

02 07 L 10-78

BROWN & WILLIAMSON TOBACCO CORPORATION
INTERNAL CORRESPONDENCE

Greens
111

TO	J.L. Knopp	
DEPT.		
C.C. No	R.G. Hawkins	D.F. Turner
-	J.M. Hogg	J.P. Hall
-	P.L. Haverstock	H. Monavcutt
-	H.G. Prizer	R. O'Bryan

FROM L.D. Reed/F.W. SIMMONS
SUBJECT QUALITY SUMMARY DATE December 2, 1981

Please find attached the data sheets and associated graphs for the week and month ending November 30, 1981.

The following observations were made during the week:

1. KOOL 100's tobacco weights averaged low at 824.1 mgs.
2. KOOL 100's in-cigarette moisture averaged low at 13.6%. Adjustments have been made to bring it closer to target.
3. KOOL KS and KOOL Milds in-cigarette menthols averaged slightly above target levels at .346 and .417%, respectively.
4. A 35% improvement in KOOL Long's appearance level was noted over last week. This was due to a reduction in wrinkled cigarettes. Studies are continually being done to make permanent improvements in this area.
5. Air pocket defects increased for all brands. This area will be investigated to determine the cause of this increase.
6. Torn/cut cigarette defects for all brands also increased. This increase will be discussed with Fabrication Maintenance for resolution.
7. Package defects decreased for all brands. Additional improvements are expected in the future with the use of Morprop film and hooded heater modifications.

All other data results were on or near target levels.

If questions arise, please advise.

L.D. Reed
L.D. REED

F.W. Simmons
F.W. SIMMONS

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ATTACHMENTS

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SI

RD BRANCH

11/29/81

OUTGOING QUALITY AUDIT
DEFECTS PER CARTON

SAMPLE NO	BRAND & STYLE	CARTONS	CIGARETTE DEFECTS										TOTAL DEFECTS	CARTON DEFECTS	CIGARETTE DEFECTS	
			LOOKER/END	APPEARANCE	TORN	SEAM	TOPPING	TIP	LOOSE	TOOTH	SMOKE	PACKAGE				
			10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46-48	49-51
01	COOL KINGS	1,846	--	6.33	.11	.01	---	.14	.00	.05	6.64	1.91	.05	8.6		
02	KOOL 100'S	477	--	13.73	.27	.00	---	.11	.07	.17	34.35	1.84	.41	36.6		
03	KOOL MILD'S KINGS	270	--	6.12	.20	.11	---	.04	.04	.15	6.71	2.33	.04	9.1		
04	KOOL MILD'S 100'S															
05	KOOL SUPER LT'S KINGS															
06	KOOL SUPER LT'S 100'S															
07	BE L AIR KINGS															
08	BE L AIR 100'S															
09	VICEROY KINGS															
10	VICEROY 100'S															
11	RALEIGH KINGS															
12	RALEIGH 100'S															
13	VICEROY RICH LT KINGS															
14	VICEROY RICH LT 100'S															
15	RALEIGH LT KINGS															
16	RALEIGH LT 100'S															

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NO. 4000-10000 RD BRANCH

11/29/80

WINDO & WILLIAMSON TOWNCOO CORPORATION
 1/2 PHYSICAL CHARACTERISTICS

LEVEL	BRAND & STYLE B&B / B&T	WFACE MEY WY. MECS			CWL CIRCULAR (S&L)			CHILDREN DROP (H&J)			VENTILATION (N)	
		AVE (4-8)	NO	N (8-12)	AVE (12-16)	NO	N (16-20)	AVE (20-24)	NO	N (24-28)	AVE (28-32)	NO
D1	KOOL KINGS	734.1	9,233	53	734	24,90	155	52	4,85	414	52	
D2	KOOL 100'S	824.1	0,364	35	829	24,81	105	34	5,76	313	34	
D3	KOOL MILDS KINGS	683.3	9,186	35	685	24,94	183	33	5,65	442	34	
D4	KOOL MILDS 100'S											
D5	KOOL SUPER LTS KINGS											
D6	KOOL SUPER LTS 100'S											
D7	BEAIR KINGS											
D8	BEAIR 100'S											
D9	VICEROY KINGS											
D10	VICEROY 100'S											
D11	RALEIGH KINGS											
D12	RALEIGH 100'S											
D13	VICEROY RICH LT KINGS											
D14	VICEROY RICH LT 100'S											
D15	RALEIGH LT KINGS											
D16	RALEIGH LT 100'S											

11/29/80

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NO 488
11/29/81

MACON

BRANCH & WILLIAMSON TOBACCO CORPORATION
CIGARETTE TOBACCO ADDITIVES

11/29/81

LEVEL	BRAND & STYLE RAW / CAT	MOISTURE (%)			NITROGEN (%)			SULFUR (%)			PROPYLENE GLYCOL (%)		
		AVE 14-18	SD 0-18	N 0-18	AVE 14-18	SD 0-18	N 0-18	AVE 14-18	SD 0-18	N 0-18	AVE 14-18	SD 0-18	N 0-18
01	KOOL KINGS	14.1	.302	15	.346	.014	53	2.39	.238	26	.86	.214	26
02	KOOL 100'S	13.6	.356	11	.381	.014	35	1.53	.136	17	1.61	.118	17
03	KOOL MILDS KINGS	13.9	.408	10	.417	.019	34	2.39	.205	17	.47	.085	17
04	KOOL MILDS 100'S												
05	KOOL SUPER LITS KINGS												
06	KOOL SUPER LITS 100'S												
07	RELAIR KINGS												
08	RELAIR 100'S												
09	VICEKING KINGS												
10	VICEKING 100'S												
11	RALEIGH KINGS												
12	RALEIGH 100'S												
13	VICEKING RICH LT KINGS												
14	VICEKING RICH LT 100'S												
15	RALEIGH LT KINGS												
16	RALEIGH LT 100'S												

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WILLIAMSON'S PHARMACEUTICALS CORPORATION

RD BRANCH

PHYSICAL QUALITY DATA

11/23/81

WILLIAMSON'S
11/23/81

LEVEL 1-3	BRAND & STYLE SMOKE / BAT	EMDS STABILITY (MOIST)				COAL DISTRIBUTION %				COMBUSTED PHENOLIC QUANTITIES (PPM)		CIG M/C
		Avg HAP	SD	Q1 (25%)	Q3 (75%)	Avg (14-28)	SD	W (14-28)	AVG CHLOR	SD	N (14-28)	
01	KOOL KINGS	6.98	3.106	53		98.2	2.691	26	167	5.918	3	14.1
02	KOOL 100'S	4.44	1.879	35		96.5	3.945	17	154	10.639	2	13.6
03	KOOL MILDS KINGS	4.64	1.848	35		99.2	1.469	17	173	1.414	2	13.9
04	KOOL MILDS 100'S											
05	KOOL SUPER LT KINGS											
06	KOOL SUPER LT 100'S											
07	RELAIR KINGS											
08	RELAIR 100'S											
09	VICEROY KINGS											
10	VICEROY 100'S											
11	RALEIGH KINGS											
12	RALEIGH 100'S											
13	VICEROY RICH LT KINGS											
14	VICEROY RICH LT 100'S											
15	RALEIGH LT KINGS											
16	RALEIGH LT 100'S											

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WEEK/MONTH ENDING 11/22/81

BROWN & WELLSMANN TOBACCO CORPORATION

BRANCH: MACON

FILTER RODS

TOM DENIER & ROD LENGTH	CIRCUMFERENCE			PRESSURE DROP			PLASTICIZER			WEIGHT	
	Tgt.	Avg.	Std. Dev.	Tgt.	Avg.	Std. Dev.	Tgt.	Avg.	Std. Dev.	Avg.	Std. Dev.
3.9 x 33.000 (84mm)	24.60	24.62	.079	9.40	9.44	.375	7.00	7.02	.626	592.75	11.341
4.3 x 37.000 (108mm)	24.50	24.53	.081	9.60	9.53	.385	9.50	9.27	.776	736.49	11.198
3.3 x 35.000 (100mm)	24.60	24.61	.073	11.50	11.54	.433	7.00	6.73	.617	636.49	13.705

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65505 9707

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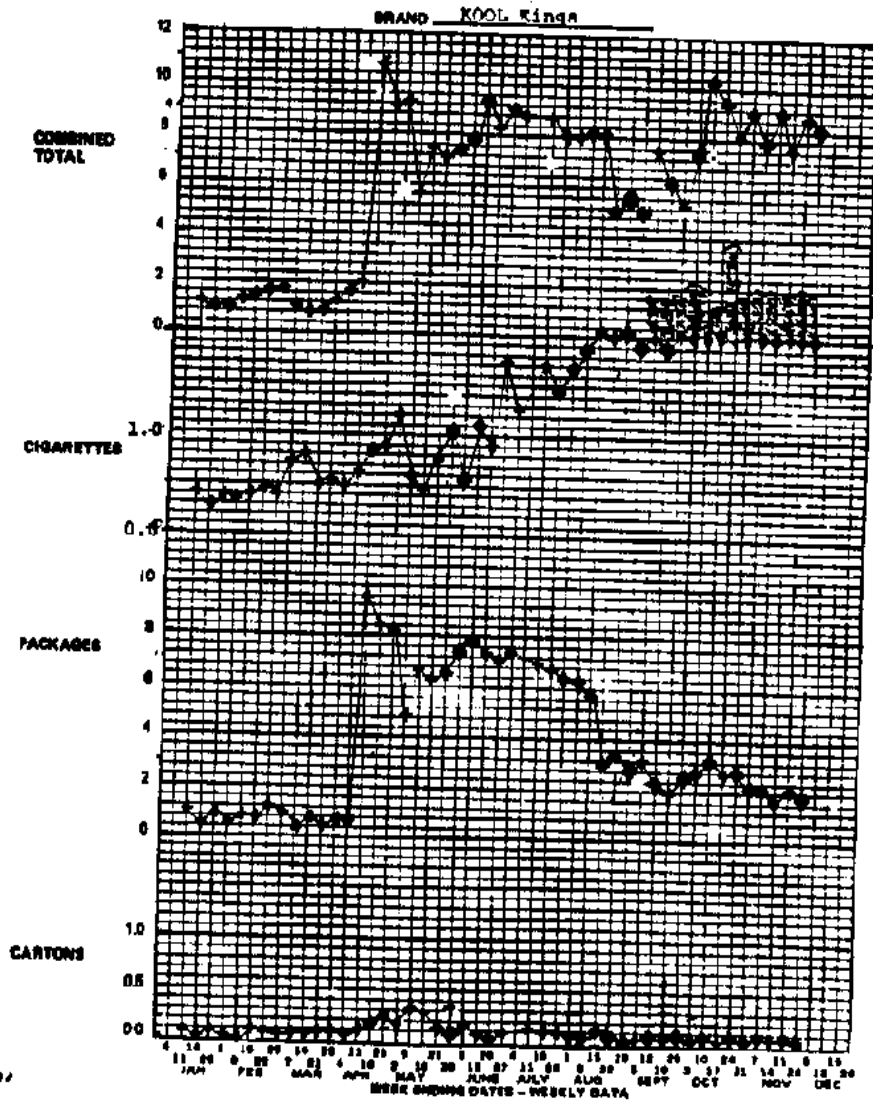
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CIGARETTE DEFECTS PER CARTON
BY CIGTS, PACKAGES, CARTONS & COMBINED TOTALS

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YEAR 1981



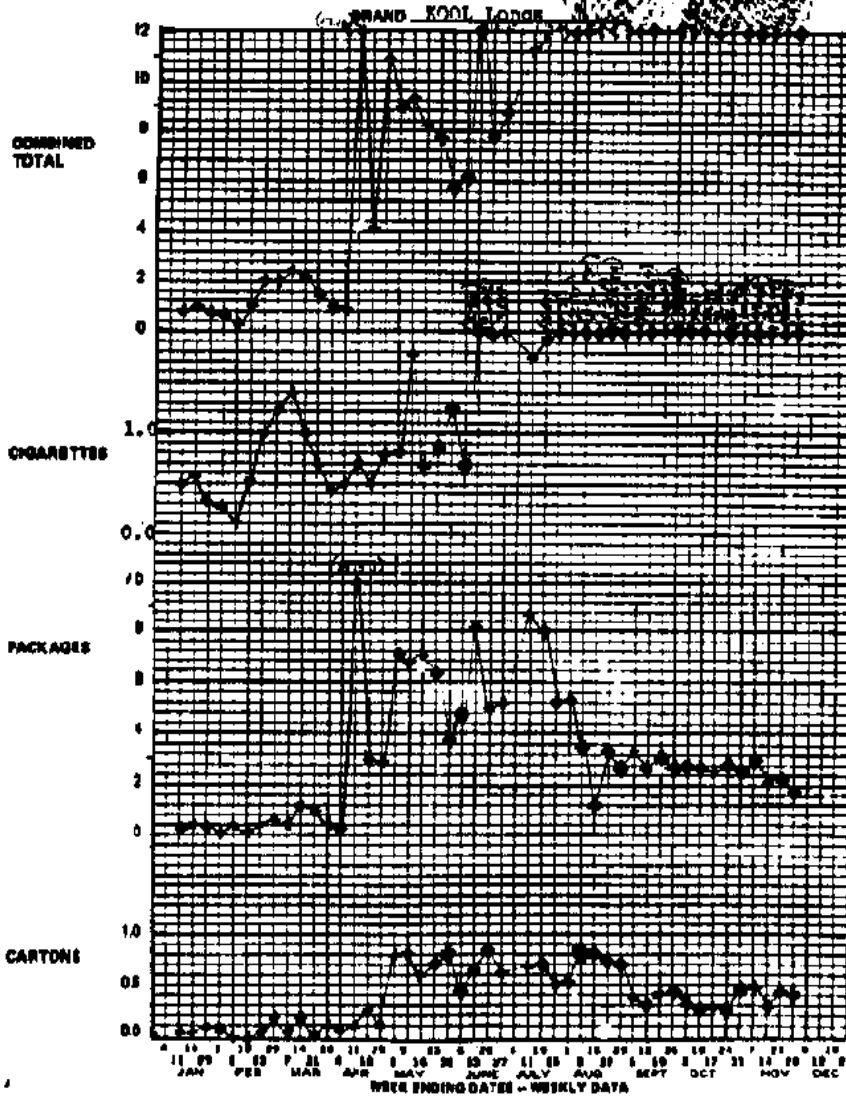
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CIGARETTE DEFECTS PER CARTON
BY CIGTS., PACKAGES, CARTONS & COMBINED TOTALS



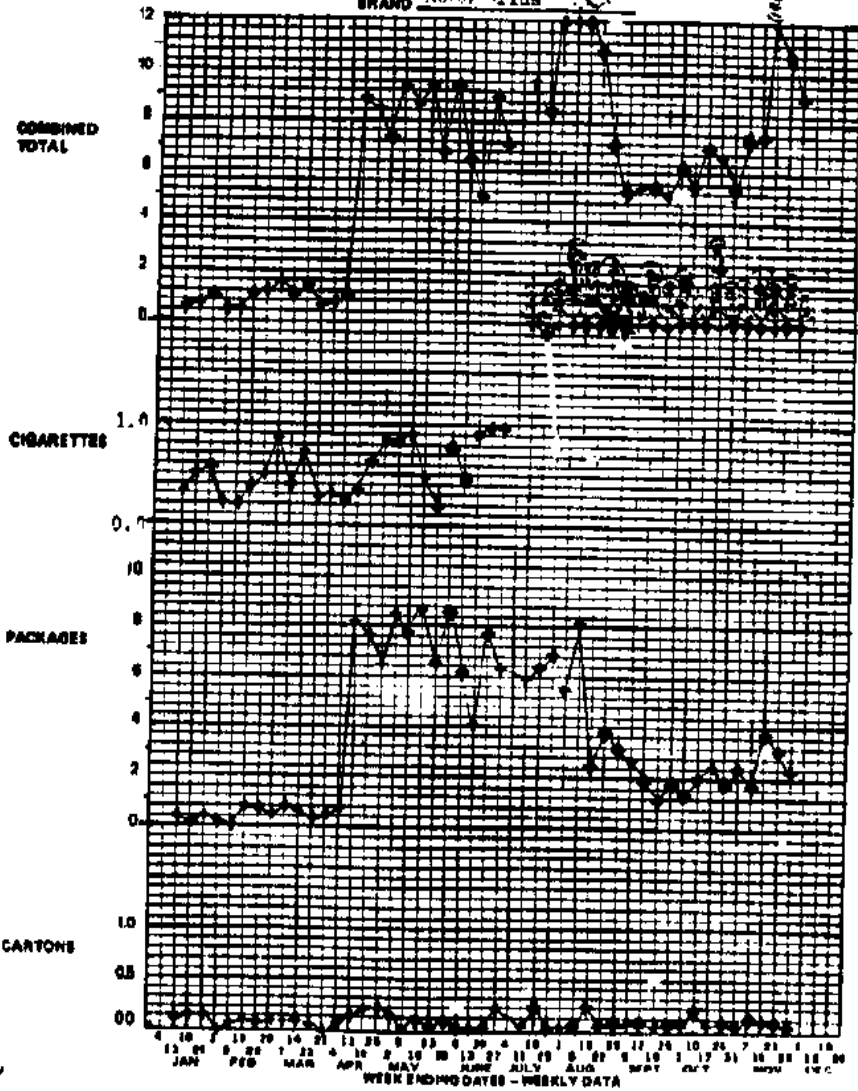
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CIGARETTE DEFECTS PER CARTON
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BRANCH MACON
YEAR 1981

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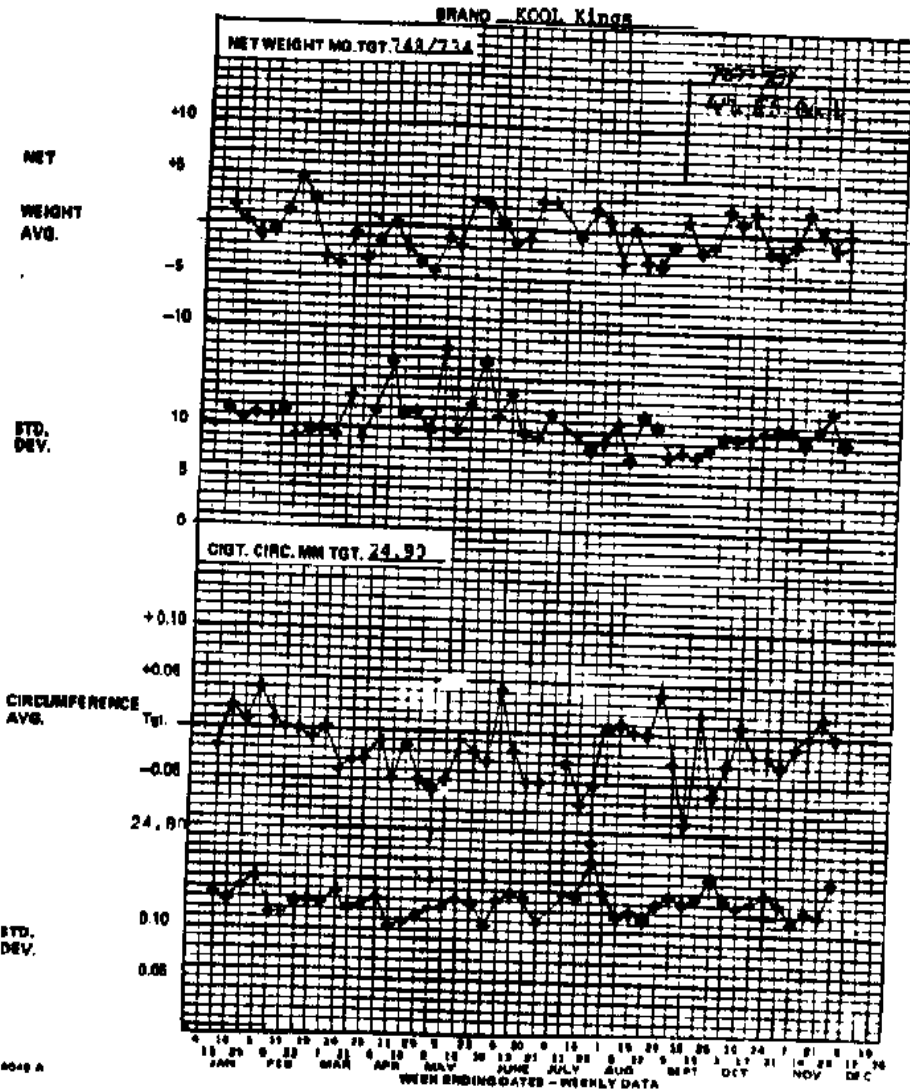
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CIGARETTE NET WEIGHT & CIG. CIRCUMFERENCE

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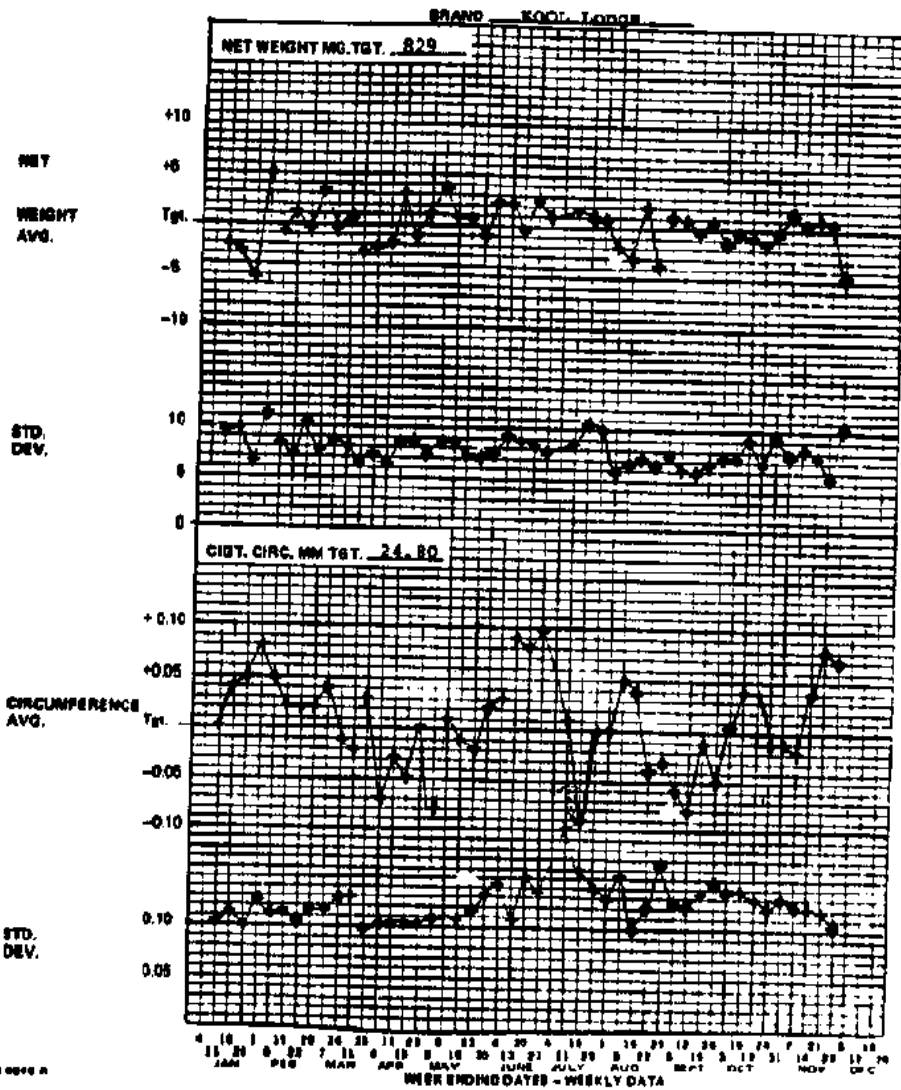
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YEAR 1981

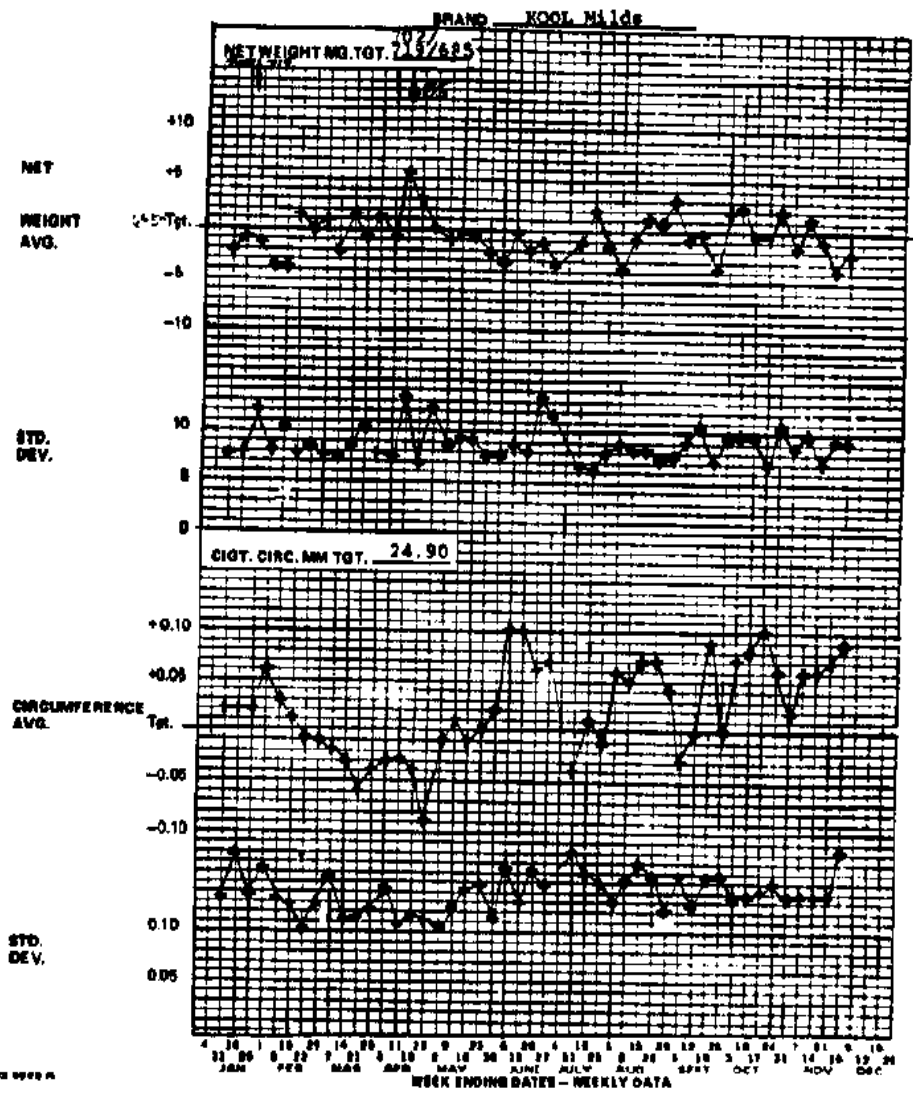


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BRANCH MARON
YEAR 1981

CIGARETTE NET WEIGHT & CIG. CIRCUMFERENCE



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CIGARETTE PRESSURE DROP

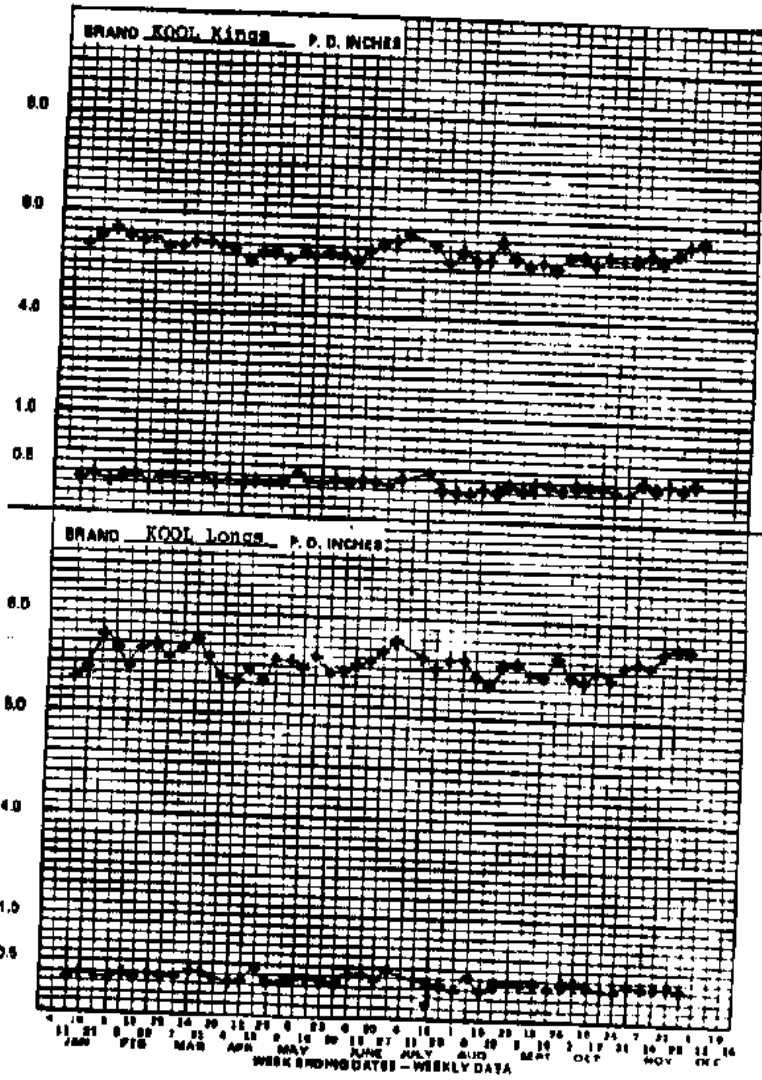
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YEAR 1981

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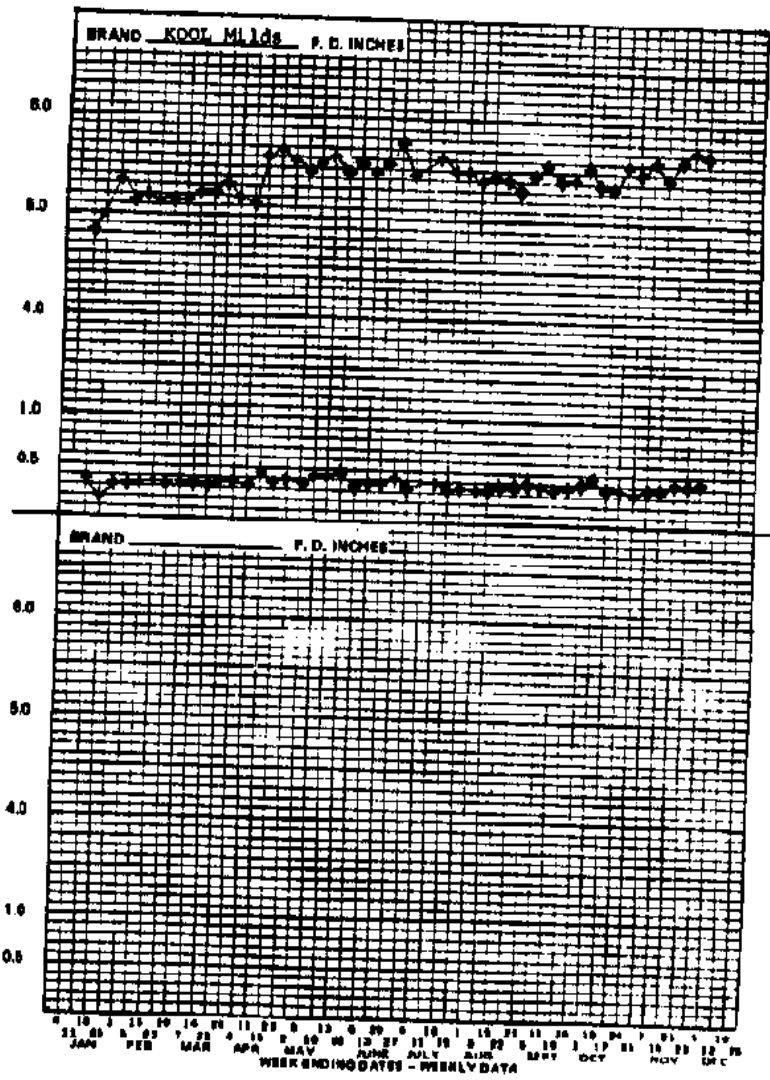
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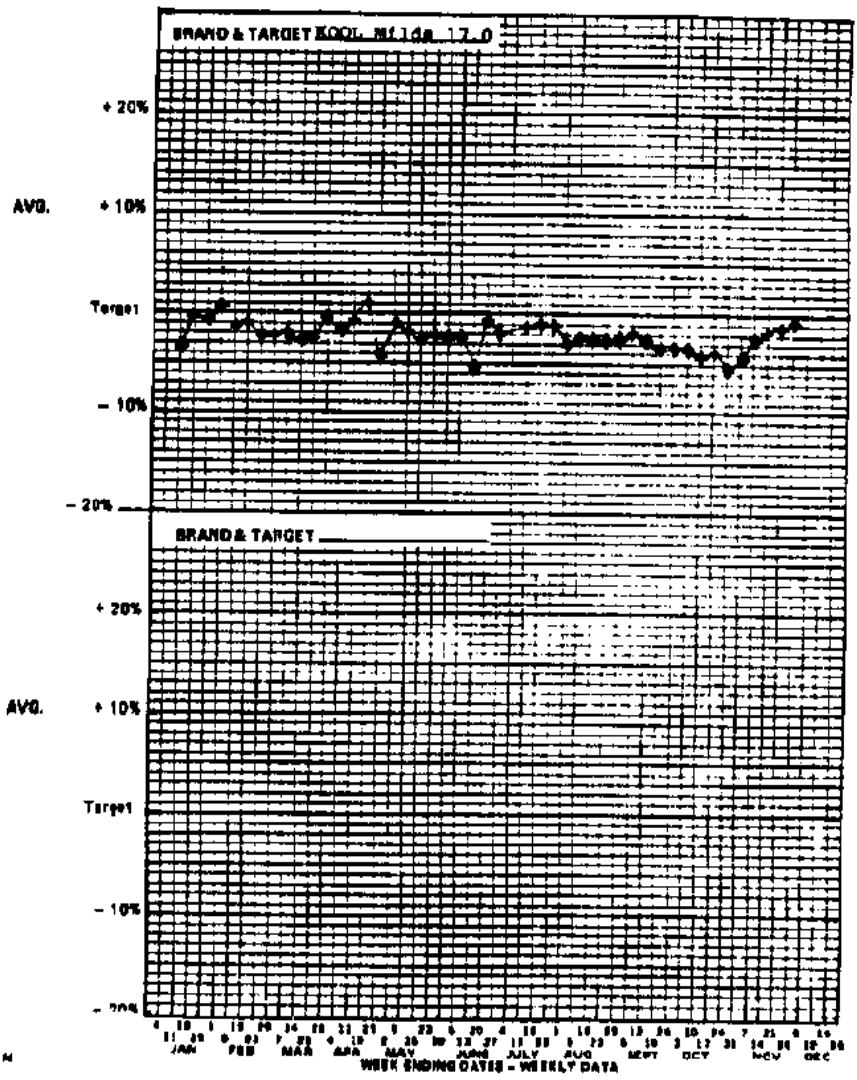
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BRANCH Macon
YEAR 1981



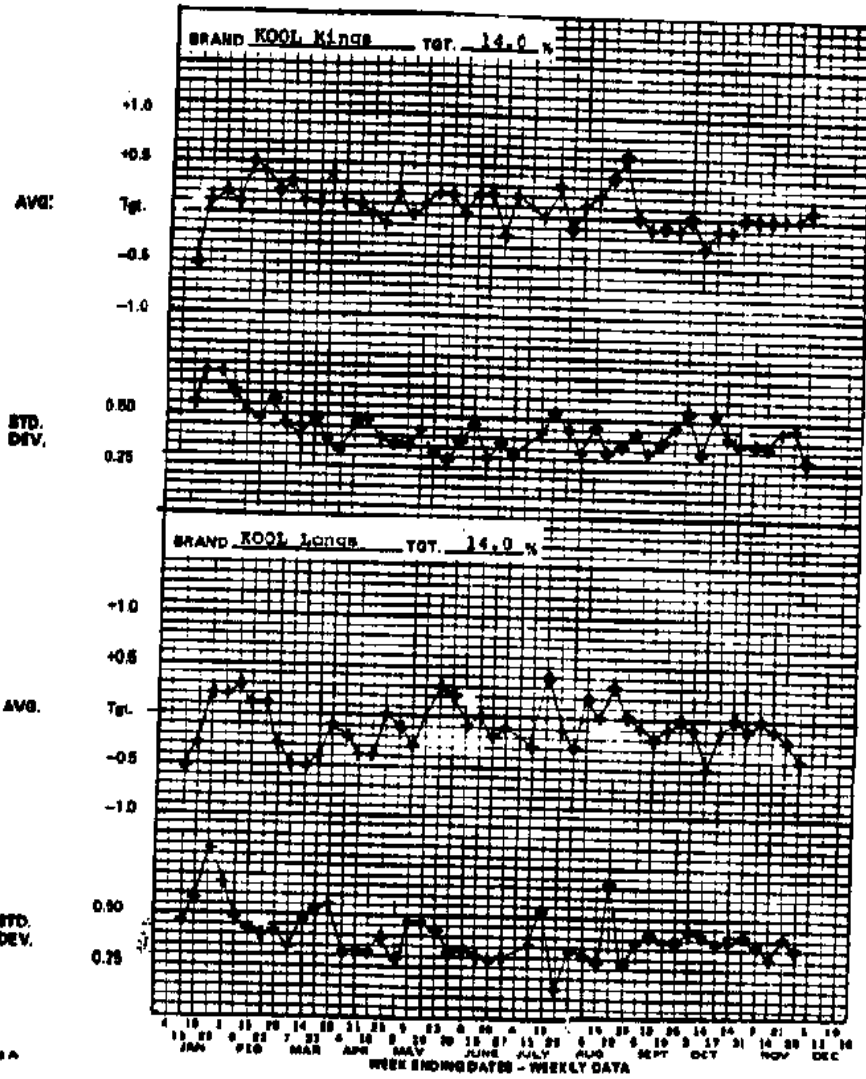
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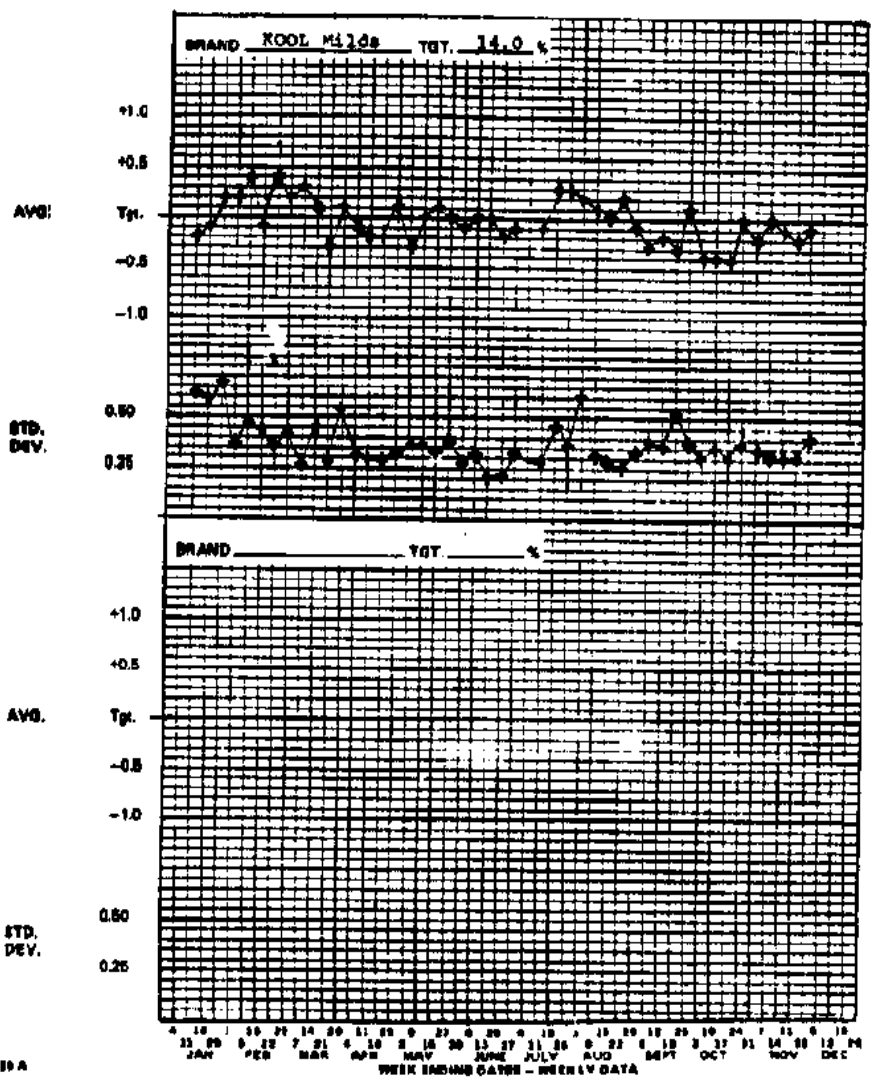


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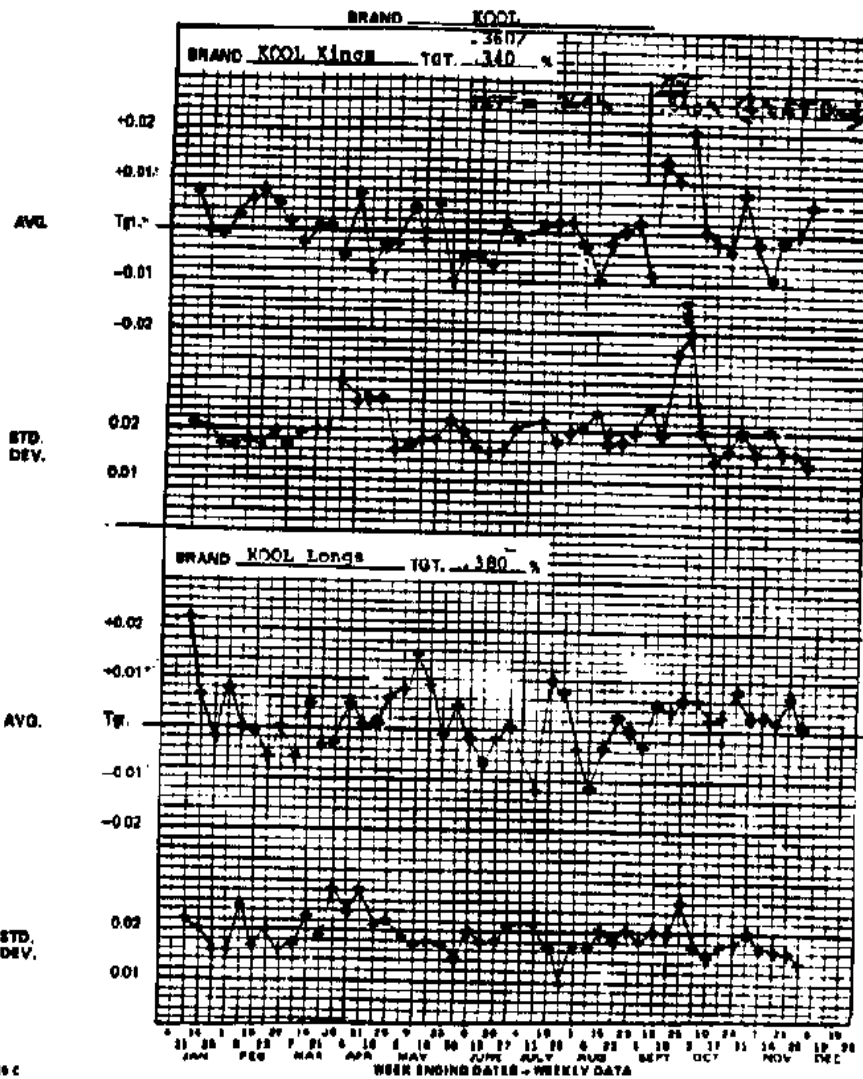


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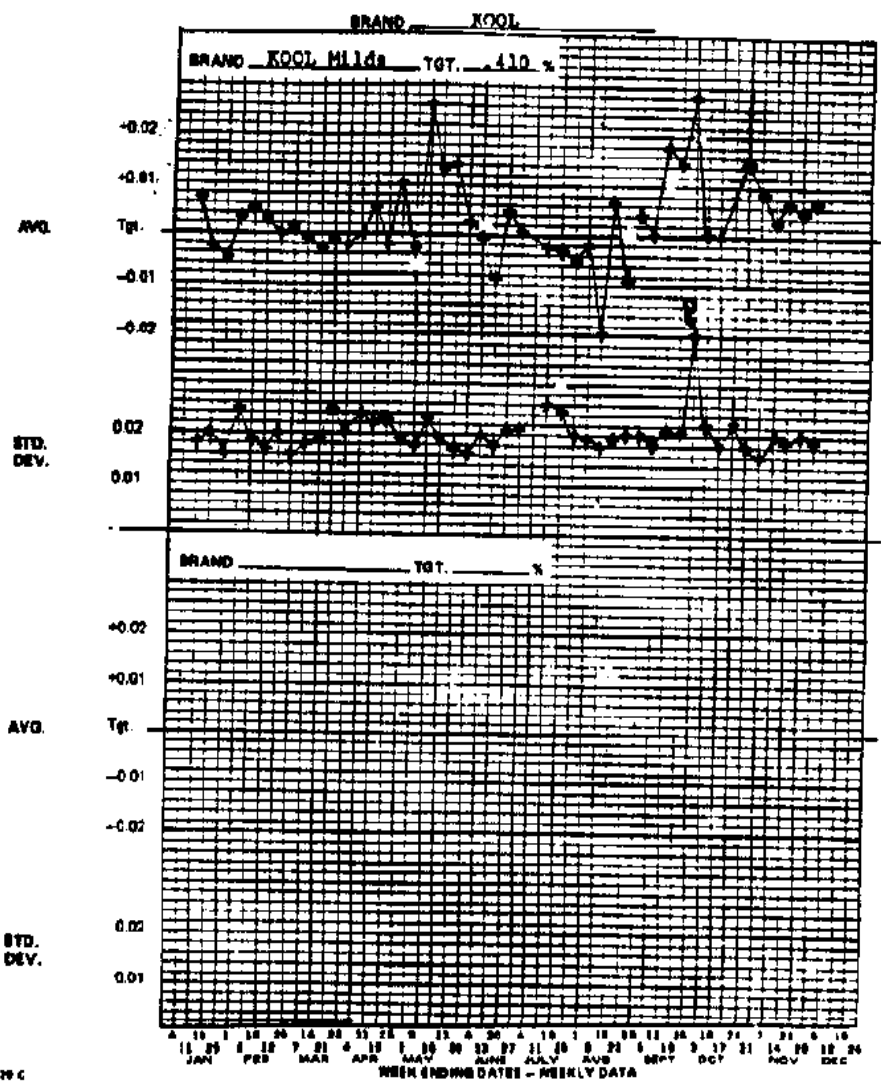


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IN-CIGARETTE MENTHOL CONTENT, PERCENT
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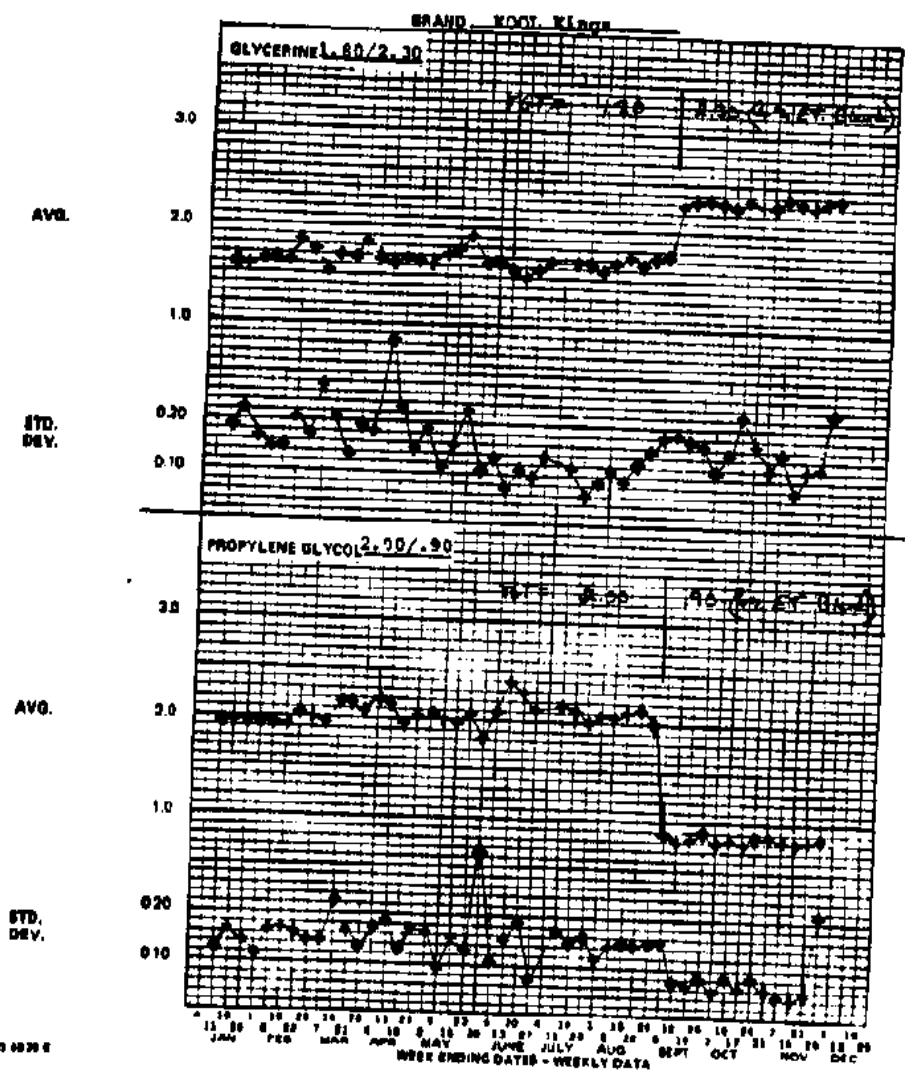
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IN-CIGARETTE HUMECTANT CONTENT, PERCENT



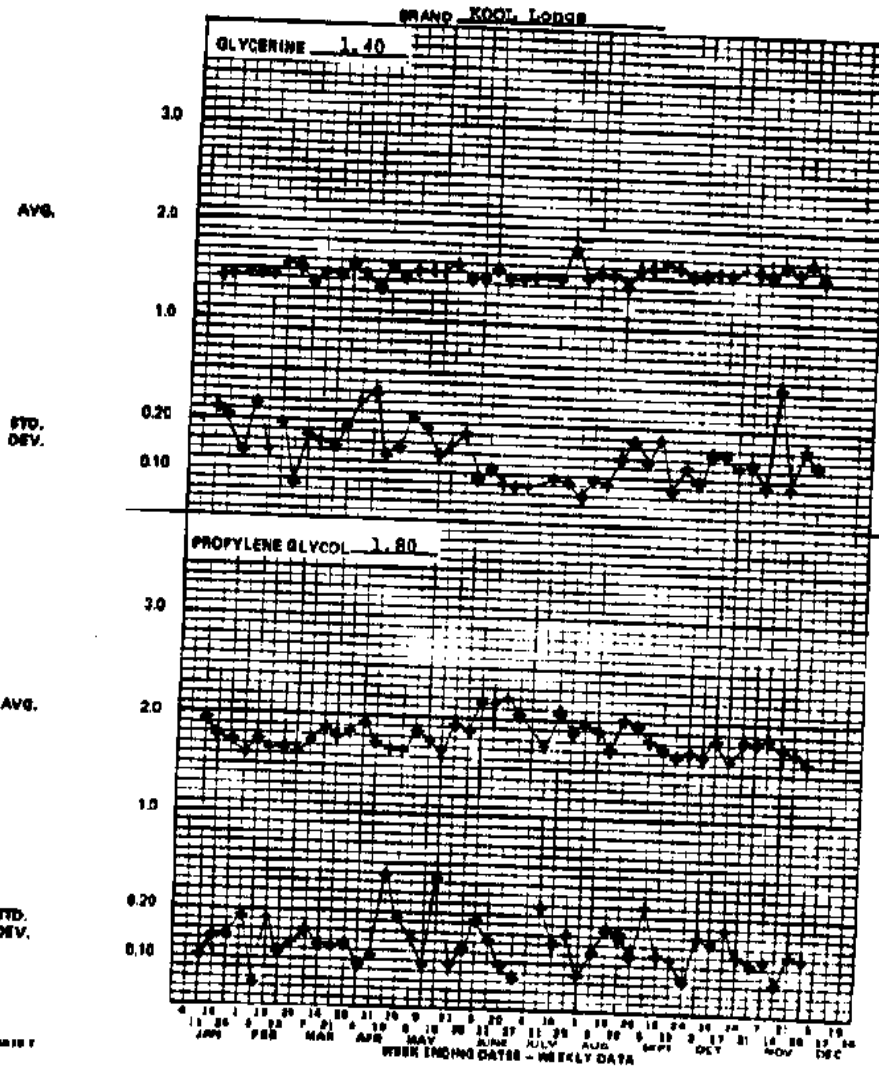
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IN-CIGARETTE HUMECTANT CONTENT, PERCENT

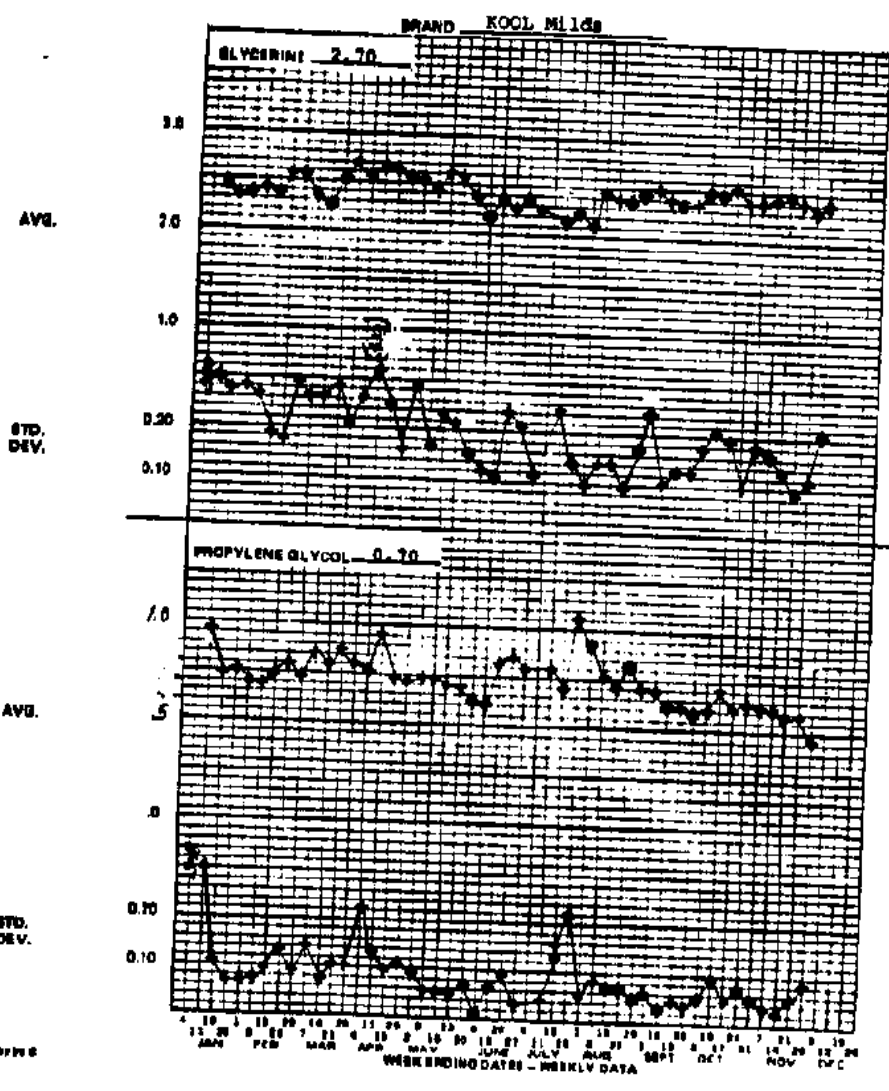


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IN-CIGARETTE HUMECTANT CONTENT, PERCENT



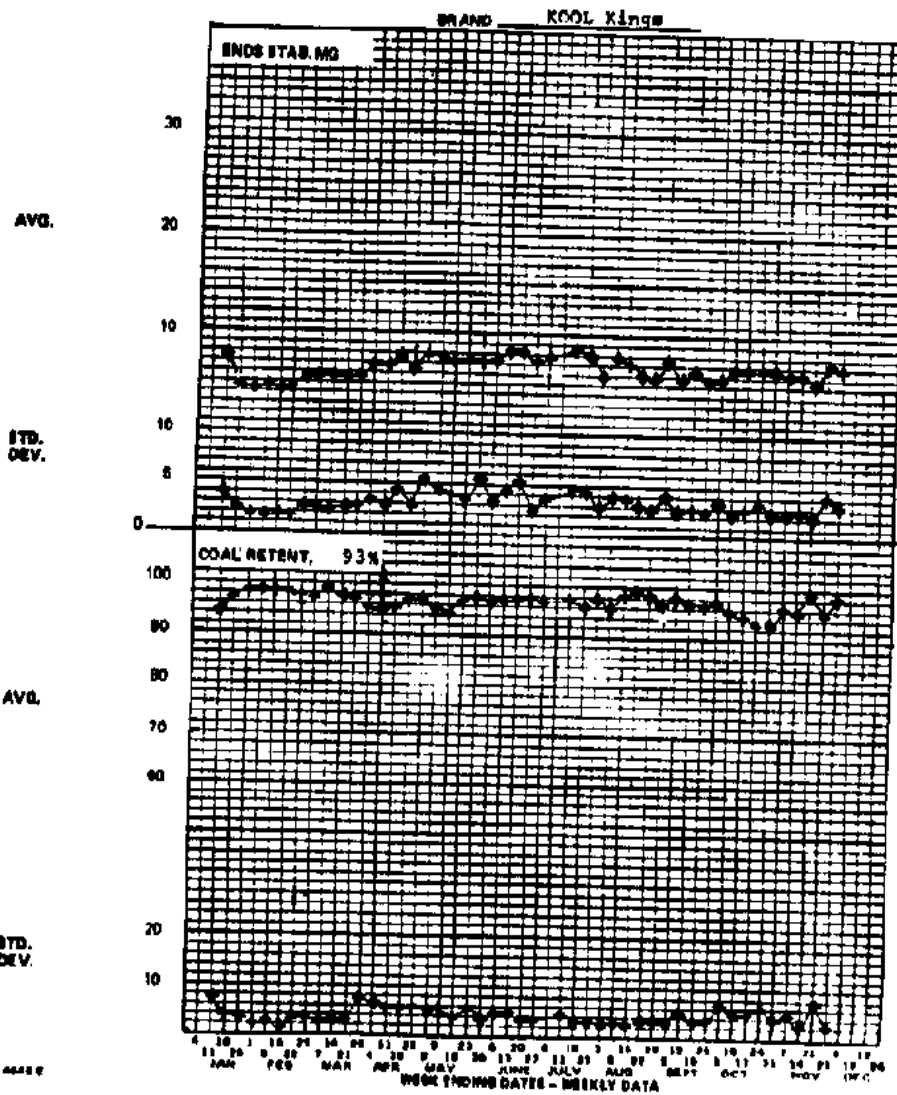
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CIGARETTE ENDS STABILITY IN MG. LOSS AND COAL RETENTION, %

BRANCH MACON
 YEAR 1981

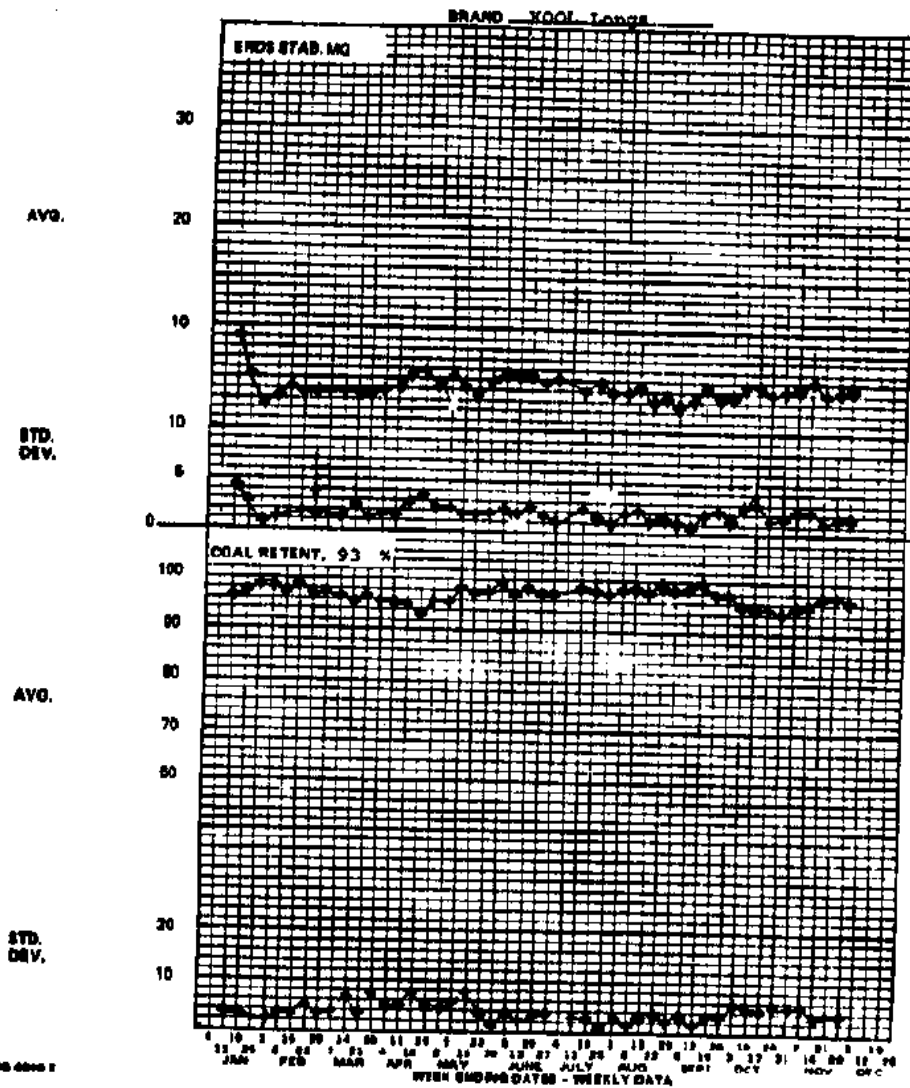


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CIGARETTE ENDS STABILITY IN MG. LOSS AND COAL RETENTION, %

BRANCH Macon
YEAR 1981

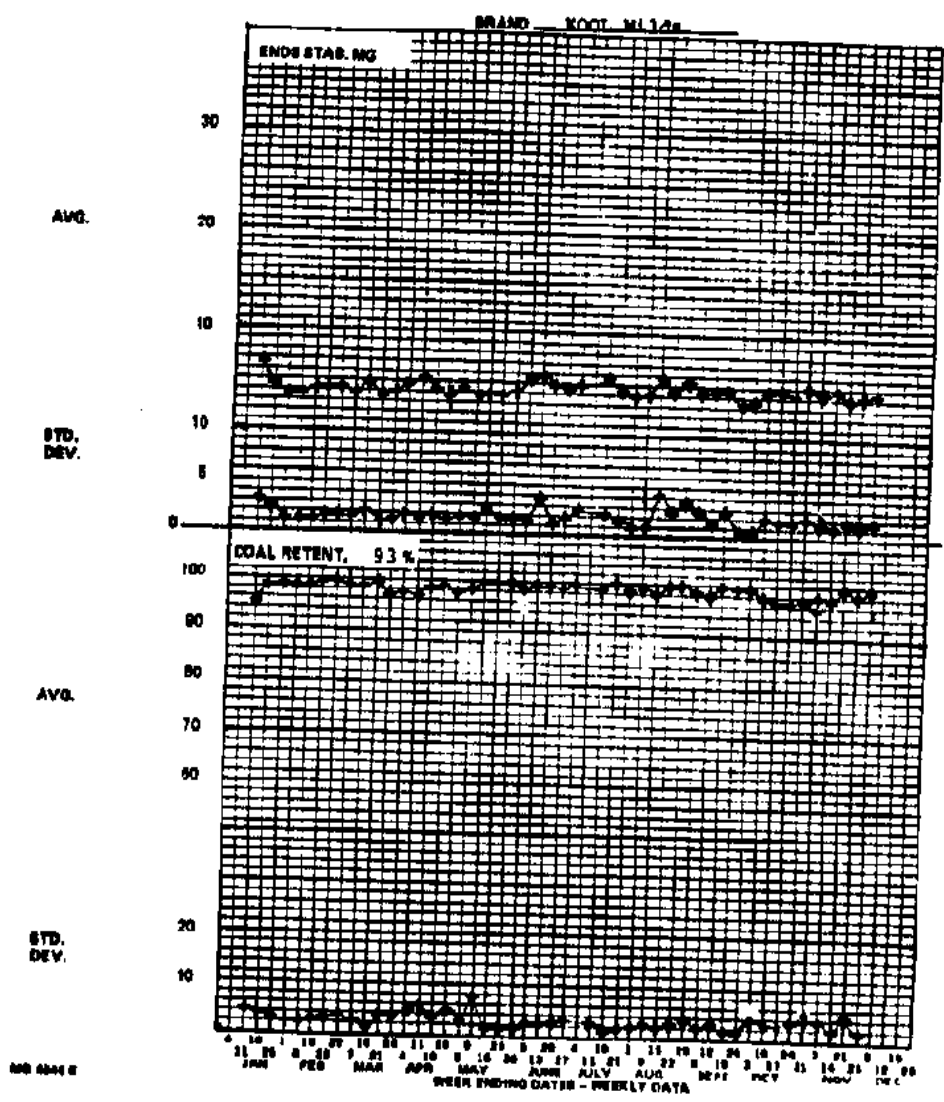


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CIGARETTE ENDS STABILITY IN MG. LOSS AND COAL RETENTION, %

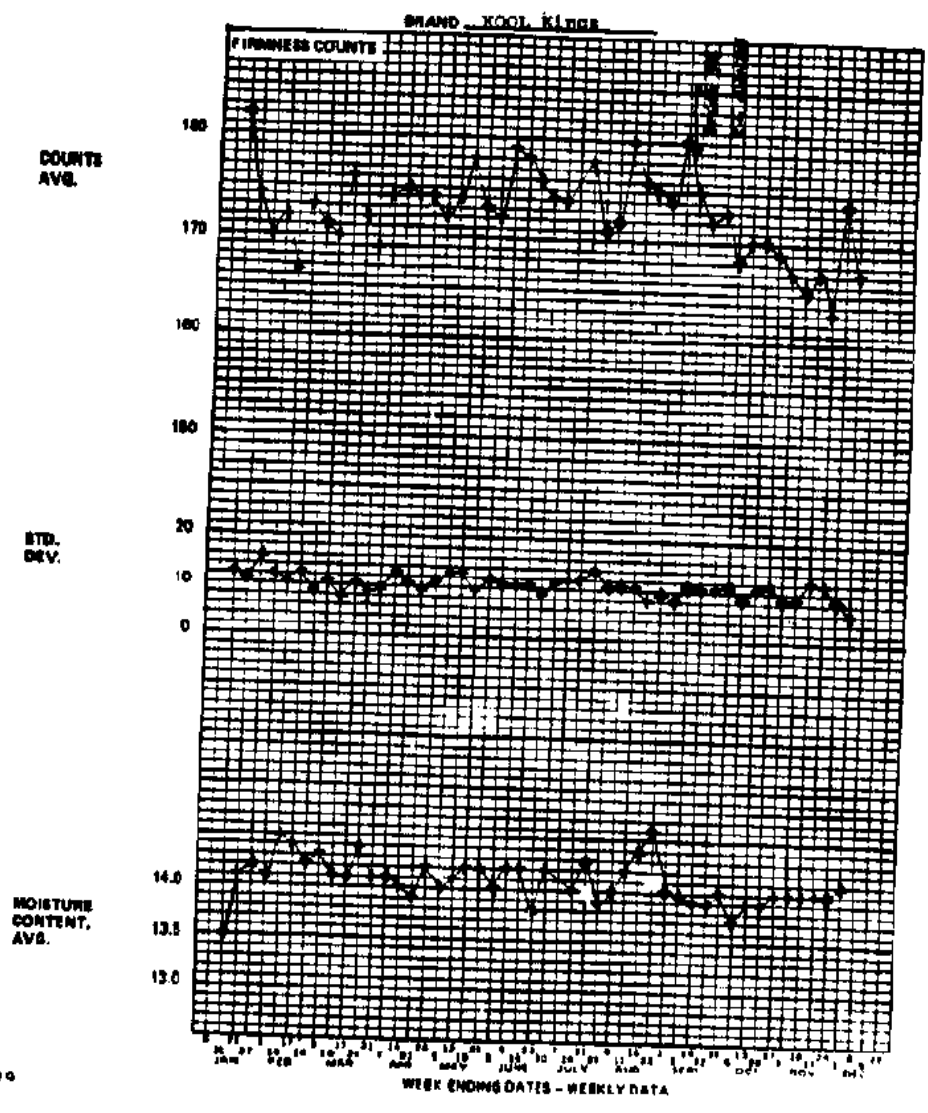
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YEAR 1981



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CIGARETTE FIRMNESS, IN COUNTS AND MOISTURE

BRANCH Macon
YEAR 1981



COUNTS
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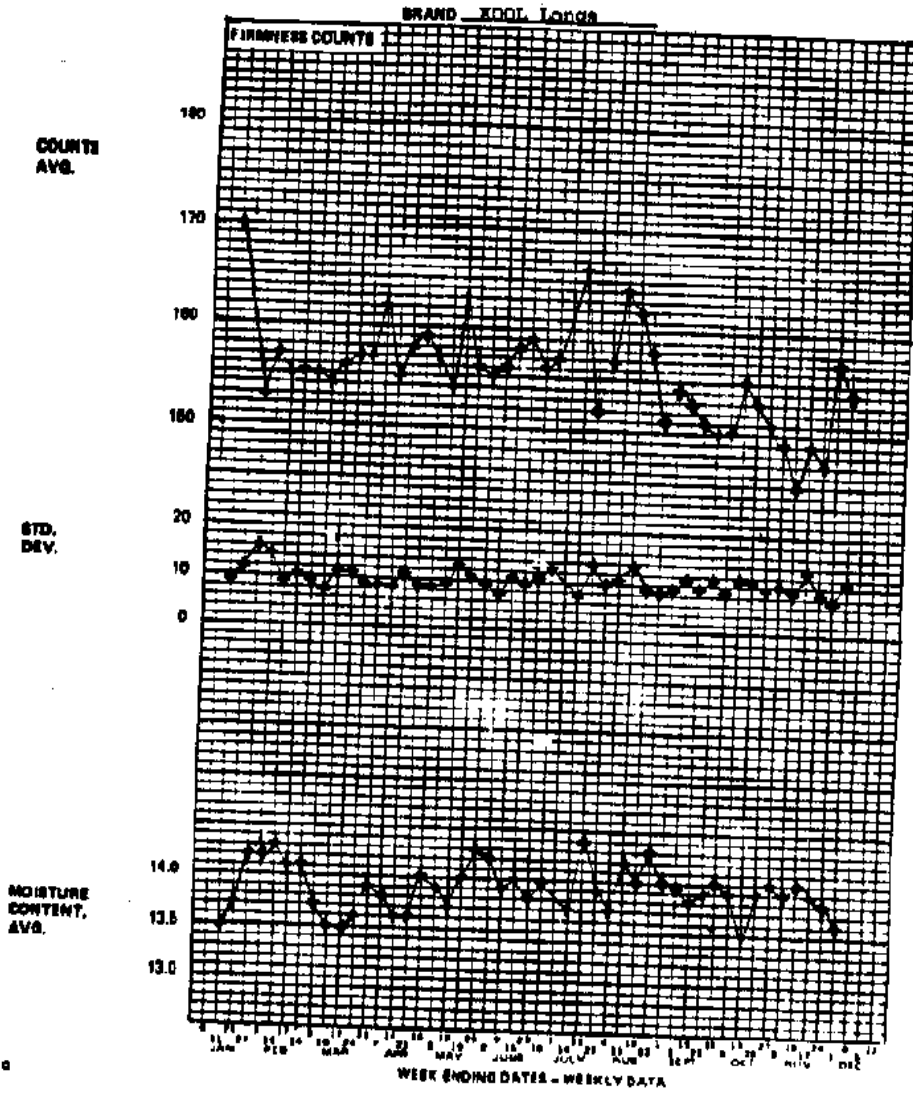
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CIGARETTE FIRMNESS, IN COUNTS AND MOISTURE

BRANCH MACON
YEAR 1981



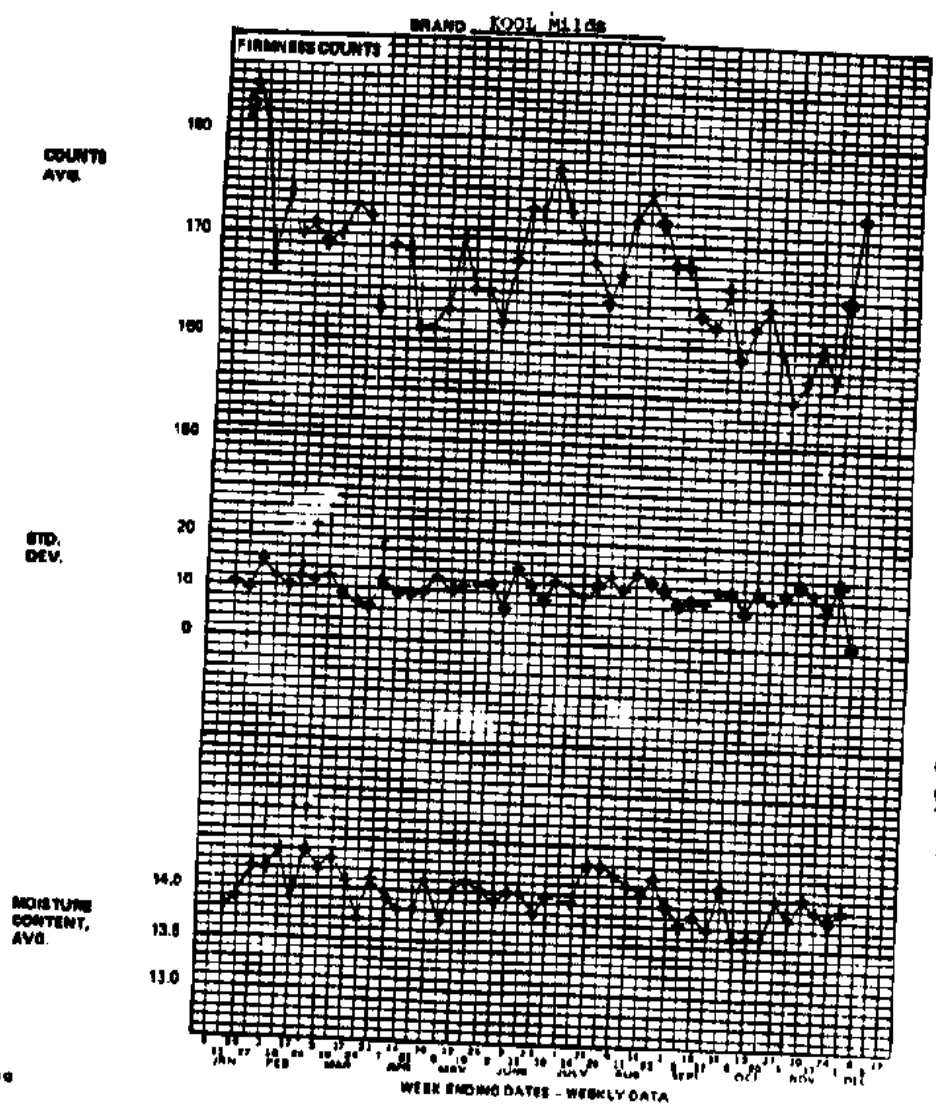
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CIGARETTE FIRMNESS, IN COUNTS AND MOISTURE

BRANCH Madison
YEAR 1981



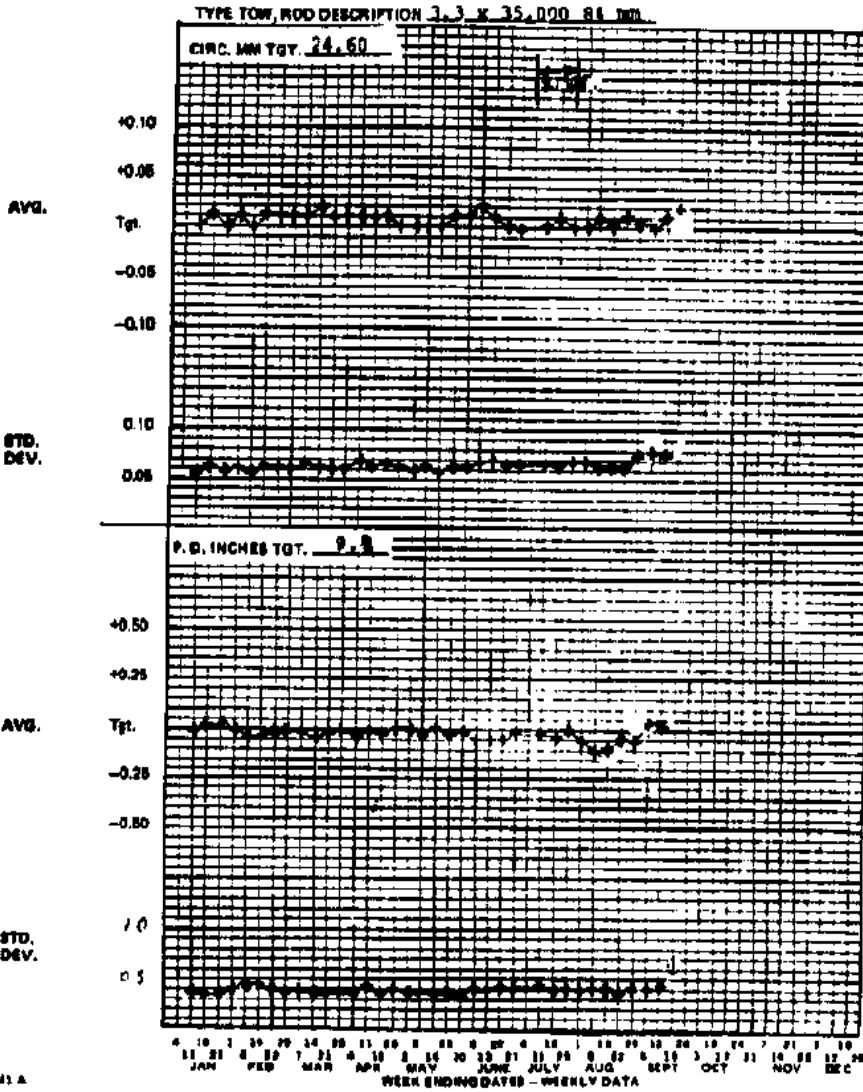
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FILTER ROD CIRCUMFERENCE & PRESSURE DROP

BRANCH MACOR
YEAR 1981



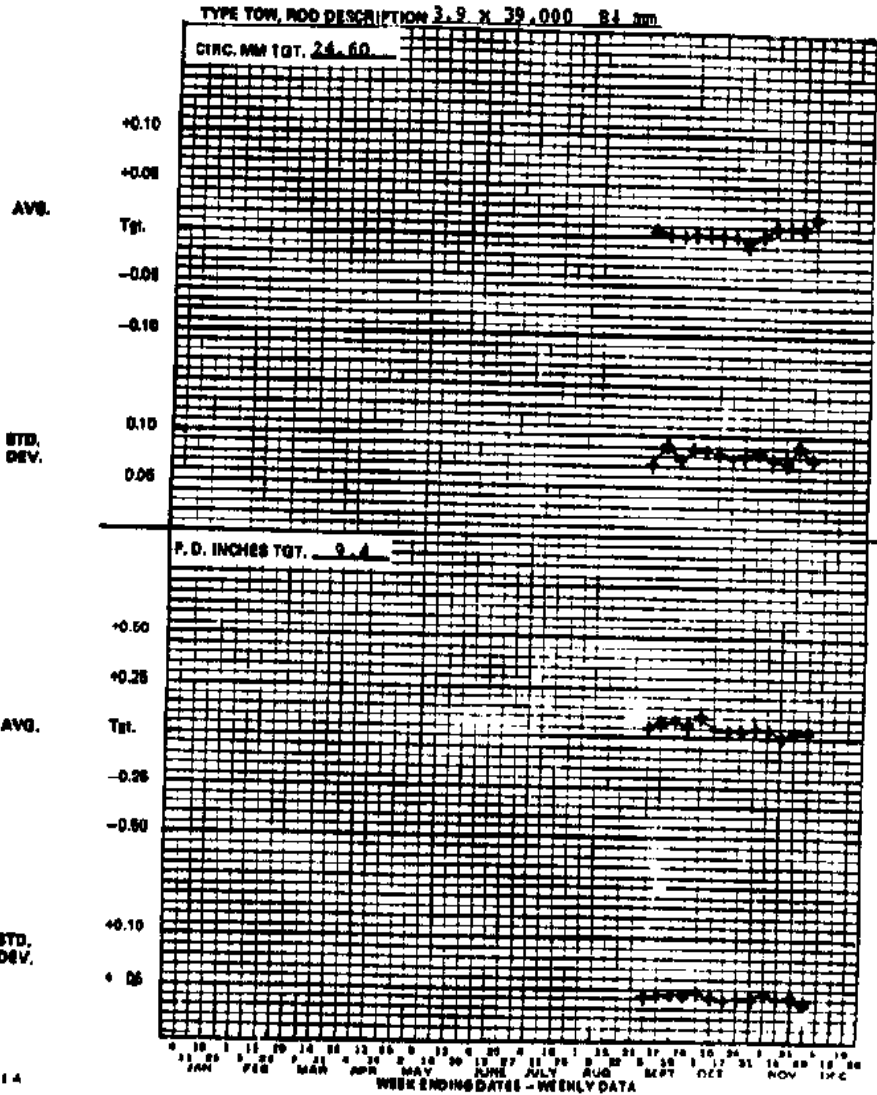
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**FILTER ROD
CIRCUMFERENCE & PRESSURE DROP**

BRANCH Macon
YEAR 1981



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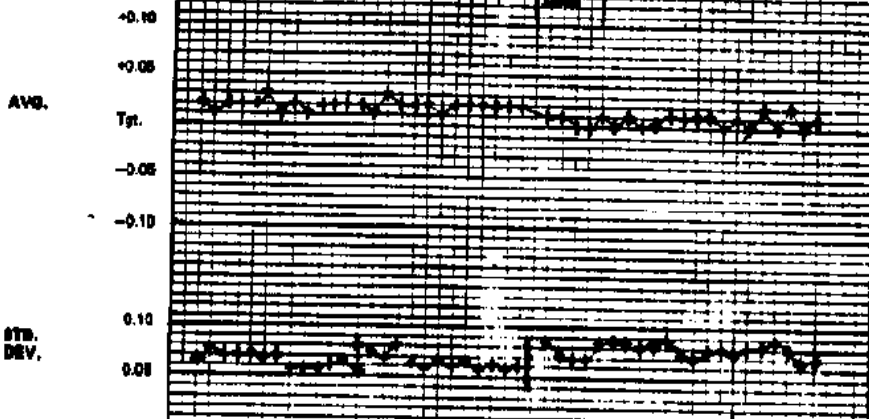
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FILTER ROD CIRCUMFERENCE & PRESSURE DROP

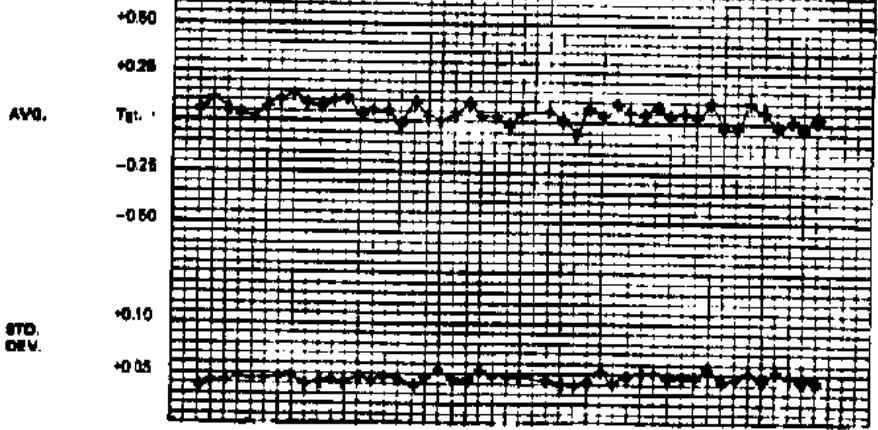
BRANCH Macon
YEAR 1981

TYPE TOW, ROD DESCRIPTION 3.3 x 35,000 100 rpm

CIRC. MM TGT. 24.60



P.D. INCHES TGT. 11.50



1 10 1 10 21 10 11 20 9 20 6 20 4 18 1 18 20 20 10 24 1 21 5 18
11 20 8 20 9 21 4 20 2 10 20 13 17 11 20 0 20 1 20 5 17 21 14 20 10 24
JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC
WEEK ENDING DATES - WEEKLY DATA

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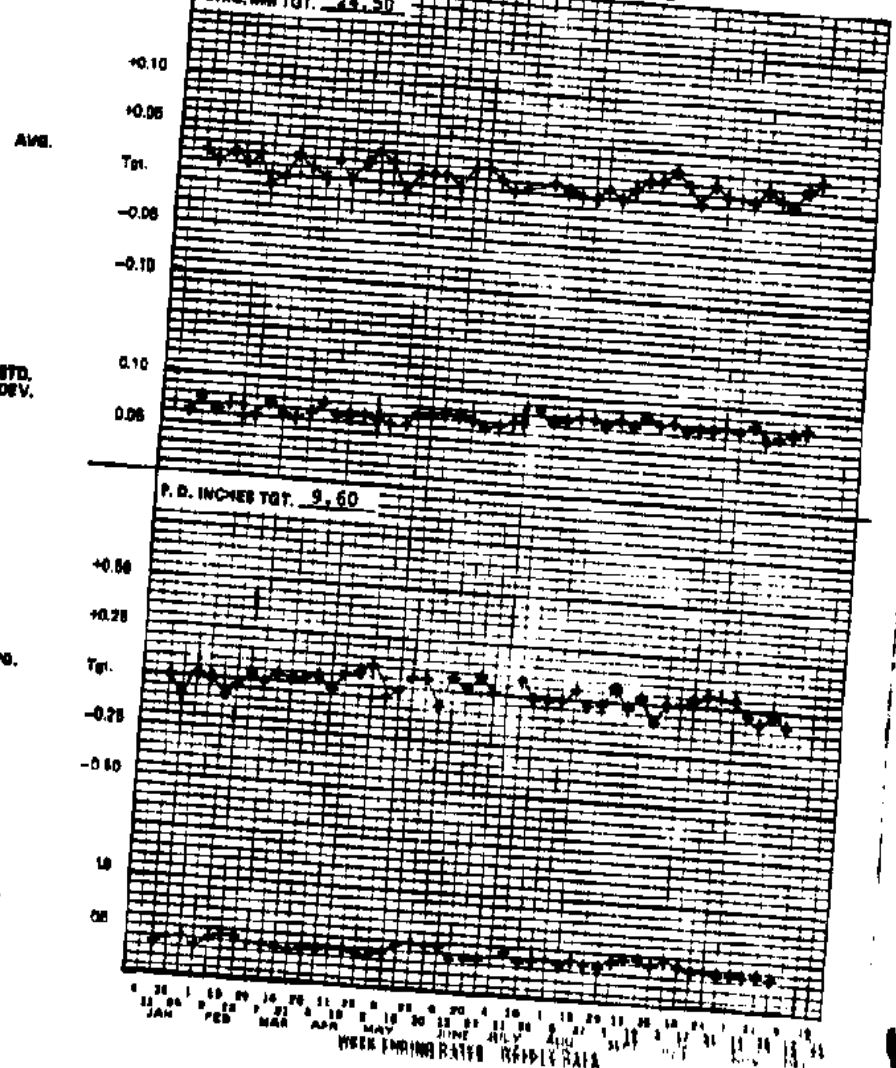
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IF INCHES BEING FILLED,

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FILTER ROD
CIRCUMFERENCE & PRESSURE DROP

BRANCH Macon
YEAR 1981

TYPE TOW, ROD DESCRIPTION A. 3 X 17,000 108 TBL
CIRC. MM TGT. 24.50



NO 0021 A

WEEK ENDING RATE: REPLY RATE

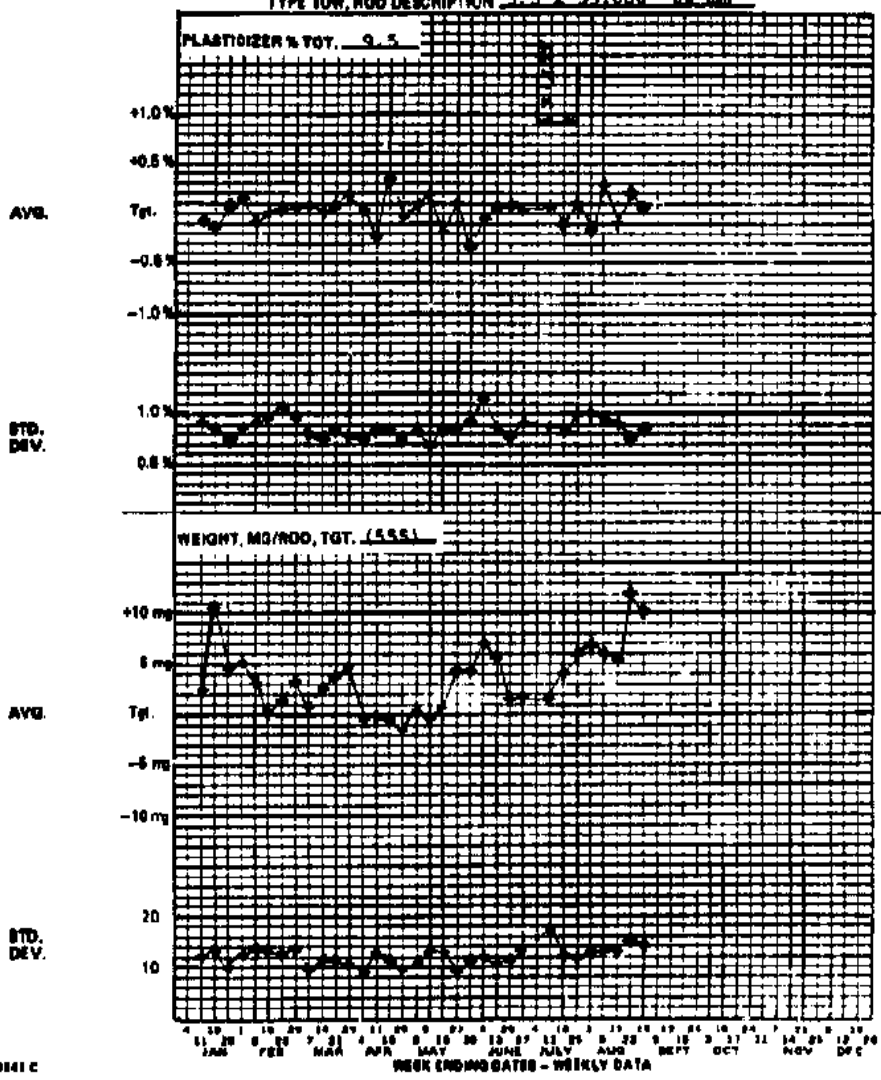
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RE DOCUMENT BEING FILMED.

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FILTER ROD
PLASTICIZER & ROD WEIGHT

BRANCH Hacon
YEAR 1981

TYPE TOW, ROD DESCRIPTION 3.3 x 35,000 84 mm



MG 0141 C

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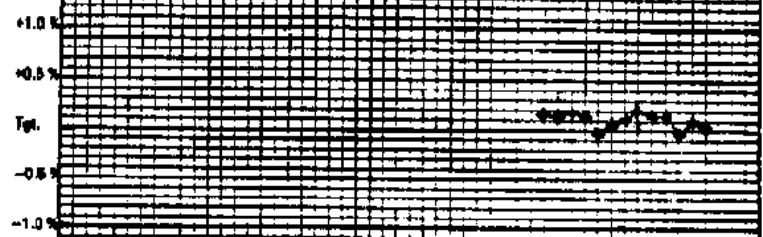
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PLASTICIZER & ROD WEIGHT

BRANCH Macon
YEAR 1981

TYPE TON, ROD DESCRIPTION 3.9 x 39,000 64 mm

PLASTICIZER % TGT. 7.0

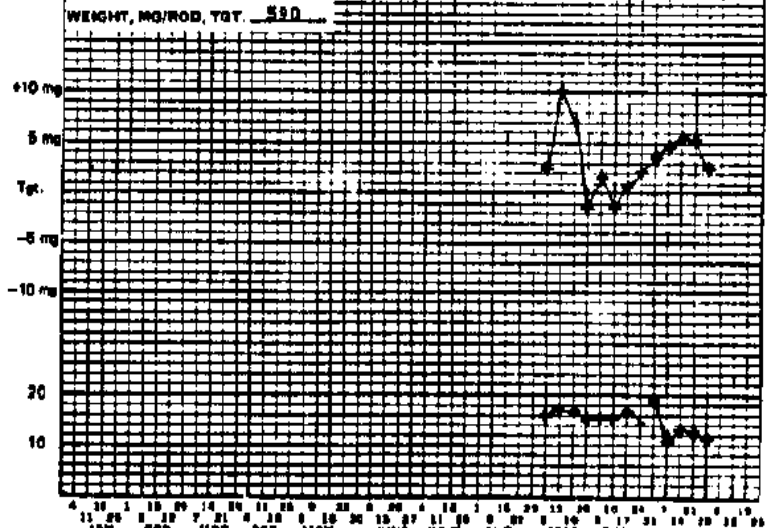
AVG.



STD. DEV.



AVG.



STD. DEV.



WEEK ENDING DATES - WEEKLY DATA

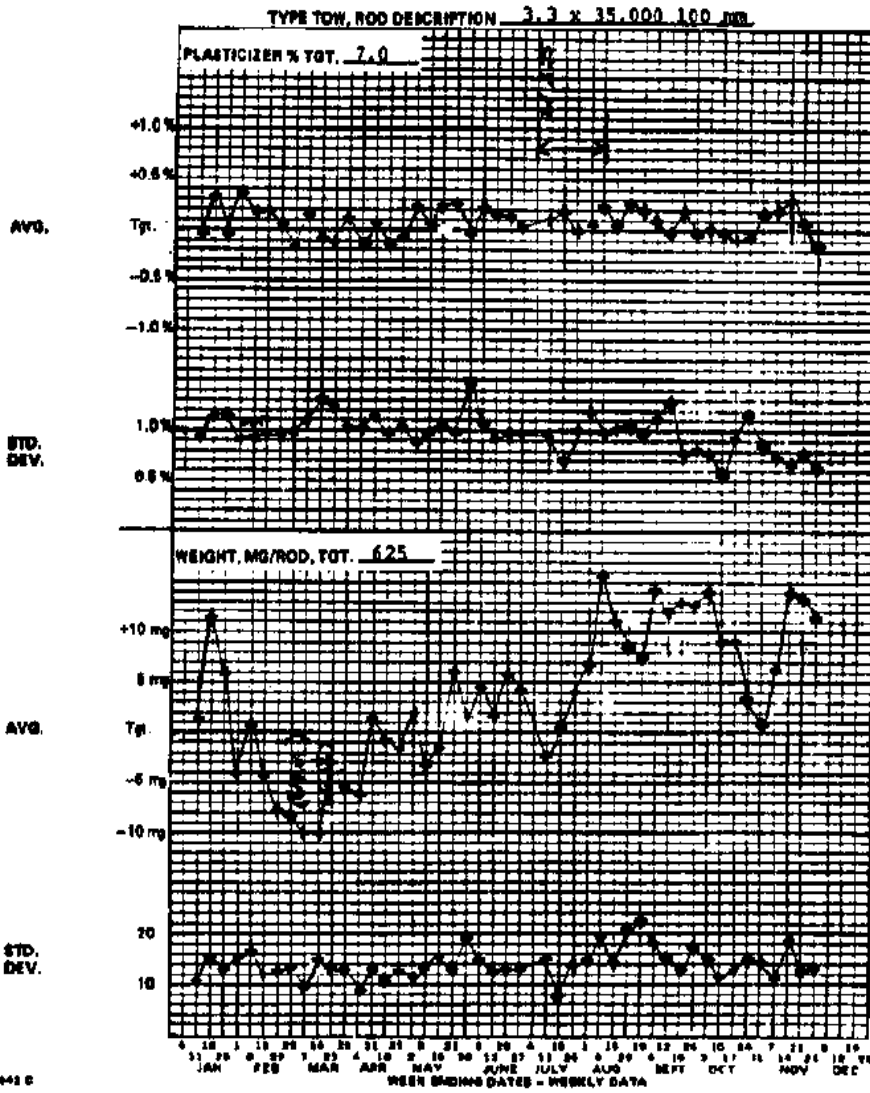
MG 4841 C

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FILTER ROD
PLASTICIZER & ROD WEIGHT

BRANCH MCCCD
YEAR 1981



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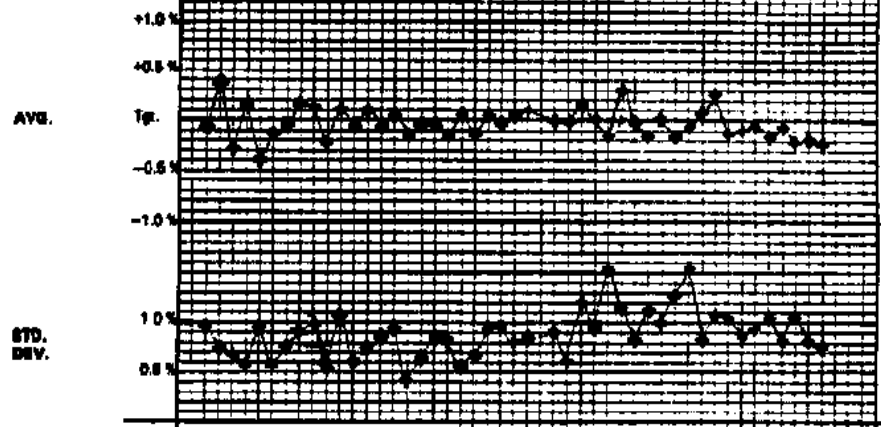
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FILTER ROD
PLASTICIZER & ROD WEIGHT

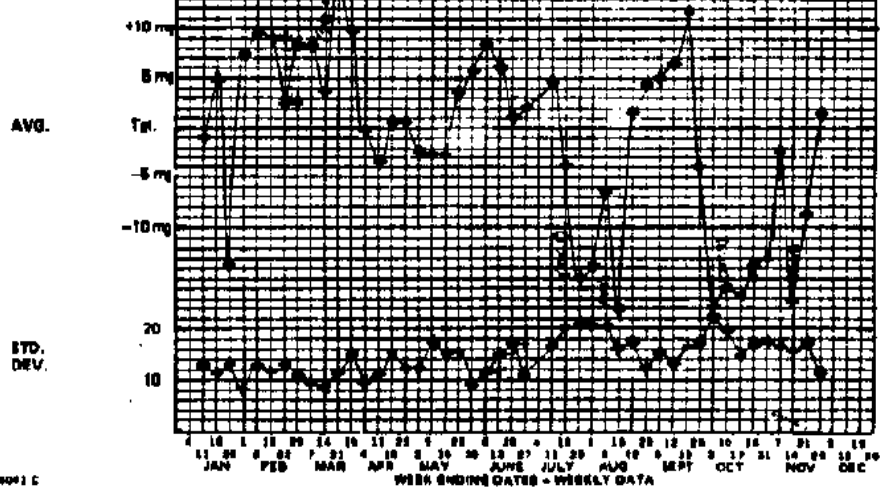
BRANCH MACON
YEAR 1981

TYPE TOW, ROD DESCRIPTION 4.3 x 37.000.108 DWR

PLASTICIZER % TOT. 9.5



WEIGHT, MG/ROD, TOT. 735



WDG 4091 C

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RD BRANCH

11/30/81

11/30/81

BRAND & WELLINGTON TOBACCO COMPANY INC

OUTGOING QUALITY AUDIT
DEFECTS PER CARTON

11/30/81

LEVEL	BRAND & STYLE	SAMPLE SIZE	LOOSE / APPARENT			TYPING			TIPPING			TOTAL	FACTORY DEFECTS	CARTON DEFECTS	
			1000	1000	1000	1000	1000	1000	1000	1000	1000				
01	KOOL KINGS	11,288	---	6.23	.11	.03	---	---	.18	---	---	6.64	1.91	.05	8.62
02	KOOL 100'S	2,655	---	44.81	.27	.02	---	---	.43	---	---	45.59	2.29	.40	48.28
03	KOOL MILDS KINGS	2,478	---	7.17	.26	.02	---	---	.05	---	---	7.59	2.79	.07	10.45
04	KOOL MILDS 100'S														
05	KOOL SUPER LTS KINGS														
06	KOOL SUPER LTS 100'S														
07	BEAIR KINGS														
08	BEAIR 100'S														
09	VICE ROY KINGS														
10	VICE ROY 100'S														
11	RALEIGH KINGS														
12	RALEIGH 100'S														
13	VICE ROY RICH LT KINGS														
14	VICE ROY RICH LT 100'S														
15	RALEIGH LT KINGS														
16	RALEIGH LT 100'S														

THE FILM IMAGE IS CLEAR NOTICE, IT IS THE DOCUMENT BEING FILMED.

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ASB 2000 0000 RB BRANCH

11/30/81

BRAND & STYLE
MASON
LEVEL 1 TO 2

12.10

11/30/81

11/30/81

LEVEL 1-2	BRAND & STYLE MASON	WE PACH NET WT. (NO. 000)				CIR. CARTRON (NO. 000)				CIR. PAPER (NO. 000)				VEGETATION (NO. 000)			
		AVE G-M	NO	IN 00-20	TOT	AVE G-M	NO	IN 00-20	TOT	AVE G-M	NO	IN 00-20	TOT	AVE G-M	NO	IN 00-20	TOT
07	KOOL KINGS	735.3	10.808	337	734.0	24.90	130	325	4.75	.391	331	-	-	-	-	-	-
07	KOOL 100'S	828.5	8.107	222	829.0	24.83	123	215	5.68	.374	213	-	-	-	-	-	-
03	KOOL MILDS KINGS	684.0	2.391	223	685.0	24.97	145	221	5.62	.432	220	15.4	1.845	17.0			
04	KOOL MILDS 100'S																
05	KOOL SUPER L'S KINGS																
05	KOOL SUPER L'S 100'S																
07	DELTA KINGS																
08	DELTA 100'S																
08	VICE KINGS																
10	VICE ROY 100'S																
11	RALEIGH KINGS																
12	RALEIGH 100'S																
13	VEEBRY RCHT KINGS																
14	VICE ROY RCHT 100'S																
15	RALEIGH LT KINGS																
16	RALEIGH LT 100'S																

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NOTICE, IT IS DUE TO THE
THE SUBJECT BEING FILMED.

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NO BRANCH

11/30/81

MACDON

11/30/81

11/30/81

11/30/81

11/30/81

CIGARETTE	MOISTURE (%)	MOISTURE (%)		METFORMIN (%)		CALCIUM (%)		SODIUM (%)	
		AVE	SD	AVE	SD	AVE	SD	AVE	SD
01 KOOL KINGS	14.0	0.396	157	0.338	0.018	337	2.37	142	166
02 KOOL 100'S	13.9	0.380	103	0.384	0.016	223	1.63	191	111
03 KOOL WILD'S KINGS	13.9	0.344	103	0.415	0.019	220	2.42	138	189
04 KOOL WILD'S 100'S									
05 KOOL SUPER LTS KINGS									
06 KOOL SUPER LTS 100'S									
07 BELAIR KINGS									
08 BELAIR 100'S									
09 VICEROY KINGS									
10 VICEROY 100'S									
11 RALEIGH KINGS									
12 RALEIGH 100'S									
13 VICEROY RICH LT KINGS									
14 VICEROY RICH LT 100'S									
15 RALEIGH LT KINGS									
16 RALEIGH LT 100'S									

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 DOCUMENT BEING FILMED.

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RD BRANCH

11/30/81

WILLIAMSON TOBACCO CORPORATION

11/30/81

PHYSICAL QUALITY DATA

LEVEL	BRAND & STYLE	BWP / BAT	CIGAR SPANABILITY (MOISTURE)			COAL RESISTANCE %			CONNECTED FILTERS (COUNT/100 CIGS)			
			AVG 14-20	SD 14-20	AVG 21-30	SD 21-30	AVG 14-20	SD 14-20	AVG 21-30	SD 21-30	AVG 14-20	SD 14-20
01	KOOL KINGS		6.56	3.103	337	96.9	4.979	165	167	11.162	135	14.0
02	KOOL 100'S		4.47	1.805	222	96.7	3.921	109	150	11.005	89	13.9
03	KOOL MILDS KINGS		4.54	1.809	223	98.6	2.841	109	161	11.398	89	13.9
04	KOOL MILDS 100'S											
05	KOOL SUPER LT'S KINGS											
06	KOOL SUPER LT'S 100'S											
07	BELAIR KINGS											
08	BELAIR 100'S											
09	VICEROY KINGS											
10	VICEROY 100'S											
11	RALEIGH KINGS											
12	RALEIGH 100'S											
13	VICEROY RICH LT KINGS											
14	VICEROY RICH LT 100'S											
15	RALEIGH LT KINGS											
16	RALEIGH LT 100'S											

IF FILM IMAGE IS LESS CLEAR
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 FILM INCIDENT BEING FILMED.

65505 9 7 4 3

BROWN & WILKINSON TOBACCO CORPORATION

WEEK ENDER ENDING 11/30/81

BRANCH: MACOM

FILTER RODS

TOW DENIER & ROD LENGTH	CIRCUMFERENCE				PRESSURE DROP			PLASTICIZER		WEIGHT	
	Tgt.	Avg.	Std. Dev.	Tgt.	Avg.	Std. Dev.	Tgt.	Avg.	Std. Dev.	Avg.	Std. Dev.
3.9 x 39.000 (8mm)	24.60	21.61	.081	9.90	9.63	.417	7.0	7.06	.839	596.33	12.764
6.3 x 37.000 (10.8mm)	24.50	21.52	.078	9.60	9.57	.384	9.5	9.36	.890	726.38	16.828
3.3 x 35.000 (10.0mm)	24.60	24.61	.075	11.50	11.50	.445	7.0	7.11	.734	636.03	15.265

IF FILM IMAGE IS VERY CLEAN
 FEEL, IT IS DUPE TO THE
 THE DOCUMENT BEING FILMED.

65505 9 7 4 4

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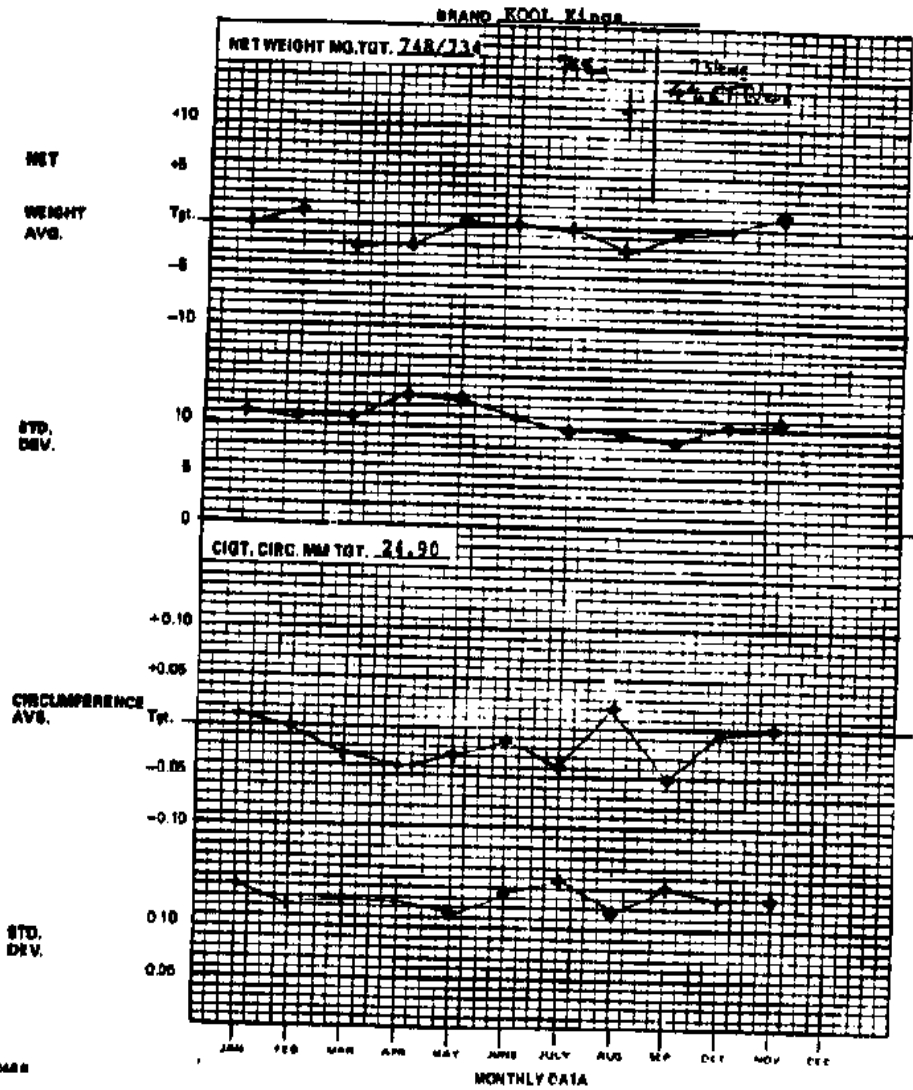
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65505 9 7 4 5

CIGARETTE NET WEIGHT & CIG. CIRCUMFERENCE

BRANCH Macdon
YEAR 1981



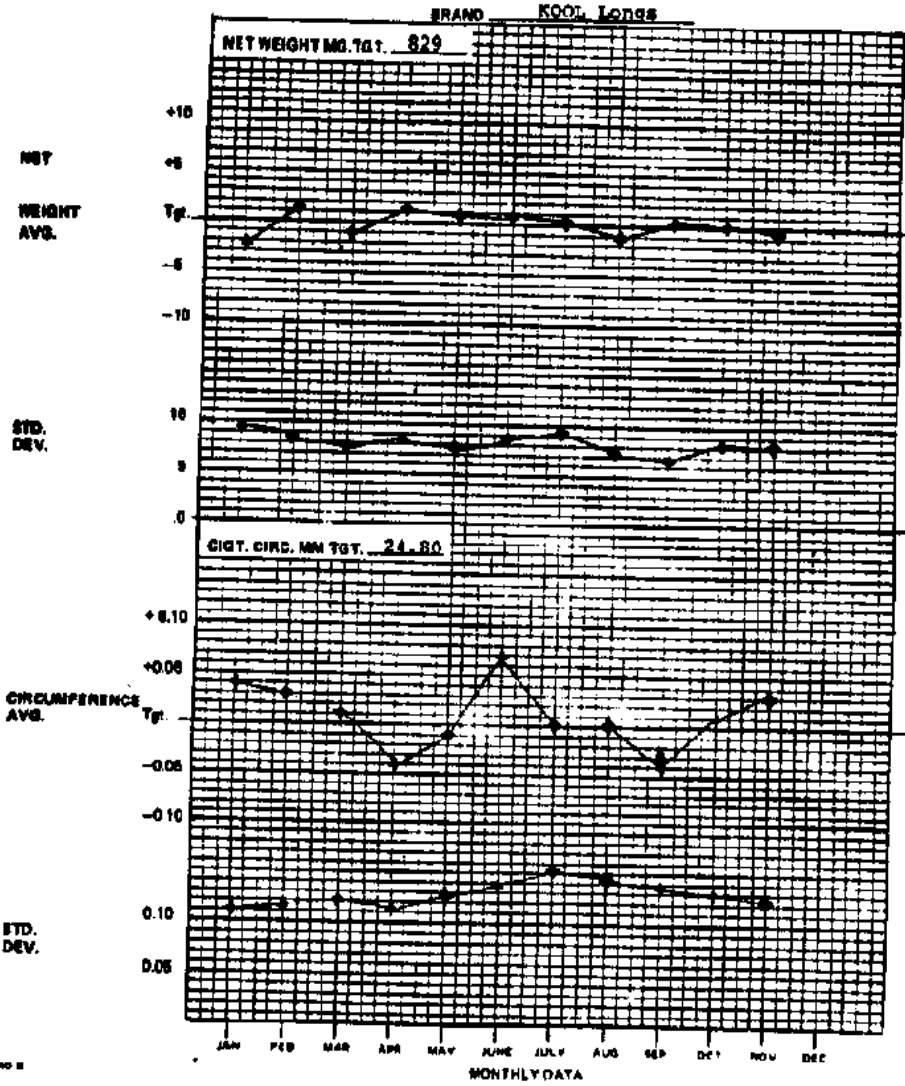
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NE FILM IMAGE IS LESS CLEAR
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BRANCH Wagon
YEAR 1981

CIGARETTE NET WEIGHT & CIG. CIRCUMFERENCE

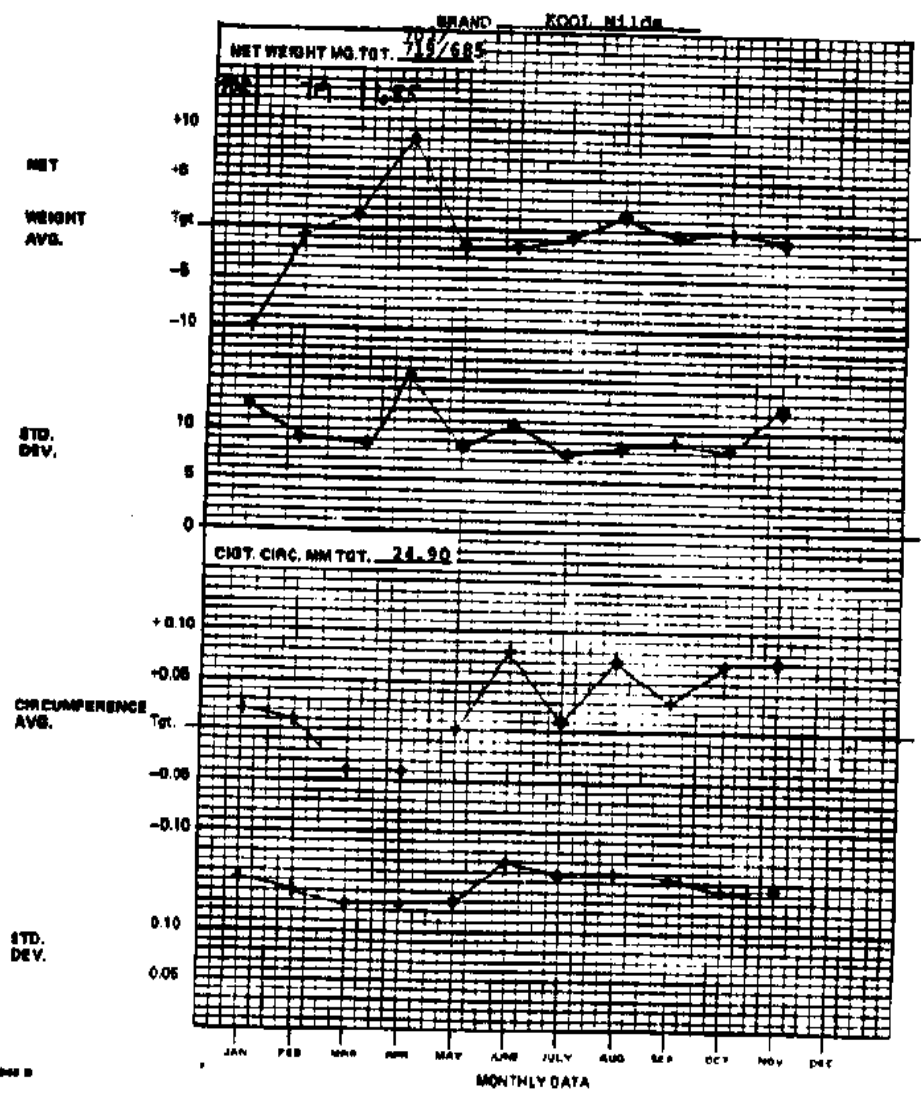


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DOCUMENT BEING FILMED.

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BRANCH Major
YEAR 1981

CIGARETTE NET WEIGHT & CIG. CIRCUMFERENCE



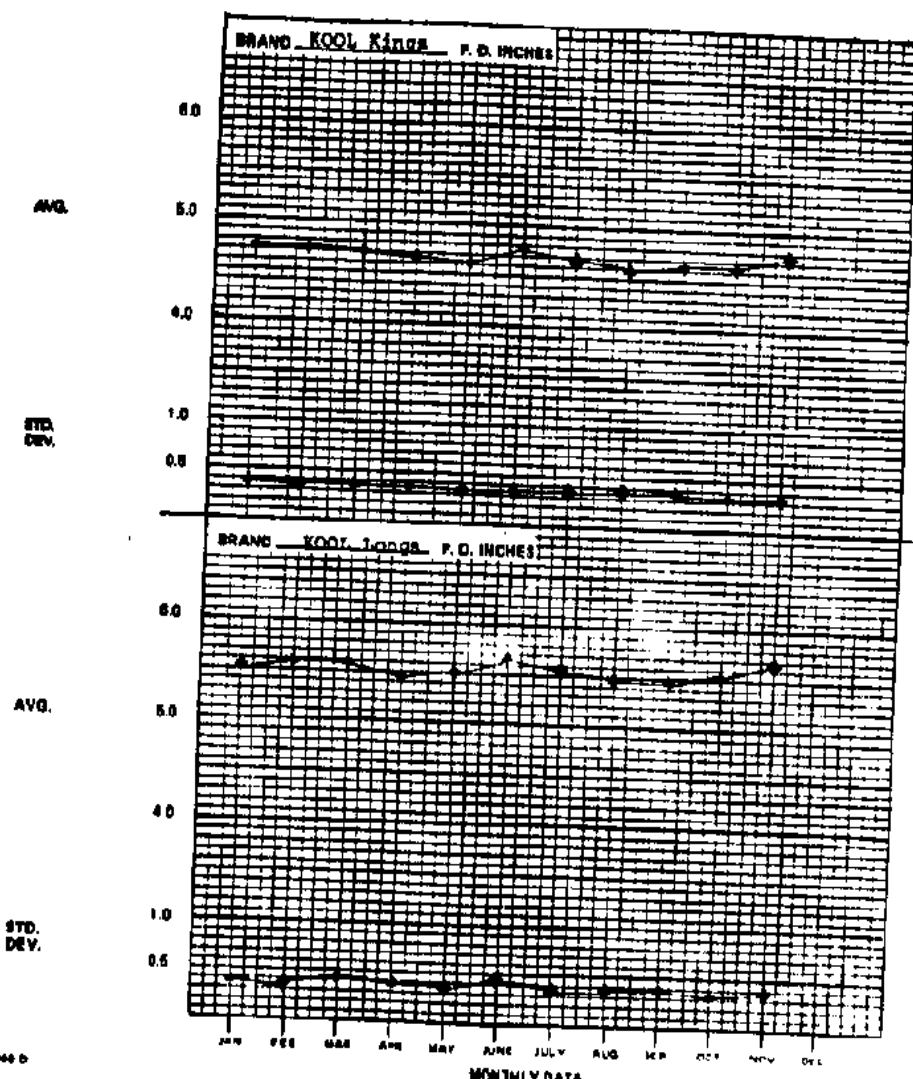
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CIGARETTE PRESSURE DROP

BRANCH MACON
 YEAR 1981



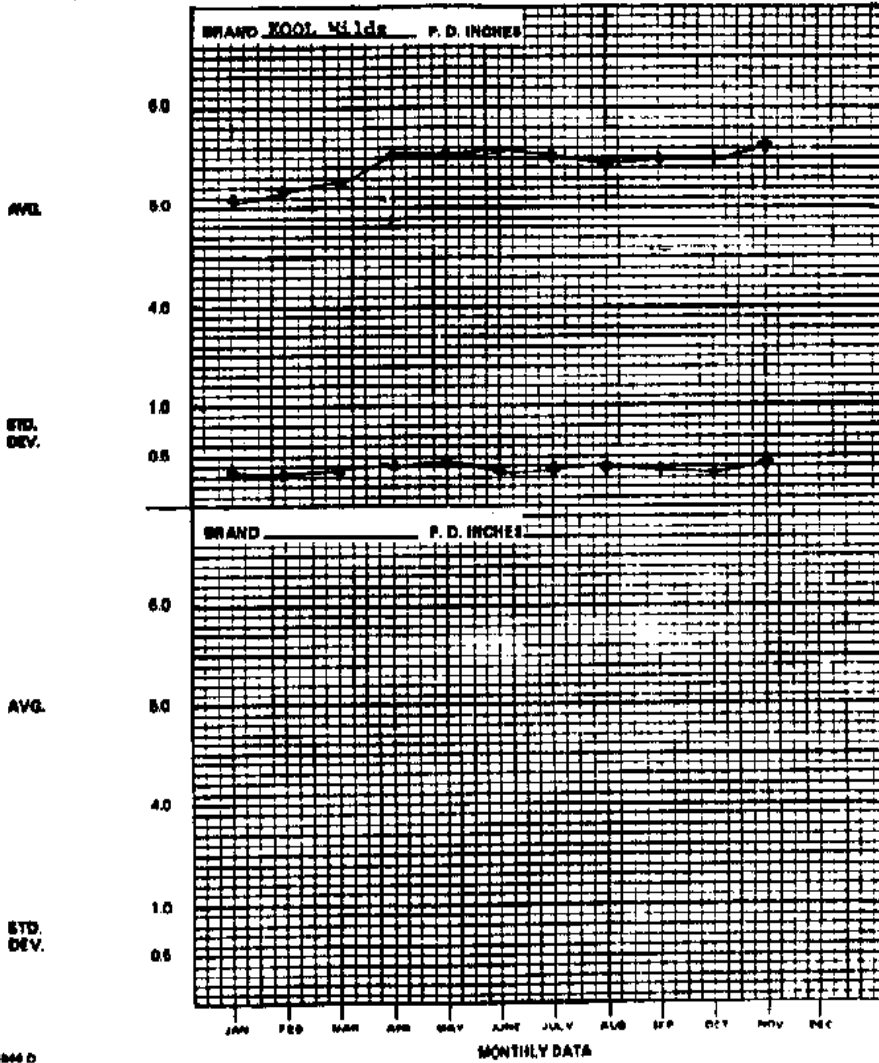
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BRANCH Macon
YEAR 1981

CIGARETTE PRESSURE DROP



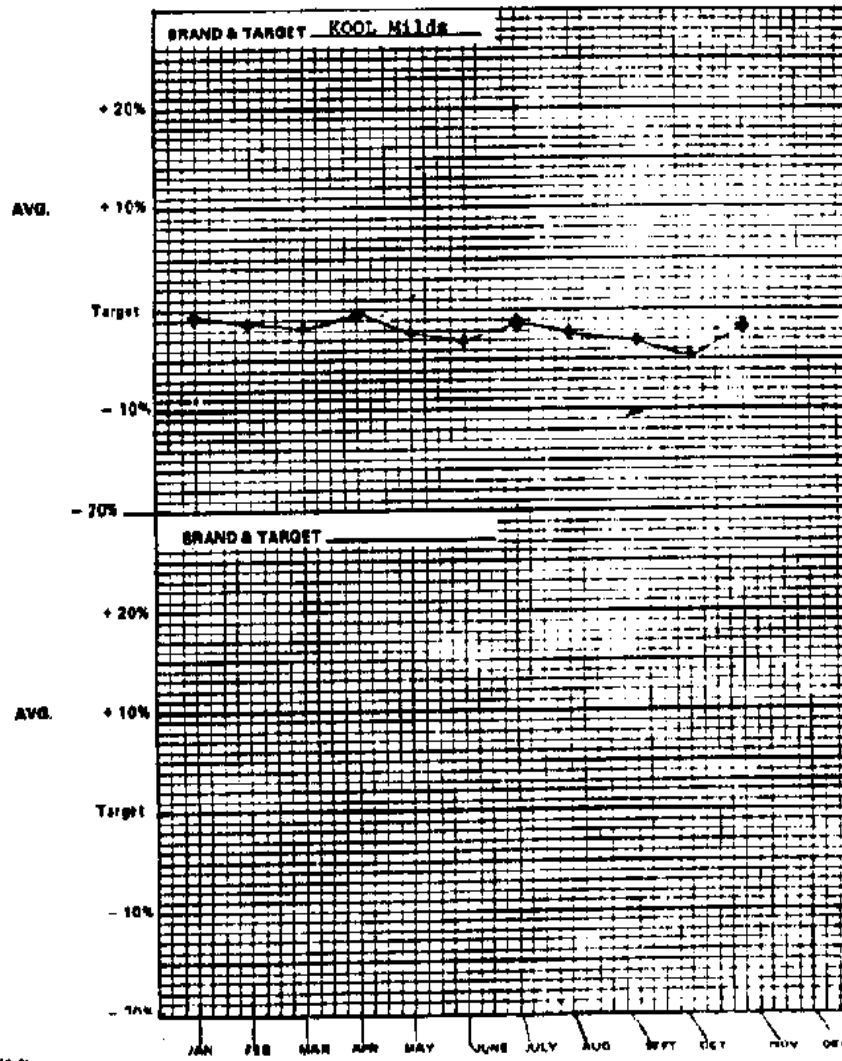
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CIGARETTE VENTILATION RATE

BRANCH Macon
 YEAR 1982



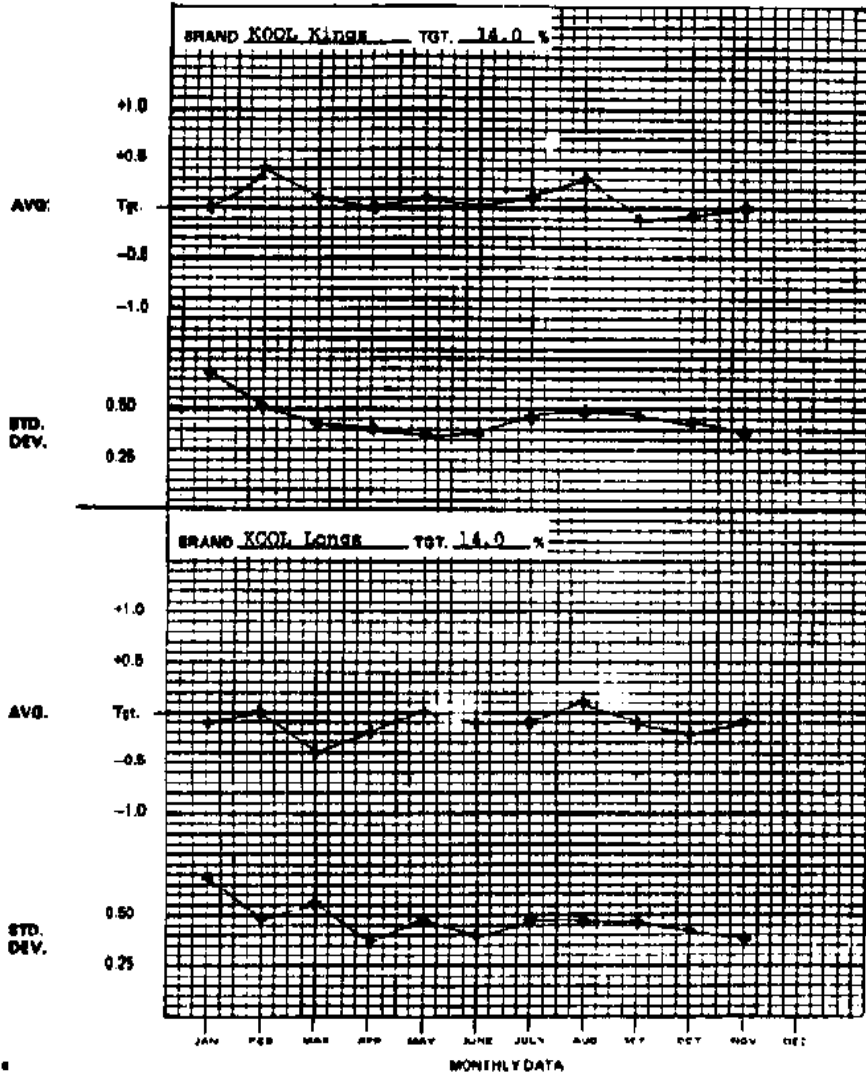
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 OFFER, IF YOU TO THE
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BRANCH MACON
 YEAR 1981

IN-CIGARETTE MOISTURE CONTENT, PERCENT



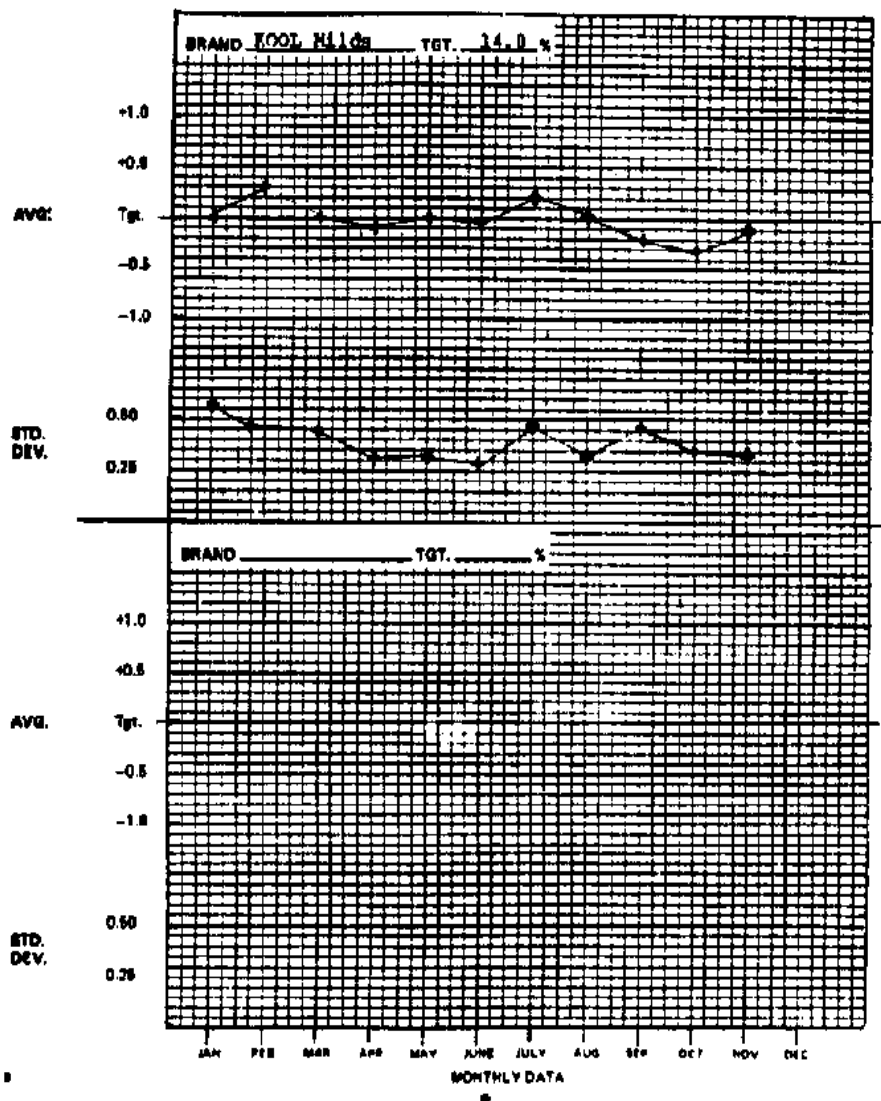
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BRANCH Mecon
YEAR 1981

IN-CIGARETTE MOISTURE CONTENT, PERCENT



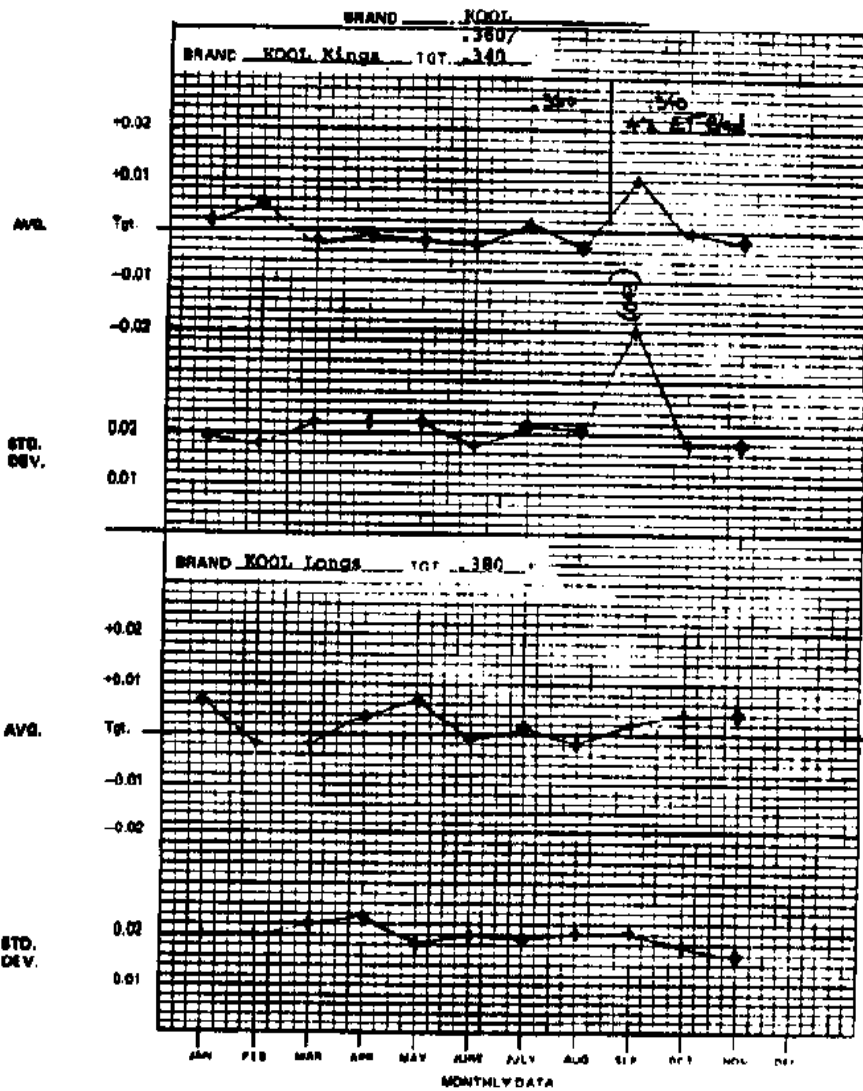
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IN-CIGARETTE MENTHOL CONTENT, PERCENT

BRAND MACON
YEAR 1981



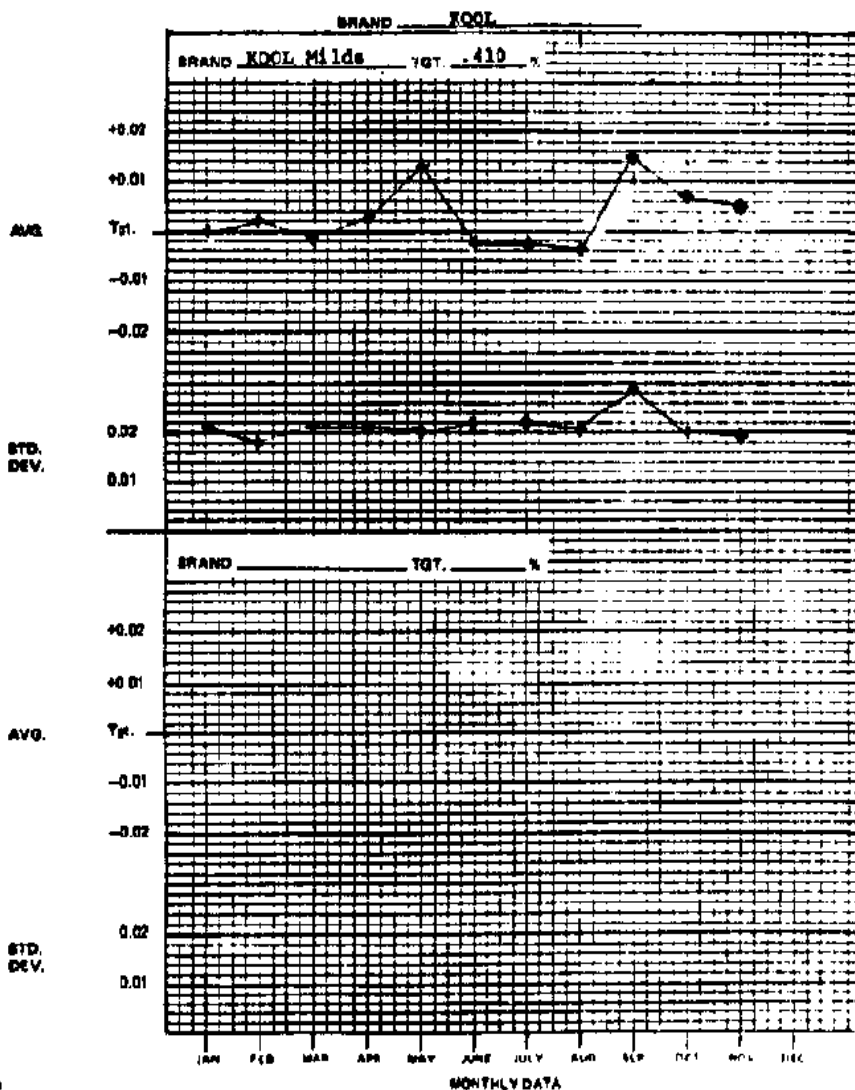
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BRANCH MECON
YEAR 1981

IN-CIGARETTE MENTHOL CONTENT, PERCENT



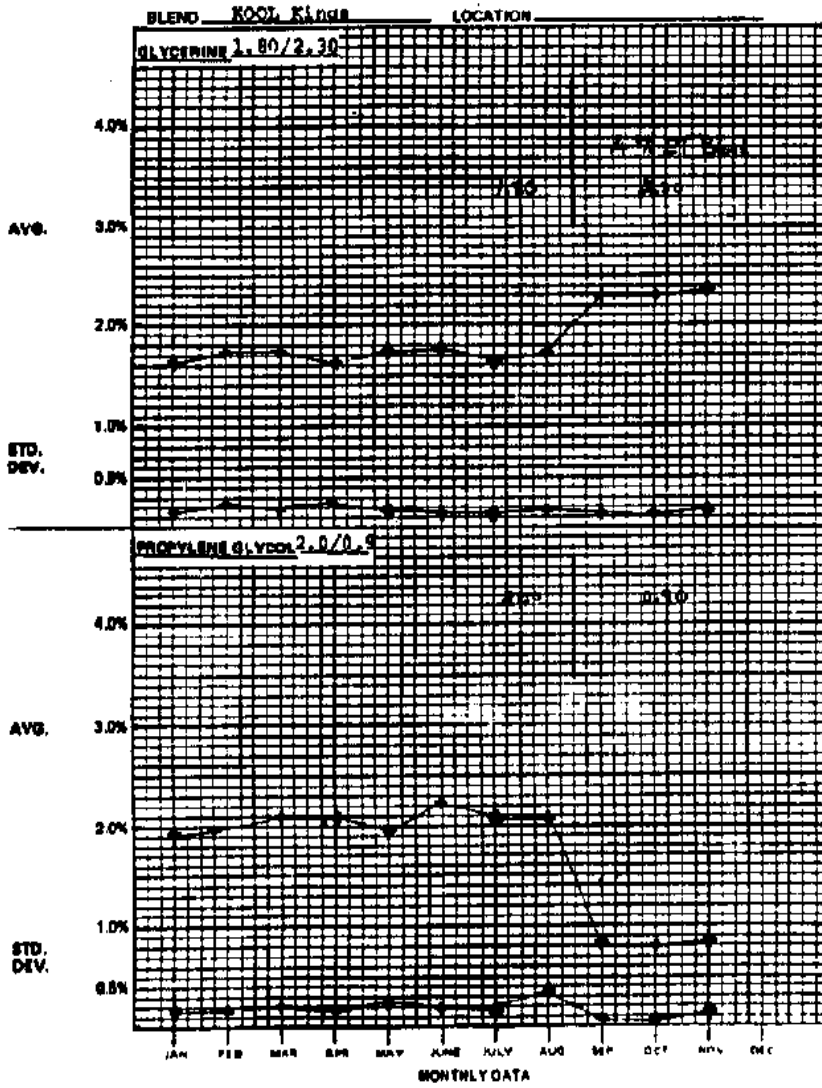
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BRANCH MACON
 YEAR 1981

TOBACCO IN PROCESS, HUMECTANT CONTENT, %



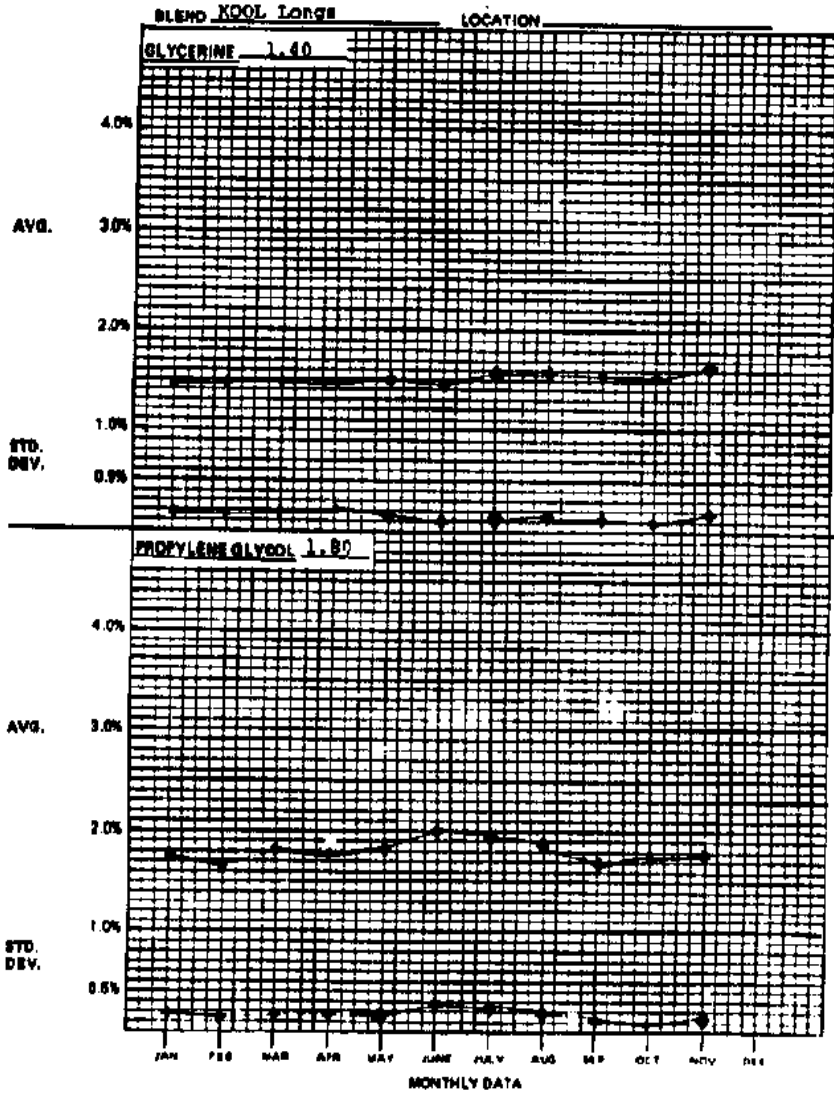
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BRANCH Macon
YEAR 1981

TOBACCO IN PROCESS, HUMECTANT CONTENT, %



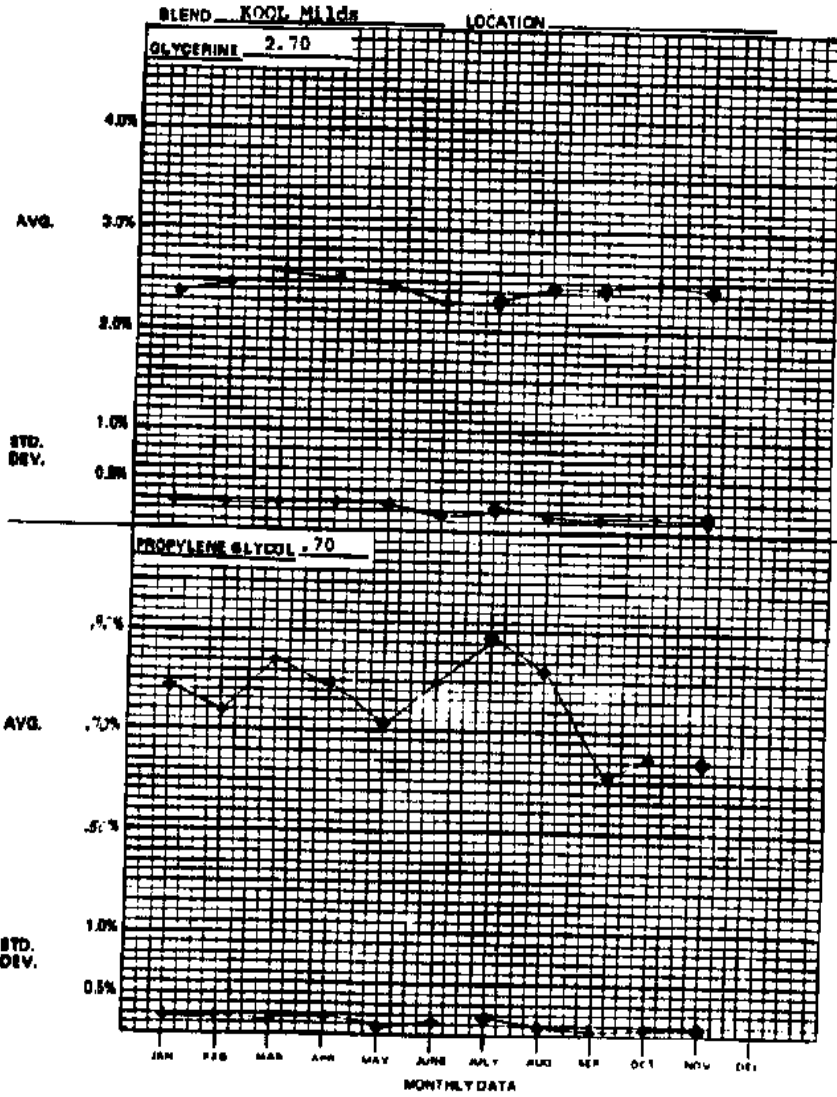
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BRANCH Macon
 YEAR 1981

TOBACCO IN PROCESS, HUMECTANT CONTENT, %



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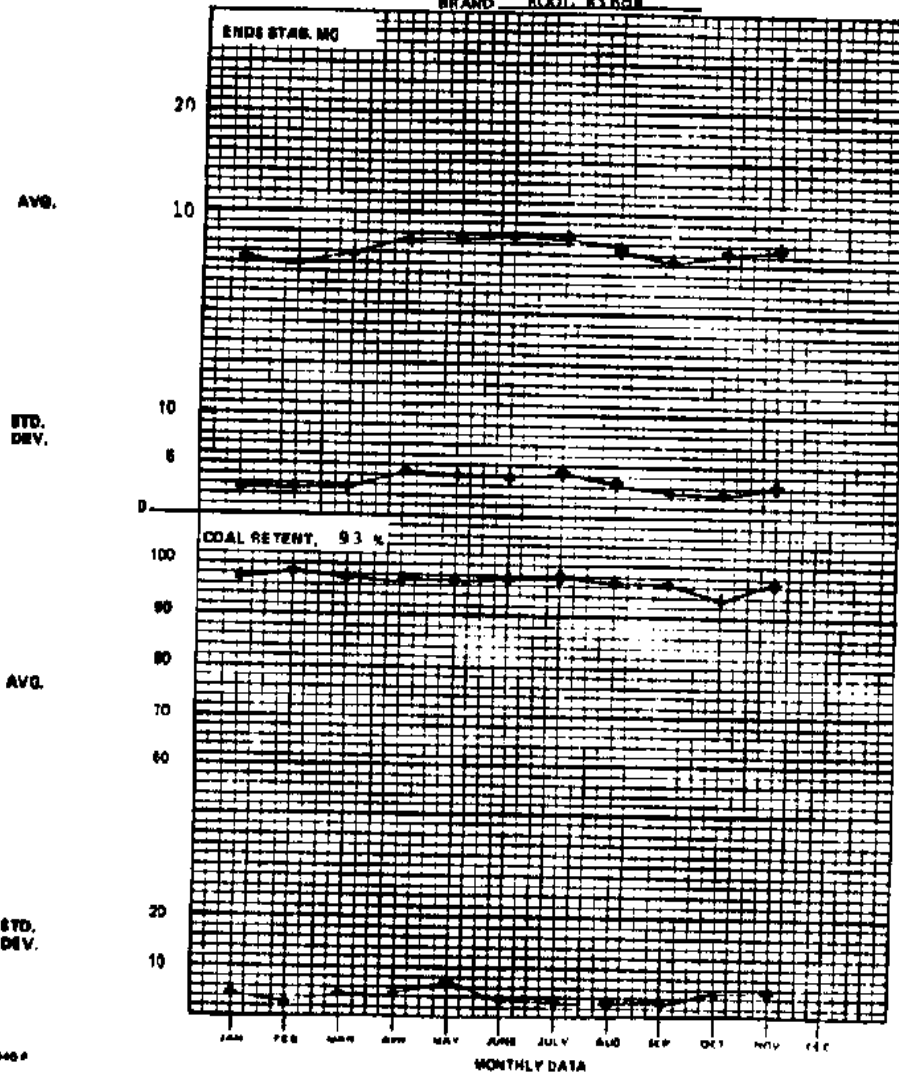
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CIGARETTE ENDS STABILITY IN MG. LOSS AND COAL RETENTION, %

BRANCH MACON
YEAR 1981

BRAND KOOL KING



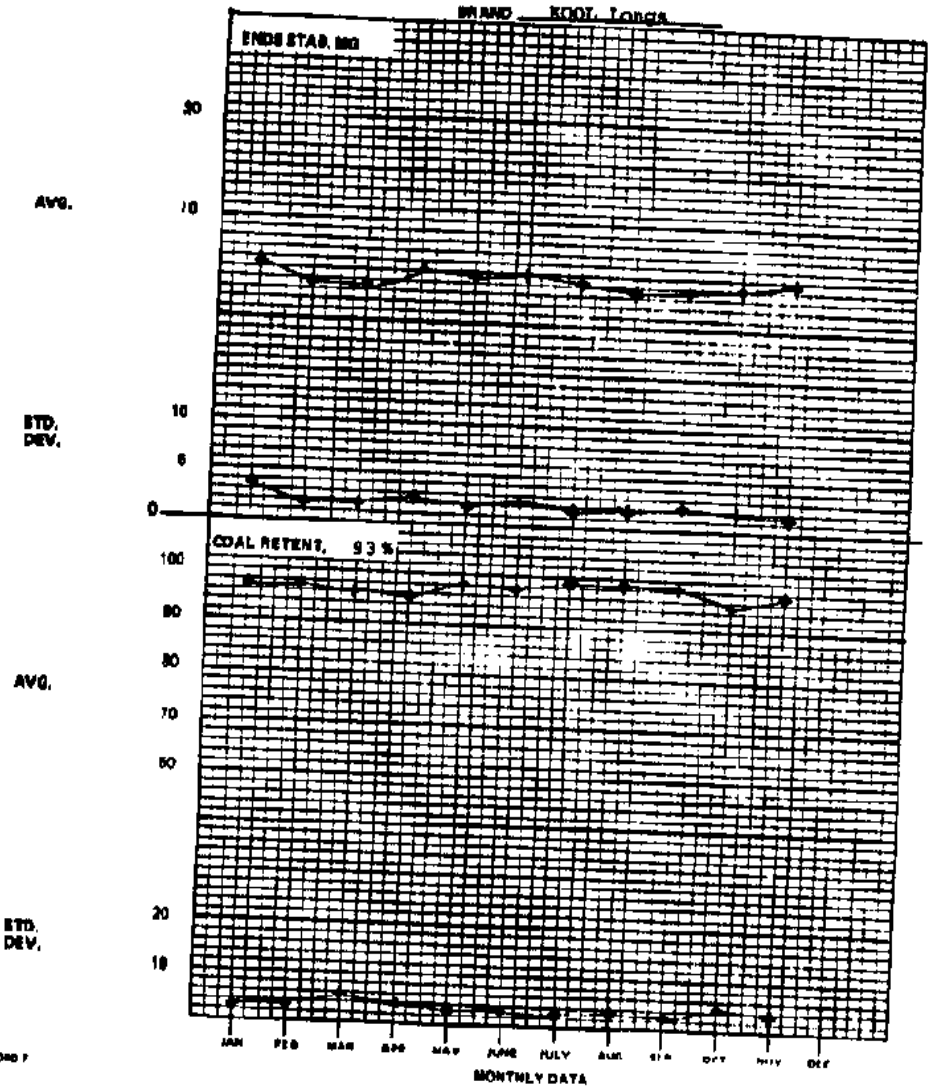
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TICK, IT IS DUE TO THE
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CIGARETTE ENDS STABILITY IN MG. LOSS AND COAL RETENTION, %

BRANCH MACON
YEAR 1991

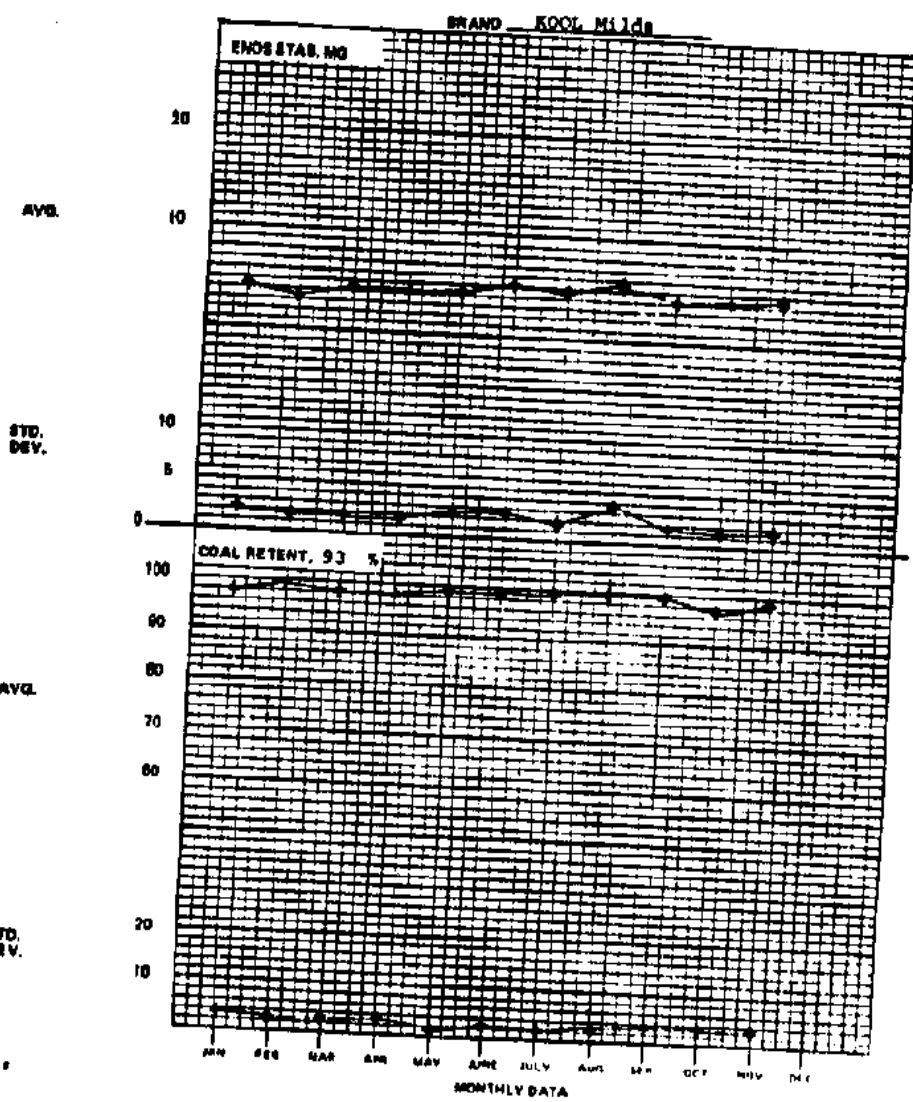


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MANNER IN WHICH THE DOCUMENT WAS FILMED.

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CIGARETTE ENDS STABILITY IN MG. LOSS AND COAL RETENTION, %

BRAND MACON
YEAR 1981



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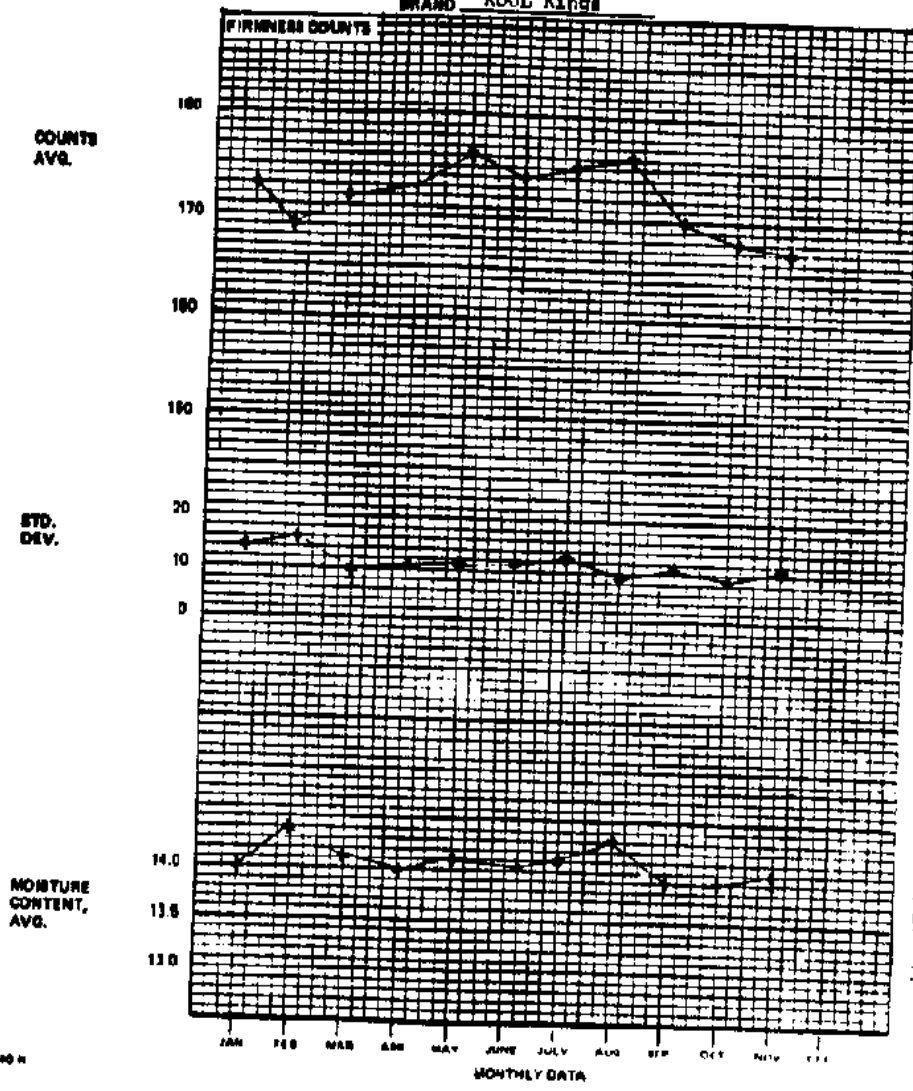
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CIGARETTE FIRMNESS IN COUNTS AND MOISTURE

BRANCH MCCOY
YEAR 1981

BRAND KOOL KING



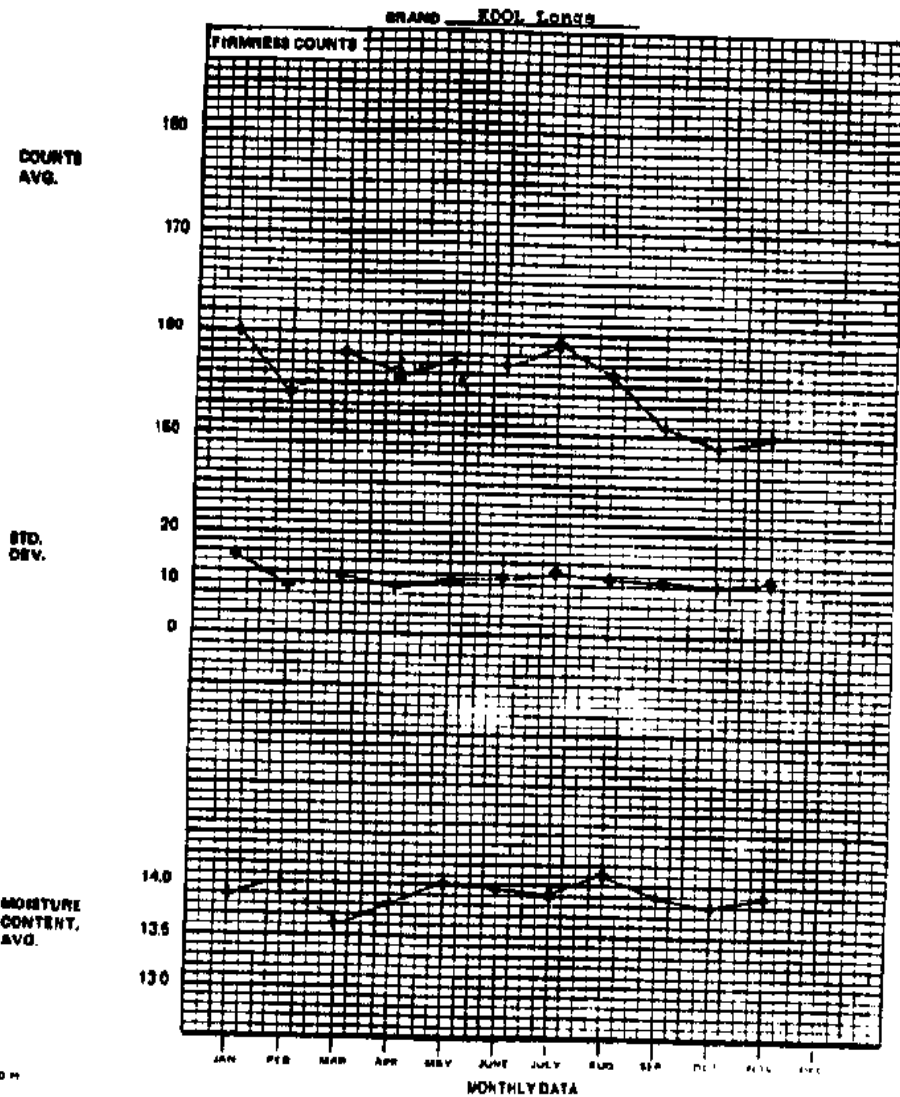
MG 8040 N

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OR DOCUMENT BEING FILMED.

65505 9 7 6 2

CIGARETTE FIRMNESS, IN COUNTS AND MOISTURE

BRANCH Macon
YEAR 1981



MO 4000 H

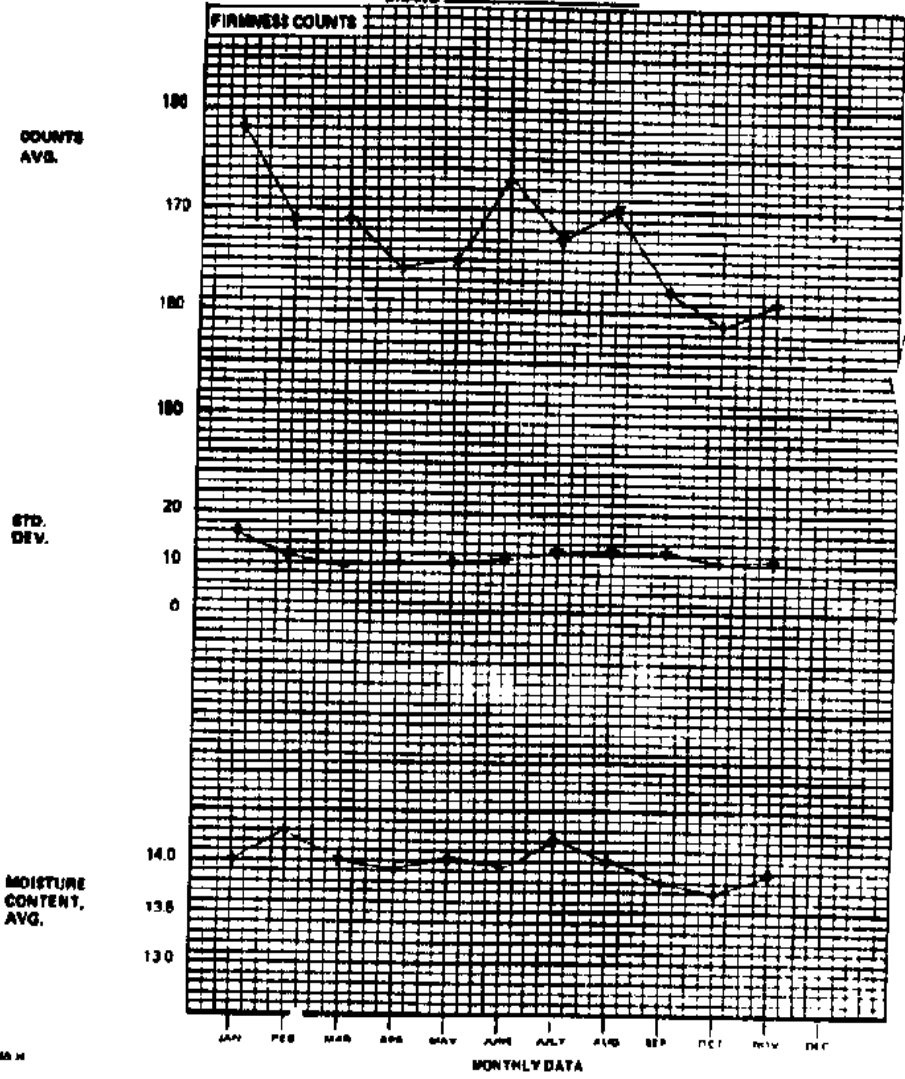
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65505 9 7 6 3

CIGARETTE FIRMNESS, IN COUNTS AND MOISTURE

BRANCH MACON
YEAR 1981

BRAND KOOL MILDS



MO 4860 X

INK TRACE IS LESS CLEAR
IF IS NOT TO THE
DOCUMENT BEING FILMED.

65505 9 7 6 4

