SAVANNAH RIVER SITE

Environmental Data for 1998

ENVIRONMENTAL MONITORING SECTION

ENVIRONMENTAL PROTECTION DEPARTMENT

Westinghouse Savannah River Company • Savannah River Site • Aiken, South Carolina

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Savannah River Site Environmental Data for 1998

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Preface

This document presents data from Savannah River Site routine effluent monitoring and environmental surveillance programs. Information in the book is summarized in the *Savannah River Site Environmental Report for 1998* (WSRC-TR-98-00312). 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 the data table columns' space requirements, 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 should help the reader. A collection of maps showing radiological and nonradiological sampling locations completes this introductory section.

The first few tables include lists of the media sampled and of minimum detectable concentrations for various analyses/media. A table of nonradiological environmental surveillance detection/report limits also is included. Following these 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 (because of 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:

- Analytical results and their corresponding uncertainty terms generally are reported with up to three significant figures. The last significant figure of a result is determined by the quantification of the uncertainty term. EMS attempts to report the appropriate confidence in the result with the correct number of significant figures.
- The reported uncertainty of a single measurement reflects only the counting error—not other components of random and systematic error in the measurement process—so some results may imply a greater confidence than the determination would suggest.
- An uncertainty quoted with means represents the standard deviation of measurements about the mean value. This number is calculated from the results themselves and is not weighted by the uncertainties of the individual results.
- All values represent the weighted average of all acceptable analyses of a sample for a particular analyte. Samples may have undergone multiple analyses for quality assurance purposes or to determine if radionuclides are present. For certain radionuclides, quantifiable concentrations may be below the minimum detectable activity of the analysis, in which case the actual concentration value is presented to satisfy DOE reporting guidelines.
- The generic term "dose," as used in the report, refers to the committed effective dose equivalent (50-year committed dose) from internal deposition of radionuclides and to the effective dose equivalent attributable to beta/gamma radiation from sources external to the body.

Copies of environmental reports may be obtained by contacting

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Radionuclide and Chemical Nomenclature

Nomenclature and Half-Life for Radionuclides					
Radionuclide	Symbol	Half-Life ^{a,b}	Radionuclide	Symbol	Half-Life ^{a,b}
Actinium-228	Ac-228	6.15 h	Plutonium-238	Pu-238	87.7 y
Americium-241	Am-241	432.7 y	Plutonium-239	Pu-239	2.41E4 y
Americium-243	Am-243	7.37E3 y	Plutonium-240	Pu-240	6.56E3 y
Antimony-124	Sb-124	60.2 d	Plutonium-241	Pu-241	14.4 y
Antimony-125	Sb-125	2.758 y	Plutonium-242	Pu-242	3.75E5 y
Barium-133	Ba-133	10.53 y	Potassium-40	K-40	1.28E09 y
Beryllium-7	Be-7	53.28 d	Promethium-144	Pm-144	360 d
Bismuth-212	Bi-212	2.14 m	Promethium-147	Pm-147	2.6234 y
Bismuth-214	Bi-214	19.9 m	Protactinium-231	Pa-231	3.28E4 y
Carbon-14	C-14	5,730 y	Protactinium-234	Pa-234	6.69 h
Cerium-144	Ce-144	284.6 d	Radium-226	Ra-226	1.6E3 y
Cesium-134	Cs-134	2.065 y	Radium-228	Ra-228	5.76 y
Cesium-137	Cs-137	30.17 y	Ruthenium-103	Ru-103	39.27 d
Cobalt-57	Co-57	271.8 d	Ruthenium-106	Ru-106	1.020 y
Cobalt-58	Co-58	70.88 d	Selenium-79	Se-79	6.5E4 y
Cobalt-60	Co-60	5.271 y	Sodium-22	Na-22	2.605 y
Curium-242	Cm-242	162.8 d	Strontium-89	Sr-89	50.52 d
Curium-244	Cm-244	18.1 y	Strontium-90	Sr-90	29.1 y
Curium-245	Cm-245	8.5E3 y	Strontium-89,90	Sr-89,90	29.1 y
Europium-152	Eu-152	13.48 y	Technetium-99	Tc-99	2.13E05 y
Europium-154	Eu-154	8.59 y	Thallium-208	Tl-208	3.05 m
Europium-155	Eu-155	4.71 y	Thorium-228	Th-228	1.913 y
Iodine-129	I-129	1.57E7 y	Thorium-230	Th-230	7.54E4 y
Iodine-131	I-131	8.04 d	Thorium-232	Th-232	1.40E10 y
Iodine-133	I-133	8.040 d	Thorium-234	Th-234	24.10 d
Krypton-85	Kr-85	10.73 y	Tin-126	Sn-126	1E5 y
Lead-212	Pb-212	10.64 h	Tritium	H-3	12.3 y
Lead-214	Pb-214	27 m	Uranium-233	U-233	1.592E5 y
Manganese-54	Mn-54	312.2 d	Uranium-234	U-234	2.46E5 y
Neptunium-237	Np-237	2.14E6 y	Uranium-235	U-235	7.04E8 y
Neptunium-239	Np-239	2.35 d	Uranium-236	U-236	2.342E7 y
Nickel-59	Ni-59	7.6E4 y	Uranium-238	U-238	4.47E9 y
Nickel-63	Ni-63	100 y	Zinc-65	Zn-65	243.8 d
Niobium-95	Nb-95	34.97 d	Zirconium-95	Zr-95	64.02 d

^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	Constituent	Symbol

Note: Some of the symbols listed in this table came from various databases used to format the data tables in this book and are included here to assist the reader in understanding the tables.

Aluminum.01	Al (or AL)	Particulate Matter <10 microns	PM ₁₀
Ammonia	NH ₃	Perclene	PERCL
Ammonia as Nitrogen	NH ₃ -N (or AN)	pH	PH
Antimony	Sb (or SB)	Phenol	PHE
Arsenic	As (or AS)	Phosphorus	P
Barium	Ba (or BA)	Phosphate	PO ₄ (or PO ₄ -P)
Biochemical Oxygen Demand	BOD	Phosphate as Phosphorus	Phosphate P
Benzene	BEN	Polychlorinated Biphenyl	PCB
Beryllium	Be	Potassium	K
Boron	B	Radium	Ra
Cadmium	Cd (or CD)	Rhenium	Re
Calcium	Ca	Selenium	Se (or SE)
Calcium Carbonate	CaCO ₃	Silver	Ag (or AG)
Carbon	C	Sodium	Na
Chemical Oxygen Demand	COD	Sulfate	SO ₄ (or SO ₄)
Chlorine	Cl (or CHL)	Sulfur Dioxide	SO ₂
Chromium	Cr (or CR)	Temperature	TMP (or T or TEMP)
Cobalt	Co	Tetrachloroethylene (Perchloroethylene)	PERCL
Copper	Cu (or CU)	Trichloroethylene	TRICL
Cyanide	CN	1,1,1-Trichloroethane	TCE
Dissolved Oxygen	DO	Thallium	Tl
Fecal Coliform	FEC	Tin	SN
Flow	FLO	Total Dissolved Solids	TDS
Fluorine	F	Total Kjeldahl Nitrogen	TKN
Iron	Fe (or FE)	Total Organic Carbon	TOC
Lead	Pb (or PB)	Total Organic Halogens	TOH
Lithium	Li	Total Phosphates	TPO ₄ (or Total Phos)
Magnesium	Mg (or MG)	Total Residual Chlorine	TRC
Manganese	Mn (or MN)	Total Solids	TS
Mercury	Hg (or HG)	Total Suspended Solids	TSS
Nickel	Ni (or NI)	Total Volatile Solids	TVS
Nitrogen	N	Uranium	U
Nitrate as Nitrogen	NO ₃ -N	Uranium (tested as a heavy metal)	U ₃ O ₈
Nitrite as Nitrogen	NO ₂ -N	Vanadium	V
Nitrite, Nitrate	NO ₂ , NO ₃	Volatile Organic Compound	VOC
Oil and Grease	O&G	Zinc	Zn
Oxygen	O		
Ozone	O ₃		

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/Environmental Monitoring Section sampling site
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
TC	Tinker Creek
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
TCLP	Toxicity Characteristic Leaching Procedure
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	picrocurie
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	<i>Système International</i>	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)

EPD/GIS Map

Figure 1 Radiological Sampling Locations — Air Surveillance

Figure 2 Radiological Sampling Locations — Surface Water (SRS Stream and Savannah River Water)

Figure 3 Radiological and Nonradiological Sampling Locations — Fish

Figure 4 Radiological Sampling Locations — Soil

EPD/GIS Map

Figure 5 Radiological Sampling Locations — Sediment

Figure 6 Radiological Sampling Locations — Vegetation

Figure 7 Nonradiological Sampling Locations — Liquid Effluent (NPDES)

EPD/GIS Map

Figure 8 Nonradiological Sampling Locations — Surface Water (SRS Stream and Savannah River Water)

Figure 9 Drinking Water Systems

EPD/GIS Map

Figure 10 Nonradiological Sampling Locations — SRS Stream and Savannah River Sediment

Table 1
Sample Media Information

Page 1 of 4

Matrix	Analytical Parameter	Representative Aliquot ^a
Surveillance Air		
<i>On site</i>	Gamma	3000 m ³ /746 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)/746 m ³
	Plutonium-238,239	1500 m ³ (1/2 sample)/746 m ³
<i>Site perimeter</i>	Gamma	10000 m ³ /746 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)/746 m ³
	Plutonium-238,239	5000 m ³ (1/2 sample)/746 m ³
<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)/746 m ³
	Plutonium-238,239	373 m ³ (1/2 sample)/746 m ³
<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)/746 m ³
	Plutonium-238,239	373 m ³ (1/2 sample)/746 m ³

^a EMS air surveillance program analytical protocols for gamma, strontium-89,90, and plutonium-238,239 were changed to 746 m³ in April 1998.

Table 1
Sample Media Information

Page 2 of 4

Matrix	Analytical Parameter	Representative Aliquot
Effluent Water	Gamma	1 L
	Gross alpha	1 L
	Gross beta	1 L
	Tritium	5 mL
	Strontium-89,90	1 L
	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
	Actinides	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)

Table 1
Sample Media Information

Page 3 of 4

Matrix	Analytical Parameter	Representative Aliquot
Wet/Dry Deposition (Rainwater), cont.		
	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)
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	10 g
	Actinides	10 g
Fish		
<i>Edible</i>	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

Table 1
Sample Media Information

Page 4 of 4

Matrix	Analytical Parameter	Representative Aliquot
Fish, cont.		
<i>Nonedible</i>	Gamma	200 g
	Gross alpha	0.5 g
	Gross beta	0.5 g
	Strontium-89,90	25 g
<i>Panfish</i>	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		
<i>Muscle</i>	Gamma	200 g
	Strontium-89,90	100 g
<i>Bone</i>	Strontium-89,90	1 g
Oysters/Crabs		
	Gamma	200 g
	Gross alpha	0.5 g
	Gross beta	0.5 g
	Strontium-89,90	100 g
Foods		
	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) are calculated at the 95-percent confidence level using instrument background measurements and typical detector efficiencies, decay times, and counting intervals. Chemical recoveries and air filter collection efficiencies are assumed to be 100 percent, except for Pu, U, Am, and Cm species for which typical chemical recoveries are used. 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 ^a	Site Perimeter Air ^a	25-Mile Radius Air ^a	Savannah Air ^a
	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-02/5.63E-02	4.30E-03/5.76E-02	5.70E-02	5.70E-02
K-40	3.50E-02/1.41E-01	1.00E-02/1.34E-01	1.40E-01	1.40E-01
Co-58	2.60E-03/1.05E-02	7.70E-04/1.03E-02	1.00E-02	1.00E-02
Co-60	2.60E-03/1.05E-02	8.00E-04/1.07E-02	1.10E-02	1.10E-02
Ru-103	2.50E-03/1.01E-02	7.60E-04/1.02E-02	1.00E-02	1.00E-02
Ru-106	2.20E-02/8.85E-02	6.50E-03/8.71E-02	8.80E-02	8.80E-02
I-131	4.10E-03/1.65E-02	1.20E-03/1.61E-02	1.60E-02	1.60E-02
Cs-134	2.10E-03/8.44E-03	6.30E-04/8.45E-03	8.40E-03	8.40E-03
Cs-137	2.00E-03/8.04E-03	6.10E-04/8.18E-03	8.20E-03	8.20E-03
Ce-141	2.90E-03/1.17E-02	8.60E-04/1.15E-02	1.20E-02	1.20E-02
Ce-144	8.10E-03/3.26E-02	2.40E-03/3.22E-02	3.30E-02	3.30E-02
Sr-89,90	9.20E-04/1.85E-03	2.80E-04/1.85E-03	3.70E-03/1.85E-03	3.70E-03/1.85E-03
Sr-90				
U-234				
U-235				
U-238				
Pu-238	1.39E-05/2.79E-05	4.17E-06/2.79E-05	5.59E-05/2.79E-05	5.59E-05/2.79E-05
Pu-239	1.40E-05/2.82E-05	4.20E-06/2.82E-05	5.63E-05/2.82E-05	5.63E-05/2.82E-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				

^a EMS air surveillance program analytical protocols for gamma, strontium-89,90, and plutonium-238,239 were changed to 746 m³ in April 1998.

Table 2
Representative Minimum Detectable Concentrations for Radiological Analyses

Page 2 of 6

Nuclide	Rainwater ^a	Stream/Effluent Water	River Water
	pCi/m ²	pCi/L	pCi/L
H-3	1.23E+03	1.20E+03	4.40E+02
Be-7	1.70E+02	4.70E+01	1.10E+01
K-40	4.10E+02	1.30E+01	2.50E+01
Co-58	3.00E+01	7.40E+00	1.20E+00
Co-60	3.20E+01	9.10E+00	1.90E+00
Ru-103	2.80E+01	6.70E+00	1.30E+00
Ru-106	2.80E+02	5.90E+01	1.10E+01
I-131	7.20E+01	1.60E+01	2.30E+00
Cs-134	2.70E+01	5.80E+00	1.30E+00
Cs-137	2.60E+01	7.10E+00	1.40E+00
Ce-141	3.60E+01	8.50E+00	1.50E+00
Ce-144	1.30E+02	2.90E+01	5.90E+00
Sr-89,90	4.50E+01	1.40E+00 ^b	1.40E+00
Sr-90			
U-234		2.80E-02	
U-235		1.00E-02	
U-238		4.60E-02	
Pu-238	6.40E-01	8.56E-03	1.92E-02
Pu-239	6.80E-01	8.00E-03	2.10E-02
Am-241		8.87E-03	
Cm-244		7.80E-03	
Gross alpha	8.60E+00	8.00E-01	8.00E-01
Gross beta	1.50E+01	1.40E+00	1.40E+00
Total activity			

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

b The SR-89,90 value is for a 1-liter sample.

Table 2
Representative Minimum Detectable Concentrations for Radiological Analyses

Page 3 of 6

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				2.60E-03
U-235				1.00E-03
U-238				4.60E-03
Pu-238			1.96E-03	4.00E-03
Pu-239			1.90E-03	4.20E-03
Am-241				8.90E-04
Cm-244				7.80E-04
Gross alpha		8.00E-01	8.00E+00	1.60E+00
Gross beta		1.40E+00	1.40E+01	2.90E+00
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	5.72E-02	5.72E-02	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	2.00E-04
Pu-239	1.00E-04	1.00E-04	1.00E-04	2.10E-04
Am-241				
Cm-244				
Gross alpha			9.54E-01	5.30E-01
Gross beta			1.83E-01	9.5E-01
Total activity				

Table 2
Representative Minimum Detectable Concentrations for Radiological Analyses

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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	5.60E-02	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	0.001
Total organic carbon(TOC)	mg/L	1.0	0.1
Metals			
Aluminum (Al)	mg/L	0.05	0.001
Cadmium (Cd)	mg/L	0.002	0.001
Calcium (Ca)	mg/L	0.05	0.001
Chromium (Cr)	mg/L	0.005	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
Silver (Ag)	mg/L	0.005	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

Table 3
Nonradiological Environmental Surveillance Detection/Report Limits

Page 2 of 2

Parameter	Units	Quantitation Value	Report Value Round to the nearest:
Pesticides (cont.)			
Delta-BHC	µg/L	0.05	0.001
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
Vinyl Chloride	µg/L	2.0	0.1
1,2-cis-Dichloroethylene	µg/L	2.0	0.1

Table 4
Radioactive Atmospheric Releases by Source

Page 1 of 3

Radio-nuclide	Curies ^a						Total
	Reactors	Separations ^b	Reactor Materials	Heavy Water	SRTC ^c	Diffuse and Fugitive ^d	
<i>Note: Blank spaces indicate no quantifiable activity.</i>							
GASES AND VAPORS							
H-3(oxide)	2.28E+04	3.45E+04		4.04E+02		9.31E+02	5.86E+04
H-3(elem.)		2.41E+04					2.41E+04
H-3 Total	2.28E+04	5.86E+04		4.04E+02		9.31E+02	8.27E+04
C-14		7.01E-02				9.68E-05	7.02E-02
Kr-85		1.70E+04					1.70E+04
Xe-135		4.95E-02					4.95E-02
I-129		1.25E-02				1.29E-05	1.25E-02
I-131		5.92E-05			8.29E-06		6.75E-05
I-133					1.59E-04		1.59E-04
PARTICULATES							
Na-22						7.76E-11	7.76E-11
Cr-51						1.21E-04	1.21E-04
Fe-55						3.90E-04	3.90E-04
Co-57						9.40E-11	9.40E-11
Co-58						1.27E-04	1.27E-04
Co-60					2.65E-07	1.38E-04	1.38E-04
Ni-59						8.33E-13	8.33E-13
Ni-63						8.21E-06	8.21E-06
Zn-65						2.23E-05	2.23E-05
Se-79						1.85E-11	1.85E-11
Sr-89,90 ^{e,f}	1.62E-03	3.22E-04	5.05E-04	2.61E-04	2.66E-05	2.58E-02	2.85E-02
Zr-95						1.71E-05	1.71E-05
Nb-95						1.13E-04	1.13E-04
Tc-99						2.82E-05	2.82E-05
Ru-103						2.26E-05	2.26E-05
Ru-106		1.08E-05				2.26E-05	3.34E-05
Sn-126						1.29E-13	1.29E-13

^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

^f Includes Sr-89

Table 4
Radioactive Atmospheric Releases by Source

Page 2 of 3

Radio-nuclide	Curies ^a						Total
	Reactors	Separations ^b	Reactor Materials	Heavy Water	SRTC ^c	Diffuse and Fugitive ^d	
Sb-125		1.79E-07				5.27E-05	5.29E-05
Cs-134		2.32E-07				1.31E-04	1.31E-04
Cs-137	3.50E-05	3.77E-04			2.30E-06	4.89E-03	5.30E-03
Ce-141						4.16E-05	4.16E-05
Ce-144						1.45E-04	1.45E-04
Pm-147						9.79E-10	9.79E-10
Eu-152						4.19E-08	4.19E-08
Eu-154						5.74E-06	5.74E-06
Eu-155						1.10E-06	1.10E-06
Ra-226						8.64E-06	8.64E-06
Ra-228						2.13E-05	2.13E-05
Th-228						9.44E-06	9.44E-06
Th-230						1.02E-05	1.02E-05
Th-232						7.51E-07	7.51E-07
Pa-231						1.00E-09	1.00E-09
U-232			1.20E-06				1.20E-06
U-233						2.35E-06	2.35E-06
U-234		2.62E-05	3.39E-05			1.83E-05	7.84E-05
U-235		1.57E-06	6.21E-06			2.10E-06	9.88E-06
U-236						2.39E-09	2.39E-09
U-238		6.92E-05	6.32E-05			5.12E-05	1.84E-04
Np-237						1.01E-09	1.01E-09
Pu-238		1.15E-04	4.76E-08			3.28E-04	4.43E-04
Pu-239 ^e	2.19E-04	1.12E-04	5.09E-05	2.98E-05	6.71E-06	1.41E-03	1.83E-03
Pu-240						1.12E-06	1.12E-06
Pu-241						6.02E-05	6.02E-05
Pu-242						1.59E-07	1.59E-07
Am-241		3.31E-05	2.17E-08			5.75E-06	3.89E-05
Am-243						1.89E-05	1.89E-05
Cm-242						1.58E-07	1.58E-07

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	Curies ^a					Diffuse and Fugitive ^d	Total
	Reactors	Separations ^b	Reactor Materials	Heavy Water	SRTC ^c		
Cm-244		3.67E-06	4.90E-09			1.30E-04	1.34E-04
Cm-245						2.08E-13	2.08E-13
Cm-246						9.37E-07	9.37E-07
Cf-249						5.27E-16	5.27E-16
Cf-251						2.17E-14	2.17E-14

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 1998 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1998 ($\mu\text{Ci/mL}$)	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	2.65E-01	9.32E+14	2.84E-16	8.0E-11
	I-131	8.17E+00	9.32E+14	8.77E-15	4.0E-10
	I-133	1.59E+02	9.32E+14	1.71E-13	2.0E-09
776-A Stack	I-131	1.17E-01	1.75E+14	6.69E-16	4.0E-10
	Cs-137	2.30E+00	1.75E+14	1.31E-14	4.0E-10
C-Area (C-Reactor)					
728-N					
105-C Crane Maint. Dec Exhaust	Cs-137	5.36E-02	1.81E+13	2.96E-15	4.0E-10
105-C Stack Decon Exhaust ^{NO TAG}					
Port. CO2 Blast. Decon Exhaust ^{NO TAG}					
C-Area Main Stack (148ft)	H-3(oxide)	3.56E+08	9.02E+14	3.95E-07 ^b	1.0E-07
D-Area (Heavy Water Rework)					
420-D Stack	H-3(oxide)	3.47E+08	2.37E+14	1.47E-06 ^b	1.0E-07
421-2D Stack	H-3(oxide)	1.33E+07	1.57E+14	8.49E-08	1.0E-07
772-D Stack	H-3(oxide)	4.37E+07	2.70E+14	1.62E-07 ^b	1.0E-07
F-Area (Separations and Waste Management)					
235-F Sandfilter Discharge	U-234	5.47E-01	5.53E+14	9.89E-16	9.0E-14
	U-235	2.77E-02	5.53E+14	5.01E-17	1.0E-13
	U-238	5.62E-01	5.53E+14	1.02E-15	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.

b Exceeds DCG

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 1998 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1998 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
241-F Miscellaneous Exhaust	Pu-239	1.08E-02	5.53E+14	1.95E-17	2.0E-14
	Am-241	1.87E-02	5.53E+14	3.38E-17	2.0E-14
	Cm-244	1.21E-02	5.53E+14	2.19E-17	4.0E-14
	Cs-137	4.99E-01	2.38E+13	2.10E-14	4.0E-10
	Cs-137	1.69E+01	4.53E+13	3.73E-13	4.0E-10
	Cs-137	5.52E+00	2.06E+14	2.68E-14	4.00E-10
	Sr-89,90	3.78E+01	3.31E+15	1.14E-14	9.0E-12
	I-131	9.27E+00	3.31E+15	2.80E-15	4.0E-10
	Xe-135	4.95E+04	3.31E+15	1.50E-11	8.0E-08
	Cs-137	4.04E+01	3.31E+15	1.22E-14	4.0E-10
291-F Stack ^b	U-234	1.04E+01	3.31E+15	3.13E-15	9.0E-14
	U-235	1.28E+00	3.31E+15	3.87E-16	1.0E-13
	U-238	2.97E+01	3.31E+15	8.96E-15	1.0E-13
	Pu-238	3.54E+00	3.31E+15	1.07E-15	3.0E-14
	Pu-239	5.18E+01	3.31E+15	1.56E-14	2.0E-14
	Am-241	5.02E+00	3.31E+15	1.51E-15	2.0E-14
	Cm-244	1.79E+00	3.31E+15	5.39E-16	4.0E-14
	Ru-106	5.08E-01	8.20E+12	6.20E-14	3.0E-11
	Cs-137	6.79E+00	8.20E+12	8.28E-13	4.0E-10
	Am-241	3.13E-01	8.20E+12	3.82E-14 ^c	2.0E-14
6.1D	Ru-106	1.03E+01	2.25E+12	4.58E-12	3.0E-11
	Sb-125	1.79E-01	2.25E+12	7.96E-14	1.0E-09
	Cs-137	1.26E+00	2.25E+12	5.60E-13	4.0E-10
	Am-241	2.05E+01	2.25E+12	9.11E-12 ^c	2.0E-14
	U-234	4.38E-02	2.23E+15	1.96E-17	9.0E-14
772-1F					
772-4F					

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

c Exceeds DCG

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 1998 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1998 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
800 Cell Stack Exhaust (211-F)	U-238	8.08E-02	2.23E+15	3.62E-17	1.0E-13
	Pu-238	2.25E-03	2.23E+15	1.01E-18	3.0E-14
	Pu-239	9.82E-03	2.23E+15	4.40E-18	2.0E-14
	Am-241	6.19E-03	2.23E+15	2.78E-18	2.0E-14
	Sr-89,90	2.00E+00	8.92E+13	2.24E-14	9.0E-12
A-Line F Stack (221-1F)	Cs-137	3.12E+00	8.92E+13	3.49E-14	4.0E-10
	U-234	1.31E+00	3.56E+13	3.68E-14	9.0E-14
	U-235	8.29E-02	3.56E+13	2.33E-15	1.0E-13
	U-238	1.86E+00	3.56E+13	5.22E-14	1.0E-13
	Pu-238	5.14E-02	3.56E+13	1.44E-15	3.0E-14
	Pu-239	3.46E-01	3.56E+13	9.70E-15	2.0E-14
	Am-241	6.13E-02	3.56E+13	1.72E-15	2.0E-14
	Cm-244	1.45E-01	3.56E+13	4.08E-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)	1.71E+10	1.33E+15	1.29E-05	2.0E-02
	H-3(oxide)	9.13E+09	1.33E+15	6.85E-06 ^b	1.0E-07
232-H Line 3 Stack (200ft)	H-3(el)	2.68E+08	2.46E+14	1.09E-06	2.0E-02
	H-3(oxide)	4.30E+09	2.46E+14	1.75E-05 ^b	1.0E-07
233-H	H-3(el)	2.10E+08	1.06E+15	1.98E-07	2.0E-02
	H-3(oxide)	3.77E+08	1.06E+15	3.56E-07 ^b	1.0E-07
234-H	H-3(el)	3.77E+09	1.77E+15	2.13E-06	2.0E-02
	H-3(oxide)	2.03E+10	1.77E+15	1.15E-05 ^b	1.0E-07
238-H	H-3(el)	2.72E+09	4.46E+14	6.09E-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.

^b Exceeds DCG

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 1998 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1998 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
241-H Miscellaneous Exhaust	Cs-137	1.90E+01	3.58E+14	5.32E-14	4.0E-10
241-H Purge Exhaust	Cs-134	2.32E-01	1.08E+14	2.15E-15	2.0E-10
	Cs-137	2.10E+02	1.08E+14	1.94E-12	4.0E-10
241-H Tank Annulus Exhaust	Cs-137	2.96E+01	7.22E+14	4.11E-14	4.0E-10
244-H Vessel Vent Exhaust	Cs-137	1.30E+00	6.43E+12	2.02E-13	4.0E-10
261-H (Off Gas)	Cs-137	3.18E+01	1.21E+14	2.63E-13	4.0E-10
	U-234	6.30E-01	1.21E+14	5.21E-15	9.0E-14
	U-235	8.00E-02	1.21E+14	6.61E-16	1.0E-13
	U-238	7.56E-01	1.21E+14	6.25E-15	1.0E-13
	Pu-238	9.68E+00	1.21E+14	8.00E-14 ^b	3.0E-14
	Pu-239	3.76E+00	1.21E+14	3.11E-14 ^b	2.0E-14
	Am-241	1.60E+00	1.21E+14	1.32E-14	2.0E-14
	Cm-244	8.70E-03	1.21E+14	7.19E-17	4.0E-14
291-H Stack ^c	Sr-89,90	8.79E+00	3.99E+15	2.20E-15	9.0E-12
	I-131	4.99E+01	3.99E+15	1.25E-14	4.0E-10
	Cs-137	1.06E+01	3.99E+15	2.65E-15	4.0E-10
	U-234	4.16E-02	3.99E+15	1.04E-17	9.0E-14
	U-235	1.04E-02	3.99E+15	2.59E-18	1.0E-13
	U-238	1.16E-01	3.99E+15	2.90E-17	1.0E-13
	Pu-238	9.68E+01	3.99E+15	2.42E-14	3.0E-14
	Pu-239	1.08E+01	3.99E+15	2.71E-15	2.0E-14
	Am-241	1.10E+00	3.99E+15	2.77E-16	2.0E-14
	Cm-244	1.35E+00	3.99E+15	3.39E-16	4.0E-14
299-H (Building & HP Hood)					

^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 Exceeds DCG

^c 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 1998 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1998 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
K-Area (K-Reactor)					
K-Area Disassembly	Cs-137	3.44E+01	1.88E+15	1.83E-14	4.0E-10
K-Area Main Stack (148ft)	H-3(oxide)	1.12E+09	2.62E+15	4.27E-07 ^b	1.0E-07
L-Area (L-Reactor)					
L-Area Disassembly	Cs-137	3.27E-01	1.20E+15	2.73E-16	4.0E-10
L-Area Main Stack (148ft)	H-3(oxide)	6.40E+08	1.74E+15	3.68E-07 ^b	1.0E-07
	Cs-137	2.23E-01	1.74E+15	1.28E-16	4.0E-10
M-Area (Reactor Materials)					
313-M Stacks	U-234	4.31E-04	4.53E+12	9.52E-17	9.0E-14
	U-238	4.34E-04	4.53E+12	9.58E-17	1.0E-13
321-M Machining Room Stack	U-234	1.66E+01	5.34E+13	3.11E-13 ^b	9.0E-14
	U-235	3.46E+00	5.34E+13	6.48E-14	1.0E-13
	U-238	4.02E-01	5.34E+13	7.53E-15	1.0E-13
	Pu-238	5.82E-03	5.34E+13	1.09E-16	3.0E-14
	Am-241	1.06E-02	5.34E+13	1.99E-16	2.0E-14
	Cm-244	2.66E-03	5.34E+13	4.98E-17	4.0E-14
	U-234	3.12E+00	5.33E+14	5.85E-15	9.0E-14
321-M Stacks	U-235	5.13E-01	5.33E+14	9.63E-16	1.0E-13
	U-238	8.03E-01	5.33E+14	1.51E-15	1.0E-13
	Pu-238	2.92E-02	5.33E+14	5.48E-17	3.0E-14
	Pu-239	4.90E-03	5.33E+14	9.21E-18	2.0E-14
	Am-241	6.71E-03	5.33E+14	1.26E-17	2.0E-14
	U-232	1.20E+00	4.58E+13	2.62E-14 ^b	2.0E-14
M-Area VTF	U-234	1.42E+01	4.58E+13	3.10E-13 ^b	9.0E-14
	U-235	2.24E+00	4.58E+13	4.89E-14	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.

b Exceeds DCG

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 1998 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1998 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
	U-238	6.20E+01	4.58E+13	1.35E-12 ^b	1.0E-13
	Pu-238	1.26E-02	4.58E+13	2.75E-16	3.0E-14
	Pu-239	7.10E-03	4.58E+13	1.55E-16	2.0E-14
	Am-241	4.36E-03	4.58E+13	9.52E-17	2.0E-14
	Cm-244	2.24E-03	4.58E+13	4.89E-17	4.0E-14
P-Area (P-Reactor)					
P-Area Main Stack (148ft)	H-3(oxide)	2.07E+10	2.10E+15	9.86E-06	1.0E-07
S-Area (Defense Waste Processing Facility)					
221-S Personnel Area (Zone 2)	U-234	3.80E-01	8.64E+14	2.20E-17	9.0E-14
	U-235	7.50E-03	8.64E+14	8.68E-18	1.0E-13
	U-238	1.23E+00	8.64E+14	1.42E-15	1.0E-13
	Pu-238	2.80E-01	8.64E+14	3.24E-16	3.0E-14
	Pu-239	8.12E-03	8.64E+14	9.40E-18	2.0E-14
	Am-241	6.18E-02	8.64E+14	7.15E-17	2.0E-14
	Cm-244	6.30E-02	8.64E+14	7.29E-17	4.0E-14
250-S Glass Waste Bldg #1488	U-234	4.32E+00	9.35E+14	2.31E-16	9.0E-14
	U-235	3.06E-03	9.35E+14	3.27E-18	1.0E-13
	U-238	1.56E+01	9.35E+14	1.67E-14	1.0E-13
	Pu-238	1.49E-02	9.35E+14	1.59E-17	3.0E-14
	Pu-239	1.21E-02	9.35E+14	1.29E-17	2.0E-14
	Am-241	3.36E+00	9.35E+14	3.59E-15	2.0E-14
250-S Glass Waste Bldg #1509	Sr-89,90	7.96E-01	9.01E+14	8.83E-16	9.0E-12
	U-234	5.22E+00	9.01E+14	5.79E-15	9.0E-14
	U-235	1.09E-05	9.01E+14	1.21E-20	1.0E-13
	U-238	1.37E+01	9.01E+14	1.52E-14	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.

b Exceeds DCG

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 1998 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1998 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
250-S Glass Waste Bldg #3928	Pu-238	2.36E+00	9.01E+14	2.62E-15	3.0E-14
	Pu-239	1.09E-02	9.01E+14	1.21E-17	2.0E-14
	Am-241	3.20E-02	9.01E+14	3.55E-17	2.0E-14
	Cm-244	1.65E-02	9.01E+14	1.83E-17	4.0E-14
	U-234	4.34E-01	2.36E+14	1.83E-15	9.0E-14
	U-238	2.98E+00	2.36E+14	1.26E-14	1.0E-13
	Pu-238	5.74E-01	2.36E+14	2.43E-15	3.0E-14
	Pu-239	1.35E-02	2.36E+14	5.72E-17	2.0E-14
250-S Glass Waste Bldg #3940	Am-241	8.32E-01	2.36E+14	3.53E-15	2.0E-14
	U-234	4.02E-01	8.41E+13	4.78E-15	9.0E-14
	U-235	8.46E-03	8.41E+13	1.01E-16	1.0E-13
	U-238	1.89E-01	8.41E+13	2.25E-15	1.0E-13
	Pu-238	1.28E-02	8.41E+13	1.52E-16	3.0E-14
	Pu-239	9.38E-04	8.41E+13	1.12E-17	2.0E-14
	Am-241	2.72E-03	8.41E+13	3.32E-17	2.0E-14
	Cm-244	1.92E-03	8.41E+13	2.28E-17	4.0E-14
291-S Vit. Process (Zone 1)	U-234	2.22E+00	1.63E+15	1.36E-15	9.0E-14
	U-235	5.84E-02	1.63E+15	3.58E-17	1.0E-13
	U-238	2.16E+00	1.63E+15	1.33E-15	1.0E-13
	Pu-238	1.46E+00	1.63E+15	8.96E-16	3.0E-14
	Pu-239	4.84E-02	1.63E+15	2.97E-17	2.0E-14
	Am-241	1.56E-01	1.63E+15	9.57E-17	2.0E-14
	Cm-244	2.76E-01	1.63E+15	1.69E-16	4.0E-14
	U-234	2.08E-01	2.47E+14	8.42E-16	9.0E-14
511-S Low Pt. Pump Pit	U-235	6.68E-03	2.47E+14	2.70E-17	1.0E-13
	U-238	2.24E-01	2.47E+14	9.07E-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

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Stack/Facility	Radionuclide	Quantity Released During 1998 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1998 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
	Pu-238	5.04E-02	2.47E+14	2.04E-16	3.0E-14
	Am-241	3.92E-02	2.47E+14	1.59E-16	2.0E-14
	Cm-244	5.94E-03	2.47E+14	2.40E-17	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)

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Radio-nuclide	Curies ^a					Total
	Reactors	Separations ^b	Reactor Materials	Heavy Water/TNX	Savannah River Technology Center	
<i>Note: Blank spaces indicate no quantifiable activity.</i>						
H-3 (oxide)	3.44E+03	6.75E+03		3.98E+02	1.52E+00	1.06E+04
Sr-89,90 ^c	2.21E-02	2.78E-01	3.25E-03	3.22E-03	4.24E-03	3.11E-01
I-129		7.82E-02				7.82E-02 ^d
Cs-134		1.01E-04				1.01E-04
Cs-137	1.16E-02	1.82E-01				1.93E-01 ^e
U-234	6.70E-03	3.99E-02	7.02E-06	9.20E-06	8.48E-05	4.67E-02
U-235	7.16E-05	1.70E-03	4.17E-06	4.30E-07	2.83E-06	1.78E-03
U-238	5.09E-03	4.78E-02	5.38E-05	2.39E-05	7.83E-05	5.30E-02
Pu-238	4.90E-04	9.80E-04	3.19E-06	2.59E-06	1.47E-05	1.49E-03
Pu-239 ^f	1.36E-03	2.78E-02	2.38E-03	1.70E-03	4.41E-03	3.76E-02
Am-241		3.93E-06	1.34E-05			1.73E-05
Cm-244		2.36E-06				2.36E-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 and 1998 from the Savannah River Technology Laboratory. This value was measured in 1996.

e For conservatism, the higher release number (2.24E-01) calculated from River Mile 120 fish concentrations was used for dose calculations (chapter 7, "Potential Radiation Doses," *SRS Environmental Report for 1998* (WSRC-TR-98-00312)).

f Includes unidentified alpha emissions

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

Page 1 of 5

Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1998 (Ci)	Average Effluent Concentration During 1998 ($\mu\text{Ci/mL}$)	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	1.52E+00	1.98E-06	2.00E-03	9.91E-04
	Cs-137	Below MDL	3.46E-10	3.00E-06	1.15E-04
	U-234	8.48E-05	1.24E-10	6.00E-07	2.06E-04
	U-235	2.83E-06	6.00E-12	6.00E-07	1.00E-05
	U-238	7.83E-05	1.18E-10	6.00E-07	1.96E-04
	Pu-238	1.47E-05	1.06E-11	4.00E-08	2.66E-04
	Pu-239	8.79E-07	1.65E-12	3.00E-08	5.50E-05
Sum of Fractions —					1.84E-03
D-Area (Heavy Water Rework)					
400-D Effluent Discharge	H-3	3.98E+02	3.97E-05	2.00E-03	1.99E-02
	Sr-89,90	Below MDL	-5.70E-12	1.00E-06	0.00E+00
	Cs-137	Below MDL	6.26E-10	3.00E-06	2.09E-04
Sum of Fractions —					2.01E-02
F-Area (Separations and Waste Management)					
F-01	H-3	1.07E-01	2.90E-07	2.00E-03	1.45E-04
	Sr-89,90	Below MDL	-1.77E-10	1.00E-06	0.00E+00
	Cs-137	Below MDL	-7.75E-11	3.00E-06	0.00E+00
Sum of Fractions —					1.45E-04
F-012 281-8F Retention Basin	H-3	5.87E-01	9.53E-06	2.00E-03	4.76E-03
	Sr-89,90	2.16E-04	3.82E-09	1.00E-06	3.82E-03
	Cs-137	1.00E-02	9.48E-08	3.00E-06	3.16E-02
Sum of Fractions —					4.02E-02
F-013 200-F Cooling Basin	H-3	3.09E-02	-2.28E-07	2.00E-03	0.00E+00
	Sr-89,90	1.10E-03	1.12E-08	1.00E-06	1.12E-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
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Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1998 (Ci)	Average Effluent Concentration During 1998 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
FM-3 F-Area Effluent	Cs-137	2.20E-03	2.84E-08	3.00E-06	9.46E-03
	Sum of Fractions —				2.07E-02
	H-3	1.19E+00	7.12E-07	2.00E-03	3.56E-04
	Sr-89,90	3.19E-03	1.85E-09	1.00E-06	1.85E-03
	Cs-137	5.61E-03	4.15E-09	3.00E-06	1.38E-03
U3R-2 F Storm Sewer	Sum of Fractions —				3.59E-03
	H-3	2.17E-01	1.14E-06	2.00E-03	5.71E-04
	Sr-89,90	Below MDL	2.39E-10	1.00E-06	2.39E-04
	Cs-137	Below MDL	2.07E-10	3.00E-06	6.90E-05
	U-234	4.29E-05	2.10E-10	6.00E-07	3.51E-04
	U-235	3.88E-06	1.92E-11	6.00E-07	3.20E-05
	U-238	1.35E-04	5.59E-10	6.00E-07	9.32E-04
	Pu-238	7.02E-06	4.37E-11	4.00E-08	1.09E-03
	Pu-239	3.92E-06	2.78E-11	3.00E-08	9.25E-04
	Am-241	3.68E-06	2.25E-11	3.00E-08	7.50E-04
	Cm-244	2.31E-06	9.69E-12	6.00E-08	1.62E-04
U3RF-3 Naval Fuels Effluent	Sum of Fractions —				5.12E-03
	H-3	1.56E-01	3.03E-06	2.00E-03	1.52E-03
	Sr-89,90	Below MDL	1.95E-10	1.00E-06	1.95E-04
	Cs-137	Below MDL	3.86E-10	3.00E-06	1.29E-04
	U-234	1.29E-05	3.92E-10	6.00E-07	6.53E-04
	U-235	3.56E-07	1.50E-11	6.00E-07	2.51E-05
	U-238	3.96E-06	1.07E-10	6.00E-07	1.78E-04
	Pu-238	1.99E-07	8.97E-12	4.00E-08	2.24E-04
	Pu-239	1.01E-07	7.21E-12	3.00E-08	2.40E-04
	Am-241	2.46E-07	7.90E-12	3.00E-08	2.63E-04

^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 1998 (Ci)	Average Effluent Concentration During 1998 (μCi/mL)	DOE DCGs ^a (μCi/mL)	Fraction of DOE DCG
	Cm-244	5.09E-08	1.68E-12	6.00E-08	2.80E-05
				Sum of Fractions —	3.45E-03
H-Area (Separations and Waste Management)					
FM-1C H-Area Effluent	H-3	4.74E+00	9.57E-06	2.00E-03	4.79E-03
	Sr-89,90	2.55E-04	1.04E-09	1.00E-06	1.04E-03
	Cs-137	1.36E-02	1.28E-08	3.00E-06	4.26E-03
				Sum of Fractions —	1.01E-02
H-004	H-3	3.12E-01	1.37E-05	2.00E-03	6.86E-03
	Sr-89,90	Below MDL	2.22E-10	1.00E-06	2.22E-04
	Cs-137	Below MDL	3.93E-10	3.00E-06	1.31E-04
	U-234	3.27E-06	9.08E-11	6.00E-07	1.51E-04
	U-235	1.95E-07	7.40E-12	6.00E-07	1.23E-05
	U-238	1.28E-06	3.44E-11	6.00E-07	5.74E-05
	Pu-238	7.36E-07	1.28E-11	4.00E-08	3.21E-04
	Pu-239	1.40E-07	4.02E-12	3.00E-08	1.34E-04
			Sum of Fractions —	7.88E-03	
H-017 281-8H Retention Basin	H-3	4.16E-01	1.46E-05	2.00E-03	7.32E-03
	Sr-89,90	1.16E-03	1.64E-08	1.00E-06	1.64E-02
	Cs-134	7.96E-05	7.53E-09	2.00E-06	3.76E-03
	Cs-137	2.01E-02	3.52E-07	3.00E-06	1.17E-01
			Sum of Fractions —	1.45E-01	
H-018 200-H Cooling Basin	H-3	7.37E-01	1.12E-05	2.00E-03	5.58E-03
	Sr-89,90	2.61E-03	3.27E-08	1.00E-06	3.27E-02
	Cs-134	2.09E-05	1.26E-08	2.00E-06	6.30E-03
	Cs-137	2.54E-02	5.16E-07	3.00E-06	1.72E-01
			Sum of Fractions —	2.16E-01	

^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
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Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1998 (Ci)	Average Effluent Concentration During 1998 (μCi/mL)	DOE DCGs ^a (μCi/mL)	Fraction of DOE DCG
HP-15 Tritium Facility Outfall	H-3	5.44E-01	1.64E-05	2.00E-03	8.19E-03
	Sr-89,90	4.84E-07	1.26E-10	1.00E-06	1.26E-04
	Cs-137	Below MDL	2.52E-10	3.00E-06	8.40E-05
	Sum of Fractions —				2.45E-03
HP-52 H-Area Tank Farm	H-3	2.51E+00	2.51E-06	2.00E-03	1.26E-03
	Sr-89,90	Below MDL	3.27E-10	1.00E-06	3.27E-04
	Cs-137	2.67E-04	2.61E-09	3.00E-06	8.70E-04
U3R-2A ETF Outfall at Road C	H-3	5.67E+02	6.49E-03	2.00E-03	3.25E+00
	Sr-89,90	Below MDL	2.78E-09	1.00E-06	2.78E-03
	Cs-137	4.95E-02	5.24E-07	3.00E-06	1.75E-01
	Sum of Fractions —				3.42E+00 ^b
K-Area (K-Reactor)					
K Canal	H-3	7.02E-01	1.43E-06	2.00E-03	7.13E-04
	Sr-89,90	Below MDL	1.33E-10	1.00E-06	1.33E-04
	Cs-137	Below MDL	4.53E-10	3.00E-06	1.51E-04
	Sum of Fractions —				9.96E-04
L-Area (L-Reactor)					
L-07	H-3	3.34E+00	4.88E-07	2.00E-03	2.44E-04
	Sr-89,90	Below MDL	1.34E-10	1.00E-06	1.34E-04
	Cs-137	Below MDL	1.32E-10	3.00E-06	4.39E-05
	Sum of Fractions —				4.22E-04
M-Area (Reactor Materials)					
TB-3 M-Area Effluent at Road D	Cs-137	Below MDL	6.13E-10	3.00E-06	2.04E-04
	U-234	7.02E-06	-1.42E-11	6.00E-07	0.00E+00

^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.

^b Sum of fractions is greater than 1. For more detail, refer to chapter 5, page 75, of the *SRS Environmental Report for 1998* (WSRC-TR-98-00312).

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 1998 (Ci)	Average Effluent Concentration During 1998 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
	U-235	4.17E-06	7.38E-12	6.00E-07	1.23E-05
	U-238	5.38E-05	2.59E-11	6.00E-07	4.32E-05
	Pu-238	3.19E-06	-4.66E-12	4.00E-08	0.00E+00
	Am-241	1.34E-05	8.10E-12	3.00E-08	2.70E-04
				Sum of Fractions —	5.30E-04
P-Area (P-Reactor)					
105-R Sumps	H-3	1.96E+00	3.57E-04	2.00E-03	1.78E-01
	Sr-89,90	4.09E-05	5.40E-08	1.00E-06	5.40E-02
	Cs-137	7.48E-04	1.86E-07	3.00E-06	6.21E-02
				Sum of Fractions —	2.95E-01
S-Area (DWPF)					
S-004	H-3	6.82E-01	1.82E-05	2.00E-03	9.10E-03
	Sr-89,90	Below MDL	4.77E-11	1.00E-06	4.77E-05
	Cs-137	Below MDL	5.23E-10	3.00E-06	1.74E-04
	U-234	5.32E-07	2.82E-11	6.00E-07	4.70E-05
	U-235	2.79E-08	6.60E-13	6.00E-07	1.10E-06
	U-238	5.88E-07	2.62E-11	6.00E-07	4.36E-05
	Pu-238	1.30E-06	3.33E-11	4.00E-08	8.33E-04
				Sum of Fractions —	1.03E-02
TNX Area					
TNX-008	H-3	2.62E-01	6.89E-07	2.00E-03	3.45E-04
	Cs-137	Below MDL	-2.14E-10	3.00E-06	0.00E+00
	U-234	9.20E-06	1.92E-11	6.00E-07	3.20E-05
	U-235	4.30E-07	1.01E-12	6.00E-07	1.68E-06
	U-238	2.39E-05	4.32E-11	6.00E-07	7.20E-05
	Pu-238	2.59E-06	6.93E-12	4.00E-08	1.73E-04
				Sum of Fractions —	7.86E-04

^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	1994	1995	1996	1997	1998
Tritium (Curies)						
FMA7-(FM3A+FM2B)	200-F seepage basins to Four Mile Creek	2880	2,370	1,620	1,000	1,477
FM2B-(FM1C+H017+H018+HP52)	200-H seepage basins to Four Mile Creek	739	528	505	400	515
FM3A-(FM3+F012+F013)	200-H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek	3090	4,010	3,200	2,960	3,488
(U3R-4)-(Direct)	SWDF to Upper Three Runs	344	326	164	267	386
PB-3-K Canal	K-Area retention basin to Indian Grave Branch	878	1,650	1,290	2,150	3,089
SC2A	100-P seepage basin to Steel Creek ^a	386	355	320	393	507
Total Strontium (Millicuries)						
FMA7-(FM3A+FM2B)	200-F seepage basins to Four Mile Creek	78	111	68.2	105	84.3
FM2B-(FM1C+H017+H018+HP52)	200-H seepage basins to Four Mile Creek	35	40	31.3	0.4	45.2
FM3A-(FM3+F012+F013)	200-H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek					0.77
Cesium-137 (Millicuries)						
FMA7-(FM3A+FM2B)	200-F seepage basins to Four Mile Creek	3	b	29.8	b	55.5
FM2B-(FM1C+H017+H018+HP52)	200-H seepage basins to Four Mile Creek	b	b	17.4	11.4	b
FM3A-(FM3+F012+F013)	200-H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek					b
Iodine-129 (Millicuries)						
FMA7	200-F and 200-H seepage basins and Solid Waste Disposal Facility to Four Mile Creek	74	10	78.2	78.2 ^c	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 and 1998 from the Savannah River Technology Laboratory. This value was measured in 1996.

Table 9
Estimated Tritium Transport in SRS Streams and the Savannah River

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Area	Release Point	Direct Releases (Curies)				
		1994	1995	1996	1997	1998
Reactor						
100-P	PAR Pond overflow to Lower Three Runs Creek (L3R2)	59	56	47	46	110
100-L	L-Lake overflow to Steel Creek (SC4)	473	472	376	715	(243) ^a
	*Process sewer to L Lake					
	*Reactor heat exchanger cooling water to L Lake					
	*Combined in 1992 (L007)	(19) ^a	(11) ^a	(10) ^a	(6) ^a	(3) ^a
100-K	(K-Canal)	15	11	12	2	1
100-C	Process Sewer to Four Mile Creek (C-Canal)	1	3	2	1	^b
	Subtotal	548	542	437	764	111
Separations						
200-F	Effluent to Four Mile Creek	13	2	1	1	1
	Effluent to Upper Three Runs	1	1	2	1	2
200-H	Effluent to Four Mile Creek	10	9	7	9	8
	Effluent to Upper Three Runs	13	14	11	15	2
	Effluent Treatment Facility	389	142	308	382	567
	Subtotal	426	168	329	408	580
D-Area and TNX						
400-D	Process sewer to Beaver Dam Creek (400-D)	235	628	183	402	398
TNX	TNX-008					1
	Subtotal	235	628	183	402	399
A-Area						
700-A	Effluent to Tims Branch (TB-2)					2
	Subtotal					2
	Total Direct Releases ^c	1,210	1,340	949	1,570	1092

^a Not used in totals because release was counted elsewhere

^b Discontinued in 1998

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

Table 9
Estimated Tritium Transport in SRS Streams and the Savannah River

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Area	Release Point	Migration (Curies)				
		1994	1995	1996	1997	1998
200-F&H	Solid Waste Disposal Facility and General Separations Area to Upper Three Runs	(344) ^a	(326) ^a	(164) ^a	267	386
200-F&H	Solid Waste Disposal Facility (FM3A-FM3) and H-Area seepage basin to Four Mile Creek	3090	4,010	3,200	2,960	3,488
	200-F seepage basin to Four Mile Creek	2880	2,370	1,620	1,000	1,477
	200-H seepage basin to Four Mile Creek	739	528	505	400	515
100-K	904-88G to Indian Grave Branch and Pen Branch	878	1,650 ^b	1,290 ^b	2,150	3,090
100-P	Seepage basin to Steel Creek	(386) ^c	(355) ^c	(320) ^c	(393) ^c	507
	Subtotal	7,500	8,560	6,610	6,780	9,463
	Total Direct Releases and Migration^d	8,800	9,900	7,560	8,350	10,555

Area	Release Point	Stream Transport (Curies)				
		1994	1995	1996	1997	1998
F&H	Upper Three Runs at Road A (U3R4)	747	483	485	665	957
400-D	Beaver Dam Creek at swamp	235	628	183	402	398
F&H	Four Mile Creek at Road A13 (FM6)	6,980	7,350	4,620	4,570	5,790
100-K	Pen Branch at Road A (PB3)	1,890	2,440	2,310	2,150	3,090
100-L	Steel Creek at Road A (SC4)	473	472	376	715	243
100-P	Lower Three Runs at Road B (L3R2)	59	56	47	46	110
	Total^d	10,400	11,430	8,020	8,550	10,588

^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 9
Estimated Tritium Transport in SRS Streams and the Savannah River

Page 3 of 3

	River Transport (Curies)				
	1994	1995	1996	1997	1998
Tritium measured in the Savannah River below SRS (RM 120)	12,100	12,600	10,090	9,030	10,600
Tritium measured in the Savannah River above SRS (RM 160)	1,170	1,940	1,140	1,330	1,180
Tritium measured in the Savannah River below SRS (downriver minus upriver) ^a	10,900	10,660	8,950	7,700	9,420

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

Table 10
Transport of Actinides in Savannah River Site Streams

Page 1 of 1

Location	Source Description	1996	1997	1998
Uranium-234 (Curies)				
FM-6	stream transport	6.08E-04	4.35E-03	1.62E-02
U3R-4	stream transport	6.38E-03	1.88E-02	2.38E-02
PB-3	stream transport	5.47E-04	2.94E-03	1.74E-03
L3R-2	stream transport	6.45E-04	1.51E-03	4.96E-03
SC-4	stream transport	a	a	a
Uranium-235 (Curies)				
FM-6	stream transport	5.47E-06	1.63E-04	1.07E-03
U3R-4	stream transport	2.04E-04	5.63E-04	6.37E-04
PB-3	stream transport	5.31E-06	2.24E-05	4.60E-05
L3R-2	stream transport	1.28E-05	2.67E-05	2.56E-05
SC-4	stream transport	a	a	a
Uranium-238 (Curies)				
FM-6	stream transport	8.09E-04	5.27E-03	2.00E-02
U3R-4	stream transport	8.89E-03	2.06E-02	2.79E-02
PB-3	stream transport	4.66E-04	2.76E-03	1.32E-03
L3R-2	stream transport	3.55E-04	1.07E-03	3.77E-03
SC-4	stream transport	a	a	a
Plutonium-238 (Curies)				
FM-6	stream transport	1.38E-04	1.11E-04	1.99E-04
U3R-4	stream transport	2.53E-03	8.48E-04	7.99E-04
PB-3	stream transport	5.29E-05	1.74E-05	4.00E-05
L3R-2	stream transport	8.30E-05	2.50E-05	4.50E-04
SC-4	stream transport	a	a	a
Plutonium-239 (Curies)				
FM-6	stream transport	b	b	1.15E-05
U3R-4	stream transport	b	b	6.71E-05
PB-3	stream transport	b	b	2.96E-05
L3R-2	stream transport	b	b	1.28E-05
SC-4	stream transport	a	a	a

a Not analyzed

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

Table 11
Radioactivity in Air

Page 1 of 6

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/cu m				
Onsite				
A-Area	6	$(2.92 \pm 4.35)E+01$	$(1.18 \pm 0.03)E+02$	$(7.82 \pm 2.09)E+00$
Burial Ground North	24	$(1.47 \pm 0.85)E+02$	$(3.92 \pm 0.14)E+02$	$(3.31 \pm 0.21)E+01$
Burial Ground South	7	$(9.77 \pm 3.60)E+01$	$(1.44 \pm 0.02)E+02$	$(5.77 \pm 0.43)E+01$
F-Area	6	$(2.96 \pm 1.62)E+01$	$(4.31 \pm 0.33)E+01$	$(6.95 \pm 1.04)E+00$
H-Area	7	$(1.84 \pm 1.35)E+02$	$(4.64 \pm 0.08)E+02$	$(9.51 \pm 0.33)E+01$
Site Perimeter				
Allendale Gate	25	$(7.85 \pm 6.82)E+00$	$(3.36 \pm 0.35)E+01$	$(1.28 \pm 3.48)E+00$
Barnwell Gate	25	$(1.52 \pm 0.95)E+01$	$(4.35 \pm 0.52)E+01$	$(3.88 \pm 2.74)E+00$
D-Area	25	$(1.81 \pm 1.51)E+01$	$(7.96 \pm 0.53)E+01$	$(6.78 \pm 0.74)E-01$
Darkhorse @ Williston Gate	25	$(1.59 \pm 1.09)E+01$	$(4.74 \pm 0.45)E+01$	$(3.90 \pm 1.98)E+00$
East Talatha	23	$(1.12 \pm 0.82)E+01$	$(2.88 \pm 0.43)E+01$	$(0.33 \pm 7.48)E+00$
Green Pond	25	$(9.96 \pm 7.32)E+00$	$(3.10 \pm 0.63)E+01$	$(-4.31 \pm 7.74)E+00$
Highway 125 @ Road A-14	5	$(7.16 \pm 2.85)E+00$	$(9.94 \pm 2.49)E+00$	$(3.63 \pm 2.35)E+00$
Highway 21/167	24	$(1.05 \pm 0.64)E+01$	$(3.15 \pm 0.50)E+01$	$(1.66 \pm 2.62)E+00$
Highway 39 @ Williston Gate	3	$(1.02 \pm 0.76)E+01$	$(1.88 \pm 0.29)E+01$	$(4.54 \pm 3.00)E+00$
Jackson	24	$(9.27 \pm 6.12)E+00$	$(2.61 \pm 0.68)E+01$	$(2.57 \pm 2.59)E+00$
Patterson Mill Road	24	$(9.17 \pm 5.28)E+00$	$(2.13 \pm 0.62)E+01$	$(2.67 \pm 2.06)E+00$
Talatha Gate	24	$(1.20 \pm 0.85)E+01$	$(4.13 \pm 0.34)E+01$	$(2.99 \pm 3.02)E+00$
West Jackson	24	$(1.08 \pm 0.76)E+01$	$(2.81 \pm 0.37)E+01$	$(-1.15 \pm 5.35)E+00$
Windsor Road	24	$(1.13 \pm 0.70)E+01$	$(2.92 \pm 0.41)E+01$	$(1.42 \pm 0.61)E-01$
25-Mile-Radius				
Aiken Airport	25	$(0.83 \pm 1.09)E+01$	$(5.37 \pm 1.78)E+01$	$(-0.76 \pm 1.51)E-01$
Augusta Lock and Dam 614	25	$(5.08 \pm 3.59)E+00$	$(1.34 \pm 0.66)E+01$	$(1.58 \pm 1.02)E-01$
Highway 301 @ state line	16	$(6.74 \pm 4.55)E+00$	$(1.44 \pm 0.54)E+01$	$(-2.29 \pm 5.90)E+00$
Co-60, pCi/cu m				
Onsite				
A-Area	3	$(-0.17 \pm 1.23)E-03$	$(0.24 \pm 1.88)E-03$	$(-7.85 \pm 7.77)E-04$
Burial Ground North	39	$(1.92 \pm 3.41)E-03$	$(9.39 \pm 4.18)E-03$	$(-7.75 \pm 3.77)E-03$
Burial Ground North	3	$(4.69 \pm 3.40)E-04$	$(6.39 \pm 3.39)E-04$	$(3.68 \pm 3.56)E-04$
Burial Ground South	1	$(1.18 \pm 3.46)E-03$		

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	3	$(-0.32 \pm 7.08)E-04$	$(6.88 \pm 9.65)E-04$	$(-6.56 \pm 6.03)E-04$
F-Area	1	$(1.10 \pm 0.48)E-02$		
F-Area	3	$(-0.54 \pm 1.04)E-03$	$(8.93 \pm 7.61)E-04$	$(-1.92 \pm 1.42)E-03$
H-Area	1	$(-2.03 \pm 2.86)E-03$		
H-Area	3	$(2.80 \pm 5.87)E-04$	$(4.81 \pm 3.40)E-04$	$(1.33 \pm 3.08)E-04$
Site Perimeter				
Site perimeter composite	13	$(0.40 \pm 2.35)E-04$	$(3.70 \pm 1.84)E-04$	$(-3.21 \pm 3.61)E-04$
Allendale Gate	39	$(1.23 \pm 3.32)E-03$	$(7.59 \pm 3.26)E-03$	$(-5.56 \pm 3.31)E-03$
Barnwell Gate	52	$(1.45 \pm 3.55)E-03$	$(1.23 \pm 0.44)E-02$	$(-5.68 \pm 3.05)E-03$
D-Area	39	$(1.49 \pm 3.76)E-03$	$(9.48 \pm 3.14)E-03$	$(-7.08 \pm 4.88)E-03$
Darkhorse @ Williston Gate	39	$(0.92 \pm 3.88)E-03$	$(2.08 \pm 9.57)E-02$	$(-6.26 \pm 3.19)E-03$
East Talatha	39	$(1.41 \pm 3.34)E-03$	$(1.30 \pm 0.44)E-02$	$(-7.80 \pm 3.57)E-03$
Green Pond	39	$(1.03 \pm 4.18)E-03$	$(1.48 \pm 0.50)E-02$	$(-1.10 \pm 0.96)E-02$
Highway 21/167	52	$(1.57 \pm 3.22)E-03$	$(1.06 \pm 0.41)E-02$	$(-7.60 \pm 3.62)E-03$
Jackson	39	$(1.97 \pm 4.22)E-03$	$(1.09 \pm 0.38)E-02$	$(-9.43 \pm 5.13)E-03$
Patterson Mill Road	39	$(1.51 \pm 3.39)E-03$	$(7.27 \pm 3.07)E-03$	$(-7.48 \pm 2.64)E-03$
Talatha Gate	39	$(2.29 \pm 4.23)E-03$	$(1.50 \pm 0.62)E-02$	$(-6.61 \pm 4.32)E-03$
West Jackson	38	$(0.87 \pm 3.66)E-03$	$(1.07 \pm 0.48)E-03$	$(-7.14 \pm 4.05)E-03$
Windsor Road	39	$(1.47 \pm 3.51)E-03$	$(8.78 \pm 3.69)E-03$	$(-7.50 \pm 4.26)E-03$
25-Mile-Radius				
25 mile radius	12	$(-0.08 \pm 1.54)E-03$	$(2.12 \pm 1.64)E-03$	$(-2.00 \pm 1.64)E-03$
Aiken Airport	39	$(1.37 \pm 3.53)E-03$	$(1.07 \pm 0.45)E-02$	$(-9.30 \pm 4.73)E-03$
Augusta Lock and Dam 614	38	$(1.58 \pm 3.53)E-03$	$(1.13 \pm 0.50)E-02$	$(-8.98 \pm 4.69)E-03$
Highway 301 @ state line	34	$(2.98 \pm 3.56)E-03$	$(8.47 \pm 3.77)E-03$	$(-3.75 \pm 3.90)E-03$
Cs-137, pCi/cu m				
Onsite				
A-Area	3	$(0.54 \pm 1.07)E-03$	$(2.00 \pm 1.61)E-03$	$(-7.31 \pm 5.93)E-04$
Burial Ground North	39	$(0.65 \pm 3.16)E-03$	$(7.27 \pm 3.63)E-03$	$(-5.77 \pm 3.24)E-03$
Burial Ground North	3	$(1.87 \pm 3.69)E-04$	$(5.10 \pm 4.53)E-04$	$(-1.11 \pm 3.19)E-04$
Burial Ground South	1	$(-1.20 \pm 3.53)E-03$		
Burial Ground South	3	$(-3.41 \pm 7.52)E-04$	$(-2.59 \pm 7.11)E-04$	$(-4.74 \pm 0.82)E-03$
F-Area	1	$(-0.52 \pm 4.17)E-03$		
F-Area	3	$(-2.43 \pm 9.72)E-04$	$(1.55 \pm 1.17)E-03$	$(-1.35 \pm 0.85)E-03$

Table 11
Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-Area	1	$(1.77 \pm 3.00)E-03$		
H-Area	3	$(-1.16 \pm 4.89)E-04$	$(3.29 \pm 3.00)E-04$	$(-3.51 \pm 7.34)E-04$
Site Perimeter				
Site perimeter composite	13	$(-0.08 \pm 2.11)E-04$	$(3.41 \pm 1.88)E-04$	$(-3.02 \pm 1.89)E-04$
Allendale Gate	39	$(-0.22 \pm 2.98)E-03$	$(5.97 \pm 3.31)E-03$	$(-6.41 \pm 3.01)E-03$
Barnwell Gate	52	$(-0.15 \pm 3.14)E-03$	$(8.90 \pm 3.35)E-03$	$(-7.98 \pm 3.65)E-03$
D-Area	39	$(0.27 \pm 3.39)E-03$	$(7.13 \pm 3.49)E-03$	$(-9.96 \pm 4.44)E-03$
Darkhorse @ Williston Gate	39	$(0.64 \pm 3.61)E-03$	$(6.51 \pm 3.18)E-03$	$(-6.28 \pm 2.94)E-03$
East Talatha	39	$(-0.39 \pm 3.00)E-03$	$(6.73 \pm 3.15)E-03$	$(-7.39 \pm 3.48)E-03$
Green Pond	39	$(0.47 \pm 3.85)E-03$	$(1.09 \pm 0.64)E-02$	$(-2.94 \pm 0.97)E-02$
Highway 21/167	52	$(-0.51 \pm 2.99)E-03$	$(1.06 \pm 0.39)E-02$	$(-8.79 \pm 4.14)E-03$
Jackson	39	$(0.60 \pm 3.76)E-03$	$(1.02 \pm 0.39)E-02$	$(-6.27 \pm 4.51)E-03$
Patterson Mill Road	39	$(-0.42 \pm 3.03)E-03$	$(4.42 \pm 3.01)E-03$	$(-5.88 \pm 3.27)E-03$
Talatha Gate	39	$(0.18 \pm 3.85)E-03$	$(9.03 \pm 3.66)E-03$	$(-6.80 \pm 4.39)E-03$
West Jackson	38	$(1.19 \pm 3.32)E-03$	$(9.08 \pm 4.02)E-03$	$(-3.46 \pm 5.14)E-03$
Windsor Road	39	$(-0.09 \pm 3.13)E-03$	$(5.10 \pm 3.50)E-03$	$(-6.04 \pm 3.68)E-03$
25-Mile-Radius				
25 mile radius	12	$(0.59 \pm 1.51)E-03$	$(2.69 \pm 1.67)E-03$	$(-0.55 \pm 1.86)E-03$
Aiken Airport	39	$(-0.18 \pm 3.20)E-03$	$(7.91 \pm 2.62)E-03$	$(-8.20 \pm 4.54)E-03$
Augusta Lock and Dam 614	39	$(0.28 \pm 3.17)E-03$	$(6.79 \pm 3.00)E-03$	$(-8.45 \pm 3.81)E-03$
Highway 301 @ state line	34	$(0.25 \pm 3.18)E-03$	$(7.34 \pm 3.08)E-03$	$(-4.09 \pm 3.28)E-03$
Pu-238, pCi/cu m				
Onsite				
A-Area	3	$(-3.42 \pm 2.28)E-06$	$(-1.12 \pm 4.99)E-06$	$(-5.68 \pm 3.33)E-06$
Burial Ground North	3	$(-0.91 \pm 2.41)E-06$	$(1.05 \pm 2.71)E-06$	$(-3.61 \pm 1.52)E-06$
Burial Ground South	3	$(-1.07 \pm 1.96)E-06$	$(0.16 \pm 2.07)E-06$	$(-3.33 \pm 1.91)E-06$
F-Area	3	$(1.44 \pm 5.33)E-06$	$(5.76 \pm 5.88)E-06$	$(-4.51 \pm 2.22)E-06$
H-Area	3	$(-3.31 \pm 8.49)E-07$	$(0.60 \pm 4.11)E-06$	$(-1.07 \pm 2.03)E-06$
Site Perimeter				
Site perimeter composite	13	$(0.07 \pm 1.38)E-06$	$(4.06 \pm 1.69)E-06$	$(-1.55 \pm 0.50)E-06$
25-Mile-Radius				
25 mile radius	13	$(-1.42 \pm 4.96)E-06$	$(8.63 \pm 5.24)E-06$	$(-8.40 \pm 4.73)E-06$

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Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Pu-239, pCi/cu m				
Onsite				
A-Area	3	$(-3.31 \pm 1.26)E-06$	$(-2.05 \pm 4.68)E-06$	$(-4.58 \pm 0.98)E-06$
Burial Ground North	3	$(-3.91 \pm 4.72)E-06$	$(-0.14 \pm 1.66)E-06$	$(-9.20 \pm 3.81)E-06$
Burial Ground South	3	$(0.02 \pm 4.33)E-06$	$(4.38 \pm 3.27)E-06$	$(-4.27 \pm 1.72)E-06$
F-Area	3	$(-2.32 \pm 2.75)E-06$	$(0.57 \pm 3.13)E-06$	$(-4.91 \pm 3.26)E-06$
H-Area	3	$(-2.10 \pm 2.95)E-06$	$(0.19 \pm 2.80)E-06$	$(-5.43 \pm 2.62)E-06$
Site Perimeter				
Site perimeter composite	13	$(-2.23 \pm 6.74)E-07$	$(0.74 \pm 1.05)E-06$	$(-1.44 \pm 0.57)E-06$
25-Mile-Radius				
25 mile radius	13	$(-5.69 \pm 4.61)E-06$	$(2.86 \pm 9.61)E-06$	$(-1.39 \pm 0.45)E-05$
Sr-89,90, pCi/cu m				
Onsite				
A-Area	3	$(-1.06 \pm 4.11)E-04$	$(3.61 \pm 4.09)E-04$	$(-4.11 \pm 4.78)E-04$
Burial Ground North	3	$(1.28 \pm 1.75)E-04$	$(3.08 \pm 2.30)E-04$	$(-0.42 \pm 2.20)E-04$
Burial Ground South	3	$(-1.12 \pm 2.73)E-04$	$(1.86 \pm 4.78)E-04$	$(-3.49 \pm 4.95)E-04$
F-Area	3	$(-1.74 \pm 1.53)E-04$	$(-0.05 \pm 3.20)E-04$	$(-3.03 \pm 2.76)E-04$
H-Area	3	$(1.94 \pm 2.76)E-04$	$(4.45 \pm 2.43)E-04$	$(-1.01 \pm 2.11)E-04$
Site Perimeter				
Site perimeter composite	13	$(1.10 \pm 4.80)E-05$	$(1.09 \pm 0.84)E-04$	$(-6.72 \pm 7.16)E-05$
25-Mile-Radius				
25 mile radius	13	$(-3.02 \pm 5.08)E-04$	$(5.11 \pm 9.93)E-04$	$(-1.22 \pm 0.61)E-03$
Gross Beta, pCi/cu m				
Onsite				
A-Area	13	$(1.37 \pm 0.41)E-02$	$(2.29 \pm 0.19)E-02$	$(7.50 \pm 1.33)E-03$
Burial Ground North	50	$(1.90 \pm 0.59)E-02$	$(3.40 \pm 0.16)E-02$	$(9.43 \pm 0.93)E-03$
Burial Ground South	13	$(1.44 \pm 0.38)E-02$	$(2.17 \pm 0.14)E-02$	$(7.25 \pm 0.88)E-03$
F-Area	14	$(1.21 \pm 0.39)E-02$	$(1.81 \pm 0.15)E-02$	$(3.67 \pm 0.57)E-03$
H-Area	13	$(1.27 \pm 0.36)E-02$	$(2.14 \pm 0.13)E-02$	$(7.84 \pm 0.83)E-03$
Site Perimeter				
Allendale Gate	50	$(1.86 \pm 0.62)E-02$	$(3.50 \pm 0.17)E-02$	$(7.84 \pm 0.83)E-03$
Barnwell Gate	51	$(1.88 \pm 0.64)E-02$	$(3.51 \pm 0.18)E-02$	$(8.01 \pm 0.82)E-03$
D-Area	51	$(1.58 \pm 0.56)E-02$	$(3.18 \pm 0.18)E-02$	$(6.97 \pm 0.87)E-03$
Darkhorse @ Williston Gate	52	$(1.88 \pm 0.85)E-02$	$(6.11 \pm 0.21)E-02$	$(1.35 \pm 0.39)E-03$

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Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
East Talatha	51	$(1.89 \pm 0.64)E-02$	$(3.41 \pm 0.16)E-02$	$(9.54 \pm 0.91)E-03$
Green Pond	51	$(1.89 \pm 0.67)E-02$	$(3.67 \pm 0.24)E-02$	$(8.40 \pm 0.91)E-03$
Highway 125 @ Road A-14	13	$(1.37 \pm 0.25)E-02$	$(1.87 \pm 0.13)E-02$	$(1.06 \pm 0.10)E-02$
Highway 21/167	51	$(1.87 \pm 0.67)E-02$	$(4.61 \pm 0.22)E-02$	$(8.23 \pm 0.82)E-03$
Highway 39 @ Williston Gate	10	$(1.33 \pm 0.27)E-02$	$(1.72 \pm 0.08)E-02$	$(7.84 \pm 0.83)E-03$
Jackson	51	$(1.68 \pm 0.59)E-02$	$(3.19 \pm 0.17)E-02$	$(8.35 \pm 1.01)E-03$
Patterson Mill Road	51	$(1.81 \pm 0.61)E-02$	$(3.47 \pm 0.18)E-02$	$(8.27 \pm 0.82)E-03$
Talatha Gate	51	$(1.68 \pm 0.54)E-02$	$(3.05 \pm 0.20)E-02$	$(8.81 \pm 0.91)E-03$
West Jackson	50	$(1.90 \pm 0.71)E-02$	$(3.50 \pm 0.19)E-02$	$(6.36 \pm 0.80)E-03$
Windsor Road	52	$(1.82 \pm 0.61)E-02$	$(3.69 \pm 0.18)E-02$	$(8.56 \pm 0.84)E-03$
25-Mile-Radius				
Aiken Airport	51	$(1.81 \pm 0.57)E-02$	$(3.34 \pm 0.22)E-02$	$(7.75 \pm 0.76)E-03$
Augusta Lock and Dam 614	50	$(1.84 \pm 0.53)E-02$	$(3.00 \pm 0.15)E-02$	$(9.24 \pm 0.83)E-03$
Highway 301 @ state line	34	$(2.16 \pm 0.59)E-02$	$(3.37 \pm 0.19)E-02$	$(1.11 \pm 0.10)E-02$
Gross Alpha, pCi/cu m				
Onsite				
A-Area	13	$(5.76 \pm 5.39)E-04$	$(1.72 \pm 0.64)E-03$	$(-1.21 \pm 3.05)E-04$
Burial Ground North	50	$(1.46 \pm 0.69)E-03$	$(3.67 \pm 0.67)E-03$	$(4.95 \pm 2.98)E-04$
Burial Ground South	13	$(6.84 \pm 3.64)E-04$	$(1.45 \pm 0.47)E-03$	$(2.56 \pm 2.53)E-04$
F-Area	14	$(9.60 \pm 5.43)E-04$	$(1.73 \pm 0.46)E-03$	$(0.62 \pm 2.61)E-04$
H-Area	13	$(6.96 \pm 2.41)E-04$	$(1.05 \pm 0.36)E-03$	$(2.72 \pm 2.40)E-04$
Site Perimeter				
Allendale Gate	51	$(1.45 \pm 0.84)E-03$	$(3.95 \pm 0.70)E-03$	$(1.47 \pm 2.24)E-04$
Barnwell Gate	51	$(1.46 \pm 0.94)E-03$	$(5.21 \pm 0.87)E-03$	$(1.13 \pm 2.03)E-04$
D-Area	51	$(1.19 \pm 0.68)E-03$	$(3.34 \pm 0.68)E-03$	$(0.69 \pm 2.32)E-04$
Darkhorse @ Williston Gate	52	$(1.49 \pm 0.91)E-03$	$(4.58 \pm 0.80)E-03$	$(-1.91 \pm 1.39)E-04$
East Talatha	50	$(1.54 \pm 0.95)E-03$	$(3.98 \pm 0.74)E-03$	$(3.41 \pm 2.68)E-04$
Green Pond	51	$(1.65 \pm 0.90)E-03$	$(4.20 \pm 0.72)E-03$	$(3.02 \pm 2.73)E-04$
Highway 125 @ Road A-14	13	$(6.52 \pm 4.35)E-04$	$(1.84 \pm 0.46)E-03$	$(2.51 \pm 2.37)E-04$
Highway 21/167	51	$(1.49 \pm 0.84)E-03$	$(4.40 \pm 0.92)E-03$	$(1.94 \pm 2.18)E-04$
Highway 39 @ Williston Gate	10	$(7.76 \pm 2.08)E-04$	$(1.11 \pm 0.26)E-03$	$(5.04 \pm 1.99)E-04$

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Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Jackson	51	$(1.34 \pm 0.95)E-03$	$(5.39 \pm 0.85)E-03$	$(0.44 \pm 2.16)E-04$
Patterson Mill Road	51	$(1.45 \pm 0.85)E-03$	$(4.34 \pm 0.81)E-03$	$(2.01 \pm 2.35)E-04$
Talatha Gate	50	$(1.39 \pm 0.84)E-03$	$(3.24 \pm 0.71)E-03$	$(0.44 \pm 2.14)E-04$
West Jackson	50	$(1.64 \pm 1.05)E-03$	$(5.91 \pm 0.93)E-03$	$(0.70 \pm 2.23)E-04$
Windsor Road	52	$(1.45 \pm 0.78)E-03$	$(3.99 \pm 0.78)E-03$	$(2.34 \pm 2.21)E-04$
25-Mile-Radius				
Aiken Airport	50	$(1.45 \pm 0.74)E-03$	$(3.13 \pm 0.63)E-03$	$(3.56 \pm 2.80)E-04$
Augusta Lock and Dam 614	50	$(1.49 \pm 0.65)E-03$	$(2.93 \pm 0.63)E-03$	$(4.20 \pm 2.91)E-04$
Highway 301 @ state line	34	$(1.64 \pm 0.74)E-03$	$(3.62 \pm 0.66)E-03$	$(3.53 \pm 2.57)E-04$

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	6	(4.85 $\pm$ 5.20)E+02	(9.48 $\pm$ 2.14)E+02	(-3.83 $\pm$ 3.67)E+02
Burial Ground North	24	(5.25 $\pm$ 3.33)E+03	(1.57 $\pm$ 0.05)E+04	(1.64 $\pm$ 0.40)E+03
Burial Ground South	6	(1.94 $\pm$ 1.39)E+04	(3.68 $\pm$ 0.09)E+04	(4.12 $\pm$ 0.31)E+03
F-Area	6	(4.67 $\pm$ 4.44)E+03	(1.16 $\pm$ 0.02)E+04	(1.05 $\pm$ 0.35)E+03
H-Area	6	(2.76 $\pm$ 1.95)E+04	(6.29 $\pm$ 0.09)E+04	(8.60 $\pm$ 0.51)E+03
Site Perimeter				
Allendale Gate	23	(1.43 $\pm$ 4.36)E+02	(1.65 $\pm$ 0.35)E+03	(-3.66 $\pm$ 3.75)E+02
Barnwell Gate	23	(3.92 $\pm$ 3.27)E+02	(1.37 $\pm$ 0.27)E+03	(-0.92 $\pm$ 3.18)E+02
D-Area	23	(9.94 $\pm$ 9.81)E+02	(4.30 $\pm$ 0.39)E+03	(0.59 $\pm$ 3.29)E+02
Darkhorse @ Williston Gate	24	(3.92 $\pm$ 5.75)E+02	(2.23 $\pm$ 0.41)E+03	(-5.29 $\pm$ 3.70)E+02
East Talatha	24	(3.82 $\pm$ 5.47)E+02	(1.86 $\pm$ 0.42)E+03	(-3.55 $\pm$ 3.75)E+02
Green Pond	24	(4.01 $\pm$ 4.73)E+02	(1.57 $\pm$ 0.38)E+03	(-2.79 $\pm$ 3.64)E+02
Highway 125 @ Road A-14	6	(4.65 $\pm$ 5.93)E+02	(1.29 $\pm$ 0.31)E+03	(-2.37 $\pm$ 2.43)E+02
Highway 21/167	23	(1.75 $\pm$ 3.08)E+02	(9.25 $\pm$ 3.90)E+02	(-5.12 $\pm$ 3.76)E+02
Highway 39 @ Williston Gate	4	(1.89 $\pm$ 4.78)E+02	(6.89 $\pm$ 3.39)E+02	(-2.46 $\pm$ 3.45)E+02
Jackson	24	(2.85 $\pm$ 5.08)E+02	(1.59 $\pm$ 0.38)E+03	(-5.84 $\pm$ 3.92)E+02
Patterson Mill Road	24	(3.02 $\pm$ 4.19)E+02	(1.46 $\pm$ 0.17)E+03	(-5.20 $\pm$ 3.94)E+02
Talatha Gate	23	(5.93 $\pm$ 5.64)E+02	(2.21 $\pm$ 0.40)E+03	(-3.27 $\pm$ 3.73)E+02
West Jackson	23	(0.76 $\pm$ 1.30)E+03	(6.07 $\pm$ 0.42)E+03	(-3.47 $\pm$ 3.69)E+02
Windsor Road	25	(4.21 $\pm$ 5.73)E+02	(2.46 $\pm$ 0.43)E+03	(-2.81 $\pm$ 3.79)E+02
25-Mile-Radius				
Aiken Airport	23	(3.20 $\pm$ 3.32)E+02	(9.88 $\pm$ 2.65)E+02	(-1.89 $\pm$ 2.81)E+02
Augusta Lock and Dam 614	25	(2.63 $\pm$ 5.57)E+02	(1.87 $\pm$ 0.35)E+03	(-5.12 $\pm$ 3.22)E+02
Highway 301 @ state line	14	(0.08 $\pm$ 2.96)E+02	(5.29 $\pm$ 3.62)E+02	(-4.87 $\pm$ 3.90)E+02
100-Mile-Radius				
Savannah, Ga.	25	(0.58 $\pm$ 2.51)E+02	(4.91 $\pm$ 3.72)E+02	(-3.86 $\pm$ 3.43)E+02

Table 13
Radioactivity in Rain Ion Columns

Page 1 of 4

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Co-60, pCi/sq m				
Onsite				
Burial Ground North	8	(5.46 $\pm$ 5.72)E+00	(1.50 $\pm$ 0.82)E+01	(-3.08 $\pm$ 9.43)E+00
H-Area	3	(-5.22 $\pm$ 4.00)E+00	(-0.82 $\pm$ 8.62)E+00	(-8.63 $\pm$ 9.28)E+00
Site Perimeter				
Site Perimeter				
Barnwell Gate	4	(9.97 $\pm$ 9.10)E+00	(2.10 $\pm$ 1.07)E+01	(0.08 $\pm$ 1.00)E+01
D-Area	12	(1.51 $\pm$ 7.89)E+00	(1.44 $\pm$ 0.92)E+01	(-1.32 $\pm$ 0.96)E+01
Darkhorse @ Williston Gate	12	(1.70 $\pm$ 7.54)E+00	(1.32 $\pm$ 0.94)E+01	(-1.19 $\pm$ 0.67)E+01
Green Pond	12	(2.97 $\pm$ 6.19)E+00	(1.03 $\pm$ 0.88)E+01	(-6.63 $\pm$ 9.74)E+00
Patterson Mill Road	12	(3.41 $\pm$ 8.58)E+00	(2.42 $\pm$ 0.93)E+01	(-0.67 $\pm$ 1.23)E+01
25-Mile-Radius				
Aiken Airport	3	(0.97 $\pm$ 1.15)E+01	(2.25 $\pm$ 1.15)E+01	(0.33 $\pm$ 9.52)E+00
Augusta Lock and Dam 614	3	(2.63 $\pm$ 5.62)E+00	(0.86 $\pm$ 1.09)E+01	(-2.62 $\pm$ 9.57)E+00
Highway 301 @ State Line	7	(4.05 $\pm$ 5.93)E+00	(1.02 $\pm$ 0.72)E+01	(-0.45 $\pm$ 1.19)E+01
100-Mile-Radius				
Savannah, Ga.	13	(1.38 $\pm$ 9.80)E+00	(2.33 $\pm$ 1.16)E+01	(-1.54 $\pm$ 1.06)E+01
Cs-137, pCi/sq m				
Onsite				
Burial Ground North	8	(2.25 $\pm$ 4.19)E+00	(6.80 $\pm$ 8.95)E+00	(-0.70 $\pm$ 1.01)E+01
H-Area	3	(2.90 $\pm$ 3.40)E+00	(6.64 $\pm$ 8.85)E+00	(-0.01 $\pm$ 8.73)E+00
Site Perimeter				
Site Perimeter				
Barnwell Gate	4	(-1.82 $\pm$ 7.05)E+00	(7.86 $\pm$ 7.94)E+00	(-7.79 $\pm$ 9.21)E+00
D-Area	12	(4.51 $\pm$ 6.91)E+00	(1.73 $\pm$ 0.80)E+01	(-9.83 $\pm$ 9.49)E+00
Darkhorse @ Williston Gate	12	(-1.02 $\pm$ 7.90)E+00	(1.20 $\pm$ 0.86)E+01	(-1.86 $\pm$ 0.89)E+01
Green Pond	12	(2.71 $\pm$ 9.27)E+00	(1.80 $\pm$ 0.94)E+01	(-1.15 $\pm$ 0.66)E+01
Patterson Mill Road	12	(-0.48 $\pm$ 7.18)E+00	(1.09 $\pm$ 0.74)E+01	(-9.32 $\pm$ 9.18)E+00
25-Mile-Radius				
Aiken Airport	3	(4.66 $\pm$ 2.96)E+00	(6.97 $\pm$ 8.61)E+00	(0.13 $\pm$ 1.09)E+01
Augusta Lock and Dam 614	3	(-0.66 $\pm$ 6.93)E+00	(0.67 $\pm$ 1.06)E+01	(-7.05 $\pm$ 8.80)E+00
Highway 301 @ State Line	7	(0.06 $\pm$ 1.06)E+01	(1.52 $\pm$ 1.02)E+01	(-1.03 $\pm$ 0.84)E+01
100-Mile-Radius				
Savannah, Ga.	13	(0.33 $\pm$ 9.35)E+00	(1.46 $\pm$ 0.87)E+01	(-2.06 $\pm$ 0.95)E+01

Table 13
Radioactivity in Rain Ion Columns

Page 2 of 4

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Pu-238, pCi/sq m				
Onsite				
H-Area	1	$(-5.09 \pm 4.66)E-02$		
Site Perimeter				
Barnwell Gate	1	$(-7.06 \pm 3.71)E-02$		
D-Area	1	$(-1.55 \pm 0.37)E-01$		
Darkhorse @ Williston Gate	1	$(-4.04 \pm 6.03)E-02$		
Green Pond	1	$(-8.89 \pm 3.46)E-02$		
Patterson Mill Road	1	$(-6.33 \pm 5.08)E-02$		
25-Mile-Radius				
Aiken Airport	1	$(-1.04 \pm 0.61)E-01$		
Augusta Lock and Dam 614	1	$(-1.07 \pm 0.23)E-01$		
100-Mile-Radius				
Savannah, Ga.	1	$(-1.15 \pm 0.22)E-01$		
Pu-239, pCi/sq m				
Onsite				
H-Area	1	$(-2.47 \pm 3.28)E-02$		
Site Perimeter				
Barnwell Gate	1	$(-4.47 \pm 1.12)E-02$		
D-Area	1	$(-1.02 \pm 8.11)E-02$		
Darkhorse @ Williston Gate	1	$(-1.12 \pm 0.59)E-01$		
Green Pond	1	$(-6.18 \pm 1.66)E-02$		
Patterson Mill Road	1	$(-1.72 \pm 2.69)E-02$		
25-Mile-Radius				
Aiken Airport	1	$(-7.04 \pm 8.18)E-02$		
Augusta Lock and Dam 614	1	$(-8.45 \pm 2.60)E-02$		
100-Mile-Radius				
Savannah, Ga.	1	$(-7.67 \pm 2.02)E-02$		
Sr-89,90, pCi/sq m				
Onsite				
H-Area	1	$(-5.11 \pm 3.82)E+00$		
Site Perimeter				
Barnwell Gate	1	$(-2.76 \pm 4.19)E+00$		

Table 13
Radioactivity in Rain Ion Columns

Page 3 of 4

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
D-Area	1	$(-3.91 \pm 4.17)E+00$		
Darkhorse @ Williston Gate	1	$(-1.12 \pm 4.31)E+00$		
Green Pond	1	$(-2.95 \pm 3.90)E+00$		
Patterson Mill Road	1	$(-1.34 \pm 4.32)E+00$		
25-Mile-Radius				
Aiken Airport	1	$(-2.98 \pm 3.05)E+00$		
Augusta Lock and Dam 614	1	$(0.53 \pm 4.53)E+00$		
100-Mile-Radius				
Savannah, Ga.	1	$(1.23 \pm 4.43)E+00$		
Gross Beta, pCi/sq m				
Onsite				
Burial Ground North	8	$(1.27 \pm 0.95)E+02$	$(2.66 \pm 0.13)E+02$	$(1.32 \pm 0.48)E+01$
H-Area	3	$(1.04 \pm 0.20)E+02$	$(1.26 \pm 0.09)E+02$	$(8.57 \pm 0.79)E+01$
Site Perimeter				
Barnwell Gate	4	$(1.63 \pm 1.01)E+02$	$(2.58 \pm 0.13)E+02$	$(3.29 \pm 0.55)E+01$
D-Area	12	$(1.00 \pm 0.93)E+02$	$(3.42 \pm 0.15)E+02$	$(1.40 \pm 0.48)E+01$
Darkhorse @ Williston Gate	12	$(1.24 \pm 1.08)E+02$	$(3.99 \pm 0.16)E+02$	$(1.92 \pm 0.44)E+01$
Green Pond	12	$(9.01 \pm 7.89)E+01$	$(2.72 \pm 0.13)E+02$	$(2.26 \pm 3.27)E+00$
Patterson Mill Road	12	$(6.22 \pm 7.75)E+01$	$(2.35 \pm 0.14)E+02$	$(0.20 \pm 3.88)E+00$
25-Mile-Radius				
Aiken Airport	3	$(8.08 \pm 4.15)E+01$	$(1.05 \pm 0.06)E+02$	$(3.29 \pm 0.40)E+01$
Augusta Lock and Dam 614	3	$(6.95 \pm 5.92)E+01$	$(1.37 \pm 0.10)E+02$	$(2.74 \pm 0.61)E+01$
Highway 301 @ State Line	7	$(1.25 \pm 1.27)E+02$	$(3.74 \pm 0.19)E+02$	$(2.88 \pm 0.51)E+01$
100-Mile-Radius				
Savannah, Ga.	12	$(1.93 \pm 2.05)E+02$	$(7.10 \pm 0.26)E+02$	$(1.39 \pm 0.45)E+01$
Gross Alpha, pCi/sq m				
Onsite				
Burial Ground North	8	$(3.54 \pm 4.78)E+00$	$(1.49 \pm 0.70)E+01$	$(-0.29 \pm 2.52)E+00$
H-Area	3	$(4.98 \pm 2.41)E+00$	$(7.41 \pm 3.78)E+00$	$(2.60 \pm 2.56)E+00$
Site Perimeter				
Barnwell Gate	4	$(0.09 \pm 1.51)E+00$	$(2.04 \pm 5.16)E+00$	$(-1.12 \pm 1.55)E+00$
D-Area	12	$(3.20 \pm 4.48)E+00$	$(1.10 \pm 0.43)E+01$	$(-3.36 \pm 2.98)E+00$
Darkhorse @ Williston Gate	12	$(2.93 \pm 2.12)E+00$	$(6.91 \pm 3.75)E+00$	$(0.68 \pm 2.14)E+00$

Table 13
Radioactivity in Rain Ion Columns

Page 4 of 4

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Green Pond	12	$(1.37 \pm 2.98)E+00$	$(8.23 \pm 4.07)E+00$	$(-1.87 \pm 1.60)E+00$
Patterson Mill Road	12	$(1.13 \pm 3.62)E+00$	$(1.18 \pm 0.37)E+01$	$(-2.28 \pm 1.31)E+00$
25-Mile-Radius				
Aiken Airport	3	$(2.77 \pm 2.23)E+00$	$(4.94 \pm 3.13)E+00$	$(0.49 \pm 1.67)E+00$
Augusta Lock and Dam 614	3	$(1.20 \pm 2.63)E+00$	$(4.12 \pm 2.88)E+00$	$(-0.99 \pm 2.33)E+00$
Highway 301 @ State Line	7	$(2.51 \pm 3.71)E+00$	$(8.84 \pm 4.13)E+00$	$(-2.26 \pm 2.62)E+00$
100-Mile-Radius				
Savannah, Ga.	12	$(2.97 \pm 4.45)E+00$	$(8.84 \pm 5.48)E+00$	$(-4.47 \pm 2.04)E+00$

Table 14
Thermoluminescent Dosimeter (TLD) Results —
SRS Areas

Page 1 of 3

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. Computer data transfer problems resulted in loss of all data for the 3rd and 4th quarters.</i> <i>4. Program changes instituted in mid-1998 eliminated monitoring at all area boundary locations. Annual exposures are not presented for these locations.</i>					
643-26E 1	0.30	0.31			
643-26E 2	0.24				
643-7G 1	0.32				
643-7G 2	0.27	0.29			
643-7G 3	0.30	0.31			
643-7G 4	0.42	0.42			
643-G 1	0.25	0.26			
643-G 2	0.31	0.31			
643-G 3	0.39	0.41			
643-G 4	0.32	0.32			
A 1	0.24				
A 2	0.32	0.31			
A 3	0.26	0.28			
A 4	0.30	0.30			
A 5	0.24	0.25			
A 6	0.26	0.26			
A 7	0.29	0.30			
A 8	0.23	0.21			
F 1	0.23	0.25			
F 2	0.26				
F 3	0.23	0.28			
F 4	0.27	0.28			
F 5	0.39	0.40			
F 6					
H 1	0.27	0.28			

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
H 2	0.30	0.30			
H 3	0.27	0.29			
H 4	0.40	0.42			
H 5	0.40	0.40			
H 6	0.27	0.28			
H 7	0.29	0.29			
H 8	0.31	0.32			
K 1	0.20	0.23			
K 2	0.18	0.21			
K 3	0.24	0.28			
K 4	0.21	0.23			
L 1	0.21	0.24			
L 2	0.20	0.23			
L 3	0.20	0.23			
L 4	0.26				
N 1	0.25	0.28			
N 2	0.27	0.30			
N 3	0.34	0.38			
N 4	0.33	0.37			
N 5	0.54	0.51			
P 1	0.23	0.26			
P 2	0.19	0.21			
P 3	0.20	0.24			
P 4	0.22	0.25			
R 1	0.20	0.22			
R 2	0.21	0.25			
R 3	0.18	0.21			
R 4	0.22	0.25			
R 5	0.21	0.24			
R 6	0.19	0.22			
R 7	0.20	0.23			
RR 1	0.26	0.27			

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
RR 2	0.27	0.27			
S 1	0.28	0.29			
S 2	0.32	0.33			
S 3	0.33	0.35			
S 4	0.33	0.32			
Z 1	0.22	0.23			
Z 2	0.21	0.22			
Z 3	0.22	0.22			
Z 4	0.26	0.25			

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

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. Computer data transfer problems resulted in loss of all data for the 3rd and 4th quarters.</i>					
PP 15	0.19	0.18			66
PP 42	0.20	0.19			71
PP 48	0.18	0.17			63
PP 51	0.18	0.17			63
PP 57D	0.17	0.16			60
PP 61B	0.18	0.17			63
PP 65D	0.21	0.20			76
PP 72B	0.18	0.17			64
PP 75D	0.15	0.15			55

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

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. Computer data transfer problems resulted in loss of all data for the 3rd and 4th quarters.</i>					
A Area ^a	0.24				
BGN	0.26	0.38			115
BGS ^a	0.23				
F Area ^a	0.29				
H Area ^a	0.29				
A-14 ^a	0.18				
Aiken	0.21	0.20			76
Allendale	0.16	0.15			56
Barnwell	0.20	0.19			70
D Area	0.19	0.18			67
Dark Horse	0.19	0.18			67
East Talatha	0.17	0.17			62
Green Pond	0.18	0.17			65
Hwy 21/167	0.25	0.13			69
Hwy 39 ^a	0.19				
Jackson	0.20	0.19			73
Patt Mill Rd	0.17	0.16			60
West Jackson	0.24	0.22			84
Windsor Rd	0.14	0.15			51
Aiken Airport	0.18				67
Augusta Lock and Dam	0.25				90
Hwy 301 ^b					
Savannah 1	0.16				60
Savannah 2	0.16				58

a Program changes instituted in mid-1998 eliminated monitoring at this location. An annual exposure is not presented for this location.

b High Savannah River levels prevented monitoring for the first 2 quarters of 1998.

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. Computer data transfer problems resulted in loss of all data for the 3rd and 4th quarters.</i>					
Barnwell	0.20	0.22			76
Beech Island	0.25	0.30			100
Girard	0.30				110
Jackson	0.21	0.25			83
Martin	0.15	0.18			60
McBean	0.27				98
New Ellenton	0.24	0.28			95
Williston	0.26	0.29			99
Windsor	0.11				39

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

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
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. Computer data transfer problems resulted in loss of all data for the 3rd and 4th quarters.					
GAP 1H	0.16	0.15			57
GAP 1L	0.16	0.15			57
GAP 2H	0.16	0.17			61
GAP 2L	0.17	0.17			62
GAP 3H	0.17	0.18			64
GAP 3L	0.17	0.17			62
GAP 4H	0.18	0.18			66
GAP 4L	0.18	0.18			65
GAP 5H	0.16	0.16			58
GAP 5L	0.12	0.14			47
NRC 1	0.17	0.14			55
NRC 2	0.10	0.10			37
NRC 3	0.13	0.10			42
NRC 4	0.16	0.12			50
NRC 5	0.20	0.16			64
NRC 6	0.15	0.12			48
NRC 7	0.14	0.11			46
NRC 8	0.10	0.10			37

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	$(7.14 \pm 2.00)E+03$	$(1.23 \pm 0.05)E+04$	$(4.54 \pm 0.31)E+03$
SWDF Basin North (E-002)	12	$(1.16 \pm 0.69)E+04$	$(2.60 \pm 0.06)E+04$	$(4.55 \pm 0.32)E+03$
SWDF Basin South (E-001)	12	$(1.08 \pm 0.66)E+04$	$(2.61 \pm 0.06)E+04$	$(3.94 \pm 0.21)E+03$
Co-60, pCi/L				
EAV Basin North (E-004)	12	$(1.16 \pm 2.69)E+00$	$(5.39 \pm 1.99)E+00$	$(-2.77 \pm 2.64)E+00$
Cs-137, pCi/L				
EAV Basin North (E-004)	12	$(-0.19 \pm 1.69)E+00$	$(2.79 \pm 2.05)E+00$	$(-2.17 \pm 2.06)E+00$
Gross Beta, pCi/L				
EAV Basin Nort (E-004)	12	$(2.66 \pm 1.29)E+00$	$(5.08 \pm 1.04)E+00$	$(8.13 \pm 6.16)E-01$
SWDF Basin North (E-002)	12	$(3.52 \pm 1.08)E+00$	$(5.59 \pm 0.79)E+00$	$(1.78 \pm 1.11)E+00$
SWDF Basin South (E-001)	12	$(3.38 \pm 1.33)E+00$	$(6.97 \pm 1.34)E+00$	$(2.08 \pm 0.82)E+00$
Gross Alpha, pCi/L				
EAV Basin North (E-004)	12	$(1.16 \pm 1.25)E+00$	$(3.28 \pm 1.18)E+00$	$(-0.89 \pm 2.30)E-01$
SWDF Basin North (E-002)	12	$(1.64 \pm 0.97)E+00$	$(3.07 \pm 0.77)E+00$	$(3.22 \pm 3.94)E-01$
SWDF Basin South (E-001)	12	$(2.04 \pm 2.80)E+00$	$(8.18 \pm 1.93)E+00$	$(-4.45 \pm 4.07)E-01$

Table 20
Radioactivity in Savannah River Site Stream Water

Page 1 of 8

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	26	(8.15 $\pm$ 3.33)E+02	(1.47 $\pm$ 0.26)E+03	(1.19 $\pm$ 2.33)E+02
Upper Three Runs				
McQueen Branch at Road F	26	(8.87 $\pm$ 1.18)E+03	(1.12 $\pm$ 0.03)E+04	(6.71 $\pm$ 0.25)E+03
Crouch Branch at Road 4	26	(1.34 $\pm$ 0.28)E+04	(2.09 $\pm$ 0.04)E+04	(6.61 $\pm$ 0.35)E+03
U3R-1A Treadway Bridge Road 8-1	52	(5.12 $\pm$ 3.52)E+02	(2.46 $\pm$ 0.34)E+03	(-0.18 $\pm$ 2.28)E+02
U3R-3 at Road C	26	(4.23 $\pm$ 4.06)E+03	(1.59 $\pm$ 0.06)E+04	(-2.56 $\pm$ 0.14)E+03
U3R-4 at Road A	26	(4.26 $\pm$ 3.36)E+03	(1.35 $\pm$ 0.06)E+04	(1.20 $\pm$ 0.38)E+03
Four Mile Creek				
C-Canal	27	(2.31 $\pm$ 0.43)E+03	(3.26 $\pm$ 0.29)E+03	(1.53 $\pm$ 0.27)E+03
Caster Creek—southeast of C-Area	26	(2.83 $\pm$ 0.49)E+03	(4.44 $\pm$ 0.32)E+03	(1.70 $\pm$ 0.36)E+03
FM-2 at Road 4	26	(1.58 $\pm$ 0.89)E+04	(4.44 $\pm$ 0.09)E+04	(3.60 $\pm$ 0.30)E+03
FM-2B above F-Area effluent	26	(4.87 $\pm$ 1.59)E+04	(8.52 $\pm$ 0.48)E+04	(2.51 $\pm$ 0.29)E+04
FM-3A below F-Area effluent	26	(1.31 $\pm$ 0.42)E+06	(2.86 $\pm$ 0.03)E+06	(8.70 $\pm$ 0.14)E+05
FM-6 at Road A-12.2	26	(1.90 $\pm$ 0.47)E+05	(2.39 $\pm$ 0.02)E+05	(1.06 $\pm$ 0.01)E+05
FM-A7 at Road A-7	26	(3.20 $\pm$ 1.06)E+05	(4.78 $\pm$ 0.09)E+05	(1.40 $\pm$ 0.04)E+05
H-008 Outfall	26	(3.39 $\pm$ 3.93)E+03	(1.98 $\pm$ 0.03)E+04	(4.28 $\pm$ 3.81)E+02
HP-50 Tritium Facility Outfall	26	(1.61 $\pm$ 1.50)E+04	(6.50 $\pm$ 0.08)E+04	(2.54 $\pm$ 0.28)E+03
Twin Lakes—west of C-Area	26	(1.23 $\pm$ 0.33)E+04	(1.99 $\pm$ 0.05)E+04	(3.05 $\pm$ 0.30)E+03
Pen Branch				
IGB-21 800 feet south of Road 6-1	26	(5.71 $\pm$ 1.22)E+05	(7.96 $\pm$ 0.09)E+05	(3.30 $\pm$ 0.08)E+05
K-011 Outfall at B Road	26	(3.38 $\pm$ 0.58)E+05	(4.38 $\pm$ 0.05)E+05	(2.06 $\pm$ 0.03)E+05
PB-3 at Road A-13.2	27	(1.17 $\pm$ 0.28)E+05	(1.74 $\pm$ 0.01)E+05	(6.17 $\pm$ 0.11)E+04
Steel Creek				
SC-2A 1 mile above Road B	26	(1.94 $\pm$ 0.71)E+05	(2.75 $\pm$ 0.02)E+05	(8.66 $\pm$ 0.13)E+04
SC-4 Steel Creek at Road A	26	(5.24 $\pm$ 1.19)E+03	(7.96 $\pm$ 0.37)E+03	(3.24 $\pm$ 0.39)E+03

Table 20
Radioactivity in Savannah River Site Stream Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Lower Three Runs Creek				
L3R-1A at Road B	26	(1.10 $\pm$ 1.27)E+03	(7.21 $\pm$ 0.26)E+03	(4.71 $\pm$ 2.41)E+02
L3R-2 Patterson Mill Road	26	(1.58 $\pm$ 0.58)E+03	(2.73 $\pm$ 0.28)E+03	(6.62 $\pm$ 3.69)E+02
L3R-3 at Highway 125	12	(7.97 $\pm$ 4.59)E+02	(1.39 $\pm$ 0.26)E+03	(-0.24 $\pm$ 3.63)E+02
R-Area downstream of R-1	26	(3.84 $\pm$ 2.13)E+03	(9.80 $\pm$ 0.50)E+03	(1.27 $\pm$ 0.38)E+03
Co-60, pCi/L				
Upper Three Runs				
Crouch Branch at Road 4	26	(0.25 $\pm$ 2.42)E+00	(5.27 $\pm$ 2.77)E+00	(-3.74 $\pm$ 2.78)E+00
McQueen Branch at Road F	26	(-0.42 $\pm$ 2.00)E+00	(4.30 $\pm$ 1.92)E+00	(-3.18 $\pm$ 2.84)E+00
U3R-3 at Road C	26	(0.68 $\pm$ 3.30)E+00	(5.55 $\pm$ 3.11)E+00	(-7.49 $\pm$ 2.89)E+00
U3R-4 at Road A	26	(0.50 $\pm$ 2.74)E+00	(5.05 $\pm$ 2.80)E+00	(-3.86 $\pm$ 2.82)E+00
Four Mile Creek				
C-Canal	27	(0.09 $\pm$ 2.04)E+00	(5.99 $\pm$ 2.44)E+00	(-3.86 $\pm$ 2.53)E+00
FM-2 at Road 4	26	(0.82 $\pm$ 2.48)E+00	(4.62 $\pm$ 2.77)E+00	(-5.53 $\pm$ 2.80)E+00
FM-2B above F-Area effluent	26	(0.74 $\pm$ 2.31)E+00	(4.92 $\pm$ 2.25)E+00	(-4.21 $\pm$ 2.53)E+00
FM-3A below F-Area effluent	26	(0.74 $\pm$ 2.84)E+00	(5.72 $\pm$ 2.21)E+00	(-5.40 $\pm$ 2.74)E+00
FM-6 at Road A-12.2	26	(0.99 $\pm$ 2.97)E+00	(1.08 $\pm$ 0.47)E+01	(-3.48 $\pm$ 2.28)E+00
FM-A7 at Road A-7	26	(1.25 $\pm$ 1.96)E+00	(4.80 $\pm$ 2.21)E+00	(-2.84 $\pm$ 2.82)E+00
H-008 Outfall	26	(1.26 $\pm$ 2.48)E+00	(5.78 $\pm$ 2.50)E+00	(-3.49 $\pm$ 2.87)E+00
HP-50 Tritium Facility Outfall	26	(0.48 $\pm$ 3.46)E+00	(5.73 $\pm$ 2.56)E+00	(-6.91 $\pm$ 2.83)E+00
Pen Branch				
K-011 Outfall at B Road	26	(0.76 $\pm$ 2.29)E+00	(4.96 $\pm$ 2.14)E+00	(-3.64 $\pm$ 1.87)E+00
PB-3 at Road A-13.2	27	(0.54 $\pm$ 5.44)E+00	(1.17 $\pm$ 0.47)E+01	(-1.84 $\pm$ 1.02)E+01
Steel Creek				
SC-2A 1 mile above Road B	26	(0.39 $\pm$ 3.18)E+00	(9.60 $\pm$ 2.65)E+00	(-4.81 $\pm$ 2.12)E+00
SC-4 Steel Creek at Road A	26	(1.37 $\pm$ 4.55)E+00	(1.17 $\pm$ 0.73)E+01	(-1.18 $\pm$ 0.30)E+01
Lower Three Runs Creek				
L3R-2 Patterson Mill Road	26	(0.42 $\pm$ 2.37)E+00	(4.04 $\pm$ 2.39)E+00	(-6.41 $\pm$ 2.81)E+00
L3R-3 at Highway 125	12	(1.05 $\pm$ 2.35)E+00	(5.58 $\pm$ 2.12)E+00	(-1.86 $\pm$ 2.68)E+00
R-Area downstream of R-1	26	(0.22 $\pm$ 2.76)E+00	(4.23 $\pm$ 2.49)E+00	(-6.39 $\pm$ 2.80)E+00

Table 20
Radioactivity in Savannah River Site Stream Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Cs-137, pCi/L				
Upper Three Runs				
Crouch Branch at Road 4	26	$(0.67 \pm 1.87)E+00$	$(4.17 \pm 1.89)E+00$	$(-2.95 \pm 2.19)E+00$
McQueen Branch at Road F	26	$(0.23 \pm 2.12)E+00$	$(3.81 \pm 2.02)E+00$	$(-6.49 \pm 2.63)E+00$
U3R-3 at Road C	26	$(0.38 \pm 2.35)E+00$	$(4.19 \pm 2.32)E+00$	$(-4.41 \pm 2.20)E+00$
U3R-4 at Road A	26	$(-0.43 \pm 2.17)E+00$	$(4.54 \pm 2.44)E+00$	$(-3.38 \pm 2.17)E+00$
Four Mile Creek				
C-Canal	27	$(0.53 \pm 1.45)E+00$	$(3.38 \pm 2.15)E+00$	$(-2.39 \pm 2.30)E+00$
FM-2 at Road 4	26	$(1.81 \pm 1.74)E+01$	$(7.90 \pm 0.63)E+01$	$(-2.87 \pm 2.28)E+00$
FM-2B above F-Area effluent	26	$(6.10 \pm 5.29)E+00$	$(1.73 \pm 0.36)E+01$	$(-0.34 \pm 2.56)E+00$
FM-3A below F-Area effluent	26	$(6.20 \pm 4.31)E+00$	$(1.89 \pm 0.38)E+01$	$(-1.04 \pm 1.85)E+00$
FM-6 at Road A-12.2	26	$(4.74 \pm 4.77)E+00$	$(1.80 \pm 0.38)E+01$	$(-2.98 \pm 2.51)E+00$
FM-A7 at Road A-7	26	$(7.68 \pm 3.46)E+00$	$(1.44 \pm 0.32)E+01$	$(-1.60 \pm 2.50)E+00$
H-008 Outfall	26	$(4.67 \pm 3.14)E+00$	$(1.06 \pm 0.35)E+01$	$(-0.56 \pm 1.96)E+00$
HP-50 Tritium Facility Outfall	26	$(0.84 \pm 2.65)E+00$	$(5.87 \pm 2.10)E+00$	$(-5.65 \pm 2.38)E+00$
Pen Branch				
K-011 Outfall at B Road	26	$(1.60 \pm 2.40)E+00$	$(8.39 \pm 2.94)E+00$	$(-3.20 \pm 2.18)E+00$
PB-3 at Road A-13.2	27	$(1.06 \pm 3.77)E+00$	$(1.04 \pm 1.04)E+01$	$(-1.03 \pm 0.46)E+01$
Steel Creek				
SC-2A 1 mile above Road B	26	$(5.29 \pm 3.81)E+00$	$(1.61 \pm 0.28)E+01$	$(-0.43 \pm 2.57)E+00$
SC-4 Steel Creek at Road A	26	$(1.84 \pm 3.88)E+00$	$(9.95 \pm 9.16)E+00$	$(-1.05 \pm 0.85)E+01$
Lower Three Runs Creek				
L3R-2 Patterson Mill Road	26	$(1.92 \pm 1.97)E+00$	$(5.98 \pm 2.00)E+00$	$(-3.49 \pm 2.33)E+00$
L3R-3 at Highway 125	12	$(1.17 \pm 2.62)E+00$	$(3.92 \pm 1.35)E+00$	$(-5.41 \pm 2.29)E+00$
R-Area downstream of R-1	26	$(1.17 \pm 0.89)E+01$	$(3.63 \pm 0.52)E+01$	$(3.06 \pm 2.73)E+00$
U-234, pCi/L				
Upper Three Runs				
U3R-4 at Road A	26	$(9.26 \pm 6.23)E-02$	$(2.97 \pm 0.26)E-01$	$(3.24 \pm 0.84)E-02$
Four Mile Creek				
FM-6 at Road A-12.2	26	$(6.88 \pm 8.13)E-01$	$(3.01 \pm 0.22)E+00$	$(5.65 \pm 1.20)E-02$

Table 20
Radioactivity in Savannah River Site Stream Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Pen Branch				
PB-3 at Road A-13.2	27	$(5.52 \pm 4.66)\text{E-02}$	$(2.08 \pm 0.25)\text{E-01}$	$(-0.67 \pm 5.65)\text{E-03}$
Lower Three Runs Creek				
L3R-2 (Weekly Grab)	26	$(1.38 \pm 0.71)\text{E-02}$	$(2.51 \pm 0.61)\text{E-02}$	$(-3.10 \pm 3.83)\text{E-03}$
L3R-2 Patterson Mill Road	26	$(8.57 \pm 7.28)\text{E-02}$	$(3.06 \pm 0.31)\text{E-01}$	$(1.12 \pm 0.80)\text{E-02}$
U-235, pCi/L				
Upper Three Runs				
U3R-4 at Road A	26	$(0.46 \pm 1.02)\text{E-02}$	$(4.62 \pm 0.81)\text{E-02}$	$(-7.14 \pm 1.91)\text{E-03}$
Four Mile Creek				
FM-6 at Road A-12.2	26	$(5.29 \pm 7.12)\text{E-02}$	$(3.13 \pm 0.37)\text{E-01}$	$(1.98 \pm 2.16)\text{E-03}$
Pen Branch				
PB-3 at Road A-13.2	27	$(3.17 \pm 4.72)\text{E-03}$	$(1.45 \pm 0.81)\text{E-02}$	$(-5.27 \pm 2.61)\text{E-03}$
Lower Three Runs Creek				
L3R-2 (Weekly Grab)	26	$(-1.71 \pm 3.17)\text{E-03}$	$(3.27 \pm 1.83)\text{E-03}$	$(-9.06 \pm 1.14)\text{E-03}$
L3R-2 Patterson Mill Road	26	$(2.39 \pm 5.09)\text{E-03}$	$(1.33 \pm 0.57)\text{E-02}$	$(-7.02 \pm 2.41)\text{E-03}$
U-238, pCi/L				
Upper Three Runs				
U3R-4 at Road A	26	$(1.10 \pm 0.78)\text{E-01}$	$(4.14 \pm 0.30)\text{E-01}$	$(4.02 \pm 0.88)\text{E-02}$
Four Mile Creek				
FM-6 at Road A-12.2	26	$(8.37 \pm 9.94)\text{E-01}$	$(3.85 \pm 0.27)\text{E+00}$	$(7.61 \pm 1.13)\text{E-02}$
Pen Branch				
PB-3 at Road A-13.2	27	$(4.82 \pm 4.11)\text{E-02}$	$(1.62 \pm 0.22)\text{E-01}$	$(0.33 \pm 1.07)\text{E-02}$
Lower Three Runs Creek				
L3R-2 (Weekly Grab)	26	$(0.79 \pm 1.34)\text{E-02}$	$(2.44 \pm 0.66)\text{E-02}$	$(-3.82 \pm 0.66)\text{E-02}$
L3R-2 Patterson Mill Road	26	$(6.64 \pm 5.30)\text{E-02}$	$(2.22 \pm 0.25)\text{E-01}$	$(-4.25 \pm 7.65)\text{E-03}$
Pu-238, pCi/L				
Upper Three Runs				
U3R-4 at Road A	26	$(-0.78 \pm 7.03)\text{E-02}$	$(4.44 \pm 0.97)\text{E-02}$	$(-3.49 \pm 0.24)\text{E-01}$
Four Mile Creek				
FM-6 at Road A-12.2	26	$(0.29 \pm 2.52)\text{E-02}$	$(4.19 \pm 0.96)\text{E-02}$	$(-9.50 \pm 2.79)\text{E-02}$
Pen Branch				
PB-3 at Road A-13.2	27	$(-0.08 \pm 1.30)\text{E-02}$	$(3.57 \pm 0.95)\text{E-02}$	$(-5.29 \pm 0.61)\text{E-02}$

Table 20
Radioactivity in Savannah River Site Stream Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Lower Three Runs Creek				
L3R-2 (Weekly Grab)	26	$(-0.16 \pm 1.22)E-02$	$(1.89 \pm 0.45)E-02$	$(-5.36 \pm 0.41)E-02$
L3R-2 Patterson Mill Road	26	$(0.73 \pm 1.03)E-02$	$(3.29 \pm 0.86)E-02$	$(-7.09 \pm 2.32)E-03$
Pu-239, pCi/L				
Upper Three Runs				
U3R-4 at Road A	26	$(0.46 \pm 3.09)E-03$	$(8.69 \pm 4.25)E-03$	$(-5.24 \pm 0.97)E-03$
Four Mile Creek				
FM-6 at Road A-12.2	26	$(1.28 \pm 4.48)E-03$	$(1.57 \pm 0.56)E-02$	$(-5.73 \pm 1.19)E-03$
Pen Branch				
PB-3 at Road A-13.2	27	$(1.46 \pm 3.20)E-03$	$(8.71 \pm 4.26)E-03$	$(-3.59 \pm 1.30)E-03$
Lower Three Runs Creek				
L3R-2 (Weekly Grab)	26	$(0.04 \pm 2.51)E-03$	$(5.55 \pm 2.59)E-03$	$(-4.83 \pm 0.93)E-03$
L3R-2 Patterson Mill Road	26	$(0.87 \pm 2.70)E-03$	$(8.69 \pm 4.24)E-03$	$(-3.33 \pm 0.16)E-03$
Sr-89,90, pCi/L				
Upper Three Runs				
Crouch Branch at Road 4	12	$(0.42 \pm 4.26)E-01$	$(7.36 \pm 4.54)E-01$	$(-7.44 \pm 4.21)E-01$
U3R-3 at Road C	12	$(0.61 \pm 3.58)E-01$	$(7.24 \pm 4.85)E-01$	$(-6.56 \pm 3.77)E-01$
Four Mile Creek				
FM-2 at Road 4	12	$(3.24 \pm 1.90)E+00$	$(6.23 \pm 0.49)E+00$	$(8.11 \pm 2.69)E-01$
FM-2B above F-Area effluent	12	$(4.29 \pm 1.35)E+00$	$(6.47 \pm 0.68)E+00$	$(1.99 \pm 0.44)E+00$
FM-3 F-Area effluent	12	$(1.85 \pm 2.41)E+00$	$(7.96 \pm 1.44)E+00$	$(-4.93 \pm 7.68)E-01$
FM-3A below F-Area effluent	12	$(2.10 \pm 2.01)E+00$	$(6.93 \pm 0.73)E+00$	$(0.02 \pm 3.05)E-01$
FM-6 at Road A-12.2	12	$(6.79 \pm 4.99)E+00$	$(2.07 \pm 0.06)E+01$	$(2.88 \pm 0.25)E+00$
FM-A7 at Road A-7	12	$(6.88 \pm 2.23)E+00$	$(1.10 \pm 0.08)E+01$	$(4.04 \pm 0.53)E+00$
H-008 Outfall	12	$(3.81 \pm 4.32)E-01$	$(1.17 \pm 0.48)E+00$	$(-1.59 \pm 3.43)E-01$
Pen Branch				
IGB-21 800 feet south of Road 6-1	4	$(3.73 \pm 2.07)E-01$	$(5.87 \pm 4.16)E-01$	$(1.60 \pm 4.37)E-01$
K-011 Outfall at B Road	12	$(0.25 \pm 5.74)E-01$	$(1.06 \pm 0.43)E+00$	$(-6.89 \pm 3.38)E-01$
PB-3 at Road A-13.2	14	$(2.73 \pm 2.14)E-01$	$(6.62 \pm 1.68)E-01$	$(-0.20 \pm 1.19)E-01$

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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 $\pm \sigma$
Steel Creek				
SC-2A 1 mile above Road B	12	(0.70 $\pm$ 4.28)E-01	(6.75 $\pm$ 4.40)E-01	(-7.30 $\pm$ 3.82)E-01
SC-4 Steel Creek at Road A	12	(1.03 $\pm$ 0.87)E-01	(3.23 $\pm$ 1.45)E-01	(0.25 $\pm$ 1.35)E-01
Lower Three Runs Creek				
L3R-1A at Road B	12	(1.50 $\pm$ 3.33)E-01	(6.29 $\pm$ 4.28)E-01	(-3.31 $\pm$ 4.26)E-01
L3R-2 Patterson Mill Road	12	(1.45 $\pm$ 0.61)E-01	(2.32 $\pm$ 0.96)E-01	(6.50 $\pm$ 9.17)E-02
L3R-3 at Highway 125	12	(0.30 $\pm$ 2.06)E-01	(4.55 $\pm$ 3.14)E-01	(-2.34 $\pm$ 3.04)E-01
Gross Beta, pCi/L				
Tims Branch				
TB-5 near Road C	26	(2.39 $\pm$ 1.52)E+00	(7.24 $\pm$ 0.87)E+00	(7.03 $\pm$ 3.87)E-01
Upper Three Runs				
Crouch Branch at Road 4	26	(9.15 $\pm$ 5.51)E-01	(2.19 $\pm$ 0.60)E+00	(-4.07 $\pm$ 3.21)E-01
McQueen Branch at Road F	26	(1.74 $\pm$ 0.68)E+00	(3.82 $\pm$ 0.65)E+00	(6.36 $\pm$ 4.37)E-01
U3R-1A Treadway Bridge Road 8-1	51	(1.75 $\pm$ 0.87)E+00	(4.82 $\pm$ 0.74)E+00	(4.46 $\pm$ 4.15)E-01
U3R-3 at Road C	26	(2.27 $\pm$ 3.15)E+00	(1.60 $\pm$ 0.07)E+01	(2.53 $\pm$ 3.91)E-01
U3R-4 at Road A	26	(1.43 $\pm$ 0.91)E+00	(4.80 $\pm$ 0.63)E+00	(3.30 $\pm$ 3.61)E-01
Four Mile Creek				
C-Canal	27	(7.75 $\pm$ 5.11)E-01	(1.86 $\pm$ 0.48)E+00	(-1.70 $\pm$ 4.83)E-01
FM-2 at Road 4	25	(2.06 $\pm$ 1.58)E+01	(5.51 $\pm$ 0.21)E+01	(3.08 $\pm$ 0.62)E+00
FM-2B above F-Area effluent	26	(1.64 $\pm$ 0.82)E+01	(3.52 $\pm$ 0.18)E+01	(5.69 $\pm$ 0.65)E+00
FM-3A below F-Area effluent	26	(9.01 $\pm$ 5.64)E+00	(2.30 $\pm$ 0.10)E+01	(1.94 $\pm$ 0.51)E+00
FM-6 at Road A-12.2	26	(1.60 $\pm$ 0.94)E+01	(3.94 $\pm$ 0.17)E+01	(2.83 $\pm$ 4.31)E-01
FM-A7 at Road A-7	26	(2.43 $\pm$ 1.02)E+01	(4.33 $\pm$ 0.19)E+01	(1.06 $\pm$ 0.09)E+01
H-008 Outfall	27	(8.09 $\pm$ 3.58)E+00	(1.54 $\pm$ 0.13)E+01	(1.91 $\pm$ 0.33)E+00
HP-50 Tritium Facility Outfall	26	(5.42 $\pm$ 3.52)E+00	(1.78 $\pm$ 0.09)E+01	(7.72 $\pm$ 4.60)E-01
Pen Branch				
IGB-21 800 feet south of Road 6-1	4	(1.38 $\pm$ 0.91)E+00	(2.63 $\pm$ 0.64)E+00	(4.40 $\pm$ 5.17)E-01
K-011 Outfall at B Road	26	(1.29 $\pm$ 0.41)E+00	(2.58 $\pm$ 0.45)E+00	(1.89 $\pm$ 3.63)E-01
PB-3 at Road A-13.2	27	(9.52 $\pm$ 6.94)E-01	(1.95 $\pm$ 2.30)E+00	(-2.60 $\pm$ 7.49)E-01

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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 $\pm \sigma$
Steel Creek				
SC-2A 1 mile above Road B	26	(4.93 $\pm$ 3.24)E+00	(1.73 $\pm$ 0.27)E+01	(2.01 $\pm$ 0.47)E+00
SC-4 Steel Creek at Road A	26	(1.43 $\pm$ 0.88)E+00	(4.46 $\pm$ 1.27)E+00	(3.30 $\pm$ 3.68)E-01
Lower Three Runs Creek				
L3R-1A at Road B	26	(2.09 $\pm$ 0.91)E+00	(4.26 $\pm$ 0.70)E+00	(7.46 $\pm$ 4.07)E-01
L3R-2 Patterson Mill Road	26	(2.02 $\pm$ 0.71)E+00	(3.64 $\pm$ 0.64)E+00	(7.47 $\pm$ 4.11)E-01
L3R-3 at Highway 125	12	(1.58 $\pm$ 0.51)E+00	(2.57 $\pm$ 0.59)E+00	(9.81 $\pm$ 4.66)E-01
R-Area downstream of R-1	26	(9.46 $\pm$ 6.56)E+00	(2.94 $\pm$ 0.14)E+01	(4.37 $\pm$ 0.68)E+00
Gross Alpha, pCi/L				
Tims Branch				
TB-5 near Road C	26	(4.08 $\pm$ 3.27)E+00	(1.18 $\pm$ 0.13)E+01	(7.03 $\pm$ 3.03)E-01
Upper Three Runs				
Crouch Branch at Road 4	26	(2.02 $\pm$ 2.69)E-01	(1.02 $\pm$ 0.42)E+00	(-1.72 $\pm$ 1.35)E-01
McQueen Branch at Road F	26	(1.29 $\pm$ 1.01)E+00	(4.89 $\pm$ 0.76)E+00	(2.91 $\pm$ 2.90)E-01
U3R-1A Treadway Bridge Road 8-1	51	(3.81 $\pm$ 1.58)E+00	(8.99 $\pm$ 1.00)E+00	(1.08 $\pm$ 0.36)E+00
U3R-3 at Road C	26	(4.44 $\pm$ 6.76)E+00	(2.99 $\pm$ 0.14)E+01	(6.81 $\pm$ 2.95)E-01
U3R-4 at Road A	26	(2.48 $\pm$ 1.37)E+00	(6.82 $\pm$ 0.87)E+00	(6.42 $\pm$ 2.80)E-01
Four Mile Creek				
C-Canal	27	(7.86 $\pm$ 4.38)E-01	(2.00 $\pm$ 0.53)E+00	(1.26 $\pm$ 1.85)E-01
FM-2 at Road 4	25	(3.84 $\pm$ 2.89)E+00	(1.09 $\pm$ 0.12)E+01	(1.07 $\pm$ 9.27)E-01
FM-2B above F-Area effluent	26	(1.19 $\pm$ 0.76)E+00	(3.44 $\pm$ 0.79)E+00	(0.62 $\pm$ 4.15)E-01
FM-3A below F-Area effluent	26	(2.68 $\pm$ 1.33)E+00	(6.43 $\pm$ 1.13)E+00	(7.89 $\pm$ 3.78)E-01
FM-6 at Road A-12.2	26	(4.33 $\pm$ 4.83)E+00	(2.00 $\pm$ 0.20)E+01	(0.69 $\pm$ 2.93)E-01
FM-A7 at Road A-7	26	(3.49 $\pm$ 3.07)E+00	(1.21 $\pm$ 0.10)E+01	(8.92 $\pm$ 7.19)E-01
H-008 Outfall	27	(4.36 $\pm$ 1.64)E+00	(8.16 $\pm$ 1.15)E+00	(1.20 $\pm$ 0.48)E+00
HP-50 Tritium Facility Outfall	26	(4.76 $\pm$ 3.20)E+00	(1.58 $\pm$ 0.12)E+01	(2.14 $\pm$ 3.26)E-01

Table 20
Radioactivity in Savannah River Site Stream Water

Page 8 of 8

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Pen Branch				
IGB-21 800 feet south of Road 6-1	4	$(6.08 \pm 5.98)E-01$	$(1.42 \pm 0.53)E+00$	$(0.45 \pm 2.39)E-01$
K-011 Outfall at B Road	26	$(4.38 \pm 6.70)E-01$	$(2.53 \pm 0.49)E+00$	$(-2.57 \pm 1.61)E-01$
PB-3 at Road A-13.2	27	$(5.64 \pm 5.23)E-01$	$(2.02 \pm 0.53)E+00$	$(-2.08 \pm 1.65)E-01$
Steel Creek				
SC-2A 1 mile above Road B	26	$(2.46 \pm 3.16)E+00$	$(1.62 \pm 0.32)E+01$	$(3.11 \pm 2.51)E-01$
SC-4 Steel Creek at Road A	26	$(0.98 \pm 1.14)E+00$	$(5.37 \pm 1.24)E+00$	$(-3.78 \pm 2.97)E-01$
Lower Three Runs Creek				
L3R-1A at Road B	26	$(3.34 \pm 6.45)E-01$	$(2.76 \pm 0.73)E+00$	$(-1.85 \pm 1.26)E-01$
L3R-2 Patterson Mill Road	26	$(1.07 \pm 0.72)E+00$	$(2.41 \pm 0.59)E+00$	$(0.33 \pm 2.11)E-01$
L3R-3 at Highway 125	12	$(6.63 \pm 4.54)E-01$	$(1.62 \pm 0.52)E+00$	$(-0.27 \pm 3.12)E-01$
R-Area downstream of R-1	26	$(2.90 \pm 3.45)E-01$	$(1.29 \pm 0.51)E+00$	$(-2.39 \pm 1.21)E-01$

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				
River Mile 120	52	$(9.48 \pm 4.63)E+02$	$(2.54 \pm 0.06)E+03$	$(2.59 \pm 0.89)E+02$
River Mile 140	52	$(9.15 \pm 6.14)E+02$	$(2.43 \pm 0.11)E+03$	$(0.24 \pm 1.28)E+02$
River Mile 150	52	$(1.06 \pm 0.81)E+03$	$(2.71 \pm 0.13)E+03$	$(-0.39 \pm 1.36)E+02$
River Mile 160	52	$(0.92 \pm 1.36)E+02$	$(6.25 \pm 1.38)E+02$	$(-1.14 \pm 1.30)E+02$
Vogtle Discharge	51	$(0.38 \pm 1.27)E+04$	$(7.22 \pm 0.07)E+04$	$(0.09 \pm 1.36)E+02$
Co-60, pCi/L				
Savannah River				
River Mile 120	52	$(1.42 \pm 4.61)E-01$	$(1.71 \pm 0.65)E+00$	$(-8.41 \pm 4.87)E-01$
River Mile 140	52	$(1.44 \pm 8.06)E-01$	$(2.86 \pm 1.17)E+00$	$(-1.38 \pm 1.41)E+00$
River Mile 150	52	$(0.41 \pm 4.55)E-01$	$(1.08 \pm 0.32)E+00$	$(-9.17 \pm 5.92)E-01$
River Mile 160	52	$(0.58 \pm 4.97)E-01$	$(2.13 \pm 1.26)E+00$	$(-1.44 \pm 1.53)E+00$
Vogtle Discharge	52	$(2.24 \pm 5.16)E-01$	$(2.25 \pm 1.08)E+00$	$(-1.38 \pm 0.75)E+00$
Cs-137, pCi/L				
River Mile 120	52	$(1.00 \pm 3.76)E-01$	$(1.17 \pm 1.15)E+00$	$(-9.33 \pm 5.59)E-01$
River Mile 140	52	$(1.17 \pm 9.11)E-01$	$(2.72 \pm 1.19)E+00$	$(-3.73 \pm 1.25)E+00$
River Mile 150	52	$(0.60 \pm 3.45)E-01$	$(9.30 \pm 5.02)E-01$	$(-9.00 \pm 6.07)E-01$
River Mile 160	52	$(0.01 \pm 3.61)E-01$	$(8.70 \pm 3.83)E-01$	$(-1.14 \pm 0.55)E+00$
Vogtle Discharge	52	$(0.31 \pm 3.87)E-01$	$(1.10 \pm 0.92)E+00$	$(-9.20 \pm 8.00)E-01$
Pu-238, pCi/L				
River Mile 120	1	$(-2.61 \pm 1.11)E-03$		
River Mile 140	1	$(-1.58 \pm 1.28)E-03$		
River Mile 150	1	$(-3.29 \pm 0.19)E-03$		
River Mile 160	1	$(-2.74 \pm 1.16)E-03$		
Vogtle Discharge	1	$(-1.58 \pm 1.98)E-03$		
Pu-239, pCi/L				
River Mile 120	1	$(1.63 \pm 2.28)E-03$		
River Mile 140	1	$(1.24 \pm 1.19)E-03$		
River Mile 150	1	$(5.52 \pm 8.96)E-04$		
River Mile 160	1	$(1.73 \pm 1.42)E-03$		
Vogtle Discharge	1	$(-0.78 \pm 1.34)E-03$		
Sr-89,90				
River Mile 120	1	$(2.16 \pm 6.62)E-02$		
River Mile 140	1	$(4.66 \pm 9.45)E-02$		

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 150	1	$(1.79 \pm 1.09)E-01$		
River Mile 160	1	$(2.85 \pm 1.11)E-01$		
Vogtle Discharge	1	$(1.16 \pm 0.97)E-01$		
Gross Beta, pCi/L				
River Mile 120	52	$(1.60 \pm 0.49)E+00$	$(3.02 \pm 0.35)E+00$	$(4.48 \pm 5.16)E-01$
River Mile 140	52	$(1.78 \pm 0.55)E+00$	$(2.94 \pm 0.68)E+00$	$(7.96 \pm 3.63)E-01$
River Mile 150	52	$(1.58 \pm 0.49)E+00$	$(2.75 \pm 0.63)E+00$	$(5.72 \pm 4.61)E-01$
River Mile 160	52	$(1.72 \pm 0.49)E+00$	$(3.08 \pm 0.64)E+00$	$(7.72 \pm 4.79)E-01$
Vogtle Discharge	52	$(1.82 \pm 0.89)E+00$	$(5.91 \pm 0.47)E+00$	$(-3.73 \pm 4.75)E-01$
Gross Alpha, pCi/L				
River Mile 120	52	$(1.55 \pm 2.20)E-01$	$(8.95 \pm 4.33)E-01$	$(-2.50 \pm 2.09)E-01$
River Mile 140	52	$(2.19 \pm 2.74)E-01$	$(9.75 \pm 4.23)E-01$	$(-1.85 \pm 3.37)E-01$
River Mile 150	52	$(1.90 \pm 2.38)E-01$	$(8.37 \pm 3.71)E-01$	$(-2.16 \pm 1.53)E-01$
River Mile 160	52	$(1.29 \pm 2.67)E-01$	$(7.08 \pm 3.89)E-01$	$(-4.63 \pm 2.44)E-01$
Vogtle Discharge	52	$(2.31 \pm 3.13)E-01$	$(1.14 \pm 0.51)E+00$	$(-2.54 \pm 1.80)E-01$

Table 22
Summary of Savannah River Site Tritium Transport, 1960–1998

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
1998	10,555	10,588	9,420

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 waterfaucet	7	$(0.74 \pm 1.03)E+02$	$(2.47 \pm 1.42)E+02$	$(-4.18 \pm 6.07)E+01$
105-K K-Area domestic water faucet	8	$(1.83 \pm 6.61)E+01$	$(1.01 \pm 0.87)E+02$	$(-0.69 \pm 1.31)E+02$
105-L L-Area domestic water faucet	8	$(0.18 \pm 9.60)E+01$	$(1.84 \pm 1.35)E+02$	$(-1.51 \pm 1.31)E+02$
221-F F-Area domestic water faucet	7	$(8.20 \pm 8.85)E+01$	$(1.71 \pm 1.31)E+02$	$(-0.90 \pm 1.40)E+02$
221-H H-Area domestic water faucet	7	$(-0.06 \pm 1.08)E+02$	$(1.43 \pm 1.31)E+02$	$(-1.83 \pm 1.29)E+02$
241-24H H-Area domestic water faucet	3	$(-1.00 \pm 1.09)E+02$	$(0.24 \pm 1.26)E+02$	$(-1.74 \pm 1.28)E+02$
617-G Wackenhut Training Facility	1	$(2.85 \pm 1.01)E+02$		
618-G Class. yard lunchroom	1	$(-2.31 \pm 1.31)E+02$		
661-G Firing Range (pumphouse)	1	$(1.01 \pm 0.15)E+03$		
679-T TNX domestic water faucet	1	$(0.32 \pm 1.33)E+02$		
681-3G domestic water faucet	1	$(0.48 \pm 1.42)E+02$		
701-12G Patrol Gate 7	1	$(2.88 \pm 1.34)E+02$		
701-13G Patrol Gate 6	1	$(2.43 \pm 0.15)E+03$		
701-1F F-Area domestic water faucet	1	$(0.99 \pm 1.43)E+02$		
701-1H H-Area domestic water faucet	1	$(1.80 \pm 1.33)E+02$		
701-3G Barnwell Gate	1	$(1.06 \pm 1.43)E+02$		
701-4G Williston Gate	1	$(3.21 \pm 1.44)E+02$		
701-5G Talatha Gate	1	$(6.26 \pm 1.46)E+02$		
701-6G Jackson Gate	1	$(-2.62 \pm 1.30)E+02$		
701-8G Patrol Gate 8	1	$(1.32 \pm 0.14)E+03$		
703-A EOC (kitchen)	1	$(1.81 \pm 1.44)E+02$		
704-F F-Area domestic water faucet	3	$(5.24 \pm 7.84)E+01$	$(1.38 \pm 1.36)E+02$	$(-0.17 \pm 1.26)E+02$
704-H H-Area domestic water faucet	3	$(1.27 \pm 1.74)E+02$	$(2.37 \pm 1.31)E+02$	$(-7.42 \pm 8.83)E+01$

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	1	(0.16 $\pm$ 1.32)E+02		
706-N lunchroom	1	(2.98 $\pm$ 1.44)E+02		
708-A A-Area cafeteria (restroom)	1	(-0.17 $\pm$ 1.32)E+02		
730-4B lunchroom	3	(-7.47 $\pm$ 7.94)E+01	(1.67 $\pm$ 8.60)E+01	(-1.26 $\pm$ 1.28)E+02
735-7G PAR Pond lab	1	(-2.14 $\pm$ 1.31)E+02		
760-G Forestry Building	1	(0.76 $\pm$ 1.42)E+02		
772-D lunchroom	7	(-1.82 $\pm$ 7.50)E+01	(0.69 $\pm$ 1.37)E+02	(-1.25 $\pm$ 1.31)E+02
772-F F-Area domestic water faucet	3	(-8.52 $\pm$ 6.25)E+01	(-0.17 $\pm$ 1.26)E+02	(-1.40 $\pm$ 1.30)E+02
Z-Area Building 704-Z	1	(-1.89 $\pm$ 0.92)E+02		
Treatment Plants—Raw				
Beaufort Public Water Works	12	(7.38 $\pm$ 0.34)E+02	(1.06 $\pm$ 0.09)E+03	(3.15 $\pm$ 0.97)E+02
N. Augusta Public Water Works	12	(1.03 $\pm$ 1.28)E+02	(2.88 $\pm$ 0.88)E+02	(-1.15 $\pm$ 1.19)E+02
Savannah Public Water Works	12	(8.99 $\pm$ 3.78)E+02	(1.58 $\pm$ 0.12)E+03	(4.26 $\pm$ 1.28)E+02
EMS Sampler				
Beaufort Public Water Works	25	(7.27 $\pm$ 0.22)E+02	(1.60 $\pm$ 0.12)E+03	(1.64 $\pm$ 1.27)E+02
Treatment Plants—Finished				
Beaufort Public Water Works	12	(7.28 $\pm$ 2.67)E+02	(1.14 $\pm$ 0.14)E+03	(3.35 $\pm$ 1.36)E+02
N. Augusta Public Water Works	12	(1.32 $\pm$ 1.11)E+02	(2.97 $\pm$ 1.33)E+02	(-0.37 $\pm$ 1.34)E+02
Savannah Public Water Works	12	(8.29 $\pm$ 2.95)E+02	(1.22 $\pm$ 0.13)E+03	(4.30 $\pm$ 1.28)E+02
Co-60, pCi/L				
Onsite				
105-C C-Area domestic water faucet	7	(-0.21 $\pm$ 2.68)E+00	(2.51 $\pm$ 2.08)E+00	(-5.21 $\pm$ 2.52)E+00
105-K K-Area domestic water faucet	8	(1.10 $\pm$ 3.43)E+00	(4.90 $\pm$ 2.58)E+00	(-4.79 $\pm$ 2.75)E+00
105-L L-Area domestic water faucet	8	(0.42 $\pm$ 2.28)E+00	(5.15 $\pm$ 2.25)E+00	(-2.05 $\pm$ 2.25)E+00
221-F F-Area domestic water faucet	7	(-1.11 $\pm$ 2.99)E+00	(4.58 $\pm$ 2.63)E+00	(-5.23 $\pm$ 2.48)E+00

Table 23
Radioactivity in Drinking Water

Page 3 of 10

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
221-H H-Area domestic water faucet	7	(0.47 $\pm$ 1.98)E+00	(3.81 $\pm$ 2.81)E+00	(-1.65 $\pm$ 2.71)E+00
241-24H H-Area domestic water faucet	3	(2.27 $\pm$ 3.03)E+00	(5.33 $\pm$ 2.68)E+00	(-0.73 $\pm$ 2.53)E+00
617-G Wackenhut Training Facility	1	(-1.62 $\pm$ 1.81)E+00		
618-G Class. yard lunchroom	1	(-2.23 $\pm$ 2.55)E+00		
661-G Firing Range (pumphouse)	1	(3.81 $\pm$ 1.98)E+00		
679-T TNX domestic water faucet	1	(1.72 $\pm$ 2.43)E+00		
681-3G domestic water faucet	1	(-0.33 $\pm$ 2.49)E+00		
701-12G Patrol Gate 7	1	(-6.39 $\pm$ 2.58)E+00		
701-13G Patrol Gate 6	1	(1.18 $\pm$ 2.32)E+00		
701-1F F-Area domestic water faucet	1	(-0.70 $\pm$ 2.69)E+00		
701-1H H-Area domestic water faucet	1	(-0.56 $\pm$ 2.14)E+00		
701-3G Barnwell Gate	1	(3.41 $\pm$ 1.86)E+00		
701-4G Williston Gate	1	(3.57 $\pm$ 2.08)E+00		
701-5G Talatha Gate	1	(1.02 $\pm$ 2.28)E+00		
701-6G Jackson Gate	1	(-0.08 $\pm$ 1.43)E+00		
701-8G Patrol Gate 8	1	(2.47 $\pm$ 2.46)E+00		
703-A EOC (kitchen)	1	(2.18 $\pm$ 1.40)E+00		
704-F F-Area domestic water faucet	3	(0.22 $\pm$ 3.16)E+00	(3.46 $\pm$ 2.60)E+00	(-2.84 $\pm$ 2.70)E+00
704-H H-Area domestic water faucet	3	(1.20 $\pm$ 1.17)E+00	(2.38 $\pm$ 2.07)E+00	(0.05 $\pm$ 1.30)E+00
704-S S-Area domestic water faucet	1	(1.93 $\pm$ 2.46)E+00		
706-N lunchroom	1	(-0.53 $\pm$ 1.93)E+00		
708-A A-Area cafeteria (restroom)	1	(-2.68 $\pm$ 2.57)E+00		
730-4B lunchroom	3	(0.40 $\pm$ 2.74)E+00	(3.03 $\pm$ 1.50)E+00	(-2.43 $\pm$ 2.26)E+00
735-7G PAR Pond lab	1	(3.52 $\pm$ 2.07)E+00		
760-G Forestry Building	1	(0.55 $\pm$ 1.53)E+00		
772-D lunchroom	7	(0.73 $\pm$ 2.10)E+00	(3.17 $\pm$ 1.80)E+00	(-3.12 $\pm$ 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 $\pm \sigma$
772-F F-Area domestic water faucet	3	$(-0.36 \pm 3.52)E+00$	$(2.53 \pm 2.36)E+00$	$(-4.28 \pm 2.59)E+00$
Z-Area Building 704-Z	1	$(-2.47 \pm 2.72)E+00$		
Treatment Plants—Raw				
Beaufort Public Water Works	12	$(3.83 \pm 6.12)E-01$	$(5.02 \pm 2.39)E+00$	$(-2.66 \pm 2.80)E+00$
N. Augusta Public Water Works	12	$(-0.48 \pm 2.49)E+00$	$(2.86 \pm 2.93)E+00$	$(-5.46 \pm 2.85)E+00$
Savannah Public Water Works	12	$(0.64 \pm 1.53)E+00$	$(3.00 \pm 2.41)E+00$	$(-1.70 \pm 2.58)E+00$
EMS Sampler				
Beaufort Public Water Works	25	$(1.23 \pm 0.44)E+00$	$(5.65 \pm 2.63)E+00$	$(-3.48 \pm 2.46)E+00$
Treatment Plants—Finished				
Beaufort Public Water Works	12	$(-1.14 \pm 2.18)E+00$	$(2.88 \pm 2.70)E+00$	$(-4.16 \pm 2.86)E+00$
N. Augusta Public Water Works	12	$(0.49 \pm 2.27)E+00$	$(3.98 \pm 2.16)E+00$	$(-3.88 \pm 2.37)E+00$
Savannah Public Water Works	12	$(0.97 \pm 2.54)E+00$	$(4.62 \pm 2.11)E+00$	$(-3.01 \pm 2.27)E+00$
Cs-137, pCi/L				
Onsite				
105-C C-Area domestic water faucet	7	$(-0.22 \pm 2.75)E+00$	$(5.57 \pm 2.02)E+00$	$(-2.49 \pm 2.30)E+00$
105-K K-Area domestic water faucet	8	$(1.05 \pm 2.55)E+00$	$(4.27 \pm 1.92)E+00$	$(-2.38 \pm 2.50)E+00$
105-L L-Area domestic water faucet	8	$(1.53 \pm 8.20)E-01$	$(1.32 \pm 2.15)E+00$	$(-0.72 \pm 2.19)E+00$
221-F F-Area domestic water faucet	7	$(-0.74 \pm 4.11)E+00$	$(5.03 \pm 2.13)E+00$	$(-7.63 \pm 2.26)E+00$
221-H H-Area domestic water faucet	7	$(0.27 \pm 1.69)E+00$	$(2.68 \pm 2.37)E+00$	$(-1.61 \pm 2.53)E+00$
241-24H H-Area domestic water faucet	3	$(7.59 \pm 2.06)E-01$	$(0.95 \pm 2.34)E+00$	$(0.54 \pm 2.09)E+00$
617-G Wackenhut Training Facility	1	$(-2.97 \pm 1.51)E+00$		
618-G Class. yard lunchroom	1	$(-2.70 \pm 2.30)E+00$		
661-G Firing Range (pumphouse)	1	$(1.52 \pm 1.92)E+00$		

Table 23
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
679-T TNX domestic water faucet	1	$(-1.24 \pm 2.47)E+00$		
681-3G faucet	1	$(0.15 \pm 1.99)E+00$		
701-12G Patrol Gate 7	1	$(2.08 \pm 2.25)E+00$		
701-13G Patrol Gate 6	1	$(-2.21 \pm 2.35)E+00$		
701-1F F-Area domestic water faucet	1	$(-1.25 \pm 2.34)E+00$		
701-1H H-Area domestic water faucet	1	$(3.38 \pm 2.29)E+00$		
701-3G Barnwell Gate	1	$(2.38 \pm 1.89)E+00$		
701-4G Williston Gate	1	$(-1.04 \pm 2.07)E+00$		
701-5G Talatha Gate	1	$(-0.59 \pm 2.04)E+00$		
701-6G Jackson Gate	1	$(1.31 \pm 1.43)E+00$		
701-8G Patrol Gate 8	1	$(1.46 \pm 2.41)E+00$		
703-A EOC (kitchen)	1	$(-2.82 \pm 1.51)E+00$		
704-F F-Area domestic water faucet	3	$(-0.42 \pm 1.35)E+00$	$(0.68 \pm 2.39)E+00$	$(-1.92 \pm 2.18)E+00$
704-H H-Area domestic water faucet	3	$(-1.77 \pm 2.38)E+00$	$(0.77 \pm 1.15)E+00$	$(-3.95 \pm 2.21)E+00$
704-S S-Area domestic water faucet	1	$(0.45 \pm 2.26)E+00$		
706-N lunchroom	1	$(-4.57 \pm 2.43)E+00$		
708-A A-Area cafeteria (restroom)	1	$(1.01 \pm 2.26)E+00$		
730-4B lunchroom	3	$(-0.06 \pm 1.21)E+00$	$(1.09 \pm 1.88)E+00$	$(-1.33 \pm 1.41)E+00$
735-7G PAR Pond lab	1	$(-0.34 \pm 2.11)E+00$		
760-G Forestry Building	1	$(1.23 \pm 1.17)E+00$		
772-D lunchroom	7	$(1.27 \pm 1.10)E+00$	$(2.76 \pm 2.34)E+00$	$(-0.15 \pm 2.21)E+00$
772-F F-Area domestic water faucet	3	$(1.27 \pm 1.79)E+00$	$(3.33 \pm 2.31)E+00$	$(0.08 \pm 2.37)E+00$
Z-Area Building 704-Z	1	$(3.00 \pm 2.09)E+00$		
Treatment Plants—Raw				
Beaufort Public Water Works	12	$(8.70 \pm 58.8)E-02$	$(3.33 \pm 2.20)E+00$	$(-1.99 \pm 2.31)E+00$
N. Augusta Public Water Works	12	$(1.24 \pm 1.76)E+00$	$(3.49 \pm 2.23)E+00$	$(-1.88 \pm 2.18)E+00$
Savannah Public Water Works	12	$(-1.38 \pm 2.52)E+00$	$(3.23 \pm 2.16)E+00$	$(-4.68 \pm 2.51)E+00$

Table 23
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
EMS Sampler				
Beaufort Public Water Works	25	$(-0.10 \pm 0.41)\text{E}+00$	$(4.22 \pm 2.21)\text{E}+00$	$(-3.84 \pm 2.33)\text{E}+00$
Treatment Plants—Finished				
Beaufort Public Water Works	12	$(-0.36 \pm 1.80)\text{E}+00$	$(1.50 \pm 2.18)\text{E}+00$	$(-3.84 \pm 2.23)\text{E}+00$
N. Augusta Public Water Works	12	$(0.34 \pm 1.63)\text{E}+00$	$(2.76 \pm 2.33)\text{E}+00$	$(-2.25 \pm 1.64)\text{E}+00$
Savannah Public Water Works	12	$(0.85 \pm 1.86)\text{E}+00$	$(3.66 \pm 2.10)\text{E}+00$	$(-3.17 \pm 2.13)\text{E}+00$
Sr-89,90, pCi/L				
Onsite				
105–C C-Area domestic water faucet	1	$(2.73 \pm 3.15)\text{E}-01$		
105–K K-Area domestic water faucet	1	$(0.22 \pm 3.93)\text{E}-01$		
105–L L-Area domestic water faucet	1	$(-1.90 \pm 4.09)\text{E}-01$		
221–F F-Area domestic water faucet	1	$(-1.29 \pm 3.71)\text{E}-01$		
221–H H-Area domestic water faucet	1	$(-1.42 \pm 3.81)\text{E}-01$		
241–24H H-Area domestic water faucet	1	$(-1.94 \pm 3.78)\text{E}-01$		
617–G Wackenhut Training Facility	1	$(-3.67 \pm 3.41)\text{E}-01$		
618–G Class. yard lunchroom	1	$(4.72 \pm 4.39)\text{E}-01$		
661–G Firing Range (pumphouse)	1	$(-2.14 \pm 4.00)\text{E}-01$		
679–T TNX domestic water faucet	1	$(1.23 \pm 3.91)\text{E}-01$		
701–12G Patrol Gate 7	1	$(-3.84 \pm 3.31)\text{E}-01$		
701–13G Patrol Gate 6	1	$(-0.68 \pm 3.80)\text{E}-01$		
701–1F F-Area domestic water faucet	1	$(0.70 \pm 3.97)\text{E}-01$		
701–1H H-Area domestic water faucet	1	$(2.52 \pm 3.85)\text{E}-01$		
701–3G Barnwell Gate	1	$(-0.01 \pm 2.65)\text{E}-01$		
701–4G Williston Gate	1	$(-1.15 \pm 3.46)\text{E}-01$		

Table 23
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
701-5G Talatha Gate	1	(-0.71 $\pm$ 3.49)E-01		
701-6G Jackson Gate	1	(-2.22 $\pm$ 3.70)E-01		
701-8G Patrol Gate 8	1	(0.10 $\pm$ 3.57)E-01		
703-A EOC (kitchen)	1	(5.42 $\pm$ 3.09)E-01		
704-F F-Area domestic water faucet	1	(-1.86 $\pm$ 3.64)E-01		
704-H H-Area domestic water faucet	1	(-1.58 $\pm$ 3.78)E-01		
704-S S-Area domestic water faucet	1	(5.62 $\pm$ 4.20)E-01		
708-A A-Area cafeteria (restroom)	1	(-2.59 $\pm$ 3.63)E-01		
730-4B lunchroom	1	(1.12 $\pm$ 4.13)E-01		
735-7G PAR Pond lab	1	(1.17 $\pm$ 3.70)E-01		
760-G Forestry Building	1	(0.62 $\pm$ 4.33)E-01		
772-D lunchroom	1	(1.11 $\pm$ 4.08)E-01		
772-F F-Area domestic water faucet	1	(2.99 $\pm$ 5.08)E-01		
Z-Area Building 704-Z	1	(0.24 $\pm$ 4.24)E-01		
Gross Beta, pCi/L				
Onsite				
105-C C-Area domestic water faucet	7	(6.76 $\pm$ 7.28)E-01	(1.73 $\pm$ 0.54)E+00	(-1.16 $\pm$ 4.20)E-01
105-K K-Area domestic water faucet	8	(1.42 $\pm$ 0.46)E+00	(2.03 $\pm$ 0.60)E+00	(4.60 $\pm$ 4.94)E-01
105-L L-Area domestic water faucet	8	(1.28 $\pm$ 0.39)E+00	(2.09 $\pm$ 0.59)E+00	(9.50 $\pm$ 4.84)E-01
221-F F-Area domestic water faucet	7	(4.76 $\pm$ 4.30)E-01	(1.04 $\pm$ 0.46)E+00	(-0.56 $\pm$ 4.42)E-01
221-H H-Area domestic water faucet	7	(4.11 $\pm$ 3.09)E-01	(7.83 $\pm$ 5.00)E-01	(-0.08 $\pm$ 4.89)E-01
241-24H H-Area domestic water faucet	3	(2.23 $\pm$ 0.58)E+00	(2.85 $\pm$ 0.65)E+00	(1.69 $\pm$ 0.66)E+00
617-G Wackenhut Training Facility	1	(6.75 $\pm$ 4.95)E-01		
618-G Class. yard lunchroom	1	(1.38 $\pm$ 0.56)E+00		
661-G Firing Range (pumphouse)	1	(2.18 $\pm$ 0.57)E+00		

Table 23
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
679-T TNX domestic water faucet	1	(3.85 $\pm$ 0.73)E+00		
681-3G faucet	1	(3.37 $\pm$ 0.64)E+00		
701-12G Patrol Gate 7	1	(1.04 $\pm$ 0.58)E+00		
701-13G Patrol Gate 6	1	(3.26 $\pm$ 5.13)E-01		
701-1F F-Area domestic water faucet	1	(3.99 $\pm$ 5.04)E-01		
701-1H H-Area domestic water faucet	1	(1.10 $\pm$ 0.60)E+00		
701-3G Barnwell Gate	1	(0.49 $\pm$ 4.45)E-01		
701-4G Williston Gate	1	(-0.43 $\pm$ 4.34)E-01		
701-5G Talatha Gate	1	(2.48 $\pm$ 0.61)E+00		
701-6G Jackson Gate	1	(1.30 $\pm$ 0.57)E+00		
701-8G Patrol Gate 8	1	(-4.14 $\pm$ 4.68)E-01		
703-A EOC (kitchen)	1	(0.77 $\pm$ 5.46)E-01		
704-F F-Area domestic water faucet	3	(0.12 $\pm$ 2.07)E-01	(1.48 $\pm$ 4.99)E-01	(-2.26 $\pm$ 4.24)E-01
704-H H-Area domestic water faucet	3	(1.21 $\pm$ 0.55)E+00	(1.57 $\pm$ 0.59)E+00	(5.70 $\pm$ 3.16)E-01
704-S S-Area domestic water faucet	1	(7.40 $\pm$ 5.85)E-01		
706-N lunchroom	1	(2.63 $\pm$ 5.54)E-01		
708-A A-Area cafeteria (restroom)	1	(-1.86 $\pm$ 5.21)E-01		
730-4B lunchroom	3	(7.44 $\pm$ 8.25)E-01	(1.70 $\pm$ 0.60)E+00	(2.46 $\pm$ 4.55)E-01
735-7G PAR Pond lab	1	(2.15 $\pm$ 0.60)E+00		
760-G Forestry Building	1	(1.14 $\pm$ 0.54)E+00		
772-D lunchroom	7	(2.65 $\pm$ 0.22)E+00	(2.97 $\pm$ 0.64)E+00	(2.33 $\pm$ 0.61)E+00
772-F F-Area domestic water faucet	3	(1.28 $\pm$ 0.31)E+00	(1.58 $\pm$ 0.50)E+00	(9.67 $\pm$ 6.05)E-01
Z-Area Building 704-Z	1	(6.22 $\pm$ 5.77)E-01		
Treatment Plants—Raw				
Beaufort Public Water Works	12	(1.69 $\pm$ 0.14)E+00	(2.50 $\pm$ 0.44)E+00	(1.10 $\pm$ 0.54)E+00
N. Augusta Public Water Works	12	(1.48 $\pm$ 0.49)E+00	(2.33 $\pm$ 0.54)E+00	(6.87 $\pm$ 5.06)E-01
Savannah Public Water Works	12	(1.43 $\pm$ 0.29)E+00	(1.97 $\pm$ 0.59)E+00	(1.08 $\pm$ 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 $\pm \sigma$
EMS Sampler				
Beaufort Public Water Works	25	$(1.30 \pm 0.18)\text{E}+00$	$(2.68 \pm 0.65)\text{E}+00$	$(0.10 \pm 1.10)\text{E}+00$
Treatment Plants—Finished				
Beaufort Public Water Works	12	$(1.54 \pm 0.47)\text{E}+00$	$(2.47 \pm 0.60)\text{E}+00$	$(9.68 \pm 4.09)\text{E}-01$
N. Augusta Public Water Works	12	$(9.66 \pm 2.70)\text{E}-01$	$(1.37 \pm 0.57)\text{E}+00$	$(3.75 \pm 4.31)\text{E}-01$
Savannah Public Water Works	12	$(1.47 \pm 0.59)\text{E}+00$	$(2.84 \pm 0.62)\text{E}+00$	$(5.65 \pm 4.79)\text{E}-01$
Gross Alpha, pCi/L				
Onsite				
105—C C-Area domestic water faucet	7	$(4.58 \pm 5.90)\text{E}-01$	$(1.65 \pm 0.62)\text{E}+00$	$(-1.00 \pm 2.76)\text{E}-01$
105—K K-Area domestic water faucet	8	$(1.03 \pm 3.78)\text{E}-01$	$(9.53 \pm 5.22)\text{E}-01$	$(-2.36 \pm 1.76)\text{E}-01$
105—L L-Area domestic water faucet	8	$(5.17 \pm 2.37)\text{E}-01$	$(7.97 \pm 4.33)\text{E}-01$	$(2.13 \pm 3.32)\text{E}-01$
221—F F-Area domestic water faucet	7	$(9.82 \pm 4.58)\text{E}-01$	$(1.76 \pm 0.62)\text{E}+00$	$(5.76 \pm 4.28)\text{E}-01$
221—H H-Area domestic water faucet	7	$(1.39 \pm 0.79)\text{E}+00$	$(2.55 \pm 0.73)\text{E}+00$	$(7.43 \pm 3.55)\text{E}-01$
241—24H H-Area domestic water faucet	3	$(1.50 \pm 1.06)\text{E}+00$	$(2.57 \pm 0.82)\text{E}+00$	$(4.54 \pm 4.60)\text{E}-01$
617—G Wackenhut Training Facility	1	$(4.91 \pm 3.63)\text{E}-01$		
618—G Class. yard lunchroom	1	$(2.09 \pm 0.70)\text{E}+00$		
661—G Firing Range (pumphouse)	1	$(3.99 \pm 0.73)\text{E}+00$		
679—T TNX domestic water faucet	1	$(0.71 \pm 3.38)\text{E}-01$		
681—3G faucet	1	$(2.98 \pm 0.70)\text{E}+00$		
701—12G Patrol Gate 7	1	$(2.28 \pm 3.50)\text{E}-01$		
701—13G Patrol Gate 6	1	$(8.88 \pm 3.86)\text{E}-01$		
701—1F F-Area domestic water faucet	1	$(2.02 \pm 0.71)\text{E}+00$		
701—1H H-Area domestic water faucet	1	$(6.22 \pm 4.59)\text{E}-01$		
701—3G Barnwell Gate	1	$(3.07 \pm 2.88)\text{E}-01$		

Table 23
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
701-4G Williston Gate	1	(0.64 $\pm$ 2.23)E-01		
701-5G Talatha Gate	1	(1.01 $\pm$ 0.11)E+01		
701-6G Jackson Gate	1	(1.66 $\pm$ 0.50)E+00		
701-8G Patrol Gate 8	1	(4.14 $\pm$ 2.96)E-01		
703-A EOC (kitchen)	1	(9.77 $\pm$ 5.38)E-01		
704-F F-Area domestic water faucet	3	(8.50 $\pm$ 8.09)E-01	(1.77 $\pm$ 0.58)E+00	(2.35 $\pm$ 3.31)E-01
704-H H-Area domestic water faucet	3	(9.72 $\pm$ 6.61)E-01	(1.48 $\pm$ 0.60)E+00	(2.26 $\pm$ 3.54)E-01
704-S S-Area domestic water faucet	1	(6.51 $\pm$ 4.86)E-01		
706-N lunchroom	1	(9.77 $\pm$ 5.38)E-01		
708-A A-Area cafeteria (restroom)	1	(2.43 $\pm$ 3.74)E-01		
730-4B lunchroom	3	(1.02 $\pm$ 0.23)E+00	(1.27 $\pm$ 0.61)E+00	(8.31 $\pm$ 5.03)E-01
735-7G PAR Pond lab	1	(4.29 $\pm$ 4.45)E-01		
760-G Forestry Building	1	(9.51 $\pm$ 5.04)E-01		
772-D lunchroom	7	(4.17 $\pm$ 2.75)E-01	(6.97 $\pm$ 4.39)E-01	(-1.20 $\pm$ 2.43)E-01
772-F F-Area domestic water faucet	3	(8.76 $\pm$ 3.64)E-01	(1.20 $\pm$ 0.49)E+00	(4.84 $\pm$ 4.68)E-01
Z-Area Building 704-Z	1	(4.44 $\pm$ 4.49)E-01		
Treatment Plants—Raw				
Beaufort Public Water Works	12	(2.20 $\pm$ 0.85)E-01	(6.44 $\pm$ 4.11)E-01	(-1.57 $\pm$ 2.69)E-01
N. Augusta Public Water Works	12	(1.73 $\pm$ 3.62)E-01	(1.05 $\pm$ 0.46)E+00	(-2.29 $\pm$ 1.41)E-01
Savannah Public Water Works	12	(0.27 $\pm$ 1.51)E-01	(3.07 $\pm$ 2.93)E-01	(-1.79 $\pm$ 3.54)E-01
EMS Sampler				
Beaufort Public Water Works	25	(3.54 $\pm$ 1.05)E-01	(9.53 $\pm$ 4.98)E-01	(-3.42 $\pm$ 2.84)E-01
Treatment Plants—Finished				
Beaufort Public Water Works	12	(-0.31 $\pm$ 2.53)E-01	(2.57 $\pm$ 3.89)E-01	(-6.24 $\pm$ 3.21)E-01
N. Augusta Public Water Works	12	(-0.09 $\pm$ 1.17)E-01	(2.14 $\pm$ 3.25)E-01	(-1.52 $\pm$ 3.05)E-01
Savannah Public Water Works	12	(0.18 $\pm$ 2.84)E-01	(6.34 $\pm$ 4.69)E-01	(-2.64 $\pm$ 1.91)E-01

Table 24

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

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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 $\pm\sigma$)
Notes: 1. All results except those for H-3 are expressed in dry weight. 2. Blank spaces indicate missing samples or analyses. 3. Samples of food are collected one time per year; they are collected from one location within each of the quadrants and from a control location within an extended (10 to 25 miles beyond the perimeter) southeast quadrant.						
Greens						
NE Quadrant 0-10 miles	(4.68 $\pm$ 3.09)E-02	(-0.17 $\pm$ 2.88)E-03	(1.88 $\pm$ 2.52)E-03	(1.30 $\pm$ 6.44)E-05	(1.87 $\pm$ 6.42)E-05	(2.97 $\pm$ 0.41)E-01
NW Quadrant 0-10 miles	(1.20 $\pm$ 0.39)E-01	(-0.06 $\pm$ 3.53)E-03	(-0.42 $\pm$ 2.48)E-03	(0.54 $\pm$ 2.02)E-05	(3.76 $\pm$ 2.74)E-05	(8.25 $\pm$ 3.10)E-02
SE Quadrant 0-10 miles	(4.30 $\pm$ 4.68)E-02	(5.56 $\pm$ 4.50)E-03	(1.36 $\pm$ 0.46)E-02	(0.07 $\pm$ 2.13)E-05	(-1.34 $\pm$ 3.07)E-05	(3.58 $\pm$ 3.03)E-02
SW Quadrant 0-10 miles	(1.63 $\pm$ 0.35)E-01	(8.99 $\pm$ 3.74)E-03	(8.76 $\pm$ 3.37)E-03	(4.30 $\pm$ 4.72)E-05	(5.69 $\pm$ 4.03)E-05	(1.35 $\pm$ 0.34)E-01
SE Quadrant 10-25 miles	(1.05 $\pm$ 0.26)E-01	(-0.74 $\pm$ 2.81)E-03	(1.33 $\pm$ 2.58)E-03	(0.48 $\pm$ 4.32)E-05	(-6.92 $\pm$ 4.23)E-05	(-1.12 $\pm$ 2.51)E-02
Fruit						
NE Quadrant 0-10 miles	(1.52 $\pm$ 1.83)E-02	(2.93 $\pm$ 2.30)E-03	(0.45 $\pm$ 1.99)E-03	(-0.66 $\pm$ 2.19)E-05	(3.01 $\pm$ 3.49)E-05	(-0.44 $\pm$ 2.59)E-02
NW Quadrant 0-10 miles	(3.35 $\pm$ 1.75)E-02	(6.57 $\pm$ 3.40)E-03	(5.66 $\pm$ 2.92)E-03	(-7.01 $\pm$ 5.54)E-05	(-4.23 $\pm$ 4.03)E-05	(-0.21 $\pm$ 2.62)E-02
SE Quadrant 0-10 miles	(0.15 $\pm$ 2.87)E-02			(0.01 $\pm$ 3.58)E-05	(-2.39 $\pm$ 2.90)E-05	(1.01 $\pm$ 2.71)E-02
SW Quadrant 0-10 miles	(3.30 $\pm$ 1.30)E-02	(-0.39 $\pm$ 3.09)E-03	(2.06 $\pm$ 2.57)E-03	(-1.39 $\pm$ 0.81)E-05	(-2.41 $\pm$ 1.40)E-05	(3.34 $\pm$ 2.87)E-02
SE Quadrant 10-25 miles	(5.11 $\pm$ 4.28)E-02	(3.28 $\pm$ 2.85)E-03	(-2.65 $\pm$ 2.67)E-03	(3.35 $\pm$ 5.16)E-05	(1.27 $\pm$ 3.28)E-05	(1.30 $\pm$ 2.73)E-02

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

Page 2 of 2

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	(1.16 $\pm$ 0.36)E–01	(7.53 $\pm$ 3.53)E–03	(6.27 $\pm$ 2.84)E–03			(0.43 $\pm$ 2.65)E–02
NW Quadrant 0–10 miles						
SE Quadrant 0–10 miles	(2.36 $\pm$ 2.95)E–02	(2.72 $\pm$ 2.90)E–03	(7.69 $\pm$ 2.56)E–03			(2.65 $\pm$ 2.79)E–02
SW Quadrant 0–10 miles	(1.32 $\pm$ 0.49)E–01	(0.40 $\pm$ 2.56)E–03	(1.13 $\pm$ 0.32)E–02			(2.07 $\pm$ 2.74)E–02
SE Quadrant 10–25 miles						

Table 25
Radioactivity in Terrestrial Food Products — Milk

Page 1 of 2

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	$(3.82 \pm 7.17)E+01$	$(1.83 \pm 0.62)E+02$	$(-0.93 \pm 1.36)E+02$
Denmark, S.C., dairy	12	$(1.58 \pm 1.15)E+02$	$(2.89 \pm 1.31)E+02$	$(-6.76 \pm 9.65)E+01$
Girard, Ga., dairy	12	$(1.53 \pm 0.79)E+02$	$(2.75 \pm 1.26)E+02$	$(0.30 \pm 1.32)E+02$
Gracewood, Ga., dairy	11	$(1.40 \pm 0.89)E+02$	$(3.05 \pm 0.88)E+02$	$(0.38 \pm 1.30)E+02$
Jackson, S.C., dairy	11	$(5.38 \pm 0.97)E+02$	$(6.83 \pm 1.29)E+02$	$(4.02 \pm 1.30)E+02$
Waynesboro, Ga., dairy	12	$(0.50 \pm 1.36)E+03$	$(4.81 \pm 0.08)E+03$	$(-1.25 \pm 1.32)E+02$
Co-60, pCi/L				
Communities Around SRS				
Dairy (Major Distributor)	12	$(-0.26 \pm 1.75)E+00$	$(2.18 \pm 1.19)E+00$	$(-2.97 \pm 2.60)E+00$
Denmark, S.C., dairy	12	$(1.02 \pm 1.91)E+00$	$(5.22 \pm 1.27)E+00$	$(-1.89 \pm 1.60)E+00$
Girard, Ga., dairy	12	$(0.38 \pm 2.01)E+00$	$(3.65 \pm 1.20)E+00$	$(-2.97 \pm 1.82)E+00$
Gracewood, Ga., dairy	12	$(0.28 \pm 1.48)E+00$	$(2.87 \pm 1.06)E+00$	$(-2.73 \pm 1.35)E+00$
Jackson, S.C., dairy	10	$(0.60 \pm 1.44)E+00$	$(2.34 \pm 1.18)E+00$	$(-2.31 \pm 1.71)E+00$
Waynesboro, Ga., dairy	12	$(0.48 \pm 2.15)E+00$	$(4.00 \pm 1.18)E+00$	$(-2.43 \pm 1.42)E+00$
Cs-137, pCi/L				
Communities Around SRS				
Dairy (Major Distributor)	12	$(2.18 \pm 2.06)E+00$	$(7.39 \pm 1.98)E+00$	$(-1.39 \pm 2.16)E+00$
Denmark, S.C., dairy	12	$(3.68 \pm 1.69)E+00$	$(7.87 \pm 2.26)E+00$	$(1.43 \pm 1.03)E+00$
Girard, Ga., dairy	12	$(1.38 \pm 1.53)E+00$	$(4.38 \pm 1.11)E+00$	$(-0.93 \pm 1.24)E+00$
Gracewood, Ga., dairy	12	$(1.31 \pm 0.94)E+00$	$(3.43 \pm 0.97)E+00$	$(-0.18 \pm 1.07)E+00$
Jackson, S.C., dairy	10	$(7.65 \pm 6.85)E-01$	$(1.78 \pm 1.00)E+00$	$(-0.30 \pm 1.28)E+00$
Waynesboro, Ga., dairy	12	$(1.67 \pm 1.05)E+00$	$(3.59 \pm 1.01)E+00$	$(0.06 \pm 1.50)E+00$
Sr-90, pCi/L				
Communities Around SRS				
Dairy (Major Distributor)	2	$(0.45 \pm 1.12)E+00$	$(1.24 \pm 0.96)E+00$	$(-3.38 \pm 9.67)E-01$
Denmark, S.C., dairy	2	$(5.36 \pm 3.39)E-01$	$(7.76 \pm 9.73)E-01$	$(2.97 \pm 9.67)E-01$
Girard, Ga., dairy	2	$(-0.95 \pm 5.48)E-01$	$(2.92 \pm 9.48)E-01$	$(-4.82 \pm 8.84)E-01$
Gracewood, Ga., dairy	2	$(2.47 \pm 1.38)E+00$	$(3.45 \pm 1.23)E+00$	$(1.50 \pm 1.01)E+00$
Jackson, S.C., dairy	2	$(0.89 \pm 1.26)E+00$	$(1.78 \pm 0.96)E+00$	$(0.00 \pm 8.60)E-01$
Waynesboro, Ga., dairy	2	$(0.35 \pm 1.06)E+00$	$(1.10 \pm 1.00)E+00$	$(-3.98 \pm 8.97)E-01$

Table 25
Radioactivity in Terrestrial Food Products — Milk

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Sr-89,90, pCi/L				
Communities around SRS				
Dairy (Major Distributor)	1	(1.36 $\pm$ 0.90)E+00		
Denmark, S.C., dairy	1	(1.47 $\pm$ 0.74)E+00		
Girard, Ga., dairy	1	(7.84 $\pm$ 8.75)E-01		
Gracewood, Ga., dairy	1	(1.08 $\pm$ 0.88)E+00		
Jackson, S.C., dairy	1	(7.81 $\pm$ 8.71)E-01		
Waynesboro, Ga., dairy	1	(1.95 $\pm$ 8.45)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)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(6.11 \pm 6.42)E-02$	$(1.27 \pm 1.26)E-01$	$(-0.08 \pm 9.60)E-02$
Bowfin	3	$(4.23 \pm 2.73)E-02$	$(6.10 \pm 2.89)E-02$	$(1.10 \pm 3.26)E-02$
Bream	3	$(7.68 \pm 2.25)E-02$	$(9.55 \pm 5.87)E-02$	$(5.18 \pm 4.17)E-02$
Freshwater Catfish	3	$(1.04 \pm 0.79)E-01$	$(1.91 \pm 1.00)E-01$	$(0.34 \pm 1.03)E-01$
Sucker	3	$(1.12 \pm 0.48)E-01$	$(1.50 \pm 0.33)E-01$	$(5.71 \pm 2.90)E-02$
Beaver Dam Creek River Mouth				
Bass	3	$(6.88 \pm 1.31)E-02$	$(8.08 \pm 3.97)E-02$	$(5.48 \pm 5.51)E-02$
Bream	3	$(4.73 \pm 2.23)E-02$	$(7.21 \pm 2.69)E-02$	$(2.88 \pm 2.55)E-02$
Freshwater Catfish	3	$(5.75 \pm 8.26)E-02$	$(1.53 \pm 0.56)E-01$	$(0.45 \pm 5.55)E-02$
Four Mile Creek River Mouth				
Bass	3	$(3.92 \pm 5.77)E+00$	$(1.06 \pm 0.01)E+01$	$(3.13 \pm 0.67)E-01$
Bowfin	3	$(8.95 \pm 5.71)E-01$	$(1.45 \pm 0.03)E+00$	$(3.12 \pm 0.21)E-01$
Bream	3	$(3.37 \pm 2.80)E-01$	$(5.84 \pm 0.54)E-01$	$(3.25 \pm 4.95)E-02$
Freshwater Catfish	3	$(7.72 \pm 1.35)E-01$	$(9.23 \pm 0.41)E-01$	$(6.62 \pm 0.49)E-01$
Sucker	3	$(6.13 \pm 5.83)E-01$	$(1.29 \pm 0.04)E+00$	$(2.74 \pm 0.21)E-01$
Hwy-301 Bridge Area				
Bass	3	$(4.02 \pm 0.11)E-01$	$(4.10 \pm 0.53)E-01$	$(3.89 \pm 0.53)E-01$
Bowfin	3	$(5.47 \pm 3.23)E-01$	$(9.19 \pm 0.59)E-01$	$(3.38 \pm 0.60)E-01$
Bream	3	$(4.14 \pm 1.02)E-01$	$(4.91 \pm 0.53)E-01$	$(2.99 \pm 0.47)E-01$
Freshwater Catfish	3	$(1.95 \pm 0.35)E-01$	$(2.27 \pm 0.52)E-01$	$(1.57 \pm 0.38)E-01$
Sucker	3	$(1.20 \pm 0.23)E-01$	$(1.46 \pm 0.27)E-01$	$(1.04 \pm 0.31)E-01$
L3R Creek River Mouth				
Bass	3	$(5.65 \pm 3.70)E-01$	$(9.92 \pm 0.86)E-01$	$(3.35 \pm 0.30)E-01$
Bream	3	$(5.62 \pm 2.48)E-01$	$(8.46 \pm 0.69)E-01$	$(3.89 \pm 0.31)E-01$
Freshwater Catfish	3	$(6.45 \pm 0.95)E-01$	$(7.14 \pm 1.42)E-01$	$(5.37 \pm 1.38)E-01$
Steel Creek River Mouth				
Bass	3	$(8.97 \pm 4.72)E-01$	$(1.44 \pm 0.06)E+00$	$(5.78 \pm 0.48)E-01$
Bowfin	3	$(4.79 \pm 1.03)E-01$	$(5.90 \pm 0.57)E-01$	$(3.86 \pm 0.60)E-01$
Bream	3	$(7.07 \pm 3.75)E-01$	$(1.07 \pm 0.06)E+00$	$(3.23 \pm 0.42)E-01$

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	$(6.20 \pm 0.31)E-01$	$(6.50 \pm 0.42)E-01$	$(5.88 \pm 0.59)E-01$
Sucker	3	$(6.93 \pm 1.32)E-01$	$(8.24 \pm 0.30)E-01$	$(5.61 \pm 0.28)E-01$
U3R Creek River Mouth				
Bass	3	$(4.17 \pm 5.27)E-01$	$(1.02 \pm 0.05)E+00$	$(5.81 \pm 4.21)E-02$
Bream	3	$(5.37 \pm 4.67)E-01$	$(1.07 \pm 0.04)E+00$	$(1.83 \pm 0.31)E-01$
Freshwater Catfish	3	$(5.03 \pm 5.29)E-02$	$(0.93 \pm 1.16)E-01$	$(-0.09 \pm 1.08)E-01$
Co-60, pCi/g				
Offsite (Edible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(-0.48 \pm 1.30)E-02$	$(1.01 \pm 1.48)E-02$	$(-1.32 \pm 1.54)E-02$
Bowfin	3	$(-0.45 \pm 2.17)E-02$	$(1.48 \pm 1.50)E-02$	$(-2.80 \pm 1.65)E-02$
Bream	3	$(0.82 \pm 1.14)E-02$	$(2.09 \pm 1.68)E-02$	$(-0.08 \pm 1.40)E-02$
Freshwater Catfish	3	$(-0.13 \pm 1.70)E-02$	$(1.82 \pm 1.49)E-02$	$(-1.26 \pm 1.50)E-02$
Sucker	3	$(-0.11 \pm 1.64)E-02$	$(1.62 \pm 1.63)E-02$	$(-1.66 \pm 1.67)E-02$
Beaver Dam Creek River Mouth				
Bass	3	$(1.58 \pm 1.12)E-02$	$(2.23 \pm 1.31)E-02$	$(0.29 \pm 1.26)E-02$
Bream	3	$(-0.74 \pm 1.50)E-02$	$(0.73 \pm 1.54)E-02$	$(-2.26 \pm 1.29)E-02$
Freshwater Catfish	3	$(0.09 \pm 1.98)E-02$	$(1.94 \pm 1.50)E-02$	$(-2.00 \pm 1.35)E-02$
Four Mile Creek River Mouth				
Bass	3	$(1.53 \pm 0.29)E-02$	$(1.87 \pm 1.25)E-02$	$(1.36 \pm 1.55)E-02$
Bowfin	3	$(-0.27 \pm 1.27)E-02$	$(0.78 \pm 1.54)E-02$	$(-1.67 \pm 1.48)E-02$
Bream	3	$(1.23 \pm 0.42)E-02$	$(1.56 \pm 1.41)E-02$	$(0.76 \pm 1.57)E-02$
Freshwater Catfish	3	$(1.07 \pm 0.68)E-02$	$(1.54 \pm 0.76)E-02$	$(0.29 \pm 1.74)E-02$
Sucker	3	$(-0.21 \pm 1.56)E-02$	$(1.23 \pm 1.55)E-02$	$(-1.86 \pm 1.63)E-02$
Hwy-17 Bridge Area				
Bass	3	$(0.85 \pm 2.32)E-02$	$(3.00 \pm 0.92)E-02$	$(-1.61 \pm 1.58)E-02$
Bream	3	$(-0.47 \pm 2.93)E-02$	$(1.51 \pm 1.28)E-02$	$(-3.84 \pm 1.70)E-02$
Freshwater Catfish	3	$(2.29 \pm 6.51)E-03$	$(0.62 \pm 1.72)E-02$	$(-0.52 \pm 1.51)E-02$
Hwy-301 Bridge Area				
Bass	3	$(1.47 \pm 0.85)E-02$	$(2.35 \pm 0.68)E-02$	$(6.51 \pm 5.89)E-03$
Bowfin	3	$(8.36 \pm 6.10)E-03$	$(1.53 \pm 0.59)E-02$	$(4.01 \pm 6.70)E-03$
Bream	3	$(1.38 \pm 0.22)E-02$	$(1.58 \pm 0.65)E-02$	$(1.16 \pm 0.43)E-02$
Freshwater Catfish	3	$(4.43 \pm 6.18)E-03$	$(1.12 \pm 0.69)E-02$	$(-0.86 \pm 7.16)E-03$
Sucker	3	$(0.68 \pm 1.04)E-02$	$(1.72 \pm 1.45)E-02$	$(-0.36 \pm 1.57)E-02$

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 $\pm \sigma$
L3R Creek River Mouth				
Bass	3	(1.67 $\pm$ 0.79)E-02	(2.57 $\pm$ 1.31)E-02	(1.10 $\pm$ 0.99)E-02
Bream	3	(9.11 $\pm$ 1.60)E-03	(1.01 $\pm$ 1.37)E-02	(0.73 $\pm$ 1.25)E-02
Freshwater Catfish	3	(2.20 $\pm$ 1.78)E-02	(4.00 $\pm$ 1.71)E-02	(0.44 $\pm$ 1.38)E-02
Steel Creek River Mouth				
Bass	3	(2.18 $\pm$ 2.39)E-02	(4.93 $\pm$ 1.42)E-02	(0.54 $\pm$ 1.25)E-02
Bowfin	3	(-1.21 $\pm$ 0.41)E-02	(-0.76 $\pm$ 1.77)E-02	(-1.58 $\pm$ 1.60)E-02
Bream	3	(8.84 $\pm$ 6.38)E-03	(1.41 $\pm$ 0.73)E-02	(0.17 $\pm$ 1.20)E-02
Freshwater Catfish	3	(0.04 $\pm$ 2.25)E-02	(2.28 $\pm$ 1.56)E-02	(-2.23 $\pm$ 1.37)E-02
Sucker	3	(-0.69 $\pm$ 1.59)E-02	(1.14 $\pm$ 1.48)E-02	(-1.68 $\pm$ 1.58)E-02
Stokes Bluff Landing				
Bass	3	(1.33 $\pm$ 1.55)E-02	(2.32 $\pm$ 2.16)E-02	(-0.45 $\pm$ 1.50)E-02
Bream	3	(-0.58 $\pm$ 3.85)E-03	(0.18 $\pm$ 1.94)E-02	(-0.50 $\pm$ 1.94)E-02
Freshwater Catfish	3	(0.42 $\pm$ 2.58)E-02	(2.14 $\pm$ 1.99)E-02	(-2.54 $\pm$ 2.10)E-02
U3R Creek River Mouth				
Bass	3	(1.47 $\pm$ 0.28)E-02	(1.79 $\pm$ 1.26)E-02	(1.31 $\pm$ 1.33)E-02
Bream	3	(3.85 $\pm$ 1.93)E-03	(0.57 $\pm$ 1.34)E-02	(0.18 $\pm$ 1.25)E-02
Freshwater Catfish	3	(1.57 $\pm$ 0.49)E-02	(2.07 $\pm$ 1.39)E-02	(1.09 $\pm$ 1.38)E-02
Onsite (Edible)				
Beaver Dam Creek (400-D)				
Bream	3	(1.81 $\pm$ 1.73)E-02	(3.75 $\pm$ 1.79)E-02	(0.44 $\pm$ 1.50)E-02
L-Lake				
Bass	3	(-7.35 $\pm$ 6.63)E-03	(-0.32 $\pm$ 1.37)E-02	(-1.50 $\pm$ 1.67)E-02
Bream	3	(-1.10 $\pm$ 1.84)E-02	(0.92 $\pm$ 1.15)E-02	(-2.67 $\pm$ 2.15)E-02
Freshwater Catfish	3	(0.32 $\pm$ 1.70)E-02	(2.29 $\pm$ 1.67)E-02	(-0.67 $\pm$ 1.61)E-02
L3R-2 Patterson Mill Rd				
Bass	3	(0.80 $\pm$ 2.21)E-02	(3.31 $\pm$ 1.33)E-02	(-0.83 $\pm$ 1.22)E-02
Bream	3	(1.23 $\pm$ 2.61)E-02	(4.19 $\pm$ 2.14)E-02	(-0.74 $\pm$ 2.15)E-02
PAR Pond				
Bass	3	(0.05 $\pm$ 1.11)E-02	(1.33 $\pm$ 1.74)E-02	(-0.59 $\pm$ 1.86)E-02
Bream	3	(1.37 $\pm$ 0.64)E-02	(2.10 $\pm$ 1.81)E-02	(0.89 $\pm$ 1.82)E-02
Pond B				
Bass	3	(-2.79 $\pm$ 7.80)E-03	(0.52 $\pm$ 1.12)E-02	(-1.03 $\pm$ 1.21)E-02
Bream	3	(1.82 $\pm$ 0.71)E-02	(2.64 $\pm$ 1.86)E-02	(1.38 $\pm$ 1.61)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 $\pm \sigma$
SC-4 Steel Creek at Road A				
Bass	3	$(1.45 \pm 0.58)E-02$	$(1.85 \pm 2.13)E-02$	$(0.79 \pm 1.98)E-02$
Bream	3	$(-2.50 \pm 5.03)E-03$	$(0.30 \pm 1.89)E-02$	$(-0.68 \pm 1.97)E-02$
Freshwater Catfish	1	$(1.26 \pm 1.70)E-02$		
U3R-4 at Road A				
Bass	2	$(-1.18 \pm 1.77)E-02$	$(0.07 \pm 1.15)E-02$	$(-2.43 \pm 1.93)E-02$
Bream	3	$(-0.62 \pm 1.88)E-02$	$(1.53 \pm 1.16)E-02$	$(-1.93 \pm 1.68)E-02$
Freshwater Catfish	2	$(-0.77 \pm 2.23)E-02$	$(0.81 \pm 1.99)E-02$	$(-2.35 \pm 2.61)E-02$
Offsite (Nonedible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(8.90 \pm 6.81)E-03$	$(1.60 \pm 1.69)E-02$	$(0.25 \pm 1.20)E-02$
Bowfin	3	$(-0.85 \pm 1.32)E-02$	$(0.33 \pm 1.55)E-02$	$(-2.28 \pm 1.53)E-02$
Bream	3	$(1.24 \pm 0.95)E-02$	$(2.12 \pm 1.32)E-02$	$(0.24 \pm 1.30)E-02$
Freshwater Catfish	3	$(1.77 \pm 1.20)E-02$	$(3.08 \pm 1.44)E-02$	$(0.73 \pm 1.17)E-02$
Sucker	3	$(-0.49 \pm 1.39)E-02$	$(0.86 \pm 1.45)E-02$	$(-1.91 \pm 1.47)E-02$
Beaver Dam Creek River Mouth				
Bass	3	$(1.30 \pm 2.00)E-02$	$(3.59 \pm 1.67)E-02$	$(-0.05 \pm 1.26)E-02$
Bream	3	$(0.36 \pm 1.01)E-02$	$(1.23 \pm 1.64)E-02$	$(-0.74 \pm 1.30)E-02$
Freshwater Catfish	3	$(2.81 \pm 8.05)E-03$	$(1.20 \pm 1.20)E-02$	$(-0.30 \pm 1.45)E-02$
Four Mile Creek River Mouth				
Bass	3	$(1.03 \pm 1.96)E-02$	$(2.62 \pm 1.37)E-02$	$(-1.16 \pm 2.02)E-02$
Bowfin	3	$(-1.20 \pm 0.75)E-02$	$(-0.61 \pm 1.55)E-02$	$(-2.04 \pm 1.31)E-02$
Bream	3	$(1.09 \pm 1.79)E-02$	$(2.30 \pm 1.28)E-02$	$(-0.97 \pm 1.35)E-02$
Freshwater Catfish	3	$(-1.56 \pm 1.40)E-02$	$(-0.33 \pm 1.41)E-02$	$(-3.08 \pm 1.25)E-02$
Sucker	3	$(-1.02 \pm 8.36)E-03$	$(0.54 \pm 1.09)E-02$	$(-1.05 \pm 1.71)E-02$
Hwy-301 Bridge Area				
Bass	3	$(1.33 \pm 0.79)E-02$	$(1.82 \pm 0.87)E-02$	$(4.17 \pm 6.45)E-03$
Bowfin	3	$(1.47 \pm 6.48)E-03$	$(7.94 \pm 5.43)E-03$	$(-0.50 \pm 1.00)E-02$
Bream	3	$(1.45 \pm 0.97)E-02$	$(2.56 \pm 0.82)E-02$	$(8.00 \pm 6.40)E-03$
Freshwater Catfish	3	$(1.10 \pm 1.74)E-02$	$(2.14 \pm 0.89)E-02$	$(-9.06 \pm 6.63)E-03$
Sucker	3	$(-0.42 \pm 1.71)E-02$	$(1.51 \pm 0.64)E-02$	$(-1.78 \pm 1.58)E-02$

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 $\pm \sigma$
L3R Creek River Mouth				
Bass	3	(5.02 $\pm$ 4.07)E-03	(9.25 $\pm$ 7.70)E-03	(0.11 $\pm$ 1.07)E-02
Bream	3	(1.16 $\pm$ 0.44)E-02	(1.41 $\pm$ 1.32)E-02	(0.65 $\pm$ 1.31)E-02
Freshwater Catfish	3	(1.49 $\pm$ 0.97)E-02	(2.07 $\pm$ 1.28)E-02	(0.38 $\pm$ 1.27)E-02
Steel Creek River Mouth				
Bass	3	(1.89 $\pm$ 0.92)E-02	(2.96 $\pm$ 1.15)E-02	(1.34 $\pm$ 0.82)E-02
Bowfin	2	(-3.42 $\pm$ 0.73)E-02	(-2.90 $\pm$ 1.48)E-02	(-3.94 $\pm$ 1.65)E-02
Bream	3	(2.27 $\pm$ 1.31)E-02	(3.55 $\pm$ 1.54)E-02	(0.92 $\pm$ 1.29)E-02
Freshwater Catfish	3	(0.65 $\pm$ 1.60)E-02	(2.04 $\pm$ 1.23)E-02	(-1.10 $\pm$ 1.30)E-02
Sucker	3	(1.37 $\pm$ 1.12)E-02	(2.24 $\pm$ 1.33)E-02	(0.10 $\pm$ 1.60)E-02
U3R Creek River Mouth				
Bass	3	(1.92 $\pm$ 0.46)E-02	(2.39 $\pm$ 1.40)E-02	(1.47 $\pm$ 1.40)E-02
Bream	3	(-7.41 $\pm$ 6.50)E-03	(-0.26 $\pm$ 1.66)E-02	(-1.48 $\pm$ 1.33)E-02
Freshwater Catfish	3	(0.22 $\pm$ 1.03)E-02	(1.35 $\pm$ 1.36)E-02	(-0.66 $\pm$ 1.52)E-02
Cs-137, pCi/g				
Offsite (Edible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	(3.36 $\pm$ 3.86)E-02	(7.28 $\pm$ 2.05)E-02	(-0.44 $\pm$ 1.46)E-02
Bowfin	3	(1.15 $\pm$ 0.39)E-01	(1.58 $\pm$ 0.22)E-01	(8.34 $\pm$ 2.54)E-02
Bream	3	(2.13 $\pm$ 1.91)E-02	(3.75 $\pm$ 1.41)E-02	(0.02 $\pm$ 1.19)E-02
Freshwater Catfish	3	(9.48 $\pm$ 4.30)E-03	(1.44 $\pm$ 1.35)E-02	(0.63 $\pm$ 1.31)E-02
Sucker	3	(1.91 $\pm$ 0.95)E-02	(2.97 $\pm$ 1.35)E-02	(1.14 $\pm$ 1.35)E-02
Beaver Dam Creek River Mouth				
Bass	3	(3.88 $\pm$ 2.14)E-01	(6.25 $\pm$ 0.46)E-01	(2.08 $\pm$ 0.27)E-01
Bream	3	(2.62 $\pm$ 2.64)E-02	(4.76 $\pm$ 1.54)E-02	(-0.34 $\pm$ 1.15)E-02
Freshwater Catfish	3	(4.23 $\pm$ 3.20)E-02	(6.56 $\pm$ 1.84)E-02	(0.58 $\pm$ 1.41)E-02
Four Mile Creek River Mouth				
Bass	3	(3.63 $\pm$ 1.30)E-01	(4.74 $\pm$ 0.40)E-01	(2.21 $\pm$ 0.19)E-01
Bowfin	3	(2.84 $\pm$ 0.40)E-01	(3.11 $\pm$ 0.36)E-01	(2.38 $\pm$ 0.29)E-01
Bream	3	(4.57 $\pm$ 5.45)E-02	(1.07 $\pm$ 0.24)E-01	(0.33 $\pm$ 1.53)E-02
Freshwater Catfish	3	(1.13 $\pm$ 0.51)E-01	(1.50 $\pm$ 0.30)E-01	(5.52 $\pm$ 1.92)E-02
Sucker	3	(5.27 $\pm$ 3.69)E-02	(7.69 $\pm$ 1.50)E-02	(1.02 $\pm$ 1.34)E-02

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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 $\pm \sigma$
Hwy-17 Bridge Area				
Bass	3	(5.09 $\pm$ 1.65)E-02	(6.55 $\pm$ 1.24)E-02	(3.31 $\pm$ 1.13)E-02
Bream	3	(8.40 $\pm$ 8.02)E-02	(1.76 $\pm$ 0.35)E-01	(2.97 $\pm$ 1.56)E-02
Freshwater Catfish	3	(3.57 $\pm$ 0.12)E-02	(3.68 $\pm$ 2.10)E-02	(3.44 $\pm$ 1.37)E-02
Hwy-301 Bridge Area				
Bass	3	(9.51 $\pm$ 5.44)E-02	(1.57 $\pm$ 0.13)E-01	(5.76 $\pm$ 1.05)E-02
Bowfin	3	(8.08 $\pm$ 2.21)E-02	(1.06 $\pm$ 0.12)E-01	(6.28 $\pm$ 1.11)E-02
Bream	3	(2.94 $\pm$ 0.78)E-02	(3.83 $\pm$ 1.18)E-02	(2.38 $\pm$ 0.82)E-02
Freshwater Catfish	3	(5.59 $\pm$ 0.49)E-02	(5.87 $\pm$ 1.07)E-02	(5.02 $\pm$ 0.94)E-02
Sucker	3	(6.48 $\pm$ 5.37)E-02	(1.27 $\pm$ 0.23)E-01	(3.32 $\pm$ 1.67)E-02
L3R Creek River Mouth				
Bass	3	(1.89 $\pm$ 0.86)E-01	(2.75 $\pm$ 0.21)E-01	(1.02 $\pm$ 0.20)E-01
Bream	3	(1.31 $\pm$ 0.81)E-01	(2.10 $\pm$ 0.28)E-01	(4.89 $\pm$ 1.28)E-02
Freshwater Catfish	3	(2.14 $\pm$ 1.68)E-01	(3.86 $\pm$ 0.37)E-01	(5.02 $\pm$ 2.66)E-02
Steel Creek River Mouth				
Bass	3	(1.65 $\pm$ 0.84)E+00	(2.52 $\pm$ 0.13)E+00	(8.47 $\pm$ 0.54)E-01
Bowfin	3	(3.84 $\pm$ 0.82)E-01	(4.38 $\pm$ 0.41)E-01	(2.89 $\pm$ 0.35)E-01
Bream	3	(9.70 $\pm$ 6.23)E-02	(1.62 $\pm$ 0.15)E-01	(3.76 $\pm$ 1.79)E-02
Freshwater Catfish	3	(8.87 $\pm$ 2.11)E-02	(1.12 $\pm$ 0.21)E-01	(7.21 $\pm$ 1.23)E-02
Sucker	3	(2.59 $\pm$ 0.79)E-01	(3.25 $\pm$ 0.37)E-01	(1.72 $\pm$ 0.23)E-01
Stokes Bluff Landing				
Bass	3	(6.49 $\pm$ 2.55)E-02	(8.68 $\pm$ 2.98)E-02	(3.70 $\pm$ 2.08)E-02
Bream	3	(7.60 $\pm$ 0.77)E-02	(8.28 $\pm$ 1.99)E-02	(6.77 $\pm$ 2.62)E-02
Freshwater Catfish	3	(5.63 $\pm$ 0.16)E-02	(5.78 $\pm$ 2.05)E-02	(5.47 $\pm$ 2.77)E-02
U3R Creek River Mouth				
Bass	3	(9.73 $\pm$ 4.99)E-02	(1.49 $\pm$ 0.23)E-01	(4.93 $\pm$ 1.98)E-02
Bream	3	(3.25 $\pm$ 2.96)E-02	(5.99 $\pm$ 1.82)E-02	(0.12 $\pm$ 1.34)E-02
Freshwater Catfish	3	(5.52 $\pm$ 4.25)E-02	(1.04 $\pm$ 0.17)E-01	(2.76 $\pm$ 1.34)E-02
Onsite (Edible)				
Beaver Dam Creek (400-D)				
Bream	3	(5.55 $\pm$ 4.01)E-02	(8.66 $\pm$ 1.57)E-02	(1.02 $\pm$ 1.37)E-02

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
L-Lake				
Bass	3	$(6.90 \pm 0.59)E-01$	$(7.35 \pm 0.57)E-01$	$(6.22 \pm 0.50)E-01$
Bream	3	$(2.38 \pm 0.34)E-01$	$(2.77 \pm 0.40)E-01$	$(2.15 \pm 0.24)E-01$
Freshwater Catfish	3	$(3.65 \pm 0.38)E-01$	$(3.99 \pm 0.43)E-01$	$(3.24 \pm 0.22)E-01$
L3R-2 Patterson Mill Rd				
Bass	3	$(6.18 \pm 0.73)E+00$	$(7.02 \pm 0.36)E+00$	$(5.67 \pm 0.20)E+00$
Bream	3	$(1.75 \pm 0.44)E+00$	$(2.08 \pm 0.12)E+00$	$(1.26 \pm 0.08)E+00$
PAR Pond				
Bass	3	$(8.87 \pm 1.01)E+00$	$(9.56 \pm 0.48)E+00$	$(7.71 \pm 0.39)E+00$
Bream	3	$(3.01 \pm 0.50)E+00$	$(3.56 \pm 0.20)E+00$	$(2.59 \pm 0.15)E+00$
Pond B				
Bass	3	$(1.00 \pm 0.11)E+02$	$(1.13 \pm 0.04)E+02$	$(9.11 \pm 0.30)E+01$
Bream	3	$(2.95 \pm 0.08)E+01$	$(3.05 \pm 0.15)E+01$	$(2.88 \pm 0.14)E+01$
SC-4 Steel Creek at Road A				
Bass	3	$(1.85 \pm 0.60)E+00$	$(2.25 \pm 0.13)E+00$	$(1.16 \pm 0.09)E+00$
Bream	3	$(8.22 \pm 1.70)E-01$	$(1.01 \pm 0.07)E+00$	$(6.96 \pm 0.39)E-01$
Freshwater Catfish	1	$(5.64 \pm 0.55)E-01$		
U3R-4 at Road A				
Bass	2	$(7.09 \pm 0.66)E-02$	$(7.56 \pm 1.40)E-02$	$(6.62 \pm 3.29)E-02$
Bream	3	$(1.03 \pm 0.41)E-01$	$(1.35 \pm 0.27)E-01$	$(5.68 \pm 1.57)E-02$
Freshwater Catfish	2	$(1.26 \pm 0.65)E-01$	$(1.73 \pm 0.36)E-01$	$(8.03 \pm 2.36)E-02$
Offsite (Nonedible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(2.24 \pm 0.53)E-02$	$(2.69 \pm 1.32)E-02$	$(1.66 \pm 1.44)E-02$
Bowfin	3	$(8.30 \pm 5.22)E-02$	$(1.43 \pm 0.21)E-01$	$(4.95 \pm 2.33)E-02$
Bream	3	$(2.04 \pm 0.73)E-02$	$(2.81 \pm 1.17)E-02$	$(1.36 \pm 1.31)E-02$
Freshwater Catfish	3	$(0.49 \pm 2.31)E-02$	$(2.99 \pm 1.30)E-02$	$(-1.55 \pm 1.18)E-02$
Sucker	3	$(1.96 \pm 0.85)E-02$	$(2.79 \pm 1.20)E-02$	$(1.10 \pm 1.35)E-02$
Beaver Dam Creek River Mouth				
Bass	3	$(3.16 \pm 1.61)E-01$	$(5.01 \pm 0.38)E-01$	$(2.11 \pm 0.29)E-01$
Bream	3	$(2.04 \pm 0.50)E-02$	$(2.60 \pm 1.52)E-02$	$(1.65 \pm 1.29)E-02$
Freshwater Catfish	3	$(3.47 \pm 2.53)E-02$	$(6.14 \pm 1.51)E-02$	$(1.10 \pm 1.29)E-02$

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Four Mile Creek River Mouth				
Bass	3	$(1.88 \pm 0.36)E-01$	$(2.29 \pm 0.26)E-01$	$(1.66 \pm 0.40)E-01$
Bowfin	3	$(3.54 \pm 0.86)E-01$	$(4.34 \pm 0.38)E-01$	$(2.63 \pm 0.29)E-01$
Bream	3	$(6.01 \pm 2.26)E-02$	$(7.84 \pm 2.29)E-02$	$(3.48 \pm 1.25)E-02$
Freshwater Catfish	3	$(7.99 \pm 2.47)E-02$	$(1.01 \pm 0.27)E-01$	$(5.26 \pm 2.39)E-02$
Sucker	3	$(1.43 \pm 2.42)E-02$	$(3.62 \pm 1.31)E-02$	$(-1.18 \pm 1.30)E-02$
Hwy-301 Bridge Area				
Bass	3	$(6.37 \pm 3.19)E-02$	$(1.00 \pm 0.12)E-01$	$(4.00 \pm 0.99)E-02$
Bowfin	3	$(7.39 \pm 3.88)E-02$	$(1.18 \pm 0.12)E-01$	$(4.47 \pm 0.85)E-02$
Bream	3	$(2.36 \pm 0.29)E-02$	$(2.57 \pm 0.85)E-02$	$(2.02 \pm 0.70)E-02$
Freshwater Catfish	3	$(7.30 \pm 5.69)E-02$	$(1.39 \pm 0.14)E-01$	$(3.90 \pm 0.91)E-02$
Sucker	3	$(3.88 \pm 0.21)E-02$	$(4.10 \pm 1.74)E-02$	$(3.68 \pm 1.05)E-02$
L3R Creek River Mouth				
Bass	3	$(9.88 \pm 5.84)E-02$	$(1.66 \pm 0.18)E-01$	$(6.45 \pm 1.29)E-02$
Bream	3	$(7.26 \pm 5.83)E-02$	$(1.20 \pm 0.22)E-01$	$(0.77 \pm 1.22)E-02$
Freshwater Catfish	3	$(9.33 \pm 8.18)E-02$	$(1.87 \pm 0.31)E-01$	$(3.51 \pm 2.01)E-02$
Steel Creek River Mouth				
Bass	3	$(8.49 \pm 3.21)E-01$	$(1.20 \pm 0.05)E+00$	$(5.63 \pm 0.43)E-01$
Bowfin	2	$(2.09 \pm 0.23)E-01$	$(2.25 \pm 0.30)E-01$	$(1.92 \pm 0.32)E-01$
Bream	3	$(5.74 \pm 4.22)E-02$	$(9.52 \pm 1.95)E-02$	$(1.19 \pm 1.33)E-02$
Freshwater Catfish	3	$(5.25 \pm 1.98)E-02$	$(7.36 \pm 3.10)E-02$	$(3.42 \pm 1.39)E-02$
Sucker	3	$(1.87 \pm 0.55)E-01$	$(2.23 \pm 0.32)E-01$	$(1.24 \pm 0.19)E-01$
U3R Creek River Mouth				
Bass	3	$(4.62 \pm 3.23)E-02$	$(6.97 \pm 1.86)E-02$	$(0.94 \pm 1.31)E-02$
Bream	3	$(2.52 \pm 1.00)E-02$	$(3.59 \pm 1.29)E-02$	$(1.61 \pm 1.17)E-02$
Freshwater Catfish	3	$(4.76 \pm 2.32)E-02$	$(6.27 \pm 1.79)E-02$	$(2.09 \pm 1.22)E-02$
Pu-238, pCi/g				
Offsite (Edible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(-0.41 \pm 1.84)E-05$	$(0.74 \pm 1.90)E-05$	$(-2.53 \pm 3.95)E-05$
Bowfin	3	$(-0.74 \pm 2.37)E-05$	$(1.86 \pm 2.37)E-05$	$(-2.78 \pm 1.46)E-05$
Bream	3	$(-1.56 \pm 2.46)E-05$	$(0.52 \pm 4.68)E-05$	$(-4.27 \pm 3.05)E-05$
Freshwater Catfish	3	$(-8.08 \pm 8.22)E-06$	$(-0.09 \pm 1.71)E-05$	$(-1.70 \pm 0.84)E-05$
Sucker	3	$(1.97 \pm 3.63)E-05$	$(6.16 \pm 4.52)E-05$	$(-0.25 \pm 2.15)E-05$

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Beaver Dam Creek River Mouth				
Bass	3	$(-1.32 \pm 0.64)E-05$	$(-0.71 \pm 1.21)E-05$	$(-1.99 \pm 0.82)E-05$
Bream	3	$(-4.35 \pm 6.62)E-05$	$(1.75 \pm 6.39)E-05$	$(-1.14 \pm 0.68)E-04$
Freshwater Catfish	3	$(-1.11 \pm 0.39)E-05$	$(-0.85 \pm 1.47)E-05$	$(-1.56 \pm 1.11)E-05$
Four Mile Creek River Mouth				
Bass	3	$(-1.06 \pm 2.10)E-05$	$(0.25 \pm 2.24)E-05$	$(-3.48 \pm 5.45)E-05$
Bream	3	$(-4.86 \pm 2.64)E-05$	$(-1.89 \pm 5.24)E-05$	$(-6.95 \pm 6.64)E-05$
Freshwater Catfish	3	$(0.12 \pm 1.48)E-05$	$(1.79 \pm 1.68)E-05$	$(-1.02 \pm 1.24)E-05$
Sucker	1	$(-4.39 \pm 1.35)E-05$		
Hwy-301 Bridge Area				
Bass	3	$(-1.22 \pm 6.42)E-05$	$(3.40 \pm 3.24)E-05$	$(-8.55 \pm 5.08)E-05$
Bowfin	3	$(-2.14 \pm 1.98)E-05$	$(-0.75 \pm 1.30)E-05$	$(-4.40 \pm 2.66)E-05$
Bream	3	$(1.23 \pm 7.32)E-05$	$(9.57 \pm 8.96)E-05$	$(-4.10 \pm 1.70)E-05$
Freshwater Catfish	3	$(-2.05 \pm 0.58)E-05$	$(-1.54 \pm 1.88)E-05$	$(-2.67 \pm 2.02)E-05$
Sucker	3	$(0.80 \pm 1.24)E-05$	$(2.21 \pm 1.47)E-05$	$(-0.13 \pm 2.03)E-05$
L3R Creek River Mouth				
Bass	3	$(0.20 \pm 1.97)E-05$	$(2.44 \pm 4.45)E-05$	$(-1.31 \pm 2.36)E-05$
Bream	3	$(-5.90 \pm 6.40)E-05$	$(-1.65 \pm 3.64)E-05$	$(-1.33 \pm 0.46)E-04$
Freshwater Catfish	3	$(-2.19 \pm 1.02)E-05$	$(-1.03 \pm 1.17)E-05$	$(-2.97 \pm 2.02)E-05$
Steel Creek River Mouth				
Bass	3	$(-4.87 \pm 1.56)E-06$	$(-0.39 \pm 1.55)E-05$	$(-6.67 \pm 4.73)E-06$
Bowfin	3	$(-1.90 \pm 9.62)E-06$	$(0.64 \pm 1.05)E-05$	$(-1.24 \pm 0.96)E-05$
Bream	3	$(-1.49 \pm 9.27)E-05$	$(8.80 \pm 9.69)E-05$	$(-9.19 \pm 7.25)E-05$
Freshwater Catfish	3	$(2.35 \pm 4.27)E-05$	$(7.15 \pm 4.21)E-05$	$(-1.00 \pm 2.76)E-05$
Sucker	1	$(1.91 \pm 1.78)E-05$		
U3R Creek River Mouth				
Bass	3	$(0.65 \pm 2.54)E-05$	$(2.22 \pm 2.52)E-05$	$(-2.28 \pm 1.74)E-05$
Bream	3	$(5.76 \pm 4.19)E-05$	$(0.97 \pm 1.13)E-04$	$(1.35 \pm 3.48)E-05$
Freshwater Catfish	3	$(4.98 \pm 9.06)E-05$	$(1.47 \pm 0.60)E-04$	$(-3.32 \pm 1.67)E-05$
Pu-239, pCi/g				
Offsite (Edible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(1.06 \pm 2.13)E-05$	$(3.52 \pm 3.11)E-05$	$(-0.28 \pm 4.54)E-05$
Bowfin	3	$(1.51 \pm 2.30)E-05$	$(4.12 \pm 3.04)E-05$	$(-0.19 \pm 1.77)E-05$

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Bream	3	$(-3.63 \pm 9.99)E-05$	$(7.71 \pm 4.31)E-05$	$(-1.11 \pm 0.31)E-04$
Freshwater Catfish	3	$(-0.07 \pm 1.64)E-05$	$(1.66 \pm 1.93)E-05$	$(-1.60 \pm 1.94)E-05$
Sucker	3	$(-2.70 \pm 3.37)E-05$	$(1.18 \pm 1.92)E-05$	$(-4.91 \pm 3.31)E-05$
Beaver Dam Creek River Mouth				
Bass	3	$(0.85 \pm 1.09)E-05$	$(1.74 \pm 1.97)E-05$	$(-0.37 \pm 1.16)E-05$
Bream	3	$(-1.24 \pm 1.03)E-04$	$(-2.48 \pm 5.05)E-05$	$(-2.30 \pm 0.41)E-04$
Freshwater Catfish	3	$(7.87 \pm 9.64)E-06$	$(1.81 \pm 1.70)E-05$	$(-0.10 \pm 1.91)E-05$
Four Mile Creek River Mouth				
Bass	3	$(-2.99 \pm 0.91)E-05$	$(-1.96 \pm 1.90)E-05$	$(-3.63 \pm 1.77)E-05$
Bream	3	$(-2.42 \pm 8.55)E-05$	$(4.29 \pm 4.94)E-05$	$(-1.20 \pm 0.86)E-04$
Freshwater Catfish	3	$(2.30 \pm 2.25)E-05$	$(4.33 \pm 2.12)E-05$	$(-0.12 \pm 1.90)E-05$
Sucker	1	$(4.39 \pm 3.17)E-05$		
Hwy-301 Bridge Area				
Bass	3	$(-4.12 \pm 1.81)E-05$	$(-2.95 \pm 4.61)E-05$	$(-6.20 \pm 4.17)E-05$
Bowfin	3	$(0.74 \pm 1.06)E-05$	$(1.70 \pm 2.72)E-05$	$(-0.40 \pm 1.24)E-05$
Bream	3	$(2.22 \pm 4.23)E-05$	$(7.10 \pm 5.78)E-05$	$(-0.25 \pm 3.97)E-05$
Freshwater Catfish	3	$(-0.97 \pm 1.23)E-05$	$(0.19 \pm 2.44)E-05$	$(-2.26 \pm 1.94)E-05$
Sucker	3	$(-0.66 \pm 1.60)E-05$	$(0.27 \pm 2.41)E-05$	$(-2.50 \pm 0.66)E-05$
L3R Creek River Mouth				
Bass	3	$(1.85 \pm 4.30)E-05$	$(5.12 \pm 4.82)E-05$	$(-3.02 \pm 0.79)E-05$
Bream	3	$(-3.80 \pm 1.14)E-05$	$(-3.13 \pm 3.48)E-05$	$(-5.12 \pm 6.00)E-05$
Freshwater Catfish	3	$(0.70 \pm 5.11)E-05$	$(5.96 \pm 7.07)E-05$	$(-4.24 \pm 1.14)E-05$
Steel Creek River Mouth				
Bass	3	$(1.01 \pm 2.76)E-05$	$(3.49 \pm 1.95)E-05$	$(-1.95 \pm 1.34)E-05$
Bowfin	3	$(-1.23 \pm 0.44)E-05$	$(-9.28 \pm 6.58)E-06$	$(-1.73 \pm 0.74)E-05$
Bream	3	$(-9.71 \pm 4.06)E-05$	$(-5.37 \pm 4.41)E-05$	$(-1.34 \pm 0.69)E-04$
Freshwater Catfish	3	$(0.84 \pm 3.94)E-05$	$(5.33 \pm 3.77)E-05$	$(-2.05 \pm 1.62)E-05$
Sucker	1	$(-0.38 \pm 1.87)E-05$		
U3R Creek River Mouth				
Bass	3	$(-0.36 \pm 2.16)E-05$	$(1.41 \pm 2.57)E-05$	$(-2.77 \pm 1.35)E-05$
Bream	3	$(1.82 \pm 7.75)E-05$	$(1.08 \pm 0.78)E-04$	$(-0.28 \pm 1.23)E-04$
Freshwater Catfish	3	$(-3.33 \pm 3.31)E-05$	$(0.08 \pm 2.37)E-05$	$(-6.52 \pm 0.97)E-05$

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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)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(8.37 \pm 3.79)E-03$	$(1.24 \pm 0.37)E-02$	$(4.87 \pm 3.27)E-03$
Bowfin	3	$(1.86 \pm 2.35)E-03$	$(3.79 \pm 3.18)E-03$	$(-0.76 \pm 2.05)E-03$
Bream	3	$(4.05 \pm 3.51)E-03$	$(8.06 \pm 5.31)E-03$	$(1.55 \pm 7.48)E-03$
Freshwater Catfish	3	$(5.70 \pm 6.51)E-03$	$(1.31 \pm 0.51)E-02$	$(0.91 \pm 4.39)E-03$
Sucker	3	$(8.07 \pm 1.32)E-03$	$(9.51 \pm 4.47)E-03$	$(6.93 \pm 3.34)E-03$
Beaver Dam Creek River Mouth				
Bass	3	$(8.21 \pm 3.61)E-03$	$(1.16 \pm 0.45)E-02$	$(4.42 \pm 3.72)E-03$
Bream	3	$(1.59 \pm 0.61)E-02$	$(2.23 \pm 0.92)E-02$	$(1.02 \pm 0.80)E-02$
Freshwater Catfish	3	$(2.86 \pm 2.19)E-03$	$(5.13 \pm 4.65)E-03$	$(0.75 \pm 3.80)E-03$
Four Mile Creek River Mouth				
Bass	3	$(1.48 \pm 0.12)E-02$	$(1.61 \pm 0.50)E-02$	$(1.39 \pm 0.45)E-02$
Bowfin	3	$(3.39 \pm 1.12)E-03$	$(4.12 \pm 4.01)E-03$	$(2.11 \pm 2.75)E-03$
Bream	3	$(2.44 \pm 1.38)E-02$	$(3.51 \pm 1.33)E-02$	$(8.81 \pm 7.41)E-03$
Freshwater Catfish	3	$(7.27 \pm 1.08)E-03$	$(8.51 \pm 3.96)E-03$	$(6.59 \pm 3.84)E-03$
Sucker	3	$(1.34 \pm 0.58)E-02$	$(1.94 \pm 0.49)E-02$	$(7.86 \pm 3.27)E-03$
Hwy-301 Bridge Area				
Bass	3	$(4.48 \pm 3.61)E-03$	$(8.39 \pm 4.84)E-03$	$(1.27 \pm 3.03)E-03$
Bowfin	3	$(3.16 \pm 3.20)E-03$	$(5.22 \pm 4.22)E-03$	$(-0.53 \pm 3.13)E-03$
Bream	3	$(7.32 \pm 0.64)E-03$	$(7.90 \pm 8.62)E-03$	$(6.64 \pm 8.55)E-03$
Freshwater Catfish	3	$(1.53 \pm 0.97)E-03$	$(2.15 \pm 3.88)E-03$	$(0.41 \pm 3.79)E-03$
Sucker	3	$(1.25 \pm 0.60)E-02$	$(1.93 \pm 0.50)E-02$	$(8.11 \pm 3.91)E-03$
L3R Creek River Mouth				
Bass	3	$(5.76 \pm 2.44)E-03$	$(8.00 \pm 4.17)E-03$	$(3.15 \pm 3.17)E-03$
Bream	3	$(6.16 \pm 3.12)E-03$	$(9.76 \pm 6.78)E-03$	$(4.36 \pm 6.42)E-03$
Freshwater Catfish	3	$(1.56 \pm 1.23)E-03$	$(2.41 \pm 2.70)E-03$	$(0.14 \pm 3.08)E-03$
Steel Creek River Mouth				
Bass	3	$(1.50 \pm 0.32)E-02$	$(1.86 \pm 0.50)E-02$	$(1.22 \pm 0.39)E-02$
Bowfin	3	$(1.87 \pm 2.78)E-03$	$(4.89 \pm 3.49)E-03$	$(-0.60 \pm 2.91)E-03$
Bream	3	$(4.58 \pm 7.29)E-03$	$(1.13 \pm 1.18)E-02$	$(-0.32 \pm 1.09)E-02$
Freshwater Catfish	3	$(8.89 \pm 5.72)E-03$	$(1.55 \pm 0.48)E-02$	$(5.33 \pm 4.24)E-03$
Sucker	3	$(1.45 \pm 1.08)E-02$	$(2.69 \pm 0.38)E-02$	$(6.84 \pm 4.19)E-03$

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
U3R Creek River Mouth				
Bass	3	$(2.40 \pm 1.00)E-03$	$(3.51 \pm 4.27)E-03$	$(1.56 \pm 3.84)E-03$
Bream	3	$(8.38 \pm 3.62)E-03$	$(1.13 \pm 0.88)E-02$	$(4.34 \pm 6.63)E-03$
Freshwater Catfish	3	$(6.84 \pm 5.52)E-03$	$(1.32 \pm 0.51)E-02$	$(3.47 \pm 3.88)E-03$
Offsite (Nonedible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(1.76 \pm 0.79)E-01$	$(2.24 \pm 0.39)E-01$	$(8.47 \pm 3.24)E-02$
Bowfin	3	$(1.04 \pm 0.60)E-01$	$(1.72 \pm 0.44)E-01$	$(5.87 \pm 3.70)E-02$
Bream	3	$(2.90 \pm 0.44)E-01$	$(3.38 \pm 0.52)E-01$	$(2.53 \pm 0.48)E-01$
Freshwater Catfish	3	$(9.13 \pm 5.70)E-02$	$(1.28 \pm 0.35)E-01$	$(2.57 \pm 2.90)E-02$
Sucker	3	$(2.00 \pm 0.48)E-01$	$(2.55 \pm 0.48)E-01$	$(1.70 \pm 0.44)E-01$
Beaver Dam Creek River Mouth				
Bass	3	$(2.90 \pm 0.32)E-01$	$(3.25 \pm 0.47)E-01$	$(2.63 \pm 0.34)E-01$
Bream	3	$(2.34 \pm 0.09)E-01$	$(2.43 \pm 0.39)E-01$	$(2.24 \pm 0.39)E-01$
Freshwater Catfish	3	$(1.52 \pm 0.86)E-01$	$(2.51 \pm 0.43)E-01$	$(9.38 \pm 1.94)E-02$
Four Mile Creek River Mouth				
Bass	3	$(1.59 \pm 0.54)E+00$	$(2.20 \pm 0.07)E+00$	$(1.22 \pm 0.10)E+00$
Bowfin	3	$(2.80 \pm 1.25)E-01$	$(4.14 \pm 0.36)E-01$	$(1.67 \pm 0.45)E-01$
Bream	3	$(3.82 \pm 3.10)E-01$	$(7.39 \pm 0.91)E-01$	$(1.92 \pm 0.46)E-01$
Freshwater Catfish	3	$(1.90 \pm 0.27)E-01$	$(2.10 \pm 0.33)E-01$	$(1.60 \pm 0.31)E-01$
Sucker	3	$(2.88 \pm 0.65)E-01$	$(3.53 \pm 0.54)E-01$	$(2.24 \pm 0.48)E-01$
Hwy-301 Bridge Area				
Bass	3	$(2.84 \pm 0.97)E-01$	$(3.52 \pm 0.53)E-01$	$(1.72 \pm 0.44)E-01$
Bowfin	3	$(1.40 \pm 0.85)E-01$	$(2.33 \pm 0.46)E-01$	$(6.52 \pm 2.64)E-02$
Bream	3	$(2.63 \pm 1.19)E-01$	$(3.72 \pm 0.53)E-01$	$(1.37 \pm 0.38)E-01$
Freshwater Catfish	3	$(2.00 \pm 0.14)E-01$	$(2.16 \pm 0.46)E-01$	$(1.88 \pm 0.32)E-01$
Sucker	3	$(2.17 \pm 1.00)E-01$	$(3.08 \pm 0.52)E-01$	$(1.09 \pm 0.42)E-01$
L3R Creek River Mouth				
Bass	3	$(2.06 \pm 0.38)E-01$	$(2.34 \pm 0.39)E-01$	$(1.63 \pm 0.36)E-01$
Bream	3	$(2.15 \pm 0.12)E-01$	$(2.28 \pm 0.43)E-01$	$(2.04 \pm 0.42)E-01$
Freshwater Catfish	3	$(1.52 \pm 0.23)E-01$	$(1.77 \pm 0.36)E-01$	$(1.31 \pm 0.24)E-01$
Steel Creek River Mouth				
Bass	3	$(3.13 \pm 0.19)E-01$	$(3.35 \pm 0.51)E-01$	$(3.00 \pm 0.50)E-01$
Bowfin	3	$(2.63 \pm 0.43)E-01$	$(2.90 \pm 0.49)E-01$	$(2.14 \pm 0.45)E-01$

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Bream	3	$(3.40 \pm 0.18)E-01$	$(3.53 \pm 0.73)E-01$	$(3.20 \pm 0.72)E-01$
Freshwater Catfish	3	$(1.40 \pm 0.29)E-01$	$(1.73 \pm 0.44)E-01$	$(1.21 \pm 0.41)E-01$
Sucker	3	$(5.56 \pm 5.67)E-01$	$(1.20 \pm 0.08)E+00$	$(1.46 \pm 0.43)E-01$
U3R Creek River Mouth				
Bass	3	$(5.06 \pm 4.98)E-01$	$(1.08 \pm 0.07)E+00$	$(1.65 \pm 0.39)E-01$
Bream	3	$(2.28 \pm 0.82)E-01$	$(3.20 \pm 0.47)E-01$	$(1.61 \pm 0.40)E-01$
Freshwater Catfish	3	$(1.65 \pm 0.69)E-01$	$(2.37 \pm 0.31)E-01$	$(9.96 \pm 2.36)E-02$
Gross Beta, pCi/g				
Offsite (Edible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(1.93 \pm 0.25)E+00$	$(2.15 \pm 0.36)E+00$	$(1.65 \pm 0.34)E+00$
Bowfin	3	$(2.53 \pm 0.31)E+00$	$(2.71 \pm 0.41)E+00$	$(2.16 \pm 0.38)E+00$
Bream	3	$(1.98 \pm 0.74)E+00$	$(2.83 \pm 0.43)E+00$	$(1.45 \pm 0.37)E+00$
Freshwater Catfish	3	$(1.93 \pm 0.19)E+00$	$(2.15 \pm 0.35)E+00$	$(1.82 \pm 0.35)E+00$
Sucker	3	$(2.30 \pm 0.55)E+00$	$(2.71 \pm 0.41)E+00$	$(1.68 \pm 0.36)E+00$
Beaver Dam Creek River Mouth				
Bass	3	$(2.05 \pm 0.81)E+00$	$(2.66 \pm 0.51)E+00$	$(1.13 \pm 0.23)E+00$
Bream	3	$(2.86 \pm 0.28)E+00$	$(3.17 \pm 0.45)E+00$	$(2.61 \pm 0.43)E+00$
Freshwater Catfish	3	$(1.70 \pm 0.42)E+00$	$(2.18 \pm 0.39)E+00$	$(1.42 \pm 0.34)E+00$
Four Mile Creek River Mouth				
Bass	3	$(2.21 \pm 0.35)E+00$	$(2.49 \pm 0.47)E+00$	$(1.82 \pm 0.34)E+00$
Bowfin	3	$(2.09 \pm 0.29)E+00$	$(2.42 \pm 0.43)E+00$	$(1.87 \pm 0.40)E+00$
Bream	3	$(2.13 \pm 0.70)E+00$	$(2.92 \pm 0.43)E+00$	$(1.57 \pm 0.33)E+00$
Freshwater Catfish	3	$(3.46 \pm 0.50)E+00$	$(3.85 \pm 0.46)E+00$	$(2.90 \pm 0.30)E+00$
Sucker	3	$(2.11 \pm 0.85)E+00$	$(3.02 \pm 0.46)E+00$	$(1.33 \pm 0.38)E+00$
Hwy-17 Bridge Area				
Bass	3	$(2.91 \pm 0.41)E+00$	$(3.39 \pm 0.43)E+00$	$(2.68 \pm 0.41)E+00$
Bream	3	$(2.71 \pm 0.51)E+00$	$(3.17 \pm 0.45)E+00$	$(2.16 \pm 0.26)E+00$
Freshwater Catfish	3	$(3.09 \pm 0.10)E+00$	$(3.21 \pm 0.43)E+00$	$(3.03 \pm 0.41)E+00$

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Hwy-301 Bridge Area				
Bass	3	(1.98 $\pm$ 0.44)E+00	(2.48 $\pm$ 0.37)E+00	(1.64 $\pm$ 0.33)E+00
Bowfin	3	(2.75 $\pm$ 0.68)E+00	(3.50 $\pm$ 0.42)E+00	(2.17 $\pm$ 0.36)E+00
Bream	3	(2.73 $\pm$ 0.40)E+00	(3.11 $\pm$ 0.43)E+00	(2.31 $\pm$ 0.37)E+00
Freshwater Catfish	3	(1.33 $\pm$ 0.39)E+00	(1.76 $\pm$ 0.36)E+00	(1.00 $\pm$ 0.34)E+00
Sucker	3	(2.30 $\pm$ 0.12)E+00	(2.38 $\pm$ 0.41)E+00	(2.16 $\pm$ 0.38)E+00
L3R Creek River Mouth				
Bass	3	(2.94 $\pm$ 0.23)E+00	(3.20 $\pm$ 0.45)E+00	(2.80 $\pm$ 0.44)E+00
Bream	3	(2.07 $\pm$ 0.65)E+00	(2.80 $\pm$ 0.31)E+00	(1.55 $\pm$ 0.37)E+00
Freshwater Catfish	3	(2.25 $\pm$ 0.35)E+00	(2.60 $\pm$ 0.39)E+00	(1.91 $\pm$ 0.36)E+00
Steel Creek River Mouth				
Bass	3	(2.25 $\pm$ 0.62)E+00	(2.77 $\pm$ 0.40)E+00	(1.56 $\pm$ 0.34)E+00
Bowfin	3	(2.78 $\pm$ 0.10)E+00	(2.84 $\pm$ 0.39)E+00	(2.67 $\pm$ 0.38)E+00
Bream	3	(2.33 $\pm$ 0.52)E+00	(2.88 $\pm$ 0.42)E+00	(1.84 $\pm$ 0.37)E+00
Freshwater Catfish	3	(2.01 $\pm$ 0.45)E+00	(2.43 $\pm$ 0.38)E+00	(1.52 $\pm$ 0.34)E+00
Sucker	3	(2.62 $\pm$ 0.35)E+00	(2.82 $\pm$ 0.45)E+00	(2.21 $\pm$ 0.42)E+00
Stokes Bluff Landing				
Bass	3	(3.25 $\pm$ 0.21)E+00	(3.42 $\pm$ 0.47)E+00	(3.02 $\pm$ 0.46)E+00
Bream	3	(2.39 $\pm$ 0.19)E+00	(2.59 $\pm$ 0.31)E+00	(2.21 $\pm$ 0.42)E+00
Freshwater Catfish	3	(2.93 $\pm$ 0.63)E+00	(3.66 $\pm$ 0.45)E+00	(2.56 $\pm$ 0.41)E+00
U3R Creek River Mouth				
Bass	3	(9.26 $\pm$ 3.47)E-01	(1.25 $\pm$ 0.33)E+00	(5.63 $\pm$ 2.98)E-01
Bream	3	(3.05 $\pm$ 0.43)E+00	(3.54 $\pm$ 0.46)E+00	(2.80 $\pm$ 0.44)E+00
Freshwater Catfish	3	(1.48 $\pm$ 0.56)E+00	(2.08 $\pm$ 0.37)E+00	(9.64 $\pm$ 1.82)E-01
Onsite (Edible)				
Beaver Dam Creek (400-D)				
Bream	3	(2.76 $\pm$ 0.37)E+00	(3.00 $\pm$ 0.40)E+00	(2.34 $\pm$ 0.37)E+00
L-Lake				
Bass	3	(2.94 $\pm$ 0.44)E+00	(3.36 $\pm$ 0.45)E+00	(2.47 $\pm$ 0.42)E+00
Bream	3	(3.51 $\pm$ 0.74)E+00	(4.10 $\pm$ 0.46)E+00	(2.68 $\pm$ 0.40)E+00
Freshwater Catfish	3	(2.88 $\pm$ 0.41)E+00	(3.36 $\pm$ 0.45)E+00	(2.65 $\pm$ 0.30)E+00
L3R-2 Patterson Mill Rd				
Bass	3	(6.83 $\pm$ 1.56)E+00	(7.94 $\pm$ 0.60)E+00	(5.05 $\pm$ 0.50)E+00
Bream	3	(4.24 $\pm$ 0.77)E+00	(4.74 $\pm$ 0.50)E+00	(3.35 $\pm$ 0.44)E+00

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
PAR Pond				
Bass	3	(6.36 $\pm$ 3.68)E+00	(9.19 $\pm$ 0.61)E+00	(2.20 $\pm$ 0.30)E+00
Bream	3	(3.25 $\pm$ 2.18)E+00	(4.60 $\pm$ 0.48)E+00	(7.35 $\pm$ 3.39)E-01
Pond B				
Bass	3	(6.93 $\pm$ 0.28)E+01	(7.17 $\pm$ 0.16)E+01	(6.62 $\pm$ 0.15)E+01
Bream	3	(1.28 $\pm$ 0.90)E+01	(1.84 $\pm$ 0.08)E+01	(2.39 $\pm$ 0.40)E+00
SC-4 Steel Creek at Road A				
Bass	3	(3.78 $\pm$ 0.28)E+00	(4.03 $\pm$ 0.46)E+00	(3.48 $\pm$ 0.40)E+00
Bream	3	(3.36 $\pm$ 0.38)E+00	(3.66 $\pm$ 0.46)E+00	(2.93 $\pm$ 0.43)E+00
Freshwater Catfish	1	(2.80 $\pm$ 0.39)E+00		
U3R-4 at Road A				
Bass	2	(2.76 $\pm$ 0.80)E+00	(3.32 $\pm$ 0.31)E+00	(2.19 $\pm$ 0.39)E+00
Bream	3	(2.18 $\pm$ 0.12)E+00	(2.32 $\pm$ 0.38)E+00	(2.09 $\pm$ 0.35)E+00
Freshwater Catfish	2	(2.78 $\pm$ 0.01)E+00	(2.79 $\pm$ 0.42)E+00	(2.77 $\pm$ 0.42)E+00
Offsite (Nonedible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	(1.59 $\pm$ 0.75)E+00	(2.44 $\pm$ 1.02)E+00	(1.06 $\pm$ 0.95)E+00
Bowfin	3	(2.03 $\pm$ 1.88)E+00	(4.02 $\pm$ 1.10)E+00	(2.84 $\pm$ 8.46)E-01
Bream	3	(1.39 $\pm$ 0.61)E+00	(2.09 $\pm$ 1.03)E+00	(1.02 $\pm$ 0.93)E+00
Freshwater Catfish	3	(9.74 $\pm$ 5.75)E-01	(1.33 $\pm$ 0.93)E+00	(3.11 $\pm$ 8.61)E-01
Sucker	3	(2.55 $\pm$ 0.33)E+00	(2.79 $\pm$ 1.01)E+00	(2.18 $\pm$ 1.00)E+00
Beaver Dam Creek River Mouth				
Bass	3	(2.11 $\pm$ 0.31)E+00	(2.46 $\pm$ 0.88)E+00	(1.93 $\pm$ 0.84)E+00
Bream	3	(1.08 $\pm$ 1.18)E+00	(2.35 $\pm$ 1.06)E+00	(0.19 $\pm$ 8.46)E-01
Freshwater Catfish	3	(1.38 $\pm$ 0.94)E+00	(2.32 $\pm$ 0.84)E+00	(4.30 $\pm$ 7.32)E-01
Four Mile Creek River Mouth				
Bass	3	(4.27 $\pm$ 1.88)E+00	(5.53 $\pm$ 1.34)E+00	(2.11 $\pm$ 0.83)E+00
Bowfin	3	(1.83 $\pm$ 0.86)E+00	(2.44 $\pm$ 1.01)E+00	(8.46 $\pm$ 8.28)E-01
Bream	3	(1.80 $\pm$ 0.42)E+00	(2.07 $\pm$ 0.85)E+00	(1.32 $\pm$ 0.76)E+00
Freshwater Catfish	3	(1.42 $\pm$ 0.44)E+00	(1.84 $\pm$ 0.54)E+00	(9.63 $\pm$ 8.96)E-01
Sucker	3	(1.51 $\pm$ 0.66)E+00	(2.24 $\pm$ 0.82)E+00	(9.40 $\pm$ 7.87)E-01
Hwy-301 Bridge Area				
Bass	3	(2.04 $\pm$ 0.45)E+00	(2.56 $\pm$ 0.92)E+00	(1.72 $\pm$ 1.04)E+00
Bowfin	3	(1.80 $\pm$ 0.70)E+00	(2.45 $\pm$ 0.73)E+00	(1.06 $\pm$ 0.90)E+00

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Bream	3	(1.43 $\pm$ 0.64)E+00	(1.89 $\pm$ 0.81)E+00	(6.96 $\pm$ 8.96)E-01
Freshwater Catfish	3	(0.33 $\pm$ 1.11)E+00	(1.61 $\pm$ 0.93)E+00	(-3.48 $\pm$ 8.12)E-01
Sucker	3	(2.09 $\pm$ 1.77)E+00	(4.13 $\pm$ 0.97)E+00	(1.04 $\pm$ 0.65)E+00
L3R Creek River Mouth				
Bass	3	(1.66 $\pm$ 0.19)E+00	(1.88 $\pm$ 0.93)E+00	(1.54 $\pm$ 1.06)E+00
Bream	3	(1.30 $\pm$ 0.14)E+00	(1.45 $\pm$ 0.93)E+00	(1.18 $\pm$ 0.84)E+00
Freshwater Catfish	3	(2.81 $\pm$ 0.58)E+00	(3.39 $\pm$ 1.10)E+00	(2.22 $\pm$ 0.98)E+00
Steel Creek River Mouth				
Bass	3	(2.43 $\pm$ 0.60)E+00	(3.09 $\pm$ 0.92)E+00	(1.93 $\pm$ 0.84)E+00
Bowfin	3	(2.16 $\pm$ 0.85)E+00	(3.07 $\pm$ 1.04)E+00	(1.39 $\pm$ 1.41)E+00
Bream	3	(1.29 $\pm$ 0.87)E+00	(2.12 $\pm$ 0.93)E+00	(3.82 $\pm$ 7.09)E-01
Freshwater Catfish	3	(1.56 $\pm$ 0.63)E+00	(2.17 $\pm$ 0.84)E+00	(9.17 $\pm$ 7.63)E-01
Sucker	3	(2.21 $\pm$ 1.80)E+00	(4.22 $\pm$ 0.95)E+00	(7.47 $\pm$ 7.09)E-01
U3R Creek River Mouth				
Bass	3	(1.56 $\pm$ 0.50)E+00	(2.07 $\pm$ 0.66)E+00	(1.06 $\pm$ 0.93)E+00
Bream	3	(1.16 $\pm$ 0.63)E+00	(1.88 $\pm$ 0.67)E+00	(7.52 $\pm$ 8.28)E-01
Freshwater Catfish	3	(1.46 $\pm$ 0.74)E+00	(2.28 $\pm$ 0.98)E+00	(8.33 $\pm$ 8.61)E-01
Gross Alpha, pCi/g				
Offsite (Edible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	(0.50 $\pm$ 2.14)E-01	(2.64 $\pm$ 2.28)E-01	(-1.64 $\pm$ 1.37)E-01
Bowfin	3	(-0.63 $\pm$ 1.23)E-01	(0.40 $\pm$ 2.06)E-01	(-1.98 $\pm$ 1.53)E-01
Bream	3	(-0.21 $\pm$ 1.15)E-01	(1.04 $\pm$ 1.60)E-01	(-1.22 $\pm$ 0.97)E-01
Freshwater Catfish	3	(-2.48 $\pm$ 7.03)E-02	(0.46 $\pm$ 1.81)E-01	(-0.94 $\pm$ 1.53)E-01
Sucker	3	(-0.58 $\pm$ 1.74)E-01	(1.37 $\pm$ 2.21)E-01	(-1.98 $\pm$ 1.51)E-01
Beaver Dam Creek River Mouth				
Bass	3	(-5.21 $\pm$ 1.54)E-02	(-0.36 $\pm$ 2.54)E-01	(-0.67 $\pm$ 1.19)E-01
Bream	3	(-0.93 $\pm$ 1.25)E-01	(0.41 $\pm$ 1.75)E-01	(-2.05 $\pm$ 1.04)E-01
Freshwater Catfish	3	(-1.08 $\pm$ 0.46)E-01	(-0.54 $\pm$ 1.15)E-01	(-1.40 $\pm$ 0.89)E-01

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Four Mile Creek River Mouth				
Bass	3	$(-6.20 \pm 6.03)E-02$	$(-0.23 \pm 1.65)E-01$	$(-1.32 \pm 2.14)E-01$
Bowfin	3	$(-3.09 \pm 8.06)E-02$	$(0.50 \pm 1.68)E-01$	$(-1.11 \pm 1.86)E-01$
Bream	3	$(-1.68 \pm 0.24)E-01$	$(-1.45 \pm 1.12)E-01$	$(-1.93 \pm 1.02)E-01$
Freshwater Catfish	3	$(-1.05 \pm 1.18)E-01$	$(0.26 \pm 2.09)E-01$	$(-2.02 \pm 1.08)E-01$
Sucker	3	$(-0.58 \pm 1.14)E-01$	$(0.72 \pm 2.30)E-01$	$(-1.33 \pm 1.99)E-01$
Hwy-17 Bridge Area				
Bass	3	$(-0.39 \pm 1.56)E-01$	$(1.16 \pm 2.11)E-01$	$(-1.96 \pm 1.48)E-01$
Bream	3	$(1.04 \pm 4.66)E-02$	$(0.39 \pm 1.72)E-01$	$(-0.43 \pm 1.26)E-01$
Freshwater Catfish	3	$(-0.42 \pm 1.34)E-01$	$(1.12 \pm 2.11)E-01$	$(-1.21 \pm 1.66)E-01$
Hwy-301 Bridge Area				
Bass	3	$(-5.01 \pm 8.65)E-02$	$(0.50 \pm 1.81)E-01$	$(-1.04 \pm 1.55)E-01$
Bowfin	3	$(2.53 \pm 0.88)E-01$	$(3.43 \pm 2.88)E-01$	$(1.67 \pm 2.18)E-01$
Bream	3	$(-0.94 \pm 1.76)E-01$	$(1.09 \pm 1.96)E-01$	$(-2.01 \pm 1.59)E-01$
Freshwater Catfish	3	$(-5.53 \pm 7.21)E-02$	$(0.15 \pm 1.33)E-01$	$(-1.29 \pm 0.91)E-01$
Sucker	3	$(-5.63 \pm 9.00)E-02$	$(0.48 \pm 2.17)E-01$	$(-1.10 \pm 1.71)E-01$
L3R Creek River Mouth				
Bass	3	$(-9.43 \pm 4.25)E-02$	$(-0.45 \pm 1.51)E-01$	$(-1.19 \pm 1.29)E-01$
Bream	3	$(2.11 \pm 9.22)E-02$	$(1.27 \pm 1.85)E-01$	$(-0.43 \pm 1.15)E-01$
Freshwater Catfish	3	$(-0.09 \pm 1.60)E-01$	$(1.14 \pm 1.98)E-01$	$(-1.91 \pm 1.43)E-01$
Steel Creek River Mouth				
Bass	3	$(-2.95 \pm 7.85)E-02$	$(0.43 \pm 1.98)E-01$	$(-1.13 \pm 1.65)E-01$
Bowfin	3	$(0.27 \pm 2.09)E-01$	$(2.34 \pm 2.18)E-01$	$(-1.84 \pm 1.38)E-01$
Bream	3	$(-1.80 \pm 0.04)E-01$	$(-1.76 \pm 0.99)E-01$	$(-1.85 \pm 0.99)E-01$
Freshwater Catfish	3	$(7.22 \pm 8.66)E-02$	$(1.26 \pm 2.05)E-01$	$(-0.28 \pm 1.82)E-01$
Sucker	3	$(-1.54 \pm 0.59)E-01$	$(-1.15 \pm 1.91)E-01$	$(-2.21 \pm 1.71)E-01$
Stokes Bluff Landing				
Bass	3	$(-0.55 \pm 1.45)E-01$	$(1.12 \pm 2.17)E-01$	$(-1.39 \pm 1.98)E-01$
Bream	3	$(0.41 \pm 1.76)E-01$	$(2.42 \pm 2.70)E-01$	$(-0.88 \pm 1.47)E-01$
Freshwater Catfish	3	$(-1.46 \pm 1.22)E-01$	$(-0.33 \pm 1.92)E-01$	$(-2.75 \pm 1.32)E-01$
U3R Creek River Mouth				
Bass	3	$(-2.48 \pm 8.87)E-02$	$(0.29 \pm 1.36)E-01$	$(-1.27 \pm 0.87)E-01$
Bream	3	$(-9.89 \pm 9.22)E-02$	$(-0.41 \pm 1.54)E-01$	$(-2.05 \pm 1.06)E-01$
Freshwater Catfish	3	$(-0.60 \pm 2.91)E-02$	$(2.71 \pm 9.52)E-02$	$(-0.28 \pm 1.73)E-01$

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 $\pm \sigma$
Onsite (Edible)				
Beaver Dam Creek (400-D)				
Bream	3	$(0.13 \pm 1.88)\text{E-01}$	$(1.84 \pm 2.24)\text{E-01}$	$(-1.88 \pm 1.02)\text{E-01}$
L-Lake				
Bass	3	$(0.03 \pm 1.55)\text{E-01}$	$(1.77 \pm 1.76)\text{E-01}$	$(-1.22 \pm 0.97)\text{E-01}$
Bream	3	$(0.31 \pm 2.67)\text{E-01}$	$(3.39 \pm 2.52)\text{E-01}$	$(-1.34 \pm 1.68)\text{E-01}$
Freshwater Catfish	3	$(-1.05 \pm 0.27)\text{E-01}$	$(-7.38 \pm 7.91)\text{E-02}$	$(-1.22 \pm 0.97)\text{E-01}$
L3R-2 Patterson Mill Rd				
Bass	3	$(0.04 \pm 1.80)\text{E-01}$	$(2.01 \pm 2.46)\text{E-01}$	$(-1.52 \pm 1.70)\text{E-01}$
Bream	3	$(0.50 \pm 3.46)\text{E-02}$	$(0.26 \pm 1.79)\text{E-01}$	$(-0.35 \pm 1.49)\text{E-01}$
PAR Pond				
Bass	3	$(-0.29 \pm 2.07)\text{E-01}$	$(1.54 \pm 2.01)\text{E-01}$	$(-2.53 \pm 1.68)\text{E-01}$
Bream	3	$(0.36 \pm 1.43)\text{E-01}$	$(1.84 \pm 2.10)\text{E-01}$	$(-1.01 \pm 2.25)\text{E-01}$
Pond B				
Bass	3	$(6.56 \pm 7.09)\text{E-01}$	$(1.45 \pm 0.49)\text{E+00}$	$(0.94 \pm 3.68)\text{E-01}$
Bream	3	$(0.99 \pm 2.34)\text{E-01}$	$(3.49 \pm 2.73)\text{E-01}$	$(-1.14 \pm 1.56)\text{E-01}$
SC-4 Steel Creek at Road A				
Bass	3	$(-7.66 \pm 3.63)\text{E-02}$	$(-0.55 \pm 1.92)\text{E-01}$	$(-1.19 \pm 1.50)\text{E-01}$
Bream	3	$(8.79 \pm 5.25)\text{E-02}$	$(1.23 \pm 2.32)\text{E-01}$	$(0.27 \pm 2.09)\text{E-01}$
Freshwater Catfish	1	$(0.42 \pm 1.48)\text{E-01}$		
U3R-4 at Road A				
Bass	2	$(-4.83 \pm 6.65)\text{E-02}$	$(-0.01 \pm 1.15)\text{E-01}$	$(-0.95 \pm 1.26)\text{E-01}$
Bream	3	$(-1.12 \pm 0.73)\text{E-01}$	$(-0.29 \pm 1.78)\text{E-01}$	$(-1.61 \pm 1.35)\text{E-01}$
Freshwater Catfish	2	$(-0.65 \pm 1.65)\text{E-01}$	$(0.51 \pm 1.65)\text{E-01}$	$(-1.82 \pm 0.98)\text{E-01}$
Offsite (Nonedible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(-2.46 \pm 8.11)\text{E-01}$	$(6.11 \pm 8.78)\text{E-01}$	$(-1.00 \pm 0.53)\text{E+00}$
Bowfin	3	$(-2.93 \pm 2.73)\text{E-01}$	$(0.07 \pm 5.85)\text{E-01}$	$(-5.24 \pm 4.96)\text{E-01}$
Bream	3	$(-2.84 \pm 3.63)\text{E-01}$	$(-0.10 \pm 4.85)\text{E-01}$	$(-6.96 \pm 4.41)\text{E-01}$
Freshwater Catfish	3	$(-3.41 \pm 1.15)\text{E-01}$	$(-2.61 \pm 5.83)\text{E-01}$	$(-4.72 \pm 4.48)\text{E-01}$
Sucker	3	$(-3.96 \pm 1.41)\text{E-01}$	$(-2.96 \pm 5.85)\text{E-01}$	$(-5.58 \pm 5.20)\text{E-01}$

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 $\pm \sigma$
Beaver Dam Creek River Mouth				
Bass	3	(1.27 $\pm$ 3.39)E-01	(4.05 $\pm$ 5.91)E-01	(-2.51 $\pm$ 4.83)E-01
Bream	3	(-4.44 $\pm$ 3.98)E-01	(0.06 $\pm$ 4.76)E-01	(-7.49 $\pm$ 4.67)E-01
Freshwater Catfish	3	(-2.66 $\pm$ 2.94)E-01	(0.03 $\pm$ 4.78)E-01	(-5.79 $\pm$ 3.20)E-01
Four Mile Creek River Mouth				
Bass	3	(-0.98 $\pm$ 5.29)E-01	(0.39 $\pm$ 1.33)E+00	(-6.58 $\pm$ 3.70)E-01
Bowfin	3	(-0.36 $\pm$ 4.41)E-01	(4.72 $\pm$ 6.04)E-01	(-3.25 $\pm$ 4.84)E-01
Bream	3	(-3.10 $\pm$ 3.19)E-01	(-0.33 $\pm$ 5.56)E-01	(-6.59 $\pm$ 5.90)E-01
Freshwater Catfish	3	(-0.05 $\pm$ 4.01)E-01	(2.62 $\pm$ 3.77)E-01	(-4.66 $\pm$ 3.03)E-01
Sucker	3	(0.28 $\pm$ 3.27)E-01	(3.76 $\pm$ 4.65)E-01	(-2.72 $\pm$ 5.20)E-01
Hwy-301 Bridge Area				
Bass	3	(-6.53 $\pm$ 1.29)E-01	(-0.51 $\pm$ 1.05)E+00	(-7.43 $\pm$ 4.26)E-01
Bowfin	3	(-1.90 $\pm$ 3.09)E-01	(-0.05 $\pm$ 6.11)E-01	(-5.47 $\pm$ 4.56)E-01
Bream	3	(-0.18 $\pm$ 2.64)E-01	(2.46 $\pm$ 5.35)E-01	(-2.81 $\pm$ 5.56)E-01
Freshwater Catfish	3	(-0.78 $\pm$ 4.83)E-01	(4.66 $\pm$ 5.35)E-01	(-4.55 $\pm$ 3.07)E-01
Sucker	3	(-1.06 $\pm$ 3.39)E-01	(1.74 $\pm$ 4.73)E-01	(-4.83 $\pm$ 8.57)E-01
L3R Creek River Mouth				
Bass	3	(-1.48 $\pm$ 3.24)E-01	(2.25 $\pm$ 5.27)E-01	(-3.62 $\pm$ 5.56)E-01
Bream	3	(-3.51 $\pm$ 1.46)E-01	(-2.46 $\pm$ 3.78)E-01	(-5.17 $\pm$ 3.29)E-01
Freshwater Catfish	3	(-2.14 $\pm$ 2.96)E-01	(-0.33 $\pm$ 6.33)E-01	(-5.56 $\pm$ 5.36)E-01
Steel Creek River Mouth				
Bass	3	(-3.37 $\pm$ 3.51)E-01	(-0.40 $\pm$ 5.71)E-01	(-7.24 $\pm$ 3.95)E-01
Bowfin	3	(-0.33 $\pm$ 1.02)E+00	(7.81 $\pm$ 8.27)E-01	(-1.22 $\pm$ 0.69)E+00
Bream	3	(1.43 $\pm$ 2.95)E-01	(4.83 $\pm$ 6.37)E-01	(-0.35 $\pm$ 5.56)E-01
Freshwater Catfish	3	(-3.52 $\pm$ 1.05)E-01	(-2.32 $\pm$ 4.55)E-01	(-4.20 $\pm$ 4.01)E-01
Sucker	3	(-1.66 $\pm$ 4.76)E-01	(2.07 $\pm$ 5.90)E-01	(-7.03 $\pm$ 6.06)E-01
U3R Creek River Mouth				
Bass	3	(-5.84 $\pm$ 1.00)E-01	(-4.73 $\pm$ 4.42)E-01	(-6.68 $\pm$ 3.62)E-01
Bream	3	(-1.50 $\pm$ 3.21)E-01	(0.77 $\pm$ 3.28)E-01	(-5.17 $\pm$ 3.45)E-01
Freshwater Catfish	3	(-6.54 $\pm$ 3.60)E-01	(-2.39 $\pm$ 5.15)E-01	(-8.89 $\pm$ 5.03)E-01

Table 27
Radioactivity in Aquatic Food Products — Saltwater Fish

Page 1 of 1

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 Catfish	3	$(-8.43 \pm 8.20)E-03$	$(0.05 \pm 1.46)E-02$	$(-1.56 \pm 1.45)E-02$
Marine Mullet	3	$(-1.75 \pm 1.64)E-02$	$(-0.63 \pm 1.57)E-02$	$(-3.63 \pm 1.57)E-02$
Red Fish (drum)	3	$(-9.15 \pm 9.87)E-03$	$(0.22 \pm 1.36)E-02$	$(-1.53 \pm 1.22)E-02$
Cs-137, pCi/g				
RM-0/8 Savannah River Mouth (Hwy-17A Bridge Area)				
Marine Catfish	3	$(0.15 \pm 1.17)E-02$	$(1.17 \pm 1.52)E-02$	$(-1.12 \pm 1.47)E-02$
Marine Mullet	3	$(4.27 \pm 1.56)E-02$	$(6.04 \pm 1.81)E-02$	$(3.07 \pm 1.91)E-02$
Red Fish (drum)	3	$(2.48 \pm 1.15)E-02$	$(3.46 \pm 1.34)E-02$	$(1.22 \pm 1.47)E-02$
Gross Beta, pCi/g				
RM-0/8 Savannah River Mouth (Hwy-17A Bridge Area)				
Marine Catfish	3	$(2.77 \pm 0.16)E+00$	$(2.96 \pm 0.30)E+00$	$(2.68 \pm 0.40)E+00$
Marine Mullet	3	$(2.43 \pm 0.08)E+00$	$(2.47 \pm 0.42)E+00$	$(2.33 \pm 0.37)E+00$
Red Fish (drum)	3	$(2.52 \pm 0.48)E+00$	$(3.07 \pm 0.43)E+00$	$(2.16 \pm 0.39)E+00$
Gross Alpha, pCi/g				
RM-0/8 Savannah River Mouth (Hwy-17A Bridge Area)				
Marine Catfish	3	$(-0.68 \pm 5.01)E-02$	$(0.51 \pm 1.46)E-01$	$(-0.36 \pm 1.78)E-01$
Marine Mullet	3	$(-2.24 \pm 4.23)E-02$	$(0.26 \pm 1.27)E-01$	$(-0.48 \pm 1.30)E-01$
Red Fish (drum)	3	$(-1.16 \pm 0.69)E-01$	$(-0.43 \pm 1.98)E-01$	$(-1.80 \pm 1.56)E-01$

Table 28
Radioactivity in Aquatic Food Products — Shellfish

Page 1 of 1

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Co-60, pCi/g				
RM-0/8 Savannah River Mouth (Savannah Shellfish)	2	$(0.66 \pm 1.17)E-02$	$(1.48 \pm 1.12)E-02$	$(-0.16 \pm 1.12)E-02$
Cs-137, pCi/g				
RM-0/8 Savannah River Mouth (Savannah Shellfish)	2	$(6.27 \pm 5.75)E-03$	$(1.03 \pm 1.10)E-02$	$(0.22 \pm 1.22)E-02$
Sr-89,90, pCi/g				
RM-0/8 Savannah River Mouth (Savannah Shellfish)	2	$(-1.22 \pm 1.22)E-03$	$(-0.04 \pm 1.06)E-02$	$(-0.21 \pm 1.03)E-02$
Gross Beta, pCi/g				
RM-0/8 Savannah River Mouth (Savannah Shellfish)	2	$(1.44 \pm 0.51)E+00$	$(1.80 \pm 0.24)E+00$	$(1.08 \pm 0.27)E+00$
Gross Alpha, pCi/g				
RM-0/8 Savannah River Mouth (Savannah Shellfish)	2	$(1.09 \pm 1.12)E+00$	$(1.88 \pm 0.41)E+00$	$(2.96 \pm 2.02)E-01$

Table 29
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	(-8.43 $\pm$ 8.44)E-03	(1.43 $\pm$ 0.23)E-01	(1.26 $\pm$ 0.23)E-02	(1.49 $\pm$ 0.26)E-02	(1.91 $\pm$ 2.16)E-02
H-Area					
2000 feet east	(-0.04 $\pm$ 1.10)E-02	(3.66 $\pm$ 0.30)E-01	(5.85 $\pm$ 1.07)E-03	(2.05 $\pm$ 0.21)E-02	(2.17 $\pm$ 2.18)E-02
Z-Area					
#3	(5.45 $\pm$ 8.01)E-03	(3.62 $\pm$ 0.26)E-01	(6.83 $\pm$ 1.38)E-03	(3.26 $\pm$ 0.34)E-02	(3.22 $\pm$ 2.10)E-02
Burial Ground					
643-26E-2	(2.83 $\pm$ 1.58)E-02	(-5.89 $\pm$ 2.22)E-02	(-4.61 $\pm$ 6.53)E-04	(5.57 $\pm$ 8.30)E-04	(0.76 $\pm$ 1.17)E-02
Site Perimeter					
Hwy 301 @ state line	(1.86 $\pm$ 2.23)E-02	(3.16 $\pm$ 0.40)E-01	(0.07 $\pm$ 1.11)E-03	(1.49 $\pm$ 1.38)E-03	(1.50 $\pm$ 1.97)E-02
100-Mile-Radius					
Savannah, Ga.	(-1.37 $\pm$ 8.48)E-03	(7.85 $\pm$ 1.91)E-02	(-6.60 $\pm$ 8.14)E-04	(0.15 $\pm$ 1.03)E-03	(0.34 $\pm$ 1.82)E-02

Table 30
Radioactivity in River and Stream Sediment

Page 1 of 8

Location	River Mile	1994	1995	1996	1997	1998
<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 ± 1.08)E-02	(-0.51 ± 1.78)E-02
Highway 301	118.7			(0.22 ± 2.16)E-02	(9.31 ± 2.94)E-02	(4.95 ± 1.26)E-02
Lower Three Runs mouth	129.0			(0.01 ± 2.53)E-02	(1.90 ± 1.41)E-02	(-1.34 ± 1.63)E-02
Above Lower Three Runs	129.5			(4.46 ± 2.76)E-02		
Below Little Hell Landing	134.0			(7.01 ± 2.24)E-02	(-0.28 ± 1.11)E-02	(1.38 ± 1.66)E-02
Above Little Hell Landing	136.6			(1.07 ± 2.21)E-02		
Steel Creek-Pen Branch mouth	141.0			(2.82 ± 0.69)E-02		
Below Four Mile Creek	150.2			(-1.09 ± 2.72)E-02	(0.05 ± 6.60)E-03	(-0.94 ± 1.51)E-02
R-3A above Vogtle	151.0				(-2.11 ± 2.32)E-02	(-1.43 ± 1.51)E-02
Upper Three Runs mouth	157.2			(-0.74 ± 1.26)E-02	(-1.09 ± 1.28)E-02	(00.00 ± 4.31)E-02
Demiere's Landing (control)	160.5			(4.37 ± 2.50)E-02	(-1.93 ± 1.12)E-02	(-0.88 ± 1.75)E-02
SRS Streams						
Four Mile 2 at Road 4					(1.10 ± 0.62)E-02	(8.67 ± 1.13)E-02
Four Mile 3A below F-Area effluent					(-1.26 ± 1.77)E-02	(0.84 ± 1.08)E-02
Four Mile A-7A (in a beaver pond)		(1.17 ± 0.06)E+00		(1.92 ± 0.12)E-01	(1.35 ± 0.13)E-01	(9.14 ± 1.72)E-02
Four Mile discharge at swamp		(6.27 ± 1.13)E-02		(2.11 ± 1.07)E-02	(1.05 ± 0.09)E-01	(7.77 ± 0.90)E-02
Four Mile at Road A-7		(2.49 ± 0.15)E-01		(1.57 ± 0.80)E-02	(5.66 ± 0.73)E-02	(-8.07 ± 9.78)E-03
Lower Three Runs 1A at Road B					(0.86 ± 1.06)E-02	(-1.89 ± 0.96)E-02
Pen Branch discharge at swamp				(8.43 ± 3.51)E-02	(-4.69 ± 3.23)E-02	(5.85 ± 3.48)E-02
R-Area downstream of R-1					(1.65 ± 0.63)E-02	(1.55 ± 0.14)E-01
Steel Creek discharge at swamp		(3.17 ± 0.26)E-01	(2.10 ± 0.12)E-01	(9.12 ± 0.89)E-02		

Table 30
Radioactivity in River and Stream Sediment

Location	River Mile	1994	1995	1996	1997	1998
Steel Creek 4 at Road A					(7.69 ± 0.92)E-02	(2.30 ± 0.19)E-01
Steel Creek at Road B (SC-2A, 1 mile above Road B)				(2.29 ± 1.16)E-02	(0.37 ± 1.16)E-02	(0.94 ± 1.02)E-02
Tims Branch 4A					(1.12 ± 0.71)E-02	(3.16 ± 1.37)E-02
Tims Branch 4B					(-1.39 ± 1.49)E-02	(0.15 ± 1.35)E-02
Tims Branch 5 near Road C					(0.45 ± 1.20)E-02	(4.38 ± 2.85)E-02
Tinker Creek 1					(-1.14 ± 1.11)E-02	(-0.87 ± 1.02)E-02
Upper Three Runs 1A, Treadway Bridge, Road 8-1					(0.22 ± 1.55)E-02	(-0.09 ± 1.53)E-02
Cs-137, pCi/g (dry weight)						
Savannah River						
Beaver Dam Creek river mouth					(7.42 ± 1.70)E-02	(3.02 ± 2.09)E-02
Highway 301	118.7	(2.40 ± 0.38)E-01	(2.03 ± 0.36)E-01	(2.64 ± 0.43)E-01	(5.13 ± 0.37)E-01	(3.63 ± 0.25)E-01
Lower Three Runs mouth	129.0	(3.80 ± 0.10)E-00	(1.43 ± 0.07)E+00	(2.94 ± 0.36)E-01	(1.24 ± 0.06)E+00	(1.85 ± 1.68)E-02
Above Lower Three Runs	129.5	(5.61 ± 0.59)E-01	(1.03 ± 0.05)E+00	(3.09 ± 0.43)E-01		
Below Little Hell Landing	134.0	(2.71 ± 0.42)E-01	(1.49 ± 0.07)E+00	(9.34 ± 4.70)E-01	(2.10 ± 1.17)E-02	(6.16 ± 2.20)E-02
Above Little Hell Landing	136.6		(4.33 ± 0.41)E-01	(1.07 ± 0.28)E-01		
Steel Creek-Pen Branch mouth	141.0	(2.37 ± 0.43)E-01	(5.36 ± 0.11)E+00	(2.09 ± 0.07)E+00		
Below Four Mile Creek	150.2		(7.88 ± 0.53)E-01	(4.25 ± 0.45)E-01	(-2.19 ± 8.79)E-03	(2.23 ± 1.43)E-02
R-3A above Vogtle	151.0				(1.82 ± 2.32)E-02	(1.18 ± 1.39)E-02
Upper Three Runs mouth	157.2	(1.55 ± 0.35)E-01	(2.87 ± 0.53)E-01	(-0.97 ± 1.66)E-02	(1.97 ± 0.23)E-01	(2.15 ± 0.16)E+00
Demiore's Landing (control)	160.5	(1.01 ± 0.29)E-01	(2.62 ± 0.36)E-01	(1.57 ± 0.52)E-01	(2.85 ± 1.02)E-02	(-0.11 ± 1.51)E-02
SRS Streams						
Four Mile 2 at Road 4					(6.90 ± 0.22)E+00	(3.13 ± 0.08)E+01
Four Mile 3A below F-Area effluent					(6.24 ± 0.50)E-01	(4.29 ± 0.36)E-01
Four Mile A-7A (in a beaver pond)		(8.88 ± 0.05)E+01	(7.73 ± 0.57)E-01	(1.89 ± 0.04)E+01	(1.89 ± 0.06)E+01	(1.03 ± 0.05)E+01

Table 30
Radioactivity in River and Stream Sediment

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Location	River Mile	1994	1995	1996	1997	1998
Four Mile discharge at swamp		(8.98 ± 0.39)E+01	(4.23 ± 0.17)E-01	(2.84 ± 0.25)E-01	(2.62 ± 0.09)E+00	(1.74 ± 0.06)E+00
Four Mile at Road A-7		(1.66 ± 0.01)E+01	(9.54 ± 0.75)E-01	(2.34 ± 0.08)E+00	(6.12 ± 0.20)E+00	(1.66 ± 0.09)E+00
Lower Three Runs 1A at Road B					(7.05 ± 0.50)E-01	(1.05 ± 0.21)E-01
Pen Branch discharge at swamp		(2.82 ± 0.22)E+00	(1.39 ± 0.09)E+00	(2.45 ± 0.15)E+00	(1.47 ± 0.11)E+00	(2.13 ± 0.14)E+00
R-Area downstream of R-1					(1.39 ± 0.05)E+00	(4.80 ± 0.15)E+01
Steel Creek discharge at swamp		(1.03 ± 0.02)E+01	(4.71 ± 0.06)E+00	(3.77 ± 0.12)E+00		
Steel Creek 4 at Road A					(1.57 ± 0.06)E+00	(1.36 ± 0.05)E+01
Steel Creek at Road B (SC-2A, 1 mile above Road B)		(2.91 ± 0.31)E-01	(3.56 ± 0.20)E-01	(2.15 ± 0.27)E-01	(1.10 ± 0.06)E+00	(4.65 ± 0.35)E-01
Tims Branch 4A						
Tims Branch 4B					(1.97 ± 1.14)E-02	(8.90 ± 3.31)E-02
Tims Branch 5 near Road C					(4.55 ± 1.84)E-02	(-2.83 ± 1.68)E-02
Tinker Creek 1					(-1.32 ± 1.54)E-02	(1.67 ± 4.41)E-02
Upper Three Runs 1A, Treadway Bridge, Road 8-1					(7.69 ± 2.72)E-02	(7.68 ± 2.61)E-02
					(8.54 ± 3.63)E-02	(1.45 ± 0.24)E-01

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 30
Radioactivity in River and Stream Sediment

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Location	River Mile	1994	1995	1996	1997	1998
R-3A above Vogtle	151.0					
Upper Three Runs mouth	157.2					
Demiere'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	(2.53 ± 0.12)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	(1.14 ± 0.58)E-03
Highway 301	118.7	(1.11 ± 0.26)E-03	(1.30 ± 0.52)E-03	(1.16 ± 0.53)E-03	(-4.53 ± 1.93)E-03	(2.21 ± 1.13)E-03

Table 30
Radioactivity in River and Stream Sediment

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Location	River Mile	1994	1995	1996	1997	1998
Lower Three Runs mouth	129.0	(8.86 ± 3.80)E-04	(-0.58 ± 1.75)E-04	(-0.72 ± 1.12)E-03	(6.15 ± 8.22)E-04	(1.87 ± 0.93)E-03
Above Lower Three Runs	129.5	(1.96 ± 2.36)E-04	(3.44 ± 2.69)E-04	(7.18 ± 4.01)E-04		
Below Little Hell Landing	134.0	(2.15 ± 1.14)E-04	(1.09 ± 0.27)E-03	(8.03 ± 5.91)E-04	(-2.75 ± 5.66)E-04	(-0.13 ± 1.64)E-03
Above Little Hell Landing	136.5	(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	(3.09 ± 1.89)E-04	(2.63 ± 0.54)E-03	(-0.17 ± 4.64)E-04		
Below Four Mile Creek	150.2	(3.06 ± 1.31)E-04	(6.12 ± 4.33)E-04	(4.90 ± 7.97)E-04	(6.87 ± 9.02)E-04	(4.55 ± 1.30)E-03
R-3A above Vogtle	151.0				(2.80 ± 0.98)E-03	(4.55 ± 6.85)E-04
Upper Three Runs mouth	157.2	(1.97 ± 0.29)E-03	(2.82 ± 0.47)E-03	(2.13 ± 1.05)E-03	(3.27 ± 1.21)E-03	(9.65 ± 2.63)E-03
Demiere's Landing (control)	160.5	(1.51 ± 1.52)E-04	(1.21 ± 0.85)E-04	(-4.41 ± 3.52)E-04	(-1.53 ± 1.04)E-03	(1.39 ± 1.02)E-03
SRS Streams						
Four Mile 2 at Road 4					(8.53 ± 1.04)E-02	(7.34 ± 0.49)E-01
Four Mile 3A below F-Area effluent					(7.58 ± 2.27)E-03	(-5.20 ± 7.32)E-04
Four Mile A-7A (in a beaver pond)		(1.23 ± 0.03)E+00	(3.08 ± 0.83)E-03	(2.09 ± 0.14)E-01	(2.60 ± 0.27)E-01	(1.92 ± 0.19)E-01
Four Mile discharge at swamp		(4.44 ± 0.51)E-03	(2.40 ± 0.43)E-03	(2.56 ± 1.06)E-03	(1.13 ± 0.24)E-02	(1.35 ± 0.26)E-02
Four Mile at Road A-7		(2.06 ± 0.006)E-01	(5.58 ± 7.65)E-04	(1.26 ± 0.17)E-02	(9.99 ± 1.14)E-02	(6.37 ± 1.63)E-03
Lower Three Runs 1A at Road B		(5.94 ± 0.55)E-03	(1.45 ± 0.45)E-03	(3.66 ± 1.13)E-03	(-1.17 ± 1.01)E-03	(3.16 ± 1.48)E-03
Pen Branch discharge at swamp					(1.17 ± 1.92)E-03	(6.82 ± 1.44)E-03
R-Area downstream of R-1					(9.53 ± 5.23)E-04	(2.76 ± 0.42)E-02
Steel Creek discharge at swamp		(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	(7.88 ± 0.62)E-02
Steel Creek at Road B					(4.65 ± 1.70)E-03	(1.21 ± 1.14)E-03
(SC-2A, 1 mile above Road B)		(6.61 ± 3.09)E-04	(1.36 ± 0.49)E-03	(4.46 ± 4.89)E-04		
Tims Branch 4A					(-1.68 ± 6.59)E-04	(0.61 ± 1.00)E-03
Tims Branch 4B					(3.90 ± 8.22)E-04	(7.89 ± 6.50)E-04
Tims Branch 5 near Road C					(3.27 ± 8.42)E-04	(-0.47 ± 4.93)E-04

Table 30
Radioactivity in River and Stream Sediment

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Location	River Mile	1994	1995	1996	1997	1998
Tinker Creek 1					(-0.06 ± 1.22)E-03	(7.11 ± 8.05)E-04
Upper Three Runs 1A, Treadway Bridge, Road 8-1					(0.21 ± 1.08)E-03	(5.74 ± 7.14)E-04
Pu-239, pCi/g (dry weight)						
Savannah River						
Beaver Dam Creek river mouth					(7.28 ± 3.59)E-04	(-2.03 ± 3.51)E-04
Highway 301	118.7	(3.88 ± 1.67)E-04	(8.23 ± 1.09)E-03	(9.51 ± 5.40)E-04	(2.36 ± 2.48)E-03	(1.36 ± 1.08)E-03
Lower Three Runs mouth	129.0	(4.04 ± 0.78)E-03	(1.92 ± 0.34)E-03	(2.27 ± 1.68)E-03	(-3.85 ± 9.78)E-04	(2.22 ± 1.19)E-03
Above Lower Three Runs	129.5	(2.48 ± 0.43)E-03	(2.17 ± 0.41)E-03	(3.75 ± 4.27)E-04		
Below Little Hell Landing	134.0	(1.00 ± 0.20)E-03	(5.86 ± 0.55)E-03	(3.88 ± 5.11)E-04	(1.07 ± 0.93)E-03	(0.52 ± 1.27)E-03
Above Little Hell Landing	136.5	(5.28 ± 1.84)E-04	(2.34 ± 0.44)E-03	(2.71 ± 3.11)E-04		
Steel Creek-Pen Branch mouth	141.0	(4.10 ± 1.79)E-04	(5.24 ± 0.76)E-03	(-1.55 ± 4.83)E-04		
Below Four Mile Creek	150.2	(1.25 ± 0.36)E-03	(2.89 ± 0.77)E-03	(3.46 ± 1.31)E-03	(-2.76 ± 7.25)E-04	(1.84 ± 0.93)E-03
R-3A above Vogtle	151.0				(1.03 ± 1.18)E-03	(-3.94 ± 7.06)E-04
Upper Three Runs mouth	157.2	(2.69 ± 0.31)E-03	(5.05 ± 0.62)E-03	(2.31 ± 5.94)E-04	(3.97 ± 1.95)E-03	(3.33 ± 0.51)E-02
Demiére's Landing	160.5	(2.03 ± 0.44)E-03	(1.26 ± 0.29)E-03	(0.33 ± 4.62)E-04	(-0.47 ± 1.05)E-03	(-4.62 ± 5.61)E-04
SRS Streams						
Four Mile 2 at Road 4					(3.13 ± 2.11)E-03	(3.03 ± 0.37)E-02
Four Mile 3A below F-Area effluent					(1.50 ± 0.33)E-02	(5.09 ± 1.72)E-03
Four Mile A-7A (in a beaver pond)		(5.25 ± 0.12)E-01	(1.30 ± 0.59)E-03	(7.18 ± 0.56)E-02	(1.24 ± 0.15)E-01	(7.03 ± 0.90)E-02
Four Mile discharge at swamp		(4.11 ± 0.46)E-03	(1.81 ± 0.37)E-03	(5.57 ± 6.41)E-04	(4.95 ± 1.48)E-03	(6.81 ± 1.81)E-03
Four Mile at Road A-7		(8.72 ± 0.31)E-02	(-7.78 ± 6.19)E-04	(5.29 ± 1.14)E-03	(5.58 ± 0.75)E-02	(6.63 ± 1.66)E-03
Lower Three Runs 1A at Road B					(-1.98 ± 0.96)E-03	(-4.54 ± 5.51)E-04
Pen Branch discharge at swamp		(1.43 ± 0.09)E-02	(1.41 ± 0.11)E-02	(1.97 ± 0.27)E-02	(2.35 ± 0.44)E-02	(3.22 ± 0.35)E-02
R-Area downstream of R-1					(1.08 ± 0.55)E-03	(8.56 ± 0.87)E-02

Table 30
Radioactivity in River and Stream Sediment

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Location	River Mile	1994	1995	1996	1997	1998
Steel Creek discharge at swamp		(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	(7.24 ± 0.59)E-02
Steel Creek at Road B (SC-2A, 1 mile above Road B)		(6.63 ± 0.75)E-03	(9.49 ± 0.99)E-03	(2.59 ± 0.77)E-03	(3.91 ± 1.72)E-03	(0.85 ± 1.15)E-03
Tims Branch 4A					(1.27 ± 0.93)E-03	(1.64 ± 1.20)E-03
Tims Branch 4B					(3.90 ± 8.21)E-04	(3.00 ± 5.46)E-04
Tims Branch 5 near Road C					(-0.27 ± 1.26)E-03	(-1.48 ± 3.86)E-04
Tinker Creek 1					(1.32 ± 2.19)E-03	(1.60 ± 1.01)E-03
Upper Three Runs 1A, Treadway Bridge, Road 8-1					(-1.06 ± 0.80)E-03	(4.23 ± 1.58)E-03
Sr-89,90, pCi/g (dry weight)						
Savannah River						
Beaver Dam Creek river mouth					(0.91 ± 1.98)E-02	(1.89 ± 2.11)E-02
Highway 301	118.7	(0.62 ± 1.62)E-02	(-0.23 ± 1.27)E-02	(2.77 ± 1.51)E-02	(2.92 ± 1.38)E-02	(2.93 ± 2.05)E-02
Lower Three Runs mouth	129.0	(2.91 ± 1.46)E-02	(0.68 ± 1.28)E-02	(2.36 ± 1.46)E-02	(1.23 ± 1.73)E-02	(2.70 ± 2.20)E-02
Above Lower Three Runs	129.5	(0.15 ± 1.51)E-02	(0.90 ± 1.24)E-02	(2.40 ± 1.50)E-02		
Below Little Hell Landing	134.0	(0.74 ± 1.47)E-02	(0.94 ± 1.39)E-02	(1.97 ± 1.40)E-02	(0.35 ± 2.03)E-02	(1.00 ± 2.06)E-02
Above Little Hell Landing	136.5	(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	(1.89 ± 1.48)E-02	(-0.09 ± 1.53)E-02	(-0.30 ± 1.79)E-02		
Below Four Mile Creek	150.2	(1.51 ± 1.40)E-02	(6.70 ± 1.56)E-02	(3.30 ± 1.16)E-02	(3.32 ± 2.29)E-02	(1.56 ± 2.14)E-02
R-3A above Vogtle	151.0				(2.81 ± 2.09)E-02	(-0.38 ± 1.99)E-02
Upper Three Runs mouth	157.2	(0.21 ± 1.31)E-02	(-1.17 ± 1.45)E-02	(1.18 ± 1.59)E-02	(2.48 ± 2.02)E-02	(9.67 ± 3.45)E-02
Demiere's Landing (control)	160.5	(1.28 ± 1.46)E-02	(0.83 ± 1.14)E-02	(0.87 ± 1.21)E-02	(0.35 ± 2.04)E-02	(1.06 ± 0.35)E-01
SRS Streams						
Four Mile 2 at Road 4					(2.38 ± 2.45)E-02	(1.45 ± 0.18)E-01
Four Mile 3A below F-Area effluent					(5.28 ± 2.63)E-02	(3.33 ± 2.07)E-02

Table 30
Radioactivity in River and Stream Sediment

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Location	River Mile	1994	1995	1996	1997	1998
Four Mile A-7A (in a beaver pond)		(1.56 ± 0.04)E+00	(8.77 ± 0.31)E-01	(1.14 ± 0.24)E-01	(7.16 ± 0.53)E-01	(4.37 ± 0.39)E-01
Four Mile discharge at swamp		(3.03 ± 1.82)E-02	(4.36 ± 1.69)E-02	(-0.17 ± 1.77)E-02	(3.14 ± 0.39)E-01	(2.78 ± 0.33)E-01
Four Mile at Road A-7		(3.42 ± 0.20)E-01	(4.17 ± 0.27)E-01	(1.32 ± 0.24)E-01	(3.79 ± 0.30)E-01	(9.26 ± 2.60)E-02
Lower Three Runs 1A at Road B					(-2.19 ± 2.13)E-02	(3.88 ± 2.95)E-02
Pen Branch discharge at swamp		(1.25 ± 0.23)E-01	(0.63 ± 1.01)E-02	(0.18 ± 1.17)E-02	(0.75 ± 2.34)E-02	(0.37 ± 1.18)E-02
R-Area downstream of R-1					(1.39 ± 2.38)E-02	(1.85 ± 0.37)E-01
Steel Creek discharge at swamp		(-0.82 ± 1.45)E-02	(1.55 ± 1.64)E-02	(1.42 ± 1.73)E-02		
Steel Creek 4 at Road A					(2.38 ± 2.45)E-02	(1.59 ± 0.26)E-01
Steel Creek at Road B					(0.74 ± 2.34)E-02	(2.37 ± 2.86)E-02
(SC-2A, 1 mile above Road B)		(0.00 ± 1.62)E-02	(0.77 ± 1.48)E-02	(3.55 ± 1.91)E-02		
Tims Branch 4A					(1.06 ± 1.67)E-02	(2.60 ± 2.89)E-02
Tims Branch 4B					(-1.20 ± 2.19)E-02	(0.44 ± 2.74)E-02
Tims Branch 5 near Road C					(2.07 ± 2.42)E-02	(0.87 ± 2.77)E-02
Tinker Creek 1					(-1.56 ± 2.17)E-02	(1.46 ± 2.82)E-02
Upper Three Runs 1A, Treadway Bridge, Road 8-1					(-0.85 ± 2.22)E-02	(1.46 ± 2.82)E-02

Table 31
Radioactivity in Grassy Vegetation

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Location	H-3 (pCi/g)	Co-60 (pCi/g)	Cs-137 (pCi/g)	U-234 (pCi/g)	U-235 (pCi/g)
<i>Note: One grassy vegetation sample is collected from each location once per year.</i>					
Onsite					
Burial Ground North	(1.26 ± 0.05)E+00	(1.38 ± 2.68)E-02	(0.90 ± 2.15)E-02	(2.00 ± 0.17)E-02	(6.89 ± 3.12)E-04
Site Perimeter					
D-Area	(6.27 ± 4.77)E-02	(-3.72 ± 2.57)E-02	(3.09 ± 2.21)E-02	(3.68 ± 0.69)E-03	(5.55 ± 3.01)E-04
Darkhorse @ Williston Gate	(2.05 ± 0.37)E-01	(1.22 ± 2.19)E-02	(2.34 ± 0.38)E-01	(3.76 ± 0.65)E-03	(3.07 ± 2.38)E-04
Green Pond	(8.26 ± 5.38)E-02	(0.38 ± 1.48)E-02	(6.51 ± 1.94)E-02	(6.72 ± 0.72)E-03	(2.67 ± 1.99)E-04
Patterson Mill Road	(5.72 ± 4.57)E-02	(1.78 ± 2.01)E-02	(3.17 ± 0.43)E-01	(1.73 ± 0.66)E-03	(3.69 ± 3.26)E-04
25-Mile-Radius					
Highway 301 @ state line	(-1.32 ± 5.53)E-02	(0.65 ± 5.54)E-02	(3.86 ± 4.64)E-02	6.22 ± 0.90)E-03	(1.06 ± 2.07)E-04
100-Mile-Radius					
Savannah, Ga.	(5.29 ± 4.84)E-02	(-1.98 ± 2.30)E-02	(9.74 ± 4.02)E-02	(8.82 ± 1.06)E-03	(9.95 ± 3.70)E-04

Table 31
Radioactivity in Grassy Vegetation

Page 2 of 3

Location	U-238 (pCi/g)	Pu-238 (pCi/g)	Pu-239 (pCi/g)	Sr-89,90 (pCi/g)	Gross Beta (pCi/g)
Onsite					
Burial Ground North	(1.66 ± 0.15)E-02	(6.54 ± 5.75)E-04	(1.41 ± 3.09)E-04	(1.83 ± 1.37)E-01	(1.08 ± 0.14)E+01
Site Perimeter					
D-Area	(1.92 ± 0.70)E-03	(9.29 ± 5.99)E-04	(-4.00 ± 1.81)E-04	(1.03 ± 0.93)E-01	(1.20 ± 0.15)E+01
Darkhorse @ Williston Gate	(1.63 ± 0.46)E-03	(-8.15 ± 5.53)E-04	(-0.29 ± 1.09)E-04	(3.51 ± 1.46)E-01	(1.22 ± 0.10)E+01
Green Pond	(4.81 ± 0.66)E-03	(1.52 ± 4.01)E-04	(-1.17 ± 0.47)E-03	(-1.06 ± 1.17)E-01	(9.52 ± 1.46)E+00
Patterson Mill Road	(2.33 ± 0.70)E-03	(1.41 ± 5.75)E-04	(-7.36 ± 4.88)E-04	(6.36 ± 1.61)E-01	(7.97 ± 1.29)E+00
25-Mile-Radius					
Highway 301 @ state line	(5.65 ± 0.91)E-03	(4.00 ± 3.08)E-04	(9.50 ± 4.87)E-04	(0.43 ± 1.28)E-01	(1.59 ± 0.16)E+01
100-Mile-Radius					
Savannah, Ga.	(1.01 ± 0.12)E-02	(5.96 ± 5.23)E-04	(0.68 ± 2.97)E-04	(-1.48 ± 1.15)E-01	(5.70 ± 1.26)E+00

Table 31
Radioactivity in Grassy Vegetation

Page 3 of 3

Location	Gross Alpha (pCi/g)	Am-241 (pCi/g)	Cm-244 (pCi/g)
Onsite			
Burial Ground North	(0.07 ± 5.97)E-01	(1.76 ± 0.62)E-03	(4.13 ± 2.94)E-04
Site Perimeter			
D-Area	(2.56 ± 5.70)E-01	(1.92 ± 0.69)E-03	(4.06 ± 3.57)E-04
Darkhorse @ Williston Gate	(-1.85 ± 3.51)E-01	(1.43 ± 0.57)E-03	(2.00 ± 2.00)E-04
Green Pond	(3.43 ± 6.34)E-01	(3.53 ± 1.85)E-04	(3.99 ± 2.00)E-04
Patterson Mill Road	(0.26 ± 4.73)E-01	(5.25 ± 3.50)E-04	(0.00 ± 3.09)E-03
25-Mile-Radius			
Highway 301 @ state line	(-6.84 ± 3.56)E-01	(3.33 ± 0.90)E-03	(1.77 ± 0.67)E-03
100-Mile-Radius			
Savannah, Ga.	(1.03 ± 7.85)E-01	(7.80 ± 4.35)E-04	(2.17 ± 2.18)E-04

Table 32
Meteorological Data

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USNRC Computer Code-XOQDOQ,
43848 Wind Stats H-Area 60 minute

Version 2.0
62M 92-96

Run Date: 98.077 (SRL 6/29/83 VERSION)
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

Table 32
Meteorological Data

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USNRC Computer Code-XOQDOQ, Version 2.0 Run Date: 98.077 (SRL 6/29/83 VERSION)
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 B**
Moderately Unstable Conditions

(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: **Atmospheric Stability Class B**
Moderately Unstable Conditions

(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

Table 32
Meteorological Data

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USNRC Computer Code-XOQDOQ,
43848 Wind Stats H-Area 60 minute

Version 2.0
62M 92-96

Run Date: 98.077 (SRL 6/29/83 VERSION)
Stability from Sigma A

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

Atmospheric Stability Class C

(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:
Slightly Unstable Conditions

Atmospheric Stability Class C

(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

Table 32
Meteorological Data

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USNRC Computer Code-XOQDOQ, Version 2.0 Run Date: 98.077 (SRL 6/29/83 VERSION)
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 D**
Neutral Conditions

(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: **Atmospheric Stability Class D**
Neutral Conditions

(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

Table 32
Meteorological Data

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USNRC Computer Code-XOQDOQ,
43848 Wind Stats H-Area 60 minute

Version 2.0
62M 92-96

Run Date: 98.077 (SRL 6/29/83 VERSION)
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

Table 32
Meteorological Data

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USNRC Computer Code-XOQDOQ, Version 2.0 Run Date: 98.077 (SRL 6/29/83 VERSION)
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 F
Moderately Stable Conditions

(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: Atmospheric Stability Class F
Moderately Stable Conditions

(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

Table 32
Meteorological Data

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USNRC Computer Code-XOQDOQ,
43848 Wind Stats H-Area 60 minute

Version 2.0
62M 92-96

Run Date: 98.077 (SRL 6/29/83 VERSION)
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 33
80-km-Radius (50-Mile) Population Distribution Around SRS (1990 Census)

Page 1 of 1

Dir (Miles) ^a	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

^a No one lives within 5 miles of the center of SRS because all areas within this distance are inside the site boundary.

Table 34
80-km-Radius (50-Mile) Milk, Meat, and Vegetation Production Around SRS
as of 1991

Page 1 of 2

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 34
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 35
Airborne 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 36
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
Cow milk (L/yr)	230	120
Goat milk (L/yr)	230	n/a
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 37
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 38
Parameters Used for Adult Consumption Rates
and for Liquid 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>		
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 and are applicable to the 80-kilometer population of 620,100.

b The drinking water pathway dose is calculated for the maximally exposed individual and for the population served by the downriver Beaufort-Jasper Water Treatment Plant (60,000 people) near Beaufort, S.C., and the City of Savannah Industrial and Domestic Water Supply Plant (10,000 people) at Port Wentworth, Ga.

Table 39
Site-Specific Parameters Used in Liquid Dose Calculations

Page 1 of 1

River flow rate at Highway 301 for 1998 (cu ft/sec) ^a	12,521
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 (acres devoted to each of the four major food types)	1,000 ^{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 16,329 cfs.

^b Values determined by SRTC for SRS [Hamby, 1991]. The LADTAP II dose model prorates the aquatic food harvest amongst the 80-kilometer population of 620,100.

^c Irrigation is considered a "special case" scenario. The food produced on each 1,000-acre parcel is assumed to be eaten by the 80-kilometer population of 620,100.

Table 40
Committed Dose to the Maximally Exposed Individual from Atmospheric Releases
(MAXIGASP Code — Using Consumption of Cow Milk Pathway)

Page 1 of 1

Pathway	Maximally Exposed Individual Dose (mrem) ^a	Percent of Total Dose
Plume	4.49E-05	0.07
Ground	7.78E-04	1.1
Inhalation	2.92E-02	42.6
Vegetation	2.86E-02	41.8
Cow milk	7.09E-03	10.4
Meat	2.72E-03	4.0
Total	6.85E-02	
Radionuclide	Maximally Exposed Individual Dose (mrem) ^a	Percent of Total Dose ^b
<i>Gases and Vapors</i>		
H-3	4.58E-02	66.8
C-14	1.67E-05	0.02
Kr-85	4.49E-05	0.07
I-129	7.05E-03	10.3
<i>Particulates</i>		
Co-60	2.10E-05	0.03
Sr-90	2.35E-03	3.4
Cs-134	1.04E-05	0.02
Cs-137	8.44E-04	1.2
Ra-228	1.63E-05	0.02
Th-228	1.39E-05	0.02
Th-230	1.63E-05	0.02
U-234	2.83E-05	0.04
U-238	6.62E-05	0.1
Pu-238	1.46E-03	2.1
Pu-239	1.03E-02	15.0
Am-241	1.14E-04	0.2
Am-243	8.01E-05	0.1
Cm-244	2.88E-04	0.4
Total	6.85E-02	

^a Committed effective dose equivalent

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

Table 41
Committed Dose to the Maximally Exposed Individual from Atmospheric Releases (MAXIGASP Code — Using Consumption of Goat Milk Pathway)

Page 1 of 1

Pathway	Maximally Exposed Individual Dose (mrem) ^a	Percent of Total Dose
Plume	4.49E-05	0.06
Ground	7.78E-04	1.0
Inhalation	2.92E-02	38.0
Vegetation	2.86E-02	37.2
Goat Milk	1.54E-02	20.1
Meat	2.72E-03	3.5
Total	7.68E-02	
Radionuclide	Maximally Exposed Individual Dose (mrem) ^a	Percent of Total Dose ^b
<i>Gases and Vapors</i>		
H-3	5.38E-02	70.0
C-14	1.73E-05	0.02
Kr-85	4.49E-05	0.06
I-129	7.23E-03	9.4
<i>Particulates</i>		
Co-60	2.10E-05	0.03
Sr-90	2.40E-03	3.1
Cs-137	9.22E-04	1.2
Ra-228	1.44E-05	0.02
Th-228	1.39E-05	0.02
Th-230	1.63E-05	0.02
U-234	2.82E-05	0.04
U-238	6.60E-05	0.1
Pu-238	1.46E-03	1.9
Pu-239	1.03E-02	13.4
Am-241	1.14E-04	0.1
Am-243	8.01E-05	0.1
Cm-244	2.88E-04	0.4
Total	7.68E-02	

a Committed effective dose equivalent

b Radionuclides contributing 0.01% or more of the total dose

Table 42
80-km (50-Mile) Collective Dose from Atmospheric Releases (POPGASP Code)

Page 1 of 1

Pathway	Population Dose (person-rem) ^a	Percent of Total Dose
Plume	4.33E-03	0.1
Ground	6.70E-02	1.9
Inhalation	2.40E+00	69.2
Vegetation	6.70E-01	19.3
Cow Milk	2.75E-01	7.9
Meat	6.03E-02	1.7
Total	3.47E+00	
Radionuclide	Population Dose (person-rem) ^a	Percent of Total Dose ^b
<i>Gases and Vapors</i>		
H-3	2.68E+00	77.2
C-14	6.55E-04	0.02
Kr-85	4.33E-03	0.1
I-129	2.32E-01	6.7
<i>Particulates</i>		
Co-60	1.10E-03	0.03
Sr-90	5.06E-02	1.5
Cs-134	3.97E-04	0.01
Cs-137	5.71E-02	1.6
Ra-228	3.67E-04	0.01
Th-228	8.74E-04	0.03
Th-230	9.94E-04	0.03
Th-232	3.67E-04	0.01
U-234	3.14E-03	0.1
U-235	4.41E-04	0.01
U-238	6.78E-03	0.2
Pu-238	7.37E-02	2.1
Pu-239	3.39E-01	9.8
Am-241	7.43E-03	0.2
Am-243	3.64E-03	0.1
Cm-244	1.32E-02	0.4
Total	3.47E+00	

a Committed effective dose equivalent

b Radionuclides contributing 0.1% or more of the total dose

Table 43
Total Site Airborne Releases and Maximally Exposed Individual
Effective Dose Equivalent by Radionuclide
(CAP88 Dose Calculations for 1998 NESHAP Report to EPA)

Page 1 of 2

Radionuclide	Releases (curies)	Maximally Exposed Individual EDE (mrem)	Percent of Dose
H-3 (oxide)	5.86E+04	7.54E-02	94.3
Pu-239 ^a	1.83E-03	2.13E-03	2.7
I-129	1.25E-02	8.14E-04	1.0
Pu-238	4.43E-04	4.74E-04	0.6
Sr-89,90 ^b	2.85E-02	4.02E-04	0.5
Cs-137	5.30E-03	2.94E-04	0.4
Cm-244	1.34E-04	1.27E-04	0.2
Kr-85	1.70E+04	9.99E-05	0.1
U-238	1.84E-04	6.85E-05	0.09
Am-241	3.89E-05	6.29E-05	0.08
Am-243	1.89E-05	3.42E-05	0.04
U-234	7.84E-05	3.31E-05	0.04
Th-230	1.02E-05	8.75E-06	0.01
Th-228	9.44E-06	7.44E-06	0.009
Co-60	1.38E-04	6.99E-06	0.009
C-14	7.02E-02	4.33E-06	0.005
U-235	9.88E-06	4.10E-06	0.005
Ra-228	2.13E-05	2.40E-06	0.003
Cs-134	1.31E-04	2.30E-06	0.003
U-232	1.20E-06	1.88E-06	0.002
Cm-246	9.37E-07	1.73E-06	0.002
Pu-240	1.12E-06	1.33E-06	0.002
H-3 (elemental)	2.41E+04	1.24E-06	0.002
Pu-241	6.02E-05	1.14E-06	0.001
U-233	2.35E-06	1.05E-06	0.001
Th-232	7.51E-07	9.22E-07	0.001
Ru-106	3.34E-05	6.83E-07	0.0009
Ra-226	8.64E-06	6.68E-07	0.0008
Ce-144	1.45E-04	6.58E-07	0.0008
Sb-125	5.29E-05	2.90E-07	0.0004
Eu-154	5.74E-06	2.31E-07	0.0003

a Includes unidentified alpha emissions

b Includes unidentified beta emissions

Table 43
Total Site Airborne Releases and Maximally Exposed Individual
Effective Dose Equivalent by Radionuclide
(CAP88 Dose Calculations for 1998 NESHAP Report to EPA)

Page 2 of 2

Radionuclide	Releases (curies)	Maximally Exposed Individual EDE (mrem)	Percent of Dose
Pu-242	1.59E-07	1.80E-07	0.0002
Co-58	1.27E-04	1.32E-07	0.0002
I-131	6.75E-05	8.00E-08	0.0001
Zn-65	2.23E-05	6.08E-08	0.00008
Nb-95	1.13E-04	5.50E-08	0.00007
Tc-99	2.82E-05	4.17E-08	0.00005
Zr-95	1.71E-05	2.63E-08	0.00003
Xe-135	4.95E-02	2.00E-08	0.00003
Fe-55	3.90E-04	1.17E-08	0.00001
Cm-242	1.58E-07	9.19E-09	0.00001
Ru-103	2.26E-05	7.95E-09	0.00001
Ce-141	4.16E-05	5.21E-09	0.000007
I-133	1.59E-04	2.60E-09	0.000003
Eu-152	4.19E-08	2.04E-09	0.000003
Cr-51	1.21E-04	1.94E-09	0.000002
Eu-155	1.10E-06	1.76E-09	0.000002
Np-237	1.01E-09	1.66E-09	0.000002
Pa-231	1.00E-09	1.66E-09	0.000002
U-236	2.39E-09	9.95E-10	0.000001
Ni-63	8.21E-06	3.12E-10	0.0000004
Na-22	7.76E-11	1.91E-12	0.000000002
Cm-245	2.08E-13	3.93E-13	0.0000000005
Pm-147	9.79E-10	1.54E-13	0.0000000002
Co-57	9.40E-11	5.16E-14	0.00000000006
Sn-126	1.29E-13	8.43E-16	0.000000000001
Ni-59	8.33E-13	4.25E-17	0.00000000000005
Total		8.00E-02	

Table 44
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	6.73E-05	0.08	4.49E-05	0.07
Ground	3.74E-04	0.5	7.78E-04	1.1
Inhalation	2.42E-02	30.3	2.92E-02	42.6
Food ^b	5.56E-02	69.5	3.84E-02	56.1
Total	8.00E-02		6.85E-02	
By Radionuclide				
<i>Gases and Vapors</i>				
H-3 ^c	7.54E-02	94.3	4.58E-02	66.8
C-14	4.33E-06	0.005	1.67E-05	0.02
Kr-85	9.95E-06	0.01	4.49E-05	0.07
I-129	8.14E-04	1.0	7.05E-03	10.3
<i>Particles</i>				
Co-60	6.99E-06	0.009	2.10E-05	0.03
Sr-90	4.02E-04	0.5	2.35E-03	3.4
Cs-134	2.30E-06	0.003	1.04E-05	0.02
Cs-137	2.94E-04	0.4	8.44E-04	1.2
Ra-228	2.40E-06	0.003	1.63E-05	0.02
Th-228	7.44E-06	0.01	1.39E-05	0.02
Th-230	8.75E-06	0.01	1.63E-05	0.02
U-234	3.31E-05	0.04	2.83E-05	0.04
U-238	6.85E-05	0.09	6.62E-05	0.1
Pu-238	4.74E-04	0.6	1.46E-03	2.1
Pu-239	2.13E-03	2.7	1.03E-02	15.0
Am-241	6.29E-05	0.08	1.14E-04	0.2
Am-243	3.42E-05	0.04	8.01E-05	0.12
Cm-244	1.27E-04	0.2	2.88E-04	0.4
Total	8.00E-02		6.85E-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 45
NESHAP Airborne-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	8.24E-03	0.1	4.33E-03	0.1
Ground	3.91E-02	0.5	6.70E-02	1.9
Inhalation	2.89E+00	35.5	2.40E+00	69.2
Food ^b	5.20E+00	63.9	1.01E-00	29.0
Total	8.13E+00		3.47E+00	
By Radionuclide				
<i>Gases and Vapors</i>				
H-3 ^c	7.72E+00	95.0	2.68E+00	77.2
C-14	4.19E-04	0.005	6.55E-04	0.02
Kr-85	1.22E-03	0.2	4.33E-03	0.1
I-129	3.66E-02	0.5	2.32E-01	6.7
<i>Particulates</i>				
Co-60	8.04E-04	0.01	1.10E-03	0.03
Sr-90	3.18E-02	0.4	5.06E-02	1.5
Cs-134	2.52E-04	0.003	3.97E-04	0.01
Cs-137	3.37E-02	0.4	5.71E-02	1.6
Ra-228	2.53E-04	0.003	3.67E-04	0.01
Th-228	7.86E-04	0.01	8.74E-04	0.03
Th-230	9.03E-04	0.01	9.94E-04	0.03
Th-232	9.71E-05	0.001	3.67E-04	0.01
U-234	3.41E-03	0.04	3.14E-03	0.1
U-235	4.24E-04	0.005	4.41E-04	0.01
U-238	7.06E-03	0.09	6.78E-03	0.2
Pu-238	4.82E-02	0.6	7.37E-02	2.1
Pu-239	2.16E-01	2.7	3.39E-01	9.8
Am-241	6.52E-03	0.08	7.43E-03	0.2
Am-243	3.52E-03	0.04	3.64E-03	0.1
Cm-244	1.31E-02	0.2	1.32E-02	0.4
Total	8.13E+00		3.47E+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 46
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	6.18E-02	50.3
Water	6.09E-02	49.6
Shoreline	1.95E-04	0.2
Swimming	1.28E-07	0.0001
Boating	1.51E-07	0.0001
Total	1.23E-01	

By Radionuclide

Radionuclide	Individual Dose (mrem) ^a	Percent of Total Dose
H-3 (oxide)	4.46E-02	36.3
Sr-90	4.69E-03	3.8
I-129	1.99E-03	1.6
Cs-134	3.85E-05	0.03
Cs-137	5.80E-02	47.2
U-234	8.33E-04	0.7
U-235	3.11E-05	0.03
U-238	8.39E-04	0.7
Pu-238	4.03E-04	0.3
Pu-239	1.15E-02	9.4
Am-241	8.39E-06	0.007
Cm-244	5.84E-07	0.0005
Total	1.23E-01	

^a Committed effective dose equivalent

Table 47**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)	3.34E-02	71.5
Sr-90	2.02E-03	4.3
I-129	1.10E-03	2.4
Cs-134	3.73E-07	0.0008
Cs-137	5.60E-04	1.2
U-234	6.07E-04	1.3
U-235	2.23E-05	0.05
U-238	6.12E-04	1.3
Pu-238	2.83E-04	0.6
Pu-239	8.08E-03	17.3
Am-241	3.89E-06	0.008
Cm-244	2.71E-07	0.0006
Total	4.67E-02	

^a Committed effective dose equivalent

Table 48

**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)	3.80E-02	71.5
Sr-90	2.29E-03	4.3
I-129	1.28E-03	2.4
Cs-134	4.26E-07	0.0008
Cs-137	6.38E-04	1.2
U-234	6.92E-04	1.3
U-235	2.66E-05	0.05
U-238	6.92E-04	1.3
Pu-238	3.19E-04	0.6
Pu-239	9.20E-03	17.3
Am-241	4.26E-06	0.008
Cm-244	3.19E-07	0.0006
Total	5.32E-02	

^a Committed effective dose equivalent

Table 49
Collective Dose from Liquid Releases

Page 1 of 1

By Pathway

Pathway	Collective Dose (person-rem)^a	Percent of Total Dose
Sport fish	1.12E-01	6.2
Commercial fish	1.09E-03	0.1
Beaufort-Jasper	1.42E+00	78.4
Port Wentworth	2.70E-01	14.9
Saltwater invertebrates	6.70E-04	0.04
Recreation – river	8.16E-03	0.5
Total	1.81E+00	

By Radionuclide

Radionuclide	Collective Dose (person-rem)^a	Percent of Total Dose
H-3	1.21E+00	66.8
Sr-90	7.70E-02	4.3
I-129	4.09E-02	2.3
Cs-134	8.49E-05	0.005
Cs-137	1.33E-01	7.3
U-234	2.21E-02	1.2
U-235	8.31E-04	0.05
U-238	2.22E-02	1.2
Pu-238	1.03E-02	0.6
Pu-239	2.95E-01	16.3
Am-241	1.48E-04	0.008
Cm-244	1.03E-05	0.0006
Total	1.81E+00	

^a Committed effective dose equivalent

Table 50
Potential Doses from Irrigation Pathways

Page 1 of 1

Food Type ^a	Maximally Exposed Individual (mrem) ^b	Population (person-rem) ^b
Vegetation	6.12E-02	3.83E+00
Leafy vegetable	9.53E-03	2.46E-01
Milk	1.63E-02	2.22E+00
Meat	5.20E-03	2.78E-01
Total	9.22E-02	6.57E+00

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

b Committed effective dose equivalent

Table 51
Dose from Consumption of Fish from New Savannah Bluff Lock and Dam,
SRS Creek Mouths, and River Mile 120

Page 1 of 2

Average Concentration in Composites, pCi/g^a

Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239
NSB L&D ^b	Bass	6.11E-02	8.37E-03	3.36E-02	-4.10E-06	1.06E-05
	Bream	7.68E-02	4.05E-03	2.13E-02	-1.56E-05	-3.63E-05
	Catfish	1.04E-01	5.70E-03	9.48E-03	-8.08E-06	-7.00E-07
U3R Mouth	Bass	4.17E-01	2.40E-03	9.73E-02	6.50E-06	-3.60E-06
	Bream	5.37E-01	8.38E-03	3.25E-02	5.76E-05	1.82E-05
	Catfish	5.03E-02	6.84E-03	5.52E-02	4.98E-05	-3.33E-05
BDC Mouth	Bass	6.88E-02	8.21E-03	3.38E-01	-1.32E-05	8.50E-06
	Bream	4.73E-02	1.59E-02	2.62E-02	-4.35E-05	-1.24E-04
	Catfish	5.75E-02	2.86E-03	4.23E-02	-1.11E-05	7.87E-06
FMC Mouth	Bass	3.92E+00	1.48E-02	3.63E-01	-1.06E-05	-2.99E-05
	Bream	3.37E-01	2.44E-02	4.57E-02	-4.86E-05	-2.42E-05
	Catfish	7.72E-01	7.27E-03	1.31E-01	1.20E-06	2.30E-05
SC Mouth	Bass	8.97E-01	1.50E-02	1.65E+00	-4.87E-06	1.01E-05
	Bream	7.07E-01	4.58E-03	9.70E-02	-1.49E-05	-9.71E-05
	Catfish	6.20E-01	8.89E-03	8.87E-02	2.35E-05	8.40E-06
L3R Mouth	Bass	5.65E-01	5.76E-03	1.89E-01	2.00E-06	1.85E-05
	Bream	5.62E-01	6.16E-03	1.31E-01	-5.90E-05	-3.80E-05
	Catfish	6.45E-01	1.56E-03	2.14E-01	-2.19E-05	7.00E-06
RM 120	Bass	4.02E-01	4.48E-03	9.51E-02	-1.22E-05	-4.12E-05
	Bream	4.14E-01	7.32E-03	2.94E-02	1.23E-05	2.22E-05
	Catfish	1.95E-01	1.53E-03	5.59E-02	-2.05E-05	-9.70E-06

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

Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239	Total
NSB L&D ^b	Bass	7.31E-05	2.07E-02	3.19E-02	d	8.66E-04	5.35E-02
	Bream	9.19E-05	1.00E-02	2.02E-02			3.03E-02
	Catfish	1.24E-04	1.41E-02	9.01E-03			2.32E-02
U3R Mouth	Bass	4.99E-04	5.93E-03	9.24E-02	4.69E-04		9.93E-02
	Bream	6.43E-04	2.07E-02	3.09E-02	4.16E-03	1.49E-03	5.79E-02
	Catfish	6.02E-05	1.69E-02	5.24E-02	3.60E-03		7.30E-02
BDC Mouth	Bass	8.24E-05	2.03E-02	3.21E-01		6.94E-04	3.42E-01
	Bream	5.66E-05	3.93E-02	2.49E-02			6.42E-02
	Catfish	6.88E-05	7.06E-03	4.02E-02		6.43E-04	4.80E-02
FMC Mouth	Bass	4.69E-03	3.66E-02	3.45E-01			3.86E-01
	Bream	4.03E-04	6.03E-02	4.34E-02			1.04E-01
	Catfish	9.24E-04	1.80E-02	1.24E-01	8.66E-05	1.88E-03	1.45E-01

^a Each composite included five fish; three composites of each species type were collected at each sampling location.

^b New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)

^c Dose was based on maximum consumption of 19 kg/year; to obtain dose from average consumption of fish (9 kg/year), multiply doses in table by 0.474.

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

Table 51

Dose from Consumption of Fish from New Savannah Bluff Lock and Dam,
SRS Creek Mouths, and River Mile 120

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

Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239	Total
SC Mouth	Bass	1.07E-03	3.71E-02	1.57E+00		8.25E-04	1.61E+00
	Bream	8.46E-04	1.13E-02	9.22E-02			1.04E-01
	Catfish	7.42E-04	2.20E-02	8.43E-02	1.70E-03	6.86E-04	1.09E-01
L3R Mouth	Bass	6.76E-04	1.42E-02	1.80E-01	1.44E-04	1.51E-03	1.96E-01
	Bream	6.73E-04	1.52E-02	1.24E-01	b		1.40E-01
	Catfish	7.72E-04	3.85E-03	2.03E-01		5.72E-04	2.08E-01
RM 120	Bass	4.81E-04	1.11E-02	9.03E-02			1.02E-01
	Bream	4.96E-04	1.81E-02	2.79E-02	8.88E-04	1.81E-03	4.92E-02
	Catfish	2.33E-04	3.78E-03	5.31E-02			5.71E-02

a Dose was based on maximum consumption of 19 kg/year; to obtain dose from average consumption of fish (9 kg/year), multiply doses in 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 total dose column.

Table 52
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	290	1.85E-05	2.16E-05	6.82E-06
Beaver Dam Creek	400-D	12	1.04E-05	1.32E-05	2.30E-05
Four Mile Creek	FM3 above Road E	7	2.29E-03	2.82E-03	2.10E-03
Pen Branch	K-018	28	3.37E-05	3.56E-05	4.41E-05
Steel Creek	Steel Creek 2A above Road B	4	3.04E-04	3.56E-04	1.79E-04
Lower Three Runs	L3R1A above Road B	49	2.27E-06	2.77E-06	1.89E-06

Stream	Location	Flow, cfs	Dose to Biota, rad/d ^{a,b}	
			Raccoon	Duck
Upper Three Runs	U3R-4	290	8.06E-06	8.36E-05
Beaver Dam Creek	400-D	12	8.33E-06	1.81E-04
Four Mile Creek	FM3 above Road E	7	1.57E-03	2.90E-02
Pen Branch	K-018	28	1.05E-05	1.88E-04
Steel Creek	Steel Creek 2A above Road B	4	1.64E-04	2.55E-03
Lower Three Runs	L3R1A above Road B	49	1.10E-06	1.36E-05

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

^b The DOE limit is 1 rad/d.

Table 53
Toxic Air Pollutant Emissions (1997)

Page 1 of 4

Pollutant	Chemical Abstract Number (CAS)	Actual Emissions (Tons/Year)
<i>Note: Emissions are calculated each year as part of an annual emissions inventory. In 1998, operating data were compiled and emissions calculated for 1997 operations for all site air emission sources. Because this process, which begins in January, requires up to 6 months to complete, this report provides 1997 emissions only. Actual emissions for 1998 will be compiled and reported in depth in the SRS Environmental Report for 1999 and in SRS Environmental Data for 1999.</i>		
ACETALDEHYDE	75-7-0	2.489E-01
ACETIC ANHYDRIDE	108-24-7	1.140E-06
ACETONITRILE	75-5-8	7.930E-01
ACROLEIN	107-2-8	1.066E-02
AMMONIUM CHLORIDE	12125-2-9	3.373E-04
ANILINE	62-53-3	8.790E-03
ANTIMONY COMPOUNDS	a	2.446E-03
ARSENIC	7440-38-2	7.921E-03
BENZENE	71-43-2	1.336E+01
BERYLLIUM	7440-41-7	1.330E-03
BIPHENYL	92-52-4	1.334E-02
BIS-(2-ETHYLHEXYL)PHTHALATE	117-81-7	2.798E-04
BROMOFORM	75-25-2	3.443E+00
BUTADIENE (1, 3-)	106-99-0	6.833E-02
CADMIUM	7440-43-9	4.577E-03
CARBON DISULFIDE	75-15-0	1.524E-03
CARBON TETRACHLORIDE	56-23-5	6.515E-03
CHLORDANE	57-74-9	1.609E-03
CHLORINE	7782-50-5	1.231E-01
CHLOROBENZENE	108-90-7	1.529E-03
CHLOROFORM	67-66-3	1.371E+01
CHROMIUM (+6) COMPOUNDS	a	6.286E-05
COBALT COMPOUNDS	a	1.328E-03
CRESOL	1319-77-3	1.311E-03
CUMENE	98-82-8	1.565E-02
CYANIDE	57-12-5	1.239E-03
CYANIDE COMPOUNDS	a	9.313E-03
DIBUTYL PHTHALATE	84-74-2	4.350E-04
DICHLOROBENZENE (P-)	106-46-7	1.389E-06

a No CAS number

Table 53
Toxic Air Pollutant Emissions (1997)

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Pollutant	Chemical Abstract Number (CAS)	Actual Emissions (Tons/Year)
DIMETHYLFORMAMIDE	68-12-2	4.974E-05
DINITROPHENOL (2, 4-)	51-28-5	2.977E-07
DINITROTOLUENE (2, 4-)	121-14-2	1.200E-03
DIOXANE (1,4-)	123-91-1	1.200E-03
DIPHENYL MERCURY	587-85-9	2.708E-03
ETHANOLAMINE	141-43-5	1.663E-02
ETHYL BENZENE	100-41-4	6.561E-01
ETHYLENE DIBROMIDE	106-93-4	3.569E-06
ETHYLENE DICHLORIDE	107-6-2	2.254E-07
ETHYLENE GLYCOL	107-21-1	2.679E-01
ETHYLIDENE DICHLORIDE	75-34-3	1.296E-03
FORMALDEHYDE	50-0-0	1.560E+00
FORMIC ACID	64-18-6	3.114E+00
HEPTACHLOR	76-44-8	1.784E-05
HEXACHLOROBENZENE	118-74-1	6.333E-05
HEXACHLOROBUTADIENE	87-68-3	8.670E-09
HEXACHLOROCYCLOPENTADIENE	77-47-4	6.194E-04
HEXACHLOROETHANE	67-72-1	5.360E-05
HEXAMETHYLENE (1, 6-)DIISOCYANATE	822-6-0	4.460E-05
HEXANE	110-54-3	1.259E+00
HYDRAZINE	302-1-2	1.285E-03
HYDROCHLORIC ACID	7647-1-0	4.214E+01
HYDROGEN SULFIDE	7783-6-4	1.204E+01
HYDROQUINONE	123-31-9	6.508E-02
ISOPHORONE	78-59-1	6.950E-03
MALATHION	121-75-5	4.530E-04
MANGANESE COMPOUNDS	a	5.145E-01
MERCURY	7439-97-6	3.874E-02
METHOXYCHLOR	72-43-5	3.111E-02
METHANOL	67-56-1	7.301E-01
METHYL ETHYL KETONE (2-BUTONE)	78-93-3	1.938E-01
METHYL ISOBUTYL KETONE	108-10-1	6.711E-01
METHYL METHACRYLATE	80-62-6	2.438E-03

a No CAS number

Table 53
Toxic Air Pollutant Emissions (1997)

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Pollutant	Chemical Abstract Number (CAS)	Actual Emissions (Tons/Year)
METHYL TERT-BUTYL ETHER	1634-4-4	7.737E-01
METHYLENE CHLORIDE	75-9-2	1.330E-01
NAPHTHALENE	91-20-3	1.003E-02
NICKEL OXIDE	1313-99-1	1.284E-06
NICKEL	7440-2-0	8.980E-02
NITRIC ACID	7697-37-2	1.599E+01
NITROBENZENE	98-95-3	1.723E-03
NITROPHENOL (P-)	100-2-7	1.452E-05
NITROPROPANE (2-)	79-46-9	9.140E-08
NITROSOPHENOL (P-)	104-91-6	1.452E-04
OXALIC ACID	144-62-7	6.133E-03
PHENOL	108-95-2	9.240E-02
PHOSPHORIC ACID	7664-38-2	2.030E-01
PHOSPHORUS	7723-14-0	6.748E-29
POLYCHLORINATED BIPHENYLS (PCB)	a	1.609E-03
POLYCYCLIC ORGANIC MATTER	a	2.183E-02
PROPOXUR	114-26-1	2.000E-05
PROPYLENE OXIDE (1, 2-)	75-56-9	4.500E-07
SELENIUM COMPOUNDS	a	2.697E-03
SODIUM HYDROXIDE	1310-73-2	1.331E+00
STYRENE	100-42-5	1.844E-02
SULFURIC ACID	7664-93-9	6.698E+00
TETRACHLOROETHANE (1, 1, 2, 2-)	79-34-5	1.233E-03
TETRACHLOROETHYLENE (PERCHLOROETHYLENE)	127-18-4	1.449E+01
TOLUENE	108-88-3	2.070E+00
TOLUENE-2,4-DIISOCYANATE	584-84-9	5.230E-06
TOXAPHENE	8001-35-2	9.338E-02
TRICHLOROBENZENE (1, 2, 4-)	120-82-1	6.740E-05
METHYL CHLOROFORM	71-55-6	5.085E-02
TRICHLOROETHANE (1, 1, 2-)	79-0-5	5.684E-03
TRICHLOROETHYLENE (TCE)	79-1-6	9.476E-01
TRIETHYLAMINE	121-44-8	2.000E-05
TRIMETHYLPENTANE (2, 2, 4-)	540-84-1	5.137E-02

a No CAS number

Table 53
Toxic Air Pollutant Emissions (1997)

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Pollutant	Chemical Abstract Number (CAS)	Actual Emissions (Tons/Year)
VINYL ACETATE	108-5-4	1.392E-03
VINYL CHLORIDE	75-1-4	1.293E-03
VINYLDENE CHLORIDE	75-35-4	2.668E-09
XYLENE (MIXED ISOMERS)	1330-20-7	5.499E+00
XYLENE (M-)	108-38-3	2.040E-01
XYLENE (O-)	95-47-6	5.674E-01
XYLENE (P-)	106-42-3	2.620E-01

Table 54
National Pollutant Discharge Elimination System Monitoring Data

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Permit SC0000175

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.

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Outfall A-01						
<i>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.</i>						
BOD	mg/L	12	8.50E+00	0.00E+00	12	7.08E-01
CHL	mg/L	12	0.00E+00	0.00E+00	12	0.00E+00
CU	mg/L	57	2.77E-01	0.00E+00	57	1.74E-02
FLO	MGD	12	1.44E+00	2.88E-01	12	8.88E-01
HG	mg/L	53	7.00E-04	0.00E+00	53	5.85E-05
O&G	mg/L	12	3.90E+00	0.00E+00	12	1.11E+00
PB	mg/L	57	3.70E-02	0.00E+00	57	1.33E-03
PERCL	µg/L	22	0.00E+00	0.00E+00	22	0.00E+00
PH	SU	12	7.55E+00	5.98E+00		
TCE	µg/L	21	2.13E+01	0.00E+00	21	4.91E+00
TSS	mg/L	19	10.0E+00	0.00E+00	19	2.21E+00

Outfall A-1A

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

FLO	MGD	14	4.51E-01	4.15E-01	14	4.33E-01
PERCL	µg/L	14	0.00E+00	0.00E+00	14	0.00E+00
TRICL	µg/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	12	0.00E+00	0.00E+00	12	0.00E+00
CU	mg/L	12	2.50E-02	0.00E+00	12	3.50E-03
FLO	MGD	48	6.59E+00	4.27E-01	48	1.38E+00
HG	mg/L	12	1.00E-04	0.00E+00	12	1.67E-05
PB	mg/L	12	3.00E-03	0.00E+00	12	5.00E-04
PH	SU	12	7.95E+00	6.43E+00		

Table 54
National Pollutant Discharge Elimination System Monitoring Data

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Permit SC0000175

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Outfall A-11 (cont.)						
TCE	µg/L	10	0.00E+00	0.00E+00	10	0.00E+00
TSS	mg/L	16	3.54E+02	3.00E+00	16	6.74E+01
Outfall D-1A						
<i>Effluent consists of the following type of wastewater: sanitary wastewater.</i>						
BOD	mg/L	13	4.90E+00	0.00E+00	13	2.87E+00
DO	mg/L	14	7.50E+00	1.40E+00	14	4.93E+00
FEC	#/100 mL	13	8.50E+01	0.00E+00	13	1.05E+01
FLO	MGD	365	4.78E-02	0.00E+00	365	8.21E-03
PH	SU	13	7.50E+00	6.51E+00		
TSS	mg/L	13	1.80E+01	1.00E+00	13	5.00E+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	14	1.20E+00	0.00E+00	14	6.29E-01
FLO	MGD	14	4.32E-01	8.64E-02	14	1.67E-01
PH	SU	14	8.03E+00	6.09E+00		
TMP	DEG C	14	3.05E+01	1.15E+01	14	2.24E+01
TSS	mg/L	15	5.40E+01	0.00E+00	15	4.40E+00
Outfall F-02						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water, cooling tower blowdown, and stormwater.</i>						
FLO	MGD	15	2.74E-01	2.88E-02	15	8.19E-02
PH	SU	16	9.61E+00	6.70E+00		
TMP	DEG C	15	2.91E+01	1.17E+01	15	2.08E+01
TSS	mg/L	15	2.23E+02	0.00E+00	15	1.57E+01
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	12	0.00E+00	0.00E+00	12	0.00E+00

Table 54
National Pollutant Discharge Elimination System Monitoring Data

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Permit SC0000175

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
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	15	2.88E-01	3.31E-02	15	9.70E-02
O&G	mg/L	16	8.40E+00	0.00E+00	16	1.35E+00
PH	SU	15	7.95E+00	4.26E+00		
TMP	DEG C	15	2.73E+01	1.17E+01	15	2.15E+01
TSS	mg/L	17	4.40E+01	0.00E+00	17	4.59E+00

Outfall F-08

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.

CU	mg/L	12	1.40E-02	0.00E+00	12	3.50E-03
FLO	MGD	365	9.05E+00	7.76E-01	365	2.04E+00
HG	mg/L	12	1.00E-04	0.00E+00	12	2.50E-05
PB	mg/L	12	0.00E+00	0.00E+00	12	0.00E+00
PH	SU	12	7.80E+00	6.18E+00		
TMP	DEG C	12	2.89E+01	1.78E+01	12	2.31E+01
TSS	mg/L	12	4.00E+00	1.00E+00	12	2.50E+00

Outfall G-10

Effluent consists of the following type of wastewater: Centralized Sanitary Wastewater Treatment Facility wastewater.

AN-Summer	mg/L	16	8.74E-01	1.21E-01	16	2.64E-01
AN-Winter	mg/L	8	1.11E+00	0.00E+00	8	3.36E-01
BOD	mg/L	24	7.00E+00	0.00E+00	24	2.95E+00
CU	mg/L	4	6.70E-02	0.00E+00	4	2.23E-02
DO	mg/L	24	1.20E+01	5.00E+00	24	7.34E+00
FEC	#/100 mL	26	8.00E+02	0.00E+00	26	7.99E+01
FLO	MGD	365	5.13E-01	0.00E+00	365	1.88E-01
PB	mg/L	4	4.00E-03	0.00E+00	4	1.00E-03
PH	SU	26	7.42E+00	6.70E+00		
TSS	mg/L	24	3.70E+01	2.00E+00	24	8.54E+00

Table 54
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Outfall H-02						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water and stormwater.</i>						
FLO	MGD	365	9.05E-01	3.23E-02	365	1.07E-01
O&G	mg/L	14	2.80E+00	0.00E+00	14	2.00E-01
PH	SU	15	7.38E+00	6.30E+00		
TMP	DEG C	15	2.80E+01	10.0E+00	15	1.93E+01
TSS	mg/L	15	10.0E+00	0.00E+00	15	1.67E+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	15	2.03E-01	0.00E+00	15	1.93E-02
PH	SU	14	7.60E+00	6.11E+00		
TMP	DEG C	14	2.60E+01	8.50E+00	14	1.83E+01
TSS	mg/L	14	9.00E+00	0.00E+00	14	1.86E+00
Outfall H-07						
<i>Effluent consists of the following types of wastewater: air compressor cooling water, cooling tower blowdown, and stormwater.</i>						
FLO	MGD	15	5.33E-02	0.00E+00	15	1.40E-02
O&G	mg/L	9	2.90E+00	0.00E+00	9	3.22E-01
PH	SU	9	7.42E+00	5.99E+00		
TSS	mg/L	9	3.10E+01	1.00E+00	9	9.67E+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>						
FLO	MGD	58	4.28E+00	2.02E-01	58	1.08E+00
PB	mg/L	12	1.50E-02	0.00E+00	12	2.33E-03
PH	SU	12	7.60E+00	5.58E+00		
TSS	mg/L	12	8.00E+00	2.00E+00	12	4.92E+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>						

Table 54
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Outfall H-12 (cont.)						
CU	mg/L	14	4.31E-01	0.00E+00	14	5.19E-02
FLO	mg/L	12	1.12E+00	1.83E-01	12	6.64E-01
PB	mg/L	15	1.90E-02	0.00E+00	15	2.13E-03
PH	SU	16	7.12E+00	3.65E+00		
TMP	DEG C	16	2.53E+01	1.31E+01	16	2.14E+01
TSS	mg/L	12	1.30E+01	0.00E+00	12	2.75E+00

Outfall H-16

Effluent consists of the following type of wastewater: F-Area/H-Area Effluent Treatment Facility process wastewater.

AG	mg/L	48	6.00E-03	0.00E+00	48	1.25E-04
BOD	mg/L	48	3.77E+01	0.00E+00	48	2.20E+00
CD	mg/L	48	3.00E-02	0.00E+00	48	6.25E-04
CR	mg/L	48	4.20E-02	0.00E+00	48	1.00E-03
CU	mg/L	48	3.20E-02	0.00E+00	48	1.27E-03
FLO	MGD	48	1.49E-01	4.00E-02	48	1.12E-01
HG	mg/L	48	3.00E-04	0.00E+00	48	2.50E-05
NI	mg/L	48	3.90E-02	0.00E+00	48	1.04E-03
O&G	mg/L	48	7.30E+00	0.00E+00	48	1.29E+00
PB	mg/L	48	0.00E+00	0.00E+00	48	0.00E+00
PH	SU	48	8.24E+00	6.12E+00		
TSS	mg/L	48	10.0E+00	0.00E+00	48	1.38E+00
ZN	mg/L	48	1.10E-01	0.00E+00	48	1.80E-02

Outfall K-06

Effluent consists of the following types of wastewater: powerhouse wastewater, package boiler blowdown, cooling tower overflow, and stormwater.

CHL	mg/L	2	5.00E-02	0.00E+00	2	2.50E-02
FLO	MGD	13	9.65E-02	0.00E+00	13	2.07E-02
O&G	mg/L	3	0.00E+00	0.00E+00	3	0.00E+00
PH	SU	3	7.34E+00	6.28E+00		
TSS	mg/L	3	1.00E+00	0.00E+00	3	6.67E-01

Table 54
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average

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Outfall K-10

Effluent consists of the following type of wastewater: Infrequent diversion from outfall K-18.

FLO	MGD	12	0.00E+00	0.00E+00	12	0.00E+00

Outfall K-12

Effluent consists of the following type of wastewater: sanitary wastewater.

BOD	mg/L	12	1.25E+01	2.50E+00	12	5.45E+00
DO	mg/L	14	9.90E+00	1.60E+00	14	4.84E+00
FEC	#/100 mL	14	2.06E+02	0.00E+00	14	1.60E+01
FLO	MGD	365	2.03E-02	0.00E+00	365	3.25E-03
PH	SU	14	8.00E+00	6.40E+00	14	7.19E+00
TSS	mg/L	13	1.04E+01	3.20E+00	13	5.12E+00

Outfall K-18

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.

AL	mg/L	7	2.61E-01	5.00E-02	7	1.86E-01
FLO	MGD	7	5.70E-01	3.74E-01	7	4.89E-01
O&G	mg/L	7	7.20E+00	0.00E+00	7	1.51E+00
PH	SU	7	7.87E+00	6.19E+00	7	6.99E+00
TSS	mg/L	7	7.00E+00	1.00E+00	7	4.00E+00

Outfall L-07

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.

FLO	MGD	365	2.59E+01	5.36E+00	365	7.72E+00
O&G	mg/L	5	2.80E+00	0.00E+00	5	5.60E-01
PH	SU	5	7.11E+00	6.24E+00	5	6.74E+00
TSS	mg/L	5	6.00E+00	1.00E+00	5	2.80E+00

Outfall L-7A

Effluent consists of the following type of wastewater: sanitary wastewater.

BOD	mg/L	12	3.30E+00	0.00E+00	12	1.06E+00
DO	mg/L	14	1.58E+01	4.10E+00	14	7.06E+00
FEC	#/100 mL	13	2.00E+00	0.00E+00	13	1.54E-01

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Outfall L-7A (cont.)						
FLO	MGD	365	3.62E-02	3.58E-02	365	3.60E-02
PH	SU	14	7.90E+00	6.50E+00		
TSS	mg/L	14	1.72E+01	3.00E+00	14	8.21E+00
Outfall L-08						
<i>Effluent consists of the following types of wastewater: engine house cooling water and stormwater.</i>						
FLO	MGD	5	8.35E-02	2.26E-02	5	4.96E-02
O&G	mg/L	5	2.40E+00	0.00E+00	5	4.80E-01
PH	SU	5	7.00E+00	6.36E+00		
TSS	mg/L	5	1.20E+01	0.00E+00	5	3.00E+00
Outfall M-04						
<i>Effluent consists of the following types of wastewater: Liquid Effluent Treatment Facility process wastewater.</i>						
AL	mg/L	20	1.06E+00	0.00E+00	20	2.92E-01
AN	mg/L	20	5.87E+01	1.06E-01	20	1.73E+01
CN	mg/L	20	1.77E+00	0.00E+00	20	1.80E-01
CR	mg/L	20	2.88E-01	0.00E+00	20	5.72E-02
FLO	MGD	20	7.20E-03	5.04E-04	20	4.79E-03
NI	mg/L	20	1.44E+00	2.80E-02	20	2.84E-01
PB	mg/L	20	0.00E+00	0.00E+00	20	0.00E+00
PH	SU	20	7.31E+00	6.64E+00	20	6.94E+00
TSS	mg/L	20	9.00E+00	0.00E+00	20	2.10E+00
Outfall M-05						
<i>Effluent consists of the following type of wastewater: groundwater air stripper effluent.</i>						
FLO	mg/L	16	7.49E-02	7.42E-02	16	7.46E-02
PERCL	mg/L	16	2.00E+00	0.00E+00	16	1.25E-01
TCE	µg/L	16	6.80E+00	0.00E+00	16	4.25E-01
Outfall PP-1						
<i>Effluent consists of the following type of wastewater: manganese greensand filter backwash/rinse water.</i>						
FE	mg/L	7	2.95E-01	0.00E+00	7	1.60E-01
FLO	MGD	4	1.13E-03	8.55E-04	4	1.01E-03

Table 54
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average

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Outfall PP-1 (cont.)

MN	mg/L	7	4.75E+01	2.07E+00	7	1.47E+01
PH	SU	5	6.71E+00	5.73E+00		
TSS	mg/L	4	2.00E+00	0.00E+00	4	1.00E+00

Outfall S-04

Effluent consists of the following types of wastewater: DWPF nonprocess wastewater—including cooling tower blowdown, neutralization wastewater, and infrequent flushing/rinsing activities.

FLO	MGD	12	2.46E-01	4.32E-02	12	1.07E-01
PH	SU	12	8.30E+00	7.27E+00	12	7.90E+00
TSS	mg/L	12	5.00E+00	0.00E+00	12	1.92E+00
ZN	mg/L	12	4.78E-01	0.00E+00	12	2.52E-01

Outfall X-04

Effluent consists of the following types of wastewater: welding quench sink water, steam condensate, and stormwater.

FLO	MGD	13	7.20E-03	0.00E+00	13	1.64E-03
PH	SU	15	7.94E+00	5.43E+00	15	6.45E+00
TSS	mg/L	12	6.00E+00	0.00E+00	12	2.42E+00

Outfall X-08

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.

FLO	MGD	14	5.20E+01	5.16E+01	14	5.18E+01
PH	SU	16	7.11E+00	6.26E+00	16	6.68E+00
TSS	mg/L	17	1.60E+01	0.00E+00	17	5.18E+00

Outfall X-8A

Effluent consists of the following type of wastewater: sanitary wastewater. (Note: one data point, for fecal coliform, was a > value and was used in the computation at face value.)

BOD	mg/L	13	5.40E+00	0.00E+00	13	2.41E+00
DO	mg/L	12	9.20E+00	5.00E+00	12	6.81E+00
FEC	#/100 mL	13	1.16E+02	0.00E+00	13	2.13E+01
FLO	MGD	365	1.22E-02	0.00E+00	365	9.30E-04
PH	SU	13	7.46E+00	6.72E+00	13	7.08E+00

Table 54
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Outfall X-8A (cont.)						
TSS	mg/L	13	2.04E+01	3.20E+00	13	8.11E+00
Outfall X-8B						
<i>Effluent consists of the following type of wastewater: treated process water from the TNX Effluent Treatment Plant.</i>						
BEN	µg/L	21	7.30E-01	0.00E+00	21	3.48E-02
BOD	mg/L	21	0.00E+00	0.00E+00	21	0.00E+00
C	mg/L	21	6.50E+00	1.60E+00	21	4.20E+00
FLO	MGD	22	3.90E-02	1.20E-02	22	1.80E-02
HG	mg/L	21	5.00E-01	0.00E+00	21	2.40E-02
PH	SU	22	7.77E+00	7.05E+00		
PHE	mg/L	21	1.60E-02	0.00E+00	21	2.14E-03
TSS	mg/L	21	8.10E+01	3.00E+00	21	1.99E+01
Outfall X-8C						
<i>Effluent consists of the following type of wastewater: treated groundwater air stripper effluent.</i>						
FLO	MGD	12	1.21E-01	2.43E-02	12	9.36E-02
PERCL	µg/L	12	3.60E+00	0.00E+00	12	4.67E-01
TCE	µg/L	12	7.40E+00	0.00E+00	12	6.17E-01
Outfall X-19						
<i>Effluent consists of the following type of wastewater: treated groundwater.</i>						
1,2-DCE	µg/L	4	2.80E+00	0.00E+00	4	1.28E+00
FLO	MGD	4	5.66E-03	1.44E-03	4	4.07E-03
PERCL	µg/L	4	0.00E+00	0.00E+00	4	0.00E+00
TCE	µg/L	4	0.00E+00	0.00E+00	4	0.00E+00
VC	µg/L	4	0.00E+00	0.00E+00	4	0.00E+00

Table 54
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average

Permit SCG250162

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.

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average

Outfall 001

Effluent consists of the following types of wastewater: once-through noncontact cooling water.

BOD	mg/L	1	0.00E+00	0.00E+00	1	0.00E+00
FLO	MGD	4	4.32E-03	0.00E+00	4	1.08E-03
PH	SU	1	6.94E+00	6.94E+00	1	6.94E+00
TMP	DEG C	1	2.98E+01	2.98E+01	1	2.98E+01
TSS	mg/L	1	6.00E+00	6.00E+00	1	6.00E+00

Table 55
National Pollutant Discharge Elimination System Toxicity Monitoring Data

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Measurement	Number of Samples	Pass	Fail

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 discharge, and stormwater.

Chronic Toxicity	16	2	14

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, Liquid Effluent Treatment Facility discharge, M-Area air stripper discharge, and stormwater.

Chronic Toxicity	14	4	10

Outfall G-10

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

Acute Toxicity	3	1	2
Chronic Toxicity	1	0	1

Outfall X-08

Effluent consists of the following types of wastewater: noncontact cooling water, domestic well overflow water, treated sanitary wastewater from outfall X-08A, treated process water from outfall X-8B, treated groundwater from outfall X-8C, and stormwater.

Acute Toxicity	12	12	0

Outfall X-19

Effluent consists of the following types of wastewater: treated groundwater.

Acute Toxicity	4	4	0

Table 56
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration

Permit SCR000000

Outfall B-008		Background Grab	Composite	Grab
O&G	mg/L	No Flow		4.6
TSS	mg/L	No Flow	13	2
BOD	mg/L	No Flow	<2.0	<2.0
NO ₂ ,NO ₃	mg/L	No Flow	0.375	0.177
PO ₄ -P	mg/L	No Flow	0.417	0.023
COD	mg/L	No Flow	44.2	52.3
TOC	mg/L	No Flow	7.6	9.4
TKN	mg/L	No Flow	0.429	<0.100
pH	SU	No Flow		5.42
WATER TEMP	°C	No Flow		20.1
RAIN GAUGE	in.	No Flow	1.3	0.2
TOTAL RAIN	in.	No Flow	1.5	1.5
RAIN DATE		No Flow	5/1/98	4/30/98
LAST .01 RAIN		No Flow	4/24/98	4/24/98
BACKGROUND DATE		11/12/98		

Table 56
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			2.4	2.2
TSS	mg/L	No flow	10	5	<1	6
BOD	mg/L	No flow	2.5	<2.0	<2.0	<2.0
NO ₂ ,NO ₃	mg/L	No flow	<0.020	0.023	0.028	0.03
PO ₄ -P	mg/L	No flow	<0.010	0.063	0.1	0.184
COD	mg/L	No flow	<10	58.5	<10	29.4
TOC	mg/L	No flow	6.2	8.8	5.1	4.3
TKN	mg/L	No flow	0.310	0.108	0.960	0.209
Phenol	mg/L	No flow			<0.006	<0.006
Tetrachloroethylene	µg/L	No flow			<2.0	<2.0
Trichloroethylene	µg/L	No flow			<2.0	<2.0
1,1,1-Trichloroethylene	µg/L	No flow			<2.0	<2.0
Benzene	µg/L	No flow			<0.5	<0.5
AL	mg/L	No flow	0.28	0.956	0.434	0.432
CR	mg/L	No flow	<0.010	<0.010	<0.005	<0.010
CU	mg/L	No flow	<0.005	<0.005	<0.005	<0.005
FE	mg/L	No flow	0.715	1.89	1.10	1.98
PB	mg/L	No flow	<0.003	<0.003	<0.003	<0.003

Table 56
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Type Sample/Concentration

Units

Measurement

Permit SCR0000000

Outfall CS-006 (cont.)	Background Grab	Composite	Composite	Composite	Grab	Grab
MG	No flow	0.453	0.586	0.551	0.653	
NI	No flow	<0.010	<0.010	<0.010	<0.010	
AG	No flow	<0.005	<0.005	<0.005	<0.005	
ZN	No flow	0.028	0.045	0.013	0.033	
pH	No flow			6.13	4.48	
WATER TEMP	No flow			10.3	18.1	
RAIN GAUGE	No flow	1.23	1.3		0.20	
TOTAL RAIN	No flow	1.2	1.5	1.2	1.5	
RAIN DATE	No flow	3/19/98	5/1/98	3/18/98	4/30/98	
LAST .01 RAIN	No flow	3/10/98	4/24/98	3/10/98	4/24/98	
BACKGROUND DATE	11/12/98					
Outfall CS-12A	Background Grab	Composite	Composite	Composite	Grab	Grab
O&G	No flow			<1.0	<1.0	
TSS	No flow	26	50	70	26	
BOD	No flow	<2.0	4.4	4.9	3.3	
NO ₂ ,NO ₃	No flow	0.219	0.279	0.541	0.246	

Table 56
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration

Permit SCR0000000

		Background			
Outfall CS-12A (cont.)		Grab	Composite	Composite	Grab
PO ₄ -P	mg/L	No flow	0.332	0.124	0.614
COD	mg/L	No flow	<10.0	<10.0	31.4
TOC	mg/L	No flow	4.1	4.9	6.4
TKN	mg/L	No flow	<0.100	<0.100	0.318
Phenol	mg/L	No flow			0.013
AL	mg/L	No flow	2.28	4.64	0.957
B	mg/L	No flow	0.139	0.237	0.102
CR	mg/L	No flow	<0.010	<0.010	0.018
CU	mg/L	No flow	0.057	<0.005	0.064
FE	mg/L	No flow	1.50	3.14	1.31
PB	mg/L	No flow	0.005	0.008	0.051
MG	mg/L	No flow	0.526	0.841	0.718
MN	mg/L	No flow	0.048	0.073	0.088
NI	mg/L	No flow	0.021	<0.010	<0.010
AG	mg/L	No flow	<0.005	<0.005	<0.005
ZN	mg/L	No flow	0.102	0.179	0.535
pH	SU	No flow			7.89
WATER TEMP	°C	No flow			19.2
					8.3

Table 56

National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration			
Permit SCR0000000					
Outfall CS-12A (cont.)		Background Grab	Composite	Composite	Grab
RAIN GAUGE	in.	No flow	0.85	0.92	0.51
TOTAL RAIN	in.	No flow	0.9	0.8	0.3
RAIN DATE		No flow	4/15/98	4/9/98	11/15/98
LAST 0.1 RAIN		No flow	4/10/98	4/4/98	11/10/98
BACKGROUND DATE		11/12/98			11/17/98
Outfall E-001		Background Grab	Grab	Grab	Grab
O&G	mg/L	No flow	1.6	<1.0	
TSS	mg/L	No flow	60	87	
BOD	mg/L	No flow	<2.0	<2.0	
TDS	mg/L	No flow	<10	196	
NH3-N	mg/L	No flow	0.183	0.276	
NO2,NO3	mg/L	No flow	0.237	0.264	
PO4-P	mg/L	No flow	0.174	0.528	
COD	mg/L	No flow	<10.0	<10.0	
TOC	mg/L	No flow	1.7	2.9	
TKN	mg/L	No flow	0.250	1.77	
Phenol	mg/L	No flow	<0.006	<0.006	

Table 56

National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Type Sample/Concentration

Units

Permit SCR0000000

Measurement	Units	Background Grab	Grab	Grab	Grab
Outfall E-001 (cont.)					
SO ₄	mg/L	No flow	2.53	4.56	
Bromide	mg/L	No flow	<1.00	<1.00	
CN	mg/L	No flow	<0.010	<0.020	
AL	mg/L	No flow	14.4	12.5	
SB	mg/L	No flow	<0.020	<0.020	
AS	mg/L	No flow	<0.020	<0.020	
BA	mg/L	No flow	0.064	0.089	
B	mg/L	No flow	0.367	0.184	
CD	mg/L	No flow	<0.005	<0.005	
CR	mg/L	No flow	<0.010	0.015	
CU	mg/L	No flow	<0.005	0.014	
FE	mg/L	No flow	9.21	9.34	
PB	mg/L	No flow	<0.003	<0.003	
MG	mg/L	No flow	1.00	1.14	
MN	mg/L	No flow	0.063	0.051	
HG	mg/L	No flow	<0.0001	<0.0001	
NI	mg/L	No flow	<0.010	<0.010	
SE	mg/L	No flow	<0.020	<0.020	

Table 56
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
AG	mg/L	No flow	<0.005	<0.005	
SN	mg/L	No flow	<0.050	<0.050	
U	mg/L	No flow	<0.500	<0.500	
ZN	mg/L	No flow	0.089	0.124	
MG (dissolved)	mg/L	No flow	0.749	0.903	
Tetrachloroethylene	µg/L	No flow	<2.0	<2.0	
Trichloroethylene	µg/L	No flow	<2.0	<2.0	
1,1,1-Trichloroethylene	µg/L	No flow	<2.0	<2.0	
pH	SU	No flow	7.05	6.41	
WATER TEMP	°C	No flow	10.3	11.9	
RAIN GAUGE	in.	No flow	0.21		
TOTAL RAIN	in.	No flow	1.0	0.8	
RAIN DATE		No flow	4/8/98	3/5/98	
LAST 0.1 RAIN		No flow	4/4/98	3/1/98	
BACKGROUND DATE		11/12/98			

Table 56

National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration						
Permit SCR000000								
Outfall GS-002		Background Grab	Composite	Composite	Composite	Grab	Grab	Grab
O&G	mg/L	No flow				<1.0	<1.0	<1.0
BOD	mg/L	No flow	<2.0	<2.0		<2.0	<2.0	
TSS	mg/L	No flow	9	<1		6	<1	
SO ₄	mg/L	No flow	2.01	1.58		1.39	1.31	
NH ₃ -N	mg/L	No flow	0.178	0.290		0.138	0.448	
NO ₂ ,NO ₃	mg/L	No flow	0.249	0.169		0.129	0.381	
PO ₄ -P	mg/L	No flow	0.428	<0.010		4.42	0.123	
COD	mg/L	No flow	<10.0	<10.0		22.0	<10.0	
TOC	mg/L	No flow	7.2	7.4		1.9	1.8	
TKN	mg/L	No flow	0.160	1.58		0.167	0.214	
SB	mg/L	No flow	<0.020	<0.020		<0.005	<0.005	
CR	mg/L	No flow	<0.010	<0.010		<0.005	<0.005	
CU	mg/L	No flow	0.037	<0.010		0.006	<0.005	
HG	mg/L	No flow	<0.0001	<0.0001		<0.0001	<0.0001	
NI	mg/L	No flow	<0.010	<0.010		<0.010	<0.010	
PB	mg/L	No flow	0.064	0.038		0.011	<0.003	
SN	mg/L	No flow	<0.050	<0.050		<0.050	<0.050	
pH	SU	No flow				6.76	6.64	

Table 56

National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Type Sample/Concentration

Units

Measurement

Permit SCR000000

Outfall GS-002 (cont.)

Background Grab	Composite	Composite	Composite	Grab	Grab	Grab
WATER TEMP	No flow			17.8	19.8	
RAIN GAUGE	No flow	1.0	0.9	0.2	NA	
TOTAL RAIN	No flow	0.9	0.8	0.3	0.1	
RAIN DATE	No flow	3/19/98	4/9/98	12/15/98	11/3/98	
LAST 0.1 RAIN	No flow	3/9/98	4/4/98	11/17/98	10/8/98	
BACKGROUND DATE	11/12/98					

Background
Grab

Outfall H-007A

Background Grab	Composite	Composite	Composite	Grab	Grab	Grab
O&G	No flow			<1.0	<1.0	
BOD	No flow	<2.0	2.6	<2.0	4.5	
TSS	No flow	10	4	144	18	
NO ₂ ,NO ₃	No flow	0.218	0.227	0.321	0.581	
PO ₄ -P	No flow	0.116	<0.010	0.347	<0.010	
COD	No flow	<10.0	<10.0	<10.0	<10.0	
TOC	No flow	1.4	4.0	2.0	9.2	
TKN	No flow	0.300	<0.100	0.110	<0.100	
SO ₄	No flow	2.98	4.30	3.28	9.77	
AL	No flow	0.231	0.538	7.29	0.535	

Table 56
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
FE	mg/L	No flow	0.139	0.256	5.83	0.342
pH	SU	No flow			7.01	6.48
WATER TEMP	°C	No flow			10.2	14.3
RAIN GAUGE	in.	No flow	1.10	NA	0.23	0.11
TOTAL RAIN	in.	No flow	1.2	0.4	0.8	0.4
RAIN DATE		No flow	3/19/98	3/6/98	4/8/98	3/5/98
LAST 0.1 RAIN		No flow	3/9/98	3/1/98	4/4/98	3/1/98
BACKGROUND DATE		11/12/98				
Outfall G-020		Background Grab	Composite	Composite	Grab	Grab
O&G	mg/L	No flow				
BOD	mg/L	No flow	6.8		8.6	
TSS	mg/L	No flow	155		244	
COD	mg/L	No flow	82.8		51.0	
NO ₂ ,NO ₃	mg/L	No flow	1.63		1.77	
PO ₄ -P	mg/L	No flow	4.85		2.52	
TKN	mg/L	No flow	1.99		0.661	
TOC	mg/L	No flow	11		13	

Table 56

National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Type Sample/Concentration

Units

Measurement

Permit SCR000000

Outfall G-020 (cont.)

Phenol	mg/L	No flow	Background Grab	Composite	Composite	Grab	Grab
pH	SU	No flow	No flow			4.82	
WATER TEMP	°C	No flow	No flow			15.5	
RAIN GAUGE	in.	No flow	No flow	NA		NA	
TOTAL RAIN	in.	No flow	No flow	0.3		0.3	
RAIN DATE		No flow	No flow	11/15/98		11/15/98	
LAST 0.1 RAIN		No flow	No flow	11/10/98		11/10/98	
BACKGROUND DATE		11/12/98					

Outfall K-002

O&G	mg/L	No flow	Background Grab	Composite	Grab
BOD	mg/L	No flow	No flow	<2.0	3.1
TSS	mg/L	No flow	No flow	2	14
COD	mg/L	No flow	No flow	11.2	30.2
NO ₂ ,NO ₃	mg/L	No flow	No flow	0.797	0.772
PO ₄ -P	mg/L	No flow	No flow	0.074	0.166
TKN	mg/L	No flow	No flow	0.203	0.335
TOC	mg/L	No flow	No flow	3.2	3.8

Table 56

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
pH	SU	No flow		
WATER TEMP	°C	No flow		
RAIN GAUGE	in.	No flow		
TOTAL RAIN	in.	No flow	0.1	0.1
RAIN DATE		No flow	11/3/98	11/3/98
LAST 0.1 RAIN		No flow	10/8/98	10/8/98
BACKGROUND DATE		11/12/98		
Outfall K-004		Background Grab	Composite	Grab
O&G	mg/L	No flow		<1.0
BOD	mg/L	No flow	<2.0	<2.0
TSS	mg/L	No flow	26	17
COD	mg/L	No flow	25.7	19.9
NO ₂ ,NO ₃	mg/L	No flow	0.193	0.079
PO ₄ -P	mg/L	No flow	0.15	0.221
TKN	mg/L	No flow	0.778	0.439
TOC	mg/L	No flow	7.6	5.9
pH	SU	No flow		6.91

Table 56

National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration	
Permit SCR0000000			
Outfall K-004 (cont.)		Background Grab	Composite Grab
WATER TEMP	°C	No flow	19.0
RAIN GAUGE	in.	No flow	NA
TOTAL RAIN	in.	No flow	0.1
RAIN DATE		No flow	11/3/98
LAST 0.1 RAIN		No flow	10/8/98
BACKGROUND DATE		11/12/98	
Outfall S-005		Background Grab	Grab
O&G	mg/L		
BOD	mg/L		
TSS	mg/L		
NO ₂ ,NO ₃	mg/L		
PO ₄ -P	mg/L		
COD	mg/L		
TOC	mg/L		
TKN	mg/L		
SO ₄	mg/L		
NH ₃ -N	mg/L		

Table 56
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Type Sample/Concentration

Units

Measurement

Permit SCR000000

Background
Grab

Outfall S-005 (cont.)

Grab

Grab

Phenol mg/L

Benzene µg/L

B mg/L

CR mg/L

CU mg/L

HG mg/L

PB mg/L

ZN mg/L

pH SU

WATER TEMP °C

RAIN GAUGE in.

TOTAL RAIN in.

RAIN DATE

LAST 0.1 RAIN

BACKGROUND DATE

11/12/98

Table 56

National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration			
Permit SCR0000000					
Outfall X-001		Background Grab	Composite	Composite	Grab
O&G	mg/L	No flow			
BOD	mg/L	No flow	5.3	<2.0	
COD	mg/L	No flow	<10.0	<10.0	
NO ₂ ,NO ₃	mg/L	No flow	0.311	0.073	
PO ₄ -P	mg/L	No flow	0.098	0.336	
TKN	mg/L	No flow	<0.100	0.520	
TOC	mg/L	No flow	7.0	5.9	
TSS	mg/L	No flow	5	8	
Phenol	mg/L	No flow			
Benzene	µg/L	No flow			
CD	mg/L	No flow	<0.005	<0.005	
CR	mg/L	No flow	<0.010	<0.010	
CU	mg/L	No flow	<0.005	<0.005	
HG	mg/L	No flow	<0.0001	<0.0001	
pH	SU	No flow			
WATER TEMP	°C	No flow			
RAIN GAUGE	in.	No flow	0.75	0.51	
TOTAL RAIN	in.	No flow	1.2	0.9	

Table 56
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
RAIN DATE		No flow	4/9/98	4/15/98		
LAST 0.1 RAIN		No flow	4/4/98	4/9/98		
BACKGROUND DATE		11/12/98				
Outfall N-14		Background Grab	Composite	Composite	Grab	Grab
BOD	mg/L	No flow	6.1	2.4		
COD	mg/L	No flow	69.2	11.1		
Nitrate	mg/L	No flow	<0.020	0.173		
O&G	mg/L	No flow		2.0		
PO ₄ -P	mg/L	No flow	0.347	0.090		
TKN	mg/L	No flow	0.429	0.239		
TOC	mg/L	No flow	6.6	3.6		
TSS	mg/L	No flow	42	11		
pH	SU	No flow		5.25		
WATER TEMP	°C	No flow		17.8		
RAIN GAUGE	in.	No flow	1.25	0.2		
TOTAL RAIN	in.	No flow	1.5	1.5		
RAIN DATE		No flow	5/1/98	4/30/98		

Table 56
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall N-14 (cont.)		Background Grab	Composite	Composite	Grab	Grab
LAST 0.1 RAIN		No flow	4/24/98	4/24/98		
BACKGROUND DATE		11/12/98				
Outfall A-08		Background Grab	Composite	Composite	Grab	Grab
O&G	mg/L	No flow				5.1
BOD	mg/L	No flow	23.9	<2.0	2.8	6.2
TSS	mg/L	No flow	5	4	5	20
COD	mg/L	No flow	148	<10	25.5	74.5
Nitrate/Nitrite	mg/L	No flow	0.278	0.541	1.24	1.89
PO ₄ -P	mg/L	No flow	0.548	0.717	0.553	2.44
TKN	mg/L	No flow	3.25	0.500	0.293	0.876
TOC	mg/L	No flow	285	10	3.6	18
Copper	mg/L	No flow	0.088	0.177	0.022	0.044
Nickel	mg/L	No flow	<0.010	0.029	<0.010	0.012
Zinc	mg/L	No flow	1.98	3.44	0.367	0.754
pH	SU	No flow			4.55	8.87
WATER TEMP	°C	No flow			19	21.4
RAIN GAUGE	in.	No flow	NA	1	0.25	

Table 56

National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration					
Permit SCR000000							
Outfall A-08 (cont.)		Background Grab	Composite	Composite	Grab	Grab	Grab
TOTAL RAIN	in.	No flow	0.6	0.8	0.2	0.1	0.3
RAIN DATE		No flow	3/6/98	3/19/98	11/15/98	11/3/98	12/16/98
LAST 0.1 RAIN		No flow		3/9/98	11/3/98	10/8/98	12/13/98
BACKGROUND DATE		11/12/98					

Table 57
National Pollutant Discharge Elimination System
Land Application Monitoring Data

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Permit ND0072125

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.

Outfall ND-1

Analytical Laboratory	Results Shealy	Results Shealy	Units
Date of Sample	2/18/98	4/1/98	
Arsenic	14.6	<2.50	mg/kg
Cadmium	<0.25	<0.25	mg/kg
Chromium	45.2	25.0	mg/kg
Copper	493	229	mg/kg
Lead	133	76.4	mg/kg
Mercury	<0.5	2.02	mg/kg
Molybdenum	<2.50	11.0	mg/kg
Nickel	21.2	25.3	mg/kg
Potassium	912	524	mg/kg
Selenium	20.2	<2.50	mg/kg
Silver	116	70.3	mg/kg
Zinc	2430	1650	mg/kg
Percent Solids	15.8	11.8	%
Percent Solids	10.5	15.1	%
Percent Solids	10.7	11.5	%
Percent Solids	12.7	10.3	%
Percent Solids	84.9	13.1	%
Percent Solids	30.0	10.7	%
Percent Solids	10.4	10.0	%
Percent Solids	81.6	19.8	%
Percent Solids	10.6	17.4	%
Percent Solids	11.4	15.3	%
Percent Solids	11.2	19.9	%
Percent Solids		21.8	%
Percent Solids		23.4	%
Fecal Coliform	6290	<16	# / G

Table 57
National Pollutant Discharge Elimination System
Land Application Monitoring Data

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Permit ND0072125

Outfall ND-1

Analytical Laboratory	Results Shealy	Results Shealy	Units
Date of Sample	2/18/98	4/1/98	
Fecal Coliform	7460	<13	# / G
Fecal Coliform	11500	37	# / G
Fecal Coliform	<200	<20	# / G
Fecal Coliform	6430	74	# / G
Fecal Coliform	13700	28	# / G
Fecal Coliform	240	11	# / G
Fecal Coliform	7870	<6	# / G
Fecal Coliform	5670	37	# / G
Fecal Coliform	2350	33	# / G
Fecal Coliform		<8	# / G
Fecal Coliform		<5	# / G
Fecal Coliform		4	# / G
Ammonia as Nitrogen	170	8.27	mg/kg
Total Kjeldahl Nitrogen	1700		mg/kg
Nitrate + Nitrite	16.2	5.54	mg/kg
pH	7.17	4.68	SU
Total Volatile Solids		9.2	%
Total Nitrogen		160	mg/kg
Percent Total Solids		19	%

Table 57
National Pollutant Discharge Elimination System
Land Application Monitoring Data

Page 3 of 3

Permit ND0072125

Outfall ND-1

Analytical Laboratory	Results Shealy	Units
Date of Sample	5/20/98	
Percent Solids	15.2	%
TCLP ^a Metals		
Arsenic	<0.100	mg/L
Barium	0.865	mg/L
Cadmium	<0.010	mg/L
Chromium	<0.020	mg/L
Lead	<0.040	mg/L
Mercury	<0.002	mg/L
Selenium	<0.100	mg/L
Silver	<0.010	mg/L
TCLP ^a Volatiles		
Benzene	<0.500	µg/L
Carbon tetrachloride	<0.100	µg/L
Chlorobenzene	<0.100	µg/L
Chloroform	<0.100	µg/L
1,4-Dichlorobenzene	<0.100	µg/L
1,2-Dichloroethane	<0.100	µg/L
1,1-Dichloroethane	<0.100	µg/L
Methyl ethyl ketone	<0.100	µg/L
Tetrachloroethene	<0.100	µg/L
Trichloroethene	<0.100	µg/L
Vinyl chloride	<0.200	µg/L

^a Toxic Characteristic Leaching Procedure

Table 58

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
<i>Note: "ND" denotes "not detected."</i>													
Beaver Dam Creek (400-D)													
Sample Date		1/13/98	2/10/98	3/10/98	4/7/98	5/19/98	6/16/98	7/14/98	8/12/98	9/22/98	10/20/98	11/18/98	12/9/98
Temp	°C	13.8	14.2	13.1	20.5	24.3	27.3	28.3	28.4	26.8	25.1	21.7	21.2
pH	SU	6.4	6.8	5.6	5.7	6.1	6.6	6.5	6.4	6.1	7.1	7.2	6.7
DO	mg/L	9.2	9.3	9.1	7.2	7.1	6.1	5.8	5.4	5.9	6.0	6.4	5.4
Conductivity	μhos/cm	113	76	67	81	82	92	122	117	101	126	120	123
COD	mg/L	ND	ND	20	38	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	11	15	30	17	10	12	10	8	10	5	8	5
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.31	0.28	0.30	0.35	0.44	0.45	0.54	0.46	0.40	0.47	0.46	0.35
Total Phos	mg/L	0.083	0.034	0.203	0.069	0.093	0.08	0.341	0.26	0.045	0.067	0.086	ND
TOC	mg/L	3.48	4.6	7	8.6	4.8	3.4	4.7	7.2	3.5	3.3	4.1	3.4
Al	mg/L	0.916	1.42	2.95	1.38	0.379	0.287	0.204	0.458	0.446	ND	0.283	0.328
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	ND	ND	ND	ND	ND	ND	0.008	ND
Fe	mg/L	1.72	1.57	3.11	1.7	0.635	0.512	0.431	0.568	0.576	0.434	0.435	0.3
Pb	mg/L	ND	0.01	ND	ND	0.01	ND	ND	ND	ND	ND	ND	ND
Mn	mg/L	0.145	0.064	0.088	0.094	0.067	0.082	0.056	0.059	0.098	0.096	0.115	0.062
Hg	mg/L	ND	ND	ND	0.0002	ND	ND	ND	ND	0.0003	ND	ND	ND
Ni	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.151	0.028	0.01	0.014	0.033	0.067	0.018	ND	0.006	ND	0.054	0.013
Pesticides													
Aldrin				ND			ND		ND				ND
Alpha-BHC				ND			ND		ND				ND
Beta-BHC				ND			ND		ND				ND
Delta-BHC				ND			ND		ND				ND
Gamma-BHC (Lindane)				ND			ND		ND				ND

Table 58
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
Beaver Dam Creek (400-D)													
Chlordane				ND			ND		ND				ND
4, 4'-DDD				ND			ND		ND				ND
4, 4'-DDE				ND			ND		ND				ND
4, 4'-DDT				ND			ND		ND				ND
Dieldrin				ND			ND		ND				ND
Endosulfan I				ND			ND		ND				ND
Endosulfan II				ND			ND		ND				ND
Endosulfan sulfate				ND			ND		ND				ND
Endrin				ND			ND		ND				ND
Endrin aldehyde				ND			ND		ND				ND
Endrin ketone				ND			ND		ND				ND
Heptachlor				ND			ND		ND				ND
Heptachlor epoxide				ND			ND		ND				ND
Methoxychlor				ND			ND		ND				ND
Toxaphene				ND			ND		ND				ND
Herbicides													
2, 4-D				ND			ND		ND				ND
2, 4, 5-TP (Silvex)				ND			ND		ND				ND

Table 58

Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 3 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Four Mile Creek-2 (FM-2)													
Date		1/13/98	2/10/98	3/10/98	4/7/98	5/19/98	6/16/98	7/14/98	8/12/98	9/22/98	10/20/98	11/18/98	12/9/98
Temp	°C	12.2	8.3	9.7	13.8	20.6	24.7	22.3	24.7	24.0	21.3	16.1	16.9
pH	SU	6.9	6.5	4.9	4.3	4.9	5.8	5.5	6.0	5.3	6.2	6.0	6.4
DO	mg/L	9.0	9.5	8.7	7.2	4.4	3.8	4.9	4.5	3.2	4.7	5.5	5.4
Conductivity	µmhos/cm	53	27	20	25	37	52	53	56	42	53	44	44
COD	mg/L	ND	ND	ND	26	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	2	3	6	5	16	15	9	5	8	6	11	5
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.31	0.18	0.14	0.20	0.29	0.38	0.42	0.28	0.35	0.39	0.45	0.32
Total Phos	mg/L	0.044	ND	0.081	0.065	0.063	0.02	ND	0.026	0.06	0.019	ND	ND
TOC	mg/L	4.4	3.9	6.7	5.2	7.5	8.1	3.1	2.9	4	4.1	4.3	3.8
Al	mg/L	0.131	0.202	0.444	0.268	ND	ND	0.222	0.113	0.294	ND	0.206	0.311
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	0.017	ND	ND	ND	ND	ND	ND	0.005	ND
Fe	mg/L	0.533	0.397	0.646	1.01	3.39	2.29	2.13	1.08	0.489	1.19	1.73	1.81
Pb	mg/L	ND	ND	ND	ND	ND	ND	0.01	ND	ND	ND	ND	ND
Mn	mg/L	0.07	0.061	0.073	0.086	0.197	0.414	0.325	0.06	0.027	0.057	0.108	0.147
Hg	mg/L	ND	ND	ND	ND	0.0003	ND	ND	ND	ND	0.0001	0.0004	ND
Ni	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.03	0.009	0.017	0.03	0.047	0.051	0.037	0.021	0.005	0.038	0.024	0.023
Pesticides													
Aldrin				ND			ND		ND				ND
Alpha-BHC				ND			ND		ND				ND
Beta-BHC				ND			ND		ND				ND
Delta-BHC				ND			ND		ND				ND
Gamma-BHC (Lindane)				ND			ND		ND				ND
Chlordane				ND			ND		ND				ND
4, 4'-DDD				ND			ND		ND				ND

Table 58

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 (FM-2)													
4, 4'-DDE		ND					ND		ND				ND
4, 4'-DDT		ND					ND		ND				ND
Dieldrin		ND					ND		ND				ND
Endosulfan I		ND					ND		ND				ND
Endosulfan II		ND					ND		ND				ND
Endosulfan I sulfate		ND					ND		ND				ND
Endrin		ND					ND		ND				ND
Endrin aldehyde		ND					ND		ND				ND
Endrin ketone		ND					ND		ND				ND
Heptachlor		ND					ND		ND				ND
Heptachlor epoxide		ND					ND		ND				ND
Methoxychlor		ND					ND		ND				ND
Toxaphene		ND					ND		ND				ND
Herbicides													
2, 4-D		ND					ND		ND				ND
2, 4, 5-TP (Silvex)		ND					ND		ND				ND

Table 58

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 (FM-2B)													
Date		1/13/98	2/10/98	3/10/98	4/7/98	5/19/98	6/16/98	7/14/98	8/12/98	9/22/98	10/20/98	11/18/98	12/9/98
Temp	°C	12.2	8.1	9.4	14.0	22.7	25.7	23.7	24.5	24.7	19.1	14.9	16.4
pH	SU	6.9	6.3	5.5	4.4	5.5	6.0	5.7	6.0	5.6	6.1	6.3	6.8
DO	mg/L	9.2	9.0	9.2	5.7	3.1	1.4	1.9	2.5	3.1	2.5	4.6	4.0
Conductivity	µmhos/cm	51	36	24	35	43	55	63	52	44	58	65	71
COD	mg/L	ND	ND	ND	30	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	1	3	5	2	3	12	14	6	3	6	3	3
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.39	0.32	0.19	0.27	0.18	0.13	0.14	0.19	0.19	0.26	0.27	0.16
Total Phos	mg/L	0.044	ND	0.085	0.034	0.112	0.151	ND	ND	ND	0.014	0.046	ND
TOC	mg/L	3.8	4.4	6.6	5.8	7.6	7	5	4.2	5.2	3.5	3.3	3.8
Al	mg/L	0.18	0.251	0.697	0.167	0.087	ND	0.101	ND	0.295	ND	0.147	0.181
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	0.037	ND	ND	ND	ND	ND	ND	0.005	ND	0.005	ND
Fe	mg/L	0.761	0.555	0.895	1.14	2.11	3.38	4.56	1.29	2.33	1.99	0.649	0.962
Pb	mg/L	ND	ND	ND	ND	0.014	ND	0.003	ND	ND	ND	ND	ND
Mn	mg/L	0.015	0.014	0.057	0.045	0.08	ND	0.6	0.102	0.134	0.269	0.045	0.069
Hg	mg/L	ND	ND	ND	0.0002	0.0003	ND	ND	ND	0.0002	ND	ND	ND
Ni	mg/L	ND	ND	ND	ND	0.041	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.032	0.015	0.014	0.026	0.027	ND	0.019	0.008	0.014	ND	0.014	0.007
<i>Pesticides</i>													
Aldrin				ND			ND		ND				ND
Alpha-BHC				ND			ND		ND				ND
Beta-BHC				ND			ND		ND				ND
Delta-BHC				ND			ND		ND				ND
Gamma-BHC (Lindane)				ND			ND		ND				ND
Chlordane				ND			ND		ND				ND
4, 4'-DDD				ND			ND		ND				ND

Table 58

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 (FM-2B)													
4, 4'-DDE				ND			ND		ND				ND
4, 4'-DDT				ND			ND		ND				ND
Dieldrin				ND			ND		ND				ND
Endosulfan I				ND			ND		ND				ND
Endosulfan II				ND			ND		ND				ND
Endosulfan I sulfate				ND			ND		ND				ND
Endrin				ND			ND		ND				ND
Endrin aldehyde				ND			ND		ND				ND
Endrin ketone				ND			ND		ND				ND
Heptachlor				ND			ND		ND				ND
Heptachlor epoxide				ND			ND		ND				ND
Methoxychlor				ND			ND		ND				ND
Toxaphene				ND			ND		ND				ND
Herbicides													
2, 4-D				ND			ND		ND				ND
2, 4, 5-TP (Silvex)				ND			ND		ND				ND

Table 58

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 (FM-6)													
Date		1/13/98	2/10/98	3/10/98	4/7/98	5/19/98	6/16/98	7/14/98	8/12/98	9/22/98	10/20/98	11/18/98	12/9/98
Temp	°C	12.6	13.3	11.6	18.0	24.6	26.8	26.0	27.0	26.0	21.3	17.1	18.3
pH	SU	6.4	6.6	5.4	5.0	6.4	6.5	7	6.5	6.2	7.1	6.9	6.4
DO	mg/L	10.1	9.4	9	8.3	8.8 ^a	7.2	7.8	8.5	6.3	8.3	9.1	6.9
Conductivity	µmhos/cm	58	46	36	44	52	46	61	54	54	63	62	68
COD	mg/L	ND	ND	ND	24	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	2	3	9	4	3	4	3	3	3	4	7	2
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	1.53	1.16	0.46	0.91	1.62	0.86	1.37	0.98	1.30	1.80	1.43	2.01
Total Phos	mg/L	0.081	0.126	0.079	0.065	0.087	0.025	0.089	0.115	0.111	0.128	0.2	0.041
TOC	mg/L	3.61	3.7	7.1	4.8	5.2	4.1	3.8	5.5	4.9	2.5	3.5	3.2
Al	mg/L	0.234	0.364	0.519	0.257	0.091	0.321	0.269	ND	0.313	ND	0.216	0.265
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	0.005	ND
Cu	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.006	ND
Fe	mg/L	0.788	0.546	0.884	0.855	1.2	ND	0.522	0.511	0.702	0.428	0.624	0.823
Pb	mg/L	ND	ND	ND	ND	0.18	ND	ND	ND	ND	ND	ND	ND
Mn	mg/L	0.07	0.048	0.083	0.077	ND	0.065	0.015	0.019	0.031	0.015	0.033	0.041
Hg	mg/L	ND	ND	ND	ND	0.0002	ND	ND	ND	0.0001	0.0002	ND	ND
Ni	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.026	0.01	0.034	0.01	0.028	ND	0.024	0.013	0.007	ND	0.026	0.012
Pesticides													
Aldrin				ND			ND		ND				ND
Alpha-BHC				ND			ND		ND				ND
Beta-BHC				ND			ND		ND				ND
Delta-BHC				ND			ND		ND				ND
Gamma-BHC (Lindane)				ND			ND		ND				ND

a Supersaturated, probably due to instream primary production

Table 58
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 (FM-6)													
Chlordane				ND			ND		ND				ND
4, 4'-DDD				ND			ND		ND				ND
4, 4'-DDE				ND			ND		ND				ND
4, 4'-DDT				ND			ND		ND				ND
Dieldrin				ND			ND		ND				ND
Endosulfan I				ND			ND		ND				ND
Endosulfan II				ND			ND		ND				ND
Endosulfan I sulfate				ND			ND		ND				ND
Endrin				ND			ND		ND				ND
Endrin aldehyde				ND			ND		ND				ND
Endrin ketone				ND			ND		ND				ND
Heptachlor				ND			ND		ND				ND
Heptachlor epoxide				ND			ND		ND				ND
Methoxychlor				ND			ND		ND				ND
Toxaphene				ND			ND		ND				ND
Herbicides													
2, 4-D				ND			ND		ND				ND
2, 4, 5-TP (Silvex)				ND			ND		ND				ND

Table 58
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 Creek-2 (L3R-2)													
Date		1/13/98	2/10/98	3/10/98	4/7/98	5/19/98	6/16/98	7/14/98	8/12/98	9/22/98	10/20/98	11/18/98	12/9/98
Temp	°C	12.8	9.8	11.0	13.4	22.4	25.2	22.6	23.3	26.0	19.9	15.6	17.7
pH	SU	7.3	6.9	6.1	5.4	6.3	6.8	6.7	6.4	6.6	6.8	7.2	7.0
DO	mg/L	8.9	12.1 ^a	9.2	8.6	5.9	6.2	7.1	6.4	5.0	4.9	7.4	^b
Conductivity	µmhos/cm	64	50	40	43	58	63	91	96	72	91	92	94
COD	mg/L	ND	ND	ND	34	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	1	1	3	4	8	5	4	6	4	2	2	2
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.18	0.14	0.14	0.19	0.23	0.23	0.28	0.31	0.24	0.30	0.27	0.20
Total Phos	mg/L	0.048	ND	0.102	0.027	0.085	0.038	0.05	0.046	ND	0.03	0.037	ND
TOC	mg/L	4.57	5.2	7.4	5.1	5.3	6.5	3.5	5.2	4.6	3.6	4.7	4.5
Al	mg/L	0.144	0.087	ND	0.143	ND	0.085	0.198	0.143	0.252	ND	0.197	0.246
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	ND	ND	ND	ND	0.01	ND	ND	ND	ND	ND	ND
Cu	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.005	ND
Fe	mg/L	0.284	0.206	0.415	0.385	0.594	0.544	0.455	0.44	0.399	0.38	0.472	0.347
Pb	mg/L	ND	ND	ND	ND	0.012	ND	ND	ND	ND	ND	ND	ND
Mn	mg/L	0.042	0.02	0.028	0.035	0.078	0.092	0.056	0.051	0.031	0.042	0.053	0.048
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	0.03	0.007	ND	0.007	ND	0.066	0.026	0.013	ND	ND	0.01	ND
<i>Pesticides</i>													
Aldrin				ND			ND		ND				ND
Alpha-BHC				ND			ND		ND				ND
Beta-BHC				ND			ND		ND				ND
Delta-BHC				ND			ND		ND				ND

^a Supersaturated, probably due to instream primary production

^b Due to an error in the field, no data were reported.

Table 58

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 Creek-2 (L3R-2)													
Gamma-BHC (Lindane)				ND			ND		ND				ND
Chlordane				ND			ND		ND				ND
4, 4'-DDD				ND			ND		ND				ND
4, 4'-DDE				ND			ND		ND				ND
4, 4'-DDT				ND			ND		ND				ND
Dieldrin				ND			ND		ND				ND
Endosulfan I				ND			ND		ND				ND
Endosulfan II				ND			ND		ND				ND
Endosulfan I sulfate				ND			ND		ND				ND
Endrin				ND			ND		ND				ND
Endrin aldehyde				ND			ND		ND				ND
Endrin ketone				ND			ND		ND				ND
Heptachlor				ND			ND		ND				ND
Heptachlor epoxide				ND			ND		ND				ND
Methoxychlor				ND			ND		ND				ND
Toxaphene				ND			ND		ND				ND
Herbicides 2, 4-D				ND			ND		ND				ND
2, 4, 5-TP (Silvex)				ND			ND		ND				ND

Table 58

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 (PB-3)													
Date		1/13/98	2/10/98	3/10/98	4/7/98	5/19/98	6/16/98	7/14/98	8/12/98	9/22/98	10/20/98	11/18/98	12/9/98
Temp	°C	12.6	12.9	11.6	17.2	24.0	28.0	25.3	27.1	26.6	20.5	16.6	19.0
pH	SU	6.7	6.6	5.3	5.4	5.8	6.6	7.0	6.1	6.6	6.9	7.1	7.0
DO	mg/L	9.1	9.4	7.7	7.7	6.5	5.9	8.0	7.1	6.2	7.6	8.9	6.5
Conductivity	µmhos/cm	48	54	28	36	45	54	58	58	56	60	59	60
COD	mg/L	31	ND	ND	31	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	2	3	7	5	3	3	3	12	4	3	4	2
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.22	0.18	0.18	0.22	0.22	0.24	0.24	0.31	0.26	0.34	0.31	0.23
Total Phos	mg/L	0.034	ND	0.056	0.106	0.019	0.096	0.053	0.034	0.071	0.158	0.286	ND
TOC	mg/L	3.7	4.9	7.6	6	6.6	5.9	5.4	4.1	4.2	2.3	4.2	2.8
Al	mg/L	0.247	0.218	0.814	0.192	0.259	ND	0.187	0.119	0.37	ND	0.213	0.289
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	ND	ND	ND	0.056	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	ND	ND	ND	ND	0.029	ND	ND	ND	ND	ND	0.006	ND
Fe	mg/L	0.63	0.413	0.814	0.661	1.3	0.985	0.701	0.773	0.716	0.57	0.514	0.628
Pb	mg/L	0.006	ND	ND	ND	0.013	ND	ND	ND	ND	ND	ND	ND
Mn	mg/L	0.048	0.037	0.048	0.045	0.047	0.066	0.085	0.102	0.052	0.043	0.058	0.046
Hg	mg/L	ND	ND	ND	ND	0.0004	ND	ND	ND	0.0002	0.0001	ND	ND
Ni	mg/L	ND	ND	ND	ND	0.058	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.106	0.007	0.01	0.012	0.019	0.037	0.016	0.007	0.01	0.378	0.019	0.006
Pesticides													
Aldrin				ND			a		ND				ND
Alpha-BHC				ND			a		ND				ND
Beta-BHC				ND			a		ND				ND
Delta-BHC				ND			a		ND				ND

a This sample was contaminated in the laboratory; therefore, reliable results were not available.

Table 58
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 (PB-3)													
Gamma-BHC (Lindane)				ND			a		ND				ND
Chlordane				ND			a		ND				ND
4, 4'-DDD				ND			a		ND				ND
4, 4'-DDE				ND			a		ND				ND
4, 4'-DDT				ND			a		ND				ND
Dieldrin				ND			a		ND				ND
Endosulfan I				ND			a		ND				ND
Endosulfan II				ND			a		ND				ND
Endosulfan I sulfate				ND			a		ND				ND
Endrin				ND			a		ND				ND
Endrin aldehyde				ND			a		ND				ND
Endrin ketone				ND			a		ND				ND
Heptachlor				ND			a		ND				ND
Heptachlor epoxide				ND			a		ND				ND
Methoxychlor				ND			a		ND				ND
Toxaphene				ND			a		ND				ND
Herbicides													
2, 4-D				ND			a		ND				ND
2, 4, 5-TP (Silvex)				ND			a		ND				ND

a This sample was contaminated in the laboratory; therefore, reliable results were not available.

Table 58

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 (SC-4)													
Date		1/13/98	2/10/98	3/10/98	4/7/98	5/19/98	6/16/98	7/14/98	8/12/98	9/22/98	10/20/98	11/18/98	12/9/98
Temp	°C	13.7	13.1	12.7	17.8	23.5	26.5	26.6	27.0	26.0	22.7	16.9	19.1
pH	SU	7.3	6.7	6.3	5.4	5.9	6.3	6.4	6.0	6.0	6.8	6.8	7.0
DO	mg/L	8.7	9.9	9.1	8.1	5.7	5.9	7.1	6.9	5.4	7.1	9.0	6.5
Conductivity	µmhos/cm	54	47	44	44	47	48	53	56	50	59	50	55
COD	mg/L	ND	ND	ND	30	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	ND	3	4	3	3	5	4	4	4	4	4	2
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.18	0.16	0.12	0.15	0.21	0.22	0.22	0.22	0.23	0.25	0.24	0.16
Total Phos	mg/L	0.021	ND	0.089	0.139	ND	0.011	0.082	0.148	0.058	ND	0.08	ND
TOC	mg/L	5.23	6.8	7	6.6	6.6	5.8	4.2	6	5.4	3.3	4.5	4.2
Al	mg/L	0.149	0.235	0.27	0.203	0.134	ND	0.22	ND	0.507	0.053	0.193	0.252
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	ND	ND	ND	ND	ND	ND	ND	ND
Fe	mg/L	0.398	0.367	0.367	0.545	0.731	0.764	0.452	0.48	0.733	0.293	0.465	0.498
Pb	mg/L	ND	ND	ND	ND	0.016	ND	ND	ND	ND	ND	ND	ND
Mn	mg/L	0.258	ND	0.021	0.042	0.031	0.069	0.042	0.037	0.059	0.03	0.043	0.036
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	0.031	0.01	0.016	0.037	0.0203	0.145	0.016	0.022	0.01	ND	0.007	ND
Pesticides													
Aldrin				ND			ND		ND				ND
Alpha-BHC				ND			ND		ND				ND
Beta-BHC				ND			ND		ND				ND
Delta-BHC				ND			ND		ND				ND
Gamma-BHC (Lindane)				ND			ND		ND				ND
Chlordane				ND			ND		ND				ND
4, 4'-DDD				ND			ND		ND				ND

Table 58

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 (SC-4)													
4, 4'-DDE				ND			ND		ND				ND
4, 4'-DDT				ND			ND		ND				ND
Dieldrin				ND			ND		ND				ND
Endosulfan I				ND			ND		ND				ND
Endosulfan II				ND			ND		ND				ND
Endosulfan I sulfate				ND			ND		ND				ND
Endrin				ND			ND		ND				ND
Endrin aldehyde				ND			ND		ND				ND
Endrin ketone				ND			ND		ND				ND
Heptachlor				ND			ND		ND				ND
Heptachlor epoxide				ND			ND		ND				ND
Methoxychlor				ND			ND		ND				ND
Toxaphene				ND			ND		ND				ND
Herbicides													
2, 4-D				ND			ND		ND				ND
2, 4, 5-TP (Silvex)				ND			ND		ND				ND

Table 58
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 (TB-5)													
Date		1/13/98	2/10/98	3/10/98	4/7/98	5/19/98	6/16/98	7/14/98	8/12/98	9/22/98	10/20/98	11/18/98	12/9/98
Temp	°C	13.1	8.9	9.8	13.9	20.2	23.3	21.6	23.4	23.6	18.9	14.2	16.7
pH	SU	6.9	6.8	5.7	5.0	5.8	6.0	5.9	5.6	5.8	6.7	6.5	6.9
DO	mg/L	8.5	10.6	13.7 ^a	6.7	6.4	6.0	6.7	6.6	5.6	6.0	6.8	6.9
Conductivity	µmhos/cm	38	36	29	34	34	34	35	35	40	34	42	34
COD	mg/L	ND	ND	ND	37	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	3	5	15	10	9	7	12	8	5	3	3	5
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.42	0.35	0.30	0.34	0.30	0.26	0.25	0.26	0.24	0.34	2.40	0.30
Total Phos	mg/L	0.129	0.015	0.06	0.11	0.052	0.047	ND	0.058	ND	0.038	0.15	ND
TOC	mg/L	3.97	3.3	5.9	4.4	5.7	5.3	4.1	5.1	4.8	3.5	3.3	3.9
Al	mg/L	0.221	0.247	1.56	0.281	0.064	ND	0.201	0.151	0.284	ND	0.219	0.305
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	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fe	mg/L	1.1	0.988	2.2	1.54	1.95	0.55	1.07	1.46	1.33	0.794	1.11	0.959
Pb	mg/L	ND	ND	ND	ND	0.012	ND	0.003	ND	ND	ND	ND	ND
Mn	mg/L	0.016	0.041	0.05	0.047	0.029	0.065	0.049	0.038	0.029	0.021	0.031	0.033
Hg	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ni	mg/L	0.031	0.011	0.014	ND	0.029	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.035	0.012	0.011	0.046	0.023	0.077	0.056	0.008	ND	ND	0.017	0.012
Pesticides													
Aldrin				ND			ND		ND				ND
Alpha-BHC				ND			ND		ND				ND
Beta-BHC				ND			ND		ND				ND
Delta-BHC				ND			ND		ND				ND
Gamma-BHC (Lindane)				ND			ND		ND				ND

^a Supersaturated, probably due to instream primary production

Table 58

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 (TB-5)													
Chlordane		ND					ND		ND				ND
4, 4'-DDD		ND					ND		ND				ND
4, 4'-DDE		ND					ND		ND				ND
4, 4'-DDT		ND					ND		ND				ND
Dieldrin		ND					ND		ND				ND
Endosulfan I		ND					ND		ND				ND
Endosulfan II		ND					ND		ND				ND
Endosulfan I sulfate		ND					ND		ND				ND
Endrin		ND					ND		ND				ND
Endrin aldehyde		ND					ND		ND				ND
Endrin ketone		ND					ND		ND				ND
Heptachlor		ND					ND		ND				ND
Heptachlor epoxide		ND					ND		ND				ND
Methoxychlor		ND					ND		ND				ND
Toxaphene		ND					ND		ND				ND
Herbicides													
2, 4-D		ND					ND		ND				ND
2, 4, 5-TP (Silvex)		ND					ND		ND				ND

Table 58

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-I (TC-1)													
Date		1/13/98	2/10/98	3/10/98	4/21/98	5/19/98	6/16/98	7/14/98	8/12/98	9/22/98	10/20/98	11/18/98	12/9/98
Temp	°C	12.3	10.0	10.0	16.7	19.9	23.2	21.4	23.0	23.2	18.8	14.3	16.4
pH	SU	6.6	7.0	5.3	6.5	5.4	6.1	5.9	5.8	4.8	6.7	6.6	6.0
DO	mg/L	9.7	9.9	11.1	10.2 ^a	6.1	4.3	6.4	5.7	5.2	6.7	7.7	7.6
Conductivity	µmhos/cm	31	28	24	26	26	71	29	29	29	27	29	31
COD	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	ND	2	2	7	9	8	10	9	9	7	4	3
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.18	0.20	0.20	0.22	0.16	0.19	0.17	0.23	0.23	0.29	0.28	0.19
Total Phos	mg/L	0.085	0.036	0.067	0.495	0.038	0.056	0.142	0.107	0.045	0.042	0.319	ND
TOC	mg/L	4.86	4.2	5.5	5.5	5.6	5.3	3.2	4.6	5.2	3.1	3.5	4.8
Al	mg/L	0.106	0.057	ND	0.15	0.094	ND	0.222	ND	0.264	ND	0.148	0.211
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	ND	ND	ND	ND	ND	ND	0.008	ND
Fe	mg/L	0.208	0.566	0.317	0.635	0.52	ND	0.728	0.634	0.399	0.452	0.214	0.155
Pb	mg/L	ND	ND	ND	ND	0.018	ND	ND	ND	ND	ND	ND	ND
Mn	mg/L	0.01	0.008	ND	0.028	0.075	ND	0.037	0.041	0.022	0.037	0.026	0.016
Hg	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.0003	ND	ND	ND
Ni	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.033	0.008	ND	ND	ND	ND	0.007	0.011	0.005	ND	0.017	0.029
Pesticides													
Aldrin				ND			ND		ND				ND
Alpha-BHC				ND			ND		ND				ND
Beta-BHC				ND			ND		ND				ND
Delta-BHC				ND			ND		ND				ND
Gamma-BHC (Lindane)				ND			ND		ND				ND

a Supersaturated, probably due to instream primary production

Table 58

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-I (TC-1)													
Chlordane		ND					ND		ND				ND
4, 4'-DDD		ND					ND		ND				ND
4, 4'-DDE		ND					ND		ND				ND
4, 4'-DDT		ND					ND		ND				ND
Dieldrin		ND					ND		ND				ND
Endosulfan I		ND					ND		ND				ND
Endosulfan II		ND					ND		ND				ND
Endosulfan I sulfate		ND					ND		ND				ND
Endrin		ND					ND		ND				ND
Endrin aldehyde		ND					ND		ND				ND
Endrin ketone		ND					ND		ND				ND
Heptachlor		ND					ND		ND				ND
Heptachlor epoxide		ND					ND		ND				ND
Methoxychlor		ND					ND		ND				ND
Toxaphene		ND					ND		ND				ND
Herbicides													
2, 4-D		ND					ND		ND				ND
2, 4, 5-TP (Silvex)		ND					ND		ND				ND

Table 58
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 (U3R-1A)													
Date		1/13/98	2/10/98	3/10/98	4/7/98	5/19/98	6/16/98	7/14/98	8/12/98	9/22/98	10/20/98	11/18/98	12/9/98
Temp	°C	14.1	10.7	11.7	14.4	19.2	21.3	20.4	21.3	21.0	18.8	14.8	17.2
pH	SU	6.9	6.6	4.0	5.0	4.2	5.3	5.7	5.5	5.7	5.8	5.5	5.2
DO	mg/L	7.6	11.2 ^a	7.4	6.6	7.2	6.1	6.4	6.9	6.5	5.5	7.1	8.0
Conductivity	µmhos/cm	19	27	19	16	15	17	18	16	17	17	17	17
COD	mg/L	ND	ND	ND	26	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	2	5	4	4	5	6	6	7	9	2	4	2
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.40	0.30	0.22	0.28	0.31	0.33	0.34	0.37	0.41	0.44	0.45	0.34
Total Phos	mg/L	ND	0.069	0.089	0.044	0.011	0.051	0.055	ND	0.03	ND	0.46	ND
TOC	mg/L	1.8	4	6.9	3	3.5	2.8	2.4	2.7	4.3	2.1	3.2	2.7
Al	mg/L	0.133	0.189	0.316	0.081	0.332	ND	0.205	ND	0.321	ND	0.175	0.243
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	0.052	ND	ND	ND	0.011	ND	ND	ND	ND	0.008	ND
Fe	mg/L	0.266	0.318	0.601	0.47	0.548	ND	0.372	0.488	0.461	0.324	0.394	0.257
Pb	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mn	mg/L	0.008	0.015	0.013	0.015	ND	0.031	0.01	0.01	0.017	0.011	0.017	0.011
Hg	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.0004	ND	ND	ND
Ni	mg/L	ND	0.013	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.029	0.006	0.005	0.016	0.028	0.064	0.022	0.006	0.01	0.008	0.026	0.063
<i>Pesticides</i>													
Aldrin				ND			ND		ND				ND
Alpha-BHC				ND			ND		ND				ND
Beta-BHC				ND			ND		ND				ND
Delta-BHC				ND			ND		ND				ND
Gamma-BHC (Lindane)				ND			ND		ND				ND

^a Supersaturated, probably due to instream primary production

Table 58

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 (U3R-1A)													
Chlordane				ND			ND		ND				ND
4, 4'-DDD				ND			ND		ND				ND
4, 4'-DDE				ND			ND		ND				ND
4, 4'-DDT				ND			ND		ND				ND
Dieldrin				ND			ND		ND				ND
Endosulfan I				ND			ND		ND				ND
Endosulfan II				ND			ND		ND				ND
Endosulfan I sulfate				ND			ND		ND				ND
Endrin				ND			ND		ND				ND
Endrin aldehyde				ND			ND		ND				ND
Endrin ketone													
Heptachlor				ND			ND		ND				ND
Heptachlor epoxide				ND			ND		ND				ND
Methoxychlor				ND			ND		ND				ND
Toxaphene				ND			ND		ND				ND
Herbicides													
2, 4-D				ND			ND		ND				ND
2, 4, 5-TP (Silvex)				ND			ND		ND				ND

Table 58
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 (U3R-4)													
Date		1/13/98	2/10/98	3/10/98	4/7/98	5/19/98	6/16/98	7/14/98	8/12/98	9/22/98	10/20/98	11/18/98	12/9/98
Temp	°C	11.9	11.6	13.2	18.2	22.0	24.3	23.3	23.9	22.8	19.8	16.6	17.7
pH	SU	6.2	6.4	5.5	4.6	5.3	6.1	6.1	5.7	5.2	6.4	6.2	5.8
DO	mg/L	8.8	8.4	7.7	7.5	6.4	6.9	6.4	5.8	5.7	7.3	7.4	6.1
Conductivity	µmhos/cm	24	23	19	20	21	21	26	22	22	22	20	25
COD	mg/L	ND	ND	28	34	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	ND	3	7	4	8	9	7	10	6	4	4	3
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.31	0.21	0.13	0.19	0.25	0.26	0.31	0.29	0.25	0.38	0.28	0.25
Total Phos	mg/L	0.061	ND	0.12	0.11	0.019	0.011	0.068	0.089	ND	0.139	0.718	ND
TOC	mg/L	3.54	4.7	14	6.4	4.8	3.2	4.9	4.3	3.8	2	4.8	6.7
Al	mg/L	0.131	0.287	0.648	0.218	0.413	ND	0.235	0.423	0.353	ND	0.23	0.314
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	0.006	ND	ND
Cu	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fe	mg/L	0.322	0.39	0.763	0.811	0.804	0.226	0.495	0.608	0.773	0.412	0.488	0.47
Pb	mg/L	ND	ND	ND	ND	0.011	ND	ND	ND	ND	ND	ND	ND
Mn	mg/L	0.014	0.018	0.036	0.032	ND	ND	ND	0.026	0.02	0.015	0.026	0.021
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	0.027	0.014	0.011	0.011	0.025	ND	0.027	ND	0.006	ND	0.014	0.049
<i>Pesticides</i>													
Aldrin				ND			ND		ND				ND
Alpha-BHC				ND			ND		ND				ND
Beta-BHC				ND			ND		ND				ND
Delta-BHC				ND			ND		ND				ND
Gamma-BHC (Lindane)				ND			ND		ND				ND
Chlordane				ND			ND		ND				ND
4, 4'-DDD				ND			ND		ND				ND

Table 58

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 (U3R-4)													
4, 4'-DDE				ND			ND		ND				ND
4, 4'-DDT				ND			ND		ND				ND
Dieldrin				ND			ND		ND				ND
Endosulfan I				ND			ND		ND				ND
Endosulfan II				ND			ND		ND				ND
Endosulfan I sulfate				ND			ND		ND				ND
Endrin				ND			ND		ND				ND
Endrin aldehyde				ND			ND		ND				ND
Endrin ketone				ND			ND		ND				ND
Heptachlor				ND			ND		ND				ND
Heptachlor epoxide				ND			ND		ND				ND
Methoxychlor				ND			ND		ND				ND
Toxaphene				ND			ND		ND				ND
Herbicides													
2, 4-D				ND			ND		ND				ND
2, 4, 5-TP (Silvex)				ND			ND		ND				ND

Table 58

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
River Mile 120 (RM-120; RM-10; Below SRS)													
Date		1/13/98	2/10/98	3/10/98	4/7/98	5/19/98	6/16/98	7/21/98	8/11/98	9/22/98	10/20/98	11/17/98	12/8/98
Temp	°C	10.7	10.2	11.2	15.6	19.9	25.1	24.4	24.8	23.7	21.1	18.3	18.1
pH	SU	6.3	6.4	6.0	6.2	6.7	6.6	6.4	6.3	6.3	7.0	6.8	6.7
DO	mg/L	14.1 ^a	11.4 ^a	8.6	8.2	7.9	9.9	5.8	6.8	6.7	6.5	7.5	7.8
Conductivity	µmhos/cm	72	48	53	63	58	96	93	99	87	115	100	110
COD	mg/L	ND	ND	ND	34	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	5	9	7	12	5	16	15	13	11	8	7	8
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.28	0.23	0.36	0.39	0.48	0.52	0.50	0.47	0.43	0.47	0.47	0.45
Total Phos	mg/L	0.048	0.042	0.124	0.079	0.147	0.228	0.194	0.313	1.47	ND	0.037	0.368
TOC	mg/L	3.99	3	5.2	5.6	3.1	3.7	4	3.3	3.3	3.4	3.5	3.4
Al	mg/L	0.33	1.71	1.35	1.44	0.18	ND	ND	0.418	0.93	0.149	0.278	0.212
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	ND	ND	ND	0.069	ND	ND	ND	ND	0.006	ND	ND
Cu	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.005
Fe	mg/L	0.607	1.7	1.32	1.78	0.639	0.649	0.458	0.52	0.897	0.886	0.297	0.301
Pb	mg/L	ND	ND	ND	ND	0.012	ND	ND	ND	ND	ND	0.003	ND
Mn	mg/L	0.063	0.044	0.028	0.067	0.037	0.08	0.062	0.078	0.089	0.079	0.066	0.072
Hg	mg/L	0.0003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ni	mg/L	ND	ND	ND	ND	0.072	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.031	ND	0.012	0.008	ND	ND	0.006	ND	0.014	ND	0.006	0.011
<i>Pesticides</i>													
Aldrin				ND			ND		ND				ND
Alpha-BHC				ND			ND		ND				ND
Beta-BHC				ND			ND		ND				ND
Delta-BHC				ND			ND		ND				ND
Gamma-BHC (Lindane)				ND			ND		ND				ND

a Supersaturated, probably due to instream primary production

Table 58

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
River Mile 120 (RM-120; RM-10; Below SRS)													
Chlordane		ND					ND		ND				ND
4, 4'-DDD		ND					ND		ND				ND
4, 4'-DDE		ND					ND		ND				ND
4, 4'-DDT		ND					ND		ND				ND
Dieldrin		ND					ND		ND				ND
Endosulfan I		ND					ND		ND				ND
Endosulfan II		ND					ND		ND				ND
Endosulfan I sulfate		ND					ND		ND				ND
Endrin		ND					ND		ND				ND
Endrin aldehyde		ND					ND		ND				ND
Endrin ketone		ND					ND		ND				ND
Heptachlor		ND					ND		ND				ND
Heptachlor epoxide		ND					ND		ND				ND
Methoxychlor		ND					ND		ND				ND
Toxaphene		ND					ND		ND				ND
<i>Herbicides</i>													
2, 4-D		ND					ND		ND				ND
2, 4, 5-TP (Silvex)		ND					ND		ND				ND

Table 58
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
River Mile 129 (RM-129; Below SRS)													
Date		1/13/98	2/10/98	3/10/98	4/7/98	5/19/98	6/16/98	7/21/98	8/11/98	9/22/98	10/20/98	11/17/98	12/8/98
Temp	°C	10.5	9.8	11.3	15.6	19.4	25.1	24.4	23.7	23.9	18.2	18.6	18.7
pH	SU	6.2	6.7	6.2	6.4	6.8	6.6	6.7	5.9	6.7	6.7	7.0	6.7
DO	mg/L	10.4	10.0	10.4	7.4	9.9 ^a	8.6 ^a	5.7	6.2	5.8	6.9	6.0	7.6
Conductivity	µmhos/cm	66	50	56	64	57	64	74	74	78	82	86	116
COD	mg/L	ND	ND	ND	34	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	9	6	8	18	7	12	9	19	9	14	15	7
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.26	0.27	0.37	0.39	0.46	0.30	0.33	0.27	0.27	0.38	0.27	0.44
Total Phos	mg/L	0.067	0.046	0.203	0.133	0.362	0.195	0.031	0.14	0.312	0.353	0.122	ND
TOC	mg/L	3.61	2.2	5.1	7.7	3.2	4.5	3.7	8.5	4.3	2.8	4.3	6.1
Al	mg/L	0.344	1.33	1.14	0.838	0.147	ND	ND	0.616	0.655	0.089	0.273	0.223
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	0.011	ND	ND
Cu	mg/L	ND	0.029	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fe	mg/L	0.641	1.36	1.26	1.58	0.779	0.813	0.501	0.714	0.774	0.936	0.292	0.589
Pb	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mn	mg/L	0.069	0.041	0.036	0.075	ND	0.071	0.071	0.067	0.16	0.095	0.063	0.107
Hg	mg/L	ND	ND	ND	ND	ND	0.0001	ND	ND	ND	ND	ND	ND
Ni	mg/L	ND	ND	ND	ND	0.011	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.045	0.018	0.005	0.01	ND	ND	0.03	0.013	0.023	ND	0.006	0.02
Pesticides													
Aldrin				ND			ND		ND				ND
Alpha-BHC				ND			ND		ND				ND
Beta-BHC				ND			ND		ND				ND
Delta-BHC				ND			ND		ND				ND
Gamma-BHC (Lindane)				ND			ND		ND				ND

^a Supersaturated, probably due to instream primary production

Table 58

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
River Mile 129 (RM-129; Below SRS)													
Chlordane		ND					ND		ND				ND
4, 4'-DDD		ND					ND		ND				ND
4, 4'-DDE		ND					ND		ND				ND
4, 4'-DDT		ND					ND		ND				ND
Dieldrin		ND					ND		ND				ND
Endosulfan I		ND					ND		ND				ND
Endosulfan II		ND					ND		ND				ND
Endosulfan I sulfate		ND					ND		ND				ND
Endrin		ND					ND		ND				ND
Endrin aldehyde		ND					ND		ND				ND
Endrin ketone		ND					ND		ND				ND
Heptachlor		ND					ND		ND				ND
Heptachlor epoxide		ND					ND		ND				ND
Methoxychlor		ND					ND		ND				ND
Toxaphene		ND					ND		ND				ND
Herbicides													
2, 4-D		ND					ND		ND				ND
2, 4, 5-TP (Silvex)		ND					ND		ND				ND

Table 58
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
River Mile 140 (RM-140)													
Date		1/13/98	2/10/98	3/10/98	4/7/98	5/19/98	6/16/98	7/21/98	8/11/98	9/22/98	10/20/98	11/17/98	12/8/98
Temp	°C	10.7	10.5	11.9	15.7	19.1	25.3	24.6	24.7	23.6	21.0	18.6	18.6
pH	SU	6.3	6.5	5.8	6.4	6.8	6.6	6.3	5.8	6.5	6.8	6.9	6.7
DO	mg/L	11.0	9.9	8.1	7.4	8.8	10.1 ^a	6.3	6.8	7.0	6.5	7.7	8.2
Conductivity	µmhos/cm	65	51	58	65	59	87	84	96	87	115	94	117
COD	mg/L	ND	ND	ND	35	ND	ND	ND	ND	ND	20	ND	ND
TSS	mg/L	6	6	10	17	7	14	12	11	13	7	6	6
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.25	0.28	0.36	0.37	0.46	0.49	0.47	0.45	0.42	0.47	0.46	0.43
Total Phos	mg/L	0.044	0.127	0.358	0.176	0.197	0.205	0.135	0.129	0.274	0.077	0.023	0.227
TOC	mg/L	4.02	1.3	5.3	6	2.5	3.3	4.1	3.8	3.6	3.5	3.8	3.6
Al	mg/L	0.321	0.933	1.71	1.01	ND	ND	ND	0.305	0.59	0.066	0.263	0.186
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cr	mg/L	ND	ND	ND	ND	0.053	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	ND	0.034	ND	0.037	ND	ND	ND	ND	0.006	ND	ND	ND
Fe	mg/L	1.15	0.99	1.79	1.74	0.457	0.615	0.489	0.508	0.681	0.584	0.302	0.394
Pb	mg/L	ND	ND	ND	ND	0.023	ND	ND	ND	ND	ND	ND	ND
Mn	mg/L	0.069	0.035	0.043	0.068	0.027	0.078	0.133	0.058	0.104	0.083	0.064	0.094
Hg	mg/L	ND	0.0002	ND	ND	ND	ND	0.0002	ND	ND	ND	ND	ND
Ni	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn	mg/L	0.023	0.044	0.007	0.028	ND	0.012	0.045	ND	0.019	ND	0.01	0.009
<i>Pesticides</i>													
Aldrin				ND			ND		ND				ND
Alpha-BHC				ND			ND		ND				ND
Beta-BHC				ND			ND		ND				ND
Delta-BHC				ND			ND		ND				ND
Gamma-BHC (Lindane)				ND			ND		ND				ND

a Supersaturated, probably due to instream primary production

Table 58
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
River Mile 140 (RM-140)													
Chlordane				ND			ND		ND				ND
4, 4'-DDD				ND			ND		ND				ND
4, 4'-DDE				ND			ND		ND				ND
4, 4'-DDT				ND			ND		ND				ND
Dieldrin				ND			ND		ND				ND
Endosulfan I				ND			ND		ND				ND
Endosulfan II				ND			ND		ND				ND
Endosulfan I sulfate				ND			ND		ND				ND
Endrin				ND			ND		ND				ND
Endrin aldehyde				ND			ND		ND				ND
Endrin ketone				ND			ND		ND				ND
Heptachlor				ND			ND		ND				ND
Heptachlor epoxide				ND			ND		ND				ND
Methoxychlor				ND			ND		ND				ND
Toxaphene				ND			ND		ND				ND
Herbicides													
2, 4-D				ND			ND		ND				ND
2, 4, 5-TP (Silvex)				ND			ND		ND				ND

Table 58

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
River Mile 160 (RM-160)													
Date		1/13/98	2/10/98	3/10/98	4/7/98	5/19/98	6/16/98	7/21/98	8/11/98	9/22/98	10/20/98	11/17/98	12/8/98
Temp	°C	10.6	10.0	12.1	15.5	19.9	24.9	24.7	24.3	23.7	21.9	19.5	18.8
pH	SU	6.6	7.0	5.8	6.5	6.8	6.5	6.4	5.8	6.3	6.7	6.9	7.0
DO	mg/L	11.9 ^a	10.7	9.3	9.4	11.5 ^a	11.2 ^a	6.4	7.4	7.2	6.4	7.9	8.1
Conductivity	µmhos/cm	62	54	49	67	79	86	90	101	80	127	98	108
COD	mg/L	ND	ND	ND	30	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	11	11	57	20	9	12	10	8	12	7	5	5
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.28	0.29	0.25	0.39	0.50	0.34	0.43	0.44	0.36	0.48	0.44	0.38
Total Phos	mg/L	0.056	ND	0.188	0.191	0.065	0.188	0.095	0.104	0.023	0.153	ND	0.249
TOC	mg/L	3.82	3.6	8.5	5.4	4.2	2.7	3.3	3.5	4.2	3.2	3.2	3.1
Al	mg/L	0.352	1.04	5.24	1.11	0.094	ND	0.261	0.367	0.462	0.224	0.289	0.142
Cd	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.002
Cr	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cu	mg/L	ND	0.031	ND	ND	ND	ND	ND	ND	0.005	ND	ND	0.006
Fe	mg/L	0.936	1.11	5.68	1.63	0.52	0.518	0.29	0.439	0.497	0.408	0.209	0.222
Pb	mg/L	ND	ND	ND	ND	0.024	ND	ND	ND	ND	ND	ND	ND
Mn	mg/L	0.094	0.075	0.138	0.086	0.075	0.066	0.071	0.066	0.159	0.138	0.071	0.1
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	0.019	ND	0.036	0.018	ND	ND	0.021	ND	0.024	0.008	0.008	0.031
<i>Pesticides</i>													
Aldrin				ND			ND		ND				ND
Alpha-BHC				ND			ND		ND				ND
Beta-BHC				ND			ND		ND				ND
Delta-BHC				ND			ND		ND				ND
Gamma-BHC (Lindane)				ND			ND		ND				ND

a Supersaturated, probably due to instream primary production

Table 58

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
River Mile 160 (RM-160)													
Chlordane		ND					ND		ND				ND
4, 4'-DDD		ND					ND		ND				ND
4, 4'-DDE		ND					ND		ND				ND
4, 4'-DDT		ND					ND		ND				ND
Dieldrin		ND					ND		ND				ND
Endosulfan I		ND					ND		ND				ND
Endosulfan II		ND					ND		ND				ND
Endosulfan I sulfate		ND					ND		ND				ND
Endrin		ND					ND		ND				ND
Endrin aldehyde		ND					ND		ND				ND
Endrin ketone		ND					ND		ND				ND
Heptachlor		ND					ND		ND				ND
Heptachlor epoxide		ND					ND		ND				ND
Methoxychlor		ND					ND		ND				ND
Toxaphene		ND					ND		ND				ND
<i>Herbicides</i>													
2, 4-D		ND					ND		ND				ND
2, 4, 5-TP (Silvex)		ND					ND		ND				ND

Table 58

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 Discharge (R-3B; Below Vogtle Electric Generating Plant)													
Date		1/13/98	2/10/98	3/10/98	4/7/98	5/19/98	6/16/98	7/21/98	8/11/98	9/22/98	10/20/98	11/17/98	12/8/98
Temp	°C	10.7	10.1	11.6	16.0	19.7	23.7	24.6	24.2	23.6	22.2	19.0	18.9
pH	SU	6.6	7.0	5.8	6.3	7.0	6.5	6.4	6.0	6.3	6.9	7.0	7.1
DO	mg/L	13.2 ^a	10.9	9.3	8.1	9.9 ^a	10.2 ^a	6.5	7.1	6.8	6.4	7.5	7.9
Conductivity	µmhos/cm	69	55	54	68	70	85	90	102	87	121	98	115
COD	mg/L	ND	ND	20	36	ND	ND	ND	ND	ND	ND	ND	ND
TSS	mg/L	7	6	21	19	8	14	11	7	12	14	8	7
NO ₂ -N	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NO ₃ -N	mg/L	0.27	0.29	0.32	0.30	0.48	0.40	0.51	0.46	0.39	0.48	0.45	0.41
Total Phos	mg/L	0.1	0.029	0.244	0.174	0.426	0.297	0.134	0.116	0.36	0.062	ND	0.319
TOC	mg/L	4.89	2.1	6.5	6.5	3.8	3	4.2	3.5	3.2	3.4	3.9	3.7
Al	mg/L	0.383	0.808	2.05	1.31	ND	ND	ND	0.567	0.666	0.506	0.272	0.148
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	ND	ND	ND	ND	ND	ND	ND	ND
Fe	mg/L	0.578	0.895	2.35	1.99	0.424	0.503	0.321	0.659	0.674	0.844	0.238	0.268
Pb	mg/L	ND	ND	ND	ND	0.03	ND	ND	ND	ND	ND	ND	ND
Mn	mg/L	0.069	0.043	0.073	0.086	0.045	0.072	0.073	0.085	0.112	0.13	0.066	0.094
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	0.026	ND	0.022	0.011	ND	0.019	0.023	ND	0.013	0.016	0.009	0.013
<i>Pesticides</i>													
Aldrin				ND			ND		ND				ND
Alpha-BHC				ND			ND		ND				ND
Beta-BHC				ND			ND		ND				ND
Delta-BHC				ND			ND		ND				ND
Gamma-BHC (Lindane)				ND			ND		ND				ND

a Supersaturated, probably due to instream primary production

Table 58

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 Discharge (R-3B; Below Vogtle Electric Generating Plant)													
Chlordane				ND			ND		ND				ND
4, 4'-DDD				ND			ND		ND				ND
4, 4'-DDE				ND			ND		ND				ND
4, 4'-DDT				ND			ND		ND				ND
Dieldrin				ND			ND		ND				ND
Endosulfan I				ND			ND		ND				ND
Endosulfan II				ND			ND		ND				ND
Endosulfan I sulfate				ND			ND		ND				ND
Endrin				ND			ND		ND				ND
Endrin aldehyde				ND			ND		ND				ND
Endrin ketone				ND			ND		ND				ND
Heptachlor				ND			ND		ND				ND
Heptachlor epoxide				ND			ND		ND				ND
Methoxychlor				ND			ND		ND				ND
Toxaphene				ND			ND		ND				ND
Herbicides													
2, 4-D				ND			ND		ND				ND
2, 4, 5-TP (Silvex)				ND			ND		ND				ND

Table 59
Sediment Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

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Constituent	mg/L										
	Upper Three Runs-4 (U3R-4)	Beaver Dam Creek (400-D)	Four Mile Creek (FMC/RdA)	Pen Branch (PB/RdA)	Steel Creek-4 (SC-4)	Lower Three Runs-2 (L3R-2)	Upper Three Runs-1A (U3R-1A)	Tinker Creek-1 (TC-1)	River Mile 160 (RM-160)	Vogtle Discharge	River Mile 120 (RM-120)
<i>Note: All analyses are performed by the Toxicity Characteristic Leaching Procedure (TCLP) method.</i>											
Aluminum	0.6	0.829	0.406	0.472	0.292	0.339	0.507	1.14	0.73	0.1	0.667
Arsenic	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.020	<0.020	<0.020
Barium	0.949	0.962	0.884	1.25	1.34	1.29	1.25	0.225	0.443	0.124	0.193
Cadmium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005
Chromium	0.014	0.016	0.014	0.015	0.016	0.015	0.017	<0.005	<0.010	<0.010	<0.010
Copper	0.029	0.037	0.023	0.032	0.029	0.038	0.034	0.02	<0.010	<0.010	<0.010
Iron	0.218	0.402	0.937	0.295	0.266	0.277	0.318	<0.020	<0.020	<0.020	<0.020
Lead	0.005	0.008	<0.003	<0.003	<0.003	<0.003	0.007	<0.003	<0.020	<0.020	<0.020
Magnesium	0.761	2.94	0.221	1.05	0.86	1.18	0.478	0.285	0.716	<0.050	0.473
Manganese	0.765	3.4	1.56	6.74	6.06	3.07	0.178	0.043	1.2	0.097	0.515
Mercury	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0003	<0.0002	<0.0002	<0.0002
Nickel	0.021	0.019	0.011	<0.010	0.012	<0.010	0.013	<0.010	<0.010	<0.010	<0.010
Selenium	<0.005	<0.005	<0.005	0.006	0.006	<0.005	<0.005	<0.005	<0.050	<0.050	<0.050
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	<0.05	<0.500	<0.500	<0.500
Zinc	0.866	0.554	0.826	0.927	0.749	1	1.04	0.258	0.072	0.155	0.076

Table 59
Sediment Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 2 of 2

Constituent	mg/L									
	Upper Three Runs-4 (U3R-4)	Beaver Dam Creek (400-D)	Four Mile Creek (FMC/RdA)	Pen Branch (PB/RdA)	Steel Creek-4 (SC-4)	Lower Three Runs-2 (L3R-2)	Upper Three Runs-1A (U3R-1A)	Tinker Creek-1 (TC-1)	River Mile 160 (RM-160)	River Mile 120 Vogtle Discharge (RM-120)
<i>Pesticides</i>										
Chlorodane	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin	<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
Heptachlor epoxide	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lindane	<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
Toxaphene	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
<i>Herbicides</i>										
2,4-D	<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	<0.10	<0.10

Table 60
Fish Surveillance — Mercury

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		Mercury (µg/g – Parts Per Million)						
Location	Type of Fish	Analytical Results				Maximum	Minimum	
<i>Note: ND denotes “not detected; the reporting limit is less than 0.33 µg/g.”</i>								
New Savannah Bluff Lock & Dam (formerly Augusta Lock & Dam)	Bass	0.50	0.53	0.83	0.77	0.50	0.83	0.50
New Savannah Bluff Lock & Dam (formerly Augusta Lock & Dam)	Bream	ND	ND	ND	ND	ND	<0.33	<0.33
New Savannah Bluff Lock & Dam (formerly Augusta Lock & Dam)	Catfish	ND	ND	ND	ND	0.33	0.33	<0.33
New Savannah Bluff Lock & Dam (formerly Augusta Lock & Dam)	Bowfin ^a	0.47	0.43	0.43	ND	0.60	0.60	<0.33
New Savannah Bluff Lock & Dam (formerly Augusta Lock & Dam)	Sucker ^a	ND	ND	ND	0.47	ND	0.47	<0.33
Beaver Dam Creek Mouth	Bass	1.27	1.30	0.80	0.63	0.97	1.30	0.63
Beaver Dam Creek Mouth	Bream	ND	ND	ND	0.33	ND	0.33	<0.33
Beaver Dam Creek Mouth	Catfish	ND	ND	0.43	ND	0.70	0.70	<0.33
Beaver Dam Creek (400–D)	Bream	0.67	0.40	ND	0.43	0.33	0.67	<0.33
Four Mile Creek Mouth	Bass	ND	0.33	0.90	0.60	0.90	0.90	<0.33
Four Mile Creek Mouth	Bream	ND	0.60	0.57	0.60	0.87	0.87	<0.33
Four Mile Creek Mouth	Catfish	ND	0.33	ND	0.40	ND	0.40	<0.33
Four Mile Creek Mouth	Bowfin ^a	1.03	0.90	0.57	0.67	0.57	1.03	0.57
Four Mile Creek Mouth	Sucker ^a	ND	ND	0.40	0.50	ND	0.50	<0.33
Highway 17A (Freshwater)	Bass	0.53	0.43	0.50	0.47	0.70	0.70	0.43
Highway 17A (Freshwater)	Bream	ND	ND	ND	ND	0.33	0.33	<0.33
Highway 17A (Freshwater)	Catfish	ND	ND	0.33	ND	0.33	0.33	<0.33

^a Sample collected at request of DOE

Table 60
Fish Surveillance — Mercury

Page 2 of 3

Location	Type of Fish	Mercury (µg/g – Parts Per Million)						
		Analytical Results				Maximum	Minimum	
River Mile 0–8	Red Drum	0.83	0.67	ND	ND	0.43	0.83	<0.33
River Mile 0–8	Mullet	ND	ND	ND	ND	ND	<0.33	<0.33
River Mile 0–8	Catfish	0.40	0.37	ND	ND	ND	0.40	<0.33
Highway 301	Bass	1.03	0.83	0.53	0.37	0.60	1.03	0.37
Highway 301	Bream	ND	ND	ND	ND	ND	<0.33	<0.33
Highway 301	Catfish	0.40	0.57	0.43	0.40	0.53	0.57	0.40
Highway 301	Bowfin ^a	0.97	0.67	0.47	0.47	1.27	1.27	0.47
Highway 301	Sucker ^a	0.47	ND	ND	ND	0.47	0.47	<0.33
L-Lake	Bass	0.80	1.57	0.77	0.77	0.60	1.57	0.60
L-Lake	Bream	ND	ND	ND	ND	0.33	0.33	<0.33
L-Lake	Catfish	ND	ND	ND	ND	ND	<0.33	<0.33
Lower Three Runs Creek Mouth	Bass	1.03	1.17	0.70	0.60	0.57	1.17	0.60
Lower Three Runs Creek Mouth	Bream	ND	ND	ND	ND	ND	<0.33	<0.33
Lower Three Runs Creek Mouth	Catfish	0.60	0.57	0.60	0.43	0.47	0.60	0.43
Lower Three Runs at Patterson Mill Road	Bass	1.13	0.87	1.10	0.57	0.93	1.13	0.57
Lower Three Runs at Patterson Mill Road	Bream	1.00	0.80	0.73	0.57	0.60	1.00	0.57
PAR Pond	Bass	1.20	1.30	1.33	1.83	1.00	1.83	1.00
PAR Pond	Bream	0.60	ND	0.40	0.47	0.33	0.60	<0.33
Pond B	Bass	1.20	1.83	0.90	0.83	1.00	1.83	0.90
Pond B	Bream	ND	ND	ND	ND	ND	<0.33	<0.33
Steel Creek Mouth	Bass	1.07	1.17	1.17	0.83	0.93	1.17	0.83
Steel Creek Mouth	Bream	ND	ND	0.47	ND	ND	0.47	<0.33
Steel Creek Mouth	Catfish	0.37	0.47	ND	0.43	ND	0.47	<0.33

^a Sample collected at request of DOE

Table 60
Fish Surveillance — Mercury

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Location	Type of Fish	Mercury (µg/g – Parts Per Million)						
		Analytical Results					Maximum	Minimum
Steel Creek Mouth	Bowfin ^a	0.37	0.43	1.27	0.70	1.13	1.27	0.37
Steel Creek Mouth	Sucker ^a	ND	0.33	0.53	ND	ND	0.53	<0.33
Steel Creek—4 at Road A	Bass	1.23	1.47	1.00	1.10	1.13	1.47	1.00
Steel Creek—4 at Road A	Bream	0.43	0.40	0.43	0.40	0.70	0.70	0.40
Stokes Bluff	Bass	0.97	1.03	1.07	1.20	0.77	1.20	0.77
Stokes Bluff	Bream	0.50	ND	0.43	0.33	0.43	0.50	<0.33
Stokes Bluff	Catfish	0.63	0.63	0.37	0.70	0.40	0.70	0.37
Upper Three Runs Mouth	Bass	0.37	0.93	0.83	ND	0.33	0.93	<0.33
Upper Three Runs Mouth	Bream	ND	ND	ND	ND	ND	<0.33	<0.33
Upper Three Runs Mouth	Catfish	ND	ND	ND	ND	ND	<0.33	<0.33
Upper Three Runs—4	Bass	1.03	0.63	0.47	0.53	0.63	1.03	0.47
Upper Three Runs—4	Bream	ND	ND	ND	ND	ND	<0.33	<0.33
Upper Three Runs—4	Catfish	1.10	ND	0.43	0.37	0.40	1.10	<0.33

^a Sample collected at request of DOE

Table 61
Blind Sample Results for pH Field Measurements

Page 1 of 1

Sample Identification	pH Units		
	Measured Value	Known Value	Difference
BpH-01-1	3.92	4.00	0.08 units
BpH-01-2	6.91	6.85	0.06 units
BpH-02-1	4.04	4.01	0.03 units
BpH-02-2	6.89	6.87	0.02 units
BpH-03-1	7.33	7.41	0.08units
BpH-03-2	6.87	6.87	0.00 units
BpH-04-1	7.49	7.40	0.09 units
BpH-04-2	6.74	6.85	0.11 units
BpH-05-1	7.45	7.44	0.01 units
BpH-05-2	4.04	4.04	0.00 units
BpH-06-1	6.79	6.85	0.06 units
BpH-06-2	3.98	4.02	0.04 units
BpH-07-1	3.98	4.00	0.02 units
BpH-07-2	4.00	4.02	0.02 units
BpH-08-1	3.99	4.04	0.05 units
BpH-08-2	3.97	4.02	0.05 units
BpH-09-1	7.36	7.40	0.04 units
BpH-09-2	6.78	6.87	0.09 units
BpH-10-1	6.90	6.90	0.00 units
BpH-10-2	7.42	7.45	0.03 units
BpH-11-1	7.46	7.43	0.03 units
BpH-11-2	4.00	4.03	0.03 units
BpH-12-1	4.05	4.02	0.03 units
BpH-12-2	7.42	7.39	0.03 units

Table 62
Blind Sample Results for Tritium

Page 1 of 1

Sample Date	pCi/mL		Ratio	Range		Evaluation ^b
	Measured Value	Known Value		Lower Control Limit ^a	Upper Control Limit ^a	
01-15-98	9.73 ± .45	10.2	0.95	7.	19.5	A
02-27-98	5.46 ± .34	5.539	0.99	3.8	10.6	A
03-12-98	6.777 ± .48	7.742	0.88	5.3	14.8	A
04-16-98	11.465 ± .541	12.31	0.93	8.5	23.5	A
05-19-98	3.584 ± .296	3.681	0.97	2.5	7.	A
06-17-98	3.335 ± .296	3.375	0.99	2.3	6.4	A
07-15-98	5.405 ± .419	5.949	0.91	4.1	11.4	A
08-14-98	5.189 ± .452	5.852	0.89	4.	11.2	A
09-21-98	2.578 ± .382	2.582	1.	1.8	4.9	A
11-02-98	2.676 ± .419	2.939	0.91	2.	5.6	A
11-12-98	7.73 ± .452	8.051	0.96	5.6	15.4	A
12-04-98	5.459 ± .483	6.056	0.9	4.2	11.6	A

a Control limits are based on DOE/Environmental Measurements Laboratory historical data for tritium.

b A = Acceptable

Table 63
QAP Interlaboratory Comparison of Analytical Results

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Nuclide	SRS Value ^a	QAP ^b Value	SRS/QAP Ratio	Number of Labs	Mean of Labs	Range		Evaluation
						Lower Control Limit ^c	Upper Control Limit ^c	
<i>Note: A is "acceptable," W is "acceptable with warning," and N is "not acceptable."</i>								
QAP Set #48, June, 1998								
Air								
Alpha	2.17 ± 0.2	1.4	1.55	72	1.357	0.686	2.184	W
Am-241	0.082 ± 0.008	0.069	1.19	47	0.079	0.049	0.146	A
Beta	2.14 ± 0.14	1.96	1.09	69	2.129	1.392	3.352	A
Ce-144	8. ± 2.6	8.21	0.97	81	7.775	4.926	10.673	A
Co-57	11.1 ± 1.	11.11	1.00	83	10.988	7.222	14.887	A
Co-60	8.9 ± 1.	9.09	0.98	93	9.045	6.818	11.817	A
Cs-134	19.3 ± 1.4	19.74	0.98	82	18.97	14.608	24.28	A
Cs-137	11.5 ± 1.5	11.86	0.97	90	12.05	8.658	15.774	A
Mn-54	5.5 ± 0.2	5.44	1.01	89	5.75	4.134	7.453	A
Pu-238	0.066 ± 0.008	0.07	0.95	46	0.068	0.05	0.097	A
Pu-239	0.067 ± 0.008	0.062	1.07	49	0.067	0.045	0.089	A
Sb-125	13.3 ± 1.8	12.16	1.09	86	12.914	7.418	17.146	A
Sr-90	1.21 ± 0.1	1.758	0.69	31	1.734	1.143	3.429	W
U-234	0.032 ± 0.005	0.031	1.04	36	0.037	0.025	0.062	A
U-238	0.032 ± 0.005	0.031	1.05	39	0.035	0.024	0.078	A

^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 63
QAP Interlaboratory Comparison of Analytical Results

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Nuclide	SRS Value ^a	QAP ^b Value	SRS/QAP Ratio	Number of Labs	Mean of Labs	Range		Evaluation
						Lower Control Limit ^c	Upper Control Limit ^c	
Soil								
Cs-137	368. ± 41.	329.5	1.12	96	353.554	263.6	434.94	A
K-40	371. ± 40.	313.5	1.18	94	344.537	238.26	482.79	A
Pu-239	2.88 ± 0.54	5.305	0.54	54	5.506	3.66	8.859	N
U-234	9. ± 1.4	31.13	0.29	39	29.574	14.32	40.469	N
U-238	9.4 ± 1.4	31.9	0.29	43	29.699	13.717	44.341	N
Vegetation								
Am-241	1.19 ± 0.23	1.105	1.08	48	1.332	0.785	2.984	A
Cm-244	2.04 ± 0.31	2.174	0.94	29	2.108	1.	3.586	A
Co-60	11.5 ± 1.3	10.575	1.09	78	11.41	6.874	15.44	A
Cs-137	193. ± 18.	181.5	1.06	82	191.12	145.2	252.285	A
K-40	805. ± 84.	707.5	1.14	75	751.365	537.7	926.825	A
Pu-239	1.7 ± 0.29	1.77	0.96	49	1.754	1.044	3.044	A
Sr-90	494. ± 52.	359.	1.38	40	326.331	154.37	470.29	N
Water								
Alpha	1399. ± 236.	1421.	0.98	59	1436.631	738.92	1861.51	A
Beta	2460. ± 604.	2200.	1.12	62	2109.8	1166.	3520.	A
Co-60	15. ± 1.	13.6	1.10	89	14.851	10.88	16.32	A
Cs-137	50.5 ± 4.8	46.	1.10	98	50.876	36.8	57.5	A
H-3	208. ± 15.	218.3	0.95	73	238.165	150.627	392.94	A

^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 63
QAP Interlaboratory Comparison of Analytical Results

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Nuclide	SRS Value ^a	QAP ^b Value	SRS/QAP Ratio	Number of Labs	Mean of Labs	Range		Evaluation
						Lower Control Limit ^c	Upper Control Limit ^c	
Mn-54	62.5 ± 6.3	57.	1.10	94	62.472	45.6	70.68	A
Pu-238	2.28 ± 0.27	2.526	0.90	59	2.417	1.92	3.157	A
Pu-239	1.57 ± 0.19	1.65	0.95	59	1.65	1.32	2.244	A
Sr-90	5.1 ± 1.9	4.357	1.17	60	4.488	3.268	6.798	A
U-234	0.38 ± 0.07	0.396	0.96	45	0.426	0.317	0.563	A
U-238	0.37 ± 0.06	0.396	0.93	48	0.426	0.317	0.511	A
QAP Set #49, December, 1998								
Air								
Alpha	1.59 ± 0.13	1.65	0.96	73	1.696	0.825	2.558	A
Am-241	0.511 ± 0.023	0.51	1.00	54	0.562	0.372	1.316	A
Beta	2.17 ± 0.15	2.16	1.00	75	2.069	1.555	3.607	A
Co-60	8.76 ± 0.158	9.16	0.96	99	9.096	6.87	12.091	A
Cs-137	21. ± 0.418	22.47	0.93	99	22.582	16.403	30.784	A
Mn-54	4.87 ± 0.144	4.92	0.99	95	5.127	3.739	6.986	A
Pu-238	0.469 ± 0.023	0.46	1.02	43	0.49	0.34	0.644	A
Pu-239	0.434 ± 0.024	0.42	1.03	44	0.454	0.319	0.605	A
Sb-125	5.24 ± 0.179	8.89	0.59	88	8.926	5.423	12.713	N
Sr-90	1.24 ± 0.15	1.12	1.11	34	1.096	0.683	2.162	A
U-234	0.262 ± 0.018	0.26	1.01	29	0.27	0.216	0.499	A
U-238	0.264 ± 0.018	0.26	1.02	30	0.276	0.218	0.679	A

^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 63
QAP Interlaboratory Comparison of Analytical Results

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Nuclide	SRS Value ^a	QAP ^b Value	SRS/QAP Ratio	Number of Labs	Mean of Labs	Range		Evaluation
						Lower Control Limit ^c	Upper Control Limit ^c	
Soil								
Ac-228	61.4 ± 1.6	52.6	1.17	49	55.283	26.3	78.9	A
Bi-212	40.8 ± 3.6	58.3	0.70	42	49.089	29.15	87.45	A
Bi-214	31.4 ± 1.2	28.8	1.09	52	31.594	14.4	43.2	A
Cs-137	1090. ± 20.	954.	1.14	96	1028.412	791.82	1259.28	A
K-40	394. ± 12.	314.	1.25	94	349.796	244.92	480.42	W
Pb-212	51.3 ± 1.4	52.8	0.97	52	55.81	26.4	79.2	A
Pb-214	31.3 ± 1.4	29.1	1.08	53	32.039	14.55	43.65	A
Sr-90	50.4 ± 19.2	39.63	1.27	44	43.434	23.778	145.046	A
Tl-208	19.3 ± 0.9	18.3	1.05	50	26.37	9.15	27.45	A
Vegetation								
Am-241	3.142 ± 0.525	2.33	1.35	44	2.812	1.584	6.291	A
Cm-244	2.2 ± 0.44	1.76	1.25	26	1.85	0.774	2.851	A
Co-60	23.9 ± 0.7	20.	1.20	80	21.02	13.8	29.2	A
Cs-137	460. ± 8.8	390.	1.18	83	423.93	312.	546.	A
K-40	563. ± 16.6	460.	1.22	77	511.98	363.4	653.2	A
Pu-239	3.986 ± 0.655	3.72	1.07	38	3.966	2.53	5.915	A
Sr-90	754.8 ± 51.8	606.	1.25	43	576.912	303.	805.98	W

^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 63
QAP Interlaboratory Comparison of Analytical Results

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Nuclide	SRS Value ^a	QAP ^b Value	SRS/QAP Ratio	Number of Labs	Mean of Labs	Range		Evaluation
						Lower Control Limit ^c	Upper Control Limit ^c	
Water								
Alpha	809. $\pm$ 118.	1080.	0.75	65	1014.12	658.8	1425.6	W
Am-241	1.69 $\pm$ 0.083	1.25	1.35	58	1.314	0.938	1.863	W
Beta	1816. $\pm$ 409.	1420.	1.28	70	1285.1	781.	2186.8	A
Co-60	50.6 $\pm$ 0.9	49.4	1.02	99	51.327	39.52	59.28	A
Cs-137	51. $\pm$ 1.35	50.	1.02	99	52.55	40.	63.	A
H-3	77.3 $\pm$ 3.6	76.2	1.01	59	85.039	54.102	136.398	A
Mn-54	35.5 $\pm$ 1.	32.4	1.10	93	35.413	25.92	40.5	A
Pu-238	1.31 $\pm$ 0.073	1.1	1.19	51	1.154	0.858	1.375	W
Pu-239	1.88 $\pm$ 0.094	1.41	1.33	55	1.53	1.128	1.96	W
Sr-90	2.386 $\pm$ 0.721	2.11	1.13	52	2.325	1.583	3.165	A
U-234	0.547 $\pm$ 0.03	0.51	1.07	37	0.533	0.408	0.714	A
U-238	0.609 $\pm$ 0.037	0.52	1.17	37	0.534	0.416	0.655	W

^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 64
QAD Interlaboratory Comparison of Analytical Results

Page 1 of 2

Sample Date	Nuclide	SRS Value	QAD ^a Value	SRS/QAD Ratio	Range		Evaluation
					Lower Control Limit ^b	Upper Control Limit ^b	
Note: A is "acceptable," W is "acceptable with warning," and N is "not acceptable."							
Water Samples (pCi/L)							
01-16-98	Sr-90	28.3 ± 3.5	32 ± 5	0.88	23.3	40.7	A
01-30-98	Alpha	16 ± 8	30.5 ± 7.6	0.52	17.3	43.7	N
01-30-98	Beta	4.9 ± 3.5	3.9 ± 5.0	1.26	-4.8	12.6	A
03-13-98	H-3	1897 ± 149	2155 ± 348	0.88	1553	2757	A
04-21-98	Alpha	48.9 ± 9.4	54.4 ± 13.6	0.90	30.9	77.9	A
04-21-98	U	3.4 ± 0.54	5.0 ± 3.0	0.68	-0.2	10.2	A
04-21-98	Beta	82.7 ± 11.0	94.7 ± 10.0	0.87	77.4	112.0	A
04-21-98	Sr-90	16.3 ± 4.0	18.0 ± 5.0	0.91	9.3	26.7	A
04-21-98	Co-60	53 ± 5	50 ± 5	1.06	41.3	58.7	A
04-21-98	Cs-134	21 ± 3	22 ± 5	0.95	13.3	30.7	A
04-21-98	Cs-137	12 ± 3	10 ± 5	1.20	1.3	18.7	A
06-05-98	Co-60	15 ± 5	12 ± 5	1.25	3.3	20.7	A
06-05-98	Zn-65	123 ± 28	104 ± 10	1.18	86.7	121.3	N
06-05-98	Cs-134	28 ± 7	31 ± 5	0.90	22.3	39.7	A
06-05-98	Cs-137	36 ± 10	35 ± 5	1.03	26.3	43.7	A
06-05-98	Ba-133	42 ± 10	40 ± 5	1.05	31.3	48.7	A
07-17-98	Sr-89	28 ± 5	21 ± 5	1.33	12.3	29.7	A

^a EPA Quality Assurance Division

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

Table 64
QAD Interlaboratory Comparison of Analytical Results

Page 2 of 2

Sample Date	Nuclide	SRS Value	QAD ^a Value	SRS/QAD Ratio	Range		Evaluation
					Lower Control Limit ^b	Upper Control Limit ^b	
07-17-98	Sr-90	9.7 ± 3.7	7 ± 5	1.39	-1.7	15.7	A
07-24-98	Alpha	3.7 ± 2.3	7.2 ± 5	0.51	-1.5	15.9	A
07-24-98	Beta	7.7 ± 3.7	12.8 ± 5	0.60	4.1	21.5	A
08-07-98	H-3	16967 ± 240	17996 ± 1800	0.94	14880	21112	A
10-20-98	U	15.8 ± 1.4	18.1 ± 3.0	0.87	12.9	23.3	A
10-20-98	Sr-89	4 ± 2	19.0 ± 5.0	0.21	10.3	27.7	N
10-20-98	Sr-90	2.7 ± 0.5	8.0 ± 5.0	0.34	-0.7	16.7	A
10-20-98	Co-60	5.3 ± 0.7 (21.3 ± 2.7) ^c	21.0 ± 5.0	1.01	12.3	29.7	A
10-20-98	Cs-134	1.7 ± 0.5 (6.7 ± 2.0) ^c	6.0 ± 5.0	1.12	-2.7	14.7	A
10-20-98	Cs-137	13.3 ± 1.5 (53.3 ± 6.0) ^c	50.0 ± 5.0	1.07	41.3	58.7	A
11-06-98	Co-60	42 ± 8	38.0 ± 5.0	1.11	29.3	46.7	A
11-06-98	Zn-65	152 ± 30	131 ± 13	1.16	108.5	153.5	A
11-06-98	Cs-134	96 ± 11	105 ± 5	0.91	96.3	113.7	N
11-06-98	Cs-137	116 ± 17	111 ± 6	1.05	100.6	121.4	A
11-06-98	Ba-133	55 ± 11	56 ± 6	0.98	45.6	66.4	A
11-13-98	Alpha	22.8 ± 6.0	47.2 ± 11.8	0.48	26.8	67.6	N
11-13-98	Beta	4.0 ± 3.5	3.5 ± 5	1.14	-5.2	12.2	A

^a EPA Quality Assurance Division

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

^c The values in parentheses reflect corrections after a 4x dilution error in the EMS laboratory.

Table 65
Quarterly QA/QC Standards

Page 1 of 2

Parameter	Units	Reported Value	Known Value	Performance Acceptance Limits (mg/L)	Evaluation
<i>Note: A is "acceptable," and N is "not acceptable."</i>					
Quarter 3 (Shealy Environmental Services, Inc.)					
Ammonia	mg/L	2.97	7.39	6.21 – 8.57	N
BOD	mg/L	36.6	44.4	30.6 – 53.5	A
COD	mg/L	130	148	126 – 170	A
Nitrate + Nitrite	mg/L	3.49	4.62	4.11 – 5.13	N
TOC	mg/L	75	58.4	49.6 – 67.2	N
TSS	mg/L	1	53.9	45.8 – 61.9	N
Aluminum	µg/L	793	710	609 – 824	A
Arsenic	µg/L	71	70.0	56.0 – 84.0	A
Barium	µg/L	1860	1850	1570 – 2130	A
Cadmium	µg/L	47	45.0	36.0 – 54.0	A
Chromium	µg/L	151	150	128 – 173	A
Copper	µg/L	1190	1200	1080 – 1320	A
Iron	µg/L	74	100	77.8 – 122	N
Lead	µg/L	60	60.0	42.0 – 78.0	A
Manganese	µg/L	182	180	153 – 207	A
Mercury	µg/L	8	6.00	4.20 – 7.80	N
Nickel	µg/L	232	230	196 – 265	A
Selenium	µg/L	82	80.0	64.0 – 96.0	A
Silver	µg/L	70	65.0	55.9 – 73.5	A
Zinc	µg/L	883	860	730 – 1030	A
Quarter 4 (Shealy Environmental Services, Inc.)					
BOD	mg/L	24.7	24.2	16.2 – 29.3	A
COD	mg/L	78.7	80.6	68.5 – 92.7	A
Nitrate + Nitrite	mg/L	2.265	4.62	4.11 – 5.13	N
TOC	mg/L	14.6	31.2	26.5 – 35.9	N
TSS	mg/L	16	24.6	20.9 – 28.3	N
Aluminum	µg/L	794	710	609 – 824	A
Arsenic	µg/L	64	70.0	56.0 – 84.0	A
Barium	µg/L	1900	1850	1570 – 2130	A
Cadmium	µg/L	45	45.0	36.0 – 54.0	A
Chromium	µg/L	148	150	128 – 173	A
Copper	µg/L	1130	1200	1080 – 1320	A

Table 65
Quarterly QA/QC Standards

Page 2 of 2

Parameter	Units	Reported Value	Known Value	Performance Acceptance Limits (mg/L)	Evaluation
Iron	µg/L	86	100	77.8 – 122	A
Lead	µg/L	60	60.0	42.0 – 78.0	A
Manganese	µg/L	179	180	153 – 207	A
Mercury	µg/L	<0.0001	6.00	4.20 – 7.80	N
Nickel	µg/L	229	230	196 – 265	A
Selenium	µg/L	84	80.0	64.0 – 96.0	A
Silver	µg/L	65	65.0	55.9 – 73.5	A
Zinc	µg/L	859	860	730 – 1030	A

Table 66
NPDES Duplicate Sample Results

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NPDES Site	Parameter Sampled	Units	SRS Reading	Duplicate Reading	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>					
X-8C	1,1,1-Trichloroethene	ug/L	<2.0	<2.0	0
M-05	1,1,1-Trichloroethene	ug/L	<2.0	<2.0	0
A-1A	1,1,1-Trichloroethene	ug/L	<2.0	<2.0	0
X-8C	1,1,1-Trichloroethene	ug/L	<2.0	<2.0	0
A-1A	1,1,1-Trichloroethene	ug/L	<2.0	<2.0	0
K-18	Aluminum	mg/L	0.177	0.227	0.05
M-04	Aluminum	mg/L	0.305	0.284	0.021
M-04	Ammonia	mg/L	17.8	16.9	0.9
X-8B	Benzene	ug/L	<0.5	<0.5	0
X-8B	Benzene	ug/L	<0.5	<0.5	0
X-8B	Benzene	ug/L	<0.5	<0.5	0
A-01	BOD	mg/L	<2.0	<2.0	0
X-8B	BOD	mg/L	<2.0	<2.0	0
A-11	BOD	mg/L	<2.0	<2.0	0
X-8B	BOD	mg/L	<2.0	<2.0	0
X-8B	BOD	mg/L	<2.0	<2.0	0
A-01	BOD	mg/L	<2.0	<2.0	0
A-11	BOD	mg/L	<2.0	<2.0	0
H-16	Cadmium	mg/L	<0.005	<0.005	0
H-16	Cadmium	mg/L	<0.002	<0.002	0
H-16	Chromium	mg/L	<0.01	<0.01	0
M-04	Chromium	mg/L	0.288	0.311	0.023
H-16	Chromium	mg/L	<0.005	<0.005	0
X-8C	cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	0
H-16	Copper	mg/L	<0.005	<0.005	0
A-01	Copper	mg/L	<0.005	<0.005	0
A-11	Copper	mg/L	0.007	<0.005	<0.007
H-12	Copper	mg/L	0.008	<0.005	<0.008
H-12	Copper	mg/L	0.149	0.121	0.028
A-01	Copper	mg/L	0.009	0.008	0.001
A-11	Copper	mg/L	0.005	0.005	0
F-08	Copper	mg/L	0.009	0.009	0
H-16	Copper	mg/L	<0.005	<0.005	0

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NPDES Duplicate Sample Results

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NPDES Site	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
M-04	Cyanide	mg/L	<0.01	<0.01	0
M-04	Cyanide	mg/L	0.392	0.388	0.004
M-04	Cyanide	mg/L	<0.01	<0.01	0
M-04	Cyanide	mg/L	<0.01	<0.01	0
A-01	Iron	mg/L	<0.02	0.029	<0.029
H-16	Lead	mg/L	<0.003	<0.003	0
A-01	Lead	mg/L	0.003	<0.003	<0.003
A-11	Lead	mg/L	0.003	<0.003	<0.003
H-12	Lead	mg/L	<0.003	<0.003	0
M-04	Lead	mg/L	<0.003	<0.003	0
H-08	Lead	mg/L	<0.003	<0.003	0
H-12	Lead	mg/L	0.01	0.009	0.001
A-01	Lead	mg/L	<0.003	<0.003	0
A-11	Lead	mg/L	<0.003	<0.003	0
F-08	Lead	mg/L	<0.003	<0.003	0
H-16	Lead	mg/L	<0.003	<0.003	0
H-16	Mercury	mg/L	<0.0001	<0.0001	0
X-8B	Mercury	mg/L	0.0004	0.0004	0
A-01	Mercury	mg/L	0.0001	<0.0001	<0.0001
A-11	Mercury	mg/L	<0.0001	<0.0001	0
A-01	Mercury	mg/L	<0.0001	0.0001	<0.0001
X-8B	Mercury	mg/L	0.0003	0.0005	0.0002
A-11	Mercury	mg/L	0.0001	0.0001	0
H-16	Mercury	mg/L	<0.0001	<0.0001	0
H-16	Nickel	mg/L	<0.01	<0.01	0
M-04	Nickel	mg/L	0.101	0.106	0.005
H-16	Nickel	mg/L	<0.01	<0.01	0
A-01	Oil and Grease	mg/L	<1.0	<1.0	0
H-02	Oil and Grease	mg/L	<1.0	<1.0	0
K-18	Oil and Grease	mg/L	<1.0	<1.0	0
H-07	Oil and Grease	mg/L	2.9	<1.0	<2.9
A-01	Oil and Grease	mg/L	<1.0	<1.0	0
H-02	Oil and Grease	mg/L	<1.0	<1.0	0
H-02	Oil and Grease	mg/L	<1.0	<1.0	0
X-8B	Phenol	mg/L	<0.006	<0.006	0

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NPDES Duplicate Sample Results

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NPDES Site	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
X-8B	Phenol	mg/L	<0.006	<0.006	0
X-8B	Phenol	mg/L	0.016	0.024	0.008
H-16	Silver	mg/L	<0.005	<0.005	0
H-16	Silver	mg/L	<0.005	<0.005	0
X-8C	Tetrachloroethene	ug/L	<2.0	<2.0	0
M-05	Tetrachloroethene	ug/L	<2.0	<2.0	0
A-1A	Tetrachloroethene	ug/L	<2.0	<2.0	0
X-8C	Tetrachloroethene	ug/L	<2.0	<2.0	0
A-1A	Tetrachloroethene	ug/L	<2.0	<2.0	0
X-8B	TOC	mg/L	4.9	5	0.1
X-8B	TOC	mg/L	3.4	3.5	0.1
X-8B	TOC	mg/L	4.3	3.1	1.2
X-8C	Trichloroethene	ug/L	<2.0	<2.0	0
M-05	Trichloroethene	ug/L	<2.0	<2.0	0
A-1A	Trichloroethene	ug/L	<2.0	<2.0	0
X-8C	Trichloroethene	ug/L	<2.0	<2.0	0
A-1A	Trichloroethene	ug/L	<2.0	<2.0	0
X-04	TSS	mg/L	1	<1	<1
S-04	TSS	mg/L	3	2	1
H-02	TSS	mg/L	1	1	0
K-18	TSS	mg/L	7	7	0
H-04	TSS	mg/L	1	2	1
X-8B	TSS	mg/L	7	1	6
X-08	TSS	mg/L	2	2	0
X-8B	TSS	mg/L	24	14	10
H-07	TSS	mg/L	6	6	0
A-11	TSS	mg/L	59	49	10
S-04	TSS	mg/L	3	4	1
X-04	TSS	mg/L	2	2	0
H-08	TSS	mg/L	7	7	0
F-01	TSS	mg/L	<1	<1	0
S-04	TSS	mg/L	4	3	1
M-04	TSS	mg/L	3	1	2
H-12	TSS	mg/L	12	13	1
F-02	TSS	mg/L	6	2	4

Table 66
NPDES Duplicate Sample Results

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NPDES Site	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
X-8B	TSS	mg/L	33	31	2
A-01	TSS	mg/L	<1	<1	0
H-04	TSS	mg/L	1	<1	<1
X-08	TSS	mg/L	1	1	0
H-08	TSS	mg/L	2	2	0
A-11	TSS	mg/L	23	25	2
X-04	TSS	mg/L	2	1	1
F-01	TSS	mg/L	<1	<1	0
H-12	TSS	mg/L	4	4	0
X-8C	Vinyl Chloride	ug/L	<2.0	<2.0	0
H-16	Zinc	mg/L	0.054	0.029	0.025
S-04	Zinc	mg/L	0.166	0.144	0.022
S-04	Zinc	mg/L	0.166	0.213	0.047
A-01	Zinc	mg/L	0.021	0.022	0.001
H-16	Zinc	mg/L	0.042	0.044	0.002

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NPDES Blind Sample Results

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NPDES Site	Parameter Sampled	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>					
X-8C	1,1,1-Trichloroethane	ug/L	<2.0	<2.0	0
M-05	1,1,1-Trichloroethane	ug/L	<2.0	<2.0	0
A-1A	1,1,1-Trichloroethane	ug/L	<2.0	<2.0	0
M-04	Aluminum	mg/L	0.143	0.116	0.027
M-04	Ammonia	mg/L	17.8	12.7	5.1
X-8B	Benzene	ug/L	<0.5	<0.5	0
X-8B	Benzene	ug/L	<0.5	<0.5	0
X-8B	Benzene	mg/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	<2.0	0
X-8B	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	<2.0	0
A-01	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
H-16	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
H-16	Cadmium	mg/L	<0.005	<0.005	0
H-16	Cadmium	mg/L	<0.005	<0.005	0
H-16	Cadmium	mg/L	<0.002	<0.002	0
H-16	Chromium	mg/L	<0.01	<0.01	0
H-16	Chromium	mg/L	<0.01	<0.01	0
M-04	Chromium	mg/L	0.114	0.115	0.001
H-16	Chromium	mg/L	<0.005	<0.005	0
M-05	cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	0
A-1A	cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	0
H-16	Copper	mg/L	<0.005	<0.005	0
H-16	Copper	mg/L	<0.005	<0.005	0
H-12	Copper	mg/L	<0.005	<0.005	0
F-08	Copper	mg/L	<0.005	<0.005	0
H-16	Copper	mg/L	<0.005	<0.005	0
A-11	Copper	mg/L	<0.005	<0.005	0
A-01	Copper	mg/L	0.013	0.019	0.006
M-04	Cyanide	mg/L	<0.01	<0.01	0
M-04	Cyanide	mg/L	<0.01	<0.01	0

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NPDES Blind Sample Results

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NPDES Site	Parameter Sampled	Units	Result 1	Result 2	Difference
H-16	Lead	mg/L	<0.003	<0.003	0
H-08	Lead	mg/L	<0.003	<0.003	0
H-16	Lead	mg/L	<0.003	<0.003	0
H-12	Lead	mg/L	<0.003	<0.003	0
F-08	Lead	mg/L	<0.003	<0.003	0
M-04	Lead	mg/L	<0.003	<0.003	0
H-16	Lead	mg/L	<0.003	<0.003	0
A-11	Lead	mg/L	<0.003	<0.003	0
A-01	Lead	mg/L	0.006	<0.003	<0.006
H-16	Mercury	mg/L	<0.0001	<0.0001	0
X-8B	Mercury	mg/L	0.0004	0.0004	0
H-16	Mercury	mg/L	<0.0001	<0.0001	0
X-8B	Mercury	mg/L	<0.0001	<0.0001	0
X-8B	Mercury	ug/L	<0.0001	<0.0001	0
F-08	Mercury	mg/L	<0.0001	0.0004	<0.0004
H-16	Mercury	mg/L	<0.0001	<0.0001	0
A-11	Mercury	mg/L	<0.0001	<0.0001	0
A-01	Mercury	mg/L	<0.0001	<0.0001	0
H-16	Nickel	mg/L	<0.01	<0.01	0
H-16	Nickel	mg/L	<0.01	<0.01	0
M-04	Nickel	mg/L	0.422	0.428	0.006
H-16	Nickel	mg/L	<0.005	<0.005	0
F-05	Oil and Grease	mg/L	<1.0	<1.0	0
A-01	Oil and Grease	mg/L	3.9	3.1	0.8
F-05	Oil and Grease	mg/L	<1.0	<1.0	0
A-01	Oil and Grease	mg/L	1.4	<1.0	<1.4
F-05	Oil and Grease	mg/L	2.5	<1.0	<2.5
H-02	Oil and Grease	mg/L	<1.0	12	<12
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
H-16	Silver	mg/L	<0.005	<0.005	0
H-16	Silver	mg/L	<0.05	<0.05	0
H-16	Silver	mg/L	<0.010	<0.010	0
X-8C	Tetrachloroethene	ug/L	<2.0	<2.0	0
M-05	Tetrachloroethene	ug/L	<2.0	<2.0	0

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NPDES Blind Sample Results

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NPDES Site	Parameter Sampled	Units	Result 1	Result 2	Difference
A-1A	Tetrachloroethene	ug/L	<2.0	<2.0	0
X-8B	Total Organic Carbon	mg/L	2.9	3.1	0.2
X-8B	Total Organic Carbon	mg/L	3.4	3.6	0.2
X-8B	Total Organic Carbon	mg/L	5.4	3.5	1.9
X-8C	Trichloroethene	ug/L	<2.0	<2.0	0
M-05	Trichloroethene	ug/L	<2.0	<2.0	0
A-1A	Trichloroethene	ug/L	<2.0	<2.0	0
F-01	Total Suspended Solids	mg/L	54	58	4
A-01	Total Suspended Solids	mg/L	3	3	0
A-11	Total Suspended Solids	mg/L	21	20	1
F-02	Total Suspended Solids	mg/L	<1	<1	0
F-05	Total Suspended Solids	mg/L	2	2	0
F-08	Total Suspended Solids	mg/L	2	2	0
H-04	Total Suspended Solids	mg/L	1	1	0
H-07	Total Suspended Solids	mg/L	7	7	0
H-02	Total Suspended Solids	mg/L	2	2	0
H-08	Total Suspended Solids	mg/L	4	4	0
X-04	Total Suspended Solids	mg/L	6	5	1
X-08	Total Suspended Solids	mg/L	12	8	4
S-04	Total Suspended Solids	mg/L	3	4	1
M-04	Total Suspended Solids	mg/L	3	<1	<3
X-8B	Total Suspended Solids	mg/L	14	15	1
A-11	Total Suspended Solids	mg/L	3	3	0
A-01	Total Suspended Solids	mg/L	<1	<1	0
F-08	Total Suspended Solids	mg/L	2	2	0
F-05	Total Suspended Solids	mg/L	4	2	2
F-02	Total Suspended Solids	mg/L	6	3	3
F-01	Total Suspended Solids	mg/L	<1	<1	0
H-02	Total Suspended Solids	mg/L	<1	<1	0
H-04	Total Suspended Solids	mg/L	<1	<1	0
H-12	Total Suspended Solids	mg/L	<1	<1	0
H-08	Total Suspended Solids	mg/L	3	2	1
H-07	Total Suspended Solids	mg/L	7	5	2
S-04	Total Suspended Solids	mg/L	<1	<1	0
X-08	Total Suspended Solids	mg/L	1	1	0
X-04	Total Suspended Solids	mg/L	3	3	0

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NPDES Blind Sample Results

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NPDES Site	Parameter Sampled	Units	Result 1	Result 2	Difference
M-04	Total Suspended Solids	mg/L	<1	<1	0
H-16	Total Suspended Solids	mg/L	1	2	1
M-05	Vinyl Chloride	ug/L	<2.0	<2.0	0
A-1A	Vinyl Chloride	ug/L	<2.0	<2.0	0
H-16	Zinc	mg/L	0.054	0.035	0.019
H-16	Zinc	mg/L	<0.005	0.016	<0.016
S-04	Zinc	mg/L	0.166	0.150	0.016
H-16	Zinc	mg/L	0.042	0.042	0
S-04	Zinc	mg/L	0.183	0.175	0.008

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SRS Stream and Savannah River Water Quality Duplicate Sample Results

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Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
VOGTLE	2,4-D	ug/L	<1.00	<1.00	0
PB-3	2,4-D	ug/L	<1.00	<1.00	0
RM-120	2,4-D	ug/L	<0.10	<0.10	0
RM-129	2,4-D	ug/L	<0.10	<0.10	0
RM-140	2,4-D	ug/L	<0.10	<0.10	0
VOGTLE	2,4-D	ug/L	<0.10	<0.10	0
RM-160	2,4-D	ug/L	<0.10	<0.10	0
VOGTLE	2,4-D	ug/L	<0.200	<0.200	0
VOGTLE	4,4'-DDD	ug/L	<0.05	<0.05	0
PB-3	4,4'-DDD	ug/L	<0.06	<0.06	0
RM-120	4,4'-DDD	ug/L	<0.05	<0.05	0
RM-129	4,4'-DDD	ug/L	<0.05	<0.05	0
RM-140	4,4'-DDD	ug/L	<0.05	<0.05	0
VOGTLE	4,4'-DDD	ug/L	<0.05	<0.05	0
RM-160	4,4'-DDD	ug/L	<0.05	<0.05	0
VOGTLE	4,4'-DDD	ug/L	<0.05	<0.05	0
VOGTLE	4,4'-DDE	ug/L	<0.05	<0.05	0
PB-3	4,4'-DDE	ug/L	<0.06	<0.06	0
RM-120	4,4'-DDE	ug/L	<0.05	<0.05	0
RM-129	4,4'-DDE	ug/L	<0.05	<0.05	0
RM-140	4,4'-DDE	ug/L	<0.05	<0.05	0
VOGTLE	4,4'-DDE	ug/L	<0.05	<0.05	0
RM-160	4,4'-DDE	ug/L	<0.05	<0.05	0
VOGTLE	4,4'-DDE	ug/L	<0.05	<0.05	0
VOGTLE	4,4'-DDT	ug/L	<0.05	<0.05	0
PB-3	4,4'-DDT	ug/L	<0.06	<0.06	0
RM-120	4,4'-DDT	ug/L	<0.05	<0.05	0
RM-129	4,4'-DDT	ug/L	<0.05	<0.05	0
RM-140	4,4'-DDT	ug/L	<0.05	<0.05	0
VOGTLE	4,4'-DDT	ug/L	<0.05	<0.05	0
RM-160	4,4'-DDT	ug/L	<0.05	<0.05	0
VOGTLE	4,4'-DDT	ug/L	<0.05	<0.05	0
VOGTLE	Aldrin	ug/L	<0.05	<0.05	0
PB-3	Aldrin	ug/L	<0.06	<0.06	0
RM-120	Aldrin	ug/L	<0.05	<0.05	0

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SRS Stream and Savannah River Water Quality Duplicate Sample Results

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Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
RM-129	Aldrin	ug/L	<0.05	<0.05	0
RM-140	Aldrin	ug/L	<0.05	<0.05	0
VOGTLE	Aldrin	ug/L	<0.05	<0.05	0
RM-160	Aldrin	ug/L	<0.05	<0.05	0
VOGTLE	Aldrin	ug/L	<0.05	<0.05	0
VOGTLE	alpha-BHC	ug/L	<0.05	<0.05	0
PB-3	alpha-BHC	ug/L	<0.06	<0.06	0
RM-120	alpha-BHC	ug/L	<0.05	<0.05	0
RM-129	alpha-BHC	ug/L	<0.05	<0.05	0
RM-140	alpha-BHC	ug/L	<0.05	<0.05	0
VOGTLE	alpha-BHC	ug/L	<0.05	<0.05	0
RM-160	alpha-BHC	ug/L	<0.05	<0.05	0
VOGTLE	alpha-BHC	ug/L	<0.05	<0.05	0
RM-160	Aluminum	mg/L	0.289	0.263	0.026
RM-140	Aluminum	mg/L	0.186	0.159	0.027
L3R-2	Aluminum	mg/L	0.197	0.184	0.013
RM-129	Aluminum	mg/L	0.089	0.107	0.018
U3R-1A	Aluminum	mg/L	<0.050	<0.050	0
RM-120	Aluminum	mg/L	0.93	0.815	0.115
TC-1	Aluminum	mg/L	0.264	0.234	0.03
VOGTLE	Aluminum	mg/L	0.567	0.351	0.216
PB-3	Aluminum	mg/L	0.119	0.05	0.069
4M-2	Aluminum	mg/L	0.222	0.255	-0.033
RM-160	Aluminum	mg/L	0.261	<0.050	<0.261
RM-140	Aluminum	mg/L	<0.050	<0.050	0
BDC	Aluminum	mg/L	0.287	<0.050	<2.87
4M-2B	Aluminum	mg/L	0.087	0.429	0.342
RM-120	Aluminum	mg/L	1.44	1.26	0.18
VOGTLE	Aluminum	mg/L	2.05	3.19	1.14
U3R-4	Aluminum	mg/L	0.648	0.804	0.156
RM-160	Aluminum	mg/L	1.04	0.888	0.152
SC-4	Aluminum	mg/L	0.235	0.274	0.039
4M-6	Aluminum	mg/L	0.234	0.223	0.011
RM-140	Aluminum	mg/L	0.321	0.397	0.076
VOGTLE	beta-BHC	ug/L	<0.05	<0.05	0

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SRS Stream and Savannah River Water Quality Duplicate Sample Results

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Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
PB-3	beta-BHC	ug/L	<0.06	<0.06	0
RM-120	beta-BHC	ug/L	<0.05	<0.05	0
RM-129	beta-BHC	ug/L	<0.05	<0.05	0
RM-140	beta-BHC	ug/L	<0.05	<0.05	0
VOGTLE	beta-BHC	ug/L	<0.05	<0.05	0
RM-160	beta-BHC	ug/L	<0.05	<0.05	0
VOGTLE	beta-BHC	ug/L	<0.05	<0.05	0
RM-160	Cadmium	mg/L	<0.002	<0.002	0
RM-140	Cadmium	mg/L	<0.002	<0.002	0
L3R-2	Cadmium	mg/L	<0.002	<0.002	0
RM-129	Cadmium	mg/L	<0.002	<0.002	0
U3R-1A	Cadmium	mg/L	<0.002	<0.002	0
RM-120	Cadmium	mg/L	<0.002	<0.002	0
TC-1	Cadmium	mg/L	<0.002	<0.002	0
VOGTLE	Cadmium	mg/L	<0.005	<0.005	0
PB-3	Cadmium	mg/L	<0.005	<0.005	0
4M-2	Cadmium	mg/L	<0.005	<0.005	0
RM-160	Cadmium	mg/L	<0.005	<0.005	0
RM-140	Cadmium	mg/L	<0.005	<0.005	0
BDC	Cadmium	mg/L	<0.005	<0.005	0
4M-2B	Cadmium	mg/L	<0.005	<0.005	0
RM-120	Cadmium	mg/L	<0.005	<0.005	0
VOGTLE	Cadmium	mg/L	<0.005	<0.005	0
U3R-4	Cadmium	mg/L	<0.005	<0.005	0
RM-160	Cadmium	mg/L	<0.005	<0.005	0
SC-4	Cadmium	mg/L	<0.005	<0.005	0
4M-6	Cadmium	mg/L	<0.005	<0.005	0
RM-140	Cadmium	mg/L	<0.005	<0.005	0
VOGTLE	Chlordane	ug/L	<0.50	<0.50	0
PB-3	Chlordane	ug/L	<0.60	<0.60	0
RM-120	Chlordane	ug/L	<0.50	<0.50	0
RM-129	Chlordane	ug/L	<0.50	<0.50	0
RM-140	Chlordane	ug/L	<0.50	<0.50	0
VOGTLE	Chlordane	ug/L	<0.50	<0.50	0
RM-160	Chlordane	ug/L	<0.50	<0.50	0

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SRS Stream and Savannah River Water Quality Duplicate Sample Results

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Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
VOGTLE	Chlordane	ug/L	<0.50	<0.50	0
RM-160	Chromium	mg/L	<0.005	<0.005	0
RM-140	Chromium	mg/L	<0.005	<0.005	0
L3R-2	Chromium	mg/L	<0.005	<0.005	0
RM-129	Chromium	mg/L	0.011	<0.005	<0.011
U3R-1A	Chromium	mg/L	<0.005	0.005	<0.005
RM-120	Chromium	mg/L	<0.005	<0.005	0
TC-1	Chromium	mg/L	<0.005	<0.005	0
VOGTLE	Chromium	mg/L	<0.010	<0.010	0
PB-3	Chromium	mg/L	<0.010	<0.010	0
4M-2	Chromium	mg/L	<0.010	<0.010	0
RM-160	Chromium	mg/L	<0.010	<0.010	0
RM-140	Chromium	mg/L	<0.010	<0.010	0
BDC	Chromium	mg/L	<0.010	<0.010	0
4M-2B	Chromium	mg/L	<0.010	<0.010	0
RM-120	Chromium	mg/L	<0.010	<0.010	0
VOGTLE	Chromium	mg/L	<0.010	<0.010	0
U3R-4	Chromium	mg/L	<0.010	<0.010	0
RM-160	Chromium	mg/L	<0.010	<0.010	0
SC-4	Chromium	mg/L	<0.010	<0.010	0
4M-6	Chromium	mg/L	<0.010	<0.010	0
RM-140	Chromium	mg/L	<0.010	<0.010	0
RM-160	Copper	mg/L	<0.005	<0.005	0
RM-140	Copper	mg/L	<0.005	<0.005	0
L3R-2	Copper	mg/L	0.005	0.005	0
RM-129	Copper	mg/L	<0.005	<0.005	0
U3R-1A	Copper	mg/L	<0.005	<0.005	0
RM-120	Copper	mg/L	<0.005	<0.005	0
TC-1	Copper	mg/L	<0.005	<0.005	0
VOGTLE	Copper	mg/L	<0.005	<0.005	0
PB-3	Copper	mg/L	<0.005	<0.005	0
4M-2	Copper	mg/L	<0.005	<0.005	0
RM-160	Copper	mg/L	<0.005	<0.005	0
RM-140	Copper	mg/L	<0.005	<0.005	0
BDC	Copper	mg/L	<0.005	<0.005	0

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SRS Stream and Savannah River Water Quality Duplicate Sample Results

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Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
4M-2B	Copper	mg/L	<0.005	<0.005	0
RM-120	Copper	mg/L	<0.005	<0.005	0
VOGTLE	Copper	mg/L	<0.005	<0.005	0
U3R-4	Copper	mg/L	<0.005	<0.005	0
RM-160	Copper	mg/L	0.031	0.026	0.005
SC-4	Copper	mg/L	<0.005	<0.005	0
4M-6	Copper	mg/L	<0.005	<0.005	0
RM-140	Copper	mg/L	<0.005	<0.005	0
VOGTLE	delta-BHC	ug/L	<0.05	<0.05	0
PB-3	delta-BHC	ug/L	<0.06	<0.06	0
RM-120	delta-BHC	ug/L	<0.05	<0.05	0
RM-129	delta-BHC	ug/L	<0.05	<0.05	0
RM-140	delta-BHC	ug/L	<0.05	<0.05	0
VOGTLE	delta-BHC	ug/L	<0.05	<0.05	0
RM-160	delta-BHC	ug/L	<0.05	<0.05	0
VOGTLE	delta-BHC	ug/L	<0.05	<0.05	0
VOGTLE	Endosulfan I	ug/L	<0.05	<0.05	0
PB-3	Endosulfan I	ug/L	<0.06	<0.06	0
RM-120	Endosulfan I	ug/L	<0.05	<0.05	0
RM-129	Endosulfan I	ug/L	<0.05	<0.05	0
RM-140	Endosulfan I	ug/L	<0.05	<0.05	0
VOGTLE	Endosulfan I	ug/L	<0.05	<0.05	0
RM-160	Endosulfan I	ug/L	<0.05	<0.05	0
VOGTLE	Endosulfan I	ug/L	<0.05	<0.05	0
VOGTLE	Endosulfan sulfate	ug/L	<0.05	<0.05	0
PB-3	Endosulfan sulfate	ug/L	<0.06	<0.06	0
RM-120	Endosulfan sulfate	ug/L	<0.05	<0.05	0
RM-129	Endosulfan sulfate	ug/L	<0.05	<0.05	0
RM-140	Endosulfan sulfate	ug/L	<0.05	<0.05	0
VOGTLE	Endosulfan sulfate	ug/L	<0.05	<0.05	0
RM-160	Endosulfan sulfate	ug/L	<0.05	<0.05	0
VOGTLE	Endosulfan sulfate	ug/L	<0.05	<0.05	0
VOGTLE	Endrin	ug/L	<0.05	<0.05	0
PB-3	Endrin	ug/L	<0.06	<0.06	0
RM-120	Endrin	ug/L	<0.05	<0.05	0

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SRS Stream and Savannah River Water Quality Duplicate Sample Results

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Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
RM-129	Endrin	ug/L	<0.05	<0.05	0
RM-140	Endrin	ug/L	<0.05	<0.05	0
VOGTLE	Endrin	ug/L	<0.05	<0.05	0
RM-160	Endrin	ug/L	<0.05	<0.05	0
VOGTLE	Endrin	ug/L	<0.05	<0.05	0
VOGTLE	Endrin aldehyde	ug/L	<0.05	<0.05	0
PB-3	Endrin aldehyde	ug/L	<0.06	<0.06	0
RM-120	Endrin aldehyde	ug/L	<0.05	<0.05	0
RM-129	Endrin aldehyde	ug/L	<0.05	<0.05	0
RM-140	Endrin aldehyde	ug/L	<0.05	<0.05	0
VOGTLE	Endrin aldehyde	ug/L	<0.05	<0.05	0
RM-160	Endrin aldehyde	ug/L	<0.05	<0.05	0
VOGTLE	Endrin aldehyde	ug/L	<0.05	<0.05	0
VOGTLE	Endrin ketone	ug/L	<0.05	<0.05	0
PB-3	Endrin ketone	ug/L	<0.06	<0.06	0
RM-120	Endrin ketone	ug/L	<0.05	<0.05	0
RM-129	Endrin ketone	ug/L	<0.05	<0.05	0
RM-140	Endrin ketone	ug/L	<0.05	<0.05	0
VOGTLE	Endrin ketone	ug/L	<0.05	<0.05	0
RM-160	Endrin ketone	ug/L	<0.05	<0.05	0
VOGTLE	Endrin ketone	ug/L	<0.05	<0.05	0
VOGTLE	Enfosulfan II	ug/L	<0.05	<0.05	0
PB-3	Enfosulfan II	ug/L	<0.06	<0.06	0
RM-120	Enfosulfan II	ug/L	<0.05	<0.05	0
RM-129	Enfosulfan II	ug/L	<0.05	<0.05	0
RM-140	Enfosulfan II	ug/L	<0.05	<0.05	0
VOGTLE	Enfosulfan II	ug/L	<0.05	<0.05	0
RM-160	Enfosulfan II	ug/L	<0.05	<0.05	0
VOGTLE	Enfosulfan II	ug/L	<0.05	<0.05	0
VOGTLE	gamma-BHC (Lindane)	ug/L	<0.05	<0.05	0
PB-3	gamma-BHC (Lindane)	ug/L	<0.06	<0.06	0
RM-120	gamma-BHC (Lindane)	ug/L	<0.05	<0.05	0
RM-129	gamma-BHC (Lindane)	ug/L	<0.05	<0.05	0
RM-140	gamma-BHC (Lindane)	ug/L	<0.05	<0.05	0
VOGTLE	gamma-BHC (Lindane)	ug/L	<0.05	<0.05	0

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SRS Stream and Savannah River Water Quality Duplicate Sample Results

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Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
RM-160	gamma-BHC (Lindane)	ug/L	<0.05	<0.05	0
VOGTLE	gamma-BHC (Lindane)	ug/L	<0.05	<0.05	0
VOGTLE	Heptachlor	ug/L	<0.05	<0.05	0
PB-3	Heptachlor	ug/L	<0.06	<0.06	0
RM-120	Heptachlor	ug/L	<0.05	<0.05	0
RM-129	Heptachlor	ug/L	<0.05	<0.05	0
RM-140	Heptachlor	ug/L	<0.05	<0.05	0
VOGTLE	Heptachlor	ug/L	<0.05	<0.05	0
RM-160	Heptachlor	ug/L	<0.05	<0.05	0
VOGTLE	Heptachlor	ug/L	<0.05	<0.05	0
VOGTLE	Heptachlor epoxide	ug/L	<0.05	<0.05	0
PB-3	Heptachlor epoxide	ug/L	<0.06	<0.06	0
RM-120	Heptachlor epoxide	ug/L	<0.05	<0.05	0
RM-129	Heptachlor epoxide	ug/L	<0.05	<0.05	0
RM-140	Heptachlor epoxide	ug/L	<0.05	<0.05	0
VOGTLE	Heptachlor epoxide	ug/L	<0.05	<0.05	0
RM-160	Heptachlor epoxide	ug/L	<0.05	<0.05	0
VOGTLE	Heptachlor epoxide	ug/L	<0.05	<0.05	0
RM-160	Iron	mg/L	0.209	0.187	0.022
RM-140	Iron	mg/L	0.394	0.332	0.062
L3R-2	Iron	mg/L	0.472	0.462	0.00999999
RM-129	Iron	mg/L	0.936	1.16	0.224
U3R-1A	Iron	mg/L	0.324	0.341	0.017
RM-120	Iron	mg/L	0.897	0.802	0.095
TC-1	Iron	mg/L	0.399	0.888	0.489
VOGTLE	Iron	mg/L	0.659	0.571	0.088
PB-3	Iron	mg/L	0.773	0.683	0.09
4M-2	Iron	mg/L	2.13	2.01	0.12
RM-160	Iron	mg/L	0.29	0.283	0.007
RM-140	Iron	mg/L	0.615	0.652	0.037
BDC	Iron	mg/L	0.512	0.641	0.129
4M-2B	Iron	mg/L	2.11	2.06	0.04999999
RM-120	Iron	mg/L	1.78	1.74	0.04
VOGTLE	Iron	mg/L	2.35	3.1	0.75
U3R-4	Iron	mg/L	0.763	0.831	0.068

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SRS Stream and Savannah River Water Quality Duplicate Sample Results

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Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
RM-160	Iron	mg/L	1.11	1.07	0.04
SC-4	Iron	mg/L	0.367	0.34	0.027
4M-6	Iron	mg/L	0.788	0.684	0.104
RM-140	Iron	mg/L	1.15	1.79	0.64
RM-160	Lead	mg/L	<0.003	<0.003	0
RM-140	Lead	mg/L	<0.003	<0.003	0
L3R-2	Lead	mg/L	<0.003	<0.003	0
RM-129	Lead	mg/L	<0.003	<0.003	0
U3R-1A	Lead	mg/L	<0.003	<0.003	0
RM-120	Lead	mg/L	<0.003	<0.003	0
TC-1	Lead	mg/L	<0.003	<0.003	0
VOGTLE	Lead	mg/L	<0.003	<0.003	0
PB-3	Lead	mg/L	<0.003	<0.003	0
4M-2	Lead	mg/L	0.01	<0.003	<0.01
RM-160	Lead	mg/L	<0.003	<0.003	0
RM-140	Lead	mg/L	<0.003	<0.003	0
BDC	Lead	mg/L	<0.003	<0.003	0
4M-2B	Lead	mg/L	0.014	<0.003	<0.014
RM-120	Lead	mg/L	<0.003	<0.003	0
VOGTLE	Lead	mg/L	<0.003	<0.003	0
U3R-4	Lead	mg/L	<0.003	<0.003	0
RM-160	Lead	mg/L	<0.003	<0.003	0
SC-4	Lead	mg/L	<0.003	<0.003	0
4M-6	Lead	mg/L	<0.003	<0.003	0
RM-140	Lead	mg/L	<0.003	<0.003	0
RM-160	Manganese	mg/L	0.071	0.068	0.00299999
RM-140	Manganese	mg/L	0.094	0.078	0.016
L3R-2	Manganese	mg/L	0.053	0.052	0.001
RM-129	Manganese	mg/L	0.095	0.091	0.004
U3R-1A	Manganese	mg/L	0.011	0.012	0.001
RM-120	Manganese	mg/L	0.089	0.088	0.001
TC-1	Manganese	mg/L	0.022	0.053	0.031
VOGTLE	Manganese	mg/L	0.085	0.068	0.017
PB-3	Manganese	mg/L	0.102	0.093	0.00899999
4M-2	Manganese	mg/L	0.325	0.306	0.019

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SRS Stream and Savannah River Water Quality Duplicate Sample Results

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Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
RM-160	Manganese	mg/L	0.071	0.064	0.00699999
RM-140	Manganese	mg/L	0.078	0.076	0.002
BDC	Manganese	mg/L	0.082	0.147	0.065
4M-2B	Manganese	mg/L	0.08	0.078	0.002
RM-120	Manganese	mg/L	0.067	0.066	0.001
VOGTLE	Manganese	mg/L	0.073	0.078	0.005
U3R-4	Manganese	mg/L	0.036	0.036	0
RM-160	Manganese	mg/L	0.075	0.076	0.001
SC-4	Manganese	mg/L	<0.005	0.033	<0.033
4M-6	Manganese	mg/L	0.07	0.06	0.01
RM-140	Manganese	mg/L	0.069	0.073	0.004
RM-160	Mercury	mg/L	<0.0001	<0.0001	0
RM-140	Mercury	mg/L	<0.0001	<0.0001	0
L3R-2	Mercury	mg/L	<0.0001	<0.0001	0
RM-129	Mercury	mg/L	<0.0001	0.0001	<0.0001
U3R-1A	Mercury	mg/L	<0.0001	<0.0001	0
RM-120	Mercury	mg/L	<0.0001	<0.0001	0
TC-1	Mercury	mg/L	0.0003	<0.0001	<0.0003
VOGTLE	Mercury	mg/L	<0.0001	<0.0001	0
PB-3	Mercury	mg/L	<0.0001	<0.0001	0
4M-2	Mercury	mg/L	<0.0001	<0.0001	0
RM-160	Mercury	mg/L	<0.0001	<0.0001	0
RM-140	Mercury	mg/L	<0.0001	<0.0001	0
BDC	Mercury	mg/L	<0.0001	<0.0001	0
4M-2B	Mercury	mg/L	0.0003	0.0003	0
RM-120	Mercury	mg/L	<0.0001	0.0001	<0.0001
VOGTLE	Mercury	mg/L	<0.0001	<0.0001	0
U3R-4	Mercury	mg/L	<0.0001	<0.0001	0
RM-160	Mercury	mg/L	<0.0001	<0.0001	0
SC-4	Mercury	mg/L	<0.0001	<0.0001	0
4M-6	Mercury	mg/L	<0.0001	<0.0001	0
RM-140	Mercury	mg/L	<0.0001	<0.0001	0
VOGTLE	Methoxychlor	ug/L	<0.20	<0.20	0
PB-3	Methoxychlor	ug/L	<0.24	<0.24	0
RM-120	Methoxychlor	ug/L	<0.20	<0.20	0

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SRS Stream and Savannah River Water Quality Duplicate Sample Results

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Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
RM-129	Methoxychlor	ug/L	<0.20	<0.20	0
RM-140	Methoxychlor	ug/L	<0.20	<0.20	0
VOGTLE	Methoxychlor	ug/L	<0.20	<0.20	0
RM-160	Methoxychlor	ug/L	<0.20	<0.20	0
VOGTLE	Methoxychlor	ug/L	<0.20	<0.20	0
RM-160	Nickel	mg/L	<0.010	<0.010	0
RM-140	Nickel	mg/L	<0.010	<0.010	0
L3R-2	Nickel	mg/L	<0.010	<0.010	0
RM-129	Nickel	mg/L	<0.010	<0.010	0
U3R-1A	Nickel	mg/L	<0.010	<0.010	0
RM-120	Nickel	mg/L	<0.010	<0.010	0
TC-1	Nickel	mg/L	<0.010	<0.010	0
VOGTLE	Nickel	mg/L	<0.010	<0.010	0
PB-3	Nickel	mg/L	<0.010	<0.010	0
4M-2	Nickel	mg/L	<0.010	<0.010	0
RM-160	Nickel	mg/L	<0.010	<0.010	0
RM-140	Nickel	mg/L	<0.010	<0.010	0
BDC	Nickel	mg/L	<0.010	<0.010	0
4M-2B	Nickel	mg/L	0.041	<0.010	<0.041
RM-120	Nickel	mg/L	<0.010	<0.010	0
VOGTLE	Nickel	mg/L	<0.010	<0.010	0
U3R-4	Nickel	mg/L	<0.010	<0.010	0
RM-160	Nickel	mg/L	<0.010	<0.010	0
SC-4	Nickel	mg/L	<0.010	<0.010	0
4M-6	Nickel	mg/L	<0.010	<0.010	0
RM-140	Nickel	mg/L	<0.010	<0.010	0
VOGTLE	PCB 1016	ug/L	<0.05	<0.05	0
PB-3	PCB 1016	ug/L	<0.06	<0.06	0
RM-120	PCB 1016	ug/L	<0.05	<0.05	0
RM-129	PCB 1016	ug/L	<0.05	<0.05	0
RM-140	PCB 1016	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1016	ug/L	<0.05	<0.05	0
RM-160	PCB 1016	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1016	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1221	ug/L	<0.05	<0.05	0

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Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
PB-3	PCB 1221	ug/L	<0.06	<0.06	0
RM-120	PCB 1221	ug/L	<0.05	<0.05	0
RM-129	PCB 1221	ug/L	<0.05	<0.05	0
RM-140	PCB 1221	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1221	ug/L	<0.05	<0.05	0
RM-160	PCB 1221	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1221	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1232	ug/L	<0.05	<0.05	0
PB-3	PCB 1232	ug/L	<0.06	<0.06	0
RM-120	PCB 1232	ug/L	<0.05	<0.05	0
RM-129	PCB 1232	ug/L	<0.05	<0.05	0
RM-140	PCB 1232	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1232	ug/L	<0.05	<0.05	0
RM-160	PCB 1232	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1232	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1242	ug/L	<0.05	<0.05	0
PB-3	PCB 1242	ug/L	<0.06	<0.06	0
RM-120	PCB 1242	ug/L	<0.05	<0.05	0
RM-129	PCB 1242	ug/L	<0.05	<0.05	0
RM-140	PCB 1242	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1242	ug/L	<0.05	<0.05	0
RM-160	PCB 1242	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1242	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1248	ug/L	<0.05	<0.05	0
PB-3	PCB 1248	ug/L	<0.06	<0.06	0
RM-120	PCB 1248	ug/L	<0.05	<0.05	0
RM-129	PCB 1248	ug/L	<0.05	<0.05	0
RM-140	PCB 1248	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1248	ug/L	<0.05	<0.05	0
RM-160	PCB 1248	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1248	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1254	ug/L	<0.05	<0.05	0
PB-3	PCB 1254	ug/L	<0.06	<0.06	0
RM-120	PCB 1254	ug/L	<0.05	<0.05	0
RM-129	PCB 1254	ug/L	<0.05	<0.05	0

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SRS Stream and Savannah River Water Quality Duplicate Sample Results

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Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
RM-140	PCB 1254	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1254	ug/L	<0.05	<0.05	0
RM-160	PCB 1254	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1254	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1260	ug/L	<0.05	<0.05	0
PB-3	PCB 1260	ug/L	<0.06	<0.06	0
RM-120	PCB 1260	ug/L	<0.05	<0.05	0
RM-129	PCB 1260	ug/L	<0.05	<0.05	0
RM-140	PCB 1260	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1260	ug/L	<0.05	<0.05	0
RM-160	PCB 1260	ug/L	<0.05	<0.05	0
VOGTLE	PCB 1260	ug/L	<0.05	<0.05	0
RM-160	Phosphorus	mg/L	<0.010	<0.010	0
RM-140	Phosphorus	mg/L	0.227	0.221	0.006
L3R-2	Phosphorus	mg/L	0.037	1.11	1.073
RM-129	Phosphorus	mg/L	0.353	<0.010	<0.353
U3R-1A	Phosphorus	mg/L	<0.010	<0.010	0
RM-120	Phosphorus	mg/L	1.47	0.341	1.129
TC-1	Phosphorus	mg/L	0.045	<0.010	<0.045
VOGTLE	Phosphorus	mg/L	0.116	0.131	0.015
PB-3	Phosphorus	mg/L	0.034	0.236	0.202
4M-2	Phosphorus	mg/L	<0.010	<0.010	0
RM-160	Phosphorus	mg/L	0.095	0.127	0.032
RM-140	Phosphorus	mg/L	0.205	0.17	0.035
BDC	Phosphorus	mg/L	0.08	0.096	0.016
4M-2B	Phosphorus	mg/L	0.112	0.065	0.047
RM-120	Phosphorus	mg/L	0.079	0.083	0.004
VOGTLE	Phosphorus	mg/L	0.244	0.188	0.056
U3R-4	Phosphorus	mg/L	0.12	0.116	0.00399999
RM-160	Phosphorus	mg/L	<0.010	0.034	<0.034
SC-4	Phosphorus	mg/L	<0.010	0.108	<0.108
4M-6	Phosphorus	mg/L	0.081	0.116	0.035
RM-140	Phosphorus	mg/L	0.044	0.052	0.008
VOGTLE	Silvex (2,4,5-TP)	ug/L	<1.00	<1.00	0
PB-3	Silvex (2,4,5-TP)	ug/L	<1.00	<1.00	0

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Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
RM-120	Silvex (2,4,5-TP)	ug/L	<0.10	<0.10	0
RM-129	Silvex (2,4,5-TP)	ug/L	<0.10	<0.10	0
RM-140	Silvex (2,4,5-TP)	ug/L	<0.10	<0.10	0
VOGTLE	Silvex (2,4,5-TP)	ug/L	<0.10	<0.10	0
RM-160	Silvex (2,4,5-TP)	ug/L	<0.10	<0.10	0
VOGTLE	Silvex (2,4,5-TP)	ug/L	<0.200	<0.200	0
RM-160	Total Organic Carbon	mg/L	3.2	3.4	0.2
RM-140	Total Organic Carbon	mg/L	3.6	3.4	0.2
L3R-2	Total Organic Carbon	mg/L	4.7	4.6	0.1
RM-129	Total Organic Carbon	mg/L	2.8	2.6	0.2
U3R-1A	Total Organic Carbon	mg/L	2.1	1.7	0.4
RM-120	Total Organic Carbon	mg/L	3.3	3.5	0.2
TC-1	Total Organic Carbon	mg/L	5.2	3.9	1.3
VOGTLE	Total Organic Carbon	mg/L	3.5	3.9	0.4
PB-3	Total Organic Carbon	mg/L	4.1	4	0.09999999
4M-2	Total Organic Carbon	mg/L	3.1	3.3	0.2
RM-160	Total Organic Carbon	mg/L	3.3	3.3	0
RM-140	Total Organic Carbon	mg/L	3.3	3	0.3
BDC	Total Organic Carbon	mg/L	3.4	3.2	0.2
4M-2B	Total Organic Carbon	mg/L	7.6	7.8	0.2
RM-120	Total Organic Carbon	mg/L	5.6	6.4	0.8
VOGTLE	Total Organic Carbon	mg/L	6.5	6.7	0.2
U3R-4	Total Organic Carbon	mg/L	14	12	2
RM-160	Total Organic Carbon	mg/L	3.6	4.7	1.1
SC-4	Total Organic Carbon	mg/L	6.8	6.8	0
4M-6	Total Organic Carbon	mg/L	3.61	3.96	0.35
RM-140	Total Organic Carbon	mg/L	4.02	3.97	0.04999999
VOGTLE	Toxaphene	ug/L	<2.50	<2.50	0
PB-3	Toxaphene	ug/L	<3.00	<3.00	0
RM-120	Toxaphene	ug/L	<2.50	<2.50	0
RM-129	Toxaphene	ug/L	<2.50	<2.50	0
RM-140	Toxaphene	ug/L	<2.50	<2.50	0
VOGTLE	Toxaphene	ug/L	<2.50	<2.50	0
RM-160	Toxaphene	ug/L	<2.50	<2.50	0
VOGTLE	Toxaphene	ug/L	<2.50	<2.50	0

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Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
RM-160	Zinc	mg/L	0.008	0.010	0.002
RM-140	Zinc	mg/L	0.009	0.008	0.00099999
L3R-2	Zinc	mg/L	0.01	0.028	0.018
RM-129	Zinc	mg/L	<0.005	0.029	<0.029
U3R-1A	Zinc	mg/L	0.008	<0.005	<0.008
RM-120	Zinc	mg/L	0.014	0.018	0.004
TC-1	Zinc	mg/L	0.005	0.006	0.001
VOGTLE	Zinc	mg/L	<0.005	<0.005	0
PB-3	Zinc	mg/L	0.007	0.006	0.001
4M-2	Zinc	mg/L	0.037	0.043	0.006
RM-160	Zinc	mg/L	0.021	0.017	0.004
RM-140	Zinc	mg/L	0.012	<0.005	<0.012
BDC	Zinc	mg/L	0.067	<0.005	<0.067
4M-2B	Zinc	mg/L	0.027	0.028	0.001
RM-120	Zinc	mg/L	0.008	0.023	0.015
VOGTLE	Zinc	mg/L	0.022	0.028	0.006
U3R-4	Zinc	mg/L	0.011	0.011	0
RM-160	Zinc	mg/L	<0.005	<0.005	0
SC-4	Zinc	mg/L	0.010	0.009	0.001
4M-6	Zinc	mg/L	0.026	0.029	0.003
RM-140	Zinc	mg/L	0.023	0.024	0.001

Errata from 1997 Environmental Data

The following information was reported incorrectly in *Savannah River Site Environmental Data for 1997* (WSRC-TR-97-00324):

Page 6, table 2, “Representative Minimum Detectable Concentrations for Radiological Analyses”: The “Stream Water” column on the second page of the table appeared in duplicate.