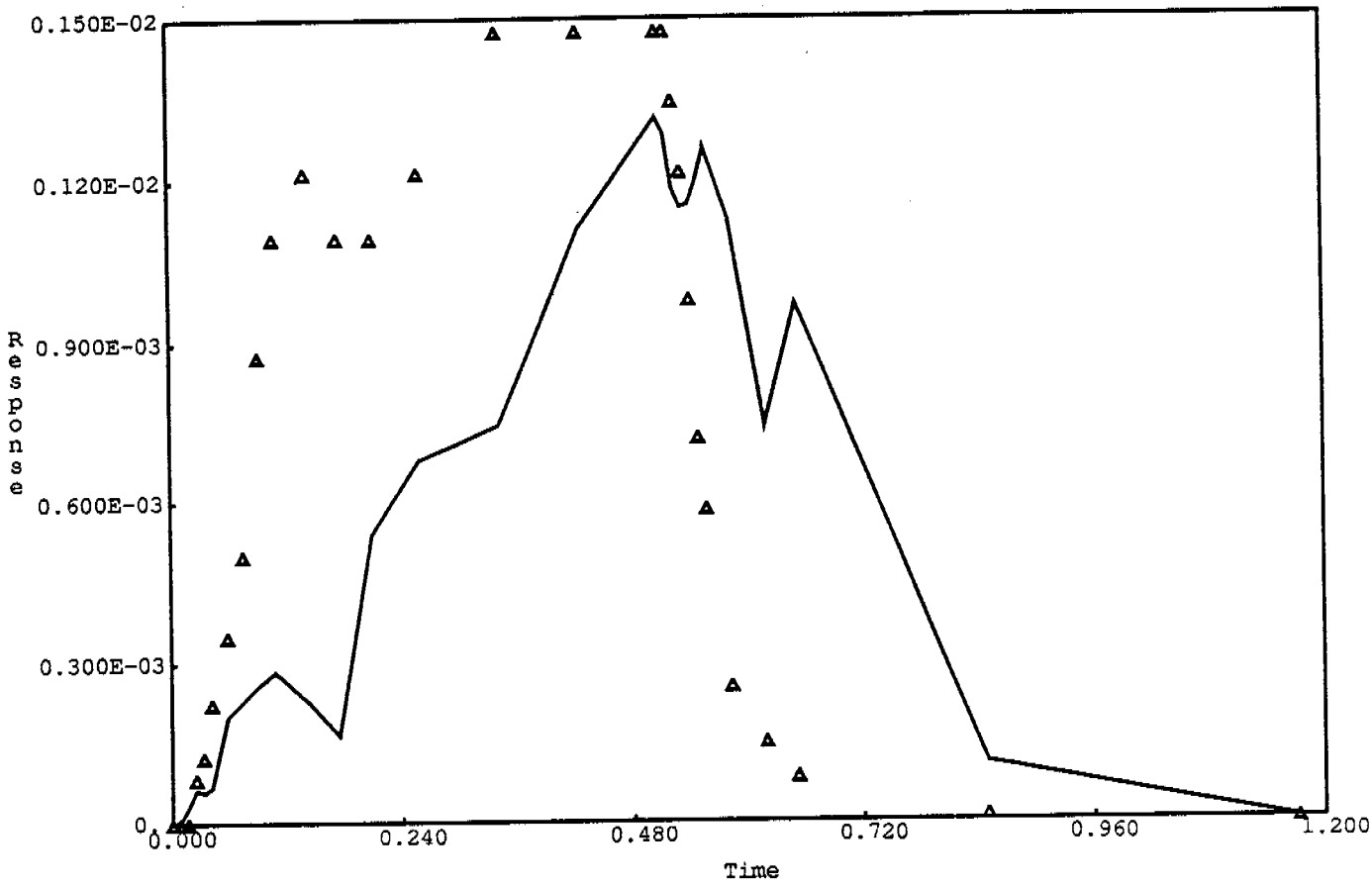
Normal Probability Plot for Response 1: Runoff #1



Kolmogorov-Smirnov statistic = 0.139 5% exceedance value = 0.164

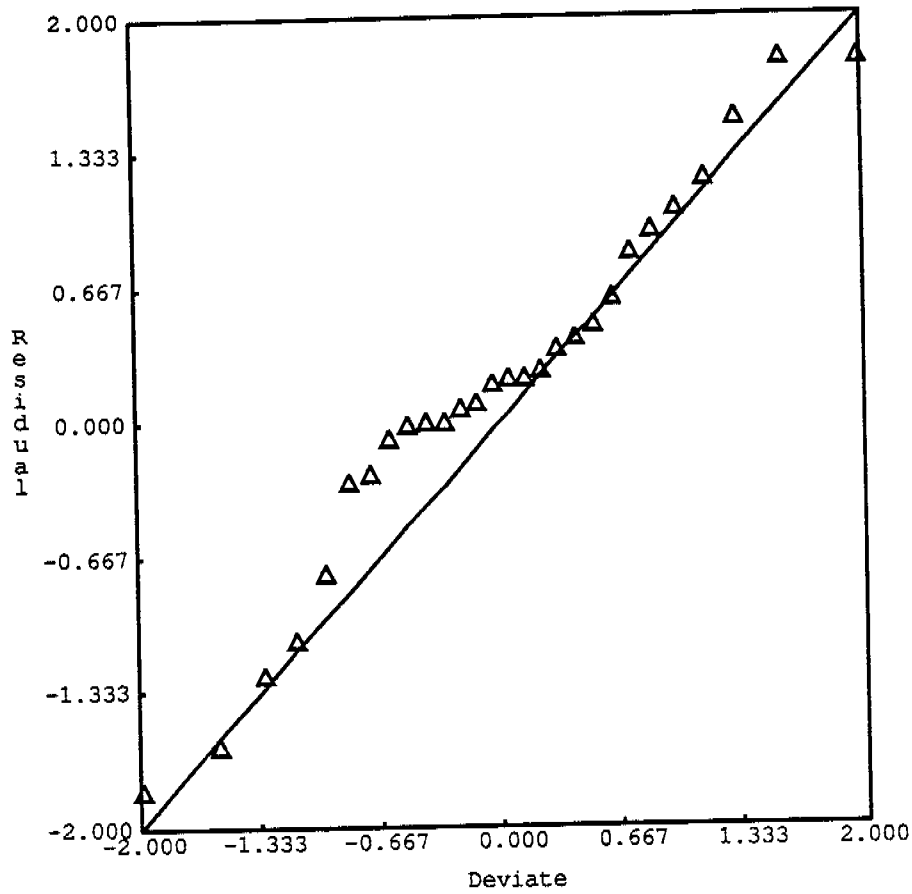
RIPG RUN1

Observed vs Predicted Time Series Plot for Response 2: Runoff #2



RIPG RUN 2

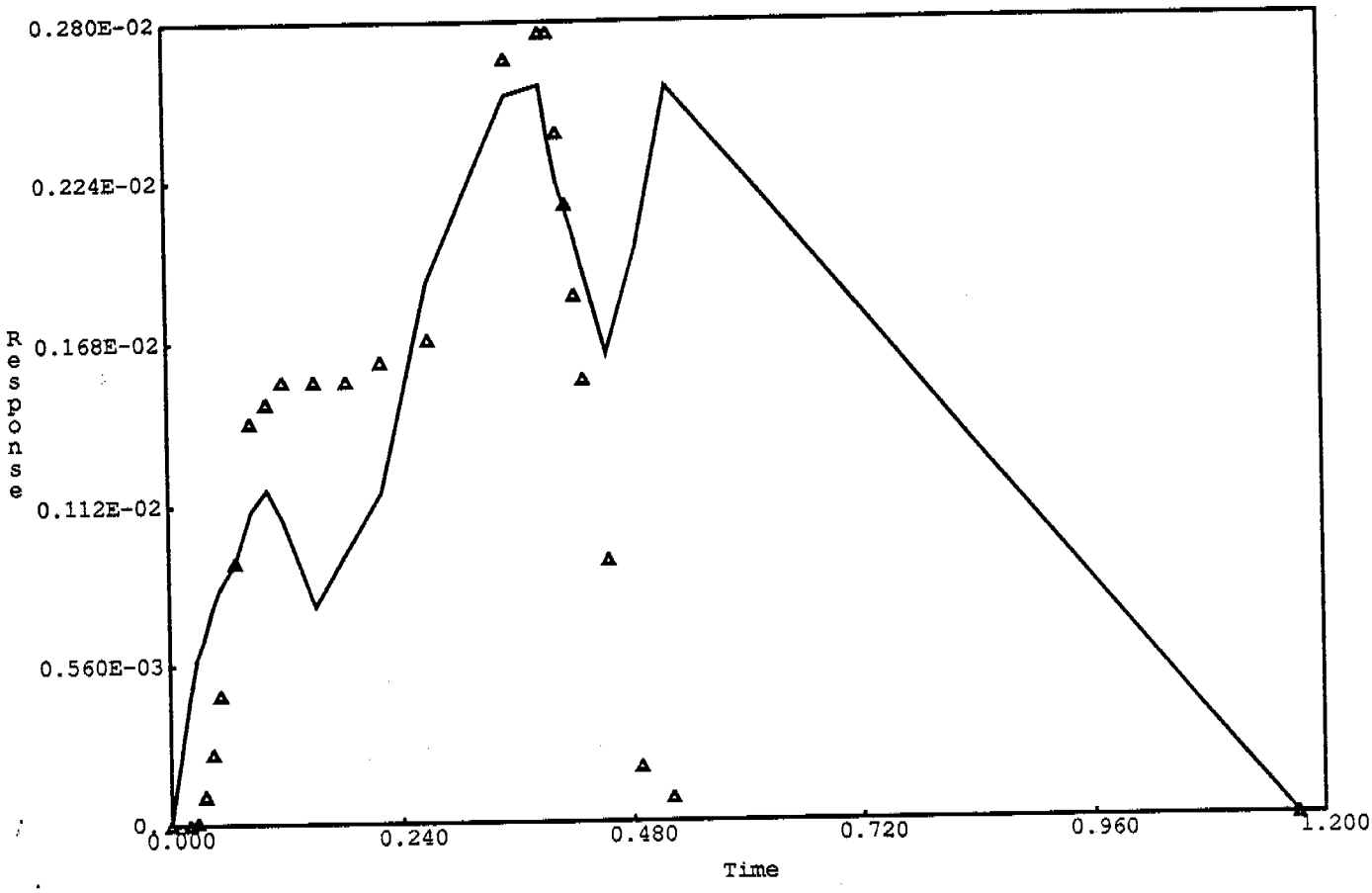
Normal Probability Plot for Response 2: Runoff #2



Kolmogorov-Smirnov statistic = 0.128 5% exceedance value = 0.164

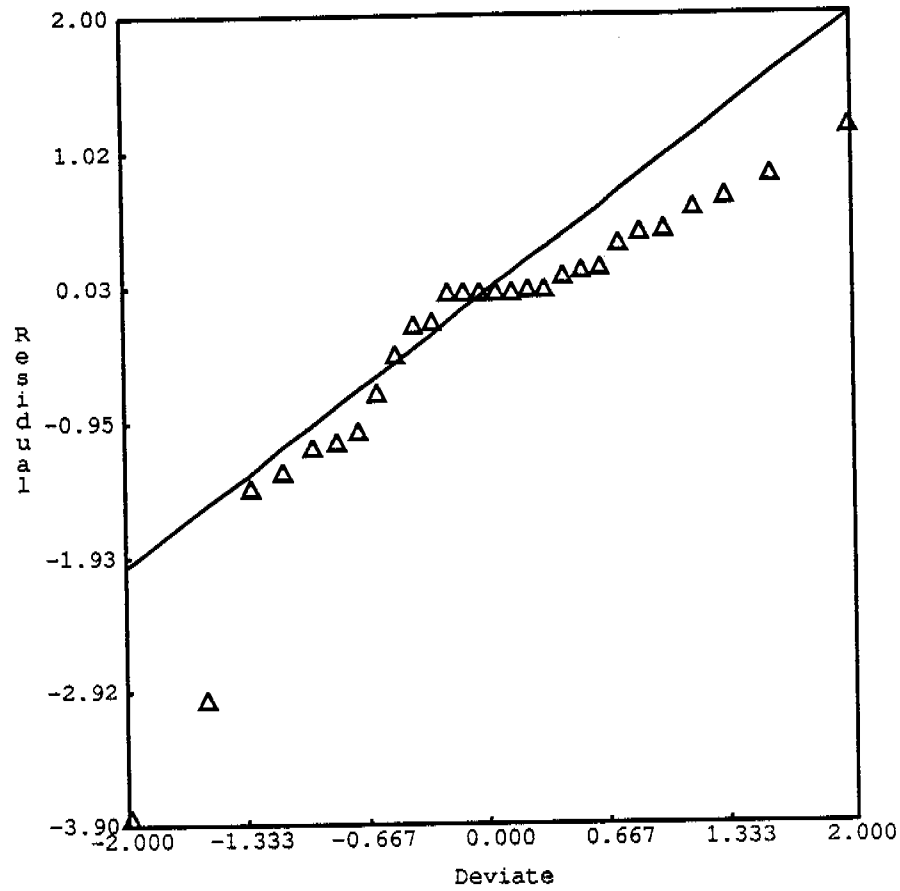
RIP6 RUN2

Observed vs Predicted Time Series Plot for Response 3: Runoff #3



RIPG RUN3

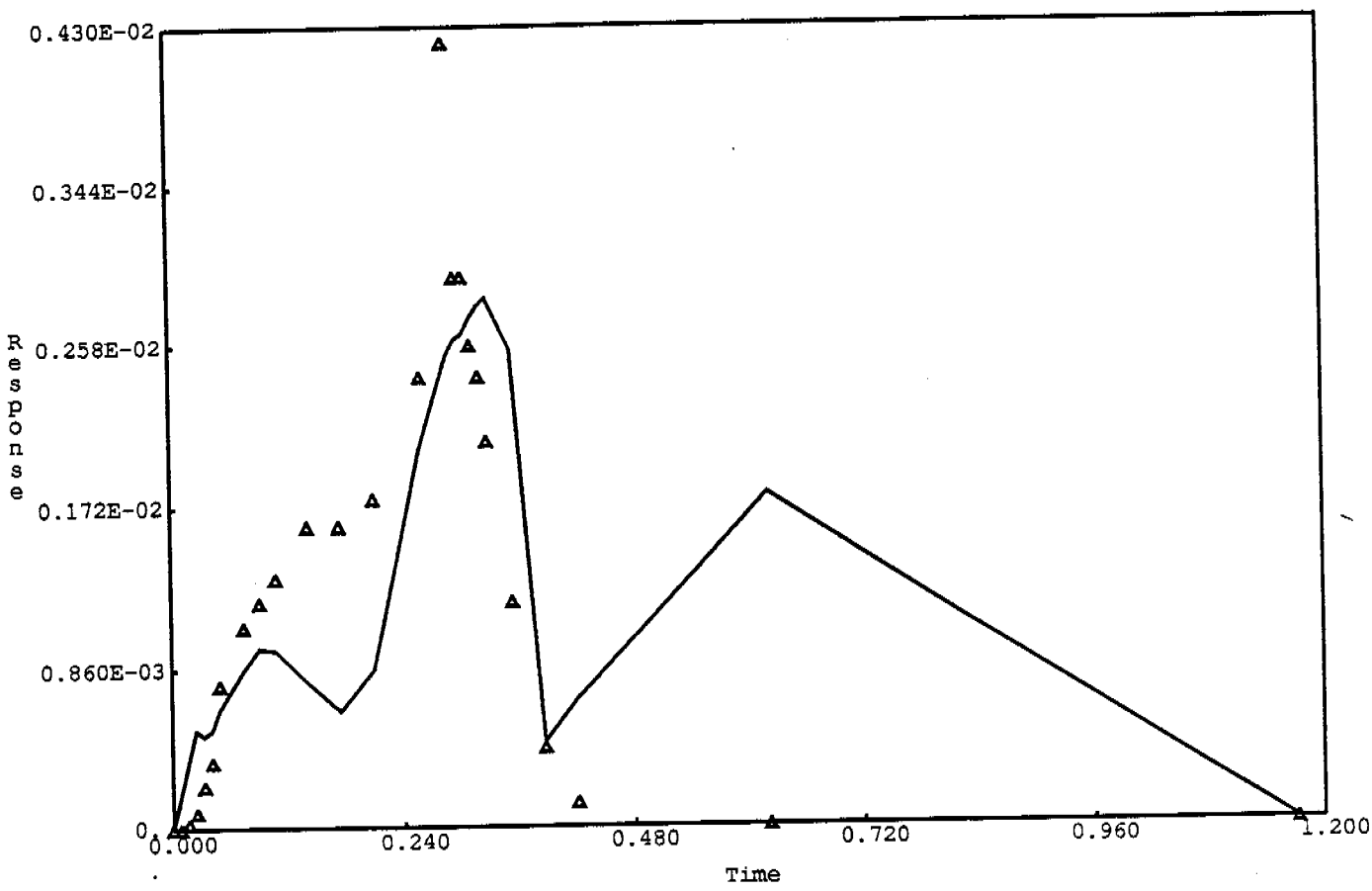
Normal Probability Plot for Response 3: Runoff #3



Kolmogorov-Smirnov statistic = 0.220 5% exceedance value = 0.164

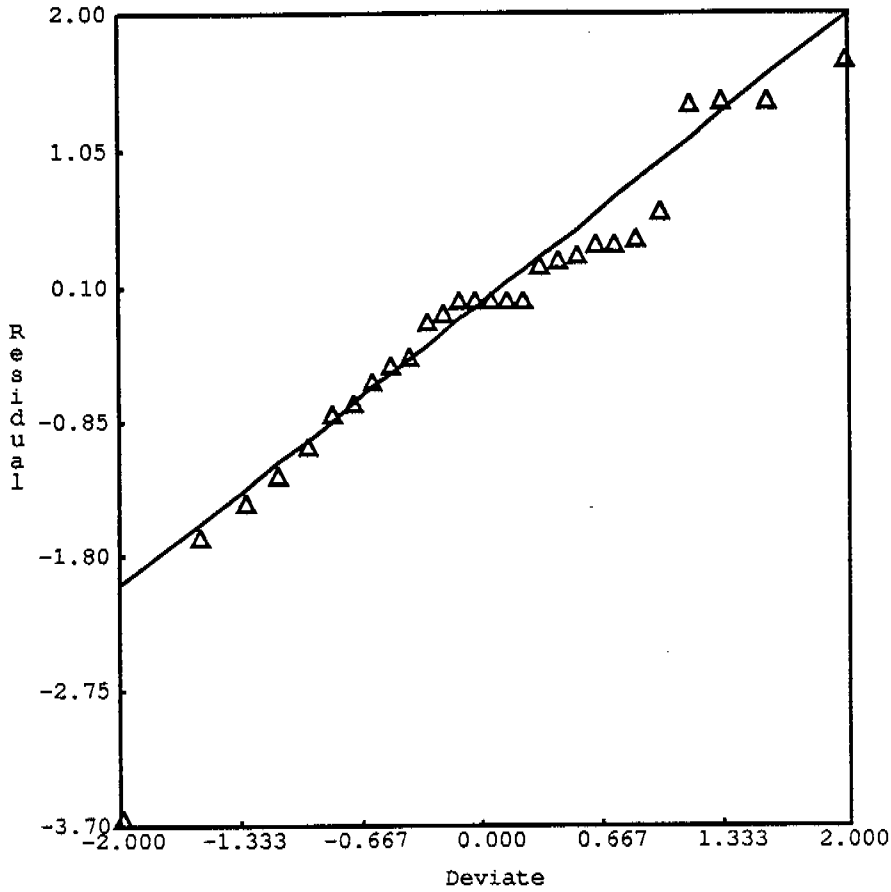
RIPG RUN3

Observed vs Predicted Time Series Plot for Response 4: Runoff #4



RIPG RUN4

Normal Probability Plot for Response 4: Runoff #4

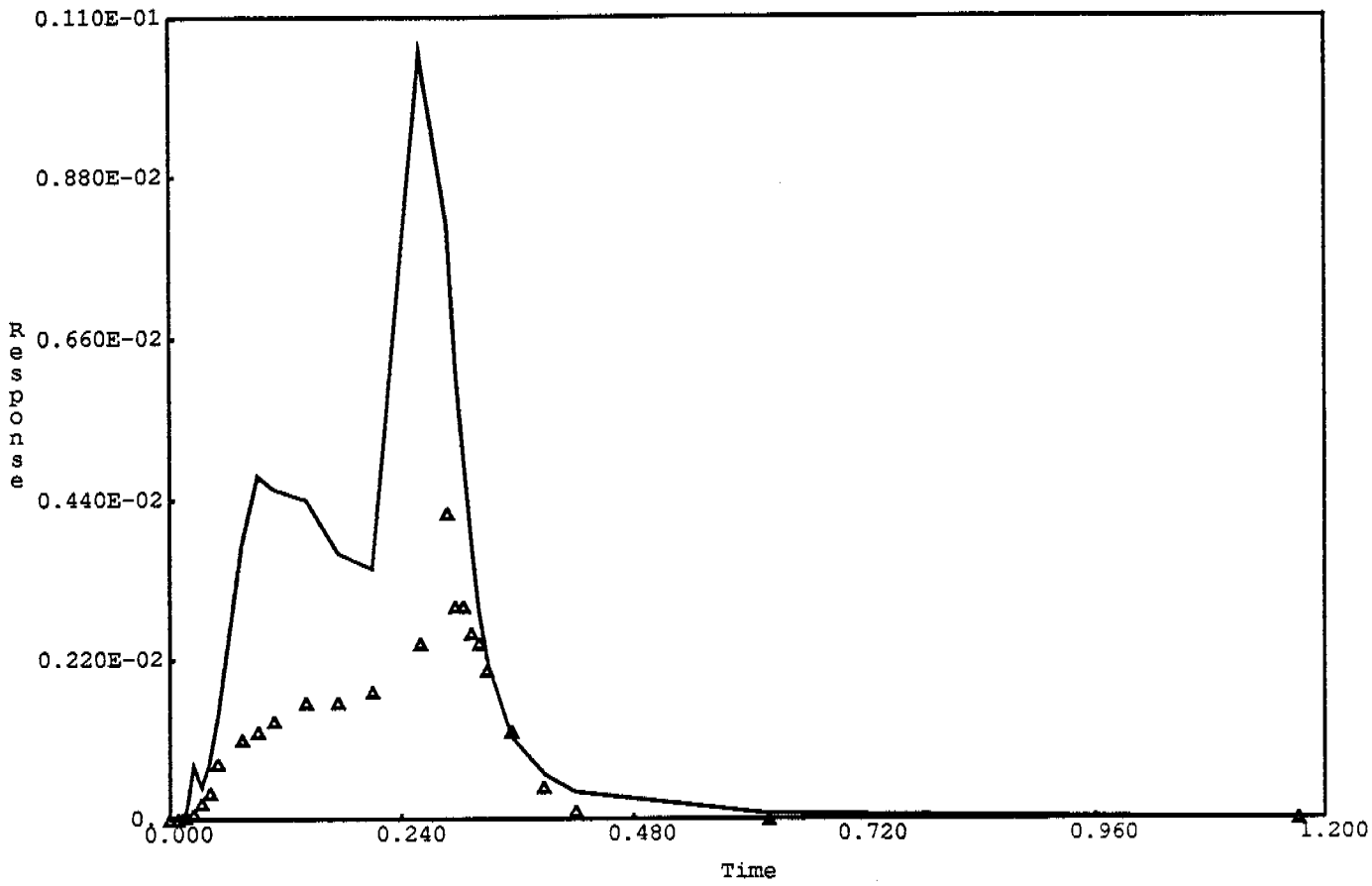


Kolmogorov-Smirnov statistic = 0.116 5% exceedance value = 0.164

RIPG RUN4

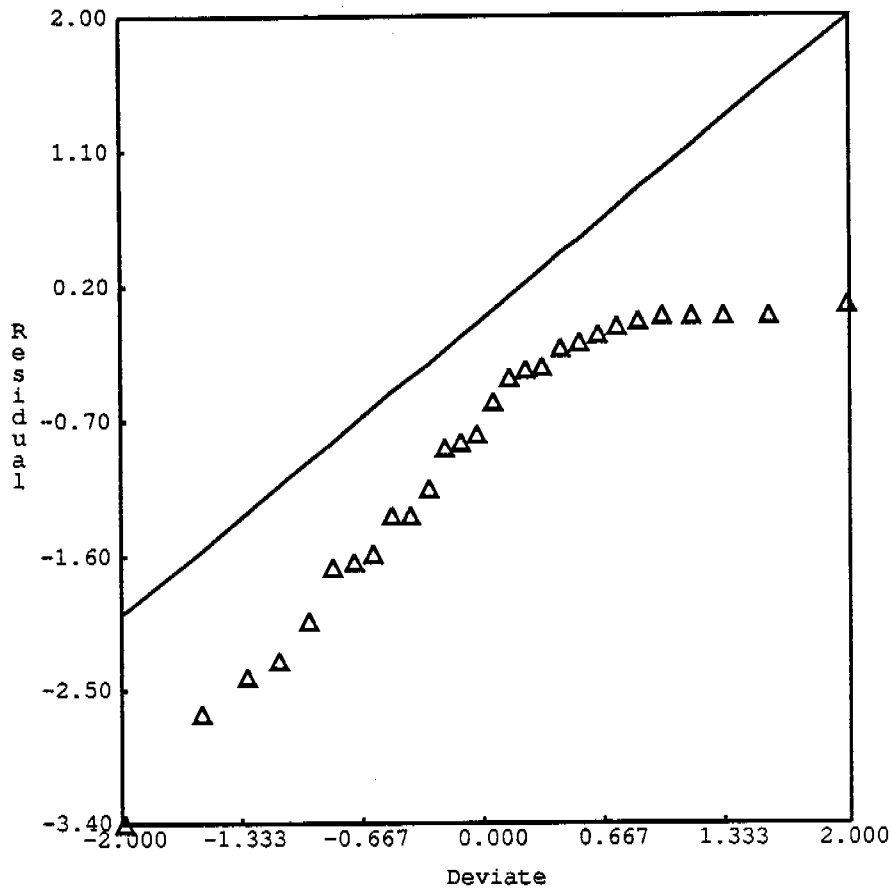
RIP6B.fw

Observed vs Predicted Time Series Plot for Response 1: Runoff #1



RIP6 RUN4

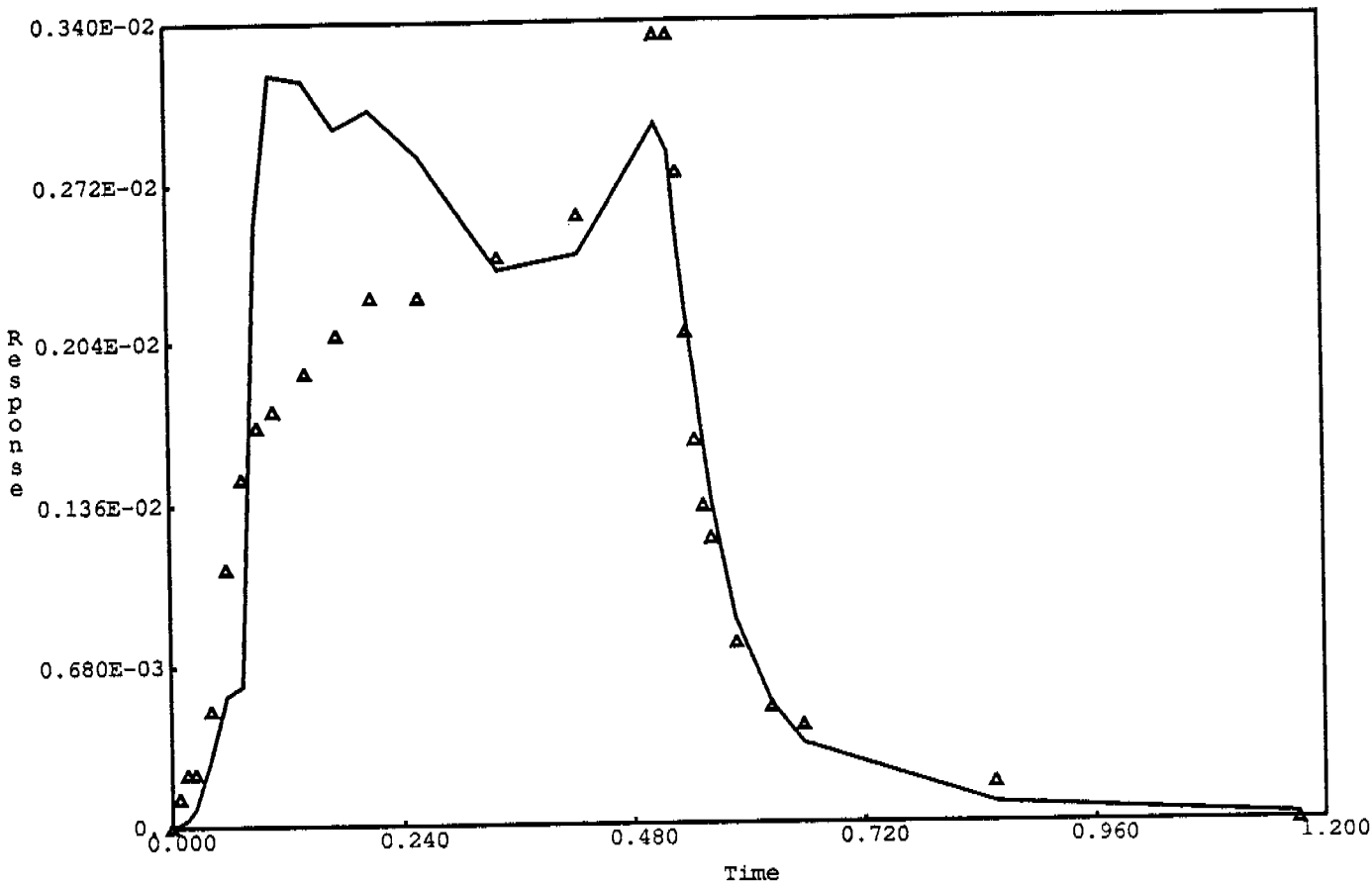
Normal Probability Plot for Response 1: Runoff #1



Kolmogorov-Smirnov statistic = 0.147 5% exceedance value = 0.164

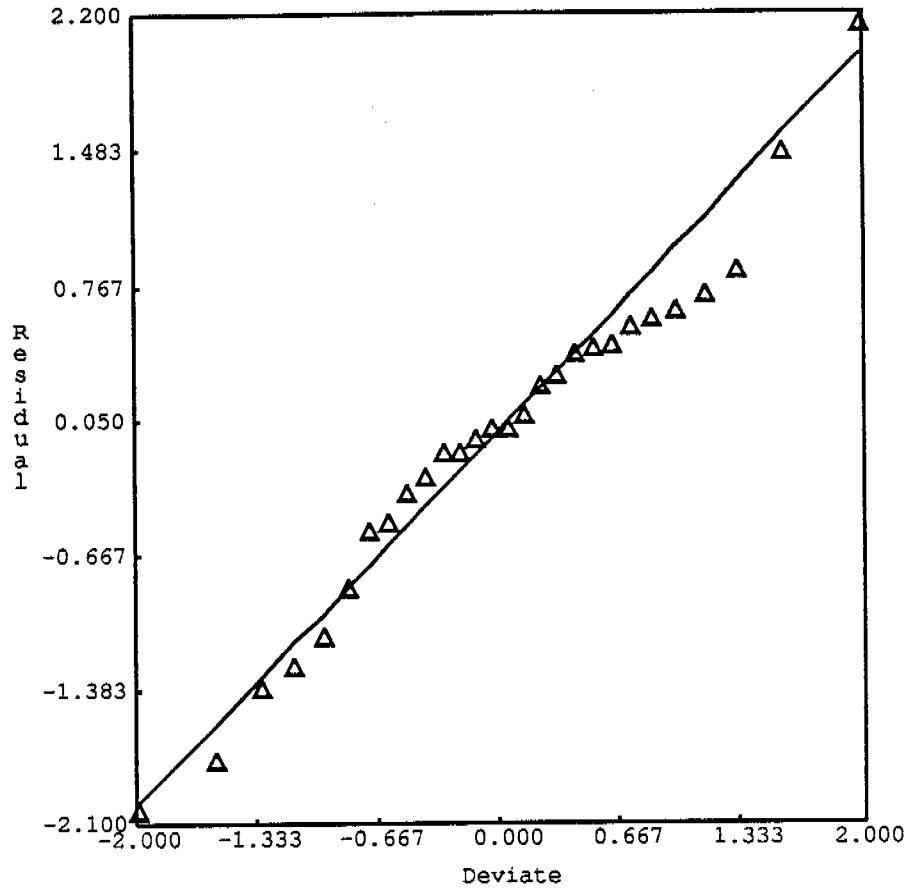
RIPG RUN4

Observed vs Predicted Time Series Plot for Response 2: Runoff #2



RIPG RUNS

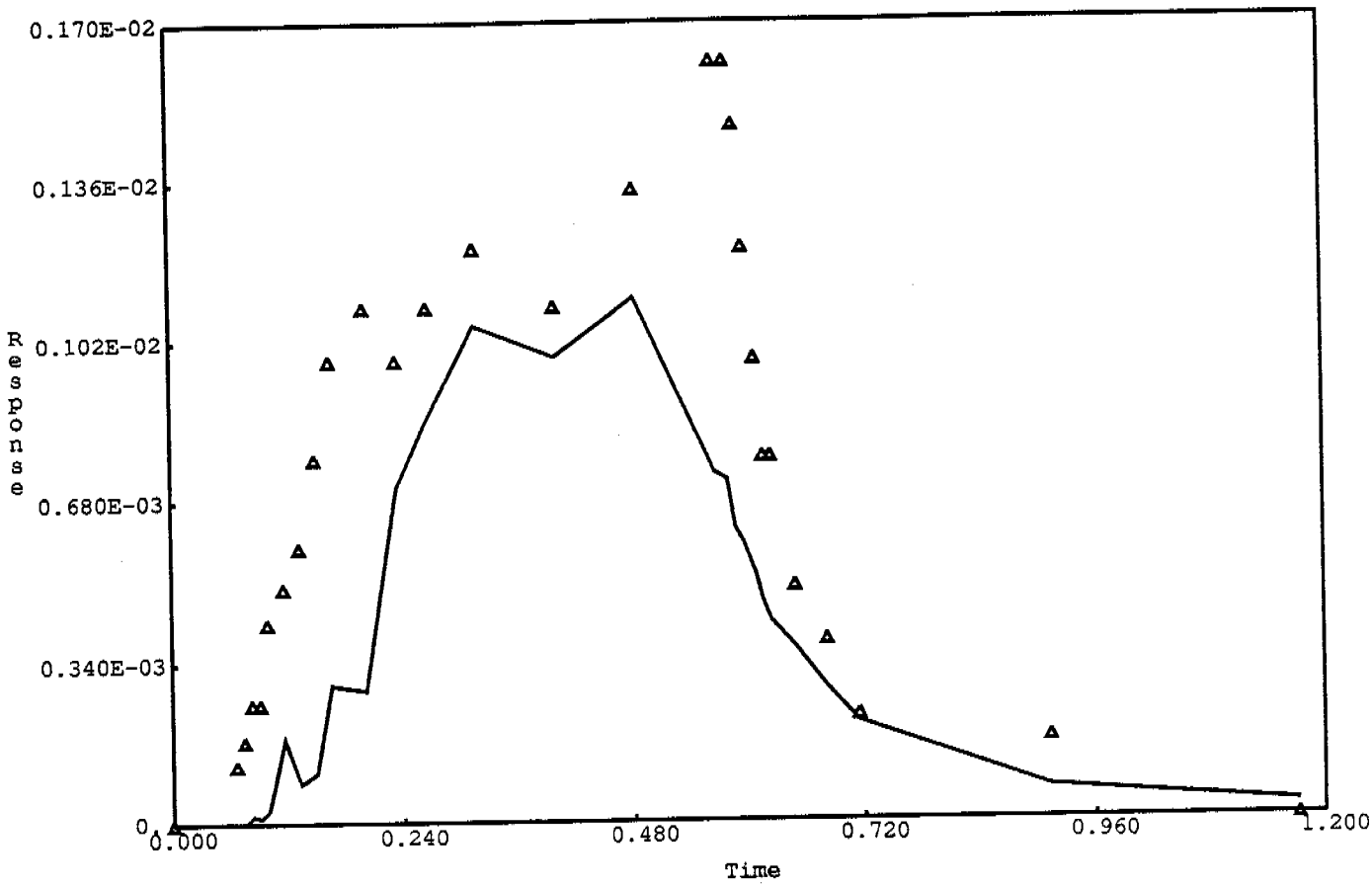
Normal Probability Plot for Response 2: Runoff #2



Kolmogorov-Smirnov statistic = 0.093 5% exceedance value = 0.164

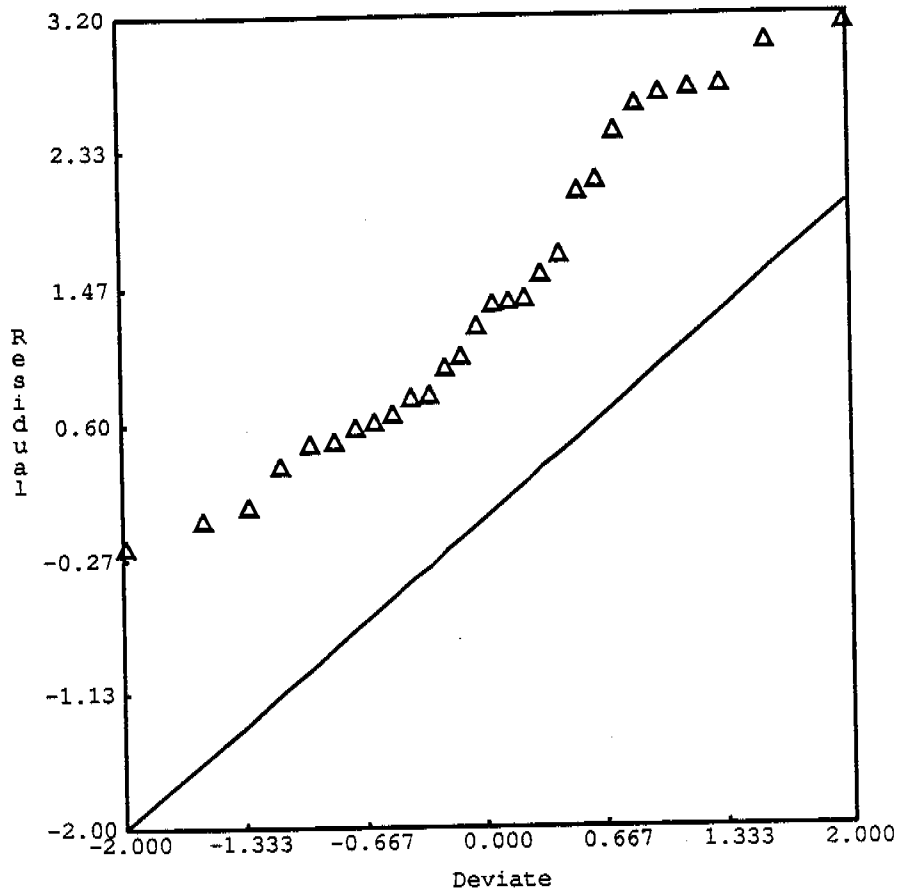
RIF 6 RUN 5

Observed vs Predicted Time Series Plot for Response 3: Runoff #3



RIPG RUN 6

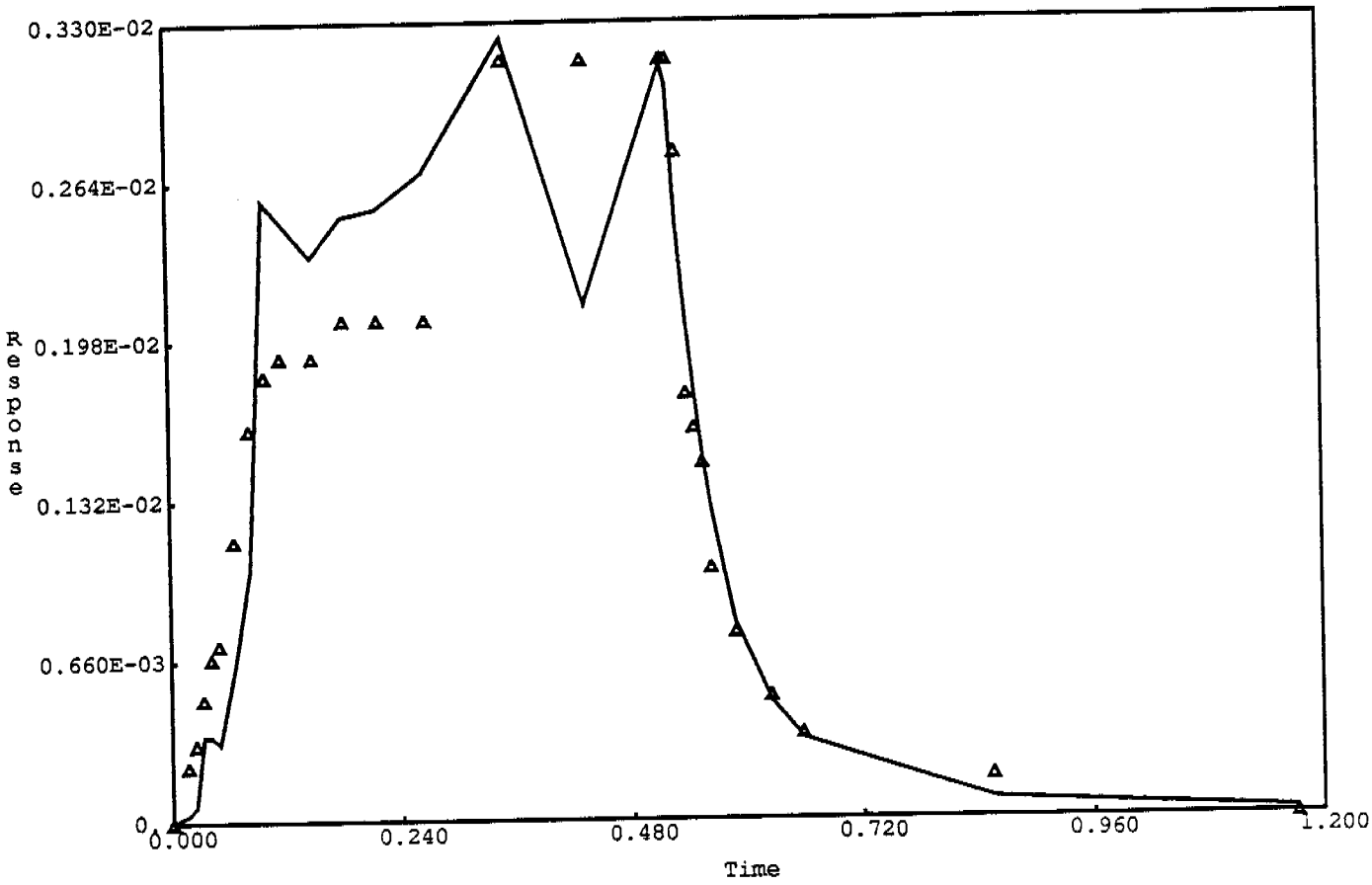
Normal Probability Plot for Response 3: Runoff #3



Kolmogorov-Smirnov statistic = 0.101 5% exceedance value = 0.164

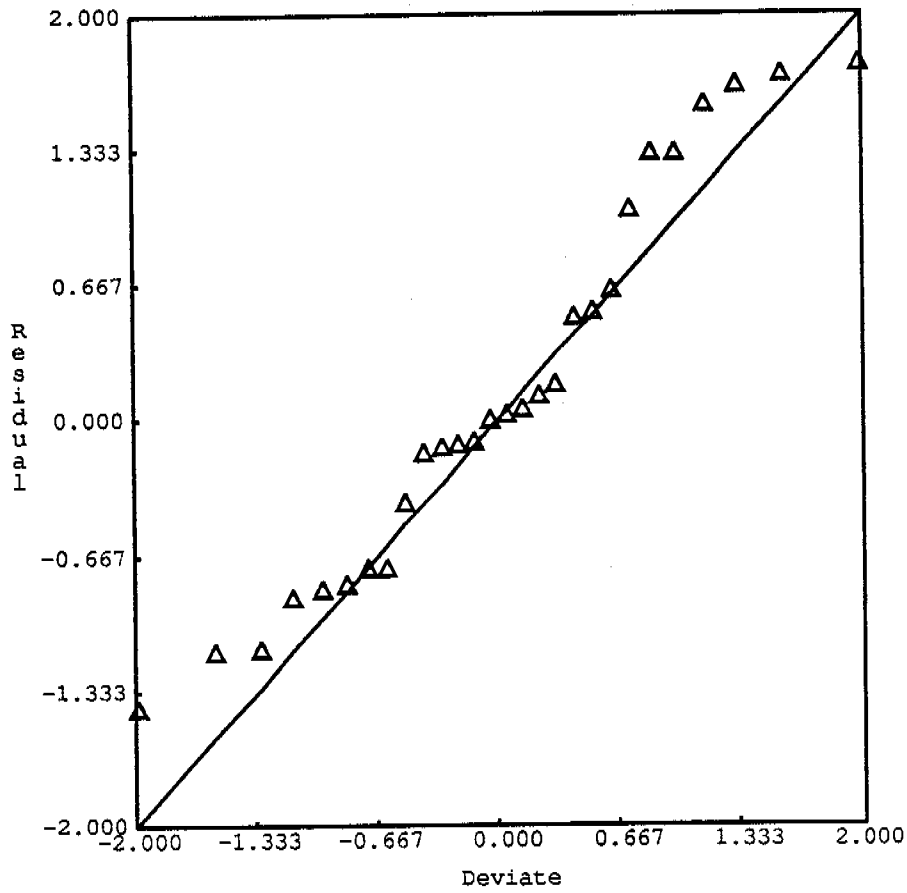
RIPG RUNG

Observed vs Predicted Time Series Plot for Response 4: Runoff #4



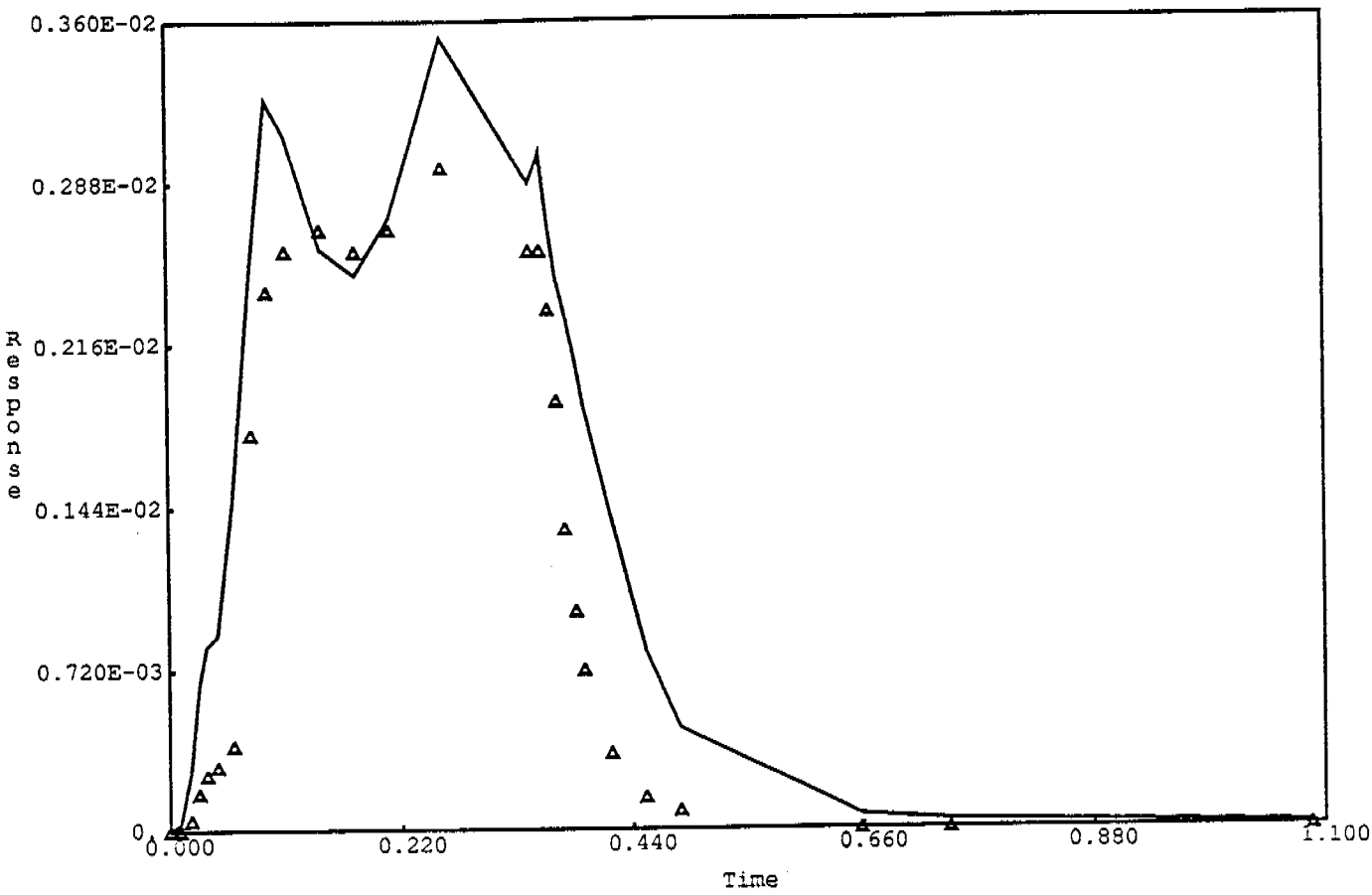
RIPG RUN7

Normal Probability Plot for Response 4: Runoff #4



Kolmogorov-Smirnov statistic = 0.112 5% exceedance value = 0.164

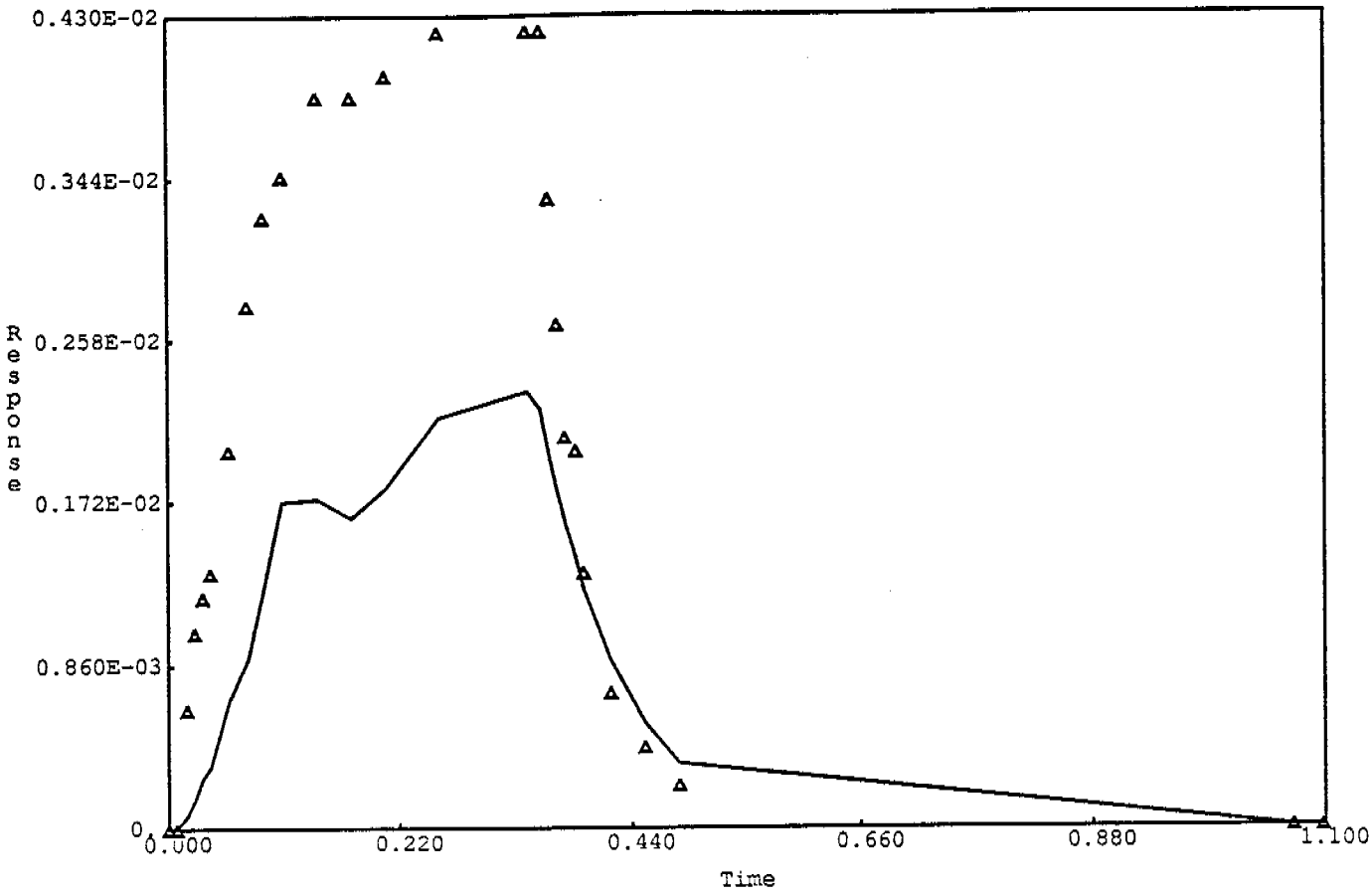
RIPG RUN7



RIPPED PLOT 3

calibrated with parameters contained in Table 5

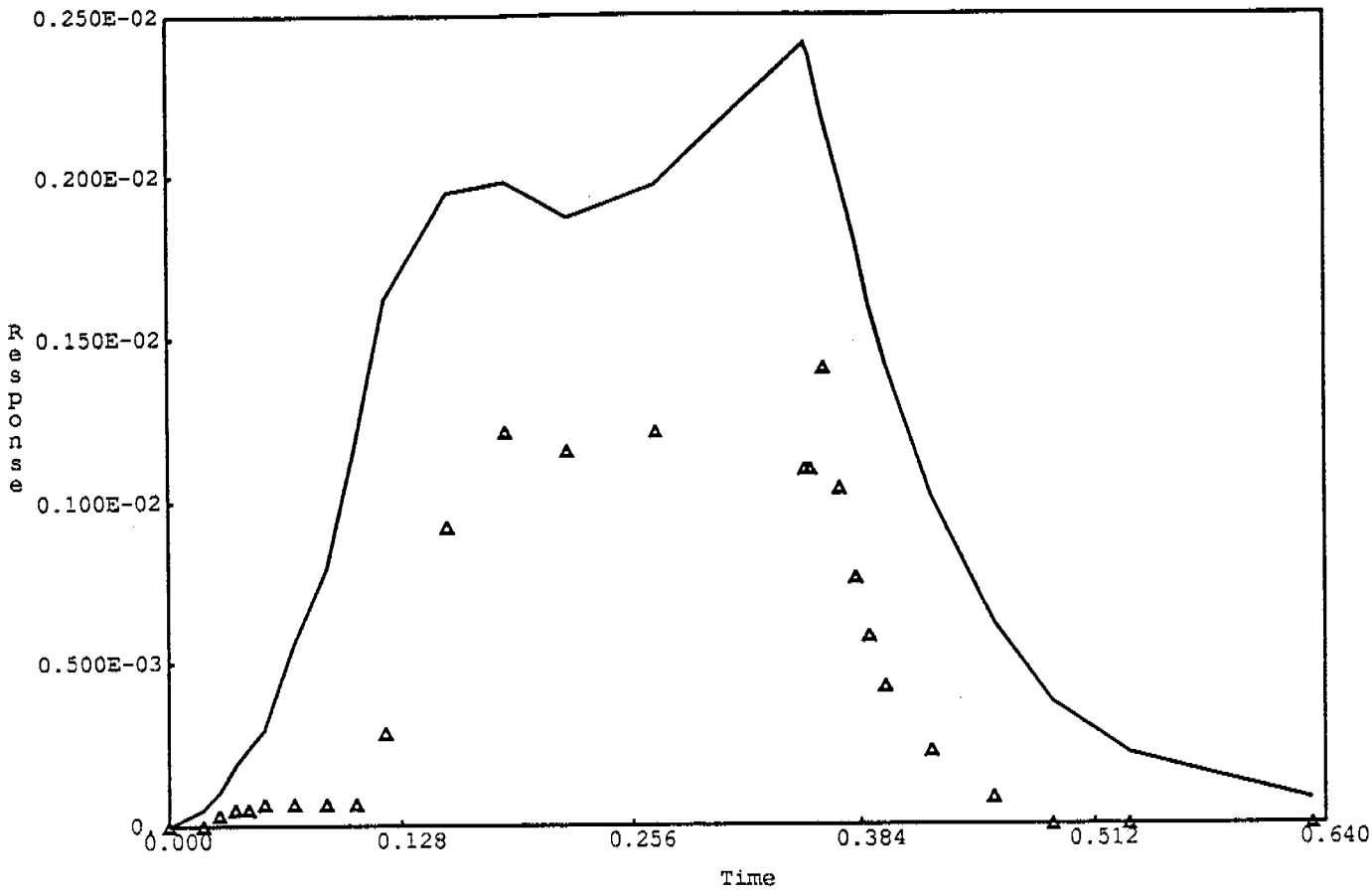
Observed vs Predicted Time Series Plot for Response 2: Runoff #2



RIPPED PLOT 4

calibrated with parameters contained in Table 5

Observed vs Predicted Time Series Plot for Response 3: Runoff #3



RIPPED PLOT 5

calibrated with parameters contained in Table 5