

## **BOOK55R**

*Notes:*

10154 on bottom edge

Blank pages: inside page opposite page 1, 1, 2, 4, 6, 8, 10, 12, 20, 24, 74-152, inside page opposite page 152

-page 15/16 has been torn out

-page 72 has 1 small, 1 (8.5x11), and 1 ½ sheet (card & carbon to it) plus ½ of that sheet stapled to it

-page 73 has 2 (8.5x11) sheets (stapled) and 2 1/4 sheets (taped)

-page 73 also has green index tab with "9213 samples" on it

*Scanned by:*

*Sheila Finch*

*RSICC /Oak Ridge National Lab.*

*August 16, 1999*

SECRET

14-2-2

COMPUTATION BOOK



NAME	Number
<i>Analytical Weighings</i>	29

Course.....

Used from *5/21* 19*48*, to ..... 19.....

HARVARD COOPERATIVE SOCIETY  
Cambridge, Massachusetts

**RESTRICTED DATA**

SECRET

This document contains restricted data as defined in the Atomic Energy Act of 1946.

*MC*

10154

Inv. 60

**SECRET**

AUT

Inv 57

Inv 57

CLASSIFICATION CANCELLED  
 DATE 5/27/60  
 For the Atomic Energy Commission  
Jack H. Kahn for the  
 Chief, Declassification Branch

K

This document consists of 161 pages  
 No. 1 of 1 copies, Series A  
5-25-60

This document consists of 152 pages  
 No. 1 of 1 copies, Series A

**RESTRICTED DATA**  
 This document contains restricted data as  
 defined in the Atomic Energy Act of 1946.

**SECRET**



6/3/48

P-3-A (P<sub>2</sub> re purified)

dish #41 (complete) →  $\frac{13.5251}{12.4994}$   
 $\frac{1.0257}{}$

# 171      171.7970 GROSS  
           126.9333 TARE      Sp. Gr. =  $1.95 + \frac{4}{12} \times .01 = 1.978$

EXPT. 176      154.0862  
                   126.9194

7/8/48

S-10  
 110.7289  
 tare 75.4894  
 35.2394 30 ml

S-11  
 113.1642  
75.8990  
 37.2652 gms sample 28 ml

S-12      ca 32 ml  
 113.4234  
72.1813  
 41.2421

S-13      ca 32 ml  
 114.7605  
75.6279  
 39.1330

C-2 (used carbide) 30 ml

103.5316  
77.0819  
 26.4497

EXPT. 18A

142.1065  
128.1470  
 13.9595

7-19-48 EXP 1867 SAMPLE

$138.6513$   
 $126.4209$  TARE (APP. 1174)  
 $12.2304$

Samples -  
 R-20  $131.540$   
 tare  $79.1598$   
 $52.381$

R-21  $140.582$   
 $89.745$   
 $50.827$

R-24  $138.447$   
 $79.974$   
 $58.473$

R-2223  $141.165$   
 $83.763$   
 $57.402$

R-25  $145.363$   
 $88.994$   
 $56.369$

R-2222  ~~$141.166$~~   
 ~~$84.279$~~   
 ~~$56.886$~~   
 $128.896$   
 $84.279$   
 $44.017$

R-26  $135.560$   
 $79.111$   
 $56.449$

R-27  $143.821$   
 $79.089$   
 $64.732$



10/12/48

R-34 Gross 132.475  
Tare 84.058  
Sample 48.417 gm.

R-35 138.445  
84.272  
54.173 gm.

R-36 Gross 128.622  
Tare 83.961  
Sample 44.661 gm.

R-37 106.922  
75.947  
30.975 gm.

A.D. Mooneyham  
10/12/48

R-38 Gross 129.763  
Tare 79.035  
Sample 50.728 gm.

R-39 132.424  
81.659  
50.765 gm.

R-40 Gross 139.204  
Tare 89.686  
Sample 49.518 gm.

A.D. Mooneyham  
10/12/48



1/6/49

Samples from solution at beginning of interaction Exp.  
#194-A #194

Reg # 710055		Reg # 710056	} page 11 in 1st Interaction Book.
Gross 81.2267		Gross 82.5015	
Tare 73.5926		Tare 74.9032	
Net 7.6341	approx 4 ml volume	Net 7.5983	

Sp. Gr. = 1.940

1/14/49 - Data reported by phone by Nunnally:

#194 A (710055) = 0.427 gmU/gm sol.	} If impurities are negligible + water = 93.4 then % H <sub>2</sub> O = 29.83.
#194 (710056) = 0.419	
avg 0.423	
0.395 gmU/gm sol	

→ = 0.427 gmU/gm sol -

1/16/49 Sp. Gr. = 1.926

Sample taken after Ex. 200 will be called Sample 200A & 200

Samp. # 200A	Gross 83.5645	} approx. 4 ml.	Request # 710057
	Tare 75.8167		
	Net 7.7478 gm		

Samp. # 200	Gross 91.8680	} 20 ml.	Request # 710058
	Tare 83.9711		
	Net 7.8969 gm		

Results -	710057 -	0.427 gmU/gm sol	Calculated according to assay -
	710058 -	0.418 gmU/gm sol	0.426
		0.423	0.417
		0.395 gmU/gm sol	0.422
		0.	0.424
			0.394 gmU/gm sol -

Continued

1/22/98 Samples for H/X  
Sp gr. 1.566

Taken after mixing apt. 204

#204

#1 84.4462  
~~87.1219~~  
Gross ~~87.1219~~ - spilled  
tare 74.8968  
~~87.1219~~  
9.5494

#204A #2

82.6732  
73.2526  
9.4206

Payroll 1/28/99 20

Request # 710059  
analysis 0.313 gm U/gm soil

Request 710060  
analysis 0.314 gm U/gm soil

2/19/49

Sample from #9

Spgr 1.192

Temp. 16°C ± 1°

Samp. 222A
Gross wt. 102.6118
Tare wt. 90.8140
Net. wt. <u>11.7978</u>

Samp. 222B
Gross wt. <del>101.6663</del> 101.6631
Tare wt. <u>89.6427</u>
Net. wt. 12.0204

2/26/49 Samples for H/x

234A

Gr. <del>91.6596</del>
Tare 81.0090
net <u>10.6506 gm</u>

234B

Gr. 88.5893
Tare 79.0660
net <u>9.5233</u>

Sp. Gr. ~~1.101~~ 1.101

3/3/49

## Sampler for Assay:

	1 { Cyls. E & F	2 { Cyls. D & G	3 { Cyls. H & C	4 { Cyls. A & B
Tare	110.6722 <u>88.8035</u> 21.8687	111.5859 <u>89.6524</u> 21.9335	101.8399 <u>79.9980</u> 21.8419	70.4752 <u>54.6030</u> 21.8722

⑤-X

	103.1798
Tare	<u>88.7814</u>
	14.3982

## Plastic Beaker

	2710.475
Tare	<u>880.395</u>
	1830.280

3/17/49

Samples for Assay & Spec

Sample EF-1

Gross 100.2714  
Tare 77.9831  
net 22.2883

Sample EF-2

100.8177  
78.8182  
21.9995

3/22/49

DF-1  
Gross 95.5515  
Tare 73.6503  
net 21.9012

Sp Gr 1.102 Temp 20°C ± 1°  
Req # 710075

HC-1

108.8579  
75.9285  
32.9294 gm net.

1.100 at 23°C ± 1°

3/28/49

Sample A-2

Gross 107.1010  
Tare 74.7934  
net 32.3076

Sp Gr 1.102 @ 22°C

← cyl. btm. clipped in  
← refers to 2nd filling (ie after returned empty by Y-12 once)

Sample H-2

Gross 109.3867  
Tare 75.6229  
net 33.7638

Sp Gr 1.112 @ 22°C

4/7/49

Top  
Crown

Wgt Bunette

93.0052  
tare 76.7984  
16.2068

wgt Bunette

104.2368  
tare 75.1268  
29.1100 Reg # 710081

Cyl #7

4/12/49

Cyl

7.2901  
102.8026  
74.4742  
28.3284  
Reg # 710083

G-4

with  
tare

102.4088  
72.3692  
30.0396  
Reg # 710084

Crown

4/19/49

R-66 137.0966  
84.2651  
52.8309  
Reg # 710085

R-67 131.3891  
79.2596  
52.1295  
Reg # 710086

R-68 127.3013  
79.3624  
47.9389  
Reg # 710087

R-69 135.7971  
81.4971  
54.3000  
Reg # 710088

R-70 133.3108  
83.7965  
49.5143  
Reg # 710089

R-71 128.5229  
81.7317  
46.7912  
Reg # 710090

R-72 136.6258  
91.1450  
45.4808  
Reg # 710091

R-73 137.5763  
91.3237  
46.2526  
Reg # 710092

4-25/49  
R-74 133.80  
91.60  
42.20  
Reg # 710095

4/25/49

$$\begin{array}{r}
 R75) \quad 138.20 \\
 \quad 90.24 \\
 \hline
 \quad 47.96
 \end{array}$$

Reg 710096

$$\begin{array}{r}
 R76) \quad 131.09 \\
 \quad 90.39 \\
 \hline
 \quad 40.70
 \end{array}$$

Reg 710097

$$\begin{array}{r}
 R77) \quad 126.11 \\
 \quad 91.12 \\
 \hline
 \quad 34.99
 \end{array}$$

Reg 710098

$$\begin{array}{r}
 R78) \quad 123.04 \\
 \quad 79.21 \\
 \hline
 \quad 43.83
 \end{array}$$

Reg 710099

$$\begin{array}{r}
 R79) \quad 123.28 \\
 \quad 83.72 \\
 \hline
 \quad 39.56
 \end{array}$$

Reg 710100

$$\begin{array}{r}
 R80) \quad 23.60 \\
 \quad 79.34 \\
 \hline
 \quad 44.24
 \end{array}$$

Reg 710101

4/22/49

Resamples

C-4

$$\begin{array}{r} 133.41 \\ \underline{79.29} \\ 54.12 \end{array}$$

G-4

$$\begin{array}{r} 133.48 \\ \underline{80.04} \\ 53.44 \end{array}$$

5/17/49

R82

R81

98.576

75.541 gm

~~22.975~~

23.035 net

101.888

75.464

26.424

Density 1.034

Density  
1.027



Sample from storage Cyl  
containing Oranyl Nitrate as shipped  
from Y-12 7-21-49

sample #A  $\frac{83.1511 - \text{new gram after spill}}{83.7133}$   
1-B  $\frac{79.1138 \text{ tare yms}}{4.5995}$   
Res# 710 109 4.0373 gm net

Sample #A  $\frac{84.6085}{78.9312}$   
2-B  $\frac{5.6773}{}$   
Res# 710 110

sp. Gr.  $\frac{1.517}{1.54}$

Sample #B  $\frac{84.5890}{79.1750}$   
1-D  $\frac{5.4140}{}$

Sample #B  $\frac{84.9358}{78.8397}$   
2-D  $\frac{6.1037}{}$

Res# 710 111

Res# 710 112

sp. Gr. 1.517

Sample #B  $\frac{83.5998}{77.7851}$   
1-A  $\frac{5.8147}{}$

Sample #B  $\frac{84.4195}{78.3859}$   
2-A  $\frac{6.0336}{}$

Res# 710 107

Res# 710 108

~~1.517~~  
sp. Gr. 1.57

Sample 1-E

$$\begin{array}{r} 102.1515 \\ \underline{77.8810} \\ 24.2705 \text{ cpm net} \end{array}$$

Reg# 710113

Sample 2-E

$$\begin{array}{r} 100.2824 \\ \underline{79.7256} \\ 20.5568 \text{ net cpm} \end{array}$$

Reg# 710114

7/26/49

R-83

salting

sample

Reg # 710115

<del>5.230</del>	<del>4927</del>	Gross	105.6817
<del>1.288</del>	<del>1288</del>	tare	75.6062
<del>3.942</del>	<del>3639 gm</del>		<del>30.0785 gm</del>

8/8/49

R-84

<del>4620</del>	<del>4330</del>	Gross	104.6972
<del>1295</del>	<del>1295</del>		74.8068
<del>3325</del>	<del>3035</del>		<del>29.8904 gm</del>

Reg # 710116

R-85

<del>4850</del>	<del>4600</del>	Gross	105.8382 gm
<del>1225</del>	<del>1225</del>		76.6182
<del>3625</del>	<del>3375 gm net</del>		<del>29.2200</del>

Reg # 710117

R-86

<del>4739 gm</del>	<del>4480 gm</del>	Gross	105.6202 gm
<del>1302</del>	<del>1302</del>		76.6713
<del>3437</del>	<del>3178</del>		<del>28.9489</del>

Reg # 710118

Composite of R-83-84-85-86 - for X  
Reg # 83,0007

1954.43
tare 925.02
<u>1029.413 gm</u>

Sample of Uranyl Nitrate sol. in bottle to be added  
to cyl. E 8/8/49

R-90

107.465	3175 gm
<u>76.272</u>	1310 gm
31.193 gm net	<u>1865 gm net after</u>

cleaning

8/8/49 JK7

Sample

R87

$$\begin{array}{r} 4290 \\ 1300 \\ \hline 2990 \text{ gm net} \end{array}$$

Bottle # U-2074

$$\begin{array}{r} 432.45 \\ 265.96 \text{ gm tare} \\ \hline 166.49 \end{array}$$

R88

$$\begin{array}{r} 4392 \\ 1250 \\ \hline 3142 \text{ gm net} \end{array}$$

Bottle # U-146

$$\begin{array}{r} 679.81 \text{ gm} \\ 290.42 \\ \hline 389.39 \end{array}$$

R89

$$\begin{array}{r} 4300 \\ 1253 \\ \hline 3047 \text{ gm net} \end{array}$$

Bottle U-122

$$\begin{array}{r} 713.15 \text{ gm} \\ 289.120 \\ \hline 424.03 \end{array}$$

Bottle U-2151

266.32

(R-90 on previous page)

Samples for Aug 1, Laurentin 1949

8/3/49

Sample E-3	Reg# 830001	Sample C-1	Reg# 830002
Gross 91.8616		83.6895	
Tare 74.5092		74.4533	
Net 17.3524		9.2362	

Sample D-3	Reg# 830003	Sample B-3	Reg# 830004
Gross 84.5906		84.2202	
Tare 76.1726		75.1769	
Net 8.4180		9.0433	

Sample A-3	Reg# 830005	Sample A-4	Reg# 830006
Gross 85.1652		80.3156	
Tare 73.7335		74.7284	
Net 11.4317		5.5872	

Verified by  
J.M.W.

Sample # 239-A	239-B
Gross 89.68	81.84
Tare 74.50	tare 74.45
15.18gms	net 7.39gms
Sp Gr. = <u>1.547</u> →	

9/6/49

Dirt Sample - taken after spill in tamper

Gross 929

tare 377

Net 552 on bone-dry basis.

Dried over night at 105°C

Inventory Samples taken Sept. 1 JAC

C-2  
 Reg# 830014  
 Gross 86.52  
 tare 74.45  
 Net 12.07 gms

C-3  
 Reg# 830015  
 Gross 93.74  
 tare 76.27  
 Net 17.47

Sp. Gr. 1.548

E-4  
 Reg# 830016  
 Gross 101.14  
 tare 74.73  
 Net 26.41

E-5  
 Reg# 830017  
 Gross 106.23  
 tare 75.18  
 Net 31.05

Sp. Gr. 1.060

Inventory Samples taken Sept 7 JAC

~~A-5~~  
 Reg# 830018  
 Gross 87.993  
 tare 76.171  
 Net 11.822g

A-~~5~~ 6  
 Gross 85.237  
 tare 75.860  
 Net 9.377g

Sp. Gr. 1.549

K-1  
 Gross 84.<sup>534</sup>  
 tare 76.462  
 Net 8.072g

K-2  
 Gross 81.535  
 tare 74.542  
 Net 6.993

Sp. Gr. 1.550

K-3  
 Gross 89.165  
 tare 75.118  
 Net 14.047

} for Spec and %N (sample as K-1 K-2 for 4+7)

9/8/49

Sample Reg # 830023  
 R-91  
 Gross 588.0  
 tare 266.4  
 Net 321.6 gms

R-91 Shipment # 12  
 Gross 5190  
 tare 1322 gms  
 Net 3868 gms.

Sample Reg # 830024  
 R-92  
 Gross 624  
 tare 294  
 Net 330.0 gms

R-92 Shipment # 11  
 Gross 4800  
 tare 1275  
 Net 3525 gms

Sample Reg # 830025  
 R-93  
 Gross 746  
 tare 288.5  
 Net 457.5 gms

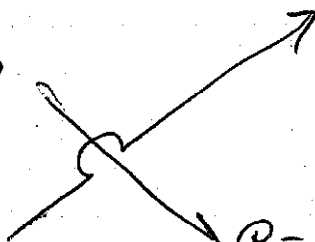
R-94 Shipment # 10  
 Gross 4544  
 tare 1310  
 Net 3234 gms

Sample Reg # 830026  
 R-94  
 Gross 681.0  
 tare 268.0  
 Net 413.0

R-95 Shipment # 10  
 Gross 4827  
 tare 1287  
 Net 3540 gms

Sample Reg # 830027  
 R-95  
 Gross 625.0  
 tare 267.6  
 Net 357.4 gms

Shipment # 10  
 R-95  
 Gross 4508  
 tare 1575  
 Net 2933 gms





9/19/49

Sample Reg # 830028  
R-96

Gross 756  
Tare 290  
Net 466 gms

R96 Shipment #13

Gross 4238  
Tare 1291  
Net 2947 gms

9/28/49

## Samples for Inventory

Sample L-1	Gross	86.678 gm	
Reg. # 830029	Tare	<u>74.453</u>	971. 1.467
	Net	12.225	

sp. g. 1.555  
of water? no

10/3/49

## Samples for Inventory

K-4			
Reg. # 830030	Gross	86.176 gm	
	Tare	<u>76.171</u>	
	Net	10.005	

A-7			
Reg. # 830031	Gross	89.375 gm	
	Tare	<u>75.178</u>	
	Net	14.197	

C-4			
Reg. # 830032	Gross	85.567 gm	U = .2490
	Tare	<u>74.730</u>	X = 9305
	Net	10.837	

E-6			
Reg. # 830033	Gross	101.505 gm	
	Tare	<u>76.268</u>	
	Net	25.237	

10/3/49

Lab Sample Reg # 830034

Bottle U-1771 (wisconsin)

Sample R-97

Gross 516

Tare 277

Net 239 gm

R97 Shipment #13

Gross 4532

Tare 1180

Net 3353 gm

Normal - (N-4)

Reg # 830035

Gross 267.6 gm

Tare 151.5

Net 116.1

10/11/49

R-98 Shipment #13

456 gm

1243

3325

Sample

Reg # 830037

104.15

72.42

31.730 gm net

R99 Shipment #13

5321 gm

1578

3743 gm net

sample

Reg # 830038

106.145

74.568

31.577

From 94,785-

SP gr.

Expt. 292

To 75,925-

1.162

Ref 830036

18,860 gm net

U = .0970 g/gm  
 X = 93.0

R-100 Shipment #13

4964

1269

3695 gm net

Sample  
 Ref 830039

107.906

76.361

31.545 gm net

R-101

Sample #11774  
 Ref 830040

#13 Shipment

R101 4568.

1265

3303 gm net

507.8

273.8

234.0 gm net

Al. sub L-2

M. 30

54694

9.0725

N-5 Reg # 83004/ (Sgal Can).

sample 1683

Tare 583.0

1100 gm(?)

Shipment

40.5

# 14

18,371 gms

Tare

5.0 lbs

2268

35.5 lbs

16,103 gms

R-102 Reg # 83002

Sample

1767

Tare 790 gms

977 gms

Shipment # 13

42.0

5.0

37.0 lbs

converted to gms.

10/31/49 Inventory (Fox Crown Machine)

Weights in gramsSample # K-5  
Req # 830043Gross 84.62 gm  
Tare 75.53  

---

net 9.09Sp Gr 1.547  
no 9 measured this daySample # B-4  
Req # 830044Gross 81.14  
Tare 73.08  

---

net 8.06

Sp Gr 1.163

Sample # A-8  
Req # 830045Gross 82.77  
Tare 75.53  

---

net 7.24

Sp Gr 1.163

Sample # C-5  
Req # 830046Gross 83.38  
Tare 75.17  

---

net 8.21

Sp Gr

Sample # C-6 (bottle)  
Req # 830047Gross 67.46  
Tare 52.05  

---

net 15.41

Sp Gr

Sample # C-7 (bottle)  
Req # 830048Gross 77.07  
Tare 51.89  

---

net 25.18

Sp Gr

Sample # D-4  
Req # 830049Gross 85.54  
Tare 76.26  

---

net 9.28

Sp Gr

Sample # E-7  
Req # 830050Gross 83.42  
Tare 76.17  

---

net 7.25

Sp Gr

Sample # F-1

Req # 830051

Gross 81.08

Tare 74.44

net 6.64

sp/br

Sample # G-1

Req # 830052

Gross 84.47

Tare 74.74

net 9.73

sp/br

Sample # H-1

Req # 830053

Gross 84.68

Tare 75.93

net 8.75

sp/br

Sample # J-1

Req # 830054

Gross 85.95

Tare 76.36

net 9.59

sp/br

~~Sample # K-2~~

~~Gross~~

~~Tare~~

~~net 74.57~~

~~sp/br~~

~~sp/br~~

as gross weight of is collected from 0.2 gm

11/3/49

JKE  
DTC

Sample #310 Reg #830055

Gross	97.440
Tare	<u>74.564</u>
Net	22.876 gms

Sample N-6 Reg #830056

	103.225
	<u>72.422</u>
	30.803 gms

11-15-49

Sample R103 Reg #830057

	444.5
Tare	<u>272.5</u>
Net	172.0 gms

Shipment R103 -

M ems 17 11/21/49

	4750
Tare	<u>1212</u>
Net	3538 gms

R 104 Reg 830059

	460.0
Tare	<u>273.5</u>
	186.5 gms

R 104 Shipment ✓

	5148
Tare	<u>1550</u>
	3598 gms

R-105 Sample Reg # 830058

	421
Tare	<u>274</u>
Net	147 gms

R-105 Shipment ✓

	4269
Tare	<u>1265</u>
Net	3004 gms

R-106 Sample Reg 830060

	397.5
Tare	<u>273.5</u>
Net	124.0

R-106 ✓

	4730
Tare	<u>1568</u>
Net	3162 gms



R-107 bottle # u-3155

R-107 Shipment

Reg# 830061

Gross 207.0

tare 146.5 gms

160.5 gms

Gross 5025

Tare 1298 gms

3727

R-108 bottle # u-3117

R-108 Shipment

Reg# 830062

Gross 227

tare 146.0

81.0 gms

Gross 4637

tare 1267

3370 gms

R-109 bottle # u-1369

R-109 Shipment

Reg 830063

240.5

tare 147.0

Net 93.5 gms

Gross,

4092

Tare

1277

2815 gms

11-30-49

Cyl F  
 Sample F-2 Spec  
 Reg # 830064  
 Gross 104.2185  
 tare 76.3333  
 net 27.8852 gms

Sample F-3  
 Reg # 830065  
 Gross 105.3551  
 tare 75.1812  
 net 30.1739 gms

11/9/49  
 Henry  
 Fox

Tares on new storage cylinders m & n  
 Correction factor for paper on balance - 52.7 gm  
 cylinders weighed with adjusted fittings on  
 wt. of fittings 99.0 gm. (Do not include tag)

Cyl M  
 16.3464  
 - 52.7 Paper  
 Tare 16,293.7 gm.

Cyl N  
 16.3694  
 - 52.7  
 Tare 16,316.7

Sample M-1  
 Reg # 830066  
 Gross 97.6929  
 tare 76.2566  
 Net 21.4363 gms

Shipment M-1 M.T.R. #18  
 Gross - 23,507.0  
 tare 16,293.7 gm  
 Net 7,213.3  
 7,211.3

Sample N-1 Reg # 830067  
 Gross 104.6149  
 tare 75.5234  
 29.0915 gms

Shipment N-1 M.T.R. #18  
 Gross 23,431.0 gm  
 tare 16,316.7  
 Net 7,114.3 gms

Sample N-2 Reg # 830068  
 (for nitrate)

Gross 103.7383  
 tare 75.1974  
 Net 28.5409 gms

12/16/49

339-A

Crown  
Mortels

Sample ~~336-A~~

Gross 104.7722  
tare 75.9304  
28.8418 gms

Sample 339-B  
~~336-B~~

Gross 105.2987  
tare 76.1324  
29.1663 gms

Sp. Gr. 20°C approx = 1.1114

12/22/49 Sample of Normal UO<sub>2</sub>(NO<sub>3</sub>)<sub>2</sub> taken from N-Taper system

Reg# 830071

U-107

N-8  
437.0  
273.0 gm  
164.0 gms

Reg# 830072

U-1057

N-7  
454.0  
290.0 gm  
NET 164.0 gms

12/18/49 Resample of normal UO<sub>2</sub>(NO<sub>3</sub>)<sub>2</sub> taken from N-Taper system. Original concentration. 12/14/49 sample spilled.

Crown  
Mortels

Reg# 930075

4.580  
Gross 589.  
Tare 287.  
Net 302.

No shipment

12/27/49

# Inventory Sample (from cyl. B)

Sample B-5 Reg# 830073

B-6 Reg# 830074

~~98.1908~~  
~~74.5193~~  
~~23.6315 gms.~~

~~101.5135~~  
~~73.0095~~  
~~26.9542 gms~~

98.1908 sp. Nr. 1114  
73.0095  
 25.1813 gms

101.5135  
74.5593  
 26.9542 gms

12/30/49

Sample R-112  
Bottle # U-2220

Shipment R-112  
5 gal con.

Gross 703.9 g  
 Tare 269.4 g  
Net 433.6 g

44.0 lbs  
5.0 lbs  
 39.0 lbs

Sample of NORMAL  $UO_2(NH_4)_2$  Tare at a dilution.  
Bottle # U3009

Gross 222.2 g  
 Tare 140.1 g  
Net 82.2 g

No shipment

Sample R111  
Bottle # U3146

Shipment R111  
Gallon Jar

Gross 241.8 g  
 Tare 146.3 g  
Net 95.5 g

5440 g  
1575 g  
 3865 g

Sample R110 Reg# 830076  
Bottle # U3121

Shipment R110 20  
Gallon Jar

Gross 230.5 g  
 Tare 146.0 g  
Net 84.5 g

5600.0 g  
1585.0 g  
 4015.0 g

Sample R-113 reg 830079

Shipment R113

Bottle U-1104

5 gal bucket

Gross 744.0 g  
 Tare 290.4 g  
 Net 453.6 g

35.0 lbs  
 5.0 lbs  
 30.0 lbs

Sample NR-8 reg 830080

Shipment NR 8

Bottle # U3158

5 gal can

Gross 273.8 g  
 Tare 146.2 g  
 Net 127.6 g

41.0 lbs  
 5.0 lbs  
 36.0 lbs

For Shipment to Y-12

Reg. 830082

Reg 830083

1/10/50 Sample of Cu K6 spg 1.54

Sample of Cu K-2 spg 1.47

Gross 96.4269 g  
 Tare 75.3155  
 Net 21.1114 g

94.0081 g  
 74.7425  
 19.2656 g

(A) Wm

Reg 830084

Reg 830085

Sample B-7

Sample A-9

Gross 104.4300 g  
 Tare 74.4509  
 Net 29.9791 g

77.4010 g  
 51.8317  
 25.5693 g

1/12/50

Sample taken from Reactor into jar U-183 and divided among following containers:

Sp. Gr. = 1.024

Rept# 830086  
Sample# 369 wgt. bottle  
100.535  
tare 73.665  
26.87 gms

Rept# 830087  
Sample# 370 wgt. bottle  
97.07  
74.425  
22.645 gms

Rept# 830088  
Sample# 371 wgt. bottle  
101.23  
72.25  
28.98 gms

Rept# 830089  
Sample# 372 wgt. bottle  
106.339  
76.720  
29.619 gms

Rept# 830090  
Sample# 373 wgt. bottle  
92.67  
74.14  
18.53 gms

Rept# 830091  
Sample# 374 wgt. bottle  
84.116  
52.1830  
31.933 gms

1/18/49

For Rapid colorimetric followed by precision analysis.

Sample 380 Reg # 830092

100.4816

tare 75.307

25.1746

Samples for Shipping 1-23-50

Pln

Reg # 830093  
 Sample J-2  
 Gross 107.651 gm  
 Tare 78.364  
 net 29.287

d=1.057

Reg # 830095  
 Sample G-2  
 Gross 109.330  
 Tare 75.105  
 net 34.225

Reg # 830097  
 Sample F-4  
 Gross 105.289  
 Tare 74.143  
 net 31.146

Reg # 830099  
 Sample D-5  
 Gross 108.089  
 Tare 76.318  
 net 31.771

Reg # 8300100  
 Sample M-2  
 Gross 107.147  
 Tare 78.382  
 net 28.765

Reg # 830102  
 Sample Q-1  
 Gross 11.484  
 Tare 77.863  
 net 33.621

Reg # 830094  
 Sample H-2  
 Gross 111.957  
 Tare 78.460  
 net 33.497

Reg # 830096  
 Sample A-10  
 Gross 77.671  
 Tare 67.043 gm  
 net 10.628

Reg # 830098  
 Sample E-8  
 Gross 106.21  
 Tare 76.25  
 net 29.96

Reg # 830101  
 Sample C-8  
 Gross 108.513  
 Tare 78.215  
 net 30.298

Reg # 830103  
 Sample P-1  
 Gross 107.52  
 Tare 74.42  
 net 33.10



# Cylinder Shipments 1/23-24/50

## Shipping Memo #

Density taken on Cylinder  $\rho = 1.057$

These tare weights include 96 gm fittings

Fittings for all cyl except A are 96  $\pm$   $\frac{1}{2}$  grams  
Cyl A was stored with its fittings by M

✓ J  
Gross 26166.6  
~~Fitt~~  
Tare 18565.5  

---

net 7601.1 gm net wt Solution

✓ H  
Gross 24165.0  
~~Fitt~~  
Tare 16720.8  

---

net 7444.2

✓ G  
Gross 24053.5  
~~Fitt~~  
Tare 16320.1  

---

net 7733.4

✓ A  
Gross 24,851.9  
~~Fitt~~  
Tare 17870.0  

---

net 6981.9

✓ F  
Gross 25647.7  
~~Fitt~~  
Tare 18020.0  

---

net 7627.7

✓ E  
Gross 25326.8  
~~Fitt~~  
Tare 17712.4  

---

net 7614.4

✓ D  
Gross 24,325.0  
~~Fitt~~  
Tare 16818.2  

---

net 7506.8

✓ C  
Gross 25930.7  
~~Fitt~~  
Tare 18231.0  

---

net 7699.7

✓ M  
Gross 22689.2  
~~Fitt~~  
Tare 16274.8  

---

net 6414.4

✓ P  
Gross 23195.3  
~~Fitt~~  
Tare 16308.0  

---

net 6887.3

✓ Q  
Gross 24266.8  
~~Fitt~~  
Tare 16837.4  

---

net 7429.4

1/23/50

all on shipping memo #24

Req # 830104

Sample U. 1230  
(NR-14)

535.1  
467.7  
67.4 gms net

Shipment NR-14

84.5 lbs  
265  
net 58.0 lbs

Req # 830105

Sample U-2267  
(N-8)

353.9  
269.5  
84.4

N-8

86.5  
27.5  
59.0 lbs net

Req # 830106

U-1101  
NR-10

330.0  
270.9  
59.1

NR-10

45.0 lbs  
9.5  
35.5 lbs net

Req # 830107

U-1759 (NR-9)

340.7  
272.6  
68.1

NR-9

41.5  
9.5  
32.0 lbs net

Req # 830108

U-1231 (NR-11)

581.1  
470.1  
111.0 gms

NR-11

29.5 lbs  
9.5 lbs  
20.0 lbs net

Req # 830109

U-2046 (NR-10)

118  
37  
70.2

NR-10

108.5 lbs  
37.5  
76.0 lbs

all on shipping Mess #24

Reg # 830110

Sample U-1519 (NR-15)  
 96.5  
35.0  
 60.7

NR-15

86.5 lbs  
29.5 lbs  
 57.0 net.

Reg # 830111

Sample U-2073  
 96.7  
37.4  
 59.3

NR-13

84.0  
26.0  
 58.0 lbs net

Reg 830112

Sample U-1506  
 114.8  
35.4  
 79.4

NR-12

86.0 lbs  
29.0 lbs  
 57.0 net

Reg. 830113

Sample U-173  
 134.3  
35.2  
 99.1

N-7

69.0  
27.0  
 42.0 lbs net

Reg. 830114

Sample F-3  
 107.9  
35.7  
 72.2

NR-17

108.0  
32.5  
 75.5 lbs net

Reg 830115

Sample F-1042  
 116.7  
35.3  
 76.4

NR-18

108.5  
32.5  
 76.0 lbs net.

Samples on 2 recovery jugs

1-24-50

R-114

U-1877

Reg #830116

all on shipping

Memo # 23

Gross 4652 gm

Gross 251.9

Tare 1287 gm

Tare 37.3

net 3365 gm

net 214.6 gm net (sample)

R-115

U-1880

Reg #830117

Gross 4782

Gross 218.0

Tare 1273

Tare 38.0

net 3509 gm

net 180.0 gm sample

R-116

5 gal bucket  
tagged

U-1906

Reg 830118

Gross 305.8

Tare 36.5

net 269.3 gm sample

R-117

5 gal bucket  
tagged

U-1988

Reg #830119

Gross 316.0

Tare 36.9

net 279.1 gm sample

R-118

n30 gallon  
drum

U-1992

Reg #830120

Gross 308.9

Tare 36.9

net 272.0 gm sample

(2091)  
(1.50)

2091.  
cyl. B

93.28  
76.24  
17.04

C (1.5000992)

92.19  
73.68  
18.51

cyl. F (2091.151)

86.58  
74.73  
11.85

cyl. H

96.09  
74.47  
21.62

J - ~~1.48~~ 1.51099.

90.15  
75.31  
14.84 gm net

#1X Sample Before Dilution 2/21/50.  
Reg# 830127 ~~830127~~ Reg# 830128 ~~830128~~

Gross 93.1256 g  
Tare 74.4293  
Net 18.6963 g

92.1042 g.  
78.2131  
13.8911 g.

Sample Taken for inventory March 1, 1950

Reg #  
~~Gross 78.5446~~  
~~Tare~~  
~~Net~~

Reg # 830128  
 Gross 116.3810  
 Tare 78.5446  
 Net 37.8364

Reg # (spare)  
 Gross 106.4039  
 Tare 75.3060  
 Net 31.0979

sp. g. 1.230

R-119

Reg 830141  
 258.5  
 Tare 39.6 - U-2086  
 218.9

5020  
 1260 gm  
 3760 gm net

R-120

Reg. 830142  
 252.6  
 U-2020 39.5 gm Tare  
 213.1

4985  
 1295  
 3690

R-121

Reg 830143  
 236.0  
 U-2028 39.8 gm Tare  
 196.2

5100  
 1250  
 3850 gm net

3-20-50

R-122

830144  
 U-2084 =  $\frac{281.0}{39.0}$  gm Sample  
 242.0 gm

4830  
 1245  
 3585 gm net

Cylinders prepared for Shipment to Y-12 3/8/50

	Sample from cyl m	Sample from J	Sample from H
Gross	104.9282	113.5097	106.4832
Tare	<u>78.3881</u>	<u>76.3183</u>	<u>73.6693</u>
net	26.5401	37.1914	32.8139

	Sample from D	Sample from Q
gross	101.2202	96.0517
Tare	<u>74.1446</u>	<u>74.7344</u>
net	27.0756	21.3173

cyl weighed with fitting (at 96.0 gm) samp before weighing

Cyl.	Gross wt. (Kg)
m	22.3333 ✓
J	27.4872 ✓
H	25.6247 ✓
D	24.0715 ✓
Q	25.8294

Reg # 830145				
3A20-50	290.5	Sample	5367	
R-123	<u>37.5</u>			1575
V1997	253.0 gm			<u>3792 gm Net</u>

Cyl of H<sub>2</sub> (NO<sub>2</sub>) to X-12 Mar. 16 1950

Cyl F

Sample Reg # 830134  
 Gross 167.897  
 Tare 78.453  
 Net 29.444  
 Sp. Gr. 1.1650

Gross Wgt. 24,641 gms  
 tare 18,090  
 Net 6,551 gms  
 17,992.4  
 fittings = 98.0 gms  
18090.4

Cyl. B

Sample Reg # 830135  
 Gross 101.372  
 Tare 74.418  
 Net 26.954

Gross Wgt 24,531  
 18,406.7  
 Net 6,125 gms  
 fittings 18306.9  
 99.5 gms  
18406.4

Cyl. G

Sample Reg # 830136  
 Gross 107.975  
 Tare 77.862  
 Net 30.113

Gross Wgt 22,949 gms  
 16,326.7  
 Net. 6,623 gm  
 16224 ✓  
 fittings = 102 gms  
16,326

Cyl E

Sample Reg # 830137  
 Gross 108.475  
 Tare 76.250  
 Net 32.225

Gross Wgt 25,483  
 17,741  
 7,772 gms net  
 fittings = 95 gms  
17711



Cyl C

Sample Reg # 890138

Gross 104.835  
76.229  
 Net 28.606

Gross = 24,128.5  
18,236.0  
 5,892.5 gm net

fitting = 101.4ms  
18136.5  
 18,236

Cyl A

Sample Reg # 330139

Gross 108.944  
75.110  
 Net 33.834

Gross Wgt. 23,460 gms  
17,862  
 5,598 gms net

fitting 101.5V  
17760.0  
 17,862.3 gm net

Cyl P.

Reg 830140

271  
42  
 229 gm net

Gross 19,252.5 gms  
16,313.0  
 2,939.5 gm net

fitting 16212  
 - 101 gms  
16,313

583-20-50

juv

R-124

830-146

R-124

U-2007

264.5 sample  
39.4  
245.1 gm net

4725  
1310  
3415 gm net

830147

R-125

U-2031

264.5 sample  
37.6  
226.9 gm net

4893  
1266  
3627 gm net

830148

R-126

U-2055

254.5 sample  
37.7  
216.8 gm net

4795  
1224  
3571 gm net

Incoming shipment

Sp. Gr.

Sp. Nr. 1664

1.664

Cyl P

Gross 27, 760.5 gm  
tare 16, 212.0  
11, 548.5

Sample Ref# 830149

gross 123.815

tare 76.257

net 47.558 g

fittings = 101 gms  
11, 447.5 gms net

1.659

Cyl L

Gross 29, 348.5  
tare 17, 952.0  
11 396.5

Sample Ref# 830150

Gross 123.718

76.227

net 47.491 gm

fittings = 100 gms  
11, 296.5 gms net

1.660 sp 121

M

Gross 27, 025.0  
tare 16, 178.8  
10846.2

Sample Ref# 830151

Gross 123.038

75.305

Net 47.733

FITTINGS 100.0  
10746.2

Sp. Nr. 1.706 F

29, 137.5  
tare 17, 924.0  
11, 213.5

Sample Ref# 830152

gross 121.094

tare 77.872

net 43.222

fittings 92.5 gms  
11, 115.0 gms net

Sp. Nr. 1.662 Q

27, 030.0 gms  
tare 16, 741.4  
10 288.6

Sample Ref# 830153

gross 118.246

78.378

net 39.868

fittings 100 gms  
10188.6 gms net

## Incoming shipment

sp Br. 1.660

cyl H  
 Gross 28,497.5 gms  
 tare 16,624.8  
 net 11,872.7  
 fittings 101 gms  
 11,771.7 gms Net

Sample Reg # 830154  
 gross 119.015  
 tare 78.212  
 net 40.803

sp Br. 1.662

cyl D 27,632.5 gms  
16,722.2  
 10,910.3  
 fittings 100.5 gms  
 10,809.8 gms Net

Reg # 830155  
 gross 118.205  
73.667  
 44.538

sp Br. 1.661

cyl J gross 30,126 gms  
18,469.5  
 11,656.5  
 fittings 101.0 gms  
 11,555.5 gms Net

Reg # 830156  
 gross 120.956  
 tare 78.545  
 net 42.411

sp Br. 1.649

cyl K 28,087.0 gms  
16,899.6  
 11,187.4

Reg # 830157  
 gross 120.769  
74.143  
 46.626

Av. = 1.664

fittings 97.5 gms  
 total net 11,089.9

3/29/50

taken after Ex 418 + before Ex 419

Gross 129.820

Gross 131.752

78.453

75.111

Sp Gr. 1.664

51.367 gms.

56.641 gms

(418A)

(418B)

Samples taken by adding about a liter from each cylinder to reactor, mixing, + then sampling.

4/5/50

## Shipment of Hi Pico. To Y-12

Cyl P

Gross 27,971.7

tare 16,212.0

Net 11,759.7

fittings 100.2

Net 11,659.5 gms

Sample Reg # 830160

Gross 121.07

tare 76.33

44.74 gms

Cyl H

Gross 27,726.0

tare 16,624.8

11,101.2

fittings 98.0

Net 11,003.2 gms

Sample Reg # 830161

Gross 119.36

tare 74.48

44.88 gms

Cyl M

gross 27,901.4

tare 16,178.8

11,722.6

fittings 101.3

net 11,621.3

Sample Reg # 830162

gross 119.39

tare 74.44

44.95

Cyl L

gross 29,938.5

tare 17,952.0

11,986.5

fittings 101.3

Net 11,885.2 gms

Sample Reg # 830163

gross 127.52

tare 74.96

52.56

Sp. Gr. = 1.665 taken on Cyl P (Fittings)

cyl Q  
 Gross 27,679.5  
 tare 16,741.4  
 10,938.1  
 fittings 98.2  
 Net 10,839.9 gms

Sample Reg# 830164  
 gross 133.36  
 tare 71.76  
 Net 61.60 ✓  
 weighing bracket = 0.8542 gms

cyl D  
 Gross 27,556.0  
 tare 16,722.2  
 10,833.8  
 fittings 102.0  
 Net 10,731.8

Sample Reg# 830165  
 gross 129.33  
 tare 69.46  
 59.87 ✓  
 wgt bracket = 0.8542 gms

cyl K  
 Gross 23,939.2  
 tare 16,899.6  
 7,039.6  
 fittings 102.0  
 Net 6,937.6 gms

Sample Reg# 830166  
 gross 129.39  
 tare 70.50 ✓  
 58.89 gms  
 wgt bracket = 0.8542

cyl J  
 Gross 28,916.0  
 tare 18,469.5  
 10,446.5  
 fittings 103.3  
 Net 11,343.2 gm

Sample Reg # 830167  
 gross 127.64  
 tare 74.05  
 53.59 ✓  
 wgt bracket = 0.8542

cyl F  
 gross 29,149.5  
 tare 17,924.0  
 11,225.5  
 fittings 101.3  
 Net 11,124.2

F-1  
 Sample Reg# 830168  
 gross 129.55  
 tare 70.57  
 Net 58.98 ✓

F-2  
 Sample Reg# 830169  
 gross 129.55  
 tare 67.66  
 Net 61.89 ✓

weight bracket = 0.8542

4/6/50

Scribo-Rlin

Recovery Samples

R-127 -132  
NR-19

Reg # 830183  
 Sample F-62  
 gross 197.0 gm  
 tare 36.4 gm  
 net 160.6

NR-19  
 gross 9.0  
 tare 5.0 lbs  
 net 4.0 lbs  
 5 gal bucket

Reg # 830182  
 Sample U-1508  
 gross 140.5  
 tare 36.2 gm  
 net 104.3 gm

R-127  
 gross 5446  
 tare 1420 gm  
 net 4026 gm

(High phosphate)

Reg # 830181  
 Sample U-1529  
 gross 250.6  
 tare 37.6 gm  
 net 213.0 gm

R-128  
 gross 4982  
 tare 1417 gm  
 net 3565

Reg # 830180  
 Sample U-1550  
 gross 231.8  
 tare 37.8 gm  
 net 194.0 gm

R-129  
 gross 5214  
 tare 1417  
 net 3797 gm

Reg # 830179  
 Sample U-1878  
 gross 207.5  
 tare 38.7 gm  
 net 168.8 gm

R-130  
 gross 5034  
 tare 1265 gm  
 net 3769 gm

Reg # 830178  
 Sample U-2025  
 gross 243.4  
 tare 38.2 gm  
 net 205.2 gm

R-131  
 gross 4954  
 tare 1275  
 net 3679 gm

Reg # 830177  
 Sample U-2045  
 gross 227.4  
 tare 38.1 gm  
 net 189.3 gm

R-132  
 gross 5207  
 tare 1415  
 net 3792 gm



4/6/50 cond. R-133-134

Req # 830176  
 Sample U-2052  
 gross 187.8  
 tare 37.6 gm  
 net 150.2 gm

R-133  
 gross 5416  
 tare 1410  
 net 4006 gm

Req # 830175  
 Sample U-2055  
 gross 147.2  
 tare 39.6 gm  
 net 107.6 gm

R-134  
 gross 5204  
 tare 1212  
 net 3992 gm

~~Req #  
 Sample  
 gross  
 tare  
 net~~

~~gross  
 tare  
 net~~

Call from R. Greene

say composite sample (Hyphos Solu now back to Y-12)

analyzed 0.035944  $\frac{\text{gm U}}{\text{gm Solu}}$

cf J Fox' memory of Y-12 value by making of 0.036

4-7-50

Low - Phosphate

Sp Gr = 1.555

Cyl B  
 Gross 22427.3 gms.  
 tare 18306.9  
 Net 4120.4  
 fittings 99.6  
 Net 4020.8

Sample 830170  
 132605  
89.679  
 42.926 gm net

Sp Gr 1.595

Cyl A  
 Gross 21463.0  
 tare 17760.8 gms  
 Net 3702.2  
 fittings 102.0  
 Net 3600.2

Sample 830171  
 117.73  
76.4945  
 42.23 gm net

Sp Gr 1.790

Cyl G  
 Gross 27,776.4 gm.  
 tare 16224.0  
 Net 11,552.4  
 fittings 102 gms  
 Net 11,450.4

Sample 830172  
 124.57  
75.57  
 49.00 gms

Sp Gr 1.814

Cyl C  
 Gross 29,420.2  
 Tare 18,135.0  
 11,285.2  
 fittings 141.0  
 Net 11,184.2

Sample Reg# 830173  
 Gross 124.78  
 tare 77.94  
 Net 46.84

avg Sp Gr for all cyl = 1.74

R-135

Gross 5011  
tare 1575  
net 3436 gm

Sample Reg # 830.174

U-2098

Gross 245.2  
tare 41.5  
net 203.7

4-13-50 DFC + Ph.

Sample from pit manifold for #18

Numbered 427 in honor of the preceding Expd.  
Weight burette is 26 ml

gross	116.786	
tare	77.559	grams
net	39.227	grams

Reg #

Reg # 830185

4/14/50

Reg # 830186	(A)
gross	119.80
tare	73.84
net	45.96

Reg # 830187	
Sample # 432	(B)
gross	120.54
tare	76.26
net	44.28

Samples

Cylinders

agl  
A

115.57  
76.11  
39.40 ✓

830188 reg.  
77.152

27,372.5  
17,862.3  
9,510.2

Fittings  
17760.8  
101.5  
17862.3

M

118.94  
74.22  
44.72 ✓

830189 reg.  
152

26,406.0  
16,280.8  
10,125.2

16178.8  
102  
16280.8

Ⓟ

114.90  
76.44  
38.46 ✓

830190 reg.  
1517

26,290.5  
16,839.4  
9,451.1

16,741.4  
98.0  
16839.4

Ⓟ

112.5  
75.6  
36.9 ✓

(830191) reg. no.

23,448.5  
16,314.5  
7,134.0

16,212.0  
102.5  
16314.5

C

Sample U-2131 Reg # 830192  
235.7  
41.7  
194.0 gms net

26,525.5  
18,235.0  
8,290.5

18135.0  
100 gms  
18235.0

G

Sample U-2125 Reg # 830193  
247.8  
40.0  
207.8 gms net

23,904.0  
16,324.0  
7,580.0

16,224.0  
100 gms  
16324.0

5/4/50

J.K.P.  
J.K.P.

## Cyl of Washings to 7-12

Cyl B

Sample Reg # 830195

Gross 273.8

39.2

234.6

Gross 25,570.0

18,406.5

7,163.5

Cyl L

Sample Reg # 830195

294.0

37.3

256.7

25,436.0

18,053.3

7,382.7

Cyl O

Sample Reg 830196

289.8

36.8

253.0

22,518.0

16,839.4

5,678.6

Cyl M

Sample Reg 830197

604.4

264.1

340.3

22,691.5

16,280.1

6,411.4

Cyl P

Sample Reg 830198

283.6

152.5

131.1

23,308.0

16,312.2

6,995.8

Reg 830199

U-1506

U-1878

302.8

total 37.6 gms

Ans 38.0

265.2

from ml

Special from  
Calihan

360135

BATCH NUMBER

REQUISITION NUMBER

REPORT TO:

Calihan

BUILDING NO.

9735

PHONE:

DESCRIPTION OF MATERIAL:

Lab Waste Water

ASSAY REQUESTED

AT

DT

AT CODE NO.

ANALYSIS  
REQUESTED

REPORTED  
ANSWERS

GRAM U /GRAM

~~405ppm~~

6.01ppm

SIGNED:

RKB.

BY:

DATE



# INTER-COMPANY CORRESPONDENCE

Post Office Box P  
OAK RIDGE, TENN.

(INSERT NAME) COMPANY CARBIDE AND CARBON CHEMICALS CORP. LOCATION \_\_\_\_\_

TO  
LOCATION

Mr. A.D. Calihan

DATE

June 19, 1952

ANSWERING LETTER DATE

ATTENTION  
COPY TO

F.E. Clark  
L.A. Stephens  
A. Skritnansky  
File

SUBJECT

Special Sample  
"Lab. Waste Water"  
Req. # 360135

The sample of "Laboratory Waste Water" which you submitted to us has been analyzed by our laboratory by both the fluorimetric and visual fluorescent procedures. Both procedures indicate that no uranium is present. The procedures are considered valid to <.01 parts per million.

The sample was assigned analytical requisition number 360135.



R.K. BENNETT

/h

WCX 1100 (1-51)

# REQUEST for ANALYSIS

# REPORT OF ANALYSIS

LAB. NO.

MATERIAL: *Contaminated Water*

REPORT TO:

*D. F. CRONIN*

DATE REC'D

CC:

*Bldg 9213*

ASSIGNED TO:

SUBMITTED BY:

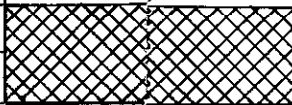
*D. F. CRONIN*

LAB. NO.

IDENTIFICATION

SOURCE:

*Laboratory Waste*



*92008E*

*Gross  
TARE  
NET*

*5450.0 gm.*

ACCOUNT NO.

*4405-26-624*

REPORT TO:

*D. F. CRONIN*

BUILDING NO.

*9213*

DATE

*6-13-52*

TESTS DESIRED

*4 mg/liter*

*94235*

*360135  
DATE 2723 12/4*



*DATE 2723 12/4  
360135*

REMARKS:

*PLATE NO. 44  
" 8*

*L.O.S  
L.O.S*

STANDARD ERROR AT 99.5 PERCENT CONFIDENCE LEVEL

TESTED BY

CHECKED BY

REPORTED BY

DATE

Special form  
Calihan

360135

ANALYSIS

BATCH NUMBER

REQUISITION NUMBER

REPORT TO:

Calihan

R-COMPANY CORRESPONDENCE

BUILDING NO.

9735

PHONE:

DESCRIPTION OF MATERIAL:

URBIDE AND CARBON CHEMICALS CORP.

LOCATION

Post Office Box P  
OAK RIDGE, TENN.

Lab Waste Water

Calihan

DATE

June 19, 1952

ANSWERING LETTER DATE

ASSAY REQUESTED

AT

DT

AT CODE NO.

rk

SUBJECT

phens

itnansky

Special Sample  
"Lab. Waste Water"  
Req. # 360135

ANALYSIS REQUESTED

REPORTED ANSWERS

GRAM U /GRAM

~~405 pp~~

<.01 ppm

SIGNED:

RKB.

le of "Laboratory Waste Water" which you submitted to us

BY:

DATE

analyzed by our laboratory by both the fluorimetric and

visual fluorescent procedures. Both procedures indicate that no uranium is present. The procedures are considered valid to <.01 parts per million.

The sample was assigned analytical requisition number 360135.

R K Bennett

R.K. BENNETT

/h

**CORRECTED**

# INTER-COMPANY CORRESPONDENCE

OAK RIDGE NATIONAL LABORATORY

Operated By

CARBIDE AND CARBON CHEMICALS COMPANY

(INSERT  
NAME)

COMPANY \_\_\_\_\_

LOCATION \_\_\_\_\_

Post Office Box P  
OAK RIDGE, TENN.

TO D. F. Cronin  
LOCATION Bldg. 9213

DATE July 16, 1952

ANSWERING LETTER DATE

ATTENTION  
COPY TO C. D. Susano, File (2)

SUBJECT Water Analysis

MATERIAL: Water  
SOURCE: Storage tank, Bldg. 9213  
ACCOUNT NO: 44054-31  
SUBMITTED BY: D. F. Cronin, 6-2-52

### TEST RESULTS

<u>LABORATORY NO.</u> <u>IDENTIFICATION</u>	<u>3712</u> <u>Tank W</u>	<u>3713</u> <u>Tank E</u>	<u>Standard Error</u> <u>Percent</u>
Uranium, mg/L	1.2	28.	20

Tank E, Uranium assayed:

U<sup>235</sup> 43.3 percent

U<sup>234</sup> 0.56 percent

ANALYTICAL CHEMISTRY DIVISION - Y-12

ls

*H P House*  
H. P. House

THIS FORM FOR INTER-COMPANY CORRESPONDENCE ONLY

East tanks

West tanks

<u>Date taken</u>	<u>#</u>	<u>Lab</u>	<u>U(mg/l)</u>	
5/21/52	92005	9733-3	18	original
6/2/52	92006	9733-3	0.9	resample
6/13/52	92008	9995	<.01	resample

<u>Date</u>	<u>#</u>	<u>Lab</u>	<u>U(mg/l)</u>
5/21/52	92004	9733-3	<0.2
6/2/52	92007	9733	0.1

Original samples sent to Chem Lab Bldg 9733-3 for U analysis - East tanks showed 18 mg U/l. (5/21/52)  
 Both tanks resampled East tanks still high (6/2/52)  
 Sample from east tanks only (6/13) sent to F.E. Clark at Bldg 9995 - no U found.  
 Requested that assay be run on sample at 9733-3 which showed high U content

7258  
~~FCU - 6/20/52  
 OK to drain tank to di tank  
 DC~~


REPORT OF ANALYSIS

LAB. NO. 43712-13

CRONIN

DATE REC'D 6-2-54

ASSIGNED TO: 13

IDENTIFI-CATION			
	<u>u</u>		
	<u>mg / liter</u>		
<u>92007</u> <u>Tank W</u>	<u>0.9</u>		
<u>92006</u> <u>Tank F</u>	<u>0.1</u>		
		<u>lts. Exam., Percent</u>	<u>20</u>
	<u>Note / by phone samples reversed</u> <u>DJC.</u>		

STANDARD ERROR AT 99.5 PERCENT CONFIDENCE LEVEL

REPORTED BY [Signature] DATE JUN 6 1954

REPORT OF ANALYSIS

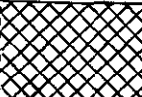
LAB. NO. 3277-78

A. D. Callahan

DATE REC'D 5-21-55

Bldg. 921E

ASSIGNED TO: 13

IDENTIFI-CATION			
	<u>u</u>		
	<u>mg / L</u>		
<u>92004W</u>	<u>&lt;0.2</u>		
<u>92005F</u>	<u>18</u>		
		<u>lts. Exam., Percent</u>	<u>20</u>

STANDARD ERROR AT 99.5 PERCENT CONFIDENCE LEVEL

REPORTED BY [Signature] DATE MAY 29 1955

Feb, 13, 1951  
Bldg 9213

Sample of  
Demineralized  
Water

Sample # 920001-

Amount of Sample = 2 Quarts.

Sampled by D. Brown

Sample # 920002 - ~~MAY 4-1951~~  
acetone used in cleaning ~~off~~ Benzene  
for F. Posney

- |         |   |           |  |                     |                 |
|---------|---|-----------|--|---------------------|-----------------|
| 92004 - | West tank   | May 21-52 | Lab #<br>3277-78<br>< 0.24 mg/l <sup>2</sup> | } Acid<br>June 3-52 |                 |
| 92005 - | East tank   | May 21-52 | 18 mg/l <sup>2</sup>                         |                     |                 |
| 92006   | East tank   | June 2-52 |  |                     |                 |
| 92007   | West tank   | June 2-52 |  |                     |                 |
| 92003   | Main de-ionized water supply June 4, 1952   |           |  |                     |                 |
| 92008   | Resample of 92005 + 92006   |           |  | < .01 ppm Al        | Lab #<br>360135 |
| 92009   | sample of Aluminum from 9213 received from X-10<br>used to fabricate sp. 23 vessel<br>June 19, 1952 |           |  |                     |                 |

SECRET

SECRET