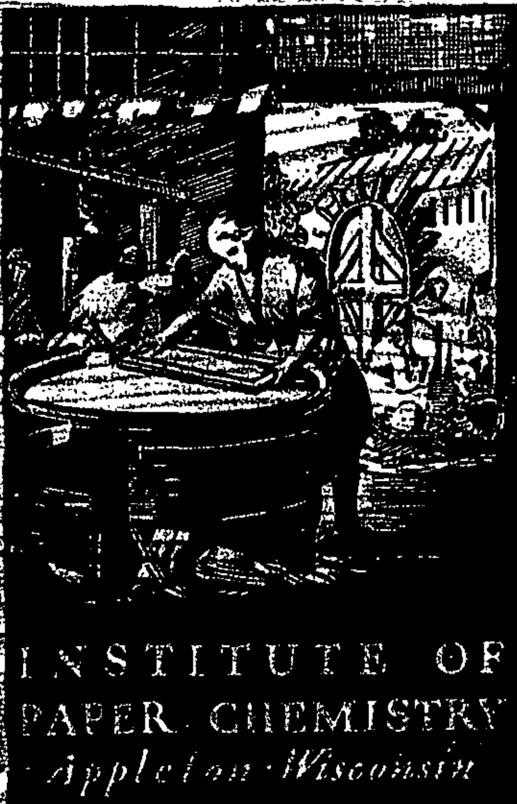

CONTINUOUS BASELINE STUDY

Project 1108-13

Progress Report 89

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

December 1, 1954

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

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In conjunction with the F.K.I. Continuous Baseline Study, seventy-three different sample lots of 42-lb. Fourdrinier kraft linerboard were submitted by fourteen different F.K.I. mills to The Institute of Paper Chemistry for testing during the period November 1 through November 30. In addition to the 42-lb. kraft linerboard, two samples of special drum stock and four samples of miscellaneous linerboard were submitted for evaluation by one of the participating mills. The results on the special stock are tabulated separately in this report. A tabulation of the number of samples classified according to mill may be seen in Table I.

TABLE I

DISTRIBUTION OF 42-LB. LINERBOARD SAMPLES

Mill Code	Samples Submitted
A	10
B	--
C	8
D	3
E	2
F	10
G	1
H	2
I	6
J	4
K	3
L	8
M	8
N	5
O	3

These sample lots were tested for basis weight, caliper, bursting strength, G. E. puncture, and Elmendorf tear. The average strength results for each mill may be seen in Table II and are graphically presented in Figures 1 to 6. In addition to a comparison of the mill averages for the various tests, Table II also shows the current F.K.I. averages, the cumulative F.K.I. averages, and the F.K.I. indexes. The cumulative F.K.I. average includes all the results up to but not including the current period, which in the case of this report is November 1 through November 30. The F.K.I. indexes are obtained as follows:

$$\frac{\text{current F.K.I. average}}{\text{cumulative F.K.I. average}} \times 100 = \text{F.K.I. index (\%)}$$

The F.K.I. index provides a ready means of comparing the current quality with previous results. For example, the current F.K.I. average basis weight is 43.0 lb., and the cumulative F.K.I. average basis weight is 43.0 lb. Hence, the index for basis weight determined in per cent as indicated above is 100.0. This signifies that the current average basis weight is the same as the cumulative average, which in this case covered the period from July 25, 1947, through October 31, 1954.

A comparison of the results in Table II and Figure 1 shows that the average basis weight results for all mills conform to the 42-lb. specification set forth in Rule 41. Mill K has the highest average basis weight, it being 44.3 lb. or approximately 5.5% higher than the 42-lb. specification. On the other hand, Mill D has the lowest average basis weight, it being 42.2 lb., 0.5% higher than the 42-lb. specification.

The amount by which the mills vary from the 42-lb. specification is as follows:

Mill Code	Per Cent
A	+3.8
B	--
C	+4.0
D	+0.5
E	+1.4
F	+3.8
G	+1.7
H	+3.1
I	+1.0
J	+1.2
K	+5.5
L	+3.1
M	+2.9
N	+1.0
O	+1.0

A comparison of the average basis weight data for the previous period with the current F.K.I. average indicates that the basis weight results have decreased slightly.

A comparison of the average caliper values for the various mills (see Figure 2) shows that the mill averages vary from a low of 11.7 for Mill D to a high of 14.4 for Mill L, the average being 13.1 which is considerably lower than the cumulative average of 13.7.

The average bursting strength values obtained for each mill are graphically presented in Figure 3. It may be observed in Table II that the average bursting strength values for the various mills range from a low of 102 for Mill J to a high of 118 for Mill O. The current F.K.I. average bursting strength is 109, slightly higher than the cumulative average of 107.

The data of Table II and Figure 4 show that the average G. E. puncture result for all mills is 36 units. Mills F, K, and N have the highest G. E. puncture average, 40 units, and Mill J has the lowest average, 31 units. The current F.K.I. G. E. puncture average of 36 units is the same as the cumulative F.K.I. average of 36 units.

A graphic comparison of the Elmendorf tear results for the various mills is given in Figures 5 and 6. The data of Table II show that Mill F has the highest average machine direction tear value while Mill I has the lowest. Mill F has the highest cross-machine tear value and Mill J has the lowest value. It may be noted that the current F.K.I. average machine and cross-machine direction tear results are lower than the cumulative averages.

A comparison of the F.K.I. indexes indicate that, for the current period, the current F.K.I. averages for caliper and Elmendorf tear are lower than the respective cumulative F.K.I. averages, the current F.K.I. average for bursting strength is higher, and the current F.K.I. averages for basis weight and puncture are the same as the respective cumulative F.K.I. averages.

In order to compare the variation within a given mill, the test results for each particular mill have been tabulated in Tables III to XVII for Mills A to O, respectively. In addition to the current and cumulative averages, the mill factor and mill index are given for each mill. The cumulative mill average is the average test result obtained on the samples submitted by the particular mill up to, but not including, the current average. The mill factor and the mill index are obtained as follows:

$$\frac{\text{current mill average}}{\text{cumulative mill average}} \times 100 = \text{mill factor } (\%)$$

$$\frac{\text{current mill average}}{\text{cumulative F.K.I. average}} \times 100 = \text{mill index } (\%)$$

The mill factor and the mill index serve as a ready means for comparing the current mill results either with the previous results for that particular mill or with the cumulative F.K.I. results. As the test data accumulate, the factors and indexes acquire added significance. The reports also contain a comparison of the test data obtained at the mills with test data obtained at The Institute of Paper Chemistry.

The results obtained on the special drum stock may be seen in Table XVIII.

It may be noted in Tables III through XVIII that the test data include information about the sheet finish. The summarized results for the mills which submitted sample lots during the current period are as follows:

Mill Code	No. of Sample Lots W.F.	D.F.	Misc.
A	10[a]		
B	--		

(Continued on the next page.)

Mill Code	No. of Sample Lots W.F.	D.F.	Misc.
C	8		
D	3		
E	2[a]		2[a, b]
F	10		
G	1		
H	2[a]		
I	6[a]		
J			4[d]
K			3[c]
L			8[c]
M	8		
N	3[a]	1	1[c]
O	3		

[a] One side only.
[b] Drum linerboard.
[c] Sheet finish not reported.
[d] Semi-water finish.

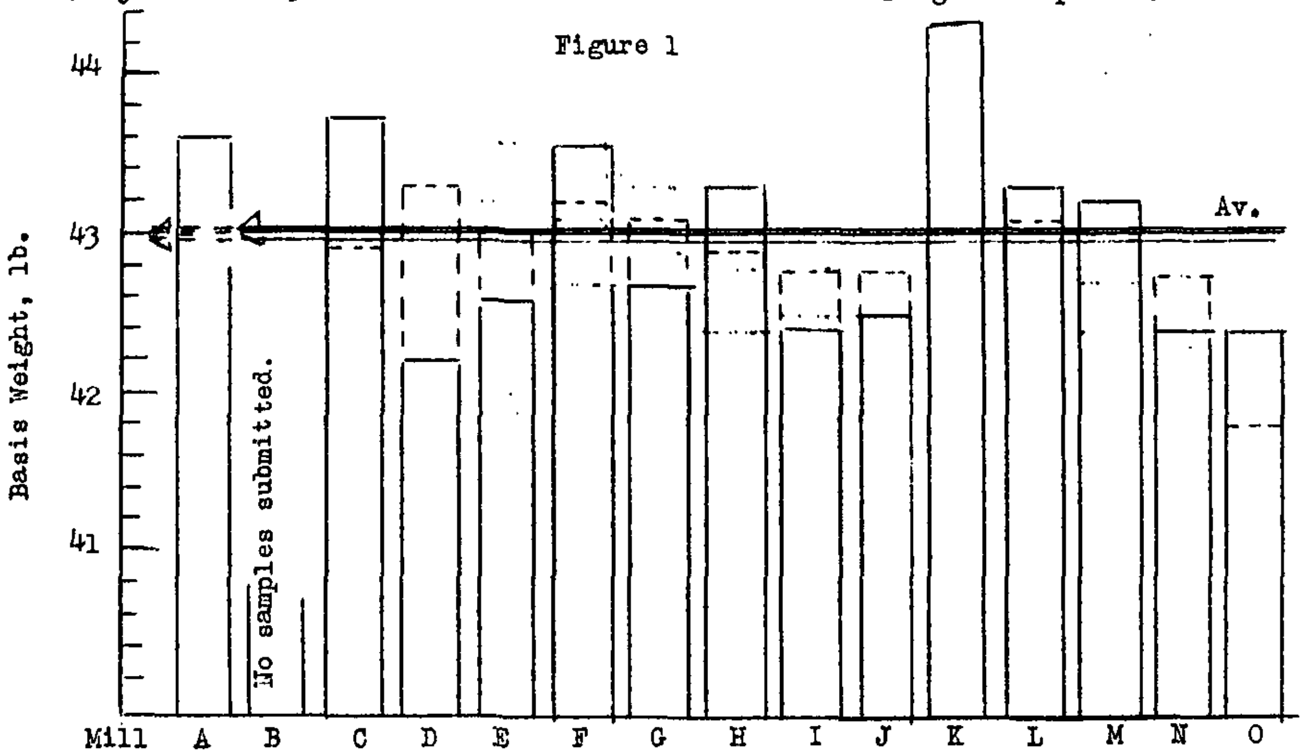
The results indicate that a majority of the mills are using a water finish on their 42-lb. linerboard.

TABLE II

SUMMARY OF COMPOSITE MILL AVERAGES—NOVEMBER 1 THROUGH NOVEMBER 30, 1954

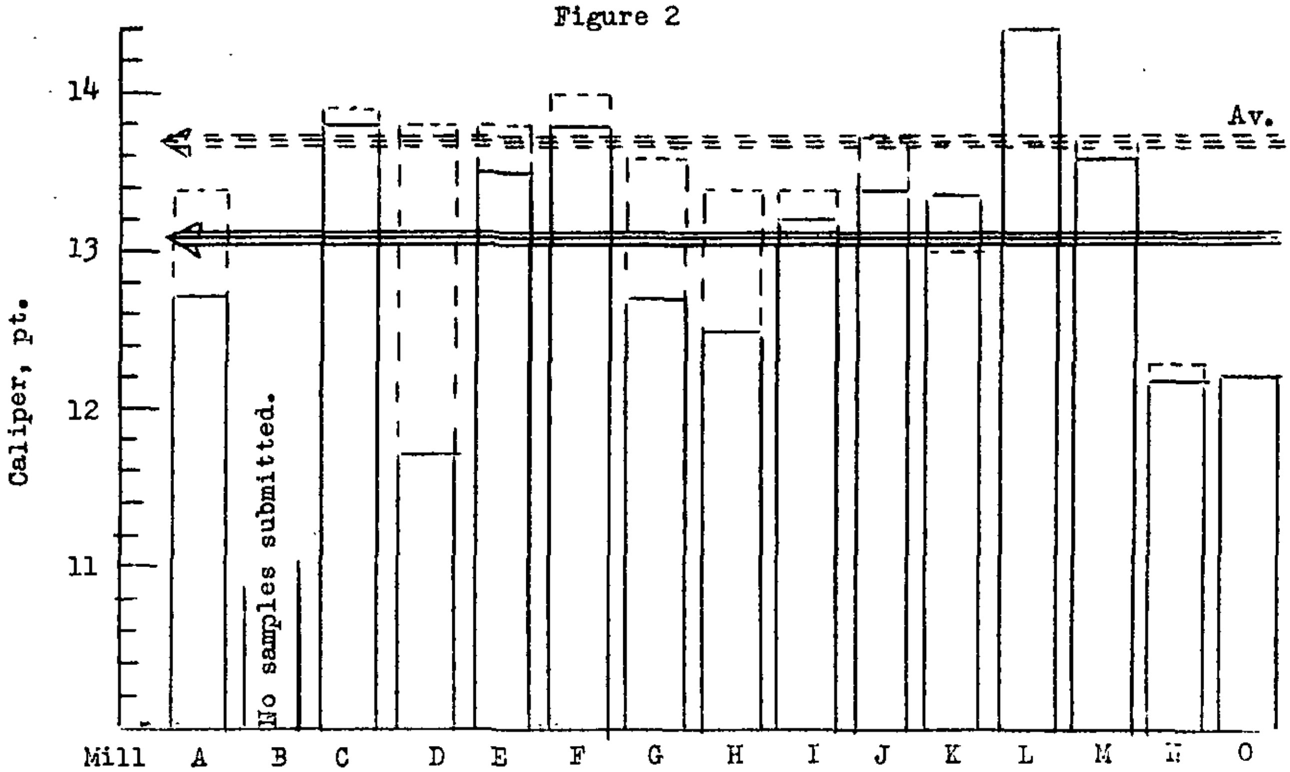
Code No.	Basis Weight, lb.	Caliper, points	Bursting Strength, p.s.i. gage	G. E. Puncture, units	Elmendorf Tear, g./sheet In Direction	Elmendorf Tear, g./sheet Across Direction
A	43.6	12.7	113	35	339	384
B	No samples submitted.					
C	43.7	13.8	110	36	352	380
D	42.2	11.7	110	36	352	385
E	42.6	13.5	107	34	372	371
F	43.6	13.8	107	40	409	433
G	42.7	12.7	111	33	343	377
H	43.3	12.5	114	36	364	410
I	42.4	13.2	114	34	326	389
J	42.5	13.4	102	31	375	357
K	44.3	13.4	108	40	395	409
L	43.3	14.4	105	36	356	389
M	43.2	13.6	104	35	359	388
N	42.4	12.2	106	40	359	387
O	42.4	12.2	118	36	350	394
Current FKI Average:	43.0	13.1	109	36	361	389
Cumulative FKI Acerage:	43.0	13.7	107	36	367	400
FKI Index, %:	100.0	95.6	101.9	100.0	98.4	97.2

Figure 1



COMPARISON OF BASIS WEIGHT RESULTS
(Period November 1 - November 30)

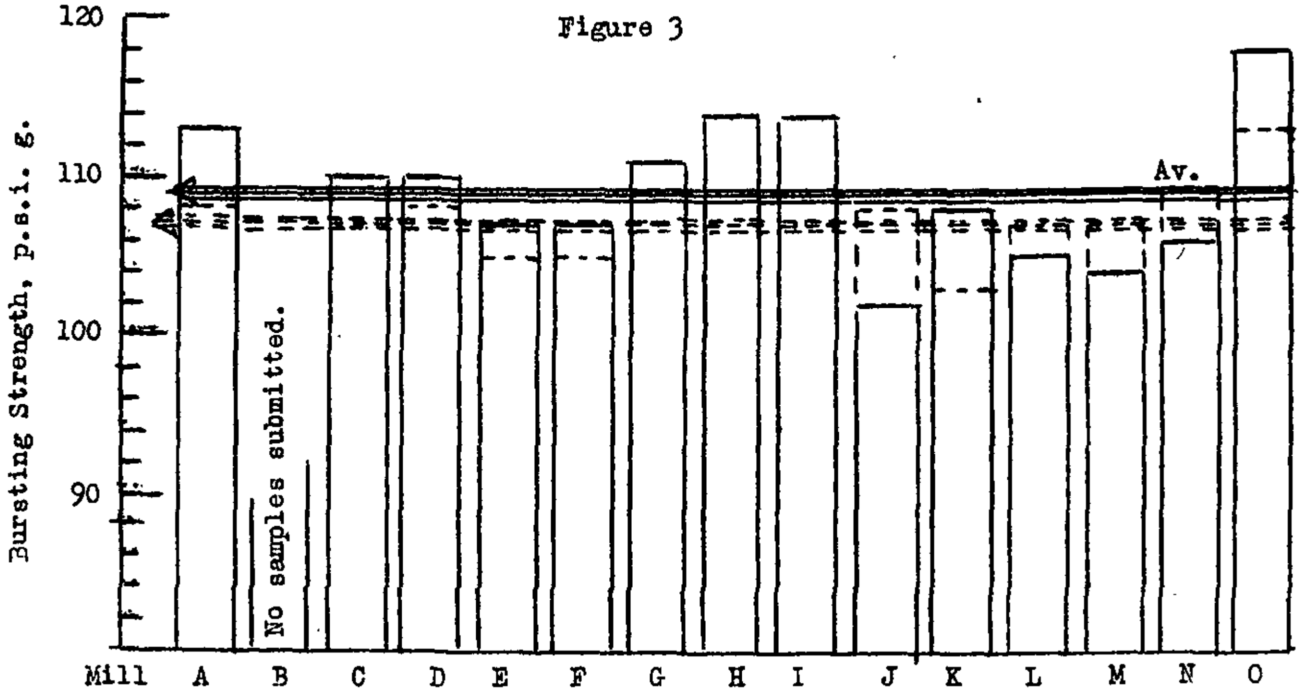
Figure 2



COMPARISON OF CALIPER RESULTS
(Period November 1 - November 30)

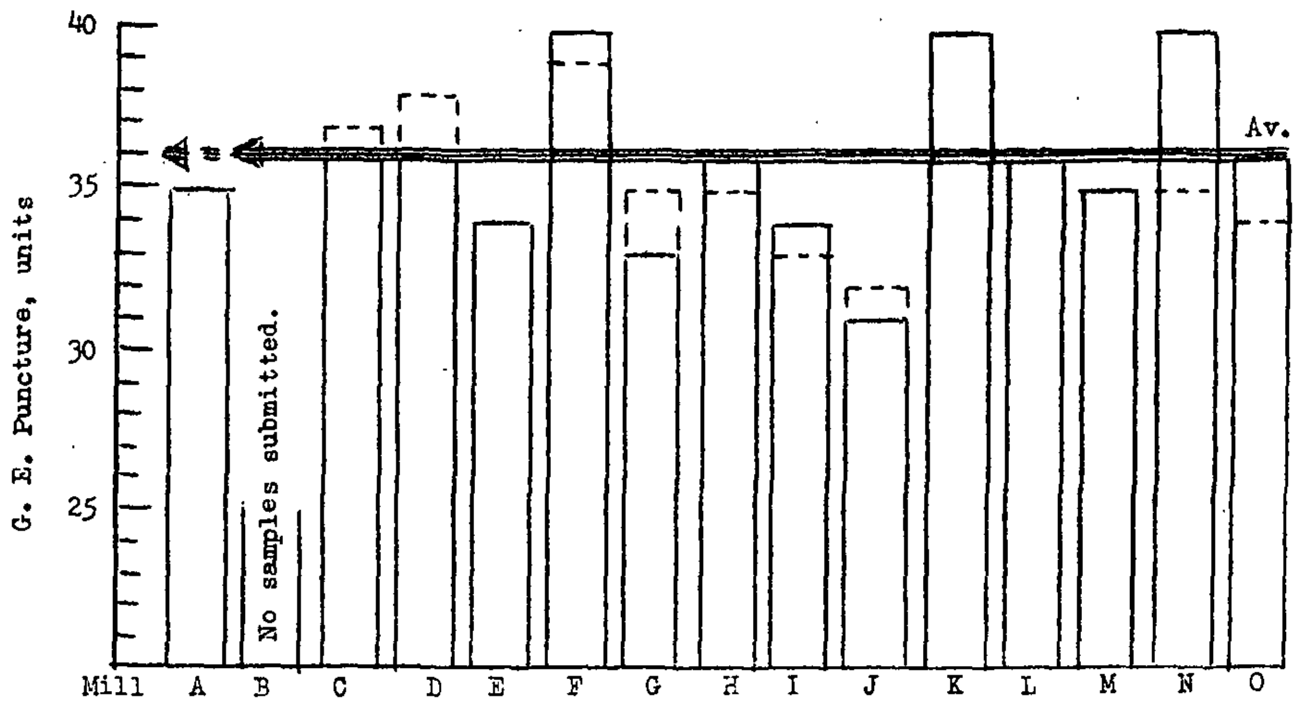
——— Current mill average
- - - - Cumulative mill average

Figure 3



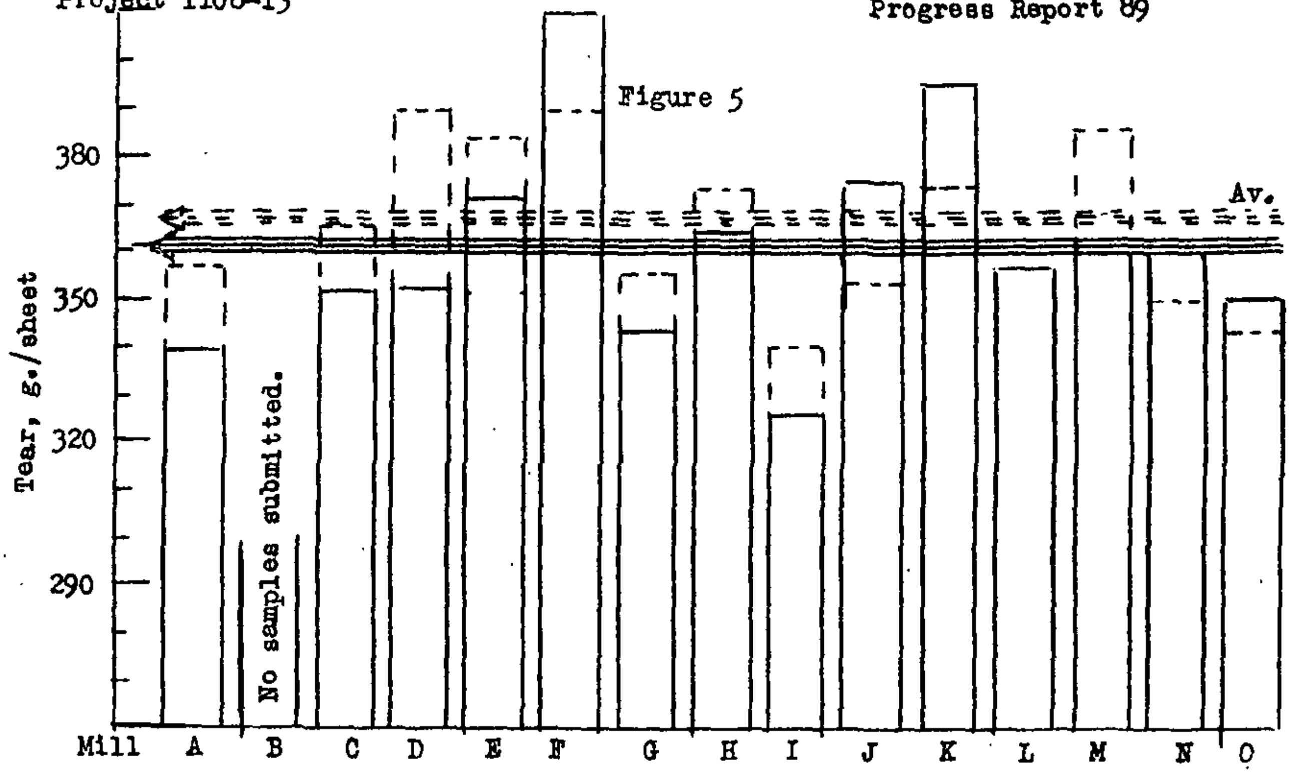
COMPARISON OF BURSTING STRENGTH RESULTS
(Period November 1 - November 30)

Figure 4



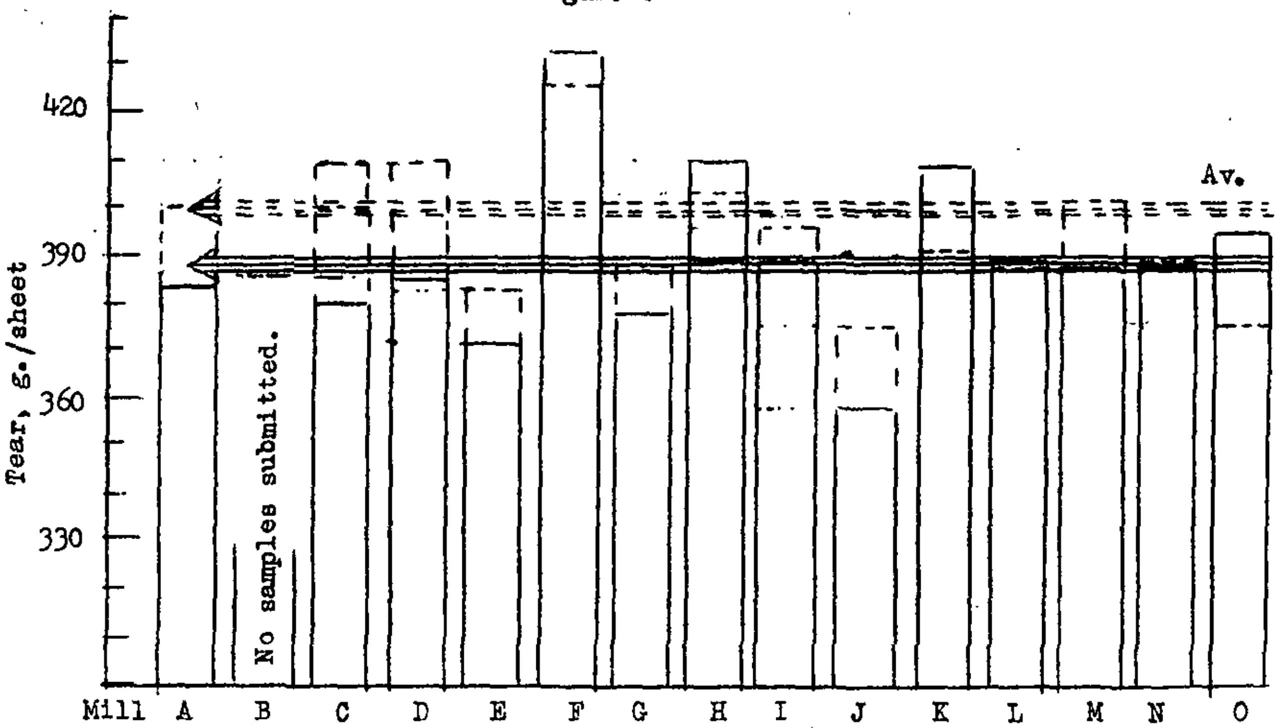
COMPARISON OF G. E. PUNCTURE RESULTS
(Period November 1 - November 30)

Figure 5



COMPARISON OF TEAR RESULTS, Machine Direction
(Period November 1 - November 30)

Figure 6



COMPARISON OF TEAR RESULTS, Cross-machine Direction
(Period November 1 - November 30)

TABLE III

NDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954

Weight,		Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Across		
Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill A--42-lb. Linerboard																
43.0	43.2	12.6	12.0	12.2	146	104	120	36	32	34	368	296	329a	424	320	373a
42.4	43.7	13.0	12.2	12.6	132	100	117	36	32	34	376	288	327	448	352	391a
43.2	43.8	13.1	12.3	12.8	136	92	116	41	33	36	392	288	355a	456	360	407a
42.2	43.4	12.7	12.0	12.3	139	90	114	37	31	34	448	304	353	448	352	399a
42.6	43.3	13.3	11.7	12.6	125	89	108	38	32	35	384	304	326a	416	336	375a
42.6	43.5	13.9	12.1	13.2	128	94	110	38	32	35	392	288	339a	400	344	369a
43.4	44.1	13.4	12.7	13.1	132	79	112	38	34	36	368	304	340a	432	360	383a
43.2	44.5	13.3	12.6	13.0	140	90	116	41	35	37	416	288	343	432	328	389a
42.4	43.5	13.2	12.0	12.6	136	93	108	38	31	35	392	304	335a	400	344	373a
42.2	43.4	13.3	11.8	12.5	129	87	112	38	32	35	392	288	337a	416	336	373a
	43.6			12.7			113			35			339			384
	42.9			13.4			108			35			357			400
	101.6			94.8			104.6			100.0			95.0			96.0
	101.4			92.7			105.6			97.2			92.4			96.0

TABLE IV

Mill B--42-lb. Linerboard

No samples submitted.

specimens which tore beyond the 3/8-inch limit.

TABLE III

SUMMARY OF INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954

File No.	Mill Code	Fin-ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Ma
Mill A—42-lb. Linerboard																		
160441	A-592	WFLS	11/ 1/54	10/18/54	1	43.8	43.0	43.2	12.6	12.0	12.2	146	104	120	36	32	34	36
160442	A-593	WFLS	11/ 1/54	10/19/54	2	45.0	42.4	43.7	13.0	12.2	12.6	132	100	117	36	32	34	37
160505	A-594	WFLS	11/ 6/54	10/24/54	1	44.4	43.2	43.8	13.1	12.3	12.8	136	92	116	41	33	36	39
160506	A-595	WFLS	11/ 6/54	10/25/55	1	44.0	42.2	43.4	12.7	12.0	12.3	139	90	114	37	31	34	44
160554	A-596	WFLS	11/11/54	11/ 1.54	2	44.0	42.6	43.3	13.3	11.7	12.6	125	89	108	38	32	35	38
160555	A-597	WFLS	11/11/54	11/ 6/55	2	44.0	42.6	43.5	13.9	12.1	13.2	128	94	110	38	32	35	39
160650	A-598	WFLS	11/22/54	11/ 8/54	2	44.6	43.4	44.1	13.4	12.7	13.1	132	79	112	38	34	36	36
160651	A-599	WFLS	11/22/54	11/ 8/54	2	45.4	43.2	44.5	13.3	12.6	13.0	140	90	116	41	35	37	41
160694	A-600	WFLS	11/24/54	11/15/54	2	44.4	42.4	43.5	13.2	12.0	12.6	136	93	108	38	31	35	39
160695	A-601	WFLS	11/24/54	11/16/54	2	44.2	42.2	43.4	13.3	11.8	12.5	129	87	112	38	32	35	39
Current Mill Average:								43.6			12.7			113			35	
Cumulative Mill Average:								42.9			13.4			108			35	
Mill Factor, %:								101.6			94.8			104.6			100.0	
Mill Index, %:								101.4			92.7			105.6			97.2	

TABLE IV

Mill B—42-lb. Linerboard

No samples submitted.

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE 7

TEST LOTS--NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

,	Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
	Mill C--42-lb. Linerboard														
4.1	14.3	12.8	13.6	135	82	112	40	33	36	384	336	362a	424	360	384a
4.0	14.0	13.2	13.7	122	86	106	40	34	37	400	304	348a	443	360	395a
3.4	13.9	12.2	13.1	130	94	108	36	31	34	400	296	337	416	344	367a
3.4	14.0	12.6	13.2	130	95	110	39	34	36	408	304	353a	416	336	372a
3.4	14.9	13.3	14.1	143	85	110	40	32	35	400	320	363a	416	328	387a
3.5	14.7	13.4	14.1	140	88	113	39	32	37	480	296	360a	416	336	385a
3.9	14.9	13.8	14.2	131	94	112	39	32	36	424	320	357a	416	344	376a
4.0	14.8	13.2	14.2	138	97	112	37	31	35	376	248	337a	400	312	374a
3.7			13.8			110			36			352			380
2.9			13.9			107			37			365			410
1.9			99.3			102.8			97.3			96.4			92.7
1.6			100.7			102.8			100.0			95.9			95.0

ens which tore beyond the 3/8-inch limit.

TABLE 7

SUMMARY OF INDIVIDUAL TEST LOTS--NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

File No.	Mill Code	Fin-ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, p.s.i. gage Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av.	M
Mill C--42-lb. Linerboard																		
160560	C-609	W.F.	11/12/54	11/ 1/54	1	44.8	43.6	44.1	14.3	12.8	13.6	135	82	112	40	33	36	38
160561	C-610	W.F.	11/12/54	11/ 1/54	1	44.8	43.4	44.0	14.0	13.2	13.7	122	86	106	40	34	37	40
160562	C-611	W.F.	11/12/54	11/ 2/54	1	44.0	42.6	43.4	13.9	12.2	13.1	130	94	108	36	31	34	40
160563	C-612	W.F.	11/12/54	11/ 2/54	1	44.2	42.6	43.4	14.0	12.6	13.2	130	95	110	39	34	36	40
160564	C-613	W.F.	11/12/54	11/ 4/54	1	44.2	42.0	43.4	14.9	13.3	14.1	143	85	110	40	32	35	40
160565	C-614	W.F.	11/12/54	11/ 4/54	1	45.0	42.2	43.5	14.7	13.4	14.1	140	88	113	39	32	37	48
160566	C-615	W.F.	11/12/54	11/ 5/54	1	44.2	43.6	43.9	14.9	13.8	14.2	131	94	112	39	32	36	42
160567	C-616	W.F.	11/12/54	11/ 5/54	1	45.0	42.2	44.0	14.8	13.2	14.2	138	97	112	37	31	35	37
Current Mill Average:								43.7			13.8			110			36	
Cumulative Mill Average:								42.9			13.9			107			37	
Mill Factor, %:								101.9			99.3			102.8			97.3	
Mill Index, %:								101.6			100.7			102.8			100.0	

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE VI

INDIVIDUAL TEST LOTS--NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

Weight, b.		Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
		Mill D--42-lb. Linerboard														
40.4	42.2	12.1	10.7	11.6	129	90	110	40	34	37	384	336	353a	416	320	383a
42.0	42.2	12.2	11.0	11.8	133	92	111	42	33	36	424	304	347a	424	328	382a
41.8	42.1	12.2	11.0	11.7	124	93	109	38	32	35	392	304	356a	448	336	391a
	42.2			11.7			110			36			352			385
	43.3			13.8			108			38			389			410
	97.5			84.8			101.9			94.7			90.5			93.9
	98.1			85.4			102.8			100.0			95.9			96.2

TAVLE VII

		Mill E.--42-lb. Linerboard														
42.2	43.0	14.0	13.0	13.6	130	91	112	38	32	35	416	336	371a	416	288	367a
41.2	42.2	14.2	12.8	13.5	122	83	102	37	31	34	432	336	373a	400	352	374a
	42.6			13.5			107			34			372			371
	43.0			13.8			105			34			384			383
	99.1			97.8			101.9			100.0			96.9			96.9
	99.1			98.5			100.0			94.4			101.4			92.8

e specimens which tore beyond the 3/8-inch limit.

TABLE VI

SUMMARY OF INDIVIDUAL TEST LOTS--NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (co

File No.	Mill Code	Fin-ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, p.s.i. gage Max.	Min.	Av.	G. E. Puncture, units Max.	Min.
Mill D--42-lb. Linerboard																
160712	D-812	W.F.	11/24/54	11/16/54	4	43.0	40.4	42.2	12.1	10.7	11.6	129	90	110	40	34
160713	D-813	W.F.	11/24/54	11/17/54	4	42.8	42.0	42.2	12.2	11.0	11.8	133	92	111	42	33
160714	D-814	W.F.	11/24/54	11/18/54	4	42.6	41.8	42.1	12.2	11.0	11.7	124	93	109	38	32
Current Mill Average:								42.2			11.7			110		
Cumulative Mill Average:								43.3			13.8			108		
Mill Factor, %:								97.5			84.8			101.9		
Mill Index, %:								98.1			85.4			102.8		

TAVLE VII

File No.	Mill Code	Fin-ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, p.s.i. gage Max.	Min.	Av.	G. E. Puncture, units Max.	Min.
Mill E--42-lb. Linerboard																
160439	E-106	WF1S	11/ 1/54	10/26/54	2	44.0	42.2	43.0	14.0	13.0	13.6	130	91	112	38	32
160558	E-110	WF1S	11/11/54	11/ 9/54	2	43.6	41.2	42.2	14.2	12.8	13.5	122	83	102	37	31
Current Mill Average:								42.6			13.5			107		
Cumulative Mill Average:								43.0			13.8			105		
Mill Factor, %:								99.1			97.8			101.9		
Mill Index, %:								99.1			98.5			100.0		

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE VIII

INDIVIDUAL TEST LOTS--NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

	ght,	Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Across		
	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
		Mill F--42-lb. Linerboard														
	42.6	14.3	12.5	13.7	125	90	104	42	33	37	488	336	419a	472	368	420a
	42.5	14.7	13.0	14.2	128	90	107	43	34	39	472	368	403a	480	352	425a
	43.2	15.0	13.2	14.2	133	91	111	42	36	39	472	368	405a	488	384	433a
	44.8	15.2	11.9	13.9	127	85	104	44	38	42	496	400	451a	488	384	445a
	44.9	14.8	13.3	14.1	132	88	112	42	36	39	440	352	411a	472	408	438a
	43.0	14.3	12.8	13.6	147	90	108	42	34	38	456	344	381a	464	352	412a
	43.6	14.7	13.1	13.8	122	84	106	44	35	40	448	368	407a	480	400	442a
	43.5	14.4	12.7	13.6	126	83	110	43	36	40	456	360	415a	464	384	425a
as lost in transit. The wrapping had broken open and was received minus the sample.																
	43.2	14.5	12.7	13.6	123	86	107	41	34	38	488	336	405a	464	368	423a
	44.6	14.3	12.0	13.5	124	84	106	46	35	42	424	336	390	520	432	468a
	43.6			13.8			107			40			409			433
	43.2			14.0			105			39			389			426
	100.9			98.6			101.9			102.6			105.1			101.6
	101.4			100.7			100.0			111.1			111.4			108.2

ecimens which tore beyond the 3/8-inch limit.

TABLE VIII

SUMMARY OF INDIVIDUAL TEST LOTS--NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (c

File No.	Mill Code	Fin-ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, p.s.i. gage Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av.
									Mill F--42-lb. Linerboard								
160464	F-78	W.B.	11/ 2/54	10/22/54	--	44.2	40.2	42.6	14.3	12.5	13.7	125	90	104	42	33	37
160465	F-79	W.B.	11/ 2/54	10/22/54	--	44.0	39.6	42.5	14.7	13.0	14.2	128	90	107	43	34	39
160450	F-80	W.B.	11/ 1/54	10/23/54	--	45.2	42.0	43.2	15.0	13.2	14.2	133	91	111	42	36	39
160512	F-81	W.B.	11/ 8/54	10/27/54	--	46.2	43.4	44.8	15.2	11.9	13.9	127	85	104	44	38	42
160513	F-82	W.B.	11/ 8/54	10/29/54	--	46.0	42.6	44.9	14.8	13.3	14.1	132	88	112	42	36	39
160514	F-83	W.B.	11/ 8/54	11/ 2/54	--	44.0	41.6	43.0	14.3	12.8	13.6	147	90	108	42	34	38
160685	F-84	W.B.	11/23/54	11/ 2/54	--	44.4	42.0	43.6	14.7	13.1	13.8	122	84	106	44	35	40
160667	F-85	W.B.	11/22/54	11/ 3/54	--	44.4	42.0	43.5	14.4	12.7	13.6	126	83	110	43	36	40
	F-86	The sample intended for the Institute was lost in transit. The wrapping had broken open and was recei															
160668	F-87	W.B.	11/22/54	11/ 9/54	--	44.2	42.0	43.2	14.5	12.7	13.6	123	86	107	41	34	38
160720	F-91	W.B.	11/26/54	11/17/54	--	46.0	43.4	44.6	14.3	12.0	13.5	124	84	106	46	35	42
Current Mill Average:								43.6			13.8			107			40
Cumulative Mill Average:								43.2			14.0			105			39
Mill Factor, %:								100.9			98.6			101.9			102.6
Mill Index, %:								101.4			100.7			100.0			111.1

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE IX

OF INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Across		
Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
				Mill G--42-lb. Linerboard													
43.8	41.0	42.7	13.5	12.0	12.7	137	89	111	36	31	33	408	304	343	416	336	377a
		42.7			12.7			111			33			343			377
		43.1			13.6			109			35			355			388
		99.1			93.4			101.8			94.3			96.6			97.2
		99.3			92.7			103.7			91.7			93.5			94.2

TABLE X

Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Across		
Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
				Mill H--42-lb. Linerboard													
43.8	43.0	43.4	12.9	12.3	12.6	136	97	117	38	32	35	400	320	359a	464	344	399a
44.0	42.4	43.1	12.8	12.0	12.5	129	89	111	40	32	36	416	320	369a	480	368	421a
		43.3			12.5			114			36			364			410
		42.9			13.4			107			35			373			403
		100.9			93.3			106.5			102.9			97.6			101.7
		100.7			91.2			106.5			100.0			99.2			102.5

or more specimens which tore beyond the 3/8-inch limit.

TABLE IX

SUMMARY OF INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (co

File No.	Mill Code	Fin-ish	Late Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Punctur units Max.	G. E. Punctur units Min.
Mill G--42-lb. Linerboard																
160507	G-615	W.F.	11/ 6/54	10/28/54	2	43.8	41.0	42.7	13.5	12.0	12.7	137	89	111	36	31
Current Mill Average:								42.7			12.7			111		
Cumulative Mill Average:								43.1			13.6			109		
Mill Factor, %:								99.1			93.4			101.8		
Mill Index, %:								99.3			92.7			103.7		

TABLE X

File No.	Mill Code	Fin-ish	Late Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Punctur units Max.	G. E. Punctur units Min.
Mill H--42-lb. Linerboard																
160443	H-478	WF1S	11/ 1/54	10/19/54	2	43.8	43.0	43.4	12.9	12.3	12.6	136	97	117	38	32
160444	H-479	WF1S	11/ 1/54	10/20/54	2	44.0	42.4	43.1	12.8	12.0	12.5	129	89	111	40	32
Current Mill Average:								43.3			12.5			114		
Cumulative Mill Average:								42.9			13.4			107		
Mill Factor, %:								100.9			93.3			106.5		
Mill Index, %:								100.7			91.2			106.5		

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XI

UAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

	Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
	Mill I--42-lb. Linerboard														
1	12.9	11.5	12.2	130	95	117	35	30	32	320	272	304	416	336	375a
3	13.0	11.5	12.0	123	100	110	35	29	32	384	264	317a	456	328	374a
1	14.2	13.2	13.6	133	92	117	36	32	35	368	288	326a	416	360	391a
6	14.6	13.0	13.8	127	80	111	38	33	36	384	296	331a	440	344	395a
2	14.1	13.2	13.8	135	102	116	38	32	35	368	280	339a	440	352	389a
2	14.5	13.0	13.7	129	100	112	38	33	36	368	304	341a	472	376	409a
4			13.2			114			34			326			389
8			13.4			107			33			340			396
1			98.5			106.5			103.0			95.9			98.2
6			96.4			106.5			94.4			88.8			97.2

s which tore beyond the 3/8-inch limit.

TABLE XI

SUMMARY OF INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continu

File No.	Mill Code	Fin-ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.
									Mill I—42-lb. Linerboard									
160440	I-428	WFlS	11/ 1/54	10/24/54	1	42.4	41.8	42.1	12.9	11.5	12.2	130	95	117	35	30	32	320
160502	I-429	WFlS	11/ 6/54	11/ 1/54	1	43.2	41.4	42.3	13.0	11.5	12.0	123	100	110	35	29	32	384
160576	I-430	WFlS	11/13/54	11/ 8/54	1	42.6	41.6	42.1	14.2	13.2	13.6	133	92	117	36	32	35	368
160686	I-431	WFlS	11/23/54	11/11/54	1	43.4	42.2	42.6	14.6	13.0	13.8	127	80	111	38	33	36	384
160687	I-432	WFlS	11/23/54	11/16/54	1	42.6	42.0	42.2	14.1	13.2	13.8	135	102	116	38	32	35	368
160719	I-433	WFlS	11/26/54	11/18/54	1	43.8	42.0	43.2	14.5	13.0	13.7	129	100	112	38	33	36	368
Current Mill Average:								42.4			13.2			114			34	
Cumulative Mill Average:								42.8			13.4			107			33	
Mill Factor, %:								99.1			98.5			106.5			103.0	
Mill Index, %:								98.6			96.4			106.5			94.4	

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XII

IVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

asis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Across		
.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
	Mill J—42-lb. Linerboard																
2	40.2	42.0	13.4	12.2	12.9	116	69	101	33	27	30	416	328	379a	400	304	347a
4	40.0	41.6	13.4	12.8	13.1	120	64	100	33	28	31	440	352	377a	384	272	345a
4	41.6	43.2	14.5	13.1	13.9	116	85	103	36	30	33	424	360	386a	400	320	363a
2	41.2	43.1	14.1	13.3	13.6	126	80	105	33	30	32	400	328	357a	424	336	372a
		42.5			13.4			102			31			375			357
		42.8			13.7			108			32			353			375
		99.3			97.8			94.4			96.9			106.2			95.2
		98.8			97.8			95.3			86.1			102.2			89.2

TABLE XIII

	Mill K--42-lb. Linerboard																
)	44.0	44.6	14.1	12.8	13.5	134	89	106	42	36	39	464	368	403	448	368	414a
3	42.0	43.9	14.1	12.5	13.5	137	84	109	43	37	40	480	312	385a	448	320	401a
)	43.0	44.3	14.0	13.0	13.3	131	85	109	46	37	41	448	360	398a	464	368	413a
		44.3			13.4			108			40			395			409
		43.0			13.0			103			36			374			391
		103.0			103.1			104.9			111.1			105.6			104.6
		103.0			97.8			100.9			111.1			107.6			102.2

:e specimens which tore beyond the 3/8-inch limit.

TABLE XII

SUMMARY OF INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (contin

File No.	Mill Code	Fin-ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E Punctu unit Max.	G. E Punctu unit Min.
									Mill J—42-lb. Linerboard							
160448	J-507	B.F.	11/ 1/54	10/13/54	—	43.2	40.2	42.0	13.4	12.2	12.9	116	69	101	33	27
160449	J-508	B.F.	11/ 1/54	10/13/54	—	42.4	40.0	41.6	13.4	12.8	13.1	120	64	100	33	28
160717	J-509	B.F.	11/24/54	11/12/54	—	44.4	41.6	43.2	14.5	13.1	13.9	116	85	103	36	30
160718	J-510	B.F.	11/24/54	11/12/54	—	44.2	41.2	43.1	14.1	13.3	13.6	126	80	105	33	30
Current Mill Average:								42.5			13.4			102		
Cumulative Mill Average:								42.8			13.7			108		
Mill Factor, %:								99.3			97.8			94.4		
Mill Index, %:								98.8			97.8			95.3		

TABLE XIII

File No.	Mill Code	Fin-ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E Punctu unit Max.	G. E Punctu unit Min.
									Mill K--42-lb. Linerboard							
160489	K-47		11/ 4/54	10/25/54	7	46.0	44.0	44.6	14.1	12.8	13.5	134	89	106	42	36
160556	K-48		11/11/54	11/ 3/54	7	45.8	42.0	43.9	14.1	12.5	13.5	137	84	109	43	37
160647	K-49		11/19/54	11/15/54	7	46.0	43.0	44.3	14.0	13.0	13.3	131	85	109	46	37
Current Mill Average:								44.3			13.4			108		
Cumulative Mill Average:								43.0			13.0			103		
Mill Factor, %:								103.0			103.1			104.9		
Mill Index, %:								103.0			97.8			100.9		

[b] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XIV

DUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

ight, . n.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, p.s.i. gage Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av.	Elmendorf Tear, g./sheet In Max.	Min.	Av.	Across Max.	Min.	Av.
		Mill L—42-lb. Linerboard														
.0	43.6	14.7	13.2	14.1	129	75	102	37	32	35	464	312	353a	440	344	383a
.8	43.4	15.9	13.7	15.1	118	74	100	39	34	36	400	312	357a	424	352	385a
.0	42.6	15.2	13.4	14.6	126	74	101	39	31	35	384	312	342a	440	352	397a
.0	43.0	15.0	13.4	14.4	120	80	101	39	33	36	440	352	382a	416	344	385a
.2	43.4	16.0	14.3	15.3	126	75	108	40	34	36	408	336	364a	464	336	401a
.6	44.0	14.9	13.0	14.3	132	82	107	41	36	38	392	320	367	448	376	409a
.6	42.6	13.0	11.4	12.3	134	93	109	37	31	34	360	288	323a	400	312	358a
.0	43.7	15.8	14.3	15.2	123	80	108	41	33	37	400	312	358a	424	320	390a
	43.3			14.4			105			36			356			389
	43.1			13.7			107			36			356			388
	100.5			105.1			98.1			100.0			100.0			100.3
	100.7			105.1			98.1			100.0			97.0			97.2

ecimens which tore beyond the 3/8-inch limit.

TABLE XIV

SUMMARY OF INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (conti

File No.	Mill Code	Fin-ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, p.s.i. gage Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av
									Mill L—42-lb. Linerboard								
160451	L-308		11/ 1/54	10/ 9/54	1	44.0	43.0	43.6	14.7	13.2	14.1	129	75	102	37	32	
160452	L-309		11/ 1/54	10/10/54	1	44.4	41.8	43.4	15.9	13.7	15.1	118	74	100	39	34	
160594	L-310		11/15/54	10/20/54	1	44.0	41.0	42.6	15.2	13.4	14.6	126	74	101	39	31	
160595	L-311		11/15/54	10/22/54	1	45.1	42.0	43.0	15.0	13.4	14.4	120	80	101	39	33	
160688	L-312		11/23/54	10/25/54	1	44.2	42.2	43.4	16.0	14.3	15.3	126	75	108	40	34	
160689	L-313		11/23/54	10/26/54	1	44.6	43.6	44.0	14.9	13.0	14.3	132	82	107	41	36	
160690	L-314		11/23/54	11/ 2/54	1	44.0	41.6	42.6	13.0	11.4	12.3	134	93	109	37	31	
160691	L-315		11/23/54	11/ 4/54	1	44.8	43.0	43.7	15.8	14.3	15.2	123	80	108	41	33	
Current Mill Average:								43.3			14.4			105			
Cumulative Mill Average:								43.1			13.7			107			
Mill Factor, %:								100.5			105.1			98.1			
Mill Index, %:								100.7			105.1			98.1			

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XV

)UAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

	ight,	Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Across		
.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
		Mill M—42-lb. Linerboard														
4	43.4	14.3	13.8	14.0	120	91	109	37	32	34	408	344	367a	440	352	400a
6	42.5	13.9	13.1	13.5	121	74	102	37	32	34	392	288	349a	432	352	398a
8	44.0	14.2	13.2	13.7	118	80	104	40	35	37	416	344	371a	440	360	395a
0	43.2	14.2	13.2	13.8	121	81	105	40	33	36	464	344	391a	440	376	399a
0	42.4	13.5	12.8	13.1	127	88	111	36	31	34	368	288	338a	400	344	375a
0	43.1	13.6	12.4	13.1	122	80	105	36	31	34	384	304	341	400	344	372a
8	43.0	14.1	13.2	13.6	118	77	100	36	33	34	408	328	367a	403	336	379a
8	43.7	14.5	13.5	14.0	114	77	99	38	33	35	400	320	350a	424	352	381a
	43.2			13.6			104			35			359			388
	43.0			13.7			107			35			385			401
	100.5			99.3			97.2			100.0			93.2			96.8
	100.5			99.3			97.2			97.2			97.8			97.0

:cimens which tore beyond the 3/8-inch limit.

TABLE XV

SUMMARY OF INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continu

File No.	Mill Code	Fin-ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, p.s.i. gage Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av
									Mill M—42-lb. Linerboard								
160445	M-265	W.	11/ 1/54	10/12/54	4	44.0	42.4	43.4	14.3	13.8	14.0	120	91	109	37	32	34
160446	M-266	W.	11/ 1/54	10/15/54	2	44.4	40.6	42.5	13.9	13.1	13.5	121	74	102	37	32	34
160516	M-267	W.	11/ 9/54	10/20/54	4	45.2	42.8	44.0	14.2	13.2	13.7	118	80	104	40	35	37
160517	M-268	W.	11/ 9/54	10/27/54	4	44.2	42.0	43.2	14.2	13.2	13.8	121	81	105	40	33	36
160577	M-269	W.	11/13/54	11/ 8/54	2	44.2	41.0	42.4	13.5	12.8	13.1	127	88	111	36	31	34
160578	M-270	W.	11/13/54	11/ 9/54	2	44.0	42.0	43.1	13.6	12.4	13.1	122	80	105	36	31	34
160715	M-271	W.	11/24/54	11/17/54	4	43.6	40.8	43.0	14.1	13.2	13.6	118	77	100	36	33	34
160716	M-272	W.	11/24/54	11/18/54	4	44.6	41.8	43.7	14.5	13.5	14.0	114	77	99	38	33	35
Current Mill Average:								43.2			13.6			104			35
Cumulative Mill Average:								43.0			13.7			107			35
Mill Factor, %:								100.5			99.3			97.2			100
Mill Index, %:								100.5			99.3			97.2			97

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XVI

JAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

ght, Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Elmendorf Tear, g./sheet In Max.	Elmendorf Tear, g./sheet In Min.	Elmendorf Tear, g./sheet In Av.	Elmendorf Tear, g./sheet Across Max.	Elmendorf Tear, g./sheet Across Min.	Elmendorf Tear, g./sheet Across Av.
Mill N—42-lb. Linerboard															
42.6	12.6	11.3	11.9	125	83	106	44	36	41	440	320	371a	424	368	391a
43.0	13.4	12.2	12.8	115	75	101	44	36	41	416	304	355a	443	352	399a
41.7	12.4	11.7	12.0	128	89	110	41	35	38	424	312	365a	408	344	374a
42.7	12.7	12.1	12.4	120	86	106	44	37	41	384	328	355	440	352	392a
41.9	12.7	11.4	11.9	124	95	107	44	37	39	416	304	352a	432	336	380a
42.4			12.2			106			40			359			387
42.7			12.3			109			35			349			389
99.3			99.2			97.2			114.3			102.9			99.5
98.6			89.1			99.1			111.1			97.8			96.8

TABLE XVII

ght, Av.	Caliper Max.	Caliper Min.	Caliper Av.	Bursting Max.	Bursting Min.	Bursting Av.	Puncture Max.	Puncture Min.	Puncture Av.	Tear In Max.	Tear In Min.	Tear In Av.	Tear Across Max.	Tear Across Min.	Tear Across Av.
Mill O—42-lb. Linerboard															
42.2	12.8	12.1	12.3	132	102	116	36	32	34	368	312	345a	424	376	394a
42.5	12.5	11.7	12.1	141	106	123	37	31	34	384	304	341a	424	368	391a
42.7	12.6	11.9	12.2	128	98	116	40	35	38	392	336	364a	424	376	397a
42.4			12.2			118			36			350			394
41.8			12.2			113			34			343			375
101.4			100.0			104.4			105.9			102.0			105.1
98.6			89.1			110.3			100.0			95.4			98.5

mens which tore beyond the 3/8-inch limit.

TABLE XVI

SUMMARY OF INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (conti

File No.	Mill Code	Fin-ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, p.s.i. gage Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	A
									Mill N—42-lb. Linerboard								
160495	N-112	D.F.	11/ 5/54	10/21/54	1	43.4	41.6	42.6	12.6	11.3	11.9	125	83	106	44	36	4
160496	N-113	——	11/ 5/54	10/27/54	1	43.6	42.0	43.0	13.4	12.2	12.8	115	75	101	44	36	4
160497	N-114	WF1S	11/ 5/54	10/28/54	1	42.6	40.4	41.7	12.4	11.7	12.0	128	89	110	41	35	3
160692	N-115	WF1S	11/23/54	11/ 2/54	1	43.2	42.0	42.7	12.7	12.1	12.4	120	86	106	44	37	4
160693	N-116	WF1S	11/23/54	11/ 4/54	1	43.0	41.0	41.9	12.7	11.4	11.9	124	95	107	44	37	3
Current Mill Average:								42.4			12.2			106			4
Cumulative Mill Average:								42.7			12.3			109			3
Mill Factor, %:								99.3			99.2			97.2			11
Mill Index, %:								98.6			89.1			99.1			11

TABLE XVII

File No.	Mill Code	Fin-ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, p.s.i. gage Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	A
									Mill O—42-lb. Linerboard								
160447	O-63	W.F.	11/ 1/54	10/26/54	3	43.6	41.6	42.2	12.8	12.1	12.3	132	102	116	36	32	
160696	O-64	W.F.	11/24/54	11/ 8/54	4	43.8	41.6	42.5	12.5	11.7	12.1	141	106	123	37	31	
160697	O-65	W.F.	11/24/54	11/13/54	4	43.6	41.8	42.7	12.6	11.9	12.2	128	98	116	40	35	
Current Mill Average:								42.4			12.2			118			
Cumulative Mill Average:								41.8			12.2			113			
Mill Factor, %:								101.4			100.0			104.4			1
Mill Index, %:								98.6			89.1			110.3			1

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

VIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

Weight, b. Min.	Weight, Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Elmendorf Tear, g./sheet In Max.	Elmendorf Tear, g./sheet In Min.	Elmendorf Tear, g./sheet In Av.	Elmendorf Tear, g./sheet Across Max.	Elmendorf Tear, g./sheet Across Min.	Elmendorf Tear, g./sheet Across Av.
Mill E--44/46-lb. Drum Linerboard																
6.0	47.5	14.9	14.0	14.4	111	80	97	48	38	43	568	384	448a	432	376	405a
4.8	45.9	14.7	13.5	14.1	112	82	97	42	37	39	432	344	391a	456	304	385a
	46.7			14.2			97			41			420			395
	47.2			14.4			101			39			433			415
	98.9			98.6			96.0			105.1			97.0			95.2
Miscellaneous																
Mill E--28-lb. Linerboard																
26.8	27.6	8.6	8.2	8.4	84	60	71	20	17	19	242	200	217a	248	223	240a
Mill E--38-lb. Linerboard																
36.6	38.2	12.7	11.5	12.0	110	76	96	33	28	31	352	304	326a	352	312	327a
Mill E--90-lb. Linerboard																
37.6	90.8	27.7	25.9	26.7	181	123	151	105	92	99	896	688	806a	968	792	882a
39.0	91.1	29.7	27.5	28.5	193	134	160	108	96	102	864	688	784	1024	720	899a

specimens which tore beyond the 3/8-incg limit.

SUMMARY OF INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continu

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, p.s.i. gage Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av.
Mill E—44/46-lb. Drum Linerboard																	
160628	E-111	WF1S	11/18/54	11/15/54	2	49.2	46.0	47.5	14.9	14.0	14.4	111	80	97	48	38	43
160646	E-112	WF1S	11/19/54	11/16/54	2	47.0	44.8	45.9	14.7	13.5	14.1	112	82	97	42	37	39
Current Mill Average:								46.7			14.2			97			41
Cumulative Mill Average:								47.2			14.4			101			39
Mill Factor, %:								98.9			98.6			96.0			105.1
Miscellaneous																	
Mill E—28-lb. Linerboard																	
160504	E-108	WF1S	11/ 6/54	11/ 3/54	2	28.2	26.8	27.6	8.6	8.2	8.4	84	60	71	20	17	19
Mill E—38-lb. Linerboard																	
160557	E-109	WF1S	11/11/54	11/ 5/54	2	39.4	36.6	38.2	12.7	11.5	12.0	110	76	96	33	28	31
Mill E—90-lb. Linerboard																	
160438	E-105	WF1S	11/ 1/54	10/22/54	2	93.0	87.6	90.8	27.7	25.9	26.7	181	123	151	105	92	99
160503	E-107	WF1S	11/ 6/54	10/29/54	2	92.2	89.0	91.1	29.7	27.5	28.5	193	134	160	108	96	102

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-incg limit.

As a supplementary part of the Continuous Baseline Study, comparison of the mill test results with those obtained at The Institute of Paper Chemistry on corresponding samples have been included in this report. As may be noted in Table XIX, the atmospheric conditions used prior to and during the testing period varied considerably.

TABLE XIX

Code	Preconditioning R.H., %	Preconditioning Temp., ° F.	Preconditioning Time, hr.	Conditioning R.H., %	Conditioning Temp., ° F.	Conditioning Time, hr.
A		None		36-59	73-80	—
B	No samples submitted.					
C	50	72-73	48-72	50	72-73	48-72
D	32	77-78	8	49-50	71-72	16
E		None		47-56	80	--
F		None		47-59	71-78	40-48
G		None		50	73	48
H		None		50	73	24
I		None		41-50	74-76	---
J		None		50-52	72-73	0.5
K	50-52	73-74	24	50	74-75	---
L		None		45-72	70-88	—
M		None		42-48	68-72	—
N	50	72-73	24	50	72-73	24
O		None		50	73	20-24
E*		None		53-70	66-78	---

* Drum linerboard.

A summary of the mill comparisons for the current period as compared with the previous period may be seen in Tables XX and XXI, respectively. The comparison for the various mills is given in Tables XXII to XXXVI, for the 42-lb. liner samples. A comparison of the special drum stock is given in Table XXXVII. In all the comparisons given in Tables XX to XXXVII, the Institute's test values have been used as the reference line.

A comparison of the test data in Tables XX and XXI indicates that in the majority of cases there is good agreement between the mill and Institute data. Table XX shows the average difference encountered in the comparison of Institute and mill results for the sample lots submitted by each mill for the current period, as well as the maximum difference encountered in comparing the Institute and mill test results for a given sample lot. In Table XXI, the average differences shown for each test in Table XX have been calculated on a percentage basis for each mill. In addition, for purposes of comparison, the average percentage differences for the preceding two periods are shown.

It may be noted in Table XXI that the maximum variation between the average basis weight results of the Institute and those of a given mill on corresponding samples is two per cent for the current period. This maximum percentage variation agrees favorably with the corresponding variations for the previous periods. Further, it may be noted that the average basis weight results for Mills D, H, J, and N are higher than those for the Institute, whereas the results for Mills E and G are the same, and the results for the other mills are lower. In general, the agreement between Institute and mill basis weight results is very good.

The maximum variation in caliper for the current period is seven per cent. Compared with the values for the Institute, the average results for Mills D and H are the same, and the average results for the other mills are lower. The accord between Institute and mill caliper values is good with the exception of the variation of 7% noted for Mill E.

It may be noted in Table XXI that the bursting strength results exhibit a maximum variation of eight per cent for the current period. The average results for Mills D, K, L, M and N are higher than those for the Institute, the result for Mill A is the same and the results for the other mills are lower. The agreement in bursting strength results is good for all mills except E and H.

The G. E. puncture results exhibit a maximum variation of twenty per cent for the current period. Compared with the values for the Institute, the results for Mill J is higher, the results for Mills A and E are the same and the average results for the other mills are lower. The agreement between the Institute and mill results is good for all mills except G and M.

It may be seen in Tables XX and XXI that the average machine direction tear results for Mills I and N are higher than those for the Institute, the result for Mill L is the same and the results for the other mills are lower. The maximum variation for the current period is nineteen per cent. The differences encountered for Mill E appears to be excessive.

With regard to the cross-machine direction tear results, it may be noted that the average results for Mills C, F, I, J, L, and N are higher than those for the Institute whereas the average results for the other mills are lower. The maximum variation for the current period is twenty per cent. Only the difference for Mill N appears to be excessive.

TABLE XX

SUMMARY OF TEST RESULT COMPARISONS
(Average Mill and Institute Results)

	Mills*													
	A	C	D	E	F	G	H	I	J	K	L	M	N	O
No. Samples Compared	10	8	3	2	10	1	2	6	4	3	8	8	5	3
Basis Weight														
Institute	43.6	43.7	42.2	42.6	43.6	42.7	43.3	42.4	42.5	44.3	43.3	43.2	42.4	42.4
Mill	42.8	43.5	43.0	42.6	43.3	42.7	43.8	42.2	42.8	44.0	43.1	42.4	42.6	42.3
Av. Diff.**	-0.8	-0.2	+0.8	0.0	-0.3	0.0	+0.5	-0.2	+0.3	-0.3	-0.2	-0.8	+0.2	-0.1
Max. Diff.***	-1.1	-0.4	+1.2	+0.4	-1.0	0.0	+0.8	-0.9	+0.9	-0.4	-1.5	-1.7	+0.8	-0.3
Caliper														
Institute	12.7	13.8	11.7	13.5	13.8	12.7	12.5	13.2	13.4	13.4	14.4	13.6	12.2	12.2
Mill	12.6	13.3	11.7	12.6	13.3	12.3	12.5	12.9	13.1	12.9	13.8	13.0	12.1	11.9
Av. Diff.**	-0.1	-0.5	0.0	-0.9	-0.5	-0.4	0.0	-0.3	-0.3	-0.5	-0.6	-0.6	-0.1	-0.3
Max. Diff.***	-0.4	-0.6	+0.2	-1.3	-0.8	-0.4	±0.1	-0.5	-0.5	-0.7	-0.9	-0.8	-0.2	-0.4
Bursting Strength														
Institute	113	110	110	107	107	111	114	114	102	108	105	104	106	118
Mill	113	107	115	98	106	110	107	108	101	109	107	108	109	116
Av. Diff.**	0	-3	+5	-9	-1	-1	-7	-6	-1	+1	+2	+4	+3	-2
Max. Diff.***	-8	-6	+6	-12	+5	-1	-10	-11	-3	+3	+6	+6	+5	-5
G. E. Puncture														
Institute	35	36	36	34	40	33	36	34	31	40	36	35	40	36
Mill	35	35	—	34	39	29	35	33	32	—	—	28	—	—
Av. Diff.**	0	-1	—	0	-1	-4	-1	-1	+1	—	—	-7	—	—
Max. Diff.***	+4	-3	—	-2	-4	-4	-1	-5	+5	—	—	-9	—	—

(Continued on the next page.)

TABLE XX (Continued)

SUMMARY OF TEST RESULT COMPARISONS
(Average Mill and Institute Results)

	Mills*													
	A	C	D	E	F	G	H	I	J	K	L	M	N	O
No. Samples Compared	10	8	3	2	10	1	2	6	4	3	8	8	5	3
Tearing Strength, in														
Institute	339	352	352	372	409	343	364	326	375	395	356	359	359	350
Mill	330	345	329	301	402	331	342	339	364	364	356	344	367	319
Av. Diff.**	-9	-7	-23	-71	-7	-12	-22	+13	-11	-31	0	-15	+8	-31
Max. Diff.***	-39	-35	-32	-75	-26	-12	-32	+31	-49	-44	-63	-38	+48	-48
Tearing Strength, across														
Institute	384	380	385	371	433	377	410	389	357	409	389	388	387	394
Mill	379	392	371	339	439	350	395	416	379	404	398	364	464	385
Av. Diff.**	-5	+12	-14	-32	+6	-27	-15	+27	+22	-5	+9	-24	+77	-9
Max. Diff.***	-15	+42	-33	-48	-31	-27	-32	+52	+64	-17	-40	-40	+99	-17

* Comparison based on averages involves only those samples on which mill test data were submitted.

** Average difference is the difference between the Institute mill average and the mill average based on mill test data.

*** Maximum difference encountered in comparing the Institute average and the mill average for any sample submitted by that particular mill.

TABLE XXI

COMPARISON OF INSTITUTE-MILL DIFFERENCES BY PERIODS

	Average Differences, per cent					
	Basis Weight	Caliper	Bursting Strength	G. E. Puncture	Tearing Strength in	Tearing Strength across
Mill A						
Current period	-2	-0.8	0	0	-3	-1
88th period	-0.9	+0.8	-0.9	+3	-2	-0.5
87th period	-0.2	0	-4	+3	-0.3	+0.3
Mill B						
Current period	—	—	—	—	—	—
88th period	-1	-0.8	-3	-9	-6	+0.8
87th period	-0.7	-2	-3	+3	-0.3	+9
Mill C						
Current period	-0.5	-4	-3	-3	-2	+3
88th period	+0.2	-1	-0.9	+6	-7	+3
87th period	0	-3	-2	-9	-7	+1
Mill D						
Current period	+2	0	+5	—	-7	-4
88th period	-0.5	-2	+0.9	—	+4	+2
87th period	+0.2	0	+0.9	—	+9	+8
Mill E						
Current period	0	-7	-8	0	-19	-9
88th period	+2	-8	-6	+6	-0.3	+6
87th period	+2	-8	-8	+3	-0.9	+8
Mill F						
Current period	-0.7	-4	-0.9	-2	-2	+1
88th period	-0.5	-4	-0.9	-3	-3	+0.5
87th period	0	-4	0	+3	+2	+0.9
Mill G						
Current period	0	-3	-0.9	-12	-3	-7
88th period	0	-2	-0.9	-6	+6	-0.6
87th period	+1	-2	+2	0	+6	-0.9
Mill H						
Current period	+1	0	-6	-3	-6	-4
88th period	+1	+2	-7	-6	-3	-2
87th period	+2	+2	-3	-3	-7	-4
Mill I						
Current period	-0.5	-2	-5	-3	+4	+7
88th period	+0.5	0	-7	+3	+12	+8
87th period	0	-0.8	-7	+10	+9	+10
Mill J						
Current period	+0.7	-2	-1	+3	-3	+6
88th period	0	-3	-4	+3	-10	+5
87th period	0	-2	-2	+3	-8	-0.3
Mill K						
Current period	-0.7	-4	+0.9	—	-8	-1
88th period	-0.5	-4	-2	—	-5	+5
87th period	+0.7	-3	+1	—	-0.6	+6
Mill L						
Current period	-0.5	-4	+2	—	0	+2
88th period	+0.2	-4	-2	—	+4	+4
87th period	-1	-6	-3	—	-6	-0.5
Mill M						
Current period	-2	-4	+4	-20	-4	-6

Current period	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
88th period	+0.2	-1	-0.9	+6	-7	+3
87th period	0	-3	-2	-9	-7	+1
Mill D						
Current period	+2	0	+5	---	-7	-4
88th period	-0.5	-2	+0.9	---	+4	+2
87th period	+0.2	0	+0.9	---	+9	+8
Mill E						
Current period	0	-7	-8	0	-19	-9
88th period	+2	-8	-6	+6	-0.3	+6
87th period	+2	-8	-8	+3	-0.9	+8
Mill F						
Current period	-0.7	-4	-0.9	-2	-2	+1
88th period	-0.5	-4	-0.9	-3	-3	+0.5
87th period	0	-4	0	+3	+2	+0.9
Mill G						
Current period	0	-3	-0.9	-12	-3	-7
88th period	0	-2	-0.9	-6	+6	-0.6
87th period	+1	-2	+2	0	+6	-0.9
Mill H						
Current period	+1	0	-6	-3	-6	-4
88th period	+1	+2	-7	-6	-3	-2
87th period	+2	+2	-3	-3	-7	-4
Mill I						
Current period	-0.5	-2	-5	-3	+4	+7
88th period	+0.5	0	-7	+3	+12	+8
87th period	0	-0.8	-7	+10	+9	+10
Mill J						
Current period	+0.7	-2	-1	+3	-3	+6
88th period	0	-3	-4	+3	-10	+5
87th period	0	-2	-2	+3	-8	-0.3
Mill K						
Current period	-0.7	-4	+0.9	---	-8	-1
88th period	-0.5	-4	-2	---	-5	+5
87th period	+0.7	-3	+1	---	-0.6	+6
Mill L						
Current period	-0.5	-4	+2	---	0	+2
88th period	+0.2	-4	-2	---	+4	+4
87th period	-1	-6	-3	---	-6	-0.5
Mill M						
Current period	-2	-4	+4	-20	-4	-6
88th period	-1	-4	+3	-11	+5	+2
87th period	-2	-1	-3	-11	+2	+0.8
Mill N						
Current period	+0.5	-0.8	+3	---	+2	+20
88th period	-0.5	-2	-3	---	+5	+17
87th period	-1	-5	-4	---	-2	+10
Mill O						
Current period	-0.2	-2	-2	---	-9	-2
88th period	-0.2	-2	-2	---	-3	-1
87th period	-0.5	-2	-3	---	-6	-1

TABLE XXII

OF INDIVIDUAL TEST LOTS--NOVEMBER 1 THROUGH NOVEMBER 30, 1954

Institute Data versus Mill Data

	Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
f.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill A--42-lb. Linerboard															
6	12.2	12.4	+0.2	120	112	- 8	34	35	+ 1	329a	303	-26	378a	363	-15
9	12.6	12.5	-0.1	117	113	- 4	34	38	+ 4	327	314	-13	391a	385	- 6
9	12.8	13.0	+0.2	116	114	- 2	36	38	+ 2	355a	381	+26	407a	409	+ 2
9	12.3	12.3	0.0	114	116	+ 2	34	35	+ 1	353	360	+ 7	399a	389	-10
7	12.6	12.5	-0.1	108	111	+ 3	35	35	0	326a	323	- 3	375a	372	- 3
0	13.2	12.8	-0.4	110	113	+ 3	35	33	- 2	339a	300	-39	369a	361	- 8
1	13.1	12.8	-0.3	112	113	+ 1	36	33	- 3	340a	312	-28	383a	370	-13
1	13.0	12.8	-0.2	116	114	- 2	37	36	- 1	343	345	+ 2	389a	391	+ 2
5	12.6	12.5	-0.1	108	112	+ 4	35	36	+ 1	335a	330	- 5	373a	377	+ 4
4	12.5	12.6	+0.1	112	109	- 3	35	36	+ 1	337a	330	- 7	373a	369	- 4
8	12.7	12.6	-0.1	113	113	0	35	35	0	339	330	- 9	384	379	- 5

TABLE XXIII

Mill B--42-lb. Linerboard

No samples submitted.

specimens which tore beyond the 3/8-inch limit.

d from the totals of the individual readings.

TABLE XXII

SUMMARY OF INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954

Institute Data _versus_ Mill Data

File No.	Mill Code	Fin-ish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	IPC
Mill A—42-lb. Linerboard																	
160441	A-592	WFlS	10/18/54	1	43.2	42.6	-0.6	12.2	12.4	+0.2	120	112	- 8	34	35	+ 1	329[a]
160442	A-593	WFlS	10/19/54	2	43.7	42.8	-0.9	12.6	12.5	-0.1	117	113	- 4	34	38	+ 4	327
160505	A-594	WFlS	10/24/54	1	43.8	42.9	-0.9	12.8	13.0	+0.2	116	114	- 2	36	38	+ 2	355[a]
160506	A-595	WFlS	10/25/54	1	43.4	42.5	-0.9	12.3	12.3	0.0	114	116	+ 2	34	35	+ 1	353
160554	A-596	WFlS	11/ 1/54	2	43.3	42.6	-0.7	12.6	12.5	-0.1	108	111	+ 3	35	35	0	326[a]
160555	A-597	WFlS	11/ 6/54	2	43.5	42.5	-1.0	13.2	12.8	-0.4	110	113	+ 3	35	33	- 2	339[a]
160650	A-598	WFlS	11/ 8/54	2	44.1	43.0	-1.1	13.1	12.8	-0.3	112	113	+ 1	36	33	- 3	340[a]
160651	A-599	WFlS	11/ 8/54	2	44.5	43.4	-1.1	13.0	12.8	-0.2	116	114	- 2	37	36	- 1	343
160694	A-600	WFlS	11/15/54	2	43.5	43.0	-0.5	12.6	12.5	-0.1	108	112	+ 4	35	36	+ 1	335[a]
160695	A-601	WFlS	11/16/54	2	43.4	43.0	-0.4	12.5	12.6	+0.1	112	109	- 3	35	36	+ 1	337[a]
Current Mill Average:					43.6	42.8	-0.8	12.7	12.6	-0.1	113	113	0	35	35	0	339

TABLE XXIII

Mill B--42-lb. Linerboard

No samples submitted.

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXIV

DIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

Institute Data *versus* Mill Data

Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Stength, p.s.i. gage IPC	Bursting Mill	Bursting Diff.	G. E. Puncture, units IPC	Puncture Mill	Puncture Diff.	Elmendorf Tear, g./sheet In IPC	In Mill	In Diff.	Across IPC	Across Mill	Across Diff.
Mill C--42-lb. Linerboard														
13.6	13.2	-0.4	112	108	- 4	36	38	+ 2	362a	327	-35	384a	378	- 6
13.7	13.2	-0.5	106	108	+ 2	37	36	- 1	348a	335	-13	395a	392	- 3
13.1	12.8	-0.3	108	104	- 4	34	33	- 1	337	326	-11	367a	388	+21
13.2	12.7	-0.5	110	106	- 4	36	34	- 2	353a	350	- 3	372a	386	+14
14.1	13.6	-0.5	110	107	- 3	35	35	0	363a	336	-27	387a	384	- 3
14.1	13.6	-0.5	113	107	- 6	37	34	- 3	360a	346	-14	385a	396	+11
14.2	13.7	-0.5	112	109	- 3	36	35	- 1	357a	372	+15	376a	418	+42
14.2	13.6	-0.6	112	109	- 3	35	35	0	337a	371	+34	374a	397	+23
13.8	13.3	-0.5	110	107	- 3	36	35	- 1	352	345	- 7	380	392	+12

TABLE XXV

Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Stength, p.s.i. gage IPC	Bursting Mill	Bursting Diff.	G. E. Puncture, units IPC	Puncture Mill	Puncture Diff.	Elmendorf Tear, g./sheet In IPC	In Mill	In Diff.	Across IPC	Across Mill	Across Diff.
Mill D--42-lb. Linerboard														
11.6	11.8	+0.2	110	116	+ 6	37			353a	335	-18	383a	385	+ 2
11.8	11.7	-0.1	111	113	+ 2	36			347a	329	-18	382a	349	-33
11.7	11.7	0.0	109	114	+ 5	35			356a	324	-32	391a	379	-12
11.7	11.7	0.0	110	115	+ 5	36			352	329	-23	385	371	-14

pecimens which tore beyond the 3/8-inch limit.

from the totals of the individual readings.

TABLE XXIV

SUMMARY OF INDIVIDUAL TEST LOTS--NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (contin

Institute Data versus Mill Data

File No.	Mill Code	Fin-ish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Stength, p.s.i. gage IPC	Bursting Stength, p.s.i. gage Mill	Bursting Stength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	IPC
Mill C--42-lb. Linerboard																	
160560	C-609	W.F.	11/ 1/54	1	44.1	43.8	-0.3	13.6	13.2	-0.4	112	108	- 4	36	38	+ 2	362a
160561	C-610	W.F.	11/ 1/54	1	44.0	43.7	-0.3	13.7	13.2	-0.5	106	108	+ 2	37	36	- 1	348a
160562	C-611	W.F.	11/ 2/54	1	43.4	43.0	-0.4	13.1	12.8	-0.3	108	104	- 4	34	33	- 1	337
160563	C-612	W.F.	11/ 2/54	1	43.4	43.1	-0.3	13.2	12.7	-0.5	110	106	- 4	36	34	- 2	353a
160564	C-613	W.F.	11/ 4/54	1	43.4	43.4	0.0	14.1	13.6	-0.5	110	107	- 3	35	35	0	363a
160565	C-614	W.F.	11/ 4/54	1	43.5	43.3	-0.2	14.1	13.6	-0.5	113	107	- 6	37	34	- 3	360a
160566	C-615	W.F.	11/ 5/54	1	43.9	44.0	+0.1	14.2	13.7	-0.5	112	109	- 3	36	35	- 1	357a
160567	C-616	W.F.	11/ 5/54	1	44.0	44.2	+0.2	14.2	13.6	-0.6	112	109	- 3	35	35	0	337a
Current Mill Average:					43.7	43.5	-0.2	13.8	13.3	-0.5	110	107	- 3	36	35	- 1	352

TABLE XXV

Mill D--42-lb. Linerboard

File No.	Mill Code	Fin-ish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Stength, p.s.i. gage IPC	Bursting Stength, p.s.i. gage Mill	Bursting Stength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	IPC
160712	D-812	W.F.	11/16/54	4	42.2	43.2	+1.0	11.6	11.8	+0.2	110	116	+ 6	37			353a
160713	D-813	W.F.	11/17/54	4	42.2	42.5	+0.3	11.8	11.7	-0.1	111	113	+ 2	36			347a
160714	D-814	W.F.	11/18/54	4	42.1	43.3	+1.2	11.7	11.7	0.0	109	114	+ 5	35			356a
Current Mill Average:					42.2	43.0	+0.8	11.7	11.7	0.0	110	115	+ 5	36			352

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXVI

INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

Institute Data **versus** Mill Data

Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	Elmendorf Tear, g./sheet In IPC	Elmendorf Tear, g./sheet In Mill	Elmendorf Tear, g./sheet In Diff.	Elmendorf Tear, g./sheet Across IPC	Elmendorf Tear, g./sheet Across Mill	Elmendorf Tear, g./sheet Across Diff.
Mill E--42-lb. Linerboard														
13.6	12.3	-1.3	112	105	- 7	35	36	+ 1	371a	304	-67	367a	352	-15
13.5	13.0	-0.5	102	90	-12	34	32	- 2	373a	298	-75	374a	326	-48
13.5	12.6	-0.9	107	98	- 9	34	34	0	372	301	-71	371	339	-32

TABLE XXVII

Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	Elmendorf Tear, g./sheet In IPC	Elmendorf Tear, g./sheet In Mill	Elmendorf Tear, g./sheet In Diff.	Elmendorf Tear, g./sheet Across IPC	Elmendorf Tear, g./sheet Across Mill	Elmendorf Tear, g./sheet Across Diff.
Mill F--42-lb. Linerboard														
13.7	12.9	-0.8	104	102	- 2	37	37	0	419a	393	-26	420a	417	- 3
14.2	13.5	-0.7	107	105	- 2	39	38	- 1	403a	417	+14	425a	452	+27
14.2	13.9	-0.3	111	106	- 5	39	40	+ 1	405a	407	+ 2	433a	449	+16
13.9	13.4	-0.5	104	101	- 3	42	41	- 1	451a	425	-26	445a	440	- 5
14.1	13.8	-0.3	112	109	- 3	39	39	0	411a	395	-16	438a	416	-22
13.6	13.1	-0.5	108	105	- 3	38	37	- 1	381a	375	- 6	412a	417	+ 5
13.8	13.3	-0.5	106	106	0	40	40	0	407a	408	+ 1	442a	471	+29
13.6	13.1	-0.5	110	108	- 2	40	40	0	415a	428	+13	425a	455	+30
	13.1c			114c			39c			407c			448c	
13.6	13.0	-0.6	107	108	+ 1	38	39	+ 1	405a	393	-12	423a	436	+13
13.5	12.9	-0.6	106	111	+ 5	42	38	- 4	390	381	- 9	468a	437	-31
13.8	13.3	-0.5	107	106	- 1	40	39	- 1	409	402	- 7	433	439	+ 6

ecimens which tore beyond the 3/8-inch limit.
isit. The wrapping had broken open and was received minus the sample.
ige.

rom the totals of the individual readings.

TABLE XXVI

SUMMARY OF INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (contin

Institute Data versus Mill Data

File No.	Mill Code	Fin-ish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	E Ir IPC	E Ir Mill
										Mill E—42-lb. Linerboard								
160439	E-106	WF1S	10/26/54	2	43.0	43.4	+0.4	13.6	12.3	-1.3	112	105	- 7	35	36	+ 1	371a	304
160558	E-110	WF1S	11/ 9/54	2	42.2	41.9	-0.3	13.5	13.0	-0.5	102	90	-12	34	32	- 2	373a	298
Current Mill Average:					42.6	42.6	0.0	13.5	12.6	-0.9	107	98	- 9	34	34	0	372	301

TABLE XXVII

File No.	Mill Code	Fin-ish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	E Ir IPC	E Ir Mill
										Mill F—42-lb. Linerboard								
160464	F-78	W.B.	10/22/54	-	42.6	42.7	+0.1	13.7	12.9	-0.8	104	102	- 2	37	37	0	419a	393
160465	F-79	W.B.	10/22/54	--	42.5	42.4	-0.1	14.2	13.5	-0.7	107	105	- 2	39	38	- 1	403a	417
160450	F-80	W.B.	10/23/54	-	43.2	43.3	+0.1	14.2	13.9	-0.3	111	106	- 5	39	40	+ 1	405a	407
160512	F-81	W.B.	10/27/54	—	44.8	45.2	+0.4	13.9	13.4	-0.5	104	101	- 3	42	41	- 1	451a	425
160513	F-82	W.B.	10/29/54	—	44.9	44.5	-0.4	14.1	13.8	-0.3	112	109	- 3	39	39	0	411a	395
160514	F-83	W.B.	11/ 2/54	—	43.0	42.2	-0.8	13.6	13.1	-0.5	108	105	- 3	38	37	- 1	381a	375
160685	F-84	W.B.	11/ 2/54	—	43.6	43.4	-0.2	13.8	13.3	-0.5	106	106	0	40	40	0	407a	408
160667	F-85	W.B.	11/ 3/54	—	43.5	43.5	0.0	13.6	13.1	-0.5	110	108	- 2	40	40	0	415a	428
	F-86	W.B.[b]	11/ 5/54	—		44.0[c]			13.1[c]			114[c]			39[c]			407
160668	F-87	W.B.	11/ 9/54	—	43.2	42.7	-0.5	13.6	13.0	-0.6	107	108	+ 1	38	39	+ 1	405a	393
160720	F-91	W.B.	11/17/54	—	44.6	43.6	-1.0	13.5	12.9	-0.6	106	111	+ 5	42	38	- 4	390	381
Current Mill Average:					43.6	43.3	-0.3	13.8	13.3	-0.5	107	106	- 1	40	39	- 1	409	402

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.
[b] The sample intended for the Institute was lost in transit. The wrapping had broken open and was received minus the sa
[c] This sample was not included in the current mill average.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXVIII

VIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (Continued)

Institute Data **versus** Mill Data

Caliper, points IPC	Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	Elmendorf Tear, g./sheet In IPC	Mill	Diff.	Across IPC	Mill	Diff.
Mill G--42-lb. Linerboard														
12.7	12.3	-0.4	111	110	- 1	33	29	- 4	343	331	-12	377a	350	-27
12.7	12.3	-0.4	111	110	- 1	33	29	- 4	343	331	-12	377	350	-27

TABLE XXIX

Caliper, points IPC	Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	Elmendorf Tear, g./sheet In IPC	Mill	Diff.	Across IPC	Mill	Diff.
Mill H--42-lb. Linerboard														
12.6	12.7	+0.1	117	107	-10	35	35	0	359a	347	-12	399a	401	+ 2
12.5	12.4	-0.1	111	106	- 5	36	35	- 1	369a	337	-32	421a	389	-32
12.5	12.5	0.0	114	107	- 7	36	35	- 1	364	342	-22	410	395	-15

TABLE XXX

Caliper, points IPC	Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	Elmendorf Tear, g./sheet In IPC	Mill	Diff.	Across IPC	Mill	Diff.
Mill I--42-lb. Linerboard														
12.2	12.1	-0.1	117	110	- 7	32	31	- 1	304	335	+31	375a	425	+50
12.0	12.2	+0.2	110	108	- 2	32	33	+ 1	317a	333	+16	374a	426	+52
13.6	13.2	-0.4	117	106	-11	35	33	- 2	326a	353	+27	391a	389	- 2
13.8	13.3	-0.5	111	106	- 5	36	31	- 5	331a	340	+ 9	395a	409	+14
13.8	13.5	-0.3	116	108	- 8	35	35	0	339a	336	- 3	389a	423	+34
13.7	13.5	-0.2	112	108	- 4	36	35	- 1	341a	335	- 6	409a	425	+16
13.2	12.9	-0.3	114	108	- 6	34	33	- 1	326	339	+13	389	416	+27

specimens which tore beyond the 3/8-inch limit.

from the totals of the individual readings.

TABLE XXVIII

SUMMARY OF INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (Continued

Institute Data *versus* Mill Data

File No.	Mill Code	Fin-ish	Date Made	Mch. No.	Basis Weight, lb. IPC	Mill	Diff.	Caliper, points IPC	Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	IPC
Mill G—42-lb. Linerboard																	
160507	G-615	W.F.	10/28/54	2	42.7	42.7	0.0	12.7	12.3	-0.4	111	110	- 1	33	29	- 4	343
Current Mill Average:					42.7	42.7	0.0	12.7	12.3	-0.4	111	110	- 1	33	29	- 4	343

TABLE XXIX

File No.	Mill Code	Fin-ish	Date Made	Mch. No.	Basis Weight, lb. IPC	Mill	Diff.	Caliper, points IPC	Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	IPC
Mill H—42-lb. Linerboard																	
160443	H-478	WF1S	10/19/54	2	43.4	43.6	+0.2	12.6	12.7	+0.1	117	107	-10	35	35	0	359a
160444	H-479	WF1S	10/20/54	2	43.1	43.9	+0.8	12.5	12.4	-0.1	111	106	- 5	36	35	- 1	369a
Current Mill Average:					43.3	43.8	+0.5	12.5	12.5	0.0	114	107	- 7	36	35	- 1	364

TABLE XXX

File No.	Mill Code	Fin-ish	Date Made	Mch. No.	Basis Weight, lb. IPC	Mill	Diff.	Caliper, points IPC	Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	IPC
Mill I—42-lb. Linerboard																	
160440	I-428	WF1S	10/24/54	1	42.1	42.3	+0.2	12.2	12.1	-0.1	117	110	- 7	32	31	- 1	304
160502	I-429	WF1S	11/ 1/54	1	42.3	42.2	-0.1	12.0	12.2	+0.2	110	108	- 2	32	33	+ 1	317a
160576	I-430	WF1S	11/ 8/54	1	42.1	42.2	+0.1	13.6	13.2	-0.4	117	106	-11	35	33	- 2	326a
160686	I-431	WF1S	11/11/54	1	42.6	42.1	-0.5	13.8	13.3	-0.5	111	106	- 5	36	31	- 5	331a
160687	I-432	WF1S	11/16/54	1	42.2	42.3	+0.1	13.8	13.5	-0.3	116	108	- 8	35	35	0	339a
160719	I-433	WF1S	11/18/54	1	43.2	42.3	-0.9	13.7	13.5	-0.2	112	108	- 4	36	35	- 1	341a
Current Mill Average:					42.4	42.2	-0.2	13.2	12.9	-0.3	114	108	- 6	34	33	- 1	326

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXXI

IDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

Institute Data versus Mill Data

	Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
f.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
	Mill J--42-lb. Linerboard														
9	12.9	13.1	+0.2	101	102	+ 1	30	35	+ 5	379a	396	+17	347a	384	+37
4	13.1	12.7	-0.4	100	99	- 1	31	33	+ 2	377a	385	+ 8	345a	409	+64
1	13.9	13.4	-0.5	103	102	- 1	33	30	- 3	386a	337	-49	363a	356	- 7
0	13.6	13.3	-0.3	105	102	- 3	32	30	- 2	357a	338	-19	372a	366	- 6
3	13.4	13.1	-0.3	102	101	- 1	31	32	+ 1	375	364	-11	357	379	+22

TABLE XXXII

	Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
f.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
	Mill K--42-lb. Linerboard														
1	13.5	13.0	-0.5	106	107	+ 1	39			403	359	-44	414a	414	0
4	13.5	12.8	-0.7	109	108	- 1	40			385a	367	-18	401a	401	0
.3	13.3	12.8	-0.5	109	112	+ 3	41			398a	365	-33	413a	396	-17
.3	13.4	12.9	-0.5	108	109	+ 1	40			395	364	-31	409	404	- 5

: specimens which tore beyond the 3/8-inch limit.

:d from the totals of the individual readings.

TABLE XXXI

SUMMARY OF INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continu

Institute Data *versus* Mill Data

File No.	Mill Code	Fin-ish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	IPC	M
											Mill J--42-lb. Linerboard							
160448	J-507	B.F.	10/13/54	-	42.0	42.9	+0.9	12.9	13.1	+0.2	101	102	+ 1	30	35	+ 5	379a	3
160449	J-508	B.F.	10/13/54	--	41.6	42.0	+0.4	13.1	12.7	-0.4	100	99	- 1	31	33	+ 2	377a	3
160717	J-509	B.F.	11/12/54	--	43.2	43.3	+0.1	13.9	13.4	-0.5	103	102	- 1	33	30	- 3	386a	3
160718	J-510	B.F.	11/12/54	-	43.1	43.1	0.0	13.6	13.3	-0.3	105	102	- 3	32	30	- 2	357a	3
Current Mill Average:					42.5	42.8	+0.3	13.4	13.1	-0.3	102	101	- 1	31	32	+ 1	375	3

TABLE XXXII

File No.	Mill Code	Fin-ish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	IPC	M
											Mill K--42-lb. Linerboard							
160849	K-47		10/25/54	7	44.6	44.5	-0.1	13.5	13.0	-0.5	106	107	+ 1	39			403	3
160556	K-48		11/ 3/54	7	43.9	43.5	-0.4	13.5	12.8	-0.7	109	108	- 1	40			385a	3
160647	K-49		11/15/54	7	44.3	44.0	-0.3	13.3	12.8	-0.5	109	112	+ 3	41			398a	3
Current Mill Average:					44.3	44.0	-0.3	13.4	12.9	-0.5	108	109	+ 1	40			395	3

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE [illegible]

NDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

Institute Data *versus* Mill Data

Caliper, points IPC	Caliper, points Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength Mill	Bursting Strength Diff.	G. E. Puncture, units IPC	G. E. Puncture Mill	G. E. Puncture Diff.	Elmendorf Tear, g./sheet In IPC	In Mill	In Diff.	Across IPC	Across Mill	Across Diff.
		Mill L--42-lb. Linerboard												
14.1	13.8	-0.3	102	106	+ 4	35			353a	314	-39	383a	372	-11
15.1	14.7	-0.4	100	106	+ 6	36			357a	386	+29	385a	417	+32
14.6	13.7	-0.9	101	106	+ 5	35			342a	375	+33	397a	417	+20
14.4	13.6	-0.8	101	104	+ 3	36			382a	362	-20	385a	400	+15
15.3	14.8	-0.5	108	106	- 2	36			364a	390	+26	401a	418	+17
14.3	13.4	-0.9	107	112	+ 5	38			367	304	-63	409a	369	-40
12.3	12.0	-0.3	109	106	- 3	34			323a	333	+10	358a	377	+19
15.2	14.6	-0.6	108	106	- 2	37			358a	382	+24	390a	415	+25
14.4	13.8	-0.6	105	107	+ 2	36			356	356	0	389	398	+ 9

specimens which tore beyond the 3/8-inch limit.

from the totals of the individual readings.

TABLE XXXIII

SUMMARY OF INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (cont

Institute Data versus Mill Data

File No.	Mill Code	Fin-ish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	IPC
										Mill L--42-lb. Linerboard							
160451	L-308		10/ 9/54	1	43.6	43.5	-0.1	14.1	13.8	-0.3	102	106	+ 4	35			353a
160452	L-309		10/10/54	1	43.4	43.7	+0.3	15.1	14.7	-0.4	100	106	+ 6	36			357a
160594	L-310		10/20/54	1	42.6	43.5	+0.9	14.6	13.7	-0.9	101	106	+ 5	35			342a
160595	L-311		10/22/54	1	43.0	42.9	-0.1	14.4	13.6	-0.8	101	104	+ 3	36			382a
160688	L-312		10/25/54	1	43.4	43.7	+0.3	15.3	14.8	-0.5	108	106	- 2	36			364a
160689	L-313		10/26/54	1	44.0	42.5	-1.5	14.3	13.4	-0.9	107	112	+ 5	38			367
160690	L-314		11/ 2/54	1	42.6	41.9	-0.7	12.3	12.0	-0.3	109	106	- 3	34			323a
160691	L-315		11/ 4/54	1	43.7	43.4	-0.3	15.2	14.6	-0.6	108	106	- 2	37			358a
Current Mill Average:					43.3	43.1	-0.2	14.4	13.8	-0.6	105	107	+ 2	36			356

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXXIV

VIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

Institute Data *versus* Mill Data

Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill M--42-lb. Linerboard														
14.0	13.4	-0.6	109	111	+ 2	34	30	- 4	367a	370	+ 3	400a	391	- 9
13.5	13.0	-0.5	102	106	+ 4	34	29	- 5	349a	329	-20	398a	367	-31
13.7	12.9	-0.8	104	108	+ 4	37	28	- 9	371a	333	-38	395a	355	-40
13.8	13.2	-0.6	105	110	+ 5	36	28	- 8	391a	368	-23	399a	363	-36
13.1	12.4	-0.7	111	113	+ 2	34	25	- 9	338a	325	-13	375a	357	-18
13.1	12.5	-0.6	105	111	+ 6	34	26	- 8	341	322	-19	372a	361	-11
13.6	13.0	-0.6	100	106	+ 6	34	29	- 5	367a	371	+ 4	379a	367	-12
14.0	13.5	-0.5	99	100	+ 1	35	29	- 6	350a	331	-19	381a	354	-27
13.6	13.0	-0.6	104	108	+ 4	35	28	- 7	359	344	-15	388	364	-24

cimens which tore beyond the 3/8-inch limit.

om the totals of the individual readings.

TABLE XXXIV

SUMMARY OF INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued

Institute Data *versus* Mill Data

File No.	Mill Code	Fin-ish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	IPC	Mil
Mill M--42-lb. Linerboard																		
160445	M-265	W.	10/12/54	4	43.4	43.5	+0.1	14.0	13.4	-0.6	109	111	+ 2	34	30	- 4	367a	370
160446	M-266	W.	10/15/54	2	42.5	42.6	+0.1	13.5	13.0	-0.5	102	106	+ 4	34	29	- 5	349a	329
160516	M-267	W.	10/20/54	4	44.0	43.1	-0.9	13.7	12.9	-0.8	104	108	+ 4	37	28	- 9	371a	333
160517	M-268	W.	10/27/54	4	43.2	42.4	-0.8	13.8	13.2	-0.6	105	110	+ 5	36	28	- 8	391a	368
160577	M-269	W.	11/ 8/54	2	42.4	40.7	-1.7	13.1	12.4	-0.7	111	113	+ 2	34	25	- 9	338a	325
160578	M-270	W.	11/ 9/54	2	43.1	41.6	-1.5	13.1	12.5	-0.6	105	111	+ 6	34	26	- 8	341	322
160715	M-271	W.	11/17/54	4	43.0	42.0	-1.0	13.6	13.0	-0.6	100	106	+ 6	34	29	- 5	367a	371
160716	M-272	W.	11/18/54	4	43.7	42.8	-0.9	14.0	13.5	-0.5	99	100	+ 1	35	29	- 6	350a	331
Current Mill Average:					43.2	42.4	-0.8	13.6	13.0	-0.6	104	108	+ 4	35	28	- 7	359	344

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXXV

DUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

Institute Data *versus* Mill Data

Caliper, points IPC	Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	Elmendorf Tear, g./sheet In IPC	Mill	Diff.	Across IPC	Mill	Diff.
						Mill N—42-lb. Linerboard								
11.9	11.7	-0.2	106	110	+ 4	41			371a	357	-14	391a	436	+45
12.8	12.6	-0.2	101	102	+ 1	41			355a	403	+48	399a	498	+99
12.0	11.8	-0.2	110	112	+ 2	38			365a	359	- 6	374a	447	+73
12.4	12.4	0.0	106	109	+ 3	41			355	360	+ 5	392a	480	+88
11.9	11.9	0.0	107	112	+ 5	39			352a	354	+ 2	380a	458	+78
12.2	12.1	-0.1	106	109	+ 3	40			359	367	+ 8	387	464	+77

TABLE XXXVI

Caliper, points IPC	Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	Elmendorf Tear, g./sheet In IPC	Mill	Diff.	Across IPC	Mill	Diff.
						Mill O—42-lb. Linerboard								
12.3	11.9	-0.4	116	112	- 4	34			345a	316	-29	394a	377	-17
12.1	11.8	-0.3	123	118	- 5	34			341a	325	-16	391a	392	+ 1
12.2	12.1	-0.1	116	119	+ 3	38			364a	316	-48	397a	385	-12
12.2	11.9	-0.3	118	116	- 2	36			350	319	-31	394	385	- 9

:cimens which tore beyond the 3/8-inch limit.

·om the totals of the individual readings.

TABLE XXXV

SUMMARY OF INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continu

Institute Data versus Mill Data

File No.	Mill Code	Fin-ish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	IPC
Mill N—42-lb. Linerboard																	
160495	N-112	D.F.	10/21/54	1	42.6	42.5	-0.1	11.9	11.7	-0.2	106	110	+ 4	41			371a
160496	N-113	—	10/27/54	1	43.0	43.8	+0.8	12.8	12.6	-0.2	101	102	+ 1	41			355a
160497	N-114	WF1S	10/28/54	1	41.7	41.9	+0.2	12.0	11.8	-0.2	110	112	+ 2	38			365a
160692	N-115	WF1S	11/ 2/54	1	42.7	42.7	0.0	12.4	12.4	0.0	106	109	+ 3	41			355
160693	N-116	WF1S	11/ 4/54	1	41.9	42.1	+0.2	11.9	11.9	0.0	107	112	+ 5	39			352a
Current Mill Average:					42.4	42.6	+0.2	12.2	12.1	-0.1	106	109	+ 3	40			359

TABLE XXXVI

File No.	Mill Code	Fin-ish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	IPC
Mill O—42-lb. Linerboard																	
160447	O-63	W.F.	10/26/54	3	42.2	42.0	-0.2	12.3	11.9	-0.4	116	112	- 4	34			345a
160696	O-64	W.F.	11/ 8/54	4	42.5	42.2	-0.3	12.1	11.8	-0.3	123	118	- 5	34			341a
160697	O-65	W.F.	11/13/54	4	42.7	42.6	-0.1	12.2	12.1	-0.1	116	119	+ 3	38			364a
Current Mill Average:					42.4	42.3	-0.1	12.2	11.9	-0.3	118	116	- 2	36			350

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXXVII

IDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (continued)

Caliper, points C	Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	Elmendorf g./sheet In IPC	Mill	Diff.	Across IPC	Mill	Diff.
Mill E—44/46-lb. Drum Linerboard														
.4	13.7	-0.7	97	100	+ 3	43	42	- 1	448a	434	-14	405a	458	+53
.1	13.8	-0.3	97	94	- 3	39	44	+ 5	391a	424	+33	385a	456	+71
.2	13.8	-0.4	97	97	0	41	43	+ 2	420	429	+ 9	395	457	+62
Miscellaneous														
Mill E--28-lb. Linerboard														
4	7.6	-0.8	71	62	- 9	19	15	- 4	217a	136	-81	240a	176	-64
Mill E—38-lb. Linerboard														
.0	11.6	-0.4	96	92	- 4	31	30	+ 1	326a	282	-44	327a	306	-21
Mill E—90-lb. Linerboard														
.7	25.6	-1.1	151	152	+ 1	99	104	+ 5	806a	749	-57	882a	821	-61
.5	26.8	-1.7	160	152	- 8	102	104	+ 2	784a	760	-24	899a	824	-75

ens which tore beyond the 3/8-inch limit.

the totals of the individual readings.

TABLE XXXVII

SUMMARY OF INDIVIDUAL TEST LOTS—NOVEMBER 1 THROUGH NOVEMBER 30, 1954 (con

File No.	Mill Code	Fin-ish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	IPC	
											Mill E--44/46-lb. Drum Linerboard							
160628	E-111	WF1S	11/15/54	2	47.5	47.7	+0.2	14.4	13.7	-0.7	97	100	+ 3	43	42	- 1	448a	
160646	E-112	WF1S	11/16/54	2	45.9	46.9	+1.0	14.1	13.8	-0.3	97	94	- 3	39	44	+ 5	391a	
Current Mill Average:					46.7	47.3	+0.6	14.2	13.8	-0.4	97	97	0	41	43	+ 2	420	
											Miscellaneous							
											Mill E--28-lb. Linerboard							
160504	E-108	WF1S	11/ 3/54	2	27.6	27.3	-0.3	8.4	7.6	-0.8	71	62	- 9	19	15	- 4	217a	1
											Mill E--38-lb. Linerboard							
160557	E-109	WF1S	11/ 5/54	2	38.2	38.5	+0.3	12.0	11.6	-0.4	96	92	- 4	31	30	+ 1	326a	2
											Mill E--90-lb. Linerboard							
160438	E-105	WF1S	10/22/54	2	90.8	92.0	+1.2	26.7	25.6	-1.1	151	152	+ 1	99	104	+ 5	806a	7
160503	E-107	WF1S	10/29/54	2	91.1	91.0	-0.1	28.5	26.8	-1.7	160	152	- 8	102	104	+ 2	784a	7

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.