

DPSPU-88-30-1

Volume II
Figures and Data Tables

U. S. DEPARTMENT OF ENERGY
**SAVANNAH RIVER PLANT
ENVIRONMENTAL REPORT
FOR 1987**



E. I. du Pont de Nemours & Co.
Savannah River Plant
Aiken, SC 29808

PREPARED FOR THE U.S. DEPARTMENT OF ENERGY
UNDER CONTRACT DE-AC09-76SR00001

8805180123 880503
PDR ORG EUSDOE
C DCD

DPSPU-88-30-1
Volume II
Figures and Data Tables

U.S. DEPARTMENT OF ENERGY
SAVANNAH RIVER PLANT
ENVIRONMENTAL REPORT

Annual Report
for
1987

By

Sue C. Mikol
Laurie T. Burckhalter
James L. Todd
Donna K. Martin

Prepared for the United States Department of Energy by the
Health Protection Department of
E. I. du Pont de Nemours & Co.
Savannah River Plant, Aiken, South Carolina

ACKNOWLEDGMENTS

The authors acknowledge with appreciation the efforts of a number of individuals and groups who performed analyses and contributed technical data for the report. The authors express gratitude to the following groups:

Health Protection Department, SRP
Environmental Monitoring Group
Dosimetry Group
Health Protection Survey Group
Environment and Energy Department, SRP
Power Technology Department, SRP
Raw Materials Engineering & Technology Department, SRP
Laboratories Department, SRP
SRP Custodians of Groundwater Monitoring Sites
Environmental Sciences Division, SRL
Environmental Transport Division, SRL
Interim Waste Technology Division, SRL
Savannah River Ecology Laboratory

Zedek Corporation, Durham, NC
Environmental Testing, Inc., Charlotte, NC
Environmental and Chemical Services, New Ellenton, SC
Envirodyne Engineers, Inc., St. Louis, MO
Enwright Laboratories, Greenville, SC
Weston Analytic, Lionville, PA
Exploration Software, Athens, GA

The authors are indebted to the following individuals who were instrumental in the preparation and review of data tables for the report:

C. L. Cummins
E. M. Heath
W. L. Marter
A. S. Morrison

W. M. Fay, Exploration Software
M. R. Rainer, Exploration Software
M. A. Harper, Exploration Software

Special thanks go to L. S. Gray for typing data tables, R. A. Childers, Information Industries, Inc., for editing and preparing the copy for publication, and to the Publications Group at SRP.

Contents

Contents	i
List of Figures.....	ii
List of Tables.....	iv
INTRODUCTION	1
FIGURES.....	2
TABLES	64

List of Figures

<u>Fig. No.</u>	<u>Title</u>	<u>Page</u>
1-1	SRP production areas and effluent streams	3
2-1	Continuous air monitoring stations and public water sample locations.....	4
2-2	Distant air monitoring stations.....	5
2-3	Beta radioactivity in air.....	6
2-4	SRP TLD plant perimeter locations.....	7
2-5	TLD monitoring locations in cities and towns near SRP.....	8
2-6	Ambient air quality monitoring locations.....	9
3-1	Stream and river sample locations	10
3-2	Tritium releases at source	11
3-3	Direct tritium releases to streams excluding seepage basin migration.....	11
3-4	Tritium migration from seepage basins.....	11
3-5	Tritium balance summary, 1960 - 1987.....	12
3-6	Water quality sampling locations.....	13
3-7	Academy of Natural Sciences of Philadelphia - river survey locations.....	14
4-1	Geologic Cross Section of SRP.....	15
4-2	Solid Waste Storage Facility Wells.....	16
4-3	F-Area A Line and Canyon Buildings.....	17
4-4	F-Area Acid/Caustic Basin Wells.....	18
4-5	F-Area Burning/Rubble Pits.....	19
4-6	F-Area Coal Pile Runoff Containment Basin.....	20
4-7	F-Area Seepage Basins.....	21
4-8	Old F-Area Seepage Basin.....	22
4-9	F-Area Tank Farm.....	23
4-10	H-Area Canyon Building.....	24
4-11	H-Area Coal Pile Runoff Containment Basin.....	25
4-12	H-Area Retention Basins.....	26
4-13	H-Area Seepage Basins.....	27
4-14	H-Area Tank Farm.....	28
4-15	S Area.....	29
4-16	F- and H-Separations Areas.....	30
4-17	C-Area Wells.....	31
4-18	K-Area Wells.....	32
4-19	L-Area Wells.....	33
4-20	P-Area Wells.....	34
4-21	R-Area Seepage Basins.....	35
4-22	A/M-Area Wells.....	36
4-23	Silverton Road Waste Site.....	37
4-24	CS-Area Wells.....	38
4-25	CMP Burial Pits.....	39
4-26	D-Area Wells.....	40
4-27	D-Area Oil Disposal Basin.....	41
4-28	Sanitary Landfill.....	42
4-29	New, Old TNX Seepage Basins.....	43
4-30	Road A Chemical Basin.....	44
5-1	Milk sample locations	45
5-2	Food sample locations.....	45
5-3	Fish sample and water treatment plant locations.....	46
5-4	A-Administration Area well locations.....	47

7-1	Vegetation sampling locations inside the Solid Waste Storage Facility fence.....	48
7-2	Vegetation sampling locations outside F and H Areas and Solid Waste Storage Facility fences.....	48
8-1	Movement of tritium cloud after July 31, 1987 tritium release.....	49
8-2	Monitoring trails in the Savannah River swamp.....	50
8-3	Low-level Cs-137 Concentrations in the Savannah River.....	51
8-4	Holding ponds at Beaufort-Jasper water treatment plant.....	52
8-5	F-Area Tank Farm Dry Monitoring Wells.....	53
8-6	H-Area Tank Farm Dry Monitoring Wells.....	53
8-7	Radiation levels in F-Area Dry Monitoring Wells.....	54
8-8	Radiation levels in H-Area Dry Monitoring Wells.....	56
9-1	Simplified pathways between radioactive materials released to atmosphere and man.....	57
9-2	Simplified pathways between radioactive materials released to ground or surface water and man.....	57
12-1	Life history parameters of fishes from Risher Pond (Ambient) and Pond C (Thermal).....	58
12-2	Summaries of life history parameters for <i>Gambusia affinis</i> in Risher Pond and Pond C.....	59
12-3	Maximum numbers of wood storks observed at Kathwood foraging ponds during 1986.....	60
12-4	Relationship of (a) clutch size, (b) clutch mass, and (c) mean egg mass to the body mass of female wood ducks.....	61
12-5	Size of Chinese tallow tree, American sycamore, and cherrybark oak seedlings subjected to different light regimes.....	62
12-6	<i>Echinacea laevigata</i> , the purple cone flower.....	63

List of Tables

<u>Table No.</u>	<u>Title</u>	<u>Page</u>
ES-1	Individual and Population Doses - 1987.....	65
2-1	Radioactivity in Air.....	66
2-2	1987 Radioactive Atmospheric Releases and Concentrations.....	73
2-3	Average Individual Doses at the Plant Perimeter from Atmospheric Releases.....	74
2-4	Maximum Individual Doses at the Plant Perimeter from Atmospheric Releases.....	75
2-5	80-km Population Dose - 1987 Atmospheric Releases.....	76
2-6	TLD Gamma Radiation Measurements.....	77
2-7	TLD Gamma Radiation Measurements from a Two-State Area.....	90
2-8	1987 Ambient Air Concentrations.....	96
2-9	1986 South Carolina Ambient Air Quality Measurements.....	97
2-10	1986 Georgia Ambient Air Quality Measurements.....	98
3-1	Radioactivity in Savannah River Water.....	99
3-2	Radioactivity in Plant Stream Water.....	102
3-3	Radioactivity in Seepage Basin Water.....	109
3-4	Calculated Migration of Radioactivity from Seepage Basins.....	115
3-5	Radioactivity in Transport at Sample Points on Four Mile Creek.....	115
3-6	Tritium Inventory in SRP Streams and Savannah River.....	116
3-7	Tritium Inventory Summary 1960 - 1987.....	118
3-8	1987 Radioactive Liquid Releases and Concentrations.....	119
3-9	Maximum Individual Doses - Liquid Releases.....	120
3-10	Individual Doses from Public Water Supplies at Beaufort-Jasper.....	121
3-11	Individual Doses from Public Water Supplies at Port Wentworth.....	122
3-12	Population Dose from Liquid Releases.....	123
3-13	Potential Doses from Irrigation Pathway.....	123
3-14	NPDES Outfall Locations.....	124
3-15	NPDES Monitoring Data.....	125
3-16	Savannah River Water Quality.....	136
3-17	Fecal Coliform Bacteria in SRP Streams and the Savannah River.....	138
3-18	SRP Stream Water Quality.....	139
4-1	Radioactivity in Burial Grounds Groundwater.....	148
4-2	Radioactivity in F-Area Groundwater.....	160
4-3	Chemical Concentrations in F-Area Groundwater.....	167
4-4	Radioactivity in H-Area Groundwater.....	191
4-5	Chemical Concentrations in H-Area Groundwater.....	201
4-6	Chemical Concentrations in S-Area Groundwater.....	216
4-7	Chemical Concentrations in Z-Area Groundwater.....	218
4-8	Radioactivity in Z and ZW Wells Groundwater.....	219
4-9	Radioactivity in C-Area Groundwater.....	220
4-10	Chemical Concentrations in C-Area Groundwater.....	221
4-11	Radioactivity in K-Area Groundwater.....	226
4-12	Chemical Concentrations in K-Area Groundwater.....	229
4-13	Chemical Concentrations in L-Area Groundwater.....	237
4-14	Radioactivity in P-Area Groundwater.....	242
4-15	Chemical Concentrations in P-Area Groundwater.....	243
4-16	Radioactivity in R-Area Groundwater.....	249
4-17	Chemical Concentrations in R-Area Groundwater.....	251
4-18	Chemical Concentrations in A- and M-Areas Groundwater.....	255
4-19	Chemical Concentrations in Central Shops Groundwater.....	291

4-20	Chemical Concentrations in CMP Pits Groundwater.....	295
4-21	Chemical Concentrations in D-Area Groundwater.....	301
4-22	Chemical Concentrations in Sanitary Landfill Groundwater.....	307
4-23	Chemical Concentrations TNX Groundwater.....	318
4-24	Chemical Concentrations in Other Sites Groundwater.....	321
4-25	Detection Limits for Other Constituents.....	323
4-26	Summary of Maximum Constituent Levels in Groundwater.....	325
5-1	Radioactivity in Milk.....	347
5-2	Radioactivity in Food.....	348
5-3	Radioactivity in Drinking Water.....	351
5-4	Drinking Water Analysis Results for Residual Chlorine and Total Coliform.....	354
5-5	Drinking Water Analysis Results for Chemicals, Metals, and Organics.....	358
5-6	A-Administration Area Well Chlorocarbon Monitoring Results.....	363
5-7	SRP Drinking Water Chlorocarbon Monitoring Results.....	364
6-1	Radioactivity in Fish and Seafood.....	365
6-2	Summary of Cesium-137 in Fish.....	369
6-3	Radioactivity in Deer and Hogs.....	370
6-4	Summary of Cesium-137 in Deer.....	370
6-5	Comparison of Field and Laboratory Cesium-137 Measurements in Deer and Hogs.....	371
6-6	Cesium-137 and Iodine-131 Measurements in Deer and Hogs.....	372
6-7	Tritium in Deer and Hog Flesh.....	373
6-8	Strontium-90 in Deer and Hog Bone and Flesh.....	373
6-9	Iodine-129 and Cesium-137 in Deer Thyroids and Muscle.....	374
6-10	Radioactivity in Furbearers.....	375
6-11	Radioactivity in Beavers.....	376
6-12	Radioactivity in Ducks.....	376
6-13	Summary of Heavy Metal Concentrations in Deer and Hog Tissue.....	377
7-1	Maximum Radioactivity Deposited in Rainwater.....	381
7-2	Radioactivity Concentration in Soil.....	382
7-3	Radioactivity Deposited in Soil.....	383
7-4	Summary of Average Deposition in Soil.....	384
7-5	Radioactivity in River and Stream Sediment.....	386
7-6	Radioactivity in Vegetation.....	389
7-7	Radioactivity in Seepage and Retention Basin Vegetation.....	394
7-8	Radioactivity in Vegetation Inside the Solid Waste Storage Facility Fences.....	395
7-9	Radioactivity in Vegetation Outside the Solid Waste Storage Facility.....	397
8-1	Tritium Concentrations in Vegetation and Surface Water Following July 31, 1987 Tritium Release.....	401
8-2	Tritium Concentrations in Vegetation Collected by SCDHEC Following July 31, 1987 Tritium Release.....	404

8-3	Comparisons of Tritium in Drinking Water.....	405
8-4	Savannah River Swamp, Steel Creek to Little Hell Landing, TLD Radiation Measurements.....	406
8-5	Savannah River Swamp, Steel Creek to Little Hell Landing, Sr-90 and Cs-137 in Soil.....	408
8-6	Savannah River Swamp, Steel Creek to Little Hell Landing, Plutonium in Soil.....	410
8-7	Savannah River Swamp, Steel Creek to Little Hell Landing, Alpha in Vegetation.....	412
8-8	Savannah River Swamp, Steel Creek to Little Hell Landing, Cs-137 and K-40 in Vegetation.....	413
8-9	Cesium-137 in Aquatic Species.....	416
8-10	Radioactivity in Special Creek Plantation Well Samples.....	419
8-11	Cesium-137 Concentrations in the Savannah River.....	420
8-12	Radioactivity in Water at the Beaufort-Jasper Water Treatment Plant.....	421
8-13	Radioactivity in Vegetation at the Beaufort-Jasper Water Treatment Plant.....	422
8-14	Radioactivity in Sediment at the Beaufort-Jasper Water Treatment Plant.....	423
8-15	Radioactivity in Fish at the Beaufort-Jasper Water Treatment Plant.....	425
8-16	Water Quality of the Intake Canal at the Beaufort-Jasper Water Treatment Plant.....	426
8-17	Radioactivity in Water at the Port Wentworth Water Treatment Plant.....	427
8-18	Radioactivity in Vegetation at the Port Wentworth Water Treatment Plant.....	428
8-19	Radioactivity in Sediment at the Port Wentworth Water Treatment Plant.....	429
8-20	Radioactivity in Fish at the Port Wentworth Water Treatment Plant.....	431
8-21	Water Quality at the Port Wentworth Water Treatment Plant.....	431
8-22	Panasonic TLD Measurements - Four Mile Creek Survey.....	432
8-23	Radioactivity in Special Four Mile Creek Water and Soil Samples.....	433
8-24	Special Four Mile Creek Analysis Results for Organics, Metals, and Chemicals.....	434
8-25	Comparison Analyses from Four Mile Creek Study.....	440
8-26	Pesticides, Herbicides, and Polychlorinated Biphenyls (PCBs) Detection Limits.....	441
8-27	Pesticides, Herbicides, and PCBs in Stream and River Water.....	442
8-28	Pesticides, Herbicides, and PCBs in Stream and River Sediment.....	445
9-1	Demographic Data.....	448
9-2	Age-Specific Parameters for Atmospheric Releases.....	449
9-3	Age-Specific Parameters for Liquid Releases.....	449
9-4	Meteorological Data for 1982 - 1986.....	450
9-5	80-km-Radius Population Distribution Around SRP.....	451
9-6	80-km-Radius Milk, Meat, and Vegetation Production.....	452

9-7	Site Parameters Used in Liquid Dose Calculations.....	454
10-1	Sample Media Data.....	455
10-2	Gas-flow Proportional Counting Data	456
10-3	Liquid Scintillation Counting Data	456
10-4	Alpha Spectrometer Counting Data	457
11-1	Lower Limits of Detection (LLD) for HPGe Gamma Spectrometry Systems for Stream Ion Columns.....	458
11-2	Lower Limits of Detection (LLD) for HPGe Gamma Spectrometry Systems for River Ion Columns.....	459
11-3	Lower Limits of Detection (LLD) for HPGe Gamma Spectrometry Systems for Vegetation.....	460
11-4	Lower Limits of Detection (LLD) for HPGe Gamma Spectrometry Systems Using APOGEE Software	461
11-5	Lower Limits of Detection (LLD) for HPGe Gamma Spectrometry Systems Using SPECTRAN-F Software.....	462
11-6	EPA Interlaboratory Comparison of Analytical Results.....	463
11-7	EML Interlaboratory Comparison of Analytical Results.....	465
11-8	Ambient Air Monitoring Station QA Audit Results.....	468
11-9	ECS Performance in EPA Interlaboratory Comparison.....	472
11-10	Interlaboratory Comparison Testing.....	473
11-11	Groundwater Quality Assurance Analysis Results.....	475
12-1	Number of Adult Salamanders Captured Entering the DWPF Refuge Ponds During Their Breeding Season From FY 1984 to FY 1987.....	500
12-2	Body Size Characteristics, Standing Crop Biomass, and Biomass Production Rates of Turtles in Ellenton Bay.....	501
12-3	Mean Number of Fetuses Per Pregnant White-Tailed Doe.....	502
12-4	Percentage of Fawn Females Breeding, Mean Age of Females, and Productivity	503

INTRODUCTION

This volume of *Savannah River Plant Environmental Report for 1987* (DPSPU 88-30-1) contains the figures and tables referenced in Volume I. The figures contain graphic illustrations of sample locations and/or data. The tables contain summaries of the following types of data:

- Federal and State standards and guides applicable to SRP operations
- Concentrations of radioactivity in environmental media
- The quantity of radioactivity released to the environment from SRP operations
- Offsite radiation dose commitments from SRP operations
- Measurements of physical properties, chemicals and metals concentrations in environmental media
- Interlaboratory comparison of analytical results

The figures and tables in this report contain information about the routine environmental monitoring program at SRP unless otherwise indicated. No attempt has been made to include all data from environmental research programs. Variations in content from year to year reflect changes in the routine environmental monitoring program or the inability to obtain samples from a specific location.

FIGURES

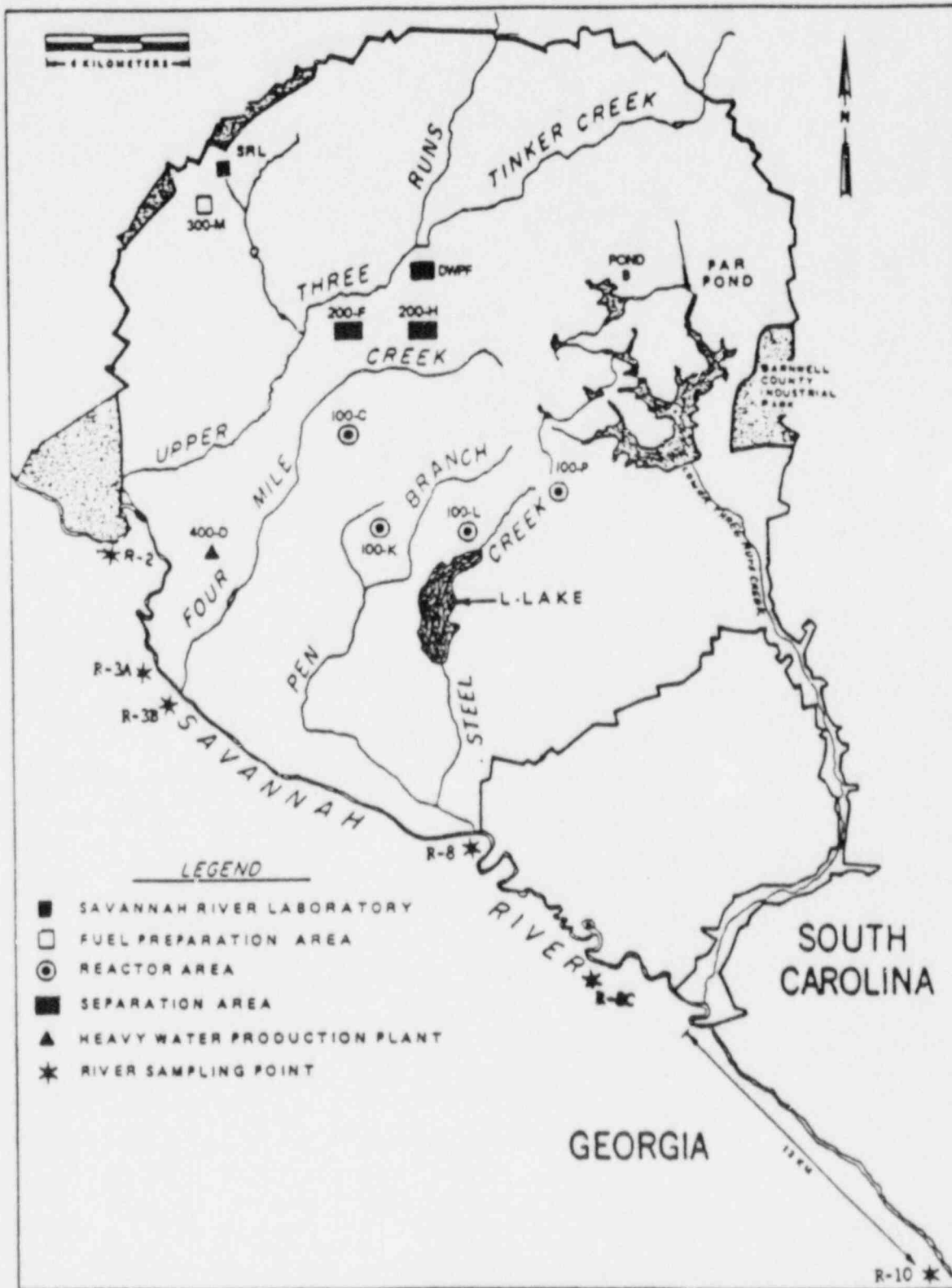


Fig. 1-1
SRP production areas and effluent streams

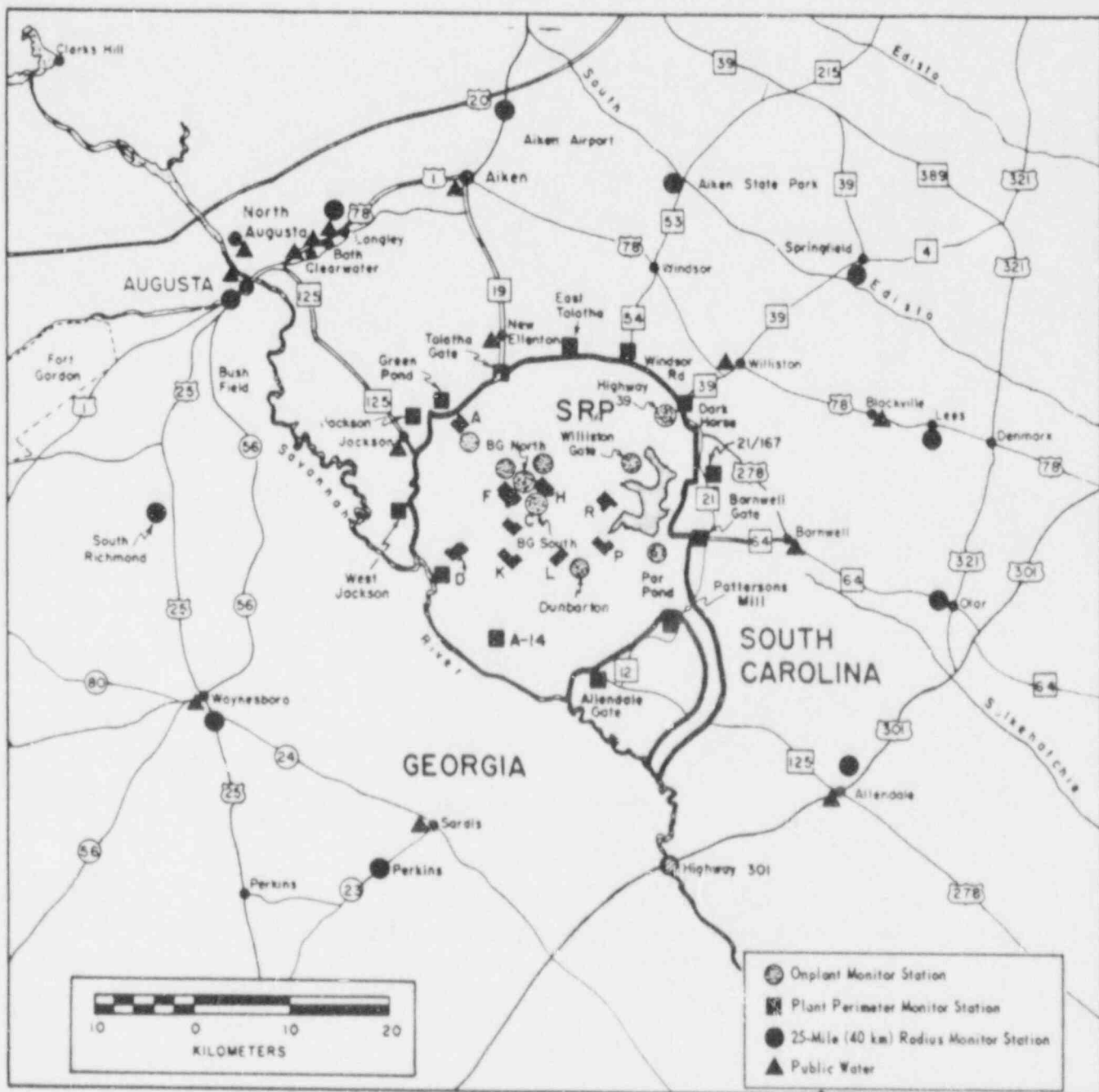


Fig. 2-1
 Continuous air monitoring stations and
 public water sample locations

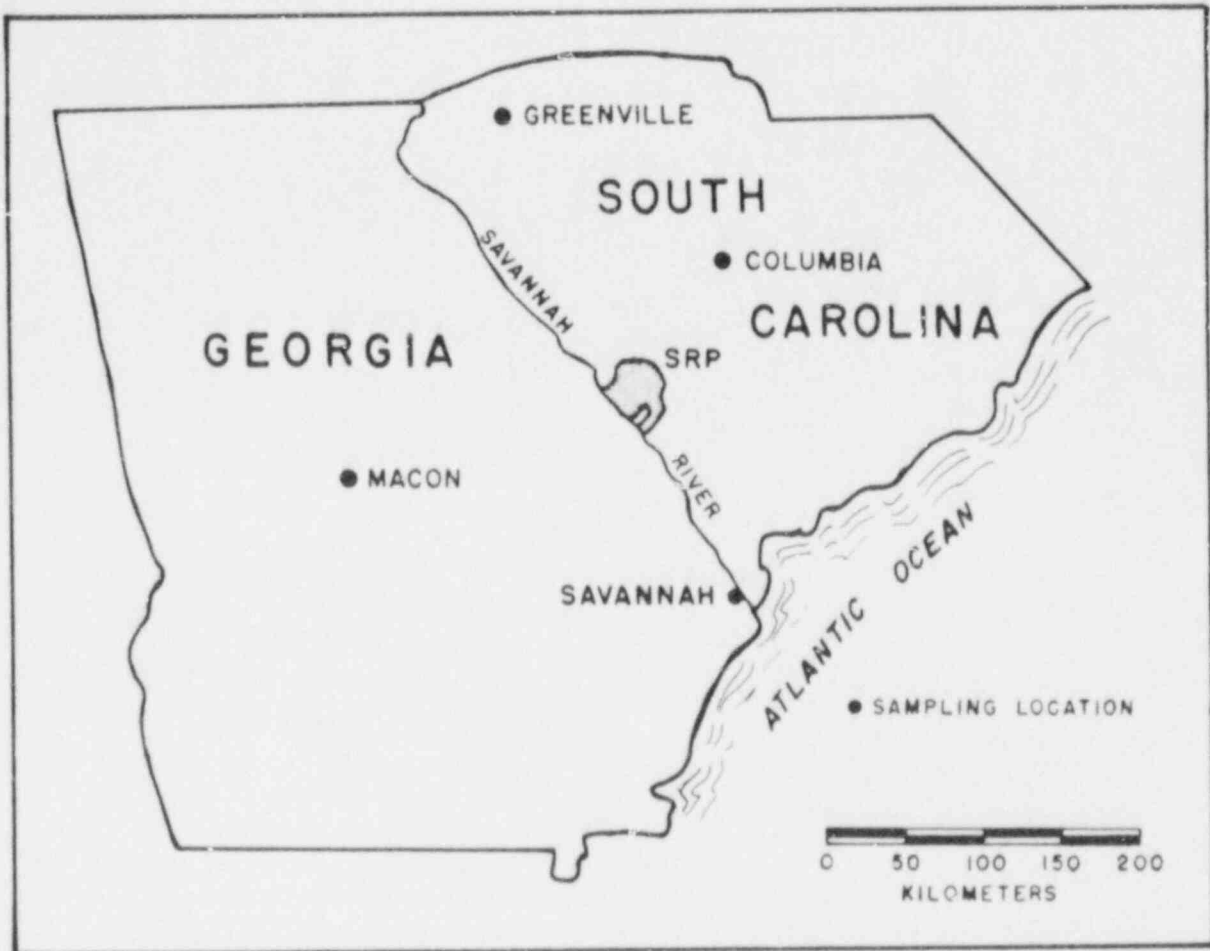


Fig. 2-2
Distant air monitoring stations

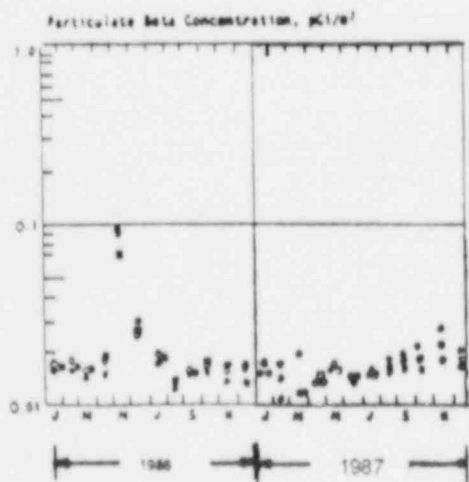
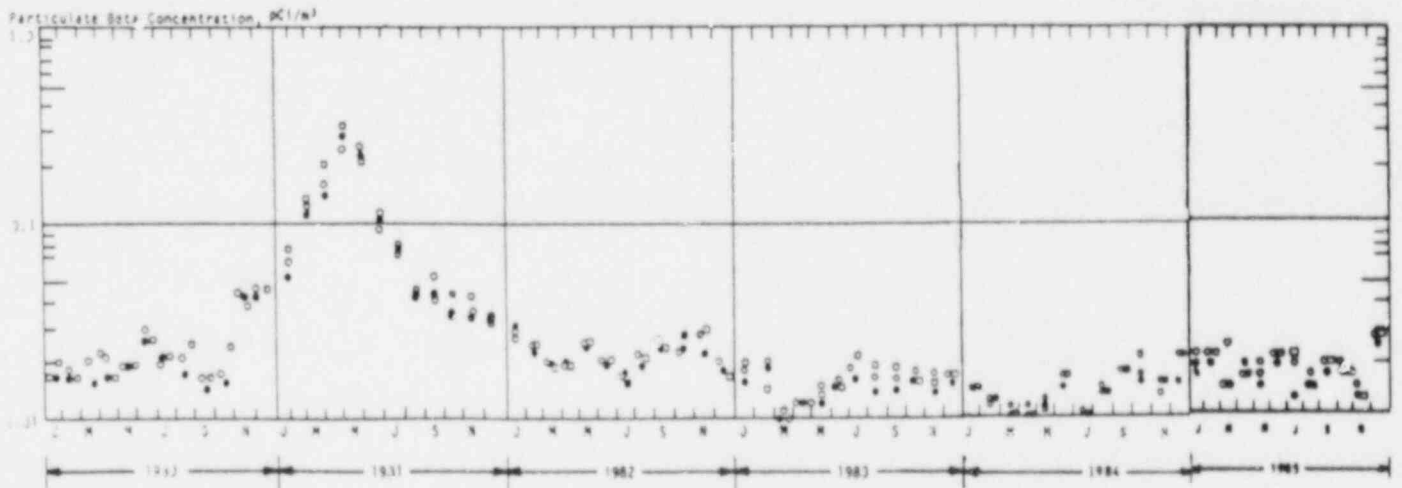
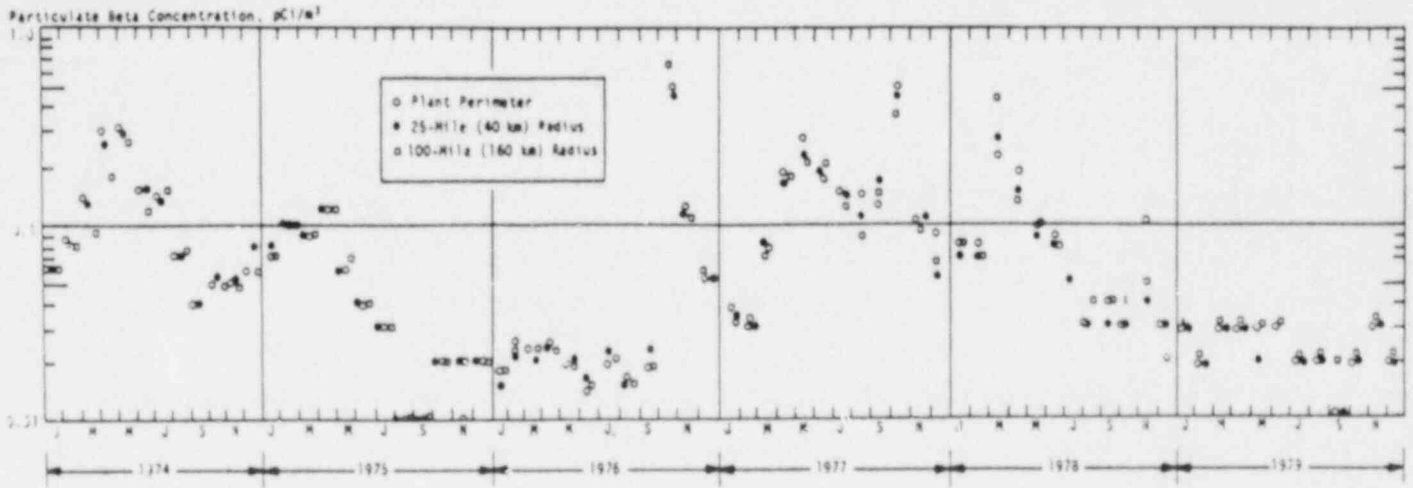
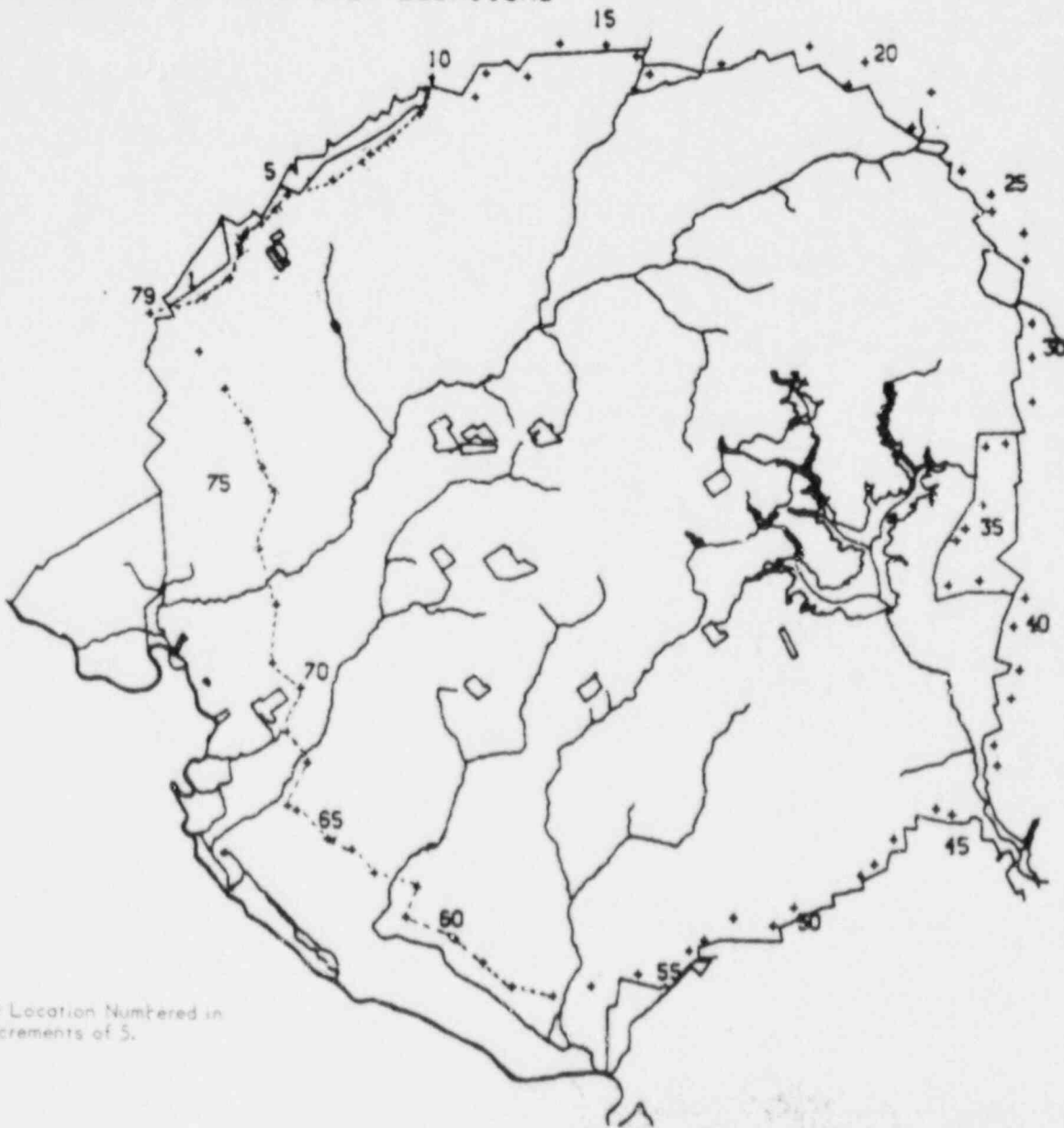


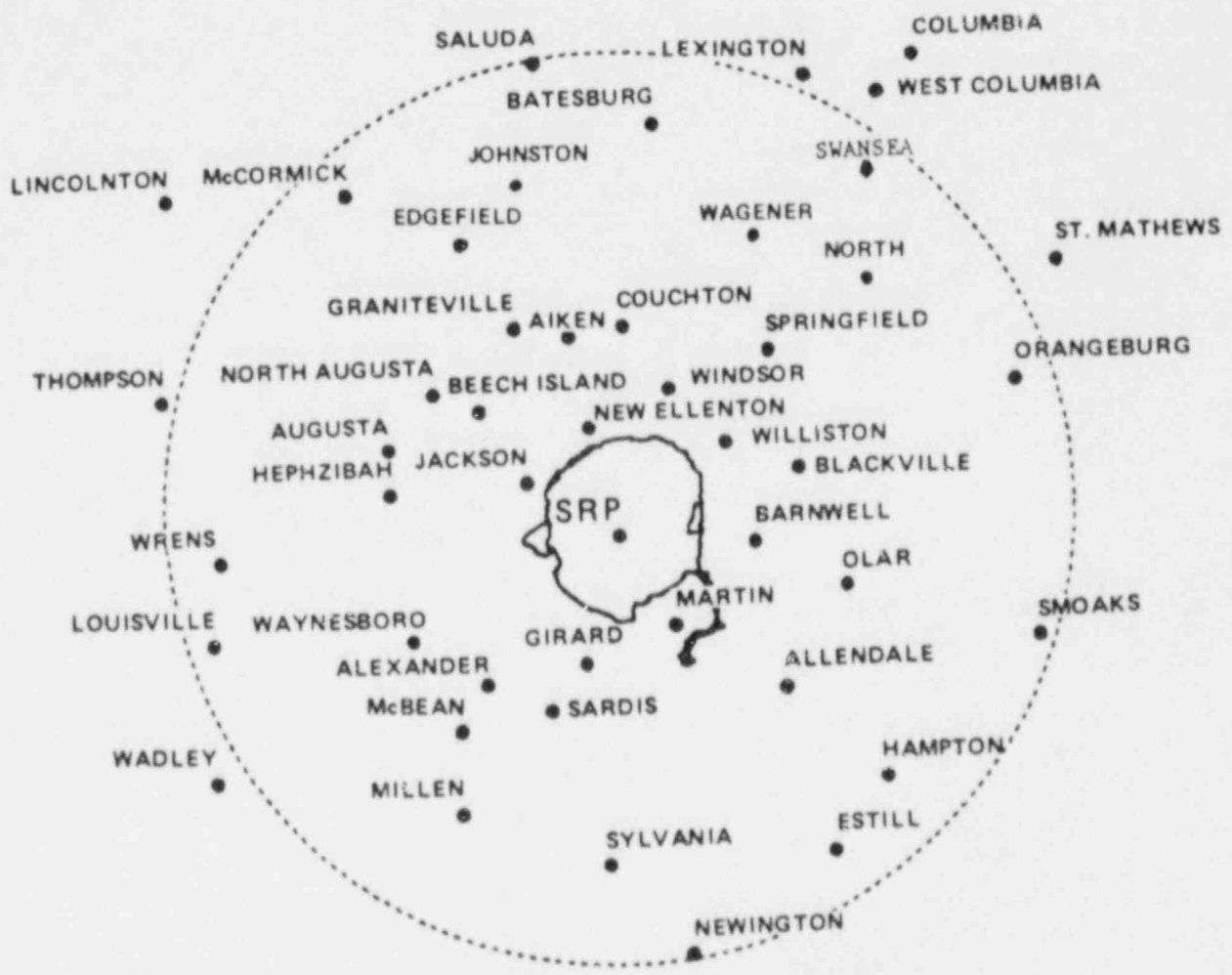
Fig. 2-3
Beta radioactivity in air

SRP TLD PLANT PERIMETER LOCATIONS



TLD Location Numbered in
Increments of 5.

Fig. 2-4
SRP TLD plant perimeter locations



[NOTE: DASH CIRCLE IS THE 50-MILE RADIUS.]

STATESBORO

Fig. 2-5
TLD monitoring locations in cities and towns near SRP

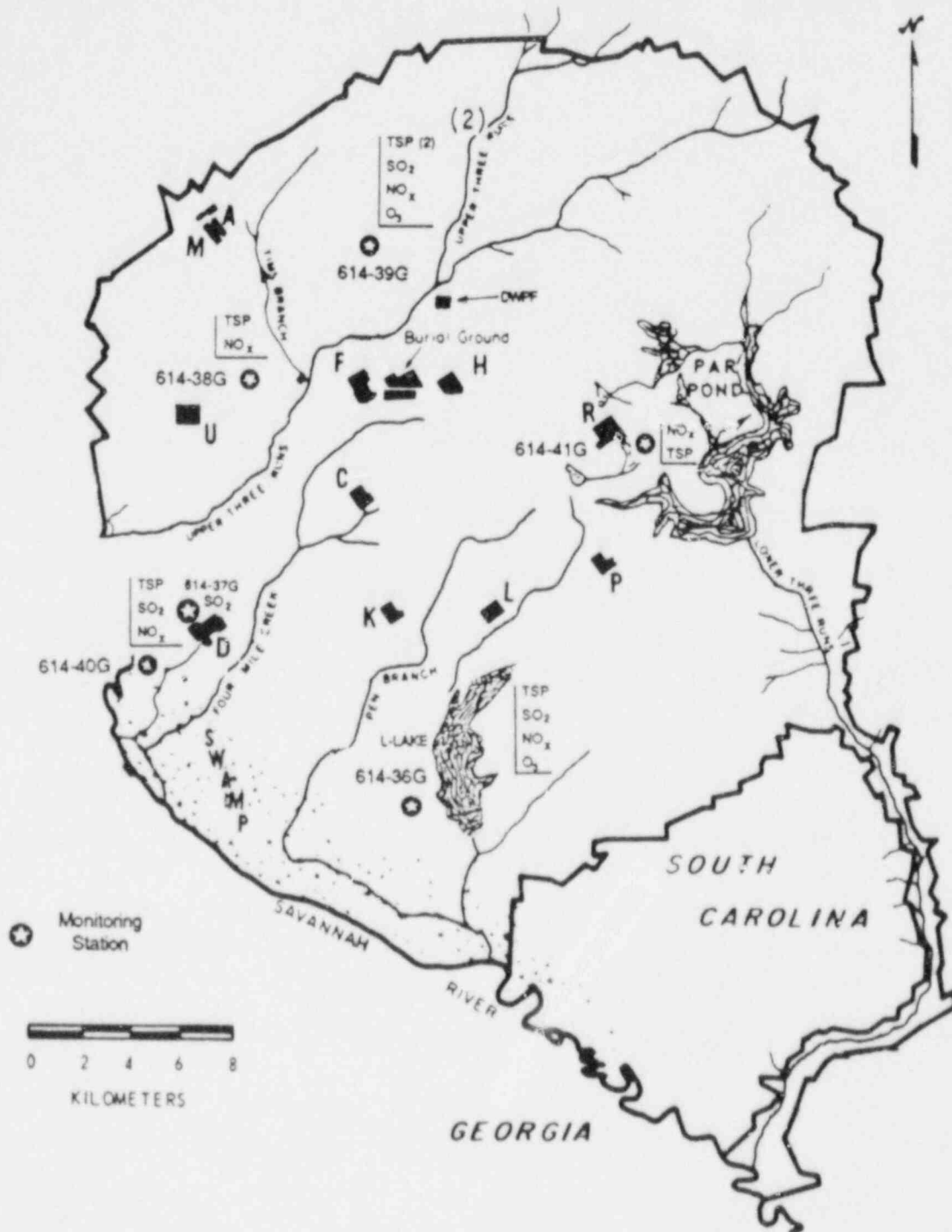


Fig. 2-6
Ambient air quality monitoring locations

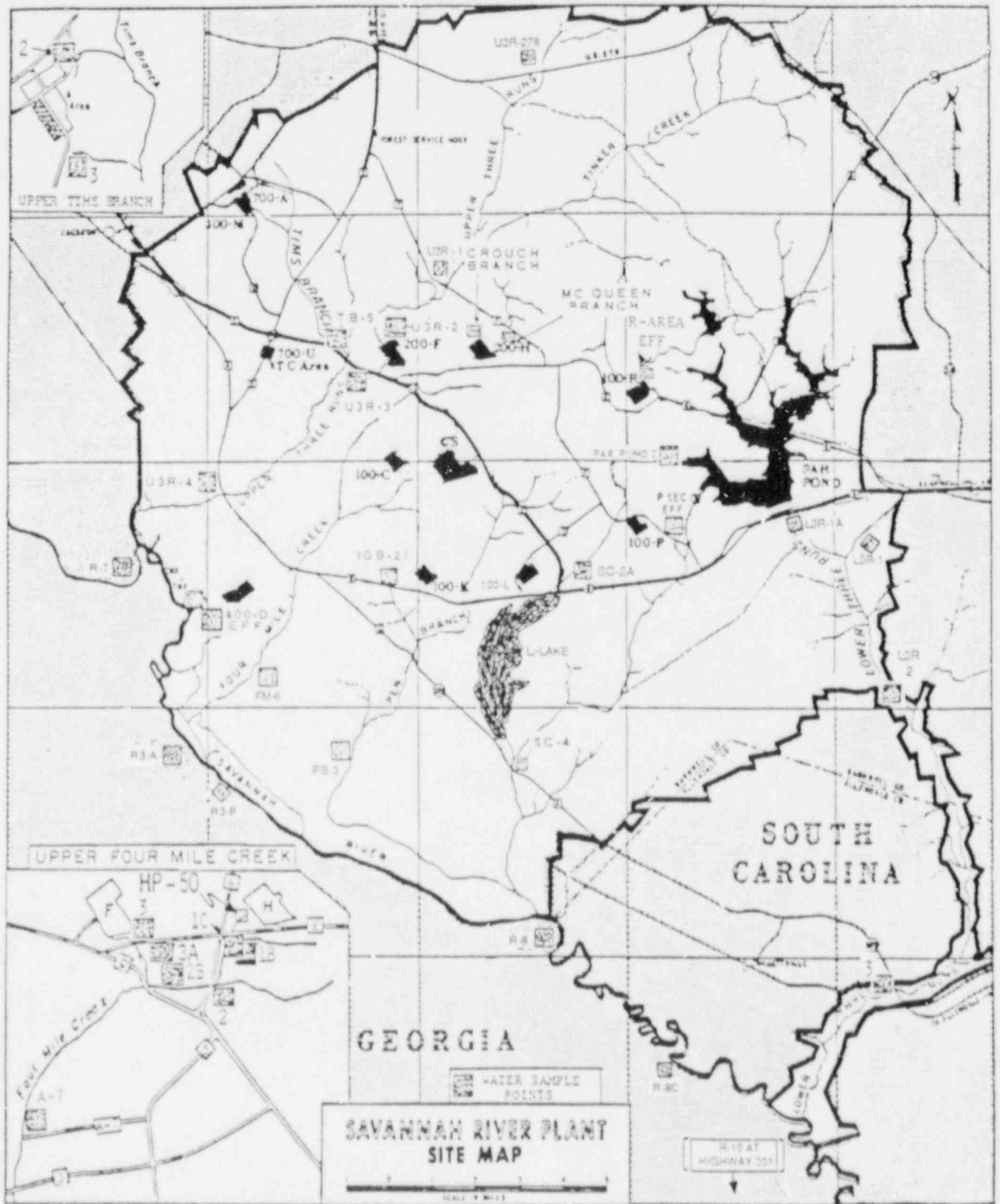


Fig. 3-1
Stream and river sample locations

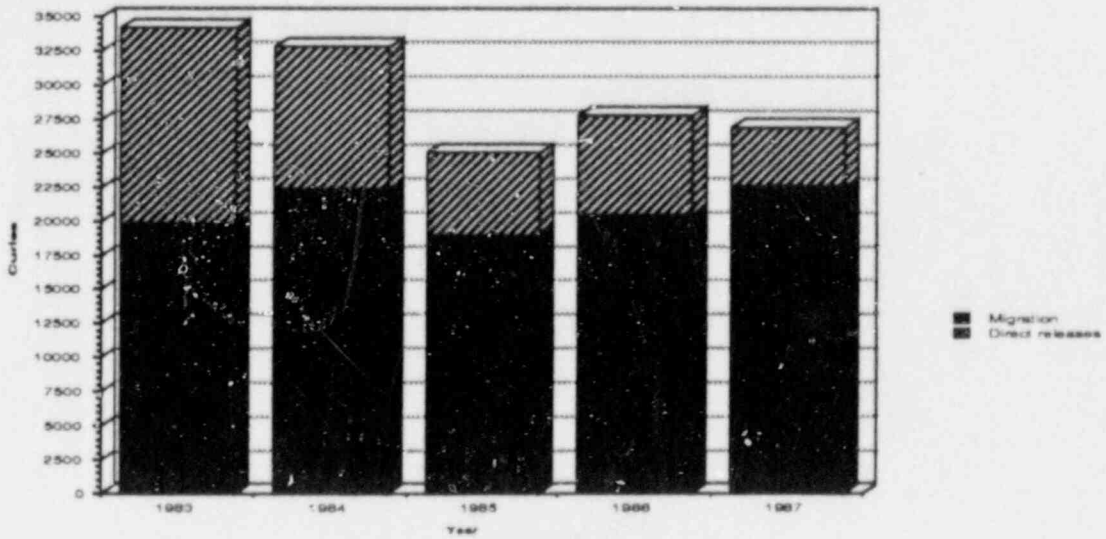


Fig. 3-2
Tritium releases at source

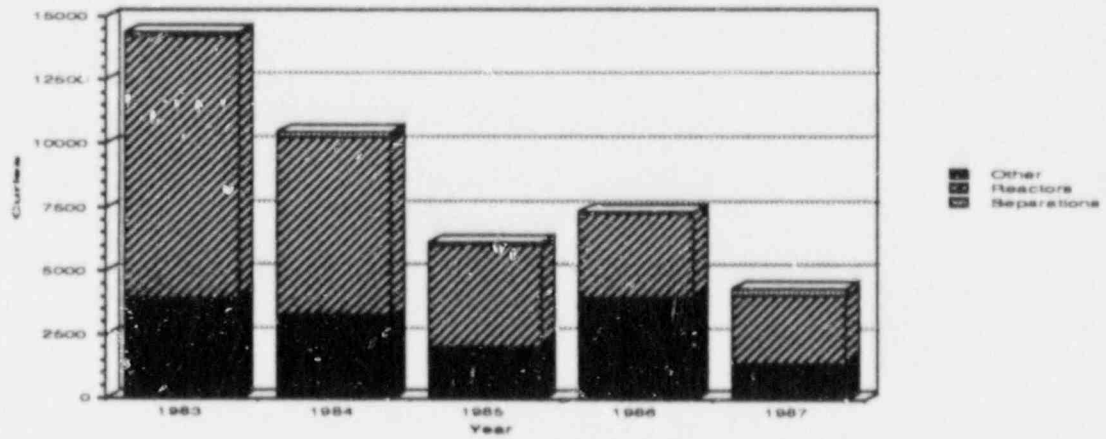


Fig. 3-3
Direct tritium releases to streams excluding seepage basin migration

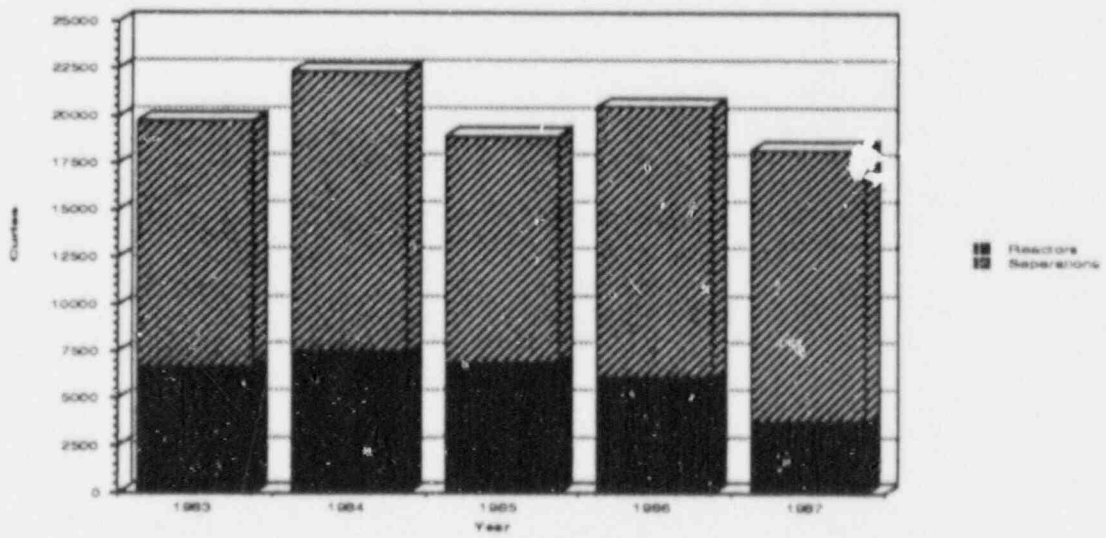


Fig. 3-4
Tritium migration from seepage basins

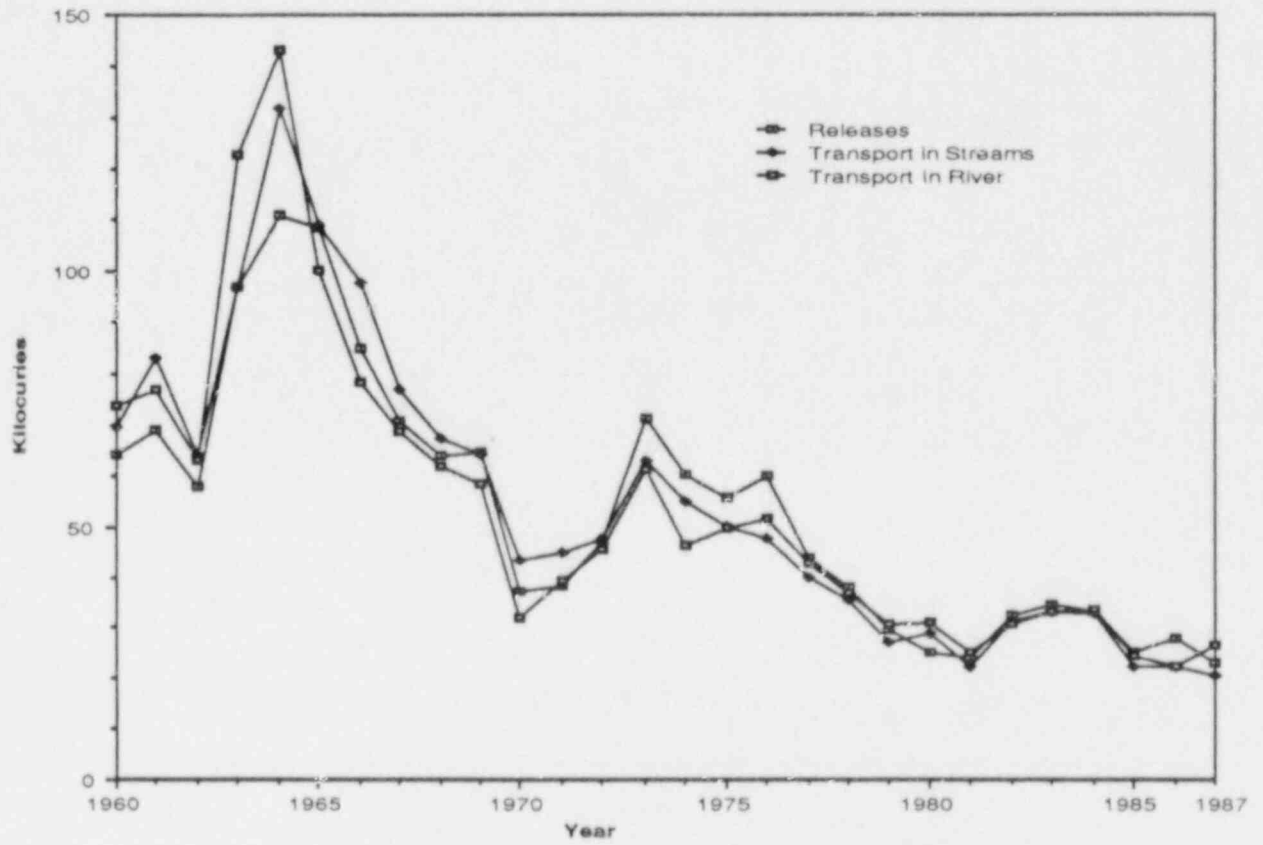


Fig. 3-5
Tritium balance summary, 1960-1987

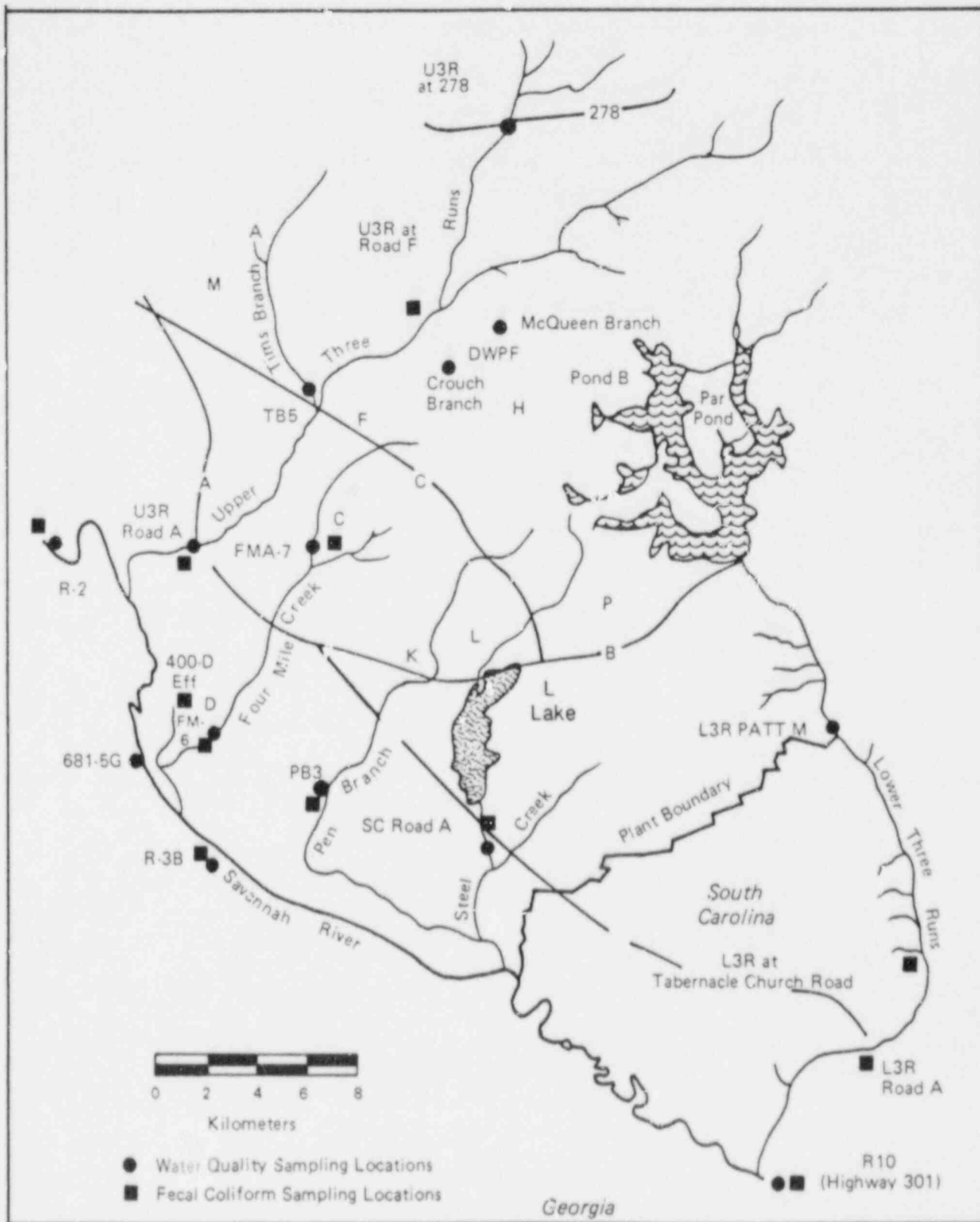


Fig. 3-6
Water quality sampling locations

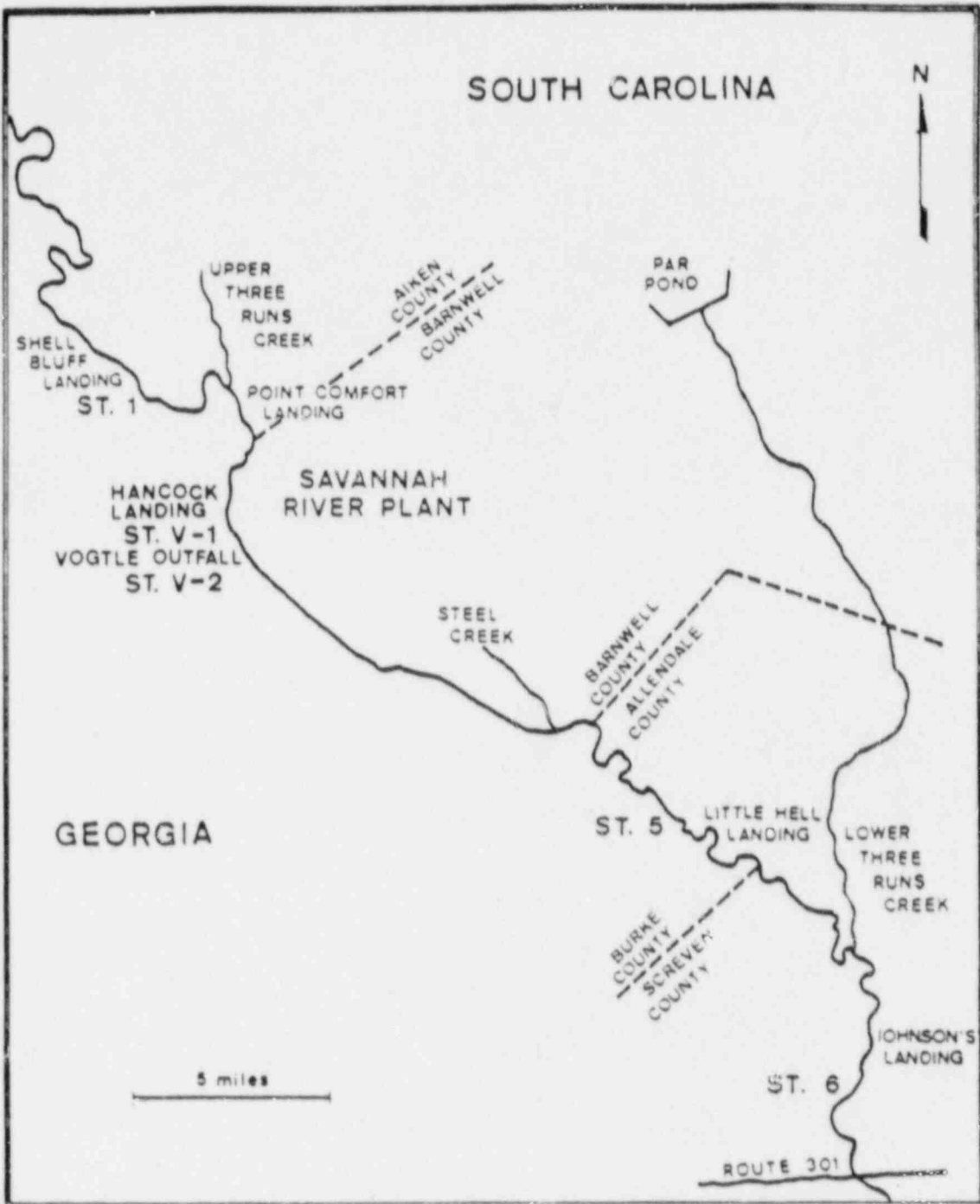


Fig. 3-7
 Academy of Natural Sciences of Philadelphia -
 river survey locations

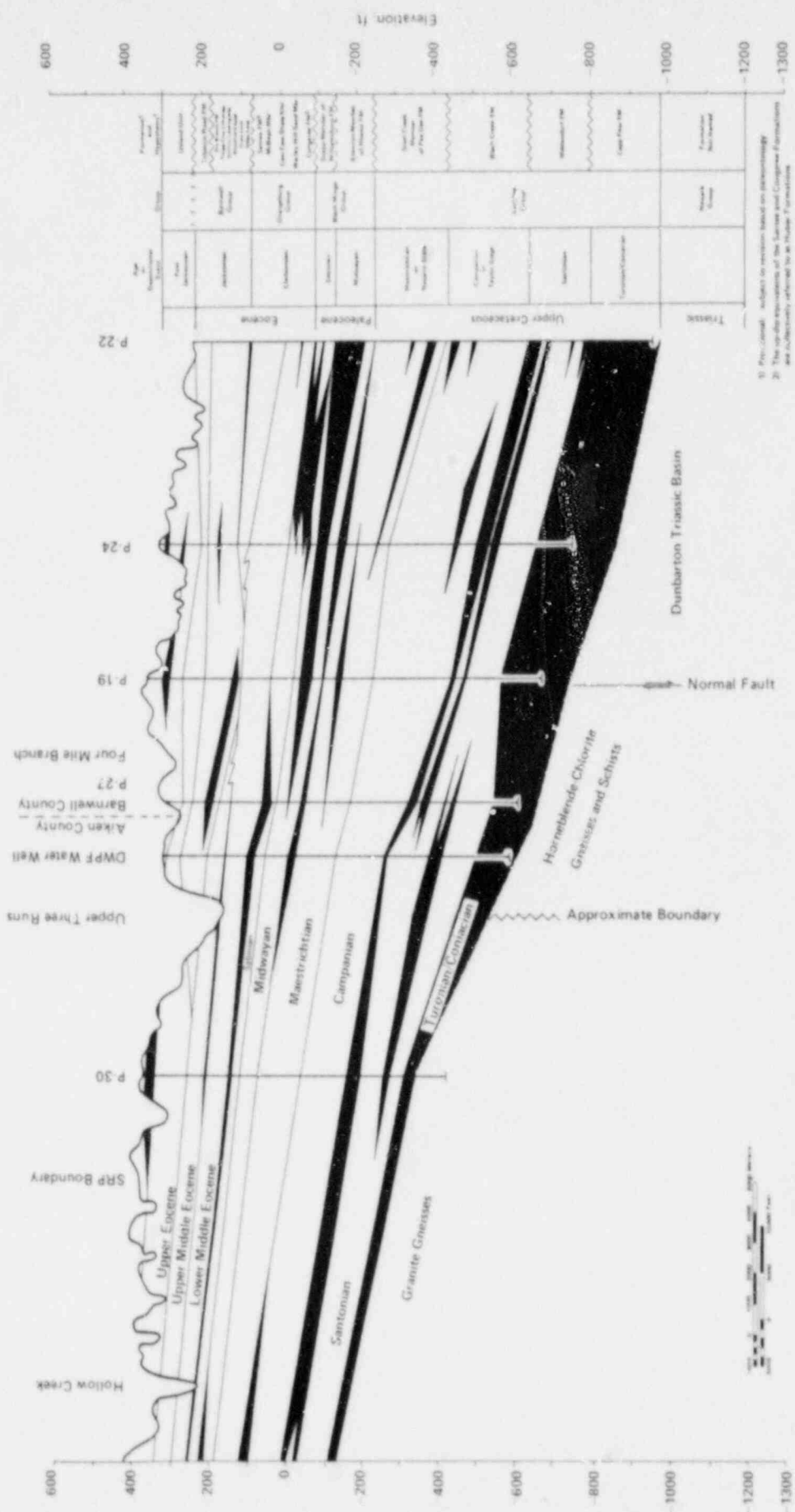
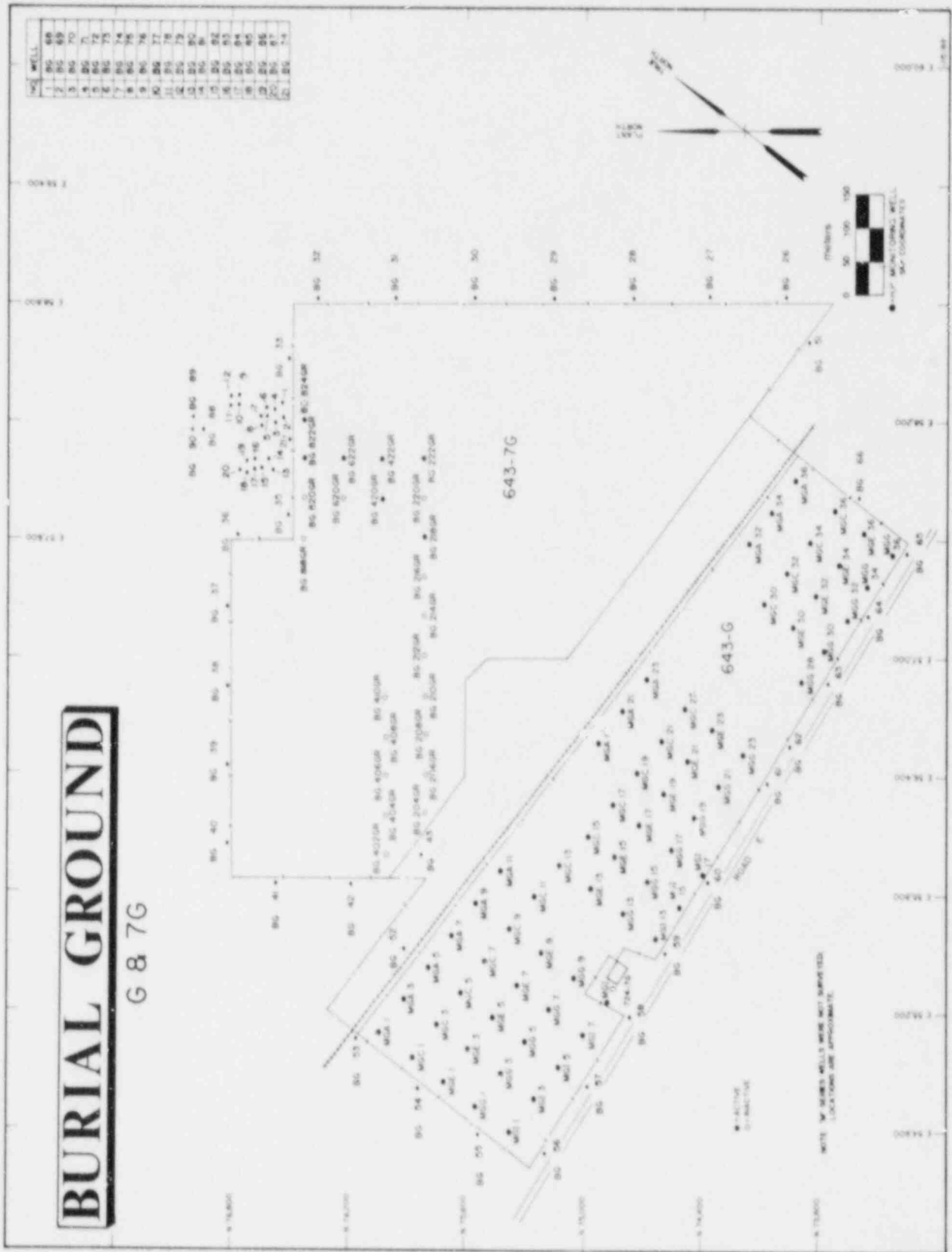


Fig. 4-1
Geologic Cross Section of SRP



BURIAL GROUND

G 8 7 G

Fig. 4-2
Solid Waste Storage Facility Wells

F - AREA

CANYON

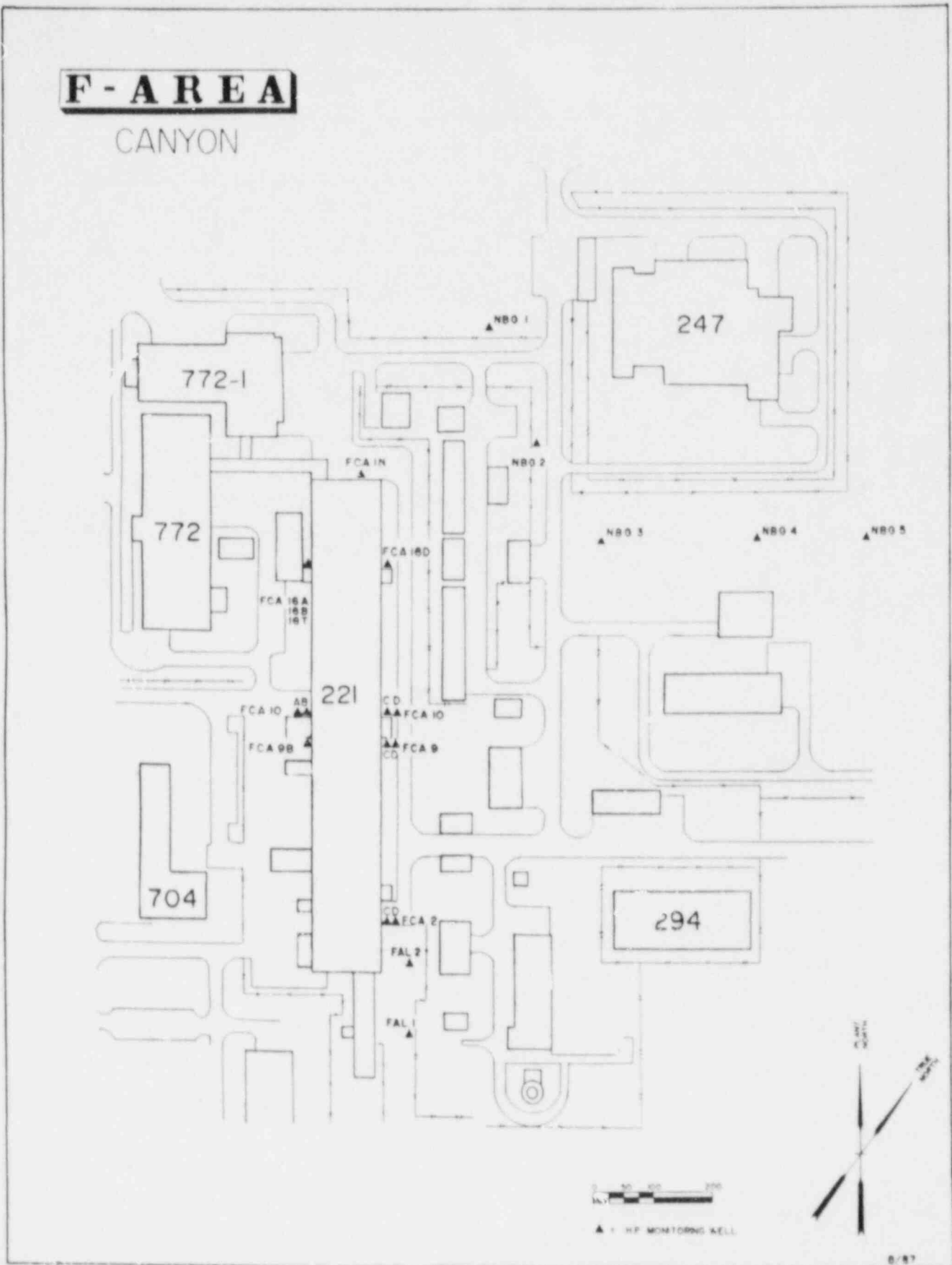


Fig. 4-3
F-Area A Line and Canyon Buildings

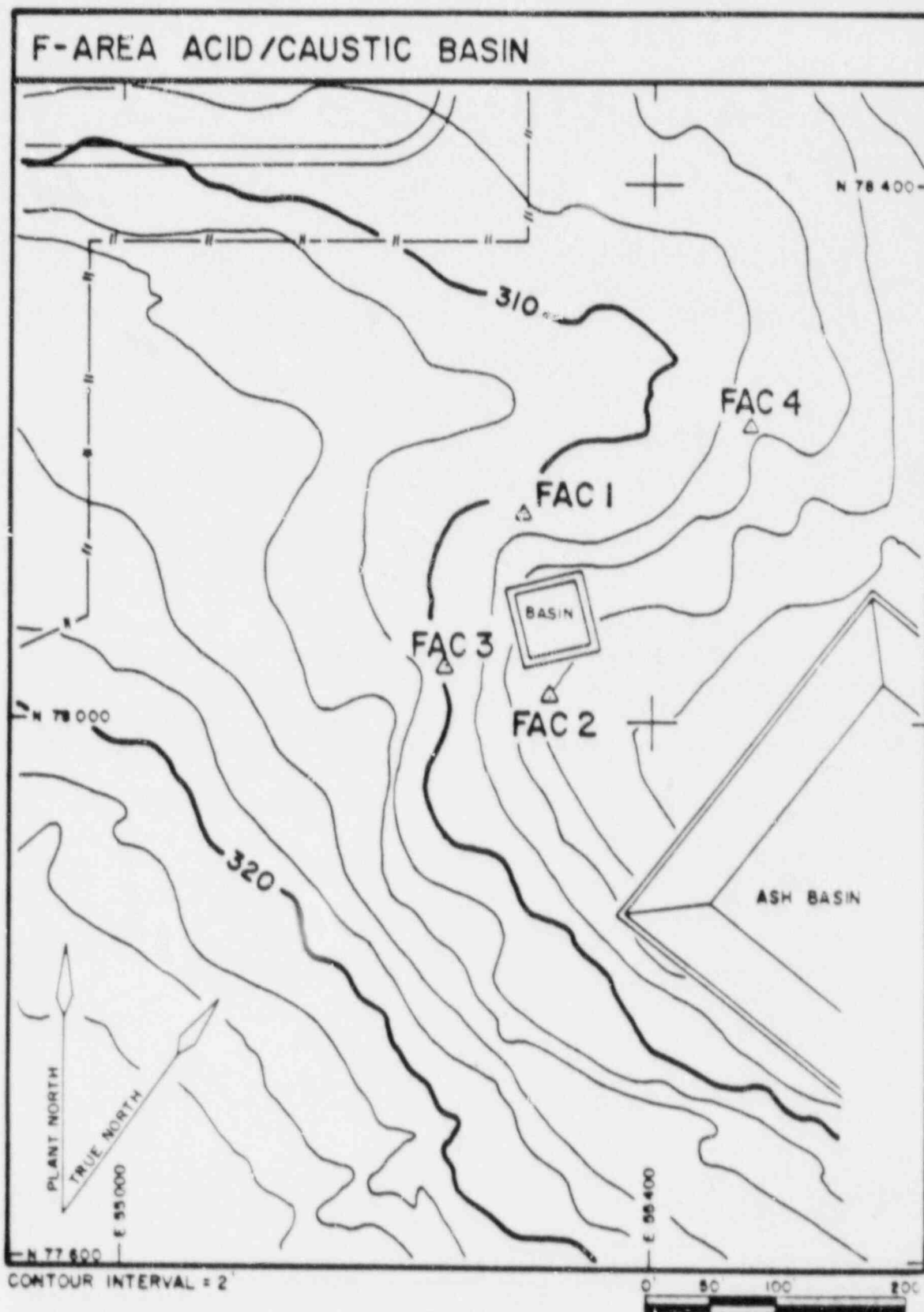


Fig 4-4
F-Area Acid/Caustic Basin Wells

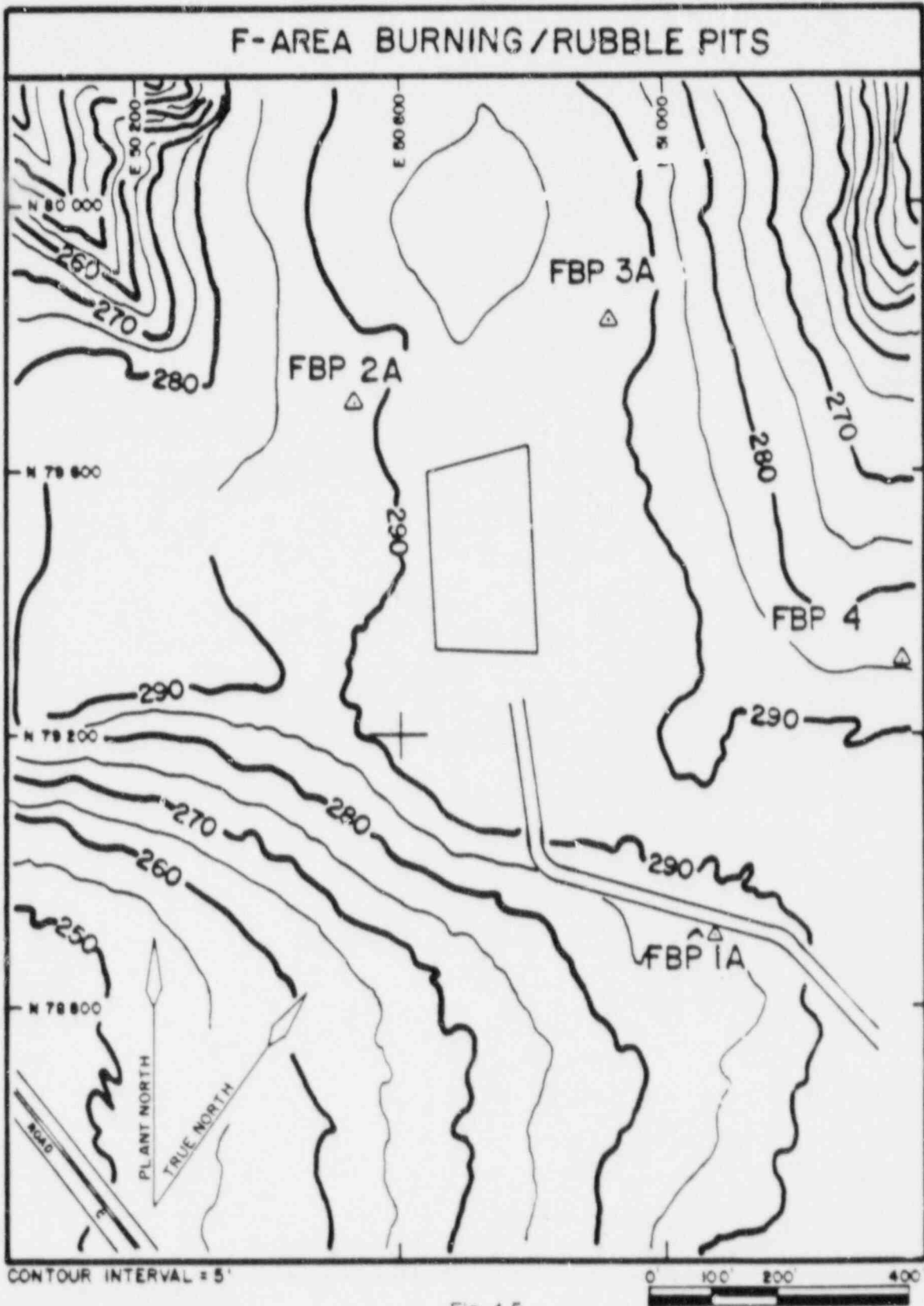


Fig. 4-5
F-Area Burning/Rubble Pits

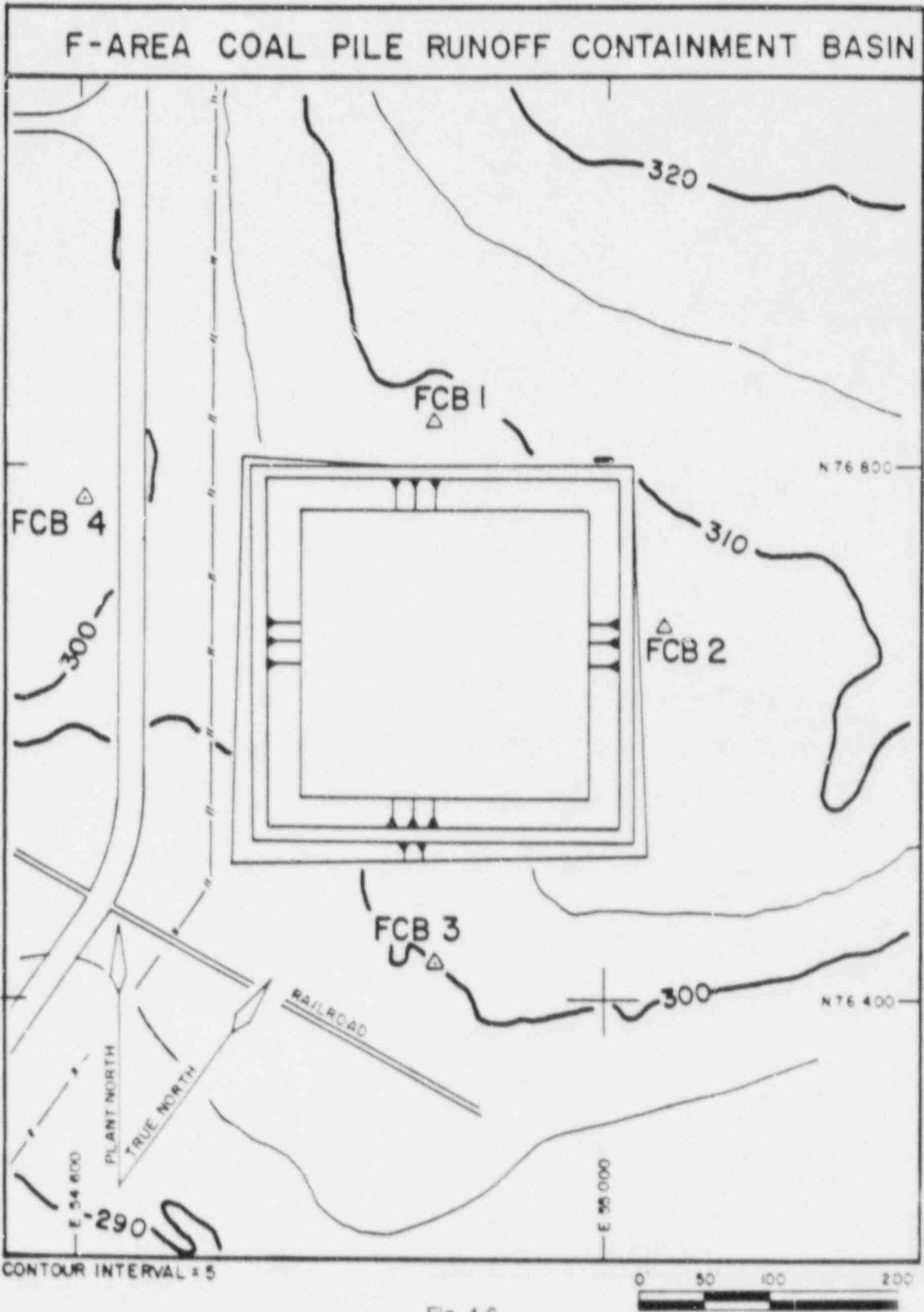


Fig. 4-6
F-Area Coal Pile Runoff Containment Basin

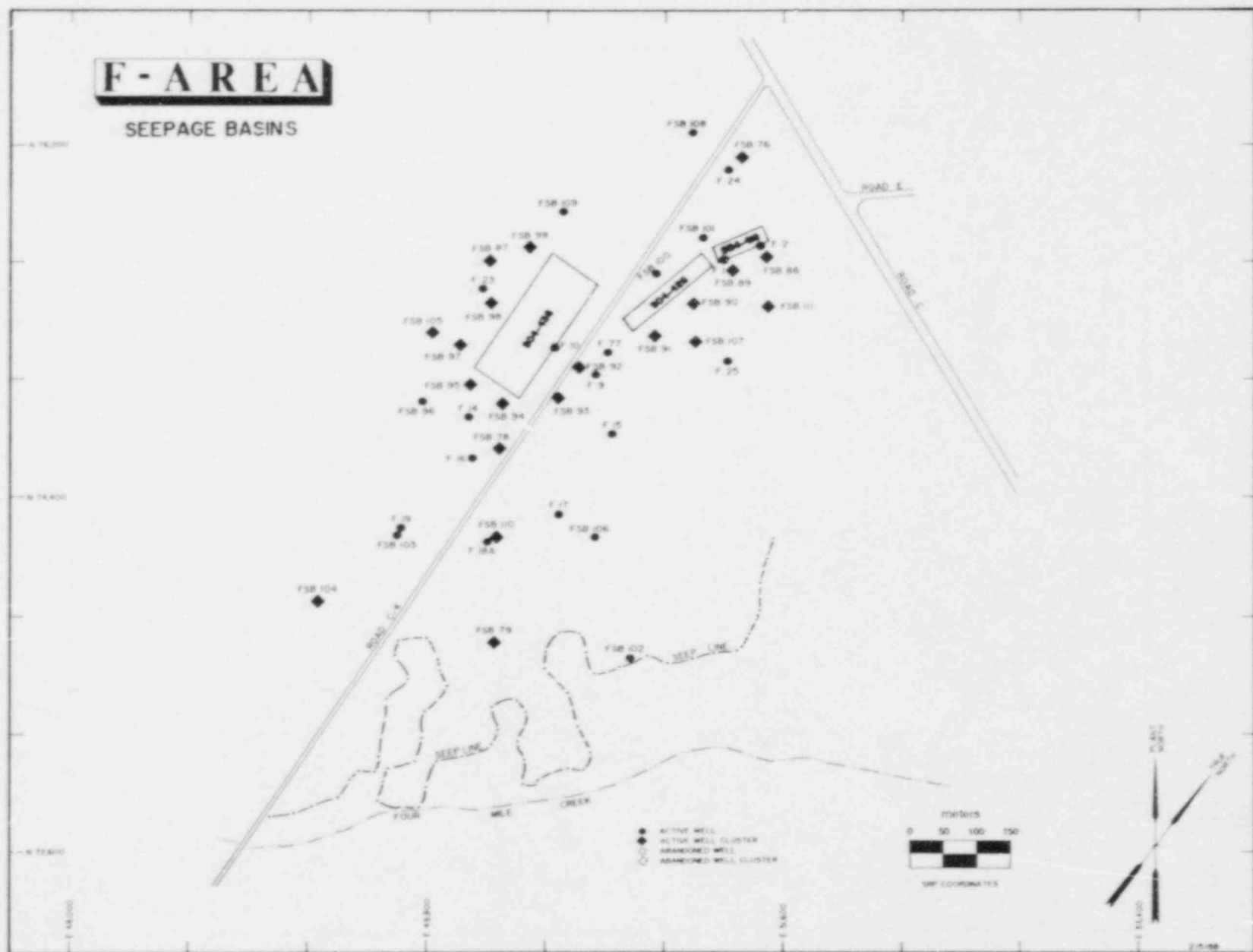


Fig. 4-7
F-Area Seepage Basins
- 21 -

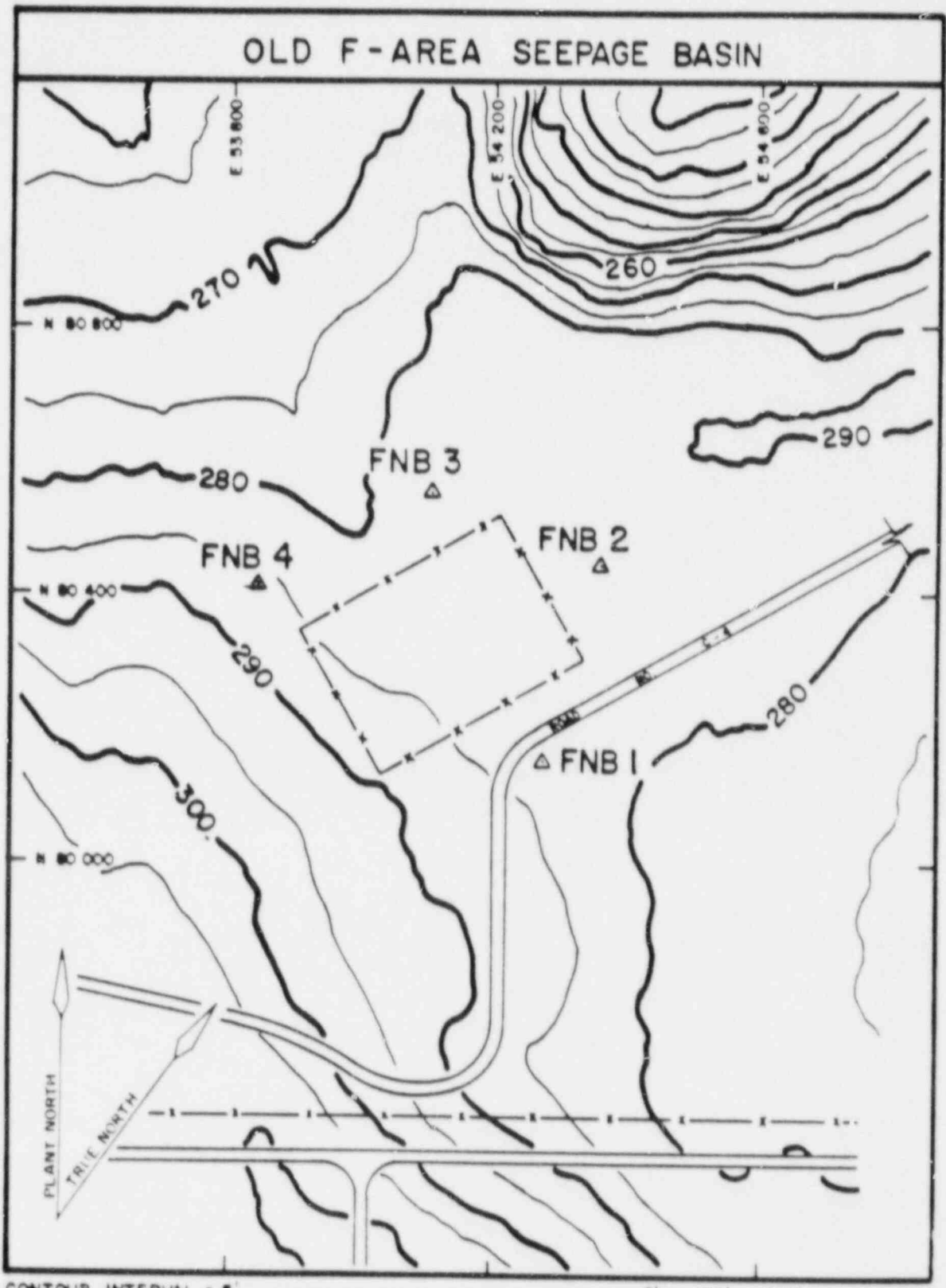


Fig. 4-8
Old F-Area Seepage Basin

F - AREA

TANK FARM

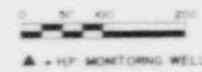
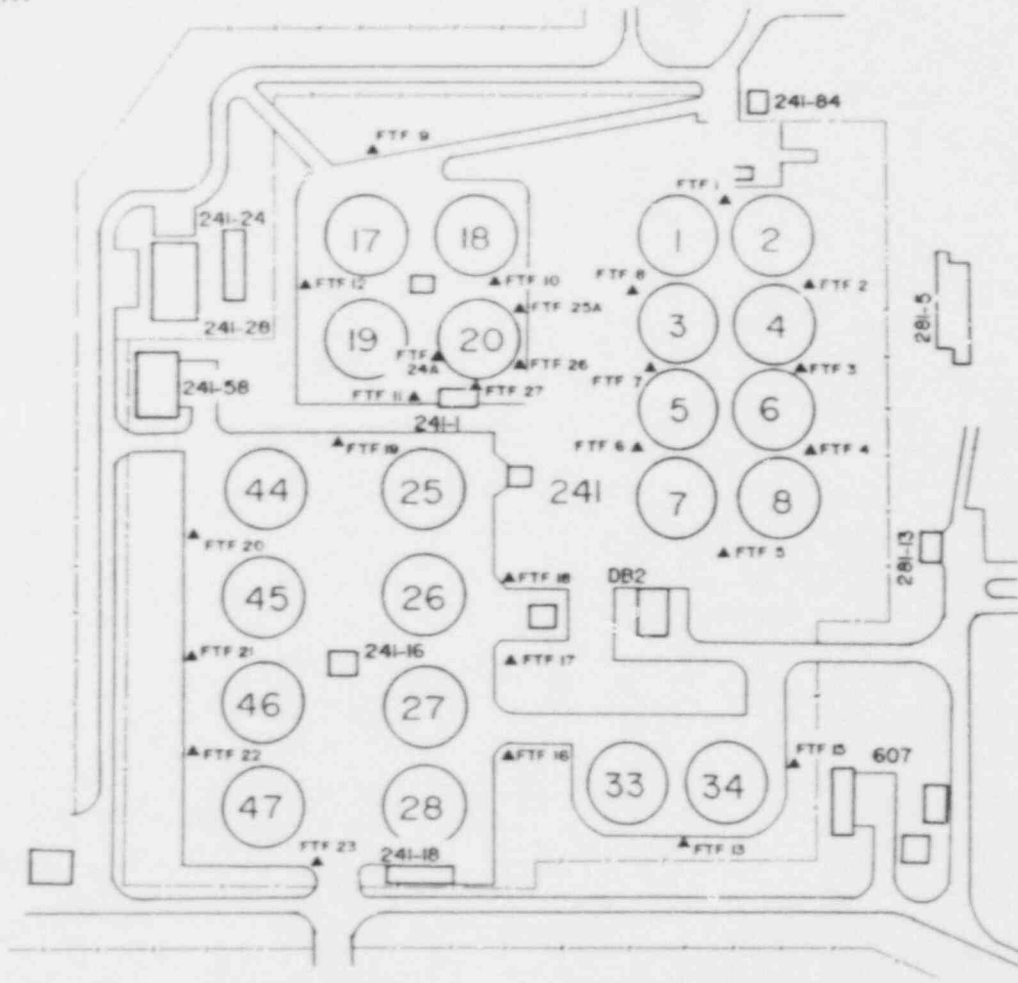
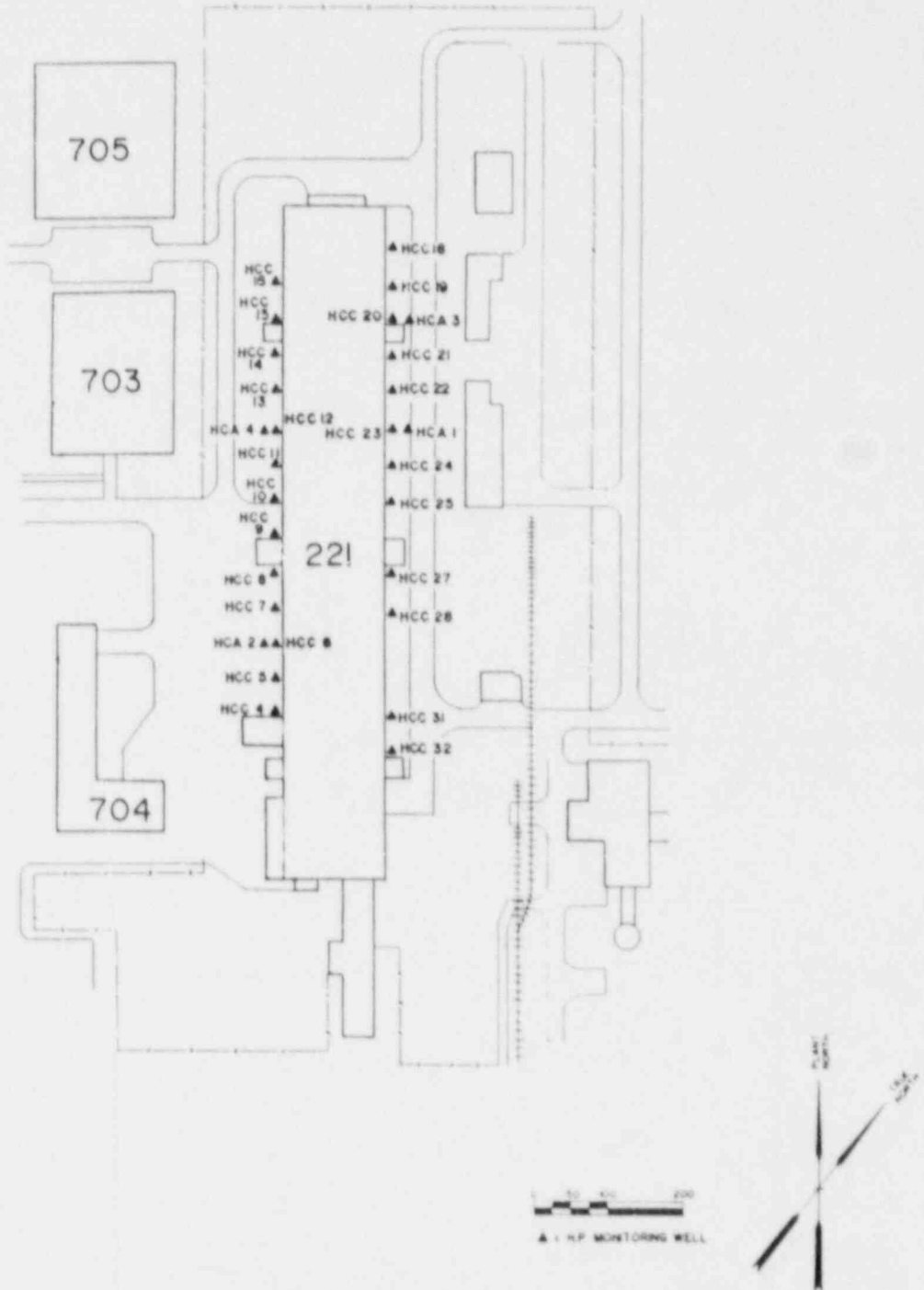


Fig 4-9
F-Area Tank Farm
- 23 -

H-AREA

CANYON



B/87

Fig. 4-10
H-Area Canyon Building

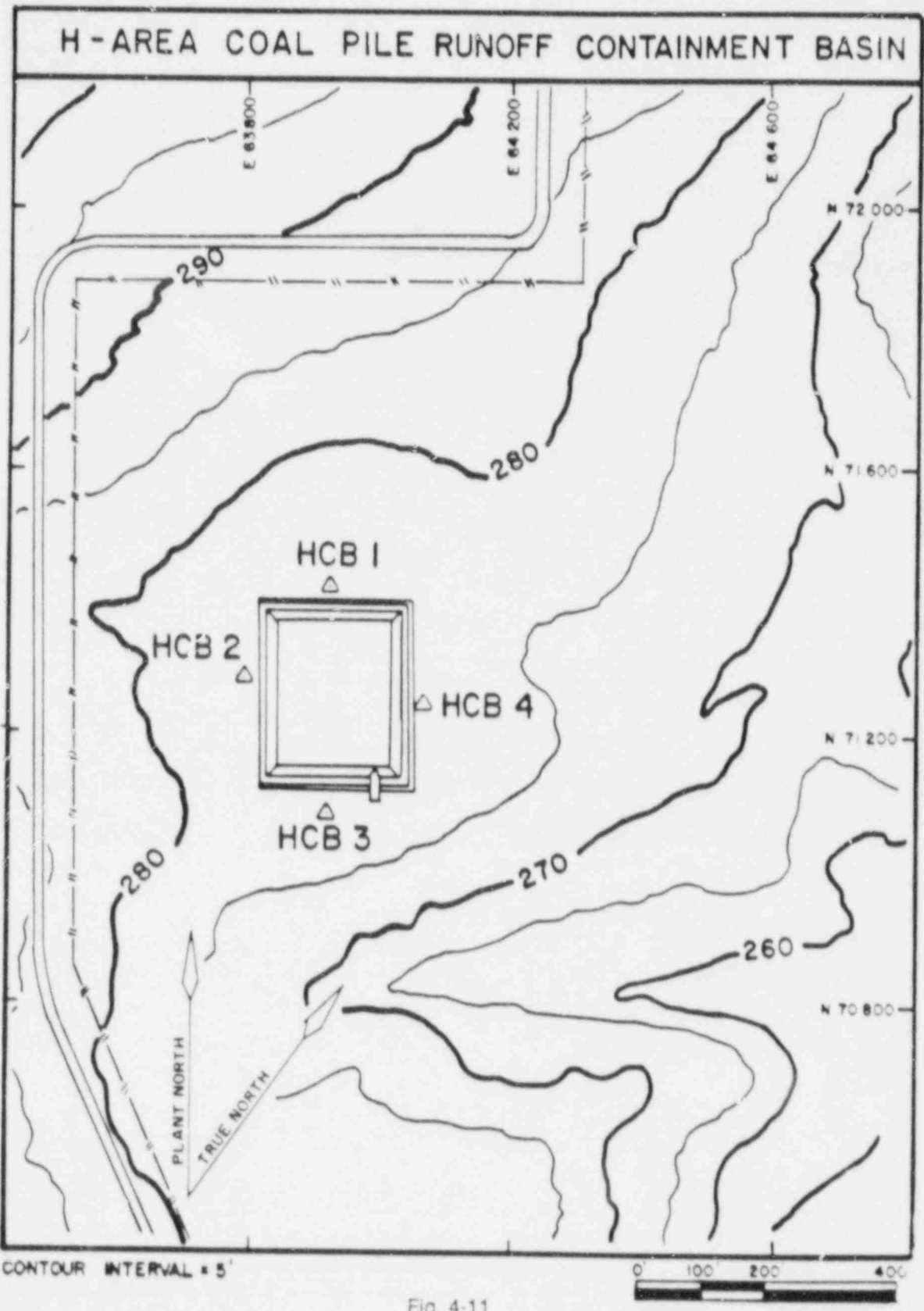


Fig. 4-11
H-Area Coal Pile Runoff Containment Basin

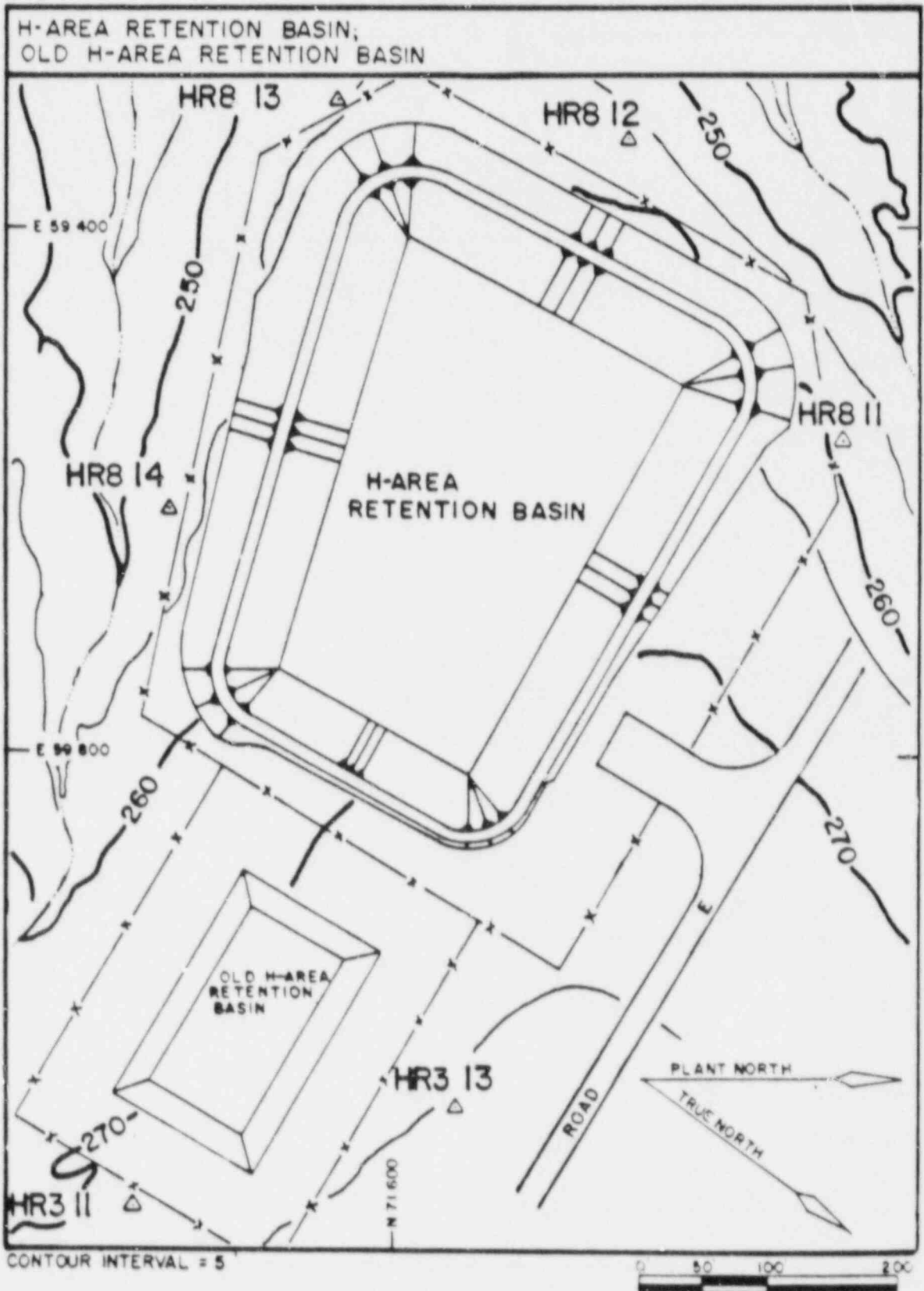


Fig. 4-12
H-Area Retention Basins

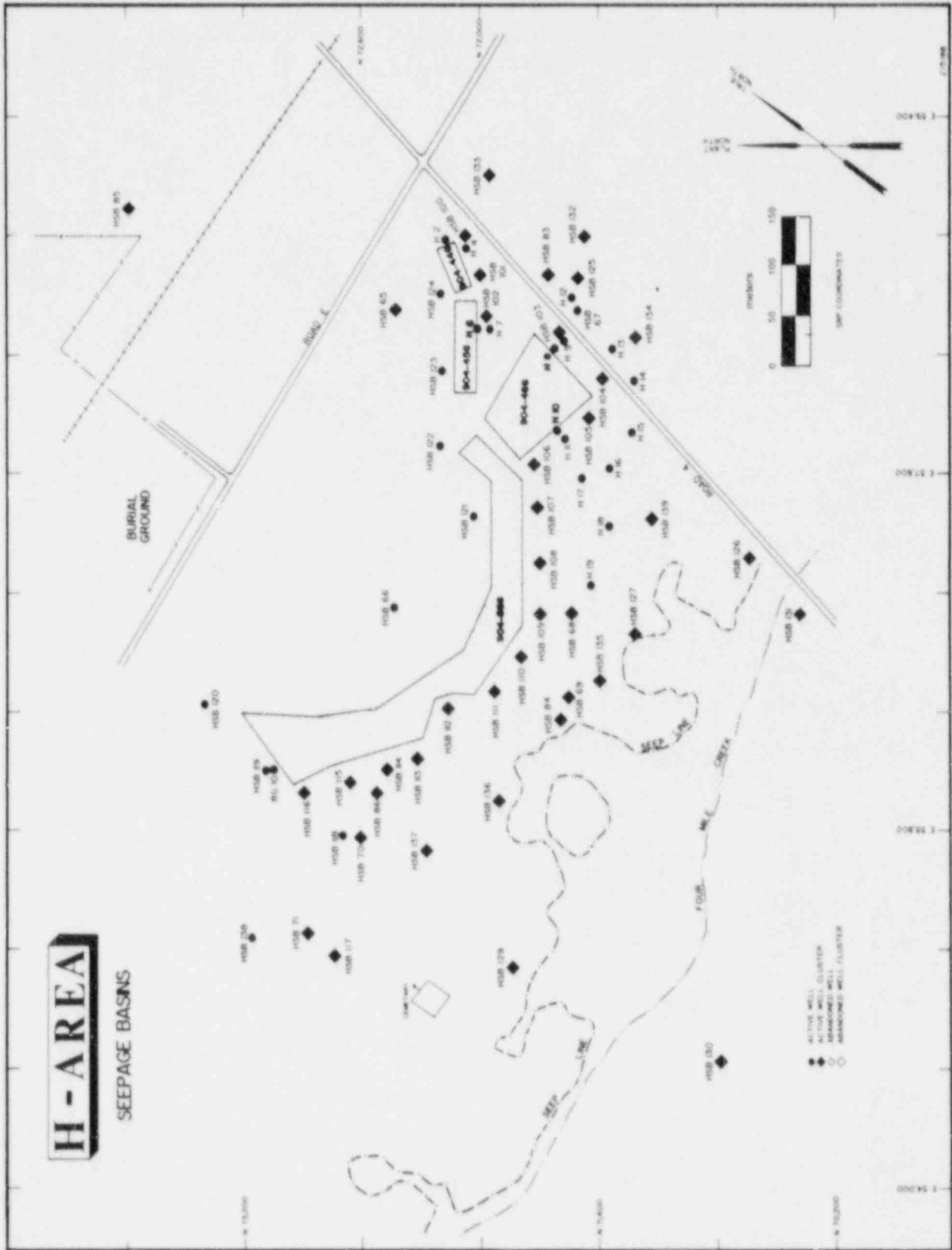


Fig. 4-13
H-Area Seepage Basins
- 27 -

H-AREA

TANK FARM

▲ HTF 17



Fig. 4-14
H-Area Tank Farm

S - AREA



Fig. 4-15
S Area
- 29 -

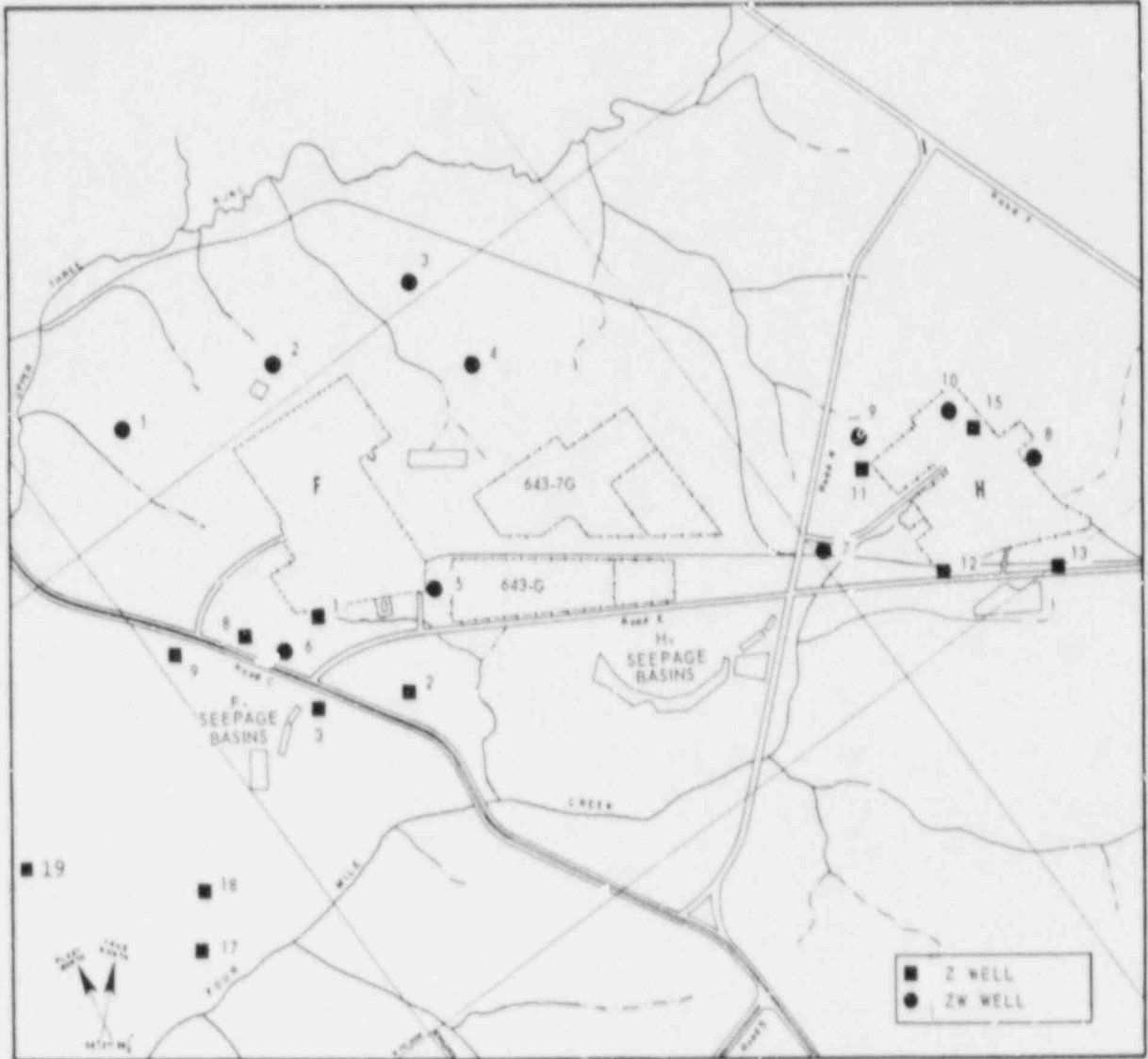


Fig. 4-16
F- and H-Separations Areas

C AREA

Ash Containment Area

Coal Pile Runoff Containment Basin

Ash Containment Area

CDB 2
CDB 1

C-3
Outfall

C-4
Outfall

Burning / Rubble
Pits

CRP 2
CRP 1
CRP 4
CRP 3

CSB 1A
CSB 5A
CSB 2A
CSB 3A
CSB 4A

Reactor Seepage
Basins

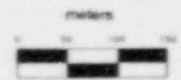
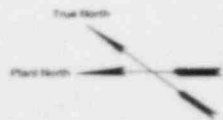
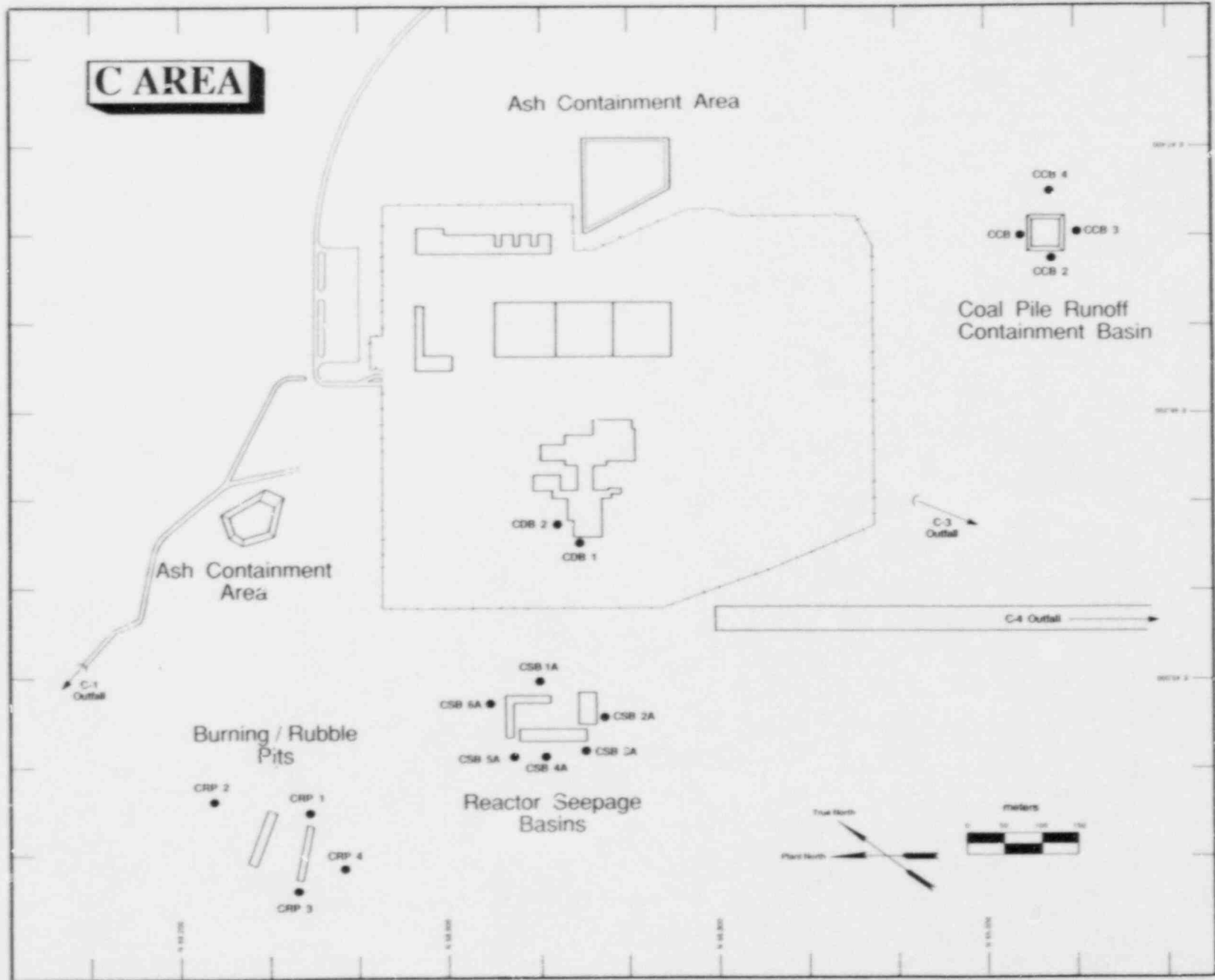


Fig. 4-17
C-Area Wells



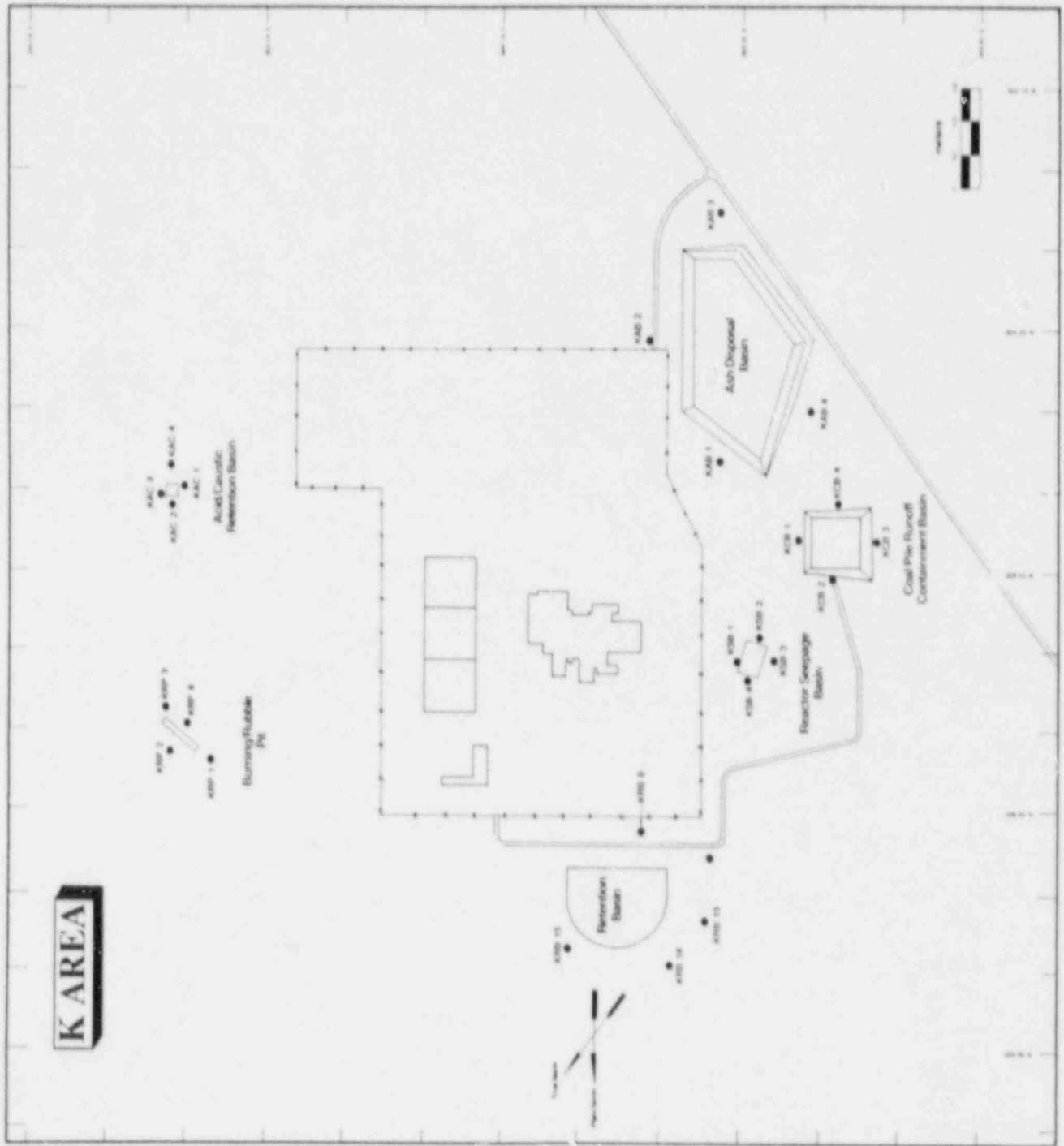


Fig. 4-18
K-Area Wells

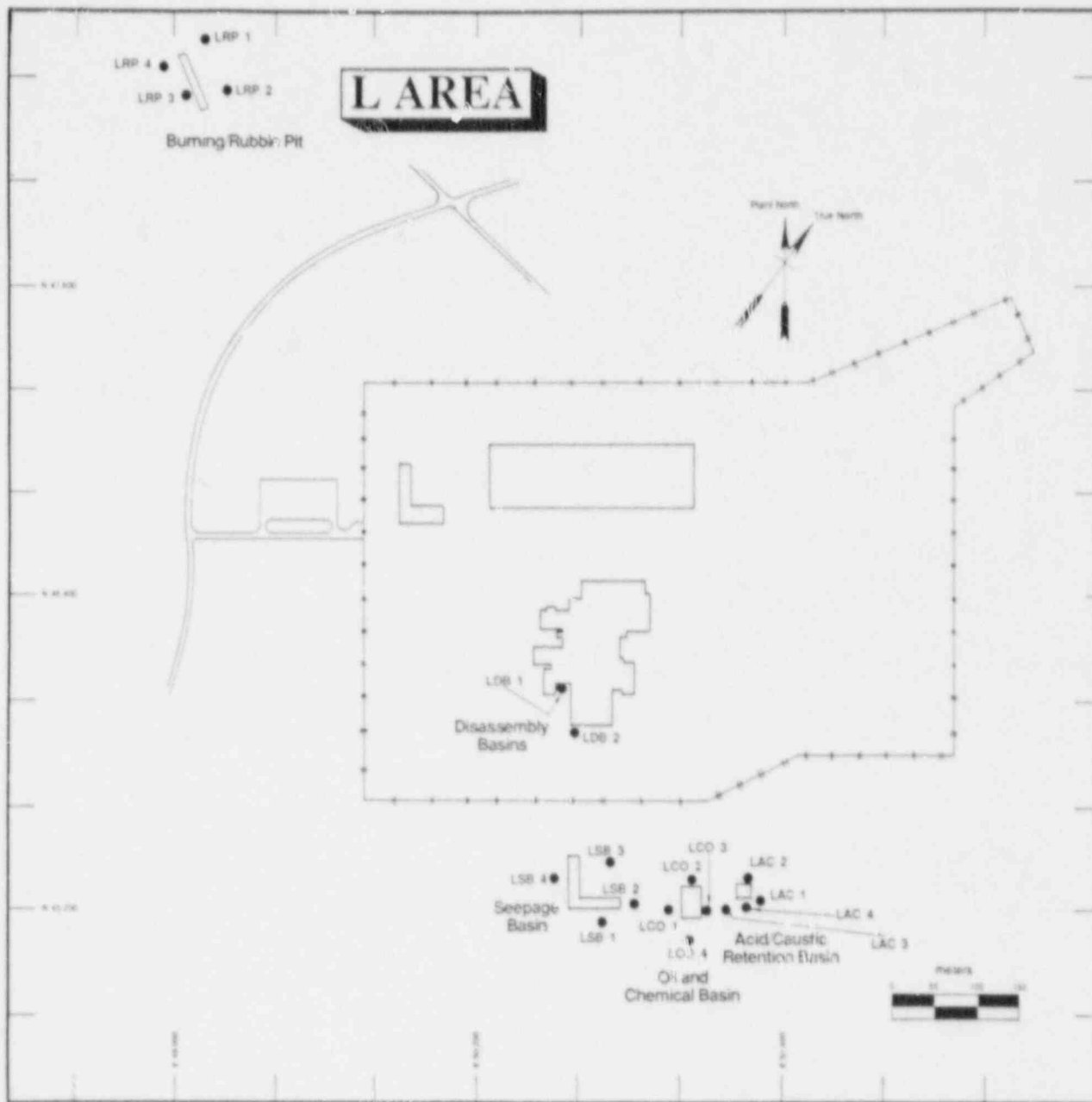


Fig 4-19
L-Area Wells

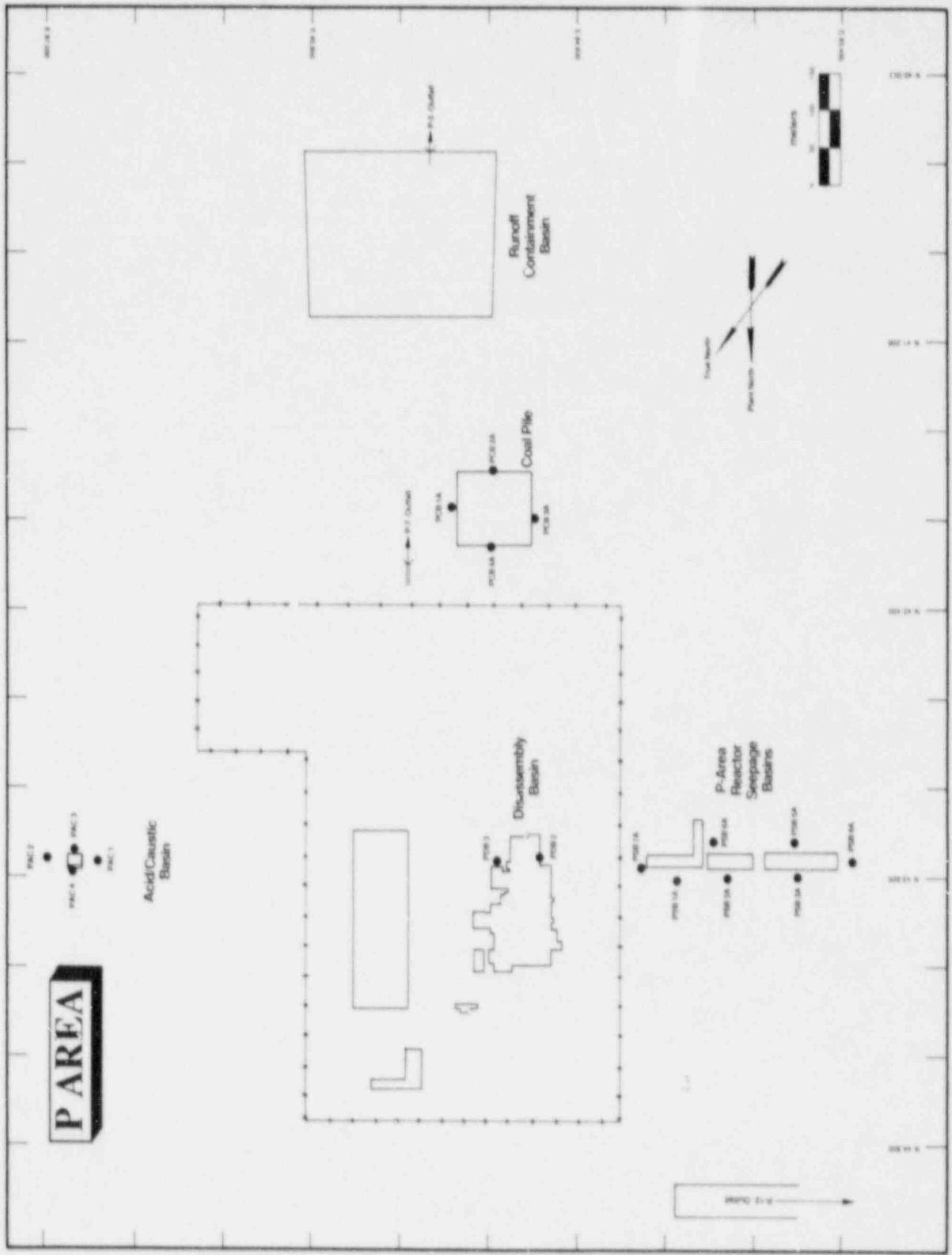


Fig. 4-20
P-Area Wells

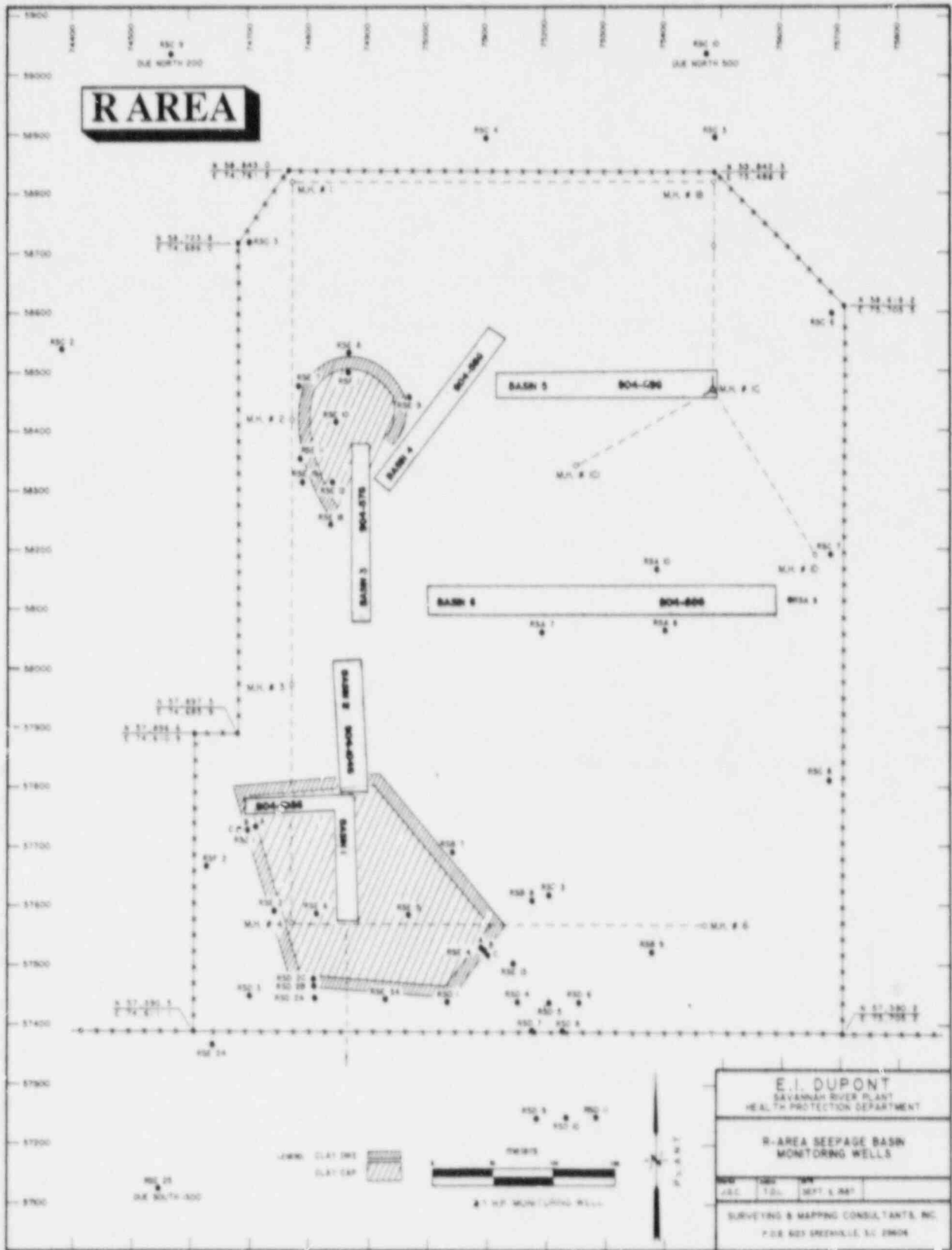


Fig. 4-21
 R-Area Seepage Basins

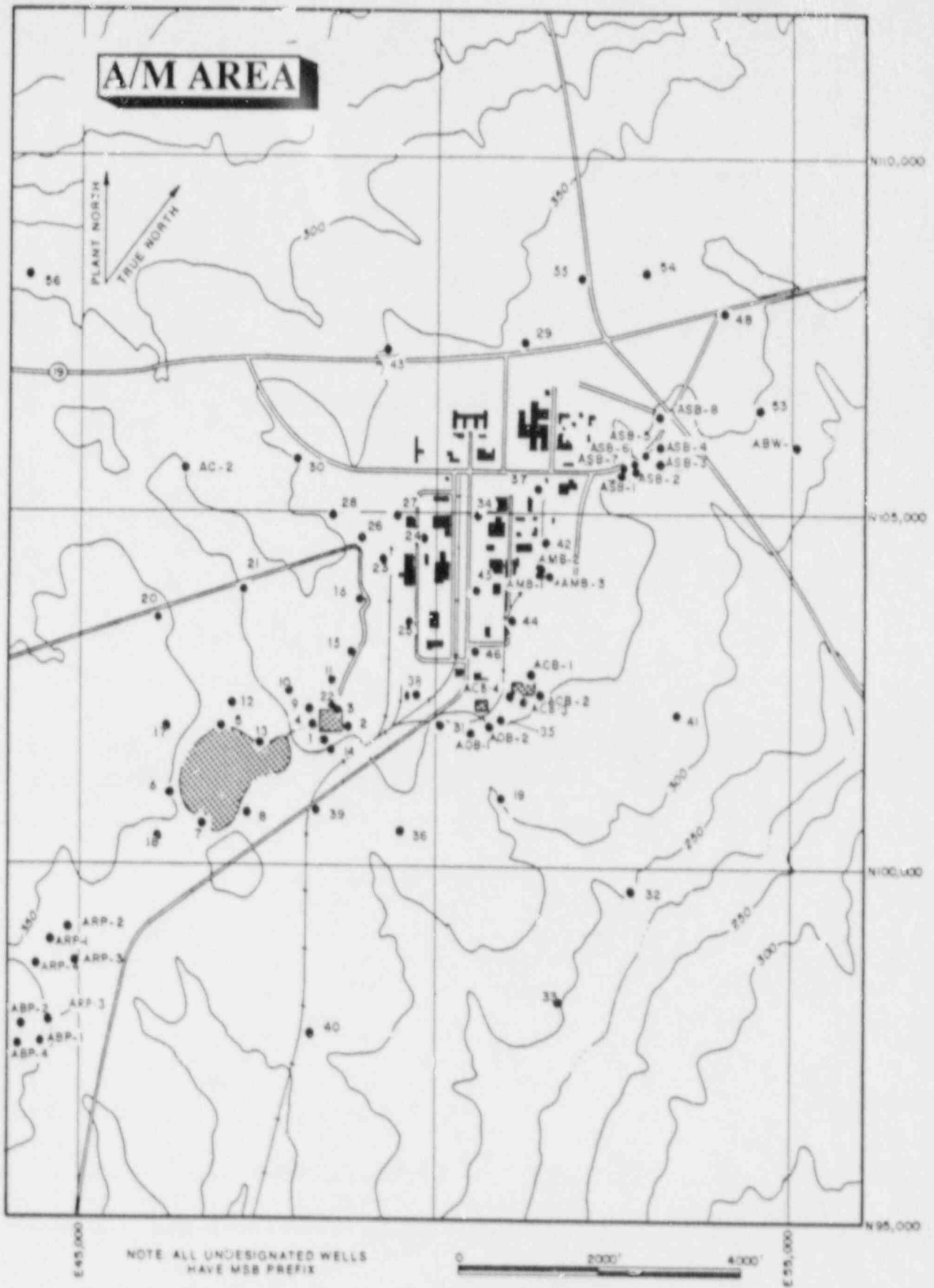


Fig. 4-22
A/M-Area Wells

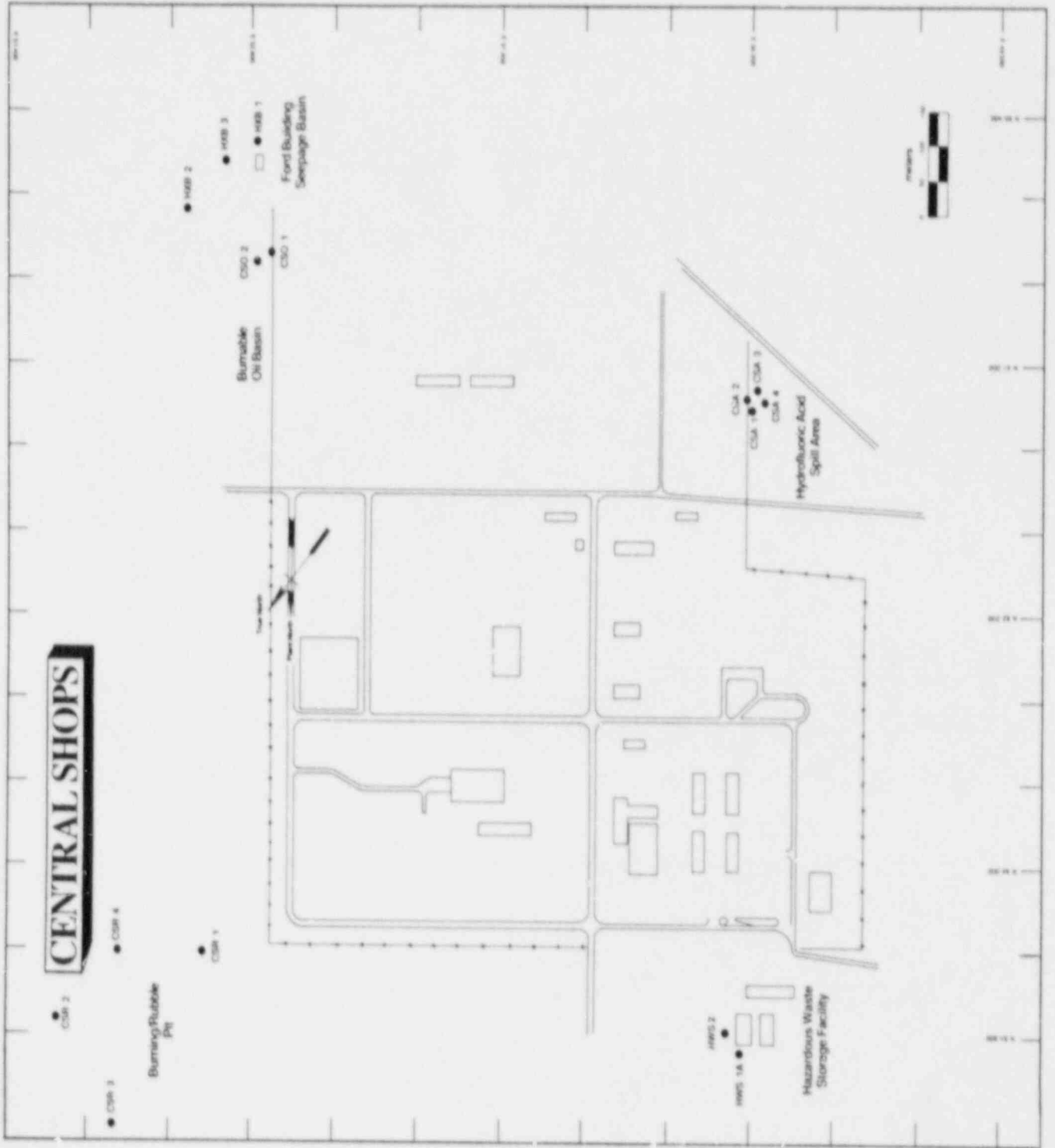


Fig. 4-24
CS-Area Wells

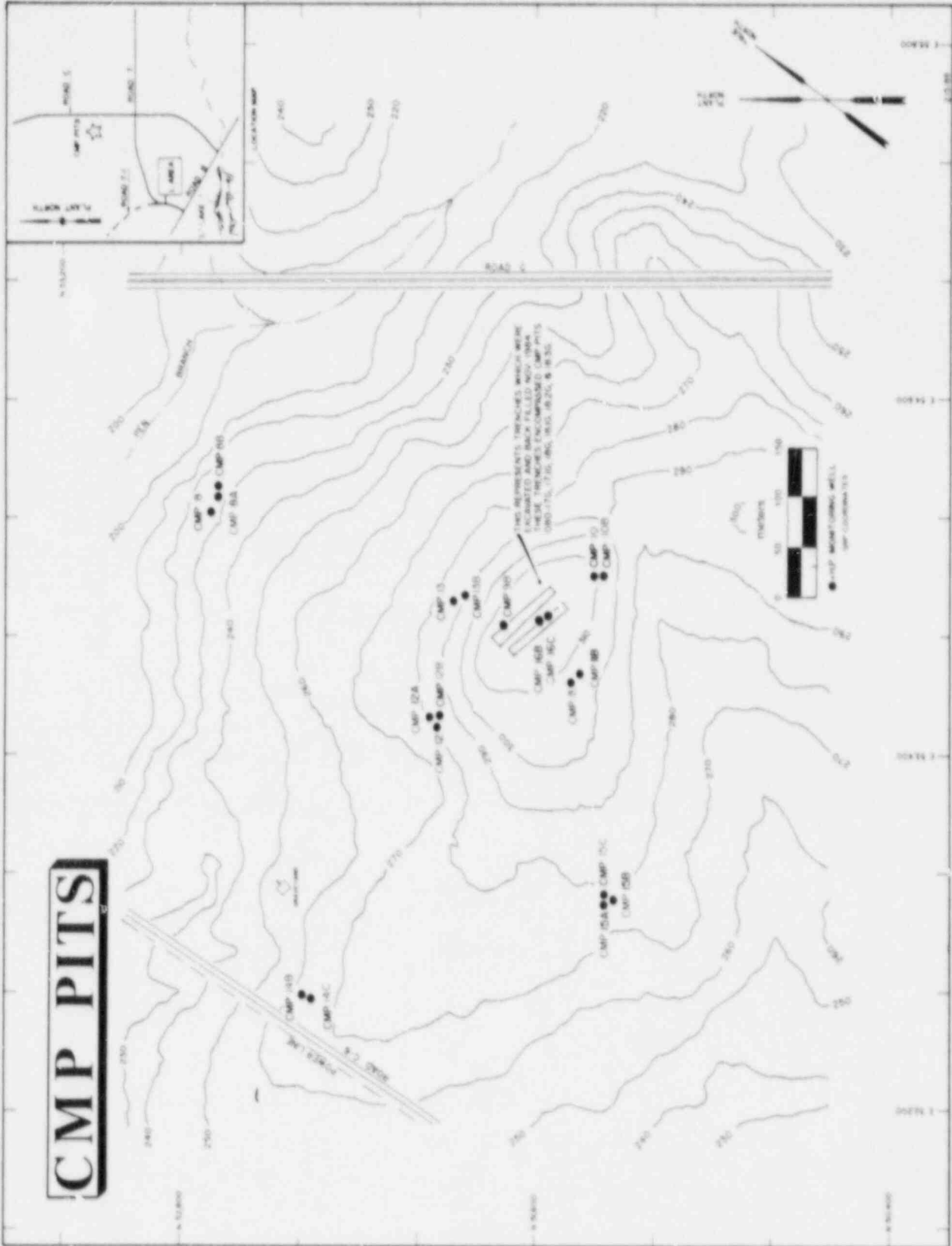


Fig. 4-25
CMP Burial Pits

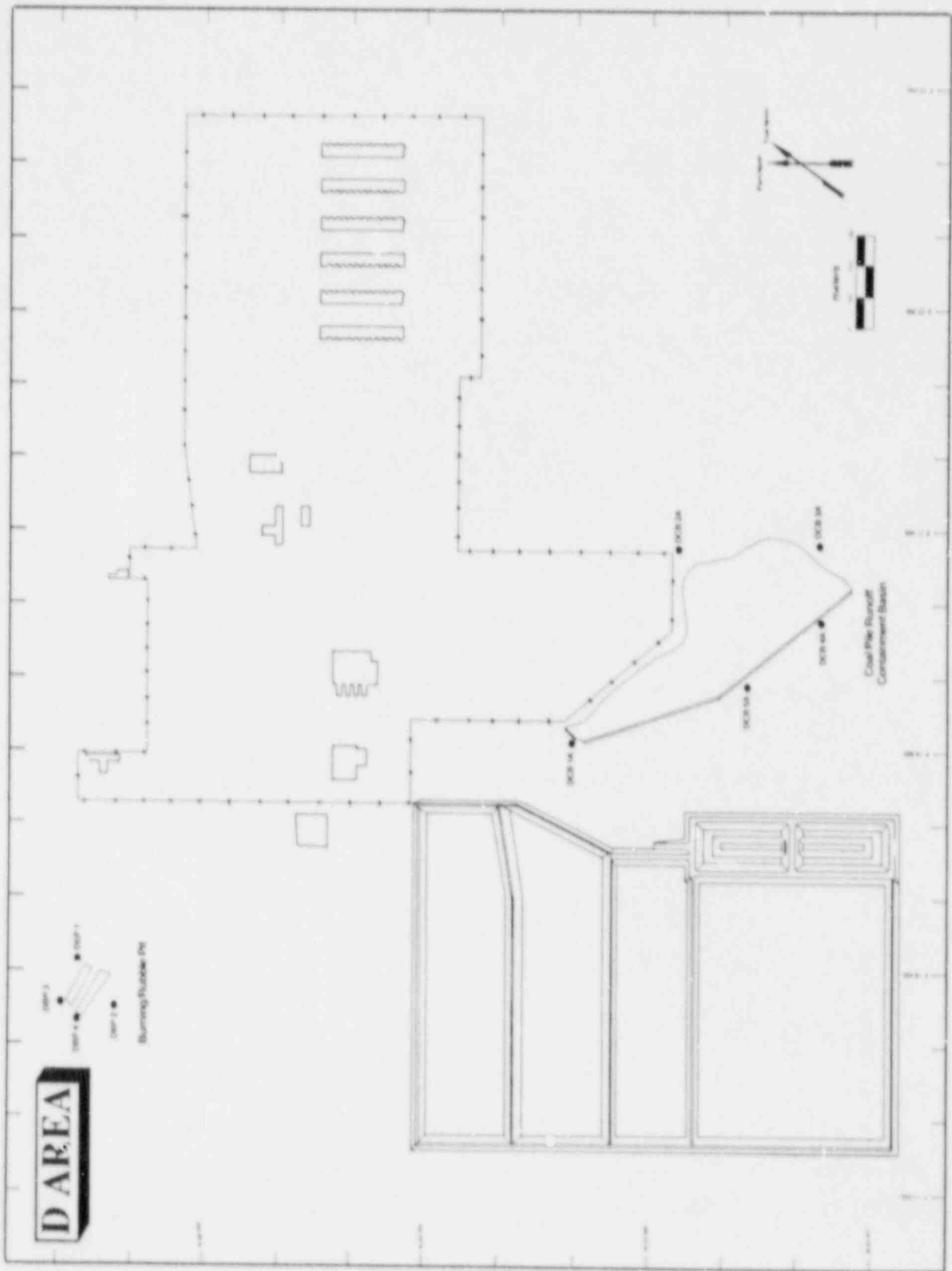


Fig. 4-26
D-Area Wells

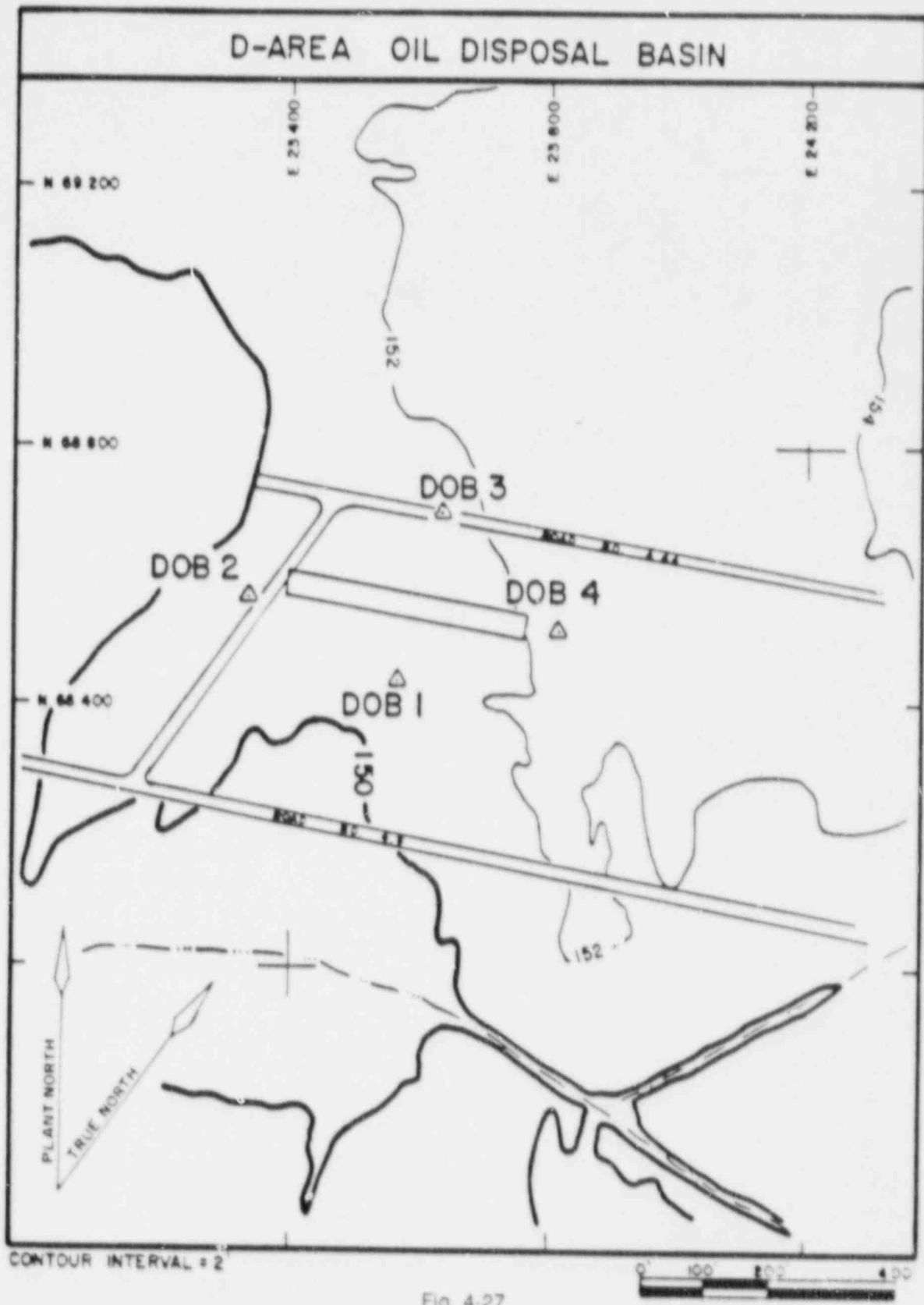


Fig. 4-27
D-Area Oil Disposal basin

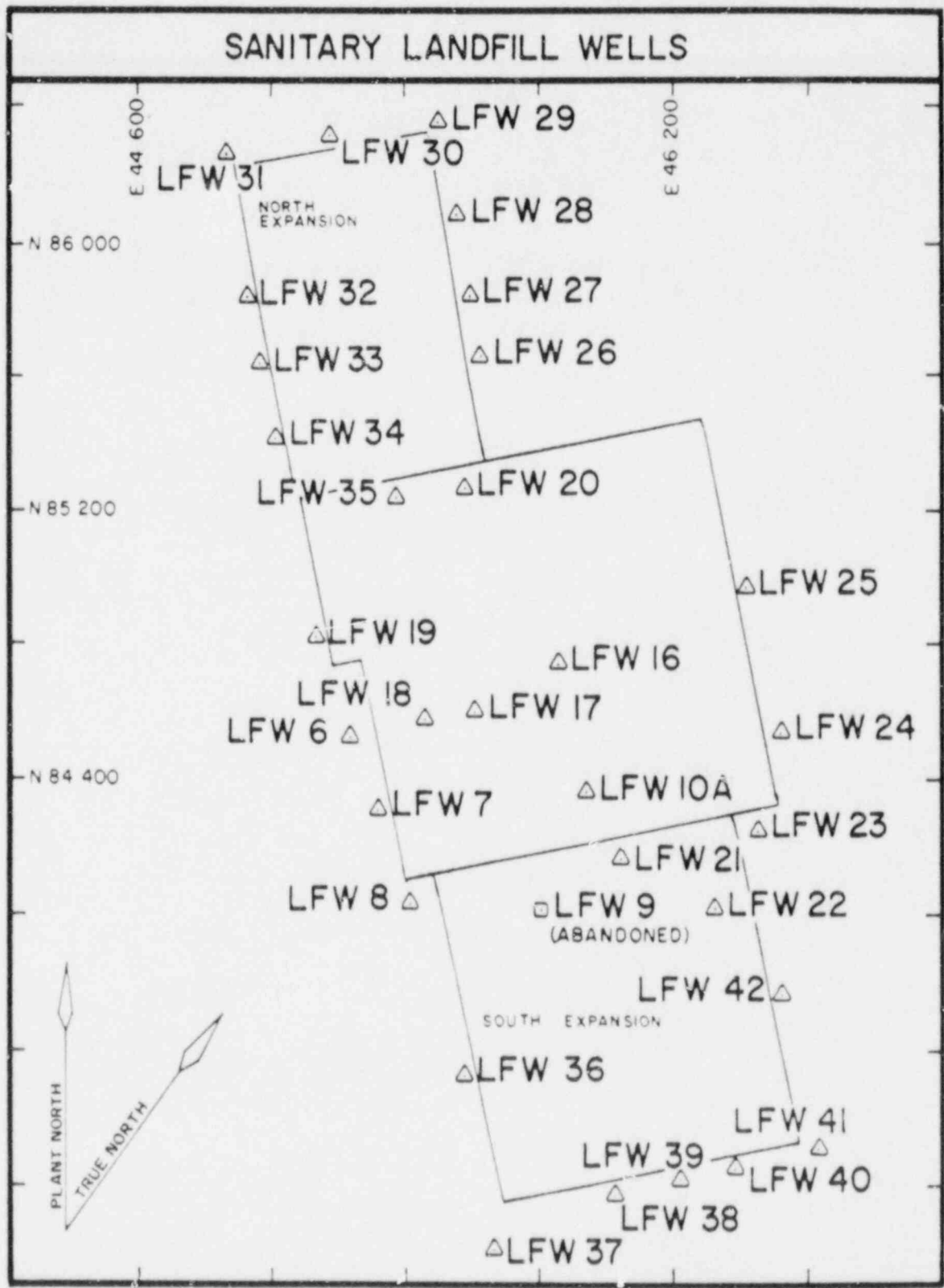


Fig. 4-28
Sanitary Landfill

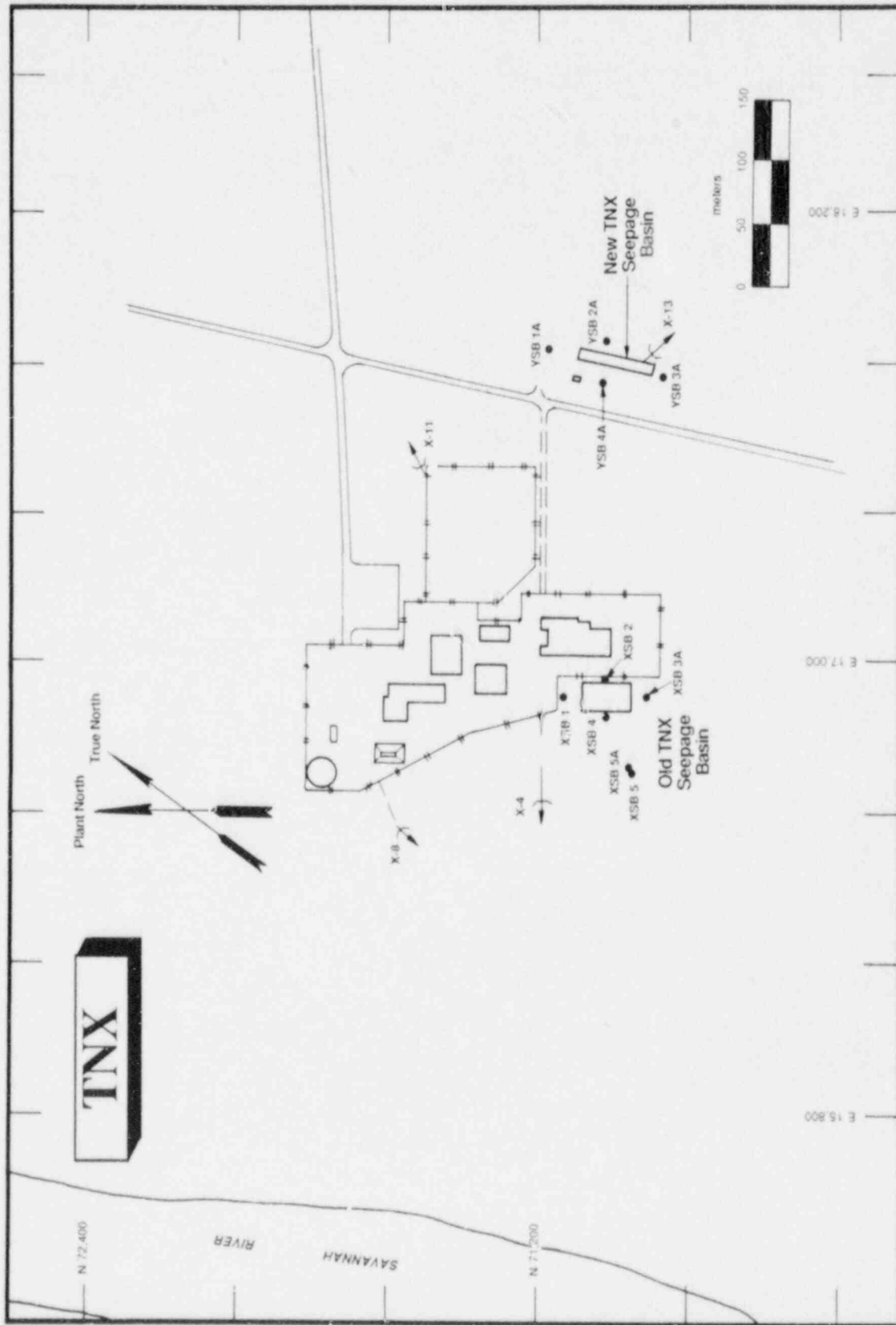


Fig. 4-29
New, Old TNX Seepage Basins

ROAD A WASTE SITE



Fig. 4-30
Road A Chemical Basin

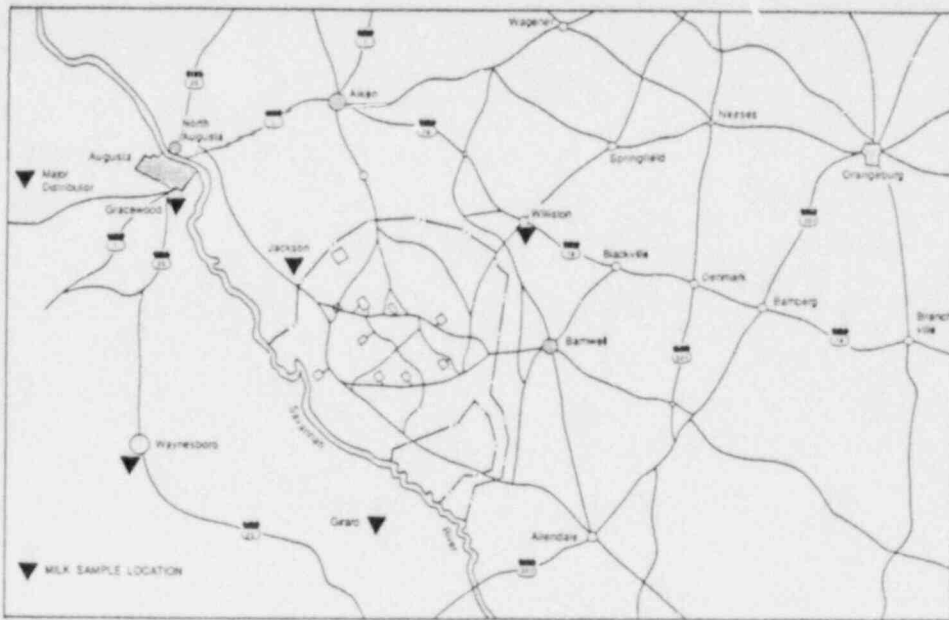


Fig. 5-1
Milk sample locations

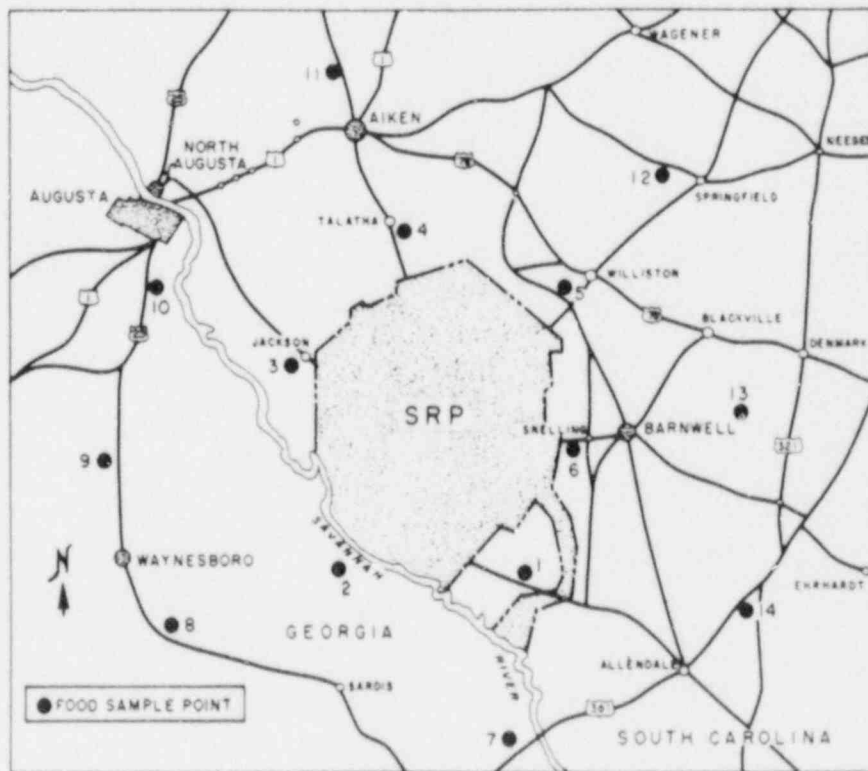


Fig. 5-2
Food sample locations

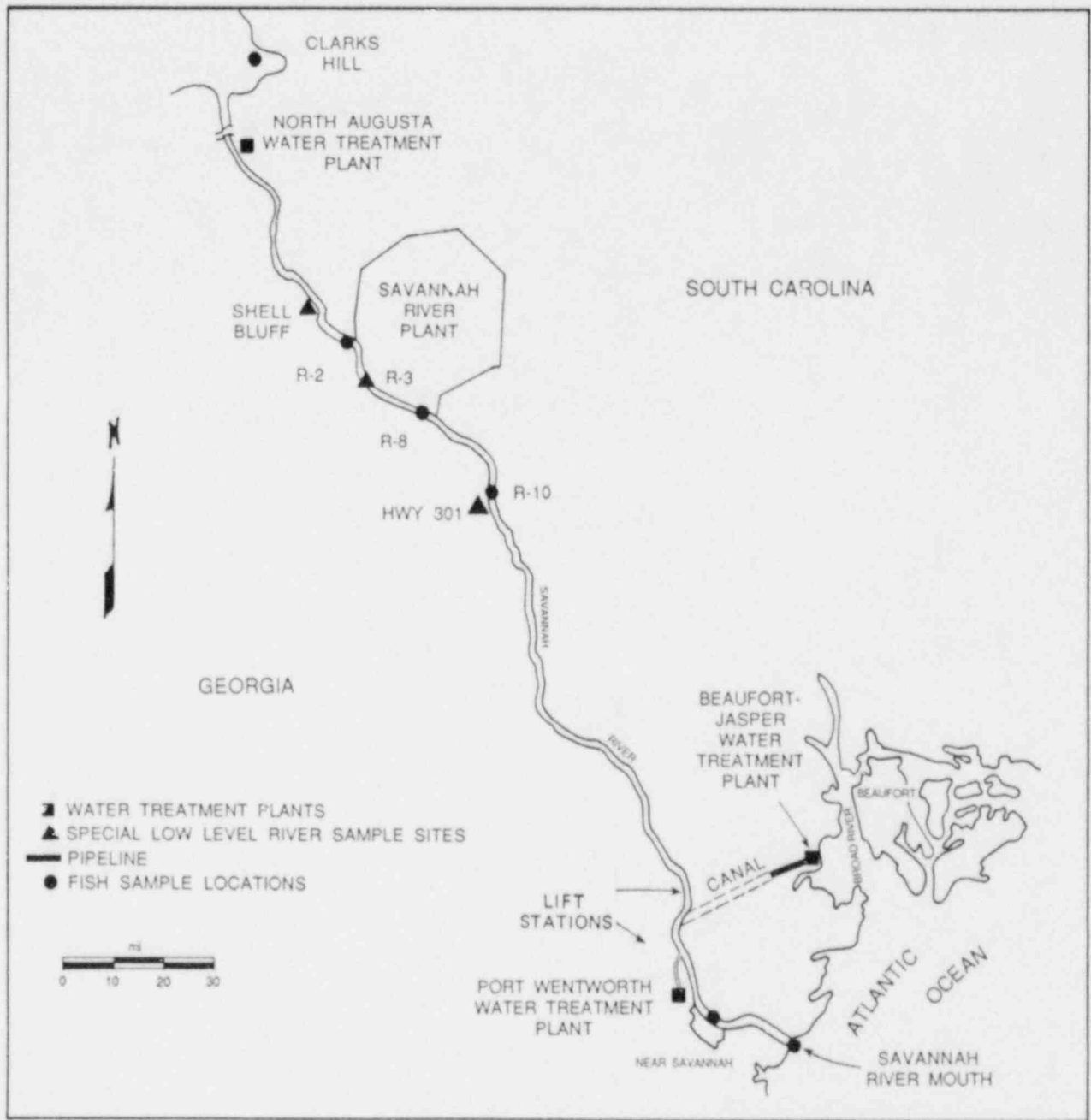


Fig. 5-3
Fish sample and water treatment plant locations

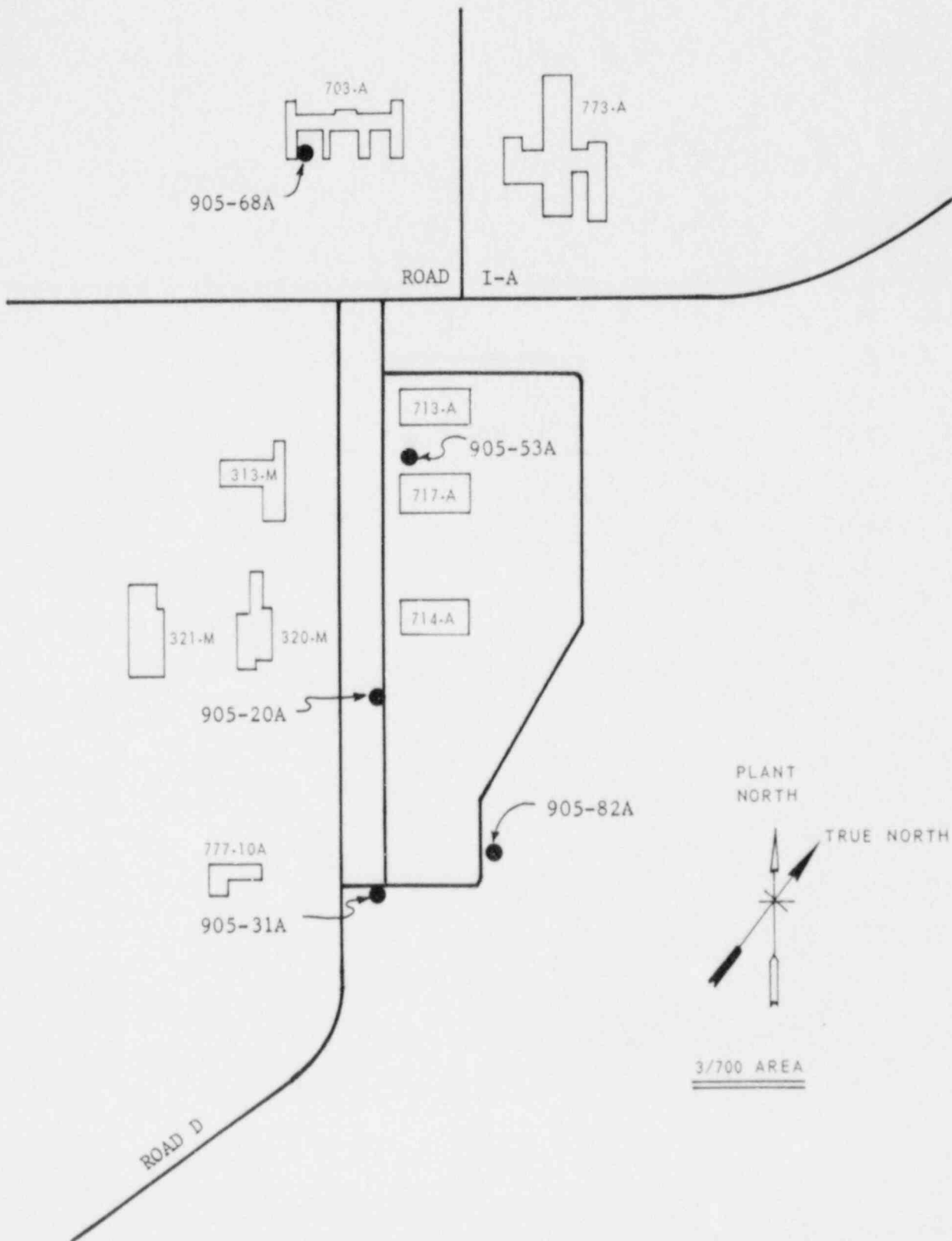


Fig. 5-4
A-Administration Area well locations

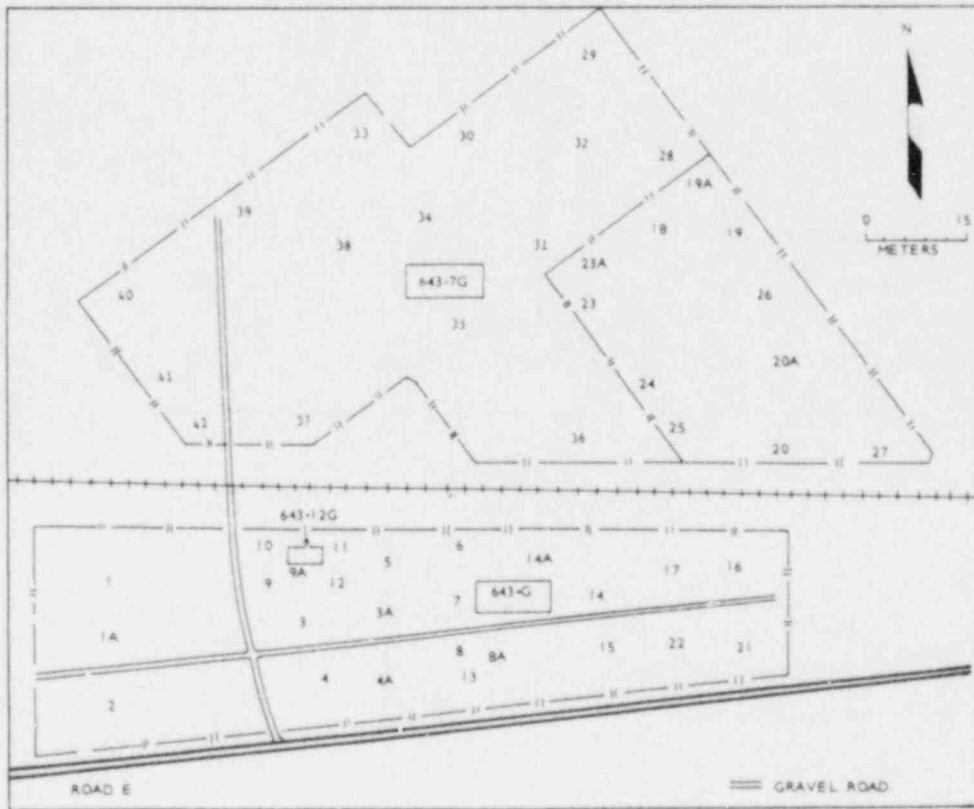


Fig. 7-1
Vegetation sampling locations inside
the Solid Waste Storage Facility fence

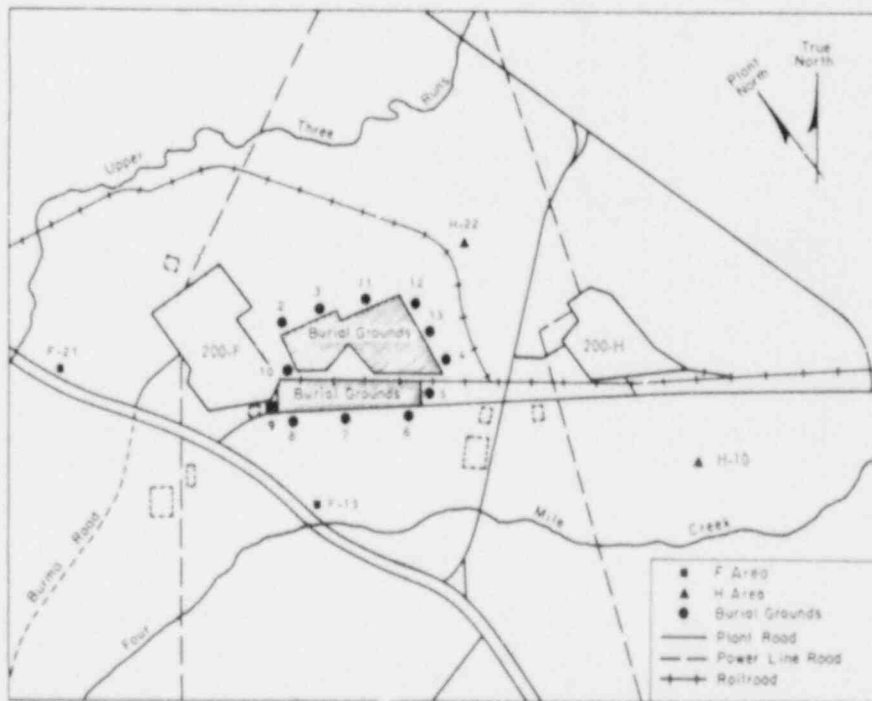


Fig. 7-2
Vegetation sampling locations outside F and H Areas
and Solid Waste Storage Facility fences

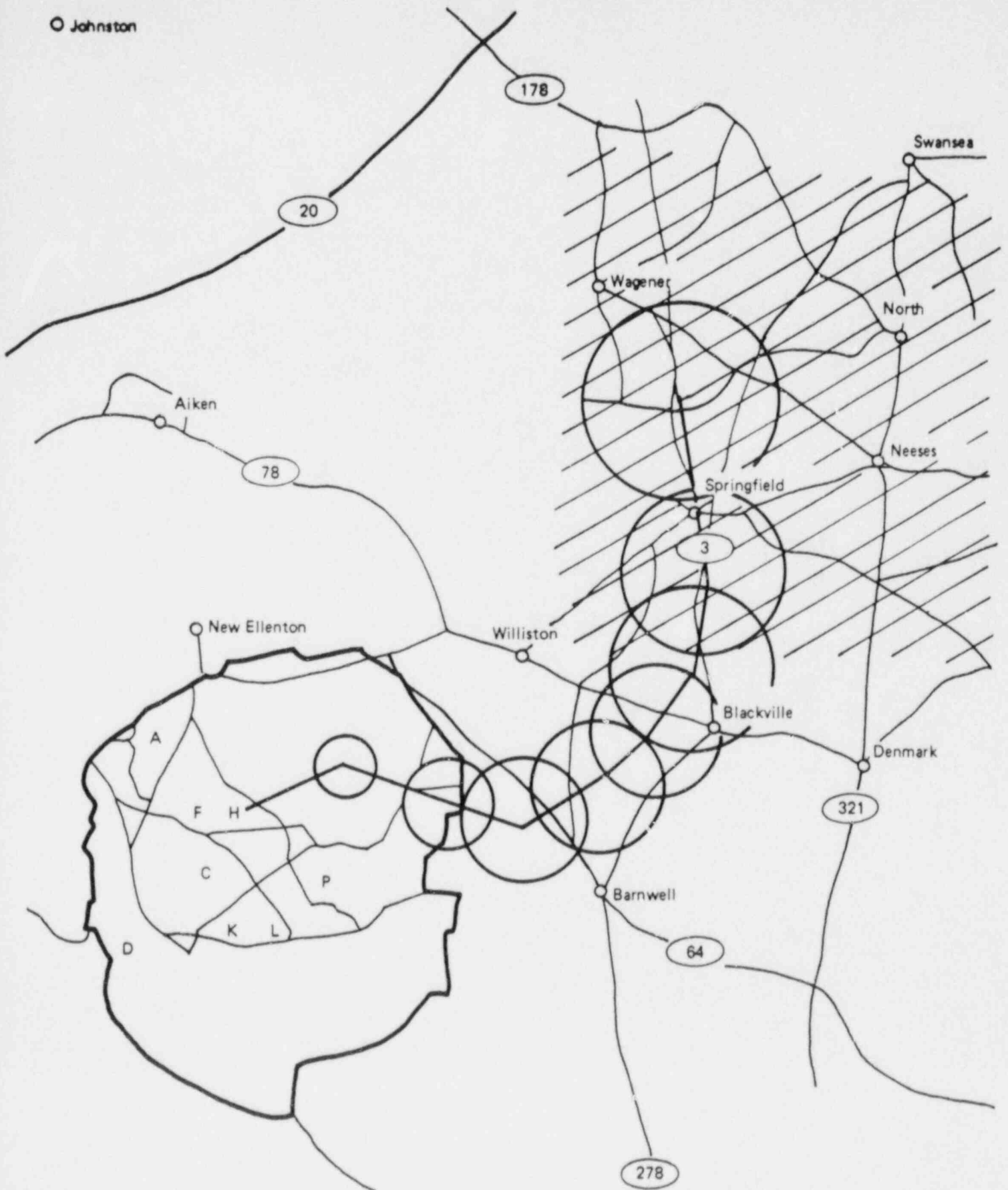


Fig. 8-1
Movement of tritium cloud after July 31, 1987 tritium release
(lined area indicates where the cloud broke up due to thunderstorms)

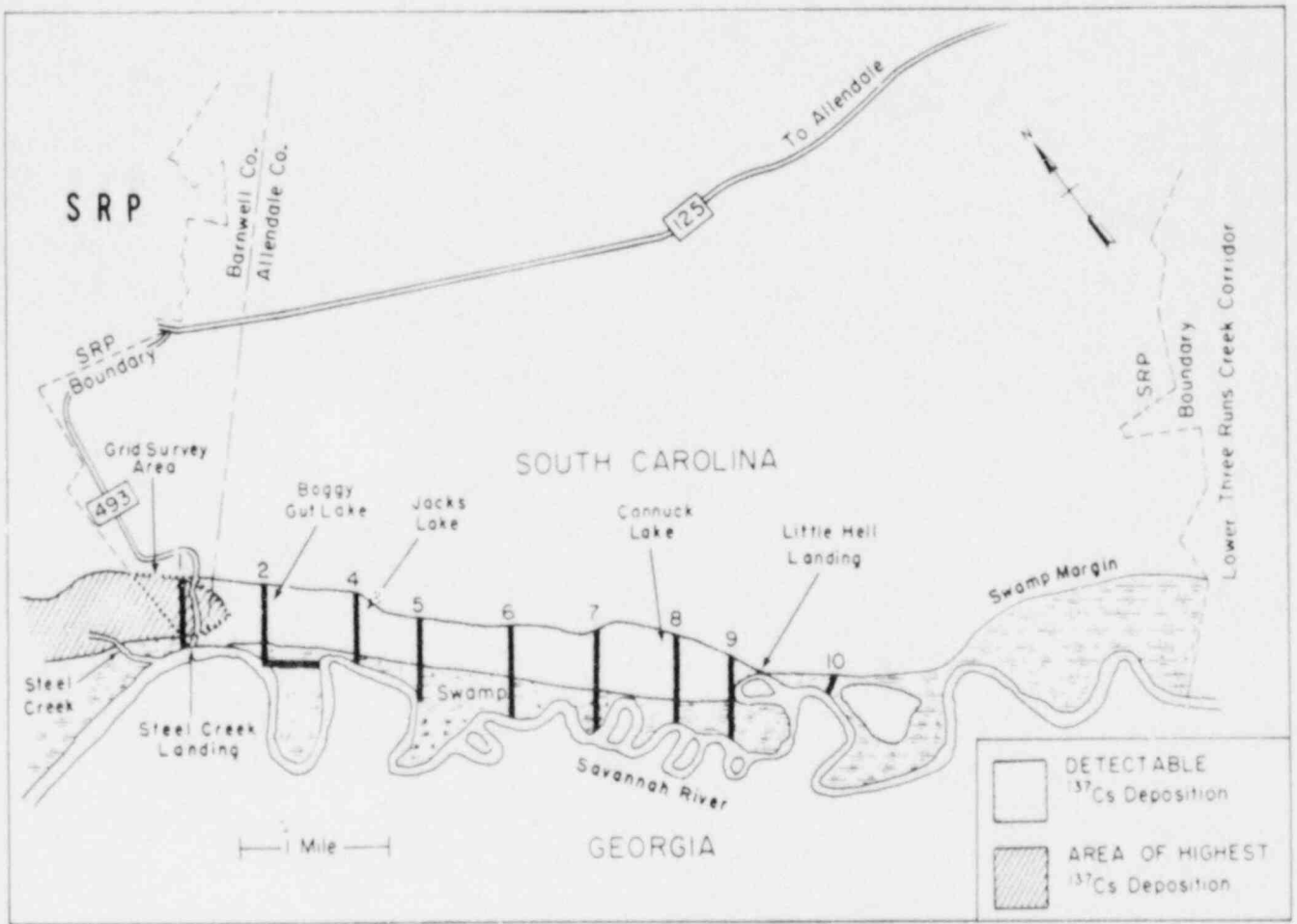
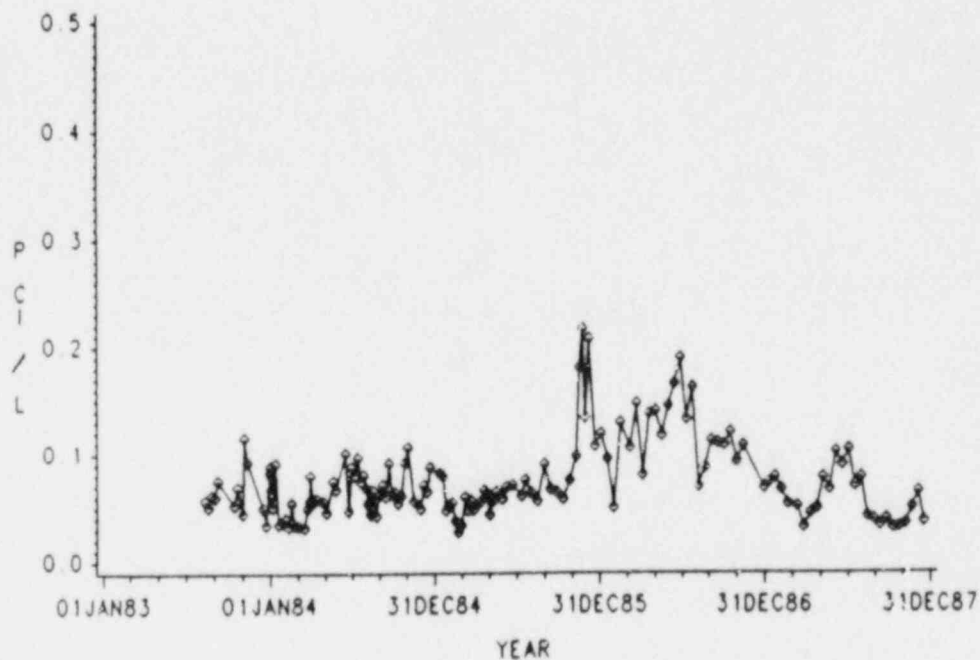


Fig. 8-2
Monitoring trails in the Savannah River swamp

CS-137 CONCENTRATIONS AT HIGHWAY 301



CS-137 CONCENTRATIONS AT SHELL BLUFF

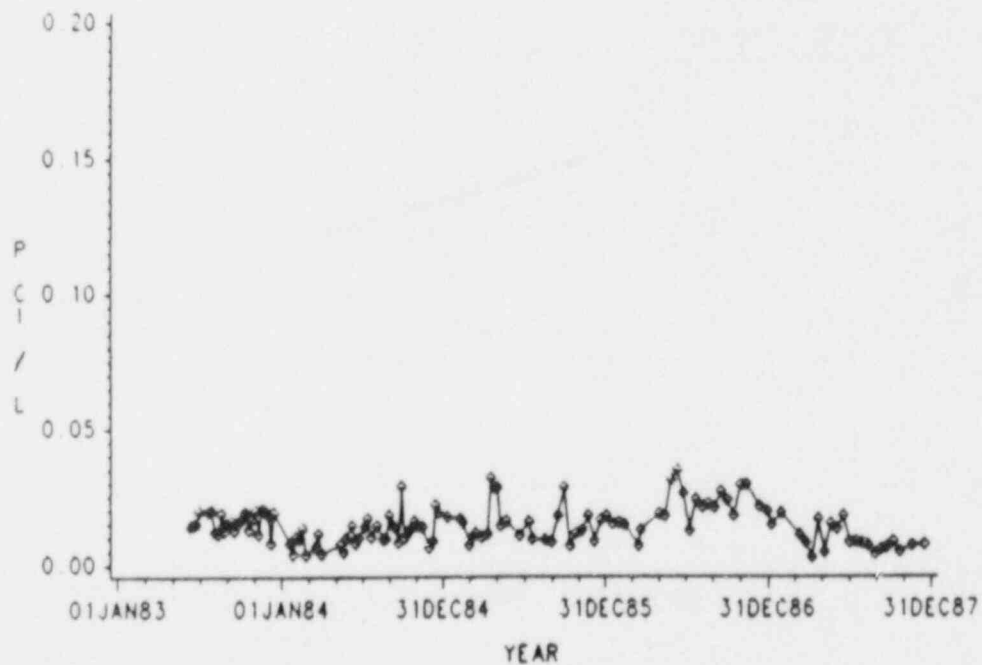


Fig. 8-3
Low-level Cs-137 concentrations in the Savannah River

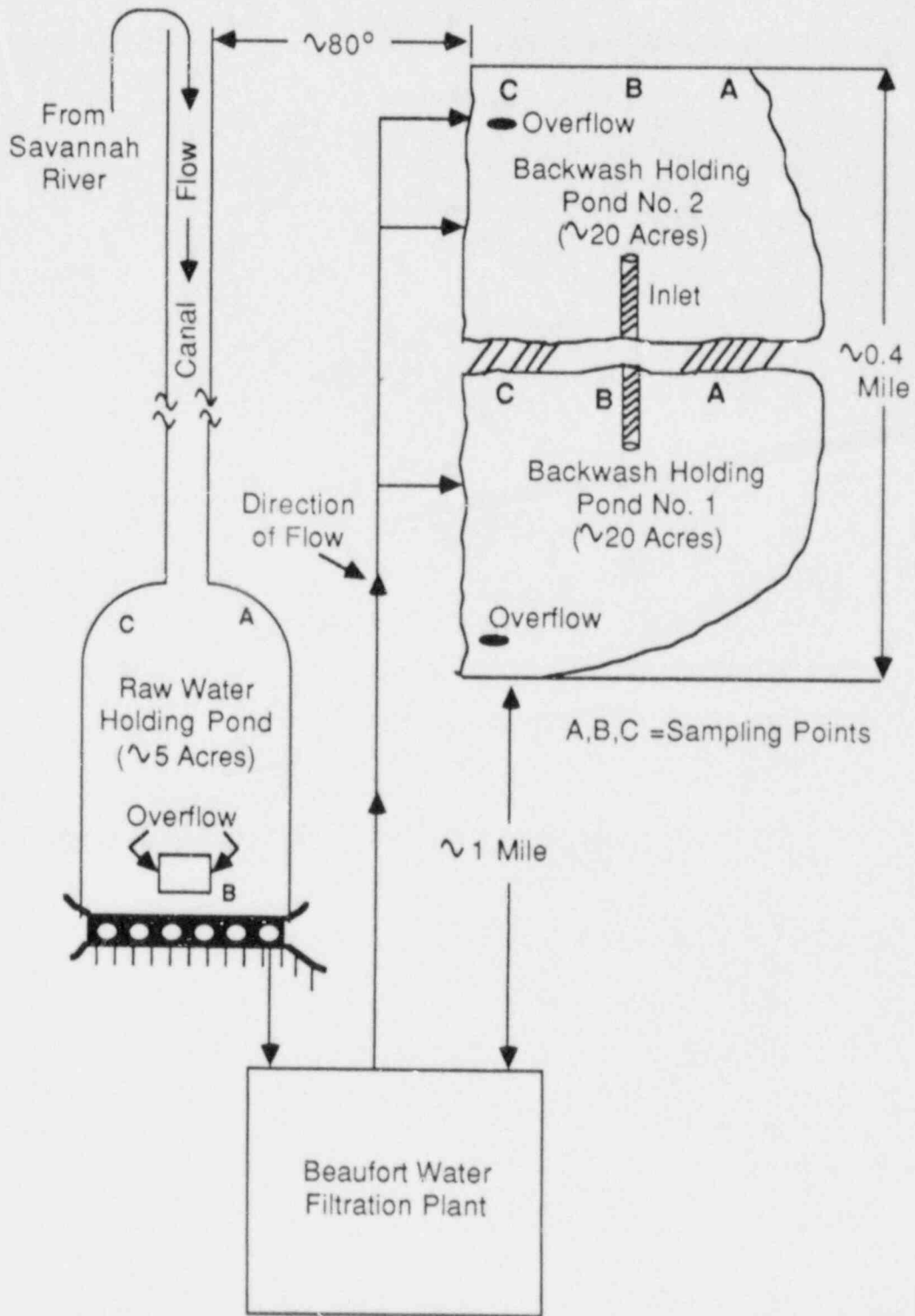


Fig. 8-4
Holding ponds at Beaufort-Jasper water treatment plant

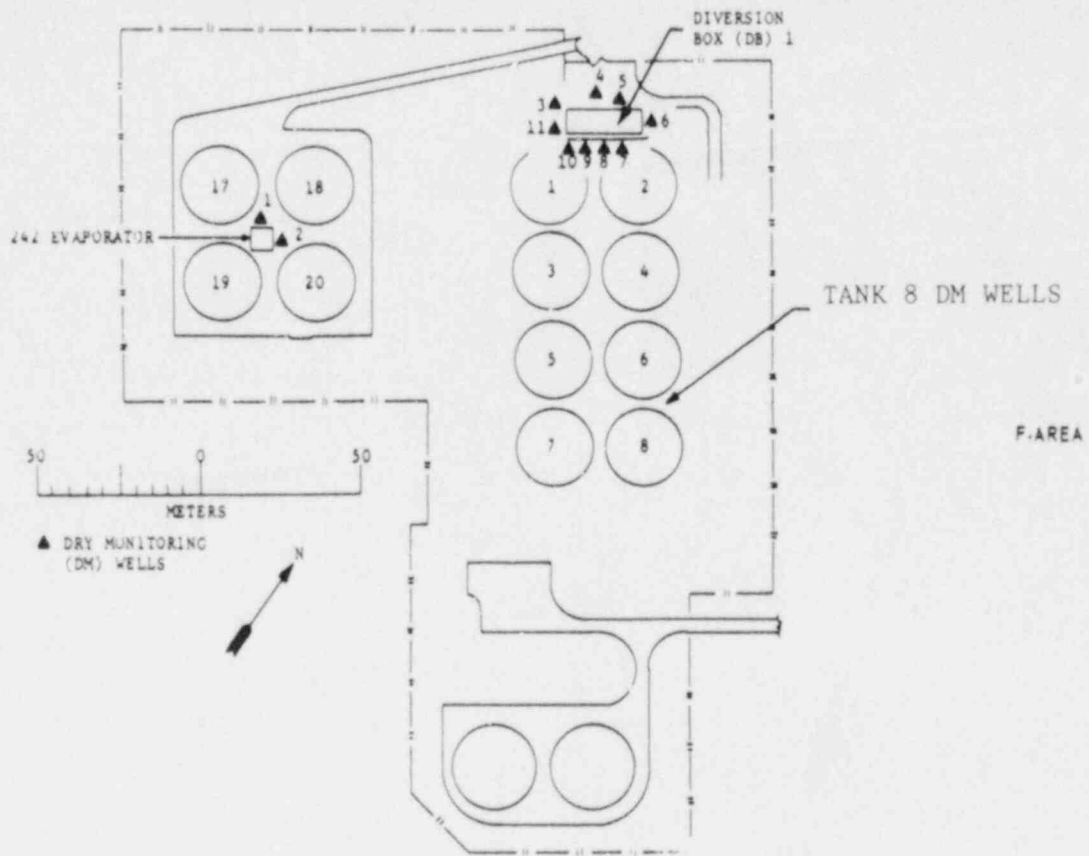


Fig. 8-5
F-Area Tank Farm Dry Monitoring wells

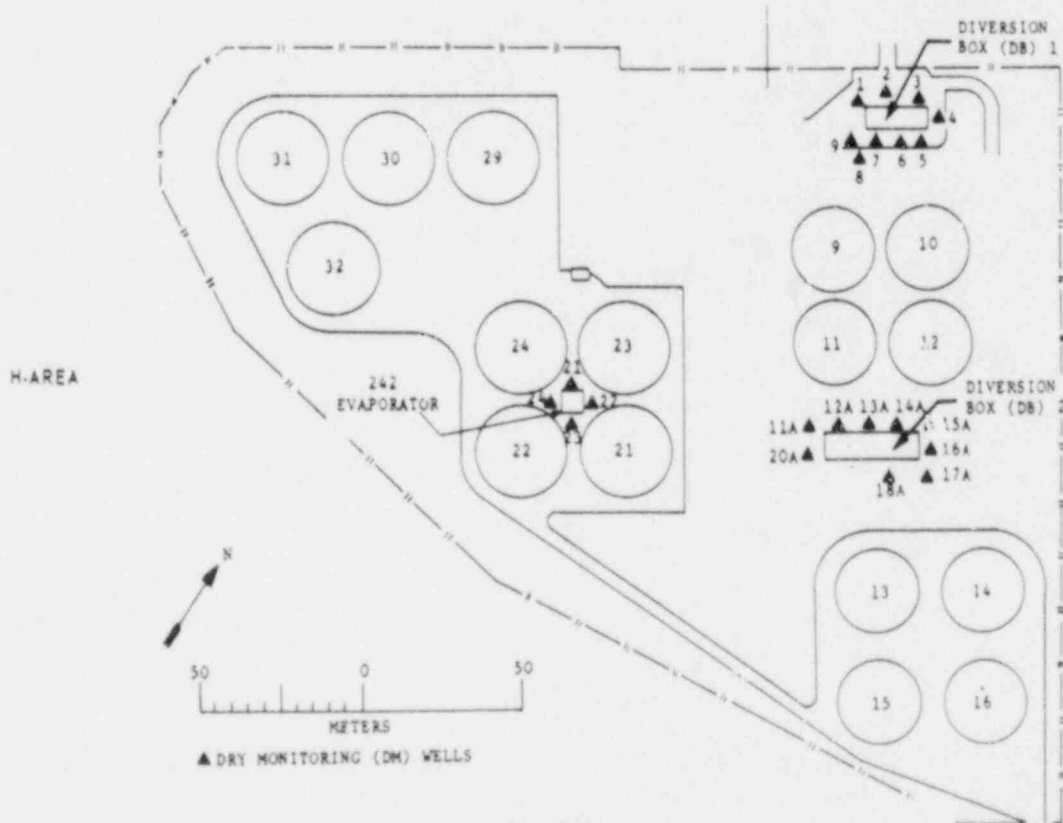


Fig. 8-6
H-Area Tank Farm Dry Monitoring wells

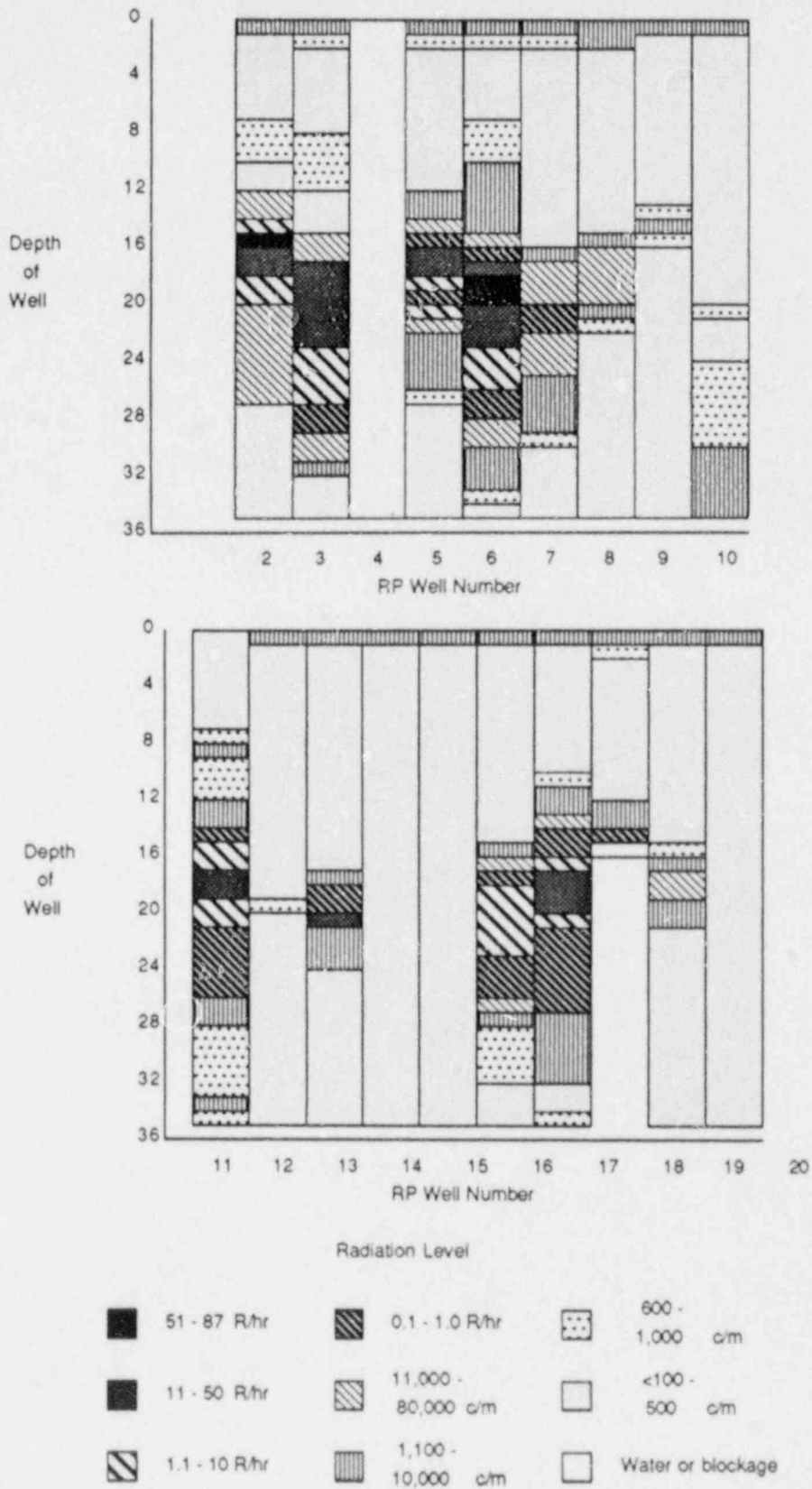
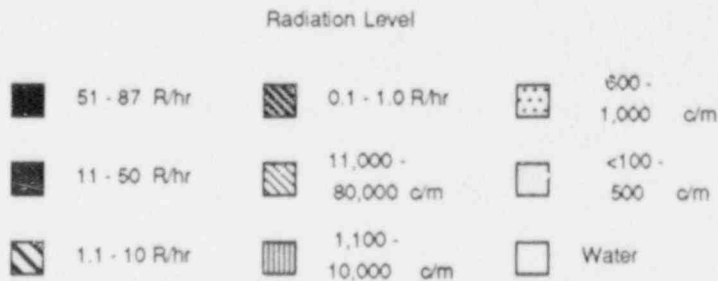
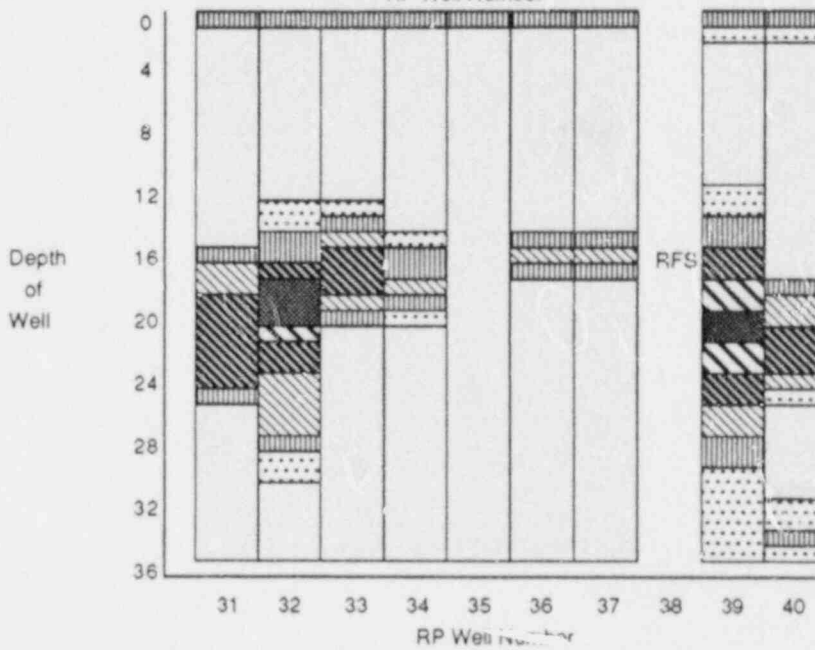
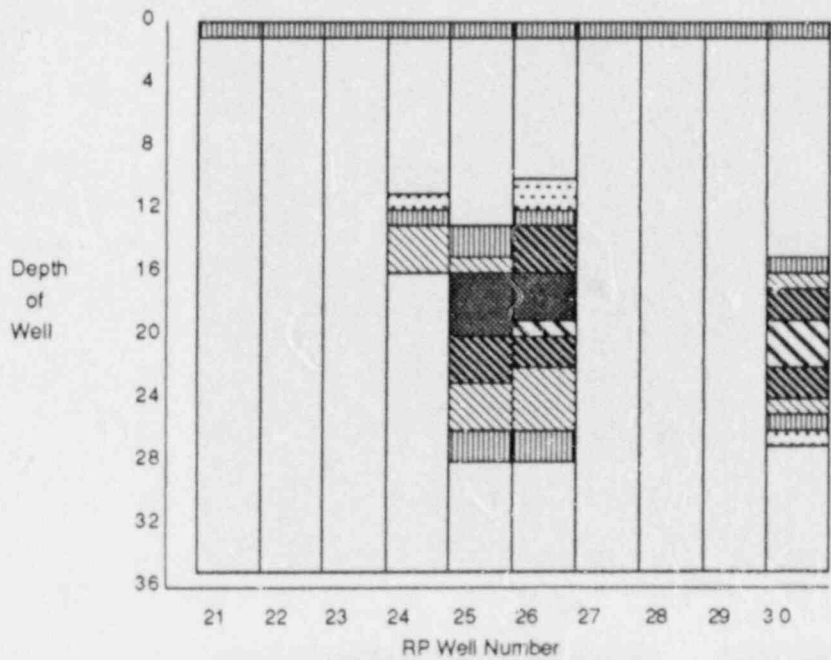
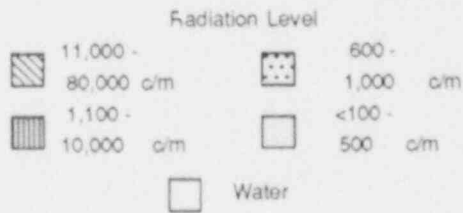
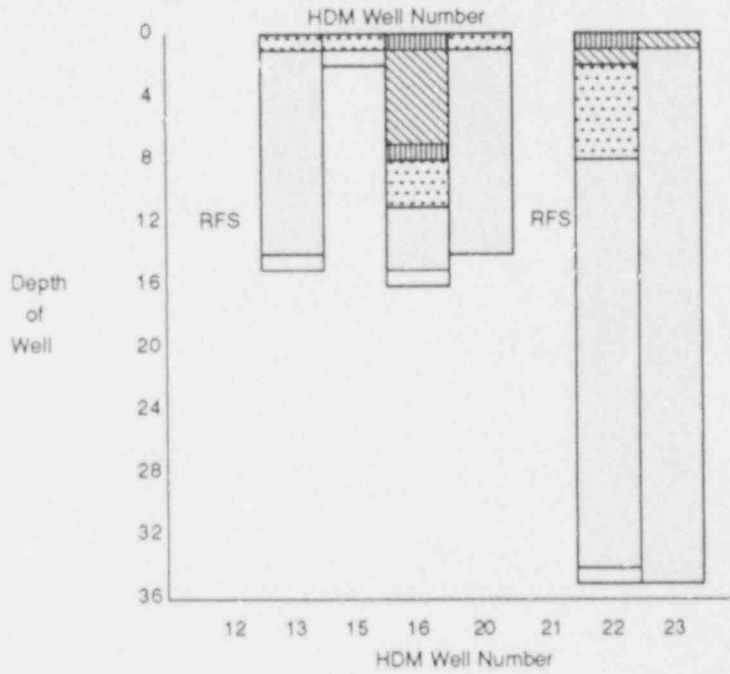
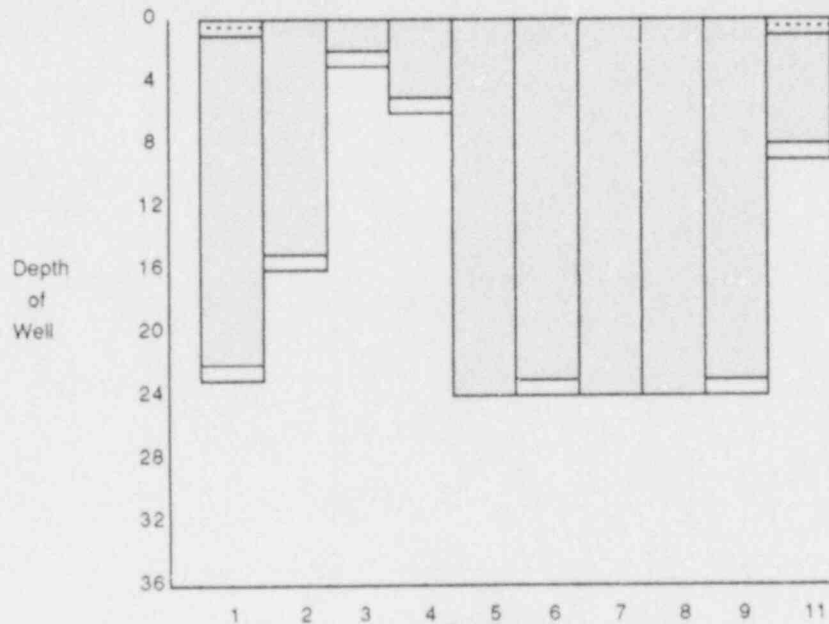


Fig. 8-7
Radiation levels in F-Area Dry Monitoring wells



RFS indicates removed from service.

Fig. 8-7, Cont'd.
Radiation levels in F-Area Dry Monitoring wells



RFS indicates removed from service.

Fig. 8-8
Radiation levels in H-Area Dry Monitoring wells

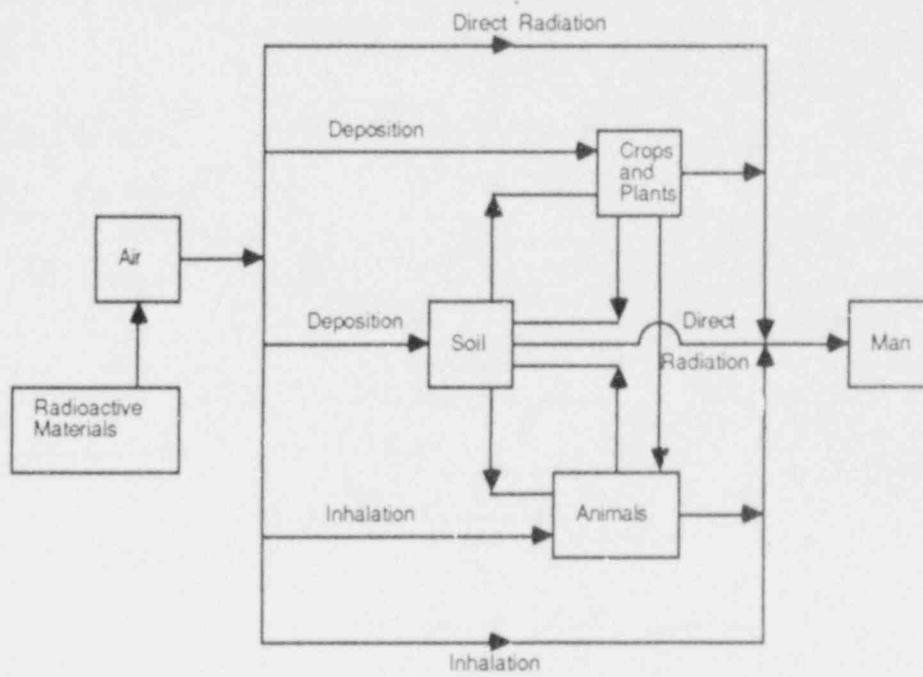


Fig. 9-1
Simplified pathways between radioactive materials released to atmosphere and man

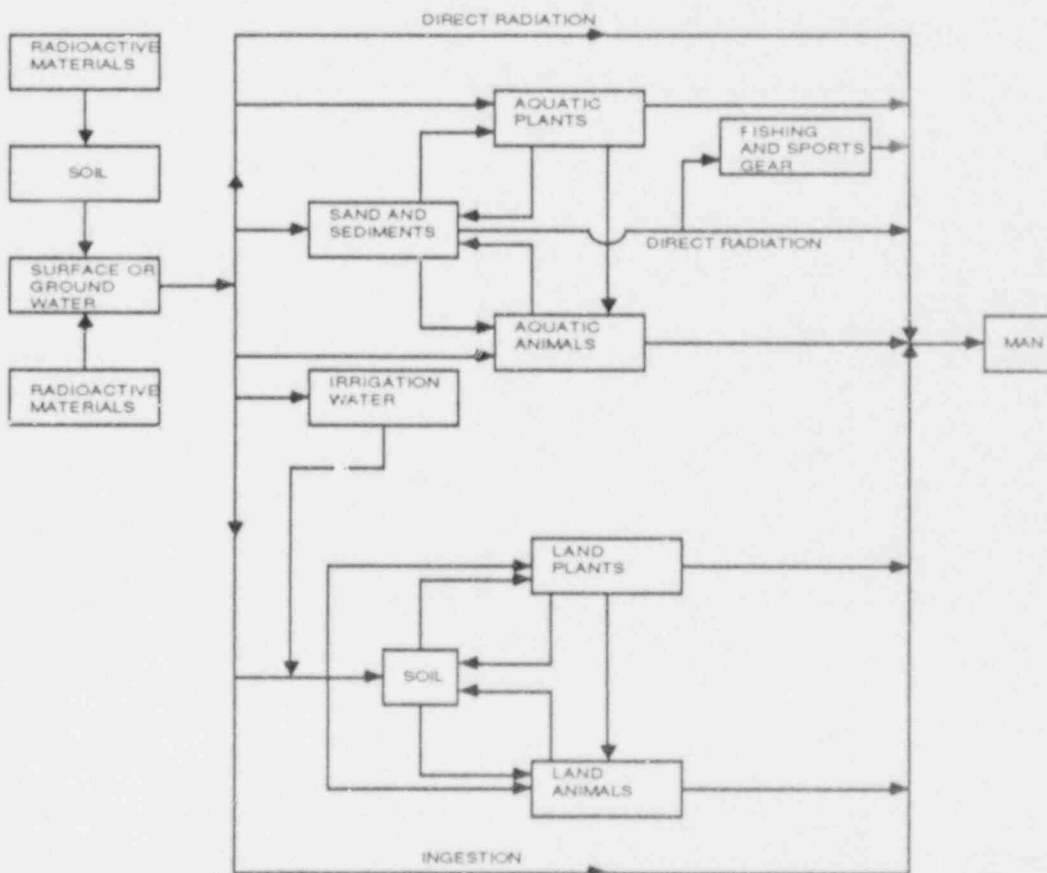


Fig. 9-2
Simplified pathways between radioactive materials released to ground or surface waters and man

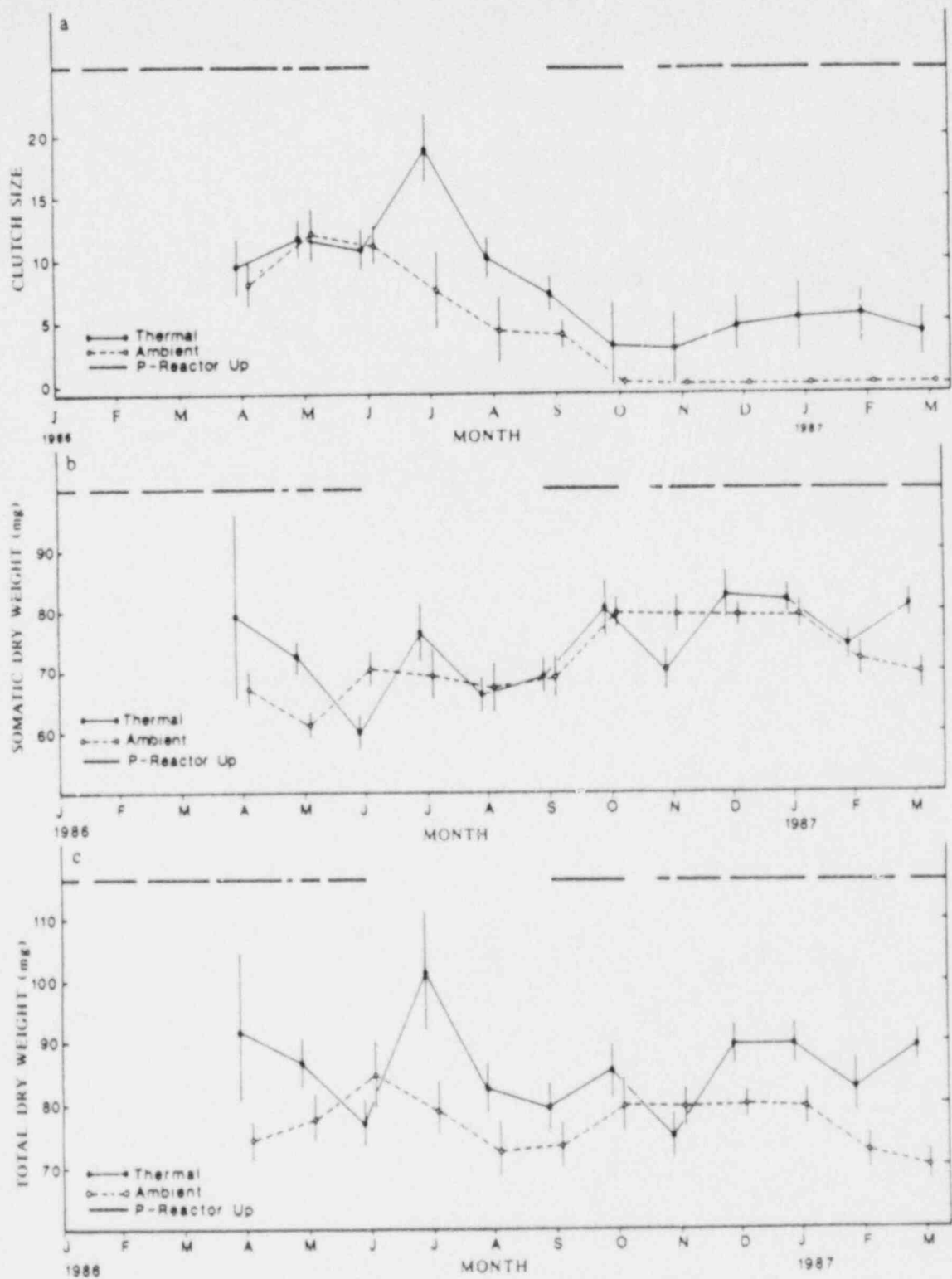


Fig.12-1
Life history parameters of fishes from
Risher Pond (ambient) and Pond C (thermal)

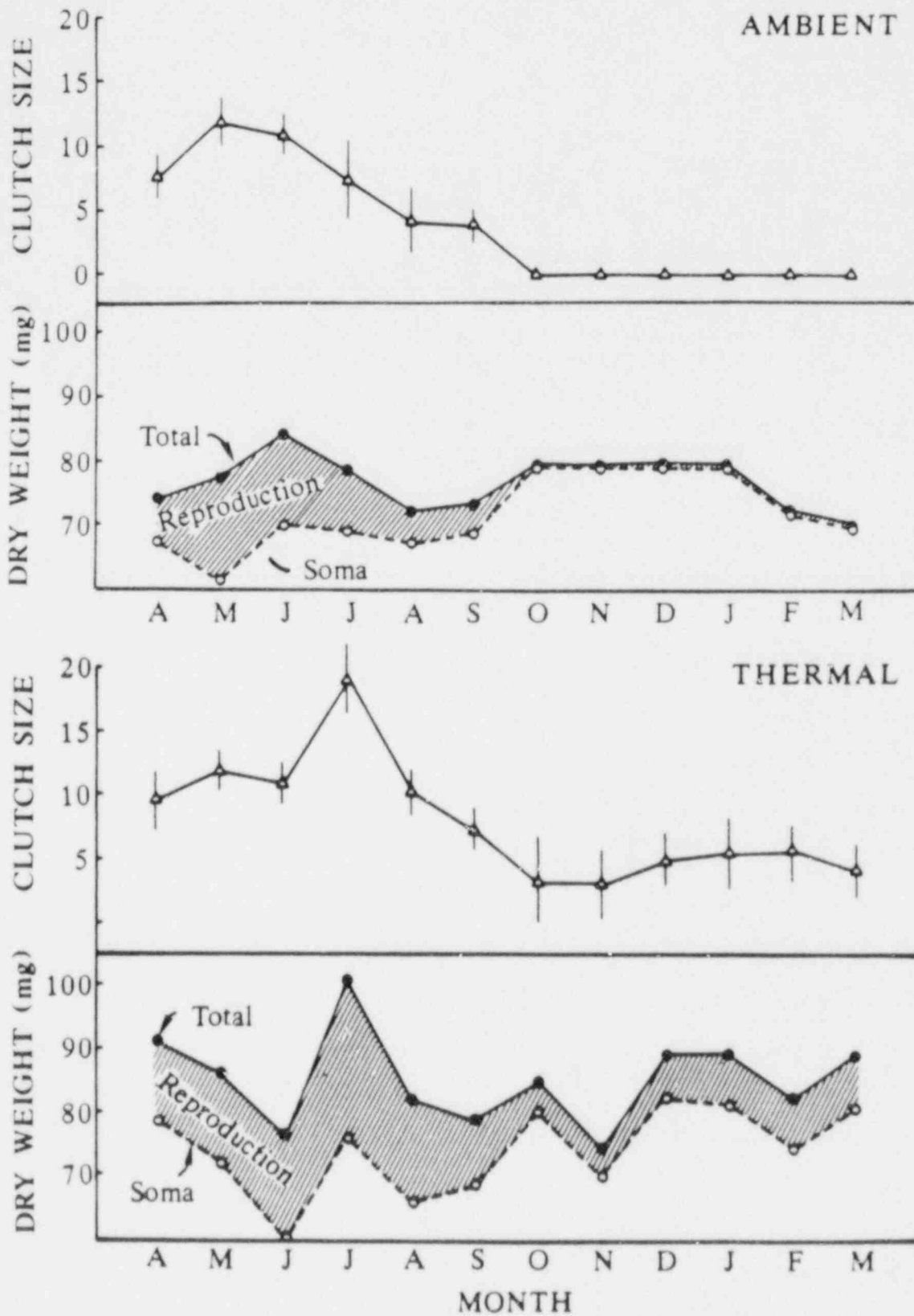


Fig. 12-2
Summaries of life history parameters for *Gambusia affinis*
in Risher Pond and Pond C

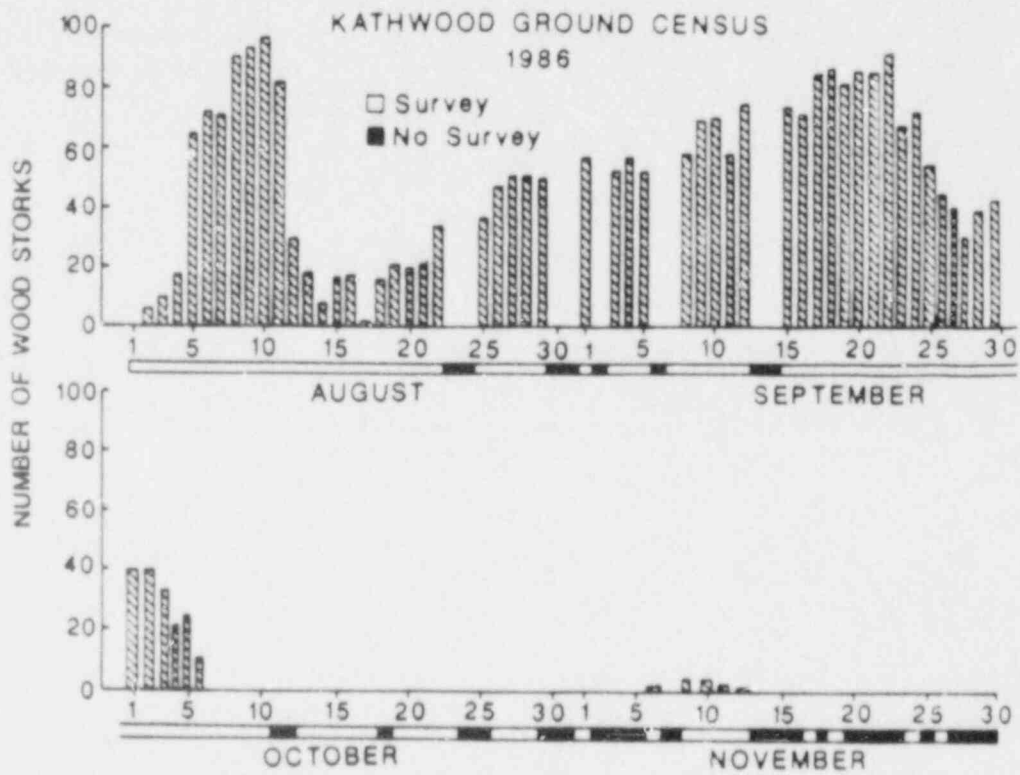


Fig. 12-3
Maximum numbers of wood storks observed at
Kathwood foraging ponds during 1986

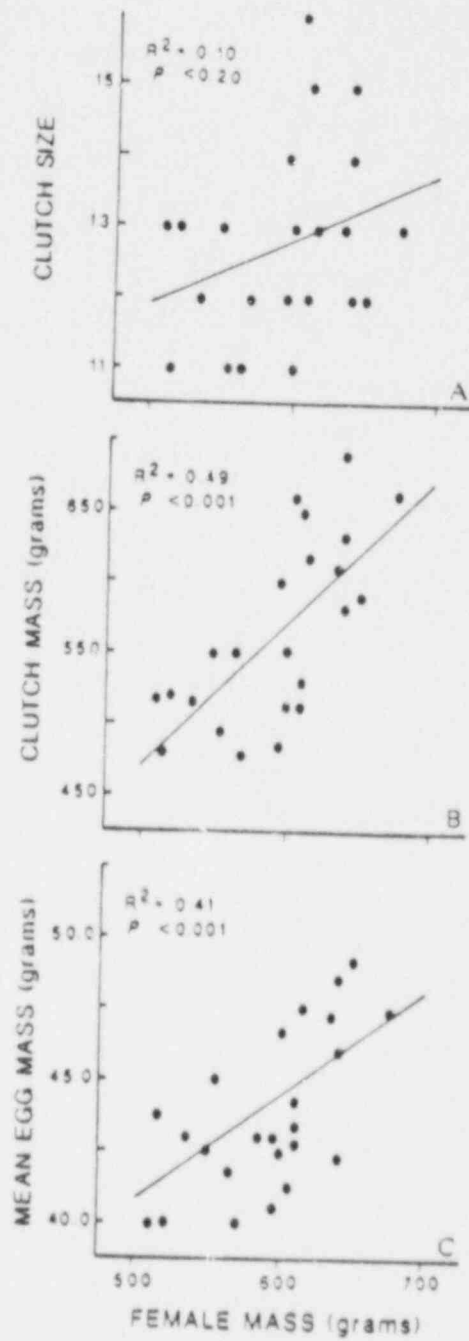


Fig. 12-4
 Relationship of (a) clutch size, (b) clutch mass, and
 (c) mean egg mass to the body mass of female wood ducks

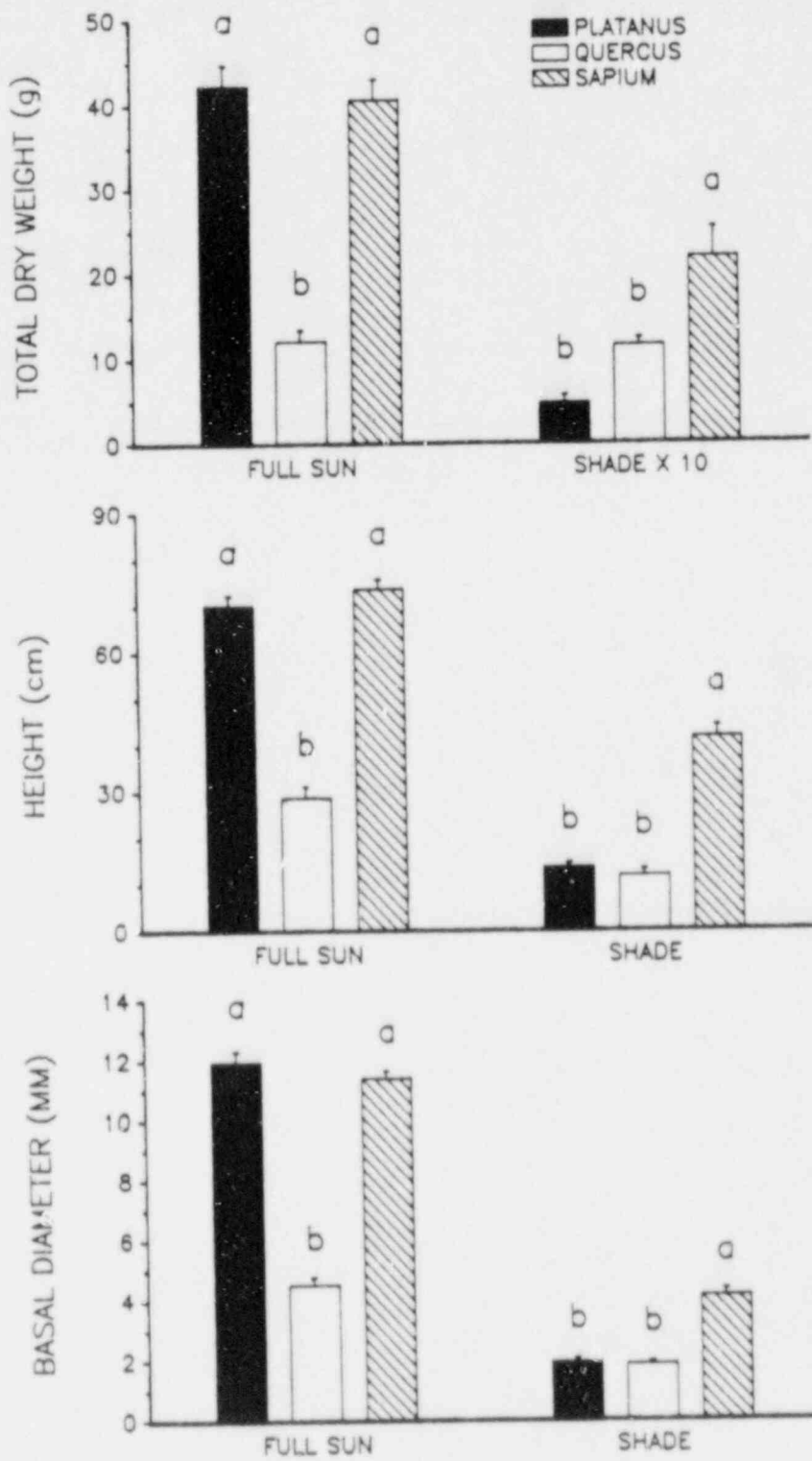


Fig. 12-5
 Size of Chinese tallow tree, American sycamore, and cherrybark oak seedlings subjected to different light regimes



Echinacea laevigata
Purple Coneflower

Fig. 12-6
Echinacea laevigata, the purple cone flower

TABLES

**TABLE ES-1
INDIVIDUAL AND POPULATION DOSES - 1987**

<u>Location/Source</u>	<u>Calculated Individual Dose, mrem^a</u>		<u>Population Size</u>	<u>Calculated Population dose, person-rem^a</u>
	<u>Average</u>	<u>Maximum</u>		
<u>SRP Boundary</u>				
SRP Atmospheric Releases	0.26	0.65 ^b	-	-
SRP Liquid Releases	-	0.93 ^c	-	-
<u>Within 80 km of SRP</u>				
Dose From Atmospheric Releases	0.05 ^d	-	555,100	29.3
<u>Water Treatment Plants Downstream of SRP</u>				
Using Water From Beaufort-Jasper Treatment Plant	0.05	0.11	51,000	2.5
Using Water From Port Wentworth Treatment Plant	0.06	0.11	20,000	1.1
<u>River Fish and Recreation</u>				
Consuming River Fish	-	-	555,100	2.3
Recreation	-	-	555,100	<0.1
SRP Releases Total				35.3
<u>Other Sources</u>	<u>Annual Dose, mrem</u>		<u>Pop. Dose, person-rem</u>	
Natural Radioactivity ^e				
Cosmic Radiation	27			
External Terrestrial	28			
Internal Terrestrial	40			
Radon in Homes	200			
		555,100 (within 80km)	164,000	
		71,000 (water plants)	20,900	
Subtotal (Natural)	295			185,000
Medical Radiation ^{e,f}	53			
		555,100 (within 80km)	29,400	
		71,000 (water plants)	3,800	
Subtotal (Medical)	53			33,200
Consumer Products	10			
		555,100 (within 80km)	5,600	
		71,000 (water plants)	700	
Subtotal (Consumer Products)	10			6,300
Weapons Test Fallout	<1.0			
		555,000 (within 80km)	600	
		71,000 (water plants)	100	
Subtotal (weapons Tests)	<1.0			700
Other	<1.0			
		555,000 (within 80km)	600	
		71,000 (water plants)	100	
Subtotal (Other)	<1.0			700
Other Sources Total	360			225,000

^a Committed effective dose equivalent.

^b Based on a hypothetical individual with maximum dietary habits located on the plant perimeter at locations of highest exposure. No such individual is known to exist.

^c Based on a hypothetical individual with maximum dietary habits who lives on the shore of the Savannah River. No such individual is known to exist.

^d Based on atmospheric dispersion of SRP releases as described in Table 2-2.

^e Average values for the United States.

^f Dose is prorated over the U. S. population. This is a means of arriving at an average dose, which when multiplied by the population size, produces an estimate of population exposure. It does not mean that every member of the population received a radiation exposure from these sources.

- Not applicable.

**TABLE 2-1
RADIOACTIVITY IN AIR**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CTERR 95% CL</u>	<u>MINIMUM</u>	<u>CTERR 95% CL</u>	<u>ARITHMETIC MEAN ± STD DEV</u>	
<u>ALPHA. FCI/CUBIC M</u>							
<u>ONPLANT</u>							
A AREA	52	3.7	±1.5	0.00	±0.30	1.2	±1.2
BURIAL GROUND NORTH	22	2.7	±1.4	0.11	±0.37	0.99	±1.1
BURIAL GROUND SOUTH	51	2.7	±1.2	0.10	±0.36	1.1	±0.86
F AREA	51	3.6	±1.3	0.21	±0.42	1.2	±1.3
H AREA	52	2.8	±1.2	0.20	±0.40	1.1	±1.3
HIGHWAY 39	51	2.6	±1.2	0.21	±0.60	1.1	±1.0
AVERAGE						1.1	±1.2
<u>PLANT PERIMETER</u>							
ALLENDALE GATE	52	4.3	±3.0	0.11	±0.38	1.1	±1.4
A-14	52	3.2	±1.1	0.00	±0.51	1.0	±1.1
BARNWELL GATE	52	2.9	±1.3	0.00	±0.38	1.1	±1.3
D AREA	51	3.8	±1.5	0.00	±0.20	1.0	±1.3
DARKHORSE	52	3.0	±1.1	0.00	±0.00	0.98	±1.2
EAST TALATHA	51	2.9	±1.2	-0.23	±0.81	1.1	±1.3
GREEN POND	52	3.6	±1.7	0.29	±0.43	1.1	±1.1
HIGHWAY 21/167	52	2.4	±1.1	0.20	±0.40	1.0	±1.0
JACKSON	52	2.2	±0.94	0.30	±0.44	1.1	±0.98
PATTERSON MILL	51	2.3	±0.95	-0.10	±0.46	1.0	±1.1
TALATHA GATE	52	2.3	±1.2	0.11	±0.38	1.1	±0.98
WEST JACKSON	52	2.6	±1.0	0.00	±0.30	1.0	±1.0
WINDSOR ROAD	51	3.1	±1.4	0.20	±0.41	1.1	±1.0
AVERAGE						1.0	±1.1
<u>25-MILE RADIUS</u>							
AIKEN AIRPORT	52	2.4	±1.0	0.10	±0.44	1.0	±1.0
AIKEN STATE PARK	52	3.5	±1.4	0.20	±0.40	1.1	±1.2
ALLENDALE	52	2.2	±1.2	0.00	±0.46	0.97	±1.1
AUGUSTA	52	1.6	±0.93	-0.10	±0.19	0.72	±0.76
HIGHWAY 301	50	6.0	±2.4	0.30	±0.44	1.1	±1.8
LANGLEY	52	2.8	±1.3	0.23	±0.64	1.0	±1.0
LEES	51	2.8	±1.2	0.00	±0.21	0.86	±1.2
OLAR	52	2.7	±1.3	0.00	±0.21	0.98	±1.1
PERKINS	52	2.8	±1.4	0.12	±0.41	0.97	±1.1
SOUTH RICHMOND	51	2.3	±1.0	0.11	±0.56	1.1	±1.0
SPRINGFIELD	52	2.5	±1.2	0.20	±0.56	1.1	±1.0
WAYNESBORO	52	2.8	±1.2	0.00	±0.49	1.0	±1.1
AVERAGE						0.98	±1.1
<u>100-MILE RADIUS</u>							
COLUMBIA	51	3.2	±1.2	0.30	±0.60	1.3	±1.1
GREENVILLE	32	2.9	±1.3	0.00	±0.52	1.1	±1.4
MACON	51	4.7	±1.5	-0.12	±0.23	1.2	±1.7
SAVANNAH	53	3.2	±1.8	0.00	±0.43	1.0	±1.1
AVERAGE						1.2	±1.4

**TABLE 2-1
RADIOACTIVITY IN AIR, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± STD DEV</u>	
<u>NONVOL BETA, FCI/CUBIC M</u>							
<u>ONPLANT</u>							
A AREA	52	210	±8.9	1.3	±2.4	22	±56
BURIAL GROUND NORTH	22	27	±3.2	7.3	±1.8	15	±9.2
BURIAL GROUND SOUTH	52	230	±9.4	9.0	±2.0	31	±90
F AREA	51	200	±9.8	7.1	±1.9	28	±64
H AREA	52	290	±11	11	±2.1	54	±110
HIGHWAY 39	51	34	±2.9	8.9	±2.0	16	±10
AVERAGE						28	±75
<u>PLANT PERIMETER</u>							
ALLENDALE GATE	52	59	±9.6	7.7	±1.8	16	±15
A-14	52	31	±3.2	8.2	±1.9	15	±9.8
BARNWELL GATE	52	53	±6.4	1.1	±0.79	16	±17
D AREA	51	380	±12	1.1	±0.80	23	±100
DARKHORSE	52	30	±3.3	4.9	±9.6	15	±11
EAST TALATHA	51	31	±3.9	3.3	±3.0	17	±12
GREEN POND	52	180	±9.1	7.5	±2.1	20	±49
HIGHWAY 21/167	52	46	±5.0	7.5	±2.1	17	±13
JACKSON	52	97	±6.9	7.3	±1.8	18	±25
PATTERSON MILL	51	30	±3.2	7.4	±1.9	16	±10
TALATHA GATE	52	35	±4.2	8.9	±2.2	16	±11
WEST JACKSON	52	84	±6.2	6.9	±2.0	18	±22
WINDSOR ROAD	50	30	±3.3	5.8	±1.7	17	±11
AVERAGE						17	±34
<u>25-MILE RADIUS</u>							
AIKEN AIRPORT	52	32	±3.6	1.2	±2.2	15	±11
AIKEN STATE PARK	52	32	±3.5	6.5	±2.1	16	±11
ALLENDALE	52	26	±3.2	6.6	±1.8	14	±7.9
AUGUSTA	52	22	±3.2	0.33	±1.1	12	±11
HIGHWAY 301	50	60	±6.8	6.5	±2.6	17	±16
LANGLEY	52	55	±5.0	8.1	±2.0	17	±15
LEES	51	33	±3.5	5.6	±1.6	15	±11
OLAR	52	26	±3.4	1.5	±1.2	15	±9.6
PERKINS	51	30	±4.0	7.9	±2.1	16	±10
SOUTH RICHMOND	52	40	±4.2	7.9	±1.8	17	±13
SPRINGFIELD	52	28	±3.4	1.2	±2.2	16	±10
WAYNESBORO	52	37	±3.6	7.3	±1.8	17	±11
AVERAGE						16	±12
<u>100-MILE RADIUS</u>							
COLUMBIA	51	26	±3.9	4.2	±1.9	15	±8.9
GREENVILLE	32	38	±3.9	6.6	±0.82	16	±13
MACON	51	24	±3.0	1.2	±1.7	16	±9.9
SAVANNAH	53	24	±3.1	5.9	±2.2	14	±9.3
AVERAGE						15	±10

**TABLE 2-1
RADIOACTIVITY IN AIR, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CTERR 95% CL</u>	<u>MINIMUM</u>	<u>CTERR 95% CL</u>	<u>ARITHMETIC MEAN 2 STD DEV</u>	
<u>SR-89, 90, FCI/CUBIC M</u>							
<u>MONTHLY COMPOSITE</u>							
3/700 AREA	12	8.3	±1.5	-0.74	±0.94	0.62	±4.9
F AREA	12	1.5	±0.94	-0.56	±0.97	0.02	±0.98
H AREA	12	1.7	±1.2	-0.66	±0.90	0.43	±1.4
BG NORTH	6	0.33	±0.66	-0.80	±0.86	0.23	-
BG SOUTH	12	0.88	±1.1	-0.50	±0.98	0.07	±0.66
PLANT PERIMETER	12	0.07	±0.06	-0.07	±0.06	0.00	±0.04
25-MILE RADIUS	12	0.84	±0.15	-0.06	±0.08	0.09	±0.50
100-MILE RADIUS AVERAGE	12	0.47	±0.33	-0.23	±0.24	0.03	±0.36
						0.11	±1.9
<u>BE-7, FCI/CUBIC M</u>							
<u>MONTHLY COMPOSITE</u>							
3/700 AREA	10	1400	±170	150	±37	330	±770
F AREA	10	270	±76	2.5	±1.0	170	±170
H AREA	11	280	±140	130	±32	180	±100
BG NORTH	4	590	±21	150	±56	300	-
BG SOUTH	10	1400	±190	120	±41	380	±820
PLANT PERIMETER	10	140	±15	1.6	±0.20	98	±86
25-MILE RADIUS	10	170	±18	82	9.7	120	±54
100-MILE RADIUS AVERAGE	10	460	±110	2.3	±0.42	190	±230
						200	±460
<u>ZR-95, NB-95, FCI/CUBIC M</u>							
<u>MONTHLY COMPOSITE</u>							
3/700 AREA	10	0.00	±190	0.00	±4.1	0.00	-
F AREA	10	0.00	±190	0.00	±9.0	0.00	-
H AREA	11	0.00	±190	0.00	±1.7	0.00	-
BG NORTH	4	0.00	±190	0.00	±20	0.00	-
BG SOUTH	10	0.00	±190	0.00	±22	0.00	-
PLANT PERIMETER	10	0.00	±190	0.00	±2.1	0.00	-
25-MILE RADIUS	10	0.00	±190	0.00	±0.28	0.00	-
100-MILE RADIUS AVERAGE	10	0.00	±190	0.00	±3.6	0.00	-
						0.00	-
<u>RU-106, FCI/CUBIC M</u>							
<u>MONTHLY COMPOSITE</u>							
3/700 AREA	10	0.00	±190	0.00	±11	0.00	-
F AREA	10	0.00	±190	0.00	±22	0.00	-
H AREA	11	0.00	±190	0.00	±4.2	0.00	-
BG NORTH	4	0.00	±190	0.00	±47	0.00	-
BG SOUTH	9	0.00	±190	0.00	±47	0.00	-
PLANT PERIMETER	10	0.00	±190	0.00	±4.1	0.00	-
25-MILE RADIUS	10	0.00	±190	0.00	±1.8	0.00	-
100-MILE RADIUS AVERAGE	10	0.00	±190	0.00	±16	0.00	-
						0.00	-

- Insufficient data

**TABLE 2-1
RADIOACTIVITY IN AIR, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CTERR 95% CL</u>	<u>MINIMUM</u>	<u>CTERR 95% CL</u>	<u>ARITHMETIC MEAN ± STD DEV</u>	
<u>I-131, FC/CUBIC M</u>							
<u>MONTHLY COMPOSITE</u>							
3/700 AREA	10	0.00	±190	0.00	±1500	0.00	-
F AREA	10	0.00	±190	0.00	±2500	0.00	-
H AREA	11	0.00	±190	0.00	±530	0.00	-
BG NORTH	4	0.00	±190	0.00	±7100	0.00	-
BG SOUTH	10	0.00	±190	0.00	±6700	0.00	-
PLANT PERIMETER	10	0.00	±190	0.00	±470	0.00	-
25-MILE RADIUS	10	0.00	±190	0.00	±260	0.00	-
100-MILE RADIUS	10	0.00	±190	0.00	±2600	0.00	-
AVERAGE						0.00	-
<u>CS-137, FC/CUBIC M</u>							
<u>MONTHLY COMPOSITE</u>							
3/700 AREA	10	88	±11	0.00	±1.5	14	±59
F AREA	10	52	±8.9	0.00	±3.0	7.2	±32
H AREA	11	1100	±110	0.00	±1.5	160	±610
BG NORTH	4	19	±9.0	0.00	±2.5	7.3	-
BG SOUTH	10	250	±0.00	0.00	±1.6	44	±160
PLANT PERIMETER	10	11	±1.2	0.00	±0.56	1.4	±6.6
25-MILE RADIUS	9	2.6	±0.47	0.00	±0.19	0.40	±1.7
100-MILE RADIUS	10	0.00	±0.47	0.00	±1.7	0.00	-
AVERAGE						27	±260
<u>CE-144, FC/CUBIC M</u>							
<u>MONTHLY COMPOSITE</u>							
3/700 AREA	10	0.00	±9.7	0.00	±6.7	0.00	-
F AREA	10	0.00	±9.7	0.00	±7.0	0.00	-
H AREA	11	21	±9.7	0.00	±1.6	4.6	±14
BG NORTH	4	0.00	±9.7	0.00	±24	0.00	-
BG SOUTH	10	0.00	±9.7	0.00	±26	0.00	-
PLANT PERIMETER	10	0.00	±9.7	0.00	±1.9	0.00	-
25-MILE RADIUS	10	0.00	±9.7	0.00	±0.62	0.00	-
100-MILE RADIUS	10	0.00	±9.7	0.00	±7.3	0.00	-
AVERAGE						0.50	±6.2
<u>PU-238, ACI/CUBIC M</u>							
<u>MONTHLY COMPOSITE</u>							
3/700 AREA	12	18	±5.1	-0.20	±3.6	2.0	±10
F AREA	12	220	±28	-0.47	±0.65	81	±140
H AREA	12	210	±14	0.00	±35	30	±120
BG NORTH	6	77	±10	0.00	±4.8	15	-
BG SOUTH	12	47	±9.3	-0.43	±19	12	±31
PLANT PERIMETER	12	1.3	±0.40	-0.18	±0.78	0.31	±0.88
25-MILE RADIUS	11	1.3	±0.40	-0.06	±0.12	0.31	±0.98
100-MILE RADIUS	11	8.3	±3.2	-0.48	±0.88	0.70	±5.0
AVERAGE						14	±86

- Insufficient data

**TABLE 2-1
RADIOACTIVITY IN AIR, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CTERR 95% CL</u>	<u>MINIMUM</u>	<u>CTERR 95% CL</u>	<u>ARITHMETIC MEAN 2 STD DEV</u>	
<u>PU-239, ACl/CUBIC M</u>							
<u>MONTHLY COMPOSITE</u>							
3/700 AREA	12	12	±9.1	0.00	±3.3	2.9	±7.2
F AREA	12	93	±11	0.68	±1.0	30	±55
H AREA	12	9.5	±3.1	0.00	±4.8	3.6	±6.9
BG NORTH	6	52	±11	0.00	±4.8	13	-
BG SOUTH	12	15	±5.7	0.00	±2.4	5.1	±11
PLANT PERIMETER	12	6.2	±1.8	-0.09	±0.11	1.3	±3.6
25-MILE RADIUS	12	3.9	±0.86	0.00	±1.1	1.0	±2.0
100-MILE RADIUS	11	6.7	±2.6	0.00	±2.9	1.5	±3.9
AVERAGE						5.9	±30
<u>MN-54, FC/CUBIC M</u>							
<u>MONTHLY COMPOSITE</u>							
3/700 AREA	10	0.00	±190	0.00	±0.1	0.00	-
F AREA	10	0.00	±190	0.00	±0.1	0.00	-
H AREA	11	0.00	±190	0.00	±0.1	0.00	-
BG NORTH	4	0.00	±190	0.00	±0.1	0.00	-
BG SOUTH	10	0.00	±190	0.00	±5.3	0.00	-
PLANT PERIMETER	10	0.00	±190	0.00	±0.45	0.00	-
25-MILE RADIUS	10	0.00	±190	0.00	±0.14	0.00	-
100-MILE RADIUS	10	0.00	±190	0.00	±2.0	0.00	-
AVERAGE						0.00	-
<u>SB-125, FC/CUBIC M</u>							
<u>MONTHLY COMPOSITE</u>							
3/700 AREA	10	0.00	±190	0.00	±2.4	0.00	-
F AREA	10	0.00	±190	0.00	±4.2	0.00	-
H AREA	11	0.00	±190	0.00	±1.2	0.00	-
BG NORTH	4	0.00	±190	0.00	±10	0.00	-
BG SOUTH	10	0.00	±190	0.00	±14	0.00	-
PLANT PERIMETER	10	0.00	±190	0.00	±0.88	0.00	-
25-MILE RADIUS	10	0.00	±190	0.00	±0.41	0.00	-
100-MILE RADIUS	10	0.00	±190	0.00	±	0.00	-
AVERAGE						0.00	-

- Insufficient data

**TABLE 2-1
RADIOACTIVITY IN AIR, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CTERR 95% CL</u>	<u>MINIMUM</u>	<u>CTERR 95% CL</u>	<u>ARITHMETIC MEAN ± STD DEV</u>	
<u>H-3, PCICUM</u>							
<u>ONPLANT</u>							
A AREA	25	210	±8.5	12	±2.0	95	±120
F AREA	25	770	±12	58	±2.3	340	±430
H AREA	25	7200	±150	94	±2.8	2100	±4200
BURIAL GROUND NORTH	13	3000	±45	140	±3.3	1100	±2000
BURIAL GROUND SOUTH	23	6100	±260	500	±5.2	2500	±2900
HIGHWAY 39	25	430	±12	6.5	±2.6	88	±200
AVERAGE						1000	±3000
<u>PLANT PERIMETER</u>							
ALLENDALE GATE	24	90	±7.3	7.9	±6.1	33	±38
A-14	25	180	±8.3	18	±2.7	88	±82
BARNWELL GATE	24	130	±6.9	12	±2.7	57	±60
D AREA	25	250	±6.5	34	±2.6	140	±120
DARKHORSE	25	260	±9.9	12	±2.7	78	±130
EAST TALATHA	25	230	±6.0	5.1	±2.3	71	±130
GREENPOND	25	150	±8.0	4.9	±2.1	75	±98
HIGHWAY 21/167	25	2100	±45	7.0	±3.1	160	±820
JACKSON	25	160	±5.4	6.8	±1.7	64	±93
PATTERSON MILL	25	100	±3.7	11	±2.3	41	±49
TALATHA GATE	25	700	±8.7	6.6	±1.8	110	±280
WEST JACKSON	24	170	±7.0	15	±2.2	71	±86
WINDSOR ROAD	24	180	±9.0	4.2	±2.0	66	±93
AVERAGE						81	±260
<u>25-MILE RADIUS</u>							
AIKEN AIRPORT	25	57	±6.5	2.3	±1.7	22	±31
AIKEN STATE PARK	24	70	±6.9	2.7	±1.8	27	±37
ALLENDALE	25	74	±7.0	0.00	±6.1	21	±38
AUGUSTA	24	74	±6.1	2.1	±1.8	23	±36
HIGHWAY 301	25	59	±2.9	5.5	±2.8	19	±25
LANGLEY	25	97	±7.0	0.59	±2.1	29	±49
LEES	23	79	±7.2	2.9	±2.3	26	±40
OLAR	24	51	±4.7	4.2	±1.8	20	±21
PERKINS	25	45	±4.0	3.9	±0.13	20	±21
SOUTH RICHMOND	23	84	±6.1	2.2	±3.2	29	±43
SPRINGFIELD	25	120	±7.8	3.8	±1.4	27	±48
WAYNESBORO	25	83	±6.9	3.5	±3.2	31	±36
AVERAGE						25	±37
<u>100-MILE RADIUS</u>							
COLUMBIA	4	18	±6.1	2.7	±2.2	9.8	-
GREENVILLE	4	13	±5.3	3.5	±2.3	7.1	-
MACON	4	23	±7.2	5.4	±2.3	16	-
SAVANNAH	4	8.0	±2.5	3.5	±5.9	6.5	-
AVERAGE						9.9	±13

- Insufficient data.

**TABLE 2-1
RADIOACTIVITY IN AIR, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± 2 STD DEV</u>
<u>H-3 IN ATMOSPHERIC MOISTURE, PCIML</u>						
<u>ONPLANT</u>						
A AREA	26	24	±0.63	2.0	±0.33	7.7 ±11
BURIAL GROUND NORTH	11	160	±2.4	24	±0.63	74 ±84
BURIAL GROUND SOUTH	25	510	±7.3	34	±0.55	200 ±240
F AREA	26	39	±0.61	10	±0.41	25 ±18
H AREA	26	310	±6.4	16	±0.47	140 ±180
HIGHWAY 39	26	20	±0.55	0.75	±0.30	5.7 ±8.7
AVERAGE						76 ±200
<u>PLANT PERIMETER</u>						
ALLENDALE GATE	25	6.2	±0.41	0.36	±0.28	2.8 ±3.1
A-14	26	27	±0.56	0.94	±0.28	8.3 ±11
BARNWELL GATE	25	15	±0.48	1.4	±0.31	5.4 ±6.4
D AREA	26	23	±0.53	4.2	±0.33	12 ±8.7
DARK HORSE	26	12	±0.33	1.4	±0.31	5.3 ±5.3
EAST TALATHA	26	16	±0.47	0.71	±0.32	4.9 ±6.4
GREENPOND	26	13	±0.29	0.85	±0.36	5.6 ±6.9
HIGHWAY 21/167	25	89	±1.9	1.8	±0.31	9.6 ±33
JACKSON	26	17	±0.53	1.0	±0.26	5.3 ±7.6
PATTERSON MILL	26	12	±0.45	0.76	±0.32	4.1 ±5.8
TALATHA GATE	26	38	±0.47	1.2	±0.31	7.5 ±14
WEST JACKSON	25	21	±0.58	0.85	±0.26	6.2 ±7.9
WINDSOR ROAD	25	9.8	±0.41	0.73	±0.35	4.7 ±4.6
AVERAGE						6.3 ±13
<u>25-MILE RADIUS</u>						
AIKEN AIRPORT	26	3.9	±0.35	0.40	±0.30	1.8 ±2.0
AIKEN STATE PARK	26	4.7	±0.32	0.45	±0.29	2.0 ±2.0
ALLENDALE	26	5.4	±0.32	-0.17	±0.28	1.8 ±2.7
AUGUSTA	25	5.5	±0.37	0.34	±0.29	1.8 ±2.7
HIGHWAY 301	26	6.8	±0.34	0.31	±0.29	1.9 ±3.3
LANGLEY	26	9.4	±0.28	0.09	±0.32	2.3 ±3.9
LEES	24	3.7	±0.33	0.41	±0.32	1.8 ±1.6
OLAR	25	4.8	±0.38	0.30	±0.22	1.9 ±2.2
PERKINS	25	4.1	±0.36	0.59	±0.27	1.7 ±2.2
SOUTH RICHMOND	24	6.8	±0.34	0.20	±0.29	2.3 ±3.5
SPRINGFIELD	26	5.1	±0.33	0.66	±0.25	2.1 ±2.3
WAYNESBORO	26	7.5	±0.37	0.32	±0.29	2.8 ±3.7
AVERAGE						2.0 ±2.8
<u>100-MILE RADIUS</u>						
COLUMBIA, SC	4	0.99	±0.33	0.31	±0.26	0.68 -
GREENVILLE, SC	4	1.1	±0.32	0.26	±0.24	0.62 -
MACON, GA	4	1.8	±0.29	0.75	±0.32	1.2 -
SAVANNAH, GA	4	1.0	±0.30	0.19	±0.32	0.60 -
AVERAGE						0.76 ±0.81

-Insufficient data.

TABLE 2-2
1987 RADIOACTIVE ATMOSPHERIC RELEASES
AND CONCENTRATIONS

<u>Nuclide</u>	<u>Curies Released at</u> <u>Emission Source</u>	<u>Calculated Avg. Conc.</u> <u>at Plant Perimeter,</u> <u>pCi/m³</u>
Gases and Vapors:		
H-3 (oxide)	2.70E+05	8.1E+01
H-3 (elemental)	3.20E+05	9.6E+01
H-3 (total)	5.90E+05	1.8E+02
C-14	4.10E+01	1.2E-02
Ar-41	8.77E+04	1.4E+01
Kr-85m	1.69E+03	3.9E-01
Kr-85	3.95E+05	1.2E+02
Kr-87	1.16E+03	1.4E-01
Kr-88	2.01E+03	4.0E-01
Xe-133	5.32E+03	1.6E+00
Xe-135	3.48E+03	9.2E-01
I-129	7.20E-02	2.0E-05
I-131	1.26E-02	3.4E-06
Particulates:		
Co-60	1.30E-05	3.6E-09
Se-75	<4.00E-04	<1.1E-08
Sr-89,90	1.35E-03	3.7E-07
Zr-95	1.67E-03	4.6E-07
Nb-95	3.29E-03	9.0E-07
Ru-103	1.37E-03	3.7E-07
Ru-106	4.53E-02	1.2E-05
Cs-134	2.20E-03	6.0E-07
Cs-137	1.07E+00	2.9E-04
Ce-141	6.00E-06	1.6E-09
Ce-144	3.15E-02	8.6E-06
Os-185	<7.00E-05	<1.9E-08
Total U	8.52E-03	2.3E-06
Pu-238	1.96E-03	5.4E-07
Pu-239	4.07E-04	1.1E-07
Cm-242,244	2.04E-04	5.6E-08
Am-241,243	3.22E-04	8.8E-08

TABLE 2-3
AVERAGE INDIVIDUAL DOSES AT THE PLANT PERIMETER
FROM ATMOSPHERIC RELEASES

<u>By Pathway</u>		
<u>Pathway</u>	<u>Avg. Individual Dose, mrem^a</u>	<u>Percent of Total Dose</u>
Plume	9.54E-02	36.18
Ground	1.77E-02	6.71
Inhalation	6.72E-02	25.48
Vegetation	5.32E-02	20.17
Milk	1.49E-02	5.65
Meat	1.53E-02	5.80
Total	2.64E-01	

<u>By Radionuclide</u>		
<u>Radionuclide</u>	<u>Avg. Individual Dose, mrem^a</u>	<u>Percent of Total Dose</u>
Gases and Vapors:		
H-3	1.08E-01	40.91
C-14	6.85E-03	2.59
Ar-41	8.75E-02	33.14
Kr, Xe isotopes	7.91E-03	3.00
I-129	1.75E-02	6.63
I-131	3.54E-05	0.01
Particulates:		
Ru-106	1.46E-03	0.55
Cs-137	2.82E-02	10.58
U-235,238	2.66E-03	1.01
Pu-238	2.07E-03	0.78
Pu-239	4.78E-04	0.18
Am-241,243	4.64E-04	0.18
Cm-242,244	1.51E-04	0.06
Total	2.64E-01	

^a Committed effective dose equivalent.

TABLE 2-4
MAXIMUM INDIVIDUAL DOSES AT THE PLANT PERIMETER
FROM ATMOSPHERIC RELEASES

By Pathway

<u>Pathway</u>	<u>Average Consumption</u>		<u>Maximum Consumption</u>	
	<u>Maximum Individual Dose, mrem^a</u>	<u>Percent of Total Dose</u>	<u>Maximum Individual Dose, mrem^a</u>	<u>Percent of Total Dose</u>
Plume	1.70E-01	37.98	1.70E-01	26.34
Ground	2.90E-02	6.48	2.90E-02	4.49
Inhalation	1.11E-01	24.00	1.11E-01	17.20
Vegetation	8.77E-02	19.59	2.35E-01	36.42
Milk	2.47E-02	5.52	7.03E-02	10.89
Meat	2.52E-02	5.63	3.00E-02	4.65
Total	4.48E-01		6.45E-01	

By Radionuclide

<u>Radionuclide</u>	<u>Average Consumption</u>		<u>Maximum Consumption</u>	
	<u>Maximum Individual Dose, mrem^a</u>	<u>Percent of Total Dose</u>	<u>Maximum Individual Dose, mrem^a</u>	<u>Percent of Total Dose</u>
<u>Gases and Vapors:</u>				
H-3	1.79E-01	39.96	2.85E-01	44.16
C-14	1.13E-02	2.52	2.74E-02	4.25
Ar-41	1.57E-01	35.05	1.57E-01	24.33
Kr, Xe isotopes	1.36E-02	3.04	1.36E-02	2.11
I-129	2.88E-02	6.43	7.39E-02	11.45
I-131	5.82E-05	0.01	1.30E-04	0.02
<u>Particulates:</u>				
Ru-106	2.39E-03	0.53	3.04E-03	0.47
Cs-137	4.62E-02	10.31	7.41E-02	11.48
U-235, 238	4.40E-03	0.98	5.21E-03	0.81
Pu-238	3.43E-03	0.77	3.71E-03	0.57
Pu-239	7.90E-04	0.18	8.56E-04	0.13
Am-241, 243	7.67E-04	0.17	1.03E-03	0.16
Cm-242, 244	2.50E-04	0.06	3.34E-04	0.05
Total	4.48E-01		6.45E-01	

^a Committed effective dose equivalent.

TABLE 2-5
80-KM POPULATION DOSE - 1987 ATMOSPHERIC RELEASES

By Pathway

<u>Pathway</u>	<u>Population Dose</u> <u>person-rem^a</u>	<u>Percent of</u> <u>Total Dose</u>
Plume	4.17E+00	14.25
Ground	4.18E+00	14.29
Inhalation	8.64E+00	29.53
Vegetation	8.48E+00	28.98
Milk	2.06E+00	7.04
Meat	1.73E+00	5.91
Total	2.93E+01	

By Radionuclide

<u>Radionuclide</u>	<u>Population Dose</u> <u>person-rem^a</u>	<u>Percent of</u> <u>Total Dose</u>
Gases and Vapors:		
H-3	1.50E+01	51.28
C-14	9.79E-01	3.35
Ar-41	3.63E+00	12.41
Kr, Xe isotopes	5.37E-01	1.84
I-129	2.62E+00	8.96
I-131	8.56E-03	0.03
Particulates:		
Ru-106	1.42E-01	0.49
Cs-137	5.56E+00	19.01
U-235, 238	3.82E-01	1.31
Pu-238	2.57E-01	0.88
Pu-239	5.92E-02	0.20
Am-241-243	5.89E-02	0.20
Cm-242, 244	1.92E-02	0.07
Total	2.93E+01	

^a Committed effective dose equivalent.

**TABLE 2-6
TLD GAMMA RADIATION MEASUREMENTS**

LOCATION	NO. OF SAMPLES	MAXIMUM	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN ± STD. DEV.
<u>SRP TYPE TLD, MB/DAY</u>						
<u>ONPLANT</u>						
A AREA	4	0.35	±0.03	0.22	±0.02	0.27
DUNBARTON	0					-
BURIAL GROUND NORTH	2	0.35	±0.03	0.29	±0.03	0.32
BURIAL GROUND SOUTH	3	0.25	±0.02	0.22	±0.02	0.23
PAR POND	0					-
WILLISTON GATE	4	0.25	±0.02	0.14	±0.01	0.19
<u>PLANT PERIMETER</u>						
ALLENDALE GATE	4	0.25	±0.02	0.13	±0.01	0.17
A-14	4	0.30	±0.03	0.15	±0.02	0.21
BARNWELL GATE	3	0.22	±0.02	0.18	±0.02	0.20
D AREA	4	0.23	±0.02	0.16	±0.02	0.20
DARK HORSE	4	0.26	±0.02	0.15	±0.02	0.19
EAST TALATHA	4	0.28	±0.03	0.16	±0.02	0.21
GREEN POND	4	0.23	±0.02	0.16	±0.02	0.19
HIGHWAY 21/167	4	0.27	±0.02	0.18	±0.02	0.22
JACKSON	4	0.31	±0.03	0.17	±0.02	0.22
PATTERSON MILL	3	0.19	±0.02	0.14	±0.01	0.16
TALATHA GATE	4	0.30	±0.03	0.16	±0.02	0.22
WEST JACKSON	4	0.37	±0.03	0.22	±0.02	0.27
WINDSOR ROAD	4	0.28	±0.03	0.17	±0.02	0.21
<u>25-MILE RADIUS</u>						
AIKEN AIRPORT	3	0.25	±0.02	0.22	±0.02	0.23
AIKEN STATE PARK	4	0.18	±0.02	0.14	±0.01	0.16
ALLENDALE	4	0.22	±0.02	0.16	±0.02	0.18
AUGUSTA	4	0.28	±0.03	0.14	±0.01	0.21
HIGHWAY 301	3	0.25	±0.02	0.21	±0.02	0.23
LANGLEY	4	0.30	±0.03	0.21	±0.02	0.25
LEES	4	0.22	±0.02	0.15	±0.02	0.18
OLAR	4	0.22	±0.02	0.15	±0.02	0.17
PERKINS	4	0.31	±0.03	0.17	±0.02	0.22
SOUTH RICHMOND	4	0.30	±0.03	0.22	±0.02	0.25
SPRINGFIELD	4	0.29	±0.03	0.21	±0.02	0.25
WAYNESBORO	4	0.29	±0.03	0.20	±0.02	0.25
<u>100-MILE RADIUS</u>						
COLUMBIA	4	0.28	±0.03	0.23	±0.02	0.26
GREENVILLE	2	0.34	±0.03	0.29	±0.03	0.32
MACON	3	0.31	±0.03	0.25	±0.02	0.29
SAVANNAH	4	0.19	±0.02	0.18	±0.02	0.18
<u>TECHNICAL AREA</u>						
TECHNICAL AREA 1	3	0.26	±0.02	0.23	±0.02	0.25
TECHNICAL AREA 2	2	0.31	±0.03	0.30	±0.03	0.31
TECHNICAL AREA 3	2	0.30	±0.03	0.27	±0.02	0.29
TECHNICAL AREA 4	2	0.30	±0.03	0.25	±0.02	0.28
TECHNICAL AREA 5	2	0.26	±0.02	0.23	±0.02	0.25
TECHNICAL AREA 6	2	0.25	±0.02	0.23	±0.02	0.24
TECHNICAL AREA 7	2	0.26	±0.02	0.22	±0.02	0.24
TECHNICAL AREA 8	2	0.24	±0.02	0.20	±0.02	0.22

- Insufficient data.

**TABLE 2-6
TLD GAMMA RADIATION MEASUREMENTS, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN 2 STD DEV</u>	
<u>SRP TYPE TLD, MB/DAY</u>							
<u>400-D AREA</u>							
D-AREA CORNER 1	3	0.20	±0.02	0.19	±0.02	0.20	-
D-AREA CORNER 2	2	0.18	±0.02	0.16	±0.02	0.17	-
D-AREA CORNER 3	1	0.25	±0.02	0.25	±0.02	0.25	-
D-AREA CORNER 4	1	0.20	±0.02	0.20	±0.02	0.20	-
D-AREA CORNER 5	1	0.17	±0.02	0.17	±0.02	0.17	-
D-AREA CORNER 6	1	0.17	±0.02	0.17	±0.02	0.17	-
<u>300-M AREA</u>							
M-AREA CORNER 1	3	0.29	±0.03	0.27	±0.02	0.28	-
M-AREA CORNER 2	2	0.20	±0.02	0.19	±0.02	0.20	-
M-AREA CORNER 3	2	0.36	±0.03	0.31	±0.03	0.34	-
M-AREA CORNER 4	2	0.20	±0.02	0.19	±0.02	0.20	-
M-AREA CORNER 5	2	0.26	±0.02	0.24	±0.02	0.25	-
M-AREA CORNER 6	2	0.20	±0.02	0.18	±0.02	0.19	-
M-AREA CORNER 7	2	0.25	±0.02	0.21	±0.02	0.23	-
M-AREA CORNER 8	2	0.29	±0.03	0.27	±0.02	0.28	-
<u>100-C AREA</u>							
C-AREA CORNER 1	3	0.17	±0.02	0.14	±0.01	0.16	-
C-AREA CORNER 2	2	0.20	±0.02	0.17	±0.02	0.19	-
C-AREA CORNER 3	2	0.21	±0.02	0.18	±0.02	0.20	-
C-AREA CORNER 4	2	0.18	±0.02	0.17	±0.02	0.18	-
<u>100-K AREA</u>							
K-AREA CORNER 1	3	0.24	±0.02	0.17	±0.02	0.22	-
K-AREA CORNER 2	2	0.21	±0.02	0.15	±0.02	0.18	-
K-AREA CORNER 3	2	0.26	±0.02	0.23	±0.02	0.25	-
K-AREA CORNER 4	2	0.43	±0.03	0.42	±0.03	0.43	-
<u>100-P AREA</u>							
P-AREA CORNER 1	3	0.24	±0.02	0.22	±0.02	0.23	-
P-AREA CORNER 2	2	0.19	±0.02	0.18	±0.02	0.19	-
P-AREA CORNER 3	2	0.21	±0.02	0.19	±0.02	0.20	-
P-AREA CORNER 4	2	0.26	±0.02	0.23	±0.02	0.25	-
<u>100-L AREA</u>							
L-AREA CORNER 1	2	0.22	±0.02	0.20	±0.02	0.21	-
L-AREA CORNER 2	1	0.22	±0.02	0.22	±0.02	0.22	-
L-AREA CORNER 3	1	0.22	±0.02	0.22	±0.02	0.22	-
L-AREA CORNER 4	1	0.26	±0.02	0.26	±0.02	0.26	-
<u>100-R AREA</u>							
R-AREA CORNER 1	3	0.20	±0.02	0.18	±0.02	0.19	-
R-AREA CORNER 2	2	0.21	±0.02	0.20	±0.02	0.21	-
R-AREA CORNER 3	2	0.16	±0.02	0.11	±0.01	0.14	-
R-AREA CORNER 4	2	0.21	±0.02	0.15	±0.02	0.18	-
R-AREA CORNER 5	2	0.22	±0.02	0.14	±0.01	0.18	-
R-AREA CORNER 6	2	0.17	±0.02	0.13	±0.01	0.15	-
R-AREA CORNER 7	0						-

- Insufficient data.

**TABLE 2-6
TLD GAMMA RADIATION MEASUREMENTS, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± STD DEV</u>	
<u>SRP TYPE TLD, MR/DAY</u>							
<u>RAILROAD AT ROAD 2</u>							
RR-RD F 1	3	0.24	±0.02	0.23	±0.02	0.24	-
RR-RD F 2	2	0.25	±0.02	0.24	±0.02	0.25	-
<u>CLASSIFICATION YARD</u>							
618-G 1	3	0.18	±0.02	0.16	±0.02	0.17	-
618-G 2	2	0.22	±0.02	0.20	±0.02	0.21	-
618-G 3	2	0.20	±0.02	0.17	±0.02	0.19	-
618-G 4	2	0.20	±0.02	0.17	±0.02	0.19	-
<u>SOLID WASTE STG FAC</u>							
643 G 1	2	0.33	±0.03	0.16	±0.02	0.25	-
643 G 2	1	0.19	±0.02	0.19	±0.02	0.19	-
643 G 3	1	1.2	±0.08	1.2	±0.08	1.2	-
643 G 4	1	0.45	±0.04	0.45	±0.04	0.45	-
643-7G 1	2	0.28	±0.03	0.22	±0.02	0.25	-
643-7G 2	1	0.25	±0.02	0.25	±0.02	0.25	-
643-7G 3	2	0.30	±0.03	0.29	±0.03	0.30	-
643-7G 4	2	0.82	±0.06	0.33	±0.03	0.58	-
<u>DWPE</u>							
DEFENSE WASTE 1	3	0.27	±0.02	0.25	±0.02	0.26	-
DEFENSE WASTE 2	2	0.36	±0.03	0.32	±0.03	0.34	-
DEFENSE WASTE 3	2	0.26	±0.02	0.23	±0.02	0.25	-
DEFENSE WASTE 4	2	0.27	±0.02	0.25	±0.02	0.26	-
<u>TNX</u>							
TNX 1	3	0.18	±0.02	0.16	±0.02	0.17	-
TNX 2	2	0.26	±0.02	0.25	±0.02	0.26	-
TNX 3	2	0.23	±0.02	0.22	±0.02	0.23	-
TNX 4	2	0.27	±0.02	0.22	±0.02	0.25	-
<u>CENTRAL SHOPS</u>							
CENTRAL SHOPS 1	2	0.33	±0.03	0.26	±0.02	0.30	-
CENTRAL SHOPS 2	1	0.25	±0.02	0.25	±0.02	0.25	-
CENTRAL SHOPS 3	2	0.19	±0.02	0.18	±0.02	0.19	-
CENTRAL SHOPS 4	2	0.54	±0.04	0.50	±0.04	0.52	-
CENTRAL SHOPS 5	2	0.47	±0.04	0.31	±0.03	0.39	-
<u>TEMPORARY CONST</u>							
TEMP CONSTRUCTION 1	3	0.78	±0.06	0.19	±0.02	0.53	-
TEMP CONSTRUCTION 2	2	0.21	±0.02	0.20	±0.02	0.21	-
TEMP CONSTRUCTION 3	2	0.20	±0.02	0.19	±0.02	0.20	-
TEMP CONSTRUCTION 4	2	0.20	±0.02	0.19	±0.02	0.20	-
<u>200-F AREA</u>							
F-AREA MONITOR STA	3	0.35	±0.03	0.28	±0.03	0.31	-
H-AREA MONITOR STA	3	0.37	±0.03	0.31	±0.03	0.34	-
F-AREA CORNER 1	2	0.29	±0.03	0.18	±0.02	0.24	-
F-AREA CORNER 2	1	0.20	±0.02	0.20	±0.02	0.20	-
F-AREA CORNER 3	1	0.21	±0.02	0.21	±0.02	0.21	-
F-AREA CORNER 4	1	0.23	±0.02	0.23	±0.02	0.23	-
F-AREA CORNER 5	4	0.56	±0.04	0.13	±0.01	0.35	-
F-AREA CORNER 6	2	0.33	±0.03	0.29	±0.03	0.31	-

- Insufficient data.

**TABLE 2-6
TLD GAMMA RADIATION MEASUREMENTS, CONT'D.**

LOCATION	NO. OF SAMPLES	MAXIMUM	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN ± 2 STD DEV	
<u>SRP TYPE TLD, MR/DAY</u>							
<u>200-H AREA</u>							
H-AREA CORNER 1	2	0.29	±0.03	0.26	±0.02	0.28	-
H-AREA CORNER 2	1	0.61	±0.05	0.61	±0.05	0.61	-
H-AREA CORNER 3	1	0.23	±0.02	0.23	±0.02	0.23	-
H-AREA CORNER 4	1	0.83	±0.06	0.83	±0.06	0.83	-
H-AREA CORNER 5	2	1.1	±0.07	0.76	±0.06	0.91	-
H-AREA CORNER 6	2	1.0	±0.07	0.30	±0.03	0.67	-
H-AREA CORNER 7	2	0.25	±0.02	0.22	±0.02	0.24	-
H-AREA CORNER 8	2	0.26	±0.02	0.24	±0.02	0.25	-
<u>Z AREA</u>							
Z-AREA 1	3	0.21	±0.02	0.16	±0.02	0.18	-
Z-AREA 2	2	0.20	±0.02	0.16	±0.02	0.18	-
<u>GEORGIA POWER</u>							
GA POWER 1 LOW	1	0.15	±0.02	0.15	±0.02	0.15	-
GA POWER 1 HIGH	1	0.14	±0.01	0.14	±0.01	0.14	-
GA POWER 2 LOW	1	0.15	±0.02	0.15	±0.02	0.15	-
GA POWER 2 HIGH	1	0.16	±0.02	0.16	±0.02	0.16	-
GA POWER 3 LOW	1	0.14	±0.01	0.14	±0.01	0.14	-
GA POWER 3 HIGH	0						-
GA POWER 4 LOW	1	0.15	±0.02	0.15	±0.02	0.15	-
GA POWER 4 HIGH	1	0.16	±0.02	0.16	±0.02	0.16	-
GA POWER 5 LOW	1	0.15	±0.02	0.15	±0.02	0.15	-
GA POWER 5 HIGH	1	0.15	±0.02	0.15	±0.02	0.15	-
<u>PLANT VOGTLE</u>							
VOGL NRC LOCATION 1	3	0.19	±0.02	0.16	±0.02	0.18	-
VOGL NRC LOCATION 2	4	0.13	±0.01	0.10	±0.01	0.12	-
VOGL NRC LOCATION 3	4	0.14	±0.01	0.11	±0.01	0.13	-
VOGL NRC LOCATION 4	4	0.16	±0.02	0.14	±0.01	0.15	-
VOGL NRC LOCATION 5	4	0.25	±0.02	0.20	±0.02	0.22	-
VOGL NRC LOCATION 6	4	0.18	±0.02	0.15	±0.02	0.17	-
VOGL NRC LOCATION 7	4	0.15	±0.02	0.13	±0.01	0.14	-
VOGL NRC LOCATION 8	4	0.18	±0.02	0.14	±0.01	0.16	-
<u>NEAR ALLIED GENERAL</u>							
ALLIED GENERAL AG 1	4	0.19	±0.02	0.14	±0.01	0.17	-
ALLIED GENERAL AG 2	0						-
ALLIED GENERAL AG 3	2	0.16	±0.02	0.14	±0.01	0.15	-
ALLIED GENERAL AG 4	1	0.18	±0.02	0.18	±0.02	0.18	-
<u>NEAR VOGTLE</u>							
PUMPHOUSE ROAD 1	4	0.23	±0.02	0.16	±0.02	0.19	-
PUMPHOUSE ROAD 2	0						-
PUMPHOUSE ROAD 3	0						-
PUMPHOUSE ROAD 4	0						-
PUMPHOUSE ROAD 5	0						-
PUMPHOUSE ROAD 6	4	0.26	±0.02	0.17	±0.02	0.22	-

- Insufficient data.

**TABLE 2-6
TLD GAMMA RADIATION MEASUREMENTS, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN 2 STD DEV</u>	
<u>PANASONIC TLD, MR/DAY</u>							
<u>ONPLANT</u>							
A AREA	4	0.29	±0.04	0.21	±0.03	0.24	-
DUNBARTON	0						
BURIAL GROUND NORTH	4	0.33	±0.05	0.28	±0.04	0.31	-
BURIAL GROUND SOUTH	4	0.26	±0.04	0.19	±0.03	0.23	-
PAR POND	0						
WILLISTON GATE	0						
<u>PLANT PERIMETER</u>							
ALLENDALE GATE	4	0.16	±0.02	0.13	±0.02	0.14	-
A-14	4	0.20	±0.03	0.16	±0.02	0.18	-
BARNWELL GATE	4	0.23	±0.03	0.17	±0.03	0.20	-
D AREA	4	0.21	±0.03	0.17	±0.03	0.19	-
DARK HORSE	4	0.18	±0.03	0.14	±0.02	0.16	-
EAST TALATHA	4	0.18	±0.03	0.15	±0.02	0.17	-
GREEN POND	4	0.19	±0.03	0.16	±0.02	0.17	-
HIGHWAY 21/167	4	0.26	±0.04	0.15	±0.02	0.20	-
JACKSON	4	0.22	±0.03	0.17	±0.03	0.20	-
PATTERSON MILL	4	0.19	±0.03	0.15	±0.02	0.17	-
TALATHA GATE	4	0.25	±0.04	0.18	±0.03	0.21	-
WEST JACKSON	4	0.25	±0.04	0.22	±0.03	0.23	-
WINDSOR ROAD	4	0.19	±0.03	0.16	±0.02	0.18	-
<u>25-MILE RADIUS</u>							
AIKEN AIRPORT	2	0.21	±0.03	0.18	±0.03	0.20	-
AIKEN STATE PARK	2	0.16	±0.02	0.15	±0.02	0.16	-
ALLENDALE	2	0.18	±0.03	0.18	±0.03	0.18	-
AUGUSTA	2	0.22	±0.03	0.19	±0.03	0.21	-
HIGHWAY 301	2	0.24	±0.04	0.21	±0.03	0.23	-
LANGLEY	2	0.23	±0.03	0.16	±0.02	0.20	-
LEES	2	0.16	±0.02	0.16	±0.02	0.16	-
OLAR	2	0.17	±0.02	0.17	±0.02	0.17	-
PERKINS	2	0.18	±0.03	0.18	±0.03	0.18	-
SOUTH RICHMOND	2	0.26	±0.04	0.21	±0.03	0.24	-
SPRINGFIELD	2	0.24	±0.04	0.21	±0.03	0.23	-
WAYNESBORO	2	0.25	±0.04	0.22	±0.03	0.24	-
<u>100-MILE RADIUS</u>							
COLUMBIA	3	0.25	±0.04	0.25	±0.04	0.25	-
GREENVILLE	3	0.31	±0.05	0.26	±0.04	0.29	-
MACON	4	0.29	±0.04	0.26	±0.04	0.28	-
SAVANNAH	3	0.22	±0.03	0.17	±0.03	0.19	-
<u>TECHNICAL AREA</u>							
TECHNICAL AREA 1	4	0.23	±0.03	0.19	±0.03	0.21	-
TECHNICAL AREA 2	4	0.30	±0.05	0.24	±0.04	0.26	-
TECHNICAL AREA 3	4	0.30	±0.05	0.26	±0.04	0.28	-
TECHNICAL AREA 4	4	0.30	±0.05	0.27	±0.04	0.29	-
TECHNICAL AREA 5	4	0.26	±0.04	0.23	±0.03	0.25	-
TECHNICAL AREA 6	4	0.27	±0.04	0.23	±0.03	0.25	-
TECHNICAL AREA 7	4	0.28	±0.04	0.24	±0.04	0.26	-
TECHNICAL AREA 8	4	0.25	±0.04	0.20	±0.03	0.23	-

- Insufficient data.

**TABLE 2-6
TLD GAMMA RADIATION MEASUREMENTS, CONT'D.**

LOCATION	NO. OF SAMPLES	MAXIMUM	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN ± STD. DEV.	
<u>PANASONIC TLD, ME/DAY</u>							
<u>400-D AREA</u>							
D-AREA CORNER 1	4	0.23	±0.03	0.18	±0.03	0.21	-
D-AREA CORNER 2	4	0.22	±0.03	0.14	±0.02	0.19	-
D-AREA CORNER 3	4	0.24	±0.04	0.19	±0.03	0.21	-
D-AREA CORNER 4	4	0.22	±0.03	0.17	±0.03	0.20	-
D-AREA CORNER 5	4	0.20	±0.03	0.15	±0.02	0.18	-
D-AREA CORNER 6	4	0.18	±0.03	0.11	±0.02	0.14	-
<u>300-M AREA</u>							
M-AREA CORNER 1	4	0.29	±0.04	0.27	±0.04	0.28	-
M-AREA CORNER 2	4	0.23	±0.03	0.19	±0.03	0.21	-
M-AREA CORNER 3	4	0.41	±0.06	0.28	±0.04	0.36	-
M-AREA CORNER 4	4	0.21	±0.03	0.19	±0.03	0.20	-
M-AREA CORNER 5	4	0.26	±0.04	0.24	±0.04	0.25	-
M-AREA CORNER 6	4	0.21	±0.03	0.19	±0.03	0.20	-
M-AREA CORNER 7	4	0.28	±0.04	0.24	±0.04	0.26	-
M-AREA CORNER 8	4	0.31	±0.05	0.28	±0.04	0.30	-
<u>100-C AREA</u>							
C-AREA CORNER 1	4	0.18	±0.03	0.15	±0.02	0.17	-
C-AREA CORNER 2	4	0.19	±0.03	0.17	±0.03	0.18	-
C-AREA CORNER 3	4	0.22	±0.03	0.20	±0.03	0.21	-
C-AREA CORNER 4	;	0.19	±0.03	0.16	±0.02	0.18	-
<u>100-K AREA</u>							
K-AREA CORNER 1	4	0.26	±0.04	0.20	±0.03	0.23	-
K-AREA CORNER 2	4	0.21	±0.03	0.17	±0.03	0.20	-
K-AREA CORNER 3	4	0.27	±0.04	0.22	±0.03	0.26	-
K-AREA CORNER 4	4	0.44	±0.07	0.35	±0.05	0.41	-
<u>100-P AREA</u>							
P-AREA CORNER 1	4	0.26	±0.04	0.20	±0.03	0.23	-
P-AREA CORNER 2	4	0.20	±0.03	0.18	±0.03	0.19	-
P-AREA CORNER 3	4	0.22	±0.03	0.20	±0.03	0.21	-
P-AREA CORNER 4	4	0.24	±0.04	0.22	±0.03	0.23	-
<u>100-L AREA</u>							
L-AREA CORNER 1	4	0.22	±0.03	0.19	±0.03	0.21	-
L-AREA CORNER 2	4	0.27	±0.04	0.19	±0.03	0.23	-
L-AREA CORNER 3	4	0.25	±0.04	0.19	±0.03	0.22	-
L-AREA CORNER 4	4	0.30	±0.04	0.25	±0.04	0.27	-
<u>100-R AREA</u>							
R-AREA CORNER 1	4	0.23	±0.03	0.17	±0.03	0.20	-
R-AREA CORNER 2	4	0.25	±0.04	0.19	±0.03	0.22	-
R-AREA CORNER 3	4	0.19	±0.03	0.14	±0.02	0.17	-
R-AREA CORNER 4	4	0.23	±0.03	0.17	±0.03	0.20	-
R-AREA CORNER 5	4	0.22	±0.03	0.17	±0.03	0.20	-
R-AREA CORNER 6	4	0.22	±0.03	0.15	±0.02	0.19	-
R-AREA CORNER 7	4	0.22	±0.03	0.18	±0.03	0.20	-
<u>RAILROAD AT ROAD 2</u>							
RR-RD F 1	4	0.26	±0.04	0.21	±0.03	0.24	-
RR-RD F 2	4	0.27	±0.04	0.23	±0.03	0.26	-

- Insufficient data.

**TABLE 2-6
TLD GAMMA RADIATION MEASUREMENTS, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± STD DEV</u>	
<u>PANASONIC TLD, MR/DAY</u>							
<u>CLASSIFICATION YARD</u>							
618-G 1	4	0.20	±0.03	0.17	±0.03	0.19	-
618-G 2	4	0.24	±0.04	0.17	±0.03	0.20	-
618-G 3	4	0.22	±0.03	0.18	±0.03	0.20	-
618-G 4	4	0.17	±0.03	0.15	±0.02	0.16	-
<u>SOLID WASTE STG FAC</u>							
643 G 1	4	0.29	±0.04	0.16	±0.02	0.22	-
643 G 2	4	0.29	±0.04	0.17	±0.03	0.23	-
643 G 3	4	1.4	±0.21	0.21	±0.03	0.67	-
643 G 4	4	0.38	±0.06	0.28	±0.04	0.32	-
643-7G 1	4	0.28	±0.04	0.25	±0.04	0.27	-
643-7G 2	4	0.46	±0.07	0.22	±0.03	0.31	-
643-7G 3	4	0.36	±0.05	0.28	±0.04	0.32	-
643-7G 4	4	0.91	±0.14	0.30	±0.05	0.51	-
<u>DWPE</u>							
DEFENSE WASTE 1	4	0.28	±0.04	0.25	±0.04	0.27	-
DEFENSE WASTE 2	4	0.33	±0.05	0.31	±0.05	0.32	-
DEFENSE WASTE 3	4	0.26	±0.04	0.25	±0.04	0.26	-
DEFENSE WASTE 4	4	0.28	±0.04	0.25	±0.04	0.27	-
<u>TNX</u>							
TNX 1	4	0.21	±0.03	0.14	±0.02	0.18	-
TNX 2	4	0.29	±0.04	0.26	±0.04	0.28	-
TNX 3	4	0.25	±0.04	0.23	±0.03	0.24	-
TNX 4	4	0.34	±0.05	0.27	±0.04	0.30	-
<u>CENTRAL SHOPS</u>							
CENTRAL SHOPS 1	4	0.33	±0.05	0.22	±0.03	0.29	-
CENTRAL SHOPS 2	4	0.74	±0.11	0.24	±0.04	0.39	-
CENTRAL SHOPS 3	4	0.22	±0.03	0.18	±0.03	0.20	-
CENTRAL SHOPS 4	4	0.48	±0.07	0.43	±0.06	0.46	-
CENTRAL SHOPS 5	4	0.48	±0.07	0.30	±0.05	0.36	-
<u>TEMPORARY CONST</u>							
TEMP CONSTRUCTION 1	4	0.68	±0.10	0.20	±0.03	0.44	-
TEMP CONSTRUCTION 2	4	0.59	±0.09	0.19	±0.03	0.39	-
TEMP CONSTRUCTION 3	4	0.24	±0.04	0.18	±0.03	0.21	-
TEMP CONSTRUCTION 4	4	0.25	±0.04	0.20	±0.03	0.22	-
<u>200-F AREA</u>							
F-AREA MONITOR STA	4	0.33	±0.05	0.28	±0.04	0.31	-
H-AREA MONITOR STA	4	0.35	±0.05	0.30	±0.04	0.33	-
F-AREA CORNER 1	3	0.28	±0.04	0.19	±0.03	0.22	-
F-AREA CORNER 2	3	0.21	±0.03	0.19	±0.03	0.20	-
F-AREA CORNER 3	3	0.25	±0.04	0.21	±0.03	0.23	-
F-AREA CORNER 4	3	0.25	±0.04	0.20	±0.03	0.22	-
F-AREA CORNER 5	4	0.55	±0.08	0.50	±0.08	0.52	-
F-AREA CORNER 6	4	0.35	±0.05	0.31	±0.05	0.33	-

- Insufficient data.

**TABLE 2-6
TLD GAMMA RADIATION MEASUREMENTS, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± 2 STD DEV</u>
<u>PANASONIC TLD, MR/DAY</u>						
<u>200-H AREA</u>						
H-AREA CORNER 1	3	0.29	±0.04	0.27	±0.04	0.28
H-AREA CORNER 2	3	0.80	±0.12	0.54	±0.08	0.66
H-AREA CORNER 3	3	0.24	±0.04	0.21	±0.03	0.23
H-AREA CORNER 4	3	0.91	±0.14	0.68	±0.10	0.82
H-AREA CORNER 5	3	1.6	±0.23	0.69	±0.10	1.1
H-AREA CORNER 6	4	0.84	±0.13	0.32	±0.05	0.46
H-AREA CORNER 7	4	0.29	±0.04	0.24	±0.04	0.26
H-AREA CORNER 8	4	0.31	±0.05	0.24	±0.04	0.27
<u>Z AREA</u>						
Z-AREA 1	4	0.21	±0.03	0.19	±0.03	0.20
Z-AREA 2	4	0.20	±0.03	0.17	±0.03	0.19
<u>GEORGIA POWER</u>						
GA POWER 1 LOW	4	0.22	±0.03	0.15	±0.02	0.17
GA POWER 1 HIGH	4	0.37	±0.06	0.00	±0.00	0.18
GA POWER 2 LOW	4	0.24	±0.04	0.16	±0.02	0.19
GA POWER 2 HIGH	4	0.24	±0.04	0.16	±0.02	0.19
GA POWER 3 LOW	4	0.23	±0.03	0.15	±0.02	0.18
GA POWER 3 HIGH	4	0.25	±0.04	0.15	±0.02	0.19
GA POWER 4 LOW	4	0.25	±0.04	0.17	±0.03	0.19
GA POWER 4 HIGH	4	0.24	±0.04	0.16	±0.02	0.18
GA POWER 5 LOW	4	0.23	±0.03	0.15	±0.02	0.18
GA POWER 5 HIGH	4	0.20	±0.03	0.14	±0.02	0.16
<u>PLANT VOGTLE</u>						
VOGL NRC LOCATION 1	3	0.24	±0.04	0.16	±0.02	0.19
VOGL NRC LOCATION 2	4	0.17	±0.02	0.13	±0.02	0.14
VOGL NRC LOCATION 3	4	0.17	±0.02	0.13	±0.02	0.15
VOGL NRC LOCATION 4	4	0.20	±0.03	0.15	±0.02	0.17
VOGL NRC LOCATION 5	4	0.27	±0.04	0.22	±0.03	0.24
VOGL NRC LOCATION 6	4	0.20	±0.03	0.16	±0.02	0.18
VOGL NRC LOCATION 7	4	0.19	±0.03	0.15	±0.02	0.17
VOGL NRC LOCATION 8	4	0.20	±0.03	0.14	±0.02	0.17
<u>NEAR ALLIED GENERAL</u>						
ALLIED GENERAL AG 1	4	0.19	±0.03	0.15	±0.02	0.17
ALLIED GENERAL AG 2	4	0.16	±0.02	0.12	±0.02	0.14
ALLIED GENERAL AG 3	3	0.18	±0.03	0.15	±0.02	0.16
ALLIED GENERAL AG 4	4	0.18	±0.03	0.14	±0.02	0.16
<u>NEAR VOGTLE</u>						
PUMPHOUSE ROAD 1	4	0.21	±0.03	0.20	±0.03	0.21
PUMPHOUSE ROAD 2	4	0.23	±0.03	0.20	±0.03	0.22
PUMPHOUSE ROAD 3	4	0.17	±0.03	0.15	±0.02	0.16
PUMPHOUSE ROAD 4	4	0.19	±0.03	0.16	±0.02	0.18
PUMPHOUSE ROAD 5	4	0.23	±0.03	0.21	±0.03	0.22
PUMPHOUSE ROAD 6	4	0.23	±0.03	0.19	±0.03	0.21

Insufficient data.

**TABLE 2-6
TLD GAMMA RADIATION MEASUREMENTS, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± 2 STD. D. ± V</u>
<u>SRP TYPE TLD, MB/DAY</u>						
<u>PLANT PERIMETER</u>						
PLANT PERIMETER 1	3	0.17	±0.02	0.14	±0.01	0.15
PLANT PERIMETER 2	0					-
PLANT PERIMETER 3	0					
PLANT PERIMETER 4	0					
PLANT PERIMETER 5	4	0.22	±0.02	0.16	±0.02	0.20
PLANT PERIMETER 6	0					
PLANT PERIMETER 7	0					
PLANT PERIMETER 8	0					
PLANT PERIMETER 9	0					
PLANT PERIMETER 10	3	0.17	±0.02	0.15	±0.02	0.16
PLANT PERIMETER 11	0					
PLANT PERIMETER 12	0					
PLANT PERIMETER 13	0					
PLANT PERIMETER 14	0					
PLANT PERIMETER 15	4	0.19	±0.02	0.16	±0.02	0.18
PLANT PERIMETER 16	0					
PLANT PERIMETER 17	0					
PLANT PERIMETER 18	0					
PLANT PERIMETER 19	4	0.20	±0.02	0.14	±0.01	0.18
PLANT PERIMETER 20	4	0.23	±0.02	0.22	±0.02	0.23
PLANT PERIMETER 21	0					
PLANT PERIMETER 22	0					
PLANT PERIMETER 23	0					
PLANT PERIMETER 24	0					
PLANT PERIMETER 25	3	0.18	±0.02	0.15	±0.02	0.17
PLANT PERIMETER 26	0					
PLANT PERIMETER 27	0					
PLANT PERIMETER 28	0					
PLANT PERIMETER 29	0					
PLANT PERIMETER 30	4	0.19	±0.02	0.16	±0.02	0.18
PLANT PERIMETER 31	0					
PLANT PERIMETER 32	0					
PLANT PERIMETER 33	0					
PLANT PERIMETER 34	0					
PLANT PERIMETER 35	4	0.17	±0.02	0.12	±0.01	0.15
PLANT PERIMETER 36	0					
PLANT PERIMETER 37	0					
PLANT PERIMETER 38	0					
PLANT PERIMETER 39	4	0.20	±0.02	0.15	±0.02	0.18
PLANT PERIMETER 40	0					
PLANT PERIMETER 41	0					
PLANT PERIMETER 42	0					
PLANT PERIMETER 43	0					
PLANT PERIMETER 44	4	0.19	±0.02	0.15	±0.02	0.17
PLANT PERIMETER 45	0					
PLANT PERIMETER 46	0					
PLANT PERIMETER 47	0					
PLANT PERIMETER 48	0					
PLANT PERIMETER 49	4	0.33	±0.03	0.24	±0.02	0.30
PLANT PERIMETER 50	0					
PLANT PERIMETER 51	0					

- Insufficient data.

**TABLE 2-6
TLD GAMMA RADIATION MEASUREMENTS, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± 2 STD DEV</u>
<u>SRP TYPE TLD, MR/DAY</u>						
PLANT PERIMETER 52	0					
PLANT PERIMETER 53	0					
PLANT PERIMETER 54	4	0.15	±0.02	0.12	±0.01	0.14
PLANT PERIMETER 55	0					
PLANT PERIMETER 56	0					
PLANT PERIMETER 57	0					
PLANT PERIMETER 58	0					
PLANT PERIMETER 59	4	0.18	±0.02	0.12	±0.01	0.16
PLANT PERIMETER 60	0					
PLANT PERIMETER 61	0					
PLANT PERIMETER 62	0					
PLANT PERIMETER 63	4	0.20	±0.02	0.15	±0.02	0.18
PLANT PERIMETER 64	0					
PLANT PERIMETER 65	0					
PLANT PERIMETER 66	0					
PLANT PERIMETER 67	0					
PLANT PERIMETER 68	4	0.17	±0.02	0.13	±0.01	0.15
PLANT PERIMETER 69	0					
PLANT PERIMETER 70	0					
PLANT PERIMETER 71	0					
PLANT PERIMETER 72	0					
PLANT PERIMETER 73	4	0.19	±0.02	0.14	±0.01	0.17
PLANT PERIMETER 74	0					
PLANT PERIMETER 75	0					
PLANT PERIMETER 76	0					
PLANT PERIMETER 77	0					
PLANT PERIMETER 78	4	0.21	±0.02	0.15	±0.02	0.18
PLANT PERIMETER 79	0					
<u>PANASONIC TLD, MR/DAY</u>						
PLANT PERIMETER 1	3	0.18	±0.03	0.16	±0.02	0.17
PLANT PERIMETER 1.25	4	0.20	±0.03	0.18	±0.03	0.19
PLANT PERIMETER 1.50	4	0.19	±0.03	0.18	±0.03	0.18
PLANT PERIMETER 1.75	4	0.16	±0.02	0.14	±0.02	0.15
PLANT PERIMETER 2	4	0.25	±0.04	0.23	±0.03	0.24
PLANT PERIMETER 2.25	4	0.22	±0.03	0.18	±0.03	0.20
PLANT PERIMETER 2.50	4	0.19	±0.03	0.17	±0.03	0.18
PLANT PERIMETER 2.75	4	0.19	±0.03	0.15	±0.02	0.17
PLANT PERIMETER 3	4	0.20	±0.03	0.17	±0.03	0.19
PLANT PERIMETER 3.25	4	0.19	±0.03	0.16	±0.02	0.18
PLANT PERIMETER 3.50	4	0.17	±0.03	0.16	±0.02	0.17
PLANT PERIMETER 3.75	4	0.25	±0.04	0.20	±0.03	0.23
PLANT PERIMETER 4	4	0.20	±0.03	0.18	±0.03	0.19
PLANT PERIMETER 4.25	4	0.22	±0.03	0.17	±0.03	0.20
PLANT PERIMETER 4.50	4	0.20	±0.03	0.17	±0.03	0.18
PLANT PERIMETER 4.75	4	0.21	±0.03	0.16	±0.02	0.18
PLANT PERIMETER 5	4	0.26	±0.04	0.19	±0.03	0.23
PLANT PERIMETER 5.25	4	0.27	±0.04	0.20	±0.03	0.23
PLANT PERIMETER 5.50	4	0.29	±0.04	0.21	±0.03	0.25
PLANT PERIMETER 5.75	4	0.35	±0.05	0.23	±0.03	0.27

- Insufficient data.

**TABLE 2-6
TLD GAMMA RADIATION MEASUREMENTS, CONT'D.**

<u>LOCATION</u>	<u>NO. OF</u> <u>SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR</u> <u>95% CL</u>	<u>MINIMUM</u>	<u>CT ERR</u> <u>95% CL</u>	<u>ARITHMETIC</u> <u>MEAN ± STD DEV</u>
<u>PANASONIC TLD. MR/DAY</u>						
PLANT PERIMETER 6	4	0.37	±0.06	0.26	±0.04	0.32
PLANT PERIMETER 6.25	4	0.30	±0.05	0.21	±0.03	0.26
PLANT PERIMETER 6.50	4	0.28	±0.04	0.21	±0.03	0.23
PLANT PERIMETER 6.75	4	0.20	±0.03	0.16	±0.02	0.18
PLANT PERIMETER 7	4	0.28	±0.04	0.20	±0.03	0.24
PLANT PERIMETER 7.25	4	0.31	±0.05	0.24	±0.04	0.27
PLANT PERIMETER 7.50	4	0.22	±0.03	0.18	±0.03	0.20
PLANT PERIMETER 7.75	4	0.24	±0.04	0.19	±0.03	0.21
PLANT PERIMETER 8	4	0.24	±0.04	0.18	±0.03	0.21
PLANT PERIMETER 8.25	4	0.25	±0.04	0.21	±0.03	0.23
PLANT PERIMETER 8.50	4	0.25	±0.04	0.21	±0.03	0.22
PLANT PERIMETER 8.75	4	0.28	±0.04	0.20	±0.03	0.23
PLANT PERIMETER 9	4	0.28	±0.04	0.19	±0.03	0.22
PLANT PERIMETER 9.25	4	0.24	±0.04	0.14	±0.02	0.19
PLANT PERIMETER 9.50	4	0.23	±0.03	0.15	±0.02	0.18
PLANT PERIMETER 9.75	4	0.24	±0.04	0.15	±0.02	0.20
PLANT PERIMETER 10	3	0.23	±0.03	0.17	±0.03	0.19
PLANT PERIMETER 11	4	0.23	±0.03	0.18	±0.03	0.19
PLANT PERIMETER 12	4	0.22	±0.03	0.16	±0.02	0.18
PLANT PERIMETER 13	4	0.23	±0.03	0.16	±0.02	0.18
PLANT PERIMETER 14	3	0.20	±0.03	0.18	±0.03	0.19
PLANT PERIMETER 15	4	0.27	±0.04	0.20	±0.03	0.22
PLANT PERIMETER 16	4	0.30	±0.05	0.22	±0.03	0.25
PLANT PERIMETER 17	4	0.33	±0.05	0.22	±0.03	0.26
PLANT PERIMETER 18	4	0.26	±0.04	0.18	±0.03	0.22
PLANT PERIMETER 19	4	0.24	±0.04	0.17	±0.03	0.21
PLANT PERIMETER 20	4	0.24	±0.04	0.20	±0.03	0.22
PLANT PERIMETER 21	4	0.18	±0.03	0.16	±0.02	0.17
PLANT PERIMETER 22	4	0.19	±0.03	0.16	±0.02	0.18
PLANT PERIMETER 23	4	0.21	±0.03	0.18	±0.03	0.20
PLANT PERIMETER 24	4	0.19	±0.03	0.16	±0.02	0.17
PLANT PERIMETER 25	4	0.17	±0.03	0.13	±0.02	0.15
PLANT PERIMETER 26	4	0.18	±0.03	0.15	±0.02	0.16
PLANT PERIMETER 27	4	0.19	±0.03	0.17	±0.03	0.18
PLANT PERIMETER 28	4	0.21	±0.03	0.18	±0.03	0.19
PLANT PERIMETER 29	4	0.17	±0.03	0.15	±0.02	0.16
PLANT PERIMETER 30	4	0.21	±0.03	0.17	±0.03	0.19
PLANT PERIMETER 31	4	0.18	±0.03	0.15	±0.02	0.16
PLANT PERIMETER 32	4	0.19	±0.03	0.16	±0.02	0.17
PLANT PERIMETER 33	4	0.19	±0.03	0.16	±0.02	0.18
PLANT PERIMETER 34	4	0.19	±0.03	0.17	±0.03	0.18
PLANT PERIMETER 35	4	0.17	±0.03	0.14	±0.02	0.15
PLANT PERIMETER 36	4	0.21	±0.03	0.17	±0.03	0.19
PLANT PERIMETER 37	4	0.21	±0.03	0.17	±0.03	0.19
PLANT PERIMETER 38	4	0.25	±0.04	0.21	±0.03	0.23
PLANT PERIMETER 39	4	0.20	±0.03	0.16	±0.02	0.19
PLANT PERIMETER 40	4	0.19	±0.03	0.14	±0.02	0.17
PLANT PERIMETER 41	4	0.18	±0.03	0.14	±0.02	0.17
PLANT PERIMETER 42	4	0.21	±0.03	0.18	±0.03	0.20
PLANT PERIMETER 43	4	0.26	±0.04	0.21	±0.03	0.24
PLANT PERIMETER 44	4	0.20	±0.03	0.15	±0.02	0.18

- Insufficient data.

TABLE 2-6
TLD GAMMA RADIATION MEASUREMENTS, CONT'D.

LOCATION	NO. OF SAMPLES	MAXIMUM	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN ± STD. DEV.
<u>PANASONIC TLD, MR/DAY</u>						
PLANT PERIMETER 45	4	0.19	±0.03	0.15	±0.02	0.17
PLANT PERIMETER 46	4	0.23	±0.03	0.17	±0.03	0.21
PLANT PERIMETER 47	4	0.22	±0.03	0.17	±0.03	0.20
PLANT PERIMETER 48	4	0.22	±0.03	0.16	±0.02	0.19
PLANT PERIMETER 49	4	0.23	±0.05	0.23	±0.03	0.30
PLANT PERIMETER 50	4	0.19	±0.03	0.15	±0.02	0.17
PLANT PERIMETER 51	4	0.19	±0.03	0.15	±0.02	0.17
PLANT PERIMETER 52	4	0.20	±0.03	0.17	±0.03	0.19
PLANT PERIMETER 53	4	0.18	±0.03	0.15	±0.02	0.17
PLANT PERIMETER 54	4	0.17	±0.03	0.13	±0.02	0.15
PLANT PERIMETER 55	3	0.16	±0.02	0.12	±0.02	0.14
PLANT PERIMETER 56	4	0.17	±0.03	0.11	±0.02	0.15
PLANT PERIMETER 57	4	0.19	±0.03	0.13	±0.02	0.16
PLANT PERIMETER 57.25	4	0.19	±0.03	0.14	±0.02	0.17
PLANT PERIMETER 57.50	4	0.19	±0.03	0.13	±0.02	0.17
PLANT PERIMETER 57.75	4	0.20	±0.03	0.14	±0.02	0.18
PLANT PERIMETER 58	4	0.23	±0.03	0.16	±0.02	0.21
PLANT PERIMETER 58.25	4	0.20	±0.03	0.14	±0.02	0.18
PLANT PERIMETER 58.50	4	0.18	±0.05	0.13	±0.02	0.17
PLANT PERIMETER 58.75	4	0.20	±0.03	0.14	±0.02	0.18
PLANT PERIMETER 59	4	0.19	±0.03	0.14	±0.02	0.18
PLANT PERIMETER 59.25	4	0.20	±0.03	0.14	±0.02	0.19
PLANT PERIMETER 59.50	4	0.26	±0.04	0.17	±0.03	0.23
PLANT PERIMETER 59.75	4	0.22	±0.03	0.16	±0.02	0.20
PLANT PERIMETER 60	4	0.23	±0.03	0.17	±0.03	0.21
PLANT PERIMETER 60.25	4	0.19	±0.03	0.15	±0.02	0.18
PLANT PERIMETER 60.50	4	0.19	±0.03	0.14	±0.02	0.17
PLANT PERIMETER 60.75	4	0.18	±0.03	0.15	±0.02	0.17
PLANT PERIMETER 61	4	0.19	±0.03	0.15	±0.02	0.18
PLANT PERIMETER 61.25	4	0.21	±0.03	0.16	±0.02	0.19
PLANT PERIMETER 61.50	4	0.19	±0.03	0.15	±0.02	0.18
PLANT PERIMETER 61.75	4	0.21	±0.03	0.17	±0.03	0.20
PLANT PERIMETER 62	4	0.21	±0.03	0.14	±0.02	0.19
PLANT PERIMETER 62.25	4	0.19	±0.03	0.15	±0.02	0.18
PLANT PERIMETER 62.50	4	0.21	±0.03	0.15	±0.02	0.19
PLANT PERIMETER 62.75	4	0.28	±0.04	0.20	±0.03	0.25
PLANT PERIMETER 63	4	0.19	±0.03	0.17	±0.03	0.18
PLANT PERIMETER 63.25	4	0.17	±0.03	0.16	±0.02	0.17
PLANT PERIMETER 63.50	4	0.17	±0.03	0.17	±0.03	0.17
PLANT PERIMETER 63.75	4	0.17	±0.03	0.15	±0.02	0.16
PLANT PERIMETER 64	4	0.17	±0.03	0.14	±0.02	0.16
PLANT PERIMETER 64.25	4	0.17	±0.03	0.15	±0.02	0.16
PLANT PERIMETER 64.50	4	0.17	±0.03	0.15	±0.02	0.16
PLANT PERIMETER 64.75	4	0.16	±0.02	0.15	±0.02	0.16
PLANT PERIMETER 65	4	0.22	±0.03	0.18	±0.03	0.20
PLANT PERIMETER 65.25	4	0.23	±0.03	0.20	±0.03	0.22
PLANT PERIMETER 65.50	4	0.27	±0.04	0.24	±0.04	0.26
PLANT PERIMETER 65.75	4	0.23	±0.03	0.20	±0.03	0.22

· Insufficient data.

**TABLE 2-6
TLD GAMMA RADIATION MEASUREMENTS, CONT'D.**

LOCATION	NO. OF SAMPLES	MAXIMUM	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN ± STD DEV
<u>PANASONIC TLD, MB/DAY</u>						
PLANT PERIMETER 66	4	0.26	±0.04	0.23	±0.03	0.25
PLANT PERIMETER 66.25	4	0.28	±0.04	0.25	±0.04	0.27
PLANT PERIMETER 66.50	4	0.19	±0.03	0.17	±0.03	0.18
PLANT PERIMETER 66.75	4	0.21	±0.03	0.18	±0.03	0.20
PLANT PERIMETER 67	4	0.20	±0.03	0.17	±0.03	0.19
PLANT PERIMETER 67.25	4	0.23	±0.03	0.19	±0.03	0.21
PLANT PERIMETER 67.50	4	0.21	±0.03	0.20	±0.03	0.21
PLANT PERIMETER 67.75	4	0.18	±0.03	0.15	±0.02	0.16
PLANT PERIMETER 68	4	0.20	±0.03	0.15	±0.02	0.18
PLANT PERIMETER 68.25	4	0.18	±0.03	0.17	±0.03	0.17
PLANT PERIMETER 68.50	4	0.21	±0.03	0.19	±0.03	0.20
PLANT PERIMETER 68.75	4	0.23	±0.03	0.21	±0.03	0.22
PLANT PERIMETER 69	4	0.26	±0.04	0.24	±0.04	0.25
PLANT PERIMETER 69.25	4	0.20	±0.03	0.17	±0.03	0.18
PLANT PERIMETER 69.50	4	0.20	±0.03	0.17	±0.03	0.19
PLANT PERIMETER 69.75	4	0.21	±0.03	0.19	±0.03	0.20
PLANT PERIMETER 70	4	0.21	±0.03	0.20	±0.03	0.21
PLANT PERIMETER 70.25	4	0.17	±0.03	0.15	±0.02	0.16
PLANT PERIMETER 70.50	4	0.20	±0.03	0.17	±0.03	0.19
PLANT PERIMETER 70.75	4	0.22	±0.03	0.19	±0.03	0.21
PLANT PERIMETER 71	4	0.21	±0.03	0.17	±0.03	0.20
PLANT PERIMETER 71.25	4	0.24	±0.04	0.21	±0.03	0.23
PLANT PERIMETER 71.50	4	0.22	±0.03	0.19	±0.03	0.21
PLANT PERIMETER 71.75	4	0.22	±0.03	0.21	±0.03	0.22
PLANT PERIMETER 72	4	0.21	±0.03	0.19	±0.03	0.20
PLANT PERIMETER 72.25	4	0.21	±0.03	0.17	±0.03	0.19
PLANT PERIMETER 72.50	4	0.19	±0.03	0.17	±0.03	0.18
PLANT PERIMETER 72.75	4	0.19	±0.03	0.18	±0.03	0.19
PLANT PERIMETER 73	4	0.19	±0.03	0.16	±0.02	0.17
PLANT PERIMETER 73.25	4	0.20	±0.03	0.17	±0.03	0.19
PLANT PERIMETER 73.50	4	0.20	±0.03	0.15	±0.02	0.18
PLANT PERIMETER 73.75	4	0.18	±0.03	0.15	±0.02	0.17
PLANT PERIMETER 74	4	0.18	±0.03	0.15	±0.02	0.17
PLANT PERIMETER 74.25	4	0.17	±0.03	0.16	±0.02	0.17
PLANT PERIMETER 74.50	4	0.18	±0.03	0.15	±0.02	0.16
PLANT PERIMETER 74.75	4	0.18	±0.03	0.17	±0.03	0.17
PLANT PERIMETER 75	4	0.17	±0.03	0.15	±0.02	0.16
PLANT PERIMETER 75.25	4	0.19	±0.03	0.17	±0.03	0.18
PLANT PERIMETER 75.50	4	0.16	±0.02	0.14	±0.02	0.15
PLANT PERIMETER 75.75	4	0.17	±0.03	0.15	±0.02	0.16
PLANT PERIMETER 76	4	0.18	±0.03	0.16	±0.02	0.17
PLANT PERIMETER 76.25	4	0.20	±0.03	0.17	±0.03	0.19
PLANT PERIMETER 76.50	4	0.20	±0.03	0.16	±0.02	0.18
PLANT PERIMETER 76.75	4	0.19	±0.03	0.17	±0.03	0.18
PLANT PERIMETER 77	4	0.22	±0.03	0.19	±0.03	0.20
PLANT PERIMETER 78	4	0.19	±0.03	0.18	±0.03	0.19
PLANT PERIMETER 79	4	0.20	±0.03	0.17	±0.03	0.19
PLANT PERIMETER 79.25	4	0.21	±0.03	0.19	±0.03	0.20
PLANT PERIMETER 79.50	4	0.19	±0.03	0.18	±0.03	0.19
PLANT PERIMETER 79.75	3	0.23	±0.04	0.20	±0.03	0.21

- Insufficient data.

**TABLE 2-7
TLD GAMMA RADIATION MEASUREMENTS
FROM A TWO-STATE AREA**

LOCATION	NO. OF SAMPLES	MAXIMUM	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN ± 2 STD DEV
<u>SRP TYPE TLD, MR/DAY</u>						
<u>CITIES AND TOWNS</u>						
ALEXANDER, GA	0					
ALEXANDER, GA I	4	0.17	±0.02	0.14	±0.01	0.16
AUGUSTA (WATKINS) O	0					
AUGUSTA (WATKINS) I	4	0.33	±0.03	0.23	±0.02	0.27
AUGUSTA (WALTON W) O	0					
AUGUSTA (WALTON W) I	3	0.42	±0.03	0.36	±0.03	0.38
AUGUSTA, (RYNLD ST) O	4	0.42	±0.03	0.28	±0.03	0.33
AUGUSTA, (RYNLD ST) I	4	0.39	±0.03	0.34	±0.03	0.37
AUGUSTA, (EVE&E ST) O	0					
AUGUSTA, (EVE&E ST) I	4	0.40	±0.03	0.33	±0.03	0.36
AUGUSTA, (MLDGVE R) O	4	0.27	±0.02	0.23	±0.02	0.25
AUGUSTA, (MLDGVE R) I	4	0.34	±0.03	0.30	±0.03	0.33
AUGUSTA, (CENT&TRO) O	0					
AUGUSTA, (CENT&TRO) I	4	0.34	±0.03	0.32	±0.03	0.33
AUGUSTA, (CENT AVE) O	1	0.31	±0.03	0.31	±0.03	0.31
AUGUSTA, (CENT AVE) I	3	0.34	±0.03	0.28	±0.03	0.31
GIRARD, GA	3	0.32	±0.03	0.29	±0.03	0.30
GIRARD, GA I	4	0.37	±0.03	0.31	±0.03	0.34
HEPHZIBAH, GA	0					
HEPHZIBAH, GA I	4	0.22	±0.02	0.20	±0.02	0.21
LINCOLNTON, GA	0					
LINCOLNTON, GA I	3	0.15	±0.02	0.13	±0.01	0.14
LOUISVILLE, GA	4	0.43	±0.03	0.34	±0.03	0.39
LOUISVILLE, GA I	4	0.35	±0.03	0.27	±0.02	0.33
MCBEAN, GA	0					
MCBEAN, GA I	4	0.28	±0.03	0.23	±0.02	0.26
MILLEN, GA	0					
MILLEN, GA I	4	0.23	±0.02	0.17	±0.02	0.21
NEWINGTON, GA	0					
NEWINGTON, GA I	4	0.43	±0.03	0.36	±0.03	0.40
SARDIS, GA	0					
SARDIS, GA I	4	0.29	±0.03	0.27	±0.02	0.28
STATESBORO, GA	4	0.30	±0.03	0.25	±0.02	0.28
STATESBORO, GA I	4	0.30	±0.03	0.25	±0.02	0.28
SYLVANIA, GA	4	0.33	±0.03	0.26	±0.02	0.30
SYLVANIA, GA I	4	0.60	±0.05	0.45	±0.04	0.55
THOMPSON, GA	4	0.41	±0.03	0.36	±0.03	0.39
THOMPSON, GA I	4	0.39	±0.03	0.35	±0.03	0.37
WADLEY, GA	0					
WADLEY, GA I	4	0.33	±0.03	0.22	±0.02	0.29
WAYNESSBORO, GA	4	0.24	±0.02	0.17	±0.02	0.21
WAYNESSBORO, GA I	4	0.22	±0.02	0.17	±0.02	0.20
WRENS, GA	0					
WRENS, GA I	4	0.41	±0.03	0.34	±0.03	0.38

I = inside building; O = outside building.
- Insufficient data.

TABLE 2-7
TLD GAMMA RADIATION MEASUREMENTS
FROM A TWO-STATE AREA, CONT'D.

LOCATION	NO. OF SAMPLES	MAXIMUM	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN ± STD DEV
<u>PANASONIC TLD, MR/DAY</u>						
<u>CITIES AND TOWNS</u>						
ALEXANDER, GA O	4	0.19	±0.03	0.17	±0.03	0.18
ALEXANDER, GA I	0					
AUGUSTA (WATKINS) O	4	0.30	±0.05	0.27	±0.04	0.28
AUGUSTA (WATKINS) I	0					
AUGUSTA (WALTON W) O	4	0.34	±0.05	0.31	±0.05	0.32
AUGUSTA (WALTON W) I	0					
AUGUSTA, (RYNLD ST) O	4	0.35	±0.05	0.30	±0.05	0.33
AUGUSTA, (RYNLD ST) I	0					
AUGUSTA, (EVE&E ST) O	3	0.26	±0.04	0.23	±0.03	0.25
AUGUSTA, (EVE&E ST) I	0					
AUGUSTA, (MLDGVE R) O	4	0.24	±0.04	0.22	±0.03	0.23
AUGUSTA, (MLDGVE R) I	0					
AUGUSTA, (CENT&TRO) O	4	0.26	±0.04	0.25	±0.04	0.25
AUGUSTA, (CENT&TRO) I	0					
AUGUSTA, (CENT AVE) O	0					
AUGUSTA, (CENT AVE) I	0					
GIRARD, GA O	4	0.37	±0.06	0.29	±0.04	0.32
GIRARD, GA I	0					
HEPHZIBAH, GA O	4	0.19	±0.03	0.18	±0.03	0.18
HEPHZIBAH, GA I	0					
LINCOLNTON, GA O	3	0.33	±0.05	0.14	±0.02	0.21
LINCOLNTON, GA I	0					
LOUISVILLE, GA O	3	0.37	±0.06	0.34	±0.05	0.35
LOUISVILLE, GA I	0					
MCBEAN, GA O	4	0.28	±0.04	0.25	±0.04	0.27
MCBEAN, GA I	0					
MILLEN, GA O	2	0.18	±0.03	0.17	±0.03	0.18
MILLEN, GA I	0					
NEWINGTON, GA O	3	0.31	±0.05	0.29	±0.04	0.30
NEWINGTON, GA I	0					
SARDIS, GA O	4	0.25	±0.04	0.23	±0.03	0.24
SARDIS, GA I	0					
STATESBORO, GA O	3	0.29	±0.04	0.27	±0.04	0.28
STATESBORO, GA I	0					
SYLVANIA, GA O	3	0.31	±0.05	0.29	±0.04	0.30
SYLVANIA, GA I	0					
THOMPSON, GA O	3	0.39	±0.06	0.39	±0.06	0.39
THOMPSON, GA I	0					
WADLEY, GA O	3	0.33	±0.05	0.31	±0.05	0.32
WADLEY, GA I	0					
WAYNESBORO, GA O	4	0.24	±0.04	0.20	±0.03	0.23
WAYNESBORO, GA I	0					
WRENS, GA O	3	0.26	±0.04	0.24	±0.04	0.25
WRENS, GA I	0					

I = inside building, O = outside building.
 - Insufficient data.

**TABLE 2-7
TLD GAMMA RADIATION MEASUREMENTS
FROM A TWO-STATE AREA, CONT'D.**

LOCATION	NO. OF SAMPLES	MAXIMUM	CTERR 95% CL	MINIMUM	CTERR 95% CL	ARITHMETIC MEAN ± STD DEV
<u>SRP TYPE TLD, MR/DAY</u>						
<u>CITIES AND TOWNS</u>						
AIKEN (LAURENS ST) O	0					
AIKEN (LAURENS ST) I	3	0.38	±0.03	0.34	±0.03	0.36
AIKEN (SILVER B RD) O	6					
AIKEN (SILVER B RD) I	3	0.26	±0.02	0.22	±0.02	0.24
ALLENDALE, SC O	3	0.20	±0.02	0.16	±0.02	0.18
ALLENDALE, SC I	3	0.27	±0.02	0.20	±0.02	0.23
BARNWELL, SC O	0					
BARNWELL, SC I	4	0.36	±0.03	0.21	±0.02	0.27
BATESB-LEESVILLE SC O	0					
BATESB-LEESVILLE SC I	4	0.29	±0.03	0.25	±0.02	0.28
BEECH ISLAND, SC O	3	0.32	±0.03	0.24	±0.02	0.27
BEECH ISLAND, SC I	2	0.28	±0.03	0.24	±0.02	0.26
BLACKVILLE, SC O	3	0.26	±0.02	0.24	±0.02	0.25
BLACKVILLE, SC I	3	0.28	±0.03	0.25	±0.02	0.27
COLUMBIA (FIRE HQ) O	0					
COLUMBIA (FIRE HQ) I	4	0.47	±0.04	0.37	±0.03	0.44
COLUMBIA (HARDIN) O	4	0.37	±0.03	0.27	±0.02	0.32
COLUMBIA (HARDIN) I	4	0.47	±0.04	0.38	±0.03	0.43
COLUMBIA (EAU CLR) O	0					
COLUMBIA (EAU CLR) I	4	0.40	±0.03	0.35	±0.03	0.37
NORTH COLUMBIA O	0					
NORTH COLUMBIA I	4	0.54	±0.04	0.41	±0.03	0.48
COLUMBIA (SHANDON) O	4	0.29	±0.03	0.26	±0.02	0.27
COLUMBIA (SHANDON) I	4	0.31	±0.03	0.24	±0.02	0.28
COLUMBIA (DNTSVIL) O	0					
COLUMBIA (DNTSVIL) I	4	0.34	±0.03	0.31	±0.03	0.32
COLUMBIA (ST ANDR) O	0					
COLUMBIA (ST ANDR) I	4	0.37	±0.03	0.27	±0.02	0.33
COLUMBIA (IND PK) O	0					
COLUMBIA (IND PK) I	4	0.35	±0.03	0.31	±0.03	0.33
COLUMBIA (ATLAS) O	4	0.36	±0.03	0.28	±0.03	0.31
COLUMBIA (ATLAS) I	4	0.33	±0.03	0.29	±0.03	0.32
WEST COLUMBIA, SC O	0					
WEST COLUMBIA, SC I	4	0.42	±0.03	0.34	±0.03	0.39
COUCHTON, SC O	3	0.31	±0.03	0.27	±0.02	0.29
COUCHTON, SC I	3	0.21	±0.02	0.20	±0.02	0.20
EDGEFIELD, SC O	0					
EDGEFIELD, SC I	4	0.22	±0.02	0.19	±0.02	0.20
ESTILL, SC O	4	0.31	±0.03	0.26	±0.02	0.28
ESTILL, SC I	4	0.24	±0.02	0.18	±0.02	0.21
GRANITEVILLE, SC O	3	0.28	±0.03	0.21	±0.02	0.23
GRANITEVILLE, SC I	4	0.32	±0.03	0.22	±0.02	0.27
HAMPTON, SC O	0					
HAMPTON, SC I	4	0.32	±0.03	0.28	±0.03	0.29
JACKSON, SC O	0					
JACKSON, SC I	4	0.36	±0.03	0.26	±0.02	0.31
JOHNSTON, SC O	0					
JOHNSTON, SC I	4	0.23	±0.02	0.20	±0.02	0.21

I = inside building; O = outside building.
- Insufficient data.

TABLE 2-7
TLD GAMMA RADIATION MEASUREMENTS
IN A TWO-STATE AREA, CONT'D.

LOCATION	NO. OF SAMPLES	MAXIMUM	CTERR		MINIMUM	ARITHMETIC	
			95% CL	95% CL		MEAN	2 STD DEV
<u>SRP TYPE TLD, MR/DAY, CONT'D.</u>							
LEXINGTON, SC O	4	0.27	±0.02		0.21	±0.02	0.24
LEXINGTON, SC I	3	0.55	±0.04		0.42	±0.03	0.47
MARTIN, SC O	4	0.20	±0.02		0.14	±0.01	0.17
MARTIN, SC I	4	0.19	±0.02		0.14	±0.01	0.16
MCCORMICK, SC O	4	0.27	±0.02		0.23	±0.02	0.25
MCCORMICK, SC I	4	0.31	±0.03		0.27	±0.02	0.29
NEW ELLENTON, SC O	3	0.29	±0.03		0.26	±0.02	0.28
NEW ELLENTON, SC I	3	0.39	±0.03		0.33	±0.03	0.36
NORTH, SC O	0						
NORTH, SC I	4	0.31	±0.03		0.27	±0.02	0.29
NORTH AUGUSTA, SC O	0						
NORTH AUGUSTA, SC I	4	0.43	±0.03		0.29	±0.03	0.35
OLAR, SC O	0						
OLAR, SC I	3	0.27	±0.02		0.24	±0.02	0.25
ORANGEBURG, SC O	0						
ORANGEBURG, SC I	4	0.36	±0.03		0.27	±0.02	0.31
SALUDA, SC O	4	0.42	±0.03		0.37	±0.03	0.40
SALUDA, SC I	4	0.56	±0.04		0.49	±0.04	0.52
SMOAKS, SC O	4	0.24	±0.02		0.21	±0.02	0.23
SMOAKS, SC I	4	0.25	±0.02		0.19	±0.02	0.22
SPRINGFIELD, SC O	0						
SPRINGFIELD, SC I	3	0.21	±0.02		0.17	±0.02	0.19
ST MATTHEWS, SC O	0						
ST MATTHEWS, SC I	2	0.29	±0.03		0.25	±0.02	0.27
SWANSEA, SC O	4	0.40	±0.03		0.24	±0.02	0.32
SWANSEA, SC I	4	0.27	±0.02		0.21	±0.02	0.25
WAGENER, SC O	0						
WAGENER, SC I	3	0.30	±0.03		0.25	±0.02	0.27
WILLISTON, SC O	4	0.35	±0.03		0.28	±0.03	0.32
WILLISTON, SC I	3	0.36	±0.03		0.29	±0.03	0.32
WINDSOR, SC O	0						
WINDSOR, SC I	3	0.18	±0.02		0.13	±0.01	0.16

PANASONIC TLD, MR/DAY

<u>CITIES AND TOWNS</u>							
AIKEN (LAURENS ST) O	4	0.31	±0.05		0.22	±0.03	0.26
AIKEN (LAURENS ST) I	0						
AIKEN (SILVER B RD) O	4	0.30	±0.05		0.19	±0.03	0.23
AIKEN (SILVER B RD) I	0						
ALLEDALE, SC O	4	0.22	±0.03		0.16	±0.02	0.19
ALLEDALE, SC I	0						
BARNWELL, SC O	4	0.28	±0.04		0.24	±0.04	0.26
BARNWELL, SC I	0						
BATESB-LEESVILLE SC O	3	0.37	±0.06		0.35	±0.05	0.36
BATESB-LEESVILLE SC I	0						
BEECH ISLAND, SC O	4	0.30	±0.05		0.24	±0.04	0.26
BEECH ISLAND, SC I	0						

I = inside building; O = outside building.
 - Insufficient data.

TABLE 2-7
TLD GAMMA RADIATION MEASUREMENTS
FROM A TWO-STATE AREA, CONT'D.

LOCATION	NO. OF SAMPLES	MAXIMUM	CTERR 95% CL	MINIMUM	CTERR 95% CL	ARITHMETIC MEAN ± 2 STD DEV
<u>PANASONIC TLD, MR/DAY, CONT'D.</u>						
BLACKVILLE, SC O	4	0.28	±0.04	0.22	±0.03	0.25
BLACKVILLE, SC I	0					
COLUMBIA (FIRE HQ) O	3	0.33	±0.05	0.29	±0.04	0.32
COLUMBIA (FIRE HQ) I	0					
COLUMBIA (HARDIN) O	4	0.33	±0.05	0.26	±0.04	0.31
COLUMBIA (HARDIN) I	0					
COLUMBIA (EAU CLR) O	4	0.34	±0.05	0.26	±0.04	0.31
COLUMBIA (EAU CLR) I	0					
NORTH COLUMBIA O	4	0.30	±0.05	0.24	±0.04	0.28
NORTH COLUMBIA I	0					
COLUMBIA (SHANDON) O	4	0.29	±0.04	0.23	±0.03	0.27
COLUMBIA (SHANDON) I	0					
COLUMBIA (DNYSVIL) O	4	0.35	±0.05	0.29	±0.04	0.33
COLUMBIA (DNYSVIL) I	0					
COLUMBIA (ST ANDR) O	4	0.32	±0.05	0.27	±0.04	0.30
COLUMBIA (ST ANDR) I	0					
COLUMBIA (IND PK) O	4	0.34	±0.05	0.29	±0.04	0.32
COLUMBIA (IND PK) I	0					
COLUMBIA (ATLAS) O	4	0.33	±0.05	0.28	±0.04	0.31
COLUMBIA (ATLAS) I	0					
WEST COLUMBIA, SC O	4	0.44	±0.07	0.34	±0.05	0.40
WEST COLUMBIA, SC I	0					
COUCHTON, SC O	4	0.32	±0.05	0.25	±0.04	0.29
COUCHTON, SC I	0					
EDGEFIELD, SC O	3	0.27	±0.04	0.26	±0.04	0.26
EDGEFIELD, SC I	0					
ESTILL, SC O	4	0.30	±0.04	0.28	±0.04	0.29
ESTILL, SC I	0					
GRANITEVILLE, SC O	4	0.23	±0.03	0.18	±0.03	0.21
GRANITEVILLE, SC I	0					
HAMPTON, SC O	4	0.33	±0.05	0.29	±0.04	0.31
HAMPTON, SC I	0					
JACKSON, SC O	4	0.35	±0.05	0.26	±0.04	0.30
JACKSON, SC I	0					
JOHNSTON, SC O	3	0.35	±0.05	0.32	±0.05	0.33
JOHNSTON, SC I	0					
LEXINGTON, SC O	4	0.27	±0.04	0.21	±0.03	0.24
LEXINGTON, SC I	0					
MARTIN, SC O	4	0.19	±0.03	0.14	±0.02	0.17
MARTIN, SC I	0					
MCCORMICK, SC O	3	0.29	±0.04	0.24	±0.04	0.27
MCCORMICK, SC I	0					
NEW ELLENTON, SC O	4	0.31	±0.05	0.24	±0.04	0.28
NEW ELLENTON, SC I	0					
NORTH, SC O	4	0.21	±0.03	0.21	±0.03	0.21
NORTH, SC I	0					
NORTH AUGUSTA, SC O	4	0.36	±0.05	0.28	±0.04	0.31
NORTH AUGUSTA, SC I	0					

I = inside building, O = outside building.
 - Insufficient data.

TABLE 2-7
TLD GAMMA RADIATION MEASUREMENTS
FROM A TWO-STATE AREA, CONT'D.

<u>LOCATION</u>		<u>NO. OF</u> <u>SAMPLES</u>	<u>MAXIMUM</u>	<u>CTERR</u> <u>95% CL</u>	<u>MINIMUM</u>	<u>CTERR</u> <u>95% CL</u>	<u>ARITHMETIC</u> <u>MEAN ± STD DEV</u>
<u>PANASONIC TLD. MR/DAY. CONT'D.</u>							
OLAR, SC	O	4	0.35	±0.05	0.28	±0.04	0.31 -
OLAR, SC	I	0					
ORANGEBURG, SC	O	4	0.37	±0.06	0.32	±0.05	0.34 -
ORANGEBURG, SC	I	0					
SALUDA, SC	O	3	0.45	±0.07	0.38	±0.06	0.42 -
SALUDA, SC	I	0					
SMOAKS, SC	O	4	0.26	±0.04	0.23	±0.03	0.24 -
SMOAKS, SC	I	0					
SPRINGFIELD, SC	O	4	0.28	±0.04	0.21	±0.03	0.24 -
SPRINGFIELD, SC	I	0					
ST MATTHEWS, SC	O	4	0.35	±0.05	0.33	±0.05	0.35 -
ST MATTHEWS, SC	I	0					
SWANSEA, SC	O	4	0.36	±0.05	0.26	±0.04	0.30 -
SWANSEA, SC	I	0					
WAGENER, SC	O	4	0.34	±0.05	0.26	±0.04	0.30 -
WAGENER, SC	I	0					
WILLISTON, SC	O	4	0.31	±0.05	0.26	±0.04	0.29 -
WILLISTON, SC	I	0					
WINDSOR, SC	O	4	0.18	±0.03	0.13	±0.02	0.15 -
WINDSOR, SC	I	0					

I = inside building; O = outside building.
 - Insufficient data.

**TABLE 2-8
1987 AMBIENT AIR CONCENTRATIONS**

Pollutant	Quarter	EPA Measuring Interval	EPA Ambient Air Std.	SRP Measuring Interval	Ambient Air Concentrations						
					36G	37G	38G	39G	40G	41G	
NO ₂ (ppb)	1st	Annual	30	Quarterly	2	-	6	3	5	1	
	2nd	Annual	30	Quarterly	1	-	4	1	2	1	
	3rd	Annual	30	Quarterly	-	-	2	0	2	2	
	4th	Annual	30	Quarterly	-	-	5	2	7	3	
Total Suspended Solids (µg/m ³)	1st ^a	24 hr	250	24 hr	37.7	-	57.9	56.2 ^b	63.1	41.6	
								48.6 ^c			
	2nd ^a	24 hr	250	24 hr	97.3	-	64.4	96.8 ^b	120.0	90.1	
								28.5 ^b	30.4	25.9	
	3rd ^a	24 hr	250	24 hr	-	-	53.6	47.4 ^b	65.8	49.6	
								28.4 ^c			
	4th ^e	24 hr	150	24 hr	-	-	22.2	34.5 ^b	34.7	33.9	
								30.9 ^c			
	Annual		60	AGM ^f (TSP)	28.0	-	28.4	32.7 ^b	38.0	35.2	
			50	AGM (PM ₁₀)	-	-	11.1	15.6 ^b	16.5	16.3	
	Sulfur Dioxide (ppb)	1st	3 hr	500	3 hr	30	49	-	26	54	-
			24 hr	140	24 hr	11	13	-	15	18	-
Annual	50		Quarterly	4	5	-	4	6	-		
2nd	3 hr	500	3 hr	26	146	-	27	18	-		
	24 hr	140	24 hr	9	32	-	7	15	-		
	Annual	50	Quarterly	1	4	-	2	2	-		
3rd	3 hr	500	3 hr	-	-	-	13	65	-		
	24 hr	140	24 hr	-	-	-	5	15	-		
	Annual	50	Quarterly	-	-	-	2	2	-		
4th	3 hr	500	3 hr	-	-	-	23	135	-		
	24 hr	140	24 hr	-	-	-	8	53	-		
	Annual	50	Quarterly	-	-	-	3	4	-		
Ozone (ppb)	1st	1 hr	120	1 hr	59	-	-	65	-	-	
	2nd	1 hr	120	1 hr	91	-	-	100	-	-	
	3rd	1 hr	120	1 hr	-	-	-	94	-	-	
	4th	1 hr	120	1 hr	-	-	-	87	-	-	

^a TSP samplers.

^b Routine samplers.

^c Co-located particulate samplers.

^d Quarterly Geometric Mean.

^e TSP samplers modified with PM₁₀ size selective inlets.

^f Annual Geometric Mean.

- No measurements taken.

**TABLE 2-9
1986 SOUTH CAROLINA
AMBIENT AIR QUALITY MEASUREMENTS^a**

SUSPENDED PARTICULATES, $\mu\text{g}/\text{m}^3$

South Carolina Locations ^b	No. of Observations	24-hour Maximum	Geometric Mean	Exceeds Std.	
				SC 250 (24-hr)	SC 60 (yr)
1	43	123	39	no	no
2	61	122	46	no	no
3	57	173	48	no	no
4	---	---	---	---	---

SULFUR DIOXIDE, $\mu\text{g}/\text{m}^3$

South Carolina Locations ^b	No. of Observations	24-hour Maximum	Arithmetic Mean	Exceeds Std.		
				SC 1,300 (3-hr)	SC 365 (24-yr)	SC 80 (yr)
1	---	---	---	---	---	---
2	3463	107	14	no	no	no
3	865	36	14	no	no	no
4	---	---	---	---	---	---

NITROGEN DIOXIDE, $\mu\text{g}/\text{m}^3$

South Carolina Locations ^b	No. of Observations	24-hour Maximum	Arithmetic Mean	Exceeds Std.
				SC 100 (yr)
1	---	---	---	---
2	---	---	---	---
3	---	---	---	---
4	1960	47 ^c	8	no

LEAD, $\mu\text{g}/\text{m}^3$

South Carolina Locations ^b	No. of Observations	Maximum Quarterly Average	Exceeds Std.
			SC 1.5 (Quarterly Mean)
1	38	0.08	no
2	57	0.16	no
3	54	0.12	no
4	---	---	---

^a In the 1986 Environmental Report, South Carolina ambient air quality measurements were reported as 1986 measurements when in fact they were 1985 measurements.

^b South Carolina locations: (1) Fire station, Beech Island; (2) EQC office, Greenville; (3) SCDHEC, Columbia; (4) Barnwell-S21.

^c One-hour maximum.

--- Station not designed for this measurement.

TABLE 2-10
1986 GEORGIA
AMBIENT AIR QUALITY MEASUREMENTS^a

SUSPENDED PARTICULATES, $\mu\text{g}/\text{m}^3$

Georgia Locations ^b	No. of Observations	24-hour Maximum	Geometric Mean	Exceeds Std.	
				GA 150 (24-hr)	GA 75 (yr)
1	58	109	46	no	no
2	47	83	45	no	no
3	58	185	71	2	no
4	57	89	44	no	no
5	43	119	51	no	no
6	57	101	44	no	no
7	---	---	---	---	---

SULFUR DIOXIDE, $\mu\text{g}/\text{m}^3$

Georgia Locations ^b	No. of Observations	24-hour Maximum	Arithmetic Mean	Exceeds Std.		
				GA 1,300 (3-hr)	GA 365 (24-yr)	GA 80 (yr)
1	---	---	---	---	---	---
2	---	---	---	---	---	---
3	---	---	---	---	---	---
4	---	---	---	---	---	---
5	---	---	---	---	---	---
6	---	---	---	---	---	---
7	---	---	---	---	---	---

LEAD, $\mu\text{g}/\text{m}^3$

Georgia Locations ^b	No. of Observations	Maximum Quarterly Average	Exceeds Std.
			GA 1.5 (Quarterly Mean)
1	---	---	---
2	47	0.11	no
3	---	---	---
4	---	---	---
5	---	---	---
6	---	---	---
7	---	---	---

^a 1986 Georgia ambient air quality measurements were reported in the 1986 SRP Environmental Report and are duplicated here because 1987 data were not available at the time the 1987 report was prepared.

^b Georgia locations: (1) Sandbar Ferry Junior High School, Augusta; (2) Student Center, Medical College, Augusta; (3) Water Treatment Plant, Augusta; (4) Bungalow Road School, Augusta; (5) Clara Jenkins School, Augusta; (6) City Hall, Wrens; (7) Regional Youth Development Center, Augusta.

--- Station not designed for this measurement.

**TABLE 3-1
RADIOACTIVITY IN SAVANNAH RIVER WATER**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CTERR 95% CL</u>	<u>MINIMUM</u>	<u>CTERR 95% CL</u>	<u>ARITHMETIC MEAN ± 2 STD DEV</u>	
<u>ALPHA, PC/L</u>							
<u>SAVANNAH RIVER</u>							
R-2 DISSOLVED	52	0.63	±0.61	-0.16	±0.22	0.07	±0.30
R-2 SUSPENDED	52	0.34	±0.52	-0.16	±0.22	0.06	±0.20
R-3A ABOVE VOGTLE	51	0.50	±0.55	-0.16	±0.22	0.06	±0.24
R-3B BELOW VOGTLE	52	0.25	±0.29	-0.16	±0.22	0.05	±0.16
R-8C BELOW LITTLE HELL	26	0.38	±0.34	-0.16	±0.22	0.05	±0.22
R-8 BELOW STEEL CK	27	0.91	±0.68	-0.16	±0.22	0.06	±0.40
R-8B	27	0.25	±0.50	-0.09	±0.17	0.03	±0.16
R-10 DISSOLVED	49	0.50	±0.58	-0.16	±0.22	0.02	±0.18
R-10B H' C (WAY 301	51	1.1	±0.49	-0.16	±0.22	0.05	±0.38
R-10 SUSPENDED	50	0.31	±0.34	-0.16	±0.22	0.05	±0.20
GDNR-RIVER-2	13	0.58	±0.64	-0.08	±0.17	0.09	±0.34
GDNR-RIVER-10A	13	0.66	±0.66	-0.08	±0.15	0.07	±0.38
<u>CONTROL</u>							
EDISTO RIVER	50	1.5	±0.75	0.00	±0.23	0.51	±0.64
<u>NONVOL BETA, PC/L</u>							
<u>SAVANNAH RIVER</u>							
R-2 DISSOLVED	52	3.8	±1.4	-0.05	±0.88	1.5	±1.4
R-2 SUSPENDED	52	0.88	±1.1	-0.74	±0.79	0.02	±0.58
R-3A ABOVE VOGTLE	51	2.8	±1.3	-0.12	±1.1	1.5	±1.2
R-3B BELOW VOGTLE	52	3.3	±1.3	0.06	±1.1	1.5	±1.1
R-8C BELOW LITTLE HELL	26	2.7	±1.3	0.76	±0.93	1.6	±1.0
R-8 BELOW STEEL CK	27	4.1	±1.4	-0.25	±1.0	1.5	±1.5
R-8B	27	2.8	±1.3	0.49	±1.1	1.4	±1.1
R-10 DISSOLVED	49	2.6	±1.1	-0.10	±1.0	1.5	±1.1
R-10B HIGHWAY 301	51	2.7	±1.5	0.57	±1.2	1.6	±1.1
R-10 SUSPENDED	51	1.3	±1.2	-0.55	±1.0	0.12	±0.68
GDNR-RIVER-2	13	4.0	±1.3	0.92	±0.99	1.8	±1.6
GDNR-RIVER-10A	13	2.2	±1.1	0.81	±1.1	1.6	±0.76
<u>CONTROL</u>							
EDISTO RIVER	49	2.9	±1.4	-0.06	±1.1	1.0	±1.3
<u>H-3, PC/ML</u>							
<u>SAVANNAH RIVER</u>							
R-2 ABOVE PLANT	52	0.83	±1.0	0.05	±0.21	0.37	±0.32
R-3A ABOVE VOGTLE	52	4.4	±0.31	0.16	±0.21	0.81	±1.7
R-3B BELOW VOGTLE	52	2.4	±0.23	-0.26	±0.99	0.66	±0.86
R-8C BELOW LITTLE HELL	26	6.2	±0.27	1.8	±0.31	3.3	±1.7
R-8 BELOW STEEL CK	26	5.2	±0.26	0.72	±0.30	2.6	±1.7
R-10 HIGHWAY 301	53	7.0	±0.31	1.5	±0.31	3.3	±2.0
R-10B HIGHWAY 301	55	8.5	±0.32	0.23	±1.1	3.2	±2.3
<u>CONTROL</u>							
EDISTO RIVER	50	0.94	±0.21	-0.42	±0.34	0.41	±0.38

- Insufficient data.

**TABLE 3-1
RADIOACTIVITY IN SAVANNAH RIVER WATER, CONT'D.**

<u>LOCATION^a</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CTERR 95% CL</u>	<u>MINIMUM</u>	<u>CTERR 95% CL</u>	<u>ARITHMETIC MEAN 2 STD DEV</u>	
<u>SR-89, 90, PCI/L</u>							
<u>SAVANNAH RIVER</u>							
R-8C BELOW LITTLE HELL	12	1.3	±1.4	-0.55	±1.3	0.15	±0.96
R-8 BELOW STEEL CK	11	1.2	±1.8	-1.3	±1.2	0.24	±1.1
R-8B	11	0.90	±1.8	-1.6	±1.2	0.01	±0.76
R-2 ABOVE PLANT IC	12	0.81	±0.32	-0.07	±0.37	0.20	±0.50
R-3A ABOVE VOGTLE	12	0.37	±0.28	-0.09	±0.37	0.12	±0.26
R-3B BELOW VOGTLE	12	0.41	±0.32	-0.18	±0.25	0.17	±0.28
R-10 HIGHWAY 301 IC	12	0.37	±0.42	0.03	±0.25	0.19	±0.22
AVERAGE						0.17	±0.33
<u>MN-54, PCI/L</u>							
R-2 ABOVE PLANT IC	50	0.00	±0.21	0.00	±3.4	0.00	-
R-3A ABOVE VOGTLE	51	0.00	±0.21	0.00	±3.0	0.00	-
R-3B BELOW VOGTLE	50	0.00	±0.21	0.00	±3.4	0.00	-
R-10 HIGHWAY 301 IC	51	0.00	±0.21	0.00	±1.8	0.00	-
AVERAGE						0.00	-
<u>CR-51, PCI/L</u>							
R-2 ABOVE PLANT IC	50	0.00	±0.21	0.00	±15	0.00	-
R-3A ABOVE VOGTLE	51	0.00	±0.21	0.00	±15	0.00	-
R-3B BELOW VOGTLE	50	0.00	±0.21	0.00	±17	0.00	-
R-10 HIGHWAY 301 IC	51	0.00	±0.21	0.00	±8.5	0.00	-
AVERAGE						0.00	-
<u>CO-60, PCI/L</u>							
R-2 ABOVE PLANT IC	50	22	±4.2	0.00	±1.5	0.45	±6.6
R-3A ABOVE VOGTLE	51	6.5	±1.2	0.00	±1.1	0.13	±1.8
R-3B BELOW VOGTLE	50	0.00	±1.2	0.00	±1.2	0.00	-
R-10 HIGHWAY 301 IC	51	6.0	±1.0	0.00	±0.67	0.12	±1.7
AVERAGE						0.17	±3.4
<u>ZN-65, PCI/L</u>							
R-2 ABOVE PLANT IC	50	0.00	±1.2	0.00	±2.7	0.00	-
R-3A ABOVE VOGTLE	51	0.00	±1.2	0.00	±2.6	0.00	-
R-3B BELOW VOGTLE	50	0.00	±1.2	0.00	±2.7	0.00	-
R-10 HIGHWAY 301 IC	51	0.00	±1.2	0.00	±1.2	0.00	-
AVERAGE						0.00	-
<u>ZR-95, NB-95, PCI/L</u>							
R-2 ABOVE PLANT IC	50	0.00	±1.2	0.00	±2.1	0.00	-
R-3A ABOVE VOGTLE	51	0.00	±1.2	0.00	±1.9	0.00	-
R-3B BELOW VOGTLE	50	0.00	±1.2	0.00	±2.4	0.00	-
R-10 HIGHWAY 301 IC	51	0.00	±1.2	0.00	±1.4	0.00	-
AVERAGE						0.00	-
<u>RU-103, 106, PCI/L</u>							
R-2 ABOVE PLANT IC	50	0.00	±1.2	0.00	±12	0.00	-
R-3A ABOVE VOGTLE	51	0.00	±1.2	0.00	±11	0.00	-
R-3B BELOW VOGTLE	50	0.00	±1.2	0.00	±11	0.00	-
R-10 HIGHWAY 301 IC	51	0.00	±1.2	0.00	±5.9	0.00	-
AVERAGE						0.00	-

^a - Insufficient data.

**TABLE 3-1
RADIOACTIVITY IN SAVANNAH RIVER WATER, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CTERR 95% CL</u>	<u>MINIMUM</u>	<u>CTERR 95% CL</u>	<u>ARITHMETIC MEAN 2 STD DEV</u>	
<u>I-131, PC/L</u>							
R-2 ABOVE PLANT IC	50	0.00	±1.2	0.00	±3.7	0.00	-
R-3A ABOVE VOGTLE	51	0.00	±1.2	0.00	±3.4	0.00	-
R-3B BELOW VOGTLE	50	0.00	±1.2	0.00	±4.0	0.00	-
R-10 HIGHWAY 301 IC	51	0.00	±1.2	0.00	±2.2	0.00	-
AVERAGE						0.00	-
<u>CS-134, PC/L</u>							
R-2 ABOVE PLANT IC	50	0.00	±1.2	0.00	±1.4	0.00	-
R-3A ABOVE VOGTLE	51	0.00	±1.2	0.00	±1.1	0.00	-
R-3B BELOW VOGTLE	50	0.00	±1.2	0.00	±1.2	0.00	-
R-10 HIGHWAY 301 IC	51	0.00	±1.2	0.00	±0.64	0.00	-
AVERAGE						0.00	-
<u>CS-137, PC/L</u>							
R-2 ABOVE PLANT IC	50	9.7	±2.2	0.00	±1.3	0.32	±3.0
R-3A ABOVE VOGTLE	51	11	±2.9	0.00	±1.3	1.0	±5.7
R-3B BELOW VOGTLE	50	8.9	±1.9	0.00	±1.4	0.43	±3.5
R-10 HIGHWAY 301 IC	51	1.6	±25	0.00	±0.62	0.03	±0.44
AVERAGE						0.45	±3.7
<u>CE-141, 144, PC/L</u>							
R-2 ABOVE PLANT IC	50	2.6	±20	0.00	±7.4	0.05	±0.72
R-3A ABOVE VOGTLE	51	0.00	±20	0.00	±6.0	0.00	-
R-3B BELOW VOGTLE	50	0.00	±20	0.00	±7.5	0.00	-
R-10 HIGHWAY 301 IC	51	0.00	±20	0.00	±3.8	0.00	-
AVERAGE						0.01	±0.36
<u>BA-140LA-140, PC/L</u>							
R-2 ABOVE PLANT IC	13	0.00	±1.9	0.00	±17	0.00	-
R-3A ABOVE VOGTLE	13	0.00	±1.9	0.00	±17	0.00	-
R-3B BELOW VOGTLE	13	0.00	±1.9	0.00	±17	0.00	-
R-10 HIGHWAY 301 IC	13	0.00	±1.9	0.00	±17	0.00	-
AVERAGE						0.00	-
<u>SR-90, PC/L</u>							
R-2 ABOVE PLANT IC	11	1.30	±0.65	0.07	±0.30	0.46	±0.37
R-3A ABOVE VOGTLE	11	0.55	±0.28	0.03	±0.16	0.27	±0.14
R-3B BELOW VOGTLE	11	1.40	±0.66	0.02	±0.16	0.32	±0.39
R-10 HIGHWAY 301 IC	11	1.40	±0.36	0.29	±0.20	0.56	±0.31

- Insufficient data.

**TABLE 3-2
RADIOACTIVITY IN PLANT STREAM WATER**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± STD DEV</u>	
<u>ALPHA, PC/L</u>							
<u>TIMS BRANCH</u>							
TB-2 A EFFLUENT	52	3.7	±1.1	-0.08	±0.34	0.36	±1.1
TB-3 M EFFLUENT	50	12	±10	-0.78	±5.8	3.3	±5.4
TB-5 NEAR ROAD C	26	1.7	±0.91	0.08	±0.15	0.41	±0.68
700-A1 OUTFALL	26	1.0	±0.60	-0.08	±0.15	0.33	±0.56
<u>UPPER THREE RUNS CREEK</u>							
U3R-2 F STORM SEWER	52	230	±8.8	0.16	±0.31	6.8	±64
CROUCH BRANCH	26	3.2	±1.1	0.00	±0.38	0.59	±1.4
MCQUEEN BRANCH	11	1.0	±0.62	0.00	±0.17	0.26	±0.58
U3R-3 ROAD C	27	1.5	±0.70	0.15	±0.31	0.74	±0.80
U3R-4 ROAD A	26	1.3	±0.63	0.16	±0.38	0.73	±0.62
U3R F-3	51	1.7	±0.78	0.00	±0.22	0.41	±0.72
<u>BEAVER DAM CREEK</u>							
400-D EFFLUENT	55	0.54	±0.46	-0.23	±0.27	0.08	±0.30
<u>FOUR MILE CREEK</u>							
BURIAL GROUND DITCH	12	1.2	±0.66	0.15	±0.44	0.53	±0.54
FM-1B COOL TOWER EFF	54	7.2	±1.6	-0.08	±0.17	1.2	±2.8
HP 52 PADDLE WHEEL	26	2.7	±0.94	0.23	±0.34	1.5	±1.2
H H-3 FAC OUTFALL 50	26	7.3	±1.5	0.00	±0.31	1.7	±3.7
FM-1C H EFFLUENT	54	43	±3.4	0.00	±0.23	1.6	±12
FM-2 ROAD 4	26	2.5	±0.91	0.08	±0.35	0.72	±1.3
FM-2B ABOVE F EFF	26	12	±2.0	0.00	±0.15	0.86	±4.5
FM-3 F EFFLUENT	53	6.0	±1.4	0.08	±0.29	1.1	±2.1
FM-3A BELOW F EFF	26	15	±2.3	0.00	±0.23	1.1	±5.6
FM-A7 ROAD A-7	26	4.5	±1.3	0.08	±0.27	0.73	±1.7
FM-6 ROAD A	26	0.54	±0.41	-0.16	±0.22	0.18	±0.38
<u>INDIAN GRAVE BRANCH</u>							
IGB-7	4	0.33	±0.33	0.08	±0.16	0.19	-
IGB-21 800' S OF 6-1	4	0.41	±0.37	0.00	±0.00	0.17	-
<u>PEN BRANCH</u>							
PB-1 K SEC EFFLUENT	51	0.77	±0.49	-0.16	±0.22	0.14	±0.40
PB-3 ROAD A	26	0.38	±0.34	-0.08	±0.27	0.07	±0.20
<u>STEEL CREEK</u>							
SC 2A	26	0.69	±0.46	0.00	±0.00	0.22	±0.34
SC-4 ROAD A	26	0.41	±0.44	-0.08	±0.15	0.10	±0.28
<u>PAR POND</u>							
R-AREA EFFLUENT	52	0.77	±0.53	-0.08	±0.27	0.21	±0.42
PP-2 PUMPHOUSE	51	13	±2.0	-0.08	±0.29	0.32	±3.5
<u>LOWER THREE RUNS CREEK</u>							
SC-1 P SEC EFFLUENT	52	0.77	±0.53	-0.08	±0.17	0.14	±0.32
L3R-1A ROAD B	25	0.83	±0.74	-0.16	±0.22	0.06	±0.36
L3R-2 PATTERSON MILL	26	0.91	±0.76	-0.08	±0.16	0.11	±0.38
L3R-3 ROAD A	12	0.23	±0.35	0.00	±0.22	0.12	±0.18
<u>SAVANNAH RIVER SWAMP</u>							
TNX 1	26	1.2	±0.83	0.00	±0.24	0.41	±0.52

- Insufficient data.

**TABLE 3-2
RADIOACTIVITY IN PLANT STREAM WATER, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± STD DEV</u>	
<u>TIME BRANCH</u>							
TB-2 A EFFLUENT	52	9.1	±1.8	-0.65	±0.85	1.1	±3.0
TB-3 M EFFLUENT	50	38	±25	-8.0	±17	7.2	±18
TB-5 NEAR ROAD C	26	2.5	±1.1	-0.85	±0.77	1.4	±1.4
700-A1 OUTFALL	26	4.6	±1.5	0.24	±1.1	1.7	±1.8
<u>UPPER THREE RUNS CREEK</u>							
U3R-2 F STORM SEWER	52	11000	±51	7.1	±1.5	240	±2900
CROUCH BRANCH	26	1000	±16	2.6	±1.1	46	±410
MCQUEEN BRANCH	11	3.5	±1.5	0.42	±0.96	2.1	±2.1
U3R-3 ROAD C	27	2.6	±1.1	-0.58	±0.84	1.1	±1.2
U3R-4 ROAD A	26	2.1	±1.1	0.00	±0.87	1.1	±1.1
U3R F-3	51	11	±1.9	1.6	±1.4	5.0	±3.9
<u>BEAVER DAM CREEK</u>							
400-D EFFLUENT	55	3.4	±1.5	0.42	±0.90	1.9	±1.2
<u>FOUR MILE CREEK</u>							
BURIAL GROUND DITCH	12	39	±3.0	9.6	±1.8	20	±19
FM-1B COOL TOWER EFF	54	380	±9.8	5.3	±1.5	26	±100
HP 52 PADDLE WHEEL	26	25	±2.5	6.8	±1.5	11	±8.9
H H-3 FAC OUTFALL 50	26	16	±2.1	0.82	±1.2	5.7	±8.2
FM-1C H EFFLUENT	54	62	±3.8	0.83	±0.55	19	±24
FM-2 ROAD 4	26	96	±5.0	8.7	±1.6	29	±37
FM-2B ABOVE F EFF	26	140	±5.8	20	±2.3	45	±47
FM-3 F EFFLUENT	53	340	±9.3	0.75	±0.52	45	±110
FM-3A BELOW F EFF	26	80	±4.6	11	±2.0	26	±37
FM-A7 ROAD A-7	26	64	±3.8	24	±2.7	49	±23
FM-6 ROAD A	26	35	±3.1	18	±2.2	25	±8.6
<u>INDIAN GRAVE BRANCH</u>							
IGB-7	4	1.8	±1.2	0.16	±0.92	1.0	-
IGB-21 800' S OF 6-1	4	1.4	±1.3	-0.26	±0.87	0.63	-
<u>PEN BRANCH</u>							
PB-1 K SEC EFFLUENT	51	4.0	±1.5	0.92	±1.0	2.1	±1.4
PB-3 ROAD A	26	2.8	±1.2	0.49	±0.92	1.6	±1.0
<u>STEEL CREEK</u>							
SC 2A	26	11	±2.0	3.8	±1.3	8.1	±3.8
SC-4 ROAD A	26	3.5	±1.4	0.95	±0.98	2.0	±1.2
<u>PAR POND</u>							
R-AREA EFFLUENT	52	210	±6.8	5.0	±1.3	20	±57
PP-2 PUMPHOUSE	51	13	±2.0	3.3	±1.2	5.9	±3.4
<u>LOWER THREE RUNS CREEK</u>							
SC-1 P SEC EFFLUENT	52	9.7	±1.8	3.2	±1.4	5.3	±2.2
L3R-1A ROAD B	25	7.1	±1.6	2.2	±1.1	5.1	±2.4
L3R-2 PATTERSON MILL	26	6.0	±1.5	0.58	±0.94	3.5	±2.5
L3R-3 ROAD A	12	5.7	±1.6	0.90	±1.0	3.4	±2.4
<u>SAVANNAH RIVER SWAMP</u>							
TNX 1	26	9.1	±1.7	0.35	±0.97	4.3	±3.5

- Insufficient data.

**TABLE 3-2
RADIOACTIVITY IN PLANT STREAM WATER, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN 2 STD DEV</u>	
<u>H-3, PC/ML</u>							
<u>TIMS BRANCH</u>							
TB-2 A EFFLUENT	51	2.3	±1.1	-0.86	±0.73	0.31	±1.1
TB-5 NEAR ROAD C	26	2.8	±0.91	0.69	±0.88	1.6	±1.0
700-A1 OUTFALL	26	1.6	±0.85	-0.38	±0.88	0.59	±1.0
<u>UPPER THREE RUNS CREEK</u>							
U3R-4 ROAD A	26	3.3	±1.1	1.6	±0.80	2.4	±1.0
<u>BEAVER DAM CREEK</u>							
400-D EFFLUENT	54	360	±5.0	-0.01	±0.81	19	±110
<u>FOUR MILE CREEK</u>							
BURIAL GROUND DITCH	12	22000	±450	79	±2.4	3600	±14000
FM-1B COOL TOWER EFF	52	10	±1.2	0.62	±0.99	4.3	±4.4
HP 52 PADDLE WHEEL	24	5.5	±1.1	0.50	±0.85	2.1	±2.8
H H-3 FAC OUTFALL 50	27	910	±7.9	14	±1.4	220	±450
FM-1C H EFFLUENT	51	5200	±100	4.9	±1.0	240	±1600
FM-2 ROAD 4	27	200	±4.1	34	±1.7	120	±94
FM-2B ABOVE F EFF	26	1500	±33	460	±5.4	920	±510
FM-3 F EFFLUENT	51	52	±2.0	0.86	±0.77	6.3	±14
FM-3A BELOW F EFF	26	3300	±67	1300	±9.0	2400	±940
FM-A7 ROAD A-7	27	1700	±35	430	±5.3	1100	±620
FM-6 ROAD A	26	780	±16	280	±4.5	590	±310
<u>INDIAN GRAVE BRANCH</u>							
IGB-7	4	230	±4.1	62	±10	110	-
IGB-21 800' S OF 6-1	49	9600	±190	2000	±37	5800	±4300
<u>PEN BRANCH</u>							
PB-1 K SEC EFFLUENT	51	76	±2.4	-0.42	±0.81	6.8	±28
P019	52	48	±1.9	7.9	±1.1	11	±11
PB-3 ROAD A	27	66	±2.5	8.1	±1.1	18	±25
<u>STEEL CREEK</u>							
SC 2A	26	70	±2.5	12	±1.1	49	±27
SC-4 ROAD A	26	4.5	±1.0	1.6	±0.86	2.8	±1.8
<u>PAR POND</u>							
R-AREA EFFLUENT	52	37	±1.8	4.3	±1.1	10	±11
PP-2 PUMPHOUSE	52	12	±1.4	6.9	±1.1	9.3	±2.2
<u>LOWER THREE RUNS CREEK</u>							
SC-1 P SEC EFFLUENT	52	89	±2.4	7.0	±1.1	15	±26
L3R-1A ROAD B	26	12	±1.1	8.0	±1.1	9.8	±2.1
L3R-2 PATTERSON MILL	26	7.6	±1.4	0.77	±0.82	5.2	±3.8
L3R-3 ROAD A	11	4.1	±0.99	0.80	±0.76	2.6	±2.0
<u>SAVANNAH RIVER SWAMP</u>							
TNX 1	25	1.7	±0.92	-0.58	±0.76	0.34	±1.0

- Insufficient data.

**TABLE 3-2
RADIOACTIVITY IN PLANT STREAM WATER, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN</u>	<u>2 STD DEV</u>
<u>SR-89, 90, PCI/L</u>							
<u>FOUR MILE CREEK</u>							
FM-1B COOL TOWER EFF	12	0.99	±1.0	-0.74	±1.3	0.22	±1.1
HP 52 PADDLE WHEEL	12	2.3	±1.5	-0.59	±1.3	0.59	±1.5
FM-1C H EFFLUENT	12	7.9	±1.7	0.17	±1.5	2.3	±5.0
FM-2 ROAD 4	12	7.6	±1.7	0.00	±1.2	2.7	±4.1
FM-2B ABOVE F EFF	12	19	±2.4	5.6	±1.7	12	±7.3
FM-3 F EFFLUENT	12	8.9	±2.2	1.8	±1.4	4.0	±3.8
FM-3A BELOW F EFF	12	4.5	±1.7	-0.46	±1.6	2.4	±2.8
FM-A7 ROAD A-7	12	23	±2.9	15	±2.3	19	±4.5
FM-6 ROAD A	12	16	±2.5	6.7	±1.8	9.4	±4.7
<u>INDIAN GRAVE BRANCH</u>							
IGB-7	4	1.0	±1.5	-0.29	±1.2	0.31	-
IGB-21 800' S OF 6-1	4	0.41	±1.4	-1.8	±1.2	0.46	-
<u>PEN BRANCH</u>							
PB-3 ROAD A	12	0.62	±1.4	-0.58	±1.5	0.09	±0.44
<u>STEEL CREEK</u>							
SC 2A	12	2.0	±1.5	-0.35	±1.5	0.38	±1.2
SC-4 ROAD A	12	0.51	±1.3	-1.2	±1.1	0.11	±0.42
<u>PAR POND</u>							
PP-2 PUMPHOUSE	12	0.98	±1.4	-0.88	±1.4	0.08	±0.92
<u>LOWER THREE RUNS CREEK</u>							
L3R-1A ROAD 3	12	0.92	±1.3	-0.76	±1.4	0.15	±0.84
L3R-2 PATTERSON'S M	12	0.79	±1.3	-0.88	±1.4	0.03	±0.72
L3R-3 ROAD A	12	1.8	±1.6	-0.86	±1.3	0.22	±1.3
<u>CHEM. CS, PCI/L</u>							
<u>UPPER THREE RUNS CREEK</u>							
U3R-4 ROAD A	12	1.3	±1.4	-1.5	±1.1	0.13	±0.84
<u>FOUR MILE CREEK</u>							
FM-1C H EFFLUENT	12	18	±2.8	4.7	±1.4	8.9	±7.6
FM-2 ROAD 4	12	23	±3.0	4.5	±1.6	14	±13
FM-3 F EFFLUENT	12	91	±5.3	4.5	±1.7	25	±48
FM-3A BELOW F EFF	12	42	±3.7	5.9	±1.8	17	±24
FM-A7 ROAD A-7	12	16	±2.6	4.0	±1.4	9.1	±8.0
FM-6 ROAD A	12	5.7	±2.0	1.4	±1.4	3.7	±2.6
<u>PEN BRANCH</u>							
PB-3 ROAD A	12	1.4	±1.2	-0.80	±1.5	0.14	±0.96
<u>STEEL CREEK</u>							
SC 2A	27	11	±2.3	1.4	±1.3	5.3	±4.9
SC-4 ROAD A	27	3.2	±1.6	-1.1	±1.4	0.32	±1.7
<u>PAR POND</u>							
PP-2 PUMPHOUSE	11	6.3	±1.8	1.6	±1.2	4.5	±2.8
<u>LOWER THREE RUNS CREEK</u>							
L3R-2 PATTERSON MILL	12	8.1	±1.9	0.89	±1.7	3.1	±4.4
L3R-3 ROAD A	12	2.6	±1.5	0.11	±1.3	1.3	±1.4

- Insufficient data.

**TABLE 3-2
RADIOACTIVITY IN PLANT STREAM WATER, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN 2 STD DEV</u>	
<u>U/PU, PCI/L</u>							
<u>TIMS BRANCH</u>							
TB-2 A EFFLUENT	51	13	±2.3	-0.17	±0.58	0.93	±3.8
TB-3 M EFFLUENT	52	34	±20	-7.8	±16	5.9	±16
<u>UPPER THREE RUNS CREEK</u>							
U3R-4 ROAD A	26	0.55	±0.64	-0.33	±0.47	0.11	±0.36
U3R F-3	50	4.5	±1.5	-0.13	±0.45	0.91	±2.3
<u>FOUR MILE CREEK</u>							
FM-6 ROAD A	25	0.55	±0.63	-0.34	±0.48	0.11	±0.34
<u>PEN BRANCH</u>							
PB-3 ROAD A	26	0.38	±0.53	-0.33	±0.47	0.10	±0.36
<u>LOWER THREE RUNS CREEK</u>							
L3R-2 PATTERSON MILL	26	0.56	±0.65	-0.34	±0.48	0.04	±0.34
L3R-2 DIP	50	1.6	±1.1	-0.34	±0.48	0.11	±0.64
<u>SAVANNAH RIVER SWAMP</u>							
TNX 1	26	0.50	±0.58	-0.18	±0.35	0.13	±0.38
<u>MN-54, PCI/L</u>							
<u>FOUR MILE CREEK</u>							
FM-6 ROAD A	11	0.00	±35	0.00	±7.3	0.00	-
<u>PEN BRANCH</u>							
PB-3 ROAD A	11	0.00	±35	0.00	±7.3	0.00	-
<u>LOWER THREE RUNS CREEK</u>							
L3R-2 PATTERSON MILL	12	0.00	±35	0.00	±7.3	0.00	-
<u>CR-51, PCI/L</u>							
<u>FOUR MILE CREEK</u>							
FM-6 ROAD A	11	0.00	±35	0.00	±240	0.00	-
<u>PEN BRANCH</u>							
PB-3 ROAD A	11	0.00	±35	0.00	±240	0.00	-
<u>LOWER THREE RUNS CREEK</u>							
L3R-2 PATTERSON MILL	12	0.00	±35	0.00	±240	0.00	-
<u>CO-60, PCI/L</u>							
<u>FOUR MILE CREEK</u>							
FM-6 ROAD A	11	0.00	±35	0.00	±9.9	0.00	-
<u>PEN BRANCH</u>							
PB-3 ROAD A	11	0.00	±35	0.00	±9.9	0.00	-
<u>LOWER THREE RUNS CREEK</u>							
L3R-2 PATTERSON MILL	12	0.00	±35	0.00	±14	0.00	-

- Insufficient data.

**TABLE 3-2
RADIOACTIVITY IN PLANT STREAM WATER, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± STD DEV</u>
<u>ZN-65, PCI/L</u>						
<u>FOUR MILE CREEK</u> FM-6 ROAD A	11	0.00	±35	0.00	±28	0.00 -
<u>PEN BRANCH</u> PB-3 ROAD A	11	0.00	±35	0.00	±20	0.00 -
<u>LOWER THREE RUNS CREEK</u> L3R-2 PATTERSON MILL	12	0.00	±35	0.00	±25	0.00 -
<u>ZR-95, NB-95, PCI/L</u>						
<u>FOUR MILE CREEK</u> FM-6 ROAD A	11	0.00	±35	0.00	±55	0.00 -
<u>PEN BRANCH</u> PB-3 ROAD A	11	0.00	±35	0.00	±56	0.00 -
<u>LOWER THREE RUNS CREEK</u> L3R-2 PATTERSON MILL	12	0.00	±35	0.00	±53	0.00 -
<u>RU-103, 106, PCI/L</u>						
<u>FOUR MILE CREEK</u> FM-6 ROAD A	11	0.00	±35	0.00	±110	0.00 -
<u>PEN BRANCH</u> PB-3 ROAD A	11	0.00	±35	0.00	±99	0.00 -
<u>LOWER THREE RUNS CREEK</u> L3R-2 PATTERSON MILL	12	0.00	±35	0.00	±120	0.00 -
<u>I-131, PCI/L</u>						
<u>FOUR MILE CREEK</u> FM-6 ROAD A	11	0.00	±35	0.00	±890	0.00 -
<u>PEN BRANCH</u> PB-3 ROAD A	11	0.00	±35	0.00	±840	0.00 -
<u>LOWER THREE RUNS CREEK</u> L3R-2 PATTERSON MILL	12	0.00	±35	0.00	±980	0.00 -
<u>CS-134, PCI/L</u>						
<u>FOUR MILE CREEK</u> FM-6 ROAD A	11	0.00	±35	0.00	±6.9	0.00 -
<u>PEN BRANCH</u> PB-3 ROAD A	11	0.00	±35	0.00	±8.5	0.00 -
<u>LOWER THREE RUNS CREEK</u> L3R-2 PATTERSON MILL	12	0.00	±35	0.00	±7.5	0.00 -

- Insufficient data.

**TABLE 3-2
RADIOACTIVITY IN PLANT STREAM WATER, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± 2 STD DEV</u>	
<u>CS-137, PCII</u>							
<u>FOUR MILE CREEK</u> FM-6 ROAD A	11	25	±4.5	0.00	±9.1	3.0	±15
<u>PEN BRANCH</u> PB-3 ROAD A	11	0.00	±4.5	0.00	±8.6	0.00	-
<u>LOWER THREE RUNS CREEK</u> L3R-2 PATTERSON MILL	12	3.4	±2.4	0.00	±9.3	0.36	±2.0
<u>CE-141, 144, PCII</u>							
<u>FOUR MILE CREEK</u> FM-6 ROAD A	11	0.48	±0.83	0.00	±88	0.04	±0.28
<u>PEN BRANCH</u> PB-3 ROAD A	11	0.00	±0.83	0.00	±88	0.00	-
<u>LOWER THREE RUNS CREEK</u> L3R-2 PATTERSON MILL	12	0.00	±0.83	0.00	±89	0.00	-

— Insufficient data.

**TABLE 3-3
RADIOACTIVITY IN SEEPAGE BASIN WATER**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CTERR 95% CL</u>	<u>MINIMUM</u>	<u>CTERR 95% CL</u>	<u>ARITHMETIC MEAN</u>	<u>2 STD DEV</u>
<u>ALPHA, PC/ML</u>							
<u>200-F</u>							
F SEEPAGE BASIN 1	4	2.7	±0.97	-0.15	±0.22	1.3	-
F SEEPAGE BASIN 2	4	1.1	±0.60	-0.08	±0.27	0.50	-
F SEEPAGE BASIN 3	4	3.4	±1.1	0.08	±0.34	1.4	-
<u>200-H</u>							
H SEEPAGE BASIN 1	4	0.74	±0.54	-0.15	±0.22	0.33	-
H SEEPAGE BASIN 2	4	0.08	±0.17	-0.08	±0.27	0.00	-
H SEEPAGE BASIN 3	4	0.17	±0.23	-0.08	±0.17	0.04	-
H SEEPAGE BASIN 4	4	0.25	±0.29	-0.08	±0.17	0.06	-
<u>ALPHA, PC/L</u>							
<u>300-M</u>							
300-M SEEPAGE BASIN	4	200	±26	14	±2.1	62	-
<u>700-A</u>							
A AREA 1	2	31	±10	28	±9.5	29	-
<u>TNX</u>							
TNX 904-102G	12	2.5	±2.9	0.00	±2.4	1.0	±2.0
<u>REACTOR AREAS</u>							
100-P SEEPAGE BASIN	4	5.7	±4.9	-0.77	±2.7	3.4	-
100-C SEEPAGE BASIN	3	2.5	±3.7	0.00	±0.00	1.1	-
100-L SEEPAGE BASIN	4	5.4	±4.6	-0.77	±2.7	2.8	-
<u>NONVOL BETA, PC/ML</u>							
<u>200-F</u>							
F SEEPAGE BASIN 1	4	36	±3.2	12	±2.6	22	-
F SEEPAGE BASIN 2	4	36	±3.2	8.1	±1.6	19	-
F SEEPAGE BASIN 3	4	31	±3.0	13	±2.1	19	-
<u>200-H</u>							
H SEEPAGE BASIN 1	4	59	±4.0	12	±1.8	34	-
H SEEPAGE BASIN 2	4	27	±2.8	5.9	±1.5	14	-
H SEEPAGE BASIN 3	4	2.1	±1.1	-0.12	±1.0	0.85	-
H SEEPAGE BASIN 4	4	14	±2.2	6.1	±1.5	9.2	-
<u>NONVOL BETA, PC/L</u>							
<u>300-M</u>							
300-M SEEPAGE BASIN	4	1600	±65	100	±5.2	540	-
<u>700-A</u>							
A AREA 1	2	9800	±140	7700	±140	8800	-
<u>TNX</u>							
TNX 904-102G	12	17	±14	4.3	±9.2	10	±8.6
<u>REACTOR AREAS</u>							
100-P SEEPAGE BASIN	4	860	±48	120	±19	470	-
100-C SEEPAGE BASIN	3	220	±26	150	±20	200	-
100-L SEEPAGE BASIN	4	4000	±91	76	±16	1500	-

- Insufficient data.

**TABLE 3-3
RADIOACTIVITY IN SEEPAGE BASIN WATER, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± 2 STD DEV</u>	
<u>H-3, PC/ML</u>							
<u>200-F</u>							
F SEEPAGE BASIN 1	3	96000	±1100	21000	±400	48000	-
F SEEPAGE BASIN 2	3	70000	±980	24000	±420	48000	-
F SEEPAGE BASIN 3	3	58000	±900	46000	±580	51000	-
<u>200-H</u>							
H SEEPAGE BASIN 1	3	85000	±1100	17000	±550	45000	-
H SEEPAGE BASIN 2	3	53000	±620	9500	±290	31000	-
H SEEPAGE BASIN 3	3	11000	±92	5700	±64	8700	-
H SEEPAGE BASIN 4	3	50000	±600	5100	±220	27000	-
<u>700-A</u>							
A AREA 1	1	53	±2.2	53	±2.2	53	-
<u>TNX</u>							
TNX 904-102G	11	2.4	±1.2	-0.67	±0.82	0.80	±2.0
<u>REACTOR AREAS</u>							
100-P SEEPAGE BASIN	3	48000	±820	5600	±350	26000	-
100-C SEEPAGE BASIN	2	56000	±890	59	±11	28000	-
100-L SEEPAGE BASIN	3	13000	±29	6200	±70	10000	-
<u>PH, PH UNITS</u>							
<u>200-F</u>							
F SEEPAGE BASIN 1	4	3.4	±0.00	1.6	±0.00	2.2	-
F SEEPAGE BASIN 2	4	2.6	±0.00	1.5	±0.00	1.9	-
F SEEPAGE BASIN 3	4	2.0	±0.00	1.7	±0.00	1.9	-
<u>200-H</u>							
H SEEPAGE BASIN 1	4	2.6	±0.00	1.7	±0.00	2.2	-
H SEEPAGE BASIN 2	4	3.2	±0.00	1.9	±0.00	2.6	-
H SEEPAGE BASIN 3	4	7.8	±0.00	5.6	±0.00	6.6	-
H SEEPAGE BASIN 4	4	3.7	±0.00	2.1	±0.00	3.1	-
<u>700-A</u>							
A AREA 1	2	6.4	±0.00	5.2	±0.00	5.8	-
<u>SR-82, 90, PC/ML</u>							
<u>200-F</u>							
F SEEPAGE BASIN 1	3	0.40	±1.2	0.14	±0.05	0.27	-
F SEEPAGE BASIN 2	3	0.30	±1.1	0.13	±0.06	0.20	-
F SEEPAGE BASIN 3	3	0.50	±1.3	0.15	±0.05	0.29	-
<u>200-H</u>							
H SEEPAGE BASIN 1	3	0.22	±1.1	0.08	±0.05	0.13	-
H SEEPAGE BASIN 2	3	0.14	±0.06	0.08	±0.04	0.11	-
H SEEPAGE BASIN 3	3	0.10	±0.92	0.02	±0.04	0.07	-
H SEEPAGE BASIN 4	3	0.08	±0.04	0.07	±0.89	0.07	-
<u>REACTOR AREAS</u>							
100-L SEEPAGE BASIN	3	0.08	±0.05	0.00	±0.79	0.03	-

- Insufficient data.

**TABLE 3-3
RADIOACTIVITY IN SEEPAGE BASIN WATER, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CTERR 95% CL</u>	<u>MINIMUM</u>	<u>CTERR 95% CL</u>	<u>ARITHMETIC MEAN ± STD DEV</u>	
<u>CR-51, PCI/ML</u>							
<u>200-F</u>							
F SEEPAGE BASIN 1	4	0.00	±1.2	0.00	±5.9	0.00	-
F SEEPAGE BASIN 2	4	0.00	±1.2	0.00	±6.0	0.00	-
F SEEPAGE BASIN 3	4	0.00	±1.2	0.00	±5.4	0.00	-
<u>200-H</u>							
H SEEPAGE BASIN 1	4	0.00	±1.2	0.00	±10	0.00	-
H SEEPAGE BASIN 2	4	0.00	±1.2	0.00	±8.0	0.00	-
H SEEPAGE BASIN 3	4	0.00	±1.2	0.00	±4.0	0.00	-
H SEEPAGE BASIN 4	4	0.00	±1.2	0.00	±5.0	0.00	-
<u>REACTOR AREAS</u>							
100-P SEEPAGE BASIN	4	0.00	±1.2	0.00	±1.0	0.00	-
100-C SEEPAGE BASIN	3	0.00	±1.2	0.00	±1.0	0.00	-
100-L SEEPAGE BASIN	4	0.00	±1.2	0.00	±1.0	0.00	-
<u>CO-58, 60, PCI/ML</u>							
<u>200-F</u>							
F SEEPAGE BASIN 1	4	0.00	±1.2	0.00	±0.30	0.00	-
F SEEPAGE BASIN 2	4	0.00	±1.2	0.00	±0.30	0.00	-
F SEEPAGE BASIN 3	4	0.00	±1.2	0.00	±0.30	0.00	-
<u>200-H</u>							
H SEEPAGE BASIN 1	4	0.00	±1.2	0.00	±0.40	0.00	-
H SEEPAGE BASIN 2	4	0.00	±1.2	0.00	±0.50	0.00	-
H SEEPAGE BASIN 3	4	0.00	±1.2	0.00	±0.30	0.00	-
H SEEPAGE BASIN 4	4	0.00	±1.2	0.00	±0.40	0.00	-
<u>REACTOR AREAS</u>							
100-P SEEPAGE BASIN	4	0.00	±1.2	0.00	±0.10	0.00	-
100-C SEEPAGE BASIN	3	0.00	±1.2	0.00	±0.10	0.00	-
100-L SEEPAGE BASIN	4	0.00	±1.2	0.00	±1.0	0.00	-
<u>ZR-95, NB-95, PCI/ML</u>							
<u>200-F</u>							
F SEEPAGE BASIN 1	4	16	±2.3	0.00	±0.24	4.5	-
F SEEPAGE BASIN 2	4	46	±3.7	0.00	±1.0	12	-
F SEEPAGE BASIN 3	4	0.93	±0.23	0.00	±0.04	0.26	-
<u>200-H</u>							
H SEEPAGE BASIN 1	4	0.00	±0.23	0.00	±1.0	0.00	-
H SEEPAGE BASIN 2	4	0.00	±0.23	0.00	±1.0	0.00	-
H SEEPAGE BASIN 3	4	0.00	±0.23	0.00	±1.0	0.00	-
H SEEPAGE BASIN 4	4	0.00	±0.23	0.00	±1.0	0.00	-
<u>REACTOR AREAS</u>							
100-P SEEPAGE BASIN	4	0.00	±0.23	0.00	±0.20	0.00	-
100-C SEEPAGE BASIN	3	0.00	±0.23	0.00	±0.20	0.00	-
100-L SEEPAGE BASIN	4	0.00	±0.23	0.00	±0.20	0.00	-

- Insufficient data.

**TABLE 3-3
RADIOACTIVITY IN SEEPAGE BASIN WATER, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN 2 STD DEV</u>	
<u>RU-103, PCI/ML</u>							
<u>200-F</u>							
F SEEPAGE BASIN 1	4	0.00	±0.23	0.00	±1.0	0.00	-
F SEEPAGE BASIN 2	4	0.00	±0.23	0.00	±1.0	0.00	-
F SEEPAGE BASIN 3	4	0.00	±0.23	0.00	±1.0	0.00	-
<u>200-H</u>							
H SEEPAGE BASIN 1	4	0.00	±0.23	0.00	±1.0	0.00	-
H SEEPAGE BASIN 2	4	0.00	±0.23	0.00	±1.0	0.00	-
H SEEPAGE BASIN 3	4	0.00	±0.23	0.00	±0.30	0.00	-
H SEEPAGE BASIN 4	4	0.00	±0.23	0.00	±1.0	0.00	-
<u>REACTOR AREAS</u>							
100-P SEEPAGE BASIN	4	0.00	±0.23	0.00	±0.10	0.00	-
100-C SEEPAGE BASIN	3	0.00	±0.23	0.00	±0.10	0.00	-
100-L SEEPAGE BASIN	4	0.00	±0.23	0.00	±0.10	0.00	-
<u>RU-106, PCI/ML</u>							
<u>200-F</u>							
F SEEPAGE BASIN 1	4	0.00	±0.23	0.00	±5.6	0.00	-
F SEEPAGE BASIN 2	4	6.6	±1.8	0.00	±2.8	1.7	-
F SEEPAGE BASIN 3	4	0.73	±0.15	0.00	±4.0	0.18	-
<u>200-H</u>							
H SEEPAGE BASIN 1	4	13	±2.5	0.00	±1.0	3.2	-
H SEEPAGE BASIN 2	4	23	±3.2	0.00	±1.0	5.8	-
H SEEPAGE BASIN 3	4	0.00	±3.2	0.00	±3.0	0.00	-
H SEEPAGE BASIN 4	4	0.99	±0.31	0.00	±5.0	0.25	-
<u>REACTOR AREAS</u>							
100-P SEEPAGE BASIN	4	0.00	±0.31	0.00	±1.0	0.00	-
100-C SEEPAGE BASIN	3	0.00	±0.31	0.00	±0.40	0.00	-
100-L SEEPAGE BASIN	4	0.00	±0.31	0.00	±1.0	0.00	-
<u>SB-124, 125, PCI/ML</u>							
<u>200-F</u>							
F SEEPAGE BASIN 1	4	0.00	±0.31	0.00	±2.0	0.00	-
F SEEPAGE BASIN 2	4	0.00	±0.31	0.00	±2.0	0.00	-
F SEEPAGE BASIN 3	4	0.00	±0.31	0.00	±1.0	0.00	-
<u>200-H</u>							
H SEEPAGE BASIN 1	4	0.00	±0.31	0.00	±3.0	0.00	-
H SEEPAGE BASIN 2	4	0.00	±0.31	0.00	±2.0	0.00	-
H SEEPAGE BASIN 3	4	0.00	±0.31	0.00	±1.0	0.00	-
H SEEPAGE BASIN 4	4	0.00	±0.31	0.00	±1.0	0.00	-
<u>REACTOR AREAS</u>							
100-P SEEPAGE BASIN	4	0.00	±0.23	0.00	±0.20	0.00	-
100-C SEEPAGE BASIN	3	0.00	±0.23	0.00	±0.20	0.00	-
100-L SEEPAGE BASIN	4	0.00	±0.23	0.00	±0.20	0.00	-

- Insufficient data.

**TABLE 3-3
RADIOACTIVITY IN SEEPAGE BASIN WATER, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CTERR 95% CL</u>	<u>MINIMUM</u>	<u>CTERR 95% CL</u>	<u>ARITHMETIC MEAN</u>	<u>2 STD DEV</u>
<u>I-131, PC/ML</u>							
<u>200-F</u>							
F SEEPAGE BASIN 1	4	0.00	±0.31	0.00	±1.0	0.00	-
F SEEPAGE BASIN 2	4	0.00	±0.31	0.00	±2.0	0.00	-
F SEEPAGE BASIN 3	4	0.00	±0.31	0.00	±1.0	0.00	-
<u>200-H</u>							
H SEEPAGE BASIN 1	4	0.00	±0.31	0.00	±2.0	0.00	-
H SEEPAGE BASIN 2	4	0.00	±0.31	0.00	±2.0	0.00	-
H SEEPAGE BASIN 3	4	0.00	±0.31	0.00	±1.0	0.00	-
H SEEPAGE BASIN 4	4	0.00	±0.31	0.00	±1.0	0.00	-
<u>REACTOR AREAS</u>							
100-P SEEPAGE BASIN	4	0.00	±0.31	0.00	±0.10	0.00	-
100-C SEEPAGE BASIN	3	0.00	±0.31	0.00	±0.20	0.00	-
100-L SEEPAGE BASIN	4	0.00	±0.31	0.00	±0.10	0.00	-
<u>CS-134, PC/ML</u>							
<u>200-F</u>							
F SEEPAGE BASIN 1	4	0.00	±0.31	0.00	±0.40	0.00	-
F SEEPAGE BASIN 2	4	0.00	±0.31	0.00	±0.30	0.00	-
F SEEPAGE BASIN 3	4	0.00	±0.31	0.00	±0.40	0.00	-
<u>200-H</u>							
H SEEPAGE BASIN 1	4	1.9	±0.20	0.00	±0.47	0.54	-
H SEEPAGE BASIN 2	4	1.1	±0.16	0.00	±0.10	0.27	-
H SEEPAGE BASIN 3	4	0.00	±0.16	0.00	±0.30	0.00	-
H SEEPAGE BASIN 4	4	0.00	±0.16	0.00	±0.40	0.00	-
<u>REACTOR AREAS</u>							
100-P SEEPAGE BASIN	4	0.00	±0.16	0.00	±0.10	0.00	-
100-C SEEPAGE BASIN	3	0.00	±0.16	0.00	±0.10	0.00	-
100-L SEEPAGE BASIN	4	0.00	±0.16	0.00	±0.10	0.00	-
<u>CS-137, PC/ML</u>							
<u>200-F</u>							
F SEEPAGE BASIN 1	4	19	±0.77	3.6	±0.14	11	-
F SEEPAGE BASIN 2	4	20	±0.78	2.4	±0.43	11	-
F SEEPAGE BASIN 3	4	19	±1.3	2.9	±0.15	11	-
<u>200-H</u>							
H SEEPAGE BASIN 1	4	120	±1.2	6.1	±0.18	42	-
H SEEPAGE BASIN 2	4	70	±1.4	4.6	±0.18	25	-
H SEEPAGE BASIN 3	4	11	±0.90	0.07	±0.03	3.4	-
H SEEPAGE BASIN 4	4	18	±1.2	3.3	±0.16	11	-
<u>REACTOR AREAS</u>							
100-P SEEPAGE BASIN	4	0.24	±0.05	0.00	±0.00	0.10	-
100-C SEEPAGE BASIN	3	0.00	±0.05	0.00	±0.10	0.00	-
100-L SEEPAGE BASIN	4	0.08	±0.03	0.00	±0.10	0.02	-

- Insufficient data.

**TABLE 3-3
RADIOACTIVITY IN SEEPAGE BASIN WATER, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CTERR 95% CL</u>	<u>MINIMUM</u>	<u>CTERR 95% CL</u>	<u>ARITHMETIC MEAN 2 STD DEV</u>	
<u>CE-141.144, PCI/ML</u>							
<u>200-F</u>							
F SEEPAGE BASIN 1	4	0.00	±0.03	0.00	±4.0	0.00	-
F SEEPAGE BASIN 2	4	0.00	±0.03	0.00	±4.0	0.00	-
F SEEPAGE BASIN 3	4	3.7	±1.1	0.00	±1.0	0.94	-
<u>200-H</u>							
H SEEPAGE BASIN 1	4	0.00	±1.1	0.00	±5.0	0.00	-
H SEEPAGE BASIN 2	4	0.00	±1.1	0.00	±4.0	0.00	-
H SEEPAGE BASIN 3	4	0.00	±1.1	0.00	±2.0	0.00	-
H SEEPAGE BASIN 4	4	0.00	±1.1	0.00	±3.0	0.00	-
<u>REACTOR AREAS</u>							
100-P SEEPAGE BASIN	4	0.00	±1.1	0.00	±1.0	0.00	-
100-C SEEPAGE BASIN	3	0.00	±1.1	0.00	±1.0	0.00	-
100-L SEEPAGE BASIN	4	0.00	±1.1	0.00	±1.0	0.00	-
<u>U/PU, PCI/L</u>							
<u>INX</u>							
TNX 904-102G	11	6.6	±7.0	1.3	±4.4	3.6	±3.4

- Insufficient data.

**TABLE 3-4
CALCULATED MIGRATION OF RADIOACTIVITY
FROM SEEPAGE BASINS**

<u>Location of Measurement</u>	<u>Curies</u>	
	<u>Tritium</u>	<u>Sr-89,90</u>
200-F Seepage Basin to Four Mile Creek (FM A-7) minus (FM-3A+FM-2B)	2760 ^a	0.19
200-H Seepage Basins to Four Mile Creek (FM 2B) minus (FM-1C)	5630 ^a	0.08
Burial Ground and 200-H Seepage Basin 4 (FM 3A) minus (FM 3)	6150	b
K Containment Basin to Indian Grave Branch (IBG 21)	3600	b
100-P Seepage Basin to Steel Creek (SC 2A)	130	0.00015

^a FM-2B flow estimated as 1.17 x FM-2 flow, due to beaver dams causing inaccurate flow at FM-2B.

^b Not detected.

**TABLE 3-5
RADIOACTIVITY IN TRANSPORT AT SAMPLE POINTS
ON FOUR MILE CREEK**

<u>I.D.</u>	<u>Location</u>	<u>Curies</u>			<u>Water Volume (Liters)</u>
		<u>Tritium</u>	<u>Sr-89,90</u>	<u>Cs-137^a</u>	
FM-3	F-Area effluent at Road E	13	0.008	0.049	2.1E9
FM-1C	H-Area effluent at Road E	204	0.002	0.007	8.9E8
FM-1B	Cooling Tower effluent below H-Area retention basin	11	0.000	0.106 ^b	2.1E9
FM-2	0.5 mile downstream from Road E	600	0.010	0.083	6.4E9
FM-2B	Above Entry of F-Area effluent	5830	0.085	0.007	7.5E9 ^c
FM-3A	0.3 mile downstream from Road E	6160	0.007	0.041	2.6E9
FM-A7	Downstream at Road A-7	14750	0.28	0.118	1.5E10
FM-6	Road A	12960	0.24	0.087	2.5E10

Desorption of Cs-137 from Four Mile Creek

	<u>Curies</u>
(FM-A7) minus (4M1B+4M1C+4M3)	0.02 ^a

^a Desorption from stream bed (exceptions FM-1C, FM-3 and FM-1B).

^b Assumed 61 mCi deposition in stream bed, 61 mCi subtracted from this value to perform desorption calculation.

^c FM-2B flow estimated as 1.17 x FM-2 flow, due to beaver dams causing inaccurate flow at FM-2B.

**TABLE 3-6
TRITIUM INVENTORY IN SRP STREAMS
AND SAVANNAH RIVER**

Area	Release Point	Quantity, Curies				1987 % of Total To River
		1984	1985	1986	1987	
<u>Direct Releases</u>						
<u>Reactor</u>						
100-P	Par Pond overflow to Lower Three Runs Creek	655	420	470	490	2.17
	Process Sewer to Steel Creek	199	54 ^a	a	a	-
186-P	Basin overflow to Steel Creek	577	18 ^a	a	a	-
100-L	L-Lake overflow to Steel Creek	-	-	311	520	2.30
	Process Sewer to Steel Creek	3	8	e	e	-
100-K	Reactor HX Cooling Water to Pen Branch	3,023	2,590	2,080	1,640	7.26
	Process Sewer to Pen Branch	179	100	130	68	0.3
100-C	Reactor HX Cooling Water to Four Mile Creek	2,258	730	250	-	-
	Process Sewer to Four Mile Creek	71	57	32	4	0.02
	Subtotal	6,965	3,977	3,273	2,722	12.05
<u>Separations</u>						
200-F	Effluent to Four Mile Creek	18	13	13	13	0.06
200-H	Effluent to Four Mile Creek	183	71	55	204	0.9
	Subtotal	201	84	68	217	0.96
<u>400-D</u>						
420-D	Effluent to Beaver Dam Creek	1,000	850	3,350	-	-
421-2D	Effluent to Beaver Dam Creek	1,635	870	470	-	-
772-D	Effluent to Beaver Dam Creek	667	340	170	-	-
	Process Sewer	*	-	-	1,380	6.11
	Subtotal	3,302	2,060	3,990	1,380	6.08
	Total Direct Release	10,468	6,121	7,330	4,320	19.12
<u>Migration</u>						
	Burial Ground and H Seepage Basin Migration to Four Mile Creek	4,480	4,720	5,210	6,150	27.22
	200-F Seepage Basin to Four Mile Creek	2,320	2,690	1,770	2,760 ^b	12.22
	200-H Seepage Basin to Four Mile Creek	8,020	4,560	7,360	5,630 ^b	24.92
	100-K 904-88G to Indian Grave Branch	7,500	6,770	6,130 ^c	3,600	15.94
	100-P Seepage Basin to Steel Creek	-	170	d	130	0.58
	Subtotal	22,320	18,910	20,470	18,270	80.88
	Total Direct Releases and Migration	32,208	25,005	27,800	22,590	100.0

- No detectable quantity, or not calculated.

^a 100-P process sewer and 186-P basin overflow was diverted from Steel Creek to Par Pond on May 1, 1985.

^b Flow measurements for FM-2B were estimated from (FM-2X1.17) for entire year, due to flow measurements at FM-2B being affected by presence of beaver dams.

^c Flow measurements were estimated for 10/28-12/30 due to USGS gauge being inoperative.

^d USGS flow gauge moved due to L Lake being constructed. Gauge inoperative during most of the year.

^e Diverted to L Lake.

**TABLE 3-6
TRITIUM INVENTORY IN SRP STREAMS
AND SAVANNAH RIVER, CONT'D.**

Release Point	Quantity, Curies				1987
	1984	1985	1986	1987	% of Total To River
<u>Stream Transport</u>					
Tritium measured in streams before entering river:					
Beaver Dam Creek at Swamp	4,020	2,180	4,100	1,270	5.62
Four Mile Creek at Road A	16,280	11,500	11,640	12,960	57.37
Pen Branch at Road A	10,660	7,780	5,720 ^a	4,450	19.70
Steel Creek at Road A	987	380	390	640	2.83
Lower Three Runs at Pattersons Mill	655	420	470	490	2.17
Upper Three Runs at Road A	-	-	-	720	3.19
Subtotal	32,602	22,260	22,320	20,530	90.88
<u>River Transport</u>					
Tritium measured in the Savannah River below SRP (Downriver minus upriver)	33,150	24,100	22,120	26,150	115.75

^a Flow measurements estimated for month of December due to inoperative equipment.

**TABLE 3-7
TRITIUM INVENTORY SUMMARY 1960 - 1987**

Year	Curies (Ci)		
	Tritium Available for Transport to River Measured at Source ^a	Tritium in Transport in Streams Before Entry into River	Tritium in Transport Downriver of SRP Minus Ambient Upriver Contribution
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

^a Includes direct releases to streams, migration from F, H, and K seepage basins and Solid Waste Storage Facility to streams, and Par Pond overflow to Lower Three Runs. R- and P-Areas releases to Par Pond are not included.

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

TABLE 3-8
1987 RADIOACTIVE LIQUID RELEASES AND CONCENTRATIONS

<u>Nuclide</u>	Curies Released At Emission <u>Source</u>	<u>Below SRP^a</u>	<u>Beaufort-Jasper^b</u>	<u>Port Wentworth^c</u>
		Conc. <u>μCi/mL</u>	Conc. <u>μCi/mL</u>	Conc. <u>μCi/mL</u>
H-3	2.3E+04 ^d	3.3E-06 ^e	2.2E-06 ^e	2.3E-06 ^e
Sr-90	4.0E-01	5.6E-10 ^e	3.8E-11	4.0E-11
I-129	2.2E-02	3.2E-12	2.1E-12	2.2E-12
Cs-137	3.8E-01	3.0E-11 ^e	3.7E-11	3.8E-11
U-235, 238	5.5E-03	8.0E-13	5.3E-13	5.5E-13
Pu-239	1.8E-02	2.6E-12	1.8E-12	1.8E-12

^a Savannah River just downriver from SRP.

^b Beaufort-Jasper drinking water.

^c Port Wentworth drinking water.

^d Includes releases to streams and groundwater migration from seepage basins.

^e Measured concentrations. All other concentrations were calculated using models that were verified using tritium measurements.

**TABLE 3-9
MAXIMUM INDIVIDUAL DOSES - LIQUID RELEASES**

By Pathway

<u>Pathway</u>	Maximum Individual ^a mrem ^b	Percent of <u>Total Dose</u>
Fish	8.48E-01	90.96
Water	8.34E-02	8.95
Shoreline	8.68E-04	0.09
Swimming	1.64E-06	0.00
Boating	4.91E-06	0.00
Total	9.32E-01	

By Radionuclide

<u>Radionuclide</u>	Maximum Individual ^a mrem ^b	Percent of <u>Total Dose</u>
H-3	8.32E-02	8.93
Sr-90	1.03E-02	1.11
I-129	7.86E-04	0.08
Cs-137	8.37E-01	89.81
U-235, 238	8.01E-05	0.01
Pu-239	5.54E-04	0.06
Total	9.32E-01	

^a Hypothetical person just downstream of SRP. There are no known persons who meet the hypothetical situation.

^b Committed effective dose equivalent.

**TABLE 3-10
INDIVIDUAL DOSES FROM PUBLIC WATER SUPPLIES
AT BEAUFORT - JASPER**

Average Consumption

<u>Radionuclide</u>	<u>Individual Dose, mrem^a</u>	<u>Percent of Total Dose</u>
H-3	5.13E-02	94.48
Sr-90	1.83E-03	3.37
I-129	2.20E-04	0.41
Cs-137	6.79E-04	1.25
U-235, 238	4.51E-05	0.08
Pu-239	2.79E-04	0.51
Total	5.43E-02	

Maximum Consumption

<u>Radionuclide</u>	<u>Individual Dose, mrem^a</u>	<u>Percent of Total Dose</u>
H-3	1.01E-01	94.37
Sr-90	3.61E-03	3.37
I-129	4.33E-04	0.40
Cs-137	1.34E-03	1.25
U-235, 238	8.88E-05	0.08
Pu-239	5.50E-04	0.51
Total	1.07E-01	

^a Committed effective dose equivalent.

**TABLE 3-11
INDIVIDUAL DOSES FROM PUBLIC WATER SUPPLIES
AT PORT WENTWORTH**

Average Consumption

<u>Radionuclide</u>	<u>Individual Dose, mrem^a</u>	<u>Percent of Total Dose</u>
H-3	5.36E-02	94.38
Sr-90	1.91E-03	3.36
I-129	2.30E-04	0.41
Cs-137	7.10E-04	1.25
U-235,238	4.71E-05	0.08
Pu-239	2.92E-04	0.51
Total	5.68E-02	

Maximum Consumption

<u>Radionuclide</u>	<u>Individual Dose, mrem^a</u>	<u>Percent of Total Dose</u>
H-3	1.06E-01	94.40
Sr-90	3.77E-03	3.36
I-129	4.54E-04	0.40
Cs-137	1.40E-03	1.25
U-235,238	9.30E-05	0.08
Pu-239	5.76E-04	0.51
Total	1.12E-01	

^a Committed effective dose equivalent.

**TABLE 3-12
POPULATION DOSE FROM LIQUID RELEASES**

By Pathway

<u>Pathway</u>	<u>Population Dose person-rem</u>	<u>Percent of Total Dose</u>
Sport Fish	2.22E+00	37.26
Comml. Fish	9.38E-02	1.57
Beaufort-Jasper	2.51E+00	42.12
Port Wentworth	1.13E+00	18.96
Salt Water Invert.	5.28E-05	0.00
Recreation-River	4.72E-03	0.08
Total	5.96E+00	

By Radionuclide

<u>Radionuclide</u>	<u>Population Dose person-rem^a</u>	<u>Percent of Total Dose</u>
H-3	3.45E+00	57.89
Sr-90	1.43E-01	2.40
I-129	1.60E-02	0.27
Cs-137	2.32E+00	38.93
U-235,238	3.06E-03	0.05
Pu-239	1.91E-02	0.32
Total	5.96E+00	

^a Committed effective dose equivalent.

**TABLE 3-13
POTENTIAL DOSES FROM IRRIGATION PATHWAY**

<u>Food Type</u>	<u>Effective Dose Equivalent Maximum Individual mrem</u>
Vegetation	1.74E-01
Leafy Veg.	2.14E-02
Milk	7.76E-02
Meat	2.43E-02
Total	2.97E-01

**TABLE 3-14
NPDES OUTFALL LOCATIONS**

<u>Outfall Identification</u>	<u>No. of Outfalls Permitted</u>	<u>Location</u>
A	6	700-A Administration Area
C	4	100-C Reactor Area
D	7	400-D
DW	3	200-S Defense Waste Processing Facility
F	8	200-F Separations Area
FS	2	Flowing Streams Laboratory SREL Laboratory on Upper Three Runs Creek,
H	8	200-H Separations Area
K	6	100-K Reactor Area
L	4	100-L Reactor Area
M	2	300-M Fuel Fabrication Facility
P	5	100-P Reactor Area
PP	1	Par Pond (SRL Environmental Laboratory)
S	4	Central Shops (Construction Shops)
T	3	TC-Area (Wackenhut Service Inc. Headquarters)
X	5	TNX - Semiworks Experimental Facility
Y	1	Classification Yard (Railroad Repair Shop)
SC-4	1	L-Lake Overflow To Steel Creek

**TABLE 3-15
NPDES MONITORING DATA**

<u>Measurement</u>	<u>Units</u>	<u>Freq/Year</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Average</u>
<u>Outfall A-1</u>					
Flow	MGD	16	0.997	0.251	0.51
pH	pH	17	10	3.6	
Temperature	Deg. F	17	89	70	77
Total Nonfilterable Residue	mg/L	16	1.0	<1	1.0
Oil & Grease	mg/L	16	1.4	<1	1.0
Biochemical Oxygen Demand	mg/L	16	2.4	<1	1.5
Tetrachloroethylene	µg/L	6	<1	<1	<1
Trichloroethylene	µg/L	6	5.0	<1	30
1,1,1-Trichloroethane	µg/L	6	<1	<1	<1
<u>Outfall A-3</u>					
pH	pH	18	9.8	6.9	
Temperature	Deg. F	19	80	57	69
Total Nonfilterable Residue	mg/L	17	8.0	<1	1.7
Oil & Grease	mg/L	17	2.7	<1	1.2
Tetrachloroethylene	µg/L	6	<1	<1	<1
Trichloroethylene	µg/L	6	3.0	<1	1.0
1,1,1-Trichloroethane	µg/L	6	<1	<1	<1
Chromium	µg/L	24	60	<50	50
<u>Outfall A-5</u>					
Flow	MGD	17	0.22	0.04	0.12
pH	pH	17	8.8	6.7	
Temperature	Deg. F	17	83	62	69
Fecal Coliform	#/100	17	31,201	<2	7
Total Nonfilterable Residue	mg/L	17	10	<1	1.9
Oil & Grease	mg/L	18	2.7	<1	1.2
Biochemical Oxygen Demand	mg/L	17	1.3	1.0	3.7
Tetrachloroethylene	µg/L	17	3.0	<1	1.0
Trichloroethylene	µg/L	17	8.0	<1	3.0
1,1,1-Trichloroethane	µg/L	17	<1	<1	<1
<u>Outfall A-11</u>					
pH	pH	18	9.0	5.9	
Temperature	Deg. F	18	86	57	72
Total Nonfilterable Residue	mg/L	17	15	<1	4.0
Oil & Grease	mg/L	18	3.6	<1	1.3
Biochemical Oxygen Demand	mg/L	17	5.7	<1	1.9
Tetrachloroethylene	µg/L	6	<1	<1	<1
Trichloroethylene	µg/L	6	<1	<1	<1
1,1,1-Trichloroethane	µg/L	6	<1	<1	<1

**TABLE 3-15
NPDES MONITORING DATA, CONT'D.**

<u>Measurement</u>	<u>Units</u>	<u>Freq/Year</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Average</u>
<u>Outfall A-14</u>					
Flow	MGD	14	4.8	1.1	2.3
pH	pH	24	8.5	6.0	
Temperature	Deg. F	16	72	65	69
Total Nonfilterable Residue	mg/L	13	2.0	<1	1.0
Oil & Grease	mg/L	13	2.4	<1	1.2
Biochemical Oxygen Demand	mg/L	13	2.6	<1	1.2
Tetrachloroethylene	µg/L	14	3.0	<1	1.0
Trichloroethylene	µg/L	14	6.0	<1	4.0
1,1,1-Trichloroethane	µg/L	14	2.0	<1	1.0
<u>Outfall A-15</u>					
Flow	MGD	12	0.131	0.052	0.066
pH	pH	13	7.3	6.7	
Fecal Coliform	#/100	13	28	<2	8.0
Total Nonfilterable Residue	mg/L	13	18	2.0	8.3
Biochemical Oxygen Demand	mg/L	13	12	<1	5.3
<u>Outfall C-1</u>					
pH	pH	15	7.4	6.6	
Temperature	Deg. F	15	81	57	70
Total Nonfilterable Residue	mg/L	14	2.0	<1	1.2
Oil & Grease	mg/L	14	1.4	<1	1.1
<u>Outfall C-3</u>					
pH	pH	15	8.1	6.4	
Temperature	Deg. F	15	77	68	72
Total Nonfilterable Residue	mg/L	14	4.0	<1	1.4
Oil & Grease	mg/L	14	2.9	<1	1.2
<u>Outfall C-4</u>					
pH	pH	15	7.8	6.4	
Temperature	Deg. F	10	112	44	73
Total Nonfilterable Residue	mg/L	14	2.0	<1	1.1
Oil & Grease	mg/L	14	2.0	<1	1.1
<u>Outfall C-4A</u>					
Flow	MGD	10	0.026	0.006	0.011
pH	pH	15	8.6	6.4	
Fecal Coliform	#/100	17	100	<2	3.0
Total Nonfilterable Residue	mg/L	15	44	1.0	7.4
Biochemical Oxygen Demand	mg/L	15	7.1	1.3	2.9

**TABLE 3-15
NPDES MONITORING DATA, CONT'D.**

<u>Measurement</u>	<u>Units</u>	<u>Freq/Year</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Average</u>
<u>Outfall D-1</u>					
pH	pH	17	7.6	6.2	
Temperature	Deg. F	17	90	55	73
Total Nonfilterable Residue	mg/L	16	19	1.0	7.2
Oil & Grease	mg/L	19	1.4	<1	0.75
<u>Outfall D-1A</u>					
Flow	MGD	12	0.024	0.006	0.01
pH	pH	15	7.4	6.6	
Fecal Coliform	#/100	17	20	<2	2.9
Total Nonfilterable Residue	mg/L	15	10	1.0	5.3
Biochemical Oxygen Demand	mg/L	15	8.9	<1	3.8
<u>Outfall D-1B</u>					
Flow	MGD	52	no flow		
<u>Outfall D-1C</u>					
Flow	MGD	16	6.4	2.8	4.1
pH	pH	17	8.8	4.8	
Total Nonfilterable Residue	mg/L	16	6.0	<1	2.4
Oil & Grease	mg/L	16	1.2	<1	1.0
<u>Outfall D-3</u>					
pH	pH	17	7.7	6.3	
Total Nonfilterable Residue	mg/L	16	6.2	<1	2.4
Oil & Grease	mg/L	19	1.7	<1	1.0
<u>Outfall D-5</u>					
Flow	MGD	3	1.5	0.072	0.64
pH	pH	3	7.5	6.4	
Total Nonfilterable Residue	mg/L	3	59	3.0	25
<u>Outfall D-6</u>					
pH	pH	17	7.7	6.3	
Temperature	Deg. F	16	84	50	66
Fecal Coliform	#/100	16	5700	24	526
Total Nonfilterable Residue	mg/L	17	5.0	<1	2.6
Oil & Grease	mg/L	17	3.3	<1	2.3
<u>Outfall DW-1</u>					
Flow	MGD	11	0.61	0.26	0.52
pH	pH	12	8.5	6.8	
Total Nonfilterable Residue	mg/L	11	66	2	13

**TABLE 3-15
NPDES MONITORING DATA, CONT'D.**

<u>Measurement</u>	<u>Units</u>	<u>Freq/Year</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Average</u>
<u>Outfall DW-2</u>					
Flow	MGD	24	0.094	0.001	0.028
pH	pH	16	7.7	6.2	
Oil & Grease	mg/L	24	16	<1	3.5
<u>Outfall DW-3</u>					
Flow	MGD	13	0.036	0.006	0.011
pH	pH	12	8.1	6.7	
Fecal Coliform	#/100	13	68	<2	3.0
Total Nonfilterable Residue	mg/L	13	15	3.0	7.2
Biochemical Oxygen Demand	mg/L	13	12	<0.5	6.9
<u>Outfall F-1</u>					
Flow	MGD	15	0.18	0.021	0.11
pH	pH	15	8.9	7.1	
Temperature	Deg. F	17	86	69	79
Total Nonfilterable Residue	mg/L	15	4.0	<1	2.3
Oil & Grease	mg/L	16	1.7	<1	1.1
<u>Outfall F-2</u>					
Flow	MGD	16	0.216	0.014	0.060
pH	pH	16	8.7	7.4	
Temperature	Deg. F	15	81	51	69
Total Nonfilterable Residue	mg/L	15	5.0	<1	1.6
Oil & Grease	mg/L	17	2.2	<1	1.1
<u>Outfall F-3</u>					
Flow	MGD	16	0.086	0.007	0.026
pH	pH	15	8.4	7.5	
Temperature	Deg. F	15	95	58	76
Total Nonfilterable Residue	mg/L	15	32	<0.5	5.3
Oil & Grease	mg/L	17	2.7	<1	1.1
Biochemical Oxygen Demand	mg/L	15	2.5	<1	1.6
<u>Outfall F-3A</u>					
Flow	MGD	11	0.019	0.003	0.006
pH	pH	15	8.2	6.9	
Fecal Coliform	#/100	17	4.0	<2	2.0
Total Nonfilterable Residue	mg/L	17	4.0	<1	1.8
Biochemical Oxygen Demand	mg/L	17	4.7	<1	2.6
<u>Outfall F-5</u>					
Flow	MGD	15	0.11	0.007	0.054
pH	pH	15	8.7	6.8	
Temperature	Deg. F	15	84	69	77
Total Nonfilterable Residue	mg/L	16	6.0	<1	1.9
Oil & Grease	mg/L	16	2.5	<1	1.2

**TABLE 3-15
NPDES MONITORING DATA, CONT'D.**

<u>Measurement</u>	<u>Units</u>	<u>Freq/Year</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Average</u>
<u>Outfall F-7</u>					
Flow	MGD	2	0.058	0.005	0.032
pH	pH	2	6.8	6.5	
Total Nonfilterable Residue	mg/l	2	2.0	<1	1.5
Oil & Grease	mg/L	2	<1	<1	<1
<u>Outfall F-8</u>					
pH	pH	15	8.4	6.9	
Temperature	Deg. F	15	96	68	84
Total Nonfilterable Residue	mg/L	14	3.0	<1	1.8
Oil & Grease	mg/L	16	3.0	<1	1.1
<u>Outfall F-8A</u>					
Flow	MGD	12	0.071	0.034	0.049
pH	pH	13	7.7	6.4	
Fecal Coliform	#/100	14	130	<2	3.0
Total Nonfilterable Residue	mg/L	15	84	1.0	16
Biochemical Oxygen Demand	mg/L	15	9.5	1.9	4.6
<u>Outfall FS-1</u>					
Flow	MGD	13		No Flow	
<u>Outfall FS-2</u>					
Flow	MGD	6	0.05	0.001	0.036
Fecal Coliform	#/100	6	700	84	218
<u>Outfall H-2</u>					
Flow	MGD	15	0.13	0.029	0.066
pH	pH	15	8.7	5.7	
Temperature	Deg. F	15	88	55	67
Total Nonfilterable Residue	mg/L	15	271	0.60	27
Oil & Grease	mg/L	17	2.2	<1	1.1
<u>Outfall H-3</u>					
Flow	MGD	1		No Flow	
<u>Outfall H-4</u>					
Flow	MGD	15	0.35	0.058	0.16
pH	pH	15	8.5	5.6	
Temperature	Deg. F	15	82	65	72
Total Nonfilterable Residue	mg/L	14	56	1	7.0
Oil & Grease	mg/L	16	2.1	<1	1.1
<u>Outfall H-6</u>					
Flow	MGD	4		No Flow	

**TABLE 3-15
NPDES MONITORING DATA, CONT'D.**

<u>Measurement</u>	<u>Units</u>	<u>Freq/Year</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Average</u>
<u>Outfall H-7</u>					
Flow	MGD	12	0.072	0.004	0.032
pH	pH	12	7.6	6.4	
Temperature	Deg. F	12	81	41	61
Total Nonfilterable Residue	mg/L	12	21	0.80	6.7
Oil & Grease	mg/L	13	1.5	<1	1.1
Residual Chlorine	mg/L	12	<0.2	<0.1	<0.19
<u>Outfall H-8</u>					
pH	pH	15	7.8	5.0	
Temperature	Deg. F	15	84	68	76
Total Nonfilterable Residue	mg/L	15	15	<1	4.4
Oil & Grease	mg/L	17	1.3	<0.5	1.0
<u>Outfall H-8A</u>					
Flow	MGD	9	0.13	<0.001	0.019
pH	pH	9	7.2	6.7	
Total Nonfilterable Residue	mg/L	9	4.0	<1	1.9
Oil & Grease	mg/L	11	1.3	<1	1.1
<u>Outfall H-12</u>					
Flow	MGD	10	12	0.039	0.55
pH	pH	15	7.8	6.5	
Temperature	Deg. F	15	84	63	75
Total Nonfilterable Residue	mg/L	15	5.0	<1	1.4
Oil & Grease	mg/L	17	1.3	<1	1.0
Sulfate	mg/L	9	16	11	12
<u>Outfall H-13</u>					
Flow	MGD	12	0.10	0.014	0.027
pH	pH	15	7.2	6.5	
Fecal Coliform	#/100	17	4500	<2	8.0
Total Nonfilterable Residue	mg/L	15	20	4.0	11
Biochemical Oxygen Demand	mg/L	15	14	2.9	5.2
<u>Outfall K-1</u>					
Flow	MGD	14	0.072	0.009	0.035
pH	pH	14	8.2	6.1	
Temperature	Deg. F	14	82	65	72
Total Nonfilterable Residue	mg/L	13	32	1.0	11
Oil & Grease	mg/L	14	4.7	<1	2.1
Sulfate	mg/L	7	10	4.2	7.8

**TABLE 3-15
NPDES MONITORING DATA, CONT'D.**

<u>Measurement</u>	<u>Units</u>	<u>Freq/Year</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Average</u>
<u>Outfall K-6</u>					
Flow	MGD	13	0.98	0.12	0.51
pH	pH	14	8.2	7.1	
Temperature	Deg. F	14	87	68	76
Total Nonfilterable Residue	mg/L	13	86	<1	12
Oil & Grease	mg/L	14	2.9	<1	1.2
<u>Outfall K-8</u>					
Flow	MGD	14	1.8	0.052	0.62
pH	pH	14	8.1	6.8	
Temperature	Deg. F	14	81	56	67
Total Nonfilterable Residue	mg/L	13	11	1.0	5.8
Oil & Grease	mg/L	13	<1	<1	<1
<u>Outfall K-10</u>					
Flow	MGD	14	0.95	0.50	0.73
pH	pH	14	7.9	6.7	
Temperature	Deg. F	14	84	59	70
Total Nonfilterable Residue	mg/L	13	10	3.0	5.1
Oil & Grease	mg/L	14	22	<1	2.5
<u>Outfall K-11</u>					
pH	pH	10	7.9	7.3	
Temperature	Deg. F	10	139	55	102
Total Nonfilterable Residue	mg/L	13	14	2.0	6.9
Oil & Grease	mg/L	15	<1	<1	<1
Biochemical Oxygen Demand	mg/L	13	2.6	<1	1.4
<u>Outfall K-17</u>					
pH	pH	15	8.9	7.0	
Fecal Coliform	#/100	17	20	<2	3.0
Total Nonfilterable Residue	mg/L	15	56	1.0	6.2
Biochemical Oxygen Demand	mg/L	15	5.1	<1	2.4
<u>Outfall L-7</u>					
pH	pH	15	8.2	7.0	
Temperature	Deg. F	10	87	50	69
Total Nonfilterable Residue	mg/L	15	16	<1	7.7
Oil & Grease	mg/L	16	1.4	<1	1.0
<u>Outfall L-7A</u>					
Flow	MGD	12	0.017	0.004	0.006
pH	pH	13	8.3	7.0	
Fecal Coliform	#/100	14	4.0	<2	2.0
Total Nonfilterable Residue	mg/L	13	4.0	<1	1.4
Biochemical Oxygen Demand	mg/L	13	3.0	<1	1.6

**TABLE 3-15
NPDES MONITORING DATA, CONT'D.**

<u>Measurement</u>	<u>Units</u>	<u>Freq/Year</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Average</u>
<u>Outfall L-8</u>					
Flow	MGD	15	2.2	0.32	1.1
pH	pH	15	8.1	7.2	
Temperature	Deg. F	15	82	53	69
Total Nonfilterable Residue	mg/L	15	27	1.0	7.0
Oil & Grease	mg/L	16	2.2	<1	1.2
<u>Outfall L-10</u>					
Flow	MGD	2		No Flow	
<u>Outfall M-4</u>					
Flow	MGD	52	0.15	0.049	0.093
pH	pH	27	10	6.6	
Nitrate	mg/L	14	309	39	175
Phosphate	mg/L	15	2.8	0.026	0.40
Total Nonfilterable Residue	mg/L	51	13	<1	4.6
Oil & Grease	mg/L	51	2.3	<1	1.0
Uranium	mg/L	51	1.2	<0.02	0.12
Lead	µg/L	51	32	<0.003	4.8
Nickel	µg/L	51	313	44	85
Silver	µg/L	1	<0.50	<0.50	<0.50
Chromium	µg/L	2	<50	<50	<50
Aluminum	µg/L	51	1959	78	781
Copper	µg/L	51	<50	<10	<20
Cyanide	µg/L	1	<5.0	<5.0	<5.0
Cadmium	µg/L	2	<10	<6.0	<8.0
Zinc	µg/L	2	216	<39	127
<u>Outfall M-5</u>					
Flow	MGD	47	0.58	0.49	0.55
pH	pH	24	6.8	4.7	
Tetrachloroethylene	µg/L	50	3.0	<1	1.0
Trichloroethylene	µg/L	50	<1	<1	<1
1,1,1-Trichloroethane	µg/L	50	14	<1	1.0
<u>Outfall P-5</u>					
Flow	MGD	14	1.2	0.001	0.25
pH	pH	14	9.3	6.9	
Total Nonfilterable Residue	mg/L	14	25	1.0	6.2
Oil & Grease	mg/L	15	1.5	<1	1.1

**TABLE 3-15
NPDES MONITORING DATA, CONT'D.**

<u>Measurement</u>	<u>Units</u>	<u>Freq/Year</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Average</u>
<u>Outfall P-7</u>					
pH	pH	14	8.1	7.0	
Temperature	Deg. F	14	92	58	74
Total Nonfilterable Residue	mg/L	14	3.0	1.0	1.8
Oil & Grease	mg/L	15	2.0	<1	<1
Aluminum	µg/L	14	237	68	120
Iron	µg/L	14	335	100	187
<u>Outfall P-13</u>					
pH	ph	14	7.9	6.8	
Temperature	Deg. F	10	117	55	74
Total Nonfilterable Residue	mg/L	14	9.0	<1	2.0
Oil & Grease	mg/L	15	<1	<1	<1
<u>Outfall P-19</u>					
pH	pH	14	7.7	7.0	
Temperature	Deg. F	10	140	47	102
Total Nonfilterable Residue	mg/L	14	3.0	0.90	1.6
Oil & Grease	mg/L	15	1.4	0.50	0.99
<u>Outfall P-20</u>					
pH	pH	15	8.9	6.4	
Fecal Coliform	#/100	17	6.0	<2	2.0
Total Nonfilterable Residue	mg/L	15	20	2.0	7.8
Biochemical Oxygen Demand	mg/L	15	6.6	<1	3.5
<u>Outfall PP-1^a</u>					
Flow	MGD	6	0.58	0.014	0.26
pH	pH	6	7.4	5.4	
Oil & Grease	mg/L	6	<1	<1	<1
<u>Outfall S-2</u>					
Flow	MGD	18	0.22	0.004	0.039
pH	pH	5	7.1	6.1	
Temperature	Deg. F	5	70	42	53
Total Nonfilterable Residue	mg/L	5	12	1.5	7.4
Oil & Grease	mg/L	17	5.7	<1	1.6
Biochemical Oxygen Demand	mg/L	5	9.8	1.5	4.4
Aluminum	µg/L	5	2112	341	1080
Iron	µg/L	5	2210	1050	1561

^a Sampling frequency changed to yearly during 1987.

**TABLE 3-15
NPDES MONITORING DATA, CONT'D.**

<u>Measurement</u>	<u>Units</u>	<u>Freq/Year</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Average</u>
<u>Outfall S-8</u>					
Flow	MGD	3	0.086	0.003	0.044
pH	pH	3	7.1	6.5	
Temperature	Deg. F	3	65	49	60
Total Nonfilterable Residue	mg/L	3	<1	<1	<1
Oil & Grease	mg/L	3	4.3	<1	1.9
Biochemical Oxygen Demand	mg/L	3	2.7	<1	1.1
<u>Outfall S-11</u>					
Flow	MGD	12	0.055	0.009	0.013
pH	pH	15	7.3	6.2	
Fecal Coliform	#/100	17	16	<2	3.0
Total Nonfilterable Residue	mg/L	15	19	3.7	9.0
Biochemical Oxygen Demand	mg/L	15	9	<1	1.9
<u>Outfall S-14</u>					
Flow	MGD	2		no flow	
<u>Outfall SC-1</u>					
pH	pH	12	8.0	6.8	
Arsenic	µg/L	12	<3	<3	<3
Chromium	µg/L	13	<50	<50	<50
Lead	µg/L	12	11	<3	4.0
Mercury	µg/L	12	0.30	<0.1	0.10
Selenium	µg/L	12	<6	<5	<6
Cadmium	µg/L	12	<10	<6	<8
Silver	µg/L	12	<0.5	<0.5	<0.5
Barium	µg/L	12	128	<50	91
Nitrate	mg/L	12	0.28	<0.1	0.14
Phosphate	mg/L	13	0.22	0.046	0.092
<u>Outfall T-1</u>					
Flow	MGD	3	0.029	0.001	0.011
<u>Outfall T-5</u>					
Flow	MGD	9	0.14	0.021	0.049
pH	pH	9	8.1	6.7	
Temperature	Deg. F	9	79	53	68
Total Nonfilterable Residue	mg/L	9	13	<1	3.0
Oil & Grease	mg/L	9	1.3	<1	0.96
Biochemical Oxygen Demand	mg/L	9	1.9	<1	1.1

**TABLE 3-15
NPDES MONITORING DATA, CONT'D.**

<u>Measurement</u>	<u>Units</u>	<u>Freq/Year</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Average</u>
<u>Outfall T-7</u>					
pH	pH	26	8.1	6.4	
Fecal Coliform	#/100	27	12	1.0	2.1
Total Nonfilterable Residue	mg/L	26	10	<1	4.6
Biochemical Oxygen Demand	mg/L	26	11	<1	3.5
<u>Outfall X-4</u>					
pH	pH	13	7.6	6.3	
Temperature	Deg. F	12	86	69	76
Total Nonfilterable Residue	mg/L	13	4.0	<1	1.4
Oil & Grease	mg/L	13	11	<1	2.2
<u>Outfall X-8</u>					
Flow	MGD	13	0.22	0.007	0.030
pH	pH	13	7.5	6.2	
Temperature	Deg. F	13	104	78	89
Total Nonfilterable Residue	mg/L	13	5.0	<1	2.6
Oil & Grease	mg/L	14	2.6	<1	1.3
Aluminum	µg/L	13	480	<50	162
Iron	µg/L	13	2510	1014	1570
<u>Outfall X-11</u>					
Flow	MGD	9	0.007	<0.001	0.002
<u>Outfall X-13</u>					
pH	pH	16	7.8	6.9	
Fecal Coliform	#/100	15	30	<2	5.0
Total Nonfilterable Residue	mg/L	15	42	6.0	17
Biochemical Oxygen Demand	mg/L	16	20	<1	5.9
<u>Outfall Y-1</u>					
Flow	MGD	4	0.022	0.007	0.016
pH	pH	4	7.2	6.1	
Temperature	Deg. F	4	57	52	55
Total Nonfilterable Residue	mg/L	4	15	<0.5	4.4
Oil & Grease	mg/L	4	4.2	<1	1.8
Biochemical Oxygen Demand	mg/L	4	5.8	1.0	3.4

**TABLE 3-16
SAVANNAH RIVER WATER QUALITY**

<u>Parameter</u>	<u>Units</u>	<u>No. of Analyses</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Arithmetic Mean</u>	<u>2 Std Dev</u>
<u>River 3B Below Plant Vogtle^a</u>						
Water Volume	liters		7.143E+12 (total)			
Temperature ^b	deg C	12	26	8.5	14	±16
pH ^b	pH	12	7.6	5.5		
Dissolved Oxygen ^b	mg/L	12	12	5.6	8.5	±4.5
Alkalinity	mg/L	12	24	11	17	±9.5
Hardness	mg/L	4	17	10	-	-
Conductivity ^b	µmho/cm	12	100	0.12	35	±63
Turbidity ^b	NTU	12	110	3.0	23	±65
Suspended Solids	mg/L	12	40	4.0	13	±19
Volatile Solids	mg/L	12	7.0	1.0	2.8	±3.3
Total Dissolved Solids	mg/L	12	86	33	62	±28
Total Solids	mg/L	12	100	42	75	±34
Fixed Residue	mg/L	12	33	3.0	10	±17
COD	mg/L	12	26	5.0	16	±12
Chloride	mg/L	12	9.8	3.9	6.8	±4.0
Nitrogen (as NO ₂ /NO ₃)	mg/L	12	0.64	0.12	0.28	±0.27
Sulfate	mg/L	12	8.0	5.0	6.0	2.1
Phosphorus (as PO ₄)	mg/L	12	0.19	0.03	0.10	±0.094
Aluminum	mg/L	4	0.19	0.13	-	-
Nitrogen (as NH ₃)	mg/L	12	0.24	<0.01	0.12	±0.14
Calcium	mg/L	4	4.2	2	-	-
Copper	mg/L	4	<0.05	<0.01	-	-
Cadmium	mg/L	4	0.01	<0.01	-	-
Magnesium	mg/L	4	1.5	1.2	-	-
Manganese	mg/L	4	0.16	0.01	-	-
Mercury	µg/L	4	<0.20	<0.20	-	-
Nickel	mg/L	4	<0.05	<0.01	-	-
Sodium	mg/L	4	12	5.2	-	-
Iron	mg/L	4	0.47	0.10	-	-
Lead	mg/L	4	<0.05	<0.01	-	-
Chromium	mg/L	4	<0.05	<0.01	-	-
Zinc	mg/L	4	<0.02	<0.01	-	-
<u>River 2 Above Plant^a</u>						
Water Volume	liters		5.697E+12 (total)			
Temperature ^b	deg C	12	26	9.0	18	±13
pH ^b	pH	12	8.0	5.9		
Dissolved Oxygen ^b	mg/L	12	12	6.0	8.8	±4.1
Alkalinity	mg/L	12	25	10	18	±10
Hardness	mg/L	4	17	12	-	-
Conductivity ^b	µmho/cm	12	100	0.11	36	±61
Turbidity ^b	NTU	12	110	2.0	23	±65
Suspended Solids	mg/L	12	50	3.0	14	±25
Volatile Solids	mg/L	12	7.0	<1	2.5	±3.8
Total Dissolved Solids	mg/L	12	84	49	66	±23
Total Solids	mg/L	12	106	63	80	±14
Fixed Residue	mg/L	12	44	2	12	±23
COD	mg/L	12	22	10	15	±7.1
Chloride	mg/L	12	9.3	3.2	6.6	±4.4
Nitrogen (as NO ₂ /NO ₃)	mg/L	12	0.43	0.13	0.25	±0.17

^a Metals are analyzed quarterly from a continuous flow composite.

^b Field measurement.

- Insufficient data.

**TABLE 3-16
SAVANNAH RIVER WATER QUALITY, CONT'D.**

<u>Parameter</u>	<u>Units</u>	<u>No. of Analyses</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Arithmetic Mean</u>	<u>2 Std Dev</u>
<u>River 2 Above Plant, Cont'd.^a</u>						
Sulfate	mg/L	12	9.0	4.0	5.7	±2.9
Phosphorus (as PO ₄)	mg/L	12	0.19	0.02	0.091	±0.091
Aluminum	mg/L	4	0.21	<0.01	-	-
Nitrogen (as NH ₃)	mg/L	12	0.27	<0.01	0.11	±0.17
Calcium	mg/L	4	4.1	2.6	-	-
Copper	mg/L	4	<0.05	<0.01	-	-
Cadmium	mg/L	4	<0.01	<0.01	-	-
Magnesium	mg/L	4	1.6	1.2	-	-
Manganese	mg/L	4	0.16	<0.01	-	-
Mercury	µg/L	4	<0.20	<0.20	-	-
Nickel	mg/L	4	<0.05	<0.01	-	-
Sodium	mg/L	4	12	8.1	-	-
Iron	mg/L	4	1.5	0.17	-	-
Lead	mg/L	4	0.09	<0.01	-	-
Chromium	mg/L	4	<0.05	<0.01	-	-
Zinc	mg/L	4	<0.02	<0.01	-	-
<u>River 10 Below Plant^a</u>						
Water Volume	liters		7.219E+12 (total)			
Temperature ^b	deg C	12	26	8.0	18	±12
pH ^b	pH	12	7.8	4.8		
Dissolved Oxygen ^b	mg/L	12	12	5.2	8.4	±4.8
Alkalinity	mg/L	12	24	10	17	±10
Hardness	mg/L	4	18	12	-	-
Conductivity ^b	µmho/cm	12	110	0.12	35	±63
Turbidity ^b	NTU	12	110	2.0	24	±65
Suspended Solids	mg/L	12	36	5.0	12	±17
Volatile Solids	mg/L	12	5.0	<1.0	2.5	±3.4
Total Dissolved Solids	mg/L	12	79	30	62	±24
Total Solids	mg/L	12	92	39	74	±28
Fixed Residue	mg/L	12	30	4.0	9.8	±14
COD	mg/L	12	20	6.0	13	±9.7
Chloride	mg/L	12	8.9	2.8	6.8	±3.3
Nitrogen (as NO ₂ /NO ₃)	mg/L	12	0.58	0.18	0.31	±0.20
Sulfate	mg/L	12	9.0	4.0	5.8	±2.7
Phosphorus (as PO ₄)	mg/L	12	0.15	0.03	0.08	±0.064
Aluminum	mg/L	4	0.15	<0.01	-	-
Nitrogen (as NH ₃)	mg/L	12	0.16	<0.01	0.083	±0.11
Calcium	mg/L	4	0.46	0.26	-	-
Copper	mg/L	4	0.04	<0.01	-	-
Cadmium	mg/L	4	<0.01	<0.01	-	-
Magnesium	mg/L	4	1.5	1.2	-	-
Manganese	mg/L	4	0.080	0.010	-	-
Mercury	µg/L	4	<0.2	<0.2	-	-
Nickel	mg/L	4	<0.05	<0.01	-	-
Sodium	mg/L	4	12	7.7	-	-
Iron	mg/L	4	1.3	0.07	-	-
Lead	mg/L	4	<0.05	<0.01	-	-
Chromium	mg/L	4	<0.05	<0.01	-	-
Zinc	mg/L	4	<0.02	<0.01	-	-

^a Metals are analyzed quarterly from a continuous flow composite.

^b Field measurement.

- Insufficient data.

TABLE 3-17
FECAL COLIFORM BACTERIA IN SRP STREAMS
AND THE SAVANNAH RIVER

Location	No. of Samples	Colonies/100 mL				
		Weekly Values		Monthly Geometric Mean ^a		
		Maximum	Minimum	Maximum	Minimum	Average
River 2, above SRP	52	7400	36	1717	98	600
River 3B, Vogtle Discharge	52	4300	30	861	54	315
River 10, below SRP	52	1500	18	655	50	195
Upper Three Runs at Road F	51	630	38	366	129	229
Upper Three Runs at Road A	52	2400	32	453	104	203
Beaver Dam Creek near Swamp	52	900	8	584	20	199
Four Mile Creek at Road A	52	440	26	135	46	79
Pen Branch at Road A	52	14000 ^b	16	1200	236	684
Steel Creek at Road	12	130	10	130	10	48
Lower Three Runs Creek at Road A	52	3700	<2	306	60	138
Lower Three Runs Creek at Tabernacle Church Road	52	2200	52	434	93	213

^a Maximum, minimum and average of monthly geometric mean of weekly values. The standard for South Carolina states that the fecal coliform count should: not exceed a geometric mean of 1000 colonies/100 mL based on five consecutive samples during any 30-day period; nor exceed 2000 colonies/100 mL in more than 20% of the samples examined during such period (not applicable during or following periods of rainfall).

^b Exceeded standard.

**TABLE 3-18
SRP STREAM WATER QUALITY**

Parameter	Units	No. of Analyses	Maximum	Minimum	Arithmetic	
					Mean	2 Std Dev
<u>Tims Branch 5 DHEC^a</u>						
Water Volume	liters		1.424E+10 (total)			
Temperature ^b	deg C	12	23	8.0	16	±12
pH ^b	pH	12	6.9	5.1		
Dissolved Oxygen ^b	mg/L	12	12	7.1	8.8	±2.9
Alkalinity	mg/L	12	20	9.0	14	±6.9
Hardness	mg/L	4	5.5	3.6	-	-
Conductivity ^b	µmho/cm	12	47	15	30	±25
Total Organic Carbon	mg/L	12	6.1	1.7	3.6	±2.7
Turbidity ^b	NTU	11	25	3.0	11	±14
Suspended Solids	mg/L	12	30	2.0	7.1	±16
Volatile Solids	mg/L	12	9.0	0.0	2.3	±4.8
Total Dissolved Solids	mg/L	12	64	26	39	±22
Total Solids	mg/L	12	72	32	45	±26
Fixed Residue	mg/L	12	21	1.0	5.0	±11
COD	mg/L	12	21	2.0	8.7	±12
Organic Nitrogen	mg/L	12	0.36	<0.1	0.15	±0.22
Chloride	mg/L	12	2.9	0.54	2.0	±1.3
Nitrogen (NO ₂ /NO ₃)	mg/L	12	2.7	0.05	0.57	±1.4
Sulfate	mg/L	12	3.0	<2.0	1.8	±1.8
Phosphorus (as PO ₄)	mg/L	12	0.07	<0.02	0.029	±0.036
Aluminum	mg/L	4	0.44	<0.1	-	-
Nitrogen (as NH ₃)	mg/L	12	0.03	<0.01	0.01	±0.02
Calcium	mg/L	4	1.3	0.67	-	-
Copper	mg/L	4	<0.05	<0.01	-	-
Cadmium	mg/L	4	<0.01	<0.01	-	-
Magnesium	mg/L	4	0.52	0.44	-	-
Manganese	mg/L	4	0.09	<0.02	-	-
Mercury	µg/L	4	0.20	<0.20	-	-
Nickel	mg/L	4	<0.05	<0.01	-	-
Sodium	mg/L	4	9.4	6.0	-	-
Iron	mg/L	4	0.88	0.24	-	-
Lead	mg/L	4	0.19	<0.01	-	-
Chromium	mg/L	4	0.03	<0.01	-	-
Zinc	mg/L	4	<0.02	<0.01	-	-
<u>Steel Creek at Rd A DHEC^a</u>						
Water Volume	liters		2.006E+11 (total)			
Temperature ^b	deg C	12	30	12	21	±13
pH ^b	pH	12	7.1	5.9		
Dissolved Oxygen ^b	mg/L	12	12	5.6	8.5	±3.8
Alkalinity	mg/L	12	20	12	16	±7.0
Hardness	mg/L	4	15	11	-	-
Conductivity ^b	µmho/cm	12	91	13	56	±56
Total Organic Carbon	mg/L	12	6.0	0.46	4.4	±3.2
Turbidity ^b	NTU	11	22	2.0	12	±12
Suspended Solids	mg/L	12	11	3.0	5.9	±4.8
Volatile Solids	mg/L	12	6.0	1.0	3.1	±2.9

- Insufficient data.

^a Metals are analyzed quarterly from a monthly grab composite.

^b Field measurements.

TABLE 3-18
SRP STREAM WATER QUALITY, CONT'D.

Parameter	Units	No. of Analyses	Maximum	Minimum	Arithmetic	
					Mean	2 Std Dev
<u>Steel Creek at Rd A DHEC, Cont'd^a</u>						
Total Dissolved Solids	mg/L	12	59	40	50	±13
Total Solids	mg/L	12	65	48	56	±13
Fixed Residue	mg/L	12	6.0	<1.0	3.2	±3.5
COD	mg/L	12	20	5.0	14	±10
Organic Nitrogen	mg/L	12	0.58	0.13	0.38	±0.24
Chloride	mg/L	12	7.4	4.9	6.3	±1.5
Nitrogen (NO ₂ /NO ₃)	mg/L	12	0.33	0.02	0.14	±0.20
Sulfate	mg/L	12	6.0	2.0	4.2	±2.6
Phosphorus (as PO ₄)	mg/L	12	0.06	<0.02	0.032	±0.035
Aluminum	mg/L	4	0.11	<0.01	-	-
Nitrogen (as NH ₃)	mg/L	12	0.16	<0.01	0.028	±0.093
Calcium	mg/L	4	3.8	2.9	-	-
Copper	mg/L	4	<0.05	<0.01	-	-
Cadmium	mg/L	4	<0.01	<0.01	-	-
Magnesium	mg/L	4	1.4	0.89	-	-
Manganese	mg/L	4	0.05	<0.02	-	-
Mercury	µg/L	4	<0.20	<0.20	-	-
Nickel	mg/L	4	<0.05	<0.01	-	-
Sodium	mg/L	4	9.3	5.5	-	-
Iron	mg/L	4	0.26	<0.02	-	-
Lead	mg/L	4	<0.05	<0.01	-	-
Chromium	mg/L	4	<0.05	<0.01	-	-
Zinc	mg/L	4	0.010	<0.01	-	-
<u>Upper 3 Runs Road A DHEC^a</u>						
Water Volume	liters		1.421E+11 (total)			
Temperature ^b	deg C	12	24	8.4	17	±12
pH	pH	12	6.7	5.5		
Dissolved Oxygen	mg/L	12	10	7.1	8.3	±2.1
Alkalinity	mg/L	12	7.0	2.0	4.4	±3.7
Hardness	mg/L	4	6.1	4.2	-	-
Conductivity	µmho/cm	12	25	3.0	16	±13
Total Organic Carbon	mg/L	12	8.6	1.8	4.7	±4.4
Turbidity	NTU	11	22	2.0	13	±11
Suspended Solids	mg/L	12	11	3.0	5.9	±5.7
Volatile Solids	mg/L	12	5.0	<1.0	2.3	±2.7
Total Dissolved Solids	mg/L	12	33	13	22	±17
Total Solids	mg/L	12	37	20	30	±10
Fixed Residue	mg/L	12	8.0	0.0	3.5	±4.6
COD	mg/L	12	22	1.0	13	±19
Organic Nitrogen	mg/L	12	0.70	<0.10	0.24	±0.51
Chloride	mg/L	12	2.6	0.73	1.7	±1.1
Nitrogen (NO ₂ /NO ₃)	mg/L	12	0.19	0.05	0.11	±0.076
Sulfate	mg/L	12	7.0	0.50	2.4	±3.5
Phosphorus (as PO ₄)	mg/L	12	0.07	<0.02	0.021	±0.038
Aluminum	mg/L	4	0.20	<0.10	-	-
Nitrogen (as NH ₃)	mg/L	12	0.02	<0.01	0.005	±0.013
Calcium	mg/L	4	1.8	1.1	-	-

- Insufficient data.

^a Metals are analyzed quarterly from a monthly grab composite.

^b Field measurements.

**TABLE 3-18
SRP STREAM WATER QUALITY, CONT'D.**

<u>Parameter</u>	<u>Units</u>	<u>No. of Analyses</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Arithmetic</u>	
					<u>Mean</u>	<u>2 Std Dev</u>
<u>Upper 3 Runs Road A DHEC, Cont'd.^a</u>						
Copper	mg/L	4	<0.05	<0.01	-	-
Cadmium	mg/L	4	<0.01	<0.01	-	-
Magnesium	mg/L	4	0.40	0.34	-	-
Manganese	mg/L	4	0.03	<0.01	-	-
Mercury	µg/L	4	<0.20	<0.20	-	-
Nickel	mg/L	4	<0.05	<0.01	-	-
Sodium	mg/L	4	1.8	0.69	-	-
Iron	mg/L	4	0.30	0.17	-	-
Lead	mg/L	4	0.10	<0.01	-	-
Chromium	mg/L	4	<0.05	<0.01	-	-
Zinc	mg/L	4	<0.02	<0.01	-	-
<u>Four Mile Creek Road A-7 DHEC^a</u>						
Water Volume	liters		1.192E+11 (total)			
Temperature ^b	deg C	12	26	7.8	18	±15
pH ^b	pH	12	6.7	5.7		
Dissolved Oxygen ^b	mg/L	12	11	6.5	8.2	±3.0
Alkalinity	mg/L	12	20	5.0	11	±11
Hardness	mg/L	4	11	7.8	-	-
Conductivity ^b	µmho/cm	12	78	0.15	48	±53
Total Organic Carbon	mg/L	12	5.8	1.4	2.9	±2.5
Turbidity ^b	NTU	11	22	4.0	12	±9.5
Suspended Solids	mg/L	12	6.0	0.0	3.2	±3.7
Volatile Solids	mg/L	12	4.0	0.0	1.9	±2.6
Total Dissolved Solids	mg/L	12	90	40	66	±35
Total Solids	mg/L	12	93	46	69	±34
Fixed Residue	mg/L	12	3.0	0.0	1.4	±2.5
COD	mg/L	12	16	3.0	9.0	±9.5
Organic Nitrogen	mg/L	12	0.53	<0.01	0.21	±0.33
Chloride	mg/L	12	4.1	1.7	3.1	±1.5
Nitrogen (NO ₂ /NO ₃)	mg/L	12	3.5	1.3	2.4	±1.5
Sulfate	mg/L	12	13	4.0	7.8	±4.8
Phosphorus (as PO ₄)	mg/L	12	0.02	<.02	0.13	±0.020
Aluminum	mg/L	4	0.36	<0.10	-	-
Nitrogen (as NH ₃)	mg/L	12	0.06	<0.01	0.014	±0.036
Calcium	mg/L	4	3.4	2.1	-	-
Copper	mg/L	4	<0.05	<0.01	-	-
Cadmium	mg/L	4	<0.01	<0.01	-	-
Magnesium	mg/L	4	0.74	0.62	-	-
Manganese	mg/L	4	0.04	<0.02	-	-
Mercury	µg/L	4	<0.20	<0.20	-	-
Nickel	mg/L	4	<0.05	<0.01	-	-
Sodium	mg/L	4	10	8.0	-	-
Iron	mg/L	4	0.36	0.09	-	-
Lead	mg/L	4	0.11	<0.01	-	-
Chromium	mg/L	4	0.01	<0.01	-	-
Zinc	mg/L	4	0.01	<0.01	-	-

- Insufficient data.

^a Metals are analyzed quarterly from a monthly grab composite.

^b Field measurements.

**TABLE 3-18
SRP STREAM WATER QUALITY, CONT'D.**

<u>Parameter</u>	<u>Units</u>	<u>No. of Analyses</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Arithmetic Mean 2 Std Dev</u>	
<u>Crouch Branch</u>						
Water Volume	liters		1.620E+8 (total)			
Temperature ^a	deg C	12	29	6.1	19	±16
pH ^a	pH	12	6.7	5.3		
Dissolved Oxygen ^a	mg/L	12	12	4.8	7.4	±4.3
Turbidity ^a	NTU	12	230	2.0	76	±145
Suspended Solids	mg/L	12	210	8.0	57	±130
<u>Lower 3 Runs Patterson Mill^b</u>						
Water Volume	liters		7.613E+10 (total)			
Temperature ^a	deg C	12	28	9.4	19	±13
pH ^a	pH	12	7.4	5.9		
Dissolved Oxygen ^a	mg/L	12	9.5	6.2	7.7	±2.4
Alkalinity	mg/L	12	38	19	27	±12
Hardness	mg/L	4	43	20	-	-
Conductivity ^a	µmho/cm	12	120	11	48	±82
Turbidity ^a	NTU	12	38	1.0	7.4	±21
Suspended Solids	mg/L	12	12	<1.0	3.5	±6.8
Volatile Solids	mg/L	12	4.0	<1.0	2.0	±3.0
Total Dissolved Solids	mg/L	12	73	20	55	±26
Total Solids	mg/L	12	85	22	58	±30
Fixed Residue	mg/L	12	8.0	<1.0	1.8	±4.7
COD	mg/L	12	21	3.0	15	±11
Chloride	mg/L	12	5.6	2.0	4.1	±2.1
Nitrogen (NO ₂ /NO ₃)	mg/L	12	0.71	<0.02	0.13	±0.39
Sulfate	mg/L	12	6.0	0.05	3.1	±2.9
Phosphorus (as PO ₄)	mg/L	12	0.04	<0.02	0.017	±0.03
Aluminum	mg/L	4	0.07	<0.01	-	-
Nitrogen (as NH ₃)	mg/L	12	0.04	<0.01	0.018	±0.027
Calcium	mg/L	4	16	6.6	-	-
Copper	mg/L	4	0.01	<0.01	-	-
Cadmium	mg/L	4	<0.01	<0.01	-	-
Magnesium	mg/L	4	0.95	0.77	-	-
Manganese	mg/L	4	0.04	<0.02	-	-
Mercury	µg/L	4	<0.20	<0.20	-	-
Nickel	mg/L	4	<0.05	<0.01	-	-
Sodium	mg/L	4	6.4	3.2	-	-
Iron	mg/L	4	0.21	<0.01	-	-
Lead	mg/L	4	<0.10	<0.01	-	-
Chromium	mg/L	4	<0.05	<0.01	-	-
Zinc	mg/L	4	<0.02	<0.01	-	-

- Insufficient data.

^a Field measurements.

^b Metals are analyzed quarterly from a continuous flow composite.

**TABLE 3-18
SRP STREAM WATER QUALITY, CONT'D.**

<u>Parameter</u>	<u>Units</u>	<u>No. of Analyses</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Arithmetic</u>	
					<u>Mean</u>	<u>2 Std Dev</u>
<u>McQueen Branch</u>						
Water Volume	liters		6.575E+10 (total)			
Temperature ^a	deg C	12	28	7.0	18	±14
pH ^a	pH	12	7.0	5.3		
Dissolved Oxygen ^a	mg/L	12	12	5.9	8.0	±3.3
Turbidity ^a	NTU	12	150	3.0	26	±81
Suspended Solids	mg/L	12	72	2.0	12	±39
<u>Pen Branch Road A 17^b</u>						
Water Volume	liters		1.593E+11 (total)			
Temperature ^a	deg C	12	44	7.2	28	±26
pH ^a	pH	12	7.3	5.1		
Dissolved Oxygen ^a	mg/L	12	11	4.2	7.6	±4.2
Alkalinity	mg/L	12	24	10	16	±8.2
Hardness	mg/L	4	16	9.8	-	-
Conductivity ^a	µmho/cm	12	97	10	40	±63
Turbidity ^a	NTU	12	23	2.0	9.5	±14
Suspended Solids	mg/L	12	29	2.0	8.7	±15
Volatile Solids	mg/L	12	10	0.0	2.7	±5.7
Total Dissolved Solids	mg/L	12	71	38	52	±21
Total Solids	mg/L	12	79	44	61	±25
Fixed Residue	mg/L	12	24	2.0	6.3	±13
COD	mg/L	12	21	9.0	14	±7.9
Chloride	mg/L	12	9.6	3.2	5.7	±4.1
Nitrogen (NO ₂ /NO ₃)	mg/L	12	0.42	0.13	0.26	±0.19
Sulfate	mg/L	12	8.0	3.0	4.8	±3.6
Phosphorus (as PO ₄)	mg/L	12	0.11	0.02	0.059	±0.060
Aluminum	mg/L	4	1.8	<0.10	-	-
Nitrogen (as NH ₃)	mg/L	12	0.10	0.0	0.037	±0.066
Calcium	mg/L	4	4.2	2.1	-	-
Copper	mg/L	4	0.02	<0.01	-	-
Cadmium	mg/L	4	<0.01	<0.01	-	-
Magnesium	mg/L	4	1.4	0.95	-	-
Manganese	mg/L	4	0.18	<0.02	-	-
Mercury	µg/L	4	<0.20	<0.20	-	-
Nickel	mg/L	4	<0.05	<0.01	-	-
Sodium	mg/L	4	12	7.0	-	-
Iron	mg/L	4	1.3	<0.01	-	-
Lead	mg/L	4	<0.05	<0.01	-	-
Chromium	mg/L	4	<0.05	<0.01	-	-
Zinc	mg/L	4	0.02	<0.01	-	-

- Insufficient data.

^a Field measurements.

^b Metals are analyzed quarterly from a continuous flow composite.

TABLE 3-18
SRP STREAM WATER QUALITY, CONT'D.

Parameter	Units	No. of Analyses	Maximum	Minimum	Arithmetic Mean	2 Std Dev
<u>Four Mile Creek Road A^a</u>						
Water Volume	liters		2.010E+10 (total)			
Temperature ^b	deg C	12	27	6.3	19	±14
pH ^b	pH	12	7.5	4.5		
Dissolved Oxygen ^b	mg/L	12	11	6.9	8.5	±2.7
Alkalinity	mg/L	12	16	6.0	10	±7.3
Hardness	mg/L	4	11	6.8	-	-
Conductivity ^b	µmho/cm	12	73	11	34	±51
Turbidity ^b	NTU	12	23	1.0	7.3	±15
Suspended Solids	mg/L	12	10	1.0	3.0	±5.6
Volatile Solids	mg/L	12	3.0	<1.0	1.0	±2.1
Total Dissolved Solids	mg/L	12	71	41	52	±19
Total Solids	mg/L	12	73	44	55	±18
Fixed Residue	mg/L	12	7.0	<1.0	1.9	±4.3
COD	mg/L	12	16	5.0	10	±7.1
Chloride	mg/L	12	5.2	1.2	2.9	±2.2
Nitrogen (NO ₂ /NO ₃)	mg/L	12	1.8	0.62	1.1	±0.72
Sulfate	mg/L	12	18	3.0	6.3	±7.9
Phosphorus (as PO ₄)	mg/L	12	0.04	<0.02	0.015	±0.030
Aluminum	mg/L	4	0.20	<0.01	-	-
Nitrogen (as NH ₃)	mg/L	12	0.04	0.0	0.017	±0.025
Calcium	mg/L	4	3.1	1.8	-	-
Copper	mg/L	4	0.11	<0.05	-	-
Cadmium	mg/L	4	<0.01	<0.01	-	-
Magnesium	mg/L	4	0.73	0.57	-	-
Manganese	mg/L	4	0.04	<0.01	-	-
Mercury	µg/L	4	<0.20	<0.20	-	-
Nickel	mg/L	4	<0.05	<0.01	-	-
Sodium	mg/L	4	7.1	6.2	-	-
Iron	mg/L	4	0.66	<0.01	-	-
Lead	mg/L	4	0.06	<0.01	-	-
Chromium	mg/L	4	<0.05	<0.01	-	-
Zinc	mg/L	4	0.02	<0.01	-	-
<u>Upper 3 Runs Highway 278^a</u>						
Water Volume	liters		1.584E+11 (total)			
Temperature ^b	deg C	12	26	9.5	18	±9.9
pH ^b	pH	12	6.9	4.8		
Dissolved Oxygen ^b	mg/L	12	10	6.2	7.9	±2.1
Alkalinity	mg/L	12	37	1.0	5.3	±20
Hardness	mg/L	4	2.7	1.7	-	-
Conductivity ^b	µmho/cm	12	76	7.0	26	±38
Turbidity ^b	NTU	12	120	2.0	19	±71
Suspended Solids	mg/L	12	13	2.0	5.5	±7.8
Volatile Solids	mg/L	12	6.0	1.0	2.7	±3.9
Total Dissolved Solids	mg/L	12	80	10	24	±39
Total Solids	mg/L	12	83	13	30	±38
Fixed Residue	mg/L	12	7.0	<1.0	2.9	±4.8
COD	mg/L	12	20	6.0	12	±8.7

- Insufficient data.

^a Metals are analyzed quarterly from a continuous flow composite.

^b Field measurements.

TABLE 3-18
SRP STREAM WATER QUALITY, CONT'D.

<u>Parameter</u>	<u>Units</u>	<u>No. of Analyses</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Arithmetic Mean ± 2 Std Dev</u>	
<u>Upper 3 Runs Highway 278, Cont'd.^a</u>						
Chloride	mg/L	12	4.5	0.50	2.2	±2.4
Nitrogen (NO ₂ /NO ₃)	mg/L	12	0.81	0.05	0.22	±0.39
Sulfate	mg/L	12	4.0	0.05	1.9	±2.1
Phosphorus (as PO ₄)	mg/L	12	0.03	<0.02	0.012	±0.012
Aluminum	mg/L	4	0.10	<0.01	-	-
Nitrogen (as NH ₃)	mg/L	12	0.02	<0.01	0.010	±0.067
Calcium	mg/L	4	0.49	0.22	-	-
Copper	mg/L	4	<0.05	<0.01	-	-
Cadmium	mg/L	4	<0.01	<0.01	-	-
Magnesium	mg/L	4	0.36	0.26	-	-
Manganese	mg/L	4	0.02	0.01	-	-
Mercury	µg/L	4	<0.20	<0.20	-	-
Nickel	mg/L	4	<0.05	<0.01	-	-
Sodium	mg/L	4	1.4	0.29	-	-
Iron	mg/L	4	0.19	<0.01	-	-
Lead	mg/L	4	0.06	<0.01	-	-
Chromium	mg/L	4	<0.05	<0.01	-	-
Zinc	mg/L	4	<0.02	<0.01	-	-

- Insufficient data.

^a Metals are analyzed quarterly from a continuous flow composite.

**TABLE 3-18
SRP STREAM WATER QUALITY, CONT'D.**

Beaver Dam Creek Water Quality Data Summary

Quarter 1, January 1 - March 31, 1987

<u>Parameter</u>	<u>Units</u>	<u>Hourly Maximum</u>	<u>Hourly Minimum</u>	<u>Hourly Average</u>
Temperature	°F	83	54	67
pH		6.9	5.8	
Dissolved Oxygen	mg/L	10.6	6.4	8.1
Conductivity	µmhos/cm	146	59	96
Oxidation/Reduction Potential	mV	322	288	304

Quarter 2, April 1 - June 30, 1987

<u>Parameter</u>	<u>Units</u>	<u>Hourly Maximum</u>	<u>Hourly Minimum</u>	<u>Hourly Average</u>
Temperature	°F	89	67	80
pH		8.8	5.7	
Dissolved Oxygen	mg/L	8.8	4.5	6.8
Conductivity	µmhos/cm	164	76	112
Oxidation/Reduction Potential	mV	336	173	300

Quarter 3, July 1 - September 30, 1987

<u>Parameter</u>	<u>Units</u>	<u>Hourly Maximum</u>	<u>Hourly Minimum</u>	<u>Hourly Average</u>
Temperature	°F	89	72	81
pH		8.0	5.9	
Dissolved Oxygen	mg/L	8.4	5.7	7.0
Conductivity	µmhos/cm	173	56	89
Oxidation/Reduction Potential	mV	381	286	300

Quarter 4, October 1 - December 31, 1987

<u>Parameter</u>	<u>Units</u>	<u>Hourly Maximum</u>	<u>Hourly Minimum</u>	<u>Hourly Average</u>
Temperature	°F	79	63	71
pH		7.5	6.2	
Dissolved Oxygen	mg/L	9.6	3.9	7.9
Conductivity	µmhos/cm	127	69	100
Oxidation/Reduction Potential	mV	313	260	296

**TABLE 3-18
SRP STREAM WATER QUALITY, CONT'D.**

Steel Creek Water Quality Data Summary

Quarter 1, January 1 - March 31, 1987

<u>Parameter</u>	<u>Units</u>	<u>Hourly Maximum</u>	<u>Hourly Minimum</u>	<u>Hourly Average</u>
Temperature	°F	75	62	67
Dissolved Oxygen	mg/L	9.7	7.5	8.4

Quarter 2, April 1 - June 30, 1987

<u>Parameter</u>	<u>Units</u>	<u>Hourly Maximum</u>	<u>Hourly Minimum</u>	<u>Hourly Average</u>
Temperature	°F	82	64	75
Dissolved Oxygen	mg/L	8.9	5.2	7.1

Quarter 3, July 1 - September 30, 1987

<u>Parameter</u>	<u>Units</u>	<u>Hourly Maximum</u>	<u>Hourly Minimum</u>	<u>Hourly Average</u>
Temperature	°F	84	77	80
Dissolved Oxygen	mg/L	6.6	3.5	5.2

Quarter 4, October 1 - December 31, 1987

<u>Parameter</u>	<u>Units</u>	<u>Hourly Maximum</u>	<u>Hourly Minimum</u>	<u>Hourly Average</u>
Temperature	°F	78	59	64
Dissolved Oxygen	mg/L	9.1	5.5	7.9

TABLE 4-1
RADIOACTIVITY IN BURIAL GROUNDS GROUNDWATER

<u>Perimeter Wells</u>	<u>No. of Samples</u>	<u>Gross Alpha (pCi/L)</u>			<u>Average</u>
		<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	
BG 26	4	1.16	+0.72	0.41	0.71
BG 27	4	1.04	+0.78	0.10	0.48
BG 28	4	0.87	+0.64	0.38	0.54
BG 29	4	0.77	+0.61	0.19	0.44
BG 30	4	1.56	+0.90	0.39	0.90
BG 31	4	1.73	+0.86	0.49	0.98
BG 32	4	3.66	+1.22	0.67	2.46
BG 33	4	2.31	+0.98	0.83	1.51
BG 34	4	1.18	+1.01	0.41	1.77
BG 35	4	0.78	+0.68	0.31	1.54
BG 36	4	0.67	+0.58	0.00	0.38
BG 37	4	2.02	+0.92	0.77	1.40
BG 38	4	1.73	+0.86	0.58	1.06
BG 39	4	1.56	+0.87	0.29	1.13
BG 40	4	0.87	+0.64	-0.20	0.39
BG 41	4	0.67	+0.58	-0.10	0.36
BG 42	4	2.31	+0.98	1.35	1.78
BG 43	4	0.52	+0.46	0.10	0.33
BG 51	4	0.62	+0.59	0.29	0.40
BG 52	4	2.28	+0.97	1.24	1.63
BG 53	4	0.58	+0.54	-0.10	0.24
BG 54	4	0.20	+0.48	0.00	0.10
BG 55	4	2.31	+1.02	0.31	1.18
BG 56	4	3.56	+1.20	0.29	1.53
BG 57	4	1.06	+0.69	-0.20	0.36
BG 58	4	1.83	+0.88	0.29	0.86
BG 59	4	0.93	+0.75	0.19	0.52
BG 60	4	1.44	+0.79	0.31	0.87
BG 61	4	0.48	+0.51	-0.10	0.14
BG 62	4	0.93	+0.75	0.10	0.40
BG 63	4	0.88	+0.70	0.41	0.61
BG 64	4	0.78	+0.68	0.21	0.46
BG 65	4	0.96	+0.67	0.31	0.68
BG 66	4	0.68	+0.65	-0.10	0.29
BG 67	4	1.35	+0.77	0.41	0.88
BG 68	1	0.73	+0.56	0.73	0.73
BG 69	1	1.15	+0.76	1.15	1.15
BG 70	1	0.63	+0.51	0.63	0.63
BG 71	1	1.15	+0.70	1.15	1.15
BG 72	1	1.15	+0.70	1.15	1.15
BG 73	1	1.15	+0.70	1.15	1.15
BG 74	1	1.89	+0.89	1.89	1.89
BG 75	1	1.05	+0.66	1.05	1.05
BG 76	1	1.78	+0.87	1.78	1.78
BG 77	1	1.05	+0.66	1.05	1.05
BG 78	1	1.15	+0.70	1.15	1.15
BG 79	1	1.68	+0.84	1.68	1.68
BG 80	1	0.52	+0.56	0.52	0.52
BG 81	1	0.31	+0.47	0.31	0.31
BG 82	1	0.10	+0.36	0.10	0.10
BG 83	1	1.15	+0.70	1.15	1.15

TABLE 4-1
RADIOACTIVITY IN BURIAL GROUNDS GROUNDWATER

<u>Perimeter Wells</u>	<u>No. of Samples</u>	<u>Gross Alpha (pCi/L)</u>				
		<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
BG 84	1	1.68	+0.84	1.68	-0.84	1.68
BG 85	1	1.68	+0.84	1.68	+0.84	1.68
BG 86	1	1.36	+0.76	1.36	+0.76	1.36
BG 87	1	0.63	+0.51	0.63	+0.51	0.63
BG 88	1	0.21	+0.30	0.21	+0.30	0.21
BG 89	1	0.63	+0.51	0.63	+0.51	0.63
BG 90	1	0.21	+0.30	0.21	+0.30	0.21
<u>Inside 643-7G</u>						
BG 204GR*	1	1	-	1	-	1
BG 206GR*	2	<1	-	<1	-	<1
BG 208GR*	2	<1	-	<1	-	<1
BG 210GR*	1	2	-	2	-	2
BG 212GR*	2	1	-	1	-	1
BG 216GR*	1	2	-	2	-	2
BG 218GR*	2	1	-	<1	-	1
BG 220GR*	2	2	-	1	-	1.5
BG 222GR*	4	1	-	<1	-	1
BG 404GR*	1	6	-	6	-	6
BG 406GR*	1	2	-	2	-	2
BG 408GR*	1	1	-	1	-	1
BG 410GR*	2	2	-	1	-	1.5
BG 420GR*	2	3	-	2	-	2.5
BG 422GR*	3	7	-	<1	-	3.7
BG 620GR*	2	1	-	<1	-	1
BG 622GR*	1	2	-	2	-	2
BG 818GR*	1	1	-	1	-	1
BG 820GR*	1	1	-	1	-	1
BG 822GR*	4	1	-	<1	-	1

*SRL research wells, reported in previous annual reports in abbreviated form (i.e., BG 204GR = 22.04, BG 822GR = 28.22).

TABLE 4-1
RADIOACTIVITY IN BURIAL GROUNDS GROUNDWATER

<u>Inside 643-G</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Gross Alpha (pCi/L)</u>						
MGA 1*	4	7	-	<1	-	3.32
MGA 3*	4	2	-	<1	-	1.25
MGA 5*	4	8	-	<1	-	3.24
MGA 7*	4	2	-	<1	-	1.35
MGA 11*	4	9.7	-	<1	-	3.93
MGA 19*	4	3	-	<1	-	1.5
MGA 21*	4	1	-	<1	-	1
MGA 23*	4	1	-	<1	-	1
MGA 32*	4	2	-	<1	-	1.25
MGA 34*	4	<1	-	<1	-	1
MGA 36	3	1.01	+0.61	0.42	+0.42	0.68
MGC 1*	4	1	-	<1	-	1
MGC 3*	4	1	-	<1	-	1
MGC 5*	3	2	-	1	-	1.5
MGC 7*	4	2	-	<1	-	1.25
MGC 9	4	0.81	+0.64	0.21	+0.41	0.46
MGC 11	1	1.05	+0.66	1.05	+0.66	1.05
MGC 13*	4	4	-	<1	-	2.25
MGC 15*	4	7	-	1	-	4
MGC 17*	4	5	-	2	-	3.7
MGC 19	4	0.83	+0.66	0.48	+0.51	0.59
MGC 21*	4	4	-	2	-	2.58
MGC 23	3	1.24	+0.78	0.21	+0.30	0.62
MGC 30*	4	1.1	-	1	-	1.03
MGC 32	4	2.33	+1.01	1.64	+0.84	2.01
MGC 34*	3	<1	-	<1	-	1
MGC 36	4	2.02	+0.92	0.51	+0.54	1.00
MGE 1*	4	1	-	<1	-	1
MGE 3*	4	2	-	<1	-	1.25
MGE 5*	3	4	-	1	-	2.33
MGE 7*	4	3	-	<1	-	1.5
MGE 9	4	0.52	+0.46	0.00	+0.27	0.26
MGE 13*	4	<1	-	<1	-	1
MGE 17*	3	2.5	-	<1	-	1.5
MGE 19*	4	<1	-	<1	-	1
MGE 21	4	1.54	+0.82	0.73	+0.62	1.04
MGE 23*	4	1	-	<1	-	1
MGE 30	4	2.62	+1.05	0.96	+0.67	1.69
MGE 32*	4	2	-	1	-	1.43
MGE 34	4	1.05	+0.66	0.21	+0.41	0.70
MGE 36*	4	2	-	1	-	1.28
MGG 1*	2	<1	-	<1	-	1
MGG 3*	4	7	-	<1	-	2.75
MGG 5*	4	6	-	2.8	-	4.2
MGG 7*	4	<1	-	<1	-	1
MGG 9*	4	5	-	1	-	2.83
MGG 13*	4	9	-	1	-	3.55
MGG 15	3	1.35	+0.80	0.31	+0.36	0.87

*SRI research wells.

TABLE 4-1
RADIOACTIVITY IN BURIAL GROUNDS GROUNDWATER

<u>Inside 643-G</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Gross Alpha (pCi/L)</u>						
MGG 17*	4	6	-	<1	-	2.25
MGG 19	4	0.83	+0.66	0.00	+0.29	0.38
MGG 21*	4	618	-	<1	-	155
MGG 21A*	4	3	-	<1	-	1.5
MGG 21B*	4	3	-	<1	-	1.5
MGG 21P*	4	2.5	-	<1	-	1.63
MGG 23	4	0.62	+0.59	0.10	+0.33	0.25
MGG 28	4	0.77	+0.61	0.10	+0.36	0.37
MGG 30*	4	<1	-	<1	-	1
MGG 32*	4	1	-	<1	-	1
MGG 34*	4	2	-	<1	-	1.5
MGG 36	4	0.71	+0.61	0.31	+0.36	0.46
MGI 1*	4	4	-	<1	-	2.33
MGI 5*	4	1	-	<1	-	1
MGI 7*	4	2.4	-	<1	-	1.35
MGI 9*	4	4	-	<1	-	1.75
MGI 13*	4	6	-	4	-	4.8
MGI 15*	4	5	-	1.7	-	3.18
MGI 17*	4	4.9	-	2	-	2.98

*SRL research wells.

TABLE 4-1
RADIOACTIVITY IN BURIAL GROUNDS GROUNDWATER

<u>Perimeter Wells</u>	<u>No. of Samples</u>	<u>Nonvolatile Beta (pCi/L)</u>				
		<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
BG 26	4	1.35	+1.24	0.73	+1.12	1.10
BG 27	4	2.74	+1.64	0.86	+1.13	1.38
BG 28	4	1.68	+1.54	0.60	+1.10	0.98
BG 29	4	1.68	+1.54	0.13	+1.10	0.97
BG 30	4	2.21	+1.59	1.28	+1.23	1.97
BG 31	4	2.40	+1.31	0.67	+1.16	1.27
BG 32	4	5.85	+1.61	1.42	+1.24	4.00
BG 33	4	2.92	+1.36	1.42	+1.24	2.11
BG 34	4	2.14	+1.23	0.23	+1.27	1.12
BG 35	4	2.08	+1.27	0.74	+1.17	1.13
BG 36	4	1.32	+1.18	0.08	+1.37	0.88
BG 37	4	2.66	+1.13	0.81	+1.18	1.97
BG 38	4	2.99	+1.36	2.12	+1.27	2.66
BG 39	4	2.60	+1.32	1.15	+1.21	1.76
BG 40	4	0.40	+1.13	-0.60	+0.95	-0.08
BG 41	4	1.24	+1.18	0.15	+1.38	0.88
BG 42	4	5.20	+1.56	3.38	+1.40	4.24
BG 43	4	2.20	+1.56	0.00	+1.06	1.12
BG 51	4	1.34	+1.49	0.52	+1.10	0.89
BG 52	4	9.61	+2.18	2.45	+1.33	4.86
BG 53	4	0.91	+1.15	0.08	+1.37	0.55
BG 54	4	3.89	+1.75	1.17	+1.18	2.74
BG 55	4	4.42	+1.49	1.07	+1.48	2.39
BG 56	4	5.92	+1.62	1.14	+1.37	2.47
BG 57	4	2.02	+1.27	0.00	+1.36	0.79
BG 58	4	2.73	+1.34	0.76	+1.45	1.56
BG 59	4	1.52	+1.21	0.58	+1.11	0.92
BG 60	4	3.25	+1.39	0.61	+1.43	1.55
BG 61	4	2.09	+1.32	0.00	+1.36	0.88
BG 62	4	2.32	+1.29	0.98	+1.16	1.70
BG 63	4	1.15	+1.21	0.20	+1.06	0.68
BG 64	4	2.09	+1.32	0.53	+1.42	1.31
BG 65	4	1.56	+1.22	0.73	+1.12	1.07
BG 66	4	1.17	+1.18	-0.35	+1.32	0.44
BG 67	4	1.39	+2.09	0.08	+1.37	0.75
BG 68	1	0.24	+1.40	0.24	+1.40	0.24
BG 69	1	2.60	+1.61	2.60	+1.61	2.60
BG 70	1	0.31	+1.41	0.31	+1.41	0.31
BG 71	1	0.71	+1.45	0.71	+1.45	0.71
BG 72	1	1.50	+1.54	1.50	+1.54	1.50
BG 73	1	0.24	+1.40	0.24	+1.40	0.24
BG 74	1	1.81	+1.57	1.81	+1.57	1.81
BG 75	1	0.79	+1.46	0.79	+1.46	0.79
BG 76	1	2.05	+1.59	2.05	+1.59	2.05
BG 77	1	0.94	+1.48	0.94	+1.48	0.94
BG 78	1	0.87	+1.47	0.87	+1.47	0.87
BG 79	1	2.60	+1.64	2.60	+1.64	2.60
BG 80	1	1.26	+1.48	1.26	+1.48	1.26
BG 81	1	0.08	+1.35	0.08	+1.35	0.08
SC 82	1	1.73	+1.53	1.73	+1.53	1.73
BG 83	1	1.57	+1.54	1.57	+1.54	1.57

TABLE 4-1
RADIOACTIVITY IN BURIAL GROUNDS GROUNDWATER

<u>Perimeter Wells</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Nonvolatile Beta (pCi/L)</u>						
BC 84	1	2.44	+1.63	2.44	+1.63	2.44
BC 85	1	1.73	+1.56	1.73	+1.56	1.73
BC 86	1	1.89	+1.57	1.89	+1.57	1.89
BC 87	1	0.39	+1.42	0.39	+1.42	0.39
BC 88	1	-0.39	+1.33	-0.39	+1.33	-0.39
BC 89	1	-1.02	+1.25	-1.02	+1.25	-1.02
BC 90	1	-0.08	+1.36	-0.08	+1.36	-0.08
<u>Inside 643-7G</u>						
BC 204GR*	1	13	-	13	-	13
BC 206GR*	2	92	-	76	-	84
BC 208GR*	2	25	-	<1	-	13
BC 210GR*	1	1	-	1	-	1
BC 212GR*	2	5	-	1	-	3
BC 216GR*	1	15	-	15	-	15
BC 218GR*	2	<1	-	<1	-	<1
BC 220GR*	2	2	-	<1	-	1.5
BC 222GR*	4	9	-	<1	-	6.6
BC 402GR*	1	<1	-	<1	-	<1
BC 404GR*	1	55	-	55	-	55
BC 406GR*	1	4	-	4	-	4
BC 408GR*	1	1	-	1	-	1
BC 410GR*	2	4	-	3	-	3.5
BC 420GR*	2	8	-	2	-	5
BC 422GR*	4	29	-	<1	-	10.7
BC 620GR*	2	7	-	2	-	4.5
BC 818GR*	1	8	-	8	-	8
BC 820GR*	1	16	-	16	-	16
BC 822GR*	4	748	-	8	-	195

*SRL research wells, reported in previous annual reports in abbreviated form (i.e., BC 204GR = 22.04, BC 822GR = 28.22).

TABLE 4-1
RADIOACTIVITY IN BURIAL GROUNDS GROUNDWATER

<u>Inside 643-G</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Nonvolatile Beta (pCi/L)</u>						
MGA 1*	4	35	-	18	-	27.8
MGA 3*	4	51.1	-	35	-	41.5
MGA 5*	4	82	-	17	-	37.5
MGA 7*	4	24	-	2	-	12.5
MGA 11*	4	41.6	-	<1	-	13.4
MGA 19*	4	10.1	-	<1	-	5.53
MGA 21*	4	16	-	<1	-	5.65
MGA 23*	4	4	-	<1	-	2.68
MGA 32*	4	12.9	-	<1	-	3.98
MGA 34*	4	54	-	20	-	37.4
MGA 36	3	1.98	+1.54	1.57	+1.48	1.81
MGC 1*	4	40	-	13	-	24.9
MGC 3*	4	22.2	-	<1	-	6.3
MGC 5*	3	9.2	-	4	-	5.73
MGC 7*	4	23	-	<1	-	9.85
MGC 9	4	4.57	+1.74	1.80	+1.77	3.56
MGC 11	1	2.91	+1.58	2.91	+1.58	2.91
MGC 13*	4	40.9	-	9	-	21.2
MGC 15*	4	16.3	-	<1	-	6.58
MGC 17*	4	19.7	-	<1	-	5.68
MGC 19	4	2.20	+1.51	1.81	+1.43	1.98
MGC 21*	4	12.8	-	<1	-	4.7
MGC 23	3	3.95	+1.64	0.00	+1.26	1.57
MGC 30*	4	63.1	-	2	-	18.3
MGC 32	4	7.80	+2.01	3.05	+1.67	6.32
MGC 34*	3	3,700	-	1,890	-	2,950
MGC 36	4	1.81	+1.47	0.46	+1.26	1.13
MGE 1*	4	51.6	-	8	-	22.9
MGE 3*	4	73	-	2	-	21.1
MGE 5*	3	10	-	<1	-	4
MGE 7*	4	10.8	-	<1	-	3.7
MGE 9	4	1.81	+1.43	-0.53	+1.30	0.58
MGE 13*	4	107	-	6	-	44.6
MGE 17*	3	38.5	-	3	-	15.5
MGE 19*	4	1,430	-	2	-	379
MGE 21	4	2.98	+1.38	0.71	+1.35	1.78
MGE 23*	4	9	-	4	-	7.4
MGE 30	4	3.62	+1.65	1.75	+1.14	2.55
MGE 32*	4	17.6	-	2	-	10.7
MGE 34	4	54.0	+4.32	11.7	+2.29	32.1
MGE 36*	4	17.6	-	3	-	10.2
MGG 1*	2	5	-	4.4	-	4.7
MGG 3*	4	27	-	<1	-	8.48
MGG 5*	4	23	-	10	-	16.9
MGG 7*	4	83	-	28	-	49.6
MGG 9*	4	37	-	8	-	23.6
MGG 13*	4	39	-	12	-	19.8
MGG 15	3	1.98	+1.54	0.55	+1.36	1.39

*SRI research wells.

TABLE 4-1
RADIOACTIVITY IN BURIAL GROUNDS GROUNDWATER

<u>Inside 643-G</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Nonvolatile Beta (pCi/L)</u>						
MGG 17*	4	55	-	<1	-	16
MGG 19	4	11.5	+2.04	5.98	+1.86	8.19
MGG 21*	4	12,600	-	1,850	-	5,000
MGG 21A*	4	16	-	5	-	11.3
MGG 21B*	4	36.7	-	<1	-	16.9
MGG 21P*	4	83.3	-	1	-	38.1
MGG 23	4	2.20	+1.51	0.99	+1.18	1.63
MGG 28	4	1.50	+1.43	0.33	+1.10	0.88
MGG 30*	4	14	-	<1	-	4.25
MGG 32*	4	151	-	64	-	104
MGG 34*	4	24	-	<1	-	12.9
MGG 36	4	1.50	+1.43	1.05	+1.71	1.24
MGI 1*	4	175	-	64	-	109
MGI 5*	4	38	-	<1	-	11.3
MGI 7*	4	44.5	-	4	-	28.4
MGI 9*	4	34.4	-	<1	-	15.1
MGI 13*	4	81.6	-	31	-	49.4
MGI 15*	4	54.9	-	<1	-	25.0
MGI 17*	4	49	-	<1	-	20.3

*SRL research wells.

TABLE 4-1
RADIOACTIVITY IN BURIAL GROUNDS GROUNDWATER

<u>Perimeter Wells</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
H-3 (pCi/mL)						
BG 10	11	37,600	+349	20,500	+417	27,900
BG 26	4	34.6	+1.79	28.1	+1.61	30.2
BG 27	4	32.4	+1.74	26.9	+1.55	29.7
BG 28	4	38.2	+1.86	29.8	+1.61	34.3
BG 29	4	49.3	+2.06	42.8	+1.86	45.7
BG 30	4	40.2	+1.89	33.5	+1.69	37.6
BG 31	4	1,170	+23.5	201	+3.83	530
BG 32	4	18.8	+1.43	12.0	+1.20	15.5
BG 33	4	899	+18.1	16.9	+1.36	279
BG 34	4	8,560	+179	702	+64.2	4,110
BG 35	4	139	+3.18	36.3	+1.74	91.7
BG 36	5	33,900	+682	17.0	+1.39	6,800
BG 37	4	29.3	+1.65	18.4	+1.36	23.4
BG 38	4	54.3	+2.09	26.1	+1.54	38.0
BG 39	4	18.0	+1.41	13.5	+1.24	14.8
BG 40	4	19.7	+1.43	3.95	+1.00	10.4
BG 41	4	21.7	+1.50	8.36	+1.10	17.8
BG 42	4	61.8	+2.26	20.9	+1.45	32.9
BG 43	4	59.8	+2.26	22.9	+1.44	35.9
BG 51	3	22.8	+1.46	18.9	+1.41	21.0
BG 52	4	126	+3.16	19.7	+1.36	50.1
BG 53	4	16.2	+1.37	12.5	+1.24	14.6
BG 54	4	177	+3.72	25.5	+1.59	89.5
BG 55		8,920	+112	2,870	+59.1	5,530
BG 56		53,900	+1,080	5,240	+106	29,300
BG 57	4	801	+16.1	68.1	+2.30	356
BG 58	3	21.4	+1.43	16.5	+1.35	18.3
BG 59	4	51.8	+2.10	35.1	+1.72	47.2
BG 60	4	24.9	+1.54	23.4	+1.52	24.1
BG 61	4	48.0	+1.99	42.4	+1.90	45.4
BG 62	4	48.7	+2.00	36.5	+1.79	41.7
BG 63	4	54.4	+2.09	37.2	+1.84	44.8
BG 64	4	31.9	+1.73	26.0	+1.53	29.3
BG 65	4	39.6	+1.88	28.6	+1.59	34.4
BG 66	4	49.6	+2.06	42.9	+1.91	46.6
BG 67	4	134	+3.21	69.4	+2.28	99.9
BG 68	1	43.4	+1.84	43.4	+1.84	43.4
BG 69	1	7,990	+238	7,990	+238	7,990
BG 70	2	2,480	+49.7	283	+4.85	1,380
BG 71	2	3,270	+16.2	2,310	+44.4	2,790
BG 72	2	11,800	+239	1,950	+12.5	6,880
BG 73	2	908	+25.2	89.9	+2.84	499
BG 74	2	418	+27.9	31.7	+1.85	225
BG 75	2	1,510	+30.4	716	+7.63	1,110
BG 76	2	1,160	+41.4	567	+11.5	864
BG 77	2	18,000	+359	478	+19.1	9,240
BG 78	2	144	+12.4	143	+3.33	144
BG 79	2	4,620	+92.4	547	+113	2,580
BG 80	1	851	+65.2	851	+65.2	851
BG 81	1	140	+44.6	140	+44.6	140
BG 82	1	83.9	+82.2	83.9	+82.2	83.9

TABLE 4-1
RADIOACTIVITY IN BURIAL GROUNDS GROUNDWATER

<u>Perimeter Wells</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>H-3 (pCi/mL)</u>						
BG 83	1	1,400	+28.1	1,400	+28.1	1,400
BG 84	1	36.6	+1.71	36.6	+1.71	36.6
BG 85	1	32.1	+1.63	32.1	+1.63	32.1
BG 86	1	38.5	+1.75	38.5	+1.75	38.5
BG 87	1	20.5	+1.39	20.5	+1.39	20.5
BG 88	2	26.7	+1.52	25.9	+1.62	26.3
BG 89	2	35.5	+1.66	33.3	+1.78	34.4
BG 90	1	20.0	+1.37	20.0	+1.37	20.0
<u>Inside 643-7G</u>						
BG 204GR*	1	78	-	78	-	78
BG 206GR*	2	4,280	-	3,710	-	4,000
BG 208GR*	2	74,300	-	43,200	-	58,800
BG 210GR*	1	436	-	436	-	436
BG 212GR*	2	162	-	142	-	152
BG 216GR*	1	53	-	53	-	53
BG 218GR*	2	54	-	52	-	53
BG 220GR*	2	61	-	58	-	59.5
BG 222GR*	4	539	-	55	-	188
BG 402GR*	1	462	-	462	-	462
BG 404GR*	1	655	-	655	-	655
BG 406GR*	1	1,240	-	1,240	-	1,240
BG 408GR*	1	114,000	-	114,000	-	114,000
BG 410GR*	2	55	-	52	-	53.5
BG 420GR*	2	547	-	431	-	489
BG 422GR*	3	485	-	223	-	357
BG 620GR*	2	1,360	-	1,050	-	1,200
BG 622GR*	1	820	-	820	-	820
BG 818GR*	1	239	-	239	-	239
BG 820GR*	1	188	-	188	-	188
BG 822GR*	4	902,000	-	301,000	-	584,000

*SRL research wells, reported in previous annual reports in abbreviated form (i.e., BG 204GR = 22.04, BG 822GR = 28.22).

TABLE 4-1
RADIOACTIVITY IN BURIAL GROUNDS GROUNDWATER

<u>Inside 641-G</u>	<u>No. of Samples</u>	<u>H-3 (pCi/mL)</u>		<u>Average</u>		
		<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>		<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>
MGA 1*	4	72,800	-	3,540	-	48,700
MGA 3*	4	482,000	-	37,900	-	158,000
MGA 5*	4	204,000	-	8,081	-	94,700
MGA 7*	4	24,000	-	3,110	-	15,900
MGA 11*	4	77	-	36	-	50
MGA 19*	4	345	-	121	-	179
MGA 21*	4	269	-	113	-	172
MGA 23*	4	324	-	94	-	159
MGA 32*	4	605	-	87	-	221
MGA 34*	4	323	-	126	-	193
MGA 36	2	34,800	+234	10,700	+121	23,200
MGC 1*	4	14,700	-	192	-	4,040
MGC 3*	4	242,000	-	95,600	-	135,000
MGC 5*	3	20,900,000	-	545,000	-	7,350,000
MGC 7*	4	2,940,000	-	438,000	-	1,600,000
MGC 9	4	24,800	+514	16,600	+235	21,100
MGC 11	1	31.5	+1.68	31.5	+1.68	31.5
MGC 13*	4	123	-	73	-	91
MGC 15*	4	177	-	63	-	106
MGC 17*	4	184	-	71	-	105
MGC 19	4	59.0	+2.25	49.8	+1.95	54.8
MGC 21*	4	4,540	-	1,950	-	2,950
MGC 23	3	19,700	+412	4,680	+81.3	11,500
MGC 30*	4	866	-	147	-	337
MGC 32	4	12,700	+93.2	844	+24.6	7,880
MGC 34*	3	899	-	742	-	806
MGC 36	4	3,070	+61.5	1,060	+27.3	2,130
MGE 1*	4	31,200	-	9,780	-	20,000
MGE 3*	4	9,930,000	-	170,000	-	2,620,000
MGE 5*	3	62,200	-	4,470	-	38,100
MGE 7*	4	292,000	-	506	-	78,600
MGE 9	4	13,900	+30.6	880	+17.8	4,920
MGE 13*	4	219	-	134	-	178
MGE 17*	3	145	-	143	-	144
MGE 19*	4	362	-	184	-	259
MGE 21	4	2,140	+43.0	119	+2.88	1,390
MGE 23*	4	409	-	158	-	226
MGE 30	4	188	+3.94	105	+2.80	144
MGE 32*	4	116,000	-	42,900	-	76,200
MGE 34	4	270,000	+5,406	11,400	+196	141,000
MGE 36*	4	1,360,000	-	235,000	-	814,300
MGG 1*	3	2,000	-	1,650	-	1,880
MGG 3*	4	4,330	-	3,640	-	3,920
MGG 5*	4	1,260	-	240	-	556
MGG 7*	4	41,900	-	13,900	-	28,500
MGG 9*	4	1,410	-	515	-	921
MGG 13*	4	6,690,000	-	497,000	-	2,790,000
MGG 15	4	66,600	+465	8,090	+170	24,600

*SRL research wells.

TABLE 4-1
RADIOACTIVITY IN BURIAL GROUNDS GROUNDWATER

<u>Inside 643-G</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>H-3 (pCi/mL)</u>						
MGG 17*	4	3,740	-	2,500	-	3,190
MGG 19	4	59.3	+2.17	45.4	+1.88	50.6
MGG 21*	4	127,000	-	54,700	-	94,100
MGG 21A	4	8,210	-	4,300	-	6,110
MGG 21B*	4	2,160,000	-	27,600	-	1,500,000
MGG 21P*	4	4,410,000	-	2,940,000	-	3,450,000
MGG 23	4	329	+4.78	215	+3.81	268
MGG 28	4	63.7	+2.17	52.7	+2.0	57.5
MGG 30*	4	1,900	-	344	-	1,150
MGG 32*	4	556,000	-	39,100	-	252,000
MGG 34*	4	118,000,000	-	172,000	-	29,600,000
MGG 36	4	199,000	+802	30,300	+322	81,700
MGI 1*	4	93,200	-	41,800	-	59,900
MGI 5*	4	59,100	-	15,400	-	41,700
MGI 7*	4	302,000	-	15,700	-	151,000
MGI 9*	4	177	-	102	-	138
MGI 13*	4	183	-	84	-	119
MGI 15*	4	952	-	89	-	369
MGI 17*	4	397	-	146	-	211

*SRL research wells.

TABLE 4-2
RADIOACTIVITY IN F-AREA GROUNDWATER

<u>Seepage Basin</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Gross Alpha (pCi/L)</u>						
F 9	2	0.49	+0.44	0.10	+0.36	0.29
F 10	2	192	+24.3	59.3	+13.8	126
F 14	2	10.6	+2.12	0.63	+0.59	5.61
F 15	4	18.4	+2.79	7.16	+1.75	12.9
F 16	4	32.9	+3.57	9.54	+2.01	22.4
F 17	4	10.3	+2.06	0.68	+0.52	4.46
F 18A	4	40.8	+3.97	31.5	+3.65	36.5
F 24	4	0.73	+0.55	0.10	+0.33	0.30
F 25	4	1.87	+0.88	0.68	+0.52	1.28
<u>Nonvolatile Beta (pCi/L)</u>						
F 9	2	36.6	+3.31	33.5	+3.45	35.1
F 10	2	973	+46.1	843	+43.2	908
F 14	2	2,210	+26.0	57.8	+4.49	1,130
F 15	4	113	+6.11	71.7	+4.92	92.4
F 16	4	728	+13.9	251	+9.00	477
F 17	4	2,420	+27.6	7.75	+1.78	1,020
F 18A	4	494	+11.4	259	+9.14	356
F 24	4	4.88	+1.81	0.73	+1.15	2.55
F 25	4	94.4	+5.61	10.5	+1.97	42.1
<u>H-3 (pCi/mL)</u>						
F 9	2	5,150	+106	4,500	+93.5	4,830
F 10	2	67,200	+1,360	53,800	+406	60,500
F 14	2	9,070	+190	3,780	+119	6,430
F 15	4	3,210	+47.9	921	+27.4	1,730
F 16	4	13,000	+216	1,280	+130	7,160
F 17	4	2,700	+55.7	51.9	+2.08	1,260
F 18A	4	24,900	+41.5	6,660	+225	13,100
F 24	4	47.2	+1.94	32.7	+1.73	39.8
F 25	4	47.4	+2.06	36.4	+1.81	42.1
<u>Sr-90 (pCi/mL)</u>						
F 10	2	231	+20.5	101	+22.7	166

TABLE 4-2
RADIOACTIVITY IN F-AREA GROUNDWATER

<u>Canyon Wells</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Gross Alpha (pCi/L)</u>						
FCA 2D	12	75.4	+5.64	24.9	+3.14	49.5
FCA 9D	2	4.95	+1.49	1.95	+0.89	3.45
FCA 10A	2	1.19	+0.78	0.72	+0.54	0.95
FCA 10D	2	3.48	+1.20	3.12	+1.20	3.30
FCA 16A	2	1.23	+0.71	0.43	+0.53	0.83
FCA 16D	4	2.10	+0.98	0.87	+0.64	1.58
<u>Nonvolatile Beta (pCi/L)</u>						
FCA 2D	12	651	+13.1	252	+8.32	394
FCA 9D	2	9.27	+2.29	5.50	+1.90	7.38
FCA 10A	2	4.42	+1.82	4.09	+1.87	4.25
FCA 10D	2	12.5	+2.41	8.42	+2.22	10.5
FCA 16A	2	5.35	+1.89	2.30	+1.69	3.82
FCA 16D	4	12.1	+2.24	4.80	+1.85	7.74
<u>H-3 (pCi/mL)</u>						
FCA 2D	11	34.1	+1.70	17.1	+3.71	22.8
FCA 9D	1	7.85	+1.11	7.85	+1.11	7.85
FCA 10A	1	8.3	+1.12	8.30	+1.12	8.30
FCA 10D	1	11.5	+1.22	11.5	+1.22	11.5
FCA 16A	1	7.6	+1.10	7.60	+1.10	7.60
FCA 16D	3	482	+6.37	292	+4.54	396
<u>Cr-51 (pCi/mL)</u>						
FCA 2D	13	0.00	+1.10	0.00	+0.23	0.00
FCA 9D	1	0.00	+3.00	0.00	+3.00	0.00
FCA 10A	1	0.00	+3.00	0.00	+3.00	0.00
FCA 10D	1	0.00	+3.00	0.00	+3.00	0.00
FCA 16A	1	0.00	+3.00	0.00	+3.00	0.00
FCA 16D	2	0.00	+1.31	0.00	+3.00	0.00
<u>Co-60 (pCi/mL)</u>						
FCA 2D	13	0.00	+0.08	0.00	+0.02	0.00
FCA 9D	3	0.00	+0.07	0.00	+0.10	0.00
FCA 10A	3	0.00	+0.07	0.00	+0.10	0.00
FCA 10D	3	0.00	+0.07	0.00	+0.10	0.00
FCA 16A	3	0.00	+0.07	0.00	+0.10	0.00
FCA 16D	2	0.00	+0.06	0.00	+0.10	0.00
<u>Sr-90 (pCi/mL)</u>						
FCA 2D	12	13.7	+3.70	-0.79	+2.74	6.04
FCA 9D	2	3.45	+2.92	0.00	+2.41	1.72
FCA 10A	2	0.29	+2.44	-1.35	+2.38	-0.53
FCA 10D	3	4.90	+2.94	3.90	+2.97	4.57
FCA 16A	2	-0.58	+2.34	-0.60	+2.47	-0.59
FCA 16D	2	1.73	+2.61	-0.30	+2.51	0.71

TABLE 4-2
RADIOACTIVITY IN F-AREA GROUNDWATER

<u>Canyon Wells</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Zr-95, Nb-95 (pCi/mL)</u>						
FCA 2D	13	0.00	+0.27	0.00	+0.05	0.00
FCA 9D	1	0.00	+0.40	0.00	+0.40	0.00
FCA 10A	1	0.00	+0.40	0.00	+0.40	0.00
FCA 10D	1	0.00	+0.40	0.00	+0.40	0.00
FCA 16A	1	0.00	+0.40	0.00	+0.40	0.00
FCA 16D	2	0.00	+0.26	0.00	+0.40	0.00
<u>Ru-103 (pCi/mL)</u>						
FCA 2D	13	0.00	+0.11	0.00	+0.02	0.00
FCA 9D	1	0.00	+0.20	0.00	+0.20	0.00
FCA 10A	1	0.00	+0.20	0.00	+0.20	0.00
FCA 10D	1	0.00	+0.20	0.00	+0.20	0.00
FCA 16A	1	0.00	+0.20	0.00	+0.20	0.00
FCA 16D	2	0.00	+0.10	0.00	+0.20	0.00
<u>Ru-106 (pCi/mL)</u>						
FCA 2D	13	0.00	+0.70	0.00	+0.17	0.00
FCA 9D	1	0.00	+1.00	0.00	+1.00	0.00
FCA 10A	1	0.00	+1.00	0.00	+1.00	0.00
FCA 10D	1	0.00	+1.00	0.00	+1.00	0.00
FCA 16A	1	0.00	+1.00	0.00	+1.00	0.00
FCA 16D	2	0.00	+0.52	0.00	+1.00	0.00
<u>Sb-125 (pCi/mL)</u>						
FCA 2D	13	0.00	+0.23	0.00	+0.05	0.00
FCA 9D	1	0.00	+0.20	0.00	+0.20	0.00
FCA 10A	1	0.00	+0.20	0.00	+0.20	0.00
FCA 10D	1	0.00	+0.20	0.00	+0.20	0.00
FCA 16A	1	0.00	+0.20	0.00	+0.20	0.00
FCA 16D	2	0.00	+0.17	0.00	+0.20	0.00
<u>I-131 (pCi/mL)</u>						
FCA 2D	13	0.00	+0.55	0.00	+0.05	0.00
FCA 9D	1	0.00	+12.0	0.00	+12.0	0.00
FCA 10A	1	0.00	+12.0	0.00	+12.0	0.00
FCA 10D	1	0.00	+13.0	0.00	+13.0	0.00
FCA 16A	1	0.00	+12.0	0.00	+12.0	0.00
FCA 16D	2	0.00	+1.33	0.00	+12.0	0.00
<u>Cs-134 (pCi/mL)</u>						
FCA 2D	13	0.00	+0.07	0.00	+0.02	0.00
FCA 9D	2	0.00	+0.10	0.00	+0.10	0.00
FCA 10A	2	0.00	+0.10	0.00	+0.10	0.00
FCA 10D	2	0.00	+0.10	0.00	+0.10	0.00
FCA 16A	2	0.00	+0.10	0.00	+0.10	0.00
FCA 16D	2	0.00	+0.04	0.00	+0.10	0.00

TABLE 4-2
RADIOACTIVITY IN F-AREA GROUNDWATER

<u>Canyon Wells</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Cs-137 (pCi/mL)</u>						
FCA 2D	13	0.00	+0.08	0.00	+0.02	0.00
FCA 9D	2	0.00	+0.01	0.00	+0.10	0.00
FCA 10A	2	0.03	+0.02	0.00	+0.10	0.01
FCA 10D	2	0.00	+0.01	0.00	+0.10	0.00
FCA 16A	2	0.00	+0.01	0.00	+0.10	0.00
FCA 16D	2	0.00	+0.07	0.00	+0.10	0.00
<u>Ce-144 (pCi/mL)</u>						
FCA 2D	13	0.00	+0.62	0.00	+0.12	0.00
FCA 9D	1	0.00	+1.00	0.00	+1.00	0.00
FCA 10A	1	0.00	+1.00	0.00	+1.00	0.00
FCA 10D	1	0.00	+1.00	0.00	+1.00	0.00
FCA 16A	1	0.00	+1.00	0.00	+1.00	0.00
FCA 16D	2	0.00	+0.48	0.00	+1.00	0.00
<u>Chemical Cesium (pCi/mL)</u>						
FCA 2D	5	3.19	+2.87	-0.37	+1.84	1.24

TABLE 4-2
RADIOACTIVITY IN F-AREA GROUNDWATER

<u>Tank Farm</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Gross Alpha (pCi/L)</u>						
FTF 2	12	2.12	+1.28	0.29	+0.44	1.00
FTF 3	12	1.92	+0.90	0.48	+0.43	1.02
FTF 4	11	2.92	+1.45	0.61	+0.50	1.21
FTF 5	10	4.33	+1.29	0.10	+0.36	1.75
FTF 6	12	59.4	+5.01	6.06	+1.55	40.7
FTF 7	12	4.05	+1.33	0.10	+0.36	1.11
FTF 9	10	4.82	+1.92	0.29	+0.33	1.20
FTF 10	3	3.61	+1.65	1.25	+0.69	2.80
FTF 11	1	3.99	+1.33	3.99	+1.33	3.99
FTF 12	11	0.31	+0.36	-0.19	+0.27	0.07
FTF 13	12	0.39	+0.48	-0.10	+0.33	0.13
FTF 15	12	1.15	+0.76	0.38	+0.38	0.71
FTF 16	12	1.73	+0.81	0.32	+0.47	0.75
FTF 17	12	1.97	+0.95	0.82	+0.58	1.19
FTF 18	12	1.15	+0.67	0.19	+0.47	0.45
FTF 19	12	0.87	+0.58	0.00	+0.29	0.45
FTF 20	12	2.31	+0.94	0.38	+0.47	1.19
FTF 21	12	0.31	+0.36	-0.10	+0.21	0.07
FTF 22	12	1.25	+0.75	0.19	+0.47	0.84
FTF 23	12	2.80	+1.12	0.87	+0.58	1.56
FTF 24A	12	1.33	+0.74	-0.10	+0.19	0.61
FTF 25A	11	0.92	+0.61	0.19	+0.39	0.55
FTF 26	11	1.16	+0.76	0.19	+0.38	0.82
FTF 27	12	0.97	+0.68	-0.10	+0.33	0.29
<u>Nonvolatile Beta (pCi/L)</u>						
FTF 2	12	8.41	+1.86	2.18	+1.63	4.21
FTF 3	12	5.56	+1.56	2.85	+1.41	4.23
FTF 4	11	18.30	+2.76	3.05	+1.43	6.85
FTF 5	10	588	+12.5	127	+5.94	319
FTF 6	12	34,600	+104	1,390	+19.4	16,995
FTF 7	12	486	+12.4	77.8	+4.67	217
FTF 9	10	33.7	+3.14	2.76	+1.63	10.7
FTF 10	3	21.1	+3.74	9.72	+1.92	15.8
FTF 11	1	13.4	+2.43	13.4	+2.43	13.4
FTF 12	11	10.5	+2.00	4.41	+1.78	7.71
FTF 13	12	2.40	+1.57	-0.20	+1.08	1.04
FTF 15	12	5.51	+1.88	0.31	+1.35	1.92
FTF 16	12	2.98	+1.42	0.61	+1.09	1.38
FTF 17	12	4.17	+1.76	1.38	+1.56	2.5*
FTF 18	12	1.73	+1.53	-0.24	+1.31	0.83
FTF 19	12	59.3	+4.12	6.07	+1.64	19.1
FTF 20	12	63.5	+4.25	2.29	+1.32	19.8
FTF 21	12	12.4	+2.10	5.83	+1.67	8.97
FTF 22	12	3.04	+1.36	0.51	+1.47	1.87
FTF 23	12	3.86	+1.73	-0.16	+1.32	2.35
FTF 24A	12	15.2	+2.29	4.25	+1.77	8.68
FTF 25A	11	17.5	+2.36	9.84	+2.22	13.4
FTF 26	11	43.3	+3.82	14.1	+2.51	27.2
FTF 27	12	14.4	+2.24	3.31	+1.68	9.05

TABLE 4-2
RADIOACTIVITY IN F-AREA GROUNDWATER

<u>Tank Farm</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>H-3 (pCi/mL)</u>						
FTF 2	11	12.3	+1.35	0.79	+0.90	4.43
FTF 3	11	5.38	+1.15	3.81	+0.98	4.75
FTF 4	11	12.7	+1.37	1.32	+1.04	5.56
FTF 5	9	76.0	+2.59	49.2	+1.96	57.4
FTF 6	12	282	+4.34	17.9	+1.51	141
FTF 7	12	28.2	+1.63	2.58	+0.91	8.59
FTF 9	10	15.8	+1.35	11.8	+1.17	14.1
FTF 10	2	10.9	+1.32	8.67	+1.08	9.78
FTF 11	1	24.9	+1.64	24.9	+1.64	24.9
FTF 12	11	21.6	+1.60	15.9	+1.43	17.7
FTF 13	12	12.2	+1.36	7.62	+1.08	9.76
FTF 15	12	11.5	+1.19	8.75	+1.12	10.0
FTF 16	12	9.56	+1.25	6.44	+0.96	8.62
FTF 17	12	12.8	+1.23	9.22	+1.13	10.6
FTF 18	12	11.6	+1.19	6.43	+1.09	7.88
FTF 19	12	41.6	+1.93	8.06	+1.10	11.9
FTF 20	12	18.8	+1.43	10.8	+1.09	14.2
FTF 21	12	12.2	+1.36	7.50	+1.12	9.15
FTF 22	12	13.8	+1.40	9.79	+1.14	11.4
FTF 23	12	8.82	+1.14	6.42	+1.03	7.49
FTF 24A	12	24.8	+1.42	19.7	+1.45	22.9
FTF 25A	10	26.9	+1.66	17.1	+1.37	20.7
FTF 26	12	22.2	+1.46	12.7	+1.23	17.5
FTF 27	12	32.9	+1.60	20.2	+1.57	28.2
<u>Cr-51 (pCi/mL)</u>						
FTF 24A	11	0.00	+1.72	0.00	+0.72	0.00
FTF 25A	11	0.00	+1.65	0.00	+0.76	0.00
FTF 26	11	0.00	+1.68	0.00	+0.82	0.00
FTF 27	11	0.00	+1.62	0.00	+0.70	0.00
<u>Co-60 (pCi/mL)</u>						
FTF 24A	15	0.00	+0.06	0.00	+0.05	0.00
FTF 25A	15	0.00	+0.06	0.00	+0.07	0.00
FTF 26	15	0.00	+0.08	0.00	+0.05	0.00
FTF 27	15	0.00	+0.08	0.00	+0.05	0.00
<u>Zr-95, Nb-95 (pCi/mL)</u>						
FTF 24A	11	0.00	+0.16	0.00	+0.20	0.00
FTF 25A	11	0.00	+0.15	0.00	+0.18	0.00
FTF 26	11	0.00	+0.15	0.00	+0.19	0.00
FTF 27	11	0.00	+0.19	0.00	+0.20	0.00

TABLE 4-2
RADIOACTIVITY IN F-AREA GROUNDWATER

<u>Canyon Wells</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Ru-103 (pCi/mL)</u>						
FTF 24A	11	0.00	+0.13	0.00	+0.07	0.00
FTF 25A	11	0.00	+0.14	0.00	+0.08	0.00
FTF 26	11	0.00	+0.12	0.00	+0.07	0.00
FTF 27	11	0.00	+0.15	0.00	+0.07	0.00
<u>Ru-106 (pCi/mL)</u>						
FTF 24A	11	0.00	+0.72	0.00	+0.55	0.00
FTF 25A	11	0.00	+0.69	0.00	+0.49	0.00
FTF 26	11	0.00	+0.63	0.00	+0.70	0.00
FTF 27	11	0.00	+0.64	0.00	+0.50	0.00
<u>Sb-125 (pCi/mL)</u>						
FTF 24A	11	0.00	+0.21	0.00	+0.19	0.00
FTF 25A	11	0.00	+0.21	0.00	+0.18	0.00
FTF 26	11	0.00	+0.23	0.00	+0.18	0.00
FTF 27	11	0.00	+0.22	0.00	+0.19	0.00
<u>I-131 (pCi/mL)</u>						
FTF 24A	11	0.00	+2.01	0.00	+0.17	0.00
FTF 25A	11	0.00	+1.92	0.00	+0.17	0.00
FTF 26	11	0.00	+1.98	0.00	+0.20	0.00
FTF 27	11	0.00	+1.96	0.00	+0.17	0.00
<u>Cs-134 (pCi/mL)</u>						
FTF 24A	13	0.00	+0.07	0.00	+0.06	0.00
FTF 25A	13	0.00	+0.05	0.00	+0.06	0.00
FTF 26	13	0.00	+0.07	0.00	+0.06	0.00
FTF 27	13	0.00	+0.07	0.00	+0.06	0.00
<u>Cs-137 (pCi/mL)</u>						
FTF 24A	13	0.00	+0.08	0.00	+0.08	0.00
FTF 25A	13	0.36	+0.05	0.00	+0.07	0.06
FTF 26	13	0.06	+0.02	0.00	+0.09	0.01
FTF 27	13	0.00	+0.07	0.00	+0.09	0.00
<u>Ce-144 (pCi/mL)</u>						
FTF 24A	11	0.00	+0.62	0.00	+0.49	0.00
FTF 25A	11	0.00	+0.58	0.00	+0.47	0.00
FTF 26	11	0.00	+0.63	0.00	+0.45	0.00
FTF 27	11	0.00	+0.58	0.00	+0.48	0.00

**TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER**

FCA 10D 05/19/87
GCMS Scan detected the following: None

FCA 10D 09/12/87
GCMS Scan detected the following: None

FCA 10D 11/15/87
GCMS Scan detected the following: None

FCA 16A 03/03/87
Uranium <1

FCA 16A 05/20/87
GCMS Scan detected the following:
Trichlorofluoromethane 0.009

FCA 16A 09/13/87
Uranium 0.0016
GCMS Scan detected the following:
1,1,2-Trichloroethane 0.006

FCA 16A 11/15/87
GCMS Scan detected the following:
Trichlorofluoromethane 0.005

FCA 16D 02/25/87
Uranium <1

FCA 16D 05/20/87
GCMS Scan detected the following: None

FCA 16D 09/12/87
Uranium 0.0077
GCMS Scan detected the following:
1,1,2-Trichloroethane 0.320

FCA 16D 11/15/87
GCMS Scan detected the following:
Trichlorofluoromethane 0.008

Well: PCB 2, F-Area Coal Pile Runoff Containment Basin

SRP Grid N 76679.7
Coordinates E 55046.7
Latitude 33.285161°N
Longitude 81.670800°W
Screen Zone Elevation 71.7-62.5
Top of Casing Elevation 93.66
Casing Material PVC

Parameter	Units	02/09/87	05/05/87	08/01/87	10/01/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	70	70.3	70.7	70.4
pH		4.5	4.8	5.1	4.9
Conductivity	umhos/cm	26	32	29	29
TDS	mg/L	20	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.006	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.759	-	-	-
Chloride	mg/L	2.5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	0.009	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.028	-	0.064	-
Lead	mg/L	0.011	-	0.015	-
Magnesium	mg/L	0.473	-	-	-
Manganese	mg/L	0.004	-	0.005	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.170	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.09	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.49	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	0.010	-	-	-
NO ₃ (as N)	mg/L	1.70	-	-	-
SO ₄	mg/L	<3.0	-	<5.0	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	<3.0	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	1.5	-	1.5	-
Tritium	pCi/mL	11.2	-	-	-

Well: PCB 1, F-Area Coal Pile Runoff Containment Basin

SRP Grid N 76835.4
Coordinates E 54871.8
Latitude 33.285240°N
Longitude 81.671563°W
Screen Zone Elevation 71.8-62.3
Top of Casing Elevation 93.75
Casing Material PVC

Parameter	Units	02/11/87	05/06/87	08/03/87	10/02/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	69.4	70.3	70.9	70.4
pH		12.5	12.1	12.0	11.7
Conductivity	umhos/cm	3700	2700	1800	1642
TDS	mg/L	-	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.144	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	467	-	-	-
Chloride	mg/L	4.1	-	-	-
Chromium	mg/L	0.009	-	-	-
Copper	mg/L	0.020	-	0.007	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.12	-	-	-
Iron	mg/L	0.020	-	0.035	-
Lead	mg/L	0.054	-	0.163	-
Magnesium	mg/L	<0.020	-	-	-
Manganese	mg/L	<0.002	-	<0.002	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.95	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	0.170	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	3.44	-	-	-
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	0.351	-	-	-
NO ₃ (as N)	mg/L	1.97	-	-	-
SO ₄	mg/L	<3.0	-	<5.0	-
Phenols	mg/L	0.040	-	-	-
Tot. Org. Carbon	mg/L	1.70	-	1.00	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	5.1	-	<3.0	-
Nonvol. Beta	pCi/L	8.0	-	-	-
Total Radium	pCi/L	1.0	-	<1.0	-
Tritium	pCi/mL	10.8	-	-	-

Well: PCB 3, F-Area Coal Pile Runoff Containment Basin

SRP Grid N 76427.8
Coordinates E 54874.4
Latitude 33.284143°N
Longitude 81.670764°W
Screen Zone Elevation 68.7-59.5
Top of Casing Elevation 92.14
Casing Material PVC

Parameter	Units	02/09/87	05/05/87	08/01/87	10/01/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	92.1	92.1	92.1	68.1
pH		6.1	6.7	6.4	6.2
Conductivity	umhos/cm	74	140	63	79
TDS	mg/L	58	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.009	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	14.1	-	-	-
Chloride	mg/L	2.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	<0.004	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.17	-	-	-
Iron	mg/L	0.012	-	0.056	-
Lead	mg/L	<0.006	-	<0.006	-
Magnesium	mg/L	0.820	-	-	-
Manganese	mg/L	0.004	-	0.006	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.170	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.96	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.30	-	-	-
Total Phosphate	mg/L	0.361	-	-	-
Zinc	mg/L	0.008	-	-	-
NO ₃ (as N)	mg/L	0.81	-	-	-
SO ₄	mg/L	<3.0	-	<5.0	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.00	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	5.8	-	6.3	-
Nonvol. Beta	pCi/L	8.0	-	-	-
Total Radium	pCi/L	3.5	-	6.7	-
Tritium	pCi/mL	8.93	-	-	-

TABLE 4-3 CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Other Analyses (mg/L)
GCMS Scan Analytes: Table 4-25, Vol. III

FNB 1	05/26/87	Uranium	<1
GCMS Scan detected the following: None			
FNB 1	08/24/87	Uranium	0.0096
GCMS Scan detected the following: None			
FNB 1	12/09/87	Uranium	<1
GCMS Scan detected the following: 1,1,2-Trichloroethane			
			0.120
FNB 2	05/26/87	Uranium	<1
GCMS Scan detected the following: None			
FNB 2	08/24/87	Uranium	0.128
GCMS Scan detected the following: None			
FNB 2	12/09/87	Uranium	<1
GCMS Scan detected the following: None			
FNB 3	05/26/87	Uranium	<1
GCMS Scan detected the following: None			
FNB 3	08/24/87	Uranium	0.0242
GCMS Scan detected the following: None			
FNB 3	12/09/87	Uranium	<1
GCMS Scan detected the following: None			
FNB 4	04/14/87	Uranium	<1
GCMS Scan detected the following: None			
FNB 4	08/24/87	Uranium	0.0063
GCMS Scan detected the following: None			
FNB 4	12/09/87	Uranium	<1
GCMS Scan detected the following: None			

Well: PSR 76, F-Area Seepage Basins

SRP Grid	N 76141.6	Screen Zone Elevation	meters (MSL)			
Coordinates	E 51388.8	Top of Casing Elevation	89.2+60.0			
Latitude	33.278022°N	Casing Material	PVC			
Longitude	81.679385°W					

Parameter	Units	02/04/87	04/08/87	07/18/87	10/01/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	-	86.2	86.6	86.5
pH	pH	5.2	5.1	5.1	5.6
Conductivity	umhos/cm	82	70	60	56
TDS	mg/L	36	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.010	-	0.009	0.011
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	1.25	-	-	-
Chloride	mg/L	2.3	-	-	-
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.048	0.095	0.067	0.039
Lead	mg/L	0.051	0.051	0.027	0.055
Magnesium	mg/L	0.779	-	-	-
Manganese	mg/L	0.006	0.008	0.008	0.008
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	-	0.007	-	-
Potassium	mg/L	0.510	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.09	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	10.3	8.73	7.30	7.00
Total Phosphate	mg/L	0.014	0.050	0.100	-
Zinc	mg/L	0.774	0.933	0.850	1.36
NO ₃ (as N)	mg/L	8.60	5.80	6.36	5.60
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	<1.000	1.60	<1.000
Tot. Org. Halogen	mg/L	<0.005	<0.005	0.007	<0.005
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Cross Alpha	pCi/L	1.7	7.0	3.2	5.1
Nonvol. Beta	pCi/L	33.6	22.0	6.6	5.9
Total Radium	pCi/L	1.4	<1.0	1.4	-
Tritium	pCi/mL	481	403	400	347

Well: PSR 76A, F-Area Seepage Basins

SRP Grid	N 76131.9	Screen Zone Elevation	meters (MSL)			
Coordinates	E 51391.6	Top of Casing Elevation	89.18			
Latitude	33.278005°N	Casing Material	PVC			
Longitude	81.679359°W					

Parameter	Units	01/07/87	04/08/87	07/18/87	10/01/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	47.2	47.6	47.9	47.1
pH	pH	6.6	6.7	6.9	7.1
Conductivity	umhos/cm	141	142	140	122
TDS	mg/L	104	100	142	104
Arsenic	mg/L	<0.002	<0.002	0.002	<0.002
Barium	mg/L	0.022	0.022	0.021	0.021
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	21.4	18.4	20.9	22.0
Chloride	mg/L	2.7	2.9	3.0	2.5
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.25	0.20	0.38	0.28
Iron	mg/L	0.008	0.011	0.034	0.021
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.609	0.128	0.649	0.576
Manganese	mg/L	0.006	0.006	0.006	0.005
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	-	<0.004	-	-
Potassium	mg/L	4.26	3.60	3.45	3.28
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	11.0	13.2	11.8	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	3.19	7.12	3.06	2.76
Total Phosphate	mg/L	0.341	0.030	0.230	0.190
Zinc	mg/L	0.005	0.010	0.067	0.080
NO ₃ (as N)	mg/L	<0.05	<0.05	0.48	0.63
SO ₄	mg/L	15.0	8.0	9.2	<5.0
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	3.20	<1.000	<1.000	1.20
Tot. Org. Halogen	mg/L	<0.005	<0.005	<0.005	<0.005
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Cross Alpha	pCi/L	<3.0	<3.0	<3.0	<3.0
Nonvol. Beta	pCi/L	3.4	<2.0	3.4	<2.0
Total Radium	pCi/L	<1.0	<1.0	<1.0	0.4
Tritium	pCi/mL	-	<0.70	<0.70	<0.70

**TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER**

Well: F58 88D, F-Area Seepage Basins

SRP Grid N 75621.8
Coordinates E 51527.0
Latitude 33.277098°N
Longitude 81.678011°W
Screen Zone Elevation 87.7-81.6
Top of Casing Elevation 86.07
Casing Material PVC

Parameter	Units	12/02/87
Sampling Method		Pump
Water Elevation	meters	86.1
pH	pH	6.7
Conductivity	umhos/cm	497
TDS	mg/L	580
Arsenic	mg/L	<0.002
Barium	mg/L	0.167
Beryllium	mg/L	<0.005
Cadmium	mg/L	0.003
Calcium	mg/L	20.4
Chloride	mg/L	2.4
Chromium	mg/L	<0.004
Copper	mg/L	<0.004
Cyanide	mg/L	0.025
Fluoride	mg/L	0.32
Iron	mg/L	0.061
Lead	mg/L	<0.006
Magnesium	mg/L	3.98
Manganese	mg/L	0.639
Mercury	mg/L	0.0018
Nickel	mg/L	0.011
Potassium	mg/L	4.30
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	84.3
Total Phosphate	mg/L	0.020
Zinc	mg/L	0.100
NO ₃ (as N)	mg/L	70.6
SO ₄	mg/L	<5.7
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	1.10
Tot. Org. Halogen	mg/L	<0.005
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	183
Nonvol. Beta	pCi/L	872
Total Radium	pCi/L	-
Tritium	pCi/mL	2020

Well: F58 89D, F-Area Seepage Basins

SRP Grid N 75548.3
Coordinates E 51135.8
Latitude 33.276624°N
Longitude 81.678372°W
Screen Zone Elevation 87.6-81.5
Top of Casing Elevation 85.71
Casing Material PVC

Parameter	Units	12/01/87
Sampling Method		Pump
Water Elevation	meters	85.9
pH	pH	5.0
Conductivity	umhos/cm	475
TDS	mg/L	290
Arsenic	mg/L	<0.002
Barium	mg/L	0.066
Beryllium	mg/L	<0.005
Cadmium	mg/L	0.003
Calcium	mg/L	5.38
Chloride	mg/L	3.2
Chromium	mg/L	<0.004
Copper	mg/L	0.027
Cyanide	mg/L	0.026
Fluoride	mg/L	0.23
Iron	mg/L	0.024
Lead	mg/L	<0.006
Magnesium	mg/L	1.14
Manganese	mg/L	0.420
Mercury	mg/L	0.002
Nickel	mg/L	0.018
Potassium	mg/L	2.80
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	67.0
Total Phosphate	mg/L	<0.020
Zinc	mg/L	0.192
NO ₃ (as N)	mg/L	43.4
SO ₄	mg/L	<5.0
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	<1.000
Tot. Org. Halogen	mg/L	0.098
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	75.9
Nonvol. Beta	pCi/L	712
Total Radium	pCi/L	5.9
Tritium	pCi/mL	2310

Well: F58 89C, F-Area Seepage Basins

SRP Grid N 75553.2
Coordinates E 51345.2
Latitude 33.278850°N
Longitude 81.678357°W
Screen Zone Elevation 90.6-87.8
Top of Casing Elevation 85.74
Casing Material PVC

Parameter	Units	12/01/87
Sampling Method		Pump
Water Elevation	meters	84.8
pH	pH	6.7
Conductivity	umhos/cm	106
TDS	mg/L	56
Arsenic	mg/L	<0.002
Barium	mg/L	0.019
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	5.90
Chloride	mg/L	2.7
Chromium	mg/L	<0.004
Copper	mg/L	<0.004
Cyanide	mg/L	<0.005
Fluoride	mg/L	0.14
Iron	mg/L	0.011
Lead	mg/L	<0.006
Magnesium	mg/L	0.414
Manganese	mg/L	0.034
Mercury	mg/L	<0.0002
Nickel	mg/L	<0.004
Potassium	mg/L	3.33
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	11.9
Total Phosphate	mg/L	0.100
Zinc	mg/L	0.090
NO ₃ (as N)	mg/L	2.24
SO ₄	mg/L	<3.0
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	<1.000
Tot. Org. Halogen	mg/L	0.019
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	0.008
Trichloroethene	mg/L	0.001
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	3.1
Nonvol. Beta	pCi/L	6.6
Total Radium	pCi/L	0.6
Tritium	pCi/mL	34.2

Well: F58 90C, F-Area Seepage Basins

SRP Grid N 75387.9
Coordinates E 51148.6
Latitude 33.273952°N
Longitude 81.678544°W
Screen Zone Elevation 91.2-88.2
Top of Casing Elevation 84.85
Casing Material PVC

Parameter	Units	11/30/87
Sampling Method		Pump
Water Elevation	meters	84.3
pH	pH	7.1
Conductivity	umhos/cm	213
TDS	mg/L	180
Arsenic	mg/L	<0.002
Barium	mg/L	0.042
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	17.4
Chloride	mg/L	3.2
Chromium	mg/L	<0.004
Copper	mg/L	<0.004
Cyanide	mg/L	<0.005
Fluoride	mg/L	0.27
Iron	mg/L	0.015
Lead	mg/L	<0.006
Magnesium	mg/L	2.66
Manganese	mg/L	0.015
Mercury	mg/L	<0.0002
Nickel	mg/L	<0.004
Potassium	mg/L	3.03
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	11.5
Total Phosphate	mg/L	0.030
Zinc	mg/L	0.019
NO ₃ (as N)	mg/L	10.8
SO ₄	mg/L	<3.0
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	<1.000
Tot. Org. Halogen	mg/L	<0.005
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	3.7
Nonvol. Beta	pCi/L	12.3
Total Radium	pCi/L	3.3
Tritium	pCi/mL	825

**TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER**

Well: FSB 90D, F-Area Seepage Basins

SRP Grid N 75376.9
Coordinates E 51140.7
Latitude 33.275926°N
Longitude 81.678553°W
Screen Zone Elevation 68.6-62.5
Top of Casing Elevation 84.91
Casing Material PVC

Parameter	Units	11/30/87
Sampling Method		Pump
Water Elevation	meters	65.6
pH		6.3
Conductivity	umhos/cm	750
TDS	mg/L	1800
Arsenic	mg/L	<0.002
Barium	mg/L	0.168
Beryllium	mg/L	<0.005
Cadmium	mg/L	0.003
Calcium	mg/L	24.5
Chloride	mg/L	6.3
Chromium	mg/L	<0.004
Copper	mg/L	<0.004
Cyanide	mg/L	0.019
Fluoride	mg/L	0.60
Iron	mg/L	0.284
Lead	mg/L	0.014
Magnesium	mg/L	0.480
Manganese	mg/L	0.570
Mercury	mg/L	<0.0002
Nickel	mg/L	0.012
Potassium	mg/L	14.7
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	95.5
Total Phosphate	mg/L	0.050
Zinc	mg/L	0.158
NO ₃ (as N)	mg/L	61.8
SO ₄	mg/L	22.0
Phenols	mg/L	0.009
Tot. Org. Carbon	mg/L	<1.000
Tot. Org. Halogen	mg/L	0.011
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	65.6
Nonvol. Beta	pCi/L	178
Total Radium	pCi/L	14.4
Tritium	pCi/mL	9440

Well: FSB 91D, F-Area Seepage Basins

SRP Grid N 75207.6
Coordinates E 50946.6
Latitude 33.275235°N
Longitude 81.678735°W
Screen Zone Elevation 67.3-61.2
Top of Casing Elevation 85.10
Casing Material PVC

Parameter	Units	11/30/87
Sampling Method		Pump
Water Elevation	meters	65.3
pH		3.1
Conductivity	umhos/cm	3670
TDS	mg/L	1800
Arsenic	mg/L	0.192
Barium	mg/L	0.541
Beryllium	mg/L	<0.005
Cadmium	mg/L	0.006
Calcium	mg/L	9.70
Chloride	mg/L	2.4
Chromium	mg/L	<0.004
Copper	mg/L	0.076
Cyanide	mg/L	0.085
Fluoride	mg/L	0.35
Iron	mg/L	0.222
Lead	mg/L	<0.006
Magnesium	mg/L	2.02
Manganese	mg/L	1.66
Mercury	mg/L	<0.0002
Nickel	mg/L	0.050
Potassium	mg/L	3.62
Selenium	mg/L	0.020
Silica	mg/L	-
Silver	mg/L	0.0050
Sodium	mg/L	101
Total Phosphate	mg/L	0.510
Zinc	mg/L	0.194
NO ₃ (as N)	mg/L	472
SO ₄	mg/L	17.0
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	5.80
Tot. Org. Halogen	mg/L	0.015
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	1750
Nonvol. Beta	pCi/L	3210
Total Radium	pCi/L	36.8
Tritium	pCi/mL	42200

Well: FSB 91C, F-Area Seepage Basins

SRP Grid N 75213.3
Coordinates E 50953.5
Latitude 33.273259°N
Longitude 81.678128°W
Screen Zone Elevation 48.5-43.4
Top of Casing Elevation 85.13
Casing Material PVC

Parameter	Units	11/30/87
Sampling Method		Pump
Water E. lation	meters	64.3
pH		10.7
Conductivity	umhos/cm	828
TDS	mg/L	574
Arsenic	mg/L	<0.002
Barium	mg/L	0.481
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	40.2
Chloride	mg/L	3.2
Chromium	mg/L	<0.004
Copper	mg/L	<0.004
Cyanide	mg/L	0.016
Fluoride	mg/L	1.10
Iron	mg/L	0.015
Lead	mg/L	<0.006
Magnesium	mg/L	0.395
Manganese	mg/L	<0.002
Mercury	mg/L	<0.0002
Nickel	mg/L	<0.004
Potassium	mg/L	17.6
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	76.4
Total Phosphate	mg/L	0.020
Zinc	mg/L	0.006
NO ₃ (as N)	mg/L	49.0
SO ₄	mg/L	10.0
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	1.70
Tot. Org. Halogen	mg/L	0.006
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	11.5
Nonvol. Beta	pCi/L	2660
Total Radium	pCi/L	28.4
Tritium	pCi/mL	3460

Well: FSB 92D, F-Area Seepage Basins

SRP Grid N 75045.8
Coordinates E 50557.6
Latitude 33.274242°N
Longitude 81.679445°W
Screen Zone Elevation 67.6-61.5
Top of Casing Elevation 84.09
Casing Material PVC

Parameter	Units	11/01/87
Sampling Method		Pump
Water Elevation	meters	65
pH		3.2
Conductivity	umhos/cm	2560
TDS	mg/L	1800
Arsenic	mg/L	0.050
Barium	mg/L	6.80
Beryllium	mg/L	<0.005
Cadmium	mg/L	0.071
Calcium	mg/L	27.6
Chloride	mg/L	2.6
Chromium	mg/L	<0.004
Copper	mg/L	0.167
Cyanide	mg/L	0.036
Fluoride	mg/L	0.30
Iron	mg/L	0.114
Lead	mg/L	0.131
Magnesium	mg/L	18.5
Manganese	mg/L	1.30
Mercury	mg/L	0.0002
Nickel	mg/L	0.072
Potassium	mg/L	5.66
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	0.0030
Sodium	mg/L	160
Total Phosphate	mg/L	0.060
Zinc	mg/L	0.320
NO ₃ (as N)	mg/L	294
SO ₄	mg/L	10.0
Phenols	mg/L	0.012
Tot. Org. Carbon	mg/L	<1.000
Tot. Org. Halogen	mg/L	0.006
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	806
Nonvol. Beta	pCi/L	9960
Total Radium	pCi/L	152
Tritium	pCi/mL	31300

**TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER**

Well: FSB 93C, F-Area Seepage Basins

SRP Grid N 74897.3
Coordinates E 50458.3
Latitude 33.273723°N
Longitude 81.679417°W
Screen Zone Elevation 46.3-43.3
Top of Casing Elevation 84.18
Casing Material PVC

Parameter	Units	11/30/87
Sampling Method	Pump	
Water Elevation	meters	63.7
pH	pH	8.1
Conductivity	umhos/cm	273
TDS	mg/L	246
Arsenic	mg/L	<0.002
Barium	mg/L	0.045
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	18.5
Chloride	mg/L	3.0
Chromium	mg/L	<0.004
Copper	mg/L	<0.004
Cyanide	mg/L	<0.005
Fluoride	mg/L	0.18
Iron	mg/L	0.283
Lead	mg/L	<0.006
Magnesium	mg/L	6.03
Manganese	mg/L	0.102
Mercury	mg/L	<0.0002
Nickel	mg/L	0.009
Potassium	mg/L	2.16
Selenium	mg/L	<0.002
Silica	-	-
Silver	mg/L	<0.0020
Sodium	mg/L	26.8
Total Phosphate	mg/L	0.100
Zinc	mg/L	0.034
NO ₃ (as N)	mg/L	26.5
SO ₄	mg/L	3.6
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	<1.000
Tot. Org. Halogen	mg/L	<0.005
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	6.5
Nonvol. Beta	pCi/L	38.8
Total Radium	pCi/L	1.6
Tritium	pCi/mL	1420

Well: FSB 94C, F-Area Seepage Basins

SRP Grid N 74869.0
Coordinates E 50180.0
Latitude 33.273235°N
Longitude 81.680095°W
Screen Zone Elevation 45.7-42.6
Top of Casing Elevation 85.66
Casing Material PVC

Parameter	Units	11/30/87
Sampling Method	Pump	
Water Elevation	meters	63.7
pH	pH	10.6
Conductivity	umhos/cm	863
TDS	mg/L	778
Arsenic	mg/L	0.004
Barium	mg/L	0.088
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	27.2
Chloride	mg/L	5.8
Chromium	mg/L	0.014
Copper	mg/L	<0.004
Cyanide	mg/L	0.012
Fluoride	mg/L	0.79
Iron	mg/L	0.238
Lead	mg/L	0.007
Magnesium	mg/L	0.066
Manganese	mg/L	<0.002
Mercury	mg/L	<0.0002
Nickel	mg/L	<0.004
Potassium	mg/L	101
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	0.0020
Sodium	mg/L	153
Total Phosphate	mg/L	0.130
Zinc	mg/L	0.020
NO ₃ (as N)	mg/L	22.8
SO ₄	mg/L	55.5
Phenols	mg/L	0.007
Tot. Org. Carbon	mg/L	5.30
Tot. Org. Halogen	mg/L	0.043
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	0.001
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	26.4
Nonvol. Beta	pCi/L	142
Total Radium	pCi/L	1.0
Tritium	pCi/mL	1410

Well: FSB 93D, F-Area Seepage Basins

SRP Grid N 74888.5
Coordinates E 50452.4
Latitude 33.273723°N
Longitude 81.679416°W
Screen Zone Elevation 46.4-40.3
Top of Casing Elevation 84.15
Casing Material PVC

Parameter	Units	11/30/87
Sampling Method	Pump	
Water Elevation	meters	64.6
pH	pH	8.8
Conductivity	umhos/cm	197
TDS	mg/L	144
Arsenic	mg/L	<0.002
Barium	mg/L	0.013
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	8.74
Chloride	mg/L	3.9
Chromium	mg/L	<0.004
Copper	mg/L	<0.004
Cyanide	mg/L	0.024
Fluoride	mg/L	0.31
Iron	mg/L	0.072
Lead	mg/L	<0.006
Magnesium	mg/L	0.727
Manganese	mg/L	0.049
Mercury	mg/L	<0.0002
Nickel	mg/L	0.011
Potassium	mg/L	3.25
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	22.4
Total Phosphate	mg/L	0.080
Zinc	mg/L	0.106
NO ₃ (as N)	mg/L	4.79
SO ₄	mg/L	9.7
Phenols	mg/L	0.015
Tot. Org. Carbon	mg/L	3.70
Tot. Org. Halogen	mg/L	0.040
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	2.3
Nonvol. Beta	pCi/L	40.2
Total Radium	pCi/L	1.0
Tritium	pCi/mL	384

Well: FSB 95C, F-Area Seepage Basins

SRP Grid N 74971.7
Coordinates E 50016.7
Latitude 33.273196°N
Longitude 81.680725°W
Screen Zone Elevation 47.5-44.4
Top of Casing Elevation 86.56
Casing Material PVC

Parameter	Units	12/01/87
Sampling Method	Pump	
Water Elevation	meters	63.3
pH	pH	8.7
Conductivity	umhos/cm	766
TDS	mg/L	398
Arsenic	mg/L	<0.002
Barium	mg/L	0.125
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.003
Calcium	mg/L	88.2
Chloride	mg/L	4.7
Chromium	mg/L	<0.004
Copper	mg/L	<0.004
Cyanide	mg/L	0.025
Fluoride	mg/L	0.31
Iron	mg/L	0.097
Lead	mg/L	<0.006
Magnesium	mg/L	11.7
Manganese	mg/L	0.225
Mercury	mg/L	<0.0002
Nickel	mg/L	0.012
Potassium	mg/L	4.32
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	0.0020
Sodium	mg/L	51.9
Total Phosphate	mg/L	0.180
Zinc	mg/L	0.125
NO ₃ (as N)	mg/L	71.4
SO ₄	mg/L	25.0
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	1.20
Tot. Org. Halogen	mg/L	<0.005
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	12.0
Nonvol. Beta	pCi/L	193
Total Radium	pCi/L	2.8
Tritium	pCi/mL	3200

**TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER**

Well: FSB 96A, F-Area Seepage Basins

SRP Grid N 74882.2
Coordinates E 49778.7
Latitude 33.272609°N
Longitude 81.681177°W
Screen Zone Elevation 29.2-26.1
Top of Casing Elevation 85.28
Casing Material PVC

Parameter	Units	12/01/87
Sampling Method		Pump
Water Elevation	meters	45.6
pH		11.5
Conductivity	umhos/cm	1797
TDS	mg/L	654
Arsenic	mg/L	0.012
Barium	mg/L	0.058
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	17.1
Chloride	mg/L	5.3
Chromium	mg/L	0.008
Copper	mg/L	<0.004
Cyanide	mg/L	<0.005
Fluoride	mg/L	0.44
Iron	mg/L	0.054
Lead	mg/L	<0.006
Magnesium	mg/L	0.029
Manganese	mg/L	<0.002
Mercury	mg/L	<0.0002
Nickel	mg/L	<0.004
Potassium	mg/L	29.6
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	0.0020
Sodium	mg/L	178
Total Phosphate	mg/L	0.360
Zinc	mg/L	0.053
NO ₃ (as N)	mg/L	0.49
SO ₄	mg/L	51.6
Phenols	mg/L	0.007
Tot. Org. Carbon	mg/L	3.30
Tot. Org. Halogen	mg/L	0.012
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	3.0
Nonvol. Beta	pCi/L	29.6
Total Radium	pCi/L	1.4
Tritium	pCi/mL	10.6

Well: FSB 97C, F-Area Seepage Basins

SRP Grid N 75179.6
Coordinates E 49970.6
Latitude 33.273580°N
Longitude 81.681250°W
Screen Zone Elevation 46.9-43.8
Top of Casing Elevation 87.20
Casing Material PVC

Parameter	Units	11/30/87
Sampling Method		Pump
Water Elevation	meters	63.6
pH		11.0
Conductivity	umhos/cm	900
TDS	mg/L	620
Arsenic	mg/L	<0.002
Barium	mg/L	0.338
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	50.0
Chloride	mg/L	2.9
Chromium	mg/L	0.005
Copper	mg/L	<0.004
Cyanide	mg/L	0.006
Fluoride	mg/L	0.47
Iron	mg/L	0.017
Lead	mg/L	0.008
Magnesium	mg/L	0.488
Manganese	mg/L	<0.002
Mercury	mg/L	<0.0002
Nickel	mg/L	<0.004
Potassium	mg/L	32.5
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	68.0
Total Phosphate	mg/L	0.170
Zinc	mg/L	0.178
NO ₃ (as N)	mg/L	53.8
SO ₄	mg/L	5.0
Phenols	mg/L	0.035
Tot. Org. Carbon	mg/L	3.30
Tot. Org. Halogen	mg/L	0.019
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	12.5
Nonvol. Beta	pCi/L	116
Total Radium	pCi/L	2.4
Tritium	pCi/mL	2650

Well: FSB 97A, F-Area Seepage Basins

SRP Grid N 75171.2
Coordinates E 49985.7
Latitude 33.273554°N
Longitude 81.681246°W
Screen Zone Elevation 29.2-26.2
Top of Casing Elevation 87.20
Casing Material PVC

Parameter	Units	11/30/87
Sampling Method		Pump
Water Elevation	meters	46.2
pH		9.8
Conductivity	umhos/cm	277
TDS	mg/L	306
Arsenic	mg/L	0.010
Barium	mg/L	0.033
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	26.2
Chloride	mg/L	2.0
Chromium	mg/L	<0.004
Copper	mg/L	<0.004
Cyanide	mg/L	<0.005
Fluoride	mg/L	0.28
Iron	mg/L	0.061
Lead	mg/L	<0.004
Magnesium	mg/L	1.13
Manganese	mg/L	<0.002
Mercury	mg/L	<0.0002
Nickel	mg/L	<0.004
Potassium	mg/L	5.23
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	34.9
Total Phosphate	mg/L	0.150
Zinc	mg/L	0.013
NO ₃ (as N)	mg/L	12.5
SO ₄	mg/L	7.7
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	<1.000
Tot. Org. Halogen	mg/L	<0.005
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	3.5
Nonvol. Beta	pCi/L	21.6
Total Radium	pCi/L	2.0
Tritium	pCi/mL	453

Well: FSB 97D, F-Area Seepage Basins

SRP Grid N 75188.9
Coordinates E 49975.5
Latitude 33.273609°N
Longitude 81.681255°W
Screen Zone Elevation 66.1-60.0
Top of Casing Elevation 87.17
Casing Material PVC

Parameter	Units	11/30/87
Sampling Method		Pump
Water Elevation	meters	64.6
pH		10.9
Conductivity	umhos/cm	1050
TDS	mg/L	744
Arsenic	mg/L	0.004
Barium	mg/L	0.065
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	76.1
Chloride	mg/L	4.1
Chromium	mg/L	0.004
Copper	mg/L	<0.004
Cyanide	mg/L	0.090
Fluoride	mg/L	0.60
Iron	mg/L	0.004
Lead	mg/L	<0.006
Magnesium	mg/L	0.370
Manganese	mg/L	<0.002
Mercury	mg/L	<0.0002
Nickel	mg/L	0.011
Potassium	mg/L	7.24
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	20.2
Total Phosphate	mg/L	0.080
Zinc	mg/L	0.189
NO ₃ (as N)	mg/L	57.2
SO ₄	mg/L	11.0
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	2.50
Tot. Org. Halogen	mg/L	0.013
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	40.4
Nonvol. Beta	pCi/L	325
Total Radium	pCi/L	5.4
Tritium	pCi/mL	7910

**TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER**

Well: FSB 98A, F-Area Seepage Basins

SRP Grid N 75189.8
Coordinates E 50121.4
Latitude 33.274293°N
Longitude 81.681261°W
Screen Zone Elevation 28.9-25.8
Top of Casing Elevation 86.25
Casing Material PVC

Parameter	Units	12/02/87
Sampling Method		Pump
Water Elevation	meters	45.9
pH		11.2
Conductivity	umhos/cm	695
TDS	mg/L	118
Arsenic	mg/L	0.009
Barium	mg/L	0.105
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	41.8
Chloride	mg/L	2.7
Chromium	mg/L	0.004
Copper	mg/L	<0.004
Cyanide	mg/L	<0.005
Fluoride	mg/L	0.24
Iron	mg/L	0.034
Lead	mg/L	<0.008
Magnesium	mg/L	0.116
Manganese	mg/L	<0.002
Mercury	mg/L	<0.0002
Nickel	mg/L	<0.004
Potassium	mg/L	13.5
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	0.0020
Sodium	mg/L	42.0
Total Phosphate	mg/L	0.040
Zinc	mg/L	0.133
NO ₃ (as N)	mg/L	1.32
SO ₄	mg/L	13.3
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	1.20
Tot. Org. Halogen	mg/L	0.007
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	4.3
Nonvol. Beta	pCi/L	11.7
Total Radium	pCi/L	1.0
Tritium	pCi/mL	33.9

Well: FSB 98D, F-Area Seepage Basins

SRP Grid N 75371.9
Coordinates E 50111.6
Latitude 33.274236°N
Longitude 81.681251°W
Screen Zone Elevation 86.7-80.6
Top of Casing Elevation 86.28
Casing Material PVC

Parameter	Units	12/01/87
Sampling Method		Pump
Water Elevation	meters	86.7
pH		8.7
Conductivity	umhos/cm	347
TDS	mg/L	370
Arsenic	mg/L	<0.002
Barium	mg/L	0.070
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	48.0
Chloride	mg/L	3.8
Chromium	mg/L	<0.004
Copper	mg/L	<0.004
Cyanide	mg/L	0.040
Fluoride	mg/L	0.4
Iron	mg/L	0.025
Lead	mg/L	<0.006
Magnesium	mg/L	3.76
Manganese	mg/L	0.058
Mercury	mg/L	<0.0002
Nickel	mg/L	0.019
Potassium	mg/L	17.5
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	44.8
Total Phosphate	mg/L	3.090
Zinc	mg/L	0.442
NO ₃ (as N)	mg/L	41.6
SO ₄	mg/L	75.0
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	4.20
Tot. Org. Halogen	mg/L	0.019
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	23.3
Nonvol. Beta	pCi/L	102
Total Radium	pCi/L	3.3
Tritium	pCi/mL	4660

Well: FSB 98C, F-Area Seepage Basins

SRP Grid N 75381.2
Coordinates E 50116.5
Latitude 33.274264°N
Longitude 81.681257°W
Screen Zone Elevation 47.8-44.7
Top of Casing Elevation 86.28
Casing Material PVC

Parameter	Units	12/02/87
Sampling Method		Pump
Water Elevation	meters	63.8
pH		3.5
Conductivity	umhos/cm	2020
TDS	mg/L	1480
Arsenic	mg/L	<0.002
Barium	mg/L	8.96
Beryllium	mg/L	<0.005
Cadmium	mg/L	0.016
Calcium	mg/L	15.1
Chloride	mg/L	4.0
Chromium	mg/L	<0.004
Copper	mg/L	0.129
Cyanide	mg/L	0.052
Fluoride	mg/L	0.42
Iron	mg/L	0.087
Lead	mg/L	0.007
Magnesium	mg/L	4.62
Manganese	mg/L	5.70
Mercury	mg/L	<0.0002
Nickel	mg/L	-
Potassium	mg/L	4.74
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	0.0030
Sodium	mg/L	171
Total Phosphate	mg/L	<0.020
Zinc	mg/L	-
NO ₃ (as N)	mg/L	1.5
SO ₄	mg/L	45.0
Phenols	mg/L	0.017
Tot. Org. Carbon	mg/L	1.10
Tot. Org. Halogen	mg/L	0.030
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	827
Nonvol. Beta	pCi/L	2240
Total Radium	pCi/L	155
Tritium	pCi/mL	13900

Well: FSB 99A, F-Area Seepage Basins

SRP Grid N 75675.6
Coordinates E 50314.8
Latitude 33.275239°N
Longitude 81.681307°W
Screen Zone Elevation 31.4-28.3
Top of Casing Elevation 87.66
Casing Material PVC

Parameter	Units	12/02/87
Sampling Method		Pump
Water Elevation	meters	45.8
pH		4.8
Conductivity	umhos/cm	40
TDS	mg/L	46
Arsenic	mg/L	0.003
Barium	mg/L	0.022
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	22.1
Chloride	mg/L	1.9
Chromium	mg/L	<0.004
Copper	mg/L	<0.004
Cyanide	mg/L	<0.005
Fluoride	mg/L	0.31
Iron	mg/L	0.024
Lead	mg/L	<0.006
Magnesium	mg/L	1.10
Manganese	mg/L	0.003
Mercury	mg/L	<0.0002
Nickel	mg/L	<0.004
Potassium	mg/L	4.20
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	19.8
Total Phosphate	mg/L	0.470
Zinc	mg/L	6.031
NO ₃ (as N)	mg/L	1.58
SO ₄	mg/L	45.0
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	0.000
Tot. Org. Halogen	mg/L	<0.005
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	1.9
Nonvol. Beta	pCi/L	12.9
Total Radium	pCi/L	<1.0
Tritium	pCi/mL	41.3

**TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER**

Well: FSB 99C, F-Area Seepage Basins

SRP Grid N 75683.7
Coordinates E 50170.8
Latitude 33.275266°N
Longitude 81.681308°W
Screen Zone Elevation 51.0-47.9
Top of Casing Elevation 87.69
Casing Material PVC

Parameter	Units	12/01/87
Sampling Method		Pump
Water Elevation	meters	64.1
pH		8.8
Conductivity	umhos/cm	184
TDS	mg/L	98
Arsenic	mg/L	<0.002
Barium	mg/L	0.025
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	10.4
Chloride	mg/L	1.5
Chromium	mg/L	<0.004
Copper	mg/L	0.004
Cyanide	mg/L	<0.005
Fluoride	mg/L	0.33
Iron	mg/L	0.039
Lead	mg/L	<0.008
Magnesium	mg/L	1.84
Manganese	mg/L	0.026
Mercury	mg/L	<0.0002
Nickel	mg/L	0.004
Potassium	mg/L	5.68
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	23.2
Total Phosphate	mg/L	0.250
Zinc	mg/L	0.070
NO ₃ (as N)	mg/L	16.9
SO ₄	mg/L	<5.0
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	<1.000
Tot. Org. Halogen	mg/L	<0.005
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	7.2
Nonvol. Beta	pCi/L	25.4
Total Radium	pCi/L	3.9
Tritium	pCi/mL	1470

Well: FSB100A, F-Area Seepage Basins

SRP Grid N 75534.4
Coordinates E 50958.4
Latitude 33.275877°N
Longitude 81.679339°W
Screen Zone Elevation 32.2-29.2
Top of Casing Elevation 87.17
Casing Material PVC

Parameter	Units	12/01/87
Sampling Method		Pump
Water Elevation	meters	46.1
pH		9.8
Conductivity	umhos/cm	353
TDS	mg/L	240
Arsenic	mg/L	0.005
Barium	mg/L	0.015
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	8.70
Chloride	mg/L	4.6
Chromium	mg/L	0.007
Copper	mg/L	<0.004
Cyanide	mg/L	0.005
Fluoride	mg/L	0.31
Iron	mg/L	0.030
Lead	mg/L	<0.008
Magnesium	mg/L	0.603
Manganese	mg/L	<0.002
Mercury	mg/L	<0.0002
Nickel	mg/L	0.004
Potassium	mg/L	7.34
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	56.5
Total Phosphate	mg/L	0.270
Zinc	mg/L	0.008
NO ₃ (as N)	mg/L	2.59
SO ₄	mg/L	44.2
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	2.30
Tot. Org. Halogen	mg/L	0.007
Carbon Tet.	mg/L	0.005
Chloroform	mg/L	0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	8.2
Nonvol. Beta	pCi/L	10.9
Total Radium	pCi/L	0.8
Tritium	pCi/mL	55.3

Well: FSB 99D, F-Area Seepage Basins

SRP Grid N 75691.7
Coordinates E 50326.9
Latitude 33.275294°N
Longitude 81.681307°W
Screen Zone Elevation 66.5-60.4
Top of Casing Elevation 87.66
Casing Material PVC

Parameter	Units	12/01/87
Sampling Method		Pump
Water Elevation	meters	65.3
pH		3.6
Conductivity	umhos/cm	1798
TDS	mg/L	772
Arsenic	mg/L	<0.002
Barium	mg/L	0.140
Beryllium	mg/L	<0.005
Cadmium	mg/L	0.007
Calcium	mg/L	26.2
Chloride	mg/L	1.9
Chromium	mg/L	0.005
Copper	mg/L	0.020
Cyanide	mg/L	0.026
Fluoride	mg/L	0.59
Iron	mg/L	0.111
Lead	mg/L	0.007
Magnesium	mg/L	4.55
Manganese	mg/L	0.547
Mercury	mg/L	<0.0002
Nickel	mg/L	0.014
Potassium	mg/L	3.39
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	0.0030
Sodium	mg/L	44.4
Total Phosphate	mg/L	0.120
Zinc	mg/L	0.143
NO ₃ (as N)	mg/L	193
SO ₄	mg/L	<5.0
Phenols	mg/L	0.009
Tot. Org. Carbon	mg/L	1.40
Tot. Org. Halogen	mg/L	0.038
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	682
Nonvol. Beta	pCi/L	1920
Total Radium	pCi/L	15.7
Tritium	pCi/mL	27400

Well: FSB101A, F-Area Seepage Basins

SRP Grid N 75719.0
Coordinates E 51193.3
Latitude 33.276765°N
Longitude 81.679084°W
Screen Zone Elevation 31.4-28.3
Top of Casing Elevation 86.92
Casing Material PVC

Parameter	Units	12/01/87
Sampling Method		Pump
Water Elevation	meters	46
pH		9.4
Conductivity	umhos/cm	211
TDS	mg/L	138
Arsenic	mg/L	<0.002
Barium	mg/L	0.058
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	34.6
Chloride	mg/L	1.3
Chromium	mg/L	<0.004
Copper	mg/L	<0.004
Cyanide	mg/L	<0.005
Fluoride	mg/L	0.26
Iron	mg/L	0.044
Lead	mg/L	<0.008
Magnesium	mg/L	1.11
Manganese	mg/L	0.008
Mercury	mg/L	<0.0002
Nickel	mg/L	0.004
Potassium	mg/L	3.15
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	6.08
Total Phosphate	mg/L	0.180
Zinc	mg/L	0.009
NO ₃ (as N)	mg/L	1.77
SO ₄	mg/L	<5.0
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	<1.000
Tot. Org. Halogen	mg/L	<0.005
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	1.9
Nonvol. Beta	pCi/L	5.0
Total Radium	pCi/L	0.8
Tritium	pCi/mL	0.80

**TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER**

Well: F58108D, F-Area Seepage Basins

SRP Grid N 76260.7
Coordinates E 51142.3
Latitude 33.277883°N
Longitude 81.680265°W
Screen Zone Elevation 68.2+62.1
Top of Casing Elevation 40.83
Casing Material PVC

Parameter	Units	11/30/87
Sampling Method	Pump	
Water Elevation	meters	66.3
pH		7.7
Conductivity	umhos/cm	136
TDS	mg/L	960
Arsenic	mg/L	<0.002
Barium	mg/L	0.019
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	9.68
Chloride	mg/L	5.5
Chromium	mg/L	<0.004
Copper	mg/L	<0.004
Cyanide	mg/L	<0.005
Fluoride	mg/L	0.23
Iron	mg/L	0.071
Lead	mg/L	<0.006
Magnesium	mg/L	0.225
Manganese	mg/L	0.026
Mercury	mg/L	<0.0032
Nickel	mg/L	<0.004
Potassium	mg/L	1.22
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	1.59
Total Phosphate	mg/L	<0.020
Zinc	mg/L	0.034
NO ₃ (as N)	mg/L	1.36
SO ₄	mg/L	9.3
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	1.40
Tot. Org. Halogen	mg/L	0.020
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	2.0
Nonvol. Beta	pCi/L	3.6
Total Radium	pCi/L	<1.0
Tritium	pCi/ml	10.3

Well: F58109C, F-Area Seepage Basins

SRP Grid N
Coordinates E
Latitude 0.000000°N
Longitude 0.000000°W
Screen Zone Elevation
Top of Casing Elevation 0.00
Casing Material

Parameter	Units	10/27/87
Sampling Method	Pump	
Water Elevation	meters	-
pH		6.9
Conductivity	umhos/cm	320
TDS	mg/L	212
Arsenic	mg/L	<0.002
Barium	mg/L	0.044
Beryllium	mg/L	-
Cadmium	mg/L	<0.001
Calcium	mg/L	20.8
Chloride	mg/L	3.7
Chromium	mg/L	<0.004
Copper	mg/L	-
Cyanide	mg/L	-
Fluoride	mg/L	0.35
Iron	mg/L	0.025
Lead	mg/L	<0.006
Magnesium	mg/L	2.23
Manganese	mg/L	0.073
Mercury	mg/L	<0.0002
Nickel	mg/L	-
Potassium	mg/L	1.07
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	27.6
Total Phosphate	mg/L	0.070
Zinc	mg/L	-
NO ₃ (as N)	mg/L	22.7
SO ₄	mg/L	11.0
Phenols	mg/L	0.005
Tot. Org. Carbon	mg/L	<1.000
Tot. Org. Halogen	mg/L	0.011
Carbon Tet.	mg/L	-
Chloroform	mg/L	-
Tetrachloroethene	mg/L	-
Trichloroethene	mg/L	-
1,1,1-TCE	mg/L	-
Gross Alpha	pCi/L	2.3
Nonvol. Beta	pCi/L	67.0
Total Radium	pCi/L	1.1
Tritium	pCi/ml	716

Well: F58109D, F-Area Seepage Basins

SRP Grid N 75815.9
Coordinates E 50488.6
Latitude 33.275921°N
Longitude 81.681200°W
Screen Zone Elevation 68.8+62.7
Top of Casing Elevation 69.33
Casing Material PVC

Parameter	Units	12/02/87
Sampling Method	Pump	
Water Elevation	meters	65.5
pH		5.7
Conductivity	umhos/cm	251
TDS	mg/L	160
Arsenic	mg/L	0.006
Barium	mg/L	0.028
Beryllium	mg/L	<0.005
Cadmium	mg/L	<0.002
Calcium	mg/L	11.6
Chloride	mg/L	3.5
Chromium	mg/L	<0.004
Copper	mg/L	<0.004
Cyanide	mg/L	<0.005
Fluoride	mg/L	0.23
Iron	mg/L	33.3
Lead	mg/L	<0.006
Magnesium	mg/L	2.56
Manganese	mg/L	0.098
Mercury	mg/L	<0.0002
Nickel	mg/L	0.021
Potassium	mg/L	1.34
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	33.3
Total Phosphate	mg/L	0.070
Zinc	mg/L	0.048
NO ₃ (as N)	mg/L	23.8
SO ₄	mg/L	63.0
Phenols	mg/L	<0.001
Tot. Org. Carbon	mg/L	<1.000
Tot. Org. Halogen	mg/L	0.041
Carbon Tet.	mg/L	<0.005
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	0.051
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	7.2
Nonvol. Beta	pCi/L	11.7
Total Radium	pCi/L	1.8
Tritium	pCi/ml	1040

Well: F58 4, Old F-Area Seepage Basin

SRP Grid N 80409.8
Coordinates E 53843.3
Latitude 33.291467°N
Longitude 81.681215°W
Screen Zone Elevation 61.9+54.7
Top of Casing Elevation 88.84
Casing Material PVC

Parameter	Units	02/08/87	04/14/87	08/24/87	12/09/87
Sampling Method	Pump				
Water Elevation	meters	64.5	64.6	65.3	65.0
pH		4.3	4.5	4.7	4.2
Conductivity	umhos/cm	33	41	34	32
TDS	mg/L	14	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.007	-	0.009	-
Beryllium	mg/L	<0.005	-	<0.005	-
Cadmium	mg/L	<0.002	-	<0.002	-
Calcium	mg/L	0.708	-	-	-
Chloride	mg/L	2.7	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	<0.004	-	0.022	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	<0.10	-
Iron	mg/L	0.020	-	0.143	-
Lead	mg/L	<0.006	-	0.017	-
Magnesium	mg/L	0.589	-	-	-
Manganese	mg/L	0.009	-	0.010	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	<0.004	-	<0.004	-
Potassium	mg/L	0.320	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.53	-	-	-
Silver	mg/L	<0.0020	-	<0.0020	-
Sodium	mg/L	2.01	2.43	2.85	2.43
Total Phosphate	mg/L	0.086	-	-	-
Zinc	mg/L	-	-	0.037	-
NO ₃ (as N)	mg/L	1.52	1.47	1.57	1.49
SO ₄	mg/L	63.0	-	-	-
Phenols	mg/L	<0.002	-	0.011	-
Tot. Org. Carbon	mg/L	<1.000	<1.000	1.50	2.80
Tot. Org. Halogen	mg/L	<0.005	<0.005	0.005	-
Carbon Tet.	mg/L	-	<0.001	<0.001	<0.001
Chloroform	mg/L	-	0.001	<0.001	<0.001
Tetrachloroethene	mg/L	-	<0.001	<0.001	<0.001
Trichloroethene	mg/L	-	<0.001	<0.001	<0.001
1,1,1-TCE	mg/L	-	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	2.1	-	63.0	-
Nonvol. Beta	pCi/L	3.5	-	3.1	-
Total Radium	pCi/L	1.3	-	1.4	-
Tritium	pCi/ml	7.31	8.61	7.60	7.50

TABLE 4-3 CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Other Analyses (mg/L)		
(Appendix IX Analytes; Table 4-25, Vol. 11)		
FSS 88C	10/27/87	
Endrin		<0.0001
Silvex		<0.00009
2,4-D		<0.0003
FSS 88C	12/01/87	
Appendix IX Analysis detected the following:		
Bis(2-ethylhexyl) Phthalate		0.078
FSS 88D	10/27/87	
Pest/Herb* Analysis detected the following:		
Silvex		0.0001
FSS 88D	12/02/87	
Appendix IX Analysis detected the following:		
Bis(2-ethylhexyl) Phthalate		0.080
Cobalt		0.004
Cyanide		0.025
Thallium		0.012
FSS 89C	10/25/87	
Pest/Herb* Analysis detected the following:		
None		
FSS 89C	12/01/87	
Appendix IX Analysis detected the following:		
Trichlorofluoromethane		0.006
Carbon Disulfide		0.001
Di-n-octyl Phthalate		0.012
FSS 89D	10/25/87	
Pest/Herb* Analysis detected the following:		
None		
FSS 89D	12/01/87	
Appendix IX Analysis detected the following:		
Cobalt		0.020
Cyanide		0.026
Thallium		0.005
FSS 90C	10/26/87	
Pest/Herb* Analysis detected the following:		
None		
FSS 90C	11/30/87	
Appendix IX Analysis detected the following:		
Bis(2-ethylhexyl) Phthalate		0.083
FSS 90D	10/26/87	
Pest/Herb* Analysis detected the following:		
Lindane		0.00008
Silvex		0.00023
FSS 90D	11/30/87	
Appendix IX Analysis detected the following:		
Bis(2-ethylhexyl) Phthalate		0.842
Cobalt		0.002
Cyanide		0.019
Di-n-octyl Phthalate		0.083
Thallium		0.010
FSS 91C	10/26/87	
Pest/Herb* Analysis detected the following:		
None		
FSS 91C	11/30/87	
Appendix IX Analysis detected the following:		
Trichlorofluoromethane		0.001
Cyanide		0.016
Thallium		0.005
FSS 91D	10/26/87	
Pest/Herb* Analysis detected the following:		
None		
FSS 91D	11/30/87	
Appendix IX Analysis detected the following:		
Bis(2-ethylhexyl) Phthalate		0.250
Cobalt		0.014
Carbon Disulfide		0.003
Cyanide		0.085
Di-n-octyl Phthalate		0.016
Fenthion		0.074
1,1,1,2-Tetrachloroethane		0.001
Thallium		0.039
FSS 92D	10/26/87	
Pest/Herb* Analysis detected the following:		
Silvex		0.0001
FSS 92D	12/01/87	
Appendix IX Analysis detected the following:		
Bis(2-ethylhexyl) Phthalate		0.018
Cobalt		0.021
Cyanide		0.036
Di-n-octyl Phthalate		0.008
Thallium		0.024
FSS 93C	10/18/87	
Pest/Herb* Analysis detected the following:		
None		
FSS 93C	11/30/87	
Appendix IX Analysis detected the following:		
Bis(2-ethylhexyl) Phthalate		0.055
Cyanide		0.005
Sulfide		2.30
FSS 93D	10/19/87	
Pest/Herb* Analysis detected the following:		
None		
FSS 93D	11/30/87	
Appendix IX Analysis detected the following:		
Bis(2-ethylhexyl) Phthalate		0.690
Cyanide		0.024
Dimethyl Phthalate		0.015
Di-n-octyl Phthalate		0.043
Thallium		0.005
FSS 94C	10/19/87	
Pest/Herb* Analysis detected the following:		
None		
FSS 94C	11/30/87	
Appendix IX Analysis detected the following:		
Bis(2-ethylhexyl) Phthalate		0.200
Trichlorofluoromethane		0.002
Cyanide		0.012
Methylethyl Ketone		0.004
Thallium		0.021
Vanadium		0.005
FSS 95C	10/18/87	
Pest/Herb* Analysis detected the following:		
None		
FSS 95C	12/01/87	
Appendix IX Analysis detected the following:		
Cobalt		0.010
Carbon Disulfide		0.003
Cyanide		0.025
Thallium		0.003
Vinyl Acetate		0.001
FSS 96A	10/19/87	
Pest/Herb* Analysis detected the following:		
Methoxychlor		0.0014
FSS 96A	12/01/87	
Appendix IX Analysis detected the following:		
Bis(2-ethylhexyl) Phthalate		0.590
Antimony		0.005
Thallium		0.041
Vanadium		0.009
FSS 97A	10/18/87	
Pest/Herb* Analysis detected the following:		
None		
FSS 97A	11/30/87	
Appendix IX Analysis detected the following:		
None		
FSS 97C	10/19/87	
Pest/Herb* Analysis detected the following:		
None		
FSS 97C	11/30/87	
Appendix IX Analysis detected the following:		
Bis(2-ethylhexyl) Phthalate		0.500
Cyanide		0.006
Di-n-octyl Phthalate		0.110
Thallium		0.006

TABLE 4-3 CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

FSB 97D	10/26/87	Pest/Herb* Analysis detected the following: Lindane 0.00017 Silvex 0.0001
FSB 97D	11/30/87	Appendix IX Analysis detected the following: Bis(2-ethylhexyl) Phthalate 0.360 Cyanide 0.091 Dimethyl Phthalate 0.110 Di-n-octyl Phthalate 0.110 Antimony 0.011 Thallium 0.003
FSB 98A	10/18/87	Pest/Herb* Analysis detected the following: None
FSB 98A	12/02/87	Appendix IX Analysis detected the following: Bis(2-ethylhexyl) Phthalate 0.068 Di-n-octyl Phthalate 0.017 Thallium 0.003 Vanadium 0.008
FSB 98C	10/18/87	Pest/Herb* Analysis detected the following: None
FSB 98C	12/01/87	Appendix IX Analysis detected the following: Cobalt 0.263 Carbon Disulfide 0.001 Cyanide 0.032 Thallium 0.012
FSB 98D	10/19/87	Pest/Herb* Analysis detected the following: Lindane 0.00008
FSB 98D	12/01/87	Appendix IX Analysis detected the following: Bis(2-ethylhexyl) Phthalate 0.012 Cobalt 0.003 Cyanide 0.040 Dimethyl Phthalate 0.021 Thallium 0.010
FSB 99A	10/13/87	Pest/Herb* Analysis detected the following: None
FSB 99A	12/02/87	Appendix IX Analysis detected the following: Bis(2-ethylhexyl) Phthalate 0.011
FSB 99C	10/13/87	Pest/Herb* Analysis detected the following: None
FSB 99C	12/02/87	Appendix IX Analysis detected the following: Bis(2-ethylhexyl) Phthalate 0.050 Carbon Disulfide 0.003 Di-n-octyl Phthalate 0.028
FSB 99D	10/13/87	Pest/Herb* Analysis detected the following: None
FSB 99D	12/02/87	Appendix IX Analysis detected the following: Cobalt 0.012 Cyanide 0.028 Di-n-octyl Phthalate 0.011 Thallium 0.005 Vanadium 0.003
FSB100A	10/26/87	Pest/Herb* Analysis detected the following: None
FSB100A	12/01/87	Appendix IX Analysis detected the following: Acrylonitrile 0.034 Cyanide 0.005 Antimony 0.032 Sulfide 3.10 Thallium 0.008

FSB101A	10/25/87	Pest/Herb* Analysis detected the following: None
FSB101A	12/01/87	Appendix IX Analysis detected the following: Di-n-octyl Phthalate 0.020
FSB108D	10/25/87	Pest/Herb* Analysis detected the following: None
FSB108D	11/30/87	Appendix IX Analysis detected the following: Bis(2-ethylhexyl) Phthalate 0.240 Di-n-octyl Phthalate 0.018 Methylethyl Ketone 0.003
FSB109D	10/13/87	Pest/Herb* Analysis detected the following: None
FSB109D	12/02/87	Appendix IX Analysis detected the following: Bis(2-ethylhexyl) Phthalate 0.170 Di-n-octyl Phthalate 0.021
FSB110C	10/27/87	Pest/Herb* Analysis detected the following: Silvex 0.00009

Well: FTF 2, F-Area Tank Farm

SRP Grid	N 77336.0	Screen Zone Elevation	73.0-66.9
Coordinates	E 53275.1	Top of Casing Elevation	85.74
Latitude	33.283742°N	Casing Material	PVC
Longitude	81.676739°W		

Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	68.4	69	68.7	68.5
pH		6.9	6.6	7.7	6.7
Conductivity	umhos/cm	247	132	87	155
Sodium	mg/L	-	-	6.97	1.61
NO ₃ (as N)	mg/L	-	-	0.36	0.53

Well: FTF 3, F-Area Tank Farm

SRP Grid	N 77235.3	Screen Zone Elevation	67.4-66.5
Coordinates	E 53244.8	Top of Casing Elevation	85.34
Latitude	33.283470°N	Casing Material	Steel
Longitude	81.676623°W		

Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	68.7	68.4	68.6	68.5
pH		6.9	6.8	7.1	6.7
Conductivity	umhos/cm	150	125	101	119
Sodium	mg/L	-	-	5.43	4.37
NO ₃ (as N)	mg/L	-	-	0.32	0.33

Well: FTF 4, F-Area Tank Farm

SRP Grid	N 77132.9	Screen Zone Elevation	72.1-66.0
Coordinates	E 53268.2	Top of Casing Elevation	84.88
Latitude	33.282281°N	Casing Material	PVC
Longitude	81.676363°W		

Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	67.3	68.5	68.5	68.5
pH		7.2	7.0	7.4	7.0
Conductivity	umhos/cm	102	105	84	99
Sodium	mg/L	-	-	6.63	5.49
NO ₃ (as N)	mg/L	-	-	0.48	1.26

**TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER**

Well: PTF 5, F-Area Tank Farm

SRP Grid N 77035.6
Coordinates E 53188.3
Latitude 33.282903°N
Longitude 81.676437°W
Screen Zone Elevation 71.7-65.6
Top of Casing Elevation 84.52
Casing Material PVC

Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	69	68.5	68.8	68.5
pH	pH	7.0	7.0	5.2	7.4
Conductivity	umhos/cm	522	337	522	358
Sodium	mg/L	-	-	40.2	42.8
NO ₃ (as N)	mg/L	-	-	1.24	1.91

Well: PTF 6, F-Area Tank Farm

SRP Grid N 77151.4
Coordinates E 53062.0
Latitude 33.282986°N
Longitude 81.676942°W
Screen Zone Elevation 72.2-66.1
Top of Casing Elevation 84.73
Casing Material PVC

Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	68	68.2	68.4	68.3
pH	pH	7.0	7.0	6.2	7.2
Conductivity	umhos/cm	402	735	246	365
Sodium	mg/L	-	-	41.9	70.5
NO ₃ (as N)	mg/L	-	-	12.2	10.8

Well: PTF 7, F-Area Tank Farm

SRP Grid N 77235.9
Coordinates E 53089.7
Latitude 33.283218°N
Longitude 81.677033°W
Screen Zone Elevation 68.9-67.7
Top of Casing Elevation 83.34
Casing Material Steel

Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	68.2	68.2	68.4	68.3
pH	pH	7.1	9.1	7.8	9.6
Conductivity	umhos/cm	90	110	76	68
Sodium	mg/L	-	-	2.91	1.81
NO ₃ (as N)	mg/L	-	-	0.42	0.37

Well: PTF 9, F-Area Tank Farm

SRP Grid N 77483.8
Coordinates E 52769.5
Latitude 33.283241°N
Longitude 81.678356°W
Screen Zone Elevation 72.1-66.0
Top of Casing Elevation 82.87
Casing Material PVC

Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	-	68	68.1	68.2
pH	pH	7.0	8.3	7.3	7.0
Conductivity	umhos/cm	110	139	110	102
Sodium	mg/L	-	-	4.82	4.76
NO ₃ (as N)	mg/L	-	-	4.81	4.73

Well: PTF 10, F-Area Tank Farm

SRP Grid N 77336.0
Coordinates E 52905.0
Latitude 33.283138°N
Longitude 81.677714°W
Screen Zone Elevation 71.7-65.6
Top of Casing Elevation 82.63
Casing Material PVC

Parameter	Units	03/19/87	06/23/87	08/25/87	12/13/87
Sampling Method		-	-	Ball	Ball
Water Elevation	meters	-	-	68	68
pH	pH	-	-	7.2	8.3
Conductivity	umhos/cm	-	-	214	154
Sodium	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	-	-	-	-

Well: PTF 11, F-Area Tank Farm

SRP Grid N 77180.7
Coordinates E 52748.8
Latitude 33.282540°N
Longitude 81.677823°W
Screen Zone Elevation 71.9-65.8
Top of Casing Elevation 82.66
Casing Material PVC

Parameter	Units	03/19/87	06/23/87	09/22/87	12/13/87
Sampling Method		-	Ball	Ball	-
Water Elevation	meters	-	68.1	68.1	-
pH	pH	-	-	5.5	-
Conductivity	umhos/cm	-	-	91	-
Sodium	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	-	-	-	-

Well: PTF 12, F-Area Tank Farm

SRP Grid N 77321.4
Coordinates E 52648.5
Latitude 33.282687°N
Longitude 81.678361°W
Screen Zone Elevation 71.6-65.5
Top of Casing Elevation 82.81
Casing Material Steel

Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	69.2	69.2	69.4	69.2
pH	pH	11.6	11.6	11.2	12.0
Conductivity	umhos/cm	227	1630	1475	1715
Sodium	mg/L	-	-	9.71	7.71
NO ₃ (as N)	mg/L	-	-	1.52	1.67

Well: PTF 13, F-Area Tank Farm

SRP Grid N 76637.8
Coordinates E 53098.4
Latitude 33.281909°N
Longitude 81.675846°W
Screen Zone Elevation 72.0-65.9
Top of Casing Elevation 87.11
Casing Material Steel

Parameter	Units	01/23/87	04/24/87	07/22/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	68.2	68.4	68.7	68.5
pH	pH	9.4	10.6	10.7	9.9
Conductivity	umhos/cm	208	313	349	172
Sodium	mg/L	-	-	6.81	4.55
NO ₃ (as N)	mg/L	-	-	1.64	6.03

Well: PTF 15, F-Area Tank Farm

SRP Grid N 76732.0
Coordinates E 53230.0
Latitude 33.282332°N
Longitude 81.675685°W
Screen Zone Elevation 69.7-60.2
Top of Casing Elevation 87.32
Casing Material PVC

Parameter	Units	01/23/87	04/24/87	07/22/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	68.3	68.6	68.7	69
pH	pH	5.1	5.4	6.0	5.8
Conductivity	umhos/cm	47	67	55	53
Sodium	mg/L	-	-	5.48	3.60
NO ₃ (as N)	mg/L	-	-	5.13	4.00

Well: PTF 16, F-Area Tank Farm

SRP Grid N 76758.6
Coordinates E 52879.8
Latitude 33.281820°N
Longitude 81.676658°W
Screen Zone Elevation 71.3-62.1
Top of Casing Elevation 87.96
Casing Material PVC

Parameter	Units	01/23/87	04/24/87	07/22/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	67.8	68.1	68.2	68.2
pH	pH	6.0	7.5	6.9	6.3
Conductivity	umhos/cm	45	65	56	45
Sodium	mg/L	-	-	5.47	3.53
NO ₃ (as N)	mg/L	-	-	2.04	1.85

Well: PTF 17, F-Area Tank Farm

SRP Grid N 76872.0
Coordinates E 52884.0
Latitude 33.282077°N
Longitude 81.676668°W
Screen Zone Elevation 70.3-61.1
Top of Casing Elevation 88.27
Casing Material PVC

Parameter	Units	01/23/87	04/24/87	07/22/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	67.8	68.1	68.2	68.2
pH	pH	4.9	5.6	7.0	5.2
Conductivity	umhos/cm	44	69	49	55
Sodium	mg/L	-	-	8.45	5.34
NO ₃ (as N)	mg/L	-	-	2.22	3.51

Well: PTF 18, F-Area Tank Farm

SRP Grid N 76955.8
Coordinates E 52879.2
Latitude 33.282255°N
Longitude 81.677043°W
Screen Zone Elevation 70.8-61.7
Top of Casing Elevation 87.78
Casing Material PVC

Parameter	Units	01/23/87	04/24/87	07/22/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	67.7	68	68.2	68.1
pH	pH	5.3	5.7	6.7	5.4
Conductivity	umhos/cm	40	55	40	47
Sodium	mg/L	-	-	1.32	6.85
NO ₃ (as N)	mg/L	-	-	1.38	1.45

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Other Analyses (mg/L)
(GCMS Scan Analytes: Table 4-25, Vol. II)

NBC 1 09/07/87
GCMS Scan detected the following: None

NBC 2 09/07/87
GCMS Scan detected the following: None

NBC 3 09/07/87
GCMS Scan detected the following: None

NBC 5 09/07/87
GCMS Scan detected the following: None

TABLE 4-4
RADIOACTIVITY IN H-AREA GROUNDWATER

<u>Seepage Basin</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Gross Alpha (pCi/L)</u>						
H 2	2	5.25	+1.51	2.39	+1.04	3.82
H 4	3	20.5	+2.82	5.35	+1.53	10.6
H 6	4	46.6	+4.40	2.80	+1.32	27.3
H 7	4	0.67	+0.57	0.31	+0.47	0.47
H 8	3	3.78	+1.28	0.48	+0.50	1.97
H 9	4	24.6	+3.09	7.99	+1.84	13.4
H 10	4	0.73	+0.62	0.19	+0.38	0.43
H 11	4	0.48	+0.50	0.10	+0.20	0.14
H 12	7	2.41	+1.01	0.00	+0.27	1.01
H 13	4	0.67	+0.64	0.19	+0.38	0.40
H 14	3	0.21	+0.42	0.00	+0.29	0.10
H 15	4	0.73	+0.62	0.10	+0.34	0.37
H 16	4	0.57	+0.54	0.10	+0.33	0.34
H 17	4	2.07	+0.97	0.29	+0.43	1.07
H 18A	4	1.90	+0.89	0.38	+0.47	1.00
H 19	4	0.38	+0.47	0.00	+0.29	0.12
<u>Nonvolatile Beta (pCi/L)</u>						
H 2	2	747	+15.4	491	+12.3	619
H 4	3	5,120	+39.5	1,820	+24.0	3,820
H 6	4	14,200	+61.3	1,200	+19.0	8,270
H 7	4	147	+6.33	14.1	+2.21	48.6
H 8	3	534	+13.0	98.3	+5.21	311
H 9	4	3,430	+32.3	1,450	+19.6	2,550
H 10	4	4.57	+1.54	2.74	+1.58	3.56
H 11	4	14.8	+2.25	6.62	+1.73	10.4
H 12	7	30.0	+3.03	2.79	+1.67	16.3
H 13	4	16.5	+2.34	2.13	+1.54	8.06
H 14	3	8.68	+1.86	4.96	+1.78	6.49
H 15	4	3.31	+1.43	0.40	+1.16	2.02
H 16	4	2.45	+1.33	0.86	+1.21	1.88
H 17	4	12.1	+2.09	2.12	+1.34	6.69
H 18A	4	3.66	+1.67	1.59	+1.24	2.97
H 19	4	2.52	+1.57	0.08	+1.30	1.63

TABLE 4-4
RADIOACTIVITY IN H-AREA GROUNDWATER

<u>Seepage Basin</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>H-3 (pCi/mL)</u>						
H 2	3	35,900	+733	13,200	+272	22,900
H 4	4	29,200	+599	1,910	+90.8	14,900
H 6	4	37,600	+768	19,000	+397	27,500
H 7	4	350	+18.2	112	+12.1	176
H 8	4	5,820	+116	5,210	+59.8	5,470
H 9	4	6,900	+140	3,830	+78.3	5,070
H 10	4	2,340	+48.5	1,920	+37.0	2,170
H 11	4	1,580	+31.7	95.8	+2.73	510
H 12	7	1,000	+26.3	93.3	+12.7	475
H 13	4	2,750	+55.1	105	+11.9	835
H 14	4	4,990	+101	1,280	+25.7	2,270
H 15	4	73.1	+2.43	43.0	+1.90	55.7
H 16	4	72.3	+2.42	58.9	+2.21	65.7
H 17	4	84.8	+2.53	70.1	+2.39	76.2
H 18A	4	66.5	+2.34	38.7	+1.82	54.3
H 19	4	1,890	+37.9	710	+24.4	1,050
<u>Sr-90 (pCi/mL)</u>						
H 12	6	6.40	+3.49	-1.48	+2.88	2.83

TABLE 4-4
RADIOACTIVITY IN H-AREA GROUNDWATER

<u>Old Retention Basin</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Gross Alpha (pCi/L)</u>						
HR3 11	3	0.88	+0.65	0.52	+0.55	0.71
HR3 13	3	1.36	+0.78	0.22	+0.43	0.77
<u>Nonvolatile Beta (pCi/L)</u>						
HR3 11	3	4.90	+1.56	-0.23	+1.30	1.82
HR3 13	3	5.41	+1.85	1.89	+1.54	3.29
<u>H-3 (pCi/mL)</u>						
HR3 11	3	31.1	+1.81	27.6	+1.60	28.8
HR3 13	3	54.0	+2.25	43.8	+1.84	47.7
<u>Cr-51 (pCi/mL)</u>						
HR3 11	1	0.00	+1.61	0.00	+1.61	0.00
HR3 13	1	0.00	+1.66	0.00	+1.66	0.00
<u>Co-60 (pCi/mL)</u>						
HR3 11	1	0.00	+0.05	0.00	+0.05	0.00
HR3 13	1	0.00	+0.06	0.00	+0.06	0.00
<u>Zr-95, Nb-95 (pCi/mL)</u>						
HR3 11	1	0.00	+0.32	0.00	+0.32	0.00
HR3 13	1	0.00	+0.27	0.00	+0.27	0.00
<u>Ru-103 (pCi/mL)</u>						
HR3 11	1	0.00	+0.12	0.00	+0.12	0.00
HR3 13	1	0.00	+0.12	0.00	+0.12	0.00
<u>Ru-106 (pCi/mL)</u>						
HR3 11	1	0.00	+0.48	0.00	+0.48	0.00
HR3 13	1	0.00	+0.60	0.00	+0.60	0.00
<u>Sb-125 (pCi/mL)</u>						
HR3 11	1	0.00	+0.18	0.00	+0.18	0.00
HR3 13	1	0.00	+0.18	0.00	+0.18	0.00
<u>I-131 (pCi/mL)</u>						
HR3 11	1	0.00	+2.77	0.00	+2.77	0.00
HR3 13	1	0.00	+2.23	0.00	+2.23	0.00

TABLE 4-4
RADIOACTIVITY IN H-AREA GROUNDWATER

<u>Old Retention Basin</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Cs-134 (pCi/mL)</u>						
HR3 11	1	0.00	+0.06	0.00	+0.06	0.00
HR3 13	1	0.00	+0.07	0.00	+0.07	0.00
<u>Cs-137 (pCi/mL)</u>						
HR3 11	1	0.00	+0.06	0.00	+0.06	0.00
HR3 13	1	0.00	+0.07	0.00	+0.07	0.00
<u>Ce-144 (pCi/mL)</u>						
HR3 11	1	0.00	+0.54	0.00	+0.54	0.00
HR3 13	1	0.00	+0.51	0.00	+0.51	0.00
<u>Gross Alpha (pCi/L)</u>						
HR8 11	3	2.28	+1.02	1.27	+0.75	1.87
HR8 12	3	2.73	+1.07	1.04	+0.66	1.88
HR8 13	3	3.32	+1.21	1.36	+0.78	2.36
HR8 14	3	3.94	+1.28	3.22	+1.15	3.56
<u>Nonvolatile Beta (pCi/L)</u>						
HR8 11	3	2.82	+1.62	1.42	+1.49	2.23
HR8 12	3	8.51	+2.05	4.88	+1.80	6.58
HR8 13	3	4.42	+1.77	3.94	+1.74	4.12
HR8 14	3	11.1	+2.30	4.96	+1.81	7.39
<u>H-3 (pCi/mL)</u>						
HR8 11	3	70.3	+2.51	57.8	+2.07	63.4
HR8 12	3	39.9	+1.99	33.2	+1.64	37.2
HR8 13	3	41.3	+2.02	33.8	+1.66	37.0
HR8 14	3	5.60	+0.97	4.91	+1.01	5.23
<u>Cr-51 (pCi/mL)</u>						
HR8 11	1	0.00	+1.66	0.00	+1.66	0.00
HR8 12	1	0.00	+1.70	0.00	+1.70	0.00
HR8 13	1	0.00	+1.68	0.00	+1.68	0.00
HR8 14	1	0.00	+1.54	0.00	+1.54	0.00
<u>Co-60 (pCi/mL)</u>						
HR8 11	1	0.00	+0.06	0.00	+0.06	0.00
HR8 12	1	0.00	+0.06	0.00	+0.06	0.00
HR8 13	1	0.00	+0.06	0.00	+0.06	0.00
HR8 14	1	0.00	+0.06	0.00	+0.06	0.00

TABLE 4-4
RADIOACTIVITY IN H-AREA GROUNDWATER

<u>Retention Basin</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Zr-95, Nb-95 (pCi/mL)</u>						
HR8 11	1	0.00	+0.26	0.00	+0.26	0.00
HR8 12	1	0.00	+0.29	0.00	+0.29	0.00
HR8 13	1	0.00	+0.30	0.00	+0.30	0.00
HR8 14	1	0.00	+0.31	0.00	+0.31	0.00
<u>Ru-103 (pCi/mL)</u>						
HR8 11	1	0.00	+0.14	0.00	+0.14	0.00
HR8 12	1	0.00	+0.12	0.00	+0.12	0.00
HR8 13	1	0.00	+0.12	0.00	+0.12	0.00
HR8 14	1	0.00	+0.13	0.00	+0.13	0.00
<u>Ru-106 (pCi/mL)</u>						
HR8 11	1	0.00	+0.58	0.00	+0.58	0.00
HR8 12	1	0.00	+0.61	0.00	+0.61	0.00
HR8 13	1	0.00	+0.60	0.00	+0.60	0.00
HR8 14	1	0.00	+0.58	0.00	+0.58	0.00
<u>Sb-125 (pCi/mL)</u>						
HR8 11	1	0.00	+0.22	0.00	+0.22	0.00
HR8 12	1	0.00	+0.18	0.00	+0.18	0.00
HR8 13	1	0.00	+0.17	0.00	+0.17	0.00
HR8 14	1	0.00	+0.17	0.00	+0.17	0.00
<u>I-131 (pCi/mL)</u>						
HR8 11	1	0.00	+2.35	0.00	+2.35	0.00
HR8 12	1	0.00	+2.76	0.00	+2.76	0.00
HR8 13	1	0.00	+2.56	0.00	+2.56	0.00
HR8 14	1	0.00	+2.72	0.00	+2.72	0.00
<u>Cs-134 (pCi/mL)</u>						
HR8 11	1	0.00	+0.07	0.00	+0.07	0.00
HR8 12	1	0.00	+0.07	0.00	+0.07	0.00
HR8 13	1	0.00	+0.06	0.00	+0.06	0.00
HR8 14	1	0.00	+0.06	0.00	+0.06	0.00
<u>Cs-137 (pCi/mL)</u>						
HR8 11	1	0.00	+0.07	0.00	+0.07	0.00
HR8 12	1	0.00	+0.06	0.00	+0.06	0.00
HR8 13	1	0.00	+0.06	0.00	+0.06	0.00
HR8 14	1	0.00	+0.07	0.00	+0.07	0.00
<u>Ce-144 (pCi/mL)</u>						
HR8 11	1	0.00	+0.54	0.00	+0.54	0.00
HR8 12	1	0.00	+0.52	0.00	+0.52	0.00
HR8 13	1	0.00	+0.50	0.00	+0.50	0.00
HR8 14	1	0.00	+0.52	0.00	+0.52	0.00

TABLE 4-4
RADIOACTIVITY IN H-AREA GROUNDWATER

<u>Tank Farm</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Gross Alpha (pCi/L)</u>						
HTF 1	12	1.40	+0.83	0.00	+0.39	0.41
HTF 2	12	0.65	+0.61	0.00	+0.24	0.32
HTF 3	12	1.35	+1.00	0.00	+0.39	0.60
HTF 4	12	1.06	+0.64	-0.10	+0.34	0.45
HTF 5	12	7.37	+1.87	0.10	+0.34	1.40
HTF 6	12	6.64	+1.78	0.20	+0.29	1.17
HTF 7	10	1.04	+0.93	0.00	+0.29	0.60
HTF 8	10	2.07	+1.14	0.21	+0.41	0.84
HTF 9	12	0.83	+0.88	-0.10	+0.34	0.30
HTF 10	12	0.62	+0.51	0.10	+0.44	0.39
HTF 11	12	1.29	+0.80	0.10	+0.21	0.48
HTF 12	12	0.87	+0.58	0.10	+0.21	0.42
HTF 13	10	1.07	+0.70	0.21	+0.41	0.46
HTF 14	6	1.24	+0.78	0.31	+0.36	0.63
HTF 15	10	0.78	+0.62	0.10	+0.36	0.40
HTF 16	10	0.97	+0.71	0.10	+0.19	0.48
HTF 17	12	0.88	+0.65	-0.10	+0.21	0.33
HTF 18	12	1.44	+0.75	0.21	+0.41	0.79
HTF 19	12	1.45	+1.02	0.10	+0.44	0.60
HTF 20	12	1.06	+0.64	0.31	+0.75	0.62
HTF 21	12	1.06	+0.64	0.00	+0.28	0.45
HTF 22	12	0.58	+0.47	-0.10	+0.62	0.22
HTF 23	8	0.19	+0.27	-0.21	+0.59	0.02
HTF 24	9	0.48	+0.43	0.00	+0.29	0.23
HTF 25	12	0.77	+0.54	0.00	+0.66	0.29
HTF 26	12	1.56	+1.04	0.31	+0.36	0.71
HTF 27	12	3.73	+1.24	0.41	+0.41	1.88
HTF 28	12	1.04	+0.72	0.00	+0.39	0.52
HTF 29	12	0.62	+0.83	-0.10	+0.21	0.28
HTF 31	12	3.63	+1.23	0.00	+0.39	0.89
HTF 32	12	0.58	+0.55	-0.11	+0.22	0.22
HTF 34	12	0.87	+0.58	0.10	+0.36	0.38

TABLE 4-4
RADIOACTIVITY IN H-AREA GROUNDWATER

<u>Tank Farm</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Nonvolatile Beta (pCi/L)</u>						
HTF 1	12	20.0	+2.49	0.53	+1.11	4.68
HTF 2	12	12.7	+2.11	1.55	+1.50	3.52
HTF 3	12	35.5	+3.27	7.95	+1.93	17.0
HTF 4	12	18.0	+2.39	0.88	+1.33	3.15
HTF 5	12	73.2	+5.19	1.72	+1.24	42.4
HTF 6	12	33.6	+3.51	13.9	+2.22	26.2
HTF 7	10	3.60	+1.56	1.42	+1.38	2.64
HTF 8	10	4.57	+1.78	1.94	+1.54	3.40
HTF 9	12	15.9	+2.31	1.92	+1.33	6.12
HTF 10	12	3.24	+1.39	1.15	+1.36	2.21
HTF 11	12	5.47	+1.58	1.26	+1.25	2.44
HTF 12	12	3.39	+1.67	-0.81	+1.15	1.65
HTF 13	10	3.78	+1.49	0.00	+1.28	1.10
HTF 14	6	6.71	+2.84	3.39	+1.67	5.10
HTF 15	10	1.53	+1.61	0.00	+1.32	0.80
HTF 16	10	3.51	+1.38	1.35	+1.19	2.11
HTF 17	12	5.25	+1.90	1.01	+1.34	2.29
HTF 18	12	4.77	+1.53	0.24	+1.31	2.47
HTF 19	12	4.80	+1.86	1.57	+1.49	2.46
HTF 20	12	2.36	+1.30	0.37	+1.21	1.20
HTF 21	12	5.84	+1.45	0.74	+1.32	2.11
HTF 22	12	6.01	+1.78	0.67	+1.49	2.62
HTF 23	8	3.60	+1.56	1.89	+1.49	2.59
HTF 24	9	1.21	+1.18	-0.55	+1.25	0.22
HTF 25	12	1.85	+1.26	0.39	+1.36	1.21
HTF 26	12	9.69	+2.19	5.55	+1.92	7.11
HTF 27	12	13.4	+2.58	0.62	+1.40	5.33
HTF 28	12	1.42	+1.44	-0.26	+1.41	0.65
HTF 29	12	2.05	+1.28	-0.15	+1.32	0.68
HTF 31	12	7.65	+2.08	0.40	+1.28	2.43
HTF 32	12	1.80	+1.37	-0.31	+1.28	0.58
HTF 34	12	3.17	+1.38	0.54	+1.39	1.71

TABLE 4-4
RADIOACTIVITY IN H-AREA GROUNDWATER

<u>Tank Farm</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>H-3 (pCi/mL)</u>						
HTF 1	12	67.3	+2.13	32.9	+1.79	51.0
HTF 2	12	41.7	+1.89	30.8	+1.55	35.1
HTF 3	12	33.2	+1.90	22.9	+1.38	27.4
HTF 4	12	37.5	+1.98	29.8	+1.59	33.3
HTF 5	12	47.4	+2.12	39.0	+1.77	42.9
HTF 6	12	41.4	+1.96	32.1	+1.64	36.6
HTF 7	10	14.8	+1.41	7.09	+0.98	10.2
HTF 8	10	33.1	+1.84	24.4	+1.51	27.6
HTF 9	12	125	+3.29	44.8	+2.00	78.3
HTF 10	12	117	+3.14	70.3	+2.40	90.6
HTF 11	12	116	+3.12	72.3	+2.27	91.7
HTF 12	12	170	+3.78	102	+2.66	137
HTF 13	10	34.6	+1.75	20.9	+1.43	29.3
HTF 14	7	114	+2.93	53.0	+1.92	76.8
HTF 15	10	80.6	+2.65	39.0	+1.75	57.6
HTF 16	10	59.3	+2.11	39.2	+2.02	48.2
HTF 17	12	69.9	+2.49	59.1	+2.11	63.4
HTF 18	12	33.0	+1.72	16.3	+1.46	21.8
HTF 19	12	13.4	+1.26	9.17	+1.10	11.1
HTF 20	12	26.4	+1.75	14.4	+1.23	17.9
HTF 21	12	60.5	+2.06	25.3	+1.64	43.9
HTF 22	12	21.7	+1.40	16.4	+1.23	19.3
HTF 23	8	35.1	+1.88	26.6	+1.46	31.4
HTF 24	9	37.1	+1.80	27.4	+1.54	31.5
HTF 25	12	173	+3.47	14.3	+1.42	95.8
HTF 26	12	24.2	+1.64	13.2	+1.24	15.9
HTF 27	12	19.2	+1.53	12.5	+1.18	15.5
HTF 28	12	14.5	+1.41	5.91	+0.94	9.68
HTF 29	12	24.2	+1.65	13.7	+1.40	20.1
HTF 31	12	15.3	+1.48	1.57	+1.08	8.50
HTF 32	12	15.8	+1.44	11.1	+1.09	13.0
HTF 34	12	31.4	+1.81	19.4	+1.39	24.0
<u>Cr-51 (pCi/mL)</u>						
HTF 5	1	0.00	+3.59	0.00	+3.59	0.00
HTF 6	1	0.00	+3.61	0.00	+3.61	0.00
HTF 7	1	0.00	+3.95	0.00	+3.95	0.00
HTF 8	1	0.00	+3.94	0.00	+3.94	0.00
<u>Co-60 (pCi/mL)</u>						
HTF 5	1	0.00	+0.07	0.00	+0.07	0.00
HTF 6	1	0.00	+0.09	0.00	+0.09	0.00
HTF 7	1	0.00	+0.06	0.00	+0.06	0.00
HTF 8	1	0.00	+0.06	0.00	+0.06	0.00

TABLE 4-4
RADIOACTIVITY IN H-AREA GROUNDWATER

<u>Tank Farm</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Ru-103 (pCi/ml)</u>						
HTF 5	1	0.00	+0.26	0.00	+0.26	0.00
HTF 6	1	0.00	+0.28	0.00	+0.28	0.00
HTF 7	1	0.00	+0.25	0.00	+0.25	0.00
HTF 8	1	0.00	+0.23	0.00	+0.23	0.00
<u>Ru-106 (pCi/ml)</u>						
HTF 5	1	0.00	+0.77	0.00	+0.77	0.00
HTF 6	1	0.00	+0.85	0.00	+0.85	0.00
HTF 7	1	0.00	+0.81	0.00	+0.81	0.00
HTF 8	1	0.00	+0.69	0.00	+0.69	0.00
<u>Sb-125 (pCi/ml)</u>						
HTF 5	1	0.00	+0.20	0.00	+0.20	0.00
HTF 6	1	0.00	+0.22	0.00	+0.22	0.00
HTF 7	1	0.00	+0.21	0.00	+0.21	0.00
HTF 8	1	0.00	+0.21	0.00	+0.21	0.00
<u>I-131 (pCi/mL)</u>						
HTF 5	1	0.00	+38.0	0.00	+38.0	0.00
HTF 6	1	0.00	+37.1	0.00	+37.1	0.00
HTF 7	1	0.00	+38.7	0.00	+38.7	0.00
HTF 8	1	0.00	+39.1	0.00	+39.1	0.00
<u>Cs-134 (pCi/ml)</u>						
HTF 5	1	0.00	+0.07	0.00	+0.07	0.00
HTF 6	1	0.00	+0.07	0.00	+0.07	0.00
HTF 7	1	0.00	+0.08	0.00	+0.08	0.00
HTF 8	1	0.00	+0.08	0.00	+0.08	0.00
<u>Cs-137 (pCi/mL)</u>						
HTF 5	1	0.00	+0.09	0.00	+0.09	0.00
HTF 6	1	0.00	+0.08	0.00	+0.08	0.00
HTF 7	1	0.00	+0.07	0.00	+0.07	0.00
HTF 8	1	0.00	+0.07	0.00	+0.07	0.00
<u>Ce-144 (pCi/mL)</u>						
HTF 5	1	0.00	+0.65	0.00	+0.65	0.00
HTF 6	1	0.00	+0.62	0.00	+0.62	0.00
HTF 7	1	0.00	+0.69	0.00	+0.69	0.00
HTF 8	1	0.00	+0.71	0.00	+0.71	0.00

TABLE 4-4
RADIOACTIVITY IN H-AREA GROUNDWATER

<u>Tank Farm</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>U-238 (pCi/mL)</u>						
HTF 5	1	0.00	+13.7	0.00	+13.7	0.00
HTF 6	1	0.00	+11.1	0.00	+11.1	0.00
HTF 7	1	0.00	+12.0	0.00	+12.0	0.00
HTF 8	1	0.00	+10.3	0.00	+10.3	0.00
<u>Gross Alpha (pCi/L)</u>						
241 H	2	0.48	+0.43	0.31	+0.46	0.39
<u>Nonvolatile Beta (pCi/L)</u>						
241 H	2	11.7	+2.30	11.3	+2.00	11.5
<u>H-3 (pCi/mL)</u>						
241 H	2	635	+12.8	614	+6.38	625

**TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER**

Other Analytes (mg/L)
(CCMS Scan and Pest/Herb* Analytes: Table 4-25, Vol. II)

NCA 1 03/10/87
Pest/Herb* Analysis detected the following:
None

NCA 2 02/26/87
Pest/Herb* Analysis detected the following:
None

NCA 3 03/22/87
Pest/Herb* Analysis detected the following:
None

NCA 4 02/26/87
Pest/Herb* Analysis detected the following:
None

NCA 4 09/13/87
CCMS Scan detected the following:
1,1,2,2-Tetrachloroethane 0.019
1,1,2-Trichloroethane 0.013

Well: WCB 2, H-Area Coal File Runoff Containment Basin

SRP Grid N 71289.7
Coordinates E 63797.9
Latitude 33.287536°N
Longitude 81.637285°W

Screen Zone Elevation 81.3-73.1
Top of Casing Elevation 83.86
Casing Material PVC

Parameter	Units	02/07/87	04/30/87	07/29/87	10/03/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	82.7	81.8	81.9	81.4
pH		4.1	3.8	4.2	3.0
Conductivity	umhos/cm	240	380	1430	2080
TDS	mg/L	188	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.078	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	21.3	-	-	-
Chloride	mg/L	3.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.033	-	0.432	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.20	-	-	-
Iron	mg/L	0.147	-	3.70	-
Lead	mg/L	0.032	-	0.054	-
Magnesium	mg/L	5.85	-	-	-
Manganese	mg/L	1.30	-	7.00	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.970	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	7.39	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	4.70	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	0.320	-	-	-
NO ₃ (as N)	mg/L	0.51	-	-	-
SO ₄	mg/L	150	-	740	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	3.40	-
Tot. Org. Halogen	mg/L	<0.005	-	0.022	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	3.4	-	27.9	-
Nonvol. Beta	pCi/L	4.9	-	34.9	-
Total Radium	pCi/L	<1.0	-	7.0	-
Tritium	pCi/mL	21.2	-	40.0	-

Well: WCB 1, H-Area Coal File Runoff Containment Basin

SRP Grid N 71426.8
Coordinates E 63921.1
Latitude 33.288041°N
Longitude 81.637226°W

Screen Zone Elevation 77.0-67.8
Top of Casing Elevation 85.13
Casing Material PVC

Parameter	Units	02/07/87	04/30/87	07/29/87	10/03/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	80.3	80.3	80	79.9
pH		4.7	4.8	5.4	4.9
Conductivity	umhos/cm	80	81	35	39
TDS	mg/L	82	-	-	-
Arsenic	mg/L	<0.020	-	-	-
Barium	mg/L	0.038	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.86	-	-	-
Chloride	mg/L	3.8	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.013	-	<0.004	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.040	-	0.048	-
Lead	mg/L	0.020	-	0.010	-
Magnesium	mg/L	1.08	-	-	-
Manganese	mg/L	0.298	-	0.239	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.400	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.81	-	-	-
Silver	mg/L	0.0030	-	-	-
Sodium	mg/L	1.09	-	-	-
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	0.024	-	-	-
NO ₃ (as N)	mg/L	2.51	-	-	-
SO ₄	mg/L	6.0	-	15.0	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.00	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	0.008	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	1.8	-
Nonvol. Beta	pCi/L	2.7	-	2.3	-
Total Radium	pCi/L	1.0	-	<1.0	-
Tritium	pCi/mL	32.8	-	21.8	-

Well: WCB 3, H-Area Coal File Runoff Containment Basin

SRP Grid N 71098.8
Coordinates E 63919.9
Latitude 33.287313°N
Longitude 81.636593°W

Screen Zone Elevation 80.3-71.2
Top of Casing Elevation 83.94
Casing Material PVC

Parameter	Units	02/07/87	04/30/87	07/29/87	10/03/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	81.5	81.5	81	81
pH		4.7	4.6	5.1	4.6
Conductivity	umhos/cm	41	38	40	46
TDS	mg/L	46	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.021	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.450	-	-	-
Chloride	mg/L	4.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.005	-	0.010	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.041	-	0.096	-
Lead	mg/L	0.015	-	0.018	-
Magnesium	mg/L	0.530	-	-	-
Manganese	mg/L	0.012	-	0.036	-
Mercury	mg/L	0.0003	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.370	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.19	-	-	-
Silver	mg/L	0.0030	-	-	-
Sodium	mg/L	3.02	-	-	-
Total Phosphate	mg/L	0.025	-	-	-
Zinc	mg/L	0.024	-	-	-
NO ₃ (as N)	mg/L	1.33	-	-	-
SO ₄	mg/L	7.0	-	7.0	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	<3.0	-
Nonvol. Beta	pCi/L	<2.0	-	<2.0	-
Total Radium	pCi/L	<1.0	-	<1.0	-
Tritium	pCi/mL	42.8	-	36.5	-

**TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER**

Well: BR 12, H-Area Retention Basin

SRP Grid N 71780.1
Coordinates E 59330.1
Latitude 33.281333°N
Longitude 81.630001°W
Screen Zone Elevation 71.9-62.9
Top of Casing Elevation 78.48
Casing Material PVC

Parameter	Units	02/11/87	05/11/87	07/21/87	10/24/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	73.3	73.2	73.2	72.8
pH		4.7	4.3	4.7	5.4
Conductivity	umhos/cm	33	44	37	35
TDS	mg/L	18	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.005	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	4.48	-	-	-
Chloride	mg/L	3.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.101	-	-	-
Lead	mg/L	0.017	0.025	0.030	0.023
Magnesium	mg/L	0.211	-	-	-
Manganese	mg/L	<0.002	0.002	<0.002	0.002
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.240	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	1.17	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	3.39	3.24	3.26	3.00
Total Phosphate	mg/L	0.050	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.26	-	1.75	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	<1.000	1.00	<1.000
Tot. Org. Halogen	mg/L	<0.005	<0.005	<0.005	<0.005
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	1.8	<3.0	3.1	4.0
Nonvol. Beta	pCi/L	8.1	10.1	13.4	10.8
Total Radium	pCi/L	<1.0	1.0	<1.0	1.1
Tritium	pCi/mL	33.4	-	33.2	34.4

Well: BR 14, H-Area Retention Basin

SRP Grid N 71431.4
Coordinates E 59612.1
Latitude 33.281023°N
Longitude 81.642584°W
Screen Zone Elevation 70.7-61.7
Top of Casing Elevation 77.29
Casing Material PVC

Parameter	Units	02/11/87	05/11/87	07/21/87	10/24/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	74.4	74.4	74.4	74.3
pH		4.5	4.3	4.4	4.9
Conductivity	umhos/cm	420	380	390	380
TDS	mg/L	284	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.052	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.92	-	-	-
Chloride	mg/L	4.5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.028	-	-	-
Lead	mg/L	0.025	0.029	0.044	0.019
Magnesium	mg/L	2.94	-	-	-
Manganese	mg/L	0.085	0.082	0.112	0.085
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.16	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	4.06	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	51.8	44.2	50.0	52.1
Total Phosphate	mg/L	0.025	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	38.7	-	36.1	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	<0.005	0.007	0.012	<0.005
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	31.4	23.6	15.6	44.6
Nonvol. Beta	pCi/L	21.4	6.1	9.1	17.8
Total Radium	pCi/L	9.1	13.1	12.6	12.8
Tritium	pCi/mL	5.44	-	7.30	5.10

Well: BR 13, H-Area Retention Basin

SRP Grid N 71559.6
Coordinates E 59300.2
Latitude 33.280797°N
Longitude 81.649654°W
Screen Zone Elevation 70.5-61.5
Top of Casing Elevation 77.14
Casing Material PVC

Parameter	Units	02/11/87	05/11/87	07/21/87	10/24/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	73.2	72.5	72.5	72.1
pH		4.3	4.4	4.3	4.6
Conductivity	umhos/cm	53	56	62	54
TDS	mg/L	26	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.008	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.750	-	-	-
Chloride	mg/L	8.2	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.117	-	-	-
Lead	mg/L	0.032	0.032	0.035	0.024
Magnesium	mg/L	0.510	-	-	-
Manganese	mg/L	0.005	0.005	0.009	0.016
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.980	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.37	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	5.68	6.74	6.64	4.76
Total Phosphate	mg/L	0.285	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.33	-	1.66	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.00	<1.000	1.30	<1.000
Tot. Org. Halogen	mg/L	<0.005	0.008	<0.005	0.005
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	1.1	3.6	4.9	6.4
Nonvol. Beta	pCi/L	5.3	7.4	6.2	7.8
Total Radium	pCi/L	1.9	2.5	1.4	3.2
Tritium	pCi/mL	38.8	-	34.8	32.1

Other Analyses (mg/L)

IGCMS Scan Analytes: Table 4-25, Vol. 113

BR 13 07/21/87

GCMS Scan detected the following: None

BR 11 07/21/87

GCMS Scan detected the following: None

**TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER**

Other Analyses (mg/L) (GCMS Scan Analytes: Table 4-25, Vol. 11)		
HSB 65	07/14/87	
Aluminum		0.059
HSB 65A	07/14/87	
Aluminum		0.032
HSB 65B	07/14/87	
Aluminum		0.062
HSB 65C	07/14/87	
Aluminum		0.053
HSB 66	07/09/87	
Aluminum		0.046
GCMS Scan detected the following: None		
HSB 67	07/21/87	
Aluminum		1.48
HSB 68	07/13/87	
Aluminum		4.32
HSB 68A	07/13/87	
Aluminum		0.091
HSB 68B	07/14/87	
Aluminum		0.044
HSB 68C	07/14/87	
Aluminum		0.014
HSB 69	07/14/87	
Aluminum		5.01
HSB 70	07/21/87	
Aluminum		0.037
GCMS Scan detected the following: None		
HSB 71	07/21/87	
Aluminum		0.058
HSB 83A	07/13/87	
Aluminum		0.065
HSB 83B	07/13/87	
Aluminum		0.069
HSB 83C	07/13/87	
Aluminum		0.099
HSB 83D	07/13/87	
Aluminum		0.080
GCMS Scan detected the following: None		
HSB 84A	07/13/87	
Aluminum		1.36
HSB 84B	07/13/87	
Aluminum		0.051
HSB 84C	07/14/87	
Aluminum		0.151
HSB 84D	07/13/87	
Aluminum		0.740
HSB 85A	07/08/87	
Aluminum		0.022
HSB 85B	07/09/87	
Aluminum		0.260
HSB 85C	07/08/87	
Aluminum		0.043
HSB 86A	07/12/87	
Aluminum		0.072
HSB 86B	07/12/87	
Aluminum		0.042
HSB 86C	07/12/87	
Aluminum		0.147
HSB 86D	07/12/87	
Aluminum		12.0

Well: HTF 1, H-Area Tank Farm

		meters (MSL)			
SRP Grid	N 71745.0				
Coordinates	E 62067.0	Screen Zone Elevation	78.3-72.2		
Latitude	33.285720°N	Top of Casing Elevation	85.95		
Longitude	81.642728°W	Casing Material	Steel		
Parameter	Unit	01/23/87	04/27/87	07/28/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	80.8	82.2	83.2	83.2
pH	pH	6.9	6.9	6.6	7.1
Conductivity	umhos/cm	247	255	305	221
Sodium	mg/L	-	-	7.33	5.96
NO ₃ (as N)	mg/L	-	-	0.66	0.34

Well: HTF 2, H-Area Tank Farm

		meters (MSL)			
SRP Grid	N 71610.0				
Coordinates	E 62175.0	Screen Zone Elevation	78.3-72.2		
Latitude	33.285598°N	Top of Casing Elevation	85.89		
Longitude	81.642181°W	Casing Material	Steel		
Parameter	Units	01/23/87	04/27/87	07/28/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	81	82.7	83.8	83.8
pH	pH	7.1	6.1	6.1	6.5
Conductivity	umhos/cm	156	173	210	178
Sodium	mg/L	-	-	5.77	4.56
NO ₃ (as N)	mg/L	-	-	0.67	0.33

Well: HTF 3, H-Area Tank Farm

		meters (MSL)			
SRP Grid	N 71510.0				
Coordinates	E 62067.0	Screen Zone Elevation	-		
Latitude	33.285200°N	Top of Casing Elevation	85.55		
Longitude	81.642271°W	Casing Material	Steel		
Parameter	Units	01/23/87	04/27/87	07/28/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	80.9	82.7	83.9	83.9
pH	pH	6.6	7.0	6.5	7.2
Conductivity	umhos/cm	188	177	178	131
Sodium	mg/L	-	-	5.86	4.78
NO ₃ (as N)	mg/L	-	-	0.43	0.34

Well: HTF 4, H-Area Tank Farm

		meters (MSL)			
SRP Grid	N 71630.0				
Coordinates	E 61942.0	Screen Zone Elevation	77.8-71.7		
Latitude	33.285262°N	Top of Casing Elevation	86.22		
Longitude	81.642834°W	Casing Material	Steel		
Parameter	Units	01/23/87	04/27/87	07/28/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	80.4	82.3	83.5	83.5
pH	pH	6.1	6.4	6.2	6.8
Conductivity	umhos/cm	136	161	183	130
Sodium	mg/L	-	-	4.41	2.62
NO ₃ (as N)	mg/L	-	-	0.51	0.30

Well: HTF 5, H-Area Tank Farm

		meters (MSL)			
SRP Grid	N 71390.0				
Coordinates	E 62110.0	Screen Zone Elevation	86.7-80.6		
Latitude	33.285005°N	Top of Casing Elevation	93.20		
Longitude	81.641925°W	Casing Material	Steel		
Parameter	Units	01/23/87	04/27/87	07/28/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	84.4	84.4	85.3	85
pH	pH	5.4	6.9	5.0	5.4
Conductivity	umhos/cm	49	45	47	40
Sodium	mg/L	-	-	4.50	2.74
NO ₃ (as N)	mg/L	-	-	2.01	2.13

Well: HTF 6, H-Area Tank Farm

		meters (MSL)			
SRP Grid	N 71259.0				
Coordinates	E 62228.0	Screen Zone Elevation	86.4-80.3		
Latitude	33.284908°N	Top of Casing Elevation	93.08		
Longitude	81.641360°W	Casing Material	Steel		
Parameter	Units	01/23/87	04/27/87	07/28/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	84	83.8	85.2	84.8
pH	pH	5.8	5.4	4.7	5.0
Conductivity	umhos/cm	45	48	39	39
Sodium	mg/L	-	-	4.93	3.22
NO ₃ (as N)	mg/L	-	-	1.90	1.60

**TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER**

Well: HTF 7, H-Area Tank Farm

SRP Grid N 71130.0
Coordinates E 62112.0
Latitude 33.284433°N
Longitude 81.641415°W
Screen Zone Elevation 86.4-80.3
Top of Casing Elevation 93.05
Casing Material Steel

Parameter	Units	03/30/87	04/27/87	07/28/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	82.5	83.1	84	84.4
pH	pH	7.4	6.8	4.9	5.2
Conductivity	umhos/cm	250	185	128	97
Sodium	mg/L	-	-	8.46	5.85
NO ₃ (as N)	mg/L	-	-	0.77	0.92

Well: HTF 13, H-Area Tank Farm

SRP Grid N 71856.0
Coordinates E 61586.0
Latitude 33.285181°N
Longitude 81.644210°W
Screen Zone Elevation 86.1-80.0
Top of Casing Elevation 98.87
Casing Material Steel

Parameter	Units	03/30/87	04/27/87	07/30/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	81.7	82.1	83.3	83.4
pH	pH	6.6	6.9	5.8	5.5
Conductivity	umhos/cm	50	69	40	30
Sodium	mg/L	-	-	6.10	3.60
NO ₃ (as N)	mg/L	-	-	0.93	0.82

Well: HTF 8, H-Area Tank Farm

SRP Grid N 71270.0
Coordinates E 61965.0
Latitude 33.284503°N
Longitude 81.642074°W
Screen Zone Elevation 86.4-80.3
Top of Casing Elevation 93.17
Casing Material Steel

Parameter	Units	03/30/87	04/27/87	07/28/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	82	82.6	84.1	84
pH	pH	5.2	6.5	4.3	4.5
Conductivity	umhos/cm	50	24	34	34
Sodium	mg/L	-	-	4.60	2.71
NO ₃ (as N)	mg/L	-	-	2.04	1.76

Well: HTF 14, H-Area Tank Farm

SRP Grid N 71858.0
Coordinates E 61462.0
Latitude 33.284983°N
Longitude 81.644540°W
Screen Zone Elevation 85.9-79.8
Top of Casing Elevation 98.72
Casing Material Steel

Parameter	Units	03/30/87	06/22/87	07/28/87	10/26/87
Sampling Method		-	Ball	Ball	Ball
Water Elevation	meters	-	82.4	82.1	83.2
pH	pH	-	6.4	5.3	5.9
Conductivity	umhos/cm	-	62	58	50
Sodium	mg/L	-	-	8.06	5.06
NO ₃ (as N)	mg/L	-	-	2.10	1.58

Well: HTF 9, H-Area Tank Farm

SRP Grid N 71652.0
Coordinates E 61698.0
Latitude 33.284912°N
Longitude 81.643519°W
Screen Zone Elevation 81.0-74.9
Top of Casing Elevation 98.75
Casing Material Steel

Parameter	Units	01/27/87	04/27/87	07/28/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	79.7	82	83.5	83.2
pH	pH	6.3	6.6	6.2	6.4
Conductivity	umhos/cm	70	93	30	31
Sodium	mg/L	-	-	4.42	3.99
NO ₃ (as N)	mg/L	-	-	0.52	0.38

Well: HTF 15, H-Area Tank Farm

SRP Grid N 71700.0
Coordinates E 61353.0
Latitude 33.284456°N
Longitude 81.644521°W
Screen Zone Elevation 85.6-79.5
Top of Casing Elevation 98.29
Casing Material Steel

Parameter	Units	03/30/87	04/27/87	07/30/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	81.8	82.3	83.1	83.1
pH	pH	5.0	4.8	4.2	4.9
Conductivity	umhos/cm	54	52	49	50
Sodium	mg/L	-	-	7.98	8.34
NO ₃ (as N)	mg/L	-	-	3.56	1.80

Well: HTF 10, H-Area Tank Farm

SRP Grid N 71520.0
Coordinates E 61838.0
Latitude 33.284849°N
Longitude 81.642894°W
Screen Zone Elevation 80.8-74.7
Top of Casing Elevation 98.35
Casing Material Steel

Parameter	Units	01/26/87	04/27/87	07/30/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	79.4	81.7	83.2	83.1
pH	pH	6.2	7.0	5.5	6.6
Conductivity	umhos/cm	74	44	141	110
Sodium	mg/L	-	-	4.87	4.27
NO ₃ (as N)	mg/L	-	-	0.47	0.27

Well: HTF 16, H-Area Tank Farm

SRP Grid N 72150.0
Coordinates E 61950.0
Latitude 33.286425°N
Longitude 81.643827°W
Screen Zone Elevation 81.8-75.7
Top of Casing Elevation 91.53
Casing Material Steel

Parameter	Units	02/23/87	04/27/87	08/24/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	80.9	81.7	82.1	82.2
pH	pH	5.5	6.4	4.4	5.1
Conductivity	umhos/cm	44	55	48	46
Sodium	mg/L	-	-	-	2.40
NO ₃ (as N)	mg/L	-	-	-	6.82

Well: HTF 11, H-Area Tank Farm

SRP Grid N 71398.0
Coordinates E 61722.0
Latitude 33.284390°N
Longitude 81.642962°W
Screen Zone Elevation 78.9-72.8
Top of Casing Elevation 98.38
Casing Material Steel

Parameter	Units	01/26/87	04/27/87	07/28/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	78.7	81.8	83.2	83.2
pH	pH	6.0	6.4	5.7	6.1
Conductivity	umhos/cm	77	109	110	72
Sodium	mg/L	-	-	4.96	4.19
NO ₃ (as N)	mg/L	-	-	0.54	0.45

Well: HTF 17, H-Area Tank Farm

SRP Grid N 72600.0
Coordinates E 61188.0
Latitude 33.286177°N
Longitude 81.646703°W
Screen Zone Elevation 78.8-72.7
Top of Casing Elevation 88.45
Casing Material PVC

Parameter	Units	01/23/87	04/27/87	07/30/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	77.4	80.5	80.5	80.2
pH	pH	6.1	6.0	5.9	5.7
Conductivity	umhos/cm	117	56	64	70
Sodium	mg/L	-	-	5.07	3.57
NO ₃ (as N)	mg/L	-	-	3.62	4.29

Well: HTF 12, H-Area Tank Farm

SRP Grid N 71520.0
Coordinates E 62593.0
Latitude 33.284449°N
Longitude 81.643539°W
Screen Zone Elevation 80.1-74.0
Top of Casing Elevation 98.42
Casing Material Steel

Parameter	Units	01/26/87	04/27/87	07/28/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	79	81.7	83	83.2
pH	pH	5.6	6.7	5.9	6.2
Conductivity	umhos/cm	46	53	46	45
Sodium	mg/L	-	-	3.91	2.89
NO ₃ (as N)	mg/L	-	-	0.72	0.56

Well: HTF 18, H-Area Tank Farm

SRP Grid N 71771.8
Coordinates E 61223.3
Latitude 33.284403°N
Longitude 81.645002°W
Screen Zone Elevation 82.8-76.7
Top of Casing Elevation 98.66
Casing Material PVC

Parameter	Units	01/26/87	04/27/87	07/30/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	80.6	82	82.7	83.4
pH	pH	4.7	4.9	2.8	4.6
Conductivity	umhos/cm	70	62	43	54
Sodium	mg/L	-	-	7.10	5.25
NO ₃ (as N)	mg/L	-	-	-	2.14

TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER

Well: HTP 32, H-Area Tank Farm

SRP Grid	N 70880.6				<u>meters (MSL)</u>
Coordinates	E 62807.9	Screen Zone Elevation	81.6-76.5		
Latitude	33.285016°N	Top of Casing Elevation	100.30		
Longitude	81.639098°W	Casing Material	PVC		

Parameter	Units	01/26/87	04/27/87	07/30/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	82.3	83.4	83.7	83.6
pH	pH	4.8	5.4	5.5	4.6
Conductivity	umhos/cm	43	48	32	40
Sodium	mg/L	-	-	6.16	4.95
NO ₃ (as N)	mg/L	-	-	2.91	2.82

Well: HTP 34, H-Area Tank Farm

SRP Grid	N 71144.1				<u>meters (MSL)</u>
Coordinates	E 61978.5	Screen Zone Elevation	82.8-76.7		
Latitude	33.284246°N	Top of Casing Elevation	93.11		
Longitude	81.641794°W	Casing Material	PVC		

Parameter	Units	01/23/87	04/27/87	07/28/87	10/26/87
Sampling Method		Ball	Ball	Ball	Ball
Water Elevation	meters	80.2	82.8	84.1	84
pH	pH	5.1	5.8	5.2	5.1
Conductivity	umhos/cm	52	49	59	57
Sodium	mg/L	-	-	5.92	4.38
NO ₃ (as N)	mg/L	-	-	0.84	0.86

**TABLE 4-6
CHEMICAL CONCENTRATIONS IN S-AREA GROUNDWATER**

Well: SBC 1, S-Area Background Wells

SRP Grid N 74619.4
Coordinates E 63749.1
Latitude 33.294822°N
Longitude 81.643880°W

Screen Zone Elevation 67.3-58.1
Top of Casing Elevation 79.98
Casing Material PVC

Parameter	Units	01/20/87	04/30/87	08/17/87	10/22/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	72.4	73	73	72.8
pH	pH	4.0	4.7	5.0	4.8
Conductivity	umhos/cm	54	43	39	41
TDS	mg/L	26	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.015	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.843	-	-	-
Chloride	mg/L	3.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.014	-	-	-
Lead	mg/L	0.006	-	0.006	-
Magnesium	mg/L	0.895	-	-	-
Manganese	mg/L	0.020	-	-	-
Mercury	mg/L	0.0006	-	0.0006	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.445	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.85	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	4.43	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	2.50	-	-	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	0.015	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	2.5	-	-	-
Total Radium	pCi/L	1.0	-	-	-
Tritium	pCi/mL	22.5	-	23.2	-

Well: SBC 3, S-Area Background Wells

SRP Grid N 73699.9
Coordinates E 65263.6
Latitude 33.295262°N
Longitude 81.638100°W

Screen Zone Elevation 72.1-63.0
Top of Casing Elevation 87.35
Casing Material PVC

Parameter	Units	01/20/87	04/30/87	07/29/87	10/05/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	72.3	72.8	72.8	73
pH	pH	4.1	4.3	5.1	5.2
Conductivity	umhos/cm	30	20	28	18
TDS	mg/L	52	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.005	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.507	-	-	-
Chloride	mg/L	2.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.014	-	-	-
Lead	mg/L	0.012	-	0.012	-
Magnesium	mg/L	0.327	-	-	-
Manganese	mg/L	0.017	-	-	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.231	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.81	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.13	-	-	-
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.60	-	-	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	18.5	-	18.1	-

Well: SBC 2, S-Area Background Wells

SRP Grid N 74570.2
Coordinates E 64939.6
Latitude 33.29655°N
Longitude 81.64064°W

Screen Zone Elevation 71.9-62.8
Top of Casing Elevation 88.39
Casing Material PVC

Parameter	Units	01/20/87	04/30/87	07/29/87	10/05/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	72.3	72.8	72.9	73.1
pH	pH	4.0	4.8	5.0	5.1
Conductivity	umhos/cm	30	21	22	20
TDS	mg/L	44	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.005	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.629	-	-	-
Chloride	mg/L	2.5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.013	-	-	-
Lead	mg/L	0.020	-	0.012	-
Magnesium	mg/L	0.492	-	-	-
Manganese	mg/L	0.020	-	-	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.299	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.33	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.08	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.82	-	-	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	2.7	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	14.9	-	18.4	-

Well: SBC 4, S-Area Background Wells

SRP Grid N 72399.8
Coordinates E 65010.2
Latitude 33.29196°N
Longitude 81.636248°W

Screen Zone Elevation 64.9-55.8
Top of Casing Elevation 83.24
Casing Material PVC

Parameter	Units	01/20/87	04/30/87	07/29/87	10/05/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	73.3	73.5	73.5	73.6
pH	pH	3.8	4.6	5.5	5.0
Conductivity	umhos/cm	36	31	30	28
TDS	mg/L	34	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.010	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.874	-	-	-
Chloride	mg/L	2.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.014	-	-	-
Lead	mg/L	0.020	-	0.014	-
Magnesium	mg/L	0.539	-	-	-
Manganese	mg/L	0.007	-	-	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.286	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.12	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.88	-	-	-
Total Phosphate	mg/L	<0.020	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.40	-	-	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-
Tot. Org. Halogen	mg/L	0.033	-	0.039	-
Carbon Tet.	mg/L	-	-	<0.005	-
Chloroform	mg/L	-	-	<0.005	-
Tetrachloroethene	mg/L	-	-	0.005	-
Trichloroethene	mg/L	-	-	0.111	-
1,1,1-TCE	mg/L	-	-	<0.005	-
Gross Alpha	pCi/L	3.2	-	-	-
Nonvol. Beta	pCi/L	10.4	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	9.87	-	10.7	-

**TABLE 4-6
CHEMICAL CONCENTRATIONS IN S-AREA GROUNDWATER**

Well: SBC 5, S-Area Background Wells

SRP Grid N 72208.3
Coordinates E 64499.0
Latitude 33.290712°N
Longitude 81.637222°W

meters (MSL)
Screen Zone Elevation 86.9±0.8
Top of Casing Elevation 86.71
Casing Material PVC

Other Analyses (mg/L)
(GCMS Scan Analyses: Table 4-25, Vol. 11)

SBC 4 07/29/87
GCMS Scan detected the following:
trans-1,2-Dichloroethene 0.017

Parameter	Units	03/16/87	05/02/87	08/12/87	11/11/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	75.8	76	76	75.8
pH	pH	7.3	7.1	7.0	7.0
Conductivity	umhos/cm	92	75	63	58
TDS	mg/L	54	56	40	64
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.015	0.013	0.012	0.014
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	13.5	9.38	5.21	10.3
Chloride	mg/L	2.9	1.7	2.7	2.7
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.17	0.39	<0.10	<0.10
Iron	mg/L	0.019	0.071	0.008	0.058
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.258	0.283	0.280	-
Manganese	mg/L	0.006	0.010	0.008	0.010
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.51	0.920	0.787	0.856
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	2.93	3.60	3.15	-
Silver	mg/L	0.0020	<0.0020	<0.0020	0.0030
Sodium	mg/L	3.55	3.10	2.60	2.53
Total Phosphate	mg/L	0.030	0.030	0.030	<0.020
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.88	0.45	0.93	1.05
SO ₄	mg/L	<5.0	2.5	<5.0	5.0
Phenols	mg/L	<0.002	<0.005	<0.002	0.049
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	33.2
Tot. Org. Halogen	mg/L	0.015	0.009	0.016	0.018
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	<3.0	<3.0	-
Nonvol. Beta	pCi/L	3.0	2.0	2.0	-
Total Radium	pCi/L	0.9	1.0	0.8	-
Tritium	pCi/mL	3.85	0.70	4.30	5.40

Well: SBC 6, S-Area Background Wells

SRP Grid N 73599.3
Coordinates E 63860.0
Latitude 33.291747°N
Longitude 81.641607°W

meters (MSL)
Screen Zone Elevation 72.6±0.4
Top of Casing Elevation 85.86
Casing Material PVC

Parameter	Units	02/07/87	04/30/87	07/29/87	10/05/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	74.3	74.7	74.7	74.8
pH	pH	4.7	4.9	5.5	5.2
Conductivity	umhos/cm	45	35	35	34
TDS	mg/L	22	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.012	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.680	-	-	-
Chloride	mg/L	3.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.006	-	-	-
Lead	mg/L	0.014	-	0.017	-
Magnesium	mg/L	0.480	-	-	-
Manganese	mg/L	0.012	-	-	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.437	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.34	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	4.14	-	-	-
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.75	-	-	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.60	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	1.6	-	-	-
Total Radium	pCi/L	1.3	-	-	-
Tritium	pCi/mL	12.2	-	12.8	-

**TABLE 4-7
CHEMICAL CONCENTRATIONS IN Z-AREA GROUNDWATER**

Well: ZBC 1, Z-Area Background Wells

SRP Grid N 76584.2
Coordinates E 65584.1
Latitude 33.302162°N
Longitude 81.642863°W
Screen Zone Elevation 73.2-67.1
Top of Casing Elevation 88.72
Casing Material PVC

Parameter	Units	06/01/87	08/27/87	12/14/87
Sampling Method		Pump	Pump	Pump
Water Elevation	meters	71.8	71.9	71.6
pH		8.4	8.5	8.3
Conductivity	umhos/cm	75	35	27
TDS	mg/L	56	20	-
Arsenic	mg/L	<0.002	<0.002	<0.002
Barium	mg/L	0.011	0.007	0.008
Beryllium	mg/L	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002
Calcium	mg/L	4.85	2.50	1.13
Chloride	mg/L	2.9	1.0	2.4
Chromium	mg/L	<0.004	<0.004	0.004
Copper	mg/L	-	-	-
Cyanide	mg/L	-	-	-
Fluoride	mg/L	0.18	<0.10	-
Iron	mg/L	0.105	0.046	0.011
Lead	mg/L	<0.006	<0.006	0.009
Magnesium	mg/L	0.653	0.317	0.441
Manganese	mg/L	0.030	0.019	0.013
Mercury	mg/L	<0.0002	<0.0002	<0.0002
Nickel	mg/L	-	-	-
Potassium	mg/L	0.650	<0.500	<0.500
Selenium	mg/L	<0.002	<0.002	<0.002
Silica	mg/L	3.95	3.13	-
Silver	mg/L	<0.0020	<0.0020	<0.0020
Sodium	mg/L	7.30	2.72	2.02
Total Phosphate	mg/L	0.070	0.072	0.040
Zinc	mg/L	-	-	-
NO ₃ (as N)	mg/L	1.40	1.75	1.57
SO ₄	mg/L	<3.0	<3.0	<3.0
Phenols	mg/L	<0.005	0.008	<0.005
Tot. Org. Carbon	mg/L	1.00	2.00	<1.000
Tot. Org. Halogen	mg/L	0.009	<0.005	<0.005
Carbon Tet.	mg/L	-	<0.005	<0.005
Chloroform	mg/L	-	<0.005	<0.005
Tetrachloroethene	mg/L	-	<0.005	<0.005
Trichloroethene	mg/L	-	<0.005	<0.005
1,1,1-TCE	mg/L	-	<0.005	<0.005
Gross Alpha	pCi/L	<3.0	<3.0	1.2
Nonvol. Beta	pCi/L	1.6	<2.0	<2.0
Total Radium	pCi/L	<1.0	0.4	<1.0
Tritium	pCi/mL	13.7	14.4	16.5

Well: ZBC 2, Z-Area Background Wells

SRP Grid N 76170.5
Coordinates E 67472.9
Latitude 33.304327°N
Longitude 81.637084°W
Screen Zone Elevation 70.6-64.3
Top of Casing Elevation 84.73
Casing Material PVC

Parameter	Units	06/01/87	08/27/87	12/14/87
Sampling Method		Pump	Pump	Pump
Water Elevation	meters	68.5	68.6	68.1
pH		5.3	4.8	5.2
Conductivity	umhos/cm	26	20	17
TDS	mg/L	46	10	-
Arsenic	mg/L	<0.002	<0.002	<0.002
Barium	mg/L	<0.004	0.006	<0.007
Beryllium	mg/L	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002
Calcium	mg/L	1.02	1.70	0.743
Chloride	mg/L	3.1	3.0	2.5
Chromium	mg/L	<0.004	<0.004	0.004
Copper	mg/L	-	-	-
Cyanide	mg/L	-	-	-
Fluoride	mg/L	0.23	<0.10	-
Iron	mg/L	<0.004	0.030	0.025
Lead	mg/L	<0.006	<0.006	0.010
Magnesium	mg/L	0.452	0.527	0.437
Manganese	mg/L	0.013	0.012	0.008
Mercury	mg/L	<0.0002	<0.0002	<0.0002
Nickel	mg/L	-	-	-
Potassium	mg/L	0.510	<0.500	<0.500
Selenium	mg/L	<0.002	<0.002	<0.002
Silica	mg/L	2.70	2.33	-
Silver	mg/L	<0.0020	<0.0020	<0.0020
Sodium	mg/L	1.60	1.09	0.74
Total Phosphate	mg/L	0.030	0.140	0.090
Zinc	mg/L	-	-	-
NO ₃ (as N)	mg/L	0.95	1.21	1.22
SO ₄	mg/L	<3.0	<5.0	<5.0
Phenols	mg/L	<0.005	0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	0.008	0.006	0.006
Carbon Tet.	mg/L	-	<0.005	<0.005
Chloroform	mg/L	-	<0.005	<0.005
Tetrachloroethene	mg/L	-	<0.005	<0.005
Trichloroethene	mg/L	-	<0.005	<0.005
1,1,1-TCE	mg/L	-	<0.005	<0.005
Gross Alpha	pCi/L	1.9	1.9	2.0
Nonvol. Beta	pCi/L	3.4	<2.0	1.6
Total Radium	pCi/L	1.1	0.8	<1.0
Tritium	pCi/mL	13.7	14.4	15.1

Well: ZBC 1P, Z-Area Background Wells

SRP Grid N 76583.5
Coordinates E 65598.8
Latitude 33.302193°N
Longitude 81.642833°W
Screen Zone Elevation 85.6-84.1
Top of Casing Elevation 88.69
Casing Material PVC

Parameter	Units	06/22/87	08/29/87	12/14/87
Sampling Method		Ball	Ball	Ball
Water Elevation	meters	-	84.3	-
pH		-	6.2	-
Conductivity	umhos/cm	-	120	-
TDS	mg/L	-	-	-
Arsenic	mg/L	-	-	-
Barium	mg/L	-	-	-
Beryllium	mg/L	-	-	-
Cadmium	mg/L	-	-	-
Calcium	mg/L	-	-	-
Chloride	mg/L	-	-	-
Chromium	mg/L	-	-	-
Copper	mg/L	-	-	-
Cyanide	mg/L	-	-	-
Fluoride	mg/L	-	-	-
Iron	mg/L	-	-	-
Lead	mg/L	-	-	-
Magnesium	mg/L	-	-	-
Manganese	mg/L	-	-	-
Mercury	mg/L	-	-	-
Nickel	mg/L	-	-	-
Potassium	mg/L	-	-	-
Selenium	mg/L	-	-	-
Silica	mg/L	-	-	-
Silver	mg/L	-	-	-
Sodium	mg/L	-	-	-
Total Phosphate	mg/L	-	-	-
Zinc	mg/L	-	-	-
NO ₃ (as N)	mg/L	-	-	-
SO ₄	mg/L	-	-	-
Phenols	mg/L	-	-	-
Tot. Org. Carbon	mg/L	-	-	-
Tot. Org. Halogen	mg/L	-	-	-
Carbon Tet.	mg/L	-	-	-
Chloroform	mg/L	-	-	-
Tetrachloroethene	mg/L	-	-	-
Trichloroethene	mg/L	-	-	-
1,1,1-TCE	mg/L	-	-	-
Gross Alpha	pCi/L	-	-	-
Nonvol. Beta	pCi/L	-	-	-
Total Radium	pCi/L	-	-	-
Tritium	pCi/mL	-	-	-

**Other Analyses (mg/L)
(GCMS Scan Analytes: Table 4-25, Vol. 11)**

ZBC 1	08/27/87	Nitrite as nitrogen	<0.1
		Antimony	<0.003
		GCMS Scan detected the following:	None
ZBC 1	12/14/87	Antimony	<0.003
		GCMS Scan detected the following:	None
ZBC 2	08/27/87	Nitrite as nitrogen	<0.1
		Antimony	<0.003
		GCMS Scan detected the following:	None
ZBC 2	12/14/87	Antimony	<0.003
		GCMS Scan detected the following:	None

TABLE 4-8
RADIOACTIVITY IN Z AND ZW WELLS GROUNDWATER

<u>F and H Areas</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Gross Alpha (pCi/L)</u>						
ZW 1A	1	0.31	+0.36	0.31	+0.36	0.31
ZW 2	1	0.21	+0.30	0.21	+0.30	0.21
ZW 3	1	0.31	+0.36	0.31	+0.36	0.31
ZW 4	1	0.84	+0.59	0.84	+0.59	0.84
ZW 5	1	0.42	+0.42	0.42	+0.42	0.42
ZW 6	1	0.31	+0.36	0.31	+0.36	0.31
ZW 7	1	0.10	+0.21	0.10	+0.21	0.10
ZW 8	1	0.63	+0.51	0.63	+0.51	0.63
ZW 9	1	0.52	+0.47	0.52	+0.47	0.52
ZW 10	1	1.36	+0.76	1.36	+0.76	1.36
<u>Nonvolatile Beta (pCi/L)</u>						
ZW 1A	1	-0.39	+1.31	-0.39	+1.31	-0.39
ZW 2	1	0.00	+1.35	0.00	+1.35	0.00
ZW 3	1	0.31	+1.39	0.31	+1.39	0.31
ZW 4	1	5.20	+1.86	5.20	+1.86	5.20
ZW 5	1	1.10	+1.48	1.10	+1.48	1.10
ZW 6	1	2.20	+1.59	2.20	+1.59	2.20
ZW 7	1	12.8	+2.42	12.8	+2.42	12.8
ZW 8	1	5.04	+1.85	5.04	+1.85	5.04
ZW 9	1	0.94	+1.46	0.94	+1.46	0.94
ZW 10	1	3.86	+1.75	3.86	+1.75	3.86
<u>H-3 (pCi/mL)</u>						
ZW 1A	1	5.46	+0.92	5.46	+0.92	5.46
ZW 2	1	26.4	+1.44	26.4	+1.44	26.4
ZW 3	1	9.5	+1.03	9.50	+1.03	9.50
ZW 4	1	10.4	+1.06	10.4	+1.06	10.4
ZW 5	1	24.0	+1.39	24.0	+1.39	24.0
ZW 6	1	21.0	+1.33	21.0	+1.33	21.0
ZW 7	1	89.1	+2.41	89.1	+2.41	89.1
ZW 8	1	22.7	+1.36	22.7	+1.36	22.7
ZW 9	1	95.0	+2.48	95.0	+2.48	95.0
ZW 10	1	71.3	+2.18	71.3	+2.18	71.3
<u>H-3 (pCi/mL)</u>						
<u>F and H Areas</u>						
Z 3	1	282	+4.17	282	+4.17	282
Z 9	1	14.0	+1.16	14.0	+1.16	14.0
Z 11	1	16.4	+1.22	16.4	+1.22	16.4
Z 12	1	13.7	+1.15	13.7	+1.15	13.7
Z 13	1	11.4	+1.09	11.4	+1.09	11.4
Z 15	1	60.5	+2.03	60.5	+2.03	60.5
Z 17	1	9.86	+1.04	9.86	+1.04	9.86
Z 18	1	5.48	+0.92	5.48	+0.92	5.48
Z 19A	1	9.78	+1.04	9.78	+1.04	9.78
Z 20	1	11.4	+1.09	11.4	+1.09	11.4

TABLE 4-9
RADIOACTIVITY IN C-AREA GROUNDWATER

<u>Seepage Basins</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Gross Alpha (pCi/L)</u>						
CSB 1A	2	0.10	+0.19	0.00	+0.29	0.05
CSB 2A	2	0.58	+0.48	0.10	+0.36	0.34
CSB 3A	4	0.52	+0.55	0.00	+0.30	<.25
CSB 4A	3	0.52	+0.62	0.21	+0.41	0.42
CSB 5A	4	0.31	+0.55	-0.10	+0.21	0.08
CSB 6A	4	0.93	+0.69	0.10	+0.46	0.61
<u>Nonvolatile Beta (pCi/L)</u>						
CSB 1A	2	2.58	+1.32	1.83	+1.52	2.20
CSB 2A	2	1.72	+1.23	1.22	+1.46	1.47
CSB 3A	4	1.83	+1.52	0.71	+1.35	1.39
CSB 4A	3	1.57	+1.57	0.87	+1.36	1.27
CSB 5A	4	4.25	+1.71	1.89	+1.61	3.45
CSB 6A	4	3.81	+1.71	2.72	+1.42	3.09
<u>H-3 (pCi/mL)</u>						
CSB 1A	3	64.2	+2.21	55.3	+2.18	60.3
CSB 2A	3	70.7	+2.42	69.6	+2.29	70.3
CSB 3A	4	94,400	+793	47,800	+990	67,000
CSB 4A	3	69,700	+1,410	45,300	+921	55,300
CSB 5A	4	11,800	+240	3,410	+72.3	6,440
CSB 6A	4	4,120	+85.8	1,270	+76.5	2,230

**TABLE 4-10
CHEMICAL CONCENTRATIONS IN C-AREA GROUNDWATER**

Well: CCB 1, C-Area Coal Pile Runoff Containment Basin

SRP Grid N 65438.5 meters (MSL)
Coordinates E 46990.1
Latitude 33.247174°N Screen Zone Elevation 69.6-60.5
Longitude 81.670175°W Top of Casing Elevation 84.91
Casing Material PVC

Parameter	Units	03/15/87	04/28/87	08/10/87	10/11/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	68.2	68.6	68.5	68.6
pH		4.8	4.9	4.4	4.9
Conductivity	umhos/cm	19	20	25	19
TDS	mg/L	28	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.013	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.45	-	-	-
Chloride	mg/L	1.8	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.015	-	0.015	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.014	-	-	-
Lead	mg/L	0.015	-	-	-
Magnesium	mg/L	0.274	-	-	-
Manganese	mg/L	<0.002	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.970	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	4.18	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.48	-	-	-
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.78	-	-	-
SO ₄	mg/L	<3.0	-	<5.0	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	0.8	-	-	-
Tritium	nCi/mL	8.42	-	-	-

Well: CCB 3, C-Area Coal Pile Runoff Containment Basin

SRP Grid N 65187.5 meters (MSL)
Coordinates E 47006.6
Latitude 33.246645°N Screen Zone Elevation 71.8-62.7
Longitude 81.669644°W Top of Casing Elevation 81.50
Casing Material PVC

Parameter	Units	03/15/87	04/28/87	08/10/87	10/11/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	68.4	68.7	68.7	68.5
pH		4.8	4.8	5.1	5.1
Conductivity	umhos/cm	16	18	18	15
TDS	mg/L	18	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.010	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.691	-	-	-
Chloride	mg/L	1.8	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.021	-	0.021	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.021	-	-	-
Lead	mg/L	0.010	-	-	-
Magnesium	mg/L	0.297	-	-	-
Manganese	mg/L	<0.002	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.810	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	4.18	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.14	-	-	-
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.70	-	-	-
SO ₄	mg/L	<3.0	-	<5.0	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	1.4	-	-	-
Nonvol. Beta	pCi/L	2.6	-	-	-
Total Radium	pCi/L	0.7	-	-	-
Tritium	pCi/mL	9.27	-	-	-

Well: CCB 2, C-Area Coal Pile Runoff Containment Basin

SRP Grid N 65306.1 meters (MSL)
Coordinates E 46893.6
Latitude 33.246723°N Screen Zone Elevation 69.7-60.5
Longitude 81.670172°W Top of Casing Elevation 82.41
Casing Material PVC

Parameter	Units	03/15/87	04/28/87	08/10/87	10/11/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	68.4	68.8	68.4	68.7
pH		4.5	4.3	4.9	4.7
Conductivity	umhos/cm	27	29	35	34
TDS	mg/L	28	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.025	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.778	-	-	-
Chloride	mg/L	2.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.005	-	<0.004	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.030	-	-	-
Lead	mg/L	0.011	-	-	-
Magnesium	mg/L	0.574	-	-	-
Manganese	mg/L	0.002	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.12	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	4.18	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.84	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.37	-	-	-
SO ₄	mg/L	<3.0	-	<5.0	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.50	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	2.8	-	-	-
Total Radium	pCi/L	0.7	-	-	-
Tritium	pCi/mL	10.5	-	-	-

Well: CCB 4, C-Area Coal Pile Runoff Containment Basin

SRP Grid N 65310.2 meters (MSL)
Coordinates E 47181.6
Latitude 33.247202°N Screen Zone Elevation 73.5-64.4
Longitude 81.669422°W Top of Casing Elevation 86.25
Casing Material PVC

Parameter	Units	03/15/87	04/28/87	08/10/87	10/11/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	68.7	69.2	69.4	69.2
pH		4.8	4.5	4.8	5.2
Conductivity	umhos/cm	18	16	17	14
TDS	mg/L	18	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.010	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.402	-	-	-
Chloride	mg/L	2.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.004	-	0.008	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.067	-	-	-
Lead	mg/L	0.008	-	-	-
Magnesium	mg/L	0.254	-	-	-
Manganese	mg/L	0.004	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.780	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.88	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.10	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.61	-	-	-
SO ₄	mg/L	7.0	-	<5.0	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	2.7	-	-	-
Total Radium	pCi/L	0.6	-	-	-
Tritium	pCi/mL	9.54	-	-	-

**TABLE 4-10
CHEMICAL CONCENTRATIONS IN C-AREA GROUNDWATER**

Well: CDB 1, C-Area Disassembly Basin

SRP Grid N 67514.6
Coordinates E 45685.5
Latitude 33.249936°N
Longitude 81.677640°W

meters (MSL)
Screen Zone Elevation 86.0-59.6
Top of Casing Elevation 88.05
Casing Material PVC

Other Analyses (mg/L)
(Pest/Herb* Analytes: Table 4-75, Vol. 11)

CDB 1 03/18/87
Pest/Herb* Analysis detected the following:
None

CDB 2 03/18/87
Pest/Herb* Analysis detected the following:
None

Parameter	Units	03/18/87	05/21/87	09/10/87	11/23/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	64.7	64.9	65.1	65
pH		6.3	6.6	6.2	5.6
Conductivity	umhos/cm	120	120	89	98
TDS	mg/L	114	112	-	-
Arsenic	mg/L	<0.002	<0.002	-	-
Barium	mg/L	0.030	0.045	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	-	-
Calcium	mg/L	6.47	5.81	-	-
Chloride	mg/L	3.1	3.3	-	-
Chromium	mg/L	<0.004	0.004	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.24	0.15	-	-
Iron	mg/L	0.448	3.12	0.356	-
Lead	mg/L	0.009	0.076	0.008	-
Magnesium	mg/L	1.10	1.31	-	-
Manganese	mg/L	0.257	0.244	0.200	-
Mercury	mg/L	<0.0002	<0.0002	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.61	1.54	-	-
Selenium	mg/L	<0.002	<0.002	-	-
Silica	mg/L	5.09	4.90	-	-
Silver	mg/L	<0.0020	<0.0020	-	-
Sodium	mg/L	18.9	14.4	-	-
Total Phosphate	mg/L	0.140	0.240	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.26	1.90	-	-
SO ₄	mg/L	<5.0	3.8	-	-
Phenols	mg/L	<0.002	<0.005	-	-
Tot. Org. Carbon	mg/L	1.00	2.00	3.00	-
Tot. Org. Halogen	mg/L	0.005	0.008	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	5.4	3.2	-	-
Nonvol. Beta	pCi/L	18.7	11.2	-	-
Total Radium	pCi/L	3.7	1.7	2.0	-
Tritium	pCi/mL	303	-	218	-

Well: CDB 2, C-Area Disassembly Basin

SRP Grid N 67415.3
Coordinates E 45617.7
Latitude 33.249932°N
Longitude 81.677626°W

meters (MSL)
Screen Zone Elevation 65.9-59.5
Top of Casing Elevation 87.96
Casing Material PVC

Well: CRP 1, C-Area Burning/Bubble Pit

SRP Grid N 68617.2
Coordinates E 44372.2
Latitude 33.249932°N
Longitude 81.683239°W

meters (MSL)
Screen Zone Elevation 66.4-57.2
Top of Casing Elevation 83.69
Casing Material PVC

Parameter	Units	03/18/87	05/21/87	09/10/87	11/23/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	64.4	64.9	65.2	65.1
pH		5.9	6.6	5.9	5.4
Conductivity	umhos/cm	115	95	82	92
TDS	mg/L	48	72	-	-
Arsenic	mg/L	<0.002	<0.002	-	-
Barium	mg/L	0.016	0.019	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	-	-
Calcium	mg/L	3.50	4.07	-	-
Chloride	mg/L	3.5	2.3	-	-
Chromium	mg/L	<0.004	<0.004	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.16	0.10	-	-
Iron	mg/L	0.105	0.117	0.041	-
Lead	mg/L	0.036	0.038	0.038	-
Magnesium	mg/L	0.587	0.720	-	-
Manganese	mg/L	0.094	0.094	0.072	-
Mercury	mg/L	<0.0002	<0.0002	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	2.38	0.970	-	-
Selenium	mg/L	<0.002	<0.002	-	-
Silica	mg/L	4.54	4.35	-	-
Silver	mg/L	<0.0020	<0.0020	-	-
Sodium	mg/L	12.5	11.1	-	-
Total Phosphate	mg/L	0.030	0.070	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	2.00	2.00	-	-
SO ₄	mg/L	<5.0	7.0	-	-
Phenols	mg/L	<0.002	<0.005	-	-
Tot. Org. Carbon	mg/L	1.00	1.00	<1.000	-
Tot. Org. Halogen	mg/L	0.005	<0.005	0.022	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	2.0	-	-
Nonvol. Beta	pCi/L	7.1	5.3	-	-
Total Radium	pCi/L	0.7	0.7	1.3	-
Tritium	pCi/mL	292	-	368	-

Parameter	Units	03/18/87	04/28/87	08/10/87	11/10/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	62.9	63.4	63.6	63.5
pH		6.2	6.2	5.7	6.7
Conductivity	umhos/cm	58	56	60	54
TDS	mg/L	36	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.008	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	6.96	-	-	-
Chloride	mg/L	3.1	-	-	-
Chromium	mg/L	<0.004	-	0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.021	-	-	-
Lead	mg/L	<0.006	-	<0.006	-
Magnesium	mg/L	0.348	-	-	-
Manganese	mg/L	0.018	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.310	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	5.09	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.78	-	-	-
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.10	-	-	-
SO ₄	mg/L	7.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	0.428	0.422	0.427	0.398
Carbon Tet.	mg/L	<0.001	-	<0.025	-
Chloroform	mg/L	<0.001	-	<0.025	-
Tetrachloroethene	mg/L	<0.001	-	<0.025	-
Trichloroethene	mg/L	0.503	-	0.454	-
1,1,1-TCE	mg/L	<0.001	-	<0.025	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	0.6	-	-	-
Tritium	pCi/mL	37.4	-	-	-

TABLE 4-10
CHEMICAL CONCENTRATIONS IN C-AREA GROUNDWATER

Well: CSB 6A, C-Area Reactor Seepage Basins

SRP Grid	N 67812.4		meters (MSL)
Coordinates	E 44863.8	Screen Zone Elevation	67.0-67.8
Latitude	33.248954°N	Top of Casing Elevation	87.41
Longitude	81.680381°W	Casing Material	PVC

Parameter	Units	03/02/87	05/28/87	08/17/87	11/10/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	63.6	64	64.6	64.3
pH	pH	10.3	9.9	10.7	9.1
Conductivity	umhos/cm	150	140	140	126
TDS	mg/L	50	-	-	-
Arsenic	mg/L	<0.002	-	<0.002	-
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	24.4	-	-	-
Chloride	mg/L	3.3	-	-	-
Chromium	mg/L	<0.004	-	0.007	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.019	-	0.011	-
Lead	mg/L	<0.006	-	<0.006	-
Magnesium	mg/L	0.117	-	-	-
Manganese	mg/L	<0.002	-	<0.002	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.770	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	4.93	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.43	-	-	-
Total Phosphate	mg/L	0.080	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.09	-	-	-
SO ₄	mg/L	4.0	-	-	-
Phenols	mg/L	0.004	-	-	-
Tot. Org. Carbon	mg/L	1.13	-	3.40	-
Tot. Org. Halogen	mg/L	<0.005	-	0.016	-
Carbon Tet.	mg/L	<0.001	-	<0.001	-
Chloroform	mg/L	<0.001	-	<0.001	-
Tetrachloroethene	mg/L	<0.001	-	<0.001	-
Trichloroethene	mg/L	0.006	-	<0.001	-
1,1,1-TCE	mg/L	<0.001	-	<0.001	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	1.0	-	6.30	-
Tritium	pCi/mL	1680	-	1900	-

TABLE 4-11
RADIOACTIVITY IN K-AREA GROUNDWATER

<u>Seepage Basin</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Gross Alpha (pCi/L)</u>						
KSB 1	3	0.73	+0.56	0.52	+0.46	0.61
KSB 2	3	0.67	+0.58	0.21	+0.30	0.43
KSB 3	3	0.58	+0.54	0.10	+0.21	0.33
KSB 4A	3	1.45	+0.78	0.21	+0.30	0.78
<u>Nonvolatile Beta (pCi/L)</u>						
KSB 1	3	2.13	+1.57	-0.27	+1.08	1.04
KSB 2	3	0.67	+1.19	0.24	+1.33	0.51
KSB 3	3	0.99	+1.45	0.20	+1.14	0.69
KSB 4A	3	1.65	+1.49	0.23	+1.37	1.08
<u>H-3 (pCi/mL)</u>						
KSB 1	4	1,120	+8.49	354	+5.49	730
KSB 2	3	49.7	+2.25	37.8	+1.74	42.4
KSB 3	3	265	+4.77	195	+3.60	220
KSB 4A	4	330	+5.30	193	+4.01	248
<u>Cr-51 (pCi/mL)</u>						
KSB 1	2	0.00	+0.12	0.00	+1.36	0.00
KSB 2	2	0.00	+0.19	0.00	+1.42	0.00
KSB 3	2	0.00	+0.19	0.00	+1.36	0.00
KSB 4A	2	0.00	+0.18	0.00	+1.43	0.00
<u>Co-60 (pCi/mL)</u>						
KSB 1	2	0.00	+0.02	0.00	+0.07	0.00
KSB 2	2	0.00	+0.02	0.00	+0.07	0.00
KSB 3	2	0.00	+0.02	0.00	+0.06	0.00
KSB 4A	2	0.00	+0.02	0.00	+0.06	0.00
<u>Zr-95, Nb-95 (pCi/mL)</u>						
KSB 1	2	0.00	+0.29	0.00	+0.23	0.00
KSB 2	2	0.00	+0.03	0.00	+0.27	0.00
KSB 3	2	0.00	+0.03	0.00	+0.24	0.00
KSB 4A	2	0.00	+0.03	0.00	+0.25	0.00
<u>Ru-103 (pCi/mL)</u>						
KSB 1	2	0.00	+0.02	0.00	+0.12	0.00
KSB 2	2	0.00	+0.02	0.00	+0.13	0.00
KSB 3	2	0.00	+0.02	0.00	+0.12	0.00
KSB 4A	2	0.00	+0.02	0.00	+0.12	0.00

TABLE 4-11
RADIOACTIVITY IN K-AREA GROUNDWATER

<u>Seepage Basin</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Ru-106 (pCi/mL)</u>						
KSB 1	2	0.00	+0.13	0.00	+0.64	0.00
KSB 2	2	0.00	+0.15	0.00	+0.69	0.00
KSB 3	2	0.00	+0.14	0.00	+0.55	0.00
KSB 4A	2	0.00	+0.15	0.00	+0.54	0.00
<u>Sb-125 (pCi/mL)</u>						
KSB 1	2	0.00	+0.05	0.00	+0.19	0.00
KSB 2	2	0.00	+0.05	0.00	+0.18	0.00
KSB 3	2	0.00	+0.05	0.00	+0.18	0.00
KSB 4A	2	0.00	+0.05	0.00	+0.20	0.00
<u>I-131 (pCi/mL)</u>						
KSB 1	2	0.00	+0.03	0.00	+1.67	0.00
KSB 2	2	0.00	+0.03	0.00	+1.65	0.00
KSB 3	2	0.02	+0.01	0.00	+1.47	0.01
KSB 4A	2	0.00	+0.03	0.00	+1.62	0.00
<u>Cs-134 (pCi/mL)</u>						
KSB 1	2	0.00	+0.01	0.00	+0.05	0.00
KSB 2	2	0.00	+0.02	0.00	+0.07	0.00
KSB 3	2	0.00	+0.02	0.00	+0.06	0.00
KSB 4A	2	0.00	+0.02	0.00	+0.06	0.00
<u>Cs-137 (pCi/mL)</u>						
KSB 1	2	0.00	+0.02	0.00	+0.05	0.00
KSB 2	2	0.00	+0.02	0.00	+0.06	0.00
KSB 3	2	0.00	+0.02	0.00	+0.07	0.00
KSB 4A	2	0.00	+0.02	0.00	+0.06	0.00
<u>Ce-144 (pCi/mL)</u>						
KSB 1	2	0.00	+0.11	0.00	+0.46	0.00
KSB 2	2	0.00	+0.11	0.00	+0.49	0.00
KSB 3	2	0.00	+0.10	0.00	+0.50	0.00
KSB 4A	2	0.00	+0.11	0.00	+0.51	0.00

TABLE 4-11
RADIOACTIVITY IN K-AREA GROUNDWATER

<u>Retention Basin</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Gross Alpha (pCi/L)</u>						
KRB 1	2	0.77	+0.67	0.50	+0.48	0.63
KRB 8	4	1.73	+0.82	0.40	+0.40	0.87
KRB 13	4	0.83	+0.66	0.10	+0.20	0.48
KRB 14	4	0.63	+0.51	0.20	+0.29	0.43
KRB 15	4	3.24	+1.15	1.14	+0.75	1.82
<u>Nonvolatile Beta (pCi/L)</u>						
KRB 1	2	2.56	+1.31	0.76	+1.13	1.66
KRB 8	4	5.28	+1.83	3.44	+1.40	4.03
KRB 13	4	3.13	+1.45	1.52	+1.49	2.04
KRB 14	4	3.48	+1.67	0.84	+1.19	2.17
KRB 15	4	96.5	+5.53	44.5	+3.96	62.8
<u>H-3 (pCi/mL)</u>						
KRB 1	3	252	+4.25	141	+3.41	211
KRB 8	3	238,000	+2,890	199,000	+2,790	223,000
KRB 13	3	18,600	+368	6,920	+225	10,900
KRB 14	3	22,200	+295	8,360	+175	14,600
KRB 15	3	77,400	+517	63,000	+1,290	71,800

TABLE 4-12 CHEMICAL CONCENTRATIONS IN K-AREA GROUNDWATER

Other Analyses (mg/L)
(GCMS Scan Analytes: Table 4-25, Vol. 11)

KAC 2 08/19/87
GCMS Scan detected the following:
1,2-Dichloroethane 0.003

Well: KCB 2, K-Area Coal Pile Runoff Containment Basin

SRP Grid	N 53634.4	meters (MSL)	
Coordinates E	39337.2	Screen Zone Elevation	66.4-57.2
Latitude	33.208579°N	Top of Casing Elevation	77.54
Longitude	81.667396°W	Casing Material	PVC

Parameter	Units	03/22/87	05/17/87	08/18/87	10/16/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	62.9	63.5	63.9	63.8
pH		4.8	4.9	4.3	4.5
Conductivity	umhos/cm	67	59	51	48
TDS	mg/L	48	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.637	-	-	-
Chloride	mg/L	2.9	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.005	-	0.019	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.056	-	-	-
Lead	mg/L	0.007	-	-	-
Magnesium	mg/L	0.180	-	-	-
Manganese	mg/L	0.004	-	0.007	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.93	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.88	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	9.29	-	-	-
Total Phosphate	mg/L	0.010	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.19	-	-	-
SO ₄	mg/L	17.0	-	6.7	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.00	-	1.10	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	2.0	-	7.0	-
Nonvol. Beta	pCi/L	4.4	-	-	-
Total Radium	pCi/L	1.0	-	1.1	-
Tritium	pCi/mL	34.3	-	-	-

Well: KCB 1, K-Area Coal Pile Runoff Containment Basin

SRP Grid	N 53453.0	meters (MSL)	
Coordinates E	39523.1	Screen Zone Elevation	65.1-56.0
Latitude	33.208482°N	Top of Casing Elevation	79.37
Longitude	81.666755°W	Casing Material	PVC

Parameter	Units	03/22/87	05/17/87	08/18/87	10/16/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	63.5	64.1	64.6	64.2
pH		5.1	5.3	5.4	5.2
Conductivity	umhos/cm	140	135	32	217
TDS	mg/L	110	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.016	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	10.7	-	-	-
Chloride	mg/L	7.2	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.011	-	0.020	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.13	-	-	-
Iron	mg/L	0.015	-	-	-
Lead	mg/L	0.008	-	-	-
Magnesium	mg/L	0.235	-	-	-
Manganese	mg/L	0.008	-	0.017	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	7.03	-	-	-
Selenium	mg/L	0.002	-	-	-
Silica	mg/L	2.93	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	7.49	-	-	-
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	2.45	-	-	-
SO ₄	mg/L	32.5	-	68.3	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	4.30	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	8.8	-
Nonvol. Beta	pCi/L	14.1	-	-	-
Total Radium	pCi/L	0.7	-	1.2	-
Tritium	pCi/mL	12.9	-	-	-

Well: KCB 3, K-Area Coal Pile Runoff Containment Basin

SRP Grid	N 53440.5	meters (MSL)	
Coordinates E	39139.2	Screen Zone Elevation	65.3-56.1
Latitude	33.207827°N	Top of Casing Elevation	75.56
Longitude	81.667541°W	Casing Material	PVC

Parameter	Units	03/22/87	05/17/87	08/18/87	10/16/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	62.7	63.2	63.5	63.4
pH		4.1	4.1	4.0	4.0
Conductivity	umhos/cm	440	580	440	488
TDS	mg/L	310	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.168	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.002	-	-	-
Calcium	mg/L	34.9	-	-	-
Chloride	mg/L	3.5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	0.023	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.35	-	-	-
Iron	mg/L	0.120	-	-	-
Lead	mg/L	0.025	-	-	-
Magnesium	mg/L	15.5	-	-	-
Manganese	mg/L	1.08	-	1.30	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	2.85	-	-	-
Selenium	mg/L	0.004	-	-	-
Silica	mg/L	6.40	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	7.19	-	-	-
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.70	-	-	-
SO ₄	mg/L	197	-	236	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.00	-	1.20	-
Tot. Org. Halogen	mg/L	0.006	-	0.009	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	29.8	-	32.8	-
Nonvol. Beta	pCi/L	27.0	-	-	-
Total Radium	pCi/L	14.5	-	13.5	-
Tritium	pCi/mL	27.4	-	-	-

TABLE 4-12 CHEMICAL CONCENTRATIONS IN K-AREA GROUNDWATER

Other Analyses (mg/L)
(Pest/Herb* Analytes: Table 4-25, Vol. 11)

Well: KRB 8, K-Area Retention Basin

SRP Grid N 54893.6 meters (MSL)
Coordinates E 40302.1
Latitude 33.212939°N Top of Casing Elevation 81.65
Longitude 81.667302°W Casing Material Steel

KDB 1 03/23/87

Pest/Herb* Analysis detected the following:
None

KDB 2 03/23/87

Pest/Herb* Analysis detected the following:
None

KDB 3 03/23/87

Pest/Herb* Analysis detected the following:
None

Parameter	Units	02/24/87	05/24/87	08/23/87	12/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	63.7	64.4	61.3	64
pH		5.2	4.9	8.4	5.2
Conductivity	umhos/cm	34	31	36	32
TDS	mg/L	24	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.017	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	<0.002	-
Calcium	mg/L	0.860	-	-	-
Chloride	mg/L	4.9	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.020	-	0.432	-
Lead	mg/L	0.072	-	0.075	-
Magnesium	mg/L	0.852	-	-	-
Manganese	mg/L	0.028	-	0.031	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.530	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.08	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	4.00	-	-	-
Total Phosphate	mg/L	0.056	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.47	-	-	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	2.00	-	10.0	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	<0.001	-	-	-
Chloroform	mg/L	<0.001	-	-	-
Tetrachloroethene	mg/L	<0.001	-	-	-
Trichloroethene	mg/L	<0.001	-	-	-
1,1,1-TCE	mg/L	<0.001	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	3.5	-	4.1	-
Total Radium	pCi/L	<1.0	-	0.7	-
Tritium	pCi/mL	139000	-	224000	-

Well: KRB 1, K-Area Retention Basin

SRP Grid N 55025.3 meters (MSL)
Coordinates E 39452.1
Latitude 33.212659°N Top of Casing Elevation 81.23
Longitude 81.668478°W Casing Material Steel

Parameter	Units	02/24/87	05/24/87	08/23/87	12/19/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	63.1	63.9	63.9	61.5
pH		5.2	6.3	8.3	5.2
Conductivity	umhos/cm	26	29	34	30
TDS	mg/L	20	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.010	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	<0.002	-
Calcium	mg/L	1.05	-	-	-
Chloride	mg/L	2.5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.052	-	0.072	-
Lead	mg/L	0.189	-	0.091	-
Magnesium	mg/L	0.806	-	-	-
Manganese	mg/L	0.016	-	0.020	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.390	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.34	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.13	-	-	-
Total Phosphate	mg/L	0.017	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.44	-	-	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	0.006	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-
Tot. Org. Halogen	mg/L	0.014	-	0.011	-
Carbon Tet.	mg/L	<0.001	-	-	-
Chloroform	mg/L	<0.001	-	-	-
Tetrachloroethene	mg/L	<0.001	-	-	-
Trichloroethene	mg/L	0.002	-	-	-
1,1,1-TCE	mg/L	<0.001	-	-	-
Gross Alpha	pCi/L	1.3	-	-	-
Nonvol. Beta	pCi/L	4.4	-	3.0	-
Total Radium	pCi/L	<1.0	-	0.7	-
Tritium	pCi/mL	200	-	233	-

Well: KRB 13, K-Area Retention Basin

SRP Grid N 57344.2 meters (MSL)
Coordinates E 39986.6
Latitude 33.213421°N Top of Casing Elevation 86.44
Longitude 81.669006°W Casing Material Steel

Parameter	Units	02/24/87	05/24/87	08/23/87	12/19/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	61.7	63.2	63.2	62.9
pH		5.8	6.0	5.7	5.7
Conductivity	umhos/cm	47	52	50	38
TDS	mg/L	36	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.006	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	0.003	-
Calcium	mg/L	1.28	-	-	-
Chloride	mg/L	6.8	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.022	-	0.092	-
Lead	mg/L	0.126	-	0.080	-
Magnesium	mg/L	0.650	-	-	-
Manganese	mg/L	0.013	-	0.005	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.500	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.08	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	7.02	-	-	-
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.04	-	-	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	0.008	-	-	-
Tot. Org. Carbon	mg/L	6.00	-	<1.000	-
Tot. Org. Halogen	mg/L	0.009	-	0.013	-
Carbon Tet.	mg/L	<0.001	-	-	-
Chloroform	mg/L	<0.001	-	-	-
Tetrachloroethene	mg/L	<0.001	-	-	-
Trichloroethene	mg/L	<0.001	-	-	-
1,1,1-TCE	mg/L	<0.001	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	<2.0	-
Total Radium	pCi/L	<1.0	-	<1.0	-
Tritium	pCi/mL	16400	-	7000	-

**TABLE 4-12
CHEMICAL CONCENTRATIONS IN K-AREA GROUNDWATER**

Well: KRP 3, K-Area Burning/Rubble Pit

SRP Grid N 54248.7
Coordinates E 42814.3
Latitude 33.215611°N
Longitude 81.659440°W

Screen Zone Elevation 72.4-83.2
Top of Casing Elevation 77.57
Casing Material PVC

Other Analyses (mg/L)

Parameter	Units	03/23/87	05/23/87	08/19/87	11/08/87
Sampling Method	Pump				
Water Elevation	meters	66.5	-	-	66.6
pH	pH	5.1	5.2	4.8	5.5
Conductivity	umhos/cm	32	22	26	22
TDS	mg/L	12	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.022	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.03	-	-	-
Chloride	mg/L	2.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.051	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.15	-	-	-
Iron	mg/L	0.064	-	0.141	-
Lead	mg/L	0.016	-	0.012	-
Magnesium	mg/L	0.220	-	-	-
Manganese	mg/L	0.026	-	0.033	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.290	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.13	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.43	-	2.11	-
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.41	-	-	-
SO ₄	mg/L	<5.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	<0.001	-	<0.001	-
Chloroform	mg/L	<0.001	-	<0.001	-
Tetrachloroethene	mg/L	<0.001	-	<0.001	-
Trichloroethene	mg/L	<0.001	-	<0.001	-
1,1,1-TCE	mg/L	<0.001	-	<0.001	-
Gross Alpha	pCi/L	<3.0	-	<3.0	-
Nonvol. Beta	pCi/L	2.5	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	9.29	-	-	-

KRP 1	02/24/87	Endrin	<0.0001
KRP 2	02/24/87	Endrin	<0.0001
KRP 3	03/25/87	Endrin	<0.0001
KRP 4	03/25/87	Endrin	<0.0001

Well: KRP 4, K-Area Burning/Rubble Pit

SRP Grid N 54362.9
Coordinates E 42590.3
Latitude 33.215499°N
Longitude 81.660251°W

Screen Zone Elevation 66.7-57.5
Top of Casing Elevation 77.90
Casing Material PVC

Parameter	Units	03/23/87	05/23/87	08/19/87	11/08/87
Sampling Method	Pump				
Water Elevation	meters	66.2	66.7	65.9	66.3
pH	pH	5.0	5.1	4.8	4.9
Conductivity	umhos/cm	94	79	78	87
TDS	mg/L	48	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.050	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	5.05	-	-	-
Chloride	mg/L	8.4	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.010	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.020	-	0.053	-
Lead	mg/L	<0.006	-	0.006	-
Magnesium	mg/L	0.734	-	-	-
Manganese	mg/L	0.146	-	0.120	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.690	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.33	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	9.07	-	6.41	-
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.26	-	-	-
SO ₄	mg/L	17.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.00	-
Tot. Org. Halogen	mg/L	0.100	-	0.100	-
Carbon Tet.	mg/L	<0.001	-	<0.001	-
Chloroform	mg/L	<0.001	-	<0.001	-
Tetrachloroethene	mg/L	0.080	-	0.119	-
Trichloroethene	mg/L	0.032	-	0.043	-
1,1,1-TCE	mg/L	<0.001	-	<0.001	-
Gross Alpha	pCi/L	<3.0	-	3.0	-
Nonvol. Beta	pCi/L	4.0	-	-	-
Total Radium	pCi/L	0.8	-	-	-
Tritium	pCi/mL	12.2	-	-	-

Well: KSB 1, K-Area Reactor Seepage Basin

SRP Grid N 54044.4
Coordinates E 39806.8
Latitude 33.210252°N
Longitude 81.664956°W

Screen Zone Elevation 62.7-53.5
Top of Casing Elevation 81.50
Casing Material PVC

Parameter	Units	02/23/87	05/17/87	08/22/87	11/12/87
Sampling Method	Pump				
Water Elevation	meters	62.7	63.7	63.7	63.6
pH	pH	4.8	4.9	5.4	4.9
Conductivity	umhos/cm	27	34	32	26
TDS	mg/L	6	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.005	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.803	-	-	-
Chloride	mg/L	6.8	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.017	-	-	-
Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	0.188	-	-	-
Manganese	mg/L	0.009	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.780	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.44	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	3.10	-	-	-
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.84	-	-	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	2.00	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	2.8	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	972	-	462	-

**TABLE 4-12
CHEMICAL CONCENTRATIONS IN K-AREA GROUNDWATER**

Well: KSB 2, K-Area Reactor Seepage Basin

SRP Grid N 53927.6
Coordinates E 39701.4
Latitude 33.209825°N
Longitude 81.667002°W
Screen Zone Elevation 62.1-53.0
Top of Casing Elevation 81.01
Casing Material PVC

Parameter	Units	02/23/87	05/17/87	08/22/87	11/12/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	62.6	63.5	63.7	63.6
pH	pH	4.6	4.8	4.4	4.7
Conductivity	umhos/cm	27	28	28	28
TDS	mg/L	36	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.006	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.277	-	-	-
Chloride	mg/L	2.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.021	-	-	-
Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	0.304	-	-	-
Manganese	mg/L	<0.002	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.450	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.19	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	3.41	-	-	-
Total Phosphate	mg/L	0.017	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.87	-	-	-
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	0.007	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	4.20	-
Tot. Org. Halogen	mg/L	<0.005	-	0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	2.4	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	39.0	-	38.2	-

Well: KSB 4A, K-Area Reactor Seepage Basin

SRP Grid N 54140.4
Coordinates E 39756.7
Latitude 33.210383°N
Longitude 81.667274°W
Screen Zone Elevation 60.8-51.7
Top of Casing Elevation 80.49
Casing Material PVC

Parameter	Units	02/23/87	05/17/87	08/22/87	11/12/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	62.6	63.5	63.4	63.5
pH	pH	4.6	4.9	4.9	4.8
Conductivity	umhos/cm	26	28	32	26
TDS	mg/L	30	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.542	-	-	-
Chloride	mg/L	3.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.038	-	-	-
Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	0.258	-	-	-
Manganese	mg/L	0.007	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.380	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.54	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.88	-	-	-
Total Phosphate	mg/L	0.037	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.82	-	-	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	4.00	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	2.1	-	-	-
Total Radium	pCi/L	0.7	-	-	-
Tritium	pCi/mL	262	-	214	-

Well: KSB 3, K-Area Reactor Seepage Basin

SRP Grid N 34040.2
Coordinates E 39825.3
Latitude 33.209947°N
Longitude 81.667426°W
Screen Zone Elevation 60.9-51.7
Top of Casing Elevation 79.70
Casing Material PVC

Parameter	Units	02/23/87	05/17/87	08/22/87	11/12/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	62.5	63.4	63.5	63.4
pH	pH	4.5	4.7	4.1	4.6
Conductivity	umhos/cm	38	39	38	36
TDS	mg/L	45	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.007	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.888	-	-	-
Chloride	mg/L	7.2	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.012	-	-	-
Lead	mg/L	0.006	-	-	-
Magnesium	mg/L	0.331	-	-	-
Manganese	mg/L	0.004	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.460	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.34	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	3.98	-	-	-
Total Phosphate	mg/L	0.032	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.84	-	-	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.20	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	72.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	288	-	200	-

**TABLE 4-13
CHEMICAL CONCENTRATIONS IN L-AREA GROUNDWATER**

Well: LDB 1, L-Area Disassembly Basin

SRP Grid N 44067.3 meters (MSL)
 Coordinates E 50530.6 Screen Zone Elevation 85.5-86.4
 Latitude 33.210100°N Top of Casing Elevation 77.08
 Longitude 81.823259°W Casing Material: PVC

Parameter	Units	03/18/87	05/21/87	09/09/87	12/18/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	86.6	86.4	86.2	85.8
pH	pH	4.4	5.1	5.1	4.1
Conductivity	umhos/cm	46	49	42	43
TDS	mg/L	5470	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.020	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	2.01	-	-	-
Chloride	mg/L	4.1	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.18	-	-	-
Iron	mg/L	0.032	-	0.118	-
Lead	mg/L	0.082	-	0.160	-
Magnesium	mg/L	1.38	-	-	-
Manganese	mg/L	0.048	-	0.016	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.210	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.83	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.85	-	-	-
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.67	-	-	-
SO ₄	mg/L	<5.0	-	-	-
Phenols	mg/L	0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.00	-
Tot. Org. Halogen	mg/L	0.009	-	0.013	-
Carbon Tet.	mg/L	-	-	<0.005	-
Chloroform	mg/L	-	-	<0.005	-
Tetrachloroethene	mg/L	-	-	0.005	-
Trichloroethene	mg/L	-	-	<0.005	-
1,1,1-TCE	mg/L	-	-	<0.005	-
Gross Alpha	pCi/L	<3.0	-	<3.0	-
Nonvol. Beta	pCi/L	2.9	-	-	-
Total Radium	pCi/L	0.9	-	1.2	-
Tritium	pCi/mL	4.47	-	-	-

Other Analyses (mg/L)
 (GCMS Scan Analytes: Table 4-25, Vol. 11)

LDB 1 09/09/87
 GCMS Scan detected the following: None

LDB 2 09/09/87
 GCMS Scan detected the following:
 Trichlorofluoromethane 0.095

Other Analyses (mg/L)
 (GCMS Scan Analytes: Table 4-25, Vol. 11)

LAP 3 08/13/87
 GCMS Scan detected the following: None

Well: LDB 2, L-Area Disassembly Basin

SRP Grid N 45886.5 meters (MSL)
 Coordinates E 50590.5 Screen Zone Elevation 85.4-86.2
 Latitude 33.209798°N Top of Casing Elevation 76.78
 Longitude 81.822751°W Casing Material: PVC

Parameter	Units	03/18/87	05/21/87	09/09/87	12/18/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	86.2	86.5	86.3	85.9
pH	pH	5.4	5.5	5.8	4.6
Conductivity	umhos/cm	52	60	59	56
TDS	mg/L	60	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.016	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.54	-	-	-
Chloride	mg/L	12.5	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.18	-	-	-
Iron	mg/L	0.117	-	0.111	-
Lead	mg/L	0.096	-	0.042	-
Magnesium	mg/L	0.777	-	-	-
Manganese	mg/L	0.033	-	0.050	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.450	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.73	-	-	-
Silver	mg/L	<0.002	-	-	-
Sodium	mg/L	3.80	-	-	-
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.25	-	-	-
SO ₄	mg/L	<5.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.00	-	1.00	-
Tot. Org. Halogen	mg/L	0.076	-	0.075	-
Carbon Tet.	mg/L	-	-	<0.005	-
Chloroform	mg/L	-	-	<0.005	-
Tetrachloroethene	mg/L	-	-	0.005	-
Trichloroethene	mg/L	-	-	<0.005	-
1,1,1-TCE	mg/L	-	-	<0.005	-
Gross Alpha	pCi/L	<3.0	-	<3.0	-
Nonvol. Beta	pCi/L	3.0	-	-	-
Total Radium	pCi/L	1.0	-	0.9	-
Tritium	pCi/mL	5.10	-	-	-

Well: LAP 1, L-Area Burning/Rubble Pit

SRP Grid N 48548.6 meters (MSL)
 Coordinates E 48128.7 Screen Zone Elevation 85.8-86.6
 Latitude 33.21330°N Top of Casing Elevation 77.08
 Longitude 81.83176°W Casing Material: PVC

Parameter	Units	03/11/87	05/18/87	08/13/87	11/05/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	-	83.4	83.6	83.5
pH	pH	5.5	4.7	4.8	4.9
Conductivity	umhos/cm	21	20	20	18
TDS	mg/L	6	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.008	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.435	-	-	-
Chloride	mg/L	6.2	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.17	-	-	-
Iron	mg/L	0.042	-	0.049	-
Lead	mg/L	0.018	-	0.017	-
Magnesium	mg/L	0.354	-	-	-
Manganese	mg/L	0.014	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.230	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.19	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.78	-	-	-
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.62	-	0.83	-
SO ₄	mg/L	<5.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.00	-
Tot. Org. Halogen	mg/L	<0.005	-	0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	1.6	-	-	-
Nonvol. Beta	pCi/L	2.1	-	-	-
Total Radium	pCi/L	0.6	-	-	-
Tritium	pCi/mL	1.68	-	-	-

**TABLE 4-13
CHEMICAL CONCENTRATIONS IN L-AREA GROUNDWATER**

Well: LSB 2, L-Area Reactor Seepage Basin

SRP Grid N 45224.0
Coordinates E 50824.5
Latitude 33.208714°N
Longitude 81.620850°W
Screen Zone Elevation 68.6-59.4
Top of Casing Elevation 71.69
Casing Material PVC

Parameter	Units	03/09/87	05/16/87	08/17/87	10/15/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	68	65	64.3	64.9
pH	pH	4.8	4.5	4.2	4.5
Conductivity	umhos/cm	32	32	34	31
TDS	mg/L	12	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.012	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.592	-	-	-
Chloride	mg/L	3.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.012	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.036	-	-	-
Lead	mg/L	0.022	-	0.041	-
Magnesium	mg/L	0.551	-	-	-
Manganese	mg/L	0.006	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.240	-	-	-
Selenium	mg/L	<0.001	-	-	-
Silica	mg/L	1.32	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.71	-	-	-
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.47	-	-	-
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.00	-	1.30	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	7.27	-	6.50	-

Well: LSB 4, L-Area Reactor Seepage Basin

SRP Grid N 45321.6
Coordinates E 50513.0
Latitude 33.208422°N
Longitude 81.621879°W
Screen Zone Elevation 67.5-58.4
Top of Casing Elevation 70.38
Casing Material PVC

Parameter	Units	03/09/87	05/16/87	08/17/87	10/15/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	67.8	66.9	65.7	65.9
pH	pH	5.0	4.6	6.4	4.5
Conductivity	umhos/cm	34	42	38	34
TDS	mg/L	18	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.728	-	-	-
Chloride	mg/L	2.5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.008	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.14	-	-	-
Iron	mg/L	0.050	-	-	-
Lead	mg/L	0.033	-	0.042	-
Magnesium	mg/L	0.114	-	-	-
Manganese	mg/L	<0.002	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.230	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.52	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.41	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.81	-	-	-
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.90	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	2.7	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	299	-	1290	-

Well: LSB 3, L-Area Reactor Seepage Basin

SRP Grid N 45386.7
Coordinates E 50729.7
Latitude 33.208923°N
Longitude 81.621416°W
Screen Zone Elevation 59.1-59.8
Top of Casing Elevation 72.05
Casing Material PVC

Parameter	Units	03/09/87	05/16/87	08/17/87	10/15/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	67.3	66.4	65.7	65.8
pH	pH	5.1	4.8	4.4	4.9
Conductivity	umhos/cm	21	22	22	19
TDS	mg/L	15	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.011	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.640	-	-	-
Chloride	mg/L	1.6	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.031	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.018	-	-	-
Lead	mg/L	0.017	-	0.015	-
Magnesium	mg/L	0.436	-	-	-
Manganese	mg/L	0.004	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.190	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	1.37	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.07	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.94	-	-	-
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	3.50	-	37.0	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	7.31	-	6.30	-

TABLE 4-14
RADIOACTIVITY IN P-AREA GROUNDWATER

<u>Seepage Basins</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Gross Alpha (pCi/L)</u>						
PSB 1A	4	0.21	+0.41	-0.19	+0.28	0.05
PSB 2A	4	1.54	+0.82	0.31	+0.46	1.01
PSB 3A	4	1.35	+0.80	0.93	+0.75	1.15
PSB 4A	4	0.58	+0.62	0.10	+0.46	0.42
PSB 5A	2	0.21	+0.41	0.10	+0.36	0.15
PSB 6A	4	0.77	+0.61	0.00	+0.29	0.37
PSB 7A	4	0.19	+0.48	0.00	+0.29	0.07
<u>Nonvolatile Beta (pCi/L)</u>						
PSB 1A	4	2.78	+1.44	1.65	+1.45	2.12
PSB 2A	4	11.7	+2.31	5.76	+1.69	9.59
PSB 3A	4	1.66	+1.32	1.45	+1.49	1.57
PSB 4A	4	1.37	+1.48	-0.07	+1.15	0.80
PSB 5A	2	1.57	+1.57	0.30	+1.36	0.93
PSB 6A	4	3.66	+1.70	1.42	+1.43	2.88
PSB 7A	4	1.34	+1.42	-0.79	+1.04	0.21
<u>H-3 (pCi/mL)</u>						
PSB 1A	4	272,000	+3,380	194,000	+11.0	219,000
PSB 2A	4	179,000	+1,720	97,600	+806	140,000
PSB 3A	4	188,000	+1,240	74,000	+703	128,000
PSB 4A	4	5,120	+18.3	91.0	+11.7	1,410
PSB 5A	3	526	+5.78	42.9	+1.90	209
PSB 6A	4	217,000	+3,030	33,000	+1.45	142,000
PSB 7A	4	69,200	+1,400	21,300	+383	46,900

TABLE 4-15 CHEMICAL CONCENTRATIONS IN P-AREA GROUNDWATER

Other Analyses (mg/L)
(GCMS Scan Analytes: Table 4-25, Vol. 11)

PCB 3A 08/12/87
GCMS Scan detected the following: None

Well: PDB 3, P-Area Disassembly Basin

SRP Grid	N 43542.2	meters (MSL)			
Coordinates E	64938.2	Screen Zone Elevation	82.0-75.6		
Latitude	33.228002°N	Top of Casing Elevation	97.38		
Longitude	81.580438°W	Casing Material	PVC		

Parameter	Units	03/18/87	05/21/87	09/09/87	12/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	85.3	85.9	85.8	85.4
pH		5.4	6.1	6.0	4.8
Conductivity	umhos/cm	56	55	56	56
TDS	mg/L	12	26	38	-
Arsenic	mg/L	<0.002	<0.002	0.002	-
Barium	mg/L	0.023	0.026	0.021	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	-
Calcium	mg/L	3.53	12.4	2.43	-
Chloride	mg/L	4.9	6.4	4.2	-
Chromium	mg/L	<0.004	<0.004	<0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.14	<0.10	0.12	-
Iron	mg/L	0.050	0.026	0.010	-
Lead	mg/L	0.103	0.038	0.077	-
Magnesium	mg/L	0.924	0.777	0.853	-
Manganese	mg/L	0.033	0.031	0.031	-
Mercury	mg/L	<0.0002	<0.0002	<0.0002	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.380	0.380	<0.500	-
Selenium	mg/L	<0.002	<0.002	<0.002	-
Silica	mg/L	2.73	2.50	2.59	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	-
Sodium	mg/L	5.85	5.08	5.32	-
Total Phosphate	mg/L	0.010	0.080	0.110	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	2.05	2.00	3.42	-
SO ₄	mg/L	<5.0	<3.0	<5.0	-
Phenols	mg/L	<0.002	<0.005	<0.005	-
Tot. Org. Carbon	mg/L	3.00	<1.000	<1.000	-
Tot. Org. Halogen	mg/L	0.006	0.006	0.006	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Cross Alpha	pCi/L	<3.0	<3.0	<3.0	-
Nonvol. Beta	pCi/L	<2.0	<2.0	<2.0	-
Total Radium	pCi/L	<1.0	0.5	0.2	-
Tritium	pCi/mL	45.0	43.4	282	-

Well: PDB 2, P-Area Disassembly Basin

SRP Grid	N 43513.1	meters (MSL)			
Coordinates E	64743.1	Screen Zone Elevation	81.9-75.5		
Latitude	33.227620°N	Top of Casing Elevation	97.38		
Longitude	81.580863°W	Casing Material	PVC		

Parameter	Units	01/18/87	05/21/87	09/09/87	12/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	85.1	85.8	85.8	85.4
pH		5.3	5.5	5.8	5.7
Conductivity	umhos/cm	61	63	64	61
TDS	mg/L	20	26	58	-
Arsenic	mg/L	<0.002	<0.002	<0.002	-
Barium	mg/L	0.012	0.013	0.011	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	-
Calcium	mg/L	5.83	7.26	8.11	-
Chloride	mg/L	3.3	4.8	2.8	-
Chromium	mg/L	<0.004	<0.004	<0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.14	<0.10	<0.10	-
Iron	mg/L	0.024	0.030	0.081	-
Lead	mg/L	0.028	0.023	0.024	-
Magnesium	mg/L	0.924	0.859	0.762	-
Manganese	mg/L	0.021	0.019	0.012	-
Mercury	mg/L	<0.0002	0.0003	0.0003	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.910	1.24	0.939	-
Selenium	mg/L	<0.002	<0.002	<0.002	-
Silica	mg/L	1.27	1.24	1.18	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	-
Sodium	mg/L	3.73	4.28	3.10	-
Total Phosphate	mg/L	<0.010	0.100	0.022	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	2.11	2.20	5.14	-
SO ₄	mg/L	<5.0	4.0	4.8	-
Phenols	mg/L	<0.002	<0.005	<0.005	-
Tot. O'g. Carbon	mg/L	<1.000	1.00	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	<0.005	0.008	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Cross Alpha	pCi/L	4.2	<3.0	<3.0	-
Nonvol. Beta	pCi/L	<2.0	1.8	<2.0	-
Total Radium	pCi/L	0.9	0.7	<1.0	-
Tritium	pCi/mL	145	164	342	-

Other Analyses (mg/L)
(Pest/Herb* Analytes: Table 4-25, Vol. 11)

PDB 2 01/18/87
Pest/Herb* Analysis detected the following:
None

PDB 3 01/18/87
Pest/Herb* Analysis detected the following:
None

TABLE 4-15
CHEMICAL CONCENTRATIONS IN P-AREA GROUNDWATER

Well: PSB 6A, P-Area Reactor Seepage Basins

SRP Grid	N 43436.0			<u>meters (MSL)</u>
Coordinates E	63975.7	Screen Zone Elevation		89.0-79.9
Latitude	33.226198°N	Top of Casing Elevation		98.81
Longitude	81.58276°W	Casing Material	PVC	

Parameter	Units	03/01/87	04/29/87	08/13/87	11/12/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	84.9	85.7	85.6	85.2
pH		4.6	4.6	4.5	4.9
Conductivity	umhos/cm	110	120	88	61
TDS	mg/L	64	-	-	-
Arsenic	mg/L	<0.002	-	<0.002	-
Barium	mg/L	0.009	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.766	-	-	-
Chloride	mg/L	4.9	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.090	-	-	-
Lead	mg/L	0.057	-	0.020	-
Magnesium	mg/L	0.948	-	-	-
Manganese	mg/L	0.004	-	0.003	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.360	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.78	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	13.9	-	13.2	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	8.10	-	6.18	-
SO ₄	mg/L	5.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	8.00	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	0.007	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Cross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	3.7	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	136000	-	161000	-

Well: PSB 7A, P-Area Reactor Seepage Basins

SRP Grid	N 43553.3			<u>meters (MSL)</u>
Coordinates E	64301.0	Screen Zone Elevation		88.1-78.9
Latitude	33.226988°N	Top of Casing Elevation		100.79
Longitude	81.582135°W	Casing Material	PVC	

Parameter	Units	03/01/87	04/29/87	08/13/87	11/12/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	84.7	85.5	85.3	85.1
pH		6.5	6.2	6.3	6.8
Conductivity	umhos/cm	76	78	95	74
TDS	mg/L	32	-	-	-
Arsenic	mg/L	<0.002	-	<0.002	-
Barium	mg/L	0.008	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	6.49	-	-	-
Chloride	mg/L	4.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.012	-	-	-
Lead	mg/L	<0.006	-	<0.006	-
Magnesium	mg/L	0.317	-	-	-
Manganese	mg/L	<0.002	-	0.004	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.180	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.85	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	6.08	-	17.1	-
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	2.80	-	5.68	-
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	8.00	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Cross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	2.2	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	20900	-	57600	-

TABLE 4-16
RADIOACTIVITY IN R-AREA GROUNDWATER

<u>Seepage Basins</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Gross Alpha (pCi/L)</u>						
RSA 7	2	0.83	+0.66	0.52	+0.70	0.67
RSA 8	2	0.10	+0.56	-0.10	-0.19	0.00
RSA 9	2	0.52	+0.55	0.10	+0.56	0.31
RSA 10	2	0.21	+0.59	0.10	+0.36	0.15
RSB 7	2	0.75	+0.57	0.31	+0.46	0.53
RSB 8	2	0.93	+0.69	0.75	+0.57	0.84
RSB 9	2	0.41	+0.51	0.21	+0.30	0.31
RSC 2	2	0.77	+0.61	0.10	+0.56	0.43
RSC 3	2	0.42	+0.66	0.41	+0.51	0.41
RSC 4	2	-0.10	+0.47	-0.10	+0.21	-0.10
RSC 5	2	0.10	+0.36	-0.21	+0.42	-0.06
RSC 6	2	0.41	+0.51	-0.10	+0.47	0.15
RSC 7	2	0.73	+0.62	0.31	+0.63	0.52
RSC 8	2	0.38	+0.47	0.10	+0.56	0.24
RSC 9	2	0.42	+0.66	0.19	+0.38	0.30
RSC 10	2	0.38	+0.47	0.10	+0.56	0.24
RSD 1	2	1.04	+0.72	0.75	+0.57	0.89
RSD 2A	2	1.45	+0.83	0.31	+0.36	0.88
RSD 2B	2	3.46	+1.21	1.35	+0.77	2.40
RSD 2C	1	10.5	+2.03	10.5	+2.03	10.5
RSD 3	2	0.43	+0.43	-0.10	+0.21	0.16
RSD 4	2	0.41	+0.51	0.31	+0.36	0.36
RSD 5	2	2.07	+0.97	1.61	+0.83	1.84
RSD 6	2	1.45	+0.83	0.75	+0.57	1.10
RSD 7	11	1.25	+0.79	0.10	+0.34	0.65
RSD 8	10	8.08	+1.81	0.58	+0.62	2.08
RSD 9	12	0.91	+0.61	-0.10	+0.36	0.29
RSD 10	11	1.52	+0.78	0.29	+0.52	0.70
RSD 11	10	0.71	+0.54	0.00	+0.42	0.40
RSE 1A	2	0.63	+0.51	0.10	+0.33	0.36
RSE 1B	2	0.19	+0.38	0.10	+0.21	0.14
RSE 1C	2	0.52	+0.47	-0.10	+0.19	0.21
RSE 2	2	0.63	+0.51	0.00	+0.27	0.31
RSE 3A	11	1.06	+0.69	0.00	+0.28	0.66
RSE 4A	2	1.83	+0.88	0.84	+0.59	1.33
RSE 4B	5	10.70	+2.05	1.15	+0.76	4.32
RSE 4C	2	2.69	+1.05	1.47	+0.79	2.08
RSE 5	2	0.52	+0.47	0.19	+0.38	0.35
RSE 6	1	30.1	+3.42	30.1	+3.42	30.1
RSE 7	10	0.94	+0.70	0.00	+0.42	0.40
RSE 8	9	1.15	+0.76	0.21	+0.51	0.67
RSE 9	3	0.84	+0.59	0.10	+0.33	0.44
RSE 10	2	0.21	+0.30	0.19	+0.38	0.20
RSE 11	2	2.21	+0.96	0.84	+0.59	1.52
RSE 12	2	0.73	+0.56	0.38	+0.47	0.55
RSE 13	12	2.79	+1.11	0.00	+0.28	1.25
RSE 18	2	0.31	+0.36	-0.10	+0.19	0.10
RSE 19	2	1.15	+0.70	0.67	+0.58	0.91

TABLE 4-16
RADIOACTIVITY IN R-AREA GROUNDWATER

<u>Seepage Basins</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
<u>Nonvolatile Beta (pCi/L)</u>						
RSA 7	2	0.51	+1.30	0.30	+1.44	0.40
RSA 8	2	1.32	+1.21	0.43	+1.30	0.87
RSA 9	2	1.09	+1.37	0.30	+1.44	0.69
RSA 10	2	0.60	+1.47	0.51	+1.30	0.55
RSB 7	2	3.82	+1.81	1.57	+1.57	2.69
RSB 8	2	2.46	+1.67	1.57	+1.57	2.01
RSB 9	2	1.27	+1.55	0.52	+1.46	0.89
RSC 2	2	2.91	+1.38	1.09	+1.37	2.00
RSC 3	2	1.27	+1.54	0.36	+1.29	0.81
RSC 4	2	0.75	+1.48	-0.22	+1.22	0.26
RSC 5	2	0.87	+1.34	0.60	+1.47	0.73
RSC 6	2	1.35	+1.54	0.00	+1.25	0.67
RSC 7	2	5.55	+1.91	2.68	+1.53	4.11
RSC 8	2	2.45	+1.33	0.51	+1.30	1.48
RSC 9	2	0.80	+1.34	0.66	+1.14	0.73
RSC 10	2	2.38	+1.32	0.14	+1.26	1.26
RSD 1	2	41.0	+3.99	29.1	+3.27	35.1
RSD 2A	2	191	+7.53	170	+7.28	181
RSD 2B	2	4,460	+36.0	60.9	+4.15	2,260
RSD 2C	1	3,580	+30.8	3,580	+30.8	3,580
RSD 3	2	2.97	+1.73	-0.90	+1.31	1.03
RSD 4	2	262	+8.80	49.1	+4.09	156
RSD 5	2	314	+9.81	297	+10.1	306
RSD 6	2	171	+7.76	156	+6.99	164
RSD 7	11	154	+6.52	86	+5.30	120
RSD 8	10	1,060	+19.0	383	+10.2	755
RSD 9	12	8.28	+1.82	1.45	+1.52	3.24
RSD 10	11	55.3	+3.96	36.0	+3.61	44.1
RSD 11	10	19.6	+2.51	9.94	+1.92	15.2
RSE 1A	2	26.6	+2.86	18.2	+2.60	22.4
RSE 1B	2	10.4	+2.12	7.82	+1.79	9.11
RSE 1C	2	9.01	+1.87	3.33	+1.56	6.17
RSE 2	2	9.57	+2.06	2.38	+1.32	5.97
RSE 3A	10	30.6	+3.04	12.4	+2.08	22.2
RSE 4A	2	821	+14.7	72.0	+4.73	446.5
RSE 4B	5	1,300	+20.1	658	+13.1	1,060
RSE 4C	2	763	+14.2	507	+12.2	635
RSE 5	2	49.7	+3.98	31.5	+3.08	40.6
RSE 6	1	14,000	+60.8	14,000	+60.8	14,000
RSE 7	10	21.2	+2.59	1.72	+1.23	10.9
RSE 8	9	6.03	+1.64	1.59	+1.24	3.22
RSE 9	3	2.36	+1.32	0.72	+1.30	1.67
RSE 10	2	7.35	+1.75	4.57	+1.67	5.96
RSE 11	2	752	+14.1	450	+11.5	601
RSE 12	2	194	+7.60	167	+6.73	181
RSE 13	12	317	+9.22	182	+7.67	231
RSE 18	2	3.25	+1.41	2.03	+1.44	2.64
RSE 19	2	91.6	+5.04	58.2	+4.28	74.9
<u>H-3 (pCi/mL)</u>						
RSD 7	1	5.47	+1.17	5.47	+1.17	5.47
RSD 8	1	6.78	+1.21	6.78	+1.21	6.78
RSD 9	1	4.74	+1.14	4.74	+1.14	4.74
RSE 7	1	4.60	+1.16	4.60	+6.73	4.60
RSE 8	1	4.91	+1.17	4.91	+7.67	4.91
RSE 9	1	4.93	+1.15	4.93	+1.44	4.93

**TABLE 4-17
CHEMICAL CONCENTRATIONS IN R-AREA GROUNDWATER**

Well: RRP 1, R-Area Burning/Rubble Pits

SRP Grid N 54563.5
Coordinates E 75634.6
Latitude 33.269826°N
Longitude 81.573641°W

Screen Zone Elevation 83.0-73.9
Top of Casing Elevation 86.58
Casing Material PVC

Other Analyses (mg/L)
(GCMS Scan Analytes: Table 4-25, Vol. II)

RRP 2 07/26/87
GCMS Scan detected the following: None

Parameter	Units	02/14/87	05/02/87	07/26/87	10/07/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	81.7	82.1	80.9	80.7
pH		4.6	4.8	4.6	5.1
Conductivity	umhos/cm	36	28	28	29
TDS	mg/L	18	-	-	-
Arsenic	µg/L	<0.002	-	-	-
Barium	mg/L	0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.192	-	-	-
Chloride	mg/L	2.5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.047	-	-	-
Lead	mg/L	0.010	-	0.010	-
Magnesium	mg/L	0.917	-	-	-
Manganese	mg/L	0.003	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.240	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.33	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.00	-	-	-
Total Phosphate	mg/L	0.004	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.41	-	-	-
SO ₄	mg/L	<5.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.70	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	<3.0	-
Nonvol. Beta	pCi/L	3.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	3.15	-	-	-

RRP 3 07/26/87
GCMS Scan detected the following: None

Well: RRP 2, R-Area Burning/Rubble Pits

SRP Grid N 54468.3
Coordinates E 75629.8
Latitude 33.269933°N
Longitude 81.572942°W

Screen Zone Elevation 83.1-73.0
Top of Casing Elevation 86.71
Casing Material PVC

Parameter	Units	02/14/87	05/02/87	07/26/87	10/07/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	81.4	81.7	80.8	80.7
pH		4.3	4.6	4.5	4.5
Conductivity	umhos/cm	42	38	25	28
TDS	mg/L	22	-	-	-
Arsenic	µg/L	<0.002	-	-	-
Barium	mg/L	0.036	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.840	-	-	-
Chloride	mg/L	2.9	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.034	-	-	-
Lead	mg/L	0.017	-	<0.006	-
Magnesium	mg/L	0.961	-	-	-
Manganese	mg/L	0.008	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.93	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.33	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.02	-	-	-
Total Phosphate	mg/L	0.004	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	2.55	-	-	-
SO ₄	mg/L	<5.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	<0.005	-
Chloroform	mg/L	-	-	<0.005	-
Tetrachloroethene	mg/L	-	-	<0.005	-
Trichloroethene	mg/L	-	-	<0.002	-
1,1,1-TCE	mg/L	-	-	<0.5	-
Gross Alpha	pCi/L	<3.0	-	<3.0	-
Nonvol. Beta	pCi/L	3.3	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	3.20	-	-	-

Well: RSE 24, R-Area Reactor Seepage Basins

SRP Grid N 57770.4
Coordinates E 74638.9
Latitude 33.274415°N
Longitude 81.581710°W

Screen Zone Elevation 78.5-72.4
Top of Casing Elevation 89.64
Casing Material PVC

Parameter	Units	03/23/87	05/27/87	08/20/87	12/16/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	86.1	85.8	85.6	86.6
pH		5.9	6.2	6.7	5.7
Conductivity	umhos/cm	56	38	37	37
TDS	mg/L	50	46	5	-
Arsenic	µg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.005	<0.004	<0.004	<0.004
Beryllium	mg/L	<0.005	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	1.61	2.68	1.94	2.72
Chloride	mg/L	1.4	2.3	1.7	4.2
Chromium	mg/L	<0.004	<0.004	<0.0	<0.004
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.34	0.24	<0.10	-
Iron	mg/L	0.058	0.029	0.039	-
Lead	mg/L	<0.006	<0.006	0.006	<0.006
Magnesium	mg/L	0.243	0.128	0.321	0.328
Manganese	mg/L	0.002	0.002	0.005	0.003
Mercury	mg/L	<0.0002	<0.0002	2.0002	<0.0002
Nickel	mg/L	0.054	-	-	-
Potassium	mg/L	0.180	0.130	1.43	<0.500
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	2.78	2.70	2.62	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	6.38	4.03	3.42	3.00
Total Phosphate	mg/L	<0.010	<0.020	0.120	0.100
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	2.10	1.80	2.05	1.82
SO ₄	mg/L	9.0	<5.0	<5.0	<5.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	2.00	1.40	1.000
Tot. Org. Halogen	mg/L	0.009	<0.005	<0.005	<0.005
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	<3.0	<3.0	<3.0
Nonvol. Beta	pCi/L	<3.0	1.5	1.7	<3.0
Total Radium	pCi/L	<1.0	<1.0	<1.0	<1.0
Tritium	pCi/mL	-	3.08	2.80	3.50

TABLE 4-17
CHEMICAL CONCENTRATIONS IN R-AREA GROUNDWATER

Well: RSP 3, R-Area Reactor Seepage Basins

RSP Grid	N 57621.4		Screen Zone Elevation	73.1-70.0
Coordinates	E 75104.7		Top of Casing Elevation	93.60
Latitude	33.275894°N		Casing Material	PVC
Longitude	81.380701°W			

Parameter	Units	03/21/87	05/27/87	08/15/87	11/01/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	86.6	85.8	85.4	84.7
pH	pH	6.0	6.0	5.8	6.7
Conductivity	umhos/cm	42	52	43	48
TDS	mg/L	64	86	116	84
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.003	<0.004	<0.004	0.007
Beryllium	mg/L	<0.005	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	3.02	2.94	3.00	6.78
Chloride	mg/L	2.0	3.5	2.8	2.8
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.41	0.24	0.28	0.35
Iron	mg/L	0.259	0.077	0.178	-
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.259	0.191	0.291	0.274
Manganese	mg/L	0.002	<0.004	0.004	0.007
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.760	0.830	1.25	1.52
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	4.25	4.25	4.26	-
Silver	mg/L	0.0030	<0.0020	<0.0020	<0.0020
Sodium	mg/L	5.85	5.51	6.66	6.74
Total Phosphate	mg/L	0.020	0.080	0.050	0.090
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.17	0.20	0.51	0.52
SO ₄	mg/L	27.0	13.0	5.0	10.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	1.00	<1.000	1.00
Tot. Org. Halogen	mg/L	<0.005	<0.005	<0.005	<0.005
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	2.4	5.3	-
Nonvol. Beta	pCi/L	<2.0	4.4	4.9	-
Total Radium	pCi/L	<1.0	<1.0	<1.0	-
Tritium	pCi/mL	-	<0.70	1.09	1.30

RSP 1 05/27/87
Pest/Herb* Analysis detected the following:
None

RSP 2 05/27/87
Pest/Herb* Analysis detected the following:
None

RSP 3 05/27/87
Pest/Herb* Analysis detected the following:
None

TABLE 4-18 CHEMICAL CONCENTRATIONS IN A- AND M-AREAS GROUNDWATER

Other Analytes (µg/L)
GCMS Scan Analytes: Table 4-25, Vol. 11)

Well: ACB 1A, A-Area Coal Pile Runoff Containment Basin

ABP 1A 01/11/87
GCMS Scan detected the following: None

ABP 1A 04/21/87
Lithium <0.005

ABP 1A 07/27/87
Lithium <0.005

ABP 2A 01/11/87
GCMS Scan detected the following: None

ABP 2A 04/21/87
Lithium <0.005

ABP 2A 09/02/87
Lithium <0.005

ABP 3 01/11/87
GCMS Scan detected the following: None

ABP 3 04/21/87
Lithium <0.005

ABP 3 08/03/87
Lithium <0.005

ABP 4 01/11/87
GCMS Scan detected the following: None

ABP 4 04/21/87
Lithium <0.005

ABP 4 08/03/87
Lithium <0.005

SRP Grid N 102622.9
Coordinates E 51369.9
Latitude 33.336543°N
Longitude 81.730917°W
Screen Zone Elevation 75.5-86.3
Top of Casing Elevation 109.60
Casing Material PVC

Parameter	Units	01/19/87	04/22/87	07/19/87	10/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	73.3	73.5	73.5	73.2
pH		4.9	6.0	5.8	5.8
Conductivity	umhos/cm	86	80	77	88
TDS	mg/L	86	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.19	-	-	-
Chloride	mg/L	2.9	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	<0.004	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.043	-	-	-
Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	1.09	-	-	-
Manganese	mg/L	<0.002	-	-	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.701	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	1.31	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	8.48	-	-	-
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.15	-	-	-
SO ₄	mg/L	14.0	-	10.6	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001	<0.001	<0.001
Trichloroethene	mg/L	<0.001	<0.001	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	1.5	-	<1.0	-
Tritium	pCi/mL	0.32	-	-	-

Well: ABW 1, A-Area Background Well

SRP Grid N 105939.9
Coordinates E 55016.4
Latitude 33.349830°N
Longitude 81.727766°W
Screen Zone Elevation 65.6-56.4
Top of Casing Elevation 98.99
Casing Material PVC

Parameter	Units	01/07/87	06/25/87	08/03/87	10/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	68.7	68.7	68.5	68.2
pH		4.6	5.0	5.0	5.0
Conductivity	umhos/cm	34	28	25	26
TDS	mg/L	10	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.441	-	-	-
Chloride	mg/L	3.5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.008	-	-	-
Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	0.469	-	-	-
Manganese	mg/L	<0.002	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.360	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.19	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.26	-	-	-
Total Phosphate	mg/L	0.010	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.59	-	-	-
SO ₄	mg/L	5.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-
Tot. Org. Halogen	mg/L	0.010	-	0.011	-
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	0.005	0.005	0.005	0.004
Trichloroethene	mg/L	0.006	0.005	0.006	0.004
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	2.8	<2.0	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	1.40	<0.70	-	-

Well: ACB 2A, A-Area Coal Pile Runoff Containment Basin

SRP Grid N 102367.4
Coordinates E 51561.3
Latitude 33.336291°N
Longitude 81.729916°W
Screen Zone Elevation 72.5-63.3
Top of Casing Elevation 106.61
Casing Material PVC

Parameter	Units	01/15/87	04/22/87	07/19/87	10/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	73.4	73.7	73.8	73.5
pH		4.6	5.4	5.4	5.7
Conductivity	umhos/cm	47	42	40	41
TDS	mg/L	26	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.250	-	-	-
Chloride	mg/L	3.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.006	-	0.018	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.012	-	-	-
Lead	mg/L	0.006	-	-	-
Magnesium	mg/L	0.070	-	-	-
Manganese	mg/L	<0.002	-	-	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.307	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.40	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.97	-	-	-
Total Phosphate	mg/L	0.080	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.10	-	-	-
SO ₄	mg/L	12.5	-	6.6	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	<0.001	0.003	<0.001	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001	<0.001	<0.001
Trichloroethene	mg/L	<0.001	<0.001	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	0.6	-
Tritium	pCi/mL	0.50	-	-	-

TABLE 4-18 CHEMICAL CONCENTRATIONS IN A- AND M-AREAS GROUNDWATER

Well: ACB 3A, A-Area Coal Pile Runoff Containment Basin

SRP Grid N 102154.3
Coordinates E 51313.3
Latitude 33.335415°N
Longitude 81.730154°W

meters (MSL)
72.0-62.9
106.16

Other Analyses (mg/L)
GCMS Scan Analytes: Table 4-25, Vol. 11)

ACB 3A 07/19/87

GCMS Scan detected the following: None

Parameter	Units	01/15/87	04/22/87	07/19/87	10/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	73.3	73.7	73.9	73.6
pH		4.5	5.4	5.2	5.7
Conductivity	umhos/cm	91	110	147	160
TDS	mg/L	62	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.007	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	4.09	-	-	-
Chloride	mg/L	3.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.005	-	<0.004	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.049	-	-	-
Lead	mg/L	0.005	-	-	-
Magnesium	mg/L	2.98	-	-	-
Manganese	mg/L	0.004	-	-	-
Mercury	mg/L	0.0007	-	0.0009	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.400	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.33	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	4.91	-	-	-
Total Phosphate	ug/L	0.070	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.	-	-	-
SO ₄	mg/L	28.0	-	47.5	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	0.036	-
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001	<0.001	<0.001
Trichloroethene	mg/L	<0.001	<0.001	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	6.2	-	-	-
Nonvol. Beta	pCi/L	4.6	-	-	-
Total Radium	pCi/L	4.7	-	<1.0	-
Tritium	pCi/mL	2.80	-	-	-

Well: ACB 4A, A-Area Coal Pile Runoff Containment Basin

SRP Grid N 102347.9
Coordinates E 51118.2
Latitude 33.335512°N
Longitude 81.731042°W

meters (MSL)
73.7-64.5
109.45

Well: AMB 1A, Metallurgical Lab Seepage Basin

SRP Grid N 104022.5
Coordinates E 51436.3
Latitude 33.339745°N
Longitude 81.733465°W

meters (MSL)
75.3-66.1
115.42

Parameter	Units	01/15/87	04/22/87	07/19/87	10/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	70.9	72.4	73.2	73.7
pH		4.5	4.9	4.8	5.4
Conductivity	umhos/cm	41	29	30	33
TDS	mg/L	8	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.980	-	-	-
Chloride	mg/L	2.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.009	-	0.006	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.023	-	-	-
Lead	mg/L	0.020	-	-	-
Magnesium	mg/L	0.510	-	-	-
Manganese	mg/L	0.007	-	-	-
Mercury	mg/L	0.0003	-	0.0005	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.346	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.07	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.48	-	-	-
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.50	-	-	-
SO ₄	mg/L	13.0	-	5.7	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	0.017	-
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001	<0.001	<0.001
Trichloroethene	mg/L	<0.001	<0.001	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	4.0	-	-	-
Nonvol. Beta	pCi/L	3.9	-	-	-
Total Radium	pCi/L	7.0	-	1.9	-
Tritium	pCi/mL	2.20	-	-	-

Parameter	Units	01/19/87	04/22/87	07/20/87	10/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	72.4	72.7	72.4	72.2
pH		4.6	5.6	5.4	5.5
Conductivity	umhos/cm	54	41	42	47
TDS	mg/L	74	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.285	-	-	-
Chloride	mg/L	3.3	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.020	-	-	-
Lead	mg/L	<0.006	-	<0.006	-
Magnesium	mg/L	0.089	-	-	-
Manganese	mg/L	0.005	-	0.006	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.221	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.64	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	8.12	-	-	-
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.40	-	-	-
SO ₄	mg/L	13.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-
Tot. Org. Halogen	mg/L	0.006	0.007	0.007	<0.005
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001	<0.001	<0.001
Trichloroethene	mg/L	0.009	<0.001	<0.001	0.005
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	<3.0	-	1.0	-
Nonvol. Beta	pCi/L	3.2	-	2.1	-
Total Radium	pCi/L	1.0	-	0.7	-
Tritium	pCi/mL	0.39	-	-	-

**TABLE 4-18
CHEMICAL CONCENTRATIONS IN A- AND M-AREAS
GROUNDWATER**

Well: ASB 9, Savannah River Laboratory Seepage Basins

SRP Grid N 104589.2
Coordinates E 54226.2
Latitude 33.345554°N
Longitude 81.727219°W

Screen Zone Elevation 72.1-66.0
Top of Casing Elevation 94.18
Casing Material PVC

Parameter	Units	02/08/87	04/22/87	07/20/87	10/18/87
Sampling Method	Pump				
Water Elevation	meters	73.5	73.8	73.9	73.6
pH	pH	4.7	5.0	5.1	5.0
Conductivity	umhos/cm	31	32	35	35
TDS	mg/L	6	26	30	26
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.030	0.028	0.029	0.030
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	1.75	2.44	1.85	1.94
Chloride	mg/L	3.9	3.5	4.4	3.9
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	0.004	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.11	0.14	0.24	0.34
Iron	mg/L	0.020	0.024	0.031	0.041
Lead	mg/L	0.009	0.013	0.012	0.008
Magnesium	mg/L	0.901	0.826	0.824	0.900
Manganese	mg/L	0.023	0.024	0.024	0.026
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.420	0.460	0.500	1.08
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	2.22	2.34	2.43	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	1.94	2.04	2.56	2.44
Total Phosphate	mg/L	0.025	0.030	0.090	0.080
Zinc	mg/L	0.012	-	-	-
NO ₃ (as N)	mg/L	0.38	0.35	0.93	0.87
SO ₄	mg/L	5.0	4.4	6.3	65.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	1.70	<1.000	<1.000
Tot. Org. Halogen	mg/L	0.030	-	0.010	<0.005
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001	<0.001	<0.001
Trichloroethene	mg/L	<0.001	<0.001	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	1.2	<3.0	1.4	1.7
Nonvol. Beta	pCi/L	3.0	<2.0	<2.0	2.1
Total Radium	pCi/L	<1.0	1.0	1.6	1.4
Tritium	pCi/mL	1.84	-	1.60	2.00

Well: ASB 8A, SRL Seepage Basins (KNET Program Information)

SRP Grid N 106369.3
Coordinates E 53117.5
Latitude 33.347679°N
Longitude 81.733607°W

Screen Zone Elevation 25.4-23.7
Top of Casing Elevation 106.46
Casing Material PVC

Parameter	Units	02/10/87	07/21/87
Sampling Method	Pump		
Water Elevation	meters	66.8	66.9
pH	pH	5.7	5.4
Conductivity	umhos/cm	25	23
Chloroform	mg/L	<0.001	<0.010
Tetrachloroethene	mg/L	<0.001	<0.010
Trichloroethene	mg/L	<0.001	<0.010
1,1,1-TCE	mg/L	<0.001	<0.010

Well: ASB 8B, SRL Seepage Basins (KNET Program Information)

SRP Grid N 106362.3
Coordinates E 53109.6
Latitude 33.347650°N
Longitude 81.733610°W

Screen Zone Elevation 39.1-37.4
Top of Casing Elevation 106.61
Casing Material PVC

Parameter	Units	02/10/87	04/11/87	07/21/87	10/07/87
Sampling Method	Pump				
Water Elevation	meters	67.2	67.4	67.3	66.9
pH	pH	5.5	5.5	5.4	5.5
Conductivity	umhos/cm	30	32	29	31
Chloroform	mg/L	<0.100	<0.010	<0.100	<0.100
Tetrachloroethene	mg/L	0.003	<0.010	<0.010	<0.100
Trichloroethene	mg/L	1.30	1.38	1.09	1.43
1,1,1-TCE	mg/L	<0.001	<0.10	<0.100	<0.100

Well: ASB 8C, SRL Seepage Basins (KNET Program Information)

SRP Grid N 106354.4
Coordinates E 53101.0
Latitude 33.347619°N
Longitude 81.733617°W

Screen Zone Elevation 57.4-55.7
Top of Casing Elevation 106.58
Casing Material PVC

Parameter	Units	02/10/87	04/11/87	07/21/87	10/02/87
Sampling Method	Pump				
Water Elevation	meters	68.3	68.5	68.5	68.2
pH	pH	5.0	5.0	4.9	5.0
Conductivity	umhos/cm	43	44	40	44
Chloroform	mg/L	<0.200	<0.010	<1.000	<0.200
Tetrachloroethene	mg/L	0.113	0.189	<0.010	<0.200
Trichloroethene	mg/L	1.18	2.78	1.17	1.55
1,1,1-TCE	mg/L	<0.200	<0.001	<1.000	<0.200

Well: ASB 8TA, SRL Seepage Basins (KNET Program Information)

SRP Grid N 106375.8
Coordinates E 53124.7
Latitude 33.347705°N
Longitude 81.733597°W

Screen Zone Elevation 7.5-5.9
Top of Casing Elevation 106.55
Casing Material C.S.

Parameter	Units	02/10/87	04/11/87	07/21/87	10/02/87
Sampling Method	Pump				
Water Elevation	meters	65.6	65.6	65.7	64.9
pH	pH	5.3	5.3	5.2	5.4
Conductivity	umhos/cm	21	24	23	24
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001	<0.001	<0.001
Trichloroethene	mg/L	<0.001	<0.001	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001

Well: ASB 9B, SRL Seepage Basins (KNET Program Information)

SRP Grid N 104564.7
Coordinates E 54215.3
Latitude 33.345482°N
Longitude 81.727201°W

Screen Zone Elevation -
Top of Casing Elevation 94.18
Casing Material -

Parameter	Units	10/14/87
Sampling Method	Pump	
Water Elevation	meters	67.1
pH	pH	6.4
Conductivity	umhos/cm	67
Chloroform	mg/L	<0.010
Tetrachloroethene	mg/L	0.034
Trichloroethene	mg/L	0.049
1,1,1-TCE	mg/L	<0.010

Other Analytes (mg/L)
(GCMS Scan and Pest/Herb* Analytes: Table 4-25, Vol. 11)

ASB 7 02/03/87
Pest/Herb* Analysis detected the following:
None

ASB 8 01/13/87
Pest/Herb* Analysis detected the following:
None

ASB 8 08/03/87
GCMS Scan detected the following:
trans-1,2-Dichloroethene 0.049

ASB 9 02/08/87
Pest/Herb* Analysis detected the following:
None

TABLE 4-18 CHEMICAL CONCENTRATIONS IN A- AND M-AREAS GROUNDWATER

Well: MCB 2, Miscellaneous Chemical Basin

SRP Grid N 97012.6
Coordinates E 45129.0
Latitude 33.313949°N
Longitude 81.736437°W
Screen Zone Elevation 68.9-62.8
Top of Casing Elevation 100.09
Casing Material PVC

Parameter	Units	08/05/87	11/14/87
Sampling Method	Pump		
Water Elevation	meters	66.3	66.1
pH	pH	9.7	7.7
Conductivity	umhos/cm	74	44
TDS	mg/L	82	<5
Arsenic	mg/L	<0.002	<0.002
Barium	mg/L	0.005	0.008
Beryllium	mg/L	-	-
Cadmium	mg/L	<0.002	<0.002
Calcium	mg/L	8.36	8.34
Chloride	mg/L	2.2	2.3
Chromium	mg/L	<0.004	<0.004
Copper	mg/L	-	-
Cyanide	mg/L	-	-
Fluoride	mg/L	0.18	<0.10
Iron	mg/L	0.113	0.031
Lead	mg/L	<0.006	<0.006
Magnesium	mg/L	0.233	-
Manganese	mg/L	0.003	0.004
Mercury	mg/L	<0.0002	<0.0002
Nickel	mg/L	-	-
Potassium	mg/L	0.544	0.596
Selenium	mg/L	<0.002	<0.002
Silica	mg/L	4.89	-
Silver	mg/L	<0.0020	<0.0020
Sodium	mg/L	1.88	1.63
Total Phosphate	mg/L	0.140	0.150
Zinc	mg/L	-	-
NO ₂ (as N)	mg/L	0.53	1.34
SO ₄	mg/L	<5.0	<5.0
Phenols	mg/L	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000
Tot. Org. Halogen	mg/L	0.045	0.024
Carbon Tet.	mg/L	<0.005	-
Chloroform	mg/L	<0.005	-
Tetrachloroethene	mg/L	0.005	-
Trichloroethene	mg/L	0.057	-
1,1,1-TCE	mg/L	<0.005	-
Gross Alpha	pCi/L	<3.0	-
Nonvol. Beta	pCi/L	<2.0	-
Total Radium	pCi/L	<1.0	-
Tritium	pCi/mL	1.00	-

Well: MCB 4, Miscellaneous Chemical Basin

SRP Grid N 97532.0
Coordinates E 44705.1
Latitude 33.314407°N
Longitude 81.738561°W
Screen Zone Elevation 70.0-63.6
Top of Casing Elevation 106.80
Casing Material PVC

Parameter	Units	08/05/87	11/14/87
Sampling Method	Pump		
Water Elevation	meters	68.2	68
pH	pH	8.7	7.0
Conductivity	umhos/cm	40	38
TDS	mg/L	5	26
Arsenic	mg/L	<0.002	<0.002
Barium	mg/L	0.005	0.005
Beryllium	mg/L	-	-
Cadmium	mg/L	<0.002	<0.002
Calcium	mg/L	4.23	6.23
Chloride	mg/L	2.3	2.5
Chromium	mg/L	<0.004	<0.004
Copper	mg/L	-	-
Cyanide	mg/L	-	-
Fluoride	mg/L	<0.10	<0.10
Iron	mg/L	0.076	0.085
Lead	mg/L	<0.006	0.006
Magnesium	mg/L	0.269	-
Manganese	mg/L	0.019	0.011
Mercury	mg/L	<0.0002	<0.0002
Nickel	mg/L	-	-
Potassium	mg/L	1.77	0.812
Selenium	mg/L	0.002	0.302
Silica	mg/L	3.57	-
Silver	mg/L	<0.0020	<0.0020
Sodium	mg/L	4.07	7.48
Total Phosphate	mg/L	0.030	0.030
Zinc	mg/L	-	-
NO ₂ (as N)	mg/L	0.37	0.35
SO ₄	mg/L	<5.0	<5.0
Phenols	mg/L	0.005	0.005
Tot. Org. Carbon	mg/L	1.700	1.600
Tot. Org. Halogen	mg/L	0.036	0.042
Carbon Tet.	mg/L	<0.005	-
Chloroform	mg/L	<0.005	-
Tetrachloroethene	mg/L	0.018	-
Trichloroethene	mg/L	0.033	-
1,1,1-TCE	mg/L	<0.005	-
Gross Alpha	pCi/L	7.3	-
Nonvol. Beta	pCi/L	3.8	-
Total Radium	pCi/L	<1.0	-
Tritium	pCi/mL	2.00	-

Well: MCB 5, Miscellaneous Chemical Basin

SRP Grid N 97335.6
Coordinates E 44883.9
Latitude 33.314230°N
Longitude 81.737763°W
Screen Zone Elevation 69.0-62.9
Top of Casing Elevation 103.51
Casing Material PVC

Parameter	Units	08/05/87	11/14/87
Sampling Method	Pump		
Water Elevation	meters	67.9	67.9
pH	pH	11.3	10.4
Conductivity	umhos/cm	450	120
TDS	mg/L	84	72
Arsenic	mg/L	0.003	<0.002
Barium	mg/L	0.039	0.010
Beryllium	mg/L	-	-
Cadmium	mg/L	<0.002	<0.002
Calcium	mg/L	49.1	18.2
Chloride	mg/L	2.4	2.7
Chromium	mg/L	0.008	<0.004
Copper	mg/L	-	-
Cyanide	mg/L	-	-
Fluoride	mg/L	0.18	<0.10
Iron	mg/L	0.096	0.056
Lead	mg/L	<0.006	<0.006
Magnesium	mg/L	0.065	-
Manganese	mg/L	<0.002	0.003
Mercury	mg/L	<0.0002	<0.0002
Nickel	mg/L	-	-
Potassium	mg/L	2.44	0.814
Selenium	mg/L	<0.002	<0.002
Silica	mg/L	4.66	-
Silver	mg/L	<0.0020	<0.0020
Sodium	mg/L	5.87	1.82
Total Phosphate	mg/L	0.330	0.100
Zinc	mg/L	-	-
NO ₂ (as N)	mg/L	0.32	0.37
SO ₄	mg/L	<5.0	<5.0
Phenols	mg/L	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000
Tot. Org. Halogen	mg/L	0.101	0.174
Carbon Tet.	mg/L	<0.005	-
Chloroform	mg/L	<0.005	-
Tetrachloroethene	mg/L	0.16	-
Trichloroethene	mg/L	0.129	-
1,1,1-TCE	mg/L	<0.005	-
Gross Alpha	pCi/L	<3.0	-
Nonvol. Beta	pCi/L	<2.0	-
Total Radium	pCi/L	<1.0	-
Tritium	pCi/mL	2.00	-

Well: MCB 6, Miscellaneous Chemical Basin

SRP Grid N 97425.7
Coordinates E 45214.0
Latitude 33.315001°N
Longitude 81.737016°W
Screen Zone Elevation -
Top of Casing Elevation 101.22
Casing Material PVC

Parameter	Units	08/05/87	11/14/87
Sampling Method	Pump		
Water Elevation	meters	67.8	67.8
pH	pH	8.3	8.3
Conductivity	umhos/cm	32	32
TDS	mg/L	96	96
Arsenic	mg/L	<0.002	<0.002
Barium	mg/L	0.007	0.007
Beryllium	mg/L	-	-
Cadmium	mg/L	-	0.002
Calcium	mg/L	-	3.63
Chloride	mg/L	-	3.5
Chromium	mg/L	-	<0.004
Copper	mg/L	-	-
Cyanide	mg/L	-	-
Fluoride	mg/L	-	-
Iron	mg/L	-	0.97
Lead	mg/L	-	<0.006
Magnesium	mg/L	-	0.017
Manganese	mg/L	-	0.020
Mercury	mg/L	-	<0.0002
Nickel	mg/L	-	-
Potassium	mg/L	-	2.99
Selenium	mg/L	-	<0.002
Silica	mg/L	-	-
Silver	mg/L	-	<0.0020
Sodium	mg/L	-	8.43
Total Phosphate	mg/L	-	0.330
Zinc	mg/L	-	-
NO ₂ (as N)	mg/L	-	0.52
SO ₄	mg/L	-	5.4
Phenols	mg/L	-	<0.005
Tot. Org. Carbon	mg/L	-	<1.000
Tot. Org. Halogen	mg/L	-	-
Carbon Tet.	mg/L	-	-
Chloroform	mg/L	-	-
Tetrachloroethene	mg/L	-	-
Trichloroethene	mg/L	-	-
1,1,1-TCE	mg/L	-	-
Gross Alpha	pCi/L	-	3.1
Nonvol. Beta	pCi/L	-	4.9
Total Radium	pCi/L	-	1.3
Tritium	pCi/mL	-	2.40

TABLE 4-18 CHEMICAL CONCENTRATIONS IN A- AND M-AREAS GROUNDWATER

Well: MCB 2, Miscellaneous Chemical Basin (RMET Program Information)

SRP Grid	N 97012.6		<u>meters (MSL)</u>
Coordinates E	45129.0	Screen Zone Elevation	68.9-62.8
Latitude	33.313949°N	Top of Casing Elevation	100.09
Longitude	81.738637°W	Casing Material	PVC

Parameter	Units	01/13/87
Sampling Method		Pump
Water Elevation	meters	67.8
pH		10.4
Conductivity	umhos/cm	137
Chloroform	mg/L	<0.001
Tetrachloroethene	mg/L	0.006
Trichloroethene	mg/L	0.075
1,1,1-TCE	mg/L	<0.001

Well: MCB 4, Miscellaneous Chemical Basin (RMET Program Information)

SRP Grid	N 97332.5		<u>meters (MSL)</u>
Coordinates E	44705.1	Screen Zone Elevation	70.0-63.6
Latitude	33.314206°N	Top of Casing Elevation	106.80
Longitude	81.738647°W	Casing Material	PVC

Parameter	Units	01/13/87
Sampling Method		Pump
Water Elevation	meters	67.2
pH		8.7
Conductivity	umhos/cm	88
Chloroform	mg/L	<0.001
Tetrachloroethene	mg/L	0.011
Trichloroethene	mg/L	0.026
1,1,1-TCE	mg/L	<0.010

Well: MCB 5, Miscellaneous Chemical Basin (RMET Program Information)

SRP Grid	N 97335.6		<u>meters (MSL)</u>
Coordinates E	44863.4	Screen Zone Elevation	69.0-62.9
Latitude	33.314220°N	Top of Casing Elevation	103.51
Longitude	81.737763°W	Casing Material	PVC

Parameter	Units	01/13/87
Sampling Method		Pump
Water Elevation	meters	68
pH		11.3
Conductivity	umhos/cm	470
Chloroform	mg/L	<0.001
Tetrachloroethene	mg/L	0.011
Trichloroethene	mg/L	0.066
1,1,1-TCE	mg/L	<0.001

Well: MSB 1A, M-Area Settling Basin

SRP Grid	N 101833.7		<u>meters (MSL)</u>
Coordinates E	48467.3	Screen Zone Elevation	77.2-68.1
Latitude	33.330058°N	Top of Casing Elevation	107.71
Longitude	81.737025°W	Casing Material	PVC

Parameter	Units	01/13/87	04/16/87	07/09/87	11/01/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	71.9	71.8	71.9	72
pH		3.4	4.4	4.4	4.2
Conductivity	umhos/cm	55	63	45	40
TDS	mg/L	22	30	3	5
Arsenic	mg/L	<0.002	-	<0.002	<0.002
Barium	mg/L	0.007	0.010	0.009	<0.004
Beryllium	mg/L	<0.001	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	0.892	-	-	-
Chloride	mg/L	2.7	2.7	3.2	3.7
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	0.052	0.041	0.033	0.039
Cyanide	mg/L	<0.005	<0.005	<0.001	<0.005
Fluoride	mg/L	<0.10	0.11	<0.10	0.25
Iron	mg/L	0.027	0.077	0.028	0.041
Lead	mg/L	0.025	0.013	0.010	0.011
Magnesium	mg/L	0.400	-	-	-
Manganese	mg/L	0.005	0.008	0.007	0.011
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	<0.004	<0.004	<0.004	<0.004
Potassium	mg/L	0.370	-	-	-
Selenium	mg/L	<0.002	-	<0.002	<0.002
Silica	mg/L	3.44	-	-	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	2.86	3.17	3.00	3.06
Total Phosphate	mg/L	<0.020	0.030	0.080	0.030
Zinc	mg/L	0.036	0.044	0.018	0.028
NOy (as N)	mg/L	2.60	2.95	4.84	5.27
SO4	mg/L	<3.0	<3.0	10.8	<5.0
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	0.172	0.142	0.064	0.037
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	0.016	0.010	0.020	0.009
Trichloroethene	mg/L	0.165	0.140	0.084	0.040
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Cobalt Alpha	pCi/L	3.2	2.7	2.5	8.8
Nonvol. Beta	pCi/L	5.3	<2.0	2.4	5.9
Total Radium	pCi/L	4.8	3.3	3.8	5.2
Tritium	pCi/mL	1.30	-	-	-

Well: MSB 2A, M-Area Settling Basin

SRP Grid	N 102028.3		<u>meters (MSL)</u>
Coordinates E	46748.4	Screen Zone Elevation	75.0-67.9
Latitude	33.330944°N	Top of Casing Elevation	107.50
Longitude	81.736669°W	Casing Material	PVC

Parameter	Units	01/13/87	04/16/87	07/09/87	11/01/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	72.1	72.1	72.1	71.9
pH		3.8	4.3	4.3	3.9
Conductivity	umhos/cm	70	63	54	44
TDS	mg/L	50	32	35	30
Arsenic	mg/L	<0.002	-	<0.002	<0.002
Barium	mg/L	0.015	0.012	0.011	0.010
Beryllium	mg/L	<0.001	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	2.11	-	-	-
Chloride	mg/L	3.5	3.7	4.0	3.5
Chromium	mg/L	<0.004	0.005	<0.004	<0.004
Copper	mg/L	0.054	0.072	0.083	0.084
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005
Fluoride	mg/L	<0.10	0.13	<0.10	0.20
Iron	mg/L	0.017	0.035	0.010	0.004
Lead	mg/L	0.032	0.026	0.019	0.014
Magnesium	mg/L	0.860	-	-	-
Manganese	mg/L	0.012	0.008	0.005	0.006
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	<0.004	<0.004	<0.004	<0.004
Potassium	mg/L	0.279	-	-	-
Selenium	mg/L	<0.002	-	<0.002	<0.002
Silica	mg/L	3.64	-	-	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	2.94	2.69	2.21	2.29
Total Phosphate	mg/L	0.070	0.070	0.080	0.100
Zinc	mg/L	0.030	0.025	0.024	0.032
NOy (as N)	mg/L	4.43	3.73	5.21	4.92
SO4	mg/L	<5	<3.0	11.4	<5.0
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	1.20	<1.000
Tot. Org. Halogen	mg/L	0.198	1.20	1.36	0.862
Carbon Tet.	mg/L	0.007	<0.001	<0.001	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	0.355	0.632	2.14	0.705
Trichloroethene	mg/L	0.425	0.800	0.488	0.312
1,1,1-TCE	mg/L	0.501	0.014	0.034	0.020
Cobalt Alpha	pCi/L	10.8	14.5	4.5	5.9
Nonvol. Beta	pCi/L	9.0	6.0	6.7	5.6
Total Radium	pCi/L	13.2	4.9	7.4	9.0
Tritium	pCi/mL	2.44	-	-	-

Other Analyses (mg/L)
(GCMS Scan and Pest/Herb* Analytes: Table 4-25, Vol. 11)

MCB 2 08/05/87
GCMS Scan detected the following: None
Pest/Herb* Analytes detected the following:
None

MCB 4 06/05/87
GCMS Scan detected the following: None
Pest/Herb* Analytes detected the following:
None

MCB 5 08/05/87
GCMS Scan detected the following: None
Pest/Herb* Analytes detected the following:
None

**TABLE 4-18
CHEMICAL CONCENTRATIONS IN A- AND M-AREAS
GROUNDWATER**

Well: MSB 3A, M-Area Settling Basin

SRP Grid N 10189.9
Coordinates E 48533.7
Latitude 33.33098° N
Longitude 81.73749° W

Screen Zone Elevation 79.270.0 meters (MSL)
Top of Casing Elevation 109.66
Casing Material PVC

Parameter	Units	01/31/87	04/20/87	08/04/87	10/11/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	-	-	-	-
pH		3.8	6.7	5.8	6.5
Conductivity	umhos/cm	240	1400	1800	1920
TDS	mg/L	186	858	1080	1360
Arsenic	mg/L	<0.002	-	<0.002	<0.002
Barium	mg/L	7.074	0.028	0.072	0.603
Beryllium	mg/L	<0.001	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	11.1	-	-	-
Chloride	mg/L	6.8	19.9	26.5	19.3
Chromium	mg/L	<0.004	<0.004	<0.004	<0.007
Copper	mg/L	0.013	0.004	0.009	0.034
Cyanide	mg/L	<0.005	0.032	0.033	0.037
Fluoride	mg/L	<0.10	0.43	0.60	0.54
Iron	mg/L	0.193	0.072	0.082	0.230
Lead	mg/L	0.013	<0.006	<0.006	<0.006
Magnesium	mg/L	3.06	-	-	-
Manganese	mg/L	0.157	0.267	0.623	4.26
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	0.048	0.040	0.051	0.124
Potassium	mg/L	0.518	-	-	-
Selenium	mg/L	<0.002	-	0.002	<0.002
Silica	mg/L	7.26	-	-	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	0.0020
Sodium	mg/L	14.3	260	274	4060
Total Phosphate	mg/L	0.030	0.040	0.020	0.020
Zinc	mg/L	0.116	0.013	0.033	0.268
NO ₃ (as N)	mg/L	21.8	136	47.8	151
SO ₄	mg/L	5.0	85.8	120	124
Phenols	mg/L	<0.002	0.009	<0.005	0.006
Tot. Org. Carbon	mg/L	1.60	23.4	10.0	23.0
Tot. Org. Halogen	mg/L	1.92	188	211	217
Carbon Tet.	mg/L	0.005	<0.001	0.012	<0.000
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.000
Tetrachloroethene	mg/L	128	230	89.5	272
Trichloroethene	mg/L	10.7	84.8	41.8	123
1,1,1-TCE	mg/L	0.011	0.013	0.049	<0.000
Gross Alpha	pCi/L	30.4	<3.0	97.3	58.4
Nonvol. Beta	pCi/L	19.3	79.2	130	119
Total Radium	pCi/L	29.2	4.1	15.7	15.4
Tritium	pCi/mL	1.15	-	-	-

Well: MSB 5A, M-Area Settling Basin

SRP Grid N 10191.5
Coordinates E 48998.7
Latitude 33.32796° N
Longitude 81.74180° W

Screen Zone Elevation 75.568.3 meters (MSL)
Top of Casing Elevation 105.03
Casing Material PVC

Parameter	Units	01/31/87	04/20/87	07/27/87	10/17/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	70.9	70.2	70.4	70.4
pH		4.4	5.3	5.6	5.2
Conductivity	umhos/cm	200	218	220	180
TDS	mg/L	178	166	184	74
Arsenic	mg/L	<0.002	-	<0.002	<0.002
Barium	mg/L	0.010	0.010	0.010	0.011
Beryllium	mg/L	<0.001	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	3.19	-	-	-
Chloride	mg/L	5.8	5.6	5.2	4.3
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	0.005	0.008	0.007	0.006
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005
Fluoride	mg/L	<0.10	0.11	0.24	0.20
Iron	mg/L	0.021	0.153	0.040	0.081
Lead	mg/L	0.009	0.007	0.008	0.009
Magnesium	mg/L	0.639	-	-	-
Manganese	mg/L	0.013	0.018	0.018	0.040
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	0.004	0.005	<0.004	<0.004
Potassium	mg/L	0.002	-	<0.002	<0.002
Selenium	mg/L	0.630	-	-	-
Silica	mg/L	3.85	-	-	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	33.8	33.3	39.2	34.8
Total Phosphate	mg/L	0.050	0.050	0.030	0.030
Zinc	mg/L	0.022	0.025	0.019	0.040
NO ₃ (as N)	mg/L	21.9	23.9	23.4	19.0
SO ₄	mg/L	<3.0	<3.0	<3.0	<3.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Tot. Org. Carbon	mg/L	1.60	12.9	2.30	1.10
Tot. Org. Halogen	mg/L	0.064	0.066	0.065	0.068
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	<0.002
Chloroform	mg/L	<0.001	<0.001	0.001	<0.002
Tetrachloroethene	mg/L	0.041	0.762	0.060	0.032
Trichloroethene	mg/L	0.010	0.019	0.016	0.012
1,1,1-TCE	mg/L	0.020	0.030	0.035	0.014
Gross Alpha	pCi/L	12.5	<3.0	2.5	<3.0
Nonvol. Beta	pCi/L	18.8	88.9	43.8	<2.0
Total Radium	pCi/L	2.7	2.6	3.4	<1.0
Tritium	pCi/mL	1.07	-	-	-

Well: MSB 6A, M-Area Settling Basin

SRP Grid N 10193.4
Coordinates E 48133.0
Latitude 33.33007° N
Longitude 81.73725° W

Screen Zone Elevation 77.768.5 meters (MSL)
Top of Casing Elevation 108.17
Casing Material PVC

Parameter	Units	02/04/87	04/16/87	08/04/87	10/11/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	71.6	71.6	71.4	71.3
pH		5.8	8.0	6.4	7.4
Conductivity	umhos/cm	1090	2400	1750	2800
TDS	mg/L	1180	32	1890	1440
Arsenic	mg/L	<0.002	-	<0.002	<0.002
Barium	mg/L	0.014	0.007	0.005	0.004
Beryllium	mg/L	<0.005	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	4.42	-	-	-
Chloride	mg/L	4.7	2.8	9.5	7.0
Chromium	mg/L	0.004	<0.004	<0.004	<0.004
Copper	mg/L	0.118	0.157	0.067	0.022
Cyanide	mg/L	<0.005	<0.005	0.006	0.014
Fluoride	mg/L	0.27	0.16	0.31	0.35
Iron	mg/L	0.058	0.075	0.045	0.243
Lead	mg/L	0.007	<0.006	<0.006	0.007
Magnesium	mg/L	1.88	-	-	-
Manganese	mg/L	0.027	0.010	0.011	0.002
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	0.004	0.004	0.004	<0.004
Potassium	mg/L	1.45	-	-	-
Selenium	mg/L	0.009	-	0.006	0.003
Silica	mg/L	6.00	-	-	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	0.0020
Sodium	mg/L	253	514	481	437
Total Phosphate	mg/L	0.052	0.110	0.110	0.180
Zinc	mg/L	0.047	0.022	0.018	0.037
NO ₃ (as N)	mg/L	238	120	74.6	180
SO ₄	mg/L	11500	<3.0	228	133
Phenols	mg/L	0.030	<0.001	<0.005	0.004
Tot. Org. Carbon	mg/L	2.10	2.00	2.00	2.70
Tot. Org. Halogen	mg/L	4.17	3.91	59.8	2.73
Carbon Tet.	mg/L	0.071	<0.001	<0.001	<0.0050
Chloroform	mg/L	0.300	0.200	<0.001	<0.0050
Tetrachloroethene	mg/L	4.60	8.32	2.82	2.39
Trichloroethene	mg/L	4.99	7.04	3.81	3.12
1,1,1-TCE	mg/L	<0.001	0.058	0.048	0.633
Gross Alpha	pCi/L	18.4	<3.0	72.4	18.6
Nonvol. Beta	pCi/L	30.7	132	115	54.8
Total Radium	pCi/L	18.9	<1.0	4.8	3.8
Tritium	pCi/mL	0.75	-	-	-

Well: MSB 6A, M-Area Settling Basin

SRP Grid N 10193.8
Coordinates E 48219.9
Latitude 33.32500° N
Longitude 81.74318° W

Screen Zone Elevation 73.768.6 meters (MSL)
Top of Casing Elevation 104.82
Casing Material PVC

Parameter	Units	01/31/87	04/20/87	07/27/87	10/17/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	70.6	68.4	70.3	70.4
pH		4.4	5.1	5.1	5.3
Conductivity	umhos/cm	40	44	37	40
TDS	mg/L	6	18	8	5
Arsenic	mg/L	<0.002	-	<0.002	<0.002
Barium	mg/L	0.005	0.006	0.005	0.006
Beryllium	mg/L	<0.001	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	0.569	-	-	-
Chloride	mg/L	3.1	4.5	6.0	5.4
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	<0.004	0.006	0.004	0.005
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005
Fluoride	mg/L	<0.10	0.10	0.10	0.24
Iron	mg/L	0.038	0.082	0.046	0.382
Lead	mg/L	0.007	0.012	0.008	0.009
Magnesium	mg/L	0.177	-	-	-
Manganese	mg/L	0.005	0.006	0.004	0.008
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	0.004	<0.004	0.004	0.004
Potassium	mg/L	0.116	-	-	-
Selenium	mg/L	<0.002	-	<0.002	<0.002
Silica	mg/L	3.12	-	-	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	6.06	3.40	3.23	3.29
Total Phosphate	mg/L	0.040	0.040	0.110	0.070
Zinc	mg/L	0.012	0.012	0.006	0.011
NO ₃ (as N)	mg/L	0.27	0.18	0.80	0.71
SO ₄	mg/L	<3.0	<3.0	<3.0	11.3
Phenols	mg/L	0.004	<0.005	<0.005	<0.005
Tot. Org. Carbon	mg/L	<0.000	1.30	4.80	3.70
Tot. Org. Halogen	mg/L	<0.005	<0.005	<0.005	<0.005
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	0.001	<0.001	0.046	0.001
Trichloroethene	mg/L	<0.001	0.001	0.002	0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	1.2	<3.0	1.8	<3.0
Nonvol. Beta	pCi/L	1.7	2.0	1.9	3.1
Total Radium	pCi/L	<1.0	<1.0	0.7	<1.0
Tritium	pCi/mL	2.87	-	-	-

TABLE 4-18
CHEMICAL CONCENTRATIONS IN A- AND M-AREAS
GROUNDWATER

Well: MSB 7A, M-Area Settling Basin

SRP Grid N 100583.7
Coordinates E 48726.1
Latitude 33.32445°N
Longitude 81.739182°W
Screen Zone Elevation meters (MSL) 73.8-84.6
Top of Casing Elevation 105.00
Casing Material PVC

Parameter	Units	01/31/87	04/20/87	07/09/87	10/17/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	70.7	68.6	70.5	70.4
pH	pH	4.2	5.1	5.1	5.0
Conductivity	umhos/cm	88	84	82	78
TDS	mg/L	84	50	18	72
Arsenic	mg/L	<0.002	-	<0.002	<0.002
Barium	mg/L	0.011	0.013	0.014	0.015
Beryllium	mg/L	<0.005	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	1.24	-	-	-
Chloride	mg/L	4.1	3.5	3.6	3.1
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	<0.004	0.021	0.004	<0.004
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005
Fluoride	mg/L	<0.10	0.11	0.10	0.25
Iron	mg/L	0.029	0.051	0.065	0.140
Lead	mg/L	<0.006	0.010	<0.006	<0.006
Magnesium	mg/L	0.590	-	-	-
Manganese	mg/L	0.025	0.025	0.024	0.026
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	<0.004	0.006	0.006	<0.004
Potassium	mg/L	<0.442	-	-	-
Selenium	mg/L	<0.002	-	0.002	0.002
Silica	mg/L	3.84	-	-	-
Silver	mg/L	0.0020	0.0020	0.0020	0.0020
Sodium	mg/L	9.52	9.57	11.5	14.8
Total Phosphate	mg/L	0.050	0.030	0.090	0.090
Zinc	mg/L	0.011	0.021	0.010	0.029
NO ₃ (as N)	mg/L	4.77	5.27	8.08	12.8
SO ₄	mg/L	5.0	3.0	22.1	5.8
Phenols	mg/L	<0.002	0.005	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	1.50	1.00
Tot. Org. Halogen	mg/L	0.150	0.101	0.159	0.144
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	0.003
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	0.172	0.192	0.141	0.106
Trichloroethene	mg/L	0.046	0.073	0.029	0.051
1,1,1-TCE	mg/L	0.002	0.001	0.003	<0.001
Gross Alpha	pCi/L	3.0	2.5	1.7	7.8
Nonvol. Beta	pCi/L	2.8	2.3	2.4	5.5
Total Radium	pCi/L	2.2	2.2	2.3	2.6
Tritium	pCi/mL	2.09	-	-	-

Well: MSB 9A, M-Area Settling Basin

SRP Grid N 102236.7
Coordinates E 48142.5
Latitude 33.330582°N
Longitude 81.738401°W
Screen Zone Elevation meters (MSL) 43.8-42.3
Top of Casing Elevation 109.54
Casing Material PVC

Parameter	Units	01/31/87	05/05/87	07/27/87	11/08/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	66.6	66	65.9	65.1
pH	pH	6.1	6.0	6.0	6.6
Conductivity	umhos/cm	36	32	36	43
TDS	mg/L	16	30	30	144
Barium	mg/L	0.006	0.006	0.007	0.008
Beryllium	mg/L	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	3.88	1.01	1.40	6.13
Chloride	mg/L	2.9	3.0	3.1	2.9
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	<0.004	<0.004	<0.004	0.006
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005
Fluoride	mg/L	<0.10	0.37	0.21	0.18
Iron	mg/L	0.021	0.082	0.025	0.016
Lead	mg/L	0.007	<0.006	<0.006	<0.006
Magnesium	mg/L	0.330	0.304	0.310	0.374
Manganese	mg/L	<0.002	0.007	0.002	0.005
Nickel	mg/L	<0.004	<0.004	<0.004	<0.004
Sodium	mg/L	1.71	1.49	1.60	1.66
Total Phosphate	mg/L	0.070	0.050	0.090	0.030
Zinc	mg/L	0.873	1.24	1.20	4.06
NO ₃ (as N)	mg/L	0.52	0.30	0.72	0.62
SO ₄	mg/L	7.5	3.0	5.0	5.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Gross Alpha	pCi/L	3.0	3.0	3.0	3.0
Nonvol. Beta	pCi/L	1.8	2.0	2.0	2.0
Total Radium	pCi/L	1.0	1.0	0.6	1.0
Tritium	pCi/mL	<0.68	-	-	-

Well: MSB 8A, M-Area Settling Basin

SRP Grid N 100815.1
Coordinates E 47293.2
Latitude 33.325889°N
Longitude 81.738133°W
Screen Zone Elevation meters (MSL) 73.9-64.8
Top of Casing Elevation 104.91
Casing Material PVC

Parameter	Units	01/31/87	04/20/87	08/04/87	10/17/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	71.1	71	70.8	70.6
pH	pH	4.4	5.0	4.9	4.6
Conductivity	umhos/cm	420	440	340	300
TDS	mg/L	348	330	170	196
Arsenic	mg/L	<0.002	-	<0.002	<0.002
Barium	mg/L	0.018	0.018	0.017	0.013
Beryllium	mg/L	0.005	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	4.73	-	-	-
Chloride	mg/L	5.6	4.7	4.3	5.4
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	<0.004	0.006	0.006	<0.004
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005
Fluoride	mg/L	<0.10	0.11	<0.10	0.26
Iron	mg/L	0.027	0.034	0.040	0.096
Lead	mg/L	0.010	0.013	0.006	0.007
Magnesium	mg/L	1.81	-	-	-
Manganese	mg/L	0.041	0.042	0.036	0.037
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	<0.004	<0.004	<0.004	<0.004
Potassium	mg/L	1.35	-	-	-
Selenium	mg/L	<0.002	-	<0.002	0.002
Silica	mg/L	1.43	-	-	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	10.1	81.6	58.7	51.7
Total Phosphate	mg/L	0.040	0.040	0.040	0.060
Zinc	mg/L	0.194	0.013	0.011	0.037
NO ₃ (as N)	mg/L	51.2	53.6	38.8	31.4
SO ₄	mg/L	3.0	3.0	5.0	5.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	0.035	0.043	0.132	0.180
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	0.003
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	0.025	0.047	0.127	0.028
Trichloroethene	mg/L	0.010	0.027	0.059	0.049
1,1,1-TCE	mg/L	<0.001	0.004	0.004	<0.001
Gross Alpha	pCi/L	37.2	6.2	10.9	20.9
Nonvol. Beta	pCi/L	137	157	117	99.9
Total Radium	pCi/L	14.4	10.2	6.6	6.5
Tritium	pCi/mL	1.21	-	-	-

Well: MSB 9B, M-Area Settling Basin

SRP Grid N 102239.4
Coordinates E 48231.7
Latitude 33.330603°N
Longitude 81.738380°W
Screen Zone Elevation meters (MSL) 63.6-62.1
Top of Casing Elevation 109.60
Casing Material PVC

Parameter	Units	01/31/87	05/05/87	07/27/87	11/08/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	72.2	72	72.3	71.5
pH	pH	10.7	10.2	10.2	9.4
Conductivity	umhos/cm	174	336	346	340
TDS	mg/L	88	258	280	292
Barium	mg/L	0.011	0.032	0.032	0.028
Beryllium	mg/L	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	10.3	32.7	38.9	41.5
Chloride	mg/L	3.5	4.5	6.9	6.8
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	<0.004	<0.004	<0.004	0.007
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005
Fluoride	mg/L	0.38	0.84	0.36	0.42
Iron	mg/L	0.007	0.054	0.007	0.057
Lead	mg/L	<0.006	0.008	<0.006	0.007
Magnesium	mg/L	0.150	1.26	1.50	0.107
Manganese	mg/L	<0.002	<0.002	<0.002	0.003
Nickel	mg/L	<0.004	0.005	<0.004	<0.004
Sodium	mg/L	17.8	19.7	21.1	0.13
Total Phosphate	mg/L	0.030	0.030	0.030	0.040
Zinc	mg/L	0.114	0.083	0.093	0.134
NO ₃ (as N)	mg/L	25.4	28.5	28.4	45.8
SO ₄	mg/L	3.0	3.0	5.0	5.0
Phenols	mg/L	0.012	<0.005	<0.005	0.011
Gross Alpha	pCi/L	3.0	3.0	3.0	11.9
Nonvol. Beta	pCi/L	7.0	2.0	2.0	10.5
Total Radium	pCi/L	1.0	2.0	1.9	4.3
Tritium	pCi/mL	1.39	-	-	-

**TABLE 4-18
CHEMICAL CONCENTRATIONS IN A- AND M-AREAS
GROUNDWATER**

Well: MSB 9C, M-Area Settling Basin

SRP Grid N 102245.6 meters (MSL)
Coordinates E 48273.0 71.5-67.4
Latitude 33.330651°N Top of Casing Elevation 109.43
Longitude 81.738338°W Casing Material PVC

Parameter	Units	01/31/87	05/05/87	07/27/87	11/08/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	71.9	71.6	71.9	71.3
pH		4.7	4.7	4.4	4.1
Conductivity	umhos/cm	256	198	189	280
TDS	mg/L	182	152	110	182
Barium	mg/L	0.124	0.089	0.076	0.097
Beryllium	mg/L	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	19.9	11.9	9.50	15.1
Chloride	mg/L	4.1	3.3	4.1	4.1
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	<0.004	0.013	0.010	0.018
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005
Fluoride	mg/L	<0.10	0.41	0.30	0.24
Iron	mg/L	0.332	0.247	0.140	0.069
Lead	mg/L	0.069	0.072	0.050	0.014
Magnesium	mg/L	3.92	2.57	2.02	2.41
Manganese	mg/L	0.311	0.335	0.260	0.292
Nickel	mg/L	0.063	0.051	0.035	0.046
Sodium	mg/L	15.9	10.8	9.80	16.3
Total Phosphate	mg/L	0.030	0.030	0.030	<0.020
Zinc	mg/L	3.10	2.57	2.90	0.193
NO ₃ (as N)	mg/L	30.1	21.5	20.4	3.09
SO ₄	mg/L	<3.0	<3.0	<3.0	<3.0
Phenols	mg/L	<0.002	<0.005	<0.005	0.006
Gross Alpha	pCi/L	136	51.9	88.6	259
Nonvol. Beta	pCi/L	47.7	37.3	33.0	166
Total Radium	pCi/L	121	62.1	82.1	111
Tritium	pCi/mL	1.79	-	-	-

Well: MSB 10B, M-Area Settling Basin

SRP Grid N 102488.2 meters (MSL)
Coordinates E 47943.1 47.1-45.6
Latitude 33.330649°N Top of Casing Elevation 108.11
Longitude 81.739679°W Casing Material PVC

Parameter	Units	02/08/87	05/05/87	07/29/87	11/08/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	65.4	65.9	65.8	65.2
pH		5.6	5.6	5.1	6.0
Conductivity	umhos/cm	42	44	46	40
TDS	mg/L	82	74	70	82
Barium	mg/L	0.010	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	2.11	-	-	-
Chloride	mg/L	2.9	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	<0.005	-	-	-
Fluoride	mg/L	0.15	-	-	-
Iron	mg/L	0.016	-	-	-
Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	0.713	-	-	-
Manganese	mg/L	0.005	-	-	-
Nickel	mg/L	0.004	-	-	-
Sodium	mg/L	2.76	2.69	1.23	2.39
Total Phosphate	mg/L	0.025	-	-	-
Zinc	mg/L	1.84	-	-	-
NO ₃ (as N)	mg/L	0.07	<0.05	0.36	0.45
SO ₄	mg/L	19.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	<0.70	-	-	-

Well: MSB 10A, M-Area Settling Basin

SRP Grid N 102451.8 meters (MSL)
Coordinates E 47954.4 37.3-35.9
Latitude 33.330587°N Top of Casing Elevation 108.20
Longitude 81.739378°W Casing Material PVC

Parameter	Units	02/08/87	05/05/87	07/26/87	11/08/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	64.4	65.1	65.2	64.6
pH		5.8	5.9	5.8	6.2
Conductivity	umhos/cm	23	31	29	23
TDS	mg/L	48	28	24	26
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	1.12	-	-	-
Chloride	mg/L	2.9	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	<0.005	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.036	-	-	-
Lead	mg/L	0.017	-	-	-
Magnesium	mg/L	0.240	-	-	-
Manganese	mg/L	0.004	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	1.58	1.75	2.34	1.60
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	1.90	-	-	-
NO ₃ (as N)	mg/L	0.17	0.13	0.47	0.47
SO ₄	mg/L	<1.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	2.1	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	<0.70	-	-	-

Well: MSB 10C, M-Area Settling Basin

SRP Grid N 102465.8 meters (MSL)
Coordinates E 47951.1 61.9-62.6
Latitude 33.330612°N Top of Casing Elevation 108.50
Longitude 81.739614°W Casing Material PVC

Parameter	Units	02/08/87	05/05/87	07/26/87	11/08/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	71.1	71.3	71.6	71
pH		6.6	6.5	6.4	6.3
Conductivity	umhos/cm	211	215	217	282
TDS	mg/L	184	156	206	166
Barium	mg/L	0.092	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	1.82	-	-	-
Chloride	mg/L	5.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	<0.005	-	-	-
Fluoride	mg/L	0.17	-	-	-
Iron	mg/L	0.006	-	-	-
Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	2.18	-	-	-
Manganese	mg/L	0.013	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	17.3	16.4	17.1	18.0
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	0.971	-	-	-
NO ₃ (as N)	mg/L	14.3	15.5	17.4	17.0
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	2.7	-	-	-
Nonvol. Beta	pCi/L	6.0	-	-	-
Total Radium	pCi/L	4.1	-	-	-
Tritium	pCi/mL	<0.70	-	-	-

TABLE 4-18 CHEMICAL CONCENTRATIONS IN A- AND M-AREAS GROUNDWATER

Well: MSB 11A, M-Area Settling Basin

SRP Grid N 102638.9
Coordinates E 48577.6
Latitude 33.32018°N
Longitude 81.738301°W
Screen Zone Elevation
Top of Casing Elevation 111.22
Casing Material PVC

meters (MSL)

Parameter	Units	02/03/87	04/25/87	07/26/87	11/07/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	65.9	65.2	65.9	65.6
pH		6.4	6.2	6.2	6.4
Conductivity	umhos/cm	44	48	43	45
TDS	mg/L	32	36	40	62
Barium	mg/L	<0.005	7.006	0.006	0.007
Beryllium	mg/L	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	6.16	6.13	6.80	7.01
Chloride	mg/L	3.1	3.0	3.5	3.0
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	<0.004	<0.004	<0.004	<0.004
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005
Fluoride	mg/L	<0.10	<0.10	0.24	0.16
Iron	mg/L	0.017	0.025	0.021	0.017
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.280	0.299	0.300	0.230
Manganese	mg/L	0.002	0.002	0.003	0.003
Nickel	mg/L	<0.004	<0.004	<0.004	<0.004
Sodium	mg/L	1.23	1.66	1.60	1.54
Total Phosphate	mg/L	0.070	0.140	0.120	0.090
Zinc	mg/L	0.614	0.742	0.870	0.115
NO ₃ (as N)	mg/L	0.34	0.20	0.59	0.57
SO ₄	mg/L	7.5	<3.0	<3.0	<5.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Gross Alpha	pCi/L	<3.0	<3.0	<3.0	<3.0
Nonvol. Beta	pCi/L	2.1	<2.0	<2.0	<2.0
Total Radium	pCi/L	<1.0	0.6	<1.0	<1.0
Tritium	pCi/mL	<0.71	-	-	-

Well: MSB 11C, M-Area Settling Basin

SRP Grid N 102658.6
Coordinates E 48579.4
Latitude 33.32065°N
Longitude 81.734335°W
Screen Zone Elevation
Top of Casing Elevation 111.22
Casing Material PVC

meters (MSL)

Parameter	Units	02/03/87	04/25/87	07/26/87	11/07/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	68.2	68.5	68.5	67.6
pH		5.2	5.2	5.4	5.7
Conductivity	umhos/cm	217	196	159	110
TDS	mg/L	160	128	140	200
Barium	mg/L	0.068	0.059	0.050	0.031
Beryllium	mg/L	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	15.4	11.6	11.1	10.4
Chloride	mg/L	4.3	3.1	4.0	3.7
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	<0.004	<0.004	<0.004	0.006
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005
Fluoride	mg/L	<0.10	<0.10	0.25	0.16
Iron	mg/L	0.025	0.029	0.076	0.032
Lead	mg/L	0.017	0.011	0.013	<0.006
Magnesium	mg/L	7.47	5.88	5.34	3.54
Manganese	mg/L	0.041	0.032	0.078	0.019
Nickel	mg/L	<0.004	<0.004	<0.004	<0.004
Sodium	mg/L	5.36	5.55	5.40	3.97
Total Phosphate	mg/L	0.020	0.020	0.060	0.020
Zinc	mg/L	2.62	1.78	2.90	0.130
NO ₃ (as N)	mg/L	24.9	18.5	16.7	11.7
SO ₄	mg/L	<3.0	<3.0	<5.0	<5.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Gross Alpha	pCi/L	5.9	3.5	3.1	8.3
Nonvol. Beta	pCi/L	9.6	7.4	5.0	6.7
Total Radium	pCi/L	5.5	4.1	2.9	2.6
Tritium	pCi/mL	<0.68	-	-	-

Well: MSB 11B, M-Area Settling Basin

SRP Grid N 102648.9
Coordinates E 48578.5
Latitude 33.32042°N
Longitude 81.738118°W
Screen Zone Elevation
Top of Casing Elevation 111.19
Casing Material PVC

meters (MSL)

Parameter	Units	02/03/87	04/25/87	07/26/87	11/07/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	67.8	68	67.9	67.1
pH		6.3	6.2	6.2	5.6
Conductivity	umhos/cm	42	49	47	43
TDS	mg/L	30	32	42	12
Barium	mg/L	0.007	0.007	0.008	0.007
Beryllium	mg/L	0.005	0.005	0.005	0.005
Calcium	mg/L	6.08	5.84	6.40	7.04
Chloride	mg/L	3.1	1.8	1.9	3.2
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	<0.004	<0.004	<0.004	<0.004
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005
Fluoride	mg/L	<0.10	<0.10	0.24	0.30
Iron	mg/L	0.018	0.018	0.026	0.057
Lead	mg/L	<0.006	<0.006	0.006	0.004
Magnesium	mg/L	0.240	0.234	0.330	0.221
Manganese	mg/L	0.003	0.003	0.006	0.004
Nickel	mg/L	<0.004	<0.004	<0.004	<0.004
Sodium	mg/L	1.17	1.47	1.60	1.31
Total Phosphate	mg/L	0.102	0.100	0.090	0.080
Zinc	mg/L	0.705	0.688	0.740	0.387
NO ₃ (as N)	mg/L	0.16	0.13	0.43	0.49
SO ₄	mg/L	7.5	<3.0	<3.0	<5.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Gross Alpha	pCi/L	<3.0	<3.0	<3.0	<3.0
Nonvol. Beta	pCi/L	3.1	<2.0	<2.0	<2.0
Total Radium	pCi/L	<1.0	0.7	0.4	<1.0
Tritium	pCi/mL	<0.68	-	-	-

Well: MSB 11D, M-Area Settling Basin

SRP Grid N 102669.5
Coordinates E 48579.7
Latitude 33.32089°N
Longitude 81.738355°W
Screen Zone Elevation
Top of Casing Elevation 111.31
Casing Material PVC

meters (MSL)

Parameter	Units	02/03/87	04/25/87	07/26/87	11/07/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	71.8	71.8	72.1	71.4
pH		5.5	5.5	5.5	5.6
Conductivity	umhos/cm	27	34	30	26
TDS	mg/L	16	8	8	26
Barium	mg/L	0.007	0.008	0.009	0.008
Beryllium	mg/L	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	0.810	0.977	1.50	2.24
Chloride	mg/L	2.1	3.0	3.7	3.3
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	<0.004	<0.004	<0.004	<0.004
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005
Fluoride	mg/L	<0.10	<0.10	0.19	0.14
Iron	mg/L	0.018	0.021	0.012	0.056
Lead	mg/L	0.011	0.014	0.008	<0.006
Magnesium	mg/L	0.370	0.433	0.74	0.473
Manganese	mg/L	0.006	0.008	0.009	0.008
Nickel	mg/L	<0.004	<0.004	<0.004	<0.004
Sodium	mg/L	1.41	2.00	2.30	1.91
Total Phosphate	mg/L	0.020	0.020	0.070	0.020
Zinc	mg/L	2.04	2.00	2.40	0.178
NO ₃ (as N)	mg/L	1.17	1.76	1.58	1.49
SO ₄	mg/L	<3.0	<3.0	<5.0	<5.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Gross Alpha	pCi/L	1.4	1.9	3.0	3.0
Nonvol. Beta	pCi/L	<2.0	<2.0	<2.0	3.5
Total Radium	pCi/L	1.0	0.2	1.2	1.4
Tritium	pCi/mL	1.40	-	-	-

**TABLE 4-18
CHEMICAL CONCENTRATIONS IN A- AND M-AREAS
GROUNDWATER**

Well: MSB 11P, M-Area Settling Basin

SRP Grid N 102629.3
Coordinates E 48377.0
Latitude 33.331996°N
Longitude 81.738284°W
Screen Zone Elevation 73.9-67.8
Top of Casing Elevation 111.19
Casing Material PVC

Parameter	Units	02/03/87	04/23/87	07/24/87	11/07/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	-	-	-	71.4
pH		4.4	4.4	4.5	5.0
Conductivity	umhos/cm	68	70	53	52
TDS	mg/L	22	6	36	28
Barium	mg/L	0.021	0.019	0.015	0.012
Beryllium	mg/L	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	1.76	1.88	1.50	2.40
Chloride	mg/L	3.1	1.7	3.1	3.2
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	0.030	0.007	0.006	0.015
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005
Fluoride	mg/L	<0.10	0.10	0.23	0.17
Iron	mg/L	0.082	0.067	0.052	0.064
Lead	mg/L	0.050	0.026	0.018	0.008
Magnesium	mg/L	0.800	0.787	0.600	0.437
Manganese	mg/L	0.030	0.025	0.022	0.016
Nickel	mg/L	0.008	0.005	0.005	<0.004
Sodium	mg/L	1.61	2.25	2.10	2.01
Total Phosphate	mg/L	1.10	0.220	0.180	0.200
Zinc	mg/L	1.83	1.27	1.40	0.091
NO ₃ (as N)	mg/L	6.16	5.06	5.17	3.72
SO ₄	mg/L	7.5	<3.0	<5.0	<5.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Gross Alpha	pCi/L	19.5	10.5	10.4	13.4
Nonvol. Beta	pCi/L	13.4	9.9	9.4	11.3
Total Radium	pCi/L	20.2	9.5	11.7	9.0
Tritium	pCi/mL	2.31	-	-	-

Well: MSB 12B, M-Area Settling Basin

SRP Grid N 102251.8
Coordinates E 47139.8
Latitude 33.328816°N
Longitude 81.741334°W
Screen Zone Elevation 49.1-47.6
Top of Casing Elevation 106.19
Casing Material PVC

Parameter	Units	02/03/87	05/05/87	07/27/87	11/08/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	68.6	68.1	67.9	67.2
pH		5.6	5.7	5.7	5.5
Conductivity	umhos/cm	167	168	167	145
TDS	mg/L	120	114	68	112
Barium	mg/L	0.011	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	3.37	-	-	-
Chloride	mg/L	4.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	<0.005	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.018	-	-	-
Lead	mg/L	0.008	-	-	-
Magnesium	mg/L	1.34	-	-	-
Manganese	mg/L	0.011	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	21.6	20.9	20.0	19.7
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	5.01	-	-	-
NO ₃ (as N)	mg/L	17.4	16.5	16.6	15.3
SO ₄	mg/L	3.5	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	2.2	-	-	-
Nonvol. Beta	pCi/L	4.4	-	-	-
Total Radium	pCi/L	2.2	-	-	-
Tritium	pCi/mL	<0.68	-	-	-

Well: MSB 12A, M-Area Settling Basin

SRP Grid N 102284.2
Coordinates E 47138.2
Latitude 33.328862°N
Longitude 81.741399°W
Screen Zone Elevation 36.8-33.3
Top of Casing Elevation 106.00
Casing Material PVC

Parameter	Units	02/03/87	05/05/87	07/27/87	11/08/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	64.9	64.7	64.7	64.3
pH		5.7	5.8	5.7	6.2
Conductivity	umhos/cm	34	34	23	20
TDS	mg/L	21	31	138	26
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	0.479	-	-	-
Chloride	mg/L	3.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	<0.005	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	<0.001	-	-	-
Lead	mg/L	0.013	-	-	-
Magnesium	mg/L	0.207	-	-	-
Manganese	mg/L	0.011	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	1.51	1.62	1.37	1.68
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	3.68	-	-	-
NO ₃ (as N)	mg/L	0.26	0.15	0.64	0.60
SO ₄	mg/L	12.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	3.0	-	-	-
Nonvol. Beta	pCi/L	2.0	-	-	-
Total Radium	pCi/L	11.0	-	-	-
Tritium	pCi/mL	<0.68	-	-	-

Well: MSB 12C, M-Area Settling Basin

SRP Grid N 102274.4
Coordinates E 47138.4
Latitude 33.328862°N
Longitude 81.741382°W
Screen Zone Elevation 55.7-54.2
Top of Casing Elevation 106.03
Casing Material PVC

Parameter	Units	02/03/87	05/05/87	07/27/87	11/08/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	69.3	69	68.4	68.9
pH		5.7	5.8	5.7	5.7
Conductivity	umhos/cm	68	138	182	161
TDS	mg/L	136	136	178	104
Barium	mg/L	0.021	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	4.97	-	-	-
Chloride	mg/L	4.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	<0.005	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.001	-	-	-
Lead	mg/L	0.010	-	-	-
Magnesium	mg/L	2.02	-	-	-
Manganese	mg/L	0.016	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	20.3	20.0	21.2	22.4
Total Phosphate	mg/L	0.025	-	-	-
Zinc	mg/L	3.22	-	-	-
NO ₃ (as N)	mg/L	17.8	17.5	17.9	16.5
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	5.8	-	-	-
Nonvol. Beta	pCi/L	11.4	-	-	-
Total Radium	pCi/L	3.5	-	-	-
Tritium	pCi/mL	<0.68	-	-	-

TABLE 4-18 CHEMICAL CONCENTRATIONS IN A- AND M-AREAS GROUNDWATER

Well: MSB 12D, M-Area Settling Basin

SRP Grid N 102262.2
Coordinates E 47139.7
Latitude 33.328417°N
Longitude 81.741354°W
Screen Zone Elevation 74.5-68.4
Top of Casing Elevation 106.10
Casing Material PVC

Parameter	Units	02/03/87	05/05/87	07/27/87	11/08/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	71	70.9	71.1	-
pH		8.0	6.9	6.9	-
Conductivity	umhos/cm	166	219	149	-
TDS	mg/L	118	118	170	-
Barium	mg/L	0.007	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	13.0	-	-	-
Chloride	mg/L	6.2	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	<0.005	-	-	-
Fluoride	mg/L	0.32	-	-	-
Iron	mg/L	<0.001	-	-	-
Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	0.687	-	-	-
Manganese	mg/L	0.023	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	20.7	21.2	9.40	-
Total Phosphate	mg/L	0.050	-	-	-
Zinc	mg/L	0.142	-	-	-
NO ₃ (as N)	mg/L	10.4	11.0	4.58	-
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	0.002	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	2.8	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	<0.68	-	-	-

Well: MSB 13B, M-Area Settling Basin

SRP Grid N 101735.7
Coordinates E 47523.5
Latitude 33.328300°N
Longitude 81.739320°W
Screen Zone Elevation 53.7-52.2
Top of Casing Elevation 105.33
Casing Material PVC

Parameter	Units	02/04/87	05/08/87	07/28/87	11/14/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	60.7	63.3	65.3	65
pH		10.8	10.1	10.6	11.3
Conductivity	umhos/cm	266	188	307	670
TDS	mg/L	158	160	196	250
Barium	mg/L	0.052	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	19.2	-	-	-
Chloride	mg/L	8.4	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	0.007	-	-	-
Fluoride	mg/L	0.34	0.17	-	-
Iron	mg/L	<0.001	-	-	-
Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	<0.020	-	-	-
Manganese	mg/L	<0.002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	14.9	13.4	15.6	23.2
Total Phosphate	mg/L	0.026	-	-	-
Zinc	mg/L	0.020	-	-	-
NO ₃ (as N)	mg/L	9.37	8.40	11.0	10.0
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	0.046	-	-	-
Gross Alpha	pCi/L	3.3	-	-	-
Nonvol. Beta	pCi/L	18.6	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	<0.68	-	-	-

Well: MSB 13A, M-Area Settling Basin

SRP Grid N 101725.7
Coordinates E 47525.4
Latitude 33.328281°N
Longitude 81.739295°W
Screen Zone Elevation 41.1-39.6
Top of Casing Elevation 105.21
Casing Material PVC

Parameter	Units	02/03/87	05/05/87	07/27/87	11/14/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	64.8	64.3	64.6	63.9
pH		5.6	5.7	5.7	5.9
Conductivity	umhos/cm	24	27	28	23
TDS	mg/L	38	32	36	34
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	0.891	-	-	-
Chloride	mg/L	2.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	<0.005	-	-	-
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.004	-	-	-
Lead	mg/L	0.013	-	-	-
Magnesium	mg/L	0.288	-	-	-
Manganese	mg/L	0.002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	1.40	1.50	1.47	1.68
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	3.04	-	-	-
NO ₃ (as N)	mg/L	0.23	0.10	0.48	0.49
SO ₄	mg/L	12.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<1.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	<0.68	-	-	-

Well: MSB 14A, M-Area Settling Basin

SRP Grid N 101619.5
Coordinates E 48521.9
Latitude 33.329696°N
Longitude 81.736484°W
Screen Zone Elevation 50.1-44.0
Top of Casing Elevation 106.16
Casing Material PVC

Parameter	Units	02/03/87	04/27/87	07/26/87	11/07/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	67.5	-	-	66.5
pH		5.3	5.6	5.4	6.4
Conductivity	umhos/cm	112	112	127	125
TDS	mg/L	92	84	96	96
Barium	mg/L	0.044	0.043	0.043	0.044
Beryllium	mg/L	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	8.31	7.66	8.60	12.8
Chloride	mg/L	3.8	3.8	3.8	3.9
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	<0.004	<0.004	<0.004	<0.005
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005
Fluoride	mg/L	<0.10	<0.10	0.25	0.18
Iron	mg/L	0.002	0.015	0.011	0.051
Lead	mg/L	0.008	0.009	<0.006	<0.006
Magnesium	mg/L	2.79	2.69	2.95	3.10
Manganese	mg/L	0.012	0.011	0.012	0.015
Nickel	mg/L	<0.004	<0.004	<0.004	<0.004
Sodium	mg/L	5.92	5.87	5.90	5.44
Total Phosphate	mg/L	0.016	0.030	0.070	0.030
Zinc	mg/L	1.87	1.68	1.90	0.275
NO ₃ (as N)	mg/L	12.0	11.0	12.6	12.8
SO ₄	mg/L	<3.0	<3.0	<3.0	<3.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Gross Alpha	pCi/L	2.6	<3.0	<3.0	6.4
Nonvol. Beta	pCi/L	4.6	3.7	6.0	8.8
Total Radium	pCi/L	2.4	2.6	3.1	2.5
Tritium	pCi/mL	<0.68	-	-	-

TABLE 4-18 CHEMICAL CONCENTRATIONS IN A- AND M-AREAS GROUNDWATER

Well: MSB 14B, M-Area Settling Basin

SRP Grid N 101639.0
Coordinates E 48519.1
Latitude 33.329712°N
Longitude 81.736510°W

Screen Zone Elevation meters (MSL) 59.0-57.5
Top of Casing Elevation 106.28
Casing Material PVC

Parameter	Units	02/03/87	04/27/87	07/26/87	11/07/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	67.8	67.7	67.6	67
pH		5.7	5.7	5.6	5.9
Conductivity	umhos/cm	170	165	175	180
TDS	mg/L	130	138	120	154
Barium	mg/L	0.049	0.048	0.047	0.047
Beryllium	mg/L	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	8.06	7.74	10.3	8.94
Chloride	mg/L	4.1	3.5	3.9	4.9
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	<0.004	<0.004	<0.004	0.006
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005
Fluoride	mg/L	<0.10	<0.10	0.24	0.19
Iron	mg/L	0.013	0.032	0.039	0.248
Lead	mg/L	<0.006	0.007	<0.006	<0.006
Magnesium	mg/L	3.42	3.24	3.43	3.48
Manganese	mg/L	0.022	0.019	0.023	0.020
Nickel	mg/L	<0.004	<0.004	<0.004	<0.004
Sodium	mg/L	14.8	15.9	16.8	16.5
Total Phosphate	mg/L	0.040	0.020	0.030	0.020
Zinc	mg/L	3.71	2.08	3.70	0.194
NO ₃ (as N)	mg/L	18.7	15.4	20.1	19.0
SO ₄	mg/L	<3.0	<3.0	<3.0	<3.0
Phenols	mg/L	<0.002	<0.005	<0.005	0.005
Gross Alpha	pCi/L	1.6	<3.0	2.5	6.9
Nonvol. Beta	pCi/L	4.1	4.4	3.8	8.9
Total Radium	pCi/L	3.0	3.5	3.0	3.6
Tritium	pCi/mL	0.94	-	-	-

Well: MSB 17A, M-Area Settling Basin

SRP Grid N 101976.6
Coordinates E 48245.7
Latitude 33.328748°N
Longitude 81.743153°W

Screen Zone Elevation meters (MSL) 48.6-47.1
Top of Casing Elevation 109.11
Casing Material PVC

Parameter	Units	01/29/87	04/27/87	07/22/87	11/14/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	57	67.1	67.2	66.6
pH		5.5	5.1	5.5	5.6
Conductivity	umhos/cm	160	152	165	170
TDS	mg/L	100	120	136	124
Barium	mg/L	0.034	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	8.98	-	-	-
Chloride	mg/L	5.6	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	<0.005	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.017	-	-	-
Lead	mg/L	0.018	-	-	-
Magnesium	mg/L	3.35	-	-	-
Manganese	mg/L	0.007	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	15.0	14.7	15.7	14.4
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	2.20	-	-	-
NO ₃ (as N)	mg/L	15.7	16.4	17.8	17.2
SO ₄	mg/L	10.7	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	4.8	-	-	-
Nonvol. Beta	pCi/L	10.2	-	-	-
Total Radium	pCi/L	3.7	-	-	-
Tritium	pCi/mL	<0.68	-	-	-

Well: MSB 14C, M-Area Settling Basin

SRP Grid N 101648.6
Coordinates E 48517.3
Latitude 33.329731°N
Longitude 81.736532°W

Screen Zone Elevation meters (MSL) 74.1-68.2
Top of Casing Elevation 106.28
Casing Material PVC

Parameter	Units	02/03/87	04/27/87	07/26/87	11/07/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	71.8	71	72.4	71.5
pH		7.3	8.6	7.0	7.1
Conductivity	umhos/cm	94	91	90	100
TDS	mg/L	74	92	88	100
Barium	mg/L	0.011	0.011	0.012	0.012
Beryllium	mg/L	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	14.6	13.5	12.9	21.1
Chloride	mg/L	3.1	2.1	3.4	3.1
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	<0.004	<0.004	<0.004	<0.004
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005
Fluoride	mg/L	<0.10	<0.10	0.14	0.17
Iron	mg/L	<0.001	0.012	0.010	0.045
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.684	2.49	0.710	0.777
Manganese	mg/L	0.011	0.011	0.011	0.008
Nickel	mg/L	<0.004	<0.004	<0.004	<0.004
Sodium	mg/L	2.89	2.99	3.00	2.73
Total Phosphate	mg/L	0.057	0.070	0.220	0.090
Zinc	mg/L	0.107	0.064	0.370	0.210
NO ₃ (as N)	mg/L	2.70	2.74	3.83	3.33
SO ₄	mg/L	<3.0	<3.0	<3.0	<3.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Gross Alpha	pCi/L	1.4	<3.0	5.3	10.4
Nonvol. Beta	pCi/L	<2.0	<2.0	4.0	7.7
Total Radium	pCi/L	2.7	1.9	3.1	3.1
Tritium	pCi/mL	2.33	-	-	-

Well: MSB 17B, M-Area Settling Basin

SRP Grid N 101994.6
Coordinates E 48237.7
Latitude 33.328773°N
Longitude 81.743209°W

Screen Zone Elevation meters (MSL) 57.9-56.4
Top of Casing Elevation 109.08
Casing Material PVC

Parameter	Units	01/29/87	04/27/87	07/22/87	11/14/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	69.9	70	70.1	69.6
pH		5.3	5.4	5.4	5.8
Conductivity	umhos/cm	137	145	166	185
TDS	mg/L	72	56	142	128
Barium	mg/L	0.018	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	3.89	-	-	-
Chloride	mg/L	4.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	<0.005	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.018	-	-	-
Lead	mg/L	0.021	-	-	-
Magnesium	mg/L	1.70	-	-	-
Manganese	mg/L	0.013	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	18.1	19.3	21.6	24.1
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	2.34	-	-	-
NO ₃ (as N)	mg/L	14.2	15.7	17.9	18.2
SO ₄	mg/L	10.7	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	1.8	-	-	-
Nonvol. Beta	pCi/L	6.7	-	-	-
Total Radium	pCi/L	1.3	-	-	-
Tritium	pCi/mL	<0.68	-	-	-

TABLE 4-18 CHEMICAL CONCENTRATIONS IN A- AND M-AREAS GROUNDWATER

Well: MSB 18A, M-Area Settling Basin

SRP Grid N 100416.1
Coordinates E 46110.4
Latitude 33.323075°N
Longitude 81.740473°W

Screen Zone Elevation 49.3-47.9
Top of Casing Elevation 103.69
Casing Material PVC

Parameter	Units	02/08/87	05/05/87	07/28/87	11/14/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	65.1	65.3	65.5	64.9
pH		5.3	5.3	5.3	5.3
Conductivity	umhos/cm	36	36	40	36
TDS	mg/L	32	64	82	42
Barium	mg/L	0.008	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	1.00	-	-	-
Chloride	mg/L	3.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	<0.005	-	-	-
Fluoride	mg/L	0.14	-	-	-
Iron	mg/L	0.024	-	-	-
Lead	mg/L	0.020	-	-	-
Magnesium	mg/L	0.579	-	-	-
Manganese	mg/L	0.008	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	2.50	2.49	2.35	2.49
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	3.70	-	-	-
NO ₃ (as N)	mg/L	.93	2.00	2.55	2.48
SO ₄	mg/L	15.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	<0.70	-	-	-

Well: MSB 18C, M-Area Settling Basin

SRP Grid N 100430.9
Coordinates E 46171.4
Latitude 33.323126°N
Longitude 81.740473°W

Screen Zone Elevation 59.3-63.2
Top of Casing Elevation 103.81
Casing Material PVC

Parameter	Units	02/08/87	05/05/87	07/28/87	11/14/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	70.3	70.3	70.8	70.2
pH		6.5	6.2	6.3	5.9
Conductivity	umhos/cm	58	70	78	28
TDS	mg/L	5	52	64	30
Barium	mg/L	0.009	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	0.420	-	-	-
Chloride	mg/L	2.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	<0.005	-	-	-
Fluoride	mg/L	0.12	-	-	-
Iron	mg/L	0.004	-	-	-
Lead	mg/L	0.027	-	-	-
Magnesium	mg/L	0.483	-	-	-
Manganese	mg/L	0.014	-	-	-
Nickel	mg/L	0.007	-	-	-
Sodium	mg/L	1.38	2.07	2.10	1.72
Total Phosphate	mg/L	0.266	-	-	-
Zinc	mg/L	13.5	-	-	-
NO ₃ (as N)	mg/L	1.44	1.90	1.75	2.12
SO ₄	mg/L	17.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	1.8	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	2.3	-	-	-
Tritium	pCi/mL	2.06	-	-	-

Well: MSB 18B, M-Area Settling Basin

SRP Grid N 100474.1
Coordinates E 46115.7
Latitude 33.323102°N
Longitude 81.740475°W

Screen Zone Elevation 60.0-58.5
Top of Casing Elevation 103.72
Casing Material PVC

Parameter	Units	02/08/87	05/05/87	07/28/87	11/14/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	68.2	68.1	68.3	67.7
pH		5.8	5.8	5.7	5.8
Conductivity	umhos/cm	124	123	145	119
TDS	mg/L	162	102	108	96
Barium	mg/L	0.025	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	7.07	-	-	-
Chloride	mg/L	5.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	<0.005	-	-	-
Fluoride	mg/L	0.11	-	-	-
Iron	mg/L	0.037	-	-	-
Lead	mg/L	0.010	-	-	-
Magnesium	mg/L	0.872	-	-	-
Manganese	mg/L	0.011	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	13.0	12.9	12.5	13.5
Total Phosphate	mg/L	0.056	-	-	-
Zinc	mg/L	1.46	-	-	-
NO ₃ (as N)	mg/L	9.05	8.75	9.88	9.28
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	1.0	-	-	-
Tritium	pCi/mL	1.18	-	-	-

Well: MSB 20A, M-Area Settling Basin

SRP Grid N 103545.1
Coordinates E 46060.5
Latitude 33.329917°N
Longitude 81.746682°W

Screen Zone Elevation 49.1-47.8
Top of Casing Elevation 107.89
Casing Material PVC

Parameter	Units	02/08/87	05/05/87	07/28/87	12/11/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	67.8	67.8	67.9	67.5
pH		5.8	5.7	5.8	5.8
Conductivity	umhos/cm	27	28	24	26
TDS	mg/L	46	50	40	40
Barium	mg/L	<0.005	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	1.36	-	-	-
Chloride	mg/L	2.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	<0.005	-	-	-
Fluoride	mg/L	0.11	-	-	-
Iron	mg/L	<0.005	-	-	-
Lead	mg/L	0.008	-	-	-
Magnesium	mg/L	3.189	-	-	-
Manganese	mg/L	0.004	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	1.46	1.65	1.46	1.48
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	1.27	-	-	-
NO ₃ (as N)	mg/L	1.32	1.25	1.49	1.47
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	<0.70	-	-	-

**TABLE 4-18
CHEMICAL CONCENTRATIONS IN A- AND M-AREAS
GROUNDWATER**

Well: MSB 20C, M-Area Settling Basin

SRP Grid N 103556.3
Coordinates E 48088.8
Latitude 33.329981°N
Longitude 81.748739°W

Screen Zone Elevation meters (MSL) 70.8+04.7
Top of Casing Elevation 107.68
Casing Material PVC

Parameter	Units	02/08/87	05/05/87	07/28/87	12/11/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	70.7	70.6	70.8	70.4
pH		8.9	8.5	7.0	9.0
Conductivity	umhos/cm	95	98	93	117
TDS	mg/L	84	72	84	84
Barium	mg/L	0.007	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	14.2	-	-	-
Chloride	mg/L	2.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	<0.005	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	<0.004	-	-	-
Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	0.487	-	-	-
Manganese	mg/L	0.004	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	3.87	3.74	2.91	2.99
Total Phosphate	mg/L	0.076	-	-	-
Zinc	mg/L	0.034	-	-	-
NO ₃ (as N)	mg/L	2.40	2.50	2.76	5.83
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	0.004	-	-	-
Gross Alpha	pCi/L	<1.0	-	-	-
Nonvol. Beta	pCi/L	<1.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	1.99	-	-	-

Well: MSB 21C, M-Area Settling Basin

SRP Grid N 103973.0
Coordinates E 47234.6
Latitude 33.332774°N
Longitude 81.744433°W

Screen Zone Elevation meters (MSL) 70.6+04.6
Top of Casing Elevation 107.71
Casing Material PVC

Parameter	Units	02/03/87	04/27/87	07/28/87	12/11/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	71.5	71.5	71.8	71.7
pH		5.8	5.7	5.5	5.4
Conductivity	umhos/cm	22	24	26	26
TDS	mg/L	30	6	40	28
Barium	mg/L	0.007	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	2.00	-	-	-
Chloride	mg/L	2.9	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	<0.005	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.060	-	-	-
Lead	mg/L	0.006	-	-	-
Magnesium	mg/L	0.520	-	-	-
Manganese	mg/L	0.018	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	1.30	1.38	1.24	1.50
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	1.41	-	-	-
NO ₃ (as N)	mg/L	1.08	0.82	1.05	1.08
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	1.8	-	-	-
Tritium	pCi/mL	1.99	-	-	-

Well: MSB 21A, M-Area Settling Basin

SRP Grid N 103967.0
Coordinates E 47217.7
Latitude 33.332732°N
Longitude 81.744467°W

Screen Zone Elevation meters (MSL) 74.1+0.6
Top of Casing Elevation 107.71
Casing Material PVC

Parameter	Units	02/03/87	04/27/87	07/28/87	12/11/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	68.1	68.5	68.7	68.2
pH		5.7	5.8	5.8	5.3
Conductivity	umhos/cm	22	26	25	23
TDS	mg/L	30	16	46	26
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	0.459	-	-	-
Chloride	mg/L	2.0	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	<0.005	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.051	-	-	-
Lead	mg/L	0.006	-	-	-
Magnesium	mg/L	0.289	-	-	-
Manganese	mg/L	0.004	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	1.34	1.72	1.54	1.54
Total Phosphate	mg/L	0.015	-	-	-
Zinc	mg/L	1.37	-	-	-
NO ₃ (as N)	mg/L	0.86	0.83	1.19	1.32
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	2.3	-	-	-
Tritium	pCi/mL	0.68	-	-	-

Well: MSB 29B, M-Area Settling Basin

SRP Grid N 107319.3
Coordinates E 31217.5
Latitude 33.346676°N
Longitude 81.740455°W

Screen Zone Elevation meters (MSL) 48.7+45.0
Top of Casing Elevation 111.31
Casing Material PVC

Parameter	Units	01/26/87	04/06/87	08/04/87	12/17/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	69.3	69.7	69.2	69.3
pH		5.0	4.7	4.4	4.2
Conductivity	umhos/cm	18	21	28	22
TDS	mg/L	14	24	34	25
Barium	mg/L	0.005	-	0.005	0.004
Beryllium	mg/L	<0.001	-	-	-
Calcium	mg/L	0.821	-	-	-
Chloride	mg/L	2.3	-	3.0	3.1
Chromium	mg/L	<0.004	-	<0.004	<0.004
Copper	mg/L	<0.004	-	<0.004	<0.004
Cyanide	mg/L	<0.005	-	<0.005	<0.005
Fluoride	mg/L	<0.10	-	<0.005	<0.005
Iron	mg/L	0.015	-	0.011	0.013
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.473	-	-	-
Manganese	mg/L	<0.002	-	<0.002	<0.002
Nickel	mg/L	<0.004	<0.004	<0.004	<0.004
Sodium	mg/L	2.43	2.54	2.30	1.99
Total Phosphate	mg/L	0.030	<0.020	<0.020	0.090
Zinc	mg/L	0.007	-	0.010	0.009
NO ₃ (as N)	mg/L	1.47	1.54	1.61	1.61
SO ₄	mg/L	<3.0	-	<3.0	<3.0
Phenols	mg/L	<0.002	-	<0.005	<0.005
Gross Alpha	pCi/L	<3.0	<3.0	<3.0	0.8
Nonvol. Beta	pCi/L	<2.0	<2.0	<2.0	2.0
Total Radium	pCi/L	<1.0	<1.0	0.8	<1.0
Tritium	pCi/mL	1.14	-	-	-

**TABLE 4-18
CHEMICAL CONCENTRATIONS IN A- AND M-AREAS
GROUNDWATER**

Well: MSB 29C, M-Area Settling Basin

SFP Grid N 147315.0
Coordinates E 51206.6
Latitude 33.346648°N
Longitude 81.740476°W
Screen Zone Elevation meters (MSL) 55.2-53.5
Top of Casing Elevation 111.31
Casing Material PVC

Parameter	Units	01/26/87	04/06/87	08/04/87	12/17/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	71.4	68.2	71.2	71.2
pH		4.9	4.5	4.6	4.4
Conductivity	umhos/cm	22	28	28	21
TDS	mg/L	14	24	32	6
Barium	mg/L	0.006	-	0.005	0.008
Beryllium	mg/L	<0.001	-	-	-
Calcium	mg/L	0.666	-	-	-
Chloride	mg/L	2.5	-	2.2	3.3
Chromium	mg/L	<0.004	-	<0.004	<0.004
Copper	mg/L	<0.004	-	<0.004	<0.004
Cyanide	mg/L	<0.005	-	<0.005	<0.005
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.020	-	0.023	0.011
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.507	-	-	-
Manganese	mg/L	0.006	-	0.004	0.008
Nickel	mg/L	<0.004	<0.004	<0.004	0.005
Sodium	mg/L	2.49	2.49	2.20	1.97
Total Phosphate	mg/L	0.040	<0.020	<0.020	0.080
Zinc	mg/L	0.009	-	0.011	0.018
NO ₃ (as N)	mg/L	1.55	1.52	1.81	1.67
SO ₄	mg/L	<3.0	-	<5.0	<5.0
Phenols	mg/L	<0.002	-	<0.005	<0.005
Gross Alpha	pCi/L	1.3	<3.0	1.1	1.5
Nonvol. Beta	pCi/L	4.8	2.3	<2.0	1.8
Total Radium	pCi/L	1.0	1.1	2.0	0.5
Tritium	pCi/mL	1.02	-	-	-

Well: MSB 39A, M-Area Settling Basin

SFP Grid N 100837.6
Coordinates E 48367.3
Latitude 33.327693°N
Longitude 81.735331°W
Screen Zone Elevation meters (MSL) 34.4-32.7
Top of Casing Elevation 104.11
Casing Material PVC

Parameter	Units	05/05/87	07/28/87	12/11/87
Sampling Method		Pump	Pump	Pump
Water Elevation	meters	64.4	64.6	64.3
pH		5.9	6.1	5.5
Conductivity	umhos/cm	53	69	41
TDS	mg/L	50	82	50
Barium	mg/L	0.014	-	-
Beryllium	mg/L	<0.005	-	-
Calcium	mg/L	4.58	-	-
Chloride	mg/L	2.7	-	-
Chromium	mg/L	<0.004	-	-
Copper	mg/L	<0.004	-	-
Cyanide	mg/L	<0.005	-	-
Fluoride	mg/L	0.14	-	-
Iron	mg/L	0.024	-	-
Lead	mg/L	<0.006	-	-
Magnesium	mg/L	0.428	-	-
Manganese	mg/L	0.044	-	-
Nickel	mg/L	0.009	0.005	0.080
Sodium	mg/L	3.05	2.50	1.98
Total Phosphate	mg/L	0.060	-	-
Zinc	mg/L	0.117	-	-
NO ₃ (as N)	mg/L	<0.05	0.36	0.34
SO ₄	mg/L	7.1	-	-
Phenols	mg/L	<0.005	-	-
Gross Alpha	pCi/L	<3.0	-	-
Nonvol. Beta	pCi/L	<2.0	-	-
Total Radium	pCi/L	<1.0	-	-
Tritium	pCi/mL	-	-	-

Well: MSB 29D, M-Area Settling Basin

SFP Grid N 107323.2
Coordinates E 51226.9
Latitude 33.344700°N
Longitude 81.740438°W
Screen Zone Elevation meters (MSL) 59.9-63.4
Top of Casing Elevation 111.28
Casing Material PVC

Parameter	Units	01/26/87	04/06/87	08/04/87	12/17/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	71.9	71.7	72.1	71.8
pH		5.0	4.4	4.6	4.2
Conductivity	umhos/cm	19	36	36	28
TDS	mg/L	22	20	32	10
Barium	mg/L	0.007	-	0.008	0.014
Beryllium	mg/L	<0.001	-	-	-
Calcium	mg/L	0.290	-	-	-
Chloride	mg/L	2.5	-	2.9	-
Chromium	mg/L	<0.004	-	0.004	0.006
Copper	mg/L	0.007	-	0.009	0.013
Cyanide	mg/L	<0.005	-	<0.005	<0.005
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.019	-	0.020	0.033
Lead	mg/L	0.011	0.010	0.011	0.008
Magnesium	mg/L	0.442	-	-	-
Manganese	mg/L	0.004	-	0.004	0.014
Nickel	mg/L	<0.004	<0.004	<0.004	0.013
Sodium	mg/L	4.59	3.93	3.44	3.45
Total Phosphate	mg/L	0.030	<0.020	0.020	0.070
Zinc	mg/L	0.012	-	0.007	0.054
NO ₃ (as N)	mg/L	2.18	2.18	2.04	3.04
SO ₄	mg/L	3.0	-	3.0	3.0
Phenols	mg/L	<0.002	-	<0.005	<0.005
Gross Alpha	pCi/L	6.6	9.0	5.7	11.7
Nonvol. Beta	pCi/L	5.4	7.1	4.6	13.7
Total Radium	pCi/L	9.9	8.1	3.9	8.3
Tritium	pCi/mL	1.40	-	-	-

Well: MSB 39B, M-Area Settling Basin

SFP Grid N 100844.6
Coordinates E 48376.9
Latitude 33.327724°N
Longitude 81.735339°W
Screen Zone Elevation meters (MSL) 45.9-44.2
Top of Casing Elevation 104.18
Casing Material PVC

Parameter	Units	05/05/87	07/28/87	12/11/87
Sampling Method		Pump	Pump	Pump
Water Elevation	meters	65.4	65.6	65.3
pH		4.7	4.7	4.2
Conductivity	umhos/cm	153	159	159
TDS	mg/L	116	144	96
Barium	mg/L	0.038	-	-
Beryllium	mg/L	<0.005	-	-
Calcium	mg/L	5.45	-	-
Chloride	mg/L	4.2	-	-
Chromium	mg/L	<0.004	-	-
Copper	mg/L	<0.004	-	-
Cyanide	mg/L	<0.005	-	-
Fluoride	mg/L	0.13	-	-
Iron	mg/L	0.015	-	-
Lead	mg/L	<0.006	-	-
Magnesium	mg/L	2.69	-	-
Manganese	mg/L	0.012	-	-
Nickel	mg/L	<0.004	<0.004	0.036
Sodium	mg/L	13.7	17.0	14.5
Total Phosphate	mg/L	0.020	-	-
Zinc	mg/L	0.036	-	-
NO ₃ (as N)	mg/L	15.0	15.8	16.6
SO ₄	mg/L	<3.0	-	-
Phenols	mg/L	<0.005	-	-
Gross Alpha	pCi/L	<3.0	-	-
Nonvol. Beta	pCi/L	<2.0	-	-
Total Radium	pCi/L	2.9	-	-
Tritium	pCi/mL	-	-	-

**TABLE 4-18
CHEMICAL CONCENTRATIONS IN A- AND M-AREAS
GROUNDWATER**

Well: MSB 39C, M-Area Settling Basin

SRP Grid N 100832.1
Coordinates E 48386.7
Latitude 33.327757°N
Longitude 81.735328°W
Screen Zone Elevation 104.15
Top of Casing Elevation 104.08
Casing Material PVC

Parameter	Units	05/05/87	07/28/87	12/11/87
Sampling Method		Pump	Pump	Pump
Water Elevation	meters	68.4	68.7	68.4
pH	pH	4.4	4.5	4.1
Conductivity	umhos/cm	79	78	79
TDS	mg/L	36	36	36
Barium	mg/L	0.018	-	-
Beryllium	mg/L	<0.005	-	-
Calcium	mg/L	2.20	-	-
Chloride	mg/L	2.4	-	-
Chromium	mg/L	<0.004	-	-
Copper	mg/L	<0.004	-	-
Cyanide	mg/L	<0.005	-	-
Fluoride	mg/L	<0.10	-	-
Iron	mg/L	0.048	-	-
Lead	mg/L	<0.006	-	-
Magnesium	mg/L	1.44	-	-
Manganese	mg/L	0.011	-	-
Nickel	mg/L	<0.004	0.004	0.039
Sodium	mg/L	5.16	4.11	5.00
Total Phosphate	mg/L	0.030	-	-
Zinc	mg/L	0.009	-	-
NO ₃ (as N)	mg/L	5.50	7.25	7.18
SO ₄	mg/L	<3.0	-	-
Phenols	mg/L	<0.005	-	-
Gross Alpha	pCi/L	<3.0	-	-
Nonvol. Beta	pCi/L	<2.0	-	-
Total Radium	pCi/L	1.2	-	-
Tritium	pCi/mL	-	-	-

Well: MSB 43A, M-Area Settling Basin

SRP Grid N 107275.4
Coordinates E 49293.7
Latitude 33.343438°N
Longitude 81.745437°W
Screen Zone Elevation 109.08
Top of Casing Elevation 109.08
Casing Material PVC

Parameter	Units	01/29/87	04/06/87	08/04/87	12/19/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	71	70.9	70.8	71
pH	pH	4.5	5.3	5.4	4.9
Conductivity	umhos/cm	24	18	22	17
TDS	mg/L	44	40	52	22
Barium	mg/L	<0.004	-	<0.004	0.006
Beryllium	mg/L	<0.001	-	-	-
Calcium	mg/L	0.937	-	-	-
Chloride	mg/L	1.4	-	2.4	4.0
Chromium	mg/L	<0.004	-	<0.004	<0.004
Copper	mg/L	<0.004	-	<0.004	<0.004
Cyanide	mg/L	<0.005	-	<0.005	<0.005
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.021	-	0.022	0.019
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.396	-	-	-
Manganese	mg/L	0.013	-	0.010	0.013
Nickel	mg/L	<0.004	<0.004	<0.004	0.006
Sodium	mg/L	1.70	1.72	1.70	1.52
Total Phosphate	mg/L	0.030	<0.020	0.020	0.080
Zinc	mg/L	0.011	-	0.015	0.020
NO ₃ (as N)	mg/L	1.20	1.07	1.27	1.27
SO ₄	mg/L	<3.0	-	<5.0	<5.0
Phenols	mg/L	0.016	-	<0.005	<0.005
Gross Alpha	pCi/L	<3.0	<3.0	1.4	<3.0
Nonvol. Beta	pCi/L	3.1	1.8	<2.0	3.5
Total Radium	pCi/L	<1.0	0.4	<1.0	<1.0
Tritium	pCi/mL	<0.68	-	-	-

Well: MSB 39D, M-Area Settling Basin

SRP Grid N 100838.7
Coordinates E 48396.0
Latitude 33.327786°N
Longitude 81.735316°W
Screen Zone Elevation 104.15
Top of Casing Elevation 104.15
Casing Material PVC

Parameter	Units	05/05/87	07/28/87	12/11/87
Sampling Method		Pump	Pump	Pump
Water Elevation	meters	71.7	72.1	71.8
pH	pH	5.4	5.7	4.8
Conductivity	umhos/cm	34	36	36
TDS	mg/L	30	36	29
Barium	mg/L	0.007	-	-
Beryllium	mg/L	<0.005	-	-
Calcium	mg/L	1.86	-	-
Chloride	mg/L	2.0	-	-
Chromium	mg/L	<0.004	-	-
Copper	mg/L	0.007	-	-
Cyanide	mg/L	<0.005	-	-
Fluoride	mg/L	0.10	-	-
Iron	mg/L	0.071	-	-
Lead	mg/L	0.024	-	-
Magnesium	mg/L	0.877	-	-
Manganese	mg/L	0.006	-	-
Nickel	mg/L	0.008	<0.004	0.044
Sodium	mg/L	2.18	2.73	2.51
Total Phosphate	mg/L	0.040	-	-
Zinc	mg/L	0.007	-	-
NO ₃ (as N)	mg/L	2.30	3.11	4.17
SO ₄	mg/L	<3.0	-	-
Phenols	mg/L	<0.005	-	-
Gross Alpha	pCi/L	<3.0	-	-
Nonvol. Beta	pCi/L	<2.0	-	-
Total Radium	pCi/L	1.1	-	-
Tritium	pCi/mL	-	-	-

Well: MSB 43B, M-Area Settling Basin

SRP Grid N 107274.6
Coordinates E 49311.8
Latitude 33.343465°N
Longitude 81.745387°W
Screen Zone Elevation 109.11
Top of Casing Elevation 109.11
Casing Material PVC

Parameter	Units	01/29/87	04/06/87	08/04/87	12/19/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	71	70.9	70.8	71
pH	pH	4.4	5.3	5.4	5.3
Conductivity	umhos/cm	29	21	25	19
TDS	mg/L	38	44	50	22
Barium	mg/L	<0.004	-	<0.004	0.004
Beryllium	mg/L	<0.001	-	-	-
Calcium	mg/L	1.85	-	-	-
Chloride	mg/L	2.0	-	2.5	1.8
Chromium	mg/L	<0.004	-	<0.004	<0.004
Copper	mg/L	<0.004	-	<0.004	<0.004
Cyanide	mg/L	<0.005	-	<0.005	<0.005
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.037	-	0.032	0.015
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.481	-	-	-
Manganese	mg/L	0.008	-	0.040	0.005
Nickel	mg/L	<0.004	0.005	<0.004	0.006
Sodium	mg/L	2.16	1.80	1.90	1.88
Total Phosphate	mg/L	0.040	<0.020	<0.020	0.080
Zinc	mg/L	0.048	-	0.045	0.015
NO ₃ (as N)	mg/L	1.40	1.37	1.11	1.34
SO ₄	mg/L	<3.0	-	<5.0	<5.0
Phenols	mg/L	<0.007	-	<0.005	<0.005
Gross Alpha	pCi/L	3.0	1.0	1.1	2.6
Nonvol. Beta	pCi/L	2.3	<2.0	1.9	2.8
Total Radium	pCi/L	<1.0	0.7	1.1	0.3
Tritium	pCi/mL	<0.68	-	-	-

**TABLE 4-18
CHEMICAL CONCENTRATIONS IN A- AND M-AREAS
GROUNDWATER**

Well: MSB 43D, M-Area Settling Basin

SRP Grid N 107274.2
Coordinates E 49322.0
Latitude 33.343480°N
Longitude 81.743360°W

Meters (MSL)
Screen Zone Elevation 87.5-81.3
Top of Casing Elevation 108.96
Casing Material PVC

Parameter	Units	07/29/87	04/08/87	08/04/87	12/19/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	71.6	71.4	71.4	71.6
pH		4.4	5.1	5.4	4.8
Conductivity	umhos/cm	28	32	26	20
TDS	mg/L	32	20	56	52
Barium	mg/L	0.004	-	0.005	0.005
Beryllium	mg/L	<0.001	-	-	-
Calcium	mg/L	0.914	-	-	-
Chloride	mg/L	2.8	-	3.0	2.4
Chromium	mg/L	<0.004	-	<0.004	<0.004
Copper	mg/L	<0.004	-	0.008	0.005
Cyanide	mg/L	<0.005	-	<0.005	<0.005
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.031	-	0.032	0.040
Lead	mg/L	0.008	0.012	0.008	0.009
Magnesium	mg/L	0.505	-	-	-
Manganese	mg/L	0.020	-	0.018	0.015
Nickel	mg/L	<0.004	<0.004	<0.004	0.004
Sodium	mg/L	2.04	1.75	1.80	1.66
Total Phosphate	mg/L	0.040	<0.020	<0.020	0.100
Zinc	mg/L	0.011	-	0.086	0.017
NO ₃ (as N)	mg/L	1.20	1.16	1.11	1.37
SO ₄	mg/L	<3.0	-	<3.0	<3.0
Phenols	mg/L	<0.002	-	<0.005	<0.005
Gross Alpha	pCi/L	1.2	<3.0	<3.0	1.3
Nonvol. Beta	pCi/L	<0.0	1.8	<2.0	3.2
Total Radium	pCi/L	<1.0	<1.0	0.5	0.4
Tritium	pCi/mL	1.69	-	-	-

Other Analytes (mg/L)

(GCMS Scan and Pest/Herb* Analytes: Table 4-25, Vol. 11)

MSB 1A 01/13/87	
Aluminum	0.170
Cyanide	<0.005
Antimony	<0.003
Uranium	<0.1
Pest/Herb* Analysis detected the following: None	
MSB 1A 04/16/87	
Aluminum	0.234
Cyanide	<0.005
Antimony	<0.003
Uranium	<1
GCMS Scan detected the following: trans-1,2-Dichloroethene 0.019	
MSB 1A 07/09/87	
Aluminum	0.230
Cyanide	<0.005
Antimony	<0.003
Uranium	<1
Endrin	<0.0001
GCMS Scan detected the following: None	
MSB 1A 11/01/87	
Aluminum	0.196
Cyanide	<0.005
Antimony	<0.003
Tin	<0.12
Uranium	<1
Endrin	<0.0001
GCMS Scan detected the following: trans-1,2-Dichloroethene 0.009	
MSB 2A 01/31/87	
Aluminum	0.736
Cyanide	<0.005
Antimony	<0.003
Uranium	<0.1
Endrin	<0.0001
MSB 2A 04/16/87	
Aluminum	0.70*
Cyanide	<0.005
Antimony	<0.003
Uranium	<1
GCMS Scan detected the following: 1,2-Dichloroethane 0.024	

MSB 2A 07/09/87	
Aluminum	0.737
Cyanide	<0.005
Antimony	<0.003
Uranium	<1
Endrin	<0.0001
GCMS Scan detected the following: 1,1-Dichloroethene 0.012	
MSB 2A 10/11/87	
Aluminum	0.610
Cyanide	<0.005
Antimony	<0.003
Tin	<0.12
Uranium	<1
Endrin	<0.0001
GCMS Scan detected the following: None	
MSB 3A 01/31/87	
Aluminum	2.95
Cyanide	<0.005
Antimony	<0.003
Uranium	<0.1
Pest/Herb* Analysis detected the following: None	
MSB 3A 04/20/87	
Aluminum	0.016
Cyanide	0.032
Antimony	<0.003
Uranium	<1
GCMS Scan detected the following: None	
MSB 3A 08/04/87	
Aluminum	0.073
Cyanide	0.019
Antimony	<0.003
Uranium	<1
Endrin	<0.0001
Lindane	<0.001
Methoxychlor	<0.020
Toxaphene	<0.001
GCMS Scan detected the following: Chlorobenzene 0.026 Chloroethene 0.083 trans-1,2-Dichloroethene 2.30 1,1-Dichloroethylene 0.036 1,1-Dichloroethane 0.024 1,1,2-Trichloroethane 56.6	
MSB 3A 09/10/87	
Cyanide	0.033
MSB 3A 10/22/87	
Aluminum	0.720
Cyanide	0.037
Antimony	<0.003
Tin	<0.12
Uranium	<1
Endrin	<0.005
Lindane	<0.003
Methoxychlor	<0.025
Toxaphene	<0.040
GCMS Scan detected the following: Dibromochloromethane 0.026 Toluene 0.007 1,1,2,2-Tetrachloroethane 0.001 trans-1,2-Dichloroethene 1.36 1,1-Dichloroethylene 0.010 1,1-Dichloroethane 0.017 1,1,2-Trichloroethane 0.085	
MSB 4A 02/04/87	
Aluminum	<0.070
Cyanide	<0.005
Antimony	<0.003
Uranium	<1
Pest/Herb* Analysis detected the following: None	
MSB 4A 04/16/87	
Aluminum	0.021
Cyanide	<0.005
Antimony	<0.003
Uranium	<1
GCMS Scan detected the following: trans-1,2-Dichloroethene 0.550	

TABLE 4-18
CHEMICAL CONCENTRATIONS IN A- AND M-AREAS
GROUNDWATER

M5B 4A 08/04/87	Aluminum	0.04*	M5B 7A 01/31/87	Aluminum	<0.020
	Cyanide	0.006		Cyanide	<0.005
	Antimony	<0.003		Antimony	<0.003
	Uranium	<1		Uranium	<1
	Endrin	0.0005		Pest/Herb* Analysis detected the following:	None
	GCMS Scan detected the following:		M5B 7A 04/20/87	Aluminum	0.023
	Chloroethene	0.010		Cyanide	<0.005
	1,1,2,2-Tetrachloroethane	0.040		Antimony	<0.003
	trans-1,2-Dichloroethene	0.620		Uranium	<1
	1,1-Dichloroethylene	0.037		GCMS Scan detected the following:	None
	1,1-Dichloroethane	0.011			
M5B 4A 10/11/87	Aluminum	<0.020	M5B 7A 07/09/87	Aluminum	0.020
	Cyanide	0.014		Cyanide	<0.005
	Antimony	<0.003		Antimony	<0.003
	Tin	<0.12		Uranium	<1
	Uranium	<1		Endrin	<0.0001
	Endrin	<0.0001		GCMS Scan detected the following:	None
	GCMS Scan detected the following:		M5B 7A 10/17/87	Aluminum	0.020
	trans-1,2-Dichloroethene	0.138		Cyanide	<0.005
M5B 5A 01/31/87	Aluminum	0.022		Antimony	<0.003
	Cyanide	<0.005		Tin	<0.12
	Antimony	<0.003		Uranium	<1
	Uranium	<0.1		Endrin	<0.0001
	Pest/Herb* Analysis detected the following:	None		GCMS Scan detected the following:	None
M5B 5A 04/20/87	Aluminum	<0.020	M5B 8A 01/31/87	Aluminum	0.040
	Cyanide	<0.005		Cyanide	<0.005
	Antimony	<0.003		Antimony	<0.003
	Uranium	<1		Uranium	<1
	GCMS Scan detected the following:			Pest/Herb* Analysis detected the following:	None
	1,1-Dichloroethane	0.008	M5B 8A 04/20/87	Aluminum	0.048
M5B 5A 07/27/87	Aluminum	0.048		Cyanide	<0.005
	Cyanide	<0.005		Antimony	<0.003
	Antimony	<0.003		Uranium	<1
	Uranium	<1		GCMS Scan detected the following:	None
	Endrin	<0.0001	M5B 8A 08/04/87	Aluminum	0.051
	GCMS Scan detected the following:			Cyanide	<0.005
	1,1-Dichloroethylene	0.008		Antimony	<0.003
	1,1-Dichloroethane	0.009		Uranium	<1
M5B 5A 10/17/87	Aluminum	0.034		GCMS Scan detected the following:	1,1,2,2-Tetrachloroethane 0.010
	Cyanide	<0.005	M5B 8A 10/17/87	Aluminum	0.050
	Antimony	<0.003		Cyanide	<0.005
	Tin	<0.12		Antimony	0.004
	Uranium	<1		Tin	<0.12
	Endrin	<0.0001		Uranium	<1
	GCMS Scan detected the following:			Endrin	<0.0001
	1,1-Dichloroethylene	0.010		GCMS Scan detected the following:	None
M5B 6A 01/31/87	Aluminum	0.014	M5B 9A 01/31/87	Aluminum	<0.020
	Cyanide	<0.005		Cyanide	<0.005
	Antimony	<0.003		Antimony	<0.003
	Uranium	<0.1	M5B 9A 05/05/87	Aluminum	<0.020
	Pest/Herb* Analysis detected the following:	None		Cyanide	<0.005
M5B 6A 04/20/87	Aluminum	0.026		Antimony	<0.003
	Cyanide	<0.005	M5B 9A 07/27/87	Aluminum	0.015
	Antimony	<0.003		Cyanide	<0.005
	Uranium	<1		Antimony	<0.003
	GCMS Scan detected the following:	None	M5B 9A 11/08/87	Aluminum	0.028
M5B 6A 07/09/87	Aluminum	<0.020		Cyanide	<0.005
	Cyanide	<0.005		Antimony	<0.003
	Antimony	<16.5		Tin	<0.12
	Uranium	<1	M5B 9B 01/31/87	Aluminum	0.170
	Endrin	<0.0001		Cyanide	0.009
	GCMS Scan detected the following:	None		Antimony	<0.003
M5B 6A 10/11/87	Aluminum	0.026			
	Cyanide	<0.005			
	Antimony	<0.003			
	Tin	<0.12			
	Uranium	<1			
	Endrin	<0.0001			
	GCMS Scan detected the following:	None			

TABLE 4-18
CHEMICAL CONCENTRATIONS IN A- AND M-AREAS
GROUNDWATER

MSB 98 05/01/87		MSB 118 11/02/87	
Aluminum	0.078	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
		Tin	<0.12
MSB 98 07/27/87		MSB 11C 02/03/87	
Aluminum	0.045	Aluminum	0.150
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSB 98 11/08/87		MSB 11C 04/25/87	
Aluminum	0.145	Aluminum	0.142
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Tin	<0.12		
MSB 9C 01/31/87		MSB 11C 07/26/87	
Aluminum	1.58	Aluminum	0.154
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSB 9C 05/05/87		MSB 11C 11/07/87	
Aluminum	1.90	Aluminum	0.109
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
		Tin	<0.12
MSB 9C 07/27/87		MSB 11D 02/03/87	
Aluminum	3.00	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSB 9C 11/08/87		MSB 11D 04/25/87	
Aluminum	4.04	Aluminum	0.040
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Tin	<0.12		
MSB 10A 02/08/87		MSB 11D 07/26/87	
Aluminum	<0.020	Aluminum	0.045
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSB 10B 02/08/87		MSB 11D 11/07/87	
Aluminum	<0.020	Aluminum	0.061
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
		Tin	<0.12
MSB 10C 07/08/87		MSB 11F 02/03/87	
Aluminum	<0.020	Aluminum	1.08
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSB 11A 02/03/87		MSB 11F 04/25/87	
Aluminum	<0.020	Aluminum	1.07
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSB 11A 04/25/87		MSB 11F 07/26/87	
Aluminum	<0.020	Aluminum	0.890
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSB 11A 07/26/87		MSB 11F 11/07/87	
Aluminum	0.033	Aluminum	0.614
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
		Tin	<0.12
MSB 11A 11/07/87		MSB 12A 02/03/87	
Aluminum	0.024	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Tin	<0.12		
MSB 11B 02/03/87		MSB 12B 02/03/87	
Aluminum	<0.020	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSB 11B 04/25/87		MSB 12C 02/03/87	
Aluminum	<0.020	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSB 11B 07/26/87		MSB 12D 02/03/87	
Aluminum	0.024	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003

**TABLE 4-18
CHEMICAL CONCENTRATIONS IN A- AND M-AREAS
GROUNDWATER**

MSS 13A 02/03/87		MSS 18A 02/08/87	
Aluminum	<0.020	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSS 13B 02/04/87		MSS 18C 02/08/87	
Aluminum	0.053	Aluminum	<0.020
Cyanide	0.007	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSS 14A 02/03/87		MS 20A 02/08/87	
Aluminum	0.025	Aluminum	<0.020
Cyanide	<0.005	Cyanide	0.005
Antimony	<0.003	Antimony	<0.003
MSS 04/27/87		MSS 20C 02/08/87	
Aluminum	0.046	Aluminum	0.096
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSS 14A 07/26/87		MSS 21A 02/03/87	
Aluminum	0.052	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSS 14A 11/07/87		MSS 21C 02/03/87	
Aluminum	0.079	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Tin	<0.12		
MSS 14B 02/03/87		MSS 29B 01/26/87	
Aluminum	<0.020	Aluminum	0.031
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
		Pest/Herb* Analysis detected the following:	
		None	
MSS 14B 04/27/87		MSS 29B 04/06/87	
Aluminum	0.038	Aluminum	0.021
Cyanide	<0.005	Uranium	<0.1
Antimony	<0.003	GCMS Scan detected the following: None	
		Pest/Herb* Analysis detected the following:	
		None	
MSS 14B 07/26/87		MSS 29B 08/04/87	
Aluminum	0.048	Aluminum	0.046
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Uranium	<1
		GCMS Scan detected the following: None	
		Pest/Herb* Analysis detected the following:	
		None	
MSS 14B 11/07/87		MSS 29B 12/17/87	
Aluminum	0.066	Aluminum	0.043
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Tin	<0.12
Tin	<0.12	Uranium	<1
		GCMS Scan detected the following: None	
		Pest/Herb* Analysis detected the following:	
		None	
MSS 14C 02/03/87		MSS 29C 01/26/87	
Aluminum	0.028	Aluminum	0.030
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
		Uranium	<0.1
		Pest/Herb* Analysis detected the following:	
		None	
MSS 14C 04/27/87		MSS 29C 04/06/87	
Aluminum	0.044	Aluminum	0.029
Cyanide	<0.005	Uranium	<0.1
Antimony	<0.003	GCMS Scan detected the following: None	
		Pest/Herb* Analysis detected the following:	
		None	
MSS 14C 07/26/87		MSS 29C 08/04/87	
Aluminum	0.039	Aluminum	0.039
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Uranium	<1
		GCMS Scan detected the following: None	
		Pest/Herb* Analysis detected the following:	
		None	
MSS 14C 11/07/87			
Aluminum	0.058		
Cyanide	<0.005		
Antimony	<0.003		
Tin	<0.12		
MSS 17A 01/29/87			
Aluminum	0.040		
Cyanide	<0.005		
Antimony	<0.003		
MSS 17B 01/29/87			
Aluminum	0.120		
Cyanide	<0.005		
Antimony	<0.003		
MSS 18A 02/08/87			
Aluminum	<0.020		
Cyanide	<0.005		
Antimony	<0.003		

TABLE 4-18
CHEMICAL CONCENTRATIONS IN A- AND M-AREAS
GROUNDWATER

M52 29C 12/17/87		M52 43A 01/29/87	
Aluminum	0.040	Aluminum	0.020
Cyanide	<0.005	Cyanide	<0.005
Tin	<0.12	Antimony	<0.003
Uranium	<1	Uranium	<0.1
GCMS Scan detected the following: None		Pest/Herb* Analysis detected the following: None	
Pest/Herb* Analysis detected the following: None			
M52 29D 01/26/87		M52 43A 04/06/87	
Aluminum	0.047	Aluminum	0.011
Cyanide	<0.005	Uranium	<0.1
Antimony	<0.003	GCMS Scan detected the following: None	
Uranium	<0.1	Pest/Herb* Analysis detected the following: None	
Pest/Herb* Analysis detected the following: None			
M52 29D 04/06/87		M52 43A 08/04/87	
Aluminum	0.042	Aluminum	0.038
Uranium	<0.1	Cyanide	<0.005
GCMS Scan detected the following: None		Uranium	<1
Pest/Herb* Analysis detected the following: None		GCMS Scan detected the following: None	
		Pest/Herb* Analysis detected the following: None	
M52 29D 08/04/87		M52 43A 12/19/87	
Aluminum	0.056	Aluminum	0.029
Cyanide	<0.005	Cyanide	<0.005
Uranium	<1	Tin	<0.12
GCMS Scan detected the following: None		Uranium	<1
Pest/Herb* Analysis detected the following: None		GCMS Scan detected the following: None	
		Pest/Herb* Analysis detected the following: None	
M52 29D 12/17/87		M52 43B 01/29/87	
Aluminum	0.074	Aluminum	0.055
Cyanide	<0.005	Cyanide	<0.005
Tin	<0.12	Antimony	<0.003
Uranium	<1	Uranium	<0.1
GCMS Scan detected the following: None		Pest/Herb* Analysis detected the following: None	
Pest/Herb* Analysis detected the following: None			
M52 38A 05/05/87		M52 43B 04/06/87	
Aluminum	<0.020	Aluminum	<0.020
Cyanide	<0.005	Uranium	<0.1
Antimony	<0.003	GCMS Scan detected the following: None	
		Pest/Herb* Analysis detected the following: None	
M52 39a 07/28/87		M 43B 08/04/87	
Aluminum	0.075	Aluminum	0.540
		Cyanide	<0.005
M52 39A 12/11/87		Uranium	<1
Aluminum	<0.020	GCMS Scan detected the following: None	
		Pest/Herb* Analysis detected the following: None	
M52 39B 05/05/87		M52 43B 12/19/87	
Aluminum	0.073	Aluminum	0.028
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Tin	<0.12
		Uranium	<1
M52 39B 07/28/87		GCMS Scan detected the following: None	
Aluminum	0.064	Pest/Herb* Analysis detected the following: None	
M52 39B 12/21/87		M52 43D 01/29/87	
Aluminum	0.084	Aluminum	0.031
		Cyanide	<0.005
M52 39C 05/05/87		Antimony	<0.003
Aluminum	0.147	Uranium	<0.1
Cyanide	<0.005	Pest/Herb* Analysis detected the following: None	
Antimony	<0.003		
M52 39C 07/28/87		M52 43D 04/06/87	
Aluminum	0.140	Aluminum	0.043
		Uranium	<0.1
M52 39C 12/11/87		GCMS Scan detected the following: None	
Aluminum	0.134	Pest/Herb* Analysis detected the following: None	
M52 39D 05/05/87		M52 43D 08/04/87	
Aluminum	0.020	Aluminum	0.566
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Uranium	<1
		GCMS Scan detected the following: None	
M52 39D 07/28/87		Pest/Herb* Analysis detected the following: None	
Aluminum	0.028		
M52 39D 12/11/87			
Aluminum	0.051		

TABLE 4-18 CHEMICAL CONCENTRATIONS IN A- AND M-AREAS GROUNDWATER

MSB 43D 12/19/87

Aluminum 0.079
Cyanide <0.001
Tin <0.12
Uranium <1
GCMS Scan detected the following: None
Pest/Herb* Analysis detected the following:
None

Well: AC 1A, (RMET Program Information)

SRP Grid N 105865.0 meters (MSL)
Coordinates E 42228.8 Screen Zone Elevation 44.8-43.3
Latitude 33.328795°N Top of Casing Elevation 80.19
Longitude 81.761268°W Casing Material Steel

Parameter	Units	01/20/87	07/09/87
Sampling Method		Pump	Pump
Water Elevation	meters	66.2	66.9
pH		5.8	5.7
Conductivity	umhos/cm	23	24
Chloroform	mg/L	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001
Trichloroethene	mg/L	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001

Well: AL 1B, (RMET Program Information)

SRP Grid N 105862.8 meters (MSL)
Coordinates E 42250.5
Latitude 33.328810°N Top of Casing Elevation 80.22
Longitude 81.751233°W Casing Material

Parameter	Units	01/20/87	07/09/87
Sampling Method		Pump	Pump
Water Elevation	meters	66.3	66.9
pH		5.4	5.5
Conductivity	umhos/cm	30	28
Chloroform	mg/L	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001
Trichloroethene	mg/L	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001

Well: AC 2A, (RMET Program Information)

SRP Grid N 105836.4 meters (MSL)
Coordinates E 44428.6 Screen Zone Elevation 45.4-43.9
Latitude 33.335131°N Top of Casing Elevation 105.70
Longitude 81.749792°W Casing Material PVC

Parameter	Units	01/08/87	07/08/87
Sampling Method		Pump	Pump
Water Elevation	meters	69.3	69.5
pH		6.2	6.3
Conductivity	umhos/cm	33	47
Chloroform	mg/L	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001
Trichloroethene	mg/L	<0.001	0.002
1,1,1-TCE	mg/L	<0.001	<0.001

Well: AC 2B, (RMET Program Information)

SRP Grid N 105644.7 meters (MSL)
Coordinates E 46644.5 Screen Zone Elevation 49.7-66.6
Latitude 33.335187°N Top of Casing Elevation 4.6'
Longitude 81.749774°W Casing Material PVC

Parameter	Units	01/08/87	07/08/87
Sampling Method		Pump	Pump
Water Elevation	meters	71.7	72.1
pH		6.0	6.0
Conductivity	umhos/cm	25	27
Chloroform	mg/L	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001
Trichloroethene	mg/L	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001

Well: SEW 1, Silverton Road Waste Site

SRP Grid N 103776.7 meters (MSL)
Coordinates E 41407.0 Screen Zone Elevation 70.2-61.0
Latitude 33.322821°N Top of Casing Elevation 96.07
Longitude 81.759394°W Casing Material PVC

Parameter	Units	03/15/87	05/16/87	09/03/87	12/12/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	65	65.4	65.7	65.8
pH		5.5	5.5	5.2	4.8
Conductivity	umhos/cm	14	17	16	16
TDS	mg/L	5	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.000	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.504	-	-	-
Chloride	mg/L	6.2	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.058	0.108	0.089	0.023
Lead	mg/L	<0.006	0.008	0.006	<0.006
Magnesium	mg/L	0.358	-	-	-
Manganese	mg/L	0.017	0.017	0.017	0.015
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.150	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.38	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.24	-	-	-
Total Phosphate	mg/L	0.140	-	-	-
Zinc	mg/L	0.166	0.161	0.202	0.128
NO ₃ (as N)	mg/L	0.47	-	-	-
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	<1.000	2.00	<1.000
Tot. Org. Halogen	mg/L	<0.005	<0.005	<0.005	<0.005
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001	<0.001	<0.001
Trichloroethene	mg/L	<0.001	<0.001	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Crates Alpha	pCi/L	<3.0	-	-	-
Crates Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	1.1	0.9	1.3
Tridium	pCi/mL	1.66	-	-	-

Well: AC 3A, (RMET Program Information)

SRP Grid N 100989.1 meters (MSL)
Coordinates E 42113.8 Screen Zone Elevation 47.6-43.9
Latitude 33.317824°N Top of Casing Elevation 82.72
Longitude 81.752094°W Casing Material PVC

Parameter	Units	01/20/87	07/16/87	10/20/87
Sampling Method		Pump	Pump	Pump
Water Elevation	meters	65.4	65.6	65.4
pH		6.5	6.7	6.1
Conductivity	umhos/cm	55	53	53
Chloroform	mg/L	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001	<0.001
Trichloroethene	mg/L	<0.001	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001

Well: AC 3B, (RMET Program Information)

SRP Grid N 100996.5 meters (MSL)
Coordinates E 42113.8 Screen Zone Elevation 45.6-49.5
Latitude 33.317830°N Top of Casing Elevation 92.69
Longitude 81.752125°W Casing Material PVC

Parameter	Units	01/20/87	07/16/87	10/20/87
Sampling Method		Pump	Pump	Pump
Water Elevation	meters	65.7	65.8	66
pH		10.2	6.5	6.5
Conductivity	umhos/cm	112	92	93
Chloroform	mg/L	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001	<0.001
Trichloroethene	mg/L	<0.001	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001

TABLE 4-18
CHEMICAL CONCENTRATIONS IN A- AND M-AREAS
GROUNDWATER

Well: **SNW 14C, Silverton Road Waste Site**

SNP Grid	N 103772.4				meters (MSL)
Coordinates E	42841.8	Screen Zone Elevation			71.8-82.7
Latitude	33.32555°N	Top of Logging Elevation			105.64
Longitude	81.755604°W	Casing Material	PVC		

Parameter	Units	03/01/87	05/15/87	09/02/87	12/15/87
Temp Method		Pump	Pump	Pump	Pump
Water Elevation	meters	86.4	86.1	86.3	86.7
pH	pH	5.4	5.3	5.2	5.2
Conductivity	umhos/cm	15	16	18	18
TDS	mg/L	22	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.007	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.433	-	-	-
Chloride	mg/L	3.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.015	0.068	<0.004	0.008
Lead	mg/L	0.010	0.028	0.009	0.018
Magnesium	mg/L	0.241	-	-	-
Manganese	mg/L	0.014	0.015	0.317	0.014
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.450	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	1.34	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.48	-	-	-
Total Phosphate	mg/L	0.011	-	-	-
Zinc	mg/L	0.037	0.032	0.029	0.028
NO ₃ (as N)	mg/L	0.71	-	-	-
NO ₂	mg/L	1.0	-	-	-
Phenols	mg/L	0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	<0.005	0.004	<0.005	-
Carbon Tex.	mg/L	<0.001	<0.001	<0.001	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001	<0.001	<0.001
Trichloroethene	mg/L	0.001	<0.001	<0.001	<0.001
1,1,1 TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Cross Alpha	pCi/L	<3.0	-	-	-
benzol, Beta	pCi/L	12.0	-	-	-
Total Radium	pCi/L	2.0	1.5	2.4	1.3
Tridium	pCi/mL	1.58	-	-	-

Other Analyses (mg/L)
(OCMS Scan Analyses: Table A-25, Vol. 12)

SNW 2 04/03/87
OCMS Scan detected the following: None

SNW 5 08/02/87
OCMS Scan detected the following: None

TABLE 4-20
CHEMICAL CONCENTRATIONS IN CMP PITS GROUNDWATER

CMP 10B	08/22/87		CMP 15A	08/23/87	
Benzene		<0.00004	Benzene		<0.00004
CMP 10B	12/05/87		CMP 15A	12/05/87	
Benzene		<0.0009	Benzene		<0.0009
CMP 11	05/06/87		CMP 15B	05/06/87	
Benzene		<0.0009	Benzene		<0.0009
CMP 11	08/23/87		CMP 15B	08/23/87	
GCMS Scan detected the following:			Benzene		<0.00004
1,2-Dichloroethane		0.003	CMP 15B	12/06/87	
CMP 11	12/06/87		Benzene		<0.0009
Benzene		<0.0009	CMP 15C	05/06/87	
CMP 11B	05/06/87		Benzene		<0.0009
Benzene		<0.0009	CMP 15C	08/23/87	
CMP 11B	08/23/87		Benzene		<0.00004
Benzene		<0.00004	CMP 15C	12/06/87	
CMP 11B	12/05/87		Benzene		<0.0009
Benzene		<0.00004	CMP 16B	05/06/87	
CMP 12	05/06/87		Benzene		<0.0009
Benzene		<0.0009	CMP 16B	08/22/87	
CMP 12	08/23/87		Benzene		<0.00004
Benzene		<0.00004	CMP 16B	12/05/87	
CMP 12	12/06/87		Benzene		<0.0009
Benzene		<0.0009			
CMP 12A	05/06/87				
Benzene		<0.0009			
CMP 12A	12/06/87				
Benzene		<0.0009			
CMP 12B	05/06/87				
Benzene		<0.0009			
CMP 12B	08/23/87				
Benzene		<0.00004			
CMP 12B	12/06/87				
Benzene		<0.0009			
CMP 13	05/06/87				
Benzene		<0.0009			
CMP 13	08/23/87				
Benzene		<0.00004			
CMP 13	12/06/87				
Benzene		<0.0009			
CMP 13B	04/14/87				
Benzene		<0.0014			
CMP 13B	08/23/87				
Benzene		<0.00004			
CMP 13B	12/06/87				
Benzene		<0.0009			
CMP 14B	05/06/87				
Benzene		<0.0009			
CMP 14B	08/22/87				
Benzene		<0.00004			
CMP 14B	12/05/87				
Benzene		<0.0009			
CMP 14C	05/06/87				
Benzene		<0.0009			
CMP 14C	08/22/87				
Benzene		<0.00004			
CMP 14C	12/05/87				
Benzene		<0.0009			
CMP 15A	05/06/87				
Benzene		<0.0009			

**TABLE 4-21
CHEMICAL CONCENTRATIONS IN D-AREA GROUNDWATER**

Well: DCB 5A, D-Area Coal Pile Runoff Containment Basin

SRP Grid N 63126.1 meters (MSL)
Coordinates E 20119.8 Screen Zone Elevation 35.3-36.2
Latitude 33.198228°N Top of Casing Elevation 37.46
Longitude 81.736317°W Casing Material PVC

Parameter	Units	03/17/87	05/04/87	07/25/87	10/03/87
Sampling Method	Pump				
Water Elevation	meters	36.4	36.3	36.1	35.9
pH		4.7	5.3	5.8	5.1
Conductivity	umhos/cm	585	540	580	577
TDS	mg/L	382	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.050	-	-	-
Beryllium	mg/L	0.006	-	0.007	-
Cadmium	mg/L	<0.002	-	<0.002	-
Calcium	mg/L	54.1	-	-	-
Chloride	mg/L	<1.0	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	0.016	-	0.015	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.74	-	0.54	-
Iron	mg/L	8.74	-	0.546	-
Lead	mg/L	0.022	-	<0.006	-
Magnesium	mg/L	28.5	-	-	-
Manganese	mg/L	1.88	-	1.70	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	0.105	-	0.085	-
Potassium	mg/L	3.18	-	-	-
Selenium	mg/L	<0.002	-	<0.002	-
Silica	mg/L	7.20	-	-	-
Silver	mg/L	<0.0020	-	<0.0020	-
Sodium	mg/L	5.74	-	-	-
Total Phosphate	mg/L	0.100	-	-	-
Zinc	mg/L	-	-	0.230	-
NO ₃ (as N)	mg/L	2.14	-	-	-
SO ₄	mg/L	244	-	235	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.00	-	1.40	-
Tot. Org. Halogen	mg/L	0.030	-	0.035	-
Carbon Tet.	mg/L	-	-	<0.001	-
Chloroform	mg/L	-	-	<0.001	-
Tetrachloroethene	mg/L	-	-	<0.001	-
Trichloroethene	mg/L	-	-	<0.001	-
1,1,1-TCE	mg/L	-	-	<0.001	-
Gross Alpha	pCi/L	13.6	-	13.0	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	0.7	-	1.5	-
Tritium	pCi/mL	6.04	-	-	-

Well: DCB 7, D-Area Coal Pile Runoff Containment Basin

SRP Grid N 64001.4 meters (MSL)
Coordinates E 20036.3 Screen Zone Elevation 39.3-33.2
Latitude 33.199994°N Top of Casing Elevation 40.48
Longitude 81.738289°W Casing Material PVC

Parameter	Units	10/06/87
Sampling Method	Pump	
Water Elevation	meters	35.6
pH		3.4
Conductivity	umhos/cm	1606
TDS	mg/L	1370
Arsenic	mg/L	0.015
Barium	mg/L	0.024
Beryllium	mg/L	-
Cadmium	mg/L	0.004
Calcium	mg/L	81.4
Chloride	mg/L	3.4
Chromium	mg/L	0.004
Copper	mg/L	-
Cyanide	mg/L	-
Fluoride	mg/L	3.40
Iron	mg/L	21.1
Lead	mg/L	<0.006
Magnesium	mg/L	48.3
Manganese	mg/L	8.81
Mercury	mg/L	0.0003
Nickel	mg/L	-
Potassium	mg/L	1.50
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	0.0030
Sodium	mg/L	7.80
Total Phosphate	mg/L	0.300
Zinc	mg/L	-
NO ₃ (as N)	mg/L	0.75
SO ₄	mg/L	1120
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	2.40
Tot. Org. Halogen	mg/L	0.066
Carbon Tet.	mg/L	-
Chloroform	mg/L	-
Tetrachloroethene	mg/L	-
Trichloroethene	mg/L	-
1,1,1-TCE	mg/L	-
Gross Alpha	pCi/L	12.9
Nonvol. Beta	pCi/L	<2.0
Total Radium	pCi/L	3.2
Tritium	pCi/mL	1.20

Well: DCB 6, D-Area Coal Pile Runoff Containment Basin

SRP Grid N 64167.9 meters (MSL)
Coordinates E 19979.3 Screen Zone Elevation 39.5-33.4
Latitude 33.200169°N Top of Casing Elevation 40.60
Longitude 81.738763°W Casing Material PVC

Parameter	Units	10/06/87
Sampling Method	Pump	
Water Elevation	meters	35.2
pH		3.6
Conductivity	umhos/cm	4100
TDS	mg/L	4470
Arsenic	mg/L	<0.002
Barium	mg/L	0.010
Beryllium	mg/L	-
Cadmium	mg/L	<0.002
Calcium	mg/L	223
Chloride	mg/L	8.3
Chromium	mg/L	0.488
Copper	mg/L	-
Cyanide	mg/L	-
Fluoride	mg/L	4.50
Iron	mg/L	99.1
Lead	mg/L	0.006
Magnesium	mg/L	238
Manganese	mg/L	19.6
Mercury	mg/L	<0.0002
Nickel	mg/L	-
Potassium	mg/L	8.16
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	0.0110
Sodium	mg/L	28.3
Total Phosphate	mg/L	0.980
Zinc	mg/L	-
NO ₃ (as N)	mg/L	0.22
SO ₄	mg/L	2700
Phenols	mg/L	0.010
Tot. Org. Carbon	mg/L	3.40
Tot. Org. Halogen	mg/L	0.210
Carbon Tet.	mg/L	-
Chloroform	mg/L	-
Tetrachloroethene	mg/L	-
Trichloroethene	mg/L	-
1,1,1-TCE	mg/L	-
Gross Alpha	pCi/L	39.2
Nonvol. Beta	pCi/L	41.2
Total Radium	pCi/L	15.3
Tritium	pCi/mL	3.80

Well: DCB 8, D-Area Coal Pile Runoff Containment Basin

SRP Grid N 63473.9 meters (MSL)
Coordinates E 21014.1 Screen Zone Elevation 39.7-33.6
Latitude 33.200425°N Top of Casing Elevation 41.69
Longitude 81.734694°W Casing Material PVC

Parameter	Units	10/06/87
Sampling Method	Pump	
Water Elevation	meters	37.9
pH		5.3
Conductivity	umhos/cm	40
TDS	mg/L	42
Arsenic	mg/L	<0.002
Barium	mg/L	0.014
Beryllium	mg/L	-
Cadmium	mg/L	<0.002
Calcium	mg/L	2.82
Chloride	mg/L	4.9
Chromium	mg/L	<0.004
Copper	mg/L	-
Cyanide	mg/L	-
Fluoride	mg/L	0.20
Iron	mg/L	0.070
Lead	mg/L	<0.006
Magnesium	mg/L	0.733
Manganese	mg/L	0.019
Mercury	mg/L	<0.0002
Nickel	mg/L	-
Potassium	mg/L	0.983
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	1.91
Total Phosphate	mg/L	0.140
Zinc	mg/L	-
NO ₃ (as N)	mg/L	2.15
SO ₄	mg/L	<5.0
Phenols	mg/L	0.006
Tot. Org. Carbon	mg/L	1.60
Tot. Org. Halogen	mg/L	<0.005
Carbon Tet.	mg/L	-
Chloroform	mg/L	-
Tetrachloroethene	mg/L	-
Trichloroethene	mg/L	-
1,1,1-TCE	mg/L	-
Gross Alpha	pCi/L	<3.0
Nonvol. Beta	pCi/L	<2.0
Total Radium	pCi/L	1.1
Tritium	pCi/mL	4.50

TABLE 4-21
CHEMICAL CONCENTRATIONS IN D-AREA GROUNDWATER

Well: DCB 9, D-Area Coal Pile Runoff Containment Basin

SRP Grid N	64190.6	
Coordinates E	19807.4	Screen Zone Elevation
Latitude	33.200039°N	Top of Casing Elevation
Longitude	81.739259°W	Casing Material PVC

Parameter	Units	10/06/87
Sampling Method		Pump
Water Elevation	meters	34.6
pH	pH	3.3
Conductivity	umhos/cm	2020
TDS	mg/L	1710
Arsenic	mg/L	0.030
Barium	mg/L	0.022
Beryllium	mg/L	-
Cadmium	mg/L	0.004
Calcium	mg/L	166
Chloride	mg/L	7.3
Chromium	mg/L	0.015
Copper	mg/L	-
Cyanide	mg/L	-
Fluoride	mg/L	3.30
Iron	mg/L	18.5
Lead	mg/L	<0.006
Magnesium	mg/L	79.4
Manganese	mg/L	52.7
Mercury	mg/L	0.0009
Nickel	mg/L	-
Potassium	mg/L	4.63
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	0.0060
Sodium	mg/L	14.3
Total Phosphate	mg/L	0.300
Zinc	mg/L	-
NO ₃ (as N)	mg/L	0.87
SO ₄	mg/L	1080
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	2.40
Tot. Org. Halogen	mg/L	0.105
Carbon Tet.	mg/L	-
Chloroform	mg/L	-
Tetrachloroethene	mg/L	-
Trichloroethene	mg/L	-
1,1,1-TCE	mg/L	-
Gross Alpha	pCi/L	<3.0
Nonvol. Beta	pCi/L	<2.0
Total Radium	pCi/L	3.4
Tritium	pCi/mL	5.80

Well: DCB 11, D-Area Coal Pile Runoff Containment Basin

SRP Grid N	64638.3	
Coordinates E	19248.6	Screen Zone Elevation
Latitude	33.200116°N	Top of Casing Elevation
Longitude	81.741597°W	Casing Material PVC

Parameter	Units	10/06/87
Sampling Method		Pump
Water Elevation	meters	36.8
pH	pH	5.4
Conductivity	umhos/cm	4680
TDS	mg/L	4550
Arsenic	mg/L	0.003
Barium	mg/L	0.048
Beryllium	mg/L	-
Cadmium	mg/L	0.032
Calcium	mg/L	378
Chloride	mg/L	9.3
Chromium	mg/L	0.200
Copper	mg/L	-
Cyanide	mg/L	-
Fluoride	mg/L	0.15
Iron	mg/L	172
Lead	mg/L	0.020
Magnesium	mg/L	159
Manganese	mg/L	9.83
Mercury	mg/L	<0.0002
Nickel	mg/L	-
Potassium	mg/L	109
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	0.0090
Sodium	mg/L	63.2
Total Phosphate	mg/L	0.080
Zinc	mg/L	-
NO ₃ (as N)	mg/L	0.28
SO ₄	mg/L	2830
Phenols	mg/L	0.002
Tot. Org. Carbon	mg/L	2.40
Tot. Org. Halogen	mg/L	0.013
Carbon Tet.	mg/L	-
Chloroform	mg/L	-
Tetrachloroethene	mg/L	-
Trichloroethene	mg/L	-
1,1,1-TCE	mg/L	-
Gross Alpha	pCi/L	23.3
Nonvol. Beta	pCi/L	85.2
Total Radium	pCi/L	<1.0
Tritium	pCi/mL	3.20

Well: DCB 10, D-Area Coal Pile Runoff Containment Basin

SRP Grid N	63803.1	
Coordinates E	19851.3	Screen Zone Elevation
Latitude	33.199255°N	Top of Casing Elevation
Longitude	81.738366°W	Casing Material PVC

Parameter	Units	10/06/87
Sampling Method		Pump
Water Elevation	meters	34.7
pH	pH	2.6
Conductivity	umhos/cm	3380
TDS	mg/L	3100
Arsenic	mg/L	0.024
Barium	mg/L	0.013
Beryllium	mg/L	-
Cadmium	mg/L	0.007
Calcium	mg/L	88.7
Chloride	mg/L	3.3
Chromium	mg/L	0.076
Copper	mg/L	-
Cyanide	mg/L	-
Fluoride	mg/L	3.70
Iron	mg/L	77.0
Lead	mg/L	<0.006
Magnesium	mg/L	82.6
Manganese	mg/L	9.05
Mercury	mg/L	<0.0002
Nickel	mg/L	-
Potassium	mg/L	1.03
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	0.0060
Sodium	mg/L	8.50
Total Phosphate	mg/L	0.180
Zinc	mg/L	-
NO ₃ (as N)	mg/L	0.52
SO ₄	mg/L	1340
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	3.20
Tot. Org. Halogen	mg/L	0.043
Carbon Tet.	mg/L	-
Chloroform	mg/L	-
Tetrachloroethene	mg/L	-
Trichloroethene	mg/L	-
1,1,1-TCE	mg/L	-
Gross Alpha	pCi/L	<3.0
Nonvol. Beta	pCi/L	27.9
Total Radium	pCi/L	6.7
Tritium	pCi/mL	7.40

Well: DCB 11, D-Area Coal Pile Runoff Containment Basin

SRP Grid N	65150.0	
Coordinates E	18529.8	Screen Zone Elevation
Latitude	33.200073°N	Top of Casing Elevation
Longitude	81.744481°W	Casing Material PVC

Parameter	Units	10/06/87
Sampling Method		Pump
Water Elevation	meters	33.1
pH	pH	6.5
Conductivity	umhos/cm	83
TDS	mg/L	62
Arsenic	mg/L	<0.002
Barium	mg/L	0.049
Beryllium	mg/L	-
Cadmium	mg/L	<0.002
Calcium	mg/L	3.81
Chloride	mg/L	10.7
Chromium	mg/L	<0.004
Copper	mg/L	-
Cyanide	mg/L	-
Fluoride	mg/L	0.21
Iron	mg/L	0.025
Lead	mg/L	<0.006
Magnesium	mg/L	0.656
Manganese	mg/L	0.023
Mercury	mg/L	<0.0002
Nickel	mg/L	-
Potassium	mg/L	1.32
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	15.4
Total Phosphate	mg/L	-
Zinc	mg/L	-
NO ₃ (as N)	mg/L	1.68
SO ₄	mg/L	<5.0
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	3.80
Tot. Org. Halogen	mg/L	0.093
Carbon Tet.	mg/L	-
Chloroform	mg/L	-
Tetrachloroethene	mg/L	-
Trichloroethene	mg/L	-
1,1,1-TCE	mg/L	-
Gross Alpha	pCi/L	<3.0
Nonvol. Beta	pCi/L	1.3
Total Radium	pCi/L	0.5
Tritium	pCi/mL	216

**TABLE 4-21
CHEMICAL CONCENTRATIONS IN D-AREA GROUNDWATER**

Other Analytes (mg/L)
(Pest/Herb* Analytes: Table 4-25, Vol. II)

DCB 6 10/06/87
Pest/Herb* Analysis detected the following:
None

DCB 7 10/06/87
Pest/Herb* Analysis detected the following:
None

DCB 8 10/06/87
Pest/Herb* Analysis detected the following:
None

DCB 9 10/06/87
Pest/Herb* Analysis detected the following:
None

DCB 10 10/06/87
Pest/Herb* Analysis detected the following:
None

DCB 11 10/06/87
Pest/Herb* Analysis detected the following:
None

DCB 12 10/06/87
Pest/Herb* Analysis detected the following:
None

Well: DOB 2, D-Area Oil Disposal Basin

SRP Grid	N 88568.0	Screen Zone Elevation	44.3-35.1 meters (MSL)
Coordinates	E 23340.8	Top of Casing Elevation	46.39
Latitude	33.215488°N	Casing Material	PVC
Longitude	81.738472°W		

Parameter	Units	03/12/87	05/03/87	07/25/87	10/03/87
Sampling Method	Pump				
Water Elevation	meters	43.8	44.1	43.2	42.4
pH		7.0	5.1	5.6	5.3
Conductivity	umhos/cm	63	82	100	49
TDS	mg/L	114	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.021	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	3.35	-	-	-
Chloride	mg/L	5.5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.380	-	0.797	-
Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	1.67	-	-	-
Manganese	mg/L	0.029	-	0.035	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.00	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.52	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	3.11	-	-	-
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.72	-	-	-
SO ₄	mg/L	8.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	4.30	-	6.90	-
Tot. Org. Halogen	mg/L	0.061	-	0.050	-
Carbon Tet.	mg/L	-	-	<0.001	-
Chloroform	mg/L	-	-	<0.001	-
Tetrachloroethene	mg/L	-	-	<0.001	-
Trichloroethene	mg/L	-	-	<0.001	-
1,1,1-TCE	mg/L	-	-	<0.001	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	7.86	-	-	-

Well: DOB 1, D-Area Oil Disposal Basin

SRP Grid	N 88438.1	Screen Zone Elevation	44.1-35.0 meters (MSL)
Coordinates	E 23567.8	Top of Casing Elevation	46.24
Latitude	33.215570°N	Casing Material	PVC
Longitude	81.737622°W		

Parameter	Units	03/12/87	05/03/87	07/25/87	10/03/87
Sampling Method	Pump				
Water Elevation	meters	44.3	44.2	43.3	42.5
pH		6.0	6.0	6.8	5.3
Conductivity	umhos/cm	100	93	178	130
TDS	mg/L	84	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.013	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	3.41	-	-	-
Chloride	mg/L	3.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.043	-	0.067	-
Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	8.88	-	-	-
Manganese	mg/L	0.015	-	0.009	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.44	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	1.70	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.10	-	-	-
Total Phosphate	mg/L	0.060	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.45	-	-	-
SO ₄	mg/L	17.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	3.90	-	12.1	-
Tot. Org. Halogen	mg/L	0.015	-	0.029	-
Carbon Tet.	mg/L	-	-	<0.001	-
Chloroform	mg/L	-	-	<0.001	-
Tetrachloroethene	mg/L	-	-	0.014	-
Trichloroethene	mg/L	-	-	0.004	-
1,1,1-TCE	mg/L	-	-	<0.001	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	8.23	-	-	-

Well: DOB 3, D-Area Oil Disposal Basin

SRP Grid	N 88693.5	Screen Zone Elevation	44.5-35.3 meters (MSL)
Coordinates	E 23633.3	Top of Casing Elevation	46.57
Latitude	33.216241°N	Casing Material	PVC
Longitude	81.737946°W		

Parameter	Units	03/12/87	05/03/87	07/25/87	10/03/87
Sampling Method	Pump				
Water Elevation	meters	44.3	44.3	43.3	42.4
pH		6.3	5.0	5.7	5.7
Conductivity	umhos/cm	37	32	41	41
TDS	mg/L	20	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.016	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	2.19	-	-	-
Chloride	mg/L	2.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.038	-	3.092	-
Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	0.661	-	-	-
Manganese	mg/L	0.005	-	0.006	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.89	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.01	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.89	-	-	-
Total Phosphate	mg/L	0.070	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.68	-	-	-
SO ₄	mg/L	4.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	<0.001	-
Chloroform	mg/L	-	-	<0.001	-
Tetrachloroethene	mg/L	-	-	<0.001	-
Trichloroethene	mg/L	-	-	<0.001	-
1,1,1-TCE	mg/L	-	-	<0.001	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	7.44	-	-	-

TABLE 4-21
CHEMICAL CONCENTRATIONS IN D-AREA GROUNDWATER

Well: DOB 4, D-Area Oil Disposal Basin

SRP Grid	N 68514.4				<u>meters (MSL)</u>
Coordinates	E 23815.6	Screen Zone Elevation			47.4+33.3
Latitude	33.216143°N	Top of Casing Elevation			46.63
Longitude	81.737119°W	Casing Material	PVC		

Parameter	Units	03/12/87	05/03/87	07/25/87	10/03/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	44.3	44.3	43.1	42.4
pH		5.0	5.1	5.5	5.2
Conductivity	umhos/cm	42	42	46	41
TDS	mg/L	26	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.024	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.89	-	-	-
Chloride	mg/L	4.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.024	-	0.038	-
Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	0.956	-	-	-
Manganese	mg/L	0.012	-	0.012	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.09	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.57	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.29	-	-	-
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.87	-	-	-
SO ₄	mg/L	5.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	<0.001	-
Chloroform	mg/L	-	-	<0.001	-
Tetrachloroethene	mg/L	-	-	<0.001	-
Trichloroethene	mg/L	-	-	<0.001	-
1,1,1-TCE	mg/L	-	-	<0.001	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	6.40	-	-	-

**TABLE 4-22
CHEMICAL CONCENTRATIONS IN SANITARY LANDFILL
GROUNDWATER**

LPW 7 08/06/87			LPW 17 10/31/87		
Bromide	<0.5		Bromide	<0.5	
Cyanide	0.012		Cyanide	<0.005	
Total Organic Nitrogen	5.44		Tin	<0.12	
BNA Analysis detected the following:			Thallium	<0.002	
Bis(2-ethylhexyl) Phthalate	0.093		Total Organic Nitrogen	0.560	
Diethyl Phthalate	0.015		BNA Analysis detected the following:		
1,4-Dichlorobenzene	0.077		Bis(2-ethylhexyl) Phthalate	0.013	
Pest/Herb Analysis detected the following:			1,4-Dichlorobenzene	0.023	
delta-Benzene Hexachloride	0.0002		Pest/Herb Analysis detected the following:		
GCMS Scan detected the following:			alpha-Endosulfan	0.0005	
Chloroethane	0.013		beta-Benzene Hexachloride	0.0007	
Ethylbenzene	0.028		GCMS Scan detected the following:		
Toluene	0.024		Chloroethane	0.017	
trans-1,2-Dichloroethene	0.417		Dibromochloromethane	0.019	
1,1-Dichloroethane	0.091		Toluene	0.019	
1,2-Dichloroethane	0.007		trans-1,2-Dichloroethene	0.161	
			1,1-Dichloroethane	0.041	
			1,2-Dichloroethane	0.018	
LPW 7 10/31/87			LPW 18 08/06/87		
Bromide	<0.5		Bromide	<0.5	
Cyanide	<0.005		Cyanide	<0.005	
Lindane	0.00008		Total Organic Nitrogen	7.84	
Tin	<0.12		BNA Analysis detected the following:		
Thallium	<0.002		Bis(2-ethylhexyl) Phthalate	0.150	
Total Organic Nitrogen	1.12		1,4-Dichlorobenzene	0.024	
BNA Analysis detected the following:			Pest/Herb Analysis detected the following:	None	
1,4-Dichlorobenzene	0.047		GCMS Scan detected the following:		
GCMS Scan detected the following:			Ethylbenzene	0.012	
Ethylbenzene	0.013		Toluene	0.017	
trans-1,2-Dichloroethene	0.520		trans-1,2-Dichloroethene	0.265	
1,1-Dichloroethane	0.060		1,1-Dichloroethane	0.031	
1,2-Dichloroethane	0.007				
			LPW 18 10/31/87		
LPW 8 08/06/87			Bromide	<0.5	
Bromide	<0.5		Cyanide	<0.005	
Cyanide	<0.005		Tin	<0.12	
Total Organic Nitrogen	8.68		Thallium	<0.002	
BNA Analysis detected the following:			Total Organic Nitrogen	1.68	
Bis(2-ethylhexyl) Phthalate	0.441		BNA Analysis detected the following:		
1,4-Dichlorobenzene	0.075		Bis(2-ethylhexyl) Phthalate	0.018	
Pest/Herb Analysis detected the following:	None		1,4-Dichlorobenzene	0.013	
GCMS Scan detected the following:			Pest/Herb Analysis detected the following:		
Chloroethane	0.011		alpha-Endosulfan	0.001	
Ethylbenzene	0.053		GCMS Scan detected the following:		
Toluene	0.041		Toluene	0.025	
trans-1,2-Dichloroethene	0.391		trans-1,2-Dichloroethene	0.174	
1,1-Dichloroethane	0.140		1,1-Dichloroethane	0.027	
1,2-Dichloroethane	0.007		1,2-Dichloroethane	0.005	
LPW 8 10/31/87			LPW 21 08/08/87		
Bromide	<0.5		GCMS Scan detected the following:		
Cyanide	<0.005		Trichlorofluoromethane	0.024	
Tin	<0.12		1,1-Dichloroethane	0.009	
Thallium	<0.002				
Total Organic Nitrogen	<0.3		LPW 21 09/16/87		
BNA Analysis detected the following:			Bromide	<0.5	
1,4-Dichlorobenzene	0.045		Cyanide	<0.005	
Pest/Herb Analysis detected the following:	None		Tin	<0.12	
GCMS Scan detected the following:			Thallium	<0.002	
Ethylbenzene	0.017		Total Organic Nitrogen	4.48	
Toluene	0.023		BNA Analysis detected the following:	None	
trans-1,2-Dichloroethene	0.231		Pest/Herb Analysis detected the following:	None	
1,1-Dichloroethane	0.041		GCMS Scan detected the following:		
			1,1-Dichloroethane	0.01	
LPW 16 08/05/87					
GCMS Scan detected the following:			LPW 21 10/31/87		
Trichlorofluoromethane	0.031		Bromide	<0.5	
			Cyanide	<0.005	
LPW 17 08/06/87			Tin	<0.12	
Bromide	<0.5		Thallium	<0.002	
Cyanide	<0.005		Total Organic Nitrogen	<0.3	
Total Organic Nitrogen	10.4		BNA Analysis detected the following:		
BNA Analysis detected the following:			Bis(2-ethylhexyl) Phthalate	0.245	
Diethyl Phthalate	0.011		Pest/Herb Analysis detected the following:	None	
1,4-Dichlorobenzene	0.036		GCMS Scan detected the following:		
Pest/Herb Analysis detected the following:	None		None		
GCMS Scan detected the following:					
Chloroethane	0.016		LPW 26 02/18/87		
Ethylbenzene	0.020		Pest/Herb* Analysis detected the following:	None	
Toluene	0.033				
trans-1,2-Dichloroethene	0.231		LPW 27 02/18/87		
1,1-Dichloroethane	0.052		Pest/Herb* Analysis detected the following:	None	
1,2-Dichloroethane	0.019				
			LPW 28 02/18/87		
			Pest/Herb* Analysis detected the following:	None	

TABLE 4-22
CHEMICAL CONCENTRATIONS IN SANITARY LANDFILL
GROUNDWATER

LPW 29	08/08/87	GCMS Scan detected the following:	None	LPW 37	02/21/87	Pest/Herb* Analysis detected the following:	
LPW 29	02/18/87	Pest/Herb* Analysis detected the following:	None			Lindane	0.00007
LPW 30	02/18/87	Pest/Herb* Analysis detected the following:	None			Silvex	0.00038
LPW 30	08/06/87	Bromide	<0.5	LPW 37	08/11/87	GCMS Scan detected the following:	
		Cyanide	<0.005			Trichlorofluoromethane	0.016
		Total Organic Nitrogen	11.8			trans-1,2-Dichloroethene	0.057
		BNA Analysis detected the following:				1,1-Dichloroethane	0.045
		Bis(2-ethylhexyl) Phthalate	0.202	LPW 37	09/16/87	Bromide	<0.5
		Di-n-octyl Phthalate	0.024			Cyanide	<0.005
		Pest/Herb Analysis detected the following:	None			Tin	<0.11
		GCMS Scan detected the following:	None			Thallium	<0.002
LPW 30	10/31/87	Bromide	<0.5			Total Organic Nitrogen	2.24
		Cyanide	<0.005			BNA Analysis detected the following:	
		Tin	<0.11			Bis(2-ethylhexyl) Phthalate	0.218
		Thallium	<0.002			Pest/Herb Analysis detected the following:	None
		Total Organic Nitrogen	<0.3			GCMS Scan detected the following:	
		BNA Analysis detected the following:	None			trans-1,2-Dichloroethene	0.090
		Pest/Herb Analysis detected the following:	None			1,1-Dichloroethylene	0.008
		GCMS Scan detected the following:	None			1,1-Dichloroethane	0.080
LPW 31	02/18/87	Pest/Herb* Analysis detected the following:	None			1,2-Dichloroethane	0.022
LPW 32	01/18/87	Pest/Herb* Analysis detected the following:	None	LPW 37	11/01/87	Bromide	<0.5
LPW 32	08/09/87	GCMS Scan detected the following:	None			Cyanide	<0.005
LPW 33	01/19/87	Pest/Herb* Analysis detected the following:	None			Tin	<0.11
LPW 34	02/19/87	Pest/Herb* Analysis detected the following:	None			Thallium	<0.002
LPW 35	02/19/87	Pest/Herb* Analysis detected the following:	None			Total Organic Nitrogen	<0.3
LPW 36	08/11/87	GCMS Scan detected the following:				BNA Analysis detected the following:	None
		trans-1,2-Dichloroethene	0.124			Pest/Herb Analysis detected the following:	None
		1,1-Dichloroethane	0.058			GCMS Scan detected the following:	
		1,2-Dichloroethane	0.008			Trichlorofluoromethane	0.015
LPW 36	02/18/87	Pest/Herb* Analysis detected the following:	None			trans-1,2-Dichloroethene	0.050
LPW 38	09/17/87	Bromide	<0.5			1,1-Dichloroethane	0.042
		Cyanide	<0.005			1,2-Dichloroethane	0.010
		Tin	<0.11	LPW 38	02/21/87	Pest/Herb* Analysis detected the following:	None
		Thallium	<0.002	LPW 38	08/11/87	GCMS Scan detected the following:	
		Total Organic Nitrogen	5.04			Trichlorofluoromethane	0.018
		BNA Analysis detected the following:				trans-1,2-Dichloroethene	0.016
		Bis(2-ethylhexyl) Phthalate	0.193			1,1-Dichloroethane	0.024
		Pest/Herb Analysis detected the following:	None	LPW 38	09/16/87	Bromide	<0.5
		GCMS Scan detected the following:				Cyanide	<0.005
		trans-1,2-Dichloroethene	0.020			Tin	<0.11
		1,1-Dichloroethane	0.015			Thallium	<0.002
LPW 38	11/01/87	Bromide	<0.5			Total Organic Nitrogen	5.04
		Cyanide	<0.005			BNA Analysis detected the following:	
		Tin	<0.11			Bis(2-ethylhexyl) Phthalate	0.496
		Thallium	<0.002			Di-n-octyl Phthalate	0.017
		Total Organic Nitrogen	<0.3			Pest/Herb Analysis detected the following:	None
		BNA Analysis detected the following:				GCMS Scan detected the following:	
		Bis(2-ethylhexyl) Phthalate	0.496			Trichlorofluoromethane	0.008
		Di-n-octyl Phthalate	0.017			trans-1,2-Dichloroethene	0.012
		Pest/Herb Analysis detected the following:	None			1,1-Dichloroethane	0.013
		GCMS Scan detected the following:		LPW 39	02/21/87	Pest/Herb* Analysis detected the following:	None
		Trichlorofluoromethane	0.008	LPW 39	08/11/87	GCMS Scan detected the following:	None
		trans-1,2-Dichloroethene	0.012				
		1,1-Dichloroethane	0.013				
LPW 39	10/31/87	Bromide	<0.5				
		Cyanide	<0.005				
		Tin	<0.11				
		Thallium	<0.002				
		Total Organic Nitrogen	0.560				
		BNA Analysis detected the following:					
		1,4-Dichlorobenzene	0.034				
		Pest/Herb Analysis detected the following:					
		beta-Benzene Hexachloride	0.0003				
		Heptachlor	0.0001				
		GCMS Scan detected the following:					
		trans-1,2-Dichloroethene	0.144				
		1,1-Dichloroethane	0.064				
		1,2-Dichloroethane	0.007				

TABLE 4-22
CHEMICAL CONCENTRATIONS IN SANITARY LANDFILL
GROUNDWATER

LPW 39	09/16/87			LPW 42	09/16/87		
Bromide		<0.5		Bromide		<0.5	
Cyanide		<0.005		Cyanide		<0.005	
Tin		<0.110		Tin		<0.11	
Thallium		<0.002		Thallium		<0.002	
Total Organic Nitrogen		5.88		Total Organic Nitrogen		5.60	
BNA Analysis detected the following:				BNA Analysis detected the following:			
Bis(2-ethylhexyl) Phthalate		1.05		Bis(2-ethylhexyl) Phthalate		0.164	
Di-n-octyl Phthalate		0.056		Pest/Herb Analysis detected the following:		None	
Pest/Herb Analysis detected the following:		None		GCMS Scan detected the following:		None	
GCMS Scan detected the following:		None					
LPW 39	11/01/87			LPW 42	11/01/87		
Bromide		<0.5		Bromide		<0.5	
Cyanide		<0.005		Cyanide		<0.005	
Tin		<0.12		Tin		<0.12	
Thallium		<0.002		Thallium		<0.002	
Total Organic Nitrogen		<0.3		Total Organic Nitrogen		<0.3	
BNA Analysis detected the following:		None		BNA Analysis detected the following:		None	
Pest/Herb Analysis detected the following:		None		GCMS Scan detected the following:		None	
GCMS Scan detected the following:		None					
LPW 40	02/21/87						
Pest/Herb* Analysis detected the following:		None					
LPW 40	08/11/87						
GCMS Scan detected the following:		None					
LPW 40	09/16/87						
Bromide		<0.5					
Cyanide		<0.005					
Tin		<0.11					
Thallium		<0.002					
Total Organic Nitrogen		2.24					
BNA Analysis detected the following:		None					
Pest/Herb Analysis detected the following:		None					
GCMS Scan detected the following:		None					
LPW 40	11/01/87						
Bromide		<0.5					
Cyanide		<0.005					
Tin		<0.12					
Thallium		<0.002					
Total Organic Nitrogen		<0.3					
BNA Analysis detected the following:		None					
Pest/Herb Analysis detected the following:		None					
GCMS Scan detected the following:		None					
LPW 41	02/21/87						
Pest/Herb* Analysis detected the following:		None					
LPW 41	09/16/87						
Bromide		<0.5					
Cyanide		<0.005					
Tin		<0.11					
Thallium		<0.002					
Total Organic Nitrogen		2.24					
BNA Analysis detected the following:		None					
Pest/Herb Analysis detected the following:		None					
GCMS Scan detected the following:		None					
LPW 41	11/01/87						
Bromide		<0.5					
Cyanide		<0.005					
Tin		<0.12					
Thallium		<0.002					
Total Organic Nitrogen		<0.3					
BNA Analysis detected the following:		None					
Pest/Herb Analysis detected the following:		None					
GCMS Scan detected the following:		None					
LPW 42	02/21/87						
Pest/Herb* Analysis detected the following:		None					

TABLE 4-23 CHEMICAL CONCENTRATIONS IN TNX GROUNDWATER

Well: Y58 3A, New TNX Seepage Basin

SRP Grid	N 70859.1		meters (MSL)
Coordinates E	17755.7	Screen Zone Elevation	38.6-29.5
Latitude	33.211428°N	Top of Casing Elevation	43.85
Longitude	81.757809°W	Casing Material	PVC

Parameter	Units	03/14/87	05/04/87	07/30/87	10/09/87
Sampling Method	Pump				
Water Elevation	meters	37.7	37.4	36.5	36.2
pH	pH	8.1	8.3	7.1	6.2
Conductivity	umhos/cm	180	230	320	280
TDS	mg/L	100	-	-	-
Arsenic	mg/L	<0.001	-	-	-
Barium	mg/L	0.008	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	3.34	-	-	-
Chloride	mg/L	4.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.098	-	0.110	-
Lead	mg/L	<0.004	-	-	-
Magnesium	mg/L	0.803	-	-	-
Manganese	mg/L	<0.002	-	-	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	0.004	-	0.007	-
Potassium	mg/L	1.01	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.28	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	27.4	-	45.7	-
Total Phosphate	mg/L	0.140	0.430	0.810	-
Zinc	mg/L	0.018	-	-	-
NO ₃ (as N)	mg/L	4.26	-	8.81	-
SO ₄	mg/L	11.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.20	-	1.30	-
Tot. Org. Halogen	mg/L	<0.005	-	0.009	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	<3.0	-
Nonvol. Beta	pCi/L	8.6	-	<2.0	-
Total Radium	pCi/L	<1.0	-	<1.0	-
Tritium	pCi/mL	8.28	-	-	-

Well: Y58 4A, New TNX Seepage Basin

SRP Grid	N 71020.9		meters (MSL)
Coordinates E	17740.1	Screen Zone Elevation	38.9-29.7
Latitude	33.211780°N	Top of Casing Elevation	44.07
Longitude	81.757965°W	Casing Material	PVC

Parameter	Units	03/14/87	05/04/87	07/30/87	10/09/87
Sampling Method	Pump				
Water Elevation	meters	36.9	37.1	36.4	36.1
pH	pH	5.1	5.0	5.9	5.6
Conductivity	umhos/cm	150	180	160	85
TDS	mg/L	108	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.028	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.002	-	-	-
Calcium	mg/L	4.28	-	-	-
Chloride	mg/L	4.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.040	-	0.058	-
Lead	mg/L	<0.004	-	-	-
Magnesium	mg/L	1.33	-	-	-
Manganese	mg/L	0.016	-	-	-
Mercury	mg/L	<0.0002	-	0.0002	-
Nickel	mg/L	0.005	-	0.006	-
Potassium	mg/L	1.72	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	4.24	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	18.1	-	22.0	-
Total Phosphate	mg/L	0.140	0.310	0.020	-
Zinc	mg/L	0.028	-	-	-
NO ₃ (as N)	mg/L	11.7	-	8.72	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.40	-	1.80	-
Tot. Org. Halogen	mg/L	<0.005	-	0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	8.3	-	2.9	-
Nonvol. Beta	pCi/L	8.7	-	<2.0	-
Total Radium	pCi/L	1.9	-	1.4	-
Tritium	pCi/mL	4.77	-	-	-

TABLE 4-24
CHEMICAL CONCENTRATIONS IN OTHER SITES GROUNDWATER

Well: **OBW 1, Background Well Near Hawthorne Fire Tower**

SAP Grid N 87385.2 meters (MSL)
 Coordinates E 87782.0
 Latitude 33.362224°N
 Longitude 81.605399°W
 Screen Zone Elevation 85.2-76.1
 Top of Casing Elevation 101.68
 Casing Material PVC

Parameter	Units	03/24/87	05/12/87	07/29/87	10/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	79.3	80.2	80.6	80.8
pH	pH	4.7	5.0	5.3	5.5
Conductivity	umhos/cm	5	20	15	16
TDS	mg/L	12	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.968	-	-	-
Chloride	mg/L	2.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.027	-	-	-
Lead	mg/L	0.013	-	<0.006	-
Magnesium	mg/L	0.183	-	-	-
Manganese	mg/L	0.014	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.170	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.18	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.12	-	-	-
Total Phosphate	mg/L	0.300	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	<0.05	-	-	-
SO ₄	mg/L	<5.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.00	-	<1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Noncol. Beta	pCi/L	8.8	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	2.87	-	-	-

**TABLE 4-25
DETECTION LIMITS FOR OTHER CONSTITUENTS**

<u>Constituent</u>	<u>Detection Limit (mg/L)</u>	<u>Constituent</u>	<u>Detection Limit (mg/L)</u>
GCMS Scan		Pesticides/Herbicides (Pest/Herb*) Short List	
1,1,1,2-Tetrachloroethane	0.01	2,4-D	0.0003
1,1,2-Trichloroethane	0.005	Endrin	0.00007
1,1-Dichloroethane	0.005	Lindane	0.00001
1,1-Dichloroethylene	0.005	Methoxychlor	0.005
1,2-Dichloroethane	0.001	Silvex (2,4,5-T)	0.00009
1,2-Dichloropropane	0.01	Toxaphene	0.00176
2-Chloroethylvinyl Ether	0.01		
Benzene	0.005		
Bromodichloromethane	0.005		
Bromoform	0.01		
Bromomethane	0.01		
Chlorobenzene	0.005		
Chloroethane	0.01		
Chloroethene	0.01		
Chloromethane	0.01		
Dibromochloromethane	0.005		
Ethylbenzene	0.005		
Toluene	0.005		
Trichlorofluoromethane	0.005		
cis-1,3-Dichloropropene	0.005		
trans-1,2-Dichloroethene	0.005		
trans-1,3-Dichloropropene	0.005		
Base/Neutral/Acid (BNA)		Pesticides/Herbicides (Pest/Herb)	
1,2,3-Trichlorobenzene	0.01	Endrin	0.00007
1,2-Dichlorobenzene	0.01	Lindane	0.00001
1,2-Diphenylhydrazine	0.02	Toxaphene	0.00176
1,3-Dichlorobenzene	0.01	2,2-Bis(4-chlorophenyl)-1,1,1-trichloroethane	0.00012
1,4-Dichlorobenzene	0.01	2,2-Bis(4-chlorophenyl)-1,1-dichloroethane	0.00008
1,4,6-Trichlorophenol	0.01	2,2-Bis(4-chlorophenyl)-1,1-dichloroethene	0.00004
2,4-Dichlorophenol	0.01	Aldrin	0.00002
2,4-Dimethylphenol	0.01	Chlordane	0.0026
2,4-Dinitrophenol	0.05	Dieldrin	0.00004
2,4-Dinitrophenone	0.02	Endosulfan Sulfate	0.00011
2,6-Dinitrophenol	0.02	Endrin Aldryde	0.00013
2-Chloronaphthalene	0.01	Heptachlor	0.00002
2-Chlorophenol	0.01	Heptachlor Epoxide	0.00003
2-Methyl-4,6-dinitrophenol	0.02	PCB-1016	0.00098
2-Nitrophenol	0.02	PCB-1221	0.00061
3,3'-Dichlorobenzidine	0.02	PCB-1232	0.00081
3,4-Benzofluoranthene	0.02	PCB-1242	0.00092
3-Methyl-4-chlorophenol	0.01	PCB-1248	0.00045
4-Bromophenyl Phenyl Ether	0.01	PCB-1254	0.00068
4-Chlorophenyl Phenyl Ether	0.01	PCB-1260	0.00104
4-Nitrophenol	0.05	alpha-Benzene Hexachloride	0.00001
Acenaphthene	0.01	alpha-Endosulfan	0.00004
Acenaphthylene	0.01	beta-Benzene Hexachloride	0.00001
Anthracene	0.01	beta-Endosulfan	0.00006
Benzo(a)anthracene	0.04	delta-Benzene Hexachloride	0.00002
Benzo(a)pyrene	0.02		
Benzo(b)fluoranthene	0.02	Appendix IX	
Bis(2-chloroethoxy)methane	0.02	alpha-Benzene Hexachloride	0.00001
Bis(2-chloroethyl)ether	0.01	Acetone	0.1
Bis(2-chloroisopropyl)ether	0.02	Acetophenone	0.1
Bis(2-ethylhexyl) Phthalate	0.01	Acrolein	0.01
Butylbenzyl Phthalate	0.01	Acrylonitrile	0.008
Chrysene	0.02	alpha-Endosulfan	0.00004
Di-n-butyl Phthalate	0.01	Aldrin	0.00002
Di-n-octyl Phthalate	0.01	Acenaphthene	0.01
Dibenz(a,h)anthracene	0.02	Acenaphthylene	0.01
Diethyl Phthalate	0.01	Aniline	0.01
Dimethyl Phthalate	0.01	Anthracene	0.01
Fluoranthene	0.01	Allyl Chloride	0.1
Fluorene	0.01	Azinphos Methyl	0.0077
Hexachlorobenzene	0.01	Benzo(a)anthracene	0.01
Hexachlorobutadiene	0.01	Benzo(a)pyrene	0.01
Hexachlorocyclopentadiene	0.01	beta-Benzene Hexachloride	0.00001
Hexachloroethane	0.01	Butylbenzyl Phthalate	0.01
Indeno(1,2,3-c,d)pyrene	0.02	beta-Endosulfan	0.00006
Isophorone	0.01	Benzoic Acid	0.01
N-Nitrosodi-n-propylamine	0.01	Benzo(g,h,i)perylene	0.01
N-Nitrosodimethylamine	0.01	Benzo(k)fluoranthene	0.01
N-Nitrosodiphenylamine	0.01	Bromodichloromethane	0.005
Naphthalene	0.01	Benzyl Alcohol	0.02
Nitrobenzene	0.01	Bis(2-chloroethyl) Ether	0.01
Pentachlorophenol	0.01	Bis(2-chloroethoxy) Methane	0.01
Phenanthrene	0.01	Bis(2-chloroisopropyl) Ether	0.01
Pyrene	0.01	Bis(2-ethylhexyl) phthalate	0.01
		Trichlorofluoromethane	0.005
		Bromoform	0.005
		Chrysene	0.01
		Bromomethane	0.01
		Chloromethane	0.01
		Acetonitrile (Methyl Cyanide)	0.017
		Chlorobenzilate	0.01
		Chlorobenzene	0.004
		Chlordane	0.0026
		Chlorpyrifos	0.0063
		Pentachlorobenzers	0.01
		Pentachloroethane	0.01

* An asterisk following the Pest/Herb callout indicates that only the analyses in this table were conducted.

TABLE 4-25
DETECTION LIMITS FOR OTHER CONSTITUENTS, CONT'D.

Constituent	Detection Limit (mg/L)	Constituent	Detection Limit (mg/L)
Appendix IX cont.		Appendix IX cont.	
Pentachloronitrobenzene	0.01	Antimony	0.003
Hexachlorobenzene	0.01	Selenium	0.002
Hexachlorocyclopentadiene	0.01	Silver	0.0025
Hexachloroethane	0.01	Tin	0.12
Cobalt	0.002	Stirphox	0.025
Carbon Disulfide	0.005	Styrene	0.005
Cyanide	0.005	Sulfide	1
Chloroethene	0.01	Sulproton	0.0071
Chloroethane	0.01	1,2,4,5-Tetrachlorobenzene	0.01
Benzene	0.005	1,1,2,2-Tetrachloroethane	0.005
Benzenethiol	0.01	1,1,1,2-Tetrachloroethane	0.005
Dibenz(a,h)anthracene	0.01	Thallium	0.002
delta-Benzene Hexachloride	0.00001	Toxaphene	0.00176
Dibromochloromethane	0.005	trans-1,2-Dichloroethene	0.005
Diethyl Phthalate	0.01	trans-1,4-Dichloro-2-butene	0.005
Diazinon	0.0053	Vanadium	0.002
Dibenzofuran	0.01	Vinyl Acetate	0.005
Dichlorvos	0.011	1-Naphthylamine	0.01
Dioxin	0.000005	1-Nitrosopiperidine	0.01
Disulfoton	0.0055	1,1-Dichloroethylene	0.005
Dieldrin	0.00004	1,1-Dichloroethane	0.005
Dimethyl Phthalate	0.01	1,1,2-Trichloroethane	0.005
Di-n-butyl Phthalate	0.01	1,2-Dibromoethane	0.005
Di-n-octyl Phthalate	0.01	2,2-Dibromomethane	0.005
Diphenylamine	0.01	1,2-Dichlorobenzene	0.01
Endrin Aldehyde	0.00013	1,2-Dichloroethane	0.005
Endrin	0.00007	1,2-Dichloropropane	0.005
Endosulfan Sulfate	0.00011	1,2-Diphenylhydrazine	0.01
Ethylbenzene	0.005	1,2,3-Trichloropropane	0.005
Ethoprop	0.005	1,2,4-Trichlorobenzene	0.01
Ethyl Methacrylate	0.01	1,3-Dichlorobenzene	0.01
Fluoranthene	0.01	cis-1,3-Dichloropropene	0.005
Fenchon	0.0065	trans-1,3-Dichloropropene	0.005
Fluorene	0.01	1,3-Dinitrobenzene	0.01
Furans	0.000005	1,4-Dichlorobenzene	0.01
Hexachlorobutadiene	0.01	1,4-Dinitrobenzene	0.01
Heptachlor	0.00002	1,4-Naphthoquinone	0.01
Heptachlor Epoxide	0.00003	2-Acetylaminofluorene	0.01
Ideno(1,2,3-c,d)pyrene	0.01	2-Chloroethylvinyl Ether	0.005
Iodomethane	0.005	2-Chlorophenol	0.01
Isosafrole	0.01	2-Chloronaphthalene	0.01
Isophorone	0.01	2-Dinitrophenol	0.01
Lindane	0.00001	2-Hexanone	0.05
Malononitrile	0.01	2-Methylnaphthalene	0.01
Methacrylonitrile	0.005	2-Methyl Phenol	0.01
Toluene	0.005	2-Nitroaniline	0.05
Methylethyl ketone	0.1	2-Picoline	0.01
Methyl Methacrylate	0.005	2,3,4,6-Tetrachlorophenol	0.01
Methyl Methanesulfonate	0.01	2,4-D	0.00689
Merp'os	0.01	2,4-Dichlorophenol	0.01
Malathion	0.0004	2,4-Dimethylphenol	0.01
m-Xylene	0.005	2,4-Dinitrophenol	0.05
Naphthalene	0.01	2,4-Dinitrotoluene	0.01
Nitrobenzene	0.01	2,4,5-Trichlorophenol	0.01
N-Nitrosodimethylamine	0.01	2,4,6-Trichlorophenol	0.01
N-Nitrosodi-n-butylamine	0.01	2,6-Dichlorophenol	0.01
N-Nitrosodipropylamine	0.01	2,6-Dinitrotoluene	0.01
N-Nitrosodiethylamine	0.01	3-Methylcholanthrene	0.01
N-Nitrosoethylmethylamine	0.01	3-Nitroaniline	0.05
N-Nitrosomorpholine	0.01	3,3-Dichlorobenzidene	0.02
N-(1-trosodiphenylamine	0.01	3,3-Dimethoxybenzidine	0.01
o-Phenylenediamine	0.01	3,4-Benzofluoranthene	0.01
o-Toluidine	0.01	4-Aminobiphenyl	0.01
o-Xylene	0.005	4-Bromophenyl Phenyl Ether	0.01
PCB 1016	0.00098	4-Chloroaniline	0.02
PCB 1221	0.00061	4-Chlorophenyl Phenyl Ether	0.01
PCB 1232	0.00081	3-Methyl-4-chlorophenol	0.02
PCB 1242	0.00092	4-Dimethylaminoazobenzene	0.01
PCB 1248	0.00045	4-Methyl-2-pentanone	0.05
PCB 1254	0.00048	4-Methyl Phenol	0.01
PCB 1260	0.00104	4-Nitroaniline	0.05
Pentachlorophenol	0.05	4-Nitrophenol	0.05
Phenanthrene	0.01	2-Methyl-4,6-dinitrophenol	0.05
Phorate	0.0058	3,12-Dimethylbenz(a)anthracene	0.01
2,2-Bis(4-chlorophenyl)-1,1-dichloroethane	0.00008		
2,2-Bis(4-chlorophenyl)-1,1-dichloroethane	0.00004		
2,2-Bis(4-chlorophenyl)-1,1,1-trichloroethane	0.00012		
Propionitrile	0.005		
Parathion Ethyl	0.0077		
Parathion Methyl	0.0063		
Pyrene	0.01		
Pyridine	0.01		
Resorcinol	0.01		
Ronnel	0.0067		
Safrole	0.01		

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER

MAXIMUM RADIOACTIVE CONSTITUENT ACTIVITIES IN THE SEPARATIONS AREAS WELLS

Radioactive Constituent	DWS (pCi/L)	Burial Grounds			
		(BC)	(MGA)	(MGC)	(MGE)
Gross Alpha	15	7	9.7	7	4
Nonvol. Beta	NA	748	82	3,700	1,430
Tritium	20 pCi/mL	902,000	482,000	20,900,000	9,930,000

Radioactive Constituent	DWS (pCi/L)	Burial Grounds	
		(MGG)	(MGI)
Gross Alpha	15	618	6
Nonvol. Beta	NA	12,600	175
Tritium	20 pCi/mL	118,000,000	302,000

F Area

Radioactive Constituent	DWS (pCi/L)	F Area				
		Seepage Basins (F)	Acid/ Caustic Basin (FAC)	A Line (FAL)	Burning/ Rubble Pits (FBP)	Canyon Building (FCA)
Gross Alpha	15	192	36.5	3.6	8.1	1,530
Nonvol. Beta	NA	2,420	38.4	12.5	98.2	2,230
Radium	5	-	23.1	1.5	6.3	120
Strontium 90	8	231	-	-	-	13.7
Tritium	20 pCi/mL	67,200	1.22	1.90	11.1	482

F Area

Radioactive Constituent	DWS (pCi/L)	F Area				
		Coal Pile Runoff Basin (FCB)	Old Seepage Basin (FNB)	Seepage Basins (FSB)	Tank Farm (FTF)	Naval Fuels (NBC)
Gross Alpha	15	6.3	61.4	1,850	59.4	9.7
Nonvol. Beta	NA	8.0	701	9,960	34,600	26.5
Radium	5	6.7	9.5	155	-	1.3
Strontium 90	8	-	-	-	-	-
Tritium	20 pCi/mL	11.2	657	67,200	282	897

Note: With the exception of nonvolatile beta, activities are given for only those analytes with federal primary drinking water standards (DWS). Activities in bold are above the drinking water standard.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM RADIOACTIVE CONSTITUENT ACTIVITIES IN THE SEPARATIONS AREAS WELLS

Radioactive Constituent	DWS (pCi/L)	H Area			
		Seepage Basins (H)	Canyon Building (HCA)	Coal Pile Runoff Basin (HCB)	Old Retention Basin (HR3)
Gross Alpha	15	46.6	5.2	27.7	2.5
Nonvol. Beta	NA	14,200	16.7	34.9	6.8
Radium	5	-	4.9	5.0	1.6
Strontium 90	8	6.4	-	-	-
Tritium	20 pCi/mL	37,600	204	42.8	54.0

Radioactive Constituent	DWS (pCi/L)	H Area			
		Retention Basin (HR8)	Seepage Basins (HSB)	Tank Farm (HTF)	Tank Farm (241 H)
Gross Alpha	15	44.6	711	7.37	0.48
Nonvol. Beta	NA	21.4	9,150	73.2	11.7
Radium	5	13.3	48.6	-	-
Strontium 90	8	-	-	-	-
Tritium	20 pCi/mL	70.3	89,600	173	635

Radioactive Constituent	DWS (pCi/L)	S and Z Areas			
		S Area (SBC)	Z Area (ZBG)	Z Wells (Z)	ZW Wells (ZW)
Gross Alpha	15	3.2	2.0	-	1.36
Nonvol. Beta	NA	10.4	3.4	-	12.8
Radium	5	1.3	1.1	-	-
Strontium 90	8	-	-	-	-
Tritium	20 pCi/mL	23.2	16.5	282	95.0

Note: With the exception of nonvolatile beta, activities are given for only those analytes with federal primary drinking water standards (DWS). Activities in bold are above the drinking water standard.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM RADIOACTIVE CONSTITUENT ACTIVITIES IN THE REACTOR AREAS WELLS

		C Area				
		Coal				
Radioactive Constituent	DWS (pCi/L)	Pile	Dis-	Burning/	Reactor	
		Runoff	assembly	Rubble	Seepage	
		Basin	Basin	Pit	Basins	
		(CCB)	(CDB)	(CRP)	(CSB)	
Gross Alpha	15	1.4	5.4	<3.0	1.8	
Nonvol. Beta	NA	2.8	18.7	11.0	5.4	
Radium	5	0.8	2.7	0.9	4.3	
Tritium	20 pCi/mL	10.5	368	167	120,000	

		K Area				
		Coal				
Radioactive Constituent	DWS (pCi/L)	Ash	Acid/	Pile	Dis-	Reten-
		Basin	Caustic	Runoff	assembly	tion
		(KAB)	Basin	Basin	Basin	Basin
			(KAC)	(KCB)	(KDB)	(KRB)
Gross Alpha	15	36.4	42.2	32.8	18.3	6.6
Nonvol. Beta	NA	35.8	3.1	27.0	27.6	96.5
Radium	5	13.6	5.7	14.5	5.0	2.6
Tritium	20 pCi/mL	10.4	12.5	34.5	4,380	238,000

		K Area	
Radioactive Constituent	DWS (pCi/L)	Burning/	Reactor
		Rubble	Seepage
		Pit	Basin
		(KRP)	(KSB)
Gross Alpha	15	<3.0	1.45
Nonvol. Beta	NA	4.0	2.8
Radium	5	0.8	0.7
Tritium	20 pCi/mL	14.1	1,120

Note: With the exception of nonvolatile beta, activities are given for only those analytes with federal primary drinking water standards (DWS). Activities in bold are above the drinking water standard.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM RADIOACTIVE CONSTITUENT ACTIVITIES IN THE REACTOR AREAS WELLS

Radioactive Constituent	DWS (pCi/L)	L Area				
		Acid/ Caustic Basin (LAC)	Oil and Chemical Basin (LCO)	Dis- assembly Basin (LDB)	Burning/ Rubble Pit (LRP)	Reactor Seepage Basin (LSB)
Gross Alpha	15	2.2	<3.0	<3.0	1.6	<3.0
Nonvol. Beta	NA	5.0	79.8	3.0	4.0	2.7
Radium	5	0.9	4.4	1.2	1.1	<1.0
Tritium	20 pCi/mL	17.0	1,220	5.10	3.79	1,290
Radioactive Constituent	DWS (pCi/L)	P Area				
		Acid/ Caustic Basin (PAC)	Coal Pile Runoff Basin (PCB)	Dis- assembly Basin (PDB)	Burning/ Rubble Pit (PRP)	Reactor Seepage Basins (PSB)
Gross Alpha	15	<3.0	<3.0	4.2	5.2	1.54
Nonvol. Beta	NA	3.0	8.1	1.8	7.6	13.7
Radium	5	<1.0	2.5	0.9	1.8	1.3
Tritium	20 pCi/mL	12.9	17.4	342	82.9	272,000
Radioactive Constituent	DWS (pCi/L)	R Area				
		Acid/ Caustic Basin (RAC)	Burning/ Rubble Pits (RRP)	Reactor Seepage Basins (RSA)	Reactor Seepage Basins (RSB)	Reactor Seepage Basins (RSC)
Gross Alpha	15	6.1	<3.0	0.83	0.93	0.77
Nonvol. Beta	NA	3.0	3.4	1.32	3.82	5.55
Radium	5	1.0	<1.0	-	-	-
Tritium	20 pCi/mL	4.60	3.57	-	-	-
Radioactive Constituent	DWS (pCi/L)	R Area				
		Reactor Seepage Basins (RSD)	Reactor Seepage Basins (RSE)	Reactor Seepage Basins (RSF)		
Gross Alpha	15	10.5	30.1	8.3		
Nonvol. Beta	NA	4,460	14,000	11.5		
Radium	5	-	0.800	1.6		
Tritium	20 pCi/mL	6.78	4.93	20.4		

Note: With the exception of nonvolatile beta, activities are given for only those analytes with federal primary drinking water standards (DWS). Activities in bold are above the drinking water standard.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM RADIOACTIVE CONSTITUENT ACTIVITIES IN THE GENERAL AREA WELLS

Radioactive Constituent	DWS (pCi/L)	A/M Areas				
		Metals Burning Pit (ABP)	Back- Ground Well (ABW)	Coal Pile Runoff Basin (ACB)	Met. Lab. Seepage Basin (AMB)	Motor Shop Oil Basin (AOB)
Gross Alpha	15	1.9	<3.0	6.2	1.8	<3.0
Nonvol. Beta	NA	3.0	2.8	4.6	3.2	<2.0
Radium	5	4.6	<1.0	7.9	1.1	<1.0
Tritium	20 pCi/mL	2.30	1.40	2.60	0.62	1.92

Radioactive Constituent	DWS (pCi/L)	A/M Areas				
		Burning/ Rubble Pits (ARP)	SRL Seepage Basins (ASB)	Misc. Chemical Basin (MCB)	M-Area Settling Basin (MSB)	Silver- ton Road (SRW)
Gross Alpha	15	1.2	5.7	3.1	259	4.4
Nonvol. Beta	NA	<2.0	6.2	4.9	166	7.2
Radium	5	3.0	5.3	1.3	121	2.5
Tritium	20 pCi/mL	4.61	25.1	2.40	8.8	2.27

Radioactive Constituent	DWS (pCi/L)	Central Shops		
		Hydro- fluoric Spill Area (CSA)	Fire Dept. Training Facility (CSO)	Burning/ Rubble Pits (CSR)
Gross Alpha	15	<3.0	<3.0	1.2
Nonvol. Beta	NA	2.6	<2.0	<2.0
Radium	5	<1.0	<1.0	0.9
Tritium	20 pCi/mL	8.85	11.1	11.4

Note: With the exception of nonvolatile beta, activities are given for only those analytes with federal primary drinking water standards (DWS). Activities in bold are above the drinking water standard.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM RADIOACTIVE CONSTITUENT ACTIVITIES IN THE GENERAL AREA WELLS

		D and TNX Areas				
Radioactive Constituent	DWS (pCi/L)	Burning/ Rubble Pits (DBP)	Coal Pile Runoff Basin (DCB)	Oil Disposal Basin (DOB)	Old TNX Seepage Basin (XSB)	New TNX Seepage Basin (YSB)
		Gross Alpha	15	<3.0	92.1	<3.0
Nonvol. Beta	NA	2.6	85.2	<2.0	153	8.7
Radium	5	1.0	21.3	<1.0	95.0	1.9
Tritium	20 pCi/mL	6.25	10.4	8.23	16.8	6.28

		Miscellaneous Sites			
Radioactive Constituent	DWS (pCi/L)	Road A Chemical Basin (BRD)	CMP Burial Pits (CMP)	Back- Ground Well (GBW)	Sanitary Landfill (LFW)
		Gross Alpha	15	3.7	5.5
Nonvol. Beta	NA	5.2	20.4	8.8	23.4
Radium	5	5.9	2.9	<1.0	6.7
Tritium	20 pCi/mL	4.47	4.80	2.67	96.1

Note: With the exception of nonvolatile beta, activities are given for only those analytes with federal primary drinking water standards (DWS). Activities in bold are above the drinking water standard.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT' D

MAXIMUM NONRADIOACTIVE CONSTITUENT CONCENTRATIONS (MG/L)
IN THE SEPARATIONS AREAS WELLS

Constituent	DWS (mg/L)	F Area			
		Acid/ Caustic Basin (FAC)	A Line (FAL)	Burning/ Rubble Pits (FBP)	Canyon Building (FCA)
Arsenic	0.05	<0.002	<0.002	<0.002	0.004
Barium	1.0	0.037	0.020	0.048	0.306
Cadmium	0.01	<0.002	<0.002	0.002	0.022
Chromium	0.05	<0.004	<0.004	<0.004	<0.004
Fluoride	4	<0.10	0.98	0.14	1.10
Lead	0.05	0.029	<0.006	0.072	0.110
Mercury	0.002	<0.0002	<0.0002	<0.0002	0.0003
NO ₃ (as N)	10	0.20	0.50	16.9	173
Selenium	0.01	<0.002	<0.002	<0.002	0.004
Silver	0.05	<0.002	<0.002	<0.002	0.004
Endrin	0.0002	-	-	-	-
Lindane	0.004	-	-	-	-
Methoxychlor	0.1	-	-	-	-
Toxaphene	0.005	-	-	-	-
2,4-D	0.1	-	-	-	-
2,4,5-TP	0.01	-	-	-	-
Carbon Tet.	0.005	-	<0.001	0.015	<0.001
Chloroform	0.1*	-	<0.001	<0.001	0.002
Triclene	0.005	-	0.037	0.053	0.570
1,1,1-TCE	0.2	-	<0.001	<0.001	<0.001

Note: Concentrations are given for only those analytes with federal primary drinking water standards (DWS). Concentrations in bold are above the drinking water standard.

* Federal primary drinking water standard for trihalomethanes.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM NONRADIOACTIVE CONSTITUENT CONCENTRATIONS (MG/L)
IN THE SEPARATIONS AREAS WELLS

Constituent	DWS (mg/L)	F Area				
		Coal Pile Runoff Basin (FCB)	Old Seepage Basin (FNB)	Seepage Basins (FSB)	Tank Farm (FTF)	Naval Fuel (NFB)
Arsenic	0.05	<0.002	<0.002	0.192	-	<0.002
Barium	1.0	0.144	0.120	8.96	-	0.029
Cadmium	0.01	<0.002	0.003	0.071	-	<0.002
Chromium	0.05	0.009	<0.004	0.022	-	<0.004
Fluoride	4	0.17	0.18	2.20	-	0.15
Lead	0.05	0.163	0.052	0.169	-	0.038
Mercury	0.002	<0.0002	0.0002	0.0020	-	0.0003
NO ₃ (as N)	10	1.97	31.1	472	120	31.7
Selenium	0.01	<0.002	<0.002	0.020	-	<0.002
Silver	0.05	<0.002	<0.002	0.006	-	<0.002
Endrin	0.0002	-	-	<0.0001	-	-
Lindane	0.004	-	-	0.0002	-	-
Methoxychlor	0.1	-	-	0.0014	-	-
Toxaphene	0.005	-	-	<0.001	-	-
2,4-D	0.1	-	-	<0.0003	-	-
2,4,5-TP	0.01	-	-	0.0002	-	-
Carbon Tet.	0.005	-	<0.001	<0.005	-	<0.005
Chloroform	0.1*	-	0.001	0.001	-	<0.005
Triclene	0.005	-	0.099	0.051	-	0.059
1,1,1-TCE	0.2	-	<0.001	<0.005	-	<0.005

Note: Concentrations are given for only those analytes with federal primary drinking water standards (DWS). Concentrations in bold are above the drinking water standard.

* Federal primary drinking water standard for trihalomethanes.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM NONRADIOACTIVE CONSTITUENT CONCENTRATIONS (MG/L)
IN THE SEPARATIONS AREAS WELLS

Constituent	DWS (mg/L)	H Area			
		Canyon Building (HCA)	Coal Pile Runoff Basin (HCB)	Old Retention Basin (HR3)	Retention Basin (HR8)
Arsenic	0.05	<0.002	<0.002	<0.002	<0.002
Barium	1.0	0.056	0.078	0.012	0.052
Cadmium	0.01	<0.002	<0.002	<0.002	<0.002
Chromium	0.05	<0.004	<0.004	<0.004	<0.004
Fluoride	4	0.27	0.20	<0.10	<0.10
Lead	0.05	0.013	0.054	<0.006	0.044
Mercury	0.002	<0.0002	0.0005	0.0008	0.0002
NO ₃ (as N)	10	1.69	2.51	2.47	38.7
Selenium	0.01	0.002	<0.002	<0.002	<0.002
Silver	0.05	<0.002	0.003	<0.002	<0.002
Endrin	0.0002	<0.0001	-	-	-
Lindane	0.004	<0.00005	-	-	-
Methoxychlor	0.1	<0.0005	-	-	-
Toxaphene	0.005	<0.001	-	-	-
2,4-D	0.1	<0.0003	-	-	-
2,4,5-TP	0.01	<0.0001	-	-	-
Carbon Tet.	0.005	<0.001	-	<0.005	<0.005
Chloroform	0.1*	<0.001	-	<0.005	<0.005
Triclene	0.005	0.008	-	<0.005	<0.005
1,1,1-TCE	0.2	<0.001	-	<0.005	<0.005

Note: Concentrations are given for only those analytes with federal primary drinking water standards (DWS). Concentrations in bold are above the drinking water standard.

* Federal primary drinking water standard for trihalomethanes.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM NONRADIOACTIVE CONSTITUENT CONCENTRATIONS (MG/L)
IN THE SEPARATIONS AREAS WELLS

Constituent	DWS (mg/L)	H Area	
		Seepage Basins (HSB)	Tank Farm (HTF)
Arsenic	0.05	0.009	-
Barium	1.0	0.147	-
Cadmium	0.01	0.007	-
Chromium	0.05	0.006	-
Fluoride	4	1.90	-
Lead	0.05	0.027	-
Mercury	0.002	0.0082	-
NO ₃ (as N)	10	118	25.0
Selenium	0.01	<0.002	-
Silver	0.05	0.004	-
Endrin	0.0002	-	-
Lindane	0.004	-	-
Methoxychlor	0.1	-	-
Toxaphene	0.005	-	-
2,4-D	0.1	-	-
2,4,5-TP	0.01	-	-
Carbon Tet.	0.005	<0.005	-
Chloroform	0.1*	<0.005	-
Triclene	0.005	<0.005	-
1,1,1-TCE	0.2	<0.005	-

Note: Concentrations are given for only those analytes with federal primary drinking water standards (DWS). Concentrations in bold are above the drinking water standard.

* Federal primary drinking water standard for trihalomethanes.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM NONRADIOACTIVE CONSTITUENT CONCENTRATIONS (MG/L)
IN THE SEPARATIONS AREAS WELLS

Constituent	DWS (mg/L)	S and Z Areas	
		S Area (SBG)	Z Area (ZBG)
Arsenic	0.05	<0.002	<0.002
Barium	1.0	0.015	0.011
Cadmium	0.01	<0.002	<0.002
Chromium	0.05	<0.004	0.004
Fluoride	4	0.39	0.23
Lead	0.05	0.024	0.010
Mercury	0.002	0.0006	<0.0002
NO ₃ (as N)	10	2.50	1.75
Selenium	0.01	<0.002	<0.002
Silver	0.05	0.003	<0.002
Endrin	0.0002	<0.0001	<0.0001
Lindane	0.004	<0.00005	<0.00005
Methoxychlor	0.1	<0.0005	<0.0005
Toxaphene	0.005	<0.001	<0.001
2,4-D	0.1	<0.0003	<0.0003
2,4,5-TP	0.01	<0.0001	<0.0001
Carbon Tet.	0.005	<0.005	<0.005
Chloroform	0.1*	<0.005	<0.005
Triclene	0.005	0.111	<0.005
1,1,1-TCE	0.2	<0.005	<0.005

Note: Concentrations are given for only those analytes with federal primary drinking water standards (DWS). Concentrations in bold are above the drinking water standard.

* Federal primary drinking water standard for trihalomethanes.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM NONRADIOACTIVE CONSTITUENT CONCENTRATIONS (MG/L)
IN THE REACTOR AREAS WELLS

Constituent	DWS (mg/L)	C Area			
		Coal Pile Runoff Basin (CCB)	Dis- assembly Basin (CDB)	Burning/ Rubble Pit (CRP)	Reactor Seepage Basins (CSB)
Arsenic	0.05	<0.002	<0.002	0.002	<0.002
Barium	1.0	0.025	0.045	0.012	0.019
Cadmium	0.01	<0.002	<0.002	<0.002	<0.002
Chromium	0.05	<0.004	0.004	0.108	0.066
Fluoride	4	<0.10	0.24	0.17	0.17
Lead	0.05	0.015	0.076	0.418	0.199
Mercury	0.002	<0.0002	<0.0002	<0.0002	<0.0002
NO ₃ (as N)	10	1.37	2.00	1.87	1.38
Selenium	0.01	<0.002	<0.002	<0.002	<0.002
Silver	0.05	<0.002	<0.002	<0.002	<0.002
Endrin	0.0002	-	<0.0001	-	-
Lindane	0.004	-	<0.00005	-	-
Methoxychlor	0.1	-	<0.0005	-	-
Toxaphene	0.005	-	<0.001	-	-
2,4-D	0.1	-	<0.0003	-	-
2,4,5-TP	0.01	-	<0.0001	-	-
Carbon Tet.	0.005	-	-	<0.001	<0.001
Chloroform	0.1*	-	-	0.006	<0.001
Triclene	0.005	-	-	5.20	0.330
1,1,1-TCE	0.2	-	-	<0.001	<0.001

Note: Concentrations are given for only those analytes with federal primary drinking water standards (DWS). Concentrations in bold are above the drinking water standard.

* Federal primary drinking water standard for trihalomechanes.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM NONRADIOACTIVE CONSTITUENT CONCENTRATIONS (MG/L)
IN THE REACTOR AREAS WELLS

Constituent	DWS (mg/L)	K Area				
		Ash Basin (KAB)	Acid/ Caustic Basin (KAC)	Coal Pile Runoff Basin (KCB)	Dis- assembly Basin (KDB)	Reten- tion Basin (KRB)
Arsenic	0.05	<0.002	0.006	<0.002	<0.002	<0.002
Barium	1.0	0.087	0.033	0.168	0.089	0.021
Cadmium	0.01	<0.002	0.004	0.002	<0.002	0.003
Chromium	0.05	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride	4	0.36	1.09	0.55	0.22	0.71
Lead	0.05	<0.006	0.012	0.025	0.142	0.189
Mercury	0.002	<0.0002	0.0004	<0.0002	0.0010	<0.0002
NO ₃ (as N)	10	1.22	0.63	1.70	9.51	1.47
Selenium	0.01	0.003	0.004	0.004	<0.002	<0.002
Silver	0.05	<0.002	0.004	<0.002	0.003	<0.002
Endrin	0.0002	-	-	-	<0.0001	-
Lindane	0.004	-	-	-	<0.00005	-
Methoxychlor	0.1	-	-	-	<0.0005	-
Toxaphene	0.005	-	-	-	<0.001	-
2,4-D	0.1	-	-	-	<0.0003	-
2,4,5-TP	0.01	-	-	-	<0.0001	-
Carbon Tet.	0.005	-	<0.005	-	-	<0.001
Chloroform	0.1*	-	<0.005	-	-	<0.001
Triclene	0.005	-	<0.005	-	-	0.002
1,1,1-TCE	0.2	-	<0.005	-	-	<0.001

Note: Concentrations are given for only those analytes with federal primary drinking water standards (DWS). Concentrations in bold are above the drinking water standard.

* Federal primary drinking water standard for trihalomethanes.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM NONRADIOACTIVE CONSTITUENT CONCENTRATIONS (MG/L)
IN THE REACTOR AREAS WELLS

Constituent	DWS (mg/L)	K Area	
		Burning/ Rubble Pit (KRP)	Reactor Seepage Basin (KSB)
Arsenic	0.05	<0.002	<0.002
Barium	1.0	0.050	0.007
Cadmium	0.01	<0.002	<0.002
Chromium	0.05	<0.004	<0.004
Fluoride	4	0.15	<0.10
Lead	0.05	0.099	<0.006
Mercury	0.002	<0.0002	<0.0002
NO ₃ (as N)	10	1.85	1.84
Selenium	0.01	<0.002	<0.002
Silver	0.05	<0.002	<0.002
Endrin	0.0002	<0.0001	-
Lindane	0.004	-	-
Methoxychlor	0.1	-	-
Toxaphene	0.005	-	-
2,4-D	0.1	-	-
2,4,5-TP	0.01	-	-
Carbon Tet.	0.005	<0.001	-
Chloroform	0.1*	<0.001	-
Triclene	0.005	0.043	-
1,1,1-TCE	0.2	<0.001	-

Note: Concentrations are given for only those analytes with federal primary drinking water standards (DWS). Concentrations in bold are above the drinking water standard.

* Federal primary drinking water standard for trihalomethanes.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM NONRADIOACTIVE CONSTITUENT CONCENTRATIONS (MG/L)
IN THE REACTOR AREAS WELLS

Constituent	DWS (mg/L)	L Area				
		Acid/ Caustic Basin (LAC)	Oil and Chemical Basin (LCO)	Dis- assembly Basin (LDB)	Burning/ Rubble Pit (LRP)	Reactor Seepage Basin (LSB)
Arsenic	0.05	<0.002	0.003	<0.002	<0.002	<0.002
Barium	1.0	0.016	0.018	0.020	0.010	0.012
Cadmium	0.01	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium	0.05	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride	4	0.24	0.25	0.18	0.18	0.17
Lead	0.05	0.029	0.069	0.160	0.061	0.042
Mercury	0.002	<0.0002	0.0020	<0.0002	<0.0002	<0.0002
NO ₃ (as N)	10	1.22	1.97	1.67	1.21	1.81
Selenium	0.01	<0.002	0.003	<0.002	<0.002	<0.002
Silver	0.05	0.002	<0.002	<0.002	<0.002	<0.002
Endrin	0.0002	-	-	-	-	-
Lindane	0.004	-	-	-	-	-
Methoxychlor	0.1	-	-	-	-	-
Toxaphene	0.005	-	-	-	-	-
2,4-D	0.1	-	-	-	-	-
2,4,5-TP	0.01	-	-	-	-	-
Carbon Tet.	0.005	<0.001	<0.001	<0.005	<0.005	-
Chloroform	0.1*	0.001	<0.001	<0.005	<0.005	-
Triclene	0.005	0.124	0.015	<0.005	<0.005	-
1,1,1-TCE	0.2	<0.001	<0.001	<0.005	<0.005	-

Note: Concentrations are given for only those analytes with federal primary drinking water standards (DWS). Concentrations in bold are above the drinking water standard.

* Federal primary drinking water standard for trihalomethanes.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM NONRADIOACTIVE CONSTITUENT CONCENTRATIONS (MG/L)
IN THE REACTOR AREAS WELLS

Constituent	DWS (mg/L)	P Area					Reactor Seepage Basins (PSB)
		Acid/ Caustic Basin (PAC)	Coal Pile Runoff Basin (PCB)	Dis- assembly Basin (PDB)	Burning/ Rubble Pit (PRP)		
Arsenic	0.05	<0.002	<0.002	0.002	<0.002	0.002	
Barium	1.0	0.089	0.050	0.026	0.098	0.153	
Cadmium	0.01	<0.002	0.012	<0.002	<0.002	<0.002	
Chromium	0.05	<0.004	0.030	<0.004	<0.004	<0.004	
Fluoride	4	0.10	0.62	0.14	0.18	<0.10	
Lead	0.05	<0.006	0.062	0.103	0.065	0.077	
Mercury	0.002	<0.0002	<0.0002	0.0003	0.0006	<0.0002	
NO ₃ (as N)	10	1.23	0.53	5.14	2.08	13.7	
Selenium	0.01	0.003	0.011	<0.002	<0.002	<0.002	
Silver	0.05	<0.002	<0.002	<0.002	0.002	<0.002	
Endrin	0.0002	-	-	<0.0001	-	-	
Lindane	0.004	-	-	<0.00005	-	-	
Methoxychlor	0.1	-	-	<0.0005	-	-	
Toxaphene	0.005	-	-	<0.001	-	-	
2,4-D	0.1	-	-	<0.0003	-	-	
2,4,5-TP	0.01	-	-	<0.0001	-	-	
Carbon Tet.	0.005	-	<0.005	-	<0.001	-	
Chloroform	0.1*	-	<0.005	-	<0.001	-	
Triclene	0.005	-	<0.005	-	0.252	-	
1,1,1-TCE	0.2	-	<0.005	-	0.494	-	

Note: Concentrations are given for only those analytes with federal primary drinking water standards (DWS). Concentrations in bold are above the drinking water standard.

* Federal primary drinking water standard for trihalomethanes.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM NONRADIOACTIVE CONSTITUENT CONCENTRATIONS (MG/L)
IN THE REACTOR AREAS WELLS

Constituent	DWS (mg/L)	R Area			
		Acid/ Caustic Basin (RAC)	Burning/ Rubble Pits (RRP)	Reactor Seepage Basins (RSE)	Reactor Seepage Basins (RSF)
Arsenic	0.05	<0.002	<0.002	<0.002	<0.002
Barium	1.0	0.042	0.036	0.017	0.032
Cadmium	0.01	<0.002	<0.002	<0.002	0.002
Chromium	0.05	<0.004	<0.004	<0.004	0.007
Fluoride	4	0.10	<0.10	0.34	0.41
Lead	0.05	0.044	0.017	0.006	0.006
Mercury	0.002	<0.0002	0.0002	<0.0002	<0.0002
NO ₃ (as N)	10	3.76	2.55	12.7	4.08
Selenium	0.01	<0.002	<0.002	<0.002	<0.002
Silver	0.05	0.007	0.003	<0.002	0.003
Endrin	0.0002	-	-	<0.00004	<0.00004
Lindane	0.004	-	-	<0.001	<0.001
Methoxychlor	0.1	-	-	<0.020	<0.020
Toxaphene	0.005	-	-	<0.001	<0.001
2,4-D	0.1	-	-	<0.0003	<0.0003
2,4,5-TP	0.01	-	-	<0.0001	<0.0001
Carbon Tet.	0.005	-	<0.005	-	-
Chloroform	0.1*	-	<0.005	-	-
Triclene	0.005	-	<0.005	-	-
1,1,1-TCE	0.2	-	<0.005	-	-

Note: Concentrations are given for only those analytes with federal primary drinking water standards (DWS). Concentrations in bold are above the drinking water standard.

* Federal primary drinking water standard for trihalomethanes.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM NONRADIOACTIVE CONSTITUENT CONCENTRATIONS (MG/L)
IN THE GENERAL AREA WELLS

Constituent	DWS (mg/L)	A/M Areas				
		Metals Burning Pit (ABP)	Back- Ground Well (ABW)	Coal Pile Runoff Basin (ACB)	Met. Lab. Seepage Basin (AMB)	Motor Shop Oil Basin (AOB)
Arsenic	0.05	<0.002	<0.002	<0.002	<0.002	<0.002
Barium	1.0	0.022	<0.004	0.007	0.004	0.012
Cadmium	0.01	0.003	<0.002	<0.002	<0.002	<0.002
Chromium	0.05	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride	4	<0.10	<0.10	<0.10	<0.10	<0.10
Lead	0.05	0.036	<0.006	0.020	0.012	0.007
Mercury	0.002	<0.0002	<0.0002	0.0009	<0.0002	<0.0002
NO ₃ (as N)	10	1.40	0.59	1.50	0.90	1.20
Selenium	0.01	<0.002	<0.002	<0.002	<0.002	<0.002
Silver	0.05	0.003	<0.002	<0.002	<0.002	<0.002
Endrin	0.0002	-	-	-	-	<0.0001
Lindane	0.004	-	-	-	-	<0.00005
Methoxychlor	0.1	-	-	-	-	<0.0005
Toxaphene	0.005	-	-	-	-	<0.001
2,4-D	0.1	-	-	-	-	-
2,4,5-TP	0.01	-	-	-	-	-
Carbon Tet.	0.005	<0.001	<0.001	0.003	<0.001	<0.001
Chloroform	0.1*	<0.001	<0.001	<0.001	<0.001	<0.001
Triclene	0.005	0.088	0.006	<0.001	0.058	0.112
1,1,1-TCE	0.2	<0.001	<0.001	<0.001	<0.001	<0.001

Note: Concentrations are given for only those analytes with federal primary drinking water standards (DWS). Concentrations in bold are above the drinking water standard.

* Federal primary drinking water standard for trihalomethanes.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM NONRADIOACTIVE CONSTITUENT CONCENTRATIONS (MG/L)
IN THE GENERAL AREA WELLS

Constituent	DWS (mg/L)	Area				
		Burning/ Rubble Pits (ARP)	SRL Seepage Basins (ASB)	Misc. Chemical Basin (MCB)	M-Area Settling Basin (MSB)	Silver- ton Road (SRW)
Arsenic	0.05	<0.002	<0.002	0.003	<0.002	<0.002
Barium	1.0	0.014	0.030	0.039	0.603	0.012
Cadmium	0.01	<0.002	0.006	<0.002	0.002	<0.002
Chromium	0.05	<0.004	<0.004	0.008	0.056	<0.004
Fluoride	4	<0.10	0.42	0.18	0.64	0.23
Lead	0.05	0.021	0.023	0.006	0.072	0.036
Mercury	0.002	<0.0002	0.0010	<0.0002	<0.0002	<0.0002
NO ₃ (as N)	10	0.90	2.57	1.34	238	2.07
Selenium	0.01	<0.002	<0.002	<0.002	0.006	<0.002
Silver	0.05	<0.002	<0.002	<0.002	0.002	<0.002
Endrin	0.0002	-	<0.0001	<0.0001	0.0005	-
Lindane	0.004	-	<0.00005	<0.00005	<0.00005	-
Methoxychlor	0.1	-	<0.0005	<0.00005	<0.0005	-
Toxaphene	0.005	-	<0.001	<0.001	<0.001	-
2,4-D	0.1	-	<0.020	<0.0003	<0.0003	-
2,4,5-TP	0.01	-	<0.002	<0.0001	<0.0001	-
Carbon Tet.	0.005	<0.001	0.005	<0.005	0.073	0.011
Chloroform	0.1*	0.024	0.027	<0.005	0.300	0.045
Triclene	0.005	0.248	3.20	0.129	125	0.011
1,1,1-TCE	0.2	<0.001	<0.001	<0.005	0.589	0.011

Note: Concentrations are given for only those analytes with federal primary drinking water standards (DWS). Concentrations in bold are above the drinking water standard.

* Federal primary drinking water standard for trihalomethanes.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM NONRADIOACTIVE CONSTITUENT CONCENTRATIONS (MG/L)
IN THE GENERAL AREA WELLS

Constituent	DWS (mg/L)	Central Shops				
		Hydro- fluoric Spill Area (CSA)	Fire Dept. Training Facility (CSO)	Burning/ Rubble Pits (CSR)	Hazard- ous Waste Storage (HWS)	Ford Building Seepage Basin (HXB)
Arsenic	0.05	<0.002	<0.002	<0.002	<0.002	<0.002
Barium	1.0	0.032	0.058	0.019	0.016	0.025
Cadmium	0.01	0.010	<0.002	<0.002	<0.002	<0.002
Chromium	0.05	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride	4	0.19	0.15	0.10	<0.10	0.10
Lead	0.05	0.026	0.009	0.043	0.007	0.007
Mercury	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
NO ₃ (as N)	10	3.12	1.67	1.03	0.90	1.30
Selenium	0.01	<0.002	<0.002	<0.002	<0.002	<0.002
Silver	0.05	<0.002	<0.002	<0.002	<0.002	0.003
Endrin	0.0002	-	-	-	-	-
Lindane	0.004	-	-	-	-	-
Methoxychlor	0.1	-	-	-	-	-
Toxaphene	0.005	-	-	-	-	-
2,4-D	0.1	-	-	-	-	-
2,4,5-TP	0.01	-	-	-	-	-
Carbon Tet.	0.005	-	-	<0.001	-	-
Chloroform	0.1*	-	-	<0.001	-	-
Triclene	0.005	-	-	<0.001	-	-
1,1,1-TCE	0.2	-	-	<0.001	-	-

Note: Concentrations are given for only those analytes with federal primary drinking water standards (DWS). Concentrations in bold are above the drinking water standard.

* Federal primary drinking water standard for trihalomethanes.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM NONRADIOACTIVE CONSTITUENT CONCENTRATIONS (MG/L)
IN THE GENERAL AREA WELLS

Constituent	DWS (mg/L)	D and TNX Areas				
		Burning/ Rubble Pits (DBP)	Coal Pile Runoff Basin (DCB)	Oil Disposal Basin (DOB)	Old TNX Seepage Basin (XSB)	New TNX Seepage Basin (YSB)
Arsenic	0.05	<0.002	0.030	<0.002	<0.002	<0.002
Barium	1.0	0.056	0.197	0.024	0.560	0.026
Cadmium	0.01	<0.002	0.032	<0.002	<0.002	0.002
Chromium	0.05	<0.004	0.488	<0.004	<0.004	<0.004
Fluoride	4	0.18	4.50	<0.10	0.27	<0.10
Lead	0.05	0.013	0.310	<0.006	5.00	<0.006
Mercury	0.002	0.0003	0.0009	<0.0002	0.0123	<0.0002
NO ₃ (as N)	10	5.36	2.15	0.87	220	11.7
Selenium	0.01	<0.002	0.006	<0.002	<0.002	<0.002
Silver	0.05	<0.002	0.015	<0.002	0.002	<0.002
Endrin	0.0002	-	<0.0001	-	<0.0001	-
Lindane	0.004	-	<0.00005	-	<0.00005	-
Methoxychlor	0.1	-	<0.0005	-	<0.0005	-
Toxaphene	0.005	-	<0.001	-	<0.001	-
2,4-D	0.1	-	<0.0003	-	<0.0003	-
2,4,5-TP	0.01	-	<0.0001	-	<0.0001	-
Carbon Tet.	0.005	<0.001	<0.001	<0.001	0.017	-
Chloroform	0.1*	<0.001	<0.001	<0.001	0.007	-
Triclene	0.005	0.005	0.034	0.004	0.593	-
1,1,1-TCE	0.2	<0.001	0.002	<0.001	0.042	-

Note: Concentrations are given for only those analytes with federal primary drinking water standards (DWS). Concentrations in bold are above the drinking water standard.

* Federal primary drinking water standard for trihalomethanes.

TABLE 4-26
SUMMARY OF MAXIMUM CONSTITUENT
LEVELS IN GROUNDWATER, CONT'D

MAXIMUM NONRADIOACTIVE CONSTITUENT CONCENTRATIONS (MG/L)
IN THE GENERAL AREA WELLS

Constituent	DWS (mg/L)	Miscellaneous Sites			
		Road A Chemical Basin (BRD)	CMP Burial Pits (CMP)	Back- Ground Well (GBW)	Sanitary Landfill (LFW)
Arsenic	0.05	<0.002	<0.002	<0.002	0.032
Barium	1.0	0.019	0.098	<0.004	0.022
Cadmium	0.01	<0.002	<0.002	<0.002	0.021
Chromium	0.05	<0.004	0.006	<0.004	0.066
Fluoride	4	<0.10	0.45	0.10	0.51
Lead	0.05	0.155	0.272	0.013	0.022
Mercury	0.002	<0.0002	<0.0002	<0.0002	0.0005
NO ₃ (as N)	10	2.15	0.72	<0.05	1.95
Selenium	0.01	<0.002	<0.002	<0.002	<0.002
Silver	0.05	<0.002	0.005	<0.002	0.003
Endrin	0.0002	-	-	-	<0.00005
Lindane	0.004	-	-	-	0.0001
Methoxychlor	0.1	-	-	-	<0.0005
Toxaphene	0.005	-	-	-	<0.0002
2,4-D	0.1	-	-	-	<0.0003
2,4,5-TP	0.01	-	-	-	0.0004
Carbon Tet.	0.005	<0.001	0.009	-	0.002
Chloroform	0.1*	<0.001	0.008	-	0.003
Triclene	0.005	<0.001	0.009	-	0.044
1,1,1-TCE	0.2	<0.001	0.008	-	0.022

Note: Concentrations are given for only those analytes with federal primary drinking water standards (DWS). Concentrations in bold are above the drinking water standard.

* Federal primary drinking water standard for trihalomethanes.

**TABLE 5-1
RADIOACTIVITY IN MILK**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN 2 STD DEV</u>	
<u>H-3, PCI/ML</u>							
JACKSON, SC	24	1.6	±0.32	0.84	±0.26	1.2	±0.46
WILLISTON, SC	20	4.0	±0.24	-0.07	±0.26	0.71	±1.6
GIRARD, GA	23	1.7	±0.35	0.15	±0.27	0.75	±0.92
GRACEWOOD, GA	19	1.0	±0.21	0.37	±0.31	0.62	±0.40
WAYNESBORO, GA	25	0.67	±0.31	-0.03	±0.19	0.32	±0.38
MAJOR DISTRIBUTOR AVERAGE	25	0.37	±0.20	-0.40	±0.33	0.17	±0.30
<u>SR-90, PCI/L</u>							
JACKSON, SC	4	8.6	±6.8	2.2	±4.7	5.5	-
WILLISTON, SC	3	11	±7.1	4.6	±4.8	6.8	-
GIRARD, GA	3	14	±7.2	6.7	±2.9	9.7	-
GRACEWOOD, GA	3	8.2	±6.6	5.2	±2.8	6.3	-
WAYNESBORO, GA	4	11	±6.8	3.4	±2.6	7.3	-
MAJOR DISTRIBUTOR AVERAGE	3	7.6	±6.4	4.8	±2.7	6.6	-
<u>CS-137, PCI/L</u>							
JACKSON, SC	20	5.8	±3.6	0.00	±1.9	1.4	±4.3
WILLISTON, SC	23	8.1	±2.0	0.00	±6.3	3.6	±5.7
GIRARD, GA	23	6.1	±1.7	0.00	±5.7	2.9	±1.9
GRACEWOOD, GA	20	5.1	±2.2	0.00	±1.9	1.4	±0.7
WAYNESBORO, GA	26	5.7	±2.4	0.00	±1.9	1.5	±4.6
MAJOR DISTRIBUTOR AVERAGE	26	5.6	±1.7	0.00	±6.1	1.6	±4.1
<u>I-131, PCI/L</u>							
JACKSON, SC	26	0.00	±0.20	0.00	±7.1	0.00	-
WILLISTON, SC	23	0.00	±0.20	0.00	±6.5	0.00	-
GIRARD, GA	23	3.7	±2.4	0.00	±5.9	0.16	±1.5
GRACEWOOD, GA	20	0.00	±2.4	0.00	±2.3	0.00	-
WAYNESBORO, GA	26	0.00	±0.20	0.00	±2.0	0.00	-
MAJOR DISTRIBUTOR AVERAGE	26	0.00	±2.4	0.00	±7.1	0.00	-
						0.02	±0.61

- Insufficient data.

TABLE 5-72
RADIOACTIVITY IN FOOD

Type Food	No. of Samples	Maximum	CT ERR		CT ERR	Arithmetic	
			95% CL	Minimum		95% CL	Mean
<u>Sr-90, μg (wet weight)</u>							
Collards	15	0.37	± 0.09	-0.01	06	0.091	± 0.22
Fruits	14	0.079	± 0.085	-0.041	069	0.026	± 0.072
Grains	13	0.16	± 0.21	-0.13	± 0.18	0.16	± 0.58
Corn	14	0.29	± 0.22	-0.12	± 0.18	0.037	± 0.025
Chicken	4	0.033	± 0.096	0.0	± 0.066	-	-
Eggs	12	0.29	± 0.22	-0.12	± 0.18	0.20	± 0.62
Pork	4	0.63	± 0.15	-0.033	± 0.087	-	-
Beef	4	U.C.F.9	± 0.096	-0.081	± 0.079	-	-
<u>Zr-Np-95, pCi/g (wet weight)</u>							
Collards	15	0.0	± 0.15	0.0	± 0.01	-	-
Fruits	14	0.0	± 0.11	0.0	± 0.01	-	-
Grains	14	0.0	± 0.21	0.0	± 0.02	-	-
Corn	14	0.0	± 0.10	0.0	± 0.02	-	-
Chicken	4	0.0	± 0.21	0.0	± 0.04	-	-
Eggs	16	0.0	± 0.09	0.0	± 0.01	-	-
Pork	4	0.0	± 0.31	0.0	± 0.03	-	-
Beef	4	0.0	± 0.27	0.0	± 0.07	-	-
<u>Ru-103,106 pCi/g (wet weight)</u>							
Collards	15	0.0	± 0.013	0.0	± 0.002	-	-
Fruits	14	0.0	± 0.41	0.0	± 0.02	-	-
Grains	14	0.0	± 0.28	0.0	± 0.03	-	-
Corn	14	0.0	± 0.25	0.0	± 0.04	-	-
Chicken	4	0.0	± 0.27	0.0	± 0.16	-	-
Eggs	16	0.0	± 0.28	0.0	± 0.06	-	-
Pork	4	0.0	± 0.47	0.0	± 0.04	-	-
Beef	4	0.0	± 0.46	0.0	± 0.07	-	-
<u>Cs-137, pCi/g (wet weight)</u>							
Collards	15	0.022	± 0.006	0.0	± 0.002	0.01	± 0.013
Fruits	14	0.0	± 0.06	0.0	± 0.01	-	-
Grains	14	0.02	± 0.0	0.0	± 0.0	0.04	± 0.014
Corn	14	0.020	± 0.01	0.0	± 0.01	0.004	± 0.015
Chicken	4	0.0	± 0.02	0.0	± 0.01	-	-
Eggs	16	0.08	± 0.01	0.0	± 0.01	0.006	± 0.041
Pork	4	0.01	± 0.0	0.0	± 0.02	-	-
Beef	4	0.030	± 0.01	0.0	± 0.10	-	-
<u>K-40, pCi/g (wet weight)</u>							
Collards	15	2.9	± 0.22	0.37	± 0.08	2.0	± 1.9
Fruits	14	6.9	± 1.2	0.60	± 0.11	1.8	± 0.19
Grains	14	3.2	± 0.16	0.41	± 0.09	1.9	± 1.9
Corn	14	4.3	± 0.28	1.8	± 0.16	2.9	± 1.4
Chicken	4	2.4	± 0.15	1.8	± 0.12	2.2	± 0.58
Eggs	16	1.6	± 0.16	0.0	± 0.46	1.1	± 0.89
Pork	4	0.0	± 0.21	0.0	± 0.08	-	-
Beef	4	4.8	± 0.29	2.6	± 0.22	-	-

- Insufficient data.

**TABLE 5-2
RADIOACTIVITY IN FOOD, CONT'D.**

<u>Type Food</u>	<u>No. of Samples</u>	<u>Maximum</u>	<u>CT ERR 95% CL</u>	<u>Minimum</u>	<u>CT ERR 95% CL</u>	<u>Arithmetic Mean</u>	<u>2 Std. Dev.</u>
<u>Tritium, pCi/mL (free water)</u>							
Collards	15	4.3	±0.33	0.33	±0.28	1.4	±2.5
Fruits	13	4.3	±0.26	0.33	±0.23	1.6	±2.7
Grains	a						
Corn	14	2.7	±0.60	0.28	±0.47	1.4	±1.7
Chicken	4	1.5	±0.56	0.50	±0.35	-	-
Eggs	16	2.7	±0.26	0.37	±0.23	1.1	±2.3
Pork	a						
Beef	a						
<u>U/Pu, pCi/g (wet weight)</u>							
Fruits	13	0.01	±0.02	-0.01	±0.02	0.006	±0.01
Corn	14	0.01	±0.02	0.0	±0.01	0.001	±0.007
Chicken	4	0.0	±0.01	0.0	±0.01	-	-
Eggs	8	0.01	±0.02	-0.01	±0.01	-0.002	±0.01
Pork	4	0.0	±0.01	0.0	±0.01	-	-
Beef	4	0.0	±0.01	0.0	±0.01	-	-
<u>Pu-239, fCi/g (wet weight)</u>							
Collards	4	0.058	±0.071	-0.00048	±0.023	-	-
Fruits	4	0.76	±0.15	0.0081	±0.012	-	-
Grains	3	0.11	±0.067	0.012	±0.016	-	-
Corn	4	0.047	±0.027	0.0061	±0.022	-	-
Chicken	4	0.24	±0.24	-0.002	±0.005	-	-
Eggs	5	0.025	±0.022	-0.0032	±0.011	0.0088	±0.022
Pork	2	0.012	±0.027	0.0043	±0.0037	-	-
Beef	2	0.65	±0.92	0.14	±0.14	-	-
<u>Pu-238, fCi/g (wet weight)</u>							
Collards	4	0.038	±0.056	0.0053	±0.045	-	-
Fruits	4	0.26	±0.094	-0.0097	±0.043	-	-
Grains	3	0.54	±0.0087	0.01	±0.074	-	-
Corn	4	0.26	±0.055	-0.099	±0.094	-	-
Chicken	4	0.23	±0.24	-0.0001	±0.009	-	-
Eggs	5	0.12	±0.055	0.0031	±0.011	0.081	±0.11
Pork	2	0.048	±0.072	0.0017	±0.0041	-	-
Beef	2	0.27	±0.22	-0.42	±0.66	-	-

^a No analysis.
- Insufficient data to calculate.

**TABLE 5-2
RADIOACTIVITY IN FOOD, CONT'D.**

Type Food	No. of Samples	CT ERR		CT ERR		Arithmetic	
		Maximum	95% CL	Minimum	95% CL	Mean	2 Std Dev
<u>1986 DATA^a</u>							
<u>Pu-239, fCi/g (wet weight)</u>							
Collards	3	0.84	±0.63	0.18	±0.39	-	-
Plums	5	<0.65		<0.18		<0.29	-
Peaches	5	0.39	±0.31	0.03	±0.08	0.20	±0.30
Wheat & Rye	9	0.34	±0.35	0.02	±0.17	0.10	±0.21
Oats	2	0.26	±0.26	0.06	±0.11	-	-
Corn	8	0.22	±0.27	0.04	±0.16	0.13	±0.12
Chicken	1	0.16	±0.49			-	-
Eggs	1	0.06	±0.11			-	-
Pork	2	0.27	±0.33	0.20	±0.35	-	-
Beef	3	0.61	±0.89	0.10	±0.28	-	-
<u>Pu-238, fCi/g (wet weight)</u>							
Collards	3	1.4	±0.75	0.20	±0.54	-	-
Plums	5	0.87	±0.52	0.068	±0.39	0.46	±0.77
Peaches	5	1.2	±0.55	0.01	±0.10	0.50	±0.94
Wheat & Rye	9	0.74	±0.12	0.13	±0.27	0.29	±0.38
Oats	2	0.71	±0.47	0.04	±0.10	-	-
Corn	8	0.58	±0.50	0.008	±0.22	0.17	±0.48
Chicken	1	0.54	±0.77			-	-
Eggs	1	0.10	±0.34			-	-
Pork	2	0.37	±0.40	0.09	±0.21	-	-
Beef	3	0.29	±0.72	<0.28		-	-

^a 1986 plutonium in food data are presented in this report because they were inadvertently omitted from the 1986 Environmental Report.
- Insufficient data.

TABLE 5-3
RADIOACTIVITY IN DRINKING WATER

Site	No. of Samples	Maximum	Ct. Err. 95% Cl.	Minimum	Ct. Err. 95% Cl.	Average	2 Std Dev.
<u>Plant</u>							
<u>Gross Alpha (pCi/L)</u>							
A Area	4	0.38	0.41	-0.08	0.27	0.16	0.46
Allendale Gate	4	0.08	0.29	-0.15	0.22	-0.02	0.20
Barnwell Gate	4	0.15	0.22	-0.08	0.17	-0.02	0.22
Central Shops	4	0.54	0.46	-0.08	0.27	0.17	0.56
Classification Yard	4	0.38	0.41	0.00	0.24	0.11	0.36
D Area	4	0.15	0.22	-0.08	0.27	0.02	0.20
Emer Oper Center	4	0.38	0.41	-0.15	0.22	0.20	0.48
F Area	4	1.62	0.71	0.42	0.44	0.99	1.28
Firing Range	4	2.23	0.83	1.18	0.67	1.64	1.04
Forestry Bldg	4	1.23	0.62	-0.08	0.27	0.57	1.08
H Area	4	2.62	0.92	0.42	0.44	1.21	2.02
Jackson Gate	4	0.62	0.44	0.08	0.34	0.27	0.48
Par Pond Lab	4	0.00	0.22	-0.08	0.17	-0.04	0.10
Talatha Gate	4	2.31	0.87	0.54	0.51	1.74	1.66
TC-1	4	1.08	0.65	0.46	0.44	0.73	0.52
TNX	4	0.85	0.51	-0.08	0.27	0.37	0.78
Williston Gate	4	0.08	0.29	-0.15	0.22	-0.04	0.20
105C Bldg	12	0.92	0.58	0.08	0.27	0.38	0.58
105K Bldg	12	0.69	0.46	0.00	0.17	0.28	0.48
105L Bldg	12	0.50	0.47	-0.15	0.22	0.13	0.34
105P Bldg	12	0.31	0.38	-0.15	0.22	0.12	0.28
221F Bldg	8	3.02	1.04	0.34	0.41	1.51	2.06
221H Bldg	8	8.09	1.59	0.15	0.38	3.34	5.44
617G Wackenhut Tr Fa	4	0.42	0.44	0.09	0.17	0.26	0.32
681-1G	4	0.46	0.49	-0.08	0.15	0.15	0.48
681-3G	4	0.46	0.38	0.00	0.21	0.15	0.48
701-12G Barricade 7	3	0.08	0.27	-0.08	0.17	-0.03	0.18
701-13G Barricade 6	4	0.62	0.44	0.00	0.24	0.27	0.56
701-8G Barricade 8	3	0.23	0.34	-0.15	0.22	0.05	0.38
704S DWPF	4	0.54	0.41	-0.08	0.17	0.21	0.60
<u>Town Source</u>							
Aiken Stream & Well	2	0.25	0.37	-0.23	0.34	0.01	0.68
Allendale Well	2	0.00	0.15	-0.08	0.16	-0.04	0.12
Augusta River	2	0.08	0.28	-0.08	0.41	0.00	0.22
Barnwell Well	2	-0.08	0.16	-0.23	0.34	-0.15	0.22
Bath Well	2	0.25	0.37	-0.23	0.34	0.01	0.68
Blackville Well	2	0.08	0.27	-0.08	0.16	0.00	0.22
Clearwater Lake	2	0.33	0.40	0.31	0.38	0.32	0.02
Jackson Well	2	1.00	0.71	0.41	0.43	0.70	0.84
Langley Well	2	0.92	0.58	0.00	0.23	0.46	1.30
New Ellenton Well	2	0.31	0.53	0.16	0.33	0.23	0.22
North Augusta River	2	-0.08	0.16	-0.31	0.31	-0.19	0.32
Sardis Well	2	0.00	0.23	-0.31	0.31	-0.15	0.44
Waynesboro Stream	2	-0.08	0.16	-0.31	0.31	-0.19	0.32
Williston Well	2	0.41	0.43	0.23	0.51	0.32	0.26
<u>Treatment Plant</u>							
Beaufort Fin Comp	12	0.25	0.29	-0.09	0.17	0.06	0.24
Beaufort Raw Comp	12	0.23	0.27	-0.08	0.27	0.04	0.16
N Augusta Fin Comp	12	0.15	0.22	-0.16	0.22	0.00	0.18
N Augusta Raw Comp	12	0.17	0.23	-0.08	0.27	0.10	0.16
Savannah Fin Comp	12	0.17	0.23	-0.09	0.17	0.05	0.18
Savannah Raw Comp	12	0.23	0.34	-0.16	0.22	0.04	0.20

TABLE 5-3
RADIOACTIVITY IN DRINKING WATER, CONT'D.

Site	No. of Samples	Ct. Err.		Minimum	Ct. Err.		2 Std Dev.
		Maximum	95% Cl.		95% Cl.	Average	
Plant		<u>Nonvolatile Beta (pCi/l)</u>					
A Area	4	0.49	0.91	0.06	1.25	0.28	0.36
Allendale Gate	4	0.65	0.88	0.00	0.89	0.33	0.66
Barnwell Gate	4	0.90	0.99	-0.06	1.03	0.29	0.88
Central Shops	4	0.81	0.90	0.19	1.06	0.52	0.62
Classification Yard	4	1.51	0.98	0.31	1.08	0.84	1.06
D Area	4	2.32	1.06	0.64	0.96	1.56	1.40
Emer Oper Center	4	1.22	1.02	0.44	1.09	0.71	0.70
F Area	4	4.05	1.26	1.89	1.25	2.99	1.80
Firing Range	4	3.08	1.18	1.26	1.18	2.33	1.64
Forestry Bldg	4	3.23	1.21	0.76	1.13	1.68	2.14
H Area	4	5.70	1.71	2.71	1.33	4.26	2.78
Jackson Gate	4	1.32	1.03	0.44	1.09	1.01	0.73
Par Pond Lab	4	2.46	1.30	0.32	0.89	1.21	1.80
Talatha Gate	4	2.83	1.34	0.92	0.91	2.27	1.82
TC-1	4	1.85	1.09	1.26	1.18	1.60	0.50
TNX	4	4.98	1.36	1.94	1.02	3.26	2.54
Williston Gate	4	0.53	0.95	0.11	0.86	0.36	0.38
105C Bldg	12	1.89	1.15	0.32	0.86	1.21	1.06
105K Bldg	12	2.86	1.18	0.90	1.01	2.02	1.20
105L Bldg	12	1.73	1.02	0.38	0.84	1.08	0.86
105P Bldg	12	1.51	1.02	0.32	0.95	0.98	0.80
221F Bldg	8	5.54	1.50	2.54	1.11	3.80	2.24
221H Bldg	8	14.20	1.94	2.65	1.10	6.98	7.36
617G Wackenhut Tr Fa	4	1.36	1.28	0.63	1.11	0.88	0.66
681-1G	4	4.72	1.34	2.90	1.35	3.78	1.48
681-3G	4	3.73	1.24	2.11	1.04	3.05	1.38
701-12G Barricade 7	3	0.69	1.12	0.38	0.84	0.51	0.32
701-13G Barricade 6	4	0.79	0.98	-0.11	0.78	0.43	0.76
701-8G Barricade 8	3	1.07	1.16	0.32	0.84	0.70	0.76
704S DWPF	4	1.51	1.02	0.90	0.99	1.19	0.52
Town Source							
Aiken Stream & Well	2	1.30	1.18	0.70	0.98	1.00	0.84
Allendale Well	2	0.99	1.15	0.81	0.96	0.90	0.26
Augusta River	2	1.43	1.20	0.22	0.93	0.82	1.72
Barnwell Well	2	0.43	0.95	-0.31	1.00	0.06	1.04
Bath Well	2	0.81	1.13	0.38	0.95	0.59	0.60
Blackville Well	2	1.49	1.20	1.08	0.99	1.28	0.58
Clearwater Lake	2	2.91	1.34	0.76	0.95	1.83	3.04
Jackson Well	2	1.94	1.11	0.50	1.10	1.22	2.04
Langley Well	2	1.24	1.01	0.93	1.14	1.08	0.44
New Ellenton Well	2	1.62	1.08	0.87	1.14	1.24	1.06
North Augusta River	2	1.30	1.18	0.92	1.01	1.11	0.54
Sardis Well	2	1.05	1.16	0.65	0.98	0.85	0.56
Waynesboro Stream	2	0.38	0.95	-0.12	1.02	0.13	0.70
Williston Well	2	2.00	1.12	1.30	1.18	1.65	0.98
Treatment Plant							
Beaufort Fin Comp	12	2.43	1.09	-0.06	1.03	1.21	1.32
Beaufort Raw Comp	12	2.39	1.26	0.91	1.14	1.59	0.98
N Augusta Fin Comp	12	1.89	1.03	0.73	1.12	1.41	0.66
N Augusta Raw Comp	12	1.59	1.03	0.79	1.12	1.29	0.54
Savannah Fin Comp	12	2.11	1.06	1.01	1.03	1.73	0.70
Savannah Raw Comp	12	2.59	1.13	0.67	1.04	1.64	1.10

TABLE 5-3
RADIOACTIVITY IN DRINKING WATER, CONT'D.

Site	No. of Samples	Maximum	Ct. Err. 95% Cl.	Minimum	Ct. Err. 95% Cl.	Average	2 Std Dev.
Plant							
H-3 (pCi/mL)							
A Area	4	0.08	0.21	-0.22	0.31	0.02	0.34
Allendale Gate	4	0.13	0.27	-0.12	0.19	-0.03	0.22
Barnwell Gate	4	0.16	0.32	-0.04	0.31	0.03	0.18
Central Shops	4	0.16	0.30	-0.24	0.31	0.02	0.36
Classification Yard	4	0.31	0.19	-0.18	0.31	0.08	0.40
D Area	4	0.69	0.20	0.37	0.32	0.51	0.26
Emer Oper Center	4	0.06	0.21	-0.20	0.31	-0.07	0.26
F Area	4	0.02	0.26	-0.20	0.31	-0.10	0.20
Firing Range	4	2.07	0.21	1.54	0.31	1.73	0.48
Forestry Bldg	4	1.86	0.21	1.27	0.33	1.49	0.52
H Area	4	0.82	0.20	-0.12	0.31	0.23	0.82
Jackson Gate	4	0.12	0.32	-0.17	0.31	-0.01	0.24
Par Pond Lab	4	0.26	0.19	-0.20	0.31	-0.01	0.38
Talatha Gate	4	1.45	0.34	1.11	0.3	1.23	0.30
TC-1	4	0.26	0.19	-0.06	0.31	0.09	0.28
TNX	4	0.23	0.16	-0.18	0.31	0.04	0.36
Williston Gate	4	0.05	0.32	-0.05	0.26	-0.01	0.08
105C Bldg	12	2.42	0.32	-0.61	0.34	0.24	1.48
105K Bldg	12	1.41	0.31	-0.30	0.34	0.14	0.84
105L Bldg	12	0.24	0.20	-0.37	0.34	-0.01	0.36
105P Bldg	12	0.55	0.21	-0.02	0.31	0.24	0.38
221F Bldg	8	0.09	0.20	-0.07	0.19	0.01	0.12
221H Bldg	8	0.82	0.20	-0.07	0.20	0.14	0.58
617G Wackenhut Tr Fa	4	2.59	0.34	0.73	0.33	1.74	1.56
681-1G	4	0.47	0.20	-0.13	0.31	0.13	0.50
681-3G	4	0.28	0.19	-0.17	0.31	0.04	0.40
701-12G Barricade 7	3	5.91	0.39	4.18	0.32	4.94	1.76
701-13G Barricade 6	4	2.71	0.35	2.56	0.22	2.66	0.14
701-8G Barricade 8	3	3.95	0.36	3.29	0.24	3.68	0.70
704S DWPF	4	0.08	0.26	-0.22	0.31	-0.03	0.28
Town Source							
Aiken Stream & Well	2	0.83	0.32	0.43	0.25	0.63	0.56
Allendale Well	2	0.26	0.32	0.17	0.25	0.21	0.12
Augusta River	2	0.45	0.18	0.36	0.26	0.40	0.12
Barnwell Well	2	0.21	0.32	0.20	0.25	0.20	0.02
Bath Well	2	0.34	0.32	0.28	0.18	0.31	0.08
Blackville Well	2	0.14	0.20	0.07	0.31	0.10	0.10
Clearwater Lake	2	0.45	0.14	-0.02	0.31	0.21	0.66
Jackson Well	2	0.93	0.33	0.56	0.25	0.74	0.52
Langley Well	2	0.15	0.17	0.11	0.26	0.13	0.06
New Ellenton Well	2	0.51	0.25	0.36	0.32	0.43	0.22
North Augusta River	2	0.58	0.32	0.33	0.18	0.45	0.36
Sardis Well	2	0.29	0.32	0.22	0.18	0.25	0.10
Waynesboro Stream	2	0.07	0.17	0.05	0.31	0.06	0.02
Williston Well	2	0.19	0.25	0.18	0.32	0.18	0.02
Treatment Plant							
Beaufort Fin Comp	12	3.27	0.23	0.90	0.32	2.28	1.54
Beaufort Raw Comp	12	3.37	0.22	0.90	0.32	2.28	1.58
N Augusta Fin Comp	12	0.42	0.27	-0.10	0.31	0.29	0.28
N Augusta Raw Comp	12	0.53	0.27	0.10	0.27	0.35	0.26
Savannah Fin Comp	12	3.29	0.31	1.42	0.32	2.35	1.22
Savannah Raw Comp	12	3.30	0.31	1.61	0.33	2.42	1.14

**TABLE 5-4
DRINKING WATER ANALYSIS RESULTS
FOR RESIDUAL CHLORINE AND TOTAL COLIFORM**

Location	No. of Samples	Residual Chlorine (ppm)			Total Coliform (colonies/100mL)		
		Maximum	Minimum	Average	Maximum	Minimum	Average
Aiken Barricade	17	0.80	<0.10	0.39	<1	<1	<1
Allendale Barricade	1	0.30			<1		
ATTA	7	0.50	0.30	0.36	<1	<1	<1
Augusta Barricade	3	0.50	0.30		<1	<1	
701-2A	1	0.10			<1		
703-A	4	1.00	0.30		<1	<1	
703-4A	1	0.80			<1		
703-41A	3	0.60	0.06		1	<1	
703-42A	1	<0.10			<1		
703-45A	2	0.30	<0.10		<1	<1	
703-52A	1	0.70			<1		
708-A	3	2.20	0.20		<1	<1	
710-A	2	1.20	1.00		<1	<1	
713-A	2	0.70	0.50		<1	<1	
714-A	1	1.10			<1		
715-A	1	1.50			<1		
716-2A	2	0.50	0.50		<1	<1	
717-A	2	1.80	1.50		<1	<1	
719-A	17	2.80	0.00	0.53	<1	<1	<1
719-4A	3	1.00	0.30		<1	<1	
719-7A	1	0.30			<1		
719-9A	2	<0.10	<0.10		<1	<1	
721-A	2	1.40	0.80		<1	<1	
722-A	1	0.65			<1		
722-5A	2	0.20	0.20		<1	<1	
723-A	2	1.50	1.20		<1	<1	
724-A	18	1.50	<0.10	0.84	11	<1	<2
727-A	1	0.6					
735-11A	8	1.20	0.00		<1	<1	<1
736-A	2	1.70	0.60		<1	<1	
740-A	2	1.50	0.80		<1	<1	
751-A	2	2.00	1.00		<1	<1	
773-A	4	0.80	0.40		<1	<1	
773-22A	2	1.10	0.15		<1	<1	
773-24A	1	0.45			<1		
773-43A	2	1.00	1.00		<1	<1	
776-A	1	0.50			<1		
777-A	2	0.75	0.65		<1	<1	
781-A	2	0.80	0.70		<1	<1	
782-A	1	1.00			<1		
784-A	4	1.00	0.40		<1	<1	
784-1A	1	0.01			<1		
789-A	15	1.70	<0.10	0.76	<1	<1	<1
Barnwell Barricade	12	1.50	0.20	0.62	<1	<1	<1
Barricade #6	8	0.50	0.10	0.34	<1	<1	<1
Barricade #8	1	0.80			<1		
703-B	8	0.30	0.00	0.16	<1	<1	<1
704-B	4	1.00	0.20		<1	<1	
780-B	2	0.40	0.30		<1	<1	
Central Shops	5	1.00	0.30		<1	<1	
183-2C	61	2.50	0.50	1.34	<1	<1	<1
184-C	1	1.00			<1		
701-C	1	1.20			<1		
701-1C	25	2.10	0.70	1.28	1	<1	<1
704-C	51	2.30	0.40	1.15	<1	<1	<1
704-1C	1	1.00			<1		

Average not calculated for locations with ≤ 5 samples.

**TABLE 5-4
DRINKING WATER ANALYSIS RESULTS
FOR RESIDUAL CHLORINE AND TOTAL COLIFORM, CONT'D.**

Location	No. of Samples	Residual Chlorine (ppm)			Total Coliform (colonies/100mL)		
		Maximum	Minimum	Average	Maximum	Minimum	Average
706-C	14	2.70	0.70	1.20	<1	<1	<1
707-C	13	1.70	<0.10	0.69	<1	<1	<1
717-C	10	2.80	0.60	1.16	<1	<1	<1
402-D	1	1.80			<1		
420-D	26	2.30	0.0	1.19	<1	<1	<1
483-D	430	7.30	0.0	2.07	9	<1	<1
484-4D	2	1.90	1.50		<1	<1	
701-D	1	1.90			<1		
704-D	70	>3.00	<0.10	0.78	46 ^a	<1	<2
717-D	36	>3.00	0.0	1.27	25	<1	<2
772-D	31	>3.00	0.90	1.62	137 ^a	<1	<10
221-F	3	1.30	0.70		<1	<1	
221-18F	1	0.50			<1		
235-F	11	1.20	0.07	0.68	<1	<1	<1
241-17F	1	0.90			<1		
242-F	1	1.00			<1		
242-17F	2	1.20	0.80		<1	<1	
247-F	6	0.90	0.20	0.26	<1	<1	<1
280-1F	12	1.40	0.90	1.17	<1	<1	<1
704-F	11	1.20	0.0	0.46	<1	<1	<1
709-F	2	0.40	0.10		<1	<1	
772-F	6	1.20	0.40	0.70	<1	<1	<1
772-1F	2	0.90	0.70		<1	<1	
Forestry	8	2.00	0.0	0.68	<1	<1	<1
Ford Bldg.	4	0.50	0.20		<1	<1	
607-G	2	0.20	0.05		<1	<1	
607-41G	7	1.00	0.0	0.61	<1	<1	<1
618-G	6	1.50	0.0	0.50	<1	<1	<1
642-G	2	0.50	0.50		<1	<1	
661-G	11	0.50	0.20	0.41	<1	<1	<1
679-G	2	1.00	0.60		<1	<1	
681-1G	16	0.70	0.20	0.40	<1	<1	<1
681-3G	16	0.60	0.30	0.41	<1	<1	<1
681-9G	6	2.50	0.50	1.22	9	<1	<3
681-13G	2	1.00	0.80		<1	<1	
690-G	10	1.00	0.30	0.51	<1	<1	<1
701-3G	1	1.00			<1		
705-11G	12	0.80			<1		
706-G	12	0.40	<0.10	0.16	<1	<1	<1
709-G	4	0.10	<0.10		<1	<1	
709-1G	2	0.50	0.10		<1	<1	
724-7G	2	1.00	1.00		<1	<1	
735-7G	19	1.50	0.30	0.74	1	<1	<1
760-G	1	0.0			<1		
789-G	3	0.80	0.40		<1	<1	
905-G	1	0.40			<1		
905-6G	11	1.00	0.20	0.45	<1	<1	<1
905-10G	2	0.60	0.40		<1	<1	
905-11G	9	0.80	0.20	0.49	<1	<1	<1
905-26-107G	6	0.60	0.30	0.47	<1	<1	<1
905-57-69G	1	0.40			<1		
905-70G	3	0.80	0.20		<1	<1	
905-70-86G	1	0.60			<1		

Average not calculated for locations with ≤ 5 samples.

^a Due to use of unsterile sample containers.

TABLE 5-4
DRINKING WATER ANALYSIS RESULTS
FOR RESIDUAL CHLORINE AND TOTAL COLIFORM, CONT'D.

Location	No. of Samples	Residual Chlorine (ppm)			Total Coliform (colonies/100mL)		
		Maximum	Minimum	Average	Maximum	Minimum	Average
905-71-83G	5	1.50	0.20		<1	<1	
905-86G	4	0.80	0.20		<1	<1	
905-107G	7	0.80	0.20	0.45	<1	<1	<1
905-108G	7	0.50	0.20	0.35	<1	<1	<1
905-109G	6	0.90	<0.10	0.40	<1	<1	<1
905-110G	18	0.50	0.20	0.31	<1	<1	<1
905-111G	6	0.60	0.50	0.53	<1	<1	<1
905-115G	7	0.80	0.20	0.41	<1	<1	<1
221-H	13	2.00	0.60	1.15	<1	<1	<1
221-10H	2	1.00	0.70		<1	<1	
232-H	2	0.80	0.20		<1	<1	
234-H	3	1.00	0.70		<1	<1	
235-H	2	0.70	0.50		<1	<1	
238-H	3	0.90	0.40		<1	<1	
241-12H	6	1.50	1.30	1.33	<1	<1	<1
241-13H	2	1.00	0.90		<1	<1	
241-28H	2	1.80	1.00		<1	<1	
244-H	2	0.80	0.70		<1	<1	
284-H	18	1.60	0.30	0.93	8	<1	<2
284-4H	1	1.00			<1		
299-H	1	0.20			<1		
701-H	11	2.00	0.60	1.42	<1	<1	<1
701-1H	7	2.00	0.50	1.25	13	<1	<3
701-3H	1	1.80			<1		
703-H	1	1.00			<1		
704-H	13	1.70	0.50	1.15	<1	<1	<1
705-H	1	1.00			<1		
706-H	1	0.80			<1		
724-H	1	1.50			<1		
5000-H	3	0.90	<0.10		<1	<1	
108-K	1	0.50			<1		
108-1K	11	1.20	0.20	0.53	<1	<1	<1
183-2K	6	1.40	0.40	0.97	<1	<1	<1
184-K	2	1.50	1.20		1800 ^a	<1	<901
186-1K	1	0.90			<1		
701-K	2	0.90	0.90		<1	<1	
701-1K	23	1.20	0.50	0.91	1	<1	<1
704-K	53	2.20	0.40	0.95	<1	<1	<1
105-L	4	1.00	0.70		<1	<1	
108-1L	8	1.40	<0.10	0.88	<1	<1	<1
183-2L	25	1.80	0.0	1.09	<1	<1	<1
701-1L	26	1.40	0.30	0.96	1	<1	<1
704-L	23	2.00	0.20	0.85	<1	<1	<1
704-1L	2	1.10	1.00		<1	<1	
708-1L	1	0.40			<1		
313-M	2	0.60	<0.10		<1	<1	
320-M	3	1.20	0.50		<1	<1	
322-M	1	1.30			<1		
341-M	2	1.20	0.40		<1	<1	
704-M	19	2.50	<0.10	0.70	<1	<1	<1
730-M	2	1.30	0.75		<1	<1	
105-P	2	2.00	1.30		<1	<1	
108-1P	11	1.70	<0.10	0.80	<1	<1	<1

Average not calculated for locations with ≤ 5 samples.

^a Due to use of unsterile sample containers.

**TABLE 5-4
DRINKING WATER ANALYSIS RESULTS
FOR RESIDUAL CHLORINE AND TOTAL COLIFORM, CONT'D.**

Location	No. of Samples	Residual Chlorine (ppm)			Total Coliform (colonies/100mL)		
		Maximum	Minimum	Average	Maximum	Minimum	Average
183-2P	6	1.50	0.0		<1	<1	
701-P	1	0.07			<1		
701-1P	19	1.50	<0.10	0.63	<1	<1	<1
701-2P	1	4.00			<1		
704-P	46	4.00	<0.10	0.91	<1	<1	<1
704-1P	3	1.00	0.80		<1	<1	
250-S	6	1.80	0.70	1.28	7	<1	<2
511-S	1	0.80			<1		
701-S	5	1.20	0.90		<1	<1	
905-S	4	1.90	0.50		<1	<1	
670-T	4	0.30	0.10		<1	<1	
674-T	5	1.50	0.0		33000 ^a	<1	
676-11T	4	0.50	<0.10		<1	<1	
677-T	8	2.00	0.0	0.64	<1	<1	<1
678-T	1	0.80			<1		
679-T	23	73.50	0.0	4.02	<1	<1	<1
679-7T	2	0.0	0.0		<1	<1	
704-T	2	0.80	0.80		<1	<1	
704-1T	2	0.50	0.40		<1	<1	
704-U	2	0.50	0.30		<1	<1	
780-U	2	0.50	0.20		<1	<1	
789-U	10	0.80	0.20	0.49	<1	<1	<1
905-67-59U	2	0.60	0.50		<1	<1	
Williston Barricade	13	1.00	0.30	0.64	<1	<1	<1
704-Z	2				<1	<1	<1

Average not calculated for locations with ≤ 5 samples.

^a Sampled after water line repair. Not placed in service until total coliform counts were less than 1 colony/100mL.

**TABLE 5-5
DRINKING WATER ANALYSIS RESULTS FOR
CHEMICALS, METALS, AND ORGANICS**

<u>Constituents (units)</u>	<u>100-P</u>	<u>100-K</u>	<u>100-C</u>	<u>100-L</u>	<u>200-F</u>	<u>200-H</u>
pH (pH units) (lab)	7.35	7.03	6.57	7.34	6.80	4.63
Conductivity (μ mhos/cm)	67	74	64	89	110	57
Color (PCU)	15	23	7	23	23	13
Hardness (mgCaCO ₃ /L)	17.0	14.5	12.5	14.0	4.5	4.5
Turbidity (NTU)	0.53	1.80	0.36	1.39	1.51	1.55
TDS (mg/L)	56	58	51	69	77	46
Chloride (mg/L)	2.78	6.28	6.07	8.75	7.09	6.43
Fluoride (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate (mgN/L)	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
Sulfate (mgSO ₄ /L)	8.2	9.3	8.7	7.8	10.6	10.6
Silica (mgSiO ₂ /L)	10.7	9.82	9.24	10.1	8.98	9.70
T. phosphate (mgP/L)	0.159	0.128	0.048	0.249	<0.004	0.020
Total alkalinity (mgCaCO ₃ /L)	15.4	12.2	7.13	16.5	29.1	<1
Bicarbonate alkalinity (mgCaCO ₃ /L)	15.4	12.2	7.13	16.5	29.1	<1
Carbonate alkalinity (mgCaCO ₃ /L)	<1	<1	<1	<1	<1	<1
Total arsenic (mg/L)	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Total barium (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total cadmium (mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total calcium (mg/L)	6.92	5.58	5.30	5.44	0.702	0.827
Total chromium (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total copper (mg/L)	<0.05	<0.05	<0.05	<0.05	0.099	<0.05
Total sodium (mg/L)	6.92	8.42	7.19	12.0	25.4	7.10
Total iron (mg/L)	0.831	1.22	0.485	1.09	1.94	0.822
Total lead (mg/L)	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Total magnesium (mg/L)	0.489	0.658	0.359	0.554	0.340	0.361
Total manganese (mg/L)	<0.02	0.028	<0.02	0.027	0.028	0.020
Total mercury (mg/L)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Total potassium (mg/L)	1.25	2.09	0.545	1.27	0.826	1.05
Total selenium (mg/L)	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Total silver (mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Total zinc (mg/L)	<0.02	<0.02	<0.02	<0.02	<0.02	0.040

**TABLE 5-5
DRINKING WATER ANALYSIS RESULTS FOR
CHEMICALS, METALS, AND ORGANICS, CONT'D.**

<u>Constituents (units)</u>	<u>S-Area</u>	<u>3/700</u>	<u>400-D</u>	<u>ATTA</u>	<u>B (TC-1)</u>	<u>Central Shops</u>
pH (pH units) (lab)	6.16	6.98	6.66	6.45	6.67	6.21
Conductivity (μ mhos/cm)	90	96	132	66	87	82
Color (PCU)	10	20	<5	7	5	<5
Hardness (mgCaCO ₃ /L)	11.0	3.5	17.2	23.5	34.5	29.0
Turbidity (NTU)	0.56	3.00	0.98	2.70	1.20	0.80
TDS (mg/L)	68	67	86	46	58	64
Chloride (mg/L)	7.58	5.79	12.35	3.90	3.78	4.55
Fluoride (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate (mgN/L)	<0.01	0.23	0.33	0.29	0.03	0.06
Sulfate (mgSO ₄ /L)	10.1	1.5	22.1	1.9	1.8	7.8
Silica (mgSiO ₂ /L)	11.8	7.37	7.50	4.22	8.09	11.0
T. phosphate (mgP/L)	0.115	0.005	0.349	0.038	<0.004	0.546
Total alkalinity (mgCaCO ₃ /L)	16.9	37.1	16.8	20.8	31.3	19.5
Bicarbonate alkalinity (mgCaCO ₃ /L)	16.9	37.1	16.8	20.8	31.3	19.5
Carbonate alkalinity (mgCaCO ₃ /L)	<1	<1	<1	<1	<1	<1
Total arsenic (mg/L)	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Total barium (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total cadmium (mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total calcium (mg/L)	4.00	0.493	4.85	7.23	13.4	9.81
Total chromium (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total copper (mg/L)	<0.05	<0.05	<0.05	0.099	<0.05	<0.05
Total sodium (mg/L)	15.2	23.6	20.5	2.76	2.81	5.41
Total iron (mg/L)	0.682	0.247	0.027	0.246	0.050	0.050
Total lead (mg/L)	<0.003	0.0066	<0.003	0.0044	<0.003	<0.003
Total magnesium (mg/L)	0.447	0.241	1.65	0.423	0.564	0.405
Total manganese (mg/L)	<0.02	0.054	0.116	0.029	<0.02	<0.02
Total mercury (mg/L)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Total potassium (mg/L)	0.817	<0.5	1.57	<0.5	<0.5	<0.5
Total selenium (mg/L)	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Total silver (mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Total zinc (mg/L)	<0.02	<0.02	0.032	3.27	<0.02	0.041

**TABLE 5-5
DRINKING WATER ANALYSIS RESULTS FOR
CHEMICALS, METALS, AND ORGANICS, CONT'D.**

<u>Constituents (units)</u>	<u>Forestry</u>	<u>Pistol Range</u>	<u>R.R. Yard</u>	<u>TNX</u>
pH (pH units) (lab)	5.80	5.17	6.89	6.60
Conductivity (μ mhos/cm)	51	27	136	130
Color (PCU)	<5	<5	20	<5
Hardness (mgCaCO ₃ /L)	3.5	7.5	61.5	40.5
Turbidity (NTU)	0.72	0.31	9.90	1.45
TDS (mg/L)	39	28	96	92
Chloride (mg/L)	10.82	4.13	6.14	9.68
Fluoride (mg/L)	<0.1	<0.1	<0.1	<0.1
Nitrate (mgN/L)	0.74	0.75	0.02	<0.01
Sulfate (mgSO ₄ /L)	1.1	<1.0	2.2	10.4
Silica (mgSiO ₂ /L)	5.76	5.35	14.6	10.1
T. phosphate (mgP/L)	<0.004	<0.004	0.120	1.38
Total alkalinity (mgCaCO ₃ /L)	2.80	0.60	55.4	31.5
Bicarbonate alkalinity (mgCaCO ₃ /L)	2.80	0.60	55.4	31.5
Carbonate alkalinity (mgCaCO ₃ /L)	<1	<1	<1	<1
Total arsenic (mg/L)	<0.003	<0.003	<0.003	<0.003
Total barium (mg/L)	<0.1	<0.1	<0.1	<0.1
Total cadmium (mg/L)	<0.01	<0.01	<0.01	<0.01
Total calcium (mg/L)	0.473	0.154	21.1	5.00
Total chromium (mg/L)	<0.05	<0.05	<0.05	<0.05
Total copper (mg/L)	<0.05	0.345	0.540	<0.05
Total sodium (mg/L)	9.27	3.76	4.88	19.6
Total iron (mg/L)	0.162	0.264	1.01	1.21
Total lead (mg/L)	<0.003	0.0262	0.0044	<0.003
Total magnesium (mg/L)	0.324	0.295	0.652	0.939
Total manganese (mg/L)	<0.02	0.033	<0.02	0.030
Total mercury (mg/L)	<0.0001	<0.0001	<0.0001	<0.0001
Total potassium (mg/L)	<0.5	<0.5	1.28	4.27
Total selenium (mg/L)	<0.006	<0.006	<0.006	<0.006
Total silver (mg/L)	<0.0005	<0.0005	<0.0005	<0.0005
Total zinc (mg/L)	<0.02	<0.02	0.105	<0.02

**TABLE 5-5
DRINKING WATER ANALYSIS RESULTS FOR
CHEMICALS, METALS, AND ORGANICS, CONT'D.**

<u>Constituents (µg/L)</u>	<u>100-P</u>	<u>100-K</u>	<u>100-C</u>	<u>100-L</u>	<u>200-F</u>	<u>200-H</u>	<u>S-Area</u>	<u>3/700</u>
Bromodichloromethane (Dichlorobromomethane)	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Bromomethane (Methyl bromide)	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Carbon tetrachloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2-Chloroethyl vinyl ether	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chloroform	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chloromethane (Methyl chloride)	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dibromochloromethane (Chlorodibromomethane)	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
1,1-Dichloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene (1,1-Dichloroethylene)	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene (trans-1,2-Dichloroethylene)	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,2-Dichloropropane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methylene chloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene (perylene or tetrachloroethylene)	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichloroethene (triclene) (Trichloroethylene)	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Vinyl chloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Total THM	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Benzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Toluene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Ethylbenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorobenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
TOC	<1	<1	<1	<1	<1	<1	1.3	2.5

**TABLE 5-5
DRINKING WATER ANALYSIS RESULTS FOR
CHEMICALS, METALS, AND ORGANICS, CONT'D.**

<u>Constituents (ug/L)</u>	<u>400-D</u>	<u>ATTA</u>	<u>B(TC-1)</u>	<u>Central Shops</u>	<u>Forestry</u>	<u>Pistol Range</u>	<u>R.R. Yard</u>	<u>TNX T-Area</u>
Bromodichloromethane (Dichlorobromomethane)	3.10	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Bromomethane (Methyl bromide)	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Carbon tetrachloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2-Chloroethyl vinyl ether	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chloroform	40.1	3.10	<1.00	1.80	<1.00	<1.00	<1.00	<1.00
Chloromethane (Methyl chloride)	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dibromochloromethane (Chlorodibromomethane)	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
1,1-Dichloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene (1,1-Dichloroethylene)	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene (trans-1,2-Dichloroethylene)	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methylene chloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene (perylene or tetrachloroethylene)	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichloroethene (triclene) (Trichloroethylene)	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Vinyl chloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Total THM	43.2	3.10	<2.00	1.80	<2.00	<2.00	<2.00	<2.00
Benzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Toluene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Ethylbenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorobenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
TOC	2.3	1.8	1.8	2.3	<1	1.0	2.3	<1

TABLE 5-6
A-ADMINISTRATION AREA WELL
CHLOROCARBON MONITORING RESULTS

<u>Location</u>	<u>Lab</u>	<u>No. of Samples</u>	<u>1,1,1-Trichloroethane</u>			<u>Trichloroethylene</u>			<u>Tetrachloroethylene</u>		
			<u>Max</u>	<u>Min</u>	<u>Avg</u>	<u>Max</u>	<u>Min</u>	<u>Avg</u>	<u>Max</u>	<u>Min</u>	<u>Avg</u>
Well 31A (3/700 Area Backup Drinking Water)	a	12	<1	<1	<1	12.3	2.5	5.7	2.1	1.0	1.5
	b	12	<1	<1	<1	12.8	4.2	6.8	4.1	<1	2.6
Well 68A (EOC Backup Drinking Water)	a	12	<0.25	<0.25	<0.25	0.66	<0.25	0.44	<0.25	<0.25	<0.25
	b	12	<1	<1	<1	2.0	<1	1.1	<1	<1	<1
Well 82A (3/700 Area Drinking Water)	a	12	<0.25	<0.25	<0.25	0.31	<0.25	0.26	0.50	<0.25	0.28
	b	12	<1	<1	<1	<1	<1	<1	<1	<1	<1
735-A (Tap Water)	a	11	<0.25	<0.25	<0.25	0.41	<0.25	0.26	0.30	<0.25	0.25
	b	11	<1	<1	<1	<1	<1	<1	<1	<1	<1
784-A (Tap Water)	a	4	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	b	4	<1	<1	<1	<1	<1	<1	<1	<1	<1
Well 112G (New 3/700 Area Drinking Water)	a	2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	b	2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Well 113G (New 3/700 Area Drinking Water)	a	2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1	<1	<1
	b	2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Well 20A (Process Water)	a	10	10.3	1.5	9.2	123	41.5	82.6	<10	<10	<10
	b	10	<1	<1	<1	101	57.8	83.1	3.41	<1	1.4
Well 53A (Process Water)	a	7	<5	<5	<5	55.5	18.4	36.1	5.8	4.4	5.1
	b	7	<1	<1	<1	54.5	33.4	41.8	6.6	<1	4.0

a SRP laboratory.

b Subcontracted laboratory.

**TABLE 5-7
SRP DRINKING WATER
CHLOROCARBON MONITORING RESULTS**

<u>Sample Location</u>	<u>No. of Samples</u>	<u>Maximum Concentration $\mu\text{g/L}$ (ppb)</u>		
		<u>1,1,1-Trichloroethane</u>	<u>Trichloroethylene</u>	<u>Tetrachloroethylene</u>
100-C	2	<1	<1	<1
100-K	2	<1	<1	<1
100-P	2	<1	<1	<1
100-L	2	<1	<1	<1
200-F	2	<1	<1	<1
200-H	2	<1	<1	<1
400-D	2	<1	<1	<1
Classification Yard	2	<1	<1	<1
River Pump Station (1G)	2	<1	<1	<1
River Pump Station (3G)	2	<1	<1	<1
Central Shops	2	<1	<1	<1
Par Pond Lab	2	<1	<1	<1
Forestry	2	<1	<1	<1
Jackson Barricade	2	<1	<1	<1
Talatha Barricade	2	<1	<1	<1
Williston Barricade	2	<1	<1	<1
Barnwell Barricade	2	<1	<1	<1
Allendale Barricade	2	<1	<1	<1
Patrol Gate 6	2	<1	<1	<1
Patrol Gate 7	2	<1	<1	<1
Patrol Gate 8	1	<1	<1	<1
Wackenhut Training Facility	2	<1	<1	<1
A-Area Cafeteria	2	<1	<1	<1
Emergency Operating Center	2	<1	<1	<1
Firing Range	2	<1	<1	<1
TC-1	2	<1	<1	<1
TNX	2	<1	<1	<1
704-S (DWPF)	1	<1	<1	<1

TABLE 6-1
RADIOACTIVITY IN FISH AND SEAFOOD

Location	Species	No. of Samples	Gross Alpha in Flesh, pCi/g		
			Maximum	Minimum	Arithmetic Mean ± 2 Std Dev
<u>River</u>					
River Above Plant (R-2, RM-160)	Bass	2	0.04±0.14	0.0 ±0.22	-
	Bream	5	0.04±0.14	-0.08±0.15	-0.01±0.09
	Catfish	1	0.0 ±0.23	0.0 ±0.23	-
	Crappie	4	0.08±0.16	-0.08±0.15	-
River Adjacent to Plant (R-8, RM-140)	Bream	2	0.0 ±0.22	0.0 ±0.22	-
	Eel	2	0.08±0.27	-0.08±0.15	-
	Jackfish	1	-0.08±0.15	-0.08±0.15	-
River Below Plant (R-10, RM-120)	Bream	5	0.16±0.20	0.0 ±0.08	0.02±0.09
	Catfish	5	0.16±0.32	-0.08±0.15	0.0 ±0.10
	Perch	1	0.30±0.37	0.30±0.37	-
River Mouth (RM-0-8)	Crab	16	0.75±0.55	0.0 ±0.17	0.18±0.49
	Croaker	3	0.0 ±0.21	0.0 ±0.15	-
	Oyster	2	0.0 ±0.15	0.0 ±0.15	-
	Spot	1	0.0 ±0.21	0.0 ±0.21	-
<u>Ponds</u>					
Par Pond	Bass	3	0.46±0.43	0.0 ±0.15	-
	Bream	3	0.0 ±0.21	0.0 ±0.08	-
	Catfish	3	0.08±0.27	0.0 ±0.15	-
	Crappie	10	0.08±0.27	-0.08±0.15	0.02±0.55
Pond B	Bass	7	0.13±0.13	-0.04±0.08	0.04±0.05
	Bream	4	1.0 ±0.60	-0.04±0.08	-
	Catfish	3	0.16±0.30	0.0 ±0.21	-
<u>Streams</u>					
Steel Creek	Bass	3	0.0 ±0.22	-0.08±0.15	-
	Bream	6	0.12±0.17	-0.02±0.04	0.0 ±0.06
	Catfish	4	0.08±0.26	-0.08±0.15	-
	Eel	1	0.0 ±0.23	0.0 ±0.23	-
	Jackfish	2	0.16±0.32	0.0 ±0.21	-
	Sucker	5	0.08±0.27	-0.08±0.15	0.02±0.05
Upper Three Runs	Bass	1	0.08±0.27	0.08±0.27	-
	Bream	6	0.15±0.30	0.0 ±0.08	0.07±0.05
	Catfish	8	0.41±0.43	0.0 ±0.22	0.14±0.17
	Crappie	4	1.4 ±0.68	0.08±0.27	-
	Jackfish	1	0.08±0.27	0.08±0.27	-
Four Mile Creek	Bream	8	0.39±0.41	-0.08±0.16	0.12±0.16
	Catfish	2	0.0 ±0.13	-0.04±0.08	-
	Sucker	2	0.62±0.49	0.23±0.34	-
Beaver Dam Creek	Bream	8	0.08±0.27	-0.08±0.15	0.0 ±0.05
	Crappie	1	0.0 ±0.23	0.0 ±0.23	-
Pen Branch	Bream	4	0.08±0.27	-0.08±0.15	-
Lower Three Runs	Bass	2	0.08±0.27	0.0 ±0.22	-
	Bream	1	0.23±0.34	0.23±0.34	-
	Catfish	2	0.0 ±0.21	-0.08±0.15	-
	Crappie	1	0.0 ±0.22	0.0 ±0.22	-
	Sucker	1	-0.08±0.15	-0.08±0.15	-

- Insufficient data.

TABLE 6-1
RADIOACTIVITY IN FISH AND SEAFOOD, CONT'D.

Location	Species	No. of Samples	Gross Beta in Flesh, pCi/g		
			Maximum	Minimum	Arithmetic Mean ± 2 Std Dev
<u>River</u>					
River Above Plant (R-2, RM-160)	Bass	2	4.0 ±1.2	0.85±0.58	-
	Bream	5	13 ±1.8	1.5 ±0.65	5.2± 4.7
	Catfish	1	2.7 ±1.2	2.7 ±1.2	-
	Crappie	4	4.4 ±1.2	0.58±0.85	-
River Adjacent to Plant (R-8, RM-140)	Bream	2	8.8 ±1.6	4.8 ±1.3	-
	Eel	2	3.9 ±1.2	3.1 ±1.1	-
	Jackfish	1	6.3 ±1.4	6.3 ±1.4	-
River Below Plant (R-10, RM-120)	Bream	5	3.3 ±1.1	0.88±0.59	1.9± 1.0
	Catfish	5	3.8 ±1.4	1.3 ±0.63	2.6± 1.0
	Perch	1	33 ±2.9	33 ±2.9	-
River Mouth (RM-0-8)	Crab	16	5.9 ±1.5	0.63±1.0	2.4± 2.7
	Croker	3	2.5 ±1.1	1.2 ±0.93	-
	Oyster	2	0.16±0.98	-0.27±0.94	-
	Spot	1	1.1 ±0.91	1.1 ±0.91	-
<u>Ponds</u>					
Par Pond	Bass	3	61 ±3.7	5.3 ±0.9	-
	Bream	3	5.5 ±1.3	5.2 ±0.90	-
	Catfish	3	6.2 ±1.4	5.3 ±1.3	-
	Crappie	10	18 ±2.1	8.6 ±1.6	11 ± 2.6
Pond B	Bass	7	190 ±4.7	92 ±3.2	147 ±34
	Bream	4	96 ±4.6	53 ±3.4	71 ±18
	Catfish	3	59 ±3.6	2.5 ±1.1	-
<u>Streams</u>					
Steel Creek	Bass	3	5.2 ±1.3	3.5 ±1.2	-
	Bream	6	4.5 ±1.2	1.4 ±0.62	2.7± 2.5
	Catfish	4	4.9 ±1.3	2.3 ±0.72	-
	Eel	1	4.8 ±1.5	4.8 ±1.5	-
	Jackfish	2	9.5 ±1.6	6.8 ±1.6	-
	Sucker	5	4.3 ±1.2	2.3 ±0.7	3.4± 1.6
Upper Three Runs	Bass	1	4.9 ±1.3	4.9 ±1.3	-
	Bream	6	8.9 ±1.6	1.5 ±0.63	4.6± 6.6
	Catfish	8	3.9 ±1.2	0.81±0.91	2.7± 2.4
	Crappie	4	7.7 ±1.5	3.8 ±1.2	-
	Jackfish	1	3.6 ±1.2	3.6 ±1.2	-
Four Mile Creek	Bream	8	92 ±4.6	23 ±2.4	47 ±48
	Catfish	2	19 ±1.6	17 ±1.4	-
	Sucker	2	57 ±3.6	57 ±3.5	-
Beaver Dam Creek	Bream	8	14 ±1.9	2.6 ±1.3	7.5± 8.8
	Crappie	1	4.4 ±1.4	4.4 ±1.4	-
Pen Branch	Bream	4	6.0 ±1.4	2.5 ±1.1	-
Lower Three Runs	Bass	2	8.6 ±1.6	4.3 ±1.3	-
	Bream	1	4.7 ±1.3	4.7 ±1.3	-
	Catfish	2	6.7 ±1.4	4.4 ±1.3	-
	Crappie	1	6.6 ±1.4	6.6 ±1.4	-
	Sucker	1	3.7 ±1.2	3.7 ±1.2	-

- Insufficient data.

**TABLE 6-1
RADIOACTIVITY IN FISH AND SEAFOOD, CONT'D.**

Location	Species	No. of Samples	Whole Fish, Cs-137, pCi/g		
			Maximum	Minimum	Arithmetic Mean ± 2 Std Dev
<u>River</u>					
Thurmond Lake ^a	Bass	3	0.24±0.08	0.07±0.05	-
	Bream	6	2.2 ±0.03	0.0 ±0.11	0.88± 2.0
	Catfish	3	0.02±0.01	0.02±0.02	-
River Above Plant (R-2, RM-160)	Bass	1	0.0 ±0.03	0.0 ±0.03	-
	Bream	26	1.1 ±0.22	0.0 ±0.06	0.19± 0.66
	Catfish	5	0.44±0.38	0.0 ±0.05	0.09± 0.39
	Crappie	12	0.39±0.12	0.0 ±0.06	0.16± 0.25
River Adjacent to Plant (RM-150)	Bream	12	1.3 ±0.24	0.0 ±0.11	0.3 ± 0.42
	Catfish	4	0.34±0.10	0.13±0.06	0.08± 0.27
	Crappie	4	0.06±0.02	0.0 ±0.06	-
	Mudfish	1	0.08±0.09	0.08±0.09	-
River Adjacent to Plant (R-8, RM-140)	Bream	20	1.1 ±0.42	0.0 ±0.01	0.38± 0.70
	Catfish	11	1.3 ±0.05	0.0 ±0.08	0.40± 0.77
	Crappie	3	0.78±0.08	0.27±0.24	-
	Jackfish	1	1.4 ±0.05	1.4 ±0.05	-
	Sucker	3	1.4 ±0.06	1.1 ±0.07	-
River Below Plant (R-10, RM-120)	Bass	2	0.28±0.12	0.17±0.11	-
	Bream	16	0.62±0.09	0.0 ±0.12	0.17± 0.45
	Catfish	12	0.59±0.19	0.0 ±0.09	0.22± 0.37
	Perch	2	0.18±0.02	0.0 ±0.06	-
River Mouth (RM-0-8)	Catfish	2	0.19±0.10	0.10±0.08	-
	Crab	20	0.17±0.11	0.0 ±0.02	0.02± 0.09
	Croaker	5	1.41±0.39	0.0 ±0.05	0.31± 0.62
	Oyster	2	0.0 ±0.05	0.0 ±0.05	-
	Spot	1	0.20±0.11	0.20±0.11	-
<u>Ponds</u>					
Par Pond	Bass	13	5.5 ±0.14	0.71±0.01	2.5 ± 3.1
	Bream	11	7.1 ±0.41	0.82±0.04	2.8 ± 4.6
	Catfish	6	3.8 ±0.10	1.6 ±0.05	2.9 ± 1.6
	Crappie	15	6.0 ±0.07	0.74±0.02	2.0 ± 2.8
	Sucker	7	5.5 ±0.21	4.2 ±0.12	4.8 ± 1.1
Pond B	Bass	8	213 ±1.7	81 ±0.73	137 ±84
	Bream	11	118 ±1.6	43 ±0.73	84 ±72
	Catfish	2	71 ±1.1	55 ±0.71	-
	Crappie	3	24 ±0.38	2.3 ±0.05	-
Jacks Lake	Sucker	1	0.63±0.06	0.63±0.06	-
Cannuck Lake	Bream	8	1.2 ±0.06	0.0 ±0.16	0.47± 0.72
	Catfish	1	0.58±0.02	0.58±0.02	-

^a Formerly Clarks Hill.
- Insufficient data.

TABLE 6-1
RADIOACTIVITY IN FISH AND SEAFOOD, CONT'D.

Location	Species	No. of Samples	Whole Fish, Cs-137, pCi/g		
			Maximum	Minimum	Arithmetic Mean ± 2 Std Dev
<u>Streams</u>					
Steel Creek	Bass	6	3.0 ±0.15	0.84±0.13	1.5 ±1.7
	Bream	19	3.8 ±0.22	0.0 ±0.13	1.6 ±1.9
	Catfish	6	2.5 ±0.06	1.3 ±0.06	1.8 ±1.2
	Eel	1	2.8 ±0.06	2.8 ±0.06	-
	Jackfish	2	1.9 ±0.06	0.16±0.07	-
	Sucker	20	2.5 ±0.08	0.51±0.12	1.3 ±1.2
Upper Three Runs	Bass	2	0.35±0.05	0.29±0.09	-
	Bream	13	0.89±0.22	0.0 ±0.07	0.13±0.26
	Catfish	15	1.4 ±0.12	0.01±0.01	0.48±0.65
	Crappie	3	0.70±0.21	0.29±0.10	-
	Jackfish	1	0.19±0.05	0.19±0.05	-
	Mullet	1	0.31±0.16	0.31±0.16	-
Four Mile Creek	Bream	11	8.3 ±0.66	3.5 ±0.36	5.7 ±3.0
	Catfish	4	9.1 ±0.24	5.2 ±0.16	-
	Sucker	2	8.4 ±0.25	4.2 ±0.13	-
Lower Three Runs at Patterson Mill	Bass	2	3.4 ±0.15	2.4 ±0.08	-
	Bream	3	4.8 ±0.37	1.1 ±0.10	-
	Catfish	2	6.4 ±0.14	2.6 ±0.10	-
	Crappie	1	5.3 ±0.17	5.3 ±0.17	-
	Sucker	1	2.1 ±0.05	2.1 ±0.05	-
Beaver Dam Creek	Bream	8	2.2 ±0.96	0.0 ±0.06	1.3 ±4.7
	Catfish	6	0.43±0.07	0.07±0.02	0.17±0.30
	Crappie	1	1.0 ±0.40	1.0 ±0.40	-
Pen Branch	Bass	3	0.17±0.16	0.0 ±0.01	-
	Bream	5	1.1 ±0.42	0.23±0.02	0.67±0.54
	Catfish	2	0.24±0.13	0.0 ±0.11	-
	Gar	1	0.08±0.02	0.08±0.02	-
	Sucker	3	1.3 ±0.06	0.0 ±0.05	-

- Insufficient data.

TABLE 6-2
SUMMARY OF CESIUM-137 IN FISH

Location	Cs-137 in Whole Fish, Average pCi/g ^a				
	1975	1979	1980	1981	1982
Steel Creek at Road A	28 (45)	5 (21)	12 (8)	17 (3)	6 (10)
Steel Creek near mouth	1.1 (63)	1.8 (10)	0.6 (22)	0.8 (26)	-
Four Mile Creek at Road 3	32 (31)	9 (7)	10 (5)	15 (8)	-
Four Mile Creek at SC 125	-	-	-	-	-
Four Mile Creek at Cassel's Pond	1.4 (74)	1.1 (12)	0.5 (18)	0.6 (2)	0.4 (49)
Par Pond	15 (74)	1.0 (28)	3 (39)	2.6 (14)	3 (22)
Pond B	180 (70)	88 (16)	69 (47)	80 (22)	73 (14)
Lower Three Runs Creek at Patterson Mill	14 (10)	4.7 (22)	2 (6)	-	-
Savannah River above plant	0.1 (87)	0.6 (16)	<0.4 (42)	0.2 (65)	0.04 (8)
Savannah River adjacent to plant	0.2 (55)	0.4 (9)	<0.2 (62)	0.2 (62)	0.6 (32)
Savannah River below plant	0.2 (90)	0.2 (4)	<0.2 (32)	0.3 (68)	0.6 (57)

Location	Cs-137 in Whole Fish, Average pCi/g ^a				
	1983	1984	1985	1986	1987
Steel Creek at Road A	9 (6)	7.6 (24)	5.5 (1)	5 (72)	1.5 (54)
Steel Creek near mouth	-	-	-	-	-
Four Mile Creek at Road 3	-	-	-	-	-
Four Mile Creek at SC 125	-	-	-	8.5 (13)	6.1 (17)
Four Mile Creek at Cassel's Pond	0.4 (25)	2.3 (16)	0.2 (9)	1.1 (16)	-
Par Pond	9 (46)	3.3 (48)	8.9 (6)	9.9 (36)	2.8 (52)
Pond B	-	71 (39)	52.5 (7)	37 (21)	86 (24)
Lower Three Runs Creek at Patterson Mill	-	1.2 (9)	0.7 (3)	6.3 (52)	3.3 (9)
Beaver Dam Creek	-	-	-	-	0.53 (15)
Pen Branch	-	-	-	-	0.36 (14)
Upper Three Runs at Road A	-	-	-	-	0.33 (35)
Savannah River above plant	0.14 (45)	0.11 (119)	0.01 (29)	0.12 (68)	0.17 (44)
Savannah River adjacent to plant	0.18 (65)	0.12 (187)	0.12 (57)	0.37 (32)	0.40 (59)
Savannah River below plant	0.08 (63)	0.06 (63)	0.01 (40)	0.38 (50)	0.19 (32)
Savannah River below plant at Savannah (river mile 0-8)	-	-	-	-	0.26 (8)

^a Value in parentheses is number of fish analyzed.
- No analyses.

**TABLE 6-3
RADIOACTIVITY IN DEER AND HOGS**

<u>Species</u>	<u>No. of Animals</u>	<u>Cs-137 Concentrations, pCi/g</u>		
		<u>Maximum</u>	<u>Minimum</u>	<u>Mean</u>
Deer	606	45	<1	5 ± 5
Hog	123	11	<1	3 ± 2

**TABLE 6-4
SUMMARY OF CESIUM-137 IN DEER**

<u>Year</u>	<u>No. of Deer</u>		<u>Average, pCi/g</u>		<u>Maximum, pCi/g</u>	
	<u>SRP</u>	<u>SCCP^a</u>	<u>SRP</u>	<u>SCCP^a</u>	<u>SRP</u>	<u>SCCP^a</u>
1965	198		10		10	
1966	541		6		24	
1967	1,032		9		104 ^b	
1968	669	34	11	23	74 ^c	80
1969	889 ^d	31	15	15	204 ^c	72
1970	864	33	18	20	77 ^c	57
1971	865	42	11	21	48	42
1972	808	72	8	11	38	32
1973	1,158	78	6	16	31	49
1974	1,551	89	5	9	52	23
1975	1,391	42	9	17	36	38
1976	1,357	35	11	16	41	36
1977	1,271	41	10	16	42	25
1978	1,220	36	5	11	65	21
1979	1,079	57	10	12	98	29
1980	961	51	10	9	98	32
1981	1,791	32	8	8	47	18
1982	2,063	28	14	15	73	33
1983	1,597	^e	4	^e	16	^e
1984	1,038	5 ^f	6	14	23	16
1985	1,022	30	7 ± 11 ^g	6 ± 4	30	11
1986	944	23	7 ± 8	6 ± 1	29	15
1987	606	5	5 ± 5	9 ± 5	45	15

^a South Carolina Coastal Plains.

^b Killed along Four Mile Creek.

^c Killed near Steel Creek.

^d Approximately 20 % of deer monitored before 1969; each deer monitored since 1969.

^e Program discontinued by the University of Georgia.

^f Samples collected from SCCP deer and counted by SRP.

^g The ± value represents the standard deviation.

TABLE 6-5
COMPARISON OF FIELD AND LABORATORY
CESIUM-137 MEASUREMENTS IN DEER AND HOGS
(pCi/gram)

<u>Collection Date</u>	<u>Tag Number</u>	<u>Compartment Number</u>	<u>Field Cs-137</u>	<u>Lab Cs-137</u>
11/04/87	7785	44	1	1.4 ± 0.1
11/04/87	6752	48	4	6.2 ± 0.3
11/04/87	9801	44	2	4.9 ± 0.3
11/07/87	6763	20	2	5.3 ± 0.3
11/07/87	6982	20	1	1.7 ± 0.1
11/07/87	6762 H	20	1	4.1 ± 0.3
11/07/87	6997	24	8	8.2 ± 0.4
11/07/87	6980	24	7	10.2 ± 0.3
11/07/87	6991 H	20	3	4.8 ± 0.2
11/07/87	4963	25	2	3.0 ± 0.2
11/07/87	7727 H	20	1	4.5 ± 0.2
11/07/87	6992 H	20	1	3.3 ± 0.2
11/07/87	6979	24	1	3.3 ± 0.1
11/07/87	6978	24	2	4.2 ± 0.2
11/11/87	7908	16	2	4.6 ± 0.3
11/14/87	6034	32	7	4.9 ± 0.2
11/14/87	6515	32	9	3.8 ± 0.2
11/18/87	5636	18	8	6.8 ± 0.3
11/18/87	6258	15	5	4.4 ± 0.3
11/18/87	6256 H	15	2	4.6 ± 0.3
11/18/87	6254 H	15	2	3.6 ± 0.2
11/21/87	4649 H	42	3	4.7 ± 0.3
11/21/87	4626	42	3	2.6 ± 0.2
11/21/87	9971	27	10	9.5 ± 0.6
11/21/87	9968	42	1	1.8 ± 0.2
11/21/87	4421	27	2	2.6 ± 0.1
11/25/87	4636	13	3	1.7 ± 0.2
11/25/87	4403 H	14	7	9.6 ± 0.4
11/25/87	6437	13	3	2.2 ± 0.1
11/25/87	4643 H	14	6	9.4 ± 0.4
11/28/87	4980	8	45	30.1 ± 0.7
11/28/87	4646	8	34	44.0 ± 2.6
11/28/87	4648	8	30	37.0 ± 2.2
11/28/87	6784	8	8	10.6 ± 0.6
11/28/87	9834	8	26	36.5 ± 2.2
11/28/87	4407 H	8	10	4.0 ± 0.6
12/02/87	6454	25	1	1.9 ± 0.2
12/02/87	6472	18	2	2.7 ± 0.2
12/02/87	6733	25	11	10.1 ± 0.6
12/02/87	6736 H	18	2	10.1 ± 0.6
12/05/87	4983	16	3	4.2 ± 0.3
12/09/87	4931	44	2	2.2 ± 0.2
12/09/87	9979 H	48	2	3.4 ± 0.1
12/09/87	4990	44	6	4.0 ± 0.3
12/09/87	9538 H	48	2	1.8 ± 0.2
12/12/87	4991	20	3	3.8 ± 0.3
12/12/87	9594	20	3	4.3 ± 0.3
12/12/87	9593	13	6	5.6 ± 0.2
12/12/87	4996	13	*	4.2 ± 0.3
12/12/87	9998 H	20	2	7.8 ± 0.5

H - Hog
 * Not Surveyed

TABLE 6-6
CESIUM-137 AND IODINE-131
MEASUREMENTS IN DEER AND HOGS
(pCi/gram)

Collection Date	Tag Number	Compartment Number	Cs-137 in Flesh ^a	I-131 in Flesh	Cs-137 in Bone
11/04/87	7785	44	1.4 ± 0.1		
11/04/87	6752	48	6.2 ± 0.3		
11/04/87	9801	44	4.9 ± 0.3	<0.6	
11/07/87	6763	20	5.3 ± 0.3	<0.9	0.7 ± 0.8
11/07/87	6982	20	1.7 ± 0.1	<0.9	<0.4
11/07/87	6762 H	20	4.1 ± 0.3		
11/07/87	6997	24	8.2 ± 0.4		
11/07/87	6980	24	10.2 ± 0.3		
11/07/87	6991 H	20	4.8 ± 0.2		
11/07/87	4963	25	3.0 ± 0.2		
11/07/87	7727 H	20	4.5 ± 0.2		
11/07/87	6992 H	20	3.3 ± 0.2		
11/07/87	6979	24	3.3 ± 0.1		
11/07/87	6978	24	4.2 ± 0.2		
11/11/87	7908	16	4.6 ± 0.3	<0.9	0.5 ± 0.2
11/14/87	6034	32	4.9 ± 0.2	<0.5	0.4 ± 0.2
11/14/87	6515	32	3.8 ± 0.2	<0.5	1.5 ± 0.4
11/18/87	5636	18	6.8 ± 0.3	<2.3	3.5 ± 0.5
11/18/87	6258	15	4.4 ± 0.3	<0.8	1.2 ± 0.2
11/18/87	6256 H	15	4.6 ± 0.3		
11/18/87	6254 H	15	3.6 ± 0.2		
11/21/87	4649 H	42	4.7 ± 0.3		
11/21/87	4626	42	2.6 ± 0.2	<0.1	1.9 ± 0.3
11/21/87	9971	27	9.5 ± 0.6	<0.1	0.9 ± 0.4
11/21/87	9968	42	1.8 ± 0.2	<0.1	<0.3
11/21/87	4421	27	2.6 ± 0.1	<0.1	0.4 ± 0.2
11/25/87	4636	13	1.7 ± 0.2	<1.1	<0.5
11/25/87	4403 H	14	9.6 ± 0.4		
11/25/87	6437	13	2.2 ± 0.1	<1.1	<0.2
11/25/87	4643 H	14	9.4 ± 0.4		
11/28/87	4980	8	30.1 ± 0.7		1.7 ± 0.4
11/28/87	4646	8	44.0 ± 2.6		2.5 ± 0.6
11/28/87	4648	8	37.0 ± 2.2		2.8 ± 0.5
11/28/87	6784	8	10.6 ± 0.6	<1.9	0.2 ± 0.2
11/28/87	9834	8	36.5 ± 2.2		2.6 ± 0.5
11/28/87	4407 H	8	4.0 ± 0.6		
12/02/87	6454	25	1.9 ± 0.2	<0.4	
12/02/87	6472	18	2.7 ± 0.2	<0.4	0.4 ± 0.2
12/02/87	6733	25	10.1 ± 0.6	<0.4	
12/02/87	6736 H	18	10.1 ± 0.6		
12/05/87	4983	16	4.2 ± 0.3		<0.2
12/09/87	4931	44	2.2 ± 0.2	<0.8	1.3 ± 0.5
12/09/87	9979 H	48	3.4 ± 0.1		
12/09/87	4990	44	4.0 ± 0.3	3	0.8 ± 0.3
12/09/87	9538 H	48	1.8 ± 0.2		
12/12/87	4991	20	3.8 ± 0.3		0.4 ± 0.2
12/12/87	9594	20	4.3 ± 0.3		
12/12/87	9593	13	5.6 ± 0.2		<1.1
12/12/87	4996	13	4.2 ± 0.3		
12/12/87	9998 H	20	7.8 ± 0.5		

^a These data are also presented in table 6-5, which compares field Cs-137 measurements to laboratory results.

H - Hog

Blank space indicates no analysis performed.

TABLE 6-7
TRITIUM IN DEER AND HOG FLESH

<u>Species</u>	<u>Date Collected</u>	<u>Tag Number</u>	<u>Tritium in Flesh</u> <u>(pCi/mL)^a</u>
Deer	11/11/87	4963	9.27 ± 0.28
Deer	11/11/87	6978	94.55 ± 1.43
Deer	11/11/87	6980	645.06 ± 9.21
Hog	11/11/87	772	11.52 ± 0.36

TABLE 6-8
STRONTIUM-90 IN DEER AND HOG
BONE AND FLESH
(Wet Weight, pCi/gram)

<u>Collection Date</u>	<u>Species</u>	<u>Tag Number</u>	<u>Sr-90 in Flesh</u>	<u>Sr-90 in Bone</u>
11/11/87	Deer	4963	1.9 ± 0.2	13.0 ± 2.0
11/11/87	Deer	6978	<1.2	5.0 ± 6.0
11/11/87	Deer	6979	<0.8	9.0 ± 1.1
11/11/87	Deer	6980	<0.8	7.0 ± 7.0
11/11/87	Deer	6997	<0.8	12.0 ± 2.0
11/11/87	Hog	6762	<0.5	10.0 ± 2.0
11/11/87	Hog	6991	<0.5	15.0 ± 2.0
11/11/87	Hog	6992	<0.3	6.1 ± 0.7
11/11/87	Hog	7727	<0.8	7.7 ± 0.8

^a Results reported in pCi/mL of free water removed from the flesh samples by freeze-drying.

TABLE 6-9
IODINE-129 AND CESIUM-137 IN DEER THYROIDS AND MUSCLE^a
(Wet Weight, pCi/gram)

<u>Collection Date</u>	<u>Tag Number</u>	<u>Compartment Number</u>	<u>I-129 Thyroid</u>	<u>Cs-137 Thyroid</u>	<u>Cs-137 Muscle</u>
11/04/87	7781	44	0.823	1.94	8.53
11/04/87	4959	44	0.611	0.77	4.65
11/07/87	6021	20,24,25	0.115	1.33	4.60
11/07/87	4965	20,24,25	3.357	3.44	6.28
11/11/87	6503	16	4.154	1.74	2.34
11/11/87	5628	16	1.423	2.41	1.65
11/14/87	6035	32,33	1.003	1.70	4.55
11/14/87	6252	32,33	3.898	1.14	2.86
11/18/87	9954	5,15,18	1.400	2.24	3.44
11/18/87	6045	5,15,18	16.319	4.33	6.59
11/21/87	5639	42	0.292	0.61	2.62
11/21/87	5638	42	0.464	1.37	2.47
11/25/87	9830	13,14	1.100	0.70	2.63
11/25/87	6793	13,14	1.161	1.75	2.87
11/28/87	6268	8,42	0.134	4.11	11.57
11/28/87	5000	8,42	0.122	2.81	3.53
12/02/87	4673	25,26	2.206	6.00	5.03
12/02/87	6452	25,26	9.410	1.34	2.16
12/05/87	9526	6	12.948	1.23	3.56
12/05/87	6413	6	1.614	1.47	1.55
12/09/87	4928	44,45,48	1.205	2.57	3.58
12/09/87	6749	44,45,48	1.874	0.20	0.61
12/12/87	9999	20,13	3.193	0.98	0.840
12/12/87	9598	20,13	2.517	1.28	1.71
Average ± 2 Std Dev			3.02±4.01	1.98±1.32	3.76±2.45

^a Analyses performed by the Dept. of Physiology and Biophysics at the University of Tennessee, Memphis.

TABLE 6-10
RADIOACTIVITY IN FURBEARERS^a

<u>Species</u>	<u>No. of Samples</u>	<u>Location</u>	<u>Cs-137 in Whole Animals</u>
			<u>Maximum, pCi/g</u>
Grey Fox	1	Trapline 1	0.60 ± 0.02
	2	Trapline 2	0.92 ± 0.03
	1	Trapline 6	2.85 ± 0.06
Opossum	1	Trapline 5	1.57 ± 0.06
	1	Trapline 6	3.00 ± 0.07
	2	Trapline 8	3.25 ± 0.08
	1	Trapline 10	1.59 ± 0.04
	1	Creek Plantation	0.65 ± 0.02
Raccoon	1	Trapline 1	0.42 ± 0.01
	3	Trapline 2	1.12 ± 0.03
	1	Trapline 3	0.63 ± 0.01
	1	Trapline 4	0.07 ± 0.01
	1	Trapline 5	1.82 ± 0.05
	1	Trapline 8	1.10 ± 0.03
	2	Trapline 9	0.90 ± 0.02
	1	Trapline 10	0.63 ± 0.01
Rabbit	1	Trapline 11	0.71 ± 0.02

^a Radioactivity in beavers is presented in table 6-11.

**TABLE 6-11
RADIOACTIVITY IN BEAVERS**

Date	Flesh	ID#	Alpha (pCi/g)	Nonvolatile Beta (pCi/g)	Sr-89,90 (pCi/g)	Cs-137 (pCi/g)	K-40 (pCi/g)	H-3 (pCi/mL)
1/8/87	Comp. 12	(#1)	0.0 ± 0.23	1.98 ± 1.37		0.51 ± 0.22	2.69 ± 0.97	5.72 ± 1.31
1/8/87	Comp. 10	(#2)	-0.08 ± 0.17	3.06 ± 1.47		1.58 ± 0.30	5.92 ± 1.98	2.01 ± 1.20
1/8/87	Comp. 10	(#3)	0.58 ± 0.5	3.48 ± 1.49		1.64 ± 0.20	0.88 ± 0.51	1.76 ± 1.19
1/8/87	Comp. 14	(#4)	0.42 ± 0.44	3.72 ± 1.52		0.62 ± 0.12	<2.23	3.63 ± 1.25

Date	Bone	ID#	Alpha (pCi/g)	Nonvolatile Beta (pCi/g)	Sr-89,90 (pCi/g)	Cs-137 (pCi/g)	K-40 (pCi/g)	H-3 (pCi/mL)
1/8/87	Comp. 12	(#1)	0.17 ± 0.33	23.88 ± 2.67	11.96 ± 4.40	<0.62	<7.99	
1/8/87	Comp. 10	(#2)	0.25 ± 0.37	28.02 ± 2.85	13.26 ± 4.50*	0.62 ± 0.14	<3.08	
1/8/87	Comp. 10	(#3)	-0.17 ± 0.23	18.36 ± 2.41*	8.32 ± 4.10	0.71 ± 0.13	<2.89	
1/8/87	Comp. 14	(#4)	-0.17 ± 0.23	9.96 ± 1.95	3.04 ± 3.62*	<0.30	<2.65	

* Average of duplicate analyses.
Blank space indicates no analysis performed.

**TABLE 6-12
RADIOACTIVITY IN DUCKS**

Species	Location	No. of Samples	Cs-137, pCi/g (whole)		
			Maximum	Minimum	Average
Horned Grebe	Par Pond	3	2.68 ± 0.10	1.84 ± 0.06	-
Buffle Head	Par Pond	3	2.39 ± 0.10	1.76 ± 0.10	-
Ruddy	Par Pond	2	1.20 ± 0.06	1.15 ± 0.06	-
Ringneck	Par Pond	2	1.84 ± 0.07	0.69 ± 0.03	-
Ruby	Par Pond	1	1.45 ± 0.05	1.45 ± 0.05	-
Scaup	Par Pond	2	2.53 ± 0.08	2.14 ± 0.05	-

- Average not calculated for <5 samples.

TABLE 6-13
SUMMARY OF HEAVY METAL
CONCENTRATIONS IN DEER AND HOG TISSUE

<u>Area Sampled</u>	<u>No. of Samples</u>	<u>Tissue</u>	<u>CADMIUM, mg/kg (dry weight)</u>		
			<u>Cd Minimum</u>	<u>Cd Maximum</u>	<u>Cd Mean ± Std. Dev.</u>
CPTs 3 & 4 (Control) (North Corner of SRP)	8	Muscle	<0.02	0.91	0.16 ± 0.30
		Spleen	<0.02	0.18	0.10 ± 0.06
		Liver	0.14	2.13	0.82 ± 0.61
		Kidney	7.70	25.60	14.14 ± 6.73
PB-SCCP	12	Muscle	<0.02	1.83	0.21 ± 0.51
CPT 45 (Pen Branch - Steel Creek)	6	Muscle	<0.02	0.09	0.04 ± 0.03
		Spleen	<0.02	0.14	0.04 ± 0.05
		Liver	0.16	1.42	0.47 ± 0.54
		Kidney	2.46	41.67	12.86 ± 16.56
CPTs 20, 24, 25 (Four Mile Creek - H-Area)	11	Muscle	<0.02	1.17	0.21 ± 0.37
		Spleen	<0.02	0.17	0.07 ± 0.05
		Liver	<0.02	1.71	0.54 ± 0.54
		Kidney	<0.13	28.07	8.59 ± 8.83
CPT 46 (Steel Creek)	5	Muscle	<0.02	0.09	0.06 ± 0.03
		Spleen	<0.02	0.14	0.06 ± 0.06
		Liver	0.21	0.51	0.32 ± 0.21
		Kidney	3.54	8.50	5.75 ± 2.03
CPT 32 (Four Mile Creek - K Area)	5	Muscle	<0.02	0.06	0.03 ± 0.02
		Spleen	<0.02	0.51	0.17 ± 0.19
		Liver	0.11	0.56	0.50 ± 0.37
		Kidney	2.65	14.34	11.60 ± 11.81
CPT 27 (Par Pond)	5	Muscle	0.02	0.09	0.06 ± 0.03
		Spleen	<0.02	0.11	0.06 ± 0.05
		Liver	0.31	0.97	0.57 ± 0.28
		Kidney	2.65	14.34	6.40 ± 5.15
CPT 8 (Lower Three Runs)	5	Muscle	<0.02	0.03	0.02 ± 0.0
		Spleen	<0.02	0.11	0.05 ± 0.04
		Liver	0.40	0.98	0.55 ± 0.25
		Kidney	1.91	11.24	6.40 ± 3.83
CPT 36 (Four Mile Creek - Pen Branch)	10	Muscle	<0.02	0.15	0.06 ± 0.04
		Spleen	<0.02	0.14	0.06 ± 0.05
		Liver	<0.02	4.92	0.83 ± 1.58
		Kidney	0.54	10.96	4.79 ± 3.39
CPT 6 (Near Highway-278)	3	Muscle	0.05	0.08	0.06 ± 0.02
		Spleen	<0.02	0.07	0.05 ± 0.03
		Liver	<0.02	0.86	0.42 ± 0.42
		Kidney	4.82	11.50	8.19 ± 3.34
CPTs 5, 44	3 Hogs	Muscle	0.021	0.04	0.03 ± 0.01
		Spleen	<0.02	0.12	0.06 ± 0.05
		Liver	0.13	7.20	2.56 ± 4.02
		Kidney	0.72	5.50	3.78 ± 2.41

CPT - SRP wildlife compartment.

TABLE 6-13
SUMMARY OF HEAVY METAL
CONCENTRATIONS IN DEER AND HOG TISSUE, CONT'D.

CHROMIUM, mg/kg (dry weight)

<u>Area Sampled</u>	<u>No. of Samples</u>	<u>Tissue</u>	<u>Cr Minimum</u>	<u>Cr Maximum</u>	<u>Cr Mean ± Std. Dev.</u>
CPTs 3 & 4 (Control) (North Corner of SRP)	8	Muscle	<0.10	1.25	0.26 ± 0.40
		Spleen	<0.10	0.25	0.19 ± 0.07
		Liver	<0.10	0.60	0.21 ± 0.17
		Kidney	<0.10	1.74	0.38 ± 0.53
PB-SCCP	12	Muscle	<0.10	0.65	0.15 ± 0.15
CPTs 45 & 46(Pen Branch-Steel Creek)	11	Muscle	<0.10	0.47	0.23 ± 0.17
		Spleen	<0.10	0.35	0.15 ± 0.10
		Liver	<0.10	1.58	0.25 ± 0.47
		Kidney	<0.10	0.73	0.25 ± 0.21
CPTs 20, 24, 25 (Four Mile- H-Area)	11	Muscle	<0.10	0.42	0.17 ± 0.12
		Spleen	<0.10	0.29	0.14 ± 0.06
		Liver	<0.10	0.45	0.17 ± 0.12
		Kidney	<0.10	1.35	0.29 ± 0.36
CPT 32 (Four Mile Creek-K Area)	5	Muscle	<0.10	1.12	0.53 ± 0.44
		Spleen	<0.10	0.81	0.34 ± 0.33
		Liver	<0.10	0.87	0.28 ± 0.33
		Kidney	<0.10	0.44	0.22 ± 0.17
CPTs 8 & 27 (Par Pond- Lower Three Runs)	10	Muscle	<0.10	0.21	0.12 ± 0.04
		Spleen	<0.10	0.50	0.19 ± 0.14
		Liver	<0.10	1.48	0.33 ± 0.46
		Kidney	<0.10	0.19	0.11 ± 0.03
CPT 36 (Four Mile Creek- Pen Branch)	10	Muscle	<0.10	0.25	0.12 ± 0.05
		Spleen	<0.10	5.04	0.63 ± 1.55
		Liver	<0.10	0.75	0.17 ± 0.19
		Kidney	<0.10	0.72	0.28 ± 0.24
CPT 6	3	Muscle	<0.10	0.48	0.25 ± 0.20
		Spleen	0.20	0.40	0.30 ± 0.10
		Liver	<0.10	1.10	0.52 ± 0.52
		Kidney	<0.10	<0.10	<0.10 ± 0.00
CPTs 5 & 44	3 Hogs	Muscle	<0.10	0.14	0.11 ± 0.02
		Spleen	<0.10	0.13	0.11 ± 0.02
		Liver	<0.10	5.76	1.99 ± 3.27
		Kidney	<0.10	<0.10	0.14 ± 0.07

TABLE 6-13
SUMMARY OF HEAVY METAL
CONCENTRATIONS IN DEER AND HOG TISSUE, CONT'D.

LEAD, mg/kg (dry weight)

<u>Area Sampled</u>	<u>No. of Samples</u>	<u>Tissue</u>	<u>Pb Minimum</u>	<u>Pb Maximum</u>	<u>Pb Mean ± Std. Dev.</u>
CPTs 3 & 4 (Control)	8	Muscle	0.42	2.87	1.64 ± 0.72
		Spleen	<0.10	1.02	0.60 ± 0.30
		Liver	0.22	1.76	0.83 ± 0.41
		Kidney	0.80	4.48	1.38 ± 1.17
PB-SCCP	12	Muscle	<0.10	6.19	1.38 ± 1.70
CPTs 45 & 46 (Pen Branch-Steel Creek)	11	Muscle	0.32	2.02	0.95 ± 0.54
		Spleen	0.14	1.79	0.89 ± 0.40
		Liver	0.73	1.58	0.99 ± 0.25
		Kidney	0.55	2.23	1.12 ± 0.46
CPTs 20, 24, 25 (Four Mile Creek- H-Area)	11	Muscle	<0.10	1.63	0.88 ± 0.45
		Spleen	0.14	7.05	1.14 ± 1.79
		Liver	0.47	1.23	0.85 ± 0.28
		Kidney	0.74	3.32	1.50 ± 0.78
CPT 32	5	Muscle	0.52	0.92	0.77 ± 0.16
		Spleen	0.64	2.39	1.22 ± 0.79
		Liver	0.26	0.90	0.64 ± 0.28
		Kidney	0.52	2.30	1.18 ± 0.67
CPTs 8 & 27 (Par Pond- Lower Three Runs)	10	Muscle	0.12	2.85	0.97 ± 0.68
		Spleen	0.49	1.39	0.87 ± 0.28
		Liver	0.35	1.83	1.02 ± 0.48
		Kidney	0.40	1.22	0.90 ± 0.24
CPT 36 (Four Mile Creek- Pen Branch)	10	Muscle	<0.10	1.55	0.70 ± 0.44
		Spleen	0.11	1.25	0.75 ± 0.32
		Liver	0.48	2.03	1.21 ± 0.61
		Kidney	<0.10	1.45	0.85 ± 0.37
CPT 6	3	Muscle	0.40	1.65	0.87 ± 0.68
		Spleen	0.63	0.89	0.80 ± 0.15
		Liver	0.38	1.18	0.88 ± 0.44
		Kidney	0.95	2.30	1.46 ± 0.73
CPTs 5 & 44	3 Hogs	Muscle	0.54	7.61	3.18 ± 3.86
		Spleen	0.75	1.16	0.95 ± 0.21
		Liver	0.98	5.59	2.53 ± 2.65
		Kidney	0.88	1.08	0.96 ± 0.10

CPT - SRP wildlife compartment.

TABLE 6-13
SUMMARY OF HEAVY METAL
CONCENTRATIONS IN DEER AND HOG TISSUE, CONT'D.

MERCURY, mg/kg (wet weight)

<u>Area Sampled</u>	<u>No. of Samples</u>	<u>Tissue</u>	<u>Hg Minimum</u>	<u>Hg Maximum</u>	<u>Hg Mean ± Std. Dev.</u>
CPTs 3 & 4 (Control)	8	Muscle	<0.10	0.20	0.13 ± 0.04
		Spleen	<0.10	0.11	<0.10 ± 0.004
		Liver	<0.10	<0.10	<0.10 ± 0.00
		Kidney	0.14	6.87	2.68 ± 2.24
PB-SCCP	12	Muscle	<0.10	<0.10	<0.10 ± 0.00
CPTs 45 & 46 (Pen Branch-Steel Creek)	11	Muscle	<0.10	0.20	0.12 ± 0.03
		Spleen	<0.10	<0.10	<0.10 ± 0.00
		Liver	<0.10	<0.10	<0.10 ± 0.00
		Kidney	<0.10	1.04	0.36 ± 0.30
CPTs 20, 24, 25 (Four Mile Creek- H-Area)	11	Muscle	<0.10	0.17	0.11 ± 0.02
		Spleen	<0.10	<0.10	<0.10 ± 0.00
		Liver	<0.10	0.21	0.11 ± 0.03
		Kidney	<0.10	6.74	1.73 ± 2.22
CPT 32	5	Muscle	<0.10	0.18	0.12 ± 0.04
		Spleen	<0.10	<0.10	<0.10 ± 0.00
		Liver	<0.10	<0.10	<0.10 ± 0.00
		Kidney	<0.10	2.07	0.68 ± 0.81
CPTs 8 & 27 (Par Pond- Lower Three Runs)	10	Muscle	<0.10	0.13	0.10 ± 0.001
		Spleen	<0.10	<0.10	<0.10 ± 0.00
		Liver	<0.10	0.47	0.14 ± 0.12
		Kidney	<0.10	2.56	0.76 ± 0.74
CPT 36 (Four Mile Creek- Pen Branch)	10	Muscle	<0.10	0.41	0.17 ± 0.11
		Spleen	<0.10	<0.10	<0.10 ± 0.00
		Liver	0.48	2.03	1.21 ± 0.61
		Kidney	<0.10	1.45	0.84 ± 0.39
CPT 6	3	Muscle	<0.10	0.41	0.23 ± 0.16
		Spleen	<0.10	<0.10	<0.10 ± 0.00
		Liver	<0.10	<0.10	<0.10 ± 0.00
		Kidney	<0.10	0.37	0.21 ± 0.11
CPTs 5 & 44	3 Hogs	Muscle	<0.10	0.24	0.16 ± 0.07
		Spleen	<0.10	<0.10	<0.10 ± 0.00
		Liver	<0.10	<0.10	<0.10 ± 0.00
		Kidney	<0.10	<0.10	<0.10 ± 0.00

CPT - SRP wildlife compartment.

**TABLE 7-1
RADIOACTIVITY DEPOSITED IN RAINWATER**

Location	pCi/m ²	pCi/m ²	pCi/m ²	nCi/m ²	nCi/m ²	nCi/m ²	nCi/m ²	nCi/m ²	nCi/m ²
	Alpha	Nonvol Beta	Sr-89,90	Be-7	Cs-137	I-131	Ru-106	Zr-95 Nb-95	Ce-144
<u>Onplant</u>									
H Area	42	1624	12	3.9	<0.09	<0.69	<0.77	<0.28	<0.59
<u>Plant Perimeter</u>									
Barnwell Gate	32	1058	7	13	0.29	<0.74	<0.71	<0.23	<0.61
Dark Horse	11	679	5	2.1	0.25	<0.79	<0.71	<0.24	<0.58
Avg	22	869	6	7.6	0.27				
2 Std Dev	30	536	3	16	0.06				
<u>25-Mile Radius</u>									
Olar	39	1450	0.0	6.4	0.59	<0.60	<0.65	<0.21	<0.53
<u>100-Mile Radius</u>									
Columbia, SC	17	1160	41	3.9	<0.09	<1.1	<0.68	<0.22	<0.57
Greenville, SC	21	516	5	7.2	0.50	<0.62	<0.85	<0.26	<0.60
Macon, GA	117	2755	8	5.8	<0.05	<0.34	<0.39	<0.09	<0.28
Savannah, GA	14	866	21	12	<0.09	<1.5	<0.81	<0.31	<0.63
Avg	42	1324	19	7.3	0.05				
2 Std Dev	100	1979	33	7.2	0.50				

Location	pCi/m ²	pCi/m ²
	Pu-239	Pu-238
<u>Onplant</u>		
H Area	1.3	1.1
<u>100-Mile Radius</u>		
Columbia, SC	0.12	0.18
Greenville, SC	0.18	0.01
Macon, GA	0.16	0.04
Savannah, GA	0.28	0.0
Avg	0.18	0.06
2 Std Dev	0.14	0.17

Location	No. of Samples	Maximum	CT ERR		Arithmetic Mean	2 Std Dev
			95% CL	Minimum		
<u>H-3, pCi/mL</u>						
<u>Plant Perimeter</u>						
Dark Horse	23	85	±0.88	-7.7	±0.18	4.6 ±35
<u>100-Mile Radius</u>						
Columbia, SC	4	0.28	±0.33	0.09	±0.35	0.19 -
Greenville, SC	4	0.46	±0.30	-0.26	±0.21	0.19 -
Macon, GA	4	0.49	±0.31	-0.10	±0.30	0.15 -
Savannah, GA	4	0.05	±0.21	-0.08	±0.29	0.01 -
Avg						0.13 ±0.40

**TABLE 7-2
RADIOACTIVITY CONCENTRATION IN SOIL**

Location	pCi/g (dry weight) (8-cm depth)			
	<u>Sr-90^b</u>	<u>Cs-137^b</u>	<u>Pu-238^b</u>	<u>Pu-239^b</u>
<u>F Area^a</u>				
2000 ft. East	0.02 ±0.13	0.65 ±0.09	0.016 ±0.002	0.094 ±0.005
2000 ft. West	0.03 ±0.15	0.75 ±0.08	0.025 ±0.003	0.044 ±0.004
2000 ft. North	0.30 ±0.17	1.0 ±0.11	0.073 ±0.004	0.014 ±0.006
2000 ft. South	0.0 ±0.14	0.12 ±0.07	0.022 ±0.004	0.006 ±0.005
AVERAGE ^c	0.09 ±0.28	0.63 ±0.74	0.034 ±0.05	0.040 ±0.080
<u>H Area^a</u>				
2000 ft. East	0.02 ±0.15	0.84 ±0.08	0.018 ±0.002	0.04 ±0.003
2000 ft. West	0.05 ±0.15	1.1 ±0.09	0.051 ±0.006	0.072 ±0.007
2000 ft. North	0.03 ±0.12	0.48 ±0.08	0.012 ±0.002	0.055 ±0.004
2000 ft. South	0.61 ±0.20	2.0 ±0.14	0.038 ±0.004	0.069 ±0.006
AVERAGE ^c	0.18 ±0.58	1.1 ±1.30	0.030 ±0.036	0.059 ±0.029
<u>Plant Perimeter</u>				
Northeast Quadrant	0.008 ±0.12	0.75 ±0.10	0.003 ±0.001	0.013 ±0.002
Northwest Quadrant	-0.01 ±0.14	0.59 ±0.07	0.003 ±0.002	0.014 ±0.003
Southeast Quadrant	0.03 ±0.14	0.93 ±0.08	0.006 ±0.003	0.021 ±0.005
Southwest Quadrant	-0.07 ±0.14	0.74 ±0.10	0.021 ±0.004	0.015 ±0.003
AVERAGE ^c	-0.011 ±0.086	0.75 ±0.28	0.008 ±0.02	0.015 ±0.007
<u>100-Mile Radius</u>				
Clinton, SC	0.02 ±0.14	0.54 ±0.08	0.0 ±0.002	0.02 ±0.003
Savannah, GA	-0.03 ±0.14	0.33 ±0.07	0.0 ±0.002	0.01 ±0.0023
AVERAGE ^c	-0.005 ±0.07	0.44 ±0.30	0.0 ±0.0	0.015 ±0.014

^a F & H area samples were collected 2,000 ft. from the 200-ft stack.

^b The ± value represents the counting uncertainty at the 95% confidence level.

^c The ± value is the 2 sigma deviation from the mean.

**TABLE 7-3
RADIOACTIVITY DEPOSITED IN SOIL**

	Deposition, mCi/km ² (8-cm depth)			
	<u>Sr-90^b</u>	<u>Cs-137^b</u>	<u>Pu-238^b</u>	<u>Pu-239^b</u>
<u>F-Area^a</u>				
2000 ft. east	2.4 ±16	78 ± 11	1.9 ±0.24	11 ±0.60
2000 ft. west	3.6 ±18	90 ± 9.6	3.0 ±0.36	5.3 ±0.48
2000 ft. north	36 ±20	120 ± 13	8.8 ±0.48	1.7 ±0.72
2000 ft. south	0 ±17	14 ± 8.4	2.6 ±0.48	0.72±0.60
AVERAGE ^c	11 ±34	76 ± 89	4.1 ±6.0	4.8 ±9.6
<u>H-Area^a</u>				
2000 ft. east	2.4 ±18	101 ± 9.6	2.2 ±0.24	4.8 ±0.36
2000 ft. west	6.0 ±18	132 ± 11	6.1 ±0.72	8.6 ±0.84
2000 ft. north	3.6 ±14	58 ± 9.6	1.4 ±0.24	6.6 ±0.48
2000 ft. south	73 ±24	240 ± 17	4.6 ±0.48	0.72±0.60
AVERAGE ^c	22 ±70	132 ±156	3.6 ±4.3	7.1 ±3.5
<u>Plant Perimeter</u>				
Northeast quadrant	0.96 ±14	90 ± 12	0.36 ±0.12	1.6 ±0.24
Northwest quadrant	-1.2 ±17	71 ± 8.4	0.36 ±0.24	1.7 ±0.36
Southeast quadrant	3.6 ±17	112 ± 9.6	0.72 ±0.36	2.5 ±0.60
Southwest quadrant	-8.4 ±17	89 ± 12	2.5 ±0.48	1.8 ±0.36
AVERAGE ^c	-1.3 ±10	90 ± 34	0.96 ±2.4	1.9 ±0.84
<u>100-Mile Radius</u>				
Clinton, SC	2.4 ±17	65 ± 9.6	0.0 ±0.24	2.4 ±0.36
Savannah, GA	-3.6 ±17	40 ± 8.4	0.0 ±0.24	1.2 ±0.28
AVERAGE ^c	-0.6 ± 8.4	53 ± 36	0.0 ±0.0	1.8 ±1.7

^a F- and H- Area samples were collected 2,000 ft. from the stack.

^b The ± value represents the counting uncertainty at the 95% confidence level.

^c The ± value is the 2 sigma standard deviation from the mean.

TABLE 7-4
SUMMARY OF AVERAGE DEPOSITION IN SOIL

	Deposition, mCi/km ²							
	F Area		H Area		Plant Perimeter		100-Mile Radius	
	Max	Avg	Max	Avg	Max	Avg	Max	Avg
<u>Sr-90</u>								
1973 ^a	-	-	-	-	208	79	127	120
1976	12	7	32	21	9	6	31	25
1977	30	17	55	25	15	8	19	14
1978	24	11	11	4	15	8	21	11
1979	13	5	16	6	13	7	13	9
1980	16	10	18	11	15	8	12	9
1981	-	-	-	-	-	-	-	-
1982	-	-	-	-	1	-	11	-
1983	23	8	18	8	7	6	11	7
1984	12	8	9	6	10	7	6	5
1985	14	12	28	13	19	9	5	4
1986	8.3	4	12	4.9	6.8	3.6	17	12
1987	36	11	73	22	3.6	-1.3	2.4	-0.6
<u>Cs-137</u>								
1973 ^a	-	-	-	-	99	78	114	105
1974	-	-	-	-	135	73	59 ^b	59
1975	100	69	113	85	99	88	90	72
1976	107	70	137	103	76	63	91	74
1977	90	60	150	95	65	52	55	54
1978	114	91	91	46	91	57	61	57
1979	75	47	82	58	68	54	60	52
1980	45	35	60	45	52	32	32	22
1981	63	50	92	55	53	31	43	42
1982	-	-	-	-	62	-	37	-
1983	103	61	106	75	64	50	48	48
1984	57	36	89	53	48	36	5	5
1985	59	30	98	63	46	31	30	28
1986	81	45	113	84	45	38	34	32
1987	120	76	240	132	112	90	65	53
<u>Pu-238</u>								
1973 ^a	-	-	-	-	0.21	0.08	0.21	0.12
1974	-	-	-	-	0.37	0.11	0.13 ^b	0.13
1975	1.1	0.71	6.9	2.6	0.08	0.07	0.03	0.02
1976	1.1	0.61	4.3	2.2	0.10	0.07	0.07	0.06
1977	1.4	0.77	6.3	2.8	0.10	0.07	0.04	0.04
1978	2.9	1.52	4.7	2.3	0.14	0.12	0.08	0.06
1979	1.2	0.77	3.7	1.6	0.15	0.10	0.08	0.08
1980	2.6	1.35	2.7	2.1	0.38	0.22	0.08	0.08
1981	1.2	0.54	1.3	1.4	0.15	0.15	0.08	0.08
1982	-	-	-	-	0.4	0.30	0.02	0.02
1983	7.1	2.6	2.9	2.0	0.3	0.2	0.03	0.03
1984	3.5	1.8	10.6	3.8	0.6	0.4	0.23	0.15
1985	0.7	0.5	5.0	2.0	0.03	0.03	0.08	0.08
1986	0.9	0.74	5.9	2.0	0.10	0.05	0.08	0.05
1987	8.8	4.1	6.1	3.6	2.5	0.96	0.0	0.0

^a 15-cm cores taken in 1973. No Sr-90 analyses in 1974 and 1975.

^b 1974 deposition in 25-mile radius soil: Pu-238, 0.4; Pu-239, 2.0; and Cs-137, 83.

- Analysis not performed or samples not collected.

TABLE 7-4
SUMMARY OF AVERAGE DEPOSITION IN SOIL, CONT'D.

	Deposition, mCi/km ²							
	F Area		H Area		Plant Perimeter		100-Mile Radius	
	Max	Avg	Max	Avg	Max	Avg	Max	Avg
<u>Pu-239</u>								
1973 ^a	-	-	-	-	2.4	1.8	1.7	1.7
1974	-	-	-	-	2.1	1.2	1.3 ^b	1.3
1975	19.2	9.9	10.6	8.8	1.4	1.1	0.8	0.7
1976	10.2	5.5	10.0	7.5	1.5	1.3	1.5	1.1
1977	13.2	6.3	11.9	8.3	1.9	1.2	1.6	1.2
1978	28.0	10.9	12.1	9.5	2.4	1.9	1.3	1.1
1979	11.9	4.7	5.8	3.5	1.4	1.2	0.3	0.2
1980	10.8	6.3	6.6	4.6	2.2	1.2	0.4	0.1
1981	4.1	2.3	6.5	3.3	1.3	1.1	0.8	0.7
1982	-	-	-	-	1.2	1.2	0.1	0.1
1983	14.0	8.2	12.0	6.0	2.0	1.3	0.8	0.8
1984	26.9	13.1	10.6	3.8	0.8	0.6	0.4	0.3
1985	11.0	6.0	7	5	1.0	0.9	0.8	0.8
1986	14.0	5.5	9.0	5.1	1.1	0.9	0.6	0.5
1987	11.0	4.8	8.6	7.1	2.5	1.9	2.4	1.8

^a 15-cm cores taken in 1973. No Sr-90 analyses in 1974 and 1975.

^b 1974 deposition in 25-mile radius soil: Pu-238, 0.4; Pu-239, 2.0; and Cs-137, 83.

- Analysis not performed or samples not collected.

**TABLE 7-5
RADIOACTIVITY IN RIVER AND STREAM SEDIMENT**

Location	River Mile	Cs-137 pCi/g (dry weight) (0-8 cm depth)				
		1975-1984 Arithmetic		1985 ^a	1986 ^a	1987 ^a
		Mean	± 2 STD DEV			
<u>Savannah River</u>						
Below Four Mile Creek	150.2	0.48 ± 0.64	-	0.78 ± 0.05	-	
Above Little Hell Landing	136.5	0.61 ± 0.76	0.84 ± 0.04	0.37 ± 0.06	0.43 ± 0.06	
Below Little Hell Landing	134.0	2.1 ± 6.8	-	0.36 ± 0.06	0.42 ± 0.06	
Above Lower Three Runs	129.5	0.61 ± 0.72	0.17 ± 0.04	0.21 ± 0.03	0.62 ± 0.07	
Highway 301	118.7	1.2 ± 2.6	1.0 ± 0.05	0.99 ± 0.06	0.57 ± 0.06	
Control Above Plant						
Demier's Landing	160.5	0.29 ± 0.42	0.12 ± 0.02	0.10 ± 0.02	0.18 ± 0.05	
<u>SRP Streams</u>						
Four Mile at Road A-7		33 ± 52	110 ± 1.2	3.5 ± 0.20	7.6 ± 0.28	
Four Mile A-7A (in Beaver Pond)		41 ± 22	b	1.9 ± 0.19	32 ± 0.66	
Four Mile Discharge at Swamp		7.2 ± 16	0.93 ± 0.07	0.22 ± 0.03	0.82 ± 0.08	
Pen Branch Discharge at Swamp		3.6 ± 7	4.6 ± 0.33	-	2.7 ± 0.34	
Steel Creek at Road B		32 ± 46	2.3 ± 0.05	0.29 ± 0.04	2.4 ± 0.18	
Steel Creek Discharge at Swamp		18 ± 46	91 ± 1.2	7.8 ± 0.15	5.7 ± 0.30	
Steel Creek -						
Pen Branch Mouth		12 ± 44	0.80 ± 0.13	4.6 ± 0.25	4.6 ± 0.34	
Lower Three Runs Mouth		3.6 ± 9	2.6 ± 0.14	0.43 ± 0.05	0.81 ± 0.12	
Control						
Upper Three Runs Mouth		0.7 ± 1.2	-	0.46 ± 0.08	0.37 ± 0.05	

Location	River Mile	K-40 pCi/g (dry weight) (0-8 cm depth)				
		1982-1984 Arithmetic		1985 ^a	1986 ^a	1987 ^a
		Mean	± 2 STD DEV			
<u>Savannah River</u>						
Below Four Mile Creek	150.2	20 ± 11	-	12 ± 0.73	17 ± 1.5	
Above Little Hell Landing	136.5	19 ± 14	18 ± 0.70	11 ± 0.95	12 ± 0.93	
Below Little Hell Landing	134.0	22 ± 15	-	13 ± 1.1	14 ± 1.1	
Above Lower Three Runs	129.5	22 ± 28	-	14 ± 0.76	12 ± 1.1	
Highway 301	118.7	19 ± 14	16 ± 0.74	15 ± 0.79	12 ± 0.93	
Control Above Plant						
Demier's Landing	160.5	19 ± 15	14 ± 0.50	11 ± 0.60	13 ± 1.1	
<u>SRP Streams</u>						
Four Mile at Road A-7		5 ± 10	-	1.8 ± 0.59	-	
Four Mile A-7A (in Beaver Pond)		8 ± 18	b	-	-	
Four Mile Discharge at Swamp		6 ± 4	-	-	-	
Pen Branch Discharge at Swamp		5 ± 13	-	-	5.7 ± 2.0	
Steel Creek at Road B		5 ± 4	0.4 ± 0.18	3.0 ± 0.52	1.4 ± 0.64	
Steel Creek Discharge at Swamp		8 ± 2	6.8 ± 1.2	2.0 ± 0.33	4.0 ± 1.0	
Steel Creek - Pen Branch Mouth		0 ± 6	-	13 ± 1.6	4.7 ± 1.6	
Lower Three Runs Mouth		18 ± 31	-	7.8 ± 0.75	16 ± 1.7	
Control						
Upper Three Runs Mouth		24 ± 1	-	8.8 ± 1.1	10 ± 0.91	

^a ± value is the 2-sigma counting error.

^b No analysis.

- Less than minimum detectable concentration.

**TABLE 7-5
RADIOACTIVITY IN RIVER AND STREAM SEDIMENT, CONT'D.**

		Co-60 pCi/g (dry weight) (0-8 cm depth)				
		1977-1984		1985 ^a	1986 ^a	1987 ^a
Location	River Mile	Arithmetic Mean \pm 2 STD DEV				
<u>Savannah River</u>						
Below Four Mile Creek	150.2	0.18	0.64	-	-	-
Above Little Hell Landing	136.5	0.13	0.46	-	-	-
Below Little Hell Landing	134.0	0.2	0.74	-	-	-
Above Lower Three Runs	129.5	0.18	0.64	-	-	-
Highway 301	118.7	0.18	0.64	-	-	-
Control Above Plant						
Demier's Landing	160.5	0.15	0.56	-	-	-
<u>SRP Streams</u>						
Four Mile at Road A-7		0.9	1.8	3.4	0.2	-
Four Mile A-7A (in Beaver Pond)		0.95	0.42	b	-	0.77 \pm 0.14
Four Mile Discharge at Swamp		2.0	2.5	-	-	0.07 \pm 0.03
Pen Branch Discharge at Swamp		2.5	6.6	-	-	1.8 \pm 0.31
Steel Creek at Road B		4.5	19	-	-	-
Steel Creek Discharge at Swamp		2.2	5	-	0.22 \pm 0.03	1.1 \pm 0.16
Steel Creek - Pen Branch Mouth		0.18	0.5	-	-	1.8 \pm 0.28
Lower Three Runs Mouth		0.11	0.52	-	-	-
Control						
Upper Three Runs Mouth		0.55	0.21	-	-	-
		Sr-90 pCi/g (dry weight) (0-8 cm depth)				
		1976-1984		1985 ^a	1986 ^a	1987 ^a
Location	River Mile	Arithmetic Mean \pm 2 STD DEV				
<u>Savannah River</u>						
Below Four Mile Creek	150.2	0.06	0.14	0.10 \pm 0.06	0.03 \pm 0.04	0.02 \pm 0.04
Above Little Hell Landing	136.5	0.07	0.10	b	0.01 \pm 0.04	0.06 \pm 0.05
Below Little Hell Landing	134.0	0.13	0.12	0.04 \pm 0.03	0.02 \pm 0.04	0.0 \pm 0.05
Above Lower Three Runs	129.5	0.08	0.08	0.06 \pm 0.04	0.05 \pm 0.04	0.04 \pm 0.04
Highway 301	118.7	0.09	0.14	b	0.04 \pm 0.04	0.03 \pm 0.05
Control Above Plant						
Demier's Landing	160.5	0.07	0.08	b	0.02 \pm 0.04	0.03 \pm 0.04
<u>SRP Streams</u>						
Four Mile at Road A-7		5.8	13	0.05 \pm 0.02	0.23 \pm 0.06	0.20 \pm 0.15
Four Mile A-7A (in Beaver Pond)		3.4	3.8	b	0.01 \pm 0.04	0.98 \pm 0.22
Four Mile Discharge at Swamp		0.39	0.42	0.47 \pm 0.14	0.15 \pm 0.05	0.32 \pm 0.14
Pen Branch Discharge at Swamp		0.14	0.18	0.03 \pm 0.02	-0.01 \pm 0.04	b
Steel Creek at Road B		0.2	0.62	0.07 \pm 0.10	0.07 \pm 0.05	0.06 \pm 0.14
Steel Creek Discharge at Swamp		0.16	0.28	0.01 \pm 0.02	0.01 \pm 0.04	0.02 \pm 0.14
Steel Creek - Pen Branch Mouth		0.15	0.18	0.01 \pm 0.02	0.16 \pm 0.05	-0.01 \pm 0.14
Lower Three Runs Mouth		0.08	0.18	0.16 \pm 0.10	-0.01 \pm 0.04	0.025 \pm 0.14
Control						
Upper Three Runs Mouth		0.22	0.22	b	0.22 \pm 0.06	0.02 \pm 0.04

^a \pm value is the 2-sigma counting error.

^b No analysis.

- Less than minimum detectable concentration of 0.02 pCi/g for Co-60.

**TABLE 7-5
RADIOACTIVITY IN RIVER AND STREAM SEDIMENT, CONT'D.**

Location	Pu-238, pCi/g (dry weight) (0-8 cm depth)					
	River Mile	1975-1984 Arithmetic		1985 ^a	1986 ^a	1987 ^a
		Mean ± 2 STD DEV				
<u>Savannah River</u>						
Below Four Mile Creek	150.2	0.001±0.004	0.0001±0.001	0.0002±0.0008	<0.0009	
Above Little Hell Landing	136.5	0.002±0.002	0.005 ±0.002	0.0003±0.0008	<0.006	
Below Little Hell Landing	134.0	0.002±0.006	0.001 ±0.001	0.0006±0.0005	<0.006	
Above Lower Three Runs	129.5	0.002±0.002	0.012 ±0.002	0.0006±0.0006	<0.002	
Highway 301	118.7	0.002±0.002	b	0.0002±0.0005	<0.002	
Control Above Plant						
Demier's Landing	160.5	0.002±0.002	0.0004±0.001	0.0002±0.0002	<0.002	
<u>SRP Streams</u>						
Four Mile at Road A-7		0.37 ±0.74	1.26 ±0.023	0.036 ±0.003	0.074 ±0.006	
Four Mile A-7A (in Beaver Pond)		0.2 ±0.0	b	0.022 ±0.003	0.66 ±0.01	
Four Mile Discharge at Swamp		0.078±0.17	0.006 ±0.001	0.002 ±0.001	0.003 ±0.0008	
Pen Branch Discharge at Swamp		0.011±0.14	0.019 ±0.003	0.0002±0.0009	0.024 ±0.002	
Steel Creek at Road B		0.032±0.039	0.006 ±0.001	0.0008±0.0006	0.043 ±0.004	
Steel Creek Discharge at Swamp		0.045±0.11	0.20 ±0.008	0.022 ±0.003	0.012 ±0.002	
Steel Creek - Pen Branch Mouth		0.002±0.002	0.0004±0.0006	0.0008±0.0005	0.05 ±0.01	
Lower Three Runs Mouth		0.007±0.030	0.0007±0.001	0.0005±0.0009	0.02 ±0.0	
Control						
Upper Three Runs Mouth		0.003±0.004	0.0003±0.0004	0.003 ±0.002	<0.003	
<u>Pu-239, pCi/g (dry weight) (0-8 cm depth)</u>						
Location	1975-1984					
	River Mile	Arithmetic		1985 ^a	1986 ^a	1987 ^a
		Mean ± 2 STD DEV				
<u>Savannah River</u>						
Below Four Mile Creek	150.2	0.002±0.002	0.0004±0.005	0.0008±0.001	0.002 ±0.001	
Above Little Hell Landing	136.5	0.006±0.008	0.003 ±0.002	0.0018±0.0014	0.027 ±0.007	
Below Little Hell Landing	134.0	0.011±0.034	0.001 ±0.001	0.0008±0.0005	0.026 ±0.007	
Above Lower Three Runs	129.5	0.003±0.004	0.005 ±0.001	0.002 ±0.0008	0.004 ±0.002	
Highway 301	118.7	0.003±0.004	0.0005±0.002	0.002 ±0.007	0.006 ±0.002	
Control Above Plant						
Demier's Landing	160.5	0.003±0.004	0.0013±0.001	0.0005±0.0003	0.016 ±0.003	
<u>SRP Streams</u>						
Four Mile at Road A-7		0.23 ±0.66	0.38 ±0.012	0.016 ±0.002	0.046 ±0.005	
Four Mile A-7A (in Beaver Pond)		0.19 ±0.084	b	0.011 ±0.002	0.23 ±0.01	
Four Mile Discharge at Swamp		0.046±0.09	0.006 ±0.001	0.001 ±0.0008	0.002 ±0.0007	
Pen Branch Discharge at Swamp		0.02 ±0.034	0.032 ±0.004	0.0004±0.0008	0.018 ±0.002	
Steel Creek at Road B		0.04 ±0.1	0.008 ±0.001	0.004±0.002	0.046 ±0.005	
Steel Creek Discharge at Swamp		0.031±0.04	0.12 ±0.007	0.015±0.002	0.010 ±0.001	
Steel Creek - Pen Branch Mouth		0.002±0.002	0.0008±0.000	0.002±0.0006	0.04 ±0.009	
Lower Three Runs Mouth		0.01 ±0.029	0.001 ±0.001	0.0012±0.003	0.02 ±0.0	
Control						
Upper Three Runs Mouth		0.015±0.024	0.0006±0.000	0.009 ±0.003	0.0116±0.004	

^a ± value is the 2-sigma counting error.

^b No analysis.

**TABLE 7-6
RADIOACTIVITY IN VEGETATION**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN 2 STD DEV</u>	
<u>ALPHA PCIG</u>							
<u>CNPLANT VEGETATION</u>							
BURIAL GROUND NORTH ^a	0						
BURIAL GROUND SOUTH ^a	0						
<u>200-F VEGETATION</u>							
F 13 1 MI S OF 200-F	4	0.33	±0.26	0.00	±0.12	0.16	-
F 21 1 MI E OF 200-F	4	0.16	±0.16	0.00	±0.12	0.06	-
<u>200-H VEGETATION</u>							
H 10 1 MI S OF 200-H	4	0.21	±0.19	-0.04	±0.08	0.07	-
H 22 1 MI N OF 200-H	4	0.37	±0.25	0.08	±0.19	0.19	-
<u>PLANT PER VEGETATION</u>							
ALLENDALE GATE	4	0.23	±0.19	0.04	±0.13	0.14	-
AA/14	4	0.23	±0.19	0.04	±0.08	0.11	-
BARNWELL GATE	4	0.29	±0.22	0.04	±0.08	0.15	-
D AREA	4	0.15	±0.15	0.00	±0.00	0.08	-
DARKHORSE	4	0.15	±0.15	0.00	±0.00	0.07	-
EAST TALATHA	4	0.21	±0.19	0.08	±0.11	0.13	-
GREENPOND	4	0.08	±0.16	-0.04	±0.08	0.03	-
HIGHWAY 21/167	4	0.27	±0.20	0.12	±0.14	0.17	-
HIGHWAY 39 ^b	4	0.50	±0.29	0.00	±0.11	0.21	-
JACKSON	4	0.15	±0.15	-0.04	±0.08	0.08	-
PATTERSONS MILL	4	0.08	±0.11	0.04	±0.13	0.07	-
TALATHA GATE	4	0.38	±0.24	-0.04	±0.08	0.14	-
WEST JACKSON	4	0.27	±0.20	0.00	±0.12	0.16	-
WINDSOR ROAD	4	0.15	±0.15	0.04	±0.08	0.08	-
AVERAGE						0.10	±0.17
<u>25-MR VEGETATION</u>							
ALLENDALE	3	0.15	±0.15	0.00	±0.11	0.09	-
AUGUSTA ^c	0						
HIGHWAY 301 ^c	1	0.08	±0.11	0.08	±0.11	0.08	-
LANGLEY	4	0.42	±0.26	0.04	±0.08	0.20	-
PERKINS ^c	1	0.12	±0.13	0.12	±0.13	0.12	-
SOUTH RICHMOND ^c	0						
SPRINGFIELD	3	0.04	±0.13	0.00	±0.00	0.03	-
WAYNESBORO	4	0.13	±0.15	0.04	±0.13	0.07	-
AVERAGE						0.07	±0.23
<u>100-MR VEGETATION</u>							
COLUMBIA	3	0.12	±0.17	0.08	±0.12	0.09	-
GREENVILLE	4	0.27	±0.23	-0.08	±0.11	0.07	-
MACON	4	0.25	±0.21	-0.08	±0.11	0.07	-
SAVANNAH	4	0.12	±0.13	0.00	±0.00	0.07	-
AVERAGE						0.07	±0.19

^a Sampling discontinued at this location - area is monitored by other burial ground vegetation samples.

^b Listed as onplant vegetation in previous years.

^c Sampling discontinued at this location.

- Insufficient data.

**TABLE 7-6
RADIOACTIVITY IN VEGETATION, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± 2 STD DEV</u>
<u>NONVOL BETA PCIG</u>						
<u>ONPLANT VEGETATION</u>						
BURIAL GROUND NORTH ^a	0					
BURIAL GROUND SOUTH ^a	0					
<u>200-F VEGETATION</u>						
F 13 1 MI S OF 200-F	4	9.3	±1.2	6.5	±1.1	8.4
F 21 1 MI E OF 200-F	4	9.8	±1.1	0.09	±0.53	6.8
<u>200-H VEGETATION</u>						
H 10 1 MI S OF 200-H	4	23	±1.8	5.3	±0.99	13
H 22 1 MI N OF 200-H	4	12	±1.2	7.3	±1.1	9.9
<u>PLANT PER VEGETATION</u>						
ALLENDALE GATE	4	9.2	±1.3	6.2	±0.92	7.6
AA/14	4	21	±1.6	5.4	±0.88	11
BARNWELL GATE	4	24	±1.9	4.5	±0.82	12
D AREA	4	12	±1.3	5.5	±0.88	9.6
DARKHORSE	4	12	±1.4	5.9	±0.98	8.9
EAST TALATHA	4	20	±1.5	3.6	±0.76	10
GREENPOND	4	13	±1.3	3.9	±0.87	7.1
HIGHWAY 21/167	4	26	±2.0	3.6	±0.76	13
HIGHWAY 39 ^b	4	13	±1.4	3.1	±0.73	9.1
JACKSON	4	13	±1.5	3.8	±0.83	7.8
PATTERSONS MILL	4	16	±1.4	5.6	±0.97	10
TALATHA GATE	4	10	±1.1	4.8	±0.84	7.8
WEST JACKSON	4	35	±2.0	4.2	±0.87	17
WINDSOR ROAD	4	10	±1.1	6.1	0.92	8.1
AVERAGE						10 ±12
<u>25-MR VEGETATION</u>						
ALLENDALE	3	15	±1.3	3.0	±0.72	8.6
AUGUSTA ^c	0					
HIGHWAY 301 ^c	1	4.2	±0.80	4.2	±0.80	4.2
LANGLEY	4	25	±1.9	4.1	±0.80	12
PERKINS ^c	1	6.4	±0.93	6.4	±0.93	6.4
SOUTH RICHMOND ^c	0					
SPRINGFIELD	3	16	±1.4	3.6	±0.29	10
WAYNESBORO	4	18	±1.6	4.7	±0.83	12
AVERAGE						6.6 ±13
<u>100-MR VEGETATION</u>						
COLUMBIA	3	21	±1.6	7.5	±0.99	15
GREENVILLE	4	20	±1.5	5.2	±0.86	12
MACON	4	28	±1.8	13	±1.2	20
SAVANNAH	4	11	±1.3	5.9	±0.91	7.9
AVERAGE						14 ±14

^a Sampling discontinued at this location - area is monitored by other burial ground vegetation samples.

^b Listed as onplant vegetation in previous years.

^c Sampling discontinued at this location.

- Insufficient data.

**TABLE 7-6
RADIOACTIVITY IN VEGETATION, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± STD DEV</u>	
<u>H-3, PC/ML</u>							
<u>ONPLANT VEGETATION</u>							
BURIAL GROUND NORTH ^a	0						
BURIAL GROUND SOUTH ^a	0						
<u>200-F VEGETATION</u>							
F 13 1 MI S OF 200-F	4	380	±1.2	21	±1.3	170	-
F 21 1 MI E OF 200-F	4	19	±0.53	16	±0.47	17	-
<u>200-H VEGETATION</u>							
H 10 1 MI S OF 200-H	4	24	±0.52	7.9	±0.36	15	-
H 22 1 MI N OF 200-H	4	50	±0.69	22	0.49	32	-
<u>PLANT PER VEGETATION</u>							
ALLENDALE GATE	4	16	±1.4	0.23	±0.23	4.8	-
AA/14	4	25	±0.57	3.1	±0.32	9.6	-
BARNWELL GATE	4	12	±1.1	0.68	±0.24	6.3	-
D AREA	4	23	±0.55	4.5	±0.33	11	-
DARKHORSE	4	9.6	±2.5	1.3	±0.30	5.1	-
EAST TALATHA	4	2.4	±0.32	0.64	±2.4	1.7	-
GREENPOND	4	22	±0.51	1.5	±0.33	7.8	-
HIGHWAY 21/167	4	58	±0.75	0.40	±0.29	36	-
HIGHWAY 39 ^b	4	13	±2.6	1.0	±0.30	5.7	-
JACKSON	4	10	±0.40	1.3	±0.31	4.8	-
PATTERSONS MILL	4	14	±1.8	0.30	±0.28	5.9	-
TALATHA GATE	4	5.6	±4.9	1.3	±0.29	3.2	-
WEST JACKSON	4	30	±0.57	2.5	±0.26	11	-
WINDSOR ROAD	4	11	±0.41	1.6	±0.28	4.1	-
AVERAGE						8.6	±27
<u>25-MR VEGETATION</u>							
ALLENDALE	4	5.7	±0.35	0.14	±0.28	2.0	-
AUGUST ^c	0						
HIGHWAY 301 ^c	1	2.5	±2.4	2.5	±2.4	2.5	-
LANGLEY	4	2.6	±0.38	0.13	±0.32	1.1	-
PERKINS ^c	1	1.8	±0.35	1.8	±0.35	1.8	-
SOUTH RICHMOND ^c	0						
SPRINGFIELD	4	2.5	±0.31	0.25	±0.29	0.31	-
WAYNESBORO	3	3.7	±0.33	2.1	±0.32	3.0	-
AVERAGE						1.4	±3.1
<u>100-MR VEGETATION</u>							
COLUMBIA	3	1.7	±0.32	0.22	±0.29	0.80	-
GREENVILLE	3	0.93	±0.68	0.22	±0.31	0.53	-
MACON	4	1.6	±0.33	0.24	±0.28	0.74	-
SAVANNAH	4	5.8	±0.34	0.10	±0.28	1.7	-
AVERAGE						0.93	±2.9

^a Sampling discontinued at this location - area is monitored by other burial ground vegetation samples.

^b Listed as onplant vegetation in previous years.

^c Sampling discontinued at this location.

- Insufficient data

**TABLE 7-6
RADIOACTIVITY IN VEGETATION, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN 2 STD DEV</u>	
<u>SR-89, 90, PCI/G</u>							
<u>COMPOSITE SAMPLES</u>							
200-F & 200-H	3	1.3	±0.20	0.52	±0.21	1.0	-
PLANT PERIMETER	5	1.7	±0.29	0.01	±0.14	0.66	-
25-MILE RADIUS	3	1.7	±0.29	0.66	±0.16	1.1	-
100-MILE RADIUS	4	0.42	±0.18	0.08	±0.15	0.26	-
AVERAGE						0.79	±0.67
<u>BE-7, PCI/G</u>							
<u>COMPOSITE SAMPLES</u>							
200-F & 200-H	4	26	±11	0.00	±1.3	13	-
PLANT PERIMETER	4	28	±5.6	0.00	±5.3	9.6	-
25-MILE RADIUS	3	27	±8.1	3.8	±0.98	12	-
100-MILE RADIUS	4	22	±7.9	0.00	±8.8	9.0	-
AVERAGE						11	±21
<u>K-40, PCI/G</u>							
<u>COMPOSITE SAMPLES</u>							
200-F & 200-H	4	36	±5.5	0.00	±1.4	12	-
PLANT PERIMETER	4	7.5	±1.9	0.00	±3.0	5.2	-
25-MILE RADIUS	3	33	±2.3	0.00	±4.9	15	-
100-MILE RADIUS	4	31	±11	16	±3.9	23	-
AVERAGE						14	±25
<u>MN-54, PCI/G</u>							
<u>COMPOSITE SAMPLES</u>							
200-F & 200-H	4	0.00	±11	0.00	±3.0	0.00	-
PLANT PERIMETER	4	0.00	±11	0.00	±0.20	0.00	-
25-MILE RADIUS	3	0.00	±11	0.00	±0.40	0.00	-
100-MILE RADIUS	4	0.00	±11	0.00	±0.21	0.00	-
AVERAGE						0.00	-
<u>ZR-95, NB-95, PCI/G</u>							
<u>COMPOSITE SAMPLES</u>							
200-F & 200-H	4	0.00	±11	0.00	±3.0	0.00	-
PLANT PERIMETER	4	0.00	±11	0.00	±1.0	0.00	-
25-MILE RADIUS	3	0.00	±11	0.00	±2.0	0.00	-
100-MILE RADIUS	4	0.00	±11	0.00	±1.0	0.00	-
AVERAGE						0.00	-
<u>RU-103, 106, PCI/G</u>							
<u>COMPOSITE SAMPLES</u>							
200-F & 200-H	4	0.00	±11	0.00	±10	0.00	-
PLANT PERIMETER	4	0.00	±11	0.00	±2.0	0.00	-
25-MILE RADIUS	3	0.00	±11	0.00	±1.0	0.00	-
100-MILE RADIUS	4	0.00	±11	0.00	±2.0	0.00	-
AVERAGE						0.00	-

- Insufficient data.

**TABLE 7-6
RADIOACTIVITY IN VEGETATION, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± STD DEV</u>	
<u>I-131, PCIG</u>							
<u>COMPOSITE SAMPLES</u>							
200-F & 200-H	4	0.00	±11	0.00	±5.0	0.00	-
PLANT PERIMETER	4	0.00	±11	0.00	±2.0	0.00	-
25-MILE RADIUS	3	0.00	±11	0.00	±4.0	0.00	-
100-MILE RADIUS	4	0.00	±11	0.00	±8.0	0.00	-
AVERAGE						0.00	-
<u>CS-134, 137, PCIG</u>							
<u>COMPOSITE SAMPLES</u>							
200-F & 200-H	4	1.5	±0.34	0.0	±0.22	0.97	-
PLANT PERIMETER	4	0.56	±0.33	0.0	±0.28	0.36	-
25-MILE RADIUS	3	0.00	±0.33	0.00	±1.0	0.00	-
100-MILE RADIUS	4	0.25	±0.34	0.00	±1.0	0.06	-
AVERAGE						0.34	±1.1
<u>CE-141, 144, PCIG</u>							
<u>COMPOSITE SAMPLES</u>							
200-F & 200-H	4	0.00	±0.34	0.00	±9.0	0.00	-
PLANT PERIMETER	4	0.00	±0.34	0.00	±2.0	0.00	-
25-MILE RADIUS	3	0.00	±0.34	0.00	±3.0	0.00	-
100-MILE RADIUS	4	0.00	±0.34	0.00	±3.0	0.00	-
AVERAGE						0.00	-

- Insufficient data.

**TABLE 7-7
RADIOACTIVITY IN SEEPAGE AND
RETENTION BASIN VEGETATION**

Location	pCi/g (dry weight)					
	Alpha	CT Err 95% CL	Nonvolatile Beta	CT Err 95% CL	Sr-89,90	CT Err 95% CL
700-A Seepage Basin Composite (4 Loc)	0.0	±0.34	17	±1.5	3.9	±0.39
300-M Seepage Basin Composite (4 Loc)	0.0	±0.34	11	±1.3	0.71	±0.61
100-C Seepage Basin Composite (8 Loc)	0.0	±0.12	9.3	±1.2	3.9	±0.36
100-K Seepage Basin Composite (4 Loc)	-0.08	±0.15	26	±1.8	1.5	±0.26
100-K Retention Basin Composite (4 Loc)	-0.08	±0.15	13	±2.6	0.70	±0.21
100-L Seepage Basin Composite (4 Loc)	0.0	±0.17	7.3	±1.1	0.42	±0.19
100-L Chemical Basin Composite (4 Loc)	-0.04	±0.15	9.0	±1.2	0.74	±0.21
100-P Seepage Basin Composite (4 Loc)	0.0	±0.17	11	±1.2	0.54	±0.20
100-R Seepage Basin Composite (8 Loc)	-0.04	±0.15	7.9	±1.1	1.5	±0.27
200-F Seepage Basin Composite (8 Loc)	0.0	±0.17	27	±1.8	3.2	±0.36
200-F Retention Basin Composite (6 Loc)	0.0	±0.17	11	±1.2	0.76	±0.22
200-H Seepage Basin Composite (8 Loc)	0.13	±0.22	16	±1.4	13	±6.8
200-H Retention Basin Composite (8 Loc)	0.08	±0.21	49	±2.4	7.0	±0.46

TABLE 7-8
RADIOACTIVITY IN VEGETATION INSIDE THE
SOLID WASTE STORAGE FACILITY FENCES
(pCi/gram)

Sample Location	Alpha		Nonvolatile Beta	
	1986	1987	1986	1987
1	0.04 ± 0.14	0.08 ± 0.16	14 ± 1.3	13 ± 1.3
1A	0.04 ± 0.14	0.08 ± 0.16	13 ± 1.2	15 ± 1.3
2	0.00 ± 0.11	0.35 ± 0.26	15 ± 1.3	21 ± 1.6
3	0.00 ± 0.11	0.20 ± 0.21	14 ± 1.3	13 ± 1.3
3A	0.27 ± 0.23	0.31 ± 0.25	14 ± 1.3	25 ± 1.7
4	0.98 ± 0.40	0.12 ± 0.17	22 ± 1.6	12 ± 1.2
4A	0.12 ± 0.17	0.04 ± 0.14	18 ± 1.4	9 ± 1.1
5	0.08 ± 0.16	0.04 ± 0.14	50 ± 2.3	23 ± 1.6
6	0.0 ± 0.11	0.04 ± 0.14	16 ± 1.4	13 ± 1.3
7	0.08 ± 0.16	1.01 ± 0.30	20 ± 1.5	46 ± 1.6
8	0.23 ± 0.22	0.12 ± 0.17	13 ± 1.2	19 ± 1.5
8A	0.35 ± 0.26	0.08 ± 0.15	19 ± 1.5	54 ± 2.5
9	1.3 ± 0.49	-0.08 ± 0.15	48 ± 2.5	21 ± 1.6
9A	1.1 ± 0.45	7.62 ± 1.10	131 ± 4.0	6006 ± 25.5
10	0.39 ± 0.29	-0.12 ± 0.13	31 ± 2.0	34 ± 2.0
11	0.35 ± 0.28	0.35 ± 0.30	106 ± 3.6	83 ± 3.0
12	0.70 ± 0.37	0.27 ± 0.28	170 ± 4.6	84 ± 3.1
13	0.04 ± 0.08	0.08 ± 0.15	16 ± 1.3	15 ± 1.4
14	0.04 ± 0.14	0.19 ± 0.20	13 ± 1.3	24 ± 1.7
14A	0.12 ± 0.17	0.19 ± 0.20	12 ± 1.2	26 ± 1.7
15	0.47 ± 0.29	0.12 ± 0.17	19 ± 1.5	18 ± 2.9
16	0.39 ± 0.27	0.00 ± 0.11	19 ± 1.5	40 ± 2.1
17	0.02 ± 0.21	0.04 ± 0.13	18 ± 1.4	13 ± 1.3
18	0.02 ± 0.21	0.31 ± 0.24	27 ± 1.7	73 ± 2.9
19	0.35 ± 0.28	0.15 ± 0.19	21 ± 1.7	20 ± 1.5
19A	0.22 ± 0.14	0.04 ± 0.14	17 ± 1.4	8 ± 1.1
20	0.35 ± 0.26	0.04 ± 0.14	17 ± 1.4	12 ± 1.3
20A*	0.08 ± 0.16		9.4 ± 1.1	
21	0.00 ± 0.11	0.25 ± 0.23	19 ± 1.5	5 ± 0.93
22	0.08 ± 0.16	0.00 ± 0.12	12 ± 1.2	21 ± 1.7
23	0.16 ± 0.19	0.04 ± 0.14	14 ± 1.3	20 ± 1.6
23A	0.04 ± 0.14	0.08 ± 0.17	13 ± 1.2	17 ± 1.5
24	0.08 ± 0.16	0.08 ± 0.17	10 ± 1.1	27 ± 1.9
25	0.02 ± 0.21	0.17 ± 0.20	8.8 ± 1.0	15 ± 1.5
26*	0.08 ± 0.16		15 ± 1.3	
27	0.08 ± 0.16	0.12 ± 0.18	12 ± 1.2	22 ± 1.7
28	0.12 ± 0.17	0.12 ± 0.18	12 ± 1.2	12 ± 1.3
29	0.23 ± 0.22	0.04 ± 0.14	17 ± 1.4	11 ± 1.3
30*	0.02 ± 0.21		39 ± 2.0	
31	1.7 ± 0.53	-0.004 ± 0.08	22 ± 1.6	8 ± 1.11
32	0.32 ± 0.25	0.004 ± 0.13	37 ± 2.0	22 ± 1.6
33	0.04 ± 0.14	0.00 ± 0.11	20 ± 1.5	9 ± 1.1
34*	0.08 ± 0.16		20 ± 1.5	35 ± 12
35*	0.26 ± 0.25		12 ± 1.4	
36	0.04 ± 0.14	0.15 ± 0.19	9 ± 1.1	27 ± 1.8
37	0.04 ± 0.14	0.19 ± 0.20	11 ± 1.2	10 ± 1.1
38*	0.08 ± 0.16		29 ± 1.8	
39*	0.0 ± 0.11		13 ± 1.3	
40*	0.20 ± 0.21		10 ± 1.1	
41*	0.12 ± 0.17		51 ± 2.4	
42	0.12 ± 0.17	0.19 ± 0.20	76 ± 2.8	21 ± 1.6

* Samples not pulled in 1987 due to digging in the area per Collections Log Book.
Blank space indicates no analysis performed.

TABLE 7-8
RADIOACTIVITY IN VEGETATION INSIDE THE
SOLID WASTE STORAGE FACILITY FENCES, CONT'D.
(pCi/gram)

Sample Location	K-40		Cs-137	
	1986	1987	1986	1987
1	14 ± 5	15 ± 2	<1.0	<0.3
1A	15 ± 5	8 ± 2	<1.2	<0.3
2	<19	18 ± 2	<1.7	0.7 ± 0.1
3	14 ± 6	11 ± 2	<1.2	0.7 ± 0.1
3A	18 ± 8	10 ± 2	<1.7	0.5 ± 0.1
4	16 ± 5	12 ± 2	<1.3	0.4 ± 0.1
4A		8 ± 1		0.2 ± 0.1
5	<19	15 ± 2	<1.6	2.0 ± 0.2
6	12 ± 6	11 ± 2	<1.2	2.0 ± 0.2
7	<15	12 ± 2	1.0 ± 0.4	0.4 ± 0.1
8	<10	7 ± 2	<1.0	0.7 ± 0.2
8A	<19	20 ± 3	<1.2	<0.3
9	15 ± 5	9 ± 1	13 ± 11	0.6 ± 0.1
9A	<14	12 ± 2	24 ± 1.4	1.0 ± 0.02
10	<12	9 ± 2	<1.0	3.0 ± 0.2
11	20 ± 5	13 ± 2	7.8 ± 0.7	37 ± 0.7
12	16 ± 5	8 ± 2	4.4 ± 0.7	1.0 ± 0.2
13	21 ± 6	13 ± 2	<1.0	0.6 ± 0.1
14	13 ± 4	12 ± 2	<0.7	0.5 ± 0.1
14A	<9.0	16 ± 3	<0.7	<0.4
15	<9.0	17 ± 3	<1.2	0.3 ± 0.1
16	20 ± 6	42 ± 4	<1.2	4.0 ± 0.3
17	25 ± 7	15 ± 3	<1.2	<0.3
18	16 ± 6	11 ± 2	2.1 ± 0.6	9.0 ± 0.5
19	<9	23 ± 3	1.3 ± 0.4	0.5 ± 0.1
19A	17 ± 6	13 ± 2	<1.2	2.0 ± 0.2
20	<14	13 ± 2	2.4 ± 0.6	0.5 ± 0.1
20A*	<10		<1.0	
21	<5.4	4 ± 2	7.7 ± 2.7	0.5 ± 0.1
22	<19	19 ± 2	<1.3	<0.2
23	<13	16 ± 2	<1.0	0.8 ± 0.1
23A	25 ± 7	13 ± 2	<1.2	0.5 ± 0.1
24	23 ± 7	15 ± 2	<1.4	0.7 ± 0.1
25	20 ± 7	13 ± 3	<1.2	0.3 ± 0.1
26*	12 ± 4		<1.0	
27	11 ± 4	13 ± 3	<10	<0.4
28	13 ± 7	8 ± 1	<1.5	<0.2
29	<18	13 ± 2	<1.4	<0.3
30	7.5 ± 5		<1.3	
31	<17	11 ± 2	<2	<0.2
32	<19	19 ± 3	1.3 ± 0.5	0.4 ± 0.1
33	5 ± 0.6	12 ± 2	<11	<0.3
34*	35 ± 12		3.7 ± 1	
35*	28 ± 6		1.4 ± 0.4	
36	<18	32 ± 4	<1.3	<0.4
37	18 ± 5	4 ± 1	<1.1	<0.2
38*	29 ± 8		2 ± 0.8	
39*	26 ± 10		<1.7	
40*	<0.13		<0.2	
41*	26 ± 6		<0.1	
42	25 ± 6	20 ± 2	1 ± 1	0.3 ± 0.1

* Samples not pulled due to digging in the area per Collections Log Book.
Blank space indicates no analysis performed.

TABLE 7-9
RADIOACTIVITY IN VEGETATION OUTSIDE
THE SOLID WASTE STORAGE FACILITY
(BURIAL GROUND)

<u>LOCATION</u>	<u>NO. OF</u>	<u>MAXIMUM</u>	<u>CTERR</u>	<u>MINIMUM</u>	<u>CTERR</u>	<u>ARITHMETIC</u>	
	<u>SAMPLES</u>		<u>95% CL</u>		<u>95% CL</u>	<u>MEAN</u>	<u>2 STD DEV</u>
<u>ALPHA PCIG</u>							
BURIAL GROUND 1	4	0.08	±0.12	0.04	±0.17	0.06	-
BURIAL GROUND 2	4	0.35	±0.28	0.00	±0.12	0.11	-
BURIAL GROUND 3	4	0.37	±0.25	-0.04	±0.08	0.07	-
BURIAL GROUND 4	4	0.29	±0.22	0.00	±0.12	0.12	-
BURIAL GROUND 5	4	0.41	±0.26	0.00	±0.15	0.13	-
BURIAL GROUND 6	4	0.17	±0.17	0.00	±0.12	0.07	-
BURIAL GROUND 7	4	0.46	±0.28	-0.08	±0.11	0.12	-
BURIAL GROUND 8	4	0.21	±0.19	-0.04	±0.14	0.05	-
BURIAL GROUND 9	4	0.15	±0.21	-0.08	±0.11	0.04	-
BURIAL GROUND 10	4	0.37	±0.25	0.04	±0.14	0.17	-
BURIAL GROUND 11	4	0.41	±0.20	0.00	±0.12	0.11	-
BURIAL GROUND 12	4	0.25	±0.20	0.08	±0.17	0.17	-
BURIAL GROUND 13	4	0.21	±0.22	0.04	±0.17	0.13	-
AVERAGE						0.10	±0.27
<u>NONVOL BETA PCIG</u>							
BURIAL GROUND 1	4	15	±1.5	2.8	±0.69	8.3	-
BURIAL GROUND 2	4	9.9	±1.2	6.1	±1.0	8.0	-
BURIAL GROUND 3	4	11	±1.3	6.6	±0.95	8.4	-
BURIAL GROUND 4	4	12	±1.3	6.2	±1.0	8.2	-
BURIAL GROUND 5	4	14	±1.5	5.2	±0.86	8.9	-
BURIAL GROUND 6	4	13	±1.3	8.9	±1.2	11	-
BURIAL GROUND 7	4	21	±1.7	9.8	±1.1	15	-
BURIAL GROUND 8	4	18	±1.6	7.3	±1.1	14	-
BURIAL GROUND 9	4	15	±1.5	6.8	±1.1	13	-
BURIAL GROUND 10	4	17	±1.5	8.6	±1.1	13	-
BURIAL GROUND 11	4	16	±1.5	5.3	±0.99	8.7	-
BURIAL GROUND 12	4	16	±1.5	7.4	±1.1	11	-
BURIAL GROUND 13	4	13	±1.4	7.1	±0.97	9.7	-
AVERAGE						11	±8.0
<u>BE-7 PCIG</u>							
BURIAL GROUND 1	3	9.7	±2.7	0.00	±4.1	3.8	-
BURIAL GROUND 2	4	26	±4.7	0.00	±2.9	9.9	-
BURIAL GROUND 3	4	14	±3.4	0.00	±2.7	6.0	-
BURIAL GROUND 4	4	25	±5.1	0.00	±3.6	8.7	-
BURIAL GROUND 5	4	32	±4.7	0.00	±2.2	7.9	-
BURIAL GROUND 6	4	34	±7.8	0.00	±8.0	9.9	-
BURIAL GROUND 7	4	33	±5.6	4.0	±1.0	17	-
BURIAL GROUND 8	4	28	±8.1	0.00	±8.0	7.0	-
BURIAL GROUND 9	4	26	±6.5	0.00	±1.4	13	-
BURIAL GROUND 10	4	47	±6.1	4.0	±0.88	23	-
BURIAL GROUND 11	4	25	±5.5	1.9	±0.81	13	-
BURIAL GROUND 12	4	28	±5.6	0.00	±1.7	7.8	-
BURIAL GROUND 13	4	32	±5.1	0.00	±2.8	12	-
AVERAGE						11	±25

- Insufficient data.

TABLE 7-9
RADIOACTIVITY IN VEGETATION OUTSIDE
THE SOLID WASTE STORAGE FACILITY, CONT'D.

LOCATION	NO. OF SAMPLES	MAXIMUM	CTERR 95% CL	MINIMUM	CTERR 95% CL	ARITHMETIC MEAN	2 STD DEV
<u>K-40 PCIG</u>							
BURIAL GROUND 1	3	8.7	±1.6	0.00	±21	2.9	-
BURIAL GROUND 2	4	16	±4.2	0.00	±21	11	-
BURIAL GROUND 3	4	23	±4.7	0.00	±21	9.0	-
BURIAL GROUND 4	4	17	±4.1	0.00	±21	10	-
BURIAL GROUND 5	4	20	±3.2	0.00	±21	8.2	-
BURIAL GROUND 6	4	16	±3.7	0.00	±21	9.4	-
BURIAL GROUND 7	4	16	±2.2	0.00	±22	7.2	-
BURIAL GROUND 8	4	21	±4.3	0.00	±21	14	-
BURIAL GROUND 9	4	17	±4.0	0.00	±15	7.6	-
BURIAL GROUND 10	4	17	±6.1	0.00	±8.0	9.3	-
BURIAL GROUND 11	4	18	±2.1	9.6	±5.3	14	-
BURIAL GROUND 12	4	18	±4.5	0.00	±13	12	-
BURIAL GROUND 13	4	16	±1.9	0.00	±13	9.5	-
AVERAGE						9.5	±14
<u>MN-54 PCIG</u>							
BURIAL GROUND 1	3	0.00	±1.9	0.00	±5.0	0.00	-
BURIAL GROUND 2	4	0.00	±1.9	0.00	±5.0	0.00	-
BURIAL GROUND 3	4	0.00	±1.9	0.00	±3.0	0.00	-
BURIAL GROUND 4	4	0.00	±1.9	0.00	±4.0	0.00	-
BURIAL GROUND 5	4	0.00	±1.9	0.00	±3.0	0.00	-
BURIAL GROUND 6	4	0.00	±1.9	0.00	±4.0	0.00	-
BURIAL GROUND 7	4	0.00	±1.9	0.00	±4.0	0.00	-
BURIAL GROUND 8	4	0.00	±1.9	0.00	±5.0	0.00	-
BURIAL GROUND 9	4	0.00	±1.9	0.00	±5.0	0.00	-
BURIAL GROUND 10	4	0.00	±1.9	0.00	±3.0	0.00	-
BURIAL GROUND 11	4	0.00	±1.9	0.00	±3.0	0.00	-
BURIAL GROUND 12	4	0.00	±1.9	0.00	±3.0	0.00	-
BURIAL GROUND 13	4	0.00	±1.9	0.00	±3.0	0.00	-
AVERAGE						0.00	
<u>ZR-95, NB-95 PCIG</u>							
BURIAL GROUND 1	3	0.00	±1.9	0.00	±5.0	0.00	-
BURIAL GROUND 2	4	0.00	±1.9	0.00	±5.0	0.00	-
BURIAL GROUND 3	4	0.00	±1.9	0.00	±5.0	0.00	-
BURIAL GROUND 4	4	0.00	±1.9	0.00	±5.0	0.00	-
BURIAL GROUND 5	4	0.00	±1.9	0.00	±5.0	0.00	-
BURIAL GROUND 6	4	0.00	±1.9	0.00	±5.0	0.00	-
BURIAL GROUND 7	4	0.00	±1.9	0.00	±5.0	0.00	-
BURIAL GROUND 8	4	0.00	±1.9	0.00	±5.0	0.00	-
BURIAL GROUND 9	4	0.00	±1.9	0.00	±6.0	0.00	-
BURIAL GROUND 10	4	0.00	±1.9	0.00	±6.0	0.00	-
BURIAL GROUND 11	4	0.00	±1.9	0.00	±4.0	0.00	-
BURIAL GROUND 12	4	0.00	±1.9	0.00	±4.0	0.00	-
BURIAL GROUND 13	4	0.00	±1.9	0.00	±3.0	0.00	-
AVERAGE						0.00	

- Insufficient data.

TABLE 7-9
RADIOACTIVITY IN VEGETATION OUTSIDE
THE SOLID WASTE STORAGE FACILITY, CONT'D.

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± 2 STD DEV</u>	
<u>RU-103, 106, PC/G</u>							
BURIAL GROUND 1	3	0.00	±1.9	0.00	±2.0	0.00	-
BURIAL GROUND 2	4	0.00	±1.9	0.00	±2.0	0.00	-
BURIAL GROUND 3	4	0.00	±1.9	0.00	±17	0.00	-
BURIAL GROUND 4	4	0.00	±1.9	0.00	±17	0.00	-
BURIAL GROUND 5	4	0.00	±1.9	0.00	±17	0.00	-
BURIAL GROUND 6	4	0.00	±1.9	0.00	±17	0.00	-
BURIAL GROUND 7	4	0.00	±1.9	0.00	±15	0.00	-
BURIAL GROUND 8	4	0.00	±1.9	0.00	±19	0.00	-
BURIAL GROUND 9	4	0.00	±1.9	0.00	±14	0.00	-
BURIAL GROUND 10	4	0.00	±1.9	0.00	±14	0.00	-
BURIAL GROUND 11	4	0.00	±1.9	0.00	±9.0	0.00	-
BURIAL GROUND 12	4	0.00	±1.9	0.00	±14	0.00	-
BURIAL GROUND 13	4	0.00	±1.9	0.00	±12	0.00	-
AVERAGE						0.00	-
<u>CS-137, PC/G</u>							
BURIAL GROUND 1	3	1.1	±0.24	0.00	±2.0	0.42	-
BURIAL GROUND 2	4	1.7	±0.38	0.00	±2.0	0.51	-
BURIAL GROUND 3	4	0.70	±0.25	0.00	±2.0	0.21	-
BURIAL GROUND 4	4	2.0	±0.38	0.00	±2.0	0.50	-
BURIAL GROUND 5	4	2.3	±0.39	0.00	±2.0	0.57	-
BURIAL GROUND 6	4	0.00	±0.39	0.00	±2.0	0.00	-
BURIAL GROUND 7	4	1.7	±0.38	0.00	±2.0	0.58	-
BURIAL GROUND 8	4	1.5	±0.20	0.00	±2.0	0.38	-
BURIAL GROUND 9	4	0.72	±0.13	0.00	±2.0	0.26	-
BURIAL GROUND 10	4	5.2	±0.37	0.00	±2.0	1.7	-
BURIAL GROUND 11	4	0.00	±0.37	0.00	±1.0	0.00	-
BURIAL GROUND 12	4	1.2	±0.34	0.00	±1.0	0.42	-
BURIAL GROUND 13	4	4.9	±0.78	0.00	±0.26	1.7	-
AVERAGE						0.55	±2.2
<u>CE-141, 144, PC/G</u>							
BURIAL GROUND 1	3	0.00	±0.78	0.00	±15	0.00	-
BURIAL GROUND 2	4	0.00	±0.78	0.00	±15	0.00	-
BURIAL GROUND 3	4	0.00	±0.78	0.00	±15	0.00	-
BURIAL GROUND 4	4	0.00	±0.78	0.00	±15	0.00	-
BURIAL GROUND 5	4	0.00	±0.78	0.00	±15	0.00	-
BURIAL GROUND 6	4	0.00	±0.78	0.00	±15	0.00	-
BURIAL GROUND 7	4	0.00	±0.78	0.00	±15	0.00	-
BURIAL GROUND 8	4	0.00	±0.78	0.00	±16	0.00	-
BURIAL GROUND 9	4	0.00	±0.78	0.00	±13	0.00	-
BURIAL GROUND 10	4	0.00	±0.78	0.00	±10	0.00	-
BURIAL GROUND 11	4	0.00	±0.78	0.00	±11	0.00	-
BURIAL GROUND 12	4	0.00	±0.78	0.00	±12	0.00	-
BURIAL GROUND 13	4	0.00	±0.78	0.00	±10	0.00	-
AVERAGE						0.00	-

- Insufficient data.

**TABLE 7-9
RADIOACTIVITY IN VEGETATION OUTSIDE
THE SOLID WASTE STORAGE FACILITY, CONT'D.**

<u>LOCATION</u>	<u>NO. OF SAMPLES</u>	<u>MAXIMUM</u>	<u>CTERR 95% CL</u>	<u>MINIMUM</u>	<u>CTERR 95% CL</u>	<u>ARITHMETIC MEAN ± STD DEV</u>
<u>SB-125, PCI/G</u>						
BURIAL GROUND 1	3	0.00	±1.9	0.00	±4.0	0.00 -
BURIAL GROUND 2	4	0.00	±1.9	0.00	±4.0	0.00 -
BURIAL GROUND 3	4	0.00	±1.9	0.00	±4.0	0.00 -
BURIAL GROUND 4	4	0.00	±1.9	0.00	±4.0	0.00 -
BURIAL GROUND 5	4	0.00	±1.9	0.00	±4.0	0.00 -
BURIAL GROUND 6	4	0.00	±1.9	0.00	±4.0	0.00 -
BURIAL GROUND 7	4	0.00	±1.9	0.00	±5.0	0.00 -
BURIAL GROUND 8	4	0.00	±1.9	0.00	±5.0	0.00 -
BURIAL GROUND 9	4	0.00	±1.9	0.00	±4.0	0.00 -
BURIAL GROUND 10	4	0.00	±1.9	0.00	±4.0	0.00 -
BURIAL GROUND 11	4	0.00	±1.9	0.00	±3.0	0.00 -
BURIAL GROUND 12	4	0.00	±1.9	0.00	±4.0	0.00 -
BURIAL GROUND 13	4	0.00	±1.9	0.00	±3.0	0.00 -
AVERAGE						0.00 -
<u>I-131, PCI/G</u>						
BURIAL GROUND 1	3	0.00	±1.9	0.00	±9.0	0.00 -
BURIAL GROUND 2	4	0.00	±1.9	0.00	±9.0	0.00 -
BURIAL GROUND 3	4	0.00	±1.9	0.00	±9.0	0.00 -
BURIAL GROUND 4	4	0.00	±1.9	0.00	±9.0	0.00 -
BURIAL GROUND 5	4	0.00	±1.9	0.00	±9.0	0.00 -
BURIAL GROUND 6	4	0.00	±1.9	0.00	±9.0	0.00 -
BURIAL GROUND 7	4	0.00	±1.9	0.00	±8.0	0.00 -
BURIAL GROUND 8	4	0.00	±1.9	0.00	±8.0	0.00 -
BURIAL GROUND 9	4	0.00	±1.9	0.00	±7.0	0.00 -
BURIAL GROUND 10	4	0.00	±1.9	0.00	±7.0	0.00 -
BURIAL GROUND 11	4	0.00	±1.9	0.00	±5.0	0.00 -
BURIAL GROUND 12	4	0.00	±1.9	0.00	±6.0	0.00 -
BURIAL GROUND 13	4	0.00	±1.9	0.00	±6.0	0.00 -
AVERAGE						0.00 -

- Insufficient data.

TABLE 8-1
TRITIUM CONCENTRATIONS IN VEGETATION AND SURFACE WATER
FOLLOWING JULY 31, 1987 TRITIUM RELEASE

VEGETATION SAMPLES, ONSITE, 7/31/87

<u>Ref. No.</u>	<u>Location</u>	<u>Tritium pCi/mL</u>
1	At intersection of Rd. F and Rd. 4	14.30 ± 2.43
2	On Rd. F, 0.25 mi. from intersection with Rd. 4	19.40 ± 1.41
3	On Rd. F, 0.50 mi. from intersection with Rd. 4	43.20 ± 3.76
4	On Rd. F, 0.75 mi. from intersection with Rd. 4	2350.00 ± 12.60
5	On Rd. F, 1.00 mi. from intersection with Rd. 4	2350.00 ± 25.10
6	On Rd. F, 1.25 mi. from intersection with Rd. 4	17.00 ± 2.57
7	On Rd. F, 1.50 mi. from intersection with Rd. 4	31.80 ± 6.99
8	On Rd. F, 1.75 mi. from intersection with Rd. 4	38.90 ± 3.47
9	Intersection of Rd. F and Rd. E	33.30 ± 7.08
10	At intersection of Rd. E and Batch Plant Rd. (BPR)	60.10 ± 4.17
11	On BPR, 0.25 mi. from intersection with Rd. E	72.20 ± 4.67
12	On BPR, 0.50 mi. from intersection with Rd. E	384.00 ± 9.94
13	At NPDES site H-004	5760.00 ± 39.20
14	At intersection of Rd. E and Rd. F	38.30 ± 3.45
15	On Rd. F, 0.25 mi. from intersection with Rd. E	39.00 ± 3.61
16	On Rd. F, 0.50 mi. from intersection with Rd. E	31.90 ± 3.21
17	On Rd. F, 0.75 mi. from intersection with Rd. E	17.50 ± 2.70
18	On Rd. F, 1.00 mi. from intersection with Rd. E	75.60 ± 2.78

VEGETATION SAMPLES, PLANT PERIMETER, 7/31/87

<u>Ref. No.</u>	<u>Location</u>	<u>Tritium pCi/mL</u>
101	At intersection of Hwy. 278 and Rd. 5-6-21	14.60 ± 4.85
102	On Rd. 5-6-21, 0.5 mi. from intersection with Hwy. 278	52.10 ± 4.06
104	On Rd. 5-6-21, 1.0 mi. from intersection with Hwy. 278	22.70 ± 2.94
105	On Rd. 5-6-21, 1.5 mi. from intersection with Hwy. 278	527.00 ± 11.60
106	On Rd. 5-6-21, 2.0 mi. from intersection with Hwy. 278	1270.00 ± 18.50
108	On Rd. 5-6-21, 2.5 mi. from intersection with Hwy. 278	2190.00 ± 24.20
109	On Rd. 5-6-21, 3.0 mi. from intersection with Hwy. 278	2940.00 ± 47.10
110	On Rd. 5-6-21, 3.5 mi. from intersection with Hwy. 278	4690.00 ± 35.40
112	On Rd. 5-6-21, 4.0 mi. from intersection with Hwy. 278	2860.00 ± 27.60
113	On Rd. 5-6-21, 4.5 mi. from intersection with Hwy. 278	2230.00 ± 24.40
114	On Rd. 5-6-21, 5.0 mi. from intersection with Hwy. 278	527.00 ± 11.90
115	On Rd. 5-6-21, 5.5 mi. from intersection with Hwy. 278	216.00 ± 7.76
116	On Rd. 5-6-21, 6.0 mi. from intersection with Hwy. 278	56.00 ± 4.05
117	On Rd. 5-6-21, 6.5 mi. from intersection with Hwy. 278	9.16 ± 2.14
118	On Rd. 5-6-21, 7.0 mi. from intersection with Hwy. 278	8.13 ± 2.08
119	On Rd. 5-6-54, 0.5 mi. from intersection with Hwy. 64	4.08 ± 1.82
120	On Rd. 5-6-54, 1.0 mi. from intersection with Hwy. 64	3.57 ± 1.79
121	On Rd. 5-6-54, 1.5 mi. from intersection with Hwy. 64	16.30 ± 5.00
122	On Rd. 5-6-54, 2.0 mi. from intersection with Hwy. 64	3.39 ± 1.77

SURFACE WATER SAMPLES, PLANT PERIMETER, 7/31/87

<u>Ref. No.</u>	<u>Location</u>	<u>Tritium pCi/mL</u>
103	On Rd. 5-6-21, 0.8 mi. from intersection with Hwy. 278	0.41 ± 2.03
107	On Rd. 5-6-21, 2.0 mi. from intersection with Hwy. 278	27.50 ± 3.39
111	On Rd. 5-6-21, 3.5 mi. from intersection with Hwy. 278	47.90 ± 4.13
123	On Rd. 5-6-54, 0.95 mi. from intersection with Hwy. 64	4.35 ± 2.28

TABLE 8-1
TRITIUM CONCENTRATIONS IN VEGETATION AND SURFACE WATER
FOLLOWING JULY 31, 1987 TRITIUM RELEASE, CONT'D.

VEGETATION SAMPLES, 35 MILES FROM H AREA, 7/31/87

<u>Ref.</u> <u>No.</u>	<u>Location</u>	<u>Tritium</u> <u>pCi/ml</u>
201	On US 389, 5 mi. from Neeses toward Wagener	1.19 ± 1.70
202	On US 389, 4 mi. from Neeses toward Wagener	1.58 ± 1.73
203	On US 389, 3 mi. from Neeses toward Wagener	2.20 ± 2.31
204	On US 389, 2 mi. from Neeses toward Wagener	0.31 ± 1.78
205	On US 389, 1 mi. from Neeses toward Wagener	3.02 ± 4.10
206	At Jct. of US 389 & US 321, SW from Neeses	0.00 ± 18.96
207	On US 321, 1 mi. SW of Neeses toward Denmark	1.06 ± 1.69
208	On US 321, 2 mi. SW of Neeses toward Denmark	0.62 ± 2.46
209	On US 321, 3 mi. SW of Neeses toward Denmark	1.19 ± 1.70
210	On US 321, 4 mi. SW of Neeses toward Denmark	0.94 ± 1.68
211	On US 321, 5 mi. SW of Neeses toward Denmark	0.28 ± 1.63
212	On US 321, 6 mi. SW of Neeses toward Denmark	0.61 ± 1.66
213	On US 321, 7 mi. SW of Neeses toward Denmark	0.28 ± 1.63
214	On US 321, 8 mi. SW of Neeses toward Denmark	0.02 ± 1.61
215	On US 321, 9 mi. SW of Neeses toward Denmark	3.36 ± 19.56
216	On US 321, 10 mi. SW of Neeses toward Denmark	0.89 ± 2.00
217	On US 321, 11 mi. SW of Neeses toward Denmark	0.24 ± 1.59
218	On US 321, 12 mi. SW of Neeses toward Denmark	0.81 ± 1.82
219	On US 321, 13 mi. SW of Neeses toward Denmark	0.73 ± 0.85
220	On US 321, 14 mi. SW of Neeses toward Denmark	0.68 ± 0.85
221	On US 321, 1 mi. from Denmark toward Olar	0.68 ± 0.85
222	On US 321, 2 mi. from Denmark toward Olar	0.92 ± 0.86
223	On US 321, 3 mi. from Denmark toward Olar	1.42 ± 0.88
224	On US 321, 4 mi. from Denmark toward Olar	7.98 ± 5.22
225	On US 321, 5 mi. from Denmark toward Olar	0.59 ± 0.84
226	On US 321, 6 mi. from Denmark toward Olar	1.10 ± 0.86
227	On US 321, 7 mi. from Denmark toward Olar	0.41 ± 0.83
228	On US 321, 8 mi. from Denmark toward Olar	0.90 ± 0.85
229	On US 321, 9 mi. from Denmark toward Olar	1.20 ± 0.87
230	On US 321, 10 mi. from Denmark toward Olar	1.74 ± 0.89
301	Hwy. 389, 6 mi. from Neeses toward Wagener	4.06 ± 1.11
302	Hwy. 389, 7 mi. from Neeses toward Wagener	3.37 ± 1.02
303	Hwy. 389, 8 mi. from Neeses toward Wagener	3.62 ± 0.96
304	Hwy. 389, 9 mi. from Neeses toward Wagener	6.24 ± 1.05
305	Hwy. 389, 10 mi. from Neeses toward Wagener	1.93 ± 0.90
306	Hwy. 389, 11 mi. from Neeses toward Wagener	2.20 ± 0.91
307	Hwy. 389, 12 mi. from Neeses toward Wagener	3.62 ± 0.96
308	Hwy. 389, 13 mi. from Neeses toward Wagener	2.54 ± 0.93
309	Hwy. 389, 14 mi. from Neeses toward Wagener	4.08 ± 0.98
310	Hwy. 389, 15 mi. from Neeses toward Wagener	1.39 ± 0.88
311	Hwy. 389, 16 mi. from Neeses toward Wagener	4.36 ± 0.99

TABLE 8-1
TRITIUM CONCENTRATIONS IN VEGETATION AND SURFACE WATER
FOLLOWING JULY 31, 1987 TRITIUM RELEASE, CONT'D.

SURFACE WATER SAMPLES, 35 MILES FROM H AREA, 7/31/87

<u>Ref. No.</u>	<u>Location</u>	<u>Tritium pCi/mL</u>
207	On US 321, 1 mi. SW of Neeses toward Denmark	0.74 ± 1.58
216	On US 321, 10 mi. SW of Neeses toward Denmark	1.57 ± 1.64
218	On US 321, 12 mi. SW of Neeses toward Denmark	3.60 ± 4.08
223	On US 321, 3 mi. from Denmark toward Olar	2.88 ± 1.74
224	On US 321, 4 mi. from Denmark toward Olar	4.52 ± 1.85
229	On US 321, 9 mi. from Denmark toward Olar	2.26 ± 1.69

MILK SAMPLES, S.C. FARMS

<u>DATE</u>	<u>Location</u>	<u>pCi/mL</u>
8/1/87	Norway	0.49 ± 0.84
8/3/87	Williston	3.71 ± 0.96

TABLE 8-2
TRITIUM CONCENTRATIONS IN VEGETATION
COLLECTED BY SCDHEC^a
FOLLOWING JULY 31, 1987 TRITIUM RELEASE

<u>Location</u>	<u>Date Collected</u>	<u>Tritium, pCi/mL^b</u>	
US #278 at Barnwell Airport	7/31/87	33.13	± 1.32
US #278 at SC #37	7/31/87	109.98	± 2.37
US #278 at Barnwell County #166	7/31/87	1,455.10	± 8.60
US #278 at Buck Creek	7/31/87	1,604.70	± 8.96
US #278 at Barnwell County #164	7/31/87	2,069.50	± 11.43
US #278 at Bell Pond Church	7/31/87	1,346.45	± 8.18
US #278 at Rosemary Creek	7/31/87	1,139.16	± 7.37
US #278 at Barnwell County #21	7/31/87	494.73	± 4.85
US #278 at Bates Cemetary	7/31/87	200.87	± 3.10
US #278 at SC #39	7/31/87	154.62	± 2.78
US #278 - 1.1 miles west of SC #29	7/31/87	69.74	± 1.89
US #278 at Barnwell/Aiken County Line	7/31/87	37.78	± 1.42
US #278 at SC #781	7/31/87	27.94	± 1.23
SC #4 at US #321	8/01/87	12.34	± 0.84
SC #4 at Orangeburg County #184	8/01/87	17.28	± 1.05
SC #4 at Orangeburg County #1290	8/01/87	16.58	± 0.94
SC #4 at Orangeburg County #1167	8/01/87	15.53	± 1.02
SC #4 at State #332	8/01/87	17.15	± 1.03
SC #4 at SC #3 (Springfield)	8/01/87	18.42	± 1.03
SC #4 at Orangeburg County #858	8/01/87	10.77	± 0.78
SC #4 at Orangeburg County #185	8/01/87	5.31	± 0.62
SC #4 at Aiken/Orangeburg County Line	8/01/87	4.68	± 0.60
SC #4 at Aiken County #22	8/01/87	3.87	± 0.55
SC #4 at Aiken County #212	8/01/87	4.64	± 0.59
SC #4 at Aiken County #14	8/01/87	3.65	± 0.51
SC #4 at Aiken County Dirt Road 1.3 miles west of #14	8/01/87	2.62	± 0.50
SC #4 at Aiken County #53	8/01/87	1.59	± 0.43
SC #302 at Aiken County #575	8/01/87	1.53	± 0.43
US #78 at Aiken County #212	8/01/87	4.54	± 0.39
US #78 at Aiken County #1018	8/01/87	4.19	± 0.39
US #78 at State #781	8/01/87	8.90	± 0.52
US #78 at Barnwell County #217	8/01/87	10.56	± 0.56
US #78 at Barnwell County #39 (Williston)	8/01/87	15.73	± 0.82
US #78 at Barnwell County #65	8/01/87	14.77	± 0.64
US #78 at State #37 (Elko)	8/01/87	13.88	± 0.70
US #78 at Barnwell County #81	8/01/87	21.55	± 0.78
US #78 at Barnwell County #61	8/01/87	28.68	± 0.82
US #78 at Barnwell County #162	8/01/87	34.26	± 1.23
Barnwell County #'s 61 and 72	8/01/87	28.30	± 0.95
Barnwell County #61 and State #3 (Blackville)	8/01/87	15.48	± 0.73
Barnwell County #'s 61 and 16	8/01/87	6.58	± 0.46
Barnwell County #'s 60 and 532	8/01/87	4.49	± 0.40

^a South Carolina Department of Health and Environmental Control.

^b Tritium concentration expressed in pCi/mL of moisture extracted from vegetation.

TABLE 8-3
COMPARISONS OF TRITIUM IN DRINKING WATER^a
(pCi/mL)

Tritium Concentrations From Drinking Water Samples				
<u>Area</u>	<u>Date Collected</u>	<u>EM Concentration</u>	<u>SRL Concentration</u>	<u>1986 EM Average^b</u>
P	7/16/87	0.40 ± 0.23	0.19 ± 0.03	1.90 ± 0.30
	7/23/87	0.31 ± 0.16	0.20 ± 0.02	
K	7/16/87	0.43 ± 0.23	<0.04	0.36 ± 0.27
	7/23/87	0.23 ± 0.16	<0.04	
L	7/16/87	0.09 ± 0.23	0.12 ± 0.04	-0.12 ± 0.27
	7/23/87	0.57 ± 0.16	<0.03	
H	7/16/87	0.44 ± 0.23	0.17 ± 0.02	0.26 ± 0.32
	7/23/87	0.73 ± 0.17	<0.03	

Tritium Concentrations From Well Heads			
<u>Area</u>	<u>Date Collected</u>	<u>EM Concentration</u>	<u>SRL Concentration</u>
905-92P	7/30/87	-0.02 ± 0.17	<0.04
	8/06/87	-	<0.04
905-93P	7/30/87	-0.05 ± 0.21	<0.04
	8/06/87	-	<0.04
905-94K	7/30/87	0.07 ± 0.21	<0.04
	8/06/87	-	<0.03
905-95K	7/30/87	-0.19 ± 0.21	<0.04
	8/06/87	-	<0.04
905-104L	7/30/87	0.10 ± 0.21	<0.03
	8/06/87	-	<0.04
905-105L	7/30/87	-0.12 ± 0.21	<0.03
	8/06/87	-	<0.04
905-66H	7/30/87	0.11 ± 0.21	0.04 ± 0.01
	8/06/87	-	<0.03
905-80H	7/30/87	0.08 ± 0.21	<0.04
	8/06/87	-	<0.03
905-88H	7/30/87	-0.06 ± 0.21	<0.03
	8/06/87	-	<0.03

^a Special study conducted by SRL and SRP Environmental Monitoring (EM) group to verify tritium concentrations in drinking water.

^b Average of all 1986 tritium measurements made by SRP Environmental Monitoring group.

- No analysis.

TABLE 8-4
SAVANNAH RIVER SWAMP, STEEL CREEK TO
LITTLE HELL LANDING, TLD RADIATION MEASUREMENTS

River Mile	Trail Number	Distance From River (Meters)	Average Annual Results 1972-1985	Panasonic Test TLDs Sept. 1986	mR/Day		Panasonic ^{b,c} TLDs April 1987	Panasonic ^c TLDs Sept. 1987
					SRP ^a TLDs Sept. 1986			
141.5	1	0	0.26 ± 0.08	0.80 ± 0.02	0.43 ± 0.03	0.16 ± 0.02	0.32 ± 0.05	
		178	0.34 ± 0.10		0.52 ± 0.04		0.32 ± 0.05	
		358	0.50 ± 0.15		0.62 ± 0.05		0.47 ± 0.07	
		550	1.08 ± 0.32		0.99 ± 0.07		0.81 ± 0.12	
		656	1.31 ± 0.58		1.17 ± 0.08		0.94 ± 0.14	
140.8	2	805	0.17 ± 0.04	0.57 ± 0.03	0.34 ± 0.03	0.19 ± 0.03	0.17 ± 0.03	
		0	0.22 ± 0.05		0.40 ± 0.03		0.24 ± 0.04	
		207	0.25 ± 0.05		0.45 ± 0.04		0.27 ± 0.04	
		406	0.25 ± 0.05		0.42 ± 0.03		0.28 ± 0.04	
		598	0.25 ± 0.04		0.42 ± 0.03		0.28 ± 0.04	
		798	0.33 ± 0.07		0.55 ± 0.04		0.33 ± 0.05	
		945	0.55 ± 0.11		0.81 ± 0.06		0.57 ± 0.08	
139.5	3	975	0.18 ± 0.04	0.74 ± 0.06	0.41 ± 0.03	0.21 ± 0.03	0.20 ± 0.03	
		0	0.23 ± 0.04		0.41 ± 0.03		0.25 ± 0.04	
10		281	0.26 ± 0.08		0.45 ± 0.04		0.27 ± 0.04	
140.8		627	0.23 ± 0.02		0.36 ± 0.03	0.23 ± 0.03	0.23 ± 0.03	
139	4	0	0.27 ± 0.05	0.57 ± 0.03	0.31 ± 0.03	0.23 ± 0.03	0.26 ± 0.04	
		293	0.30 ± 0.07		0.37 ± 0.03		0.30 ± 0.05	
		380	0.39 ± 0.12		0.53 ± 0.04		0.43 ± 0.06	
		515	0.40 ± 0.12		0.53 ± 0.04		0.39 ± 0.06	
		580	0.79 ± 0.17		0.85 ± 0.06		0.68 ± 0.10	
		729	0.29 ± 0.29		0.34 ± 0.03		0.24 ± 0.04	
138.5	5	0	0.23 ± 0.06	0.57 ± 0.03	0.04 ± 0.03	0.21 ± 0.03	0.25 ± 0.04	
		534	0.34 ± 0.07		0.47 ± 0.04		0.35 ± 0.05	
		573	0.55 ± 0.13		0.65 ± 0.05		0.46 ± 0.07	
		640	1.02 ± 0.25		0.65 ± 0.05		0.81 ± 0.12	
		773	0.25 ± 0.05		0.43 ± 0.03		0.24 ± 0.04	
137	6	0	0.24 ± 0.06	0.71 ± 0.02	0.40 ± 0.03	0.22 ± 0.03	0.24 ± 0.04	
		549	0.32 ± 0.06		0.35 ± 0.03		0.30 ± 0.04	
		701	0.62 ± 0.23		0.68 ± 0.05		0.44 ± 0.07	
		772	0.78 ± 0.24		0.82 ± 0.06		0.59 ± 0.09	
		817	0.27 ± 0.07		0.44 ± 0.04		0.25 ± 0.04	
136.3	7	0	0.23 ± 0.06	0.71 ± 0.02	0.41 ± 0.03	0.22 ± 0.03	0.23 ± 0.03	
		579	0.23 ± 0.11		0.29 ± 0.03		0.26 ± 0.04	
		793 ^d	0.96 ± 0.16		0.54 ± 0.04		0.32 ± 0.05	
		823 ^d	0.25 ± 0.03		0.58 ± 0.04		0.41 ± 0.06	
		945	0.38 ± 0.08		0.52 ± 0.04		0.33 ± 0.05	
		976	0.25 ± 0.02		0.40 ± 0.03		0.25 ± 0.04	

^a Results biased by improper analysis techniques.

^b Resurvey to check validity of Sept. 1986 results.

^c Changed from SRP type TLD to Panasonic 801 AQ TLD during 1987. The average of the five Panasonic TLDs at each location is reported.

^d TLD measurements were not taken during 1978 through 1985 due to high water levels.

TABLE 8-4
SAVANNAH RIVER SWAMP, STEEL CREEK TO
LITTLE HELL LANDING, TLD RADIATION MEASUREMENTS, CONT'D.

River Mile	Trail Number	Distance From River (Meters)	Average Annual Results 1972-1985	Panasonic Test TLDs Sept. 1986	mR/Day		Panasonic ^{b,c} TLDs April 1987	Panasonic ^c TLDs Sept. 1987
					SRP ^a TLDs Sept. 1986			
135.7	8	0	0.22 ± 0.05		0.40 ± 0.03		0.24 ± 0.04	
		168	0.25 ± 0.06		0.39 ± 0.03		0.28 ± 0.04	
		279	0.24 ± 0.09		0.43 ± 0.03		0.25 ± 0.04	
		445	0.25 ± 0.05		0.41 ± 0.03		0.27 ± 0.04	
		612	0.25 ± 0.06		0.46 ± 0.04		0.26 ± 0.04	
		814	0.38 ± 0.09		0.55 ± 0.04		0.33 ± 0.05	
		884	0.59 ± 0.21	0.54 ± 0.03	0.66 ± 0.05		0.51 ± 0.08	
135.5	9	915	0.24 ± 0.04		0.41 ± 0.03	0.25 ± 0.04	0.24 ± 0.04	
		0	0.24 ± 0.04		0.38 ± 0.03		0.25 ± 0.04	
		512	0.42 ± 0.06		0.53 ± 0.04		0.34 ± 0.05	
		621	0.54 ± 0.18		0.62 ± 0.05		0.50 ± 0.07	
		671	0.65 ± 0.15	0.53 ± 0.03	0.71 ± 0.05		0.52 ± 0.08	
134.4	10	769	0.21 ± 0.04		0.38 ± 0.03	0.22 ± 0.03	0.21 ± 0.03	
		0	0.36 ± 0.18		0.52 ± 0.04		0.33 ± 0.05	
		30	0.34 ± 0.09		0.51 ± 0.04		0.35 ± 0.05	
		73	0.23 ± 0.15		0.30 ± 0.03	0.19 ± 0.03	0.22 ± 0.03	
		West Jackson (Control)	0.24 ± 0.08					
		Allendale Gate (Control)	0.14 ± 0.02					

-
- a Results biased by improper analysis techniques.
b Resurvey to check validity of 1986 results.
c Changed from SRP type TLD to Panasonic 801 AQ TLD during 1987. The average of the five Panasonic TLDs at each location is reported.
d TLD measurements were not taken during 1978 through 1985 due to high water levels.

TABLE 8-5
SAVANNAH RIVER SWAMP, STEEL CREEK TO LITTLE
HELL LANDING, SR-90 AND CS-137 IN SOIL^a

River Mile	Trail Number	Distance From River (Meters)	Cs-137, pCi/g (dry weight)								
			1975 0-8 cm	1976 0-8 cm	1977 0-8 cm	1982 0-8 cm	1985 0-8 cm	1986 0-8 cm	1987 0-8 cm		
141.5	1	0	41								
		178	14	21	18	13 ± 0.36	19 ± 0.5	24 ± 0.33	13 ± 0.8		
		358	46								
		550	261	174	100	110 ± 0.95	114 ± 0.9	135 ± 1.0	178 ± 9.7		
		656	75								
		805	1	1	1	0.57 ± 0.07	0.6 ± 0.1	0.96 ± 0.07	1.0 ± 0.1		
140.8	2	0	1								
		207	3	2	3	1.9 ± 0.17	1.9 ± 0.2				
		406	3								
		598	4								
		798	18								
		945	73	5	38	84 ± 0.79	42 ± 0.6				
975	1	1	9	2.2 ± 0.16	1 ± 0.1						
139.5 to 140.8	3	0	2	<1	1	1.4 ± 0.18	0.6 ± 0.1				
		281	2	2	2	2.7 ± 0.21	0.9 ± 0.2				
		627	1	1	1	0.2 ± 0.08	3 ± 0.2				
139	4	0	2								
		293	19	18	19	20 ± 0.43	11 ± 0.3				
		380	61								
		515	55								
		580	98		171	112 ± 1.0	24 ± 0.4				
		729	2	44	2	1.1 ± 0.14	3 ± 0.2				
138.5	5	0	1								
		534	13	<1	27	31 ± 0.55	19 ± 0.4	25 ± 0.35	21 ± 0.22		
		573	86								
		640	141	<1	99	158 ± 1.1	67 ± 0.9	106 ± 0.86	143 ± 7.2		
		773	2	<1	1	1.1 ± 0.13	0.6 ± 0.1	0.78 ± 0.06	1.8 ± 0.2		
137	6	0	2								
		549	29	27	23	14 ± 0.39	11 ± 0.3				
		701	124								
		772	123	93	196	123 ± 1.2	60 ± 0.7				
		817	1	3	3	2.0 ± 0.14	1 ± 0.1				
136.3	7	0	1								
		579	3	3	6	2.9 ± 0.20	2 ± 0.2				
		793	26	159	173	52 ± 0.80					
		823	2	2	3	53 ± 0.72					
		944				15 ± 0.38	6 ± 0.2				
		975				2.0 ± 0.22	0.9 ± 0.2				
135.7	8	0	1								
		168	1	2	2	1.8 ± 0.17	1 ± 0.1				
		279	2								
		445	2								
		814	37	32	35	26 ± 0.52	1 ± 0.2				
		915	2	4	3	0.89 ± 0.17	0.7 ± 0.1				

^a Comprehensive sampling of all trails is normally done every five years. Comprehensive sampling was done in 1985 because L Lake was being constructed. In 1986 and 1987, only cursory sampling was done.

Blank space indicates no analysis.

TABLE 8-5
SAVANNAH RIVER SWAMP, STEEL CREEK TO LITTLE
HELL LANDING, SR-90 AND CS-137 IN SOIL, CONT'D.^a

River Mile	Trail Number	Distance From River (Meters)	Cs-137, pCi/g (dry weight)						
			1975 0-8 cm	1976 0-8 cm	1977 0-8 cm	1982 0-8 cm	1985 0-8 cm	1986 0-8 cm	1987 0-8 cm
135.5	9	0	1						
		512	57						
		621	111	74	92	69 ± 0.83	49 ± 0.6		
		671	92	117	105	56 ± 0.7	33 ± 0.5		
		762	1	2	2	2.0 ± 0.2	0.2 ± 0.1		
134.4	10	0	24	28	30	22 ± 0.55	0.3 ± 0.1	10 ± 0.20	22 ± 1.3
		30	36	34	27	29 ± 0.51	25 ± 0.4	19 ± 0.28	28 ± 0.2
		73	2	4	4	2.5 ± 0.19	6 ± 0.3	1.3 ± 0.08	2.2 ± 1.7
Control (100 miles from plant)			0.3	1	1	0.49 ± 0.04	0.37 ± 0.07		0.44 ± 0.30

River Mile	Trail Number	Distance From River (Meters)	Sr-90, pCi/g (dry weight)			
			1977 0-8 cm	1985 0-8 cm	1986 0-8 cm	1987 0-8 cm
141.5	1	0		0.06 ± 0.01		
		178	0.7		0.18 ± 0.04	0.34 ± 0.05
		550	0.6		0.24 ± 0.05	0.19 ± 0.05
		805	0.1		0.04 ± 0.03	0.11 ± 0.05
140.8	2	207		0.06 ± 0.01		
139.5 to 140.8	3	0		0.15 ± 0.04		
139	4	293		0.34 ± 0.05		
138.5	5	534		0.21 ± 0.05	0.07 ± 0.04	0.18 ± 0.04
		640			0.09 ± 0.04	0.34 ± 0.05
		773			0.05 ± 0.03	0.13 ± 0.03
137	6	549		0.44 ± 0.06		
136.3	7	579		0.17 ± 0.04		
135.7	8	168		0.47 ± 0.06		
135.5	9	621		0.36 ± 0.06		
134.4	10	0		0.15 ± 0.04	0.10 ± 0.04	0.14 ± 0.04
		30			0.10 ± 0.04	0.17 ± 0.04
		73			0.15 ± 0.04	0.30 ± 0.05
Control (100 miles from plant)			0.3	0.04 ± 0.06		

^a Comprehensive sampling of all trails is normally done every five years. Comprehensive sampling was done in 1985 because L Lake was being constructed. In 1986 and 1987, only cursory sampling was done.

Blank space indicates no analysis.

TABLE 8-6
SAVANNAH RIVER SWAMP, STEEL CREEK TO
LITTLE HELL LANDING, PLUTONIUM IN SOIL^a

River Mile	Trail Number	Distance From River (Meters)	Pu-238, pCi/g (dry weight)				
			1976 0-8 cm	1977 0-8 cm	1985 0-8 cm	1986 0-8 cm	1987 0-8 cm
141.5	1	178	0.001±0.006				
		550	0.054±0.006	0.024±0.004	0.047±0.006	0.040±0.0038	0.054±0.005
		805	0.001±0.002				0.004±0.001
140.8	2	945	0.010±0.006	0.017±0.003			
		975	<0.001				
139.5 to 140.8	3	281 627	<0.001	0.001±0.001			
139	4	580	0.001±0.002	0.031±0.008	0.012±0.003		
138.5	5	534					0.021±0.002
		640	<0.001	0.022±0.006	0.041±0.004		0.034±0.003
		773					0.012±0.002
137	6	772				0.023±0.003	
		817	0.002±0.002				
136.3	7	793	0.026±0.005	0.032±0.005			
		945		0.003±0.001			
137.7	8	814	0.008±0.004	0.001±0.001			
135.5	9	671	0.024±0.006	0.026±0.006			
134.4	10	0					0.043±0.004
		30			0.010±0.001		
		73	0.002±0.002	0.002±0.002	0.006±0.002	0.001±0.0011	0.015±0.005
Control (100 miles from plant)			0.001±0.001	<0.001	0.001±0.0		

^a Comprehensive sampling of all trails is normally done every five years. Comprehensive sampling was done in 1985 because L Lake was being constructed. In 1986 and 1987, only cursory sampling was done.

Blank space indicates no sample or analysis.

TABLE 8-6
SAVANNAH RIVER SWAMP, STEEL CREEK TO
LITTLE HELL LANDING, PLUTONIUM IN SOIL, CONT'D.^a

River Mile	Trail Number	Distance From River (Meters)	Pu-239, pCi/g (dry weight)				
			1976 0-8 cm	1977 0-8 cm	1985 0-8 cm	1986 0-8 cm	1987 0-8 cm
141.5	1	178	0.024±0.011				
		550	0.067±0.007	0.11 ±0.009	0.095±0.0057		0.101±0.008
		656					
		805	0.017±0.006				0.011±0.002
140.8	2	945	0.056±0.014	0.041±0.004			
		975	0.025±0.006				
139.5 to 140.8	3	281 627	<0.002	0.002±0.001			
139	4	580	0.003±0.003	0.96 ±0.013	0.033±0.005		
138.5	5	534					0.042±0.004
		640	0.004±0.003	0.083±0.012	0.096±0.006		0.072±0.005
		773					0.029±0.004
137	6	772					
		817	0.036±0.006				
136.3	7	793	0.081±0.088	0.085±0.007			
		945		0.022±0.004			
135.7	8	814	0.033±0.006	0.006±0.003			
		884					
		915					
135.5	9	671	0.073±0.011	0.077±0.009			
134.4	10	0					0.024±0.003
		30			0.27 ±0.002		
		73	0.036±0.006	0.038±0.007	0.36 ±0.005	0.022±0.004	0.022±0.006
Control (100 miles from plant)			0.010±0.002	0.016±0.002	0.01 ±0.0		

^a Comprehensive sampling of all trails is normally done every five years. Comprehensive sampling was done in 1985 because L Lake was being constructed. In 1986 and 1987, only cursory sampling was done.

Blank space indicates no sample or analysis.

TABLE 8-7
SAVANNAH RIVER SWAMP, STEEL CREEK TO LITTLE HELL
LANDING, ALPHA IN VEGETATION^a

River Mile	Trail Number	Distance From River (Meters)	Alpha, pCi/g (dry weight)					
			1976 0-6 cm	1977 0-8 cm	1982 0-8 cm	1985 0-8 cm	1986 0-8 cm	1987 0-8 cm
141.5	1	178	0.3	0.0 ± 0.2	0.02 ± 0.01	0.43 ± 0.28	0.17 ± 0.25	0.04 ± 0.13
		550	0.4	0.2 ± 0.3		0.23 ± 0.22	0.09 ± 0.21	0.0 ± 0.15
		805	<0.1	0.2 ± 0.2	0.03 ± 0.01	0.12 ± 0.17	0.74 ± 0.4	0.04 ± 0.13
140.8	2	0		0.1 ± 0.2				
		207	<0.1		0.01 ± 0.01	0.04 ± 0.14		
		945	<0.2	0.1 ± 0.2	0.01 ± 0.02	0.04 ± 0.14		
		975	<0.1	0.3 ± 0.3	0.02 ± 0.03	0.00 ± 0.11		
139.5 to 140.8	3	0	<0.2	0.4 ± 0.3	0.01 ± 0.01	0.20 ± 0.21		
		281	0.2	0.3 ± 0.3	0.01 ± 0.01	0.27 ± 0.23		
		627	<0.2	0.1 ± 0.2	0.0 ± 0.01	0.04 ± 0.14		
139	4	293	<0.2	0.5 ± 0.3	0.0 ± 0.01	0.58 ± 0.32		
		580	<0.1	0.2 ± 0.3	0.01 ± 0.01	1.6 ± 0.5		
		729	0.3	0.5 ± 0.3	0.01 ± 0.01	0.23 ± 0.22		
138.5	5	534	0.2	0.3 ± 0.3	0.0 ± 0.01	0.94 ± 0.4	0.61 ± 0.37	0.0 ± 0.13
		640	<0.1	0.8 ± 0.4	0.0 ± 0.01	-0.04 ± 0.08	0.30 ± 0.29	0.0 ± 0.17
		773	0.3	0.1 ± 0.2	0.01 ± 0.01		-0.04 ± 0.15	0.63 ± 0.37
137	6	549	0.3	0.2 ± 0.3	0.01 ± 0.01	0.2 ± 0.21		
		772	0.4	0.1 ± 0.2		0.04 ± 0.14		
		817	0.2	0.2 ± 0.2	0.01 ± 0.01	0.04 ± 0.14		
136.3	7	579	0.3	0.1 ± 0.2	0.01 ± 0.01	-0.04 ± 0.08		
		793	0.3	0.2 ± 0.3	0.01 ± 0.01			
		823	0.3	0.2 ± 0.3				
		945				0.00 ± 0.11		
		975				0.39 ± 0.27		
135.7	8	168	<0.2	0.8 ± 0.4		0.12 ± 0.17		
		814	<0.1	0.6 ± 0.3		0.00 ± 0.11		
		884			0.01 ± 0.01			
		915	<0.1	0.1 ± 0.2	0.0 ± 0.01	-0.04 ± 0.08		
135.5	9	621	<0.1	0.1 ± 0.2	0.01 ± 0.02	0.00 ± 0.11		
		671	<0.1	0.3 ± 0.3	0.0 ± 0.01	0.12 ± 0.17		
		769	<0.1	0.3 ± 0.3		0.04 ± 0.14		
134.4	10	0	0.2	0.3 ± 0.3	0.01 ± 0.01	-0.04 ± 0.08	0.12 ± 0.17	0.09 ± 0.17
		30	0.2	0.1 ± 0.2		0.16 ± 0.19	0.12 ± 0.17	0.0 ± 0.12
		73	0.3	0.3 ± 0.3	0.01 ± 0.01	0.08 ± 0.16	0.12 ± 0.17	0.17 ± 0.21
Plant perimeter and 100-mile radius vegetation (Control)			0.1	0.1 ± 0.2	0.05 ± 0.20	0.12 ± 0.24		

^a Comprehensive sampling of all trails is normally done every five years. Comprehensive sampling was done in 1985 because L Lake was being constructed. In 1986 and 1987, only cursory sampling was done.

Blank space indicates no analysis.

TABLE 8-8
SAVANNAH RIVER SWAMP, STEEL CREEK TO LITTLE HELL
LANDING, CS-137 AND K-40 IN VEGETATION^a

River Mile	Trail Number	Distance From River (Meters)	Cs-137, pCi/g (dry weight)										
			1974	1975	1976	1977	1982	1985	1986	1987			
141.5	1	0	2	<1									
		178	20	13	52	2	13	±0.8	4	±0.9	<0.68	<0.34	
		358	3	2									
		550	122	103	100	132	58	±16	32	±2	36	±1.6	<0.4
		656	22	189									
		805	2	<1	<1	2	0.7	±0.8	0.7	±0.6	<0.91	0.55	±0.23
140.8	2	0	<1	<1		<1							
		207	3	<1	<1		0.7	±0.4	0.0	±0.7			
		406	1	<1									
		598	<1	<1									
		798	2	<1									
		945	144	54	3	10	10	±0.9	16	±1.5			
		975	1	<1	<1	<1	1.0	±0.7	0.2	±0.7			
139.5 to 140.8	3	0	<1	<1	<1	3	0	±0.5	0.1	±0.6			
		281	<1	<1	<1	<1	0.03	±0.61	0.6	±0.9			
		627	<1	<1	<1	<1	0.01	±0.63	0.0	±1.1			
139	4	0	2	<1									
		293	2	<1	7	2	8.8	±0.8	0.2	±1			
		380	15	2									
		515	19	30									
		580	98	15	<1	29	49	±0.2	12	±1			
		729	1	<1	1	<1	0.7	±0.5	0.0	±1.2			
138.5	5	0	1	<1									
		534	1	<1	<1	2	6	±0.8	0.4	±1	<0.89		
		573	15	3									
		640	36	6	<1	12	12	±1.0	3.4	±0.9	64	+2.6	<0.36
		773	<1	<1	<1	2	0.8	±0.6	0.0	±1.1	<0.67		
137	6	0	1	<1									
		549	47	15	9	4	8.2	±0.6	1.9	±0.8			
		701	18	26									
		772	235	2	119	13	12	±1.1	9.7	±1.2			
		817	1	<1	1	<1	0.6	±0.7					
136.3	7	0	1	2									
		579	1	<1	1	7	0.3	±0.8	0.3	±1.4			
		793	76	24	35	8	23	±1.2	5.6	±1.5			
		823	<1	<1	<1	<1	0.07	±0.6	0.0	±1.6			
135.7	8	0	4	1									
		168	1	<1	<1		0.8	±0.6	0.1	±1.3			
		279	<1	<1									
		445	1	2									
		612	1	<1	<1	6							
		814	11	6	8	2	3.6	±0.7	2.3	±1			
		884	43	19									
		915	1	3	<1	<1	0	±0.7	0.3	±1			

^a Comprehensive sampling of all trails is normally done every five years. Comprehensive sampling was done in 1985 because L. Lake was being constructed. In 1986 and 1987, only cursory sampling was done.

Blank space indicates no analysis.

TABLE 8-8
SAVANNAH RIVER SWAMP, STEEL CREEK TO LITTLE HELL
LANDING, CS-137 AND K-40 IN VEGETATION, CONT'D.^a

River Mile	Trail Number	Distance From River (Meters)	Cs-137, pCi/g (dry weight)								
			1974	1975	1976	1977	1982	1985	1986 ^b	1987 ^b	
135.5	9	0	<1	<1		<1					
		512	3	1							
		621	1	1		<1	10 ± 1.6	7.6 ± 1.2			
		671	1	6	2	1	16 ± 1.5	16 ± 1.5			
		769		1	<1		0.05 ± 0.8	0.0 ± 1			
134.4	10	0		3	11	9	0.9 ± 0.6	0.7 ± 0.7	1.4 ± 0.33	0.87 ± 0.23	
		30	1	2	<1	2	4.9 ± 0.8	0.0 ± 0.8	6.8 ± 0.65	2.4 ± 0.44	
		73	<1	<1	1	<1	0.04 ± 0.5	0.4 ± 0.8	<0.79	0.41 ± 0.22	
Plant perimeter and 100-mile radius vegetation (control)			1	1	<1	<1	0.23 ± 0.68	0.04 ± 1.1			

River Mile	Trail Number	Distance From River (Meters)	K-40 ^b , pCi/g (dry weight)		
			1985	1986	1987
141.5	1	178	21 ± 8	17 ± 4.0	<2.5
		550	11 ± 10	15 ± 4.4	<3.3
		805	9 ± 6	12 ± 4.5	9 ± 2.7
140.8	2	207	11 ± 8		
		945	10 ± 10		
		975	15 ± 8		
139.5 to 140.8	3	0	21 ± 7		
		281	26 ± 10		
139	4	627	15 ± 12		
		293	11 ± 10		
		580	30 ± 8		
138.5	5	729	12 ± 13		
		534	18 ± 10	17 ± 4.6	
		640	14 ± 9	24 ± 7.0	<2.3
		773	12 ± 11	<9.1	

^a Comprehensive sampling of all trails is normally done every five years. Comprehensive sampling was done in 1985 because L Lake was being constructed. In 1986 and 1987, only cursory sampling was done.

^b K-40 was not shown prior to 1985.

Blank space indicates no analysis.

TABLE 8-8
SAVANNAH RIVER SWAMP, STEEL CREEK TO LITTLE HELL
LANDING, CS-137 AND K-40 IN VEGETATION, CONT'D.^a

River Mile	Trail Number	Distance From River (Meters)	K-40 ^b , pCi/g (dry weight)		
			1985	1986	1987
137	6	549	25 ± 8		
		772	9 ± 9		
136.3	7	579	19 ± 14		
		793	13 ± 13		
		823	10 ± 16		
135.7	8	168	18 ± 13		
		814	5 ± 9		
		915	6 ± 10		
135.5	9	621	18 ± 10		
		671	25 ± 11		
		769	12 ± 10		
134.4	10	0	12 ± 7	12 ± 3.9	12 ± 2.8
		30		12 ± 3.5	20 ± 3.9
		73	10 ± 9	18 ± 4.4	11 ± 3.1
Plant perimeter and 100-mile radius vegetation (control)			12 ± 8		

^a Comprehensive sampling of all trails is normally done every five years. Comprehensive sampling was done in 1985 because L Lake was being constructed. In 1986 and 1987, only cursory sampling was done.

^b K-40 was not shown prior to 1985.

Blank space indicates no analysis.

**TABLE 6-9
CESIUM-137 IN AQUATIC SPECIES**

Location, Species, and Collection Date	No. ^a of Fish	Cs-137 in Whole Fish, pCi/g (wet weight)	
		Maximum	Average ± 2 Std. Dev.
<u>Boggy Gut Lake</u> (Trail 2)			
Composite			
1974	7	6.1	3.8
Bass			
1975	6	4.5	2.6
Bream			
1975	2	1.7	1.4
1977	3	0.2	0.1
1982	5	0.9 ± 1.1	0.4 ± 0.6
1985	7	0.1 ± 0.8	0.03 ± 0.05
Catfish			
1977	2	0.2	0.2
Dry in 1987			
<u>Jacks Lake</u> (Trail 7)			
Composite			
1974	7	5.8	4.0
Bass			
1975	1	4.5	-
1982	1	0.5 ± 0.3	-
1986	3	1.9 ± 0.94	1.3 ± 1.8
Bream			
1975	2	2.1	1.3
1977	1	<0.1	-
1982	5	0.7 ± 1.1	0.4 ± 0.3
1985	21	0.4 ± 0.3	0.07 ± 0.1
1986	8	1.8 ± 2.4	1.1 ± 2.1
Carp			
1977	1	<0.1	-
Catfish			
1986	2	0.89 ± 0.47	0.88 ± 0.51
Crappie			
1977	1	<0.6	-
1982	1	0.3 ± 0.4	-
Crayfish			
1986	1	0.94 ± 1.7	-
Jackfish			
1982	2	0.5 ± 0.1	0.4
1986	1	1.1 ± 0.36	-
1987	1	0.63 ± 0.06	-
Sucker			
1982	2	0.2 ± 0.2	0.2
1985	21	0.3 ± 0.4	0.1 ± 0.2
1986	2	0.81 ± 0.43	0.70 ± 0.42
Turtle			
1982	1	0.2 ± 0.2	-
1986	1	0.7 ± 0.1	-

^a No fish collected in 1976, 1978-1981, 1983, 1984.
- Insufficient data.

TABLE 8-9
CESIUM-137 IN AQUATIC SPECIES, CONT'D.

Location, Species, and Collection Date	No. ^a of Fish	Cs-137 in Whole Fish, pCi/g (wet weight)	
		Maximum	Average ± 2 Std. Dev.
<u>Cannuck Lake</u>			
(Trail 8)			
Composite			
1974	14	6.1	3.8
Bass			
1986	1	0.43 ± 0.09	-
Bream			
1975	5	3.8	2.2
1982	8	0.6 ± 0.8	0.3 ± 0.3
1985	4	0.23 ± 0.38	0.2
1986	7	2.8 ± 1.2	1.6 ± 1.2
1987	8	1.2 ± 0.06	0.47 ± 0.72
Catfish			
1977	1	<0.1	-
1985	2	0.4 ± 0.2	0.4
1987	1	0.58 ± 0.02	-
Crappie			
1982	1	0.3 ± 0.1	-
Jackfish			
1982	1	0.1 ± 0.3	-
Shad			
1985	1	0.1 ± 0.7	-
Sucker			
1982	1	0.6 ± 0.4	-
Turtle			
1982	2	0.5 ± 0.2	0.4 ± 0.03
1985	3	0.2 ± 0.5	0.1
<u>River 2</u>			
(Control)			
All Species			
1974	89	1.8	1.1
1975	41	2.4	0.1
Bass			
1986	3	0.08 ± 0.29	0.03 ± 0.30
1987	1	0.0 ± 0.03	-
Bowfin			
1986	1	0.07 ± 0.04	-
Bream			
1977	8	<0.1	<0.1
1985	6	0.0 ± 0.8	-
1986	28	0.50 ± 1.4	0.13 ± 0.93
1987	26	1.1 ± 0.22	0.19 ± 0.66

^a No fish collected in 1976, 1978-1981, 1983, 1984.

- Insufficient data.

TABLE 8-9
CESIUM-137 IN AQUATIC SPECIES, CONT'D.

<u>Location, Species, and Collection Date</u>	<u>No.^a of Fish</u>	<u>Cs-137 in Whole Fish, pCi/g (wet weight)</u>	
		<u>Maximum</u>	<u>Average ± 2 Std. Dev.</u>
Catfish			
1976	6	<.01	<.01
1977	9	<.01	<.01
1982	7	0.2	<0.08
1985	7	0.0 ± 0.4	-
1986	25	0.47 ± 0.67	0.10 ± 0.59
1987	5	0.44 ± 0.88	0.09 ± 0.39
Crappie			
1986	7	0.42 ± 1.5	0.11 ± 0.77
1987	12	0.39 ± 0.12	0.16 ± 0.25
Eel			
1986	1	0.0 ± 0.19	-
Jackfish			
1986	1	0.11 ± 0.40	-
Sucker			
1986	1	0.0 ± 0.31	-
Shad			
1986	1	0.06 ± 0.13	-

^a No fish collected in 1976, 1978-1981, 1983, 1984.
- Insufficient data.

TABLE 8-10
RADIOACTIVITY IN SPECIAL
CREEK PLANTATION WELL SAMPLES

<u>Sample ID</u>	<u>Collection Date</u>	<u>Alpha pCi/L</u>	<u>Nonvolatile Beta pCi/L</u>	<u>Tritium pCi/mL</u>
CP-1	8/10/87	0.25 ± 0.37	1.59 ± 1.21	-0.22 ± 0.25
CP-2	8/10/87	0.25 ± 0.37	1.71 ± 1.17	-0.29 ± 0.25
CP-3	8/10/87	0.00 ± 0.23	1.40 ± 1.19	0.34 ± 0.26
CP-4	8/10/87	0.33 ± 0.41	1.83 ± 1.23	-0.18 ± 0.25
CP-5	8/10/87	0.33 ± 0.41	0.85 ± 1.13	-0.38 ± 0.25
CP-6 ^a				
CP-7	8/10/87	0.00 ± 0.17	1.34 ± 1.18	0.07 ± 0.26
CP-7 Duplicate	8/10/87	-	-	0.18 ± 0.25
CP-8	8/13/87	1.00 ± 0.63	3.89 ± 1.26	-0.07 ± 0.26
CP-8 Recount		1.18 ± 0.63	1.94 ± 1.07	-
CP-9	8/10/87	0.46 ± 0.49	2.92 ± 1.17	-0.08 ± 0.26
CP-10	8/10/87	0.25 ± 0.37	1.40 ± 1.19	0.01 ± 0.26
CP-11	8/10/87	0.91 ± 0.60	2.56 ± 1.30	-0.19 ± 0.28
CP-12	8/10/87	0.08 ± 0.29	0.85 ± 1.13	0.09 ± 0.26
CP-13	8/10/87	0.77 ± 0.58	1.57 ± 1.04	0.01 ± 0.26
CP-14	8/10/87	0.33 ± 0.41	2.50 ± 1.30	-0.16 ± 0.28
CP-15	8/10/87	0.08 ± 0.29	0.55 ± 1.10	0.01 ± 0.26
CP-16	8/10/87	0.38 ± 0.46	0.27 ± 0.90	0.35 ± 0.26
CP-17	8/10/87	0.25 ± 0.37	2.68 ± 1.31	0.04 ± 0.26
CP-18	8/10/87	0.00 ± 0.23	2.07 ± 1.26	0.06 ± 0.26
CP-18 Duplicate	8/10/87	-	-	0.18 ± 0.26
CP-19	8/10/87	0.17 ± 0.33	0.79 ± 1.12	0.13 ± 0.28
CP-20	8/10/87	0.00 ± 0.23	1.71 ± 1.22	0.08 ± 0.28
CP-21	8/10/87	0.17 ± 0.33	5.18 ± 1.53	-0.08 ± 0.23
CP-21 Recount		0.00 ± 0.22	2.21 ± 1.10	-
CP-21 Duplicate	8/10/87	0.17 ± 0.33	1.10 ± 1.16	-0.05 ± 0.28
CP-22	8/10/87	-	-	-0.02 ± 0.23
CP-23	8/10/87	1.25 ± 0.68	0.73 ± 1.12	0.06 ± 0.28
CP-23 Recount		0.15 ± 0.31	1.19 ± 0.99	-
CP-24	8/10/87	0.42 ± 0.44	1.77 ± 1.23	0.16 ± 0.28
CP-25	8/10/87	0.08 ± 0.29	0.60 ± 1.10	-0.14 ± 0.28
CP-26 ^b				
CP-27 ^c				
CP-28 ^d				
CP-29 ^e				
CP-30	8/13/87	0.08 ± 0.29	2.07 ± 1.26	-0.22 ± 0.28
CP-31	8/13/87	1.24 ± 0.68	6.40 ± 1.62	0.29 ± 0.26
CP-31 Recount		0.85 ± 0.56	5.35 ± 1.37	-
CP-32	8/13/87	0.91 ± 0.60	3.66 ± 1.40	0.16 ± 0.26
CP-32 Recount		0.31 ± 0.38	3.62 ± 1.23	-
CP-33	8/10/87	-0.08 ± 0.17	0.49 ± 1.09	0.08 ± 0.26
CP-34	8/10/87	0.66 ± 0.52	1.28 ± 1.18	0.53 ± 0.27
CP-35	8/10/87	0.00 ± 0.23	0.55 ± 1.10	0.01 ± 0.25
CP-36	8/10/87	0.00 ± 0.23	0.37 ± 1.08	-0.05 ± 0.28
CP-37	8/10/87	-0.08 ± 0.17	-0.12 ± 1.02	-0.14 ± 0.28
CP-38	8/10/87	0.25 ± 0.37	1.28 ± 1.18	-0.27 ± 0.27

^a No sample - capped Georgia Power well.

^b No sample - sample site in unsafe marshy area.

^c No sample - abandoned well.

^d No sample - house burned down (no power for sampling equipment).

^e No sample - no power for sampling equipment.

- No analysis performed.

**TABLE 8-11
CESIUM-137 CONCENTRATIONS
IN THE SAVANNAH RIVER^a**

	Maximum (pCi/L)	Counting Error	Average (pCi/L)	Std Dev
<u>Above SRP at Shell Bluff:</u>				
1983	0.020	±0.003	0.016	±0.003
1984	0.029	±0.003	0.012	±0.005
1985	0.032	±0.003	0.015	±0.007
1986	0.035	±0.003	0.021	±0.007
1987	0.020	±0.002	0.010	±0.005
Average (1983 - 1987)			0.015	±0.004
<u>Below SRP at Highway 301:</u>				
1983	0.116	±0.009	0.067	±0.021
1984	0.159	±0.010	0.064	±0.022
1985	0.223	±0.006	0.077	±0.045
1986	0.213	±0.004	0.114	±0.039
1987	0.103	±0.010	0.057	±0.022
Average (1983 - 1987)			0.076	±0.023

^a Concentrations determined using special low-level analysis techniques.

TABLE 8-12
RADIOACTIVITY IN WATER AT THE
BEAUFORT-JASPER WATER TREATMENT PLANT^a
(pCi/L)

<u>Location</u>	<u>Sample Date</u>	<u>Alpha</u>	<u>Nonvolatile Beta</u>	<u>Tritium^b</u>	<u>Cs-137</u>
Transect 0	6/11/86	0.1 ± 0.4	5.3 ± 1.9	2,800 ± 1,200	<16
Transect 1	9/11/86	3.7 ± 1.6	7.0 ± 2.9	3,100 ± 1,200	<16
Transect 2	11/06/86	2.3 ± 1.3	6.5 ± 2.4	5,000 ± 1,300	<18
Transect 3	3/17/87	0.2 ± 0.4	0.8 ± 1.1	740 ± 270	<67
Transect 4	6/11/86	0.2 ± 0.4	4.4 ± 1.9	2,500 ± 1,200	<15
Transect 5	9/11/86	0.2 ± 0.5	3.3 ± 2.0	3,000 ± 1,200	<17
Transect 6	11/06/86	4.5 ± 1.7	16.0 ± 3.1	4,700 ± 1,300	<17
Transect 7	3/17/87	0.2 ± 0.4	0.9 ± 1.1	300 ± 890	<55
Transect 8	6/11/86	0.3 ± 0.5	5.0 ± 1.9	2,300 ± 1,200	<15
Transect 9	9/11/86	0.8 ± 0.8	8.1 ± 2.5	2,900 ± 1,200	<19
Transect 10	11/06/86	0.3 ± 0.6	12.0 ± 2.8	4,200 ± 1,300	<21
Transect 11	3/17/87	0.4 ± 0.5	1.7 ± 1.2	70 ± 880	<75
Transect 12	6/11/86	0.4 ± 0.5	3.2 ± 1.8	2,400 ± 1,200	<19
Transect 13	9/11/86	0.3 ± 0.6	5.2 ± 2.2	3,500 ± 1,200	<17
Transect 14	11/06/86	0.3 ± 0.6	3.4 ± 2.1	4,800 ± 1,300	<18
Raw Water	6/24/86	0.6 ± 0.5	4.9 ± 1.3	2,900 ± 1,200	<62
Holding Pond	9/11/86	0.8 ± 0.8	3.2 ± 2.0	3,100 ± 1,200	<18
	11/06/86	0.0 ± 0.4	2.8 ± 2.1	-	<19
	3/17/87	0.1 ± 0.3	1.7 ± 1.2	410 ± 860	<65
Backwash	6/24/86	0.2 ± 0.4	3.2 ± 1.1	1,200 ± 1,100	<62
Holding Pond	9/18/86	0.6 ± 0.9	9.7 ± 2.7	1,700 ± 1,200	<61
No. 1	11/06/86	0.9 ± 0.9	12.0 ± 2.8	2,300 ± 1,200	<18
	3/17/87	0.0 ± 0.2	2.3 ± 1.3	1,680 ± 900	<62
Backwash	6/24/86	0.3 ± 0.4	2.7 ± 1.1	1,800 ± 1,200	<70
Holding Pond	9/18/86	0.8 ± 0.9	6.7 ± 2.5	2,000 ± 1,200	<65
No. 2	11/06/86	0.9 ± 0.9	6.2 ± 2.4	2,500 ± 1,200	<21
	3/17/87	0.3 ± 0.4	1.0 ± 1.2	1,210 ± 930	<65

^a Data from the first three quarters were reported in the 1986 SRP Environmental Report and are repeated here to present all the survey data in one table.

^b Most tritium values in this report are in pCi/mL. Note that the values reported in this table are in pCi/L.

- Not analyzed.

TABLE 8-13
RADIOACTIVITY IN VEGETATION AT THE
BEAUFORT-JASPER WATER TREATMENT PLANT^a

<u>Location</u>	<u>Sample Date</u>	<u>Alpha</u>	<u>Nonvolatile Beta</u>	<u>pCi/g (dry weight)</u>		
				<u>Cs-137</u>	<u>K-40</u>	<u>Sr-89.90</u>
Transect 0	6/11/86	0.1 ± 0.2	7.8 ± 1.2	<2	9 ± 5	0.2 ± 0.2
Transect 1	9/11/86			0.5 ± 0.2	10 ± 2	
Transect 2	11/06/86	0.7 ± 0.4	29.3 ± 1.9	<0.9	25 ± 6	0.6 ± 0.2
Transect 3	3/17/87			1.0 ± 0.2	19 ± 3	
Transect 4	6/11/86	0.04 ± 0.2	9.7 ± 1.3	<0.7	<13	0.4 ± 0.2
Transect 5	9/11/86	0.2 ± 0.3	29.8 ± 2.0	<0.6	19 ± 5	0.3 ± 0.2
Transect 6	11/06/86			1 ± 0.3	29 ± 6	
Transect 7	3/17/87			<0.6	13 ± 3	
Transect 8	6/11/86	0.09 ± 0.2	7.0 ± 1.1	<0.9	<12	1.1 ± 0.2
Transect 9	9/11/86			<0.7	28 ± 5	
Transect 10	11/06/86			<0.7	<12	
Transect 11	3/17/87			<0.8	30 ± 6	
Transect 12	6/11/86	0.04 ± 0.2	10.6 ± 1.3	<1	20 ± 8	0.5 ± 0.2
Transect 13	9/11/86			<0.3	9 ± 3	
Transect 14	11/06/86			<0.4	12 ± 9	
Raw Water Holding Pond	6/24/86	0.6 ± 0.3	21.9 ± 1.6	<0.7	10 ± 3	1.4 ± 0.3
	9/11/86	0.1 ± 0.2	21.7 ± 1.7	<0.9	13 ± 5	1.1 ± 0.3
	11/06/86	0.5 ± 0.3	13.0 ± 1.3	0.2 ± 0.1	17 ± 2	0.3 ± 0.2
	3/17/87	0.2 ± 0.2	33.2 ± 1.9	<0.5	46 ± 5	0.8 ± 0.2
Backwash Holding Pond No. 1	6/24/86	0.2 ± 0.2	9.6 ± 1.1	<0.6	8 ± 3	0.5 ± 0.2
	9/11/86	0.9 ± 0.4	10.3 ± 1.1	<0.5	7 ± 3	0.3 ± 0.2
	11/06/86	0.8 ± 0.4	14.0 ± 1.4	<0.1	9 ± 2	0.2 ± 0.2
	3/17/87			<0.5	9 ± 3	
Backwash Holding Pond No. 2	6/24/86	1 ± 0.4	15.7 ± 1.3	<1	27 ± 9	
	9/11/86		9.2 ± 1.1	<0.7	8 ± 4	
	11/06/86	0.2 ± 0.2	12.1 ± 1.3	<0.3	11 ± 5	0.1 ± 0.2
	3/17/87			<0.3	8 ± 2	

<u>Location</u>	<u>Sample Date</u>	<u>fCi/g (dry weight)</u>	
		<u>Pu-238</u>	<u>Pu-239</u>
Transect 5	6/11/86	0.0 ± 0.4	0.1 ± 0.6
Transect 8	9/11/86	1.0 ± 0.50	0.2 ± 0.3
Transect 2	11/06/86	0.3 ± 0.5	0.9 ± 0.6
Backwash Holding Pond No. 1	6/25/86	0.07 ± 0.5	0.2 ± 0.3
	9/18/86	-6.67 ± 0.21	0.4 ± 0.3
Raw Water Holding Pond	9/11/86	0.004 ± 0.3	0.9 ± 0.7
Raw Water Holding Pond	3/17/87	0.33 ± 0.5	1.0 ± 0.6

^a Data from the first three quarters were reported in the 1986 SRP Environmental Report and are repeated here to present all the survey data in one table.

Blank space indicates no analysis.

TABLE 8-14
RADIOACTIVITY IN SEDIMENT AT THE
BEAUFORT-JASPER WATER TREATMENT PLANT^a

Location	Sample Date	Depth of Sediment (Inches)	pCi/g (dry weight)				
			Cs-137	K-40	Sr-89,90	Alpha	Nonvolatile Beta
Transect 0	6/11/86	0-3	0.3 ± 0.7	13 ± 1			
		3-6	<0.6	<7			
		6-12	<0.2	5 ± 3			
Transect 1	9/11/86	0-3	2.5 ± 0.5	21 ± 4			
		3-6	3.5 ± 0.5	20 ± 5			
		6-12	0.8 ± 0.2	7 ± 1			
Transect 2	11/06/86	0-3	<0.4	7 ± 2	0.3 ± 0.1	0.7 ± 0.3	5.4 ± 0.9
		3-9			0.1 ± 0.1	0.4 ± 0.3	7.9 ± 1.0
Transect 3	3/17/87	0-3	0.7 ± 0.1	6 ± 1			
		3-12	<0.1	3 ± 0.5			
Transect 4	6/11/86	0-3	1 ± 0.4	10 ± 3			
		3-6	<0.2	6 ± 3			
		6-12	<0.8	3 ± 1			
Transect 5	9/11/86	0-3	2.7 ± 0.5	18 ± 6			
		3-6	3.3 ± 0.3	10 ± 3			
		6-12	<0.1	8 ± 2			
Transect 6	11/06/86	0-3	0.5 ± 0.1	5 ± 1			
Transect 7	3/17/87	0-3	<0.2	5 ± 1			
		3-9	<0.1	5 ± 1			
Transect 8	6/11/86	0-3	0.5 ± 0.1	7 ± 1	0.7 ± 0.3		
		3-6	<0.1	10 ± 2	2.5 ± 0.4		
		6-12	<0.1	7 ± 1	3.1 ± 0.4		
Transect 9	9/11/86	0-3	1.1 ± 0.2	15 ± 2			
		3-6	<0.3	11 ± 2			
		6-12	0.4 ± 0.2	6 ± 1			
Transect 10	11/06/86	3-9	<0.1	9 ± 1			
Transect 11	3/17/87	0-3	<0.3	8 ± 2			
		0-10	<0.1	9 ± 1			
Transect 12	6/11/86	0-3	<0.2	<3			
		3-6	0.1	5 ± 2			
		6-12	<0.1	4 ± 1			
Transect 13	9/11/86	0-3	0.5 ± 0.2	4 ± 2			
		3-6	<0.2	6 ± 2			
		6-12	<0.2	5 ± 1			
Transect 14	11/06/86	0-3	<1.2	<21			
		3-9	<0.1	5 ± 1			
Raw Water Holding Pond	6/24/86	0-3	0.3 ± 0.1	6 ± 2	0.4 ± 1		
		3-6	<0.2	6 ± 2	0.3 ± 0.1		
		6-12	0.5 ± 0.1	<1	0.2 ± 0.1		
	9/18/86	0-3	<0.1	5 ± 1		0.4 ± 0.3	4.0 ± 0.8
		3-9	<0.1	4 ± 1		1.4 ± 0.5	8.9 ± 1.1
	11/06/86	0-3	<0.3	5 ± 2	0.2 ± 0.1	0.5 ± 0.3	5.7 ± 0.9
		3-9	<0.1	4 ± 1	0.4 ± 0.1	5.7 ± 0.9	5.2 ± 0.8
	3/17/87	0-3	<0.2	7 ± 1	0.2 ± 0.1	0.4 ± 0.3	4.0 ± 0.8
		3-9	<0.1	7 ± 1	0.1 ± 0.1	0.5 ± 0.3	5.0 ± 0.6

^a Data from the first three quarters were reported in the 1986 SRP Environmental Report and are repeated here to present all the survey data in one table.

Blank space indicates no analysis.

TABLE 8-14
RADIOACTIVITY IN SEDIMENT AT THE
BEAUFORT-JASPER WATER TREATMENT PLANT, CONT'D.^a

Location	Sample Date	Depth of Sediment (Inches)	pCi/g (dry weight)				
			Cs-137	K-40	Sr-90	Alpha	Nonvolatile Beta
Backwash Holding Pond No. 1	6/24/86	0-3	<0.1	5 ± 2	0.5 ± 0.1		
		3-6	<0.2	6 ± 1	0.4 ± 0.1		
		6-12	<0.1	<1	0.2 ± 0.1		
	9/18/86	0-3	0.1 ± 0.05	4 ± 1		0.7 ± 0.3	9.3 ± 1.1
		3-9	0.1 ± 0.04	3 ± 1		0.2 ± 0.2	4.5 ± 0.8
	11/06/86	0-3	<0.2	2 ± 1	0.2 ± 0.1	0.4 ± 0.3	5.2 ± 0.8
		3-9	<0.1	<1.9	0.3 ± 0.1	0.5 ± 0.3	4.5 ± 0.8
	3/17/87	0-3	<0.2	8 ± 2			
		3-9	<0.1	3 ± 0.7			
	Backwash Holding Pond No. 2	6/24/86	0-3	<0.1	5 ± 2		
3-9			0.1 ± 0.03	4 ± 1			
9/18/86		0-3	<0.03	5 ± 1		0.4 ± 0.3	5.0 ± 0.8
		3-6	0.7 ± 0.3	<3.1		0.2 ± 0.2	4.9 ± 0.8
		6-12	0.3 ± 0.1	1 ± 1		0.2 ± 0.2	6.2 ± 0.9
11/06/86		0-3	<0.2	6 ± 1	0.4 ± 0.1	0.3 ± 0.2	6.2 ± 0.9
		3-9	<0.1	3 ± 1	0.3 ± 0.1	0.4 ± 0.3	3.1 ± 0.7
3/17/87		0-3	<0.2	7 ± 1			
		3-9	<0.1	3 ± 1			
Location		Sample Date	Depth (Inches)	fCi/g (dry weight)			
Raw Water Pond	6/24/86	0-3	0.1 ± 0.4	0.1 ± 0.7			
		3-6	0.02 ± 0.3	0.5 ± 0.4			
		6-12	0.4 ± 0.3	0.8 ± 0.5			
Transect 2	11/6/86	0-3	8.0 ± 2.4	10.5 ± 3.3			
		3-9	34.5 ± 5.1	13.0 ± 3.2			
Backwash Holding Pond No. 1	11/6/86	0-3	4.0 ± 1.1	5.0 ± 1.1			
		3-9	13.0 ± 1.7	2.0 ± 6.7			
Backwash Holding Pond No. 2	11/6/86	0-3	20.0 ± 1.9	2.0 ± 0.6			
		3-9	6.3 ± 1.1	2.3 ± 0.6			
Transect 8	6/11/86	3-6	0.0 ± 0.19	0.51 ± 0.39			
		6-12	0.91 ± 1.4	0.51 ± 1.2			
Raw Water Holding Pond	9/11/86	0-3	0.3 ± 0.3	0.5 ± 0.3			
Raw Water Holding Pond	3/17/87	0-3	7.0 ± 1.8	0.19 ± 0.42			
		3-9	7.7 ± 1.6	0.24 ± 0.33			
Backwash Holding Pond No. 1	6/14/86	0-3	0.14 ± 0.39	1.02 ± 0.74			
		3-6	0.06 ± 0.29	0.48 ± 0.44			
		6-12	0.01 ± 0.29	0.81 ± 0.49			

^a Data from the first three quarters were reported in the 1986 SRP Environmental Report and are repeated here to present all the survey data in one table.

Blank space indicates no analysis.

TABLE 8-15
RADIOACTIVITY IN FISH AT THE
BEAUFORT-JASPER WATER TREATMENT PLANT^a

<u>Location</u>	<u>Species</u>	<u>Sample Date</u>	<u>Cs-137, pCi/g</u> (wet weight, whole fish)
Transect 0			
	Bream #1	6/11/86	0.0 ± 0.82
Transect 1			
	Bream #1	6/11/86	0.16 ± 1.5
	Bream #2	6/11/86	1.13 ± 1.8
	Bream #3	6/11/86	0.03 ± 1.5
	Bream #4	6/11/86	0.75 ± 1.6
	Bream #5	6/11/86	0.85 ± 1.7
	Bream #6	6/11/86	0.0 ± 0.9
	Bream #3	3/17/87	<0.2
Transect 5			
	Bream #1	9/11/86	0.26 ± 0.7
Transect 7			
	Bream #1	9/18/86	0.19 ± 0.5
	Bream #2	9/18/86	0.21 ± 0.6
Transect 8			
	Bass #1	9/11/86	0.86 ± 6.6
	Bass #2	9/11/86	0.21 ± 0.4
	Bass #3	9/11/86	0.0 ± 0.9
Transect 9			
	Bream #1	9/18/86	0.22 ± 0.6
	Bream #2	9/18/86	0.0 ± 2.3
	Bream #3	9/18/86	0.33 ± 2.1
	Bream #4	9/18/86	0.0 ± 2.7
	Bream #5	9/18/86	0.61 ± 3.3
Transect 14			
	Bream	11/06/86	<0.9
	Jack	11/06/86	<0.2
Backwash Holding Pond No. 1			
	Bass #1	11/06/86	<.2
	Bass #2	11/06/86	<1.0
	Bluegill	11/06/86	<0.5
	Bream #1	3/17/87	<0.2
	Bream #2	3/17/87	* <0.2
Backwash Holding Pond No. 2			
	Bream	11/06/86	<0.6
	Bass	11/06/86	<0.7
	Bass	3/17/87	0.04 ± 0.02
Raw Water Holding Pond			
	Bass	11/06/87	<0.2
	Bream #1	3/17/87	<0.2
	Bream #3	3/17/87	<0.2
	Bream #4	3/17/87	<0.2
	Bream #2	3/17/87	<0.1
Transect 11			
	Bream #4	3/17/87	<0.2
	Bream #5	3/17/87	<0.1
	Bream #2	3/17/87	<0.2
	Bream #1	3/17/87	<0.2
Transect 3			
	Bream	3/17/87	<0.3

^a Data from the first three quarters were reported in the 1986 SRP Environmental Report and are repeated here to present all the survey data in one table.

TABLE 8-16
WATER QUALITY OF THE INTAKE CANAL
AT THE BEAUFORT-JASPER WATER TREATMENT PLANT^a

<u>Date</u>	<u>Location</u>	<u>Miles from River</u>	<u>Canal Depth (In.)</u>	<u>Distance From NW</u>		<u>Temp. °C</u>	<u>pH</u>	<u>Dissolved Oxygen mg/L</u>	<u>Turbidity mg/L</u>	<u>Cond. µmhos /cm</u>	<u>Suspended Solids mg/L</u>	<u>Canal Width (Ft.)</u>
				<u>Blank (Ft.)</u>	<u>Blank (Ft.)</u>							
06/11/86	Transect 0	0.0	94	11		28	7.3	6.9	3	103	10	44
09/11/86	Transect 1	0.5	58	23		25	7.2	7.3	11	90	7	46
11/06/86	Transect 2	0.8	36	5		20	6.3	7.8	12	131	6	49
06/11/86	Transect 4	1.2	41	12		29	7.5	7.4	8	100	12	48
09/11/86	Transect 5	1.5	64	23		26	7.3	7.1	11	89	2	45
11/06/86	Transect 6	2.0	42	7		22	7.2	7.0	13	100	6	46
06/11/86	Transect 8	3.1	37	11		32	8.8	7.8	14	102	6	44
09/11/86	Transect 9	4.0	36	14		28	7.6	8.6	16	90	5	28
11/06/86	Transect 10	6.0	30	6		22	8.4	10.0	18	90	6	29
06/11/86	Transect 12	10.7	42	9		32	8.8	7.8	10	98	8	36
09/11/86	Transect 13	12.2	94	27		30	8.3	9.5	15	105	4	53
11/06/86	Transect 14	14.3	66	4		22	8.1	8.2	11	91	15	26
11/06/86	Raw Water	18	30	-		26	8.3	7.4	15	111	19	-
09/11/86	Holding	18	48	-		30	8.1	8.6	11	109	10	-
06/24/86	Pond	-	-	-		32	7.1	7.5	14	85	3	-
11/06/86	Backwash	17.5	36	3		25	7.6	7.4	16	112	5	-
09/18/86	Holding	17.5	36	-		28	6.9	7.2	13	114	4	-
06/24/86	Pond No. 1	-	-	-		31	6.7	7.8	4	130	5	-
11/06/86	Backwash	17.4	36	3		23	7.3	8.0	6	110	4	-
09/18/86	Holding	17.4	36	-		27	6.5	6.7	21	116	31	-
06/24/86	Pond No. 2	-	-	-		31	6.8	7.6	3	125	2	-

^a Data from the first three quarters were reported in the 1986 SRP Environmental Report and are repeated here to present all the survey data in one table.

- Not Applicable.

TABLE 8-17
RADIOACTIVITY IN WATER AT THE
PORT WENTWORTH WATER TREATMENT PLANT^a
(pCi/L)

<u>Location</u>	<u>Sample Date</u>	<u>Alpha</u>	<u>Nonvolatile Beta</u>	<u>Tritium</u>	<u>Cs-137</u>
Abercorn Creek Mouth	6/26/86	0.2 ± 0.3	2.3 ± 1.1	2,200 ± 1,200	<80
	9/25/86	0.2 ± 0.7	1.4 ± 1.7	3,300 ± 1,300	<21
	11/13/86	1.6 ± 1.1	17.0 ± 3.2	4,100 ± 1,200	<20
	4/2/87	1.4 ± 1.1	3.3 ± 2.0	1,450 ± 810	<67
Abercorn Creek Pump Station	6/26/86	1.0 ± 0.6	11.0 ± 1.7	2,200 ± 1,200	<57
	9/25/86	0.0 ± 0.6	0.4 ± 1.6	4,100 ± 1,300	<20
	11/13/86	0.6 ± 0.8	15.0 ± 3.0	3,700 ± 1,200	<16
	4/2/87	0.2 ± 0.7	2.7 ± 2.0	1,970 ± 830	<61
Water Treatment Plant Settling Basin	6/26/86	0.3 ± 0.4	5.8 ± 1.4	1,700 ± 1,200	<74
	9/25/86	0.8 ± 1.0	1.5 ± 1.8	2,300 ± 1,200	<20
	11/13/86	3.9 ± 1.6	18.0 ± 3.3	2,200 ± 1,100	<18
	4/2/87	-0.2 ± 0.5	2.7 ± 2.0	1,320 ± 800	<62
St. Augustine Creek 1 Mile From Savannah River	6/26/86	0.3 ± 0.4	3.7 ± 1.2	1,500 ± 1,200	<61
	9/25/86	0.2 ± 0.7	2.5 ± 1.9	3,500 ± 1,100	<18
	11/13/86	1.4 ± 1.0	20.0 ± 3.3	4,500 ± 1,200	<18
	4/2/87	0.0 ± 0.6	4.5 ± 2.1	1,710 ± 820	<63

^a Data from the first three quarters were reported in the 1986 SRP Environmental Report and are repeated here to present all the survey data in one table.

TABLE 8-18
RADIOACTIVITY IN VEGETATION AT THE
PORT WENTWORTH WATER TREATMENT PLANT^a

Location	Sample Date	pCi/g (dry weight)				fCi/g (dry weight)	
		Alpha	Cs-137	K-40	Sr-89,90	Pu-238	Pu-239
Abercorn Creek Mouth	6/26/86	0.4 ± 0.3	<1	29 ± 7			
	9/25/86	0.0 ± 0.1					
	11/13/86	0.1 ± 0.2					
	4/2/87	0.0 ± 0.1	<0.5	15 ± 4	0.1 ± 0.2	0.1 ± 0.32	0.14 ± 0.23
Abercorn Creek Pump Station	6/26/86	0.3 ± 0.3	2.0 ± 0.4	17 ± 4	0.2 ± 0.2		
	9/25/86	0.0 ± 0.1			0.1 ± 0.2	10.0 ± 1.8	2.0 ± 0.8
	11/13/86	0.5 ± 0.3			0.0 ± 0.1		
	4/02/87	0.0 ± 0.1	1.0 ± 0.3	12 ± 3	0.3 ± 0.2	0.2 ± 0.4	0.3 ± 0.4
Water Treatment Plant Settling Basin	6/26/86	0.0 ± 0.1	<0.6	11 ± 3	0.7 ± 0.2		
	9/25/86	0.2 ± 0.2			0.2 ± 0.2	6.5 ± 1.6	1.0 ± 0.6
	11/13/86	0.3 ± 0.3			0.1 ± 0.13	0.9 ± 0.6	0.5 ± 0.6
	4/02/87	0.1 ± 0.2	<0.5	9 ± 3	0.2 ± 0.2	0.4 ± 0.55	0.04 ± 0.41
St. Augustine Creek 1 Mile From Savannah River	6/26/86	0.04 ± 0.2	<0.9	29 ± 7	0.4 ± 0.2		
	9/25/86	0.0 ± 0.1			0.0 ± 0.4		
	11/13/86	0.0 ± 0.2			0.2 ± 0.13		
	4/02/87	0.1 ± 0.2	<0.4	34 ± 5	0.1 ± 0.2		

^a Data from the first three quarters were reported in the 1986 SRP Environmental Report and are repeated here to present all the survey data in one table.

Blank space indicates no analysis.

TABLE 8-19
RADIOACTIVITY IN SEDIMENT AT THE
PORT WENTWORTH WATER TREATMENT PLANT^a

Location	Sample Date	Depth of Sediment (Inches)	pCi/g (dry weight)			fCi/g (dry weight)	
			Cs-137	K-40	Sr-89,90	Pu-238	Pu-239
Abercorn Creek Mouth	6/26/86	0-3	<0.4 (17.7)*	16 ± 7	1.8 ± 0.4	1.4 ± 1.0	1.5 ± 0.84
		3-6	0.4 (16.7)*	4 ± 2		0.34 ± 0.39	0.35 ± 0.39
	9/25/86	0-3	<0.05	14 ± 1.3			
		3-9	<0.11	15 ± 2.4			
	11/13/86	0-3	1.3 ± 1.1	22 ± 11	0.3 ± 0.1		
		3-9	<0.2	17 ± 3			
		4/2/87	0-3	0.9 ± 0.3	37 ± 6		
		3-12	<0.3	18 ± 2			
Abercorn Creek Pump	6/26/86	0-3	0.1(0.3)*	9 ± 3	0.2 ± 0.1		
		3-6	<0.1(0.04)*	13 ± 3	0.7 ± 0.2		
	9/25/86	0-4	0.2 ± 0.09	15 ± 2	15 ± 1.6		
		4-10	<0.17	15 ± 3		57.0 ± 4.1	11.0 ± 1.8
	11/13/86	0-3	<0.24	19 ± 5		18.2 ± 1.9	1.22 ± 0.86
		3-9	<0.1	12 ± 2	0.4 ± 0.1	25.8 ± 2.6	0.22 ± 0.33
	4/2/87	0-3	0.8 ± 0.2	7 ± 2	0.4 ± 0.2	3.9 ± 1.7	1.50 ± 0.30
3-12		<0.2	11 ± 1	0.3 ± 0.1	2.4 ± 0.8	0.30 ± 0.30	
Water Treatment Plant Settling Basin	6/26/86	0-3	<0.2	<4	1.6 ± 0.4	0.33 ± 0.48	0.11 ± 0.33
		3-6	<0.2	8 ± 3	1.0 ± 0.3	0.2 ± 0.7	0.4 ± 0.4
	9/25/86	0-3	<0.03	4 ± 0.6			
		3-9	<0.06	3.6 ± 1.2			
	11/13/86	0-3	<0.1	8.7 ± 2.4	0.0 ± 0.1	2.97 ± 1.03	0.19 ± 0.32
		3-9	<0.05	2.8 ± 1.0	0.1 ± 0.1	5.93 ± 4.69	0.68 ± 0.44
		4/2/87	0-3	<0.2	5.0 ± 1.0	0.01 ± 0.1	0.41 ± 0.55
		3-9	<0.1	5 ± 1	0.14 ± 0.2	0.38 ± 0.46	0.04 ± 0.31
St. Augustine Creek 1 Mile From Savannah River	6/26/86	0-3	0.9 ± 0.4	16 ± 4	0.5 ± 0.1		
		3-6	<0.3	17 ± 5	0.5 ± 0.1		
	9/25/86	0-3	<0.3	15 ± 6.0			
		3-9	<0.2	17 ± 4.3			
	11/13/86	0-3	<0.4	13 ± 7	0.1 ± 0.1	20.3 ± 2.7 ^b	0.26 ± 0.42
		3-9	<0.1	10 ± 3	0.2 ± 0.1		
		4/2/87	0-3	2.0 ± 0.3	20 ± 4	0.2 ± 0.1	
		3-12	9.0 ± 0.4	11 ± 1	0.2 ± 0.1	2.4 ± 0.9	25.9 ± 2.8

^a Data from the first three quarters were reported in the 1986 SRP Environmental Report and are repeated here to present all the data in one table.

^b 0-9" composite.

* Resample analysis results; original concentrations are in parentheses. Blank spaces indicate no analysis.

TABLE 8-19
RADIOACTIVITY IN SEDIMENT AT THE
PORT WENTWORTH WATER TREATMENT PLANT, CONT'D.^a

<u>Location</u>	<u>Sample Date</u>	<u>Depth of Sediment (Inches)</u>	<u>pCi/g (dry weight)</u>	
			<u>Alpha</u>	<u>Nonvolatile Beta</u>
Water Treatment Plant Settling Basin	9/25/86	0-3	0.5 ± 0.3	3.8 ± 0.8
		3-9	0.8 ± 0.4	5.8 ± 0.9
	11/13/86	0-3	0.2 ± 0.2	2.8 ± 0.7
		3-9	0.0 ± 0.2	2.3 ± 0.7
	4/02/87	0-3	0.04 ± 0.1	3.8 ± 0.9
		3-9	0.2 ± 0.2	3.0 ± 0.8
St. Augustine Creek 1 Mile From Savannah River	9/25/86	0-3	1.2 ± 0.5	15.0 ± 1.3
		3-9	0.8 ± 0.4	12.0 ± 1.2
	11/13/86	0-9	0.2 ± 0.2	8.2 ± 1.0
		0-3	0.3 ± 0.3	10.7 ± 1.3
	4/02/87	0-3	0.8 ± 0.4	12.8 ± 1.4
		3-12	0.8 ± 0.4	12.8 ± 1.4
Abercorn Creek Pump Station	9/25/86	0-4	1.1 ± 0.4	12.0 ± 1.2
		4-10	0.5 ± 0.3	10.0 ± 1.1
	11/13/86	0-3	0.8 ± 0.4	11.9 ± 1.2
		3-9	0.9 ± 0.4	11.3 ± 1.2
	4/02/87	0-3	0.7 ± 0.4	10.1 ± 1.2
		3-12	0.5 ± 0.3	11.3 ± 1.3
Abercorn Creek At Mouth	9/25/86	0-3	0.7 ± 0.4	12.0 ± 1.3
		3-9	1.3 ± 0.5	13.0 ± 1.3
	11/13/86	0-3	0.6 ± 0.5	10.8 ± 1.2
		3-9	0.3 ± 0.3	11.1 ± 1.2
	4/02/87	0-3	0.8 ± 0.4	10.9 ± 1.3
		3-9	0.5 ± 0.3	11.1 ± 1.3

^a Data from the first three quarters were reported in the 1986 SRP Environmental Report and are repeated here to present all the data in one table.

**TABLE 8-20
RADIOACTIVITY IN FISH AT THE
PORT WENTWORTH WATER TREATMENT PLANT^a**

<u>Location and Species</u>	<u>Cs-137 pCi/g</u>
Abercorn Creek Mouth	
Bream #1	0.44 ± 0.86
Bream #2	0.15 ± 1.1
Catfish #1	0.34 ± 0.68
Catfish #2	0.17 ± 0.89
Catfish #3	0.51 ± 0.76
Catfish #4	0.26 ± 0.78
Catfish #5	0.31 ± 1.8
Catfish #6	0.48 ± 0.86
Abercorn Creek Pump Station	
Bream	<0.7

**TABLE 8-21
WATER QUALITY AT THE
PORT WENTWORTH WATER TREATMENT PLANT^a**

<u>Location</u>	<u>Sample Date</u>	<u>Depth (Ft.)</u>	<u>Temp. Deg.C</u>	<u>pH</u>	<u>Dissolved Oxygen mg/L</u>	<u>Turbidity mg/L</u>	<u>Suspended Solids mg/L</u>	<u>Cond. umhos/cm</u>	<u>Stream Width (Ft.)</u>
Abercorn Creek at Mouth	6/26/86	4	30	6.7	5.7	14	18	96	
	9/25/86	6	28	7.7	5.4	6	5	100	
	11/13/86	3	21	7.1	6.3	8	13	92	
	4/02/87	4	16	6.8	6.8	5	13	49	
Abercorn Creek Pump Station	6/26/86	5	27	7.3	5.0	14	21	89	75
	9/25/86	2	27	7.6	5.9	5	12	99	
	11/13/86	2	21	6.8	5.5	9	12	94	
	4/02/87	3	16	6.7	6.6	4	5	46	
Water Treatment Plant Settling Basin	6/26/86	3	34	8.2	7.4	16	13	420	
	9/25/86	2	29	8.8	6.0	8	4	340	
	11/13/86	2	22	7.3	6.0	8	1	410	
	4/02/87	3	17	8.8	7.4	3	8	263	
St. Augustine Creek 1 Mile From Savannah River	6/26/86	4	29	6.8	5.4	6	29	240	
	9/25/86	3	28	7.7	4.5	14	20	870	
	11/13/86	3	20	6.6	5.1	18	14	340	
	4/02/87	3	16	7.7	6.4	6	14	82	

^a Data from the first three quarters were reported in the 1986 SRP Environmental Report and are repeated here to present all the survey data in one table.

Blank space indicates no analysis.

**TABLE 8-22
PANASONIC TLD MEASUREMENTS -
FOUR MILE CREEK SURVEY**

<u>Location</u>	<u>mR/Day</u>
Road 3 East	0.40
Road 3 West	0.36
Road 3 East sediment	0.85
Road 3 West sediment	a
SC Hwy 125 East	0.24
SC Hwy 125 West	0.32
SC Hwy 125 East sediment	0.17
SC Hwy 125 West sediment	0.14
Road A 13-2 East	0.40
Road A 13-2 West	0.29
Road A 13-2 East sediment	0.38
Road A 13-2 West sediment	0.40
Four Mile Delta-E East	0.35
Four Mile Delta-E West	0.23
Four Mile Delta-E East sediment	0.18
Four Mile Delta-E West sediment	0.27

^a TLD was missing from location when analyst returned to collect.

**TABLE 8-23
RADIOACTIVITY IN SPECIAL FOUR MILE
CREEK WATER AND SOIL SAMPLES^a**

Location	Water Samples pCi/l			
	H-3	Sr-90	Tc-99	Cs-137
4MES ^b	458,777	8.5	38	<MDA
4M Delta	415,688	9.6		<14
Road A 13.2	606,334	10.7		<11
Road A7	890,777	19.9	36	<12
Castor Creek	7,632	<2		<7
Site 3 ^c	60,687	7.5		<8
Road A	625,608	10.0		<7
Road C	819,715			<7

Location	Soil Samples pCi/g			
	H-3	Sr-90	Tc-99	Cs-137
4MES ^b	52	<0.1	4	0.321
4M Delta	29	0.1		0.803
Road A 13.2	38	<0.1		1.45
Road A7	26	<0.1	4	2.33
Castor Creek	<5	<0.1		0.032
Site 3 ^c	25	<0.1		1.32
Road A	10	<0.1		0.125
Road C		0.7		127

^a Analyses performed by International Technology (IT) Radiological Sciences Lab, Oak Ridge, TN.

^b 4MES = place where Four Mile Creek enters swamp.

^c Site 3 is located on Four Mile Creek between Road 3 and Road A.

Blank space indicates no analysis performed.

TABLE 8-24
SPECIAL FOUR MILE CREEK ANALYSIS RESULTS
FOR ORGANICS, METALS, AND CHEMICALS^a

<u>VOLATILE ORGANICS</u>	<u>Water Samples (4) from:</u> Rd A7, 4M Delta, 4MES ^b , Rd C <u>µg/liter</u>	<u>Soil Samples (5) from:</u> Rd A7, Rd A7 Floodplain, 4M Delta, 4MES ^b , Rd C <u>µg/kg</u>
<u>Compound</u>		
acetone ^c	ND	ND
benzene	ND	ND
bromodichloromethane	ND	ND
bromoform	ND	ND
bromomethane ^c	ND	ND
2-butanone ^c	ND	ND
carbon disulfide	ND	ND
carbon tetrachloride	ND	ND
chlorobenzene	ND	ND
chloroethane ^c	ND	ND
2-chloroethylvinyl ether ^c	ND	ND
chloroform	ND	ND
chloromethane ^c	ND	ND
dibromochloromethane	ND	ND
1,1-dichloroethane	ND	ND
1,2-dichloroethane	ND	ND
1,1-dichloroethene	ND	ND
trans-1,2-dichloroethene	ND	ND
1,2-dichloropropane	ND	ND
cis-1,3-dichloropropene	ND	ND
trans-1,3-dichloropropene	ND	ND
ethyl benzene	ND	ND
2-hexanone ^c	ND	ND
methylene chloride	ND	ND
4-methyl-2-pentanone ^c	ND	ND
styrene	ND	ND
1,1,2,2-tetrachloroethane	ND	ND
tetrachloroethene	ND	ND
toluene	ND	ND
1,1,1-trichloroethane	ND	ND
1,1,2-trichloroethane	ND	ND
trichloroethene	ND	ND
vinyl acetate ^c	ND	ND
vinyl chloride ^c	ND	ND
xylenes (total)	ND	ND

NOTES: 10. = Quantitation Limit
 ND = not detected

^a All analyses in this table were performed by International Technology (IT) Radiological Sciences Lab, Oak Ridge, TN.

^b 4MES = place where Four Mile Creek enters the swamp.

^c This compound has a quantitation limit two (2) times that listed.

TABLE 8-24
SPECIAL FOUR MILE CREEK ANALYSIS RESULTS
FOR ORGANICS, METALS, AND CHEMICALS, CONT'D.^a

<u>BASE/NEUTRAL EXTRACTABLES</u>	<u>Water Samples (4) from:</u> Rd A7, 4M Delta, 4MES ^b , Rd C <u>µg/liter</u>	<u>Soil Samples (5) from:</u> Rd A7, Rd A7 Floodplain, 4M Delta, 4MES ^b , Rd C <u>µg/kg</u>
acenaphthene	ND	ND
acenaphthylene	ND	ND
anthracene	ND	ND
benzo(a)anthracene	ND	ND
benzo(b)fluoranthene	ND	ND
benzo(k)fluoranthene	ND	ND
benzo(a)pyrene	ND	ND
benzo(g,h,i)perylene	ND	ND
benzyl alcohol	ND	ND
benzyl butyl phthalate	ND	ND ^c
bis(2-chloroethoxy)methane	ND	ND
bis(2-chloroethyl)ether	ND	ND
bis(2-chloroisopropyl)ether	ND	ND
bis(2-ethylhexyl)phthalate	ND	ND
4-bromophenyl phenyl ether	ND	ND
4-chloroaniline	ND	ND
2-chloronaphthalene	ND	ND
4-chlorophenyl phenyl ether	ND	ND
chrysene	ND	ND
dibenzo(a,h)anthracene	ND	ND
dibenzofuran	ND	ND
di-n-butylphthalate	ND	ND
1,2-dichlorobenzene	ND	ND
1,3-dichlorobenzene	ND	ND
1,4-dichlorobenzene	ND	ND
3,3-dichlorobenzidine ^d	ND	ND
diethyl phthalate	ND	ND
dimethyl phthalate	ND	ND
2,4-dinitrotoluene	ND	ND
2,6-dinitrotoluene	ND	ND
di-n-octylphthalate	ND	ND
fluoranthene	ND	ND
fluorene	ND	ND
hexachlorobenzene	ND	ND
hexachlorobutadiene	ND	ND
hexachlorocyclopentadiene	ND	ND
hexachloroethane	ND	ND
indeno(1,2,3-cd)pyrene	ND	ND
isophorone	ND	ND
2-methylnaphthalene	ND	ND
naphthalene	ND	ND
2-nitroaniline ^e	ND	ND
3-nitroaniline ^e	ND	ND
4-nitroaniline ^e	ND	ND

^a All analyses in this table were performed by International Technology (IT) Radiological Sciences Lab, Oak Ridge, TN.

^b 4MES = place where Four Mile Creek enters the swamp.

^c ND for all samples except Rd A7; benzyl butyl phthalate was detected in Rd A7 soil, but at a level less than the quantitation limit of 1,000 µg/kg.

^d This compound has a quantitation limit two (2) times that listed.

^e This compound has a quantitation limit five (5) times that listed.

TABLE 8-24
SPECIAL FOUR MILE CREEK ANALYSIS RESULTS
FOR ORGANICS, METALS, AND CHEMICALS, CONT'D.^a

<u>BASE/NEUTRAL EXTRACTABLES</u> (Continued)	<u>Water Samples (4) from:</u> Rd A7, 4M Delta, 4MES ^b , Rd C	<u>Soil Samples (5) from:</u> Rd A7, Rd A7 Floodplain, 4M Delta, 4MES ^b , Rd C
<u>Compound</u>	<u>µg/liter</u>	<u>µg/kg</u>
nitrobenzene	ND	ND
N-nitrosodi-n-propylamine	ND	ND
N-nitrosodiphenylamine ^c	ND	ND
phenanthrene	ND	ND
pyrene	ND	ND
1,2,4-trichlorobenzene	ND	ND

NOTES: 10. = Quantitation Limit for water
1,000. = Quantitation Limit for soil
ND = not detected

<u>ACID EXTRACTABLES</u>	<u>Water Samples (4) from:</u> Rd A7, 4M Delta, 4MES ^b , Rd C	<u>Soil Samples (5) from:</u> Rd A7, Rd A7 Floodplain, 4M Delta, 4MES ^b , Rd C
<u>Compound</u>	<u>µg/liter</u>	<u>µg/kg</u>
benzoic acid ^c	ND	ND
4-chloro-3-methylphenol	ND	ND
2-chlorophenol	ND	ND
2,4-dichlorophenol	ND	ND
2,4-dimethylphenol	ND	ND
2,4-dinitrophenol ^c	ND	ND
2-methyl-4,6-dinitrophenol ^c	ND	ND
2-methylphenol	ND	ND
4-methylphenol	ND	ND
2-nitrophenol	ND	ND
4-nitrophenol ^c	ND	ND
pentachlorophenol ^c	ND	ND
phenol	ND	ND
2,4,5-trichlorophenol ^c	ND	ND
2,4,6-trichlorophenol	ND	ND

NOTES: 10. = Quantitation Limit for water
1,000. = Quantitation Limit for soil
ND = not detected

^a All analyses in this table were performed by International Technology (IT) Radiological Sciences Lab, Oak Ridge, TN.

^b 4MES = place where Four Mile Creek enters the swamp.

^c This compound has a quantitation limit five (5) times that listed.

TABLE 8-24
SPECIAL FOUR MILE CREEK ANALYSIS RESULTS
FOR ORGANICS, METALS, AND CHEMICALS, CONT'D.^a

PESTICIDES AND PCBs

<u>Compound</u>	<u>Water Samples (4) from:</u>		<u>Soil Samples (5) from:</u>			
	Rd A7, 4M Delta, 4MES ^b , Rd C		Rd A7	4MES ^b	4M Delta	Rd C
	<u>µg/liter</u>		<u>µg/gram</u>	<u>µg/gram</u>	<u>µg/gram</u>	<u>µg/gram</u>
aldrin	ND		ND	ND	ND	ND
α-BHC	ND		ND	ND	ND	ND
β-BHC	ND		ND	ND	ND	ND
γ-BHC (lindane)	ND		ND	ND	ND	ND
δ-BHC	ND		ND	ND	ND	ND
chlordane	ND		ND	ND	ND	ND
4,4'-DDT	ND		ND	ND	ND	ND
4,4'-DDE	ND		ND	ND	ND	ND
4,4'-DDD	ND		ND	ND	ND	ND
dieldrin	ND		ND	ND	ND	ND
α-endosulfan	ND		<18.8 ^c	ND	<14.8 ^c	<5.4 ^c
β-endosulfan	ND		ND	ND	ND	ND
endosulfan sulfate	ND		ND	ND	ND	ND
endrin	ND		ND	ND	ND	ND
endrin aldehyde	ND		ND	ND	ND	ND
heptachlor	ND		ND	ND	ND	ND
heptachlor epoxide	ND		ND	ND	ND	ND
PCB-(Aroclor)-1242	ND		ND	ND	ND	ND
PCB-(Aroclor)-1254	ND		ND	ND	ND	ND
PCB-(Aroclor)-1221	ND		ND	ND	ND	ND
PCB-(Aroclor)-1232	ND		ND	ND	ND	ND
PCB-(Aroclor)-1248	ND		ND	ND	ND	ND
PCB-(Aroclor)-1260	ND		ND	ND	ND	ND
PCB-(Aroclor)-1016	ND		ND	ND	ND	ND
toxaphene	ND		ND	ND	ND	ND

NOTES: ND = not detected at a level of 1 µg/liter (ppb) for water
 ND = not detected at a level of 1 µg/gram (ppm) for soil

^a All analyses in this table were performed by International Technology (IT) Radiological Sciences Lab, Oak Ridge, TN.

^b 4MES = place where Four Mile Creek enters the swamp.

^c Detection limit higher than normal due to sample matrix interferences.

TABLE 8-24
SPECIAL FOUR MILE CREEK ANALYSIS RESULTS
FOR ORGANICS, METALS, AND CHEMICALS, CONT'D.^a

	Water Samples			
	Rd A7 mg/liter	4M Delta mg/liter	4MES ^b mg/liter	Rd C mg/liter
<u>METALS</u>				
aluminum	0.4	0.1	0.2	0.5
antimony	0.2	<0.2	<0.2	<0.2
arsenic	<0.2	<0.2	<0.2	<0.2
barium	0.028	0.024	0.029	0.020
beryllium	<0.001	<0.001	<0.001	<0.001
cadmium	<0.005	<0.005	<0.005	<0.005
calcium	2.8	2.0	2.1	3.6
chromium	<0.01	<0.01	<0.01	<0.01
cobalt	<0.01	<0.01	<0.01	<0.01
copper	<0.01	<0.01	<0.01	<0.01
iron	1.01	0.44	0.64	1.55
lead	<0.1	<0.1	<0.1	<0.1
magnesium	0.54	0.49	0.47	0.55
manganese	<0.01	0.37	1.05	0.75
nickel	<0.02	<0.02	<0.02	<0.02
selenium	<0.2	<0.2	<0.2	<0.2
silver	<0.02	<0.02	<0.02	<0.02
sodium	6.7	4.9	5.9	8.4
thallium	<3.0	<3.0	<3.0	<3.0
vanadium	<0.02	<0.02	<0.02	<0.02
zinc	<0.01	<0.01	<0.01	<0.01
potassium	0.57	0.76	1.2	0.75
mercury	<0.001	<0.001	<0.001	<0.001
<u>MISCELLANEOUS</u>				
cyanide	<0.01	<0.01	<0.01	<0.01

^a All analyses in this table were performed by International Technology (IT) Radiological Sciences Lab, Oak Ridge, TN.

^b 4MES = place where Four Mile Creek enters the swamp.

TABLE 8-24
SPECIAL FOUR MILE CREEK ANALYSIS RESULTS
FOR ORGANICS, METALS, AND CHEMICALS, CONT'D.^a

	Soil Samples				
	Rd A7 mg/kg	Rd A7 Floodplain mg/kg	4M Delta mg/kg	4MES ^b mg/kg	Rd C mg/kg
METALS					
aluminum	1,900	2,000	3,000	510	3,100
antimony	<40.	<40.	<40.	<40.	<40.
arsenic	<40.	<40.	<40.	<40.	<40.
barium	15	13	23	3.6	16
beryllium	<0.2	<0.2	0.3	<0.2	0.2
cadmium	<1	<1	<1	<1	<1
calcium	75	60.	72	<40.	130
chromium	5	4	7	3	6
cobalt	6	<2	3	<2	3
copper	3	<2	20.	<2	7
iron	3,400	1,660	3,700	730	3,400
lead	<20.	<20.	<20.	<20.	<20.
magnesium	30.	55	210	29	60.
manganese	200	38	60.	16	75
nickel	<4	<4	<4	<4	<4
selenium	<40.	<40.	<40.	<40.	<40.
silver	<4	<4	<4	<4	<4
sodium	<10.	<10.	<10.	<10.	<10.
thallium	<600	<600	<600	<600	<600
vanadium	6	7	8	<4	5
zinc	20.	5	17	4	29
potassium	32	47	170	32	47
mercury	<0.001	<0.001	<0.001	<0.001	<0.001
MISCELLANEOUS					
cyanide	<0.25	<0.25	<0.25	<0.25	<0.25

^a All analyses in this table were performed by International Technology (IT) Radiological Sciences Lab, Oak Ridge, TN.

^b 4MES = place where Four Mile Creek enters the swamp.

**TABLE 8-25
COMPARISON ANALYSES FROM
FOUR MILE CREEK STUDY**

<u>Location</u>	<u>Tritium in Water, pCi/L^a</u>	
	<u>Contract Lab</u>	<u>SRP Lab</u>
Road C	819,715	921,000 ± 8,040
Site 3 ^b	560,687	765,000 ± 7,340
4MES ^c	458,777	548,000 ± 6,230

<u>Location</u>	<u>Cs-137 in Soil, pCi/g^d</u>	
	<u>Contract Lab</u>	<u>SRP Lab</u>
Road A7	2.33	3.5 ± 0.20
4MES ^c	0.32	0.22 ± 0.03

<u>Location</u>	<u>Sr-90 in Soil, pCi/g^d</u>	
	<u>Contract Lab</u>	<u>SRP Lab</u>
Road A7	<0.1	0.23 ± 0.06
4MES ^c	<0.1	0.15 ± 0.05

<u>Metal</u>	<u>Metals in Road A7 Water, mg/L^d</u>	
	<u>Contract Lab</u>	<u>SRP Lab</u>
Aluminum	0.4	0.17 ± 0.3
Cadmium	<0.005	<0.01
Calcium	2.8	3.7 ± 1.1
Chromium	<0.01	<0.01
Copper	<0.01	<0.01
Iron	1.01	0.54 ± 0.46
Lead	<0.1	<0.01
Magnesium	0.54	0.63 ± 0.05
Manganese	<0.01	0.12 ± 0.08
Mercury	<0.001	<0.00011
Nickel	<0.02	<0.01
Sodium	6.7	11 ± 5
Zinc	<0.01	<0.02

^a Comparison of actual sample analyses.

^b Located on Four Mile Creek between Road 3 and Road A.

^c Where Four Mile Creek enters swamp.

^d Comparison numbers are from 1986 SRP Environmental Report.

TABLE 8-26
PESTICIDES, HERBICIDES, AND POLYCHLORINATED
BIPHENYLS (PCBs) DETECTION LIMITS

<u>Compound</u>	<u>Water</u> <u>µg/L</u>	<u>Sediment</u> <u>µg/kg</u>
Aldrin	0.02	0.32
αBHC	0.01	0.16
βBHA	0.01	0.48
γBHC	0.01	0.28
δBHC	0.02	0.27
Chlordane	2.60	4.38
4,4-DDT	0.12	3.45
4,4-DDE	0.04	0.71
4,4-DDD	0.08	1.20
Dieldrin	0.04	0.69
α-Endosulfan	0.04	0.61
β-Endosulfan	0.06	1.00
Endosulfan Sulfate	0.11	1.97
Endrin	0.07	1.06
Endrin Aldehyde	0.13	2.17
Heptachlor	0.02	0.28
Heptachlor Epoxide	0.03	0.47
PCB 1242	0.92	14.9
PCB 1254	0.68	12.6
PCB 1221	0.61	6.80
PCB 1232	0.81	8.12
PCB 1248	0.45	5.76
PCB 1260	1.04	18.4
PCB 1016	0.98	137.0
Toxaphene	1.76	43.8
2,4-D	0.12	1.2
Silvex	0.03	0.3
2,4,5-T	0.04	0.4
2,4-DB	0.78	7.8
2,4-DP	0.58	5.8
Dicamba	0.82	0.2
MCPP	0.18	1.8

TABLE 8-27
PESTICIDES, HERBICIDES, AND PCBs
IN STREAM AND RIVER WATER^{a,b}
($\mu\text{g/L}$)

	<u>River 2 Above Plant</u>			<u>River 10 Below Plant</u>			<u>Upper Three Runs @ Rd. F</u>		
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Aldrin	<0.009	<0.006	<0.02	<0.009	<0.006	<0.02	<0.009	<0.006	<0.02
α BHC	<0.009	<0.004	<0.01	<0.009	<0.004	<0.01		0.004	<0.01
β BHC	<0.014	<0.007	<0.01	<0.014	<0.007	<0.01			<0.01
γ BHC	<0.009	<0.003	<0.01	<0.009	<0.003	<0.01	<0.009	<0.004	<0.01
δ BHC			<0.02			<0.02			<0.02
Chlordane			<2.60			<2.60			<2.60
4,4-DDT			<0.12			<0.12			<0.12
4,4-DDE			<0.04			<0.04			<0.04
4,4-DDD			<0.08			<0.08			<0.08
Dieldrin			<0.04			<0.04			<0.04
α -Endosulfan			<0.04			0.21			<0.04
β -Endosulfan			<0.06			<0.06			<0.06
Endosulfan Sulfate			<0.11			<0.11			<0.11
Endrin			<0.07			<0.07			<0.07
Endrin Aldehyde			<0.13			<0.13			<0.13
Heptachlor			<0.02			<0.02			<0.02
Heptachlor Epoxide	<0.008	<0.007	<0.03	<0.008	<0.007	<0.03			<0.03
PCB 1242			<0.92			<0.92			<0.92
PCB 1254			<0.68			<0.68			<0.68
PCB 1221			<0.61			<0.61			<0.61
PCB 1232			<0.81			<0.81			<0.81
PCB 1248			<0.45			<0.45			<0.45
PCB 1260			<1.04			<1.04			<1.04
PCB 1016			<0.98			<0.98			<0.98
Toxaphene			<1.76			<1.76			<1.76
2,4-D	<0.027	<0.26	<0.12	<0.027	<0.26	<0.12			<0.12
Silvex			<0.03			<0.03			<0.03
2,4,5-T			<0.04			<0.04			<0.04
2,4-DB			<0.78			<0.78			<0.78
2,4-DP			<0.58			<0.58			<0.58
Dicamba			0.87			0.56			<0.87
MCPP			<0.18			<0.18			<0.18

^a Less than values represent the detection limit of the analysis.

^b For 1981 - 1984 data, refer to SRP Environmental Report for 1986, Volume II (DPSPU-87-30-1), Table 4-2.

Blank space indicates either no analysis or not detected.

TABLE 8-27
PESTICIDES, HERBICIDES, AND PCBs
IN STREAM AND RIVER WATER, CONT'D.^{a,b}
($\mu\text{g/L}$)

	<u>Upper Three Runs @ Rd. A</u>			<u>Four Mile Creek @ Rd. A</u>			<u>Pen Branch @ Rd. A</u>		
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Aldrin	<0.009	<0.006	<0.02	<0.009	<0.006	<0.02	<0.009	<0.006	<0.02
α BHC			<0.01			<0.01			<0.01
β BHC			<0.01			<0.01			<0.01
γ BHC	<0.009	<0.003	<0.01	<0.009	<0.003	<0.01	<0.009	<0.003	<0.01
σ BHC			<0.02			<0.02			<0.02
Chlordane			<2.60			<2.60			<2.60
4,4-DDT			<0.12			<0.12			<0.12
4,4-DDE			<0.04			<0.04			<0.04
4,4-DDD			<0.08			<0.08			<0.08
Dieldrin			<0.04			<0.04			<0.04
α -Endosulfan			<0.04			<0.04			<0.04
β -Endosulfan			<0.06			<0.06			<0.06
Endosulfan Sulfate			<0.11			<0.11			<0.11
Endrin			<0.07			<0.07			<0.07
Endrin Aldehyde			<0.13			<0.13			<0.13
Heptachlor			<0.02			<0.03			<0.02
Heptachlor Epoxide			<0.03			<0.03			<0.03
PCB 1242			<0.92			<0.92			<0.92
PCB 1254			<0.68			<0.68			<0.68
PCB 1221			<0.61			<0.61			<0.61
PCB 1232			<0.81			<0.81			<0.81
PCB 1248			<0.45			<0.45			<0.45
PCB 1260			<1.04			<1.04			<1.04
PCB 1016			<0.98			<0.98			<0.98
Toxaphene			<1.76			<1.76			<1.76
2,4-D			<0.12			<0.12			<0.12
Silvex			<0.03	<0.007	<0.07	<0.03	<0.007	<0.07	<0.03
2,4,5-T			<0.04			<0.04			<0.04
2,4-DB			<0.78			<0.78			<0.78
2,4-DP			<0.58			<0.58			<0.58
Dicamba			0.38			2.02			0.56
MCPP			<0.18			<0.18			<0.18

^a Less than values represent the detection limit of the analysis.

^b For 1981 - 1984 data, refer to SRP Environmental Report for 1986, Volume II (DPSPU-87-30-1), Table 4-2.

Blank space indicates either no analysis or not detected.

TABLE 8-27
PESTICIDES, HERBICIDES, AND PCBs
IN STREAM AND RIVER WATER, CONT'D.^{a,b}
($\mu\text{g/L}$)

	<u>Steel Creek @ Rd. A</u>			<u>Par Pond Pumphouse</u>			<u>Lower Three Runs @ Rd. A</u>		
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Aldrin			<0.02			<0.02			<0.02
α BHC			<0.01			<0.01			<0.01
β BHC			<0.01			<0.01			<0.01
γ BHC	<0.009	<0.003	<0.01	<0.009	<0.003	<0.01	<0.009	<0.003	<0.01
σ BHC			<0.02			<0.02			<0.02
Chlordane			<2.60			<2.60			<2.60
4,4-DDT			<0.12			<0.12			<0.12
4,4-DDE			<0.04			<0.04			<0.04
4,4-DDD			<0.08			<0.08			<0.08
Dieldrin			<0.04			<0.04			<0.04
α -Endosulfan			<0.04			<0.04			<0.04
β -Endosulfan			<0.06			<0.06			<0.06
Endosulfan Sulfate			<0.11			<0.11			<0.11
Endrin			<0.07			<0.07			<0.07
Endrin Aldehyde			<0.13			<0.13			<0.13
Heptachlor	<0.008	<0.005	<0.02	<0.008	<0.005	<0.02	<0.008	<0.005	<0.02
Heptachlor Epoxide			<0.03			<0.03			<0.03
PCB 1242			<0.92			<0.92			<0.92
PCB 1254			<0.68			<0.68			<0.68
PCB 1221			<0.61			<0.61			<0.61
PCB 1232			<0.81			<0.81			<0.81
PCB 1248			<0.45			<0.45			<0.45
PCB 1260			<1.04			<1.04			<1.04
PCB 1016			<0.98			<0.98			<0.98
Toxaphene			<1.76			<1.76			<1.76
2,4-D			<0.12			<0.12			<0.12
Silvex			<0.03			<0.03			<0.03
2,4,5-T			<0.04			<0.04	<0.007	<0.12	<0.04
2,4-DB			<0.78			<0.78			<0.78
2,4-DP			<0.58			<0.58			<0.58
Dicamba			<0.02			<0.87			<0.02
MCPP			<0.18			<0.18			<0.18

^a Less than values represent the detection limit of the analysis.

^b For 1981 - 1984 data, refer to SRP Environmental Report for 1986, Volume II (DPSPU-87-30-1), Table 4-2.

Blank space indicates either no analysis or not detected.

TABLE 8-28
PESTICIDES, HERBICIDES, AND PCBs
IN STREAM AND RIVER SEDIMENT^{a,b}
($\mu\text{g}/\text{Kg}$)

	River 2 Above Plant			River 10 Below Plant			Upper Three Runs @ Rd. F		
	1985	1986	1987	1985	1986	1987	1985	1986	1987
Aldrin	<0.19	9.4	<3.20			<3.24	<0.19	<0.57	<3.24
α BHC			<1.56	1.5	<0.31	<1.56			<1.56
β BHC	17	17	<4.80	11	12	<4.80	<0.33	<0.69	<4.80
γ BHC	<0.19	<0.37	<2.08	<0.19	<0.37	<2.78			<2.08
σ BHC			<2.70			<2.66			<2.66
Chlordane	<7.5	<6.9	<4.38	<7.5	<6.9	<43.8	<7.5	<6.9	<43.8
4,4-DDT	<0.96	<4.6	<3.45	<0.96	<4.6	<3.45	<0.96	<4.4	<3.45
4,4-DDE	<0.21	<1.1	<0.71	4.0	<1.1	<7.14	0.83	<1.1	<0.71
4,4-DDD	<0.25	<1.9	<1.20	<0.25	<1.9	<1.20	0.99	<1.9	<1.20
Dieldrin	<0.21	<1.2	<0.69	<0.21	<1.2	<0.69			<0.69
α -Endosulfan			<0.61			<6.10	<0.16	<0.89	<6.10
β -Endosulfan			<1.00			<1.00			<1.00
Endosulfan Sulfate			<1.97			<1.97			<1.97
Endrin			<1.06	<0.35	<1.7	<1.06			<1.06
Endrin Aldehyde			<2.17			<2.17			<2.17
Heptachlor	<0.25	<0.46	<2.80	<0.25	<0.46	<2.78	9.7	<0.46	<2.78
Heptachlor Epoxide			<0.47			<4.72			<4.72
PCB 1242			<149.0			<149.0			<149.0
PCB 1254			<12.6			<12.6			<12.6
PCB 1221			<68.0			<68.0			<68.0
PCB 1232			<81.2			<81.2			<81.2
PCB 1248			<57.6			<57.6			<57.6
PCB 1260			<18.4			<18.4			<18.4
PCB 1016			<137.0			<137.0			<137.4
Toxaphene			<43.80			<43.8			<43.8
Diazinon							<0.55	<4.4	
Malathion				<0.43	<10				
2,4-D	<1.4	<0.26	<1.2			<1.2			<1.2
Silvex			<0.3			<0.3			<0.3
2,4,5-T			<0.4			<0.4	<0.34	<0.12	<0.4
2,4-DB			<7.8			<7.8			<7.8
2,4-DP			<5.8			<5.8			<5.8
Dicamba			<0.2			<0.2			<0.2
MCP			<1.8			<1.8			<1.8

^a Less than values represent the detection limit of the analysis.

^b For 1976 - 1984 data, refer to SRP Environmental Report for 1986, Volume II (DPSPU-87-30-1), Table 4-3.

Blank space indicates either no analysis or not detected.

TABLE 8-28
PESTICIDES, HERBICIDES, AND PCBs
IN STREAM AND RIVER SEDIMENT, CONT'D.^{a,b}
($\mu\text{g}/\text{Kg}$)

	Upper Three Runs @ Rd. A			Four Mile Creek @ Rd. A			Pen Branch @ Rd. A		
	1985	1986	1987	1985	1986	1987	1985	1986	1987
Aldrin	<0.19	<0.57	<3.24			<3.24	<0.19	<0.57	<3.24
α BHC			<1.56			<1.56			<1.56
β BHC	23	<0.69	<4.80	4.1	52	<4.80		5.5	<4.80
γ BHC			<2.08	<0.19	1.8	<2.08	<0.19	<0.37	<2.08
δ BHC			<2.66			<2.66			<2.66
Chlordane			<4.38			<4.38	<7.5	<6.9	<43.8
4,4-DDT	<0.96	<4.6	<3.45			<3.45	<0.96	<4.6	<34.5
4,4-DDE	<0.21	<1.1	<0.71	<0.21	<1.1	<0.71	<0.21	<1.1	<7.14
4,4-DDD	<0.25	<1.9	<1.20	<0.25	<1.9	<1.20	<0.25	<1.9	<12.0
Dieldrin			<0.69	<0.21	<1.2	<0.69	<0.21	<1.2	<6.94
α -Endosulfan	<0.18	<0.89	<0.61	<0.18	<0.89	<0.61			<6.10
β -Endosulfan			<1.00			<1.00			<10.0
Endosulfan Sulfate			<1.97			<1.97			<19.7
Endrin			<1.06			<1.06			<10.6
Endrin Aldehyde			<2.17	<0.24	<3.6	<2.17			<21.7
Heptachlor			<2.78			<2.78	<0.25	<0.46	<2.78
Heptachlor Epoxide			<4.72			<4.72			<4.72
PCB 1242			<149			<149			<149
PCB 1254			<12.6			<12.6			<12.6
PCB 1221			<68.0			<68.0			<68.0
PCB 1232			<81.2			<81.2			<81.2
PCB 1248			<57.6			<57.6			<57.6
PCB 1260			<18.4			<18.4			<18.4
PCB 1016			<137			<137			<137
Toxaphene			<43.8			<43.8			<43.8
Malathian				<0.43	<10				
2,4-D	<1.4	<0.26	<1.2			<1.2			<1.2
Silvex			<0.3			<0.3			<0.3
2,4,5-T	<0.34	<0.12	<0.4			<0.4			<0.4
2,4-DB			<7.8			<7.8			<7.8
2,4-DP			<5.8			<5.8			<5.8
Dicamba			<0.2			36.2			<0.2
MCPP			<1.8			<1.8			<1.8

^a Less than values represent the detection limit of the analysis.

^b For 1976 - 1984 data, refer to SRP Environmental Report for 1986, Volume II (DPSPU-87-30-1), Table 4-3

Blank space indicates either no analysis or not detected.

TABLE 8-28
PESTICIDES, HERBICIDES, AND PCBs
IN STREAM AND RIVER SEDIMENT, CONT'D.^{a,b}
($\mu\text{g}/\text{Kg}$)

	<u>Ste. I Creek @ Rd. A</u>			<u>Par Pond Pumphouse</u>			<u>Lower Three Runs @ Rd. A</u>		
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Aldrin	<0.19	<0.57	<3.24			<0.32			<3.24
α BHC		3.2	<1.56			<1.56			<1.56
β BHC	18	8.3	<4.80	22	<0.69	<4.80	26	44	<4.80
γ BHC			<2.08	<0.19	<0.37	<2.08			<2.08
δ BHC			<2.66			<2.66			<2.66
Chlordane			<43.8			<4.39	<7.5	<6.9	<4.38
4,4-DDT	<0.96	<4.6	<34.5			<3.45	<0.96	89	<3.45
4,4-DDE			<7.14	<0.21	<1.1	<0.71	4.6	<1.1	<7.14
4,4-DDD			<12.0	<0.25	<1.9	<1.20	<0.25	<1.9	<1.20
Dieldrin			<6.94			<0.69	<0.21	<1.2	<0.69
α -Endosulfan			<6.10			<0.61	<0.18	16	<6.10
β -Endosulfan			<1.00			<1.00			<1.00
Endosulfan Sulfate			<1.97			<1.97			<1.97
Endrin			<1.06			<1.06	<0.35	<1.7	<1.06
Endrin Aldehyde			<2.17			<2.17	<0.24	<36	<2.17
Heptachlor	<0.25	<0.46	<2.78	<0.25	<0.46	<2.78	<0.25	<4.6	<2.78
Heptachlor Epoxide			<4.72	<0.19	<0.19	<0.47			<4.72
PCB 1242			<149			<14.9			<149
PCB 1254			<12.6			<12.6			<12.6
PCB 1221			<68.0			<68.0			<68.0
PCB 1232			<81.2			<81.2			<81.2
PCB 1248			<57.6			<57.6			<57.6
PCB 1260			<18.4			<18.4			<18.4
PCB 1016			<137			<13.7			<137
Toxaphene			<43.8			<43.8			<43.8
2,4-D			<1.2	<1.4	<0.26	<1.2			<1.2
Silvex			<0.3	<0.34	<0.07	<0.3	<0.34	<0.34	<0.3
2,4,5-T			<0.4			<0.4			<0.4
2,4-DB			<7.8			<7.8			<7.8
2,4-DP			<5.8			<5.8			<5.8
Dicamba			<0.2			<0.2			<0.2
MCPP			<1.8			<1.8			<1.8

^a Less than values represent the detection limit of the analysis.

^b For 1976 - 1984 data, refer to SRP Environmental Report for 1986, Volume II (DPSPU-87-30-1), Table 4-3.

Blank space indicates either no analysis or not detected.

**TABLE 9-1
DEMOGRAPHIC DATA**

<u>Population Group</u>	<u>Population Size</u>	<u>Age Distribution, %</u>		
		<u>Children</u>	<u>Teens</u>	<u>Adults</u>
80-km radius	555,100	18.6	11.1	70.3
Beaufort-Jasper	51,000	21	10	69
Port Wentworth	20,000	-	-	100

**TABLE 9-2
AGE-SPECIFIC PARAMETERS FOR ATMOSPHERIC RELEASES**

<u>Pathway</u>	<u>Average Individual</u>				<u>Maximized Individual</u>			
	<u>Infant</u>	<u>Child</u>	<u>Teen</u>	<u>Adult</u>	<u>Infant</u>	<u>Child</u>	<u>Teen</u>	<u>Adult</u>
Fruits, vegetables, and grains (kg/yr)	-	200	240	190	-	520	630	520
Leafy vegetables (kg/yr)	-	10	20	30	-	26	42	64
Milk (L/yr)	170	170	200	110	330	330	400	310
Meat and poultry (kg/yr)	-	37	59	95	-	41	65	110
Inhalation (m ³ /yr)	1,400	3,700	8,000	8,000	1,400	3,700	8,000	8,000
External exposure transmission factor	0.5	0.5	0.5	0.5	0.7	0.7	0.7	0.7

**TABLE 9-3
AGE-SPECIFIC PARAMETERS FOR LIQUID RELEASES**

<u>Average Individual</u>	<u>Infant</u>	<u>Child</u>	<u>Teen</u>	<u>Adult</u>
Water Consumption (L/yr)	260	260	260	370
Fish consumption (kg/yr) ^a	-	3.6	8.5	11.3
Other seafood (kg/yr) ^a	-	0.33	0.75	1.0
Boating (person-hours) ^b	-	-	-	232,000
Swimming (person-hours) ^b	-	-	-	1,080
Shoreline recreation (man-hours) ^b	-	-	-	108,400
<u>Maximum Individual</u>				
Water consumption (L/yr) ^c	260 (330)	260 (510)	260 (510)	370 (730)
Fish consumption (kg/yr) ^a	-	11.2	25.9	34
Other seafood (kg/yr) ^a	-	1.7	3.8	5
Shoreline recreation (hr/yr) ^a	-	14	67	20
Swimming (hr/yr) ^a	-	10	10	10
Boating (hr/yr) ^a	-	60	60	60

^a Values developed by SRL for the Savannah River.

^b For population dose calculations. Values developed by SRP are used for the Savannah River.

^c Values shown in parentheses are those used to calculate dose from maximized water consumption by Beaufort-Jasper and Port Wentworth water treatment plant customers.

TABLE 9-5
80-KM-RADIUS POPULATION DISTRIBUTION AROUND SRP

Site Population Data

<u>Dir</u>	<u>0-1</u>	<u>1-2</u>	<u>2-3</u>	<u>3-4</u>	<u>4-5</u>	<u>5-10</u>	<u>10-20</u>	<u>20-30</u>	<u>30-40</u>	<u>40-50</u>	<u>TOTAL</u>
N	0.0	0.0	0.0	0.0	0.0	1.000E+00	3.689E+03	8.272E+03	4.836E+03	1.261E+04	2.941E+04
NNE	0.0	0.0	0.0	0.0	0.0	2.000E+00	6.880E+02	1.521E+03	3.794E+03	9.094E+03	1.510E+04
NE	0.0	0.0	0.0	0.0	0.0	0.0	4.355E+03	2.790E+03	4.797E+03	9.300E+03	2.124E+04
ENE	0.0	0.0	0.0	0.0	0.0	2.000E+00	1.125E+03	5.798E+03	5.096E+03	4.009E+04	5.211E+04
E	0.0	0.0	0.0	0.0	0.0	1.000E+00	7.572E+03	6.334E+03	7.831E+03	4.792E+03	2.653E+04
ESE	0.0	0.0	0.0	0.0	0.0	3.500E+01	1.665E+03	1.946E+03	2.366E+03	2.463E+03	8.475E+03
SE	0.0	0.0	0.0	0.0	0.0	4.400E+01	6.500E+02	5.709E+03	5.723E+03	7.559E+03	1.969E+04
SSE	0.0	0.0	0.0	0.0	0.0	4.200E+01	4.130E+02	1.072E+03	1.071E+03	3.288E+03	5.886E+03
S	0.0	0.0	0.0	0.0	0.0	4.000E+00	5.040E+02	1.337E+03	6.682E+03	3.387E+03	1.191E+04
SSW	0.0	0.0	0.0	0.0	0.0	0.0	1.066E+03	2.139E+03	6.143E+03	2.925E+03	1.227E+04
SW	0.0	0.0	0.0	0.0	0.0	0.0	9.270E+02	1.855E+03	2.031E+03	2.735E+03	7.548E+03
WSW	0.0	0.0	0.0	0.0	0.0	0.0	8.710E+02	7.273E+03	1.480E+03	7.775E+03	1.740E+04
W	0.0	0.0	0.0	0.0	0.0	6.000E+01	6.440E+02	7.705E+03	2.534E+03	7.138E+03	1.308E+04
WNW	0.0	0.0	0.0	0.0	0.0	2.690E+02	2.220E+03	1.029E+05	3.444E+04	9.105E+03	1.490E+05
NW	0.0	0.0	0.0	0.0	0.0	9.700E+01	5.676E+03	8.846E+04	1.487E+04	1.580E+03	1.107E+05
NNW	0.0	0.0	0.0	0.0	0.0	2.610E+02	9.546E+03	2.708E+04	6.341E+03	6.636E+03	4.987E+04
TOTAL	0.0	0.0	0.0	0.0	0.0	8.180E+02	4.161E+04	2.722E+05	1.100E+05	1.305E+05	5.551E+05

DENSITY (/M**2) = 2.87E-05

TABLE 9-6
80-KM-RADIUS MILK, MEAT, AND VEGETATION PRODUCTION

80-km-Radius (50 Miles) Milk Production Around SRP

Site Milk Production, Liters

Dir	0-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50	TOTAL
N	0.0	0.0	0.0	0.0	0.0	1.639E+04	1.032E+05	1.720E+05	1.410E+06	5.574E+06	7.276E+06
NNE	0.0	0.0	0.0	0.0	0.0	1.306E+04	1.032E+05	1.720E+05	3.676E+05	6.061E+05	1.262E+06
NE	0.0	0.0	0.0	0.0	0.0	5.732E+03	1.217E+05	1.325E+06	2.147E+06	1.388E+06	4.987E+06
ENE	0.0	0.0	0.0	0.0	0.0	1.577E+03	1.802E+05	1.918E+06	4.823E+06	5.458E+06	1.238E+07
E	0.0	0.0	0.0	0.0	0.0	1.848E+03	1.802E+05	1.739E+06	4.145E+06	5.755E+06	1.182E+07
ESE	0.0	0.0	0.0	0.0	0.0	4.507E+01	1.802E+05	9.313E+05	2.839E+06	1.459E+06	5.410E+06
SE	0.0	0.0	0.0	0.0	0.0	0.0	1.212E+05	4.516E+04	1.803E+05	3.996E+05	7.463E+05
SSE	0.0	0.0	0.0	0.0	0.0	0.0	9.384E+04	2.406E+05	3.521E+05	5.643E+05	1.251E+06
S	0.0	0.0	0.0	0.0	0.0	0.0	3.305E+05	5.740E+05	7.696E+05	9.972E+05	2.671E+06
SSW	0.0	0.0	0.0	0.0	0.0	0.0	3.582E+05	1.890E+06	6.404E+06	7.609E+06	1.626E+07
SW	0.0	0.0	0.0	0.0	0.0	7.653E+03	3.871E+05	6.711E+05	3.070E+06	2.835E+06	6.971E+06
WSW	0.0	0.0	0.0	0.0	0.0	2.467E+03	3.528E+05	6.678E+05	1.050E+06	2.398E+06	4.471E+06
W	0.0	0.0	0.0	0.0	0.0	1.161E+04	1.813E+05	3.788E+05	1.009E+06	1.744E+06	3.355E+06
WNW	0.0	0.0	0.0	0.0	0.0	1.381E+04	1.793E+05	3.456E+05	6.128E+05	8.552E+05	2.007E+06
NW	0.0	0.0	0.0	0.0	0.0	1.745E+04	1.032E+05	4.236E+05	1.160E+06	7.811E+05	2.485E+06
NNW	0.0	0.0	0.0	0.0	0.0	1.794E+04	1.032E+05	2.949E+05	1.481E+06	3.140E+06	5.037E+06
TOTAL	0.0	0.0	0.0	0.0	0.0	1.096E+05	3.079E+06	1.179E+07	3.182E+07	4.159E+07	8.839E+07

DENSITY (/M**2) = 4.42E-03

80-km-Radius (50 Miles) Meat Production Around SRP

Site Annual Meat Production, KGB

Dir	0-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50	TOTAL
N	0.0	0.0	0.0	0.0	0.0	8.321E+04	5.240E+05	8.733E+05	1.414E+06	3.154E+06	6.049E+06
NNE	0.0	0.0	0.0	0.0	0.0	6.630E+04	5.240E+05	8.733E+05	2.286E+06	4.059E+06	7.809E+06
NE	0.0	0.0	0.0	0.0	0.0	2.374E+04	4.707E+05	7.797E+05	1.707E+06	3.013E+06	5.994E+06
ENE	0.0	0.0	0.0	0.0	0.0	2.645E+03	3.022E+05	5.502E+05	8.868E+05	1.058E+06	2.800E+06
E	0.0	0.0	0.0	0.0	0.0	3.099E+03	3.022E+05	4.743E+05	6.889E+05	1.034E+06	2.502E+06
ESE	0.0	0.0	0.0	0.0	0.0	7.558E+01	3.022E+05	4.657E+05	6.140E+05	7.099E+05	2.092E+06
SE	0.0	0.0	0.0	0.0	0.0	0.0	2.740E+05	3.819E+05	6.559E+05	1.002E+06	2.314E+06
SSE	0.0	0.0	0.0	0.0	0.0	0.0	2.349E+05	4.352E+05	6.192E+05	9.877E+05	2.277E+06
S	0.0	0.0	0.0	0.0	0.0	0.0	1.753E+05	4.583E+05	7.318E+05	1.020E+06	2.385E+06
SSW	0.0	0.0	0.0	0.0	0.0	0.0	1.568E+05	3.930E+05	1.131E+06	1.581E+06	3.262E+06
SW	0.0	0.0	0.0	0.0	0.0	2.289E+03	1.332E+05	2.007E+05	5.756E+05	7.566E+05	1.668E+06
WSW	0.0	0.0	0.0	0.0	0.0	1.060E+04	1.747E+05	1.998E+05	3.093E+05	6.652E+05	1.360E+06
W	0.0	0.0	0.0	0.0	0.0	5.897E+04	1.657E+05	1.189E+05	2.907E+05	5.110E+05	1.145E+06
WNW	0.0	0.0	0.0	0.0	0.0	7.010E+04	1.749E+05	1.089E+05	1.763E+05	2.448E+05	7.750E+05
NW	0.0	0.0	0.0	0.0	0.0	8.858E+04	5.240E+05	6.984E+05	5.833E+05	7.014E+05	2.596E+06
NNW	0.0	0.0	0.0	0.0	0.0	9.107E+04	5.240E+05	8.197E+05	7.138E+05	1.450E+06	3.598E+06
TOTAL	0.0	0.0	0.0	0.0	0.0	5.007E+05	4.963E+06	7.831E+06	1.338E+07	2.195E+07	4.863E+07

DENSITY (/M**2) = 2.43E-03

TABLE 9-6
80-KM-RADIUS MILK, MEAT, AND VEGETATION PRODUCTION, CONT'D.

80-km-Radius (50 Miles) Vegetation Production Around SRP

Site Vegetation Production, KGR

<u>Dir</u>	<u>0.0-1.</u>	<u>1-2.</u>	<u>2-3.</u>	<u>3-4.</u>	<u>4-5.</u>	<u>5-10.</u>	<u>10-20.</u>	<u>20-30.</u>	<u>30-40.</u>	<u>40-50.</u>	<u>TOTAL</u>
N	0.0	0.0	0.0	0.0	0.0	7.385E+04	4.650E+05	7.751E+05	2.158E+06	3.106E+06	6.578E+06
NNE	0.0	0.0	0.0	0.0	0.0	5.885E+04	4.650E+05	7.751E+05	1.177E+06	1.609E+06	4.085E+06
NE	0.0	0.0	0.0	0.0	0.0	4.126E+04	9.712E+05	1.082E+06	1.586E+06	1.931E+06	5.611E+06
ENE	0.0	0.0	0.0	0.0	0.0	2.253E+04	2.574E+06	2.885E+06	2.205E+06	2.783E+06	1.047E+07
E	0.0	0.0	0.0	0.0	0.0	2.639E+04	2.574E+06	3.010E+06	2.718E+06	3.030E+06	1.136E+07
ESE	0.0	0.0	0.0	0.0	0.0	6.438E+02	2.574E+06	3.818E+06	3.443E+06	9.655E+05	1.080E+07
SE	0.0	0.0	0.0	0.0	0.0	0.0	2.731E+06	4.967E+06	4.699E+06	2.893E+06	1.529E+07
SSE	0.0	0.0	0.0	0.0	0.0	0.0	2.653E+06	3.712E+06	5.011E+06	3.160E+06	1.454E+07
S	0.0	0.0	0.0	0.0	0.0	0.0	1.355E+06	1.694E+06	2.501E+06	3.266E+06	8.816E+06
SSW	0.0	0.0	0.0	0.0	0.0	0.0	1.151E+06	1.330E+06	1.861E+06	2.511E+06	6.893E+06
SW	0.0	0.0	0.0	0.0	0.0	1.511E+04	9.195E+05	1.325E+06	1.807E+06	1.970E+06	6.037E+06
WSW	0.0	0.0	0.0	0.0	0.0	1.010E+04	7.213E+05	1.314E+06	1.857E+06	2.406E+06	6.308E+06
W	0.0	0.0	0.0	0.0	0.0	5.234E+04	1.863E+05	3.170E+05	1.184E+06	2.768E+06	4.508E+06
WNW	0.0	0.0	0.0	0.0	0.0	6.222E+04	1.935E+05	1.698E+05	4.890E+04	1.355E+06	1.829E+06
NW	0.0	0.0	0.0	0.0	0.0	7.862E+04	4.650E+05	1.585E+06	4.197E+06	2.265E+06	8.591E+06
NNW	0.0	0.0	0.0	0.0	0.0	8.083E+04	4.650E+05	1.249E+06	5.695E+06	6.379E+06	1.387E+07
TOTAL	0.0	0.0	0.0	0.0	0.0	5.227E+05	2.046E+07	3.001E+07	4.215E+07	4.244E+07	1.356E+08

DENSITY (/M**2) = 6.78E-03

AGRICULTURAL PRODUCTIVITY

<u>PRODUCT</u>	<u>CAP USE</u>	<u>PRODUCTION</u>	<u>EXPORT</u>	<u>I.POP SERVED</u>
VEGETATION	1.97E+02	1.36E+08	2.74E+07	6.87E+05
MILK	1.31E+02	8.84E+07	1.65E+07	6.74E+05
MEAT	8.02E+01	4.86E+07	4.68E+07	6.06E+05

**TABLE 9-7
SITE PARAMETERS
USED IN LIQUID DOSE CALCULATIONS**

River flow rate at SRP, cfs (1987)	10,328
River dilution in estuary	3
Transit time, process areas to river, hr	24
Transit time, SRP to water treatment plants, hr	72
Water treatment time, hr	24
Aquatic food harvest, kg/hr	
Fish - sport	103,700
Fish - commercial	31,800
Invertebrates - salt water	299,000
Irrigation	None
Shore width factor	0.2
Fish bioaccumulation factor for cesium	3,000

**TABLE 10-1
SAMPLE MEDIA DATA**

<u>Sample Matrix or Media</u>	<u>Sample Size</u>	<u>Representative Aliquot</u>
Gross Alpha:		
Water	1 liter	1 liter
Vegetation	1-2 kg	2 grams
Rain (collection pan)	0.37 m ²	0.093 m ² (1/4 total sample)
Air	whole filter	800 m ³
Nonvolatile Beta:		
Water	1 liter	1 liter
Vegetation	1-2 kg	2 grams
Air	whole filter	800 m ³
Strontium-89,90:		
Rain	0.37 m ²	0.031 m ² (1/12 total sample)
Streams	1 liter	1 liter
Air composites		
plant perimeter	20,000 m ³	8,000 m ³
25-mile radius	18,000 m ³	7,200 m ³
100-mile radius	6,000 m ³	2,400 m ³
Strontium-90:		
River water	7 liters	7 liters
Streams	6 liters	3 liters (duplicates)
Milk	0.5 liter	0.5 liter
Food	20 grams	20 grams
Rain	0.37 m ²	0.031 m ² (1/12 total sample)
Chemical Cesium:		
Streams	1 liter	1 liter

**TABLE 10-2
GAS-FLOW PROPORTIONAL COUNTING DATA**

Lower Limit of Detection (LLD) for Gas-Flow Proportional Counters

<u>Analysis</u>	<u>Counting Interval (minutes)</u>	<u>LLD (pCi)</u>	<u>Yield \pm 1 sigma</u>
Gross Alpha	20	0.57	100% ^a
Nonvolatile Beta	20	1.60	100% ^a
Chemical Cesium	20	2.22	72% \pm 16%
Strontium-89,90	20	2.05	78% \pm 14%
Strontium-90	20	1.62	99% \pm 10%

^a No correction for source self-absorption is made. 100% recovery (yield) in chemical preparation assumed.

**TABLE 10-3
LIQUID SCINTILLATION COUNTING DATA**

LOWER LIMITS OF DETECTION (LLD)
Liquid Scintillation Analyses for Weak Beta Emitters

<u>Nuclide</u>	<u>Counting Interval</u>	<u>Routine Aliquot</u>	<u>Average % Recovery</u>	<u>Lower Limit of Detection</u>
Tritium (*short count*)	20 min	3 mL	99%	1.85 pCi/mL
Tritium (*long count*) ^a	150 min	3.75 mL	98%	0.54 pCi/mL
Tritium (*long count*) ^a	300 min	3.75 mL	98%	0.38 pCi/mL
Phosphorus-32	20 min	25 mL	84%	0.88 pCi/mL
Sulfur-35	20 min	200 mL	72%	0.16 pCi/mL
Promethium-147	20 min	100 mL	45% (approx.)	0.17 pCi/mL

^a Relatively noncritical environmental samples such as air silica gel and rainwater are counted once for 150 minutes; all drinking water, river water, milk, and foodstuffs are counted twice, for a total of 300 minutes.

TABLE 10-4
ALPHA SPECTROMETER COUNTING DATA

Alpha Spectrometer Semiconductor Detectors

Analyses for plutonium in environmental samples are performed in batches on multiple silicon surface barrier detector systems. The counting process is identical for each sample, but due to differences in the methods for preparing the samples for counting, and variations in actual collected sample aliquots, Lower Limit of Detection (LLD) values are not directly comparable between sample types. The table below presents some typical (averages of actual) LLD values for several sample types.

<u>Sample Type</u>	<u>Nuclide</u>	<u>Counting Interval (minutes)</u>	<u>Routine Aliquot</u>	<u>Lower Limit of Detection</u>
Air Filters:				
Single Area Stations (F- and H- Areas, Burial Ground North and South)				
	Pu-239	5000	--varies	30 aCi/cubic meter
	Pu-238	5000	--varies	25 aCi/cubic meter
Plant Perimeter composite				
	Pu-239	5000	--varies	1 aCi/cubic meter
	Pu-238	5000	--varies	1 aCi/cubic meter
25-Mile-Radius composite				
	Pu-239	5000	--varies	3 aCi/cubic meter
	Pu-238	5000	--varies	2 aCi/cubic meter
100-Mile-Radius composite				
	Pu-239	5000	--varies	5 aCi/cubic meter
	Pu-238	5000	--varies	4 aCi/cubic meter
Rain Ion Columns:				
	Pu-239	5000	0.031 m ²	0.3 pCi/square meter
	Pu-238	5000	0.031 m ²	0.3 pCi/square meter
River Water:				
	Pu-239	5000	2 liters	2 fCi/liter
	Pu-238	5000	2 liters	2 fCi/liter
Soil, Foodstuffs, and Vegetation:				
	Pu-239	5000	10 grams	6 fCi/gram
	Pu-238	5000	10 grams	6 fCi/gram

NOTE: Several sample types are routinely prepared with replicates, but no statistical consideration is given to the accompanying improvement in the LLD.

TABLE 11-1
LOWER LIMITS OF DETECTION (LLD) FOR
HPGE GAMMA SPECTROMETRY SYSTEMS
FOR STREAM ION COLUMNS

Routine sample aliquot: varies between 3 and 6 liters
 Routine counting interval: 5,000 seconds

<u>Nuclide</u>	<u>LLD</u> <u>(pCi/total sample)</u>
Be-7	140.
K-40	210.
Cr-51	150.
Mn-54	16.
Mn-56	21.
Co-57	12.
Co-58	16.
Co-60	17.
Zn-65	34.
Se-75	17.
Y-88	11.
Nb-95	15.
Zr-95	28.
Ru-103	16.
Ru-106	140.
Sb-124	15.
Sb-125	44.
I-131	17.
Te-132	14.
I-133	15.
Cs-134	16.
Cs-137	17.
Ba-140	39.
La-140	13.
Ce-141	22.
Ce-144	98.
Eu-154	25.
Eu-155	42.
Pb-212	38.
Pb-214	41.
U-235	27.

NOTE: The values listed in this table DO NOT include decay-correction factors; the LLDs are indicative only of the minimum counter sensitivities for activities present in the sample at the time of the sample count. Recovery (or yield) for all nuclides is assumed to be 100 percent. These LLD values are averages derived from actual sample analyses performed using Canberra Industries' APOGEE gamma spectrum analysis application.

TABLE 11-2
LOWER LIMITS OF DETECTION (LLD) FOR HPGE
GAMMA SPECTROMETRY SYSTEMS
FOR RIVER ION COLUMNS

<u>Nuclide</u>	<u>Counter LLD</u> <u>(pCi/sar. 25)</u>	<u>8 liters LLD</u> <u>(pCi/L)</u>	<u>25 liters LLD</u> <u>(pCi/L)</u>
Be-7	270.	34.	11.
K-40	280.	35.	11.
Cr-51	420.	52.	17.
Mn-54	29.	3.6	1.2
Co-57	16.	2.0	0.64
Co-58	29.	3.7	1.2
Co-60	18.	2.2	0.72
Zn-65	51.	6.4	2.1
Se-75	26.	3.3	1.1
Nb-95	34.	4.3	1.4
Zr-95	49.	6.1	1.9
Ru-103	31.	3.9	1.2
Ru-106	200.	25.	7.9
Sb-124	30.	3.7	1.2
Sb-125	65.	8.1	2.6
I-131	290.	36.	12.
Cs-134	22.	2.7	0.86
Cs-137	23.	2.9	0.91
Ce-141	52.	6.5	2.1
Ce-144	140.	17.	5.5
U-235	34.	4.3	1.4

NOTE: LLD values are reported at the 95% Confidence Level (CL), as calculated by Canberra Industries' APOGEE gamma spectrum analysis software. These LLD values were obtained by averaging actual sample analysis reports, including typical decay-correction factors.

**TABLE 11-3
LOWER LIMITS OF DETECTION (LLD) FOR
HPGE GAMMA SPECTROMETRY SYSTEMS
FOR VEGETATION**

Average sample aliquot: 37 grams
Routine counting interval: 5,000 seconds

<u>Nuclide</u>	<u>LLD (pCi/gram)</u>
Be-7	46.
K-40	15.
Cr-51	330.
Co-57	1.1
Co-58	3.1
Co-60	0.87
Zn-65	2.6
Se-75	2.4
Y-88	1.4
Nb-95	16.
Zr-95	6.0
Ru-103	10.
Ru-106	9.5
Sb-124	3.8
Sb-125	2.8
Cs-134	0.87
Cs-137	1.0
Ce-141	32.
Ce-144	8.0
Pb-212	1.9
Pb-214	2.2
Ra-226	23.
U-235	1.5
U-238	130.

NOTE: These values are averages derived from actual analyses performed on typical composite vegetation samples. The quoted values are decay-corrected to the time of sample collection. Analyses were performed using Canberra Industries' APOGEE gamma spectrum analysis application.

TABLE 11-4
LOWER LIMITS OF DETECTION (LLD) FOR HPGE
GAMMA SPECTROMETRY SYSTEMS
USING APOGEE SOFTWARE

Routine Counting Interval: 5,000 seconds

Nuclide	Geo. #5 LLD ^a (pCi/sample)	Geo. #3 LLD ^b (pCi/sample)	Geo. #2 LLD ^c (pCi/sample)
Be-7	270.	140.	140.
K-40	410.	220.	210.
Cr-51	310.	170.	150.
Mn-54	30.	16.	16.
Mn-56	37.	21.	21.
Co-57	31.	14.	12.
Co-58	27.	16.	16.
Co-60	30.	19.	17.
Zn-65	60.	37.	34.
Se-75	43.	20.	17.
Y-88	21.	11.	11.
Nb-95	31.	17.	15.
Zr-95	54.	30.	28.
Ru-103	30.	16.	16.
Ru-106	270.	160.	140.
Sb-124	30.	16.	15.
Sb-125	96.	51.	44.
I-131	37.	18.	17.
Te-132	29.	16.	14.
I-133	31.	16.	15.
Cs-134	29.	18.	16.
Cs-137	34.	21.	17.
Ba-140	78.	40.	39.
La-140	26.	16.	13.
Ce-141	53.	25.	22.
Ce-144	240.	110.	98.
Eu-154	65.	30.	25.
Eu-155	120.	52.	42.
Pb-212	71.	41.	38.
Pb-214	89.	45.	41.
U-235	56.	30.	27.

NOTE: These are average LLD values derived from actual sample analyses performed using Canberra Industries' APOGEE gamma spectrum analysis software, without correction for decay.

^a Geometry #5 = 500 mL.

^b Geometry #3 = 1000 mL.

^c Geometry #2 = 200 mL.

TABLE 11-5
LOWER LIMITS OF DETECTION (LLD) FOR HPGE
GAMMA SPECTROMETRY SYSTEMS
USING SPECTRAN-F SOFTWARE

<u>Nuclide</u>	<u>Geo. #1 LLD^a</u> <u>(pCi/sample)</u>	<u>Geo. #2 LLD^b</u> <u>(pCi/sample)</u>	<u>Geo. #5 LLD^c</u> <u>(pCi/sample)</u>
Ba-7	76.	220.	550.
Na-22	9.3	43.	54.
Na-24	8.2	41.	49.
K-40	210.	580.	870.
Cr-51	71.	250.	380.
Mn-54	8.7	30.	62.
Co-56	10.	32.	56.
Co-57	7.1	17.	31.
Co-58	9.1	24.	52.
Fe-59	18.	75.	120.
Co-60	15.	40.	63.
Zn-65	22.	73.	110.
Se-75	13.	34.	64.
Y-88	9.6	31.	69.
Nb-95	9.2	37.	56.
Zr-95	19.	53.	100.
Ru-103	9.5	25.	60.
Ru-106	100.	230.	580.
Ag-110m	9.8	33.	77.
Sn-113	7.1	23.	41.
Sb-124	9.3	26.	56.
Sb-125	27.	85.	130.
I-131	15.	35.	53.
Te-132	8.4	22.	41.
Ba-133	14.	44.	71.
I-133	8.3	30.	49.
Cs-134	9.5	35.	59.
Cs-136	9.1	30.	49.
Cs-137	9.5	36.	85.
Ba-140	36.	100.	180.
La-140	9.3	31.	60.
Ce-141	14.	33.	61.
Ce-144	61.	140.	250.
Au-198	8.6	22.	45.
Hg-203	35.	25.	51.
U-235	13.	36.	65.
Np-239	240.	160.	300.
Am-241	41.	86.	131.

NOTE: These are average LLD values, calculated using Canberra Industries' SPECTRAN-F gamma spectrum analysis software application, compiled from actual 3000-second analyses. LLDs are reported in picoCuries per total sample aliquot at the 95% Confidence Level (CL), uncorrected for decay.

^a Geometry #1 = air filter.

^b Geometry #2 = 200 mL.

^c Geometry #5 = 500 mL.

TABLE 11-6
EPA INTERLABORATORY COMPARISON
OF ANALYTICAL RESULTS

Analysis and Sample Date ^a	WATER Samples, pCi/L						Ratio SRP/EPA ^d	No. of Labs ^e	% of Labs Within ± 20% ^f
	SRP ^b			EPA ^c					
<u>H-3</u>									
02/13/87	4,880	±	100	4,209	±	421	1.16	104	88
06/12/87	2,605	±	285	2,895	±	357	0.90	104	88
10/16/87	4,920	±	210	4,492	±	449	1.10	96	85
<u>Cr-51</u>									
06/05/87	31.3	±	26	41	±	5	0.76	75	69
10/09/87	60	±	8	70	±	5	0.86	101	42
<u>Co-60</u>									
10/22/86	24	±	2	24	±	5	1.0	79	87
02/06/87	51	±	3	50	±	5	1.02	108	92
04/20/87	11	±	5	8	±	5	1.4	81	64
06/05/87	63	±	5	64	±	5	0.98	105	88
10/09/87	16	±	1.5	15	±	5	1.07	112	94
<u>Zn-65</u>									
02/06/87	96	±	7	91	±	5	1.05	105	90
06/05/87	8	±	5	10	±	5	0.8	83	83
10/09/87	49.3	±	4.4	46	±	5	1.07	112	79
<u>Ru-106</u>									
02/06/87	98	±	17	100	±	5	0.98	98	78
06/05/87	66	±	20	75	±	5	0.88	95	61
10/09/87	61.3	±	8	61.5	±	5	1.00	101	50
<u>Cs-134</u>									
10/22/86	11	±	1	12	±	5	0.92	75	83
02/06/87	57	±	3	59	±	5	0.97	107	95
04/20/87	21	±	6	20	±	5	1.0	87	82
06/05/87	37	±	3	40	±	5	0.92	104	94
10/09/87	25.3	±	2.5	25	±	5	1.0	113	94
<u>Cs-137</u>									
10/22/86	8	±	1	8	±	5	1.0	77	69
02/06/87	96	±	3	87	±	5	1.10	107	93
04/20/87	18	±	8	15	±	5	1.2	88	82
06/05/87	83	±	4	80	±	5	1.0	105	85
10/09/87	59	±	6	51	±	5	1.16	113	86
<u>Pu-239</u>									
01/16/87	16.63	±	1.00	16.70	±	1.67	1.0	30	80
08/14/87	5.17	±	0.30	5.3	±	0.53	0.98	39	38
<u>Uranium</u>									
10/22/86	8	±	4	10	±	6	0.8	65	79
02/20/87	18.3	±	5	8.0	±	6.0	2.29	85	65
08/21/87	8.3	±	2.2	13	±	6	0.64	81	83
<u>Sr-89</u>									
10/22/86	10.3	±	3.5	10	±	5	1.03	46	67
05/08/87	46	±	3	41	±	5	1.1	63	73
<u>Sr-90</u>									
10/22/86	3	±	0.7	4	±	1.5	0.75	51	63
05/08/87	23	±	2	20	±	1.5	1.2	67	70

^a The date the sample was prepared by EPA.

^b The average of 3 values reported by SRP and a 2-sigma deviation.

^c The true value or the value assigned by EPA and the expected deviation for one measurement.

^d A ratio of 1.0 represents perfect agreement.

^e The number of participating laboratories that reported values for the sample.

^f The number of participating laboratories (expressed as %) reporting a value within ± 20% of the EPA value.

**TABLE 11-6
EPA INTERLABORATORY COMPARISON
OF ANALYTICAL RESULTS, CONT'D.**

Analysis and Sample Date ^a	WATER Samples, pCi/L						Ratio SRP/EPA ^d	No. of Labs ^e	% of Labs Within ± 20% ^f
	SRP ^b		EPA ^c						
<u>Gross Alpha</u>									
10/22/86	26	± 4	40	± 5	5	0.65	105	51	
01/23/87	7	± 2	11	± 5	5	0.64	128	54	
03/20/87	2	± 0.8	3	± 5	5	0.67	99	27	
04/20/87	22	± 4	30	± 8	8	0.73	114	58	
05/22/87	8	± 3	11	± 5	5	0.73	121	52	
07/24/87	6	± 1	5	± 5	5	1.2	113	-	
09/18/87	3.67	± 2	4	± 5	5	0.92	136	93	
<u>Gross Beta</u>									
10/22/86	50	± 4	51	± 5	5	0.98	101	76	
01/23/87	8	± 1.5	10	± 5	5	0.8	130	67	
03/20/87	11	± 2	13	± 5	5	0.85	99	77	
04/20/87	46	± 4	66	± 5	5	0.70	114	83	
05/22/87	6	± 1	7	± 5	5	0.86	122	53	
07/24/87	4	± 1	5	± 5	5	0.8	111	-	
09/18/87	12	± 2	12	± 5	5	1.0	135	82	
<u>MILK Samples, pCi/L</u>									
<u>Cs-137</u>									
06/26/87	85	± 9	74	± 5	5	1.14	78	86	
<u>Sr-90</u>									
10/31/86	<MDA		0.0	± 1.5	1.5		20		
06/26/87	37	± 5	35	± 1.5	1.5	1.1	46	37	
<u>FOOD Samples, pCi/L</u>									
<u>Cs-137</u>									
01/30/87	80.3	± 8.0	84.0	± 5.0	5.0	0.96	38	84	
07/31/87	44	± 6	50	± 5	5	0.88	40	70	
<u>Sr-90</u>									
01/30/87	34.7	± 45.0	49.0	± 10.0	10.0	0.71	24	13	
07/31/87	<MDA		30.0	± 1.5	1.5		21	14	
<u>AIR FILTER Samples, pCi/Filter</u>									
<u>Cs-137</u>									
04/10/87	14	± 4	8	± 5	5	1.8	89	51	
08/28/87	15.3	± 2.0	10	± 5	5	1.53	94	93	
<u>Gross Alpha</u>									
08/28/87	3	± 1	10	± 5	5	0.3	110	96	
<u>Gross Beta</u>									
08/28/87	18.3	± 2.0	30	± 5	5	0.61	111	79	

^a The date the sample was prepared by EPA.

^b The average of 3 values reported by SRP and a 2-sigma deviation.

^c The true value or the value assigned by EPA and the expected deviation for one measurement.

^d A ratio of 1.0 represents perfect agreement.

^e The number of participating laboratories that reported values for the sample.

^f The number of participating laboratories (expressed as %) reporting a value within ± 20% of the EPA value.

**TABLE 11-7
EML INTERLABORATORY COMPARISON
OF ANALYTICAL RESULTS**

Analysis and Sample Date ^a	WATER Samples pCi/mL				Ratio SRP/EML ^d	No. of Labs ^e	% of Labs Within ± 20% ^f
	SRP ^b		EML ^c				
<u>H-3</u>							
05/87	29.3	±	0.53	33.7	0.87	24	76
09/87	20.6	±	0.38	19.1	1.09	29	76
<u>Mn-54</u>							
05/87	5.24	±	0.08	4.72	1.11	23	73
09/87	2.36	±	0.22	2.28	1.04	31	96
<u>Co-60</u>							
05/87	4.42	±	0.08	4.59	0.96	23	95
09/87	2.10	±	0.20	2.27	0.92	31	100
<u>Cs-137</u>							
05/87	2.51	±	0.05	2.34	1.07	25	92
09/87	2.43	±	0.26	2.28	1.06	32	93
<u>Pu-239</u>							
05/87	0.081	±	0.003	0.137	0.59	18	30
09/87	0.185	±	0.003	0.266	0.70	22	20
<u>Am-241</u>							
05/87	0.13	±	0.03	0.131	1.00	16	87
09/87	0.128	±	0.025	0.140	0.91	16	76
<u>Uranium, µg</u>							
05/87	0.21	±	0.03	0.206	1.02	13	92
09/87	0.14	±	0.003	0.157	0.89	11	66
<u>Sr-90</u>							
05/87	1.4	±	1.0	1.33	1.05	15	93
09/87	0.28	±	0.05	0.252	1.11	20	95
<u>SOIL Samples pCi/g</u>							
<u>K-40</u>							
05/87	1.16	±	0.08	1.05	1.10	15	68
09/87	29.6	±	1.3	20.0	1.48	20	54
<u>Cs-137</u>							
05/87	0.57	±	0.03	0.48	1.19	25	92
09/87	0.27	±	0.05	0.21	1.28	25	57
<u>Pu-239</u>							
05/87	1.56	±	0.024	1.88	0.83	21	63
09/87	0.034	±	0.003	0.029	1.17	21	33
<u>Sr-90</u>							
05/87	0.70	±	0.30	0.184	3.80	9	58
09/87	13.5	±	1.5	12.7	1.06	17	94

^a Date sample was prepared by DOE - EML.

^b The average of 3 values reported by SRP and a 2-sigma deviation.

^c The true value or the value assigned by DOE - EML.

^d A ratio of 1.0 represents perfect agreement.

^e The number of participating laboratories that reported values for the sample.

^f The number of participating laboratories (expressed as %) reporting a value within ± 20% of the EML value.

**TABLE 11-7
EML INTERLABORATORY COMPARISON
OF ANALYTICAL RESULTS, CONT'D.**

Analysis and Sample Date ^a	AIR FILTER Samples, pCi/Filter			Ratio SRP/EML ^d	No. of Labs ^e	% of Labs Within ± 20% ^f
	SRP ^b		EML ^c			
<u>Be-7</u>						
05/87	4,687	± 291	4,640	1.01	26	69
09/87	1,240	± 113	896	1.38	32	78
<u>Mn-54</u>						
05/87	463	± 20	455	1.02	28	78
<u>Co-60</u>						
05/87	414	± 23	444	0.93	28	82
<u>Zr-95</u>						
09/87	233	± 20	188	1.24	29	74
<u>Ru-106</u>						
09/87	218	± 28	251	0.87	27	22
<u>Sb-125</u>						
09/87	1,090	± 92	963	1.13	31	66
<u>Ce-144</u>						
09/87	482	± 52	406	1.19	32	73
<u>Cs-137</u>						
05/87	502	± 17	470	1.07	27	82
09/87	410	± 36	290	1.41	34	79
<u>Pu-239</u>						
05/87	5.6	± 0.47	5.68	0.98	17	65
09/87	6.03	± 0.19	5.23	1.15	23	83
<u>Am-241</u>						
05/87	0.01	± 0.01	4.41	0.002	12	76
09/87	8.40	± 6.9	5.18	1.62	16	88
<u>Uranium, mg</u>						
05/87	7.1	± 0.05	6.92	1.02	10	90
09/87	3.72	± 0.06	4.59	0.81	10	45
	TISSUE Samples, pCi/g					
<u>K-40</u>						
05/87	0.57	± 0.16	0.608	0.94	8	50
09/87	2.5	± 0.40	2.68	0.93	10	16
<u>Cs-137</u>						
05/87	0.035	± 0.020	0.042	0.83	5	33
09/87	0.23	± 0.03	0.19	1.21	18	61
<u>Sr-90</u>						
05/87	4.5	± 0.80	2.87	1.57	10	58

^a Date sample was prepared by DOE - EML.

^b The average of 3 values reported by SRP and a 2-sigma deviation.

^c The true value or the value assigned by DOE - EML.

^d A ratio of 1.0 represents perfect agreement.

^e The number of participating laboratories that reported values for the sample.

^f The number of participating laboratories (expressed as %) reporting a value within ± 20% of the EML value.

TABLE 11-7
EML INTERLABORATORY COMPARISON
OF ANALYTICAL RESULTS, CONT'D.

Analysis and Sample Date ^a	VEGETATION Samples, pCi/g			Ratio SRP/EML ^d	No. of Labs ^e	% of Labs Within ± 20% ^f	
	SRP ^b	±	EML ^c				
<u>K-40</u>							
05/87	27.3	±	4.1	31.7	0.86	17	64
<u>Co-60</u>							
05/87	2.1	±	0.30	2.14	0.98	20	57
<u>Cs-137</u>							
05/87	16.0	±	1.7	14.5	1.10	21	68
09/87	3.1	±	0.12	1.82	1.70	23	73
<u>Pu-239</u>							
05/87	0.044	±	0.004	0.117	0.38	15	55
09/87	0.021	±	0.004	0.018	1.17	5	62
<u>Sr-90</u>							
05/87	38.3	±	2.6	20.6	1.86	15	93
09/87	12.1	±	1.8	15.0	0.81	12	83

^a Date sample was prepared by DOE - EML.

^b The average of 3 values reported by SRP and a 2-sigma deviation.

^c The true value or the value assigned by DOE - EML.

^d A ratio of 1.0 represents perfect agreement.

^e The number of participating laboratories that reported values for the sample.

^f The number of participating laboratories (expressed as %) reporting a value within ± 20% of the EML value.

**TABLE 11-8
 AMBIENT AIR MONITORING STATION
 QA AUDIT RESULTS**

QUARTER 1, APRIL 7 - 10, 1987

<u>Site</u>	<u>Analyzer</u>	<u>% Average Difference, ppm</u>	<u>Linear Regression</u>	
			<u>% Difference</u>	<u>Bias, ppm</u>
614-36G	NO	4.8	3.6	0.002
614-38G	NC	7.7	9.4	-0.003
614-39G	NO	-0.7	1.0	-0.003
614-40G	NO	4.2	5.5	-0.003
614-41G	NO	7.4	13.9	-0.013
614-36G	NO _x	3.5	6.3	-0.005
614-38G	NO _x	7.0	5.9	0.002
614-39G	NO _x	-6.3	-0.6	-0.011
614-40G	NO _x	6.8	6.4	0.000
614-41G	NO _x	4.5	12.6	-0.016
614-36G	NO ₂	2.2	4.2	-0.003
614-38G	NO ₂	1.4	6.0	-0.004
614-39G	NO ₂	-10.3	-1.8	-0.014
614-40G	NO ₂	12.0	7.5	0.002
614-41G	NO ₂	7.2	13.5	-0.008
614-36G	SO ₂	0.5	2.6	-0.004
614-37G	SO ₂	-7.0	-8.9	0.002
614-39G	SO ₂	3.9	4.6	-0.001
614-40G	SO ₂	5.2	5.0	0.000
614-36G	O ₃	-5.9	-7.5	0.002
614-39G	O ₃	-14.7	-23.0	0.014
614-39G	Photometer	0.8	0.4	0.000

Total Suspended Particulates

<u>Sampler</u>	<u>Average % Difference</u>
614-36G	8.4
614-38G	-4.0
614-39G (Routine)	-2.0
614-39G (Co-Location)	-2.0
614-40G	0.7
614-41G	-5.6

**TABLE 11-8
 AMBIENT AIR MONITORING STATION
 QA AUDIT RESULTS, CONT'D.**

QUARTER 2, JUNE 1 - 5, 1987

<u>Site</u>	<u>Analyzer</u>	<u>% Average Difference, ppm</u>	<u>Linear Regression</u>	
			<u>% Difference</u>	<u>Bias, ppm</u>
614-36G	NO	-14.7	-15.3	-0.001
614-38G	NO	1.6	4.4	-0.004
614-39G	NO	1.5	0.8	0.001
614-40G	NO	-5.5	-1.8	-0.004
614-41G	NO	5.9	6.9	0.000
614-36G	NO _x	-12.6	-10.9	-0.002
614-38G	NO _x	2.4	4.8	-0.004
614-39G	NO _x	-0.5	1.0	-0.002
614-40G	NO _x	-3.0	4.3	0.002
614-41G	NO _x	7.5	11.3	-0.005
614-36G	NO ₂	-1.9	-11.8	0.013
614-38G	NO ₂	6.1	4.6	0.002
614-39G	NO ₂	3.7	1.1	0.003
614-40G	NO ₂	-5.8	-3.5	-0.003
614-41G	NO ₂	12.1	8.8	0.002
614-36G	SO ₂	-4.6	5.3	0.001
614-37G	SO ₂	-3.4	5.9	0.004
614-39G	SO ₂	-5.9	8.5	0.004
614-40G	SO ₂	-0.8	2.1	0.002
614-36G	O ₃	3.9	4.5	-0.002
614-39G	O ₃	-6.1	-3.7	-0.003
614-39G	Photometer	0.7	1.2	0.000

Total Suspended Particulates

<u>Sampler</u>	<u>Average % Difference</u>
614-36G	-11.3
614-38G	-3.2
614-39G (Routine)	-0.4
614-39G (Co-Location)	-1.3
614-40G	0.7
614-41G	-1.3

**TABLE 11-8
 AMBIENT AIR MONITORING STATION
 QA AUDIT RESULTS, CONT'D.**

QUARTER 3, AUGUST 3 - 7, 1987

Site	Analyzer	% Average Difference, ppm	Linear Regression	
			% Difference	Bias, ppm
614-36G ^a	NO			
614-38G	NO	0.3	3.0	-0.004
614-39G	NO	-1.7	-2.8	0.002
614-40G	NO	2.9	3.5	-0.001
614-41G	NO	-5.2	-4.4	-0.001
614-36G ^a	NO _x			
614-38G	NO _x	3.5	3.5	-0.000
614-39G	NO _x	-4.1	-1.9	-0.004
614-40G	NO _x	2.3	6.8	-0.007
614-41G	NO _x	-4.2	-6.3	0.001
614-36G ^a	NO ₂			
614-38G	NO ₂	2.6	0.6	0.004
614-39G	NO ₂	2.5	-0.7	0.003
614-40G	NO ₂	3.4	4.7	-0.004
614-41G	NO ₂	4.2	-1.2	0.006
614-36G ^a	SO ₂			
614-37G ^a	SO ₂			
614-39G	SO ₂	6.1	2.0	0.006
614-40G	SO ₂	1.5	5.5	-0.006
614-36G ^a	O ₃			
614-39G	O ₃	-5.2	-6.0	0.000
614-39G	Photometer	0.7	0.3	0.000

Total Suspended Particulates

<u>Sampler</u>	<u>Average % Difference</u>
614-36G ^a	
614-38G	0.7
614-39G (Routine)	0.4
614-39G (Co-Location)	1.6
614-40G	1.1
614-41G	0.7

^a Sampling at these stations discontinued on July 1, 1987, following a technical reevaluation of the monitoring program.

**TABLE 11-8
 AMBIENT AIR MONITORING STATION
 QA AUDIT RESULTS, CCNT'D.**

QUARTER 4, OCTOBER 14 - 15, 1987

Site	Analyzer	% Average Difference, ppm	Linear Regression	
			% Difference	Bias, ppm
614-36G ^a	NO			
614-38G	NO	-3.6	-2.7	-0.001
614-39G	NO	-0.8	1.9	-0.004
614-40G	NO	-0.5	-0.1	0.000
614-41G	NO	-1.2	-1.3	0.001
614-36G ^a	NO _x			
614-38G	NO _x	-2.1	-0.6	-0.002
614-39G	NO _x	-4.1	0.8	-0.007
614-40G	NO _x	-2.2	0.7	-0.005
614-41G	NO _x	-3.1	-2.2	-0.001
614-36G ^a	NO ₂			
614-38G	NO ₂	-0.5	-1.8	0.001
614-39G	NO ₂	-2.5	-0.6	-0.003
614-40G	NO ₂	-2.8	1.9	-0.007
614-41G	NO ₂	-2.4	-1.7	-0.002
614-36G ^a	SO ₂			
614-37G ^a	SO ₂			
614-39G	SO ₂	0.4	1.6	-0.001
614-40G	SO ₂	3.7	3.9	0.000
614-36G ^a	O ₃			
614-39G	O ₃	-5.1	-3.8	-0.001
614-39G	Photometer	-1.2	-0.1	-0.001

Total Suspended Particulates

<u>Sampler</u>	<u>Average % Difference</u>
614-36G ^a	
614-38G	0.7
614-39G (Routine)	-6.1
614-39G (Co-Location)	-9.6
614-40G	1.4
614-41G	0.4

^a Sampling at these stations discontinued on July 1, 1987, following a technical reevaluation of the monitoring program.

**TABLE 11-9
ECS PERFORMANCE IN
EPA INTERLABORATORY COMPARISON**

<u>Analysis</u>	<u>Report Value</u>	<u>True Value^a</u>	<u>Acceptance Limits</u>	<u>Warning Limits</u>	<u>Performance Evaluation</u>
<u>Trace Metals (µg/L)</u>					
Aluminum	262	220	142 - 296	162 - 277	Acceptable
Cadmium	54	55	46.6 - 63.2	48.6 - 61.2	Acceptable
Chromium	528	514	400 - 606	425 - 581	Acceptable
Copper	1,060	953	859 - 1,020	880 - 1,000	Not Acceptable ^b
Iron	1,050	1,096	947 - 1,210	980 - 1,180	Acceptable
Lead	670	685	584 - 778	608 - 753	Acceptable
Manganese	426	381	337 - 419	348 - 409	Not Acceptable ^b
Nickel	820	762	670 - 853	693 - 831	Acceptable
Zinc	1,100	1,059	926 - 1,160	955 - 1,130	Acceptable
<u>Miscellaneous Analyses (mg/L)</u>					
pH, pH units	5.22	5.2	5.06 - 5.30	5.09 - 5.27	Acceptable
Total suspended solids	79	80.9	62.1 - 87.0	65.2 - 84.0	Acceptable
Oil and grease	6.8	8.0	1.34 - 12.8	2.77 - 11.4	Acceptable
<u>Nutrients (mg/L)</u>					
Nitrate-Nitrogen	4.01	4.00	3.26 - 4.69	3.43 - 4.52	Acceptable
Total phosphorus	5.95	5.90	4.84 - 7.03	5.10 - 6.77	Acceptable
<u>Demand (mg/L)</u>					
5-day BOD	37.2	35.0	21.2 - 48.7	24.6 - 45.3	Acceptable

^a Based on theoretical calculations, or a reference value when necessary.

^b Operator notes from the day samples were analyzed indicate the reproducibility of results from the atomic absorption spectrophotometer may not have been optimal. The nebulizer system was subsequently cleaned and adjusted, but since all QA data were acceptable, the samples were not re-analyzed.

**TABLE 11-10
INTERLABORATORY COMPARISON TESTING**

FIRST QUARTER, 1987

RIVER 2
(Results in mg/L)

<u>Compound</u>	<u>1986 Average</u>	<u>ECS Result</u>	<u>Envirodyne Result</u>
Aluminum	0.10	0.213	0.175
Chromium	<0.01	<0.05	<0.04
Sodium	9.89	8.6	8.63
Total Iron	0.32	0.595	0.621
Magnesium	1.43	1.34	1.45
Calcium	3.87	3.55	3.75
Zinc	0.01	<0.02	<0.02
Manganese	0.09	0.164	0.152
Copper	<0.01	<0.05	<0.04
Cadmium	<0.01	<0.006	<0.01
Mercury	<0.20	<0.0001	<0.20
Nickel	<0.01	<0.05	<0.01
Lead	<0.01	<0.003	<0.01

STEEL CREEK - 4
(Results in mg/L)

<u>Compound</u>	<u>1986 Average</u>	<u>ECS Result</u>	<u>Envirodyne Result</u>
Aluminum	0.08	<0.10	<0.02
Chromium	<0.01	<0.05	<0.04
Sodium	8.31	9.04	8.19
Total Iron	0.41	0.13	0.129
Magnesium	1.22	1.22	1.30
Calcium	3.70	3.71	3.60
Zinc	0.01	<0.02	<0.02
Manganese	0.08	0.029	0.022
Copper	<0.01	<0.05	<0.04
Cadmium	<0.01	<0.006	<0.02
Mercury	<0.20	<0.0001	<0.0002
Nickel	<0.01	<0.05	<0.04
Lead	<0.01	<0.003	<0.06

**TABLE 11-10
INTERLABORATORY COMPARISON TESTING, CONT'D.**

SECOND QUARTER, 1987

RIVER 10
(Results in mc")

<u>Compound</u>	<u>1986 Average</u>	<u>ECS Result</u>	<u>Envirodyne Result</u>
Aluminum	0.08	<0.1	<0.2
Chromium	<0.01	<0.05	<0.04
Sodium	9.48	11.7	10.4
Total Iron	0.41	1.28	<0.04
Magnesium	1.37	1.49	1.40
Calcium	4.72	4.55	3.50
Zinc	0.01	<0.02	<0.02
Manganese	0.07	<0.02	<0.02
Copper	<0.01	<0.05	<0.04
Cadmium	<0.01	<0.01	<0.02
Mercury	<0.20	<0.0001	<0.20
Nickel	<0.01	<0.05	<0.04
Lead	<0.01	<0.003	<0.06

FOUR MILE CREEK - A7
(Results in mg/L)

<u>Compound</u>	<u>1986 Average</u>	<u>ECS Result</u>	<u>Envirodyne Result</u>
Aluminum	0.11	<0.1	<0.20
Chromium	<0.01	<0.05	<0.04
Sodium	11.00	10.3	6.28
Total Iron	0.48	0.243	0.06
Magnesium	0.63	0.693	0.55
Calcium	3.68	3.36	2.12
Zinc	0.02	<0.02	<0.02
Manganese	0.11	<0.02	<0.02
Copper	<0.01	<0.05	<0.04
Cadmium	<0.01	<0.01	<0.02
Mercury	<0.20	<0.0001	<0.20
Nickel	<0.01	<0.05	<0.04
Lead	<0.01	<0.03	<0.06

**TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS**

1st Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind Replicate</u>	<u>ECS</u>
WELL: ASB 5A			
Silver (µg/L)	<2	<2	<0.5
Gross Alpha (pCi/L)	3.5 2.3		2.0
Arsenic (µg/L)	<2	<2	<3
Barium (µg/L)	10	12	<100
Nonvolatile Beta (pCi/L)	6.2 9.3		5.1
Calcium (mg/L)	1.54	1.56	1.71
Carbon Tetrachloride (µg/L)	<1.0	<1.0	<1.0
Cadmium (µg/L)	<2	<2	<6
Chloroform (µg/L)	<1.0	<1.0	<1.0
Chloride (mg/L)	6.4	5.3	7.81
Specific Conductance (µmhos)	44.2	41.0	44.3
Chromium (µg/L)	<4	<4	<50
Copper (µg/L)	12	10	<50
Fluoride (mg/L)	<0.10	<0.10	<0.10
Iron (µg/L)	27	29	20
Mercury (µg/L)	<0.2 <0.2	<0.2	<0.1
Potassium (mg/L)	0.40	0.4	0.33
Magnesium (mg/L)	0.87	0.88	1.03
Manganese (µg/L)	11	13	<20
Sodium (mg/L)	5.42	4.53	2.39
Nickel (µg/L)	5	<4	<50
Nitrate as Nitrogen (mg/L)	0.35	0.31	0.57
Lead (µg/L)	7	<6	5
pH (pH)	5.27	4.71	4.87
Phenols (µg/L)	<2	<2	5
Selenium (µg/L)	<2	<2	<6
Silica (mg/L)	2.49	2.49	7.10
Sulfate (mg/L)	12.0	7.5	5.0
Tetrachloroethylene (µg/L)	2.2	5.6	6.05
Total Dissolved Solids (mg/L)	16	20	27
Total Organic Carbon (mg/L)	<1.0	<1.0	1.6
Total Organic Halogens (µg/L)	56	60	87
Total Radium (pCi/L)	1.7 3.5		1.3
Total Phosphates (µg/L)	60	60	36
Trichloroethylene (µg/L)	96.4	69.0	85.5
1,1,1-Trichloroethane (µg/L)	<1.0	<1.0	<1.0
Zinc (µg/L)	4	26	<20

WELL: DCB 1A

Silver (µg/L)	15 15		<0.5
Gross Alpha (pCi/L)	4.3		83.1
Arsenic (µg/L)	<2		<3
Barium (µg/L)	9 9		<100

**TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.**

1st Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind Replicate</u>	<u>ECS</u>
WELL: DCB 1A (cont.)			
Beryllium (µg/L)	80 78		109
Nonvolatile Beta (pCi/L)	8.7		83.0
Calcium (mg/L)	146 150		302
Cadmium (µg/L)	<80 <80		92
Chloride (mg/L)	15.0		3.94
Specific Conductance (µmhos)	8050		8040
Chromium (µg/L)	196 172		239
Copper (µg/L)	1760 1780		1590
Fluoride (mg/L)	1.04		<0.10
Iron (mg/L)	1690 1760		1520
Mercury (µg/L)	<0.2		<0.1
Potassium (mg/L)	0.60 0.64		0.46
Magnesium (mg/L)	426 434		399
Manganese (mg/L)	51.6 53.3		53.1
Sodium (mg/L)	23.8 24.3		34.5
Nickel (µg/L)	7020 7200		7540
Lead (µg/L)	310 283		56
pH (pH)	2.37		2.42
Phenols (µg/L)	<2		<2
Selenium (µg/L)	6		<6
Silica (mg/L)	74 74		147
Sulfate (mg/L)	7840		7240
Total Dissolved Solids (mg/L)	11734		12500
Total Organic Carbon (mg/L)	7.0		11.0
Total Radium (pCi/L)	5.3		17.4
Total Organic Halogens (µg/L)	33		18
Total Phosphates (µg/L)	40		27
WELL: FSB 76			
Silver (µg/L)	<2	<2	<0.5
Gross Alpha (pCi/L)	1.7 5.1 6.9		2.8
Arsenic (µg/L)	<2	<2	<3
Barium (µg/L)	10	10	<100
Nonvolatile Beta (pCi/L)	11.6 13.5 15.2		3.9
Calcium (mg/L)	1.25	1.18	1.32
Cadmium (µg/L)	<2	<2	<6
Chloride (mg/L)	2.3	2.7 2.7	1.86
Specific Conductance (µmhos)	69.5	71.7	67.0
Chromium (µg/L)	<4	<4	<50

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

1st Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind Replicate</u>	<u>ECS</u>
WELL: FSB 76 (cont.)			
Fluoride (mg/L)	0.10 0.11	0.1	<0.1
Iron (µg/L)	48	56	<20
Mercury (µg/L)	<0.2	<0.2	<0.1
Potassium (mg/L)	0.51	0.47	<0.33
Magnesium (mg/L)	0.779	0.778	0.780
Manganese (µg/L)	6	6	<20
Sodium (mg/L)	10.3	10.0	10.1
Nitrate as Nitrogen (mg/L)	8.60	6.82	6.49
Lead (µg/L)	51	60	63
pH (pH)	5.23	5.19	5.15
Phenols (µg/L)	<2	<2	5
Selenium (µg/L)	<2	<2	<6
Silica (mg/L)	3.09	3.14	6.24
Sulfate (mg/L)	<3.0	<3.0	<1.0
Total Dissolved Solids (mg/L)	56	50	56
Total Organic Carbon (mg/L)	<1.0	<1.0	3.1
Total Organic Halogens (µg/L)	<5.0	<5.0	<10.0
Total Radium (pCi/L)	1.4 2.3 1.5		1.5
Total Phosphates (µg/L)	14	<10	13

WELL: HR3 11

Silver (µg/L)	<2	<2	<0.5
Gross Alpha (pCi/L)	<3.0 <3.0		2.3
Arsenic (µg/L)	<2	<2	<3
Barium (µg/L)	4	5	<100
Nonvolatile Beta (pCi/L)	<2.0 <2.0		5.3
Calcium (mg/L)	0.225	0.176	0.148
Cadmium (µg/L)	<2	<2	<6
Chloride (mg/L)	6.0	6.6	5.5
Specific Conductance (µmhos)	40.4	40.3 38.8	39.7
Chromium (µg/L)	<4	<4	<50
Fluoride (mg/L)	<0.1	<0.1	<0.1
Iron (µg/L)	24	16	<20
Mercury (µg/L)	0.62	0.33	1.01
Potassium (mg/L)	0.32	0.29	0.178
Magnesium (mg/L)	0.367	0.357	0.348
Manganese (µg/L)	4	3	<20
Sodium (mg/L)	5.71	5.64	4.65
Nitrate as Nitrogen (mg/L)	1.26	1.29	1.25
Lead (µg/L)	<6	<6	8
pH (pH)	4.56	4.43 4.45	4.18
Phenols (µg/L)	<2 <2	<2	3

**TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.**

1st Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind Replicate</u>	<u>ECS</u>
WELL: HR3 11 (cont.)			
Selenium (µg/L)	<2	<2	<6
Silica (mg/L)	2.63	2.58	5.12
Sulfate (mg/L)	3.0	5.0	<1.0
Total Dissolved Solids (mg/L)	46	44	30
Total Organic Carbon (mg/L)	<1.0	<1.0	3.1
Total Organic Halogens (µg/L)	19	47	18
Total Radium (pCi/L)	<1.0 <1.0		1.3
Total Phosphates (µg/L)	55	81	182
WELL: HSB 70			
Silver (µg/L)	<2 <2		<0.5
Gross Alpha (pCi/L)	1.9		1.5
Arsenic (µg/L)	<2		<3
Barium (µg/L)	80 77		<100
Nonvolatile Beta (pCi/L)	15.3		4.3
Calcium (mg/L)	4.65 4.73		4.43
Cadmium (µg/L)	<2 <2		<6
Chloride (mg/L)	3.1		1.46
Specific Conductance (µmhos)	55.5		51.0
Chromium (µg/L)	<4 <4		<50
Fluoride (mg/L)	<0.1		<0.1
Iron (µg/L)	14 15		<20
Mercury (µg/L)	<0.2 <0.2		<0.1
Potassium (mg/L)	1.08 1.07		0.98
Magnesium (mg/L)	1.50 1.50		1.66
Manganese (µg/L)	17 17		25
Sodium (mg/L)	1.34 1.35		1.09
Nickel (µg/L)	<4		<4
Nitrate as Nitrogen (mg/L)	0.82 0.80		0.71
Lead (µg/L)	7 8		12
pH (pH)	4.98		4.94
Phenols (µg/L)	<2		4
Selenium (µg/L)	<2		<6
Silica (mg/L)	2.37		4.92
Sulfate (mg/L)	8.0		6.3
Total Dissolved Solids (mg/L)	36		35
Total Organic Carbon (mg/L)	1.0 1.0		5.4
Total Organic Halogens (µg/L)	<5.0		15.0
Total Radium (pCi/L)	<1.0		1.4
Total Phosphates (µg/L)	<10		9

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

1st Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind Replicate</u>	<u>ECS</u>
WELL: KAC 3			
Silver (µg/L)	2	<2	<0.5
Gross Alpha (pCi/L)	<3.0 <3.0		<1.0
Arsenic (µg/L)	6	8	9
Barium (µg/L)	6	6	<100
Nonvolatile Beta (pCi/L)	3.1 4.7		<1.0
Calcium (mg/L)	2.86	2.88	2.37
Cadmium (µg/L)	<2	<2	<6
Chloride (mg/L)	10.3	10.3	11.2
Specific Conductance (µmhos)	811	811	846
Chromium (µg/L)	<4	<4	<50
Copper (µg/L)	<4	<4	<50
Fluoride (mg/L)	1.09	1.12	0.86
Iron (µg/L)	30	9	810
Mercury (µg/L)	<0.2	<0.2 <0.2	<0.1
Potassium (mg/L)	0.94	0.96	0.52
Magnesium (mg/L)	0.765	0.739	0.703
Manganese (µg/L)	<2	<2	25
Sodium (mg/L)	169	176	156
Nitrate as Nitrogen (mg/L)	0.49 0.49	0.48	0.49
Lead (µg/L)	<6	<6	9.6
pH (pH)	8.55	8.63	8.63
Phenols (µg/L)	<2	<2	<2
Selenium (µg/L)	2	2	<6
Silica (mg/L)	0.965	1.07	2.21
Sulfate (mg/L)	228	228	184
Total Dissolved Solids (mg/L)	562	538	475
Total Organic Carbon (mg/L)	1.0	1.0	2.5
Total Radium (pCi/L)	<1.0 <1.0		<1.0
Total Organic Halogens (µg/L)	<5.0	<5.0	<10.0
WELL: LAC 4			
Silver (µg/L)	<2	<2	<0.5
Gross Alpha (pCi/L)	<3.0 <3.0		<1.0
Arsenic (µg/L)	<2	<2 <2	<3
Barium (µg/L)	<4	<4	<100
Nonvolatile Beta (pCi/L)	3.1 <2.0		<1.0
Calcium (mg/L)	3.16	3.21	2.77
Carbon Tetrachloride (µg/L)	<1.0	<1.0 <1.0	<1.0
Cadmium (µg/L)	<2	<2	<6
Chloroform (µg/L)	1.33	1.73 1.52	2.33
Chloride (mg/L)	2.90	3.1 3.3	2.08
Specific Conductance (µmhos)	99.0	98.2	98.6

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

1st Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind Replicate</u>	<u>ECS</u>
WELL: LAC 4 (cont.)			
Chromium (µg/L)	<4	17	<50
Copper (µg/L)	<4	<4	<50
Fluoride (mg/L)	0.21	0.21	<0.1
Iron (µg/L)	59	78	238
Mercury (µg/L)	<0.2	<0.2	<0.1
Potassium (mg/L)	0.71	0.75	0.57
Magnesium (mg/L)	0.57	0.56	0.63
Manganese (µg/L)	<2	7	<20
Sodium (mg/L)	16.8	16.9	20.4
Nitrate as Nitrogen (mg/L)	0.38	0.37	0.39
Lead (µg/L)	<6	<6	4
pH (pH)	7.1	6.96	6.57
Phenols (µg/L)	<2	<2	7
Selenium (µg/L)	<2	<2 <2	<6
Silica (mg/L)	4.49	4.49	7.01
Sulfate (mg/L)	<5.0	5.0 5.0	7.9
Tetrachloroethylene (µg/L)	3.72	3.72 3.65	6.78
Total Dissolved Solids (mg/L)	108	58 64	63
Total Organic Carbon (mg/L)	<1.0	<1.0	1.7
Total Radium (pCi/L)	<1.0 <1.0		<1.0
Total Organic Halogens (µg/L)	6.0	6.0	<10.0
Total Phosphates (µg/L)	50	30	18
Trichloroethylene (µg/L)	2.03	2.48 4.43	4.76
1,1,1-Trichloroethane (µg/L)	<1.0	<1.0 <1.0	3.3
Zinc (µg/L)	6	10	<20
WELL: MSB 4A			
Silver (µg/L)	2 2	3	<0.5 <0.5
Aluminum (mg/L)	<0.02 <0.02	<0.02	<0.1 <0.1
Gross Alpha (pCi/L)	18.6		25.8
Arsenic (µg/L)	<2	<2	<3 <3
Barium (µg/L)	14 13	9	<100 <100
Beryllium (µg/L)	<5 <5 <5	<0.3	<0.3
Nonvolatile Beta (µg/L)	30.7		135.8
Calcium (mg/L)	4.42 4.20	7.64	13.1 13.1
Carbon Tetrachloride (µg/L)	72.5		<5.0 <5.0
Cadmium (µg/L)	<2 <2	<2	<6 <6
Chloroform (µg/L)	300		<5.0 <5.0
Chloride (mg/L)	4.7		9.85 9.85
Specific Conductance (µmhos)	2650		2770 2770
	2770 2860		
	2910		

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

1st Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind</u> <u>Replicate</u>	<u>ECS</u>
WELL: MSB 4A (cont.)			
Chromium (µg/L)	<4 <4	<4	<50 <50
Copper (µg/L)	118 115	134	97 97
Cyanide (µg/L)	<5.0		<5.0 <5.0
Endrin (µg/L)	<0.1		<0.006 <0.006
Fluoride (mg/L)	0.27		<0.1 <0.1
Iron (µg/L)	58 54	189	40 40
Mercury (µg/L)	<0.2	<0.2	<0.1 <0.1
Potassium (mg/L)	1.45 1.46	1.3	1.05 1.05
Lindane (µg/L)	<0.05		<0.003 <0.003
Methoxychlor (µg/L)	<0.5		<0.05 <0.05
Magnesium (mg/L)	1.68 1.54	1.44	1.32 1.32
Manganese (µg/L)	27 25	25	29 29
Sodium (mg/L)	253 254	262	443 443
Nickel (µg/L)	<4 <4	<4	<50 <50
Nitrate as Nitrogen (mg/L)	238		235 235
Lead (µg/L)	7 <6	7	<3 <3
pH (pH)	6.11 5.84 5.84 5.87 5.82		5.72 5.72
Phenols (µg/L)	30		2 2
Antimony (mg/L)	<0.003	<0.003	<0.01 <0.01
Selenium (µg/L)	6	7	20 20
Silica (mg/L)	6.0		12.9 12.9
Silvex (µg/L)	<2.0		<0.005 <0.005
Sulfate (mg/L)	11450		345 345
Tetrachloroethylene (µg/L)	4600		5890 5890
Total Dissolved Solids (mg/L)	2182 2184		2010 2010
Total Organic Carbon (mg/L)	2.1 2.2 2.6 2.8 2.5		<1.0 <1.0
Total Radium (pCi/L)	18.9		8.5
Total Organic Halogens (µg/L)	4168 4004 4581 4000		12000
Total Phosphates (µg/L)	52		71 71
Trichloroethylene (µg/L)	4991		6240 6240
Toxaphene (µg/L)	<1.0 <1.0		<0.02 <0.25
Uranium (µg/L)	<1000 <1000	<1000	<10.0 <10.0
1,1,1-Trichloroethane (µg/L)	<1.0		142 142
2,4-D (µg/L)	<20.0		<0.02 <0.02
Zinc (µg/L)	47 37	13	<20 <20

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

1st Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind Replicate</u>	<u>ECS</u>
WELL: PRP 3			
Silver (µg/L)	2	3	<0.5
Gross Alpha (pCi/L)	5.2 <3.0 2.8		<1.0
Arsenic (µg/L)	<2	<2	<3
Barium (µg/L)	45	31	<100
Nonvolatile Beta (pCi/L)	7.6 <2.0 4.7		2.6
Calcium (mg/L)	0.97	1.07	1.04
Carbon Tetrachloride (µg/L)	<1.0	<1.0	<1.0
Cadmium (µg/L)	<2	<2	<6
Chloroform (µg/L)	<1.0	<1.0	<1.0
Chloride (mg/L)	6.8	15.0	16.8
Specific Conductance (µmhos)	95.0	95.2	92.5
Chromium (µg/L)	<4	<4	<50
Copper (µg/L)	<4	<4	<50
Fluoride (mg/L)	0.18	0.1	<0.1
Iron (µg/L)	165	231	900
Mercury (µg/L)	0.58	0.66	0.70
Potassium (mg/L)	0.74	0.78	0.44
Magnesium (mg/L)	1.46	1.45	1.39
Manganese (µg/L)	85	85	92
Sodium (mg/L)	12.2	12.1	12.8
Nickel (µg/L)	7	12	<50
Nitrate as Nitrogen (mg/L)	1.43	1.43	1.44
Lead (µg/L)	22	26	30
pH (pH)	4.95	4.95	4.66
Phenols (µg/L)	<2	<2	<2
Selenium (µg/L)	<2	<2	<6
Silica (mg/L)	3.18	3.18 3.18	4.97
Sulfate (mg/L)	<5.0 <5.0	<5.0	5.9
Tetrachloroethylene (µg/L)	43.0	39.4	<1.0
Total Dissolved Solids (mg/L)	82	112	87
Total Organic Carbon (mg/L)	2.5	2.0	6.5
Total Radium (pCi/L)	1.8 <1.0 1.1		<1.0
Total Organic Halogens (µg/L)	519	485	549
Total Phosphates (µg/L)	60	50	27
Trichloroethylene (µg/L)	41.9	113	<1.0
1,1,1-Trichloroethane (µg/L)	290	332	<1.0
WELL: XSB 4			
Silver (µg/L)	2 2	<2	<0.5
Gross Alpha (pCi/L)	120.0 94.1		133.8
Arsenic (µg/L)	<2	<2	<3
Barium (µg/L)	34 26	416	336

**TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.**

1st Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind Replicate</u>	<u>ECS</u>
WELL : XSB 4 (cont.)			
Nonvolatile Beta (pCi/L)	153.0 187.0		113.3
Calcium (mg/L)	19.6 19.1	18.9	18.4
Carbon Tetrachloride (µg/L)	<1.0	<1.0	42.5
Cadmium (µg/L)	<2 <2	<2	<6
Chloroform (µg/L)	<1.0	<1.0	9.55
Chloride (mg/L)	6.0	6.0	5.9
Specific Conductance (µmhos)	827	819	814
Chromium (µg/L)	<4 <4	<4	<50
Cyanide (mg/L)	<5.0	<5.0	<0.005
Fluoride (mg/L)	0.27	0.26	0.52
Iron (µg/L)	315 315	81	651
Mercury (µg/L)	12.3	13.1	13.0
Potassium (mg/L)	5.27 5.08	4.98	3.60
Magnesium (mg/L)	7.04 6.94	6.76	6.59
Manganese (µg/L)	1110 1100	1070	1120
Sodium (mg/L)	99.8 107.0	97.3	101.0
Nickel (µg/L)	117 115	110	129
Nitrate as Nitrogen (mg/L)	95.0	102.0	88.8
Lead (µg/L)	19 17	64	69
pH (pH)	3.92	3.87	3.86
Phenols (µg/L)	<2	<2	<1
Selenium (µg/L)	<2	<2	<6
Silica (mg/L)	13.1	12.9	24.3
Sulfate (mg/L)	<5.0	<5.0	7.8
Tetrachloroethylene (µg/L)	3.15	3.11	5.91
Total Dissolved Solids (mg/L)	578	550 552	528
Total Organic Carbon (mg/L)	1.0	1.0 1.0	2.20
Total Radium (pCi/L)	31.6 28.3		16.8
Total Organic Halogens (µg/L)	338	347	422
Total Phosphates (µg/L)	20	20	50
Trichloroethylene (µg/L)	526	525	774
1,1,1-Trichloroethane (µg/L)	41.6	39.3	<1.0
Zinc (µg/L)	134 124	117	137

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

2nd Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind Replicate</u>	<u>ECS</u>
WELL: AMB 3A			
Carbon Tetrachloride (µg/L)	<1 <1	<1	<1
Chloroform (µg/L)	<1 <1	<1	<1
Tetrachloroethylene (µg/L)	<1 <1	<1	<1
Total Organic Halogens (µg/L)	<5 <5	<5	<10
Trichloroethylene (µg/L)	1.64 <1	<1	3.76
1,1,1-Trichloroethane (µg/L)	<1 <1	<1	<1
WELL: BRD 4			
Gross Alpha (pCi/L)	<3	<3	<1
Nonvolatile Beta (pCi/L)	<2	<2	2.5
Sodium (mg/L)	1.95	1.97	1.40
Nitrate as Nitrogen (mg/L)	1.12 1.12	1.11	1.25
Lead (µg/L)	<6	<6	<3
Total Radium (pCi/L)	0.7	<1	<1
WELL: CMP 13B			
Carbon Tetrachloride (µg/L)	<1	<1	<1
Chloroform (µg/L)	<1	<1	<1
Specific Conductance (µmhos)	177.0 178.0	179.0	160.0
Benzene (µg/L)	<1.4 <1.4	<1.4	<1
Iron (µg/L)	18.0 12.0	10.0	<20
Manganese (µg/L)	<2 <2	<2	<20
Lead (µg/L)	<6 <6	<6	<20
pH (pH)	8.13 8.17	8.18	7.53
Tetrachloroethylene (µg/L)	<1	<1	<1
Total Organic Carbon (mg/L)	<1	<1	<1
Total Organic Halogens (µg/L)	<5	<5	<10
Trichloroethylene (µg/L)	<1	<1	<1
1,1,1-Trichloroethane (µg/L)	<1	<1	<1
WELL: FNB 4			
Bromodichloromethane (µg/L)	<5	<5	<1
Trichlorofluoromethane (µg/L)	<5	<5	<1
Carbon Tetrachloride (µg/L)	<1 <5	<1 <5	<1
Bromoform (µg/L)	<10	<10	<2
Chloroform (µg/L)	<1 <5	1.0 <5	<1
Bromomethane (µg/L)	<10	<10	<2
Chloromethane (µg/L)	<10	<10	<1
Chlorobenzene (µg/L)	<5	<5	<1

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

2nd Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind Replicate</u>	<u>ECS</u>
WELL: FNB 4 (cont.)			
Specific Conductance (µmhos)	32.0	33.1	30.0
Chloroethene (µg/L)	<10	<10	
Chloroethane (µg/L)	<10	<10	<1
Benzene (µg/L)	<30 <5	<30 <5	<1
Dibromochloromethane (µg/L)	<5	<5	<1
Ethyl Benzene (µg/L)	<5	<5	<1
Toluene (µg/L)	<30 <5	<30 <5	<1
Metaxylene (µg/L)	<30	<30 <30	
Sodium (mg/L)	2.64	2.43 2.55	1.82
Nitrate as Nitrogen (mg/L)	1.46	1.47	1.47
Orthoxylene (mg/L)	<0.03	<0.03 <0.03	
Paracymen (mg/L)	<0.03	<0.03 <0.03	
pH (pH)	4.74	4.81	4.04
1,1,2,2-Tetrachloroethane (µg/L)	<10 <10		
Tetrachloroethylene (µg/L)	<1 <5	<1 <5	<1
Total Organic Carbon (mg/L)	<1 <1		2.4
Total Organic Halogens (µg/L)	<5	<5 <5	<10
Trichloroethylene (µg/L)	<1 <5	<1 <5	<1
Tritium (pCi/mL)	6.33	6.61 6.90	6.12
Trans-1,2-Dichloroethene (µg/L)	<5	<5	<1
Uranium (µg/L)	<1000	<1000 <1000 <10	
1,1-Dichloroethylene (µg/L)	<5	<5	<1
1,1-Dichloroethane (µg/L)	<5	<5	<1
1,1,1-Trichloroethane (µg/L)	<1 <5	<1 <5	<1
1,1,2-Trichloroethane (µg/L)	<5	<5	<1
1,2-Dichloroethane (µg/L)	<1	<1	<1
1,2-Dichloropropane (µg/L)	<10	<10	<1
Cis-1,3-Dichloropropene (µg/L)	<5	<5	<1
Trans-1,3-Dichloropropene (µg/L)	<5	<5	<1
2-Chloroethylvinyl Ether (µg/L)	<10	<10	<1
WELL: FSB 76A			
Silver (µg/L)	<2	<2	<0.5
Gross Alpha (pCi/L)	1.7	<3	1.5
Arsenic (µg/L)	<2	<2	<3
Barium (µg/L)	22.0	22.0	<100
Nonvolatile Beta (pCi/L)	5.7	<2	4.8
Calcium (mg/L)	19.1	18.4	17.4
Cadmium (µg/L)	<2	<2	<6
Chloride (mg/L)	2.50	2.90	2.25
Specific Conductance (µmhos)	126.0	123.0 121.0	125.0

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

2nd Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind Replicate</u>	<u>ECS</u>
WELL: FSB 76A (cont.)			
Chromium (µg/L)	<4	<4	<50
Fluoride (mg/L)	0.2 0.2	0.2	0.132
Iron (µg/L)	10.0	11.0	<20
Mercury (µg/L)	<0.2	<0.2	<0.1
Potassium (mg/L)	3.70	3.6	3.340
Magnesium (mg/L)	0.662	0.628	0.593
Manganese (µg/L)	7.0	6.0	<20
Sodium (mg/L)	3.16	3.12	2.34
Nickel (µg/L)	<4	<4	<50
Nitrate as Nitrogen (mg/L)	<0.05	<0.05	6.01
Lead (µg/L)	<6	<6	<3
pH (pH)	6.76	6.76 6.76	6.73
Phenols (µg/L)	<2	<2	<1
Selenium (µg/L)	<2	<2	<6
Silica (mg/L)	11.9	12.2	26.2
Sulfate (mg/L)	7.0	8.0 5.0	7.5
Total Dissolved Solids (mg/L)	94.0	100.0 94.0	98.0
Total Organic Carbon (mg/L)	<1	~1	<1
Total Radium (pCi/L)	<1	<1	<1
Total Organic Halogens (µg/L)	<5	<5 <5	<1
Total Phosphates (µg/L)	320.0	30.0	283.0
Tritium (pCi/mL)	<0.7	<0.7	
Zinc (µg/L)	10.0	10.0	<20
WELL: HSB 86B			
Silver (µg/L)	<2	<2	<0.5
Gross Alpha (pCi/L)	<3 <3	<3	<1
Arsenic (µg/L)	<2 <2	<2	<3
Barium (µg/L)	36.0	30.0	<100
Nonvolatile Beta (pCi/L)	<2 <2	<2	1.9
Calcium (mg/L)	39.8	39.0	35.9
Cadmium (µg/L)	<2	<2	<6
Chloride (mg/L)	4.5	3.1	2.44
Specific Conductance (µmhos)	213.0 213.0	214.0	208.0
Chromium (µg/L)	<4	<4	<50
Fluoride (mg/L)	<0.1	0.1 <0.1	<0.1
Iron (µg/L)	8.0	5.0	<20
Mercury (µg/L)	<0.2	<0.2	<0.1
Potassium (mg/L)	0.690	0.57	0.412
Magnesium (mg/L)	0.855	0.824	0.840
Manganese (µg/L)	5.0	4.0	<20
Sodium (mg/L)	2.5	2.29	2.92

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

2nd Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind</u> <u>Replicate</u>	<u>ECS</u>
WELL : HSB 86B (cont.)			
Nickel (µg/L)	<4	<4	<50
Nitrate as Nitrogen (mg/L)	<0.05	<0.05	<0.02
Lead (µg/L)	<6	<6	<3
pH (pH)	7.46 7.46	7.46	7.32
Phenols (µg/L)	<2	<2	3.0
Selenium (µg/L)	<2 <2	<2	<6
Silica (mg/L)	16.0	15.8 15.8	30.1
Sulfate (mg/L)	7.0	5.0	2.8
Total Dissolved Solids (mg/L)	146.0	152.0	154.0
Total Organic Carbon (mg/L)	<1	2.0 2.0	<1
Total Organic Halogens (µg/L)	<5 <5	<5	<10
Total Radium (pCi/L)	<1 <1	<1	<1
Total Phosphates (µg/L)	<20	60.0	50.0
Tritium (pCi/mL)	2.63 2.51	2.62	
Zinc (µg/L)	4.0	2.0	<20
WELL: LFW 36			
Silver (µg/L)	<2	<2	<0.5
Gross Alpha (pCi/L)	<3	3.8	2.5
Arsenic (µg/L)	<2 <2	<2	<3
Barium (µg/L)	10.0	10.0	<100
Nonvolatile Beta (pCi/L)	7.1	4.9	7.2
Calcium (mg/L)	6.14	5.85	5.50
Cadmium (µg/L)	<2	<2	<6
Chloride (mg/L)	22.0	22.2	24.9
Specific Conductance (µmhos)	207.0	212.0	178.0
Chromium (µg/L)	<4	<4	<50
Fluoride (mg/L)	0.11	0.11	<0.10
Iron (µg/L)	180	188	115
Mercury (µg/L)	<0.2	<0.2	<0.1
Potassium (mg/L)	0.38	0.34	2.06
Magnesium (mg/L)	11.30	11.4	9.91
Manganese (µg/L)	16.0	16.0	<20
Sodium (mg/L)	16.9	16.6	18.8
Nitrate as Nitrogen (mg/L)	<0.05	<0.05	1.14
Lead (µg/L)	<6	<6	<3
pH (pH)	5.96	5.87	5.63
Phenols (µg/L)	3.0 3.0	5.0	3.0
Selenium (µg/L)	<2 <2	<2	<6
Silica (mg/L)	4.88	4.98	8.58
Sulfate (mg/L)	13.0	13.8	13.4
Total Organic Carbon (mg/L)	3.0	3.0	<1

**TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.**

2nd Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind Replicate</u>	<u>ECS</u>
WELL : LFW 36 (cont.)			
Total Radium (pCi/L)	1.5	1.1	1.4
Total Organic Halogens (µg/L)	186.0	197.0	290.0
Total Phosphates (µg/L)	50.0 50.0	40.0	7.0

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

3rd Quarter

<u>Analysis</u>	<u>Envirodyne</u>		<u>Blind</u> <u>Replicate</u>	<u>ECS</u>
WELL: ABP 1A				
Silver (µg/L)	<2		<2	<0.5
Arsenic (µg/L)	<2		<2	<3
Barium (µg/L)	<4		5	<100
Calcium (mg/L)	0.963	1.09	4.76	0.512
Carbon Tetrachloride (µg/L)	<1		<1	<1
Cadmium (µg/L)	<2		<2	<6
Chloroform (µg/L)	<1	<1	<1	<1
Specific Conductance (µmhos)	12.6		13.5	14.0
Chromium (µg/L)	<4		<4	<50
Iron (µg/L)	22		54	148
Mercur: (µg/L)	<0.2		<0.2	<0.1
Potassium (mg/L)	<0.5		<0.5	<0.3
Lithium (µg/L)	<5		5	<20
Magnesium (mg/L)	0.221	0.221	0.410	0.200
Manganese (µg/L)	3.0		7.0	<20
Sodium (mg/L)	1.150		0.121	0.944
Lead (µg/L)	<6	<6	<6	<3
pH (pH)	5.20		5.03	4.87
Selenium (µg/L)	<2		<2	<6
Silica (mg/L)	2.85		2.80	2.90
Tetrachloroethylene (µg/L)	<1	<1	<1	1.34
Total Organic Carbon (mg/L)	<1		<1	<1
Total Organic Halogens (µg/L)	<5		<5	<10
Trichloroethylene (µg/L)	<1	<1	<1	<1
1,1,1-Trichloroethane (µg/L)	<1	<1	<1	<1
WELL: BRD 2				
Gross Alpha (pCi/L)	<3		<3	1
Nonvolatile Beta (pCi/L)	1.7		2.0	3.2
Specific Conductance (µmhos /cm)	27.2		26.9	25.0
Manganese (µg/L)	15		8	<20
Sodium (mg/L)	2.10		2.04	1.94
Nitrate as Nitrogen (mg/L)	1.44		1.53	0.99
Lead (µg/L)	44		36	61
pH (pH)	4.72		4.86	5.31
Total Organic Carbon (mg/L)	<1		<1	<1
Total Radium (pCi/L)	0.4		0.9	<1
Total Organic Halogens (µg/L)	<5	<5	<5	<10

**TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.**

3rd Quarter

<u>Analysis</u>	<u>Envirodyne</u>		<u>Blind Replicate</u>		<u>ECS</u>
WELL: DCB 2A					
Silver (µg/L)	<2	<2	<2		<0.5
Gross Alpha (pCi/L)	1.8		<3		1.0
Beryllium (µg/L)	<5	<5	<5		<3
Carbon Tetrachloride (µg/L)	<1		<1		<1
Cadmium (µg/L)	<2	<2	<2		<6
Chloroform (µg/L)	<1		<1		<1
Chromium (µg/L)	<4	<4	<4		<50
Copper (µg/L)	140	140	130		86
Fluoride (mg/L)	0.11		0.22	0.24	0.10
Iron (µg/L)	24.0		56.0		<20
Mercury (µg/L)	<0.2		<0.2		<0.1
Manganese (µg/L)	19.0	19.0	19.0		<20
Nickel (µg/L)	<4	<4	<4		<50
Lead (µg/L)	20	23	22		23
pH (pH)	5.06		5.06	5.07	4.89
Selenium (µg/L)	<2		<2		<6
Sulfate (mg/L)	<5		<5		1.5
Tetrachloroethylene (µg/L)	<1		<1		<1
Total Organic Carbon (mg/L)	<1		1.3		2.8
Total Radium (pCi/L)	1.0		3.8		<1
Total Organic Halogens (µg/L)	<5		<5		<10
Trichloroethylene (µg/L)	<1		1.1		2.5
1,1,1-Trichloroethane (µg/L)	<1		<1		<1
Zinc (µg/L)	68	68	69		43

WELL: FBP 1A

Gross Alpha (pCi/L)	<3		1.8		1.1
Nonvolatile Beta (pCi/L)	61.8		53.3		58.6
Carbon Tetrachloride (µg/L)	<1		<1		<1
Cadmium (µg/L)	<2	<2	<2		<6
Chloroform (µg/L)	<1		<1		<1
Specific Conductance (µmhos)	82.0	83.6	82.7		83.0
Iron (µg/L)	43	44	70		<20
Manganese (µg/L)	26	25	25		<20
Nitrate as Nitrogen (mg/L)	8.21		7.93		6.99
Lead (µg/L)	<6	<6	<6		20
pH (pH)	4.00	4.03	4.00		4.62
Tetrachloroethylene (µg/L)	<1		<1		1.37
Total Organic Carbon (mg/L)	<1	<1	<1		<1
Total Organic Halogens (µg/L)	16	19	8		<10
Total Radium (pCi/L)	0.9		1.0		1.0

**TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.**

3rd Quarter

<u>Analysis</u>	<u>Envirodyne</u>		<u>Blind Replicate</u>	<u>ECS</u>
WELL : FBP 1A (cont.)				
Trichloroethylene (µg/L)	5.25		<1	6.11
Tritium (pCi/mL)	8.70		7.90	
1,1,1-Trichloroethane	<1		<1	<1
WELL: FSB 78A				
Silver (µg/L)	<2	<2	<2	<0.5
Gross Alpha (pCi/L)	<3		<3	<1
Arsenic (µg/L)	<2		<2	<3
Barium (µg/L)	20.0	20.0	19.0	<100
Nonvolatile Beta (pCi/L)	<2		<2	5
Calcium (mg/L)	18.4	17.7	16.7	18.0
Cadmium (µg/L)	<2	<2	<2	<6
Chloride (mg/L)	3.00		3.00	2.56
Specific Conductance (µmhos)	99.2		111.0	109.0
Chromium (µg/L)	<4	<4	<4	<50
Fluoride (mg/L)	0.22		0.22	0.10
Iron (µg/L)	26.0 22.0		27.0	51.0
Mercury (µg/L)	<0.2		<0.2	<0.1
Potassium (mg/L)	1.74	1.65	1.62	1.15
Magnesium (mg/L)	0.626	0.616	0.581	0.585
Manganese (µg/L)	18.0 18.0		17.0	<20
Sodium (mg/L)	2.30	2.29	2.20	2.14
Nitrate as Nitrogen (mg/L)	0.22		0.24	0.20
Lead (µg/L)	<6	<6	<6	14
pH (pH)	5.94		6.74	6.38
Phenols (µg/L)	<5		<5	<2
Selenium (µg/L)	<2		<2	<6
Silica (mg/L)	12.9		12.9 12.9	11.9
Sulfate (mg/L)	15.0		<5	6.6
Total Dissolved Solids (mg/L)	136	122	122	127
Total Organic Carbon (mg/L)	1.10	2.20	2.70	1.40
Total Radium (pCi/L)	<1		<1	<1
Total Organic Halogens (µg/L)	<5		<5	<10
Total Phosphates (µg/L)	<20		60	183
Tritium (pCi/mL)	17.2		18.9	
Zinc (µg/L)	11	10	9	<20

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

3rd Quarter

<u>Analysis</u>	<u>Envirodyne</u>		<u>Blind Replicate</u>		<u>ECS</u>
WELL: MSB 5A					
Silver (µg/L)	<2	<2	<2		<0.5
Aluminum (µg/L)	33	30	46	42	<100
Gross Alpha (pCi/L)	3.6		2.5		3.0
Arsenic (µg/L)	<2		<2		<3
Barium (µg/L)	10	10	10	10	<100
Nonvolatile Beta (pCi/L)	70.4		63.8		68.1
Bromodichloromethane (µg/L)	<5		<5		<1
Trichlorofluoromethane	<5		<5		<1
Carbon Tetrachloride (µg/L)	<1	<5	<1	<5	<1
Cadmium (µg/L)	<2	<2	<2	<2	<6
Bromoform (µg/L)	<10		<10		<2
Chloroform (µg/L)	<5	27	<1	<5	<1
Bromomethane (µg/L)	<10		<10		<2
Chloromethane (µg/L)	<10		<10		<1
Chloride (mg/L)	5.8		5.2		4.4
Chlorobenzene (µg/L)	<5		<5		<1
Specific Conductance (µmhos)	195	195	189		203
Chromium (µg/L)	<4	<4	<4	6	<50
Copper (µg/L)	6	6	7	7	<50
Cyanide (µg/L)	<5	<5	<5		<5
Chloroethene (µg/L)	<10		<10		<1
Chloroethane (µg/L)	<10		<10		<1
Benzene (µg/L)	<5		<5		<1
Dibromochloromethane (µg/L)	<5		<5		<1
Endrin (µg/L)	<0.1		<0.1		<0.005
Ethyl Benzene (µg/L)	<5		<5		<1
Fluoride (mg/L)	0.16		0.24		<0.10
Iron (µg/L)	42	48	40	54	24
Mercury (µg/L)	<0.2		<0.2		<0.1
Toluene (µg/L)	<5		<5		<1
Manganese (µg/L)	16.0	16.0	16	16	<20
Sodium (mg/L)	40.7		39.2	37.9	41.3
Nickel (µg/L)	<4	<4	<4	<4	<50
Nitrate as Nitrogen (mg/L)	23.4		23.4		22.0
Lead (µg/L)	7	7	8	11	12
pH (pH)	5.25	5.23	5.25		5.09
Phenols (µg/L)	<5		<5		<2
Antimony (µg/L)	<3				<10
Selenium (µg/L)	<2		<2		<6
Sulfate (mg/L)	5.0		<5	<5	1.7
1,1,2,2-Tetrachloroethane	<10		<10		<1
Tetrachloroethylene (µg/L)	31.9	53.9	60.1	52.7	59.1

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

3rd Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind</u> <u>Replicate</u>	<u>ECS</u>
WELL : MSB 5A (cont.)			
Total Dissolved Solids (mg/L)	180	184 182	186
Total Organic Carbon (mg/L)	2.4	2.5	1.4
Total Radium (pCi/L)	3.4	3.4	1.9
Total Organic Halogens (µg/L)	66	65	24
Total Phosphates (µg/L)	110	30	11
Trichloroethylene (µg/L)	16.4 10.2	16.2 10.5	14.7
trans-1,2-Dichloroethene (µg/L)	<5	<5	<1
Uranium (mg/L)	<1 <1	<1 <1	<20
1,1-Dichloroethylene (µg/L)	8.2	<5	<1
1,1-Dichloroethane (µg/L)	<5	8.8	<1
1,1,1-Trichloroethane (µg/L)	<1 23.2	34.9 23.0	28.6
1,1,2-Trichloroethane (µg/L)	<5	<5	<1
1,2-Dichloroethane (µg/L)	<1	<1	<1
1,2-Dichloropropane (µg/L)	<10	<10	<1
cis-1,3-Dichloropropene (µg/L)	<5	<5	
trans-1,3-Dichloropropene (µg/L)	<5	<5	
2-Chloroethylvinyl ether (µg/L)	<10	<10	<1
Zinc (µg/L)	17 18	19 19	<20

WELL: RAC 3

Gross Alpha (pCi/L)	1.5	1.2	1.4
Sodium (mg/L)	3.36	3.42	3.23
Lead (µg/L)	26	28	19
Sulfate (mg/L)	<5	<5 <5	8.3
Total Organic Carbon (mg/L)	26 54	41	54
Total Organic Halogens (µg/L)	<5	7	<10
Total Radium (pCi/L)	<1	<1	<1

**TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.**

4th Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind Replicate</u>	<u>Erwright</u>	<u>Weston</u>
WELL: ASB 8B				
Silver (µg/L)	<2	<2	<10	<10
Gross Alpha (pCi/L)	1.7	1.4	<0.7	0
Arsenic (µg/L)	<2	<2	<5	-
Barium (µg/L)	6	6	<100	<200
Nonvolatile Beta (pCi/L)	<2.0	<2.0	<1	0
Calcium (mg/L)	1.45	2.97	0.756	
Carbon Tetrachloride (µg/L)	<25	<1	<10	-
Cadmium (µg/L)	<2	<2	<10	<5
Chloroform (µg/L)	<25	1.43	<10	-
Chloride (mg/L)	2.60	2.60 2.80	1.94	<2.5
Specific Conductance (µmhos)	42.3	75.6	28	29.5
Chromium (µg/L)	<4	<4	<50	<10
Fluoride (mg/L)	0.25	0.25	<0.2	<0.1
Iron (µg/L)	20.0	37.0	<50	<100
Mercury (µg/L)	<0.2	<0.2	<0.2	<0.2
Potassium (mg/L)	0.550	0.550	0.331	-
Magnesium (mg/L)	0.370	0.384	0.386	-
Manganese (µg/L)	7	8	<20	<15
Sodium (mg/L)	3.44	3.42	3.76	<5
Nitrate as Nitrogen (mg/L)	1.89	1.77	2.47	1.6
Lead (µg/L)	<6	<6	<1	<5
pH (pH)	5.39	4.02	5.4	5.7
Phenols (µg/L)	<5	<5	2	<5
Selenium (µg/L)	<2	<2	<3	-
Sulfate (mg/L)	<5	<5	<5	<5
Tetrachloroethylene (µg/L)	<25	11.7	<10	12
Total Dissolved Solids (mg/L)	20	30	<10	34
Total Organic Carbon (mg/L)	<1 <1	<1	<5	1.4
Total Radium (pCi/L)	0.5	<1.0	0.8	0.4
Total Organic Halogens (µg/L)	927	840	796	980
Total Phosphates (µg/L)	70	90	68	73
Trichloroethylene (µg/L)	1.40	678	938	870
Tritium (pCi/mL)	1.2	1.2	0.59	1.4
1,1,1-Trichloroethane (µg/L)	<25	<1	<10	<1
WELL: CMP 10				
Carbon Tetrachloride (µg/L)	<1	<1	<1	-
Chloroform (µg/L)	<1	<1	<1	-
Specific Conductance (µmhos)	16.8	48.9	17	18.2
Benzene (µg/L)	<0.04	<0.04	<1	<1

- No analysis performed.

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

4th Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind Replicate</u>	<u>Erwright</u>	<u>Weston</u>
WELL: CMP 10 (cont.)				
Iron (µg/L)	22	10	<50	<100
Manganese (µg/L)	9	9	<20	<15
Lead (µg/L)	17	16	18	19.1
pH (pH)	5.44	5.1	5.4	5.4
Tetrachloroethylene (µg/L)	<1	<1	<1	-
Total Organic Carbon (mg/L)	<1	<1	<5	<0.5
Total Organic Halogens (µg/L)	7	<5	<10	<10 <10
Trichloroethylene (µg/L)	<1	<1	<1	-
1,1,1-Trichloroethane (µg/L)	<1	<1	<1	-
WELL: FSB 76B				
Silver (µg/L)	<2	<2	<10	<10
Gross Alpha (pCi/L)	<3.0	<3.0	3.3	0
Arsenic (µg/L)	<2	<2	<5	-
Barium (µg/L)	20	20	<100	<200
Nonvolatile Beta (pCi/L)	<2.0	<2.0	3.7	0
Calcium (mg/L)	59.5	2.66	22.4	-
Cadmium (µg/L)	<2	<2	<100	<5
Chloride (mg/L)	3.10	3.10	2.19	<2.5
Specific Conductance (µmhos)	154	123	123	136
Chromium (µg/L)	<4	<4	<50	<10
Fluoride (mg/L)	0.32 0.32	0.30	<0.2	0.139 0.139
Iron (µg/L)	17	16	<50	<100
Mercury (µg/L)	<0.2	<0.2	<0.2	<0.2
Potassium (mg/L)	0.758	0.791	0.661	-
Magnesium (mg/L)	0.633	0.639	0.661	-
Manganese (µg/L)	4	3	<20	<15
Sodium (mg/L)	1.56	1.58	1.92	<5
Nitrate as Nitrogen (mg/L)	0.78	0.77	1.39	0.468
Lead (µg/L)	<6	<6	<1	<5
pH (pH)	6.75	6.79	6.9	6.9 6.9
Phenols (µg/L)	<5	<5	3	<5
Selenium (µg/L)	<2	<2	<3	-
Sulfate (mg/L)	10.0 <5	<5	<5	<5
Total Dissolved Solids (mg/L)	76	104	73	93
Total Organic Carbon (mg/L)	<1	<1	6.10	0.811
Total Radium (pCi/L)	<1.0	<1.0	0.3	0.5
Total Organic Halogens (µg/L)	<5	<5	<10	21
Total Phosphates (µg/L)	270 290	260 270	313	311
Tritium (pCi/mL)	1.3	1.3	0.00	0
Zinc (µg/L)	87	47	<10	28.5

- No analysis performed.

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

4th Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind</u> <u>Replicate</u>	<u>Enwright</u>	<u>Weston</u>
WELL: HSB 83B				
Silver (µg/L)	<2 <2	<2	<10	<10
Gross Alpha (pCi/L)	<3.0	<3.0	<0.8	0
Arsenic (µg/L)	2	<2	<5	-
Barium (µg/L)	41 42	42	<100	<200
Nonvolatile Beta (pCi/L)	<2.0	<2.0	<1	0
Calcium (mg/L)	20.1 22.3	21.5	16.8	-
Cadmium (µg/L)	<2 <2	<2	<10	<5
Chloride (mg/L)	3.60	3.60	2.49	<2.5
Specific Conductance (µmhos)	114	121 121	112	127
Chromium (µg/L)	<4 <4	<4	<50	<10
Fluoride (mg/L)	0.31	0.34	<0.2	0.176
Iron (µg/L)	18	14	<50	<100
Mercury (µg/L)	<0.2	<0.2	<0.2	<0.2
Potassium (mg/L)	1.03 1.03	1.06	1.09	-
Magnesium (mg/L)	0.609 0.616	0.600	0.637	-
Manganese (µg/L)	3 3	4	<20	<15
Sodium (mg/L)	3.28 3.36	3.29	3.95	5.26
Nickel (µg/L)	<4.0	<4.0	<50	<40
Nitrate as Nitrogen (mg/L)	0.48	0.48	1.31	<0.1 <0.1
Lead (µg/L)	<6 <6	<6	<1	<5
pH (pH)	6.67	6.95 6.95	6.8	7.0
Phenols (µg/L)	<5	<5	<2	<5
Selenium (µg/L)	<2	<2	<3	-
Sulfate (mg/L)	10.0	<5	<5	<5
Total Dissolved Solids (mg/L)	106	94	75	97
Total Organic Carbon (mg/L)	<1	<1	5.5	1.9
Total Radium (pCi/L)	<1.0	<1.0	0.0	0.1
Total Organic Halogens (µg/L)	<5	<5	<10	26
Total Phosphates (µg/L)	440 390	210	460	231 231
Tritium (pCi/mL)	20.5	20.2	23.6	20.0
Zinc (µg/L)	11 15	46	<10	30
WELL: LFW 27				
Silver (µg/L)	<2	<2	<10	<10
Gross Alpha (pCi/L)	<3.0	<3.0	<0.7	0
Arsenic (µg/L)	<2	<2	<5	-
Barium (µg/L)	7	7	<100	<200
Nonvolatile Beta (pCi/L)	1.4	1.4	<1.0	0
Calcium (mg/L)	4.28	0.791	0.306	-
Cadmium (µg/L)	<2	3	<10	<5
Chloride (mg/L)	2.50	2.70	1.96	<2.5

- No analysis performed.

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

4th Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind Replicate</u>	<u>Erwright</u>	<u>Weston</u>
WELL: LFW 27 (cont.)				
Specific Conductance (µmhos)	35.3	29.6	11	14.1
Chromium (µg/L)	<4	<4	<50	<10
Fluoride (mg/L)	0.22	0.17	<0.2	<0.1
Iron (µg/L)	44.0	23.0	<50	<100
Mercury (µg/L)	<0.2	<0.2	<0.2	<0.2
Potassium (mg/L)	<0.5	<0.5	0.140	-
Magnesium (mg/L)	0.391	0.329	0.345	-
Manganese (µg/L)	7	5	<20	<15
Sodium (mg/L)	1.24	1.20	1.14	<5
Nitrate as Nitrogen (mg/L)	0.84	0.81	3.24	0.269
Lead (µg/L)	<6	<6	2	<5
pH (pH)	5.29	5.31	5.4	5.5
Phenols (µg/L)	<5	<5	6	7
Selenium (µg/L)	<2	<2	<3	-
Sulfate (mg/L)	<5	<5	<5	<5
Total Organic Carbon (mg/L)	<1	<1	<5	2
Total Radium (pCi/L)	<1.0	<1.0	0.2	0.7
Total Organic Halogens (µg/L)	<5	<5	<10	<10
Total Phosphates (µg/L)	<20	30	6	<20
Tritium (pCi/mL)	7.2	6.1	1.22	5.9
WELL: MSB 1A				
Silver (µg/L)	<2	<2	<10	<10
Aluminum (µg/L)	196	188	<400	252
Gross Alpha (pCi/L)	8.8	11.5	<0.7	8
Arsenic (µg/L)	<2	<2	-	-
Barium (µg/L)	<4	8	<100	<200
Nonvolatile Beta (pCi/L)	5.9	6.7	<1	0
Bromodichloromethane (µg/L)	<5	<5	<1	<5
Trichlorofluoromethane (µg/L)	<5	<5	<1	-
Carbon Tetrachloride (µg/L)	<1	<1	<1	<5
Cadmium (µg/L)	2	<2	<10	<5
Bromoform (µg/L)	<10	<10	<1	<5
Chloroform (µg/L)	<1	<1	<1	<5
Bromomethane (µg/L)	<10	<10	<1	<10
Chloromethane (µg/L)	<10	<10	<1	<10
Chloride (mg/L)	3.70	3.00	1.96	<2.5
Chlorobenzene (µg/L)	<5	<5	<1	<5
Specific Conductance (µmhos)	49.1, 44.2, 44.3 47.7, 51.0	57.7	40	43.7
Chromium (µg/L)	<4	<4	<50	<10
Copper (µg/L)	39	42	45	101

- No analysis performed.

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

4th Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind</u> <u>Replicate</u>	<u>Erwright</u>	<u>Weston</u>
WELL: MSB 1A (cont.)				
Cyanide (µg/L)	<5	<5	<20	
Chloroethene (µg/L)	<10	<10	<1	<10
Chloroethane (µg/L)	<10	<10	<1	<10
Benzene (µg/L)	<5	<5	<1	<5
Dibromochloromethane (µg/L)	<5	<5	<1	<5
Endrin (µg/L)	<0.1	<0.1	-	-
Ethyl Benzene (µg/L)	<5	<5	<1	<5
Fluoride (mg/L)	0.25	0.21	<0.2	<0.1, 0.235
Iron (µg/L)	61	71	<50	<100
Mercury (µg/L)	<0.2	<0.2 <0.2	<0.2	<0.2
Toluene (µg/L)	<5	<5	<1	<5
Manganese (µg/L)	11	8	<20	<15
Sodium (mg/L)	3.06	2.68	3.01	<5
Nickel (µg/L)	<4	<4	<50	<40
Nitrate as Nitrogen (mg/L)	5.27	3.06	3.14	2.5
Lead (µg/L)	11	11	12	11.7
pH (pH)	4.61, 4.44, 4.39 4.08, 4.24	4.48	4.1	4.2
Phenols (µg/L)	<5	<5	<2	<5
Antimony (µg/L)	<3 <3	<3	<200	<60
Selenium (µg/L)	<2 <2	<2	-	-
Sulfate (mg/L)	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane (µg/L)	<10	<10	<1	<5
Tetrachloroethylene (µg/L)	9.49 12	11.5, 9.0	9	7 8.1
Total Dissolved Solids (mg/L)	<5	30	<10	37
Total Radium (pCi/L)	5.2	3.7	4.8	3
Total Organic Carbon (mg/L)	<1 <1 <1 <1	<1	<5	1.9
Total Organic Halogens (µg/L)	37 36 38 40 36	42	30	27
Total Phosphates (µg/L)	30	<20	6	64
Trichloroethylene (µg/L)	59.8 74.4	61.8 59.9	74	58 48
trans-1,2-Dichloroethene (µg/L)	8.7	7.4	<1	6
Uranium (mg/L)	<1	<1	<1	<0.001
1,1-Dichloroethylene (µg/L)	<5	<5	<1	<5
1,1-Dichloroethane (µg/L)	<5	<5	<1	<5
1,1,1-Trichloroethane (µg/L)	<1 <5	<1 <5	<1	<5 <1
1,1,2-Trichloroethane (µg/L)	<5	<5	<1	<5
1,2-Dichloroethane (µg/L)	<1	<1	<1	<5
1,2-Dichloropropane (µg/L)	<10	<10	<1	<5
cis-1,3-Dichloropropene (µg/L)	<5	<5	<1	<5
trans-1,3-Dichloropropene (µg/L)	<5	<5	<1	<5
2-Chloroethylvinyl Ether (µg/L)	<10	<10	<1	<10
Zinc (µg/L)	228	65.0	14	72.9

- No analysis performed.

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

4th Quarter

<u>Analysis</u>	<u>Envirodyne</u>	<u>Blind</u> <u>Replicate</u>		<u>Enwright</u>	<u>Weston</u>
WELL: MSB 11B					
Aluminum (µg/L)	<20	23	<20	<400	<200
Gross Alpha (pCi/L)	<3.0	<3.0	<3.0	<1.3	0
Barium (µg/L)	7	7	7	<0.1	<200
Beryllium (µg/L)	<5	<5	<5	<10	-
Nonvolatile Beta (pCi/L)	<2.0	<2.0	<2.0	<1.5	0
Calcium (mg/L)	7.04	7.20		5.97	-
Chloride (mg/L)	3.20	2.60		1.86	<2.5
Chromium (µg/L)	<4	<4	<4	<50	<10
Copper (µg/L)	<4	<4	<4	<20	34.2
Cyanide (µg/L)	<5	<5	<5	<20	-
Fluoride (mg/L)	0.20	0.17		<0.2	<0.1
Iron (µg/L)	57	46		<50	<100
Magnesium (mg/L)	0.221	0.245	0.241	0.239	-
Manganese (µg/L)	4	5	4	<20	<15
Sodium (mg/L)	1.31	1.34	1.40	1.37	2.92
Nickel (µg/L)	<4	<4	<4	<50	<40
Nitrate as Nitrogen (mg/L)	0.490	0.500	0.510	0.90	0.116
Lead (µg/L)	<6	<6	<6	2	<5
Phenols (µg/L)	<5	<5		3	<5
Antimony (µg/L)	<3	<3		<200	<60
Sulfate (mg/L)	<5	<5		<5	<5
Total Dissolved Solids (mg/L)	12	28	42	25	51
Total Radium (pCi/L)	<1.0	<1.0,	<1.0	0.0	0.1
Total Phosphates (µg/L)	80	70		78	85
Zinc (µg/L)	387	489	467	444	445
WELL: SRW 2					
Carbon Tetrachloride (µg/L)	1.71	1.95		3	-
Chloroform (µg/L)	26.6	31.8		28	-
Specific Conductance (µmhos)	48.1	58.1		45	50.3 50.3
Iron (µg/L)	12	9		<50	<100
Manganese (µg/L)	7	8		<20	<15
Lead (µg/L)	13	9		11	9.4
pH	4.53	4.59		4.7	4.6
Tetrachloroethylene (µg/L)	<1	<1		<1	<1
Total Organic Carbon (mg/L)	<1	<1		<5	0.919
Total Radium (pCi/L)	1.8	1.5	1.6	1.7	1.1
Total Organic Halogens (µg/L)	22	31		<10	21
Trichloroethylene (µg/L)	2.06	2.69		3	2.4
1,1,1-Trichloroethane (µg/L)	<1	<1		<1	<1
Zinc (µg/L)	123	158		30.0	41.3

- No analysis performed.

TABLE 12-1
 NUMBER OF ADULT SALAMANDERS CAPTURED
 ENTERING THE DWPf REFUGE PONDS
 DURING THEIR BREEDING SEASON
 FROM FY 1984 TO FY 1987

<u>Species</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Marbled salamander	0	0	0	0
Mole salamander	9	4	62	59
Tiger salamander	0	0	1	1
Red-spotted newt	3	0	9	8
Dwarf salamander	1	1	0	0

TABLE 12-2
BODY SIZE CHARACTERISTICS, STANDING CROP
BIOMASS, AND BIOMASS PRODUCTION RATES
OF TURTLES IN ELLENTON BAY^a

Species	Sex	Juveniles					Adults					Annual Biomass Production (kg/ha)	
		Size as Hatchling		Size at Maturity		Age at Maturity	Max Size		Estimated Mean	Density	Biomass	Soma	Eggs
		PL (mm)	BWM (g)	PL (mm)	BWM (g)	Yrs	PL (mm)	BWM (g)	Longevity	Ind/h	(kg/ha)		
<i>C. serpentina</i>	M	23	10	160	1974	8	264	9721	28	8	21.6	1.7	0.4
	F	23	10	160	1974	8	232	5866	28				
<i>D. reticularia</i>	M	20	5	90	114	3	135	483	15	18	5.1	0.8	0.2
	F	20	5	150	636	6	184	1242	15				
<i>K. subrubrum</i>	M&F	12*	2	70*	53	4	100	163	26	37	3.7	0.2	0.1
<i>P. floridana</i>	M	18	7	120	390	4	242	1888	30	7	7.8	0.6	0.3
	F	18	7	200	1223	7	297	3775	30				
<i>T. scripta</i>	M	18	7	100	164	5	225	1662	22	62	33.6	4.4	0.8
	F	18	7	150	1071	8	241	2792	25				
<i>S. odoratus</i>	M&F	12*	2	50*	27	5	131	292	20	8	1.2	0.1	0.1
All species										140	73.0	7.8	1.9

^a Body size characteristics, standing crop biomass, and biomass production rates of turtles from different age groups in Ellenton Bay (10 ha), SC, based on 19 years of data and more than 5000 original captures. (PL = plastron length; BWM = body wet mass; * = carapace measured rather than plastron).

TABLE 12-3
MEAN NUMBER OF FETUSES
PER PREGNANT WHITE-TAILED DOE^a

<u>Age Class</u>	<u>Upland</u>	<u>Swamp</u>	<u>Overall</u>
0.5	1.06 ± 0.06 (41)	1.07 ± 0.15 (12)	1.06 ± 0.06 (53)
1.5	1.60 ± 0.07 (249)	1.44 ± 0.06 (86)	1.56 ± 0.06 (335)
2.5	1.75 ± 0.17 (342)	1.59 ± 0.11 (94)	1.73 ± 0.09 (435)
>3.5	1.73 ± 0.07 (182)	1.66 ± 0.11 (95)	1.76 ± 0.04 (277)
Mean ^b	1.66 ± 0.04 (816)	1.54 ± 0.04 (287)	1.63 ± 0.3 (1103)

^a Mean number of fetuses per pregnant female and the number of pregnant females (in parentheses) for each age class in upland, swamp, and overall SRP. Means ± one standard error calculated from square root transformed fetal data but expressed as untransformed values.

^b Weighted mean values.

TABLE 12-4
PERCENTAGE OF FAWN FEMALES BREEDING,
MEAN AGE OF FEMALES, AND PRODUCTIVITY^a

<u>Characteristics</u>	<u>Area</u>	<u>Period 1</u> <u>1966-70</u>	<u>Period 2</u> <u>1974-77</u>	<u>Period 3</u> <u>1978-81</u>	<u>Period 4</u> <u>1982-84</u>	<u>All</u> <u>Periods^b</u>
Productivity	Upland	127	128	129	128	128
	Swamp	96	126	114	116	114
	Overall	121	129	127	127	126
% Fawn Breeders	Upland	0.5085	0.3820	0.4417	0.3434	0.4214
	Swamp	0.0286	0.3636	0.3333	0.1429	0.2815
	Overall	0.4007	0.3770	0.4236	0.3302	0.3913
Mean Female Age	Upland	1.49	1.59	1.49	1.59	1.53
	Swamp	1.84	1.79	1.43	1.70	1.76
	Overall	1.59	1.63	1.48	1.60	1.57

^a Percentage of fawn females breeding, mean age of females, and productivity in terms of number of fetuses per 100 does of any age in the SRP deer herd for swamp and upland habitats during four time periods.

^b Weighted averages across years and periods.