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Savannah River Site

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Savannah River Site Environmental Report for 1997 — *DATA*

by

M. Arnett

Westinghouse Savannah River Company

Savannah River Site

Aiken, South Carolina 29808

A. Mamatey

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Savannah River Site Environmental Data for 1997-*DATA*

Editors

Margaret W. Arnett
Albert R. Mamatey

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Westinghouse Savannah River Company
Savannah River Site, Aiken, SC 29808

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Westinghouse Savannah River Company

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Preface

This document presents data from Savannah River Site routine environmental monitoring and surveillance programs. Information in the book is summarized in the *Savannah River Site Environmental Report for 1997* (WSRC-TR-97-00322). Information about the environmental monitoring program, including a complete description of Environmental Protection Department/Environmental Monitoring Section sampling and analytical procedures, can be found in sections 1101-1111 (SRS EM Program) of the *Savannah River Site Environmental Monitoring Section Plans and Procedures*, WSRC-3Q1-2, Volume 1.

Because of space requirements of the data table columns, many abbreviations have been used. To assist the reader, lists of radionuclide and chemical nomenclature and sampling location abbreviations are included following this introduction. Units of measure, scientific notation, and conversion charts also will help the reader. A collection of maps of radiological and nonradiological sampling locations completes this helpful introductory section.

The first few tables include lists of the media sampled and minimum detectable concentrations for various analyses/media. A table of nonradiological environmental surveillance detection/report limits also is included. Following these first explanatory tables are data tables with radiological and nonradiological effluent monitoring results, radiological and nonradiological environmental surveillance results, dose estimates, and quality assurance data.

Data tables sometimes present fewer results than would be expected according to the frequency described in the sampling and analysis schedules. There are several reasons for these discrepancies. Sample collection problems, such as loss of power to the sampling site or inaccessibility to the sampling site (locked gates, flooding, etc.) may have occurred. Also, results for collected samples can be rejected for such reasons as insufficient sample volume, low chemical yield, or equipment failure. The "number of samples" columns in the tables refer to the number of results used to determine maximum, minimum, and average concentrations.

The following should aid the reader in interpreting the data:

- The uncertainty term generally is reported with up to three significant figures. In most cases, the last significant figure is determined by the quantification of the uncertainty term.
- The reported uncertainty reflects only the counting error—not other components of random and systematic error in the measurement process. For this reason, some results may imply a greater confidence than the determination would suggest.
- An uncertainty quoted with means represents the deviation of measurements about the mean value. This number is calculated from the results themselves and does not account for the uncertainties of the individual results.
- Averages are calculated using both positive and negative results, except for gamma-emitting radionuclides, whose less-than-detectable results are not considered in the averages.
- In tables containing arithmetic mean, maximum, and minimum columns, when only one sample was collected, sometimes only the single result is reported in the arithmetic mean column.

Copies of environmental reports may be obtained by contacting

Bob Lorenz, Manager, Environmental Sampling and Reporting
Building 735-16A
Westinghouse Savannah River Company
Aiken, SC 29808
Telephone: 803-725-3556
E-mail address: robert.lorenz@srs.gov

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Radionuclide and Chemical Nomenclature

Nomenclature and Half-Life for Radionuclides

Radionuclide	Symbol	Half-life ^{a,b}
Americium-241	Am-241	432.7 y
Americium-243	Am-243	7.37E3 y
Antimony-125	Sb-125	2.758 y
Argon-41	Ar-41	1.82 h
Beryllium-7	Be-7	53.28 d
Californium-252	Cf-252	2.638 y
Carbon-14	C-14	5,730 y
Cerium-141	Ce-141	32.50 d
Cerium-144	Ce-144	284.6 d
Cesium-134	Cs-134	2.065 y
Cesium-137	Cs-137	30.17 y
Cobalt-58	Co-58	70.88 d
Cobalt-60	Co-60	5.271 y
Curium-242	Cm-242	162.8 d
Curium-244	Cm-244	18.1 y
Iodine-129	I-129	1.57E7 y
Iodine-131	I-131	8.04 d
Krypton-85	Kr-85	10.73 y
Krypton-88	Kr-88	2.84 h
Manganese-54	Mn-54	312.2 d
Niobium-95	Nb-95	34.97 d
Osmium-185	Os-185	93.6 d
Phosphorus-32	P-32	14.28 d
Polonium-210	Po-210	138.38 d
Plutonium-238	Pu-238	87.7 y
Plutonium-239	Pu-239	2.41E4 y
Potassium-40	K-40	1.28E9 y
Promethium-147	Pm-147	2.6234 y
Ruthenium-103	Ru-103	39.27 d
Ruthenium-106	Ru-106	1.020 y
Selenium-75	Se-75	119.78 d
Strontium-89	Sr-89	50.52 d
Strontium-90	Sr-90	29.1 y
Technetium-99	Tc-99	2.13E5 y
Tritium	H-3	12.3 y
Uranium-235	U-235	7.04E8 y
Uranium-238	U-238	4.47E9 y

a h = hour; d = day; y = year

b Reference: Chart of the Nuclides, 14th edition, revised to April 1988, General Electric Company

Nomenclature and Half-Life for Radionuclides, continued

Radionuclide	Symbol	Half-life ^{a,b}
Xenon-133	Xe-133	5.243 d
Xenon-135	Xe-135	9.10 h
Yttrium-90	Y-90	2.67 d
Zirconium-95	Zr-95	64.02 d

Nomenclature for Elements and Chemical Constituent Analyses

Constituent	Symbol
Aluminum	Al (or AL)
Ammonia	NH ₃
Ammonia as Nitrogen	NH ₃ -N (or AN)
Antimony	Sb (or SB)
Arsenic	As
Barium	Ba
Biochemical Oxygen Demand	BOD
Benzene	BEN
Beryllium	Be
Cadmium	Cd
Calcium	Ca
Calcium Carbonate	CaCO ₃
Carbon	C
Chemical Oxygen Demand	COD
Chlorine	Cl (or CHL)
Chromium	Cr (or CR)
Cobalt	Co
Copper	Cu (or CU)
Cyanide	CN
Dissolved Oxygen	DO
Fecal Coliform	FEC
Flow	FLO
Fluorine	F
Iron	Fe
Lead	Pb (or PB)
Lithium	Li
Magnesium	Mg
Manganese	Mn (or MN)
Mercury	Hg (or HG)
Nickel	Ni (or NI)
Nitrogen	N
Nitrate as Nitrogen	NO ₃ -N
Oil and Grease	O&G
Oxygen	O
Ozone	O ₃
Particulate Matter <10 microns	PM ₁₀
Perclene	PERCL

^a h = hour; d = day; y = year

^b Reference: Chart of the Nuclides, 14th edition, revised to April 1988, General Electric Company

Nomenclature for Elements and Chemical Constituent Analyses

Constituent	Symbol
pH	PH
Phenol	PHE
Phosphorus	P
Phosphate	PO ₄ (or PHOS)
Phosphate as Phosphorus	Phosphate P
Polychlorinated Biphenyl	PCB
Potassium	K
Radium	Ra
Rhenium	Re
Selenium	Se (or SE)
Silver	Ag
Sodium	Na
Sulfate	SO ₄
Sulfur Dioxide	SO ₂
Temperature	TMP
Tetrachloroethylene (Perchloroethylene)	PERCL
Trichloroethylene	TRICL
1,1,1-Trichloroethane	TCE
Thallium	Tl
Tin	SN
Total Dissolved Solids	TDS
Total Kjeldahl Nitrogen	TKN
Total Organic Carbon	TOC
Total Organic Halogens	TOH
Total Phosphates	TPO ₄
Total Residual Chlorine	TRC
Total Solids	TS
Total Suspended Solids	TSS
Total Volatile Solids	TVS
Uranium	U
Uranium (tested as a heavy metal)	U ₃ O ₈
Vanadium	V
Volatile Organic Compound	VOC
Zinc	Zn

Sampling Location and Other Abbreviations

Abbreviation	Location Name/Other Applicable Information
4M	Four Mile
4MC	Four Mile Creek
681-5G	Georgia Department of Natural Resources and Environmental Monitoring Section sampling location
A-14	Road A-14
AAP	Aiken Airport
ATTA	Advanced Tactical Training Area
AUG L&D	Augusta Lock and Dam
ALLEN	Allendale Gate
BARN	Barnwell Gate
BDC	Beaver Dam Creek
BG	Burial Ground
BGN	Burial Ground North
BGS	Burial Ground South
CSWTF	Central Sanitary Wastewater Treatment Facility
DARK H	Dark Horse
E TAL	East Talatha
FM	Four Mile
FMC	Four Mile Creek (Fourmile Branch)
GR PND	Green Pond
HP	HP (sampling location designation only; not an actual abbreviation)
IBG	Indian Burial Ground
IGB	Indian Grave Branch
JACK	Jackson
L3R	Lower Three Runs
LSB	L-Area Seepage Basin
LTR	Lower Three Runs
PB	Pen Branch
PATT MR	Patterson Mill Road
PMR	Patterson Mill Road
PSB	P-Area Seepage Basin
RM	River Mile
SATA	Small Arms Training Area (pistol range)
SAV 1	Savannah 1
SAV 2	Savannah 2
SC	Steel Creek
TB	Tims Branch
TCR	Tabernacle Church Road
TNX	Multipurpose Pilot Plant Campus

Abbreviation Location Name/Other Applicable Information, continued

U3R	Upper Three Runs
UTR	Upper Three Runs
WIND	Windsor Road
W JACK	West Jackson

Sample Locations Known By More Than One Abbreviation

Beaver Dam Creek; 400-D
Four Mile Creek-6; FM-6; 4MC-6; Four Mile Creek at Leigh Road
Four Mile Creek at Road A7; FM-A7; 4M-A7
Lower Three Runs-2; L3R-2; L3R Creek and Patterson Mill
River Mile-0/8 Savannah River Mouth; Highway 17A Bridge Area; RM-0/8
River Mile 120; RM-120; River 10; R-10
River Mile 140; RM-140; R-8A
River Mile 160; RM-160; River 2; R-2
Steel Creek-4; SC-4; Steel Creek-4 at Road A; SC and Highway 125
Tinker Creek at Kennedy Pond; TC/KP; TC-1
Upper Three Runs-4 at Road A; U3R-4; U3R-Rd A
Vogtle Discharge; River 3B; R-3B

Other Abbreviations Used in This Book

AMAD	Activity Median Aerodynamic Diameter
DCG	Derived Concentration Guide
DOE	Department of Energy
Dup, DUP	Duplicate
EML	Department of Energy's Environmental Measurements Laboratory
ETF	Effluent Treatment Facility
GP	Georgia Power
MDA	Minimum Detectable Activity
MDC	Minimum Detectable Concentration
MDL	Minimum Detectable Limit
MGD	Million Gallons Per Day
NF	No Flow
NRC	Nuclear Regulatory Commission
ORA	Operations Recreation Association
PAR	"P and R" Pond
RBOF	Receiving Basin for Offsite Fuel
Rep, REP	Replicate
RR	Railroad Yard
SRTC	Savannah River Technology Center
SU	Standard Units
SWDF	Solid Waste Disposal Facility
TLD	Thermoluminescent Dosimeter

Units of Measure, Scientific Notation, and Conversion Tables

Units of Measure		Units of Measure	
Symbol	Name	Symbol	Name
<i>Temperature</i>		<i>Concentration</i>	
°C	degrees Centigrade	ppb	parts per billion
°F	degrees Fahrenheit	ppm	parts per million
<i>Time</i>		<i>Rate</i>	
d	day	cfs	cubic feet per second
h	hour	gpm	gallons per minute
y	year		
<i>Length</i>		<i>Conductivity</i>	
cm	centimeter	μmho	micromho
ft	foot		
in.	inch		
km	kilometer		
m	meter	<i>Radioactivity</i>	
mm	millimeter	Ci	curie
μm	micrometer	cpm	counts per minute
		mCi	millicurie
<i>Mass</i>		μCi	microcurie
g	gram	pCi	picocurie
kg	kilogram	Bq	becquerel
mg	milligram		
μg	microgram	<i>Radiation Dose</i>	
<i>Area</i>		mrad	millirad
mi ²	square mile	mrem	millirem
ft ²	square foot	Sv	sievert
		mSv	millisievert
<i>Volume</i>		μSv	microsievert
gal	gallon	R	roentgen
L	liter	mR	milliroentgen
mL	milliliter	μR	microroentgen
		Gy	gray

Fractions and Multiples of Units					
Multiple	Decimal Equivalent	Prefix	Symbol	Report Format	
10^6	1,000,000	mega-	M	E+06	
10^3	1,000	kilo-	k	E+03	
10^2	100	hecto-	h	E+02	
10	10	deka-	da	E+01	
10^{-1}	0.1	deci-	d	E-01	
10^{-2}	0.01	centi-	c	E-02	
10^{-3}	0.001	milli-	m	E-03	
10^{-6}	0.000001	micro-	μ	E-06	
10^{-9}	0.000000001	nano-	n	E-09	
10^{-12}	0.000000000001	pico-	p	E-12	
10^{-15}	0.000000000000001	femto-	f	E-15	
10^{-18}	0.000000000000000001	atto-	a	E-18	

Conversion Table (Units of Radiation Measure)		
Current System	Système International	Conversion
curie (Ci)	becquerel (Bq)	1 Ci = 3.7×10^{10} Bq
rad (radiation absorbed dose)	gray (Gy)	1 rad = 0.01 Gy
rem (roentgen equivalent man)	sievert (Sv)	1 rem = 0.01 Sv

Conversion Table					
Multiply	By	To Obtain	Multiply	By	To Obtain
in.	2.54	cm	cm	0.394	in.
ft	0.305	m	m	3.28	ft
mi	1.61	km	km	0.621	mi
lb	0.4536	kg	kg	2.205	lb
liq qt-U.S.	0.946	L	L	1.057	liq qt-U.S.
ft ²	0.093	m ²	m ²	10.764	ft ²
mi ²	2.59	km ²	km ²	0.386	mi ²
ft ³	0.028	m ³	m ³	35.31	ft ³
d/m	0.450	pCi	pCi	2.22	d/m
pCi	10^{-6}	μ Ci	μ Ci	10^6	pCi
pCi/L (water)	10^{-9}	μ Ci/mL (water)	μ Ci/mL (water)	10^9	pCi/L (water)
pCi/m ³ (air)	10^{-12}	μ Ci/mL (air)	μ Ci/mL (air)	10^{12}	pCi/m ³ (air)

Figure 1 Radiological Sampling Locations — Air Surveillance

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Figure 3 Radiological and Nonradiological Sampling Locations — Fish

Figure 4 Radiological Sampling Locations — Soil

Figure 5 Radiological Sampling Locations — Sediment

EPD/GIS Map

Figure 6 Radiological Sampling Locations — Vegetation

Figure 7 Nonradiological Sampling Locations — SRS Stream and Savannah River Water

EPD/GIS Map

Figure 8 Nonradiological Sampling Locations — SRS Stream and Savannah River Sediment

Table 1
Sample Media Information

Page 1 of 4

Matrix	Analytical Parameter	Representative Aliquot
Surveillance Air		
<i>On site</i>	Gamma	3000 m ³
	Gross alpha	746 m ³
	Gross beta	746 m ³
	Tritium	3 m ³
	Strontium-89,90	1500 m ³ (1/2 sample)
	Plutonium-238,239	1500 m ³ (1/2 sample)
<i>Site perimeter</i>	Gamma	10000 m ³
	Gross alpha	746 m ³
	Gross beta	746 m ³
	Tritium	3 m ³
	Strontium-89,90	5000 m ³ (1/2 sample)
	Plutonium-238,239	5000 m ³ (1/2 sample)
<i>25-mile radius</i>	Gamma	746 m ³
	Gross alpha	746 m ³
	Gross beta	746 m ³
	Tritium	3 m ³
	Strontium-89,90	373 m ³ (1/2 sample)
	Plutonium-238,239	373 m ³ (1/2 sample)
<i>100-mile radius</i>	Gamma	746 m ³
	Gross alpha	746 m ³
	Gross beta	746 m ³
	Tritium	3 m ³
	Strontium-89,90	373 m ³ (1/2 sample)
	Plutonium-238,239	373 m ³ (1/2 sample)
Effluent Water		
	Gamma	1 L
	Gross alpha	1 L
	Gross beta	1 L
	Tritium	5 mL
	Strontium-89,90	1 L

Table 1
Sample Media Information

Page 2 of 4

Matrix	Analytical Parameter	Representative Aliquot
Effluent Water (cont.)		
	Actinides	1 L
Stream Water		
	Gamma	1 L
	Gross alpha	1 L
	Gross beta	1 L
	Tritium	5 mL
	Strontium-89,90	1-3 L
	Actinides	1 L
River Water		
	Gamma	5 L
	Gross alpha	1 L
	Gross beta	1 L
	Tritium	5 mL
	Strontium-89,90	1 L
	Plutonium 238,239	1 L
Drinking Water		
	Gamma	1 L
	Gross alpha	1 L
	Gross beta	1 L
	Tritium	5 mL
	Strontium-89,90	1 L
Groundwater		
	Total activity	5 mL
Wet/Dry Deposition (Rainwater)		
	Gamma	0.37 m ²
	Gross alpha	0.093 m ² (1/4 sample)
	Gross beta	0.093 m ² (1/4 sample)
	Tritium	5 mL
	Strontium-89,90	0.031 m ² (1/12 sample)
	Plutonium 238,239	0.031 m ² (1/12 sample)

Table 1
Sample Media Information

Page 3 of 4

Matrix	Analytical Parameter	Representative Aliquot
Soil	Gamma	650 g
	Gross alpha	0.1 g
	Gross beta	0.1 g
	Strontium-89,90	20 g
	Plutonium-238,239	10 g
Sediment	Gamma	650 g
	Gross alpha	0.1 g
	Gross beta	0.1 g
	Strontium-89,90	20 g
	Plutonium-238,239	10 g
Vegetation	Gamma	200 g
	Gross alpha	0.5 g
	Gross beta	0.5 g
	Tritium	5 mL
	Strontium-89,90	5 g
	Plutonium-238,239	5 g
Fish		
Edible	Gamma	200 g
	Gross alpha	1.5 g
	Gross beta	1.5 g
	Tritium	5 mL
	Strontium-89,90	200 g
	Plutonium-238,239	200 g
Nonedible	Gamma	200 g
	Gross alpha	0.5 g
	Gross beta	0.5 g
	Strontium-89,90	25 g

Table 1
Sample Media Information

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Matrix	Analytical Parameter	Representative Aliquot
Panfish	Gamma	200 g
	Gross alpha	1.5 g
	Gross beta	1.5 g
	Tritium	5 mL
	Strontium-89,90	100 g
	Plutonium-238,239	100 g
Deer/Hogs		
Muscle	Gamma	200 g
	Strontium-89,90	100 g
Bone		
	Strontium-89,90	1 g
Oysters/Crabs		
Foods	Gamma	200 g
	Gross alpha	0.5 g
	Gross beta	0.5 g
	Strontium-89,90	100 g
Milk	Gamma	1000 g
	Strontium-89,90	20 g
	Tritium	5 mL
	Plutonium-238,239	100 g
Milk	Gamma	1 L
	Tritium	5 mL
	Strontium-90	500 mL

Table 2
Representative Minimum Detectable Concentrations for Radiological Analyses

Page 1 of 6

Note: The minimum detectable concentrations (MDCs) for alpha-emitting radionuclides are calculated at the 95% confidence level with Canberra Industries Inc.'s VAX/VMS alpha management spectroscopy software. The values are based on an instrument background measurement using a typical counting efficiency and chemical recovery for each sample matrix. The counting time is 1,000 minutes and the air filter collection efficiencies are assumed to be 100%. The minimum detectable concentrations (MDCs) for gamma-emitting radionuclides are calculated at the 95% confidence level with Canberra Industries Inc.'s VAX/VMS gamma spectroscopy software. The values are based on an instrument background measurement using a 30–40% relative efficiency high purity germanium detector and typical decay times and counting intervals. Chemical recoveries and air filter collection efficiencies are assumed to be 100%. Chemical recoveries for gross alpha, gross beta, and strontium also are assumed to be 100 percent. Sample sizes are given in table 1, "Sample Media Information." The MDCs for actual samples may be different because of variations in the sample preparation, size, and content, and because of variations in the chemical recoveries, counting efficiencies, reagent blanks, decay time, counting time and instrument backgrounds.

Nuclide	Onsite Air	Site Perimeter Air	25-Mile Radius Air	Savannah Air
	pCi/m ³	pCi/m ³	pCi/m ³	pCi/m ³
H-3	4.90E+01	4.90E+01	4.90E+01	4.90E+01
Be-7	1.40E-02	4.30E-03	5.70E-02	5.70E-02
K-40	3.50E-02	1.00E-02	1.40E-01	1.40E-01
Co-58	2.60E-03	7.70E-04	1.00E-02	1.00E-02
Co-60	2.60E-03	8.00E-04	1.10E-02	1.10E-02
Ru-103	2.50E-03	7.60E-04	1.00E-02	1.00E-02
Ru-106	2.20E-02	6.50E-03	8.80E-02	8.80E-02
I-131	4.10E-03	1.20E-03	1.60E-02	1.60E-02
Cs-134	2.10E-03	6.30E-04	8.40E-03	8.40E-03
Cs-137	2.00E-03	6.10E-04	8.20E-03	8.20E-03
Ce-141	2.90E-03	8.60E-04	1.20E-02	1.20E-02
Ce-144	8.10E-03	2.40E-03	3.30E-02	3.30E-02
Sr-89,90	9.20E-04	2.80E-04	3.70E-03	3.70E-03
Sr-90				
U-234				
U-235				
U-238				
Pu-238	1.30E-05	4.00E-06	5.40E-05	5.40E-05
Pu-239	1.40E-05	4.20E-06	5.60E-05	5.60E-05
Am-241				
Cm-244				
Gross alpha	1.10E-03	1.10E-03	1.10E-03	1.10E-03
Gross beta	1.90E-03	1.90E-03	1.90E-03	1.90E-03
Total activity				

Table 2
Representative Minimum Detectable Concentrations for Radiological Analyses

Page 2 of 6

Nuclide	Rainwater ^a	Stream Water	Stream Water	River Water
	pCi/m ²	pCi/L	pCi/L	pCi/L
H-3	1.23E+03	1.20E+03	1.20E+03	4.40E+02
Be-7	1.70E+02	4.70E+01	4.70E+01	1.10E+01
K-40	4.10E+02	1.30E+01	1.30E+01	2.50E+01
Co-58	3.00E+01	7.40E+00	7.40E+00	1.20E+00
Co-60	3.20E+01	9.10E+00	9.10E+00	1.90E+00
Ru-103	2.80E+01	6.70E+00	6.70E+00	1.30E+00
Ru-106	2.80E+02	5.90E+01	5.90E+01	1.10E+01
I-131	7.20E+01	1.60E+01	1.60E+01	2.30E+00
Cs-134	2.70E+01	5.80E+00	5.80E+00	1.30E+00
Cs-137	2.60E+01	7.10E+00	7.10E+00	1.40E+00
Ce-141	3.60E+01	8.50E+00	8.50E+00	1.50E+00
Ce-144	1.30E+02	2.90E+01	2.90E+01	5.90E+00
Sr-89,90	4.50E+01	1.40E+00	1.40E+00	1.40E+00
Sr-90				
U-234		2.80E-02	2.80E-02	
U-235		1.00E-02	1.00E-02	
U-238		4.60E-02	4.60E-02	
Pu-238	6.40E-01	7.70E-03	7.70E-03	2.00E-02
Pu-239	6.80E-01	8.00E-03	8.00E-03	2.10E-02
Am-241		7.90E-03	7.90E-03	
Cm-244		7.80E-03	7.80E-03	
Gross alpha	8.60E+00	8.00E-01	8.00E-01	8.00E-01
Gross beta	1.50E+01	1.40E+00	1.40E+00	1.40E+00
Total activity				

^a Values, except for tritium, reflect wet/dry deposition.

Table 2
Representative Minimum Detectable Concentrations for Radiological Analyses

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Nuclide	Groundwater	Drinking Water	Soil/Sediment	Vegetation
	pCi/L	pCi/L	pCi/g	pCi/g
H-3		4.40E+02		1.80E-01
Be-7		4.70E+01	3.40E-01	4.20E-01
K-40		1.30E+01	5.50E-01	1.40E+00
Co-58		7.40E+00	4.40E-02	5.50E-02
Co-60		9.10E+00	4.70E-02	5.70E-02
Ru-103		6.70E+00	5.00E-02	5.00E-02
Ru-106		5.90E+01	3.20E-01	4.50E-01
I-131		1.60E+01	8.00E-02	8.80E-02
Cs-134		5.80E+00	3.80E-02	4.40E-02
Cs-137		7.10E+00	4.20E-02	4.90E-02
Ce-141		8.50E+00	7.80E-02	8.40E-02
Ce-144		2.90E+01	3.00E-01	3.40E-01
Sr-89,90		1.40E+00	7.20E-02	1.40E-02
Sr-90				
U-234				
U-235				
U-238				
Pu-238			2.00E-03	4.00E-03
Pu-239			2.10E-03	4.20E-03
Am-241				
Cm-244				
Gross alpha		8.00E-01	8.00E+00	
Gross beta		1.40E+00	1.40E+01	
Total activity	2.30E+03			

Table 2
Representative Minimum Detectable Concentrations for Radiological Analyses

Page 4 of 6

Nuclide	Highway 301 Fish	River Mouth Fish	Onsite Fish	Panfish
	pCi/g	pCi/g	pCi/g	pCi/g
H-3			5.72E-02	
Be-7	7.20E-01	1.50E+00	5.00E-01	
K-40	3.50E-01	9.30E-01	6.70E-01	
Co-58	5.50E-02	1.10E-01	7.40E-02	
Co-60	2.40E-02	4.60E-02	5.20E-02	
Ru-103	1.40E-01	3.00E-01	1.00E-01	
Ru-106	2.10E-01	4.20E-01	4.90E-01	
I-131			6.80E+00	
Cs-134	2.20E-02	3.80E-02	4.50E-02	
Cs-137	2.10E-02	4.00E-02	4.20E-02	
Ce-141	3.80E-01	7.10E-01	1.60E-01	
Ce-144	1.70E-01	3.70E-01	2.30E-01	
Sr-89,90			7.20E-03	
Sr-90				
U-234				
U-235				
U-238				
Pu-238	1.00E-04	1.00E-04	1.00E-04	
Pu-239	1.00E-04	1.00E-04	1.00E-04	
Am-241				
Cm-244				
Gross alpha			9.54E-01	5.30E-01
Gross beta			1.83E-01	9.5E-01
Total activity			5.72E-02	

Table 2
Representative Minimum Detectable Concentrations for Radiological Analyses

Page 5 of 6

Nuclide	Nonedible Fish	Oysters/Crabs	Food Products	Milk
	pCi/g	pCi/g	pCi/g	pCi/L
H-3			1.80E-01	4.40E+02
Be-7		5.00E-01	2.30E-01	1.80E+01
K-40		6.70E-01	1.20E-01	4.30E+01
Co-58		7.40E-02	2.10E-02	2.50E+00
Co-60		5.20E-02	7.50E-03	2.80E+00
Ru-103		1.00E-01	5.00E-02	2.40E+00
Ru-106		4.90E-01	7.20E-02	2.30E+01
I-131		6.80E+00		2.90E+00
Cs-134		4.50E-02	7.30E-03	2.40E+00
Cs-137		4.20E-02	7.20E-03	2.70E+00
Ce-141		1.60E-01	9.80E-02	2.80E+00
Ce-144		2.30E-01	4.00E-02	1.20E+01
Sr-89,90		1.40E-02	7.20E-02	
Sr-90				5.80E+00
U-234				
U-235				
U-238				
Pu-238			2.00E-04	
Pu-239			2.10E-04	
Am-241				
Cm-244				
Gross alpha	1.60E+00	1.60E+00		4.40E-01
Gross beta	2.90E+00	2.90E+00		2.90E-03
Total activity				

Table 2
Representative Minimum Detectable Concentrations for Radiological Analyses

Page 6 of 6

Nuclide	Deer Muscle	Deer Bone
	pCi/g	pCi/g
H-3		
Be-7	5.00E-01	
K-40	6.70E-01	
Co-58	7.40E-02	
Co-60	5.20E-02	
Ru-103	1.00E-01	
Ru-106	4.90E-01	
I-131	6.80E+00	
Cs-134	4.50E-02	
Cs-137	4.20E-02	
Ce-141	1.60E-01	
Ce-144	2.30E-01	
Sr-89,90	1.40E-02	1.40E+00
Sr-90		
U-234		
U-235		
U-238		
Pu-238		
Pu-239		
Am-241		
Cm-244		
Gross alpha		
Gross beta		
Total activity		

Table 3
Nonradiological Environmental Surveillance Detection/Report Limits

Page 1 of 2

Parameter	Units	Quantitation Value	Report Value Round to the nearest:
<i>Note: "NA" denotes "not applicable."</i>			
Field Measurements			
Temperature	°C	NA	0.1
pH	SU	NA	0.1
Dissolved oxygen (DO)	mg/L	1.0	0.1
General Water Quality Parameters			
Conductivity	µmhos/cm	NA	1
Chemical oxygen demand (COD)	mg/L	20	1
Mercury in fish flesh	µg/g	0.33	0.01
Suspended solids (TSS)	mg/L	3	1
Nitrogen-Nitrate (NO ₃ -N)	mg/L	0.05	0.01
Nitrogen-Nitrite (NO ₂ -N)	mg/L	0.02	0.01
Ortho-Phosphate-P (O-PO ₄ -P)	mg/L	0.01	0.01
Total organic carbon(TOC)	mg/L	1.0	0.1
Metals			
Aluminum (Al)	mg/L	0.05	0.001
Cadmium (Cd)	mg/L	0.005	0.001
Calcium (Ca)	mg/L	0.05	0.001
Chromium (Cr)	mg/L	0.01	0.001
Copper (Cu)	mg/L	0.005	0.001
Iron (Fe)	mg/L	0.02	0.001
Lead (Pb)	mg/L	0.003	0.001
Magnesium (Mg)	mg/L	0.03	0.001
Manganese (Mn)	mg/L	0.01	0.001
Mercury (Hg)	mg/L	0.0001	0.0001
Nickel (Ni)	mg/L	0.01	0.001
Sodium (Na)	mg/L	0.09	0.001
Zinc (Zn)	mg/L	0.005	0.001
Pesticides			
Aldrin	µg/L	0.05	0.001
Alpha-BHC	µg/L	0.05	0.001
Beta-BHC	µg/L	0.05	0.001
Delta-BHC	µg/L	0.05	0.001

Table 3
Nonradiological Environmental Surveillance Detection/Report Limits

Page 2 of 2

Parameter	Units	Quantitation Value	Report Value Round to the nearest:
Pesticides (cont.)			
Lindane (gamma-BHC)	µg/L	0.05	0.001
Chlordane	µg/L	0.5	0.10
4,4-DDD	µg/L	0.05	0.001
4,4-DDE	µg/L	0.05	0.001
4,4-DDT	µg/L	0.05	0.001
Dieldrin	µg/L	0.05	0.001
Endosulfan I	µg/L	0.05	0.001
Endosulfan II	µg/L	0.05	0.001
Endosulfan sulfate	µg/L	0.05	0.001
Endrin	µg/L	0.05	0.001
Endrin aldehyde	µg/L	0.05	0.001
Heptachlor	µg/L	0.05	0.001
Heptachlor epoxide	µg/L	0.05	0.001
Methoxychlor	µg/L	0.20	0.01
Toxaphene	µg/L	2.50	0.10
Herbicides			
2,4-D	µg/L	0.10	0.01
2,4,5-TP (Silvex)	µg/L	0.10	0.01
Volatile Organic Compounds			
Tetrachloroethene	µg/L	2.0	0.1
111-Trichloroethane	µg/L	2.0	0.1
Trichloroethene	µg/L	2.0	0.1

Table 4
Radioactive Atmospheric Releases by Source

Page 1 of 3

Radio-nuclide	Half-life	Curies ^a					Diffuse and Fugitive ^d	Total
		Reactors	Separations ^b	Reactor Materials	Heavy Water	SRTC ^c		
Notes: Blank spaces indicate no quantifiable activity; h = hour, d = day, y = year								
GASES AND VAPORS								
H-3 (oxide)	12.3 y	5.23E+03	3.34E+04		3.53E+02		1.53E+02	3.91E+04
H-3 (elem)	12.3 y		1.89E+04					1.89E+04
H-3 Total	12.3 y	5.23E+03	5.23E+04		3.53E+02		1.53E+02	5.80E+04
C-14	5.73E3 y		3.10E-02				1.85E-08	3.10E-02
Kr-85	10.73 y		9.62E+03					9.62E+03
I-129	1.57E7 y		7.08E-03				1.22E-07	7.08E-03
I-131	8.040 d		2.91E.05			2.98E-05		5.89E-05
I-133	20.8 h					4.92E-04		4.92E-04
PARTICULATES								
Na-22	2.605 y						1.11E-09	1.11E-09
Mn-54	312.2 d						4.80E-12	4.80E-12
Co-57	271.8 d		2.07E-07				1.04E-09	2.08E-07
Co-58	70.88 d						1.67E-12	1.67E-12
Co-60	5.271 y		3.45E-07				9.13E-07	1.26E-06
Ni-59	7.6E4 y						3.24E-10	3.24E-10
Ni-63	100. y						2.29E-09	2.29E-09
Zn-65	243.8 d						3.69E-12	3.69E-12
Se-79	6.5E4 y						2.15E-10	2.15E-10
Sr-89,90 ^e	29.1 y	1.80E-03	2.20E-04	4.16E-05	1.83E-04		8.21E-05	2.33E-03
Zr-95	64.02 d						2.13E-05	2.13E-05
Nb-95	34.97 d						1.55E-15	1.55E-15
Tc-99	2.13E5 y						3.61E-08	3.61E-08
Ru-106	1.020 y						7.00E-02	7.00E-02
Sn-126	1E5 y						3.36E-15	3.36E-15
Sb-124	60.2d						3.36E-12	3.36E-12
Sb-125	2.758 y						5.93E-07	5.93E-07
Cs-134	2.065 y		1.43E-06				1.21E-09	1.43E-06
Cs-137	30.17 y	2.48E-04	4.17E-04		2.85E-06		4.19E-03	4.86E-03

a One curie equals 3.7 E+10 Becquerels.

b Includes separations, waste management, and tritium facilities

c Savannah River Technology Center

d Estimated releases from minor unmonitored diffuse and fugitive sources

e Includes unidentified beta emissions

Table 4
Radioactive Atmospheric Releases by Source

Page 2 of 3

Radio-nuclide	Half-life	Curies ^a					Diffuse and Fugitive ^d	Total
		Reactors	Separations ^b	Reactor Materials	Heavy Water	SRTC ^c		
Ba-133	10.53 y						3.00E-12	3.00E-12
Ce-144	284.6 d		4.22E-06				6.11E-06	1.03E-05
Pm-144	360 d						1.34E-12	1.34E-12
Pm-147	2.6234 y						1.01E-08	1.01E-08
Eu-152	13.48 y						5.32E-09	5.32E-09
Eu-154	8.59 y		1.54E-07				6.42E-06	6.57E-06
Eu-155	4.71 y		4.93E-06				1.66E-06	6.59E-06
Ra-226	1.6E3 y						1.24E-08	1.24E-08
Ra-228	5.76 y						1.75E-10	1.75E-10
Th-228	1.913 y						2.15E-10	2.15E-10
Th-230	7.54E4 y						2.03E-10	2.03E-10
Th-232	1.40E10 y						1.40E-10	1.40E-10
Th-234	24.10d						2.26E-10	2.26E-10
Pa-231	3.28E4 y						1.00E-09	1.00E-09
Pa-234	6.69h						2.26E-10	2.26E-10
U-233	1.592E5 y						2.11E-08	2.11E-08
U-234	2.46E5 y		8.03E-06	4.02E-06			1.45E-05	2.66E-05
U-235	7.04E8 y		6.25E-07	6.37E-07			4.84E-07	1.75E-06
U-236	2.342E7 y						4.84E-07	4.84E-07
U-238	4.47E9 y		1.94E-05	1.74E-06			3.45E-05	5.56E-05
Np-237	2.14E6 y						1.38E-09	1.38E-09
Np-239	2.35 d						2.17E-07	2.17E-07
Pu-238	87.7 y		3.30E-05	4.41E-09			3.55E-04	3.88E-04
Pu-239 ^e	2.410E4 y	2.92E-04	5.12E-05	6.85E-06	2.28E-05	2.47E-06	6.92E-06	3.75E-04
Pu-240	6.56E3 y						1.11E-06	1.11E-06
Pu-241	14.4 y						5.16E-05	5.16E-05
Pu-242	3.75E5 y						3.66E-11	3.66E-11
Am-241	432.7 y		1.44E-05	1.18E-08			8.70E-07	1.53E-05
Am-243	7.37E3 y						1.76E-05	1.76E-05

a One curie equals 3.7 E+10 Becquerels.

b Includes separations, waste management, and tritium facilities

c Savannah River Technology Center

d Estimated releases from minor unmonitored diffuse and fugitive sources

e Includes unidentified alpha emissions

Table 4
Radioactive Atmospheric Releases by Source

Page 3 of 3

Radio-nuclide	Half-life	Curies ^a					Diffuse and Fugitive ^d	Total
		Reactors	Separations ^b	Reactor Materials	Heavy Water	SRTC ^c		
Cm-242	162.8 d						8.19E-12	8.19E-12
Cm-244	18.1 y		2.49E-05	2.03E-10			1.28E-04	1.53E-04
Cm-245	8.5E3 y						1.88E-12	1.88E-12

a One curie equals 3.7×10^{10} Becquerels.

b Includes separations, waste management, and tritium facilities

c Savannah River Technology Center

d Estimated releases from minor unmonitored diffuse and fugitive sources

Table 5
Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides

Page 1 of 8

Stack/Facility	Radionuclide	Quantity Released During 1997 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1997 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
<i>Note: Blank spaces indicate no quantifiable activity.</i>					
A-Area (Savannah River Technology Center)					
735-A					
773-A B					
773-A C					
773-A Sandfilter Discharge	Co-60	3.64E-01	9.11E+14	3.99E-16	8.0E-11
	I-131	2.98E+01	9.11E+14	3.27E-14	4.0E-10
	I-133	4.92E+02	9.11E+14	5.40E-13	2.0E-09
776-A					
C-Area (C-Reactor)					
728-N					
C Disassembly					
105-C Stack Decon Exhaust					
Port. CO2 Blast. Decon Exhaust					
C-Area Main Stack (148ft)	H-3(oxide)	7.56E+08	1.57E+15	4.82E-07	1.0E-07
D-Area (Heavy Water Rework)					
420-D Stack	H-3(oxide)	2.63E+08	2.32E+14	1.16E-06	1.0E-07
421-2D Stack	H-3(oxide)	2.46E+07	1.53E+14	1.61E-07	1.0E-07
772-D Stack	H-3(oxide)	6.00E+07	2.65E+14	2.26E-07	1.0E-07
	Cs-137	2.85E+00	2.65E+14	1.08E-14	4.0E-10
F-Area (Separations and Waste Management)					
235-F Sandfilter Discharge	U-234	4.64E-01	5.62E+14	8.26E-16	9.0E-14
	U-235	2.42E-02	5.62E+14	4.30E-17	1.0E-13
	U-238	4.17E-01	5.62E+14	7.42E-16	1.0E-13

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 5
Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides

Page 2 of 8

Stack/Facility	Radionuclide	Quantity Released During 1997 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1997 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
	Pu-238	5.66E-02	5.62E+14	1.01E-16	3.0E-14
	Am-241	8.45E-03	5.62E+14	1.50E-17	2.0E-14
241-F Miscellaneous Exhaust	Cs-137	2.86E+00	2.74E+14	1.04E-14	4.0E-10
241-F Purge Exhaust	Cs-137	9.87E+00	6.87E+13	1.44E-13	4.0E-10
241-F Tank Annulus Exhaust	Cs-137	1.06E+01	1.42E+14	7.41E-14	4.0E-10
247-F Main Stack	U-234	1.61E+00	1.05E+15	1.54E-15	9.0E-14
	Pu-239	1.53E-01	1.05E+15	1.46E-16	2.0E-14
291-F Stack ^b	Sr-89,90	7.11E+00	3.41E+15	2.09E-15	9.0E-12
	I-129	4.82E+03	3.41E+15	1.41E-12	7.0E-11
	I-131	5.26E+00	3.41E+15	1.54E-15	4.0E-10
	Cs-137	6.57E+00	3.41E+15	1.93E-15	4.0E-10
	U-234	4.63E+00	3.41E+15	1.36E-15	9.0E-14
	U-235	5.24E-01	3.41E+15	1.54E-16	1.0E-13
	U-238	1.67E+01	3.41E+15	4.89E-15	1.0E-13
	Pu-238	2.03E+00	3.41E+15	5.95E-16	3.0E-14
	Pu-239	1.77E+01	3.41E+15	5.18E-15	2.0E-14
	Am-241	1.90E+00	3.41E+15	5.57E-16	2.0E-14
	Cm-244	8.62E-01	3.41E+15	2.53E-16	4.0E-14
6.1D	Cs-137	3.14E+01	2.52E+12	1.25E-11	4.0E-10
6.4D	Co-57	2.07E-01	2.67E+12	7.73E-14	2.0E-09
	Co-60	3.45E-01	2.67E+12	1.29E-13	8.0E-11
	Ru-106	7.05E+00	2.67E+12	2.64E-12	3.0E-11
	Sb-125	2.05E+00	2.67E+12	7.66E-13	1.0E-09
	Cs-134	4.30E-01	2.67E+12	1.61E-13	2.0E-10
	Cs-137	1.45E+02	2.67E+12	5.44E-11	4.0E-10
	Ce-144	4.22E+00	2.67E+12	1.58E-12	3.0E-11

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

^b Includes data from both isokinetic and charcoal sampling systems

Table 5
Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides

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Stack/Facility	Radionuclide	Quantity Released During 1997 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1997 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
772-1F	Eu-154	1.54E-01	2.67E+12	5.76E-14	5.0E-11
	Eu-155	4.93E+00	2.67E+12	1.85E-12	3.0E-10
	Am-241	8.67E+00	2.67E+12	3.24E-12	2.0E-14
772-4F	U-234	2.60E-02	2.19E+15	1.19E-17	9.0E-14
	U-238	9.66E-03	2.19E+15	4.42E-18	1.0E-13
	Pu-238	1.82E-03	2.19E+15	8.33E-19	3.0E-14
	Pu-239	2.36E-03	2.19E+15	1.08E-18	2.0E-14
	Am-241	1.93E-06	2.19E+15	8.81E-22	2.0E-14
	Cm-244	1.96E-03	2.19E+15	8.96E-19	4.0E-14
800 Cell Stack Exhaust (211-F)	Sr-89,90	1.65E+00	9.08E+13	1.82E-14	9.0E-12
	Cs-137	1.67E+00	9.08E+13	1.84E-14	4.0E-10
A-Line F Stack (221-1F)	U-234	1.12E+00	3.74E+13	3.00E-14	9.0E-14
	U-235	7.00E-02	3.74E+13	1.87E-15	1.0E-13
	U-238	1.66E+00	3.74E+13	4.44E-14	1.0E-13
	Pu-238	4.05E-02	3.74E+13	1.09E-15	3.0E-14
	Pu-239	3.95E-01	3.74E+13	1.06E-14	2.0E-14
	Am-241	1.31E-01	3.74E+13	3.51E-15	2.0E-14
	Cm-244	5.53E-02	3.74E+13	1.48E-15	4.0E-14
H-Area (Separations and Waste Management)					
241-84H (ETF Lab)					
241-81H (ETF Process)					
232-H Line 1&2 Stack (200ft)	H-3(el)	1.09E+10	1.26E+15	8.66E-06	2.0E-02
	H-3(oxide)	9.12E+09	1.26E+15	7.26E-06	1.0E-07
232-H Line 3 Stack (200ft)	H-3(el)	6.90E+08	2.32E+14	2.98E-06	2.0E-02

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 5

**Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides**

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Stack/Facility	Radionuclide	Quantity Released During 1997 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1997 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
233-H	H-3(oxide)	2.72E+09	2.32E+14	1.17E-05	1.0E-07
	H-3(el)	2.04E+08	1.10E+15	1.85E-07	2.0E-02
234-H	H-3(oxide)	4.45E+08	1.10E+15	4.05E-07	1.0E-07
	H-3(el)	4.89E+09	1.76E+15	2.78E-06	2.0E-02
238-H	H-3(oxide)	2.08E+10	1.76E+15	1.18E-05	1.0E-07
	H-3(el)	2.24E+09	4.42E+14	5.06E-06	2.0E-02
241-H Miscellaneous Exhaust	Cs-137	1.78E+01	4.85E+14	3.67E-14	4.0E-10
241-H Purge Exhaust	Cs-134	8.87E-02	3.72E+13	2.39E-15	2.0E-10
	Cs-137	6.91E+01	2.24E+14	3.08E-13	4.0E-10
241-H Tank Annulus Exhaust	Cs-137	2.12E+01	1.03E+15	2.06E-14	4.0E-10
244-H RBOF Building Stack	Cs-137	3.79E+00	3.76E+14	1.01E-14	4.0E-10
244-H Vessel Vent Exhaust	Cs-137	2.98E+01	6.27E+12	4.75E-12	4.0E-10
	U-234	2.32E-04	6.27E+12	3.70E-17	9.0E-14
	U-238	3.88E-04	6.27E+12	6.19E-17	1.0E-13
	Pu-238	3.86E-02	6.27E+12	6.16E-15	3.0E-14
	Pu-239	5.62E-01	6.27E+12	8.95E-14	2.0E-14
	Am-241	8.55E-04	6.27E+12	1.36E-16	2.0E-14
	Cm-244	9.91E-05	6.27E+12	1.58E-17	4.0E-14
253-H Waste Compactor					
261-H (HVAC)	U-234	1.44E-03	4.70E+19	3.06E-23	9.0E-14
	U-235	5.03E-04	4.70E+19	1.07E-23	1.0E-13
	U-238	3.79E-04	4.70E+19	8.08E-24	1.0E-13
	Pu-238	3.67E-04	4.70E+19	7.80E-24	3.0E-14
	Pu-239	3.73E-04	4.70E+19	7.94E-24	2.0E-14
	Am-241	2.58E+00	4.70E+19	5.50E-20	2.0E-14

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 5

Radioactive Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE Derived Concentration Guides

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Stack/Facility	Radionuclide	Quantity Released During 1997 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1997 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
261-H (Off Gas)	U-234	5.94E-02	3.98E+15	1.49E-17	9.0E-14
	U-235	4.78E-03	3.98E+15	1.20E-18	1.0E-13
	U-238	5.44E-01	3.98E+15	1.37E-16	1.0E-13
	Pu-238	1.14E-02	3.98E+15	2.86E-18	3.0E-14
	Pu-239	2.13E-03	3.98E+15	5.36E-19	2.0E-14
	Am-241	2.48E-02	3.98E+15	6.23E-18	2.0E-14
291-H Stack ^b	Sr-89,90	2.38E+01	3.83E+15	6.22E-15	9.0E-12
	I-129	2.26E+03	3.83E+15	5.90E-13	7.0E-11
	I-131	2.38E+01	3.83E+15	6.21E-15	4.0E-10
	Cs-134	9.11E-01	3.83E+15	2.38E-16	2.0E-10
	Cs-137	5.79E+01	3.83E+15	1.51E-14	4.0E-10
	U-234	7.46E-02	3.83E+15	1.95E-17	9.0E-14
	U-238	4.02E-02	3.83E+15	1.05E-17	1.0E-13
	Pu-238	3.08E+01	3.83E+15	8.05E-15	3.0E-14
	Pu-239	8.23E+00	3.83E+15	2.15E-15	2.0E-14
	Am-241	1.03E+00	3.83E+15	2.69E-16	2.0E-14
	Cm-244	2.40E+01	3.83E+15	6.28E-15	4.0E-14
299-H (Building & HP Hood)					
K-Area (K-Reactor)					
K-Area Disassembly	H-3(oxide)	1.11E+08	3.34E+15	3.33E-08	1.0E-07
	Cs-137	2.48E+02	3.34E+15	7.41E-14	4.0E-10
K-Area Main Stack (148ft)	H-3(oxide)	1.59E+09	4.31E+15	3.69E-07	1.0E-07
L-Area (L-Reactor)					
L-Area Disassembly	H-3(oxide)	1.94E+07	1.20E+15	1.62E-08	1.0E-07
L-Area Main Stack (148ft)	H-3(oxide)	1.08E+09	3.45E+15	3.14E-07	1.0E-07

a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

b Includes data from both isokinetic and charcoal sampling systems

Table 5
Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides

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Stack/Facility	Radionuclide	Quantity Released During 1997 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1997 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
M-Area (Reactor Materials)					
313-M Stacks	U-234	9.02E-03	5.88E+13	1.53E-16	9.0E-14
	U-235	1.02E-03	5.88E+13	1.73E-17	1.0E-13
	U-238	1.16E-03	5.88E+13	1.97E-17	1.0E-13
	Pu-238	4.11E-04	5.88E+13	6.98E-18	3.0E-14
	Am-241	6.15E-04	5.88E+13	1.04E-17	2.0E-14
	Cm-244	2.03E-04	5.88E+13	3.45E-18	4.0E-14
321-M Machining Room Stack	U-234	1.06E+00	5.25E+13	2.02E-14	9.0E-14
	U-235	2.18E-01	5.25E+13	4.16E-15	1.0E-13
	U-238	1.18E-03	5.25E+13	2.25E-17	1.0E-13
	Pu-238	4.13E-05	5.25E+13	7.87E-19	3.0E-14
	Am-241	3.18E-04	5.25E+13	6.07E-18	2.0E-14
321-M Stacks	U-234	2.78E+00	5.52E+14	5.04E-15	9.0E-14
	U-235	3.89E-01	5.52E+14	7.04E-16	1.0E-13
	U-238	7.28E-01	5.52E+14	1.32E-15	1.0E-13
	Pu-238	1.97E-03	5.52E+14	3.56E-18	3.0E-14
	Pu-239	3.03E-03	5.52E+14	5.49E-18	2.0E-14
	Am-241	1.05E-02	5.52E+14	1.91E-17	2.0E-14
M-Area VTF	U-234	1.75E-01	1.33E+13	1.32E-14	9.0E-14
	U-235	2.92E-02	1.33E+13	2.20E-15	1.0E-13
	U-238	1.01E+00	1.33E+13	7.58E-14	1.0E-13
	Pu-238	1.99E-03	1.33E+13	1.50E-16	3.0E-14
	Am-241	3.45E-04	1.33E+13	2.60E-17	2.0E-14
P-Area (P-Reactor)					
P-Area Disassembly	H-3(oxide)	1.14E+07	3.07E+13	3.71E-07	1.0E-07
P-Area Main Stack (148ft)	H-3(oxide)	1.63E+09	1.26E+15	1.29E-06	1.0E-07

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 5
Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides

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Stack/Facility	Radionuclide	Quantity Released During 1997 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1997 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
S-Area (Defense Waste Processing Facility)					
221-S Personnel Area (Zone 2)	U-234	3.04E-03	1.51E+14	2.02E-17	9.0E-14
	U-238	4.78E-04	1.51E+14	3.17E-18	1.0E-13
	Pu-238	8.10E-03	1.51E+14	5.37E-17	3.0E-14
	Pu-239	1.57E-04	1.51E+14	1.04E-18	2.0E-14
	Am-241	3.14E-03	1.51E+14	2.09E-17	2.0E-14
250-S Glass Waste Bldg #1488	U-234	3.72E-03	9.46E+13	3.93E-17	9.0E-14
	U-238	1.97E-03	9.46E+13	2.09E-17	1.0E-13
	Pu-238	1.04E-04	9.46E+13	1.10E-18	3.0E-14
	Pu-239	4.38E-06	9.46E+13	4.63E-20	2.0E-14
	Am-241	2.70E-04	9.46E+13	2.86E-18	2.0E-14
250-S Glass Waste Bldg #1509	Cm-244	7.69E-04	9.46E+13	8.13E-18	4.0E-14
	U-234	2.79E-03	9.70E+13	2.87E-17	9.0E-14
	U-235	2.63E-05	9.70E+13	2.71E-19	1.0E-13
	U-238	3.01E-03	9.70E+13	3.11E-17	1.0E-13
	Pu-238	8.44E-04	9.70E+13	8.70E-18	3.0E-14
	Pu-239	2.91E-04	9.70E+13	3.00E-18	2.0E-14
250-S Glass Waste Bldg #3928	Am-241	2.91E-04	9.70E+13	3.00E-18	2.0E-14
	Cm-244	9.86E-07	9.70E+13	1.02E-20	4.0E-14
	U-234	1.37E-03	1.58E+14	8.69E-18	9.0E-14
	U-235	2.24E-04	1.58E+14	1.42E-18	1.0E-13
	U-238	4.16E-04	1.58E+14	2.63E-18	1.0E-13
	Pu-238	8.05E-07	1.58E+14	5.09E-21	3.0E-14
250-S Glass Waste Bldg #3940	Am-241	2.45E-05	1.58E+14	1.55E-19	2.0E-14
	Cs-137	4.84E-04	1.58E+14	3.06E-18	4.0E-10

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 5
Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides

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Stack/Facility	Radionuclide	Quantity Released During 1997 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1997 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
291-S Vit. Process (Zone 1)	U-234	1.62E-03	1.58E+14	1.03E-17	9.0E-14
	U-235	4.26E-05	1.58E+14	2.70E-19	1.0E-13
	U-238	1.08E-03	1.58E+14	6.81E-18	1.0E-13
	Pu-238	1.99E-06	1.58E+14	1.26E-20	3.0E-14
	Am-241	1.57E-06	1.58E+14	9.93E-21	2.0E-14
	Cm-244	1.64E-06	1.58E+14	1.04E-20	4.0E-14
	U-234	1.94E-02	1.64E+15	1.19E-17	9.0E-14
	U-238	2.42E-02	1.64E+15	1.48E-17	1.0E-13
	Pu-238	8.65E-03	1.64E+15	5.29E-18	3.0E-14
	Am-241	7.33E-03	1.64E+15	4.48E-18	2.0E-14
511-S Low Pt. Pump Pit	U-234	9.91E-03	2.61E+14	3.80E-17	9.0E-14
	U-235	9.05E-04	2.61E+14	3.47E-18	1.0E-13
	U-238	3.06E-03	2.61E+14	1.18E-17	1.0E-13
	Am-241	4.38E-04	2.61E+14	1.68E-18	2.0E-14
	Cm-244	1.89E-04	2.61E+14	7.26E-19	4.0E-14
Z-Area (Saltstone)					
210-Z					
704-Z					

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 6
Radioactive Liquid Releases by Source
(Including Direct and Seepage Basin Migration Releases)

Page 1 of 1

Radio-nuclide	Half-life	Curies ^a					Total
		Reactors	Separations ^b	Reactor Materials	Heavy Water/TNX	Savannah River Technology Center	
Notes: Blank spaces indicate no quantifiable activity; h = hour, d = day, y = year							
H-3 (oxide)	12.3 y	2.91E+03	5.24E+03		4.02E+02	1.82E+00	8.55E+03
Sr-89,90 ^c	29.1 y	6.46E-02	1.40E-01		5.09E-03	4.10E-03	2.14E-01
I-129	1.6E7 y		7.82E-02 ^d				7.82E-02 ^d
Cs-137	30.2 y	2.86E-03	4.49E-02				4.78E-02
U-234	2.46E5 y	4.45E-03	2.30E-02	2.68E-05	1.52E-06	1.06E-04	2.76E-02
U-235	7.04E8 y	4.91E-05	7.23E-04		1.37E-07	3.44E-06	7.76E-04
U-238	4.47E9 y	3.83E-03	2.57E-02	5.71E-05	9.19E-06	1.11E-04	2.97E-02
Pu-238	87.7 y	4.24E-05	9.57E-04		7.68E-07	1.78E-06	1.00E-03
Pu-239 ^e	2.410E4 y	1.10E-02	3.39E-02	1.14E-03	1.12E-03	3.38E-03	5.05E-02
Am-241	432.7 y		7.81E-06	2.11E-06			9.92E-06
Cm-244	18.1 y		2.93E-06	4.14E-07			3.34E-06

a One curie equals 3.7E+10 Becquerels.

b Includes separations, waste management, and tritium facilities

c Includes unidentified beta emissions

d Measured iodine-129 results were not available for 1997 from the Savannah River Technology Laboratory. This value was measured in 1996.

e Includes unidentified alpha emissions

Table 7
Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual
Average Radionuclide Concentrations to DOE Derived Concentration Guides

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Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1997 (Ci)	Average Effluent Concentration During 1997 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
<i>Note: "MDL" denotes "minimum detectable level."</i>					
A-Area (Savannah River Technology Center)					
TB-2 Outfall at Road 1A	H-3	1.82E+00	2.11E-06	2.00E-03	1.05E-03
	Cs-137	Below MDL	-9.59E-11	3.00E-06	0.00E+00
	U-234	1.06E-04	1.39E-10	6.00E-07	2.32E-04
	U-235	3.44E-06	7.66E-12	6.00E-07	1.28E-05
	U-238	1.11E-04	1.47E-10	6.00E-07	2.46E-04
	Pu-238	1.78E-06	3.55E-12	4.00E-08	8.88E-05
C-Area (C-Reactor)					
C-Canal	H-3	1.20E+00	1.75E-06	2.00E-03	8.70E-04
	Sr-89,90	Below MDL	-1.49E-10	1.00E-06	0.00E+00
	Cs-137	Below MDL	1.02E-09	3.00E-06	3.41E-04
D-Area (Heavy Water Rework)					
400-D Effluent Discharge	H-3	4.02E+02	4.51E-05	2.00E-03	2.25E-02
	Sr-89,90	Below MDL	1.88E-11	1.00E-06	1.88E-05
	Cs-137	Below MDL	8.20E-10	3.00E-06	2.73E-04
F-Area (Separations and Waste Management)					
F-01	H-3	5.03E-02	2.54E-07	2.00E-03	1.27E-04
	Sr-89,90	Below MDL	-1.02E-11	1.00E-06	0.00E+00
	Cs-137	Below MDL	1.32E-09	3.00E-06	4.39E-04
F-012 (281-8F Retention Basin)	H-3	7.67E-01	9.83E-06	2.00E-03	4.91E-03
	Sr-89,90	Below MDL	3.01E-09	1.00E-06	3.01E-03
	Cs-137	1.58E-03	2.07E-08	3.00E-06	6.89E-03
F-013 (200-F Cooling Basin)	H-3	1.73E-02	1.63E-06	2.00E-03	8.13E-04
	Sr-89,90	3.13E-05	4.39E-09	1.00E-06	4.39E-03
	Cs-137	5.92E-04	2.30E-08	3.00E-06	7.68E-03

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. DCGs are defined as the concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 7
Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual
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Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1997 (Ci)	Average Effluent Concentration During 1997 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
FM-3 (F-Area Effluent)	H-3	1.32E+00	7.80E-07	2.00E-03	3.90E-04
	Sr-89,90	Below MDL	4.16E-10	1.00E-06	4.16E-04
	Cs-137	Below MDL	8.97E-10	3.00E-06	2.99E-04
U3R-2 (F Storm Sewer)	H-3	1.65E-01	8.78E-07	2.00E-03	4.39E-04
	Sr-89,90	Below MDL	8.56E-11	1.00E-06	8.56E-05
	Cs-137	Below MDL	5.13E-10	3.00E-06	1.71E-04
	U-234	6.86E-05	3.48E-10	6.00E-07	5.80E-04
	U-235	5.15E-06	3.02E-11	6.00E-07	5.03E-05
	U-238	1.90E-04	9.15E-10	6.00E-07	1.53E-03
	Pu-238	1.54E-05	9.10E-11	4.00E-08	2.28E-03
	Pu-239	7.73E-06	4.66E-11	3.00E-08	1.55E-03
	Am-241	7.77E-06	3.98E-11	3.00E-08	1.33E-03
	Cm-244	2.92E-06	1.74E-11	6.00E-08	2.90E-04
U3RF-3 (Naval Fuels Effluent)	H-3	3.45E-02	1.46E-06	2.00E-03	7.31E-04
	Sr-89,90	Below MDL	1.16E-10	1.00E-06	1.16E-04
	Cs-137	Below MDL	2.47E-10	3.00E-06	8.25E-05
	U-234	1.62E-05	8.95E-10	6.00E-07	1.49E-03
	U-235	5.86E-06	2.30E-09	6.00E-07	3.83E-03
	U-238	3.04E-06	1.76E-10	6.00E-07	2.94E-04
	Pu-238	1.61E-07	6.23E-12	4.00E-08	1.56E-04
	Pu-239	2.60E-08	5.04E-12	3.00E-08	1.68E-04
	Am-241	4.49E-08	7.07E-13	3.00E-08	2.36E-05
	Cm-244	9.54E-09	-6.84E-11	6.00E-08	0.00E+00
H-Area (Separations and Waste Management)					
FM-1C (H-Area Effluent)	H-3	3.85E+00	9.22E-06	2.00E-03	4.61E-03
	Sr-89,90	7.93E-05	7.05E-10	1.00E-06	7.05E-04
	Cs-137	6.77E-04	3.27E-09	3.00E-06	1.09E-03

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. DCGs are defined as the concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

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Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1997 (Ci)	Average Effluent Concentration During 1997 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
H-004	H-3	4.96E-01	1.23E-05	2.00E-03	6.14E-03
	Sr-89,90	3.48E-06	5.40E-10	1.00E-06	5.40E-04
	Cs-137	2.15E-06	7.15E-10	3.00E-06	2.38E-04
	U-234	2.77E-06	8.54E-11	6.00E-07	1.42E-04
	U-235	9.84E-09	8.61E-12	6.00E-07	1.44E-05
	U-238	2.07E-06	6.58E-11	6.00E-07	1.10E-04
	Pu-238	5.09E-07	2.45E-11	4.00E-08	6.13E-04
	Pu-239	8.93E-08	6.37E-12	3.00E-08	2.12E-04
H-017 (281-8H Retention Basin)	H-3	7.17E-01	1.02E-05	2.00E-03	5.08E-03
	Sr-89,90	5.21E-04	7.91E-09	1.00E-06	7.91E-03
	Cs-137	1.04E-02	1.11E-07	3.00E-06	3.68E-02
H-018 (200-H Cooling Basin)	H-3	1.44E-01	2.27E-05	2.00E-03	1.14E-02
	Sr-89,90	2.75E-04	4.58E-08	1.00E-06	4.58E-02
	Cs-137	2.21E-03	3.71E-07	3.00E-06	1.24E-01
HP-15 (Tritium Facility Outfall)	H-3	1.74E+00	1.55E-05	2.00E-03	7.73E-03
	Cs-137	Below MDL	7.75E-11	3.00E-06	2.58E-05
HP-52 (H-Area Tank Farm)	H-3	2.43E+00	1.30E-06	2.00E-03	6.50E-04
	Sr-89,90	Below MDL	7.67E-11	1.00E-06	7.67E-05
	Cs-137	1.58E-04	1.92E-09	3.00E-06	6.39E-04
McQueen Branch at Road F	H-3	1.20E+01	1.05E-05	2.00E-03	5.26E-03
	Cs-137	Below MDL	4.85E-10	3.00E-06	1.62E-04
U3R-2A (ETF Outfall at Road C)	H-3	3.82E+02	4.72E-03	2.00E-03	2.36E+00
	Sr-89,90	1.28E-05	2.24E-09	1.00E-06	2.24E-03
	Cs-137	1.79E-02	2.16E-07	3.00E-06	7.20E-02

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. DCGs are defined as the concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 7
Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual
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Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1997 (Ci)	Average Effluent Concentration During 1997 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
K-Area (K-Reactor)					
K-Canal	H-3	1.49E+00	4.84E-07	2.00E-03	2.42E-04
	Sr-89,90	4.98E-05	3.54E-10	1.00E-06	3.54E-04
	Cs-137	Below MDL	4.13E-10	3.00E-06	1.38E-04
L-Area (L-Reactor)					
L-07	H-3	6.02E+00	3.38E-07	2.00E-03	1.69E-04
	Sr-89,90	Below MDL	1.16E-10	1.00E-06	1.16E-04
	Cs-137	Below MDL	4.53E-10	3.00E-06	1.51E-04
M-Area (Reactor Materials)					
TB-3 M-Area Effluent at Road D	Cs-137	Below MDL	4.89E-10	3.00E-06	1.63E-04
	U-234	2.63E-05	2.31E-11	6.00E-07	3.85E-05
	U-238	5.71E-05	4.10E-11	6.00E-07	6.83E-05
	Pu-239	1.42E-06	7.32E-12	3.00E-08	2.44E-04
	Am-241	2.11E-06	-7.07E-12	3.00E-08	0.00E+00
	Cm-244	4.14E-07	-2.69E-12	6.00E-08	0.00E+00
P-Area (P-Reactor)					
105-R Sumps	H-3	7.18E-01	2.96E-04	2.00E-03	1.48E-01
	Sr-89,90	5.25E-06	3.47E-09	1.00E-06	3.47E-03
	Cs-137	2.38E-04	9.86E-08	3.00E-06	3.29E-02
P-013A	H-3	3.25E-01	5.41E-07	2.00E-03	2.70E-04
	Sr-89,90	Below MDL	3.03E-10	1.00E-06	3.03E-04
	Cs-137	Below MDL	-4.92E-10	3.00E-06	0.00E+00
S-Area (DWPF)					
S-004	H-3	9.18E-01	1.57E-05	2.00E-03	7.85E-03
	Sr-89,90	2.98E-06	1.43E-10	1.00E-06	1.43E-04
	Cs-137	Below MDL	6.30E-10	3.00E-06	2.10E-04
	U-234	2.63E-07	1.74E-11	6.00E-07	2.90E-05

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. DCGs are defined as the concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

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Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1997 (Ci)	Average Effluent Concentration During 1997 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
	U-238	7.80E-07	3.13E-11	6.00E-07	5.22E-05
	Pu-238	1.17E-07	7.08E-13	4.00E-08	1.77E-05
	Pu-239	6.15E-08	-2.79E-12	3.00E-08	0.00E+00
TNX Area					
TNX-008	H-3	2.05E-01	7.14E-07	2.00E-03	3.57E-04
	Cs-137	Below MDL	4.20E-10	3.00E-06	1.40E-04
	U-234	1.52E-06	8.99E-12	6.00E-07	1.50E-05
	U-235	1.37E-07	9.42E-13	6.00E-07	1.57E-06
	U-238	9.19E-06	3.10E-11	6.00E-07	5.17E-05
	Pu-238	7.68E-07	3.48E-12	4.00E-08	8.70E-05

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. DCGs are defined as the concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 8
Calculated Migration of Radioactivity from Seepage Basins

Page 1 of 1

Location	Source Description	1993	1994	1995	1996	1997
Tritium (Curies)						
FMA7-(FM3A+FM2B)	200-F seepage basins to Four Mile Creek	2,180	2880	2,370	1,620	1,000
FM2B-(FM1C+H017+H018+HP52)	200-H seepage basins to Four Mile Creek	1,020	739	528	505	400
FM3A-(FM3+F012+F013)	200-H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek	5,330	3090	4,010	3,200	2,960
PB-3-K Canal	K-Area retention basin to Indian Grave Branch	1,100	878	1,650	1,290	2,150
SC2A	100-P seepage basin to Steel Creek ^a	382	386	355	320	393
(U3R-4)-(Direct)	SWDF to Upper Three Runs	466	344	326	164	267
Total Strontium (Millicuries)						
FMA7-(FM3A+FM2B)	200-F seepage basins and Solid Waste Disposal Facility to Four Mile Creek	150	78	111	68.2	105
FM2B-FM1C	200-H seepage basins and Solid Waste Disposal Facility to Four Mile Creek	65	35	40	31.3	0.4
Cesium-137 (Millicuries)						
FMA7-(direct discharges to Four Mile Creek)	200-F seepage basins and Solid Waste Disposal Facility to Four Mile Creek	b	3	b	29.8	b
FM2B-(FM1C+H017+H018+HP52)	200-H seepage basins and Solid Waste Disposal Facility to Four Mile Creek	b	b	b	17.4	11.4
Iodine-129 (Millicuries)						
FMA7	200-F and 200-H seepage basins and Solid Waste Disposal Facility to Four Mile Creek	22	74	10	78.2	78.2 ^c

a Includes some secondary effluent releases from P-Area when water is diverted from PAR Pond

b Not detected

c Measured iodine-129 results were not available for 1997 from the Savannah River Technology Laboratory. This value was measured in 1996.

Table 9
Transport of Actinides in Savannah River Site Streams

Page 1 of 1

Location	Source Description	1996	1997
Uranium-234 (Curies)			
FM-6	stream transport	6.08E-04	4.35E-03
U3R-4	stream transport	6.38E-03	1.88E-02
PB-3	stream transport	5.47E-04	2.94E-03
L3R-2	stream transport	6.45E-04	1.51E-03
SC-4	stream transport	a	a
Uranium-235 (Curies)			
FM-6	stream transport	5.47E-06	1.63E-04
U3R-4	stream transport	2.04E-04	5.63E-04
PB-3	stream transport	5.31E-06	2.24E-05
L3R-2	stream transport	1.28E-05	2.67E-05
SC-4	stream transport	a	a
Uranium-238 (Curies)			
FM-6	stream transport	8.09E-04	5.27E-03
U3R-4	stream transport	8.89E-03	2.06E-02
PB-3	stream transport	4.66E-04	2.76E-03
L3R-2	stream transport	3.55E-04	1.07E-03
SC-4	stream transport	a	a
Plutonium-238 (Curies)			
FM-6	stream transport	1.38E-04	1.11E-04
U3R-4	stream transport	2.53E-03	8.48E-04
PB-3	stream transport	5.29E-05	1.74E-05
L3R-2	stream transport	8.30E-05	2.50E-05
SC-4	stream transport	a	a
Plutonium-239 (Curies)			
FM-6	stream transport	b	b
U3R-4	stream transport	b	b
PB-3	stream transport	b	b
L3R-2	stream transport	b	b
SC-4	stream transport	a	a

a Not analyzed

b Below minimum detectable concentration (1.0E-11μCi/mL)

Table 10
Estimated Tritium Transport in SRS Streams and the Savannah River

Page 1 of 3

Area	Release Point	Direct Releases (Curies)				
		1993	1994	1995	1996	1997
Reactor						
100-P	PAR Pond overflow to Lower Three Runs Creek (L3R2)	64	59	56	47	46
100-L	L-Lake overflow to Steel Creek (SC4)	650	473	472	376	715
	*Process sewer to L Lake					
	*Reactor heat exchanger cooling water to L Lake					
	*Combined in 1992 (L007)	(9) ^a	(19) ^a	(11) ^a	(10) ^a	(6) ^a
100-K	(K-Canal)	16	15	11	12	2
100-C	Process Sewer to Four Mile Creek (C-Canal)	12	1	3	2	1
	Subtotal	742	548	542	437	764
Separations						
200-F	Effluent to Four Mile Creek	4	13	2	1	1
	Effluent to Upper Three Runs	1	1	1	2	1
200-H	Effluent to Four Mile Creek	12	10	9	7	9
	Effluent to Upper Three Runs	17	13	14	11	15
	Effluent Treatment Facility	395	389	142	308	382
	Subtotal	426	426	168	329	408
400-D	Process sewer to Beaver Dam Creek (400-D)	499	235	628	183	402
	Subtotal	499	235	628	183	402
	Total Direct Releases ^b	1,670	1,210	1,340	949	1,570

a Not used in totals because release was counted elsewhere

b Because of rounding, sums of individual columns might not equal totals.

Table 10
Estimated Tritium Transport in SRS Streams and the Savannah River

Page 2 of 3

Area	Release Point	Migration (Curies)				
		1993	1994	1995	1996	1997
200-F&H	Solid Waste Disposal Facility and General Separations Area to Upper Three Runs	(466) ^a	(344) ^a	(326) ^a	(164) ^a	267
200-F&H	Solid Waste Disposal Facility (FM3A-FM3) and H-Area seepage basin to Four Mile Creek	5,330	3090	4,010	3,200	2,960
	200-F seepage basin to Four Mile Creek	2,180	2880	2,370	1,620	1,000
	200-H seepage basin to Four Mile Creek	1,020	739	528	505	400
100-K	904-88G to Indian Grave Branch and Pen Branch	1,100	878	1,650 ^b	1,290 ^b	2,150
100-P	Seepage basin to Steel Creek	(382) ^c	(386) ^c	(355) ^c	(320) ^c	(393) ^c
	Subtotal	9,630	7,500	8,560	6,610	6,780
	Total Direct Releases and Migration^d	11,300	8,800	9,900	7,560	8,350

Area	Release Point	Stream Transport (Curies)				
		1993	1994	1995	1996	1997
F&H	Upper Three Runs at Road A (U3R4)	879	747	483	485	665
400-D	Beaver Dam Creek at swamp	499	235	628	183	402
F&H	Four Mile Creek at Road A13 (FM6)	9,000	6,980	7,350	4,620	4,570
100-K	Pen Branch at Road A (PB3)	1,580	1,890	2,440	2,310	2,150
100-L	Steel Creek at Road A (SC4)	650	473	472	376	715
100-P	Lower Three Runs at Road B (L3R2)	64	59	56	47	46
	Total^d	12,700	10,400	11,430	8,020	8,550

a Not used in totals because migration release was counted as part of transport total

b Beginning in 1995, this value was determined from K018-K Canal. The K018 location was discontinued in 1997. The value is now (PB-3) - (K-Canal).

c Not used in totals because release was counted as part of direct release

d Because of rounding, sums of individual columns might not equal totals.

Table 10
Estimated Tritium Transport in SRS Streams and the Savannah River

Page 3 of 3

	River Transport (Curies)				
	1993	1994	1995	1996	1997
Tritium measured in the Savannah River below SRS (RM 120)	12,600	12,100	12,600	10,090	9,030
Tritium measured in the Savannah River above SRS (RM 160)	433	1,170	1,940	1,140	1,330
Tritium measured in the Savannah River below SRS (downriver minus upriver) ^a	12,200	10,900	10,660	8,950	7,700

a Because of rounding, sums of individual columns might not equal totals.

Table 11
Radioactivity in Air

Page 1 of 5

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/cu m				
Onsite				
A-Area	25	$(1.15 \pm 0.66)E+01$	$(2.44 \pm 0.28)E+01$	$(2.87 \pm 2.35)E+00$
Burial Ground North	26	$(8.66 \pm 5.07)E+01$	$(2.33 \pm 0.10)E+02$	$(4.18 \pm 0.15)E+00$
Burial Ground South	26	$(8.57 \pm 6.19)E+01$	$(2.28 \pm 0.10)E+02$	$(9.98 \pm 0.81)E-03$
F-Area	26	$(3.41 \pm 1.95)E+01$	$(7.40 \pm 0.81)E+01$	$(1.52 \pm 0.16)E+00$
H-Area	26	$(4.43 \pm 4.78)E+02$	$(2.35 \pm 0.03)E+03$	$(2.43 \pm 0.07)E+01$
Site Perimeter				
Allendale Gate	26	$(7.07 \pm 6.37)E+00$	$(2.17 \pm 0.80)E+01$	$(-6.18 \pm 5.62)E+00$
Barnwell Gate	26	$(1.24 \pm 0.80)E+01$	$(3.88 \pm 0.38)E+01$	$(3.43 \pm 4.83)E+00$
D-Area	26	$(2.03 \pm 1.28)E+01$	$(6.45 \pm 0.71)E+01$	$(6.36 \pm 3.31)E+00$
Darkhorse @ Williston Gate	26	$(1.09 \pm 0.65)E+01$	$(2.37 \pm 0.60)E+01$	$(-1.47 \pm 5.17)E+00$
East Talatha	26	$(1.15 \pm 0.75)E+01$	$(2.67 \pm 0.23)E+01$	$(0.10 \pm 2.95)E+00$
Green Pond	26	$(1.13 \pm 1.18)E+01$	$(6.03 \pm 0.50)E+01$	$(-6.87 \pm 5.88)E+00$
Highway 125 @ Road A-14	26	$(1.05 \pm 0.67)E+01$	$(2.48 \pm 0.67)E+01$	$(0.82 \pm 5.65)E+00$
Highway 21/167	26	$(1.12 \pm 0.60)E+01$	$(2.66 \pm 0.70)E+01$	$(-1.25 \pm 6.83)E+00$
Highway 39 @ Williston Gate	26	$(1.27 \pm 0.73)E+01$	$(3.31 \pm 0.45)E+01$	$(2.24 \pm 6.47)E+00$
Jackson	26	$(9.65 \pm 8.03)E+00$	$(2.60 \pm 0.51)E+01$	$(-4.69 \pm 5.69)E+00$
Patterson Mill Road	26	$(7.74 \pm 7.30)E+00$	$(3.20 \pm 0.37)E+01$	$(-1.88 \pm 3.63)E+00$
Talatha Gate	24	$(1.20 \pm 1.05)E+01$	$(4.16 \pm 0.44)E+01$	$(-0.59 \pm 2.73)E+00$
West Jackson	26	$(1.13 \pm 0.74)E+01$	$(2.99 \pm 0.52)E+01$	$(1.59 \pm 3.12)E+00$
Windsor Road	26	$(1.17 \pm 1.23)E+01$	$(6.34 \pm 0.64)E+01$	$(2.38 \pm 0.90)E+00$
25-Mile-Radius				
Aiken Airport	26	$(6.36 \pm 6.79)E+00$	$(2.09 \pm 1.56)E+01$	$(-5.58 \pm 6.45)E+00$
Augusta Lock and Dam 614	26	$(4.28 \pm 5.73)E+00$	$(2.31 \pm 0.98)E+01$	$(-4.92 \pm 8.28)E+00$
Highway 301 @ state line	23	$(4.34 \pm 4.21)E+00$	$(1.50 \pm 0.38)E+01$	$(-0.84 \pm 4.80)E+00$
100-Mile-Radius				
Savannah, Ga.	6	$(3.15 \pm 2.31)E+00$	$(5.44 \pm 2.68)E+00$	$(-0.29 \pm 3.69)E+00$
Co-60, pCi/cu m				
Onsite				
A-Area	12	$(0.26 \pm 1.82)E-03$	$(2.15 \pm 1.76)E-03$	$(-3.99 \pm 1.86)E-03$
Burial Ground North	12	$(-0.16 \pm 1.07)E-03$	$(2.04 \pm 1.13)E-03$	$(-1.25 \pm 0.97)E-03$

Table 11
Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Burial Ground South	12	$(0.18 \pm 1.06)E-03$	$(1.51 \pm 0.99)E-03$	$(-1.89 \pm 0.79)E-03$
F-Area	12	$(0.09 \pm 1.53)E-03$	$(2.30 \pm 1.24)E-03$	$(-3.16 \pm 1.74)E-03$
H-Area	12	$(3.30 \pm 7.73)E-04$	$(1.66 \pm 0.91)E-03$	$(-8.14 \pm 4.12)E-04$
Site Perimeter				
Barnwell Gate	51	$(0.48 \pm 5.73)E-03$	$(2.42 \pm 2.41)E-02$	$(-1.18 \pm 0.69)E-02$
Highway 21/167	51	$(1.19 \pm 3.49)E-03$	$(7.18 \pm 3.69)E-03$	$(-8.81 \pm 4.58)E-03$
Site perimeter	52	$(0.37 \pm 2.24)E-04$	$(4.80 \pm 3.03)E-04$	$(-6.20 \pm 2.63)E-04$
25-Mile-Radius				
25-mile-radius	52	$(0.15 \pm 1.33)E-03$	$(4.28 \pm 1.87)E-03$	$(-3.46 \pm 1.33)E-03$
100-Mile-Radius				
Savannah, Ga.	11	$(-3.32 \pm 9.28)E-03$	$(7.29 \pm 4.88)E-03$	$(-2.78 \pm 1.40)E-02$
Cs-137, pCi/cu m				
Onsite				
A-Area	12	$(6.38 \pm 8.52)E-04$	$(2.00 \pm 1.63)E-03$	$(-0.67 \pm 1.55)E-03$
Burial Ground North	12	$(1.13 \pm 7.48)E-04$	$(1.10 \pm 0.71)E-03$	$(-1.08 \pm 0.67)E-03$
Burial Ground South	12	$(-0.26 \pm 7.87)E-04$	$(1.46 \pm 0.95)E-03$	$(-1.78 \pm 0.98)E-03$
F-Area	12	$(1.73 \pm 9.88)E-04$	$(1.09 \pm 0.75)E-03$	$(-2.21 \pm 1.17)E-03$
H-Area	12	$(4.59 \pm 5.24)E-04$	$(1.46 \pm 0.63)E-03$	$(-5.27 \pm 7.89)E-04$
Site Perimeter				
Barnwell Gate	51	$(0.09 \pm 2.79)E-03$	$(5.66 \pm 3.83)E-03$	$(-6.99 \pm 3.74)E-03$
Highway 21/167	51	$(0.30 \pm 2.73)E-03$	$(7.25 \pm 3.43)E-03$	$(-5.95 \pm 3.23)E-03$
Site perimeter	52	$(0.64 \pm 1.95)E-04$	$(4.99 \pm 2.79)E-04$	$(-3.79 \pm 2.01)E-04$
25-Mile-Radius				
25-mile-radius	52	$(0.17 \pm 1.24)E-03$	$(3.06 \pm 1.24)E-03$	$(-2.80 \pm 1.35)E-03$
100-Mile-Radius				
Savannah, Ga.	11	$(-0.48 \pm 5.32)E-03$	$(5.51 \pm 3.47)E-03$	$(-1.46 \pm 1.25)E-02$
Pu-238, pCi/cu m				
Onsite				
A-Area	10	$(-1.30 \pm 4.01)E-06$	$(6.10 \pm 6.70)E-06$	$(-5.98 \pm 2.05)E-06$
Burial Ground North	9	$(-0.93 \pm 4.87)E-06$	$(8.73 \pm 8.23)E-06$	$(-0.75 \pm 1.12)E-05$
Burial Ground South	10	$(1.93 \pm 5.01)E-06$	$(1.11 \pm 0.75)E-05$	$(-4.80 \pm 5.59)E-06$
F-Area	11	$(-0.75 \pm 5.67)E-06$	$(1.20 \pm 0.53)E-05$	$(-6.16 \pm 4.64)E-06$
H-Area	9	$(4.30 \pm 5.50)E-06$	$(1.40 \pm 0.65)E-05$	$(-3.16 \pm 1.14)E-06$

Table 11
Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Site Perimeter				
Site perimeter	44	$(0.00 \pm 1.61)E-06$	$(4.05 \pm 3.34)E-06$	$(-3.27 \pm 0.80)E-06$
25-Mile-Radius				
25-mile-radius	45	$(-2.07 \pm 7.43)E-06$	$(1.21 \pm 0.66)E-05$	$(-2.37 \pm 0.96)E-05$
100-Mile-Radius				
Savannah, Ga.	10	$(0.69 \pm 1.83)E-05$	$(4.21 \pm 5.56)E-05$	$(-2.69 \pm 7.46)E-05$
Pu-239, pCi/cu m				
Onsite				
A-Area	11	$(-3.71 \pm 8.73)E-06$	$(8.27 \pm 6.65)E-06$	$(-2.13 \pm 1.07)E-05$
Burial Ground North	10	$(-1.48 \pm 7.73)E-06$	$(1.28 \pm 0.81)E-05$	$(-1.18 \pm 0.99)E-05$
Burial Ground South	11	$(-0.88 \pm 7.45)E-06$	$(1.55 \pm 0.78)E-05$	$(-1.08 \pm 0.44)E-05$
F-Area	12	$(-2.39 \pm 4.26)E-06$	$(5.99 \pm 5.69)E-06$	$(-7.48 \pm 6.40)E-06$
H-Area	10	$(-4.07 \pm 5.30)E-06$	$(1.69 \pm 1.50)E-06$	$(-1.67 \pm 0.42)E-05$
Site Perimeter				
Site perimeter	48	$(-0.33 \pm 1.62)E-06$	$(0.70 \pm 1.16)E-05$	$(-2.95 \pm 1.54)E-06$
25-Mile-Radius				
25-mile-radius	49	$(-1.54 \pm 7.08)E-06$	$(2.13 \pm 1.25)E-05$	$(-1.88 \pm 0.98)E-05$
100-Mile-Radius				
Savannah, Ga.	10	$(-0.96 \pm 2.23)E-05$	$(2.60 \pm 2.41)E-05$	$(-3.99 \pm 3.17)E-05$
Sr-89,90, pCi/cu m				
Onsite				
A-Area	12	$(0.16 \pm 4.18)E-04$	$(1.08 \pm 0.67)E-03$	$(-6.04 \pm 3.95)E-04$
Burial Ground North	12	$(0.52 \pm 1.23)E-04$	$(2.84 \pm 2.49)E-04$	$(-1.98 \pm 2.19)E-04$
Burial Ground South	12	$(1.85 \pm 3.81)E-04$	$(9.66 \pm 4.38)E-04$	$(-3.27 \pm 5.46)E-04$
F-Area	12	$(0.75 \pm 2.28)E-04$	$(3.90 \pm 3.02)E-04$	$(-2.82 \pm 4.52)E-04$
H-Area	12	$(1.53 \pm 1.87)E-04$	$(3.80 \pm 2.55)E-04$	$(-2.71 \pm 2.31)E-04$
Site Perimeter				
Site perimeter	47	$(7.95 \pm 8.86)E-05$	$(3.59 \pm 1.18)E-04$	$(-4.93 \pm 6.50)E-05$
25-Mile-Radius				
25-mile-radius	47	$(0.87 \pm 3.41)E-04$	$(1.18 \pm 0.49)E-03$	$(-5.73 \pm 3.48)E-04$
100-Mile-Radius				
Savannah, Ga.	6	$(8.94 \pm 8.76)E-04$	$(1.92 \pm 1.22)E-03$	$(-1.06 \pm 9.76)E-04$

Table 11
Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Gross Beta, pCi/cu m				
Onsite				
A-Area	51	(1.69 $\pm$ 0.96)E-02	(7.32 $\pm$ 0.80)E-02	(6.82 $\pm$ 1.43)E-03
Burial Ground North	53	(1.53 $\pm$ 0.51)E-02	(2.90 $\pm$ 0.16)E-02	(8.44 $\pm$ 0.92)E-03
Burial Ground South	53	(2.32 $\pm$ 5.27)E-02	(3.98 $\pm$ 0.26)E-01	(6.42 $\pm$ 1.07)E-03
F-Area	51	(1.39 $\pm$ 0.54)E-02	(3.06 $\pm$ 0.19)E-02	(6.01 $\pm$ 0.82)E-03
H-Area	53	(1.37 $\pm$ 0.47)E-02	(2.69 $\pm$ 0.14)E-02	(6.14 $\pm$ 0.81)E-03
Site Perimeter				
Allendale Gate	51	(1.61 $\pm$ 0.52)E-02	(3.08 $\pm$ 0.15)E-02	(7.34 $\pm$ 0.89)E-03
Barnwell Gate	51	(1.58 $\pm$ 0.49)E-02	(2.96 $\pm$ 0.16)E-02	(6.94 $\pm$ 0.99)E-03
D-Area	52	(1.29 $\pm$ 0.41)E-02	(2.37 $\pm$ 0.15)E-02	(4.94 $\pm$ 0.73)E-03
Darkhorse @ Williston Gate	50	(1.61 $\pm$ 0.51)E-02	(3.05 $\pm$ 0.16)E-02	(7.24 $\pm$ 0.82)E-03
East Talatha	52	(1.60 $\pm$ 0.48)E-02	(2.90 $\pm$ 0.14)E-02	(7.07 $\pm$ 0.85)E-03
Green Pond	52	(1.68 $\pm$ 0.56)E-02	(3.21 $\pm$ 0.16)E-02	(7.95 $\pm$ 1.74)E-03
Highway 125 @ Road A-14	50	(1.60 $\pm$ 0.48)E-02	(2.88 $\pm$ 0.17)E-02	(8.08 $\pm$ 0.96)E-03
Highway 21/167	51	(1.57 $\pm$ 0.48)E-02	(2.90 $\pm$ 0.16)E-02	(7.07 $\pm$ 0.85)E-03
Highway 39 @ Williston Gate	51	(1.57 $\pm$ 0.56)E-02	(3.10 $\pm$ 0.14)E-02	(8.75 $\pm$ 0.55)E-04
Jackson	50	(1.38 $\pm$ 0.48)E-02	(2.79 $\pm$ 0.14)E-02	(7.47 $\pm$ 1.03)E-03
Patterson Mill Road	51	(1.54 $\pm$ 0.52)E-02	(2.94 $\pm$ 0.16)E-02	(4.28 $\pm$ 0.71)E-03
Talatha Gate	51	(1.34 $\pm$ 0.53)E-02	(2.69 $\pm$ 0.16)E-02	(1.78 $\pm$ 0.26)E-03
West Jackson	51	(1.59 $\pm$ 0.58)E-02	(3.14 $\pm$ 0.14)E-02	(6.93 $\pm$ 0.95)E-03
Windsor Road	52	(1.60 $\pm$ 0.51)E-02	(3.05 $\pm$ 0.16)E-02	(6.14 $\pm$ 0.80)E-03
25-Mile-Radius				
Aiken Airport	52	(1.61 $\pm$ 0.52)E-02	(3.22 $\pm$ 0.22)E-02	(6.49 $\pm$ 0.89)E-03
Augusta Lock and Dam 614	52	(1.58 $\pm$ 0.55)E-02	(3.82 $\pm$ 0.24)E-02	(6.49 $\pm$ 0.88)E-03
Highway 301 @ state line	50	(1.58 $\pm$ 0.52)E-02	(2.91 $\pm$ 0.19)E-02	(6.61 $\pm$ 0.89)E-03
100-Mile-Radius				
Savannah, Ga.	13	(1.13 $\pm$ 0.33)E-02	(1.78 $\pm$ 0.13)E-02	(5.30 $\pm$ 1.09)E-03
Gross Alpha, pCi/cu m				
Onsite				
A-Area	51	(1.10 $\pm$ 0.85)E-03	(4.45 $\pm$ 2.44)E-03	(-8.27 $\pm$ 7.79)E-04
Burial Ground North	53	(1.30 $\pm$ 0.44)E-03	(2.12 $\pm$ 0.54)E-03	(3.00 $\pm$ 5.12)E-04

Table 11
Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Burial Ground South	53	$(1.25 \pm 0.64)E-03$	$(2.64 \pm 0.71)E-03$	$(-0.19 \pm 1.07)E-02$
F-Area	51	$(1.10 \pm 0.68)E-03$	$(3.87 \pm 0.78)E-03$	$(-0.58 \pm 2.37)E-04$
H-Area	53	$(9.80 \pm 4.71)E-04$	$(2.25 \pm 0.49)E-03$	$(0.68 \pm 2.10)E-04$
Site Perimeter				
Allendale Gate	51	$(1.04 \pm 0.63)E-03$	$(3.32 \pm 0.60)E-03$	$(0.60 \pm 1.87)E-04$
Barnwell Gate	51	$(1.01 \pm 0.48)E-03$	$(2.18 \pm 0.51)E-03$	$(0.02 \pm 4.54)E-04$
D-Area	52	$(8.94 \pm 5.26)E-04$	$(2.01 \pm 0.47)E-03$	$(-0.22 \pm 1.63)E-04$
Darkhorse @ Williston Gate	50	$(1.03 \pm 0.50)E-03$	$(2.26 \pm 0.34)E-03$	$(-0.39 \pm 1.47)E-04$
East Talatha	52	$(1.11 \pm 0.50)E-03$	$(2.20 \pm 0.52)E-03$	$(2.58 \pm 4.61)E-04$
Green Pond	52	$(1.06 \pm 0.52)E-03$	$(2.72 \pm 0.56)E-03$	$(-0.46 \pm 3.37)E-04$
Highway 125 @ Road A-14	50	$(9.14 \pm 4.80)E-04$	$(2.22 \pm 0.49)E-03$	$(0.03 \pm 4.70)E-04$
Highway 21/167	51	$(9.98 \pm 5.50)E-04$	$(2.63 \pm 0.52)E-03$	$(-1.81 \pm 4.27)E-04$
Highway 39 @ Williston Gate	51	$(1.01 \pm 0.55)E-03$	$(2.22 \pm 0.49)E-03$	$(-2.63 \pm 4.34)E-04$
Jackson	50	$(8.30 \pm 4.72)E-04$	$(2.15 \pm 0.48)E-03$	$(-1.45 \pm 4.74)E-04$
Patterson Mill Road	51	$(8.67 \pm 4.86)E-04$	$(2.44 \pm 0.50)E-03$	$(-1.75 \pm 4.27)E-04$
Talatha Gate	51	$(8.97 \pm 4.99)E-04$	$(1.98 \pm 0.48)E-03$	$(-0.39 \pm 1.47)E-03$
West Jackson	51	$(9.73 \pm 5.31)E-04$	$(2.42 \pm 0.51)E-03$	$(1.77 \pm 2.02)E-04$
Windsor Road	52	$(1.08 \pm 0.48)E-03$	$(2.68 \pm 0.53)E-03$	$(2.86 \pm 2.56)E-04$
25-Mile-Radius				
Aiken Airport	52	$(1.04 \pm 0.56)E-03$	$(2.83 \pm 0.57)E-03$	$(1.76 \pm 2.29)E-04$
Augusta Lock and Dam 614	52	$(1.08 \pm 0.59)E-03$	$(2.39 \pm 0.52)E-03$	$(1.02 \pm 4.82)E-04$
Highway 301 @ state line	50	$(9.85 \pm 7.63)E-04$	$(4.45 \pm 2.44)E-03$	$(-1.91 \pm 1.65)E-03$
100-Mile-Radius				
Savannah, Ga.	13	$(1.14 \pm 0.68)E-03$	$(3.00 \pm 1.26)E-03$	$(5.51 \pm 3.16)E-04$

Table 12
Tritium in Rainwater

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/L				
Onsite				
A-Area	26	$(3.76 \pm 6.04)E+02$	$(2.84 \pm 0.29)E+03$	$(-4.27 \pm 3.82)E+02$
Burial Ground North	25	$(0.57 \pm 1.02)E+04$	$(5.24 \pm 0.08)E+04$	$(0.34 \pm 3.66)E+02$
Burial Ground South	25	$(0.90 \pm 1.48)E+04$	$(7.22 \pm 0.07)E+04$	$(-1.90 \pm 2.86)E+02$
F-Area	25	$(1.31 \pm 1.35)E+03$	$(4.75 \pm 0.46)E+03$	$(-4.83 \pm 3.55)E+02$
H-Area	25	$(2.77 \pm 1.84)E+04$	$(6.85 \pm 0.11)E+04$	$(-1.28 \pm 3.64)E+02$
Site Perimeter				
Allendale Gate	27	$(0.93 \pm 3.05)E+02$	$(6.91 \pm 3.87)E+02$	$(-4.88 \pm 3.64)E+02$
Barnwell Gate	26	$(1.65 \pm 2.92)E+02$	$(9.84 \pm 3.95)E+02$	$(-5.01 \pm 3.49)E+02$
D-Area	26	$(1.05 \pm 0.90)E+03$	$(3.05 \pm 0.35)E+03$	$(-3.21 \pm 2.84)E+02$
Darkhorse @ Williston Gate	26	$(2.76 \pm 3.04)E+02$	$(8.75 \pm 3.75)E+02$	$(-3.19 \pm 3.62)E+02$
East Talatha	26	$(2.57 \pm 3.82)E+02$	$(1.13 \pm 0.38)E+03$	$(-3.52 \pm 3.46)E+02$
Green Pond	26	$(2.70 \pm 6.31)E+02$	$(2.59 \pm 0.41)E+03$	$(-5.74 \pm 3.72)E+02$
Highway 125 @ Road A-14	27	$(3.32 \pm 4.77)E+02$	$(1.96 \pm 0.28)E+03$	$(-5.23 \pm 2.79)E+02$
Highway 21/167	27	$(2.10 \pm 3.85)E+02$	$(1.04 \pm 0.38)E+03$	$(-3.96 \pm 3.66)E+02$
Highway 39 @ Williston Gate	26	$(1.35 \pm 3.70)E+02$	$(8.92 \pm 3.72)E+02$	$(-6.52 \pm 3.55)E+02$
Jackson	26	$(1.75 \pm 4.49)E+02$	$(1.37 \pm 0.39)E+03$	$(-4.08 \pm 3.55)E+02$
Patterson Mill Road	27	$(2.59 \pm 5.88)E+02$	$(2.77 \pm 0.41)E+03$	$(-3.09 \pm 3.59)E+02$
Talatha Gate	26	$(3.05 \pm 6.39)E+02$	$(2.89 \pm 0.29)E+03$	$(-3.13 \pm 3.57)E+02$
West Jackson	26	$(4.26 \pm 6.42)E+02$	$(2.33 \pm 0.29)E+03$	$(-2.85 \pm 2.84)E+02$
Windsor Road	26	$(1.95 \pm 2.47)E+02$	$(5.96 \pm 3.67)E+02$	$(-2.38 \pm 3.62)E+02$
25-Mile-Radius				
Aiken Airport	26	$(1.68 \pm 2.70)E+02$	$(6.74 \pm 3.70)E+02$	$(-3.36 \pm 3.62)E+02$
Augusta Lock and Dam 614	27	$(1.41 \pm 2.08)E+02$	$(5.21 \pm 3.71)E+02$	$(-1.83 \pm 2.84)E+02$
Highway 301 @ state line	26	$(0.53 \pm 2.89)E+02$	$(6.45 \pm 2.97)E+02$	$(-4.45 \pm 3.54)E+02$
100-Mile-Radius				
Savannah, Ga.	27	$(-0.24 \pm 2.99)E+02$	$(4.21 \pm 3.80)E+02$	$(-6.52 \pm 3.74)E+02$

Table 13
Radioactivity in Rain Ion Columns

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Co-60, pCi/sq m				
Onsite				
H-Area	13	$(2.13 \pm 8.83)E+00$	$(1.61 \pm 0.91)E+01$	$(-0.95 \pm 1.02)E+01$
Site Perimeter				
Barnwell Gate	13	$(-0.03 \pm 1.12)E+01$	$(2.15 \pm 0.92)E+01$	$(-1.26 \pm 1.22)E+01$
D-Area	13	$(0.93 \pm 7.54)E+00$	$(1.64 \pm 0.56)E+01$	$(-1.47 \pm 0.87)E+01$
Darkhorse @ Williston Gate	13	$(0.07 \pm 1.08)E+01$	$(1.84 \pm 1.02)E+01$	$(-2.57 \pm 0.87)E+01$
Green Pond	13	$(0.42 \pm 1.02)E+01$	$(2.07 \pm 0.80)E+01$	$(-9.13 \pm 5.73)E+00$
Patterson Mill Road	13	$(1.72 \pm 6.72)E+00$	$(1.00 \pm 1.09)E+01$	$(-1.17 \pm 0.89)E+01$
25-Mile-Radius				
Aiken Airport	13	$(2.52 \pm 7.79)E+00$	$(2.00 \pm 0.82)E+01$	$(-6.68 \pm 9.52)E+00$
Augusta Lock and Dam 614	13	$(0.43 \pm 1.28)E+01$	$(2.88 \pm 1.10)E+01$	$(-8.34 \pm 9.43)E+00$
Highway 301 @ state line	12	$(4.73 \pm 7.82)E+00$	$(1.81 \pm 0.95)E+01$	$(-8.09 \pm 9.54)E+00$
100-Mile-Radius				
Savannah, Ga.	13	$(3.94 \pm 5.93)E+00$	$(1.03 \pm 0.65)E+01$	$(-1.09 \pm 0.98)E+01$
Cs-137, pCi/sq m				
Onsite				
H-Area	13	$(0.37 \pm 1.10)E+01$	$(2.59 \pm 1.31)E+01$	$(-1.36 \pm 0.87)E+01$
Site Perimeter				
Barnwell Gate	13	$(4.14 \pm 8.58)E+00$	$(2.38 \pm 0.94)E+01$	$(-7.27 \pm 8.86)E+00$
D-Area	13	$(5.19 \pm 6.65)E+00$	$(1.59 \pm 0.82)E+01$	$(-7.75 \pm 5.78)E+00$
Darkhorse @ Williston Gate	13	$(2.74 \pm 7.89)E+00$	$(1.82 \pm 0.74)E+01$	$(-8.23 \pm 8.74)E+00$
Green Pond	13	$(-0.06 \pm 1.09)E+01$	$(2.69 \pm 0.89)E+01$	$(-1.85 \pm 0.93)E+01$
Patterson Mill Road	13	$(2.17 \pm 7.34)E+00$	$(1.36 \pm 0.91)E+01$	$(-1.07 \pm 0.57)E+01$
25-Mile-Radius				
Aiken Airport	13	$(0.60 \pm 1.40)E+01$	$(3.89 \pm 1.65)E+01$	$(-1.30 \pm 0.76)E+01$
Augusta Lock and Dam 614	13	$(-3.30 \pm 7.29)E+00$	$(1.26 \pm 0.76)E+01$	$(-1.42 \pm 0.88)E+01$
Highway 301 @ state line	12	$(-0.07 \pm 8.81)E+00$	$(1.33 \pm 0.80)E+01$	$(-1.34 \pm 0.88)E+01$
100-Mile-Radius				
Savannah, Ga.	13	$(1.07 \pm 9.14)E+00$	$(1.46 \pm 0.97)E+01$	$(-1.40 \pm 0.79)E+01$
Pu-238, pCi/sq m				
Onsite				
H-Area	4	$(1.38 \pm 5.11)E-02$	$(5.82 \pm 8.67)E-02$	$(-4.81 \pm 7.44)E-02$

Table 13
Radioactivity in Rain Ion Columns

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Site Perimeter				
Barnwell Gate	4	(5.05 $\pm$ 4.28)E-02	(9.21 $\pm$ 6.52)E-02	(-0.94 $\pm$ 4.79)E-02
D-Area	4	(3.69 $\pm$ 9.82)E-02	(1.72 $\pm$ 0.78)E-01	(-5.92 $\pm$ 5.88)E-02
Darkhorse @ Williston Gate	4	(-1.77 $\pm$ 8.36)E-02	(5.78 $\pm$ 6.38)E-02	(-1.34 $\pm$ 0.82)E-01
Green Pond	4	(2.22 $\pm$ 4.62)E-02	(8.19 $\pm$ 4.14)E-02	(-3.10 $\pm$ 4.13)E-02
Patterson Mill Road	4	(3.66 $\pm$ 7.96)E-02	(1.34 $\pm$ 0.84)E-01	(-4.94 $\pm$ 6.98)E-02
25-Mile-Radius				
Augusta Lock and Dam 614	4	(-0.38 $\pm$ 4.58)E-02	(3.61 $\pm$ 6.58)E-02	(-4.81 $\pm$ 4.12)E-02
Highway 301 @ state line	4	(0.66 $\pm$ 2.90)E-02	(4.13 $\pm$ 6.16)E-02	(-2.96 $\pm$ 5.11)E-02
100-Mile-Radius				
Savannah, Ga.	4	(1.33 $\pm$ 2.76)E-01	(5.36 $\pm$ 2.26)E-01	(-8.78 $\pm$ 4.90)E-02
Pu-239, pCi/sq m				
Onsite				
H-Area	4	(-2.35 $\pm$ 1.64)E-02	(-0.81 $\pm$ 2.52)E-02	(-4.65 $\pm$ 5.68)E-02
Site Perimeter				
Barnwell Gate	4	(6.37 $\pm$ 8.14)E-02	(1.82 $\pm$ 0.66)E-01	(-0.26 $\pm$ 5.12)E-02
D-Area	4	(-4.58 $\pm$ 5.91)E-02	(0.31 $\pm$ 9.09)E-02	(-1.21 $\pm$ 0.34)E-01
Darkhorse @ Williston Gate	4	(0.21 $\pm$ 1.14)E-01	(1.51 $\pm$ 0.99)E-01	(-1.27 $\pm$ 0.35)E-01
Green Pond	4	(1.24 $\pm$ 5.99)E-02	(9.53 $\pm$ 4.67)E-02	(-4.79 $\pm$ 5.84)E-02
Patterson Mill Road	4	(-1.14 $\pm$ 1.24)E-02	(-0.18 $\pm$ 3.62)E-02	(-2.84 $\pm$ 5.15)E-02
25-Mile-Radius				
Augusta Lock and Dam 614	4	(0.72 $\pm$ 1.88)E-01	(3.52 $\pm$ 1.11)E-01	(-5.60 $\pm$ 4.51)E-02
Highway 301 @ state line	4	(0.02 $\pm$ 5.81)E-02	(5.00 $\pm$ 5.51)E-02	(-6.31 $\pm$ 4.26)E-02
100-Mile-Radius				
Savannah, Ga.	4	(-1.83 $\pm$ 5.70)E-02	(1.44 $\pm$ 3.70)E-02	(-1.04 $\pm$ 0.52)E-01
Sr-89,90, pCi/sq m				
Onsite				
H-Area	4	(2.98 $\pm$ 4.53)E+00	(7.31 $\pm$ 3.95)E+00	(-3.05 $\pm$ 3.90)E+00
Site Perimeter				
Barnwell Gate	4	(-0.07 $\pm$ 2.77)E+00	(2.63 $\pm$ 3.84)E+00	(-2.90 $\pm$ 4.27)E+00
D-Area	4	(-0.28 $\pm$ 3.32)E+00	(1.64 $\pm$ 4.29)E+00	(-5.26 $\pm$ 3.99)E+00
Darkhorse @ Williston Gate	4	(-0.07 $\pm$ 2.63)E+00	(2.62 $\pm$ 3.70)E+00	(-3.65 $\pm$ 3.96)E+00

Table 13
Radioactivity in Rain Ion Columns

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Green Pond	4	$(-3.49 \pm 1.31)E+00$	$(-2.09 \pm 4.18)E+00$	$(-5.14 \pm 4.10)E+00$
Patterson Mill Road	4	$(1.79 \pm 0.44)E+00$	$(2.27 \pm 4.45)E+00$	$(1.24 \pm 4.16)E+00$
25-Mile-Radius				
Augusta Lock and Dam 614	4	$(1.22 \pm 5.19)E+00$	$(6.86 \pm 4.65)E+00$	$(-3.46 \pm 3.68)E+00$
Highway 301 @ state line	4	$(0.17 \pm 3.63)E+00$	$(3.71 \pm 3.90)E+00$	$(-4.90 \pm 4.05)E+00$
100-Mile-Radius				
Savannah, Ga.	4	$(0.08 \pm 3.12)E+00$	$(4.06 \pm 3.90)E+00$	$(-2.54 \pm 3.48)E+00$
Gross Beta, pCi/sq m				
Onsite				
H-Area	13	$(7.10 \pm 5.74)E+01$	$(2.36 \pm 0.11)E+02$	$(9.34 \pm 4.38)E+00$
Site Perimeter				
Barnwell Gate	13	$(9.12 \pm 5.13)E+01$	$(1.86 \pm 0.11)E+02$	$(8.72 \pm 4.58)E+00$
D-Area	13	$(5.95 \pm 5.00)E+01$	$(1.44 \pm 0.10)E+02$	$(-5.76 \pm 3.61)E+00$
Darkhorse @ Williston Gate	13	$(9.02 \pm 6.03)E+01$	$(2.27 \pm 0.13)E+02$	$(2.46 \pm 0.48)E+01$
Green Pond	13	$(7.55 \pm 6.93)E+01$	$(2.59 \pm 0.13)E+02$	$(5.55 \pm 4.34)E+00$
Patterson Mill Road	13	$(6.33 \pm 4.99)E+01$	$(1.65 \pm 0.10)E+02$	$(0.23 \pm 4.46)E+00$
25-Mile-Radius				
Aiken Airport	13	$(9.39 \pm 7.10)E+01$	$(2.88 \pm 0.13)E+02$	$(1.96 \pm 0.54)E+01$
Augusta Lock and Dam 614	13	$(7.52 \pm 5.64)E+01$	$(2.14 \pm 0.13)E+02$	$(1.35 \pm 0.45)E+01$
Highway 301 @ state line	12	$(9.96 \pm 4.05)E+01$	$(1.97 \pm 0.12)E+02$	$(5.29 \pm 0.68)E+01$
100-Mile-Radius				
Savannah, Ga.	13	$(1.00 \pm 0.70)E+02$	$(2.64 \pm 0.12)E+02$	$(9.17 \pm 4.00)E+00$
Gross Alpha, pCi/sq m				
Onsite				
H-Area	13	$(2.83 \pm 5.04)E+00$	$(1.83 \pm 0.54)E+01$	$(-2.18 \pm 1.12)E+00$
Site Perimeter				
Barnwell Gate	13	$(1.32 \pm 2.68)E+00$	$(6.40 \pm 4.21)E+00$	$(-2.58 \pm 1.82)E+00$
D-Area	13	$(1.95 \pm 5.04)E+00$	$(1.79 \pm 0.57)E+01$	$(-2.07 \pm 1.36)E+00$
Darkhorse @ Williston Gate	13	$(1.56 \pm 2.07)E+00$	$(4.76 \pm 3.01)E+00$	$(-1.30 \pm 1.30)E+00$
Green Pond	13	$(1.10 \pm 2.93)E+00$	$(1.02 \pm 0.39)E+01$	$(-1.30 \pm 1.30)E+00$
Patterson Mill Road	13	$(1.94 \pm 2.75)E+00$	$(8.11 \pm 3.65)E+00$	$(-1.65 \pm 1.31)E+00$

Table 13
Radioactivity in Rain Ion Columns

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
25-Mile-Radius				
Aiken Airport	13	$(2.58 \pm 2.84)E+00$	$(7.86 \pm 3.89)E+00$	$(-0.25 \pm 1.87)E+00$
Augusta Lock and Dam 614	13	$(2.05 \pm 3.54)E+00$	$(1.34 \pm 0.47)E+01$	$(-1.06 \pm 1.43)E+00$
Highway 301 @ state line	12	$(1.50 \pm 2.97)E+00$	$(8.00 \pm 3.48)E+00$	$(-1.69 \pm 1.54)E+00$
100-Mile-Radius				
Savannah, Ga.	13	$(3.37 \pm 2.08)E+00$	$(6.58 \pm 4.16)E+00$	$(-0.19 \pm 1.41)E+00$

Table 14
Thermoluminescent Dosimeter (TLD) Results —
SRS Areas

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Quarterly Exposure in mR/Day
 Yearly Exposure in mR/Year

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
Notes: 1. mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location. 2. An 18% uncertainty is associated with each result. 3. Blank spaces indicate missing TLD results.					
643-26E 1	0.30	0.29	0.27	0.27	103
643-26E 2	0.24	0.23	0.21	0.21	83
643-7G 1	0.28	0.27	0.24	0.25	95
643-7G 2	0.29	0.28	0.26	0.26	99
643-7G 3	0.30	0.29	0.27	0.27	104
643-7G 4	0.66	0.51	0.43	0.39	183
643-G 1	0.25	0.24	0.23	0.23	87
643-G 2	0.31	0.30	0.29	0.29	107
643-G 3	0.51	0.44	0.38	0.35	154
643-G 4	0.33	0.30	0.29	0.30	111
A 1	0.25	0.24	0.22	0.22	85
A 2	0.33	0.30	0.30	0.31	114
A 3	0.27	0.26	0.23	0.23	91
A 4	0.30	0.28	0.26	0.26	100
A 5	0.25	0.25	0.23	0.23	87
A 6	0.26	0.26	0.24	0.24	92
A 7	0.29	0.28	0.26	0.27	100
A 8	0.21	0.20	0.19	0.21	73
B 1	0.23	0.24	0.21	0.22	82
B 2	0.22	0.22	0.20	0.20	76
B 3	0.22	0.21	0.20		77
B 4	0.22	0.22	0.20		78
F 1	0.24	0.22	0.21	0.20	80
F 2	0.26	0.25	0.24	0.23	90
F 3	0.27	0.27	0.25	0.25	95
F 4	0.29	0.28	0.26	0.26	99
F 5	0.40	0.39	0.36	0.36	138

Table 14
Thermoluminescent Dosimeter (TLD) Results —
SRS Areas

Page 2 of 3

Quarterly Exposure in mR/Day
 Yearly Exposure in mR/Year

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
F 6	0.30	0.28	0.27	0.26	102
H 1	0.27	0.26	0.24	0.25	94
H 2	0.28	0.23	0.27	0.27	101
H 3	0.28	0.27	0.25	0.25	96
H 4	0.40	0.39	0.38	0.40	144
H 5	0.45	0.39	0.41	0.41	151
H 6	0.28	0.27	0.25	0.25	97
H 7	0.29	0.28	0.26	0.26	100
H 8	0.31	0.30	0.29	0.29	109
K 1	0.22	0.20	0.19	0.21	76
K 2	0.21	0.18	0.17	0.19	69
K 3	0.28	0.25	0.24	0.26	93
K 4	0.24	0.20	0.20	0.21	77
L 1	0.23	0.21	0.20		79
L 2	0.23	0.20	0.19	0.21	76
L 3	0.24	0.21	0.20	0.22	79
L 4	0.25	0.22	0.22	0.24	86
N 1	0.29	0.25	0.25	0.26	96
N 2	0.30	0.26	0.26	0.28	101
N 3	0.38	0.34	0.34	0.35	129
N 4	0.36	0.31	0.32	0.34	121
N 5	0.60	0.47	0.51	0.56	196
P 1	0.25	0.22	0.22	0.24	85
P 2	0.22	0.19	0.19	0.20	74
P 3	0.23	0.20	0.20	0.22	78
P 4	0.25	0.22	0.21	0.22	82
R 1	0.22	0.20	0.19	0.21	75
R 2	0.25	0.21	0.21	0.21	81
R 3	0.21	0.18	0.17		69
R 4	0.25	0.21	0.20	0.22	81
R 5	0.24	0.21	0.20	0.22	80
R 6	0.23	0.2	0.19	0.21	76

Table 14
Thermoluminescent Dosimeter (TLD) Results —
SRS Areas

Page 3 of 3

Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
R 7	0.23	0.21	0.20	0.22	79
RR 1	0.26	0.26	0.23	0.24	90
RR 2	0.28	0.27	0.25	0.25	95
S 1	0.28	0.28	0.26	0.26	99
S 2	0.36	0.34	0.30	0.30	119
S 3	0.33	0.33	0.30	0.30	116
S 4	0.33	0.31	0.30	0.30	113
Z 1	0.23	0.22	0.20	0.20	77
Z 2	0.21	0.21	0.19	0.20	74
Z 3	0.21	0.21	0.19	0.19	73
Z 4	0.26	0.25	0.23	0.23	88

Table 15
Thermoluminescent Dosimeter (TLD) Results —
Site Perimeter Stations

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Quarterly Exposure in mR/Day
 Yearly Exposure in mR/Year

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
Notes: 1. mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location. 2. An 18% uncertainty is associated with each result. 3. Blank spaces indicate missing TLD results.					
PP 15	0.19	0.21	0.19	0.19	71
PP 42	0.21	0.22	0.20	0.21	76
PP 48	0.19	0.20	0.17	0.19	68
PP 51	0.18	0.19	0.17	0.18	66
PP 57D	0.18	0.19		0.18	67
PP 61B	0.18	0.19	0.18	0.19	67
PP 65D	0.23	0.23	0.21	0.22	81
PP 72B	0.19	0.20		0.18	69
PP 75D	0.16	0.18	0.15	0.16	59

Table 16
Thermoluminescent Dosimeter (TLD) Results —
Environmental Surveillance (Air Monitoring) Stations

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Quarterly Exposure in mR/Day
 Yearly Exposure in mR/Year

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
Notes: 1. mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location. 2. An 18% uncertainty is associated with each result. 3. Blank spaces indicate missing TLD results.					
A Area	0.24	0.25	0.24	0.25	90
BGN	0.31	0.28	0.26	0.29	104
BGS	0.25	0.22	0.21	0.25	85
F Area	0.31	0.28	0.26	0.30	105
H Area	0.26	0.23	0.25	0.27	93
A-14	0.18	0.19	0.18	0.19	67
Aiken	0.22	0.22	0.21	0.22	79
Allendale	0.16	0.18	0.15	0.17	60
Barnwell	0.20	0.21	0.19	0.20	72
D Area	0.22	0.21	0.18	0.20	74
Dark Horse	0.19	0.20	0.18	0.20	70
East Talatha	0.17		0.17	0.18	64
Green Pond	0.18	0.20	0.18	0.19	68
Hwy 21/167	0.27	0.26	0.25	0.26	94
Hwy 39	0.19	0.20	0.19	0.20	71
Jackson	0.21	0.21	0.20	0.21	76
Patt Mill Rd	0.17	0.19	0.17	0.17	64
West Jackson		0.24	0.23	0.25	89
Windsor Rd	0.15	0.15	0.15	0.16	56
Aiken Airport	0.16	0.16	0.16	0.15	57
Augusta L&D	0.22	0.23	0.23	0.22	82
Hwy 301	0.23	0.22	0.23	0.22	82
Savannah 1	0.19		0.18	0.18	67
Savannah 2	0.16		0.15	0.16	57

Table 17
Thermoluminescent Dosimeter (TLD) Results —
Population Centers

Page 1 of 1

Quarterly Exposure in mR/Day
 Yearly Exposure in mR/Year

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
<i>Notes: 1. mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.</i> <i>2. An 18% uncertainty is associated with each result.</i> <i>3. Blank spaces indicate missing TLD results.</i>					
Barnwell	0.23	0.21	0.19	0.21	77
Beech Island	0.28	0.25	0.27	0.28	99
Jackson		0.23	0.21		80
Martin	0.19	0.17	0.15		62
Williston	0.32	0.28	0.27	0.30	108
Windsor	0.16	0.14	0.14	0.16	56
New Ellenton	0.29	0.26	0.24		97
Girard	0.28	0.23	0.22	0.27	92
McBean	0.22	0.30	0.28	0.27	97

Table 18
Thermoluminescent Dosimeter (TLD) Results —
Vogtle Electric Generating Plant Vicinity

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Quarterly Exposure in mR/Day
 Yearly Exposure in mR/Year

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
<p><i>Notes: 1. mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.</i></p> <p><i>2. An 18% uncertainty is associated with each result.</i></p>					
GAP 1H	0.15	0.15	0.15	0.15	56
GAP 1L	0.15	0.15	0.15	0.15	56
GAP 2H	0.16	0.17	0.17	0.17	61
GAP 2L	0.17	0.17	0.17	0.17	62
GAP 3H	0.17	0.18	0.18	0.18	64
GAP 3L	0.16	0.17	0.17	0.17	62
GAP 4H	0.16	0.16	0.17	0.18	62
GAP 4L	0.16	0.16	0.17	0.18	61
GAP 5H	0.15	0.16	0.16	0.16	57
GAP 5L	0.14	0.13	0.12	0.16	49
NRC 1	0.28	0.53	0.21	0.19	110
NRC 2	0.17	0.15	0.16	0.14	56
NRC 3	0.17	0.16	0.16	0.15	59
NRC 4	0.19	0.18	0.19	0.17	66
NRC 5	0.25	0.24	0.24	0.23	88
NRC 6	0.20	0.18	0.19	0.17	67
NRC 7	0.18	0.17	0.18	0.16	63
NRC 8	0.14	0.12	0.15	0.12	50

Table 19
Radioactivity in Seepage Basin Water

Page 1 of 1

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/L				
EAV Basin North (E-004)	12	(3.16 $\pm$ 1.86)E+03	(7.34 $\pm$ 0.49)E+03	(8.99 $\pm$ 3.84)E+02
LSB-1 L-Area Seepage Basin	2	(2.07 $\pm$ 1.73)E+03	(3.29 $\pm$ 3.88)E+03	(0.84 $\pm$ 3.59)E+03
PSB-1 P-Area Seepage Basin	1	(0.49 $\pm$ 3.65)E+04		
SWDF Basin South (-001)	11	(9.34 $\pm$ 9.50)E+03	(3.60 $\pm$ 0.06)E+04	(2.10 $\pm$ 0.30)E+03
Co-60, pCi/L				
EAV Basin North (E-004)	12	(0.80 $\pm$ 1.90)E+00	(2.96 $\pm$ 1.78)E+00	(-3.65 $\pm$ 2.58)E+00
LSB-1 L-Area Seepage Basin	2	(3.62 $\pm$ 9.22)E+00	(1.01 $\pm$ 0.34)E+01	(-2.90 $\pm$ 3.40)E+00
PSB-1 P-Area Seepage Basin	1	(1.10 $\pm$ 0.34)E+01		
Cs-137, pCi/L				
EAV Basin North (E-004)	12	(0.32 $\pm$ 2.17)E+00	(3.06 $\pm$ 1.93)E+00	(-4.33 $\pm$ 2.33)E+00
LSB-1 L-Area Seepage Basin	2	(3.02 $\pm$ 5.37)E+00	(6.81 $\pm$ 2.82)E+00	(-0.78 $\pm$ 2.65)E+00
PSB-1 P-Area Seepage Basin	1	(1.85 $\pm$ 0.63)E+01		
Sr-89,90, pCi/L				
LSB-1 L-Area Seepage Basin	2	(3.16 $\pm$ 0.83)E+01	(3.75 $\pm$ 1.90)E+01	(2.57 $\pm$ 1.71)E+01
Gross Beta, pCi/L				
EAV Basin North (E-004)	12	(3.48 $\pm$ 1.51)E+00	(5.91 $\pm$ 1.35)E+00	(1.28 $\pm$ 0.67)E+00
LSB-1 L-Area Seepage Basin	2	(5.05 $\pm$ 6.20)E+00	(9.43 $\pm$ 4.27)E+00	(0.66 $\pm$ 4.06)E+00
PSB-1 P-Area Seepage Basin	1	(2.47 $\pm$ 0.54)E+01		
SWDF Basin South (-001)	11	(3.65 $\pm$ 0.70)E+00	(4.45 $\pm$ 1.82)E+00	(2.36 $\pm$ 1.41)E+00
Gross Alpha, pCi/L				
EAV Basin North (E-004)	12	(1.55 $\pm$ 1.22)E+00	(3.31 $\pm$ 1.22)E+00	(1.69 $\pm$ 3.73)E-01
LSB-1 L-Area Seepage Basin	2	(5.28 $\pm$ 5.52)E-01	(0.92 $\pm$ 1.59)E+00	(0.14 $\pm$ 1.95)E+00
PSB-1 P-Area Seepage Basin	1	(2.81 $\pm$ 2.65)E+00		
SWDF Basin South (-001)	11	(2.73 $\pm$ 2.05)E+00	(6.34 $\pm$ 1.74)E+00	(5.23 $\pm$ 4.36)E-01

Table 20
Radioactivity in Savannah River Site Stream Water

Page 1 of 7

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/L				
Tims Branch				
TB-5 near Road C	27	(7.32 $\pm$ 3.38)E+02	(1.40 $\pm$ 0.32)E+03	(-3.08 $\pm$ 3.86)E+02
Upper Three Runs				
Crouch Branch at Road 4	27	(1.35 $\pm$ 0.26)E+04	(2.10 $\pm$ 0.04)E+04	(8.74 $\pm$ 0.50)E+03
U3R-1A Treadway Bridge Road 8-1	52	(4.03 $\pm$ 2.87)E+02	(9.64 $\pm$ 3.64)E+02	(-2.32 $\pm$ 3.52)E+02
U3R-3 at Road C	16	(4.01 $\pm$ 2.34)E+03	(8.44 $\pm$ 0.35)E+03	(8.66 $\pm$ 3.79)E+02
U3R-4 at Road A	27	(3.29 $\pm$ 2.04)E+03	(7.90 $\pm$ 0.34)E+03	(9.13 $\pm$ 3.79)E+02
Four Mile Creek				
Caster Creek—southeast of C-Area	27	(3.40 $\pm$ 0.38)E+03	(4.25 $\pm$ 0.42)E+03	(2.73 $\pm$ 0.43)E+03
FM-2 at Road 4	27	(1.88 $\pm$ 0.54)E+04	(2.73 $\pm$ 0.04)E+04	(7.35 $\pm$ 0.50)E+03
FM-2B above F-Area effluent	27	(6.83 $\pm$ 1.60)E+04	(1.13 $\pm$ 0.05)E+05	(3.66 $\pm$ 0.41)E+04
FM-3A below F-Area effluent	27	(1.17 $\pm$ 0.27)E+06	(1.75 $\pm$ 0.01)E+06	(7.75 $\pm$ 0.13)E+05
FM-6 at Road A-12.2	27	(2.16 $\pm$ 0.41)E+05	(3.00 $\pm$ 0.02)E+05	(1.27 $\pm$ 0.01)E+05
FM-A7 at Road A-7	27	(3.49 $\pm$ 0.96)E+05	(5.33 $\pm$ 0.09)E+05	(1.58 $\pm$ 0.05)E+05
H-008 Outfall	27	(1.64 $\pm$ 0.77)E+03	(3.33 $\pm$ 0.36)E+03	(4.71 $\pm$ 3.90)E+02
HP-50 Tritium Facility Outfall	27	(1.48 $\pm$ 1.00)E+04	(3.54 $\pm$ 0.08)E+04	(2.09 $\pm$ 0.40)E+03
Twin Lakes—west of C-Area	27	(1.48 $\pm$ 0.14)E+04	(1.78 $\pm$ 0.06)E+04	(1.15 $\pm$ 0.04)E+04
Pen Branch				
IGB-21 800 feet south of Road 6-1	27	(5.74 $\pm$ 1.31)E+05	(8.22 $\pm$ 0.08)E+05	(2.32 $\pm$ 0.07)E+05
K-011 Outfall at B Road	27	(3.01 $\pm$ 0.98)E+05	(4.53 $\pm$ 0.02)E+05	(6.27 $\pm$ 0.10)E+04
PB-3 at Road A-13.2	25	(1.15 $\pm$ 0.34)E+05	(1.73 $\pm$ 0.01)E+05	(5.76 $\pm$ 0.08)E+04
Steel Creek				
SC-2A 1 mile above Road B	27	(2.05 $\pm$ 0.83)E+05	(2.95 $\pm$ 0.03)E+05	(7.37 $\pm$ 0.49)E+03
SC-4 Steel Creek at Road A	27	(1.81 $\pm$ 4.45)E+04	(2.04 $\pm$ 0.01)E+05	(7.75 $\pm$ 3.89)E+02
Lower Three Runs Creek				
L3R-1A at Road B	27	(1.43 $\pm$ 1.06)E+03	(3.86 $\pm$ 0.42)E+03	(3.76 $\pm$ 3.71)E+02
L3R-2 Patterson Mill Road	27	(1.32 $\pm$ 0.40)E+03	(2.15 $\pm$ 0.41)E+03	(7.42 $\pm$ 3.23)E+02

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Radioactivity in Savannah River Site Stream Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
L3R-3 at Highway 125	12	(6.37 $\pm$ 3.18)E+02	(9.84 $\pm$ 3.83)E+02	(0.85 $\pm$ 3.88)E+02
R-Area downstream of R-1	27	(0.62 $\pm$ 1.35)E+04	(7.06 $\pm$ 0.08)E+04	(9.20 $\pm$ 3.26)E+02
Co-60, pCi/L				
Upper Three Runs				
Crouch Branch at Road 4	27	(00.00 $\pm$ 3.30)E+00	(1.10 $\pm$ 0.91)E+01	(-6.30 $\pm$ 3.11)E+00
U3R-3 at Road C	16	(-0.75 $\pm$ 1.98)E+00	(2.90 $\pm$ 2.04)E+00	(-4.56 $\pm$ 3.01)E+00
U3R-4 at Road A	27	(0.87 $\pm$ 2.13)E+00	(6.18 $\pm$ 2.83)E+00	(-3.35 $\pm$ 2.55)E+00
Four Mile Creek				
FM-2 at Road 4	26	(0.76 $\pm$ 2.90)E+00	(8.93 $\pm$ 2.59)E+00	(-3.91 $\pm$ 2.81)E+00
FM-2B above F-Area effluent	26	(0.18 $\pm$ 2.29)E+00	(4.17 $\pm$ 1.94)E+00	(-4.53 $\pm$ 2.50)E+00
FM-3A below F-Area effluent	27	(0.65 $\pm$ 1.78)E+00	(4.18 $\pm$ 2.33)E+00	(-2.83 $\pm$ 1.77)E+00
FM-6 at Road A-12.2	27	(-0.15 $\pm$ 2.69)E+00	(5.49 $\pm$ 4.25)E+00	(-5.20 $\pm$ 2.92)E+00
FM-A7 at Road A-7	27	(0.08 $\pm$ 2.04)E+00	(3.69 $\pm$ 2.20)E+00	(-2.93 $\pm$ 2.59)E+00
H-008 Outfall	27	(-0.46 $\pm$ 2.92)E+00	(4.09 $\pm$ 2.65)E+00	(-6.62 $\pm$ 2.63)E+00
HP-50 Tritium Facility Outfall	27	(-0.04 $\pm$ 2.41)E+00	(4.02 $\pm$ 2.21)E+00	(-5.96 $\pm$ 2.98)E+00
Pen Branch				
K-011 Outfall at B Road	27	(0.79 $\pm$ 2.38)E+00	(4.77 $\pm$ 2.23)E+00	(-4.43 $\pm$ 2.81)E+00
PB-3 at Road A-13.2	25	(1.06 $\pm$ 4.28)E+00	(1.16 $\pm$ 0.62)E+01	(-0.77 $\pm$ 1.02)E+01
Steel Creek				
SC-2A 1 mile above Road B	27	(1.01 $\pm$ 2.40)E+00	(6.07 $\pm$ 2.69)E+00	(-4.74 $\pm$ 2.82)E+00
SC-4 Steel Creek at Road A	27	(-0.37 $\pm$ 5.95)E+00	(1.46 $\pm$ 0.79)E+01	(-1.81 $\pm$ 0.94)E+01
Lower Three Runs Creek				
L3R-2 Patterson Mill Road	27	(0.61 $\pm$ 3.36)E+00	(1.26 $\pm$ 0.49)E+01	(-3.89 $\pm$ 1.98)E+00
L3R-3 at Highway 125	12	(-0.75 $\pm$ 2.58)E+00	(2.97 $\pm$ 2.17)E+00	(-5.16 $\pm$ 2.91)E+00
R-Area downstream of R-1	27	(0.16 $\pm$ 3.06)E+00	(5.71 $\pm$ 1.81)E+00	(-5.99 $\pm$ 2.73)E+00
Cs-137, pCi/L				
Upper Three Runs				
Crouch Branch at Road 4	27	(1.16 $\pm$ 3.34)E+00	(1.05 $\pm$ 1.04)E+01	(-3.92 $\pm$ 2.15)E+00
U3R-3 at Road C	16	(0.56 $\pm$ 1.86)E+00	(4.09 $\pm$ 2.16)E+00	(-3.27 $\pm$ 2.15)E+00
U3R-4 at Road A	27	(1.71 $\pm$ 1.46)E+00	(4.61 $\pm$ 1.65)E+00	(-0.76 $\pm$ 1.10)E+00

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Four Mile Creek				
FM-2 at Road 4	26	$(1.01 \pm 0.74)E+01$	$(3.22 \pm 0.50)E+01$	$(1.20 \pm 1.05)E+00$
FM-2B above F-Area effluent	27	$(6.22 \pm 3.83)E+00$	$(1.72 \pm 0.32)E+01$	$(-1.09 \pm 2.52)E+00$
FM-3A below F-Area effluent	27	$(2.11 \pm 2.85)E+00$	$(1.04 \pm 0.29)E+01$	$(-3.84 \pm 2.15)E+00$
FM-6 at Road A-12.2	27	$(2.99 \pm 5.59)E+00$	$(2.69 \pm 0.96)E+01$	$(-2.99 \pm 9.36)E+00$
FM-A7 at Road A-7	27	$(6.19 \pm 2.63)E+00$	$(1.24 \pm 0.30)E+01$	$(2.13 \pm 2.32)E+00$
H-008 Outfall	27	$(1.25 \pm 1.85)E+00$	$(5.98 \pm 2.42)E+00$	$(-2.05 \pm 2.51)E+00$
HP-50 Tritium Facility Outfall	27	$(0.89 \pm 1.36)E+00$	$(3.71 \pm 1.14)E+00$	$(-1.97 \pm 2.22)E+00$
Pen Branch				
K-011 Outfall at B Road	27	$(0.71 \pm 2.40)E+00$	$(8.28 \pm 3.17)E+00$	$(-4.42 \pm 2.33)E+00$
PB-3 at Road A-13.2	25	$(0.12 \pm 4.20)E+00$	$(9.47 \pm 8.26)E+00$	$(-1.02 \pm 0.87)E+01$
Steel Creek				
SC-2A 1 mile above Road B	27	$(3.39 \pm 2.47)E+00$	$(9.34 \pm 2.58)E+00$	$(-2.35 \pm 2.36)E+00$
SC-4 Steel Creek at Road A	27	$(0.21 \pm 6.29)E+00$	$(1.34 \pm 0.97)E+01$	$(-1.82 \pm 1.15)E+01$
Lower Three Runs Creek				
L3R-2 Patterson Mill Road	27	$(1.48 \pm 2.45)E+00$	$(8.71 \pm 3.40)E+00$	$(-2.21 \pm 2.11)E+00$
L3R-3 at Highway 125	12	$(1.21 \pm 3.03)E+00$	$(9.03 \pm 3.15)E+00$	$(-2.33 \pm 2.57)E+00$
R-Area downstream of R-1	27	$(9.43 \pm 4.83)E+00$	$(1.86 \pm 0.36)E+01$	$(1.05 \pm 1.98)E+00$
U-234, pCi/L				
Upper Three Runs				
U3R-4 at Road A	27	$(9.23 \pm 7.75)E-02$	$(3.77 \pm 0.36)E-01$	$(3.15 \pm 0.96)E-02$
Four Mile Creek				
FM-6 at Road A-12.2	27	$(1.67 \pm 1.63)E-01$	$(6.46 \pm 0.54)E-01$	$(4.17 \pm 1.16)E-02$
Pen Branch				
PB-3 at Road A-13.2	25	$(1.14 \pm 0.80)E-01$	$(3.88 \pm 0.38)E-01$	$(6.65 \pm 7.08)E-03$
Lower Three Runs Creek				
L3R-2 Patterson Mill Road	27	$(7.23 \pm 6.08)E-02$	$(2.38 \pm 0.27)E-01$	$(9.01 \pm 7.52)E-03$
U-235, pCi/L				
Upper Three Runs				
U3R-4 at Road A	27	$(5.59 \pm 6.40)E-03$	$(1.98 \pm 0.74)E-02$	$(-2.97 \pm 0.18)E-03$

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Four Mile Creek				
FM-6 at Road A-12.2	27	$(0.89 \pm 1.20)E-02$	$(3.75 \pm 0.97)E-02$	$(-1.32 \pm 0.41)E-02$
Pen Branch				
PB-3 at Road A-13.2	25	$(5.72 \pm 6.42)E-03$	$(2.30 \pm 1.04)E-02$	$(-3.07 \pm 3.81)E-03$
Lower Three Runs Creek				
L3R-2 Patterson Mill Road	27	$(2.80 \pm 4.39)E-03$	$(1.33 \pm 0.61)E-02$	$(-4.45 \pm 3.98)E-03$
U-238, pCi/L				
Upper Three Runs				
U3R-4 at Road A	27	$(1.03 \pm 0.83)E-01$	$(3.90 \pm 0.37)E-01$	$(-1.51 \pm 1.09)E-02$
Four Mile Creek				
FM-6 at Road A-12.2	27	$(2.02 \pm 1.88)E-01$	$(7.13 \pm 0.58)E-01$	$(4.42 \pm 1.20)E-02$
Pen Branch				
PB-3 at Road A-13.2	25	$(1.10 \pm 0.85)E-01$	$(3.55 \pm 0.35)E-01$	$(-1.85 \pm 2.12)E-02$
Lower Three Runs Creek				
L3R-2 Patterson Mill Road	27	$(5.60 \pm 4.92)E-02$	$(2.15 \pm 0.26)E-01$	$(-2.74 \pm 1.01)E-02$
Pu-238, pCi/L				
Upper Three Runs				
U3R-4 at Road A	27	$(0.41 \pm 1.11)E-02$	$(5.21 \pm 1.09)E-02$	$(-7.18 \pm 2.41)E-03$
Four Mile Creek				
FM-6 at Road A-12.2	27	$(5.22 \pm 8.46)E-03$	$(3.76 \pm 0.90)E-02$	$(-3.42 \pm 7.52)E-03$
Pen Branch				
PB-3 at Road A-13.2	25	$(2.42 \pm 9.10)E-03$	$(2.56 \pm 1.17)E-02$	$(-1.99 \pm 0.42)E-02$
Lower Three Runs Creek				
L3R-2 Patterson Mill Road	27	$(0.45 \pm 1.11)E-02$	$(5.39 \pm 1.08)E-02$	$(-7.02 \pm 2.50)E-03$
Pu-239, pCi/L				
Upper Three Runs				
U3R-4 at Road A	27	$(0.12 \pm 3.29)E-03$	$(6.19 \pm 3.59)E-03$	$(-7.11 \pm 1.86)E-03$
Four Mile Creek				
FM-6 at Road A-12.2	27	$(0.86 \pm 3.28)E-03$	$(9.25 \pm 6.28)E-03$	$(-5.16 \pm 1.83)E-03$
Pen Branch				
PB-3 at Road A-13.2	25	$(-1.62 \pm 3.04)E-03$	$(5.91 \pm 3.62)E-03$	$(-7.00 \pm 1.96)E-03$
Lower Three Runs Creek				
L3R-2 Patterson Mill Road	27	$(-0.64 \pm 1.69)E-03$	$(3.83 \pm 3.41)E-03$	$(-4.12 \pm 1.01)E-03$

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Sr-89,90, pCi/L				
Upper Three Runs				
Crouch Branch at Road 4	12	$(1.83 \pm 2.80)E-01$	$(6.69 \pm 4.03)E-01$	$(-3.69 \pm 3.52)E-01$
U3R-3 at Road C	7	$(1.25 \pm 3.73)E-01$	$(7.02 \pm 3.90)E-01$	$(-5.66 \pm 3.73)E-01$
U3R-4 at Road A	10	$(2.78 \pm 4.25)E-01$	$(9.48 \pm 4.43)E-01$	$(-3.41 \pm 3.38)E-01$
Four Mile Creek				
FM-2 at Road 4	12	$(3.30 \pm 1.26)E+00$	$(5.77 \pm 0.43)E+00$	$(1.35 \pm 0.54)E+00$
FM-2B above F-Area effluent	12	$(5.55 \pm 1.51)E+00$	$(8.19 \pm 0.75)E+00$	$(2.49 \pm 0.48)E+00$
FM-3 F-Area effluent	12	$(4.16 \pm 2.73)E-01$	$(8.27 \pm 3.94)E-01$	$(0.07 \pm 4.58)E-01$
FM-3A below F-Area effluent	12	$(8.43 \pm 6.18)E-01$	$(1.89 \pm 0.62)E+00$	$(-1.53 \pm 3.43)E-01$
FM-6 at Road A-12.2	12	$(4.29 \pm 0.51)E+00$	$(5.11 \pm 0.33)E+00$	$(3.47 \pm 0.25)E+00$
FM-A7 at Road A-7	12	$(8.60 \pm 2.42)E+00$	$(1.39 \pm 0.11)E+01$	$(4.39 \pm 0.58)E+00$
H-008 Outfall	12	$(2.28 \pm 3.84)E-01$	$(7.45 \pm 3.89)E-01$	$(-5.78 \pm 3.53)E-01$
Pen Branch				
IGB-21 800 feet south of Road 6-1	4	$(3.29 \pm 3.41)E-01$	$(7.19 \pm 4.53)E-01$	$(-1.11 \pm 4.58)E-01$
K-011 Outfall at B Road	12	$(3.08 \pm 3.89)E-01$	$(1.22 \pm 0.45)E+00$	$(-0.92 \pm 3.69)E-01$
PB-3 at Road A-13.2	12	$(1.68 \pm 2.46)E-01$	$(6.64 \pm 1.97)E-01$	$(-0.84 \pm 1.12)E-01$
Steel Creek				
SC-2A 1 mile above Road B	12	$(0.49 \pm 2.28)E-01$	$(4.73 \pm 3.86)E-01$	$(-3.59 \pm 3.57)E-01$
SC-4 Steel Creek at Road A	12	$(0.71 \pm 1.37)E-01$	$(3.58 \pm 1.55)E-01$	$(-0.56 \pm 1.21)E-01$
Lower Three Runs Creek				
L3R-1A at Road B	12	$(2.65 \pm 3.16)E-01$	$(7.13 \pm 4.53)E-01$	$(-3.05 \pm 3.38)E-01$
L3R-2 Patterson Mill Road	12	$(1.48 \pm 1.45)E-01$	$(3.62 \pm 1.82)E-01$	$(-0.32 \pm 1.37)E-01$
L3R-3 at Highway 125	12	$(0.74 \pm 2.83)E-01$	$(4.54 \pm 2.78)E-01$	$(-3.99 \pm 2.77)E-01$
Gross Beta, pCi/L				
Tims Branch				
TB-5 near Road C	27	$(2.23 \pm 0.96)E+00$	$(4.61 \pm 0.69)E+00$	$(2.50 \pm 4.51)E-01$
Upper Three Runs				
Crouch Branch at Road 4	27	$(1.28 \pm 0.59)E+00$	$(2.82 \pm 0.60)E+00$	$(3.52 \pm 4.45)E-01$
U3R-1A Treadway Bridge Road 8-1	52	$(1.74 \pm 0.87)E+00$	$(4.54 \pm 0.57)E+00$	$(4.90 \pm 4.38)E-01$

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
U3R-3 at Road C	16	(1.67 $\pm$ 0.62)E+00	(3.18 $\pm$ 0.59)E+00	(6.93 $\pm$ 5.48)E-01
U3R-4 at Road A	27	(1.78 $\pm$ 0.78)E+00	(3.78 $\pm$ 0.70)E+00	(6.36 $\pm$ 4.46)E-01
Four Mile Creek				
FM-2 at Road 4	27	(1.77 $\pm$ 1.08)E+01	(5.36 $\pm$ 0.18)E+01	(5.10 $\pm$ 0.67)E+00
FM-2B above F-Area effluent	27	(1.58 $\pm$ 0.52)E+01	(3.11 $\pm$ 0.15)E+01	(6.57 $\pm$ 0.67)E+00
FM-3A below F-Area effluent	27	(3.17 $\pm$ 0.97)E+00	(4.77 $\pm$ 0.69)E+00	(1.15 $\pm$ 0.48)E+00
FM-6 at Road A-12.2	27	(1.46 $\pm$ 0.46)E+01	(2.66 $\pm$ 0.10)E+01	(1.89 $\pm$ 0.56)E+00
FM-A7 at Road A-7	27	(2.35 $\pm$ 0.66)E+01	(4.00 $\pm$ 0.11)E+01	(1.11 $\pm$ 0.09)E+01
H-008 Outfall	27	(5.66 $\pm$ 1.44)E+00	(8.06 $\pm$ 0.79)E+00	(3.06 $\pm$ 0.56)E+00
HP-50 Tritium Facility Outfall	27	(4.63 $\pm$ 1.65)E+00	(8.49 $\pm$ 0.94)E+00	(8.44 $\pm$ 4.87)E-01
Pen Branch				
IGB-21 800 feet south of Road 6-1	4	(1.56 $\pm$ 0.91)E+00	(2.73 $\pm$ 0.53)E+00	(5.15 $\pm$ 4.28)E-01
K-011 Outfall at B Road	27	(1.58 $\pm$ 0.88)E+00	(5.21 $\pm$ 0.49)E+00	(4.45 $\pm$ 2.63)E-01
PB-3 at Road A-13.2	25	(1.95 $\pm$ 1.12)E+00	(4.78 $\pm$ 1.30)E+00	(3.33 $\pm$ 8.09)E-01
Steel Creek				
SC-2A 1 mile above Road B	27	(3.80 $\pm$ 1.18)E+00	(6.89 $\pm$ 0.74)E+00	(2.15 $\pm$ 0.46)E+00
SC-4 Steel Creek at Road A	27	(2.93 $\pm$ 3.31)E+00	(1.88 $\pm$ 0.13)E+01	(5.76 $\pm$ 8.34)E-01
Lower Three Runs Creek				
L3R-1A at Road B	26	(5.01 $\pm$ 3.94)E+00	(2.09 $\pm$ 0.29)E+01	(3.78 $\pm$ 4.60)E-01
L3R-2 Patterson Mill Road	27	(2.54 $\pm$ 1.12)E+00	(6.60 $\pm$ 0.85)E+00	(1.11 $\pm$ 0.50)E+00
L3R-3 at Highway 125	12	(1.76 $\pm$ 0.62)E+00	(2.62 $\pm$ 0.56)E+00	(8.51 $\pm$ 5.49)E-01
R-Area downstream of R-1	27	(8.30 $\pm$ 3.38)E+00	(1.64 $\pm$ 0.11)E+01	(1.40 $\pm$ 0.53)E+00
Gross Alpha, pCi/L				
Tims Branch				
TB-5 near Road C	27	(3.83 $\pm$ 2.09)E+00	(8.45 $\pm$ 1.17)E+00	(8.73 $\pm$ 3.79)E-01
Upper Three Runs				
Crouch Branch at Road 4	27	(4.27 $\pm$ 4.02)E-01	(1.45 $\pm$ 0.51)E+00	(-1.59 $\pm$ 2.30)E-01
U3R-1A Treadway Bridge Road 8-1	52	(3.13 $\pm$ 1.40)E+00	(6.81 $\pm$ 0.79)E+00	(5.53 $\pm$ 3.05)E-01
U3R-3 at Road C	16	(2.37 $\pm$ 0.95)E+00	(4.77 $\pm$ 0.74)E+00	(2.30 $\pm$ 2.31)E-01
U3R-4 at Road A	27	(2.83 $\pm$ 1.70)E+00	(8.51 $\pm$ 1.05)E+00	(3.49 $\pm$ 2.55)E-01

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Four Mile Creek				
FM-2 at Road 4	27	$(4.80 \pm 3.48)E+00$	$(1.36 \pm 0.14)E+01$	$(1.25 \pm 0.44)E+00$
FM-2B above F-Area effluent	27	$(1.08 \pm 0.79)E+00$	$(3.43 \pm 0.84)E+00$	$(3.03 \pm 2.88)E-01$
FM-3A below F-Area effluent	27	$(1.72 \pm 0.99)E+00$	$(4.48 \pm 0.91)E+00$	$(1.15 \pm 2.58)E-01$
FM-6 at Road A-12.2	27	$(1.72 \pm 2.08)E+00$	$(1.00 \pm 0.10)E+01$	$(1.13 \pm 2.51)E-01$
FM-A7 at Road A-7	27	$(3.59 \pm 2.58)E+00$	$(1.32 \pm 0.10)E+01$	$(2.75 \pm 3.69)E-01$
H-008 Outfall	27	$(3.86 \pm 1.50)E+00$	$(6.53 \pm 1.03)E+00$	$(1.33 \pm 0.44)E+00$
HP-50 Tritium Facility Outfall	27	$(4.43 \pm 1.62)E+00$	$(7.13 \pm 1.03)E+00$	$(-1.34 \pm 1.30)E-01$
Pen Branch				
IGB-21 800 feet south of Road 6-1	4	$(6.58 \pm 6.27)E-01$	$(1.51 \pm 0.49)E+00$	$(0.37 \pm 2.32)E-01$
K-011 Outfall at B Road	27	$(2.66 \pm 2.73)E-01$	$(9.35 \pm 2.83)E-01$	$(-0.98 \pm 1.01)E-01$
PB-3 at Road A-13.2	25	$(1.28 \pm 1.00)E+00$	$(4.29 \pm 0.92)E+00$	$(0.25 \pm 4.19)E-01$
Steel Creek				
SC-2A 1 mile above Road B	27	$(1.20 \pm 0.90)E+00$	$(3.60 \pm 0.73)E+00$	$(2.23 \pm 2.54)E-01$
SC-4 Steel Creek at Road A	27	$(1.64 \pm 1.41)E+00$	$(5.35 \pm 0.92)E+00$	$(-1.63 \pm 1.49)E-01$
Lower Three Runs Creek				
L3R-1A at Road B	26	$(2.37 \pm 4.45)E+00$	$(2.09 \pm 0.38)E+01$	$(-1.49 \pm 1.35)E-01$
L3R-2 Patterson Mill Road	27	$(1.33 \pm 1.13)E+00$	$(5.61 \pm 1.09)E+00$	$(-0.01 \pm 1.82)E-01$
L3R-3 at Highway 125	12	$(8.43 \pm 5.86)E-01$	$(1.70 \pm 0.52)E+00$	$(-0.99 \pm 1.96)E-01$
R-Area downstream of R-1	27	$(4.30 \pm 4.50)E-01$	$(1.88 \pm 0.56)E+00$	$(-1.31 \pm 1.30)E-01$

Table 21
Radioactivity in Savannah River Water

Page 1 of 2

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/L				
Savannah River				
River Mile 120	52	$(1.10 \pm 0.45)E+03$	$(2.58 \pm 0.08)E+03$	$(3.70 \pm 1.15)E+02$
River Mile 140	52	$(1.34 \pm 0.50)E+03$	$(2.88 \pm 0.09)E+03$	$(4.33 \pm 1.40)E+02$
River Mile 150	52	$(1.39 \pm 0.70)E+03$	$(2.71 \pm 0.15)E+03$	$(0.20 \pm 1.12)E+02$
River Mile 160	52	$(1.37 \pm 1.26)E+02$	$(4.28 \pm 1.09)E+02$	$(-1.18 \pm 1.04)E+02$
Vogtle Discharge	52	$(1.40 \pm 1.86)E+03$	$(8.30 \pm 0.20)E+03$	$(0.59 \pm 1.33)E+02$
Co-60, pCi/L				
Savannah River				
River Mile 120	52	$(0.54 \pm 4.23)E-01$	$(1.04 \pm 0.56)E+00$	$(-1.21 \pm 0.43)E+00$
River Mile 140	52	$(0.28 \pm 5.99)E-01$	$(1.52 \pm 0.69)E+00$	$(-1.72 \pm 2.56)E+00$
River Mile 150	52	$(1.74 \pm 6.64)E-01$	$(2.91 \pm 0.77)E+00$	$(-1.15 \pm 0.49)E+00$
River Mile 160	52	$(0.15 \pm 5.13)E-01$	$(2.57 \pm 1.67)E+00$	$(-1.19 \pm 0.49)E+00$
Vogtle Discharge	52	$(1.31 \pm 6.90)E-01$	$(2.17 \pm 0.60)E+00$	$(-1.69 \pm 0.95)E+00$
Cs-137, pCi/L				
Savannah River				
River Mile 120	52	$(0.71 \pm 4.54)E-01$	$(7.49 \pm 2.76)E-01$	$(-1.43 \pm 0.56)E+00$
River Mile 140	52	$(2.16 \pm 5.46)E-01$	$(1.84 \pm 2.32)E+00$	$(-9.79 \pm 4.82)E-01$
River Mile 150	52	$(1.75 \pm 3.40)E-01$	$(1.23 \pm 0.98)E+00$	$(-6.65 \pm 4.05)E-01$
River Mile 160	52	$(0.27 \pm 4.25)E-01$	$(7.03 \pm 4.01)E-01$	$(-1.49 \pm 0.57)E+00$
Vogtle Discharge	52	$(0.95 \pm 6.52)E-01$	$(1.12 \pm 1.12)E+00$	$(-2.66 \pm 1.35)E+00$
Pu-238, pCi/L				
Savannah River				
River Mile 120	1	$(1.59 \pm 1.31)E-03$		
River Mile 140	1	$(2.84 \pm 2.68)E-03$		
River Mile 150	1	$(0.72 \pm 2.48)E-03$		
River Mile 160	1	$(0.30 \pm 1.31)E-03$		
Vogtle Discharge	1	$(-1.48 \pm 1.00)E-03$		
Pu-239, pCi/L				
Savannah River				
River Mile 120	1	$(0.22 \pm 1.07)E-03$		
River Mile 140	1	$(2.70 \pm 2.97)E-03$		
River Mile 150	1	$(-9.70 \pm 6.25)E-04$		

Table 21
Radioactivity in Savannah River Water

Page 2 of 2

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
River Mile 160	1	$(-0.36 \pm 1.18)E-03$		
Vogtle Discharge	1	$(-0.71 \pm 1.24)E-03$		
Sr-89,90				
Savannah River				
River Mile 120	1	$(1.00 \pm 1.46)E-01$		
River Mile 140	1	$(2.02 \pm 0.98)E-01$		
River Mile 150	1	$(2.85 \pm 1.00)E-01$		
River Mile 160	1	$(1.57 \pm 1.03)E-01$		
Vogtle Discharge	1	$(1.68 \pm 1.50)E-01$		
Gross Beta, pCi/L				
Savannah River				
River Mile 120	52	$(1.84 \pm 0.42)E+00$	$(2.80 \pm 0.46)E+00$	$(9.01 \pm 3.97)E-01$
River Mile 140	52	$(2.03 \pm 0.60)E+00$	$(4.05 \pm 0.75)E+00$	$(8.38 \pm 4.92)E-01$
River Mile 150	52	$(1.90 \pm 0.65)E+00$	$(4.56 \pm 0.84)E+00$	$(9.01 \pm 3.97)E-01$
River Mile 160	52	$(1.73 \pm 0.64)E+00$	$(2.97 \pm 0.67)E+00$	$(4.13 \pm 4.92)E-01$
Vogtle Discharge	52	$(1.95 \pm 0.55)E+00$	$(3.39 \pm 0.67)E+00$	$(5.60 \pm 4.07)E-01$
Gross Alpha, pCi/L				
Savannah River				
River Mile 120	52	$(0.90 \pm 2.03)E-01$	$(6.43 \pm 3.03)E-01$	$(-2.67 \pm 1.58)E-01$
River Mile 140	52	$(2.51 \pm 3.42)E-01$	$(1.35 \pm 0.55)E+00$	$(-2.07 \pm 2.83)E-01$
River Mile 150	52	$(1.78 \pm 2.61)E-01$	$(1.07 \pm 0.48)E+00$	$(-3.40 \pm 2.10)E-01$
River Mile 160	52	$(2.23 \pm 2.57)E-01$	$(7.41 \pm 4.08)E-01$	$(-3.26 \pm 1.85)E-01$
Vogtle Discharge	52	$(2.45 \pm 3.15)E-01$	$(1.28 \pm 0.51)E+00$	$(-2.10 \pm 2.70)E-01$

Table 22
Summary of SRS Tritium Transport, 1960–1997

Page 1 of 1

Year	Estimated Tritium Transport (Ci)		
	Based on Point-of-Release Concentrations and Flow Rates ^a	Based on Stream Concentrations and Flow Rates	Based on Savannah River Concentrations and Flow Rates
1960	64,000 ^b	69,600	73,700
1961	69,000 ^b	83,000	77,000
1962	58,000 ^b	64,000	63,000
1963	97,000 ^b	96,900	122,800
1964	111,000 ^b	131,600	143,000
1965	108,400	109,200	100,200
1966	84,900	97,800	78,300
1967	70,600	77,000	68,500
1968	63,800	67,200	61,800
1969	64,600	64,000	58,100
1970	36,900	43,200	31,800
1971	38,200	44,700	39,100
1972	46,800	47,300	45,300
1973	71,100	62,800	61,100
1974	59,900	54,600	46,000
1975	55,600	50,000	49,500
1976	59,600	47,400	51,100
1977	43,800	39,700	42,500
1978	37,600	35,300	36,600
1979	29,400	27,100	30,600
1980	24,900	28,800	30,700
1981	23,900	22,100	25,100
1982	32,200	31,300	30,600
1983	34,200	33,000	33,000
1984	32,800	32,600	33,200
1985	25,000	22,300	24,100
1986	27,800	22,300	22,100
1987	22,700	20,500	26,200
1988	19,300	18,300	14,600
1989	17,300	17,800	15,600
1990	16,100	15,600	14,500
1991	27,400	26,600	26,300
1992	13,800	13,100	13,800
1993	11,300	12,700	12,200
1994	8,800	10,400	10,900
1995	9,900	11,400	10,700
1996	7,560	8,020	8,950
1997	8,350	8,550	7,700

^a Includes direct releases to streams and migration from seepage basins and the Solid Waste Disposal Facility to streams

^b Includes heat exchanger cooling water released from P-Area (of PAR Pond origin) to Steel Creek

Table 23
Radioactivity in Drinking Water

Page 1 of 10

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/L				
Onsite				
105-C C-Area domestic water faucet	12	(2.67 $\pm$ 5.21)E+01	(1.17 $\pm$ 1.29)E+02	(-0.61 $\pm$ 1.29)E+02
105-K K-Area domestic water faucet	12	(7.39 $\pm$ 9.59)E+01	(2.22 $\pm$ 1.06)E+02	(-0.78 $\pm$ 1.05)E+02
105-L L-Area domestic water faucet	12	(7.67 $\pm$ 9.24)E+01	(2.96 $\pm$ 1.34)E+02	(-4.99 $\pm$ 9.34)E+01
221-F F-Area domestic water faucet	10	(0.01 $\pm$ 1.03)E+02	(1.18 $\pm$ 1.33)E+02	(-2.05 $\pm$ 1.05)E+02
221-H H-Area domestic water faucet	12	(0.46 $\pm$ 1.31)E+02	(2.06 $\pm$ 1.32)E+02	(-1.96 $\pm$ 1.31)E+02
241-24H H-Area domestic water faucet	4	(1.46 $\pm$ 0.71)E+02	(2.53 $\pm$ 1.32)E+02	(1.04 $\pm$ 1.39)E+02
617-G Wackenhut Training Facility	4	(2.85 $\pm$ 1.51)E+02	(4.76 $\pm$ 1.42)E+02	(1.12 $\pm$ 1.35)E+02
618-G Class. yard lunchroom	4	(0.13 $\pm$ 1.28)E+02	(1.32 $\pm$ 1.40)E+02	(-1.63 $\pm$ 1.05)E+02
661-G Firing Range (pumphouse)	4	(7.44 $\pm$ 1.65)E+02	(9.36 $\pm$ 1.42)E+02	(5.53 $\pm$ 1.08)E+02
679-T TNX domestic water faucet	4	(1.32 $\pm$ 3.17)E+02	(5.97 $\pm$ 1.00)E+02	(-1.16 $\pm$ 1.31)E+02
681-3G domestic water faucet	3	(0.19 $\pm$ 1.82)E+02	(2.00 $\pm$ 1.40)E+02	(-1.63 $\pm$ 1.04)E+02
701-12G Patrol Gate 7	4	(2.20 $\pm$ 1.14)E+02	(3.48 $\pm$ 1.07)E+02	(0.77 $\pm$ 1.38)E+02
701-13G Patrol Gate 6	4	(2.24 $\pm$ 0.13)E+03	(2.38 $\pm$ 0.15)E+03	(2.06 $\pm$ 0.12)E+03
701-1F F-Area domestic water faucet	4	(-1.95 $\pm$ 7.60)E+01	(0.72 $\pm$ 1.06)E+02	(-0.94 $\pm$ 1.32)E+02
701-1F H-Area domestic water faucet	4	(8.08 $\pm$ 9.22)E+01	(1.91 $\pm$ 1.34)E+02	(-0.04 $\pm$ 1.05)E+02
701-3G Barnwell Gate	4	(0.83 $\pm$ 1.18)E+02	(1.87 $\pm$ 1.32)E+02	(-0.85 $\pm$ 1.03)E+02
701-4G Williston Gate	4	(1.92 $\pm$ 1.53)E+02	(3.79 $\pm$ 1.38)E+02	(0.37 $\pm$ 1.06)E+02
701-5G Talatha Gate	4	(7.78 $\pm$ 2.41)E+02	(1.04 $\pm$ 0.14)E+03	(5.07 $\pm$ 1.35)E+02
701-6G Jackson Gate	4	(3.00 $\pm$ 4.10)E+01	(0.58 $\pm$ 1.04)E+02	(-0.29 $\pm$ 1.38)E+02
701-8G Patrol Gate 8	4	(1.73 $\pm$ 0.12)E+03	(1.91 $\pm$ 0.11)E+03	(1.63 $\pm$ 0.12)E+03
703-A EOC (kitchen)	4	(0.21 $\pm$ 1.36)E+02	(1.95 $\pm$ 1.38)E+02	(-1.07 $\pm$ 1.31)E+02
704-F F-Area domestic water faucet	4	(0.42 $\pm$ 1.23)E+02	(1.39 $\pm$ 1.31)E+02	(-1.36 $\pm$ 1.06)E+02
704-H H-Area domestic water faucet	4	(0.34 $\pm$ 1.49)E+02	(2.03 $\pm$ 1.33)E+02	(-1.58 $\pm$ 1.06)E+02

Table 23
Radioactivity in Drinking Water

Page 2 of 10

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
704-S S-Area domestic water faucet	4	$(0.97 \pm 2.43)E+02$	$(3.33 \pm 1.39)E+02$	$(-2.43 \pm 1.31)E+02$
708-A A-Area cafeteria (restroom)	4	$(1.31 \pm 1.27)E+02$	$(2.52 \pm 1.06)E+02$	$(0.19 \pm 1.36)E+02$
735-7G PAR Pond lab	4	$(-0.76 \pm 1.02)E+02$	$(0.12 \pm 1.36)E+02$	$(-2.16 \pm 1.27)E+02$
760-G Forestry Building	4	$(2.80 \pm 5.00)E+02$	$(1.02 \pm 0.15)E+03$	$(-0.45 \pm 1.31)E+02$
772-F F-Area domestic water faucet	4	$(1.07 \pm 0.77)E+02$	$(1.52 \pm 1.31)E+02$	$(-0.08 \pm 1.04)E+02$
TC-1 B-Area cafeteria	1	$(-8.24 \pm 9.76)E+01$		
Z-Area Building 704-Z	4	$(0.31 \pm 1.16)E+02$	$(1.88 \pm 0.99)E+02$	$(-8.43 \pm 7.46)E+01$
Treatment Plants—Raw				
Beaufort Public Water Works	12	$(8.58 \pm 2.37)E+02$	$(1.17 \pm 0.14)E+03$	$(3.55 \pm 0.97)E+02$
N. Augusta Public Water Works	12	$(1.66 \pm 0.77)E+02$	$(3.08 \pm 1.36)E+02$	$(0.41 \pm 1.33)E+02$
Savannah Public Water Works	12	$(9.55 \pm 2.89)E+02$	$(1.55 \pm 0.10)E+03$	$(6.21 \pm 1.34)E+02$
EMS Sampler				
Beaufort Public Water Works	24	$(8.84 \pm 2.66)E+02$	$(1.48 \pm 0.10)E+03$	$(3.88 \pm 1.39)E+02$
Treatment Plants—Finished				
Beaufort Public Water Works	12	$(9.17 \pm 2.12)E+02$	$(1.30 \pm 0.14)E+03$	$(6.40 \pm 1.41)E+02$
N. Augusta Public Water Works	12	$(1.73 \pm 1.56)E+02$	$(4.08 \pm 1.37)E+02$	$(-1.03 \pm 1.33)E+02$
Savannah Public Water Works	12	$(9.66 \pm 2.56)E+02$	$(1.55 \pm 0.14)E+03$	$(6.61 \pm 1.09)E+02$
Co-60, pCi/L				
Onsite				
105-C C-Area domestic water faucet	8	$(-0.72 \pm 1.96)E+00$	$(2.47 \pm 2.08)E+00$	$(-3.22 \pm 2.80)E+00$
105-K K-Area domestic water faucet	8	$(-0.67 \pm 1.40)E+00$	$(0.98 \pm 2.34)E+00$	$(-3.13 \pm 2.33)E+00$
105-L L-Area domestic water faucet	8	$(0.54 \pm 2.46)E+00$	$(4.10 \pm 2.89)E+00$	$(-3.55 \pm 2.86)E+00$
221-F F-Area domestic water faucet	6	$(-2.16 \pm 1.83)E+00$	$(-0.02 \pm 1.89)E+00$	$(-4.15 \pm 3.03)E+00$
221-H H-Area domestic water faucet	8	$(0.84 \pm 2.62)E+00$	$(5.55 \pm 2.59)E+00$	$(-2.42 \pm 2.82)E+00$

Table 23
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
241-24H H-Area domestic water faucet	2	$(4.68 \pm 8.90)E-01$	$(1.10 \pm 2.21)E+00$	$(-0.16 \pm 1.92)E+00$
617-G Wackenhut Training Facility	3	$(-0.53 \pm 2.58)E+00$	$(1.67 \pm 1.86)E+00$	$(-3.37 \pm 2.48)E+00$
618-G Class. yard lunchroom	3	$(-1.08 \pm 2.06)E+00$	$(0.49 \pm 2.66)E+00$	$(-3.41 \pm 2.97)E+00$
661-G Firing Range (pumphouse)	3	$(1.12 \pm 1.63)E+00$	$(2.39 \pm 1.65)E+00$	$(-0.72 \pm 2.92)E+00$
679-T TNX domestic water faucet	3	$(-0.22 \pm 1.18)E+00$	$(1.13 \pm 2.39)E+00$	$(-1.08 \pm 1.50)E+00$
681-3G domestic water faucet	2	$(0.99 \pm 3.72)E+00$	$(3.62 \pm 2.30)E+00$	$(-1.64 \pm 1.70)E+00$
701-12G Patrol Gate 7	3	$(5.61 \pm 9.20)E-01$	$(1.10 \pm 2.39)E+00$	$(-0.50 \pm 2.21)E+00$
701-13G Patrol Gate 6	3	$(-1.62 \pm 1.40)E+00$	$(-0.07 \pm 2.31)E+00$	$(-2.77 \pm 2.77)E+00$
701-1F F-Area domestic water faucet	3	$(-0.06 \pm 2.07)E+00$	$(1.80 \pm 2.88)E+00$	$(-2.29 \pm 2.82)E+00$
701-1F H-Area domestic water faucet	3	$(0.53 \pm 1.79)E+00$	$(1.82 \pm 1.82)E+00$	$(-1.51 \pm 1.73)E+00$
701-3G Barnwell Gate	3	$(-1.64 \pm 1.72)E+00$	$(0.34 \pm 1.32)E+00$	$(-2.80 \pm 1.86)E+00$
701-4G Williston Gate	3	$(-2.92 \pm 5.70)E-01$	$(0.29 \pm 2.83)E+00$	$(-0.85 \pm 1.20)E+00$
701-5G Talatha Gate	3	$(-2.79 \pm 2.71)E+00$	$(-0.57 \pm 2.46)E+00$	$(-5.82 \pm 2.37)E+00$
701-6G Jackson Gate	3	$(0.72 \pm 3.06)E+00$	$(4.17 \pm 1.24)E+00$	$(-1.66 \pm 2.53)E+00$
701-8G Patrol Gate 8	3	$(0.19 \pm 1.13)E+00$	$(1.35 \pm 2.71)E+00$	$(-0.89 \pm 1.07)E+00$
703-A EOC (kitchen)	3	$(-1.54 \pm 3.22)E+00$	$(1.33 \pm 1.75)E+00$	$(-5.02 \pm 2.69)E+00$
704-F F-Area domestic water faucet	3	$(0.95 \pm 4.86)E+00$	$(6.51 \pm 2.37)E+00$	$(-2.46 \pm 2.81)E+00$
704-H H-Area domestic water faucet	3	$(-3.53 \pm 3.65)E+00$	$(-0.49 \pm 1.46)E+00$	$(-7.57 \pm 3.07)E+00$
704-S S-Area domestic water faucet	3	$(-2.00 \pm 1.86)E+00$	$(-0.63 \pm 3.10)E+00$	$(-4.12 \pm 2.76)E+00$
708-A A-Area cafeteria (restroom)	3	$(-2.30 \pm 1.42)E+00$	$(-0.76 \pm 2.65)E+00$	$(-3.56 \pm 2.49)E+00$
735-7G PAR Pond lab	3	$(0.19 \pm 2.81)E+00$	$(3.02 \pm 1.98)E+00$	$(-2.61 \pm 1.69)E+00$
760-G Forestry Building	3	$(0.21 \pm 2.49)E+00$	$(3.02 \pm 1.85)E+00$	$(-1.76 \pm 2.63)E+00$
772-F F-Area domestic water faucet	2	$(4.65 \pm 2.16)E+00$	$(6.18 \pm 2.41)E+00$	$(3.13 \pm 1.93)E+00$
Z-Area Building 704-Z	3	$(-0.96 \pm 2.01)E+00$	$(0.31 \pm 2.66)E+00$	$(-3.28 \pm 2.94)E+00$

Table 23
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Treatment Plants—Raw				
Beaufort Public Water Works	12	$(-0.80 \pm 3.32)E+00$	$(5.50 \pm 2.39)E+00$	$(-7.57 \pm 2.48)E+00$
N. Augusta Public Water Works	12	$(-0.24 \pm 2.59)E+00$	$(3.92 \pm 2.60)E+00$	$(-3.60 \pm 1.95)E+00$
Savannah Public Water Works	12	$(-0.49 \pm 2.40)E+00$	$(3.83 \pm 1.78)E+00$	$(-5.16 \pm 2.66)E+00$
EMS Sampler				
Beaufort Public Water Works	24	$(0.60 \pm 2.86)E+00$	$(5.67 \pm 2.56)E+00$	$(-5.88 \pm 2.91)E+00$
Treatment Plants—Finished				
Beaufort Public Water Works	12	$(-1.21 \pm 3.66)E+00$	$(3.63 \pm 2.49)E+00$	$(-7.87 \pm 2.99)E+00$
N. Augusta Public Water Works	12	$(-0.62 \pm 3.15)E+00$	$(3.65 \pm 2.45)E+00$	$(-6.38 \pm 2.70)E+00$
Savannah Public Water Works	12	$(0.34 \pm 2.24)E+00$	$(3.50 \pm 1.93)E+00$	$(-3.41 \pm 2.61)E+00$
Cs-137, pCi/L				
Onsite				
105—C C-Area domestic water faucet	8	$(-0.65 \pm 2.58)E+00$	$(2.08 \pm 2.22)E+00$	$(-6.53 \pm 2.36)E+00$
105—K K-Area domestic water faucet	8	$(1.30 \pm 2.60)E+00$	$(4.11 \pm 1.85)E+00$	$(-3.92 \pm 2.33)E+00$
105—L L-Area domestic water faucet	8	$(0.78 \pm 1.68)E+00$	$(2.15 \pm 2.16)E+00$	$(-2.53 \pm 2.30)E+00$
221—F F-Area domestic water faucet	6	$(1.53 \pm 2.69)E+00$	$(5.85 \pm 2.30)E+00$	$(-2.38 \pm 2.20)E+00$
221—H H-Area domestic water faucet	8	$(0.23 \pm 1.25)E+00$	$(1.83 \pm 1.21)E+00$	$(-2.21 \pm 2.11)E+00$
241—24H H-Area domestic water faucet	2	$(-1.02 \pm 0.28)E+00$	$(-0.82 \pm 2.14)E+00$	$(-1.22 \pm 2.45)E+00$
617—G Wackenhut Training Facility	3	$(2.79 \pm 1.00)E+00$	$(3.87 \pm 2.42)E+00$	$(1.90 \pm 2.29)E+00$
618—G Class. yard lunchroom	3	$(-0.62 \pm 2.24)E+00$	$(0.89 \pm 2.32)E+00$	$(-3.19 \pm 2.34)E+00$
661—G Firing Range (pumphouse)	3	$(-2.19 \pm 2.50)E+00$	$(-0.49 \pm 1.61)E+00$	$(-5.06 \pm 2.40)E+00$
679—T TNX domestic water faucet	3	$(1.28 \pm 1.51)E+00$	$(2.61 \pm 1.21)E+00$	$(-0.37 \pm 2.39)E+00$
681—3G domestic water faucet	2	$(0.52 \pm 1.97)E+00$	$(1.91 \pm 1.42)E+00$	$(-0.87 \pm 2.28)E+00$

Table 23
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
701-12G Patrol Gate 7	3	(1.21 $\pm$ 0.93)E+00	(1.98 $\pm$ 1.67)E+00	(0.18 $\pm$ 2.51)E+00
701-13G Patrol Gate 6	3	(2.85 $\pm$ 1.77)E+00	(4.61 $\pm$ 2.35)E+00	(1.06 $\pm$ 2.47)E+00
701-1F F-Area domestic water faucet	3	(-1.13 $\pm$ 0.72)E+00	(-0.32 $\pm$ 2.25)E+00	(-1.69 $\pm$ 2.16)E+00
701-1F H-Area domestic water faucet	3	(1.12 $\pm$ 1.58)E+00	(2.69 $\pm$ 2.30)E+00	(-0.48 $\pm$ 1.45)E+00
701-3G Barnwell Gate	3	(1.50 $\pm$ 1.50)E+00	(2.57 $\pm$ 1.33)E+00	(-0.21 $\pm$ 2.31)E+00
701-4G Williston Gate	3	(0.05 $\pm$ 8.53)E-01	(0.97 $\pm$ 1.92)E+00	(-0.65 $\pm$ 1.12)E+00
701-5G Talatha Gate	3	(3.84 $\pm$ 6.51)E-01	(0.81 $\pm$ 2.35)E+00	(-0.37 $\pm$ 1.92)E+00
701-6G Jackson Gate	3	(1.72 $\pm$ 2.15)E-01	(0.40 $\pm$ 1.45)E+00	(-0.03 $\pm$ 2.43)E+00
701-8G Patrol Gate 8	3	(1.40 $\pm$ 0.55)E+00	(1.96 $\pm$ 1.20)E+00	(0.86 $\pm$ 2.18)E+00
703-A EOC (kitchen)	3	(0.05 $\pm$ 1.36)E+00	(1.62 $\pm$ 0.95)E+00	(-0.75 $\pm$ 2.23)E+00
704-F F-Area domestic water faucet	3	(-1.76 $\pm$ 1.15)E+00	(-0.73 $\pm$ 2.21)E+00	(-3.00 $\pm$ 2.35)E+00
704-H H-Area domestic water faucet	3	(-1.55 $\pm$ 5.64)E-01	(0.41 $\pm$ 1.39)E+00	(-0.71 $\pm$ 2.41)E+00
704-S S-Area domestic water faucet	3	(-1.90 $\pm$ 1.92)E+00	(0.28 $\pm$ 2.00)E+00	(-3.30 $\pm$ 2.37)E+00
708-A A-Area cafeteria (restroom)	3	(1.00 $\pm$ 1.69)E+00	(2.51 $\pm$ 1.63)E+00	(-0.83 $\pm$ 2.27)E+00
735-7G PAR Pond lab	3	(-4.72 $\pm$ 6.54)E-01	(0.25 $\pm$ 1.34)E+00	(-1.03 $\pm$ 1.89)E+00
760-G Forestry Building	3	(1.03 $\pm$ 3.41)E+00	(4.17 $\pm$ 1.88)E+00	(-2.60 $\pm$ 2.25)E+00
772-F F-Area domestic water faucet	2	(0.09 $\pm$ 1.54)E+00	(1.18 $\pm$ 1.99)E+00	(-0.99 $\pm$ 2.42)E+00
Z-Area Building 704-Z	3	(0.45 $\pm$ 2.31)E+00	(2.70 $\pm$ 2.22)E+00	(-1.93 $\pm$ 1.95)E+00
Treatment Plants—Raw				
Beaufort Public Water Works	12	(0.75 $\pm$ 2.42)E+00	(5.14 $\pm$ 2.67)E+00	(-2.69 $\pm$ 2.07)E+00
N. Augusta Public Water Works	12	(0.46 $\pm$ 2.08)E+00	(3.97 $\pm$ 1.55)E+00	(-2.85 $\pm$ 1.42)E+00
Savannah Public Water Works	12	(1.32 $\pm$ 1.92)E+00	(4.00 $\pm$ 2.09)E+00	(-3.20 $\pm$ 2.16)E+00
EMS Sampler				
Beaufort Public Water Works	24	(0.22 $\pm$ 2.20)E+00	(3.47 $\pm$ 2.30)E+00	(-4.44 $\pm$ 2.36)E+00
Treatment Plants—Finished				
Beaufort Public Water Works	12	(0.14 $\pm$ 2.33)E+00	(3.57 $\pm$ 2.17)E+00	(-3.14 $\pm$ 2.32)E+00

Table 23
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
N. Augusta Public Water Works	12	$(0.82 \pm 2.36)E+00$	$(3.73 \pm 2.43)E+00$	$(-2.67 \pm 2.41)E+00$
Savannah Public Water Works	12	$(0.44 \pm 3.53)E+00$	$(5.85 \pm 2.43)E+00$	$(-3.50 \pm 2.15)E+00$
Sr-89,90, pCi/L				
Onsite				
105-C C-Area domestic water faucet	1	$(-0.06 \pm 4.02)E-01$		
105-K K-Area domestic water faucet	1	$(-0.90 \pm 3.78)E-01$		
105-L L-Area domestic water faucet	1	$(2.57 \pm 4.02)E-01$		
221-F F-Area domestic water faucet	1	$(-0.93 \pm 4.39)E-01$		
221-H H-Area domestic water faucet	1	$(1.66 \pm 3.99)E-01$		
617-G Wackenhut Training Facility	1	$(-4.03 \pm 3.83)E-01$		
618-G Class. yard lunchroom	1	$(7.50 \pm 4.39)E-01$		
661-G Firing Range (pumphouse)	1	$(-2.24 \pm 3.68)E-01$		
679-T TNX domestic water faucet	1	$(0.82 \pm 3.92)E-01$		
681-3G domestic water faucet	1	$(2.91 \pm 2.85)E-01$		
701-12G Patrol Gate 7	1	$(6.05 \pm 4.19)E-01$		
701-13G Patrol Gate 6	1	$(-2.81 \pm 3.61)E-01$		
701-3G Barnwell Gate	1	$(4.78 \pm 3.90)E-01$		
701-4G Williston Gate	1	$(-0.96 \pm 3.68)E-01$		
701-5G Talatha Gate	1	$(-1.23 \pm 3.79)E-01$		
701-6G Jackson Gate	1	$(-1.19 \pm 3.67)E-01$		
701-8G Patrol Gate 8	1	$(-0.80 \pm 3.78)E-01$		
703-A EOC (kitchen)	1	$(0.03 \pm 4.16)E-01$		
704-S S-Area domestic water faucet	1	$(-6.06 \pm 3.43)E-01$		
706-N Lunchroom	1	$(5.70 \pm 4.21)E-01$		
708-A A-Area cafeteria (restroom)	1	$(-2.62 \pm 2.45)E-01$		

Table 23
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
730-4B Lunchroom	1	(1.33 $\pm$ 4.22)E-01		
735-7G PAR Pond lab	1	(5.95 $\pm$ 4.24)E-01		
760-G Forestry Building	1	(0.32 $\pm$ 4.07)E-01		
772-D Lunchroom	1	(-4.90 $\pm$ 3.47)E-01		
Z-Area Building 704-Z	1	(3.91 $\pm$ 4.21)E-01		
Gross Beta, pCi/L				
Onsite				
105-C C-Area domestic water faucet	12	(1.35 $\pm$ 1.29)E+00	(3.58 $\pm$ 1.08)E+00	(-0.99 $\pm$ 5.38)E-01
105-K K-Area domestic water faucet	12	(2.23 $\pm$ 1.85)E+00	(7.47 $\pm$ 0.89)E+00	(9.45 $\pm$ 8.46)E-01
105-L L-Area domestic water faucet	12	(1.37 $\pm$ 0.42)E+00	(2.16 $\pm$ 0.56)E+00	(8.35 $\pm$ 3.68)E-01
221-F F-Area domestic water faucet	10	(1.35 $\pm$ 0.36)E+00	(2.18 $\pm$ 0.57)E+00	(8.20 $\pm$ 4.45)E-01
221-H H-Area domestic water faucet	12	(2.48 $\pm$ 2.30)E+00	(7.67 $\pm$ 1.00)E+00	(5.37 $\pm$ 2.97)E-01
241-24H H-Area domestic water faucet	4	(4.28 $\pm$ 3.23)E+00	(8.71 $\pm$ 0.83)E+00	(1.25 $\pm$ 0.49)E+00
617-G Wackenhut Training Facility	4	(7.02 $\pm$ 5.61)E-01	(1.45 $\pm$ 0.50)E+00	(1.04 $\pm$ 3.52)E-01
618-G Class. yard lunchroom	4	(2.16 $\pm$ 0.24)E+00	(2.43 $\pm$ 0.64)E+00	(1.94 $\pm$ 0.50)E+00
661-G Firing Range (pumphouse)	4	(1.76 $\pm$ 0.66)E+00	(2.73 $\pm$ 0.58)E+00	(1.26 $\pm$ 0.47)E+00
679-T TNX domestic water faucet	4	(2.88 $\pm$ 1.02)E+00	(3.69 $\pm$ 0.70)E+00	(1.40 $\pm$ 0.52)E+00
681-3G domestic water faucet	3	(3.38 $\pm$ 0.31)E+00	(3.69 $\pm$ 0.67)E+00	(3.08 $\pm$ 0.51)E+00
701-12G Patrol Gate 7	3	(2.27 $\pm$ 1.38)E+00	(3.83 $\pm$ 0.46)E+00	(1.25 $\pm$ 0.49)E+00
701-13G Patrol Gate 6	4	(3.44 $\pm$ 4.78)E-01	(8.62 $\pm$ 5.06)E-01	(-0.65 $\pm$ 4.92)E-01
701-1F F-Area domestic water faucet	4	(1.13 $\pm$ 0.49)E+00	(1.68 $\pm$ 0.53)E+00	(5.05 $\pm$ 4.23)E-01
701-1F H-Area domestic water faucet	4	(3.53 $\pm$ 2.35)E+00	(6.37 $\pm$ 0.73)E+00	(1.59 $\pm$ 0.49)E+00
701-3G Barnwell Gate	4	(3.19 $\pm$ 4.89)E-01	(9.41 $\pm$ 4.96)E-01	(-2.45 $\pm$ 3.78)E-01
701-4G Williston Gate	4	(4.31 $\pm$ 4.39)E-01	(8.41 $\pm$ 4.49)E-01	(-0.95 $\pm$ 3.75)E-01
701-5G Talatha Gate	4	(2.89 $\pm$ 1.12)E+00	(4.48 $\pm$ 0.64)E+00	(1.83 $\pm$ 0.44)E+00
701-6G Jackson Gate	4	(2.51 $\pm$ 1.08)E+00	(4.08 $\pm$ 0.66)E+00	(1.63 $\pm$ 0.52)E+00

Table 23
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
701-8G Patrol Gate 8	4	(8.37 $\pm$ 3.66)E-01	(1.22 $\pm$ 0.51)E+00	(4.31 $\pm$ 4.77)E-01
703-A EOC (kitchen)	4	(1.10 $\pm$ 0.39)E+00	(1.57 $\pm$ 0.54)E+00	(7.39 $\pm$ 4.70)E-01
704-F F-Area domestic water faucet	4	(1.53 $\pm$ 0.75)E+00	(2.56 $\pm$ 0.69)E+00	(9.08 $\pm$ 4.02)E-01
704-H H-Area domestic water faucet	4	(2.75 $\pm$ 2.12)E+00	(5.85 $\pm$ 0.78)E+00	(1.02 $\pm$ 0.41)E+00
704-S S-Area domestic water faucet	4	(2.60 $\pm$ 1.07)E+00	(3.64 $\pm$ 0.63)E+00	(1.60 $\pm$ 0.63)E+00
708-A A-Area cafeteria (restroom)	4	(9.07 $\pm$ 2.71)E-01	(1.16 $\pm$ 0.54)E+00	(6.37 $\pm$ 4.77)E-01
735-7G PAR Pond lab	4	(2.74 $\pm$ 1.45)E+00	(4.04 $\pm$ 0.61)E+00	(1.29 $\pm$ 0.52)E+00
760-G Forestry Building	4	(6.82 $\pm$ 4.05)E-01	(1.04 $\pm$ 0.54)E+00	(1.07 $\pm$ 3.67)E-01
772-F F-Area domestic water faucet	4	(1.35 $\pm$ 1.17)E+00	(2.72 $\pm$ 0.60)E+00	(0.09 $\pm$ 4.03)E-01
TC-1 B-Area cafeteria	1	(5.12 $\pm$ 4.84)E-01		
Z-Area Building 704-Z	4	(1.66 $\pm$ 1.11)E+00	(2.64 $\pm$ 0.63)E+00	(6.16 $\pm$ 4.04)E-01
Treatment Plants—Raw				
Beaufort Public Water Works	12	(1.81 $\pm$ 0.56)E+00	(2.49 $\pm$ 0.48)E+00	(8.91 $\pm$ 3.22)E-01
N. Augusta Public Water Works	12	(1.40 $\pm$ 0.49)E+00	(2.31 $\pm$ 0.60)E+00	(5.26 $\pm$ 3.88)E-01
Savannah Public Water Works	12	(1.95 $\pm$ 0.53)E+00	(2.79 $\pm$ 0.65)E+00	(1.10 $\pm$ 0.49)E+00
EMS Sampler				
Beaufort Public Water Works	24	(1.65 $\pm$ 0.61)E+00	(2.90 $\pm$ 0.89)E+00	(6.96 $\pm$ 8.80)E-01
Treatment Plants—Finished				
Beaufort Public Water Works	12	(1.80 $\pm$ 0.32)E+00	(2.33 $\pm$ 0.77)E+00	(1.34 $\pm$ 0.62)E+00
N. Augusta Public Water Works	12	(1.31 $\pm$ 0.51)E+00	(2.37 $\pm$ 0.63)E+00	(6.38 $\pm$ 4.68)E-01
Savannah Public Water Works	12	(1.70 $\pm$ 0.64)E+00	(3.03 $\pm$ 0.61)E+00	(9.21 $\pm$ 3.64)E-01
Gross Alpha, pCi/L				
Onsite				
105-C C-Area domestic water faucet	12	(1.78 $\pm$ 2.75)E+00	(9.51 $\pm$ 1.61)E+00	(00.00 $\pm$ 2.09)E-01
105-K K-Area domestic water faucet	12	(3.91 $\pm$ 3.20)E-01	(8.42 $\pm$ 4.46)E-01	(-2.31 $\pm$ 2.29)E-01

Table 23
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
105-L L-Area domestic water faucet	12	(5.22 $\pm$ 5.17)E-01	(1.24 $\pm$ 0.46)E+00	(-4.78 $\pm$ 3.11)E-01
221-F F-Area domestic water faucet	10	(1.51 $\pm$ 0.92)E+00	(3.38 $\pm$ 0.94)E+00	(5.32 $\pm$ 4.02)E-01
221-H H-Area domestic water faucet	12	(1.96 $\pm$ 1.85)E+00	(6.09 $\pm$ 0.78)E+00	(-1.63 $\pm$ 2.56)E-01
241-24H H-Area domestic water faucet	4	(4.39 $\pm$ 2.32)E+00	(7.35 $\pm$ 1.09)E+00	(1.93 $\pm$ 0.58)E+00
617-G Wackenhut Training Facility	4	(6.25 $\pm$ 2.11)E-01	(8.81 $\pm$ 4.12)E-01	(4.20 $\pm$ 3.19)E-01
618-G Class. yard lunchroom	4	(1.22 $\pm$ 0.71)E+00	(1.90 $\pm$ 0.59)E+00	(3.03 $\pm$ 2.99)E-01
661-G Firing Range (pumphouse)	4	(3.01 $\pm$ 0.96)E+00	(3.68 $\pm$ 0.70)E+00	(1.59 $\pm$ 0.41)E+00
679-T TNX domestic water faucet	4	(6.19 $\pm$ 3.72)E-01	(1.08 $\pm$ 0.51)E+00	(1.94 $\pm$ 3.43)E-01
681-3G domestic water faucet	3	(1.24 $\pm$ 0.81)E+00	(1.91 $\pm$ 0.54)E+00	(3.32 $\pm$ 2.37)E-01
701-12G Patrol Gate 7	3	(2.05 $\pm$ 1.89)E-01	(3.72 $\pm$ 3.18)E-01	(-0.01 $\pm$ 2.34)E-01
701-13G Patrol Gate 6	4	(2.07 $\pm$ 0.40)E+00	(2.38 $\pm$ 0.61)E+00	(1.49 $\pm$ 0.41)E+00
701-1F F-Area domestic water faucet	4	(7.34 $\pm$ 1.82)E-01	(9.43 $\pm$ 4.70)E-01	(5.05 $\pm$ 3.75)E-01
701-1F H-Area domestic water faucet	4	(2.52 $\pm$ 2.11)E+00	(5.61 $\pm$ 0.92)E+00	(8.34 $\pm$ 4.37)E-01
701-3G Barnwell Gate	4	(5.38 $\pm$ 6.50)E-02	(1.29 $\pm$ 2.22)E-01	(-0.01 $\pm$ 1.80)E-01
701-4G Williston Gate	4	(2.34 $\pm$ 0.82)E-01	(3.06 $\pm$ 2.45)E-01	(1.23 $\pm$ 2.15)E-01
701-5G Talatha Gate	4	(1.00 $\pm$ 0.24)E+01	(1.26 $\pm$ 0.12)E+01	(6.88 $\pm$ 0.82)E+00
701-6G Jackson Gate	4	(3.63 $\pm$ 0.63)E+00	(4.39 $\pm$ 0.76)E+00	(2.85 $\pm$ 0.62)E+00
701-8G Patrol Gate 8	4	(1.13 $\pm$ 0.29)E+00	(1.38 $\pm$ 0.40)E+00	(7.41 $\pm$ 3.49)E-01
703-A EOC (kitchen)	4	(5.13 $\pm$ 3.28)E-01	(9.69 $\pm$ 5.02)E-01	(1.91 $\pm$ 3.29)E-01
704-F F-Area domestic water faucet	4	(2.09 $\pm$ 1.43)E+00	(4.06 $\pm$ 1.03)E+00	(7.39 $\pm$ 4.46)E-01
704-H H-Area domestic water faucet	4	(2.42 $\pm$ 0.98)E+00	(3.39 $\pm$ 0.82)E+00	(1.09 $\pm$ 0.47)E+00
704-S S-Area domestic water faucet	4	(1.88 $\pm$ 1.08)E+00	(2.83 $\pm$ 0.74)E+00	(7.21 $\pm$ 4.54)E-01
708-A A-Area cafeteria (restroom)	4	(8.22 $\pm$ 5.44)E-01	(1.63 $\pm$ 0.64)E+00	(4.55 $\pm$ 3.48)E-01
735-7G PAR Pond lab	4	(8.41 $\pm$ 6.81)E-01	(1.59 $\pm$ 0.74)E+00	(-0.02 $\pm$ 2.46)E-01
760-G Forestry Building	4	(8.46 $\pm$ 3.14)E-01	(1.28 $\pm$ 0.48)E+00	(5.52 $\pm$ 4.65)E-01

Table 23
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
772-F F-Area domestic water faucet	4	$(2.04 \pm 1.01)E+00$	$(3.27 \pm 0.83)E+00$	$(7.89 \pm 4.21)E-01$
TC-1 B-Area cafeteria	1	$(1.22 \pm 0.52)E+00$		
Z-Area Building 704-Z	4	$(1.85 \pm 1.19)E+00$	$(3.37 \pm 0.78)E+00$	$(7.81 \pm 5.37)E-01$
Treatment Plants—Raw				
Beaufort Public Water Works	12	$(3.11 \pm 3.15)E-01$	$(8.96 \pm 4.75)E-01$	$(-1.33 \pm 1.32)E-01$
N. Augusta Public Water Works	12	$(1.23 \pm 2.79)E-01$	$(7.56 \pm 5.61)E-01$	$(-3.20 \pm 1.98)E-01$
Savannah Public Water Works	12	$(4.22 \pm 2.35)E-01$	$(8.33 \pm 5.06)E-01$	$(-1.89 \pm 2.90)E-01$
EMS Sampler				
Beaufort Public Water Works	24	$(6.10 \pm 5.76)E-01$	$(1.92 \pm 1.11)E+00$	$(-3.12 \pm 3.12)E-01$
Treatment Plants—Finished				
Beaufort Public Water Works	12	$(1.46 \pm 4.24)E-01$	$(8.13 \pm 6.12)E-01$	$(-3.84 \pm 2.29)E-01$
N. Augusta Public Water Works	12	$(1.74 \pm 2.33)E-01$	$(6.82 \pm 4.11)E-01$	$(-1.59 \pm 1.59)E-01$
Savannah Public Water Works	12	$(2.60 \pm 4.12)E-01$	$(1.10 \pm 0.59)E+00$	$(-3.18 \pm 1.96)E-01$

Table 24
Radioactivity in Terrestrial Food Products — Greens, Fruit, and Beef

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Location	H-3 (pCi/g±σ)	Co-60 (pCi/g±σ)	Cs-137 (pCi/g±σ)	Pu-238 (pCi/g±σ)	Pu-239 (pCi/g±σ)	Sr-89,90 (pCi/g±σ)
<i>Note: All results except those for H-3 are expressed in dry weight.</i>						
Greens						
NE Quadrant 0–10 miles	(0.00 ± 3.73)E–02	(–3.51 ± 6.00)E–03	–0.76 ± 4.59)E–03	(–0.21 ± 4.14)E–05	(4.70 ± 6.20)E–05	(7.73 ± 3.79)E–02
NW Quadrant 0–10 miles	(6.76 ± 3.59)E–02	(0.32 ± 4.47)E–03	(6.42 ± 2.97)E–03	(3.96 ± 3.50)E–05	(–0.93 ± 2.92)E–05	(0.75 ± 2.38)E–02
SE Quadrant 0–10 miles	(1.10 ± 0.53)E–01	(5.21 ± 4.78)E–03	(6.42 ± 4.29)E–03	(–6.14 ± 4.62)E–05	(–2.95 ± 5.88)E–05	(5.09 ± 3.80)E–02
SE Quadrant 25 miles	(4.62 ± 3.28)E–02	(–5.55 ± 6.91)E–03	(1.05 ± 0.58)E–02	(–1.30 ± 6.15)E–05	(–0.39 ± 5.44)E–05	(7.53 ± 3.63)E–02
SW Quadrant 0–10 miles	(7.17 ± 3.91)E–02	(8.26 ± 3.89)E–03	(–1.08 ± 3.27)E–03	(–4.27 ± 3.04)E–05	(0.40 ± 3.86)E–05	(1.34 ± 2.68)E–02
Fruit						
NE Quadrant 0–10 miles	(1.50 ± 0.36)E–01	(–5.73 ± 4.02)E–03	(5.82 ± 2.91)E–03	(–5.27 ± 2.02)E–05	(2.74 ± 4.11)E–05	(1.27 ± 2.43)E–02
NW Quadrant 0–10 miles	(0.83 ± 4.53)E–02	(9.07 ± 3.09)E–03	(0.62 ± 2.83)E–03	(–2.26 ± 8.86)E–05	(0.12 ± 1.05)E–04	(–0.28 ± 2.33)E–02
SE Quadrant 0–10 miles	(0.84 ± 4.28)E–02	(0.90 ± 4.08)E–03	(–1.29 ± 3.70)E–03	(–6.89 ± 2.84)E–05	(–8.31 ± 2.51)E–05	(–0.28 ± 2.33)E–02
SE Quadrant 25 miles	(1.03 ± 0.55)E–01	(2.27 ± 2.54)E–03	(7.24 ± 2.87)E–03	(1.51 ± 4.86)E–05	(–0.76 ± 4.39)E–05	(0.94 ± 3.35)E–02
SW Quadrant 0–10 miles	(–3.86 ± 4.70)E–02	(–4.98 ± 4.21)E–03	(4.38 ± 2.81)E–03	(1.04 ± 9.36)E–05	(–2.22 ± 9.63)E–05	(1.58 ± 2.45)E–02

Table 24
Radioactivity in Terrestrial Food Products — Greens, Fruit, and Beef

Location	H-3 (pCi/g $\pm\sigma$)	Co-60 (pCi/g $\pm\sigma$)	Cs-137 (pCi/g $\pm\sigma$)	Pu-238 (pCi/g $\pm\sigma$)	Pu-239 (pCi/g $\pm\sigma$)	Sr-89,90 (pCi/g $\pm\sigma$)
Beef						
NE Quadrant 0–10 miles	(2.02 $\pm$ 0.54)E–01	(–9.75 $\pm$ 4.71)E–03	(2.64 $\pm$ 0.45)E–02	(–0.45 $\pm$ 9.06)E–04	(0.71 $\pm$ 9.27)E–04	(2.77 $\pm$ 2.26)E–02
NW Quadrant 0–10 miles	(1.04 $\pm$ 0.36)E–01	(–1.37 $\pm$ 4.14)E–03	(6.43 $\pm$ 0.63)E–02	(–3.64 $\pm$ 5.32)E–05	(–5.61 $\pm$ 4.82)E–05	(–3.18 $\pm$ 3.17)E–02
SE Quadrant 0–10 miles	(4.90 $\pm$ 5.17)E–02	(1.38 $\pm$ 2.82)E–03	(1.25 $\pm$ 0.33)E–02	(1.97 $\pm$ 1.04)E–04	(–1.31 $\pm$ 0.60)E–04	(3.85 $\pm$ 3.26)E–02
SE Quadrant 25 miles	(1.09 $\pm$ 0.43)E–01	(3.27 $\pm$ 2.38)E–03	(9.89 $\pm$ 3.20)E–03	(–0.73 $\pm$ 3.49)E–04	(2.94 $\pm$ 2.82)E–04	(1.96 $\pm$ 3.47)E–02
SW Quadrant 0–10 miles	(1.00 $\pm$ 0.33)E–01	(–0.24 $\pm$ 7.37)E–03	(2.31 $\pm$ 5.55)E–03	(–2.16 $\pm$ 0.14)E–01	(–2.34 $\pm$ 0.16)E–01	(2.66 $\pm$ 2.26)E–02

Table 25
Radioactivity in Terrestrial Food Products — Milk

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/L				
Communities around SRS				
Dairy (major distributor)	12	$(1.04 \pm 1.36)E-02$	$(3.70 \pm 1.33)E-02$	$(-2.00 \pm 1.29)E-02$
Denmark, S.C., dairy	12	$(1.39 \pm 2.33)E-02$	$(7.87 \pm 1.41)E-02$	$(-1.75 \pm 9.34)E+01$
Girard, Ga., dairy	12	$(1.42 \pm 1.07)E-02$	$(2.75 \pm 1.34)E-02$	$(-1.00 \pm 3.70)E-02$
Gracewood, Ga., dairy	11	$(1.31 \pm 1.23)E-02$	$(3.56 \pm 1.08)E-02$	$(-0.62 \pm 3.68)E-02$
Jackson, S.C., dairy	12	$(5.89 \pm 1.07)E-02$	$(7.89 \pm 1.13)E-02$	$(4.28 \pm 1.33)E-02$
Waynesboro, Ga., dairy	12	$(1.06 \pm 1.19)E-02$	$(3.42 \pm 3.80)E-02$	$(-0.87 \pm 1.25)E-02$
Co-60, pCi/L				
Communities around SRS				
Dairy (major distributor)	12	$(0.27 \pm 1.92)E+00$	$(2.76 \pm 1.30)E+00$	$(-4.60 \pm 2.06)E+00$
Denmark, S.C., dairy	12	$(-0.43 \pm 1.73)E+00$	$(2.49 \pm 1.23)E+00$	$(-3.14 \pm 1.89)E+00$
Girard, Ga., dairy	12	$(0.27 \pm 1.48)E+00$	$(2.58 \pm 1.02)E+00$	$(-2.61 \pm 1.96)E+00$
Gracewood, Ga., dairy	11	$(-0.94 \pm 2.31)E+00$	$(1.78 \pm 1.55)E+00$	$(-6.98 \pm 1.90)E+00$
Jackson, S.C., dairy	12	$(-0.42 \pm 1.71)E+00$	$(2.35 \pm 1.12)E+00$	$(-3.60 \pm 1.59)E+00$
Waynesboro, Ga., dairy	12	$(0.07 \pm 2.46)E+00$	$(4.03 \pm 1.23)E+00$	$(-4.35 \pm 1.57)E+00$
Sr-90, pCi/L				
Communities around SRS				
Dairy (major distributor)	4	$(-0.87 \pm 1.69)E+00$	$(0.38 \pm 1.05)E+00$	$(-3.36 \pm 1.55)E+00$
Denmark, S.C., dairy	4	$(-0.22 \pm 1.92)E+00$	$(1.56 \pm 1.36)E+00$	$(-2.86 \pm 1.07)E+00$
Girard, Ga., dairy	4	$(-0.11 \pm 2.49)E+00$	$(2.34 \pm 1.48)E+00$	$(-3.46 \pm 1.12)E+00$
Gracewood, Ga., dairy	4	$(-0.14 \pm 2.93)E+00$	$(3.09 \pm 1.56)E+00$	$(-4.01 \pm 1.22)E+00$
Jackson, S.C., dairy	4	$(-0.41 \pm 2.36)E+00$	$(2.41 \pm 1.07)E+00$	$(-3.36 \pm 1.50)E+00$
Waynesboro, Ga., dairy	4	$(0.76 \pm 3.22)E+00$	$(4.89 \pm 1.18)E+00$	$(-2.96 \pm 1.07)E+00$
Cs-137, pCi/L				
Communities around SRS				
Dairy (major distributor)	12	$(1.17 \pm 0.87)E+00$	$(2.41 \pm 0.97)E+00$	$(-3.43 \pm 9.97)E-01$
Denmark, S.C., dairy	12	$(2.24 \pm 1.16)E+00$	$(3.73 \pm 1.86)E+00$	$(0.49 \pm 1.03)E+00$
Girard, Ga., dairy	12	$(1.26 \pm 0.81)E+00$	$(2.56 \pm 0.87)E+00$	$(-0.67 \pm 8.14)E-01$
Gracewood, Ga., dairy	11	$(1.00 \pm 0.62)E+00$	$(2.57 \pm 0.75)E+00$	$(3.27 \pm 9.78)E-01$
Jackson, S.C., dairy	12	$(1.40 \pm 1.02)E+00$	$(3.19 \pm 1.59)E+00$	$(0.69 \pm 8.12)E-01$
Waynesboro, Ga., dairy	12	$(1.82 \pm 1.11)E+00$	$(3.27 \pm 0.94)E+00$	$(3.47 \pm 6.62)E-01$

Table 26
Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
<i>Note: Not enough fish could be collected for composite samples from the FM-6 at Road A-12.2 and the PB-3 at Road A-13.2 locations. Therefore, there are no data from these locations.</i>				
H-3, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bass	3	(3.43 $\pm$ 4.12)E-02	(8.09 $\pm$ 4.65)E-02	(0.29 $\pm$ 3.88)E-02
Bream	3	(7.97 $\pm$ 3.19)E-02	(1.01 $\pm$ 0.44)E-01	(4.30 $\pm$ 3.93)E-02
Freshwater catfish	3	(8.39 $\pm$ 5.16)E-02	(1.25 $\pm$ 0.44)E-01	(2.59 $\pm$ 3.45)E-02
Beaver Dam Creek River Mouth				
Bass	3	(8.30 $\pm$ 0.79)E-02	(8.91 $\pm$ 4.20)E-02	(7.40 $\pm$ 4.19)E-02
Bream	3	(1.05 $\pm$ 0.33)E-01	(1.40 $\pm$ 0.40)E-01	(7.45 $\pm$ 2.77)E-02
Freshwater catfish	3	(8.73 $\pm$ 6.39)E-02	(1.58 $\pm$ 0.55)E-01	(3.41 $\pm$ 5.82)E-02
Four Mile Creek River Mouth				
Bass	3	(5.24 $\pm$ 7.77)E+00	(1.42 $\pm$ 0.01)E+01	(5.68 $\pm$ 0.45)E-01
Bream	3	(0.92 $\pm$ 1.51)E+01	(2.67 $\pm$ 0.02)E+01	(1.97 $\pm$ 0.46)E-01
Freshwater catfish	3	(4.61 $\pm$ 2.86)E+00	(6.34 $\pm$ 0.08)E+00	(1.32 $\pm$ 0.06)E+00
Hwy-301 Bridge Area				
Bass	3	(3.17 $\pm$ 0.67)E-01	(3.91 $\pm$ 0.57)E-01	(2.60 $\pm$ 0.56)E-01
Bream	3	(3.01 $\pm$ 0.34)E-01	(3.40 $\pm$ 0.57)E-01	(2.78 $\pm$ 0.57)E-01
Freshwater catfish	3	(3.48 $\pm$ 1.37)E-01	(4.74 $\pm$ 0.33)E-01	(2.02 $\pm$ 0.57)E-01
L3R Creek River Mouth				
Bass	3	(4.54 $\pm$ 1.33)E-01	(5.69 $\pm$ 0.49)E-01	(3.08 $\pm$ 0.39)E-01
Bream	3	(5.26 $\pm$ 0.15)E-01	(5.43 $\pm$ 0.58)E-01	(5.16 $\pm$ 0.47)E-01
Freshwater catfish	3	(2.93 $\pm$ 0.52)E-01	(3.47 $\pm$ 0.55)E-01	(2.44 $\pm$ 0.43)E-01
Steel Creek River Mouth				
Bass	3	(2.03 $\pm$ 0.86)E+00	(2.91 $\pm$ 0.07)E+00	(1.20 $\pm$ 0.04)E+00
Bream	3	(2.42 $\pm$ 0.56)E+00	(2.77 $\pm$ 0.06)E+00	(1.78 $\pm$ 0.04)E+00
Freshwater catfish	3	(3.16 $\pm$ 0.62)E+00	(3.78 $\pm$ 0.08)E+00	(2.54 $\pm$ 0.06)E+00
U3R Creek River Mouth				
Bass	3	(1.32 $\pm$ 0.31)E-01	(1.67 $\pm$ 0.51)E-01	(1.10 $\pm$ 0.45)E-01
Bream	3	(1.40 $\pm$ 0.62)E-01	(2.06 $\pm$ 0.43)E-01	(8.34 $\pm$ 4.00)E-02
Freshwater catfish	3	(1.79 $\pm$ 0.61)E-01	(2.40 $\pm$ 0.55)E-01	(1.19 $\pm$ 0.53)E-01

Table 26
Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Co-60, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bass	3	(1.48 $\pm$ 1.23)E-02	(2.76 $\pm$ 1.46)E-02	(0.31 $\pm$ 1.39)E-02
Bream	3	(0.99 $\pm$ 1.33)E-02	(2.18 $\pm$ 1.55)E-02	(-0.45 $\pm$ 1.35)E-02
Freshwater catfish	3	(0.14 $\pm$ 2.13)E-02	(2.53 $\pm$ 1.27)E-02	(-1.57 $\pm$ 1.49)E-02
Beaver Dam Creek River Mouth				
Bass	3	(1.88 $\pm$ 2.01)E-02	(3.17 $\pm$ 1.52)E-02	(-0.44 $\pm$ 1.51)E-02
Bream	3	(4.06 $\pm$ 6.79)E-03	(8.82 $\pm$ 9.66)E-03	(-0.37 $\pm$ 1.13)E-02
Freshwater catfish	3	(-0.58 $\pm$ 1.28)E-02	(5.48 $\pm$ 9.45)E-03	(-1.98 $\pm$ 1.06)E-02
Four Mile Creek River Mouth				
Bass	3	(0.76 $\pm$ 1.04)E-02	(1.60 $\pm$ 1.10)E-02	(-0.40 $\pm$ 1.36)E-02
Bream	3	(7.82 $\pm$ 5.73)E-03	(1.41 $\pm$ 0.78)E-02	(2.93 $\pm$ 9.52)E-03
Freshwater catfish	3	(1.38 $\pm$ 0.69)E-02	(2.13 $\pm$ 1.36)E-02	(0.77 $\pm$ 1.65)E-02
Hwy-17A Bridge Area				
Bass	3	(-0.20 $\pm$ 2.38)E-02	(2.05 $\pm$ 1.34)E-02	(-2.70 $\pm$ 1.54)E-02
Bream	3	(3.73 $\pm$ 8.70)E-03	(1.08 $\pm$ 1.25)E-02	(-0.60 $\pm$ 1.56)E-02
Freshwater catfish	3	(2.43 $\pm$ 1.55)E-02	(3.94 $\pm$ 1.52)E-02	(0.84 $\pm$ 1.24)E-02
Hwy-301 Bridge Area				
Bass	3	(5.81 $\pm$ 4.24)E-03	(8.97 $\pm$ 5.74)E-03	(0.99 $\pm$ 4.86)E-03
Bream	3	(-7.11 $\pm$ 6.02)E-03	(-2.30 $\pm$ 4.76)E-03	(-1.39 $\pm$ 0.94)E-02
Freshwater catfish	3	(-1.87 $\pm$ 2.31)E-03	(0.42 $\pm$ 4.82)E-03	(-4.21 $\pm$ 4.90)E-03
L3R Creek River Mouth				
Bass	3	(1.90 $\pm$ 0.71)E-02	(2.71 $\pm$ 1.44)E-02	(1.42 $\pm$ 1.36)E-02
Bream	3	(1.78 $\pm$ 1.60)E-02	(2.80 $\pm$ 1.21)E-02	(-0.07 $\pm$ 1.30)E-02
Freshwater catfish	3	(-0.09 $\pm$ 2.37)E-02	(2.29 $\pm$ 1.12)E-02	(-2.44 $\pm$ 1.60)E-02
Steel Creek River Mouth				
Bass	3	(-3.03 $\pm$ 9.49)E-03	(6.52 $\pm$ 8.56)E-03	(-1.25 $\pm$ 1.64)E-02
Bream	3	(-4.92 $\pm$ 9.28)E-03	(5.13 $\pm$ 7.15)E-03	(-1.32 $\pm$ 1.64)E-02
Freshwater catfish	3	(-0.66 $\pm$ 1.30)E-02	(0.29 $\pm$ 1.45)E-02	(-2.15 $\pm$ 0.97)E-02
Stokes Bluff Landing				
Bass	3	(2.77 $\pm$ 2.47)E-03	(5.52 $\pm$ 8.70)E-03	(0.07 $\pm$ 1.58)E-02
Bream	3	(1.91 $\pm$ 2.07)E-02	(3.81 $\pm$ 1.44)E-02	(-0.29 $\pm$ 1.51)E-02
Freshwater catfish	3	(-1.89 $\pm$ 1.66)E-02	(-0.05 $\pm$ 1.71)E-02	(-3.27 $\pm$ 1.67)E-02

Table 26
Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
U3R Creek River Mouth				
Bass	3	$(0.11 \pm 1.06)E-02$	$(1.30 \pm 0.72)E-02$	$(-0.74 \pm 1.09)E-02$
Bream	3	$(1.52 \pm 1.39)E-02$	$(2.36 \pm 1.30)E-02$	$(-0.08 \pm 1.07)E-02$
Freshwater catfish	3	$(0.61 \pm 2.01)E-02$	$(2.91 \pm 1.34)E-02$	$(-7.41 \pm 8.92)E-03$
Onsite (Edible)				
Beaver Dam Creek (400-D)				
Freshwater catfish	1	$(1.42 \pm 1.31)E-02$		
L-Lake				
Bass	3	$(2.36 \pm 2.95)E-03$	$(0.48 \pm 1.57)E-02$	$(-0.09 \pm 1.71)E-02$
Bream	3	$(2.04 \pm 0.68)E-02$	$(2.81 \pm 1.55)E-02$	$(1.54 \pm 2.02)E-02$
L3R-2 Patterson Mill Rd				
Bass	3	$(0.04 \pm 1.02)E-02$	$(1.15 \pm 1.10)E-02$	$(-8.60 \pm 9.25)E-03$
Bream	3	$(0.95 \pm 1.79)E-02$	$(3.00 \pm 2.14)E-02$	$(-0.28 \pm 2.10)E-02$
PAR Pond				
Bass	3	$(0.28 \pm 2.37)E-02$	$(3.02 \pm 2.10)E-02$	$(-1.11 \pm 1.72)E-02$
Bream	3	$(-1.28 \pm 0.92)E-02$	$(-0.23 \pm 1.74)E-02$	$(-1.96 \pm 1.94)E-02$
Pond B				
Bass	3	$(6.08 \pm 8.77)E-03$	$(1.60 \pm 2.26)E-02$	$(-0.08 \pm 1.21)E-02$
Bream	3	$(-0.44 \pm 1.14)E-02$	$(6.35 \pm 9.95)E-03$	$(-1.64 \pm 1.15)E-02$
SC-4 Steel Creek at Road A				
Bass	3	$(-0.17 \pm 1.26)E-02$	$(8.76 \pm 9.22)E-03$	$(-1.56 \pm 0.90)E-02$
Bream	3	$(-0.34 \pm 6.81)E-03$	$(0.75 \pm 1.42)E-02$	$(-0.45 \pm 1.08)E-02$
Freshwater catfish	3	$(-3.19 \pm 3.58)E-02$	$(0.88 \pm 1.80)E-02$	$(-5.86 \pm 2.40)E-02$
U3R-4 at Road A				
Bass	1	$(1.29 \pm 2.13)E-02$		
Freshwater catfish	1	$(-0.32 \pm 1.86)E-02$		
Offsite (Nonedible)				
Augusta Lock and Dam				
Bass	3	$(0.89 \pm 1.20)E-02$	$(1.85 \pm 1.10)E-02$	$(-0.45 \pm 1.27)E-02$
Bream	3	$(-0.53 \pm 9.19)E-03$	$(7.58 \pm 7.25)E-03$	$(-1.05 \pm 1.42)E-02$
Freshwater catfish	3	$(1.81 \pm 1.39)E-02$	$(3.07 \pm 1.53)E-02$	$(0.32 \pm 1.64)E-02$
Beaver Dam Creek River Mouth				
Bass	3	$(4.58 \pm 7.57)E-03$	$(0.99 \pm 1.34)E-02$	$(-0.41 \pm 1.33)E-02$
Bream	3	$(-1.22 \pm 1.56)E-02$	$(0.23 \pm 1.05)E-02$	$(-2.87 \pm 1.49)E-02$

Table 26
Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Freshwater catfish	3	$(0.35 \pm 1.64)E-02$	$(1.86 \pm 1.17)E-02$	$(-1.39 \pm 1.61)E-02$
Four Mile Creek River Mouth				
Bass	3	$(4.72 \pm 4.56)E-03$	$(0.83 \pm 1.05)E-02$	$(-0.04 \pm 1.06)E-02$
Bream	3	$(-3.54 \pm 5.96)E-03$	$(1.30 \pm 8.30)E-03$	$(-1.02 \pm 0.97)E-02$
Freshwater catfish	3	$(1.33 \pm 0.98)E-02$	$(2.27 \pm 1.21)E-02$	$(3.10 \pm 9.97)E-03$
Hwy-301 Bridge Area				
Bass	3	$(1.09 \pm 1.00)E-02$	$(2.16 \pm 0.75)E-02$	$(1.69 \pm 4.84)E-03$
Bream	3	$(0.09 \pm 1.38)E-02$	$(1.62 \pm 0.64)E-02$	$(-1.06 \pm 0.96)E-02$
Freshwater catfish	3	$(-2.22 \pm 0.69)E-02$	$(-1.44 \pm 1.03)E-02$	$(-2.76 \pm 0.81)E-02$
L3R Creek River Mouth				
Bass	3	$(0.62 \pm 2.22)E-02$	$(3.18 \pm 1.72)E-02$	$(-0.77 \pm 1.46)E-02$
Bream	3	$(0.34 \pm 1.39)E-02$	$(1.90 \pm 1.29)E-02$	$(-0.75 \pm 1.62)E-02$
Freshwater catfish	3	$(-0.09 \pm 1.19)E-02$	$(1.27 \pm 1.07)E-02$	$(-0.92 \pm 1.10)E-02$
Steel Creek River Mouth				
Bass	3	$(-1.22 \pm 2.04)E-02$	$(1.13 \pm 1.76)E-02$	$(-2.47 \pm 1.46)E-02$
Bream	3	$(0.23 \pm 1.12)E-02$	$(0.99 \pm 1.36)E-02$	$(-1.06 \pm 1.06)E-02$
Freshwater catfish	3	$(-5.60 \pm 6.97)E-03$	$(-0.03 \pm 1.30)E-02$	$(-1.35 \pm 1.56)E-02$
U3R Creek River Mouth				
Bass	3	$(-0.01 \pm 2.00)E-02$	$(1.43 \pm 1.44)E-02$	$(-2.29 \pm 1.28)E-02$
Bream	3	$(-0.53 \pm 1.22)E-02$	$(0.82 \pm 1.02)E-02$	$(-1.55 \pm 1.64)E-02$
Freshwater catfish	3	$(0.68 \pm 1.29)E-02$	$(2.17 \pm 0.99)E-02$	$(-0.17 \pm 1.06)E-02$
Cs-137, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bass	3	$(7.67 \pm 8.17)E-02$	$(1.71 \pm 0.27)E-01$	$(2.18 \pm 1.40)E-02$
Bream	3	$(1.88 \pm 2.56)E-01$	$(4.83 \pm 0.38)E-01$	$(3.17 \pm 1.29)E-02$
Freshwater catfish	3	$(3.10 \pm 3.51)E-02$	$(5.78 \pm 1.55)E-02$	$(-0.88 \pm 1.54)E-02$
Beaver Dam Creek River Mouth				
Bass	3	$(1.34 \pm 0.55)E-01$	$(1.86 \pm 0.19)E-01$	$(7.57 \pm 2.30)E-02$
Bream	3	$(1.46 \pm 1.55)E-01$	$(3.23 \pm 0.21)E-01$	$(3.63 \pm 1.59)E-02$
Freshwater catfish	3	$(5.84 \pm 0.44)E-02$	$(6.15 \pm 1.42)E-02$	$(5.34 \pm 1.39)E-02$
Four Mile Creek River Mouth				
Bass	3	$(4.02 \pm 4.54)E-01$	$(9.20 \pm 0.56)E-01$	$(7.24 \pm 2.17)E-02$
Bream	3	$(7.41 \pm 2.48)E-02$	$(8.94 \pm 1.22)E-02$	$(4.55 \pm 0.91)E-02$

Table 26
Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Freshwater catfish	3	$(8.20 \pm 3.83)E-02$	$(1.19 \pm 0.21)E-01$	$(4.27 \pm 1.31)E-02$
Hwy-17A Bridge Area				
Bass	3	$(8.69 \pm 1.78)E-02$	$(1.04 \pm 0.21)E-01$	$(6.88 \pm 1.98)E-02$
Bream	3	$(4.97 \pm 0.26)E-02$	$(5.27 \pm 1.37)E-02$	$(4.81 \pm 1.74)E-02$
Freshwater catfish	3	$(7.27 \pm 0.95)E-02$	$(8.29 \pm 2.13)E-02$	$(6.41 \pm 1.87)E-02$
Hwy-301 Bridge Area				
Bass	3	$(6.75 \pm 1.26)E-02$	$(8.12 \pm 1.06)E-02$	$(5.66 \pm 0.81)E-02$
Bream	3	$(2.93 \pm 0.18)E-02$	$(3.14 \pm 0.76)E-02$	$(2.79 \pm 0.61)E-02$
Freshwater catfish	3	$(4.75 \pm 0.63)E-02$	$(5.47 \pm 0.81)E-02$	$(4.27 \pm 0.75)E-02$
L3R Creek River Mouth				
Bass	3	$(2.09 \pm 1.98)E-01$	$(4.37 \pm 0.38)E-01$	$(7.85 \pm 1.76)E-02$
Bream	3	$(1.37 \pm 1.32)E-01$	$(2.89 \pm 0.31)E-01$	$(4.98 \pm 1.52)E-02$
Freshwater catfish	3	$(1.86 \pm 1.29)E-01$	$(3.33 \pm 0.29)E-01$	$(8.94 \pm 1.66)E-02$
Steel Creek River Mouth				
Bass	3	$(6.61 \pm 2.87)E-01$	$(9.11 \pm 0.36)E-01$	$(3.47 \pm 0.22)E-01$
Bream	3	$(4.94 \pm 2.01)E-02$	$(6.74 \pm 0.84)E-02$	$(2.77 \pm 1.37)E-02$
Freshwater catfish	3	$(1.06 \pm 0.44)E-01$	$(1.56 \pm 0.29)E-01$	$(7.10 \pm 1.18)E-02$
Stokes Bluff Landing				
Bass	3	$(7.08 \pm 0.90)E-02$	$(7.92 \pm 1.40)E-02$	$(6.13 \pm 2.15)E-02$
Bream	3	$(2.81 \pm 0.73)E-02$	$(3.63 \pm 2.02)E-02$	$(2.22 \pm 1.46)E-02$
Freshwater catfish	3	$(7.32 \pm 3.37)E-02$	$(1.07 \pm 0.31)E-01$	$(3.99 \pm 1.79)E-02$
U3R Creek River Mouth				
Bass	3	$(4.30 \pm 3.78)E-01$	$(8.66 \pm 0.37)E-01$	$(1.98 \pm 0.22)E-01$
Bream	3	$(6.11 \pm 1.38)E-02$	$(7.40 \pm 1.92)E-02$	$(4.66 \pm 1.51)E-02$
Freshwater catfish	3	$(5.60 \pm 0.72)E-02$	$(6.42 \pm 1.88)E-02$	$(5.07 \pm 1.05)E-02$
Onsite (Edible)				
Beaver Dam Creek (400-D)				
Freshwater catfish	1	$(5.51 \pm 1.81)E-02$		
L-Lake				
Bass	3	$(8.29 \pm 0.93)E-01$	$(8.93 \pm 0.67)E-01$	$(7.22 \pm 0.60)E-01$
Bream	3	$(3.58 \pm 0.59)E-01$	$(3.95 \pm 0.39)E-01$	$(2.91 \pm 0.38)E-01$
L3R-2 Patterson Mill Rd				
Bass	3	$(6.90 \pm 0.34)E+00$	$(7.22 \pm 0.25)E+00$	$(6.54 \pm 0.23)E+00$
Bream	3	$(1.62 \pm 0.21)E+00$	$(1.84 \pm 0.12)E+00$	$(1.43 \pm 0.10)E+00$

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Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
PAR Pond				
Bass	3	(6.16 $\pm$ 0.39)E+00	(6.60 $\pm$ 0.34)E+00	(5.84 $\pm$ 0.30)E+00
Bream	3	(2.86 $\pm$ 0.20)E+00	(3.07 $\pm$ 0.17)E+00	(2.67 $\pm$ 0.15)E+00
Pond B				
Bass	3	(8.34 $\pm$ 0.75)E+01	(9.21 $\pm$ 0.44)E+01	(7.89 $\pm$ 0.27)E+01
Bream	3	(3.30 $\pm$ 0.53)E+01	(3.72 $\pm$ 0.12)E+01	(2.71 $\pm$ 0.09)E+01
SC-4 Steel Creek at Road A				
Bass	3	(1.59 $\pm$ 0.11)E+00	(1.67 $\pm$ 0.06)E+00	(1.46 $\pm$ 0.06)E+00
Bream	3	(3.80 $\pm$ 1.69)E-01	(5.49 $\pm$ 0.39)E-01	(2.10 $\pm$ 0.21)E-01
Freshwater catfish	3	(2.65 $\pm$ 1.27)E-01	(3.62 $\pm$ 0.41)E-01	(1.21 $\pm$ 0.41)E-01
U3R-4 at Road A				
Bass	1	(1.53 $\pm$ 0.34)E-01		
Freshwater catfish	1	(3.91 $\pm$ 0.46)E-01		
Offsite (Nonedible)				
Augusta Lock and Dam				
Bass	3	(4.52 $\pm$ 4.55)E-02	(9.51 $\pm$ 2.79)E-02	(0.61 $\pm$ 1.14)E-02
Bream	3	(0.92 $\pm$ 1.06)E-01	(2.14 $\pm$ 0.15)E-01	(3.03 $\pm$ 1.22)E-02
Freshwater catfish	3	(1.39 $\pm$ 0.98)E-02	(2.49 $\pm$ 1.28)E-02	(0.61 $\pm$ 1.24)E-02
Beaver Dam Creek River Mouth				
Bass	3	(8.46 $\pm$ 6.35)E-02	(1.47 $\pm$ 0.20)E-01	(2.03 $\pm$ 1.34)E-02
Bream	3	(1.02 $\pm$ 0.83)E-01	(1.97 $\pm$ 0.21)E-01	(3.99 $\pm$ 1.34)E-02
Freshwater catfish	3	(4.12 $\pm$ 1.04)E-02	(5.31 $\pm$ 2.68)E-02	(3.39 $\pm$ 1.27)E-02
Four Mile Creek River Mouth				
Bass	3	(2.48 $\pm$ 2.24)E-01	(5.03 $\pm$ 0.35)E-01	(8.52 $\pm$ 2.52)E-02
Bream	3	(3.80 $\pm$ 1.49)E-02	(4.94 $\pm$ 1.89)E-02	(2.12 $\pm$ 0.90)E-02
Freshwater catfish	3	(5.11 $\pm$ 1.36)E-02	(6.62 $\pm$ 1.88)E-02	(3.98 $\pm$ 1.71)E-02
Hwy-301 Bridge Area				
Bass	3	(3.45 $\pm$ 0.64)E-02	(3.94 $\pm$ 0.83)E-02	(2.72 $\pm$ 0.60)E-02
Bream	3	(2.24 $\pm$ 0.25)E-02	(2.41 $\pm$ 0.80)E-02	(1.95 $\pm$ 0.54)E-02
Freshwater catfish	3	(1.92 $\pm$ 1.72)E-02	(3.14 $\pm$ 0.82)E-02	(-0.50 $\pm$ 1.22)E-03
L3R Creek River Mouth				
Bass	3	(1.01 $\pm$ 1.09)E-01	(2.27 $\pm$ 0.27)E-01	(3.68 $\pm$ 1.42)E-02
Bream	3	(7.17 $\pm$ 7.31)E-02	(1.55 $\pm$ 0.24)E-01	(1.71 $\pm$ 1.30)E-02
Freshwater catfish	3	(9.84 $\pm$ 8.40)E-02	(1.95 $\pm$ 0.22)E-01	(4.11 $\pm$ 1.40)E-02

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Steel Creek River Mouth				
Bass	3	$(3.90 \pm 0.84)E-01$	$(4.84 \pm 0.40)E-01$	$(3.23 \pm 0.24)E-01$
Bream	3	$(3.83 \pm 0.94)E-02$	$(4.76 \pm 1.22)E-02$	$(2.88 \pm 1.58)E-02$
Freshwater catfish	3	$(8.01 \pm 4.54)E-02$	$(1.25 \pm 0.27)E-01$	$(3.41 \pm 1.44)E-02$
U3R Creek River Mouth				
Bass	3	$(2.97 \pm 2.91)E-01$	$(6.34 \pm 0.43)E-01$	$(1.24 \pm 0.21)E-01$
Bream	3	$(4.35 \pm 3.09)E-02$	$(7.70 \pm 1.48)E-02$	$(1.60 \pm 1.19)E-02$
Freshwater catfish	3	$(3.50 \pm 3.33)E-02$	$(6.80 \pm 1.49)E-02$	$(0.13 \pm 1.31)E-02$
Pu-238, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bass	3	$(0.03 \pm 1.01)E-04$	$(1.20 \pm 0.65)E-04$	$(-5.57 \pm 3.04)E-05$
Bream	3	$(-0.59 \pm 1.52)E-05$	$(0.66 \pm 1.71)E-05$	$(-2.28 \pm 5.06)E-05$
Freshwater catfish	3	$(-1.73 \pm 4.80)E-05$	$(3.50 \pm 3.84)E-05$	$(-5.91 \pm 5.07)E-05$
Beaver Dam Creek River Mouth				
Bass	3	$(-0.65 \pm 1.01)E-04$	$(1.29 \pm 4.51)E-05$	$(-1.79 \pm 0.59)E-04$
Bream	3	$(0.79 \pm 5.46)E-05$	$(5.08 \pm 9.26)E-05$	$(-5.35 \pm 5.66)E-05$
Freshwater catfish	3	$(-1.87 \pm 3.34)E-05$	$(1.27 \pm 2.71)E-05$	$(-5.37 \pm 2.31)E-05$
Four Mile Creek River Mouth				
Bass	3	$(-1.57 \pm 1.91)E-05$	$(0.31 \pm 2.29)E-05$	$(-3.51 \pm 3.49)E-05$
Bream	3	$(5.73 \pm 5.09)E-05$	$(0.99 \pm 1.32)E-04$	$(0.07 \pm 5.46)E-05$
Freshwater catfish	3	$(-0.82 \pm 1.27)E-05$	$(0.56 \pm 1.49)E-05$	$(-1.94 \pm 1.95)E-05$
Hwy-301 Bridge Area				
Bass	3	$(-1.31 \pm 8.13)E-05$	$(7.90 \pm 5.69)E-05$	$(-7.46 \pm 8.72)E-05$
Bream	3	$(8.88 \pm 8.60)E-05$	$(1.88 \pm 0.79)E-04$	$(3.87 \pm 3.84)E-05$
Freshwater catfish	3	$(-0.30 \pm 3.94)E-05$	$(3.45 \pm 3.67)E-05$	$(-4.42 \pm 3.33)E-05$
L3R Creek River Mouth				
Bass	3	$(0.49 \pm 4.12)E-05$	$(5.25 \pm 3.87)E-05$	$(-1.94 \pm 2.35)E-05$
Bream	3	$(0.63 \pm 1.39)E-05$	$(1.85 \pm 4.77)E-05$	$(-0.88 \pm 2.76)E-05$
Freshwater catfish	3	$(3.09 \pm 1.32)E-05$	$(4.35 \pm 3.42)E-05$	$(1.72 \pm 3.62)E-05$
Steel Creek River Mouth				
Bass	3	$(-0.86 \pm 3.52)E-05$	$(2.65 \pm 1.97)E-05$	$(-4.38 \pm 1.28)E-05$
Bream	3	$(-1.15 \pm 3.23)E-05$	$(1.95 \pm 8.44)E-05$	$(-4.49 \pm 2.83)E-05$
Freshwater catfish	3	$(1.03 \pm 3.05)E-06$	$(0.43 \pm 3.82)E-05$	$(-0.18 \pm 3.55)E-05$

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
U3R Creek River Mouth				
Bass	3	$(1.31 \pm 3.00)E-05$	$(4.46 \pm 5.01)E-05$	$(-1.52 \pm 4.46)E-05$
Bream	3	$(1.19 \pm 1.74)E-04$	$(3.19 \pm 1.82)E-04$	$(1.61 \pm 9.87)E-05$
Freshwater catfish	3	$(0.28 \pm 4.10)E-05$	$(5.00 \pm 3.36)E-05$	$(-2.43 \pm 1.93)E-05$
Pu-239, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bass	3	$(-2.92 \pm 4.08)E-05$	$(1.36 \pm 4.89)E-05$	$(-6.76 \pm 3.56)E-05$
Bream	3	$(-0.85 \pm 2.99)E-05$	$(2.50 \pm 7.37)E-05$	$(-3.26 \pm 1.58)E-05$
Freshwater catfish	3	$(-5.36 \pm 6.33)E-05$	$(-0.29 \pm 3.45)E-05$	$(-1.25 \pm 0.44)E-04$
Beaver Dam Creek River Mouth				
Bass	3	$(-0.30 \pm 1.01)E-04$	$(6.91 \pm 6.50)E-05$	$(-1.33 \pm 0.35)E-04$
Bream	3	$(0.49 \pm 6.18)E-05$	$(0.63 \pm 1.10)E-04$	$(-5.99 \pm 2.71)E-05$
Freshwater catfish	3	$(-2.13 \pm 1.34)E-05$	$(-0.66 \pm 2.85)E-05$	$(-3.27 \pm 1.11)E-05$
Four Mile Creek River Mouth				
Bass	3	$(-1.90 \pm 1.24)E-05$	$(-0.58 \pm 1.81)E-05$	$(-3.04 \pm 3.71)E-05$
Bream	3	$(-0.63 \pm 1.08)E-04$	$(4.85 \pm 8.13)E-05$	$(-1.67 \pm 1.04)E-04$
Freshwater catfish	3	$(0.37 \pm 1.54)E-05$	$(2.00 \pm 2.63)E-05$	$(-1.06 \pm 0.61)E-05$
Hwy-301 Bridge Area				
Bass	3	$(-4.63 \pm 5.96)E-05$	$(0.21 \pm 1.10)E-04$	$(-9.20 \pm 3.06)E-05$
Bream	3	$(-4.08 \pm 4.94)E-05$	$(-0.58 \pm 2.89)E-05$	$(-9.73 \pm 2.64)E-05$
Freshwater catfish	3	$(-3.85 \pm 3.35)E-05$	$(-1.05 \pm 1.30)E-05$	$(-7.56 \pm 2.59)E-05$
L3R Creek River Mouth				
Bass	3	$(2.80 \pm 2.20)E-05$	$(5.30 \pm 3.54)E-05$	$(1.18 \pm 4.35)E-05$
Bream	3	$(0.62 \pm 3.42)E-05$	$(3.25 \pm 6.04)E-05$	$(-3.25 \pm 3.08)E-05$
Freshwater catfish	3	$(-2.00 \pm 2.68)E-05$	$(0.42 \pm 3.76)E-05$	$(-4.88 \pm 3.61)E-05$
Steel Creek River Mouth				
Bass	3	$(-2.47 \pm 2.66)E-05$	$(0.36 \pm 2.17)E-05$	$(-4.92 \pm 1.21)E-05$
Bream	3	$(-1.86 \pm 3.80)E-05$	$(2.52 \pm 5.04)E-05$	$(-0.43 \pm 1.28)E-04$
Freshwater catfish	3	$(1.52 \pm 1.95)E-05$	$(3.60 \pm 4.74)E-05$	$(-0.27 \pm 1.81)E-05$
U3R Creek River Mouth				
Bass	3	$(-2.73 \pm 3.99)E-05$	$(0.66 \pm 1.77)E-05$	$(-7.13 \pm 4.22)E-05$
Bream	3	$(-0.24 \pm 1.18)E-04$	$(1.12 \pm 1.67)E-04$	$(-9.28 \pm 8.81)E-05$
Freshwater catfish	3	$(0.17 \pm 6.96)E-06$	$(0.78 \pm 2.69)E-05$	$(-0.58 \pm 2.67)E-05$

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Sr-89,90, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bass	3	$(5.06 \pm 4.16)E-03$	$(9.65 \pm 1.77)E-03$	$(1.55 \pm 1.87)E-03$
Bream	3	$(6.67 \pm 2.90)E-03$	$(8.66 \pm 4.08)E-03$	$(3.35 \pm 4.03)E-03$
Freshwater catfish	3	$(3.49 \pm 4.01)E-03$	$(8.08 \pm 2.46)E-03$	$(0.70 \pm 2.41)E-03$
Beaver Dam Creek River Mouth				
Bass	3	$(1.47 \pm 0.70)E-03$	$(2.15 \pm 1.90)E-03$	$(0.76 \pm 2.08)E-03$
Bream	3	$(1.72 \pm 0.59)E-02$	$(2.38 \pm 0.63)E-02$	$(1.26 \pm 0.66)E-02$
Freshwater catfish	3	$(1.31 \pm 1.33)E-03$	$(2.21 \pm 3.00)E-03$	$(-0.22 \pm 2.83)E-03$
Four Mile Creek River Mouth				
Bass	3	$(1.65 \pm 1.58)E-02$	$(3.41 \pm 0.30)E-02$	$(3.43 \pm 3.11)E-03$
Bream	3	$(2.64 \pm 2.78)E-02$	$(5.86 \pm 0.81)E-02$	$(1.01 \pm 0.58)E-02$
Freshwater catfish	3	$(1.04 \pm 0.57)E-02$	$(1.65 \pm 0.38)E-02$	$(5.35 \pm 2.99)E-03$
Hwy-301 Bridge Area				
Bass	3	$(3.61 \pm 1.04)E-03$	$(4.74 \pm 2.49)E-03$	$(2.69 \pm 1.44)E-03$
Bream	3	$(5.78 \pm 1.99)E-03$	$(7.53 \pm 3.86)E-03$	$(3.61 \pm 4.22)E-03$
Freshwater catfish	3	$(4.26 \pm 6.22)E-03$	$(1.14 \pm 0.26)E-02$	$(0.40 \pm 2.89)E-03$
L3R Creek River Mouth				
Bass	3	$(4.65 \pm 1.50)E-03$	$(6.33 \pm 3.31)E-03$	$(3.47 \pm 2.93)E-03$
Bream	3	$(2.01 \pm 4.24)E-03$	$(6.87 \pm 5.41)E-03$	$(-0.95 \pm 5.08)E-03$
Freshwater catfish	3	$(4.09 \pm 2.50)E-03$	$(6.52 \pm 2.96)E-03$	$(1.53 \pm 2.67)E-03$
Steel Creek River Mouth				
Bass	3	$(6.18 \pm 4.23)E-03$	$(1.09 \pm 0.32)E-02$	$(2.77 \pm 1.95)E-03$
Bream	3	$(5.19 \pm 1.30)E-03$	$(6.07 \pm 6.19)E-03$	$(3.69 \pm 5.37)E-03$
Freshwater catfish	3	$(5.43 \pm 2.51)E-03$	$(7.48 \pm 3.02)E-03$	$(2.63 \pm 2.74)E-03$
U3R Creek River Mouth				
Bass	3	$(1.44 \pm 1.93)E-02$	$(3.64 \pm 0.44)E-02$	$(0.58 \pm 2.93)E-03$
Bream	3	$(1.57 \pm 1.13)E-02$	$(2.87 \pm 1.20)E-02$	$(7.73 \pm 6.31)E-03$
Freshwater catfish	3	$(7.42 \pm 0.48)E-03$	$(7.83 \pm 3.18)E-03$	$(6.89 \pm 3.12)E-03$
Offsite (Nonedible)				
Augusta Lock and Dam				
Bass	3	$(4.33 \pm 4.67)E-01$	$(9.65 \pm 0.52)E-01$	$(8.86 \pm 2.41)E-02$
Bream	3	$(8.71 \pm 2.29)E-02$	$(1.01 \pm 0.24)E-01$	$(6.07 \pm 1.14)E-02$

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Freshwater catfish	3	$(1.01 \pm 0.14)E-01$	$(1.14 \pm 0.23)E-01$	$(8.64 \pm 2.02)E-02$
Beaver Dam Creek River Mouth				
Bass	3	$(2.60 \pm 0.29)E-01$	$(2.90 \pm 0.24)E-01$	$(2.31 \pm 0.50)E-01$
Bream	3	$(5.18 \pm 2.59)E-01$	$(8.02 \pm 0.35)E-01$	$(2.95 \pm 0.35)E-01$
Freshwater catfish	3	$(2.49 \pm 0.70)E-01$	$(3.21 \pm 0.49)E-01$	$(1.82 \pm 0.46)E-01$
Four Mile Creek River Mouth				
Bass	3	$(5.92 \pm 3.57)E-01$	$(9.63 \pm 0.79)E-01$	$(2.51 \pm 0.27)E-01$
Bream	3	$(3.80 \pm 5.13)E-01$	$(9.72 \pm 0.66)E-01$	$(8.36 \pm 1.28)E-02$
Freshwater catfish	3	$(3.79 \pm 1.99)E-01$	$(5.53 \pm 0.42)E-01$	$(1.63 \pm 0.41)E-01$
Hwy-301 Bridge Area				
Bass	3	$(2.55 \pm 0.52)E-01$	$(2.93 \pm 0.50)E-01$	$(1.95 \pm 0.46)E-01$
Bream	3	$(2.74 \pm 1.37)E-01$	$(4.32 \pm 0.56)E-01$	$(1.87 \pm 0.45)E-01$
Freshwater catfish	3	$(1.62 \pm 0.39)E-01$	$(2.00 \pm 0.44)E-01$	$(1.23 \pm 0.39)E-01$
L3R Creek River Mouth				
Bass	3	$(1.25 \pm 0.31)E-01$	$(1.58 \pm 0.34)E-01$	$(9.64 \pm 8.19)E-02$
Bream	3	$(2.45 \pm 0.24)E-01$	$(2.72 \pm 0.43)E-01$	$(2.27 \pm 0.41)E-01$
Freshwater catfish	3	$(1.21 \pm 0.37)E-01$	$(1.63 \pm 0.33)E-01$	$(9.45 \pm 2.07)E-02$
Steel Creek River Mouth				
Bass	3	$(6.24 \pm 3.86)E-01$	$(1.07 \pm 0.08)E+00$	$(3.48 \pm 0.54)E-01$
Bream	3	$(1.54 \pm 0.31)E-01$	$(1.87 \pm 0.39)E-01$	$(1.24 \pm 0.25)E-01$
Freshwater catfish	3	$(1.96 \pm 0.58)E-01$	$(2.62 \pm 0.37)E-01$	$(1.53 \pm 0.32)E-01$
U3R Creek River Mouth				
Bass	3	$(6.55 \pm 8.36)E-01$	$(1.62 \pm 0.05)E+00$	$(1.40 \pm 0.23)E-01$
Bream	3	$(2.06 \pm 0.51)E-01$	$(2.53 \pm 0.42)E-01$	$(1.51 \pm 0.34)E-01$
Freshwater catfish	3	$(7.70 \pm 0.95)E-02$	$(8.72 \pm 1.87)E-02$	$(6.85 \pm 1.64)E-02$
Gross Beta, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bass	3	$(2.29 \pm 0.16)E+00$	$(2.46 \pm 0.37)E+00$	$(2.13 \pm 0.35)E+00$
Bream	3	$(2.08 \pm 0.57)E+00$	$(2.62 \pm 0.37)E+00$	$(1.49 \pm 0.32)E+00$
Freshwater catfish	3	$(2.18 \pm 0.25)E+00$	$(2.46 \pm 0.36)E+00$	$(1.97 \pm 0.34)E+00$
Beaver Dam Creek River Mouth				
Bass	3	$(2.17 \pm 0.52)E+00$	$(2.75 \pm 0.42)E+00$	$(1.72 \pm 0.38)E+00$
Bream	3	$(2.22 \pm 0.85)E+00$	$(3.15 \pm 0.50)E+00$	$(1.48 \pm 0.23)E+00$

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Freshwater catfish	3	(2.30 $\pm$ 0.28)E+00	(2.53 $\pm$ 0.51)E+00	(1.99 $\pm$ 0.42)E+00
Four Mile Creek River Mouth				
Bass	3	(2.40 $\pm$ 0.51)E+00	(2.92 $\pm$ 0.43)E+00	(1.89 $\pm$ 0.39)E+00
Bream	3	(2.02 $\pm$ 0.78)E+00	(2.92 $\pm$ 0.48)E+00	(1.52 $\pm$ 0.32)E+00
Freshwater catfish	3	(1.95 $\pm$ 0.19)E+00	(2.17 $\pm$ 0.43)E+00	(1.82 $\pm$ 0.33)E+00
Hwy-17A Bridge Area				
Bass	3	(1.89 $\pm$ 0.33)E+00	(2.16 $\pm$ 0.33)E+00	(1.52 $\pm$ 0.30)E+00
Bream	3	(1.42 $\pm$ 0.36)E+00	(1.69 $\pm$ 0.31)E+00	(1.02 $\pm$ 0.28)E+00
Freshwater catfish	3	(1.84 $\pm$ 0.32)E+00	(2.16 $\pm$ 0.33)E+00	(1.52 $\pm$ 0.30)E+00
Hwy-301 Bridge Area				
Bass	3	(2.44 $\pm$ 0.25)E+00	(2.73 $\pm$ 0.41)E+00	(2.29 $\pm$ 0.36)E+00
Bream	3	(2.64 $\pm$ 0.78)E+00	(3.50 $\pm$ 0.44)E+00	(1.98 $\pm$ 0.42)E+00
Freshwater catfish	3	(2.91 $\pm$ 0.75)E+00	(3.36 $\pm$ 0.47)E+00	(2.04 $\pm$ 0.42)E+00
L3R Creek River Mouth				
Bass	3	(2.90 $\pm$ 0.96)E+00	(3.57 $\pm$ 0.49)E+00	(1.80 $\pm$ 0.34)E+00
Bream	3	(2.77 $\pm$ 0.37)E+00	(3.15 $\pm$ 0.47)E+00	(2.41 $\pm$ 0.31)E+00
Freshwater catfish	3	(3.25 $\pm$ 0.11)E+00	(3.36 $\pm$ 0.47)E+00	(3.15 $\pm$ 0.30)E+00
Steel Creek River Mouth				
Bass	3	(2.40 $\pm$ 0.30)E+00	(2.57 $\pm$ 0.41)E+00	(2.06 $\pm$ 0.39)E+00
Bream	3	(2.23 $\pm$ 0.26)E+00	(2.38 $\pm$ 0.43)E+00	(1.94 $\pm$ 0.25)E+00
Freshwater catfish	3	(3.43 $\pm$ 0.60)E+00	(3.99 $\pm$ 0.50)E+00	(2.80 $\pm$ 0.41)E+00
Stokes Bluff Landing				
Bass	3	(1.99 $\pm$ 0.62)E+00	(2.70 $\pm$ 0.47)E+00	(1.62 $\pm$ 0.33)E+00
Bream	3	(2.12 $\pm$ 0.66)E+00	(2.78 $\pm$ 0.39)E+00	(1.46 $\pm$ 0.32)E+00
Freshwater catfish	3	(2.38 $\pm$ 0.22)E+00	(2.60 $\pm$ 0.44)E+00	(2.17 $\pm$ 0.30)E+00
U3R Creek River Mouth				
Bass	3	(2.88 $\pm$ 1.42)E+00	(3.82 $\pm$ 0.52)E+00	(1.24 $\pm$ 0.31)E+00
Bream	3	(2.99 $\pm$ 0.48)E+00	(3.37 $\pm$ 0.50)E+00	(2.45 $\pm$ 0.40)E+00
Freshwater catfish	3	(3.12 $\pm$ 0.52)E+00	(3.50 $\pm$ 0.45)E+00	(2.52 $\pm$ 0.44)E+00
Onsite (Edible)				
Beaver Dam Creek (400-D)				
Freshwater catfish	1	(2.68 $\pm$ 0.43)E+00		
L-Lake				
Bass	3	(3.79 $\pm$ 0.71)E+00	(4.55 $\pm$ 0.49)E+00	(3.15 $\pm$ 0.42)E+00

Table 26
Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Bream	3	(2.84 $\pm$ 0.41)E+00	(3.28 $\pm$ 0.40)E+00	(2.46 $\pm$ 0.37)E+00
L3R-2 Patterson Mill Rd				
Bass	3	(6.37 $\pm$ 0.33)E+00	(6.64 $\pm$ 0.50)E+00	(6.01 $\pm$ 0.48)E+00
Bream	3	(3.30 $\pm$ 0.47)E+00	(3.84 $\pm$ 0.40)E+00	(3.00 $\pm$ 0.38)E+00
PAR Pond				
Bass	3	(4.69 $\pm$ 0.56)E+00	(5.26 $\pm$ 0.47)E+00	(4.14 $\pm$ 0.43)E+00
Bream	3	(3.12 $\pm$ 1.01)E+00	(4.14 $\pm$ 0.43)E+00	(2.13 $\pm$ 0.35)E+00
Pond B				
Bass	3	(4.78 $\pm$ 0.45)E+01	(5.18 $\pm$ 0.13)E+01	(4.29 $\pm$ 0.12)E+01
Bream	3	(1.88 $\pm$ 0.32)E+01	(2.18 $\pm$ 0.06)E+01	(1.53 $\pm$ 0.07)E+01
SC-4 Steel Creek at Road A				
Bass	3	(2.18 $\pm$ 0.25)E+00	(2.46 $\pm$ 0.36)E+00	(1.97 $\pm$ 0.34)E+00
Bream	3	(2.15 $\pm$ 0.59)E+00	(2.75 $\pm$ 0.42)E+00	(1.57 $\pm$ 0.32)E+00
Freshwater catfish	3	(2.79 $\pm$ 0.37)E+00	(3.00 $\pm$ 0.38)E+00	(2.37 $\pm$ 0.35)E+00
U3R-4 at Road A				
Bass	1	(3.16 $\pm$ 0.38)E+00		
Freshwater catfish	1	(1.89 $\pm$ 0.27)E+00		
Offsite (Nonedible)				
Augusta Lock and Dam				
Bass	3	(2.06 $\pm$ 1.36)E+00	(2.85 $\pm$ 0.89)E+00	(4.91 $\pm$ 8.22)E-01
Bream	3	(1.44 $\pm$ 0.86)E+00	(2.31 $\pm$ 0.87)E+00	(5.90 $\pm$ 8.37)E-01
Freshwater catfish	3	(4.06 $\pm$ 5.42)E+00	(1.03 $\pm$ 0.11)E+01	(5.90 $\pm$ 7.29)E-01
Beaver Dam Creek River Mouth				
Bass	3	(2.20 $\pm$ 1.02)E+00	(3.28 $\pm$ 0.90)E+00	(1.25 $\pm$ 0.80)E+00
Bream	3	(1.63 $\pm$ 1.18)E+00	(2.63 $\pm$ 1.17)E+00	(3.31 $\pm$ 7.22)E-01
Freshwater catfish	3	(2.11 $\pm$ 1.85)E+00	(3.91 $\pm$ 1.21)E+00	(2.19 $\pm$ 6.59)E-01
Four Mile Creek River Mouth				
Bass	3	(4.71 $\pm$ 3.31)E+00	(8.32 $\pm$ 1.12)E+00	(1.80 $\pm$ 0.84)E+00
Bream	3	(1.93 $\pm$ 1.24)E+00	(3.25 $\pm$ 1.15)E+00	(7.92 $\pm$ 7.07)E-01
Freshwater catfish	3	(7.95 $\pm$ 3.53)E-01	(1.19 $\pm$ 0.95)E+00	(0.51 $\pm$ 1.03)E+00
Hwy-301 Bridge Area				
Bass	3	(2.38 $\pm$ 1.18)E+00	(3.24 $\pm$ 0.96)E+00	(1.03 $\pm$ 0.85)E+00
Bream	3	(2.85 $\pm$ 0.78)E+00	(3.54 $\pm$ 1.01)E+00	(2.00 $\pm$ 0.79)E+00
Freshwater catfish	3	(3.68 $\pm$ 6.05)E-01	(7.35 $\pm$ 5.33)E-01	(-3.31 $\pm$ 6.08)E-01

Table 26
Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
L3R Creek River Mouth				
Bass	3	$(1.39 \pm 0.36)E+00$	$(1.65 \pm 0.90)E+00$	$(9.79 \pm 7.22)E-01$
Bream	3	$(2.71 \pm 0.92)E+00$	$(3.75 \pm 1.22)E+00$	$(2.05 \pm 0.81)E+00$
Freshwater catfish	3	$(2.10 \pm 0.45)E+00$	$(2.59 \pm 0.88)E+00$	$(1.69 \pm 0.90)E+00$
Steel Creek River Mouth				
Bass	3	$(2.85 \pm 1.94)E+00$	$(5.08 \pm 0.97)E+00$	$(1.57 \pm 0.82)E+00$
Bream	3	$(2.11 \pm 1.37)E+00$	$(3.69 \pm 1.27)E+00$	$(1.29 \pm 0.68)E+00$
Freshwater catfish	3	$(2.50 \pm 1.44)E+00$	$(3.82 \pm 1.22)E+00$	$(9.56 \pm 5.77)E-01$
U3R Creek River Mouth				
Bass	3	$(3.91 \pm 2.81)E+00$	$(7.15 \pm 1.24)E+00$	$(2.10 \pm 0.78)E+00$
Bream	3	$(2.03 \pm 0.41)E+00$	$(2.44 \pm 0.97)E+00$	$(1.63 \pm 1.08)E+00$
Freshwater catfish	3	$(1.80 \pm 0.72)E+00$	$(2.63 \pm 0.89)E+00$	$(1.36 \pm 0.87)E+00$
Gross Alpha, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bass	3	$(-1.06 \pm 0.72)E-01$	$(-0.36 \pm 1.33)E-01$	$(-1.80 \pm 0.88)E-01$
Bream	3	$(3.88 \pm 1.25)E-02$	$(0.52 \pm 1.57)E-01$	$(0.28 \pm 1.51)E-01$
Freshwater catfish	3	$(-0.08 \pm 1.11)E-01$	$(1.11 \pm 1.72)E-01$	$(-1.08 \pm 1.13)E-01$
Beaver Dam Creek River Mouth				
Bass	3	$(-6.86 \pm 4.16)E-02$	$(-0.45 \pm 1.20)E-01$	$(-1.17 \pm 0.92)E-01$
Bream	3	$(0.56 \pm 1.74)E-01$	$(2.47 \pm 2.46)E-01$	$(-9.10 \pm 9.19)E-02$
Freshwater catfish	3	$(-7.40 \pm 9.84)E-02$	$(-0.01 \pm 1.30)E-01$	$(-1.86 \pm 0.94)E-01$
Four Mile Creek River Mouth				
Bass	3	$(-4.35 \pm 7.38)E-02$	$(0.31 \pm 1.50)E-01$	$(-1.17 \pm 0.92)E-01$
Bream	3	$(-0.36 \pm 1.46)E-01$	$(1.30 \pm 1.80)E-01$	$(-1.44 \pm 1.57)E-01$
Freshwater catfish	3	$(-2.36 \pm 3.97)E-02$	$(-0.01 \pm 1.28)E-01$	$(-6.94 \pm 6.82)E-02$
Hwy-17A Bridge Area				
Bass	3	$(-3.01 \pm 3.14)E-02$	$(-0.06 \pm 8.98)E-02$	$(-6.31 \pm 6.35)E-02$
Bream	3	$(-0.01 \pm 1.08)E-01$	$(1.25 \pm 1.26)E-01$	$(-6.31 \pm 6.16)E-02$
Freshwater catfish	3	$(-0.07 \pm 6.24)E-02$	$(0.62 \pm 1.08)E-01$	$(-6.31 \pm 6.16)E-02$
Hwy-301 Bridge Area				
Bass	3	$(-6.88 \pm 5.02)E-02$	$(-0.36 \pm 1.36)E-01$	$(-1.27 \pm 0.75)E-01$
Bream	3	$(3.42 \pm 5.14)E-02$	$(0.65 \pm 1.44)E-01$	$(-0.25 \pm 1.68)E-01$
Freshwater catfish	3	$(-1.17 \pm 1.04)E-01$	$(-0.27 \pm 1.66)E-01$	$(-2.31 \pm 1.11)E-01$

Table 26
Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
L3R Creek River Mouth				
Bass	3	$(-0.29 \pm 3.01)E-02$	$(0.32 \pm 1.93)E-01$	$(-0.25 \pm 1.30)E-01$
Bream	3	$(-1.50 \pm 0.73)E-01$	$(-0.89 \pm 1.12)E-01$	$(-2.31 \pm 1.11)E-01$
Freshwater catfish	3	$(3.46 \pm 9.79)E-02$	$(1.41 \pm 1.60)E-01$	$(-0.53 \pm 1.71)E-01$
Steel Creek River Mouth				
Bass	3	$(2.80 \pm 7.21)E-02$	$(1.00 \pm 1.53)E-01$	$(-0.45 \pm 1.23)E-01$
Bream	3	$(-0.84 \pm 1.08)E-01$	$(0.28 \pm 1.14)E-01$	$(-1.87 \pm 0.93)E-01$
Freshwater catfish	3	$(-5.77 \pm 3.93)E-02$	$(-0.15 \pm 1.12)E-01$	$(-9.27 \pm 8.39)E-02$
Stokes Bluff Landing				
Bass	3	$(-0.50 \pm 1.03)E-01$	$(0.46 \pm 1.47)E-01$	$(-1.59 \pm 0.87)E-01$
Bream	3	$(-5.57 \pm 2.84)E-02$	$(-0.31 \pm 1.36)E-01$	$(-0.87 \pm 1.11)E-01$
Freshwater catfish	3	$(-9.60 \pm 0.96)E-02$	$(-8.99 \pm 6.31)E-02$	$(-1.07 \pm 1.14)E-01$
U3R Creek River Mouth				
Bass	3	$(-1.26 \pm 0.92)E-01$	$(-0.61 \pm 1.84)E-01$	$(-2.31 \pm 1.13)E-01$
Bream	3	$(-1.30 \pm 1.05)E-01$	$(-0.46 \pm 1.68)E-01$	$(-2.47 \pm 1.25)E-01$
Freshwater catfish	3	$(-5.17 \pm 6.27)E-02$	$(-0.15 \pm 1.13)E-01$	$(-1.24 \pm 1.43)E-01$
Onsite (Edible)				
Beaver Dam Creek (400-D)				
Freshwater catfish	1	$(-0.46 \pm 1.25)E-01$		
L-Lake				
Bass	3	$(1.11 \pm 0.86)E-01$	$(2.10 \pm 1.75)E-01$	$(0.61 \pm 1.36)E-01$
Bream	3	$(-1.18 \pm 0.78)E-01$	$(-0.41 \pm 1.43)E-01$	$(-1.97 \pm 0.93)E-01$
L3R-2 Patterson Mill Rd				
Bass	3	$(-7.06 \pm 4.44)E-02$	$(-0.41 \pm 1.41)E-01$	$(-1.22 \pm 1.27)E-01$
Bream	3	$(0.17 \pm 1.73)E-01$	$(2.05 \pm 1.80)E-01$	$(-1.34 \pm 1.05)E-01$
PAR Pond				
Bass	3	$(-1.51 \pm 0.79)E-01$	$(-0.70 \pm 1.30)E-01$	$(-2.29 \pm 0.87)E-01$
Bream	3	$(-1.53 \pm 0.55)E-01$	$(-1.03 \pm 1.15)E-01$	$(-2.12 \pm 0.97)E-01$
Pond B				
Bass	3	$(-8.30 \pm 1.64)E-01$	$(-6.72 \pm 1.87)E-01$	$(-9.99 \pm 1.33)E-01$
Bream	3	$(-3.53 \pm 0.39)E-01$	$(-3.11 \pm 1.54)E-01$	$(-3.88 \pm 1.00)E-01$
SC-4 Steel Creek at Road A				
Bass	3	$(-3.17 \pm 6.31)E-02$	$(0.31 \pm 1.46)E-01$	$(-0.95 \pm 1.10)E-01$
Bream	3	$(1.57 \pm 8.51)E-02$	$(1.13 \pm 1.72)E-01$	$(-0.45 \pm 1.21)E-01$

Table 26
Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Freshwater catfish	3	$(-0.92 \pm 1.12)E-01$	$(0.30 \pm 1.42)E-01$	$(-1.90 \pm 0.84)E-01$
U3R-4 at Road A				
Bass	1	$(-1.20 \pm 1.10)E-01$		
Freshwater catfish	1	$(-7.16 \pm 7.59)E-02$		
Offsite (Nonedible)				
Augusta Lock and Dam				
Bass	3	$(-0.83 \pm 1.41)E-01$	$(-0.01 \pm 6.59)E-01$	$(-2.46 \pm 2.41)E-01$
Bream	3	$(1.61 \pm 2.82)E-01$	$(4.86 \pm 4.89)E-01$	$(-0.01 \pm 6.95)E-01$
Freshwater catfish	3	$(7.74 \pm 2.47)E-01$	$(1.03 \pm 0.54)E+00$	$(5.41 \pm 5.15)E-01$
Beaver Dam Creek River Mouth				
Bass	3	$(-1.68 \pm 2.61)E-01$	$(1.02 \pm 4.62)E-01$	$(-4.20 \pm 2.89)E-01$
Bream	3	$(-2.41 \pm 6.72)E-01$	$(2.75 \pm 4.66)E-01$	$(-1.00 \pm 0.63)E+00$
Freshwater catfish	3	$(-2.59 \pm 2.40)E-01$	$(-0.01 \pm 2.76)E-01$	$(-4.75 \pm 7.66)E-01$
Four Mile Creek River Mouth				
Bass	3	$(-3.05 \pm 1.08)E-01$	$(-2.17 \pm 3.39)E-01$	$(-4.25 \pm 3.10)E-01$
Bream	3	$(-3.20 \pm 3.87)E-01$	$(-0.01 \pm 2.95)E-01$	$(-7.51 \pm 4.42)E-01$
Freshwater catfish	3	$(0.21 \pm 7.03)E-01$	$(8.13 \pm 9.28)E-01$	$(-5.26 \pm 3.54)E-01$
Hwy-301 Bridge Area				
Bass	3	$(1.26 \pm 4.77)E-01$	$(4.72 \pm 4.71)E-01$	$(-4.18 \pm 4.17)E-01$
Bream	3	$(-1.55 \pm 2.66)E-01$	$(-0.01 \pm 2.98)E-01$	$(-4.62 \pm 4.58)E-01$
Freshwater catfish	3	$(-0.76 \pm 1.30)E-01$	$(00.00 \pm 2.55)E-01$	$(-2.26 \pm 1.59)E-01$
L3R Creek River Mouth				
Bass	3	$(-1.11 \pm 0.78)E-01$	$(-0.66 \pm 4.70)E-01$	$(-2.00 \pm 1.98)E-01$
Bream	3	$(-5.55 \pm 5.98)E-01$	$(-0.01 \pm 3.26)E-01$	$(-1.19 \pm 0.74)E+00$
Freshwater catfish	3	$(0.91 \pm 4.21)E-01$	$(5.64 \pm 6.13)E-01$	$(-2.44 \pm 2.25)E-01$
Steel Creek River Mouth				
Bass	3	$(-2.61 \pm 3.46)E-01$	$(0.43 \pm 3.95)E-01$	$(-6.38 \pm 4.66)E-01$
Bream	3	$(-4.38 \pm 7.58)E-01$	$(-0.01 \pm 2.79)E-01$	$(-1.31 \pm 0.79)E+00$
Freshwater catfish	3	$(-2.17 \pm 2.47)E-01$	$(0.46 \pm 2.58)E-01$	$(-4.44 \pm 6.56)E-01$
U3R Creek River Mouth				
Bass	3	$(2.81 \pm 2.73)E-01$	$(5.44 \pm 8.16)E-01$	$(-0.01 \pm 2.83)E-01$
Bream	3	$(4.44 \pm 6.30)E-01$	$(1.13 \pm 0.97)E+00$	$(-1.15 \pm 8.51)E-01$
Freshwater catfish	3	$(1.11 \pm 1.36)E-01$	$(2.16 \pm 4.70)E-01$	$(-0.43 \pm 3.19)E-01$

Table 27
Radioactivity in Aquatic Food Products — Marine (Saltwater) Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
<i>Note: Only edible portions were analyzed.</i>				
Co-60, pCi/g				
RM-0/8 Savannah River Mouth (Hwy-17A Bridge Area)				
Marine mullet	3	$(8.09 \pm 1.93)E-03$	$(1.03 \pm 1.62)E-02$	$(0.66 \pm 1.20)E-02$
Red fish (drum)	2	$(1.90 \pm 0.67)E-02$	$(2.37 \pm 1.39)E-02$	$(1.42 \pm 1.42)E-02$
Cs-137, pCi/g				
RM-0/8 Savannah River Mouth (Hwy-17A Bridge Area)				
Marine mullet	3	$(5.44 \pm 3.67)E-02$	$(9.52 \pm 1.87)E-02$	$(2.42 \pm 1.34)E-02$
Red fish (drum)	2	$(4.92 \pm 2.12)E-02$	$(6.42 \pm 1.92)E-02$	$(3.43 \pm 1.33)E-02$
Gross Beta, pCi/g				
RM-0/8 Savannah River Mouth (Hwy-17A Bridge Area)				
Marine mullet	3	$(1.98 \pm 0.43)E+00$	$(2.37 \pm 0.35)E+00$	$(1.52 \pm 0.28)E+00$
Red fish (drum)	2	$(2.23 \pm 0.33)E+00$	$(2.46 \pm 0.35)E+00$	$(2.00 \pm 0.32)E+00$
Gross Alpha, pCi/g				
RM-0/8 Savannah River Mouth (Hwy-17A Bridge Area)				
Marine mullet	3	$(-2.53 \pm 7.99)E-02$	$(5.68 \pm 9.80)E-02$	$(-1.03 \pm 1.06)E-01$
Red fish (drum)	2	$(0.00 \pm 8.93)E-02$	$(0.63 \pm 1.10)E-01$	$(-6.31 \pm 6.35)E-02$

Table 28
Radioactivity in Aquatic Food Products — Marine Invertebrates (Shellfish)

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Co-60, pCi/g				
RM-0/8 Savannah River Mouth (Hwy-17A Bridge Area)	2	$(2.52 \pm 3.51)E-02$	$(5.01 \pm 1.33)E-02$	$(0.41 \pm 7.47)E-03$
Cs-137, pCi/g				
RM-0/8 Savannah River Mouth (Hwy-17A Bridge Area)	2	$(3.89 \pm 1.79)E-03$	$(5.15 \pm 6.39)E-03$	$(0.26 \pm 1.22)E-02$
Sr-89,90, pCi/g				
RM-0/8 Savannah River Mouth (Hwy-17A Bridge Area)	2	$(1.18 \pm 0.27)E-02$	$(1.37 \pm 0.67)E-02$	$(9.88 \pm 6.56)E-03$
Gross Beta, pCi/g				
RM-0/8 Savannah River Mouth (Hwy-17A Bridge Area)	2	$(5.64 \pm 2.42)E-01$	$(7.34 \pm 1.97)E-01$	$(3.93 \pm 1.66)E-01$
Gross Alpha, pCi/g				
RM-0/8 Savannah River Mouth (Hwy-17A Bridge Area)	2	$(1.71 \pm 1.36)E-01$	$(2.67 \pm 1.31)E-01$	$(7.51 \pm 9.27)E-02$

Table 29
Strontium-89,90 in Deer Muscle and Bone

Page 1 of 2

Date	Sample Number	Animal Type	Media	Sr-89,90 (pCi/g)
<i>Note: Blank spaces indicate activity was less than the lower limit of detection (.095 pCi/g).</i>				
10/29/97	1	Deer	Muscle	
10/29/97	1	Deer	Muscle	
10/29/97	1	Deer	Bone	12.7 ± 1.0
11/05/97	1	Deer	Muscle	
11/05/97	1	Deer	Muscle	
11/05/97	1	Deer	Bone	6.9 ± 0.8
11/05/97	2	Deer	Muscle	
11/05/97	3	Deer	Muscle	
11/05/97	3	Deer	Muscle	
11/05/97	3	Deer	Bone	6.8 ± 0.8
11/08/97	1	Deer	Muscle	
11/08/97	1	Deer	Muscle	
11/08/97	1	Deer	Bone	11.5 ± 1.0
11/12/97	1	Deer	Muscle	
11/12/97	1	Deer	Muscle	
11/12/97	1	Deer	Bone	2.6 ± 0.6
11/12/97	2	Deer	Muscle	
11/15/97	3	Deer	Muscle	
11/15/97	3	Deer	Muscle	
11/15/97	3	Deer	Bone	21.3 ± 1.3
11/19/97	1	Deer	Muscle	
11/19/97	1	Deer	Muscle	
11/19/97	1	Deer	Bone	12.7 ± 1.0
11/26/97	1	Deer	Muscle	
11/26/97	1	Deer	Muscle	
11/26/97	1	Deer	Bone	9.6 ± 0.9
12/03/97	1	Deer	Muscle	
12/03/97	1	Deer	Muscle	
12/03/97	1	Deer	Bone	8.0 ± 0.9
12/03/97	2	Hog	Muscle	
12/03/97	2	Hog	Bone	7.6 ± 0.9
12/06/97	1	Deer	Muscle	

Table 29
Strontium-89,90 in Deer Muscle and Bone

Page 2 of 2

Date	Sample Number	Animal Type	Media	Sr-89,90 (pCi/g)
12/06/97	1	Deer	Muscle	2.2 ± 0.7
12/06/97	1	Deer	Bone	
12/06/97	2	Deer	Muscle	5.3 ± 0.8
12/10/97	1	Deer	Muscle	
12/10/97	1	Deer	Muscle	
12/10/97	1	Deer	Bone	
12/10/97	2	Deer	Muscle	10.7 ± 0.7
12/13/97	3	Deer	Muscle	
12/13/97	3	Deer	Muscle	
12/13/97	3	Deer	Bone	
12/13/97	4	Deer	Muscle	9.4 ± 0.9
12/13/97	4	Deer	Muscle	
12/13/97	4	Deer	Bone	

Table 30
Radioactivity in Soil

Page 1 of 1

Location	pCi/g $\pm$ σ ; dry weight; 0-8 cm depth				
	Co-60	Cs-137	Pu-238	Pu-239	Sr-89,90
F-Area					
2000 feet west	(-0.78 $\pm$ 8.78)E-03	(9.86 $\pm$ 1.76)E-02	(1.60 $\pm$ 0.30)E-02	(1.21 $\pm$ 0.27)E-02	(1.71 $\pm$ 2.89)E-02
H-Area					
2000 feet east	(-1.00 $\pm$ 1.05)E-02	(1.75 $\pm$ 0.24)E-01	(1.25 $\pm$ 1.01)E-03	(1.31 $\pm$ 0.28)E-02	(0.11 $\pm$ 2.79)E-02
Z-Area					
#3	(0.13 $\pm$ 6.67)E-03	(8.32 $\pm$ 8.75)E-03	(4.55 $\pm$ 6.40)E-04	(-3.58 $\pm$ 7.65)E-04	(-0.24 $\pm$ 2.75)E-02
Burial Ground					
643-26E-2	(-0.83 $\pm$ 1.61)E-02	(-1.15 $\pm$ 2.07)E-02	(-2.19 $\pm$ 1.31)E-04	(1.09E $\pm$ 0.55)E-03	(1.35 $\pm$ 2.03)E-02
Site Perimeter					
Hwy 301 @ state line	(0.72 $\pm$ 1.82)E-02	(1.36 $\pm$ 0.30)E-01	(1.07 $\pm$ 1.48)E-03	(4.17 $\pm$ 2.00)E-03	(1.08 $\pm$ 0.35)E-01
100-Mile-Radius					
Savannah, Ga.	(1.84 $\pm$ 1.08)E-02	(2.97 $\pm$ 1.73)E-02	(0.81 $\pm$ 7.24)E-04	(3.58 $\pm$ 9.07)E-04	(0.37 $\pm$ 1.15)E-02

Table 31
Radioactivity in River and Stream Sediment

Location	River Mile	1993	1994	1995	1996	1997
<i>Note: Blank spaces indicate activity was below the lower limit of detection.</i>						
Co-60, pCi/g (dry weight)						
Savannah River						
Beaver Dam Creek river mouth						$(-0.79 \pm 1.08)E-02$
Highway 301	118.7				$(0.22 \pm 2.16)E-02$	$(9.31 \pm 2.94)E-02$
Lower Three Runs mouth	129.0				$(0.01 \pm 2.53)E-02$	$(1.90 \pm 1.41)E-02$
Above Lower Three Runs	129.5				$(4.46 \pm 2.76)E-02$	
Below Little Hell Landing	134.0				$(7.01 \pm 2.24)E-02$	$(-0.28 \pm 1.11)E-02$
Above Little Hell Landing	136.6				$(1.07 \pm 2.21)E-02$	
Steel Creek-Pen Branch mouth	141.0	$(1.02 \pm 0.05)E+00$			$(2.82 \pm 0.69)E-02$	
Below Four Mile Creek	150.2				$(-1.09 \pm 2.72)E-02$	$(0.05 \pm 6.60)E-03$
R-3A above Vogtle	151.0					$(-2.11 \pm 2.32)E-02$
Upper Three Runs mouth	157.2				$(-0.74 \pm 1.26)E-02$	$(-1.09 \pm 1.28)E-02$
Demiere's Landing (control)	160.5				$(4.37 \pm 2.50)E-02$	$(-1.93 \pm 1.12)E-02$
SRS Streams						
Four Mile 2 at Road 4						$(1.10 \pm 0.62)E-02$
Four Mile 3A below F-Area effluent						$(-1.26 \pm 1.77)E-02$
Four Mile A-7A (in a beaver pond)			$(1.17 \pm 0.06)E+00$		$(1.92 \pm 0.12)E-01$	$(1.35 \pm 0.13)E-01$
Four Mile discharge at swamp			$(6.27 \pm 1.13)E-02$		$(2.11 \pm 1.07)E-02$	$(1.05 \pm 0.09)E-01$
Four Mile at Road A-7		$(8.74 \pm 1.32)E-02$	$(2.49 \pm 0.15)E-01$		$(1.57 \pm 0.80)E-02$	$(5.66 \pm 0.73)E-02$
Lower Three Runs 1A at Road B						$(0.86 \pm 1.06)E-02$
Pen Branch discharge at swamp		$(2.61 \pm 0.47)E-01$			$(8.43 \pm 3.51)E-02$	$(-4.69 \pm 3.23)E-02$
R-Area downstream of R-1						$(1.65 \pm 0.63)E-02$
Steel Creek discharge at swamp			$(3.17 \pm 0.26)E-01$	$(2.10 \pm 0.12)E-01$	$(9.12 \pm 0.89)E-02$	

Table 31
Radioactivity in River and Stream Sediment

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Location	River Mile	1993	1994	1995	1996	1997
Steel Creek 4 at Road A						(7.69 ± 0.92)E-02
Steel Creek at Road B (SC-2A, 1 mile above Road B)		(1.45 ± 0.19)E-01			(2.29 ± 1.16)E-02	(0.37 ± 1.16)E-02
Tims Branch 4A						(1.12 ± 0.71)E-02
Tims Branch 4B						(-1.39 ± 1.49)E-02
Tims Branch 5 near Road C						(0.45 ± 1.20)E-02
Tinker Creek 1						(-1.14 ± 1.11)E-02
Upper Three Runs 1A, Treadway Bridge, Road 8-1						(0.22 ± 1.55)E-02
Cs-137, pCi/g (dry weight)						
Savannah River						
Beaver Dam Creek river mouth						(7.42 ± 1.70)E-02
Highway 301	118.7	(1.51 ± 0.29)E-01	(2.40 ± 0.38)E-01	(2.03 ± 0.36)E-01	(2.64 ± 0.43)E-01	(5.13 ± 0.37)E-01
Lower Three Runs mouth	129.0	(1.17 ± 0.06)E+00	(3.80 ± 0.10)E-00	(1.43 ± 0.07)E+00	(2.94 ± 0.36)E-01	(1.24 ± 0.06)E+00
Above Lower Three Runs	129.5	(3.49 ± 0.31)E-01	(5.61 ± 0.59)E-01	(1.03 ± 0.05)E+00	(3.09 ± 0.43)E-01	
Below Little Hell Landing	134.0	(1.17 ± 0.26)E-01	(2.71 ± 0.42)E-01	(1.49 ± 0.07)E+00	(9.34 ± 4.70)E-01	(2.10 ± 1.17)E-02
Above Little Hell Landing	136.6	(2.89 ± 0.24)E-01		(4.33 ± 0.41)E-01	(1.07 ± 0.28)E-01	
Steel Creek-Pen Branch mouth	141.0	(3.68 ± 0.03)E+01	(2.37 ± 0.43)E-01	(5.36 ± 0.11)E+00	(2.09 ± 0.07)E+00	
Below Four Mile Creek	150.2	(1.66 ± 0.35)E-01		(7.88 ± 0.53)E-01	(4.25 ± 0.45)E-01	(-2.19 ± 8.79)E-03
R-3A above Vogtle	151.0					(1.82 ± 2.32)E-02
Upper Three Runs mouth	157.2	(6.45 ± 0.44)E-01	(1.55 ± 0.35)E-01	(2.87 ± 0.53)E-01	(-0.97 ± 1.66)E-02	(1.97 ± 0.23)E-01
Demiere's Landing (control)	160.5	(1.44 ± 0.34)E-01	(1.01 ± 0.29)E-01	(2.62 ± 0.36)E-01	(1.57 ± 0.52)E-01	(2.85 ± 1.02)E-02
SRS Streams						
Four Mile 2 at Road 4						(6.90 ± 0.22)E+00
Four Mile 3A below F-Area effluent						(6.24 ± 0.50)E-01
Four Mile A-7A (in a beaver pond)		(3.15 ± 0.07)E+00	(8.88 ± 0.05)E+01	(7.73 ± 0.57)E-01	(1.89 ± 0.04)E+01	(1.89 ± 0.06)E+01

Table 31
Radioactivity in River and Stream Sediment

Page 3 of 8

Location	River Mile	1993	1994	1995	1996	1997
Four Mile discharge at swamp		$(6.61 \pm 0.32)E-01$	$(8.98 \pm 0.39)E+01$	$(4.23 \pm 0.17)E-01$	$(2.84 \pm 0.25)E-01$	$(2.62 \pm 0.09)E+00$
Four Mile at Road A-7		$(6.46 \pm 0.06)E+00$	$(1.66 \pm 0.01)E+01$	$(9.54 \pm 0.75)E-01$	$(2.34 \pm 0.08)E+00$	$(6.12 \pm 0.20)E+00$
Lower Three Runs 1A at Road B						$(7.05 \pm 0.50)E-01$
Pen Branch discharge at swamp		$(3.04 \pm 0.10)E+00$	$(2.82 \pm 0.22)E+00$	$(1.39 \pm 0.09)E+00$	$(2.45 \pm 0.15)E+00$	$(1.47 \pm 0.11)E+00$
R-Area downstream of R-1						$(1.39 \pm 0.05)E+00$
Steel Creek discharge at swamp		$(1.37 \pm 0.04)E+00$	$(1.03 \pm 0.02)E+01$	$(4.71 \pm 0.06)E+00$	$(3.77 \pm 0.12)E+00$	
Steel Creek 4 at Road A						$(1.57 \pm 0.06)E+00$
Steel Creek at Road B (SC-2A, 1 mile above Road B)		$(1.07 \pm 0.01)E+01$	$(2.91 \pm 0.31)E-01$	$(3.56 \pm 0.20)E-01$	$(2.15 \pm 0.27)E-01$	$(1.10 \pm 0.06)E+00$
Tims Branch 4A						$(1.97 \pm 1.14)E-02$
Tims Branch 4B						$(4.55 \pm 1.84)E-02$
Tims Branch 5 near Road C						$(-1.32 \pm 1.54)E-02$
Tinker Creek 1						$(7.69 \pm 2.72)E-02$
Upper Three Runs 1A, Treadway Bridge, Road 8-1						$(8.54 \pm 3.63)E-02$

U-235, pCi/g (dry weight)

Savannah River

Beaver Dam Creek river mouth	
Highway 301	118.7
Lower Three Runs mouth	129.0
Above Lower Three Runs	129.5
Below Little Hell Landing	134.0
Above Little Hell Landing	136.5
Steel Creek-Pen Branch mouth	141.0
Below Four Mile Creek	150.2

Table 31
Radioactivity in River and Stream Sediment

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Location	River Mile	1993	1994	1995	1996	1997
R-3A above Vogtle	151.0					
Upper Three Runs mouth	157.2					
Demiore's Landing (control)	160.5					
SRS Streams						
Four Mile 2 at Road 4						
Four Mile 3A below F-Area effluent						
Four Mile A-7A (in a beaver pond)						
Four Mile discharge at swamp						
Four Mile at Road A-7						
Lower Three Runs 1A at Road B						
Pen Branch discharge at swamp						
R-Area downstream of R-1						
Steel Creek discharge at swamp						
Steel Creek 4 at Road A						
Steel Creek at Road B (SC-2A, 1 mile above Road B)						
Tims Branch 4A						(1.42 ± 0.07)E+00
Tims Branch 4B						
Tims Branch 5 near Road C						
Tinker Creek 1						
Upper Three Runs 1A, Treadway Bridge, Road 8-1						
Pu-238, pCi/g (dry weight)						
Savannah River						
Beaver Dam Creek river mouth						(0.06 ± 3.21)E-04
Highway 301	118.7	(00.00 ± 5.65)E-04	(1.11 ± 0.26)E-03	(1.30 ± 0.52)E-03	(1.16 ± 0.53)E-03	(-4.53 ± 1.93)E-03

Table 31
Radioactivity in River and Stream Sediment

Location	River Mile	1993	1994	1995	1996	1997
Lower Three Runs mouth	129.0	(00.00 ± 4.13)E-04	(8.86 ± 3.80)E-04	(-0.58 ± 1.75)E-04	(-0.72 ± 1.12)E-03	(6.15 ± 8.22)E-04
Above Lower Three Runs	129.5	(-4.97 ± 4.97)E-04	(1.96 ± 2.36)E-04	(3.44 ± 2.69)E-04	(7.18 ± 4.01)E-04	
Below Little Hell Landing	134.0	(3.78 ± 1.89)E-04	(2.15 ± 1.14)E-04	(1.09 ± 0.27)E-03	(8.03 ± 5.91)E-04	(-2.75 ± 5.66)E-04
Above Little Hell Landing	136.5	(2.02 ± 1.78)E-04	(1.59 ± 0.92)E-04	(2.93 ± 2.32)E-04	(0.63 ± 2.31)E-04	
Steel Creek-Pen Branch mouth	141.0	(6.08 ± 0.30)E-02	(3.09 ± 1.89)E-04	(2.63 ± 0.54)E-03	(-0.17 ± 4.64)E-04	
Below Four Mile Creek	150.2	(-2.15 ± 2.15)E-04	(3.06 ± 1.31)E-04	(6.12 ± 4.33)E-04	(4.90 ± 7.97)E-04	(6.87 ± 9.02)E-04
R-3A above Vogtle	151.0					(2.80 ± 0.98)E-03
Upper Three Runs mouth	157.2	(3.24 ± 0.65)E-03	(1.97 ± 0.29)E-03	(2.82 ± 0.47)E-03	(2.13 ± 1.05)E-03	(3.27 ± 1.21)E-03
Demiere's Landing (control)	160.5	(2.00 ± 2.00)E-04	(1.51 ± 1.52)E-04	(1.21 ± 0.85)E-04	(-4.41 ± 3.52)E-04	(-1.53 ± 1.04)E-03
SRS Streams						
Four Mile 2 at Road 4						(8.53 ± 1.04)E-02
Four Mile 3A below F-Area effluent						(7.58 ± 2.27)E-03
Four Mile A-7A (in a beaver pond)		(3.08 ± 0.26)E-02	(1.23 ± 0.03)E+00	(3.08 ± 0.83)E-03	(2.09 ± 0.14)E-01	(2.60 ± 0.27)E-01
Four Mile discharge at swamp		(4.85 ± 0.86)E-03	(4.44 ± 0.51)E-03	(2.40 ± 0.43)E-03	(2.56 ± 1.06)E-03	(1.13 ± 0.24)E-02
Four Mile at Road A-7		(7.50 ± 0.41)E-02	(2.06 ± 0.006)E-01	(5.58 ± 7.65)E-04	(1.26 ± 0.17)E-02	(9.99 ± 1.14)E-02
Lower Three Runs 1A at Road B						(-1.17 ± 1.01)E-03
Pen Branch discharge at swamp		(4.76 ± 1.12)E-03	(5.94 ± 0.55)E-03	(1.45 ± 0.45)E-03	(3.66 ± 1.13)E-03	(1.17 ± 1.92)E-03
R-Area downstream of R-1						(9.53 ± 5.23)E-04
Steel Creek discharge at swamp		2.63 ± 0.44)E-03	(3.79 ± 0.18)E-02	(1.37 ± 0.14)E-02	(8.59 ± 1.43)E-03	
Steel Creek 4 at Road A						(6.59 ± 1.86)E-03
Steel Creek at Road B (SC-2A, 1 mile above Road B)		(5.09 ± 1.05)E-03	(6.61 ± 3.09)E-04	(1.36 ± 0.49)E-03	(4.46 ± 4.89)E-04	(4.65 ± 1.70)E-03
Tims Branch 4A						(-1.68 ± 6.59)E-04
Tims Branch 4B						(3.90 ± 8.22)E-04
Tims Branch 5 near Road C						(3.27 ± 8.42)E-04

Table 31
Radioactivity in River and Stream Sediment

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Location	River Mile	1993	1994	1995	1996	1997
Tinker Creek 1						$(-0.06 \pm 1.22)E-03$
Upper Three Runs 1A, Treadway Bridge, Road 8-1						$(0.21 \pm 1.08)E-03$
Pu-239, pCi/g (dry weight)						
Savannah River						
Beaver Dam Creek river mouth						$(7.28 \pm 3.59)E-04$
Highway 301	118.7	$(00.00 \pm 5.64)E-04$	$(3.88 \pm 1.67)E-04$	$(8.23 \pm 1.09)E-03$	$(9.51 \pm 5.40)E-04$	$(2.36 \pm 2.48)E-03$
Lower Three Runs mouth	129.0	$(1.75 \pm 0.82)E-03$	$(4.04 \pm 0.78)E-03$	$(1.92 \pm 0.34)E-03$	$(2.27 \pm 1.68)E-03$	$(-3.85 \pm 9.78)E-04$
Above Lower Three Runs	129.5	$(2.48 \pm 5.55)E-04$	$(2.48 \pm 0.43)E-03$	$(2.17 \pm 0.41)E-03$	$(3.75 \pm 4.27)E-04$	
Below Little Hell Landing	134.0	$(7.54 \pm 2.98)E-04$	$(1.00 \pm 0.20)E-03$	$(5.86 \pm 0.55)E-03$	$(3.88 \pm 5.11)E-04$	$(1.07 \pm 0.93)E-03$
Above Little Hell Landing	136.5	$(1.21 \pm 0.32)E-03$	$(5.28 \pm 1.84)E-04$	$(2.34 \pm 0.44)E-03$	$(2.71 \pm 3.11)E-04$	
Steel Creek-Pen Branch mouth	141.0	$(8.15 \pm 0.36)E-02$	$(4.10 \pm 1.79)E-04$	$(5.24 \pm 0.76)E-03$	$(-1.55 \pm 4.83)E-04$	
Below Four Mile Creek	150.2	$(4.29 \pm 3.03)E-04$	$(1.25 \pm 0.36)E-03$	$(2.89 \pm 0.77)E-03$	$(3.46 \pm 1.31)E-03$	$(-2.76 \pm 7.25)E-04$
R-3A above Vogtle	151.0					$(1.03 \pm 1.18)E-03$
Upper Three Runs mouth	157.2	$(1.52 \pm 0.14)E-02$	$(2.69 \pm 0.31)E-03$	$(5.05 \pm 0.62)E-03$	$(2.31 \pm 5.94)E-04$	$(3.97 \pm 1.95)E-03$
Demiere's Landing	160.5	$(9.97 \pm 3.46)E-04$	$(2.03 \pm 0.44)E-03$	$(1.26 \pm 0.29)E-03$	$(0.33 \pm 4.62)E-04$	$(-0.47 \pm 1.05)E-03$
SRS Streams						
Four Mile 2 at Road 4						$(3.13 \pm 2.11)E-03$
Four Mile 3A below F-Area effluent						$(1.50 \pm 0.33)E-02$
Four Mile A-7A (in a beaver pond)		$(1.55 \pm 0.18)E-02$	$(5.25 \pm 0.12)E-01$	$(1.30 \pm 0.59)E-03$	$(7.18 \pm 0.56)E-02$	$(1.24 \pm 0.15)E-01$
Four Mile discharge at swamp		$(3.76 \pm 0.76)E-03$	$(4.11 \pm 0.46)E-03$	$(1.81 \pm 0.37)E-03$	$(5.57 \pm 6.41)E-04$	$(4.95 \pm 1.48)E-03$
Four Mile at Road A-7		$(3.06 \pm 0.25)E-02$	$(8.72 \pm 0.31)E-02$	$(-7.78 \pm 6.19)E-04$	$(5.29 \pm 1.14)E-03$	$(5.58 \pm 0.75)E-02$
Lower Three Runs 1A at Road B						$(-1.98 \pm 0.96)E-03$
Pen Branch discharge at swamp		$(2.15 \pm 0.22)E-02$	$(1.43 \pm 0.09)E-02$	$(1.41 \pm 0.11)E-02$	$(1.97 \pm 0.27)E-02$	$(2.35 \pm 0.44)E-02$
R-Area downstream of R-1						$(1.08 \pm 0.55)E-03$

Table 31
Radioactivity in River and Stream Sediment

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Location	River Mile	1993	1994	1995	1996	1997
Steel Creek discharge at swamp		(2.62 ± 0.45)E-03	(2.90 ± 0.15)E-02	(1.21 ± 0.12)E-02	(8.65 ± 1.41)E-03	
Steel Creek 4 at Road A						(3.19 ± 1.44)E-03
Steel Creek at Road B (SC-2A, 1 mile above Road B)		(1.24 ± 0.16)E-02	(6.63 ± 0.75)E-03	(9.49 ± 0.99)E-03	(2.59 ± 0.77)E-03	(3.91 ± 1.72)E-03
Tims Branch 4A						(1.27 ± 0.93)E-03
Tims Branch 4B						(3.90 ± 8.21)E-04
Tims Branch 5 near Road C						(-0.27 ± 1.26)E-03
Tinker Creek 1						(1.32 ± 2.19)E-03
Upper Three Runs 1A, Treadway Bridge, Road 8-1						(-1.06 ± 0.80)E-03
Sr-89,90, pCi/g (dry weight)						
Savannah River						
Beaver Dam Creek river mouth						(0.91 ± 1.98)E-02
Highway 301	118.7	(-1.45 ± 1.47)E-02	(0.62 ± 1.62)E-02	(-0.23 ± 1.27)E-02	(2.77 ± 1.51)E-02	(2.92 ± 1.38)E-02
Lower Three Runs mouth	129.0	(-0.96 ± 2.20)E-02	(2.91 ± 1.46)E-02	(0.68 ± 1.28)E-02	(2.36 ± 1.46)E-02	(1.23 ± 1.73)E-02
Above Lower Three Runs	129.5	(-2.43 ± 1.38)E-02	(0.15 ± 1.51)E-02	(0.90 ± 1.24)E-02	(2.40 ± 1.50)E-02	
Below Little Hell Landing	134.0	(-0.18 ± 1.91)E-02	(0.74 ± 1.47)E-02	(0.94 ± 1.39)E-02	(1.97 ± 1.40)E-02	(0.35 ± 2.03)E-02
Above Little Hell Landing	136.5	(-2.49 ± 1.41)E-02	(1.23 ± 1.11)E-02	(-0.39 ± 1.30)E-02	(0.43 ± 1.38)E-02	
Steel Creek-Pen Branch mouth	141.0	(8.22 ± 2.57)E-02	(1.89 ± 1.48)E-02	(-0.09 ± 1.53)E-02	(-0.30 ± 1.79)E-02	
Below Four Mile Creek	150.2	(5.40 ± 3.17)E-02	(1.51 ± 1.40)E-02	(6.70 ± 1.56)E-02	(3.30 ± 1.16)E-02	(3.32 ± 2.29)E-02
R-3A above Vogtle	151.0					(2.81 ± 2.09)E-02
Upper Three Runs mouth	157.2	(3.49 ± 3.10)E-02	(0.21 ± 1.31)E-02	(-1.17 ± 1.45)E-02	(1.18 ± 1.59)E-02	(2.48 ± 2.02)E-02
Demiere's Landing (control)	160.5	(6.68 ± 3.23)E-02	(1.28 ± 1.46)E-02	(0.83 ± 1.14)E-02	(0.87 ± 1.21)E-02	(0.35 ± 2.04)E-02
SRS Streams						
Four Mile 2 at Road 4						(2.38 ± 2.45)E-02
Four Mile 3A below F-Area effluent						(5.28 ± 2.63)E-02

Table 31
Radioactivity in River and Stream Sediment

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Location	River Mile	1993	1994	1995	1996	1997
Four Mile A-7A (in a beaver pond)		$(4.35 \pm 1.71)E-02$	$(1.56 \pm 0.04)E+00$	$(8.77 \pm 0.31)E-01$	$(1.14 \pm 0.24)E-01$	$(7.16 \pm 0.53)E-01$
Four Mile discharge at swamp		$(1.15 \pm 1.56)E-02$	$(3.03 \pm 1.82)E-02$	$(4.36 \pm 1.69)E-02$	$(-0.17 \pm 1.77)E-02$	$(3.14 \pm 0.39)E-01$
Four Mile at Road A-7		$(2.47 \pm 0.26)E-01$	$(3.42 \pm 0.20)E-01$	$(4.17 \pm 0.27)E-01$	$(1.32 \pm 0.24)E-01$	$(3.79 \pm 0.30)E-01$
Lower Three Runs 1A at Road B						$(-2.19 \pm 2.13)E-02$
Pen Branch discharge at swamp		$(3.48 \pm 2.38)E-02$	$(1.25 \pm 0.23)E-01$	$(0.63 \pm 1.01)E-02$	$(0.18 \pm 1.17)E-02$	$(0.75 \pm 2.34)E-02$
R-Area downstream of R-1						$(1.39 \pm 2.38)E-02$
Steel Creek discharge at swamp		$(2.71 \pm 1.62)E-02$	$(-0.82 \pm 1.45)E-02$	$(1.55 \pm 1.64)E-02$	$(1.42 \pm 1.73)E-02$	
Steel Creek 4 at Road A						$(2.38 \pm 2.45)E-02$
Steel Creek at Road B (SC-2A, 1 mile above Road B)		$(-0.16 \pm 2.23)E-02$	$(0.00 \pm 1.62)E-02$	$(0.77 \pm 1.48)E-02$	$(3.55 \pm 1.91)E-02$	$(0.74 \pm 2.34)E-02$
Tims Branch 4A						$(1.06 \pm 1.67)E-02$
Tims Branch 4B						$(-1.20 \pm 2.19)E-02$
Tims Branch 5 near Road C						$(2.07 \pm 2.42)E-02$
Tinker Creek 1						$(-1.56 \pm 2.17)E-02$
Upper Three Runs 1A, Treadway Bridge, Road 8-1						$(-0.85 \pm 2.22)E-02$

Table 32
Radioactivity in Grassy Vegetation — Chemical, Retention, and Seepage Basin Composite Samples

Location	Co-60 (pCi/g)	Cs-137 (pCi/g)	Sr-89,90 (pCi/g)	Gross Beta (pCi/g)	Gross Alpha (pCi/g)
A Seepage Basin ^a	(-1.19 ± 1.89)E-02	(3.91 ± 0.37)E-01	(2.98 ± 0.17)E+00	(1.25 ± 0.11)E+01	1.59 ± 0.65)E+00
C Seepage Basin ^b	(-3.17 ± 4.15)E-02	(8.30 ± 3.32)E-02	(1.40 ± 0.18)E+00	(6.66 ± 1.18)E+00	(-0.02 ± 3.80)E-01
F Retention Basin ^c	(-6.58 ± 2.86)E-02	(4.38 ± 0.50)E-01	(4.55 ± 1.42)E-01	(8.88 ± 1.28)E+00	(2.72 ± 4.74)E-01
F Seepage Basin ^b	(-2.13 ± 2.16)E-02	(8.20 ± 2.61)E-02	(1.46 ± 1.26)E-01	(7.77 ± 1.23)E+00	(-0.02 ± 3.84)E-01
H Retention Basin ^b	(0.75 ± 1.73)E-02	(9.63 ± 0.32)E+00	(1.26 ± 0.04)E+01	(3.61 ± 0.22)E+01	(6.10 ± 6.08)E-01
H Seepage Basin ^b	(0.57 ± 3.03)E-02	(2.10 ± 0.46)E-01	(3.47 ± 0.25)E+00	(1.78 ± 0.16)E+01	(2.61 ± 4.61)E-01
K Retention Basin ^a	(6.19 ± 3.24)E-02	(1.17 ± 0.43)E-01	(2.50 ± 1.31)E-01	(1.05 ± 0.14)E+01	(5.55 ± 5.55)E-01
K Seepage Basin ^a	(-6.34 ± 4.60)E-02	(2.39 ± 0.57)E-01	(-0.57 ± 1.13)E-01	(9.43 ± 1.35)E+00	(7.21 ± 7.02)E-01
L Chemical Basin ^a	(-0.47 ± 2.46)E-02	(1.21 ± 0.38)E-01	(7.75 ± 1.58)E-01	(6.66 ± 1.18)E+00	(5.33 ± 5.35)E-01
L Seepage Basin ^a	(3.50 ± 2.47)E-02	(3.79 ± 0.54)E-01	(1.04 ± 0.04)E+01	(9.40 ± 0.75)E+00	(-5.16 ± 2.08)E-01
P Seepage Basin ^a	(-3.26 ± 3.26)E-02	(2.53 ± 2.90)E-02	(7.03 ± 1.55)E-01	(7.77 ± 1.25)E+00	(1.11 ± 0.70)E+00
R Seepage Basin ^b	(-4.81 ± 3.10)E-02	(7.14 ± 0.64)E-01	(2.48 ± 0.22)E+00	(1.05 ± 0.14)E+01	(1.11 ± 0.68)E+00
TNX Seepage Basin ^d	(-4.03 ± 3.53)E-02	(1.56 ± 2.32)E-02	^e	(1.08 ± 0.14)E+01	(8.65 ± 7.05)E-01

- ^a Four locations
^b Eight locations
^c Six locations
^d One location
^e Not measured

Table 33
Radioactivity in Grassy Vegetation — Annual Surveillance and Solid Waste Facility Samples

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Location	H-3 (pCi/g)	Co-60 (pCi/g)	Cs-137 (pCi/g)	Sr-89,90 (pCi/g)	Gross Beta(pCi/g)	Gross Alpha(pCi/g)
<i>Note: Blank spaces indicate "not measured."</i>						
Onsite						
643-26E-1	(4.09 ± 0.04)E+00	(1.20 ± 1.23)E-02	(3.45 ± 1.06)E-02	(8.00 ± 9.10)E-02	(9.10 ± 0.93)E+00	(1.38 ± 0.71)E+00
643-26E-2	(8.73 ± 0.22)E-01	(4.54 ± 3.54)E-02	(-0.02 ± 2.54)E-02	(-0.30 ± 1.21)E-01	(1.07 ± 0.14)E+01	(-6.42 ± 5.86)E-01
643-26E-3	(8.36 ± 0.41)E-01	(1.87 ± 2.15)E-02	(-1.72 ± 1.60)E-02	(0.05 ± 1.23)E-01	(1.10 ± 0.14)E+01	(-0.04 ± 4.20)E-01
643-26E-4	(1.06 ± 0.01)E+01	(-0.80 ± 2.90)E-02	(4.14 ± 2.04)E-02	(0.39 ± 1.25)E-01	(8.48 ± 1.24)E+00	(5.83 ± 5.56)E-01
OBG-1 Outside Burial Ground		(2.01 ± 2.87)E-02	(6.26 ± 2.50)E-02		(1.12 ± 0.14)E+01	(-1.34 ± 0.63)E+00
OBG-10 Outside Burial Ground		(-4.58 ± 3.91)E-02	(9.97 ± 4.39)E-02		(1.45 ± 0.15)E+01	(3.16 ± 7.76)E-01
OBG-11 Outside Burial Ground		(3.82 ± 1.65)E-02	(2.82 ± 1.40)E-02		(1.93 ± 0.18)E+01	(-5.89 ± 8.46)E-01
OBG-2 Outside Burial Ground		(1.21 ± 2.78)E-02	(-0.67 ± 2.25)E-02		(9.10 ± 1.30)E+00	(-1.87 ± 5.86)E-01
OBG-3 Outside Burial Ground		(-2.44 ± 3.17)E-02	(3.63 ± 2.14)E-02		(5.89 ± 1.12)E+00	(-3.80 ± 4.60)E-01
OBG-4 Outside Burial Ground		(-1.57 ± 2.91)E-02	(3.87 ± 2.42)E-02		(1.39 ± 0.16)E+01	(-8.56 ± 7.18)E-01
OBG-5 Outside Burial Ground		(2.31 ± 2.65)E-02	(1.08 ± 0.37)E-01		(1.85 ± 0.12)E+01	(3.90 ± 4.20)E-01
OBG-6 Outside Burial Ground		(-5.54 ± 3.29)E-02	(6.89 ± 4.24)E-02		(1.22 ± 0.14)E+01	(2.49 ± 4.40)E-01
OBG-7 Outside Burial Ground		(0.52 ± 3.32)E-02	(1.51 ± 0.34)E-01		(1.02 ± 0.13)E+01	(-1.82 ± 4.99)E-01

Table 33
Radioactivity in Grassy Vegetation — Annual Surveillance and Solid Waste Facility Samples

Page 2 of 2

Location	H-3 (pCi/g)	Co-60 (pCi/g)	Cs-137 (pCi/g)	Sr-89,90 (pCi/g)	Gross Beta(pCi/g)	Gross Alpha(pCi/g)
OBG-8 Outside Burial Ground		$(0.56 \pm 2.94)E-02$	$(1.44 \pm 0.41)E-01$		$(1.12 \pm 0.14E+01$	$(4.01 \pm 7.76)E-01$
OBG-9 Outside Burial Ground		$(-4.77 \pm 3.82)E-02$	$(1.74 \pm 0.32)E-01$		$(2.30 \pm 0.19E+01$	$(0.52 \pm 1.00)E+00$
Site Perimeter						
Allendale Gate	$(3.57 \pm 1.70)E-02$				$(1.14 \pm 0.15E+01$	$(-3.46 \pm 3.16)E-01$
Barnwell Gate	$(4.88 \pm 5.03)E-02$				$(1.53 \pm 0.16E+01$	$(-0.57 \pm 4.36)E-01$
D-Area	$(1.99 \pm 0.58)E-01$				$(1.36 \pm 0.16E+01$	$(-0.62 \pm 4.43)E-01$
Darkhorse@ Williston Gate	$(1.35 \pm 0.04)E+00$				$(1.02 \pm 0.15E+01$	$(5.68 \pm 6.72)E-01$
East Talatha	$(1.90 \pm 0.36)E-01$				$(1.19 \pm 0.15E+01$	$(1.19 \pm 0.76)E+00$
Green Pond	$(3.29 \pm 4.98)E-02$				$(1.48 \pm 0.17E+01$	$(-4.71 \pm 4.32E-01$
Highway 125@ Road A-14	$(1.58 \pm 4.52)E-02$				$(1.31 \pm 0.15E+01$	$(-3.35 \pm 3.06E-01$
Highway 21/167	$(7.25 \pm 5.13)E-02$				$(1.25 \pm 0.15E+01$	$(4.83 \pm 5.50E-01$
Highway 39@ Williston Gate	$(1.09 \pm 0.04)E+00$				$(1.48 \pm 0.16E+01$	$(-3.69 \pm 3.36E-01$
Jackson	$(7.48 \pm 4.38)E-02$				$(8.92 \pm 0.82E+00$	$(7.46 \pm 3.91E-01$
Patterson Mill Road	$(-0.36 \pm 4.16)E-02$				$(1.08 \pm 0.14E+01$	$(2.27 \pm 5.08E-01$
Talatha Gate	$(1.33 \pm 0.52)E-01$				$(7.38 \pm 1.32E+00$	$(2.44 \pm 5.45E-01$
West Jackson	$(3.53 \pm 3.46)E-02$				$(2.27 \pm 0.20E+01$	$(-0.79 \pm 6.22E-01$
Windsor Road	$(3.59 \pm 0.38)E-01$				$(2.27 \pm 0.19E+01$	$(-4.09 \pm 3.72E-01$
Composite from 14 locations		$(1.84 \pm 0.87)E-02$	$(1.88 \pm 0.21)E-01$	$(8.59 \pm 1.74)E-01$		
Control Site						
Savannah, Ga.	$(4.45 \pm 6.38)E-02$	$(-2.30 \pm 3.50)E-02$	$(9.18 \pm 3.22)E-02$	$(0.57 \pm 1.27)E-01$	$(1.42 \pm 0.16E+01$	$(-0.62 \pm 4.54E-01$

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Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction:
Extremely Unstable Conditions

Atmospheric Stability Class A

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.445	0.420	0.449	0.436	0.440	0.379	0.331	0.376
4.00	0.997	0.791	0.983	1.163	1.106	0.805	0.620	0.504
6.00	0.787	0.465	0.292	0.244	0.160	0.132	0.146	0.096
8.00	0.112	0.137	0.009	0.011	0.002	0.011	0.014	0.002
12.00	0.011	0.007	0.000	0.000	0.000	0.002	0.000	0.000
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	2.352	1.820	1.733	1.854	1.708	1.329	1.111	0.978

Joint Frequency Distribution of Wind Speed and Direction:
Extremely Unstable Conditions

Atmospheric Stability Class A

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.376	0.369	0.497	0.536	0.399	0.406	0.301	0.381	6.541
4.00	0.689	0.862	1.090	1.473	1.305	0.844	0.509	0.579	14.320
6.00	0.192	0.221	0.324	0.335	0.367	0.308	0.141	0.267	4.477
8.00	0.011	0.027	0.036	0.075	0.046	0.068	0.016	0.064	0.643
12.00	0.000	0.002	0.002	0.009	0.021	0.023	0.000	0.009	0.087
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	1.268	1.481	1.949	2.428	2.138	1.649	0.967	1.300	26.068

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Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction:
Moderately Unstable Conditions

Atmospheric Stability Class B

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.046	0.082	0.082	0.073	0.050	0.034	0.030	0.059
4.00	0.312	0.504	0.602	0.682	0.461	0.342	0.219	0.223
6.00	0.123	0.440	0.481	0.422	0.180	0.137	0.109	0.151
8.00	0.002	0.116	0.048	0.023	0.018	0.018	0.025	0.025
12.00	0.000	0.014	0.000	0.000	0.000	0.000	0.000	0.002
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.483	1.156	1.213	1.200	0.709	0.531	0.383	0.460

Joint Frequency Distribution of Wind Speed and Direction:
Moderately Unstable Conditions

Atmospheric Stability Class B

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.048	0.071	0.068	0.089	0.032	0.062	0.064	0.052	0.942
4.00	0.342	0.303	0.461	0.584	0.395	0.344	0.176	0.208	6.158
6.00	0.205	0.265	0.395	0.639	0.477	0.315	0.123	0.123	4.584
8.00	0.014	0.046	0.132	0.189	0.353	0.246	0.043	0.009	1.309
12.00	0.000	0.002	0.018	0.055	0.105	0.096	0.025	0.005	0.322
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.609	0.687	1.074	1.556	1.362	1.063	0.431	0.397	13.315

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43848 Wind Stats H-Area 60 minute 62M 92-96 Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction: Atmospheric Stability Class C
Slightly Unstable Conditions

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.039	0.046	0.052	0.046	0.027	0.043	0.057	0.071
4.00	0.198	0.600	1.234	0.842	0.618	0.360	0.342	0.388
6.00	0.084	0.579	1.070	0.607	0.426	0.326	0.315	0.360
8.00	0.000	0.091	0.287	0.114	0.064	0.052	0.114	0.155
12.00	0.000	0.009	0.007	0.011	0.007	0.007	0.014	0.048
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.321	1.325	2.650	1.620	1.142	0.788	0.842	1.022

Joint Frequency Distribution of Wind Speed and Direction: Atmospheric Stability Class C
Slightly Unstable Conditions

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.055	0.046	0.041	0.036	0.034	0.034	0.052	0.039	0.718
4.00	0.486	0.556	0.618	0.725	0.543	0.422	0.251	0.239	8.422
6.00	0.411	0.447	0.607	0.627	0.666	0.598	0.230	0.064	7.417
8.00	0.107	0.217	0.281	0.347	0.536	0.426	0.082	0.007	2.880
12.00	0.041	0.062	0.062	0.105	0.210	0.148	0.021	0.002	0.753
14.10	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.000	0.007
TOTAL	1.100	1.328	1.609	1.842	1.994	1.628	0.636	0.351	20.197

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Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction:
Neutral Conditions

Atmospheric Stability Class D

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.009	0.032	0.027	0.032	0.036	0.034	0.036	0.048
4.00	0.109	0.392	1.168	0.728	0.529	0.440	0.541	0.639
6.00	0.073	0.445	1.122	0.618	0.559	0.534	0.661	1.008
8.00	0.000	0.034	0.080	0.034	0.023	0.025	0.039	0.296
12.00	0.002	0.000	0.005	0.002	0.000	0.000	0.005	0.039
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.193	0.903	2.402	1.414	1.147	1.033	1.282	2.030

Joint Frequency Distribution of Wind Speed and Direction:
Neutral Conditions

Atmospheric Stability Class D

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.016	0.048	0.050	0.039	0.014	0.011	0.039	0.027	0.499
4.00	0.759	0.789	0.716	0.730	0.600	0.483	0.381	0.294	9.298
6.00	1.259	0.737	0.949	0.917	0.741	0.705	0.358	0.103	10.787
8.00	0.242	0.148	0.135	0.068	0.052	0.039	0.030	0.002	1.247
12.00	0.032	0.023	0.018	0.002	0.027	0.005	0.000	0.000	0.160
14.10	0.000	0.000	0.000	0.000	0.023	0.005	0.000	0.000	0.027
TOTAL	2.308	1.745	1.868	1.756	1.457	1.248	0.808	0.426	22.018

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Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction:
Slightly Stable Conditions

Atmospheric Stability Class E

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.000	0.005	0.014	0.002	0.005	0.014	0.014	0.021
4.00	0.034	0.244	0.643	0.246	0.217	0.315	0.369	0.477
6.00	0.036	0.591	0.750	0.762	0.509	0.513	0.625	0.755
8.00	0.000	0.011	0.023	0.025	0.021	0.014	0.009	0.027
12.00	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.070	0.851	1.430	1.037	0.752	0.856	1.017	1.280

Joint Frequency Distribution of Wind Speed and Direction:
Slightly Stable Conditions

Atmospheric Stability Class E

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.032	0.021	0.007	0.007	0.009	0.007	0.011	0.007	0.173
4.00	0.529	0.543	0.452	0.525	0.353	0.278	0.267	0.249	5.740
6.00	0.953	0.876	0.889	0.855	0.392	0.338	0.242	0.125	9.211
8.00	0.041	0.030	0.055	0.009	0.009	0.007	0.002	0.000	0.283
12.00	0.000	0.000	0.000	0.005	0.014	0.002	0.000	0.000	0.023
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	1.555	1.470	1.403	1.401	0.777	0.632	0.522	0.381	15.430

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Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction:
Moderately Stable Conditions

Atmospheric Stability Class F

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.002	0.002	0.000	0.000	0.000	0.000	0.002	0.002
4.00	0.007	0.064	0.084	0.018	0.016	0.036	0.057	0.050
6.00	0.016	0.212	0.130	0.100	0.096	0.178	0.155	0.155
8.00	0.000	0.014	0.002	0.000	0.002	0.005	0.002	0.005
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.025	0.292	0.216	0.118	0.114	0.219	0.216	0.212

Joint Frequency Distribution of Wind Speed and Direction:
Moderately Stable Conditions

Atmospheric Stability Class F

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.002	0.000	0.002	0.009	0.000	0.000	0.000	0.000	0.023
4.00	0.087	0.071	0.062	0.103	0.021	0.027	0.041	0.068	0.812
6.00	0.171	0.135	0.182	0.235	0.059	0.048	0.023	0.030	1.925
8.00	0.002	0.002	0.005	0.009	0.000	0.000	0.005	0.000	0.052
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.262	0.208	0.251	0.356	0.080	0.075	0.069	0.098	2.812

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Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction:
Extremely Stable Conditions

Atmospheric Stability Class G

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4.00	0.000	0.007	0.002	0.000	0.000	0.002	0.000	0.000
6.00	0.002	0.014	0.009	0.002	0.002	0.014	0.014	0.011
8.00	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.002	0.021	0.011	0.002	0.002	0.016	0.016	0.011

Joint Frequency Distribution of Wind Speed and Direction:
Extremely Stable Conditions

Atmospheric Stability Class G

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4.00	0.007	0.002	0.002	0.002	0.002	0.002	0.000	0.005	0.034
6.00	0.011	0.014	0.007	0.016	0.002	0.000	0.002	0.002	0.123
8.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.018	0.016	0.009	0.018	0.004	0.002	0.002	0.007	0.159

Table 35
80-km-Radius (50-Mile) Population Distribution Around SRS (1990 Census)

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Dir (Miles)	0.0-1.	1.-2.	2.-3.	3.-4.	4.-5.	
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
NNE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
NE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
ESE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
SE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
SSE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
SSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
SW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
WSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
W	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
WNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
NW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
NNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Total	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	

Dir (Miles)	5.-10.	10.-20.	20.-30.	30.-40.	40.-50.	Total
N	2.600E+01	5.321E+03	1.002E+04	5.067E+03	1.221E+04	3.264E+04
NNE	6.000E+00	1.320E+03	2.066E+03	4.445E+03	1.437E+04	2.220E+04
NE	1.000E+00	2.945E+03	2.928E+03	5.269E+03	1.020E+04	2.134E+04
ENE	2.700E+01	3.126E+03	4.483E+03	5.337E+03	4.077E+04	5.375E+04
E	1.550E+02	6.743E+03	5.305E+03	8.812E+03	4.334E+03	2.535E+04
ESE	3.600E+01	1.556E+03	1.931E+03	2.711E+03	3.253E+03	9.487E+03
SE	2.600E+01	5.470E+02	6.511E+03	6.685E+03	8.577E+03	2.235E+04
SSE	4.000E+01	3.910E+02	7.690E+02	1.356E+03	2.539E+03	5.095E+03
S	1.000E+00	5.580E+02	1.332E+03	7.251E+03	3.335E+03	1.248E+04
SSW	2.000E+00	8.970E+02	2.008E+03	4.181E+03	2.944E+03	1.003E+04
SW	1.700E+01	9.440E+02	2.240E+03	2.606E+03	2.660E+03	8.467E+03
WSW	6.000E+01	1.103E+03	7.112E+03	2.285E+03	5.818E+03	1.638E+04
W	5.500E+01	3.314E+03	7.941E+03	7.994E+03	6.780E+03	2.608E+04
WNW	4.490E+02	3.342E+03	1.069E+05	5.031E+04	1.155E+04	1.725E+05
NW	2.710E+02	5.899E+03	8.793E+04	2.657E+04	3.025E+03	1.237E+05
NNW	3.63E+02	1.803E+04	2.716E+04	6.665E+03	6.079E+03	5.830E+04
Total	1.535E+03	5.603E+04	2.766E+05	1.475E+05	1.384E+05	6.201E+05

Table 36
80-km-Radius (50-Mile) Milk, Meat, and Vegetation Production Around SRS
as of 1991

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Site Annual Milk Production (L)

Dir (miles)	0-5	5-10	10-20	20-30	30-40	40-50	Total
N	0.0	0.0	4.200E+04	6.900E+04	1.000E+06	5.300E+06	6.411E+06
NNE	0.0	0.0	4.200E+04	6.900E+04	2.100E+05	5.000E+05	8.210E+05
NE	0.0	0.0	3.200E+04	1.000E+06	2.700E+06	2.000E+06	5.732E+06
ENE	0.0	0.0	2.500E+04	1.200E+06	4.400E+06	5.200E+06	1.083E+07
E	0.0	0.0	2.500E+04	1.400E+06	3.900E+06	4.900E+06	1.023E+07
ESE	0.0	0.0	2.500E+04	5.600E+05	3.000E+04	4.900E+05	1.105E+06
SE	0.0	0.0	2.500E+03	0.000E+00	0.000E+00	0.000E+00	2.500E+03
SSE	0.0	0.0	4.800E+05	8.600E+05	1.200E+06	1.200E+06	3.740E+06
S	0.0	0.0	1.000E+06	2.100E+06	3.000E+06	3.500E+06	9.600E+06
SSW	0.0	0.0	9.900E+05	3.800E+06	7.400E+06	7.600E+06	1.979E+07
SW	0.0	0.0	9.900E+05	2.200E+06	5.800E+06	4.800E+06	1.379E+07
WSW	0.0	0.0	9.900E+05	1.700E+06	2.400E+06	3.500E+06	8.590E+06
W	0.0	0.0	6.700E+05	1.300E+06	2.200E+06	3.600E+06	7.770E+06
WNW	0.0	0.0	2.300E+05	1.100E+06	1.200E+06	2.000E+06	4.530E+06
NW	0.0	0.0	4.200E+04	3.800E+05	1.400E+06	1.000E+06	2.822E+06
NNW	0.0	0.0	4.200E+04	6.000E+04	1.700E+06	3.400E+06	5.211E+06
Total	0.0	0.0	5.62E+06	1.781E+07	3.954E+07	4.899E+07	1.110E+08

Site Annual Meat Production (kg)

Dir (miles)	0-5	5-10	10-20	20-30	30-40	40-50	Total
N	0.0	0.0	5.300E+04	8.800E+04	2.500E+05	9.800E+05	1.371E+06
NNE	0.0	0.0	5.300E+04	8.800E+04	2.000E+05	4.100E+05	7.510E+05
NE	0.0	0.0	7.100E+04	1.700E+05	3.500E+05	4.500E+05	1.041E+06
ENE	0.0	0.0	8.300E+04	2.000E+05	4.600E+05	5.700E+05	1.313E+06
E	0.0	0.0	8.300E+04	1.900E+05	3.400E+05	5.100E+05	1.123E+06
ESE	0.0	0.0	8.300E+04	1.900E+05	2.200E+05	2.500E+05	7.430E+05
SE	0.0	0.0	1.200E+05	2.100E+05	2.600E+05	3.000E+05	8.900E+05
SSE	0.0	0.0	1.100E+05	1.900E+05	2.600E+05	2.900E+05	8.500E+05
S	0.0	0.0	9.400E+04	1.500E+05	2.000E+05	2.700E+05	7.140E+05
SSW	0.0	0.0	9.500E+04	1.800E+05	2.900E+05	3.900E+05	9.550E+05
SW	0.0	0.0	9.500E+04	1.700E+05	2.700E+05	3.200E+05	8.550E+05

Table 36
80-km-Radius (50-Mile) Milk, Meat, and Vegetation Production Around SRS
as of 1991

Page 2 of 2

Site Annual Meat Production (kg), Cont'd.

Dir (miles)	0-5	5-10	10-20	20-30	30-40	40-50	Total
WSW	0.0	0.0	9.500E+04	1.600E+05	2.300E+05	4.000E+05	8.850E+05
W	0.0	0.0	5.800E+04	1.000E+05	2.100E+05	4.100E+05	7.780E+05
WNW	0.0	0.0	4.800E+04	6.200E+04	1.300E+05	2.900E+05	5.300E+05
NW	0.0	0.0	5.800E+04	8.000E+04	2.800E+05	2.700E+05	6.830E+05
NNW	0.0	0.0	5.300E+04	8.800E+04	3.300E+05	6.200E+05	1.091E+06
Total	0.0	0.0	1.247E+06	2.316E+06	4.280E+06	6.730E+06	1.457E+07

Site Annual Vegetation Production (kg)

Dir (miles)	0-5	5-10	10-20	20-30	30-40	40-50	Total
N	0.0	0.0	3.600E+05	6.000E+05	8.400E+05	8.700E+05	2.670E+06
NNE	0.0	0.0	3.600E+05	6.000E+05	5.100E+05	6.300E+03	1.476E+06
NE	0.0	0.0	3.600E+05	6.900E+05	1.000E+06	5.000E+05	2.550E+06
ENE	0.0	0.0	3.600E+05	6.600E+05	1.200E+06	1.500E+06	3.270E+06
E	0.0	0.0	3.600E+05	5.900E+05	8.500E+05	1.400E+06	3.200E+06
ESE	0.0	0.0	3.600E+05	2.200E+06	1.900E+06	1.100E+06	5.560E+06
SE	0.0	0.0	2.500E+06	4.500E+06	3.000E+06	1.100E+06	1.110E+07
SSE	0.0	0.0	1.700E+06	2.900E+06	3.600E+06	1.100E+06	9.300E+06
S	0.0	0.0	7.200E+04	5.400E+05	8.400E+05	9.700E+05	2.422E+06
SSW	0.0	0.0	3.500E+02	1.200E+05	2.500E+05	1.100E+05	4.804E+05
SW	0.0	0.0	3.500E+02	7.800E+02	2.200E+03	3.100E+05	3.133E+05
WSW	0.0	0.0	3.500E+02	5.800E+02	7.900E+03	2.900E+03	1.173E+04
W	0.0	0.0	4.500E+04	2.300E+04	1.700E+04	5.200E+04	1.370E+05
WNW	0.0	0.0	2.600E+05	3.800E+04	6.200E+04	1.100E+06	1.848E+06
NW	0.0	0.0	3.600E+05	4.300E+05	8.400E+05	1.100E+06	2.730E+06
NNW	0.0	0.0	3.600E+05	6.000E+05	8.400E+05	1.100E+06	2.900E+06
Total	0.0	0.0	7.458E+06	1.449E+07	1.614E+07	1.232E+07	5.041E+07

Table 37
Release Locations for Maximally Exposed Individual Dose

Page 1 of 1

	Release Source Area				
	F,H,P,K,C	M	D	Savannah River Technology Center	Diffuse & Fugitive
Release height, m	61	0	16	31	0
Release location					
Site coordinate					
East	58000	50041	20938	51863	58000
North	62000	104828	65284	106670	62000

Table 38
Parameters Used for Adult Consumption Rates
and for Atmospheric Dose Calculations

Page 1 of 1

Pathway	Maximally Exposed Individual	Population
<i>Note: Values were determined by the Savannah River Technology Center for SRS.</i>		
Fruits, vegetables, and grains (kg/yr)	276	163
Leafy vegetables (kg/yr)	43	21
Milk (L/yr)	230	120
Meat (beef) (kg/yr)	81	43
Inhalation (m ³ /yr)	8,000	8,000
Fraction of external dose received after taking structural shielding into account	0.7	0.5

Table 39
Site-Specific Parameters Used with CAP88 Code Used for NESHAPS
Calculations

Page 1 of 1

Particle size, AMAD ^a	
H-3, C-14, Kr-85	0
All other	1
Meteorological data	1992-96; H-Area
Plume rise	None
Number of stacks	2
Stack heights, m	0 and 61
Height of lid, m	1000
Rainfall, cm/yr	122.4
Average air temperature, C	17.8
Surface roughness length, m	0.4
Height of wind measurements, m	61
Average wind speed, m/s	3.92
Population size	620,100
Food supply fractions (fraction from local sources)	
Vegetable	0.70
Meat	0.44
Milk	0.40

^a Activity Median Aerodynamic Diameter

Table 40
Parameters Used for Adult Consumption Rates
and for Liquid Dose Calculations

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Pathway	Maximally Exposed Individual	Population
<i>Note: Values were determined by the Savannah River Technology Center for SRS.</i>		
Water consumption (L/yr)	730	370
Fish consumption (kg/yr)	19	9
Marine invertebrates (kg/yr)	Not applicable	2
Boating ^a	21	1,100,000
Swimming ^a	8.9	160,000
Shoreline recreation ^a	23	960,000
Water treatment plants ^b		
Water consumption (L/yr)	730	370

^a Maximum individual values are in units of hours/year; population values are in units of person-hours/year.

^b Dose is calculated for the maximally exposed individual and population through the drinking water pathway from the downriver Beaufort-Jasper Water Treatment Plant near Beaufort, S.C., and the City of Savannah Industrial and Domestic Water Supply Plant at Port Wentworth, Ga.

Table 41
Site-Specific Parameters Used in Liquid Dose Calculations

Page 1 of 1

River flow rate at Highway 301 for 1997 (cu ft /sec) ^a	8,704
River dilution in estuary	3
Transit time from process areas to river (hr)	24
Transit time from SRS to water treatment plants (hr)	72
Water treatment time (hr)	24
Edible aquatic food harvest (kg/yr)	
Fish – sport	35,000 ^b
Fish – commercial	2,700 ^b
Invertebrates – salt water	390,000 ^b
Irrigation	None ^{b, c}
Shore width factor	0.2
Fish bioaccumulation factor for cesium	3,000

^a The effective river flow rate was based on tritium measurements. The measured river flow rate was 11,527 cfs.

^b Values determined by SRTC for SRS

^c Irrigation is considered a "special case" scenario.

Table 42**Committed Dose to the Maximally Exposed Individual from Atmospheric Releases (MAXIGASP Code — Using Consumption of Cow Milk Pathway)**

Page 1 of 1

By Pathway

Pathway	Maximally Exposed Individual Dose (mrem)^a	Percent of Total Dose
Plume	2.54E-05	0.05
Ground	8.24E-04	1.8
Inhalation	1.94E-02	41.9
Vegetation	1.75E-02	37.8
Cow milk	4.95E-03	10.7
Meat	3.59E-03	7.8
Total	4.63E-02	

By Radionuclide

Radionuclide	Maximally Exposed Individual Dose (mrem)^a	Percent of Total Dose^b
<i>Gases and Vapors</i>		
H-3	3.30E-02	71.3
C-14	7.37E-06	0.02
Kr-85	2.54E-05	0.05
I-129	3.98E-03	8.6
<i>Particulates</i>		
Sr-90	3.75E-04	0.8
Ru-106	2.54E-03	5.5
Cs-137	7.60E-04	1.6
U-234	1.36E-05	0.03
U-238	2.86E-05	0.06
Pu-238	1.37E-03	3.0
Pu-239	3.70E-03	8.0
Am-241	4.28E-05	0.09
Am-243	7.46E-05	0.2
Cm-244	3.13E-04	0.7
Total	4.63E-02	

^a Committed effective dose equivalent^b Radionuclides contributing 0.01% or more of the total dose

Table 43
Committed Dose to the Maximally Exposed Individual from Atmospheric Releases (MAXIGASP Code — Using Consumption of Goat Milk Pathway)

Page 1 of 1

By Pathway

Pathway	Maximally Exposed Individual Dose (mrem) ^a	Percent of Total Dose
Plume	2.54E-05	0.05
Ground	8.24E-04	1.6
Inhalation	1.94E-02	37.1
Vegetation	1.75E-02	33.5
Goat Milk	1.09E-02	20.8
Meat	3.59E-03	6.9
Total	5.23E-02	

By Radionuclide

Radionuclide	Maximally Exposed Individual Dose (mrem) ^a	Percent of Total Dose ^b
<i>Gases and Vapors</i>		
H-3	3.88E-02	74.2
C-14	7.62E-06	0.01
Kr-85	2.54E-05	0.05
I-129	4.09E-03	7.8
<i>Particulates</i>		
Sr-90	3.82E-04	0.7
Ru-106	2.54E-03	4.9
Cs-137	8.31E-04	1.6
U-234	1.36E-05	0.03
U-238	2.85E-05	0.1
Pu-238	1.37E-03	2.6
Pu-239	3.70E-03	7.1
Am-241	4.28E-05	0.1
Am-243	7.46E-05	0.1
Cm-244	3.13E-04	0.6
Total	5.23E-02	

^a Committed effective dose equivalent

^b Radionuclides contributing 0.01% or more of the total dose

Table 44
80-km (50-Mile) Collective Dose from Atmospheric Releases (POPGASP Code)

Page 1 of 1

By Pathway		
Pathway	Population Dose (person-rem)^a	Percent of Total Dose
Plume	2.45E-03	0.1
Ground	6.53E-02	3.0
Inhalation	1.49E+00	67.8
Vegetation	3.92E-01	17.8
Cow Milk	1.78E-01	8.1
Meat	6.97E-02	3.2
Total	2.20E+00	
By Radionuclide		
Radionuclide	Population Dose (person-rem)^a	Percent of Total Dose^b
<i>Gases and Vapors</i>		
H-3	1.79E+00	81.3
C-14	2.89E-04	0.01
Kr-85	2.45E-03	0.1
I-129	1.31E-01	6.0
<i>Particulates</i>		
Sr-90	4.13E-03	0.2
Ru-106	6.09E-02	2.8
Cs-137	5.24E-02	2.4
U-234	1.06E-03	0.05
U-238	2.05E-03	0.1
Pu-238	6.45E-02	2.9
Pu-239	7.07E-02	3.2
Am-241	2.92E-03	0.1
Am-243	3.39E-03	0.2
Cm-244	1.51E-02	0.7
Total	2.20E+00	

^a Committed effective dose equivalent

^b Radionuclides contributing 0.1% or more of the total dose

Table 45

**Total Site Airborne Releases and Maximally Exposed Individual Effective Dose Equivalent by Radionuclide
(CAP88 Dose Calculations for 1997 NESHAP Report to EPA)**

Page 1 of 2

Radionuclide	Releases (curies)	Maximally Exposed Individual EDE (mrem)	Percent of Dose
H-3 (oxide)	3.91E+04	5.02E-02	93.8
Ru-106	7.00E-02	1.45E-03	2.7
I-129	7.08E-03	4.61E-04	0.9
Pu-238	3.88E-04	4.24E-04	0.8
Pu-239 ^a	3.82E-04	4.07E-04	0.8
Cs-137	4.86E-03	2.69E-04	0.5
Cm-244	1.53E-04	1.43E-04	0.3
Kr-85	9.62E+03	5.66E-05	0.1
Sr-89,90 ^b	2.33E-03	3.22E-05	0.1
Am-243	1.76E-05	3.18E-05	0.1
Am-241	1.53E-05	2.44E-05	0.05
U-238	5.56E-05	2.09E-05	0.04
U-234	2.66E-05	1.12E-05	0.02
C-14	3.10E-02	1.91E-06	0.004
Pu-240	1.11E-06	1.32E-06	0.002
Pu-241	5.16E-05	9.78E-07	0.002
H-3 (elemental)	1.89E+04	9.71E-07	0.002
U-235	1.75E-06	7.07E-07	0.001
Eu-154	6.57E-06	2.65E-07	0.0005
U-236	4.84E-07	2.02E-07	0.0004
Co-60	1.62E-06	8.19E-08	0.0002
I-131	5.89E-05	5.61E-08	0.0001
Ce-144	1.03E-05	4.59E-08	0.0001
Zr-95	2.13E-05	3.28E-08	0.0001
Cs-134	1.43E-06	2.45E-08	0.00005
Eu-155	6.59E-06	1.03E-08	0.00002
U-233	2.11E-08	9.40E-09	0.00002
I-133	4.92E-04	8.07E-09	0.00002
Sb-125	5.93E-07	3.25E-09	0.00001
Np-237	1.38E-09	2.27E-09	0.000004
Pa-231	1.00E-09	1.66E-09	0.000003

^a Includes unidentified alpha (assigned to Pu-239)

^b Includes unidentified beta (assigned to Sr-90)

Table 45

**Total Site Airborne Releases and Maximally Exposed Individual Effective Dose Equivalent by Radionuclide
(CAP88 Dose Calculations for 1997 NESHAP Report to EPA)**

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Radionuclide	Releases (curies)	Maximally Exposed Individual EDE (mrem)	Percent of Dose
Ra-226	1.24E-08	9.58E-10	0.000002
Eu-152	5.32E-09	2.59E-10	0.0000005
Th-228	2.15E-10	1.67E-10	0.0000003
Th-230	2.03E-10	1.58E-10	0.0000003
Th-232	1.40E-10	1.56E-10	0.0000003
Co-57	2.08E-07	1.11E-10	0.0000002
Tc-99	3.61E-08	5.33E-11	0.0000001
Pu-242	3.66E-11	4.15E-11	0.00000008
Na-22	1.11E-09	2.74E-11	0.00000005
Cm-242	8.19E-12	9.52E-12	0.00000002
Ra-228	1.75E-10	5.84E-12	0.00000001
Cm-245	1.88E-12	3.52E-12	0.000000007
Np-239	2.17E-07	3.12E-12	0.000000006
Pm-147	1.01E-08	1.59E-12	0.000000003
Ni-63	2.29E-09	8.69E-14	0.0000000002
Th-234	2.26E-10	7.98E-14	0.0000000001
Ba-133	3.00E-12	4.60E-14	0.00000000009
Mn-54	4.80E-12	1.65E-14	0.00000000003
Ni-59	3.24E-10	1.65E-14	0.00000000003
Zn-65	3.69E-12	1.01E-14	0.00000000002
Sb-124	3.36E-12	5.75E-15	0.00000000001
Pa-234	2.26E-10	2.83E-15	0.000000000005
Co-58	1.67E-12	1.74E-15	0.000000000003
Sn-126	3.36E-15	2.19E-17	0.00000000000004
Nb-95	1.55E-15	7.54E-19	0.000000000000001
Total		5.35E-02	

Table 46
NESHAP Airborne-Dose Report Data — CAP88 Compared With MAXIGASP

Page 1 of 1

Maximally Exposed Individual Dose Commitment at Site Boundary from Atmospheric Releases				
	CAP88 Code		MAXIGASP Code	
	Millirem ^a	Percent of Dose	Millirem ^a	Percent of Dose
By Pathway				
Plume	3.81E-05	0.07	2.54E-05	0.05
Ground	1.58E-03	3.0	8.24E-04	1.8
Inhalation	1.52E-02	28.4	1.94E-02	41.9
Food ^b	3.67E-02	68.6	2.60E-02	56.3
Total	5.35E-02		4.63E-02	
By Radionuclide				
Gases and Vapors				
H-3 ^c	5.02E-02	93.8	3.30E-02	71.3
C-14	1.91E-06	0.004	7.37E-06	0.02
Kr-85	5.66E-05	0.1	2.54E-05	0.05
I-129	4.61E-04	0.9	3.98E-03	8.6
Particles				
Sr-90	3.22E-05	0.06	3.75E-04	0.8
Ru-106	1.45E-03	2.7	2.54E-03	5.5
Cs-137	2.69E-04	0.5	7.60E-04	1.6
U-234	1.12E-05	0.02	1.36E-04	0.03
U-238	2.09E-05	0.04	2.86E-05	0.06
Pu-238	4.24E-04	0.8	1.37E-03	3.0
Pu-239	4.07E-04	0.8	3.70E-03	8.0
Am-241	2.44E-05	0.05	4.28E-05	0.09
Am-243	3.18E-05	0.06	7.46E-05	0.2
Cm-244	1.43E-04	0.27	3.13E-04	0.7
Total	5.35E-02		4.63E-02	

^a Committed effective dose equivalent

^b Meat, milk, and vegetables

^c Dose from tritium in foods calculated with absolute humidity of 11.4 g water/cubic meter of air

Table 47
NESHAP Airborn-Dose Report Data — CAP88 Compared With POPGASP

Page 1 of 1

Collective Committed Dose from Atmospheric Releases				
	CAP88 Code		POPGASP Code	
	Person-rem ^a	Percent of Dose	Person-rem ^a	Percent of Dose
By Pathway				
Plume	4.67E-03	0.09	2.45E-03	0.1
Ground	1.81E-01	3.3	6.53E-02	3.0
Inhalation	1.84E+00	33.7	1.49E+00	67.8
Food ^b	3.44E+00	63.0	6.40E-01	29.1
Total	5.46E+00		2.20E+00	
By Radionuclide				
<i>Gases and Vapors</i>				
H-3 ^c	5.13E+00	93.9	1.79E+00	81.3
K-85	6.92E-03	0.1	2.45E-03	0.1
I-129	2.07E-02	0.4	1.31E-01	6.0
<i>Particulates</i>				
Sr-90	2.57E-03	0.05	4.13E-03	0.2
Ru-106	1.64E-01	3.0	6.09E-02	2.8
Cs-137	3.08E-02	0.6	5.24E-02	2.4
U-234	1.16E-03	0.02	1.06E-03	0.05
U-238	2.15E-03	0.04	2.05E-03	0.1
Pu-238	4.31E-02	0.8	6.45E-02	2.9
Pu-239	4.16E-02	0.8	7.07E-02	3.2
Am-241	2.53E-03	0.05	2.92E-03	0.1
Am-243	3.28E-03	0.1	3.39E-03	0.2
Cm-244	1.47E-02	0.3	1.51E-02	0.7
Total	5.46E+00		2.20E+00	

^a Committed effective dose equivalent

^b Meat, milk, and vegetables

^c Dose from tritium in foods calculated with absolute humidity of 11.4 g water/cubic meter of air

Table 48
Committed Dose to Maximally Exposed Individual from Liquid Releases

Page 1 of 1

By Pathway

Pathway	Individual Dose (mrem) ^a	Percent of Total Dose
Fish	5.18E-02	39.9
Water	7.79E-02	60.0
Shoreline	1.59E-04	0.1
Swimming	1.03E-07	0.0001
Boating	1.21E-07	0.0001
Total	1.30E-01	

By Radionuclide

Radionuclide	Individual Dose (mrem) ^a	Percent of Total Dose
H-3 (oxide)	5.17E-02	39.8
Sr-90	4.65E-03	3.6
I-129	2.86E-03	2.2
Cs-137	4.65E-02	35.8
U-234	7.09E-04	0.5
U-235	1.95E-05	0.02
U-238	6.75E-04	0.5
Pu-238	3.89E-04	0.3
Pu-239	2.23E-02	17.2
Am-241	6.92E-06	0.01
Cm-244	1.19E-06	0.001
Total	1.30E-01	

^a Committed effective dose equivalent

Table 49**Committed Dose to Maximally Exposed Individual from Public Water Supplies at Beaufort-Jasper Water Treatment Plant**

Page 1 of 1

Radionuclide	Individual Dose, mrem ^a	Percent of Total Dose
H-3 (oxide)	4.21E-02	64.9
Sr-90	2.17E-03	3.4
I-129	1.71E-03	2.6
Cs-137	4.77E-04	0.7
U-234	5.61E-04	0.9
U-235	1.52E-05	0.02
U-238	5.35E-04	0.8
Pu-238	2.97E-04	0.5
Pu-239	1.70E-02	26.2
Am-241	3.49E-06	0.01
Cm-244	6.01E-07	0.001
Total	6.49E-02	

^a Committed effective dose equivalent

Table 50
Committed Dose to Maximally Exposed Individual from Public Water Supplies
at the City of Savannah Industrial and Domestic Water Supply Plant
(near Port Wentworth, Georgia)

Page 1 of 1

Radionuclide	Individual Dose, mrem ^a	Percent of Total Dose
H-3 (oxide)	4.44E-02	64.9
Sr-90	2.33E-03	3.4
I-129	1.78E-03	2.6
Cs-137	4.79E-04	0.7
U-234	6.16E-04	0.9
U-235	1.37E-05	0.02
U-238	5.47E-04	0.8
Pu-238	3.42E-04	0.5
Pu-239	1.79E-02	26.2
Am-241	6.84E-06	0.01
Cm-244	6.84E-07	0.001
Total	6.84E-02	

^a Committed effective dose equivalent

Table 51
Collective Dose from Liquid Releases

Page 1 of 1

By Pathway		
Pathway	Collective Dose (person-rem)^a	Percent of Total Dose
Sport fish	9.37E-02	3.9
Commercial fish	9.17E-04	0.0
Beaufort-Jasper	1.97E+00	81.4
Port Wentworth	3.47E-01	14.3
Saltwater invertebrates	1.35E-03	0.06
Recreation-river	6.62E-03	0.3
Total	2.42E+00	

By Radionuclide		
Radionuclide	Collective Dose (person-rem)^a	Percent of Total Dose
H-3	1.51E+00	62.3
Sr-90	8.14E-02	3.4
I-129	6.28E-02	2.6
Cs-137	1.08E-01	4.5
U-234	2.01E-02	0.8
U-235	5.58E-04	0.02
U-238	1.92E-02	0.8
Pu-238	1.07E-02	0.4
Pu-239	6.12E-01	25.2
Am-241	1.31E-04	0.01
Cm-244	2.25E-05	0.001
Total	2.42E+00	

^a Committed effective dose equivalent

Table 52
Potential Doses from Irrigation Pathways

Page 1 of 1

Food Type ^a	Maximally Exposed Individual (mrem) ^b	Population (person-rem) ^b
Vegetation	8.88E-02	5.56E+00
Leafy vegetable	1.38E-02	3.57E-01
Milk	1.87E-02	2.55E+00
Meat	6.02E-03	3.23E-01
Total	1.27E-01	8.79E+00

a Irrigated acreage for each food type assumed to be 1,000 acres

b Committed effective dose equivalent

Table 53
Dose from Consumption of Fish from SRS Creek Mouths and River Mile 120

Page 1 of 2

Number of Composites with Quantifiable Activity^a

Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239
BDC Mouth	Bass	3	3	3	3	3
	Catfish	3	3	3	3	3
	Bream	3	3	3	3	3
FMC Mouth	Bass	3	3	3	3	3
	Catfish	3	3	3	3	3
	Bream	3	3	3	3	3
L3R Mouth	Bass	3	3	3	3	3
	Catfish	3	2	3	3	3
	Bream	3	3	3	3	3
SC Mouth	Bass	3	3	3	3	3
	Catfish	3	3	3	3	3
	Bream	3	3	3	3	3
U3R Mouth	Bass	3	3	3	3	3
	Catfish	3	3	3	3	3
	Bream	3	3	3	3	3
RM 120	Bass	3	3	3	3	3
	Catfish	3	3	3	3	3
	Bream	3	2	3	3	3

Average Concentration in Composites, pCi/g

Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239
AUG L&D	Bass	3.43E-02	5.06E-03	7.67E-02	3.00E-06	-2.92E-05
	Bream	7.97E-02	6.67E-03	1.88E-01	-5.90E-06	-8.50E-06
	Catfish	8.39E-02	3.49E-03	3.10E-02	-1.73E-05	-5.36E-05
U3R Mouth	Bass	1.32E-01	1.44E-02	4.30E-01	1.31E-05	-2.73E-05
	Bream	1.40E-01	1.57E-02	6.11E-02	1.19E-04	-2.40E-05
	Catfish	1.79E-01	7.42E-03	5.60E-02	2.80E-06	1.70E-07
BDC Mouth	Bass	8.30E-02	1.47E-03	1.34E-01	-6.50E-05	-3.00E-05
	Bream	1.05E-01	1.72E-02	1.46E-01	7.90E-06	4.90E-06
	Catfish	8.73E-02	1.31E-03	5.84E-02	-1.87E-05	-2.13E-05
FMC Mouth	Bass	5.24E+00	1.65E-02	4.02E-01	-1.57E-05	-1.90E-05
	Bream	9.20E+00	2.64E-02	7.41E-02	5.73E-05	-6.30E-05
	Catfish	4.61E+00	1.04E-02	8.20E-02	-8.20E-06	3.70E-06
SC Mouth	Bass	2.03E+00	6.18E-03	6.61E-01	-8.60E-06	-2.47E-05
	Bream	2.42E+00	5.19E-03	4.94E-02	-1.15E-05	-1.86E-05
	Catfish	3.16E+00	5.43E-03	1.06E-01	1.03E-06	1.52E-05
L3R Mouth	Bass	4.54E-01	4.65E-03	2.09E-01	4.90E-06	2.80E-05
	Bream	5.26E-01	2.01E-03	1.37E-01	6.30E-06	6.20E-06
	Catfish	2.93E-01	4.09E-03	1.86E-01	3.09E-05	-2.00E-05
RM 120	Bass	3.17E-01	3.61E-03	6.75E-02	-1.31E-05	-4.63E-05
	Bream	3.01E-01	5.73E-03	2.93E-02	8.88E-05	-4.08E-05
	Catfish	3.48E-01	4.26E-03	4.75E-02	-3.00E-06	-3.85E-05

^a All composites were five fish.

Table 53

Dose from Consumption of Fish from SRS Creek Mouths and River Mile 120

Page 2 of 2

Dose from Consumption of 19 kg/year (42 lbs), mrem^a

Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239	Total
AUG L&D	Bass	4.11E-05	1.25E-02	7.29E-02	2.17E-04	^b	8.56E-02
	Bream	9.54E-05	1.65E-02	1.79E-01			1.95E-01
	Catfish	1.00E-04	8.62E-03	2.95E-02			3.82E-02
U3R Mouth	Bass	1.58E-04	3.56E-02	4.09E-01	9.46E-04		4.45E-01
	Bream	1.68E-04	3.88E-02	5.80E-02	8.59E-03		1.06E-01
	Catfish	2.14E-04	1.83E-02	5.32E-02	2.02E-04	1.39E-05	7.20E-02
BDC Mouth	Bass	9.94E-05	3.63E-03	1.27E-01			1.31E-01
	Bream	1.26E-04	4.25E-02	1.39E-01	5.70E-04	4.00E-04	1.82E-01
	Catfish	1.04E-04	3.24E-03	5.55E-02			5.88E-02
FMC Mouth	Bass	6.27E-03	4.08E-02	3.82E-01			4.29E-01
	Bream	1.10E-02	6.52E-02	7.04E-02	4.14E-03		1.51E-01
	Catfish	5.52E-03	2.57E-02	7.79E-02		3.02E-04	1.09E-01
SC Mouth	Bass	2.43E-03	1.53E-02	6.28E-01			6.46E-01
	Bream	2.90E-03	1.28E-02	4.69E-02			6.26E-02
	Catfish	3.78E-03	1.34E-02	1.01E-01	7.44E-05	1.24E-03	1.19E-01
L3R Mouth	Bass	5.43E-04	1.15E-02	1.99E-01	3.54E-04	2.29E-03	2.13E-01
	Bream	6.30E-04	4.96E-03	1.30E-01	4.55E-04	5.07E-04	1.37E-01
	Catfish	3.51E-04	1.01E-02	1.77E-01	2.23E-03		1.89E-01
RM 120	Bass	3.79E-04	8.92E-03	6.41E-02			7.34E-02
	Bream	3.60E-04	1.43E-02	2.78E-02	6.41E-03		4.89E-02
	Catfish	4.17E-04	1.05E-02	4.51E-02			5.61E-02

a Dose is based on maximum consumption of 19 kg/year. To obtain dose from average consumption of fish (9 kg/year), multiply doses in this table by 0.474.

b Dose based on negative concentration of individual radionuclides in fish was not calculated (shaded areas) and was not used in the total dose column.

Table 54
Calculated Doses to Aquatic Biota from SRS Releases

Page 1 of 1

Stream	Location	Flow, cfs	Dose to Biota, rad/d ^{a,b}		
			Fish	Invertebrate	Algae
Upper Three Runs	U3R-4	215	9.48E-06	1.18E-05	7.05E-06
Beaver Dam Creek	400-D	13	9.83E-06	1.23E-05	2.35E-05
Four Mile Creek	FM3 above Road E	8	5.72E-04	8.24E-04	1.16E-03
Pen Branch	K-018	26	2.56E-05	2.97E-05	4.78E-05
Steel Creek	Steel Creek 2A above Road B	3	1.94E-04	3.65E-04	9.23E-04
Lower Three Runs	L3R1A above Road B	25	1.54E-06	1.75E-06	9.96E-07

Stream	Location	Flow, cfs	Dose to Biota, rad/d ^{a,b}	
			Raccoon	Duck
Upper Three Runs	U3R-4	215	5.70E-06	8.10E-05
Beaver Dam Creek	400-D	13	8.86E-06	2.17E-04
Four Mile Creek	FM3 above Road E	8	6.70E-04	1.48E-02
Pen Branch	K-018	26	1.57E-05	3.54E-04
Steel Creek	Steel Creek 2A above Road B	3	4.83E-04	1.21E-02
Lower Three Runs	L3R1A above Road B	25	5.86E-07	7.29E-06

^a Calculated with CRITR methodology incorporated in the LADTAPII computer program

^b The DOE limit is 1 rad/d.

Table 55
Toxic/Hazardous Air Pollutant Emissions (1996)

Page 1 of 4

Pollutant	Actual Tons/Year
<p><i>Note: Emissions are calculated each year as part of an annual emissions inventory. In 1997, operating data were compiled and emissions calculated for 1996 operations for all site air emission sources. Because this process, which begins in January, requires up to 6 months to complete, this report provides 1996 emissions only. Actual emissions for 1997 will be compiled and reported in depth in the SRS Environmental Report for 1998 and in SRS Environmental Data for 1998.</i></p>	
ACETALDEHYDE	2.527E-01
ACETONITRILE	7.629E-01
ACROLEIN	1.091E-02
ALIPHATIC POLYISOCYANATE	7.930E-04
ANILINE	4.045E-03
ANTIMONY	2.291E-03
ANTIMONY COMPOUNDS	2.319E-03
ARSENIC	1.138E-02
BENZENE	1.453E+01
BERYLLIUM	1.992E-03
BIS-(2-ETHYLHEXYL)PHTHALATE	6.983E-03
BROMOFORM	3.443E+00
BUTADIENE (1, 2-)	6.996E-02
CADMIUM	3.832E-03
CADMIUM OXIDE	7.310E-03
CARBON DISULFIDE	2.780E-03
CARBON TETRACHLORIDE	2.296E-02
CHLORDANE	2.139E-03
CHLORINE	1.084E-01
CHLOROBENZENE	1.620E-03
CHLOROFORM	1.299E+01
CHROMIUM (+6) COMPOUNDS	6.436E-05
CHROMIUM COMPOUNDS	6.560E-05
COBALT	9.442E-04
COBALT COMPOUNDS	5.742E-07
COBALTOUS FORMATE	3.411E-13
COBALTOUS OXIDE	1.001E-10
CRESOL	1.315E-03
CUMENE	1.601E-02
CYANIDE	2.168E-03
CYANIDE COMPOUNDS	3.468E-03

Table 55
Toxic/Hazardous Air Pollutant Emissions (1996)

Page 2 of 4

Pollutant	Actual Tons/Year
DIBUTYL PHTHALATE	2.000E-03
DICHLOROBENZENE (P-)	1.380E-06
DICHLOROETHANE (1, 1-)	4.560E-07
DIISOCYANATOHEXANE (1, 6-)	1.460E-05
DINITROPHENOL (2, 4-)	1.344E-07
DINITROTOLUENE (2, 4-)	1.200E-03
DIOXANE	1.200E-03
DIPHENYL (BIPHENYL)	1.943E-01
DIPHENYLMERCURY	2.708E-03
ETHANOLAMINE	1.751E-02
ETHYL BENZENE	1.111E+00
ETHYLENE DIBROMIDE	5.334E-06
ETHYLENE DICHLORIDE	1.330E-07
ETHYLENE GLYCOL	3.527E-02
FORMALDEHYDE	2.200E+00
FORMIC ACID	1.888E+00
HEPTACHLOR	2.667E-05
HEXACHLOROBENZENE	1.081E-04
HEXACHLOROCYCLOPENTADIENE	1.084E-03
HEXANE	1.798E+00
HYDRAZINE	1.751E-03
HYDROCHLORIC ACID (HYDROGEN CHLORIDE)	2.475E+01
HYDROGEN SULFIDE	2.033E+01
HYDROQUINONE	6.506E-02
ISOPHORONE	6.950E-03
MANGANESE	5.036E-02
MANGANESE COMPOUNDS	4.455E-03
MANGANESE DIOXIDE	1.027E-07
MANGANESE FORMATE	1.187E-07
MANGANESE OXIDE	2.402E-06
MANGANOUS NITRATE	1.459E-16
MERCURY	7.948E-01
METHOXYCHLOR	3.121E-02
METHYL ALCOHOL	5.106E-01
METHYL ETHYL KETONE (2-BUTANONE)	4.095E-01

Table 55
Toxic/Hazardous Air Pollutant Emissions (1996)

Page 3 of 4

Pollutant	Actual Tons/Year
METHYL ISOBUTYL KETONE	7.138E-01
METHYL METHACRYLATE	2.440E-03
METHYL TERT-BUTYL ETHER	7.880E-01
METHYLENE CHLORIDE	1.710E-01
MINERAL OIL	5.750E-05
NAPHTHALENE	1.016E-02
NICKEL	4.665E-02
NICKEL OXIDE	2.643E-07
NITRIC ACID	8.177E+00
NITROBENZENE	1.683E-03
NITROPHENOL (P-)	6.523E-06
NITROSOPHENOL (P-)	6.523E-05
OXALIC ACID	6.729E-03
PHENOL	7.163E-02
PHOSPHORIC ACID	2.000E-01
POLYCHLORINATED BIPHENYLS (PCB)	1.653E-03
POLYCYCLIC ORGANIC MATTER	1.928E-02
POTASSIUM PERMANGANATE	4.670E-10
POTASSIUM THIOCYANATE	7.000E-05
PROPOXUR	2.000E-05
PROPYLENE OXIDE (1, 2-)	4.500E-07
SELENIUM	2.208E-03
SELENIUM DIOXIDE	1.200E-03
SODIUM HYDROXIDE	1.365E+00
STYRENE	1.857E-02
SULFURIC ACID	7.539E-01
TETRACHLOROETHANE (1, 1, 2, 2-)	1.230E-03
TETRACHLOROETHYLENE (PERCHLOROETHYLENE)	4.499E+00
TOLUENE	2.637E+00
TOLUENE-2,4-DIISOCYANATE	5.230E-06
TOXAPHENE	9.364E-02
TRICHLOROBENZENE (1, 2, 4-)	1.134E-04
TRICHLOROETHANE (1, 1, 1-)	2.019E-01
TRICHLOROETHANE (1, 1, 2-)	8.629E-05
TRICHLOROETHYLENE (TCE)	4.192E+00

Table 55
Toxic/Hazardous Air Pollutant Emissions (1996)

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Pollutant	Actual Tons/Year
TRIMETHYLPENTANE (2, 2, 4-)	5.185E-02
VINYL ACETATE	2.000E-04
VINYL CHLORIDE	1.337E-03
XYLENE (M-)	2.077E-01
XYLENE (MIXED ISOMERS)	6.904E+00
XYLENE (O-)	7.376E-01
XYLENE (P-)	2.650E-01

Table 56
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
<i>Note: Permit levels can be found in WSRC NPDES Environmental Monitoring Program (ESH-EMS-910110) or in the permit itself. The permit is available from the South Carolina Department of Health and Environmental Control.</i>						

Outfall A-01

Effluent consists of the following types of wastewater: noncontact cooling water, steam condensate, laboratory drain water, cooling tower overflow, steam-cleaning-rack wastewater, well flush water, groundwater air stripper effluent from outfall A-1A, and stormwater.

BOD	mg/L	13	3.00E+00	0.00E+00	13	4.54E-01
CHL	mg/L	21	1.00E-01	0.00E+00	21	3.00E-02
CU	mg/L	70	1.61E-01	0.00E+00	70	3.24E-02
FLO	MGD	18	2.90E-03	6.12E-04	18	7.77E-01
HG	mg/L	28	2.00E-04	0.00E+00	28	1.79E-05
O&G	mg/L	17	3.80E+00	0.00E+00	17	6.06E-01
PB	mg/L	68	2.10E-02	0.00E+00	68	1.94E-03
PERCL	ug/L	5	0.00E+00	0.00E+00	5	0.00E+00
PH	SU	18	8.43E+00	7.04E+00	18	
TEMP	DEG C	16	2.50E+01	1.20E+01	16	1.95E+01
TRICL	ug/L	5	0.00E+00	0.00E+00	5	0.00E+00
TSS	mg/L	12	7.00E+00	0.00E+00	12	1.50E+00

Outfall A-1A

Effluent consists of the following type of wastewater: groundwater air stripper effluent.

FLO	MGD	13	4.51E-01	2.60E-01	13	3.21E-01
PERCL	ug/L	14	0.00E+00	0.00E+00	14	0.00E+00
TRICL	ug/L	14	0.00E+00	0.00E+00	14	0.00E+00

Outfall A-11

Effluent consists of the following types of wastewater: fire station building drains, air conditioner condensate, well flush water, noncontact cooling water, steam condensate, liquid effluent treatment facility process effluent from Outfall M-04, air stripper effluent from outfall M-05, and stormwater.

BOD	mg/L	15	2.20E+00	0.00E+00	15	2.93E-01
CHL	mg/L	22	1.10E-01	0.00E+00	22	5.00E-03
CU	mg/L	13	1.40E-02	0.00E+00	13	1.69E-03
FLO	MGD	58	3.78E+00	1.45E-01	58	1.13E+00
HG	UG/L	12	1.00E-01	0.00E+00	12	8.33E-03
PB	mg/L	13	6.00E-03	0.00E+00	13	2.31E-03

Table 56
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
PH	SU	15	7.70E+00	6.50E+00	15	
TRICL	ug/L	11	0.00E+00	0.00E+00	11	0.00E+00
TSS	mg/L	13	2.59E+02	3.00E+00	13	4.08E+01
Outfall C-04						
<i>Effluent consists of the following types of wastewater: 186 basin overflow, water plant wastewater, process sewer/reactor building drains, nonprocess cooling water, and stormwater.</i>						
CHL	mg/L	5	0.00E+00	0.00E+00	5150	2.48E+00
FLO	MGD	5	3.75E+00	8.78E-01	5151	2.50E+00
PH	SU	7	7.10E+00	5.20E+00	7	
TSS	mg/L	5	5.00E+00	0.00E+00	5099	2.48E+00
Outfall D-1A						
<i>Effluent consists of the following type of wastewater: sanitary wastewater.</i>						
BOD	mg/L	12	7.80E+00	0.00E+00	2	2.71E+00
DO	mg/L	12	5.30E+00	2.60E+00	2	3.95E+00
FEC	#/100 mL	12	8.00E+00	0.00E+00	12	6.67E-01
FLO	MGD	365	3.53E-02	1.01E-03	365	8.54E-03
PH	SU	13	7.92E+00	6.50E+00	13	
TSS	mg/L	12	1.40E+01	0.00E+00	12	3.30E+00
Outfall F-01						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water, cooling tower blowdown, and stormwater.</i>						
CHL	mg/L	17	2.00E+00	3.10E-01	17	1.34E+00
FLO	MGD	14	2.28E-01	6.62E-02	14	1.30E-01
PH	SU	14	8.40E+00	7.30E+00	14	
TMP	DEG C	14	2.80E+01	1.65E+01	14	2.16E+01
TSS	mg/L	15	1.00E+00	0.00E+00	15	4.67E-01

Table 56
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall F-02						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water, cooling tower blowdown, and stormwater.</i>						
FLO	MGD	12	1.44E-01	1.44E-02	12	6.72E-02
PH	SU	12	8.10E+00	7.07E+00	12	
TMP	DEG C	12	2.60E+01	1.70E+01	12	2.12E+01
TSS	mg/L	12	7.00E+00	0.00E+00	12	1.50E+00
Outfall F-03						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water, steam condensate, cooling tower blowdown, process water, and stormwater.</i>						
FLO	MGD	13	1.87E-02	0.00E+00	13	5.70E-03
PB	mg/L	5	3.72E-01	5.00E-03	5	1.44E-01
PH	SU	6	8.10E+00	6.60E+00	6	
TMP	DEG C	6	2.20E+01	1.45E+01	6	1.78E+01
TSS	mg/L	6	2.00E+00	0.00E+00	6	1.17E+00
Outfall F-05						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water and steam condensate from the plutonium fabrication facility, well flush water, and stormwater.</i>						
FLO	MGD	12	1.12E+00	2.15E-02	12	2.71E-01
O&G	mg/L	12	6.70E+00	0.00E+00	12	1.31E+00
PH	SU	12	8.30E+00	5.10E+00	12	
TMP	DEG C	12	2.60E+01	1.80E+01	12	2.14E+01
TSS	mg/L	13	3.00E+00	0.00E+00	13	1.00E+00
Outfall F-08						
<i>Effluent consists of the following types of wastewater: water from power operations and waste management cooling towers, separations cooling water, steam condensate, process wastewater, laundry effluent, water tank overflow, stormwater, and radiological retention basin cooling water.</i>						
CU	mg/L	12	3.80E-02	0.00E+00	12	3.75E-03
FLO	MGD	365	8.40E+00	6.33E-01	365	2.12E+00
PB	mg/L	12	0.00E+00	0.00E+00	12	0.00E+00
PH	SU	12	7.70E+00	6.50E+00	12	

Table 56
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
TMP	DEG C	12	2.60E+01	1.68E+01	12	2.25E+01
TSS	mg/L	12	3.00E+00	1.00E+00	12	1.92E+00
Outfall G-10						
<i>Effluent consists of the following type of wastewater: centralized sanitary wastewater treatment facility wastewater.</i>						
AN	mg/L	26	2.36E+00	0.00E+00	26	4.42E-01
BOD	mg/L	24	5.30E+00	0.00E+00	24	2.20E+00
DO	mg/L	29	1.02E+01	5.90E+00	29	7.81E+00
FEC	#/100 mL	25	4.72E+02	0.00E+00	25	1.20E+02
FLO	MGD	365	7.10E-01	0.00E+00	365	2.18E-01
PH	SU	25	7.54E+00	6.60E+00		
TSS	mg/L	25	3.00E+01	1.00E+00	25	8.60E+00
Outfall H-02						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water and stormwater.</i>						
CHL	mg/L	16	5.00E-02	0.00E+00	16	3.13E-03
FLO	MGD	252	9.69E-01	6.46E-03	252	6.29E-02
O&G	mg/L	12	4.10E+00	0.00E+00	12	6.58E-01
PH	SU	12	8.20E+00	7.00E+00		
TMP	DEG C	12	2.50E+01	1.33E+01	12	1.92E+01
TSS	mg/L	12	5.00E+00	0.00E+00	12	1.50E+00
Outfall H-04						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water, CIF nonprocess wastewater, steam condensate, and stormwater.</i>						
FLO	MGD	12	1.12E-02	1.04E-03	12	4.43E-03
PH	SU	13	7.60E+00	6.60E+00		
TMP	DEG C	13	2.60E+01	1.03E+01	13	1.88E+01
TSS	mg/L	13	2.00E+00	0.00E+00	13	1.08E+00

Table 56
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall H-07						
<i>Effluent consists of the following types of wastewater: air compressor cooling water, cooling water blowdown, and stormwater.</i>						
CHL	mg/L	12	0.00E+00	0.00E+00	12	0.00E+00
FLO	MGD	17	6.83E-02	0.00E+00	17	7.61E-03
O&G	mg/L	7	3.40E+00	0.00E+00	7	9.43E-01
PH	SU	7	7.30E+00	6.10E+00	7	
TSS	mg/L	7	1.40E+01	1.00E+00	7	7.71E+00
Outfall H-08						
<i>Effluent consists of the following types of wastewater: water from power operations and waste management cooling towers, steam condensate, ash basin overflow, water tank overflow, neutralization system discharge, water laboratory discharge, well-flush water, powerhouse drains, and stormwater.</i>						
CHL	mg/L	17	1.00E-01	0.00E+00	17	1.18E-02
FLO	MGD	53	7.37E+00	9.69E-02	53	8.90E-01
PB	mg/L	12	6.00E-03	0.00E+00	12	1.83E-03
PH	SU	12	7.40E+00	6.20E+00	12	
TSS	mg/L	12	6.00E+00	2.00E+00	12	3.25E+00
Outfall H-12						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water, cooling tower and air compressor blowdown, stormwater, in-tank precipitation facility neutralized flush water, and radiological retention basin cooling water.</i>						
CU	mg/L	12	2.06E-01	0.00E+00	12	3.09E-02
FLO	MGD	12	7.36E+00	2.76E-01	12	2.57E+00
PB	mg/L	12	6.00E-03	0.00E+00	12	1.17E-03
PH	SU	12	7.84E+00	6.30E+00	12	
TMP	DEG C	12	2.60E+01	1.24E+01	12	2.04E+01
TSS	mg/L	12	4.00E+00	0.00E+00	12	1.33E+00
Outfall H-16						
<i>Effluent consists of the following type of wastewater: F/H effluent treatment facility process wastewater.</i>						
AG	mg/L	48	0.00E+00	0.00E+00	48	0.00E+00
BOD	mg/L	47	6.52E+01	0.00E+00	47	1.89E+00
CD	mg/L	48	0.00E+00	0.00E+00	48	0.00E+00
CR	mg/L	48	4.50E-02	0.00E+00	48	1.40E-03

Table 56
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
CU	mg/L	48	7.80E-02	0.00E+00	48	2.35E-03
FLO	MGD	49	1.13E+00	4.98E-02	49	1.32E-01
HG	mg/L	47	8.00E-04	0.00E+00	47	2.13E-05
NI	mg/L	48	1.00E-02	0.00E+00	48	2.08E-04
O&G	mg/L	49	1.38E+01	0.00E+00	49	1.25E+00
PB	mg/L	48	4.70E-02	0.00E+00	48	1.23E-03
PH	SU	49	8.34E+00	6.50E+00	49	
TSS	mg/L	48	2.70E+01	0.00E+00	48	1.72E+00
ZN	mg/L	48	9.60E-02	0.00E+00	48	2.50E-02
Outfall K-06						
<i>Effluent consists of the following types of wastewater: powerhouse wastewater, package boiler blowdown, cooling tower overflow, and stormwater.</i>						
CHL	mg/L	4	0.00E+00	0.00E+00	4	0.00E+00
FLO	MGD	17	3.87E-02	0.00E+00	17	3.33E-03
O&G	mg/L	4	1.50E+00	0.00E+00	4	3.75E-01
PH	SU	4	7.20E+00	7.03E+00	4	
TSS	mg/L	4	1.00E+00	0.00E+00	4	5.00E-01
Outfall K-08						
<i>Effluent consists of the following type of wastewater: Infrequent diversion from outfall K-18.</i>						
FLO	MGD	12	0.00E+00	0.00E+00	12	0.00E+00
Outfall K-10						
<i>Effluent consists of the following type of wastewater: Infrequent diversion from outfall K-18.</i>						
FLO	MGD	13	0.00E+00	0.00E+00	13	0.00E+00
Outfall K-12						
<i>Effluent consists of the following type of wastewater: sanitary wastewater.</i>						
BOD	mg/L	12	1.07E+01	0.00E+00	12	3.29E+00
DO	mg/L	12	1.25E+01	4.20E+00	12	6.44E+00
FEC	#/100 mL	12	8.00E+00	0.00E+00	12	2.25E+00
FLO	MGD	365	3.58E-02	0.00E+00	365	1.74E-02
PH	SU	12	7.60E+00	6.61E+00	12	
TSS	mg/L	12	2.60E+01	0.00E+00	12	7.67E+00

Table 56
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall K-18						
<i>Effluent consists of the following types of wastewater: building 105-K noncontact cooling water and process sewer flow, 186-K basin overflow, and water plant wastewater and treated sanitary wastewater from outfall K-12.</i>						
AL	mg/L	11	2.98E-01	0.00E+00	11	9.54E-02
FLO	MGD	12	5.17E-02	4.69E-04	12	7.68E-03
O&G	mg/L	12	4.60E+00	0.00E+00	12	1.29E+00
PH	SU	12	8.06E+00	7.01E+00	12	
TSS	mg/L	12	8.00E+00	1.00E+00	12	3.58E+00
Outfall L-07						
<i>Effluent consists of the following types of wastewater: 186-L basin overflow, treated sanitary wastewater from outfall L-7A, and process sewer/reactor building drains.</i>						
FLO	MGD	334	4.72E+01	1.10E+01	334	2.35E+01
O&G	mg/L	5	2.20E+00	1.00E+00	5	1.32E+00
PH	SU	5	7.50E+00	6.10E+00	5	
TSS	mg/L	5	1.30E+01	2.00E+00	5	5.80E+00
Outfall L-7A						
<i>Effluent consists of the following type of wastewater: sanitary wastewater.</i>						
BOD	mg/L	12	1.93E+01	0.00E+00	12	2.44E+00
DO	mg/L	13	1.04E+01	6.60E+00	13	8.00E+00
FEC	#/100 mL	12	2.00E+00	0.00E+00	12	1.67E-01
FLO	MGD	365	1.85E-02	-2.90E-07	365	3.02E-03
PH	SU	13	7.60E+00	6.80E+00	13	
TSS	mg/L	12	2.60E+01	1.00E+00	12	8.55E+00
Outfall L-08						
<i>Effluent consists of the following types of wastewater: building 105-L, 108L, and 108-2L drains, engine house cooling water, and stormwater.</i>						
FLO	MGD	6	8.35E-02	6.48E-04	6	3.79E-02
O&G	mg/L	6	3.30E+00	1.00E+00	6	2.27E+00
PH	SU	6	8.40E+00	6.80E+00	6	
TSS	mg/L	6	6.00E+00	2.00E+00	6	3.17E+00

Table 56
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall M-04						
<i>Effluent consists of the following types of wastewater: liquid effluent treatment facility process wastewater.</i>						
AL	mg/L	23	3.48E-01	0.00E+00	23	9.48E-02
AN	mg/L	23	8.54E+00	0.00E+00	23	8.92E-01
CN	mg/L	24	2.70E-02	0.00E+00	24	1.13E-03
CR	mg/L	23	5.90E-02	0.00E+00	23	7.13E-03
FLO	MGD	24	7.20E-03	1.44E-03	24	3.20E-03
NI	mg/L	23	3.33E-01	0.00E+00	23	7.60E-02
PB	mg/L	23	1.00E-02	0.00E+00	23	1.39E-03
PH	SU	24	7.30E+00	6.30E+00	24	
TSS	mg/L	23	2.00E+00	0.00E+00	23	8.26E-01
Outfall M-05						
<i>Effluent consists of the following type of wastewater: groundwater air stripper effluent.</i>						
FLO	MGD	13	7.92E-01	5.76E-01	13	6.91E-01
PERCL	ug/L	13	0.00E+00	0.00E+00	13	0.00E+00
TRICL	ug/L	13	0.00E+00	0.00E+00	13	0.00E+00
Outfall P-13						
<i>Effluent consists of the following types of wastewater: treated sanitary wastewater from outfall P-14, stormwater, and flow diversion from outfall P-19 when necessary.</i>						
FLO	MGD	3	7.34E+00	0.00E+00	3	2.45E+00
O&G	mg/L	1	0.00E+00	0.00E+00	1	0.00E+00
PB	mg/L	2	0.00E+00	0.00E+00	2	0.00E+00
PH	SU	1	7.20E+00	7.20E+00	1	
TSS	mg/L	1	3.00E+00	3.00E+00	1	3.00E+00

Table 56
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall P-19						
<i>Effluent consists of the following types of wastewater: 186-P basin overflow, nonprocess cooling water, building drains, and stormwater.</i>						
FLO	MGD	4	0.00E+00	0.00E+00	3	0.00E+00
Outfall PP-1						
<i>Effluent consists of the following type of wastewater: manganese greensand filter backwash/rinse water.</i>						
FE	mg/L	4	2.37E+00	6.83E-01	4	1.34E+00
FLO	MGD	5	5.86E-03	0.00E+00	5	2.17E-03
MN	mg/L	4	1.61E-01	4.40E-02	4	9.73E-02
PH	SU	4	6.70E+00	6.50E+00	4	
TSS	mg/L	4	4.00E+00	1.00E+00	4	2.75E+00
Outfall S-04						
<i>Effluent consists of the following types of wastewater: DWPF nonprocess wastewater—including cooling tower blowdown, neutralization wastewater, and infrequent flushing/rinsing activities—and stormwater.</i>						
CHL	mg/L	17	1.40E+00	0.00E+00	17	5.48E-01
FLO	MGD	15	1.97E-01	0.00E+00	15	9.64E-02
PH	SU	13	8.33E+00	6.80E+00	13	
TSS	mg/L	13	1.30E+01	0.00E+00	13	2.92E+00
ZN	mg/L	13	6.39E-01	1.00E-01	13	2.49E-01
Outfall X-04						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water, steam condensate, and stormwater.</i>						
FLO	MGD	12	4.08E-03	0.00E+00	12	9.79E-04
PH	SU	9	7.80E+00	5.74E+00	9	
TSS	mg/L	9	2.00E+01	1.00E+00	9	4.78E+00

Table 56
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall X-08						
<i>Effluent consists of the following types of wastewater: noncontact cooling water, domestic well overflow, treated sanitary wastewater from outfall X-8A, treated process water from outfall X-8B, treated groundwater from outfall X-8C, and stormwater.</i>						
FLO	MGD	12	3.31E-01	1.68E-01	12	2.44E-01
PH	SU	12	7.26E+00	6.30E+00	12	
TSS	mg/L	12	1.00E+01	1.00E+00	12	3.75E+00
Outfall X-8A						
<i>Effluent consists of the following type of wastewater: sanitary wastewater.</i>						
BOD	mg/L	13	7.10E+00	0.00E+00	13	2.51E+00
DO	mg/L	12	1.07E+01	4.90E+00	12	7.10E+00
FEC	#/100 mL	15	9.10E+03	0.00E+00	15	6.08E+02
FLO	MGD	365	1.00E+00	0.00E+00	365	4.44E-03
PH	SU	13	7.40E+00	6.68E+00	13	
TSS	mg/L	0	2.80E+01	0.00E+00	13	6.40E+00
Outfall X-8B						
<i>Effluent consists of the following type of wastewater: treated process water from the TNX effluent treatment plant.</i>						
BEN	ug/L	25	0.00E+00	0.00E+00	25	0.00E+00
BOD	mg/L	25	4.70E+00	0.00E+00	25	7.92E-01
C	mg/L	25	8.80E+00	2.10E+00	25	4.69E+00
FLO	MGD	24	2.10E-02	1.40E-02	24	1.77E-02
HG	ug/L	25	7.00E-01	0.00E+00	25	1.08E-01
PH	SU	24	7.97E+00	6.85E+00	24	
PHE	mg/L	25	3.70E-02	0.00E+00	25	3.44E-03
TSS	mg/L	25	4.50E+01	3.00E+00	25	1.58E+01
Outfall X-8C						
<i>Effluent consists of the following type of wastewater: treated groundwater air stripper effluent.</i>						
FLO	MGD	12	1.10E-01	0.00E+00	12	8.58E-02
PERCL	ug/L	11	0.00E+00	0.00E+00	11	0.00E+00
TRICL	ug/L	11	0.00E+00	0.00E+00	11	0.00E+00

Table 57
National Pollutant Discharge Elimination System Toxicity Monitoring Data

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Measurement	Number of Samples	Pass	Fail
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Permit SC0000175

Note: Toxicity requirements can be found in WSRC's NPDES industrial discharge permit, which is available from the South Carolina Department of Health and Environmental Control. Toxicity analysis is a pass/fail test; failure indicates that the tested water was toxic to the test organisms.

Outfall A-01

Effluent consists of the following types of wastewater: noncontact cooling water, steam condensate, laboratory drain water, cooling tower overflow, steam cleaning oil/water separation, well-flushing operations, air conditioning condensate, A-1A air stripper, and stormwater.

Chronic Toxicity	13	1	12
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Outfall A-11

Effluent consists of the following types of wastewater: fire station floor drains, air conditioning condensate, well flushing operations, cooling water, steam condensate, LETF, M-Area air stripper, and stormwater.

Chronic Toxicity	12	11	1
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Outfall G-10

Effluent consists of the following types of wastewater: sanitary treatment facility.

Acute Toxicity	7	7	0
Chronic Toxicity	7	7	0

Table 58
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration
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Permit SCR000000

Outfall B-008		Background Grab	Composite	Grab
O&G	mg/L	No Flow		<1.0
TSS	mg/L	No Flow	4	50
BOD	mg/L	No Flow	3.3	9.2
NO ₂ ,NO ₃	mg/L	No Flow	0.17	0.54
PO ₄ -P	mg/L	No Flow	0.064	0.86
COD	mg/L	No Flow	38	41.9
T°C	mg/L	No Flow	9.3	15.6
TKN	mg/L	No Flow	0.522	0.869
pH	SU	No Flow		7.3
WATER TEMP	°C	No Flow		23.5
RAIN GAUGE	in.	No Flow	0.42	0.35
TOTAL RAIN	in.	No Flow	0.5	0.5
RAIN DATE		No Flow	9/11/97	6/11/97
LAST .01 RAIN		No Flow	9/3/97	9/3/97
BACKGROUND DATE		1/23/97		

Table 58
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall CS-006		Background Grab	Composite	Composite	Grab	Grab
O&G	mg/L	No Flow			<1.0	
TSS	mg/L	No Flow	12	11	4	
BOD	mg/L	No Flow	<2.0	<2.0	<2.0	
NO2,NO3	mg/L	No Flow	<0.02	<0.02	<0.02	
PO4-P	mg/L	No Flow	0.053	0.032	0.065	
COD	mg/L	No Flow	31	13.3	24.5	
T°C	mg/L	No Flow	3	1.1	3.6	
TKN	mg/L	No Flow	2.76	0.83	0.586	
Phenol	mg/L	No Flow			0.024	
Tetrachloroethylene	ug/L	No Flow			<2.0	
Trichloroethylene	ug/L	No Flow			<2.0	
1,1,1-trichloroethylene	ug/L	No Flow			<2.0	
Benzene	ug/L	No Flow			<0.5	
AL	mg/L	No Flow	0.75	0.151	0.937	
CR	mg/L	No Flow	<0.01	<0.01	<0.01	
CU	mg/L	No Flow	<0.005	<0.005	<0.005	
FE	mg/L	No Flow	<0.02	0.762	1.07	
PB	mg/L	No Flow	<0.003	<0.003	0.003	

Table 58
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall CS-006 (cont.)		Background Grab	Composite	Composite	Grab	Grab
MG	mg/L	No Flow	0.248	0.624	0.696	
NI	mg/L	No Flow	<0.01	<0.01	<0.01	
AG	mg/L	No Flow	<0.005	<0.005	<0.005	
ZN	mg/L	No Flow	0.013	0.059	0.094	
pH	SU	No Flow			6.2	
WATER TEMP	°C	No Flow			16	
RAIN GAUGE	in.	No Flow	0.75	0.35	0.28	
TOTAL RAIN	in.	No Flow	0.4	0.5	0.40	
RAIN DATE		No Flow	1/30/97	1/25/97	10/22/97	
LAST .01 RAIN		No Flow	1/26/97	1/17/97	10/19/97	
BACKGROUND DATE		1/23/97				
Outfall CS-12A		Background Grab	Composite	Composite	Grab	Grab
O&G	mg/L	No Flow			<1.0	1.2
TSS	mg/L	No Flow	146	24	5.5	130
BOD	mg/L	No Flow	8	6.2	34.4	4.4
NO2,NO3	mg/L	No Flow	0.144	0.129	1.62	0.739
PO4-P	mg/L	No Flow	0.138	0.019	0.269	0.219

Table 58
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall CS-12A (cont.)		Background Grab	Composite	Composite	Grab	Grab
COD	mg/L	No Flow	180	16.9	92.4	20.8
T°C	mg/L	No Flow	0.49	4.3	11.4	8.3
TKN	mg/L	No Flow	0.219	0.097	0.869	0.676
Phenol	mg/L	No Flow			<0.006	0.013
AL	mg/L	No Flow	0.404	0.971	1.09	11.4
CR	mg/L	No Flow	<0.01	<0.01	0.011	<0.01
CU	mg/L	No Flow	<0.005	<0.005	0.095	0.076
FE	mg/L	No Flow	0.284	0.73	1.14	13.7
PB	mg/L	No Flow	0.01	0.004	0.039	0.069
MG	mg/L	No Flow	0.596	1.68	0.662	2.69
NI	mg/L	No Flow	<0.02	<0.01	0.012	0.016
AG	mg/L	No Flow	<0.005	<0.005	<0.005	<0.005
ZN	mg/L	No Flow	0.129	0.05	0.351	0.534
MN	mg/L	No Flow	0.06	0.041	0.234	0.294
B	mg/L	No Flow	<0.02	0.05	0.037	0.139
pH	SU	No Flow			7.3	7.1
WATER TEMP	°C	No Flow			8.1	26.2
RAIN GAUGE	in.	No Flow	0.5	1.51	0.21	0.28

Table 58
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall CS-12A (cont.)		Background Grab	Composite	Composite	Grab	Grab
TOTAL RAIN	in.	No Flow	0.8	1.25	1.25	0.4
RAIN DATE		No Flow	2/9/97	2/14/97	2/14/97	10/22/97
LAST 0.1 RAIN		No Flow	1/31/97	2/11/97	2/11/97	10/19/97
BACKGROUND DATE		2/7/97				
Outfall E-001		Background Grab	Grab	Grab	Grab	
O&G	mg/L	No Flow	1.2	1		
TSS	mg/L	No Flow	10	59		
BOD	mg/L	No Flow	2.7	<2.0		
TDS	mg/L	No Flow	36	32		
NH3-N	mg/L	No Flow	<0.1	0.71		
NO2/NO3	mg/L	No Flow	0.135	0.078		
PO4-P	mg/L	No Flow	<0.01	0.013		
COD	mg/L	No Flow	14.8	<10.0		
T°C	mg/L	No Flow	1.8	3.5		
TKN	mg/L	No Flow	0.404	0.524		
Phenol	mg/L	No Flow	<0.006	<0.01		
SO4	mg/L	No Flow	8.06	6.5		

Table 58
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration		
Permit SCR000000				
Outfall E-001 (cont.)		Background Grab	Grab	Grab
Bromide	mg/L	No Flow	<1.00	<1.00
CN	mg/L	No Flow	<0.02	<0.02
AG	mg/L	No Flow	<0.005	<0.005
AL	mg/L	No Flow	0.287	2.11
AS	mg/L	No Flow	<0.02	<0.02
B	mg/L	No Flow	0.158	0.123
BA	mg/L	No Flow	0.021	0.013
CD	mg/L	No Flow	<0.005	<0.005
CR	mg/L	No Flow	<0.01	<0.01
CU	mg/L	No Flow	<0.005	<0.005
FE	mg/L	No Flow	0.322	2.86
HG	mg/L	No Flow	<0.0001	0.0003
MG	mg/L	No Flow	1.22	0.908
MN	mg/L	No Flow	0.045	0.031
NI	mg/L	No Flow	<0.01	<0.01
PB	mg/L	No Flow	0.003	0.004
SB	mg/L	No Flow	<0.02	<0.02
SE	mg/L	No Flow	<0.05	<0.02

Table 58

National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration						
Permit SCR000000								
Outfall E-001 (cont.)		Background Grab	Grab	Grab	Grab			
SN	mg/L	No Flow	<0.025	<0.025				
U	mg/L	No Flow	<0.5	<0.5				
ZN	mg/L	No Flow	0.415	0.055				
MG (Dissolved)	mg/L	No Flow	1.02	0.845				
Tetrachloroethylene	ug/L	No Flow	<2.0	<2.0				
Trichloroethylene	ug/L	No Flow	<2.0	<2.0				
1,1,1-Trichloroethylene	ug/L	No Flow	<2.0	<2.0				
pH	SU	No Flow	6.8	6.9				
WATER TEMP	°C	No Flow	25	18				
RAIN GAUGE	in.	No Flow		1.46				
TOTAL RAIN	in.	No Flow	0.15	1.4				
RAIN DATE		No Flow	8/30/97	9/25/97				
LAST 0.1 RAIN		No Flow	8/21/97	9/11/97				
BACKGROUND DATE		9/24/97						
Outfall GS-002		Background Grab	Composite	Composite	Composite	Grab	Grab	Grab
O&G	mg/L	No Flow			<1.0	1		
BOD	mg/L	No Flow	2.6	2.5	3.1	3.2		

Table 58
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration					
Permit SCR0000000							
Outfall GS-002 (cont.)		Background Grab	Composite	Composite	Composite	Grab	Grab
TSS	mg/L	No Flow	4	16	5	16	
SO4	mg/L	No Flow	1.44	2.28	3.4	1.9	
NH3-N	mg/L	No Flow	0.344	0.227	0.314	<0.100	
NO2,NO3	mg/L	No Flow	0.554	0.437	0.16	0.312	
PO4-P	mg/L	No Flow	0.254	0.071	1.17	0.126	
COD	mg/L	No Flow	18.6	<10.0	20	34.1	
T°C	mg/L	No Flow	9.5	3.1	5.1	4.4	
TKN	mg/L	No Flow	0.962	0.83	2.13	0.378	
SB	mg/L	No Flow	<0.02	<0.02	<0.02	0.25	
CR	mg/L	No Flow	<0.01	<0.01	<0.01	<0.01	
CU	mg/L	No Flow	0.01	0.015	0.009	0.017	
HG	mg/L	No Flow	0.0002	<0.0001	<0.0001	0.0002	
NI	mg/L	No Flow	<0.01	<0.01	<0.01	0.012	
PB	mg/L	No Flow	0.086	0.02	0.046	0.044	
SN	mg/L	No Flow	<0.025	0.15	<0.02	<0.02	
pH	SU	No Flow			6.37	6.9	
WATER TEMP	°C	No Flow			17.4	18	
RAIN GAUGE	in.	No Flow	1.81				

Table 58
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration						
Permit SCR000000								
Outfall GS-002 (cont.)		Background Grab	Composite	Composite	Composite	Grab	Grab	Grab
TOTAL RAIN	in.	No Flow	1.4	0.4	0.4	0.4		
RAIN DATE		No Flow	9/25/97	10/23/97	1/25/97	3/20/97		
LAST 0.1 RAIN		No Flow	9/11/97	10/20/97	1/16/97	3/14/97		
BACKGROUND DATE		1/24/97						
Outfall H-007A		Background Grab	Composite	Composite	Grab	Grab		
O&G	mg/L	No Flow			<1.0	<1.0		
BOD	mg/L	No Flow	3.6	<2.0	5.2	5.8		
TSS	mg/L	No Flow	22	16	86	299		
NO2,NO3	mg/L	No Flow	0.862	1.02	0.672	0.906		
PO4-P	mg/L	No Flow	0.086	0.054	0.328	0.213		
COD	mg/L	No Flow	34.2	15.2	<10.0	19.8		
T°C	mg/L	No Flow	7.6	9.5	6.9	29		
TKN	mg/L	No Flow	0.462	0	0.7	0.67		
SO4	mg/L	No Flow	8.43	0.41	6.75	2.67		
AL	mg/L	No Flow	1.08	0.131	2.19	4.08		
FE	mg/L	No Flow	0.97	0.251	2.94	5.74		
pH	SU	No Flow			5.7	7.1		

Table 58
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall H-007A (cont.)		Background Grab	Composite	Composite	Grab	Grab
WATER TEMP	°C	No Flow			27	25
RAIN GAUGE	in.	No Flow	0.41	2.05	0.18	0.24
TOTAL RAIN	in.	No Flow	0.3	1.7	0.3	1.7
RAIN DATE		No Flow	9/11/97	9/25/97	9/11/97	9/25/97
LAST 0.1 RAIN		No Flow	9/3/97	9/11/97	9/3/97	9/11/97
BACKGROUND DATE		9/10/97				
Outfall G-020		Background Grab	Composite	Grab	Composite	Grab
O&G	mg/L	No Flow				<1.0
BOD	mg/L	No Flow	5.3	3.1	7.1	3.7
TSS	mg/L	No Flow	680		385	607
NO2,NO3	mg/L	No Flow	0.088		0.131	0.534
PO4-P	mg/L	No Flow	0.193		0.151	0.328
TKN	mg/L	No Flow	0.24		3.63	1.09
COD	mg/L	No Flow	36.8		36.1	38
T°C	mg/L	No Flow	8.8		16	<1.0
Phenol	mg/L	No Flow				<0.006
pH	SU	No Flow	5.5			6.8

Table 58
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall G-020 (cont.)		Background Grab	Composite	Grab	Composite	Grab
WATER TEMP	°C	No Flow	11.3			24
RAIN GAUGE	in.	No Flow	0.88		0.42	0.21
TOTAL RAIN	in.	No Flow	0.8	0.7	0.4	0.3
RAIN DATE		No Flow	1/16/97	1/30/97	1/25/97	9/11/98
LAST 0.1 RAIN		No Flow	1/10/97	1/25/97	1/16/97	9/3/97
BACKGROUND DATE		1/15/97				
Outfall K-002		Background Grab	Composite	Grab		
O&G	mg/L	No Flow		<1.0		
BOD	mg/L	No Flow	4.5	3.1		
TSS	mg/L	No Flow	25	32		
NO2,NO3	mg/L	No Flow	0.173	0.243		
PO4-P	mg/L	No Flow	0.026	0.058		
TKN	mg/L	No Flow	0.205	0.238		
COD	mg/L	No Flow	19.6	21.3		
T°C	mg/L	No Flow	0.97	6		
pH	SU	No Flow		6.8		
WATER TEMP	°C	No Flow		10.4		

Table 58
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration		
Permit SCR000000				
Outfall K-002 (cont.)		Background Grab	Composite	Grab
RAIN GAUGE	in.	No Flow	0.51	0.31
TOTAL RAIN	in.	No Flow	0.8	1.35
RAIN DATE		No Flow	2/8/97	2/14/97
LAST 0.1 RAIN		No Flow	1/31/97	2/9/97
BACKGROUND DATE		2/7/97		
Outfall K-004		Background Grab	Composite	Grab
O&G	mg/L	No Flow		<1.0
BOD	mg/L	No Flow	5.5	3.1
TSS	mg/L	No Flow	15	38
NO2,NO3	mg/L	No Flow	0.447	0.336
PO4-P	mg/L	No Flow	<0.01	0.042
TKN	mg/L	No Flow	0.293	0.206
COD	mg/L	No Flow	33.4	18.9
T°C	mg/L	No Flow	8.1	8.1
pH	SU	No Flow		6.9
WATER TEMP	°C	No Flow		10.4
RAIN GAUGE	in.	No Flow	1.47	0.35

Table 58
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration		
Permit SCR000000				
Outfall K-004 (cont.)		Background Grab	Composite	Grab
TOTAL RAIN	in.	No Flow	1.35	1.35
RAIN DATE		No Flow	2/14/97	2/13/97
LAST 0.1 RAIN		No Flow	2/9/97	2/9/97
BACKGROUND DATE		2/13/97		
Outfall S-005		Background Grab	Grab	Grab
O&G	mg/L	<1.0	<1.0	<1.0
BOD	mg/L	4	2.9	<2.0
TSS	mg/L	16	9	6
NO2,NO3	mg/L	0.032	0.353	0.113
PO4-P	mg/L	0.096	0.083	<0.031
COD	mg/L	164	21.3	21.4
T°C	mg/L	3.6	5.6	1
TKN	mg/L	2.11	0.542	0.691
SO4	mg/L	5.3	<1.00	3.48
NH3-N	mg/L	0.236	0.358	0.796
Phenol	mg/L	<0.006	<0.006	<0.006
Benzene	ug/L	<0.5	<0.5	<0.5

Table 58
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall S-005 (cont.)		Background Grab	Grab	Grab		
B	mg/L	<0.02	0.167	<0.05		
CR	mg/L	<0.01	0.099	<0.01		
CU	mg/L	<0.005	<0.005	<0.005		
HG	mg/L	<0.0001	0.0001	<0.0001		
PB	mg/L	0.005	0.006	0.004		
ZN	mg/L	0.189	0.123	0.017		
pH	SU	6.2	6.9	6.8		
WATER TEMP	°C	10.3	24	24		
RAIN GAUGE	in.		0.17			
TOTAL RAIN	in.		1.7	0.3		
RAIN DATE			9/25/97	9/11/97		
LAST 0.1 RAIN			9/11/97	9/3/97		
BACKGROUND DATE		2/7/97				
Outfall X-001		Background Grab	Composite	Composite	Grab	Grab
O&G	mg/L	No Flow				
BOD	mg/L	No Flow	5.3	9.5	3.8	
TSS	mg/L	No Flow	26	45	13	

Table 58
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall X-001 (cont.)		Background Grab	Composite	Composite	Grab	Grab
NO2,NO3	mg/L	No Flow	0.692		0.151	
PO4-P	mg/L	No Flow	0.401		0.149	
TKN	mg/L	No Flow	1.24		0.282	
COD	mg/L	No Flow	<10.0		13.6	
T°C	mg/L	No Flow	18		5.8	
Phenol	mg/L	No Flow				
Benzene	ug/L	No Flow				
CD	mg/L	No Flow	<0.005		<0.005	
CR	mg/L	No Flow	<0.01		<0.01	
CU	mg/L	No Flow	0.023		<0.005	
HG	mg/L	No Flow	0.0003		<0.0001	
pH	SU	No Flow			6.88	
WATER TEMP	°C	No Flow			15.6	
RAIN GAUGE	in.	No Flow		0.44	3	
TOTAL RAIN	in.	No Flow	1.7	0.3	0.3	
RAIN DATE		No Flow	9/25/97	9/11/97	11/1/97	
LAST 0.1 RAIN		No Flow	9/11/97	9/3/97	9/3/97	
BACKGROUND DATE		6/11/97				

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National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall N-14		Background Grab	Composite	Composite	Grab	Grab
O&G	mg/L	No Flow			1.3	<1.0
BOD	mg/L	No Flow	4.6		4.4	31.1
TSS	mg/L	No Flow	29		18	6
Nitrate	mg/L	No Flow	0.53		0.482	0.243
TKN	mg/L	No Flow	0.935		0.46	0.827
COD	mg/L	No Flow	41.2		<10.0	24.9
PO4-P	mg/L	No Flow	0.135		0.087	0.096
T°C	mg/L	No Flow	18		19	3.5
pH	SU	No Flow			6.8	6.6
WATER TEMP	°C	No Flow			18	16.7
RAIN GAUGE	in.	No Flow	1.43		1.43	0.24
TOTAL RAIN	in.	No Flow	2.2		2.2	0.4
RAIN DATE		No Flow	9/25/97		9/25/97	10/23/97
LAST 0.1 RAIN		No Flow	9/11/97		9/25/97	10/20/97
BACKGROUND DATE		9/24/97				

Table 58
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall A-08		Background Grab	Composite	Composite	Grab	Grab
O&G	mg/L	No Flow				
BOD	mg/L	No Flow	<2.0			
TSS	mg/L	No Flow	3			
Nitrate	mg/L	No Flow	0.112			
TKN	mg/L	No Flow	0.575			
COD	mg/L	No Flow	<10.0			
PO4-P	mg/L	No Flow	<0.01			
T°C	mg/L	No Flow	3.5			
Copper	mg/L	No Flow	<0.005			
Nickel	mg/L	No Flow	<0.01			
Zinc	mg/L	No Flow	5.37			
pH	SU	No Flow	7.36			
WATER TEMP	°C	No Flow	11.4			
RAIN GAUGE	in.	No Flow	1.72			
TOTAL RAIN	in.	No Flow	1.45			
RAIN DATE		No Flow	11/13/97			
LAST 0.1 RAIN		No Flow	11/3/97			
BACKGROUND DATE		11/12/97				

Table 59
National Pollutant Discharge Elimination System
Land Application Monitoring Data

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Analytical Laboratory	Results Weston	Results GEL	Results Shealy	Units
Permit ND0072125				
<i>Note: Permit levels can be found in WSRC NPDES Environmental Monitoring Program (ESH-EMS-910110) or in the permit itself. The permit is available from the South Carolina Department of Health and Environmental Control.</i>				
Outfall ND-1				
Date of Sample	3/11/97	3/11/97	9/24/97	
Arsenic	6.1	<11.4	<1.00	mg/kg
Cadmium	7.3	7.17	<0.25	mg/kg
Chromium	45.3	36.4	7.66	mg/kg
Copper	994	916	176	mg/kg
Lead	152	143	32.3	mg/kg
Mercury	6.5	5.69	2.99	mg/kg
Molybdenum	9.1	8.8	34.9	mg/kg
Nickel	44.4	37.7	7.66	mg/kg
Potassium			411	mg/kg
Selenium	7.2	<22.7	<1.00	mg/kg
Silver			39.2	mg/kg
Zinc	4720	4290	808	mg/kg
Percent Solids			86.0	%
Percent Solids			41.9	%
Percent Solids			55.3	%
Percent Solids			22.0	%
Percent Solids			40.6	%
Percent Solids			43.0	%
Percent Solids			54.2	%
Percent Solids			76.8	%
Percent Solids			88.7	%
Percent Solids			59.1	%
Percent Solids			78.8	%
Fecal Coliform			<2.3	#/g
Fecal Coliform			<4.8	#/g
Fecal Coliform			<3.6	#/g

Table 59
National Pollutant Discharge Elimination System
Land Application Monitoring Data

Page 2 of 2

Analytical Laboratory	Results Weston	Results GEL	Results Shealy	Units
Permit ND0072125				
Outfall ND-1				
Date of Sample	3/11/97	3/11/97	9/24/97	
Fecal Coliform			<9.1	#/g
Fecal Coliform			<4.9	#/g
Fecal Coliform			<4.7	#/g
Fecal Coliform			<3.7	#/g
Ammonia-N			284	mg/kg
TKN			609	mg/kg
Nitrate + Nitrite			86.3	mg/kg
pH			6.41	SU
TVS			13.5	%

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 1 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Note: "ND" denotes "not detected"; "NC" denotes "not collected."													
Beaver Dam Creek (400-D)													
Sample Date		1/14/97	2/11/97	3/11/97	4/8/97	5/6/97	6/17/97	7/16/97	8/12/97	9/9/97	10/7/97	11/4/97	12/2/97
Temperature	°C	9.6	14.0	18.7	21.3	22.6	25.4	27.8	25.4	26.1	23.1	18.9	17.6
pH	SU	6.0	6.1	6.7	7.1	6.7	6.8	7.0	6.9	7.0	7.0	7.4	6.8
DO	mg/L	7.3	10.0	9.7	6.4	6.0	7.0	6.0	6.3	6.7	8.0	6.0	9.0
Conductivity	umhos/cm	92	109	71	96	102	116	94	134	116	119	118	106
COD	mg/L	20	ND	ND	ND	ND	ND	ND	ND	20	ND	ND	ND
TSS	mg/L	11	3	15	9	12	8	7	10	8	9	8	9
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.34	0.38	0.31	0.40	0.39	0.49	0.43	0.47	0.42	0.39	0.43	0.42
Total Phos	mg/L	0.093	0.066	0.077	0.08	0.062	0.072	0.091	0.12	0.136	0.204	0.059	0.413
TOC	mg/L	4.6	3.8	4.8	4.3	4.6	3.5	4.4	4.1	6.1	2.8	5	3.84
Al	mg/L	0.48	0.191	0.189	0.327	0.53	0.17	0.584	0.112	0.265	0.235	0.339	0.172
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	0.08	ND	ND	ND	0.013	0.012	ND	ND	0.029	ND	0.021	ND
Fe	mg/L	0.662	0.327	0.33	0.545	0.964	0.75	0.671	0.301	0.572	0.389	0.502	0.433
Pb	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mn	mg/L	0.113	0.044	0.031	0.056	0.084	0.067	1.58	0.066	0.063	0.067	0.062	0.071
Hg	mg/L	ND	ND	0.0003	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ni	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.02	ND	ND	ND
Zn	mg/L	0.083	0.005	0.144	0.337	0.012	0.013	0.054	0.033	0.222	0.039	0.037	0.034
Pesticides													
Aldrin	µg/L		NC			ND			ND			ND	
Alpha-BHC	µg/L		NC			ND			ND			ND	
Beta-BHC	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Beaver Dam Creek (400-D)													
Delta-BHC	µg/L		NC			ND			ND			ND	
Gamma-BHC (Lindane)	µg/L		NC			ND			ND			ND	
Chlordane	µg/L		NC			ND			ND			ND	
4,4-DDD	µg/L		NC			ND			ND			ND	
4,4-DDE	µg/L		NC			ND			ND			ND	
4,4-DDT	µg/L		NC			ND			ND			ND	
Dieldrin	µg/L		NC			ND			ND			ND	
Endosulfan I	µg/L		NC			ND			ND			ND	
Endosulfan II	µg/L		NC			ND			ND			ND	
Endosulfan sulfate	µg/L		NC			ND			ND			ND	
Endrin	µg/L		NC			ND			ND			ND	
Endrin aldehyde	µg/L		NC			ND			ND			ND	
Endrin ketone	µg/L		NC			ND			ND			ND	
Heptachlor	µg/L		NC			ND			ND			ND	
Heptachlor epoxide	µg/L		NC			ND			ND			ND	
Methoxychlor	µg/L		NC			ND			ND			ND	
Toxaphene	µg/L		NC			ND			ND			ND	
Herbicides													
2, 4-D	µg/L		NC			0.293			ND			ND	
2,4, 5-TP (Silvex)	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Four Mile Creek-2													
Sample Date		1/14/97	2/11/97	3/11/97	4/8/97	5/6/97	6/17/97	7/16/97	8/12/97	9/9/97	10/7/97	11/4/97	12/2/97
Temperature	°C	9.3	9.7	17.7	17.6	18.2	22.1	23.9	23.6	23.3	24.1	13.6	12.3
pH	SU	5.4	5.1	6.1	5.5	5.9	6.6	4.2	5.9	6.5	6.7	6.2	6.8
DO	mg/L	6.9	10.7	8.1	6.0	6.4	6.9	3.9	5.4	6.2	5.6	6.1	6.3
Conductivity	umhos/cm	55	51	34	40	44	47	114	61	61	58	50	46
COD	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	3	2	13	10	6	4	37	11	6	6	10	7
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.55	0.40	0.30	0.35	0.40	0.35	0.38	0.46	0.58	0.44	0.34	0.33
Total Phos	mg/L	0.046	0.072	0.057	0.016	0.099	0.022	0.094	0.034	ND	0.096	ND	0.05
TOC	mg/L	2.6	2.5	7.5	3.8	3.8	2.3	4.9	4.8	1.5	1.3	4	4.06
Al	mg/L	0.614	0.273	0.095	0.22	0.132	0.064	1.14	0.409	0.317	0.253	0.231	0.175
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	0.038	ND	ND	0.011	0.007	0.012	0.02	ND	ND	ND	0.022	ND
Fe	mg/L	0.751	0.898	0.968	0.958	1.27	0.79	2.84	3.24	1.22	1.04	0.883	0.829
Pb	mg/L	0.004	ND	ND	0.003	ND	ND	ND	ND	ND	ND	ND	0.003
Mn	mg/L	0.05	0.065	0.034	0.073	0.073	0.041	0.571	0.311	0.119	0.099	0.078	0.072
Hg	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ni	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.052	0.053	0.037	0.038	0.023	0.015	0.137	0.066	0.116	0.048	0.043	0.076
Pesticides													
Aldrin	µg/L		NC			ND			ND			ND	
Alpha-BHC	µg/L		NC			ND			ND			ND	
Beta-BHC	µg/L		NC			ND			ND			ND	
Delta-BHC	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Four Mile Creek-2													
Gamma-BHC (Lindane)	µg/L		NC			ND			ND			ND	
Chlordane	µg/L		NC			ND			ND			ND	
4,4-DDD	µg/L		NC			ND			ND			ND	
4,4-DDE	µg/L		NC			ND			ND			ND	
4,4-DDT	µg/L		NC			ND			ND			ND	
Dieldrin	µg/L		NC			ND			ND			ND	
Endosulfan I	µg/L		NC			ND			ND			ND	
Endosulfan II	µg/L		NC			ND			ND			ND	
Endosulfan sulfate	µg/L		NC			ND			ND			ND	
Endrin	µg/L		NC			ND			ND			ND	
Endrin aldehyde	µg/L		NC			ND			ND			ND	
Endrin ketone	µg/L		NC			ND			ND			ND	
Heptachlor	µg/L		NC			ND			ND			ND	
Heptachlor epoxide	µg/L		NC			ND			ND			ND	
Methoxychlor	µg/L		NC			ND			ND			ND	
Toxaphene	µg/L		NC			ND			ND			ND	
Herbicides													
2, 4-D	µg/L		NC			ND			ND			ND	
2,4, 5-TP (Silvex)	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Four Mile Creek-2B													
Sample Date		1/14/97		3/11/97	4/8/97	5/6/97	6/17/97	7/16/97	8/12/97	9/9/97	10/7/97	11/4/97	12/2/97
Temperature	°C	9.5	NC	18.2	16.4	17.6	23.3	24.8	22.9	21.1	18.8	11.4	10.7
pH	SU	5.0	NC	6.3	6.1	6.2	6.5	6.4	5.8	6.0	6.5	6.1	6.4
DO	mg/L	7.0	NC	2.7	5.7	4.8	4.6	2.7	1.8	2.7	3.4	5.4	5.9
Conductivity	umhos/cm	55	NC	57	48	54	50	53	81	61	56	61	56
COD	mg/L	ND	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	2	NC	6	2	4	3	4	14	7	2	2	4
NO ₂ -N	mg/L	ND	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.55	NC	0.36	0.23	0.21	0.17	0.13	0.13	0.17	0.13	0.17	0.23
Total Phos	mg/L	0.011	NC	0.029	0.024	0.017	0.08	0.153	ND	0.03	0.075	ND	0.052
TOC	mg/L	2.7	NC	6	2.8	4.6	4.8	7.1	7	2.9	2.4	3.8	3
Al	mg/L	0.157	NC	0.068	0.202	ND	ND	0.191	0.083	0.104	0.229	0.135	0.064
Cd	mg/L	ND	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	0.042	NC	ND	0.009	ND	ND	0.037	ND	ND	ND	0.024	ND
Fe	mg/L	0.534	NC	0.908	0.527	0.585	0.582	1.57	5.75	2.36	0.736	0.325	0.472
Pb	mg/L	ND	NC	ND	ND	ND	ND	ND	0.003	ND	ND	ND	ND
Mn	mg/L	0.024	NC	ND	0.04	0.026	0.032	0.554	1.87	0.496	0.064	0.012	0.009
Hg	mg/L	ND	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ni	mg/L	ND	NC	ND	ND	ND	ND	0.079	ND	ND	0.018	ND	ND
Zn	mg/L	0.052	NC	0.044	0.135	0.005	0.012	0.069	0.066	0.11	0.047	0.05	0.047
Pesticides													
Aldrin	µg/L		NC			ND			ND			ND	
Alpha-BHC	µg/L		NC			ND			ND			ND	
Beta-BHC	µg/L		NC			ND			ND			ND	
Delta-BHC	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Four Mile Creek-2B													
Gamma-BHC (Lindane)	µg/L		NC			ND			ND			ND	
Chlordane	µg/L		NC			ND			ND			ND	
4,4-DDD	µg/L		NC			ND			ND			ND	
4,4-DDE	µg/L		NC			ND			ND			ND	
4,4-DDT	µg/L		NC			ND			ND			ND	
Dieldrin	µg/L		NC			ND			ND			ND	
Endosulfan I	µg/L		NC			ND			ND			ND	
Endosulfan II	µg/L		NC			ND			ND			ND	
Endosulfan sulfate	µg/L		NC			ND			ND			ND	
Endrin	µg/L		NC			ND			ND			ND	
Endrin aldehyde	µg/L		NC			ND			ND			ND	
Endrin ketone	µg/L		NC			ND			ND			ND	
Heptachlor	µg/L		NC			ND			ND			ND	
Heptachlor epoxide	µg/L		NC			ND			ND			ND	
Methoxychlor	µg/L		NC			ND			ND			ND	
Toxaphene	µg/L		NC			ND			ND			ND	
Herbicides													
2, 4-D	µg/L		NC			ND			ND			ND	
2,4, 5-TP (Silvex)	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Four Mile Creek-6													
Sample Date		1/14/97	2/11/97	3/11/97	4/8/97	5/6/97	6/17/97	7/16/97	8/12/97	9/9/97	10/7/97	11/4/97	12/2/97
Temperature	°C	9.2	11.0	21.5	19.0	20.5	21.6	27.6	25.0	23.3	18.8	13.7	13.0
pH	SU	6.3	5.9	7.0	7.1	6.6	6.8	6.9	6.8	6.9	6.9	6.8	6.6
DO	mg/L	7.3	12.0	10.4	9.3	6.7	7.1	5.9	8.0	8.9	7.4	7.4	10.3
Conductivity	umhos/cm	68	72	65	59	65	59	60	63	69	63	64	61
COD	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	2	1	5	3	2	6	2	1	2	2	2	3
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	1.86	1.31	1.49	1.59	1.88	1.35	1.50	1.23	1.17	1.19	1.27	1.32
Total Phos	mg/L	0.049	0.049	0.078	0.055	0.097	0.07	0.153	0.719	0.043	0.077	ND	0.081
TOC	mg/L	4.7	3.2	5.2	2.4	3	2.7	4.3	2.2	6.7	1.6	4	3.63
Al	mg/L	0.139	0.126	ND	0.209	0.139	ND	0.252	ND	ND	0.138	0.143	ND
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	0.026	ND	ND	0.016	0.009	ND	ND	ND	ND	ND	0.023	ND
Fe	mg/L	0.308	0.401	0.529	0.703	0.519	0.747	0.576	0.431	0.302	0.252	0.455	0.572
Pb	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.005	0.012	ND	0.003
Mn	mg/L	0.032	0.024	ND	0.054	0.037	0.048	0.458	0.017	0.019	0.016	0.028	0.029
Hg	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ni	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.05	0.099	0.062	0.093	0.4	0.006	0.069	0.131	0.098	0.032	0.043	0.041
Pesticides													
Aldrin	µg/L		NC			ND			ND			ND	
Alpha-BHC	µg/L		NC			ND			ND			ND	
Beta-BHC	µg/L		NC			ND			ND			ND	
Delta-BHC	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Four Mile Creek-6													
Gamma-BHC (Lindane)	µg/L		NC			ND			ND			ND	
Chlordane	µg/L		NC			ND			ND			ND	
4,4-DDD	µg/L		NC			ND			ND			ND	
4,4-DDE	µg/L		NC			ND			ND			ND	
4,4-DDT	µg/L		NC			ND			ND			ND	
Dieldrin	µg/L		NC			ND			ND			ND	
Endosulfan I	µg/L		NC			ND			ND			ND	
Endosulfan II	µg/L		NC			ND			ND			ND	
Endosulfan sulfate	µg/L		NC			ND			ND			ND	
Endrin	µg/L		NC			ND			ND			ND	
Endrin aldehyde	µg/L		NC			ND			ND			ND	
Endrin ketone	µg/L		NC			ND			ND			ND	
Heptachlor	µg/L		NC			ND			ND			ND	
Heptachlor epoxide	µg/L		NC			ND			ND			ND	
Methoxychlor	µg/L		NC			ND			ND			ND	
Toxaphene	µg/L		NC			ND			ND			ND	
Herbicides													
2, 4-D	µg/L		NC			ND			ND			ND	
2,4, 5-TP (Silvex)	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Lower Three Runs-2													
Sample Date		1/14/97	2/11/97	3/11/97	4/8/97	5/6/97	6/17/97	7/16/97	8/12/97	9/9/97	10/7/97	11/4/97	12/2/97
Temperature	°C	8.7	11.0	18.3	15.5	17.1	22.1	25.5	22.5	20.1	19.0	13.5	12.3
pH	SU	6.0	6.0	7.0	7.2	6.9	7.0	7.2	6.9	6.9	7.8	7.3	7.0
DO	mg/L	5.9	11.6	8.4	6.5	7.8	7.7	5.4	6.3	8.2	7.9	7.3	10.0
Conductivity	umhos/cm	86	87	77	85	78	92	79	101	97	104	78	68
COD	mg/L	ND	20	ND	ND	ND	ND	ND	ND	ND	ND	20	ND
TSS	mg/L	3	1	4	4	6	7	8	4	4	2	2	3
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.23	0.23	0.21	0.25	0.23	0.27	0.23	0.28	0.33	0.23	0.18	0.19
Total Phos	mg/L	0.024	ND	0.022	0.03	ND	0.028	0.155	0.106	0.021	0.046	ND	0.044
TOC	mg/L	4.9	3.4	8.1	3.3	ND	3.6	5.9	3.5	2.6	3.8	5.9	5.31
Al	mg/L	0.386	ND	ND	0.154	0.098	ND	0.261	ND	ND	0.191	0.189	ND
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	ND	ND	0.066	ND	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	0.022	0.085	ND	0.089	ND	ND	ND	ND	ND	ND	0.022	ND
Fe	mg/L	0.315	0.2	0.219	0.478	0.34	0.579	0.484	0.354	1.69	0.349	0.288	0.281
Pb	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.004	ND	ND	0.003
Mn	mg/L	0.047	0.032	0.017	0.121	0.058	0.059	0.639	0.042	0.047	0.054	0.032	0.037
Hg	mg/L	ND	ND	0.0003	ND	ND	ND	ND	0.0004	ND	ND	ND	ND
Ni	mg/L	ND	ND	ND	0.074	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.056	0.08	ND	0.595	ND	0.035	0.041	0.088	0.077	0.036	0.045	0.043
<i>Pesticides</i>													
Aldrin	µg/L		NC			ND			ND			ND	
Alpha-BHC	µg/L		NC			ND			ND			ND	
Beta-BHC	µg/L		NC			ND			ND			ND	
Delta-BHC	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Lower Three Runs-2													
Gamma-BHC (Lindane)	µg/L		NC			ND			ND			ND	
Chlordane	µg/L		NC			ND			ND			ND	
4,4-DDD	µg/L		NC			ND			ND			ND	
4,4-DDE	µg/L		NC			ND			ND			ND	
4,4-DDT	µg/L		NC			ND			ND			ND	
Dieldrin	µg/L		NC			ND			ND			ND	
Endosulfan I	µg/L		NC			ND			ND			ND	
Endosulfan ii	µg/L		NC			ND			ND			ND	
Endosulfan sulfate	µg/L		NC			ND			ND			ND	
Endrin	µg/L		NC			ND			ND			ND	
Endrin aldehyde	µg/L		NC			ND			ND			ND	
Endrin ketone	µg/L		NC			ND			ND			ND	
Heptachlor	µg/L		NC			ND			ND			ND	
Heptachlor epoxide	µg/L		NC			ND			ND			ND	
Methoxychlor	µg/L		NC			ND			ND			ND	
Toxaphene	µg/L		NC			ND			ND			ND	
Herbicides													
2, 4-D	µg/L		NC			ND			ND			ND	
2,4, 5-TP (Silvex)	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Pen Branch-3													
Sample Date		1/14/97	2/11/97	3/11/97	4/8/97	5/6/97	6/17/97	7/16/97	8/12/97	9/9/97	10/7/97	11/4/97	12/2/97
Temperature	°C	10.0	11.6	21.2	17.5	19.6	21.2	26.7	25.0	23.0	19.0	14.1	13.2
pH	SU	6.4	6.1	6.8	6.9	6.8	6.9	6.9	6.7	7.1	7.3	7.1	6.8
DO	mg/L	7.4	10.6	10.1	8.4	8.3	8.9	6.0	6.3	9.3	8.4	7.7	10.7
Conductivity	umhos/cm	61	59	52	55	52	64	64	61	62	63	62	62
COD	mg/L	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	2	2	6	2	3	5	4	2	4	3	2	4
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.36	0.24	0.3	0.24	0.22	0.26	0.22	0.28	0.25	0.23	0.20	0.22
Total Phos	mg/L	0.05	ND	0.018	0.014	0.046	0.039	0.127	0.122	ND	0.048	ND	0.027
TOC	mg/L	4.9	4.8	5.5	4.2	3.6	4	5.1	3.8	2.1	5	5.8	4.78
Al	mg/L	0.529	0.15	0.092	0.1	0.1	ND	0.285	ND	0.116	0.178	0.161	ND
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	0.027	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.028	0.012
Fe	mg/L	0.481	0.482	0.594	0.802	0.654	0.664	0.925	0.639	0.939	0.574	0.673	0.437
Pb	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.044
Mn	mg/L	0.028	0.039	0.012	0.054	0.042	0.053	0.66	0.126	0.078	0.078	0.06	ND
Hg	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ni	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.4	0.12	0.029	0.139	0.019	0.222	0.037	0.032	0.247	0.037	0.078	0.062
Pesticides													
Aldrin	µg/L		NC			ND			ND			ND	
Alpha-BHC	µg/L		NC			ND			ND			ND	
Beta-BHC	µg/L		NC			ND			ND			ND	
Delta-BHC	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Pen Branch-3													
Gamma-BHC (Lindane)	µg/L		NC			ND			ND			ND	
Chlordane	µg/L		NC			ND			ND			ND	
4,4-DDD	µg/L		NC			ND			ND			ND	
4,4-DDE	µg/L		NC			ND			ND			ND	
4,4-DDT	µg/L		NC			ND			ND			ND	
Dieldrin	µg/L		NC			ND			ND			ND	
Endosulfan I	µg/L		NC			ND			ND			ND	
Endosulfan II	µg/L		NC			ND			ND			ND	
Endosulfan sulfate	µg/L		NC			ND			ND			ND	
Endrin	µg/L		NC			ND			ND			ND	
Endrin aldehyde	µg/L		NC			ND			ND			ND	
Endrin ketone	µg/L		NC			ND			ND			ND	
Heptachlor	µg/L		NC			ND			ND			ND	
Heptachlor epoxide	µg/L		NC			ND			ND			ND	
Methoxychlor	µg/L		NC			ND			ND			ND	
Toxaphene	µg/L		NC			ND			ND			ND	
Herbicides													
2, 4-D	µg/L		NC			ND			ND			ND	
2,4, 5-TP (Silvex)	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Steel Creek-4 at Road A													
Sample Date		1/14/97	2/11/97	3/11/97	4/8/97	5/6/97	6/17/97	7/16/97	8/12/97	9/9/97	10/7/97	11/4/97	12/2/97
Temperature	°C	9.8	12.0	18.5	19.3	20.5	21.4	27.4	26.9	25.1	20.6	15.6	13.8
pH	SU	5.5	6.1	7.0	6.9	6.7	6.8	6.9	6.7	7.0	7.5	7.2	7.0
DO	mg/L	6.8	11.4	9.8	7.6	6.8	7.1	5.5	7.2	7.1	7.0	8.0	9.3
Conductivity	umhos/cm	70	72	70	66	66	69	62	67	73	66	60	57
COD	mg/L	ND	ND	20	ND	26	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	2	1	8	3	3	5	3	3	3	4	2	3
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.17	0.20	0.19	0.18	0.16	0.21	0.18	0.19	0.20	0.19	0.16	0.16
Total Phos	mg/L	0.016	ND	0.099	0.02	0.066	ND	0.131	0.063	0.03	0.36	ND	0.05
TOC	mg/L	5	3.4	6	3.4	4.3	3.4	5.2	3.6	2.9	6	5.3	5.15
Al	mg/L	0.21	0.14	ND	0.117	ND	ND	0.241	0.12	0.139	0.093	0.178	ND
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	0.022	ND	ND	0.023	0.006	0.108	0.012	ND	ND	ND	0.019	ND
Fe	mg/L	0.221	0.158	0.092	0.248	0.146	0.282	0.435	0.339	0.278	0.245	0.282	0.277
Pb	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.009
Mn	mg/L	0.024	0.019	0.006	0.037	0.02	0.024	0.943	0.037	0.025	0.032	0.021	0.026
Hg	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ni	mg/L	ND	ND	ND	0.017	ND	0.023	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.035	0.015	ND	0.088	0.09	0.061	0.053	0.115	0.113	0.059	0.033	0.045
Pesticides													
Aldrin	µg/L		NC			ND			ND			ND	
Alpha-BHC	µg/L		NC			ND			ND			ND	
Beta-BHC	µg/L		NC			ND			ND			ND	
Delta-BHC	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Steel Creek-4 at Road A													
Gamma-BHC (Lindane)	µg/L		NC			ND			ND			ND	
Chlordane	µg/L		NC			ND			ND			ND	
4,4-DDD	µg/L		NC			ND			ND			ND	
4,4-DDE	µg/L		NC			ND			ND			ND	
4,4-DDT	µg/L		NC			ND			ND			ND	
Dieldrin	µg/L		NC			ND			ND			ND	
Endosulfan I	µg/L		NC			ND			ND			ND	
Endosulfan II	µg/L		NC			ND			ND			ND	
Endosulfan sulfate	µg/L		NC			ND			ND			ND	
Endrin	µg/L		NC			ND			ND			ND	
Endrin aldehyde	µg/L		NC			ND			ND			ND	
Endrin ketone	µg/L		NC			ND			ND			ND	
Heptachlor	µg/L		NC			ND			ND			ND	
Heptachlor epoxide	µg/L		NC			ND			ND			ND	
Methoxychlor	µg/L		NC			ND			ND			ND	
Toxaphene	µg/L		NC			ND			ND			ND	
<i>Herbicides</i>													
2, 4-D	µg/L		NC			ND			ND			ND	
2,4, 5-TP (Silvex)	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Tims Branch-5													
Sample Date		1/14/97	2/11/97	3/11/97	4/8/97	5/6/97	6/17/97	7/16/97	8/12/97	9/9/97	10/7/97	11/4/97	12/2/97
Temperature	°C	9.7	8.9	15.9	13.5	14.8	21.0	22.0	21.0	19.9	17.7	11.2	10.6
pH	SU	5.8	5.6	6.5	6.5	6.9	6.9	6.6	6.2	7.0	6.8	6.3	6.6
DO	mg/L	7.4	11.5	10.4	9.1	7.2	8.7	5.5	6.4	8.7	8.9	8.4	8.2
Conductivity	umhos/cm	71	37	34	43	42	51	37	32	37	34	34	37
COD	mg/L	ND	ND	24	ND	ND	22	ND	ND	ND	ND	ND	ND
TSS	mg/L	4	4	12	12	16	28	10	5	8	6	6	8
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.58	0.44	0.32	0.35	0.33	0.37	0.25	0.23	0.22	0.23	0.28	0.32
Total Phos	mg/L	0.038	0.015	0.031	0.067	0.076	0.109	0.149	0.025	0.024	0.122	0.041	0.05
TOC	mg/L	2.8	2.9	4.5	3.5	4.4	9	5.3	4.2	4.2	3.6	4	3.58
Al	mg/L	2.12	0.275	0.11	0.244	0.314	0.369	0.589	0.211	0.213	0.19	0.174	0.127
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	znd
Cr	mg/L	ND	ND	ND	ND	0.038	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	0.041	ND	ND	0.015	ND	ND	0.017	ND	ND	0.005	0.036	0.067
Fe	mg/L	1.27	2.53	1.08	1.6	1.6	2.82	2.17	1.32	1.26	1	1.25	1.16
Pb	mg/L	ND	ND	ND	0.004	ND	0.005	ND	ND	ND	ND	ND	0.009
Mn	mg/L	0.037	0.056	0.006	0.046	0.058	0.059	0.555	0.04	0.035	0.045	0.034	0.003
Hg	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0001	ND	ND
Ni	mg/L	ND	ND	ND	ND	0.114	ND	ND	ND	0.011	0.02	ND	ND
Zn	mg/L	0.057	0.007	0.009	0.113	0.153	0.056	0.049	0.097	0.111	0.04	0.062	0.094
Pesticides													
Aldrin	µg/L		NC			ND			ND			ND	
Alpha-BHC	µg/L		NC			ND			ND			ND	
Beta-BHC	µg/L		NC			ND			ND			ND	
Delta-BHC	µg/L		NC			ND			ND			ND	

Table 60

Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Tims Branch-5													
Gamma-BHC (Lindane)	µg/L		NC			ND			ND			ND	
Chlordane	µg/L		NC			ND			ND			ND	
4,4-DDD	µg/L		NC			ND			ND			ND	
4,4-DDE	µg/L		NC			ND			ND			ND	
4,4-DDT	µg/L		NC			ND			ND			ND	
Dieldrin	µg/L		NC			ND			ND			ND	
Endosulfan I	µg/L		NC			ND			ND			ND	
Endosulfan II	µg/L		NC			ND			ND			ND	
Endosulfan sulfate	µg/L		NC			ND			ND			ND	
Endrin	µg/L		NC			ND			ND			ND	
Endrin aldehyde	µg/L		NC			ND			ND			ND	
Endrin ketone	µg/L		NC			ND			ND			ND	
Heptachlor	µg/L		NC			ND			ND			ND	
Heptachlor epoxide	µg/L		NC			ND			ND			ND	
Methoxychlor	µg/L		NC			ND			ND			ND	
Toxaphene	µg/L		NC			ND			ND			ND	
Herbicides													
2,4-D	µg/L		NC			ND			ND			ND	
2,4,5-TP (Silvex)	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Tinker Creek-1 (TC-1; TC/KP)													
Sample Date		1/14/97	2/11/97	3/11/97	4/8/97	5/6/97	6/17/97	7/16/97	8/12/97	9/9/97	10/7/97	11/4/97	12/2/97
Temperature	°C	9.2	8.6	18.0	14.0	16.4	23.3	24.2	21.7	20.4	19.4	9.9	8.8
pH	SU	5.4	5.6	6.6	6.5	6.4	6.9	6.1	5.6	6.1	6.9	6.3	6.3
DO	mg/L	7.5	12.5	8.9	9.0	7.3	7.0	4.2	4.7	6.7	7.7	8.3	10.7
Conductivity	umhos/cm	30	30	30	30	28	31	34	29	28	32	27	26
COD	mg/L	ND	ND	ND	ND	ND	20	ND	ND	ND	ND	ND	ND
TSS	mg/L	1	2	9	6	6	2	5	2	2	2	1	3
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.26	0.24	0.29	0.18	0.18	0.16	0.14	0.18	0.17	0.16	0.14	0.16
Total Phos	mg/L	0.019	ND	0.023	0.039	0.076	0.152	0.158	ND	ND	0.278	ND	0.077
TOC	mg/L	4.6	2.9	4.6	3.9	ND	6.6	6.9	3.9	3.2	2	5.2	3.96
Al	mg/L	0.115	0.157	0.063	0.087	0.132	ND	0.312	ND	ND	0.185	0.115	ND
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	ND	ND	0.011	ND	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	0.027	ND	ND	0.012	0.01	ND	ND	ND	ND	ND	0.02	ND
Fe	mg/L	0.212	0.119	0.292	0.154	0.367	0.612	0.913	0.495	0.51	0.39	0.283	0.155
Pb	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mn	mg/L	0.009	0.028	0.008	0.028	0.021	0.028	0.438	0.026	0.028	0.025	0.011	0.009
Hg	mg/L	0.0001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ni	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.045	0.006	ND	0.028	0.01	0.025	0.056	0.068	0.093	0.04	0.095	0.052
Pesticides													
Aldrin	µg/L		NC			ND			ND			ND	
Alpha-BHC	µg/L		NC			ND			ND			ND	
Beta-BHC	µg/L		NC			ND			ND			ND	
Delta-BHC	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Tinker Creek-1 (TC-1; TC/KP)													
Gamma-BHC (Lindane)	µg/L		NC			ND			ND			ND	
Chlordane	µg/L		NC			ND			ND			ND	
4,4-DDD	µg/L		NC			ND			ND			ND	
4,4-DDE	µg/L		NC			ND			ND			ND	
4,4-DDT	µg/L		NC			ND			ND			ND	
Dieldrin	µg/L		NC			ND			ND			ND	
Endosulfan I	µg/L		NC			ND			ND			ND	
Endosulfan II	µg/L		NC			ND			ND			ND	
Endosulfan sulfate	µg/L		NC			ND			ND			ND	
Endrin	µg/L		NC			ND			ND			ND	
Endrin aldehyde	µg/L		NC			ND			ND			ND	
Endrin ketone	µg/L		NC			ND			ND			ND	
Heptachlor	µg/L		NC			ND			ND			ND	
Heptachlor epoxide	µg/L		NC			ND			ND			ND	
Methoxychlor	µg/L		NC			ND			ND			ND	
Toxaphene	µg/L		NC			ND			ND			ND	
Herbicides													
2, 4-D	µg/L		NC			0.223			ND			ND	
2,4, 5-TP (Silvex)	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Upper Three Runs-1A													
Sample Date		1/14/97	2/11/97	3/11/97	4/8/97	5/6/97	6/17/97	7/16/97	8/12/97	9/9/97	10/7/97	11/4/97	12/2/97
Temperature	°C	9.6	12.4	16.8	16.0	16.0	21.0	21.4	20.6	19.3	19.4	12.9	12.5
pH	SU	5.8	5.6	5.8	5.5	5.6	6.1	5.7	5.3	6.0	6.3	5.1	5.8
DO	mg/L	6.6	7.1	9.3	8.0	6.4	8.2	5.5	5.8	7.4	7.9	7.1	7.5
Conductivity	umhos/cm	21	15	15	15	17	20	14	17	14	16	15	16
COD	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	4	3	4	9	5	7	6	4	6	4	3	5
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.40	0.43	0.33	0.36	0.35	0.36	0.39	0.38	0.34	0.33	0.33	0.33
Total Phos	mg/L	0.018	ND	ND	0.017	0.01	ND	0.091	ND	ND	0.031	ND	0.019
TOC	mg/L	3.2	2.4	2.9	2.1	2.5	1.6	2.6	2.5	1.9	3.6	2.1	2.24
Al	mg/L	0.251	ND	0.114	0.158	0.355	0.249	0.377	0.134	0.135	0.163	0.133	0.07
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	0.052	ND	ND	0.006	ND	ND	ND	0.008	ND	0.005	0.017	ND
Fe	mg/L	0.323	0.134	0.163	0.366	0.344	0.44	0.439	0.41	0.36	0.29	0.314	0.282
Pb	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.003	0.003
Mn	mg/L	0.016	0.02	ND	0.011	0.025	0.012	0.293	0.011	0.012	0.009	0.011	0.013
Hg	mg/L	ND	ND	ND	ND	ND	ND	ND	0.0001	ND	ND	ND	ND
Ni	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.068	ND	0.11	0.052	0.068	0.072	0.046	0.057	0.091	0.035	0.03	0.038
Pesticides													
Aldrin	µg/L		NC			ND			ND			ND	
Alpha-BHC	µg/L		NC			ND			ND			ND	
Beta-BHC	µg/L		NC			ND			ND			ND	
Delta-BHC	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Upper Three Runs-1A													
Gamma-BHC (Lindane)	µg/L		NC			ND			ND			ND	
Chlordane	µg/L		NC			ND			ND			ND	
4,4-DDD	µg/L		NC			ND			ND			ND	
4,4-DDE	µg/L		NC			ND			ND			ND	
4,4-DDT	µg/L		NC			ND			ND			ND	
Dieldrin	µg/L		NC			ND			ND			ND	
Endosulfan I	µg/L		NC			ND			ND			ND	
Endosulfan II	µg/L		NC			ND			ND			ND	
Endosulfan sulfate	µg/L		NC			ND			ND			ND	
Endrin	µg/L		NC			ND			ND			ND	
Endrin aldehyde	µg/L		NC			ND			ND			ND	
Endrin ketone	µg/L		NC			ND			ND			ND	
Heptachlor	µg/L		NC			ND			ND			ND	
Heptachlor epoxide	µg/L		NC			ND			ND			ND	
Methoxychlor	µg/L		NC			ND			ND			ND	
Toxaphene	µg/L		NC			ND			ND			ND	
Herbicides													
2, 4-D	µg/L		NC			ND			ND			ND	
2,4, 5-TP (Silvex)	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Upper Three Runs-4 at Road A													
Sample Date		1/14/97	2/11/97	3/11/97	4/8/97	5/6/97	6/17/97	7/16/97	8/12/97	9/9/97	10/7/97	11/4/97	12/2/97
Temperature	°C	10.1	11.1	19.4	17.3	17.6	17.1	24.6	22.1	21.5	18.3	13.6	13.2
pH	SU	6.0	5.8	6.3	6.1	5.8	6.7	6.2	6.1	6.6	6.6	6.2	6.3
DO	mg/L	7.0	10.0	9.1	7.0	6.4	7.8	6.2	7.4	8.5	8.2	6.8	10.6
Conductivity	umhos/cm	25	24	22	22	22	22	24	22	25	20	22	22
COD	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	3	4	6	10	9	9	8	7	4	3	5	4
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.30	0.30	0.26	0.27	0.35	0.24	0.29	0.32	0.28	0.23	0.19	0.19
Total Phos	mg/L	0.016	ND	0.025	0.033	0.064	0.033	0.056	ND	0.024	0.081	ND	0.048
TOC	mg/L	4.1	2.9	4.1	3	ND	3.8	4.2	3.7	6.1	1.8	5.3	6.92
Al	mg/L	0.052	0.25	0.084	0.168	0.43	0.264	0.459	0.118	0.245	0.248	0.298	0.204
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	ND	ND	ND	0.015	ND	0.006	ND	ND	ND	ND	0.018	0.021
Fe	mg/L	0.29	0.23	0.251	0.249	0.699	0.943	0.673	0.473	0.564	0.484	0.519	0.508
Pb	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.003	ND	ND	0.003
Mn	mg/L	0.017	0.031	ND	0.025	0.022	0.027	0.347	0.019	0.019	0.018	0.021	0.029
Hg	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ni	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.04	0.078	0.337	0.03	ND	0.109	0.066	0.054	0.115	0.044	0.08	0.047
Pesticides													
Aldrin	µg/L		NC			ND			ND			ND	
Alpha-BHC	µg/L		NC			ND			ND			ND	
Beta-BHC	µg/L		NC			ND			ND			ND	
Delta-BHC	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Upper Three Runs-4 at Road A													
Gamma-BHC (Lindane)	µg/L		NC			ND			ND			ND	
Chlordane	µg/L		NC			ND			ND			ND	
4,4-DDD	µg/L		NC			ND			ND			ND	
4,4-DDE	µg/L		NC			ND			ND			ND	
4,4-DDT	µg/L		NC			ND			ND			ND	
Dieldrin	µg/L		NC			ND			ND			ND	
Endosulfan I	µg/L		NC			ND			ND			ND	
Endosulfan II	µg/L		NC			ND			ND			ND	
Endosulfan sulfate	µg/L		NC			ND			ND			ND	
Endrin	µg/L		NC			ND			ND			ND	
Endrin aldehyde	µg/L		NC			ND			ND			ND	
Endrin ketone	µg/L		NC			ND			ND			ND	
Heptachlor	µg/L		NC			ND			ND			ND	
Heptachlor epoxide	µg/L		NC			ND			ND			ND	
Methoxychlor	µg/L		NC			ND			ND			ND	
Toxaphene	µg/L		NC			ND			ND			ND	
Herbicides													
2, 4-D	µg/L		NC			0.223			ND			ND	
2,4, 5-TP (Silvex)	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
RM-120 (R-10; Below SRS)													
Sample Date		1/14/97	2/11/97	3/11/97	4/8/97	5/6/97	6/17/97	7/15/97	8/12/97	9/9/97	10/7/97	11/4/97	12/2/97
Temperature	°C	9.2	10.1	15.1	18.7	17.9	23.4	26.4	24.4	23.4	22.3	16.9	14.8
pH	SU	6.8	7.1	6.7	6.4	6.5	6.6	6.9	7.2	6.8	6.6	6.8	6.0
DO	mg/L	11.6	10.1	8.5	8.2	8.3	6.5	6.7	7.4	7.0	7.0	8.3	9.6
Conductivity	umhos/cm	59	82	61	96	70	88	109	91	118	110	105	103
COD	mg/L	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	23	7	6	13	9	12	11	9	12	8	9	9
NO ₂ -N	mg/L	ND	ND	ND	0.08	ND	ND	0.02	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.31	0.39	0.18	0.43	0.37	0.43	0.54	0.47	0.45	0.40	0.46	0.38
Total Phos	mg/L	0.068	0.053	0.029	0.079	0.108	0.13	0.19	0.083	0.188	0.174	0.089	0.25
TOC	mg/L	2.9	4.3	4.6	5.5	5.2	7	4.5	3.3	2.9		7.2	6.48
Al	mg/L	1.77	0.205	ND	0.279	0.326	0.243	0.4	0.209	0.345	0.22	0.376	0.168
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	0.042	ND	ND	0.017	0.02	ND	ND	ND	ND	ND	0.018	ND
Fe	mg/L	3.57	0.237	0.348	0.901	0.765	0.861	0.698	0.549	0.65	0.357	0.823	0.605
Pb	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mn	mg/L	0.144	0.072	ND	0.071	0.053	0.072	0.05	0.052	0.049	0.049	0.091	0.061
Hg	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ni	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.049	0.133	0.031	0.129	0.338	0.024	0.028	0.066	0.088	0.026	0.03	0.09
<i>Pesticides</i>													
Aldrin	µg/L		NC			ND			ND			ND	
Alpha-BHC	µg/L		NC			ND			ND			ND	
Beta-BHC	µg/L		NC			ND			ND			ND	
Delta-BHC	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
RM-120 (R-10; Below SRS)													
Gamma-BHC (Lindane)	µg/L		NC			ND			ND			ND	
Chlordane	µg/L		NC			ND			ND			ND	
4,4-DDD	µg/L		NC			ND			ND			ND	
4,4-DDE	µg/L		NC			ND			ND			ND	
4,4-DDT	µg/L		NC			ND			ND			ND	
Dieldrin	µg/L		NC			ND			ND			ND	
Endosulfan I	µg/L		NC			ND			ND			ND	
Endosulfan II	µg/L		NC			ND			ND			ND	
Endosulfan sulfate	µg/L		NC			ND			ND			ND	
Endrin	µg/L		NC			ND			ND			ND	
Endrin aldehyde	µg/L		NC			ND			ND			ND	
Endrin ketone	µg/L		NC			ND			ND			ND	
Heptachlor	µg/L		NC			ND			ND			ND	
Heptachlor epoxide	µg/L		NC			ND			ND			ND	
Methoxychlor	µg/L		NC			ND			ND			ND	
Toxaphene	µg/L		NC			ND			ND			ND	
Herbicides													
2, 4-D	µg/L		NC			ND			ND			ND	
2,4, 5-TP (Silvex)	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
RM-129													
Sample Date		1/14/97	2/11/97	3/11/97	4/8/97	5/6/97	6/17/97	7/15/97	8/12/97	9/9/97	10/7/97	11/4/97	12/2/97
Temperature	°C	9.5	10.1	15.0	19.2	17.8	23.0	24.6	24.8	20.8	21.7	11.7	14.1
pH	SU	6.8	7.1	6.8	6.4	6.6	6.7	7.2	7.2	7.0	6.9	6.9	6.2
DO	mg/L	11.5	9.4	8.8	8.3	8.3	5.4	7.0	7.9	8.0	7.1	8.3	7.5
Conductivity	umhos/cm	58	80	59	94	71	81	74	70	87	84	74	80
COD	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	20
TSS	mg/L	20	2	8	13	14	13	7	8	4	2	5	17
NO ₂ -N	mg/L	ND	ND	ND	0.09	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.32	0.31	0.20	0.42	0.36	0.33	0.30	0.24	0.31	0.24	0.24	0.25
Total Phos	mg/L	0.055	ND	0.039	0.07	0.025	0.061	0.124	0.131	ND	0.157	0.03	0.341
TOC	mg/L	5	5.4	5.2	4.7	3.2	7.3	5.3	7.3	2.6		11	7.23
Al	mg/L	0.996	ND	ND	0.171	0.538	0.164	0.461	0.419	0.094	0.262		0.174
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.24	ND
Cr	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	ND	ND	ND	ND	0.008	ND	ND	ND	ND	ND	0.018	ND
Fe	mg/L	1.9	0.379	0.358	0.437	1.11	0.785	0.779	0.96	0.679	0.468	0.624	0.657
Pb	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mn	mg/L	0.147	0.05	ND	0.058	0.06	0.099	0.04	0.076	0.032	0.03	0.025	0.063
Hg	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0008	ND
Ni	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.042	ND	ND	0.198	ND	0.052	0.026	0.044	0.111	0.025	0.096	0.055
Pesticides													
Aldrin	µg/L		NC			ND			ND			ND	
Alpha-BHC	µg/L		NC			ND			ND			ND	
Beta-BHC	µg/L		NC			ND			ND			ND	
Delta-BHC	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
RM-129													
Gamma-BHC (Lindane)	µg/L		NC			ND			ND			ND	
Chlordane	µg/L		NC			ND			ND			ND	
4,4-DDD	µg/L		NC			ND			ND			ND	
4,4-DDE	µg/L		NC			ND			ND			ND	
4,4-DDT	µg/L		NC			ND			ND			ND	
Dieldrin	µg/L		NC			ND			ND			ND	
Endosulfan I	µg/L		NC			ND			ND			ND	
Endosulfan II	µg/L		NC			ND			ND			ND	
Endosulfan sulfate	µg/L		NC			ND			ND			ND	
Endrin	µg/L		NC			ND			ND			ND	
Endrin aldehyde	µg/L		NC			ND			ND			ND	
Endrin ketone	µg/L		NC			ND			ND			ND	
Heptachlor	µg/L		NC			ND			ND			ND	
Heptachlor epoxide	µg/L		NC			ND			ND			ND	
Methoxychlor	µg/L		NC			ND			ND			ND	
Toxaphene	µg/L		NC			ND			ND			ND	
<i>Herbicides</i>													
2, 4-D	µg/L		NC			ND			ND			ND	
2,4, 5-TP (Silvex)	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
RM-140 (R-8A)													
Sample Date		1/14/97	2/11/97	3/11/97	4/8/97	5/6/97	6/17/97	7/15/97	8/12/97	9/9/97	10/7/97	11/4/97	12/2/97
Temperature	°C	9.4	10.3	14.3	17.0	17.6	24.1	24.7	22.6	23.2	22.2	17.2	14.4
pH	SU	6.5	7.1	6.9	6.6	6.4	6.7	6.8	6.9	6.7	6.8	6.9	6.2
DO	mg/L	11.8	10.2	8.9	8.6	8.5	6.4	7.2	8.3	6.8	7.3	7.4	8.9
Conductivity	umhos/cm	62	84	58	88	70	96	89	97	112	107	102	102
COD	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	14	5	7	11	16	18	11	8	8	7	7	10
NO ₂ -N	mg/L	ND	ND	ND	0.09	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.34	0.38	0.22	0.41	0.34	0.40	0.49	0.50	0.42	0.38	0.47	0.43
Total Phos	mg/L	0.065	0.041	0.018	0.097	0.039	0.084	0.149	0.159	0.179	0.163	0.059	0.576
TOC	mg/L	5.1	4.1	5.1	4.4	2.1	7.4	3.3	3.5	2.8		4.9	5.3
Al	mg/L	2.13	0.261	ND	0.199	0.448	0.477	0.392	0.225	0.34	0.195	0.331	0.279
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	0.027	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	0.039	0.022	ND	0.006	ND	ND	ND	ND	ND	ND	0.016	ND
Fe	mg/L	1.27	0.287	0.481	0.461	1.13	1.29	0.627	0.545	0.58	0.296	0.628	0.659
Pb	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mn	mg/L	0.137	0.073	ND	0.055	0.069	0.112	0.065	0.056	0.052	0.074	0.132	0.083
Hg	mg/L	ND	ND	ND	ND	ND	ND	ND	0.002	ND	ND	0.0001	ND
Ni	mg/L	ND	0.021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.068	0.09	0.028	0.096	ND	0.092	0.045	0.051	0.1	0.024	0.045	0.028
<i>Pesticides</i>													
Aldrin	µg/L		NC			ND			ND			ND	
Alpha-BHC	µg/L		NC			ND			ND			ND	
Beta-BHC	µg/L		NC			ND			ND			ND	
Delta-BHC	µg/L		NC			ND			ND			ND	

Table 60

Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
RM-140 (R-8A)													
Gamma-BHC (Lindane)	µg/L		NC			ND			ND			ND	
Chlordane	µg/L		NC			ND			ND			ND	
4,4-DDD	µg/L		NC			ND			ND			ND	
4,4-DDE	µg/L		NC			ND			ND			ND	
4,4-DDT	µg/L		NC			ND			ND			ND	
Dieldrin	µg/L		NC			ND			ND			ND	
Endosulfan I	µg/L		NC			ND			ND			ND	
Endosulfan II	µg/L		NC			ND			ND			ND	
Endosulfan sulfate	µg/L		NC			ND			ND			ND	
Endrin	µg/L		NC			ND			ND			ND	
Endrin aldehyde	µg/L		NC			ND			ND			ND	
Endrin ketone	µg/L		NC			ND			ND			ND	
Heptachlor	µg/L		NC			ND			ND			ND	
Heptachlor epoxide	µg/L		NC			ND			ND			ND	
Methoxychlor	µg/L		NC			ND			ND			ND	
Toxaphene	µg/L		NC			ND			ND			ND	
Herbicides													
2,4-D	µg/L		NC			ND			ND			ND	
2,4,5-TP (Silvex)	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Vogtle (R-3B; Below Vogtle Electric Generating Plant)													
Sample Date		1/14/97	2/11/97	3/11/97	4/8/97	5/6/97	6/17/97	7/15/97	8/12/97	9/9/97	10/7/97	11/4/97	12/2/97
Temperature	°C	9.2	9.9	13.3	16.2	17.4	22.5	24.8	22.2	23.4	23.5	17.5	14.4
pH	SU	6.9	7.4	6.8	6.7	6.7	6.7	6.9	6.8	6.9	6.8	7.0	6.3
DO	mg/L	11.7	10.1	8.7	8.6	8.8	6.6	6.7	6.8	6.8	7.3	7.3	8.3
Conductivity	umhos/cm	63	87	61	86	71	101	99	103	108	98	102	92
COD	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	24	5	8	12	31	18	9	11	16	7	8	9
NO ₂ -N	mg/L	ND	ND	ND	0.09	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.36	0.36	0.24	0.42	0.38	0.44	0.50	0.52	0.41	0.38	0.47	0.40
Total Phos	mg/L	0.074	0.076	0.019	0.086	0.083	0.125	0.191	0.137	0.171	0.189	0.081	0.465
TOC	mg/L	4.6	3.8	4.9	4.1	6.5	7.2	3.9	3.5	2.6		4.4	4.44
Al	mg/L	1.13	0.251	ND	0.147	1.19	0.446	0.494	0.234	0.545	0.258	0.399	0.186
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	0.032	ND	ND	ND	0.006	ND	ND	ND	ND	ND	0.018	ND
Fe	mg/L	1.56	0.313	0.267	0.355	1.76	0.893	0.607	0.543	0.725	0.35	0.878	0.645
Pb	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.003
Mn	mg/L	0.165	0.077	ND	0.058	0.092	0.118	0.063	0.062	0.061	0.075	0.092	0.091
Hg	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ni	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.044	0.062	ND	0.083	0.016	0.207	0.039	0.119	0.013	0.032	0.037	0.051
Pesticides													
Aldrin	µg/L		NC			ND			ND			ND	
Alpha-BHC	µg/L		NC			ND			ND			ND	
Beta-BHC	µg/L		NC			ND			ND			ND	
Delta-BHC	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Vogtle (R-3B; Below Vogtle Electric Generating Plant)													
Gamma-BHC (Lindane)	µg/L		NC			ND			ND			ND	
Chlordane	µg/L		NC			ND			ND			ND	
4,4-DDD	µg/L		NC			ND			ND			ND	
4,4-DDE	µg/L		NC			ND			ND			ND	
4,4-DDT	µg/L		NC			ND			ND			ND	
Dieldrin	µg/L		NC			ND			ND			ND	
Endosulfan I	µg/L		NC			ND			ND			ND	
Endosulfan II	µg/L		NC			ND			ND			ND	
Endosulfan sulfate	µg/L		NC			ND			ND			ND	
Endrin	µg/L		NC			ND			ND			ND	
Endrin aldehyde	µg/L		NC			ND			ND			ND	
Endrin ketone	µg/L		NC			ND			ND			ND	
Heptachlor	µg/L		NC			ND			ND			ND	
Heptachlor epoxide	µg/L		NC			ND			ND			ND	
Methoxychlor	µg/L		NC			ND			ND			ND	
Toxaphene	µg/L		NC			ND			ND			ND	
Herbicides													
2, 4-D	µg/L		NC			ND			ND			ND	
2,4, 5-TP (Silvex)	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
RM-160 (R-2; Above SRS)													
Sample Date		1/14/97	2/11/97	3/11/97	4/8/97	5/6/97	6/17/97	7/15/97	8/12/97	9/9/97	10/7/97	11/4/97	12/2/97
Temperature	°C	9.3	9.6	12.5	16.1	17.4	21.9	24.2	21.7	25.0	23.7	17.9	14.7
pH	SU	7.4	7.4	6.9	7.2	6.9	6.5	6.8	6.8	6.7	6.8	7.1	7.4
DO	mg/L	11.4	10.4	9.9	9.2	9.7	7.3	7.3	10.4	7.5	8.6	9.0	9.2
Conductivity	umhos/cm	62	87	58	85	70	96	94	79	106	90	104	89
COD	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	14	4	12	8	14	10	8	9	3	7	7	8
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.33	0.34	0.26	0.40	0.35	0.44	0.46	0.44	0.39	0.35	0.46	0.38
Total Phos	mg/L	0.047	0.055	0.018	0.065	0.019	0.059	0.203	0.136	0.113	0.165	0.039	0.523
TOC	mg/L	4.6	4.9	4.8	4.7	1.4	6.6	3.6	3.1	3		4.2	3.64
Al	mg/L	0.337	0.253	ND	0.411	1.08	0.129	0.256	0.238	0.178	0.185	0.378	0.125
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	ND	ND	ND	ND	0.112	ND	ND	ND	ND	ND	0.017	ND
Fe	mg/L	0.559	0.297	0.217	0.442	1.21	0.429	0.46	0.527	0.404	0.235	0.565	0.437
Pb	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.012
Mn	mg/L	0.133	0.068	ND	0.054	0.074	0.066	0.05	0.067	0.057	0.066	0.081	0.077
Hg	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ni	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.058	0.058	ND	0.226	0.06	0.038	0.037	0.043	0.028	0.028	0.04	0.039
<i>Pesticides</i>													
Aldrin	µg/L		NC			ND			ND			ND	
Alpha-BHC	µg/L		NC			ND			ND			ND	
Beta-BHC	µg/L		NC			ND			ND			ND	
Delta-BHC	µg/L		NC			ND			ND			ND	

Table 60
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
RM-160 (R-2; Above SRS)													
Gamma-BHC (Lindane)	µg/L		NC			ND			ND			ND	
Chlordane	µg/L		NC			ND			ND			ND	
4,4-DDD	µg/L		NC			ND			ND			ND	
4,4-DDE	µg/L		NC			ND			ND			ND	
4,4-DDT	µg/L		NC			ND			ND			ND	
Dieldrin	µg/L		NC			ND			ND			ND	
Endosulfan I	µg/L		NC			ND			ND			ND	
Endosulfan II	µg/L		NC			ND			ND			ND	
Endosulfan sulfate	µg/L		NC			ND			ND			ND	
Endrin	µg/L		NC			ND			ND			ND	
Endrin aldehyde	µg/L		NC			ND			ND			ND	
Endrin ketone	µg/L		NC			ND			ND			ND	
Heptachlor	µg/L		NC			ND			ND			ND	
Heptachlor epoxide	µg/L		NC			ND			ND			ND	
Methoxychlor	µg/L		NC			ND			ND			ND	
Toxaphene	µg/L		NC			ND			ND			ND	
Herbicides													
2, 4-D	µg/L		NC			0.694			ND			ND	
2,4, 5-TP (Silvex)	µg/L		NC			ND			ND			ND	

Table 61
Sediment Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 1 of 2

Constituent	mg/L										
	Upper Three Runs 4	400-D	Four Mile Creek	Pen Branch	Steel Creek 4	Lower Three Runs 2	Upper Three Runs 1A	Tinker Creek 1	River Mile 160	Vogtle Discharge	River Mile 120
Aluminum	0.457	0.445	1.08	0.716	19.6	0.453	1.13	0.319	<0.050	<0.050	0.738
Arsenic	<0.050	<0.020	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.020	<0.020	<0.020
Barium	0.283	0.860	0.474	0.82	0.252	0.567	0.334	0.219	0.587	0.385	1
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.010	<0.010	<0.010	<0.010	0.02	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	0.04	<0.005	0.02	0.052	0.158	<0.005	0.075	0.103	<0.005	<0.005	<0.005
Iron	<0.020	<0.020	<0.020	<0.020	8.41	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Lead	<0.020	<0.020	<0.020	<0.020	0.035	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium	1.52	3.05	0.9	1.73	1.37	2.07	1.99	2.81	0.486	0.209	1.65
Manganese	3.18	23.9	1.56	11.4	1.43	13.6	0.969	1.11	0.543	0.077	9.77
Mercury	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	0.016	<0.010	0.032	0.013	0.037	0.015	<0.010	<0.010	<0.010	<0.010	<0.010
Selenium	<0.050	<0.020	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.020	<0.020	<0.020
Silver	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Uranium	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Zinc	0.18	0.285	0.27	0.305	1.5	0.247	0.156	0.168	0.228	0.173	0.196
Chlorodane	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Heptachlor	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Heptachlor Epoxide	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Table 61
Sediment Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 2 of 2

Constituent	mg/L										
	Upper Three Runs 4	400-D	Four Mile Creek	Pen Branch	Steel Creek 4	Lower Three Runs 2	Upper Three Runs 1A	Tinker Creek 1	River Mile 160	Vogtle Discharge	River Mile 120
Lindane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Methoxychlor	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Toxaphene	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
2,4-D	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Silvex	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10

Table 62
Fish Surveillance — Mercury

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		Mercury (µg/g – Parts Per Million)						
Location	Species	Analytical Results					Max	Min
<i>Note: ND denotes “not detected; the reporting limit is less than 0.33 µg/g.”</i>								
Augusta Lock & Dam	Bass	0.54	0.74	1.01	ND	ND	1.01	<0.33
Augusta Lock & Dam	Panfish	0.47	0.82	ND	0.50	0.46	0.82	<0.33
Augusta Lock & Dam	Catfish	ND	ND	ND	ND	ND	<0.33	<0.33
Beaver Dam Creek River Mouth	Bass	0.69	1.09	0.57	1.29	0.60	1.29	0.60
Beaver Dam Creek River Mouth	Panfish	ND	ND	ND	ND	ND	<0.33	<0.33
Beaver Dam Creek River Mouth	Catfish	ND	ND	ND	ND	ND	<0.33	<0.33
Four Mile Creek River Mouth	Bass	0.78	1.03	0.61	0.37	0.71	1.03	0.37
Four Mile Creek River Mouth	Panfish	ND	ND	0.33	0.47	ND	0.47	<0.33
Four Mile Creek River Mouth	Catfish	ND	0.45	ND	ND	ND	0.45	<0.33
Highway 17A (Savannah, Ga.)	Bass	0.63	0.47	0.41	ND	0.39	0.63	<0.33
Highway 17A (Savannah, Ga.)	Panfish	ND	ND	ND	ND	ND	<0.33	<0.33
Highway 17A (Savannah, Ga.)	Catfish	0.49	ND	ND	0.47	ND	0.49	<0.33
Highway 17A (Savannah, Ga.)	Mullet (saltwater)	ND	ND	ND	ND	ND	<0.33	<0.33
Highway 17A (Savannah, Ga.)	Redfish (saltwater)	ND	ND	ND	ND	ND	<0.33	<0.33
Highway 301	Bass	0.74	0.92	0.72	0.45	0.79	0.92	0.45
Highway 301	Panfish	ND	ND	ND	ND	ND	<0.33	<0.33
Highway 301	Catfish	0.36	0.66	0.63	ND	ND	0.66	<0.33
L-Lake	Bass	0.60	0.86	0.92	0.90	0.91	0.92	0.60
L-Lake	Panfish	ND	ND	ND	ND	ND	<0.33	<0.33
Lower Three Runs 2	Bass	1.84	1.53	2.82	1.41	1.43	2.82	1.41
Lower Three Runs 2	Panfish	0.71	0.71	0.63	0.71	0.57	0.71	0.57
Lower Three Runs Creek River Mouth	Bass	0.85	0.74	0.77	0.37	0.87	0.87	0.37
Lower Three Runs Creek River Mouth	Panfish	ND	ND	ND	ND	1.24	1.24	<0.33
Lower Three Runs Creek River Mouth	Catfish	0.83	0.44	0.41	ND	0.36	0.83	<0.33

Table 62
Fish Surveillance — Mercury

Page 2 of 2

Location	Species	Mercury (µg/g – Parts Per Million)						
		Analytical Results					Max	Min
PAR Pond	Bass	1.52	1.62	1.47	1.50	1.19	1.62	1.19
PAR Pond	Panfish	0.55	0.55	0.42	0.40	0.40	0.55	0.40
Pond B	Bass	0.93	0.55	0.94	0.73	0.75	0.94	0.55
Pond B	Panfish	ND	0.36	ND	ND	ND	0.36	<0.33
Steel Creek	Bass	1.46	1.31	0.97	1.00	1.00	1.46	0.97
Steel Creek	Panfish	ND	ND	ND	ND	ND	<0.33	<0.33
Steel Creek	Catfish	0.34	ND	ND	ND	0.50	0.50	<0.33
Steel Creek River Mouth	Bass	0.68	0.52	1.30	0.49	0.88	1.30	0.49
Steel Creek River Mouth	Panfish	ND	ND	ND	ND	ND	<0.33	<0.33
Steel Creek River Mouth	Catfish	0.34	ND	ND	ND	ND	0.34	<0.33
Stokes Bluff	Bass	0.74	0.54	1.02	0.99	1.20	1.20	0.54
Stokes Bluff	Panfish	0.48	0.51	0.58	0.37	ND	0.58	<0.33
Stokes Bluff	Catfish	0.59	0.56	0.49	0.49	0.63	0.63	0.49
Upper Three Runs 4	Bass	0.74	0.87	0.50	0.48		0.87	0.48
Upper Three Runs 4	Catfish	0.48	0.44	ND	ND		0.48	<0.33
Upper Three Runs Creek River Mouth	Bass	0.71	0.63	1.23	1.01	0.96	1.23	0.63
Upper Three Runs Creek River Mouth	Panfish	ND	ND	0.68	0.64	0.47	0.68	<0.33
Upper Three Runs Creek River Mouth	Catfish	0.63	0.88	0.68	0.81	0.66	0.88	0.63

Table 63
Blind Sample Results for pH Field Measurements

Page 1 of 1

Sample Identification	pH Units		
	Measured Value	Actual Value	Difference
BpH-01-1	7.37	7.49	0.12 units
BpH-01-2	9.02	9.18	0.16 units
BpH-02-1	3.83	3.97	0.14 units
BpH-02-2	9.45	9.03	0.42 units
BpH-02-3	9.11	9.11	0.00 units
BpH-02-4	9.04	9.13	0.09 units
BpH-03-1	4.05	4.09	0.04 units
BpH-03-2	7.44	7.44	0.00 units
BpH-04-1	4.05	4.04	0.01 units
BpH-04-2	7.43	7.47	0.04 units
BpH-05-1	3.99	3.99	0.00 units
BpH-05-2	6.98	6.85	0.13 units
BpH-06-1	3.98	4.02	0.04 units
BpH-06-2	6.81	6.87	0.06 units
BpH-07-1	6.92	6.83	0.09 units
BpH-07-2	7.43	7.44	0.01 units
BpH-08-1	7.00	6.81	0.19 units
BpH-08-2	3.95	4.03	0.08 units
BpH-09-1	3.95	4.00	0.05 units
BpH-09-2	7.45	7.44	0.01 units
BpH-10-1	4.02	4.00	0.02 units
BpH-10-2	7.43	7.39	0.04 units
BpH-11-1	7.01	6.88	0.13 units
BpH-11-2	3.91	4.06	0.15 units
BpH-12-1	6.92	6.85	0.07 units
BpH-12-2	3.94	4.06	0.12 units

Table 64
EMS Blind Sample Results for Tritium

Page 1 of 1

Sample Date	pCi/mL		Ratio	Range	
	Measured Value	Known Value		Lower Control Limit ^a	Upper Control Limit ^a
01-16-97	5.51 ± .40	5.34	1.03	3.7	10.2
02-14-97	8.20 ± .47	8.80	0.93	6.1	16.8
03-17-97	12.30 ± .55	13.10	0.94	9.	25.
04-16-97	2.30 ± .55	3.10	0.74	2.1	5.9
05-16-97	1.30 ± .38 ^b	2.40	0.54	1.7	4.6
06-15-97	5.76 ± .45	5.64	1.02	3.9	10.8
07-15-97	4.62 ± .43	5.27	0.88	3.6	10.1
08-14-97	2.71 ± .40	2.16	1.25	1.5	4.1
10-13-97	6.33 ± .40	6.92	0.91	4.8	13.2
10-15-97	3.55 ± .42	3.73	0.95	2.6	7.1
11-14-97	7.35 ± .48	7.53	0.98	5.2	14.4
12-14-97	5.78 ± .38	5.78	1.	4.	11.

a Control limits are based on DOE/Environmental Measurements Laboratory historical data for tritium.
 (Measured/Known Ratio: LCL 0.69 and UCL 1.91)

b Out of control limits

Table 65
QAP Interlaboratory Comparison of Analytical Results

Page 1 of 3

Nuclide	SRS Value ^a	QAP Value ^b	SRS/QAP Ratio	Range	
				Lower Control Limit ^c	Upper Control Limit ^c
QAP Set #46, March 1997					
Air					
Alpha	1.33 ± 0.14	0.96	1.39	0.432	1.51
Am-241	0.164 ± 0.017	0.152	1.08	0.105	0.292
Beta	0.48 ± 0.07	0.45	1.07	0.297	0.797
Ce-144	15.5 ± 2.1	15.9	0.97	9.22	20.
Co-57	10.9 ± 0.7	10.8	1.01	6.7	13.8
Co-60	5.0 ± 0.3	5.01	1.00	3.76	6.36
Cs-134	11.0 ± 0.6	10.9	1.01	7.96	13.3
Cs-137	8.8 ± 0.8	8.7	1.01	6.26	11.6
Mn-54	7.8 ± 0.8	7.62	1.02	5.79	10.1
Pu-238	0.109 ± 0.015	0.1	1.09	0.063	0.146
Pu-239	0.132 ± 0.016	0.118	1.12	0.079	0.188
Sb-125	13.4 ± 0.8	12.3	1.09	7.13	16.7
Sr-90	1.28 ± 0.16	1.45	0.88	0.972	3.28
U-234	0.112 ± 0.016	0.103	1.09	0.081	0.207
U-238	0.110 ± 0.015	0.105	1.05	0.08	0.253
Soil					
Am-241	7.37 ± 2.50	5.68	1.30	2.95	15.1
Cs-137	916. ± 86.	826.	1.11	661.	1107.
K-40	372. ± 41.	334.	1.11	244.	558.
Pu-239	138. ± 16.	135.	1.02	89.1	261.
Sr-90	49. ± 25.	40.3	1.22	18.5	114.
U-234	31.4 ± 5.0	37.6	0.84	14.3	58.3
U-238	34.1 ± 5.1	42.4	0.80	14.8	65.7
Vegetation					
Am-241	1.37 ± 0.23	1.18	1.16	0.802	3.28
Cm-244	0.97 ± 0.19	0.9	1.08	0.441	1.52
Co-60	14.4 ± 1.4	12.5	1.15	7.75	17.8
Cs-137	217. ± 21.	189.	1.15	151.	274.
K-40	962. ± 98.	811.	1.19	641.	1217.
Pu-239	2.13 ± 0.33	1.94	1.10	1.26	3.78
Sr-90	314. ± 24.	361.	0.87	173.	466.

^a Values are Bq/L, Bq/Kg, and Bq/filter.

^b Quality Assessment Program conducted by Department of Energy's Environmental Measurements Laboratory (EML), New York

^c Control limits were established by EML/QAP from historical data.

Table 65
QAP Interlaboratory Comparison of Analytical Results

Page 2 of 3

Nuclide	SRS Value ^a	QAP Value ^b	SRS/QAP Ratio	Range	
				Lower Control Limit ^c	Upper Control Limit ^c
Water					
Alpha	1018. ± 112.	1850.	0.55	685.	2350.
Am-241	0.96 ± 0.11	0.84	1.14	0.571	1.31
Beta	621. ± 84.	844.	0.74	464.	1376.
Co-60	97.1 ± 6.3	90.9	1.07	72.7	107.
Cs-137	77.2 ± 7.6	69.8	1.11	55.8	88.6
H-3	246. ± 11.	250.	0.98	155.	450.
Mn-54	23.3 ± 2.4	20.8	1.12	16.6	25.4
Pu-238	1.33 ± 0.21	1.29	1.03	0.942	1.64
Pu-239	0.85 ± 0.15	0.85	1.00	0.663	1.2
Sr-90	25.9 ± 2.7	23.2	1.12	16.5	38.3
U-234	0.62 ± 0.06	0.54	1.15	0.405	0.778
U-238	0.63 ± 0.06	0.55	1.15	0.424	0.737
QAP Set #47, September 1997					
Air					
Alpha	1.53 ± 0.13	1.49	1.03	0.671	2.34
Am-241	0.259 ± 0.026	0.21	1.23	0.145	0.403
Beta	3.78 ± 0.19	3.	1.26	1.5	5.31
Ce-144	18.3 ± 2.1	19.12	0.96	11.1	24.1
Co-57	11.9 ± 0.7	12.64	0.94	7.84	16.2
Co-60	9.6 ± 0.7	10.73	0.89	8.05	13.6
Cs-134	26.2 ± 1.0	28.17	0.93	20.6	34.4
Cs-137	6.9 ± 0.7	7.31	0.94	5.26	9.72
Mn-54	6.6 ± 0.7	6.72	0.98	5.11	8.87
Pu-238	0.158 ± 0.030	0.22	0.72	0.139	0.321
Pu-239	0.140 ± 0.017	0.11	1.27	0.074	0.175
Sb-125	17.2 ± 0.8	16.12	1.07	9.35	21.9
Sr-90	1.18 ± 0.07 ^d	2.76	0.43	1.85	6.24
U-234	0.060 ± 0.009	0.057	1.05	0.045	0.115
U-238	0.064 ± 0.009	0.058	1.10	0.044	0.14

a Values are Bq/L, Bq/Kg, and Bq/filter.

b Quality Assessment Program conducted by Department of Energy's Environmental Measurements Laboratory (EML), New York

c Control limits were established by EML/QAP from historical data.

d Out of control limits

Table 65
QAP Interlaboratory Comparison of Analytical Results

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Nuclide	SRS Value ^a	QAP Value ^b	SRS/QAP Ratio	Range	
				Lower Control Limit ^c	Upper Control Limit ^c
Soil					
Am-241	7.37 ± 2.50	6.04	1.22	3.14	16.
Cs-137	914. ± 42.	810.	1.13	648.	1085.
K-40	346. ± 31.	315.	1.10	230.	526.
Pu-239	12.2 ± 1.9	10.16	1.20	6.71	19.6
Sr-90	31. ± 10.	34.8	0.89	16.	98.8
U-234	31.4 ± 5.0	37.15	0.85	14.1	57.6
U-238	34.1 ± 5.1	34.9	0.98	12.2	54.1
Vegetation					
Am-241	5.09 ± 0.84	3.46	1.47	2.35	9.62
Cm-244	2.79 ± 0.57	2.75	1.01	1.35	4.65
Co-60	36.1 ± 2.7	32.4	1.11	20.1	46.
Cs-137	722. ± 34.	624.	1.16	499.	905.
K-40	1248. ± 83.	1130.	1.10	893.	1695.
Pu-239	5.62 ± 1.23	5.48	1.03	3.56	10.7
Sr-90	1080. ± 33.	1434.	0.75	688.	1850.
Water					
Alpha	604. ± 106.	557.	1.08	206.	836.
Am-241	0.88 ± 0.11	0.75	1.17	0.51	1.17
Beta	828. ± 110.	712.	1.16	356.	1161.
Co-60	23.7 ± 1.4	23.3	1.02	18.6	27.5
Cs-134	63.0 ± 3.8	66.	0.95	58.7	82.5
Cs-137	35.5 ± 2.1	34.3	1.03	27.4	43.6
H-3	125. ± 20.	114.8	1.09	71.2	207.
Mn-54	40.3 ± 2.4	37.8	1.07	30.2	46.1
Pu-238	0.74 ± 0.12	0.72	1.03	0.526	0.914
Pu-239	0.79 ± 0.13	0.75	1.05	0.585	1.06
Sr-90	2.81 ± 1.02	2.94	0.96	2.09	4.85
U-234	0.26 ± 0.05	0.23	1.13	0.173	0.331
U-238	0.25 ± 0.06	0.24	1.04	0.185	0.322

^a Values are Bq/L, Bq/Kg, and Bq/filter.

^b Quality Assessment Program conducted by Department of Energy's Environmental Measurements Laboratory (EML), New York

^c Control limits were established by EML/QAP from historical data.

Table 66
QAD Interlaboratory Comparison of Analytical Results

Page 1 of 2

Sample Date	Nuclide	SRS Value	QAD ^a Value	SRS/QAD Ratio	Range	
					Lower Control Limit ^b	Upper Control Limit ^b
Water Samples (pCi/L)						
01-31-97	Alpha	5.5 ± 4.0	5.2 ± 5.0	1.06	-3.5	13.9
04-15-97		48.4 ± 4.5	48 ± 12	1.01	27.2	68.8
07-18-97		2.7 ± 2.3	3.1 ± 5.0	0.87	-5.6	11.8
10-21-97		48 ± 7.6	49.9 ± 12.5	0.96	28.3	71.5
10-31-97		9.6 ± 4.0	14.7 ± 5.0	0.65	6.0	23.4
06-06-97	Ba-133	24.0 ± 2.8	25 ± 5	0.96	16.3	33.7
11-07-97		92.3 ± 12.0	99.0 ± 10.0	0.93	81.7	116.3
01-31-97	Beta	5.53 ± 1.6 ^c	14.7 ± 5.0	0.38	6.0	23.4
04-15-97		89.1 ± 2.2	102.1 ± 15.3	0.87	75.6	128.6
07-18-97		15 ± 4	15.1 ± 5.0	0.99	6.4	23.8
10-21-97		104.3 ± 19.0 ^c	143.4 ± 21.5	0.73	106.2	180.6
10-31-97		34.6 ± 2.0 ^c	48.9 ± 5.0	0.71	40.2	57.6
04-15-97	Co-60	25 ± 4	21 ± 5	1.19	12.3	29.7
06-06-97		20.3 ± 2.5	18 ± 5	1.13	9.3	26.7
10-21-97		12 ± 5	10.0 ± 5.0	1.20	1.3	18.7
11-07-97		29.8 ± 6.2	27.0 ± 5.0	1.10	18.3	35.7
04-15-97	Cs-134	29.3 ± 2.3	31 ± 5	0.95	22.3	39.7
06-06-97		20.3 ± 2.5	22 ± 5	0.92	13.3	30.7
10-21-97		39 ± 7	41.0 ± 5.0	0.95	32.3	49.7
11-07-97		10.8 ± 3.4	10.0 ± 5.0	1.08	1.3	18.7
04-15-97	Cs-137	25.7 ± 2.7	22 ± 5	1.17	13.3	30.7
06-06-97		50.3 ± 3.5	49 ± 5	1.03	40.3	57.7
10-21-97		34 ± 10 ^d	34.0 ± 5.0	1.00	25.3	42.7
11-07-97		78.1 ± 13.2 ^d	74.0 ± 5.0	1.06	65.3	82.7
03-07-97	H-3	7579 ± 225	7900 ± 790	0.96	6533	9268
08-08-97		10300 ± 337	11010 ± 1101	0.94	9104	12916

a EPA Quality Assurance Division

b Control limits were established by EPA National Exposure Research Laboratory Characterization Research Division-Las Vegas.

c Out of control limits (accuracy)

d Out of control limits (precision)

Table 66
QAD Interlaboratory Comparison of Analytical Results

Page 2 of 2

Sample Date	Nuclide	SRS Value	QAD ^a Value	SRS/QAD Ratio	Range	
					Lower Control Limit ^b	Upper Control Limit ^b
01-17-97	Sr-89	2.0 ± 4.0 ^c	12.0 ± 5.0	0.17	3.3	20.7
07-11-97		55 ± 6.6 ^c	44 ± 5	1.25	35.3	52.7
10-21-97		33 ± 4.5	36.0 ± 5.0	0.92	27.3	44.7
01-17-97	Sr-90	22 ± 3	25 ± 5	0.88	16.3	33.7
04-15-97		15 ± 3	13 ± 5	1.15	4.3	21.7
07-11-97		22 ± 5.4	16 ± 5	1.38	7.3	24.7
10-21-97		21 ± 4	22.0 ± 5.0	0.95	13.3	30.7
04-15-97	U	20.7 ± 2.5	24 ± 3	0.86	18.8	29.2
10-21-97		29.2 ± 2.6	31.0 ± 3.0	0.94	25.8	36.2
06-06-97	Zn-65	106 ± 8	100 ± 10	1.06	82.7	117.3
11-07-97		76.1 ± 20.9 ^d	75.0 ± 8.0	1.01	61.2	88.8

^a EPA Quality Assurance Division

^b Control limits were established by EPA National Exposure Research Laboratory Characterization Research Division-Las Vegas.

^c Out of control limits (accuracy)

^d Out of control limits (precision)

Table 67
NISTRIP Test Results for EMS (Alpha-Spectrometry Method)

Page 1 of 1

Nuclide	NIST Value (mBq/g ⁻¹)	EMS Value	EMS/NIST Ratio
Pu-238	2.21 ± 0.68	2.12 ± 0.31	0.96
Pu-239,240	1.95 ± 0.62	1.91 ± 0.28	0.98
Am-241	3.43 ± 0.54	3.58 ± 0.57	1.04

Table 68
NPDES Duplicate Sample Results

Page 1 of 3

Sample	Analyte	Units	Result 1	Result 2	Difference
<i>Note: The Environmental Monitoring Section laboratory performs most analyses for total suspended solids. Other analyses, including some total suspended solids, are performed by Shealy Environmental Services.</i>					
M-05	1,1,1-Trichloroethane	µg/L	<2.0	<2.0	0
A-1A	1,1,1-Trichloroethane	µg/L	<2.0	<2.0	0
X-8C	1,1,1-Trichloroethane	µg/L	<2.0	<2.0	0
A-1A	1,1,1-Trichloroethane	µg/L	<2.0	<2.0	0
K-18	Aluminum	mg/L	0.154	0.158	0.004
M-04	Aluminum	mg/L	<0.02	<0.02	0
M-04	Aluminum	mg/L	0.137	0.147	0
M-04	Ammonia	mg/L	0.306	0.519	0.213
M-04	Ammonia	mg/L	0.375	0.369	0.006
X-8B	Benzene	µg/L	<0.5	<0.5	0
X-8B	Benzene	µg/L	<0.5	<0.5	0
X-8B	Benzene	µg/L	<0.5	<0.5	0
A-11	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
A-01	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
X-8B	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
A-11	Biological Oxygen Demand	mg/L	<2.0	4.5	<4.5
X-8B	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
X-8B	Biological Oxygen Demand	mg/L	4.7	2.9	1.8
A-01	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
A-11	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
M-04	Chromium	mg/L	0.015	0.019	0.004
M-04	Chromium	mg/L	<0.01	<0.01	0
F-08	Copper	mg/L	0.038	0.03	0.008
A-11	Copper	mg/L	<0.005	<0.005	0
H-12	Copper	mg/L	<0.005	<0.005	0
A-01	Copper	mg/L	0.064	0.074	0.01
F-08	Copper	mg/L	<0.005	<0.005	0
A-11	Copper	mg/L	<0.005	<0.005	0
F-08	Copper	mg/L	0.007	<0.005	<0.007
M-04	Cyanide	mg/L	<0.02	<0.02	0
M-04	Cyanide	mg/L	<0.02	0.034	<0.034
A-11	Lead	mg/L	<0.003	<0.003	0
F-03	Lead	mg/L	0.005	0.006	0.001

Table 68
NPDES Duplicate Sample Results

Page 2 of 3

Sample	Analyte	Units	Result 1	Result 2	Difference
F-08	Lead	mg/L	<0.003	<0.003	0
M-04	Lead	mg/L	<0.003	<0.003	0
H-12	Lead	mg/L	<0.003	<0.003	0
M-04	Lead	mg/L	<0.003	<0.003	0
A-01	Lead	mg/L	0.003	0.005	0.002
F-08	Lead	mg/L	<0.003	<0.003	0
A-11	Lead	mg/L	0.004	0.003	0.001
F-08	Lead	mg/L	<0.003	<0.003	0
X-8B	Mercury	mg/L	<0.0001	<0.0001	0
A-11	Mercury	mg/L	<0.0001	<0.0001	0
X-8B	Mercury	mg/L	<0.0001	<0.0001	0
A-01	Mercury	mg/L	<0.0001	<0.0001	0
A-11	Mercury	mg/L	<0.0001	<0.0001	0
M-04	Nickel	mg/L	0.064	0.066	0.002
M-04	Nickel	mg/L	0.094	0.079	0.015
A-01	Oil & Grease	mg/L	<1.0	<1.0	0
H-02	Oil & Grease	mg/L	<1.0	<1.0	0
K-18	Oil & Grease	mg/L	<1.0	<1.0	0
H-07	Oil & Grease	mg/L	3.4	2.4	1
A-01	Oil & Grease	mg/L	<1.0	1.2	<1.2
H-02	Oil & Grease	mg/L	<1.0	<1.0	0
H-07	Oil & Grease	mg/L	2	1.2	0.8
X-8B	Phenol	mg/L	<0.006	<0.006	0
X-8B	Phenol	mg/L	<0.006	<0.006	0
X-8B	Phenol	mg/L	<0.006	<0.006	0
M-05	Tetrachloroethylene	µg/L	<2.0	<2.0	0
A-1A	Tetrachloroethylene	µg/L	<2.0	<2.0	0
X-8C	Tetrachloroethylene	µg/L	<2.0	<2.0	0
A-1A	Tetrachloroethylene	µg/L	<2.0	<2.0	0
X-8B	Total Organic Carbon	mg/L	5.5	1.1	4.4
X-8B	Total Organic Carbon	mg/L	4.1	4.1	0
X-8B	Total Organic Carbon	mg/L	3.3	6.1	2.8
K-18	Total Suspended Solids	mg/L	7	2	5
A-01	Total Suspended Solids	mg/L	1	1	0
H-02	Total Suspended Solids	mg/L	1	1	0
X-8B	Total Suspended Solids	mg/L	19	19	0

Table 68
NPDES Duplicate Sample Results

Page 3 of 3

Sample	Analyte	Units	Result 1	Result 2	Difference
X-08	Total Suspended Solids	mg/L	3	3	0
H-04	Total Suspended Solids	mg/L	<1	<1	0
A-11	Total Suspended Solids	mg/L	4	4	0
X-8B	Total Suspended Solids	mg/L	6	5	1
H-07	Total Suspended Solids	mg/L	1	2	1
H-08	Total Suspended Solids	mg/L	3	3	0
C-04	Total Suspended Solids	mg/L	2	2	0
S-04	Total Suspended Solids	mg/L	2	6	4
M-04	Total Suspended Solids	mg/L	1	1	0
F-01	Total Suspended Solids	mg/L	<1	<1	0
H-12	Total Suspended Solids	mg/L	1	1	0
X-04	Total Suspended Solids	mg/L	2	1	1
F-02	Total Suspended Solids	mg/L	1	3	2
S-04	Total Suspended Solids	mg/L	3	2	1
X-8B	Total Suspended Solids	mg/L	12	10	2
M-04	Total Suspended Solids	mg/L	1	1	0
A-01	Total Suspended Solids	mg/L	1	1	0
H-02	Total Suspended Solids	mg/L	1	1	0
X-08	Total Suspended Solids	mg/L	4	4	0
H-04	Total Suspended Solids	mg/L	1	1	0
A-11	Total Suspended Solids	mg/L	3	2	1
X-04	Total Suspended Solids	mg/L	3	1	2
H-08	Total Suspended Solids	mg/L	2	2	0
H-07	Total Suspended Solids	mg/L	9	9	0
H-12	Total Suspended Solids	mg/L	2	2	0
M-05	Trichloroethylene	µg/L	<2.0	<2.0	0
A-1A	Trichloroethylene	µg/L	<2.0	<2.0	0
X-8C	Trichloroethylene	µg/L	<2.0	<2.0	0
A-1A	Trichloroethylene	µg/L	<2.0	<2.0	0
S-04	Zinc	mg/L	0.176	0.173	0.003
S-04	Zinc	mg/L	0.203	0.201	0.002

Table 69
NPDES Blind Sample Results

Page 1 of 2

NPDES Site	Parameter	Units	Result 1	Result 2	Difference
<i>Note: The Environmental Monitoring Section laboratory performs most analyses for total suspended solids. Other analyses, including some total suspended solids, are performed by Shealy Environmental Services.</i>					
M-05	1,1,1-Trichloroethane	µg/L	<2.0	<2.0	0
A-1A	1,1,1-Trichloroethane	µg/L	<2.0	<2.0	0
A-11	1,1,1-Trichloroethane	µg/L	<2.0	<2.0	0
K-18	Aluminum	mg/L	0.154	0.132	0.022
M-04	Aluminum	mg/L	<0.05	<0.05	0
K-18	Aluminum	mg/L	<0.05	<0.05	0
X-8B	Benzene	µg/L	<0.5	<0.5	0
X-8B	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
A-11	Biological Oxygen Demand	mg/L	<2.0	2.6	<2.6
H-16	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
H-16	Cadmium	mg/L	<0.005	<0.005	0
H-16	Chromium	mg/L	<0.01	<0.01	0
M-04	Chromium	mg/L	<0.01	<0.01	0
H-16	Copper	mg/L	<0.005	<0.005	0
H-12	Copper	mg/L	<0.005	<0.005	0
A-11	Copper	mg/L	<0.005	0.04	<0.04
H-16	Lead	mg/L	<0.003	<0.003	0
F-03	Lead	mg/L	0.005	0.015	0.01
M-04	Lead	mg/L	<0.003	<0.003	0
H-12	Lead	mg/L	<0.003	<0.003	0
A-11	Lead	mg/L	0.005	0.005	0
H-08	Lead	mg/L	<0.003	<0.003	0
H-16	Mercury	mg/L	<0.0001	<0.0001	0
X-8B	Mercury	mg/L	0.0005	0.0006	0.0001
A-11	Mercury	mg/L	<0.0001	<0.0001	0
H-16	Nickel	mg/L	<0.01	<0.01	0
M-04	Nickel	mg/L	0.067	0.052	0.015
K-18	Oil & Grease	mg/L	<1.0	<1.0	0
L-08	Oil & Grease	mg/L	<1.0	1	<1
K-18	Oil & Grease	mg/L	<1.0	1.1	<1.1
H-16	Oil & Grease	mg/L	<1.0	3.7	<3.7
F-05	Oil & Grease	mg/L	<1.0	<1.0	0
H-02	Oil & Grease	mg/L	<1.0	<1.0	0

Table 69
NPDES Blind Sample Results

Page 2 of 2

NPDES Site	Parameter	Units	Result 1	Result 2	Difference
X-8B	Phenol	mg/L	0.012	<0.006	<0.012
H-16	Silver	mg/L	<0.005	<0.005	0
M-05	Tetrachloroethylene	mg/L	<2.0	<2.0	0
A-1A	Tetrachloroethylene	µg/L	<2.0	<2.0	0
A-11	Tetrachloroethylene	µg/L	<2.0	<2.0	0
X-8B	Total Organic Carbon	mg/L	5.5	5.5	0
X-04	Total Suspended Solids	mg/L	1	1	0
L-08	Total Suspended Solids	mg/L	4	2	2
A-11	Total Suspended Solids	mg/L	4	3	1
H-12	Total Suspended Solids	mg/L	1	1	0
K-18	Total Suspended Solids	mg/L	6	8	2
F-05	Total Suspended Solids	mg/L	<1	1	<1
H-16	Total Suspended Solids	µg/L	2	1.5	0.5
H-02	Total Suspended Solids	mg/L	1	2	1
X-08	Total Suspended Solids	mg/L	1	1	0
F-02	Total Suspended Solids	mg/L	2	1	1
L-07	Total Suspended Solids	mg/L	2	2	0
X-04	Total Suspended Solids	mg/L	6	7	1
S-04	Total Suspended Solids	mg/L	13	13	0
F-08	Total Suspended Solids	mg/L	2	2	0
H-08	Total Suspended Solids	mg/L	4	3	1
H-04	Total Suspended Solids	mg/L	2	2	0
M-05	Trichloroethylene	µg/L	<2.0	<2.0	0
A-1A	Trichloroethylene	µg/L	<2.0	<2.0	0
A-11	Trichloroethylene	µg/L	<2.0	<2.0	0
H-16	Zinc	mg/L	0.015	0.012	0.003
S-04	Zinc	mg/L	0.126	0.153	0.027

Table 70
SRS Stream and Savannah River Water Quality Duplicate Sample Results

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Location	Parameter	Units	Reading 1	Reading 2	Difference
River Mile 160	2,4 D	µg/L	0.694	0.377	0.317
Vogtle	2,4 D	µg/L	<0.1	<0.1	0
River Mile 140	2,4 D	µg/L	<0.1	<0.1	0
River Mile 129	2,4 D	µg/L	<0.1	<0.1	0
River Mile 120	2,4 D	µg/L	<0.1	<0.1	0
River Mile 160	4,4 DDD	µg/L	<0.05	<0.05	0
Vogtle	4,4 DDD	µg/L	<0.05	<0.05	0
River Mile 140	4,4 DDD	µg/L	<0.05	<0.05	0
River Mile 129	4,4 DDD	µg/L	<0.05	<0.05	0
River Mile 120	4,4 DDD	µg/L	<0.05	<0.05	0
River Mile 160	4,4 DDE	µg/L	<0.05	<0.05	0
Vogtle	4,4 DDE	µg/L	<0.05	<0.05	0
River Mile 140	4,4 DDE	µg/L	<0.05	<0.05	0
River Mile 129	4,4 DDE	µg/L	<0.05	<0.05	0
River Mile 120	4,4 DDE	µg/L	<0.05	<0.05	0
River Mile 160	4,4 DDT	µg/L	<0.05	<0.05	0
Vogtle	4,4 DDT	µg/L	<0.05	<0.05	0
River Mile 140	4,4 DDT	µg/L	<0.05	<0.05	0
River Mile 129	4,4 DDT	µg/L	<0.05	<0.05	0
River Mile 120	4,4 DDT	µg/L	<0.05	<0.05	0
River Mile 160	Aldrin	µg/L	<0.05	<0.05	0
Vogtle	Aldrin	µg/L	<0.05	<0.05	0
River Mile 140	Aldrin	µg/L	<0.05	<0.05	0
River Mile 129	Aldrin	µg/L	<0.05	<0.05	0
River Mile 120	Aldrin	µg/L	<0.05	<0.05	0
River Mile 160	Alpha-BHC	µg/L	<0.05	<0.05	0
Vogtle	Alpha-BHC	µg/L	<0.05	<0.05	0
River Mile 140	Alpha-BHC	µg/L	<0.05	<0.05	0
River Mile 129	Alpha-BHC	µg/L	<0.05	<0.05	0
River Mile 120	Alpha-BHC	µg/L	<0.05	<0.05	0
Beaver Dam Creek	Aluminum	mg/L	0.48	0.623	0.143
Four Mile 2	Aluminum	mg/L	0.273	0.224	0.049
River Mile 160	Aluminum	mg/L	0.411	<0.05	<0.411
Vogtle	Aluminum	mg/L	0.446	0.498	0.052
River Mile 120	Aluminum	mg/L	0.4	0.565	0.165

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Location	Parameter	Units	Reading 1	Reading 2	Difference
Four Mile 6	Aluminum	mg/L	0.252	0.242	0.01
River Mile 140	Aluminum	mg/L	0.225	0.254	0.029
Steel Creek 4	Aluminum	mg/L	0.12	0.185	0.065
Upper Three Runs 4	Aluminum	mg/L	0.245	0.203	0.042
River Mile 160	Aluminum	mg/L	0.178	0.113	0.065
Vogtle	Aluminum	mg/L	0.258	0.806	0.548
River Mile 120	Aluminum	mg/L	0.376	0.494	0.118
Four Mile 2B	Aluminum	mg/L	0.135	0.124	0.011
River Mile 129	Aluminum	mg/L	0.174	0.193	0.019
Upper Three Runs 1	Aluminum	mg/L	0.07	<0.05	<0.07
River Mile 160	Beta-BHC	µg/L	<0.05	<0.05	0
Vogtle	Beta-BHC	µg/L	<0.05	<0.05	0
River Mile 140	Beta-BHC	µg/L	<0.05	<0.05	0
River Mile 129	Beta-BHC	µg/L	<0.05	<0.05	0
River Mile 120	Beta-BHC	µg/L	<0.05	<0.05	0
Beaver Dam Creek	Cadmium	mg/L	<0.01	<0.01	0
Four Mile 2	Cadmium	mg/L	<0.01	<0.01	0
River Mile 160	Cadmium	mg/L	<0.01	<0.01	0
Vogtle	Cadmium	mg/L	<0.01	<0.01	0
River Mile 120	Cadmium	mg/L	<0.01	<0.01	0
Four Mile 6	Cadmium	mg/L	<0.01	<0.01	0
River Mile 140	Cadmium	mg/L	<0.01	<0.01	0
Steel Creek 4	Cadmium	mg/L	<0.01	<0.01	0
Upper Three Runs 4	Cadmium	mg/L	<0.01	<0.01	0
River Mile 160	Cadmium	mg/L	<0.01	<0.01	0
Vogtle	Cadmium	mg/L	<0.01	<0.01	0
River Mile 120	Cadmium	mg/L	<0.01	<0.01	0
Four Mile 2B	Cadmium	mg/L	<0.01	<0.01	0
River Mile 129	Cadmium	mg/L	<0.01	<0.01	0
Upper Three Runs 1	Cadmium	mg/L	<0.01	<0.01	0
River Mile 160	Chlordane	µg/L	<0.5	<0.5	0
Vogtle	Chlordane	µg/L	<0.5	<0.5	0
River Mile 140	Chlordane	µg/L	<0.5	<0.5	0
River Mile 129	Chlordane	µg/L	<0.5	<0.5	0
River Mile 120	Chlordane	µg/L	<0.5	<0.5	0

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SRS Stream and Savannah River Water Quality Duplicate Sample Results

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Location	Parameter	Units	Reading 1	Reading 2	Difference
Beaver Dam Creek	Chromium	mg/L	<0.005	<0.005	0
Four Mile 2	Chromium	mg/L	<0.005	<0.005	0
River Mile 160	Chromium	mg/L	<0.005	<0.005	0
Vogtle	Chromium	mg/L	<0.005	<0.005	0
River Mile 120	Chromium	mg/L	<0.005	<0.005	0
Four Mile 6	Chromium	mg/L	<0.005	<0.005	0
River Mile 140	Chromium	mg/L	<0.005	<0.005	0
Steel Creek 4	Chromium	mg/L	<0.005	<0.005	0
Upper Three Runs 4	Chromium	mg/L	<0.005	<0.005	0
River Mile 160	Chromium	mg/L	<0.005	<0.005	0
Vogtle	Chromium	mg/L	<0.005	<0.005	0
River Mile 120	Chromium	mg/L	<0.005	<0.005	0
Four Mile 2B	Chromium	mg/L	<0.005	<0.005	0
River Mile 129	Chromium	mg/L	<0.005	<0.005	0
Upper Three Runs 1	Chromium	mg/L	<0.005	<0.005	0
Beaver Dam Creek	Copper	mg/L	0.08	0.034	0.046
Four Mile 2	Copper	mg/L	<0.005	<0.005	0
River Mile 160	Copper	mg/L	<0.005	<0.005	0
Vogtle	Copper	mg/L	<0.005	<0.005	0
River Mile 120	Copper	mg/L	<0.005	<0.005	0
Four Mile 6	Copper	mg/L	<0.005	<0.005	0
River Mile 140	Copper	mg/L	<0.005	<0.005	0
Steel Creek 4	Copper	mg/L	<0.005	0.011	<0.011
Upper Three Runs 4	Copper	mg/L	<0.005	0.019	<0.019
River Mile 160	Copper	mg/L	<0.005	<0.005	0
Vogtle	Copper	mg/L	<0.005	<0.005	0
River Mile 120	Copper	mg/L	0.018	0.02	0.002
Four Mile 2B	Copper	mg/L	0.024	0.021	0.003
River Mile 129	Copper	mg/L	<0.005	<0.005	0
Upper Three Runs 1	Copper	mg/L	<0.005	<0.005	0
River Mile 160	Delta-BHC	µg/L	<0.05	<0.05	0
Vogtle	Delta-BHC	µg/L	<0.05	<0.05	0
River Mile 140	Delta-BHC	µg/L	<0.05	<0.05	0
River Mile 129	Delta-BHC	µg/L	<0.05	<0.05	0
River Mile 120	Delta-BHC	µg/L	<0.05	<0.05	0

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Location	Parameter	Units	Reading 1	Reading 2	Difference
River Mile 160	Dieldrin	µg/L	<0.05	<0.05	0
Vogtle	Dieldrin	µg/L	<0.05	<0.05	0
River Mile 140	Dieldrin	µg/L	<0.05	<0.05	0
River Mile 129	Dieldrin	µg/L	<0.05	<0.05	0
River Mile 120	Dieldrin	µg/L	<0.05	<0.05	0
River Mile 160	Endosulfan 1	µg/L	<0.05	<0.05	0
Vogtle	Endosulfan 2	µg/L	<0.05	<0.05	0
River Mile 140	Endosulfan 3	µg/L	<0.05	<0.05	0
River Mile 129	Endosulfan 4	µg/L	<0.05	<0.05	0
River Mile 120	Endosulfan 5	µg/L	<0.05	<0.05	0
River Mile 160	Endosulfan II	µg/L	<0.05	<0.05	0
Vogtle	Endosulfan II	µg/L	<0.05	<0.05	0
River Mile 140	Endosulfan II	µg/L	<0.05	<0.05	0
River Mile 129	Endosulfan II	µg/L	<0.05	<0.05	0
River Mile 120	Endosulfan II	µg/L	<0.05	<0.05	0
River Mile 160	Endosulfan Sulfate	µg/L	<0.05	<0.05	0
Vogtle	Endosulfan Sulfate	µg/L	<0.05	<0.05	0
River Mile 140	Endosulfan Sulfate	µg/L	<0.05	<0.05	0
River Mile 129	Endosulfan Sulfate	µg/L	<0.05	<0.05	0
River Mile 120	Endosulfan Sulfate	µg/L	<0.05	<0.05	0
River Mile 160	Endrin	µg/L	<0.05	<0.05	0
Vogtle	Endrin	µg/L	<0.05	<0.05	0
River Mile 140	Endrin	µg/L	<0.05	<0.05	0
River Mile 129	Endrin	µg/L	<0.05	<0.05	0
River Mile 120	Endrin	µg/L	<0.05	<0.05	0
River Mile 160	Endrin Aldehyde	µg/L	<0.05	<0.05	0
Vogtle	Endrin Aldehyde	µg/L	<0.05	<0.05	0
River Mile 140	Endrin Aldehyde	µg/L	<0.05	<0.05	0
River Mile 129	Endrin Aldehyde	µg/L	<0.05	<0.05	0
River Mile 120	Endrin Aldehyde	µg/L	<0.05	<0.05	0
River Mile 160	Endrin Ketone	µg/L	<0.05	<0.05	0
Vogtle	Endrin Ketone	µg/L	<0.05	<0.05	0
River Mile 140	Endrin Ketone	µg/L	<0.05	<0.05	0
River Mile 129	Endrin Ketone	µg/L	<0.05	<0.05	0
River Mile 120	Endrin Ketone	µg/L	<0.05	<0.05	0

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Location	Parameter	Units	Reading 1	Reading 2	Difference
River Mile 160	Gamma-BHC	µg/L	<0.05	<0.05	0
Vogtle	Gamma-BHC	µg/L	<0.05	<0.05	0
River Mile 140	Gamma-BHC	µg/L	<0.05	<0.05	0
River Mile 129	Gamma-BHC	µg/L	<0.05	<0.05	0
River Mile 120	Gamma-BHC	µg/L	<0.05	<0.05	0
River Mile 160	Heptachlor	µg/L	<0.05	<0.05	0
Vogtle	Heptachlor	µg/L	<0.05	<0.05	0
River Mile 140	Heptachlor	µg/L	<0.05	<0.05	0
River Mile 129	Heptachlor	µg/L	<0.05	<0.05	0
River Mile 120	Heptachlor	µg/L	<0.05	<0.05	0
River Mile 160	Heptachlor Epoxide	µg/L	<0.05	<0.05	0
Vogtle	Heptachlor Epoxide	µg/L	<0.05	<0.05	0
River Mile 140	Heptachlor Epoxide	µg/L	<0.05	<0.05	0
River Mile 129	Heptachlor Epoxide	µg/L	<0.05	<0.05	0
River Mile 120	Heptachlor Epoxide	µg/L	<0.05	<0.05	0
Beaver Dam Creek	Iron	mg/L	0.662	0.932	0.27
Four Mile 2	Iron	mg/L	0.898	0.823	0.075
River Mile 160	Iron	mg/L	0.442	0.359	0.083
Vogtle	Iron	mg/L	0.893	0.959	0.066
River Mile 120	Iron	mg/L	0.698	0.75	0.052
Four Mile 6	Iron	mg/L	0.576	0.688	0.112
River Mile 140	Iron	mg/L	0.545	0.578	0.033
Steel Creek 4	Iron	mg/L	0.339	0.491	0.152
Upper Three Runs 4	Iron	mg/L	0.564	0.589	0.025
River Mile 160	Iron	mg/L	0.404	0.279	0.125
Vogtle	Iron	mg/L	0.35	0.854	0.504
River Mile 120	Iron	mg/L	0.823	0.871	0.048
Four Mile 2B	Iron	mg/L	0.325	0.021	0.304
River Mile 129	Iron	mg/L	0.657	0.6	0.057
Upper Three Runs 1	Iron	mg/L	0.282	0.263	0.019
Beaver Dam Creek	Lead	mg/L	<0.003	<0.003	0
Four Mile 2	Lead	mg/L	<0.003	<0.003	0
River Mile 160	Lead	mg/L	<0.003	<0.003	0
Vogtle	Lead	mg/L	<0.003	<0.003	0
River Mile 120	Lead	mg/L	<0.003	<0.003	0

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Location	Parameter	Units	Reading 1	Reading 2	Difference
Four Mile 6	Lead	mg/L	<0.003	<0.003	0
River Mile 140	Lead	mg/L	<0.003	<0.003	0
Steel Creek 4	Lead	mg/L	<0.003	<0.003	0
Upper Three Runs 4	Lead	mg/L	<0.003	0.0003	<0.003
River Mile 160	Lead	mg/L	<0.003	<0.003	0
Vogtle	Lead	mg/L	<0.003	<0.003	0
River Mile 120	Lead	mg/L	<0.003	<0.003	0
Four Mile 2B	Lead	mg/L	<0.003	<0.003	0
River Mile 129	Lead	mg/L	<0.003	<0.003	0
Upper Three Runs 1	Lead	mg/L	<0.003	<0.003	0
Beaver Dam Creek	Manganese	mg/L	0.113	0.115	0.002
Four Mile 2	Manganese	mg/L	0.065	0.058	0.007
River Mile 160	Manganese	mg/L	0.054	0.069	0.015
Vogtle	Manganese	mg/L	0.118	0.144	0.026
River Mile 120	Manganese	mg/L	0.05	0.054	0.004
Four Mile 6	Manganese	mg/L	0.458	0.535	0.077
River Mile 140	Manganese	mg/L	0.056	0.058	0.002
Steel Creek 4	Manganese	mg/L	0.037	0.042	0.005
Upper Three Runs 4	Manganese	mg/L	0.019	0.02	0.001
River Mile 160	Manganese	mg/L	0.057	0.05	0.007
Vogtle	Manganese	mg/L	0.075	0.08	0.005
River Mile 120	Manganese	mg/L	0.091	0.09	0.001
Four Mile 2B	Manganese	mg/L	0.012	0.338	0.326
River Mile 129	Manganese	mg/L	0.063	0.06	0.003
Upper Three Runs 1	Manganese	mg/L	0.013	0.012	0.001
Beaver Dam Creek	Mercury	mg/L	<0.0001	<0.0001	0
Four Mile 2	Mercury	mg/L	<0.0001	<0.0001	0
River Mile 160	Mercury	mg/L	<0.0001	<0.0001	0
Vogtle	Mercury	mg/L	<0.0001	<0.0001	0
River Mile 120	Mercury	mg/L	<0.0001	<0.0001	0
Four Mile 6	Mercury	mg/L	<0.0001	<0.0001	0
River Mile 140	Mercury	mg/L	0.002	<0.0001	<0.002
Steel Creek 4	Mercury	mg/L	<0.0001	<0.0001	0
Upper Three Runs 4	Mercury	mg/L	<0.0001	<0.0001	0
River Mile 160	Mercury	mg/L	<0.0001	<0.0001	0

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Location	Parameter	Units	Reading 1	Reading 2	Difference
Vogtle	Mercury	mg/L	<0.0001	<0.0001	0
River Mile 120	Mercury	mg/L	<0.0001	<0.0001	0
Four Mile 2B	Mercury	mg/L	<0.0001	<0.0001	0
River Mile 129	Mercury	mg/L	<0.0001	<0.0001	0
Upper Three Runs 1	Mercury	mg/L	<0.0001	<0.0001	0
River Mile 160	Methoxychlor	µg/L	<0.2	<0.2	0
Vogtle	Methoxychlor	µg/L	<0.2	<0.2	0
River Mile 140	Methoxychlor	µg/L	<0.2	<0.2	0
River Mile 129	Methoxychlor	µg/L	<0.2	<0.2	0
River Mile 120	Methoxychlor	µg/L	<0.2	<0.2	0
Beaver Dam Creek	Nickel	mg/L	<0.01	<0.01	0
Four Mile 2	Nickel	mg/L	<0.01	<0.01	0
River Mile 160	Nickel	mg/L	<0.01	<0.01	0
Vogtle	Nickel	mg/L	<0.01	<0.01	0
River Mile 120	Nickel	mg/L	<0.01	<0.01	0
Four Mile 6	Nickel	mg/L	<0.01	<0.01	0
River Mile 140	Nickel	mg/L	<0.01	<0.01	0
Steel Creek 4	Nickel	mg/L	<0.01	<0.01	0
Upper Three Runs 4	Nickel	mg/L	<0.01	<0.01	0
River Mile 160	Nickel	mg/L	<0.01	<0.01	0
Vogtle	Nickel	mg/L	<0.01	<0.01	0
River Mile 120	Nickel	mg/L	<0.01	<0.01	0
Four Mile 2B	Nickel	mg/L	<0.01	0.016	<0.016
River Mile 129	Nickel	mg/L	<0.01	<0.01	0
Upper Three Runs 1	Nickel	mg/L	<0.01	<0.01	0
River Mile 160	Silvex	µg/L	<0.1	<0.1	0
Vogtle	Silvex	µg/L	<0.1	<0.1	0
River Mile 140	Silvex	µg/L	<0.1	<0.1	0
River Mile 129	Silvex	µg/L	<0.1	<0.1	0
River Mile 120	Silvex	µg/L	<0.1	<0.1	0
Beaver Dam Creek	Total Organic Carbon	mg/L	4.6	4.2	0.4
Four Mile 2	Total Organic Carbon	mg/L	2.5	2.3	0.2
River Mile 160	Total Organic Carbon	mg/L	4.7	4.7	0
Vogtle	Total Organic Carbon	mg/L	7.2	4	3.2
River Mile 120	Total Organic Carbon	mg/L	4.5	3.9	0.6

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Location	Parameter	Units	Reading 1	Reading 2	Difference
Four Mile 6	Total Organic Carbon	mg/L	4.3	4.4	0.1
River Mile 140	Total Organic Carbon	mg/L	3.5	3.4	0.1
Steel Creek 4	Total Organic Carbon	mg/L	3.6	4.2	0.6
Upper Three Runs 4	Total Organic Carbon	mg/L	6.1	3.4	2.7
River Mile 160	Total Organic Carbon	mg/L	3	1.9	1.1
River Mile 120	Total Organic Carbon	mg/L	7.2	4.7	2.5
Four Mile 2B	Total Organic Carbon	mg/L	3.8	3.7	0.1
River Mile 129	Total Organic Carbon	mg/L	7.23	9.08	1.85
Upper Three Runs 1	Total Organic Carbon	mg/L	2.24	2.48	0.24
Beaver Dam Creek	Total Phosphorus	mg/L	0.093	0.075	0.018
Four Mile 2	Total Phosphorus	mg/L	0.072	0.064	0.008
River Mile 160	Total Phosphorus	mg/L	0.065	0.083	0.018
Vogtle	Total Phosphorus	mg/L	0.125	0.373	0.248
River Mile 120	Total Phosphorus	mg/L	0.19	0.211	0.021
Four Mile 6	Total Phosphorus	mg/L	0.153	0.151	0.002
River Mile 140	Total Phosphorus	mg/L	0.159	0.265	0.106
Steel Creek 4	Total Phosphorus	mg/L	0.063	0.094	0.031
Upper Three Runs 4	Total Phosphorus	mg/L	0.024	<0.01	<0.024
River Mile 160	Total Phosphorus	mg/L	0.113	0.135	0.022
Vogtle	Total Phosphorus	mg/L	0.189	0.168	0.021
River Mile 120	Total Phosphorus	mg/L	<0.01	<0.01	0
Four Mile 2B	Total Phosphorus	mg/L	0.341	0.135	0.206
River Mile 129	Total Phosphorus	mg/L	0.089	0.109	0.02
Upper Three Runs 1	Total Phosphorus	mg/L	0.019	0.023	0.004
River Mile 160	Toxaphene	µg/L	<2.5	<2.5	0
Vogtle	Toxaphene	µg/L	<2.5	<2.5	0
River Mile 140	Toxaphene	µg/L	<2.5	<2.5	0
River Mile 129	Toxaphene	µg/L	<2.5	<2.5	0
River Mile 120	Toxaphene	µg/L	<2.5	<2.5	0
Beaver Dam Creek	Zinc	mg/L	0.083	0.06	0.023
Four Mile 2	Zinc	mg/L	0.053	0.051	0.002
River Mile 160	Zinc	mg/L	0.226	0.044	0.182
Vogtle	Zinc	mg/L	0.207	0.005	0.202
River Mile 120	Zinc	mg/L	0.028	0.031	0.003
Four Mile 6	Zinc	mg/L	0.069	0.055	0.014

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Location	Parameter	Units	Reading 1	Reading 2	Difference
River Mile 140	Zinc	mg/L	0.051	0.055	0.004
Steel Creek 4	Zinc	mg/L	0.115	0.097	0.018
Upper Three Runs 4	Zinc	mg/L	0.115	0.141	0.026
River Mile 160	Zinc	mg/L	0.028	0.008	0.02
Vogtle	Zinc	mg/L	0.032	0.037	0.005
River Mile 120	Zinc	mg/L	0.03	0.046	0.016
Four Mile 2B	Zinc	mg/L	0.05	<0.01	<0.05
River Mile 129	Zinc	mg/L	0.055	0.03	0.025
Upper Three Runs 1	Zinc	mg/L	0.038	0.037	0.001