



*Institute of Paper Science & Technology
Atlanta, Georgia*

**CONTINUOUS BASE-LINE STUDY (MODIFIED)
(MILL LINERBOARD DATA FOR JAN-FEB,
MAR-APR, and MAY-JUN, 1990)**

Project 2694-1

Report One Hundred Seven

**A Progress Report
to the
CONTAINERBOARD & KRAFT PAPER GROUP
of the
AMERICAN PAPER INSTITUTE**

September 1, 1990

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BASE-LINE
1st HALF, 1990

THE INSTITUTE OF PAPER SCIENCE AND TECHNOLOGY

Atlanta, Georgia

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to

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September 1, 1990

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CONTINUOUS BASE-LINE STUDY (MODIFIED)
(MILL LINERBOARD DATA FOR JAN-FEB, MAR-APR, MAY-JUN, 1990)

SUMMARY

PART I: SUMMARY OF MOISTURE CONTENT DATA
(JAN-JUN, 1990)

		Moisture Content, %		
Linerboard Grade Wt.		JAN-FEB	MAR-APR	MAY-JUN
26 Lb.	Max.	7.0	6.9	7.0
	Min.	4.6	4.4	4.6
	Ave.	5.6(15)	5.6(14)	5.7(12)
33 Lb.	Max.	7.0	7.0	7.0
	Min.	4.2	4.2	4.2
	Ave.	5.8(21)	5.8(23)	5.8(22)
38 Lb.	Max.	6.7	6.7	6.6
	Min.	4.9	5.3	5.5
	Ave.	5.9(13)	6.0(13)	6.0(12)
42 Lb.	Max.	6.8	6.9	6.8
	Min.	4.9	4.6	5.0
	Ave.	5.9(33)	6.0(33)	6.0(34)
69 Lb.	Max.	7.5	7.5	7.4
	Min.	5.6	5.4	5.7
	Ave.	6.5(20)	6.5(22)	6.5(21)
90 Lb.	Max.	7.3	7.2	7.4
	Min.	5.8	5.8	5.8
	Ave.	6.4(10)	6.5(13)	6.5(12)

Max. and Min. values are current machine averages.

Ave. is current C.K.P.G. average, number of machines is indicated in parentheses.

Part II: SUMMARY OF Adjusted Basis Weight DATA
(JAN-JUN, 1990)

		Adjusted Basis Weight, Lb/M sq ft		
Linerboard Grade Wt.		JAN-FEB	MAR-APR	MAY-JUN
26 Lb.	Max.	28.1	26.7	26.8
	Min.	26.0	26.0	26.0
	Ave.	26.4 (17)	26.2 (16)	26.3 (14)
33 Lb.	Max.	34.5	34.5	34.5
	Min.	33.0	33.0	33.0
	Ave.	33.4 (26)	33.4 (27)	33.4 (25)
38 Lb.	Max.	42.2	40.9	41.1
	Min.	37.7	37.7	37.8
	Ave.	38.8 (17)	38.6 (16)	38.8 (15)
42 Lb.	Max.	43.3	43.5	44.1
	Min.	41.5	41.5	41.5
	Ave.	42.3 (38)	42.3 (37)	42.3 (38)
69 Lb.	Max.	70.8	70.9	70.9
	Min.	68.7	68.0	68.6
	Ave.	69.4 (24)	69.4 (25)	69.4 (24)
90 Lb.	Max.	91.8	91.5	91.8
	Min.	90.1	89.3	88.5
	Ave.	90.6 (11)	90.3 (13)	90.4 (12)

Max. and Min. values are current machine averages.

Ave. is current C.K.P.G. average, number of machines is indicated in parentheses.

Part III: SUMMARY OF Caliper DATA
(JAN-JUN, 1990)

Caliper, pt.

Linerboard Grade Wt.		JAN-FEB	MAR-APR	MAY-JUN
26 Lb.	Max.	8.5	8.4	8.4
	Min.	6.6	6.6	6.5
	Ave.	7.5(17)	7.5(16)	7.5(14)
33 Lb.	Max.	10.8	10.7	10.9
	Min.	8.4	8.4	8.3
	Ave.	9.4(26)	9.5(27)	9.4(25)
38 Lb.	Max.	12.4	11.5	12.1
	Min.	10.1	10.1	10.2
	Ave.	10.9(17)	10.8(15)	10.8(15)
42 Lb.	Max.	12.9	12.9	13.0
	Min.	10.7	10.5	10.6
	Ave.	11.7(38)	11.7(37)	11.7(38)
69 Lb.	Max.	20.4	20.6	20.2
	Min.	17.2	17.2	16.8
	Ave.	19.0(24)	19.1(25)	18.8(24)
90 Lb.	Max.	26.5	26.4	26.3
	Min.	21.7	18.4	20.0
	Ave.	24.3(11)	24.4(13)	24.1(12)

Max. and Min. values are current machine averages.

Ave. is current C.K.P.G. average, number of machines is indicated in parentheses.

Part IV: SUMMARY OF Bursting Strength DATA
(JAN-JUN, 1990)

		Bursting Strength, psig		
Linerboard Grade Wt.		JAN-FEB	MAR-APR	MAY-JUN
26 Lb.	Max.	80.2	80.0	77.7
	Min.	65.0	64.0	66.0
	Ave.	72.7(17)	71.6(16)	71.8(14)
33 Lb.	Max.	103.4	99.5	105.8
	Min.	78.0	78.0	78.0
	Ave.	88.0(26)	88.1(27)	87.1(24)
38 Lb.	Max.	115.3	109.9	117.5
	Min.	91.0	88.0	92.4
	Ave.	100.0(17)	97.7(16)	99.0(15)
42 Lb.	Max.	128.0	131.0	121.8
	Min.	98.7	99.3	101.5
	Ave.	107.5(38)	106.9(37)	107.0(38)
69 Lb.	Max.	166.3	173.0	172.2
	Min.	129.0	128.0	130.0
	Ave.	146.4(24)	147.7(25)	146.3(24)
90 Lb.	Max.	196.0	189.0	197.0
	Min.	153.5	157.0	149.0
	Ave.	175.9(11)	174.0(13)	173.1(12)

Max. and Min. values are current machine averages.

Ave. is current C.K.P.G. average, number of machines is indicated in parentheses.

Part V: SUMMARY OF CD Ring Crush DATA
(JAN-JUN, 1990)

CD Ring Crush, lb				
Linerboard Grade Wt.		JAN-FEB	MAR-APR	MAY-JUN
		Max. Min. Ave.	Max. Min. Ave.	Max. Min. Ave.
26 Lb.		53.7 28.5 41.4 (10)	49.0 29.0 39.1 (8)	50.0 31.9 42.0 (7)
33 Lb.		77.0 44.0 59.6 (17)	72.0 44.5 59.5 (17)	72.0 41.0 58.7 (16)
38 Lb.		92.0 60.0 74.2 (13)	90.0 58.0 73.5 (14)	87.5 67.0 76.8 (12)
42 Lb.		100.0 67.5 81.1 (27)	101.0 69.0 81.0 (25)	94.0 65.0 80.1 (27)
69 Lb.		148.0 110.0 130.5 (17)	162.0 111.0 130.9 (18)	152.0 112.0 130.4 (18)
90 Lb.		180.0 150.0 164.7 (7)	189.0 145.0 170.7 (8)	190.0 152.0 172.9 (9)

Max. and Min. values are current machine averages.

Ave. is current C.K.P.G. average, number of machines is indicated in parentheses.

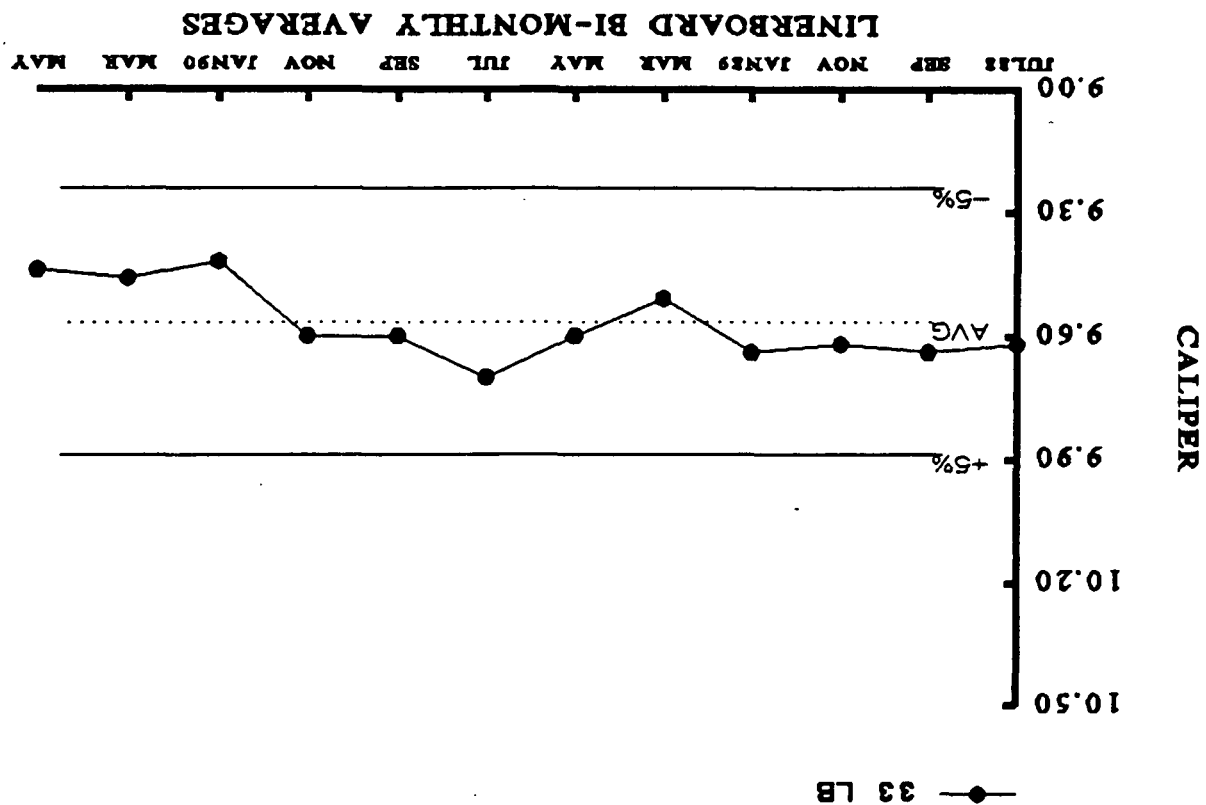
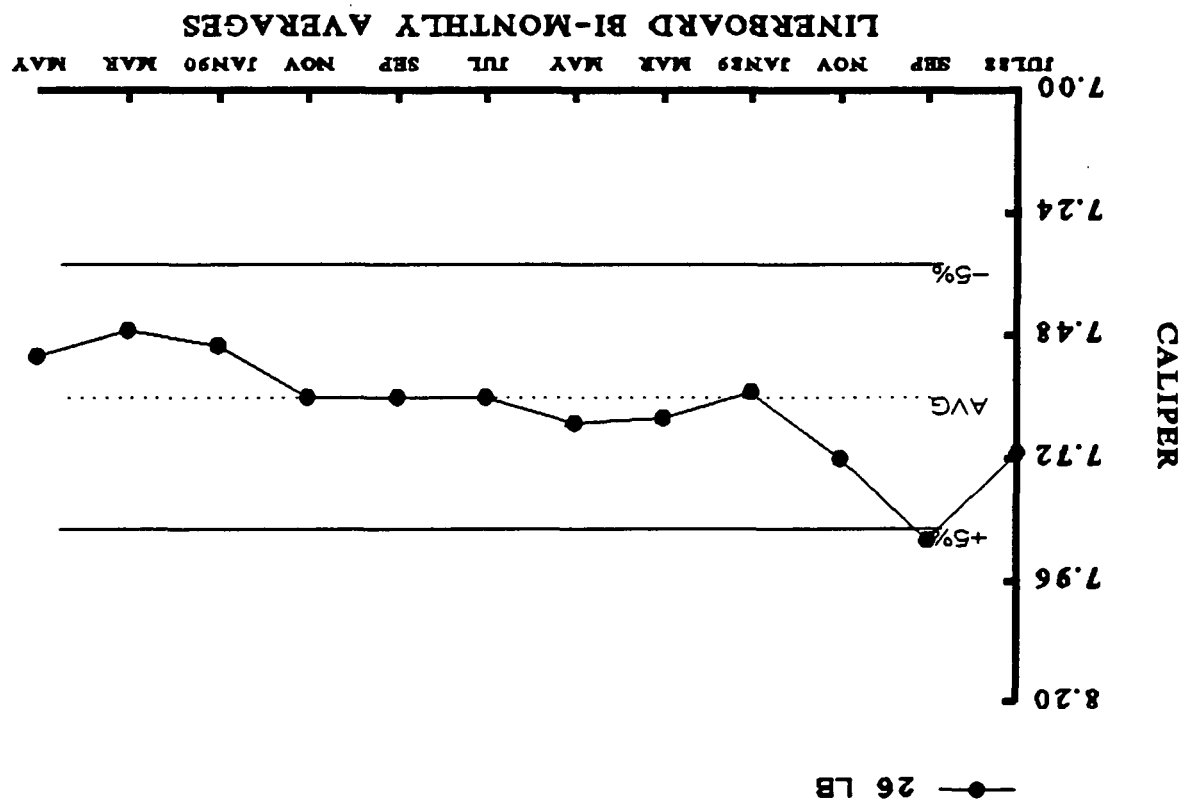
Part VI: SUMMARY OF STFI DATA
(JAN-JUN, 1990)

		STFI, lb/in		
Linerboard Grade Wt.		JAN-FEB	MAR-APR	MAY-JUN
26 Lb.	Max.	16.0	16.0	15.3
	Min.	11.4	11.3	11.9
	Ave.	13.7(7)	13.7(7)	13.9(5)
33 Lb.	Max.	19.0	18.5	18.6
	Min.	15.2	14.3	9.0
	Ave.	17.3(9)	16.8(10)	16.2(11)
38 Lb.	Max.	21.1	21.3	21.4
	Min.	17.9	17.0	17.7
	Ave.	19.8(5)	19.4(5)	19.6(4)
42 Lb.	Max.	23.5	42.0	24.0
	Min.	19.2	16.4	19.3
	Ave.	21.3(12)	22.5(13)	21.3(14)
69 Lb.	Max.	34.5	34.0	39.2
	Min.	28.6	28.4	12.0
	Ave.	32.2(7)	31.4(9)	30.5(8)
90 Lb.	Max.	44.0	43.3	44.0
	Min.	37.2	39.5	38.9
	Ave.	41.9(4)	41.9(5)	41.2(4)

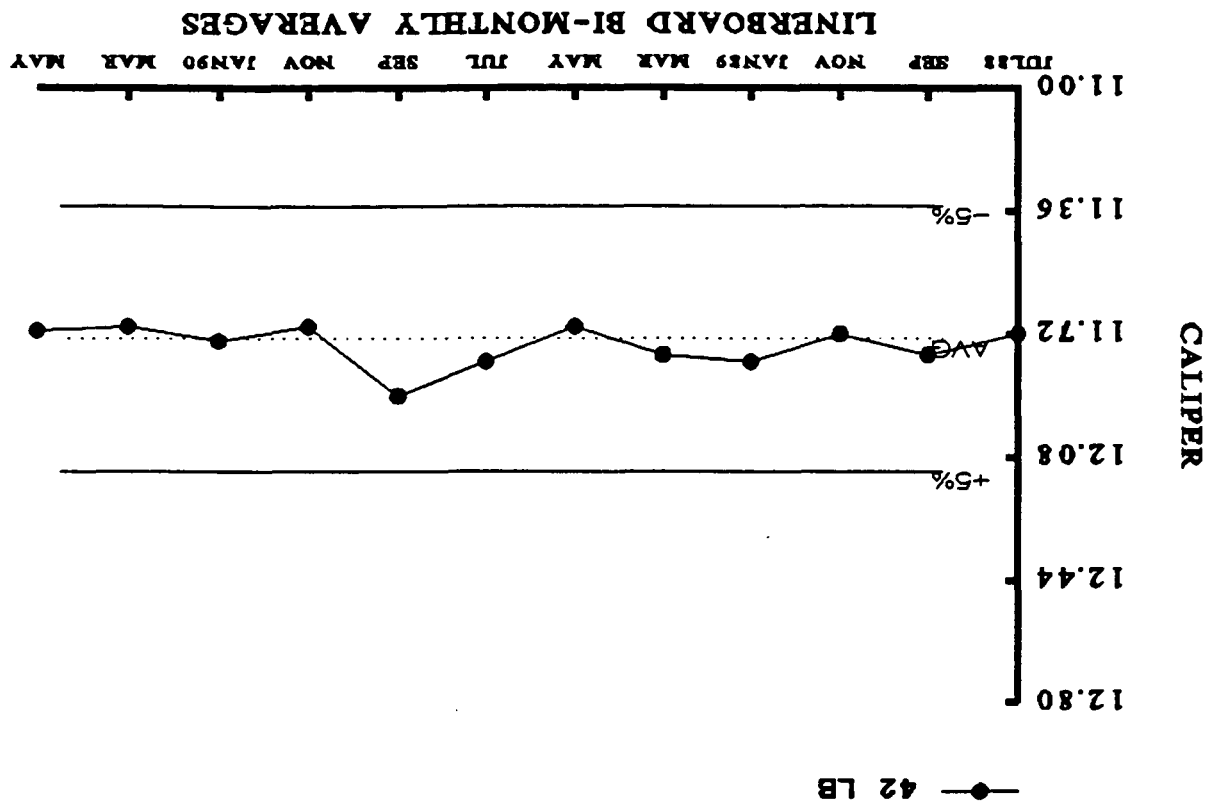
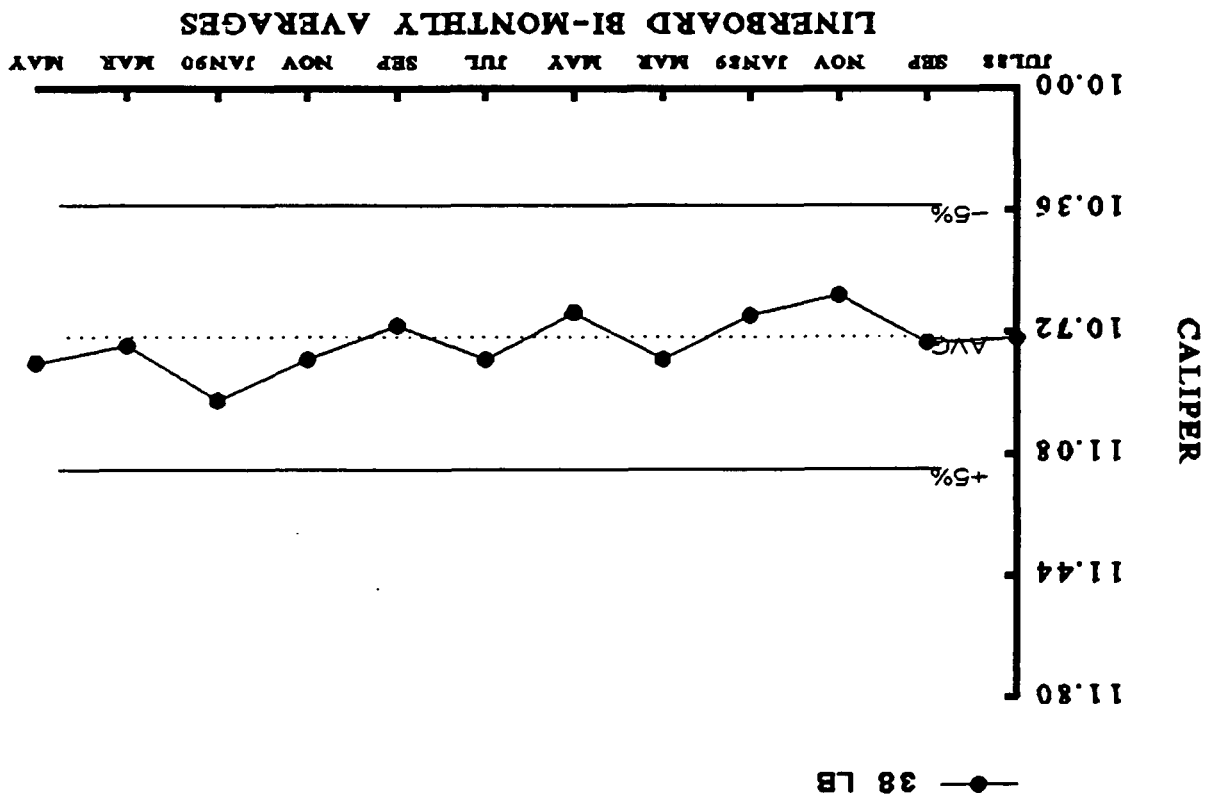
Max. and Min. values are current machine averages.

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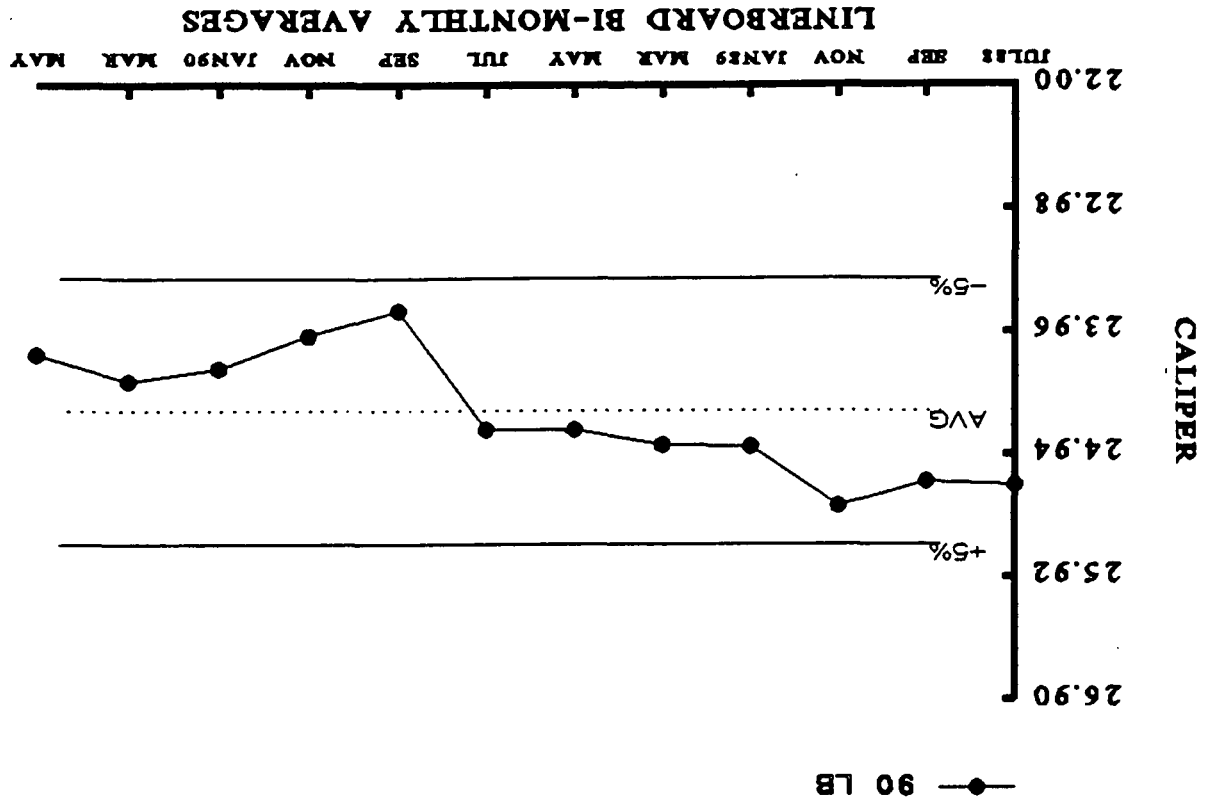
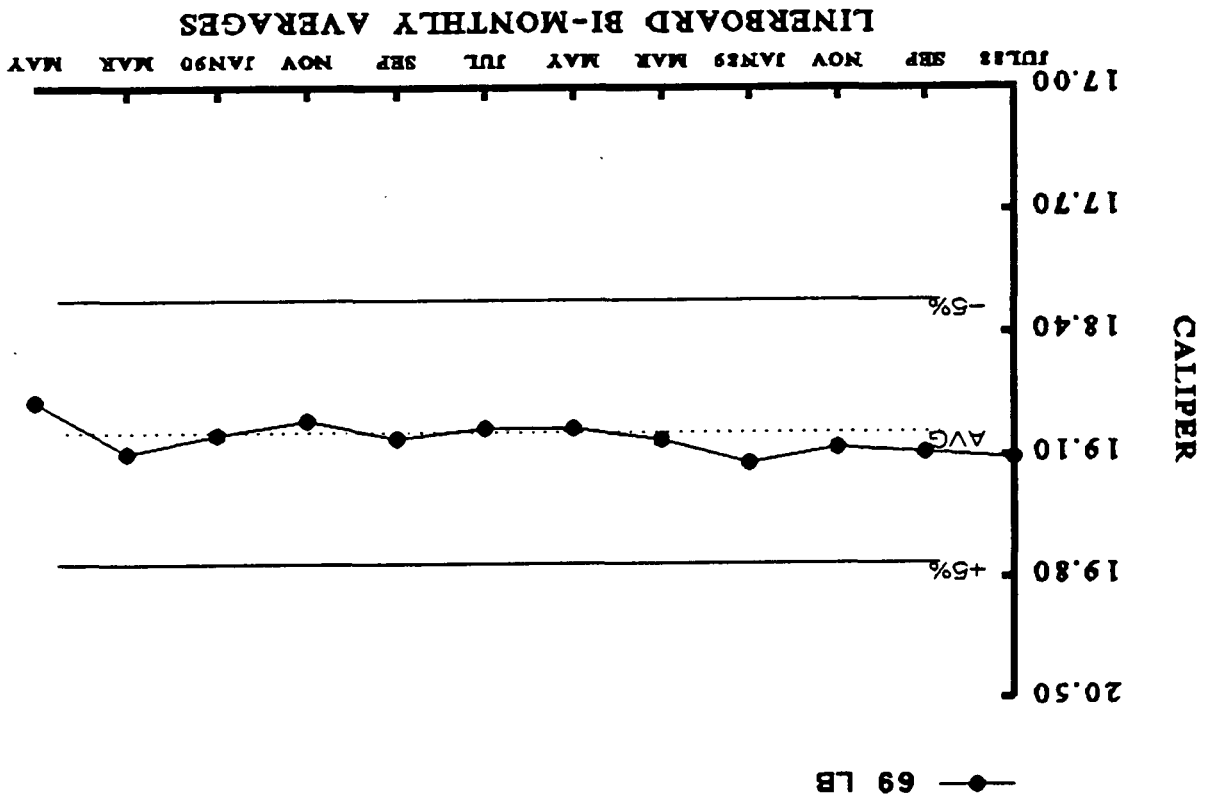
2 YEAR TREND PLOT FOR CALIPER



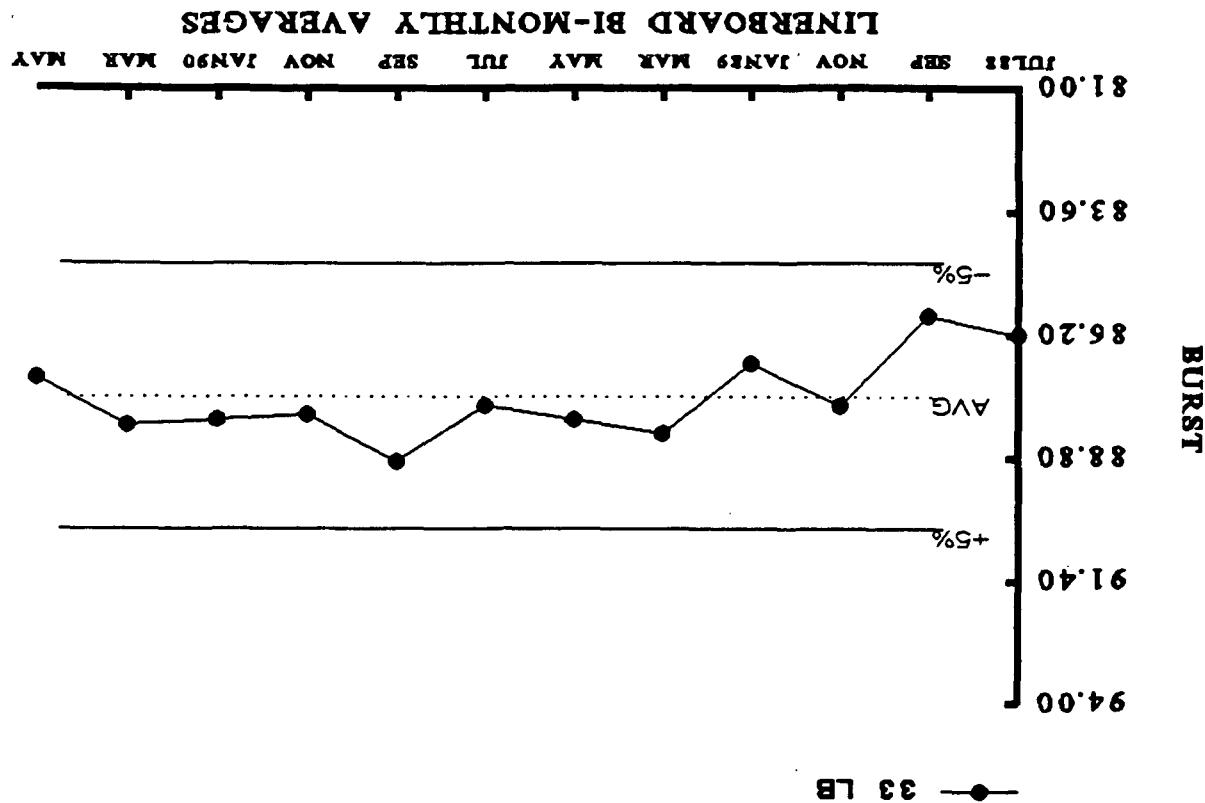
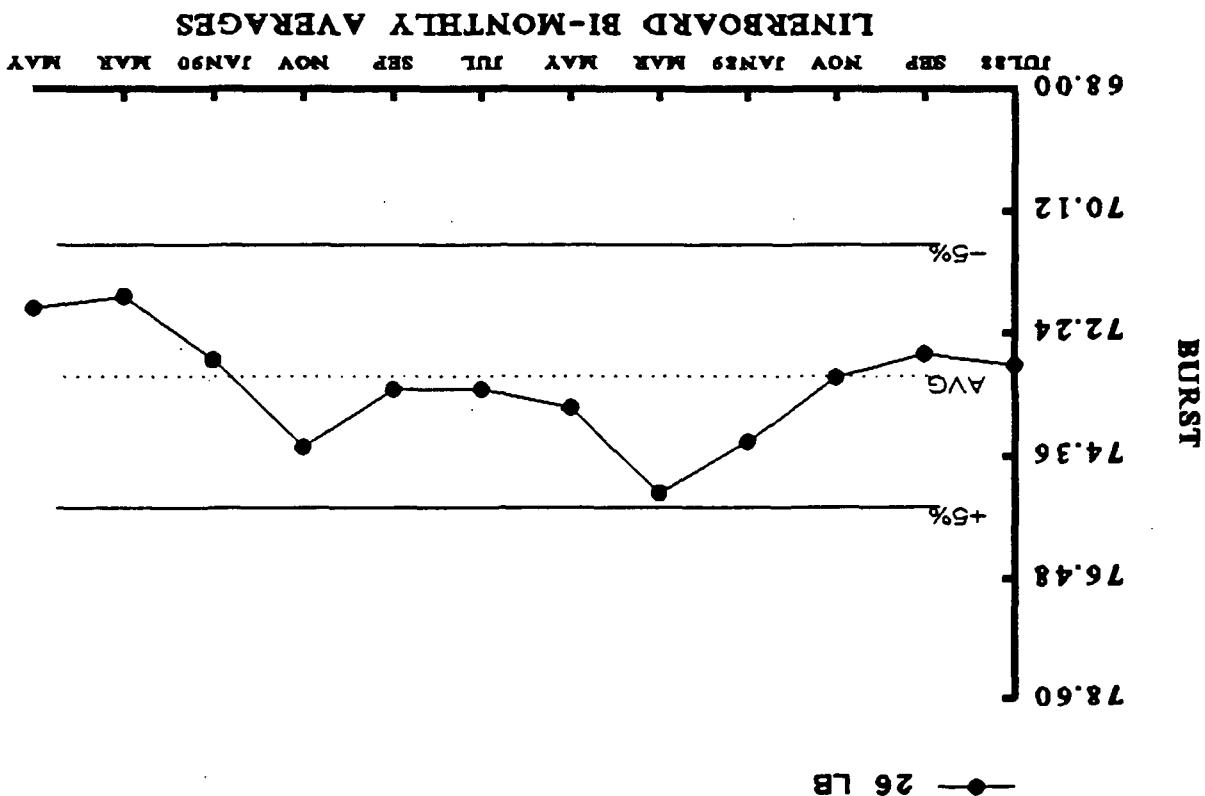
2 YEAR TREND PLOT FOR CALIPER



2 YEAR TREND PLOT FOR CALIPER

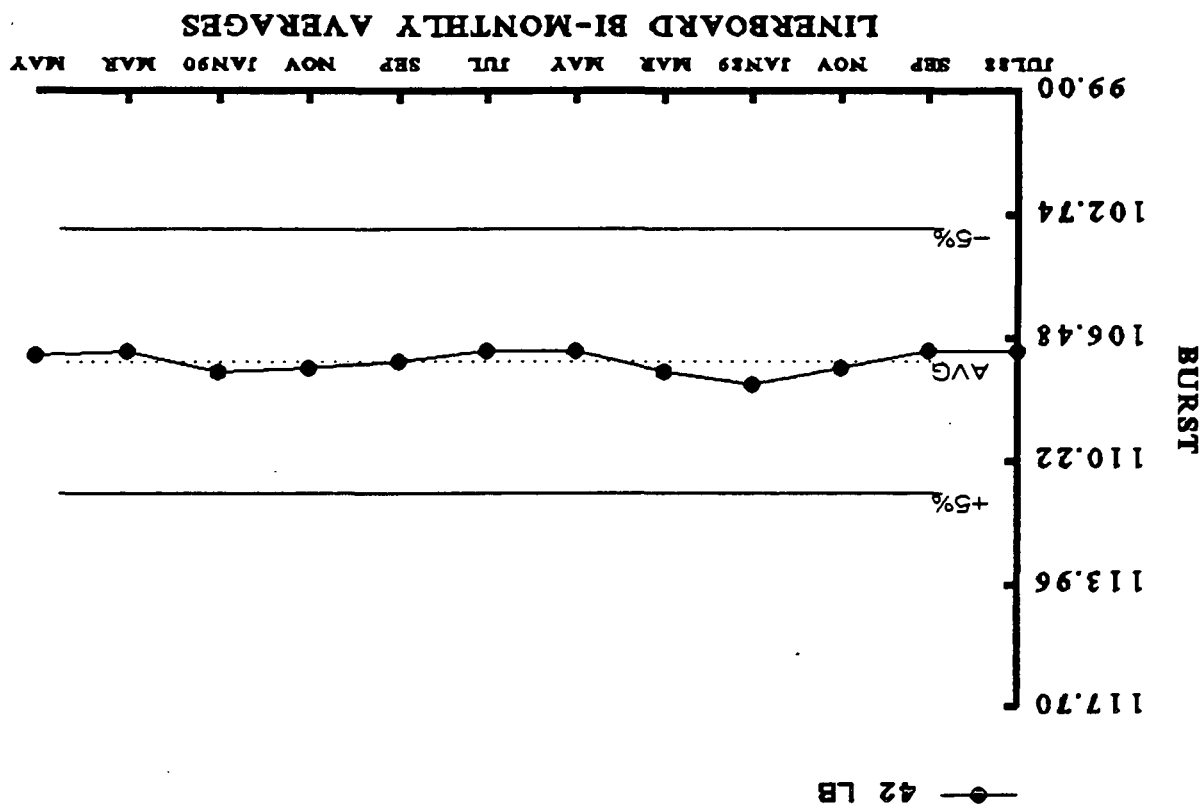
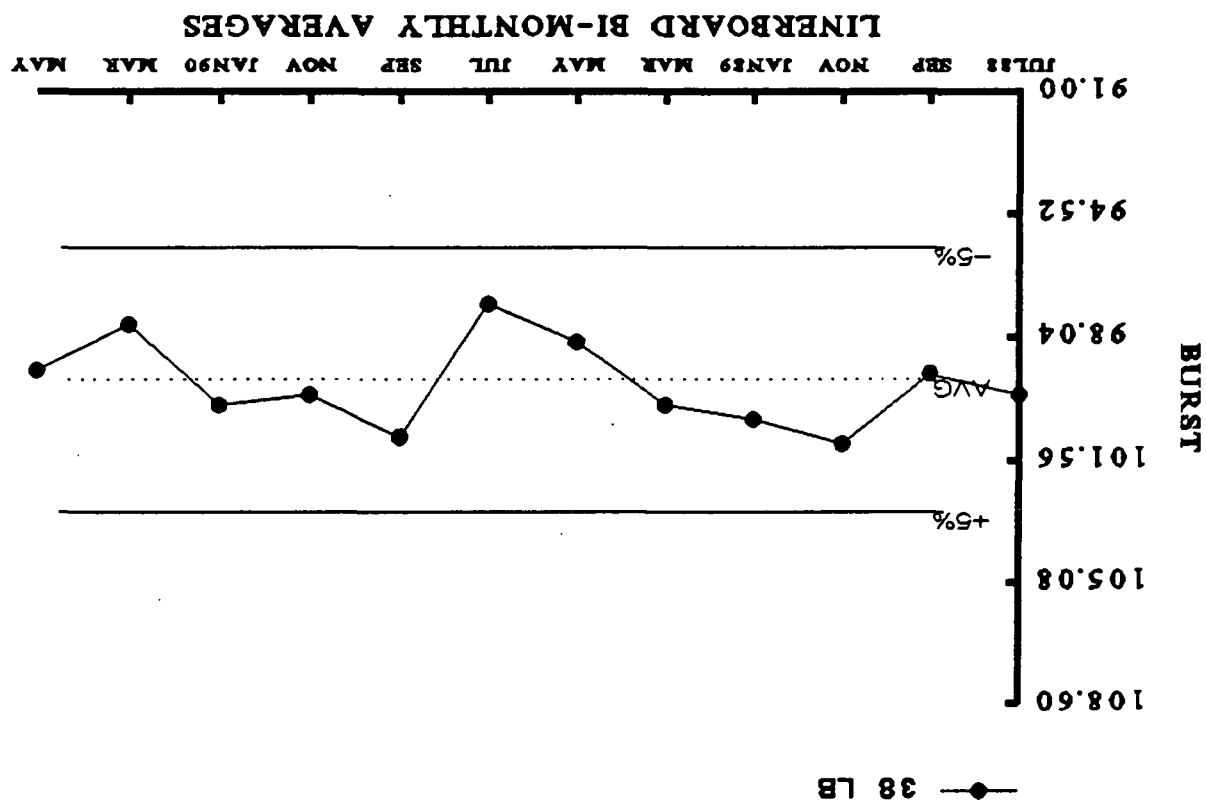


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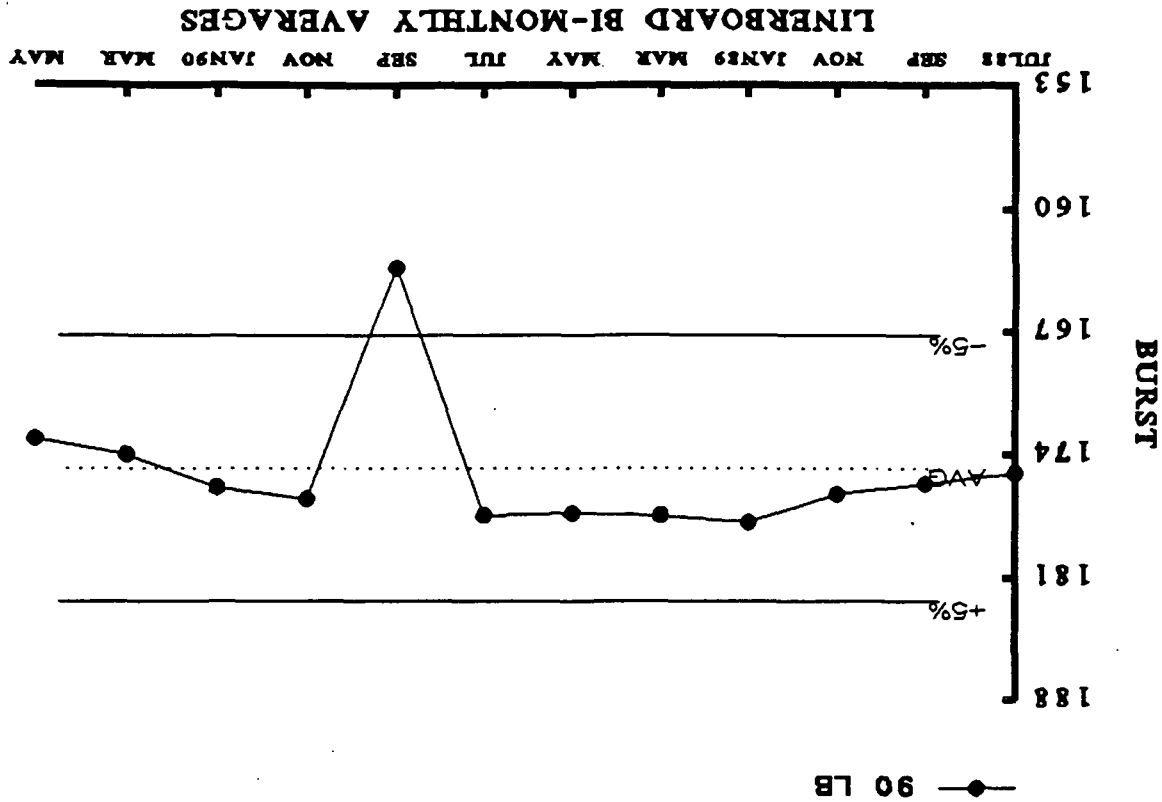
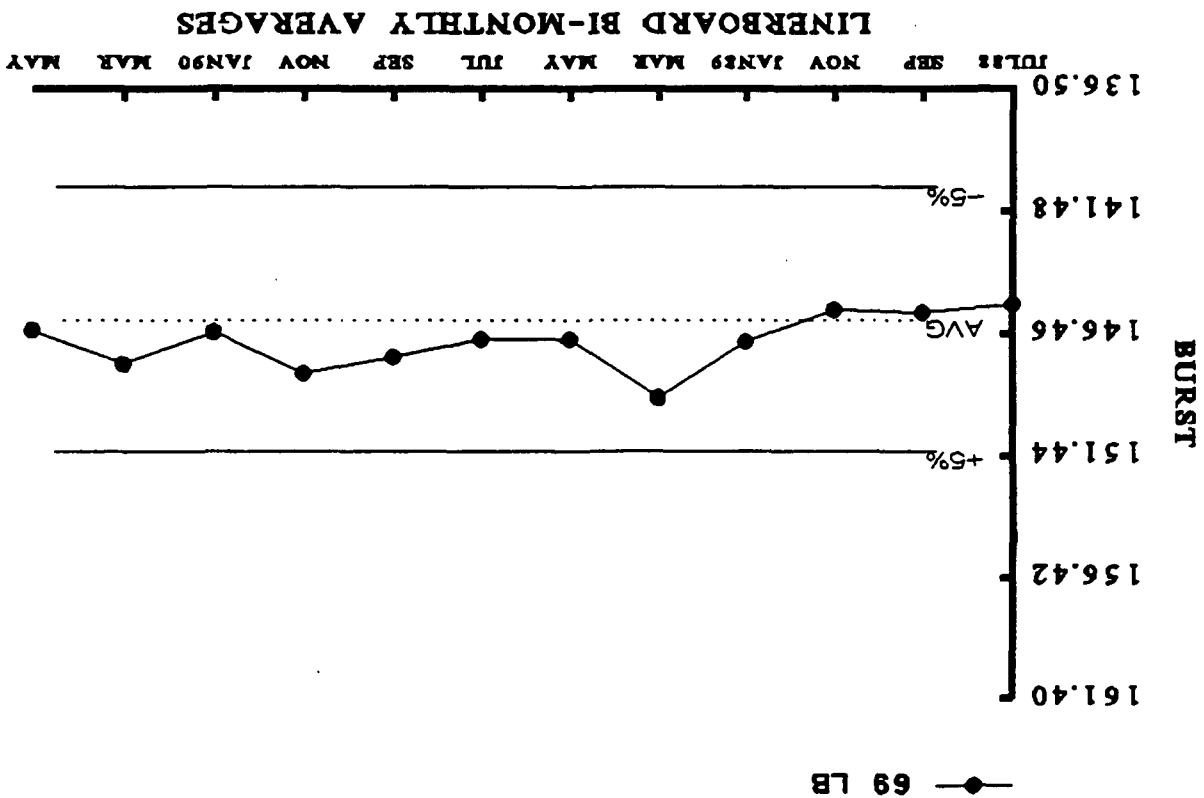


LINEBOARD BI-MONTHLY AVERAGES

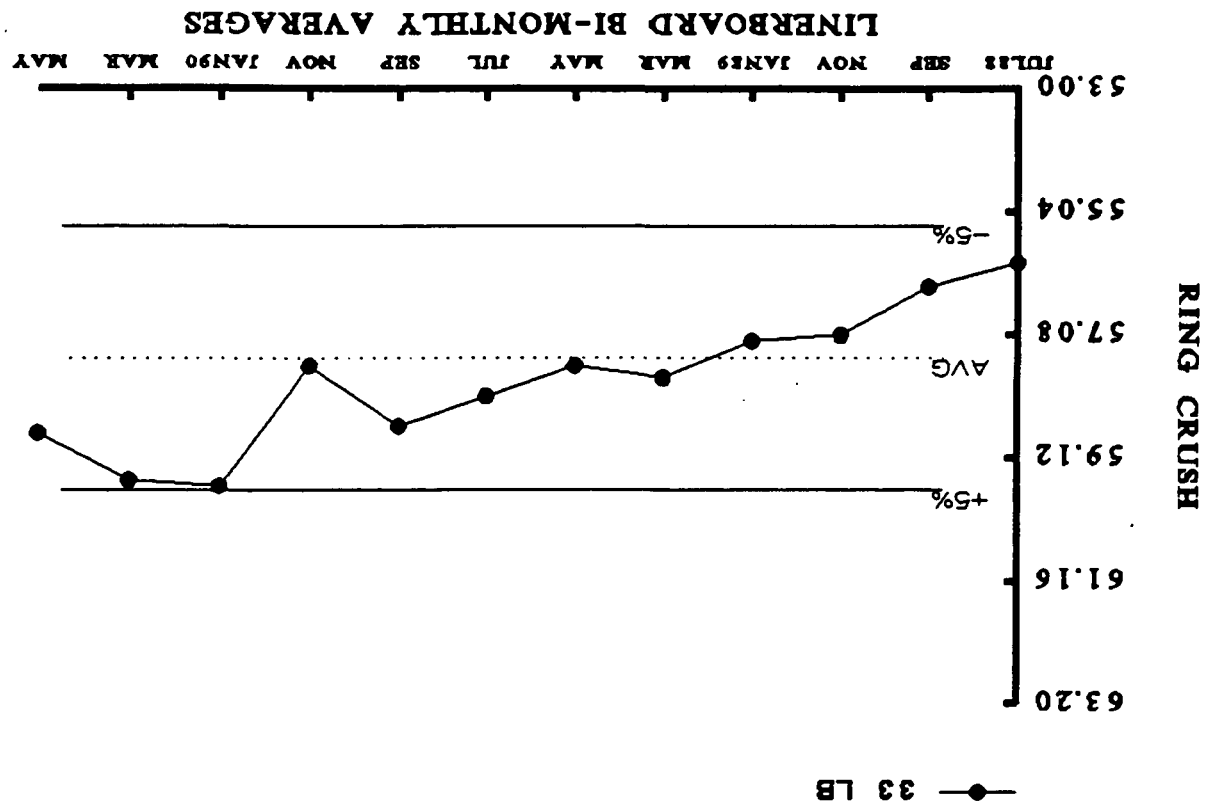
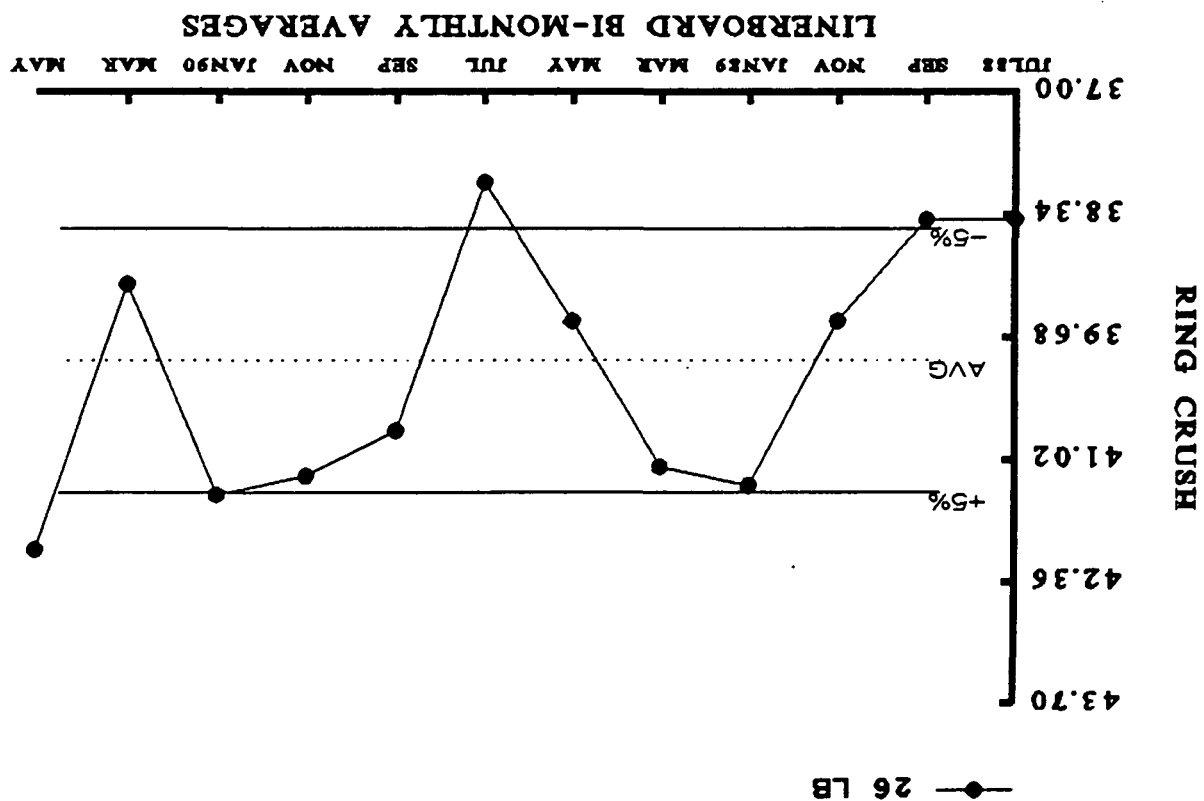
2 YEAR TREND PLOT FOR BURST



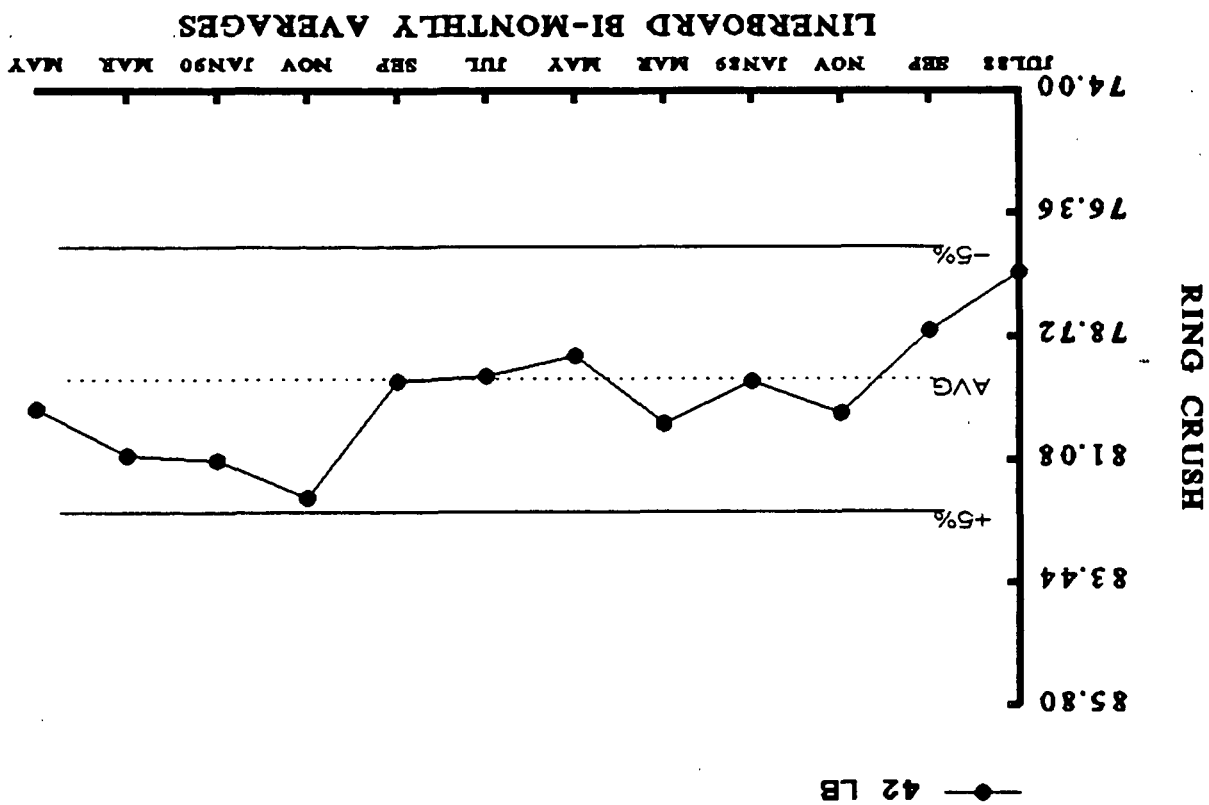
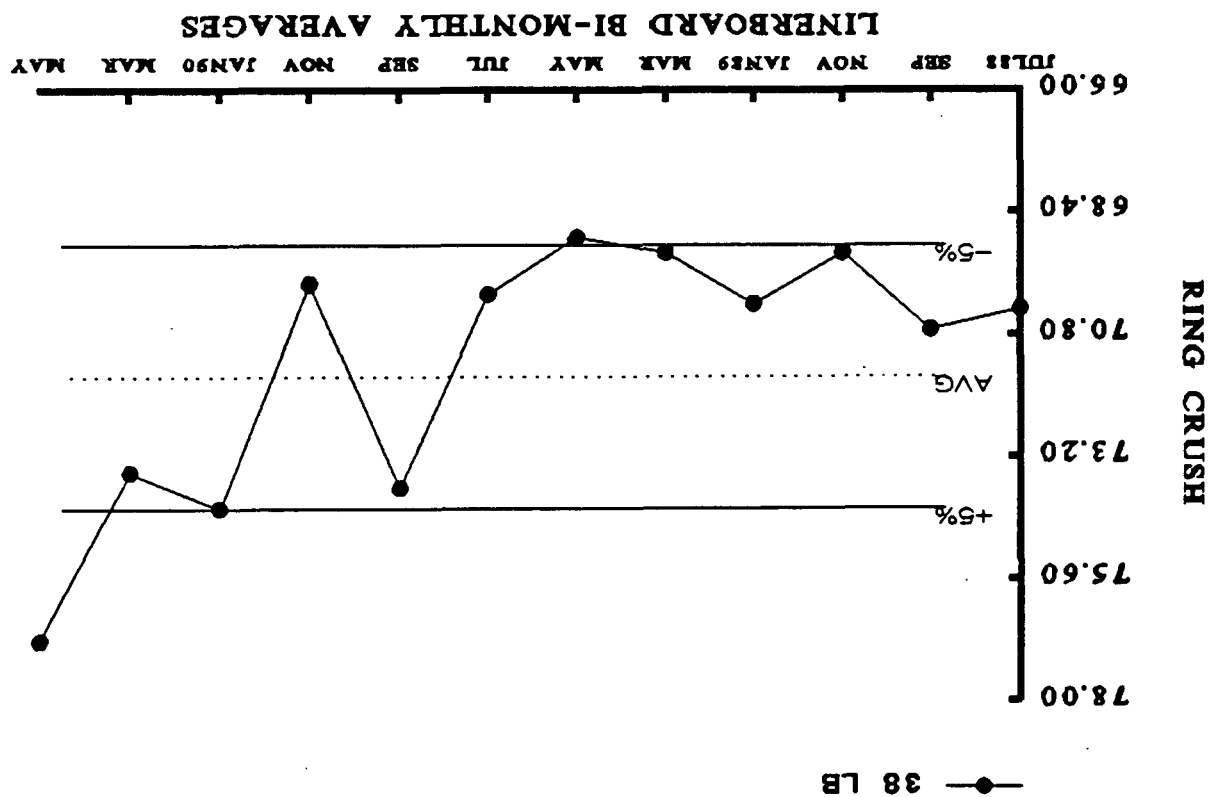
2 YEAR TREND PLOT FOR BURST



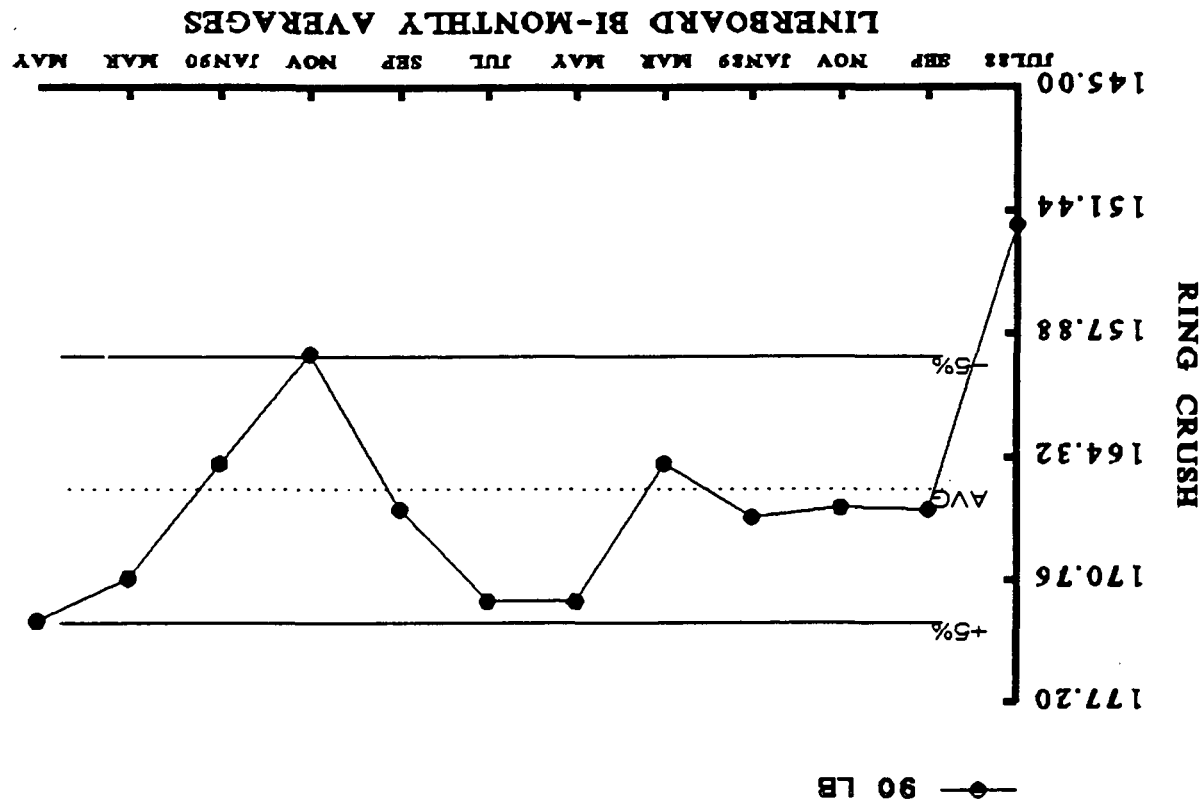
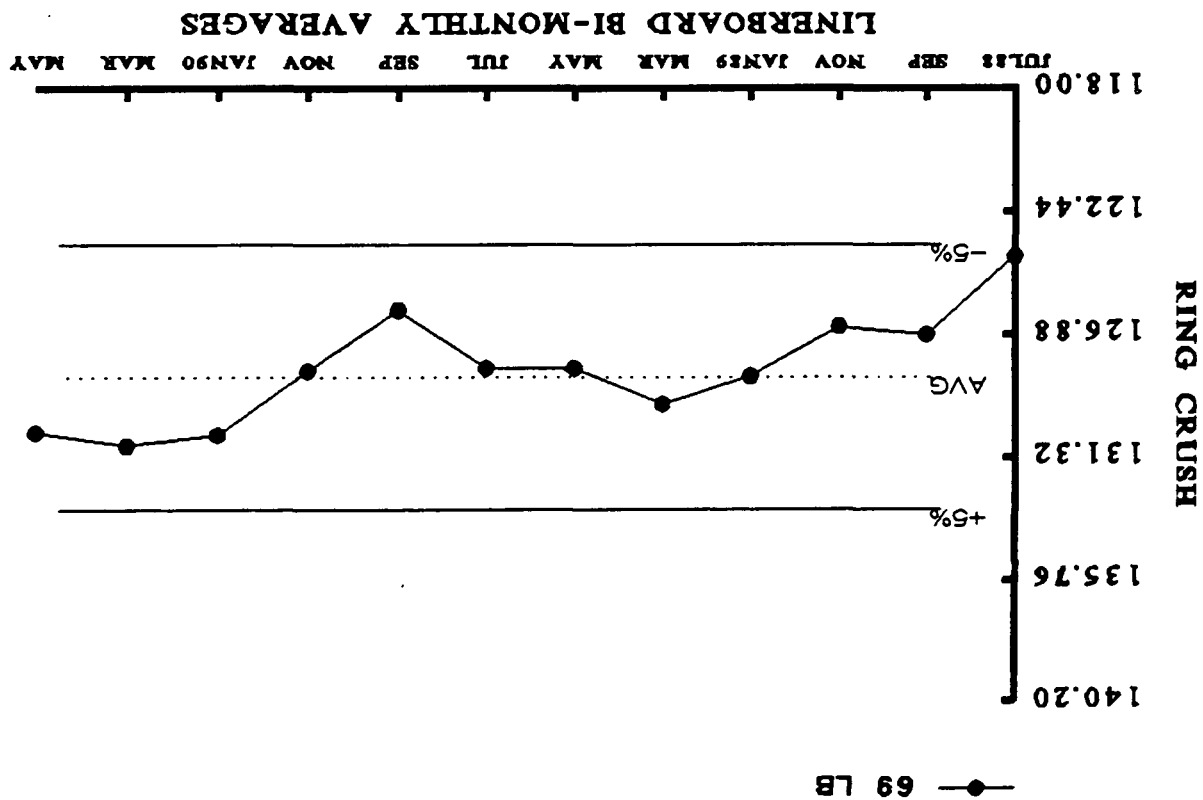
2 YEAR TREND PLOT FOR RING CRUSH



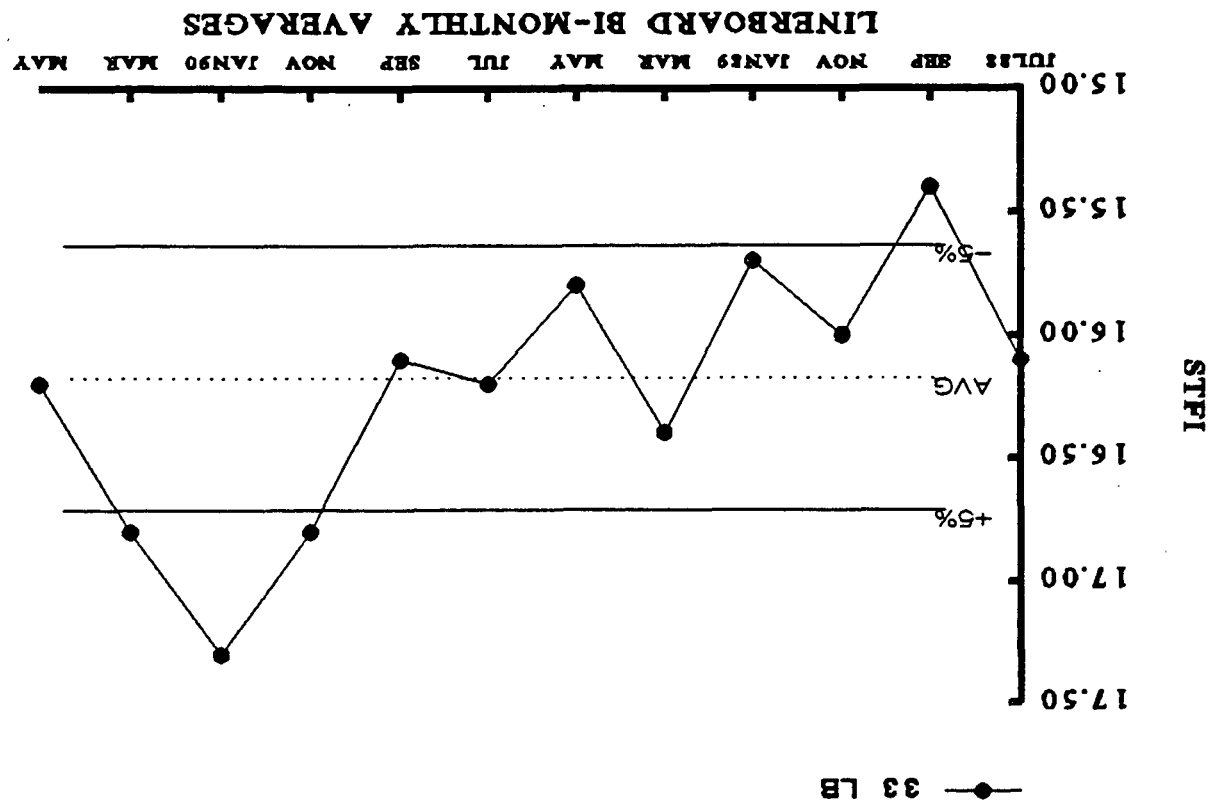
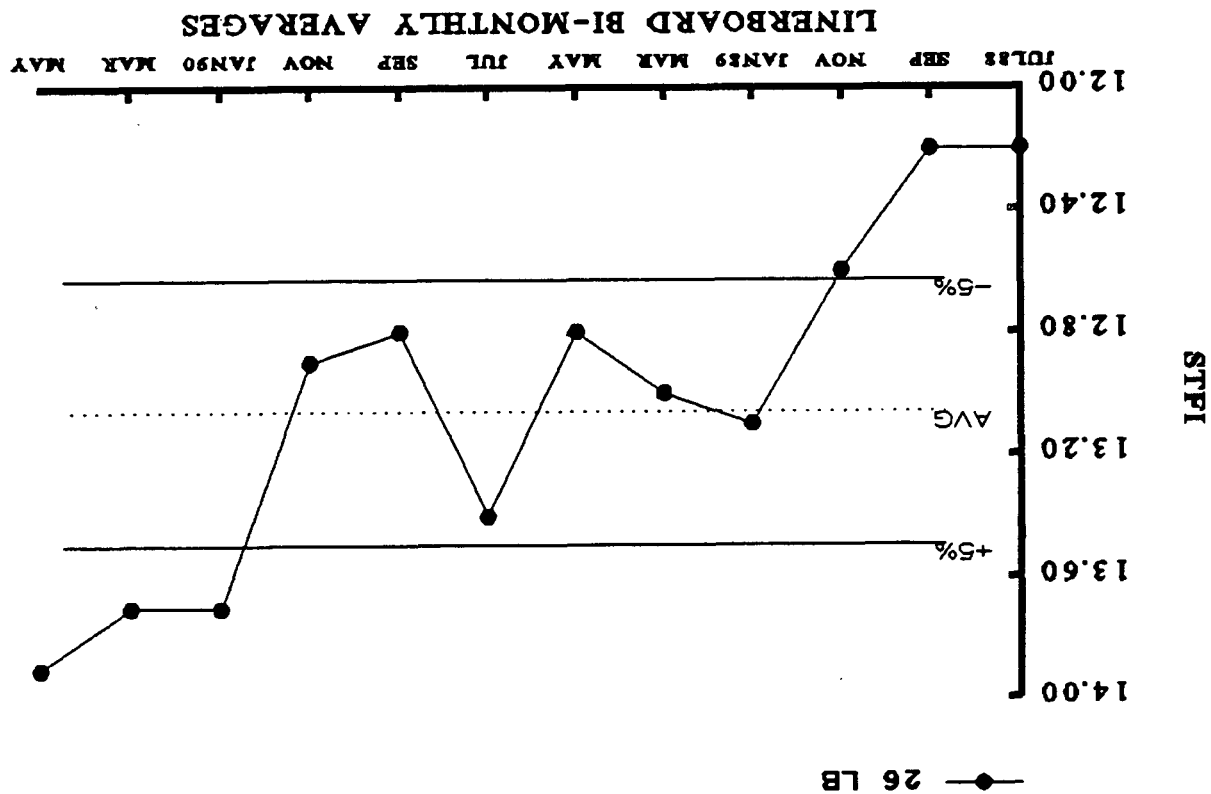
2 YEAR TREND PLOT FOR RING CRUSH



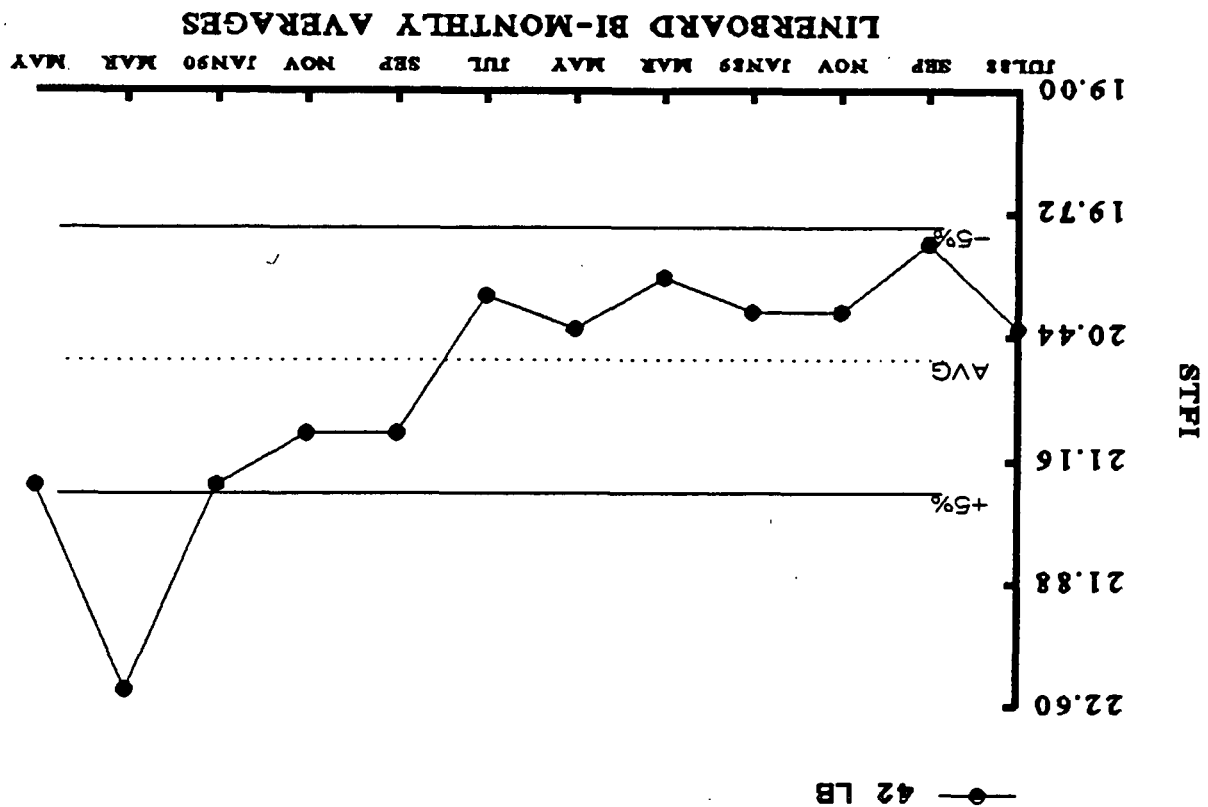
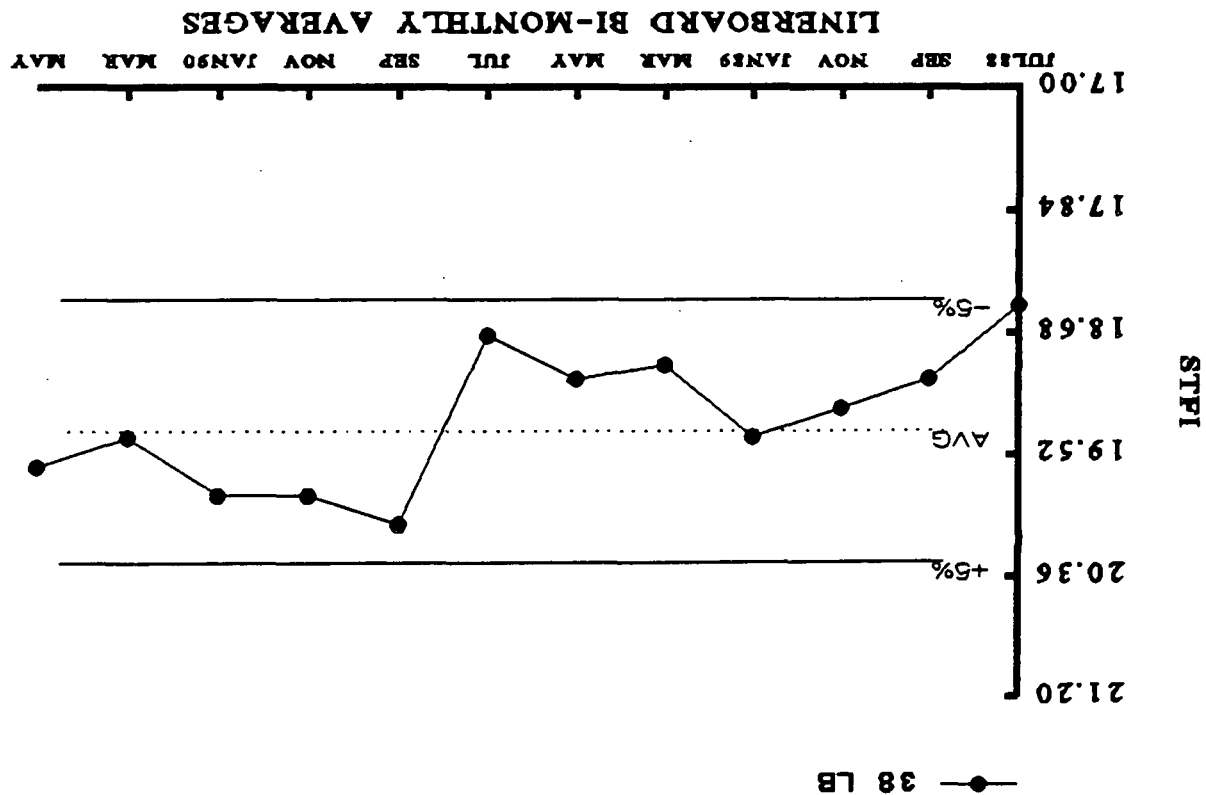
2 YEAR TREND PLOT FOR RING CRUSH



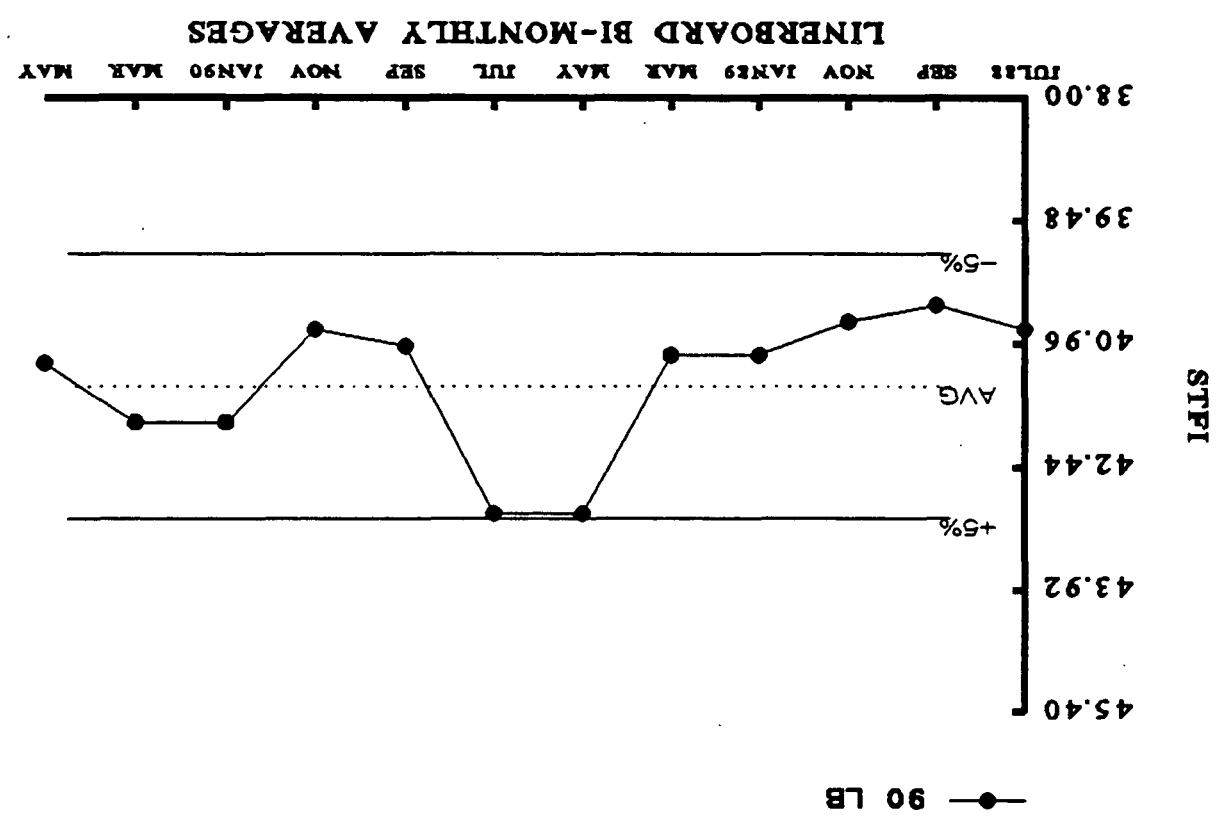
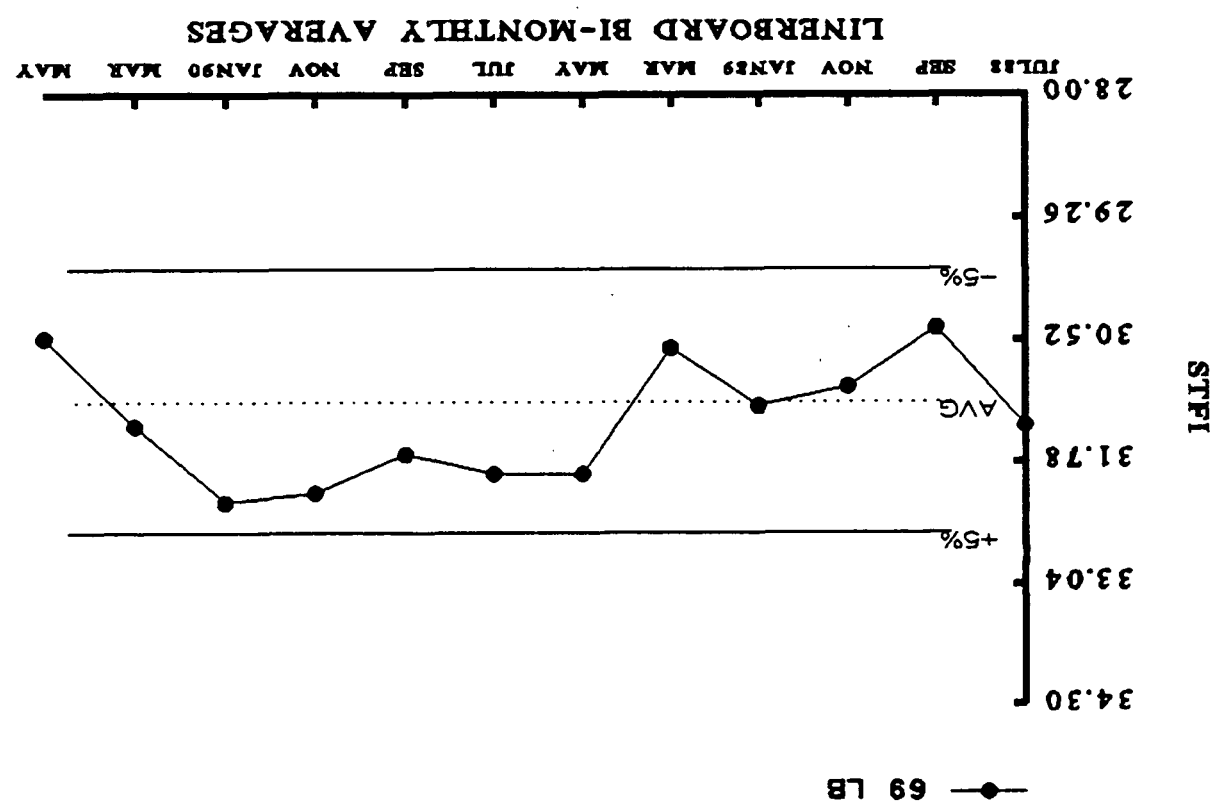
2 YEAR TREND PLOT FOR STFI



2 YEAR TREND PLOT FOR STFI



2 YEAR TREND PLOT FOR STFI



INTRODUCTION

The continuous base-line study (modified) is a compilation of bimonthly averages of mill test data obtained routinely on six major grade weights of linerboard manufactured in the member mills of C.K.P.G. Mill data are included for moisture content, basis weight, caliper, bursting strength, C.D. ring crush, and C.D. STFI tests made on the production of individual machines which produced at least 500 tons of one or more of the following six major grade weights during a given period: 26, 33, 38, 42, 69, and 90 lb. Participating mills are asked to report reel moisture content, basis weight, and moisture content corresponding to the basis weight measurement. The latter two measurements are used to compute the adjusted basis weight corresponding to a moisture content of 7-8%. Only the reel moisture content and the adjusted basis weight are included in the report.

PRESENTATION OF DATA

For the six major grade weights of linerboard referred to earlier, mill test averages for moisture content, adjusted basis weight, caliper, bursting strength, C.D. ring crush, and C.D. STFI are compiled in the following tables.

Table Number	Description
I-II-III	Mill Test Averages on 26-lb Linerboard
IV-V-VI	Mill Test Averages on 33-lb Linerboard
VII-VII-IX	Mill Test Averages on 38-lb Linerboard
X-XI-XII	Mill Test Averages on 42-lb Linerboard
XIII-XIV-XV	Mill Test Averages on 69-lb Linerboard
XVI-XVII-XVIII	Mill Test Averages on 90-lb Linerboard

Table I

Averages of Mill Quality Data for JAN-FEB, 1990 26 LB Kraft Linerboard

Code	Moisture Content		Adj. Basis Wt. *A		Caliper		Ind. *B
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	
B1	7.0	6.6	128.8	26.0	26.0	8.0	104.9
C1	6.0	5.9	110.8	26.4	26.4	7.1	92.7
E1	4.8	5.1	88.3	26.2	26.4	7.0	91.8
L1		5.5		25.4		8.0	
O1	5.2	5.0	95.7	26.2	27.0	7.2	94.4
P1		5.4			27.0		
R1	4.6	4.9	84.7	26.4	26.3	7.5	98.4
T1	5.4	5.7	99.6	28.1	27.6	8.0	105.3
W1	7.0	6.8	128.8	26.1	26.1	8.5	111.5
C2		6.0		26.6	26.5	7.7	101.0
G2		5.0		26.0	26.2	7.6	99.7
W2	5.8	5.7	106.7	26.6	26.2	7.1	93.1
E3	6.0		110.4	26.5		7.4	97.1
J3	5.6	5.3	103.1	26.2	26.1	8.0	104.9
S3	5.6	5.6	103.1	26.0	25.8	6.9	90.5
Y3	6.5		119.6	26.2		6.6	86.6
C4	5.3		97.5	26.1		7.4	97.1
N4		3.5			26.6		8.6
O4	4.9	4.9	90.2	26.1	26.1	7.5	98.4
U4	4.6	4.3	84.7	26.5	26.5	8.0	104.9
CKPG	5.6	5.4	103.5	26.4	26.4	7.5	98.4

Notes A and B are given in the appendix.

Table I (Cont.)

Averages of Mill Quality Data for JAN-FEB, 1990 26 LB Kraft Linerboard

Code	Burst PSIG		Ind. *B	CD Ring Crush Lb.			CD STFI lb/in.		Ind. *B
	Cur. Av.	Cum. Av.		Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	
B1	65.0	69.7	87.6				11.4	10.2	87.9
C1	70.5	72.0	95.0						
E1	67.0	66.7	90.3	45.0	42.1	110.8			
L1		71.0			36.3				
O1	71.5	69.7	96.3	28.5	29.5	70.2	12.7	12.5	97.9
P1		86.0			51.8				
R1	68.0	70.0	91.6	45.0	43.8	110.8	16.0	14.5	123.4
T1	80.2	76.7	108.1	53.7	49.9	132.2			
W1	71.0	71.0	95.7				13.0	13.0	100.2
C2	77.0	78.0	103.7	49.0	41.7	120.7		15.2	
G2	80.2	87.0	108.1						
W2	71.0	73.0	95.7	36.0	36.3	88.6			
E3	67.7		91.2	34.1		84.0			
J3	70.0	78.3	94.3	42.0	40.0	103.4			
S3	75.1	76.0	101.2				15.7	13.8	121.1
Y3	80.0		107.8				15.5		119.5
C4	73.0		98.4				11.9		91.8
N4		77.0						11.2	
O4	73.0	69.0	98.4	35.0	34.7	86.2		12.5	
U4	76.0	71.7	102.4	46.0		113.3			
CKPG	72.7	74.2	98.0	41.4	40.6	102.0	13.7	13.0	106.0

Note B is given in the appendix.

Table II

Averages of Mill Quality Data for MAR-APR, 1990 26 LB Kraft Linerboard

Code	Moisture Content		Adj. Basis Wt. *A		Caliper		Ind. *B
	Cur. Av.	Cum. Av.	Ind. *B	Ind. *B	Cur. Av.	Cum. Av.	
B1	6.8	6.7	124.3	26.0	26.0	26.0	98.7
C1	6.0	5.9	109.0	26.4	26.4	26.4	100.3
E1	4.6	5.0	84.1	26.3	26.4	26.4	99.7
L1		5.5			25.4		
O1	5.1	5.1	93.3	26.3	26.3	26.3	99.8
P1		5.4			26.9		
R1	4.4	4.8	80.5	26.4	26.3	26.3	100.4
T1		5.6			27.9		
W1	6.9	6.8	126.2	26.1	26.1	26.1	99.0
C2		6.0		26.7	26.6	26.6	101.2
G2				26.0	26.0	26.0	98.7
J2	4.9		89.6	26.1	26.1	26.1	99.0
W2		5.7			26.3		
E3	6.2	6.0	113.4	26.4	26.5	26.5	100.2
J3	5.6	5.5	102.4	26.2	26.1	26.1	99.4
S3	5.5	5.6	100.6	26.4	25.9	25.9	100.4
Y3	6.3	6.5	115.2	26.1	26.2	26.2	99.0
C4	6.0	5.3	109.7	26.1	26.1	26.1	99.0
N4		3.5			26.6		
O4	5.0	4.9	91.4	26.1	26.1	26.1	99.0
U4	4.5	4.4	82.3	26.1	26.4	26.4	99.1
CKPG	5.6	5.5	101.6	26.2	26.3	26.3	99.6

Notes A and B are given in the appendix.

Table II (Cont)

Averages of Mill Quality Data for MAR-APR, 1990 26 LB Kraft Linerboard

Code	Burst PSIG			CD Ring Crush Lb.			CD STFI Lb/In.		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
B1	67.0	69.0	90.8				11.3	10.7	85.8
C1	68.3	71.8	92.5						
E1	64.0	66.7	86.8		44.2				
L1		71.0			35.5				
O1	71.5	69.8	96.9	29.0	28.3	71.3	13.1	12.6	99.4
P1		85.0			50.7				
R1	69.0	68.7	93.5	45.0	43.8	110.6	15.0	15.2	113.9
T1		78.4			50.1				
W1	72.0	71.3	97.6				13.4	12.9	101.7
C2	80.0	77.7	108.4	47.0	44.7	115.6		15.4	
G2	77.6	84.1	105.2						
J2	69.0		93.5	31.0		76.2			
W2		73.3			36.3				
E3	73.3	67.7	99.4	37.1	34.1	91.2			
J3	74.0	76.0	100.3	41.0	40.0	100.8			
S3	66.3	75.0	89.9				16.0	14.4	121.5
Y3	76.0	80.0	103.0				14.7	15.5	111.6
C4	79.0	73.0	107.1				12.7	11.9	96.4
N4		77.0						11.2	
O4	70.0	70.3	94.9	34.0	35.0	83.6		12.5	
U4	68.0	73.0	92.2	49.0	46.0	120.5			
CKPG	71.6	73.8	97.0	39.1	40.7	96.2	13.7	13.2	104.3

Note B is given in the appendix.

Table III

Averages of Mill Quality Data for MAY-JUN, 1990 26 LB Kraft Linerboard

Code	Moisture Content		Adj. Basis Wt. *A		Caliper		Ind. #B
	Cur. Av.	Cum. Av.	Cur. Av.	Cum. Av.	Cur. Av.	Cum. Av.	
B1	7.0	6.8	26.0	26.0	7.7	7.9	102.1
C1	6.0	6.0	26.4	26.4	7.5	7.1	99.5
E1	5.0	4.8	26.5	26.3	7.2	7.1	95.5
L1		5.5		25.6		8.1	
O1	5.1	5.1	26.2	26.4	7.3	7.2	96.8
P1		5.4		26.9		7.6	
R1	4.6	4.6	26.6	26.4	7.5	7.5	99.5
T1		5.5		28.1		7.9	
W1	7.0	6.8	26.1	26.1	8.4	8.4	111.4
C2		6.1	26.8	26.7	7.6	7.7	100.8
G2			26.5	26.0	8.0	7.5	106.1
J2		4.9		26.1		7.2	
W2		5.8		26.4		7.4	
E3	6.0	6.1	26.4	26.4	7.4	7.3	98.1
J3	5.6	5.5	26.2	26.2	8.1	8.0	107.4
S3	5.6	5.6	26.1	26.1	6.8	7.0	90.2
Y3	6.3	6.4	26.1	26.1	6.5	6.6	86.2
C4		5.6		26.1		7.4	
N4		3.4		26.2		8.5	
O4	5.0	4.9	26.2	26.1	7.3	7.5	96.8
U4	4.8	4.6	26.1	26.3	8.0	7.9	106.1
CKPG	5.7	5.5	26.3	26.3	7.5	7.5	99.8

Notes A and B are given in the appendix.

Table III (Cont)

Averages of Mill Quality Data for MAY-JUN, 1990 26 LB Kraft Linerboard

Code	Burst PSIG			CD Ring Crush Lb.			CD STFI Lb/In.		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
B1	68.0	67.3	93.6				11.9	11.0	88.7
C1	70.3	69.9	96.9						
E1	66.0	66.0	90.9	44.0	42.5	109.8			
L1		71.0			36.0				
O1	71.0	70.0	97.8		28.0			12.6	
P1		84.0			49.0				
R1	70.0	69.0	96.4	46.0	44.3	114.8	15.0	15.3	111.8
T1		77.6			50.4				
W1	71.0	71.3	97.8				12.5	13.1	93.2
C2	77.0	77.7	106.0	50.0	46.7	124.8		15.3	
G2	73.5	82.3	101.2						
J2		69.0			31.0				
W2		75.0			36.0				
E3	73.0	70.5	100.5	31.9	35.6	79.6			
J3	70.0	74.0	96.4	42.0	40.3	104.8			
S3	77.7	71.8	107.0				14.8	15.2	110.3
Y3	73.0	78.0	100.5				15.3	15.1	114.0
C4		76.0						12.3	
N4		73.0						11.2	
O4	75.0	70.3	103.3	35.0	34.7	87.3		12.3	
U4	70.0	70.3	96.4	45.0	47.5	112.3			
CKPG	71.8	72.6	98.9	42.0	40.1	104.8	13.9	13.4	103.6

Note B is given in the appendix.

Table IV

Averages of Mill Quality Data for JAN-FEB, 1990 33 LB Kraft Linerboard

Code	Moisture Content		Adj. Basis Wt. *A		Caliper	
	Cur. Av.	Ind. *B	Cur. Av.	Ind. *B	Cur. Av.	Ind. *B
B1						
C1	6.0	107.2	33.5	100.4	9.2	95.6
E1	5.4	95.9	33.2	99.5	8.8	91.8
G1			33.6	100.7	8.9	93.4
J1	6.7	119.0	33.6	100.7	9.9	103.3
L1						
O1	5.5	97.7	33.1	99.2	8.9	92.9
P1	6.5	115.4	33.6	100.6	9.3	97.0
R1	5.1	90.6	33.2	99.6	9.7	101.2
T1	6.0	106.4	33.4	100.2	9.8	102.4
W1	7.0	124.3	33.1	99.2	9.1	94.9
C2			33.7	101.0	9.8	102.3
G2			33.0	98.9	9.1	94.9
J2	5.1	90.6	33.1	99.2	9.9	103.3
M2			33.3		9.2	
Q2	4.8	85.2	33.9	101.5	10.2	106.4
V2	6.5	115.4	33.2	99.5	9.2	96.0
W2	5.7	101.2	33.2	99.6	9.6	100.2
D3	6.5	115.2	33.2	99.5	9.0	94.2
E3	5.9	104.8	34.5	103.3	9.8	102.3
J3	5.6	99.4	33.2	99.5	10.1	105.4
N3	5.4	95.9	33.3	99.8	8.8	91.8
Q3			33.9	101.6	9.7	102.3
S3	6.1	108.3	33.0	98.8	8.8	91.8
W3						
Y3						
C4	6.6	117.2	33.3	99.8	8.4	87.6
N4	6.0	106.5	33.3	99.8	9.5	99.1
O4	4.2	74.6	33.2	99.6	10.8	112.7
P4			33.3		9.5	
			34.5	103.4	8.8	91.8
U4	5.0	88.8	33.4	100.0	9.8	102.3
CKPG	5.8	102.8	33.4	100.2	9.4	98.3

Notes A and B are given in the appendix.

Table IV (Cont)

Averages of Mill Quality Data for JAN-FEB, 1990 33 LB Kraft Linerboard

Code	Burst PSIG		Ind. #B		CD Ring Crush lb.		Ind. #B		CD STFI lb/in.		Ind. #B
	Cur. Av.	Cum. Av.	Cur. Av.	Cum. Av.	Cur. Av.	Cum. Av.	Cur. Av.	Cum. Av.	Cur. Av.	Cum. Av.	
B1		87.0								12.3	
C1	81.7	86.7			66.6	66.7					
E1	78.0	80.0	93.2		69.0	63.7	115.8				
G1	85.5	83.5	89.0		58.0	46.5	120.0				
J1	87.2	88.7	97.5				100.9		18.6	17.9	116.6
L1		91.0									
O1	85.0	83.3	97.0		53.5	56.5					
P1	103.4	102.7	117.9		77.0	50.3	93.0		16.9	15.6	105.6
R1	88.0	87.7	100.4		65.0	75.7	133.9				
T1	86.6	86.0	98.8		65.7	64.7	113.0		19.0	18.2	118.8
						66.7	114.2				
W1	82.0	81.3	93.5						17.0	17.1	106.3
C2	93.0	90.7	106.1		68.0	63.0	118.2			17.5	
G2	99.8	102.0	113.8								
J2	85.0	82.3	97.0		44.0	46.0	76.5			15.3	
M2		85.0				61.0					
Q2	86.0	84.3	98.1		57.0	58.0	99.1			16.3	
V2	83.0	82.7	94.7		63.5	59.8	110.4				
W2	86.0	88.0	98.1		51.0	49.7	88.7		15.7	16.1	98.1
D3	92.7	82.7	105.8								
E3	93.2		106.3		48.7		84.7				
J3	81.0	88.7	92.4								
N3	87.0	86.0	99.2		60.0	56.7	104.3				
Q3	90.0	87.3	102.7		51.0	52.3	88.7		17.0		106.3
S3	90.1	88.7	102.8		56.0	48.3	97.4				
W3		92.7				54.0			18.3	15.8	114.4
Y3	96.0	87.0	109.5								
C4	86.0	86.5	98.1						18.2	15.1	113.8
N4	89.0	97.7	101.5						15.2	14.1	95.0
O4		83.3								14.2	
P4	90.6	92.7	103.3			48.3				16.5	
U4	81.0	80.3	92.4		59.0		102.6				
CKPG	88.0	87.7	100.3		59.6	57.5	103.6		17.3	16.0	108.3

Note B is given in the appendix.

Table V

Averages of Mill Quality Data for MAR-APR, 1990 33 LB Kraft Linerboard

Code	Moisture Content			Adj. Basis Wt. #A			Caliper		
	Cur. Av.	Cum. Av.	Ind. #B	Cur. Av.	Cum. Av.	Ind. #B	Cur. Av.	Cum. Av.	Ind. #B
B1	6.4	6.4	112.5	33.1	33.1	99.1	10.2	10.4	107.2
C1	6.1	6.0	106.7	33.5	33.5	100.3	9.0	9.0	94.6
E1	5.1	5.1	89.6	33.2	33.2	99.5	9.0	8.8	94.6
G1	5.6	5.4	99.3	33.3	33.4	99.6	9.5	9.0	99.9
J1	6.7	6.7	117.7	33.8	33.3	101.1	9.9	10.0	104.1
L1		5.6			32.8			9.8	
O1	5.5	5.5	96.7	33.1	33.2	99.1	9.0	9.1	94.6
P1	6.4	6.1	112.5	33.7	33.8	100.9	9.6	9.3	100.9
R1	5.1	5.3	89.6	33.2	33.1	99.6	9.4	9.3	98.8
T1	6.1	6.1	107.4	33.5	33.5	100.5	9.7	9.8	102.2
W1	7.0	6.9	123.0	33.1	33.1	99.1	9.1	9.4	95.7
C2		6.1		33.9	33.7	101.5	9.5	9.6	99.9
G2				33.0	33.0	98.8	9.7	9.6	102.0
J2	4.9	5.0	86.1	33.1	33.1	99.1	9.9	9.8	104.1
Q2		4.6			34.0			10.0	
V2	6.5	6.4	114.2	33.3	33.2	99.7	9.3	9.2	97.8
W2	5.9	5.8	103.7	33.5	33.0	100.3	9.7	9.6	102.0
D3	6.6	6.4	116.9	33.2	33.5	99.3	9.2	9.6	96.8
E3	6.1	5.9	107.2	33.3	34.5	99.7	9.6	9.8	100.9
J3	5.7	5.5	100.2	33.2	33.1	99.4	10.1	10.1	106.2
N3	5.5	5.4	96.7	33.3	33.3	99.7	9.0	8.8	94.6
O3		5.1		34.0	33.9	101.7	9.7	9.7	102.0
S3	5.9	6.1	103.7	33.4	33.0	99.9	9.1	8.9	95.7
W3		5.3			33.6			9.4	
Y3	6.2	6.3	109.0	33.1	33.2	99.1	8.4	8.7	88.3
C4	6.1	5.9	107.2	33.3	33.2	99.7	9.1	9.2	95.7
N4	4.2	4.1	73.8	33.0	33.5	99.0	10.7	10.8	112.5
O4	5.0	4.9	87.9	33.1	33.3	99.1	9.3	9.5	97.8
P4				34.5	34.5	103.3	8.8	9.1	92.5
U4	5.2	5.0	91.4	33.7	33.4	101.0	9.9	9.9	104.1
CKPG	5.8	5.7	102.3	33.4	33.4	100.0	9.5	9.5	99.5

Notes A and B are given in the appendix.

Table V (Cont)

Averages of Mill Quality Data for MAR-APR, 1990 33 LB Kraft Linerboard

Code	Burst PSIG		CD Ring Crush Lb.		CD STFT Lb./In.	
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
B1	88.0	87.0	99.9	68.1	68.4	116.7
C1	84.8	86.2	96.3	72.0	65.1	123.4
E1	78.0	79.7	88.5	68.0	53.5	116.5
G1	90.0	87.7	102.2			
J1	88.5	89.4	100.5			
L1		91.0				
O1	86.0	83.3	97.6	45.0	49.5	77.1
P1	99.5	102.5	112.9	71.0	75.3	121.7
R1	84.0	87.0	95.3	65.0	64.7	111.4
T1	87.4	86.5	99.2	70.5	66.3	120.8
W1	83.0	81.3	94.2			
C2	95.0	91.3	107.8	66.0	65.0	113.1
G2	93.1	100.9	105.7			
J2	84.0	82.7	95.3	46.0	45.0	78.8
Q2		85.3			57.0	
V2	87.0	83.0	98.8	63.0	61.5	108.0
W2	87.0	89.7	98.8	51.0	50.3	87.4
D3	89.6	85.6	101.7			
E3	96.1	93.2	109.1	46.8	48.7	80.2
J3	86.0	86.7	97.6	60.0	57.7	102.8
N3						
Q3	91.5	87.0	103.9	44.5	51.0	76.3
S3	86.0	89.3	97.6	54.0	51.3	92.5
W3	87.1	88.7	98.9			
Y3	90.0	94.5	102.2		52.5	
		90.7				
C4	95.0	86.5	107.8			
N4	88.0	92.0	99.9			
O4	85.0	84.0	96.5	54.0	50.0	92.5
P4	88.6	92.9	100.6			
U4	80.0	80.3	90.8	66.0	59.0	113.1
CKPG	88.1	88.1	100.0	59.5	58.4	101.9
				16.8	16.4	101.9

Note B is given in the appendix.

Table VI

Averages of Mill Quality Data for MAY-JUN, 1990 33 LB Kraft Linerboard

Code	Moisture Content		Adj. Basis Wt. *A		Caliper		Ind. *B
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	
B1	6.0	6.4	103.6	33.2	33.1	99.5	98.4
C1	5.4	6.0	93.5	33.2	33.5	99.6	96.4
E1	5.5	5.3	96.1	33.1	33.2	99.2	101.6
G1	6.6	6.7	114.3	33.5	33.5	100.5	104.3
L1	5.2	5.6	90.1	33.2	32.4	99.5	89.5
O1	5.8	5.4	101.3	34.1	33.7	102.0	100.1
P1	5.1	6.3	88.3	33.5	33.2	100.2	90.6
R1	6.0	6.0	103.4	33.5	33.5	100.3	101.4
T1	7.0	6.9	121.2	33.1	33.1	99.2	92.7
W1	6.8	6.2	117.8	33.1	33.8	101.5	99.0
C2	4.9	5.0	84.9	33.1	33.0	99.2	98.0
E2	4.7	4.7	107.4	33.2	33.9	99.5	103.2
G2	6.2	6.5	103.9	33.6	33.3	100.8	94.8
J2	6.0	6.5	111.5	33.3	33.2	99.7	103.2
Q2	6.0	6.0	103.9	33.3	33.9	99.8	105.3
V2	5.7	5.6	98.7	33.1	33.2	99.2	102.2
W2	5.8	5.4	100.5	33.4	33.3	100.1	105.3
D3	6.0	5.2	103.9	33.9	33.9	98.9	89.5
E3	6.3	6.1	109.1	33.0	33.3	99.2	87.4
J3	6.1	5.6	105.7	33.1	33.2	99.8	100.1
N3	4.2	6.0	72.7	33.0	33.1	99.0	114.8
O3	4.9	4.1		34.5	33.2	103.3	101.1
S3	5.1	5.2	88.3	33.2	33.5	99.6	103.2
W3	5.8	5.8	100.9	33.4	33.4	100.0	99.5
Y3	5.1	5.2	88.3	33.2	33.5	99.6	103.2
C4	4.2	6.0	105.7	33.3	33.3	99.8	99.5
N4	4.9	4.1	72.7	33.0	33.1	99.0	103.2
O4	4.9	4.1	72.7	33.0	33.1	99.0	103.2
P4	4.9	4.1	72.7	33.0	33.1	99.0	103.2
U4	5.1	5.2	88.3	33.2	33.5	99.6	103.2
CKPG	5.8	5.8	100.9	33.4	33.4	100.0	99.5

Notes A and B are given in the appendix.

Table VI (Cont)
Averages of Mill Quality Data for MAY-JUN, 1990 **33 LB Kraft Linerboard**

Code	Burst PSIG			CD Ring Crush			CD STFI		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Lib. Cum. Av.	Ind. *B	Cur. Av.	Lib/In. Cum. Av.	Ind. *B
B1		87.5						13.4	
C1	79.5	84.5	90.4	66.2	68.0	112.3			
E1	80.0	78.7	90.9	70.0	68.9	118.8			
G1	81.5	87.7	92.6	58.5	63.0	99.3			
J1		89.6					18.3	17.9	110.7
L1		91.0			57.0				
O1	87.5	84.3	99.4	47.5	48.2	80.6	16.1	16.1	97.3
P1	105.8	101.0	120.2	72.0	73.7	122.2			
R1	93.0	85.7	105.7	66.0	64.7	112.0	18.0	18.3	108.8
T1	82.6	87.3	93.9	64.2	67.4	108.9	9.0		54.4
W1	79.0	81.3	89.8				16.9	17.1	102.2
C2	92.0	92.0	104.5	66.0	65.3	112.0		17.1	
E2	81.0		92.0				17.3		104.6
G2		99.0						14.9	
J2	86.0	83.7	97.7	46.0	45.0	78.1			
Q2		87.5			57.0			14.7	
V2	88.0	84.7	100.0	61.0	63.0	103.5			
W2	86.0	89.7	97.7	54.0	50.7	91.6			
D3	85.0	88.4	96.6				15.7	15.7	95.0
E3	96.4	94.6	109.5	47.2	47.7	80.1			
J3	85.0	85.3	96.6	58.0	59.0	98.4			
N3	86.0	89.2	97.7	41.0	47.7	69.6	13.6	16.5	82.2
Q3	85.0	88.3	96.6	56.0	52.3	95.0			
S3	90.9	88.1	103.3				17.9	17.8	108.2
W3		92.0			51.0				
Y3	89.0	92.3	101.1				18.6	17.1	112.5
C4	91.0	90.5	103.4				16.8	15.8	101.6
N4	89.0	90.3	101.1					14.4	
O4		84.5			51.0			16.5	
P4	93.8	89.1	106.6						
U4	78.0	79.0	88.6	65.0	62.5	110.3			
CKPG	87.1	88.0	99.0	58.7	58.9	99.5	16.2	16.5	98.0

Note B is given in the appendix.

Table VII

Averages of Mill Quality Data for JAN-FEB, 1990 38 LB Kraft Linerboard

Code	Moisture Content			Adj. Basis Wt. *A			Caliper		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
E1	5.8	5.9	99.8	38.2	38.3	99.5	10.1	9.7	94.3
G1		5.0		39.4	40.8	102.5	11.3	11.3	105.5
J1	6.7		115.3	42.2		109.7	12.4		115.8
M1	5.8	5.8	99.0	38.8	38.9	100.9	10.8	10.6	100.4
O1		5.2			38.4			10.6	
P1	6.2	6.1	106.7	39.1	38.8	101.6	10.3	10.5	96.2
R1	5.7	5.7	98.1	38.1	38.1	99.2	10.7	10.7	99.9
T1	6.3	6.3	108.4	38.5	38.5	100.1	11.3	11.2	106.0
J2		6.0			38.1			10.7	
M2	5.6	5.4	96.4	38.3	38.3	99.7	11.7	11.0	109.2
Q2									
V2	4.9		84.3	39.2		101.9	11.8		110.2
D3	6.6	6.3			38.1			10.6	
E3		6.5	112.9	38.3	38.5	99.7	10.6	11.2	99.0
J3	5.6	5.6	96.4	38.2	38.1	99.4	11.5	10.6	107.4
		5.4			38.2			11.6	
K3		5.9			38.0			10.4	
L3		6.6		39.1	40.4	101.8	10.4	11.2	97.1
N3	5.8	5.2	99.8	38.5	38.3	100.2	10.3	10.1	96.2
P3	5.6	5.9	96.4	38.5	38.3	100.1	10.6	10.5	99.0
Q3		5.1		38.9	39.1	101.2	11.2	10.9	104.6
S3		6.2							
V3		5.7			35.8			10.7	
G4	5.9	6.2	101.5	37.7	37.9	98.0	10.4	10.3	97.1
L4		6.0			38.1			10.3	
P4		5.9		38.0	38.4	98.8	10.2	10.8	95.2
V4		6.0			37.5			10.8	
CKPG	5.9	5.8	101.2	38.8	38.5	100.8	10.9	10.7	101.9

Notes A and B are given in the appendix.

Table VII (Cont)

Averages of Mill Quality Data for JAN-FEB, 1990 38 LB Kraft Linerboard

Code	Cur. Av.	Burst PSIG		Ind. *B	CD Ring Crush			CD STFI		
		Cum. Av.	Ind. *B		Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
E1	91.0	93.3	91.4	91.4	92.0	80.9	132.4			
G1	94.5	94.3	94.9	94.9	65.0	61.7	93.6			
J1	102.0		102.5	102.5				21.1		110.6
M1	92.1	98.3	92.4	92.4	82.1	80.6	118.2		18.8	
O1		98.7				63.0				
P1	115.3	109.7	115.8	115.8	75.0	81.3	108.0			
R1	97.0	97.7	97.4	97.4	76.0	75.0	109.4	21.0	20.7	109.9
T1	92.4	96.7	92.8	92.8	79.5	81.1	114.4		17.9	
J2		96.3				57.7				
M2	94.0	97.0	94.4	94.4	72.0	73.0	103.6			
Q2										
V2	94.0	93.3	94.4	94.4		73.1		18.2	18.3	95.2
D3	102.2	90.0	102.6	102.6				19.6		
E3		112.0								
J3	95.0	102.7	95.4	95.4	72.0	70.0	103.6			
K3		94.0				60.0			19.1	
L3	103.0	118.0	103.4	103.4	80.0	64.0	115.2			93.7
N3	105.0	99.0	105.4	105.4	60.0	56.0	86.4	17.9	18.2	
P3	104.0	106.0	104.4	104.4	68.0	67.0	97.9			
Q3	102.0	97.7	102.4	102.4	65.0	59.7	93.6			
S3		97.0							19.0	
V3		102.7				65.7				
G4	114.2	105.3	114.7	114.7	78.3		112.7	20.7	20.7	108.3
L4		95.0						19.0		
P4	101.8	101.0	102.2	102.2						
V4		125.0							18.8	
CKPG	100.0	99.6	100.4	100.4	74.2	69.5	106.8	19.8	19.1	103.5

Note B is given in the appendix.

Table VIII

Averages of Mill Quality Data for MAR-APR, 1990 38 LB Kraft Linerboard

Code	Moisture Content		Adj. Basis Wt. *A		Caliper		Ind. *B		
	Cur. Av.	Per cent Cum. Av.	Ind. *B	Ind. *B	Cur. Av.	Cum. Av.			
E1	6.0	5.9	103.2	38.2	38.3	99.1	10.1	9.8	93.6
G1	5.3	5.0	90.3	40.1	40.2	103.9	10.6	11.4	98.2
J1		6.7			42.2			12.4	
M1	5.8	5.8	99.9	38.8	38.9	100.6	10.9	10.8	100.8
O1		5.2			38.3			10.5	
P1	6.3	6.1	108.4	39.0	39.1	101.2	11.0	10.5	101.9
R1	5.5	5.7	94.6	38.1	38.1	98.9	10.9	10.7	101.0
T1	6.3	6.3	108.9	38.5	38.5	99.9		11.1	
J2		6.0			38.1			10.7	
M2	6.0	5.5	103.2	38.5	38.3	99.9	11.2	11.3	103.8
O2		4.9			39.2			11.8	
V2		6.3			38.1			10.6	
D3	6.7	6.7	115.7	38.1	38.4	98.9	10.6	11.1	98.7
J3	5.7	5.5	98.0	38.2	38.2	99.2	11.5	11.5	106.6
K3		5.9			38.0			10.4	
L3				40.9	39.1	106.2	10.9	10.4	101.0
N3	5.7	5.4	98.0	38.3	38.4	99.4	10.2	10.2	94.5
P3	5.7	5.8	98.0	38.3	38.4	99.2	10.8	10.5	100.1
Q3		5.1		39.0	39.0	101.1	11.1	10.9	102.9
V3		5.7			38.2			11.0	
G4	6.0	6.1	103.2	37.7	37.7	97.7	10.3	10.4	95.4
L4		6.0			38.2			10.5	
P4				38.1	38.2	98.8	10.7	10.7	99.2
V4	6.5	6.0	111.1	38.3	37.5	99.4	10.5	10.8	97.3
CKPG	6.0	5.8	102.5	38.6	38.5	100.2	10.8	10.8	99.7

Notes A and B are given in the appendix.

Table VIII (Cont)

Averages of Mill Quality Data for MAR-APR, 1990 38 LB Kraft Linerboard

Code	Burst PSIG		Ind. *B	CD Ring Crush Lb.		Ind. *B	CD STFI Lb./In.		Ind. *B
	Cur. Av.	Cum. Av.		Cur. Av.	Cum. Av.		Cur. Av.	Cum. Av.	
E1	91.0	92.3	91.6	90.0	83.1	127.4			
G1	95.0	94.5	95.6	68.0	61.3	96.2		21.1	
J1		102.0							
M1	90.2	97.4	90.8	78.2	80.9	110.7		18.8	
O1		97.0			62.0				
P1	109.9	110.8	110.6	80.0	78.3	113.2			
R1	94.0	97.0	94.6	78.0	75.7	110.4	20.0	20.7	104.5
T1	93.9	94.8	94.5	81.3	80.5	115.0		17.6	
J2		94.5			57.0				
M2	88.0	95.5	88.5	66.0	72.5	93.4			
Q2		94.0							
V2		94.0		73.1			17.0	18.1	88.9
D3	98.8	92.4	99.4					18.8	
J3	92.0	100.0	92.6	73.0	70.3	103.3			
K3		92.0			59.0				
L3	101.0	103.0	101.6	77.0	80.0	109.0	20.3	17.9	106.0
N3	101.0	101.0	101.6	58.0	57.3	82.1		18.0	
P3	100.0	104.0	100.6	67.0	66.7	94.8			
Q3	99.0	101.0	99.6	69.0	62.7	97.6			
V3		103.5			66.5				
G4	104.7	107.4	105.3	78.0	78.3	110.4	21.3	20.7	111.5
L4		95.0						19.2	
P4	105.6	102.9	106.2						
V4	99.0	125.0	99.6	65.0		92.0	18.5	18.8	96.6
CKPG	97.7	99.4	98.3	73.5	70.7	104.0	19.4	19.1	101.5

Note B is given in the appendix.

Table IX

Averages of Mill Quality Data for MAY-JUN, 1990 38 LB Kraft Linerboard

Code	Moisture Content		Adj. Basis Wt.		*A		Caliper		Ind. *B
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	
E1	6.0	5.9	102.3	38.3	38.2	99.1	10.2	10.0	94.6
G1	5.7	5.1	97.2	41.1	40.1	106.3	10.7	11.2	99.8
J1		6.7			42.2			12.4	
M1	5.9	5.8	101.2	39.2	39.0	101.5	10.8	10.8	100.7
O1		5.3			38.5			10.2	
P1	6.6	6.1	112.5	38.7	39.1	100.1	10.5	10.6	97.4
R1	5.5	5.6	93.7	39.2	38.1	101.3	10.4	10.8	96.5
T1	6.3	6.3	106.9	38.5	38.5	99.8	12.1	11.2	112.3
J2		6.0			38.1			10.8	
M2		5.8			38.4			11.4	
Q2		4.9			39.2			11.8	
V2		6.5			38.1			10.6	
D3	6.0	6.7	102.8	38.2	38.3	98.9	10.5	10.8	97.2
J3	5.7	5.6	97.2	38.1	38.2	98.7	11.2	11.5	103.9
L3				39.3	40.0	101.8	11.0	10.6	102.1
N3	5.7	5.6	97.2	38.4	38.4	99.4	10.4	10.2	96.5
P3	6.0	5.8	102.3	38.3	38.4	99.2	10.9	10.5	101.1
Q3		5.3		39.0	39.0	100.9	11.6	11.0	107.6
V3		5.6			38.2			10.4	
G4	6.2	6.0	105.7	37.8	37.7	97.7	10.6	10.4	98.8
I4		6.0			38.2			10.5	
P4				37.9	38.0	98.1	10.4	10.5	96.5
Q4	6.0		101.9	39.4		101.8	10.7		99.7
V4		6.5			38.3			10.5	
CKPG	6.0	5.9	101.7	38.8	38.6	100.3	10.8	10.8	100.3

Notes A and B are given in the appendix.

Table IX (Cont)

Averages of Mill Quality Data for MAY-JUN, 1990 38 LB Kraft Linerboard

Code	Burst PSIG		CD Ring Crush lb.		CD STFI lb./in.	
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
E1	94.0	91.7	95.3	87.0	87.1	120.6
G1	96.0	94.5	97.3	87.5	64.7	121.3
J1		102.0				21.1
M1	95.1	92.1	96.4	79.6	79.9	110.3
O1		96.0			62.0	18.5
P1	117.5	111.1	119.1	76.0	78.7	105.3
R1	97.0	95.7	98.3	79.0	76.0	109.5
T1	94.6	94.1	95.9	75.2	80.4	104.2
J2		94.0			56.0	17.5
M2		91.0			69.0	
Q2		94.0				
V2		94.0		71.7		
D3	96.0	96.7	97.4			
J3	99.0	97.3	100.4	75.0	72.0	103.9
L3	99.0	102.0	100.4	73.0	78.5	101.2
N3	98.0	100.7	99.4			
P3	107.0	102.3	108.5	67.0	57.9	92.8
Q3	98.0	100.7	99.4	68.0	67.0	94.2
V3		104.0			69.8	
G4	104.7	109.6	106.2	78.5	78.1	108.8
L4						
P4	97.2	95.0	98.5			
Q4	92.4	102.5	93.6	75.8	65.0	105.0
V4		99.0				
CKPG	99.0	98.6	100.4	76.8	72.2	106.4
					19.6	19.4
					18.3	18.0
					17.7	19.1
					18.1	18.1
					21.4	21.0
					19.2	110.5
					18.5	101.3

Note B is given in the appendix.

Table X

Averages of Mill Quality Data for JAN-FEB, 1990 42 LB Kraft Linerboard

Code	Moisture Content		Adj. Basis Wt. *A		Caliper		Ind. *B
	Cur. Av.	Percent Cum. Av.	Ind. *B	Cur. Av.	Ind. *B	Cur. Av.	Ind. *B
E1	6.0	6.2	102.0	42.3	42.2	99.8	92.7
F1	6.5	6.4	110.5	42.2	42.1	99.8	106.3
G1		5.2		41.9	42.0	99.0	103.7
J1		6.7		42.2	42.2		
K1		5.9		42.7			
M1	5.8	5.8	98.6	43.1	42.8	101.7	104.5
N1	4.9	5.6	83.3	42.3	42.3	100.0	95.2
O1	5.2	4.9	88.4	42.0	42.1	99.3	97.8
P1	6.6	6.4	112.2	42.5	42.6	100.5	107.1
R1	5.8	5.9	98.6	42.2	42.1	99.7	101.2
T1	6.5	6.4	110.1	42.3	42.4	100.0	107.1
W1		6.5			42.1		
E2	6.8	7.0	115.6	42.1	42.1	99.5	96.1
H2	5.1	5.1	86.7	42.2	42.7	99.7	105.4
J2		6.0			42.1		
M2	5.7	5.5	96.9	42.3	42.3	100.0	99.5
P2	6.1	6.2	103.7	42.4	42.3	100.1	99.5
Q2	5.1	5.0	86.7	42.7	43.0	100.9	109.7
T2	5.0	5.4	85.0	42.1	41.9	99.5	100.3
V2	6.5	6.3	110.5	42.1	42.1	99.5	96.1
D3	6.8	6.7	115.9	42.1	42.5	99.5	101.3
E3		5.5			42.1		
I3		4.9		43.0	43.4	101.6	105.4
J3		5.5			42.0		
K3	5.9	5.9	100.3	42.1	42.1	99.5	97.8
L3		5.8		43.1	42.6	101.7	104.6
M3	5.7	5.7	96.9	42.4	42.2	100.2	98.6
N3	5.7	5.5	96.9	42.1	41.9	99.5	92.7
P3	5.9	6.2	100.3	42.2	42.2	99.5	97.8
Q3		5.2		43.0	43.1	101.6	105.4
S3	6.5	6.6	110.5	42.0	41.7	99.2	92.7
U3	5.8	5.5	98.6	43.3	42.8	102.3	95.2
V3	6.0	6.0	102.0	42.1	42.2	99.5	95.2
W3		5.6			42.0		
Y3	6.5	6.2	110.5	42.1	42.2	99.5	91.0
C4	6.3	6.1	107.1	42.1	42.1	99.5	99.5
G4	6.0	6.3	102.0	41.5	41.8	98.1	97.4
L4	6.0	6.0	102.5	42.2	42.1	99.6	96.8
M4	5.2	5.2	88.4	42.2	42.5	99.6	106.3
N4	5.2	5.1	88.4	42.2	42.5	99.6	108.8
P4		5.8		41.9	42.3	99.0	91.8
Q4	5.9	5.9	99.9	43.2	42.6	102.1	94.3
T4	6.2	5.7	105.5	42.4	43.2	100.1	95.7
U4	5.8	6.1	98.6	42.2	42.4	99.7	102.9
V4	6.4	6.3	109.1	41.7	42.0	98.5	99.5
CKPG	5.9	5.9	100.7	42.3	42.3	99.9	99.8

Notes A and B are given in the appendix.

Table X (Cont)

Averages of Mill Quality Data for JAN-FEB, 1990 42 LB Kraft Linerboard

Code	Burst		Ind. *B	CD Ring Crush		Ind. *B	CD STFI		Ind. *B
	Cur. Av.	PSIG Cum. Av.		Cur. Av.	Lb. Cum. Av.		Cur. Av.	Lb./In. Cum. Av.	
E1	104.0	104.0	96.8	100.0	94.2	125.5	21.5	23.0	105.9
F1	128.0	120.0	119.1	74.0		92.8			
G1	102.0	102.7	94.9	73.5	69.5	92.2		20.4	
J1		102.3			75.0				
K1		112.0							
M1	98.7	106.0	91.9	89.8	90.5	112.7			
N1	103.0	105.7	95.9	91.0	84.8	114.2			
O1	107.0	111.0	99.6		75.5				
P1	119.1	123.3	110.9	86.0	89.2	107.9			
R1	106.0	105.0	98.7	87.0	84.2	109.1	23.0	22.3	113.2
T1	101.8	102.0	94.8	88.3	90.6	110.8			
W1		106.0					20.9		105.9
E2	106.0	106.3	98.7				21.5	21.1	
H2	118.0	116.3	109.8				19.5	19.5	
J2		102.0			78.0				
M2	104.0	105.7	96.8	84.0	81.3	105.4			
P2	107.0	103.7	99.6	77.0		96.6			
Q2	100.0	100.7	93.1	80.0	79.0	100.4		21.6	
T2	100.0	102.0	93.1	74.0	71.5	92.8			
V2	103.0	103.0	95.9	76.5	78.6	96.0			
D3	107.3	102.3	99.9				19.9	20.5	97.9
E3		114.5					21.1		
I3	113.0	108.3	105.2	74.0	68.7	92.8			
J3		104.0			77.0				
K3	103.0	102.7	95.9	73.0	74.0	91.6		20.6	
L3	105.0	110.7	97.7	78.0	68.3	97.9		17.3	
M3	114.0	109.3	106.1	88.0	85.5	110.4	23.0	22.5	113.2
N3	106.0	106.7	98.7	71.5	69.0	89.7	20.7	19.0	101.9
P3	107.0	111.3	99.6	71.0	70.7	89.1		19.2	
Q3	105.0	103.7	97.7	73.0	65.0	91.6			
S3	105.8	105.3	98.5				22.3	19.4	109.8
U3	113.0	104.3	105.2	90.0	82.0	112.9		23.5	
V3	104.9	109.3	97.6	73.5	71.9	92.2			
W3		107.0			75.0				
Y3	110.0	107.0	102.4				22.1	19.0	108.8
C4	107.0	105.7	99.6						
G4	117.6	108.3	109.5	88.2		110.7	19.9	18.4	98.0
L4	106.4	103.3	99.0				23.5	23.0	115.7
M4	114.0	112.7	106.1				19.3	20.7	95.0
N4	110.0	110.3	102.4					18.3	
								17.5	
P4	109.0	103.7	101.5						
Q4	102.7	108.0	95.6		90.4	112.3			
T4	107.3	109.3	99.9	89.5	96.5	113.9			
U4	105.0	102.0	97.7	90.8		101.6			
V4	106.0	123.0	98.7	81.0		84.7	19.2	19.4	94.4
				67.5					
CKPG	107.5	107.4	100.1	81.1	79.7	101.8	21.3	20.3	105.0

Note B is given in the appendix.

Table XI

Averages of Mill Quality Data for MAR-APR, 1990 42 LB Kraft Linerboard

Code	Moisture Content		Adj. Basis Wt.		*A		Caliper		Ind. *B
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	
E1	6.2	6.2	105.1	42.3	42.2	99.8	11.1	10.7	94.5
F1	6.4	6.5	109.3	42.3	42.1	99.9	11.7	12.2	99.7
G1	5.2	5.0	88.1	41.8	42.0	98.6	11.5	12.0	98.4
J1	6.7	6.6	113.6	42.2	42.2	99.6	12.4	12.0	105.6
K1		5.8			42.6			10.9	
M1	5.8	5.8	99.0	43.5	42.9	102.6	12.0	11.9	102.6
N1	5.1	5.3	86.4	42.3	42.3	99.9	11.1	11.0	94.5
O1		5.0			42.1			11.6	
P1	6.5	6.4	110.2	42.6	42.6	100.6	11.7	12.0	99.7
R1		5.9			42.1			11.9	
T1	6.5	6.4	110.2	42.3	42.4	100.0	12.5	12.5	106.9
W1		6.5			42.1			12.6	
E2	6.9	6.9	116.9	42.1	42.1	99.5	11.4	11.1	97.1
H2	5.1	5.1	86.4	42.3	42.7	99.9	12.3	12.0	104.8
M2	5.8	5.6	98.3	42.3	42.3	100.0	11.5	12.0	97.9
P2	6.0	6.1	101.7	42.4	42.4	100.2	10.9	11.4	92.8
Q2		5.0			43.0			12.8	
T2	5.5	5.1	93.2	42.1	42.1	99.4	11.8	11.7	100.9
V2	6.5	6.4	110.2	42.1	42.1	99.5	11.4	11.3	97.1
Y2	4.6		78.0	42.1		99.5	10.8		92.0
D3	6.8	6.8	115.2	42.0	42.3	99.3	11.9	12.0	101.7
E3		5.5			42.1			11.8	
I3		4.9		43.0	43.2	101.6	12.7	12.3	108.2
J3	5.9		100.0	42.1		99.5	12.8		109.0
K3	5.9	5.9	100.0	42.1	42.1	99.5	11.6	11.6	98.8
L3		5.8		43.0	42.8	101.6	12.1	12.1	103.1
M3	5.7	5.7	96.6	42.4	42.3	100.3	11.5	11.6	97.9
N3	5.8	5.6	98.3	42.1	42.1	99.5	11.3	11.3	96.2
P3	5.9	6.1	100.0	42.0	42.2	99.3	11.8	11.3	100.5
Q3		5.3		43.0	43.1	101.5	12.4	12.2	105.6
S3	6.5	6.6	110.2	42.2	41.8	99.6	10.5	11.2	89.4
U3		5.6			42.9			11.8	
V3	6.0	6.0	101.7	42.1	42.1	99.5	11.1	11.3	94.5
W3		5.6			42.0			12.1	
Y3	6.5	6.3	110.2	42.0	42.1	99.3	10.8	11.3	92.0
C4	6.1	6.2	103.4	42.2	42.1	99.8	11.8	11.3	100.5
G4	6.2	6.1	105.1	41.6	41.6	98.3	11.3	11.7	96.7
I4	6.0	6.0	101.7	41.5	42.1	98.0	11.6	11.5	99.2
M4	5.2	5.2	88.1	42.2	42.5	99.6	12.9	12.3	109.9
N4	5.2	5.1	88.1	42.2	42.5	99.6	12.8	12.8	109.0
P4				42.0	42.0	99.2	10.8	11.1	92.0
Q4	5.9	5.9	100.0	43.0	42.8	101.6	11.3	11.2	96.5
T4	6.1	5.9	103.2	42.4	42.9	100.1	11.3	11.4	96.3
U4	6.3	6.0	106.8	42.2	42.3	99.6	12.2	12.0	103.9
V4	6.5	6.4	110.3	41.8	41.7	98.7	11.8	11.9	100.9
CKPG	6.0	5.9	101.4	42.3	42.3	99.8	11.7	11.7	99.6

Notes A and B are given in the appendix.

Table XI
(Cont.)

Averages of Mill Quality Data for MAR-APR, 1990 42 LB Kraft Linerboard

Code	Burst			CD Ring Crush			CD STFI		
	Cur. AV.	PSIG Cum. AV.	Ind. *B	Cur. AV.	Lb. Cum. AV.	Ind. *B	Cur. AV.	Lb/In. Cum. AV.	Ind. *B
E1	102.0	104.0	95.1	101.0	96.3	125.8			
F1	131.0	124.3	122.1	81.0	74.0	100.9	42.0	22.8	204.7
G1	103.0	102.3	96.0	73.5	69.3	91.5			
J1	103.5	102.5	96.5				20.5	19.8	99.7
K1		108.0			72.0				
M1	99.3	103.9	92.5	87.6	90.5	109.1			
N1	104.0	105.0	96.9	91.0	86.7	113.3			
O1		109.0			75.5				
P1	116.7	119.7	108.8	98.0	90.2	122.1		22.7	
R1		105.7			85.2				
T1	101.2	101.6	94.3	88.7	89.2	110.5			
W1		106.0							
E2	107.0	106.3	99.7				21.1	20.9	102.8
F2	109.0	117.0	101.6					21.1	19.1
H2		105.7	96.9	81.0	81.0	100.9			
M2	104.0	105.7							
P2	109.0	104.3	101.6	76.0	77.0	94.7		21.5	
Q2		100.0			80.0				
T2	100.0	100.5	93.2	73.5	72.5	91.5			
V2	105.0	103.3	97.9	75.0	77.5	93.4			
Y2	117.0		109.0				16.4		79.9
D3	106.6	103.8	99.3				19.7	20.4	96.1
E3		109.0						20.8	
I3	112.0	109.7	104.4	75.0	70.3	93.4			
J3	103.0		96.0	78.0		97.2			
K3	103.0	102.3	96.0	74.0	74.0	92.2		20.7	
L3	106.0	109.3	98.8	73.0	72.0	90.9		17.6	
M3	114.0	110.7	106.2	87.0	85.8	108.4	23.0	22.5	112.1
N3	104.5	106.3	97.4	69.0	70.2	85.9	19.8	19.6	96.5
P3	105.0	108.7	97.9	71.0	71.0	88.4		19.3	
Q3	103.0	105.0	96.0	73.0	68.0	90.9			
S3	103.0	104.9	96.0				23.5	20.5	114.5
U3		108.3			90.0			23.2	
V3	108.4	108.6	101.0	75.2	72.7	93.7			
W3		106.5			74.5				
Y3	110.0	107.7	102.5				22.8	20.3	111.1
C4	108.0	106.0	100.6				19.6	19.0	95.5
G4	113.5	111.2	105.8				23.4	23.3	114.1
L4	103.6	104.5	96.5	86.7	88.2	108.0	20.0	20.2	97.4
M4	105.0	111.3	97.9					18.1	
N4	105.0	108.3	97.9					17.4	
P4	109.4	105.3	102.0						
Q4	104.5	106.3	97.3	86.6	91.2	107.9			
T4	111.6	109.4	104.0	95.4	95.8	118.8			
U4	102.0	102.7	95.1	83.0	81.0	103.4			
V4	104.0	116.7	96.9	71.0	67.5	88.4	20.5	19.4	99.9
CKPG	106.9	107.3	99.7	81.0	80.3	100.9	22.5	20.5	109.6

Note B is given in the appendix.

Table XII

Averages of Mill Quality Data for MAY-JUN, 1990 42 LB Kraft Linerboard

Code	Moisture Content		Adj. Basis Wt. *A		Caliper		Ind. #B
	Cur. AV.	Cum. AV.	Cur. AV.	Cum. AV.	Cur. AV.	Cum. AV.	
E1	5.9	6.2	42.2	42.2	11.2	10.9	95.6
F1	6.5	6.4	42.2	42.2	12.4	12.0	105.9
G1	5.8	5.1	41.9	41.9	11.6	11.9	99.5
J1	6.6	6.6	42.2	42.2	12.4	12.2	105.9
M1	5.8	5.8	44.1	43.1	12.1	12.0	103.1
N1	5.2	5.2	42.2	42.3	11.2	11.1	95.6
O1	5.0	5.2	42.2	42.0	11.2	11.5	95.6
P1	6.4	6.5	42.6	42.5	11.7	12.0	99.9
R1	5.7	5.8	42.2	42.2	11.3	11.9	96.5
T1	6.4	6.5	42.3	42.4	12.4	12.5	106.2
W1	6.5	6.5	42.2	42.2	11.2	11.3	95.6
E2	6.8	6.9	42.1	42.1	11.2	12.2	104.2
H2	5.1	5.1	42.2	42.3	11.4	11.7	97.3
M2	5.6	5.7	42.3	42.3	10.6	11.2	90.5
P2	5.8	6.0	42.3	42.4	10.6	11.2	90.5
Q2	5.0	5.0	43.0	43.0	12.8	12.8	101.6
T2	5.3	5.2	42.1	42.1	11.9	11.3	96.5
V2	6.5	6.5	42.1	42.1	11.3	10.8	100.7
D3	6.3	6.8	42.2	42.2	11.8	12.0	100.7
E3	5.5	5.5	42.1	42.1	11.8	11.8	111.0
I3	4.9	4.9	43.1	43.1	13.0	12.5	106.7
J3	5.6	5.9	42.1	42.1	12.5	12.8	99.0
K3	6.0	5.9	42.1	42.1	11.6	11.6	105.0
L3	5.8	5.8	43.1	43.1	12.3	12.1	105.0
M3	5.7	5.7	42.4	42.4	11.4	11.6	97.3
N3	5.8	5.7	42.1	42.1	11.3	11.1	96.5
P3	6.1	6.0	42.1	42.2	11.9	11.4	101.6
Q3	6.5	5.5	43.0	43.0	12.7	12.3	108.4
S3	6.5	6.5	41.9	42.1	10.9	10.9	93.1
U3	6.0	5.7	42.1	43.0	11.3	11.3	95.6
V3	6.0	6.0	42.1	42.2	11.2	11.2	95.6
W3	6.6	5.6	42.1	42.1	10.6	12.0	90.5
Y3	6.2	6.4	42.1	42.1	11.7	11.5	99.9
C4	6.3	6.0	41.8	41.6	11.4	11.6	97.3
G4	6.0	6.0	41.5	41.9	11.5	11.5	98.3
L4	5.2	5.2	42.2	42.2	12.1	12.5	103.3
M4	5.2	5.2	42.2	42.2	12.8	12.8	109.3
N4	5.2	5.2	42.0	42.0	11.4	11.0	97.3
P4	5.2	5.2	42.0	42.0	11.4	11.0	97.3
Q4	5.9	5.9	43.1	43.0	11.0	11.2	94.3
T4	6.1	6.1	42.4	42.5	11.0	11.3	94.3
U4	6.2	6.1	42.2	42.3	12.8	12.1	109.3
V4	6.5	6.5	41.7	41.8	11.7	11.9	99.9
CKPG	6.0	5.9	42.3	42.3	11.7	11.7	99.9

Notes A and B are given in the appendix.

Table XII (Cont)

Averages of Mill Quality Data for MAY-JUN, 1990 42 LB Kraft Linerboard

Code	Burst		CD Ring Crush		CD STFI	
	Cur. Av.	PSIG Cum. Av.	Ind. *B	Cur. Av.	Lb./In. Cum. Av.	Ind. *B
E1	104.0	103.0	97.1	94.0	100.1	116.8
F1	117.5	128.0	109.7	75.5	77.5	93.8
G1	103.5	102.3	96.6	74.0	72.2	91.9
J1	101.9	103.3	95.2			
M1	102.8	100.6	96.0	89.3	89.1	111.0
N1	105.0	104.7	98.0	94.0	88.7	116.8
O1	111.0	107.0	103.6	65.0		80.8
P1	121.8	117.3	113.7	82.5	91.0	102.5
R1	109.0	105.5	101.8	89.0	84.5	110.6
T1	102.2	101.3	95.4	88.6	89.0	110.1
W1		108.0				
E2	105.0	106.7	98.0			20.8
H2	112.0	115.3	104.6		21.6	21.2
M2	108.0	104.7	100.8		19.1	
P2	106.0	107.0	99.0	88.0	81.3	109.3
				75.0	76.5	93.2
Q2		100.5		80.0		
T2	102.0	100.3	95.2	77.0	72.8	95.7
V2	106.0	104.0	99.0	78.0	75.8	96.9
Y2		117.0				
D3	104.0	105.6	97.1			16.4
				19.3	20.2	20.2
						91.1
E3		109.0				20.8
I3	105.0	111.0	98.0	72.0	71.7	89.5
J3	110.0	103.0	102.7	77.0	78.0	95.7
K3	105.0	102.7	98.0	70.0	74.3	87.0
L3	105.0	107.3	98.0	74.0	74.0	91.9
M3	114.0	112.0	106.4	88.0	86.3	109.3
N3	105.5	105.2	98.5	70.0	69.8	87.0
P3	110.0	107.0	102.7	67.0	70.7	83.3
Q3	103.0	104.0	96.1	75.0	69.0	93.2
S3	108.3	104.3	101.1			
				23.1	22.2	108.8
U3		110.5				
V3	107.7	106.8	100.5	77.2	90.0	
W3		106.0			73.6	95.9
Y3	109.0	109.0	101.8		75.0	
C4	107.0	107.0	99.9			
						22.8
						20.2
						21.5
						19.4
						107.4
						95.1
G4	115.9	113.7	108.2	89.5	87.4	111.2
L4	104.4	105.0	97.5			
M4	107.0	109.7	99.9			
N4	105.0	107.3	98.0			
P4	106.1	106.8	99.0			
Q4	104.0	104.7	97.1			
T4	107.7	108.7	100.5			
U4	102.0	102.7	95.2			
V4	101.5	110.0	94.7			
						20.3
						19.8
						95.4
CKPG	107.0	107.1	99.9	80.1	80.5	99.5
						21.3
						21.2
						100.5

Note B is given in the appendix.

Table XIII

Averages of Mill Quality Data for JAN-FEB, 1990 69 LB Kraft Linerboard

Code	Moisture Content		Adj. Basis Wt. *A		Caliper		Ind. *B	Ind. *B
	Cur. Av.	Cum. Av.	Cur. Av.	Cum. Av.	Cur. Av.	Cum. Av.		
F1	7.5	7.6	69.3	69.2	19.7	19.0	103.8	
G1		6.5	69.0	68.9	18.7	19.2	98.3	
K1	5.9	5.9	70.4	70.3	19.7	19.0	103.5	
M1	6.0	6.1	69.9	69.7	20.1	19.9	105.5	
N1	6.0	6.5	69.7	69.5	17.7	18.4	93.0	
P1		5.8		70.2		18.9		
E2	6.9	7.0	69.2	69.2	17.2	17.0	90.4	
H2	5.7	5.6	69.2	69.6	19.5	18.4	102.5	
M2	5.6	5.6	69.5	69.4	19.3	19.8	101.4	
P2	6.8	6.9	69.7	69.5	19.9	19.9	104.6	
T2	6.8	5.9	68.8	68.8	19.5	19.2	102.5	
V2	6.8	6.6	69.1	69.2	17.9	18.7	94.1	
Y2	6.1	6.0	69.2	69.2	18.3	18.2	96.2	
D3		6.5		69.8		18.9		
E3		6.2		69.2		19.1		
I3		5.2	70.6	70.9	20.3	19.7	106.7	
L3		5.8	70.8	70.0	20.4	20.2	107.2	
M3	6.9	6.9	69.1	68.9	18.1	18.4	95.1	
N3	6.7	6.0	69.1	69.5	18.8	19.4	98.8	
P3	6.2	6.4	69.2	69.3	17.8	17.7	93.5	
S3	6.9	6.9	68.7	68.3	18.9	18.2	99.3	
U3	6.2	6.3	69.9	69.9	19.4	19.5	101.9	
V3	7.0	7.0	69.2	69.3	18.5	18.3	97.2	
W3		6.0		68.7		19.9		
Y3		6.2		69.4		19.4		
C4		6.3		69.5		19.6		
L4	7.0	6.9	69.2	69.2	19.1	19.6	100.1	
P4		6.2	69.0	69.2	18.9	19.3	99.3	
T4	6.1	5.9	69.3	69.4	17.9	18.6	93.8	
V4	6.6	6.6	68.7	69.2	20.1	20.3	105.6	
CKPG	6.5	6.3	69.4	69.4	19.0	19.0	99.8	

Notes A and B are given in the appendix.

Table XIII (Cont)

Averages of Mill Quality Data for JAN-FEB, 1990 69 IB Kraft Linerboard

Code	Burst PSIG		Ind. *B	CD Ring Crush Lb.		Ind. *B	CD STFI Lb./In.		Ind. *B
	Cur. Av.	Cum. Av.		Cur. Av.	Cum. Av.		Cur. Av.	Cum. Av.	
F1	157.5	151.7	106.7	125.0		97.2	34.0	33.5	109.0
G1	131.5	131.7	89.1	144.0	128.5	112.0			
K1	136.0	140.7	92.2	110.0	117.2	85.5			
M1	135.1	144.7	91.6	143.0	143.8	111.2			
N1	146.0	143.3	99.0	148.0	140.7	115.1			
P1		191.3			157.3		34.3	32.1	110.0
E2	154.0	152.7	104.4					31.0	
H2	152.0	150.0	103.0						
M2	146.0	146.0	99.0	137.0	132.3	106.5			
P2	147.0	139.0	99.6	137.0		106.5			
T2	129.0	128.5	87.4	127.0	122.5	98.7			
V2	155.0	147.0	105.1	127.0	133.2	98.7			
Y2	148.0	148.3	100.3				28.8	29.1	92.4
D3		133.0						33.7	
E3		148.0						32.7	
I3	142.0	137.7	96.2	121.0	113.3	94.1			
L3	145.0	156.3	98.3	127.0	109.0	98.7		24.8	
M3	153.0	144.3	103.7	132.0	118.0	102.6	34.0	31.2	109.0
N3	137.0	135.7	92.9		122.9			29.0	
P3	153.0	162.0	103.7	116.0	121.0	90.2		32.4	
S3	140.3	143.3	95.1				34.5	29.3	110.7
U3	142.0	143.0	96.2	132.0	132.0	102.6		34.4	
V3	158.7	157.3	107.6	123.0	123.7	95.6			
W3		156.0			121.0			31.9	
Y3		144.5						28.9	
C4		145.5					28.6	31.7	91.7
I4	147.9	140.0	100.2						
P4	151.2	148.3	102.5						
T4	166.3	152.7	112.7	148.0	148.1	115.1			
V4	140.5	160.0	95.2	121.0		94.1	31.3	29.8	100.5
CKPG	146.4	147.5	99.2	130.5	128.6	101.4	32.2	31.2	103.3

Note B is given in the appendix.

Table XIV (Cont)

Averages of Mill Quality Data for MAR-APR, 1990 69 LB Kraft Linerboard

Code	Burst PSIG		Ind. *B	CD Ring Crush Lb.		Ind. *B	CD STFI Lb/In.		Ind. *B
	Cur. Av.	Cum. Av.		Cur. Av.	Cum. Av.		Cur. Av.	Cum. Av.	
F1	173.0	155.8	117.3	126.0	125.0	97.4	33.5	33.8	106.7
G1	130.5	130.8	88.5	162.0	131.2	125.2			
K1	143.0	140.3	97.0	111.0	115.8	85.8			
M1	137.3	142.0	93.1	139.0	144.7	107.5			
N1	147.0	143.7	99.7	154.0	143.0	119.0			
P1	169.9	198.0	115.2	149.0	157.0	115.2	33.4	32.8	106.4
E2	154.0	155.3	104.4				30.3		
H2	145.0	149.0	98.3						
M2	151.0	146.7	102.4	135.0	131.0	104.4			
P2	137.0	141.0	92.9	117.0	137.0	90.4			
T2	128.0	127.5	86.8	124.0	126.0	95.9			
V2	154.0	151.0	104.4	129.0	130.8	99.7			
Y2	146.0	147.7	99.0				28.8	28.8	91.7
D3		132.5					33.9		
E3		149.0					34.4		
I3	146.0	139.3	99.0	123.0	116.0	95.1			
L3	145.0	154.0	98.3	131.0	117.7	101.3			
M3	145.0	147.7	98.3	130.0	123.0	100.5	34.0	25.5	108.3
N3	141.0	136.3	95.6	123.0	120.6	95.1	28.4	29.0	90.5
P3	151.0	159.0	102.4	112.0	120.0	86.6		32.6	
S3	143.6	143.1	97.4				30.4	31.0	96.8
U3		142.7			132.0		33.7		
V3	162.4	158.6	110.1	121.0	124.2	93.5			
W3		154.0			120.0				
Y3		145.0					31.4		
C4	149.0	144.0	101.0						
L4	144.6	142.3	98.0						
P4	161.2	148.1	109.3				29.6	28.9	94.3
T4	150.3	156.4	101.9	143.0	148.7	110.5	30.9	30.7	98.6
V4	138.0	148.7	93.6	128.0	121.0	98.9	33.6	30.4	107.0
CKPG	147.7	147.5	100.1	130.9	129.4	101.2	31.4	31.4	100.0

Note B is given in the appendix.

Table XV

Averages of Mill Quality Data for MAY-JUN, 1990 69 LB Kraft Linerboard

Code	Moisture Content		Adj. Basis Wt. *A		Caliper	
	Our. Av.	Ind. *B	Cur. Av.	Ind. *B	Our. Av.	Ind. *B
F1	7.4	115.9	69.2	99.7	19.7	103.7
G1	6.3	97.2	69.1	99.5	18.8	98.9
K1	6.1	94.9	70.3	101.2	19.6	103.2
M1	6.0	94.0	70.0	100.8	19.8	104.5
N1	6.3	98.0	69.5	100.1	17.6	92.6
P1	6.3	98.8	70.1	101.0	19.0	100.3
E2	6.8	105.8	69.2	99.7	16.8	88.4
H2	5.7	88.7	69.1	99.6	19.6	103.2
M2	5.7	88.7	69.6	100.3	18.8	98.9
P2	6.9	107.3	69.7	100.4	18.7	98.4
T2	6.7	104.2	68.8	99.1	20.2	106.3
V2	6.8	105.8	69.3	99.9	17.4	91.6
Y2	6.3	98.0	69.2	99.7	18.5	97.4
D3	6.6		69.6		19.2	
E3	6.5		69.3		19.3	
I3	5.3		70.6	101.7	19.8	104.2
L3	5.8		70.9	102.1	19.0	100.0
M3	6.9	105.8	69.0	99.5	18.0	94.7
N3	6.5	101.1	69.2	99.7	18.4	96.8
P3	6.2	96.5	69.2	99.7	18.5	97.4
S3	6.9	107.3	68.6	98.8	18.0	94.7
U3	6.3		70.0		19.4	
V3	7.0	108.9	69.2	99.7	18.4	96.8
W3	5.9		68.6		19.7	
C4	6.4		70.9		20.3	
L4	6.9	108.0	68.8	99.2	19.3	101.4
P4			69.0	99.4	19.0	100.0
T4	6.3	98.8	69.4	100.0	18.2	95.9
V4	6.6	103.5	68.6	98.8	19.8	104.5
CKPG	6.5	101.3	69.4	100.0	18.8	98.9

Notes A and B are given in the appendix.

Table XV (Cont.)

Averages of Mill Quality Data for MAY-JUN, 1990 69 LB Kraft Linerboard

Code	Cur. AV.	Burst PSIG		Ind. *B	CD Ring Crush Lb.			CD SIFI Lb./In.		Ind. *B
		Cum. AV.	Cum. AV.		Cur. AV.	Cum. AV.	Ind. *B	Cur. AV.	Cum. AV.	
F1	159.0	163.5	108.2	123.0	125.5	94.7		31.0	33.8	97.4
G1	132.0	130.7	89.8	152.0	145.2	117.0				
K1	139.0	141.0	94.6	112.0	113.0	86.2				
M1	139.0	138.5	94.6	141.0	141.5	108.5				
N1	147.0	145.0	100.0	152.0	148.1	117.0				
P1	172.2	176.9	117.2	146.0	148.0	112.4		34.2	33.1	107.5
E2	150.0	154.0	102.1					29.7		
H2	145.0	146.7	98.7							
M2	144.0	147.7	98.0	137.0	132.7	105.5				
P2	138.0	141.0	93.9	125.0	127.0	96.2				
T2	130.0	127.7	88.5	129.0	125.3	99.3				
V2	157.0	154.3	106.8	138.0	129.7	106.2				
Y2	147.0	147.0	100.0					30.0	28.7	94.3
D3		133.0						34.4		
E3		149.0						34.4		
I3	139.0	142.0	94.6	118.0	118.3	90.8				
L3	142.0	149.7	96.6	126.0	124.7	97.0				
M3	150.0	147.7	102.1	131.0	126.7	100.8		33.0	33.0	103.7
N3	138.0	138.0	93.9	117.0	121.8	90.1		12.0	29.1	37.7
P3	162.0	155.3	110.2	112.0	117.3	86.2			33.1	
S3	148.7	144.3	101.2					39.2	31.9	123.2
U3		142.0			132.0			33.4		
V3	154.0	159.7	104.8	119.0	124.0	91.6				
W3		154.0			122.0				29.6	
C4		149.0						31.0	30.6	97.5
L4	141.2	142.8	96.1							
P4	152.6	151.5	103.8							
T4	150.2	154.6	102.2	142.0	146.0	109.3				
V4	134.5	139.2	91.5	127.0	124.5	97.8		33.5	32.5	105.2
CKPG	146.3	147.0	99.6	130.4	129.9	100.4		30.5	31.8	95.8

Note B is given in the appendix.

Table XVI

Averages of Mill Quality Data for JAN-FEB, 1990 90 IB Kraft Linerboard

Code	Moisture Content		Adj. Basis Wt. *A		Caliper		Ind. *B
	Cur. Av.	Percent Cum. Av.	Ind. *B	Cur. Av.	Cur. Av.	Cum. Av.	
F1	7.3	7.6	111.2	90.2	26.5	24.8	106.7
G1		6.6		90.1	25.0	25.6	100.9
K1	6.1	5.9	92.3	91.7	25.7	25.1	103.5
N1	6.4	6.9	96.9	91.3	22.9	24.6	92.2
E2	6.8	102.9		90.3	21.7		87.4
H2		5.9				23.4	
M2	5.8	5.9	87.8	90.5	25.7	26.9	103.5
P2		7.4				25.8	
Y2	6.1	5.8	92.3	90.1	23.1	23.8	93.0
P3	6.2	6.5	93.8	90.2	23.2	23.2	93.4
U3		6.3				24.5	
W3	6.1	6.3	92.3	91.8	24.5	24.3	98.6
T4		8.4				26.2	
V4	6.3	5.8	94.9	90.4	22.4	23.7	90.4
	6.5	6.7	99.1	90.5	26.0	25.1	104.9
CKPG	6.4	6.6	96.4	90.6	24.3	24.8	97.7

Notes A and B are given in the appendix.

Table XVI (Cont)

Averages of Mill Quality Data for JAN-FEB, 1990 90 LB Kraft Linerboard

Code	Burst PSIG			CD Ring Crush Lb.			CD STFI Lb./In.		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
F1	196.0	191.3	110.3	159.0		94.6	43.5	42.3	104.5
G1	153.5	150.7	86.4		186.8				
K1	165.0	171.3	92.9	151.0	157.0	89.9			
N1	163.0	164.0	91.8	175.0	175.1	104.1			
E2	186.0		104.7				44.0		105.7
H2		179.0						43.2	
M2	173.0	170.7	97.4	179.0	161.3	106.5			
P2		173.7							
Y2	183.0	186.3	103.0				37.2	41.5	89.3
P3	182.0	180.0	102.5	150.0	157.0	89.3		41.9	
U3	188.0	187.0	105.8					44.2	
W3		186.0			142.3				
T4	186.6	196.3	105.1	180.0	196.7	107.1			
V4	158.5	171.0	89.2	159.0		94.6	43.0	37.5	103.3
CKPG	175.9	177.6	99.0	164.7	168.0	98.0	41.9	41.6	100.7

Note B is given in the appendix.

Table XVII

Averages of Mill Quality Data for MAR-APR, 1990 90 LB Kraft Linerboard

Code	Moisture Content		Adj. Basis Wt. *A		Caliper		Ind. *B
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	
F1	7.2	7.5	109.3	90.3	90.4	99.6	101.9
G1	6.3	6.7	96.4	90.3	90.1	99.6	101.9
K1	6.2	6.0	94.1	91.5	91.8	100.9	107.1
N1	6.3	6.7	95.6	90.6	90.7	99.9	92.9
E2	6.9	6.8	104.7	90.3	90.3	99.6	74.7
H2	6.3	5.9	95.6	89.3	90.9	98.5	101.9
M2	5.8	5.9	88.0	90.5	90.5	99.8	102.3
P2	6.6	7.4	100.1	90.8	90.6	100.1	102.3
Y2	6.3	6.0	95.6	90.3	90.2	99.6	96.2
P3	6.2	6.4	94.1	90.1	90.4	99.4	95.8
U3		6.3			91.7		
W3		8.4			90.9		
L4	6.9		105.5	89.8			
T4	6.2	6.1	93.9	90.0	90.4	99.0	106.0
V4	6.9	6.7	104.4	90.2	90.0	99.2	97.0
CKPG	6.5	6.6	98.2	90.3	90.6	99.5	105.5
					24.4	24.6	98.9

Notes A and B are given in the appendix.

Table XVII (Cont)

Averages of Mill Quality Data for MAR-APR, 1990 90 LB Kraft Linerboard

Code	Burst PSIG		Ind. *B	CD Ring Crush Lb.		Ind. *B	CD SIFI Lb/In.		Ind. *B
	Cur. Av.	Cum. Av.		Cur. Av.	Cum. Av.		Cur. Av.	Cum. Av.	
F1	189.0	197.3	106.8		159.0		41.0	42.8	97.7
G1	157.0	150.5	88.7	189.0	192.2	113.1			
K1	167.0	168.3	94.4	153.0	155.3	91.6			
N1	163.0	163.0	92.1	184.0	174.6	110.1			
E2	183.0	186.0	103.4				43.3	44.0	103.2
H2	164.0	178.0	92.7					42.2	
M2	172.0	172.0	97.2	164.0	163.0	98.1			
P2	182.0	174.0	102.8	188.0		112.5			
Y2	182.0	185.3	102.8				39.5	40.2	94.2
P3	181.0	178.7	102.3	145.0	154.3	86.8		41.8	
U3		186.3						44.2	
W3		186.5			144.5				
L4	168.0		94.9				42.9		102.4
T4	187.1	192.2	105.7	189.0	192.0	113.1			
V4	167.5	163.7	94.7	154.0	159.0	92.1	42.8	41.0	102.0
CKFG	174.0	177.0	98.4	170.7	167.1	102.2	41.9	41.9	99.9

Note B is given in the appendix.

Table XVIII

Averages of Mill Quality Data for MAY-JUN, 1990 90 LB Kraft Linerboard

Code	Moisture Content		Adj. Basis Wt. *A		Caliper	
	Cur. Av.	Cum. Av.	Ind. *B	Ind. *B	Cur. Av.	Cum. Av.
F1	7.4	7.4	114.3	99.8	24.8	25.4
G1	6.4	6.6	99.0	99.7	25.6	25.1
K1	6.0	6.1	92.1	101.4	25.8	25.8
N1	6.5	6.5	99.8	100.0	22.5	23.4
E2	7.0	6.8	107.4	99.8	20.0	20.0
H2	6.0	6.3	92.1	99.6	25.1	25.1
M2	5.8	5.8	89.0	100.2	24.7	25.9
P2	6.9	6.9	105.9	100.5	25.0	25.2
Y2	6.1	6.1	93.6	99.8	23.6	23.5
P3	6.4	6.3	98.2	99.7	23.5	23.5
U3		6.3				24.7
W3		8.5				26.1
L4		6.9				26.1
T4	6.4	6.2	97.6	100.1	22.8	23.0
V4	6.8	6.7	103.9	97.8	26.3	26.0
CKPG	6.5	6.5	99.4	99.9	24.1	24.5
						98.7

Notes A and B are given in the appendix.

Table XVIII (Cont)

Averages of Mill Quality Data for MAY-JUN, 1990 90 IB Kraft Linerboard

Code	Burst PSIG		Ind. *B	CD Ring Crush lb.		Ind. *B	CD STFI lb./in.		Ind. *B
	Cur. AV.	Cum. AV.		Cur. AV.	Cum. AV.		Cur. AV.	Cum. AV.	
F1	197.0	196.3	112.1	159.0	159.0	94.0	41.5	42.2	98.2
G1	149.0	152.2	84.8	182.0	190.2	107.6			
K1	165.0	166.7	93.9	153.0	154.3	90.4			
N1	157.0	162.0	89.4	176.0	180.7	104.0			
E2	190.0	184.5	108.1				44.0	43.6	104.1
H2	167.0	164.0	95.1						
M2	167.0	172.0	95.1	176.0	166.7	104.0			
P2	170.0	178.5	96.8	184.0	188.0	108.7			
Y2	185.0	183.3	105.3				38.9	39.4	92.1
P3	187.0	179.0	106.4	152.0	153.7	89.8		44.3	
U3		185.5						44.2	
W3		190.0			148.0			42.9	
L4		168.0							
T4	185.7	189.9	105.7	190.0	189.3	112.3			
V4	157.5	163.0	89.6	184.0	156.5	108.7	40.5	42.9	95.8
CKPG	173.1	175.7	98.5	172.9	169.2	102.2	41.2	42.2	97.6

Note B is given in the appendix.

Data submitted by the participating mills relative to conditioning and testing environments are summarized in Table XIX. The procedures used in calculating adjusted basis weight, cumulative machine averages, machine factors, machine indexes, and C.K.P.G. indexes are described in the Appendix.

It should be explained that the number of machines for which data are compiled in each table for a specified period varies for these reasons: a machine must have (a) produced at least 500 tons of the pertinent grade weight during the specified period, or (b) produced 500 tons of pertinent grade weight during ANY ONE OR MORE of the 12 months prior to the specified period (so that a cumulative average is available), to be included in a given table.

TABLE XIX
Data on Conditioning and Testing Environments
JAN-FEB, MAR-APR, MAY-JUN, 1990

Conditioning Environment					Testing Environment	
Code	Conditioned Before Testing?	Procedures			Are Quality Samples Tested Under Controlled Conditions Of Temperature and Humidity?	
		Min.	Temp ^o F	R.H. %		
B1	NO	--	--	--	YES: 73 $\pm 2^{\circ}$ F;	50 ± 2 % RH
C1	NO	--	--	--	YES: 73 $\pm 4^{\circ}$ F;	50 ± 2 % RH
E1	NO	--	--	--	YES: 72 $\pm 2^{\circ}$ F;	50 ± 2 % RH
F1	NO	--	--	--	YES: 0 $\pm 0^{\circ}$ F;	0 ± 0 % RH
G1	NO	--	--	--	NO	
J1	NO	--	--	--	YES: 73 $\pm 5^{\circ}$ F;	50 ± 5 % RH
K1	YES	10	0	0	YES: 72 $\pm 2^{\circ}$ F;	50 ± 2 % RH
L1	NO	--	--	--	NO	
M1	NO	--	--	--	YES: 73 $\pm 4^{\circ}$ F;	50 ± 2 % RH
N1	NO	--	--	--	YES: 73 $\pm 2^{\circ}$ F;	50 ± 2 % RH
O1	NO	--	--	--	YES: 72 $\pm 2^{\circ}$ F;	50 ± 2 % RH
P1	NO	--	--	--	YES: 73 $\pm 3^{\circ}$ F;	50 ± 5 % RH
R1	NO	--	--	--	YES: 73 $\pm 2^{\circ}$ F;	50 ± 2 % RH
T1	NO	--	--	--	YES: 73 $\pm 3^{\circ}$ F;	50 ± 2 % RH
W1	NO	--	--	--	NO	
B2	NO	--	--	--	NO	
C2	NO	--	--	--	NO	
E2	NO	--	--	--	NO	
G2	YES	0	0	0	YES: 73 $\pm 2^{\circ}$ F;	50 ± 2 % RH
H2	NO	--	--	--	YES: 70 $\pm 4^{\circ}$ F;	50 ± 5 % RH
J2	NO	--	--	--	YES: 73 $\pm 2^{\circ}$ F;	50 ± 2 % RH
M2	NO	--	--	--	YES: 72 $\pm 3^{\circ}$ F;	50 ± 2 % RH
P2	NO	--	--	--	YES: 72 $\pm 5^{\circ}$ F;	50 ± 2 % RH
Q2	NO	--	--	--	YES: 72 $\pm 3^{\circ}$ F;	50 ± 2 % RH
T2	NO	--	--	--	NO	
V2	NO	--	--	--	NO	
W2	YES	10	0	0	YES: 72 $\pm 2^{\circ}$ F;	50 ± 2 % RH
Y2	NO	--	--	--	YES: 73 $\pm 2^{\circ}$ F;	50 ± 2 % RH
D3	NO	--	--	--	NO	
E3	YES	20	0	0	YES: 72 $\pm 2^{\circ}$ F;	50 ± 2 % RH
I3	NO	--	--	--	NO	
J3	NO	--	--	--	YES: 72 $\pm 3^{\circ}$ F;	50 ± 2 % RH
K3	NO	--	--	--	YES: 73 $\pm 2^{\circ}$ F;	50 ± 2 % RH
L3	NO	--	--	--	NO	
M3	NO	--	--	--	YES: 73 $\pm 2^{\circ}$ F;	50 ± 2 % RH
N3	NO	--	--	--	YES: 72 $\pm 2^{\circ}$ F;	50 ± 2 % RH
P3	NO	--	--	--	YES: 73 $\pm 2^{\circ}$ F;	50 ± 2 % RH
Q3	NO	--	--	--	NO	
S3	YES	--	--	--	YES: 73 $\pm 2^{\circ}$ F;	50 ± 1 % RH
U3	NO	--	--	--	YES: 72 $\pm 3^{\circ}$ F;	50 ± 2 % RH
V3	NO	--	--	--	YES: 72 $\pm 2^{\circ}$ F;	50 ± 2 % RH
W3	NO	--	--	--	NO	
Y3	NO	--	--	--	YES: 73 $\pm 2^{\circ}$ F;	50 ± 2 % RH
C4	NO	--	--	--	YES: 73 $\pm 2^{\circ}$ F;	50 ± 2 % RH
G4	NO	--	--	--	YES: 0 $\pm 0^{\circ}$ F;	0 ± 0 % RH
L4	YES	7	0	0	YES: 72 $\pm 2^{\circ}$ F;	50 ± 5 % RH
M4	NO	--	--	--	YES: 70 $\pm 4^{\circ}$ F;	50 ± 5 % RH
N4	NO	--	--	--	YES: 70 $\pm 4^{\circ}$ F;	50 ± 5 % RH
O4	NO	--	--	--	YES: 73 $\pm 2^{\circ}$ F;	50 ± 2 % RH
P4	YES	0	0	0	YES: 73 $\pm 2^{\circ}$ F;	50 ± 2 % RH
Q4	NO	--	--	--	YES: 73 $\pm 4^{\circ}$ F;	50 ± 2 % RH
T4	NO	--	--	--	YES: 73 $\pm 3^{\circ}$ F;	50 ± 2 % RH
U4	NO	--	--	--	YES: 72 $\pm 5^{\circ}$ F;	50 ± 5 % RH
V4	NO	--	--	--	YES: 0 $\pm 0^{\circ}$ F;	0 ± 0 % RH

APPENDIX

NOTES A AND B USED IN TABULATIONS OF MILL DATA

Notes A and B used in the tables of mill data are given below; these notes define the procedure used in calculating adjusted basis weight, machine index, and C.K.P.G. index. It should be stressed that each formula is applicable only to a specific physical property of a specific grade weight of linerboard.

NOTE A: Adjusted basis weight (ABW) = reported weight (RBW) adjusted to moisture content 7.8%:

$$ABW = RBW [(100 - \text{reported moisture content, \%}) / (100 - 7.8)]$$

NOTE B: Machine index (%) =

$$[(\text{current machine average} / \text{cumulative C.K.P.G. average}) * 100]$$

Where Cumulative C.K.P.G. average =

$$[\Sigma \text{ CCKPGA's for previous six periods, excluding current CCKPGA} / 6]$$

C.K.P.G. index (%) =

$$[(\text{current C.K.P.G. average} / \text{cumulative C.K.P.G. average}) * 100]$$

Where Current C.K.P.G. average =

$$[\Sigma \text{ CMA's for current period for all machines} / \text{number of machines}]$$

CMA = current machine average for a specific physical property of a specific linerboard grade weight obtained during a given period on a specific machine.

CCKPG = current C.K.P.G. average for a specific physical property of a specific linerboard grade weight obtained during a given period.

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