411115

5 July '58

Cunniff

Uj clang

UJ-A-51

6/24	1430	30 June	0930 M	21				
6/30	1945	1 July	1445 M	22	29.25	21.5	1069 -	

071658 1135 346,853 5 69,371 820 68,551 17,440 2.8×10^{-4}

$k - 1.145$

$E_{ff} - 39.4\%$

15.6

73.5

5 July '58

Cunniff

Ujelang

UJ-A-53

1/2 1530	3 July	1030 M	21				
3 1530	4 July	1030 M	21	24	21	.657	

071658 1145 206,312 5 41,262 820 40,442 17,440 4.65×10^4

λ - 1.145

Eff - 39.4%

12.8

54.1

5 July '58

Cunniff

Ujelang

UJ-A-54

7/3 1530	4 July	1030M	19				
7/4 1430	5 July	0930M	21	23	20	782	

071658 1155 466,998 5 93,399 820 93,579 17,440 1.09×10^5

k - 1.145

Eff - 39.4 %

11.9

DAVID

D-A - 20
"HOT"

5/16

JARDINE

MEASURED 50 MR
AT TIME OF CHANGE
(PDR - 27H)

5/12	0000	5/13/58 0700Z	48				
5/13	0000	6/14/58 0700Z	48	24	48	1958	

6/11	1433	7,222,256	5	1,444,451	1082	1442369	7,388	$.02 \times 10^6$	1.66×10^6

29.6

πr^2 10500

DAVID 5/16 JARDINE

D-A-21

5/13	0000	5/14/58	0700Z	48				
5/14	0000	5/15/58	0700Z	48	24	48	1958	

6/11	1443	1,314,679	5	262,336	1589	20,747	17,388	$.02 \times 10^6$	2.99×10^5

28.6

$1.53 \times 10^2 =$ (1740)

small

DAVID

5/23

JARDINE

D-A-22

5/14	0000	5/15	0700Z	48					
5/15	0000	5/16	0700Z	48		24	48	1958	

6/11	1500	165,055	5	33,011	1581	31,430	27,388	$.02 \times 10^6$	1.18×10^5

27.6

6.02×10^1 = (630)

small

DAVID

5/23

JARDINE

D-A-23

5/15	0000	5/16/58	0700Z	48				
5/16	0000	5/17/58	0700Z	48	24	48	1958.	-

6/11	1525	128,743	5	25,708	1113	24,595	17,388	$.02 \times 10^6$	9.23×10^4

26.6

$4.71 \times 10^1 =$ (453)

DAVID 6/2/58 JARDINI

D-A-29

5/22	0000		5/22	0700Z	48				
5/23	0000		5/23/58	0700Z	48	24	48	1958	

6/13 1110 349,826 5 69965 1234 68,731 17,524 $.02 \times 10^6$ 7.91×10^4

21.5

$4.03 \times 10^1 = 250$

DAVID 6/2/58 JARDINE

D-A-30

5/23	0000	5/23/58	0700Z	48				
5/24	0000	5/24/58	0700Z	48	24	48	1958	

6/13	1118	102,392	5	20,478	1306	19,172	17,524	$.02 \times 10^6$	2.02×10^6

$1.03 \times 10^6 = 59.0$

DAVID

6/2/58

SARDINE

D-A-32

5/25	0000		5/25/58	0700Z	48			48		
5/27	0000		5/27/58	0700Z	48	-	48		3917	
6/13	1129	380,475	5		76,095	1306	74,789	17,524	$.02 \times 10^6$	1.46×10^5

17.5

$3.73 \times 10^1 = 165$

DAVID 6/2/58 JARDINE

D-A-33

5/27	0000	5/27/58	0700Z	48				
5/28	0000	5/28/58	0700Z	48	24	48	1958	

6/13 1138 300,607 5 60,181 1407 58,714 17,524 $.02 \times 10^6$ 6.74×10^4

16.5

$3.45 \times 10^1 = (140)$

DAVID 6/2/58 JARDINE

D-A-34

5/28 0000
5/30 2000

5/28/58 0700Z 48
5/30/58 0300Z 48 68 48 5549

6/13 1143 1,916,451 5 383,290 1407 38,883 17,624 $.02 \times 16^2$ 4.4×10^5

13.7

$7.93 \times 10^1 = 255$

DAVID

6/2/58

SARDINE

D-A-35

5/31	2000 ~~0000~~	5/31/58	0300Z	48				
6/1	2000 ~~0000~~	6/1/58	0300Z	48	24	48	1958	

6/13 1150 602,906 5 100581 1647 108,934 17,524 1.02×10^6 1.05×10^6

~~12.5~~ 11.3

$5.4 \times 10^1 = (141)$

FRED

MAY 1[illegible] 1958

F-A-22

5/12	1145	5/13/58	0645	52					
5/13	1330	5/14/58	0830	50	25.75		51		2232

6/10	1505	863,269	5	172,654	1197	111,457	17,390	$.02 \times 10^6$	1.97×10^5

28.1

8.83×10^1

962

FRED

MAY 19 1958

F-A-23

5/13	1330	5/14/58	0830	50				
5/14	1230	5/15/58	0730	55	23	52.5	2054	

6/10	1512	5,648,566	5	1,109,713	1662	108,151	17,390	$.02 \times 10^6$ 1.27×10^6

27.1

6.2×10^2 (6580)

FRED

F-A-24

ALLEN

5/14	1230	5/15/58	0730	55					
5/15	1300	5/16/58	0800	58 -	24.5 ·	56.5	1353		

6/10	1520	1,286,521	5	257,104	3863	253,241	$7,390	$.02 \times 10^6$	2.91×10^5

26.1

$1.24 \times 10^2 =$ (1140)

FRED

MAY 19 1958

ALLEN

F-A-25

5/15	1300	5/16/58	0800	57			
5/16	1230.	5/17/58	0730	58	23.5	57.5	1297

5/10 1530 557,651 5 111,530 1655 89,875 27,390 $.02 \times 10^6$ 1.26×10^5

25.1

$5.47 \times 10^1 = 462$

FRED

ALLEN

F-A-26

5/16	1230	5/17/58	0730	56					
5/17	1600	5/18/58	1100	60	27.5	58	2711		

6/10	1543	581,253	5	110,256	1660	118,691	17,390	$.02 \times 10^6$	1.36×10^5

24

$5.02 \times 10^1 = (38.5)$

FRED 27 MAY 58 ALLEN

F-A-28

5/18	1300	5/19/58	0800	55				
5/19	1230	5/20/58	0730	54	23.5	54.5	2178	

6/11	1023	365,191	5	73,038	936	72,102	17,388	$.02 \times 10^6$	8.28×10^4

21.9

$3.81 \times 10^1 =$ (245)

FRED

27 MAY 58

ALLEN

F-A-29

5/19	1230		5/20/58	0730	55					
			5/21/58	0730	53	24		54	2203	
6/11	1030	181,365	5		36,273	936	35337	17,388	$.02 \times 10^6$	4.07×10^4

20.9

$1.84 \times 10^1 =$ (109)

FRED

27 MAY 58

ALLEN

F-A-30

5/20	1230		5/21/58	0730	47					
5/21	1230		5/22/58	0730	43	24		45	1836	
6/11	1035	155,531	5		31,106	936	30,170	17,388	$.02 \times 10^{6}$	3.47×10^{4}

19.9

$1.89 \times 10^{1} = 103$

FRED

27 MAY 58

ALLEN

F-A-31

5/21	1230		5/22/58	0730	46				
5/22	1200		5/23/58	0700	47	23.5	46.5	1093	

6/11	1040	477,610	5	95,502	936	94,566	17,388	$.02 \times 10^6$	1.09×10^5

18.9

1.0×10^2 - (499)

FRED 5/27/58 ALLEN

F-A-32

5/22	1200	- 5/23/58	0700	44				
5/23	1230	5/24/58	0730	49	24.5	46.5	1936	

6/11 1047 210,760 5 42,152 936 41,216 17,388 $.02 \times 10^{6}$ 4.73×10^{4}

18

$2.44 \times 10^{1} = (116)$

FRED 5/27/58 ALLEN

F-A-33

5/23	1230	5/24/58	0730	47				
5/24	2215	5/25/58	1715	48	33.75	47.5	2725	

6/11	1053	191,392	5	38,278	936	37,342	$17,388.02 \times 10^6$	4.29×10^4

16.5

$1.57 \times 10^1 =$ 63.4

FRED 5/27/58 ALLEN

F-A-35

5/25	1230	5/26/58	0730	48				
5/26	1245	5/27/58	0745	48	24.25	48	1979	

6/11	1105	193,516	5	38,703	936	37,767	17,388	$.02 \times 10^{6}$	4.33×10^{4}

$$14.9$$
$$2.19 \times 10^{1} = 77.7$$

Elmer's

E-A-64

Bevis

6/27 1310	6/28	0810 M	63	-	-		
6/28 1440	6/29	0940 M	67	25.5	65	2820	

071458 1530 145,049 5 · 29,010 850 29,210 17,395 3.37×10^{4}

$k = 1.15$

Eff - 39.3%

16.1

11.9

AIR SAMPLE DATA

ISLAND ELMER	DATE SENT TO HEADQUARTERS	PHS OFFICER MONITORING
SAMPLE NUMBER E-A-13		

AIR SAMPLE COLLECTION DATA

	DATE	TIME	AIR FLOW cfm	SAMPLING PERIOD HOURS	AVERAGE AIR FLOW CPM	AIR VOLUME M^3
START	5/9/58	0900	53	46.8	51.5	
STOP		4	50			

* AIR VOLUME M^3 (SAMPLING PERIOD HOURS) X (AVG. AIR FLOW CPM) X 1.7

DATE	TIME	GROSS COUNT	COUNTING TIME - MIN	GROSS CPM	BKGD	NET CPM	STANDARDIZED NET CPM	STANDARDIZED VOLUME	SAMPLE PUMP

BETA ACTIVITY OF PARTICULATES IN AIR

APPROXIMATE AGE AT END OF SAMPLING PERIOD DAYS _____

MICROMICROCURIES PER CUBIC METER AT END OF SAMPLING PERIOD _____

AIR SAMPLE DATA

ISLAND ELMER	DATE SENT TO HEADQUARTERS	PHS OFFICER SUBMITTING MAR

SAMPLE NUMBER E-A-13

AIR SAMPLE COLLECTION DATA

	DATE	TIME	AIR FLOW CFM	SAMPLING PERIOD HOURS	AVERAGE AIR FLOW CFM	AIR VOLUME M^3
1400 START	5/4/58	0900	53			
1245 STOP	"	4	50	46.8	51.5	

* AIR VOLUME M^3 (SAMPLING PERIOD HOURS) X (AVG. AIR FLOW CFM) X 1.7

$k = 1.15 \times 10^{-6}$ mc/count/min

DATE	TIME	GROSS COUNTS	COUNT TIME - MINS	GROSS CPM	BKGD.	NET CPM	STANDARD NET CPM	STANDARD MASS	SAMPLE MASS
6/6/60	1542	5,614,954	55	1,149,413	19,262	108,151	127,390	$.02 \times 10^{-6}$	1.27×10^{-6}

$k_1 = 3.26 (1.15 \times 10^{-6}) = 3.75 \times 10^{-6}$ mc/count/min

BETA ACTIVITY OF PARTICULATES IN AIR

APPROXIMATE AGE AT END OF SAMPLING PERIOD DAYS 35 97.1

MICROMICROCURIES PER CUBIC METER AT END OF SAMPLING PERIOD 4.6×10^{-12}

E-A-21

5/12	1300		5/13	0800	53		
5/13	1300		5/14	0800	48	24	50.5

6/10 1130 1,907,122 5 381424 [illegible]

$2.10 \times 10^2 = 2250$

Efficiency of machine = 39.2 %

k large diameter = $\frac{1}{.392(2.22\times10^{6})} = 1.15\times10^{-6}$ $\frac{uc}{cc/m}$

$= 1.15$ $\frac{uuc}{counts/min}$

k small diameter = $3.26\,(1.15) = 3.75$ $\frac{uuc}{counts/min}$

Sample E-A-21

Sample in uuc = $370{,}501$ $\frac{counts}{min}\,(1.15) = 4.27\times10^{5}$

$\frac{uuc}{M^3}$ at time of counting = $\frac{4.27(10^4)}{2060} = 2.10\times10^{2}$

$\log I_0 = \log I_{\frac{1}{2}} + .0369\left(\frac{1}{2}\right)$

where $I_0 = \frac{uuc}{M^3}$ at end of sampling period

$I_{\frac{1}{2}} = \frac{uuc}{M^3}$ at time of counting

$\frac{1}{2}$ = time or approximate age at end of sampling period in days

$\log I_0 = \log 2.1\times10^{2} + .0369(27.9)$

$= 2.323 + 1.03$

$\log I_0 = 3.353$

$I_0 = 2250$