Box # 12-2-7-42

ChemRisk/Shonka Research Associates, Inc., Document Request Form

Item 1 #2921

(This section to be completed by subcontractor requesting document)

J. Lamb / SRC

Requestor — Document Center (is requested to provide the following document)

Date of request 07/25/96 — Expected receipt of document 08/09/96

Document number ~~[illegible]~~ K/CR-631 — Date of document 1964

Title and author (if document is unnumbered)
Report of Water Analyses (Veg, Soil, Mud etc.) 1964

(This section to be completed by Document Center)

Date request received 7/29/96

Date submitted to ADC 7/29/96

Date submitted to HSA Coordinator 7/29/96

(This section to be completed by HSA Coordinator)

Date submitted to CICO 7/29/96

Date received from CICO 8/5/96

Date submitted to ChemRisk/Shonka and DOE 8/5/96

(This section to be completed by ChemRisk/Shonka Research Associates, Inc.)

Date document received

Signature

#2921

REPORT OF WATER ANALYSES
(Veg., Soil, Mud, etc.) 1964

This document has been approved for release to the public by:

John F Paleton 7/31/96
Asst Technical Information Officer Date
Oak Ridge K-25 Site

Union Carbide Nuclear Company, Oak Ridge
Gaseous Diffusion Plant, Operating Contractor
for the U.S. Atomic Energy Commission.

REPORT OF WATER ANALYSES

REPORT NO. 624

Distribution:
A. F. Becher, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION		FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
371-W	11-8-64	CW-1	Composite	1.2	6.7	0.45	0.38	0.51
	12-5-64							
	1-2-65							
372-W	11-8-64	CW-3	"	1.0	6.7	0.14	0.18	0.42
	12-5-64							
	1-2-65							
373-W	11-8-64	CW-5	"	0.9	7.1	0.00	0.02	0.24
	12-5-64							
	1-2-65							
374-W	11-8-64	CW-6	"	0.6	7.2	0.00	0.02	0.21
	12-5-64							
	1-2-65							
375-W	11-8-64	CW-7	"	0.6	7.6	0.00	0.08	0.18
	12-5-64 1-2-65							
376-W	11-8-64	CW-8	"	1.0	7.2	0.14	0.19	0.36
	12-5-64 1-2-65							
377-W	11-8-64 12-5-64 1-2-65	DW-1	"	0.4	7.0	0.00	0.00	0.30

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 1/25/65

REPORT OF ~~WATER~~ VEGETATION ANALYSES

REPORT NO. 622

Distribution:
A. F. Becher, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION		FLUORIDES ppm.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
381-W	12-7-64	HP-150	K-1131 (100' NE)	730				
382-W	"	HP-151	K-25 (North at Guard Tower)	19				
383-W	"	HP-152	K-1400 Portal	12				
384-W	"	HP-153	K-1420 (100' N)	250				
385-W	"	HP-154	K-33 (100' W)	17				

* *Calculated from uranium content assuming natural isotopic abundance.*

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SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR Kwasnoski

DATE RELEASED 1/6/65

UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. 621

Distribution:

A. F. Becher, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7}		
					URANIUM*	ALPHA	BETA
378-W	12-7-64	HP-146 Pond SW of K-1007	1.5	6.9	0.05	0.28	0.39
379-W	"	HP-147 Drainage Ditch at Security Fence	1.4	7.3	0.92	2.62	25.74
380-W	"	HP-148 K-1015 Laundry Sump	2.1	7.9	0.07	0.18	0.80

* *Calculated from uranium content assuming natural isotopic abundance.*

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SUP[illegible]OR T. Kwasnoski

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UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. _____

Distribution:
A. F. Becher, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb.	FLUORIDES ppm.	pH	Counts per min/100 ml. ALPHA	Counts per min/100 ml. BETA
386-W	12-5-64	CW-1	4				
387-W	"	CW-7	2				
388-W	"	K-901 Raw Water	4				
389-W	"	K-802 A and B Loop	0				
390-W	"	832 C Loop	0				
391-W	"	862 E Loop	0				
392-W	"	892 G Loop	0				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T Kwasnoski

DATE RELEASED 1/6/65

✓

ISOTOPIC SERVICES DEPARTMENT

RADIOACTIVITY ANALYSIS REPORT

TO: A. H. Becker

SAMPLE TYPE: Air

REPORT OR REQUEST NO.:

SAMPLE NUMBER	ALPHA Cts ~~Dis.~~/min.	ALPHA μc./cc.	BETA Dis./min.	BETA μc./cc.			
HP119	14						
HP120	14						
HP121	17						
HP122	10						
HP123	11						
HP124	10						
HP125	16						
HP126	9						
HP127	11						
HP128	7						
HP129	9						
HP130	6						

DATE: 11-24-64

REPORTED BY: A R Flynn

1 microcurie (μc.) = 2.2 × 10^6 disintegrations per minute.

UCN-5486
(1 2-64)

REPORT OF WATER ANALYSES

REPORT NO.
Distribution:
A. F. Becher, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	~~URANIUM~~ Hg ppb.	FLUORIDES ppm.	pH	Counts per min/100 ml. ALPHA	BETA
364-W	11-8-64	CW-1	0				
365-W	11-8-64	CW-7	0				
366-W	11-7-64	901 Raw Water	4				
367-W	11-7-64	A and B Loop	4				
368-W	11-7-64	832 C-Loop	0				
369-W	11-7-64	862-E-Loop	0				
370-W	11-7-64	G-Loop	2				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T Kwasnoski

DATE RELEASED 12/10/64

REPORT OF WATER ANALYSES

REPORT NO. 619

Distribution:
✓A. F. Becher, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
349-W	10-3-64	CW-1	0.7	7.0	0.67	0.58	0.73
350-W	"	CW-3	0.5	7.1	0.16	0.17	0.31
351-W	"	CW-5	0.3	7.4	0.02	0.01	0.43
352-W	"	CW-6	0.3	7.4	0.02	0.01	0.07
353-W	"	CW-7	0.3	7.2	0.00	0.01	0.30
354-W	"	CW-8	0.5	7.1	0.00	0.37	0.58
355-W	"	DW-1	0.3	7.0	0.00	0.00	0.07

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORAT[illegible]
SPECIAL ANALY[illegible] SERVICES DEPARTMENT

UCN-3252

SUP[illegible]OR T Kwasnoski

DATE RELEASED 12/[illegible]/64

REPORT OF WATER ANALYSES

REPORT NO. 617

Distribution:
A. F. Becher, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / gram x 10^{-7} URANIUM*	ALPHA	BETA
341-W	9-9-64	HP 6S			5.9	19	171
342-W	"	HP 7S			6.6	28	657
343-W	"	HP 8S			7.1	19	275
344-W	"	HP 9S			5.7	22	657
345-W	"	HP 10S			8.6	20	212
						ppm	
						Mg	Th
346-W	9-25-64	Outside Building		7.5	0.038	100	0
347-W	"	U Pans		8.5	43	200	2
348-W	"	Mg Pans		11.8	0.006	5	0

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T Kwasnoski

DATE RELEASED 10/22/64

REPORT OF WATER ANALYSES

REPORT NO. 616

Distribution:
A. F. Becher, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / ~~ml.~~ gram x 10^{-7}		
					URANIUM*	ALPHA	BETA
331-W	9-9-64	HP 6V	17		3.5	141	506
332-W	"	HP 7V	11		1.4	57	444
333-W	"	HP 8V	28		2.1	53	435
334-W	"	HP 9V	19		2.1	96	216
335-W	"	HP 10V	7		4.9	118	284
336-W	"	HP 6P	14		0.7	79	251
337-W	"	HP 7P	13		0.7	23	175
338-W	"	HP 8P	10		0.7	36	335
339-W	"	HP 9P	10		0.7	40	322
340-W	"	HP 10P	9		3.5	75	412

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORAT[illegible]
SPECIAL ANALY[illegible] SERVICES DEPARTMENT

UCN-3252

SUP[illegible]OR T. Kwasnoski

DATE RELEASED 10/2[illegible]/64

REPORT OF WATER ANALYSES

REPORT NO.

Distribution:
A. F. Becher, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	~~URANIUM~~ Hg ppb.	FLUORIDES ppm.	pH	Counts per min/100 ml. ALPHA	BETA
314-W	9-5-64	CW-1	0				
318-W	"	CW-7	0				
321-W	"	801-A	0				
322-W	"	802-A and B	0				
323-W	"	C-Loop	0				
324-W	"	E-Loop	0				
325-W	"	G-Loop	0				
356-W	10-3-64	CW-1	0				
357-W	"	CW-7	0				
358-W	10-4-64	801-A	0				
359-W	"	901 Raw-Water	0				
360-W	"	802 A and B	4				
361-W	"	C-Loop	2				
362-W	"	E-Loop	2				
363-W	"	G-Loop	6				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T. Kwasnoski

DATE RELEASED 10/22/64

REPORT OF WATER ANALYSES

REPORT NO. 615

Distribution:
A. F. Becher, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7}		
					URANIUM*	ALPHA	BETA
314-W	9-5-64	CW-1	0.7	7.3	0.27	0.25	0.16
315-W	"	CW-3	0.6	7.7	0.08	0.14	0.16
316-W	"	CW-5	0.6	7.9	0.00	0.00	0.03
317-W	"	CW-6	0.5	7.6	0.00	0.00	0.06
318-W	"	CW-7	0.1	7.6	0.00	0.00	0.00
319-W	"	CW-8	0.4	7.3	0.20	0.25	0.16
320-W	"	DW-1	0.0	7.0	0.00	0.01	0.15
326-W	9-9-64	HP 6W	0.2	6.7	0.00	0.10	1.31
327-W	"	HP 7W	0.3	7.8	0.00	0.00	0.08
328-W	"	HP 8W	0.3	7.8	0.00	0.00	0.03
329-W	"	HP 9W	0.2	7.5	0.00	0.00	0.18
330-W	"	HP 10-W	0.3	7.8	0.00	0.00	0.13

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORAT[illegible]
SPECIAL ANALY[illegible] SERVICES DEPARTMENT

UCN-3252

SUP[illegible]OR T. Kwoourshi

DATE RELEASED 10/[illegible]/64

UCN-5901
(1 6-64)

WORKS LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT

Ag	Ir	Sr
Al	K	Ta
A	Li	Tc
A	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT.

NUMBERS = _____ ON A _____ BASIS

"_____" MEANS "SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
M31554-03	1 Sept 1964	2278

SENDER	DATE ANALYSIS NEEDED
Muldrew	

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION	TARE
C-1045 air samples	

INSTRUCTIONS	[redacted]

Total ug

REQUESTED ANALYSIS	UNITS	RESULT(S) Mg	Th
BLANK (U-41)		3	<50
HPX 402		27	<50
HPX 401		2650	650

RESULT APPROVED BY	DATE
T. Kwasnoski	9/1/64

ISOTOPIC SERVICES DEPARTMENT

RADIOACTIVITY ANALYSIS REPORT

T: A. F. Becker

SAMPLE TYPE: Health Survey Filter Samples

REPORT OR REQUEST NO.

SAMPLE NUMBER	ALPHA Cts. ~~Dis.~~/min.	ALPHA μc./cc.	BETA Dis./min.	BETA μc./cc.			
HPX-401	188	3'	from smoldering ashes				
HPX-402	10	6'	"	"			

Mg-Th burning at Sri Training Building

DATE: 8-28-64

REPORTED BY: A R Flynn

1 microcurie (μc.) = 2.2 × 10^6 disintegrations per minute.

UCN-5486
(1 2-64)

REPORT OF WATER ANALYSES

REPORT NO. 612

Distribution:
A. F. Becher, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
302-W	8-20-64	Hazardous Chemical 1 W Disposal Facilities - H_2O		7.8	0.51		
303-W	"	2 W " "		8.0	0.62		
304-W	"	3 W " "		7.9	0.55		
305-W	"	4 W " "		8.2	0.76		
306-W	"	5 W " "		8.2	0.54		
307-W	"	6 W " "		8.1	0.60		
					Microcuries/gram x 10^{-7}		
308-W	"	1 M " Mud			20		
309-W	"	2 M " "			99		
310-W	"	3 M " "			50		
311-W	"	4 M " "			170		
312-W	"	5 M " "			67		
313-W	"	6 M " "			90		

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 9/15/64

REPORT OF WATER ANALYSES

REPORT NO. 613

Distribution:
cA. F. Becher, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
291-W	8-1-64	CW-1	0.3	7.9	0.11	0.15	0.18
292-W	"	CW-3	0.4	8.2	0.18	0.22	0.44
293-W	"	CW-5	0.4	8.1	0.02	0.00	0.20
294-W	"	CW-6	0.0	7.3	0.00	0.00	0.05
295-W	"	CW-7	0.0	8.6	0.00	0.00	0.14
296-W	"	CW-8	0.2	8.7	0.09	0.18	0.16
297-W	"	DW-1	0.0	7.9	0.00	0.00	0.08
298-W	8-17-64	Pond - S. of K-1001		8.1	0.01	0.00	0.00
299-W	"	Pond - S.W. of K-1007		7.7	0.05	0.13	0.41
300-W	"	Clinch River at Emory Valley Road	✓	7.8	0.00	0.00	0.05
301-W	"	Clinch River Gauging Station	✓	8.2	0.02	0.00	0.02

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORAT[illegible]
SPECIAL ANALY[illegible] SERVICES DEPARTMENT

UCN-3252

SUP[illegible]OR T. Kwasnoski

DATE RELEASED 9/1[illegible]64

REPORT OF WATER ANALYSES

REPORT NO. 9

Distribution:
A. F. Becher, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ~~URANIUM~~ ppb.	FLUORIDES ppm.	pH	Counts per min/100 ml. ALPHA	BETA
285-W	8-1-64	A and B Loop	10				
286-W	"	C Loop	0				
287-W	"	E Loop	8				
288-W	"	G Loop	0				
289-W	"	901	0				
290-W	"	801-A	0				
291-W	"	CW-1	0				
295-W	"	CW-7	0				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T Kwasnoski

DATE RELEASED 9/15/64

UCN-5901
(1 6-64)

WORKS LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL RE. .RT		
Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT.

NUMBERS = _____ ON A _____ BASIS

"_____" MEANS "SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
M-31554-03	7/29/64	3383

SENDER	DATE ANALYSIS NEEDED
Bomar	

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-102

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION	TARE
Air Sample Solution	

INSTRUCTIONS	NET

REQUESTED ANALYSIS	UNITS	RESULT(S)
Uranium	Total micrograms	0.080
		[illegible]

RESULT APPROVED BY	DATE
T Kwasvoshe	8/5/64

ISOTOPIC SERVICES DEPARTMENT

RADIOACTIVITY ANALYSIS REPORT

TO: A. F. Becher

SAMPLE TYPE: Health Survey Filter Samples

REPORT OR REQUEST NO.:

SAMPLE NUMBER	ALPHA Cts./min.	ALPHA μc./cc.	BETA Dis./min.	BETA μc./cc.			
HP-100	27						
HP-101	5						

Safety and Health Physics

DATE: 8-3-64

REPORTED BY: O H Howard

1 microcurie (μc.) = 2.2 × 10^6 disintegrations per minute.

UCN-5486
(1 2-64)

UCN-5901
(1 6-64)

WORKS LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL RE. .RT		
Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT.

NUMBERS = _____ ON A _____ BASIS

" _____ " MEANS "SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
M-31554-03	7/16/64	3377.

SENDER	DATE ANALYSIS NEEDED

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-97

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION	TARE
Air Sample Solution	

INSTRUCTIONS	NET

REQUESTED ANALYSIS	UNITS	RESULT(S)
CrO_3	Total mg	0.03

RESULT APPROVED BY	DATE
T. Kwasnoski	7/28/64

UCN-5901
(1 6-64)

WORKS LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL RE. .RT		
Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT.

NUMBERS = _____ ON A _____ BASIS

"_____" MEANS "SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
M-31554-03	7/16/64	3378

SENDER	DATE ANALYSIS NEEDED
Bomal	

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-98

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION	TARE
Air Sample Solution	

INSTRUCTIONS	NET

REQUESTED ANALYSIS	UNITS	RESULT(S)
CrO_3	Total mg	<0.01

RESULT APPROVED BY	DATE
Kwasnoski	7/28/64

UCN-5901
(1 6-64)

WORKS LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL RE. .RT		
Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT.

NUMBERS = _____ ON A _____ BASIS

" _____ " MEANS "SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
M-31554-03	7/16/64	3379

SENDER	DATE ANALYSIS NEEDED
Bonner	

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-99

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION	TARE
Au Sample Solution	

INSTRUCTIONS	NET

REQUESTED ANALYSIS	UNITS	RESULT(S)
Cr_2O_3	Total mg	<0.01

RESULT APPROVED BY	DATE
Thwamosh	7/28/64

UCN-5901
(1 6-64)

WORKS LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL RE. .RT		
Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT.

NUMBERS = _____ ON A _____ BASIS

" _____ " MEANS "SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
M-31534-03	7/16/64	3376

SENDER	DATE ANALYSIS NEEDED
Bomar	

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-96

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION	TARE
Air Sample Solution	

INSTRUCTIONS	NET

REQUESTED ANALYSIS	UNITS	RESULT(S)
U.	Total mg	<0.01

RESULT APPROVED BY	DATE
T Kwamoshi	7/28/64

Sample #

TYPE	Spectro #	Originator #		total ug Pb
As	7261	HP95		<10
Au				
B	7260	HP94		<10
Ba				
Be	7259	HP93		26
Bi				
Ca	7256	HP90		<10
Cb				
Cd	7257	HP91		<10
Co				
Cr	7258	HP92		<10
Cs				
Cu				
Fe				
Ga				
Ge				
Hi				
Hg				
In				
Ir				
K				
Li				
Mg				
Mn				
Ni				
Os				
P				
Pb				
Pd				
Pt				
Rb				
Re				
Rh				
Si				
Sn				
Sr				
Ta				
Te				
Th				
Ti				
Tl				
U				
V				
W				
Y				

Report No. 17657
Date 16 July 1964
By Randolph

SPECTROCHEMICAL REPORT

Analysis Requested by Muldrew

METHOD USED:

☐ QUALITATIVE
The amount reported may vary between one third and three times the true value.

☐ SEMI-QUANTITATIVE
The amount reported is approximately within 20% of the true value.

☐ QUANTITATIVE
The precision is approximately plus or minus 5% of the amount reported.

"_____" means "sought but not found"

Numbers =

When an element is not reported, it usually contains sensitive lines at wave lengths which are outside the region photographed for this analysis. A special re-run can be made for any element that is of interest. In addition to the elements listed, the rare earth elements may also be obtained.

REMARKS:

Supervisor R. C. Farrar

Phone 8527

WCX-2429-A (8-55)

REPORT OF WATER ANALYSES

REPORT NO. 611

Distribution:

A. F. Becher, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
275-W	7-13-64	Hazardous Chemical 2 Disposal Facilities H_2O		8.5	0.14		
276-W	"	3 " "		8.5	0.14		
277-W	"	4 " "		8.5	0.10		
278-W	"	5 " "		8.4	0.13		
279-W	"	6 " "		8.5	0.13		
					Microcuries/gram x 10^{-7}		
280-W	"	2 " Mud			93		
281-W	"	3 " "			269		
282-W	"	4 " "			88		
283-W	"	5 " "			67		
284-W	"	6 " "			68		

$\frac{N}{7}$ = ppm

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 9/15/64

REPORT OF WATER ANALYSES

REPORT NO. 610

Distribution:
A. F. Becher, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
262-W	7-4-64	CW-1	0.9	7.1	0.10	0.12	0.14
263-W	"	CW-3	1.0	7.5	0.16	0.27	0.55
264-W	"	CW-5	0.4	7.7	0.00	0.06	0.28
265-W	"	CW-6	0.4	7.7	0.00	0.10	0.14
266-W	"	CW-7	0.8	7.8	0.00	0.00	0.17
267-W	"	CW-8	1.0	7.8	0.03	0.12	0.10
268-W	"	DW-1	0.2	7.2	0.00	0.00	0.00

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORAT[illegible]
SPECIAL ANALY[illegible] SERVICES DEPARTMENT

SUP[illegible]OR T. Kwasnoski

DATE RELEASED 9/1[illegible]/64

UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. 607

Distribution:
A.F.Decher, W.H.Taylor,
C.H.Mahoney, T.Kwasnoski,RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	~~FLUORIDES~~ Hg, ppb.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
250-W	6-27-64	CW-1	6				
254-W	"	CW-7	6				
257-W	6-28-64	A Loop	2				
258-W	"	801-A	0				
259-W	"	K-832 - C Loop	4				
260-W	"	E Loop	0				
261-W	"	G and H Loop	0				
262-W	7-4-64	CW-1	0				
266-W	"	CW-7	4				
269-W	"	K-802 A and B	6				
270-W	"	832 C Loop	0				
271-W	"	901 Raw Water	0				
272-W	"	G-Loop	0				
273-W	"	K-801-A	0				
274-W	"	K-862 E Loop	2				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 8/20/64

REPORT OF WATER ANALYSES

REPORT NO. 605

Distribution:
A. F. Becher, W. H. Taylor,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
248-W	6-26-64	Disposal Facility (North)			2400		
249-W	"	Disposal Facility (South)			13		
						MICROCURIES/Gram x 10^{-7}	
					Uranium	Alpha	Beta
159-W	4-16-64	HPS-1			6.0	29.7	139.5
160-W	"	HPS-2			10.5	42.3	589.5
161-W	"	HPS-3			9.8	36.9	283.5
162-W	"	HPS-4			6.2	27.0	288.0
163-W	"	HPS-5			13.3	36.0	171.0

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT
UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 8/1[illegible]/64

REPORT OF WATER ANALYSES

REPORT NO. 606

Distribution:
A. F. Becher, W. H. Taylor,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
241-W	6-20-64	CW-1	0.2	7.7	0.03	0.04	0.13
242-W	"	CW-3	0.2	8.1	0.07	0.08	0.22
243-W	"	CW-5	0.1	8.0	0.00	0.00	0.24
244-W	"	CW-6	0.0	7.3	0.00	0.03	0.32
245-W	"	CW-7	0.0	7.8	0.00	0.00	0.23
246-W	"	CW-8	0.2	7.6	0.05	0.06	0.20
247-W	"	DW-1	0.0	7.4	0.04	0.00	0.31
250-W	6-27-64	CW-1	0.4	8.9	0.15	0.22	0.24
251-W	"	CW-3	0.3	8.1	0.16	0.34	0.51
252-W	"	CW-5	0.1	8.1	0.00	0.00	0.19
253-W	"	CW-6	0.1	7.4	0.00	0.00	0.11
254-W	"	CW-7	0.5	8.2	0.00	0.00	0.18
255-W	"	CW-8	0.2	7.7	0.14	0.05	0.11
256-W	"	DW-1	0.0	7.4	0.00	0.00	0.22

Safety and Health Physics

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 8/13/64

ISOTOPIC SERVICES DEPARTMENT

RADIOACTIVITY ANALYSIS REPORT

TO: C. F. Becker

SAMPLE TYPE: Health Survey Filter Samples

REPORT OR REQUEST NO.:

SAMPLE NUMBER	ALPHA Cts. ~~Dis.~~/min.	ALPHA μc./cc.	~~BETA~~ Dis./~~min.~~	~~BETA~~ μc./cc.			
HPX-401	19						
HPX-402	5						
			$\frac{19}{150}$ =	0.13	c/m/ft³		
			$\frac{5}{150}$ =	0.03	"		

Th-Mg heat treating

Safety and Health Physics

Jun 12 AM 11:28

DATE: 6-11-64

REPORTED BY: A R Flynn

1 microcurie (μc.) = 2.2 × 10^6 disintegrations per minute.

UCN-5486
(1 2-64)

REPORT OF WATER ANALYSES

REPORT NO. 604

Distribution:
A. F. Becher, W. H. Taylor,
T. Kwasnoski (RC)

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
223-W	6-6-64	CW-1	0.2	7.3	0.29	0.22	0.15
224-W	"	CW-3	0.3	7.4	0.04	0.12	0.59
225-W	"	CW-5	0.2	8.1	0.00	0.02	0.76
226-W	"	CW-6	0.3	7.3	0.00	0.05	0.60
227-W	"	CW-7	0.1	7.8	0.00	0.00	1.48
228-W	"	CW-8	0.0	7.4	0.01	0.01	0.13
229-W	"	DW-1	0.0	7.1	0.00	0.00	0.44
234-W	6-13-64	CW-1	0.3	7.7	0.05	0.08	0.23
235-W	"	CW-3	0.3	8.4	0.17	0.24	0.70
236-W	"	CW-5	0.2	8.0	0.00	0.04	0.90
237-W	"	CW-6	0.1	7.5	0.00	0.00	0.81
238-W	"	CW-7	0.1	7.9	0.00	0.02	0.29
239-W	"	CW-8	0.3	7.7	0.06	0.09	0.15
240-W	"	DW-1	0.0	7.4	0.00	0.00	0.17

Safety and Health Physics
JUL 15 PM 1:02

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-8252

SUPERVISOR T. Kwasnoski

DATE RELEASED 7/16/64

REPORT OF WATER ANALYSES

REPORT NO. 608

Distribution:

A.F.Becher, W.H.Taylor, C.H.Mahoney, T.Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	~~EXCHRIDES~~ Hg, ppb.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
223-W	6-6-64	CW-1	0				
227-W	"	CW-7	0				
230-W	"	B and A Loop	0				
231-W	"	C Loop	0				
232-W	"	E Loop	0				
233-W	"	G and H 892	0				
234-W	6-13-64	CW-1	0				
238-W	"	CW-7	8				
241-W	6-20-64	CW-1	0				
245-W	"	CW-7	10				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T.Kwasnoski

DATE RELEASED 8/20/64

REPORT OF WATER ANALYSES

REPORT NO. 603

Distribution:
A. F. Becher, W. H. Taylor,
T. Kwasnoski (RC)

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
210-W	5-30-64	CW-1	0.3	7.3	0.03	0.21	0.20
211-W	"	CW-3	0.5	7.6	0.13	0.20	0.62
212-W	"	CW-5	0.9	7.8	0.05	0.00	0.63
213-W	"	CW-6	0.0	7.3	0.00	0.01	0.61
214-W	"	CW-7	0.2	8.3	0.00	0.04	0.29
215-W	"	CW-8	0.5	7.5	0.00	0.00	0.27
216-W	"	DW-1	0.3	7.2	0.00	0.01	0.68
217-W	6-4-64	Waste Disposal	4.1	9.1	4.73	1.85	
218-W	6-5-64	Northwest Bank Across from Dock	1.9	8.6	2.25	2.27	
219-W	"	Above Causeway	1.8	8.3	2.10	2.00	
220-W	"	End of Dock	2.1	8.4	3.16	2.47	
221-W	"	Lower Side of Dam	1.8	7.5	0.79	0.98	
222-W	"	Upperside of Dam	1.7	7.9	1.18	1.00	

Safety and Health Physics
JUL 16 PM 1:02

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 7/16/64

ANALYSIS REPORT

VISION OR LABORATORY Works Laboratory	SAMPLE Solutions
TMENT Chemical Services	SEQUENCE NO. V-12 [illegible]
ATE RECEIVED May 20, 1964	REQUEST NO. M-30467-03

RESULTS

Sample Number	V-12	µg. U/ml. (0.2 ml sample)	d/m/ml. (1 ml sample)
HPX-401	4	4.93	482.4
HPX-402	1	1.19	129.8
HPX-403	0.5	0.59	63.5
HPX-404	2	2.19	268.1
HPX-405	5	6.26	617.1
HPX-406	0.75	0.86	104.2
HPX-407	3	3.38	349.1

U in Urine [illegible] Fluor. 49.6 ± 4.1

α in Urine dbm/100ml TOPO→[illegible] 9.7 ± 11.8

Safety and Health Physics

REMARKS

SUBMITTED BY N. B. Schultz	LOCATION K-1003
RESULTS APPROVED BY T Kwasnoski	DATE 5/26/64

UCN-1232

REPORT OF WATER ANALYSES

REPORT NO. 602

Distribution:
A. F. Becher, W. H. Taylor,
T. Kwasnoski (RC)

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. X 10^{-7} URANIUM*	ALPHA	BETA
196-W	5-16-64	CW-1	0.3	7.1	0.11	0.24	0.21
197-W	"	CW-3	0.2	7.3	0.11	0.18	0.40
198-W	"	CW-5	0.2	7.9	0.03	0.01	2.38
199-W	"	CW-6	0.0	7.2	0.00	0.00	1.76
200-W	"	CW-7	0.2	7.5	0.00	0.06	0.53
201-W	"	CW-8	0.1	7.4	0.03	0.03	0.14
202-W	"	DW-1	0.0	7.0	0.00	0.02	0.96
203-W	5-23-64	CW-1	0.4	8.5	0.62	0.62	0.68
204-W	"	CW-3	0.5	7.9	0.27	0.30	0.63
205-W	"	CW-5	0.1	4.8	0.00	0.07	0.56
206-W	"	CW-6	0.8	7.3	0.00	0.05	0.66
207-W	"	CW-7	0.1	8.0	0.03	0.06	0.58
208-W	"	CW-8	0.2	7.5	0.03	0.15	0.09
209-W	"	DW-1	0.5	7.1	0.00	0.02	0.41

* *Calculated from uranium content assuming natural isotopic abundance.*

Safety and Health Physics

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T Kwasnoski

DATE RELEASED 7/16/64

UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. 2

Distribution:
A.F.Becher, T.Kwasnoski, RC
C.H.Mahoney, W.H.Taylor

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	~~URANIUM~~ Hg ppb.	FLUORIDES ppm.	pH	Counts per min/100 ml. ALPHA	BETA
189-W	5-9-64	CW-1	0				
193-W	"	CW-7	0				
196-W	5-16-64	CW-1	2				
200-W	"	CW-7	0				
203-W	5-23-64	CW-1	0				
207-W	"	CW-7	0				
210-W	5-30-64	CW-1	12				
214-W	"	CW-7	8				

Safety and Health Physics
JUN 16 PM 3:04

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory [illegible]rtment
Special Analysis [illegible]on

SUPERVISOR Kwasnoski

DATE RELEASED 6/16/64

REPORT OF WATER ANALYSES

REPORT NO. 600

Distribution:

A.F.Becher, T.Kwasnoski,RC, W.H.Taylor

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
178-W	5-2-64	CW-1	0.4	7.2	0.12	0.18	0.30
179-W	"	CW-3	0.3	7.2	0.08	0.11	0.33
180-W	"	CW-5	0.3	7.5	0.03	0.05	3.12
181-W	"	CW-6	0.6	7.5	0.00	0.02	1.17
182-W	"	CW-7	0.6	8.2	0.02	0.02	0.74
183-W	"	CW-8	0.2	7.5	0.00	0.03	0.09
189-W	5-9-64	CW-1	1.0	7.3	0.13	0.19	0.17
190-W	"	CW-3	0.5	8.1	0.02	0.16	2.53
191-W	"	CW-5	0.4	7.9	0.00	0.11	3.38
192-W	"	CW-6	0.3	7.3	0.00	0.08	3.22
193-W	"	CW-7	0.2	7.5	0.00	0.13	3.15
194-W	"	CW-8	0.5	7.4	0.00	0.06	0.00
195-W	"	DW-1	0.2	7.0	0.00	0.14	2.82

Safety and Health Physics

1964 JUN 16 PM 3:04

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T Kwasnoski

DATE RELEASED 6/16/64

CHEMICAL SERVICES NO. 1461

SAMPLE SUBMITTED BY	BLDG. NO.	PHONE
Bill Muldrow	X1003	
REQUEST NO.	CHARGE	
	110875	

CS NUMBER	RM	1	RM	2	RM	3	RM	4	RM	5	RM	6
DATE RECEIVED		4/28		4/28		4/28		4/28		4/28		4/28
DESCRIPTION		HPX 1209		HPX 1210		HPX 1211		HPX 1212		HPX 1213		HPX 1214
gU/g of solid	10/3	0.3527	10/3	0.2188	10/3	0.5040	10/3	0.0049	10/3	0.00068	10/3	0.00094

DATE

RESULTS APPROVED BY

Kwasnoski

UCN-1659
(1 9-63)

N.B. Schultz -
Sample -
K-1004A - Sampling Section Rm #19

Time 4-[illegible]-64 - to 4-24-64

Volume - 36000 ft³ -

Average air activity 0.114 c/m/ft³

~~nba~~ JSR - file

ISOTOPIC SERVICES DEPARTMENT

RADIOACTIVITY ANALYSIS REPORT

TO: C. F. Becker

SAMPLE TYPE: Health Survey Filter Samples

REPORT OR REQUEST NO.:

SAMPLE NUMBER	ALPHA		BETA				
	Cts./~~Dis.~~/min.	μc./cc.	Dis./min.	μc./cc.			
HPX-122C	4104						

Safety and Health Physics

APR 30 PM 3:19

DATE: 4-29-64

REPORTED BY: A R Flynn

1 microcurie (μc.) = 2.2 × 10^6 disintegrations per minute.

UCN-5486
(1 2-64)

REPORT OF WATER ANALYSES

REPORT NO. 599

Distribution:
A.F.Becher, T.Kwasnoski,RC,
W.H.Taylor

Safety and Health Physics

1964 JUN 15 PM 3:04

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
164-W	4-18-64	CW-1	0.9	7.1	0.28	0.18	0.13
165-W	"	CW-3	0.5	7.2	0.05	0.08	0.14
166-W	"	CW-5	0.6	7.9	0.00	0.03	1.31
167-W	"	CW-6	0.4	7.4	0.00	0.00	1.34
168-W	"	CW-7	0.8	7.8	0.00	0.00	0.62
169-W	"	CW-8	0.4	6.8	0.00	0.00	0.02
170-W	"	DW-1	0.5	7.1	0.00	0.00	1.58
171-W	4-25-64	CW-1	0.7	7.3	4.68	4.21	3.55
172-W	"	CW-3	0.4	7.1	0.05	0.12	0.24
173-W	"	CW-5	0.3	7.9	0.00	0.00	1.00
174-W	"	CW-6	0.3	7.2	0.00	0.00	0.88
175-W	"	CW-7	0.3	7.6	0.00	0.08	0.40
176-W	"	CW-8	0.3	7.2	0.00	0.07	0.06
177-W	"	DW-1	0.0	7.0	0.00	0.04	0.61

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T.Kwasnoski

DATE RELEASED 6/16/64

REPORT OF WATER ANALYSES

REPORT NO. 601

Distribution:
A. F. Becher, W. H. Taylor,
T. Kwasnoski (RC)

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. X 10^{-7} URANIUM*	ALPHA	BETA
144-W	4-16-64	HPW-1	0.5	7.0	0.00	0.00	0.04
145-W	"	HPW-2	0.5	7.5	0.00	0.02	0.06
146-W	"	HPW-3	0.5	6.2	0.00	0.00	0.30
147-W	"	HPW-4	0.5	6.4	0.00	0.01	0.28
148-W	"	HPW-5	0.4	7.2	0.00	0.04	0.07
					MICROCURIES/gram X 10^{-7}		
149-W	"	HPV-1	42		2.8	12.6	1205
150-W	"	HPV-2	17		4.9	11.3	938
151-W	"	HPV-3	41		1.4	9.9	685
152-W	"	HPV-4	51		4.2	9.9	783
153-W	"	HPV-5	23		5.6	7.2	1218
154-W	"	HPP-1	10		1.4	4.5	738
155-W	"	HPP-2	11		2.1	3.6	1104
156-W	"	HPP-3	9		0.7	4.1	1004
157-W	"	HPP-4	14		3.5	4.1	1139
158-W	"	HPP-5	7		2.8	4.1	959

Safety and Health Physics

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORAT[illegible]
SPECIAL ANALYT[illegible] SERVICES DEPARTMENT

SUP[illegible]OR T. Kwasnoski

DATE RELEASED 7/16/64

UCN-3252

WE 4

ISOTOPIC SERVICES DEPARTMENT

RADIOACTIVITY ANALYSIS REPORT

TO: A. F. Becker

SAMPLE TYPE: Health Survey Filter Samples

REPORT OR REQUEST NO.:

SAMPLE NUMBER	ALPHA Cts. ~~Dis.~~/min.	ALPHA μc./cc.	BETA Dis./min.	BETA μc./cc.			
Outside Right Side	1						
Outside Top	4						
Outside Bottom	19						
Outside Lid	4						
Outside Pipe	16						
Inside Right Side	4						
Inside Left Side	18						
Inside Back	5						
Inside Bottom	20						
[illegible] Side	30						
Welds Left Side	16						
Small Parts	43						

DATE: 4-14-64

REPORTED BY: A. R. Flynn

1 microcurie (μc.) = 2.2 × 10^6 disintegrations per minute.

UCN-5486
(1 2-64)

1/E-M

ISOTOPIC SERVICES DEPARTMENT

RADIOACTIVITY ANALYSIS REPORT

TO: A. F. Becker

SAMPLE TYPE: Health Survey Filter Samples

REPORT OR REQUEST NO.:

SAMPLE NUMBER	ALPHA Cts. ~~Dis.~~/min.	ALPHA µc./cc.	BETA Dis./min.	BETA µc./cc.			
Inside Bottom	4						
Inside Lid	2						
Inside Pipe	7						
Inside Weld	4						

DATE: 4-13-64

REPORTED BY: A R Flynn

1 microcurie (µc.) = 2.2×10^6 disintegrations per minute.

UCN-5486
(1 2-64)

REPORT OF WATER ANALYSES

REPORT NO. _____

Distribution:
A.F.Becher, T.Kwasnoski,RC,
C.H.Mahoney, W.H.Taylor

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	~~URANIUM~~ Hg ppb.	FLUORIDES ppm.	pH	Counts per min/100 ml. ALPHA	BETA
137-W	4-10-64	CW-1	8				
144-W	"	CW-7	0				
164-W	4-18-64	CW-1	2				
168-W	"	CW-7	0				
171-W	4-25-64	CW-1	8				
175-W	"	CW-7	8				
178-W	5-2-64	CW-1	0				
182-W	"	CW-7	0				
184-W	"	A and B 801-A	0				
185-W	"	A and B 802	0				
186-W	"	C-Loop	0				
187-W	"	E-Loop	0				
188-W	"	G-Loop	0				

Safety and Health Physics
JUN 15 PM 3:04

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR Kwasnoski

DATE RELEASED 6/16/64

ISOTOPIC SERVICES DEPARTMENT

RADIOACTIVITY ANALYSIS REPORT

TO: Mr. W. E. Murdow

SAMPLE TYPE: Filter paper - wipe sample

REPORT OR REQUEST NO.: TAKEN FROM X-10 GLOVE BOX & R1420 3/26/63

SAMPLE NUMBER	ALPHA Dis./min.	ALPHA µc./cc.	BETA Dis./min.	BETA µc./cc.			
	The following alpha energies were measured on the above sample						
					3.95 MeV		Th^{232}
					4.67 MeV		Th^{230}
					5.41 MeV		Th^{228}
					5.65 MeV		Ra^{224}
			Very low peak		6.07 MeV		Po^{218}
					6.28 MeV		Rn^{220}

DATE: 4-6-64

REPORTED BY: A. R. Flynn

1 microcurie (µc.) = 2.2×10^6 disintegrations per minute.

UCN-5486
(1 2-64)

REPORT OF WATER ANALYSES

REPORT NO.

Distribution:
A. F. Becher, W. H. Taylor,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
121-W	4-4-64	CW-1	0.3	6.9	1.08	0.95	1.06
122-W	"	CW-3	0.0	7.1	0.05	0.18	0.27
123-W	"	CW-5	0.3	7.6	0.00	0.00	2.30
124-W	"	CW-6	0.1	7.5	0.00	0.00	1.63
125-W	"	CW-7	0.4	7.6	0.00	0.05	0.67
126-W	"	CW-8	0.2	7.4	0.00	0.00	0.21
137-W	4-10-64	CW-1	1.0	7.0	0.18	0.18	0.21
138-W	"	CW-3	0.8	7.3	0.06	0.06	0.14
139-W	"	CW-5	0.6	7.5	0.01	0.05	1.25
140-W	"	CW-6	0.9	7.4	0.01	0.04	1.01
141-W	"	CW-7	0.8	7.6	0.08	0.16	0.76
142-W	"	CW-8	1.0	7.5	0.01	0.00	0.10
143-W	"	DW-1	0.4	7.1	0.00	0.00	3.19

Safety and Health Physics

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T. Kwasnoski

DATE RELEASED 5/13/64

UCN-3252
(1 11-61)

REPORT OF WATER ANALYSES

REPORT NO. 59

Distribution:
A.F.Becher, T. Kwasnoski,RC,
C.H.Mahoney, W.H.Taylor

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	~~URANIUM~~ Hg ppb.	FLUORIDES ppm.	pH	Counts per min/100 ml. ALPHA	BETA
106-W	3-21-64	CW-1	2				
110-W	"	CW-7	20				
113-W	3-28-64	CW-1	0				
117-W	"	CW-7	0				
120-W	4-3-64	Hypochlorite	240				
127-W	4-4-64	A and B MU	0				
128-W	"	A and B Loop	0				
129-W	"	C Loop	0				
130-W	"	E Loop	14				
131-W	"	G Loop	24				
132-W	4-6-64	A and B Loop	14				
133-W	"	801-A MU	18				
134-W	"	C Loop	12				
135-W	"	E-Loop	0				
136-W	"	G Loop	0				
121-W	4-4-64	CW-1	4				
125-W	"	CW-7	0				

Safety and Health Physics
JUN 16 PM 3:04

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory [illegible]rtment
Special Analysis [illegible]on

SUPERVISOR Kwasnoski

DATE RELEASED 6/16/64

REPORT OF WATER ANALYSES

REPORT NO. _____

Distribution:
A. F. Becher, W. H. Taylor,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
106A-W	3-21-64	CW-1	0.5	7.0	0.15×10^{-7}	0.14×10^{-7}	0.28×10^{-7}
107-W	"	CW-3	0.2	7.1	0.07×10^{-7}	0.10×10^{-7}	0.26×10^{-7}
108-W	"	CW-5	0.0	7.4	0.00×10^{-7}	0.03×10^{-7}	1.33×10^{-7}
109-W	"	CW-6	0.1	7.3	0.00×10^{-7}	0.00×10^{-7}	1.73×10^{-7}
110-W	"	CW-7	0.1	7.6	0.00×10^{-7}	0.00×10^{-7}	0.77×10^{-7}
111-W	"	CW-8	0.0	7.6	0.00×10^{-7}	0.00×10^{-7}	0.32×10^{-7}
112-W	"	DW-1	0.1	6.9	0.00×10^{-7}	0.00×10^{-7}	1.48×10^{-7}
113-W	3-28-64	CW-1	0.3	7.3	0.06×10^{-7}	0.03×10^{-7}	0.19×10^{-7}
114-W	"	CW-3	0.1	7.4	0.04×10^{-7}	0.08×10^{-7}	0.15×10^{-7}
115-W	"	CW-5	0.1	7.7	0.03×10^{-7}	0.00×10^{-7}	2.88×10^{-7}
116-W	"	CW-6	0.2	7.4	0.00×10^{-7}	0.00×10^{-7}	1.55×10^{-7}
117-W	"	CW-7	0.2	7.7	0.01×10^{-7}	0.10×10^{-7}	1.01×10^{-7}
118-W	"	CW-8	0.1	7.7	0.00×10^{-7}	0.00×10^{-7}	0.08×10^{-7}
119-W	"	DW-1	0.1	7.2	0.00×10^{-7}	0.00×10^{-7}	2.79×10^{-7}

Safety and ~~Health~~ Physics

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T. Kwasnoski

DATE RELEASED 5/13/64

UCN-3252
(1 11-61)

REPORT OF WATER ANALYSES

REPORT NO. 592

Distribution:
A. F. Becher, W. H. Taylor,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
92-W	3-13-64	HP 57-W	0.8	2.0	25.1×10^{-7}	16.32×10^{-7}	35.06×10^{-7}
93-W	"	HP 58-W	1.2	1.9	32.7×10^{-7}	14.10×10^{-7}	33.76×10^{-7}
94-W	"	HP 59-W	0.8	7.1	11.3×10^{-7}	1.92×10^{-7}	18.51×10^{-7}
95-W	"	HP 60-W	1.4	7.0	19.5×10^{-7}	2.58×10^{-7}	21.07×10^{-7}
96-W	"	HP 61-W	0.6	7.6	0.00×10^{-7}	0.03×10^{-7}	3.46×10^{-7}
97-W	"	HP 62-W	0.7	8.5	0.00×10^{-7}	0.03×10^{-7}	3.76×10^{-7}
98-W	"	HP 63-W	1.5	8.6	0.59×10^{-7}	0.81×10^{-7}	9.66×10^{-7}
99-W	3-19-64	HP 64-W	0.3	8.3	0.29×10^{-7}	0.58×10^{-7}	9.02×10^{-7}
100-W	3-14-64	CW-1	0.5	7.5	0.13×10^{-7}	0.18×10^{-7}	0.54×10^{-7}
101-W	"	CW-3	0.9	7.3	0.08×10^{-7}	0.19×10^{-7}	0.82×10^{-7}
102-W	"	CW-5	0.6	7.5	0.03×10^{-7}	0.02×10^{-7}	4.32×10^{-7}
103-W	"	CW-6	0.5	7.4	0.03×10^{-7}	0.00×10^{-7}	3.10×10^{-7}
104-W	"	CW-7	0.9	7.6	0.02×10^{-7}	0.04×10^{-7}	1.76×10^{-7}
105-W	"	CW-8	0.7	7.4	0.01×10^{-7}	0.03×10^{-7}	0.16×10^{-7}
106-W	"	DW-1	0.5	7.1	0.03×10^{-7}	0.02×10^{-7}	2.78×10^{-7}

Safety and Health Physics
[illegible] 10 PM 1:03

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORAT[illegible]
SPECIAL ANALY[illegible] SERVICES DEPARTMENT

UCN-3252
(1 11-61)

SUP[illegible]OR T. Kwasnoski

DATE RELEASED 4/9[illegible]

REPORT OF WATER ANALYSES

REPORT NO. 591

Distribution:
A. F. Becher, W. H. Taylor,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	μμc/l Sr	FLUORIDES ppm.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
79-W	2-28-64	Melted Snow	28	0.3	5.2	0.00×10^{-7}	0.22×10^{-7}	3.06×10^{-7}
80-W	3-7-64	CW-1		0.1	6.9	0.25×10^{-7}	0.19×10^{-7}	0.22×10^{-7}
81-W	"	CW-3		0.1	7.1	0.02×10^{-7}	0.09×10^{-7}	0.28×10^{-7}
82-W	"	CW-5		0.0	7.1	0.00×10^{-7}	0.01×10^{-7}	1.86×10^{-7}
83-W	"	CW-6		0.3	7.2	0.00×10^{-7}	0.02×10^{-7}	3.35×10^{-7}
84-W	"	CW-7		0.2	7.3	0.00×10^{-7}	0.15×10^{-7}	1.52×10^{-7}
85-W	"	CW-8		0.1	7.4	0.00×10^{-7}	0.01×10^{-7}	0.15×10^{-7}
86-W	"	DW-1		0.0	7.0	0.00×10^{-7}	0.00×10^{-7}	3.11×10^{-7}

Safety and Health Physics

1:03

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252
(1 11-61)

SUPERVISOR T. Kwasnoski

DATE RELEASED 4/9/64

REPORT OF WATER ANALYSES

REPORT NO.

Distribution:
A. F. Becher, W. H. Taylor,
C. H. Mahoney, T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	~~URANIUM~~ Hg ppb.	FLUORIDES ppm.	pH	Counts per min/100 ml. ALPHA	BETA
63-W	2-22-64	CW-1	0				
67-W	"	CW-7	0				
72-W	2-29-64	CW-1	0				
76-W	"	CW-7	4				
80-W	3-7-64	CW-1	4				
84-W	"	CW-7	0				
87-W	3-7-64	C-Loop	4				
88-W	"	E-Loop	4				
89-W	"	G-Loop	24				
90-W	"	801-A	0				
91-W	"	K-802	12				
100-W	3-14-64	CW-1	8				
104-W	"	CW-7	0				

Safety and Health Physics
1964 MAR 31 PM 1:48

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory [illegible]rtment
Special Analysis [illegible]on

SUPERVISOR T. Kwasnoski

DATE RELEASED 3/30/64

REPORT OF WATER ANALYSES

REPORT NO. 593

Distribution:
A. F. Becher, W. H. Taylor,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
63-W	2-22-64	CW-1	0.1	7.2	1.5×10^{-8}	0.06×10^{-7}	0.22×10^{-7}
64-W	"	CW-3	0.1	7.3	1.3×10^{-8}	0.03×10^{-7}	0.17×10^{-7}
65-W	"	CW-5	0.0	7.6	$< 7.0 \times 10^{-10}$	0.00×10^{-7}	1.93×10^{-7}
66-W	"	CW-6	0.0	7.4	$< 7.0 \times 10^{-10}$	0.00×10^{-7}	1.76×10^{-7}
67-W	"	CW-7	0.0	7.5	7.0×10^{-10}	0.00×10^{-7}	1.00×10^{-7}
68-W	"	CW-8	0.0	7.2	$< 7.0 \times 10^{-10}$	0.00×10^{-7}	0.06×10^{-7}
69-W	"	DW-1	0.0	7.1	$< 7.0 \times 10^{-10}$	0.00×10^{-7}	2.36×10^{-7}
70-W	2-27-64	Clinch River at Emory Valley	0.2	6.5	$< 7.0 \times 10^{-10}$	0.02×10^{-7}	0.04×10^{-7}
71-W	"	Scarboro Gauge Station	0.1	6.8	$< 7.0 \times 10^{-10}$	0.03×10^{-7}	0.00×10^{-7}
72-W	2-29-64	CW-1	0.5	6.8	0.18×10^{-7}	0.18×10^{-7}	0.09×10^{-7}
73-W	"	CW-3	0.3	6.9	0.05×10^{-7}	0.09×10^{-7}	0.04×10^{-7}
74-W	"	CW-5	0.1	7.1	0.00×10^{-7}	0.08×10^{-7}	0.87×10^{-7}
75-W	"	CW-6	0.1	7.2	0.00×10^{-7}	0.05×10^{-7}	1.81×10^{-7}
76-W	"	CW-7	0.1	7.2	0.00×10^{-7}	0.03×10^{-7}	0.73×10^{-7}
77-W	"	CW-8	0.2	7.2	0.00×10^{-7}	0.09×10^{-7}	0.00×10^{-7}
78-W	"	DW-1	0.1	7.1	0.00×10^{-7}	0.02×10^{-7}	1.33×10^{-7}

Safety and Health Physics

[illegible] 10 PM 1:04

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T Kwasnoski

DATE RELEASED 4/9/64

REPORT OF WATER ANALYSES

REPORT NO. 587

Distribution:
A. F. Becher, W. H. Taylor,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
49-W	2-8-64	CW-1	1.0	7.1	2.3×10^{-8}	0.28×10^{-7}	0.36×10^{-7}
50-W	"	CW-3	0.3	7.1	8.4×10^{-9}	0.16×10^{-7}	0.32×10^{-7}
51-W	"	CW-5	0.3	7.5	$< 7.0 \times 10^{-10}$	0.14×10^{-7}	1.63×10^{-7}
52-W	"	CW-6	0.7	7.4	4.2×10^{-9}	0.05×10^{-7}	1.34×10^{-7}
53-W	"	CW-7	1.0	7.4	7.0×10^{-9}	0.11×10^{-7}	0.50×10^{-7}
54-W	"	CW-8	0.6	7.3	7.0×10^{-10}	0.01×10^{-7}	0.18×10^{-7}
55-W	"	DW-1	0.6	7.2	$< 7.0 \times 10^{-10}$	0.00×10^{-7}	1.24×10^{-7}
56-W	2-15-64	CW-1	0.6	7.2	2.5×10^{-8}	0.29×10^{-7}	0.30×10^{-7}
57-W	"	CW-3	0.2	7.3	6.3×10^{-9}	0.09×10^{-7}	0.48×10^{-7}
58-W	"	CW-5	0.8	7.7	7.0×10^{-10}	0.00×10^{-7}	1.08×10^{-7}
59-W	"	CW-6	0.3	7.6	2.8×10^{-9}	0.13×10^{-7}	1.15×10^{-7}
60-W	"	CW-7	0.2	7.5	3.5×10^{-9}	0.02×10^{-7}	0.53×10^{-7}
61-W	"	CW-8	0.3	7.6	2.1×10^{-9}	0.06×10^{-7}	1.03×10^{-7}
62-W	"	DW-1	0.5	7.1	7.0×10^{-10}	0.00×10^{-7}	0.49×10^{-7}

Safety and Health Physics

1964 MAR 24 PM 12:44

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYSIS SERVICES DEPARTMENT

SUPERVISOR T. Kwasnoski

DATE RELEASED 3/23/64

UCN-3252
(1 11-41)

ANALYSIS REPORT

DIVISION OR LABORATORY	SAMPLE
Works Laboratory	Filter Papers
DEPARTMENT	SEQUENCE NO.
Chemical Services	
DATE RECEIVED	REQUEST NO.
1/27/64	

RESULTS

Sample No.	Total Alpha Dis./ min.	Sample No.	Total Alpha dis/min.
HPX-1102	10,000	HPX-1204 A	690
HPX-1103	9,200	HPX-1204 C	480
HPX-1201 A	264	HPX-1204 D	212
HPX-1201 B	236	HPX-1205 A	160
HPX-1201 C	260	HPX-1205 B	3,000
HPX-1201 D	216	HPX-1205 C	45
HPX-1202 A	650	HPX-1205 D	14,000
HPX-1202 C	176	HPX-1206 A	78
-1202 D	730	HPX-1206 C	100
HPX-1203 A	236	HPX-1206 D	228
HPX-1203 B	49		
HPX-1203 C	36		
HPX-1203 D	35		

REMARKS

1964 FEB 7 AM 11:31
Safety and Health Payroll

SUBMITTED BY	LOCATION
N. B. Schultz	K-1003
RESULTS APPROVED BY	DATE
T Kwasnoski	2/6/64

UCN-1232
(15 1-60)

REPORT OF WATER ANALYSES

REPORT NO. 588

Distribution:
A. F. Becher, W. H. Taylor,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
29-W	1-25-64	CW-1 - No sample					
30-W	"	CW-3	0.6	6.3	9.8×10^{-9}	0.07×10^{-7}	0.43×10^{-7}
31-W	"	CW-5	0.1	7.1	$< 7.0 \times 10^{-10}$	0.00×10^{-7}	1.27×10^{-7}
32-W	"	CW-6	0.1	7.2	$< 7.0 \times 10^{-10}$	0.00×10^{-7}	2.96×10^{-7}
33-W	"	CW-7	0.5	7.2	5.6×10^{-9}	0.19×10^{-7}	0.57×10^{-7}
34-W	"	CW-8	0.4	7.2	$< 7.0 \times 10^{-10}$	0.00×10^{-7}	0.50×10^{-7}
35-W	"	DW-1	0.2	7.0	$< 7.0 \times 10^{-10}$	0.00×10^{-7}	0.59×10^{-7}
36-W	2-1-64	CW-1	0.5	7.2	4.1×10^{-8}	0.30×10^{-7}	0.48×10^{-7}
37-W	"	CW-3	0.0	7.4	6.3×10^{-9}	0.35×10^{-7}	0.56×10^{-7}
38-W	"	CW-5	0.1	7.6	$< 7.0 \times 10^{-10}$	0.00×10^{-7}	4.98×10^{-7}
39-W	"	CW-6	0.0	7.6	$< 7.0 \times 10^{-10}$	0.00×10^{-7}	1.26×10^{-7}
40-W	"	CW-7	0.0	7.7	7.0×10^{-9}	0.01×10^{-7}	1.35×10^{-7}
41-W	"	CW-8	0.0	7.7	$< 7.0 \times 10^{-10}$	0.00×10^{-7}	0.12×10^{-7}
42-W	"	DW-1	0.0	7.2	$< 7.0 \times 10^{-10}$	0.00×10^{-7}	1.84×10^{-7}
47-W	2-5-64	HPW-1207 — KHB/ [illegible]	0.5	7.1	2.1×10^{-9}	0.00×10^{-7}	5.19×10^{-7}
48-W	"	HPW-1208 — KHB/ [illegible]	0.9	7.1	2.8×10^{-9}	0.13×10^{-7}	5.51×10^{-7}

Safety and Health Physics
1964 MAR 24 PM 12:44

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYSIS SERVICES DEPARTMENT

UCN-3252
(1 11-61)

SUPERVISOR T. Kwasnoski

DATE RELEASED 3/2[illegible]/64

REPORT OF WATER ANALYSES

REPORT NO. 39

Distribution:
A. F. Becher, W. H. Taylor,
C. H. Mahoney, T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	~~URANIUM~~ Hg ppb.	FLUORIDES ppm.	pH	Counts per min/100 ml. ALPHA	BETA
26-W	1-19-64	CW-7	0				
33-W	1-25-64	CW-7	4				
36-W	2-1-64	CW-1	14				
40-W	"	CW-7	4				
43-W	2-1-64	G-Loop	2				
44-W	"	A and B Loop	2				
45-W	"	C-Loop	4				
46-W	"	E-Loop	4				
49-W	2-8-64	CW-1	8				
53-W	"	CW-7	0				
56-W	2-15-64	CW-1	8				
60-W	"	CW-7	8				

Safety and Health Physics
MAR 31 PM 1:48

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T. Kwasnoski

DATE RELEASED 3/30/64

REPORT OF WATER ANALYSES

REPORT NO. 585

Distribution:
A. F. Becher, W. H. Taylor,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Pb ppm	FLUORIDES ppm.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
21-W	1-17-64	Holding Pond	0.01		3.0			
22-W	1-19-64	CW-1	No sample					
23-W	"	CW-3	0.04	0.9	6.4	9.1×10^{-9}	0.20×10^{-7}	0.19×10^{-7}
24-W	"	CW-5	0.03	0.5	6.4	7.0×10^{-10}	0.11×10^{-7}	1.70×10^{-7}
25-W	"	CW-6	< 0.01	0.4	6.6	7.0×10^{-10}	0.00×10^{-7}	3.51×10^{-7}
26-W	"	CW-7	< 0.01	0.4	6.8	7.0×10^{-10}	0.00×10^{-7}	0.74×10^{-7}
27-W	"	CW-8	No sample					
28-W	"	DW-1		0.4	6.9	2.1×10^{-9}	0.01×10^{-7}	1.05×10^{-7}

Safety and Health Physics
1964 MAR 4 PM 2:36

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORAT[illegible]
SPECIAL ANALYT[illegible] SERVICES DEPARTMENT

SUP[illegible]OR T Kwasnoski

DATE RELEASED 3/4/64

UCN-3252
(1 11-61)

REPORT OF WATER ANALYSES

REPORT NO. 2

Distribution:
A. F. Becher, T. Kwasnoski, RC
C. H. Mahoney, W. H. Taylor

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ~~URANIUM~~ ppb.	FLUORIDES ppm.	pH	Counts per min/100 ml. ALPHA	BETA
1-W	1-4-64	CW-1	2				
5-W	"	CW-7	0				
8-W	"	A and B Loop 801-A	0				
9-W	"	A-Loop K-802	0				
10-W	"	C-Loop K-832	0				
11-W	"	E-Loop	2				
12-W	"	G-Loop K-892	4				
13-W	"	901	2				
14-W	1-11-64	CW-1	8				
18-W	"	CW-7	4				

1964 FEB 12 PM 12:31

Safety and Health Physics

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T Kwasnoski

DATE RELEASED 2/11/64

Safety and Health Physics

Division 4 PM 2:36

REPORT OF WATER ANALYSES

REPORT NO. 586

Distribution:
A. F. Becher, W. H. Taylor, T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
1-W	1-4-64	CW-1	0.9	6.6	3.6×10^{-8}	0.26×10^{-7}	0.39×10^{-7}
2-W	"	CW-3	0.3	6.6	9.1×10^{-9}	0.02×10^{-7}	0.19×10^{-7}
3-W	"	CW-5	0.3	7.2	7.0×10^{-10}	0.00×10^{-7}	1.99×10^{-7}
4-W	"	CW-6	0.2	7.1	$<7.0 \times 10^{-10}$	0.12×10^{-7}	0.66×10^{-7}
5-W	"	CW-7	0.2	7.4	$<7.0 \times 10^{-10}$	0.00×10^{-7}	0.77×10^{-7}
6-W	"	CW-8	0.4	7.2	1.4×10^{-8}	0.16×10^{-7}	0.14×10^{-7}
7-W	"	DW-1	0.3	6.9	$<7.0 \times 10^{-10}$	0.00×10^{-7}	1.10×10^{-7}
14-W	1-11-64	CW-1	1.2	7.0	1.3×10^{-8}	3.61×10^{-7}	1.04×10^{-7}
15-W	"	CW-3	0.3	7.2	5.6×10^{-9}	0.22×10^{-7}	0.23×10^{-7}
16-W	"	CW-5	0.2	7.2	2.8×10^{-9}	0.00×10^{-7}	2.80×10^{-7}
17-W	"	CW-6	0.3	7.4	2.1×10^{-9}	0.03×10^{-7}	1.62×10^{-7}
18-W	"	CW-7	0.3	7.5	2.8×10^{-9}	0.10×10^{-7}	3.56×10^{-7}
19-W	"	CW-8	0.9	7.6	2.8×10^{-9}	1.81×10^{-7}	0.51×10^{-7}
20-W	"	DW-1	0.4	7.1	4.2×10^{-9}	0.02×10^{-7}	1.78×10^{-7}

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORAT[illegible]
SPECIAL ANALY[illegible] SERVICES DEPARTMENT

SUP[illegible]OR T. Kwasnoski

DATE RELEASED 3/4/64

UCN-3252

Box # 12-2-9-53

ChemRisk/Shonka Research Associates, Inc., Document Request Form

Item 2

(This section to be completed by subcontractor requesting document)

J. Lamb / SRC

Requestor — Document Center (is requested to provide the following document)

Date of request 07/25/96 Expected receipt of document 08/09/96

Document number none Date of document 1968

Title and author (if document is unnumbered)

Report of Water Analyses 1968

(This section to be completed by Document Center)

Date request received 7/29/96

Date submitted to ADC 7/29/96

Date submitted to HSA Coordinator 7/29/96

(This section to be completed by HSA Coordinator)

Date submitted to CICO 7/29/96

Date received from CICO 8/5/96

Date submitted to ChemRisk/Shonka and DOE 8/5/96

(This section to be completed by ChemRisk/Shonka Research Associates, Inc.)

Date document received

Signature

REPORT OF WATER ANALYSES
(Veg., Soil, Mud, etc.) 1968

This document has been approved for release to the public by:

John Thorton 8/1/96
Technical Information Officer Date
Oak Ridge K-25 Site

Prepared by Union Carbide Corporation-Nuclear Division, operating contractor for the U.S. Department of Energy under U.S. Government Contract No. W-7405-eng-26.

ANALYSIS REPORT

DIVISION OR LABORATORY	SAMPLE
Technical	Waters
TMENT	SEQUENCE NO.
Chemical Analysis	A-5395 to 5404
DATE RECEIVED	REQUEST ~~NO.~~
Oct. 17, 1968	Health Physics

RESULTS

Attached herewith are results on water samples submitted for analyses.

The various analyses were performed as follows:

Cd, Cr, Cu, Fe, Mn, Pb and Zn	Atomic Absorption
Ag, Ba	Spectrographic
As, CN, Phenols, Se	APHA Standard Methods
Cl, F, SO_4	Conventional wet-chemical Methods

REMARKS

SUBMITTED BY	LOCATION
N. B. Schultz	K-1003
RESULTS APPROVED BY P. F. Shorten	DATE
	Jan. 29, 1969

UCN-1232
(15 1-60)

WATER SAMPLES
PPM

	pH	Phenol.	As	Cl	Cn	F	Zn	Se	Ag	Ba	Cd	Cr	Cu	Fe	Mn	Pb	SO_4
HP45W	7.7	0.003	<0.01	6.3	0.0023	0.5	0.009	0.003	0.004	<0.2	<0.003	0.006	0.005	0.015	0.003	<0.01	23
HP46W	7.6	<0.002	<0.01	8.6	0.0073	0.6	0.006	0.002	0.004	<0.2	<0.003	0.006	0.005	0.012	0.005	<0.01	25
HP47W	7.8	<0.002	<0.01	5.6	0.0030	0.4	0.003	0.003	0.002	<0.2	<0.003	0.028	0.002	0.014	0.004	<0.01	22
HP48W	7.9	<0.002	<0.01	1.4	<0.0005	0.8	0.004	0.004	0.02	<0.2	<0.003	0.005	<0.002	<0.005	<0.003	<0.01	13
HP49W	7.3	<0.002	<0.01	4.2	<0.0005	<0.1	0.15	0.003	0.01	<0.2	<0.003	<0.005	0.003	0.007	<0.003	<0.01	22
HP50W	7.1	<0.002	<0.01	26.6	<0.0005	0.8	0.10	0.003	0.004	<0.2	<0.003	0.88	0.010	0.007	0.012	<0.01	71
HP51W	9.0	<0.002	<0.01	6.0	0.0007	0.3	0.006	0.003	0.001	<0.2	<0.003	0.045	0.002	0.010	0.005	<0.01	35
HP52W	9.2	<0.002	<0.01	8.8	0.0027	0.3	0.007	0.002	0.002	<0.2	<0.003	0.88	<0.002	<0.005	<0.003	<0.01	58
HP53W	4.8	0.002	<0.01	<0.1	<0.0005	0.5	0.015	<0.001	0.001	<0.2	<0.003	<0.005	0.006	0.020	<0.003	0.01	1
HP54W	6.0	<0.002	<0.01	<0.1	<0.0005	<0.1	0.002	<0.001	<0.001	<0.2	<0.003	<0.005	0.003	<0.005	<0.003	<0.01	< 1

HP45W- Poplar Creek (Main Branch)
HP46W- Poplar Creek (East Fork)
HP47W- Poplar Creek (Powerhouse)
HP48W- Clinch River (K-901)
HP49W- Drinking Water (K-1004B)
HP50W- Holding Pond (K-1407B)
HP51W- Ornamental Pond (K-1007)
HP52W- Disposal Pond (W of K-33)
HP53W- Rainwater
HP54W- Distilled Water

Received in lab. on 10-17-68

Water Sampling.

Analyses: Cd, Cr, Cu, Fe, Mn, Pb + Zn,
Ag, Ba, As, CN, Phenols, Se,
Cl, F, NO_3, SO_4,

Samples:

	Location HP #	Sample Number	1968 Date
Poplar Creek (Main Branch)	#28	HP 45 W	10/15
Poplar Creek (East Fork)	29	HP 46 W	10/15
Poplar Creek (Powerhouse)	—	HP 47 W	10/17
Clinch River (K-901)	32	HP 48 W	10/17
~~Clinch~~ Drinking Water (K-1004B)	—	HP 49 W	10/17
Holding Pond (K-1407B)	24	HP 50 W	10/17
Ornamental Pond (K-1007)	33	HP 51 W	10/17
Disposal Pond (W of K-33)	31	HP 52 W	10/17
Rainwater		HP 53 W	10/18
Distilled Water		HP 54 W	10/16

1968

REPORT OF WATER ANALYSES

REPORT NO. 678

Distribution:
W. E. Muldrew, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	CrO_3 ppm	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
1-W	1-6-68	K-901 Clinch River	4		0.01		
2-W	"	K-802 A and B	8				
3-W	"	K-832 C-Loop	14				
4-W	"	K-862 E-Loop	14				
5-W	"	K-892 Eff.	8				
6-W	1-6-68	K-892 G-Loop	14				
8-W	1-13-68	K-901 Clinch River	4		< 0.01		
9-W	"	K-802 A and B	14				
10-W	"	K-832 C-Loop	14				
11-W	"	K-862 E-Loop	14				
12-W	"	K-892 Eff.	14				
13-W	1-13-68	K-892 G-Loop	18				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T. Kwasnoski

DATE RELEASED 3-14-68

UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. 679

Distribution:
W. E. Muldrew, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	CrO_3 ppm	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
14-W	1-20-68	K-901 Clinch River	4*		0.16		
15-W	"	K-802 A and B	8				
16-W	"	K-832 C-Loop	8				
17-W	"	K-862 E-Loop	8				
18-W	"	K-892 Eff.	14				
19-W	1-20-68	K-892 G-Loop	14				
20-W	2-3-68	K-901 Clinch River	8		0.10		
21-W	"	K-802 A and B	8				
22-W	"	K-832 C-Loop	8				
23-W	"	K-862 E-Loop	8				
24-W	"	K-892 Eff.	8				
25-W	2-3-68	K-892 G-Loop	14				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 3-14-68

REPORT OF WATER ANALYSES

REPORT NO. 680

Distribution:
W. E. Muldrew, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	CrO_3 ppm	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
26-W	2-10-68	K-901 Clinch River	8		0.01		
27-W	"	K-802 A and B	8				
28-W	"	K-832 C-Loop	8				
29-W	"	K-862 E-Loop	8				
30-W	"	K-892 Eff.	14				
31-W	2-10-68	K-892 G-Loop	14				
32-W	2-17-68	K-901 Clinch River	4		< 0.01		
33-W	"	K-802 A and B	8				
34-W	"	K-832 C-Loop	8				
35-W	"	K-862 E-Loop	8				
36-W	"	K-892 Eff.	8				
37-W	2-17-68	K-892 G-Loop	14				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR Kwasnoski

DATE RELEASED 3-14-68

UCN-7282

REPORT OF WATER ANALYSES

REPORT NO. 681

Distribution:
J. Dykstra, W. E. Muldrew
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	ppm CrO_3	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
50-W	3-16-68	K-901 - Clinch River	4		0.22		
51-W	"	K-802 A and B	14				
52-W	"	K-832 C-Loop	16				
53-W	"	K-862 E-Loop	16				
54-W	"	K-892 Eff.	14				
55-W	3-16-68	K-892 G-Loop	16				
56-W	3-29-68	K-901 - Clinch River	4		0.02		
57-W	"	K-802 A and B	8				
58-W	"	K-832 C-Loop	14				
59-W	"	K-862 E-Loop	14				
60-W	"	K-892 Eff.	14				
61-W	3-29-68	K-892 G-Loop	14				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T. Kwasnoski

DATE RELEASED 4-17-68

UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. 682

Distribution:
J. Dykstra, W. E. Muldrew,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
7-W	1/6,13,20; 2/2,10,17; 3/2,9,16,29	K-901 Clinch River (Composite)	0.2	8.5	0.00	0.07	0.09
			Hg ppb		CrO_3 ppm		
38-W	3-2-68	K-901 Clinch River	4		0.01		
39-W	"	K-802 A and B	8				
40-W	"	K-832 C-Loop	8				
41-W	"	K-862 E-Loop	8				
42-W	"	K-892 Eff.	8				
43-W	3-2-68	K-892 G-Loop	14				
44-W	3-9-68	K-901 Clinch River	8		0.04		
45-W	"	K-802 A and B	8				
46-W	"	K-832 C-Loop	8				
47-W	"	K-862 E-Loop	14				
48-W	"	K-892 Eff	16				
49-W	3-9-68	K-892 G-Loop	14				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT
UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 4-17-68

REPORT OF WATER ANALYSES

REPORT NO. 683

Distribution:
J. Dykstra, W. E. Muldrew,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	ppm CrO_3	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
62-W	4-6-68	K-901 Clinch River	4		0.02		
63-W	"	K-802 A and B	8				
64-W	"	K-832 C-Loop	14				
65-W	"	K-862 E-Loop	8				
66-W	"	K-892 Eff.	14				
67-W	"	K-892 G-Loop	8				
69-W	4-13-68	K-901 Clinch River	4		0.02		
70-W	"	K-802 A and B	8				
71-W	"	K-832 C-Loop	16				
72-W	"	K-862 E-Loop	16				
73-W	"	K-892 Eff.	12				
74-W	4-13-68	K-892 G-Loop	12				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T Kwasnoski

DATE RELEASED 5-29-68

UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. 684

Distribution:
J. Dykstra, W. E. Muldrew,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	ppm CrO_3	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
75-W	4-27-68	K-901 Clinch River	4		0.05		
76-W	"	K-802 A and B	8				
77-W	"	K-832 C-Loop	12				
78-W	"	K-862 E-Loop	12				
79-W	"	K-892 Eff.	12				
80-W	4-27-68	K-892 G-Loop	12				
81-W	5-11-68	K-901 Clinch River	4		0.06		
82-W	"	K-802 A and B	12				
83-W	"	K-832 C-Loop	12				
84-W	"	K-862 E-Loop	16				
85-W	"	K-892 Eff.	12				
86-W	5-11-68	K-892 G-Loop	12				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T. Kwasnoski

DATE RELEASED 5-29-68

UCN-3262

REPORT OF WATER ANALYSES

REPORT NO. 685

Distribution:
J. Dykstra, W. E. Muldrew
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	ppm CrO_3	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
108-W	5-25-68	K-901 - Clinch River	4		0.02		
109-W	"	K-802 A and B	12				
110-W	"	K-832 C-Loop	16				
111-W	"	K-862 E Loop	22				
112-W	"	K-892 Eff.	8				
113-W	5-25-68	K-892 G-Loop	8				
114-W	6-1-68	K-901 Clinch River	4		0.02		
115-W	"	K-802 A and B	12				
116-W	"	K-832 C-Loop	16				
117-W	"	K-862 E-Loop	16				
118-W	"	K-892 Eff.	12				
119-W	6-1-68	K-892 G-Loop	8				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T. Kwasnoski

DATE RELEASED 7-1-68

UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. 686

Distribution:
J. Dykstra, W. E. Muldrew,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	ppm CrO_3	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
120-W	6-8-68	K-901 Clinch River	8		0.01		
121-W	"	K-802 A and B	8				
122-W	"	K-832 C-Loop	16				
123-W	"	K-862 E-Loop	16				
124-W	"	K-892 Eff.	8				
125-W	6-8-68	K-892 G-Loop	8				
126-W	6-22-68	K-901 Clinch River	8		< 0.01		
127-W	"	K-802 A and B	8				
128-W	"	K-832 C-Loop	12				
129-W	"	K-862 E-Loop	12				
130-W	"	K-892 Eff.	8				
131-W	6-22-68	K-892 G-Loop	8				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 7-1-68

REPORT OF WATER ANALYSES

REPORT NO. 687

Distribution:
R. L. Newton, N. B. Schultz,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	ppm CrO_3	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
132-W	6-29-68	K-901 Clinch River	2		< 0.01		
133-W	"	K-802 A and B	0				
134-W	"	K-832 C Loop	0				
135-W	"	K-862 E Loop	16				
136-W	"	K-892 Eff.	8				
137-W	6-29-68	K-892 G Loop	14				
138-W	7-3-68	K-901 Clinch River	4		0.01		
139-W	"	K-802 A and B	8				
140-W	"	K-832 C Loop	8				
141-W	"	K-862 E Loop	8				
142-W	"	K-892 Eff.	8				
143-W	7-3-68	K-892 G Loop	14				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR

DATE RELEASED

REPORT OF WATER ANALYSES

REPORT NO. 688

Distribution:

R. L. Newton, N. B. Schultz,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7}		
					URANIUM*	ALPHA	BETA
68-W	4-6,13,27-68) 5-11,25-68) 6-1,8,22,29-68)	K-901 Clinch River (Comp.)	0.1	6.8	0.02	0.01	0.18
87-W	5-17-68	K-33 N W Pond	0.5	8.1	0.02		

* *Calculated from uranium content assuming natural isotopic abundance.*

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SPECIAL ANALYTICAL SERVICES DEPARTMENT

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UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. 689

Distribution:

R. L. Newton, N. B. Schultz, T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION			FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7}		
							URANIUM*	ALPHA	BETA
		Water	ppm CrO_3	ppm Phenols					
88-W	5-20-68	Lawnville HP-35-W	< 0.01	0.01	0.2	8.1	0.00	0.00	0.00
89-W	"	Buttermilk Rd. HP-36-W	< 0.01	< 0.01	0.2	8.0	0.00	0.00	0.15
90-W	5-21-68	Highway 61 HP-37-W	< 0.01	0.02	0.2	7.2	0.00	0.00	0.02
91-W	"	Mt. Pisgah HP-38-W	< 0.01	0.02	0.4	8.9	0.00	0.00	0.11
92-W	"	Credit Union HP-39-W	< 0.01	0.03	0.4	7.9	0.00	0.20	0.03

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR

DATE RELEASED

UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. 691

Distribution:

R. L. Newton, N. B. Schultz, T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	CrO_3 ppm	pH	Counts per min/100 ml. ALPHA	Counts per min/100 ml. BETA
145-W	7-20-68	K-901 Clinch River	4	< 0.01			
146-W	"	K-802 A and B	8				
147-W	"	K-832 C-Loop	8				
148-W	"	K-862 E-Loop	8				
149-W	"	K-892 Eff.	12				
150-W	7-20-68	K-892 G-Loop	8				
151-W	7-27-68	K-901 Clinch River	4	< 0.01			
152-W	"	K-802 A and B	8				
153-W	"	K-832 C-Loop	8				
154-W	"	K-862 E-Loop	8				
155-W	"	K-892 Eff.	8				
156-W	7-27-68	K-892 G-Loop	12				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T Kwasnoski

DATE RELEASED 9-11-68

REPORT OF WATER ANALYSES

REPORT NO. 692
Distribution:
R. L. Newton, N. B. Schultz,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	CrO_3 ppm	pH	Counts per min/100 ml. ALPHA	Counts per min/100 ml. BETA
157-W	8-3-68	K-901 Clinch River	4	0.01			
158-W	"	K-802 A and B	8				
159-W	"	K-832 C-Loop	12				
160-W	"	K-862 E-Loop	8				
161-W	"	K-892 Eff.	8				
162-W	8-3-68	K-892 G-Loop	12				
163-W	8-17-68	K-901 Clinch River	4	< 0.01			
164-W	"	K-802 A and B	8				
165-W	"	K-832 C-Loop	12				
166-W	"	K-862 E-Loop	8				
167-W	"	K-892 Eff.	12				
168-W	8-17-68	K-892 G-Loop	12				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T. Kwasnoski

DATE RELEASED 9-11-68

REPORT OF WATER ANALYSES

REPORT NO. -93

Distribution: ✓
R. L. Newton, N. B. Schultz,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	CrO_3 ppm	pH	Counts per min/100 ml. ALPHA	Counts per min/100 ml. BETA
169-W	8-24-68	K-901 Clinch River	2	0.01			
170-W	"	K-802 A and B	8				
171-W	"	K-832 C-Loop	12				
172-W	"	K-862 E-Loop	8				
173-W	"	K-892 Eff.	8				
174-W	8-24-68	K-892 G-Loop	8				
175-W	8-30-68	K-901 - Clinch River	2	< 0.01			
176-W	"	K-802 A and B	8				
177-W	"	K-832 C-Loop	12				
178-W	"	K-862 E-Loop	12				
179-W	"	K-892 Eff.	8				
180-W	8-30-68	K-892 G-Loop	12				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T. Kwasnoski

DATE RELEASED 10-3-68

REPORT OF WATER ANALYSES

REPORT NO. 24
Distribution:
R. L. Newton, N. B. Schultz
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	CrO_3 ppm	pH	Counts per min/100 ml. ALPHA	Counts per min/100 ml. BETA
181-W	9-14-68	K-901 Clinch River	0	0.01			
182-W	"	K-802 A and B	4				
183-W	"	K-832 C-Loop	0				
184-W	"	K-862 E-Loop	6				
185-W	"	K-892 Eff.	0				
186-W	9-14-68	K-892 G-Loop	0				
187-W	9-21-68	K-901 Clinch River	0	0.01			
188-W	"	K-802 A and B	8				
189-W	"	K-832 C-Loop	6				
190-W	"	K-862 E-Loop	6				
191-W	"	K-892 Eff.	4				
192-W	"	K-892 G-Loop	0				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T. Kwasnoski

DATE RELEASED 10-3-68

REPORT OF WATER ANALYSES

REPORT NO. 695

Distribution:

R. L. Newton, N. E. Schultz,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
144-W	7-3-68	K-901 Clinch River (Comp)	0.3	7.6	0.00	0.08	0.03
	7-20-68						
	7-27-68						
	8-3-68						
	8-17-68						
	8-24-68						
	8-30-68						
	9-14-68						
	9-21-68						
	9-28-68						

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T Kwasnoski

DATE RELEASED 12-10-68

UCN-3232

REPORT OF WATER ANALYSES

REPORT NO. 696

Distribution:
R. L. Newton, N. B. Schultz,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	CrO_3 ppm	pH	Counts per min/100 ml. ALPHA	Counts per min/100 ml. BETA
193-W	9-28-68	K-901-Clinch River	4	0.01			
194-W	"	K-802 A and B	4				
195-W	"	K-832 C-Loop	8				
196-W	"	K-862 E-Loop	8				
197-W	"	K-892 Eff.	8				
198-W	9-28-68	K-892 G-Loop	4				
200-W	10-12-68	K-901 Clinch River	4	0.01			
201-W	"	K-802 A and B	4				
202-W	"	K-832 C-Loop	4				
203-W	"	K-862 E-Loop	8				
204-W	"	K-892 Eff.	8				
205-W	10-12-68	K-892 G-Loop	4				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T. Kwasnoski

DATE RELEASED 12-10-68

REPORT OF WATER ANALYSES

REPORT NO. 997

Distribution:

R. L. Newton, N. B. Schultz,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	CrO_3 ppm	pH	Counts per min/100 ml. ALPHA	Counts per min/100 ml. BETA
206-W	10-19-68	K-901 Clinch River	4	< 0.01			
207-W	"	K-802 A and B	4				
208-W	"	K-832 C-Loop	4				
209-W	"	K-862 E-Loop	4				
210-W	"	K-892 Eff.	8				
211-W	10-19-68	K-892 G-Loop	4				
212-W	10-26-68	K-901 Clinch River	8	< 0.01			
213-W	"	K-802 A and B	12				
214-W	"	K-832 C-Loop	12				
215-W	"	K-862 E-Loop	18				
216-W	"	K-892 Eff.	12				
217-W	10-26-68	K-892 G-Loop	12				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T. Kwasnoski

DATE RELEASED 12-10-68

REPORT OF WATER ANALYSES

REPORT NO. 598

Distribution:

R. L. Newton, N. B. Schultz, T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	CrO_3 ppm	pH	Counts per min/100 ml. ALPHA	Counts per min/100 ml. BETA
218-W	11-9-68	K-901 Clinch River	4	< 0.01			
219-W	"	K-802 A and B	8				
220-W	"	K-832 C-Loop	8				
221-W	"	K-862 E-Loop	8				
222-W	"	K-892 Eff.	8				
223-W	11-9-68	K-892 G-Loop	8				
224-W	11-16-68	K-901 Clinch River	8	< 0.01			
225-W	"	K-802 A and B	12				
226-W	"	K-832 C-Loop	12				
227-W	"	K-862 E-Loop	12				
228-W	"	K-892 Eff.	12				
229-W	11-16-68	K-892 G-Loop	12				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T. Kwasnoski

DATE RELEASED 12-10-68

REPORT OF WATER ANALYSES

REPORT NO. 699

Distribution:

R. L. Newton, N. B. Schultz, T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	CrO_3 ppm	pH	Counts per min/100 ml. ALPHA	Counts per min/100 ml. BETA
230-W	11-23-68	K-901 Clinch River	8	< 0.01			
231-W	"	K-802 A and B	12				
232-W	"	K-832 C-Loop	8				
233-W	"	K-862 E Loop	12				
234-W	"	K-892 Eff.	12				
235-W	11-23-68	K-892 G-Loop	12				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T. Kwasnoski

DATE RELEASED 12-10-68

REPORT OF WATER ANALYSES

REPORT NO. 100

Distribution:

R. L. Newton, N. B. Schultz
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	CrO_3 ppm	pH	Counts per min/100 ml. ALPHA	BETA
263-W	12-7-68	K-901 Clinch River	4	0.01			
237-W	"	K-802 A & B	8				
238-W	"	K-832 C-Loop	8				
239-W	"	K-862 E-Loop	8				
240-W	"	K-892 Eff	4				
241-W	12-7-68	K-892 G-Loop	4				
242-W	12-14-68	K-901 Clinch River	2	< 0.01			
243-W	"	K-802 A & B	2				
244-W	"	K-832 C-Loop	2				
245-W	"	K-862 E Loop	2				
246-W	"	K-892 Eff	2				
247-W	12-14-68	K-892 G-Loop	2				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T. Kwasnoski

DATE RELEASED 1-20-69

REPORT OF WATER ANALYSES

REPORT NO. 701

Distribution:

R. L. Newton, N. B. Schultz
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	CrO_3 ppm	pH	Counts per min/100 ml. ALPHA	Counts per min/100 ml. BETA
248-W	12-21-68	K-901 Clinch River	4	0.02			
249-W	"	K-802 A & B	8				
250-W	"	K-832 - C-Loop	8				
251-W	"	K-862 - E-Loop	8				
252-W	"	K-892 - Eff	8				
253-W	12-21-68	K-892 - G-Loop	8				
1-W	1-4-69	K-901 Clinch River	4	< 0.01			
2-W	"	K-802 A & B	4				
3-W	"	K-832 C-Loop	8				
4-W	"	K-862 E-Loop	4				
5-W	"	K-892 Eff	4				
6-W	1-4-69	K-892 G-Loop	8				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T. Kwasnoski

DATE RELEASED 1-20-69

1968

REPORT OF WATER ANALYSES

REPORT NO. 702

Distribution:
R. L. Newton, N. B. Schultz,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
199-W	10-12,19,26-68)						
	11-9,16,23-68)	K-901 Clinch River (Composite)	0.1	7.1	0.00	0.00	0.09
	12-7,14,21-68)						

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T. Kwasnoski

DATE RELEASED 1-20-69

UCN-3282

REPORT OF ENVIRONMENTAL SAMPLES

REPORT NO. 690

Distribution:

R. L. Newton, N. B. Schultz, T. Kwasnoski, RC

5 mile Off Area sample Points

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	ppm CrO_3	ppm Phenols	FLUORIDES ppm.	pH	MICROCURIES / gram x 10^{-7} URANIUM*	ALPHA	BETA
		Vegetation							
93-W	5-20-68	Lawnville HP-35-V	9	1	27		3.5	2.2	252
94-W	"	Buttermilk Rd HP-36-V	7	2	33		2.7	29.6	318
95-W	5-21-68	Highway 61 HP-37-V	16	3	42		3.4	0.0	257
96-W	"	Mt. Pisgah HP-38-V	13	3	28		2.5	1.8	440
97-W	5-21-68	Credit Union HP-39-V	11	5	26		2.4	43.2	353
		Pine Needles							
98-W	5-20-68	Lawnville HP-35-P	5	9	29		1.3	11.8	138
99-W	"	Buttermilk Rd HP-36-P	4	3	11		1.9	6.8	121
100-W	5-21-68	Highway 61 HP-37-P	4	13	14		1.5	34.9	113
101-W	"	Mt. Pisgah HP-38-P	3	6	16		0.0	0.0	137
102-W	5-21-68	Credit Union HP-39-P	3	5	11		1.4	0.0	144
		Soil							
103-W	5-20-68	HP-35-S Lawnville					7	45	203
104-W	"	HP-36-S Buttermilk Rd.					12	64	371
105-W	5-21-68	HP-37-S Highway 61					8	66	426
106-W	"	HP-38-S Mt Pisgah					7	56	124
107-W	5-21-68	HP-39-S Credit Union					14	61	177

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 7-22-68

5 mile sample Point

Location	Date	sample #	C/M/ft³	Remarks
Lawnville	5-20-68	HP35A	0.06	Recounted 1 week Later
Buttermilk Rd	5-20-68	HP36A	0.000	
Highway 61	5-21-68	HP37A	0.000	
Mt. Pisgah	5-21-68	HP38A	0.000	
Credit Union	5-21-68	HP39A	0.000	

[illegible]

Box# 12-2-9-49

ChemRisk/Shonka Research Associates, Inc., Document Request Form

Item 3

(This section to be completed by subcontractor requesting document)

J. Lamb / SRC

Requestor — Document Center (is requested to provide the following document)

Date of request 07/25/96 Expected receipt of document 08/09/96

Document number none Date of document 1966

Title and author (if document is unnumbered)

Report of Water Analyses (Veg., Soil, Mud, etc.) 1966

(This section to be completed by Document Center)

Date request received 7/29/96

Date submitted to ADC 7/29/96

Date submitted to HSA Coordinator 7/29/96

(This section to be completed by HSA Coordinator)

Date submitted to CICO 7/29/96

Date received from CICO 8/5/96

Date submitted to ChemRisk/Shonka and DOE 8/5/96

(This section to be completed by ChemRisk/Shonka Research Associates, Inc.)

Date document received

Signature

REPORT OF WATER ANALYSES
(Veg., Soil, Mud, etc.) 1966

This document has been approved for release to the public by:

John Preston 8/1/96
Technical Information Officer Date
Oak Ridge K-25 Site

Prepared by Union Carbide Corporation-Nuclear Division, operating contractor for the U.S. Department of Energy under U.S. Government Contract No. W-7405-eng-26.

REPORT OF WATER ANALYSES

REPORT NO. 658

Distribution:
J. Dykstra, W. E. Muldrew,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA	ppm CrO_3
165-W	11-16-66	No. 12 EW K-25 East side # K-1030 Bldg.	0.2	6.2	0.00	0.00	0.57	3.8
166-W	"	No. 13 EW K-25 West side # Vaults.	0.5	6.2	0.02	0.03	0.68	3.9
167-W	"	No. 14 EW K-601 Bldg.	0.5	7.0	0.00	0.00	0.70	0.3
168-W	"	No. 15 EW K-29 Bldg. E. side	0.8	6.8	0.30	1.09	0.82	0.6
169-W	"	No. 16 EW K-27 Bldg. S. side	0.5	6.5	0.00	0.00	0.88	8.4
170-W	"	No. 17 EW K-633	0.5	5.6	0.00	0.01	1.13	18.8
171-W	"	No. 18 EW K-1131 S. side	1.3	6.3	0.04	0.07	0.80	0.1
172-W	"	No. 19 EW K-1231 S. side	10.0	6.2	0.00	0.08	0.67	<0.1
173-W	"	No. 20 EW K-631	0.5	6.5	0.00	0.00	0.25	0.9

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T Kwasnoski

DATE RELEASED 1/20/67

UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. 657

Distribution:
J. Dykstra, W. E. Muldrew,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA	ppm CrO_3
151-W	10-31-66	1-EW From K1037	0.8	6.2	0.01	0.06	0.14	4.4
152-W	"	2-EW K-1420 S. side	0.2	6.5	0.18	0.35	0.52	< 0.1
153-W	"	3-EW K-1420 Plating Facility	0.5	1.3	1.44	0.80	1.78	0.1
154-W	"	4-EW K-1420 W. side	0.1	6.5	0.15	0.10	0.04	< 0.1
155-W	"	6-EW K-1301	0.3	6.1	0.02	0.01	0.64	1.1
156-W	"	7-EW K-1414, 1400, 1401 1303	0.3	6.5	0.01	0.07	0.06	< 0.1
157-W	"	8-EW K-1401 Cleaning Area	0.5	2.3	0.38	0.21	2.20	< 0.1
158-W	"	9-EW K-1413 Bldg.	0.8	6.5	0.79	0.94	1.31	< 0.1
159-W	"	26-EW K-1501	0.2	6.8	0.00	0.03	0.21	< 0.1
160-W	"	27-EW K-1407 Holding Pond Effluent	2.1	6.9	1.35	2.03	32.95	0.2
161-W	"	28-EW K-1401 W. side	0.2	6.4	0.12	0.08	0.77	0.1
162-W	"	29-EW K-1401 Basement	0.5	7.1	0.00	0.00	0.63	8.3
163-W	"	30-EW K-1004 Labs	0.5	6.7	0.08	0.10	0.92	1.4
164-W	11-4-66	10-EW Perimeter Rd. N. of Poplar Creek - Fall out check.	0.2	7.0	0.00	0.02	0.31	< 0.1

* Calculated from uranium content assuming natural isotopic abundance.

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR Kwasnoski

DATE RELEASED 1/20/67

UCN-5901
(1 4-65) LBS

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT AA			CHARGE 108874	DATE 10-21	NO. 7198
Ag	Ir	Sr	SENDER Sype		DATE ANALYSIS NEEDED
Al	K	Ta			
As	Li	Tc	CLASS / MATERIAL CODE	SAMPLED FROM	CONTAINER NO. HP 81
Au	Mg	Te			
B	Mn	Th	REQUEST NO.	PRECISION	GROSS
Ba	Mo	Ti			
Be	Na	Tl	MATERIAL DESCRIPTION Filter Paper		TARE
Bi	Ni	U			
Ca	Os	V	INSTRUCTIONS		NET
Cb	P	W			
Cd	Pb	Zn			
Co	Pd	Zr			
Cr	Pt		REQUESTED ANALYSIS	UNITS	RESULT(S)
Cs	Rb		Ni	µg	82
Cu	Re				
Fe	Rh				
Ga	Ru				
Ge	Sb				
Hf	Sc				
Hg	Si				
In	Sn				

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND"

RESULT APPROVED BY RF

DATE 11-1

UCN-5901
(1 4-65) 7/8

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT AA

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND"

CHARGE 108874	DATE 10-21	NO. 7197
SENDER Sipe		DATE ANALYSIS NEEDED
CLASS / MATERIAL CODE	SAMPLED FROM	CONTAINER NO. HP 80
REQUEST NO.	PRECISION	GROSS
MATERIAL DESCRIPTION Air Sample - Filter Paper		TARE
INSTRUCTIONS		NET

REQUESTED ANALYSIS	UNITS	RESULT(S)
Ni	µg	50

RESULT APPROVED BY R7

DATE 1-1

UCN-5901
(1 · 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT AA

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

MEANS SOUGHT BUT NOT FOUND

CHARGE	DATE	NO.
108874	11-21	7190

SENDER: Sipe

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-79

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION: Air Sample

TARE:

INSTRUCTIONS:

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Cu	~~total~~ µg	47
Cd	µg	30

RESULT APPROVED BY: RT

DATE: 11-1

UCN-5901 (1 4-65) 418

LABORATORY ANALYSIS REPORT

6, 48

SPECTROCHEMICAL REPORT a.a.

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

MEANS SOUGHT BUT NOT FOUND

CHARGE	DATE	NO.
108874		

SENDER: Sipe

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION: Air Sample

TARE:

INSTRUCTIONS:

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Cd	Total µg	2 µg total

RESULT APPROVED BY: R.F.

DATE: 9-16

REPORT OF PINE NEEDLES AND VEGETATION

REPORT NO. 656

Distribution:
J. Dykstra, W. E. Muldrew,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES/gram x 10^{-7} URANIUM*	ALPHA	BETA	% Sulfur
		Vegetation						
136-W	10-14-66	74 V ✓	21		< 0.7	99	167	
137-W	"	75 V ✓	16		< 0.7	130	181	
138-W	"	76 V ✓	8		< 0.7	112	103	
139-W	"	77 V ✓	15		< 0.7	7	156	
140-W	"	78 V ✓	7		< 0.7	61	32	
		Pine Needles						
141-W	"	74 P ✓	19		< 0.7	7	0	0.26
142-W	"	75 P ✓	9		< 0.7	62	0	0.27
143-W	"	76 P ✓	9		< 0.7	0	0	0.22
144-W	"	77 P ✓	11		< 0.7	74	40	0.32
145-W	"	78 P ✓	5		< 0.7	31	0	0.15
		Soils						
146-W	"	74-S ✓			7	117	184	
147-W	"	75-S ✓			7	58	661	
148-W	"	76-S ✓			6	67	251	
149-W	"	77 S ✓			4	72	535	
150-W	"	78 S ✓			7	342	207	

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3292
(1 11-61)

SUPERVISOR T Kwasnoski

DATE RELEASED 1/20/67

REPORT OF WATER ANALYSES

REPORT NO. 655

Distribution:

J. Dykstra, W. E. Muldrew, T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED		SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA	ppm CrO_3
126-W	10-3-66		CW-7 Clinch River Below Island (K901)	0.3	7.0	0.0	0.04	0.31	
			WATER						
127-W	10-14-66		22 EW Poplar creek from K-1131	0.4	4.6	0.01	0.04	0.31	< 0.1
128-W	"		23 EW Poplar creek from K-413	0.1	4.5	0.00	0.08	0.33	< 0.1
129-W	"		24 EW Poplar creek from 1410	1.0	4.4	0.08	0.15	0.35	0.7
130-W	"		25 EW Poplar creek W. side K27	0.5	4.5	0.00	0.04	0.54	11.8
131-W	"	✓	74-W	0.2	4.4	0.00	0.05	0.18	
132-W	"	✓	75-W	0.5	4.9	0.00	0.11	0.10	
133-W	"	✓	76-W	0.2	4.8	0.00	0.13	0.18	
134-W	"	✓	77-W	0.1	5.0	0.00	0.02	0.16	
135-W	"	✓	78-W	0.2	5.0	0.00	0.02	0.19	

* Calculated from uranium content assuming natural isotopic abundance.

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T. Kwasnoski

DATE RELEASED 1/20/67

UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. 654

Distribution: W. E. Muldrew, J. Dykstra, T.Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7}		
					URANIUM*	ALPHA	BETA
118-W	9-1-66	CW-7	0.9	6.3	0.00	0.05	0.00

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 11-18-66

REPORT OF WATER ANALYSES

REPORT NO. 653

Distribution: W. E. Muldrew, J. Dykstra, T.Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
111-W	8-27-66	K-901	0				
112-W	"	K-802 A and B	0				
113-W	"	K-832-C-Loop	4				
114-W	"	K-862-E-Loop	0				
115-W	"	K-892-EFF.	0				
116-W	"	K-892-G-Loop	0				
117-W	9-1-66	CW-7	4				
119-W	9-24-66	K-901	0				
120-W	"	K-802 A and B	0				
121-W	"	K-832-C-Loop	0				
122-W	"	K-862-E-Loop	0				
123-W	"	K-892-EFF.	0				
124-W	"	K-892-G-Loop	0				
125-W	10-3-66	CW-7	4				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 11-18-66

REPORT OF WATER ANALYSES

REPORT NO. 652

Distribution:

J. Dykstra, W. E. Muldrew,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
105-W	7-2-66	K-901	4				
106-W	"	K-802 A and B	10				
107-W	"	K-832 C-Loop	0				
108-W	"	K-862-E Loop	0				
109-W	"	K-892 EFF	0				
110-W	"	K-892 G-Loop	0				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252
(1 11-61)

SUPERVISOR T. Kwasnoski

DATE RELEASED 8/29/66

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
M3-697-02	6-24-66	9793 + 9794

SENDER: Sipe

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.

REQUEST NO.: PRECISION: GROSS:

MATERIAL DESCRIPTION: Air sample

TARE:

INSTRUCTIONS: #69 + #70 for Pb

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
#69 Pb	Total µg	12 µg
#70 Pb	Total µg	130 µg

RESULT APPROVED BY:

DATE:

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT Atom. Ad

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT.
NUMBERS = _____ ON A _____ BASIS
"MEANS SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
M32697-02	15 June	5685 thru 5688

SENDER			DATE ANALYSIS NEEDED
CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
REQUEST NO.		PRECISION	GROSS
MATERIAL DESCRIPTION: Filter Paper			TARE
INSTRUCTIONS: Pb			NET

REQUESTED ANALYSIS	UNITS	RESULT(S)
Pb	Total µg	

RESULT APPROVED BY	DATE

Spectro #	Originator #	Pb Total µg
5685	HP-60	41
5686	HP-61	410
5687	HP-62	410
5688	HP-63	18

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT

20089

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
M32697-02	5-19	5366

SENDER: Sipe

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP 53

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION: Filter paper

TARE:

INSTRUCTIONS:

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Residue Wt.	0.2 mg.	[illegible]
Be	total µg	0.02

RESULT APPROVED BY: RT

DATE: 5-23

REPORT OF WATER ANALYSES

REPORT NO. 647

Distribution:
J. Dykstra, T. Kwasnoski (RC)
W. E. Muldrew

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ~~URANIUM~~ ppb.	FLUORIDES ppm.	pH	Counts per min/100 ml. ALPHA	Counts per min/100 ml. BETA
29-W	4-29-66	CW-7	8				
42-W	5-7-66	K-901	0				
43-W	"	K-802 A and B	0				
44-W	"	K-832 C-Loop	0				
45-W	"	K-862 E-Loop	0				
46-W	"	K-892 EFF	8				
47-W	"	K-892 G and H	4				
93-W	6-6-66	K-892 EFF	4				
94-W	"	K-802 A and B	10				
95-W	"	832 C Loop	6				
96-W	"	902 Raw Water	4				
97-W	"	892 G Loop	28				
98-W	"	862 E Loop	4				

NOTE: Alpha counts per minute per 100 ml. water at 50% geometry.
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1912 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR Kwasnoski

DATE RELEASED 7/6/66

UCN-5901
(1 4-65) 148

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 20089

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND" J.H.

CHARGE	DATE	NO.
M32697-02	5-19	5367

SENDER: L. Sipe

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP 54

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION: Filter Paper

TARE:

INSTRUCTIONS:

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Residue Wt.	0.2 mg.	1
Be	total µg	0.4

RESULT APPROVED BY: RT

DATE: 5-23

MISCELLANEOUS

REPORT OF ~~WATER~~ ANALYSES

REPORT NO. 651

Distribution:

J. Dykstra, W. E. Muldrew,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / ~~xx~~ gram x 10^{-7} URANIUM*	ALPHA	BETA
78-W	6-1-66	55-P Pine Needles ✓	19		2	24	211
79-W	"	56-P " " ✓	8		2	27	145
80-W	"	57-P " " ✓	1		0.7	18	188
81-W	"	58-P " " ✓	3		< 0.7	11	174
82-W	"	59-P " " ✓	0		1	14	270
83-W	"	55-V Vegetation ✓	6		2	2	1035
84-W	"	56-V " ✓	6		1	0	723
85-W	"	57-V " ✓	5		8	54	596
86-W	"	58-V " ✓	12		< 0.7	31	853
87-W	"	59-V " ✓	2		7	17	608
88-W	"	55-S Soil			6	580	144
89-W	"	56-S "			4	504	238
90-W	"	57-S "			5	558	612
91-W	"	58-S "			5	292	445
92-W	"	59-S "			9	621	198

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252
(1 11-61)

SUPERVISOR T Kwasnoski

DATE RELEASED 8/29/66

REPORT OF WATER ANALYSES

REPORT NO. _____

Distribution:

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Cr+3 ppm	FLUORIDES ppm.	pH	MICROCURIES / cc. X10^-7 URANIUM*	ALPHA	BETA
[illegible]	6-1-66	55W	<0.1	0.1	6.4	0.00	0.005	0.14
[illegible]	"	56W	<0.1	0.2	7.5	0.00	0.05	0.00
[illegible]	"	57W	<0.1	0.2	7.6	0.00	0.04	0.24
[illegible]	"	58W	0.1	0.2	6.7	0.06	0.14	0.20
[illegible]	"	59W	<0.1	0.1	7.5	0.00	0.07	0.16
Cw-7	4-29-66	Cw-7	<1 ppm	0.9	6.6	0.00	0.11	0.23
		(phenol <0.1)						
		uu						
	6/12	C.R. Ketner	<0.02	mg/l				
	5/17	C.C. Whaley	0.30	"				
	7/1	J.C. Milligan	0.14	"				
	7/5	J. McKinney	0.12	"				
	4/30	C.A. Wilson	0.12	"				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR

DATE RELEASED

UCN-3252
(1 11-61)

REPORT OF WATER ANALYSES

REPORT NO. 650

Distribution:
J. Dykstra, T.Kwarnoski, RC
W. E. Muldrew ✓

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	CrO_3 ppm	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA	Thorium
28W	4-29-66	CW-7	< 1	0.9	6.6	0.00	0.11	0.23	
				Phenol - < 0.1 ppm					
30W	5-2-66	NW-K-33 HPW-28 Trench No. 10				0.00			< 0.01
		Water							
73W	6-1-66	55W [illegible]	< 0.1	0.1	6.4	0.00	0.005	0.14	
74W	"	56W [illegible]	< 0.1	0.2	7.5	0.00	0.05	0.00	
75W	"	57W [illegible]	< 0.1	0.2	7.6	0.00	0.04	0.24	
76W	"	58W [illegible]	0.1	0.2	6.7	0.06	0.14	0.20	
77W	"	59W [illegible]	< 0.1	0.1	7.5	0.00	0.07	0.16	

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T. Kwarnoski

DATE RELEASED 7/7/66

UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. 648

Distribution:
J. Dykstra, T. Kwasnoski (RC)
W. E. Muldrew

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	CrO_3 ~~FLUORIDES~~ ppm.	pH	~~MICROCURIES~~ ~~URANIUM*~~	ALPHA	BETA
		Water					
31-W	5-5-66	HP-20W	< 1				
		Veg.					
32-W	"	HP-21V	< 2				
33-W	"	HP-22V	6				
34-W	"	HP-23V	4				
35-W	"	HP-24V	< 2				
36-W	"	HP-25V	< 2				
		Soils					
37-W	"	HP-21-S	120				
38-W	"	HP-22-S	70				
39-W	"	HP-23-S	60				
40-W	"	HP-24-S	110				
41-W	"	HP-25-S	120				
		Water			Phenol, ppm.		
99-W	6-15-66	64-W	< 0.1		0.08		
100-W	"	65-W	< 0.1		0.08		
101-W	"	66-W	0.2		0.09		
102-W	"	67-W	12		0.07		
103-W	"	68-W	2		0.08		

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T Kwasnoski

DATE RELEASED 7/6/66

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 20048

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND" J.R.

CHARGE	DATE	NO.
M32697-02	5-13-66	5302

SENDER	DATE ANALYSIS NEEDED
Sipe	

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-50

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION	TARE
Filter paper	

INSTRUCTIONS	NET
Be	

REQUESTED ANALYSIS	UNITS	RESULT(S)
Be	total µg	150
Residue wt.	2.0 Mg.	

RESULT APPROVED BY	DATE

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 20048

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND" J.N.

CHARGE	DATE	NO.
432697-02	5-13-66	5301

SENDER: Sipe

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-49

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION: Filter paper

TARE:

INSTRUCTIONS: Be

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Be	total μg	6.9
Residue wt.	13.8 mg.	

RESULT APPROVED BY:

DATE:

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 20048

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT
NUMBERS = _____ ON A _____ BASIS
"MEANS SOUGHT BUT NOT FOUND" J.N.

CHARGE	DATE	NO.
M32697-02	5-13-66	5300

SENDER: Sipe

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-48

REQUEST NO.:

PRECISION:

GROSS:

MATERIAL DESCRIPTION: Filter paper

TARE:

INSTRUCTIONS: Be

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Be	total µg	7.4
Residue wt	7.4 Mg.	

RESULT APPROVED BY:

DATE:

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 20048

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND" J.N.

CHARGE	DATE	NO.
432697-02	5-13-66	5299

SENDER: Sipe

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-47

REQUEST NO.:

PRECISION:

GROSS:

MATERIAL DESCRIPTION: Filter paper

TARE:

INSTRUCTIONS: Be

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Be	total µg	1
Residue wt.	2.1 mg.	

RESULT APPROVED BY:

DATE:

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 20048

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND" J. W.

CHARGE	DATE	NO.
M 32697-02	5-13-66	5298

DATE ANALYSIS NEEDED:

SENDER: Sipe

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-46

REQUEST NO.	PRECISION	GROSS

TARE:

MATERIAL DESCRIPTION: Filter Paper

NET:

INSTRUCTIONS: Be

REQUESTED ANALYSIS	UNITS	RESULT(S)
Be	Total µg.	0.6
Residue wt.	1.0 mg.	

RESULT APPROVED BY:

DATE:

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 20048

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND" J.A.

CHARGE	DATE	NO.
M32697-02	5-13-66	5297

SENDER: Sipe

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-45

REQUEST NO.: PRECISION: GROSS:

MATERIAL DESCRIPTION: Filter paper

TARE:

INSTRUCTIONS: Be

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Be	total µg	0.1
Residue wt.	12.8 mg.	

RESULT APPROVED BY:

DATE:

UCN-5901
(1 4-65)

LHS

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 20027

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND" DR

CHARGE	DATE	NO.
M32697-02	5-5	5242

SENDER: Sipe

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-29

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION: Filter paper

TARE:

INSTRUCTIONS:

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Be	total µg	0.02
Residue wt.	2.5 mg	

RESULT APPROVED BY: RZ

DATE: 5-10

UCN-5901
(1 6-64)

***ORKS LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 20027

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT.

NUMBERS = _____ ON A _____ BASIS

" _____ " MEANS "SOUGHT BUT NOT FOUND"

CHARGE: M32697-02

DATE: 9 May '66

NO. 9171

SENDER:

DATE ANALYSIS NEEDED:

CLASS | MATERIAL CODE | SAMPLED FROM

CONTAINER NO.:

REQUEST NO. | PRECISION

GROSS:

MATERIAL DESCRIPTION: Filter Papper

TARE:

INSTRUCTIONS:

NET:

Beryllium

REQUESTED ANALYSIS	UNITS	RESULT(S)
HP-41 (5274)	Residue wt.	0.5mg Total mg 0.0
HP-42 (5275)	Residue wt	2.0mg " " 0.0

RESULT APPROVED BY: R7

DATE: 5-10

UCN-59
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 20027

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT DR

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND"

CHARGE: M32697-02

DATE: 10 May

NO.:

SENDER:

DATE ANALYSIS NEEDED:

CLASS:

MATERIAL CODE:

SAMPLED FROM:

CONTAINER NO.:

REQUEST NO.:

PRECISION:

GROSS:

MATERIAL DESCRIPTION: Filter Paper

TARE:

INSTRUCTIONS:

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
HP-43 (5282)	Residue wt.	2.3 mg Total mg
HP-44 (5283)	Residue wt.	2.6 mg Total mg

RESULT APPROVED BY: R7

DATE: 5/6

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 20027

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND"

CHARGE: M32697-02

DATE:

NO.: 5244

SENDER: Kwasnoski

DATE ANALYSIS NEEDED:

CLASS:

MATERIAL CODE:

SAMPLED FROM:

CONTAINER NO.: HP-30

REQUEST NO.:

PRECISION:

GROSS:

MATERIAL DESCRIPTION: Filter Paper

TARE:

INSTRUCTIONS: Be

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Be	Total ug	0.2
Residue wt.	0.5 mg	

RESULT APPROVED BY: RT

DATE: 5-10

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 20027

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

MEANS SOUGHT BUT NOT FOUND

CHARGE	DATE	NO.
MB2697-02		5245

SENDER: Kwasnoski

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP31

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION: Filter Paper

TARE:

INSTRUCTIONS: Be

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
operational loss		

RESULT APPROVED BY: [illegible]

DATE: 5-10

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 20027

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
M32697-02		5246

SENDER: Kwasnoski.

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-32

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION: Filter paper

TARE:

INSTRUCTIONS: Be

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Be	Total ug	0.6
Residue wt	3.2 mg	

RESULT APPROVED BY: [illegible]

DATE: 5-10

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 70027

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT. ☒ OR

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
M32697-02		5247

SENDER: Kwasnoski

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-33

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION: Filter Paper

TARE:

INSTRUCTIONS: Be

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Be	Total μg	50
Residue weight	13.7 mg	

RESULT APPROVED BY: RF

DATE: 5-10

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 90027

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT. ☑

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
M32697-02		5248

SENDER	DATE ANALYSIS NEEDED
Kwas Noski	

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-34

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION	TARE
Filter paper	

INSTRUCTIONS	NET
Be	

REQUESTED ANALYSIS	UNITS	RESULT(S)
Be	Total ug	40
Residue weight	2.0 mg	

RESULT APPROVED BY	DATE
[illegible]	[illegible]

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 70027

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT DR BASIS

NUMBERS = _____ ON A _____

"MEANS SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
M32697-02		5249

SENDER: Kwesnoski

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-35

REQUEST NO.: PRECISION: GROSS:

MATERIAL DESCRIPTION: Filter Paper

TARE:

INSTRUCTIONS: Be

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Be	Total ug	0.6
Residue wt	2.0 mg	

RESULT APPROVED BY: [illegible]

DATE: [illegible]-10

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT.

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
M 32697-02		5250

SENDER: Kwasnoski

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-36

REQUEST NO.: PRECISION: GROSS:

MATERIAL DESCRIPTION: Filter paper

TARE:

INSTRUCTIONS: Be

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Be	Total mg	8
Residue weight	1.5 mg	

RESULT APPROVED BY:

DATE:

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 20027

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT
NUMBERS = _____ ON A _____ BASIS
"MEANS SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
M 32697-02		5251

SENDER: Kwasnoski

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-37

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION: Filter paper

TARE:

INSTRUCTIONS: Be

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Be	Total, µg	100
Residue wt	3.0 mg	

RESULT APPROVED BY:

DATE:

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 20027

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
M 32697-02		5252

SENDER: Kwasnoski

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-38

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION: Filter paper

TARE:

INSTRUCTIONS: Be

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Be	Total ug	3
Residue wt.	3.5 mg	

RESULT APPROVED BY: [illegible]

DATE: 5-10

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 20027

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = _____ ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
H 32697-02		5253

SENDER: Kwasnoski

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-39

REQUEST NO.: PRECISION: GROSS:

MATERIAL DESCRIPTION: Filter paper

TARE:

INSTRUCTIONS: Be

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Be	Total ug	2
Residue weight	7.2 mg	

RESULT APPROVED BY:

DATE:

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

SPECTROCHEMICAL REPORT 70027

Ag	Ir	Sr
Al	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT. OR

NUMBERS = _____ ON A _____ BASIS

MEANS SOUGHT BUT NOT FOUND

CHARGE	DATE	NO.
M32697-02		5254

SENDER: Kwasnoski

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			HP-40

REQUEST NO.: PRECISION: GROSS:

MATERIAL DESCRIPTION: Filter paper

TARE:

INSTRUCTIONS: Be

NET:

REQUESTED ANALYSIS	UNITS	RESULT(S)
Be	Total mg	0.6
Residue weight	4.7 mg	

RESULT APPROVED BY: R2

DATE: 5-10

REPORT OF WATER ANALYSES

REPORT NO. 646

Distribution:
W. E. Muldrew, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	CrO_3 ~~FLUORIDES~~ ppm.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
		Water - (Below 1407 B Pond)					
11-W	3-30-66	HP - 9W Perimeter Fence	1				
12-W	"	HP - 10W - K-1100 drain at 1407 B Pond	3				
13-W	"	HP - 11W Pond overflow S.W of K1006	0.4				
		Veg.					
14-W	"	HP - 12V N. E of K837 Cooling Tower	0.1				
15-W	"	HP - 13V S.E of K861 " "	24				
16-W	"	HP - 14V E of K861 " "	1200				
17-W	"	HP - 15V NE of K861 " "	168				
18-W	"	HP - 16V S.W of K892 " "	41				
19-W	"	HP - 17V SE of K892 Cooling Tower	1030				
20-W	"	HP - 18V NE of K892 " "	370				
		Soils					
21-W	"	HP - 12S NE of K837 Cooling Tower	43				
22-W	"	HP - 13S SE of K861 " "	3				
23-W	"	HP - 14S E of K861 " "	73				
24-W	"	HP - 15S NE of K861 " "	4				
25-W	"	HP - 16S S.W of K892 " "	3				
26-W	"	HP - 17S SE of K892 " "	1				
27-W	"	HP - 18S NE of K892 " "	2				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T. Kwasnoski

DATE RELEASED 4/25/66

UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. 644

Distribution:
W. E. Muldrew, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
237	12-23-65	CW-7	0				
10-W	3-3-66	CW-7	4				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 4/27/66

REPORT OF WATER ANALYSES

REPORT NO. 645

Distribution:
W. E. Muldrew, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
1-W	1-18-66	HP 1-W (water) East Fork Poplar Creek Bridge	0.4	6.5	0.15	0.24	0.11
2-W	"	HP 2-W " Poplar Creek Bridge Blair Pond	0.8	6.5	0.01	0.02	0.04
3-W	"	HP 3-W " Poplar Creek Bridge NF Tank Farm	0.6	6.5	0.08	0.18	0.13
4-W	"	HP 4-W " T1007 Pond at dam	0.4	7.5	0.01	0.14	0.23
5-W	"	HP 5-W " Contaminated spoil pond at dam	0.4	7.8	0.00	0.01	0.38
6-W	"	HP 6-W " T1420 Pond Below Neut. Pit	1.7	3.5	2.84	6.96	102.8
7-W	"	HP 7-W " Drinking fountain "D" Lab Basement	0.8	6.0	0.00	0.05	0.25
8-W	"	HP 8-W " At Perimeter Fence Below T1420 Pond	1.9	3.6	2.67	5.65	87.7
9-W	3-3-66	CW-7	0.1	6.9	0.00	0.00	0.38

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 4/22/66

Box# 12-2-9-51

ChemRisk/Shonka Research Associates, Inc., Document Request Form

(This section to be completed by subcontractor requesting document)

J. Lamb / SRC & Item 4

Requestor — Document Center (is requested to provide the following document)

Date of request 07/25/96 — Expected receipt of document 08/09/96

Document number none — Date of document 1967

Title and author (if document is unnumbered)

Report of Water Analyses (Veg, Soil, Mud, etc.) 1967

(This section to be completed by Document Center)

Date request received 7/29/96

Date submitted to ADC 7/29/96

Date submitted to HSA Coordinator 7/29/96

(This section to be completed by HSA Coordinator)

Date submitted to CICO 7/29/96

Date received from CICO 8/5/96

Date submitted to ChemRisk/Shonka and DOE 8/5/96

(This section to be completed by ChemRisk/Shonka Research Associates, Inc.)

Date document received

Signature

REPORT OF WATER ANALYSES
(Veg., Soil, Mud, etc.) 1967

This document has been approved for release to the public by:

Technical Information Officer
Oak Ridge K-25 Site

8/1/96
Date

Prepared by Union Carbide Corporation-Nuclear Division, operating contractor for the U.S. Department of Energy under U.S. Government Contract No. W-7405-eng-26.

ANALYSIS REPORT

DIVISION OR LABORATORY	SAMPLE
Laboratory	Waters
DEPARTMENT	SEQUENCE NO.
Research Analysis	
DATE RECEIVED	REQUEST NO.
August, 1967	06381

RESULTS

See Attached Sheet

The various analyses were performed as follows:

Cd, Cr, Cu, Fe, Mn, Pb and Zn	Atomic Absorption
Ag, Ba	Spectrographic
As, CN, Phenols, Se	APHA Standard Methods
Cl, F, NO_3, SO_4	Conventional wet-chemical methods.

REMARKS

TTED BY	LOCATION
N. B. Schultz	K-1003
RESULTS APPROVED BY	DATE
T. Kwasnoski	11-30-67

UCN-1232

REPORT OF WATER ANALYSES

REPORT NO. 662

Distribution: W. E. Muldrew, J. Dykstra, T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	ppm Phenol	SAMPLING LOCATION	ppm CrO_3	FLUORIDES ppm.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
37-W	3-23-67	0.1	5mi - Mt Regal HP-1-W	0.01	0.2	7.0	0.00	0.12	0.00
38-W	"	0.1	5mi - Buttermilk Rd HP-2-W	0.02	0.2	7.3	0.00	0.10	0.15
39-W	"	0.2	5mi Lawrenceburg HP-3-W	0.08	0.2	7.4	0.00	0.04	0.00
40-W	"	0.1	5mi - 61 Highway HP-4-W	0.02	0.9	7.0	0.00	0.01	0.13
41-W	"	0.1	5mi - K-25 Creek Cross HP-5-W	0.06	0.5	7.3	0.00	0.00	0.00
42-W	"	0.1	Poplar Creek - Main Branch HP-6-W	0.02	5.7	7.1	0.00	0.06	0.00
43-W	"	0.1	Poplar Creek - East Fork HP-7-W	0.10	0.2	7.2	0.13	0.13	0.37
44-W	"	0.2	Poplar Creek - K-31 Bridge HP-8-W	0.10	0.0	7.0	0.04	0.13	0.45
45-W	"	0.2	Bearden Creek HP-9-W	0.02	0.0	7.2	0.00	0.04	0.02
46-W	"	0.1	K-901 Pump House HP-10-W	0.04	0.7	7.2	0.00	0.05	0.04
47-W	"	0.1	K-1513 Pumping Station HP-11-W	0.02	0.3	7.4	0.00	0.02	0.21
48-W	"	0.2	Bag. Chem. Disposal Pond (Inlet) HP-12-W	13.6	0.5	6.7	0.04	0.11	0.45
49-W	"	0.1	Bag. Chem Disposal Pond (outlet) HP-13-W	1.2	0.1	7.2	0.00	0.09	0.37
50-W	"	0.1	Pond Discharge - West K-1007 HP-14-W	0.2	0.0	7.2	0.00	0.04	0.17
51-W	"	0.1	Pond Discharge K-1407 HP-15-W	0.2	1.0	6.9	1.58	9.78	14.38
52-W	"	0.1	K-1100 drain at K-1407 Pond HP-16-W	1.8	36.0	7.1	0.00	0.05	0.45
53-W	"	< 0.1	Sanitary Water at K-1003 HP-17-W	0.01	0.2	7.0	0.00	0.01	0.19

* Calculated from uranium content assuming natural isotopic abundance

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T. Kwasnoski

DATE RELEASED 6/12/67

WATER ANALYSES
(Results in mg/liter)

		Poplar Creek Main Branch	Poplar Creek East Fork	Poplar Creek Main Stream at Powerhouse	K-901 Clinch River	K-1004-B Sanitary Drinking Water
0.05 ppm	Arsenic 0.01 mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1.0 mg/l	Barium	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
250 ppm	Chloride	5	12	6	5	6
0.01 mg/l	Cadmium	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
0.05 ppm	Chromium	0.01	0.04	0.04	0.02	0.005
(0.25 ppm)	Copper 3.0	< 0.02	< 0.02	< 0.02	< 0.02	0.02
0.01 mg/l	Cyanide (25 ppb)	0.002	0.002	0.001	0.001	< 0.001
1.5 ppm	Fluoride	0.4	0.5	0.5	0.6	0.2
	Iron	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
0.05 ppm	Lead 0.3 ppm	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
0.1 ppm	Manganese	0.02	< 0.01	0.02	0.02	< 0.01
	Nitrate *	5	11	6	5	5
0.001 ppm	Phenols	< 0.001	0.001	0.001	0.001	< 0.001
0.05 ppm	Selenium (0.01)	0.003	0.002	0.002	0.002	0.002
0.05 mg/l	Silver **	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
250 ppm	Sulfate	12	14	14	8	18
(5.0 ppm)	Zinc 15.0	< 0.02	< 0.02	< 0.02	< 0.02	0.06

Natural Drinking (Water Standards re: Chemical Constituents
(unofficial guide to public water supply quality).

— maximum
— suggested

* methemoglobinemia
750-60 ppm

** 0.2 ppm in Denver, Colo
0.05 " in 50% USA water

salty taste (100-750 ppm)

VEGETATION, PINE NEEDLES AND SOIL

REPORT NO. 667

Distribution:
~~W. E. Muldrew~~, J. Dykstra,
T. Kwasnoski, RC

* 5 mile - off Area Sample Points

SAMPLE NUMBER	DATE SAMPLED	ppm CrO_3	SAMPLING LOCATION	ppm Phenol	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
72-W	4/1,8; 5/1,6,12,26; 6/3,10,24		K-901 Clinch River Composite		0.3	6.9	0.00	0.04	0.09
			VEGETATION						
22-W	3-23-67*	2.2	Mt Pisgah HP-1-V	4	29		0.1	0.0	72
23-W	"	1.6	HP-2-V Buttermilk Rd	4	30		0.1	0.0	32
24-W	"	1.4	HP-3-V Lawnville	3	19		< 0.1	0.0	46
25-W	"	2.8	HP-4-V Highway 61	2	24		0.1	0.0	102
26-W	"	2.8	HP-5-V Credit Union	6	40		0.1	7.8	68
			PINE NEEDLES						
27-W	"	1.5	HP-1-P Mt. Pisgah	5	19		0.3	21.2	34
28-W	"	1.5	HP-2-P Buttermilk Rd	4	11		< 0.1	0.0	12
29-W	"	2.7	HP-3-P Lawnville	5	14		< 0.1	0.0	0
30-W	"	1.5	HP-4-P Highway 61	9	12		0.1	0.5	4
31-W	"	1.0	HP-5-P Credit Union	10	12		0.1	0.0	8
			SOIL					Microcuries/Gram x 10^{-7}	
32-W	"		HP-1-S Mt. Pisgah				6	51	124
33-W	"		HP-2-S Buttermilk Rd				6	42	537
34-W	"		HP-3-S Lawnville				8	54	242
35-W	"		HP-4-S Highway 61				7	50	472
36-W	"		HP-5-S Credit Union				8	45	202

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T Kwasnoski

DATE RELEASED 7/7/67

UCN-3252
(1 11-61)

REPORT OF WATER ANALYSES

REPORT NO. 668

Distribution:
W. E. Muldrew, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	ppm Phenol	SAMPLING LOCATION	ppm CrO_3	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
			Poplar Creek Main Branch						
103-W	6-15-67	0.07	HP-18	0.01	0.1	6.4	0.00	0.002	0.00
			Poplar Creek East Fork						
104-W	"	0.05	HP-19	0.14	0.4	7.0	0.09	0.16	0.01
			Poplar Creek - K-31 Bridge						
105-W	"	0.07	HP-20	0.06	0.6	7.0	0.04	0.15	1.06
			Pond Discharge - West of K-1007						
106-W	"	0.04	HP-21	0.24	0.5	7.5	0.04	0.07	0.31
			Pond Discharge - K-1407						
107-W	"	0.01	HP-22	0.44	1.7	6.0	2.06	3.16	56.10
			Sanitary Water - K-1003						
108-W	"	0.01	HP-23	0.01	0.3	6.8	0.00	0.02	0.00
			Hazardous Chemical Disposal Pond						
115-W	6-26-67		HP-24	0.36		7.8	0.04		
			Hazardous Chemical Disposal Pond						
116-W	6-27-67		HP-25	0.42		8.0	0.01		

* Calculated from uranium content assuming natural isotopic abundance.

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR H. H. Sullivan

DATE RELEASED 7-31-67

UCN-3262

REPORT OF WATER ANALYSES

REPORT NO. 674

Distribution:
W. E. Muldrew, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
166-W	10-7-67	K-901 Clinch River (Comp.)	0.5	7.7	0.00	0.00	0.10
	10-14-67						
	10-21-67						
	10-28-67						
	11-11-67						
	11-18-67						
	11-25-67						
	12-2-67						
	12-9-67						
	12-16-67						

		ppm CrO_3	Water	ppm Phenols					
192-W	11-14-67	< 0.01	HP-30W Mt. Pisgah	0.02	0.1	7.0	0.00	0.09	0.11
193-W	11-14-67	< 0.01	Buttermilk Rd HP-31W	0.02	0.1	8.4	0.00	0.10	0.06
194-W	11-14-67	0.01	Lawnville HP-32W	0.02	0.2	8.4	0.00	0.05	0.06
195-W	11-14-67	< 0.01	Highway 61 HP-33W	0.01	0.8	7.8	0.00	0.08	0.00
196-W	11-14-67	< 0.01	Credit Union HP-34W	0.01	0.2	8.4	0.00	0.04	0.05

* Calculated from uranium content assuming natural isotopic abundance.

SUPERVISOR J. T. Walton for T. Kwasnoski

DATE RELEASED 1/19/68

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

VEGETATION, PINE NEEDLES AND SOIL

5 mile - Off Area Sample Points

REPORT NO. 675

Distribution:
W. E. Muldrew, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	ppm CrO_3	SAMPLING LOCATION	ppm Phenols	FLUORIDES ppm.	pH	MICROCURIES/grams x 10^{-7} URANIUM*	ALPHA	BETA
			Vegetation (5 mi.)						
197-W	11-14-67	6	HP-30 V Mt. Pisgah	0.3	14		0.7	8	317
198-W	"	8	HP-31 V Buttermilk Rd	0.9	35		< 0.7	14	383
199-W	"	7	HP-32 V Lawnville	0.9	20		1.0	22	392
200-W	"	10	HP-33 V Highway 61	1.9	30		0.7	18	343
201-W	"	6	HP-34 V Credit Union	1.3	12		< 0.7	25	240
			Pine Needles (5 mi.)						
202-W	"	5	HP-30 P Mt. Pisgah	2.4	14		< 0.7	5	152
203-W	"	5	HP-31 P Buttermilk Rd	1.3	11		0.7	20	101
204-W	"	5	HP-32 P Lawnville	4.4	32		< 0.7	7	144
205-W	"	5	HP-33 P Highway 61	3.0	20		< 0.7	9	119
206-W	11-14-67	4	HP-34 P Credit Union	1.3	6		< 0.7	7	142
			Soil (5 mi.)						
207-W	11-14-67		HP-30 S Mt. Pisgah				14	57	251
208-W	"		HP-31 S Buttermilk Rd				11	49	388
209-W	"		HP-32 S Lawnville				12	53	320
210-W	"		HP-33 S Highway 61				8	47	475
211-W	11-14-67		HP-34 S Credit Union				16	53	162

* Calculated from uranium content assuming natural isotopic abundance.

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR J. T. Mallern for T. Kwasnoski

DATE RELEASED 1/19/68

REPORT OF WATER ANALYSES

REPORT NO. 676

Distribution:

W. E. Muldrew, J. Dykstra, T, Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	ppm CrO_3	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
230-W	12-9-67	K-901 Clinch River	4		0.01		
231-W	"	K-802 A and B	8				
232-W	"	K-832 C-Loop	14				
233-W	"	K-862 E-Loop	14				
234-W	"	K-892 Eff.	8				
235-W	12-9-67	K-892 G-Loop	14				
236-W	12-16-67	K-901 Clinch River	8		0.01		
237-W	"	K-802 A and B	8				
238-W	"	K-832 C-Loop	14				
239-W	"	K-862 E-Loop	14				
240-W	"	K-892 Eff.	8				
241-W	12-16-67	K-892 G-Loop	14				

† Calculated from uranium content assuming natural isotopic abundance.

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR J. T. Mottern for T. Kwasnoski

DATE RELEASED 1/19/68

UCN-3253

REPORT OF WATER ANALYSES

REPORT NO. 677

Distribution:

W. E. Muldrew, J. Dykstra, T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	ppm CrO_3	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
218-W	11-25-67	K-901 Clinch River	8		0.015		
219-W	"	K-802 A and B	8				
220-W	"	K-832 C-Loop	8				
221-W	"	K-862 E-Loop	8				
222-W	"	K-892 Eff.	8				
223-W	11-25-67	K-892 G-Loop	8				
224-W	12-2-67	K-901 - Clinch River	4		0.02		
225-W	"	K-802 A and B	8				
236-W	"	K-832 C-Loop	14				
227-W	"	K-862 E-Loop	8				
228-W	"	K-892 Eff.	8				
229-W	12-2-67	K-892 G-Loop	8				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR J. T. Mullen for T. Kwasnoski

DATE RELEASED 1/19/68

REPORT OF WATER ANALYSES

REPORT NO. 672

Distribution:
J. Dykstra, W.E.Muldrew,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	ppm CrO_3	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
173-W	10-21-67	K-901 Clinch River	8		0.01		
174-W	"	K-802 A and B	14				
175-W	"	K-832 C-Loop	8				
176-W	"	K-862 E-Loop	8				
177-W	"	K-892 EFF.	8				
178-W	"	K-892 G-Loop	8				
179-W	10-28-67	K-901 Clinch River	8		0.01		
180-W	"	K-802 A and B	14				
181-W	"	K-832 C-Loop	8				
182-W	"	K-862 E-Loop	14				
183-W	"	K-892 EFF.	8				
184-W	"	K-892 G-Loop	8				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T. Kwasnoski

DATE RELEASED 12-12-67

UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. 673

Distribution:

J. Dykstra, W. E. Muldrew,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	ppm CrO_3	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
185-W	11-11-67	K-901 Clinch River	8		0.01		
186-W	"	K-802 A and B	14				
187-W	"	K-832 C-Loop	14				
188-W	"	K-862 E-Loop	14				
189-W	"	K-892 EFF.	14				
190-W	"	K-892 G-Loop	14				
212-W	11-18-67	K-901 Clinch River	8		< 0.01		
213-W	"	K-802 A and B	8				
214-W	"	K-832 C-Loop	8				
215-W	"	K-862 E-Loop	8				
216-W	"	K-892 - EFF.	8				
217-W	"	K-892 G-Loop	8				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T Kwasnoski

DATE RELEASED 12-12-67

REPORT OF WATER ANALYSES

REPORT NO. 671

Distribution: W. E. Muldrew, J. Dykstra, T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	ppm CrO_3	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
148-W	9-16-67	K-901 Clinch River	4		0.01		
149-W	"	K-802 A and B	14				
150-W	"	K-832 C-Loop	14				
151-W	"	K-862 E-Loop	18				
152-W	"	K-892 EFF.	18				
153-W	9-16-67	K-892 G-Loop	18				
154-W	9-23-67	K-901 Clinch River	4		0.02		
155-W	"	K-802 B Loop	14				
156-W	"	K-832 C-Loop	14				
157-W	"	K-862 E-Loop	14				
158-W	"	K-892 EFF.	18				
159-W	9-23-67	K-892 G-Loop	18				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T Kwasnoski

DATE RELEASED 10/24/67

REPORT OF WATER ANALYSES

REPORT NO. 67 (Cont'd)
Distribution:

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	ppm CrO_3	MICROCURIES / cc. ALPHA	BETA
160-W	10-7-67	K-901 Clinch River	4		0.10		
161-W	"	K-802 A and B	14				
162-W	"	K-832 C-Loop	14				
163-W	"	K-862 E-Loop	14				
164-W	"	K-892 EFF.	18				
165-W	10-7-67	K-892 G-Loop	18				
167-W	10-14-67	K-901 Clinch River	8		0.01		
168-W	"	K-802 A and B	14				
169-W	"	K-832 C-Loop	14				
170-W	"	K-862 E-Loop	18				
171-W	"	K-892 E-Loop	18				
172-W	10-14-67	K-892 G-Loop	18				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT
UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 10/24/67

REPORT OF WATER ANALYSES

REPORT NO. 670

Distribution: W. E. Muldrew, J. Dykstra, T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. X10⁻⁷ URANIUM*	ALPHA	BETA
123-W	7-1-67	K-901 Clinch River Composite	0.3	7.1	0.00	0.00	1.06
	7-22-67						
	7-29-67		0.5	7.7	0.00	0.00	0.10
	8-19-67						
	8-26-67						
	9-16-67						
	9-23-67						

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T. Kwasnoski

DATE RELEASED 10/24/67

UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. 669 (cont'd)
Distribution: page 2

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	CrO_3 ppm	MICROCURIES / cc. ALPHA	BETA
136-W	8-19-67	K-901 Clinch River	8		0.02		
137-W	"	K-802 A and B	14				
138-W	"	K-832 C-Loop	14				
139-W	"	K-862 E-Loop	14				
140-W	"	K-892 EFF.	14				
141-W	8-19-67	K-892 G-Loop	14				
142-W	8-26-67	K-901 Clinch River	8		0.01		
143-W	"	K-802 A and B	14				
144-W	"	K-832 C-Loop	14				
145-W	"	K-862 E-Loop	8				
146-W	"	K-892 EFF.	8				
147-W	8-26-67	K-892 G-Loop	14				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T Kwasnoski

DATE RELEASED 9/11/67

UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. 669

Distribution:
J. Dykstra, W. E. Muldrew,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ~~CHLORIDES~~ ppb ~~XXXX~~	pH	CrO_3 ppm ~~URANIUM~~	MICROCURIES / cc. ALPHA	BETA
124-W	7-22-67	K-901 Clinch River	14		2		
125-W	"	K-802 A and B	14				
126-W	"	K-832 C-Loop	14				
127-W	"	K-862 E-Loop	18				
128-W	"	K-892 EFF	18				
129-W	"	K-892 G-Loop	18				
130-W	7-29-67	K-901 Clinch River	8		0.01		
131-W	"	K-802 A and B	14				
132-W	"	K-832 C-Loop	14				
133-W	"	K-862 E-Loop	18				
134-W	"	K-892 EFF	14				
135-W	"	K-892 G-Loop	18				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T Kwasnoski

DATE RELEASED 9/11/67

REPORT OF WATER ANALYSES

REPORT NO. 666

Distribution:
W. E. Muldrew, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	ppm CrO_3	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
100-W	6-10-67	K-862 E-Loop	6		0.01		
101-W	"	K-892 Effluent	0				
102-W	"	K-892 G-Loop	0				
109-W	6-24-67	K-901 Clinch River	8		0.01		
110-W	"	K-802 A and B	8				
111-W	"	K-832-C-Loop	8				
112-W	"	K-862 E-Loop	8				
113-W	"	K-892 EFF.	8				
114-W	"	K-892 G-Loop	4				
117-W	7-1-67	K-901 Clinch River	8		0.03		
118-W	"	K-802 A and B	14				
119-W	"	K-832-C-Loop	14				
120-W	"	K-862 E-Loop	8				
121-W	"	K-892 EFF	14				
122-W	"	K-892 G-Loop	14				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T Kwasnoski

DATE RELEASED 7/7/67

UCN-0252
(1 11-61)

REPORT OF WATER ANALYSES

REPORT NO. 665

Distribution:
~~W. E. Muldrew,~~ J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	ppm CrO_3	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
85-W	5-26-67	K-901 Clinch River	14		0.02		
86-W	"	K-802 A and B	4				
87-W	"	K-832-C-Loop	8				
88-W	"	K-862-E-Loop	10				
89-W	"	K-892-EFF	8				
90-W	"	K-892-G-Loop	10				
91-W	6-3-67	K-901 Clinch River	4		< 0.01		
92-W	"	K-802 A and B	4				
93-W	"	K-832 C-Loop	0				
94-W	"	K-862-E-Loop	0				
95-W	"	K-892 EFF	6				
96-W	"	K-892 G-Loop	2				
97-W	6-10-67	K-901 Clinch River	2		0.01		
98-W	"	K-802 A and B	0				
99-W	"	K-832 C-Loop	0				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR Tkwasnoski

DATE RELEASED 7/7/67

UCN-3252
(1 11-61)

REPORT OF WATER ANALYSES

REPORT NO. 664

Distribution: W. E. Muldrew, J. Dykstra, T.Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg, ppb ~~FLUORIDES~~ ~~XXXXX~~	pH	ppm, CrO_3 ~~URANIUM~~	MICROCURIES / cc. ALPHA	BETA
73-W	5-6-67	K-901 Clinch River	14		0.08		
74-W	"	K-802 A and B	8				
75-W	"	K-832 C-Loop	8				
76-W	"	K-862 E-Loop	2				
77-W	"	K-892 EFF.	2				
78-W	"	K-892 G-Loop	0				
79-W	5-12-67	K-901 Clinch River	8		0.04		
80-W	"	K-802 A and B	8				
81-W	"	K-832-C-Loop	4				
82-W	"	K-862 E-Loop	2				
83-W	"	K-892 EFF.	2				
84-W	5-12-67	K-892 G-Loop	0				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T Kwasnoski

DATE RELEASED 6/12/67

UCN-3252

REPORT OF WATER ANALYSES

REPORT NO. 663

Distribution: W. E. Muldrew, J. Dykstra, T.Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	ppm, CrO_3	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
60-W	4-8-67	K-901 Clinch River	8		0.06		
61-W	"	K-802 A and B	14				
62-W	"	K-832-C-Loop	14				
63-W	"	K-862-E-Loop	8				
64-W	"	K-892-EFF.	14				
65-W	4-8-67	K-892-G-Loop	14				
66-W	5-1-67	K-901 Clinch River	0		0.11		
67-W	4-28-67	K-802 A and B	0				
68-W	"	K-832-C-Loop	2				
69-W	"	K-862-E-Loop	0				
70-W	"	K-892-EFF.	2				
71-W	5-1-67	K-892-G-Loop	0				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T Kwasnoski

DATE RELEASED 6/12/67

REPORT OF WATER ANALYSES

REPORT NO. 661

Distribution: W. E. Muldrew, J.Dykstra, T.Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ~~CHLORIDES~~ ppb ~~ppm~~	pH	ppm CrO_3 ~~URANIUM~~	MICROCURIES / cc. ALPHA	BETA
16-W	3-11-67	K-901 Clinch River	0		0.02		
17-W	"	K-802, A and B	8				
18-W	"	K-832, C-Loop	8				
19-W	"	K-862, E-Loop	0				
20-W	"	K-892, Eff.	0				
21-W	"	K-892, G-Loop	0				
54-W	4-1-67	K-901 - Clinch River	8		0.03		
55-W	"	K-802, A and B	4				
56-W	"	K-832 - C-Loop	8				
57-W	"	K-862 - E-Loop	8				
58-W	"	K-892, Eff	8				
59-W	"	K-892, G-Loop	4				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T Kwasnoski

DATE RELEASED May 8, 1967

REPORT OF WATER ANALYSES

REPORT NO. 660

Distribution: W. E. Muldrew, J.Dykstra, T.Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb	pH	CrO_3 ppm	MICROCURIES / cc. ALPHA	MICROCURIES / cc. BETA
3-W	2-11-67	K-901, Clinch River	8		0.02		
4-W	"	K-802, A and B	8				
5-W	"	K-832 - C-Loop	2				
6-W	"	K-862 - E-Loop	4				
7-W	"	K-892 - Eff.	4				
8-W	"	K-892 - G-Loop	4				
9-W	3-4-67	K-901, Clinch River	8		0.02		
10-W	"	K-802, A and B	8				
11-W	"	K-832 - C-Loop	4				
12-W	"	K-862 - E-Loop	8				
13-W	"	K-892 - Eff.	4				
14-W	"	K-892 - G-Loop	2				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T Kwasnoski

DATE RELEASED May 8, 1967

1967

REPORT OF WATER ANALYSES

REPORT NO. 659

Distribution: W. E. Muldrew, J.Dykstra, T.Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA	ppm CrO_3
1	1-30-67	Clinch River (901)	0.3	6.1	0.00	0.06	0.21	< 0.01
2	"	Clinch River, 2-1/2 miles downstream	0.2	6.3	0.00	0.07	0.14	0.05
15	2-11-67) 3-4-67) 3-11-67)	K-901 Clinch River (Comp.)	0.6	7.1	0.00	0.01	0.07	

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T Kwasnoski

DATE RELEASED May 8, 1967

5 Mile sample Point Location	Date	sample #	c/m/ft³	Remarks
Mt. Pisgah	3-14-67	HP 1 A		Lost in Process
Buttermilk Rd	3-13-67	HP 2 A		
Lawnville	3-13-67	HP 3 A		
Highway 61	3-14-67	HP 4 A		
Credit Union	3-14-67	HP 5 A		

5 mile sample point Location	Date	sample #	c/m/ft³
Mt. Pisgah	11-15-67	HA30A	0.23
Buttermilk Rd	11-15-67	HA31A	0.27
Lawnville	11-15-67	HA32A	0.14
Highway 61	11-15-67	HA33A	0.11
Credit Union	11-15-67	HA34A	0.00

prod Box# 12-2-8-47

ChemRisk/Shonka Research Associates, Inc., Document Request Form

Item 10

(This section to be completed by subcontractor requesting document)

J. Lamb / SRC

Requestor — Document Center (is requested to provide the following document)

Date of request 07/25/96 — Expected receipt of document 08/09/96

Document number _____ — Date of document 1965

Title and author (if document is unnumbered)

Report of Water Analyses (Veg, Soil, Mud, etc.) 1965

(This section to be completed by Document Center)

Date request received 7/29/96

Date submitted to ADC 7/29/96

Date submitted to HSA Coordinator 7/29/96

(This section to be completed by HSA Coordinator)

Date submitted to CICO 7/29/96

Date received from CICO 8/5/96

Date submitted to ChemRisk/Shonka and DOE 8/5/96

(This section to be completed by ChemRisk/Shonka Research Associates, Inc.)

Date document received _____

Signature _____

REPORT OF WATER ANALYSES
(Veg., Soil, Mud, etc.) 1965

This document has been approved for release
to the public by:
Asst Technical Information Officer 8/1/96
Date
Oak Ridge K-25 Site

Prepared by Union Carbide Corporation-
Nuclear Division, operating contractor for the
U.S. Department of Energy under U.S.
Government Contract No. W-7405-eng-26.

REPORT OF WATER ANALYSES

REPORT NO. 642

Distribution:
W. E. Muldrew, J. Dykstra,
T. Kwasnoski (RC)

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
215-W	11-4-65	HP-W-6 (water) (5 min.)	0.4	6.2	0.00	0.06	0.04
216-W	"	HP-W-7 "	0.5	7.1	0.00	0.05	0.00
217-W	"	HP-W-8 "	0.5	7.3	0.00	0.07	0.00
218-W	"	HP-W-9 "	1.6	7.2	0.00	0.03	0.00
219-W	"	HP-W-10 " (small line at pond)	0.3	7.7	0.00	0.00	0.20
220-W	"	Pipeline B HP-W-290 " K-1420 Drain	0.6	1.4	15.4	22.6	73.7
221-W	"	HP-W-291 " (Gasoline at pond)	1.2	3.4	10.8	20.3	87.2
222-W	"	HP-W-292 " outlet 290 flow drains	1.1	7.1	6.9	40.0	73.6
223-W	"	HP-W-293 " K-1420 drain	0.4	7.2	0.03	0.00	0.64
224-W	11-5-65) 12-4-65)Composite 12-23-65)	CW-7	0.3	7.4	0.00	0.00	0.04

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 1/19/66

REPORT OF ~~WATER~~ ANALYSES

REPORT NO. 643

Distribution:
W. E. Muldrew, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION		FLUORIDES ppm.	pH	MICROCURIES/gram x 10^{-7} URANIUM*	ALPHA	BETA
200W	11-4-65	HP-P-6	Pine Needles	6.9		0.7	0	93
201W	"	HP-P-7	"	4.0		< 0.7	0	57
202W	"	HP-P-8	"	6.3		< 0.7	11	71
203W	"	HP-P-9	"	8.5		< 0.7	0	90
204W	"	HP-P-10	"	8.2		< 0.7	0	48
205W	"	HP-V-6	Vegetation	7.2		< 0.7	0	114
206W	"	HP-V-7	"	7.0		0.7	0	128
207W	"	HP-V-8	"	17.3		< 0.7	0	225
208W	"	HP-V-9	"	16.2		< 0.7	0	12
209W	"	HP-V-10	"	22.6		0.7	0	206
210W	"	HP-S-6	Soil			78	52	234
211W	"	HP-S-7	"			13	20	666
212W	"	HP-S-8	"			9	13	292
213W	"	HP-S-9	"			7	22	396
214W	"	HP-S-10	"			7	17	243

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 3/24/66

REPORT OF WATER ANALYSES

REPORT NO. 61

Distribution:
A. F. Becher, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	~~URANIUM~~ Hg ppb.	FLUORIDES ppm.	pH	Counts per min/100 ml. ALPHA	BETA
225-W	11-5-65	CW-7	4				
226-W	11-6-65	901 - Raw Water	4				
227-W	"	K-802 - B-Loop	8				
228-W	"	K-832 - C-Loop	4				
229-W	"	K-862- E-Loop	4				
230-W	"	K-892 - G-Loop	4				
231-W	12-4-65	K-901 - Raw water	0				
232-W	"	K-802 A and B Loop	0				
233-W	"	K-892 A and B EFF	8				
234-W	"	K-832 C-Loop	0				
235-W	"	K-862 E-Loop	0				
236-W	"	K-892 G-Loop	0				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T. Kwasnoski

DATE RELEASED 12/22/65

REPORT OF WATER ANALYSES

REPORT NO. 633

Distribution: A. F. Becher, J. Dykstra, T. Kwasnoski (RC)

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
85 W	7-30-65)						
	9-3-65)	CW-7 Composite	1.5	7.8	0.00	0.01	0.22
	10-2-65)				0.03 mg Pb/liter		

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

UCN-3252

SUPERVISOR T. Kwasnoski

DATE RELEASED 12/17/65

REPORT OF WATER ANALYSES

REPORT NO. 640

Distribution: A. F. Becher, J. Dykstra, T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb.	pH	MICROCURIES / cc. URANIUM*	ALPHA	BETA
112-W	10-2-65	K-901 Raw Water	4				
113-W	"	K-802 A and B	8				
114-W	"	K-832-C-Loop	0				
115-W	"	K-862 E Loop	0				
116-W	"	K-892 G-Loop	0				
148-W	10-6-65	CW-7	2				

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T Kwasnoski

DATE RELEASED 12/17/65

UCN-3252

UCN-5001
(1 6-64)

WORKS LABORATORY ANALYSIS REPORT

WEM

Copy

SPECTROCHEMICAL REPORT 19264

Ag	—	Ir		Sr	
Al	5	K		Ta	
As		Li		Tc	
Au		Mg	10	Te	
B		Mn	1	Th	
Ba		Mo	—	Ti	—
Be	—	Na		Tl	
Bi	—	Ni	1	U	
Ca	25	Os		V	—
Cb		P		W	
Cd	—	Pb	—	Zn	—
Co	—	Pd		Zr	
Cr	10	Pt			
Cs		Rb			
Cu	4	Re			
Fe	250	Rh			
Ga		Ru			
Ge		Sb	15mg/M³ — Fe_2O_3		
Hf		Sc			
Hg	—	Si	20		
In		Sn	20		

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT.

NUMBERS = total mg ON A _____ BASIS

" " MEANS "SOUGHT BUT NOT FOUND"

CHARGE M-32647-62	DATE 10-25-65	NO. 8253	
SENDER HPX		DATE ANALYSIS NEEDED	
CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO. 1
REQUEST NO.	PRECISION	GROSS	
MATERIAL DESCRIPTION Dust in Alcohol		TARE	
INSTRUCTIONS Dust count, particle size dist. total wt. + spec.		NET	

REQUESTED ANALYSIS	UNITS	RESULT(S)
(See back of sheet)		

RESULT APPROVED BY R. F. Tkwasvoski

DATE 11-15-65

Alloy and Health Physics

Total number of particles 11.7 million

Total weight of particles 1.2 milligrams

Particle Size Distribution

Particle size (microns)	% of total particles
<1	79.5
1	7.7
2	5.1
3	2.6
4	2.6
5	2.6

UCN-5901
(1 4-65)

LABORATORY ANALYSIS REPORT

19272

SPECTROCHEMICAL REPORT 19264

Ag .005	Ir	Sr
Al .2	K	Ta
As —	Li	Tc
Au	Mg .2	Te
B	Mn .01	Th
Ba	Mo .02	Ti .1
Be ~50	Na	Tl
Bi —	Ni ~10	U
Ca 0.2	Os	V —
Cb	P	W
Cd —	Pb —	Zn —
Co —	Pd	Zr
Cr .05	Pt	
Cs	Rb	
Cu .05	Re	
Fe .2	Rh	
Ga	Ru	
Ge	Sb —	
Hf	Sc	
Hg —	Si .3	
In	Sn —	

☑ QUAL. ☐ SEMIQUANT. ☐ QUANT

NUMBERS = 90 ON A _____ BASIS

"MEANS SOUGHT BUT NOT FOUND" J.H.D.R

CHARGE M32697-02 DATE 11-2-65 NO. 2149

DATE ANALYSIS NEEDED

SENDER L. H. Sipe

CLASS | MATERIAL CODE | SAMPLED FROM

CONTAINER NO. Sample No. 3

REQUEST NO. | PRECISION

GROSS

TARE

MATERIAL DESCRIPTION Air Sample —

INSTRUCTIONS

NET

REQUESTED ANALYSIS	UNITS	RESULT(S)
Residue wt.	8.9 mg.	
Ni	%	~10
Be	%	~50

RESULT APPROVED BY R. T. Kurosaki

DATE 11-4-65

AEM

UCN-5901
(1 6-64)

WORKS LABORATORY ANALYSIS REPORT

19273 ~~19272~~ Cergy

WEM

SPECTROCHEMICAL REPORT 19264

Ag	0.2	Ir		Sr	
Al	4	K		Ta	
As	—	Li		Tc	
Au		Mg	10	Te	
B		Mn	2	Th	
Ba		Mo	—	Ti	—
Be	—	Na		Tl	
Bi	—	Ni	1	U	
Ca	10	Os		V	—
Cb		P		W	
Cd		Pb	—	Zn	—
Co		Pd		Zr	
Cr	5	Pt			
Cs		Rb			
Cu	5	Re			
Fe	250	Rh			
Ga		Ru			
Ge		Sb	—		
Hf		Sc			
Hg	—	Si	20		
In		Sn	20		

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT.

NUMBERS = total ug ON A _____ BASIS

"_____" MEANS "SOUGHT BUT NOT FOUND"

CHARGE M-32697-02	DATE 10-25-65	NO. 8254
SENDER HPX		DATE ANALYSIS NEEDED
CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO. 2
REQUEST NO.	PRECISION	GROSS
MATERIAL DESCRIPTION Dust in Alcohol		TARE
INSTRUCTIONS		NET

REQUESTED ANALYSIS	UNITS	RESULT(S)
	(See back of sheet)	

RESULT APPROVED BY T Kurosawa

DATE 11/5/65

Total number of particles - 3.2 million

Total weight of particles 0.6 milligram

Particle Size Distribution

Particle Size (microns)	% of total particles
<1	0.0
1	50.0
2	12.5
3	6.3
4	6.3
5	25.0

UCN 5901
(1 6-64)

WORKS LABORATORY ANALYSIS REPORT

Copy

NEM

SPECTROCHEMICAL REPORT 19264			CHARGE M-3269/02	DATE 0 25 65	NO. 8255
Ag 0.2	Ir	Sr	SENDER HPX		DATE ANALYSIS NEEDED
Al 10	K	Ta			
As	Li	Tc	CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO. 3
Au	Mg 10	Te			
B	Mn 0.4	Th	REQUEST NO.	PRECISION	GROSS
Ba	Mo —	Ti —			
Be —	Na	Tl	MATERIAL DESCRIPTION Dust in Alcohol		TARE
Bi —	Ni 5	U			
Ca 5	Os	V —	INSTRUCTIONS		NET
Cb	P	W			
Cd —	Pb —	Zn —			
Co —	Pd	Zr			
Cr 10	Pt				
Cs	Rb				
Cu 4	Re		REQUESTED ANALYSIS	UNITS	RESULT(S)
Fe 25	Rh				
Ga	Ru		See back of sheet		
Ge	Sb				
Hf	Sc				
Hg —	Si 30				
In	Sn 25				

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT.

NUMBERS = total µg ON A _____ BASIS

" MEANS "SOUGHT BUT NOT FOUND"

RESULT APPROVED BY [signature] T Kwasovskii

DATE 11/5/65

REPORT OF W..ER ANALYSES

REPORT NO.

Distribution:
A. F. Becher, J. Dykstra,
T. Kwasnoski (RC)

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg. ppb.	FLUORIDES ppm.	pH	Counts per min/100 ml. ALPHA	BETA
81-W	6-25-65	CW-1 East [illegible] at Pople Creek	4				
82-W	"	CW-7 901	22				
83-W	7-30-65	CW-7 901	0				
86-W	8-21-65	802 A and B Loop	0				
87-W	"	892 A and B Loop EFF	0				
88-W	8-16-65	K-832 C Loop	0				
89-W	8-21-65	K-862 E Loop	0				
90-W	"	K-892 G Loop	0				
91-W	9-3-65	CW-7 901	4				
92-W	9-4-65	K-901 Raw Water	4				
93-W	9-4-65	K-802 A and B Loop	8				
94-W	9-4-65	K-832 C-Loop	0				
95-W	"	K-862 E-Loop	0				
96-W	9-5-65	K-892 G-Loop	0				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T. Kwasnoski

DATE RELEASED 9/29/65

Total number of particles - 116.0 million

Total weight of particles - 2.2 milligrams

Particle Size Distribution

Particle Size (microns)	% of total particles
<1	77.6
1	6.9
2	8.6
3	3.4
4	1.7
5	1.7

ISOTOPIC SERVICES DEPARTMENT

RADIOACTIVITY ANALYSIS REPORT

TO N. B. Schultz

SAMPLE TYPE Ash Sample

REPORT OR REQUEST NO. 1340 Charge

SAMPLE NUMBER	ALPHA Dis./min/g. sample		BETA Dis./min/g. sample		Isotopes Present on Gamma Scan		
UF_6 10 ton cylinder	823,670		899,376,000		Th^{230}	[illegible] of U^{234})	
Paducah Product					Th^{234}	$(UX_1)(UX_2)$	
Paducah cylinder "thin wall"							

DATE 8-26-65

REPORTED BY O H Howard

1 microcurie (μc.) = 2.2×10^6 disintegrations per minute.

UCN-5486
(1 2-64)

ISOTOPIC SERVICES DEPARTMENT
RADIOACTIVITY ANALYSIS REPORT

TO: A. V. Faloon

SAMPLE TYPE:

REPORT OR REQUEST NO.: 134074

SAMPLE NUMBER	ALPHA Dis./min.	ALPHA µc./cc.	BETA Dis./min.	BETA µc./cc.	Np^{-237} µg/gram S.	Tc^{-99} µg/gram S.
①						
PPC-R (Green Material)					0.23	53.06
[illegible]						
② Filter Paper 109,270 d Dis/min					<0.05 µg Np/Total samp.	0.32 µg Tc/Total Samp.
[illegible]						
					57 mg U/sample	
↓						
U	0.6412 g U/g sample				(Al UF4, ≈85%)	
α	823,670 d/m/g sample					
β	849,376,000 d/m/g sample					
γ	(Th^{230}) (Th^{234})					

DATE: 8-25-65

REPORTED BY: O H Howard

1 microcurie (µc.) = 2.2 × 10^6 disintegrations per minute.

UCN-5486
(1 2-64)

ISOTOPIC SERVICES DEPARTMENT

RADIOACTIVITY ANALYSIS REPORT

TO: Mr. N. Schultz

SAMPLE TYPE: Elevated Water Tank Sludge

REPORT OR REQUEST NO.:

SAMPLE NUMBER	ALPHA Dis./min./gram	ALPHA μc./cc.	BETA Dis./min./gram	BETA μc./cc.	Ru-106 Dis/min/gram	Sr-90 Dis/min/gram	U. μgrams/gram
K-1206F	129		1365		950	20	41.9

DATE: 8-20-65

REPORTED BY: A R Shyman

1 microcurie (μc.) = 2.2 × 10^6 disintegrations per minute.

UCN-5486
(1 2-64)

REPORT OF WATER ANALYSES

REPORT NO. 631

Distribution: A. F. Becher
J. Dykstra
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. $\times 10^{-7}$ URANIUM*	ALPHA	BETA
51 W	5-3-65	HP-164-K-1407-B Pond at K-1420 Acid Drain Lines	2.4	6.7	2.86	69	29
52 W	"	HP-165 - Open Ditch from K-1407-B Pond to Poplar Creek at Perimeter Fence	1.6	6.2	0.55	33	26
53 W	"	HP-166 - Hazardous Chemicals Disposal Pond Outfall	1.6	6.6	0.00	0.00	0.32 < 0.1 ppm CN
54 W	"	HP-167 - Pond SW of K-1007	2.3	7.0	0.00	0.06	0.05
55 W	"	HP-168 - K-1410 Drains toward Poplar Creek	1.7	7.7	0.00	0.01	0.11
70 W	5-21-65	CR at Emory Valley Road		7.8	0.00	0.00	0.05
71 W	5-21/65	CR at Scarboro Gauging Station		7.5	0.00	0.00	0.00
72 W	5-26-65	East Fork Poplar Creek					0.07
73 W	5-28-65	East Fork Poplar Creek					0.53

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T. Kwasnoski

DATE RELEASED 8/18/65

UCN-3252

REQUEST FOR LABORATORY SERVICE

UNION CARBIDE NUCLEAR COMPANY

ORGDP, OAK RIDGE TENNESSEE

№ 30064

DIRECTED TO:

WORKS LABORATORY
- ☐ Department Office
- ☐ Analytical Development
- ☐ Barrier Testing
- ☐ Building Operations
- ☐ Electronics
- ☐ Glass or Machine Shops
- ☐ Mass Spectrometer
- ☐ Special Analysis
- ☐ Uranium Analysis

- ☐ BARRIER DEVELOPMENT
- ☐ PHYSICS
- ☐ METALLURGY
- ☐ CHEMICAL DEVELOPMENT
- ☒ Radioanalysis

ISSUED BY:

Originator: N. B. Schultz

Department: Safety & Health Physics

Division: Health and Safety

Accounting Charge: 110865

Phone: 3-3418

TYPE OF REQUEST

- ☒ No Unusual Priority
- ☐ Special (Needed in ____ hours or ____ days)

- ☒ Single
- ☐ Blanket (for period _____)

- ☒ Original Request
- ☐ Cross Order from Request No. _____.

SEND WRITTEN REPORTS TO:

Name	Address
A. F. Becher	K-1003

TELEPHONED REPORTS

Name	Address

ANALYSIS REQUIREMENTS:

Analyze for: See Below

Precision desired: _____ Number of Samples: 5

Sample Identification: Water Samples

SERVICES REQUESTED, SHOP DESCRIPTIONS, OR ANALYTICAL DETAILS:

Samples: K-1407-B Pond at K-1420 Acid Drain Lines; Open Ditch from K-1407-B Pond to Poplar Creek at Perimeter Fence; Hazardous Chemicals Disposal Pond Outfall; Pond SW of K-1006; K-1410 Drains toward Poplar Creek

Please analyze the five accompanying water samples for: Uranium, total Alpha, Total Beta, pH, Fluorides. In addition, analyze the Hazardous Chemicals Disposal Pond sample for Cyanides.

165W - 1420 Acid drain lines into 1407B-Pond.
164W - Open ditch at perimeter fence from 1407B Pond
166W - Disposal Pond at outfall -
167W - Pond - SW of 1006 - outfall -
168W 1410 Drains at Poplar Creek

DISTRIBUTION OF COPIES:
1-2: (White-Green) Group Performing Work
3-4: (Pink-Canary) Retained by Requestor

WCX-1651 (3-57) K-25 NRC

Authorized Signature: [signature] Date: 5/3/65

REPORT OF WATER ANALYSES

REPORT NO. 630

Distribution: A. F. Becher
J. Dykstra
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION		FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
56 W	4-30-65 6-2-65 6-25-65	CW-1	Composite	0.7	7.5	0.18	0.12	0.17
57 W	4-30-65 6-2-65 6-25-65	CW-3	"	0.7	7.6	0.11	0.12	0.27
58 W	4-30-65 6-2-65 6-25-65	CW-5	"	1.0	7.8	0.00	0.04	0.11
59 W	4-30-65 6-2-65 6-25-65	CW-6	"	1.0	7.2	0.00	0.00	0.09
60 W	4-30-65 6-2-65 6-25-65	CW-7	"	0.8	7.7	0.00	0.01	0.19
61 W	4-30-65 6-2-65 6-25-65	CW-8	"	1.0	7.2	0.02	0.01	0.05
62 W	4-30-65 6-2-65 6-25-65	DW-1	"	0.7	7.1	0.00	0.00	0.36

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T. Kwasnoski

DATE RELEASED 8/18/65

UCN-3252

REPORT OF W R ANALYSES

REPORT NO.
Distribution:

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. $\times 10^{-7}$ URANIUM*	ALPHA	BETA
56W	4-30-65 6-2-65 6-25-65	CW-1 composite	0.7	7.5	0.18		
57W	4-30-65 6-2-65 6-25-65	CW-3 "	0.7	7.6	0.11		
58W	4-30-65 6-2-65 6-25-65	CW-5 "	1.0	7.8	0.00		
59W	4-30-65 6-2-65 6-25-65	CW-6 "	1.0	7.2	0.00		0.09
60W	4-30-65 6-2-65 6-25-65	CW-7 "	0.8	7.7	0.00		
61W	4-30-65 6-2-65 6-25-65	CW-8 "	1.0	7.2	0.02		
62W	4-30-65 6-2-65 6-25-65	DW-1 "	0.7	7.1	0.00		

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR

DATE RELEASED

UCN-3252
(1 11-61)

REPORT OF WATER ANALYSES

REPORT NO. 28

Distribution:

A. F. Becher
J. Dykstra
T. Kwasnoski (RC)

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ~~URANIUM~~ ppb. ~~ppm.~~	FLUORIDES ppm.	pH	Counts per min/100 ml. ALPHA	Counts per min/100 ml. BETA
12 W	2/19/65	892 Pump House (Hypochlorite) corrected from 7-12	2700				
63 W	4/30/65	CW-1	0				
64 W	4/30/65	CW-7	0				
65 W	5/1/65	Raw Water	2				
66 W	5/1/65	802 A and B	0				
67 W	5/1/65	832 C-Loop	0				
68 W	5/1/65	862 E-Loop	2				
69 W	5/1/65	892 G-Loop	2				
74 W	6/2/65	CW-1	2				
75 W	6/2/65	CW-7	2				
76 W	6/5/65	Raw Water	2				
77 W	6/5/65	802 A and B	0				
78 W	6/5/65	832 C-Loop	0				
79 W	6/5/65	862 E-Loop	2				
80 W	6/5/65	892 G-Loop	0				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T. Kwasnoski

DATE RELEASED 6/28/65

REPORT OF WATER ANALYSES

REPORT NO. 27

Distribution:

A. F. Becher
J. Dykstra
T. Kwasnoski (RC)

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ~~URANIUM~~ ppb.	FLUORIDES ppm.	pH	Counts per min/100 ml. ALPHA	BETA
8 W	2/6/65	802 A and B	22				
9 W	2/6/65	832 C-Loop	36				
10 W	2/6/65	862 E-Loop	26				
11 W	2/6/65	892 G-Loop	26				
20 W	2/6/65	CW-1	46				
21 W	2/6/65	CW-7	36				
22 W	2/26/65	CW-1	12				
23 W	2/26/65	CW-7	22				
44 W	3/26/65	CW-1	8				
45 W	3/26/65	CW-7	8				
46 W	4/3/65	K-901 Raw Water	8				
47 W	4/3/65	802 A and B	8				
48 W	4/3/65	832 C-Loop	0				
49 W	4/3/65	862 E-Loop	8				
50 W	4/3/65	892 G-Loop	8				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T. Kwasnoski

DATE RELEASED 6/28/65

ISOTOPIC SERVICES DEPARTMENT

RADIOACTIVITY ANALYSIS REPORT

TO: Mr. Schultz

SAMPLE TYPE: Glass Slides

REPORT OR REQUEST NO.:

SAMPLE NUMBER	ALPHA Dis./min.	ALPHA μc./cc.	BETA Dis./min.	BETA μc./cc.			
HPX 451	24,152						
HPX 452	11,962						
HPX 453	2,257						2.80μ
HPX 454	614						
HPX 455	284						
HPX 461	539						
HPX 462	384						1.80μ
HPX 463	210						
HPX 464	184						
HPX 465	57						

10 air samples

DATE: 6-18-65

REPORTED BY: A R Flynn

1 microcurie (μc.) = 2.2 × 10^6 disintegrations per minute.

UCN-5486
(1 2-64)

ISOTOPIC SERVICES DEPARTMENT

RADIOACTIVITY ANALYSIS REPORT

TO: Mr. Schultz

SAMPLE TYPE: Glass Slides

REPORT OR REQUEST NO.:

SAMPLE NUMBER	ALPHA Dis./min.	ALPHA μc./cc.	BETA Dis./min.	BETA μc./cc.			
HPX 421	2655		15-90 U_3O_8 — pulverizing.				
HPX 422	6994						
HPX 423	4243						
HPX 424	1556						
HPX 425	303						
HPX 431	276,685		Enriched ash from Sintered metal filters. — Poured normally into paper and then into friction-type cans.				
HPX 432	200,826						
HPX 433	29,653						
H. 434	1491						
HPX 435	192						

Sampled 5/19/65 — K-1420

DATE: 5-24-65

REPORTED BY: A R Flynn

1 microcurie (μc.) = 2.2 × 10^6 disintegrations per minute.

UCN-5486
(1 2-64)

UCN-5901
(1 6-64)

WORKS LABORATORY ANALYSIS REPORT

1361

SPECTROCHEMICAL REPORT 18661

Ag	Ir	Sr
Al 1000 µg	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si 250 µg	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT.

NUMBERS = Total µg ~~IN~~ A _____ BASIS

" _____ " MEANS "SOUGHT BUT NOT FOUND"

CHARGE	DATE	NO.
M31554-03		9141

SENDER: Muedrew

DATE ANALYSIS NEEDED:

CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
			IH 169

REQUEST NO.	PRECISION	GROSS

MATERIAL DESCRIPTION: Filter

TARE:

INSTRUCTIONS: Al, Si

~~NET~~ Randolph

REQUESTED ANALYSIS	UNITS	RESULT(S)

RESULT APPROVED BY: RB

DATE: 5-10

UCN-5901
(1 6-64)

WORKS LABORATORY ANALYSIS REPORT

1362

SPECTROCHEMICAL REPORT 18631

Ag	Ir	Sr
Al 2.0 µg/ml	K	Ta
As	Li	Tc
Au	Mg	Te
B	Mn	Th
Ba	Mo	Ti
Be	Na	Tl
Bi	Ni	U
Ca	Os	V
Cb	P	W
Cd	Pb	Zn
Co	Pd	Zr
Cr	Pt	
Cs	Rb	
Cu	Re	
Fe	Rh	
Ga	Ru	
Ge	Sb	
Hf	Sc	
Hg	Si 1.0 µg/ml	
In	Sn	

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT.

NUMBERS = _____ ON A _____ BASIS

" _____ " MEANS "SOUGHT BUT NOT FOUND"

CHARGE: M31554-03

DATE:

NO. 9142

SENDER: Muldrew

DATE ANALYSIS NEEDED:

CLASS | MATERIAL CODE | SAMPLED FROM

CONTAINER NO.: 170

REQUEST NO. | PRECISION

GROSS:

MATERIAL DESCRIPTION: Soln

TARE:

INSTRUCTIONS:

~~NET~~ Randolph

REQUESTED ANALYSIS	UNITS	RESULT(S)

RESULT APPROVED BY: RBF

DATE: 5-7

REPORT OF WATER ANALYSES

REPORT NO. 626

Distribution: A. F. Becher, J. Dykstra, T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7}		
					URANIUM*	ALPHA	BETA
24-W	3-4-65	HP - 1W	1.0	5.3	0.00	0.03	0.09
25-W	3-5-65	HP - 2W	0.8	6.6	0.00	0.01	0.00
26-W	3-4-65	HP - 3W	0.4	6.4	0.00	0.10	0.08
27-W	3-4-65	HP - 4W	0.3	6.1	0.00	0.07	0.06
28-W	3-5-65	HP - 5W	0.0	7.1	0.00	0.02	0.00

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR Kwasnoski

DATE RELEASED 5/7/65

UCN-3252

REPORT OF ~~WATER~~ Veg., Pine Needles and Soil ANALYSES

REPORT NO. 629

Distribution: A. F. Becher
J. Dykstra
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	FLUORIDES ppm.	pH	MICROCURIES /gm x 10^{-7} URANIUM*	ALPHA	BETA
		Veg.					
29 W	3-5-65	HP - 1V	11		1.4	6	93
30 W	"	HP - 2V	24		1.4	0	85
31 W	"	HP - 3V	23		2.8	0	61
32 W	"	HP - 4V	22		1.4	10	140
33 W	"	HP - 5V	10		2.1	10	73
		Pine needles					
34 W	"	HP - 1P	21		1.4	8	35
35 W	"	HP - 2P	26		1.4	2	21
36 W	"	HP - 3P	22		2.8	7	25
37 W	"	HP - 4P	25		2.1	7	28
38 W	"	HP - 5P	25		2.8	1	33
		Soil					
39 W	"	HP - 1-S			7.0	39	212
40 W	"	HP - 2-S			6.1	47	599
41 W	"	HP - 3-S			5.6	40	329
42 W	"	HP - 4-S			5.4	27	414
43 W	"	HP - 5-S			8.9	45	243

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T. Kwasnoski

DATE RELEASED 8/18/65

UCN-3252
(1 11-61)

REPORT OF WATER ANALYSES

REPORT NO. 625

Distribution:
A. F. Becher
J. Dykstra
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION		FLUORIDES ppm.	pH	MICROCURIES / cc. x 10^{-7} URANIUM*	ALPHA	BETA
13W	2-6-65) 2-26-65) 3-26-65)	CW-1	Composite	1.6	8.5	0.44	0.28	0.32
14W	2-6-65) 2-26-65) 3-26-65)	CW-3	Composite	1.0	8.5	0.04	0.06	0.22
15W	2-6-65) 2-26-65) 3-26-65)	CW-5	Composite	0.8	7.6	0.00	0.00	0.35
16W	2-6-65) 2-26-65) 3-26-65)	CW-6	Composite	0.4	7.6	0.00	0.05	0.75
17W	2-6-65) 2-26-65) 3-26-65)	CW-7	Composite	0.4	7.8	0.00	0.00	0.32
18W	2-6-65) 2-26-65) 3-26-65)	CW-8	Composite	0.7	7.5	0.00	0.00	0.16
19W	2-6-65) 2-26-65) 3-26-65)	DW-1	Composite	0.7	7.3	0.00	0.00	1.29

* *Calculated from uranium content assuming natural isotopic abundance.*

WORKS LABORATORY
SPECIAL ANALYTICAL SERVICES DEPARTMENT

SUPERVISOR T. Kwasnoski

DATE RELEASED 4-26-65

UCN-3252

ISOTOPIC SERVICES DEPARTMENT

RADIOACTIVITY ANALYSIS REPORT

TO: N. B. Schultz

SAMPLE TYPE:

REPORT OR REQUEST NO.:

SAMPLE NUMBER	ALPHA Dis./min.	ALPHA ~~μc./cc.~~	BETA Dis./min.	BETA μc./cc.			
HPX 401	426	[illegible]					
HPX 402	266	[illegible]					
HPX 403	114	[illegible]					
HPX 404	94	[illegible]					
HPX 405	161	[illegible]					

Cascade imprints R-1420 Pulverizing Enriched U_3O_8

DATE: 4-21-65

REPORTED BY: A R Flynn

1 microcurie (μc.) = 2.2×10^6 disintegrations per minute.

UCN-5486
(1 2-64)

CHEMICAL SERVICES DEPT.
PROCESS SERVICES SECTION.

Date 4-19-65

Test \ Sample	CW-1	CW-7	Raw	Recirculating Loop Samples: Make-up	A&B	C	E	G
pH			6.7		6.5	7.0	7.2	7.4
"M" Alk.(as $CaCO_3$) ppm			8		10	7	10	10
Total Hardness "			110		86	290	490	524
Calcium " "			76		44	180	248	332
M-phosphate (as PO_4)"					.2	.3	.6	.6
O-phosphate (as PO_4)"					.8	1.2	.9	.9
Iron (as Fe) "								
Copper (as Cu) "			0		0	.016	.048	.08
Sulphate (as SO_4) "			8		16	280	496	520
Turbidity(as SiO_2) "			25		8	18	38	49
Suspended Solids "			20.		6	13	35	44
Dissolved Solids "			120		80	460	740	900
Chromates (as CrO_4)"					3.2	11.6	17.0	20.0
Zinc (as Zn) "			1.0		.9	2.2	2.7	3.0
Chlorides(as Cl) "			7		13	30	32	45

Condensers North 7.5 pH
South 7.5 pH

Signed: T R Barker & S.B.H.

CHEMICAL SERVICES DEPT.
PROCESS SERVICES SECTION.

Date April. 26. 1965.

Test \ Sample				Recirculating Loop Samples				
	CW-1	CW-7	Raw	Make-up	A&B	C	E	G
pH			7.5		7.2	6.7	7.0	6.6
"M" Alk.(as $CaCO_3$) ppm			66		11	7	18	11
Total Hardness "			100		76	260	620	582
Calcium " "			60		44	164	398	362
M-phosphate (as PO_4)"					.1	.2	.3	.3
O-phosphate (as PO_4)"					.7	1.2	.8	.8
Iron (as Fe) "			0		0	.015	0	.015
Copper (as Cu) "			0		0	0	.08	.048
Sulphate (as SO_4) "			22.4		40	228	576	544
Turbidity(as SiO_2) "			20		9	19	50	49
Suspended Solids "			17		2	11	45	44
Dissolved Solids "			120		120	500	1060	1020
Chromates (as CrO_4)"			10		3.0	10.6	23.4	21.4
Zinc (as Zn) "			1.6		2.1	2.5	2.2	2.9
Chlorides(as Cl) "			9		10	55	51	46

Condensers
North 7.3 pH
South 7.2 pH

Signed: T. R. Barber.

CHEMICAL SERVICES DEPT.
PROCESS SERVICES SECTION.

Date April, 28, 1965.

Test \ Sample				Recirculating Loop Samples				
	CW-1	CW-7	Raw	Make-up	A&B	C	E	G
pH					7.1	6.7	7.1	6.65
"M" Alk. (as $CaCO_3$) ppm								
Total Hardness "								
Calcium " "					46	182	316	336
M-phosphate (as PO_4)"					.1	.1	.4	.4
O-phosphate (as PO_4)"					.8	1.4	1.0	1.2
Iron (as Fe) "								
Copper (as Cu) "								
Sulphate (as SO_4) "								
Turbidity (as SiO_2) "								
Suspended Solids "								
Dissolved Solids "								
Chromates (as CrO_4)"					3.4	12.2	19.5	20.6
Zinc (as Zn) "								
Chlorides (as Cl) "								

Condensers
North ____ pH
South ____ pH

Signed: T. R. Barker.

CHEMICAL SERVICES DEPT.
PROCESS SERVICES SECTION.

Date April, 30, 1965.

Test \ Sample				Recirculating Loop Samples				
	CW-1	CW-7	Raw	Make-up	A&B	C	E	G
pH					7.2	6.7	6.8	6.5
"P" Alk.(as $CaCO_3$) ppm								
Total Hardness "								
Calcium " "					54	186	268	336
M-phosphate (as PO_4)"					.1	.3	.4	.4
O-phosphate (as PO_4)"					.8	1.3	1.0	1.2
Iron (as Fe) "								
Copper (as Cu) "								
Sulphate (as SO_4) "								
Turbidity(as SiO_2) "								
Suspended Solids "								
Dissolved Solids "								
Chromates (as CrO_4)"					4.0	13.6	17.6	21.0
Zinc (as Zn) "								
Chlorides(as Cl) "								

Condensers
North ____ pH
South ____ pH

Signed: T.R. Barker.

CHEMICAL SERVICES DEPT.
PROCESS SERVICES SECTION.

Date May,5,1965.

Sample / Test				Recirculating Loop Samples				
	CW-1	CW-7	Raw	Make-up	A&B	C	E	G
pH			8.0		7.3	6.8	6.7	6.6
"M" Alk.(as $CaCO_3$) ppm								
Total Hardness "								
Calcium " "			66		60	196	330	314
M-phosphate (as PO_4)"			0		.2	.2 .2	.5	.5 .8
O-phosphate (as PO_4)"					1.0	1.5	1.3	1.2
Iron (as Fe) "								
Copper (as Cu) "								
Sulphate (as SO_4) "								
Turbidity(as SiO_2) "								
Suspended Solids "								
Dissolved Solids "								
Chromates (as CrO_4)"			.3		4.3	14.0	23.4	19.4
Zinc (as Zn) "								
Chlorides(as Cl) "								

Condensers
North____pH
South____pH

Signed: [illegible]

WORKS LABORATORY ANALYSIS REPORT

CHARGE M-31554-03	DATE 3-26-65	NO. 4540	
SENDER E-B- East Pipe		DATE ANALYSIS NEEDED	
CLASS	MATERIAL CODE	SAMPLED FROM	CONTAINER NO.
REQUEST NO.	PRECISION	GROSS	
MATERIAL DESCRIPTION Filter Paper		TARE	
INSTRUCTIONS		NET	

SPECTROCHEMICAL REPORT

	Ir	Sr
	K	Ta
	Li	Tc
	Mg	Te
	Mn	Th
	Mo	Ti
	Na	Tl
	Ni	U
	Os	V
	P	W
	Pb	Zn
	Pd	Zr
	Pt	
	Rb	
	Re	
	Rh	
	Ru	
	Sb	
	Sc	
	Si	
	Sn	

REQUESTED ANALYSIS	UNITS	RESULT(S)
1A - Pb	Total micrograms	25
1B - Pb	Total micrograms	16

RESULT APPROVED BY [illegible] DATE 4/5/65

☐ QUAL. ☐ SEMIQUANT. ☐ QUANT.

UMBERS = _____ ON A _____ BASIS

" MEANS "SOUGHT BUT NOT FOUND"

REPORT OF WATER ANALYSES

REPORT NO. 62

Distribution:
✓A. F. Becher, J. Dykstra,
T. Kwasnoski, RC

SAMPLE NUMBER	DATE SAMPLED	SAMPLING LOCATION	Hg ppb.	FLUORIDES ppm.	pH	Counts per min/100 ml. ALPHA	Counts per min/100 ml. BETA
1W	1-2-65	CW-1	26				
2W	"	CW-7	16				
3W	"	901 Raw Water	16				
4W	"	802 - A and B Loop	8				
5W	"	832 - C Loop	8				
6W	"	K-862 - E Loop	4				
7W	"	892 - G Loop	4				

NOTE: *Alpha counts per minute per 100 ml. water at 50% geometry.*
Beta counts per minute per 100 ml. water at 100% geometry.
All Mud Results per gram dry weight.

WCX-1012 (8-55)
Laboratory Central Files K25RC
Works Laboratory Department
Special Analysis Section

SUPERVISOR T. Kwasnoski

DATE RELEASED 1/25/65