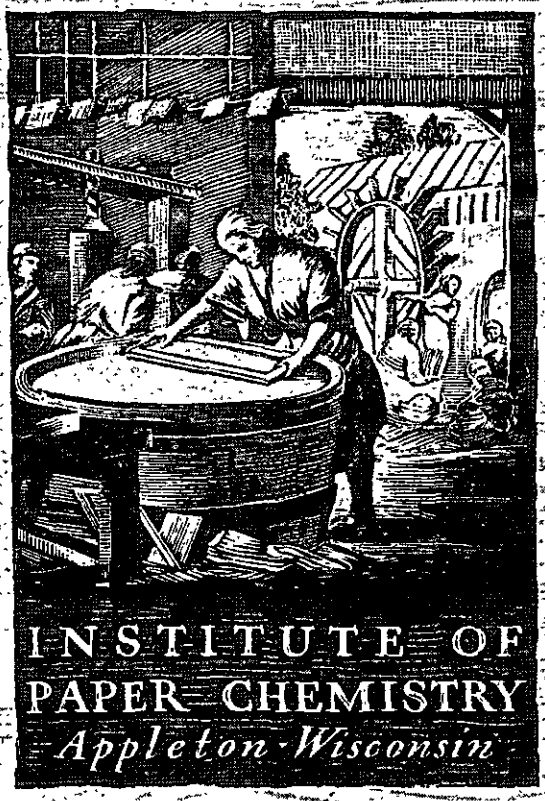

CONTINUOUS BASELINE STUDY

Project 1108-B

Progress Report 39

to

FOURDRINIER KRAFT BOARD INSTITUTE

October 1, 1950

THE INSTITUTE OF PAPER CHEMISTRY

APPLETON, WISCONSIN

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APPLETON, WISCONSIN

In conjunction with the F.K.I. Continuous Baseline Study, eighty-one different sample lots of 42-lb. Fourdrinier kraft linerboard were submitted by nine different F.K.I. mills to The Institute of Paper Chemistry for testing during the period September 1 through September 30. In addition to the 42-lb. kraft linerboard, seven samples of special drum stock were also 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	9
B	13
C	7
D	18
E	0
F	9
G	8
H	6
I	7
J	4
	81

These sample lots were tested for basis weight, caliper, bursting strength, G. E. puncture, and Elmendorf tear. A comparison of the average strength results for each mill may be seen in Table II and is graphically presented in Figures 1 to 6 inclusive. In addition to a comparison of the mill averages, 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. averages include all the results up to but not including the current period; the current period in the case of this report is September 1 through September 30. The F.K.I. index is 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 42.9 lb., and the cumulative F.K.I. average basis weight is 43.2 lb. Hence, the index for basis weight determined in per cent as indicated above is 99.3%. This signifies that the current average basis weight is slightly lower than the cumulative average, which in this case covered the period from July 25, 1947, through August 31, 1950.

A comparison of the results in Table II and Figure I shows that the average basis weight results for all mills conform to the 42-lb. specification set forth in Rule 41. Mill B has the highest average basis weight, it being 43.9 lb. or approximately 4.5% higher than the 42-lb. specification. On the other hand, Mill F has the lowest average basis weight, it being 42.0 lb., the same as the 42-lb. specification.

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

Mill Code	Per Cent
A	1.4
B	4.5
C	1.9
D	3.1
E	—
F	0
G	2.6
H	1.7
I	2.9
J	1.9

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

A comparison of the average caliper values for the various mills (see Figure 2) shows that the mill averages vary from a low of 12.9 for Mill A to a high of 14.1 for Mill B, the average being 13.6 which is somewhat lower than the cumulative average of 14.4.

The average bursting strength values obtained for each mill are graphically shown in Figure 3. It may be observed that the average bursting strength values for the various mills range from a low of 101 for Mill I to a high of 107 for Mills D and F. The current F.K.I. average bursting strength is 105, slightly lower than the cumulative average of 106.

The data of Table II and Figure 4 show that the average G. E. puncture result for all mills is 35 units. It may be seen that Mill D has the highest average G. E. puncture value and Mill J the lowest value. The current F.K.I. average for G. E. puncture of 35 units is slightly lower than the cumulative F.K.I. average of 37 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 D has the highest average machine direction tear value. As noted above, Mill D also has the highest average bursting strength and G. E. puncture values. Mill A has the lowest average machine direction tear value. Mill D has the highest average across-machine direction tear value while Mill J has the lowest. It may be seen in Figure 6 that Mill J also has the lowest average G. E. puncture value. It may be noted that the current F.K.I. average machine and across-machine direction tear results are lower than the cumulative averages.

A comparison of the F.K.I. indexes indicates that, for the current period, all the test averages are lower than the respective cumulative 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 XIII for Mills A to J, respectively. In addition to the current averages, cumulative averages for each mill, together with 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 will have 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 XIII.

It may be noted in Tables III through XI that the data have been separated on the basis of the sheet finish. The summarized results are as follows:

Mill Code	No. of Sample Lots W.F.	D.F.	Misc.
A	9*		
B	13*		
C	6		1
D	10	8	
E	---	---	---
F			9**
G	8		
H	6*		

(Continued on next page)

Mill Code	No. of Sample Lots W.F.	D.F.	Misc.
I	7*		
J			4***

* One side only.
** Spray finish.
*** Semi-water finish.

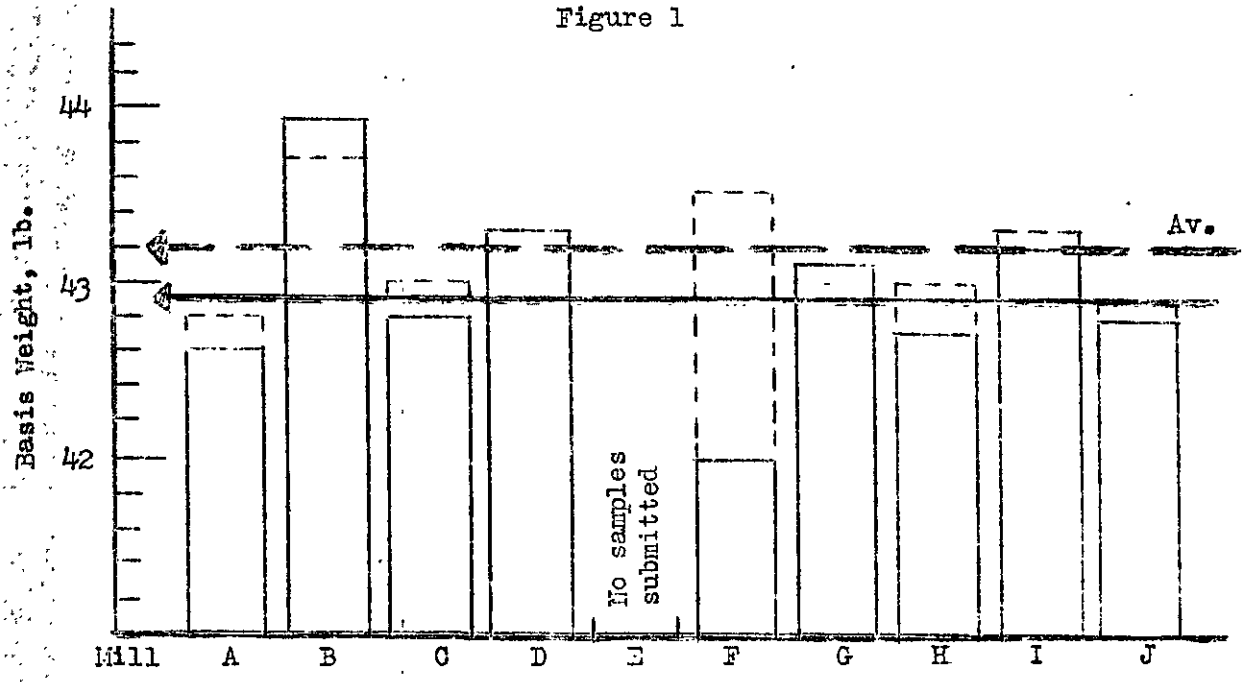
The results indicate that a majority of the mills are using a water finish on their 42-lb. linerboard.

TABLE II

SUMMARY OF COMPOSITE MILL AVERAGES—SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950

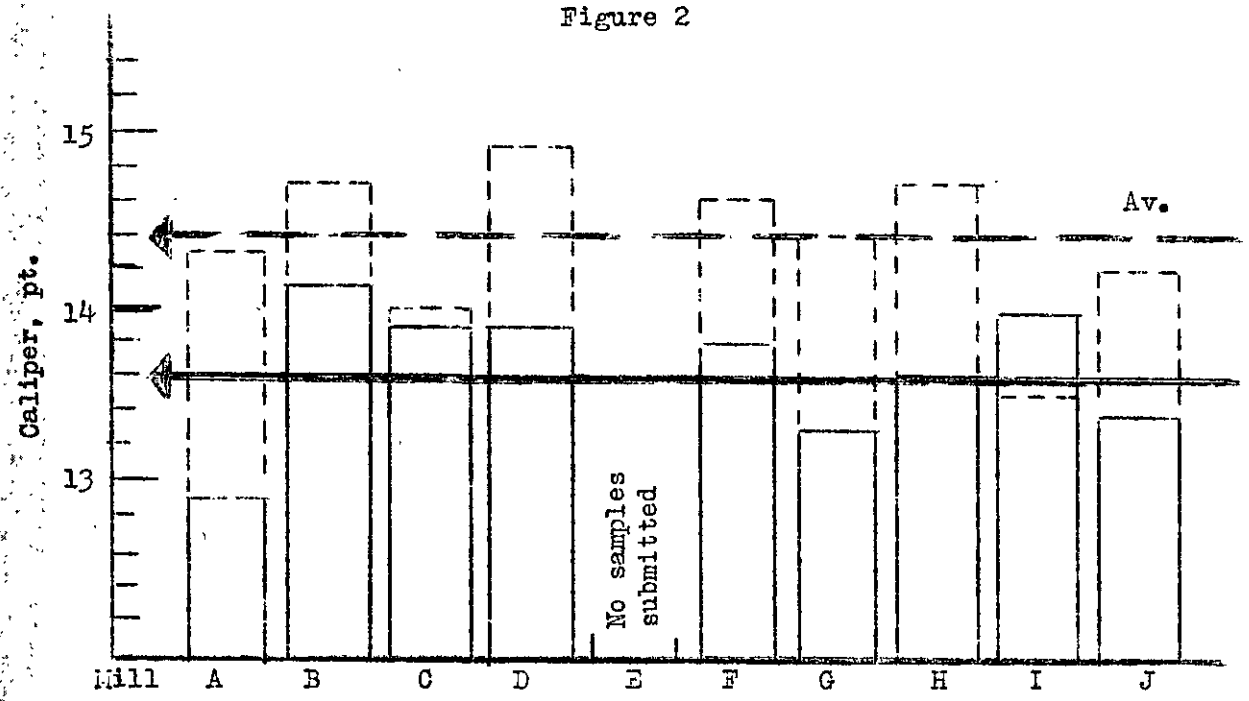
Code No.	Basis Weight, lb.	Caliper points	Bursting Strength, points	G. E. Puncture, units	Elmendorf Tear, g./sheet In Direction	Elmendorf Tear, g./sheet Across Direction
A	42.6	12.9	103	33	347	382
B	43.9	14.1	103	35	390	409
C	42.8	13.9	105	37	378	416
D	43.3	13.9	107	39	415	435
E	No samples submitted.					
F	42.0	13.8	107	36	389	425
G	43.1	13.3	105	35	348	384
H	42.7	13.6	105	34	355	403
I	43.2	14.0	101	34	351	404
J	42.8	13.4	105	32	351	361
Current FKI Average:	42.9	13.6	105	35	369	402
Cumulative FKI Average:	43.2	14.4	106	37	380	414
FKI Index, %:	99.3	94.4	99.1	94.6	97.1	97.1

Figure 1



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

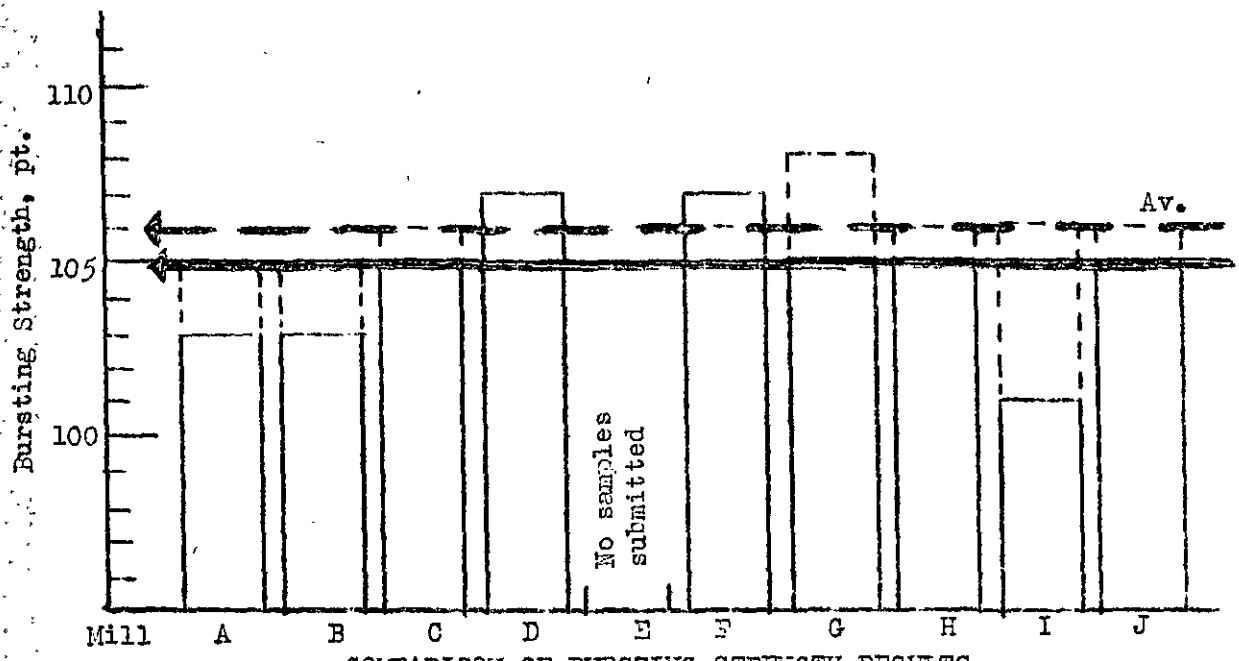
Figure 2



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

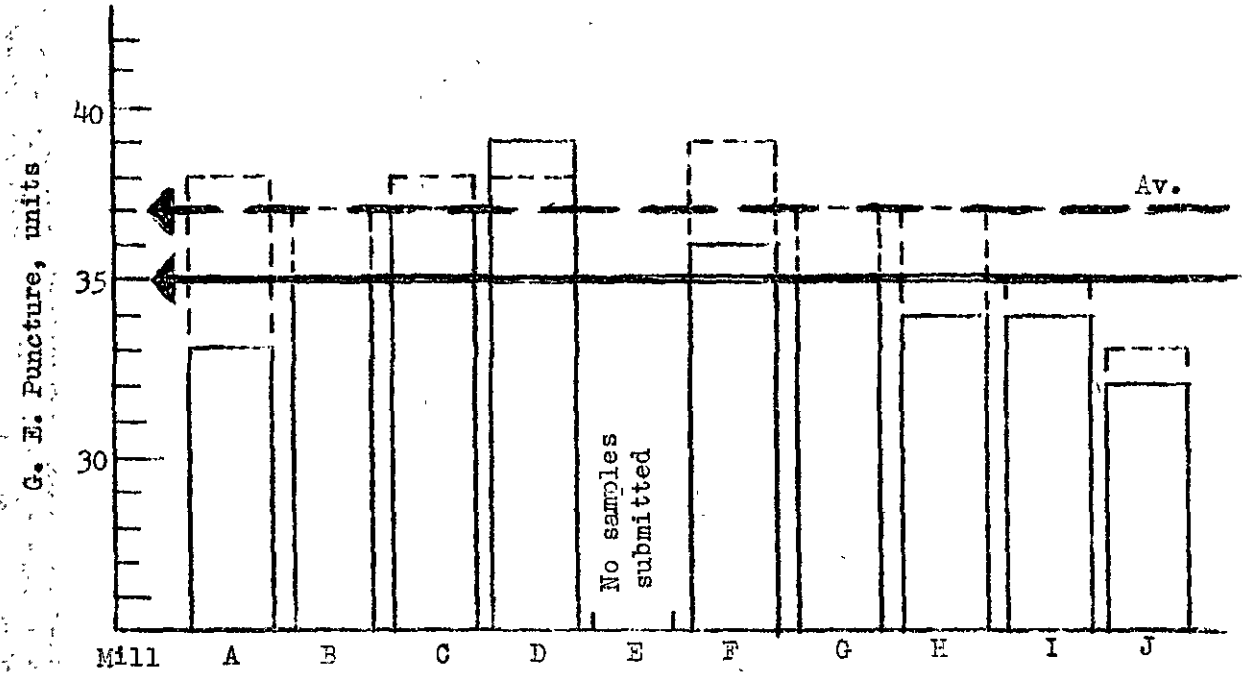
——— Current Mill Average
- - - - Cumulative Average

Figure 3



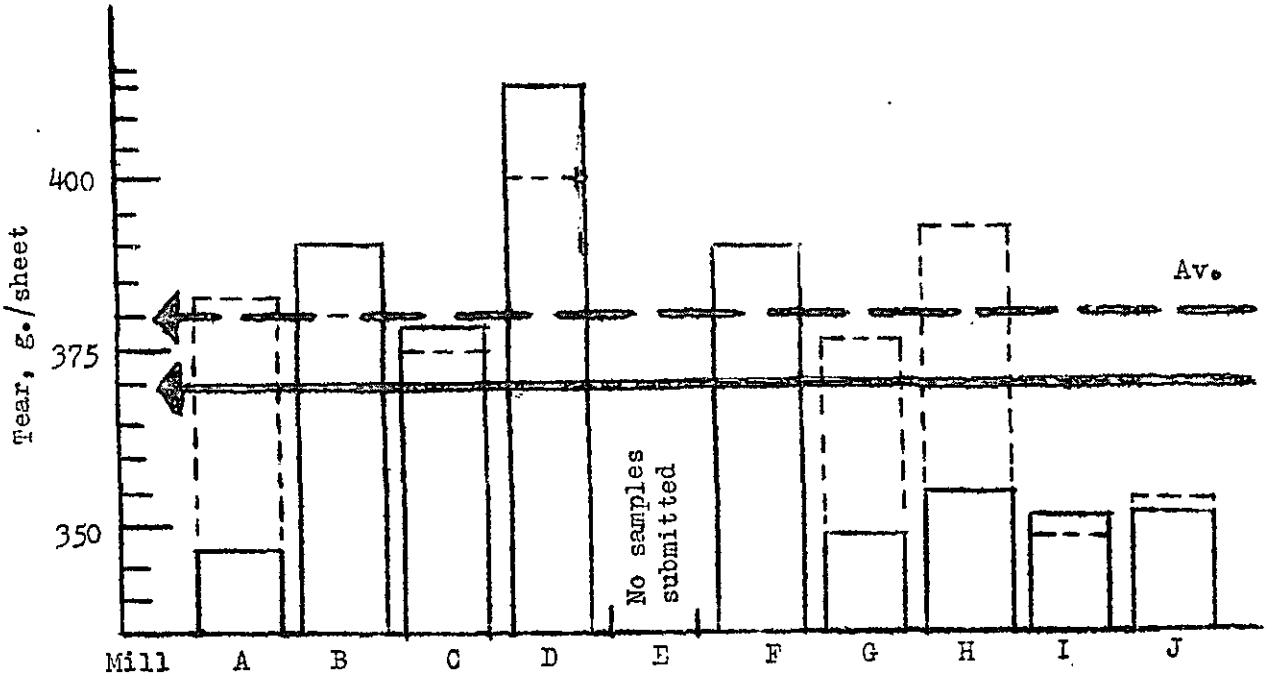
COMPARISON OF BURSTING STRENGTH RESULTS
(Period September 1 - September 30)

Figure 4



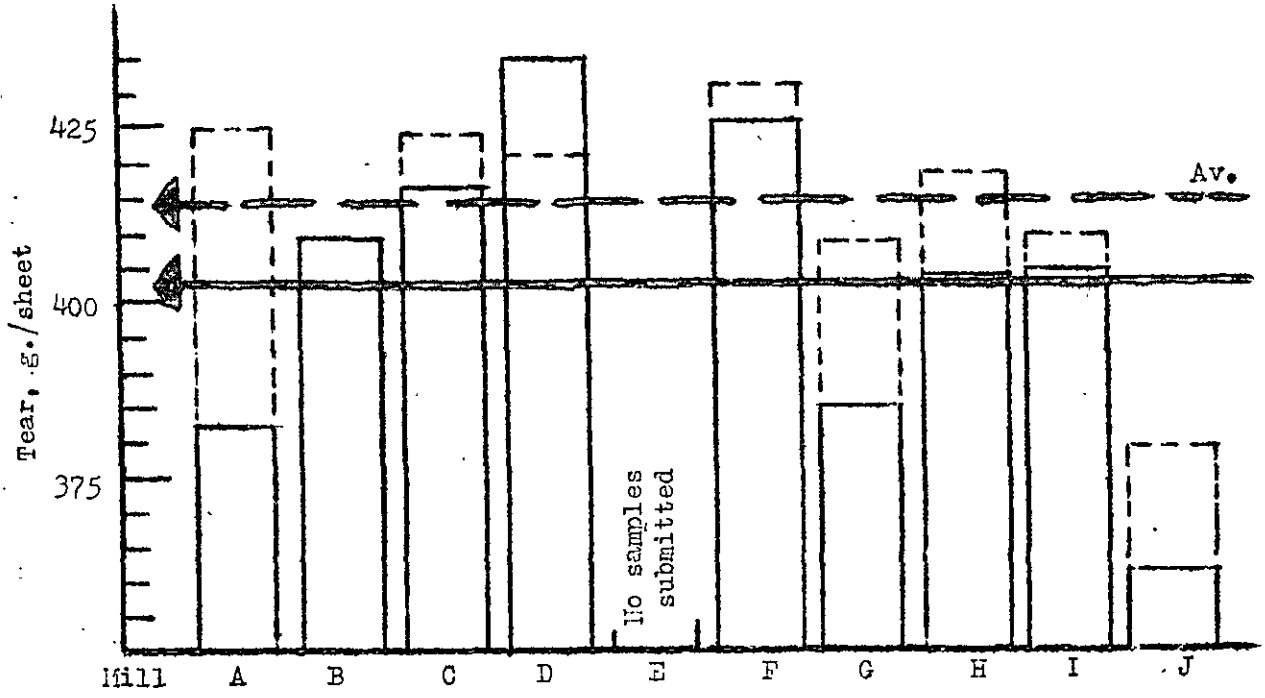
COMPARISON OF G. E. PUNCTURE RESULTS
(Period September 1 - September 30)

Figure 5



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

Figure 6



COMPARISON OF TEAR RESULTS, Across-machine Direction
(Period September 1 - September 30)

TABLE III

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950

Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			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 A--42-lb. Linerboard											
8/28/50	2	43.8	42.2	43.2	13.8	12.5	13.1	126	92	106	36	30	33	456	296	377[a]	432	344	376[a]
8/29/50	2	43.6	42.0	42.8	13.5	12.0	12.9	117	70	99[b]	35	29	33	496	288	373[a]	448	336	387[a]
9/ 8/50	1	43.4	42.0	42.7	14.5	12.9	13.5	125	68[b]	103[b]	38	30	32	376	320	354	440	360	393[a]
9/ 9/50	2	43.6	41.8	42.5	13.3	12.2	12.8	115	90	103	36	30	32	376	304	346[a]	400	344	375[a]
9/11/50	1	44.0	42.0	43.1	13.9	12.7	13.2	125	81	101	37	29	33	384	208	323[a]	440	328	376[a]
9/11/50	1	44.0	40.2	42.8	13.8	12.3	13.0	120	90	104	38	31	33	344	272	312[a]	416	328	379[a]
9/18/50	2	43.6	41.6	42.5	12.9	11.3	12.0	123	70	97	37	32	33	464	288	366[a]	456	344	392[a]
9/21/50	2	42.2	41.8	42.0	13.3	12.1	12.9	139	88	102	36	31	34	408	288	357[a]	424	288	350[a]
9/24/50	1	42.6	41.4	42.1	13.1	11.9	12.6	127	86	110	35	30	33	352	280	317[a]	424	336	381[a]
				42.6			12.9			103			33			347			382
				42.8			14.3			105			38			382			424
				99.5			90.2			98.1			86.8			90.8			90.1
				98.6			89.6			97.2			89.2			91.3			92.3

adings for one or more specimens which tore beyond the 3/8-inch limit.
thin formation in the area in which the minimum test was obtained.

TABLE III

SUMMARY OF INDIVIDUAL TEST LOTS—SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950

File No.	Mill Code	Finish	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, points Max.	Bursting Strength, points Min.	Bursting Strength, points Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Elmendorf g./she In Max.	Elmendorf g./she In Min.
								Mill A—42-lb. Linerboard											
143842	A-168	WF1S	9/ 5/50	8/28/50	2	43.8	42.2	43.2	13.8	12.5	13.1	126	92	106	36	30	33	456	296
143843	A-169	WF1S	9/ 5/50	8/29/50	2	43.6	42.0	42.8	13.5	12.0	12.9	117	70	99	35	29	33	496	288
143920	A-170	WF1S	9/14/50	9/ 8/50	1	43.4	42.0	42.7	14.5	12.9	13.5	125	88[b]	103[b]	38	30	32	376	320
143921	A-171	WF1S	9/14/50	9/ 9/50	2	43.6	41.8	42.5	13.3	12.2	12.8	115	90	103	36	30	32	376	304
143937	A-172	WF1S	9/16/50	9/11/50	1	44.0	42.0	43.1	13.9	12.7	13.2	125	81	101	37	29	33	384	208
143958	A-173	WF1S	9/18/50	9/11/50	1	44.0	40.2	42.8	13.8	12.3	13.0	120	90	104	38	31	33	344	272
144057	A-174	WF1S	9/27/50	9/18/50	2	43.6	41.6	42.5	12.9	11.3	12.0	123	70	97	37	32	33	464	288
144058	A-175	WF1S	9/27/50	9/21/50	2	42.2	41.8	42.0	13.3	12.1	12.9	139	88	102	38	31	34	408	288
144067	A-176	WF1S	9/28/50	9/24/50	1	42.6	41.4	42.1	13.1	11.9	12.6	127	86	110	35	30	33	352	280
Current Mill Average:								42.6			12.9			103			33		
Cumulative Mill Average:								42.8			14.3			105			38		
Mill Factor, %:								99.5			90.2			98.1			86.8		
Mill Index, %:								98.6			89.6			97.2			89.2		

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.
[b] Visual examination revealed thin formation in the area in which the minimum test was obtained.

TABLE IV

SUMMARY OF INDIVIDUAL TEST LOTS—SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, points Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av.	Elmendorf Tear, g./sheet In Max.	Min.	Av.	Across Max.	Min.	Av.
Mill B—42-lb. Linerboard																			
8/27/50	1	44.0	43.0	43.5	15.0	13.6	14.3	118	73	98	40	34	36	448	344	394[a]	462	360	416[a]
8/27/50	1	44.2	43.0	43.6	15.0	13.9	14.5	114	77	101	38	32	35	456	336	385[a]	464	384	418[a]
8/28/50	3	44.0	40.4	42.5	13.4	12.0	13.0	132	87	109	34	30	32	384	344	365[a]	400	336	375[a]
8/28/50	3	44.4	41.8	42.6	13.8	12.2	13.0	127	96	109	34	30	32	396	320	355[a]	396	333	365[a]
9/ 3/50	1	45.8	43.0	44.3	15.2	13.3	14.2	125	76	103	38	34	36	464	304	411[a]	496	384	424[a]
9/ 3/50	1	45.8	44.0	44.8	15.0	13.0	14.0	121	67[b]	99[b]	40	32	36	464	360	410[a]	512	352	422[a]
9/ 3/50	1	45.2	43.6	44.4	15.1	13.5	14.3	122	83	104	37	32	35	464	384	415[a]	430	368	413[a]
9/ 3/50	1	45.8	44.0	45.0	15.0	13.0	14.1	126	87	104	38	30	35	496	344	390[a]	472	368	419
9/ 9/50	1	44.6	41.8	43.6	15.0	13.2	14.2	120	82	100	37	32	34	480	344	401[a,c]	472	360	423[a]
9/ 9/50	1	44.6	43.6	44.0	15.2	13.5	14.4	112	78	100	38	33	35	456	368	411[a]	520	344	408[a,c]
9/10/50	1	46.0	42.6	44.2	15.2	13.2	14.5	117	80	103	39	34	37	464	336	371[a]	472	384	427[a]
9/10/50	1	44.8	42.8	43.8	15.2	14.0	14.6	121	88	104	38	33	36	408	320	370[a]	448	360	402[a]
9/17/50	1	47.8	43.2	44.1	15.3	13.5	14.3	122	80	102	40	31	36	464	352	393[a]	528	352	405[a]
				43.9			14.1			103			35			390			409
				43.7			14.7			105			37			380			409
				100.5			95.9			98.1			94.6			102.6			100.0
				101.6			97.9			97.2			94.6			102.6			98.8

readings for one or more specimens which tore beyond the 3/8-inch limit.
ed thin formation in the area in which the minimum test was obtained.
readings for one or more specimens which rubbed against the sector during the tear test.

TABLE IV

SUMMARY OF INDIVIDUAL TEST LOTS—SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued

File No.	Mill Code	Finish	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, points Max.	Bursting Strength, points Min.	Bursting Strength, points Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Elmo Tear, In Max.	Elmo Tear, In Min.
											Mill B—42-lb. Linerboard								
143881	B-263	WF1S	9/ 6/50	8/27/50	1	44.0	43.0	43.5	15.0	13.6	14.3	118	73	98	40	34	36	448	344
143882	B-264	WF1S	9/ 6/50	8/27/50	1	44.2	43.0	43.6	15.0	13.9	14.5	114	77	101	38	32	35	456	336
143883	B-265	WF1S	9/ 6/50	8/28/50	3	44.0	40.4	42.5	13.4	12.0	13.0	132	87	109	34	30	32	384	344
143884	B-266	WF1S	9/ 6/50	8/28/50	3	44.4	41.8	42.6	13.8	12.2	13.0	127	96	109	34	30	32	398	320
143933	B-267	WF1S	9/15/50	9/ 3/50	1	45.8	43.0	44.3	15.2	13.3	14.2	125	76	103	38	34	36	464	304
143934	B-268	WF1S	9/15/50	9/ 3/50	1	45.8	44.0	44.8	15.0	13.0	14.0	121	67[b]	99[b]	40	32	36	464	360
143935	B-269	WF1S	9/15/50	9/ 3/50	1	45.2	43.6	44.4	15.1	13.5	14.3	122	83	104	37	32	35	464	384
143936	B-270	WF1S	9/15/50	9/ 3/50	1	45.8	44.0	45.0	15.0	13.0	14.1	126	87	104	38	30	35	496	344
143954	B-271	WF1S	9/18/50	9/ 9/50	1	44.6	41.8	43.6	15.0	13.2	14.2	120	82	100	37	32	34	480	344
143956	B-272	WF1S	9/18/50	9/ 9/50	1	44.6	43.6	44.0	15.2	13.5	14.4	112	78	100	38	33	35	456	368
143956	B-273	WF1S	9/18/50	9/10/50	1	46.0	42.6	44.2	15.2	13.2	14.5	117	80	103	39	34	37	464	336
143957	B-274	WF1S	9/18/50	9/10/50	1	44.8	42.8	43.8	15.2	14.0	14.6	121	88	104	38	33	36	408	320
144054	B-275	WF1S	9/27/50	9/17/50	1	47.8	43.2	44.1	15.3	13.5	14.3	122	80	102	40	31	36	464	352
Current Mill Average:								43.9			14.1			103			35		
Cumulative Mill Average:								43.7			14.7			105			37		
Mill Factor, %:								100.5			95.9			98.1			94.6		
Mill Index, %:								101.6			97.9			97.2			94.6		

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

[b] Visual examination revealed thin formation in the area in which the minimum test was obtained.

c This average includes the readings for one or more specimens which rubbed against the sector during the tear test.

TABLE V

SUMMARY OF INDIVIDUAL MIST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, points Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av.	Elmendorf Tear, g./sheet In Max.	Min.	Av.	Across Max.	Min.	Av.
						Mill C--42-lb. Linerboard														
50	8/29/50	1	43.4	41.2	42.0	14.9	13.4	14.2	126	82	104	41	34	37	464	336	395[a]	488	368	423[a]
50	8/31/50	1	43.4	40.4	41.9	14.6	12.9	14.0	131	63[b]	103[b]	40	34	37	440	320	377[a]	464	376	415[a]
50	9/ 6/50		43.6	42.0	42.8	15.0	12.5	14.1	120	80	102	39	34	37	472	360	419	464	400	427[a]
50	9/12/50	1	45.0	42.2	43.6	14.7	13.0	14.0	131	88	107	40	35	38	416	312	367[a]	464	352	405[a]
50	9/12/50	1	45.0	42.0	43.3	14.6	12.6	13.7	130	90	109	41	35	38	432	312	377[a]	488	368	419[a]
50	9/20/50	1	44.2	41.4	42.8	14.9	12.7	13.6	129	85	103	37	32	36	424	328	357	448	368	409[a]
50	9/20/50	1	44.2	40.4	42.6	14.5	12.1	13.5	134	73	107	39	32	35	400	312	356[a]	496	368	417[a]
					42.8			13.9			105			37			378			416
					43.0			14.0			106			38			375			423
					99.5			99.3			99.1			97.4			100.8			98.3
					99.1			96.5			99.1			100.0			99.5			100.5

.e readings for one or more specimens which tore beyond the 3/8-inch limit.
.led thin formation in the area in which the minimum test was obtained.

TABLE V

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continue

File No.	Mill Code	Finish	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, points Max.	Bursting Strength, points Min.	Bursting Strength, points Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Max.
											Mill C--42-lb. Linerboard						
143851	C-233	W.F.	9/ 5/50	8/29/50	1	43.4	41.2	42.0	14.9	13.4	14.2	126	82	104	41	34	37	464
143888	C-234	W.F.	9/ 7/50	8/31/50	1	43.4	40.4	41.9	14.6	12.9	14.0	131	63[b]	103[b]	40	34	37	440
143915	C-235		9/13/50	9/ 6/50		43.6	42.0	42.8	15.0	12.5	14.1	120	80	102	39	34	37	472
143980	C-236	W.F.	9/20/50	9/12/50	1	45.0	42.2	43.6	14.7	13.0	14.0	131	88	107	40	35	38	416
143981	C-237	W.F.	9/20/50	9/12/50	1	45.0	42.0	43.3	14.6	12.6	13.7	130	90	109	41	35	38	432
144060	C-238	W.F.	9/27/50	9/20/50	1	44.2	41.4	42.8	14.9	12.7	13.6	129	85	103	37	32	36	424
144061	C-239	W.F.	9/27/50	9/20/50	1	44.2	40.4	42.6	14.5	12.1	13.5	134	73	107	39	32	35	400
Current Mill Average:								42.8			13.9			105			37	
Cumulative Mill Average:								43.0			14.0			106			38	
Mill Factor, %:								99.5			99.3			99.1			97.4	
Mill Index, %:								99.1			96.5			99.1			100.0	

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.
[b] Visual examination revealed thin formation in the area in which the minimum test was obtained.

TABLE VI

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

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, points Max.	Bursting Strength, points Min.	Bursting Strength, points 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 D—42-lb. Linerboard																			
8/30/50	4	43.8	41.8	42.4	16.0	13.1	14.1	128	84	112[b]	41	34	38	456	328	393[a]	512	400	437[a]
8/31/50	4	42.6	40.6	41.8	13.8	12.4	13.2	134	87[b]	111	39	33	36	464	328	367[a]	464	384	423[a]
9/ 1/50	4	44.0	42.0	43.2	14.2	12.8	13.4	147	82	109	41	34	38	488	360	421[a]	544	376	445[a]
9/ 2/50	4	45.0	43.8	44.3	14.4	12.8	13.5	144	80	117	41	36	38	568	384	444[a,c]	552	384	460[a,c]
9/ 3/50	4	44.2	42.2	43.1	13.8	11.9	12.9	145	90	113	40	34	37	488	352	418[a]	520	400	427[a,c]
9/10/50	4	44.4	42.2	43.7	15.3	14.0	14.6	121	86	104	43	36	40	536	368	433[a]	472	360	439[a]
9/11/50	4	45.8	44.2	45.0	15.2	13.0	14.2	147	86	117	45	36	40	488	392	437[a]	504	376	452[a]
9/12/50	4	44.0	41.8	42.8	14.0	12.1	13.3	123	71	103	43	36	39	448	360	409[a]	488	384	431[a]
9/13/50	4	43.6	41.8	42.5	14.0	13.0	13.4	130	85	103	42	36	39	448	384	416	480	392	439[a]
9/14/50	4	44.2	42.6	43.5	15.5	13.5	14.4	120	88	103	45	39	42	456	344	408[a]	504	384	449[a]
9/14/50	4	44.6	42.6	43.9	14.3	13.0	13.7	134	77	108	42	34	39	504	344	405[a]	488	392	439[a]
9/15/50	4	43.8	41.4	42.8	15.7	13.5	14.6	117	71	96	42	30	37	480	360	431[a]	480	400	431[a]
9/17/50	4	46.0	44.0	44.9[d]	15.3	14.1	14.7	130	88	107	47	38	41	504	408	439[a]	512	384	446[a]
9/18/50	4	44.4	43.0	43.8	15.0	14.1	14.5	132	86	106	43	35	40	456	328	405	528	368	438[a]
9/18/50	4	43.6	41.8	42.5	14.3	12.8	13.4	141	76	110	42	35	38	448	336	408[a]	480	392	427[a]
9/19/50	4	43.6	41.8	43.0	15.2	13.7	14.3	131	88	103	43	33	38	480	344	439[a]	464	304	401[a,c]
9/20/50	4	44.2	41.8	42.6	14.8	13.2	14.1	128	70	103	42	35	38	448	368	401[a]	512	368	418[a]
9/21/50	4	45.0	43.6	44.1	14.9	13.1	13.9	132	77	105	48	39	43	432	360	397[a]	480	408	436[a]
				43.3			13.9			107			39			415			435
				43.3			14.9			107			38			400			421
				100.0			93.3			100.0			102.6			103.8			103.3
				100.2			96.5			100.9			105.4			109.2			105.1

[a] adings for one or more specimens which tore beyond the 3/8-inch limit.

[b] thin formation in the area in which the minimum test was obtained.

[c] adings for one or more specimens which rubbed against the sector during the tear test.

[d] The average of only 11 determinations, instead of 12.

TABLE VI

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

File No.	Mill Code	Finish	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, points Max.	Bursting Strength, points Min.	Bursting Strength, points Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	I Max.	I Mi
Mill D--42-lb. Linerboard																			
143848	D-267	D.F.	9/ 5/50	8/30/50	4	43.8	41.8	42.4	16.0	13.1	14.1	128	84	112[b]	41	34	38	456	328
143849	D-268	D.F.	9/ 5/50	8/31/50	4	42.6	40.6	41.8	13.8	12.4	13.2	134	87[b]	111	39	33	36	464	328
143835	D-269	W.F.	9/ 7/50	9/ 1/50	4	44.0	42.0	43.2	14.2	12.8	13.4	147	82	109	41	34	38	488	360
143836	D-270	W.F.	9/ 7/50	9/ 2/50	4	45.0	43.8	44.3	14.4	12.8	13.5	144	80	117	41	36	38	568	384
143837	D-271	W.F.	9/ 7/50	9/ 3/50	4	44.2	42.2	43.1	13.8	11.9	12.9	145	90	113	40	34	37	488	352
143918	D-272	D.F.	9/14/50	9/10/50	4	44.4	42.2	43.7	15.3	14.0	14.6	121	86	104	43	36	40	536	368
143919	D-273	D.F.	9/14/50	9/11/50	4	45.8	44.2	45.0	15.2	13.0	14.2	147	86	117	45	36	40	488	392
143961	D-274	W.F.	9/13/50	9/12/50	4	44.0	41.8	42.8	14.0	12.1	13.3	123	71	103	43	36	39	448	360
143962	D-275	W.F.	9/13/50	9/13/50	4	43.6	41.8	42.5	14.0	13.0	13.4	130	85	103	42	36	39	448	384
143963	D-276	D.F.	9/13/50	9/14/50	4	44.2	42.6	43.5	15.5	13.5	14.4	120	88	103	45	39	42	456	344
143964	D-277	W.F.	9/13/50	9/14/50	4	44.6	42.6	43.9	14.3	13.0	13.7	134	77	108	42	34	39	504	344
143965	D-278	D.F.	9/13/50	9/15/50	4	43.8	41.4	42.8	15.7	13.5	14.6	117	71	96	42	30	37	480	360
143987	D-279	D.F.	9/21/50	9/17/50	4	46.0	44.0	44.9[d]	15.3	14.1	14.7	130	88	107	47	38	41	504	408
143988	D-280	D.F.	9/21/50	9/18/50	4	44.4	43.0	43.8	15.0	14.1	14.5	132	86	106	43	35	40	456	328
143992	D-281	W.F.	9/22/50	9/18/50	4	43.6	41.8	42.5	14.3	12.8	13.4	141	76	110	42	35	38	448	336
143993	D-282	W.F.	9/22/50	9/19/50	4	43.6	41.8	43.0	15.2	13.7	14.3	131	88	103	43	33	38	480	344
144030	D-283	W.F.	9/25/50	9/20/50	4	44.2	41.8	42.6	14.8	13.2	14.1	128	70	103	42	35	38	448	368
144031	D-284	W.F.	9/25/50	9/21/50	4	45.0	43.6	44.1	14.9	13.1	13.9	132	77	105	46	39	43	432	360
Current Mill Average:								43.3			13.9			107			39		
Cumulative Mill Average:								43.3			14.9			107			38		
Mill Factor, %								100.0			93.3			100.0			102.6		
Mill Index, %:								100.2			96.5			100.9			105.4		

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

[b] Visual examination revealed thin formation in the area in which the minimum test was obtained.

[c] This average includes the readings for one or more specimens which rubbed against the sector during the tear test.

[d] The average of onl instead of 12.

TABLE VII

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			C. 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 E--42-lb. Linerboard																			
No samples submitted.																			

TABLE VIII

Mill E--42-lb. Linerboard

8/23/50	—	40.6	39.2	40.0	13.8	12.7	13.1	115	85	101	39	33	35	416	344	369	496	344	409[a]
8/28/50	—	41.8	39.2	40.3	13.8	12.7	13.2	124	86	110	36	30	33	392	304	345[a]	424	368	390[a]
8/30/50	—	42.6	40.8	41.6	14.7	13.1	13.7	122	88	109	38	34	36	432	328	371	472	376	420[a]
9/ 6/50	—	43.8	42.0	42.8	14.6	12.8	13.9	124	87	106	39	34	36	432	336	395	480	400	441[a]
9/ 7/50	—	43.8	41.8	43.2	14.3	12.1	13.6	127	93	110	36	32	34	456	352	390[a]	480	384	408[a]
9/13/50	—	44.8	43.4	44.0	15.7	13.7	14.7	121	84	106	42	34	39	496	400	451[a]	520	408	457[a]
9/14/50	—	43.8	42.2	43.1	15.0	13.0	14.1	127	91	109	41	33	38	448	368	398[a]	464	384	436[a]
9/15/50	—	42.2	41.2	41.8	14.7	12.6	13.8	121	90	105	41	33	37	496	352	393[a]	504	400	446[a]
9/21/50	—	42.0	39.8	41.1	14.3	12.8	13.7	124	86	111	39	34	36	424	368	387[a]	464	376	417[a]
				42.0			13.8			107			36			389			425
				43.5			14.6			106			39			389			431
				96.6			94.5			100.9			92.3			100.0			98.6
				97.2			95.8			100.9			97.3			102.4			102.7

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

TABLE VII

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			I
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.
Mill E--42-lb. Linerboard																		
No samples submitted.																		

TABLE VIII

Mill E--42-lb. Linerboard

143845	E-65	S.F.	9/ 5/50	8/23/50	—	40.6	39.2	40.0	13.3	12.7	13.1	115	85	101	39	33	35	416	34
143846	E-66	S.F.	9/ 5/50	8/28/50	—	41.8	39.2	40.3	13.3	12.7	13.2	124	86	110	36	30	33	392	30
143847	E-67	S.F.	9/ 5/50	8/30/50	—	42.6	40.8	41.6	14.7	13.1	13.7	122	88	109	38	34	36	432	38
143916	E-68	S.F.	9/13/50	9/ 6/50	—	43.8	42.0	42.8	14.6	12.8	13.9	124	87	106	39	34	36	432	32
143917	E-69	S.F.	9/13/50	9/ 7/50	—	43.8	41.8	43.2	14.3	12.1	13.6	127	93	110	36	32	34	456	35
144014	E-70	S.F.	9/23/50	9/13/50	—	44.8	43.4	44.0	15.7	13.7	14.7	121	84	106	42	34	39	496	40
144015	E-71	S.F.	9/23/50	9/14/50	—	43.8	42.2	43.1	15.0	13.0	14.1	127	91	109	41	33	38	448	36
144016	E-72	S.F.	9/23/50	9/15/50	—	42.2	41.2	41.8	14.7	12.6	13.8	121	90	105	41	33	37	496	39
144062	E-73	S.F.	9/27/50	9/21/50	—	42.0	39.8	41.1	14.3	12.8	13.7	124	86	111	39	34	36	424	36
Current Mill Average:								42.0			13.8			107			36		
Cumulative Mill Average:								43.5			14.6			106			39		
Mill Factor, %:								96.6			94.5			100.9			92.3		
Mill Index, %:								97.2			95.8			100.9			97.3		

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

TABLE IX

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

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, points Max.	Bursting Strength, points Min.	Bursting Strength, points Av.	C. E. Puncture, units Max.	C. E. Puncture, units Min.	C. 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 G--42-lb. Linerboard												
8/26/50[c]	1	44.2	42.4	43.5	15.1	12.4	13.8	132	90	109	37	32	35	400	304	347[a]	448	360	401[a]
8/27/50	1	42.2	40.2	41.2	14.6	12.2	13.6	116	80	102	34	29	32	360	312	335[a]	400	344	373[a]
9/ 6/50	1	45.8	43.6	45.0	14.2	12.2	13.0	121	82	102	39	35	37	408	344	379	440	368	399[a]
9/ 6/50	1	44.6	42.2	43.4	15.3	14.2	14.8	111	86	98	40	32	36	400	320	357[a]	416	360	389[a]
9/19/50	1	43.4	41.8	42.5	13.9	12.0	13.0	124	82	103	37	32	35	364	280	333	400	336	373[a]
9/19/50	1	45.0	43.8	44.1	13.9	11.2	12.8	137	85	115	37	32	34	392	288	337[a]	416	320	371[a]
9/24/50	1	43.8	42.0	43.0	13.9	12.1	13.0	122	80	105	37	32	35	376	312	351[a]	416	344	379[a]
9/24/50	1	43.8	42.0	42.5	13.9	11.9	12.7	120	65	106	37	31	35	400	304	347[a]	416	360	387[a]
				43.1			13.3			105			35			348			384
				43.1			14.4			108			37			376			408
				100.0			92.4			97.2			94.6			92.6			94.1
				99.8			92.4			99.1			94.8			91.6			92.8

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

received by the Institute appeared to be improperly identified. The F-1 sheet was marked G-265. The F-2, F-3, and

. The last four sheets were marked D-5 through D-8. Inasmuch as these latter numbers already appeared in the D series,
ed F-5 through F-8.

sample submitted to the Institute. The mill data sheet gives the date of manufacture as "August 27, 1950."

TABLE IX

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (conti

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, points Max.	Bursting Strength, points Min.	Bursting Strength, points Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	In Max.
											Mill G--42-lb. Linerboard						
143922	G-286	WEL	9/14/50	8/26/50[c]	1	44.2	42.4	43.5	15.1	12.4	13.8	132	90	109	37	32	35	400
143923	G-287	WEL	9/14/50	8/27/50	1	42.2	40.2	41.2	14.6	12.2	13.6	116	80	102	34	29	32	360
143889	G-288	WEL	9/ 8/50	9/ 6/50	1	45.8	43.6	45.0	14.2	12.2	13.0	121	82	102	39	35	37	408
143890	G-289	WEL	9/ 8/50	9/ 6/50	1	44.6	42.2	43.4	15.3	14.2	14.8	111	86	98	40	32	36	400
144032	G-290	WEL	9/25/50	9/19/50	1	43.4	41.8	42.5	13.9	12.0	13.0	124	82	103	37	32	35	384
144033	G-291	WEL	9/25/50	9/19/50	1	45.0	43.8	44.1	13.9	11.2	12.8	137	85	115	37	32	34	392
144070	G-292	WEL	9/26/50	9/24/50	1	43.8	42.0	43.0	13.9	12.1	13.0	122	80	105	37	32	35	376
144071	G-293	WEL	9/26/50	9/24/50	1	43.8	42.0	42.5	13.9	11.9	12.7	120	65	106	37	31	35	400
Current Mill Average:								43.1			13.3			105			35	
Cumulative Mill Average:								43.1			14.4			108			37	
Mill Factor, %:								100.0			92.4			97.2			94.6	
Mill Index, %:								99.8			92.4			99.1			94.6	

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

[b] The F series of the sample received by the Institute appeared to be improperly identified. The F-1 sheet was marked G-4 F-4 sheets were in order. The last four sheets were marked D-5 through D-8. Inasmuch as these latter numbers already these sheets were remarked F-5 through F-8.

[c] This date appeared on the sample submitted to the Institute. The mill data sheet gives the date of manufacture as "Aug

TABLE X

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

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, points Max.	Bursting Strength, points Min.	Bursting Strength, points 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 H--42-lb. Linerboard												
9/28/50	2	43.2	41.8	42.6	14.6	13.0	13.7	129	82	104	36	31	33	376	304	337	496	360	410[a]
9/29/50	2	44.4	41.6	43.6	14.7	13.6	14.0	114	84	101	38	33	36	400	304	352	464	344	405[a,b]
9/ 3/50	3	44.4	41.8	42.6	15.0	12.8	13.6	141	89	111	36	30	32	416	304	361	480	336	407[a]
9/ 5/50	2	43.8	41.2	42.2	13.6	12.6	13.2	151	71	101	36	30	33	432	312	350[a]	456	336	389[a]
9/14/50	2	44.6	41.8	42.8	14.4	12.7	13.4	119	79	103	39	30	34	432	320	372	464	336	405[a]
9/15/50	2	43.0	41.2	42.2	14.4	12.4	13.5	138	70[c]	112[c]	39	30	34	424	304	360	448	352	403[a]
				42.7			13.6			105			34			355			403
				43.0			14.7			106			37			392			413
				99.3			92.5			99.1			91.9			90.6			96.4
				98.8			94.4			99.1			91.9			93.4			97.3

[a] dings for one or more specimens which tore beyond the 3/8-inch limit.
[b] dings for one or more specimens which rubbed against the sector during the tear test.
[c] hat there was a shive in the area in which the minimum test was obtained.

TABLE X

SUMMARY OF INDIVIDUAL TEST LOTS—SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

File No.	Mill Code	Finish	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, points Max.	Bursting Strength, points Min.	Bursting Strength, points Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Elmendorf Tear, g In Max.	Elmendorf Tear, g In Min.	Elmendorf Tear, g In Av.
									Mill H--42-lb. Linerboard											
143904	H-195	WF1S	9/11/50	8/28/50	2	43.2	41.8	42.6	14.6	13.0	13.7	129	82	104	36	31	33	376	304	
143905	H-196	WF1S	9/11/50	8/29/50	2	44.4	41.6	43.6	14.7	13.6	14.0	114	84	101	38	33	36	400	304	
143970	H-197	WF1S	9/19/50	9/ 3/50	3	44.4	41.8	42.6	15.0	12.8	13.6	141	89	111	36	30	32	416	304	
143971	H-198	WF1S	9/19/50	9/ 5/50	2	43.8	41.2	42.2	13.6	12.6	13.2	151	71	101	36	30	33	432	312	
144055	H-199	WF1S	9/27/50	9/14/50	2	44.6	41.8	42.8	14.4	12.7	13.4	119	79	103	39	30	34	432	320	
144056	H-200	WF1S	9/27/50	9/15/50	2	43.0	41.2	42.2	14.4	12.4	13.5	138	70[c]	112[c]	39	30	34	424	304	
Current Mill Average:								42.7			13.6			105			34			
Cumulative Mill Average:								43.0			14.7			106			37			
Mill Factor, %:								99.3			92.5			99.1			91.9			
Mill Index, %:								98.8			94.4			99.1			91.9			

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.
[b] This average includes the readings for one or more specimens which rubbed against the sector during the tear test.
[c] Visual examination revealed that there was a shive in the area in which the minimum test was obtained.

TABLE XI

SUMMARY OF INDIVIDUAL TEST LOTS—SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

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, points Max.	Bursting Strength, points Min.	Bursting Strength, points 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 I—42-lb. Linerboard																			
8/30/50	1	44.3	41.8	43.0	14.9	13.1	14.0	116	82	95	36	30	33	368	296	334	464	360	403[a]
9/ 1/50	1	44.2	41.6	43.0	14.9	13.0	14.1	122	76	103	34	27	32	364	288	337[a]	416	352	395[a]
9/13/50	1	46.2	42.4	43.9	15.1	14.0	14.6	114	81	99	38	33	36	440	304	371[a]	480	344	425[a]
9/13/50[b]	1	44.2	42.2	43.1	14.3	13.2	13.8	115	77[c]	101[c]	36	31	34	416	280	339[a]	448	344	389[a]
9/20/50	1	43.8	41.6	42.5	14.8	13.2	13.9	118	75	100	37	32	35	400	304	351[a]	480	360	410[a]
9/25/50	1	44.0	42.6	43.4	14.1	13.0	13.7	122	75	101	35	32	33	480	328	372[a]	448	376	408[a]
9/26/50	1	44.0	42.2	43.2	14.8	13.2	13.9	124	90	106	36	32	34	400	296	341[a]	432	336	396[a]
				43.2			14.0			101			34			351			404
				43.3			13.5			106			35			348			409
				99.8			103.7			95.3			97.1			100.9			98.8
				100.0			97.2			95.3			91.9			92.4			97.6

TABLE XII

Mill J—42-lb. Linerboard

9/ 8/50	1	43.8	42.2	43.0	13.8	12.9	13.3	132	86	103	35	30	32	416	336	375[a]	448	328	383[a]
9/ 8/50	1	44.0	43.0	43.4	14.0	12.9	13.5	117	80	101	35	30	32	400	320	370[a]	432	312	369[a]
9/11/50	1	42.2	41.0	41.7	14.0	12.9	13.3	124	87	103	31	26	29	376	264	314[a]	368	280	325[a]
9/11/50	1	44.0	42.2	43.2	14.0	13.1	13.6	134	85	113	35	31	33	392	312	346[a]	408	328	367[a]
				42.8			13.4			105			32			351			361
				42.9			14.2			106			33			353			373
				99.8			94.4			99.1			97.0			99.4			95.5
				99.1			93.1			99.1			86.5			92.4			87.2

[a] Readings for one or more specimens which tore beyond the 3/8-inch limit.
[b] Sample received by the Institute. The mill data sheet gives the date of manufacture as "September 15, 1950."
[c] Thin formation in the area in which the minimum test was obtained.

TABLE XI

SUMMARY OF INDIVIDUAL TEST LOTS—SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

File No.	Mill Code	Finish	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, points Max.	Bursting Strength, points Min.	Bursting Strength, points Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Elmend g., In Max.	Elmend g., In Min.
											Mill I--42-lb. Linerboard								
143821	I-129	WF1S	9/ 1/50	8/30/50	1	44.3	41.8	43.0	14.9	13.1	14.0	116	82	95	36	30	33	368	296
143850	I-130	WF1S	9/ 5/50	9/ 1/50	1	44.2	41.6	43.0	14.9	13.0	14.1	122	76	103	34	27	32	384	288
143959	I-131	WF1S	9/18/50	9/13/50	1	46.2	42.4	43.9	15.1	14.0	14.6	114	81	99	38	33	36	440	304
143960	I-132	WF1S	9/18/50	9/13/50[b]	1	44.2	42.2	43.1	14.3	13.2	13.8	115	77[c]	101[c]	36	31	34	416	280
143994	I-133	WF1S	9/22/50	9/20/50	1	43.8	41.6	42.5	14.8	13.2	13.9	113	75	100	37	32	35	400	304
144059	I-134	WF1S	9/27/50	9/25/50	1	44.0	42.6	43.4	14.1	13.0	13.7	122	75	101	35	32	33	480	328
144069	I-135	WF1S	9/28/50	9/26/50	1	44.0	42.2	43.2	14.8	13.2	13.9	124	90	106	36	32	34	400	296
Current Mill Average:								43.2			14.0			101			34		
Cumulative Mill Average:								43.3			13.5			106			35		3
Mill Factor, %:								99.8			103.7			95.3			97.1		1
Mill Factor, %:								100.0			97.2			95.3			91.9		

TABLE XII

Mill J--42-lb. Linerboard

143966	J-225	B.F.	9/18/50	9/ 8/50	1	43.8	42.2	43.0	13.8	12.9	13.3	132	86	103	35	30	32	416	336 3
143967	J-226	B.F.	9/18/50	9/ 8/50	1	44.0	43.0	43.4	14.0	12.9	13.5	117	80	101	35	30	32	400	320 3
143968	J-227	B.F.	9/18/50	9/11/50	1	42.2	41.0	41.7	14.0	12.9	13.3	124	87	103	31	26	29	376	264 3
143969	J-228	B.F.	9/18/50	9/11/50	1	44.0	42.2	43.2	14.0	13.1	13.6	134	85	113	35	31	33	392	312 3
Current Mill Average:								42.8			13.4			105			32		3
Cumulative Mill Average:								42.9			14.2			106			33		3
Mill Factor, %:								99.8			94.4			99.1			97.0		
Mill Index, %:								99.1			93.1			99.1			86.5		

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.
[b] This date appeared on the sample received by the Institute. The mill data sheet gives the date of manufacture as "September
[c] Visual examination revealed thin formation in the area in which the minimum test was obtained.

TABLE XIII

SUMMARY OF INDIVIDUAL TEST LOTS—SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

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, points Max.	Bursting Strength, points Min.	Bursting Strength, points 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 B—44/46-lb. Drum Linerboard												
29/50	1	50.4	47.8	49.0	16.2	14.6	15.4	119	81	98	46	40	43	496	440	467[a]	488	384	440[a]
30/50	1	50.0	47.0	48.5	15.5	14.5	15.0	106	81	93	48	39	44	480	424	450[a]	504	368	433[a]
6/50	1	48.6	47.0	47.8	16.5	15.1	15.8	97	68	81	43	36	39	488	376	448[a]	464	320	392[a,b]
7/50	---	51.0	48.0	49.7	15.7	14.5	15.1	110	74	90	44	38	41	544	392	462[a]	480	368	411[a]
12/50	1	47.6	45.6	46.5	14.8	13.5	14.3	117	79	99	42	35	38	472	400	439[a]	432	360	406[a]
19/50	1	50.0	47.0	48.7	16.0	14.3	15.3	107	74	90	44	37	42	544	424	480[a]	448	376	411[a]
26/50	1	50.0	47.8	49.0	15.8	14.6	15.1	99	81	34	43	34	40	560	424	490[a]	480	400	425[a]
				48.5			15.2			91			41			462			417
				46.9			14.1			100			41			446			433
				103.4			107.8			91.0			100.0			103.6			96.3

[a] readings for one or more specimens which tore beyond the 3/8-inch limit.
[b] readings for one or more specimens which rubbed against the sector during the tear test.

TABLE XIII

SUMMARY OF INDIVIDUAL TEST LOTS—SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

File No.	Mill Code	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, points Max.	Bursting Strength, points Min.	Bursting Strength, points Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Elm In Max.	Elm In Min.	Elm In Av.
										Mill E—44/46-lb. Drum Linerboard									
143820	E-184	9/ 1/50	8/29/50	1	50.4	47.8	49.0	16.2	14.6	15.4	119	81	98	46	40	43	496	440	46
143844	E-185	9/5/50	8/30/50	1	50.0	47.0	48.5	15.5	14.5	15.0	106	81	93	48	39	44	480	424	45
143891	E-186	9/11/50	9/ 6/50	1	48.6	47.0	47.8	16.5	15.1	15.8	97	68	81	43	36	39	488	376	45
143906	E-187	9/11/50	9/ 7/50	—	51.0	48.0	49.7	15.7	14.5	15.1	110	74	90	44	38	41	544	392	46
143935	E-188	9/15/50	9/12/50	1	47.6	45.6	46.5	14.8	13.5	14.3	117	79	99	42	35	38	472	400	43
143995	E-190	9/22/50	9/19/50	1	50.0	47.0	48.7	16.0	14.3	15.3	107	74	90	44	37	42	544	424	48
144068	E-191	9/28/50	9/26/50	1	50.0	47.8	49.0	15.8	14.6	15.1	99	61	84	43	34	40	560	424	49
Current Mill Average:							48.5			15.2			91			41			46
Cumulative Mill Average:							46.9			14.1			100			41			44
Mill Factor, %:							103.4			107.8			91.0			100.0			10

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.
b This average includes the readings for one or more specimens which rubbed against the sector during the tear test.

As a supplementary part of the Continuous Baseline Study, comparisons 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 XIV, the atmospheric conditions used prior to and during the testing period varied considerably.

TABLE XIV

Mill Code	Preconditioning R.H., %	Temp., ° F.	Time, hr.	Conditioning R.H., %	Temp., ° F.	Time, hr.
A	No preconditioning			50-54	72-74	24-48
B	55-92	71-90	1/2	50	70	24
C	53-65	73-75	24-144	53-65	73-75	24-72
D	34-35	71-74	8	50	74	16
E	No preconditioning			57-65	80-94	--
F	No preconditioning			No conditioning		
G	50	73	24	50	73	24
H	No preconditioning			50	73	24
I	No preconditioning			38-71	78-94	--
J	No preconditioning			51-53	72-74	1/2

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

A comparison of the test data in Tables XV and XVI indicates that in the majority of cases there is good agreement between the mill and Institute data. Table XV 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 XVI, the average differences shown in Table XV have been calculated on a percentage basis for each test and 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 XVI that the maximum variation in the average basis weight between the results of the Institute and those of a given mill on corresponding samples is one per cent for the current period. This figure compares favorably with the maximum variation of 0.9 per cent for the preceding two periods. Further, it may be noted that the average basis weight results for Mills H and J are higher than those for the Institute, whereas the average results for Mills B, C, D, G and I are lower, and those for Mills A and F are the same. The agreement in basis weight results is very good for the current period.

The maximum variation in caliper for the current period is four per cent. Compared with the values for the Institute, the average results for Mills A and J are higher, whereas the average results for Mills B, C, D, F, G, H, and I are lower. None of these differences appear to be significantly large with the possible exception of the variation for Mill F which has been the same for the last three periods.

It may be noted in Table XVI that the bursting strength results show a maximum variation of six per cent for the current period. The results for Mills A, B, C, G, H, and I are higher than those for the Institute, the results for Mills F and J are lower, and the result for Mill D is the same. The agreement in bursting strength results is good for the current period. Only the variation for Mill A appears to be excessive.

The G. E. puncture results exhibit a maximum variation of fourteen per cent for the current period. Compared with the values for the Institute, the results for Mills A, B, C, and F are higher, the results for Mills G and H are lower, and the results for Mills I and J are the same. The agreement between the Institute and mill results is excellent with the exception of the variation for Mill F which is very large.

It may be seen in Table XV that the average machine direction tear results for Mills A, C, F, I, and J are higher than those for the Institute, whereas the average results for Mills B, D, G, and H are lower. The maximum variation for the current period is fourteen per cent. The differences encountered for Mills B, C, D, and I appear to be rather large. Mill I has exhibited a variation of fourteen per cent for the last three periods.

With regard to the across-machine direction tear results, it may be noted that the average results for Mills A, C, F, I, and J are higher than those for the Institute, while the average results for

Mills B, D, G, and H are lower. A maximum variation of fourteen per cent is noted for the current period. The differences encountered for Mills B, C, and I appear to be incompatible with the variations for the other mills.

TABLE XV

SUMMARY OF TEST RESULT COMPARISONS

Average Mill and Institute Results	Mills* A	B	C	D	E	F	G	H	I	J
No. Samples Compared	9	13	7	18	0	9	8	6	7	4
Basis Weight										
Institute	42.6	43.9	42.8	43.3	---	42.0	43.1	42.7	43.2	42.8
Mill	42.6	43.3	42.4	43.1	---	42.0	42.8	43.3	43.0	42.9
Av. difference**	0.0	-0.6	-0.4	-0.2	---	0.0	-0.3	+0.6	+0.2	+0.1
Max. difference***	±0.3	-1.3	-0.8	-0.7	---	±1.2	-0.9	+1.2	-0.4	+0.2
Caliper										
Institute	12.9	14.1	13.9	13.9	---	13.8	13.3	13.6	14.0	13.4
Mill	13.1	13.7	13.6	13.6	---	13.2	12.9	13.4	13.7	13.6
Av. difference**	+0.2	-0.4	-0.3	-0.3	---	-0.6	-0.4	-0.2	-0.3	+0.2
Max. difference***	+1.2	-1.0	-0.4	-0.8	---	-0.9	-0.8	-1.5	-0.5	+0.3
Bursting Strength										
Institute	103	103	105	107	---	107	105	105	101	105
Mill	109	106	108	107	---	103	106	107	106	101
Av. difference**	+6	+3	+3	0	---	-4	+1	+2	+5	-4
Max. difference***	+12	+7	+6	-9	---	-10	+7	+5	+12	-9
G. E. Puncture										
Institute	33	35	37	39	---	36	35	34	34	32
Mill	34	36	38	---	---	41	34	33	34	32
Av. difference**	+1	+1	+1	---	---	+5	-1	-1	0	0
Max. difference***	+3	+5	+4	---	---	+8	-3	-2	±2	+1
Tearing Strength, in										
Institute	347	390	371	415	---	389	348	355	351	351
Mill	349	341	412	368	---	408	323	341	401	376
Av. difference**	+2	-49	+41	-47	---	+19	-25	-14	+50	+25
Max. difference***	+26	-93	+55	-79	---	+63	-44	-31	+85	+42
Tearing Strength, across										
Institute	382	409	415	435	---	425	384	403	404	361
Mill	383	370	471	415	---	456	367	401	460	389
Av. difference**	+1	-39	+56	-20	---	+31	-17	-2	+56	+28
Max. difference***	+30	-87	+80	-36	---	+82	-40	-21	+109	+38

* 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 XVI

SUMMARY OF TEST RESULTS--COMPARISON BY PERIODS

	Basis Weight	Caliper	Bursting Strength	G. E. Puncture	Tearing Strength, in	Tearing Strength, across
Mill A						
Current period	0	+2	+6	+3	+0.6	+0.3
38th period	+0.7	-0.8	+7	+6	+9	+0.8
37th period	+0.5	-2	+3	+6	+3	+4
Mill B						
Current period	-1	-3	+3	+3	-13	-10
38th period	+0.2	-3	+4	+3	-11	-7
37th period	-0.5	0	+3	+6	-9	-7
Mill C						
Current period	-0.9	-2	+3	+3	+11	+13
38th period	-0.7	-0.7	+3	+3	+7	+10
37th period	0	-1	+3	+5	+7	+8
Mill D						
Current period	-0.5	-2	0	--	-11	-5
38th period	-0.2	-2	-0.9	--	-8	-4
37th period	-0.7	-2	-4	--	-9	-4
Mill E						
Current period	--	--	--	--	--	--
38th period	--	--	--	--	--	--
37th period	--	--	--	--	--	--
Mill F						
Current period	0	-4	-4	+14	+5	+7
38th period	-0.7	-4	-3	+10	0	+1
37th period	-0.7	-4	-6	+5	+2	+3
Mill G						
Current period	-0.7	-3	+1	-3	-7	-4
38th period	+0.2	-0.7	0	0	-2	+1
37th period	0	+0.7	-0.9	+6	+7	+9
Mill H						
Current period	+1	-1	+2	-3	-4	-0.5
38th period	+0.5	+2	+2	-3	-10	-6
37th period	+0.9	-1	+2	-6	-11	-3
Mill I						
Current period	-0.5	-2	+5	0	+14	+14
38th period	-0.5	-4	+5	--	+14	+9
37th period	-0.9	-3	+6	--	+14	+12
Mill J						
Current period	+0.2	+1	-4	0	+7	+8
38th period	-0.9	+2	-6	+6	+3	+10
37th period	-0.2	+0.7	-4	+6	+0.3	+3

TABLE XVII

SUMMARY OF INDIVIDUAL TEST LOGS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950

Mch. No.	Basis Weight, lb. IPC	Mill	Diff.	Caliper, points IPC	Mill	Diff.	Bursting Strength, points IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	Elmendorf Tear, g./sheet In IPC	Mill	Diff.	Across IPC	Mill	Diff.
							Mill A--42-lb. Linerboard											
2	43.2	42.9	-0.3	13.1	13.2	+0.1	106	107	+1	33	35	+2	377[a]	356	-21	376[a]	382	+6
2	42.8	42.9	+0.1	12.9	13.1	+0.2	99	107	+8	33	36	+3	373	371	- 2	387[a]	380	-7
1	42.7	42.7	0.0	13.5	13.2	-0.3	103[b]	109	+6	32	34	+2	354	345	- 9	393[a]	387	-6
2	42.5	42.4	-0.1	12.8	13.1	+0.3	103	106	+3	32	34	+2	346[a]	348	+ 2	375[a]	381	+6
1	43.1	42.9	-0.2	13.2	13.1	-0.1	101	113	+ 12	33	35	+2	323[a]	349	+26	376[a]	406	+30
1	42.8	43.1	+0.3	13.0	13.2	+0.2	104	113	+ 9	33	35	+2	312	311	- 1	379[a]	376	-3
2	42.5	42.3	-0.2	12.0	13.2	+1.2	97	105	+ 8	33	33	0	366[a]	357	- 9	392[a]	376	-16
2	42.0	42.1	+0.1	12.9	13.1	+0.2	102	108	+ 6	34	33	-1	357[a]	364	+ 7	380[a]	394	+14
1	42.1	42.2	+0.1	12.6	13.0	+0.4	110	112	+ 2	33	33	0	317[a]	339	+22	381[a]	368	-13
	42.6	42.6	0.0	12.9	13.1	+0.2	103	109	+ 6	33	34	+1	347	349	+2	382	383	+1

[a] readings for one or more specimens which tore beyond the 3/8-inch limit.
[b] thin formation in the area in which the minimum test was obtained.

"Average" data are calculated from the totals of the individual readings.

TABLE XVII

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950

File No.	Mill Code	Finish	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, points IPC	Bursting Strength, points Mill	Bursting Strength, points Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	Elmendorf, g IPC	Elmendorf, g In Mill
								Mill A--42-lb. Linerboard										
143842	A-168	WF1S	8/28/50	2	43.2	42.9	-0.3	13.1	13.2	+0.1	106	107	+1	33	35	+2	377[a]	356
143843	A-169	WF1S	8/29/50	2	42.8	42.9	+0.1	12.9	13.1	+0.2	99[b]	107	+8	33	36	+3	373	371
143920	A-170	WF1S	9/ 8/50	1	42.7	42.7	0.0	13.5	13.2	-0.3	103[b]	109	+6	32	34	+2	354	345
143921	A-171	WF1S	9/ 9/50	2	42.5	42.4	-0.1	12.8	13.1	+0.3	103	106	+3	32	34	+2	346[a]	348
143937	A-172	WF1S	9/11/50	1	43.1	42.9	-0.2	13.2	13.1	-0.1	101	113	+ 12	33	35	+2	323[a]	349
143958	A-173	WF1S	9/11/50	1	42.8	43.1	+0.3	13.0	13.2	+0.2	104	113	+ 9	33	35	+2	312	311
144057	A-174	WF1S	9/18/50	2	42.5	42.3	-0.2	12.0	13.2	+1.2	97	105	+ 8	33	33	0	366[a]	357
144058	A-175	WF1S	9/21/50	2	42.0	42.1	+0.1	12.9	13.1	+0.2	102	108	+ 6	34	33	-1	357[a]	364
144067	A-176	WF1S	9/24/50	1	42.1	42.2	+0.1	12.6	13.0	+0.4	110	112	+ 2	33	33	0	317[a]	339
Current Mill Average:					42.6	42.6	0.0	12.9	13.1	+0.2	103	109	+ 6	33	34	+1	347	349

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.
[b] Visual examination revealed thin formation in the area in which the minimum test was obtained.

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

TABLE XVIII

SUMMARY OF INDIVIDUAL TEST LOTS—SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

Institute Data versus Mill Data

ch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
													In			Across		
	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
							Mill B--42-lb. Linerboard											
L	43.5	42.9	-0.6	14.3	13.6	-0.7	98	105	+7	36	36	0	394[a]	301	-93	416[a]	345	-71
L	43.6	42.7	-0.9	14.5	13.5	-1.0	101	106	+5	35	34	-1	385[a]	296	-89	413[a]	341	-77
3	42.5	42.2	-0.3	13.0	12.6	-0.4	109	112	+3	32	33	+1	365[a]	298	-67	375[a]	329	-46
3	42.6	42.4	-0.2	13.0	12.6	-0.4	109	112	+3	32	33	+1	355[a]	309	-46	365[a]	329	-36
L	44.3	44.1	-0.2	14.2	14.1	-0.1	103	108	+5	36	40	+4	411[a]	382	-29	424	416	-8
L	44.8	44.8	0.0	14.0	14.1	+0.1	99[b]	106	+7	36	40	+4	410[a]	406	-4	422[a]	424	+ 2
L	44.4	44.3	-0.1	14.3	14.3	0.0	104	107	+3	35	40	+5	415[a]	399	-16	413[a]	419	+ 6
L	45.0	44.8	-0.2	14.1	14.1	0.0	104	106	+2	35	40	+5	390[a]	398	+8	419[a]	405	-14
L	43.6	42.7	-0.9	14.2	13.7	-0.5	100	103	+3	34	35	+1	401[a],[c]	331	-70	423[a]	351	-72
L	44.0	43.1	-0.9	14.4	13.8	-0.6	100	102	+2	35	35	0	411[a]	341	-70	408[a],[c]	358	-50
L	44.2	42.9	-1.3	14.5	13.9	-0.6	103	102	-1	37	33	-4	371[a]	292	-79	427[a]	340	-87
L	43.8	43.0	-0.8	14.6	13.8	-0.8	104	104	0	36	33	-3	370[a]	297	-73	402[a]	355	-47
L	44.1	43.4	-0.7	14.3	13.6	-0.7	102	103	+1	36	39	+3	393[a]	379	-14	405[a]	394	-11
	43.9	43.3	-0.6	14.1	13.7	-0.4	103	106	+3	35	36	+1	390	341	-49	409	370	-39

adings for one or more specimens which tore beyond the 3/8-inch limit.
thin formation in the area in which the minimum test was obtained.
adings for one or more specimens which rubbed against the sector during the tear test.

ge" data are calculated from the totals of the individual readings.

TABLE XVIII

SUMMARY OF INDIVIDUAL TEST LOTS—SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	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, points IPC	Bursting Strength, points Mill	Bursting Strength, points Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	Elmendorf g./ In IPC	Elmendorf g./ In Mill	Elmendorf g./ In Diff
										Mill B—42-lb. Linerboard								
143881	B-263	WF1S	8/27/50	1	43.5	42.9	-0.6	14.3	13.6	-0.7	98	105	+7	36	36	0	394[a]	301	-9
143882	B-264	WF1S	8/27/50	1	43.6	42.7	-0.9	14.5	13.5	-1.0	101	106	+5	35	34	-1	385[a]	296	-8
143883	B-265	WF1S	8/28/50	3	42.5	42.2	-0.3	13.0	12.6	-0.4	109	112	+3	32	33	+1	365[a]	298	-6
143884	B-266	WF1S	8/28/50	3	42.6	42.4	-0.2	13.0	12.6	-0.4	109	112	+3	32	33	+1	355[a]	309	-4
143933	B-267	WF1S	9/ 3/50	1	44.3	44.1	-0.2	14.2	14.1	-0.1	103	108	+5	36	40	+4	411[a]	382	-2
143934	B-268	WF1S	9/ 3/50	1	44.8	44.8	0.0	14.0	14.1	+0.1	99[b]	106	+7	36	40	+4	410[a]	406	-
143935	B-269	WF1S	9/ 3/50	1	44.4	44.3	-0.1	14.3	14.3	0.0	104	107	+3	35	40	+5	415[a]	399	-1
143936	B-270	WF1S	9/ 3/50	1	45.0	44.8	-0.2	14.1	14.1	0.0	104	106	+2	35	40	+5	390[a]	398	+
143954	B-271	WF1S	9/ 9/50	1	43.6	42.7	-0.9	14.2	13.7	-0.5	100	103	+3	34	35	+1	401[a,c]	331	-7
143955	B-272	WF1S	9/ 9/50	1	44.0	43.1	-0.9	14.4	13.8	-0.6	100	102	+2	35	35	0	411[a]	341	-7
143956	B-273	WF1S	9/10/50	1	44.2	42.9	-1.3	14.5	13.9	-0.6	103	102	-1	37	33	-4	371[a]	292	-7
143957	B-274	WF1S	9/10/50	1	43.8	43.0	-0.8	14.6	13.8	-0.8	104	104	0	36	33	-3	370[a]	297	-7
144054	B-275	WF1S	9/17/50	1	44.1	43.4	-0.7	14.3	13.6	-0.7	102	103	+1	36	39	+3	393[a]	379	-1
Current Mill Average:					43.9	43.3	-0.6	14.1	13.7	-0.4	103	106	+3	35	36	+1	390	341	-4

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.
[b] Visual examination revealed thin formation in the area in which the minimum test was obtained.
[c] This average includes the readings for one or more specimens which rubbed against the sector during the tear test.

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

TABLE XIX

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

Institute Data versus Mill Data

Sch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			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.	IPC	Mill	Diff.
							Mill C--42-lb. Linerboard											
1	42.0	42.2	+0.2	14.2	13.8	-0.4	104	103	-1	37	41	+4	395[a]	418	+23	423[a]	503	+80
1	41.9	41.5	-0.4	14.0	13.7	-0.3	103[b]	105	+2	37	35	-2	377[a]	426	+49	416[a]	496	+80
	42.8			14.1			102			37			419			427[a]		
1	43.8	43.0	-0.8	14.0	13.7	-0.3	107	109	+2	38	38	0	367[a]	416	+49	405[a]	479	+74
1	43.3	43.0	-0.3	13.7	13.8	+0.1	109	113	+4	38	38	0	377[a]	394	+17	419[a]	443	+24
1	42.8	42.2	-0.6	13.6	13.4	-0.2	103	109	+6	36	36	0	357	412	+55	409[a]	447	+38
1	42.6	42.2	-0.4	13.5	13.4	-0.1	107	109	+2	35	37	+2	356[a]	409	+53	417[a]	460	+43
	42.8	42.4	-0.4	13.9	13.6	-0.3	105	108	+3	37	38	+1	371	412	+41	415	471	+56

eadings for one or more specimens which tore beyond the 3/8-inch limit.
thin formation in the area in which the minimum test was obtained.
heet for this sample was not received, the Institute data for this sample have not been included in the Current Mill
he Institute samples.

age" data are calculated from the totals of the individual readings.

TABLE XIX

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	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, points IPC	Bursting Strength, points Mill	Bursting Strength, points Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	Elm IPC	Elm In Mill	Elm Dif
										Mill C--42-lb. Linerboard									
143851	C-233	W.F.	8/29/50	1	42.0	42.2	+0.2	14.2	13.8	-0.4	104	103	-1	37	41	+4	395[a]	416	+
143888	C-234	W.F.	8/31/50	1	41.9	41.5	-0.4	14.0	13.7	-0.3	103[b]	105	+2	37	35	-2	377[a]	426	+
143915	C-235[c]		9/ 6/50		42.8			14.1			102			37			419		
143980	C-236	W.F.	9/12/50	1	43.8	43.0	-0.8	14.0	13.7	-0.3	107	109	+2	38	38	0	367[a]	416	+
143981	C-237	W.F.	9/12/50	1	43.3	43.0	-0.3	13.7	13.8	+0.1	109	113	+4	38	38	0	377[a]	394	+
144060	C-238	W.F.	9/20/50	1	42.8	42.2	-0.6	13.6	13.4	-0.2	103	109	+6	36	36	0	357	412	+
144061	C-239	W.F.	9/20/50	1	42.6	42.2	-0.4	13.5	13.4	-0.1	107	109	+2	35	37	+2	356[a]	409	+
Current Mill Average:					42.8	42.4	-0.4	13.9	13.6	-0.3	105	108	+3	37	38	+1	371	412	+

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.
[b] Visual examination revealed thin formation in the area in which the minimum test was obtained.
[c] Inasmuch as the mill data sheet for this sample was not received, the Institute data for this sample have not been included in Averages calculated for the Institute samples.

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

TABLE XX

SUMMARY OF INDIVIDUAL TEST LOTS—SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

Institute Data versus Mill Data

Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
													In			Across		
	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
							Mill D—42-lb. Linerboard											
4	42.4	42.2	-0.2	14.1	13.9	-0.2	112	106	-6	38			393[a]	363	-30	437[a]	432	-5
4	41.8	41.3	-0.5	13.2	13.0	-0.2	111[b]	105	-6	36			367[a]	349	-18	423[a]	400	-23
4	43.2	43.3	+0.1	13.4	13.1	-0.3	109	106	-3	38			421[a]	395	-26	445[a]	413	-32
4	44.3	43.9	-0.4	13.5	13.3	-0.2	117	111	-6	38			444[a,c]	400	-44	460[a,c]	432	-28
4	43.1	43.4	+0.3	12.9	12.7	-0.2	113	106	-7	37			418[a]	408	-10	427[a,c]	419	-8
4	43.7	43.4	-0.3	14.6	13.8	-0.8	104	106	+2	40			433[a]	365	-68	439[a]	424	-15
4	45.0	44.4	-0.6	14.2	13.8	-0.4	117	108	-9	40			437[a]	381	-56	452[a]	416	-36
4	42.8	42.7	-0.1	13.3	13.0	-0.3	103	106	+3	39			409[a]	360	-49	431[a]	411	-20
4	42.5	42.3	-0.2	13.4	13.3	-0.1	103	109	+6	39			416	344	-72	439[a]	411	-28
4	43.5	43.2	-0.3	14.4	14.3	-0.1	103	104	+1	42			408[a]	355	-53	449[a]	413	-36
4	43.9	43.8	-0.1	13.7	13.3	-0.4	108	108	0	39			405[a]	400	-5	439[a]	451	+12
4	42.8	42.6	-0.2	14.6	14.3	-0.3	96	104	+8	37			431[a]	352	-79	431[a]	411	-20
4	44.9[d]	44.2	-0.7	14.7	14.2	-0.5	107	110	+3	41			439[a]	363	-76	446[a]	413	-33
4	43.8	43.5	-0.3	14.5	14.4	-0.1	106	107	+1	40			405	365	-40	438[a]	416	-22
4	42.5	42.4	-0.1	13.4	13.2	-0.2	110	104	-6	38			408[a]	360	-48	427[a]	424	-3
4	43.0	43.0	0.0	14.3	13.8	-0.5	103	107	+4	38			439[a]	363	-76	401[a,c]	389	-12
4	42.6	42.6	0.0	14.1	13.7	-0.4	103	102	-1	38			401[a]	357	-44	418[a]	395	-23
4	44.1	43.6	-0.5	13.9	13.5	-0.4	105	111	+6	43			397[a]	344	-53	436[a]	408	-28
	43.3	43.1	-0.2	13.9	13.6	-0.3	107	107	0	39			415	368	-47	435	415	-20

readings for one or more specimens which tore beyond the 3/8-inch limit.
thin formation in the area in which the minimum test was obtained.
readings for one or more specimens which rubbed against the sector during the tear test.
rminations, instead of 12.

rage" data are calculated from the totals of the individual readings.

TABLE XX

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	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, points IPC	Bursting Strength, points Mill	Bursting Strength, points Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	Elmendorf, g./ In IPC	Elmendorf, g./ In Mill	Elmendorf, g./ In Di
									Mill D--42-lb. Linerboard										
143846	D-267	D.F.	8/30/50	4	42.4	42.2	-0.2	14.1	13.9	-0.2	112	106	-6	38			393[a]	363	-
143849	D-268	D.F.	8/31/50	4	41.8	41.3	-0.5	13.2	13.0	-0.2	111[b]	105	-6	36			367[a]	349	-
143885	D-269	W.F.	9/ 1/50	4	43.2	43.3	+0.1	13.4	13.1	-0.3	109	106	-3	38			421[a]	395	-
143886	D-270	W.F.	9/ 2/50	4	44.3	43.9	-0.4	13.5	13.3	-0.2	117	111	-6	38			444[a,c]	400	-
143887	D-271	W.F.	9/ 3/50	4	43.1	43.4	+0.3	12.9	12.7	-0.2	113	106	-7	37			416[a]	408	-
143918	D-272	D.F.	9/10/50	4	43.7	43.4	-0.3	14.6	13.8	-0.8	104	106	+2	40			433[a]	365	-
143919	D-273	D.F.	9/11/50	4	45.0	44.4	-0.6	14.2	13.8	-0.4	117	108	-9	40			437[a]	381	-
143961	D-274	W.F.	9/12/50	4	42.8	42.7	-0.1	13.3	13.0	-0.3	103	106	+3	39			409[a]	360	-
143962	D-275	W.F.	9/13/50	4	42.5	42.3	-0.2	13.4	13.3	-0.1	103	109	+6	39			416	344	-
143963	D-276	D.F.	9/14/50	4	43.5	43.2	-0.3	14.4	14.3	-0.1	103	104	+1	42			408[a]	355	-
143964	D-277	W.F.	9/14/50	4	43.9	43.8	-0.1	13.7	13.3	-0.4	108	108	0	39			405[a]	400	
143965	D-278	D.F.	9/15/50	4	42.8	42.6	-0.2	14.6	14.3	-0.3	96	104	+8	37			431[a]	352	-
143987	D-279	D.F.	9/17/50	4	44.9[d]	44.2	-0.7	14.7	14.2	-0.5	107	110	+3	41			439[a]	363	-
143988	D-280	D.F.	9/18/50	4	43.8	43.5	-0.3	14.5	14.4	-0.1	106	107	+1	40			405	365	-
143992	D-281	W.F.	9/18/50	4	42.5	42.4	-0.1	13.4	13.2	-0.2	110	104	-6	38			408[a]	360	-
143993	D-282	W.F.	9/19/50	4	43.0	43.0	0.0	14.3	13.8	-0.5	103	107	+4	38			439[a]	363	-
144030	D-283	W.F.	9/20/50	4	42.6	42.6	0.0	14.1	13.7	-0.4	103	102	-1	38			401[a]	357	-
144031	D-284	W.F.	9/21/50	4	44.1	43.6	-0.5	13.9	13.5	-0.4	105	111	+6	43			397[a]	344	-
Current Mill Average:					43.3	43.1	-0.2	13.9	13.6	-0.3	107	107	0	39			415	368	-

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.
[b] Visual examination revealed thin formation in the area in which the minimum test was obtained.
[c] This average includes the readings for one or more specimens which rubbed against the sector during the tear test.
[d] The average of only 11 determinations, instead of 12.

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

TABLE XXI

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

Institute Data versus Mill Data

Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
													In			Across		
	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
							Mill E--42-lb. Linerboard											
	No samples submitted.																	

TABLE XXII

Mill F--42-lb. Linerboard

—	40.0	40.5	+0.5	13.1	12.8	-0.3	101	100	-1	35	41	+6	369	388	+19	409[a]	444	+35
—	40.3	40.3	0.0	13.2	12.6	-0.6	110	100	-10	33	40	+7	345[a]	372	+27	390[a]	430	+40
—	41.6	42.8	+1.2	13.7	13.0	-0.7	109	104	-5	36	41	+5	371	434	+63	420[a]	502	+82
—	42.8	42.5	-0.3	13.9	13.3	-0.6	106	101	-5	36	42	+6	395	422	+27	441[a]	460	+19
—	43.2	42.0	-1.2	13.6	13.1	-0.5	110	107	-3	34	40	+6	390[a]	403	+13	408[a]	439	+31
—	44.0	43.8	-0.2	14.7	13.9	-0.8	106	102	-4	39	47	+8	451[a]	429	-22	457[a]	446	-11
—	43.1	43.1	0.0	14.1	13.7	-0.4	109	104	-5	38	44	+6	398[a]	415	+17	436[a]	454	+18
—	41.8	41.8	0.0	13.8	13.3	-0.5	105	105	0	37	41	+4	393[a]	411	+18	446[a]	462	+16
—	41.1	40.8	-0.3	13.7	12.8	-0.9	111	106	-5	36	37	+1	387[a]	403	+16	417[a]	463	+46
	42.0	42.0	0.0	13.8	13.2	-0.6	107	103	-4	36	41	+5	389	408	+19	425	456	+31

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

age" data are calculated from the totals of the individual readings.

Institute Data versus Mill Data

File No.	Mill Code	Finish	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, points IPC	Bursting Strength, points Mill	Bursting Strength, points Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	Elmendorf, g./In IPC	Elmendorf, g./In Mill	Elmendorf, g./In Diff.
Mill E--42-lb. Linerboard																			
No samples submitted.																			

TABLE XXII

Mill F--42-lb. Linerboard

143845	F-65	S.F.	8/23/50	—	40.0	40.5	+0.5	13.1	12.8	-0.3	101	100	-1	35	41	+6	369	388	+19
143846	F-66	S.F.	8/28/50	—	40.3	40.3	0.0	13.2	12.6	-0.6	110	100	-10	33	40	+7	345[a]	372	+27
143847	F-67	S.F.	8/30/50	—	41.6	42.8	+1.2	13.7	13.0	-0.7	109	104	-5	36	41	+5	371	434	+63
143916	F-68	S.F.	9/ 6/50	—	42.8	42.5	-0.3	13.9	13.3	-0.6	106	101	-5	36	42	+6	395	422	+27
143917	F-69	S.F.	9/ 7/50	—	43.2	42.0	-1.2	13.6	13.1	-0.5	110	107	-3	34	40	+6	390[a]	403	+13
144014	F-70	S.F.	9/13/50	—	44.0	43.8	-0.2	14.7	13.9	-0.8	106	102	-4	39	47	+8	451[a]	429	-22
144015	F-71	S.F.	9/14/50	—	43.1	43.1	0.0	14.1	13.7	-0.4	109	104	-5	38	44	+6	398[a]	415	+17
144016	F-72	S.F.	9/15/50	—	41.8	41.8	0.0	13.8	13.3	-0.5	105	105	0	37	41	+4	393[a]	411	+18
144062	F-73	S.F.	9/21/50	—	41.1	40.8	-0.3	13.7	12.8	-0.9	111	106	-5	36	37	+1	387[a]	403	+16
Current Mill Average:					42.0	42.0	0.0	13.8	13.2	-0.6	107	103	-4	36	41	+5	389	408	+19

[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 XXIII

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

Institute Data versus Mill Data

ch.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
													In			Across		
	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
							Mill G--42-lb. Linerboard											
	43.5	42.6	-0.9	13.3	13.2	-0.6	109	109	0	35	33	-2	347[a]	330	-17	401[a]	361	-40
	41.2	40.6	-0.6	13.6	12.8	-0.8	102	107	+5	32	30	-2	335[a]	293	-42	373[a]	359	-14
	45.0	44.5	-0.5	13.0	12.9	-0.1	102	109	+7	37	37	0	379	361	-18	399[a]	377	-22
	43.4	43.6	+0.2	14.8	14.2	-0.6	98	102	+4	36	37	+1	357[a]	360	+3	389[a]	361	-28
	42.5	42.0	-0.5	13.0	12.9	-0.1	103	108	+5	35	32	-3	333	305	-28	373[a]	392	+19
	44.1	44.1	0.0	12.8	12.4	-0.4	115	111	-4	34	33	-1	337[a]	293	-44	371[a]	342	-29
	43.0	42.4	-0.6	13.0	12.6	-0.4	105	99	-6	35	34	-1	351[a]	322	-29	379[a]	368	-11
	42.5	42.7	+0.2	12.7	12.5	-0.2	106	102	-4	35	36	+1	347[a]	321	-26	387[a]	375	-12
	43.1	42.8	-0.3	13.3	12.9	-0.4	105	106	+1	35	34	-1	348	323	-25	384	367	-17

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

ceived by the Institute appeared to be improperly identified. The F-1 sheet was marked G-265. The F-2, F-3, and he last four sheets were marked D-5 through D-8. Inasmuch as these latter numbers already appeared in the D arked F-5 through F-8.

ple submitted to the Institute. The mill data sheet gives the date of manufacture as "August 27, 1950."

" data are calculated from the totals of the individual readings.

TABLE XXIII

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued

Institute Data versus Mill Data

File No.	Mill Code	Finish	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, points IPC	Bursting Strength, points Mill	Bursting Strength, points Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	Elmendo g./s In IPC	Elmendo g./s In Mill	Elmendo g./s In Dif
Mill G--42-lb. Linerboard																			
143922	G-266[b]	WFL	8/28/50[c]	1	43.5	42.6	-0.9	13.8	13.2	-0.6	109	109	0	35	33	-2	347[a]	330	-1
143923	G-267	WFL	8/27/50	1	41.2	40.6	-0.6	13.6	12.8	-0.8	102	107	+5	32	30	-2	335[a]	293	-4
143889	G-268	WFL	9/ 6/50	1	45.0	44.5	-0.5	13.0	12.9	-0.1	102	109	+7	37	37	0	379	361	-1
143890	G-269	WFL	9/ 6/50	1	43.4	43.6	+0.2	14.8	14.2	-0.6	98	102	+4	36	37	+1	357[a]	360	+
144032	G-290	WFL	9/19/50	1	42.5	42.0	-0.5	13.0	12.9	-0.1	103	108	+5	35	32	-3	333	305	-2
144033	G-291	WFL	9/19/50	1	44.1	44.1	0.0	12.8	12.4	-0.4	115	111	-4	34	33	-1	337[a]	293	-4
144070	G-292	WFL	9/24/50	1	43.0	42.4	-0.6	13.0	12.6	-0.4	105	99	-6	35	34	-1	351[a]	322	-2
144071	G-293	WFL	9/24/50	1	42.5	42.7	+0.2	12.7	12.5	-0.2	106	102	-4	35	36	+1	347[a]	321	-2
Current Mill Average:					43.1	42.8	-0.3	13.3	12.9	-0.4	105	106	+1	35	34	-1	348	323	-25

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

[b] The F series of the sample received by the Institute appeared to be improperly identified. The F-1 sheet was marked G-265. F-4 sheets were in order. The last four sheets were marked D-5 through D-8. Inasmuch as these latter numbers already appe series, these sheets were remarked F-5 through F-8.

[c] This date appeared on the sample submitted to the Institute. The mill data sheet gives the date of manufacture as "August 2

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

TABLE XXIV

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

Institute Data versus Mill Data

ich.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
													In			Across		
o.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
							Mill H--42-lb. Linerboard											
2	42.6	43.3	+0.7	13.7	13.7	0.0	104	106	+2	33	33	0	337	337	0	410[a]	389	-21
2	43.6	43.9	+0.3	14.0	14.0	0.0	101	103	+2	36	34	-2	352	341	-11	405[a,b]	393	-7
3	42.6	43.0	+0.4	13.6	13.8	+0.2	111	109	-2	32	33	+1	361	348	-13	407[a]	412	+ 5
2	42.2	43.2	+1.0	13.2	13.2	0.0	101	104	+3	33	33	0	350[a]	333	-17	389[a]	389	0
2	42.8	43.2	+0.4	13.4	13.4	0.0	103	108	+5	34	32	-2	372	341	-31	405[a]	417	+12
2	42.2	43.4	+1.2	13.5	12.0	-1.5	112[c]	112	0	34	32	-2	360	346	-14	403[a]	401	-2
	42.7	43.3	+0.6	13.6	13.4	-0.2	105	107	+2	34	33	-1	355	341	-14	403	401	-2

adings for one or more specimens which tore beyond the 3/8-inch limit.
adings for one or more specimens which rubbed against the sector during the tear test.
that there was a shive in the area in which the minimum test was obtained.

ge" data are calculated from the totals of the individual readings.

TABLE XXIV

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			El.		
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Dif
Mill H--42-lb. Linerboard																			
143904	H-195	WF1S	8/28/50	2	42.6	43.3	+0.7	13.7	13.7	0.0	104	106	+2	33	33	0	337	337	0
143905	H-196	WF1S	8/29/50	2	43.6	43.9	+0.3	14.0	14.0	0.0	101	103	+2	36	34	-2	352	341	-11
143970	H-197	WF1S	9/ 3/50	3	42.6	43.0	+0.4	13.6	13.8	+0.2	111	109	-2	32	33	+1	361	348	-13
143971	H-198	WF1S	9/ 5/50	2	42.2	43.2	+1.0	13.2	13.2	0.0	101	104	+3	33	33	0	350[a]	333	-17
144055	H-199	WF1S	9/14/50	2	42.8	43.2	+0.4	13.4	13.4	0.0	103	108	+5	34	32	-2	372	341	-31
144056	H-200	WF1S	9/15/50	2	42.2	43.4	+1.2	13.5	12.0	-1.5	112[c]	112	0	34	32	-2	360	346	-14
Current Mill Average:					42.7	43.3	+0.6	13.6	13.4	-0.2	105	107	+2	34	33	-1	355	341	-14

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.
[b] This average includes the readings for one or more specimens which rubbed against the sector during the tear test.
[c] Visual examination revealed that there was a shive in the area in which the minimum test was obtained.

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

TABLE XXV

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

Institute Data versus Mill Data

Sch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			C. E. Puncture, units			Elmendorf Tear, g./sheet					
													In			Across		
	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
							Mill I--42-lb. Linerboard											
1	43.0	42.6	-0.4	14.0	13.5	-0.5	95	107	+12	33	33	0	334	401	+67	403[a]	458	+55
1	43.0	42.[illegible]	-0.4	14.1	13.7	-0.4	103	107	+4	32	33	+1	337[a]	393	+56	395[a]	457	+62
1	43.9	43.5	-0.4	14.6	14.3	-0.3	99	106	+7	36	37	+1	371[a]	456	+85	425[a]	534	+109
1	43.1	43.0	-0.1	13.8	13.5	-0.3	101[c]	106	+5	34	32	-2	339[a]	365	+26	389[a]	427	+38
1	42.5	42.7	+0.2	13.9	13.7	-0.2	100	102	+2	35	35	0	361[a]	415	+54	410[a]	444	+34
1	43.4	43.5	+0.1	13.7	13.6	-0.1	101	106	+ 5	33	35	+2	372[a]	408	+36	408[a]	463	+55
1	43.2	43.2	0.0	13.9	13.5	-0.4	106	106	: 0	34	34	0	341[a]	367	+26	396[a]	435	+39
	43.2	43.0	-0.2	14.0	13.7	-0.3	101	106	+5	34	34	0	351	401	+50	404	460	+56

TABLE XXVI

Mill J--42-lb. Linerboard

1	43.0	43.2	+0.2	13.3	13.4	+0.1	103	99	-4	32	32	0	375[a]	388	+13	383[a]	397	+14
1	43.4	43.3	-0.1	13.5	13.5	0.0	101	100	-1	32	33	+1	370[a]	389	+19	369[a]	400	+31
1	41.7	41.9	+0.2	13.3	13.6	+0.3	103	100	-3	29	29	0	314[a]	341	+27	325[a]	353	+28
1	43.2	43.2	0.0	13.6	13.9	+0.3	113	104	-9	33	33	0	346[a]	388	+42	367[a]	405	+38
	42.8	42.9	+0.1	13.4	13.6	+0.2	105	101	-4	32	32	0	351	376	+25	361	389	+28

[illegible]adings for one or more specimens which tore beyond the 3/8-inch limit.
[illegible]mple received by the Institute. The mill data sheet gives the date of manufacture as "September 15, 1950."
[illegible] thin formation in the area in which the minimum test was obtained.

[illegible]age"-data are calculated from the totals of the individual readings.

TABLE XXV

SUMMARY OF INDIVIDUAL TEST LOTS—SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	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, points IPC	Bursting Strength, points Mill	Bursting Strength, points Diff.	C. E. Puncture, units IPC	C. E. Puncture, units Mill	C. E. Puncture, units Diff.	Elmendorf Tear, g./sheet In IPC	Elmendorf Tear, g./sheet In Mill	Elmendorf Tear, g./sheet In Diff
Mill I—42-lb. Linerboard																			
143821	I-129	WFIS	8/30/50	1	43.0	42.6	-0.4	14.0	13.5	-0.5	95	107	+12	33	33	0	334	401	+67
143850	I-130	WFIS	9/ 1/50	1	43.0	42.6	-0.4	14.1	13.7	-0.4	103	107	+4	32	33	+1	337[a]	393	+56
143959	I-131	WFIS	9/13/50	1	43.9	43.5	-0.4	14.6	14.3	-0.3	99	106	+7	36	37	+1	371[a]	456	+85
143960	I-132	WFIS	9/13/50[b]	1	43.1	43.0	-0.1	13.8	13.5	-0.3	101[c]	106	+5	34	32	-2	339[a]	365	+26
143994	I-133	WFIS	9/20/50	1	42.5	42.7	+0.2	13.9	13.7	-0.2	100	102	+2	35	35	0	361[a]	415	+54
144059	I-134	WFIS	9/25/50	1	43.4	43.5	+0.1	13.7	13.6	-0.1	101	106	+ 5	33	35	+2	372[a]	408	+36
144069	I-135	WFIS	9/26/50	1	43.2	43.2	0.0	13.9	13.5	-0.4	106	106	0	34	34	0	341[a]	367	+26
Current Mill Average:					43.2	43.0	-0.2	14.0	13.7	-0.3	101	106	+5	34	34	0	351	401	+50

TABLE XXVI

Mill J—42-lb. Linerboard

143966	J-225	B.F.	9/ 6/50	1	43.0	43.2	+0.2	13.3	13.4	+0.1	103	99	-4	32	32	0	375[a]	388	+13
143967	J-226	B.F.	9/ 6/50	1	43.4	43.3	-0.1	13.5	13.5	0.0	101	100	-1	32	33	+1	370[a]	389	+19
143968	J-227	B.F.	9/11/50	1	41.7	41.9	+0.2	13.3	13.6	+0.3	103	100	-3	29	29	0	314[a]	341	+27
143969	J-228	B.F.	9/11/50	1	43.2	43.2	0.0	13.6	13.9	+0.3	113	104	-9	33	33	0	346[a]	388	+42
Current Mill Average:					42.8	42.9	+0.1	13.4	13.6	+0.2	105	101	-4	32	32	0	351	376	+25

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

[b] This date appeared on the sample received by the Institute. The mill data sheet gives the date of manufacture as "September

[c] Visual examination revealed thin formation in the area in which the minimum test was obtained.

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

TABLE XVII

SUMMARY OF INDIVIDUAL TEST LOTS—SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

Institute Data versus Mill Data

PC	Basis Weight, lb.		Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
							Mill E—44/46-lb. Drum Linerboard											
9.0	48.6	-0.4	15.4	14.6	-0.8	98	102	+4	43	37	-6	467[a]	434	-33	440[a]	442	+2
8.5	48.1	-0.4	15.0	14.3	-0.7	93	94	+1	44	38	-6	450[a]	451	+1	433[a]	444	+11
7.8	47.5	-0.3	15.8	14.6	-1.2	81	82	+1	39	39	0	448[a]	423	-25	392[a,b]	402	+10
9.7	48.9	-0.8	15.1	13.7	-1.4	90	97	+7	41	40	-1	462[a]	452	-10	411[a]	406	-5
6.5	47.1	+0.6	14.3	13.4	-0.9	99	105	+6	38	37	-1	439[a]	435	-4	406[a]	415	+9
8.7	48.5	-0.2	15.3	14.1	-1.2	90	95	+5	42	39	-3	480[a]	476	-4	411[a]	443	+32
9.0	47.8	-1.2	15.1	13.6	-1.5	84	96	+12	40	39	-1	490[a]	420	-70	425[a]	400	-25
8.5	48.1	-0.4	15.2	14.0	-1.2	91	96	+5	41	38	-3	462	442	-20	417	422	+5

ngs for one or more specimens which tore beyond the 3/8-inch limit.
ngs for one or more specimens which rubbed against the sector during the tear test.

data are calculated from the totals of the individual readings.

TABLE XXVII

SUMMARY OF INDIVIDUAL TEST LOTS--SEPTEMBER 1 THROUGH SEPTEMBER 30, 1950 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf g./shee		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	In IPC	Mill	Diff.
Mill E--44/46-lb. Drum Linerboard																		
143820	E-184	8/29/50	1	49.0	48.6	-0.4	15.4	14.6	-0.8	98	102	+4	43	37	-6	467[a]	434	-33
143844	E-185	8/30/50	1	48.5	48.1	-0.4	15.0	14.3	-0.7	93	94	+1	44	38	-6	450[a]	451	+1
143891	E-186	9/ 6/50	1	47.8	47.5	-0.3	15.8	14.6	-1.2	81	82	+1	39	39	0	448[a]	423	-25
143906	E-187	9/ 7/50	---	49.7	48.9	-0.8	15.1	13.7	-1.4	90	97	+7	41	40	-1	462[a]	452	-10
143938	E-188	9/12/50	1	46.5	47.1	+0.6	14.3	13.4	-0.9	99	105	+6	38	37	-1	439[a]	435	-4
143995	E-190	9/19/50	1	48.7	48.5	-0.2	15.3	14.1	-1.2	90	95	+5	42	39	-3	480[a]	476	-4
144068	E-191	9/26/50	1	49.0	47.8	-1.2	15.1	13.6	-1.5	84	96	+12	40	39	-1	490[a]	420	-70
Current Mill Average:				48.5	48.1	-0.4	15.2	14.0	-1.2	91	96	+5	41	38	-3	462	442	-20

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.
[b] This average includes the readings for one or more specimens which rubbed against the sector during the tear test.

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