BOOK64R

Notes:
"CA 2 3" on spine
"C.A. 2&3" on front

-page 3/4 has been torn out

Blank pages: page opposite page 1, 1, 2, 5-7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 29, 31, 33, 37, 41, 43, 45, 49, 51, 53, 55, 57, 59, 61, 65, 67, 69, 73, 75, 77-296, 298, 300, inside back cover sheets

-following pages have 1 large sheet attached to each: 8, 10, 12, 14, 16, 18, 20, 299
-following pages have 1 sheet of paper between them: 76/77, 106/107, 158/159

Scanned by:
Sheila Finch
RSICC /Oak Ridge National Lab.
August 20, 1999

1"

P-1

PROPORTIONAL COUNTER #1

CA 273

Standard Figuring Book

No. 1602½

2	Columns	to Right,	Units,	Single	Page	Form
3	"	"	"	"	"	"
4	"	"	"	"	"	"
5	"	"	"	"	"	"
6	"	"	"	"	"	"
6	"	Divided,	"	"	"	"
7	"	to Right,	"	"	"	"
8	"	"	"	"	"	"
10	"	"	"	Double	Page	Form
12	"	"	"	"	"	"
14	"	"	"	"	"	"
14	"	Without Name Space	"	"	"	"
16	"	to Right,	"	"	"	"
18	"	"	"	"	"	"
20	"	"	"	"	"	"

Unruled
Quadrille
Faint

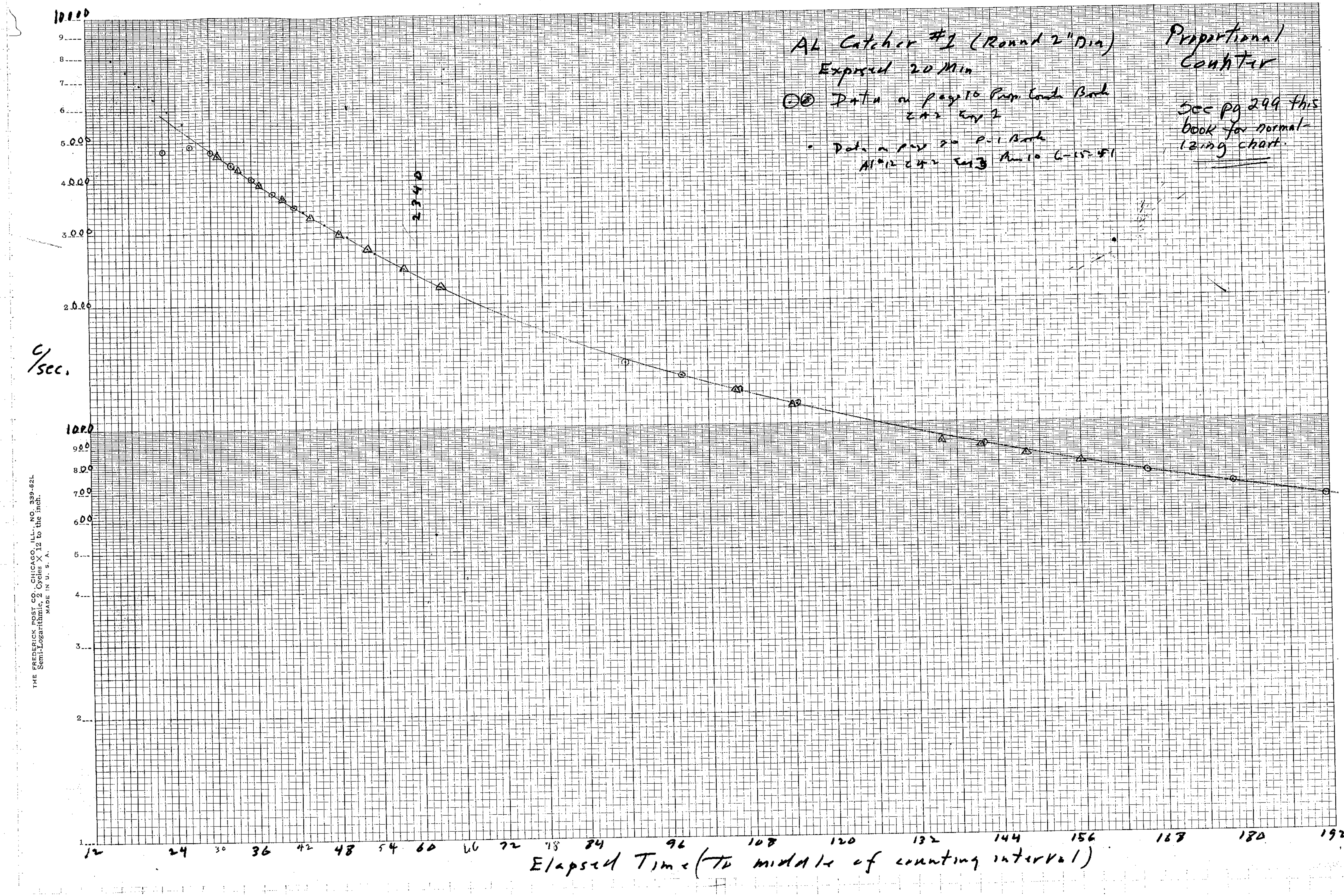
In 150 and 300 Pages

Made in U. S. A.

TO REORDER THIS BOOK, SPECIFY NUMBER, RULING AND THICKNESS AS INDICATED ON BACKBONE OF BOOK

A BOORUM & PEASE PRODUCT

6-13-51


AL Catcher #1 (Round 2" Dia)
Exposed 20 Min
Data on page 10 Prop. Counter Book
Proportional Counter
See pg 299 this book for normalizing chart.
2340
10,000
5,000
4,000
3,000
2,000
1000
900
800
700
600
c/sec.
12
24
30
36
42
48
54
60
66
72
78
84
96
108
120
132
144
156
168
180
192
Elapsed Time (to middle of counting interval)
THE FREDERICK POST CO., CHICAGO, ILL., NO. 399-62L
Semi-Logarithmic, 2 Cycles X 12 to the inch.
MADE IN U. S. A.

Date 6-13-51

Hour	Sample	Req	Scale	Δt	Δt in sec	c/s	Decay	D.T.	Residual	Net	Ratio Al/Au	Time pl.
	Std	100	512	2:54.7	174.7	293.1						
1004AM	Au-2	50	256	5:24.4	324.4	3946	39.10					
	BG	10	64	8:41.5	521.5	1.227						
20 Min Exposure		CA 2	Exp 2	Run —				Toff 1055 AM				
Hour El. Time												
15M	Au-2	300	512	4:59.8	299.8	512.3	513.8					23
22M	AL-1	1000	512	1:53.6	113.6	4507.		4751.				26.9
26M	AL-1	"	"	1:50.5	110.5	4633		4891.				30.
29M				1:54.6	114.6	4468		4708				33
32 M				2:2.5	122.5	4180		~~4405~~ 4390				36.1
35M				2:11.6	131.6	3891		4073				39.2
38				2:22.5	142.5	3593		3748				42.3
1136 41				2:32.9	152.9	3349		3484				
46	Au-2	100	512	1:41.3	101.3	505.4	509.6					
49		100	512	1:39.7	99.7	~~466.7~~ 513.5	518.1					
	BG	10	64	8:53.9	533.9	1.1987						
	Std	100	512	2:51.6	171.6	298.4						90.1
87	AL-1	1000	512	6:04.6	364.6	1404		1428				98.2
12:30 95	"	"	"	6:31.9	391.9	1306		1326				106.6
103	"	"	"	7:07.1	427.1	1199		1216				114.9
111	"	"	"	7:43.0	463.0	1106		1121				
12:58P 123	Au-2	100	512	1:44.8	104.8	488.5	499.4					
127	"	"	"	1:43.7	103.7	493.7						
130	"	"	"	1:40.6	100.6	508.9	520.9					
132	"	"	"	1:40.5	100.5	509.5	521.8					
134	"	"	"	1:40.6	100.6	508.9	521.3					142
139	Al-1	~~1000~~ 615 ×	512 + 116	6:00	360.0	875.0		884.2				165.7
160	"	1000	512	11:25.8	685.8	746.6		753.3				178.1
172	"	1000	512	12:13.6	733.6	~~698.0~~ 697.9		703.7				191.6
186	"	1000	512	13:13.4	793.4	645.3		650.3				
8:55A	Au 2	1000	256	10:21.3	(412.0)	412.0	521.7	525.3	39.1	~~485.45~~ 486.2	~~4.573~~ ~~4.456~~ 4.813	

Al-1 = 2330 c/s at 60 Min. → D.T. corr → ~~2402~~ 2340.

10.55 AM
1 15
~~10 70~~
11:10

10.55
.41
10.96
.65
11.36

WCX-885 (Jan'48) Y-12 DATA SHEET

Dead Time assumed 2% at 1867 c/s or τ = 12 × 10⁻⁶ sec

CA2 Exp 3 Run 1

Hour	Wait Time	Sample	Reg	Scale	ΔT	c/s	DT Decay	Decay		Ratio AL/Au
9:32 AM	22 M	Au 5	100	512	65.6 sec	780.5	787.8	791.0		
	25	Au 5	100	512	65.0	787.7	795.1	798.7		
	28	AL 3	1000	512	71.3	7181	D.T. 7799.8	Dec. 3687.2	av 3784.4	
	30	AL 3	"	512	71.5	7161	~~3749~~ 7776.4	~~4011.7~~ 3896.5		4.746 ~~4.652~~
	34	Au 5	"	512	10:53.6	783.4	789.0	797.3		
	91	AL 3	"	"	3:53.0	2197.4	~~3670.3~~ 2255.3	~~3769.6~~ ~~3844.5~~ 3769.5		

CA2 Exp 3 Run 2

Hour	Wait Time	Sample	Reg	Scale	ΔT	c/s	D.T.	Decay		Ratio
	22	Au 19	200	512	3:46.3	452.5	454.4	457.1		5.099 ~~5.026~~
	29	AL 4	1000	512	1:55.3	4440.6	4677.2	~~2309.0~~ ~~4936.7~~ 2319.0		
	32	AL 4			2:3.1	4159.2	4366.8	2327.6		
	60	"			3:56.2	2167.7	2224.1	2313.1		
	66	"			4:23.6	1942.3	1987.6	2314.0	2321.8	
	~~Bkd~~	Std	100	512	2:53.0	2960				
	97	AL 4	1000	512	6:51.3	1244.8	2283.7	2317.8		
	105	AL 4	"	"	7:25.4	1149.5	2299.0	2330.7		
	114	AL	"	"	8:07.3	1050.7	2298.6	~~2368.9~~ 2330.7		
							D.T.	Decay to Time off. Run 4		
1240 P		Au 8	1000	512	12:28.6	6839	689.5	680.6	For Residual Activity	
1257½ P	145	Au 19	1000	256	9:28.5	450.3	452.7	465.0		4.974

C.A. ______ Expr. ______ Run ______

Sheet ______ Date ______ 195__ Time ______ AM / PM

Purpose ______

CA 2 Exp 3 Run 3 τ = [illegible] sec.

Hour	Wait Time	Sample	Reg	Scale	Δt	c/s	D.T.	Decay	Resid Act	Net.	Ratio
	16	Au 20	1000	256	10:17.2	414.8	416.9	418.5			4.898
	30	AL-5	1000	512	2:13.0	3849.6	4027.4				
	33				2:22.4	3595.5	3750.6				
1:32 P	36				2:34.6	3311.8	3443.4				
	39				2:46.7	3071.4	3184.6				
	43				3:05.0	2767.6	2859.5				
	47				3:23.1	2520.9	2597.1	2041.3	2043.6 (avg. of these four)		
	51				3:42.0	2306.3	2370.1	2040.5			
	56				4:06.5	2077.1	2128.9	2049.7			
	61				4:32.2	1880.0	1923.5	2042.8			
2:10 P	~~Au 10~~	Au 10	400	512	10:27.3	326.5	327.8	324.6	← For Residual Activity		

CA 2 - Exp 3 - Run 4

Hour	Wait Time	Sample	Reg	Scale	Δt	c/s	D.T.	Decay	Resid Act	Net.	Ratio
	26	Au-8	1000	256	3:45.0	1137.8	1153.3	1159.1	680.6	(478.5)? ~~507.4~~ 507.4 ~~479.~~	
	31		"	"	3:39.8	1164.7	1180.0	1188.0			
	102 (Run 3)	AL 5	1000	512	8:12.4	1039.8	1052.8				
2:47 P	112 (Run 3)	AL 5	1000	256	4:25.3	964.9	976.1				
	56	AL 6	1000	512	3:24.9	2498.7	2573.6	2455.2	2470.8 (avg. of these three)		
	60	"	"	"	3:37.3	2356.2	2422.8	2481.2			
	64	"	"	"	3:57.6	2154.9	2210.6	2475.9			
	133 (Run 3)	AL-5	1000	256	5:28.1	780.2	787.5				
	139 (Run 3)		"	"	5:37.8	757.8	764.7				
	145 (Run 3)		"	"	5:55.0	721.1	727.3				
	153 (Run 3)		"	"	6:10.2	691.5	697.2				
	100	Au 8	1000	256	3:44.5	1140.3	1155.9	(1172)?			
	105	"			~~3:42.4~~	~~1151.1~~	~~1167.0~~	1189.5		508.9	
	109	"			3:42.8	1149.0	1164.8	1188.1		507.5	4.889

{CA 2 Exp 3 Run 5} T_{off} = 305P

Hour	Wait Time	Sample	Reg	Scale	Δt	c/s	DT	Decay	Residual	Net	Ratio	
359P	54	Au-10	1000	256	5:42.2	748.1	754.8	762.5	324.6	437.9	4.905	
	62	AL-7	"	512	4:27.1	1916.9	1961.0	2124.3	} 2148			
	67	"	"	512	4:45.8	1791.5	1830.0	2173.6	}			
834		Au-10	1000	256	6:45.9	630.7	635.5	766.7				
		Au-10	1000	256	6:47.6	628.1	632.8	763.5				
908A		Au-3	1000	256	14:34.1	292.9	293.9	288.3				← For Residual Act.
		Std	1000	[illegible] 128	7:14.2	294.8	295.8					
939A	30	Au-18	1000	256 [illegible]	9:04.8	469.9	472.5	475.4			4.828	
	43	Al-8	"	512	2:46.2	~~3502.1~~ 3080.6	3194.5	2286.0	} 2294.9			
	47	"	"	"	2:59.9	2846.0	2943.2	2295.7	}			
	51	"	"	"	3:15.8	2614.9	2697.0	2303.2	}			← For Residual Act.
10:01		Au-16	"	128	11:48.5	~~180.7~~	181.1	177.0				
10:20		Au-17	"	128	6:26.0	331.6	332.9					← For Residual Act.
10:30		Au-13	"		4:12.2	507.5	510.6					← " " "
	95	AL-8	"	512	6:37.0	1289.6	1309.6	2320.6				
	106	Au-18	"	256	9:13.8	462.3	464.9					

C.A. 2 Expr. 3 Run 6
Sheet Date 6-15 Tc 849 AM
Purpose Fine Structure Distr.

WCX-885 (Jan'48) Y-12 DATA SHEET

C.A. 2 Expr. 3 Run 7

Sheet Date 6-15-51 195 Time 10:36 AM

Purpose

Hour	Wait Time	Sample	Reg	Scale	Δt	c/s	D.T	Decay	Residual	Net	Ratio
	12	Au 3	1006	256	5:56.1	718.9	725.1	727.1	288.3	440	4.841
	19	"	"	"	5:55.7	719.7	725.9	728.7			
	29	Al-9	"	512	2:04.1	4125.7	4330.0	2137.6			From Av
	32	Al-9	"	"	2:14.5	3806.7	3980.6	2121.8		2130.5	4.86
	35				2:25.1	3528.6	3678.0	2140.9			
	38				2:37.3	3254.9	3382.0	2121.7			
	50	Au-3			11:55.8	712.3	718.4	725.7		437.4	

C.A. 2 Expr. 3 Run 8

Sheet Date 6-15-51 195 Time 11:54 AM ~~PM~~ Cadmium

Purpose

Hour	Wait Time	Sample	Reg	Scale	Δt	c/s	D.T	Decay	Residual	Net	Ratio
1228 P	14	Au 16	1000	512	11:42.5	729.3	735.7	938.0	177.0	561.	
	29	Al #10	"	"	3:12.0	2666.7	2752.0	1376.0 ~~1378.9~~			
	33	"	"	"	3:35.2	2379.2	2447.1	1373.2 ~~1376.3~~			
	41	"	"	"	4:30.7	1891.4	1934.3	1339.9			
1:07 P	~~54~~ 53	"	"	"	6:00.9	1418.7	1442.9	1329.3			
	60	"	"	"	6:58.5	1223.4	1241.4	1332.5			
	89	"	"	"	11:21.0	751.83	758.6	1295.7		-	
	107	"	1000	256	6:41.2	401.2					
	121	"	"	"	4:40.9	911.4	921.4	2102.6 ~~2093.2~~		~~2119.4~~	
	127	"	1000	512	9:54.2	861.0	870.6	2137.3		2120.0	
2:40 P		Std	1000	256	14:25.0	295.4					

Unmixed or Wrong side

WCX-885 (Jan'48) Y-12 DATA SHEET

C.A. 2 Expt. 3 Run ~~9~~ 10

Sheet Date 6-15 1951 Time 3:29 PM
crit

Purpose

Hour	Waiting Time	Sample	Reg	Scale	Δt	c/s	D.T.	Decay	Av.
	15 15.6	Al #12	1000	512	72.5	7062	7655		
	17 17.6				77.7	6589.4	7106.7		
	19 19.7				83.1	6161.3	6617.2		
	21 21.35				89.2	5740.0	6136.1		
	23 23.8				95.3	5372.5	5716.4	2363	
	25 25.85				101.8	5029.5	5333.8	2346	
	30 31				1:58.7	4313.4	~~4336.0~~ 4536.0	2287.5	
	33 34				2:09.5	3953.7	4111.5	2280	
	36 37.2				2:20.8	3636.4	3794.6	2260	
	39 40.15				2:32.0	3368.4	3504.5	2258	
	42 43.4				2.43.8	3125.8	3243.0	2253	
	45 46.5				2.56.2	2905.8	3001.2	2237	
					~~3:94~~	~~2703.3~~			
	48 49.5				3:09.4	2703.3	2791.2	2229	
	50 53.7				3:26.0	2485.4	2559.2	2243.9	2243.0
	56 57.8				3:44.0	2285.7	2348.3	2242.8	
	60 62				4:02.0	2115.7	2169.4	2256.2	

F = 1.04195

C.A. _____ Expr. 3 Run 12
Sheet _____ Date 6-16 95 1 Time 11:42 AM ~~PM~~
Purpose _____

Hour	Waiting Time	Sample No.	Mag	Scaler	Δt	Δt/hr sec	c/s	D.T.	Decay	Av.
9:30 A		B.g.	10	64	8:56.0	536	1.194			
9:55 A		Std	1000	256	14:23.9	863.9	296.6			
12:55 P	53 54.4	A1 #14	1000	512	2:22.3	142.3	3598	3752.7	3321.1	
	56 57.4		1000	512	2:31.0	151.0	3390.7	3528.0	3332.5	3338.5
	59 60.4		1000	512	2:39.4	159.4	3212.0	3335.7	3350.0	
	62 63.4		1000	512	2:48.5	168.5	3038.6	3149.2	3350.7	

C.A. _____ Expr. 3 Run 13
Sheet _____ Date 6-16 95 51 Time 2:09 ~~AM~~ PM
Purpose _____

3:21 P	52 53.25	A1 #15	1000	512	2:30.5	150.5	3402.0	3540.8	3080.1	
	55 56.3	"	"	512	2:39.9	159.9	3202.0	3325.2	3073.2	3082.1
	58 59.4	"	"	"	2:49.8	169.8	3015.3	3124.2	3085	
	61 62.5	"	"	"	2:59.4	179.4	2854.0	2951.6	3090	

C.A. 2 Expr. 3 Run 14
Sheet _____ Date 6-16 95 1 Time _____ ~~AM~~ PM
Purpose _____

4:41 P	50	A1 #16	1000	512	2:20.5	140.5	3644.1	3803.7	3171.5	
	53 54.25	"	"	"	2:30.0	150.0	3413.3	3553.2	3141.0	
	56 57.3	"	"	"	2:38.6	158.6	3228.4	3355.1	3170.7	3169.7
	59 60.4	"	"	"	2:48.6	168.6	3036.8	3147.3	3169.3	
4:53 P	62 64	"	"	"	2:57.8	177.6	2879.6	2978.9	3196.0	
5:15 P		Std	"	256	14:21.6	861.6	295.1			

Av 3169.7

C.A. 2 Expr. 3 Run 15

Sheet ______ Date 6-18 1951 Time 9:52 AM ~~PM~~

Purpose ______

Hour	Waiting Time	Sample #	Reg	Scaler	Δ ~~time~~ t	Δ time sec ~~c/s~~	c/s	D.T.	Decay	AV 1
8:15 A		Std	1000	256	14:22.5	862.5	296.8			
9:55 A		B.g.	10	64	9:00.0	540	1.185			
11:02 A	50 51.11	A1*17	1000	512	2:13.6	133.6	3832.3	4002.9	3321.6	
	53 54.19	"	1000	512	2:22.8	142.8	3585.4	3738.9	3301.4	
	56 57.25		1000	512	2:31.8	151.8	3388.9	3526.2	3326.9	3325
11:11 A	59 60.33		1000	512	2:40.1	160.1	3198.0	3320.8	3340.	
	62 63.41		"	"	2:49.6	169.6	3018.9	3128.5	3335.	

C.A. ______ Expr. 3 Run 16

Sheet ______ Date 6-18 1951 Time 11:35 AM ~~PM~~

Purpose Zortin Cd-Zn transverse

Duration 25 min

Hour	Waiting Time	Sample #	Reg	Scaler	Δ t	Δ time sec	c/s	D.T.	Decay	AV
12:46 P	51 52.1	A1*18	1000	512	2:16.9	136.9	3740.0	3907.6	3295	
	54 55.2	"	"	"	2:25.4	145.4	3521.3	3669.9	3322	
	57 58.3				2:34.9	154.9	3305.4	3436.3	3336	3333.
	60 61.4				2:43.3	163.3	3135.3	3253.2	3339	
	63 64.4				2:52.9	~~171.9~~	~~2978.5~~	3066.7	~~3378~~	
						172.9	2961.2		3337	

C.A. 2 Expr. 3 Run 17
Sheet ____ Date 6-18 195 1 Time 2:06 ~~AM~~ PM
Purpose Zat. Cd-Zn Traverse
20" Extension

How	Waiting Time	Sample #	Reg	Scales	Δt	Δ time Sec	C/S	D.T	corrected to 60" decay	#V
	$51_{50.2}$	#1 #19	1000	512	2:30.1	150.1	3411.1	3550.6	2999.4	
3:20P	$54_{53.3}$	"	"	"	2:39.5	159.5	3210.0	3333.6	3023	
	$57_{56.4}$	"	"	"	2:50.0	170.0	3011.8	3120.8	3030	3022
	$60_{59.5}$	"	"	"	3:00.0	180.0	2844.4	2941.7	3026	
	$64_{63.6}$	"	"	"	3:13.9	193.9	2640.5	2721.0	3032	

C.A. 2 Expr. 3 Run 18
Sheet ____ Date 6-18 195 1 Time 3:10 ~~AM~~ PM
Purpose Complete Cd-Zn traverse
20" Extension

		#1 #20	1000	512						
4:22P	$53_{52.4}$	#1-20			2:43.3	163.3	3135.3	3253.2	2906 ~~2760~~	
	~~58~~ $57_{56.4}$				2:53.7	173.7	2947.6	3051.8	3013	
	$61_{60.6}$				3:06.8	186.8	2740.9	2831.1	2984	
	$65_{64.7}$				3:20.4	200.4	2554.9	2633.2	2991	2996
	$71_{70.8}$				3:41.6	221.6	2310.5	2374.5	3007	
	76_{75}				3:59.5	239.5	2137.8	2192.6	2993	
4:55	82	Std.	500	512	14:21.5	864.5	296.1			

C.A. _____ Expr. _____ Run _____

Sheet _____ Date _____ 195__ Time _____ AM PM

Purpose _____

C.A. 2 Expr. 3 Run 20
Sheet ____ Date 6-19 :95 Time 3:31 ~~PM~~
Purpose ____

Hour	Waiting Time	Sample #	Rg	Scale	Δt	Δt in Sec.	t/s	D.T.	Corrected to 60" Decay	Av.
8:30A		Std	1000	256	14:25.0	865.0	295.9			
9:15A		B.g.	10	64	8:43.3	523.3	1,223			
4:00P		Std	1000	256	14:23.4	863.4	296.5			
4:41P	50 51.8	Al #21	1000	512	3:37.7	~~212.7~~	2351.9	2418.3	2035/8	
	54 56				3:56.7	236.7	2163.1	2219.2	2036	
	59 61.7				4:21.7	261.7	1956.4	2062.3	2044	2047
	64 66.4				4:46.7	286.7	1785.8	1524.1	2058	
	69 71.6				5:13.5	313.5	1633.2	1665.2	2064	

C.A. 2 Expr. 3 Run 21
Sheet ____ Date 6-20 :95 Time 10:59 ~~PM~~ AM
Purpose Barium - platinum

11:45A		Std	1000	256	14:25.2	865.2	295.9		
12:04P	50	Al #22	1000	512	3:28.1	~~24450~~ 24604	2533.1	2122.7	
	54	"	"	"	3:47.0	2255.5	2316.5	2124.2	2130.7
	58	"	"	"	4:05.7	2083.7	2135.9	2135.9	
	63	"	"	"	4:29.2	1901.9	1945.3	2139.8	

C.A. 2 Expr. 3 Run 22
Sheet ____ Date 6-20 195 1 Time 1:57.5 ~~AM~~ PM
Purpose ____

Hour	Wait. Time	Sample #	Reg	Scaled	Δt min	Δt in Sec	Σ/S	D.T.	Corrected to 60° decay	AV
3:16 P	58	#1 '23	1000	512	4:25.1	265.1	1931.3	1976.1	1984.0	
	63				4:46.7	286.7	1785.8	1824.1	2032.0	
	~~69~~ 70				5:23.0	323.0	1585.1	1615.2	2030.3	2030.5
	76				5:55.5	355.5	1440.2	1465.1	2029.2	

C.A. 2 Expr. 3 Run 23
Sheet ____ Date C-20 195 1 Time ____ AM PM
Purpose ____

3:45 P	-	Bkd	1000	256	19:27.0	867.0	295.3			
4:04 P	50 51.0	#1 '24	1000	512	3:16.1	196.1	2610.9	2692.7	2251	
	54 55.7	"	"	"	3:32.5	212.5	2409.4	2479.1	2262	2267
	58 59.9				3:50.0	230.0	2226.1	2285.6	2280	
	62 64.1				4:08.2	248.2	2067.8	2113.4	2275	

C.A. 2 Expr. 3 Run 24
Sheet ____ Date 6-21 195 1 Time ____ AM PM
Purpose ____

Hour	Waiting Time	Sample #	Reg	Scale	Δt Min	Δt Sec	C/S	D.T.	Corrected to 60° Deg	Av
10:15 A		Blg	10	64	8:40.0	520.0	1,231			
10:38 A	50 51.2	A1+25	1000	512	3:23.3	203.3	2518.4	2594.5	2172	
	54 55.8				3:40.8	220.8	2318.8	2383.3	2179	2181
	58 60				4:00.4	240.4	2129.8	2184.2	2184	
	63 65.2				4:24.0	264.0	1939.4	1984.5	2189	
10:58 A		Std.	1000	256	14:21.5	861.5	297.2			

C.A. 2 Expr. 3 Run 25
Sheet ____ Date 6-21 195 Time ____ AM PM
Purpose ____

11:52 A	50 52	A1+26	1000	512	3:58.5	238.5	2146.8	2202.1	1854	
	55 57.2		"	"	4:22.7	262.7	1949.0	~~1996.5~~	1880	1877 ~~1879~~
	60 62.4				4:50.1	290.1	1764.9	1802.3	1876	
	66 68.7				5:23.6	323.6	1582.2	1612.2	1897	

C.A. 2 Expr. 4 Run 1
Sheet ____ Date 6-22 195 1 Time 9:04 AM ~~PM~~
Purpose Power Dist. with use of A1 catcher fish 20" Exposure

Hour	Waiting Time	Sample #	Rig	Scale	Δ t Min.	Δ t Sec	C/S	D.T.	Counts to 60" Basis		
8:30 A		Std	1000	256	14.25.0	865.0	296.0				
8:50 A		B.g.	10	64	9:09.0	549.0	1,166				
9:42 A	18 19.4	A1 103	1000	512	2:53.8	173.8					
	23 24.9	114	1000	512	3:54.9	234.9					
	29 31.2	108	1000	512	4:19.7	259.7	1971.5	2018.1	1024.6		
	~~35~~ 37 39.9	112	~~500~~	128	5:47.6	341.6	1841.2	184.53	114.87	—	
	45 48.5	111	1000	128	7:06.4	426.4	300.2	301.3	235.5		
	54 52.5	106	1000	128	6:59.8	419.8	3.04.91	306.03	290.54		
	63 65¼	27 ~~26~~	1000	512	4:36.8	276.8	1849.7	1890.7	2087.3	2100.9	1.4 280
10:32 A	68 70.2	27	1000	512	5:01.2	301.2	1699.9	1734.6	2114.4		
	75 78	113	1000	128	5:54.2	354.2	361.38	362.95	496.51		
	83 86.6	110	1000	128	7:11.2	431.2	296.85	297.91	489.37		
	92 94.8	109	1000	128	5:34.8	334.8	382.32	384.07	657.15		

C.A. ____ Expr. ____ Run ____
Sheet ____ Date ____ 195 ____ Time ____ AM PM
Purpose ____

		A1°								
10:05	100 102.8	105	1000	128	5:33.5	333.5	383.81	385.58	719.49	1029
	108 110.4	114	500	256	4:48.4	288.4	443.83	446.19	~~896.85~~	
	115 117.3	103	1000	128	4:34.3	274.3	466.64	469.25	1001.49	
	121 123.4	108	1000	128	4:53.8	293.8	435.67	437.95	998.96	✓
11:32	128	107	1000	128	—				1187.0	✓
	134 136.3	115	1000	128	4:35.0	275.0	465.45	468.05	~~1186.4~~	
	141 143.4	107	1000	128	4:44.6	284.6	449.75	452.18	1209.6	✓
	148 150.4	116	1000	128	4:50.3	290.3	440.92	443.25	1246.1	✓
	155 157.7	102	1000	128	5:21.4	321.4	398.26	400.16	1182.9	✓
	162 164.6	101	1000	128	5:14.0	314.0	407.64	409.63	1266.2	

-100,9 1,4 280

123.1

Ca 2 Ex 3 Run 2 C

6-22-51

Hour	Waiting Time	Sample #	Rig	Scaler	Δt min	Δt sec	C/S	D.T.	corrected to 60' Day	Av	Point
12:26	52 (53.9)	Al # 28	1000	512	3:50.8	230.8	2218.4	2277.5	~~1914~~ 2007	2015	
	57 (59.1)		"	"	4:16.0	256.0	2000.0	2048.0	2009		
	62 (64.3)		"	"	4:39.8	279.8	1829.9	1870.1	2020		
	67 (69.5)				5:06.0	306.0	1673.2	1706.8	2029		

C.A. 2 Expr. 4 Run 2

Sheet ______ Date 6-23 1951 Time ______ ~~AM~~ PM

Purpose: Power distribution with some fuel tape and some fuel 2d covered

Hour	Waiting Time	Sample #	Rig	Scaler	Δt min	Δt sec	C/S	D.T.	corrected to 60' Day	Av	Point
11:00 A		B.g.	10	64	8:42.4	522.4	1.225				
11:10 A		"	"	"	8:47.5	527.5	1.213				
11:45 A		Std	1000	512	28:54.0	1734.0	295.3				
2:30 P		Std	1000	256	14:23.6	863.6	296.4				
	41 (46)	Al # 120	800	128	~~#~~9:56.2	596.2	171.75	172.10	126.63		
	53 (57.8)	122	800	128	9:33.4	573.4	178.58	178.96	170.94		
	65 (70)	121	1000	128	10:04.5	604.5	211.75	212.29	256.02		.2019
3:41 P	81 (81.7)	118	1000	512	1:26.3	86.3	5953.5	6378.8	9217.4	9134.9	.3254
4:01	101 (101.9)	118	1000	512	1:50.0	110.0	4654.5	4914.4	9052.3		
	106 (106.9)	119	"	"	1:49.5	109.5	4675.8	4938.2	9614.7	9625.5	
	112 (112.9)	"	"	"	1:55.5	115.5	4432.9	4668.7	9654.9		
	115 (116)	"	"	"	1:59.2	119.2	4295.3	4516.7	9607.0		
	119 (120)	117	1000	512	2:03.7	123.7	4139.0	4344.6	9593.9		
	122 (123)	"	"	"	2:06.7	126.7	4041.0	4237.0	9626.5	9625.0	.3116
	125 (126.1)	"	"	"	2:10.0	130.0	3938.5	4124.6	9655.7		
4:30 P	130 (130.8)	29	"	"	1:30.2	90.2	5676.3	6062.9	14751		
	132 (132.8)	"	"	"	1:30.6	90.6	5651.	6034	14916	~~14855.9~~ 14859.	
	134 (134.8)	"	"	"	1:32.4	92.4	5541	5909	14838		
	136 (136.8)	"	"	"	1:33.0	93.0	5505	5867	14932		

C.A. 2 Expr. 2 Run ~~27~~ 26

Sheet ____ Date 6-25 1951 Time ____ AM PM

Purpose ____

Hour	Waiting Time	Sample #	Rng	Scaler	Δt min	Δt sec	c/s	D.T.	corrected to 60" Decay			
Residual activity data												
9:15.00A	-	Au #7	100	256	10:14.9	614.9	41.63	41.65	41.0			← Res
9:30 A	-	B.g.	10	64	8:55.5	535.5	1.195					
9:55 A		St ~~d~~	1000	256	14:25.7	865.7	295.7					
10:45 A		Au #17	100	128	8:18.0	498	25.70	25.70				← Res
10:57 A		Au #13	100	256	11:01.4	661.4	38.7	38.7				← Res
Ca #2 Exp #2 Run ~~27~~ 26 Time critical = 10:20A												
										Net		
11:14 A	33	Au #7	1000	256	8:59.8	539.8	474.2	476.9	480.1	439.1	Au/Al =	Power Level correction
	50	Al #31	1000	~~2~~ 512	3:15.0	195.0	2625.6	2708.3	2241.7			
	54	"	"	512	3:31.6	211.6	2419.7	~~2403.6~~ 2489.9	2244.1	2264		1.3251
	58	"	"	"	3:50.1	230.1	2225.1	2284.5	2284.5			
11:44	63	"	"	"	4:12.5	252.5	2027.7	~~2...~~ 2077.0	2284.7			

← Residual Au activity

← Residual Au activity
← Residual Au activity

f		
9.1	$\frac{Av}{Al}$ =	Power Level (rometer)
.264		1.3251

June 25

CA2 Expr 4 Run 3

T_c = 3:28P Cd-U-Cd Power Distr. (AL catchers)

Power 0.1 Channel B.

Hour	Watt.	Sample	Rg	Scaler	Δt	c/s	D.T.	Decay to 60'	A.V.
411P	22	126	400	256	8:30.7	200.5	201.0	87.1	
	31	126	220	128	2:51.5	164.2	164.5	86.7	
	36	128	1000	~~128~~ 256	5:30.1	775.5	782.7	485.6	
	44	125	1000	256	5:45.1	741.8	748.4	564.5	
	53	127	1000	256	4:39.6	915.6	925.7	837.2	
	60	126	250	128	6:52.8	775.2	77.6	82.7	
457P	69	33	1000	512	0:43.5	11790.	13432.4	15984.5	
		Std	400	512	11:34.4	294.9	295.9		
	86	33	1000	512	0:52.8	9697.0	10825.4	16671.1	Av. 16893.0
	88	33	1000	512	0:52.8	9697.0	10825.4	17115.0	Power
	92	33 Part A	1000	512	1:44.8	4885.5	5171.9	8626.7	Tot. 16957.3 1.769
	97	33 Part B	1000	512	2:53.9	~~[illegible]~~	Up side	down!	
	102	33 Part B	1000	512	2:00.9	4234.9	4450.1	8330.6	

CA2 Exp #4 Run #4

June 26, 1951 T. Crit - 11:46 Am

Cd - U - Cd Power Distribution

Hour	Watt.	Sample	Rg	Scaler	Δt	c/s	D.T.	Decay to 60'	A.V.
11:55A	—	Std	1000	256	14:28.0	~~868~~ 294.9			
		B.g.	10	64	8:57.5	1.191			
12:37P	30 34.8	Al 129	700	512	9:37.6	620.50	625.12	350.75	
	42 46.9	130	1000	512	9:51.2	866.04	875.04	657.94	
1:01P	54 60.9	131	1000	512	13:32.8	629.92	634.68	643.50	
1:49	102 102.4	AL34	1000	512	0:70.0	7314.3	7956.3	1479.8 x	
	104 104.4	AL34			:71.3	7180.9	7799.7	1476.5 x	
	120 120.7				:82.0	6243.9	6711.7	1492.0 x	1486.1 x
2:09	122 122.7				:83.8	6109.8	6557.8	1485.3	1486.1
229	142 142.8				1:37.2	5267.5	5600.5	1490.3 x	
237	151 151.9				1:43.6	4942.1	5235.2	1492.6 x	

June 26 1957

CA 2 Expr 4 Run 5

T_c = 2:23 PM   Power .1 channel 13

Hour	Want	Al* Sample	Reg	Scale	Δt	Δt sec	c/s	D.T.	Correct to Co-Decay	Av
	45 47.5	132	500	~~256~~ 512	4:38.6	278.6	918.9	929.0	706.2	
	52 55.4	133	1000	256	6:44.9	404.9	632.3	637.1	577.8	
	65 69.5	132	1000	256	8:54.5	534.5	478.0	481.8	575.3	
	77 82.2	133	1000	256	10:24.8	624.8	409.7	411.7	599.8	
	103 103.6	135	1000	512	1:16.1	76.1	6728.0	7271.2	1364.5	
4:30	105 105.6	↓	1000	↓	1:11.8	71.8	7130.9	7741.1	1480	
	107 107.6		↓		1:10.5	70.5	7262.4	7895.3	1544	
	109 109.6				1:10.5	70.5	7262.4	7895.3	1574	
	111 111.6				1:11.5	71.5	7160.8	7776.1	1584	
	113 113.6				1:12.5	72.5	7062.1	7660.6	1596	
	115 115.6				1:14.0	74.0	6918.9	7493.3	1583	
	117									1584
	126 126.7				1:21.0	81.0	6321.0	6800.5	1597	15840.
5:25 P	161 161.9				1:43.7	103.7	Flow rate at flushing velocity			
	164 164.9				1:45.0	105.0	4876.2	5161.5	1599	
	167 167.9				1:46.7	106.7	4798.5	5874.8	1603	

June 26, 1957

CA 2 Expr 4 Run 6

T_c 402 PM

Hour	Want	Sample	Reg	Scale	Δt	Δt sec	c/s	D.T.	Correct to Co-Decay	Av
	32 34.4	134	500	256	4:50.3	290.3	440.9	443.2	246.3	244.0
	38 41.6	134	620	256	7:18.0	438.0	362.0 (3.7)	363.95	241.8	
	48 50.7	135	1000	256	5:22.2	322.2	794.54	802.12	658.5	658.8
	54 57.1	135	1000	256	6:08.8	368.8	694.14	699.92	659.1	

June 27, '51

CA #2 Exp #4 Run #7

Tin tritiated 10:50 A

20" Exposure

Hour	Waiting Time	Sample #	Avg	Scale	ΔT min	Δt sec	c/s	D.T.	Decay to 60"	Power
11:10A		Std	1000	256	14:21.4	861.4	297.2	298.3		
11:42A	34 (41)	136A1	1000	256	13:56.0	836.0	306.2	307.3	~~201.4~~	117.5
	50 (54.1)	104	1000	128	8:12.6	492.6	260.2	261.0	229.7	
	59 (64)	104	1000	128	9:56.5	596.5	214.6	215.2	230.9	
	72 (73.1)	37	1000	512	2:10.1	130.1	3935.4	4121.2	5221.6	
12:23	75 (76.1)	"	"	"	2:15.4	135.4	3781.4	3953.0	5233.8	
	1006 (107.7)	"	"	"	3:21.2	201.2	2544.7	2622.4	5126.8	
	110 (111.7)	"	"	"	3:29.4	209.4	2445.1	2516.8	5134.3	

} 5143. — Pow Corr .58 33

CA #2 Exp #4 Run #8

Hour	Waiting Time	Sample #	Avg	Scale	ΔT min	Δt sec	c/s	D.T.	Decay to 60"
3:56 P	47 (50.3)	Al #137	500	256	6:35.8	395.8	323.4	324.7	263.9
	54 (57.9)	"		256	7:44.6	464.6	275.5	276.4	264.5
	65 (66.6)	AL 138	1000	128	3:10.7	190.7	671.2	676.6	765.9
	69	AL138	1000	256	7:04.1	424.1	603.6	608.0	763.0
	~~99~~	~~Al38~~							
	102	AL 38	1000	512	:62.6	62.6	8178.9	8981.6	1668.8
	104	38			:64.3	64.3	7962.7	8723.6	1649.6
	106	38			:65.5	65.5	7816.8	8556.6	1653.6
	110	38A			2:07.1	127.1	4028.3	4223.0	855.6
	115	38B			2:22.7	144.7	3538.4	3688.6	785.2

} 1640.8

1640.8.

C.A. 2 Expr. 2 Run 27
Sheet ______ Date 6-28 195__ Time 10:24 AM
Purpose Repeat Au In in the .010" fuel

Hour	Unit Time Time	Sample #	Reg	Scaler	Δt Min	Δt Sec	c/s	D.T	Corrected to 60' Reading	
10:30 A	–	Std	1000	256	14:23.6	863.6	296.4			
11:00 A	–	Bg.	10	64	8:41.4	521.4	1.227			
11:41 A	56 57.7	Al #39	1000	512	1:28.2	88.2	5804.9	6209.3	5794	
	58 58.8	"	1000	512	1:30.5	90.5	5657.5	6041.6	5891	
12:37 P	112 113.5	"	1000	512	3:04.5	184.5	2775.1	2867.5	5950	5954
	~~116~~ 117 114.6	"	"	"	3:13.2	193.2	2630.1	2734.4	5958	
	123 126.6	Au #13	1000	512	7:07.3	427.3	1198.2	1215.4		
	131 134.6	"	"	"	7:08.3 ~~7:[illegible]~~					
1:22 P	–	Au #21	100	128	8:50.0					

Residual Acti

C.A. 2 Expr. 2 Run 28
Sheet ______ Date 6-28 195 1 Time 12:51 PM
Purpose

Hour	Unit Time Time	Sample #	Reg	Scaler	Δt Min	Δt Sec	c/s	D.T	Corrected to 60' Reading		
2:35 P	82	Au #14	1000	256	3:36.9	2:10.9	1213.8	1231.5 ~~1298.4~~			
	88	"	"	"	3:30.4	2:10.4	1216.7	1234.5			
	92	"	"	"	3:30.4	210.4	1216.7	1234.5			
	99 100.4	Al #40	"	512	2:46.8	166.8	3069.5	3182.6	5776		
	103 104.4	"	"	"	2:52.2	172.2	2973.3	3079.4	5817		
	107 108.4	"	"	"	(2:53.4)	173.4	2951.7	3057.3	6017	5824	0.5151
	113 114.6	"	"	"	3:08.9	188.9	2710.4	2798.5	5835		
	117 118.6	"	"	"	3:15.9	195.9	2613.6	2695.6	5866		

Powerhouse!

954

Residual Activity

Powdered

5824 0.515-1

C.A. 2 Expr. 2 Run 29
Sheet ____ Date 6-28 1951 Time 2:36 ~~AM~~ PM
Purpose Cont. Repeat of Exp 2 with
Trav 3 in.

Hour	Watching Time	Sample #	Reg	Scale	ΔT min.	ΔT sec	Σ/S	D.T	Corrected to 60° Prop		Pond Level corrected
4:01 P	63.05	Al 41	1000	512	5:02.4	302.4	1693.1	1727.5	1918	1935	1.55504
	69.71.8	"	"	"	5:33.8	333.8	15339	1562.1	1953		
	76	Au 21	1000	256	10:23.6	623.6	410,5	412,5			

G.A. 2 Expr. 5 Run 1
Sheet ____ Date 6-29 1951 Time 1:10 ~~AM~~ PM
Purpose Begin 3rd Traverse with
thin plexiglass
to expose

11:30 A	—	Std	1000	512	28:54.3	1734.3	295.2	296.2			
12:05 P		B.G.	10	64	8:42.5	522.5	1.225				
2:20 P	50	Al 42	1000	512	3:33.2	~~240~~	2401.5	2470.7	2070.4	2082.8	Pond Corr. 1.4404
	54	"	"	"	3.52.0		2206.9	2265.3	2078.6		
	58	"	"	"	4:11.6		2035.0	2084.6	2084.6		
	63	"	"	"	4:35.5		1858.4	1899.8	2097.4		
2:53 P	83	21	1000	256	13:10.1	790.1	324.0	325.3			

6-29-51

C.A. # 2 Expt # 5 Run # 2

C.T. = 2:52 P.M.

SOURCE IN Reactor

Hour	Waiting Time	Sample #	Reg	Scale	Δt Min	Δt Sec	c/s	D.T.	corrected to 60' decay		
4:02 P	50	#1 #43	1000	512	3;04.2		2779.6	2872.3	2395.5	} 2382.4	Pneum Corr
	54	"	"	"	3:20.8		2549.8	2627.8	2369.2		1.2592

C.A. 2 Expr. 5 Run 3

Sheet ____ Date 6-30-51 Time 5:37 AM PM

Purpose Repeat of Run 2 Expt 5

		Std	100	~~512~~	3:54						
		"	"	"	3:53.8						
10:15 A		"	1000	256	14:25.4						
10:47 A	50	#1 #44	1000	512	3:15.2		2623.0	2705.6	2240.2		
	54	"	"	"	3:30.8	210.8	2428.8	2499.6	2252.9		
	58	"	"	"	3:47.8	227.8	2247.6	2308.2	2279.3 ~~2295.6~~	} 2267.6	Pneum corr.
	62	"	"	"	4:05.3	245.3	2087.2	2139.5	2295.7		1.3233

C.A. 2 Expr. 5 Run 4
Sheet ____ Date 6-30 195_ Time 107 ~~AM~~ PM
Purpose ____

Hour	Wait	Sample	Reg	Scale	At	c/s	DT	Pump		Power loss
307P	70M (100M ?)	AL45	1000	256	3:41.0	1158.4	1174.5	2162.2 ~~1459.9~~	2178.1 ~~1485.6~~	~~2.0194~~ 1.3773
	75M (105M)	"		"	3:50.2	1112.1	1126.9	2194.1 ~~1511.4~~		

C.A. 2 Expr. 5 Run 5
Sheet ____ Date 6-30 1951 Time 2:28 ~~AM~~ PM
Purpose ____

Hour	Wait	Sample	Reg	Scale	At					
352	65M	AL46	1000	256	2:20.3	1824.7	1864.7	2095.9	2107.1	Power loss 1.4238
	69M			512	5:05.7	1674.8	1708.5	2108.3		
	76M				5:40.5	1503.?	1530.8	2117.1		

C.A. 2 Expr. 5 Run 6
Sheet ___ Date 7-2 1951 Time 10:02 AM
Purpose Begin Cd-In Traverse in Thin plexiglas
Level 02 20" Exposure

Hour	Waiting Time	Sample #	Mag	Scale	Δt min sec	Δt sec	c/s	D.T.	corrected to 60' Day		
11:05A		Std	1000	256	14:25.5	865.5	295.8				
11:43A	60	Al 47	1000	512	4:19.3		1974.5	2021.3	2096.1	2149.8	Power Corr. 1.3955
	65	"	"	"	4:36.7		1850.4	1891.5	2169.6		
	70	"	"	"	5:00.3		1705.0	1739.9	2183.6		

C.A. 2 Expr. 5 Run 7
Sheet ___ Date 7-2 1951 Time 11:15 AM
Purpose Cont. Cd-In Traverse

Hour	Waiting Time	Sample #	Mag	Scale	Δt	Δt	c/s	D.T.	corrected		
12:27P	52	Al 48	1000	512	3:42.5		2301.1	2364.6	2076.1	2086.5	Power Corr. 1.4378
	56	"	"	"	4:02.0		2115.7	2169.4	2080.5		
	61				4:27.0		1917.6	1961.7	2083.3		
	66				4:51.2		1758.2	1795.3	2105.9		

C.A. 2 Expr. 5 Run 8

Sheet ____ Date 9-2 1951 Time 2:09 ~~AM~~ PM

Purpose ____

Hour	Waiting Time	Sample #	Reg	Scale	Δt Min	Δt sec	c/s ~~Bot.~~	D.T.	Decay		
3:26 P	57	Al #49	1000	~~0~~ 512	2:42.9		3143.0	3261.5	3147.3		Power Corr.
	61	"	"	"	2:55.3		2926.7	3023.1	3150.1	3158.0	~~[illegible]~~
	65	"	"	"	3:08.4		2717.6	2806.2	3176.6		0.9500
	~~69~~	"	"	"	—						

C.A. 2 Expr. 5 Run 9

Sheet ____ Date 9-2 1951 Time (cnt) 3:06 ~~AM~~ PM

Purpose ____

Hour	Waiting Time	Sample #	Reg	Scale	Δt	c/s	D.T.	Decay		Power
4:18 P	51	Al #50	1000	512	2:35.4	3294.7	3425.0	2904.4		
	54	"	"	"	2:45.2	3099.3	3214.6	2915.6	2911.8	1.0303
	57	"	"	"	2:56.1	2907.4	3008.8	2915.5		

C.A. ______ Expr. ______ Run ______

Sheet ______ Date 7-5 1951 Time 9:30 AM ~~PM~~

Purpose: To determine ratio of two Au foils to be used in dead time correction on G.M. counter

Level 0.10 10 Min Expos

B.g = 1.2 c/s

Hour	Waiting Time	Sample #	Reg	Scale	Δt min	Δt sec	c/s	D.T.	Corrected for Bg	Ratio 14/4
12:07P		Au #14	1000	128	10:14.0	614.0	208.5	209.0	207.8	
12:15P		"	"	"	10:13.8	613.8	208.5			0.087395
12:30P		Au #4	1000	512	3:41.2	221.2	2314.6	2378.9	2377.7	
:34P		"	"	"	3:41.2	221.2				
2:30P		Std	1000	256	14:28.0		294.9			

C.A. 2 Expr. 16 Run 1

Sheet ______ Date 7-10 1951 Time 11:03 AM ~~PM~~

Purpose: Begin In traverse with intermediate plexiglass

Level = 0.02

Hour	Waiting Time	Sample #	Reg	Scale	Δt min	Δt sec	c/s	D.T.	Corrected for Bg	Ratio	Pond Level
11:50A		Std	1000	256	14:25.0	865	296.0				
12:16P	54 55.9	Al #51	1000	512	3:49.7	229.7	2229.0	2288.6	2095.9		
	59 61.1	"	"	"	4:14.5	254.5	2011.8	2060.4	2103.5	2103	1.4265
	64 66.3	"	"	"	4:39.2	279.2	1833.8	1874.2	2110.3		
		Bg	10	64	~~8~~ 9:06.1	546.1	1.172				

C.A. 2 Expr. 1 0 Run 2
Sheet Date 7-10 1951 Time AM/PM
Purpose Cont. I[illegible] traverse in intermediate plexiglass
Level 0.2

Hour	Waiting Time	Sample #	Reg	Scale	Δt min	Δt sec	c/s	D.T	counts to 60' Decay		Power Level
3:23 P	55 (57)	Al"52	1000	512	4:01.4	241.4	2121.0	2175.0	2044.0	2048	1.4648
	60 (62.2)	"	"	"	4:27.1	267.1	1916.9	1961.0	2039.0		
	65 (67.4)	"	"	"	4:52.7	292.7	1749.2	1785.9	2053.8		
	70 (72.7)	"	"	"	5:19.4	319.4	1603.0	1633.8	2057.0		

C.A. 2 Expr. 1 0 Run 3
Sheet Date 7-11 1951 Time 8:53 AM
Purpose

Hour	Waiting Time	Sample #	Reg	Scale	Δt min	Δt sec	c/s	D.T	counts to 60' Decay		Power Level
10:00 A	49 (50.8)	Al 53	1000	512	3:33.8	213.8	2394.8	2463.6	2027.3	2056	1.4591
	54 (56)	"	"	"	3:56.6	236.6	2164.0	2220.2	2037.3		
10:10 A	59 (61.7)	"	"	"	4:20.7	260.7	1963.9	2010.8	2070.5		
	64 (66.9)	"	"	"	4:45.4	285.4	1794.0	1832.6	2087.1		

C.A. 2 Expr. 10 Run 6
Sheet ______ Date 7-11 1951 Time 1:35 ~~AM~~ PM
Purpose ______

HOUR	WAITING TIME	SAMPLE	REG	Scale	Δt	Δt SEC	c/s	D. T.	Corrected to 60" decay	Average	Power Level
2:15P		std.	1000	256	14:23:1	863.1	296.6	297.7			
2:34P	40 40.7	Al 56	1000	256	1:28:2	98.2	2902.5	3483.0	2266		
	47 47.8		1000	256	1:38:8	98.8	2591.1	2671.7	2055		
	50 50.9		1000	256	1:45:5	105.5	2426.5	2497.2	2059		
	53 53.9		1000	256	1:52:0	112.0	2285.7	2348.4	2063	2097	1.4306
	56 57		1000	256	1:59:4	119.4	2144.1	2199.3	2067		
	59 60.1		1000	256	2:6:9	126.9	2017.3	2066.1	2069		

C.A. 2 Expr. 10 Run 7
Sheet ______ Date 7-11 1951 Time ______ ~~AM~~ PM
Purpose ______

HOUR	WAITING TIME	SAMPLE	REG	Scale	Δt	Δt SEC	c/s	D. T.	Corrected to 60" decay	Average	Power Level
3:58P	52 53.9	Al #57	1000	512	3:44.7	224.7	2278.6	2340.9	2056.0		
	56 58.0	"	"	"	4:04.5	244.5	2094.1	2146.7	2058.7		
	61 63.2	"	"	"	4:29.0	269.0	1903.3	1946.8	2063.9	2064	1.4535
	66 68.5	"	"	"	4:55.4	295.4	1733.2	1769.2	2075.3		

C.A. 2 Expr. 10 Run 8
Sheet ____ Date 7-12 1951 Time ____ AM / PM
Purpose ____

Hour	Waiting Time	Sample #	Reg	Scale	Δt min	Δt sec	c/s	D.T.	Corrected to 60" Decay	Average	Power Level
9:30 A	—	Std	1000	256	14:24.7	864.7	296.1	297.2			
10:02 A	50 51.8	Al #58	1000	512	3:37.9	217.9	2349.7	2415.9	2026.2		
	55 57	"	"	"	4:01.4	241.4	2120.9	2174.9	2043.9		
	60 62.2	"	"	"	4:27.0	267.0	1917.6	1961.7	2039.7	2042	1.4691
	65 67.4	"	"	"	4:52.0	292.0	1753.4	1790.3	2058.8		

C.A. 2 Expr. 10 Run 9
Sheet ____ Date 7-12 1951 Time ____ AM / PM
Purpose ____

Hour	Waiting Time	Sample #	Reg	Scale	Δt min	Δt sec	c/s	D.T.	Corrected to 60" Decay	Average	Power Level
11:03 A	50 51.8	Al #59	1000	512	3:34.4	214.4	2388.1	2456.5	2060.3 ~~2322.1~~		
	54 55.9	"	"	"	3:53.2	233.2	2195.5	2253.3	2063.7		
	59 61.2	"	"	"	4:18.1	258.1	1983.7	2030.9	2080.4	2070	1.4493
	64 66.4				4:44.3	284.3	1800.9	1839.8	2076.0		
	~~71~~										

C.A. 2 Expr. 10 Run 10
Sheet ____ Date ____ 195__ Time ____ AM PM
Purpose ____

Hour	Wait Time	Sample	Reg	Scale	ΔT min	Δε sec	c/s	D.T.	Corrected to 60° Run	Average	Power Level
12:07P	51 53.9	Al #60	1000	512	3:40.2	220.2	2325.2	2390.1	2059.4		
	55 56.9	"	"	"	3:59.5	239.5	2137.7	2192.5	2055.6		1.4521
	60 02.4	"	"	"	4:23.7	263.7	1941.6	1986.8	2065.9 ~~2151.7~~	2066	~~2~~
	65 07.4	"	"	"	4:48.6	288.6	1774.1	1811.9	2084.0		

C.A. 2 Expr. 10 Run 11
Sheet ____ Date ____ 195__ Time ____ AM PM
Purpose ____

1:28P	62 09	Al #61	1000	512	4:02.3	242.3	2113.1	2166.7	2324.8		
	67 09	"	"	"	4:24.2	264.2	1937.9	1982.9	~~2338.9~~		
	72 14.1	"	"	"	4:46.2	286.2	1788.9	1827.3	2360.1	2350	1.2766
	77 19.6				5:09.6	309.6	1653.7	1686.5	2361.1		

C.A. 2 Expr. 10 Run 12

Sheet ____ Date 7-13 1951 Time 9:01 AM

Purpose ____

Hour	Wait Time	Sample	REG	Scale	ΔT min	Δt SEC	c/s	D.T.	Corrected to 60" Decay	Power Level	Power Level
9:35 A		Std.	1000	256	14:24:7	864.7	296.1	297.2			
↓		B.G.	10^{+18}	64	8:43:0	523.0	1.25x8				
9:55 A											
10:10 A	50 51.0	Al 62	1000	512	3:32:0	212.0	2415.1	2485.1	2084.4	} 2114	1.4191
	55 57	"	1000	512	3:54:2	234.2	2186.2	2243.6	2108.5		
	60 62.3	"	1000	512	4:18:4	258.4	1981.4	2028.5	2109.2		
	65 67.3	"	1000	512	4:42:0	282.0	1815.6	1855.2	2129.6		
	71 73.6	"	1000	512	5:12:0	312.0	1641.0	1673.3	2132.8		

~~12:24~~

~~12:00~~

C.A. 3 Expr. 2 Run 1

Sheet ____ Date 7-18 1951 Time 10:07 AM

Purpose Begin I$_o$ traverse with split plungers

Level .02 20" Expos

Hour	Wait Time	Sample	REG	Scale	ΔT min	Δt SEC	c/s	D.T.	Corrected to 60" Decay	Power Level	Power Level
10:55 A	—	Std	1000	256	14:23.7						
11:16 A	50 51.4	Al "63	1000	512	2:49.3	169.3	3024.2	3134.6	2610.5	} 2620	1.145
	54 55.5	"	"	"	3:03.9	183.9	2784.1	2877.1	2614.7		
	58 59.7	"	"	"	3:19.1	199.1	2571.6	2650.8	2634		
	62 63.8	"	"	"	3:35.0	215.0	2381.4	2449.5	2621		

~~1284~~

~~1284~~

C.A. 3 Expr. 2 Run 2
Sheet Date 7/18 1951 Time 11:04 AM
Purpose Continue Dn. traverse with Split Plexiglass. Power level .020

Hour	wait time	Sample	Reg	Scale	Δt. min	Δt SEC	C/S	D.T.	Corrected to 60' Decay		Power Level
12:24	60 m 61.9	Al 64	1000	256	3:42.2	222.2	2304.2	2367.8	2446	2458	1.2205
	64 66				3:59.0	239.0	2142.2	2197.3	2461		
	69 71.2	"	"	"	4:20.8	260.8	1963.2	2009.5	2466		
		B.g.	10	64	9:28.5						
2:45P		Al #64	1000	256	6:51.0						

Run to check on scale factor

C.A. 3 Expr. 2 Run 3
Sheet Date 7-18 195 Time 1:02 PM
Purpose Cont. In traverse with split plexiglas

Hour	wait time	Sample	Reg	Scale	Δt. min	Δt SEC	C/S	D.T.	Corrected to 60' Decay		Power Level
2:24P	62 63.9	Al #65	1000	512	3:48.7	228.7	2238.7	2298.7	2464	2477	1.2111
	66 68	"	"	"	4:06.3	246.3	2078.8	2130.6	2480		
	71 73.2				4:27.3	267.3	1915.5	1959.6	2487		

C.A. 3 Expr. 2 Run 4
Sheet Date 7/18 1951 Time 2:00 PM
Purpose Continue In traverse with Split Plexiglass

Hour	Waiting Time	Sample #	Reg	Scale	Δt min	Δt sec	C_s	D.T.	corrected to 0 Decay		Power Level
3:23 P	63 65	Al #66	1000	512	4:2.5	242.5	2111.3	2164.8	2379	2387	1.2568
	68 70.2	"	1000	512	4:25.1	265.1	1931.3	1976.1	2389		
	73 75.4	"	1000	512	4:47.6	287.6	1780.5	1818.4	2380		
	79 81.6	"	1000	512	5:13.8	313.8	1631.6	1668.6	2400		

C.A. 3 Expr. 2 Run 5
Sheet Date 7/18 1951 Time 3:11 PM
Purpose Cd-In traverse — Split plexiglass
Pow .020 20 min.

Hour	Waiting Time	Sample #	Reg	Scale	Δt min	Δt sec	C_s	D.T.	corrected to 0 Decay		Power Level
4:15 P	46 48.2	AL #67	1000	512	3:4.2	184.2	2779.6	2872.2	2194	2193	1.3680
	50 51.7	"	)	)	3:21.2	201.2	2544.7	2622.6	2196		
	54 55.8	/	)	)	3:40.8	220.8	2318.8	2383.3	2179		
	58 60	/	)	)	3:58.5	238.5	2146.8	2202.2	2202		

C.A. _____ Expr. _____ Run _____

Sheet _____ Date _____ 195__ Time _____ AM PM

Purpose _____

_____

_____

C.A. _____ Expr. _____ Run _____

Sheet _____ Date _____ 195__ Time _____ AM PM

Purpose _____

_____

_____

2.5 — 264
1.25 — .133

283 — 323
1.41 — 1.64

52.25 — 2720 — .8447

55.3 — 2580 — .90697

58.4 — 2410 — .97895

61.5 — 2295 — 1.0285

65.6 — 2100 — 1.1142

Data on Std and B.g. for Proportional Counter #1

Date	Bg (c/s)	Std (c/s)	#c for Std
6-13-51	1.227	293.1	51200
6-13	1.199	298.4	51200
6-14		296.0	51200
6-15		294.8	128000
6-15		295.9	256000
6-16	1.194	296.6	256000
6-16		295.1	256000
6-~~19~~ 18	1.185	296.8	256000
~~+9~~ 18		296.1	256000
6-19	1.223	295.9	256000
-19		296.5	256000
6-20		295.9	256000
		295.3	"
6-21	1.231	297.2	"
6-22	1.166	296.0	"
6-23	1.225	295.3	512000
	1.213	296.4	256000
6-25	1.195	295.7	256000
		295.9	204800
6-26	1.191	294.9	256,000
6-27		297.2	256,000
6-28	1.227	296.4	256,000
6-29	1.225	295.2	512,000
7-2		295.8	256,000
7-5		294.9	256,000

Chart for Normalizing Al Catcher Foil #1 to 60 min Decay — 20' Exposure, Counted in Proportional Counter. See BK P-1 pg 9 (6/13/51)

Decay Time to center of Counting Interval min (t)	Rate c/sec Ct	C_{60}/C_t	Decay Time min (t)	Rate c/sec Ct	C_t/C_{60}	Decay Time t min	Rate c/sec Ct	C_{60}/C_t	Decay Time t min	Rate Ct c/sec	C_{60}/C_t	Decay Time t min	Rate Ct c/sec	C_{60}/C_t
20			55	2600	0.9000	90	1450	1.614	125	1010	2.317	160	780	3.000
21			56	2550	0.9176	91	1430	1.636	126	1000	2.340	161	775	3.019
22			57	2490	0.9398	92	1420	1.648	127	995	2.352	162	770	3.039
23			58	2440	0.9590	93	1400	1.671	128	985	2.376	163	765	3.059
24			59	2390	0.9791	94	1380	1.696	129	975	2.400	164	760	3.079
25			60	2340	1.0000	95	1365	1.727	130	970	2.413	165	755	3.099
26			61	2300	1.0174	96	1350	1.733	131	960	2.438	166	750	3.120
27			62	2250	1.0400	97	1340	1.746	132	953	2.455	167	745	3.141
28			63	2210	1.059	98	1325	1.767	133	945	2.485	168	740	3.162
29			64	2180	1.073	99	1310	1.786	134	940	2.489	169	737	3.175
30	4720	0.4958	65	2130	1.099	100	1295	1.807	135	930	2.516	170	732	3.197
31	4640	0.5043	66	2090	1.120	101	1280	1.828	136	925	2.530	171	728	3.214
32	4490 4390	0.5212	67	2050	1.141	102	1270	1.843	137	918	2.549	172	724	3.232
33	4390	0.5330	68	2010	1.164	103	1250	1.872	138	910	2.571	173	720	3.250
34	4250	0.5506	69	1980	1.182	104	1245	1.880	139	905	2.586	174	717	3.264
35	4150	0.5638	70	1940	1.206	105	1230	1.902	140	897	2.609	175	711	3.291
36	4040	0.5642	71	1905	1.222	106	1220	1.918	141	890	2.629	176	708	3.305
37	3950	0.5924	72	1880	1.245	107	1200	1.950	142	885	2.644	177	703	3.329
38	3840	0.6094	73	1850	1.265	108	1195	1.958	143	878	2.665	178	700	3.343
39	3750	0.6240	74	1820	1.286	109	1180	1.983	144	870	2.690	179	698	3.352
40	3660	0.6393	75	1800	1.300	110	1170	2.000	145	860	2.721	180	692	3.382
41	3570	0.6555	76	1770	1.322	111	1155	2.026	146	858	2.727	181	688	3.401
42	3490	0.6705	77	1740	1.345	112	1145	2.044	147	850	2.753	182	683	3.426
43	3400	0.6882	78	1710	1.368	113	1130	2.071	148	842	2.779	183	680	3.441 3.457
44	3320	0.7048	79	1690	1.385	114	1125	2.080	149	840	2.781	184	678	3.451
45	3240	0.7222	80	1660	1.410	115	1120	2.089	150	835	2.802	185	674	3.472
46	3180	0.7358	81	1640	1.427	116	1100	2.127	151	828	2.826	186	670	3.493
47	3100	0.7548	82	1610	1.453	117	1095	2.137	152	820	2.854	187	668	3.503
48	3030	0.7728	83	1590	1.472	118	1080	2.167	153	817	2.864	188	663	3.529
49	2960	0.7905	84	1570	1.490	119	1070	2.187	154	810	2.889	189	660	3.545
50	2900	0.8069	85	1550	1.510	120	1060	2.204	155	806	2.903	190	658	3.556
51	2830	0.8269	86	1530	1.529	121	1050	2.229	156	800	2.925	191	652	3.589
52	2780	0.8417	87	1510	1.550	122	1040	2.250	157	795	2.943	192	648	3.611
53	2700	0.8667	88	1490	1.570	123	1030	2.272	158	790	2.962	193		
54	2660	0.8797	89	1470	1.592	124	1020 1030	2.294	159	785	2.981	194		
~~55~~		0.0203												

X-885 (Jan'48) Y-12 DATA SHEET

DC 6/16/51