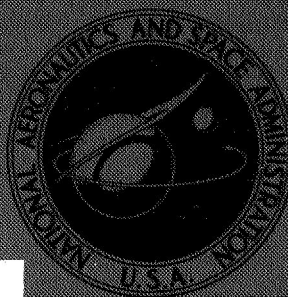


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WING SURFACE PRESSURE DATA FROM
LARGE-SCALE WIND-TUNNEL TESTS OF
A PROPELLER-DRIVEN STOL MODEL

by

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SUMMARY

The model tested is representative of a propeller-driven STOL transport aircraft. The variables include the effect of: trailing-edge flap deflection (0° to 100°), spanwise variation of propeller thrust, wing leading-edge slats, and propeller thrust and rotation on the three wing spans tested. Wing pressure distribution data and integrated chordwise normal-force coefficients are tabulated.

INTRODUCTION

A systematic study of an advanced propeller-driven STOL aircraft is presently being conducted in the 40- by 80-Foot Wind Tunnel at Ames Research Center. The large-scale model used in the program is typical of a conventional propeller-driven transport airplane capable of operating in and out of 1000 to 2000 foot runways.

The longitudinal force data from the first phase of this investigation are presented in reference 1. To supplement that data, the wing's surface pressure data were tabulated and a portion is presented herein without discussion.

NOTATION

b wing span, ft

c wing chord parallel to fuselage center line, ft

\bar{c} mean aerodynamic chord, $\frac{2}{S} \int_0^{b/2} c^2 dy$, ft

CN	total chordwise normal-force coefficient per unit span, $\int_0^{1.0} (C_{P_L} - C_{P_U}) d\left(\frac{X}{c}\right)$
CP	pressure coefficient, $\frac{P_l - P_s}{Q}$
D	propeller diameter, ft
J	propeller advance ratio, $\frac{V}{nD}$
n	propeller rotational velocity, rps
P_l	local static pressure, lb/sq ft
P_s	free-stream static pressure, lb/sq ft
Q	free-stream dynamic pressure, lb/sq ft
R	Reynolds number, $\frac{\rho V \bar{c}}{\mu}$
r	propeller blade radius, ft
S	wing area, sq ft
T	total thrust of all four propellers, lb
TCP, T'_c	thrust coefficient, $\frac{T}{QS}$
V	free-stream tunnel velocity, fps
X	chordwise station measured from leading edge along airfoil chord line, ft
y	lateral distance from airplane center line
ALPHA, α_u	wing angle of attack, uncorrected for wind-tunnel wall effects, deg
β_I, β_O	propeller blade angle at $3/4 r$ for inboard and outboard propeller, respectively, deg
δ_f	total aft flap deflection relative to local wing chord, deg
$\delta_f \frac{XX}{XX}$	differential spanwise flap deflection. Numerator is for flap inboard of midpoint between nacelles; denominator is for flap outboard (e.g., $\delta_f \frac{100}{60} = \frac{100^\circ \text{ inboard}}{60^\circ \text{ outboard}}$)
μ	coefficient of viscosity, slugs/ft-sec
ρ	mass density of air, slugs/ft ³

Subscripts

L lower surface

U upper surface

MODEL AND APPARATUS

Figures 1(a) and (b) show the model installed in the 40- by 80-foot test section.

The airfoil section of the wing was an NACA 63₂-416 with the reflex on the aft portion of the lower surface faired out. The short wing span was 43.34 feet with an aspect ratio of 5.71. Short wing tip extensions changed the span to 47.94 feet and longer tip extensions changed the span to 56 feet with an aspect ratio of 8.06. The wing and tail geometry may be found in table I. A three view of the model is presented in figure 2(a).

A cross section of the wing leading-edge slat and trailing-edge triple slotted flap is shown in figure 2(b). The trailing-edge flap could be deflected 100° with respect to the wing chord line. To deflect the flap 80° or less the foreflap was set at one half the total deflection of the aft flap. For a 100° flap deflection the foreflap was deflected 40°. Coordinates for the wing leading-edge slat, trailing-edge foreflap, fixed vane, and aft flap are listed in table II. Table III shows the location and numbering system of the pressure orifices on the right wing and airfoil section of the model. The local pressure at each orifice was sequentially sensed by a pressure transducer common to one station and then automatically recorded.

Normal force coefficients were calculated by a computer program based on Simpson's rule.

The geometric characteristics of the three-bladed model propellers are presented in figure 3. The solid aluminum model propellers were 9.3 feet in diameter and had an activity factor of 121 per blade. Each propeller was shaft mounted on a gearbox and driven by an electric motor. The four motors were operated in parallel from a variable frequency power supply.

TEST AND PROCEDURE

Tests were made at free-stream velocities of 31 to 49 knots ($q = 3.1$ to 8 psf, corresponding to a range of Reynolds numbers from 2.4 to 4.1 million). For each run the model angle of attack was varied while the tunnel dynamic pressure, propeller speed, and propeller blade angle were held fixed. For runs with all propellers set for equal thrust, the propellers were set at a blade angle of 16° at the three-quarter radius station. To obtain differential thrust the inboard propeller blade angle was left at 16° while the

outboard propeller blade angle was set at 0° . With this blade setting, and inboard thrust assumed to be independent of outboard thrust, the two inboard propellers produced a high positive value of thrust while the two outboard propellers gave a slightly negative value.

DATA PRESENTATION

Table IV is an index to pressure data tabulated in tables V-1-99. Each table of data lists the run and point number, free-stream dynamic pressure, angle of attack, and the thrust coefficient. As table III indicates, the pressure measurement stations are listed as valves and are numbered as shown inboard to outboard. The chordwise locations of the pressure orifices are given in the first column of tables V-1-99 (100X). The locations are in percent chord starting at the leading edge of the wing, reading from front to rear on the upper surface, and then from front to rear on the lower surface. Opposite the chordwise station is listed the pressure coefficient at that point. At the bottom of the table the total normal force coefficient is listed for each spanwise station.

Ames Research Center

National Aeronautics and Space Administration

Moffett Field, Calif., 94035, Nov. 16, 1967

721-01-00-16-00-21

REFERENCE

1. Page, V. Robert; Dickinson, Stanley O.; and Deckert, Wallace H.: Large-Scale Wind-Tunnel Tests of a Deflected Slipstream STOL Model With an Immersed Wing of Aspect Ratio 5.7 and Extended Wing Tips to Aspect Ratio 8.1. NASA TN D-4448, 1968.

TABLE I. - MODEL GEOMETRY

Dimension	Wing span			Vertical tail
	Short	Medium	Long	
Area, sq ft	329	352.8	389.3	86.9
Span, ft	43.34	47.94	56	11.22
Mean aerodynamic chord, ft	7.80	7.62	7.30	8.26
Aspect ratio	5.71	6.52	8.06	1.45
Taper ratio	0.554	0.507	0.424	0.389
Twist, deg	0	0	0	0
Dihedral, deg	0	0	0	0
NACA airfoil section	63 ₂ -416	63 ₂ -416	63 ₂ -416	63A013
Sweep of leading edge, deg	2.88	2.88	2.88	31.33
Sweep of trailing edge, deg	-8.57	-8.57	-8.57	0
Root chord, ft	9.77	9.77	9.77	11.17
Tip chord, ft	5.41	4.95	4.14	4.34

TABLE II.- COORDINATES OF LEADING-EDGE SLAT AND TRAILING-EDGE TRIPLE SLOTTED FLAP, PERCENT CHORD

Leading-edge slat ¹			Trailing-edge foreflap ²		
X	Y _U	Y _L	X	Y _U	Y _L
0	0.40	---	0	0	0
.25	1.50	---	.15	.9	-1.25
.50	1.98	---	.3	1.32	-1.62
.75	2.34	---	.5	1.73	-2.0
1.00	2.63	---	.75	2.15	-2.35
1.50	3.12	---	1.0	2.5	-2.60
2.00	3.50	---	2	3.44	-3.14
2.50	3.78	---	3	4.13	-3.32
3	4.02	---	4	4.62	-3.28
4	4.37	0.52	5	4.97	-3.18
5	4.58	1.47	6	5.22	-3.09
6	4.66	2.08	7	5.38	-3.00
7	4.65	2.49	8	5.49	-2.90
8	4.57	2.74	9	5.53	-2.81
10	4.17	2.88	10	5.52	-2.72
12	3.58	2.69	12.6	5.33	-2.48
14	2.84	2.25	12.76	5.30	0
16	1.98	1.62	15	4.92	2.50
18	1.07	.80	17.5	4.42	3.53
20	.08	-.08	20	3.85	3.80
Trailing-edge vane ³			Trailing-edge aft flap ⁴		
0	0	0	0	0	0
.1	.44	-.36	.25	1.12	-.9
.2	.63	-.50	.5	1.58	-1.24
.3	.77	-.58	.75	1.92	-1.45
.4	.88	-.65	1	2.16	-1.62
.5	1.00	-.68	1.5	2.5	-1.78
.75	1.18	-.68	2	2.77	-1.83
1.0	1.33	-.6	2.5	2.95	-1.80
1.5	1.52	-.3	3	3.08	-1.76
2	1.62	.04	4	3.21	-1.66
2.5	1.62	.32	5	3.25	-1.57
3	1.57	.48	7.5	2.85	-1.33
3.5	1.46	.53	10	2.35	-1.08
4	1.28	.53	12.5	1.85	-.85
4.5	1.06	.47	15	1.33	-.62
5	.78	.36	17.5	.83	-.37
5.5	.45	.20	20	.32	-.15
6.0	.1	.03	21.4	.02	-.03

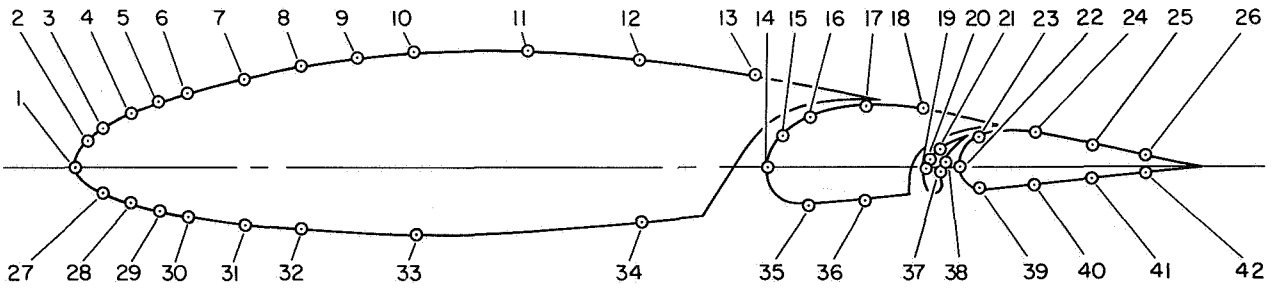
¹Leading-edge radius = 1.9; slope of radius line through leading edge of slat = 0.20

²Leading-edge radius = 3.0

³Leading-edge radius = 0.85

⁴Leading-edge radius = 1.8

TABLE III.- ORIFICE LOCATIONS



Orifice	Chordwise station, percent	Orifice	Chordwise station, percent	Orifice	Chordwise station, percent
1	0	15	62.50	29	7.50
2	1.25	16	65.00	30	10.00
3	2.50	17	70.00	31	15.00
4	5.00	18	75.00	32	20.00
5	7.50	19	75.62	33	30.00
6	10.00	20	76.30	34	50.00
7	15.00	21	77.12	35	65.00
8	20.00	22	78.60	36	70.00
9	25.00	23	80.00	37	76.80
10	30.00	24	85.00	38	77.15
11	40.00	25	90.00	39	80.00
12	50.00	26	95.00	40	85.00
13	60.00	27	2.50	41	90.00
14	61.50	28	5.00	42	95.00

SPANWISE POSITION OF ORIFICE STATION, INCHES FROM FUSELAGE CENTER LINE

Valve number	1	2 ¹	3	4	5	6	7	8	9
Wing span									
Short	58.2	84.5	115.5	141.8	174.2	200.5	231.5	---	---
Medium	58.2	84.5	115.5	141.8	174.2	200.5	231.5	270	---
Long	58.2	84.5	115.5	141.8	174.2	200.5	231.5	280	310

¹Data from station (valve) 2 are inconsistent and omitted.

TABLE IV.- INDEX TO TABULATED DATA

Wing span	δ_f	β , deg	Leading-edge slats	T'_c	α_u , deg	Rotation	Table V-
Short ↓	80	$\beta_I = \beta_O = 16$	On	1.0	0,12,16		1-3
	100/60			1.0	0,12,16		4-6
	100/60	$\beta_I = 16; \beta_O = 0$	↓	2.5	0,12,16		7-9
	80			.6	0,12,20		10-12
	↓			1.0	0,12,20		13-15
	↓			1.6	0,12,20		16-18
	Medium			0	Propellers off $\beta_I = \beta_O = 16$		Off
↓	0	0,12,20	22-24				
↓	1.0	0,12,24	25-27				
↓	2.4	0,12,24	28-30				
40	↓	On	0	0,12,20		31-33	
↓			1.0	0,12,20		34-36	
↓			2.4	0,12,20		37-39	
80			0	0,12,16		40-42	
80			2.5	0,12,16		43-45	
100/60			0	0,12,20		46-48	
↓			1.0	0,12,20		49-51	
↓			2.5	0,12,20		52-54	
80			$\beta_I = 16; \beta_O = 0$	-0.3		0,12,20	55-57
↓			.13	0,12,16		58-60	
↓	.84	0,12,16	61-63				
↓	1.6	0,12,16	64-66				
Long ↓	↓	$\beta_I = \beta_O = 16$	↓	0	0,12,16	67-69	
	↓			2.5	8,12,18	70-72	
	↓			3.9	0,12,20	73-75	
	↓			2.5	0,8,12	76-78	
	↓			1.0	0,8,12	79-81	
	↓	2.4	0,8,12	82-84			
	100/60	$\beta_I = 16; \beta_O = 0$	On	2.5	0,12,18	85-87	
	80			.6	0,12,16	88-90	
	80			1.5	0,12,16	91-93	
	100/60			.6	0,12,16	94-96	
100/60	1.4			0,12,16	97-99		

TABLE V-1

RUN 110 POINT 3		Q = 7.07		ALPHA = 0		TCP = 1.00	
VALVE 1 100X CP	VALVE 3 100X CP	VALVE 4 100X CP	VALVE 5 100X CP	VALVE 6 100X CP	VALVE 7 100X CP	VALVE 1 100X CP	VALVE 3 100X CP
0.0	-1.032	0.0	-2.496	0.0	-2.940	0.0	-3.101
1.2	-0.660	1.2	-1.317	1.2	-1.193	1.2	-1.265
2.5	-0.920	2.5	-1.354	2.5	-1.736	2.5	-1.415
5.0	-1.292	5.0	-1.980	5.0	-2.591	5.0	-2.164
7.5	-1.441	7.5	-2.054	7.5	-2.862	7.5	-1.227
10.0	-1.515	10.0	-1.538	10.0	-3.056	10.0	-2.689
15.0	-1.775	15.0	-2.164	15.0	-2.979	15.0	-0.815
20.0	-1.998	20.0	-2.164	20.0	-2.940	20.0	-2.689
25.0	-2.036	25.0	-2.238	25.0	-3.056	25.0	-1.152
30.0	-2.110	30.0	-2.348	30.0	-3.056	30.0	-2.951
40.0	-2.036	40.0	-2.422	40.0	-3.018	40.0	-2.951
50.0	-2.073	50.0	-2.422	50.0	0.477	50.0	-2.951
60.0	-2.073	60.0	-2.569	60.0	-2.940	60.0	-2.951
61.5	-1.367	61.5	-0.912	61.5	-1.814	61.5	-1.227
62.5	-3.820	62.5	-5.442	62.5	-6.046	62.5	-5.012
65.0	-6.236	65.0	-7.615	65.0	-8.569	65.0	-7.934
70.0	-4.564	70.0	-5.773	70.0	-6.356	70.0	-6.323
75.0	-2.854	75.0	-3.416	75.0	-3.988	75.0	-3.850
75.6	-2.296	75.6	-2.643	75.6	-3.445	75.6	-3.363
76.3	-3.300	76.3	-3.601	76.3	-4.532	76.3	-3.400
77.1	0.567	77.1	-3.932	77.1	-3.872	77.1	1.133
78.6	1.682	78.6	2.218	78.6	1.874	78.6	1.620
80.0	-2.370	80.0	-1.906	80.0	-3.018	80.0	-3.438
85.0	-1.738	85.0	-1.649	85.0	-1.931	85.0	-2.351
90.0	-0.995	90.0	-0.212	90.0	-0.494	90.0	-0.953
95.0	-0.772	95.0	-0.102	95.0	-0.455	95.0	-0.103
2.5	0.455	2.5	2.734	2.5	1.602	2.5	1.920
5.0	1.310	5.0	2.476	5.0	2.068	5.0	2.033
7.5	2.459	7.5	2.108	7.5	1.797	7.5	1.920
10.0	1.533	10.0	1.924	10.0	1.447	10.0	1.583
15.0	1.310	15.0	1.334	15.0	1.020	15.0	0.909
20.0	1.013	20.0	0.819	20.0	0.787	20.0	0.796
30.0	0.678	30.0	0.782	30.0	0.632	30.0	0.721
50.0	0.678	50.0	1.077	50.0	0.981	50.0	0.983
65.0	2.202	65.0	2.808	65.0	2.379	65.0	2.407
70.0	2.091	70.0	2.808	70.0	2.340	70.0	2.407
76.8	0.604	76.8	2.808	76.8	2.340	76.8	2.407
77.1	2.165	77.1	2.734	77.1	2.224	77.1	2.295
80.0	2.277	80.0	2.734	80.0	2.379	80.0	2.407
85.0	2.500	85.0	2.734	85.0	2.340	85.0	2.407
90.0	2.202	90.0	2.734	90.0	2.068	90.0	2.183
95.0	1.793	95.0	2.587	95.0	1.680	95.0	1.770
TOTAL NORMAL COEFFICIENT							
CN =	3.24	4.25	4.15	4.21	4.48	3.41	

TABLE V-2

RUN 110 POINT 6		Q = 7.07		ALPHA = 12		TCP = 1.00	
VALVE 1 100X CP	VALVE 3 100X CP	VALVE 4 100X CP	VALVE 5 100X CP	VALVE 6 100X CP	VALVE 7 100X CP	VALVE 1 100X CP	VALVE 3 100X CP
0.0	-1.069	0.0	-1.426	0.0	-0.103	0.0	-2.321
1.2	-1.292	1.2	-2.385	1.2	-2.202	1.2	-2.208
2.5	-1.738	2.5	-2.569	2.5	-3.212	2.5	-2.426
5.0	-2.705	5.0	-3.380	5.0	-4.182	5.0	-3.400
7.5	-3.002	7.5	-3.380	7.5	-4.415	7.5	-1.789
10.0	-2.854	10.0	-2.459	10.0	-4.571	10.0	-3.813
15.0	-2.891	15.0	-2.974	15.0	-4.144	15.0	-1.115
20.0	-2.965	20.0	-2.974	20.0	-3.833	20.0	-3.513
25.0	-2.816	25.0	-3.011	25.0	-3.911	25.0	-1.527
30.0	-2.854	30.0	-3.122	30.0	-3.794	30.0	-3.588
40.0	-2.519	40.0	-3.122	40.0	-3.483	40.0	-3.550
50.0	-2.296	50.0	-2.974	50.0	0.321	50.0	-3.438
60.0	-2.296	60.0	-2.974	60.0	-3.251	60.0	-3.288
61.5	-1.069	61.5	-1.096	61.5	-1.698	61.5	-1.227
62.5	-3.411	62.5	-5.258	62.5	-5.308	62.5	-4.487
65.0	-4.675	65.0	-6.215	65.0	-7.055	65.0	-6.923
70.0	-3.188	70.0	-4.816	70.0	-4.765	70.0	-4.937
75.0	-1.738	75.0	-2.238	75.0	-2.901	75.0	-2.913
75.6	-1.961	75.6	-2.680	75.6	-2.940	75.6	-2.614
76.3	-2.556	76.3	-3.380	76.3	-3.678	76.3	-2.614
77.1	0.529	77.1	-3.232	77.1	-3.056	77.1	1.021
78.6	2.054	78.6	2.513	78.6	2.107	78.6	1.770
80.0	-1.292	80.0	-1.649	80.0	-2.474	80.0	-2.913
85.0	-1.181	85.0	-1.575	85.0	-1.931	85.0	-2.276
90.0	-0.697	90.0	-0.838	90.0	-0.882	90.0	-0.890
95.0	-0.474	95.0	-0.765	95.0	-0.372	95.0	-0.390
2.5	2.277	2.5	3.213	2.5	2.029	2.5	0.534
5.0	1.533	5.0	2.918	5.0	1.564	5.0	0.646
7.5	1.124	7.5	2.513	7.5	1.175	7.5	0.684
10.0	0.827	10.0	2.218	10.0	0.981	10.0	0.721
15.0	0.678	15.0	1.592	15.0	0.709	15.0	0.684
20.0	0.678	20.0	0.635	20.0	0.632	20.0	0.721
30.0	0.567	30.0	0.635	30.0	0.515	30.0	0.721
50.0	0.715	50.0	0.966	50.0	0.709	50.0	0.721
65.0	2.871	65.0	3.102	65.0	2.651	65.0	2.482
70.0	2.202	70.0	2.955	70.0	2.224	70.0	2.220
76.8	0.529	76.8	2.955	76.8	2.457	76.8	2.295
77.1	2.537	77.1	2.955	77.1	2.379	77.1	2.257
80.0	2.611	80.0	2.992	80.0	2.612	80.0	2.445
85.0	2.388	85.0	2.808	85.0	1.991	85.0	1.958
90.0	1.831	90.0	2.218	90.0	1.408	90.0	1.396
95.0	1.310	95.0	1.666	95.0	0.904	95.0	1.096
TOTAL NORMAL COEFFICIENT							
CN =	3.37	4.56	4.25	4.15	5.07	4.88	

TABLE V-3

RUN 110 POINT 7		Q = 6.89		ALPHA = 16		TCP = 1.00	
VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7		
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP		
0.0 -0.239	0.0 -2.107	0.0 -0.307	0.0 -0.413	0.0 -1.295	0.0 -4.124		
1.2 -1.287	1.2 -2.522	1.2 -2.379	1.2 -1.874	1.2 -2.342	1.2 -1.939		
2.5 -2.012	2.5 -2.976	2.5 -3.614	2.5 -2.873	2.5 -2.690	2.5 -2.056		
5.0 -2.965	5.0 -3.656	5.0 -4.649	5.0 -3.796	5.0 -2.998	5.0 -2.110		
7.5 -3.194	7.5 -3.656	7.5 -4.849	7.5 -1.951	7.5 -3.394	7.5 -3.266		
10.0 -3.156	10.0 -2.522	10.0 -4.968	10.0 -4.027	10.0 -2.998	10.0 -3.266		
15.0 -3.194	15.0 -3.392	15.0 -4.450	15.0 -1.143	15.0 -2.960	15.0 -3.188		
20.0 -3.194	20.0 -3.392	20.0 -4.131	20.0 -3.681	20.0 -3.152	20.0 -3.344		
25.0 -3.080	25.0 -3.429	25.0 -4.131	25.0 -1.605	25.0 -3.577	25.0 -3.344		
30.0 -3.004	30.0 -3.429	30.0 -3.932	30.0 -3.604	30.0 -3.615	30.0 -3.383		
40.0 -2.470	40.0 -3.240	40.0 -3.494	40.0 -3.489	40.0 -3.500	40.0 -3.344		
50.0 -2.241	50.0 -2.976	50.0 0.370	50.0 -3.373	50.0 -3.731	50.0 -3.383		
60.0 -2.241	60.0 -2.938	60.0 -3.255	60.0 -3.219	60.0 -3.538	60.0 -3.734		
61.5 -1.211	61.5 -1.464	61.5 -1.861	61.5 -1.066	61.5 -1.378	61.5 -2.173		
62.5 -2.965	62.5 -4.979	62.5 -4.849	62.5 -3.719	62.5 -4.657	62.5 -5.060		
65.0 -4.568	65.0 -6.150	65.0 -6.522	65.0 -6.026	65.0 -7.550	65.0 -9.780		
70.0 -2.431	70.0 -3.240	70.0 -4.371	70.0 -4.488	70.0 -6.354	70.0 2.351		
75.0 -1.325	75.0 -1.389	75.0 -2.379	75.0 -2.758	75.0 -3.885	75.0 -5.606		
75.6 -1.554	75.6 -2.296	75.6 -2.538	75.6 -2.297	75.6 -4.425	75.6 -5.801		
76.3 -2.050	76.3 -2.598	76.3 -3.215	76.3 -2.335	76.3 -4.850	76.3 -7.478		
77.1 0.582	77.1 -2.598	77.1 -2.737	77.1 1.010	77.1 -4.772	77.1 -7.673		
78.6 2.261	78.6 2.542	78.6 2.243	78.6 1.587	78.6 1.746	78.6 1.454		
80.0 -1.096	80.0 -1.804	80.0 -2.179	80.0 -2.681	80.0 -3.461	80.0 -6.659		
85.0 -1.020	85.0 -1.237	85.0 -1.821	85.0 -2.220	85.0 -2.265	85.0 -3.968		
90.0 -0.562	90.0 -0.746	90.0 -0.745	90.0 -0.836	90.0 -1.340	90.0 -1.900		
95.0 -0.448	95.0 -0.746	95.0 -0.506	95.0 -0.566	95.0 -1.340	95.0 -1.393		
2.5 0.925	2.5 3.335	2.5 1.486	2.5 0.587	2.5 3.173	2.5 3.092		
5.0 0.925	5.0 3.033	5.0 1.127	5.0 0.664	5.0 2.826	5.0 2.975		
7.5 0.925	7.5 2.617	7.5 0.888	7.5 0.664	7.5 1.206	7.5 2.429		
10.0 0.849	10.0 2.353	10.0 0.808	10.0 0.664	10.0 2.209	10.0 2.039		
15.0 0.811	15.0 1.710	15.0 0.689	15.0 0.664	15.0 0.820	15.0 1.259		
20.0 0.773	20.0 0.652	20.0 0.609	20.0 0.664	20.0 0.898	20.0 0.747		
30.0 0.658	30.0 0.652	30.0 0.530	30.0 0.664	30.0 0.898	30.0 0.440		
50.0 0.735	50.0 0.879	50.0 0.649	50.0 0.664	50.0 0.550	50.0 0.557		
65.0 2.909	65.0 3.260	65.0 2.800	65.0 2.240	65.0 3.135	65.0 2.975		
70.0 2.299	70.0 2.579	70.0 2.043	70.0 2.086	70.0 2.633	70.0 3.209		
76.8 0.582	76.8 2.617	76.8 2.521	76.8 2.086	76.8 2.672	76.8 3.209		
77.1 2.489	77.1 2.655	77.1 2.482	77.1 2.086	77.1 2.517	77.1 2.429		
80.0 2.451	80.0 2.730	80.0 2.601	80.0 2.202	80.0 2.980	80.0 3.092		
85.0 1.994	85.0 1.937	85.0 1.605	85.0 1.779	85.0 2.440	85.0 3.365		
90.0 1.498	90.0 1.635	90.0 1.087	90.0 1.279	90.0 1.553	90.0 3.209		
95.0 1.078	95.0 1.181	95.0 0.769	95.0 1.048	95.0 0.936	95.0 2.819		
TOTAL NORMAL COEFFICIENT							
CN =	3.28	4.27	4.16	3.99	5.00	5.19	

TABLE V-4

RUN 70, POINT 3		Q = 7.22		ALPHA = 0		TCP = 1.00	
VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7		
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP		
0.0 -1.042	0.0 -3.136	0.0 -3.388	0.0 -2.991	0.0 -4.012	0.0 -1.155		
1.2 -0.691	1.2 -1.542	1.2 -1.135	1.2 -1.213	1.2 -1.764	1.2 -0.922		
2.5 -1.120	2.5 -1.582	2.5 -1.708	2.5 -1.569	2.5 -1.724	2.5 -0.922		
5.0 -1.236	5.0 -2.260	5.0 -2.528	5.0 -2.280	5.0 -2.119	5.0 -0.883		
7.5 -1.626	7.5 -2.339	7.5 -2.938	7.5 -1.134	7.5 -2.592	7.5 -0.883		
10.0 -1.665	10.0 -1.702	10.0 -3.224	10.0 -2.754	10.0 -2.434	10.0 -0.961		
15.0 -1.899	15.0 -2.499	15.0 -3.020	15.0 -0.779	15.0 -2.395	15.0 -1.310		
20.0 -2.250	20.0 -2.499	20.0 -3.061	20.0 -2.754	20.0 -2.395	20.0 -1.660		
25.0 -2.172	25.0 -2.579	25.0 -3.224	25.0 -1.095	25.0 -2.513	25.0 -1.776		
30.0 -2.289	30.0 -2.738	30.0 -3.224	30.0 -3.070	30.0 -2.671	30.0 -1.932		
40.0 -2.211	40.0 -2.778	40.0 -3.183	40.0 -3.031	40.0 -2.750	40.0 -2.009		
50.0 -2.250	50.0 -2.778	50.0 0.627	50.0 -3.031	50.0 -3.026	50.0 -2.242		
60.0 -2.328	60.0 -2.937	60.0 -3.142	60.0 -3.031	60.0 -2.986	60.0 -2.514		
61.5 -1.198	61.5 -1.104	61.5 -1.749	61.5 -0.226	61.5 -0.502	61.5 -0.378		
62.5 -4.004	62.5 -5.926	62.5 -6.257	62.5 -1.767	62.5 -1.843	62.5 -1.504		
65.0 -6.381	65.0 -7.719	65.0 -9.166	65.0 -5.678	65.0 -4.958	65.0 -4.767		
70.0 -4.589	70.0 -6.324	70.0 -6.830	70.0 -5.955	70.0 -5.156	70.0 -4.621		
75.0 -2.913	75.0 -3.535	75.0 -4.249	75.0 -4.098	75.0 -3.696	75.0 -4.107		
75.6 -8.018	75.6 -8.915	75.6 -10.846	75.6 -1.569	75.6 -2.316	75.6 -2.359		
76.3 -7.161	76.3 -7.918	76.3 -9.699	76.3 -1.688	76.3 -3.460	76.3 -3.641		
77.1 0.751	77.1 -5.966	77.1 -6.421	77.1 -1.174	77.1 -3.933	77.1 -4.146		
78.6 1.843	78.6 2.243	78.6 1.857	78.6 1.710	78.6 1.707	78.6 1.176		
80.0 -3.575	80.0 -3.296	80.0 -3.757	80.0 -3.782	80.0 -3.657	80.0 -3.952		
85.0 -1.977	85.0 -1.224	85.0 -1.626	85.0 -2.952	85.0 -2.592	85.0 -2.670		
90.0 -0.652	90.0 -0.586	90.0 -0.356	90.0 -0.897	90.0 -1.014	90.0 -0.922		
95.0 -0.067	95.0 -0.467	95.0 -0.561	95.0 -0.344	95.0 -0.541	95.0 -0.417		
2.5 0.245	2.5 2.841	2.5 1.365	2.5 2.145	2.5 2.654	2.5 -0.378		
5.0 1.258	5.0 2.562	5.0 2.226	5.0 2.184	5.0 2.496	5.0 0.166		
7.5 1.687	7.5 2.203	7.5 1.939	7.5 1.947	7.5 0.997	7.5 0.399		
10.0 1.648	10.0 1.964	10.0 1.570	10.0 1.631	10.0 1.865	10.0 0.554		
15.0 1.453	15.0 1.406	15.0 1.160	15.0 0.920	15.0 0.682	15.0 0.632		
20.0 1.063	20.0 0.888	20.0 0.750	20.0 0.841	20.0 0.721	20.0 0.593		
30.0 0.868	30.0 0.848	30.0 0.750	30.0 0.683	30.0 0.682	30.0 0.438		
50.0 0.985	50.0 1.287	50.0 1.201	50.0 0.841	50.0 0.682	50.0 0.554		
65.0 2.466	65.0 2.921	65.0 2.430	65.0 2.540	65.0 2.733	65.0 1.914		
70.0 2.349	70.0 2.921	70.0 2.512	70.0 2.184	70.0 2.259	70.0 1.992		
76.8 0.712	76.8 2.960	76.8 2.635	76.8 2.224	76.8 2.457	76.8 2.225		
77.1 2.505	77.1 2.881	77.1 2.349	77.1 2.224	77.1 2.338	77.1 1.953		
80.0 1.843	80.0 2.442	80.0 2.103	80.0 2.500	80.0 2.890	80.0 2.497		
85.0 2.973	85.0 2.960	85.0 2.594	85.0 2.184	85.0 2.575	85.0 2.497		
90.0 2.856	90.0 3.000	90.0 2.553	90.0 1.789	90.0 2.259	90.0 2.341		
95.0 2.388	95.0 3.000	95.0 2.267	95.0 1.315	95.0 1.865	95.0 1.992		
TOTAL NORMAL COEFFICIENT							
CN =	3.49	4.59	4.34	4.19	4.27	3.19	

TABLE V-5

RUN 70, POINT 14		Q = 7.16		ALPHA = 12		TCP = 1.00					
VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-1.050	0.	-2.801	0.	-1.598	0.	-0.148	0.	-2.534	0.	-3.554
1.2	-1.247	1.2	-2.640	1.2	-2.260	1.2	-1.701	1.2	-2.375	1.2	-1.752
2.5	-1.915	2.5	-3.002	2.5	-3.499	2.5	-2.697	2.5	-2.693	2.5	-1.752
5.0	-2.858	5.0	-3.846	5.0	-4.574	5.0	-3.733	5.0	-3.051	5.0	-2.653
7.5	-3.055	7.5	-3.846	7.5	-4.780	7.5	-1.821	7.5	-3.409	7.5	-2.849
10.0	-3.055	10.0	-3.404	10.0	-5.193	10.0	-4.092	10.0	-3.170	10.0	-2.888
15.0	-3.094	15.0	-3.564	15.0	-4.491	15.0	-1.104	15.0	-3.011	15.0	-2.849
20.0	-3.212	20.0	-3.564	20.0	-4.243	20.0	-3.853	20.0	-3.170	20.0	-3.044
25.0	-3.055	25.0	-3.604	25.0	-4.367	25.0	-1.582	25.0	-3.528	25.0	-3.123
30.0	-2.976	30.0	-3.725	30.0	-4.119	30.0	-3.853	30.0	-3.687	30.0	-3.123
40.0	-2.662	40.0	-3.685	40.0	-3.871	40.0	-3.773	40.0	-3.608	40.0	-3.162
50.0	-2.386	50.0	-3.484	50.0	0.468	50.0	-3.614	50.0	-3.926	50.0	-3.240
60.0	-2.386	60.0	-3.484	60.0	-3.499	60.0	-3.415	60.0	-3.647	60.0	-3.475
61.5	-1.482	61.5	-1.636	61.5	-2.934	61.5	-0.227	61.5	-0.565	61.5	-0.733
62.5	-4.037	62.5	-6.417	62.5	-5.607	62.5	-1.662	62.5	-2.216	62.5	-1.987
65.0	-6.002	65.0	-8.266	65.0	-8.127	65.0	-5.207	65.0	-5.835	65.0	-6.061
70.0	-3.841	70.0	-6.056	70.0	-5.648	70.0	-5.128	70.0	-6.034	70.0	-1.948
75.0	-2.033	75.0	-3.645	75.0	-2.962	75.0	-3.335	75.0	-4.483	75.0	-5.708
75.6	-4.081	75.6	-9.110	75.6	-9.408	75.6	-1.144	75.6	-3.290	75.6	-3.632
76.3	-4.941	76.3	-7.824	76.3	-8.458	76.3	-1.423	76.3	-4.483	76.3	-5.356
77.1	0.797	77.1	-6.337	77.1	-5.730	77.1	-1.423	77.1	-5.000	77.1	-5.826
78.6	1.976	78.6	2.463	78.6	1.997	78.6	1.685	78.6	1.523	78.6	1.382
80.0	-2.190	80.0	-3.725	80.0	-3.706	80.0	-3.215	80.0	-4.960	80.0	-5.708
85.0	-1.404	85.0	-1.435	85.0	-2.466	85.0	-2.697	85.0	-3.568	85.0	-4.063
90.0	-0.814	90.0	-0.430	90.0	-0.896	90.0	-1.064	90.0	-1.500	90.0	-1.869
95.0	-0.146	95.0	-0.510	95.0	-0.235	95.0	-0.745	95.0	-0.983	95.0	-1.399
2.5	2.469	2.5	3.508	2.5	2.120	2.5	0.689	2.5	3.754	2.5	2.126
5.0	1.819	5.0	3.146	5.0	1.707	5.0	0.729	5.0	2.796	5.0	2.361
7.5	1.347	7.5	2.664	7.5	1.377	7.5	0.769	7.5	1.165	7.5	2.126
10.0	0.994	10.0	2.423	10.0	1.087	10.0	0.808	10.0	2.120	10.0	1.813
15.0	1.033	15.0	1.780	15.0	0.881	15.0	0.808	15.0	0.688	15.0	1.108
20.0	0.876	20.0	0.695	20.0	0.716	20.0	0.808	20.0	0.767	20.0	0.834
30.0	0.826	30.0	0.695	30.0	0.550	30.0	0.769	30.0	0.727	30.0	0.364
50.0	0.994	50.0	1.097	50.0	0.881	50.0	0.729	50.0	0.449	50.0	0.481
65.0	3.352	65.0	3.347	65.0	2.740	65.0	2.123	65.0	2.994	65.0	2.244
70.0	2.487	70.0	3.146	70.0	2.451	70.0	1.804	70.0	2.239	70.0	2.479
76.8	0.758	76.8	3.146	76.8	2.864	76.8	1.924	76.8	2.358	76.8	2.831
77.1	2.566	77.1	3.026	77.1	2.410	77.1	1.964	77.1	2.438	77.1	2.361
80.0	2.802	80.0	2.825	80.0	2.699	80.0	2.243	80.0	3.114	80.0	3.223
85.0	2.487	85.0	2.986	85.0	2.492	85.0	1.645	85.0	2.477	85.0	3.145
90.0	2.134	90.0	2.664	90.0	1.873	90.0	1.087	90.0	1.881	90.0	2.792
95.0	1.701	95.0	2.061	95.0	1.253	95.0	0.769	95.0	1.205	95.0	2.244
TOTAL NORMAL COEFFICIENT											
CN = 3.81		5.29		4.70		4.23		5.05		4.78	

TABLE V-6

RUN 70, POINT 23		Q = 7.16		ALPHA = 16		TCP = 1.00					
VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	0.404	0.	-2.118	0.	-0.607	0.	-0.506	0.	-2.375	0.	-4.415
1.2	-1.365	1.2	-2.881	1.2	-2.549	1.2	-2.140	1.2	-2.494	1.2	-2.026
2.5	-2.151	2.5	-3.363	2.5	-3.912	2.5	-3.176	2.5	-2.852	2.5	-2.183
5.0	-3.172	5.0	-4.127	5.0	-5.028	5.0	-4.132	5.0	-3.210	5.0	-3.240
7.5	-3.408	7.5	-4.047	7.5	-5.193	7.5	-1.980	7.5	-3.608	7.5	-3.475
10.0	-3.212	10.0	-3.725	10.0	-5.317	10.0	-4.251	10.0	-3.210	10.0	-3.436
15.0	-3.408	15.0	-3.805	15.0	-4.739	15.0	-1.144	15.0	-3.210	15.0	-3.358
20.0	-3.408	20.0	-3.805	20.0	-4.408	20.0	-3.893	20.0	-3.329	20.0	-3.436
25.0	-3.133	25.0	-3.846	25.0	-4.408	25.0	-1.622	25.0	-3.767	25.0	-3.475
30.0	-3.172	30.0	-3.886	30.0	-4.284	30.0	-3.913	30.0	-3.886	30.0	-3.475
40.0	-2.583	40.0	-3.805	40.0	-3.788	40.0	-3.733	40.0	-3.687	40.0	-3.475
50.0	-2.386	50.0	-3.404	50.0	0.344	50.0	-3.494	50.0	-4.005	50.0	-3.593
60.0	-2.229	60.0	-3.404	60.0	-3.458	60.0	-3.295	60.0	-3.727	60.0	-3.828
61.5	-1.050	61.5	-1.826	61.5	-1.805	61.5	-0.148	61.5	-1.023	61.5	-0.733
62.5	-3.172	62.5	-5.895	62.5	-5.028	62.5	-1.462	62.5	-2.216	62.5	-2.065
65.0	-4.587	65.0	-7.100	65.0	-6.722	65.0	-4.411	65.0	-5.596	65.0	-6.531
70.0	-2.937	70.0	-5.453	70.0	-4.697	70.0	-4.411	70.0	-6.034	70.0	-2.065
75.0	-1.365	75.0	-3.082	75.0	-2.425	75.0	-2.897	75.0	-4.483	75.0	-6.257
75.6	-4.784	75.6	-7.462	75.6	-7.755	75.6	-0.905	75.6	-3.250	75.6	-4.024
76.3	-4.076	76.3	-5.975	76.3	-6.516	76.3	-0.945	76.3	-4.324	76.3	-5.904
77.1	0.797	77.1	-4.649	77.1	-4.450	77.1	-1.263	77.1	-4.642	77.1	-6.570
78.6	1.819	78.6	1.941	78.6	1.914	78.6	1.645	78.6	1.642	78.6	1.264
80.0	-1.993	80.0	-2.841	80.0	-3.086	80.0	-2.538	80.0	-4.522	80.0	-7.001
85.0	-1.050	85.0	-1.234	85.0	-1.764	85.0	-2.219	85.0	-3.011	85.0	-4.925
90.0	-0.618	90.0	-0.350	90.0	-0.565	90.0	-0.785	90.0	-1.301	90.0	-1.869
95.0	0.129	95.0	-0.309	95.0	-0.193	95.0	-0.546	95.0	-0.983	95.0	-0.929
2.5	1.112	2.5	3.628	2.5	1.377	2.5	0.729	2.5	3.154	2.5	2.949
5.0	1.151	5.0	3.186	5.0	1.087	5.0	0.769	5.0	2.835	5.0	2.910
7.5	1.033	7.5	2.785	7.5	0.922	7.5	0.769	7.5	1.205	7.5	2.322
10.0	0.954	10.0	2.503	10.0	0.716	10.0	0.769	10.0	2.199	10.0	1.970
15.0	0.954	15.0	1.860	15.0	0.716	15.0	0.729	15.0	0.648	15.0	1.225
20.0	0.797	20.0	0.655	20.0	0.592	20.0	0.729	20.0	0.807	20.0	0.834
30.0	0.679	30.0	0.695	30.0	0.550	30.0	0.729	30.0	0.807	30.0	0.246
50.0	0.994	50.0	1.017	50.0	0.757	50.0	0.689	50.0	0.489	50.0	0.442
65.0	3.195	65.0	3.508	65.0	2.864	65.0	1.884	65.0	3.114	65.0	2.596
70.0	2.212	70.0	2.423	70.0	1.997	70.0	1.486	70.0	2.040	70.0	2.675
76.8	0.758	76.8	2.463	76.8	2.575	76.8	1.804	76.8	2.239	76.8	2.831
77.1	2.330	77.1	2.463	77.1	2.203	77.1	1.844	77.1	2.438	77.1	2.400
80.0	2.527	80.0	2.423	80.0	2.658	80.0	2.253	80.0	3.114	80.0	3.341
85.0	2.134	85.0	2.102	85.0	1.749	85.0	1.426	85.0	2.000	85.0	3.262
90.0	1.701	90.0	2.021	90.0	1.211	90.0	1.047	90.0	1.284	90.0	2.792
95.0	1.387	95.0	1.619	95.0	0.840	95.0	0.808	95.0	0.807	95.0	2.283
TOTAL NORMAL COEFFICIENT											
CN = 3.54		5.03		4.36		4.00		5.00		5.27	

TABLE V-7

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-1.152	0.	-5.943	0.	-5.579	0.	-4.868	0.	-8.213	0.	-1.540
1.2	-0.871	1.2	-2.925	1.2	-1.505	1.2	-1.452	1.2	-2.586	1.2	-1.652
2.5	-0.871	2.5	-2.210	2.5	-2.154	2.5	-1.964	2.5	-2.389	2.5	-1.820
5.0	-1.432	5.0	-3.014	5.0	-3.212	5.0	-3.044	5.0	-3.268	5.0	0.868
7.5	-1.657	7.5	-3.187	7.5	-4.044	7.5	-3.844	7.5	-3.950	7.5	0.420
10.0	-1.713	10.0	-3.244	10.0	-4.280	10.0	-3.843	10.0	-3.495	10.0	-0.644
15.0	-2.331	15.0	-3.359	15.0	-4.280	15.0	-0.994	15.0	-3.439	15.0	-1.260
20.0	-2.612	20.0	-3.416	20.0	-4.162	20.0	-3.957	20.0	-3.495	20.0	-2.323
25.0	-2.724	25.0	-3.644	25.0	-4.339	25.0	-1.509	25.0	-3.837	25.0	-2.659
30.0	-2.949	30.0	-3.818	30.0	-4.516	30.0	-4.412	30.0	-4.121	30.0	-2.939
40.0	-2.724	40.0	-3.933	40.0	-4.339	40.0	-4.298	40.0	-4.234	40.0	-3.163
50.0	-2.893	50.0	-3.933	50.0	0.917	50.0	-4.355	50.0	-4.689	50.0	-3.611
60.0	-2.949	60.0	-4.508	60.0	-4.457	60.0	-4.469	60.0	-4.860	60.0	-4.059
61.5	-2.444	61.5	-1.751	61.5	-2.390	61.5	0.313	61.5	-1.108	61.5	-0.588
62.5	-6.656	62.5	-9.733	62.5	-10.067	62.5	-2.818	62.5	-3.268	62.5	-2.379
65.0	-11.038	65.0	-13.294	65.0	-14.910	65.0	-8.967	65.0	-8.554	65.0	-7.642
70.0	-8.004	70.0	-10.767	70.0	-11.544	70.0	-9.651	70.0	-8.668	70.0	-2.156
75.0	-5.196	75.0	-6.632	75.0	-7.351	75.0	-6.633	75.0	-6.337	75.0	-6.302
75.6	-14.913	75.6	-16.338	75.6	-20.638	75.6	-2.647	75.6	-4.405	75.6	-4.003
76.3	-13.172	76.3	-15.017	76.3	-18.807	76.3	-2.818	76.3	-6.394	76.3	-6.018
77.1	1.208	77.1	-11.916	77.1	-12.961	77.1	-0.939	77.1	-7.190	77.1	-6.690
78.6	3.117	78.6	4.279	78.6	3.751	78.6	3.559	78.6	3.212	78.6	1.819
80.0	-6.488	80.0	-6.517	80.0	-7.528	80.0	-6.519	80.0	-6.508	80.0	-6.410
85.0	-3.174	85.0	-2.325	85.0	-2.981	85.0	-5.153	85.0	-4.689	85.0	-4.003
90.0	-1.039	90.0	-1.234	90.0	-0.678	90.0	-1.395	90.0	-1.733	90.0	-1.372
95.0	-0.253	95.0	-0.775	95.0	-0.501	95.0	-0.427	95.0	-0.994	95.0	-0.868
2.5	-0.026	2.5	5.255	2.5	1.921	2.5	2.819	2.5	5.087	2.5	-1.708
5.0	0.477	5.0	4.451	5.0	3.456	5.0	4.185	5.0	4.519	5.0	-1.484
7.5	1.208	7.5	3.647	7.5	3.456	7.5	3.559	7.5	1.734	7.5	0.924
10.0	1.432	10.0	3.188	10.0	2.806	10.0	2.989	10.0	3.269	10.0	-0.140
15.0	1.994	15.0	2.097	15.0	1.743	15.0	1.452	15.0	0.938	15.0	0.700
20.0	1.938	20.0	1.178	20.0	1.330	20.0	1.167	20.0	0.995	20.0	0.812
30.0	1.208	30.0	1.120	30.0	1.035	30.0	0.893	30.0	0.881	30.0	0.644
50.0	1.545	50.0	2.328	50.0	2.452	50.0	2.078	50.0	1.222	50.0	1.035
65.0	4.241	65.0	5.485	65.0	4.931	65.0	4.925	65.0	5.087	65.0	2.827
70.0	3.623	70.0	5.485	70.0	4.814	70.0	4.262	70.0	4.292	70.0	3.219
76.8	1.095	76.8	5.600	76.8	5.228	76.8	4.413	76.8	4.690	76.8	3.779
77.1	4.578	77.1	5.427	77.1	4.637	77.1	4.185	77.1	4.405	77.1	3.275
80.0	3.342	80.0	4.394	80.0	4.106	80.0	4.698	80.0	5.485	80.0	4.394
85.0	5.344	85.0	5.772	85.0	5.228	85.0	4.299	85.0	5.031	85.0	4.358
90.0	5.196	90.0	5.772	90.0	4.991	90.0	3.445	90.0	4.405	90.0	4.226
95.0	4.128	95.0	5.657	95.0	4.342	95.0	2.591	95.0	3.666	95.0	4.399
TOTAL NORMAL COEFFICIENT											
CN = 5.07		7.64		7.19		6.88		7.16		4.79	

TABLE V-8

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-4.549	0.	-5.286	0.	-4.187	0.	-0.315	0.	-7.691	0.	-4.252
1.2	-1.497	1.2	-3.783	1.2	-2.939	1.2	-2.319	1.2	-3.631	1.2	-2.394
2.5	-2.006	2.5	-4.188	2.5	-4.484	2.5	-3.637	2.5	-3.802	2.5	-2.281
5.0	-3.136	5.0	-5.401	5.0	-6.088	5.0	-5.126	5.0	-4.488	5.0	-2.844
7.5	-3.649	7.5	-5.401	7.5	-6.682	7.5	-2.434	7.5	-5.003	7.5	-3.295
10.0	-3.475	10.0	-4.361	10.0	-6.801	10.0	-5.814	10.0	-4.546	10.0	-3.351
15.0	-3.927	15.0	-4.939	15.0	-6.266	15.0	-1.403	15.0	-4.546	15.0	-3.576
20.0	-4.217	20.0	-4.997	20.0	-5.850	20.0	-5.527	20.0	-4.774	20.0	-4.140
25.0	-4.927	25.0	-5.170	25.0	-5.969	25.0	-2.148	25.0	-5.289	25.0	-4.308
30.0	-4.097	30.0	-5.286	30.0	-5.850	30.0	-5.584	30.0	-5.518	30.0	-4.534
40.0	-3.532	40.0	-5.286	40.0	-5.375	40.0	-5.470	40.0	-5.575	40.0	-4.534
50.0	-3.445	50.0	-5.228	50.0	0.685	50.0	-5.355	50.0	-4.204	50.0	-4.928
60.0	-3.701	60.0	-5.228	60.0	-5.256	60.0	-5.183	60.0	-6.090	60.0	-5.435
61.5	-2.967	61.5	-3.090	61.5	-3.236	61.5	-0.372	61.5	-1.401	61.5	-0.984
62.5	-7.035	62.5	-10.716	62.5	-9.474	62.5	-3.064	62.5	-3.974	62.5	-3.182
65.0	-11.047	65.0	-13.836	65.0	-13.811	65.0	-8.907	65.0	-10.207	65.0	-9.771
70.0	-8.392	70.0	-11.005	70.0	-8.999	70.0	-8.620	70.0	-10.321	70.0	-2.619
75.0	-4.888	75.0	-6.094	75.0	-5.434	75.0	-5.642	75.0	-7.805	75.0	-9.152
75.6	-14.494	75.6	-16.840	75.6	-19.574	75.6	-2.377	75.6	-5.975	75.6	-5.942
76.3	-11.895	76.3	-13.720	76.3	-16.603	76.3	-2.606	76.3	-8.263	76.3	-8.420
77.1	0.819	77.1	-10.774	77.1	-11.910	77.1	-2.090	77.1	-8.892	77.1	-9.771
78.6	3.249	78.6	4.247	78.6	4.130	78.6	3.294	78.6	3.002	78.6	2.450
80.0	-5.849	80.0	-6.730	80.0	-7.454	80.0	-6.501	80.0	-8.548	80.0	-9.828
85.0	-2.910	85.0	-2.339	85.0	-4.306	85.0	-4.897	85.0	-5.689	85.0	-7.124
90.0	-0.819	90.0	-0.953	90.0	-1.038	90.0	-1.747	90.0	-2.487	90.0	-2.563
95.0	-0.141	95.0	-0.779	95.0	-0.385	95.0	-1.059	95.0	-1.629	95.0	-1.380
2.5	3.419	2.5	6.327	2.5	4.368	2.5	0.659	2.5	5.976	2.5	1.492
5.0	4.323	5.0	5.460	5.0	3.596	5.0	0.831	5.0	5.233	5.0	2.844
7.5	3.193	7.5	4.536	7.5	2.467	7.5	1.060	7.5	2.202	7.5	2.506
10.0	2.797	10.0	3.900	10.0	1.932	10.0	1.175	10.0	3.803	10.0	2.506
15.0	1.158	15.0	2.514	15.0	1.160	15.0	1.117	15.0	0.830	15.0	1.605
20.0	0.989	20.0	0.781	20.0	0.982	20.0	1.003	20.0	1.058	20.0	1.042
30.0	0.763	30.0	0.781	30.0	0.744	30.0	0.888	30.0	0.944	30.0	0.141
50.0	1.102	50.0	1.705	50.0	1.279	50.0	1.003	50.0	0.601	50.0	0.873
65.0	6.075	65.0	6.269	65.0	5.556	65.0	4.669	65.0	5.690	65.0	4.139
70.0	4.153	70.0	5.460	70.0	4.725	70.0	3.466	70.0	4.489	70.0	4.534
76.8	0.763	76.8	5.460	76.8	5.319	76.8	4.268	76.8	4.718	76.8	5.266
77.1	4.606	77.1	5.171	77.1	4.962	77.1	4.211	77.1	4.775	77.1	4.083
80.0	4.719	80.0	5.229	80.0	5.200	80.0	4.554	80.0	6.148	80.0	-28.300
85.0	4.945	85.0	4.998	85.0	4.903	85.0	3.237	85.0	5.118	85.0	5.435
90.0	4.153	90.0	4.478	90.0	3.477	90.0	2.034	90.0	4.146	90.0	4.759
95.0	3.023	95.0	3.149	95.0	2.170	95.0	1.347	95.0	2.688	95.0	3.970
TOTAL NORMAL COEFFICIENT											
CN = 5.88		8.31		7.43		6.76		8.45		5.91	

TABLE V-11

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-4.507	0.	-4.841	0.	-4.397	0.	-0.947	0.	-1.056	0.	-1.552
1.2	-1.860	1.2	-3.237	1.2	-1.712	1.2	-1.713	1.2	-2.033	1.2	-1.451
2.5	-2.013	2.5	-3.392	2.5	-2.870	2.5	-2.479	2.5	-2.496	2.5	-1.654
5.0	-3.031	5.0	-4.582	5.0	-4.239	5.0	-3.041	5.0	-2.753	5.0	-2.416
7.5	-3.387	7.5	-4.582	7.5	-4.607	7.5	-1.509	7.5	-2.958	7.5	-2.549
10.0	-3.489	10.0	-4.271	10.0	-5.028	10.0	-2.734	10.0	-2.753	10.0	-2.569
15.0	-3.591	15.0	-4.271	15.0	-4.449	15.0	-0.998	15.0	-2.650	15.0	-2.518
20.0	-3.845	20.0	-4.220	20.0	-4.133	20.0	-2.734	20.0	-2.650	20.0	-2.670
25.0	-3.845	25.0	-4.220	25.0	-4.344	25.0	-1.203	25.0	-2.701	25.0	-2.670
30.0	-3.743	30.0	-4.220	30.0	-4.028	30.0	-2.786	30.0	-2.701	30.0	-2.670
40.0	-3.387	40.0	-4.220	40.0	-3.607	40.0	-2.786	40.0	-2.598	40.0	-2.619
50.0	-3.438	50.0	-4.064	50.0	0.445	50.0	-2.786	50.0	-2.804	50.0	-2.619
60.0	-3.387	60.0	-4.064	60.0	-3.397	60.0	-2.786	60.0	-2.907	60.0	-2.721
61.5	-3.184	61.5	-1.632	61.5	-1.976	61.5	-1.305	61.5	-1.108	61.5	-1.857
62.5	-6.288	62.5	-7.480	62.5	-7.133	62.5	-3.858	62.5	-3.935	62.5	-4.042
65.0	-9.901	65.0	-10.378	65.0	-10.133	65.0	-6.309	65.0	-6.351	65.0	-7.345
70.0	-7.255	70.0	-8.670	70.0	-8.133	70.0	-5.849	70.0	-5.477	70.0	-1.394
75.0	-4.507	75.0	-3.306	75.0	-5.396	75.0	-4.266	75.0	-3.883	75.0	-4.753
75.6	-3.896	75.6	-4.530	75.6	-5.449	75.6	-3.654	75.6	-3.781	75.6	-3.941
76.3	-5.372	76.3	-6.393	76.3	-7.660	76.3	-3.705	76.3	-4.500	76.3	-4.957
77.1	0.583	77.1	-7.376	77.1	-6.765	77.1	0.585	77.1	-4.603	77.1	-5.008
78.6	3.025	78.6	3.905	78.6	3.340	78.6	0.533	78.6	0.229	78.6	-0.130
80.0	-3.947	80.0	-4.634	80.0	-5.396	80.0	-3.909	80.0	-3.318	80.0	-4.296
85.0	-2.675	85.0	-3.651	85.0	-4.186	85.0	-3.245	85.0	-2.87	85.0	-2.315
90.0	-1.402	90.0	-0.649	90.0	-1.291	90.0	-1.560	90.0	-1.210	90.0	-1.248
95.0	-0.893	95.0	-0.132	95.0	-0.344	95.0	-1.152	95.0	-0.902	95.0	-0.740
2.5	3.229	2.5	3.043	2.5	3.340	2.5	0.482	2.5	0.794	2.5	1.394
5.0	3.789	5.0	4.319	5.0	3.130	5.0	0.533	5.0	1.051	5.0	1.344
7.5	2.822	7.5	3.594	7.5	2.340	7.5	0.585	7.5	0.434	7.5	1.242
10.0	1.651	10.0	3.180	10.0	1.761	10.0	0.636	10.0	0.948	10.0	0.988
15.0	1.041	15.0	1.990	15.0	1.182	15.0	0.636	15.0	0.434	15.0	0.734
20.0	0.684	20.0	0.541	20.0	0.814	20.0	0.636	20.0	0.527	20.0	0.683
30.0	0.532	30.0	0.541	30.0	0.656	30.0	0.636	30.0	0.743	30.0	0.531
50.0	0.888	50.0	1.628	50.0	1.340	50.0	0.585	50.0	0.589	50.0	0.531
65.0	4.298	65.0	5.198	65.0	4.340	65.0	0.891	65.0	0.948	65.0	1.242
70.0	3.585	70.0	4.940	70.0	4.024	70.0	0.891	70.0	0.897	70.0	0.836
76.8	0.532	76.8	4.940	76.8	4.235	76.8	0.891	76.8	0.794	76.8	0.582
77.1	3.840	77.1	4.888	77.1	3.919	77.1	0.891	77.1	0.640	77.1	0.531
80.0	4.094	80.0	4.991	80.0	4.498	80.0	1.146	80.0	0.794	80.0	0.836
85.0	3.433	85.0	4.991	85.0	3.814	85.0	1.146	85.0	0.897	85.0	0.734
90.0	2.720	90.0	4.577	90.0	2.972	90.0	0.942	90.0	0.743	90.0	0.582
95.0	1.957	95.0	3.491	95.0	2.235	95.0	0.789	95.0	0.589	95.0	0.531
TOTAL NORMAL COEFFICIENT											
CN = 5.17		7.16		6.02		3.50		3.60		3.28	

TABLE V-12

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-0.325	0.	-4.459	0.	-2.538	0.	-1.419	0.	-1.979	0.	0.120
1.2	-1.415	1.2	-3.452	1.2	-2.845	1.2	-2.662	1.2	-2.879	1.2	-1.215
2.5	-2.504	2.5	-4.006	2.5	-4.125	2.5	-3.705	2.5	-3.279	2.5	-1.907
5.0	-3.346	5.0	-4.963	5.0	-5.354	5.0	-3.804	5.0	-3.179	5.0	-3.094
7.5	-3.891	7.5	-4.812	7.5	-5.508	7.5	-1.767	7.5	-3.279	7.5	-3.192
10.0	-3.643	10.0	-4.459	10.0	-5.713	10.0	-3.059	10.0	-3.129	10.0	-3.094
15.0	-3.891	15.0	-4.409	15.0	-4.996	15.0	-0.923	15.0	-3.379	15.0	-2.846
20.0	-3.891	20.0	-4.258	20.0	-4.484	20.0	-2.960	20.0	-2.929	20.0	-3.044
25.0	-3.544	25.0	-4.258	25.0	-4.433	25.0	-1.171	25.0	-2.929	25.0	-2.995
30.0	-3.594	30.0	-4.258	30.0	-4.228	30.0	-2.860	30.0	-3.029	30.0	-2.896
40.0	-3.049	40.0	-4.157	40.0	-3.716	40.0	-2.811	40.0	-2.979	40.0	-2.797
50.0	-2.851	50.0	-3.603	50.0	0.382	50.0	-2.811	50.0	-3.029	50.0	-2.797
60.0	-2.851	60.0	-3.352	60.0	-3.306	60.0	-2.761	60.0	-2.729	60.0	-2.896
61.2	-1.960	61.2	-2.224	61.2	-2.233	61.2	-1.072	61.2	-0.929	61.2	-1.561
62.5	-4.931	62.5	-6.675	62.5	-6.481	62.5	-3.357	62.5	-3.780	62.5	-3.687
65.0	-7.060	65.0	-8.085	65.0	-9.298	65.0	-5.146	65.0	-5.830	65.0	-6.604
70.0	-4.287	70.0	-6.510	70.0	-6.327	70.0	-4.500	70.0	-5.130	70.0	-4.166
75.0	-2.455	75.0	-2.798	75.0	-4.074	75.0	-3.158	75.0	-3.579	75.0	-4.181
75.6	-2.702	75.6	-3.754	75.6	-4.176	75.6	-2.711	75.6	-3.229	75.6	-3.291
76.3	-3.247	76.3	-3.704	76.3	-5.354	76.3	-2.761	76.3	-3.930	76.3	-4.033
77.1	0.814	77.1	-4.107	77.1	-4.637	77.1	0.618	77.1	-4.430	77.1	-4.132
78.6	3.389	78.6	3.950	78.6	3.505	78.6	0.568	78.6	0.372	78.6	-0.187
80.0	-1.910	80.0	-3.150	80.0	-3.562	80.0	-3.059	80.0	-3.029	80.0	-3.489
85.0	-1.811	85.0	-2.294	85.0	-2.947	85.0	-2.612	85.0	-1.829	85.0	-2.154
90.0	-0.424	90.0	-0.985	90.0	-0.745	90.0	-1.320	90.0	-0.979	90.0	-1.165
95.0	-0.523	95.0	-1.086	95.0	-0.387	95.0	-0.873	95.0	-0.778	95.0	-0.819
2.5	2.597	2.5	5.309	2.5	3.045	2.5	0.469	2.5	0.672	2.5	1.208
5.0	2.200	5.0	4.604	5.0	2.379	5.0	0.618	5.0	0.872	5.0	1.257
7.5	1.606	7.5	3.849	7.5	1.559	7.5	0.667	7.5	0.472	7.5	1.208
10.0	1.408	10.0	3.396	10.0	1.355	10.0	0.717	10.0	0.972	10.0	1.109
15.0	1.061	15.0	2.187	15.0	0.842	15.0	0.717	15.0	0.472	15.0	1.010
20.0	0.814	20.0	0.526	20.0	0.689	20.0	0.717	20.0	0.572	20.0	0.911
30.0	0.913	30.0	0.626	30.0	0.689	30.0	0.717	30.0	0.822	30.0	0.713
50.0	0.913	50.0	1.331	50.0	0.894	50.0	0.717	50.0	0.722	50.0	0.565
65.0	4.577	65.0	5.259	65.0	4.581	65.0	1.264	65.0	0.972	65.0	0.812
70.0	3.636	70.0	3.899	70.0	3.249	70.0	1.164	70.0	0.922	70.0	0.713
76.8	0.715	76.8	4.302	76.8	4.018	76.8	1.065	76.8	0.872	76.8	0.615
77.1	4.181	77.1	4.353	77.1	4.120	77.1	1.065	77.1	0.672	77.1	0.466
80.0	4.033	80.0	4.504	80.0	4.274	80.0	0.966	80.0	0.972	80.0	0.664
85.0	3.141	85.0	3.094	85.0	2.686	85.0	1.115	85.0	0.872	85.0	0.664
90.0	2.448	90.0	2.288	90.0	1.764	90.0	1.115	90.0	0.722	90.0	0.516
95.0	1.457	95.0	1.734	95.0	1.098	95.0	0.966	95.0	0.572	95.0	0.516
TOTAL NORMAL COEFFICIENT											
CN = 4.48		6.09		5.43		3.46		3.74		3.36	

TABLE V-13

RUN 76, POINT 3		Q = 3.53		ALPHA = 0		TCP = 1.00					
VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-0.645	0.	-6.703	0.	-4.297	0.	-0.341	0.	-2.905	0.	-0.413
1.2	-0.722	1.2	-1.756	1.2	-1.451	1.2	-0.653	1.2	-1.272	1.2	-0.566
2.5	-0.799	2.5	-1.599	2.5	-1.688	2.5	-0.966	2.5	-1.272	2.5	-0.643
5.0	-0.954	5.0	-1.991	5.0	-2.163	5.0	-1.278	5.0	-1.506	5.0	-0.720
7.5	-1.185	7.5	-2.227	7.5	-2.637	7.5	-0.966	7.5	-1.739	7.5	-0.797
10.0	-1.416	10.0	-2.306	10.0	-3.190	10.0	-1.200	10.0	-1.739	10.0	-0.874
15.0	-1.648	15.0	-2.463	15.0	-3.032	15.0	-0.731	15.0	-1.661	15.0	-1.028
20.0	-2.342	20.0	-2.541	20.0	-2.874	20.0	-1.513	20.0	-1.661	20.0	-1.181
25.0	-2.496	25.0	-2.620	25.0	-3.349	25.0	-0.731	25.0	-1.817	25.0	-1.335
30.0	-2.573	30.0	-2.855	30.0	-3.111	30.0	-1.669	30.0	-1.817	30.0	-1.335
40.0	-2.496	40.0	-2.934	40.0	-2.874	40.0	-1.747	40.0	-1.894	40.0	-1.335
50.0	-2.728	50.0	-2.934	50.0	0.525	50.0	-1.825	50.0	-1.972	50.0	-1.412
60.0	-2.650	60.0	-3.169	60.0	-2.716	60.0	-1.825	60.0	-2.128	60.0	-1.566
61.5	-2.650	61.5	-1.285	61.5	-1.372	61.5	-0.966	61.5	-1.117	61.5	-1.181
62.5	-6.198	62.5	-8.117	62.5	-6.274	62.5	-2.685	62.5	-3.216	62.5	-2.488
65.0	-9.823	65.0	-10.159	65.0	-8.803	65.0	-4.795	65.0	-5.100	65.0	-5.025
70.0	-7.278	70.0	-8.745	70.0	-6.906	70.0	-4.560	70.0	-4.149	70.0	1.202
75.0	-4.501	75.0	-4.583	75.0	-4.218	75.0	-3.545	75.0	-2.983	75.0	-3.488
75.6	-3.730	75.6	-4.190	75.6	-4.455	75.6	-2.216	75.6	-2.905	75.6	-3.257
76.3	-5.427	76.3	-5.839	76.3	-6.432	76.3	-2.529	76.3	-3.527	76.3	-3.949
77.1	0.974	77.1	-6.625	77.1	-5.483	77.1	0.128	77.1	-3.605	77.1	-4.179
78.6	2.517	78.6	4.605	78.6	3.846	78.6	0.441	78.6	0.672	78.6	0.433
80.0	-4.039	80.0	-4.112	80.0	-4.455	80.0	-3.310	80.0	-2.983	80.0	-4.026
85.0	-2.342	85.0	-3.248	85.0	-3.665	85.0	-2.919	85.0	-1.661	85.0	-2.334
90.0	-0.954	90.0	0.364	90.0	-0.661	90.0	-1.357	90.0	-0.806	90.0	-1.104
95.0	-0.799	95.0	0.836	95.0	0.051	95.0	-0.888	95.0	-0.650	95.0	-0.797
2.5	-0.414	2.5	5.312	2.5	-0.265	2.5	-0.028	2.5	1.838	2.5	-0.720
5.0	-0.105	5.0	4.605	5.0	1.711	5.0	0.050	5.0	1.605	5.0	-0.643
7.5	0.357	7.5	3.663	7.5	2.185	7.5	0.206	7.5	0.438	7.5	-0.336
10.0	0.589	10.0	3.113	10.0	2.264	10.0	0.284	10.0	1.060	10.0	-0.259
15.0	0.743	15.0	1.935	15.0	1.632	15.0	0.284	15.0	0.361	15.0	-0.028
20.0	0.820	20.0	1.150	20.0	0.920	20.0	0.284	20.0	0.361	20.0	-0.028
30.0	1.052	30.0	0.993	30.0	0.841	30.0	0.284	30.0	0.516	30.0	-0.028
50.0	1.283	50.0	1.857	50.0	1.869	50.0	0.284	50.0	0.516	50.0	0.049
65.0	2.594	65.0	5.390	65.0	4.636	65.0	0.675	65.0	1.449	65.0	0.433
70.0	2.671	70.0	5.390	70.0	4.577	70.0	0.675	70.0	1.216	70.0	0.894
76.8	0.897	76.8	5.390	76.8	4.796	76.8	0.675	76.8	0.983	76.8	1.356
77.1	3.211	77.1	5.390	77.1	4.478	77.1	0.675	77.1	1.060	77.1	1.202
80.0	3.365	80.0	5.390	80.0	4.715	80.0	0.675	80.0	1.449	80.0	1.202
85.0	4.214	85.0	5.469	85.0	4.715	85.0	0.675	85.0	1.060	85.0	1.509
90.0	4.291	90.0	5.390	90.0	4.083	90.0	0.597	90.0	0.905	90.0	1.509
95.0	3.520	95.0	5.233	95.0	3.292	95.0	0.597	95.0	0.672	95.0	1.279
TOTAL NORMAL COEFFICIENT											
CN =	4.26		6.44		5.40		2.34		2.85		1.87

TABLE V-14

RUN 76, POINT 6		Q = 3.53		ALPHA = 12		TCP = 1.00					
VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-3.576	0.	-5.054	0.	-5.720	0.	-0.966	0.	-0.884	0.	-1.489
1.2	-1.802	1.2	-3.405	1.2	-2.084	1.2	-1.825	1.2	-2.205	1.2	-1.335
2.5	-2.111	2.5	-3.484	2.5	-2.269	2.5	-2.529	2.5	-2.516	2.5	-1.489
5.0	-2.650	5.0	-4.426	5.0	-4.851	5.0	-3.076	5.0	-2.750	5.0	-2.334
7.5	-2.882	7.5	-4.504	7.5	-4.930	7.5	-1.904	7.5	-3.061	7.5	-2.488
10.0	-3.036	10.0	-4.504	10.0	-5.404	10.0	-2.685	10.0	-2.827	10.0	-2.488
15.0	-3.653	15.0	-4.504	15.0	-4.930	15.0	-1.200	15.0	-2.750	15.0	-2.565
20.0	-3.884	20.0	-4.426	20.0	-4.455	20.0	-2.685	20.0	-2.905	20.0	-2.642
25.0	-3.499	25.0	-4.426	25.0	-4.534	25.0	-1.278	25.0	-2.905	25.0	-2.642
30.0	-3.807	30.0	-4.504	30.0	-4.455	30.0	-2.841	30.0	-2.905	30.0	-2.719
40.0	-3.499	40.0	-4.504	40.0	-4.139	40.0	-2.841	40.0	-2.905	40.0	-2.642
50.0	-3.345	50.0	-4.426	50.0	0.367	50.0	-2.841	50.0	-3.138	50.0	-2.719
60.0	-3.576	60.0	-4.426	60.0	-3.744	60.0	-2.841	60.0	-3.061	60.0	-2.873
61.5	-3.267	61.5	-1.677	61.5	-2.242	61.5	-1.513	61.5	-1.272	61.5	-2.258
62.5	-6.738	62.5	-8.274	62.5	-7.697	62.5	-4.248	62.5	-4.383	62.5	-4.410
65.0	-10.671	65.0	-11.258	65.0	-11.412	65.0	-6.827	65.0	-6.871	65.0	-8.484
70.0	-4.972	70.0	-10.159	70.0	-8.961	70.0	-6.436	70.0	-6.016	70.0	1.202
75.0	-4.656	75.0	-5.997	75.0	-6.036	75.0	-4.717	75.0	-4.383	75.0	-5.717
75.6	-4.116	75.6	-5.368	75.6	-6.274	75.6	-2.763	75.6	-4.072	75.6	-4.487
76.3	-6.198	76.3	-7.567	76.3	-8.603	76.3	-3.154	76.3	-4.927	76.3	-5.563
77.1	0.666	77.1	-8.588	77.1	-7.697	77.1	0.050	77.1	-5.393	77.1	-5.640
78.6	3.828	78.6	4.998	78.6	4.083	78.6	0.284	78.6	0.127	78.6	0.202
80.0	-4.039	80.0	-5.211	80.0	-6.115	80.0	-4.482	80.0	-4.072	80.0	-5.025
85.0	-2.805	85.0	-4.347	85.0	-4.692	85.0	-3.779	85.0	-2.594	85.0	-2.719
90.0	-2.033	90.0	-0.499	90.0	-1.372	90.0	-1.982	90.0	-1.350	90.0	-1.412
95.0	-1.494	95.0	-0.107	95.0	-0.582	95.0	-1.435	95.0	-0.884	95.0	-1.335
2.5	1.977	2.5	6.254	2.5	3.608	2.5	0.284	2.5	0.983	2.5	1.356
5.0	3.674	5.0	5.312	5.0	3.766	5.0	0.363	5.0	1.060	5.0	1.356
7.5	3.674	7.5	4.527	7.5	2.581	7.5	0.441	7.5	0.361	7.5	1.279
10.0	2.748	10.0	3.898	10.0	2.185	10.0	0.441	10.0	0.983	10.0	1.202
15.0	1.591	15.0	2.485	15.0	1.237	15.0	0.441	15.0	0.283	15.0	0.971
20.0	0.897	20.0	0.757	20.0	0.683	20.0	0.441	20.0	0.438	20.0	0.741
30.0	0.820	30.0	0.757	30.0	0.446	30.0	0.441	30.0	0.672	30.0	0.510
50.0	1.129	50.0	1.778	50.0	1.316	50.0	0.363	50.0	0.516	50.0	0.510
65.0	5.448	65.0	6.490	65.0	5.031	65.0	0.831	65.0	0.749	65.0	1.971
70.0	4.368	70.0	6.176	70.0	4.715	70.0	0.910	70.0	0.749	70.0	1.509
76.8	0.666	76.8	6.176	76.8	5.031	76.8	0.831	76.8	0.672	76.8	1.125
77.1	4.822	77.1	6.097	77.1	4.636	77.1	0.910	77.1	0.516	77.1	1.048
80.0	4.908	80.0	6.254	80.0	5.427	80.0	0.988	80.0	0.749	80.0	1.356
85.0	4.368	85.0	6.176	85.0	4.478	85.0	1.144	85.0	0.749	85.0	1.048
90.0	3.211	90.0	5.626	90.0	3.371	90.0	0.988	90.0	0.672	90.0	0.817
95.0	2.671	95.0	4.291	95.0	2.502	95.0	0.910	95.0	0.516	95.0	0.741
TOTAL NORMAL COEFFICIENT											
CN =	5.70		8.20		6.69		3.59		3.79		3.68

TABLE V-15

RUN 76, POINT 8		Q = 3.55		ALPHA = 20		TCP = 1.00					
VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-3.096	0.	-6.041	0.	-3.487	0.	-1.815	0.	-1.033	0.	-0.181
1.2	-1.715	1.2	-4.167	1.2	-3.015	1.2	-2.981	1.2	-2.038	1.2	-1.251
2.5	-2.559	2.5	-4.401	2.5	-4.745	2.5	-4.069	2.5	-2.425	2.5	-1.939
5.0	-3.556	5.0	-5.494	5.0	-5.865	5.0	-4.146	5.0	-2.502	5.0	-3.162
7.5	-4.169	7.5	-5.494	7.5	-6.160	7.5	-2.126	7.5	-2.734	7.5	-3.239
10.0	-3.939	10.0	-5.182	10.0	-6.317	10.0	-3.059	10.0	-2.657	10.0	-3.315
15.0	-4.093	15.0	-5.182	15.0	-5.531	15.0	-1.349	15.0	-3.121	15.0	-3.086
20.0	-4.329	20.0	-5.104	20.0	-5.138	20.0	-3.136	20.0	-2.580	20.0	-3.215
25.0	-4.093	25.0	-5.104	25.0	-5.059	25.0	-1.427	25.0	-2.580	25.0	-3.315
30.0	-3.939	30.0	-5.104	30.0	-4.588	30.0	-2.981	30.0	-2.580	30.0	-3.162
40.0	-3.623	40.0	-4.870	40.0	-4.195	40.0	-2.981	40.0	-2.580	40.0	-3.086
50.0	-3.172	50.0	-4.167	50.0	0.365	50.0	-2.981	50.0	-2.580	50.0	-3.086
60.0	-3.326	60.0	-4.089	60.0	-3.644	60.0	-2.981	60.0	-2.425	60.0	-3.086
61.5	-3.019	61.5	-2.683	61.5	-2.780	61.5	-1.660	61.5	-0.260	61.5	-2.022
62.5	-5.320	62.5	-7.212	62.5	-6.946	62.5	-3.680	62.5	-3.353	62.5	-4.385
65.0	-8.387	65.0	-7.681	65.0	-9.540	65.0	-5.623	65.0	-5.672	65.0	-7.443
70.0	-5.396	70.0	-6.948	70.0	-7.575	70.0	-5.312	70.0	-4.899	70.0	-1.118
75.0	-2.866	75.0	-2.293	75.0	-4.509	75.0	-3.913	75.0	-3.276	75.0	-4.385
75.6	-2.866	75.6	-3.074	75.6	-4.745	75.6	-2.437	75.6	-2.889	75.6	-3.621
76.3	-3.939	76.3	-5.416	76.3	-6.317	76.3	-2.748	76.3	-3.662	76.3	-4.462
77.1	0.729	77.1	-5.338	77.1	-5.374	77.1	0.050	77.1	-3.894	77.1	-4.615
78.6	4.266	78.6	5.126	78.6	4.453	78.6	0.283	78.6	1.054	78.6	-0.628
80.0	-2.942	80.0	-3.386	80.0	-4.430	80.0	-3.447	80.0	-2.734	80.0	-3.927
85.0	-1.945	85.0	-2.683	85.0	-3.566	85.0	-3.214	85.0	-1.420	85.0	-2.627
90.0	-1.255	90.0	-1.980	90.0	-1.050	90.0	-1.815	90.0	-0.569	90.0	-1.481
95.0	-0.642	95.0	-1.278	95.0	-0.736	95.0	-1.349	95.0	-0.260	95.0	-1.098
2.5	3.883	2.5	6.609	2.5	3.745	2.5	0.205	2.5	1.596	2.5	1.730
5.0	3.346	5.0	5.594	5.0	2.723	5.0	0.283	5.0	1.673	5.0	1.577
7.5	2.503	7.5	4.657	7.5	1.701	7.5	0.360	7.5	1.209	7.5	1.495
10.0	1.812	10.0	4.032	10.0	1.465	10.0	0.438	10.0	1.073	10.0	1.348
15.0	0.892	15.0	2.471	15.0	0.837	15.0	0.516	15.0	1.054	15.0	1.042
20.0	0.662	20.0	0.518	20.0	0.522	20.0	0.516	20.0	1.209	20.0	0.889
30.0	0.815	30.0	0.518	30.0	0.601	30.0	0.516	30.0	1.518	30.0	0.660
50.0	0.892	50.0	1.299	50.0	0.994	50.0	0.438	50.0	1.441	50.0	0.660
65.0	5.263	65.0	6.375	65.0	5.396	65.0	1.526	65.0	1.750	65.0	1.271
70.0	4.036	70.0	4.813	70.0	3.981	70.0	1.293	70.0	1.750	70.0	1.042
76.8	0.585	76.8	5.204	76.8	4.924	76.8	1.137	76.8	1.596	76.8	0.736
77.1	4.803	77.1	5.282	77.1	5.003	77.1	1.060	77.1	1.364	77.1	0.583
80.0	4.496	80.0	5.516	80.0	5.239	80.0	0.982	80.0	1.750	80.0	0.813
85.0	3.576	85.0	3.954	85.0	3.116	85.0	0.904	85.0	1.673	85.0	0.736
90.0	2.886	90.0	2.783	90.0	2.173	90.0	1.060	90.0	1.518	90.0	0.660
95.0	1.736	95.0	2.158	95.0	1.308	95.0	0.827	95.0	1.286	95.0	0.583
TOTAL NORMAL COEFFICIENT											
CN = 5.09		7.06		6.16		3.66		4.09		3.75	

TABLE V-16

RUN 75, POINT 3		Q = 3.55		ALPHA = 0		TCP = 1.60					
VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-0.897	0.	-10.723	0.	-5.305	0.	-0.504	0.	-2.662	0.	-0.499
1.2	-0.660	1.2	-2.263	1.2	-1.490	1.2	-0.742	1.2	-1.704	1.2	-0.735
2.5	-0.818	2.5	-1.864	2.5	-1.895	2.5	-1.059	2.5	-1.465	2.5	-0.813
5.0	-0.818	5.0	-2.901	5.0	-2.870	5.0	-1.534	5.0	-1.864	5.0	-0.891
7.5	-0.739	7.5	-3.221	7.5	-3.438	7.5	-1.138	7.5	-2.263	7.5	-1.048
10.0	-0.976	10.0	-2.742	10.0	-3.925	10.0	-1.455	10.0	-2.103	10.0	-1.205
15.0	-2.003	15.0	-3.380	15.0	-3.925	15.0	-0.900	15.0	-1.944	15.0	-1.362
20.0	-2.556	20.0	-3.380	20.0	-3.600	20.0	-1.772	20.0	-1.944	20.0	-1.519
25.0	-2.556	25.0	-3.620	25.0	-3.763	25.0	-0.900	25.0	-2.023	25.0	-1.598
30.0	-3.109	30.0	-3.859	30.0	-3.844	30.0	-1.931	30.0	-2.103	30.0	-1.676
40.0	-3.030	40.0	-3.939	40.0	-3.682	40.0	-2.089	40.0	-2.183	40.0	-1.676
50.0	-3.030	50.0	-3.939	50.0	0.946	50.0	-2.089	50.0	-2.422	50.0	-1.755
60.0	-3.188	60.0	-4.338	60.0	-3.113	60.0	-2.169	60.0	-2.582	60.0	-1.990
61.5	-2.714	61.5	-1.864	61.5	-1.490	61.5	-1.138	61.5	-1.385	61.5	-1.519
62.5	-7.771	62.5	-10.643	62.5	-7.416	62.5	-3.595	62.5	-3.939	62.5	-3.246
65.0	-13.222	65.0	-14.713	65.0	-12.044	65.0	-5.974	65.0	-6.413	65.0	-6.620
70.0	-9.904	70.0	-11.760	70.0	-9.040	70.0	-5.845	70.0	-9.375	70.0	-0.735
75.0	-6.191	75.0	-6.652	75.0	-5.792	75.0	-4.388	75.0	-3.939	75.0	-4.737
75.6	-5.006	75.6	-5.615	75.6	-6.361	75.6	-2.803	75.6	-4.098	75.6	-4.580
76.3	-6.823	76.3	-8.408	76.3	-9.040	76.3	-3.120	76.3	-4.657	76.3	-5.836
77.1	1.157	77.1	-8.488	77.1	-7.741	77.1	-2.406	77.1	-4.657	77.1	-6.150
78.6	3.448	78.6	6.357	78.6	5.736	78.6	0.527	78.6	1.009	78.6	0.600
80.0	-5.164	80.0	-5.615	80.0	-5.955	80.0	-4.230	80.0	-3.939	80.0	-5.443
85.0	-2.951	85.0	-4.258	85.0	-4.727	85.0	-3.672	85.0	-2.242	85.0	-3.403
90.0	-0.976	90.0	0.131	90.0	-0.759	90.0	-1.534	90.0	-1.066	90.0	-1.441
95.0	-0.660	95.0	1.408	95.0	0.297	95.0	-1.059	95.0	-0.667	95.0	-0.891
2.5	-0.581	2.5	7.474	2.5	0.540	2.5	0.289	2.5	2.765	2.5	-0.891
5.0	-0.502	5.0	6.197	5.0	2.976	5.0	0.447	5.0	2.286	5.0	-0.735
7.5	-0.107	7.5	4.760	7.5	3.544	7.5	0.527	7.5	0.770	7.5	-0.578
10.0	0.762	10.0	4.042	10.0	3.382	10.0	0.606	10.0	1.648	10.0	-0.107
15.0	0.920	15.0	2.366	15.0	2.164	15.0	0.527	15.0	0.530	15.0	0.207
20.0	0.920	20.0	1.169	20.0	1.190	20.0	0.527	20.0	0.690	20.0	0.207
30.0	0.920	30.0	1.009	30.0	0.784	30.0	0.527	30.0	0.610	30.0	0.329
50.0	1.236	50.0	2.605	50.0	2.732	50.0	0.527	50.0	0.530	50.0	0.207
65.0	3.053	65.0	7.394	65.0	7.035	65.0	0.923	65.0	2.685	65.0	0.600
70.0	3.211	70.0	7.474	70.0	6.791	70.0	0.844	70.0	1.648	70.0	0.914
76.8	1.473	76.8	7.554	76.8	7.116	76.8	0.923	76.8	1.728	76.8	1.777
77.1	4.949	77.1	7.474	77.1	6.629	77.1	0.923	77.1	1.807	77.1	1.620
80.0	4.633	80.0	7.554	80.0	7.035	80.0	0.923	80.0	1.887	80.0	1.306
85.0	5.502	85.0	7.713	85.0	6.791	85.0	0.606	85.0	1.329	85.0	2.405
90.0	6.371	90.0	7.474	90.0	6.061	90.0	0.527	90.0	1.009	90.0	2.405
95.0	5.265	95.0	7.075	95.0	5.086	95.0	0.606	95.0	0.770	95.0	2.326
TOTAL NORMAL COEFFICIENT											
CN = 5.16		8.74		7.33		2.99		3.68		2.71	

TABLE V-17

RUN 75, POINT 6		Q = 3.44		ALPHA = 12		TCP = 1.60					
VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-3.289	0.	-9.088	0.	-8.239	0.	-1.255	0.	-0.522	0.	-2.053
1.2	-2.148	1.2	-4.311	1.2	-2.290	1.2	-2.237	1.2	-2.417	1.2	-1.648
2.5	-2.066	2.5	-4.393	2.5	-3.547	2.5	-3.137	2.5	-2.911	2.5	-1.972
5.0	-2.800	5.0	-5.711	5.0	-5.474	5.0	-3.709	5.0	-3.158	5.0	-2.863
7.5	-3.249	7.5	-5.793	7.5	-6.396	7.5	-2.319	7.5	-3.487	7.5	-3.187
10.0	-3.453	10.0	-5.217	10.0	-6.731	10.0	-3.219	10.0	-3.323	10.0	-3.187
15.0	-4.105	15.0	-5.464	15.0	-5.977	15.0	-1.583	15.0	-3.323	15.0	-3.106
20.0	-4.676	20.0	-5.546	20.0	-5.558	20.0	-3.300	20.0	-3.570	20.0	-3.268
25.0	-4.349	25.0	-5.629	25.0	-5.558	25.0	-1.664	25.0	-3.817	25.0	-3.268
30.0	-4.512	30.0	-5.711	30.0	-5.306	30.0	-3.382	30.0	-3.570	30.0	-3.268
40.0	-4.268	40.0	-5.711	40.0	-4.888	40.0	-3.382	40.0	-3.652	40.0	-3.268
50.0	-4.431	50.0	-5.629	50.0	0.642	50.0	-3.382	50.0	-3.899	50.0	-3.268
60.0	-4.512	60.0	-5.793	60.0	-4.636	60.0	-3.464	60.0	-3.982	60.0	-3.592
61.5	-4.512	61.5	-2.417	61.5	-2.961	61.5	-2.237	61.5	-1.511	61.5	-3.025
62.5	-9.486	62.5	-11.806	62.5	-9.914	62.5	-5.427	62.5	-5.629	62.5	-5.616
65.0	-15.428	65.0	-16.253	65.0	-14.774	65.0	-6.618	65.0	-8.841	65.0	-10.314
70.0	-12.095	70.0	-13.865	70.0	-11.506	70.0	-8.291	70.0	-7.688	70.0	-0.352
75.0	-7.692	75.0	-8.429	75.0	-7.736	75.0	-6.164	75.0	-5.711	75.0	-7.398
75.6	-7.040	75.6	-7.358	75.6	-8.323	75.6	-4.528	75.6	-5.299	75.6	-6.669
76.3	-9.404	76.3	-10.653	76.3	-11.590	76.3	-5.182	76.3	-6.617	76.3	-8.208
77.1	0.869	77.1	-12.300	77.1	-10.585	77.1	-1.992	77.1	-7.688	77.1	-8.289
78.6	5.516	78.6	7.055	78.6	6.339	78.6	0.544	78.6	0.219	78.6	0.377
80.0	-6.551	80.0	-7.853	80.0	-7.987	80.0	-6.000	80.0	-5.629	80.0	-7.398
85.0	-4.146	85.0	-6.205	85.0	-6.647	85.0	-5.100	85.0	-3.405	85.0	-3.835
90.0	-1.985	90.0	0.934	90.0	-1.955	90.0	-2.728	90.0	-1.840	90.0	-2.134
95.0	-1.007	95.0	0.137	95.0	-0.447	95.0	-2.073	95.0	-1.181	95.0	-1.972
2.5	0.950	2.5	8.702	2.5	4.915	2.5	0.135	2.5	1.866	2.5	1.187
5.0	2.968	5.0	7.220	5.0	5.836	5.0	0.217	5.0	1.372	5.0	1.430
7.5	4.375	7.5	5.902	7.5	4.328	7.5	0.299	7.5	0.548	7.5	1.430
10.0	3.396	10.0	5.078	10.0	3.072	10.0	0.381	10.0	1.454	10.0	1.349
15.0	2.418	15.0	2.937	15.0	1.731	15.0	0.381	15.0	0.384	15.0	1.025
20.0	1.847	20.0	0.631	20.0	1.229	20.0	0.381	20.0	0.548	20.0	0.620
30.0	0.787	30.0	0.631	30.0	0.558	30.0	0.381	30.0	0.795	30.0	0.296
50.0	1.521	50.0	2.525	50.0	2.066	50.0	0.381	50.0	0.631	50.0	0.215
65.0	7.717	65.0	9.032	65.0	7.847	65.0	1.935	65.0	1.125	65.0	2.968
70.0	5.842	70.0	8.537	70.0	6.842	70.0	1.608	70.0	1.042	70.0	2.320
76.8	1.113	76.8	8.620	76.8	7.763	76.8	1.526	76.8	0.878	76.8	1.754
77.1	7.147	77.1	8.620	77.1	7.177	77.1	1.526	77.1	0.631	77.1	1.673
80.0	7.473	80.0	8.867	80.0	7.931	80.0	1.526	80.0	0.960	80.0	2.401
85.0	6.4.3	85.0	8.620	85.0	6.842	85.0	1.363	85.0	0.960	85.0	1.268
90.0	4.945	90.0	7.220	90.0	5.250	90.0	1.035	90.0	0.795	90.0	0.944
95.0	3.223	95.0	5.984	95.0	3.574	95.0	0.872	95.0	0.548	95.0	0.701
TOTAL NORMAL COEFFICIENT											
CN =	7.51		10.92		9.01		4.56		4.85		4.66

TABLE V-18

RUN 75, POINT 8		Q = 3.50		ALPHA = 20		TCP = 1.60					
VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-4.916	0.	-8.609	0.	-4.557	0.	-2.842	0.	-0.838	0.	-1.143
1.2	-2.112	1.2	-5.128	1.2	-3.157	1.2	-4.692	1.2	-3.266	1.2	-1.461
2.5	-2.512	2.5	-5.452	2.5	-5.381	2.5	-6.461	2.5	-3.509	2.5	-2.257
5.0	-4.195	5.0	-6.828	5.0	-7.357	5.0	-6.541	5.0	-3.590	5.0	-3.769
7.5	-4.355	7.5	-6.747	7.5	-7.686	7.5	-2.682	7.5	-4.076	7.5	-4.008
10.0	-4.436	10.0	-5.533	10.0	-7.933	10.0	-3.807	10.0	-3.995	10.0	-4.008
15.0	-4.997	15.0	-6.099	15.0	-6.863	15.0	-1.395	15.0	-4.480	15.0	-3.769
20.0	-5.157	20.0	-6.099	20.0	-6.039	20.0	-3.405	20.0	-4.399	20.0	-3.849
25.0	-4.916	25.0	-6.099	25.0	-6.122	25.0	-1.556	25.0	-4.076	25.0	-3.849
30.0	-5.317	30.0	-6.261	30.0	-5.957	30.0	-3.566	30.0	-4.157	30.0	-3.769
40.0	-4.426	40.0	-6.180	40.0	-5.134	40.0	-3.646	40.0	-4.076	40.0	-3.769
50.0	-4.275	50.0	-5.776	50.0	0.384	50.0	-3.646	50.0	-4.319	50.0	-3.690
60.0	-4.596	60.0	-5.776	60.0	-4.804	60.0	-3.646	60.0	-4.076	60.0	-3.849
61.5	-3.714	61.5	-4.319	61.5	-3.404	61.5	-2.038	61.5	-1.404	61.5	-2.973
62.5	-8.362	62.5	-12.252	62.5	-9.416	62.5	-4.611	62.5	-5.371	62.5	-5.521
65.0	-14.052	65.0	-14.275	65.0	-13.450	65.0	-7.023	65.0	-8.366	65.0	-9.739
70.0	-10.285	70.0	-12.171	70.0	-9.416	70.0	-6.621	70.0	-7.233	70.0	-0.347
75.0	-6.359	75.0	-7.395	75.0	-5.792	75.0	-4.933	75.0	-5.937	75.0	-5.998
75.6	-6.439	75.6	-6.504	75.6	-6.780	75.6	-3.727	75.6	-4.966	75.6	-5.282
76.3	-8.202	76.3	-8.528	76.3	-8.757	76.3	-4.209	76.3	-5.695	76.3	-6.476
77.1	1.044	77.1	-8.933	77.1	-6.698	77.1	-2.038	77.1	-6.018	77.1	-6.635
78.6	5.501	78.6	6.852	78.6	6.395	78.6	0.374	78.6	0.457	78.6	0.051
80.0	-5.557	80.0	-6.018	80.0	-5.298	80.0	-4.852	80.0	-4.561	80.0	-5.998
85.0	-4.035	85.0	-4.885	85.0	-4.063	85.0	-4.129	85.0	-2.780	85.0	-3.133
90.0	-1.310	90.0	-0.838	90.0	-1.510	90.0	-2.440	90.0	-1.647	90.0	-1.700
95.0	-0.910	95.0	0.514	95.0	-1.099	95.0	-1.877	95.0	-1.485	95.0	-1.381
2.5	3.017	2.5	9.119	2.5	4.583	2.5	0.052	2.5	1.429	2.5	2.201
5.0	5.181	5.0	7.662	5.0	4.089	5.0	0.213	5.0	1.348	5.0	2.121
7.5	4.139	7.5	6.124	7.5	3.183	7.5	0.293	7.5	0.619	7.5	1.723
10.0	2.456	10.0	5.314	10.0	1.948	10.0	0.374	10.0	1.267	10.0	1.484
15.0	1.014	15.0	3.048	15.0	1.125	15.0	0.374	15.0	0.296	15.0	1.007
20.0	0.933	20.0	0.457	20.0	0.795	20.0	0.374	20.0	0.538	20.0	0.847
30.0	0.533	30.0	0.538	30.0	0.631	30.0	0.374	30.0	0.862	30.0	0.529
50.0	1.094	50.0	1.834	50.0	1.125	50.0	0.374	50.0	0.862	50.0	0.529
65.0	7.424	65.0	9.362	65.0	7.712	65.0	2.143	65.0	1.267	65.0	2.439
70.0	5.501	70.0	6.933	70.0	5.489	70.0	1.439	70.0	1.267	70.0	1.325
76.8	0.773	76.8	7.500	76.8	7.218	76.8	1.097	76.8	0.943	76.8	0.847
77.1	6.383	77.1	7.581	77.1	7.300	77.1	1.178	77.1	0.862	77.1	0.847
80.0	7.104	80.0	7.986	80.0	7.300	80.0	1.097	80.0	1.186	80.0	1.405
85.0	5.421	85.0	5.476	85.0	5.077	85.0	0.937	85.0	1.105	85.0	0.927
90.0	3.979	90.0	4.262	90.0	3.183	90.0	1.017	90.0	0.862	90.0	0.688
95.0	2.857	95.0	3.048	95.0	1.948	95.0	0.776	95.0	0.700	95.0	0.449
TOTAL NORMAL COEFFICIENT											
CN =	7.15		10.09		8.07		4.45		5.12		4.70

TABLE V-19

RUN 1, POINT 4		Q = 10.16		ALPHA = 0		TCP = 0.					
VALVE 1	VALVE 3	VALVE 4	VALVE 6	VALVE 7	VALVE 8						
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP						
0.	0.985	0.	0.983	0.	0.912	0.	0.964	0.	0.171	0.	0.861
1.2	0.012	1.2	0.756	1.2	0.278	1.2	0.013	1.2	0.215	1.2	0.261
2.5	-0.008	2.5	0.447	2.5	-0.130	2.5	-0.008	2.5	0.016	2.5	0.261
5.0	0.028	5.0	0.323	5.0	-0.396	5.0	-0.400	5.0	-0.360	5.0	0.137
7.5	-0.231	7.5	-0.028	7.5	-0.498	7.5	-0.524	7.5	-0.426	7.5	-0.318
10.0	-0.251	10.0	-0.193	10.0	-0.580	10.0	-0.524	10.0	-0.492	10.0	-0.400
15.0	-0.251	15.0	-0.214	15.0	-0.621	15.0	-0.545	15.0	-0.514	15.0	-0.483
20.0	-0.717	20.0	-0.214	20.0	-0.621	20.0	-0.586	20.0	-0.603	20.0	-0.524
25.0	-0.717	25.0	-0.255	25.0	-0.744	25.0	-0.648	25.0	-0.647	25.0	-0.566
30.0	-0.737	30.0	-0.400	30.0	-0.744	30.0	-0.669	30.0	-0.669	30.0	-0.566
40.0	-0.656	40.0	-0.462	40.0	-0.662	40.0	-0.628	40.0	-0.625	40.0	-0.504
50.0	-0.575	50.0	-0.462	50.0	-0.458	50.0	-0.586	50.0	-0.536	50.0	-0.442
60.0	-0.433	60.0	-0.482	60.0	-0.498	60.0	-0.400	60.0	-0.426	60.0	-0.297
61.5	-0.231	61.5	-0.400	61.5	-0.192	61.5	-0.338	61.5	-0.205	61.5	-0.256
62.5	-0.170	62.5	-0.297	62.5	-0.171	62.5	-0.235	62.5	-0.183	62.5	-0.132
65.0	-0.170	65.0	-0.235	65.0	-0.171	65.0	-0.214	65.0	-0.183	65.0	-0.173
70.0	-0.170	70.0	-0.235	70.0	-0.171	70.0	-0.214	70.0	-0.183	70.0	-0.194
75.0	-0.231	75.0	-0.214	75.0	-0.171	75.0	-0.152	75.0	-0.161	75.0	-0.132
76.6	-0.129	76.6	-0.214	76.6	-0.110	76.6	-0.090	76.6	-0.117	76.6	-0.152
76.3	-0.109	76.3	-0.214	76.3	-0.090	76.3	-0.090	76.3	-0.161	76.3	-0.132
77.1	-0.089	77.1	-0.214	77.1	-0.110	77.1	-0.070	77.1	-0.161	77.1	-0.132
78.6	-0.069	78.6	-0.214	78.6	-0.130	78.6	-0.070	78.6	-0.050	78.6	-0.111
80.0	-0.048	80.0	-0.152	80.0	-0.069	80.0	-0.070	80.0	-0.006	80.0	-0.111
85.0	-0.028	85.0	-0.111	85.0	-0.069	85.0	-0.070	85.0	-0.050	85.0	-0.111
90.0	-0.028	90.0	-0.069	90.0	-0.049	90.0	-0.070	90.0	0.038	90.0	-0.090
95.0	-0.008	95.0	-0.049	95.0	-0.028	95.0	-0.070	95.0	0.104	95.0	-0.070
2.5	0.033	2.5	-0.028	2.5	-0.192	2.5	-0.049	2.5	0.171	2.5	-0.090
5.0	0.012	5.0	-0.008	5.0	-0.274	5.0	-0.070	5.0	0.171	5.0	-0.256
7.5	0.012	7.5	-0.028	7.5	-0.335	7.5	-0.111	7.5	0.171	7.5	-0.359
10.0	-0.008	10.0	-0.049	10.0	-0.335	10.0	-0.152	10.0	0.149	10.0	2.804
15.0	-0.048	15.0	-0.090	15.0	-0.355	15.0	-0.152	15.0	0.126	15.0	-0.380
20.0	-0.210	20.0	-0.131	20.0	-0.376	20.0	-0.152	20.0	0.126	20.0	-0.380
30.0	-0.292	30.0	-0.152	30.0	-0.376	30.0	-0.194	30.0	0.038	30.0	-0.380
50.0	-0.251	50.0	-0.173	50.0	-0.376	50.0	-0.214	50.0	-0.271	50.0	-0.276
65.0	-0.271	65.0	-0.173	65.0	-0.212	65.0	-0.194	65.0	-0.426	65.0	-0.090
70.0	-0.190	70.0	-0.173	70.0	-0.130	70.0	-0.132	70.0	-0.117	70.0	-0.132
76.8	-0.170	76.8	-0.193	76.8	-0.069	76.8	-0.111	76.8	-0.161	76.8	-0.090
77.1	-0.109	77.1	-0.193	77.1	-0.069	77.1	-0.070	77.1	-0.161	77.1	-0.070
80.0	-0.028	80.0	-0.193	80.0	-0.028	80.0	-0.049	80.0	-0.006	80.0	-0.132
85.0	-0.089	85.0	-0.193	85.0	-0.049	85.0	-0.049	85.0	-0.028	85.0	-0.069
90.0	-0.048	90.0	-0.193	90.0	-0.028	90.0	-0.028	90.0	0.126	90.0	-0.008
95.0	0.012	95.0	-0.193	95.0	-0.008	95.0	-0.008	95.0	0.016	95.0	0.034
TOTAL NORMAL COEFFICIENT											
CN = 0.19		0.09		0.16		0.24		0.29		0.21	

TABLE V-20

RUN 1, POINT 6		Q = 10.10		ALPHA = 8		TCP = 0.					
VALVE 1	VALVE 3	VALVE 4	VALVE 6	VALVE 7	VALVE 8						
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP						
0.	-0.578	0.	-0.429	0.	-0.131	0.	-0.881	0.	0.238	0.	0.617
1.2	-2.249	1.2	-1.835	1.2	-1.859	1.2	-2.399	1.2	-2.206	1.2	-1.089
2.5	-2.147	2.5	-1.503	2.5	-1.879	2.5	-2.254	2.5	-1.673	2.5	-1.006
5.0	-1.964	5.0	-1.440	5.0	-1.715	5.0	-1.630	5.0	-1.717	5.0	-0.923
7.5	-1.923	7.5	-1.336	7.5	-1.591	7.5	-1.588	7.5	-1.517	7.5	-0.985
10.0	-1.719	10.0	-1.191	10.0	-1.530	10.0	-1.338	10.0	-1.317	10.0	-0.923
15.0	-1.617	15.0	-1.129	15.0	-1.345	15.0	-1.151	15.0	-1.139	15.0	-0.923
20.0	-1.577	20.0	-1.087	20.0	-1.221	20.0	-1.068	20.0	-1.117	20.0	-0.881
25.0	-1.577	25.0	-1.025	25.0	-1.221	25.0	-1.068	25.0	-1.073	25.0	-0.860
30.0	-1.556	30.0	-1.004	30.0	-1.139	30.0	-1.006	30.0	-1.006	30.0	-0.777
40.0	-1.210	40.0	-0.983	40.0	-0.933	40.0	-0.839	40.0	-0.850	40.0	-0.631
50.0	-0.925	50.0	-0.817	50.0	-0.090	50.0	-0.673	50.0	-0.695	50.0	-0.590
60.0	-0.680	60.0	-0.755	60.0	-0.666	60.0	-0.423	60.0	-0.495	60.0	-0.507
61.5	-0.456	61.5	-0.527	61.5	-0.069	61.5	-0.174	61.5	-0.050	61.5	-0.382
62.5	-0.293	62.5	-0.298	62.5	-0.028	62.5	-0.153	62.5	0.016	62.5	-0.028
65.0	-0.232	65.0	-0.236	65.0	-0.028	65.0	-0.132	65.0	0.127	65.0	-0.070
70.0	-0.212	70.0	-0.215	70.0	-0.110	70.0	-0.153	70.0	-0.028	70.0	-0.111
75.0	-0.232	75.0	-0.194	75.0	-0.152	75.0	-0.132	75.0	-0.162	75.0	-0.070
76.6	-0.171	76.6	-0.174	76.6	-0.213	76.6	-0.070	76.6	-0.117	76.6	-0.299
76.3	-0.150	76.3	-0.194	76.3	-0.049	76.3	-0.070	76.3	-0.028	76.3	-0.278
77.1	-0.110	77.1	-0.174	77.1	-0.028	77.1	-0.049	77.1	-0.139	77.1	-0.153
78.6	-0.089	78.6	-0.174	78.6	-0.069	78.6	-0.049	78.6	-0.095	78.6	-0.091
80.0	-0.069	80.0	-0.111	80.0	-0.008	80.0	-0.049	80.0	0.061	80.0	-0.091
85.0	-0.069	85.0	-0.070	85.0	-0.069	85.0	-0.049	85.0	0.061	85.0	-0.091
90.0	-0.028	90.0	-0.028	90.0	-0.028	90.0	-0.070	90.0	0.172	90.0	-0.070
95.0	-0.028	95.0	-0.013	95.0	-0.008	95.0	-0.070	95.0	0.038	95.0	-0.028
2.5	0.114	2.5	0.242	2.5	0.795	2.5	0.263	2.5	0.238	2.5	0.180
5.0	0.257	5.0	0.346	5.0	0.589	5.0	0.429	5.0	0.238	5.0	0.242
7.5	0.318	7.5	0.429	7.5	0.424	7.5	0.159	7.5	0.238	7.5	0.242
10.0	0.339	10.0	0.449	10.0	0.342	10.0	0.201	10.0	0.238	10.0	0.055
15.0	0.318	15.0	0.449	15.0	0.177	15.0	0.180	15.0	0.238	15.0	0.055
20.0	0.257	20.0	0.408	20.0	0.075	20.0	0.076	20.0	0.216	20.0	0.055
30.0	0.176	30.0	0.346	30.0	-0.028	30.0	0.034	30.0	0.127	30.0	-0.028
50.0	-0.008	50.0	0.304	50.0	-0.172	50.0	-0.007	50.0	0.016	50.0	-0.070
65.0	-0.130	65.0	0.200	65.0	-0.110	65.0	-0.049	65.0	-0.095	65.0	-0.070
70.0	-0.089	70.0	0.159	70.0	-0.028	70.0	-0.070	70.0	-0.006	70.0	-0.070
76.8	-0.089	76.8	0.055	76.8	-0.028	76.8	-0.091	76.8	0.016	76.8	-0.091
77.1	-0.069	77.1	0.034	77.1	0.034	77.1	-0.070	77.1	-0.028	77.1	-0.091
80.0	0.013	80.0	0.013	80.0	0.116	80.0	-0.028	80.0	0.305	80.0	-0.070
85.0	-0.008	85.0	0.013	85.0	0.034	85.0	-0.028	85.0	0.061	85.0	-0.070
90.0	-0.028	90.0	0.013	90.0	0.034	90.0	-0.007	90.0	0.038	90.0	-0.070
95.0	-0.008	95.0	0.013	95.0	0.034	95.0	-0.007	95.0	0.105	95.0	-0.070
TOTAL NORMAL COEFFICIENT											
CN = 0.96		0.93		0.69		0.69		0.72		0.58	

TABLE V-21

RUN 1, POINT 8		VALVE 3		VALVE 4		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-5.213	0.	-5.746	0.	-5.038	0.	-6.065	0.	0.193	0.	-1.868
1.2	-5.132	1.2	-5.602	1.2	-5.242	1.2	-4.763	1.2	-6.500	1.2	-3.481
2.5	-4.788	2.5	-4.755	2.5	-4.424	2.5	-4.287	2.5	-4.380	2.5	-3.130
5.0	-4.768	5.0	-3.785	5.0	-3.404	5.0	-3.543	5.0	-3.629	5.0	-2.551
7.5	-4.525	7.5	-3.166	7.5	-2.891	7.5	-3.088	7.5	-2.900	7.5	-2.013
10.0	-4.282	10.0	-2.732	10.0	-2.645	10.0	-2.385	10.0	-2.303	10.0	-1.682
15.0	-4.120	15.0	-2.567	15.0	-2.134	15.0	-2.116	15.0	-1.884	15.0	-1.579
20.0	-3.694	20.0	-2.423	20.0	-1.827	20.0	-1.682	20.0	-1.685	20.0	-1.413
25.0	-3.654	25.0	-2.258	25.0	-1.684	25.0	-1.641	25.0	-1.552	25.0	-1.289
30.0	-3.512	30.0	-2.072	30.0	-1.459	30.0	-1.331	30.0	-1.376	30.0	-1.165
40.0	-3.390	40.0	-1.824	40.0	-1.091	40.0	-1.227	40.0	-1.111	40.0	-0.938
50.0	-3.350	50.0	-1.576	50.0	0.033	50.0	-0.938	50.0	-0.801	50.0	-0.773
60.0	-3.309	60.0	-1.473	60.0	-0.723	60.0	-0.814	60.0	-0.647	60.0	-0.607
61.5	-3.269	61.5	-1.184	61.5	-0.110	61.5	-0.132	61.5	-0.072	61.5	-0.070
62.5	-3.249	62.5	-0.833	62.5	0.094	62.5	-0.132	62.5	0.038	62.5	-0.070
65.0	-3.188	65.0	-0.647	65.0	0.013	65.0	-0.111	65.0	0.038	65.0	-0.049
70.0	-3.087	70.0	-0.647	70.0	-0.192	70.0	-0.111	70.0	-0.161	70.0	-0.152
75.0	-3.026	75.0	-0.627	75.0	-0.274	75.0	-0.111	75.0	-0.448	75.0	-0.070
75.6	-3.026	75.6	-0.462	75.6	-0.396	75.6	-0.090	75.6	-0.448	75.6	-0.586
76.3	-3.026	76.3	-0.441	76.3	-0.192	76.3	-0.090	76.3	0.038	76.3	-0.483
77.1	-3.026	77.1	-0.379	77.1	-0.008	77.1	-0.070	77.1	-0.028	77.1	-0.194
78.6	-3.006	78.6	-0.379	78.6	-0.008	78.6	-0.049	78.6	-0.337	78.6	-0.152
80.0	-3.006	80.0	-0.317	80.0	-0.008	80.0	-0.049	80.0	-0.139	80.0	-0.132
85.0	-2.985	85.0	-0.297	85.0	-0.171	85.0	-0.070	85.0	-0.337	85.0	-0.194
90.0	-2.985	90.0	-0.297	90.0	-0.110	90.0	-0.090	90.0	0.038	90.0	-0.297
95.0	-2.965	95.0	-0.255	95.0	-0.090	95.0	-0.090	95.0	-0.050	95.0	-0.214
2.5	-2.965	2.5	-0.090	2.5	0.892	2.5	0.282	2.5	0.193	2.5	0.344
5.0	-2.965	5.0	0.013	5.0	0.933	5.0	0.592	5.0	0.193	5.0	0.737
7.5	-2.965	7.5	0.137	7.5	0.892	7.5	0.365	7.5	0.193	7.5	0.757
10.0	-2.945	10.0	0.240	10.0	0.790	10.0	0.468	10.0	0.215	10.0	2.598
15.0	-2.945	15.0	0.261	15.0	0.606	15.0	0.323	15.0	0.215	15.0	0.323
20.0	-2.925	20.0	0.261	20.0	0.483	20.0	0.282	20.0	0.193	20.0	0.323
30.0	-2.904	30.0	0.240	30.0	0.278	30.0	0.261	30.0	0.126	30.0	0.282
50.0	-2.904	50.0	0.240	50.0	0.054	50.0	0.220	50.0	-0.050	50.0	0.199
65.0	-2.904	65.0	0.178	65.0	-0.008	65.0	0.025	65.0	-0.038	65.0	-0.028
70.0	-2.904	70.0	0.158	70.0	0.074	70.0	0.013	70.0	-0.028	70.0	-0.049
76.8	-2.904	76.8	0.096	76.8	0.033	76.8	0.013	76.8	-0.028	76.8	-0.173
77.1	-2.904	77.1	0.075	77.1	0.094	77.1	-0.008	77.1	-0.006	77.1	-0.111
80.0	-2.904	80.0	0.054	80.0	0.258	80.0	0.013	80.0	0.237	80.0	0.137
85.0	-2.884	85.0	0.034	85.0	0.094	85.0	0.013	85.0	0.016	85.0	-0.070
90.0	-2.884	90.0	0.034	90.0	0.074	90.0	0.013	90.0	0.038	90.0	-0.070
95.0	-2.884	95.0	0.013	95.0	0.033	95.0	0.013	95.0	-0.183	95.0	-0.111
TOTAL NORMAL COEFFICIENT											
CN = 0.50		1.70		1.22		1.24		1.14		1.09	

TABLE V-22

RUN 5, POINT 3		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	1.046	0.	1.140	0.	0.976	0.	0.712	0.	0.658	0.	0.021	0.	1.037
1.2	0.100	1.2	0.991	1.2	0.241	1.2	0.380	1.2	0.226	1.2	0.145	1.2	0.398
2.5	0.151	2.5	0.742	2.5	-0.102	2.5	0.151	2.5	-0.384	2.5	0.021	2.5	0.211
5.0	0.190	5.0	0.295	5.0	-0.322	5.0	-0.028	5.0	-0.582	5.0	0.251	5.0	-0.028
7.5	-0.309	7.5	0.220	7.5	-0.395	7.5	-0.603	7.5	-0.389	7.5	-0.350	7.5	-0.161
10.0	-0.524	10.0	0.171	10.0	-0.542	10.0	-0.666	10.0	-0.714	10.0	-0.325	10.0	-0.268
15.0	-0.616	15.0	-0.351	15.0	-0.567	15.0	-0.335	15.0	-0.714	15.0	-0.474	15.0	-0.374
20.0	-0.719	20.0	-0.351	20.0	-0.567	20.0	-0.641	20.0	-0.714	20.0	-0.623	20.0	-0.428
25.0	-0.719	25.0	-0.351	25.0	-0.665	25.0	-0.564	25.0	-0.740	25.0	-0.598	25.0	-0.508
30.0	-0.770	30.0	-0.351	30.0	-0.689	30.0	-0.584	30.0	-0.867	30.0	-0.598	30.0	-0.534
40.0	-0.667	40.0	-0.351	40.0	-0.665	40.0	-0.590	40.0	-0.841	40.0	-0.548	40.0	-0.481
50.0	-0.591	50.0	-0.351	50.0	-0.224	50.0	-0.815	50.0	-0.765	50.0	-0.499	50.0	-0.401
60.0	-0.437	60.0	-0.053	60.0	-0.444	60.0	-0.590	60.0	-0.613	60.0	-0.375	60.0	-0.268
61.5	-0.909	61.5	-0.053	61.5	-0.175	61.5	-0.564	61.5	-0.536	61.5	-0.202	61.5	-0.108
62.5	-0.207	62.5	-0.053	62.5	-0.151	62.5	-0.664	62.5	-0.460	62.5	-0.177	62.5	0.504
65.0	-0.182	65.0	-0.028	65.0	-0.151	65.0	-0.539	65.0	-0.435	65.0	-0.152	65.0	0.238
70.0	-0.182	70.0	-0.053	70.0	-0.151	70.0	-0.613	70.0	-0.409	70.0	-0.177	70.0	-0.081
75.0	-0.233	75.0	-0.053	75.0	-0.151	75.0	-0.488	75.0	-0.359	75.0	-0.152	75.0	-1.200
75.6	-0.105	75.6	0.021	75.6	-0.102	75.6	-0.360	75.6	-0.282	75.6	-0.103	75.6	-0.081
76.3	-0.105	76.3	0.071	76.3	-0.077	76.3	-0.309	76.3	-0.282	76.3	-0.177	76.3	-0.002
77.1	-0.182	77.1	0.071	77.1	-0.077	77.1	-0.258	77.1	-0.282	77.1	-0.177	77.1	0.025
78.6	-0.130	78.6	-0.003	78.6	-0.077	78.6	-0.258	78.6	-0.282	78.6	-0.078	78.6	0.025
80.0	-0.105	80.0	0.071	80.0	-0.053	80.0	-0.258	80.0	-0.282	80.0	-0.028	80.0	0.025
85.0	-0.268	85.0	0.071	85.0	-0.053	85.0	-0.282	85.0	-0.257	85.0	-0.053	85.0	0.052
90.0	-0.156	90.0	0.121	90.0	-0.028	90.0	-0.207	90.0	-0.232	90.0	-0.003	90.0	0.078
95.0	-0.003	95.0	0.146	95.0	-0.004	95.0	-0.207	95.0	-0.181	95.0	0.046	95.0	0.132
2.5	0.023	2.5	0.096	2.5	-0.077	2.5	-0.181	2.5	-0.308	2.5	0.021	2.5	-0.294
5.0	0.074	5.0	0.121	5.0	-0.200	5.0	-0.207	5.0	-0.460	5.0	0.021	5.0	-0.374
7.5	0.151	7.5	-0.003	7.5	-0.273	7.5	-0.309	7.5	-0.384	7.5	0.021	7.5	-0.348
10.0	0.125	10.0	-0.028	10.0	-0.298	10.0	-0.335	10.0	-0.435	10.0	-0.003	10.0	1.037
15.0	-0.207	15.0	-0.078	15.0	-0.322	15.0	-0.360	15.0	-0.257	15.0	-0.003	15.0	0.105
20.0	-0.258	20.0	-0.053	20.0	-0.346	20.0	-0.386	20.0	-0.333	20.0	-0.053	20.0	-0.374
30.0	-0.335	30.0	-0.078	30.0	-0.346	30.0	-0.437	30.0	-0.562	30.0	-0.053	30.0	-0.348
50.0	-0.258	50.0	-0.078	50.0	-0.346	50.0	-0.437	50.0	-0.511	50.0	-0.251	50.0	-0.219
65.0	-0.233	65.0	-0.028	65.0	-0.200	65.0	-0.386	65.0	-0.409	65.0	-0.301	65.0	-0.028
70.0	-0.156	70.0	0.021	70.0	-0.126	70.0	-0.360	70.0	-0.359	70.0	-0.127	70.0	-0.081
76.8	-0.182	76.8	0.046	76.8	-0.102	76.8	-0.309	76.8	-0.308	76.8	-0.177	76.8	-0.002
77.1	-0.233	77.1	0.071	77.1	-0.053	77.1	-0.284	77.1	-0.282	77.1	-0.152	77.1	-0.002
85.0	0.023	85.0	0.121	85.0	-0.028	85.0	-0.232	85.0	-0.232	85.0	-0.003	85.0	-0.055
85.0	-0.130	85.0	0.096	85.0	-0.028	85.0	-0.232	85.0	-0.232	85.0	-0.003	85.0	-0.002
90.0	-0.052	90.0	0.096	90.0	-0.028								

TABLE V-23

RUN	5 _v POINT 6		Q = 8.24		ALPHA = 12		TCP = 0.	
	VALVE 1 100X CP	VALVE 3 100X CP	VALVE 4 100X CP	VALVE 5 100X CP	VALVE 6 100X CP	VALVE 7 100X CP	VALVE 8 100X CP	
0.	-1.656	0.	-3.113	0.	-2.670	0.	-3.785	0.
1.2	-3.505	1.2	-3.309	1.2	-3.792	1.2	-4.035	1.2
2.5	-3.804	2.5	-3.260	2.5	-3.261	2.5	-3.309	2.5
5.0	-3.1178	5.0	-2.967	5.0	-2.562	5.0	-2.508	5.0
7.5	-2.523	7.5	-2.550	7.5	-2.248	7.5	-2.257	7.5
10.0	-1.968	10.0	-1.889	10.0	-2.103	10.0	-1.663	10.0
15.0	-1.842	15.0	-1.742	15.0	-1.741	15.0	-1.556	15.0
20.0	-1.742	20.0	-1.644	20.0	-1.500	20.0	-1.356	20.0
25.0	-1.590	25.0	-1.522	25.0	-1.452	25.0	-1.356	25.0
30.0	-1.490	30.0	-1.448	30.0	-1.307	30.0	-1.255	30.0
40.0	-1.238	40.0	-1.326	40.0	-1.017	40.0	-1.055	40.0
50.0	-1.011	50.0	-1.228	50.0	-0.052	50.0	-0.905	50.0
60.0	-0.759	60.0	-0.738	60.0	-0.680	60.0	-0.679	60.0
61.5	-0.457	61.5	-0.493	61.5	-0.101	61.5	-0.003	61.5
62.5	-0.230	62.5	-0.298	62.5	0.044	62.5	-0.003	62.5
65.0	-0.179	65.0	-0.224	65.0	0.020	65.0	-0.229	65.0
70.0	-0.205	70.0	-0.224	70.0	-0.101	70.0	-0.304	70.0
75.0	-0.280	75.0	-0.273	75.0	-0.173	75.0	-0.379	75.0
75.6	-0.205	75.6	-0.175	75.6	-0.294	75.6	-0.179	75.6
76.3	-0.154	76.3	-0.175	76.3	-0.125	76.3	-0.079	76.3
77.1	-0.154	77.1	-0.151	77.1	-0.004	77.1	0.022	77.1
78.6	-0.003	78.6	-0.151	78.6	-0.004	78.6	0.047	78.6
80.0	-0.079	80.0	-0.126	80.0	-0.004	80.0	0.022	80.0
85.0	-0.079	85.0	-0.126	85.0	-0.101	85.0	0.022	85.0
90.0	-0.079	90.0	-0.126	90.0	-0.076	90.0	0.022	90.0
95.0	-0.028	95.0	-0.102	95.0	-0.028	95.0	-0.003	95.0
2.5	0.375	2.5	0.388	2.5	0.913	2.5	0.727	2.5
5.0	0.551	5.0	0.510	5.0	0.840	5.0	0.777	5.0
7.5	0.627	7.5	0.559	7.5	0.744	7.5	0.752	7.5
10.0	0.627	10.0	0.559	10.0	0.647	10.0	0.651	10.0
15.0	0.577	15.0	0.559	15.0	0.454	15.0	0.601	15.0
20.0	0.400	20.0	0.535	20.0	0.334	20.0	0.550	20.0
30.0	0.274	30.0	0.388	30.0	0.165	30.0	0.148	30.0
50.0	0.073	50.0	0.339	50.0	-0.004	50.0	0.072	50.0
65.0	-0.079	65.0	0.315	65.0	-0.028	65.0	0.198	65.0
70.0	-0.028	70.0	0.266	70.0	0.020	70.0	0.047	70.0
76.8	-0.053	76.8	0.192	76.8	-0.004	76.8	-0.053	76.8
77.1	0.047	77.1	0.168	77.1	0.044	77.1	0.022	77.1
80.0	0.148	80.0	0.168	80.0	0.189	80.0	0.223	80.0
85.0	-0.003	85.0	0.168	85.0	0.092	85.0	0.223	85.0
90.0	0.148	90.0	0.143	90.0	0.092	90.0	0.072	90.0
95.0	-0.230	95.0	0.119	95.0	0.068	95.0	0.047	95.0
TOTAL NORMAL COEFFICIENT								
CM =	1.18	1.36	0.99	0.81	0.90	0.84	0.74	

TABLE V-24

RUN	5 _v POINT 10		Q = 8.06		ALPHA = 20		TCP = 0.	
	VALVE 1 100X CP	VALVE 3 100X CP	VALVE 4 100X CP	VALVE 5 100X CP	VALVE 6 100X CP	VALVE 7 100X CP	VALVE 8 100X CP	
0.	-2.695	0.	-7.087	0.	-5.233	0.	-6.967	0.
1.2	-5.824	1.2	-6.487	1.2	-5.035	1.2	-3.758	1.2
2.5	-5.567	2.5	-4.534	2.5	-3.925	2.5	-1.108	2.5
5.0	-4.510	5.0	-3.708	5.0	-2.668	5.0	-1.494	5.0
7.5	-3.197	7.5	-2.932	7.5	-1.730	7.5	-0.697	7.5
10.0	-2.501	10.0	-2.682	10.0	-1.508	10.0	-1.340	10.0
15.0	-2.037	15.0	-1.130	15.0	-0.892	15.0	-0.234	15.0
20.0	-1.806	20.0	-1.080	20.0	-0.990	20.0	-0.851	20.0
25.0	-1.574	25.0	-1.055	25.0	-1.114	25.0	-0.748	25.0
30.0	-1.522	30.0	-0.979	30.0	-0.892	30.0	-0.697	30.0
40.0	-1.471	40.0	-0.829	40.0	-0.793	40.0	-0.877	40.0
50.0	-0.878	50.0	-0.804	50.0	0.046	50.0	-0.954	50.0
60.0	-0.925	60.0	-0.654	60.0	-0.768	60.0	-0.800	60.0
61.5	-0.286	61.5	-0.329	61.5	-0.201	61.5	-0.131	61.5
62.5	0.075	62.5	-0.178	62.5	0.070	62.5	-0.105	62.5
65.0	0.101	65.0	-0.203	65.0	-0.053	65.0	-0.234	65.0
70.0	-0.054	70.0	-0.454	70.0	-0.620	70.0	-0.491	70.0
75.0	-0.183	75.0	-0.579	75.0	-0.768	75.0	-0.697	75.0
75.6	-0.183	75.6	-0.454	75.6	-0.768	75.6	-0.697	75.6
76.3	-0.028	76.3	-0.379	76.3	-0.423	76.3	-0.465	76.3
77.1	0.101	77.1	-0.329	77.1	-0.176	77.1	-0.080	77.1
78.6	-0.002	78.6	-0.304	78.6	-0.152	78.6	-0.080	78.6
80.0	0.075	80.0	-0.304	80.0	-0.275	80.0	-0.440	80.0
85.0	0.075	85.0	-0.654	85.0	-0.793	85.0	-0.568	85.0
90.0	0.255	90.0	-0.479	90.0	-0.398	90.0	-0.594	90.0
95.0	0.075	95.0	-0.429	95.0	-0.423	95.0	-0.723	95.0
2.5	0.265	2.5	0.497	2.5	0.909	2.5	0.795	2.5
5.0	0.513	5.0	0.623	5.0	0.983	5.0	0.949	5.0
7.5	0.667	7.5	0.673	7.5	0.983	7.5	0.846	7.5
10.0	0.719	10.0	0.673	10.0	0.860	10.0	0.769	10.0
15.0	0.770	15.0	0.673	15.0	0.736	15.0	0.743	15.0
20.0	0.719	20.0	0.573	20.0	0.564	20.0	0.743	20.0
30.0	0.642	30.0	0.297	30.0	0.366	30.0	0.265	30.0
50.0	0.513	50.0	0.272	50.0	0.070	50.0	0.049	50.0
65.0	0.384	65.0	0.147	65.0	0.021	65.0	0.075	65.0
70.0	0.332	70.0	0.097	70.0	0.046	70.0	-0.064	70.0
76.8	0.332	76.8	0.047	76.8	0.046	76.8	-0.285	76.8
77.1	0.255	77.1	-0.003	77.1	0.070	77.1	0.023	77.1
80.0	0.337	80.0	-0.003	80.0	0.194	80.0	0.280	80.0
85.0	0.204	85.0	-0.028	85.0	0.021	85.0	0.203	85.0
90.0	0.229	90.0	-0.078	90.0	-0.053	90.0	-0.157	90.0
95.0	0.332	95.0	-0.128	95.0	-0.201	95.0	-0.285	95.0
TOTAL NORMAL COEFFICIENT								
CM =	1.26	1.26	1.04	0.92	1.18	1.27	1.14	

TABLE V-25

RUN		7, POINT		3		Q = 4.49		ALPHA = 0		TCP = 1.00		VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8			
												100X		CP		100X		CP		100X		CP		100X		CP	
0.		1.405		0.		1.005		0.		2.584		0.		2.788		0.		0.707		0.		-0.028		0.		0.646	
1.2		1.452		1.2		-0.972		1.2		-0.427		1.2		-0.305		1.2		-1.867		1.2		-1.943		1.2		-0.357	
2.5		0.712		2.5		-0.792		2.5		-0.958		2.5		-0.767		2.5		-1.453		2.5		1.585		2.5		0.164	
5.0		0.619		5.0		-0.882		5.0		-1.179		5.0		-1.044		5.0		-1.269		5.0		0.913		5.0		-0.076	
7.5		-0.573		7.5		-0.837		7.5		-1.268		7.5		-0.444		7.5		-1.493		7.5		0.420		7.5		-0.173	
10.0		-0.306		10.0		-0.747		10.0		-1.357		10.0		-1.321		10.0		-1.361		10.0		0.241		10.0		-0.317	
15.0		-0.537		15.0		-0.882		15.0		-1.357		15.0		-0.951		15.0		-1.223		15.0		0.151		15.0		-0.462	
20.0		-0.768		20.0		-0.882		20.0		-1.268		20.0		-0.398		20.0		-1.177		20.0		-0.611		20.0		-0.558	
25.0		-0.814		25.0		-1.062		25.0		-1.312		25.0		-0.305		25.0		-1.269		25.0		-0.835		25.0		-0.606	
30.0		-0.907		30.0		-1.107		30.0		-1.312		30.0		-0.398		30.0		-1.269		30.0		-0.924		30.0		-0.654	
40.0		-0.768		40.0		-1.062		40.0		-1.179		40.0		-1.044		40.0		-1.177		40.0		-0.924		40.0		-0.606	
50.0		-0.676		50.0		-0.747		50.0		-0.427		50.0		-1.044		50.0		-1.039		50.0		-0.835		50.0		-0.558	
60.0		-0.444		60.0		-1.197		60.0		-0.781		60.0		-1.044		60.0		-0.718		60.0		-0.655		60.0		-0.413	
61.5		-0.306		61.5		0.062		61.5		-0.117		61.5		-0.952		61.5		-0.810		61.5		-0.297		61.5		-0.365	
62.5		-0.074		62.5		0.107		62.5		-0.072		62.5		-0.905		62.5		-0.396		62.5		-0.252		62.5		-1.232	
65.0		-0.074		65.0		0.062		65.0		-0.072		65.0		-0.859		65.0		-0.396		65.0		-0.207		65.0		-0.125	
70.0		-0.074		70.0		-0.163		70.0		-0.072		70.0		-0.628		70.0		-0.442		70.0		-0.207		70.0		-0.173	
75.0		-0.213		75.0		-0.253		75.0		-0.117		75.0		-0.536		75.0		-0.166		75.0		-0.163		75.0		-3.447	
75.6		0.111		75.6		-0.523		75.6		-0.161		75.6		-0.398		75.6		-0.304		75.6		-0.028		75.6		-0.317	
76.3		-0.111		76.3		-0.073		76.3		-0.028		76.3		-0.398		76.3		-0.166		76.3		-0.252		76.3		-0.173	
77.1		-0.167		77.1		0.017		77.1		-0.072		77.1		-0.721		77.1		-0.120		77.1		-0.252		77.1		-0.028	
78.6		0.018		78.6		-0.298		78.6		-0.072		78.6		-0.767		78.6		-0.074		78.6		0.017		78.6		-0.076	
80.0		0.111		80.0		0.062		80.0		0.060		80.0		-0.721		80.0		-0.028		80.0		0.106		80.0		-0.028	
85.0		-0.157		85.0		-0.073		85.0		0.016		85.0		-0.536		85.0		-0.028		85.0		0.106		85.0		-0.028	
90.0		0.249		90.0		0.107		90.0		0.060		90.0		-0.444		90.0		0.064		90.0		0.196		90.0		-0.028	
95.0		0.388		95.0		0.196		95.0		0.105		95.0		-0.398		95.0		0.202		95.0		0.285		95.0		0.020	
2.5		-0.342		2.5		1.140		2.5		0.857		2.5		0.110		2.5		1.305		2.5		-0.028		2.5		-0.702	
5.0		-0.768		5.0		0.736		5.0		0.459		5.0		0.203		5.0		0.845		5.0		-0.028		5.0		-0.847	
7.5		-0.537		7.5		0.781		7.5		0.149		7.5		0.064		7.5		0.064		7.5		-0.028		7.5		-0.702	
10.0		-0.537		10.0		0.781		10.0		0.060		10.0		-0.213		10.0		0.477		10.0		-0.028		10.0		-1.328	
15.0		-0.398		15.0		0.781		15.0		-0.072		15.0		-0.259		15.0		-0.120		15.0		-0.073		15.0		-0.799	
20.0		-0.306		20.0		0.646		20.0		-0.205		20.0		-0.259		20.0		-0.166		20.0		-0.163		20.0		-0.606	
30.0		-0.444		30.0		0.107		30.0		-0.338		30.0		-0.351		30.0		-0.442		30.0		-0.163		30.0		-0.510	
50.0		-0.352		50.0		0.062		50.0		-0.427		50.0		-0.351		50.0		-0.442		50.0		-0.387		50.0		-0.365	
65.0		-0.306		65.0		0.286		65.0		-0.338		65.0		-0.167		65.0		-0.212		65.0		-0.342		65.0		-0.173	
70.0		-0.018		70.0		-0.241		70.0		-0.072		70.0		-0.121		70.0		-0.074		70.0		-0.163		70.0		-0.125	
76.8		-0.213		76.8		-0.657		76.8		-0.072		76.8		-0.121		76.8		-0.074		76.8		-0.252		76.8		-0.125	
77.1		0.064		77.1		0.241		77.1		0.060		77.1		-0.074		77.1		0.110		77.1		-0.252		77.1		-0.076	
80.0		0.295		80.0		0.196		80.0		0.105		80.0		0.018		80.0		0.385		80.0		0.061		80.0		0.020	
85.0		0.157		85.0		0.196		85.0		0.105		85.0		0.061		85.0		0.202		85.0		0.106		85.0		0.020	
90.0		0.249		90.0		0.062		90.0		0.105		90.0		0.110		90.0		0.202		90.0		0.241		90.0		0.068	
95.0		0.342		95.0		0.152		95.0		0.149		95.0		0.154		95.0		0.294		95.0		0.330		95.0		0.116	
TOTAL		NORMAL		COEFFICIENT																							
CN =		0.07		0.81		0.54		0.53		0.68		0.14		0.16													

TABLE V-26

RUN		7, POINT		6		Q = 4.61		ALPHA = 12		TCP = 1.00		VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8			
												100X		CP		100X		CP		100X		CP		100X		CP	
0.		2.359		0.		-4.755		0.		-3.090		0.		-3.131		0.		-6.027		0.		0.059		0.		-0.779	
1.2		-2.325		1.2		-6.987		1.2		-6.411		1.2		-6.729		1.2		-8.489		1.2		-2.603		1.2		-2.514	
2.5		-2.415		2.5		-5.368		2.5		-5.980		2.5		-5.694		2.5		-6.161		2.5		-1.992		2.5		-2.092	
5.0		-2.240		5.0		-4.142		5.0		-4.772		5.0		-4.615		5.0		-4.415		5.0		-2.559		5.0		-1.811	
7.5		-2.235		7.5		-3.354		7.5		-4.210		7.5		-1.242		7.5		-3.788		7.5		-2.297		7.5		-1.670	
10.0		-1.785		10.0		-2.435		10.0		-3.910		10.0		-3.581		10.0		-2.983		10.0		-1.948		10.0		-1.482	
15.0		-1.785		15.0		-2.304		15.0		-3.047		15.0		-0.703		15.0		-2.401		15.0		-1.468		15.0		-1.482	
20.0		-1.830		20.0		-2.173		20.0		-2.573		20.0		-1.018		20.0		-2.222		20.0		-1.992		20.0		-1.435	
25.0		-1.650		25.0		-2.129		25.0		-2.486		25.0		-0.568		25.0		-1.998		25.0		-2.036		25.0		-1.341	
30.0		-1.605		30.0		-2.041		30.0		-2.185		30.0		-1.107		30.0		-1.953		30.0		-1.905		30.0		-1.201	
40.0		-1.199		40.0		-1.691		40.0		-1.710		40.0		-1.602		40.0		-1.595		40.0		-1.643		40.0		-0.966	
50.0		-0.929		50.0		-1.254		50.0		-1.114		50.0		-1.602		50.0		-1.371		50.0		-1.381		50.0		-0.826	
60.0		-0.524		60.0		-1.079		60.0		-1.063		60.0		-1.512		60.0		-0.923		60.0		-0.988		60.0		-0.591	
61.5		-0.118		61.5		-0.191		61.5		-0.201		61.5		-0.703		61.5		-0.521		61.5		-0.072		61.5		-0.357	
62.5		0.467		62.5		0.716		62.5		0.317		62.5		-0.163		62.5		-0.162		62.5		-0.028		62.5		-1.295	
65.0		0.467		65.0		0.453		65.0		0.274		65.0		0.107		65.0		-0.162		65.0		-0.028		65.0		0.066	
70.0		-0.332		70.0		-0.116		70.0		0.015		70.0		-0.107		70.0		-0.252		70.0		-0.072		70.0		0.066	
75.0		-0.073		75.0																							

TABLE V-27

RUN 7, POINT 12		Q = 4.67		ALPHA = 24		TCP = 1.00	
VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8	
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP
0. -0.428	0. -11.002	0. -5.094	0. -4.290	0. -11.871	0. 0.144	0. -5.862	
1.2 -7.675	1.2 -10.873	1.2 -5.003	1.2 -1.848	1.2 -11.473	1.2 -7.997	1.2 -6.279	
2.5 -6.475	2.5 -7.719	2.5 -4.115	2.5 -1.759	2.5 -7.806	2.5 -5.671	2.5 -4.797	
5.0 -5.675	5.0 -5.558	5.0 -2.199	5.0 -1.493	5.0 -5.773	5.0 -5.499	5.0 -3.964	
7.5 -5.184	7.5 -4.083	7.5 -1.901	7.5 -0.295	7.5 -4.536	7.5 -4.594	7.5 -3.408	
10.0 -3.941	10.0 -3.096	10.0 -1.774	10.0 -1.404	10.0 -3.652	10.0 -3.690	10.0 -2.806	
15.0 -3.541	15.0 -2.620	15.0 -1.263	15.0 -0.161	15.0 -2.503	15.0 -2.785	15.0 -2.575	
20.0 -3.274	20.0 -2.404	20.0 -1.561	20.0 -0.650	20.0 -2.193	20.0 -3.216	20.0 -2.251	
25.0 -2.785	25.0 -2.059	25.0 -1.348	25.0 -0.073	25.0 -1.884	25.0 -3.130	25.0 -2.019	
30.0 -2.829	30.0 -1.540	30.0 -1.348	30.0 -0.073	30.0 -1.752	30.0 -2.914	30.0 -1.834	
40.0 -1.984	40.0 -1.584	40.0 -1.263	40.0 -1.271	40.0 -1.531	40.0 -2.484	40.0 -1.556	
50.0 -1.406	50.0 -1.411	50.0 0.014	50.0 -1.404	50.0 -1.840	50.0 -2.139	50.0 -1.417	
60.0 -1.051	60.0 -1.411	60.0 -1.391	60.0 -1.316	60.0 -1.177	60.0 -1.579	60.0 -1.278	
61.5 -0.295	61.5 -0.244	61.5 -0.028	61.5 -0.028	61.5 -0.293	61.5 0.101	61.5 -0.121	
62.5 0.194	62.5 0.447	62.5 0.355	62.5 0.105	62.5 -0.161	62.5 0.187	62.5 -0.815	
65.0 0.061	65.0 0.404	65.0 0.014	65.0 -0.117	65.0 -0.338	65.0 0.187	65.0 0.064	
70.0 -0.028	70.0 -0.158	70.0 -0.752	70.0 -0.650	70.0 -1.089	70.0 -0.028	70.0 0.481	
75.0 -0.695	75.0 -0.849	75.0 -1.391	75.0 -1.138	75.0 -1.575	75.0 -0.847	75.0 -2.112	
75.6 -0.250	75.6 -0.935	75.6 -1.348	75.6 -0.916	75.6 -1.840	75.6 0.359	75.6 -1.001	
76.3 -0.162	76.3 -0.287	76.3 -0.582	76.3 -0.738	76.3 -0.868	76.3 0.058	76.3 -0.491	
77.1 -0.028	77.1 -0.071	77.1 -0.113	77.1 -2.914	77.1 -0.558	77.1 0.058	77.1 -0.260	
78.6 0.239	78.6 -0.071	78.6 -0.071	78.6 -0.206	78.6 -0.338	78.6 -0.201	78.6 -0.260	
80.0 0.016	80.0 -0.374	80.0 -0.454	80.0 -1.138	80.0 -0.912	80.0 0.230	80.0 -0.213	
85.0 -0.028	85.0 -1.713	85.0 -1.178	85.0 -1.449	85.0 -1.486	85.0 -0.588	85.0 -1.001	
90.0 0.061	90.0 -0.892	90.0 -1.348	90.0 -1.182	90.0 -0.868	90.0 -0.201	90.0 -0.769	
95.0 -0.162	95.0 -0.547	95.0 -1.178	95.0 -1.538	95.0 -0.779	95.0 0.058	95.0 -0.491	
2.5 0.905	2.5 3.515	2.5 0.440	2.5 0.549	2.5 3.198	2.5 0.144	2.5 0.527	
5.0 0.772	5.0 3.342	5.0 0.781	5.0 0.638	5.0 3.109	5.0 0.144	5.0 0.805	
7.5 0.550	7.5 3.083	7.5 0.866	7.5 0.904	7.5 1.077	7.5 0.144	7.5 0.759	
10.0 0.639	10.0 3.083	10.0 0.866	10.0 0.860	10.0 2.358	10.0 0.144	10.0 -0.445	
15.0 0.639	15.0 2.996	15.0 0.823	15.0 0.682	15.0 0.060	15.0 0.187	15.0 -0.723	
20.0 0.639	20.0 1.052	20.0 0.696	20.0 0.638	20.0 0.237	20.0 0.187	20.0 -0.260	
30.0 -0.550	30.0 0.793	30.0 0.525	30.0 0.460	30.0 0.325	30.0 0.144	30.0 -0.167	
50.0 0.505	50.0 0.577	50.0 0.312	50.0 0.283	50.0 0.149	50.0 -0.114	50.0 -0.167	
65.0 0.416	65.0 0.577	65.0 0.100	65.0 0.371	65.0 0.370	65.0 0.403	65.0 -0.167	
70.0 0.105	70.0 0.404	70.0 0.185	70.0 0.061	70.0 0.149	70.0 -0.717	70.0 -0.213	
76.8 -0.028	76.8 0.188	76.8 0.185	76.8 -0.383	76.8 -0.691	76.8 0.058	76.8 -0.445	
77.1 0.150	77.1 0.490	77.1 0.270	77.1 -0.028	77.1 0.414	77.1 0.058	77.1 -0.399	
80.0 0.416	80.0 0.231	80.0 0.440	80.0 0.726	80.0 0.900	80.0 1.006	80.0 -0.121	
85.0 0.194	85.0 0.361	85.0 0.185	85.0 0.682	85.0 0.325	85.0 0.532	85.0 -0.167	
90.0 0.194	90.0 0.188	90.0 0.014	90.0 0.549	90.0 0.193	90.0 0.575	90.0 -0.213	
95.0 0.105	95.0 0.145	95.0 -0.198	95.0 -0.295	95.0 0.016	95.0 0.489	95.0 -0.260	
TOTAL NORMAL COEFFICIENT							
CN = 2.21	2.59	1.48	1.30	2.24	2.16	1.38	

TABLE V-28

RUN 6, POINT 3		Q = 4.64		ALPHA = 0		TCP = 2.40	
VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8	
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP
0. -10.633	0. -1.102	0. -4.856	0. -5.155	0. -1.884	0. -0.115	0. 0.298	
1.2 -10.589	1.2 -0.420	1.2 0.015	1.2 0.195	1.2 -3.542	1.2 4.134	1.2 0.112	
2.5 -10.589	2.5 -0.376	2.5 -1.271	2.5 -0.698	2.5 -3.319	2.5 3.917	2.5 -0.215	
5.0 -10.544	5.0 -0.333	5.0 -1.485	5.0 -0.877	5.0 -2.875	5.0 2.530	5.0 -0.308	
7.5 -10.544	7.5 -0.593	7.5 -1.656	7.5 -0.743	7.5 -2.741	7.5 1.576	7.5 -0.261	
10.0 -10.499	10.0 -0.724	10.0 -1.913	10.0 -0.966	10.0 -2.519	10.0 1.099	10.0 -0.354	
15.0 -10.454	15.0 -0.856	15.0 -1.614	15.0 -0.252	15.0 -2.119	15.0 0.535	15.0 -0.587	
20.0 -10.410	20.0 -0.941	20.0 -1.485	20.0 -0.341	20.0 -1.985	20.0 -0.982	20.0 -0.634	
25.0 -10.365	25.0 -1.115	25.0 -1.785	25.0 -0.207	25.0 -1.985	25.0 -0.895	25.0 -0.681	
30.0 -10.320	30.0 -1.159	30.0 -1.742	30.0 -0.252	30.0 -2.074	30.0 -1.112	30.0 -0.774	
40.0 -10.275	40.0 -1.202	40.0 -1.528	40.0 -0.743	40.0 -1.896	40.0 -1.199	40.0 -0.681	
50.0 -10.186	50.0 -1.028	50.0 -0.457	50.0 -1.100	50.0 -1.674	50.0 -1.199	50.0 -0.681	
60.0 -10.191	60.0 -0.767	60.0 -1.142	60.0 -1.190	60.0 -1.274	60.0 -0.939	60.0 -0.681	
61.5 -10.052	61.5 -0.159	61.5 -0.071	61.5 -1.056	61.5 -0.962	61.5 -0.418	61.5 -0.634	
62.5 -9.962	62.5 0.233	62.5 0.272	62.5 -0.207	62.5 -0.740	62.5 -0.332	62.5 -1.053	
65.0 -9.917	65.0 0.189	65.0 -0.229	65.0 -0.073	65.0 -0.606	65.0 -0.332	65.0 -0.121	
70.0 -9.828	70.0 -0.028	70.0 0.015	70.0 0.061	70.0 -0.606	70.0 -0.288	70.0 -0.308	
75.0 -9.649	75.0 -0.246	75.0 -0.157	75.0 0.016	75.0 -0.251	75.0 -0.115	75.0 -3.570	
75.6 -9.380	75.6 -0.811	75.6 0.100	75.6 0.374	75.6 -0.251	75.6 0.102	75.6 -0.448	
76.3 -9.246	76.3 -0.202	76.3 0.315	76.3 0.374	76.3 0.105	76.3 -0.332	76.3 -0.168	
77.1 -9.157	77.1 0.059	77.1 0.057	77.1 -0.922	77.1 0.150	77.1 -0.375	77.1 -0.075	
78.6 -9.067	78.6 -0.333	78.6 0.143	78.6 -0.654	78.6 0.194	78.6 0.102	78.6 -0.215	
80.0 -8.933	80.0 0.059	80.0 0.400	80.0 -0.520	80.0 0.328	80.0 0.319	80.0 -0.075	
85.0 -8.843	85.0 -0.072	85.0 -0.114	85.0 -0.386	85.0 0.417	85.0 0.275	85.0 -0.261	
90.0 -8.754	90.0 0.102	90.0 0.186	90.0 0.151	90.0 0.506	90.0 0.535	90.0 -0.215	
95.0 -8.664	95.0 0.320	95.0 0.443	95.0 0.508	95.0 0.506	95.0 0.665	95.0 -0.075	
2.5 -8.575	2.5 2.668	2.5 1.900	2.5 1.759	2.5 3.485	2.5 -0.115	2.5 -1.007	
5.0 -8.530	5.0 2.233	5.0 1.043	5.0 1.759	5.0 2.418	5.0 -0.115	5.0 -1.193	
7.5 -8.485	7.5 1.842	7.5 0.572	7.5 0.999	7.5 0.683	7.5 -0.115	7.5 -1.053	
10.0 -8.441	10.0 1.581	10.0 0.400	10.0 0.687	10.0 0.817	10.0 -0.158	10.0 -0.960	
15.0 -8.396	15.0 1.450	15.0 0.100	15.0 0.731	15.0 0.594	15.0 -0.202	15.0 -0.634	
20.0 -8.351	20.0 1.363	20.0 -0.114	20.0 -0.687	20.0 0.417	20.0 -0.288	20.0 -0.634	
30.0 -8.306	30.0 1.233	30.0 -0.328	30.0 -0.296	30.0 -0.606	30.0 -0.202	30.0 -0.541	
50.0 -8.262	50.0 1.189	50.0 -0.500	50.0 0.151	50.0 -0.428	50.0 -0.635	50.0 -0.354	
65.0 -8.217	65.0 -0.885	65.0 -0.200	65.0 1.044	65.0 -0.073	65.0 -0.505	65.0 -0.261	
70.0 -8.172	70.0 0.711	70.0 0.272	70.0 0.597	70.0 0.194	70.0 -0.115	70.0 -0.121	
76.8 -8.127	76.8 0.363	76.8 0.100	76.8 0.061	76.8 0.194	76.8 -0.375	76.8 -0.168	
77.1 -8.083	77.1 0.494	77.1 0.615	77.1 0.463	77.1 0.594	77.1 -0.375	77.1 -0.121	
80.0 -7.993	80.0 0.494	80.0 0.529	80.0 0.999	80.0 0.995	80.0 0.028	80.0 0.112	
85.0 -7.948	85.0 0.537	85.0 0.400	85.0 0.955	85.0 0.594	85.0 0.232	85.0 0.018	
90.0 -7.904	90.0 0.450	90.0 0.529	90.0 0.687	90.0 0.683	90.0 0.622	90.0 0.065	
95.0 -7.859	95.0 0.450	95.0 0.572	95.0 0.776	95.0 0.817	95.0 0.579	95.0 0.112	
TOTAL NORMAL COEFFICIENT							
CN = 1.51	1.61	0.85	0.95	1.46	-0.03	0.26	

TABLE V-29

RUN 6, POINT 6		Q = 4.64		ALPHA = 12		TCP = 2.40	
VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8	
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	
0	-4.682	0	-1.941	0	0.743	0	-0.910
1.2	-4.637	1.2	-7.899	1.2	-6.584	1.2	-6.775
2.5	-4.592	2.5	-6.029	2.5	-6.584	2.5	-6.015
5.0	-4.503	5.0	-4.724	5.0	-5.386	5.0	-5.166
7.5	-4.458	7.5	-3.768	7.5	-4.784	7.5	-1.324
10.0	-4.413	10.0	-3.029	10.0	-4.570	10.0	-2.709
15.0	-4.369	15.0	-2.637	15.0	-3.627	15.0	-1.100
20.0	-4.279	20.0	-2.637	20.0	-3.156	20.0	-1.279
25.0	-4.234	25.0	-2.681	25.0	-3.156	25.0	-0.698
30.0	-4.190	30.0	-2.463	30.0	-2.813	30.0	-1.547
40.0	-4.100	40.0	-2.072	40.0	-2.171	40.0	-1.637
50.0	-4.055	50.0	-1.550	50.0	-0.285	50.0	-1.458
60.0	-4.011	60.0	-0.941	60.0	-1.442	60.0	-0.788
61.5	-3.921	61.5	0.407	61.5	-0.371	61.5	0.016
62.5	-3.876	62.5	1.146	62.5	0.657	62.5	0.374
65.0	-3.832	65.0	0.755	65.0	0.400	65.0	0.374
70.0	-3.787	70.0	-0.246	70.0	-0.028	70.0	0.285
75.0	-3.697	75.0	-0.593	75.0	-0.328	75.0	0.106
75.6	-3.474	75.6	-0.811	75.6	-0.500	75.6	0.151
76.3	-3.384	76.3	0.059	76.3	0.272	76.3	-0.473
77.1	-3.339	77.1	0.450	77.1	0.315	77.1	-2.128
78.6	-3.250	78.6	-0.593	78.6	0.443	78.6	-0.832
80.0	-3.161	80.0	0.407	80.0	-0.529	80.0	-0.553
85.0	-3.026	85.0	-0.289	85.0	-0.157	85.0	0.553
90.0	-2.937	90.0	0.189	90.0	0.272	90.0	0.463
95.0	-2.847	95.0	0.450	95.0	0.486	95.0	-0.642
2.5	-2.713	2.5	5.103	2.5	3.528	2.5	3.814
5.0	-2.579	5.0	3.972	5.0	2.414	5.0	3.412
7.5	-2.534	7.5	3.320	7.5	1.771	7.5	2.116
10.0	-2.489	10.0	2.842	10.0	1.429	10.0	1.714
15.0	-2.400	15.0	2.755	15.0	0.872	15.0	0.955
20.0	-2.355	20.0	1.972	20.0	0.572	20.0	0.865
30.0	-2.310	30.0	1.494	30.0	0.143	30.0	0.374
50.0	-2.266	50.0	1.363	50.0	0.015	50.0	0.374
65.0	-2.176	65.0	-1.320	65.0	-0.015	65.0	-0.597
70.0	-2.131	70.0	1.189	70.0	0.486	70.0	0.508
76.8	-2.042	76.8	-1.115	76.8	0.143	76.8	0.285
77.1	-1.992	77.1	0.537	77.1	0.615	77.1	0.419
80.0	-1.908	80.0	0.624	80.0	0.743	80.0	0.508
85.0	-1.863	85.0	0.668	85.0	0.486	85.0	0.553
90.0	-1.818	90.0	0.624	90.0	0.572	90.0	0.553
95.0	-1.773	95.0	0.624	95.0	0.572	95.0	0.594
TOTAL NORMAL CCEFFICIENT							
CN =	1.57	2.85	2.12	1.77	2.39	0.99	0.85

TABLE V-30

RUN 6, POINT 12		Q = 4.64		ALPHA = 24		TCP = 2.40	
VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8	
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	
0	3.999	0	-13.508	0	-6.949	0	-5.792
1.2	-5.935	1.2	-16.248	1.2	-8.855	1.2	-5.970
2.5	-6.024	2.5	-11.204	2.5	-5.984	2.5	-3.826
5.0	-5.801	5.0	-7.768	5.0	-3.970	5.0	-2.709
7.5	-5.711	7.5	-5.681	7.5	-3.028	7.5	-0.788
10.0	-4.458	10.0	-4.637	10.0	-2.856	10.0	-1.771
15.0	-4.234	15.0	-3.985	15.0	-2.128	15.0	-0.520
20.0	-4.055	20.0	-3.637	20.0	-2.213	20.0	-0.520
25.0	-4.011	25.0	-3.376	25.0	-2.470	25.0	-0.564
30.0	-3.966	30.0	-2.985	30.0	-1.913	30.0	-1.637
40.0	-2.803	40.0	-2.550	40.0	-2.299	40.0	-1.771
50.0	-2.400	50.0	-1.637	50.0	0.100	50.0	-1.949
60.0	-1.684	60.0	-0.985	60.0	-2.470	60.0	-2.396
61.5	-0.565	61.5	0.102	61.5	0.015	61.5	-0.162
62.5	0.106	62.5	1.276	62.5	0.829	62.5	0.016
65.0	0.240	65.0	0.755	65.0	0.143	65.0	-0.430
70.0	0.061	70.0	-0.985	70.0	-1.142	70.0	-1.011
75.0	-0.520	75.0	-1.289	75.0	-1.485	75.0	-1.592
75.6	0.017	75.6	-1.028	75.6	-1.442	75.6	-1.190
76.3	0.196	76.3	0.015	76.3	-0.285	76.3	-0.922
77.1	0.151	77.1	0.233	77.1	0.229	77.1	-2.754
78.6	0.240	78.6	-0.420	78.6	0.229	78.6	-0.252
80.0	0.330	80.0	0.189	80.0	-0.200	80.0	-1.190
85.0	0.285	85.0	-1.115	85.0	-1.399	85.0	-1.681
90.0	0.330	90.0	-1.028	90.0	-1.014	90.0	-1.279
95.0	0.330	95.0	-0.159	95.0	-0.385	95.0	-1.056
2.5	0.956	2.5	6.320	2.5	1.086	2.5	0.061
5.0	0.777	5.0	5.494	5.0	1.172	5.0	0.329
7.5	0.777	7.5	4.885	7.5	1.129	7.5	0.374
10.0	0.688	10.0	4.494	10.0	1.129	10.0	0.553
15.0	0.643	15.0	3.668	15.0	1.000	15.0	0.374
20.0	0.598	20.0	2.059	20.0	0.743	20.0	0.374
30.0	0.554	30.0	1.494	30.0	0.743	30.0	0.374
50.0	0.464	50.0	1.494	50.0	0.572	50.0	0.419
65.0	0.464	65.0	-0.972	65.0	0.315	65.0	-0.419
70.0	0.419	70.0	0.755	70.0	0.572	70.0	0.374
76.8	0.330	76.8	0.059	76.8	0.315	76.8	-0.475
77.1	0.554	77.1	0.928	77.1	1.000	77.1	0.016
80.0	0.777	80.0	0.363	80.0	0.572	80.0	0.508
85.0	0.598	85.0	0.711	85.0	0.400	85.0	0.553
90.0	0.554	90.0	0.450	90.0	0.229	90.0	0.285
95.0	0.509	95.0	0.407	95.0	-0.028	95.0	-0.475
TOTAL NORMAL CCEFFICIENT							
CN =	2.72	3.90	2.20	1.78	3.39	2.34	1.74

TABLE V-31

RUN 38, POINT 3										Q = 8.24	ALPHA = 0	TCP = 0.	
VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-1.148	0.	-1.758	0.	-1.603	0.	-1.735	0.	-1.914	0.	0.289	0.	0.148
1.2	-0.537	1.2	-0.808	1.2	-0.537	1.2	-0.706	1.2	-0.908	1.2	-0.614	1.2	0.098
2.5	-0.664	2.5	-0.735	2.5	-0.755	2.5	-0.681	2.5	-0.808	2.5	-0.638	2.5	0.047
5.0	-0.623	5.0	-0.905	5.0	-0.925	5.0	-0.932	5.0	-0.908	5.0	-0.760	5.0	-0.003
7.5	-0.715	7.5	-1.003	7.5	-1.118	7.5	-0.329	7.5	-1.009	7.5	-0.858	7.5	-0.053
10.0	-0.944	10.0	-0.442	10.0	-1.239	10.0	-1.158	10.0	-1.034	10.0	-0.882	10.0	-0.079
15.0	-0.969	15.0	-0.124	15.0	-1.264	15.0	-0.329	15.0	-1.235	15.0	-0.980	15.0	-0.154
20.0	-0.969	20.0	-1.149	20.0	-1.264	20.0	-1.057	20.0	-1.135	20.0	-1.151	20.0	-0.205
25.0	-0.995	25.0	-1.197	25.0	-1.336	25.0	-0.380	25.0	-1.185	25.0	-1.175	25.0	-0.280
30.0	-1.046	30.0	-1.246	30.0	-1.361	30.0	-1.384	30.0	-1.210	30.0	-1.200	30.0	-0.381
40.0	-1.148	40.0	-1.246	40.0	-1.361	40.0	-1.359	40.0	-1.210	40.0	-1.175	40.0	-0.532
50.0	-1.122	50.0	-1.149	50.0	0.117	50.0	-1.283	50.0	-1.235	50.0	-1.175	50.0	-0.734
60.0	-1.046	60.0	-1.027	60.0	-1.191	60.0	-1.208	60.0	-1.160	60.0	-1.151	60.0	-0.860
61.5	-0.206	61.5	-0.004	61.5	-0.270	61.5	-0.104	61.5	0.098	61.5	-0.004	61.5	-0.230
62.5	-0.079	62.5	-0.321	62.5	-0.440	62.5	-0.229	62.5	-0.154	62.5	-0.101	62.5	-0.331
65.0	-0.893	65.0	-1.392	65.0	-1.379	65.0	-1.183	65.0	-1.059	65.0	-0.785	65.0	-1.162
70.0	-1.402	70.0	-1.636	70.0	-1.674	70.0	-1.660	70.0	-1.462	70.0	-1.541	70.0	-1.212
75.0	-1.071	75.0	-1.173	75.0	-1.288	75.0	-1.238	75.0	-1.110	75.0	-1.224	75.0	-1.263
75.6	-0.359	75.6	-0.321	75.6	-0.488	75.6	-0.430	75.6	-0.481	75.6	-0.297	75.6	-0.734
76.3	-0.461	76.3	-0.442	76.3	-0.561	76.3	-0.430	76.3	-0.551	76.3	-0.216	76.3	-0.860
77.1	0.099	77.1	-0.686	77.1	-0.537	77.1	-0.505	77.1	-0.758	77.1	0.240	77.1	-0.935
78.6	0.664	78.6	0.703	78.6	0.650	78.6	0.675	78.6	0.676	78.6	0.533	78.6	0.299
80.0	-0.486	80.0	-0.735	80.0	-0.826	80.0	-1.032	80.0	-0.883	80.0	-0.785	80.0	0.099
85.0	-0.486	85.0	-0.783	85.0	-0.828	85.0	-0.907	85.0	-0.682	85.0	-0.736	85.0	0.022
90.0	-0.257	90.0	-0.223	90.0	-0.295	90.0	-0.254	90.0	-0.229	90.0	-0.199	90.0	-0.053
95.0	-0.079	95.0	-0.053	95.0	-0.125	95.0	-0.053	95.0	-0.053	95.0	-0.028	95.0	-0.079
2.5	-0.333	2.5	0.386	2.5	-0.392	2.5	-0.254	2.5	0.274	2.5	0.289	2.5	-0.154
5.0	0.144	5.0	0.703	5.0	0.335	5.0	0.449	5.0	0.802	5.0	0.289	5.0	-0.179
7.5	0.435	7.5	0.654	7.5	0.723	7.5	0.830	7.5	0.299	7.5	0.289	7.5	-0.174
10.0	0.557	10.0	0.532	10.0	0.674	10.0	0.735	10.0	0.701	10.0	0.289	10.0	0.224
15.0	0.557	15.0	0.508	15.0	0.529	15.0	0.399	15.0	0.399	15.0	0.289	15.0	0.224
20.0	0.379	20.0	0.386	20.0	0.384	20.0	0.348	20.0	0.374	20.0	0.289	20.0	0.199
30.0	0.175	30.0	0.142	30.0	0.263	30.0	0.248	30.0	0.274	30.0	0.289	30.0	0.098
50.0	0.150	50.0	0.215	50.0	0.238	50.0	0.298	50.0	0.274	50.0	0.240	50.0	0.148
65.0	0.827	65.0	0.824	65.0	0.795	65.0	0.875	65.0	0.852	65.0	0.606	65.0	0.577
70.0	0.557	70.0	0.678	70.0	0.674	70.0	0.675	70.0	0.676	70.0	0.558	70.0	0.526
76.8	0.099	76.8	0.751	76.8	0.320	76.8	0.725	76.8	0.726	76.8	0.240	76.8	0.526
77.1	0.857	77.1	0.776	77.1	0.771	77.1	0.825	77.1	0.751	77.1	0.265	77.1	0.551
80.0	0.868	80.0	0.849	80.0	0.868	80.0	0.951	80.0	0.953	80.0	0.704	80.0	0.778
85.0	0.633	85.0	0.703	85.0	0.747	85.0	0.750	85.0	0.777	85.0	0.655	85.0	0.627
90.0	0.526	90.0	0.556	90.0	0.626	90.0	0.599	90.0	0.651	90.0	0.582	90.0	0.526
95.0	0.404	95.0	0.435	95.0	0.481	95.0	0.499	95.0	0.525	95.0	0.484	95.0	0.375
TOTAL NORMAL COEFFICIENT													
CN = 1.27		1.44		1.33		1.45		1.50		1.33		0.74	

TABLE V-32

RUN 38, POINT 6										Q = 8.12	ALPHA = 12	TCP = 0.	
VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	0.049	0.	-0.869	0.	-0.127	0.	-0.181	0.	-0.870	0.	0.418	0.	-1.537
1.2	-1.009	1.2	-1.561	1.2	-1.012	1.2	-1.149	1.2	-1.508	1.2	-1.118	1.2	-1.332
2.5	-1.577	2.5	-1.857	2.5	-1.823	2.5	-1.735	2.5	-1.840	2.5	-1.514	2.5	-1.332
5.0	-1.577	5.0	-2.302	5.0	-2.388	5.0	-2.321	5.0	-2.446	5.0	-2.282	5.0	-1.665
7.5	-1.825	7.5	-2.327	7.5	-2.536	7.5	-0.716	7.5	-2.432	7.5	-2.430	7.5	-1.792
10.0	-2.093	10.0	-1.487	10.0	-2.659	10.0	-2.474	10.0	-2.197	10.0	-2.257	10.0	-1.767
15.0	-2.068	15.0	-2.105	15.0	-2.413	15.0	-0.512	15.0	-2.044	15.0	-2.059	15.0	-1.844
20.0	-2.068	20.0	-1.981	20.0	-2.241	20.0	-2.056	20.0	-1.968	20.0	-2.430	20.0	-1.792
25.0	-2.042	25.0	-1.956	25.0	-2.241	25.0	-0.640	25.0	-1.968	25.0	-2.109	25.0	-1.767
30.0	-2.016	30.0	-1.907	30.0	-2.142	30.0	-2.091	30.0	-1.968	30.0	-1.985	30.0	-1.690
40.0	-2.016	40.0	-1.734	40.0	-1.897	40.0	-1.888	40.0	-1.815	40.0	-1.811	40.0	-1.588
50.0	-1.964	50.0	-1.487	50.0	0.365	50.0	-1.684	50.0	-1.764	50.0	-1.737	50.0	-1.588
60.0	-1.826	60.0	-1.487	60.0	-1.528	60.0	-1.455	60.0	-1.585	60.0	-1.688	60.0	-1.665
61.5	-0.131	61.5	0.120	61.5	-0.151	61.5	0.048	61.5	0.099	61.5	-0.003	61.5	-0.693
62.5	-0.106	62.5	-0.275	62.5	-0.372	62.5	-0.232	62.5	-0.207	62.5	0.021	62.5	-0.693
65.0	-1.062	65.0	-1.610	65.0	-1.724	65.0	-1.047	65.0	-1.304	65.0	-1.093	65.0	-2.355
70.0	-1.603	70.0	-1.857	70.0	-1.872	70.0	-1.852	70.0	-1.917	70.0	-2.257	70.0	-2.815
75.0	-1.164	75.0	-1.324	75.0	-1.380	75.0	-1.302	75.0	-1.457	75.0	-1.762	75.0	-2.329
75.6	-0.390	75.6	-0.374	75.6	-0.397	75.6	-0.359	75.6	-0.717	75.6	-0.548	75.6	-1.102
76.3	-0.467	76.3	-0.498	76.3	-0.520	76.3	-0.385	76.3	-0.845	76.3	0.343	76.3	-1.153
77.1	0.282	77.1	-0.770	77.1	-0.495	77.1	-0.741	77.1	-1.100	77.1	0.343	77.1	-1.230
78.6	0.927	78.6	0.936	78.6	0.857	78.6	0.685	78.6	0.661	78.6	0.814	78.6	0.176
80.0	-0.721	80.0	-0.869	80.0	-0.815	80.0	-0.971	80.0	-1.304	80.0	-1.143	80.0	-0.028
85.0	-0.721	85.0	-0.869	85.0	-0.839	85.0	-0.894	85.0	-1.049	85.0	-1.192	85.0	-0.054
90.0	-0.261	90.0	-0.231	90.0	-0.225	90.0	-0.207	90.0	-0.437	90.0	-0.375	90.0	-0.079
95.0	-0.269	95.0	-0.053	95.0	-0.053	95.0	-0.028	95.0	-0.081	95.0	-0.078	95.0	-0.045
2.5	1.263	2.5	1.208	2.5	1.029	2.5	0.940	2.5	1.120	2.5	0.418	2.5	0.867
5.0	1.082	5.0	1.158	5.0	1.004	5.0	0.940	5.0	1.069	5.0	0.418	5.0	0.816
7.5	1.030	7.5	1.035	7.5	0.955	7.5	0.914	7.5	0.355	7.5	0.418	7.5	0.713
10.0	0.953	10.0	0.961	10.0	0.906	10.0	0.838	10.0	0.891	10.0	0.442	10.0	-0.003
15.0	0.746	15.0	0.911	15.0	0.783	15.0	0.583	15.0	0.406	15.0	0.442	15.0	0.406
20.0	0.643	20.0	0.763	20.0	0.709	20.0	0.583	20.0	0.431	20.0	0.467	20.0	0.304
30.0	0.514	30.0	0.466	30.0	0.586	30.0	0.558	30.0	0.431	30.0	0.442	30.0	0.202
50.0	0.385	50.0	0.491	50.0	0.537	50.0	0.532	50.0	0.				

TABLE V-33

RUN 38, POINT 9 Q = 8.06 ALPHA = 20 TCP = 0.0

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.0	0.102	0.0	-0.701	0.0	0.071	0.0	-0.285	0.0	-0.85	0.0	0.421	0.0	0.951
1.2	-1.485	1.2	-2.145	1.2	-1.344	1.2	-1.671	1.2	-2.059	1.2	-1.500	1.2	0.899
2.5	-2.265	2.5	-3.593	2.5	-2.480	2.5	-2.492	2.5	-2.445	2.5	-2.099	2.5	0.848
5.0	-2.291	5.0	-2.942	5.0	-3.274	5.0	-3.108	5.0	-2.574	5.0	-3.197	5.0	0.796
7.5	-2.473	7.5	-2.917	7.5	-3.248	7.5	-0.926	7.5	-2.728	7.5	-3.247	7.5	0.745
10.0	-2.681	10.0	-2.444	10.0	-3.322	10.0	-3.133	10.0	-2.599	10.0	-2.972	10.0	0.693
15.0	-2.603	15.0	-2.643	15.0	-2.975	15.0	-0.593	15.0	-2.348	15.0	-2.648	15.0	0.616
20.0	-2.551	20.0	-2.394	20.0	-2.703	20.0	-2.492	20.0	-2.933	20.0	-2.972	20.0	0.559
25.0	-2.421	25.0	-2.270	25.0	-2.604	25.0	-0.747	25.0	-2.651	25.0	-2.773	25.0	0.461
30.0	-2.399	30.0	-2.145	30.0	-2.406	30.0	-2.399	30.0	-2.496	30.0	-2.523	30.0	0.358
40.0	-2.057	40.0	-1.896	40.0	-2.010	40.0	-2.030	40.0	-2.394	40.0	-2.249	40.0	0.255
50.0	-1.381	50.0	-1.572	50.0	0.442	50.0	-1.696	50.0	-2.265	50.0	-2.099	50.0	0.178
60.0	-1.095	60.0	-1.871	60.0	-1.589	60.0	-1.440	60.0	-1.931	60.0	-2.024	60.0	0.101
61.5	0.154	61.5	0.121	61.5	0.096	61.5	0.151	61.5	0.049	61.5	0.122	61.5	0.049
62.5	0.076	62.5	-0.252	62.5	-0.177	62.5	-0.105	62.5	-0.337	62.5	0.146	62.5	-0.002
65.0	-0.704	65.0	-1.547	65.0	-1.415	65.0	-0.541	65.0	-1.468	65.0	-1.201	65.0	-0.054
70.0	-1.043	70.0	-1.747	70.0	-1.489	70.0	-1.440	70.0	-2.188	70.0	-2.498	70.0	-0.080
75.0	-0.730	75.0	-1.174	75.0	-1.044	75.0	-1.093	75.0	-1.699	75.0	-1.949	75.0	-0.131
75.6	-0.184	75.6	-0.277	75.6	-0.226	75.6	-0.310	75.6	-0.954	75.6	-0.627	75.6	-0.930
76.3	-0.262	76.3	-0.452	76.3	-0.301	76.3	-0.285	76.3	-1.057	76.3	0.396	76.3	-1.110
77.1	0.440	77.1	-0.701	77.1	-0.301	77.1	-1.311	77.1	-1.339	77.1	0.396	77.1	-1.239
78.6	0.856	78.6	0.893	78.6	0.888	78.6	0.655	78.6	0.563	78.6	0.820	78.6	0.075
80.0	-0.158	80.0	-0.701	80.0	-0.598	80.0	-0.849	80.0	-1.468	80.0	-1.302	80.0	-0.363
85.0	-0.210	85.0	-0.750	85.0	-0.647	85.0	-0.747	85.0	-1.134	85.0	-1.276	85.0	-1.603
90.0	-0.236	90.0	-0.203	90.0	-0.202	90.0	-0.259	90.0	-0.491	90.0	-0.477	90.0	-1.754
95.0	-0.132	95.0	-0.003	95.0	-0.078	95.0	-0.157	95.0	-0.208	95.0	-0.203	95.0	-1.213
2.5	0.986	2.5	1.366	2.5	0.938	2.5	0.921	2.5	1.154	2.5	0.421	2.5	0.899
5.0	0.986	5.0	1.366	5.0	0.938	5.0	0.973	5.0	1.129	5.0	0.421	5.0	0.848
7.5	0.960	7.5	1.292	7.5	0.938	7.5	0.973	7.5	0.357	7.5	0.421	7.5	0.770
10.0	0.908	10.0	1.192	10.0	0.938	10.0	0.947	10.0	1.000	10.0	0.446	10.0	-0.312
15.0	0.856	15.0	1.192	15.0	0.888	15.0	0.690	15.0	0.357	15.0	0.471	15.0	0.513
20.0	0.830	20.0	0.943	20.0	0.834	20.0	0.716	20.0	0.435	20.0	0.496	20.0	0.410
30.0	0.700	30.0	0.694	30.0	0.715	30.0	0.716	30.0	0.537	30.0	0.471	30.0	0.307
50.0	0.570	50.0	0.694	50.0	0.641	50.0	0.639	50.0	0.409	50.0	0.546	50.0	0.332
65.0	0.986	65.0	1.043	65.0	0.938	65.0	0.921	65.0	0.975	65.0	1.294	65.0	0.925
70.0	0.778	70.0	0.868	70.0	0.863	70.0	0.767	70.0	0.717	70.0	0.995	70.0	0.642
76.8	0.440	76.8	0.868	76.8	0.170	76.8	0.767	76.8	0.717	76.8	0.446	76.8	0.564
77.1	1.042	77.1	0.968	77.1	0.962	77.1	0.819	77.1	0.820	77.1	0.446	77.1	0.642
80.0	1.038	80.0	0.993	80.0	0.987	80.0	0.947	80.0	0.975	80.0	1.244	80.0	1.131
85.0	0.778	85.0	0.868	85.0	0.839	85.0	0.819	85.0	0.692	85.0	1.045	85.0	0.667
90.0	0.674	90.0	0.744	90.0	0.740	90.0	0.716	90.0	0.563	90.0	0.895	90.0	0.410
95.0	0.518	95.0	0.619	95.0	0.616	95.0	0.588	95.0	0.460	95.0	0.720	95.0	0.204
TOTAL NORMAL COEFFICIENT													
CN =	2.13		2.53		2.21		2.19		2.59		2.67		0.46

TABLE V-34

RUN 40, POINT 3 Q = 4.82 ALPHA = 0 TCP = 1.00

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.0	-0.724	0.0	-3.276	0.0	-2.182	0.0	-2.850	0.0	-4.499	0.0	0.472	0.0	-1.579
1.2	-0.657	1.2	-1.236	1.2	-0.732	1.2	-1.058	1.2	-1.490	1.2	-0.988	1.2	-1.148
2.5	-0.724	2.5	-1.028	2.5	-1.105	2.5	-1.015	2.5	-1.275	2.5	-0.988	2.5	-1.019
5.0	-0.724	5.0	-1.444	5.0	-1.519	5.0	-1.573	5.0	-1.705	5.0	0.347	5.0	-0.976
7.5	-0.811	7.5	-1.569	7.5	-1.768	7.5	-0.500	7.5	-1.920	7.5	0.097	7.5	-3.804
10.0	-1.072	10.0	-0.403	10.0	-2.058	10.0	-2.045	10.0	-2.006	10.0	-0.529	10.0	-0.588
15.0	-1.376	15.0	-1.777	15.0	-2.058	15.0	-0.457	15.0	-1.920	15.0	-0.821	15.0	-0.804
20.0	-1.333	20.0	-1.736	20.0	-2.099	20.0	-1.745	20.0	-1.920	20.0	-1.405	20.0	-1.019
25.0	-1.594	25.0	-1.861	25.0	-2.182	25.0	-0.590	25.0	-2.178	25.0	-1.614	25.0	-1.148
30.0	-1.594	30.0	-1.985	30.0	-2.182	30.0	-2.303	30.0	-2.221	30.0	-1.781	30.0	-1.277
40.0	-1.594	40.0	-1.985	40.0	-2.140	40.0	-2.217	40.0	-2.221	40.0	-1.822	40.0	-1.277
50.0	-1.594	50.0	-1.819	50.0	0.303	50.0	-2.088	50.0	-2.307	50.0	-1.947	50.0	-1.277
60.0	-1.537	60.0	-2.152	60.0	-1.850	60.0	-2.032	60.0	-2.264	60.0	-1.989	60.0	-1.277
61.5	-0.159	61.5	0.222	61.5	-0.649	61.5	-0.078	61.5	-0.071	61.5	0.264	61.5	-0.114
62.5	-0.333	62.5	-0.111	62.5	-0.649	62.5	-0.157	62.5	-0.157	62.5	-0.195	62.5	-3.647
65.0	-1.594	65.0	-2.693	65.0	-2.886	65.0	-1.058	65.0	-1.877	65.0	-1.572	65.0	-1.708
70.0	-2.551	70.0	-3.276	70.0	-3.259	70.0	-3.289	70.0	-2.952	70.0	-3.199	70.0	-2.182
75.0	-1.942	75.0	-2.235	75.0	-2.472	75.0	-2.388	75.0	-2.221	75.0	-2.531	75.0	-6.920
75.6	-0.594	75.6	-0.445	75.6	-0.898	75.6	-0.715	75.6	-1.189	75.6	-0.571	75.6	-0.847
76.3	-0.811	76.3	-0.819	76.3	-1.105	76.3	-0.715	76.3	-1.318	76.3	0.431	76.3	-1.062
77.1	0.233	77.1	-1.444	77.1	-1.022	77.1	-4.105	77.1	-1.834	77.1	0.431	77.1	-1.148
78.6	1.277	78.6	2.054	78.6	2.001	78.6	1.989	78.6	1.735	78.6	1.182	78.6	0.446
80.0	0.363	80.0	-1.569	80.0	-1.768	80.0	-1.959	80.0	-2.135	80.0	-1.572	80.0	-1.665
85.0	0.189	85.0	-1.777	85.0	-1.850	85.0	-1.916	85.0	-1.705	85.0	-1.405	85.0	-1.708
90.0	-0.376	90.0	-0.403	90.0	-0.484	90.0	-0.371	90.0	-0.630	90.0	-0.237	90.0	-0.847
95.0	-0.628	95.0	0.097	95.0	-0.028	95.0	0.058	95.0	-0.200	95.0	0.180	95.0	-0.416
2.5	0.420	2.5	2.387	2.5	0.096	2.5	0.015	2.5	2.121	2.5	0.472	2.5	-1.105
5.0	0.202	5.0	2.096	5.0	1.380	5.0	1.560	5.0	2.379	5.0	0.472	5.0	-0.717
7.5	0.055	7.5	1.721	7.5	1.670	7.5	2.074	7.5	0.703	7.5	0.472	7.5	-0.071
10.0	0.450	10.0	1.429	10.0	1.670	10.0	1.946	10.0	1.649	10.0	0.472	10.0	-2.785
15.0	0.624	15.0	1.388	15.0	1.214	15.0	0.916	15.0	0.445	15.0	0.472	15.0	0.316
20.0	0.494	20.0	1.035	20.0	0.842	20.0	0.701	20.0	0.445	20.0	0.431	20.0	0.230
30.0	0.407	30.0	0.263	30.0	0.552	30.0	0.444	30.0	0.316	30.0	0.472	30.0	0.144
50.0	0.320	50.0	0.596	50.0	0.552	50.0	0.701	50.0	0.359	50.0	0.514	50.0	0.230
65.0	1.363	65.0	2.387	65.0	2.250	65.0	2.375	65.0	2.293	65.0	1.307	65.0	0.747
70.0	0.040	70.0	1.929	70.0	1.794	70.0	1.688	70.0	1.692	70.0	1.182	70.0	0.661
76.8	0.233	76.8	2.221	76.8	0.179	76.8	2.074	76.8	1.949	76.8	0.431	76.8	0.575
77.1	1.450	77.1	2.262	77.1	2.291	77.1	2.203	77.1	2.164	77.1	0.472	77.1	0.799
80.0	1.668	80.0	2.512	80.0	2.332	80.0	2.375	80.0	2.551	80.0	1.599	80.0	1.092
85.0	1.320	85.0	2.054	85.0	1.918	85.0	1.860	85.0	2.121	85.0	1.557	85.0	0.799
90.0	1.059	90.0	1.638	90.0	1.587	90.0	1.474	90.0	1.821	90.0	1.599	90.0	0.704
95.0	0.842	95.0	1.304	95.0	1.256	95.0	1.130	95.0	1.454	95.0	1.307	95.0	0.532
TOTAL NORMAL COEFFICIENT													
CN =	1.72		3.02		2.57	</							

TABLE V-35

RUN 40, POINT 6		Q = 4.82		ALPHA = 12		TCP = 1.00	
VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8	
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.2	-0.463	1.2	-2.277	1.2	-1.726	1.2	-1.523
2.5	-1.768	2.5	-2.610	2.5	-2.720	2.5	-2.388
5.0	-3.898	5.0	-3.318	5.0	-3.631	5.0	-3.332
7.5	-3.333	7.5	-3.235	7.5	-3.838	7.5	-1.015
10.0	-2.681	10.0	-2.069	10.0	-4.087	10.0	-3.604
15.0	-2.832	15.0	-3.068	15.0	-3.714	15.0	-0.715
20.0	-2.812	20.0	-2.902	20.0	-3.466	20.0	-3.204
25.0	-2.788	25.0	-2.985	25.0	-3.466	25.0	-0.895
30.0	-2.768	30.0	-3.027	30.0	-3.259	30.0	-3.289
40.0	-2.333	40.0	-2.777	40.0	-2.927	40.0	-2.966
50.0	-2.233	50.0	-2.444	50.0	-2.427	50.0	-2.603
60.0	-1.942	60.0	-2.277	60.0	-2.389	60.0	-2.345
61.5	-0.202	61.5	0.013	61.5	-0.567	61.5	0.272
62.5	-0.159	62.5	-0.944	62.5	-0.525	62.5	-0.243
65.0	-1.811	65.0	-3.526	65.0	-2.927	65.0	-2.333
70.0	-2.768	70.0	-3.443	70.0	-3.259	70.0	-3.075
75.0	-2.029	75.0	-2.402	75.0	-2.389	75.0	-2.989
75.6	-1.115	75.6	-0.861	75.6	-0.815	75.6	-0.672
76.3	-0.985	76.3	-1.028	76.3	-0.857	76.3	-0.672
77.1	0.407	77.1	-1.569	77.1	-0.815	77.1	-4.148
78.6	2.190	78.6	2.512	78.6	2.250	78.6	2.032
80.0	-0.627	80.0	-1.777	80.0	-1.561	80.0	-1.873
85.0	-3.768	85.0	-1.902	85.0	-1.643	85.0	-1.745
90.0	-0.376	90.0	-0.486	90.0	-0.484	90.0	-0.457
95.0	-0.115	95.0	-0.070	95.0	-0.194	95.0	-0.114
2.5	2.581	2.5	3.262	2.5	2.332	2.5	1.002
5.0	2.277	5.0	2.929	5.0	2.084	5.0	1.002
7.5	2.668	7.5	2.429	7.5	2.670	7.5	1.002
10.0	1.190	10.0	2.096	10.0	1.463	10.0	0.959
15.0	0.842	15.0	2.054	15.0	1.090	15.0	0.701
20.0	0.712	20.0	1.388	20.0	0.924	20.0	0.701
30.0	0.581	30.0	0.596	30.0	0.717	30.0	0.615
50.0	0.494	50.0	0.888	50.0	0.717	50.0	0.744
65.0	2.538	65.0	2.970	65.0	2.457	65.0	2.461
70.0	3.527	70.0	2.137	70.0	1.753	70.0	1.388
76.8	0.450	76.8	2.429	76.8	0.303	76.8	2.032
77.1	2.668	77.1	2.887	77.1	2.540	77.1	2.233
80.0	2.538	80.0	2.970	80.0	3.374	80.0	2.203
85.0	1.114	85.0	2.262	85.0	1.670	85.0	1.577
90.0	0.113	90.0	1.834	90.0	1.297	90.0	1.045
95.0	0.081	95.0	1.429	95.0	0.966	95.0	0.787
TOTAL NORMAL COEFFICIENT							
CN = 2.8		4.04		3.31		3.40	
						4.14	
							3.76
							3.27

TABLE V-36

RUN 40, POINT 7		Q = 4.82		ALPHA = 16		TCP = 1.00	
VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8	
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.2	-1.376	1.2	-2.527	1.2	-2.058	1.2	-1.830
2.5	-2.029	2.5	-2.860	2.5	-3.217	2.5	-2.817
5.0	-3.942	5.0	-3.443	5.0	-4.128	5.0	-3.804
7.5	-2.594	7.5	-3.401	7.5	-4.294	7.5	-1.101
10.0	-2.986	10.0	-2.194	10.0	-4.418	10.0	-4.019
15.0	-3.072	15.0	-3.360	15.0	-3.921	15.0	-0.758
20.0	-3.073	20.0	-3.360	20.0	-3.631	20.0	-3.375
25.0	-2.942	25.0	-3.401	25.0	-3.590	25.0	-0.886
30.0	-2.942	30.0	-3.235	30.0	-3.341	30.0	-3.332
40.0	-2.290	40.0	-2.860	40.0	-2.886	40.0	-2.989
50.0	-2.072	50.0	-2.444	50.0	-2.469	50.0	-2.603
60.0	-1.881	60.0	-2.402	60.0	-2.389	60.0	-2.260
61.5	-0.115	61.5	-0.361	61.5	-0.401	61.5	0.401
62.5	-0.072	62.5	-0.611	62.5	-0.318	62.5	-0.071
65.0	-1.507	65.0	-3.401	65.0	-2.555	65.0	-2.002
70.0	-2.290	70.0	-3.443	70.0	-2.803	70.0	-2.131
75.0	-1.637	75.0	-2.402	75.0	-1.975	75.0	-1.959
75.6	-0.941	75.6	-0.944	75.6	-0.857	75.6	-0.586
76.3	-0.768	76.3	-0.944	76.3	-0.815	76.3	-0.586
77.1	0.450	77.1	-1.402	77.1	-0.694	77.1	-4.234
78.6	2.059	78.6	2.387	78.6	2.208	78.6	1.774
80.0	-0.333	80.0	-1.839	80.0	-1.312	80.0	-1.702
85.0	-0.453	85.0	-1.777	85.0	-1.395	85.0	-1.573
90.0	-0.420	90.0	-0.445	90.0	-0.442	90.0	-0.444
95.0	-0.289	95.0	-1.028	95.0	-0.194	95.0	-0.114
2.5	1.842	2.5	3.387	2.5	1.877	2.5	0.873
5.0	1.581	5.0	3.012	5.0	1.504	5.0	0.830
7.5	3.146	7.5	2.595	7.5	1.256	7.5	0.873
10.0	0.885	10.0	2.262	10.0	1.173	10.0	0.916
15.0	0.755	15.0	2.221	15.0	1.049	15.0	0.744
20.0	0.668	20.0	1.554	20.0	0.883	20.0	0.830
30.0	0.624	30.0	0.721	30.0	0.759	30.0	0.744
50.0	0.537	50.0	0.930	50.0	0.759	50.0	0.744
65.0	2.494	65.0	2.845	65.0	2.498	65.0	2.117
70.0	1.407	70.0	1.804	70.0	1.546	70.0	1.259
76.8	0.450	76.8	2.262	76.8	0.303	76.8	1.860
77.1	2.668	77.1	2.845	77.1	2.581	77.1	2.074
80.0	2.494	80.0	2.595	80.0	2.167	80.0	1.989
85.0	1.363	85.0	1.679	85.0	1.421	85.0	1.388
90.0	1.016	90.0	1.263	90.0	1.049	90.0	0.959
95.0	0.668	95.0	0.971	95.0	0.800	95.0	0.701
TOTAL NORMAL COEFFICIENT							
CN = 2.77		4.05		3.22		3.25	
						4.23	
							4.11
							2.69

TABLE V-37

RUN 39, POINT 3 Q = 4.64 ALPHA = 0 TCP = 2.40

VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP
0. -0.932	0. -7.036	0. -3.083	0. -4.278	0. -7.621	0. 0.622	0. -3.697
1.2 -0.887	1.2 -1.499	1.2 -0.889	1.2 -1.053	1.2 -2.351	1.2 -2.109	1.2 -1.553
2.5 -0.932	2.5 -1.196	2.5 -1.319	2.5 -1.365	2.5 -1.815	2.5 -2.325	2.5 -1.192
5.0 -0.887	5.0 -1.802	5.0 -1.964	5.0 -1.990	5.0 -2.261	5.0 3.352	5.0 -0.789
7.5 -0.867	7.5 -2.191	7.5 -2.394	7.5 -0.652	7.5 -3.020	7.5 0.449	7.5 -0.744
10.0 -0.867	10.0 -1.456	10.0 -1.825	10.0 -2.836	10.0 -2.886	10.0 -0.332	10.0 -0.923
15.0 -1.429	15.0 -2.408	15.0 -2.868	15.0 -0.563	15.0 -2.842	15.0 -0.808	15.0 -1.147
20.0 -1.519	20.0 -2.451	20.0 -2.868	20.0 -2.976	20.0 -2.886	20.0 -2.022	20.0 -1.415
25.0 -2.001	25.0 -2.581	25.0 -3.083	25.0 -0.786	25.0 -3.065	25.0 -2.282	25.0 -1.553
30.0 -2.196	30.0 -2.797	30.0 -3.083	30.0 -3.371	30.0 -3.244	30.0 -2.629	30.0 -1.639
40.0 -2.301	40.0 -2.754	40.0 -2.868	40.0 -3.149	40.0 -3.244	40.0 -2.672	40.0 -1.595
50.0 -2.152	50.0 -2.537	50.0 0.488	50.0 -2.970	50.0 -3.512	50.0 -2.932	50.0 -1.505
60.0 -2.081	60.0 -1.456	60.0 -2.853	60.0 -2.926	60.0 -3.378	60.0 -3.105	60.0 -1.553
61.5 -0.390	61.5 0.231	61.5 -0.760	61.5 0.551	61.5 -0.207	61.5 0.189	61.5 -0.073
62.5 -0.525	62.5 -0.504	62.5 -0.674	62.5 0.195	62.5 -0.152	62.5 -0.375	62.5 -3.429
65.0 -2.558	65.0 -4.571	65.0 -4.416	65.0 -3.461	65.0 -3.065	65.0 -2.629	65.0 -2.131
70.0 -4.094	70.0 -5.336	70.0 -5.191	70.0 -5.244	70.0 -4.986	70.0 -5.186	70.0 -2.758
75.0 -3.100	75.0 -3.619	75.0 -3.857	75.0 -3.728	75.0 -3.780	75.0 -3.972	75.0 -6.740
75.6 -0.841	75.6 -0.764	75.6 -1.276	75.6 -0.920	75.6 -1.993	75.6 -0.505	75.6 -0.834
76.3 -0.796	76.3 -1.499	76.3 -1.663	76.3 -1.098	76.3 -2.261	76.3 0.492	76.3 -1.102
77.1 0.323	77.1 -2.581	77.1 -1.577	77.1 -3.461	77.1 -3.199	77.1 0.579	77.1 -1.326
78.6 2.231	78.6 3.908	78.6 3.973	78.6 3.716	78.6 3.277	78.6 1.489	78.6 0.375
80.0 -2.152	80.0 -2.624	80.0 -2.997	80.0 -3.232	80.0 -3.646	80.0 -2.239	80.0 -2.042
85.0 -2.136	85.0 -3.186	85.0 -3.341	85.0 -3.238	85.0 -3.220	85.0 -2.022	85.0 -1.863
90.0 -0.570	90.0 -0.634	90.0 -0.674	90.0 -0.474	90.0 -1.011	90.0 -0.245	90.0 -0.968
95.0 -0.048	95.0 0.275	95.0 0.187	95.0 0.284	95.0 -0.252	95.0 0.275	95.0 -0.431
2.5 -0.435	2.5 4.774	2.5 5.574	2.5 3.373	2.5 4.572	2.5 0.622	2.5 -0.834
5.0 -0.164	5.0 4.038	5.0 2.639	5.0 2.646	5.0 4.349	5.0 0.622	5.0 0.196
7.5 -0.164	7.5 3.130	7.5 3.026	7.5 3.181	7.5 1.624	7.5 0.622	7.5 0.375
10.0 0.323	10.0 2.567	10.0 2.768	10.0 2.914	10.0 3.009	10.0 0.665	10.0 -2.042
15.0 0.649	15.0 2.092	15.0 1.779	15.0 1.443	15.0 0.552	15.0 0.579	15.0 0.375
20.0 0.830	20.0 1.399	20.0 1.219	20.0 0.997	20.0 0.686	20.0 0.622	20.0 0.240
30.0 0.604	30.0 0.275	30.0 0.703	30.0 0.551	30.0 0.463	30.0 0.665	30.0 0.196
50.0 0.378	50.0 1.053	50.0 1.004	50.0 1.354	50.0 0.597	50.0 0.752	50.0 0.330
65.0 2.025	65.0 4.428	65.0 4.317	65.0 4.251	65.0 4.483	65.0 1.879	65.0 3.598
70.0 1.463	70.0 3.562	70.0 3.284	70.0 3.092	70.0 3.277	70.0 1.835	70.0 3.643
76.8 0.355	76.8 4.341	76.8 0.273	76.8 3.939	76.8 3.813	76.8 0.579	76.8 0.553
77.1 2.140	77.1 4.428	77.1 4.446	77.1 3.984	77.1 4.259	77.1 0.535	77.1 0.688
80.0 2.231	80.0 4.860	80.0 4.446	80.0 4.251	80.0 5.152	80.0 1.835	80.0 1.001
85.0 2.095	85.0 3.735	85.0 3.414	85.0 3.360	85.0 4.026	85.0 2.399	85.0 0.688
90.0 1.643	90.0 3.030	90.0 2.768	90.0 2.632	90.0 3.455	90.0 2.486	90.0 3.643
95.0 1.327	95.0 2.524	95.0 2.209	95.0 2.057	95.0 2.853	95.0 2.095	95.0 3.509
TOTAL NORMAL COEFFICIENT						
CN = 2.58	4.73	4.00	4.66	3.08	3.24	2.07

TABLE V-38

RUN 39, POINT 6 Q = 4.64 ALPHA = 12 TCP = 2.40

VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP
0. -4.004	0. -5.955	0. -3.255	0. -0.385	0. -7.978	0. 0.492	0. 0.285
1.2 -2.700	1.2 -2.840	1.2 -1.749	1.2 -2.569	1.2 -3.556	1.2 -2.152	1.2 0.106
2.5 -2.006	2.5 -3.186	2.5 -3.126	2.5 -3.371	2.5 -3.556	2.5 -2.109	2.5 -0.028
5.0 -2.006	5.0 -4.354	5.0 -4.546	5.0 -4.486	5.0 -4.092	5.0 -2.369	5.0 -0.162
7.5 -2.332	7.5 -4.224	7.5 -4.890	7.5 -1.276	7.5 -4.718	7.5 -2.629	7.5 -0.297
10.0 -2.920	10.0 -3.013	10.0 -3.277	10.0 -5.154	10.0 -4.316	10.0 -2.802	10.0 -0.386
15.0 -3.281	15.0 -4.031	15.0 -4.761	15.0 -0.920	15.0 -4.226	15.0 -3.192	15.0 -18.466
20.0 -3.236	20.0 -3.965	20.0 -4.416	20.0 -4.397	20.0 -4.316	20.0 -3.799	20.0 -3.475
25.0 -3.371	25.0 -4.095	25.0 -4.502	25.0 -1.276	25.0 -4.762	25.0 -4.015	25.0 -0.610
30.0 -3.416	30.0 -4.181	30.0 -4.287	30.0 -4.664	30.0 -5.030	30.0 -4.189	30.0 -0.744
40.0 -3.020	40.0 -3.922	40.0 -3.857	40.0 -4.218	40.0 -4.807	40.0 -4.315	40.0 -0.968
50.0 -2.920	50.0 -3.489	50.0 0.531	50.0 -3.862	50.0 -5.230	50.0 -4.146	50.0 -1.553
60.0 -2.759	60.0 -3.259	60.0 -3.427	60.0 -3.594	60.0 -4.762	60.0 -4.276	60.0 -1.863
61.5 -0.435	61.5 -0.331	61.5 -1.018	61.5 0.418	61.5 -0.377	61.5 0.449	61.5 -1.326
62.5 -0.480	62.5 -1.110	62.5 -0.544	62.5 -0.073	62.5 -0.832	62.5 0.315	62.5 -2.400
65.0 -3.040	65.0 -5.522	65.0 -4.761	65.0 -3.773	65.0 -4.494	65.0 -3.192	65.0 -2.534
70.0 -4.636	70.0 -5.825	70.0 -5.363	70.0 -5.422	70.0 -6.772	70.0 -6.963	70.0 -2.623
75.0 -3.597	75.0 -4.051	75.0 -3.857	75.0 -3.817	75.0 -5.298	75.0 -5.706	75.0 -2.758
75.6 -2.026	75.6 -1.499	75.6 -1.491	75.6 -1.145	75.6 -3.378	75.6 -1.198	75.6 -0.834
76.3 -1.790	76.3 -1.845	76.3 -1.706	76.3 -1.276	76.3 -3.646	76.3 0.449	76.3 -1.057
77.1 0.449	77.1 -2.797	77.1 -1.620	77.1 -3.906	77.1 -4.807	77.1 0.449	77.1 -1.326
78.6 3.676	78.6 4.631	78.6 4.231	78.6 3.850	78.6 3.411	78.6 2.919	78.6 0.061
80.0 -2.468	80.0 -3.186	80.0 -2.997	80.0 -3.193	80.0 -5.477	80.0 -3.452	80.0 -0.297
85.0 -2.423	85.0 -3.402	85.0 -3.255	85.0 -3.193	85.0 -4.628	85.0 -3.799	85.0 -0.476
90.0 -0.796	90.0 -0.850	90.0 -0.803	90.0 -0.741	90.0 -1.770	90.0 -0.982	90.0 -0.699
95.0 -0.119	95.0 -0.028	95.0 -0.114	95.0 -0.117	95.0 -0.787	95.0 0.058	95.0 -1.102
2.5 1.192	2.5 5.812	2.5 3.672	2.5 2.468	2.5 5.599	2.5 0.492	2.5 0.464
5.0 4.309	5.0 4.990	5.0 3.844	5.0 1.755	5.0 4.929	5.0 0.492	5.0 0.598
7.5 3.496	7.5 2.038	7.5 2.854	7.5 1.577	7.5 1.892	7.5 0.535	7.5 0.509
10.0 2.637	10.0 3.433	10.0 2.123	10.0 1.398	10.0 3.455	10.0 0.492	10.0 0.375
15.0 1.282	15.0 2.827	15.0 1.305	15.0 0.863	15.0 0.329	15.0 0.579	15.0 0.375
20.0 0.830	20.0 1.745	20.0 1.204	20.0 0.596	20.0 0.552	20.0 0.579	20.0 0.375
30.0 0.469	30.0 0.577	30.0 0.746	30.0 0.596	30.0 0.597	30.0 0.579	30.0 0.375
50.0 0.469	50.0 1.226	50.0 1.004	50.0 1.086	50.0 0.463	50.0 0.882	50.0 0.375
65.0 4.173	65.0 5.596	65.0 4.561	65.0 4.251	65.0 4.840	65.0 4.349	65.0 0.867
70.0 2.276	70.0 3.779	70.0 3.069	70.0 2.632	70.0 3.422	70.0 3.612	70.0 0.688
76.8 0.544	76.8 4.384	76.8 0.445	76.8 3.850	76.8 3.932	76.8 0.535	76.8 0.732
77.1 4.399	77.1 5.379	77.1 4.790	77.1 3.984	77.1 4.706	77.1 0.535	77.1 1.001
80.0 4.309	80.0 5.599	80.0 4.274	80.0 4.028	80.0 5.733	80.0 4.089	80.0 1.627
85.0 2.502	85.0 3.908	85.0 2.854	85.0 2.691	85.0 4.170	85.0 4.046	85.0 1.448
90.0 1.643	90.0 2.870	90.0 2.980	90.0 1.755	90.0 3.277	90.0 3.352	90.0 1.404
95.0 1.192	95.0 2.221	95.0 1.478	95.0 1.339	95.0 2.539	95.0 2.529	95.0 1.404
TOTAL NORMAL COEFFICIENT						
CN = 3.99	6.15	4.78	5.15	6.59	5.29	2.65

TABLE V-39

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-2.655	0.	-4.484	0.	3.402	3.	-0.553	0.	-6.549	0.	0.535	0.	-0.028
1.2	-1.790	1.2	-3.705	1.2	-2.610	1.2	-2.881	1.2	-4.316	1.2	-2.932	1.2	-0.207
2.5	-2.513	2.5	-4.354	2.5	-4.416	2.5	-4.352	2.5	-4.539	2.5	-3.105	2.5	-0.297
5.0	-2.242	5.0	-3.249	5.0	-5.922	5.0	-5.556	5.0	-3.075	5.0	-4.362	5.0	-0.386
7.5	-3.326	7.5	-5.263	7.5	-6.223	7.5	-1.499	7.5	-5.655	7.5	-4.926	7.5	-0.431
10.0	-4.004	10.0	-3.932	10.0	-6.438	10.0	-5.813	10.0	-4.986	10.0	-4.882	10.0	-0.610
15.0	-4.230	15.0	-5.090	15.0	-5.621	15.0	-1.009	15.0	-5.120	15.0	-4.752	15.0	-0.834
20.0	-4.250	20.0	-5.090	20.0	-5.105	20.0	-4.932	20.0	-5.432	20.0	-5.359	20.0	-1.505
25.0	-4.094	25.0	-5.133	25.0	-5.148	25.0	-1.470	25.0	-6.013	25.0	-5.359	25.0	-2.221
30.0	-4.049	30.0	-4.873	30.0	-4.761	30.0	-4.842	30.0	-6.013	30.0	-5.272	30.0	-2.444
40.0	-3.326	40.0	-4.268	40.0	-4.072	40.0	-4.218	40.0	-5.611	40.0	-4.926	40.0	-3.205
50.0	-3.055	50.0	-3.792	50.0	0.617	50.0	-3.773	50.0	-5.789	50.0	-4.882	50.0	-3.921
60.0	-2.955	60.0	-3.576	60.0	-3.470	60.0	-3.238	60.0	-5.209	60.0	-4.969	60.0	-4.103
61.5	-3.104	61.5	-1.023	61.5	-3.286	61.5	0.730	61.5	-1.547	61.5	0.145	61.5	-2.042
62.5	-0.616	62.5	-0.980	62.5	-0.458	62.5	-0.152	62.5	-1.547	62.5	-0.332	62.5	-2.221
65.0	-2.829	65.0	-4.787	65.0	-3.857	65.0	-2.332	65.0	-4.762	65.0	-3.712	65.0	-2.444
70.0	-4.420	70.0	-5.392	70.0	-3.943	70.0	-3.817	70.0	-6.817	70.0	-7.873	70.0	-2.937
75.0	-3.462	75.0	-3.835	75.0	-2.696	75.0	-2.480	75.0	-5.477	75.0	-6.573	75.0	-3.742
75.6	-1.609	75.6	-1.586	75.6	-1.104	75.6	-0.652	75.6	-4.137	75.6	-1.632	75.6	-0.386
76.3	-1.730	76.3	-1.456	76.3	-1.147	76.3	-0.697	76.3	-4.003	76.3	0.362	76.3	-0.565
77.1	0.559	77.1	-2.028	77.1	-0.889	77.1	-4.253	77.1	-4.673	77.1	0.362	77.1	-1.594
78.6	3.450	78.6	4.341	78.6	3.887	78.6	3.092	78.6	3.098	78.6	3.396	78.6	0.375
80.0	-2.603	80.0	-2.927	80.0	-2.135	80.0	-2.302	80.0	-5.923	80.0	-4.536	80.0	-0.341
85.0	-2.523	85.0	-2.797	85.0	-2.135	85.0	-2.212	85.0	-4.584	85.0	-4.709	85.0	-0.699
90.0	-0.681	90.0	-0.710	90.0	-0.631	90.0	-0.697	90.0	-1.904	90.0	-1.502	90.0	-2.265
95.0	-0.028	95.0	-0.028	95.0	-0.286	95.0	-0.385	95.0	-1.011	95.0	-0.288	95.0	-3.205
2.5	2.366	2.5	6.461	2.5	1.957	2.5	0.660	2.5	6.003	2.5	0.535	2.5	0.598
5.0	2.457	5.0	5.539	5.0	1.478	5.0	0.730	5.0	5.552	5.0	0.492	5.0	0.598
7.5	1.643	7.5	4.471	7.5	1.262	7.5	0.997	7.5	2.026	7.5	0.535	7.5	0.509
10.0	1.598	10.0	3.865	10.0	1.135	10.0	1.096	10.0	3.708	10.0	0.535	10.0	1.285
15.0	0.695	15.0	3.216	15.0	1.047	15.0	0.819	15.0	0.329	15.0	0.579	15.0	0.106
20.0	3.649	20.0	1.929	20.0	0.918	20.0	0.695	20.0	0.642	20.0	0.622	20.0	-0.118
30.0	0.424	30.0	0.880	30.0	0.832	30.0	0.640	30.0	0.731	30.0	0.622	30.0	-0.207
50.0	0.559	50.0	1.226	50.0	1.047	50.0	0.938	50.0	0.374	50.0	0.665	50.0	-0.207
60.0	3.044	60.0	4.514	60.0	4.188	60.0	3.360	60.0	4.661	60.0	4.653	60.0	1.672
70.0	2.050	70.0	2.308	70.0	2.309	70.0	1.978	70.0	2.607	70.0	4.046	70.0	0.732
76.8	0.539	76.8	3.303	76.8	0.531	76.8	3.181	76.8	2.383	76.8	0.535	76.8	0.867
77.1	4.128	77.1	4.903	77.1	4.661	77.1	3.538	77.1	4.349	77.1	0.535	77.1	1.359
80.0	3.822	80.0	3.433	80.0	2.854	80.0	3.270	80.0	4.751	80.0	4.479	80.0	2.164
85.0	1.924	85.0	2.135	85.0	1.822	85.0	2.201	85.0	2.517	85.0	4.479	85.0	1.090
90.0	1.374	90.0	1.789	90.0	1.305	90.0	1.398	90.0	1.580	90.0	3.439	90.0	0.598
95.0	3.966	95.0	1.356	95.0	0.918	95.0	0.997	95.0	0.999	95.0	2.572	95.0	0.017
TOTAL NORMAL COEFFICIENT													
CN = 4.03		6.34		4.44		4.57		6.72		6.34		2.71	

TABLE V-40

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-1.090	0.	-3.014	0.	-3.411	0.	-0.994	0.	-4.754	0.	0.612	0.	-2.403
1.2	-0.923	1.2	-1.777	1.2	-0.085	1.2	-1.740	1.2	-2.219	1.2	-1.180	1.2	-1.304
2.5	-1.311	2.5	-1.863	2.5	-1.846	2.5	-2.048	2.5	-2.219	2.5	-1.180	2.5	-1.172
5.0	-1.311	5.0	-2.502	5.0	-2.819	5.0	-2.750	5.0	-2.692	5.0	-1.351	5.0	-1.260
7.5	-1.355	7.5	-2.630	7.5	-3.073	7.5	-0.774	7.5	-3.164	7.5	-1.564	7.5	-1.348
10.0	-1.841	10.0	-2.502	10.0	-3.326	10.0	-3.233	10.0	-3.079	10.0	-1.692	10.0	-1.436
15.0	-2.131	15.0	-2.673	15.0	-3.242	15.0	-0.599	15.0	-2.950	15.0	-1.948	15.0	-1.611
20.0	-2.372	20.0	-2.630	20.0	-3.157	20.0	-2.949	20.0	-2.950	20.0	-2.374	20.0	-1.699
25.0	-2.328	25.0	-2.758	25.0	-3.200	25.0	-0.818	25.0	-3.036	25.0	-2.588	25.0	-1.831
30.0	-2.426	30.0	-2.972	30.0	-3.200	30.0	-3.408	30.0	-3.250	30.0	-2.758	30.0	-1.875
40.0	-2.283	40.0	-2.972	40.0	-3.157	40.0	-3.321	40.0	-3.293	40.0	-2.844	40.0	-1.963
50.0	-2.283	50.0	-2.929	50.0	0.733	50.0	-3.277	50.0	-3.637	50.0	-3.142	50.0	-2.139
60.0	-2.283	60.0	-2.929	60.0	-2.946	60.0	-3.321	60.0	-3.723	60.0	-3.526	60.0	-2.403
61.5	-1.443	61.5	-1.393	61.5	-1.804	61.5	-1.082	61.5	-1.961	61.5	-1.436	61.5	-2.007
62.5	-4.273	62.5	-6.214	62.5	-6.329	62.5	-5.472	62.5	-5.785	62.5	-4.721	62.5	0.983
65.0	-6.627	65.0	-8.389	65.0	-8.950	65.0	-8.808	65.0	-8.750	65.0	-9.669	65.0	-6.801
70.0	-4.671	70.0	-6.427	70.0	-6.667	70.0	-6.920	70.0	-6.816	70.0	-8.048	70.0	-5.965
75.0	-2.726	75.0	-3.654	75.0	-4.088	75.0	-4.155	75.0	-4.496	75.0	-5.446	75.0	-5.877
75.6	-2.416	75.6	-3.057	75.6	-3.707	75.6	-3.365	75.6	-4.840	75.6	-3.142	75.6	-4.470
76.3	-3.522	76.3	-3.995	76.3	-4.637	76.3	-3.408	76.3	-5.656	76.3	0.697	76.3	-6.185
77.1	0.591	77.1	-4.507	77.1	-3.538	77.1	0.586	77.1	-5.785	77.1	0.697	77.1	-6.889
78.6	1.902	78.6	2.403	78.6	2.128	78.6	1.947	78.6	1.690	78.6	1.550	78.6	0.192
80.0	-2.372	80.0	-2.886	80.0	-3.975	80.0	-3.672	80.0	-4.110	80.0	-3.825	80.0	-6.273
85.0	-2.305	85.0	-1.863	85.0	-1.973	85.0	-2.335	85.0	-2.391	85.0	-2.374	85.0	-4.954
90.0	-0.957	90.0	-0.327	90.0	-0.366	90.0	-0.335	90.0	-0.887	90.0	-0.668	90.0	-2.183
95.0	-0.603	95.0	0.014	95.0	-0.197	95.0	0.191	95.0	-0.266	95.0	-0.284	95.0	-0.952
2.5	0.768	2.5	2.873	2.5	2.171	2.5	2.342	2.5	2.807	2.5	0.612	2.5	-0.204
5.0	1.520	5.0	2.531	5.0	2.382	5.0	2.079	5.0	2.550	5.0	0.612	5.0	0.675
7.5	1.564	7.5	2.147	7.5	2.086	7.5	1.772	7.5	0.874	7.5	0.612	7.5	0.763
10.0	1.520	10.0	1.934	10.0	1.748	10.0	1.420	10.0	1.905	10.0	0.612	10.0	1.951
15.0	1.254	15.0	1.806	15.0	1.283	15.0	0.894	15.0	0.401	15.0	0.654	15.0	3.588
20.0	1.033	20.0	1.550	20.0	1.071	20.0	0.806	20.0	0.530	20.0	0.697	20.0	0.412
30.0	0.679	30.0	0.740	30.0	0.944	30.0	0.762	30.0	0.616	30.0	0.697	30.0	0.236
50.0	0.679	50.0	1.252	50.0	1.198	50.0	1.289	50.0	0.874	50.0	1.124	50.0	0.675
65.0	2.582	65.0	2.873	65.0	2.678	65.0	2.781	65.0	2.807	65.0	2.617	65.0	1.555
70.0	2.227	70.0	2.873	70.0	2.678	70.0	2.606	70.0	2.635	70.0	2.702	70.0	1.819
76.8	0.655	76.8	2.958	76.8	0.310	76.8	2.606	76.8	2.635	76.8	0.825	76.8	1.731
77.1	2.492	77.1	2.787	77.1	2.424	77.1	2.430	77.1	2.378	77.1	0.825	77.1	1.203
80.0	2.625	80.0	2.958	80.0	2.678	80.0	2.781	80.0	2.635	80.0	2.531	80.0	1.599
85.0	2.724	85.0	3.043	85.0	2.636	85.0	2.606	85.0	2.893	85.0	2.915	85.0	2.127
90.0	2.360	90.0	2.915	90.0	2.424	90.0	2.211	90.0	2.721	90.0	2.659	90.0	1.951
95.0	1.829	95.0	2.659	95.0	2.001	95.0	1.816	95.0	2.421	95.0	2.403	95.0	1.555
TOTAL NORMAL COEFFICIENT													
CN = 3.54		4.88		4.23		4.65		5.02		4.46		3.74	

TABLE V-41

RUN 36, POINT 6		Q = 4.64		ALPHA = 12		TCP = 1.00									
VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8									
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP									
0.0	0.244	0.0	-0.636	0.0	-0.343	0.0	-0.672	0.0	-1.607						
1.2	-1.525	1.2	-2.566	1.2	-2.197	1.2	-2.055	1.2	-2.085	1.2	-1.788				
2.5	-2.115	2.5	-3.004	2.5	-3.412	2.5	-3.181	2.5	-3.157	2.5	-2.435	2.5	-1.968		
5.0	-2.296	5.0	-3.835	5.0	-4.279	5.0	-4.126	5.0	-3.598	5.0	-3.573	5.0	-2.465		
7.5	-2.342	7.5	-3.617	7.5	-4.583	7.5	-1.244	7.5	-4.039	7.5	-3.879	7.5	-2.690		
10.0	-3.1.3	10.0	-3.223	10.0	-4.756	10.0	-4.487	10.0	-3.686	10.0	-3.704	10.0	-2.690		
15.0	-3.249	15.0	-3.660	15.0	-4.323	15.0	-0.884	15.0	-3.598	15.0	-3.485	15.0	-2.825		
20.0	-3.340	20.0	-3.617	20.0	-4.062	20.0	-3.901	20.0	-3.730	20.0	-4.011	20.0	-2.780		
25.0	-3.158	25.0	-3.748	25.0	-4.062	25.0	-1.154	25.0	-3.995	25.0	-4.054	25.0	-2.871		
30.0	-3.1.3	30.0	-3.617	30.0	-3.889	30.0	-4.081	30.0	-4.303	30.0	-4.054	30.0	-2.825		
40.0	-2.639	40.0	-3.310	40.0	-3.498	40.0	-3.766	40.0	-4.259	40.0	-3.923	40.0	-2.825		
50.0	-2.478	50.0	-2.873	50.0	-0.753	50.0	-3.496	50.0	-4.436	50.0	-4.098	50.0	-3.051		
60.0	-2.251	60.0	-3.092	60.0	-3.108	60.0	-3.316	60.0	-4.303	60.0	-4.404	60.0	-3.367		
61.5	-1.6.6	61.5	-1.429	61.5	-1.677	61.5	-0.794	61.5	-2.452	61.5	-2.304	61.5	-3.502		
62.5	-3.431	62.5	-5.105	62.5	-4.887	62.5	-4.397	62.5	-6.022	62.5	-5.717	62.5	0.784		
65.0	-5.608	65.0	-7.249	65.0	-6.882	65.0	-6.603	65.0	-9.240	65.0	-11.844	65.0	-9.773		
70.0	-3.5.1	70.0	-5.017	70.0	-4.409	70.0	-4.892	70.0	-7.300	70.0	-9.918	70.0	-8.826		
75.0	-1.934	75.0	-2.523	75.0	-2.241	75.0	-2.640	75.0	-5.141	75.0	-6.811	75.0	-6.074		
75.6	-1.979	75.6	-2.610	75.6	-2.457	75.6	-2.190	75.6	-5.493	75.6	-4.273	75.6	-6.254		
76.3	-2.433	76.3	-3.092	76.3	-3.151	76.3	-2.235	76.3	-6.463	76.3	0.541	76.3	-8.465		
77.1	0.607	77.1	-2.620	77.1	-2.110	77.1	0.332	77.1	-6.463	77.1	0.584	77.1	-9.638		
78.6	2.285	78.6	2.729	78.6	2.531	78.6	1.998	78.6	1.598	78.6	1.722	78.6	0.378		
80.0	-1.974	80.0	-2.260	80.0	-1.937	80.0	-2.730	80.0	-4.876	80.0	-5.630	80.0	-0.524		
85.0	-1.661	85.0	-1.472	85.0	-1.677	85.0	-1.830	85.0	-2.717	85.0	-3.573	85.0	-3.705		
90.0	-0.799	90.0	-0.466	90.0	-0.636	90.0	-0.614	90.0	-1.218	90.0	-1.122	90.0	-0.976		
95.0	-0.6.8	95.0	-0.510	95.0	-0.429	95.0	-0.298	95.0	-0.777	95.0	-0.728	95.0	-1.337		
2.5	2.059	2.5	3.473	2.5	2.054	2.5	0.782	2.5	3.189	2.5	0.672	2.5	0.829		
5.0	1.605	5.0	3.166	5.0	1.664	5.0	0.918	5.0	2.837	5.0	0.672	5.0	0.874		
7.5	2.242	7.5	2.685	7.5	1.403	7.5	0.918	7.5	0.941	7.5	0.672	7.5	0.784		
10.0	0.9.4	10.0	2.466	10.0	0.273	10.0	0.953	10.0	2.1.31	10.0	0.672	10.0	1.822		
15.0	0.788	15.0	2.291	15.0	1.100	15.0	0.827	15.0	0.457	15.0	0.716	15.0	1.145		
20.0	0.698	20.0	1.679	20.0	0.013	20.0	0.827	20.0	0.545	20.0	0.716	20.0	1.055		
30.0	0.652	30.0	0.847	30.0	0.926	30.0	0.918	30.0	0.677	30.0	0.760	30.0	0.919		
50.0	0.698	50.0	1.153	50.0	0.970	50.0	0.918	50.0	0.589	50.0	1.022	50.0	0.784		
65.0	3.463	65.0	3.385	65.0	3.138	65.0	2.539	65.0	3.2.89	65.0	3.429	65.0	2.137		
70.0	2.4.1	70.0	2.991	70.0	2.575	70.0	2.224	70.0	2.660	70.0	3.385	70.0	2.183		
76.8	0.607	76.8	3.166	76.8	0.275	76.8	2.359	76.8	2.572	76.8	0.760	76.8	2.137		
77.1	2.694	77.1	3.123	77.1	2.791	77.1	2.314	77.1	2.352	77.1	0.760	77.1	1.596		
80.0	2.648	80.0	3.341	80.0	2.922	80.0	2.629	80.0	2.969	80.0	3.123	80.0	2.589		
85.0	2.195	85.0	2.554	85.0	2.184	85.0	1.953	85.0	2.220	85.0	3.517	85.0	2.273		
90.0	1.605	90.0	2.029	90.0	1.620	90.0	1.458	90.0	1.426	90.0	3.166	90.0	1.731		
95.0	1.1.1	95.0	1.285	95.0	1.186	95.0	1.053	95.0	0.897	95.0	2.816	95.0	1.145		
TOTAL NORMAL COEFFICIENT															
CN = 3.63		5.04		4.11		4.34		5.58		5.92		4.47			

TABLE V-42

RUN 36, POINT 7		Q = 4.64		ALPHA = 16		TCP = 1.00									
VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8									
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP									
0.0	0.788	0.0	-2.085	0.0	0.275	0.0	-0.749	0.0	-2.805	0.0	0.672	0.0	-1.111		
1.2	-1.455	1.2	-2.916	1.2	-2.154	1.2	-2.550	1.2	-2.893	1.2	-2.129	1.2	-1.968		
2.5	-2.296	2.5	-3.354	2.5	-3.672	2.5	-3.676	2.5	-3.334	2.5	-2.785	2.5	-2.239		
5.0	-2.342	5.0	-4.011	5.0	-4.626	5.0	-4.622	5.0	-3.774	5.0	-4.142	5.0	-2.825		
7.5	-2.387	7.5	-3.967	7.5	-4.930	7.5	-1.379	7.5	-4.171	7.5	-4.536	7.5	-3.051		
10.0	-3.451	10.0	-3.310	10.0	-5.017	10.0	-4.667	10.0	-3.819	10.0	-4.273	10.0	-3.005		
15.0	-3.567	15.0	-3.923	15.0	-4.540	15.0	-3.929	15.0	-3.730	15.0	-3.923	15.0	-3.141		
20.0	-3.567	20.0	-3.879	20.0	-4.149	20.0	-3.991	20.0	-3.863	20.0	-4.492	20.0	-3.141		
25.0	-3.340	25.0	-3.835	25.0	-4.149	25.0	-1.154	25.0	-4.259	25.0	-4.404	25.0	-3.096		
30.0	-3.249	30.0	-3.660	30.0	-3.889	30.0	-4.036	30.0	-4.524	30.0	-4.273	30.0	-3.051		
40.0	-2.705	40.0	-3.223	40.0	-3.412	40.0	-3.676	40.0	-4.259	40.0	-4.098	40.0	-3.006		
50.0	-2.367	50.0	-2.829	50.0	0.709	50.0	-3.361	50.0	-4.480	50.0	-4.229	50.0	-3.232		
60.0	-2.1.5	60.0	-3.135	60.0	-2.978	60.0	-3.181	60.0	-4.127	60.0	-4.579	60.0	-3.502		
61.5	-0.890	61.5	-1.297	61.5	-1.546	61.5	-0.659	61.5	-2.188	61.5	-2.085	61.5	-3.457		
62.5	-3.158	62.5	-4.054	62.5	-4.193	62.5	-3.811	62.5	-5.537	62.5	-5.717	62.5	0.739		
65.0	-4.474	65.0	-4.973	65.0	-5.581	65.0	-5.567	65.0	-8.358	65.0	-11.363	65.0	-2.239		
70.0	-2.296	70.0	-1.385	70.0	-3.542	70.0	-4.216	70.0	-6.331	70.0	-9.087	70.0	-2.374		
75.0	-1.162	75.0	-0.903	75.0	-1.807	75.0	-2.460	75.0	-4.083	75.0	-6.330	75.0	-2.600		
75.6	-1.574	75.6	-1.910	75.6	-1.980	75.6	-1.785	75.6	-4.656	75.6	-3.660	75.6	-5.172		
76.3	-2.024	76.3	-2.391	76.3	-2.501	76.3	-1.875	76.3	-4.964	76.3	0.584	76.3	-7.021		
77.1	0.632	77.1	-1.954	77.1	-1.677	77.1	0.287	77.1	-4.347	77.1	0.584	77.1	-7.879		
78.6	2.059	78.6	2.422	78.6	2.444	78.6	1.818	78.6	1.603	78.6	1.941	78.6	0.603		
80.0	-1.344	80.0	-1.385	80.0	-1.503	80.0	-2.415	80.0	-3.642	80.0	-5.236	80.0	-6.299		
85.0	-1.072	85.0	-0.728	85.0	-1.286	85.0	-1.785	85.0	-2.320	85.0	-3.442	85.0	-5.893		
90.0	-0.5.7	90.0	-0.466	90.0	-0.332	90.0	-0.388	90.0	-1.439	90.0	-1.341	90.0	-3.277		
95.0	-0.391	95.0	-0.597	95.0	-0.202	95.0	-0.253	95.0	-1.483	95.0	-1.078	95.0	-2.149		
2.5	1.0.5	2.5	3.560	2.5	1.100	2.5	0.872	2.5	3.189	2.5	0.672	2.5	0.919		
5.0	0.924	5.0	3.210	5.0	1.100	5.0	0.872	5.0	2.837	5.0	0.672	5.0	0.919		
7.5	0.879	7.5	2.773	7.5	1.056	7.5	0.827	7.5	0.941	7.5	0.672	7.5	0.829		
10.0	0.879	10.0	2.598	10.0	1.100	10.0	0.918	10.0	2.175	10.0	0.672	10.0	1.775		
15.0	0.788	15.0	2.379	15.0	1.056	15.0	0.782	15.0	0.501	15.0	0.716	15.0	0.558		
20.0	0.652	20.0	1.679	20.0	0.926	20.0	0.827	20.0	0.633	20.0	0.760	20.0	0.249		
30.0	0.652	30.0	0.978	30.0	0.883	30.0	0.872	30.0	0.765	30.0	0.760	30.0	0.062		
50.0	0.698	50.0	1.110	50.0	0.970	50.0	0.918	50.0	0.589	50.0	1.022	50.0	0.468		
65.0	3.057	65.0	3.517	65.0	3.138	65.0	2.359	65.0	3.189	65.0	3.735	65.0	2.363		
70.0	2.059	70.0	2.247	70.0	2.184	70.0	1.863	70.0	2.352	70.0	3.473	70.0	2.137		
76.8	0.652	76.8	2.598	76.8	0.319	76.8	2.269	76.8	2.220	76.8	0.716	76.8	2.137		
77.1	2.467	77.1	2.860	77.1	2.705	77.1	2.224	77.1	2.220	77.1	0.716	77.1	1.731		
80.0	2.149	80.0	2.554	80.0	2.618	80.0	2.384	80.0	2.572	80.0	3.385	80.0	2.814		
85.0	1.605	85.0	1.854	85.0	1.794	85.0	1.773	85.0	1.294	85.0	3.560	85.0	2.183		
90.0	1.333	90.0	1.679	90.0	1.360	90.0	1.233	90.0	0.853	90.0	3.166	90.0	1.506		
95.0	1.015	95.0	1.241	95.0	1.056	95.0	0.872	95.0	0.589	95.0	2.685	95.0	0.919		
TOTAL NORMAL COEFFICIENT															
CN = 3.33		4.52		3.84		4.15		5.30		6.08		4.14			

TABLE V-43

RUN 35, POINT 3		Q = 4.47		ALPHA = 0		TCP = 2.50	
VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8	
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	
0.0 -2.27	0.0 -6.433	0.0 -4.801	0.0 -4.609	0.0 -8.721	0.0 1.062	0.0 0.253	
1.2 -1.011	1.2 -2.390	1.2 -1.334	1.2 -1.571	1.2 -2.910	1.2 -1.754	1.2 0.085	
2.5 -1.253	2.5 -2.254	2.5 -2.190	2.5 -2.179	2.5 -2.727	2.5 -1.754	2.5 -0.028	
5.0 -1.205	5.0 -3.253	5.0 -3.495	5.0 -3.347	5.0 -3.505	5.0 -0.710	5.0 -0.122	
7.5 -1.253	7.5 -3.390	7.5 -3.946	7.5 -1.193	7.5 -4.731	7.5 0.108	7.5 -0.309	
10.0 -2.006	10.0 -3.253	10.0 -4.396	10.0 -4.282	10.0 -4.054	10.0 -1.754	10.0 -0.543	
15.0 -2.053	15.0 -3.526	15.0 -4.216	15.0 -0.870	15.0 -3.871	15.0 -1.754	15.0 -0.778	
20.0 -2.824	20.0 -3.526	20.0 -4.036	20.0 -4.092	20.0 -4.008	20.0 -2.981	20.0 -1.199	
25.0 -2.990	25.0 -3.844	25.0 -4.216	25.0 -1.244	25.0 -4.329	25.0 -3.435	25.0 -1.386	
30.0 -2.916	30.0 -4.028	30.0 -4.261	30.0 -4.039	30.0 -4.603	30.0 -3.889	30.0 -1.527	
40.0 -2.931	40.0 -4.117	40.0 -4.171	40.0 -4.516	40.0 -4.786	40.0 -4.026	40.0 -1.667	
50.0 -3.089	50.0 -3.980	50.0 1.188	50.0 -4.609	50.0 -5.427	50.0 -4.616	50.0 -1.895	
60.0 -3.240	60.0 -3.344	60.0 -5.036	60.0 -4.796	60.0 -5.793	60.0 -5.388	60.0 -1.995	
61.5 -2.241	61.5 -2.209	61.5 -2.415	61.5 -0.916	61.5 -3.414	61.5 -2.754	61.5 -1.995	
62.5 -5.715	62.5 -10.067	62.5 -9.709	62.5 -8.256	62.5 -9.544	62.5 -7.660	62.5 1.939	
65.0 -1.194	65.0 -14.065	65.0 -14.527	65.0 -14.333	65.0 -14.256	65.0 -16.109	65.0 1.658	
70.0 -8.433	70.0 -11.158	70.0 -11.510	70.0 -11.855	70.0 -11.191	70.0 -13.383	70.0 1.564	
75.0 -5.255	75.0 -6.933	75.0 -7.503	75.0 -7.321	75.0 -7.668	75.0 -9.068	75.0 1.377	
75.6 -4.360	75.6 -5.388	75.6 -6.557	75.6 -6.433	75.6 -8.080	75.6 -5.388	75.6 0.627	
76.1 -6.133	76.1 -7.705	76.1 -8.899	76.1 -6.479	76.1 -9.864	76.1 1.198	76.1 0.393	
77.1 2.9.4	77.1 -8.568	77.1 -7.098	77.1 1.514	77.1 -10.339	77.1 1.198	77.1 2.206	
78.6 3.127	78.6 4.514	78.6 4.114	78.6 3.875	78.6 3.357	78.6 2.561	78.6 0.346	
80.0 -3.984	80.0 -5.343	80.0 -5.567	80.0 -6.479	80.0 -7.028	80.0 -6.660	80.0 -0.028	
85.0 -3.937	85.0 -3.435	85.0 -3.540	85.0 -4.095	85.0 -3.963	85.0 -4.071	85.0 -0.075	
90.0 -1.347	90.0 -0.710	90.0 -0.569	90.0 -0.636	90.0 -1.309	90.0 -0.710	90.0 -0.262	
95.0 -2.876	95.0 0.063	95.0 -0.163	95.0 0.206	95.0 -0.257	95.0 0.108	95.0 -0.543	
2.5 -0.169	2.5 5.332	2.5 2.403	2.5 2.870	2.5 5.096	2.5 1.017	2.5 -0.075	
5.0 1.008	5.0 4.514	5.0 3.844	5.0 3.992	5.0 4.730	5.0 1.017	5.0 0.768	
7.5 2.337	7.5 3.651	7.5 3.529	7.5 3.712	7.5 1.756	7.5 1.017	7.5 0.768	
10.0 1.432	10.0 3.242	10.0 2.854	10.0 2.917	10.0 3.357	10.0 1.017	10.0 3.063	
15.0 1.902	15.0 2.697	15.0 1.863	15.0 2.636	15.0 0.887	15.0 1.017	15.0 2.829	
20.0 1.526	20.0 2.001	20.0 1.368	20.0 1.140	20.0 1.024	20.0 1.062	20.0 2.688	
30.0 1.772	30.0 0.880	30.0 1.098	30.0 1.094	30.0 1.161	30.0 1.198	30.0 2.548	
50.0 1.008	50.0 2.152	50.0 2.223	50.0 2.449	50.0 1.665	50.0 1.834	50.0 2.407	
65.0 4.022	65.0 5.514	65.0 5.150	65.0 5.067	65.0 5.370	65.0 3.470	65.0 2.220	
70.0 3.759	70.0 5.514	70.0 5.015	70.0 4.834	70.0 5.004	70.0 4.511	70.0 2.126	
76.8 2.9.4	76.8 5.695	76.8 0.287	76.8 5.057	76.8 5.057	76.8 1.289	76.8 1.986	
77.1 4.163	77.1 5.287	77.1 4.745	77.1 4.630	77.1 4.547	77.1 1.289	77.1 1.330	
80.0 4.324	80.0 5.695	80.0 5.285	80.0 5.254	80.0 5.324	80.0 3.742	80.0 1.751	
85.0 4.540	85.0 5.786	85.0 5.015	85.0 4.974	85.0 5.416	85.0 5.332	85.0 2.367	
90.0 3.551	90.0 5.468	90.0 4.430	90.0 4.226	90.0 4.821	90.0 5.060	90.0 2.313	
95.0 2.891	95.0 4.878	95.0 3.484	95.0 3.244	95.0 4.272	95.0 4.605	95.0 2.032	
TOTAL NORMAL COEFFICIENT							
CN = 5.03	7.82	6.56	7.55	8.21	6.76	2.78	

TABLE V-44

RUN 35, POINT 6		Q = 4.46		ALPHA = 12		TCP = 2.50	
VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8	
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	
0.0 -4.889	0.0 -5.765	0.0 -2.826	0.0 -0.450	0.0 -7.777	0.0 0.882	0.0 0.019	
1.2 -1.680	1.2 -3.534	1.2 -2.510	1.2 -2.699	1.2 -4.017	1.2 -2.760	1.2 -1.8.944	
2.5 -2.199	2.5 -3.989	2.5 -4.180	2.5 -3.870	2.5 -4.430	2.5 -2.805	2.5 -0.122	
5.0 -2.246	5.0 -5.082	5.0 -5.940	5.0 -5.557	5.0 -5.118	5.0 -3.625	5.0 -0.263	
7.5 -2.388	7.5 -5.036	7.5 -6.256	7.5 -1.668	7.5 -5.714	7.5 -4.711	7.5 -2.545	
10.0 -3.709	10.0 -4.581	10.0 -6.572	10.0 -6.072	10.0 -5.255	10.0 -4.308	10.0 -1.202	
15.0 -3.709	15.0 -4.991	15.0 -5.850	15.0 -1.200	15.0 -5.209	15.0 -4.353	15.0 -2.140	
20.0 -4.209	20.0 -4.854	20.0 -5.444	20.0 -5.369	20.0 -5.485	20.0 -5.082	20.0 -2.422	
25.0 -4.087	25.0 -5.173	25.0 -5.669	25.0 -1.809	25.0 -6.081	25.0 -5.218	25.0 -2.610	
30.0 -3.993	30.0 -4.900	30.0 -5.218	30.0 -5.674	30.0 -6.264	30.0 -5.355	30.0 -2.751	
40.0 -3.379	40.0 -4.490	40.0 -4.722	40.0 -5.135	40.0 -6.127	40.0 -5.264	40.0 -2.938	
50.0 -3.285	50.0 -4.035	50.0 0.920	50.0 -5.041	50.0 -6.768	50.0 -5.674	50.0 -3.079	
60.0 -3.190	60.0 -5.736	60.0 -4.315	60.0 -5.388	60.0 -6.860	60.0 -6.357	60.0 -3.314	
61.5 -1.633	61.5 -2.578	61.5 -2.601	61.5 -3.825	61.5 -3.926	61.5 -2.942	61.5 -3.408	
62.5 -4.937	62.5 -7.222	62.5 -7.520	62.5 -6.728	62.5 -10.207	62.5 -8.587	62.5 1.849	
65.0 -8.429	65.0 -7.176	65.0 -10.498	65.0 -10.945	65.0 -15.847	65.0 -18.330	65.0 -0.638	
70.0 -5.558	70.0 -7.131	70.0 -7.790	70.0 -8.321	70.0 -12.546	70.0 -15.644	70.0 -4.910	
75.0 -2.813	75.0 -2.487	75.0 -4.090	75.0 -4.995	75.0 -8.603	75.0 -10.727	75.0 -5.097	
75.6 -3.049	75.6 -4.308	75.6 -4.496	75.6 -4.339	75.6 -9.428	75.6 -6.357	75.6 -4.628	
76.3 -4.040	76.3 -5.264	76.3 -5.714	76.3 -4.339	76.3 -11.079	76.3 0.746	76.3 -5.191	
77.1 3.774	77.1 -4.718	77.1 -4.045	77.1 1.143	77.1 -11.170	77.1 0.882	77.1 -5.473	
78.6 3.983	78.6 5.299	78.6 4.710	78.6 3.720	78.6 3.090	78.6 3.159	78.6 0.629	
80.0 -2.294	80.0 -3.670	80.0 -3.368	80.0 -4.760	80.0 -8.373	80.0 -9.043	80.0 0.253	
85.0 -1.822	85.0 -1.804	85.0 -2.736	85.0 -3.448	85.0 -4.889	85.0 -5.583	85.0 0.019	
90.0 -1.067	90.0 -1.030	90.0 -0.886	90.0 -0.965	90.0 -1.954	90.0 -1.485	90.0 -0.169	
95.0 -0.878	95.0 -1.303	95.0 -0.886	95.0 -0.450	95.0 -1.129	95.0 0.363	95.0 -1.014	
2.5 2.756	2.5 6.255	2.5 3.808	2.5 0.862	2.5 5.887	2.5 0.882	2.5 0.817	
5.0 4.408	5.0 5.390	5.0 3.041	5.0 1.049	5.0 5.107	5.0 0.837	5.0 0.911	
7.5 3.087	7.5 4.434	7.5 2.138	7.5 0.815	7.5 1.898	7.5 0.882	7.5 0.864	
10.0 1.860	10.0 3.933	10.0 1.687	10.0 0.939	10.0 3.686	10.0 0.882	10.0 2.694	
15.0 0.9.0	15.0 3.295	15.0 1.235	15.0 0.768	15.0 0.568	15.0 0.973	15.0 1.662	
20.0 0.727	20.0 2.203	20.0 1.055	20.0 0.534	20.0 0.843	20.0 0.973	20.0 1.004	
30.0 0.585	30.0 0.928	30.0 0.874	30.0 0.721	30.0 0.935	30.0 1.110	30.0 0.019	
50.0 0.821	50.0 1.611	50.0 1.326	50.0 1.471	50.0 0.981	50.0 1.611	50.0 0.676	
65.0 5.635	65.0 6.437	65.0 5.613	65.0 4.189	65.0 5.887	65.0 5.708	65.0 2.463	
70.0 3.983	70.0 4.843	70.0 4.394	70.0 3.861	70.0 5.153	70.0 5.890	70.0 2.882	
76.8 0.727	76.8 5.663	76.8 0.288	76.8 4.704	76.8 4.649	76.8 1.019	76.8 3.117	
77.1 4.800	77.1 5.708	77.1 5.162	77.1 4.423	77.1 4.465	77.1 1.064	77.1 2.506	
80.0 4.691	80.0 6.073	80.0 5.568	80.0 4.985	80.0 5.428	80.0 5.526	80.0 3.586	
85.0 3.606	85.0 4.479	85.0 3.943	85.0 3.954	85.0 3.961	85.0 6.118	85.0 3.304	
90.0 2.473	90.0 3.751	90.0 2.770	90.0 2.783	90.0 2.998	90.0 5.754	90.0 3.117	
95.0 1.624	95.0 2.430	95.0 1.777	95.0 1.940	95.0 2.035	95.0 4.934	95.0 2.882	
TOTAL NORMAL COEFFICIENT							
CN = 4.95	7.39	6.02	6.59	9.06	8.74	3.87	

TABLE V-45

RUN 35, POINT 7		Q = 4.46		ALPHA = 16		TCP = 2.50									
VALVE 1 100X CP	VALVE 3 100X CP	VALVE 4 100X CP	VALVE 5 100X CP	VALVE 6 100X CP	VALVE 7 100X CP	VALVE 8 100X CP	VALVE 8 CP								
0.0	-3.993	0.0	-5.674	0.0	-1.021	0.0	-0.637	0.0	-7.089	0.0	0.928	0.0	-1.483		
1.2	-3.946	1.2	-3.807	1.2	-2.046	1.2	-2.746	1.2	-4.384	1.2	-2.942	1.2	-2.422		
2.5	-4.368	2.5	-4.308	2.5	-4.677	2.5	-4.198	2.5	-4.613	2.5	-3.033	2.5	-2.610		
5.0	-4.435	5.0	-5.309	5.0	-6.030	5.0	-5.650	5.0	-5.255	5.0	-4.171	5.0	-3.220		
7.5	-2.530	7.5	-5.173	7.5	-6.391	7.5	-1.715	7.5	-5.851	7.5	-4.627	7.5	-3.455		
10.0	-3.851	10.0	-4.627	10.0	-6.707	10.0	-6.166	10.0	-5.347	10.0	-4.763	10.0	-3.549		
15.0	-3.898	15.0	-5.082	15.0	-5.940	15.0	-1.200	15.0	-5.347	15.0	-4.763	15.0	-3.595		
20.0	-4.47	20.0	-5.036	20.0	-5.489	20.0	-5.463	20.0	-5.760	20.0	-5.492	20.0	-3.595		
25.0	-4.087	25.0	-5.218	25.0	-5.534	25.0	-1.762	25.0	-6.539	25.0	-5.537	25.0	-3.595		
30.0	-4.040	30.0	-5.036	30.0	-5.173	30.0	-5.510	30.0	-6.493	30.0	-5.537	30.0	-3.595		
40.0	-3.426	40.0	-4.627	40.0	-4.631	40.0	-5.041	40.0	-6.356	40.0	-5.446	40.0	-3.642		
50.0	-3.190	50.0	-3.898	50.0	0.829	50.0	-4.760	50.0	-6.860	50.0	-5.765	50.0	-3.877		
60.0	-2.907	60.0	-3.989	60.0	-4.135	60.0	-4.620	60.0	-6.768	60.0	-6.448	60.0	-4.253		
61.5	-2.105	61.5	-2.532	61.5	-2.697	61.5	-0.684	61.5	-4.063	61.5	-3.488	61.5	-4.112		
62.5	-5.09	62.5	-6.539	62.5	-6.888	62.5	-6.400	62.5	-9.978	62.5	-8.405	62.5	1.802		
65.0	-3.193	65.0	-7.540	65.0	-9.957	65.0	-10.242	65.0	-14.976	65.0	-18.422	65.0	-0.216		
70.0	-4.47	70.0	-4.945	70.0	-6.617	70.0	-7.478	70.0	-12.271	70.0	-15.917	70.0	-1.202		
75.0	-2.954	75.0	-2.487	75.0	-3.323	75.0	-4.198	75.0	-8.282	75.0	-11.091	75.0	-2.281		
75.6	-3.143	75.6	-3.124	75.6	-3.774	75.6	-3.495	75.6	-8.923	75.6	-6.584	75.6	-2.985		
76.3	-3.993	76.3	-3.397	76.3	-4.586	76.3	-3.542	76.3	-10.070	76.3	0.791	76.3	-3.316		
77.1	0.660	77.1	-3.306	77.1	-3.232	77.1	1.003	77.1	-10.620	77.1	0.746	77.1	-3.549		
78.6	3.936	78.6	4.980	78.6	4.440	78.6	3.767	78.6	2.998	78.6	3.250	78.6	0.957		
80.0	-2.152	80.0	-2.669	80.0	-3.187	80.0	-4.526	80.0	-8.373	80.0	-9.452	80.0	0.394		
85.0	-2.135	85.0	-2.031	85.0	-2.375	85.0	-2.980	85.0	-4.476	85.0	-5.719	85.0	0.066		
90.0	-0.945	90.0	-1.166	90.0	-0.660	90.0	-0.778	90.0	-1.816	90.0	-1.440	90.0	-0.122		
95.0	-0.595	95.0	-0.939	95.0	-0.479	95.0	-0.493	95.0	-0.899	95.0	0.017	95.0	-1.436		
2.5	3.087	2.5	6.482	2.5	2.905	2.5	0.768	2.5	6.070	2.5	0.928	2.5	0.817		
5.0	2.945	5.0	5.572	5.0	2.048	5.0	0.768	5.0	5.007	5.0	0.928	5.0	0.957		
7.5	2.284	7.5	4.525	7.5	1.551	7.5	1.096	7.5	1.943	7.5	0.882	7.5	0.817		
10.0	1.482	10.0	4.024	10.0	1.326	10.0	0.862	10.0	3.778	10.0	0.928	10.0	2.694		
15.0	0.869	15.0	3.295	15.0	1.055	15.0	0.675	15.0	0.476	15.0	0.973	15.0	1.380		
20.0	0.727	20.0	2.112	20.0	0.920	20.0	0.628	20.0	0.843	20.0	1.019	20.0	0.864		
30.0	0.585	30.0	0.928	30.0	0.784	30.0	0.581	30.0	0.889	30.0	1.764	30.0	0.113		
50.0	0.84	50.0	1.520	50.0	1.281	50.0	1.284	50.0	0.751	50.0	1.656	50.0	0.676		
65.0	5.750	65.0	6.437	65.0	5.613	65.0	4.095	65.0	5.887	65.0	5.981	65.0	2.647		
70.0	3.700	70.0	4.160	70.0	3.853	70.0	3.533	70.0	4.603	70.0	6.164	70.0	2.882		
76.8	0.680	76.8	4.889	76.8	0.333	76.8	4.282	76.8	4.007	76.8	1.064	76.8	3.023		
77.1	4.503	77.1	5.253	77.1	5.026	77.1	4.235	77.1	4.490	77.1	1.110	77.1	2.553		
80.0	4.597	80.0	5.116	80.0	4.892	80.0	5.032	80.0	4.511	80.0	5.845	80.0	4.355		
85.0	3.370	85.0	3.432	85.0	3.086	85.0	3.345	85.0	3.273	85.0	6.482	85.0	3.070		
90.0	2.426	90.0	2.931	90.0	2.093	90.0	2.478	90.0	2.989	90.0	5.845	90.0	2.084		
95.0	1.778	95.0	1.793	95.0	1.326	95.0	1.799	95.0	1.577	95.0	5.071	95.0	1.380		
TOTAL NORMAL COEFFICIENT		6.94		5.59		6.19		8.78		9.02		3.93			
CN =		4.83		6.94		5.59		6.19		8.78		9.02		3.93	

TABLE V-46

RUN 26, POINT 15		Q = 8.00		ALPHA = 0		TCP = 0.							
VALVE 1 100X CP	VALVE 3 100X CP	VALVE 4 100X CP	VALVE 5 100X CP	VALVE 6 100X CP	VALVE 7 100X CP	VALVE 8 100X CP	VALVE 8 CP						
0.0	-1.816	0.0	-1.690	0.0	-2.025	0.0	-2.111	0.0	-2.401	0.0	0.501	0.0	-0.184
1.2	-0.738	1.2	-1.061	1.2	-0.752	1.2	-0.887	1.2	-1.266	1.2	-0.709	1.2	-0.314
2.5	-0.936	2.5	-1.111	2.5	-1.152	2.5	-1.069	2.5	-1.163	2.5	-0.810	2.5	-0.548
5.0	-0.965	5.0	-1.439	5.0	-1.476	5.0	-1.408	5.0	-1.473	5.0	-1.138	5.0	-0.860
7.5	-1.362	7.5	-1.514	7.5	-1.701	7.5	-0.497	7.5	-1.705	7.5	-1.289	7.5	-1.016
10.0	-1.504	10.0	-1.514	10.0	-1.826	10.0	-1.720	10.0	-1.653	10.0	-1.340	10.0	-1.068
15.0	-1.617	15.0	-1.590	15.0	-1.801	15.0	-0.393	15.0	-1.627	15.0	-1.390	15.0	-1.146
20.0	-1.731	20.0	-1.590	20.0	-1.801	20.0	-1.512	20.0	-1.627	20.0	-1.441	20.0	-1.198
25.0	-1.702	25.0	-1.665	25.0	-1.850	25.0	-0.497	25.0	-1.679	25.0	-1.516	25.0	-1.250
30.0	-1.759	30.0	-1.716	30.0	-1.850	30.0	-1.902	30.0	-1.731	30.0	-1.592	30.0	-1.276
40.0	-1.617	40.0	-1.716	40.0	-1.920	40.0	-1.876	40.0	-1.731	40.0	-1.567	40.0	-1.302
50.0	-1.589	50.0	-1.640	50.0	0.421	50.0	-1.824	50.0	-1.782	50.0	-1.617	50.0	-1.354
60.0	-1.504	60.0	-1.640	60.0	-1.701	60.0	-1.746	60.0	-1.756	60.0	-1.668	60.0	-1.458
61.5	-0.511	61.5	-0.658	61.5	-0.952	61.5	-0.184	61.5	-0.183	61.5	-0.205	61.5	-0.704
62.5	-2.241	62.5	-2.975	62.5	-3.049	62.5	-1.174	62.5	-0.983	62.5	-0.709	62.5	-2.030
65.0	-3.632	65.0	-4.058	65.0	-4.147	65.0	-2.814	65.0	-2.608	65.0	-2.475	65.0	-2.913
70.0	-2.468	70.0	-2.924	70.0	-2.949	70.0	-2.788	70.0	-2.608	70.0	-2.727	70.0	-2.913
75.0	-1.447	75.0	-1.539	75.0	-1.701	75.0	-1.850	75.0	-1.705	75.0	-1.970	75.0	-0.834
75.6	-3.944	75.6	-3.579	75.6	-3.823	75.6	-0.783	75.6	-0.957	75.6	-0.734	75.6	-1.640
76.3	-3.688	76.3	-3.076	76.3	-3.548	76.3	-0.809	76.3	-1.370	76.3	0.401	76.3	-2.134
77.1	0.454	77.1	-2.270	77.1	-2.000	77.1	-1.955	77.1	-1.576	77.1	0.401	77.1	-2.497
78.6	0.766	78.6	0.803	78.6	0.746	78.6	0.623	78.6	0.642	78.6	0.602	78.6	0.128
80.0	-1.731	80.0	-1.287	80.0	-1.326	80.0	-1.616	80.0	-1.318	80.0	-1.365	80.0	-1.562
85.0	-1.674	85.0	-0.431	85.0	-0.727	85.0	-1.148	85.0	-0.957	85.0	-1.037	85.0	-1.718
90.0	-0.482	90.0	-0.280	90.0	-0.203	90.0	-0.341	90.0	-0.415	90.0	-0.356	90.0	-1.250
95.0	-0.142	95.0	-0.230	95.0	-0.078	95.0	-0.158	95.0	-0.286	95.0	-0.180	95.0	-0.600
2.5	0.908	2.5	1.004	2.5	0.771	2.5	0.961	2.5	1.004	2.5	0.476	2.5	-0.314
5.0	0.993	5.0	0.954	5.0	0.945	5.0	1.039	5.0	0.978	5.0	0.476	5.0	0.258
7.5	1.022	7.5	0.853	7.5	0.920	7.5	0.935	7.5	0.307	7.5	0.476	7.5	0.648
10.0	1.050	10.0	0.853	10.0	0.845	10.0	0.831	10.0	0.797	10.0	0.476	10.0	-0.418
15.0	0.993	15.0	0.878	15.0	0.696	15.0	0.518	15.0	0.462	15.0	0.501	15.0	0.414
20.0	0.710	20.0	0.727	20.0	0.621	20.0	0.492	20.0	0.462	20.0	0.476	20.0	0.284
30.0	0.568	30.0	0.627	30.0	0.571	30.0	0.492	30.0	0.410	30.0	0.476	30.0	0.206
50.0	0.568	50.0	0.627	50.0	0.571	50.0	0.518	50.0	0.410	50.0	0.451	50.0	0.284
65.0	1.192	65.0	0.979	65.0	0.945	65.0	0.961	65.0	0.926	65.0	1.006	65.0	0.856
70.0	1.164	70.0	1.004	70.0	0.945	70.0	0.857	70.0	0.849	70.0	0.955	70.0	0.778
76.8	0.454	76.8	1.055	76.8	0.072	76.8	0.831	76.8	0.849	76.8	0.451	76.8	0.752
77.1	1.078	77.1	0.979	77.1	0.870	77.1	0.805	77.1	0.823	77.1	0.451	77.1	3.622
80.0	0.908	80.0	0.803	80.0	0.796	80.0	0.961	80.0	0.978	80.0	0.930	80.0	0.959
85.0	1.305	85.0	1.055	85.0	0.970	85.0	0.883	85.0	0.926	85.0	1.031	85.0	0.882
90.0	1.305	90.0	1.080	90.0	0.995	90.0	0.753	90.0	0.771	90.0	0.930	90.0	0.726
95.0	1.220	95.0	1.055	95.0	0.995	95.0	0.597	95.0	0.642	95.0	0.779	95.0	0.544
TOTAL NORMAL COEFFICIENT		2.32		2.02		2.17		2.18		2.04		1.79	
CN =		2.26		2.32									

TABLE V-47

RUN 26 POINT 18		Q = 8.00		ALPHA = 12		TCP = 0.	
VALVE 1 100X CP	VALVE 3 100X CP	VALVE 4 100X CP	VALVE 5 100X CP	VALVE 6 100X CP	VALVE 7 100X CP	VALVE 8 100X CP	VALVE 8 100X CP
0. 0.114	0. -0.658	0. 0.072	0. -0.132	0. -0.854	0. 0.577	0. -1.094	0. -1.094
1.2 -1.333	1.2 -1.892	1.2 -1.251	1.2 -1.434	1.2 -1.860	1.2 -1.315	1.2 -1.432	1.2 -1.432
2.5 -2.014	2.5 -2.244	2.5 -2.250	2.5 -2.163	2.5 -2.272	2.5 -1.718	2.5 -1.562	2.5 -1.562
5.0 -2.071	5.0 -2.748	5.0 -2.924	5.0 -2.814	5.0 -2.608	5.0 -2.626	5.0 -1.978	5.0 -1.978
7.5 -2.837	7.5 -2.723	7.5 -3.049	7.5 -0.861	7.5 -2.840	7.5 -2.727	7.5 -2.082	7.5 -2.082
10.0 -2.667	10.0 -2.496	10.0 -3.198	10.0 -2.944	10.0 -2.659	10.0 -2.626	10.0 -2.056	10.0 -2.056
15.0 -2.695	15.0 -2.521	15.0 -2.899	15.0 -0.601	15.0 -2.453	15.0 -2.525	15.0 -2.134	15.0 -2.134
20.0 -2.695	20.0 -2.345	20.0 -2.724	20.0 -2.527	20.0 -2.453	20.0 -2.500	20.0 -2.082	20.0 -2.082
25.0 -2.497	25.0 -2.345	25.0 -2.699	25.0 -0.783	25.0 -2.530	25.0 -2.475	25.0 -2.082	25.0 -2.082
30.0 -2.440	30.0 -2.320	30.0 -2.599	30.0 -2.579	30.0 -2.505	30.0 -2.424	30.0 -2.056	30.0 -2.056
40.0 -2.071	40.0 -2.144	40.0 -2.375	40.0 -2.345	40.0 -2.324	40.0 -2.273	40.0 -1.952	40.0 -1.952
50.0 -1.901	50.0 -1.917	50.0 0.571	50.0 -2.137	50.0 -2.401	50.0 -2.222	50.0 -2.030	50.0 -2.030
60.0 -1.674	60.0 -1.539	60.0 -2.000	60.0 -1.902	60.0 -2.195	60.0 -2.222	60.0 -2.238	60.0 -2.238
61.5 -0.567	61.5 -0.582	61.5 -0.727	61.5 0.050	61.5 -0.260	61.5 -0.079	61.5 -1.068	61.5 -1.068
62.5 -2.383	62.5 -2.950	62.5 -3.024	62.5 -1.017	62.5 -1.163	62.5 -0.709	62.5 -2.108	62.5 -2.108
65.0 -3.632	65.0 -3.806	65.0 -4.147	65.0 -2.866	65.0 -3.072	65.0 -3.392	65.0 -4.499	65.0 -4.499
70.0 -2.241	70.0 -2.748	70.0 -2.699	70.0 -2.605	70.0 -2.943	70.0 -2.424	70.0 -4.577	70.0 -4.577
75.0 -1.192	75.0 -1.489	75.0 -1.476	75.0 -1.668	75.0 -2.092	75.0 -2.424	75.0 -0.574	75.0 -0.574
75.6 -3.291	75.6 -3.680	75.6 -3.723	75.6 -0.653	75.6 -1.292	75.6 -0.961	75.6 -2.627	75.6 -2.627
76.3 -3.149	76.3 -3.201	76.3 -3.398	76.3 -0.653	76.3 -1.756	76.3 0.476	76.3 -3.407	76.3 -3.407
77.1 0.568	77.1 -2.396	77.1 -1.900	77.1 -1.824	77.1 -1.963	77.1 0.476	77.1 -3.979	77.1 -3.979
78.6 0.738	78.6 0.954	78.6 0.870	78.6 0.571	78.6 0.617	78.6 0.678	78.6 -0.002	78.6 -0.002
80.0 -1.419	80.0 -1.363	80.0 -1.226	80.0 -1.356	80.0 -1.731	80.0 -1.743	80.0 -4.317	80.0 -4.317
85.0 -1.617	85.0 -0.557	85.0 -0.652	85.0 -1.017	85.0 -1.266	85.0 -1.441	85.0 -3.589	85.0 -3.589
90.0 -0.198	90.0 -0.129	90.0 -0.103	90.0 -0.315	90.0 -0.621	90.0 -0.482	90.0 -1.666	90.0 -1.666
95.0 -0.057	95.0 -0.204	95.0 -0.178	95.0 -0.132	95.0 -0.467	95.0 -0.154	95.0 -0.886	95.0 -0.886
2.5 1.107	2.5 1.281	2.5 1.045	2.5 0.961	2.5 1.004	2.5 0.552	2.5 0.933	2.5 0.933
5.0 1.107	5.0 1.281	5.0 1.045	5.0 0.961	5.0 1.055	5.0 0.552	5.0 0.882	5.0 0.882
7.5 1.107	7.5 1.181	7.5 0.995	7.5 0.961	7.5 0.359	7.5 0.552	7.5 0.752	7.5 0.752
10.0 0.993	10.0 1.206	10.0 0.970	10.0 0.935	10.0 0.900	10.0 0.552	10.0 -1.952	10.0 -1.952
15.0 0.908	15.0 1.231	15.0 0.895	15.0 0.701	15.0 0.436	15.0 0.577	15.0 0.518	15.0 0.518
20.0 0.851	20.0 0.929	20.0 0.821	20.0 0.701	20.0 0.436	20.0 0.577	20.0 0.388	20.0 0.388
30.0 0.766	30.0 0.853	30.0 0.771	30.0 0.701	30.0 0.462	30.0 0.577	30.0 0.284	30.0 0.284
50.0 0.681	50.0 0.803	50.0 0.746	50.0 0.675	50.0 0.436	50.0 0.577	50.0 0.414	50.0 0.414
65.0 1.362	65.0 1.206	65.0 1.120	65.0 0.961	65.0 1.055	65.0 1.409	65.0 1.167	65.0 1.167
70.0 1.135	70.0 1.231	70.0 1.120	70.0 0.857	70.0 0.823	70.0 1.182	70.0 0.908	70.0 0.908
76.8 0.596	76.8 1.281	76.8 0.147	76.8 0.805	76.8 0.823	76.8 0.527	76.8 0.804	76.8 0.804
77.1 0.937	77.1 1.206	77.1 0.995	77.1 0.779	77.1 0.823	77.1 0.527	77.1 0.596	77.1 0.596
80.0 0.965	80.0 1.004	80.0 0.995	80.0 0.961	80.0 1.029	80.0 1.182	80.0 1.167	80.0 1.167
85.0 1.050	85.0 1.281	85.0 1.095	85.0 0.909	85.0 0.849	85.0 1.182	85.0 0.959	85.0 0.959
90.0 1.050	90.0 1.281	90.0 1.070	90.0 0.831	90.0 0.694	90.0 1.056	90.0 0.726	90.0 0.726
95.0 1.022	95.0 1.130	95.0 0.945	95.0 0.701	95.0 0.513	95.0 0.905	95.0 0.492	95.0 0.492
TOTAL NORMAL COEFFICIENT							
CN = 2.72	2.88	2.57	2.59	2.79	2.89	2.78	

TABLE V-48

RUN 26 POINT 20		Q = 7.94		ALPHA = 20		TCP = 0.	
VALVE 1 100X CP	VALVE 3 100X CP	VALVE 4 100X CP	VALVE 5 100X CP	VALVE 6 100X CP	VALVE 7 100X CP	VALVE 8 100X CP	VALVE 8 100X CP
0. 0.000	0. -0.739	0. 0.173	0. -0.290	0. -0.938	0. 0.531	0. -0.683	0. -0.683
1.2 -1.601	1.2 -2.210	1.2 -1.412	1.2 -1.733	1.2 -2.159	1.2 -1.553	1.2 -1.573	1.2 -1.573
2.5 -2.401	2.5 -2.642	2.5 -2.619	2.5 -2.572	2.5 -2.601	2.5 -2.112	2.5 -1.835	2.5 -1.835
5.0 -2.430	5.0 -3.149	5.0 -3.373	5.0 -3.281	5.0 -2.783	5.0 -3.179	5.0 -2.333	5.0 -2.333
7.5 -3.202	7.5 -3.099	7.5 -3.449	7.5 -0.999	7.5 -2.861	7.5 -3.256	7.5 -2.464	7.5 -2.464
10.0 -3.001	10.0 -2.769	10.0 -3.549	10.0 -3.307	10.0 -2.757	10.0 -3.052	10.0 -2.438	10.0 -2.438
15.0 -3.001	15.0 -2.769	15.0 -3.248	15.0 -0.658	15.0 -2.809	15.0 -2.925	15.0 -2.516	15.0 -2.516
20.0 -2.973	20.0 -2.616	20.0 -2.996	20.0 -2.756	20.0 -2.887	20.0 -2.824	20.0 -2.438	20.0 -2.438
25.0 -2.716	25.0 -2.540	25.0 -2.971	25.0 -0.868	25.0 -2.861	25.0 -2.798	25.0 -2.385	25.0 -2.385
30.0 -2.630	30.0 -2.439	30.0 -2.770	30.0 -2.730	30.0 -2.705	30.0 -2.671	30.0 -2.207	30.0 -2.207
40.0 -2.144	40.0 -2.236	40.0 -2.443	40.0 -2.441	40.0 -2.653	40.0 -2.519	40.0 -2.228	40.0 -2.228
50.0 -1.858	50.0 -1.957	50.0 0.575	50.0 -2.100	50.0 -2.601	50.0 -2.417	50.0 -2.333	50.0 -2.333
60.0 -1.543	60.0 -1.500	60.0 -2.040	60.0 -1.890	60.0 -2.341	60.0 -2.417	60.0 -2.316	60.0 -2.316
61.5 -0.343	61.5 -0.561	61.5 -0.657	61.5 0.103	61.5 -0.288	61.5 -0.054	61.5 -1.338	61.5 -1.338
62.5 -2.029	62.5 -2.743	62.5 -2.594	62.5 -0.789	62.5 -1.198	62.5 -0.765	62.5 -2.149	62.5 -2.149
65.0 -2.773	65.0 -3.581	65.0 -3.700	65.0 -2.520	65.0 -3.095	65.0 -3.484	65.0 -5.240	65.0 -5.240
70.0 -1.400	70.0 -2.616	70.0 -2.342	70.0 -2.310	70.0 -3.095	70.0 -3.764	70.0 -5.371	70.0 -5.371
75.0 -0.943	75.0 -1.398	75.0 -1.235	75.0 -1.418	75.0 -2.107	75.0 -2.646	75.0 -0.683	75.0 -0.683
75.6 -2.830	75.6 -3.225	75.6 -3.222	75.6 -0.658	75.6 -1.328	75.6 -0.994	75.6 -2.883	75.6 -2.883
76.3 -2.601	76.3 -2.718	76.3 -2.895	76.3 -0.684	76.3 -1.796	76.3 0.480	76.3 -3.721	76.3 -3.721
77.1 0.629	77.1 -2.210	77.1 -1.688	77.1 -1.602	77.1 -2.003	77.1 0.480	77.1 -4.192	77.1 -4.192
78.6 0.744	78.6 0.860	78.6 0.726	78.6 0.628	78.6 0.596	78.6 0.580	78.6 -0.002	78.6 -0.002
80.0 -1.172	80.0 -1.246	80.0 -1.135	80.0 -1.235	80.0 -1.744	80.0 -1.883	80.0 -4.611	80.0 -4.611
85.0 -1.229	85.0 -0.510	85.0 -0.607	85.0 -0.972	85.0 -1.198	85.0 -1.451	85.0 -3.747	85.0 -3.747
90.0 -0.228	90.0 -0.054	90.0 -0.028	90.0 -0.317	90.0 -0.652	90.0 -0.587	90.0 -1.521	90.0 -1.521
95.0 0.029	95.0 -0.028	95.0 0.022	95.0 -0.107	95.0 -0.366	95.0 -0.231	95.0 -1.050	95.0 -1.050
2.5 1.115	2.5 1.342	2.5 0.953	2.5 0.968	2.5 1.089	2.5 0.531	2.5 0.941	2.5 0.941
5.0 1.115	5.0 1.367	5.0 0.953	5.0 1.021	5.0 1.089	5.0 0.531	5.0 0.888	5.0 0.888
7.5 1.144	7.5 1.291	7.5 0.953	7.5 1.021	7.5 0.362	7.5 0.531	7.5 0.784	7.5 0.784
10.0 0.972	10.0 1.291	10.0 0.928	10.0 0.995	10.0 0.959	10.0 0.531	10.0 -1.914	10.0 -1.914
15.0 1.001	15.0 1.317	15.0 0.877	15.0 0.732	15.0 0.440	15.0 0.556	15.0 0.574	15.0 0.574
20.0 0.972	20.0 0.961	20.0 0.852	20.0 0.759	20.0 0.466	20.0 0.582	20.0 0.417	20.0 0.417
30.0 0.887	30.0 0.885	30.0 0.802	30.0 0.785	30.0 0.518	30.0 0.556	30.0 0.312	30.0 0.312
50.0 0.744	50.0 0.860	50.0 0.777	50.0 0.706	50.0 0.440	50.0 0.607	50.0 0.417	50.0 0.417
65.0 1.373	65.0 1.317	65.0 1.179	65.0 1.021	65.0 1.063	65.0 1.395	65.0 1.281	65.0 1.281
70.0 1.173	70.0 1.190	70.0 1.053	70.0 0.916	70.0 0.803	70.0 1.192	70.0 0.941	70.0 0.941
76.8 0.658	76.8 1.114	76.8 0.148	76.8 0.864	76.8 0.803	76.8 0.531	76.8 0.836	76.8 0.836
77.1 0.972	77.1 1.038	77.1 0.928	77.1 0.837	77.1 0.803	77.1 0.531	77.1 0.653	77.1 0.653
80.0 0.887	80.0 0.961	80.0 0.978	80.0 0.968	80.0 0.985	80.0 1.217	80.0 1.229	80.0 1.229
85.0 1.115	85.0 1.088	85.0 0.978	85.0 0.942	85.0 0.777	85.0 1.217	85.0 0.993	85.0 0.993
90.0 1.115	90.0 1.063	90.0 0.953	90.0 0.890	90.0 0.622	90.0 1.090	90.0 0.705	90.0 0.705
95.0 1.087	95.0 0.987	95.0 0.953	95.0 0.759	95.0 0.492	95.0 0.887	95.0 0.417	95.0 0.417
TOTAL NORMAL COEFFICIENT							
CN = 2.75	2.94	2.62	2.66	2.96	3.12	3.09	

TABLE V-49

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.0	-0.468	0.0	-2.807	0.0	-3.557	0.0	-3.125	0.0	-5.365	0.0	0.624	0.0	-2.314
1.2	-0.909	1.2	-1.591	1.2	-0.932	1.2	-1.105	1.2	-1.941	1.2	-1.072	1.2	-1.283
2.5	-0.909	2.5	-1.635	2.5	-1.621	2.5	-1.554	2.5	-2.118	2.5	-1.072	2.5	-1.104
5.0	-0.909	5.0	-2.199	5.0	-2.524	5.0	-2.362	5.0	-2.474	5.0	-1.115	5.0	-1.104
7.5	-1.740	7.5	-2.330	7.5	-2.783	7.5	-0.657	7.5	-3.141	7.5	-1.202	7.5	-1.149
10.0	-1.740	10.0	-2.243	10.0	-2.955	10.0	-2.901	10.0	-3.008	10.0	-1.289	10.0	-1.238
15.0	-2.034	15.0	-2.416	15.0	-2.912	15.0	-0.522	15.0	-2.919	15.0	-2.159	15.0	-1.373
20.0	-2.279	20.0	-2.416	20.0	-2.869	20.0	-2.452	20.0	-2.875	20.0	-2.159	20.0	-1.462
25.0	-2.279	25.0	-2.547	25.0	-2.955	25.0	-0.701	25.0	-3.008	25.0	-2.333	25.0	-1.597
30.0	-2.423	30.0	-2.720	30.0	-2.955	30.0	-3.125	30.0	-3.186	30.0	-2.507	30.0	-1.641
40.0	-2.279	40.0	-2.764	40.0	-2.912	40.0	-3.035	40.0	-3.230	40.0	-2.594	40.0	-1.686
50.0	-2.328	50.0	-2.677	50.0	0.703	50.0	-2.990	50.0	-3.497	50.0	-2.811	50.0	-1.821
60.0	-2.376	60.0	-1.765	60.0	-2.740	60.0	-2.990	60.0	-3.542	60.0	-3.072	60.0	-2.045
61.5	-1.496	61.5	-1.114	61.5	-1.621	61.5	-0.073	61.5	-0.873	61.5	-0.202	61.5	-0.835
62.5	-4.431	62.5	-5.760	62.5	-5.968	62.5	-1.823	62.5	-2.207	62.5	-1.159	62.5	-1.597
65.0	-7.024	65.0	-7.887	65.0	-8.679	65.0	-5.683	65.0	-5.676	65.0	-5.246	65.0	-6.151
70.0	-4.969	70.0	-6.151	70.0	-6.570	70.0	-5.953	70.0	-5.721	70.0	-6.160	70.0	-4.106
75.0	-2.963	75.0	-3.372	75.0	-4.031	75.0	-4.023	75.0	-4.120	75.0	-4.420	75.0	-1.910
75.6	-8.198	75.6	-8.799	75.6	-10.401	75.6	-1.734	75.6	-2.830	75.6	-1.637	75.6	-2.403
76.3	-7.317	76.3	-7.577	76.3	-9.540	76.3	-1.734	76.3	-4.075	76.3	0.581	76.3	-3.212
77.1	0.755	77.1	-5.673	77.1	-5.623	77.1	-1.689	77.1	-4.476	77.1	0.624	77.1	-3.837
78.6	1.949	78.6	2.360	78.6	2.081	78.6	1.947	78.6	1.439	78.6	1.494	78.6	0.375
80.0	-3.795	80.0	-2.937	80.0	-3.514	80.0	-3.753	80.0	-4.164	80.0	-3.072	80.0	-4.375
85.0	-3.599	85.0	-0.897	85.0	-1.147	85.0	-2.766	85.0	-3.008	85.0	-2.376	85.0	-4.196
90.0	-0.821	90.0	-0.549	90.0	-0.243	90.0	-0.701	90.0	-1.318	90.0	-0.680	90.0	-2.179
95.0	-0.077	95.0	-0.462	95.0	-0.329	95.0	-0.163	95.0	-0.692	95.0	-0.115	95.0	-1.104
2.5	0.540	2.5	2.881	2.5	1.952	2.5	2.171	2.5	2.596	2.5	0.624	2.5	-0.432
5.0	1.299	5.0	2.534	5.0	2.425	5.0	2.440	5.0	2.251	5.0	0.624	5.0	0.510
7.5	1.537	7.5	2.143	7.5	2.124	7.5	2.034	7.5	0.639	7.5	0.624	7.5	0.734
10.0	1.635	10.0	2.013	10.0	1.779	10.0	1.632	10.0	1.751	10.0	0.624	10.0	-1.149
15.0	1.391	15.0	1.882	15.0	1.349	15.0	0.914	15.0	0.372	15.0	0.624	15.0	0.554
20.0	1.195	20.0	1.361	20.0	1.091	20.0	0.825	20.0	0.372	20.0	0.624	20.0	0.420
30.0	0.852	30.0	1.057	30.0	0.735	30.0	0.417	30.0	0.417	30.0	0.668	30.0	0.285
50.0	0.852	50.0	1.405	50.0	1.306	50.0	1.094	50.0	0.639	50.0	0.972	50.0	0.420
65.0	2.907	65.0	2.838	65.0	2.683	65.0	2.799	65.0	2.596	65.0	2.407	65.0	1.451
70.0	2.546	70.0	2.924	70.0	2.683	70.0	2.306	70.0	2.451	70.0	2.320	70.0	1.316
76.8	0.755	76.8	3.142	76.8	0.316	76.8	2.485	76.8	2.062	76.8	0.755	76.8	1.361
77.1	2.858	77.1	2.881	77.1	2.425	77.1	2.395	77.1	2.062	77.1	0.755	77.1	1.182
80.0	2.124	80.0	2.360	80.0	2.339	80.0	2.844	80.0	2.774	80.0	2.277	80.0	1.944
85.0	3.445	85.0	3.142	85.0	2.726	85.0	2.351	85.0	2.551	85.0	2.581	85.0	1.675
90.0	3.103	90.0	3.142	90.0	2.683	90.0	1.812	90.0	2.151	90.0	2.320	90.0	1.495
95.0	2.546	95.0	3.055	95.0	2.425	95.0	1.363	95.0	1.884	95.0	1.929	95.0	1.047
TOTAL NORMAL COEFFICIENT													
CN =		3.74	4.56	3.99	4.24	4.55	3.81	2.80					

TABLE V-50

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.0	-1.104	0.0	-3.111	0.0	-0.760	0.0	-0.297	0.0	-2.963	0.0	0.711	0.0	-1.776
1.2	-1.643	1.2	-2.677	1.2	-2.395	1.2	-2.003	1.2	-2.963	1.2	-2.029	1.2	-1.776
2.5	-1.545	2.5	-3.111	2.5	-3.557	2.5	-3.080	2.5	-3.186	2.5	-2.376	2.5	-1.866
5.0	-1.643	5.0	-3.893	5.0	-4.504	5.0	-4.157	5.0	-3.744	5.0	-3.464	5.0	-2.403
7.5	-3.502	7.5	-3.762	7.5	-4.719	7.5	-1.195	7.5	-4.120	7.5	-3.681	7.5	-2.583
10.0	-3.404	10.0	-3.458	10.0	-4.935	10.0	-4.516	10.0	-3.808	10.0	-3.551	10.0	-2.627
15.0	-3.551	15.0	-3.762	15.0	-4.547	15.0	-0.836	15.0	-3.675	15.0	-3.681	15.0	-2.762
20.0	-3.648	20.0	-3.719	20.0	-4.246	20.0	-3.933	20.0	-3.764	20.0	-4.290	20.0	-2.717
25.0	-3.453	25.0	-3.849	25.0	-4.203	25.0	-1.150	25.0	-4.164	25.0	-4.029	25.0	-2.717
30.0	-3.453	30.0	-3.806	30.0	-4.117	30.0	-4.112	30.0	-4.476	30.0	-3.898	30.0	-2.717
40.0	-2.915	40.0	-3.545	40.0	-3.730	40.0	-3.753	40.0	-4.342	40.0	-3.768	40.0	-2.717
50.0	-2.749	50.0	-3.241	50.0	0.703	50.0	-3.529	50.0	-4.476	50.0	-3.855	50.0	-2.851
60.0	-2.523	60.0	-2.937	60.0	-3.256	60.0	-3.260	60.0	-4.298	60.0	-4.116	60.0	-3.122
61.5	-1.887	61.5	-1.591	61.5	-1.836	61.5	-0.028	61.5	-1.185	61.5	-0.637	61.5	-2.134
62.5	-4.529	62.5	-6.455	62.5	-5.666	62.5	-1.913	62.5	-2.697	62.5	-1.681	62.5	-1.417
65.0	-5.899	65.0	-8.322	65.0	-7.302	65.0	-5.055	65.0	-6.566	65.0	-6.812	65.0	-6.750
70.0	-3.746	70.0	-6.020	70.0	-4.935	70.0	-4.831	70.0	-6.699	70.0	-7.682	70.0	-6.392
75.0	-2.132	75.0	-3.589	75.0	-2.568	75.0	-3.080	75.0	-5.098	75.0	-5.812	75.0	-1.685
75.6	-6.290	75.6	-8.930	75.6	-8.206	75.6	-1.240	75.6	-3.808	75.6	-2.246	75.6	-4.958
76.3	-5.263	76.3	-7.193	76.3	-7.044	76.3	-1.240	76.3	-5.054	76.3	0.624	76.3	-6.257
77.1	0.803	77.1	-5.890	77.1	-4.246	77.1	-1.240	77.1	-5.410	77.1	0.581	77.1	-7.109
78.6	2.026	78.6	2.360	78.6	2.253	78.6	1.991	78.6	1.484	78.6	1.972	78.6	0.420
80.0	-2.641	80.0	-3.458	80.0	-2.912	80.0	-2.721	80.0	-5.143	80.0	-4.290	80.0	-7.960
85.0	-2.719	85.0	-1.287	85.0	-1.879	85.0	-2.003	85.0	-3.586	85.0	-3.333	85.0	-7.378
90.0	-0.664	90.0	-0.202	90.0	-0.545	90.0	-0.612	90.0	-1.496	90.0	-1.115	90.0	-3.972
95.0	-0.124	95.0	-0.202	95.0	-0.200	95.0	-0.297	95.0	-0.873	95.0	-0.507	95.0	-2.134
2.5	2.448	2.5	3.532	2.5	2.124	2.5	0.914	2.5	3.218	2.5	0.668	2.5	0.958
5.0	1.880	5.0	3.185	5.0	1.779	5.0	1.004	5.0	2.818	5.0	0.668	5.0	0.958
7.5	1.449	7.5	2.751	7.5	1.521	7.5	1.094	7.5	0.861	7.5	0.668	7.5	0.868
10.0	1.195	10.0	2.577	10.0	1.306	10.0	1.049	10.0	2.107	10.0	0.668	10.0	-0.969
15.0	0.999	15.0	2.403	15.0	1.134	15.0	0.825	15.0	0.417	15.0	0.755	15.0	0.510
20.0	0.901	20.0	1.578	20.0	1.005	20.0	0.914	20.0	3.505	20.0	0.755	20.0	0.285
30.0	3.852	30.0	1.231	30.0	0.876	30.0	0.869	30.0	0.550	30.0	0.711	30.0	0.106
50.0	0.901	50.0	1.274	50.0	0.962	50.0	0.914	50.0	0.550	50.0	0.885	50.0	0.241
65.0	3.846	65.0	3.446	65.0	3.071	65.0	2.306	65.0	3.041	65.0	3.277	65.0	2.437
70.0	2.711	70.0	2.968	70.0	2.554	70.0	1.767	70.0	2.195	70.0	3.016	70.0	1.675
76.8	0.803	76.8	2.838	76.8	0.273	76.8	2.351	76.8	2.195	76.8	0.711	76.8	1.764
77.1	2.760	77.1	2.794	77.1	2.640	77.1	2.306	77.1	2.329	77.1	0.711	77.1	1.540
80.0	2.858	80.0	2.968	80.0	2.942	80.0	2.620	80.0	2.996	80.0	2.929	80.0	2.750
85.0	2.467	85.0	2.620	85.0	2.511	85.0	1.722	85.0	2.240	85.0	3.190	85.0	1.988
90.0	2.075	90.0	2.317	90.0	1.779	90.0	1.184	90.0	1.528	90.0	2.798	90.0	1.406
95.0	1.684	95.0	1.578	95.0	1.306	95.0	0.869	95.0	0.906	95.0	2.233	95.0	0.823
TOTAL NORMAL COEFFICIENT													
CN =		4.09	5.34	4.28	4.26	5.47	5.31	4.29					

TABLE V-51

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0	0.262	0	-1.871	0	0.057	0	-0.959	0	-2.750	0	0.659	0	-0.825
1.2	-1.719	1.2	-3.157	1.2	-1.983	1.2	-2.864	1.2	-3.233	1.2	-2.346	1.2	-2.152
2.5	-2.685	2.5	-3.672	2.5	-3.767	2.5	-4.105	2.5	-3.804	2.5	-3.119	2.5	-2.506
5.0	-2.685	5.0	-4.272	5.0	-4.287	5.0	-4.991	5.0	-4.199	5.0	-4.708	5.0	-3.169
7.5	-4.085	7.5	-4.186	7.5	-5.000	7.5	-1.402	7.5	-4.419	7.5	-5.008	7.5	-3.391
10.0	-3.892	10.0	-3.500	10.0	-5.127	10.0	-4.858	10.0	-4.111	10.0	-4.665	10.0	-3.302
15.0	-3.989	15.0	-4.186	15.0	-4.617	15.0	-0.870	15.0	-4.111	15.0	-4.235	15.0	-3.366
20.0	-3.892	20.0	-4.101	20.0	-4.192	20.0	-3.927	20.0	-4.331	20.0	-5.008	20.0	-3.258
25.0	-3.457	25.0	-3.843	25.0	-4.065	25.0	-1.047	25.0	-4.770	25.0	-4.708	25.0	-3.214
30.0	-3.312	30.0	-3.543	30.0	-3.682	30.0	-3.750	30.0	-4.770	30.0	-4.450	30.0	-3.214
40.0	-2.685	40.0	-3.243	40.0	-3.215	40.0	-3.307	40.0	-4.463	40.0	-4.192	40.0	-3.214
50.0	-2.250	50.0	-2.857	50.0	0.652	50.0	-2.953	50.0	-4.551	50.0	-4.192	50.0	-3.346
60.0	-2.057	60.0	-2.815	60.0	-2.705	60.0	-2.642	60.0	-4.199	60.0	-4.364	60.0	-3.612
61.5	-0.898	61.5	-0.843	61.5	-1.005	61.5	0.105	61.5	-1.301	61.5	-1.187	61.5	-2.108
62.5	-2.346	62.5	-3.543	62.5	-3.470	62.5	-1.180	62.5	-2.487	62.5	-1.702	62.5	-1.400
65.0	-3.602	65.0	-4.486	65.0	-4.575	65.0	-3.529	65.0	-5.912	65.0	-7.155	65.0	-7.240
70.0	-2.443	70.0	-3.157	70.0	-2.790	70.0	-3.130	70.0	-5.956	70.0	-8.099	70.0	-8.124
75.0	-1.187	75.0	-1.571	75.0	-1.430	75.0	-1.801	75.0	-4.331	75.0	-5.953	75.0	-1.754
75.6	-4.278	75.6	-4.186	75.6	-4.575	75.6	-0.649	75.6	-3.277	75.6	-2.518	75.6	-4.497
76.3	-3.409	76.3	-2.900	76.3	-3.810	76.3	-0.649	76.3	-3.892	76.3	-0.487	76.3	-5.603
77.1	0.745	77.1	-2.300	77.1	-2.195	77.1	-0.693	77.1	-4.111	77.1	0.487	77.1	-0.664
78.6	1.662	78.6	1.429	78.6	1.586	78.6	1.788	78.6	1.113	78.6	1.947	78.6	0.680
80.0	-1.139	80.0	-1.766	80.0	-1.855	80.0	-1.535	80.0	-0.068	80.0	-0.665	80.0	-0.664
85.0	-1.236	85.0	-0.585	85.0	-0.920	85.0	-1.225	85.0	-2.531	85.0	-3.549	85.0	-4.443
90.0	-0.270	90.0	-0.243	90.0	-0.156	90.0	-0.294	90.0	-4.126	90.0	-1.101	90.0	-3.921
95.0	0.020	95.0	-0.028	95.0	0.162	95.0	-0.205	95.0	-0.663	95.0	-0.563	95.0	-2.550
2.5	0.938	2.5	3.573	2.5	0.737	2.5	0.902	2.5	3.001	2.5	0.616	2.5	0.857
5.0	0.966	5.0	3.187	5.0	0.864	5.0	0.947	5.0	2.650	5.0	0.616	5.0	0.857
7.5	0.938	7.5	2.758	7.5	0.949	7.5	1.035	7.5	0.762	7.5	0.616	7.5	0.768
10.0	0.889	10.0	2.630	10.0	1.034	10.0	1.035	10.0	1.948	10.0	0.616	10.0	-0.825
15.0	0.938	15.0	2.458	15.0	0.949	15.0	0.681	15.0	0.279	15.0	0.659	15.0	0.503
20.0	0.889	20.0	1.472	20.0	0.864	20.0	0.769	20.0	0.499	20.0	0.702	20.0	0.237
30.0	0.793	30.0	1.258	30.0	0.822	30.0	0.814	30.0	0.586	30.0	0.659	30.0	0.449
50.0	0.889	50.0	1.086	50.0	0.949	50.0	0.814	50.0	0.279	50.0	0.745	50.0	0.326
65.0	3.208	65.0	2.329	65.0	2.394	65.0	2.099	65.0	2.694	65.0	3.535	65.0	2.361
70.0	2.049	70.0	1.729	70.0	1.671	70.0	1.611	70.0	1.289	70.0	3.020	70.0	1.432
76.8	0.745	76.8	1.815	76.8	0.312	76.8	2.099	76.8	1.113	76.8	0.616	76.8	1.609
77.1	2.242	77.1	1.772	77.1	1.756	77.1	2.054	77.1	1.640	77.1	0.616	77.1	1.653
80.0	2.242	80.0	1.644	80.0	2.054	80.0	2.409	80.0	1.772	80.0	3.106	80.0	2.626
85.0	1.855	85.0	1.901	85.0	1.459	85.0	1.478	85.0	0.806	85.0	3.106	85.0	1.476
90.0	1.710	90.0	1.772	90.0	1.119	90.0	1.080	90.0	0.563	90.0	2.632	90.0	0.812
95.0	1.276	95.0	1.301	95.0	0.907	95.0	0.814	95.0	0.411	95.0	1.990	95.0	0.370
TOTAL NORMAL COEFFICIENT													
CN = 3.48		4.43		3.50		3.68		4.96		5.68		4.56	

TABLE V-52

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0	-1.133	0	-6.447	0	-4.225	0	-5.235	0	-8.840	0	1.043	0	-3.984
1.2	-1.083	1.2	-2.212	1.2	-1.089	1.2	-1.364	1.2	-2.813	1.2	-1.814	1.2	-1.638
2.5	-1.083	2.5	-1.945	2.5	-1.972	2.5	-1.917	2.5	-2.494	2.5	-1.858	2.5	-1.270
5.0	-1.083	5.0	-2.926	5.0	-3.165	5.0	-3.023	5.0	-3.270	5.0	0.954	5.0	-1.178
7.5	-1.836	7.5	-3.193	7.5	-3.563	7.5	-0.996	7.5	-4.046	7.5	0.284	7.5	-1.224
10.0	-2.037	10.0	-2.970	10.0	-4.005	10.0	-3.991	10.0	-3.863	10.0	-1.010	10.0	-1.408
15.0	-2.539	15.0	-3.327	15.0	-3.916	15.0	-0.765	15.0	-3.726	15.0	-2.126	15.0	-1.684
20.0	-2.944	20.0	-3.371	20.0	-3.784	20.0	-3.852	20.0	-3.772	20.0	-2.707	20.0	-1.822
25.0	-2.994	25.0	-3.639	25.0	-4.093	25.0	-1.134	25.0	-4.137	25.0	-3.108	25.0	-2.144
30.0	-3.192	30.0	-3.817	30.0	-4.093	30.0	-4.359	30.0	-4.365	30.0	-3.421	30.0	-2.098
40.0	-3.041	40.0	-3.817	40.0	-3.916	40.0	-4.221	40.0	-4.457	40.0	-3.599	40.0	-2.144
50.0	-3.242	50.0	-3.772	50.0	1.165	50.0	-4.267	50.0	-4.959	50.0	-4.046	50.0	-2.190
60.0	-3.443	60.0	-4.040	60.0	-3.828	60.0	-4.405	60.0	-5.187	60.0	-4.537	60.0	-2.328
61.5	-2.489	61.5	-1.811	61.5	-2.149	61.5	0.617	61.5	-1.307	61.5	-0.251	61.5	-0.810
62.5	-7.009	62.5	-9.344	62.5	-9.395	62.5	-2.470	62.5	-3.589	62.5	-2.171	62.5	-2.926
65.0	-1.780	65.0	-1.310	65.0	-1.813	65.0	-8.644	65.0	-8.885	65.0	-8.331	65.0	-4.905
70.0	-0.867	70.0	-10.057	70.0	-10.784	70.0	-9.565	70.0	-9.159	70.0	-9.894	70.0	-5.043
75.0	-5.603	75.0	-6.001	75.0	-6.744	75.0	-6.571	75.0	-6.968	75.0	-6.992	75.0	-2.006
75.6	-15.647	75.6	-16.521	75.6	-19.468	75.6	-2.885	75.6	-4.731	75.6	-2.483	75.6	-2.696
76.3	-3.533	76.3	-3.712	76.3	-1.612	76.3	-2.931	76.3	-6.894	76.3	0.959	76.3	-3.570
77.1	0.976	77.1	-10.592	77.1	-10.941	77.1	-2.899	77.1	-7.561	77.1	0.909	77.1	-4.263
78.6	3.337	78.6	4.340	78.6	3.904	78.6	3.794	78.6	3.213	78.6	2.204	78.6	0.432
80.0	-7.059	80.0	-5.867	80.0	-7.097	80.0	-6.617	80.0	-6.739	80.0	-4.671	80.0	-4.813
85.0	-7.159	85.0	-1.811	85.0	-2.723	85.0	-5.096	85.0	-4.822	85.0	-3.465	85.0	-4.813
90.0	-1.233	90.0	-1.098	90.0	-0.603	90.0	-1.180	90.0	-1.763	90.0	-0.876	90.0	-2.696
95.0	-0.541	95.0	-0.920	95.0	-0.912	95.0	-0.212	95.0	-0.759	95.0	0.240	95.0	-1.408
2.5	-0.681	2.5	5.187	2.5	2.137	2.5	2.506	2.5	4.994	2.5	0.954	2.5	0.478
5.0	-0.581	5.0	4.429	5.0	3.506	5.0	4.118	5.0	4.629	5.0	0.999	5.0	0.800
7.5	0.474	7.5	3.582	7.5	3.374	7.5	3.658	7.5	1.661	7.5	0.999	7.5	0.754
10.0	-0.077	10.0	3.181	10.0	2.799	10.0	3.059	10.0	3.213	10.0	0.954	10.0	-2.512
15.0	1.328	15.0	3.047	15.0	1.872	15.0	1.446	15.0	0.794	15.0	1.043	15.0	0.570
20.0	1.378	20.0	2.111	20.0	1.341	20.0	1.078	20.0	0.931	20.0	0.954	20.0	0.386
30.0	1.278	30.0	1.487	30.0	1.121	30.0	0.893	30.0	0.839	30.0	1.043	30.0	0.340
50.0	1.227	50.0	2.334	50.0	2.358	50.0	2.091	50.0	1.204	50.0	1.445	50.0	0.340
65.0	4.090	65.0	5.187	65.0	5.053	65.0	5.224	65.0	5.131	65.0	2.829	65.0	0.984
70.0	4.040	70.0	5.410	70.0	4.964	70.0	4.441	70.0	4.309	70.0	3.275	70.0	1.076
76.8	0.976	76.8	5.811	76.8	0.237	76.8	4.717	76.8	4.720	76.8	1.088	76.8	1.306
77.1	4.793	77.1	5.232	77.1	4.655	77.1	4.487	77.1	4.482	77.1	1.043	77.1	1.076
80.0	2.985	80.0	4.251	80.0	4.302	80.0	5.316	80.0	5.542	80.0	3.677	80.0	1.766
85.0	5.747	85.0	5.811	85.0	5.274	85.0	4.303	85.0	4.994	85.0	4.748	85.0	1.674
90.0	5.446	90.0	5.856	90.0	5.009	90.0	3.427	90.0	4.492	90.0	4.123	90.0	1.398
95.0	4.241	95.0	5.588	95.0	4.346								

TABLE V-53

RUN 27, POINT 6		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-5.290	0.	-6.184	0.	-3.341	0.	-0.360	0.	-8.236	0.	0.797	0.	0.161
1.2	-2.092	1.2	-3.554	1.2	-2.615	1.2	-2.537	1.2	-4.484	1.2	-2.688	1.2	0.019
2.5	-2.092	2.5	-4.103	2.5	-4.431	2.5	-3.862	2.5	-4.624	2.5	-2.780	2.5	-0.123
5.0	-2.195	5.0	-5.294	5.0	-5.747	5.0	-5.424	5.0	-5.234	5.0	-3.468	5.0	-0.312
7.5	-3.743	7.5	-5.111	7.5	-6.292	7.5	-1.843	7.5	-5.891	7.5	-3.880	7.5	-0.548
10.0	-4.000	10.0	-4.561	10.0	-6.655	10.0	-6.086	10.0	-5.515	10.0	-3.972	10.0	-1.021
15.0	-4.413	15.0	-4.923	15.0	-5.974	15.0	-1.069	15.0	-5.422	15.0	-4.863	15.0	-1.257
20.0	-4.671	20.0	-5.019	20.0	-5.565	20.0	-5.424	20.0	-5.609	20.0	-4.981	20.0	-2.060
25.0	-4.465	25.0	-5.157	25.0	-5.656	25.0	-1.637	25.0	-6.219	25.0	-5.118	25.0	-2.769
30.0	-4.665	30.0	-5.248	30.0	-5.384	30.0	-5.660	30.0	-6.407	30.0	-5.210	30.0	-3.431
40.0	-3.897	40.0	-5.065	40.0	-5.066	40.0	-5.282	40.0	-6.407	40.0	-5.118	40.0	-3.384
50.0	-3.897	50.0	-4.607	50.0	0.970	50.0	-5.140	50.0	-6.876	50.0	-5.485	50.0	-3.620
60.0	-3.897	60.0	-5.111	60.0	-4.703	60.0	-5.093	60.0	-6.782	60.0	-5.944	60.0	-3.951
61.5	-2.917	61.5	-3.142	61.5	-2.933	61.5	0.303	61.5	-1.857	61.5	-0.624	61.5	-2.013
62.5	-6.838	62.5	-10.422	62.5	-8.516	62.5	-2.489	62.5	-4.202	62.5	-1.908	62.5	-2.438
65.0	-11.017	65.0	-13.216	65.0	-12.419	65.0	-8.406	65.0	-10.862	65.0	-10.117	65.0	-3.573
70.0	-8.128	70.0	-10.239	70.0	-9.333	70.0	-8.690	70.0	-11.378	70.0	-12.410	70.0	-3.762
75.0	-4.362	75.0	-5.935	75.0	-5.384	75.0	-5.755	75.0	-8.611	75.0	-9.246	75.0	-2.392
75.6	-14.004	75.6	-15.322	75.6	-15.868	75.6	-1.969	75.6	-6.594	75.6	-3.468	75.6	-2.297
76.3	-12.719	76.3	-12.666	76.3	-13.417	76.3	-2.016	76.3	-8.752	76.3	0.751	76.3	-2.580
77.1	1.004	77.1	-10.194	77.1	-8.697	77.1	-2.063	77.1	-9.599	77.1	0.751	77.1	-2.816
78.6	3.996	78.6	4.413	78.6	4.374	78.6	3.711	78.6	2.926	78.6	3.457	78.6	0.492
80.0	-5.600	80.0	-5.981	80.0	-5.747	80.0	-5.282	80.0	-9.127	80.0	-7.090	80.0	-0.501
85.0	-5.600	85.0	-2.135	85.0	-3.568	85.0	-4.004	85.0	-6.078	85.0	-5.669	85.0	-0.973
90.0	-1.885	90.0	-0.669	90.0	-0.981	90.0	-1.164	90.0	-2.420	90.0	-1.542	90.0	-2.438
95.0	-0.338	95.0	-0.440	95.0	-0.391	95.0	-0.596	95.0	-1.294	95.0	-0.212	95.0	-3.147
2.5	2.551	2.5	6.382	2.5	3.920	2.5	1.013	2.5	5.881	2.5	0.797	2.5	0.917
5.0	4.409	5.0	5.512	5.0	3.194	5.0	1.155	5.0	5.084	5.0	0.843	5.0	0.964
7.5	3.996	7.5	4.551	7.5	2.332	7.5	0.918	7.5	1.895	7.5	0.843	7.5	0.917
10.0	2.087	10.0	4.093	10.0	1.787	10.0	1.013	10.0	3.630	10.0	0.843	10.0	0.397
15.0	1.004	15.0	3.772	15.0	1.333	15.0	0.871	15.0	0.394	15.0	0.889	15.0	0.492
20.0	0.849	20.0	2.078	20.0	1.061	20.0	0.729	20.0	0.675	20.0	0.889	20.0	3.303
30.0	0.694	30.0	1.529	30.0	0.970	30.0	0.776	30.0	0.675	30.0	0.935	30.0	-0.928
50.0	1.107	50.0	1.803	50.0	1.470	50.0	1.392	50.0	0.628	50.0	1.439	50.0	0.350
65.0	6.782	65.0	6.611	65.0	5.600	65.0	4.847	65.0	5.740	65.0	5.321	65.0	2.760
70.0	4.666	70.0	5.329	70.0	4.692	70.0	3.664	70.0	4.287	70.0	4.879	70.0	2.031
76.8	1.004	76.8	5.329	76.8	0.426	76.8	4.421	76.8	4.380	76.8	0.935	76.8	2.260
77.1	5.286	77.1	5.146	77.1	5.010	77.1	4.373	77.1	4.580	77.1	0.935	77.1	2.146
80.0	5.028	80.0	5.146	80.0	5.373	80.0	4.894	80.0	5.975	80.0	4.970	80.0	3.611
85.0	4.357	85.0	4.368	85.0	4.647	85.0	3.332	85.0	4.333	85.0	5.566	85.0	2.665
90.0	3.871	90.0	4.139	90.0	3.376	90.0	2.196	90.0	3.255	90.0	4.924	90.0	2.004
95.0	2.293	95.0	3.360	95.0	2.241	95.0	1.344	95.0	1.801	95.0	4.007	95.0	1.153
TOTAL NORMAL COEFFICIENT		8.35		6.51		6.65		8.85		7.77		3.58	
CN =	6.17	8.35	6.51	6.65	8.85	7.77	3.58						

TABLE V-54

RUN 27, POINT 8		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-1.215	0.	-6.118	0.	-0.437	0.	-1.495	0.	-6.969	0.	0.751	0.	-0.492
1.2	-1.834	1.2	-4.149	1.2	-2.797	1.2	-3.531	1.2	-4.859	1.2	-3.284	1.2	0.397
2.5	-2.143	2.5	-4.745	2.5	-4.975	2.5	-5.093	2.5	-5.281	2.5	-3.513	2.5	0.255
5.0	-2.247	5.0	-5.798	5.0	-6.473	5.0	-6.276	5.0	-5.844	5.0	-4.981	5.0	0.114
7.5	-4.568	7.5	-5.386	7.5	-6.745	7.5	-1.685	7.5	-6.313	7.5	-5.439	7.5	0.019
10.0	-4.465	10.0	-4.928	10.0	-7.018	10.0	-6.228	10.0	-5.797	10.0	-5.256	10.0	-0.075
15.0	-4.826	15.0	-5.569	15.0	-6.155	15.0	-1.069	15.0	-5.797	15.0	-5.990	15.0	-0.370
20.0	-4.929	20.0	-5.615	20.0	-5.656	20.0	-5.471	20.0	-6.266	20.0	-6.265	20.0	-0.312
25.0	-4.620	25.0	-5.660	25.0	-5.702	25.0	-1.637	25.0	-6.922	25.0	-6.127	25.0	-0.454
30.0	-4.517	30.0	-5.386	30.0	-5.386	30.0	-5.376	30.0	-6.969	30.0	-5.990	30.0	-0.832
40.0	-3.794	40.0	-4.836	40.0	-4.748	40.0	-4.856	40.0	-6.641	40.0	-5.760	40.0	-1.777
50.0	-3.433	50.0	-4.287	50.0	0.743	50.0	-4.525	50.0	-6.969	50.0	-5.944	50.0	-2.555
60.0	-3.330	60.0	-5.157	60.0	-4.295	60.0	-4.288	60.0	-6.688	60.0	-6.402	60.0	-3.573
61.5	-1.627	61.5	-2.409	61.5	-2.479	61.5	0.208	61.5	-2.232	61.5	-1.083	61.5	-2.816
62.5	-5.651	62.5	-7.400	62.5	-6.609	62.5	-1.685	62.5	-4.108	62.5	-2.642	62.5	-2.391
65.0	-7.612	65.0	-10.056	65.0	-9.242	65.0	-6.086	65.0	-10.065	65.0	-10.988	65.0	-2.580
70.0	-4.568	70.0	-6.164	70.0	-5.565	70.0	-5.187	70.0	-10.205	70.0	-12.960	70.0	-2.722
75.0	-3.227	75.0	-2.959	75.0	-2.797	75.0	-3.389	75.0	-7.579	75.0	-9.796	75.0	-2.580
75.6	-7.973	75.6	-7.629	75.6	-9.378	75.6	-0.975	75.6	-5.938	75.6	-3.743	75.6	-2.155
76.3	-7.046	76.3	-5.431	76.3	-7.562	76.3	-0.975	76.3	-7.157	76.3	0.568	76.3	-2.438
77.1	0.900	77.1	-4.378	77.1	-4.476	77.1	-1.448	77.1	-7.579	77.1	0.568	77.1	-2.675
78.6	3.480	78.6	3.269	78.6	3.557	78.6	3.522	78.6	2.645	78.6	3.411	78.6	0.728
80.0	-3.949	80.0	-2.821	80.0	-3.523	80.0	-3.057	80.0	-7.747	80.0	-7.595	80.0	0.114
85.0	-4.052	85.0	-1.173	85.0	-1.980	85.0	-2.395	85.0	-5.046	85.0	-6.036	85.0	-0.454
90.0	-0.441	90.0	-0.349	90.0	-0.527	90.0	-0.880	90.0	-1.951	90.0	-1.863	90.0	-1.257
95.0	-0.389	95.0	-0.303	95.0	-0.028	95.0	-0.454	95.0	-0.966	95.0	-0.487	95.0	-2.722
2.5	2.345	2.5	6.749	2.5	1.515	2.5	0.350	2.5	6.163	2.5	0.706	2.5	0.822
5.0	2.448	5.0	5.879	5.0	1.470	5.0	0.729	5.0	5.318	5.0	0.706	5.0	0.822
7.5	2.345	7.5	4.734	7.5	1.263	7.5	0.871	7.5	1.754	7.5	0.706	7.5	0.728
10.0	1.210	10.0	4.230	10.0	1.243	10.0	0.871	10.0	3.864	10.0	0.797	10.0	0.586
15.0	0.849	15.0	3.956	15.0	1.016	15.0	0.871	15.0	0.347	15.0	0.797	15.0	0.444
20.0	0.797	20.0	1.895	20.0	0.970	20.0	0.824	20.0	0.628	20.0	0.797	20.0	3.303
30.0	0.694	30.0	1.437	30.0	0.880	30.0	1.297	30.0	0.816	30.0	0.797	30.0	0.319
50.0	0.952	50.0	1.529	50.0	1.243	50.0	1.297	50.0	0.112	50.0	1.118	50.0	0.350
65.0	5.492	65.0	5.833	65.0	5.101	65.0	3.995	65.0	5.600	65.0	5.704	65.0	2.760
70.0	3.996	70.0	3.406	70.0	3.013	70.0	2.622	70.0	3.255	70.0	5.200	70.0	1.862
76.8	0.900	76.8	3.223	76.8	0.516	76.8	3.711	76.8	3.114	76.8	0.751	76.8	1.957
77.1	4.821	77.1	3.681	77.1	4.057	77.1	3.900	77.1	4.052	77.1	0.797	77.1	1.957
80.0	4.202	80.0	3.314	80.0	4.011	80.0	3.948	80.0	4.615	80.0	5.612	80.0	3.280
85.0	3.996	85.0	2.902	85.0	2.922	85.0	2.622	85.0	2.551	85.0	5.704	85.0	2.051
90.0	2.861	90.0	2.719	90.0	1.969	90.0	1.628	90.0	1.566	90.0	4.924	90.0	1.437
95.0	2.139	95.0	1.987	95.0	1.333	95.0	1.155	95.0	1.304	95.0	3.916	95.0	0.633
TOTAL NORMAL COEFFICIENT		7.15		5.39		5.63		8.24		8.40		2	

TABLE V-55

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.0	-0.677	0.0	-0.509	0.0	-0.852	0.0	-0.366	0.0	-1.297	0.0	0.275	0.0	0.516
1.2	-0.630	1.2	-0.986	1.2	-0.653	1.2	-0.574	1.2	-0.883	1.2	-0.584	1.2	-0.360
2.5	-0.843	2.5	-0.961	2.5	-0.903	2.5	-0.756	2.5	-0.883	2.5	-0.811	2.5	-0.79
5.0	-0.473	5.0	-1.187	5.0	-1.178	5.0	-0.928	5.0	-1.036	5.0	-1.164	5.0	0.024
7.5	-0.764	7.5	-1.288	7.5	-1.328	7.5	-0.340	7.5	-1.116	7.5	-1.215	7.5	-10.441
10.0	-1.258	10.0	-0.734	10.0	-1.503	10.0	-1.068	10.0	-1.116	10.0	-1.189	10.0	-0.028
15.0	-1.303	15.0	-1.414	15.0	-1.503	15.0	-0.262	15.0	-1.116	15.0	-1.239	15.0	-0.054
20.0	-1.408	20.0	-1.414	20.0	-1.503	20.0	-0.730	20.0	-1.116	20.0	-1.265	20.0	-0.106
25.0	-1.408	25.0	-1.465	25.0	-1.528	25.0	-0.288	25.0	-1.116	25.0	-1.215	25.0	-0.158
30.0	-1.500	30.0	-1.540	30.0	-1.552	30.0	-1.146	30.0	-1.142	30.0	-1.189	30.0	-0.261
40.0	-1.468	40.0	-1.540	40.0	-1.528	40.0	-1.146	40.0	-1.142	40.0	-1.164	40.0	-0.339
50.0	-1.442	50.0	-1.439	50.0	0.297	50.0	-1.094	50.0	-1.142	50.0	-1.139	50.0	-0.469
60.0	-1.389	60.0	-1.313	60.0	-1.378	60.0	-1.068	60.0	-1.142	60.0	-1.139	60.0	-0.598
64.5	-0.578	64.5	-0.583	64.5	-0.678	64.5	-0.262	64.5	-0.313	64.5	-0.584	64.5	-0.753
62.5	-0.018	62.5	-2.649	62.5	-2.327	62.5	-1.276	62.5	-1.479	62.5	-1.215	62.5	-1.582
65.0	-0.009	65.0	-3.632	65.0	-3.177	65.0	-1.952	65.0	-2.126	65.0	-1.871	65.0	-1.815
70.0	-2.070	70.0	-2.674	70.0	-2.204	70.0	-1.666	70.0	-1.764	70.0	-1.492	70.0	-1.971
75.0	-2.228	75.0	-1.414	75.0	-1.453	75.0	-1.146	75.0	-1.297	75.0	-1.013	75.0	-1.971
75.6	-2.944	75.6	-1.137	75.6	-1.303	75.6	-0.678	75.6	-1.297	75.6	-0.710	75.6	-1.142
76.3	-1.463	76.3	-1.515	76.3	-1.702	76.3	-1.094	76.3	-1.582	76.3	0.373	76.3	-1.453
77.1	0.200	77.1	-1.616	77.1	-1.278	77.1	-2.654	77.1	-1.634	77.1	0.373	77.1	-1.582
78.6	0.705	78.6	0.778	78.6	0.721	78.6	0.440	78.6	0.464	78.6	0.174	78.6	-0.210
80.0	0.918	80.0	-0.935	80.0	-1.303	80.0	-1.198	80.0	-1.297	80.0	-0.785	80.0	-0.961
85.0	-0.971	85.0	-0.709	85.0	-0.803	85.0	-0.834	85.0	-0.753	85.0	-0.634	85.0	-1.064
90.0	-0.473	90.0	-0.205	90.0	-0.278	90.0	-0.238	90.0	-0.313	90.0	-0.382	90.0	-0.805
95.0	-0.316	95.0	-0.028	95.0	-0.128	95.0	-0.106	95.0	-0.106	95.0	-0.331	95.0	-0.520
2.5	0.312	2.5	0.854	2.5	-0.203	2.5	-0.054	2.5	0.231	2.5	0.224	2.5	-0.028
5.0	0.914	5.0	0.829	5.0	0.422	5.0	-0.072	5.0	0.257	5.0	0.224	5.0	-0.028
7.5	0.940	7.5	0.703	7.5	0.696	7.5	0.024	7.5	0.050	7.5	0.249	7.5	0.024
10.0	0.862	10.0	0.627	10.0	0.671	10.0	0.024	10.0	0.153	10.0	0.249	10.0	0.184
15.0	0.602	15.0	0.652	15.0	0.547	15.0	0.050	15.0	0.231	15.0	0.249	15.0	-10.441
20.0	0.522	20.0	0.577	20.0	0.422	20.0	0.050	20.0	0.231	20.0	0.224	20.0	-0.002
30.0	0.394	30.0	0.315	30.0	0.372	30.0	0.102	30.0	0.101	30.0	0.224	30.0	0.024
50.0	0.417	50.0	0.476	50.0	0.447	50.0	0.258	50.0	0.101	50.0	-1.442	50.0	0.024
65.0	1.071	65.0	0.955	65.0	0.921	65.0	0.388	65.0	0.464	65.0	0.526	65.0	0.050
70.0	1.019	70.0	0.980	70.0	0.921	70.0	0.388	70.0	0.749	70.0	0.350	70.0	0.050
76.8	0.286	76.8	0.980	76.8	0.022	76.8	0.778	76.8	0.801	76.8	0.123	76.8	0.050
77.1	0.914	77.1	0.955	77.1	0.846	77.1	0.752	77.1	0.593	77.1	0.098	77.1	-0.028
80.0	1.071	80.0	0.980	80.0	0.921	80.0	0.310	80.0	0.697	80.0	0.300	80.0	0.050
85.0	1.045	85.0	1.005	85.0	0.946	85.0	0.960	85.0	0.671	85.0	0.376	85.0	0.024
90.0	0.906	90.0	0.980	90.0	0.946	90.0	0.934	90.0	0.516	90.0	0.249	90.0	0.024
95.0	0.783	95.0	0.904	95.0	0.846	95.0	0.778	95.0	0.464	95.0	0.224	95.0	-10.441
TOTAL NORMAL COEFFICIENT													
CN =	1.88	2.32	1.67	1.27	1.42	-1.42	-0.03						

TABLE V-56

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.0	0.802	0.0	-0.809	0.0	-0.228	0.0	-0.548	0.0	-1.712	0.0	0.426	0.0	0.542
1.2	-1.180	1.2	-1.767	1.2	-1.078	1.2	-1.302	1.2	-1.531	1.2	-1.088	1.2	0.412
2.5	-0.782	2.5	-2.044	2.5	-1.827	2.5	-1.744	2.5	-1.790	2.5	-1.719	2.5	0.309
5.0	-1.808	5.0	-2.523	5.0	-2.502	5.0	-2.134	5.0	-1.764	5.0	-2.972	5.0	0.205
7.5	-2.044	7.5	-2.523	7.5	-2.677	7.5	-0.678	7.5	-1.815	7.5	-1.719	7.5	0.075
10.0	-2.384	10.0	-1.717	10.0	-2.777	10.0	-2.264	10.0	-1.764	10.0	-1.968	10.0	-0.028
15.0	-2.410	15.0	-2.321	15.0	-2.477	15.0	-0.470	15.0	-1.600	15.0	-1.442	15.0	-0.106
20.0	-2.436	20.0	-2.170	20.0	-2.327	20.0	-1.666	20.0	-1.608	20.0	-1.467	20.0	-0.235
25.0	-2.306	25.0	-2.170	25.0	-2.327	25.0	-0.348	25.0	-1.596	25.0	-1.341	25.0	-0.417
30.0	-2.279	30.0	-2.170	30.0	-2.227	30.0	-1.874	30.0	-1.596	30.0	-1.290	30.0	-0.728
40.0	-1.939	40.0	-1.994	40.0	-2.002	40.0	-1.718	40.0	-1.453	40.0	-1.189	40.0	-1.058
50.0	-1.808	50.0	-1.742	50.0	0.522	50.0	-1.510	50.0	-1.401	50.0	-1.139	50.0	-1.058
60.0	-1.599	60.0	-1.439	60.0	-1.652	60.0	-1.380	60.0	-1.272	60.0	-1.088	60.0	-1.220
64.5	-0.604	64.5	-0.507	64.5	-0.678	64.5	-0.340	64.5	-0.235	64.5	-0.028	64.5	-0.624
62.5	-2.175	62.5	-2.725	62.5	-2.752	62.5	-2.004	62.5	-1.479	62.5	-0.886	62.5	-1.142
65.0	-3.536	65.0	-4.010	65.0	-3.951	65.0	-3.199	65.0	-2.593	65.0	-1.619	65.0	-1.297
70.0	-2.201	70.0	-2.674	70.0	-2.852	70.0	-2.472	70.0	-1.971	70.0	-1.114	70.0	-1.505
75.0	-1.180	75.0	-1.515	75.0	-1.777	75.0	-1.614	75.0	-1.323	75.0	-0.962	75.0	-1.790
75.6	-2.023	75.6	-1.263	75.6	-1.602	75.6	-1.510	75.6	-1.349	75.6	-0.609	75.6	-1.323
76.3	-1.510	76.3	-1.691	76.3	-2.052	76.3	-1.640	76.3	-1.686	76.3	0.451	76.3	-2.075
77.1	0.443	77.1	-1.817	77.1	-1.577	77.1	-2.783	77.1	-1.712	77.1	0.477	77.1	-2.308
78.6	0.862	78.6	1.005	78.6	0.846	78.6	0.544	78.6	0.671	78.6	0.325	78.6	0.050
80.0	-0.813	80.0	-1.237	80.0	-1.303	80.0	-1.588	80.0	-1.194	80.0	-0.886	80.0	-0.235
85.0	-0.840	85.0	-0.860	85.0	-0.903	85.0	-1.042	85.0	-1.013	85.0	-0.836	85.0	-0.417
90.0	-0.526	90.0	-0.255	90.0	-0.253	90.0	-0.288	90.0	-0.494	90.0	-0.634	90.0	-0.572
95.0	-0.238	95.0	-0.179	95.0	-0.053	95.0	-0.158	95.0	-0.110	95.0	-0.382	95.0	-0.598
2.5	1.202	2.5	1.307	2.5	1.021	2.5	0.960	2.5	0.438	2.5	0.451	2.5	0.490
5.0	1.045	5.0	1.232	5.0	1.021	5.0	0.934	5.0	0.723	5.0	0.451	5.0	0.386
7.5	0.966	7.5	1.156	7.5	0.971	7.5	0.934	7.5	0.257	7.5	0.451	7.5	0.516
10.0	0.888	10.0	1.030	10.0	0.921	10.0	0.908	10.0	0.930	10.0	0.451	10.0	0.153
15.0	0.836	15.0	1.055	15.0	0.846	15.0	0.674	15.0	0.542	15.0	0.451	15.0	0.412
20.0	0.737	20.0	1.005	20.0	0.796	20.0	0.674	20.0	0.671	20.0	0.426	20.0	0.464
30.0	0.652	30.0	0.627	30.0	0.721	30.0	0.700	30.0	0.852	30.0	0.502	30.0	0.412
50.0	0.660	50.0	0.753	50.0	0.721	50.0	0.700	50.0	0.671	50.0	0.881	50.0	0.542
65.0	1.228	65.0	1.181	65.0	1.046	65.0	0.986	65.0	1.008	65.0	0.704	65.0	0.516
70.0	1.097	70.0	1.207	70.0	1.073	70.0	0.960	70.0	0.956	70.0	0.754	70.0	0.542
76.8	0.469	76.8	1.207	76.8	0.097	76.8	0.934	76.8	0.956	76.8	0.477	76.8	0.490
77.1	1.019	77.1	1.181	77.1	0.971	77.1	0.830	77.1	0.852	77.1	0.477	77.1	0.360
80.0	1.176	80.0	1.207	80.0	1.071	80.0	0.856	80.0	0.982	80.0	0.350	80.0	0.257
85.0	0.966	85.0	1.257	85.0	1.096	85.0	1.038	85.0	0.956	85.0	0.628	85.0	0.412
90.0	0.888	90.0	1.207	90.0	1.071	90.0	0.960	90.0	0.878	90.0	0.780	90.0	0.334
95.0	0.737	95.0	1.081	95.0	0.921	95.0	0.830	95.0	0.697	95.0	0.780	95.0	0.309
TOTAL NORMAL COEFFICIENT													
CN =	2.30	2.74	2.40	2.27	2.18	1.74	1.17						

TABLE V-57

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	0.679	0.	-0.739	0.	0.297	0.	-0.478	0.	-1.220	0.	0.453	0.	0.100
1.2	-0.566	1.2	-2.059	1.2	-1.178	1.2	-1.354	1.2	-1.427	1.2	-1.114	1.2	9.364
2.5	-2.279	2.5	-2.473	2.5	-2.152	2.5	-1.848	2.5	-1.712	2.5	-1.770	2.5	8.831
5.0	-2.279	5.0	-2.851	5.0	-2.727	5.0	-2.160	5.0	-1.712	5.0	-2.224	5.0	8.468
7.5	-2.593	7.5	-2.951	7.5	-2.902	7.5	-0.678	7.5	-1.764	7.5	-2.048	7.5	8.364
10.0	-2.803	10.0	-2.095	10.0	-3.027	10.0	-2.394	10.0	-1.560	10.0	-1.518	10.0	8.523
15.0	-2.751	15.0	-2.699	15.0	-2.727	15.0	-0.496	15.0	-1.738	15.0	-1.492	15.0	8.442
20.0	-2.724	20.0	-2.498	20.0	-2.552	20.0	-1.848	20.0	-1.660	20.0	-1.518	20.0	8.649
25.0	-2.469	25.0	-2.447	25.0	-2.552	25.0	-0.626	25.0	-1.742	25.0	-1.366	25.0	8.623
30.0	-2.384	30.0	-2.347	30.0	-2.402	30.0	-2.030	30.0	-1.634	30.0	-1.442	30.0	8.753
40.0	-1.939	40.0	-2.120	40.0	-2.352	40.0	-1.588	40.0	-1.453	40.0	-1.366	40.0	8.908
50.0	-1.677	50.0	-1.843	50.0	0.572	50.0	-1.058	50.0	-1.220	50.0	-1.265	50.0	8.985
60.0	-1.446	60.0	-1.691	60.0	-1.602	60.0	-1.058	60.0	-0.963	60.0	-1.139	60.0	9.090
61.5	-0.395	61.5	-0.532	61.5	-0.378	61.5	0.074	61.5	0.000	61.5	-0.003	61.5	9.582
62.5	-1.861	62.5	-2.447	62.5	-1.652	62.5	-0.860	62.5	-0.987	62.5	-0.987	62.5	7.639
65.0	-2.620	65.0	-2.977	65.0	-1.902	65.0	-1.380	65.0	-1.401	65.0	-1.417	65.0	7.820
70.0	-1.599	70.0	-2.321	70.0	-1.702	70.0	-1.276	70.0	-0.966	70.0	-1.240	70.0	8.520
75.0	-0.971	75.0	-1.565	75.0	-1.353	75.0	-0.860	75.0	-1.238	75.0	-1.215	75.0	8.543
75.6	-0.948	75.6	-1.162	75.6	-1.353	75.6	-1.198	75.6	-1.479	75.6	-0.710	75.6	8.986
76.3	-1.283	76.3	-1.606	76.3	-1.627	76.3	-1.276	76.3	-1.586	76.3	0.527	76.3	8.364
77.1	0.469	77.1	-1.994	77.1	-1.203	77.1	-2.965	77.1	-1.686	77.1	0.477	77.1	8.261
78.6	0.731	78.6	0.879	78.6	0.846	78.6	0.648	78.6	0.671	78.6	0.477	78.6	10.670
80.0	-0.447	80.0	-1.565	80.0	-1.503	80.0	-1.016	80.0	-1.064	80.0	-1.064	80.0	8.494
85.0	-0.552	85.0	-1.187	85.0	-1.128	85.0	-0.938	85.0	-0.961	85.0	-1.240	85.0	8.623
90.0	-0.447	90.0	-0.507	90.0	-0.728	90.0	-0.652	90.0	-0.676	90.0	-0.785	90.0	9.245
95.0	-0.284	95.0	-0.331	95.0	-0.603	95.0	-1.522	95.0	-0.572	95.0	-0.584	95.0	9.789
2.5	0.966	2.5	1.358	2.5	0.971	2.5	0.934	2.5	0.878	2.5	0.451	2.5	11.369
5.0	0.940	5.0	1.333	5.0	0.971	5.0	0.986	5.0	0.956	5.0	0.477	5.0	11.343
7.5	0.888	7.5	1.257	7.5	0.946	7.5	0.986	7.5	0.831	7.5	0.477	7.5	11.265
10.0	0.862	10.0	1.181	10.0	0.921	10.0	0.960	10.0	1.008	10.0	0.477	10.0	8.597
15.0	0.862	15.0	1.181	15.0	0.896	15.0	0.790	15.0	0.516	15.0	0.477	15.0	11.110
20.0	0.862	20.0	1.030	20.0	0.846	20.0	0.778	20.0	0.619	20.0	0.502	20.0	11.032
30.0	0.737	30.0	0.753	30.0	0.796	30.0	0.804	30.0	0.847	30.0	0.477	30.0	10.929
50.0	0.632	50.0	0.778	50.0	0.771	50.0	0.732	50.0	0.697	50.0	0.628	50.0	10.983
65.0	1.202	65.0	1.081	65.0	1.196	65.0	0.986	65.0	0.936	65.0	0.805	65.0	11.291
70.0	0.993	70.0	0.955	70.0	1.046	70.0	0.934	70.0	0.956	70.0	0.754	70.0	11.291
76.8	0.522	76.8	0.960	76.8	0.122	76.8	0.950	76.8	0.956	76.8	0.552	76.8	11.214
77.1	0.888	77.1	0.953	77.1	0.846	77.1	0.856	77.1	0.827	77.1	0.502	77.1	11.006
80.0	0.993	80.0	1.005	80.0	1.146	80.0	0.882	80.0	0.930	80.0	0.754	80.0	11.162
85.0	0.940	85.0	1.035	85.0	0.996	85.0	1.012	85.0	0.956	85.0	0.754	85.0	11.291
90.0	0.888	90.0	0.955	90.0	0.921	90.0	0.934	90.0	0.878	90.0	0.780	90.0	11.114
95.0	0.783	95.0	0.829	95.0	0.796	95.0	0.804	95.0	0.749	95.0	0.653	95.0	11.236
TOTAL NORMAL COEFFICIENT													
CN = 2.48		2.85		2.40		2.38		2.05		1.86		2.36	

TABLE V-58

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-0.777	0.	-3.802	0.	-2.383	0.	-0.728	0.	-2.033	0.	0.312	0.	17.014
1.2	-0.777	1.2	-1.640	1.2	-1.079	1.2	-0.772	1.2	-1.205	1.2	-0.708	1.2	16.622
2.5	-0.909	2.5	-1.428	2.5	-1.290	2.5	-0.947	2.5	-1.205	2.5	-0.878	2.5	16.491
5.0	-0.909	5.0	-1.852	5.0	-1.668	5.0	-1.209	5.0	-1.292	5.0	-1.218	5.0	16.360
7.5	-0.953	7.5	-1.979	7.5	-1.962	7.5	-0.291	7.5	-1.641	7.5	-1.387	7.5	16.273
10.0	-1.482	10.0	-1.003	10.0	-2.215	10.0	-1.340	10.0	-1.554	10.0	-1.387	10.0	16.316
15.0	-1.790	15.0	-2.148	15.0	-2.215	15.0	-0.247	15.0	-1.554	15.0	-1.387	15.0	16.360
20.0	-2.054	20.0	-2.148	20.0	-2.215	20.0	-0.859	20.0	-1.423	20.0	-1.515	20.0	16.360
25.0	-2.054	25.0	-2.276	25.0	-2.215	25.0	-0.203	25.0	-1.641	25.0	-1.515	25.0	16.360
30.0	-2.186	30.0	-2.360	30.0	-2.215	30.0	-1.428	30.0	-1.554	30.0	-1.515	30.0	16.316
40.0	-2.098	40.0	-2.360	40.0	-2.131	40.0	-1.384	40.0	-1.554	40.0	-1.430	40.0	16.360
50.0	-2.142	50.0	-2.276	50.0	0.560	50.0	-1.340	50.0	-1.554	50.0	-1.472	50.0	16.316
60.0	-2.142	60.0	-2.148	60.0	-1.794	60.0	-1.340	60.0	-1.554	60.0	-1.515	60.0	16.273
61.5	-1.173	61.5	-0.876	61.5	-0.701	61.5	-0.334	61.5	-0.464	61.5	-0.878	61.5	16.534
62.5	-3.992	62.5	-4.905	62.5	-3.644	62.5	-1.734	62.5	-2.251	62.5	-1.770	62.5	12.001
65.0	-6.151	65.0	-6.855	65.0	-5.284	65.0	-2.871	65.0	-3.602	65.0	-3.299	65.0	14.965
70.0	-4.565	70.0	-5.117	70.0	-3.728	70.0	-2.478	70.0	-2.905	70.0	-2.662	70.0	15.314
75.0	-2.715	75.0	-2.954	75.0	-2.425	75.0	-1.778	75.0	-1.990	75.0	-1.812	75.0	12.350
76.6	-2.275	76.6	-2.191	76.6	-2.257	76.6	-1.515	76.6	-1.772	76.6	-1.133	76.6	16.055
76.3	-3.200	76.3	-3.251	76.3	-3.224	76.3	-1.690	76.3	-2.120	76.3	0.142	76.3	15.706
77.1	0.500	77.1	-3.633	77.1	-2.467	77.1	-6.020	77.1	-2.207	77.1	0.142	77.1	15.488
78.6	1.602	78.6	2.262	78.6	2.158	78.6	0.759	78.6	0.669	78.6	0.482	78.6	17.232
80.0	-2.407	80.0	-2.191	80.0	-1.962	80.0	-1.996	80.0	-1.641	80.0	-1.387	80.0	15.532
85.0	-2.451	85.0	-1.512	85.0	-1.752	85.0	-1.428	85.0	-1.031	85.0	-1.005	85.0	15.663
90.0	-0.997	90.0	-0.071	90.0	-0.449	90.0	-0.466	90.0	-0.508	90.0	-0.453	90.0	16.273
95.0	-0.813	95.0	0.438	95.0	-0.070	95.0	-0.247	95.0	-0.420	95.0	-0.241	95.0	16.578
2.5	0.060	2.5	2.558	2.5	-0.280	2.5	-0.116	2.5	0.931	2.5	0.259	2.5	17.362
5.0	0.016	5.0	2.177	5.0	0.981	5.0	-0.072	5.0	0.887	5.0	0.312	5.0	17.362
7.5	0.721	7.5	1.838	7.5	1.570	7.5	-0.028	7.5	0.264	7.5	0.312	7.5	17.450
10.0	0.721	10.0	1.541	10.0	1.528	10.0	0.234	10.0	0.626	10.0	0.312	10.0	13.178
15.0	1.073	15.0	1.371	15.0	1.149	15.0	0.278	15.0	0.364	15.0	0.312	15.0	17.493
20.0	0.985	20.0	1.159	20.0	0.855	20.0	0.278	20.0	0.364	20.0	0.269	20.0	-0.072
30.0	0.632	30.0	0.905	30.0	0.687	30.0	0.409	30.0	0.495	30.0	0.269	30.0	-0.072
50.0	0.632	50.0	1.202	50.0	1.149	50.0	0.497	50.0	0.582	50.0	0.142	50.0	17.450
65.0	1.557	65.0											

TABLE V-59

RUN 44, POINT 6												Q = 4.85	ALPHA = 12	TCP = 0.13
VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	
0.	-2.638	0.	-3.420	0.	-2.229	0.	-0.892	0.	-1.750	0.	0.433	0.	16.502	
1.2	-1.638	1.2	-2.373	1.2	-1.482	1.2	-1.670	1.2	-2.051	1.2	-1.077	1.2	15.899	
2.5	-1.942	2.5	-2.750	2.5	-2.561	2.5	-2.231	2.5	-2.396	2.5	-1.664	2.5	15.555	
5.0	-2.029	5.0	-3.337	5.0	-3.516	5.0	-2.936	5.0	-2.740	5.0	-2.385	5.0	15.167	
7.5	-2.203	7.5	-3.379	7.5	-3.766	7.5	-0.763	7.5	-2.740	7.5	-2.461	7.5	15.210	
10.0	-2.856	10.0	-2.541	10.0	-3.849	10.0	-2.836	10.0	-2.525	10.0	-2.335	10.0	15.339	
15.0	-3.030	15.0	-3.169	15.0	-3.475	15.0	-0.503	15.0	-2.267	15.0	-2.042	15.0	15.296	
20.0	-3.160	20.0	-3.043	20.0	-3.184	20.0	-2.231	20.0	-2.181	20.0	-2.252	20.0	15.382	
25.0	-3.030	25.0	-3.127	25.0	-3.184	25.0	-0.503	25.0	-2.137	25.0	-2.210	25.0	15.425	
30.0	-3.030	30.0	-3.085	30.0	-3.018	30.0	-2.361	30.0	-2.137	30.0	-2.000	30.0	15.469	
40.0	-2.638	40.0	-2.918	40.0	-2.727	40.0	-2.188	40.0	-2.008	40.0	-1.874	40.0	15.469	
50.0	-2.551	50.0	-2.667	50.0	0.595	50.0	-2.058	50.0	-2.051	50.0	-1.790	50.0	15.425	
60.0	-2.377	60.0	-2.164	60.0	-2.312	60.0	-2.015	60.0	-2.008	60.0	-1.874	60.0	15.167	
61.5	-1.768	61.5	-1.117	61.5	-1.274	61.5	-0.633	61.5	-0.502	61.5	-0.406	61.5	16.243	
62.5	-4.030	62.5	-5.389	62.5	-4.638	62.5	-2.793	62.5	-2.310	62.5	-1.916	62.5	11.637	
65.0	-6.118	65.0	-7.566	65.0	-6.673	65.0	-4.348	65.0	-3.558	65.0	-3.594	65.0	14.091	
70.0	-3.813	70.0	-5.556	70.0	-5.095	70.0	-3.657	70.0	-3.084	70.0	-2.713	70.0	14.608	
75.0	-2.203	75.0	-3.127	75.0	-3.350	75.0	-2.447	75.0	-2.181	75.0	-2.042	75.0	12.541	
75.6	-2.247	75.6	-2.708	75.6	-3.309	75.6	-2.188	75.6	-2.181	75.6	-1.245	75.6	14.909	
76.3	-2.856	76.3	-3.797	76.3	-4.555	76.3	-2.447	76.3	-2.611	76.3	0.475	76.3	14.091	
77.1	0.581	77.1	-4.509	77.1	-3.807	77.1	-6.033	77.1	-2.740	77.1	0.517	77.1	13.790	
78.6	2.190	78.6	2.568	78.6	2.214	78.6	0.749	78.6	0.488	78.6	0.182	78.6	17.147	
80.0	-1.812	80.0	-2.918	80.0	-3.433	80.0	-2.102	80.0	-2.008	80.0	-1.496	80.0	14.091	
85.0	-1.768	85.0	-2.164	85.0	-2.644	85.0	-1.540	85.0	-1.363	85.0	-1.077	85.0	14.694	
90.0	-1.116	90.0	-0.363	90.0	-0.734	90.0	-0.590	90.0	-0.631	90.0	-0.574	90.0	15.770	
95.0	-0.768	95.0	0.014	95.0	-0.111	95.0	-0.374	95.0	-0.286	95.0	-0.364	95.0	16.329	
2.5	2.799	2.5	3.280	2.5	2.297	2.5	0.793	2.5	0.704	2.5	0.433	2.5	17.535	
5.0	2.234	5.0	2.903	5.0	2.173	5.0	0.879	5.0	0.876	5.0	0.433	5.0	17.664	
7.5	1.668	7.5	2.443	7.5	1.757	7.5	0.922	7.5	0.359	7.5	0.433	7.5	17.750	
10.0	1.103	10.0	2.150	10.0	1.508	10.0	0.922	10.0	0.919	10.0	0.433	10.0	12.972	
15.0	0.798	15.0	1.856	15.0	1.093	15.0	0.706	15.0	0.531	15.0	0.475	15.0	17.750	
20.0	0.668	20.0	1.438	20.0	0.927	20.0	0.793	20.0	0.617	20.0	0.475	20.0	17.793	
30.0	0.581	30.0	0.977	30.0	0.761	30.0	0.793	30.0	0.790	30.0	0.475	30.0	17.750	
50.0	0.668	50.0	1.270	50.0	1.010	50.0	0.706	50.0	0.704	50.0	0.517	50.0	17.750	
65.0	3.365	65.0	3.322	65.0	2.837	65.0	1.268	65.0	0.876	65.0	0.433	65.0	17.879	
70.0	2.277	70.0	3.071	70.0	2.630	70.0	1.095	70.0	0.876	70.0	0.433	70.0	17.865	
76.8	0.581	76.8	3.196	76.8	0.179	76.8	1.095	76.8	0.833	76.8	0.517	76.8	17.965	
77.1	2.625	77.1	3.071	77.1	2.546	77.1	1.052	77.1	0.704	77.1	0.517	77.1	17.621	
80.0	2.886	80.0	3.280	80.0	2.879	80.0	1.181	80.0	0.833	80.0	0.182	80.0	17.750	
85.0	2.277	85.0	3.238	85.0	2.546	85.0	1.268	85.0	0.876	85.0	0.685	85.0	17.965	
90.0	1.625	90.0	2.820	90.0	2.048	90.0	1.268	90.0	0.747	90.0	0.685	90.0	17.965	
95.0	1.233	95.0	2.150	95.0	1.550	95.0	0.793	95.0	0.661	95.0	0.685	95.0	17.922	
TOTAL NORMAL COEFFICIENT														
CN =	3.71	4.95	3.92	2.92	2.78	2.30	2.79							

TABLE V-60

RUN 44, POINT 7												Q = 4.85	ALPHA = 16	TCP = 0.13
VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	
0.	-0.202	0.	-3.127	0.	-1.814	0.	-0.979	0.	-1.836	0.	0.475	0.	-0.588	
1.2	-1.377	1.2	-2.541	1.2	-1.731	1.2	-1.929	1.2	-2.439	1.2	-1.203	1.2	-1.750	
2.5	-2.160	2.5	-3.002	2.5	-2.852	2.5	-2.620	2.5	-2.783	2.5	-1.790	2.5	-2.008	
5.0	-2.160	5.0	-3.672	5.0	-3.849	5.0	-3.182	5.0	-2.697	5.0	-2.545	5.0	-2.396	
7.5	-2.334	7.5	-3.588	7.5	-4.015	7.5	-0.892	7.5	-2.783	7.5	-2.629	7.5	-2.439	
10.0	-3.030	10.0	-2.583	10.0	-4.139	10.0	-3.138	10.0	-2.525	10.0	-2.419	10.0	-2.310	
15.0	-3.204	15.0	-3.379	15.0	-3.724	15.0	-0.547	15.0	-2.442	15.0	-2.168	15.0	-2.310	
20.0	-3.291	20.0	-3.253	20.0	-3.392	20.0	-2.231	20.0	-2.439	20.0	-2.335	20.0	-2.137	
25.0	-3.073	25.0	-3.253	25.0	-3.350	25.0	-0.590	25.0	-2.396	25.0	-2.084	25.0	-2.094	
30.0	-3.030	30.0	-3.295	30.0	-3.143	30.0	-2.490	30.0	-2.310	30.0	-2.000	30.0	-1.965	
40.0	-2.551	40.0	-2.960	40.0	-2.727	40.0	-2.274	40.0	-2.137	40.0	-1.832	40.0	-1.922	
50.0	-2.377	50.0	-2.625	50.0	0.595	50.0	-2.102	50.0	-2.137	50.0	-1.790	50.0	-1.965	
60.0	-2.203	60.0	-2.248	60.0	-2.354	60.0	-2.015	60.0	-2.051	60.0	-1.790	60.0	-1.965	
61.5	-1.768	61.5	-1.494	61.5	-1.523	61.5	-0.547	61.5	-0.416	61.5	-0.322	61.5	-1.190	
62.5	-3.900	62.5	-5.347	62.5	-4.596	62.5	-2.793	62.5	-2.611	62.5	-1.874	62.5	-5.710	
65.0	-5.205	65.0	-7.106	65.0	-6.963	65.0	-4.434	65.0	-4.204	65.0	-3.510	65.0	-3.343	
70.0	-3.378	70.0	-5.305	70.0	-5.219	70.0	-3.354	70.0	-3.429	70.0	-2.629	70.0	-2.740	
75.0	-1.812	75.0	-2.876	75.0	-3.309	75.0	-2.058	75.0	-2.224	75.0	-2.000	75.0	-4.677	
75.6	-1.986	75.6	-2.415	75.6	-3.226	75.6	-1.842	75.6	-2.137	75.6	-1.371	75.6	-2.310	
76.3	-2.638	76.3	-3.337	76.3	-4.305	76.3	-2.102	76.3	-2.568	76.3	0.475	76.3	-3.214	
77.1	0.581	77.1	-3.504	77.1	-3.267	77.1	-6.119	77.1	-2.697	77.1	0.475	77.1	-3.601	
78.6	2.277	78.6	2.694	78.6	2.380	78.6	0.620	78.6	0.531	78.6	0.098	78.6	-0.071	
80.0	-1.420	80.0	-2.290	80.0	-2.769	80.0	-1.799	80.0	-2.008	80.0	-1.580	80.0	-3.300	
85.0	-1.377	85.0	-1.578	85.0	-2.063	85.0	-1.281	85.0	-1.190	85.0	-1.119	85.0	-2.740	
90.0	-0.724	90.0	-0.447	90.0	-0.443	90.0	-0.590	90.0	-0.416	90.0	-0.616	90.0	-1.664	
95.0	-0.463	95.0	-0.363	95.0	-0.111	95.0	-0.374	95.0	-0.114	95.0	-0.448	95.0	-1.061	
2.5	2.016	2.5	3.448	2.5	2.297	2.5	0.793	2.5	0.747	2.5	0.433	2.5	0.833	
5.0	1.581	5.0	3.029	5.0	1.965	5.0	0.879	5.0	0.833	5.0	0.433	5.0	0.876	
7.5	1.233	7.5	2.610	7.5	1.591	7.5	0.922	7.5	0.445	7.5	0.433	7.5	0.833	
10.0	1.016	10.0	2.233	10.0	1.342	10.0	0.965	10.0	0.919	10.0	0.475	10.0	-4.333	
15.0	0.798	15.0	2.024	15.0	1.052	15.0	0.749	15.0	0.531	15.0	0.517	15.0	0.704	
20.0	0.711	20.0	1.521	20.0	0.927	20.0	0.793	20.0	0.661	20.0	0.517	20.0	0.617	
30.0	0.711	30.0	0.977	30.0	0.802	30.0	0.836	30.0	0.833	30.0	0.475	30.0	0.488	
50.0	0.668	50.0	1.144	50.0	0.927	50.0	0.749	50.0	0.747	50.0	0.559	50.0	0.488	
65.0	3.495	65.0	3.322	65.0	2.962	65.0	1.095	65.0	0.919	65.0	0.559	65.0	0.790	
70.0	2.451	70.0	2.861	70.0	2.546	70.0	1.009	70.0	0.919	70.0	0.601	70.0	0.790	
76.8	0.581	76.8	3.113	76.8	0.221	76.8	0.879	76.8	0.919	76.8	0.517	76.8	0.704	
77.1	2.712	77.1	3.071	77.1	2.630	77.1	0.879	77.1	0.747	77.1	0.517	77.1	0.445	
80.0	2.451	80.0	3.238	80.0	2.920	80.0	0.879	80.0	0.876	80.0	0.307	80.0	0.661	
85.0	2.147	85.0	2.275	85.0	2.214	85.0	1.181	85.0	0.876	85.0	0.601	85.0	0.790	
90.0	1.451	90.0	1.773	90.0	1.591	90.0	1.138	90.0	0.833	90.0	0.727	90.0	0.704	
95.0	1.016	95.0	1.312	95.0	1.135	95.0	0.922	95.0	0.747	95.0	0.685	95.0	0.617	

TABLE V-61

RUN 43, POINT 3 Q = 4.46 ALPHA = 0 TCP = 0.84

VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP
0.0 0.206	0.0 -7.542	0.0 -3.731	0.0 -0.931	0.0 -1.433	0.0 0.474	0.0 0.674
1.2 -0.917	1.2 -2.214	1.2 -1.338	1.2 -1.199	1.2 -1.479	1.2 -0.712	1.2 0.580
2.5 -1.022	2.5 -1.743	2.5 -1.654	2.5 -1.343	2.5 -1.479	2.5 -0.941	2.5 0.487
5.0 -0.974	5.0 -2.624	5.0 -2.375	5.0 -1.672	5.0 -1.760	5.0 -1.351	5.0 0.346
7.5 -1.211	7.5 -2.852	7.5 -2.828	7.5 -0.434	7.5 -2.088	7.5 -1.579	7.5 0.299
10.0 -1.589	10.0 -2.169	10.0 -3.144	10.0 -1.860	10.0 -1.994	10.0 -1.625	10.0 0.159
15.0 -2.110	15.0 -3.125	15.0 -3.099	15.0 -0.310	15.0 -1.994	15.0 -1.625	15.0 0.212
20.0 -2.585	20.0 -3.034	20.0 -2.963	20.0 -1.250	20.0 -1.994	20.0 -1.944	20.0 0.065
25.0 -2.630	25.0 -3.307	25.0 -3.054	25.0 -0.310	25.0 -2.135	25.0 -1.853	25.0 0.019
30.0 -2.807	30.0 -3.444	30.0 -3.009	30.0 -2.001	30.0 -1.994	30.0 -1.853	30.0 -0.028
40.0 -2.725	40.0 -3.398	40.0 -2.693	40.0 -1.954	40.0 -1.947	40.0 -1.853	40.0 -0.075
50.0 -2.887	50.0 -3.171	50.0 0.965	50.0 -1.907	50.0 -2.088	50.0 -1.853	50.0 -0.122
60.0 -3.008	60.0 -3.171	60.0 -2.512	60.0 -2.071	60.0 -2.228	60.0 -2.035	60.0 -0.245
61.5 -1.908	61.5 -1.394	61.5 -1.022	61.5 -0.545	61.5 -0.964	61.5 -1.723	61.5 -0.403
62.5 -0.509	62.5 -7.861	62.5 -5.628	62.5 -3.175	62.5 -3.165	62.5 -2.674	62.5 -0.496
65.0 -1.293	65.0 -1.322	65.0 -8.608	65.0 -5.077	65.0 -5.177	65.0 -5.046	65.0 -0.684
70.0 -7.834	70.0 -8.544	70.0 -0.170	70.0 -4.152	70.0 -4.101	70.0 -4.271	70.0 -1.807
75.0 -4.604	75.0 -4.673	75.0 -3.912	75.0 -3.175	75.0 -2.837	75.0 -2.948	75.0 -2.509
75.6 -3.907	75.6 -3.717	75.6 -4.002	75.6 -2.830	75.6 -2.896	75.6 -1.899	75.6 -1.058
76.3 -5.503	76.3 -5.584	76.3 -5.989	76.3 -3.316	76.3 -3.111	76.3 0.246	76.3 -2.275
77.1 0.874	77.1 -6.586	77.1 -4.770	77.1 -6.323	77.1 -3.399	77.1 0.291	77.1 -2.603
78.6 2.952	78.6 4.480	78.6 4.217	78.6 1.075	78.6 0.674	78.6 0.656	78.6 -0.396
80.0 -3.955	80.0 -4.127	80.0 -4.318	80.0 -3.316	80.0 -2.603	80.0 -2.309	80.0 -0.637
85.0 -3.813	85.0 -3.079	85.0 -3.776	85.0 -2.471	85.0 -1.926	85.0 -1.625	85.0 -1.807
90.0 -2.873	90.0 -0.074	90.0 -0.706	90.0 -0.874	90.0 -0.637	90.0 -0.576	90.0 -1.567
95.0 -1.104	95.0 0.837	95.0 0.288	95.0 -0.424	95.0 -0.309	95.0 -0.256	95.0 -1.011
2.5 -3.832	2.5 5.072	2.5 0.785	2.5 0.676	2.5 1.657	2.5 0.428	2.5 -3.215
5.0 -0.424	5.0 4.253	5.0 1.772	5.0 0.817	5.0 2.470	5.0 0.428	5.0 -0.028
7.5 0.208	7.5 3.987	7.5 2.997	7.5 3.770	7.5 0.627	7.5 0.428	7.5 0.112
10.0 0.559	10.0 2.795	10.0 2.681	10.0 0.770	10.0 1.234	10.0 0.474	10.0 -0.028
15.0 1.103	15.0 2.477	15.0 1.733	15.0 0.582	15.0 0.534	15.0 0.428	15.0 0.112
20.0 1.177	20.0 1.930	20.0 1.146	20.0 0.676	20.0 0.534	20.0 0.428	20.0 0.159
30.0 0.871	30.0 3.700	30.0 0.875	30.0 0.770	30.0 0.721	30.0 0.474	30.0 0.112
50.0 0.918	50.0 2.067	50.0 2.049	50.0 0.770	50.0 0.627	50.0 0.428	50.0 0.112
65.0 3.094	65.0 5.072	65.0 5.210	65.0 1.193	65.0 1.376	65.0 1.203	65.0 0.393
70.0 3.330	70.0 5.330	70.0 4.984	70.0 1.035	70.0 1.189	70.0 1.203	70.0 0.299
76.8 0.776	76.8 5.528	76.8 0.198	76.8 1.052	76.8 1.048	76.8 0.291	76.8 0.299
77.1 3.945	77.1 5.119	77.1 4.804	77.1 1.099	77.1 1.048	77.1 0.474	77.1 0.159
80.0 4.324	80.0 5.391	80.0 5.255	80.0 1.052	80.0 1.095	80.0 1.568	80.0 0.440
85.0 4.797	85.0 5.619	85.0 5.030	85.0 0.770	85.0 1.048	85.0 1.751	85.0 0.253
90.0 4.277	90.0 5.300	90.0 4.488	90.0 0.582	90.0 0.955	90.0 1.477	90.0 0.299
95.0 3.425	95.0 4.982	95.0 3.765	95.0 0.864	95.0 0.721	95.0 0.793	95.0 0.206

TOTAL NORMAL COEFFICIENT
 CN = 4.61 6.75 4.96 2.79 3.00 2.61 6.70

TABLE V-62

RUN 43, POINT 6 Q = 4.52 ALPHA = 12 TCP = 0.84

VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP
0.0 -5.489	0.0 -6.364	0.0 -4.707	0.0 -1.141	0.0 -1.091	0.0 0.377	0.0 0.572
1.2 -3.016	1.2 -3.309	1.2 -1.811	1.2 -2.299	1.2 -2.245	1.2 -1.154	1.2 0.480
2.5 -2.922	2.5 -3.713	2.5 -3.236	2.5 -2.995	2.5 -2.753	2.5 -1.874	2.5 0.341
5.0 -2.922	5.0 -5.016	5.0 -4.662	5.0 -3.535	5.0 -3.030	5.0 -3.089	5.0 0.203
7.5 -3.016	7.5 -5.016	7.5 -5.063	7.5 -1.002	7.5 -3.261	7.5 -3.179	7.5 0.064
10.0 -3.609	10.0 -3.848	10.0 -5.420	10.0 -3.597	10.0 -2.800	10.0 -3.044	10.0 -1.850
15.0 -3.996	15.0 -4.702	15.0 -4.753	15.0 -0.633	15.0 -2.938	15.0 -2.684	15.0 -0.074
20.0 -4.276	20.0 -4.387	20.0 -4.395	20.0 -2.717	20.0 -2.892	20.0 -3.134	20.0 -0.213
25.0 -4.229	25.0 -4.567	25.0 -4.440	25.0 -0.770	25.0 -3.030	25.0 -2.999	25.0 -1.506
30.0 -4.229	30.0 -4.612	30.0 -4.217	30.0 -3.087	30.0 -2.938	30.0 -2.909	30.0 -2.107
40.0 -3.809	40.0 -4.387	40.0 -3.816	40.0 -2.948	40.0 -2.892	40.0 -2.729	40.0 -2.569
50.0 -3.809	50.0 -4.028	50.0 0.774	50.0 -2.856	50.0 -3.077	50.0 -2.774	50.0 -2.753
60.0 -3.809	60.0 -3.129	60.0 -3.415	60.0 -2.809	60.0 -2.984	60.0 -2.909	60.0 -2.800
61.5 -3.342	61.5 -2.440	61.5 -1.989	61.5 -1.094	61.5 -0.998	61.5 -1.334	61.5 -1.922
62.5 -7.590	62.5 -9.869	62.5 -7.425	62.5 -4.270	62.5 -4.047	62.5 -3.539	62.5 -2.476
65.0 -10.822	65.0 -13.195	65.0 -10.321	65.0 -6.317	65.0 -6.432	65.0 -6.510	65.0 -2.892
70.0 -7.750	70.0 -9.824	70.0 -8.361	70.0 -5.451	70.0 -5.386	70.0 -5.520	70.0 -3.354
75.0 -4.426	75.0 -6.035	75.0 -5.331	75.0 -3.736	75.0 -3.770	75.0 -3.809	75.0 -4.462
75.6 -4.042	75.6 -5.151	75.6 -5.865	75.6 -3.505	75.6 -3.585	75.6 -2.324	75.6 3.261
76.3 -5.489	76.3 -7.263	76.3 -8.049	76.3 -3.875	76.3 -4.000	76.3 0.377	76.3 -4.693
77.1 0.579	77.1 -8.386	77.1 -6.578	77.1 -6.332	77.1 -4.231	77.1 0.422	77.1 -5.386
78.6 3.753	78.6 4.960	78.6 4.383	78.6 0.852	78.6 0.434	78.6 0.467	78.6 -0.398
80.0 -3.856	80.0 -5.286	80.0 -5.331	80.0 -3.829	80.0 -3.261	80.0 -2.774	80.0 -1.506
85.0 -3.809	85.0 -3.938	85.0 -4.395	85.0 -2.717	85.0 -2.968	85.0 -1.874	85.0 -1.691
90.0 -1.755	90.0 -0.702	90.0 -1.098	90.0 -1.187	90.0 -0.998	90.0 -0.928	90.0 -2.014
95.0 -1.382	95.0 0.152	95.0 -0.251	95.0 -0.723	95.0 -0.536	95.0 -0.523	95.0 -1.737
2.5 2.886	2.5 5.993	2.5 3.403	2.5 0.806	2.5 1.127	2.5 0.422	2.5 0.896
5.0 4.406	5.0 5.140	5.0 3.848	5.0 0.899	5.0 1.127	5.0 0.422	5.0 0.896
7.5 3.426	7.5 4.196	7.5 3.002	7.5 0.945	7.5 0.572	7.5 0.422	7.5 0.942
10.0 2.212	10.0 3.567	10.0 2.244	10.0 0.992	10.0 1.173	10.0 0.422	10.0 -0.860
15.0 0.999	15.0 2.893	15.0 1.398	15.0 0.806	15.0 0.572	15.0 0.422	15.0 0.665
20.0 0.579	20.0 1.994	20.0 0.997	20.0 0.899	20.0 0.618	20.0 0.512	20.0 0.618
30.0 0.392	30.0 0.781	30.0 0.774	30.0 0.899	30.0 0.896	30.0 0.467	30.0 0.480
50.0 0.719	50.0 1.859	50.0 1.531	50.0 0.760	50.0 0.757	50.0 0.647	50.0 0.480
65.0 5.480	65.0 6.263	65.0 5.497	65.0 1.455	65.0 1.034	65.0 1.592	65.0 0.803
70.0 4.023	70.0 5.814	70.0 4.918	70.0 1.409	70.0 0.968	70.0 1.097	70.0 0.803
76.8 0.579	76.8 6.083	76.8 0.239	76.8 1.316	76.8 0.942	76.8 0.512	76.8 0.618
77.1 4.546	77.1 5.769	77.1 5.007	77.1 1.316	77.1 0.757	77.1 0.512	77.1 0.295
80.0 5.340	80.0 6.308	80.0 5.586	80.0 1.548	80.0 0.849	80.0 1.052	80.0 0.618
85.0 4.033	85.0 5.814	85.0 4.650	85.0 1.270	85.0 0.942	85.0 0.962	85.0 0.711
90.0 3.022	90.0 4.870	90.0 3.581	90.0 1.131	90.0 0.896	90.0 0.782	90.0 0.618
95.0 1.839	95.0 3.791	95.0 2.512	95.0 0.899	95.0 0.757	95.0 0.602	95.0 0.526

TOTAL NORMAL COEFFICIENT
 CN = 5.74 8.06 5.95 3.85 3.84 3.52 3.21

TABLE V-63

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.5	-4.7	0.5	-6.059	0.5	-3.544	0.5	-1.473	0.5	-1.423	0.5	0.410	0.5	0.152
1.2	-3.84	1.2	-3.530	1.2	-2.242	1.2	-2.873	1.2	-2.618	1.2	-1.344	1.2	-3.028
2.5	-2.393	2.5	-4.055	2.5	-3.674	2.5	-3.640	2.5	-3.243	2.5	-2.177	2.5	-0.208
5.0	-2.982	5.0	-5.281	5.0	-4.803	5.0	-4.002	5.0	-3.133	5.0	-3.405	5.0	-0.658
7.5	-2.165	7.5	-4.800	7.5	-5.324	7.5	-1.072	7.5	-3.178	7.5	-3.492	7.5	-1.288
10.0	-3.757	10.0	-3.749	10.0	-5.584	10.0	-3.686	10.0	-3.133	10.0	-3.273	10.0	-2.188
15.0	-4.075	15.0	-4.800	15.0	-4.977	15.0	-0.663	15.0	-3.493	15.0	-2.966	15.0	-2.593
20.0	-4.332	20.0	-4.537	20.0	-4.542	20.0	-3.053	20.0	-3.268	20.0	-3.405	20.0	-2.773
25.0	-4.075	25.0	-4.668	25.0	-4.542	25.0	-0.796	25.0	-3.088	25.0	-3.098	25.0	-2.728
30.0	-4.210	30.0	-4.756	30.0	-4.282	30.0	-3.099	30.0	-3.333	30.0	-2.922	30.0	-2.683
40.0	-3.620	40.0	-4.362	40.0	-3.805	40.0	-2.873	40.0	-3.043	40.0	-2.747	40.0	-2.728
50.0	-3.575	50.0	-4.099	50.0	0.710	50.0	-2.782	50.0	-3.178	50.0	-2.747	50.0	-2.908
60.0	-3.519	60.0	-3.136	60.0	-3.371	60.0	-2.782	60.0	-2.953	60.0	-2.922	60.0	-3.223
61.5	-2.802	61.5	-2.830	61.5	-2.329	61.5	-0.976	61.5	-0.838	61.5	-1.168	61.5	-1.918
62.5	-6.576	62.5	-9.090	62.5	-6.973	62.5	-3.731	62.5	-3.808	62.5	-3.405	62.5	-6.348
65.0	-1.244	65.0	-11.847	65.0	-10.099	65.0	-5.562	65.0	-6.327	65.0	-6.562	65.0	-6.338
70.0	-7.212	70.0	-9.046	70.0	-7.711	70.0	-4.589	70.0	-4.978	70.0	-5.246	70.0	-4.528
75.0	-4.348	75.0	-5.544	75.0	-4.760	75.0	-3.279	75.0	-3.538	75.0	-3.668	75.0	-3.113
75.6	-3.959	75.6	-4.493	75.6	-5.107	75.6	-3.099	75.6	-3.043	75.6	-2.177	75.6	-3.178
76.3	-5.244	76.3	-6.682	76.3	-6.843	76.3	-3.369	76.3	-3.583	76.3	0.410	76.3	-4.438
77.1	0.654	77.1	-7.120	77.1	-5.194	77.1	-6.259	77.1	-3.808	77.1	0.410	77.1	-5.068
78.6	3.544	78.6	4.743	78.6	4.529	78.6	0.830	78.6	0.557	78.6	0.366	78.6	-0.433
80.0	-3.519	80.0	-4.800	80.0	-4.369	80.0	-3.234	80.0	-2.593	80.0	-2.615	80.0	-2.548
85.0	-3.464	85.0	-3.224	85.0	-3.110	85.0	-2.512	85.0	-1.648	85.0	-1.782	85.0	-2.818
90.0	-1.226	90.0	-0.510	90.0	-0.766	90.0	-1.112	90.0	-3.838	90.0	-0.730	90.0	-1.828
95.0	-3.710	95.0	-3.597	95.0	-3.289	95.0	-0.705	95.0	-0.433	95.0	-0.335	95.0	-1.648
2.5	3.292	2.5	6.100	2.5	3.922	2.5	0.694	2.5	0.782	2.5	0.410	2.5	0.872
5.0	3.791	5.0	5.225	5.0	3.488	5.0	0.830	5.0	1.007	5.0	0.410	5.0	0.827
7.5	3.018	7.5	4.262	7.5	2.533	7.5	0.830	7.5	0.467	7.5	0.410	7.5	0.737
10.0	2.654	10.0	3.649	10.0	1.929	10.0	0.875	10.0	1.307	10.0	0.410	10.0	-4.618
15.0	0.801	15.0	2.905	15.0	1.274	15.0	0.694	15.0	0.557	15.0	0.454	15.0	0.602
20.0	0.742	20.0	1.942	20.0	0.970	20.0	0.785	20.0	0.557	20.0	0.498	20.0	0.512
30.0	3.608	30.0	0.760	30.0	0.797	30.0	0.830	30.0	0.872	30.0	0.454	30.0	0.422
50.0	0.745	50.0	1.591	50.0	1.274	50.0	0.694	50.0	0.782	50.0	0.630	50.0	0.467
65.0	5.746	65.0	6.273	65.0	3.571	65.0	1.507	65.0	1.007	65.0	1.287	65.0	0.737
70.0	3.791	70.0	5.356	70.0	4.573	70.0	1.281	70.0	0.962	70.0	0.980	70.0	0.737
76.8	0.608	76.8	5.838	76.8	3.232	76.8	0.965	76.8	0.872	76.8	0.454	76.8	0.557
77.1	4.564	77.1	5.706	77.1	5.137	77.1	1.146	77.1	0.782	77.1	0.498	77.1	0.197
80.0	4.792	80.0	6.013	80.0	5.571	80.0	1.101	80.0	0.962	80.0	0.893	80.0	0.602
85.0	3.649	85.0	4.568	85.0	3.965	85.0	1.010	85.0	0.917	85.0	0.805	85.0	0.647
90.0	2.745	90.0	3.912	90.0	2.837	90.0	1.282	90.0	0.827	90.0	0.717	90.0	0.557
95.0	1.791	95.0	2.730	95.0	1.925	95.0	0.694	95.0	0.692	95.0	0.630	95.0	0.377
TOTAL NORMAL COEFFICIENT													
CN =	5.46		7.65		5.61		3.63		3.82		3.48		3.5

TABLE V-64

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.5	0.656	0.5	-1.472	0.5	-5.851	0.5	-0.337	0.5	-2.800	0.5	0.572	0.5	-0.767
1.2	-1.273	1.2	-2.904	1.2	-1.335	1.2	-1.264	1.2	-1.937	1.2	-0.808	1.2	-0.829
2.5	-1.335	2.5	-2.245	2.5	-1.929	2.5	-1.697	2.5	-1.876	2.5	-0.988	2.5	-1.137
5.0	-1.273	5.0	-3.383	5.0	-3.058	5.0	-2.129	5.0	-2.245	5.0	-1.529	5.0	-1.321
7.5	-1.400	7.5	-3.743	7.5	-3.712	7.5	-0.523	7.5	-2.615	7.5	-1.829	7.5	-1.321
10.0	-1.958	10.0	-3.503	10.0	-4.128	10.0	-2.315	10.0	-2.553	10.0	-1.889	10.0	-1.260
15.0	-2.500	15.0	-4.102	15.0	-4.009	15.0	-0.461	15.0	-2.430	15.0	-3.949	15.0	-2.383
20.0	-3.327	20.0	-3.983	20.0	-3.890	20.0	-1.326	20.0	-2.368	20.0	-2.309	20.0	-1.568
25.0	-3.309	25.0	-4.282	25.0	-4.009	25.0	-1.399	25.0	-2.492	25.0	-2.249	25.0	-1.383
30.0	-3.762	30.0	-4.522	30.0	-3.831	30.0	-2.500	30.0	-2.553	30.0	-2.249	30.0	-1.568
40.0	-3.523	40.0	-4.402	40.0	-3.415	40.0	-2.438	40.0	-2.553	40.0	-2.189	40.0	-1.506
50.0	-3.825	50.0	-4.222	50.0	1.219	50.0	-2.500	50.0	-2.800	50.0	-2.309	50.0	-1.691
60.0	-4.004	60.0	-3.803	60.0	-3.236	60.0	-2.562	60.0	-2.800	60.0	-2.549	60.0	-1.937
61.5	-2.933	61.5	-2.065	61.5	-1.573	61.5	-0.646	61.5	-1.198	61.5	-1.649	61.5	-1.568
62.5	-9.364	62.5	-10.573	62.5	-7.811	62.5	-3.922	62.5	-4.216	62.5	-3.569	62.5	-6.495
65.0	-1.4965	65.0	-2.527	65.0	-10.604	65.0	-6.826	65.0	-6.618	65.0	-6.750	65.0	-4.339
70.0	-1.295	70.0	-12.131	70.0	-9.559	70.0	-6.641	70.0	-5.632	70.0	-5.850	70.0	-4.339
75.0	-7.123	75.0	-6.859	75.0	-5.494	75.0	-4.972	75.0	-3.847	75.0	-4.169	75.0	-6.433
75.6	-5.941	75.6	-5.361	75.6	-6.088	75.6	-3.613	75.6	-3.847	75.6	-2.669	75.6	-3.292
76.3	-8.430	76.3	-8.336	76.3	-8.881	76.3	-4.416	76.3	-4.401	76.3	0.272	76.3	-4.339
77.1	1.392	77.1	-9.615	77.1	-7.039	77.1	-8.765	77.1	-4.462	77.1	0.332	77.1	-4.899
78.6	3.644	78.6	6.443	78.6	6.032	78.6	1.146	78.6	1.083	78.6	0.872	78.6	-0.459
80.0	-5.013	80.0	-6.259	80.0	-9.969	80.0	-4.292	80.0	-3.723	80.0	-3.509	80.0	-2.553
85.0	-5.816	85.0	-4.102	85.0	-5.019	85.0	-3.118	85.0	-1.937	85.0	-2.069	85.0	-2.676
90.0	-1.709	90.0	-0.088	90.0	-1.098	90.0	-1.202	90.0	-0.992	90.0	-0.868	90.0	-2.061
95.0	-3.910	95.0	1.470	95.0	0.507	95.0	-0.584	95.0	-0.521	95.0	-0.388	95.0	-0.075
2.5	-1.148	2.5	7.431	2.5	1.041	2.5	0.837	2.5	2.805	2.5	0.572	2.5	0.033
5.0	-0.014	5.0	6.143	5.0	4.665	5.0	0.899	5.0	2.374	5.0	0.572	5.0	0.218
7.5	-3.775	7.5	4.765	7.5	4.606	7.5	1.022	7.5	0.772	7.5	0.572	7.5	0.157
10.0	-3.715	10.0	3.926	10.0	3.596	10.0	0.961	10.0	1.635	10.0	0.572	10.0	-1.198
15.0	-3.018	15.0	3.687	15.0	2.229	15.0	0.713	15.0	1.080	15.0	0.572	15.0	0.218
20.0	3.552	20.0	2.548	20.0	1.517	20.0	0.837	20.0	0.711	20.0	0.572	20.0	0.280
30.0	0.719	30.0	1.170	30.0	0.041	30.0	0.961	30.0	0.834	30.0	0.572	30.0	0.218
50.0	0.945	50.0	2.968	50.0	2.883	50.0	0.899	50.0	0.649	50.0	0.572	50.0	0.280
65.0	1.710	65.0	7.341	65.0	7.458	65.0	1.270	65.0	2.558	65.0	1.112	65.0	0.403
70.0	4.577	70.0	7.521	70.0	7.161	70.0	0.961	70.0	1.388	70.0	2.012	70.0	0.464
76.8	1.030	76.8	7.881	76.8	0.150	76.8	0.961	76.8	1.265	76.8	0.452	76.8	0.464
77.1	5.760	77.1	7.401	77.1	6.923	77.1	1.084	77.1	1.388	77.1	0.572	77.1	0.033
80.0	5.344	80.0	7.881	80.0	7.577	80.0	1.022	80.0	1.511	80.0	1.532	80.0	0.464
85.0	6.942	85.0	8.120	85.0	7.161	85.0	0.837	85.0	0.957	85.0	2.433	85.0	0.526
90.0	5.449	90.0	7.641	90.0	6.329	90.0	0.528	90.0	1.019	90.0	1.472	90.0	0.403
95.0	4.453	95.0	7.162	95.0	5.319	95.0	1.022	95.0	1.080	95.0	2.312	95.0	0.341
TOTAL NORMAL COEFFICIENT													
CN =	5.93		9.39		6.713		3.56		3.94		3.34		2.48

TABLE V-65

RUN 44, POINT 6 Q = 3.08 ALPHA = 12 TCP = 2.60

VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP
0.0 -2.239	0.0 -10.777	0.0 -6.044	0.0 -1.797	0.0 -2.706	0.0 0.302	0.0 28.034
1.2 -2.426	1.2 -4.842	1.2 -2.121	1.2 -3.293	1.2 -2.672	1.2 -1.385	1.2 28.034
2.5 -2.494	2.5 -4.644	2.5 -3.952	2.5 -4.314	2.5 -3.214	2.5 -2.076	2.5 28.034
5.0 -2.494	5.0 -6.227	5.0 -5.913	5.0 -4.518	5.0 -3.756	5.0 -3.595	5.0 27.967
7.5 -3.042	7.5 -6.359	7.5 -6.502	7.5 -1.253	7.5 -3.892	7.5 -3.860	7.5 27.967
10.0 -3.864	10.0 -4.776	10.0 -6.960	10.0 -3.837	10.0 -3.689	10.0 -3.794	10.0 27.899
15.0 -4.461	15.0 -6.161	15.0 -6.175	15.0 -0.844	15.0 -3.689	15.0 -3.331	15.0 27.899
20.0 -4.960	20.0 -5.963	20.0 -5.717	20.0 -3.157	20.0 -3.824	20.0 -3.860	20.0 27.831
25.0 -4.892	25.0 -6.227	25.0 -5.783	25.0 -0.844	25.0 -3.960	25.0 -3.860	25.0 27.831
30.0 -5.029	30.0 -6.425	30.0 -5.521	30.0 -3.837	30.0 -3.892	30.0 -3.661	30.0 27.831
40.0 -4.549	40.0 -6.095	40.0 -4.933	40.0 -3.701	40.0 -3.824	40.0 -3.529	40.0 27.765
50.0 -4.686	50.0 -5.700	50.0 0.887	50.0 -3.701	50.0 -4.027	50.0 -3.529	50.0 27.765
60.0 -4.823	60.0 -4.710	60.0 -4.475	60.0 -3.769	60.0 -3.960	60.0 -3.860	60.0 27.696
61.5 -5.029	61.5 -3.721	61.5 -2.971	61.5 -1.865	61.5 -1.326	61.5 -2.208	61.5 27.696
62.5 -10.372	62.5 -14.273	62.5 -9.968	62.5 -5.130	62.5 -5.315	62.5 -5.313	62.5 27.696
65.0 -16.537	65.0 -19.087	65.0 -14.349	65.0 -8.463	65.0 -8.366	65.0 -10.069	65.0 27.628
70.0 -12.504	70.0 -14.800	70.0 -11.341	70.0 -7.170	70.0 -7.146	70.0 -8.550	70.0 27.628
75.0 -7.269	75.0 -8.931	75.0 -7.417	75.0 -5.298	75.0 -5.212	75.0 -6.238	75.0 27.560
75.6 -6.293	75.6 -7.612	75.6 -8.398	75.6 -4.926	75.6 -4.570	75.6 -4.190	75.6 27.492
76.3 -8.659	76.3 -10.909	76.3 -11.603	76.3 -5.432	76.3 -5.587	76.3 0.302	76.3 27.429
77.1 0.862	77.1 -13.086	77.1 -9.314	77.1 -8.055	77.1 -5.790	77.1 0.302	77.1 27.424
78.6 3.627	78.6 7.819	78.6 7.034	78.6 1.264	78.6 0.040	78.6 0.566	78.6 27.424
80.0 -6.026	80.0 -8.733	80.0 -7.875	80.0 -5.538	80.0 -4.434	80.0 -5.049	80.0 27.357
85.0 -5.929	85.0 -6.491	85.0 -5.848	85.0 -4.109	85.0 -2.536	85.0 -3.199	85.0 27.357
90.0 -2.152	90.0 -1.215	90.0 -1.467	90.0 -1.865	90.0 -1.384	90.0 -1.283	90.0 27.357
95.0 -1.672	95.0 0.104	95.0 -0.486	95.0 -1.285	95.0 -0.842	95.0 -1.019	95.0 27.289
2.5 0.524	2.5 9.138	2.5 4.811	2.5 0.584	2.5 1.938	2.5 0.368	2.5 28.102
5.0 3.260	5.0 7.687	5.0 5.857	5.0 0.720	5.0 1.734	5.0 0.368	5.0 28.170
7.5 4.424	7.5 6.135	7.5 4.615	7.5 0.856	7.5 0.446	7.5 0.302	7.5 28.102
10.0 3.876	10.0 5.950	10.0 3.572	10.0 0.924	10.0 1.734	10.0 0.368	10.0 28.034
15.0 2.438	15.0 4.852	15.0 1.934	15.0 0.720	15.0 0.514	15.0 0.368	15.0 27.899
20.0 2.440	20.0 3.071	20.0 1.280	20.0 0.856	20.0 0.717	20.0 0.434	20.0 27.831
30.0 2.528	30.0 1.027	30.0 0.887	30.0 0.924	30.0 0.969	30.0 0.368	30.0 27.765
50.0 0.999	50.0 2.346	50.0 1.999	50.0 0.788	50.0 0.785	50.0 0.500	50.0 27.765
65.0 8.671	65.0 9.600	65.0 8.538	65.0 2.148	65.0 1.192	65.0 2.944	65.0 28.034
70.0 0.028	70.0 9.006	70.0 7.623	70.0 1.875	70.0 0.989	70.0 2.218	70.0 28.034
76.8 0.862	76.8 9.468	76.8 2.233	76.8 1.400	76.8 0.989	76.8 0.434	76.8 27.765
77.1 7.370	77.1 8.940	77.1 7.884	77.1 1.808	77.1 0.853	77.1 0.434	77.1 27.357
80.0 8.534	80.0 9.864	80.0 8.669	80.0 1.604	80.0 1.192	80.0 1.755	80.0 27.899
85.0 6.890	85.0 8.677	85.0 7.165	85.0 1.740	85.0 1.192	85.0 1.623	85.0 27.967
90.0 4.561	90.0 6.962	90.0 5.399	90.0 0.992	90.0 0.446	90.0 1.095	90.0 27.831
95.0 3.113	95.0 5.973	95.0 3.634	95.0 0.856	95.0 0.650	95.0 0.764	95.0 27.628
TOTAL NORMAL COEFFICIENT						
CN = 7.83	11.75	8.17	4.78	4.88	4.81	0.60

TABLE V-66

RUN 41, POINT 7 Q = 3.32 ALPHA = 16 TCP = 1.60

VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP
0.0 -5.356	0.0 -9.817	0.0 -5.547	0.0 -2.363	0.0 -1.412	0.0 0.339	0.0 0.285
1.2 -2.570	1.2 -4.617	1.2 -2.151	1.2 -4.382	1.2 -2.921	1.2 -1.315	1.2 0.223
2.5 -2.701	2.5 -4.984	2.5 -4.032	2.5 -3.960	2.5 -3.424	2.5 -2.112	2.5 0.223
5.0 -2.701	5.0 -6.146	5.0 -5.791	5.0 -5.771	5.0 -3.550	5.0 -3.705	5.0 0.163
7.5 -3.233	7.5 -6.085	7.5 -6.819	7.5 -1.353	7.5 -3.864	7.5 -4.012	7.5 0.660
10.0 -3.908	10.0 -6.391	10.0 -6.944	10.0 -3.874	10.0 -3.738	10.0 -3.889	10.0 0.098
15.0 -4.667	15.0 -5.840	15.0 -6.095	15.0 -0.659	15.0 -3.990	15.0 -3.460	15.0 0.098
20.0 -4.965	20.0 -5.779	20.0 -5.549	20.0 -2.868	20.0 -4.179	20.0 -3.950	20.0 0.098
25.0 -4.941	25.0 -5.901	25.0 -3.549	25.0 -0.659	25.0 -4.053	25.0 -3.828	25.0 0.035
30.0 -4.945	30.0 -6.085	30.0 -3.124	30.0 -3.373	30.0 -3.738	30.0 -3.644	30.0 0.035
40.0 -4.443	40.0 -5.779	40.0 -4.699	40.0 -3.373	40.0 -3.738	40.0 -3.460	40.0 0.035
50.0 -4.540	50.0 -5.290	50.0 0.760	50.0 -3.373	50.0 -3.990	50.0 -3.521	50.0 -0.028
60.0 -4.624	60.0 -4.739	60.0 -4.214	60.0 -3.436	60.0 -3.738	60.0 -3.705	60.0 -0.028
61.5 -4.349	61.5 -4.250	61.5 -3.061	61.5 -1.290	61.5 -1.286	61.5 -2.296	61.5 -0.091
62.5 -9.370	62.5 -13.059	62.5 -9.189	62.5 -4.319	62.5 -4.745	62.5 -4.808	62.5 -0.091
65.0 -14.327	65.0 -16.975	65.0 -13.253	65.0 -6.149	65.0 -7.637	65.0 -9.527	65.0 -0.091
70.0 -11.276	70.0 -13.365	70.0 -9.795	70.0 -5.518	70.0 -6.694	70.0 -7.566	70.0 -0.154
75.0 -6.447	75.0 -7.981	75.0 -5.852	75.0 -4.004	75.0 -4.556	75.0 -4.931	75.0 -0.154
75.6 -5.430	75.6 -6.513	75.6 -0.641	75.6 -3.878	75.6 -4.116	75.6 -3.337	75.6 -0.280
76.3 -8.226	76.3 -9.205	76.3 -8.582	76.3 -4.319	76.3 -4.933	76.3 0.339	76.3 -0.280
77.1 0.544	77.1 -10.734	77.1 -6.459	77.1 -7.790	77.1 -5.122	77.1 0.339	77.1 -0.280
78.6 4.738	78.6 7.130	78.6 6.584	78.6 1.108	78.6 0.601	78.6 0.768	78.6 -0.280
80.0 -6.065	80.0 -7.676	80.0 -4.821	80.0 -4.445	80.0 -3.613	80.0 -3.644	80.0 -0.343
85.0 -6.256	85.0 -5.290	85.0 -4.032	85.0 -3.247	85.0 -2.418	85.0 -2.296	85.0 -0.25685
90.0 -2.189	90.0 -1.058	90.0 -1.125	90.0 -1.669	90.0 -1.160	90.0 -1.070	90.0 -0.25622
95.0 -1.533	95.0 0.135	95.0 -0.696	95.0 -1.101	95.0 -0.783	95.0 -0.764	95.0 -0.405
2.5 1.370	2.5 8.782	2.5 5.250	2.5 0.477	2.5 1.670	2.5 0.339	2.5 0.349
5.0 4.674	5.0 7.374	5.0 4.886	5.0 0.729	5.0 1.544	5.0 0.339	5.0 0.349
7.5 4.132	7.5 5.845	7.5 3.794	7.5 0.918	7.5 0.601	7.5 0.339	7.5 0.349
10.0 3.012	10.0 4.866	10.0 2.762	10.0 0.918	10.0 1.167	10.0 0.339	10.0 0.098
15.0 1.497	15.0 4.683	15.0 1.610	15.0 0.729	15.0 0.475	15.0 0.339	15.0 0.160
20.0 0.724	20.0 2.786	20.0 1.124	20.0 0.792	20.0 0.664	20.0 0.401	20.0 0.035
30.0 0.226	30.0 0.645	30.0 0.821	30.0 0.978	30.0 0.789	30.0 0.339	30.0 -0.091
50.0 0.657	50.0 1.930	50.0 1.549	50.0 0.666	50.0 0.726	50.0 0.768	50.0 0.098
65.0 7.768	65.0 9.332	65.0 7.798	65.0 2.685	65.0 1.627	65.0 2.239	65.0 0.412
70.0 5.217	70.0 7.864	70.0 6.584	70.0 1.549	70.0 1.104	70.0 1.749	70.0 0.412
76.8 0.460	76.8 8.478	76.8 8.275	76.8 1.234	76.8 1.041	76.8 0.401	76.8 0.223
77.1 6.434	77.1 8.231	77.1 7.494	77.1 1.549	77.1 0.978	77.1 0.401	77.1 -0.280
80.0 5.771	80.0 8.476	80.0 8.101	80.0 1.297	80.0 1.104	80.0 1.688	80.0 0.160
85.0 5.246	85.0 6.579	85.0 5.917	85.0 0.918	85.0 1.104	85.0 1.136	85.0 0.286
90.0 4.293	90.0 5.600	90.0 4.036	90.0 1.045	90.0 0.915	90.0 0.891	90.0 0.160
95.0 2.450	95.0 4.438	95.0 2.762	95.0 0.792	95.0 0.564	95.0 0.768	95.0 0.035
TOTAL NORMAL COEFFICIENT						
CN = 7.34	10.67	7.66	4.32	4.65	4.45	2.84

RUN 55, POINT 3 Q = 4.10 ALPHA = 0 TCP = 2.50

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-1.359	0.	-6.516	0.	-5.178	0.	-4.470	0.	-9.983	0.	1.297	0.	0.453	0.	1.520
1.2	-1.359	1.2	-2.436	1.2	-1.398	1.2	-1.845	1.2	-3.580	1.2	-1.599	1.2	1.218	1.2	1.375
2.5	-1.359	2.5	-2.535	2.5	-2.311	2.5	-2.330	2.5	-3.180	2.5	-1.648	2.5	1.463	2.5	2.681
5.0	-1.307	5.0	-3.567	5.0	-3.575	5.0	-3.612	5.0	-4.130	5.0	-1.402	5.0	1.426	5.0	1.375
7.5	-1.307	7.5	-3.764	7.5	-4.255	7.5	-1.189	7.5	-5.131	7.5	-0.519	7.5	1.415	7.5	1.423
10.0	-2.280	10.0	-3.125	10.0	-4.789	10.0	-4.571	10.0	-4.781	10.0	-1.402	10.0	-2.914	10.0	-2.350
15.0	-2.791	15.0	-3.911	15.0	-4.595	15.0	-0.937	15.0	-4.531	15.0	-2.384	15.0	-3.058	15.0	-2.253
20.0	-3.201	20.0	-3.862	20.0	-4.449	20.0	-4.521	20.0	-4.731	20.0	-3.513	20.0	-3.202	20.0	-2.350
25.0	-3.201	25.0	-4.206	25.0	-4.692	25.0	-1.442	25.0	-5.031	25.0	-3.954	25.0	-3.251	25.0	-2.447
30.0	-3.405	30.0	-4.452	30.0	-4.643	30.0	-5.126	30.0	-5.381	30.0	-4.396	30.0	-3.154	30.0	-2.350
40.0	-3.252	40.0	-4.452	40.0	-4.546	40.0	-4.975	40.0	-5.581	40.0	-4.641	40.0	-3.299	40.0	-2.495
50.0	-3.354	50.0	-4.353	50.0	1.283	50.0	-5.025	50.0	-6.282	50.0	-5.279	50.0	-3.347	50.0	-2.447
60.0	-3.456	60.0	-3.714	60.0	-4.498	60.0	-5.227	60.0	-6.582	60.0	-5.967	60.0	-3.491	60.0	-2.689
61.5	-2.894	61.5	-2.535	61.5	-2.846	61.5	-1.290	61.5	-4.080	61.5	-2.237	61.5	5.118	61.5	-1.141
62.5	-7.274	62.5	-10.890	62.5	-10.716	62.5	-9.266	62.5	-10.834	62.5	-9.255	62.5	5.358	62.5	-3.946
65.0	-12.258	65.0	-15.215	65.0	-15.817	65.0	-15.373	65.0	-16.437	65.0	-16.763	65.0	-8.108	65.0	-6.026
70.0	-9.341	70.0	-12.070	70.0	-12.319	70.0	-12.547	70.0	-12.835	70.0	-14.997	70.0	-7.002	70.0	-4.857
75.0	-6.025	75.0	-7.743	75.0	-7.995	75.0	-7.953	75.0	-8.583	75.0	-9.549	75.0	1.463	75.0	-4.236
75.6	-4.940	75.6	-5.877	75.6	-7.704	75.6	-7.398	75.6	-9.233	75.6	-10.236	75.6	-4.260	75.6	-3.753
76.3	-6.834	76.3	-8.236	76.3	-9.744	76.3	-8.306	76.3	-10.984	76.3	-11.659	76.3	-5.174	76.3	3.551
77.1	0.944	77.1	-9.563	77.1	-7.364	77.1	0.678	77.1	-11.384	77.1	-11.120	77.1	-5.222	77.1	0.842
78.6	3.349	78.6	4.985	78.6	4.441	78.6	4.262	78.6	3.724	78.6	3.800	78.6	0.597	78.6	5.970
80.0	-5.094	80.0	-6.319	80.0	-6.927	80.0	-7.650	80.0	-7.882	80.0	-7.782	80.0	-3.731	80.0	-3.753
85.0	-4.940	85.0	-4.157	85.0	-4.595	85.0	-4.672	85.0	-4.581	85.0	-3.709	85.0	-2.673	85.0	-2.398
90.0	-1.717	90.0	-0.815	90.0	-0.708	90.0	-0.533	90.0	-1.429	90.0	-0.421	90.0	-1.231	90.0	-0.851
95.0	-0.949	95.0	-0.077	95.0	0.360	95.0	0.527	95.0	-0.378	95.0	0.806	95.0	-0.509	95.0	-0.754
2.5	-0.540	2.5	5.919	2.5	3.227	2.5	3.152	2.5	5.675	2.5	1.199	2.5	1.415	2.5	1.375
5.0	1.046	5.0	4.936	5.0	4.150	5.0	4.363	5.0	5.125	5.0	1.248	5.0	1.367	5.0	1.568
7.5	1.456	7.5	4.051	7.5	3.713	7.5	3.657	7.5	1.823	7.5	1.199	7.5	1.222	7.5	1.471
10.0	1.916	10.0	3.412	10.0	2.935	10.0	2.849	10.0	3.674	10.0	1.297	10.0	0.837	10.0	1.036
15.0	1.763	15.0	3.363	15.0	1.915	15.0	1.385	15.0	1.122	15.0	1.346	15.0	0.789	15.0	0.697
20.0	1.609	20.0	3.314	20.0	1.381	20.0	1.082	20.0	1.172	20.0	1.346	20.0	0.693	20.0	1.133
30.0	0.790	30.0	0.955	30.0	1.186	30.0	1.032	30.0	1.122	30.0	1.395	30.0	0.982	30.0	0.552
50.0	0.944	50.0	2.390	50.0	2.401	50.0	2.698	50.0	1.723	50.0	1.984	50.0	1.030	50.0	0.504
65.0	4.730	65.0	5.919	65.0	5.856	65.0	6.029	65.0	6.025	65.0	4.438	65.0	5.647	65.0	0.746
70.0	4.014	70.0	4.017	70.0	5.461	70.0	5.726	70.0	5.525	70.0	3.456	70.0	0.405	70.0	0.821
76.8	0.944	76.8	6.263	76.8	6.263	76.8	5.777	76.8	5.725	76.8	5.321	76.8	0.597	76.8	0.842
77.1	4.526	77.1	5.771	77.1	5.170	77.1	5.221	77.1	5.075	77.1	4.830	77.1	0.645	77.1	0.649
80.0	4.730	80.0	6.263	80.0	5.753	80.0	6.029	80.0	5.975	80.0	4.634	80.0	0.501	80.0	0.794
85.0	5.069	85.0	6.361	85.0	5.510	85.0	5.625	85.0	5.925	85.0	6.106	85.0	0.549	85.0	0.939
90.0	3.963	90.0	5.919	90.0	4.830	90.0	4.717	90.0	5.175	90.0	5.763	90.0	0.501	90.0	0.842
95.0	3.042	95.0	5.427	95.0	3.955	95.0	3.707	95.0	4.424	95.0	5.125	95.0	3.242	95.0	0.697
TOTAL NORMAL COEFFICIENT															
CN =	5.59			7.17		8.25		9.26		7.97		4.31		2.49	

TABLE V-68

RUN 55, POINT 6 Q = 4.11 ALPHA = 12 TCP = 2.50

VALVE 1		VALVE 2		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-6.051	0.	-6.598	0.	-3.566	0.	-0.532	0.	-8.712	0.	1.049	0.	0.500	0.	1.323
1.2	-1.968	1.2	-3.607	1.2	-2.597	1.2	-2.949	1.2	-4.470	1.2	-3.308	1.2	1.219	1.2	1.419
2.5	-2.325	2.5	-4.196	2.5	-4.293	2.5	-4.359	2.5	-4.819	2.5	-3.308	2.5	1.219	2.5	3.157
5.0	-2.325	5.0	-5.323	5.0	-6.231	5.0	-6.071	5.0	-5.518	5.0	-4.728	5.0	1.219	5.0	1.226
7.5	-2.325	7.5	-5.029	7.5	-6.619	7.5	-1.791	7.5	-6.216	7.5	-5.029	7.5	1.219	7.5	1.178
10.0	-3.959	10.0	-3.754	10.0	-7.007	10.0	-6.574	10.0	-5.817	10.0	-5.365	10.0	-5.498	10.0	-4.419
15.0	-4.061	15.0	-5.372	15.0	-6.231	15.0	-1.287	15.0	-5.717	15.0	-5.414	15.0	-5.354	15.0	-4.130
20.0	-4.307	20.0	-5.225	20.0	-5.795	20.0	-5.869	20.0	-6.017	20.0	-6.099	20.0	-5.306	20.0	-4.081
25.0	-4.103	25.0	-5.372	25.0	-5.892	25.0	-1.942	25.0	-6.616	25.0	-6.197	25.0	-5.162	25.0	-4.081
30.0	-4.214	30.0	-5.323	30.0	-5.601	30.0	-4.071	30.0	-6.765	30.0	-6.295	30.0	-4.922	30.0	-3.599
40.0	-3.652	40.0	-4.931	40.0	-5.117	40.0	-5.567	40.0	-6.666	40.0	-6.197	40.0	-4.634	40.0	-3.792
50.0	-3.448	50.0	-4.539	50.0	-1.038	50.0	-5.416	50.0	-7.314	50.0	-6.540	50.0	-4.442	50.0	-3.551
60.0	-3.193	60.0	-4.882	60.0	-4.632	60.0	-5.315	60.0	-7.264	60.0	-7.127	60.0	-4.874	60.0	-4.033
61.5	-2.734	61.5	-2.627	61.5	-2.887	61.5	-0.733	61.5	-4.021	61.5	-2.280	61.5	5.585	61.5	-1.958
62.5	-5.898	62.5	-8.265	62.5	-8.364	62.5	-7.078	62.5	-11.257	62.5	-10.260	62.5	5.873	62.5	-6.156
65.0	-8.757	65.0	-9.932	65.0	-11.756	65.0	-11.962	65.0	-17.295	65.0	-18.975	65.0	-10.823	65.0	-9.003
70.0	-5.847	70.0	-5.078	70.0	-7.782	70.0	-9.243	70.0	-13.652	70.0	-17.604	70.0	-9.672	70.0	5.280
75.0	-3.091	75.0	-2.872	75.0	-4.244	75.0	-5.466	75.0	-9.011	75.0	-11.827	75.0	1.651	75.0	-7.121
75.6	-3.520	75.6	-4.245	75.6	-4.729	75.6	-4.459	75.6	-9.859	75.6	-13.051	75.6	-6.745	75.6	-6.205
76.3	-4.448	76.3	-5.372	76.3	-5.844	76.3	-4.510	76.3	-11.007	76.3	-15.107	76.3	-7.944	76.3	4.073
77.1	0.840	77.1	-4.735	77.1	-3.711	77.1	0.929	77.1	-11.157	77.1	-14.471	77.1	-8.184	77.1	0.744
78.6	4.443	78.6	5.708	78.6	5.060	78.6	4.504	78.6	4.014	78.6	4.721	78.6	0.404	78.6	6.389
80.0	-2.887	80.0	-2.627	80.0	-3.421	80.0	-4.963	80.0	-8.861	80.0	-10.701	80.0	-6.025	80.0	-6.446
85.0	-2.785	85.0	-2.087	85.0	-2.548	85.0	-3.603	85.0	-4.869	85.0	-5.903	85.0	-4.490	85.0	-3.599
90.0	-1.508	90.0	-1.450	90.0	-1.046	90.0	-1.086	90.0	-1.475	90.0	-1.203	90.0	-2.283	90.0	-2.007
95.0	-0.998	95.0	-1.205	95.0	-0.464	95.0	-0.481	95.0	-0.627	95.0	0.412	95.0	-1.468	95.0	-1.958
2.5	2.728	2.5	6.836	2.5	3.752	2.5	1.180	2.5	7.008	2.5	1.098	2.5	1.315	2.5	1.226
5.0	4.208	5.0	5.855	5.0	2.928	5.0	1.231	5.0	6.160	5.0	1.049	5.0	1.171	5.0	1.275
7.5	3.647	7.5	4.777	7.5	2.201	7.5	1.080	7.5	2.567	7.5	1.098	7.5	1.267	7.5	1.275
10.0	2.300	10.0	4.041	10.0	1.668	10.0	1.029	10.0	4.563	10.0	1.098	10.0	0.883	10.0	1.226
15.0	1.044	15.0	3.943	15.0	1.232	15.0	0.727	15.0	1.269	15.0	1.196	15.0	1.027	15.0	0.840
20.0	0.686	20.0	3.845	20.0	1.038	20.0	0.626	20.0	1.369	20.0	1.147	20.0	0.835	20.0	

TABLE V-69

RUN 55, POINT 7 Q = 4.16 ALPHA = 16 TCP = 2.50

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-2.933	0.	-5.938	0.	-0.986	0.	-0.824	0.	-7.966	0.	1.036	0.	3.635	0.	1.259
1.2	-1.743	1.2	-3.952	1.2	-2.757	1.2	-3.262	1.2	-5.008	1.2	-3.462	1.2	1.204	1.2	1.354
2.5	-1.541	2.5	-4.630	2.5	-4.960	2.5	-4.854	2.5	-5.008	2.5	-3.801	2.5	1.299	2.5	3.166
5.0	-1.642	5.0	-5.696	5.0	-6.444	5.0	-6.346	5.0	-6.290	5.0	-5.542	5.0	1.204	5.0	1.211
7.5	-1.642	7.5	-5.550	7.5	-6.923	7.5	-1.869	7.5	-6.832	7.5	-6.171	7.5	1.441	7.5	1.211
10.0	-4.164	10.0	-3.903	10.0	-7.162	10.0	-6.794	10.0	-6.389	10.0	-5.978	10.0	-5.716	10.0	-4.939
15.0	-4.466	15.0	-5.599	15.0	-6.348	15.0	-1.272	15.0	-6.290	15.0	-5.833	15.0	-5.479	15.0	-4.414
20.0	-4.668	20.0	-5.453	20.0	-5.917	20.0	-5.998	20.0	-6.684	20.0	-6.655	20.0	-5.621	20.0	-4.605
25.0	-4.244	25.0	-5.599	25.0	-5.965	25.0	-1.919	25.0	-7.325	25.0	-6.655	25.0	-5.527	25.0	-4.414
30.0	-4.204	30.0	-5.453	30.0	-5.581	30.0	-5.998	30.0	-7.325	30.0	-6.606	30.0	-5.147	30.0	-4.080
40.0	-3.609	40.0	-4.775	40.0	-5.008	40.0	-5.501	40.0	-7.276	40.0	-6.461	40.0	-5.705	40.0	-4.033
50.0	-3.407	50.0	-4.097	50.0	0.977	50.0	-3.133	50.0	-7.769	50.0	-6.752	50.0	-4.768	50.0	-4.080
60.0	-1.155	60.0	-4.775	60.0	-4.385	60.0	-4.994	60.0	-7.572	60.0	-7.380	60.0	-5.147	60.0	-4.176
81.2	-2.449	81.2	-2.596	81.2	-2.470	81.2	-0.725	81.2	-5.416	81.2	-2.447	81.2	5.612	81.2	-2.364
62.5	-5.071	62.5	-6.519	62.5	-7.402	62.5	-6.297	62.5	-10.727	62.5	-10.718	62.5	5.944	62.5	-6.512
65.0	-6.735	65.0	-8.796	65.0	-10.370	65.0	-9.729	65.0	-16.743	65.0	-19.328	65.0	-11.357	65.0	-9.754
70.0	-4.668	70.0	-2.644	70.0	-6.396	70.0	-6.645	70.0	-12.897	70.0	-17.828	70.0	-9.935	70.0	5.264
75.0	-2.530	75.0	-2.789	75.0	-3.715	75.0	-4.456	75.0	-8.507	75.0	-11.975	75.0	1.489	75.0	-7.465
75.6	-3.306	75.6	-3.322	75.6	-3.523	75.6	-3.361	75.6	-9.092	75.6	-12.943	75.6	-7.328	75.6	-6.702
76.3	-4.164	76.3	-3.467	76.3	-4.523	76.3	-3.461	76.3	-10.284	76.3	-15.119	76.3	-8.560	76.3	-4.119
77.1	0.829	77.1	-3.371	77.1	-2.805	77.1	0.967	77.1	-10.284	77.1	-14.345	77.1	-8.655	77.1	0.592
78.6	4.410	78.6	4.767	78.6	4.856	78.6	3.952	78.6	2.881	78.6	4.809	78.6	3.561	78.6	6.455
80.0	-1.995	80.0	-2.450	80.0	-3.045	80.0	-4.098	80.0	-8.262	80.0	-10.863	80.0	-6.522	80.0	-6.798
85.0	-1.995	85.0	-1.869	85.0	-2.135	85.0	-3.113	85.0	-4.466	85.0	-6.074	85.0	-4.768	85.0	-3.985
90.0	-1.047	90.0	-1.045	90.0	-3.842	90.0	-0.924	90.0	-1.803	90.0	-1.479	90.0	-2.540	90.0	-2.364
95.0	-0.946	95.0	-1.045	95.0	-0.411	95.0	-0.277	95.0	-0.768	95.0	0.165	95.0	-1.498	95.0	-2.364
2.5	2.897	2.5	6.996	2.5	2.701	2.5	0.619	2.5	6.874	2.5	1.036	2.5	1.157	2.5	1.068
5.0	3.502	5.0	5.978	5.0	1.887	5.0	1.166	5.0	5.790	5.0	1.036	5.0	1.346	5.0	1.307
7.5	2.241	7.5	4.913	7.5	1.456	7.5	0.718	7.5	2.240	7.5	1.036	7.5	1.204	7.5	1.116
10.0	1.635	10.0	4.138	10.0	1.312	10.0	1.056	10.0	4.261	10.0	1.084	10.0	0.920	10.0	1.164
15.0	0.880	15.0	4.186	15.0	1.122	15.0	0.469	15.0	0.909	15.0	1.181	15.0	0.967	15.0	0.735
20.0	0.779	20.0	4.041	20.0	0.977	20.0	0.569	20.0	1.007	20.0	1.133	20.0	0.967	20.0	0.925
30.0	0.476	30.0	1.037	30.0	0.977	30.0	0.519	30.0	1.007	30.0	1.229	30.0	0.967	30.0	0.496
50.0	0.829	50.0	1.716	50.0	1.265	50.0	1.514	50.0	0.613	50.0	1.810	50.0	0.872	50.0	0.496
65.0	3.660	65.0	6.753	65.0	5.861	65.0	5.195	65.0	6.579	65.0	6.405	65.0	6.181	65.0	0.353
70.0	3.754	70.0	6.380	70.0	4.137	70.0	4.250	70.0	4.952	70.0	6.308	70.0	3.351	70.0	0.639
76.8	0.779	76.8	5.252	76.8	0.451	76.8	4.648	76.8	4.212	76.8	7.227	76.8	0.304	76.8	0.687
77.1	5.075	77.1	5.494	77.1	5.334	77.1	4.549	77.1	4.459	77.1	6.115	77.1	0.683	77.1	0.353
80.0	5.469	80.0	4.913	80.0	4.808	80.0	4.947	80.0	4.804	80.0	6.889	80.0	0.635	80.0	0.449
85.0	3.522	85.0	3.459	85.0	3.228	85.0	3.603	85.0	3.522	85.0	7.082	85.0	0.161	85.0	0.687
90.0	2.594	90.0	2.830	90.0	2.126	90.0	2.509	90.0	2.092	90.0	6.453	90.0	0.019	90.0	0.687
95.0	1.787	95.0	2.209	95.0	1.456	95.0	1.713	95.0	1.993	95.0	5.679	95.0	3.622	95.0	0.592
TOTAL NORMAL COEFFICIENT															
CN =	4.86	7.40	5.88	6.59	9.69	10.84	6.01	3.95							

TABLE V-70

RUN 53, POINT 5 Q = 3.26 ALPHA = 8 TCP = 4.00

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-3.825	0.	-8.929	0.	-3.938	0.	-1.107	0.	-13.744	0.	1.330	0.	0.516	0.	0.223
1.2	-2.226	1.2	-4.293	1.2	-2.106	1.2	-3.837	1.2	-5.879	1.2	-3.300	1.2	1.544	1.2	1.797
2.5	-2.602	2.5	-4.602	2.5	-4.122	2.5	-5.043	2.5	-5.754	2.5	-3.114	2.5	1.726	2.5	-0.819
5.0	-2.602	5.0	-5.900	5.0	-6.321	5.0	-6.567	5.0	-6.760	5.0	-3.238	5.0	1.665	5.0	1.614
7.5	-2.538	7.5	-6.024	7.5	-7.299	7.5	-2.123	7.5	-7.578	7.5	-3.423	7.5	1.786	7.5	1.493
10.0	-3.503	10.0	-4.417	10.0	-7.604	10.0	-7.392	10.0	-7.138	10.0	-3.855	10.0	-5.109	10.0	-4.104
15.0	-4.062	15.0	-6.333	15.0	-7.055	15.0	-1.742	15.0	-7.012	15.0	-4.781	15.0	-4.928	15.0	-3.578
20.0	-4.597	20.0	-6.395	20.0	-6.749	20.0	-6.884	20.0	-7.327	20.0	-5.954	20.0	-4.988	20.0	-3.739
25.0	-4.469	25.0	-6.519	25.0	-6.993	25.0	-2.377	25.0	-7.893	25.0	-6.509	25.0	-5.109	25.0	-3.800
30.0	-4.597	30.0	-6.580	30.0	-6.810	30.0	-7.392	30.0	-8.270	30.0	-6.818	30.0	-4.746	30.0	-3.496
40.0	-4.147	40.0	-6.333	40.0	-6.382	40.0	-6.948	40.0	-8.396	40.0	-7.365	40.0	-4.625	40.0	-3.578
50.0	-4.211	50.0	-6.086	50.0	1.194	50.0	-6.948	50.0	-9.340	50.0	-7.744	50.0	-4.565	50.0	-3.578
60.0	-4.404	60.0	-5.777	60.0	-6.077	60.0	-6.075	60.0	-9.654	60.0	-8.546	60.0	-4.867	60.0	-3.861
61.3	-4.018	61.3	-4.726	61.3	-4.549	61.3	-2.377	61.3	-5.754	61.3	-2.621	61.3	3.057	61.3	-1.914
62.5	-8.750	62.5	-14.740	62.5	-12.981	62.5	-11.138	62.5	-15.380	62.5	-13.299	62.5	2.875	62.5	-5.868
65.0	-15.344	65.0	-21.539	65.0	-17.991	65.0	-18.311	65.0	-23.748	65.0	-24.470	65.0	-11.884	65.0	-8.667
70.0	-11.033	70.0	-17.089	70.0	-12.981	70.0	-14.122	70.0	-18.211	70.0	-22.495	70.0	-10.734	70.0	-2.709
75.0	-7.043	75.0	-11.031	75.0	-8.154	75.0	-9.105	75.0	-12.297	75.0	-15.027	75.0	1.786	75.0	-7.085
75.6	-6.592	75.6	-9.115	75.6	-8.276	75.6	-8.472	75.6	-14.122	75.6	-17.064	75.6	-7.347	75.6	-6.416
76.3	-8.567	76.3	-12.576	76.3	-10.965	76.3	-9.424	76.3	-16.261	76.3	-19.656	76.3	-8.678	76.3	0.884
77.1	0.937	77.1	-13.627	77.1	-7.238	77.1	-2.821	77.1	-16.764	77.1	-18.977	77.1	-8.920	77.1	0.823
78.6	5.184	78.6	7.204	78.6	6.693	78.6	6.130	78.6	5.068	78.6	5.835	78.6	0.335	78.6	3.744
80.0	-6.013	80.0	-9.424	80.0	-6.016	80.0	-9.297	80.0	-12.486	80.0	-13.669	80.0	-6.863	80.0	-6.477
85.0	-5.563	85.0	-5.406	85.0	-4.733	85.0	-6.313	85.0	-7.264	85.0	-7.620	85.0	-5.109	85.0	-4.104
90.0	-2.226	90.0	-1.203	90.0	-1.495	90.0	-1.552	90.0	-2.797	90.0	-1.386	90.0	-2.629	90.0	-1.975
95.0	-1.573	95.0	-0.275	95.0	-1.006	95.0	-1.488	95.0	-1.538	95.0	0.712	95.0	-1.722	95.0	-2.097
2.5	0.358	2.5	8.811	2.5	4.921	2.5	1.813	2.5	8.969	2.5	1.391	2.5	1.847	2.5	1.554
5.0	3.061	5.0	7.389	5.0	5.104	5.0	1.559	5.0	7.648	5.0	1.391	5.0	1.847	5.0	1.797
7.5	4.348	7.5	5.968	7.5	3.577	7.5	1.622	7.5	2.740	7.5	1.330	7.5	1.605	7.5	1.614
10.0	4.090	10.0	5.979	10.0	2.782	10.0	0.734	10.0	5.257	10.0	1.453	10.0	0.879	10.0	1.249
15.0	2.224	15.0	4.917	15.0	1.621	15.0	0.607	15.0	1.167	15.0	1.577	15.0	0.940	15.0	0.884
20.0	1.259	20.0	4.051	20.0	1.377	20.0	0.734	20.0	1.230	20.0	1.453	20.0	0.940	20.	

TABLE V-71
 RUN 53, POINT 6 Q = 3.14 ALPHA = 12 TCP = 4.00

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.0	-4.571	0.0	-9.911	0.0	-2.592	0.0	-2.269	0.0	-13.223	0.0	1.446	0.0	0.663	0.0	2.182
1.2	-2.704	1.2	-4.777	1.2	-2.692	1.2	-3.983	1.2	-5.711	1.2	-3.937	1.2	1.793	1.2	1.993
2.5	-2.768	2.5	-5.098	2.5	-5.230	2.5	-5.235	2.5	-6.038	2.5	-3.809	2.5	1.793	2.5	-0.533
5.0	-2.704	5.0	-6.510	5.0	-7.133	5.0	-7.081	5.0	-6.952	5.0	-4.450	5.0	1.730	5.0	1.740
7.5	-2.768	7.5	-6.317	7.5	-7.830	7.5	-2.137	7.5	-7.867	7.5	-5.155	7.5	1.856	7.5	1.424
10.0	-4.171	10.0	-4.841	10.0	-8.338	10.0	-7.937	10.0	-7.214	10.0	-5.475	10.0	-5.931	10.0	-4.828
15.0	-4.765	15.0	-6.702	15.0	-7.513	15.0	-1.676	15.0	-7.214	15.0	-5.988	15.0	-5.988	15.0	-4.386
20.0	-4.972	20.0	-6.574	20.0	-7.006	20.0	-7.146	20.0	-7.736	20.0	-7.013	20.0	-5.492	20.0	-4.323
25.0	-4.906	25.0	-6.831	25.0	-7.196	25.0	-2.335	25.0	-8.520	25.0	-7.333	25.0	-5.422	25.0	-4.260
30.0	-4.772	30.0	-6.574	30.0	-6.816	30.0	-7.476	30.0	-8.520	30.0	-7.590	30.0	-5.115	30.0	-3.881
40.0	-4.171	40.0	-5.996	40.0	-6.308	40.0	-7.081	40.0	-8.651	40.0	-7.590	40.0	-5.952	40.0	-4.907
50.0	-4.104	50.0	-5.355	50.0	1.177	50.0	-6.817	50.0	-9.565	50.0	-8.295	50.0	-4.864	50.0	-4.007
60.0	-3.903	60.0	-5.868	60.0	-5.801	60.0	-7.015	60.0	-9.892	60.0	-9.128	60.0	-5.115	60.0	-4.260
61.5	-3.255	61.5	-3.494	61.5	-3.707	61.5	-2.203	61.5	-2.907	61.5	-2.976	61.5	3.551	61.5	-2.112
62.5	-7.511	62.5	-10.810	62.5	-11.573	62.5	-10.969	62.5	-15.509	62.5	-13.485	62.5	3.488	62.5	-6.407
65.0	-11.119	65.0	-14.853	65.0	-16.457	65.0	-17.494	65.0	-23.805	65.0	-25.148	65.0	-12.023	65.0	-9.565
70.0	-9.048	70.0	-10.425	70.0	-11.129	70.0	-12.749	70.0	-18.971	70.0	-23.610	70.0	-10.829	70.0	-2.130
75.0	-3.035	75.0	-4.007	75.0	-6.942	75.0	-8.794	75.0	-12.505	75.0	-15.664	75.0	2.484	75.0	-7.797
75.6	-5.577	75.6	-6.382	75.6	-7.260	75.6	-7.476	75.6	-13.680	75.6	-17.651	75.6	-7.815	75.6	-7.292
76.3	-6.375	76.3	-7.665	76.3	-8.211	76.3	-8.531	76.3	-15.575	76.3	-20.534	76.3	-8.946	76.3	1.172
77.1	0.917	77.1	-6.446	77.1	-5.927	77.1	-2.665	77.1	-15.967	77.1	-19.509	77.1	-2.197	77.1	0.567
78.6	6.052	78.6	7.801	78.6	7.203	78.6	6.233	78.6	5.589	78.6	6.572	78.6	3.411	78.6	4.140
80.0	-4.257	80.0	-4.200	80.0	-6.372	80.0	-7.806	80.0	-12.962	80.0	-14.511	80.0	-7.250	80.0	-7.039
85.0	-4.037	85.0	-3.494	85.0	-4.151	85.0	-5.499	85.0	-7.083	85.0	-8.102	85.0	-5.442	85.0	-3.881
90.0	-1.899	90.0	-1.568	90.0	-1.043	90.0	-1.346	90.0	-2.249	90.0	-1.630	90.0	-2.854	90.0	-2.239
95.0	-1.104	95.0	-1.119	95.0	-0.536	95.0	-0.358	95.0	-0.877	95.0	0.549	95.0	-1.787	95.0	-2.176
2.5	1.776	2.5	9.470	2.5	5.617	2.5	2.081	2.5	9.705	2.5	1.446	2.5	1.730	2.5	1.614
5.0	4.782	5.0	8.058	5.0	4.095	5.0	2.015	5.0	8.464	5.0	1.446	5.0	1.856	5.0	1.867
7.5	4.144	7.5	6.518	7.5	3.143	7.5	1.488	7.5	3.499	7.5	1.446	7.5	1.931	7.5	1.867
10.0	3.246	10.0	5.427	10.0	2.192	10.0	1.026	10.0	6.047	10.0	1.510	10.0	1.291	10.0	1.488
15.0	1.739	15.0	5.427	15.0	1.431	15.0	0.895	15.0	1.605	15.0	1.638	15.0	1.165	15.0	0.919
20.0	1.108	20.0	3.437	20.0	1.177	20.0	0.763	20.0	1.735	20.0	1.638	20.0	1.165	20.0	1.172
30.0	0.573	30.0	1.319	30.0	1.177	30.0	0.829	30.0	1.670	30.0	1.766	30.0	1.228	30.0	0.793
50.0	1.041	50.0	2.282	50.0	1.811	50.0	2.476	50.0	1.605	50.0	2.727	50.0	1.102	50.0	0.603
65.0	8.323	65.0	10.047	65.0	8.282	65.0	8.408	65.0	10.097	65.0	8.495	65.0	3.991	65.0	0.816
70.0	6.052	70.0	7.865	70.0	6.632	70.0	7.156	70.0	8.464	70.0	7.854	70.0	0.097	70.0	0.959
76.8	0.974	76.8	8.443	76.8	0.352	76.8	7.815	76.8	7.418	76.8	9.712	76.8	0.286	76.8	0.793
77.1	7.455	77.1	8.507	77.1	7.774	77.1	7.288	77.1	7.614	77.1	8.366	77.1	0.725	77.1	0.351
80.0	8.925	80.0	8.058	80.0	8.599	80.0	7.749	80.0	8.855	80.0	9.392	80.0	0.349	80.0	0.477
85.0	6.052	85.0	6.068	85.0	5.935	85.0	6.365	85.0	6.504	85.0	9.904	85.0	0.474	85.0	0.919
90.0	3.646	90.0	5.234	90.0	4.095	90.0	4.717	90.0	5.067	90.0	9.135	90.0	0.286	90.0	0.793
95.0	2.778	95.0	3.630	95.0	2.636	95.0	3.201	95.0	4.348	95.0	8.238	95.0	5.435	95.0	0.667

TOTAL NORMAL COEFFICIENT
 CN = 6.70 10.50 8.39 10.04 13.63 13.65 6.05 4.35

TABLE V-72
 RUN 53, POINT 8 Q = 2.96 ALPHA = 18 TCP = 4.00

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.0	-7.187	0.0	-9.423	0.0	-0.365	0.0	-0.588	0.0	-12.709	0.0	1.331	0.0	0.771	0.0	1.915
1.2	-2.154	1.2	-5.543	1.2	-2.962	1.2	-4.503	1.2	-7.096	1.2	4.315	1.2	1.637	1.2	1.580
2.5	-2.792	2.5	-6.223	2.5	-5.882	2.5	-4.461	2.5	-7.373	2.5	-4.719	2.5	1.837	2.5	0.173
5.0	-2.792	5.0	-7.381	5.0	-8.507	5.0	-8.278	5.0	-8.205	5.0	-6.438	5.0	1.770	5.0	1.781
7.5	-2.792	7.5	-7.381	7.5	-8.978	7.5	-2.475	7.5	-8.106	7.5	-7.998	7.5	1.704	7.5	1.245
10.0	-4.919	10.0	-6.155	10.0	-9.449	10.0	-8.628	10.0	-8.482	10.0	-7.234	10.0	-7.289	10.0	-5.790
15.0	-5.445	15.0	-7.789	15.0	-8.238	15.0	-1.776	15.0	-8.621	15.0	-7.438	15.0	-6.890	15.0	-5.321
20.0	-5.627	20.0	-7.585	20.0	-7.565	20.0	-7.579	20.0	-9.106	20.0	-8.458	20.0	-6.557	20.0	-5.321
25.0	-5.273	25.0	-7.585	25.0	-7.699	25.0	-2.545	25.0	-10.145	25.0	-8.593	25.0	-6.557	25.0	-5.053
30.0	-5.222	30.0	-7.108	30.0	-7.296	30.0	-7.929	30.0	-9.799	30.0	-8.593	30.0	-5.890	30.0	-4.651
40.0	-4.493	40.0	-6.223	40.0	-6.421	40.0	-7.230	40.0	-9.868	40.0	-8.458	40.0	-5.624	40.0	-4.651
50.0	-3.997	50.0	-5.611	50.0	-1.048	50.0	-6.950	50.0	-10.561	50.0	-9.001	50.0	-5.491	50.0	-4.450
60.0	-3.997	60.0	-5.815	60.0	-5.882	60.0	-6.810	60.0	-10.561	60.0	-9.817	60.0	-6.024	60.0	-4.852
61.5	-2.580	61.5	-2.956	61.5	-4.066	61.5	-2.335	61.5	-6.750	61.5	-4.175	61.5	-4.302	61.5	-2.038
62.5	-6.701	62.5	-9.491	62.5	-10.929	62.5	-9.677	62.5	-15.203	62.5	-14.915	62.5	4.302	62.5	-7.063
65.0	-9.384	65.0	-12.623	65.0	-14.698	65.0	-15.480	65.0	-23.934	65.0	-27.220	65.0	-13.951	65.0	-11.217
70.0	-7.642	70.0	-2.819	70.0	-8.372	70.0	-11.355	70.0	-18.945	70.0	-25.384	70.0	-12.449	70.0	-3.925
75.0	-3.420	75.0	-4.045	75.0	-4.873	75.0	-6.810	75.0	-12.432	75.0	-16.683	75.0	2.303	75.0	-8.403
75.6	-4.635	75.6	-4.317	75.6	-5.008	75.6	-5.272	75.6	-12.847	75.6	-19.062	75.6	-8.622	75.6	-7.733
76.3	-6.053	76.3	-4.589	76.3	-6.623	76.3	-5.552	76.3	-15.481	76.3	-22.189	76.3	-10.354	76.3	2.049
77.1	0.893	77.1	-4.385	77.1	-4.133	77.1	-2.405	77.1	-15.411	77.1	-21.034	77.1	-10.620	77.1	0.575
78.6	6.067	78.6	6.712	78.6	6.903	78.6	6.194	78.6	4.129	78.6	7.042	78.6	0.505	78.6	4.997
80.0	-3.501	80.0	-3.772	80.0	-4.133	80.0	-6.531	80.0	-12.640	80.0	-15.799	80.0	-7.889	80.0	-7.398
85.0	-3.785	85.0	-2.547	85.0	-2.922	85.0	-4.503	85.0	-6.542	85.0	-8.661	85.0	-6.157	85.0	-5.555
90.0	-1.658	90.0	-1.594	90.0	-1.576	90.0	-1.357	90.0	-2.453	90.0	-2.204	90.0	-3.426	90.0	-2.507
95.0	-0.666	95.0	-1.526	95.0	-0.836	95.0	-0.518	95.0	-1.068	95.0	0.108	95.0	-2.160	95.0	-2.105
2.5	3.870	2.5	10.047	2.5	3.134	2.5	0.601	2.5	10.227	2.5	1.331	2.5	1.837	2.5	1.379
5.0	5.277	5.0	8.754	5.0	2.731	5.0	1.160	5.0	8.633	5.0	1.331	5.0	1.637	5.0	1.714
7.5	3.657	7.5	6.916	7.5	2.125	7.5	0.881	7.5	3.229	7.5	1.399	7.5	1.904	7.5	1.714
10.0	1.889	10.0	5.690	10.0	1.789	10.0	0.811	10.0	6.139	10.0	1.467	10.0	0.971	10.0	1.446
15.0	0.904	15.0	5.826	15.0	1.385	15.0	0.951	15.0	1.150	15.0	1.535	15.0	0.971	15.0	0.843
20.0	0.610	20.0	3.444	20.0	1.116	20.0	0.531	20.0	1.358	20.0	1.603	20.0	1.171	20.0	0.977
30.0	0.55														

TABLE V-73

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-2.245	0.	-1.514	0.	-1.717	0.	-1.681	0.	-2.044	0.	0.563	0.	0.166	0.	0.898
1.2	-0.647	1.2	-1.442	1.2	-0.787	1.2	-0.943	1.2	-1.338	1.2	-0.795	1.2	0.626	1.2	0.630
2.5	-0.879	2.5	-1.241	2.5	-1.227	2.5	-1.223	2.5	-1.414	2.5	-1.091	2.5	0.650	2.5	1.434
5.0	-0.879	5.0	-1.613	5.0	-1.766	5.0	-1.732	5.0	-1.742	5.0	-1.734	5.0	0.626	5.0	0.654
7.5	-0.879	7.5	-1.687	7.5	-1.912	7.5	-0.562	7.5	-2.069	7.5	-1.882	7.5	0.650	7.5	0.630
10.0	-1.549	10.0	-1.514	10.0	-2.059	10.0	-1.935	10.0	-1.968	10.0	-1.808	10.0	-2.330	10.0	-1.880
15.0	-1.626	15.0	-1.736	15.0	-2.010	15.0	-0.486	15.0	-1.893	15.0	-1.734	15.0	-2.281	15.0	-1.880
20.0	-1.755	20.0	-1.736	20.0	-1.961	20.0	-1.859	20.0	-1.893	20.0	-2.179	20.0	-2.378	20.0	-2.026
25.0	-1.729	25.0	-1.786	25.0	-1.986	25.0	-0.613	25.0	-1.968	25.0	-2.030	25.0	-2.451	25.0	-2.099
30.0	-1.729	30.0	-1.811	30.0	-1.986	30.0	-2.088	30.0	-2.019	30.0	-2.006	30.0	-2.354	30.0	-1.953
40.0	-1.600	40.0	-1.786	40.0	-1.937	40.0	-1.986	40.0	-1.994	40.0	-1.932	40.0	-2.354	40.0	-2.075
50.0	-1.549	50.0	-1.637	50.0	0.461	50.0	-1.884	50.0	-1.994	50.0	-1.956	50.0	-2.257	50.0	-2.075
60.0	-1.420	60.0	-1.315	60.0	-1.766	60.0	-1.808	60.0	-1.943	60.0	-1.981	60.0	-2.354	60.0	-2.221
61.5	-0.595	61.5	-0.573	61.5	-0.880	61.5	-0.288	61.5	-0.724	61.5	-0.325	61.5	2.491	61.5	-0.930
62.5	-2.116	62.5	-2.826	62.5	-2.867	62.5	-2.647	62.5	-2.548	62.5	-2.426	62.5	2.540	62.5	-3.220
65.0	-3.095	65.0	-3.816	65.0	-4.164	65.0	-4.249	65.0	-3.833	65.0	-4.206	65.0	-3.358	65.0	-4.828
70.0	-2.245	70.0	-2.900	70.0	-2.700	70.0	-2.977	70.0	-2.825	70.0	-3.563	70.0	-4.461	70.0	-2.433
75.0	-1.317	75.0	-1.439	75.0	-1.570	75.0	-1.732	75.0	-1.742	75.0	-2.228	75.0	0.553	75.0	-3.147
75.6	-1.008	75.6	-1.340	75.6	-1.447	75.6	-1.579	75.6	-1.691	75.6	-2.154	75.6	-2.790	75.6	-2.684
76.3	-1.523	76.3	-1.712	76.3	-1.766	76.3	-1.579	76.3	-1.943	76.3	-2.574	76.3	-3.226	76.3	-1.799
77.1	0.333	77.1	-0.712	77.1	-1.203	77.1	0.201	77.1	-1.918	77.1	-2.426	77.1	-3.129	77.1	0.751
78.6	0.822	78.6	0.789	78.6	0.730	78.6	0.684	78.6	0.703	78.6	0.837	78.6	0.771	78.6	2.798
80.0	-0.054	80.0	-1.018	80.0	-1.129	80.0	-1.554	80.0	-1.162	80.0	-1.660	80.0	-1.772	80.0	-2.635
85.0	-0.163	85.0	-0.895	85.0	-1.056	85.0	-1.198	85.0	-0.910	85.0	-1.066	85.0	-0.973	85.0	-1.685
90.0	-0.466	90.0	-0.325	90.0	-0.615	90.0	-0.435	90.0	-0.482	90.0	-0.325	90.0	-0.464	90.0	-0.637
95.0	-0.363	95.0	-0.400	95.0	-0.469	95.0	-0.435	95.0	-0.331	95.0	-0.003	95.0	-0.392	95.0	-0.394
2.5	0.874	2.5	1.012	2.5	0.926	2.5	1.065	2.5	1.055	2.5	0.565	2.5	0.626	2.5	0.630
5.0	1.106	5.0	0.987	5.0	0.951	5.0	1.040	5.0	1.055	5.0	0.565	5.0	0.626	5.0	0.630
7.5	1.003	7.5	0.863	7.5	0.902	7.5	0.938	7.5	0.299	7.5	0.565	7.5	0.626	7.5	0.630
10.0	0.874	10.0	0.789	10.0	0.828	10.0	0.862	10.0	0.879	10.0	0.565	10.0	0.820	10.0	0.678
15.0	0.693	15.0	0.789	15.0	0.706	15.0	0.582	15.0	0.526	15.0	0.565	15.0	0.723	15.0	0.557
20.0	0.590	20.0	0.665	20.0	0.632	20.0	0.582	20.0	0.526	20.0	0.565	20.0	0.626	20.0	0.410
30.0	0.487	30.0	0.467	30.0	0.608	30.0	0.582	30.0	0.526	30.0	0.590	30.0	0.602	30.0	0.410
50.0	0.487	50.0	0.566	50.0	0.584	50.0	0.607	50.0	0.526	50.0	0.639	50.0	0.432	50.0	0.483
65.0	1.132	65.0	0.962	65.0	0.975	65.0	0.709	65.0	1.030	65.0	1.134	65.0	2.758	65.0	0.825
70.0	1.080	70.0	0.987	70.0	0.975	70.0	0.709	70.0	1.005	70.0	1.109	70.0	1.013	70.0	0.873
76.8	0.364	76.8	0.987	76.8	0.045	76.8	0.735	76.8	1.005	76.8	1.183	76.8	0.989	76.8	0.849
77.1	0.951	77.1	0.937	77.1	0.877	77.1	0.760	77.1	0.904	77.1	1.035	77.1	0.941	77.1	0.703
80.0	1.054	80.0	0.987	80.0	0.951	80.0	0.785	80.0	0.980	80.0	1.134	80.0	0.917	80.0	0.825
85.0	1.028	85.0	0.987	85.0	0.975	85.0	0.811	85.0	1.030	85.0	1.208	85.0	0.965	85.0	0.922
90.0	0.977	90.0	0.937	90.0	0.951	90.0	0.811	90.0	1.005	90.0	1.109	90.0	0.868	90.0	0.898
95.0	0.797	95.0	0.838	95.0	0.853	95.0	0.811	95.0	0.829	95.0	0.985	95.0	0.965	95.0	0.751
TOTAL NORMAL COEFFICIENT															
CN = 1.99		2.31		2.16		2.30		2.51		2.67		2.82		2.14	

TABLE V-74

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	0.102	0.	-0.678	0.	0.145	0.	-0.208	0.	-0.817	0.	0.621	0.	0.265	0.	0.710
1.2	-1.304	1.2	-1.953	1.2	-1.363	1.2	-1.569	1.2	-2.013	1.2	-1.501	1.2	0.730	1.2	0.735
2.5	-1.304	2.5	-2.403	2.5	-2.401	2.5	-2.365	2.5	-2.497	2.5	-2.100	2.5	0.706	2.5	1.325
5.0	-1.304	5.0	-2.803	5.0	-3.068	5.0	-3.058	5.0	-2.777	5.0	-3.249	5.0	0.706	5.0	0.710
7.5	-1.330	7.5	-2.803	7.5	-3.216	7.5	-0.927	7.5	-3.006	7.5	-3.324	7.5	0.706	7.5	0.685
10.0	-2.527	10.0	-2.128	10.0	-3.340	10.0	-3.084	10.0	-2.726	10.0	-3.074	10.0	-3.820	10.0	-3.227
15.0	-2.527	15.0	-2.553	15.0	-3.019	15.0	-0.670	15.0	-2.726	15.0	-2.799	15.0	-3.673	15.0	-3.030
20.0	-2.579	20.0	-2.403	20.0	-2.821	20.0	-2.673	20.0	-2.726	20.0	-3.249	20.0	-3.576	20.0	-3.129
25.0	-2.371	25.0	-2.378	25.0	-2.796	25.0	-0.890	25.0	-2.700	25.0	-2.974	25.0	-3.478	25.0	-3.055
30.0	-2.345	30.0	-2.328	30.0	-2.648	30.0	-2.699	30.0	-2.598	30.0	-2.749	30.0	-3.282	30.0	-2.784
40.0	-1.954	40.0	-2.078	40.0	-2.351	40.0	-2.442	40.0	-2.437	40.0	-2.575	40.0	-3.086	40.0	-2.809
50.0	-1.746	50.0	-1.878	50.0	0.590	50.0	-2.185	50.0	-2.497	50.0	-2.525	50.0	-2.866	50.0	-2.710
60.0	-1.486	60.0	-1.253	60.0	-2.035	60.0	-1.928	60.0	-2.242	60.0	-2.450	60.0	-2.866	60.0	-2.858
61.5	-0.445	61.5	-0.403	61.5	-0.720	61.5	-0.362	61.5	-0.715	61.5	-0.328	61.5	2.492	61.5	-1.209
62.5	-2.006	62.5	-2.603	62.5	-2.845	62.5	-2.416	62.5	-2.598	62.5	-2.625	62.5	2.614	62.5	-4.236
65.0	-2.843	65.0	-3.403	65.0	-3.859	65.0	-3.597	65.0	-3.973	65.0	-4.547	65.0	-5.973	65.0	-6.401
70.0	-1.746	70.0	-2.528	70.0	-2.450	70.0	-2.057	70.0	-2.395	70.0	-3.423	70.0	-4.946	70.0	-2.457
75.0	-1.043	75.0	-0.903	75.0	-1.264	75.0	-1.235	75.0	-1.122	75.0	-1.751	75.0	0.706	75.0	-4.482
75.6	-0.757	75.6	-1.178	75.6	-1.140	75.6	-1.107	75.6	-1.759	75.6	-2.050	75.6	-2.695	75.6	-3.571
76.3	-1.226	76.3	-1.528	76.3	-1.486	76.3	-1.107	76.3	-1.810	76.3	-2.300	76.3	-3.160	76.3	1.817
77.1	0.492	77.1	-1.453	77.1	-0.943	77.1	0.203	77.1	-1.759	77.1	-2.125	77.1	-3.013	77.1	0.685
78.6	0.831	78.6	-1.047	78.6	0.911	78.6	0.665	78.6	0.761	78.6	0.995	78.6	0.853	78.6	2.851
80.0	0.076	80.0	-0.878	80.0	-0.967	80.0	-1.107	80.0	-1.021	80.0	-1.451	80.0	-1.765	80.0	-3.424
85.0	-0.068	85.0	-0.678	85.0	-0.819	85.0	-0.850	85.0	-0.741	85.0	-1.027	85.0	-0.884	85.0	-1.357
90.0	-0.393	90.0	-0.478	90.0	-0.325	90.0	-0.234	90.0	-0.537	90.0	-0.453	90.0	-0.469	90.0	-0.914
95.0	-0.184	95.0	-0.303	95.0	-0.053	95.0	0.023	95.0	-0.435	95.0	-0.078	95.0	-0.444	95.0	-0.840
2.5	0.961	2.5	1.322	2.5	1.010	2.5	0.922	2.5	1.193	2.5	0.621	2.5	0.730	2.5	0.710
5.0	0.961	5.0	1.272	5.0	1.010	5.0	0.973	5.0	1.193	5.0	0.621	5.0	0.730	5.0	0.735
7.5	0.909	7.5	1.222	7.5	0.985	7.5	0.973	7.5	0.430	7.5	0.621	7.5	0.730	7.5	0.735
10.0	0.857	10.0	1.122	10.0	0.936	10.0	0.948	10.0	1.041	10.0	0.621	10.0	1.048	10.0	0.759
15.0	0.857	15.0	1.122	15.0	0.911	15.0	0.742	15.0	0.608	15.0	0.671	15.0	0.926	15.0	0.759
20.0	0.805	20.0	0.997	20.0	0.861	20.0	0.768	20.0	0.633	20.0	0.671	20.0	0.853	20.0	0.587
30.0	0.727	30.0	0.747	30.0	0.812	30.0	0.793	30.0	0.659						

TABLE V-75

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-0.312	0.	-1.145	0.	-0.298	0.	-0.665	0.	-1.089	0.	0.591	0.	0.239	0.	0.656
1.2	-1.877	1.2	-2.584	1.2	-1.794	1.2	-2.118	1.2	-2.554	1.2	-2.085	1.2	0.676	1.2	0.656
2.5	-1.888	2.5	-3.031	2.5	-2.996	2.5	-3.036	2.5	-2.984	2.5	-2.927	2.5	0.627	2.5	1.340
5.0	-1.888	5.0	-3.478	5.0	-3.683	5.0	-3.673	5.0	-3.160	5.0	-4.067	5.0	0.652	5.0	0.656
7.5	-1.944	7.5	-3.428	7.5	-3.708	7.5	-1.048	7.5	-3.312	7.5	-3.968	7.5	0.652	7.5	0.631
10.0	-2.948	10.0	-2.609	10.0	-3.757	10.0	-3.494	10.0	-3.085	10.0	-3.497	10.0	-4.666	10.0	-3.814
15.0	-2.870	15.0	-3.130	15.0	-3.315	15.0	-0.691	15.0	-3.388	15.0	-3.225	15.0	-4.448	15.0	-3.496
20.0	-2.741	20.0	-2.758	20.0	-2.996	20.0	-2.806	20.0	-3.337	20.0	-3.497	20.0	-4.156	20.0	-3.521
25.0	-2.457	25.0	-2.609	25.0	-2.923	25.0	-0.869	25.0	-3.085	25.0	-3.126	25.0	-4.011	25.0	-3.423
30.0	-2.276	30.0	-2.435	30.0	-2.628	30.0	-2.602	30.0	-2.857	30.0	-2.804	30.0	-3.525	30.0	-3.057
40.0	-1.821	40.0	-2.212	40.0	-2.211	40.0	-2.246	40.0	-2.630	40.0	-2.531	40.0	-3.137	40.0	-2.983
50.0	-1.475	50.0	-1.989	50.0	0.659	50.0	-1.889	50.0	-2.504	50.0	-2.110	50.0	-2.748	50.0	-2.837
60.0	-1.165	60.0	-1.195	60.0	-1.794	60.0	-1.634	60.0	-2.125	60.0	-2.035	60.0	-2.699	60.0	-2.983
61.5	-0.080	61.5	-0.351	61.5	-0.347	61.5	-0.207	61.5	-0.432	61.5	0.096	61.5	2.437	61.5	-1.396
62.5	-1.320	62.5	-2.287	62.5	-1.966	62.5	-1.761	62.5	-2.302	62.5	-1.441	62.5	2.594	62.5	-4.302
65.0	-1.733	65.0	-3.031	65.0	-2.628	65.0	-2.653	65.0	-3.615	65.0	-2.432	65.0	-5.419	65.0	-6.525
70.0	-0.937	70.0	-2.162	70.0	-1.647	70.0	-1.736	70.0	-2.630	70.0	-1.391	70.0	-4.254	70.0	2.439
75.0	-0.597	75.0	-1.195	75.0	-0.838	75.0	-0.946	75.0	-1.468	75.0	-0.796	75.0	0.676	75.0	-4.571
75.6	-0.571	75.6	-0.872	75.6	-0.740	75.6	-0.997	75.6	-1.443	75.6	-1.391	75.6	-2.189	75.6	-3.765
76.3	-0.984	76.3	-1.195	76.3	-1.083	76.3	-1.022	76.3	-1.796	76.3	-1.589	76.3	-2.627	76.3	1.828
77.1	0.566	77.1	-1.319	77.1	-0.715	77.1	0.227	77.1	-1.695	77.1	-1.366	77.1	-2.505	77.1	0.680
78.6	0.721	78.6	0.816	78.6	0.732	78.6	0.685	78.6	0.654	78.6	1.037	78.6	0.700	78.6	2.829
80.0	0.566	80.0	-0.723	80.0	-0.715	80.0	-0.997	80.0	-1.089	80.0	-0.995	80.0	-1.388	80.0	-3.521
85.0	0.449	85.0	-0.525	85.0	-0.568	85.0	-0.793	85.0	-0.735	85.0	-0.920	85.0	-0.732	85.0	-1.420
90.0	-0.390	90.0	-0.202	90.0	-0.249	90.0	-0.258	90.0	-0.483	90.0	-0.623	90.0	-0.198	90.0	-0.859
95.0	-0.312	95.0	-0.003	95.0	-0.077	95.0	-0.028	95.0	-0.230	95.0	-0.474	95.0	-0.174	95.0	-0.785
2.5	0.948	2.5	1.312	2.5	0.830	2.5	0.838	2.5	1.210	2.5	0.567	2.5	0.652	2.5	0.607
5.0	0.979	5.0	1.337	5.0	0.904	5.0	0.940	5.0	1.260	5.0	0.591	5.0	0.676	5.0	0.656
7.5	0.979	7.5	1.287	7.5	0.928	7.5	0.966	7.5	0.502	7.5	0.567	7.5	0.676	7.5	0.656
10.0	0.954	10.0	1.213	10.0	0.928	10.0	0.991	10.0	1.159	10.0	0.591	10.0	1.016	10.0	0.705
15.0	0.934	15.0	1.188	15.0	0.928	15.0	0.787	15.0	0.629	15.0	0.616	15.0	0.967	15.0	0.851
20.0	0.902	20.0	1.163	20.0	0.904	20.0	0.838	20.0	0.679	20.0	0.641	20.0	0.943	20.0	0.656
30.0	0.824	30.0	0.840	30.0	0.855	30.0	0.864	30.0	0.831	30.0	0.616	30.0	0.749	30.0	0.680
50.0	0.711	50.0	0.816	50.0	0.806	50.0	0.813	50.0	0.730	50.0	0.839	50.0	0.652	50.0	0.582
65.0	1.134	65.0	0.940	65.0	0.953	65.0	0.966	65.0	0.932	65.0	1.236	65.0	2.789	65.0	0.680
70.0	1.005	70.0	0.964	70.0	0.953	70.0	0.966	70.0	0.932	70.0	1.335	70.0	3.822	70.0	0.753
76.8	0.618	76.8	0.964	76.8	0.168	76.8	0.940	76.8	0.906	76.8	1.211	76.8	0.749	76.8	0.851
77.1	0.876	77.1	0.940	77.1	0.830	77.1	0.864	77.1	0.831	77.1	1.161	77.1	0.797	77.1	0.607
80.0	0.954	80.0	0.940	80.0	0.904	80.0	0.915	80.0	0.957	80.0	1.236	80.0	0.627	80.0	0.705
85.0	0.954	85.0	0.940	85.0	0.928	85.0	0.966	85.0	0.957	85.0	1.136	85.0	0.725	85.0	0.851
90.0	0.902	90.0	0.915	90.0	0.928	90.0	0.940	90.0	0.881	90.0	1.087	90.0	0.725	90.0	0.827
95.0	0.824	95.0	0.840	95.0	0.855	95.0	0.864	95.0	0.755	95.0	1.013	95.0	0.967	95.0	0.705
TOTAL NORMAL COEFFICIENT															
CN = 2.25		2.81		2.49		2.56		3.12		3.01		3.43		3.01	

TABLE V-76

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	5.632	0.	-7.329	0.	-1.966	0.	-1.587	0.	-12.320	0.	1.197	0.	0.421	0.	1.413
1.2	-0.331	1.2	-10.130	1.2	-10.736	1.2	-10.488	1.2	-17.164	1.2	-0.861	1.2	1.364	1.2	1.323
2.5	-0.331	2.5	-9.387	2.5	-10.252	2.5	-9.482	2.5	-13.570	2.5	-1.498	2.5	1.408	2.5	-3.901
5.0	-1.999	5.0	-7.329	5.0	-8.459	5.0	-7.973	5.0	-9.612	5.0	-2.870	5.0	1.319	5.0	1.143
7.5	-1.999	7.5	-5.957	7.5	-7.490	7.5	-2.190	7.5	-8.778	7.5	-2.968	7.5	1.364	7.5	1.052
10.0	-1.949	10.0	-4.977	10.0	-7.199	10.0	-6.515	10.0	-7.060	10.0	-2.919	10.0	-3.485	10.0	-3.090
15.0	-2.050	15.0	-4.585	15.0	-5.891	15.0	-1.235	15.0	-5.862	15.0	-3.115	15.0	-3.261	15.0	-2.730
20.0	-2.504	20.0	-4.585	20.0	-5.261	20.0	-5.107	20.0	-5.549	20.0	-3.507	20.0	-3.171	20.0	-2.685
25.0	-2.454	25.0	-4.781	25.0	-5.358	25.0	-1.788	25.0	-5.758	25.0	-3.997	25.0	-3.126	25.0	-2.595
30.0	-2.555	30.0	-4.928	30.0	-5.213	30.0	-5.409	30.0	-5.966	30.0	-4.389	30.0	-2.991	30.0	-2.505
40.0	-2.353	40.0	-4.781	40.0	-4.825	40.0	-5.057	40.0	-5.914	40.0	-4.536	40.0	-2.991	40.0	-2.505
50.0	-2.403	50.0	-4.781	50.0	-1.135	50.0	-5.107	50.0	-6.539	50.0	-5.173	50.0	-2.991	50.0	-2.460
60.0	-2.454	60.0	-4.438	60.0	-4.631	60.0	-5.208	60.0	-6.903	60.0	-5.810	60.0	-3.550	60.0	-2.730
61.5	-2.858	61.5	-2.625	61.5	-2.887	61.5	-1.034	61.5	-4.195	61.5	-1.694	61.5	-2.677	61.5	-1.064
62.5	-6.901	62.5	-10.954	62.5	-10.833	62.5	-8.526	62.5	-11.122	62.5	-9.093	62.5	-1.779	62.5	-3.901
65.0	-12.359	65.0	-15.315	65.0	-15.727	65.0	-13.505	65.0	-16.799	65.0	-16.589	65.0	-8.244	65.0	-5.927
70.0	-9.478	70.0	-12.816	70.0	-11.851	70.0	-10.840	70.0	-12.893	70.0	-15.119	70.0	-7.167	70.0	-3.720
75.0	-6.042	75.0	-8.603	75.0	-6.763	75.0	-6.766	75.0	-8.570	75.0	-9.925	75.0	1.633	75.0	-4.441
75.6	-5.031	75.6	-6.545	75.6	-6.715	75.6	-6.113	75.6	-9.299	75.6	-10.611	75.6	-4.787	75.6	-3.946
76.3	-7.710	76.3	-8.897	76.3	-8.411	76.3	-6.817	76.3	-11.018	76.3	-12.620	76.3	-5.730	76.3	-3.901
77.1	1.639	77.1	-10.170	77.1	-6.085	77.1	-5.660	77.1	-11.279	77.1	-12.081	77.1	-5.775	77.1	0.647
78.6	4.823	78.6	4.871	78.6	4.720	78.6	4.095	78.6	3.774	78.6	3.892	78.6	0.466	78.6	-2.009
80.0	-6.042	80.0	-6.153	80.0	-4.873	80.0	-6.364	80.0	-7.737	80.0	-8.750	80.0	-4.203	80.0	-4.261
85.0	-5.941	85.0	-4.046	85.0	-3.178	85.0	-4.001	85.0	-4.560	85.0	-4.683	85.0	-3.216	85.0	-2.730
90.0	-0.736	90.0	-0.861	90.0	-0.900	90.0	-0.632	90.0	-1.591	90.0	-0.665	90.0	-1.285	90.0	-1.154
95.0	0.477	95.0	-0.028	95.0	-0.222	95.0	0.274	95.0	-0.549	95.0	0.854	95.0	-0.791	95.0	-0.884
2.5	2.397	2.5	2.900	2.5	4.478	2.5	2.989	2.5	5.962	2.5	1.148	2.5	1.408	2.5	1.188
5.0	1.538	5.0	4.822	5.0	3.218	5.0	1.983	5.0	4.972	5.0	1.148	5.0	1.319	5.0	1.233
7.5	1.326	7.5	3.950	7.5	2.394	7.5	1.581	7.5	1.743	7.5	1.148	7.5	1.229	7.5	1.097
10.0	1.235	10.0	3.402	10.0	1.910	10.0	1.380	10.0	3.618	10.0	1.197	10.0	0.870	10.0	0.692
15.0	1.185	15.0	3.402	15.0	1.474	15.0	0.776	15.0	1.066	15.0	1.148	15.0	0.780	15.0	0.602
20.0</															

TABLE V-77

RUN 67, POINT 5 Q = 4.10 ALPHA = 8 TCP = 2.50

VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8	VALVE 9
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP
0. 3.906	0. -14.271	0. -10.198	0. -14.546	0. -19.890	0. 0.986	0. 0.370	0. 1.303
1.2 -5.008	1.2-16.926	1.2-16.595	1.2-15.686	1.2-22.559	1.2 -5.580	1.2 1.034	1.2 1.347
2.5 -5.008	2.5-13.112	2.5-14.924	2.5-13.605	2.5-16.965	2.5 -5.484	2.5 1.122	2.5 -3.578
5.0 -4.958	5.0 -9.684	5.0-11.773	5.0-10.929	5.0-12.038	5.0 -6.305	5.0 1.078	5.0 1.125
7.5 -4.958	7.5 -7.801	7.5 -9.816	7.5 -2.753	7.5-10.344	7.5 -5.870	7.5 1.166	7.5 1.081
10.0 -4.261	10.0 -6.594	10.0 -9.004	10.0 -7.808	10.0 -8.188	10.0 -5.146	10.0 -5.470	10.0 -4.421
15.0 -4.211	15.0 -6.160	15.0 -7.142	15.0 -1.515	15.0 -6.957	15.0 -5.049	15.0 -4.762	15.0 -3.755
20.0 -4.311	20.0 -5.870	20.0 -6.187	20.0 -6.123	20.0 -6.700	20.0 -5.098	20.0 -4.452	20.0 -3.489
25.0 -4.062	25.0 -5.629	25.0 -6.139	25.0 -2.010	25.0 -6.649	25.0 -5.435	25.0 -4.408	25.0 -3.311
30.0 -4.111	30.0 -5.629	30.0 -5.757	30.0 -5.925	30.0 -6.700	30.0 -5.629	30.0 -4.231	30.0 -3.090
40.0 -3.663	40.0 -5.339	40.0 -5.137	40.0 -5.231	40.0 -6.546	40.0 -5.484	40.0 -4.010	40.0 -3.045
50.0 -3.663	50.0 -5.242	50.0 0.974	50.0 -5.082	50.0 -7.213	50.0 -5.967	50.0 -3.744	50.0 -3.045
60.0 -3.663	60.0 -4.325	60.0 -4.707	60.0 -4.735	60.0 -7.213	60.0 -6.401	60.0 -3.921	60.0 -3.178
61.5 -3.713	61.5 -3.794	61.5 -2.606	61.5 -0.771	61.5 -4.237	61.5 -1.911	61.5 -2.594	61.5 -1.359
62.5 -7.896	62.5-11.277	62.5 -8.527	62.5 -5.726	62.5-11.063	62.5 -9.394	62.5 -1.753	62.5 -4.554
65.0-13.473	65.0-15.526	65.0-11.821	65.0 -8.898	65.0-16.657	65.0-17.698	65.0 -9.407	65.0 -6.950
70.0-10.087	70.0-12.291	70.0 -8.097	70.0 -6.767	70.0-12.910	70.0-16.154	70.0 -8.435	70.0 -3.356
75.0 -6.502	75.0 -6.739	75.0 -4.325	75.0 -3.695	75.0 -8.394	75.0-10.601	75.0 1.387	75.0 -3.264
75.6 -5.506	75.6 -5.822	75.6 -4.898	75.6 -3.447	75.6 -8.804	75.6-11.326	75.6 -6.222	75.6 -4.909
76.3 -7.747	76.3 -7.801	76.3 -6.139	76.3 -4.389	76.3-10.652	76.3-13.546	76.3 -7.239	76.3 -5.533
77.1 0.719	77.1 -7.946	77.1 -4.086	77.1 -5.528	77.1-10.857	77.1-13.064	77.1 -7.283	77.1 0.549
78.6 3.906	78.6 5.138	78.6 4.651	78.6 4.233	78.6 3.718	78.6 4.076	78.6 0.547	78.6 -1.714
80.0 -5.954	80.0 -5.435	80.0 -3.418	80.0 -4.339	80.0 -8.599	80.0 -9.929	80.0 -5.247	80.0 -2.042
85.0 -5.904	85.0 -3.166	85.0 -2.941	85.0 -3.249	85.0 -4.596	85.0 -5.484	85.0 -3.877	85.0 -3.178
90.0 -1.173	90.0 -0.752	90.0 -0.935	90.0 -1.118	90.0 -1.465	90.0 -0.994	90.0 -1.886	90.0 -1.359
95.0 -0.576	95.0 -0.511	95.0 -0.601	95.0 -0.722	95.0 -0.644	95.0 0.503	95.0 -1.223	95.0 -1.537
2.5 2.561	2.5 6.490	2.5 2.789	2.5 -0.078	2.5 6.387	2.5 0.986	2.5 1.078	2.5 1.081
5.0 1.416	5.0 5.669	5.0 2.168	5.0 0.566	5.0 5.823	5.0 0.986	5.0 1.166	5.0 1.170
7.5 4.018	7.5 4.800	7.5 1.882	7.5 0.418	7.5 2.281	7.5 1.034	7.5 1.034	7.5 1.170
10.0 0.470	10.0 4.076	10.0 1.643	10.0 0.665	10.0 4.386	10.0 1.034	10.0 0.635	10.0 0.904
15.0 0.520	15.0 4.076	15.0 1.261	15.0 0.566	15.0 0.998	15.0 1.034	15.0 0.680	15.0 0.859
20.0 0.520	20.0 2.386	20.0 1.118	20.0 0.616	20.0 1.152	20.0 0.937	20.0 0.680	20.0 0.859
30.0 0.370	30.0 1.275	30.0 1.022	30.0 0.913	30.0 1.204	30.0 1.179	30.0 0.812	30.0 0.726
50.0 0.818	50.0 1.710	50.0 1.404	50.0 1.656	50.0 1.152	50.0 1.758	50.0 0.724	50.0 0.549
65.0 6.196	65.0 6.683	65.0 5.844	65.0 4.233	65.0 6.438	65.0 5.717	65.0 -1.565	65.0 0.533
70.0 4.832	70.0 5.331	70.0 4.603	70.0 4.382	70.0 5.515	70.0 5.283	70.0 0.680	70.0 0.682
76.8 0.769	76.8 5.427	76.8 0.258	76.8 4.927	76.8 5.207	76.8 6.152	76.8 0.635	76.8 0.770
77.1 5.300	77.1 5.765	77.1 5.319	77.1 4.530	77.1 5.104	77.1 5.186	77.1 0.857	77.1 0.415
80.0 6.346	80.0 5.958	80.0 5.367	80.0 4.927	80.0 5.874	80.0 5.862	80.0 0.635	80.0 0.504
85.0 5.101	85.0 4.558	85.0 4.126	85.0 4.035	85.0 4.026	85.0 6.200	85.0 -0.117	85.0 0.770
90.0 3.408	90.0 3.689	90.0 2.789	90.0 3.044	90.0 3.205	90.0 5.814	90.0 -0.338	90.0 0.770
95.0 2.362	95.0 2.965	95.0 1.786	95.0 2.053	95.0 2.641	95.0 5.234	95.0 2.582	95.0 0.682
TOTAL NORMAL	COEFFICIENT						
CN = 6.38	9.46	7.05	7.08	10.55	9.67	3.94	3.78

TABLE V-78

RUN 67, POINT 6 Q = 4.13 ALPHA = 12 TCP = 2.50

VALVE 1	VALVE 3	VALVE 4	VALVE 5	VALVE 6	VALVE 7	VALVE 8	VALVE 9
100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP	100X CP
0. 3.333	0. -17.378	0. -13.679	0. -20.836	0. -24.127	0. 0.978	0. 0.499	0. 1.073
1.2 -7.246	1.2-19.535	1.2-18.655	1.2-16.556	1.2-25.350	1.2 -8.799	1.2 1.114	1.2 1.073
2.5 -7.196	2.5-14.742	2.5-16.475	2.5-13.851	2.5-18.829	2.5 -7.841	2.5 1.114	2.5 -3.596
5.0 -7.097	5.0-11.148	5.0-13.299	5.0-11.637	5.0-13.479	5.0 -8.607	5.0 1.026	5.0 0.941
7.5 -7.097	7.5 -8.751	7.5-10.882	7.5 -2.930	7.5-11.288	7.5 -7.505	7.5 1.114	7.5 1.029
10.0 -5.348	10.0 -7.313	10.0 -9.745	10.0 -8.194	10.0 -9.199	10.0 -6.451	10.0 -7.714	10.0 -5.490
15.0 -5.021	15.0 -6.930	15.0 -7.564	15.0 -1.504	15.0 -8.129	15.0 -5.971	15.0 -6.660	15.0 -4.785
20.0 -5.070	20.0 -6.403	20.0 -6.522	20.0 -6.177	20.0 -7.416	20.0 -5.923	20.0 -5.737	20.0 -4.609
25.0 -4.576	25.0 -6.067	25.0 -6.237	25.0 -1.799	25.0 -7.008	25.0 -5.971	25.0 -4.815	25.0 -4.213
30.0 -4.626	30.0 -5.828	30.0 -5.621	30.0 -5.046	30.0 -6.805	30.0 -6.067	30.0 -4.464	30.0 -4.036
40.0 -3.933	40.0 -5.588	40.0 -5.052	40.0 -4.603	40.0 -6.805	40.0 -5.923	40.0 -4.025	40.0 -3.728
50.0 -3.825	50.0 -4.965	50.0 0.920	50.0 -3.865	50.0 -7.008	50.0 -6.211	50.0 -3.673	50.0 -3.640
60.0 -3.686	60.0 -4.294	60.0 -4.389	60.0 -3.619	60.0 -6.754	60.0 -6.642	60.0 -3.629	60.0 -3.640
61.5 -3.044	61.5 -3.719	61.5 -2.019	61.5 0.562	61.5 -3.136	61.5 -1.897	61.5 -2.444	61.5 -1.648
62.5 -8.284	62.5-10.860	62.5 -6.901	62.5 -3.078	62.5 -9.454	62.5 -9.662	62.5 -1.609	62.5 -5.094
65.0-12.634	65.0-13.496	65.0 -9.034	65.0 -3.570	65.0-14.192	65.0-17.810	65.0 -5.957	65.0 -7.428
70.0 -9.223	70.0 -9.662	70.0 -4.152	70.0 -2.488	70.0 -8.893	70.0-15.988	70.0 -5.825	70.0 -3.420
75.0 -6.158	75.0 -5.636	75.0 -2.540	75.0 -2.291	75.0 -5.582	75.0-10.477	75.0 1.641	75.0 -5.710
75.6 -5.515	75.6 -4.246	75.6 -3.867	75.6 -2.980	75.6 -7.467	75.6-11.915	75.6 -5.386	75.6 -5.138
76.3 -7.344	76.3 -5.636	76.3 -4.843	76.3 -3.521	76.3 -8.639	76.3-13.975	76.3 -5.650	76.3 -3.464
77.1 0.763	77.1 -6.067	77.1 -2.919	77.1 -5.439	77.1 -8.741	77.1-13.352	77.1 -5.210	77.1 0.544
78.6 3.976	78.6 5.100	78.6 4.759	78.6 4.005	78.6 3.538	78.6 4.381	78.6 0.894	78.6 -1.746
80.0 -4.972	80.0 -4.869	80.0 -3.299	80.0 -3.275	80.0 -7.365	80.0 -9.662	80.0 -3.849	80.0 -5.005
85.0 -4.972	85.0 -3.287	85.0 -3.393	85.0 -3.078	85.0 -4.563	85.0 -5.300	85.0 -3.015	85.0 -3.288
90.0 -1.215	90.0 -1.083	90.0 -1.640	90.0 -1.504	90.0 -1.659	90.0 -1.083	90.0 -1.917	90.0 -1.526
95.0 -0.918	95.0 -1.131	95.0 -1.308	95.0 -1.356	95.0 -0.894	95.0 0.355	95.0 -1.390	95.0 -1.217
2.5 2.987	2.5 6.634	2.5 0.872	2.5 -1.209	2.5 6.290	2.5 0.978	2.5 1.070	2.5 1.029
5.0 1.653	5.0 6.059	5.0 1.252	5.0 -0.127	5.0 5.984	5.0 0.978	5.0 1.158	5.0 1.073
7.5 0.911	7.5 5.196	7.5 1.204	7.5 0.316	7.5 2.417	7.5 0.978	7.5 1.158	7.5 1.117
10.0 0.466	10.0 4.525	10.0 1.299	10.0 0.464	10.0 4.608	10.0 1.026	10.0 0.806	10.0 0.809
15.0 0.466	15.0 4.573	15.0 1.157	15.0 0.710	15.0 0.838	15.0 1.026	15.0 0.894	15.0 0.853
20.0 0.516	20.0 2.560	20.0 1.109	20.0 0.759	20.0 1.093	20.0 1.026	20.0 0.894	20.0 0.809
30.0 0.565	30.0 1.410	30.0 1.109	30.0 0.759	30.0 1.195	30.0 1.218	30.0 1.026	30.0 0.677
50.0 0.614	50.0 1.601	50.0 1.346	50.0 1.644	50.0 0.991	50.0 1.793	50.0 0.850	50.0 0.456
65.0 6.349	65.0 6.442	65.0 5.802	65.0 3.809	65.0 6.442	65.0 5.963	65.0 -1.434	65.0 0.544
70.0 4.520	70.0 4.621	70.0 3.953	70.0 3.907	70.0 5.220	70.0 5.579	70.0 0.894	70.0 0.632
76.8 0.763	76.8 5.436	76.8 0.256	76.8 4.792	76.8 4.710	76.8 6.538	76.8 1.026	76.8 0.677
77.1 5.311	77.1 5.627	77.1 5.280	77.1 4.596	77.1 5.067	77.1 5.484	77.1 1.070	77.1 0.556
80.0 6.200	80.0 5.436	80.0 5.233	80.0 5.137	80.0 5.780	80.0 6.250	80.0 1.158	80.0 0.588
85.0 4.470	85.0 3.758	85.0 3.195	85.0 3.661	85.0 3.233	85.0 6.538	85.0 0.367	85.0 0.677
90.0 3.086	90.0 2.991	90.0 2.294	90.0 2.530	90.0 2.519	90.0 5.963	90.0 0.104	90.0 0.677
95.0 1.949	95.0 2.464	95.0 1.346	95.0 1.447	95.0 2.315	95.0 5.340	95.0 3.134	95.0 0.588
TOTAL NORMAL	COEFFICIENT						
CN = 6.58	9.33	6.59	5.98	10.09	10.24	4.04	4.22

TABLE V-79

RUN 72, POINT 3		Q = 4.97		ALPHA = 0		TCP = 1.00		VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	0.	0.	-5.932	0.	-3.924	0.	1.468	0.	-1.038	0.	0.700	0.	0.402	0.	0.797	0.	0.000	0.	0.000	0.	0.000	0.	0.000
1.2	-3.130	1.2	-8.413	1.2	-7.819	1.2	-4.076	1.2	-5.606	1.2	-10.913	1.2	-0.794	1.2	0.797	1.2	0.000	1.2	0.000	1.2	0.000	1.2	0.797
2.5	-3.130	2.5	-6.931	2.5	-7.311	2.5	-4.164	2.5	-4.903	2.5	-8.128	2.5	0.754	2.5	0.754	2.5	0.000	2.5	0.000	2.5	0.754	2.5	0.719
5.0	-3.085	5.0	-5.333	5.0	-5.956	5.0	-3.988	5.0	-4.288	5.0	-6.885	5.0	0.754	5.0	0.754	5.0	0.000	5.0	0.000	5.0	0.754	5.0	0.680
7.5	-3.040	7.5	-4.477	7.5	-5.279	7.5	-1.040	7.5	-4.420	7.5	-5.599	7.5	0.715	7.5	0.715	7.5	0.000	7.5	0.000	7.5	0.715	7.5	0.680
10.0	-2.815	10.0	-3.151	10.0	-5.067	10.0	-3.768	10.0	-3.937	10.0	-4.442	10.0	-3.981	10.0	-3.056	10.0	0.000	10.0	0.000	10.0	-3.981	10.0	-3.056
15.0	-2.860	15.0	-3.536	15.0	-4.220	15.0	-0.644	15.0	-3.586	15.0	-4.057	15.0	-3.550	15.0	-2.741	15.0	0.000	15.0	0.000	15.0	-3.550	15.0	-2.741
20.0	-3.040	20.0	-3.365	20.0	-3.881	20.0	-3.372	20.0	-3.586	20.0	-4.571	20.0	-3.511	20.0	-2.820	20.0	0.000	20.0	0.000	20.0	-3.511	20.0	-2.820
25.0	-2.950	25.0	-3.451	25.0	-3.881	25.0	-0.996	25.0	-3.761	25.0	-3.799	25.0	-3.472	25.0	-2.780	25.0	0.000	25.0	0.000	25.0	-3.472	25.0	-2.780
30.0	-2.995	30.0	-3.579	30.0	-3.881	30.0	-3.900	30.0	-3.937	30.0	-3.714	30.0	-3.315	30.0	-2.663	30.0	0.000	30.0	0.000	30.0	-3.315	30.0	-2.663
40.0	-2.770	40.0	-3.579	40.0	-3.712	40.0	-3.856	40.0	-4.025	40.0	-3.671	40.0	-3.237	40.0	-2.741	40.0	0.000	40.0	0.000	40.0	-3.237	40.0	-2.741
50.0	-2.770	50.0	-3.451	50.0	0.819	50.0	-3.856	50.0	-4.376	50.0	-3.928	50.0	-3.159	50.0	-2.702	50.0	0.000	50.0	0.000	50.0	-3.159	50.0	-2.702
60.0	-2.770	60.0	-3.836	60.0	-3.458	60.0	-3.900	60.0	-4.464	60.0	-4.314	60.0	-3.315	60.0	-2.938	60.0	0.000	60.0	0.000	60.0	-3.315	60.0	-2.938
61.5	-2.321	61.5	-1.397	61.5	-2.188	61.5	-1.920	61.5	-2.532	61.5	-0.628	61.5	7.798	61.5	-1.168	61.5	0.000	61.5	0.000	61.5	7.798	61.5	-1.168
62.5	-5.243	62.5	-6.830	62.5	-7.396	62.5	-7.068	62.5	-7.319	62.5	-5.214	62.5	8.933	62.5	-4.353	62.5	0.000	62.5	0.000	62.5	8.933	62.5	-4.353
65.0	-6.525	65.0	-9.568	65.0	-10.487	65.0	-11.071	65.0	-11.623	65.0	-9.199	65.0	-7.776	65.0	-6.673	65.0	0.000	65.0	0.000	65.0	-7.776	65.0	-6.673
70.0	-6.547	70.0	-7.429	70.0	-7.777	70.0	-9.180	70.0	-9.339	70.0	-7.828	70.0	-6.641	70.0	-6.931	70.0	0.000	70.0	0.000	70.0	-6.641	70.0	-6.931
75.0	-3.984	75.0	-4.563	75.0	-4.940	75.0	-5.792	75.0	-5.826	75.0	-4.873	75.0	1.185	75.0	-4.786	75.0	0.000	75.0	0.000	75.0	1.185	75.0	-4.786
75.6	-3.175	75.6	-3.408	75.6	-4.347	75.6	-4.912	75.6	-5.518	75.6	-5.171	75.6	-4.724	75.6	-4.039	75.6	0.000	75.6	0.000	75.6	-4.724	75.6	-4.039
76.3	-4.614	76.3	-4.691	76.3	-5.829	76.3	-4.912	76.3	-6.572	76.3	-6.157	76.3	-5.350	76.3	-7.010	76.3	0.000	76.3	0.000	76.3	-5.350	76.3	-7.010
77.1	0.691	77.1	-4.905	77.1	-4.644	77.1	4.987	77.1	-6.616	77.1	-5.942	77.1	-5.233	77.1	0.797	77.1	0.000	77.1	0.000	77.1	-5.233	77.1	0.797
78.6	2.265	78.6	2.753	78.6	2.343	78.6	2.040	78.6	1.772	78.6	2.286	78.6	1.694	78.6	0.700	78.6	0.000	78.6	0.000	78.6	1.694	78.6	0.700
80.0	-3.490	80.0	-2.980	80.0	-4.008	80.0	-5.088	80.0	-4.596	80.0	-4.057	80.0	-3.315	80.0	-4.875	80.0	0.000	80.0	0.000	80.0	-3.315	80.0	-4.875
85.0	-3.445	85.0	-1.996	85.0	-2.780	85.0	-2.756	85.0	-2.576	85.0	-2.300	85.0	-2.063	85.0	-2.505	85.0	0.000	85.0	0.000	85.0	-2.063	85.0	-2.505
90.0	-0.837	90.0	-0.542	90.0	-0.367	90.0	-0.556	90.0	-1.126	90.0	-0.371	90.0	-0.928	90.0	-1.208	90.0	0.000	90.0	0.000	90.0	-0.928	90.0	-1.208
95.0	-0.478	95.0	-0.114	95.0	0.184	95.0	-0.512	95.0	-0.907	95.0	0.357	95.0	-0.850	95.0	-0.933	95.0	0.000	95.0	0.000	95.0	-0.850	95.0	-0.933
2.5	2.220	2.5	3.309	2.5	2.682	2.5	2.260	2.5	2.563	2.5	0.657	2.5	0.794	2.5	0.680	2.5	0.000	2.5	0.000	2.5	0.657	2.5	0.680
5.0	1.590	5.0	2.924	5.0	2.301	5.0	1.644	5.0	1.904	5.0	0.657	5.0	0.715	5.0	0.680	5.0	0.000	5.0	0.000	5.0	0.657	5.0	0.680
7.5	1.231	7.5	2.496	7.5	1.962	7.5	1.336	7.5	0.455	7.5	0.657	7.5	0.754	7.5	0.719	7.5	0.000	7.5	0.000	7.5	0.657	7.5	0.719
10.0	1.506	10.0	2.196	10.0	1.708	10.0	1.160	10.0	1.289	10.0	0.657	10.0	1.028	10.0	0.876	10.0	0.000	10.0	0.000	10.0	0.657	10.0	0.876
15.0	0.871	15.0	2.196	15.0	1.368	15.0	0.764	15.0	0.367	15.0	0.786	15.0	0.950	15.0	0.758	15.0	0.000	15.0	0.000	15.0	0.786	15.0	0.758
20.0	0.781	20.0	1.640	20.0	1.200	20.0	0.764	20.0	0.367	20.0	0.915	20.0	0.872	20.0	0.719	20.0	0.000	20.0	0.000	20.0	0.915	20.0	0.719
30.0	0.646	30.0	0.827	30.0	1.030	30.0	0.764	30.0	0.367	30.0	0.786	30.0	0.796	30.0	0.562	30.0	0.000	30.0	0.000	30.0	0.786	30.0	0.562
50.0	0.781	50.0	1.384	50.0	1.242	50.0	1.116	50.0	0.587	50.0	1.643	50.0	0.754	50.0	0.562	50.0	0.000	50.0	0.000	50.0	1.643	50.0	0.562
65.0	3.433	65.0	3.394	65.0	3.020	65.0	2.920	65.0	3.046	65.0	3.100	65.0	3.855	65.0	0.680	65.0	0.000	65.0	0.000	65.0	3.100	65.0	3.855
70.0	2.938	70.0	3.352	70.0	2.978	70.0	2.568	70.0	2.783	70.0	2.843	70.0	3.459	70.0	0.797	70.0	0.000	70.0	0.000	70.0	2.843	70.0	3.459
76.8	0.691	76.8	3.394	76.8	0.353	76.8	2.832	76.8	2.914	76.8	3.272	76.8	1.185	76.8	0.837	76.8	0.000	76.8	0.000	76.8	3.272	76.8	1.185
77.1	2.894	77.1	3.223	77.1	2.682	77.1	2.568	77.1	2.519	77.1	2.800	77.1	1.694	77.1	0.601	77.1	0.000	77.1	0.000	77.1	2.800	77.1	1.694
80.0	3.254	80.0	3.437	80.0	3.063	80.0	3.052	80.0	2.914	80.0	3.143	80.0	1.067	80.0	0.758	80.0	0.000	80.0	0.000	80.0	3.143	80.0	1.067
85.0	3.254	85.0	3.480	85.0	2.978	85.0	2.656	85.0	3.046	85.0	3.229	85.0	1.107	85.0	0.913	85.0	0.000	85.0	0.000	85.0	3.229	85.0	1.107
90.0	2.759	90.0	3.309	90.0	2.639	90.0	2.126	90.0	2.739	90.0	2.972	90.0	1.185	90.0	0.837	90.0	0.000	90.0	0.000	90.0	2.972	90.0	1.185
95.0	2.130	95.0	3.089	95.0	2.174	95.0	1.512	95.0	2.343	95.0	2.715	95.0	1.381	95.0	0.680	95.0	0.000	95.0	0.000	95.0	2.715	95.0	1.381

TOTAL NORMAL COEFFICIENT
CN = 4.51 6.01 5.27 5.32 5.91 6.10 4.69 2.52

TABLE V-80

RUN 72, POINT 5		Q = 4.85		ALPHA = 8		TCP = 1.00		VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-0.028	0.	-13.576	0.	-11.049	0.	-2.553	0.	-6.959	0.	0.587	0.	0.333	0.	0.697	0.	0.000	0.	0.000	0.	0.333	0.	0.697
1.2	-7.030	1.2	-13.531	1.2	-13.306	1.2	-9.045	1.2	-11.190	1.2	-17.463	1.2	0.694	1.2	0.737	1.2	0.000	1.2	0.000	1.2	0.694	1.2	0.737
2.5	-6.800	2.5	-9.804	2.5	-11.483	2.5	-8.144	2.5	-9.119	2.5	-12.237	2.5	0.693	2.5	0.942	2.5	0.000	2.5	0.000	2.5	0.693	2.5	0.942
5.0	-6.478	5.0	-7.262	5.0	-8.836	5.0	-6.926	5.0	-7.139	5.0	-9.909	5.0	0.693	5.0	0.697	5.0	0.000	5.0	0.000	5.0	0.693	5.0	0.697
7.5	-6.201	7.5	-6.122	7.5	-7.421	7.5	-1.787	7.5	-6.869	7.5	-7.127	7.5	0.683	7.5	0.816	7.5	0.000	7.5	0.000	7.5	0.683	7.5	0.816
10.0	-4.727	10.0	-4.763	10.0	-6.884	10.0	-5.709	10.0	-5.744	10.0	-6.089	10.0	-5.762	10.0	-4.660	10.0	0.000	10.0	0.000	10.0	-5.762	10.0	-4.660
15.0	-4.359	15.0	-4.907	15.0	-5.495	15.0	-1.020	15.0	-4.934	15.0	-5.430	15.0	-5.091	15.0	-3.856	15.0	0.000	15.0	0.000	15.0	-5.091	15.0	-3.856
20.0	-4.220	20.0	-4.590	20.0	-4.158	20.0	-4.232	20.0	-4.664	20.0	-4.166	20.0	-4.600	20.0	-3.654								

TABLE V-81

RUN 72, POINT 6 Q = 4.91 ALPHA = 12 TCP = 1.00

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-0.984	0.	-14.795	0.	-15.886	0.	-8.534	0.	-10.253	0.	0.579	0.	0.408	0.	0.728
1.2	-8.720	1.2	-14.708	1.2	-14.729	1.2	-11.117	1.2	-14.032	1.2	-16.773	1.2	0.685	1.2	0.688
2.5	-8.356	2.5	-10.335	2.5	-12.972	2.5	-9.826	2.5	-11.364	2.5	-12.695	2.5	0.685	2.5	0.697
5.0	-8.490	5.0	-7.563	5.0	-9.672	5.0	-8.089	5.0	-8.653	5.0	-11.046	5.0	0.764	5.0	0.728
7.5	-5.944	7.5	-6.481	7.5	-8.172	7.5	-2.032	7.5	-8.030	7.5	-9.658	7.5	0.724	7.5	0.688
10.0	-4.670	10.0	-4.878	10.0	-7.314	10.0	-6.308	10.0	-6.652	10.0	-7.967	10.0	-6.326	10.0	-4.923
15.0	-4.397	15.0	-5.398	15.0	-5.771	15.0	-1.142	15.0	-5.674	15.0	-6.058	15.0	-3.494	15.0	-4.287
20.0	-4.215	20.0	-4.532	20.0	-4.914	20.0	-4.972	20.0	-5.185	20.0	-5.407	20.0	-4.540	20.0	-3.928
25.0	-3.760	25.0	-4.272	25.0	-4.743	25.0	-1.542	25.0	-5.185	25.0	-5.104	25.0	-4.623	25.0	-3.729
30.0	-3.669	30.0	-4.229	30.0	-4.314	30.0	-4.927	30.0	-5.141	30.0	-4.757	30.0	-4.306	30.0	-3.411
40.0	-3.032	40.0	-3.752	40.0	-3.757	40.0	-4.492	40.0	-4.874	40.0	-4.583	40.0	-3.910	40.0	-3.292
50.0	-2.622	50.0	-3.189	50.0	0.743	50.0	-4.170	50.0	-4.874	50.0	-4.583	50.0	-3.672	50.0	-3.212
60.0	-2.394	60.0	-3.794	60.0	-3.071	60.0	-3.903	60.0	-4.829	60.0	-4.829	60.0	-3.712	60.0	-3.371
81.2	-1.787	81.2	-1.514	81.2	-1.743	81.2	-1.721	81.2	-2.473	81.2	-0.505	81.2	1.775	81.2	-1.461
82.5	-3.907	82.5	-5.658	82.5	-4.871	82.5	-6.352	82.5	-7.852	82.5	-5.624	82.5	9.003	82.5	-4.724
85.0	-6.535	85.0	-7.043	85.0	-6.843	85.0	-9.915	85.0	-12.031	85.0	-10.179	85.0	-7.000	85.0	-7.073
90.0	-3.942	90.0	-0.981	90.0	-4.100	90.0	-7.777	90.0	-9.453	90.0	-8.227	90.0	-5.970	90.0	0.937
95.0	-1.712	95.0	-2.107	95.0	-2.771	95.0	-4.259	95.0	-5.807	95.0	-5.234	95.0	1.279	95.0	-5.162
95.6	-2.167	95.6	-2.367	95.6	-2.728	95.6	-3.725	95.6	-5.807	95.6	-5.451	95.6	-4.148	95.6	-4.446
76.3	-2.576	76.3	-2.410	76.3	-3.328	76.3	-3.638	76.3	-6.074	76.3	-6.231	76.3	-4.821	76.3	7.096
77.1	0.700	77.1	-2.626	77.1	-2.514	77.1	-4.960	77.1	-6.385	77.1	-6.101	77.1	-4.623	77.1	0.648
78.6	2.702	78.6	-2.960	78.6	2.586	78.6	2.199	78.6	1.883	78.6	2.488	78.6	1.120	78.6	8.767
80.0	0.154	80.0	-1.587	80.0	-2.214	80.0	-3.324	80.0	-4.252	80.0	-4.323	80.0	-3.157	80.0	-4.366
85.0	-0.074	85.0	-1.197	85.0	-2.043	85.0	-1.721	85.0	-2.384	85.0	-2.718	85.0	-2.286	85.0	-2.536
90.0	-0.711	90.0	-0.548	90.0	-0.671	90.0	-0.607	90.0	-1.317	90.0	-0.636	90.0	-1.058	90.0	-1.262
95.0	-0.665	95.0	-0.678	95.0	-0.243	95.0	-0.251	95.0	-1.140	95.0	-0.028	95.0	-0.622	95.0	-1.302
2.5	1.883	2.5	3.566	2.5	0.843	2.5	-0.162	2.5	3.617	2.5	0.579	2.5	0.724	2.5	0.648
5.0	1.155	5.0	3.696	5.0	0.272	5.0	0.551	5.0	3.039	5.0	0.579	5.0	0.685	5.0	0.688
7.5	1.064	7.5	3.393	7.5	0.743	7.5	0.862	7.5	0.905	7.5	0.579	7.5	0.685	7.5	0.728
10.0	0.927	10.0	3.003	10.0	0.915	10.0	0.907	10.0	2.106	10.0	0.579	10.0	0.883	10.0	0.967
15.0	0.882	15.0	3.003	15.0	1.000	15.0	0.729	15.0	0.372	15.0	0.753	15.0	0.962	15.0	0.887
20.0	0.836	20.0	2.310	20.0	1.000	20.0	0.729	20.0	0.416	20.0	0.839	20.0	0.962	20.0	0.728
30.0	0.745	30.0	1.054	30.0	0.915	30.0	0.773	30.0	0.416	30.0	0.709	30.0	0.804	30.0	0.688
50.0	0.927	50.0	1.271	50.0	0.958	50.0	0.818	50.0	0.239	50.0	1.620	50.0	0.804	50.0	0.569
85.0	3.840	85.0	3.783	85.0	3.186	85.0	2.644	85.0	3.528	85.0	3.355	85.0	8.844	85.0	0.529
90.0	2.748	90.0	2.830	90.0	2.286	90.0	1.978	90.0	3.084	90.0	3.312	90.0	0.804	90.0	0.648
76.8	0.700	76.8	3.133	76.8	0.315	76.8	2.599	76.8	3.084	76.8	3.572	76.8	0.962	76.8	0.808
77.1	3.112	77.1	3.176	77.1	2.801	77.1	2.421	77.1	2.817	77.1	3.052	77.1	1.160	77.1	0.749
80.0	3.068	80.0	3.090	80.0	2.758	80.0	2.822	80.0	3.306	80.0	3.393	80.0	0.962	80.0	0.609
85.0	2.520	85.0	2.267	85.0	1.901	85.0	1.976	85.0	3.173	85.0	3.225	85.0	0.487	85.0	0.768
90.0	1.792	90.0	1.747	90.0	1.429	90.0	1.352	90.0	2.639	90.0	2.748	90.0	0.328	90.0	0.768
95.0	1.246	95.0	1.228	95.0	1.086	95.0	1.041	95.0	1.839	95.0	2.314	95.0	1.517	95.0	0.609
TOTAL NORMAL COEFFICIENT															
CN =	4.34		5.76		4.75		5.34		7.03		7.23		5.10		3.02

TABLE V-82

RUN 71, POINT 3 Q = 4.10 ALPHA = 0 TCP = 2.40

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	5.530	0.	-6.562	0.	-0.901	0.	5.625	0.	3.379	0.	1.063	0.	0.494	0.	1.116
1.2	-0.682	1.2	-11.489	1.2	-9.421	1.2	-1.575	1.2	-3.861	1.2	-15.613	1.2	1.158	1.2	1.020
2.5	-1.772	2.5	-8.741	2.5	-9.113	2.5	-2.482	2.5	-4.074	2.5	-11.873	2.5	1.205	2.5	7.435
5.0	-3.243	5.0	-7.029	5.0	-7.522	5.0	-3.388	5.0	-3.861	5.0	-10.158	5.0	1.158	5.0	0.973
7.5	-3.189	7.5	-5.836	7.5	-6.752	7.5	-0.988	7.5	-4.593	7.5	-6.132	7.5	1.205	7.5	0.973
10.0	-3.134	10.0	-4.073	10.0	-6.398	10.0	-4.082	10.0	-7.234	10.0	-6.262	10.0	-4.587	10.0	-3.507
15.0	-3.134	15.0	-4.592	15.0	-5.418	15.0	-0.828	15.0	-4.074	15.0	-5.535	15.0	-4.013	15.0	-3.222
20.0	-3.134	20.0	-4.384	20.0	-4.904	20.0	-4.023	20.0	-4.181	20.0	-5.896	20.0	-3.965	20.0	-3.222
25.0	-3.623	25.0	-4.747	25.0	-4.058	25.0	-1.308	25.0	-4.660	25.0	-5.431	25.0	-3.918	25.0	-3.222
30.0	-3.843	30.0	-4.903	30.0	-4.956	30.0	-4.988	30.0	-5.086	30.0	-5.067	30.0	-3.728	30.0	-3.031
40.0	-3.570	40.0	-4.799	40.0	-4.802	40.0	-4.988	40.0	-5.352	40.0	-5.171	40.0	-3.776	40.0	-3.126
50.0	-3.734	50.0	-4.747	50.0	-1.204	50.0	-5.148	50.0	-6.097	50.0	-5.483	50.0	-3.633	50.0	-3.126
60.0	-3.843	60.0	-3.970	60.0	-4.699	60.0	-5.362	60.0	-6.257	60.0	-6.002	60.0	-3.776	60.0	-3.317
61.5	-3.734	61.5	-2.310	61.5	-3.108	61.5	-2.962	61.5	-4.341	61.5	-0.652	61.5	8.890	61.5	-1.410
62.5	-8.420	62.5	-10.037	62.5	-11.064	62.5	-10.748	62.5	-11.262	62.5	-7.561	62.5	10.123	62.5	-5.033
65.0	-13.979	65.0	-15.430	65.0	-16.196	65.0	-17.735	65.0	-17.597	65.0	-13.951	65.0	-8.899	65.0	-7.463
70.0	-10.982	70.0	-12.163	70.0	-12.295	70.0	-15.015	70.0	-14.775	70.0	-11.821	70.0	-7.997	70.0	7.788
75.0	-7.222	75.0	-7.755	75.0	-7.881	75.0	-9.362	75.0	-9.931	75.0	-7.561	75.0	2.059	75.0	-5.652
75.6	-6.186	75.6	-5.992	75.6	-7.522	75.6	-8.668	75.6	-9.771	75.6	-8.236	75.6	-5.958	75.6	-5.271
76.3	-8.638	76.3	-8.118	76.3	-10.294	76.3	-8.722	76.3	-11.475	76.3	-9.950	76.3	-7.381	76.3	7.788
77.1	0.680	77.1	-9.155	77.1	-8.343	77.1	5.465	77.1	-12.007	77.1	-9.587	77.1	-7.665	77.1	0.687
78.6	3.950	78.6	4.950	78.6	4.386	78.6	3.918	78.6	3.166	78.6	4.284	78.6	2.106	78.6	9.885
80.0	-6.786	80.0	-5.836	80.0	-7.573	80.0	-8.935	80.0	-8.546	80.0	-6.782	80.0	-5.483	80.0	-5.843
85.0	-6.877	85.0	-5.347	85.0	-5.418	85.0	-5.522	85.0	-4.820	85.0	-3.924	85.0	-4.108	85.0	-4.318
90.0	-1.391	90.0	-0.806	90.0	-1.106	90.0	-1.042	90.0	-1.625	90.0	-0.444	90.0	-1.499	90.0	-1.792
95.0	-0.410	95.0	-0.391	95.0	0.228	95.0	-0.562	95.0	-0.720	95.0	0.855	95.0	-0.597	95.0	-1.315
2.5	0.898	2.5	5.780	2.5	4.437	2.5	2.158	2.5	3.113	2.5	1.063	2.5	1.158	2.5	1.068
5.0	0.898	5.0	4.743	5.0	3.205	5.0	1.252	5.0	1.888	5.0	1.011	5.0	1.110	5.0	1.116
7.5	0.844	7.5	3.913	7.5	2.436	7.5	1.038	7.5	0.291	7.5	1.063	7.5	1.347	7.5	1.259
10.0	0.735	10.0	3.343	10.0	2.025	10.0	0.825	10.0	1.196	10.0	1.115	10.0	1.110	10.0	0.877
15.0	0.517	15.0	3.343	15.0	1.460	15.0	0.505	15.0	0.504	15.0	1.167	15.0	1.015	15.0	0.782
20.0	0.462	20.0	3.239	20.0	1.152	20.0	0.452	20.0	0.398	20.0	1.271	20.0</			

TABLE V-83

RUN 71, POINT 5 Q = 4.04 ALPHA = 8 TCP = 2.40

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	4.949	0.	-14.238	0.	-9.040	0.	4.464	0.	-0.082	0.	0.763	0.	0.598	0.	0.891
1.2	-5.116	1.2	-17.606	1.2	-14.770	1.2	-6.469	1.2	-9.699	1.2	-21.907	1.2	-1.031	1.2	0.929
2.5	-5.171	2.5	-17.712	2.5	-13.155	2.5	-6.686	2.5	-6.403	2.5	-16.213	2.5	0.886	2.5	7.614
5.0	-5.559	5.0	-10.028	5.0	-10.759	5.0	-7.064	5.0	-7.322	5.0	-13.726	5.0	0.886	5.0	0.794
7.5	-5.503	7.5	-8.184	7.5	-9.248	7.5	-1.923	7.5	-1.752	7.5	-10.941	7.5	0.923	7.5	0.794
10.0	-4.840	10.0	-5.817	10.0	-8.727	10.0	-6.740	10.0	-6.856	10.0	-8.358	10.0	-6.816	10.0	-5.349
15.0	-4.784	15.0	-6.344	15.0	-6.904	15.0	-1.165	15.0	-5.971	15.0	-7.251	15.0	-5.949	15.0	-6.672
20.0	-4.729	20.0	-5.923	20.0	-6.019	20.0	-5.549	20.0	-5.701	20.0	-7.515	20.0	-5.324	20.0	-4.381
25.0	-4.674	25.0	-5.817	25.0	-5.966	25.0	-1.814	25.0	-5.971	25.0	-6.513	25.0	-5.083	25.0	-3.994
30.0	-4.729	30.0	-5.607	30.0	-5.706	30.0	-6.253	30.0	-6.296	30.0	-6.407	30.0	-4.842	30.0	-3.849
40.0	-4.729	40.0	-5.133	40.0	-4.925	40.0	-5.928	40.0	-6.242	40.0	-6.242	40.0	-4.409	40.0	-3.656
50.0	-3.678	50.0	-4.923	50.0	-1.014	50.0	-5.874	50.0	-6.944	50.0	-6.566	50.0	-4.409	50.0	-3.608
60.0	-3.678	60.0	-5.081	60.0	-4.612	60.0	-5.928	60.0	-7.052	60.0	-6.935	60.0	-4.650	60.0	-3.994
61.5	-3.734	61.5	-2.554	61.5	-3.049	61.5	-2.897	61.5	-4.837	61.5	-1.135	61.5	9.118	61.5	-1.915
62.5	-4.453	62.5	-6.607	62.5	-8.310	62.5	-10.745	62.5	-12.023	62.5	-8.147	62.5	10.226	62.5	-5.784
65.0	-11.366	65.0	-11.554	65.0	-11.748	65.0	-17.890	65.0	-19.533	65.0	-15.528	65.0	-9.656	65.0	-8.348
70.0	-6.997	70.0	-9.188	70.0	-9.561	70.0	-15.348	70.0	-16.669	70.0	-13.525	70.0	-8.597	70.0	7.904
75.0	-5.337	75.0	-5.302	75.0	-6.435	75.0	-9.554	75.0	-11.050	75.0	-8.674	75.0	1.272	75.0	-6.606
75.6	-5.780	75.6	-5.398	75.6	-6.852	75.6	-8.634	75.6	-11.536	75.6	-9.940	75.6	-7.153	75.6	-6.123
76.3	-7.715	76.3	-6.975	76.3	-9.040	76.3	-8.580	76.3	-13.481	76.3	-11.679	76.3	-8.405	76.3	8.001
77.1	0.746	77.1	-7.870	77.1	-7.060	77.1	5.493	77.1	-13.806	77.1	-11.310	77.1	-8.597	77.1	0.649
78.6	4.341	78.6	5.340	78.6	4.660	78.6	3.815	78.6	3.222	78.6	4.400	78.6	2.090	78.6	10.129
80.0	-5.061	80.0	-3.607	80.0	-6.383	80.0	-8.688	80.0	-9.862	80.0	-8.094	80.0	-6.046	80.0	-6.510
85.0	-4.895	85.0	-3.291	85.0	-4.873	85.0	-4.954	85.0	-5.701	85.0	-4.931	85.0	-4.505	85.0	-4.478
90.0	-1.134	90.0	-1.607	90.0	-1.278	90.0	-1.273	90.0	-1.973	90.0	-0.977	90.0	-2.002	90.0	-2.156
95.0	-0.913	95.0	-1.081	95.0	-0.289	95.0	-1.002	95.0	-1.109	95.0	0.499	95.0	-1.232	95.0	-1.818
2.5	2.350	2.5	6.656	2.5	2.576	2.5	2.570	2.5	4.942	2.5	0.763	2.5	1.031	2.5	0.842
5.0	1.520	5.0	5.814	5.0	2.264	5.0	1.541	5.0	3.322	5.0	0.710	5.0	0.983	5.0	0.842
7.5	1.023	7.5	4.866	7.5	1.951	7.5	1.217	7.5	0.944	7.5	0.710	7.5	1.031	7.5	1.036
10.0	0.691	10.0	4.235	10.0	1.795	10.0	0.946	10.0	2.187	10.0	0.763	10.0	0.886	10.0	0.939
15.0	0.525	15.0	4.235	15.0	1.430	15.0	0.892	15.0	0.350	15.0	0.868	15.0	0.983	15.0	0.842
20.0	0.580	20.0	4.077	20.0	1.222	20.0	0.790	20.0	0.404	20.0	1.079	20.0	0.983	20.0	0.891
30.0	0.414	30.0	1.288	30.0	1.014	30.0	0.621	30.0	0.188	30.0	0.868	30.0	0.983	30.0	0.649
50.0	0.967	50.0	1.761	50.0	1.430	50.0	1.271	50.0	0.728	50.0	2.608	50.0	0.935	50.0	0.455
60.0	6.498	60.0	6.708	60.0	5.910	60.0	4.518	60.0	6.023	60.0	5.982	60.0	10.274	60.0	0.504
70.0	5.004	70.0	5.708	70.0	4.920	70.0	4.358	70.0	5.659	70.0	5.929	70.0	1.464	70.0	0.649
76.8	0.746	76.8	6.077	76.8	0.338	76.8	5.188	76.8	5.659	76.8	6.251	76.8	1.994	76.8	0.537
77.1	2.834	77.1	5.972	77.1	5.337	77.1	4.897	77.1	4.888	77.1	5.402	77.1	2.090	77.1	0.310
80.0	6.774	80.0	6.550	80.0	5.962	80.0	5.871	80.0	6.023	80.0	6.140	80.0	1.994	80.0	0.552
85.0	5.170	85.0	5.340	85.0	4.432	85.0	4.518	85.0	6.131	85.0	6.193	85.0	0.790	85.0	0.745
90.0	3.422	90.0	4.393	90.0	3.097	90.0	3.165	90.0	5.537	90.0	5.666	90.0	0.742	90.0	0.649
95.0	2.295	95.0	2.919	95.0	2.160	95.0	2.191	95.0	4.456	95.0	4.875	95.0	1.897	95.0	0.504
TOTAL NORMAL COEFFICIENT															
CN = 6.29		9.41		7.42		8.34		10.24		10.74		6.43		3.51	

TABLE V-84

RUN 71, POINT 6 Q = 4.10 ALPHA = 12 TCP = 2.40

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	4.004	0.	-17.401	0.	-14.554	0.	2.638	0.	-3.116	0.	0.855	0.	0.541	0.	1.116
1.2	-7.713	1.2	-19.572	1.2	-16.812	1.2	-8.935	1.2	-12.593	1.2	-26.159	1.2	0.968	1.2	0.925
2.5	-7.058	2.5	-14.549	2.5	-15.170	2.5	-8.882	2.5	-10.623	2.5	-18.938	2.5	0.921	2.5	7.598
5.0	-7.004	5.0	-10.348	5.0	-11.320	5.0	-8.188	5.0	-8.600	5.0	-14.886	5.0	1.110	5.0	1.068
7.5	-6.840	7.5	-8.274	7.5	-9.575	7.5	-2.162	7.5	-2.653	7.5	-11.261	7.5	1.063	7.5	0.973
10.0	-6.350	10.0	-5.785	10.0	-6.857	10.0	-7.388	10.0	-7.428	10.0	-8.808	10.0	-7.283	10.0	-6.843
15.0	-6.023	15.0	-6.562	15.0	-6.957	15.0	-1.362	15.0	-6.310	15.0	-7.821	15.0	-6.574	15.0	-5.080
20.0	-5.805	20.0	-6.044	20.0	-6.034	20.0	-5.948	20.0	-5.991	20.0	-7.509	20.0	-6.717	20.0	-6.842
25.0	-5.641	25.0	-5.785	25.0	-6.034	25.0	-2.002	25.0	-6.257	25.0	-6.782	25.0	-5.958	25.0	-4.451
30.0	-5.641	30.0	-5.681	30.0	-5.623	30.0	-8.535	30.0	-6.364	30.0	-6.574	30.0	-6.669	30.0	-4.079
40.0	-5.260	40.0	-5.059	40.0	-4.904	40.0	-6.108	40.0	-6.257	40.0	-6.262	40.0	-4.629	40.0	-3.841
50.0	-4.660	50.0	-4.177	50.0	-1.101	50.0	-5.788	50.0	-6.630	50.0	-6.262	50.0	-3.538	50.0	-3.698
60.0	-4.170	60.0	-3.866	60.0	-4.134	60.0	-5.682	60.0	-6.523	60.0	-6.314	60.0	-3.206	60.0	-3.698
61.5	-3.407	61.5	-2.414	61.5	-2.441	61.5	-2.855	61.5	-4.394	61.5	-0.652	61.5	8.795	61.5	-1.553
62.5	-3.788	62.5	-6.977	62.5	-6.906	62.5	-10.215	62.5	-11.368	62.5	-7.197	62.5	10.123	62.5	-5.176
65.0	-7.875	65.0	-10.452	65.0	-10.350	65.0	-17.361	65.0	-18.902	65.0	-13.639	65.0	-5.436	65.0	-7.606
70.0	-5.096	70.0	-3.762	70.0	-7.419	70.0	-14.108	70.0	-15.095	70.0	-9.795	70.0	-5.388	70.0	7.931
75.0	-1.500	75.0	-2.725	75.0	-4.853	75.0	-8.615	75.0	-10.197	75.0	-5.847	75.0	1.585	75.0	-5.700
75.6	-2.644	75.6	-3.503	75.6	-4.904	75.6	-6.962	75.6	-10.197	75.6	-7.041	75.6	-4.772	75.6	-5.414
76.3	-4.824	76.3	-4.799	76.3	-6.495	76.3	-7.015	76.3	-12.220	76.3	-8.600	76.3	-5.768	76.3	7.884
77.1	0.789	77.1	-4.125	77.1	-4.750	77.1	5.305	77.1	-12.167	77.1	-8.340	77.1	-5.626	77.1	0.687
78.6	4.876	78.6	5.417	78.6	4.745	78.6	3.705	78.6	3.699	78.6	4.855	78.6	1.585	78.6	10.076
80.0	-2.480	80.0	-3.140	80.0	-5.058	80.0	-7.122	80.0	-8.174	80.0	-5.015	80.0	-4.297	80.0	-5.462
85.0	-2.371	85.0	-1.947	85.0	-2.954	85.0	-3.708	85.0	-4.660	85.0	-3.717	85.0	-3.396	85.0	-4.222
90.0	-1.064	90.0	-1.221	90.0	-1.003	90.0	-0.828	90.0	-1.466	90.0	-1.223	90.0	-1.973	90.0	-2.125
95.0	-1.391	95.0	-1.221	95.0	-0.490	95.0	-0.562	95.0	-0.933	95.0	-0.548	95.0	-1.404	95.0	-1.498
2.5	3.187	2.5	6.765	2.5	0.126	2.5	2.425	2.5	5.828	2.5	0.855	2.5	1.063	2.5	0.973
5.0	1.552	5.0	6.091	5.0	0.844	5.0	1.358	5.0	4.337	5.0	0.855	5.0	1.063	5.0	1.068
7.5	1.007	7.5	5.106	7.5	1.204	7.5	1.038	7.5	1.462	7.5	0.803	7.5	0.873	7.5	0.925
10.0	0.571	10.0	4.535	10.0	1.255	10.0	1.198	10.0	2.953	10.0	0.855	10.0	0.826	10.0	0.877
15.0	0.517	15.0	4.484	15.0	1.204	15.0	0.772	15.0	0.824	15.0	1.011	15.0	0.968	15.0	0.973
20.0	0.571	20.0	3.708	20.0	1.101	20.0	0.718	20.0	0.824	20.0	1.219	20.0	1.015	20.0	0.973
30.0</															

TABLE V-85

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	0.325	0.	-6.846	0.	-4.912	0.	-5.350	0.	-10.224	0.	1.037	0.	0.417	0.	1.127
1.2	-1.188	1.2	-2.398	1.2	-1.177	1.2	-1.570	1.2	-3.162	1.2	-1.869	1.2	1.084	1.2	1.038
2.5	-1.087	2.5	-2.156	2.5	-2.039	2.5	-2.117	2.5	-2.764	2.5	-1.966	2.5	1.084	2.5	-5.360
5.0	-1.087	5.0	-3.123	5.0	-3.284	5.0	-3.162	5.0	-3.609	5.0	1.231	5.0	1.218	5.0	1.216
7.5	-1.037	7.5	-3.365	7.5	-4.003	7.5	-1.073	7.5	-4.306	7.5	0.456	7.5	1.084	7.5	1.127
10.0	-1.894	10.0	-1.866	10.0	-4.386	10.0	-4.156	10.0	-4.256	10.0	-0.803	10.0	-2.119	10.0	-1.628
15.0	-2.398	15.0	-3.655	15.0	-4.242	15.0	-0.774	15.0	-4.007	15.0	-2.401	15.0	-2.164	15.0	-1.539
20.0	-2.852	20.0	-3.558	20.0	-4.098	20.0	-4.107	20.0	-4.057	20.0	-3.080	20.0	-2.164	20.0	-1.672
25.0	-2.902	25.0	-3.897	25.0	-4.386	25.0	-1.222	25.0	-4.405	25.0	-3.467	25.0	-2.297	25.0	-1.716
30.0	-3.154	30.0	-4.042	30.0	-4.398	30.0	-4.604	30.0	-4.704	30.0	-3.709	30.0	-2.208	30.0	-1.628
40.0	-2.902	40.0	-4.042	40.0	-4.194	40.0	-4.405	40.0	-4.753	40.0	-3.854	40.0	-2.208	40.0	-1.672
50.0	-3.104	50.0	-3.993	50.0	1.169	50.0	-4.405	50.0	-5.251	50.0	-4.387	50.0	-2.208	50.0	-1.672
60.0	-3.204	60.0	-3.413	60.0	-4.050	60.0	-4.355	60.0	-5.350	60.0	-4.726	60.0	-2.253	60.0	-1.672
61.5	-2.499	61.5	-1.962	61.5	-2.614	61.5	0.270	61.5	-1.520	61.5	-0.174	61.5	-2.831	61.5	-0.206
62.5	-7.339	62.5	-10.134	62.5	-10.419	62.5	-3.162	62.5	-3.510	62.5	-2.934	62.5	-2.653	62.5	-1.094
65.0	-11.7.5	65.0	-14.148	65.0	-15.064	65.0	-9.478	65.0	-9.279	65.0	-8.407	65.0	-4.033	65.0	-2.916
70.0	-9.234	70.0	-11.150	70.0	-11.903	70.0	-9.926	70.0	-9.031	70.0	-10.005	70.0	-3.810	70.0	-2.605
75.0	-9.574	75.0	-6.798	75.0	-7.450	75.0	-6.444	75.0	-6.295	75.0	-6.470	75.0	0.506	75.0	-2.116
75.6	-16.010	75.6	-18.596	75.6	-21.863	75.6	-1.023	75.6	-3.062	75.6	-3.080	75.6	-1.808	75.6	-1.139
76.3	-14.750	76.3	-16.227	76.3	-19.756	76.3	-1.670	76.3	-3.808	76.3	-5.162	76.3	-2.342	76.3	-3.982
77.1	1.031	77.1	-11.440	77.1	-12.478	77.1	-7.290	77.1	-5.300	77.1	-5.695	77.1	-2.386	77.1	0.683
78.6	3.047	78.6	4.807	78.6	4.329	78.6	4.299	78.6	4.200	78.6	2.684	78.6	0.862	78.6	-2.516
80.0	-6.431	80.0	-6.508	80.0	-7.929	80.0	-5.101	80.0	-5.798	80.0	-4.436	80.0	-1.719	80.0	-1.539
85.0	-6.834	85.0	-1.962	85.0	-3.236	85.0	-5.101	85.0	-4.554	85.0	-3.176	85.0	-1.630	85.0	-1.494
90.0	-1.339	90.0	-1.092	90.0	-0.746	90.0	-1.371	90.0	-1.719	90.0	-0.464	90.0	-0.696	90.0	-0.650
95.0	-0.482	95.0	-1.044	95.0	-1.465	95.0	-0.277	95.0	-0.675	95.0	0.359	95.0	-0.340	95.0	-0.250
2.5	-0.684	2.5	5.823	2.5	2.462	2.5	2.707	2.5	5.891	2.5	0.989	2.5	1.084	2.5	1.216
5.0	-0.079	5.0	4.856	5.0	4.138	5.0	4.498	5.0	5.294	5.0	0.989	5.0	1.040	5.0	1.082
7.5	0.829	7.5	3.888	7.5	3.659	7.5	4.001	7.5	2.061	7.5	0.989	7.5	1.040	7.5	1.038
10.0	1.353	10.0	3.357	10.0	2.988	10.0	3.255	10.0	3.752	10.0	1.037	10.0	0.817	10.0	1.082
15.0	1.686	15.0	3.357	15.0	1.935	15.0	1.464	15.0	1.066	15.0	1.037	15.0	0.639	15.0	0.549
20.0	1.535	20.0	2.728	20.0	1.408	20.0	1.116	20.0	1.116	20.0	1.037	20.0	0.595	20.0	1.127
30.0	0.778	30.0	1.422	30.0	1.121	30.0	0.917	30.0	0.817	30.0	1.037	30.0	0.595	30.0	0.416
50.0	1.131	50.0	2.535	50.0	2.510	50.0	2.111	50.0	0.967	50.0	1.231	50.0	1.084	50.0	0.461
65.0	4.560	65.0	5.968	65.0	5.622	65.0	5.940	65.0	6.090	65.0	3.507	65.0	-2.520	65.0	0.860
70.0	4.207	70.0	6.113	70.0	5.526	70.0	4.597	70.0	4.995	70.0	2.442	70.0	0.862	70.0	0.771
76.8	0.980	76.8	6.548	76.8	0.163	76.8	4.846	76.8	5.145	76.8	3.798	76.8	0.862	76.8	0.683
77.1	4.862	77.1	5.823	77.1	5.239	77.1	4.946	77.1	5.393	77.1	3.604	77.1	0.906	77.1	0.727
80.0	3.652	80.0	4.807	80.0	4.856	80.0	5.443	80.0	6.587	80.0	3.943	80.0	0.773	80.0	0.816
85.0	5.871	85.0	6.548	85.0	5.909	85.0	4.200	85.0	5.443	85.0	4.476	85.0	0.773	85.0	0.816
90.0	4.812	90.0	6.548	90.0	5.526	90.0	3.135	90.0	4.647	90.0	-23.034	90.0	0.684	90.0	0.638
95.0	3.904	95.0	6.258	95.0	4.712	95.0	2.111	95.0	3.752	95.0	3.604	95.0	1.974	95.0	0.595
TOTAL NORMAL COEFFICIENT															
CN = 5.29		8.10		6.75		7.10		7.71		4.47		2.09		2.22	

TABLE V-86

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-4.551	0.	-6.797	0.	-2.908	0.	-0.568	0.	-9.491	0.	0.831	0.	0.498	0.	1.023
1.2	-1.874	1.2	-3.556	1.2	-2.436	1.2	-2.872	1.2	-4.637	1.2	-2.702	1.2	1.112	1.2	0.892
2.5	-1.867	2.5	-4.223	2.5	-3.993	2.5	-4.294	2.5	-4.784	2.5	-2.845	2.5	0.981	2.5	-5.415
5.0	-1.867	5.0	-5.272	5.0	-5.693	5.0	-5.569	5.0	-5.422	5.0	-3.561	5.0	0.893	5.0	0.892
7.5	-1.867	7.5	-5.319	7.5	-6.259	7.5	-1.646	7.5	-6.157	7.5	-4.134	7.5	0.981	7.5	0.629
10.0	-3.607	10.0	-3.842	10.0	-6.684	10.0	-6.255	10.0	-5.765	10.0	-4.277	10.0	-4.107	10.0	-3.532
15.0	-4.054	15.0	-5.367	15.0	-6.023	15.0	-1.205	15.0	-5.716	15.0	-5.041	15.0	-4.063	15.0	-3.225
20.0	-4.302	20.0	-5.176	20.0	-5.693	20.0	-5.667	20.0	-5.961	20.0	-5.376	20.0	-4.063	20.0	-3.313
25.0	-4.153	25.0	-5.462	25.0	-5.787	25.0	-1.891	25.0	-6.500	25.0	-5.471	25.0	-4.063	25.0	-3.269
30.0	-4.104	30.0	-5.415	30.0	-5.598	30.0	-5.912	30.0	-6.696	30.0	-5.567	30.0	-3.800	30.0	-2.963
40.0	-3.607	40.0	-5.033	40.0	-5.126	40.0	-5.422	40.0	-6.549	40.0	-5.471	40.0	-3.449	40.0	-2.875
50.0	-3.607	50.0	-4.843	50.0	0.963	50.0	-5.324	50.0	-7.040	50.0	-5.710	50.0	-3.186	50.0	-2.787
60.0	-3.607	60.0	-5.081	60.0	-4.890	60.0	-5.225	60.0	-6.942	60.0	-6.044	60.0	-3.274	60.0	-2.919
61.5	-2.314	61.5	-3.556	61.5	-3.616	61.5	0.364	61.5	-2.137	61.5	-0.076	61.5	-2.835	61.5	-0.466
62.5	-6.887	62.5	-11.039	62.5	-9.658	62.5	-2.978	62.5	-4.343	62.5	-3.466	62.5	-2.704	62.5	-2.218
65.0	-10.614	65.0	-14.567	65.0	-13.339	65.0	-8.707	65.0	-11.158	65.0	-10.055	65.0	-5.292	65.0	-4.758
70.0	-7.284	70.0	-10.515	70.0	-9.610	70.0	-8.461	70.0	-11.011	70.0	-12.251	70.0	-5.379	70.0	-2.744
75.0	-4.004	75.0	-5.701	75.0	-5.881	75.0	-5.618	75.0	-7.875	75.0	-8.258	75.0	1.288	75.0	-3.970
75.6	-14.541	75.6	-16.044	75.6	-19.145	75.6	-1.499	75.6	-4.588	75.6	-4.659	75.6	-2.791	75.6	-2.525
76.3	-11.380	76.3	-12.517	76.3	-16.313	76.3	-1.744	76.3	-5.274	76.3	-7.524	76.3	-3.449	76.3	-4.276
77.1	0.866	77.1	-9.180	77.1	-10.602	77.1	-7.383	77.1	-6.696	77.1	-8.479	77.1	-3.625	77.1	0.322
78.6	3.799	78.6	4.691	78.6	4.267	78.6	4.139	78.6	3.894	78.6	4.460	78.6	0.761	78.6	-2.568
80.0	-5.545	80.0	-6.130	80.0	-7.486	80.0	-4.882	80.0	-7.383	80.0	-6.426	80.0	-2.835	80.0	-3.357
85.0	-4.849	85.0	-1.983	85.0	-4.229	85.0	-4.539	85.0	-5.667	85.0	-5.185	85.0	-2.879	85.0	-3.138
90.0	-0.923	90.0	-0.934	90.0	-0.972	90.0	-1.597	90.0	-2.382						

TABLE V-87
 RUN 50, POINT 8 Q = 4.25 ALPHA = 18 TCP = 2.50

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-0.459	0.	-6.891	0.	-0.497	0.	-1.051	0.	-7.915	0.	0.825	0.	0.582	0.	0.929
1.2	-1.706	1.2	-4.146	1.2	-2.934	1.2	-3.485	1.2	-5.043	1.2	-3.536	1.2	0.886	1.2	0.885
2.5	-2.150	2.5	-4.856	2.5	-4.950	2.5	-5.189	2.5	-5.481	2.5	-3.679	2.5	0.974	2.5	-5.290
5.0	-2.150	5.0	-5.850	5.0	-6.593	5.0	-6.309	5.0	-6.065	5.0	-5.148	5.0	0.843	5.0	0.798
7.5	-2.150	7.5	-5.802	7.5	-7.059	7.5	-1.830	7.5	-6.698	7.5	-5.907	7.5	0.974	7.5	0.798
10.0	-4.174	10.0	-4.051	10.0	-7.387	10.0	-6.795	10.0	-6.162	10.0	-5.717	10.0	-5.124	10.0	-4.333
15.0	-4.470	15.0	-5.755	15.0	-6.449	15.0	-1.294	15.0	-6.065	15.0	-6.144	15.0	-4.906	15.0	-3.855
20.0	-4.667	20.0	-5.852	20.0	-5.934	20.0	-2.919	20.0	-6.452	20.0	-6.618	20.0	-4.862	20.0	-3.982
25.0	-4.322	25.0	-5.950	25.0	-5.983	25.0	-1.927	25.0	-7.087	25.0	-6.476	25.0	-4.819	25.0	-3.768
30.0	-4.223	30.0	-5.708	30.0	-5.653	30.0	-5.919	30.0	-7.136	30.0	-6.286	30.0	-4.383	30.0	-3.420
40.0	-3.532	40.0	-6.998	40.0	-5.043	40.0	-2.286	40.0	-6.844	40.0	-6.002	40.0	-4.079	40.0	-3.377
50.0	-3.364	50.0	-4.477	50.0	0.815	50.0	-6.897	50.0	-7.185	50.0	-6.144	50.0	-3.817	50.0	-3.203
60.0	-2.890	60.0	-5.045	60.0	-4.481	60.0	-4.653	60.0	-6.747	60.0	-6.381	60.0	-3.774	60.0	-3.333
61.5	-2.052	61.5	-2.868	61.5	-2.794	61.5	0.157	61.5	-2.608	61.5	-0.170	61.5	-2.685	61.5	-0.376
62.5	-5.407	62.5	-8.122	62.5	-7.668	62.5	-2.219	62.5	-4.166	62.5	-3.584	62.5	-2.598	62.5	-2.550
65.0	-8.319	65.0	-10.583	65.0	-10.293	65.0	-6.941	65.0	-10.349	65.0	-10.648	65.0	-6.038	65.0	-5.508
70.0	-5.950	70.0	-7.459	70.0	-6.824	70.0	-6.357	70.0	-10.155	70.0	-12.971	70.0	-6.038	70.0	-2.637
75.0	-2.298	75.0	-3.247	75.0	-3.497	75.0	-3.874	75.0	-7.136	75.0	-8.751	75.0	1.235	75.0	-4.725
75.6	-9.306	75.6	-7.790	75.6	-10.996	75.6	-0.856	75.6	-4.459	75.6	-5.053	75.6	-3.208	75.6	-2.985
76.3	-6.888	76.3	-5.944	76.3	-9.262	76.3	-0.953	76.3	-4.653	76.3	-8.230	76.3	-3.948	76.3	-4.072
77.1	0.909	77.1	-4.667	77.1	-5.465	77.1	-7.234	77.1	-5.724	77.1	-9.273	77.1	-4.166	77.1	0.320
78.6	3.722	78.6	3.616	78.6	3.768	78.6	3.526	78.6	3.623	78.6	4.807	78.6	5.756	78.6	-2.333
80.0	-3.325	80.0	-3.673	80.0	-4.200	80.0	-3.144	80.0	-6.552	80.0	-6.997	80.0	-3.120	80.0	-3.899
85.0	-2.940	85.0	-1.206	85.0	-2.325	85.0	-2.852	85.0	-4.945	85.0	-5.717	85.0	-3.208	85.0	-3.551
90.0	-0.571	90.0	-0.596	90.0	-0.544	90.0	-0.953	90.0	-1.976	90.0	-1.593	90.0	-1.770	90.0	-1.681
95.0	-0.324	95.0	-0.407	95.0	-0.028	95.0	-0.515	95.0	-0.953	95.0	-0.123	95.0	-1.073	95.0	-1.115
2.5	2.291	2.5	7.166	2.5	2.128	2.5	0.556	2.5	7.031	2.5	0.825	2.5	0.930	2.5	0.885
5.0	2.686	5.0	6.030	5.0	1.753	5.0	0.799	5.0	6.155	5.0	0.825	5.0	0.974	5.0	0.885
7.5	1.946	7.5	4.894	7.5	1.425	7.5	0.751	7.5	2.503	7.5	0.825	7.5	0.974	7.5	0.929
10.0	1.354	10.0	4.184	10.0	1.190	10.0	0.751	10.0	4.451	10.0	0.873	10.0	0.974	10.0	1.102
15.0	0.860	15.0	4.279	15.0	0.956	15.0	0.556	15.0	0.799	15.0	0.920	15.0	1.017	15.0	0.755
20.0	0.712	20.0	2.812	20.0	0.956	20.0	0.605	20.0	0.994	20.0	0.967	20.0	0.886	20.0	0.842
30.0	0.564	30.0	1.013	30.0	0.956	30.0	0.799	30.0	1.043	30.0	0.920	30.0	0.756	30.0	0.581
50.0	0.761	50.0	1.486	50.0	1.190	50.0	1.092	50.0	0.556	50.0	1.252	50.0	0.974	50.0	0.320
65.0	5.153	65.0	3.793	65.0	4.659	65.0	4.013	65.0	6.447	65.0	5.139	65.0	-2.511	65.0	0.668
70.0	4.117	70.0	3.806	70.0	3.768	70.0	2.503	70.0	4.061	70.0	4.997	70.0	0.669	70.0	0.537
76.8	0.969	76.8	4.326	76.8	0.487	76.8	3.526	76.8	3.331	76.8	5.803	76.8	0.669	76.8	0.537
77.1	4.808	77.1	4.279	77.1	4.565	77.1	3.867	77.1	4.840	77.1	5.471	77.1	0.843	77.1	0.407
80.0	4.808	80.0	4.042	80.0	5.081	80.0	3.769	80.0	5.376	80.0	6.514	80.0	0.712	80.0	0.624
85.0	4.216	85.0	3.522	85.0	3.440	85.0	2.455	85.0	2.942	85.0	5.898	85.0	0.364	85.0	0.624
90.0	2.883	90.0	3.048	90.0	2.268	90.0	1.384	90.0	2.017	90.0	4.895	90.0	0.320	90.0	0.537
95.0	2.044	95.0	2.433	95.0	1.659	95.0	1.384	95.0	1.384	95.0	3.812	95.0	2.062	95.0	0.320
TOTAL NORMAL COEFFICIENT															
CN =	4.91	7.57	5.77	5.90	8.70	8.92	3.65	3.75							

TABLE V-88

RUN 58, POINT 1 Q = 4.70 ALPHA = 0 TCP = 0.60

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-0.165	0.	-5.935	0.	-4.140	0.	-0.787	0.	-1.978	0.	0.452	0.	0.292	0.	0.451
1.2	-0.938	1.2	-2.113	1.2	-1.024	1.2	-1.278	1.2	-1.845	1.2	-0.902	1.2	0.492	1.2	0.531
2.5	-0.938	2.5	-1.939	2.5	-1.673	2.5	-1.546	2.5	-1.933	2.5	-1.164	2.5	0.492	2.5	4.563
5.0	-0.938	5.0	-2.721	5.0	-2.538	5.0	-1.992	5.0	-2.288	5.0	-1.862	5.0	0.492	5.0	0.451
7.5	-0.892	7.5	-2.982	7.5	-2.928	7.5	-0.475	7.5	-2.598	7.5	-2.037	7.5	0.492	7.5	0.441
10.0	-1.802	10.0	-3.329	10.0	-3.231	10.0	-1.992	10.0	-2.465	10.0	-1.993	10.0	-2.427	10.0	-2.024
15.0	-2.302	15.0	-3.025	15.0	-3.144	15.0	-0.351	15.0	-2.376	15.0	-1.950	15.0	-2.347	15.0	-2.144
20.0	-2.620	20.0	-2.982	20.0	-3.014	20.0	-1.690	20.0	-2.332	20.0	-2.342	20.0	-2.267	20.0	-2.104
25.0	-2.668	25.0	-3.155	25.0	-3.187	25.0	-0.385	25.0	-2.376	25.0	-2.212	25.0	-2.307	25.0	-2.144
30.0	-2.848	30.0	-3.286	30.0	-3.101	30.0	-0.430	30.0	-2.376	30.0	-2.168	30.0	-2.187	30.0	-1.944
40.0	-2.666	40.0	-3.242	40.0	-2.884	40.0	-2.081	40.0	-2.332	40.0	-2.037	40.0	-2.187	40.0	-2.064
50.0	-2.802	50.0	-3.068	50.0	0.837	50.0	-2.081	50.0	-2.421	50.0	-2.124	50.0	-2.068	50.0	-1.984
60.0	-2.848	60.0	-2.938	60.0	-2.668	60.0	-2.037	60.0	-2.421	60.0	-2.168	60.0	-2.108	60.0	-2.144
61.5	-2.302	61.5	-1.418	61.5	-1.327	61.5	-0.608	61.5	-1.180	61.5	-0.771	61.5	6.530	61.5	-1.026
62.5	-5.985	62.5	-7.499	62.5	-5.827	62.5	-3.019	62.5	-3.440	62.5	-2.954	62.5	7.129	62.5	-3.142
65.0	-9.168	65.0	-10.278	65.0	-8.424	65.0	-4.135	65.0	-5.124	65.0	-4.875	65.0	-4.427	65.0	-4.619
70.0	-6.895	70.0	-7.672	70.0	-6.303	70.0	-4.179	70.0	-4.104	70.0	-4.220	70.0	-3.667	70.0	6.160
75.0	-4.121	75.0	-4.502	75.0	-3.880	75.0	-2.885	75.0	-2.731	75.0	-2.779	75.0	0.252	75.0	-2.942
75.6	-3.257	75.6	-3.459	75.6	-4.053	75.6	-2.438	75.6	-2.598	75.6	-2.998	75.6	-2.267	75.6	-2.543
76.3	-4.712	76.3	-5.240	76.3	-5.741	76.3	-2.438	76.3	-2.997	76.3	-3.478	76.3	-2.747	76.3	5.361
77.1	0.790	77.1	-5.978	77.1	-4.313	77.1	3.230	77.1	-3.085	77.1	-3.085	77.1	-2.427	77.1	0.770
78.6	2.336	78.6	3.707	78.6	3.477	78.6	0.864	78.6	0.592	78.6	1.194	78.6	0.652	78.6	6.918
80.0	-3.530	80.0	-3.546	80.0	-3.923	80.0	-2.885	80.0	-2.376	80.0	-2.299	80.0	-1.468	80.0	-2.384
85.0	-3.484	85.0	-2.547	85.0	-3.014	85.0	-1.814	85.0	-1.402	85.0	-1.251	85.0	-0.788	85.0	-1.625
90.0	-1.347	90.0	-0.072	90.0	-0.461	90.0	-0.564	90.0	-0.737	90.0	-0.334	90.0	-0.308	90.0	-0.627
95.0	-0.574	95.0	0.797	95.0	0.275	95.0	-0.341	95.0	-0.471	95.0	-0.072	95.0	-0.108	95.0	-0.268
2.5	-0.392	2.5	4.228	2.5	1.097	2.5	0.552	2.5	1.655	2.5	0.452	2.5	0.492	2.5	0.451
5.0	0.063	5.0	3.707	5.0	2.568	5.0	0.641	5.0	1.345	5.0	0.452	5.0	0.492	5.0	0.491
7.5	0.927	7.5	2.925	7.5	2.612	7.5	0.641	7.5	0.371	7.5	0.452	7.5	0.492	7.5	0.451
10.0	1.063	10.0	2.491	10.0	2.265	10.0	0.731	10.0	0.947	10.0	0.452	10.0	0.612	10.0	0.531
15.0	1.336	15.0	2.447	15.0	1.573	15.0	0.552	15.0	0.371	15.0	0.452	15.0	0.372	15.0	0.451
20.0	1.200	20.0	1.883	20.0	1.097	20.0	0.597	20.0	0.371	20.0	0.452	20.0	0.452	20.0	0.810
30.0	0.836														

TABLE V-89

RUN 58, POINT 4 Q = 4.70 ALPHA = 12 TCP = 0.60

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-4.075	0.	-4.545	0.	-3.923	0.	-1.010	0.	-1.225	0.	0.539	0.	0.332	0.	0.531
1.2	-1.711	1.2	-3.199	1.2	-1.976	1.2	-2.260	1.2	-2.687	1.2	-1.557	1.2	0.572	1.2	0.531
2.5	-1.620	2.5	-3.590	2.5	-3.231	2.5	-3.108	2.5	-2.952	2.5	-2.299	2.5	0.572	2.5	4.483
5.0	-1.640	5.0	-4.719	5.0	-4.442	5.0	-3.733	5.0	-3.307	5.0	-3.522	5.0	0.572	5.0	0.531
7.5	-1.665	7.5	-4.632	7.5	-4.875	7.5	-1.010	7.5	-3.440	7.5	-3.609	7.5	0.572	7.5	0.491
10.0	-3.348	10.0	-3.546	10.0	-5.178	10.0	-3.599	10.0	-3.174	10.0	-3.391	10.0	-4.187	10.0	-3.421
15.0	-3.712	15.0	-4.285	15.0	-4.659	15.0	-0.653	15.0	-3.174	15.0	-3.041	15.0	-3.827	15.0	-3.182
20.0	-3.939	20.0	-4.067	20.0	-4.226	20.0	-2.796	20.0	-3.263	20.0	-3.522	20.0	-3.707	20.0	-3.262
25.0	-3.803	25.0	-4.198	25.0	-4.269	25.0	-0.698	25.0	-3.218	25.0	-3.041	25.0	-3.627	25.0	-3.222
30.0	-3.803	30.0	-4.241	30.0	-4.053	30.0	-2.974	30.0	-3.085	30.0	-2.954	30.0	-3.307	30.0	-2.942
40.0	-3.393	40.0	-3.981	40.0	-3.577	40.0	-2.929	40.0	-2.952	40.0	-2.736	40.0	-3.107	40.0	-2.863
50.0	-3.302	50.0	-3.677	50.0	0.751	50.0	-2.929	50.0	-3.041	50.0	-2.648	50.0	-2.787	50.0	-2.783
60.0	-3.257	60.0	-3.068	60.0	-3.144	60.0	-2.885	60.0	-2.908	60.0	-2.692	60.0	-2.787	60.0	-2.902
61.5	-2.575	61.5	-2.026	61.5	-2.019	61.5	-0.876	61.5	-0.914	61.5	-0.727	61.5	6.210	61.5	-1.066
62.5	-6.076	62.5	-8.541	62.5	-6.520	62.5	-3.420	62.5	-3.528	62.5	-3.260	62.5	6.969	62.5	-4.180
65.0	-8.896	65.0	-10.713	65.0	-9.333	65.0	-3.510	65.0	-3.301	65.0	-5.443	65.0	-5.586	65.0	-6.376
70.0	-6.258	70.0	-8.324	70.0	-7.082	70.0	-4.179	70.0	-4.370	70.0	-4.482	70.0	-4.467	70.0	5.920
75.0	-3.348	75.0	-3.110	75.0	-4.572	75.0	-2.796	75.0	-2.908	75.0	-2.561	75.0	0.692	75.0	-4.499
75.6	-3.166	75.6	-4.241	75.6	-4.832	75.6	-2.528	75.6	-2.731	75.6	-2.561	75.6	-2.307	75.6	-3.701
76.3	-4.348	76.3	-6.152	76.3	-6.565	76.3	-2.617	76.3	-3.174	76.3	-2.954	76.3	-2.627	76.3	3.241
77.1	0.699	77.1	-6.804	77.1	-5.005	77.1	3.052	77.1	-3.263	77.1	-2.736	77.1	-2.427	77.1	0.531
78.6	3.109	78.6	4.141	78.6	3.823	78.6	0.686	78.6	0.371	78.6	0.801	78.6	0.732	78.6	6.798
80.0	-2.939	80.0	-1.154	80.0	-4.269	80.0	-2.662	80.0	-2.244	80.0	-1.906	80.0	-1.348	80.0	-3.501
85.0	-2.893	85.0	-3.199	85.0	-3.361	85.0	-1.947	85.0	-1.402	85.0	-0.989	85.0	-0.668	85.0	-1.625
90.0	-1.438	90.0	-0.549	90.0	-0.764	90.0	-3.921	90.0	-0.870	90.0	-0.334	90.0	-0.348	90.0	-0.787
95.0	-1.029	95.0	0.102	95.0	-0.201	95.0	-0.608	95.0	-0.649	95.0	-0.028	95.0	-0.308	95.0	-0.867
2.5	3.442	2.5	3.140	2.5	3.694	2.5	0.775	2.5	0.769	2.5	0.539	2.5	0.612	2.5	0.531
5.0	3.928	5.0	4.445	5.0	3.218	5.0	0.864	5.0	0.991	5.0	0.539	5.0	0.572	5.0	0.571
7.5	2.791	7.5	3.664	7.5	2.439	7.5	0.954	7.5	0.326	7.5	0.496	7.5	0.572	7.5	0.531
10.0	1.700	10.0	3.099	10.0	1.876	10.0	0.954	10.0	0.991	10.0	0.496	10.0	1.011	10.0	0.650
15.0	0.927	15.0	3.142	15.0	1.313	15.0	0.775	15.0	0.415	15.0	0.539	15.0	0.891	15.0	0.730
20.0	0.654	20.0	1.970	20.0	1.010	20.0	0.820	20.0	0.459	20.0	0.583	20.0	0.891	20.0	0.730
30.0	0.608	30.0	0.754	30.0	0.794	30.0	0.864	30.0	0.681	30.0	0.539	30.0	0.692	30.0	0.531
50.0	0.790	50.0	1.622	50.0	1.357	50.0	0.775	50.0	0.592	50.0	0.801	50.0	0.732	50.0	0.491
65.0	4.792	65.0	5.314	65.0	4.689	65.0	1.445	65.0	0.769	65.0	1.020	65.0	6.969	65.0	0.650
70.0	3.655	70.0	4.880	70.0	4.170	70.0	1.043	70.0	0.769	70.0	1.282	70.0	0.852	70.0	0.770
76.8	0.654	76.8	5.053	76.8	0.231	76.8	1.043	76.8	0.681	76.8	1.063	76.8	0.692	76.8	0.730
77.1	3.928	77.1	4.749	77.1	4.300	77.1	1.043	77.1	0.592	77.1	0.976	77.1	0.812	77.1	0.531
80.0	4.883	80.0	5.184	80.0	4.776	80.0	1.177	80.0	0.725	80.0	1.063	80.0	0.692	80.0	0.650
85.0	3.473	85.0	4.793	85.0	3.910	85.0	1.266	85.0	0.769	85.0	1.063	85.0	0.852	85.0	0.770
90.0	2.382	90.0	4.054	90.0	2.808	90.0	1.355	90.0	0.681	90.0	0.932	90.0	0.852	90.0	0.770
95.0	1.654	95.0	3.012	95.0	2.026	95.0	0.909	95.0	0.548	95.0	0.758	95.0	0.772	95.0	0.611
TOTAL NGRMAL COEFFICIENT															
CN = 4.98		7.06		5.30		3.37		3.49		3.41		3.90		2.58	

TABLE V-90

RUN 58, POINT 5 Q = 4.70 ALPHA = 16 TCP = 0.60

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-3.848	0.	-5.110	0.	-3.144	0.	-1.278	0.	-1.889	0.	0.539	0.	0.332	0.	0.571
1.2	-1.756	1.2	-3.329	1.2	-2.365	1.2	-2.617	1.2	-3.041	1.2	-1.731	1.2	0.572	1.2	0.531
2.5	-1.756	2.5	-3.546	2.5	-3.534	2.5	-3.445	2.5	-3.307	2.5	-2.604	2.5	0.572	2.5	4.363
5.0	-1.802	5.0	-4.675	5.0	-4.789	5.0	-3.867	5.0	-3.440	5.0	-3.784	5.0	0.572	5.0	0.491
7.5	-1.802	7.5	-4.806	7.5	-5.135	7.5	-1.010	7.5	-3.573	7.5	-3.827	7.5	0.572	7.5	0.491
10.0	-3.712	10.0	-3.503	10.0	-5.395	10.0	-3.599	10.0	-3.396	10.0	-3.565	10.0	-4.427	10.0	-3.781
15.0	-3.939	15.0	-4.371	15.0	-4.702	15.0	-0.608	15.0	-3.617	15.0	-3.172	15.0	-4.067	15.0	-3.501
20.0	-4.121	20.0	-4.198	20.0	-4.313	20.0	-2.706	20.0	-3.573	20.0	-3.478	20.0	-3.947	20.0	-3.541
25.0	-3.939	25.0	-4.415	25.0	-4.269	25.0	-0.698	25.0	-3.351	25.0	-3.172	25.0	-3.827	25.0	-3.421
30.0	-3.893	30.0	-4.371	30.0	-4.010	30.0	-2.796	30.0	-3.218	30.0	-2.954	30.0	-3.347	30.0	-3.062
40.0	-3.393	40.0	-4.067	40.0	-3.490	40.0	-2.796	40.0	-3.130	40.0	-2.968	40.0	-2.907	40.0	-2.942
50.0	-3.211	50.0	-3.373	50.0	0.708	50.0	-2.796	50.0	-3.174	50.0	-2.605	50.0	-2.707	50.0	-2.783
60.0	-3.075	60.0	-3.112	60.0	-2.971	60.0	-2.796	60.0	-2.864	60.0	-2.255	60.0	-2.347	60.0	-2.982
61.5	-2.075	61.5	-2.547	61.5	-2.106	61.5	-0.698	61.5	-0.870	61.5	-0.334	61.5	6.210	61.5	-1.026
62.5	-5.530	62.5	-7.325	62.5	-6.130	62.5	-3.063	62.5	-3.440	62.5	-2.823	62.5	6.929	62.5	-4.180
65.0	-7.759	65.0	-8.715	65.0	-8.467	65.0	-3.197	65.0	-5.256	65.0	-5.137	65.0	-5.426	65.0	-6.376
70.0	-5.050	70.0	-5.718	70.0	-6.087	70.0	-3.420	70.0	-4.193	70.0	-4.133	70.0	-4.227	70.0	5.920
75.0	-3.120	75.0	-4.024	75.0	-3.837	75.0	-2.438	75.0	-2.820	75.0	-2.299	75.0	0.732	75.0	-4.659
75.6	-3.302	75.6	-3.677	75.6	-4.226	75.6	-2.305	75.6	-2.642	75.6	-2.255	75.6	-2.147	75.6	-3.940
76.3	-4.075	76.3	-4.762	76.3	-5.308	76.3	-2.260	76.3	-3.041	76.3	-2.561	76.3	-2.507	76.3	5.161
77.1	0.654	77.1	-5.023	77.1	-3.707	77.1	3.007	77.1	-2.908	77.1	-2.386	77.1	-2.387	77.1	0.571
78.6	3.382	78.6	4.272	78.6	3.997	78.6	0.686	78.6	0.326	78.6	0.714	78.6	0.732	78.6	6.639
80.0	-2.939	80.0	-3.894	80.0	-3.361	80.0	-2.438	80.0	-2.155	80.0	-1.644	80.0	-1.348	80.0	-3.701
85.0	-3.120	85.0	-2.460	85.0	-2.582	85.0	-1.858	85.0	-1.402	85.0	-0.858	85.0	-0.668	85.0	-1.785
90.0	-0.938	90.0	-0.897	90.0	-0.591	90.0	-0.921	90.0	-0.781	90.0	-0.247	90.0	-0.268	90.0	-0.867
95.0	-0.528	95.0	-0.506	95.0	-0.158	95.0	-0.564	95.0	-0.604	95.0	-0.028	95.0	-0.308	95.0	-0.787
2.5	3.473	2.5	5.357	2.5	3.521	2.5	0.731	2.5	0.681	2.5	0.539	2.5	0.652	2.5	0.531
5.0	3.519	5.0	4.576	5.0	2.568	5.0	0.864	5.0	0.814	5.0	0.539	5.0	0.572	5.0	0.531
7.5	2.200	7.5	3.794	7.5	1.919	7.5	0.909	7.5	0.238	7.5	0.539	7.5	0.612	7.5	0.491
10.0	1.336	10.0	3.229	10.0	1.530	10.0	0.909	10.0	0.769	10.0	0.539	10.0	0.971	10.0	0.611
15.0	0.790	15.0	3.186	15.0	1.140	15.0	0.731	15.0	0.371	15.0	0.583	15.0	0.931	15.0	0.730
20.0	0.699	20.0	2.143	20.0	0.967	20.0	0.820	20.0	0.415	20.0	0.627	20.0			

TABLE V-91

RUN 57, POINT 1 Q = 3.29 ALPHA = 0 TCP = 1.50

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	0.232	0.	-11.383	0.	-5.531	0.	-1.176	0.	-4.965	0.	0.658	0.	0.486	0.	1.455
1.2	-1.262	1.2	-3.379	1.2	-1.265	1.2	-2.005	1.2	-3.256	1.2	-0.839	1.2	0.772	1.2	0.770
2.5	-1.392	2.5	-2.448	2.5	-2.130	2.5	-2.515	2.5	-3.193	2.5	-1.276	2.5	0.600	2.5	7.043
5.0	-1.327	5.0	-3.689	5.0	-3.490	5.0	-3.216	5.0	-3.636	5.0	-1.900	5.0	0.772	5.0	0.542
7.5	-1.327	7.5	-4.185	7.5	-4.170	7.5	-1.303	7.5	-4.142	7.5	-2.274	7.5	0.714	7.5	0.428
10.0	-1.912	10.0	-3.255	10.0	-4.665	10.0	-3.471	10.0	-3.953	10.0	-2.336	10.0	-2.656	10.0	-1.967
15.0	-2.627	15.0	-4.433	15.0	-4.480	15.0	-1.176	15.0	-3.823	15.0	-2.336	15.0	-2.713	15.0	-1.625
20.0	-3.341	20.0	-4.309	20.0	-4.232	20.0	-2.834	20.0	-3.763	20.0	-2.773	20.0	-2.542	20.0	-1.967
25.0	-3.471	25.0	-4.620	25.0	-4.480	25.0	-1.303	25.0	-3.826	25.0	-2.773	25.0	-2.542	25.0	-2.138
30.0	-3.796	30.0	-4.930	30.0	-4.618	30.0	-3.599	30.0	-3.953	30.0	-2.773	30.0	-2.542	30.0	-2.081
40.0	-3.601	40.0	-4.744	40.0	-4.109	40.0	-3.535	40.0	-3.953	40.0	-2.648	40.0	-2.427	40.0	-2.195
50.0	-3.861	50.0	-4.558	50.0	1.270	50.0	-3.535	50.0	-4.142	50.0	-2.711	50.0	-2.370	50.0	-2.081
60.0	-4.121	60.0	-4.930	60.0	-3.799	60.0	-3.535	60.0	-4.269	60.0	-2.898	60.0	-2.370	60.0	-2.366
61.5	-2.822	61.5	-2.138	61.5	-2.316	61.5	-1.303	61.5	-2.877	61.5	-1.089	61.5	9.683	61.5	0.998
62.5	-8.863	62.5	-11.941	62.5	-9.240	62.5	-5.066	62.5	-5.978	62.5	-4.270	62.5	10.483	62.5	-3.051
65.0	-15.099	65.0	-16.781	65.0	-13.568	65.0	-7.999	65.0	-8.700	65.0	-7.514	65.0	-5.284	65.0	-4.876
70.0	-11.527	70.0	-12.872	70.0	-10.415	70.0	-6.915	70.0	-7.244	70.0	-6.890	70.0	-4.484	70.0	9.325
75.0	-7.499	75.0	-7.908	75.0	-6.582	75.0	-5.066	75.0	-5.282	75.0	-4.645	75.0	0.714	75.0	3.564
75.6	-6.200	75.6	-6.419	75.6	-7.200	75.6	-4.364	75.6	-5.535	75.6	-5.393	75.6	-2.942	75.6	-2.937
76.3	-8.863	76.3	-9.273	76.3	-9.796	76.3	-5.193	76.3	-6.105	76.3	-6.017	76.3	-3.170	76.3	7.842
77.1	1.076	77.1	-10.886	77.1	-7.509	77.1	4.499	77.1	-6.105	77.1	-5.767	77.1	-3.170	77.1	0.770
78.6	3.999	78.6	6.487	78.6	6.278	78.6	0.737	78.6	0.288	78.6	1.719	78.6	0.772	78.6	10.237
80.0	-6.719	80.0	-6.853	80.0	-6.396	80.0	-4.810	80.0	-5.029	80.0	-4.457	80.0	-1.856	80.0	-2.766
85.0	-6.524	85.0	-4.806	85.0	-4.851	85.0	-3.599	85.0	-3.130	85.0	-2.523	85.0	-1.114	85.0	-1.796
90.0	-1.782	90.0	-0.338	90.0	-0.708	90.0	-1.559	90.0	-1.864	90.0	-0.590	90.0	-0.371	90.0	-0.656
95.0	-0.873	95.0	1.337	95.0	0.281	95.0	-1.431	95.0	-1.421	95.0	-0.028	95.0	-0.314	95.0	-0.444
2.5	-1.262	2.5	7.604	2.5	1.517	2.5	1.240	2.5	2.187	2.5	0.533	2.5	0.772	2.5	0.770
5.0	-0.938	5.0	6.176	5.0	4.485	5.0	-0.602	5.0	1.554	5.0	0.533	5.0	0.657	5.0	0.656
7.5	-0.353	7.5	4.873	7.5	4.670	7.5	-0.347	7.5	-0.218	7.5	0.533	7.5	0.714	7.5	0.542
10.0	0.057	10.0	3.943	10.0	3.805	10.0	-0.156	10.0	0.795	10.0	0.533	10.0	0.772	10.0	0.656
15.0	0.816	15.0	3.943	15.0	2.259	15.0	0.099	15.0	-0.345	15.0	0.596	15.0	0.886	15.0	0.542
20.0	0.946	20.0	2.888	20.0	1.394	20.0	0.099	20.0	-0.281	20.0	0.596	20.0	0.600	20.0	1.226
30.0	1.141	30.0	1.213	30.0	0.961	30.0	0.227	30.0	-0.218	30.0	0.658	30.0	0.657	30.0	0.428
50.0	1.206	50.0	2.764	50.0	2.568	50.0	0.227	50.0	-0.408	50.0	0.533	50.0	1.229	50.0	0.428
65.0	4.779	65.0	7.417	65.0	7.638	65.0	0.246	65.0	1.934	65.0	2.405	65.0	10.654	65.0	0.713
70.0	4.259	70.0	7.666	70.0	7.267	70.0	0.354	70.0	0.858	70.0	1.906	70.0	0.657	70.0	0.713
76.8	1.076	76.8	8.038	76.8	0.095	76.8	0.482	76.8	0.858	76.8	2.717	76.8	0.886	76.8	0.770
77.1	5.624	77.1	7.541	77.1	7.143	77.1	0.609	77.1	0.858	77.1	2.342	77.1	0.772	77.1	0.599
80.0	5.883	80.0	8.038	80.0	7.762	80.0	0.482	80.0	0.985	80.0	2.529	80.0	0.657	80.0	0.599
85.0	6.728	85.0	8.286	85.0	7.205	85.0	0.546	85.0	0.415	85.0	3.029	85.0	0.829	85.0	0.770
90.0	5.753	90.0	7.790	90.0	6.216	90.0	0.227	90.0	0.162	90.0	2.654	90.0	0.772	90.0	0.886
95.0	4.844	95.0	7.231	95.0	5.103	95.0	0.163	95.0	-0.091	95.0	2.218	95.0	1.514	95.0	0.599
TOTAL NORMAL COEFFICIENT															
CN = 6.34		9.99		7.15		3.51		4.40		4.28		4.09		1.67	

TABLE V-92

RUN 57, POINT 4 Q = 3.32 ALPHA = 12 TCP = 1.50

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-4.148	0.	-9.436	0.	-3.091	0.	-1.229	0.	-1.032	0.	0.466	0.	0.311	0.	0.650
1.2	-2.474	1.2	-4.332	1.2	-2.050	1.2	-3.504	1.2	-3.102	1.2	-1.326	1.2	0.594	1.2	0.537
2.5	-2.284	2.5	-4.517	2.5	-3.704	2.5	-4.451	2.5	-3.729	2.5	-2.377	2.5	0.481	2.5	6.754
5.0	-2.346	5.0	-6.115	5.0	-5.726	5.0	-4.767	5.0	-4.043	5.0	-3.861	5.0	0.594	5.0	0.480
7.5	-2.281	7.5	-5.869	7.5	-6.461	7.5	-1.608	7.5	-4.356	7.5	-4.294	7.5	0.425	7.5	0.537
10.0	-3.826	10.0	-3.840	10.0	-6.767	10.0	-4.515	10.0	-4.105	10.0	-3.985	10.0	-4.500	10.0	-3.871
15.0	-4.406	15.0	-5.746	15.0	-6.032	15.0	-1.039	15.0	-3.980	15.0	-3.676	15.0	-4.500	15.0	-3.419
20.0	-4.856	20.0	-5.746	20.0	-5.603	20.0	-3.567	20.0	-4.168	20.0	-4.170	20.0	-4.161	20.0	-3.702
25.0	-4.728	25.0	-5.992	25.0	-5.665	25.0	-1.166	25.0	-4.482	25.0	-3.985	25.0	-4.047	25.0	-3.419
30.0	-4.921	30.0	-6.115	30.0	-5.420	30.0	-4.135	30.0	-4.293	30.0	-3.799	30.0	-3.651	30.0	-3.250
40.0	-4.406	40.0	-5.808	40.0	-4.868	40.0	-3.946	40.0	-4.168	40.0	-3.490	40.0	-3.368	40.0	-3.080
50.0	-4.470	50.0	-5.377	50.0	0.768	50.0	-3.883	50.0	-4.293	50.0	-3.614	50.0	-3.255	50.0	-3.023
60.0	-4.534	60.0	-5.070	60.0	-4.439	60.0	-3.883	60.0	-4.231	60.0	-3.676	60.0	-3.028	60.0	-3.136
61.5	-3.633	61.5	-3.717	61.5	-3.091	61.5	-1.734	61.5	-1.722	61.5	-1.141	61.5	9.369	61.5	-1.328
62.5	-10.006	62.5	-13.924	62.5	-9.953	62.5	-5.336	62.5	-5.423	62.5	-4.974	62.5	10.331	62.5	-4.549
65.0	-15.285	65.0	-17.982	65.0	-14.426	65.0	-6.852	65.0	-8.057	65.0	-8.683	65.0	-6.255	65.0	-6.866
70.0	-11.101	70.0	-13.740	70.0	-11.179	70.0	-6.537	70.0	-6.740	70.0	-7.570	70.0	-4.896	70.0	8.901
75.0	-6.916	75.0	-8.698	75.0	-7.013	75.0	-4.641	75.0	-4.607	75.0	-4.726	75.0	0.764	75.0	4.888
75.6	-5.564	75.6	-7.345	75.6	-7.870	75.6	-4.262	75.6	-3.980	75.6	-5.097	75.6	-2.519	75.6	-4.436
76.3	-7.421	76.3	-10.235	76.3	-10.505	76.3	-4.262	76.3	-4.733	76.3	-5.468	76.3	-2.915	76.3	7.771
77.1	0.809	77.1	-11.711	77.1	-7.686	77.1	4.584	77.1	-4.795	77.1	-5.159	77.1	-2.859	77.1	0.537
78.6	4.929	78.6	6.981	78.6	6.466	78.6	0.667	78.6	0.223	78.6	1.641	78.6	0.651	78.6	10.144
80.0	-5.758	80.0	-7.960	80.0	-6.522	80.0	-4.767	80.0	-3.729	80.0	-3.614	80.0	-1.557	80.0	-3.815
85.0	-5.693	85.0	-5.869	85.0	-4.868	85.0	-3.567	85.0	-2.286	85.0	-1.883	85.0	-0.821	85.0	-1.724
90.0	-2.153	90.0	-1.012	90.0	-1.131	90.0	-1.924	90.0	-1.471	90.0	-0.523	90.0	-0.481	90.0	-0.876
95.0	-1.702	95.0	0.095	95.0	-0.396	95.0	-1.418	95.0	-1.157	95.0	-0.090	95.0	-0.368	95.0	-1.158
2.5	-0.608	2.5	8.580	2.5	4.812	2.5	0.288	2.5	1.414	2.5	0.466	2.5	0.538	2.5	0.593
5.0	2.997	5.0	7.104	5.0	4.996	5.0	0.414	5.0	1.477	5.0	0.466	5.0	0.538	5.0	0.424
7.5	4.800	7.5	5.690	7.5	4.015	7.5	0.604	7.5	0.348	7.5	0.466	7.5	0.538	7.5	0.593
10.0	3.899	10.0	4.768	10.0	2.851	10.0	0.540	10.0	1.289	10.0	0.466	10.0	0.991	10.0	0.593
15.0	2.032	15.0	4.522	15.0	1.687	15.0	0.414	15.0	0.285	15.0	0.528	15.0	0.878	15.0	0.763
20.0	1.131	20.0	2.800	20.0	1.197	20.0	0.540	20.0	0.348	20.0					

TABLE V-93

RUN 57 POINT 5		Q = 3.26		ALPHA = 16		TCP = 1.50									
VALVE 1 100X CP	VALVE 3 100X CP	VALVE 4 100X CP	VALVE 5 100X CP	VALVE 6 100X CP	VALVE 7 100X CP	VALVE 8 100X CP	VALVE 9 100X CP								
0.0	-5.207	0.0	-9.984	0.0	-4.084	0.0	-2.731	0.0	-1.561	0.0	0.475	0.0	0.433	0.0	0.547
1.2	-2.716	1.2	-4.662	1.2	-2.524	1.2	-4.275	1.2	-3.414	1.2	-1.854	1.2	0.606	1.2	0.606
2.5	-2.651	2.5	-5.100	2.5	-4.645	2.5	-6.463	2.5	-4.116	2.5	-2.987	2.5	0.548	2.5	0.621
5.0	-2.651	5.0	-6.728	5.0	-6.455	5.0	-6.721	5.0	-4.244	5.0	-4.687	5.0	0.548	5.0	0.432
7.5	-2.716	7.5	-6.603	7.5	-7.141	7.5	-1.701	7.5	-4.500	7.5	-4.876	7.5	0.548	7.5	0.432
10.0	-4.290	10.0	-3.973	10.0	-7.640	10.0	-4.533	10.0	-4.308	10.0	-4.624	10.0	-5.274	10.0	-4.230
15.0	-4.880	15.0	-6.353	15.0	-6.704	15.0	-0.993	15.0	-4.564	15.0	-4.057	15.0	-4.755	15.0	-3.999
20.0	-5.273	20.0	-6.039	20.0	-6.018	20.0	-3.439	20.0	-4.947	20.0	-4.813	20.0	-4.698	20.0	-3.884
25.0	-5.076	25.0	-6.478	25.0	-6.018	25.0	-0.993	25.0	-4.819	25.0	-4.183	25.0	-4.294	25.0	-3.884
30.0	-5.142	30.0	-6.415	30.0	-5.581	30.0	-3.954	30.0	-4.564	30.0	-4.120	30.0	-4.006	30.0	-3.424
40.0	-4.552	40.0	-6.039	40.0	-4.832	40.0	-3.761	40.0	-4.244	40.0	-3.680	40.0	-3.545	40.0	-3.424
50.0	-4.486	50.0	-5.413	50.0	0.783	50.0	-3.696	50.0	-4.372	50.0	-3.680	50.0	-3.314	50.0	-3.251
60.0	-4.617	60.0	-5.163	60.0	-4.333	60.0	-3.761	60.0	-4.116	60.0	-3.743	60.0	-3.257	60.0	-3.424
61.5	-4.158	61.5	-4.537	61.5	-3.210	61.5	-1.573	61.5	-1.370	61.5	-1.161	61.5	9.542	61.5	-1.467
62.5	-9.207	62.5	-12.740	62.5	-9.013	62.5	-4.082	62.5	-4.883	62.5	-4.750	62.5	10.349	62.5	-4.690
65.0	-14.779	65.0	-16.684	65.0	-12.569	65.0	-5.691	65.0	-7.374	65.0	-8.024	65.0	-6.197	65.0	-7.568
70.0	-10.911	70.0	-12.614	70.0	-8.077	70.0	-5.562	70.0	-5.969	70.0	-7.016	70.0	-4.928	70.0	9.123
75.0	-6.388	75.0	-7.793	75.0	-5.020	75.0	-4.147	75.0	-4.180	75.0	-4.120	75.0	1.355	75.0	-5.496
75.6	-6.125	75.6	-6.227	75.6	-5.956	75.6	-3.567	75.6	-3.605	75.6	-4.120	75.6	-2.449	75.6	-4.690
76.3	-7.371	76.3	-8.920	76.3	-7.890	76.3	-3.567	76.3	-4.180	76.3	-4.498	76.3	-2.968	76.3	7.742
77.1	0.759	77.1	-10.235	77.1	-5.332	77.1	4.669	77.1	-4.308	77.1	-4.057	77.1	-2.795	77.1	0.174
78.6	5.282	78.6	7.173	78.6	6.835	78.6	0.680	78.6	0.483	78.6	1.420	78.6	0.606	78.6	10.290
80.0	-5.601	80.0	-7.480	80.0	-4.521	80.0	-3.825	80.0	-2.967	80.0	-2.798	80.0	-1.527	80.0	-4.287
85.0	-5.535	85.0	-4.975	85.0	-3.522	85.0	-3.696	85.0	-1.817	85.0	-1.350	85.0	-0.720	85.0	-2.043
90.0	-1.798	90.0	-0.717	90.0	-1.026	90.0	-2.152	90.0	-1.242	90.0	-0.469	90.0	-0.374	90.0	-1.007
95.0	-1.143	95.0	0.222	95.0	-0.652	95.0	-1.251	95.0	-0.923	95.0	-0.091	95.0	0.548	95.0	-1.064
2.5	2.135	2.5	9.051	2.5	5.213	2.5	0.294	2.5	1.313	2.5	0.475	2.5	0.548	2.5	0.490
5.0	4.758	5.0	7.611	5.0	4.651	5.0	0.487	5.0	1.441	5.0	0.475	5.0	0.606	5.0	0.490
7.5	4.758	7.5	9.108	7.5	3.403	7.5	0.680	7.5	0.419	7.5	0.475	7.5	0.606	7.5	0.490
10.0	3.250	10.0	5.044	10.0	2.592	10.0	0.680	10.0	1.313	10.0	0.538	10.0	0.952	10.0	0.605
15.0	1.611	15.0	4.919	15.0	1.594	15.0	0.487	15.0	0.355	15.0	0.538	15.0	1.009	15.0	0.720
20.0	0.890	20.0	2.915	20.0	1.095	20.0	0.615	20.0	0.419	20.0	0.601	20.0	0.894	20.0	0.950
30.0	0.365	30.0	0.661	30.0	0.908	30.0	0.615	30.0	0.674	30.0	0.538	30.0	0.779	30.0	0.547
50.0	0.955	50.0	2.038	50.0	1.532	50.0	0.680	50.0	0.547	50.0	0.916	50.0	0.894	50.0	0.547
65.0	8.495	65.0	9.364	65.0	8.145	65.0	1.581	65.0	0.866	65.0	1.923	65.0	10.464	65.0	0.547
70.0	5.938	70.0	7.736	70.0	6.398	70.0	1.001	70.0	0.930	70.0	2.175	70.0	0.664	70.0	0.662
76.8	0.759	76.8	8.425	76.8	0.284	76.8	0.873	76.8	0.866	76.8	1.672	76.8	0.548	76.8	0.778
77.1	6.987	77.1	8.488	77.1	7.646	77.1	1.323	77.1	0.738	77.1	1.735	77.1	0.837	77.1	0.432
80.0	7.577	80.0	8.863	80.0	7.896	80.0	1.130	80.0	1.058	80.0	1.798	80.0	0.491	80.0	0.605
85.0	5.544	85.0	6.421	85.0	5.712	85.0	0.873	85.0	0.930	85.0	1.672	85.0	0.606	85.0	0.720
90.0	4.233	90.0	5.357	90.0	4.027	90.0	1.259	90.0	0.738	90.0	1.357	90.0	0.664	90.0	0.662
95.0	2.793	95.0	4.418	95.0	2.468	95.0	0.744	95.0	0.547	95.0	1.168	95.0	0.491	95.0	0.662
TOTAL NORMAL COEFFICIENT															
CN =	7.38	10.68	7.13	4.19	4.75	4.76	4.75	2.83							

TABLE V-94

RUN 60, POINT 1		Q = 4.64		ALPHA = 0		TCP = 0.60									
VALVE 1 100X CP	VALVE 3 100X CP	VALVE 4 100X CP	VALVE 5 100X CP	VALVE 6 100X CP	VALVE 7 100X CP	VALVE 8 100X CP	VALVE 9 100X CP								
0.0	0.017	0.0	-6.343	0.0	-3.405	0.0	-0.386	0.0	-2.214	0.0	0.452	0.0	0.253	0.0	0.453
1.2	-0.883	1.2	-2.119	1.2	-1.154	1.2	-1.058	1.2	-1.812	1.2	-0.726	1.2	0.455	1.2	0.453
2.5	-0.838	2.5	-1.901	2.5	-1.630	2.5	-1.461	2.5	-1.768	2.5	-1.032	2.5	0.535	2.5	1.615
5.0	-1.048	5.0	-2.723	5.0	-2.453	5.0	-3.775	5.0	-2.080	5.0	-1.556	5.0	0.495	5.0	0.653
7.5	-1.062	7.5	-2.946	7.5	-2.866	7.5	-0.476	7.5	-2.392	7.5	-1.817	7.5	0.455	7.5	0.413
10.0	-1.737	10.0	-3.991	10.0	-3.232	10.0	-1.954	10.0	-2.303	10.0	-1.817	10.0	-2.120	10.0	-1.712
15.0	-2.187	15.0	-3.033	15.0	-3.102	15.0	-0.342	15.0	-2.214	15.0	-1.861	15.0	-2.060	15.0	-1.752
20.0	-2.546	20.0	-2.903	20.0	-2.929	20.0	-1.551	20.0	-2.169	20.0	-1.905	20.0	-2.040	20.0	-1.872
25.0	-2.546	25.0	-3.164	25.0	-3.016	25.0	-0.386	25.0	-2.214	25.0	-1.948	25.0	-2.120	25.0	-1.872
30.0	-2.726	30.0	-3.295	30.0	-2.972	30.0	-1.999	30.0	-2.259	30.0	-1.948	30.0	-1.959	30.0	-1.792
40.0	-2.591	40.0	-3.208	40.0	-2.756	40.0	-1.954	40.0	-2.214	40.0	-1.861	40.0	-1.919	40.0	-1.752
50.0	-2.681	50.0	-3.033	50.0	0.881	50.0	-1.954	50.0	-2.259	50.0	-1.861	50.0	-1.758	50.0	-1.752
60.0	-2.771	60.0	-3.208	60.0	-2.583	60.0	-1.909	60.0	-2.259	60.0	-1.905	60.0	-1.758	60.0	-1.712
61.5	-1.692	61.5	-1.291	61.5	-1.154	61.5	-0.028	61.5	-0.474	61.5	-0.203	61.5	2.949	61.5	-0.309
62.5	-5.694	62.5	-7.389	62.5	-5.873	62.5	-0.073	62.5	-1.411	62.5	-1.076	62.5	3.874	62.5	-1.271
65.0	-9.022	65.0	-10.176	65.0	-8.341	65.0	-2.895	65.0	-3.418	65.0	-2.821	65.0	-2.804	65.0	-2.914
70.0	-6.774	70.0	-7.389	70.0	-6.176	70.0	-3.611	70.0	-3.463	70.0	-3.345	70.0	-2.723	70.0	2.577
75.0	-4.120	75.0	-4.296	75.0	-3.925	75.0	-2.760	75.0	-2.571	75.0	-2.341	75.0	0.374	75.0	-2.193
75.6	-11.001	75.6	-12.571	75.6	-13.710	75.6	-1.417	75.6	-1.768	75.6	-1.992	75.6	-1.597	75.6	-1.511
76.3	-10.101	76.3	-11.352	76.3	-12.498	76.3	-1.461	76.3	-2.169	76.3	-2.777	76.3	-1.959	76.3	2.056
77.1	0.826	77.1	-8.913	77.1	-8.341	77.1	-0.028	77.1	-2.392	77.1	-2.516	77.1	-1.798	77.1	0.573
78.6	2.535	78.6	3.674	78.6	3.349	78.6	0.644	78.6	0.552	78.6	1.106	78.6	0.656	78.6	3.419
80.0	-5.020	80.0	-4.863	80.0	-5.310	80.0	-2.939	80.0	-2.482	80.0	-1.992	80.0	-1.195	80.0	-1.752
85.0	-4.975	85.0	-1.553	85.0	-2.539	85.0	-2.491	85.0	-1.768	85.0	-1.250	85.0	-0.793	85.0	-1.431
90.0	-1.018	90.0	-0.681	90.0	-0.548	90.0	-1.058	90.0	-0.876	90.0	-0.421	90.0	-0.310	90.0	-0.589
95.0	-0.507	95.0	-0.028	95.0	-0.331	95.0	-0.521	95.0	-0.521	95.0	-0.159	95.0	-0.109	95.0	-0.269
2.5	-0.568	2.5	4.327	2.5	1.444	2.5	0.599	2.5	1.622	2.5	0.408	2.5	0.495	2.5	0.453
5.0	0.017	5.0	3.674	5.0	2.526	5.0	0.509	5.0	1.265	5.0	0.408	5.0	0.495	5.0	0.453
7.5	0.601	7.5	2.890	7.5	2.483	7.5	0.733	7.5	0.284	7.5	0.408	7.5	0.455	7.5	0.453
10.0	1.096	10.0	2.454	10.0	2.267	10.0	0.644	10.0	0.909	10.0	0.408	10.0	0.535	10.0	0.573
15.0	1.366	15.0	2.454	15.0	1.574	15.0	0.554	15.0	0.284	15.0	0.408	15.0	0.374	15.0	0.413
20.0	1.231	20.0	1.627	20.0	1.141	20.0	0.599	20.0	0.284	20.0	0.408	20.0	0.414	20.0	0.854
30.0	0.871	30.0	0.930	30.0	0.838	30.0	0.644	30.0	0.373	30.0	0.408	30.0	0.334		

TABLE V-95

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-4.345	0.	-4.688	0.	-3.925	0.	-1.014	0.	-1.188	0.	0.452	0.	0.374	0.	0.493
1.2	-1.557	1.2	-2.990	1.2	-1.717	1.2	-2.178	1.2	-2.660	1.2	-1.468	1.2	0.535	1.2	0.533
2.5	-1.512	2.5	-3.469	2.5	-2.972	2.5	-3.029	2.5	-3.017	2.5	-2.210	2.5	0.535	2.5	1.335
5.0	-2.322	5.0	-4.427	5.0	-4.444	5.0	-3.566	5.0	-3.240	5.0	-3.388	5.0	0.575	5.0	0.533
7.5	-2.412	7.5	-4.514	7.5	-4.748	7.5	-0.924	7.5	-3.418	7.5	-3.476	7.5	0.535	7.5	0.533
10.0	-3.176	10.0	-4.340	10.0	-5.094	10.0	-3.387	10.0	-3.151	10.0	-3.257	10.0	-3.850	10.0	-3.195
15.0	-3.536	15.0	-4.222	15.0	-4.444	15.0	-0.921	15.0	-3.106	15.0	-2.996	15.0	-3.608	15.0	-2.954
20.0	-3.761	20.0	-3.948	20.0	-4.098	20.0	-2.671	20.0	-3.151	20.0	-2.952	20.0	-3.407	20.0	-2.994
25.0	-3.581	25.0	-4.079	25.0	-4.098	25.0	-0.655	25.0	-3.151	25.0	-2.952	25.0	-3.327	25.0	-2.954
30.0	-3.666	30.0	-4.209	30.0	-3.925	30.0	-2.929	30.0	-3.017	30.0	-2.821	30.0	-3.085	30.0	-2.714
40.0	-3.266	40.0	-4.079	40.0	-3.535	40.0	-2.671	40.0	-2.925	40.0	-2.603	40.0	-2.804	40.0	-2.593
50.0	-3.221	50.0	-3.643	50.0	0.838	50.0	-2.536	50.0	-3.017	50.0	-2.516	50.0	-2.482	50.0	-2.513
60.0	-3.221	60.0	-3.469	60.0	-3.166	60.0	-2.402	60.0	-2.794	60.0	-2.472	60.0	-2.442	60.0	-2.552
61.5	-2.636	61.5	-2.032	61.5	-1.890	61.5	-0.163	61.5	-0.340	61.5	0.059	61.5	2.627	61.5	-0.189
62.5	-5.919	62.5	-8.390	62.5	-6.696	62.5	-0.342	62.5	-1.634	62.5	-1.163	62.5	3.512	62.5	-1.712
65.0	-9.337	65.0	-11.091	65.0	-9.510	65.0	-3.611	65.0	-3.864	65.0	-3.519	65.0	-3.659	65.0	-4.237
70.0	-6.729	70.0	-8.652	70.0	-7.389	70.0	-3.790	70.0	-3.909	70.0	-3.781	70.0	-3.447	70.0	-2.256
75.0	-4.320	75.0	-5.124	75.0	-4.834	75.0	-2.850	75.0	-2.972	75.0	-2.603	75.0	0.857	75.0	-3.515
75.6-12.170	75.6-14.705	75.6-16.914	75.6-1.685	75.6-1.679	75.6-1.861	75.6-1.919	75.6-2.273	75.6-1.919	75.6-2.321	75.6-1.919	75.6-2.321	75.6-2.321	75.6-2.321	75.6-2.321	75.6-2.321
76.3-11.136	76.3-12.746	76.3-15.182	76.3-1.685	76.3-1.685	76.3-1.685	76.3-1.685	76.3-1.685	76.3-1.685	76.3-1.685	76.3-1.685	76.3-1.685	76.3-1.685	76.3-1.685	76.3-1.685	76.3-1.685
77.1 0.736	77.1-10.437	77.1-10.203	77.1-0.342	77.1-2.660	77.1-2.428	77.1-2.241	77.1-0.533	77.1-2.428	77.1-2.428	77.1-2.428	77.1-2.428	77.1-2.428	77.1-2.428	77.1-2.428	77.1-2.428
78.6 2.760	78.6 3.848	78.6 3.479	78.6 0.868	78.6 0.284	78.6 0.801	78.6 0.656	78.6 3.098	78.6 0.801	78.6 0.801	78.6 0.801	78.6 0.801	78.6 0.801	78.6 0.801	78.6 0.801	78.6 0.801
80.0 -4.930	80.0 -5.908	80.0 -6.739	80.0 -2.850	80.0 -2.482	80.0 -1.861	80.0 -1.517	80.0 -2.874	80.0 -1.861	80.0 -1.861	80.0 -1.861	80.0 -1.861	80.0 -1.861	80.0 -1.861	80.0 -1.861	80.0 -1.861
85.0 -4.885	85.0 -2.162	85.0 -4.271	85.0 -2.491	85.0 -1.902	85.0 -1.250	85.0 -0.913	85.0 -1.992	85.0 -1.250	85.0 -1.250	85.0 -1.250	85.0 -1.250	85.0 -1.250	85.0 -1.250	85.0 -1.250	85.0 -1.250
90.0 -1.048	90.0 -0.638	90.0 -1.067	90.0 -1.372	90.0 -0.920	90.0 -0.421	90.0 -0.430	90.0 -0.790	90.0 -0.421	90.0 -0.421	90.0 -0.421	90.0 -0.421	90.0 -0.421	90.0 -0.421	90.0 -0.421	90.0 -0.421
95.0 -0.388	95.0 -0.464	95.0 -0.071	95.0 -1.014	95.0 -0.653	95.0 -0.203	95.0 -0.390	95.0 -0.790	95.0 -0.203	95.0 -0.203	95.0 -0.203	95.0 -0.203	95.0 -0.203	95.0 -0.203	95.0 -0.203	95.0 -0.203
2.5 3.344	2.5 5.111	2.5 3.522	2.5 0.733	2.5 0.819	2.5 0.452	2.5 0.615	2.5 0.533	2.5 0.452	2.5 0.452	2.5 0.452	2.5 0.452	2.5 0.452	2.5 0.452	2.5 0.452	2.5 0.452
5.0 3.839	5.0 4.414	5.0 3.262	5.0 0.868	5.0 0.909	5.0 0.452	5.0 0.575	5.0 0.533	5.0 0.452	5.0 0.452	5.0 0.452	5.0 0.452	5.0 0.452	5.0 0.452	5.0 0.452	5.0 0.452
7.5 2.760	7.5 3.630	7.5 2.396	7.5 0.912	7.5 0.329	7.5 0.452	7.5 0.575	7.5 0.533	7.5 0.452	7.5 0.452	7.5 0.452	7.5 0.452	7.5 0.452	7.5 0.452	7.5 0.452	7.5 0.452
10.0 1.681	10.0 3.108	10.0 1.834	10.0 0.912	10.0 0.819	10.0 0.452	10.0 0.937	10.0 0.814	10.0 0.452	10.0 0.452	10.0 0.452	10.0 0.452	10.0 0.452	10.0 0.452	10.0 0.452	10.0 0.452
15.0 0.916	15.0 3.151	15.0 1.227	15.0 0.733	15.0 0.373	15.0 0.495	15.0 0.897	15.0 0.653	15.0 0.495	15.0 0.495	15.0 0.495	15.0 0.495	15.0 0.495	15.0 0.495	15.0 0.495	15.0 0.495
20.0 0.691	20.0 1.801	20.0 0.968	20.0 0.778	20.0 0.418	20.0 0.539	20.0 0.776	20.0 0.854	20.0 0.539	20.0 0.539	20.0 0.539	20.0 0.539	20.0 0.539	20.0 0.539	20.0 0.539	20.0 0.539
30.0 0.601	30.0 0.974	30.0 0.751	30.0 0.823	30.0 0.507	30.0 0.495	30.0 0.656	30.0 0.453	30.0 0.495	30.0 0.495	30.0 0.495	30.0 0.495	30.0 0.495	30.0 0.495	30.0 0.495	30.0 0.495
50.0 0.826	50.0 1.670	50.0 1.401	50.0 0.644	50.0 0.462	50.0 0.757	50.0 0.897	50.0 0.453	50.0 0.462	50.0 0.462	50.0 0.462	50.0 0.462	50.0 0.462	50.0 0.462	50.0 0.462	50.0 0.462
65.0 5.098	65.0 5.285	65.0 4.734	65.0 1.584	65.0 0.686	65.0 1.019	65.0 3.251	65.0 0.693	65.0 1.019	65.0 1.019	65.0 1.019	65.0 1.019	65.0 1.019	65.0 1.019	65.0 1.019	65.0 1.019
70.0 3.614	70.0 4.850	70.0 4.215	70.0 1.047	70.0 0.641	70.0 1.194	70.0 0.817	70.0 0.733	70.0 0.641	70.0 0.641	70.0 0.641	70.0 0.641	70.0 0.641	70.0 0.641	70.0 0.641	70.0 0.641
76.8 0.826	76.8 5.067	76.8 0.318	76.8 1.047	76.8 0.552	76.8 1.063	76.8 0.736	76.8 0.693	76.8 0.552	76.8 0.552	76.8 0.552	76.8 0.552	76.8 0.552	76.8 0.552	76.8 0.552	76.8 0.552
77.1 3.929	77.1 4.588	77.1 4.258	77.1 1.181	77.1 0.507	77.1 0.975	77.1 0.776	77.1 0.533	77.1 0.507	77.1 0.507	77.1 0.507	77.1 0.507	77.1 0.507	77.1 0.507	77.1 0.507	77.1 0.507
80.0 3.974	80.0 4.327	80.0 4.388	80.0 1.360	80.0 0.730	80.0 1.106	80.0 0.656	80.0 0.693	80.0 0.730	80.0 0.730	80.0 0.730	80.0 0.730	80.0 0.730	80.0 0.730	80.0 0.730	80.0 0.730
85.0 3.884	85.0 4.850	85.0 4.561	85.0 1.336	85.0 0.641	85.0 1.019	85.0 0.776	85.0 0.733	85.0 0.641	85.0 0.641	85.0 0.641	85.0 0.641	85.0 0.641	85.0 0.641	85.0 0.641	85.0 0.641
90.0 3.036	90.0 4.545	90.0 3.609	90.0 1.002	90.0 0.552	90.0 0.888	90.0 0.696	90.0 0.653	90.0 0.552	90.0 0.552	90.0 0.552	90.0 0.552	90.0 0.552	90.0 0.552	90.0 0.552	90.0 0.552
95.0 2.175	95.0 3.543	95.0 2.483	95.0 0.464	95.0 0.329	95.0 0.757	95.0 0.575	95.0 0.453	95.0 0.329	95.0 0.329	95.0 0.329	95.0 0.329	95.0 0.329	95.0 0.329	95.0 0.329	95.0 0.329
TOTAL NORMAL COEFFICIENT															
CN = 5.11		7.08		5.38		3.24		3.31		3.18		3.13		2.56	

TABLE V-96

VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-3.860	0.	-4.946	0.	-3.451	0.	-1.270	0.	-1.539	0.	0.509	0.	0.385	0.	0.548
1.2	-1.782	1.2	-3.381	1.2	-2.339	1.2	-2.695	1.2	-3.005	1.2	-1.775	1.2	0.467	1.2	0.466
2.5	-1.921	2.5	-3.739	2.5	-3.628	2.5	-3.522	2.5	-3.325	2.5	-2.537	2.5	0.550	2.5	1.330
5.0	-2.798	5.0	-4.723	5.0	-4.873	5.0	-3.936	5.0	-3.417	5.0	-3.791	5.0	0.550	5.0	0.507
7.5	-2.890	7.5	-4.589	7.5	-5.273	7.5	-0.994	7.5	-3.554	7.5	-3.746	7.5	0.509	7.5	0.507
10.0	-3.675	10.0	-4.499	10.0	-5.540	10.0	-3.614	10.0	-3.371	10.0	-3.522	10.0	-4.323	10.0	-3.649
15.0	-3.906	15.0	-4.454	15.0	-4.784	15.0	-0.626	15.0	-3.554	15.0	-3.209	15.0	-3.951	15.0	-3.320
20.0	-4.091	20.0	-4.320	20.0	-4.384	20.0	-3.063	20.0	-3.600	20.0	-3.209	20.0	-3.827	20.0	-3.402
25.0	-3.906	25.0	-4.454	25.0	-4.384	25.0	-0.672	25.0	-3.325	25.0	-3.074	25.0	-3.621	25.0	-3.279
30.0	-3.906	30.0	-4.499	30.0	-4.117	30.0	-2.971	30.0	-3.234	30.0	-2.940	30.0	-3.332	30.0	-2.950
40.0	-3.398	40.0	-4.186	40.0	-3.539	40.0	-2.649	40.0	-3.096	40.0	-2.671	40.0	-3.001	40.0	-2.950
50.0	-3.306	50.0	-3.739	50.0	0.727	50.0	-2.465	50.0	-3.096	50.0	-2.537	50.0	-2.671	50.0	-2.744
60.0	-3.260	60.0	-3.650	60.0	-3.095	60.0	-2.327	60.0	-2.776	60.0	-2.447	60.0	-2.506	60.0	

TABLE V-97

RUN 59, POINT 1 Q = 3.28 ALPHA = 0 TCP = 1.40

VALVE 1 100X CP	VALVE 3 100X CP	VALVE 4 100X CP	VALVE 5 100X CP	VALVE 6 100X CP	VALVE 7 100X CP	VALVE 8 100X CP	VALVE 9 100X CP
0.0	0.990	0.0	-11.673	0.0	-5.969	0.0	-0.915
1.2	-1.173	1.2	-2.986	1.2	-1.498	1.2	-1.485
2.5	-1.110	2.5	-2.308	2.5	-2.233	2.5	-2.182
5.0	-1.046	5.0	-3.663	5.0	-3.397	5.0	-2.626
7.5	-1.046	7.5	-4.156	7.5	-3.887	7.5	-1.042
10.0	-1.746	10.0	-3.725	10.0	-4.438	10.0	-2.816
15.0	-2.446	15.0	-4.279	15.0	-4.254	15.0	-0.979
20.0	-3.145	20.0	-4.095	20.0	-4.009	20.0	-1.739
25.0	-3.273	25.0	-4.464	25.0	-4.254	25.0	-0.979
30.0	-3.654	30.0	-4.711	30.0	-4.193	30.0	-3.006
40.0	-3.400	40.0	-4.711	40.0	-3.887	40.0	-3.006
50.0	-3.654	50.0	-4.341	50.0	1.381	50.0	-2.943
60.0	-3.972	60.0	-5.512	60.0	-3.642	60.0	-3.069
61.5	-2.827	61.5	-2.000	61.5	-1.927	61.5	-0.218
62.5	-9.252	62.5	-11.734	62.5	-9.338	62.5	-2.119
65.0	-14.850	65.0	-17.033	65.0	-13.626	65.0	-2.689
70.0	-11.797	70.0	-12.720	70.0	-10.686	70.0	-6.047
75.0	-7.344	75.0	-7.422	75.0	-6.643	75.0	-4.653
75.6	-21.830	75.6	-22.147	75.6	-23.670	75.6	-2.246
76.3	-19.558	76.3	-19.621	76.3	-21.711	76.3	-2.436
77.1	1.308	77.1	-15.246	77.1	-13.503	77.1	1.492
78.6	4.298	78.6	6.133	78.6	5.974	78.6	0.605
80.0	-9.507	80.0	-8.962	80.0	-8.909	80.0	-4.336
85.0	-9.380	85.0	-3.540	85.0	-4.867	85.0	-3.893
90.0	-1.428	90.0	-0.952	90.0	-0.947	90.0	-1.802
95.0	-8.028	95.0	-0.151	95.0	-0.273	95.0	-1.169
2.5	-0.982	2.5	7.365	2.5	1.074	2.5	0.415
5.0	-0.664	5.0	6.195	5.0	4.382	5.0	0.479
7.5	-0.283	7.5	4.839	7.5	4.504	7.5	0.352
10.0	0.099	10.0	3.915	10.0	3.831	10.0	0.479
15.0	0.544	15.0	3.915	15.0	2.299	15.0	0.289
20.0	1.053	20.0	2.059	20.0	1.442	20.0	0.352
30.0	1.117	30.0	1.266	30.0	1.013	30.0	0.479
50.0	1.562	50.0	3.114	50.0	2.973	50.0	0.479
65.0	4.488	65.0	7.304	65.0	7.505	65.0	0.669
70.0	4.679	70.0	7.673	70.0	7.260	70.0	0.605
76.8	1.371	76.8	8.351	76.8	0.033	76.8	0.669
77.1	6.015	77.1	7.488	77.1	7.015	77.1	0.732
80.0	4.170	80.0	6.318	80.0	6.525	80.0	0.859
85.0	7.733	85.0	8.351	85.0	7.750	85.0	0.415
90.0	7.160	90.0	8.289	90.0	7.199	90.0	0.225
95.0	6.142	95.0	8.228	95.0	6.342	95.0	0.162
TOTAL NORMAL COEFFICIENT							
CN =	6.33	9.89	7.11	3.22	4.06	3.61	3.20
							1.68

TABLE V-98

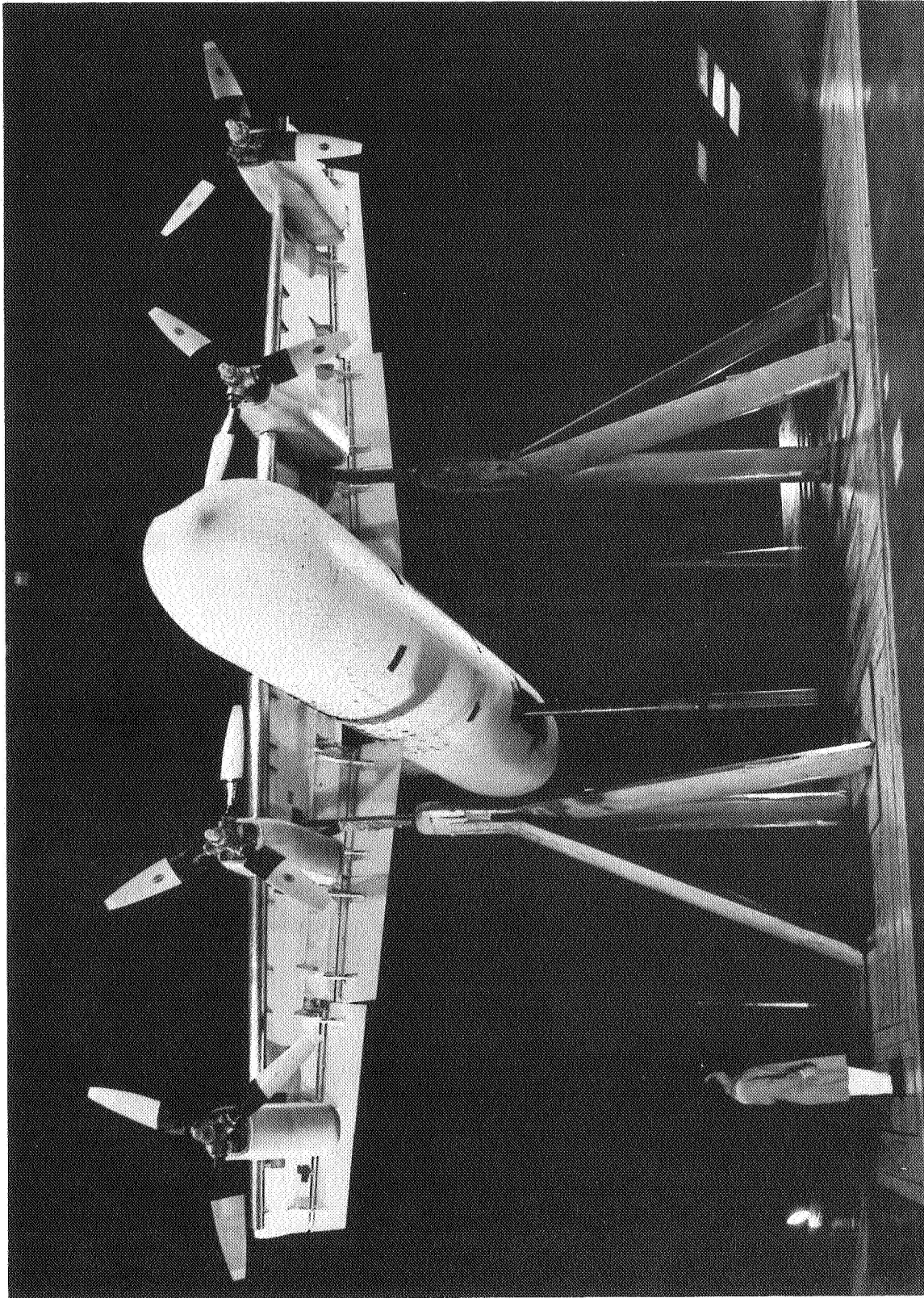
RUN 59, POINT 4 Q = 3.44 ALPHA = 12 TCP = 1.40

VALVE 1 100X CP	VALVE 3 100X CP	VALVE 4 100X CP	VALVE 5 100X CP	VALVE 6 100X CP	VALVE 7 100X CP	VALVE 8 100X CP	VALVE 9 100X CP
0.0	-1.605	0.0	-9.193	0.0	-4.291	0.0	-1.418
1.2	-2.515	1.2	-4.434	1.2	-2.131	1.2	-2.928
2.5	-2.454	2.5	-4.493	2.5	-3.766	2.5	-3.894
5.0	-2.454	5.0	-5.844	5.0	-5.810	5.0	-4.438
7.5	-2.394	7.5	-5.903	7.5	-6.394	7.5	-1.176
10.0	-3.668	10.0	-3.964	10.0	-6.744	10.0	-4.197
15.0	-4.274	15.0	-5.727	15.0	-5.927	15.0	-0.693
20.0	-4.759	20.0	-5.492	20.0	-5.459	20.0	-3.290
25.0	-4.638	25.0	-5.785	25.0	-5.518	25.0	-0.874
30.0	-4.759	30.0	-5.903	30.0	-5.226	30.0	-3.653
40.0	-4.213	40.0	-5.550	40.0	-4.642	40.0	-3.411
50.0	-4.235	50.0	-5.158	50.0	0.906	50.0	-3.290
60.0	-4.256	60.0	-5.668	60.0	-4.233	60.0	-3.230
61.5	-3.850	61.5	-9.083	61.5	-2.715	61.5	-0.330
62.5	-9.187	62.5	-12.835	62.5	-9.723	62.5	-0.451
65.0	-14.646	65.0	-17.182	65.0	-13.752	65.0	-4.559
70.0	-11.007	70.0	-12.482	70.0	-10.540	70.0	-5.344
75.0	-6.761	75.0	-7.724	75.0	-6.919	75.0	-4.015
75.6	-20.958	75.6	-23.820	75.6	-26.016	75.6	-2.565
76.3	-18.528	76.3	-20.178	76.3	-23.272	76.3	-2.505
77.1	0.821	77.1	-16.594	77.1	-15.504	77.1	1.240
78.6	4.642	78.6	6.199	78.6	5.695	78.6	1.301
80.0	-8.884	80.0	-9.956	80.0	-10.365	80.0	-4.317
85.0	-8.492	85.0	-3.670	85.0	-6.627	85.0	-3.713
90.0	-1.909	90.0	-1.203	90.0	-1.547	90.0	-2.082
95.0	-0.695	95.0	-0.733	95.0	-0.145	95.0	-1.720
2.5	0.760	2.5	8.196	2.5	4.060	2.5	0.636
5.0	4.278	5.0	7.021	5.0	4.994	5.0	0.818
7.5	4.703	7.5	5.553	7.5	3.885	7.5	0.878
10.0	3.429	10.0	4.671	10.0	2.892	10.0	0.878
15.0	1.913	15.0	4.613	15.0	1.607	15.0	0.697
20.0	1.064	20.0	2.557	20.0	1.140	20.0	0.818
30.0	0.518	30.0	0.970	30.0	0.848	30.0	0.818
50.0	0.942	50.0	2.322	50.0	1.899	50.0	0.636
65.0	7.857	65.0	8.549	65.0	7.739	65.0	1.905
70.0	5.491	70.0	7.785	70.0	6.805	70.0	1.361
76.8	0.882	76.8	8.431	76.8	0.264	76.8	1.301
77.1	6.644	77.1	7.432	77.1	6.921	77.1	1.663
80.0	6.523	80.0	7.198	80.0	7.213	80.0	1.845
85.0	6.341	85.0	7.844	85.0	7.213	85.0	0.999
90.0	4.703	90.0	6.669	90.0	5.812	90.0	0.757
95.0	3.914	95.0	6.551	95.0	4.177	95.0	0.213
TOTAL NORMAL COEFFICIENT							
CN =	7.27	10.54	7.66	4.02	4.33	4.28	3.80
							2.62

TABLE Y-99

RUN 59, POINT 5 Q = 3.32 ALPHA = 16 TCP = 1.40

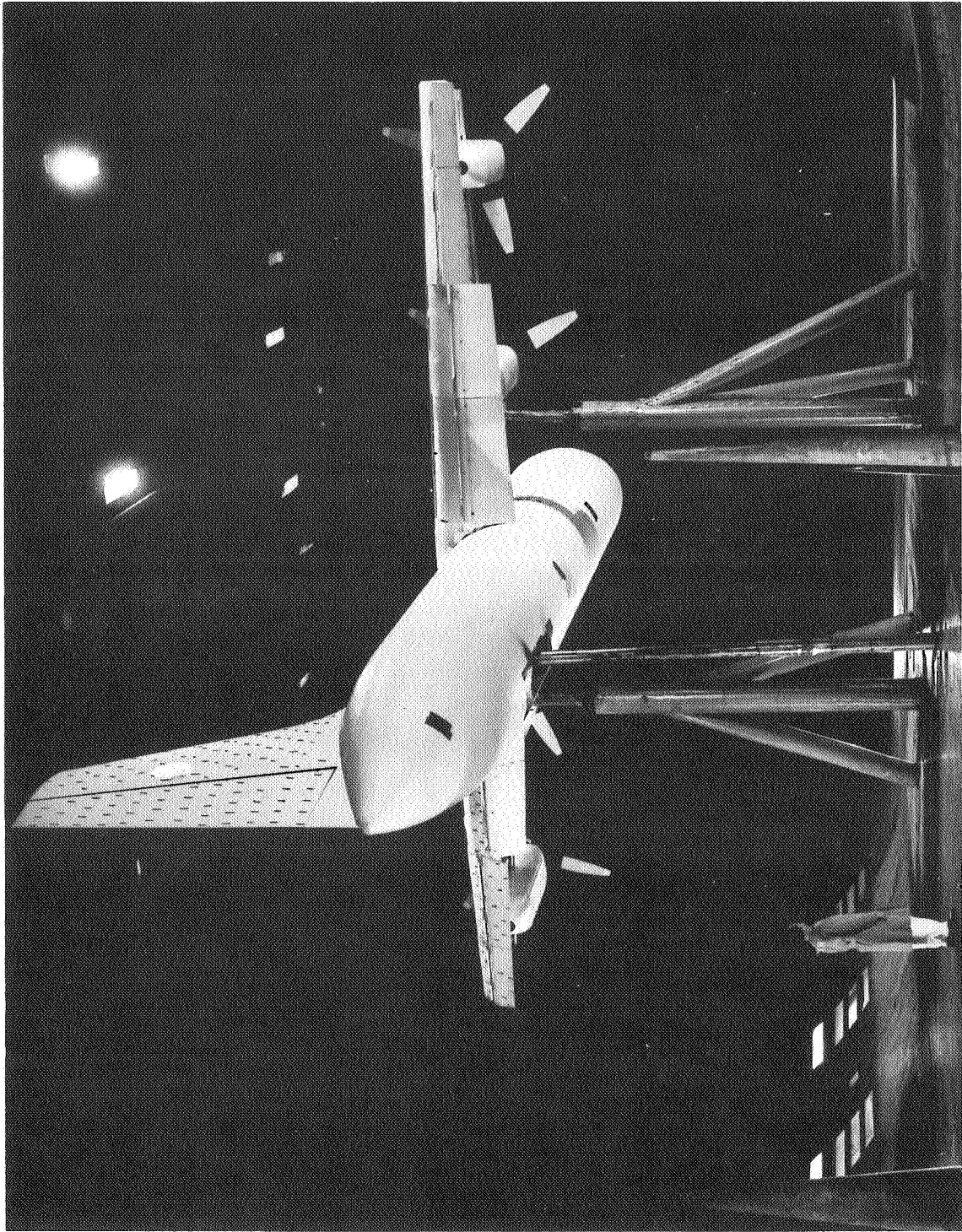
VALVE 1		VALVE 3		VALVE 4		VALVE 5		VALVE 6		VALVE 7		VALVE 8		VALVE 9	
100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP	100X	CP
0.	-5.559	0.	-9.159	0.	-3.780	0.	-2.595	0.	-1.400	0.	0.460	0.	0.309	0.	0.420
1.2	-2.668	1.2	-4.715	1.2	-2.570	1.2	-4.660	1.2	-3.332	1.2	-1.797	1.2	0.422	1.2	0.532
2.5	-2.479	2.5	-4.959	2.5	-4.385	2.5	-5.975	2.5	-4.018	2.5	-2.834	2.5	0.534	2.5	3.277
5.0	-2.479	5.0	-6.541	5.0	-6.200	5.0	-5.912	5.0	-4.143	5.0	-4.602	5.0	0.365	5.0	0.476
7.5	-2.542	7.5	-6.298	7.5	-6.805	7.5	-1.280	7.5	-4.392	7.5	-4.785	7.5	0.478	7.5	0.364
10.0	-4.113	10.0	-4.289	10.0	-7.290	10.0	-3.972	10.0	-4.143	10.0	-4.602	10.0	-5.088	10.0	-3.949
15.0	-4.752	15.0	-6.115	15.0	-6.382	15.0	-0.654	15.0	-4.392	15.0	-4.236	15.0	-4.695	15.0	-3.725
20.0	-3.056	20.0	-5.811	20.0	-5.837	20.0	-3.095	20.0	-4.828	20.0	-4.114	20.0	-4.470	20.0	-3.669
25.0	-4.930	25.0	-6.115	25.0	-5.777	25.0	-0.717	25.0	-4.766	25.0	-4.053	25.0	-4.132	25.0	-3.557
30.0	-4.930	30.0	-6.237	30.0	-5.353	30.0	-3.471	30.0	-4.392	30.0	-3.871	30.0	-3.851	30.0	-3.221
40.0	-4.365	40.0	-5.750	40.0	-4.748	40.0	-3.408	40.0	-4.205	40.0	-3.566	40.0	-3.401	40.0	-3.221
50.0	-4.302	50.0	-5.141	50.0	0.758	50.0	-3.283	50.0	-4.205	50.0	-3.505	50.0	-3.120	50.0	-2.997
60.0	-4.428	60.0	-6.115	60.0	-4.143	60.0	-3.283	60.0	-3.852	60.0	-3.444	60.0	-2.895	60.0	-3.021
61.5	-3.611	61.5	-3.924	61.5	-3.235	61.5	-0.529	61.5	-0.402	61.5	-0.150	61.5	4.975	61.5	-0.420
62.5	-8.324	62.5	-12.506	62.5	-9.529	62.5	-0.717	62.5	-2.210	62.5	-1.675	62.5	6.325	62.5	-2.269
65.0	-14.169	65.0	-16.706	65.0	-13.341	65.0	-3.909	65.0	-5.327	65.0	-5.029	65.0	-4.301	65.0	-5.070
70.0	-10.524	70.0	-12.202	70.0	-9.710	70.0	-4.410	70.0	-5.452	70.0	-6.005	70.0	-4.076	70.0	4.789
75.0	-6.502	75.0	-7.576	75.0	-5.837	75.0	-3.596	75.0	-4.080	75.0	-4.114	75.0	0.928	75.0	-4.510
75.6	-20.014	75.6	-21.941	75.6	-22.296	75.6	-2.469	75.6	-2.460	75.6	-3.261	75.6	-2.221	75.6	-3.109
76.3	-17.311	76.3	-18.837	76.3	-18.968	76.3	-2.469	76.3	-3.332	76.3	-4.175	76.3	-2.671	76.3	4.005
77.1	0.789	77.1	-15.063	77.1	-12.554	77.1	1.036	77.1	-3.769	77.1	-3.810	77.1	-2.671	77.1	0.252
78.6	4.685	78.6	6.059	78.6	6.083	78.6	1.286	78.6	0.408	78.6	1.314	78.6	0.590	78.6	5.798
80.0	-8.701	80.0	-8.793	80.0	-8.560	80.0	-3.972	80.0	-3.706	80.0	-3.139	80.0	-1.659	80.0	-3.893
85.0	-8.638	85.0	-2.767	85.0	-5.414	85.0	-3.533	85.0	-2.584	85.0	-1.858	85.0	-1.209	85.0	-2.549
90.0	-1.411	90.0	-1.246	90.0	-1.662	90.0	-1.969	90.0	-1.337	90.0	-0.577	90.0	-0.703	90.0	-1.149
95.0	-0.468	95.0	-1.063	95.0	-0.512	95.0	-1.468	95.0	-0.901	95.0	-0.211	95.0	-0.590	95.0	-1.037
2.5	1.354	2.5	8.859	2.5	4.813	2.5	0.473	2.5	1.468	2.5	0.399	2.5	0.422	2.5	0.476
5.0	4.245	5.0	7.337	5.0	4.692	5.0	0.723	5.0	1.468	5.0	0.399	5.0	0.478	5.0	0.420
7.5	4.120	7.5	5.876	7.5	3.300	7.5	0.848	7.5	0.408	7.5	0.399	7.5	0.478	7.5	0.476
10.0	3.051	10.0	4.902	10.0	2.513	10.0	0.911	10.0	1.156	10.0	0.399	10.0	0.928	10.0	0.924
15.0	1.480	15.0	4.902	15.0	1.485	15.0	0.723	15.0	0.284	15.0	0.460	15.0	0.759	15.0	0.756
20.0	0.852	20.0	2.589	20.0	1.061	20.0	0.911	20.0	0.346	20.0	0.521	20.0	0.871	20.0	0.924
30.0	0.537	30.0	1.007	30.0	0.879	30.0	0.911	30.0	0.595	30.0	0.460	30.0	0.590	30.0	0.644
50.0	0.852	50.0	2.041	50.0	1.666	50.0	0.598	50.0	0.408	50.0	0.765	50.0	0.871	50.0	0.364
65.0	7.011	65.0	9.163	65.0	8.141	65.0	2.100	65.0	0.845	65.0	1.558	65.0	6.100	65.0	0.644
70.0	5.440	70.0	7.459	70.0	6.689	70.0	1.098	70.0	0.658	70.0	1.923	70.0	0.590	70.0	0.588
76.8	0.789	76.8	8.006	76.8	0.274	76.8	1.098	76.8	0.658	76.8	1.497	76.8	0.478	76.8	0.644
77.1	6.571	77.1	7.093	77.1	7.112	77.1	1.474	77.1	0.658	77.1	1.679	77.1	0.646	77.1	0.364
80.0	6.697	80.0	7.580	80.0	7.233	80.0	1.349	80.0	0.969	80.0	1.740	80.0	0.478	80.0	0.700
85.0	6.759	85.0	6.180	85.0	6.931	85.0	0.973	85.0	0.720	85.0	1.497	85.0	0.478	85.0	0.588
90.0	4.497	90.0	5.754	90.0	4.813	90.0	0.535	90.0	0.533	90.0	1.192	90.0	0.309	90.0	0.588
95.0	3.177	95.0	4.415	95.0	3.058	95.0	0.222	95.0	0.346	95.0	0.948	95.0	0.646	95.0	0.420
TOTAL NORMAL COEFFICIENT															
CN = 7.06		10.42		7.41		3.92		4.51		4.36		3.92		2.89	



A-37367

(a) Front view.

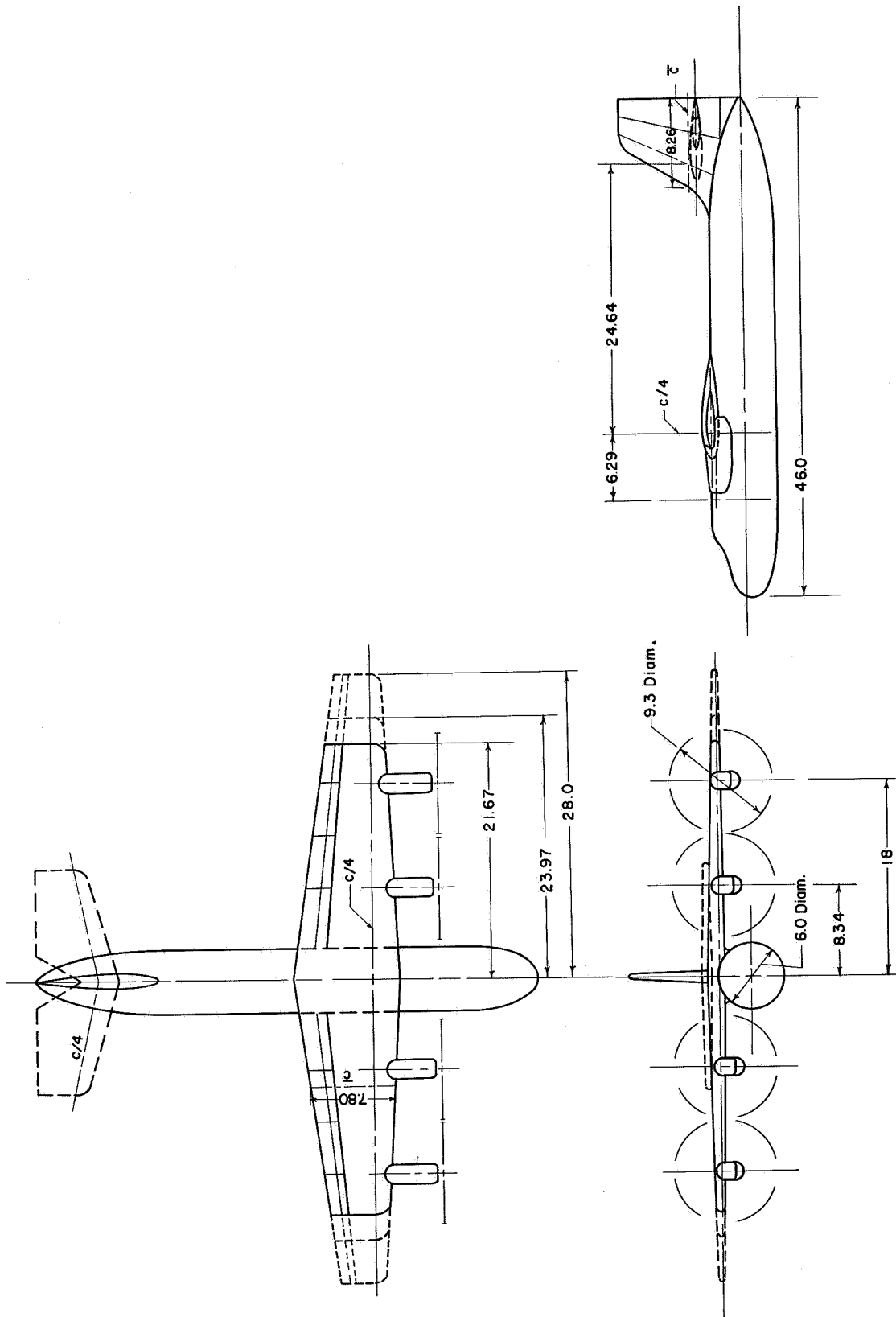
Figure 1.- Model in the Ames 40- by 80-Foot Wind Tunnel.



A-37369

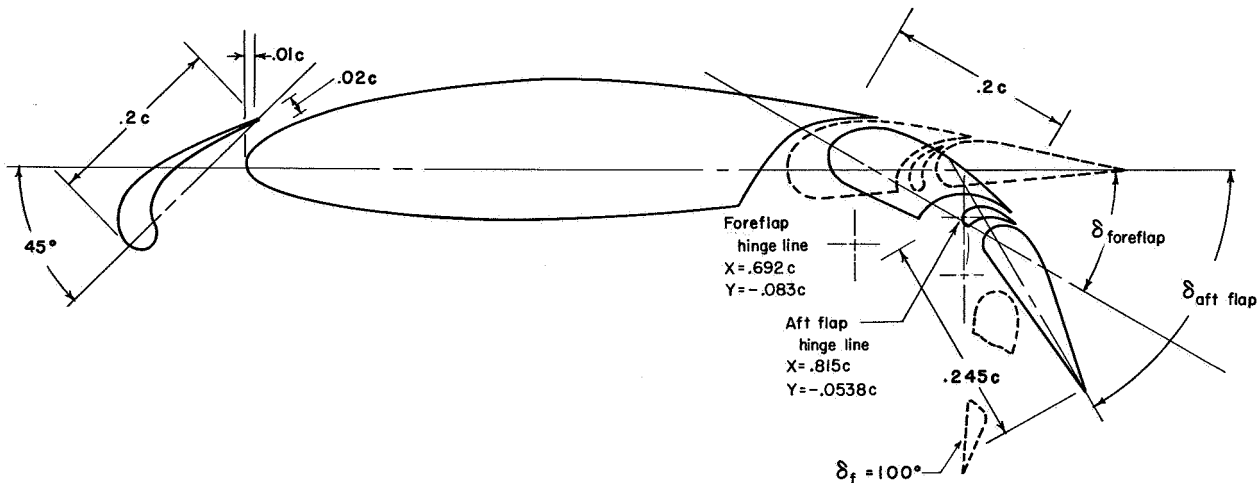
(b) Rear view.

Figure 1.- Concluded.



(a) Three-view sketch of model; dimensions in feet.

Figure 2.- Model geometry.



(b) Geometry of leading-edge slat and triple-slotted flap.

Figure 2.- Concluded.

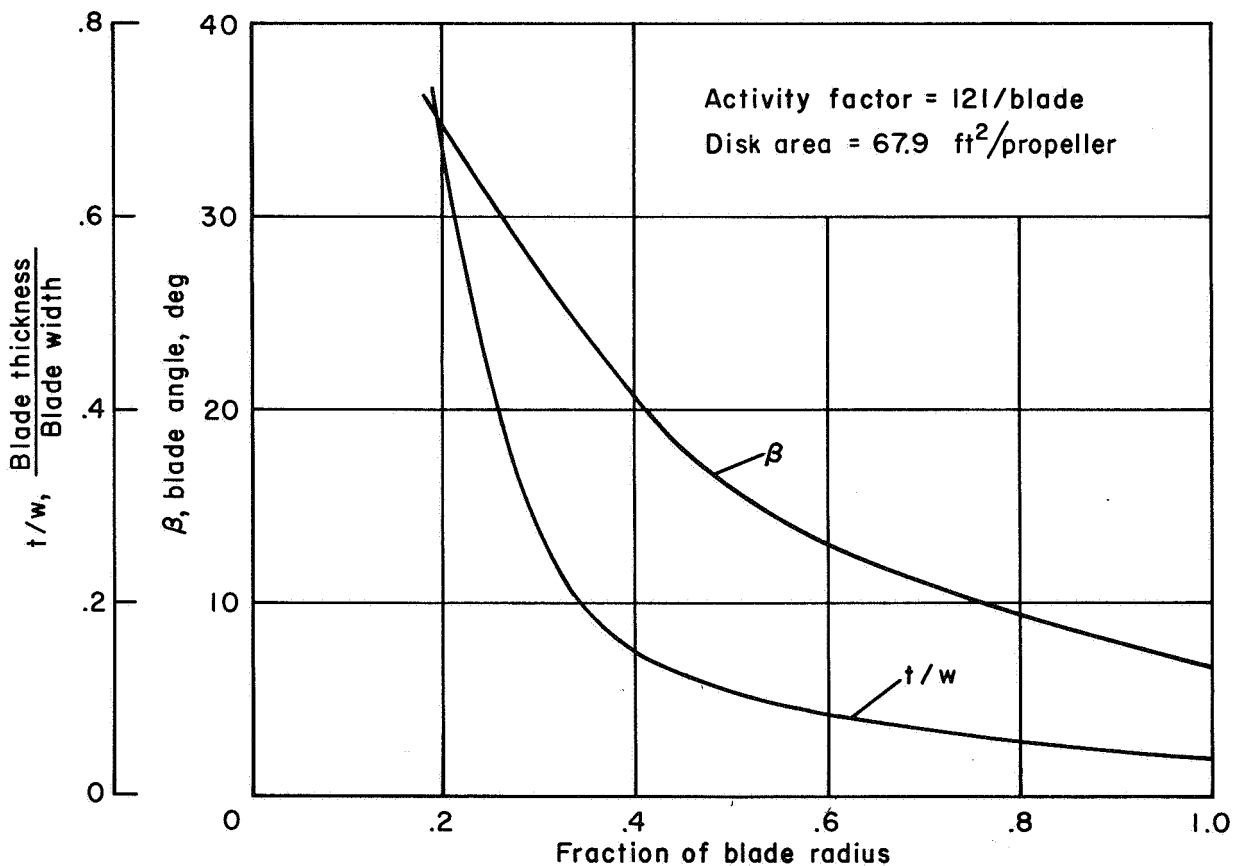


Figure 3.- Propeller blade characteristics.

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