

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

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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.
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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

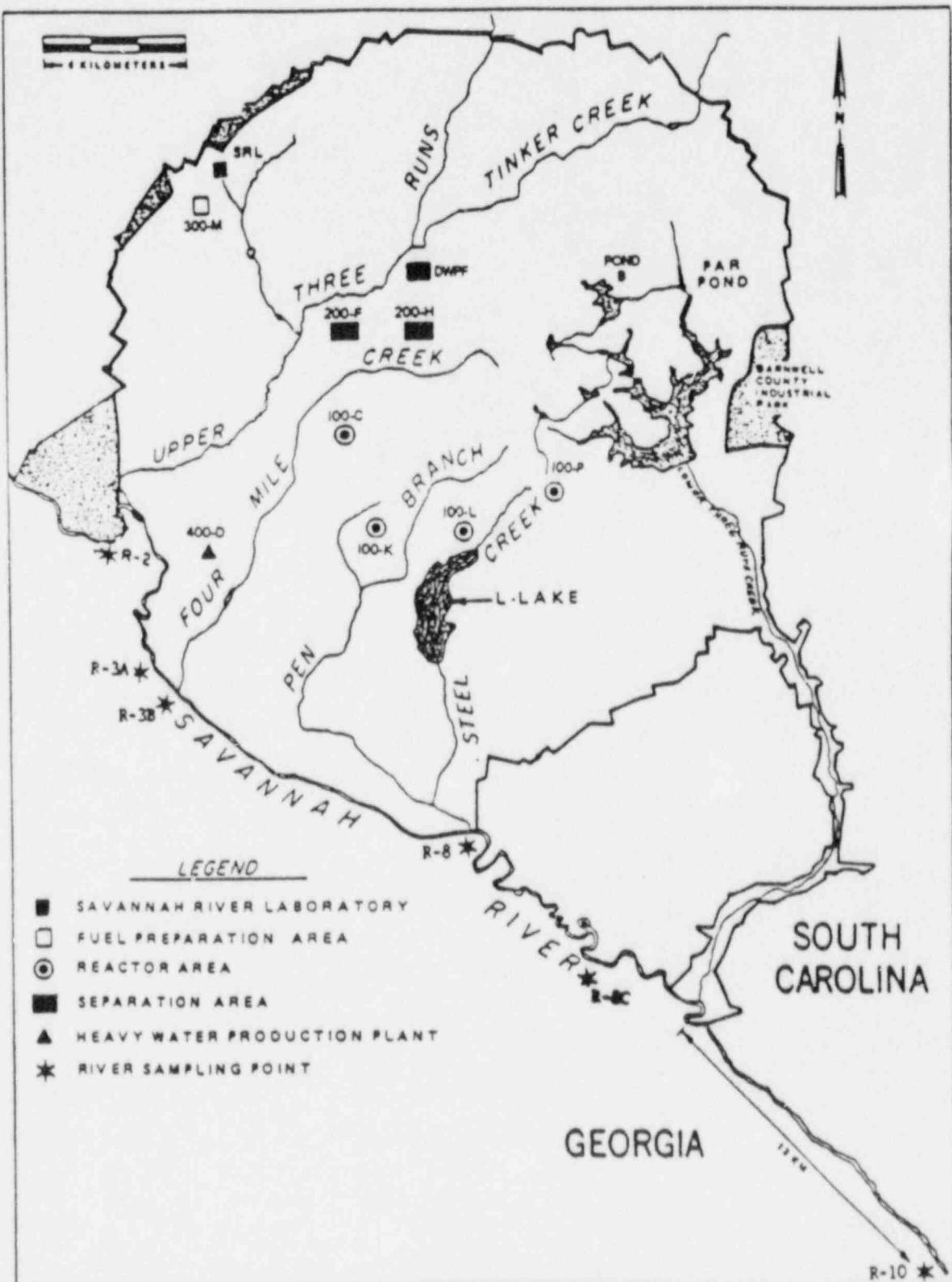


Fig. 1-1
SRP production areas and effluent streams

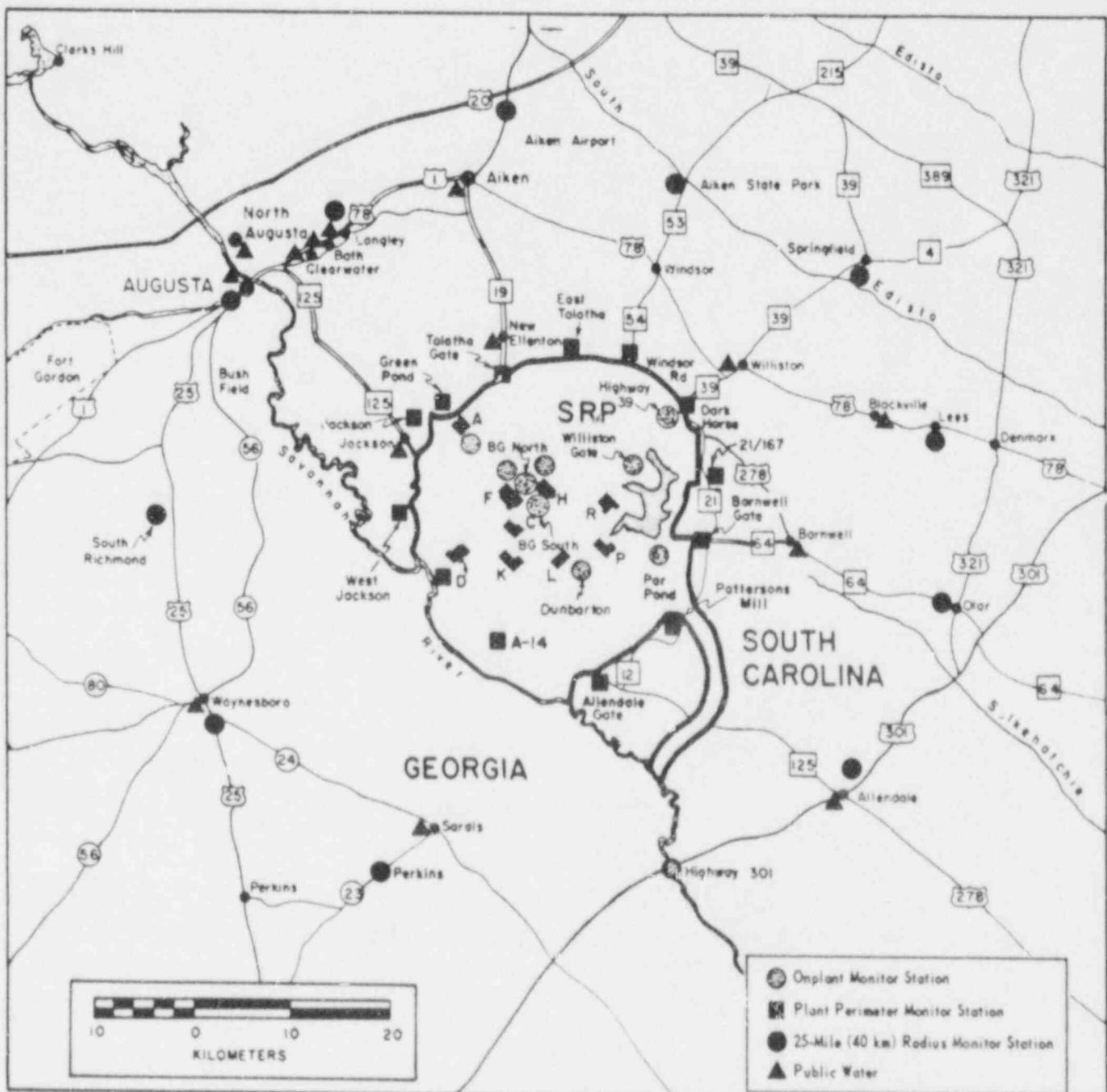


Fig. 2-1
Continuous air monitoring stations and public water sample locations

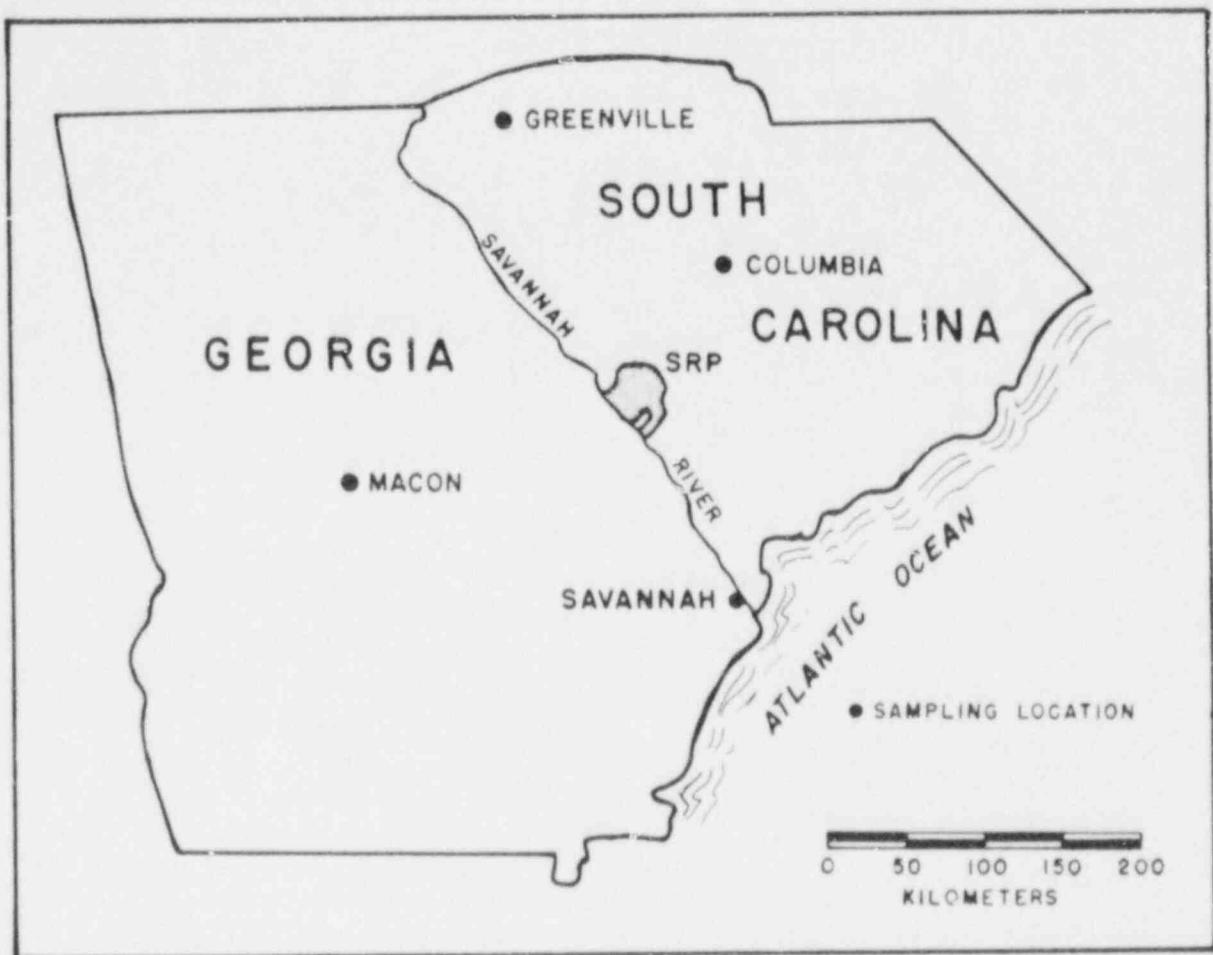


Fig. 2-2
Distant air monitoring stations

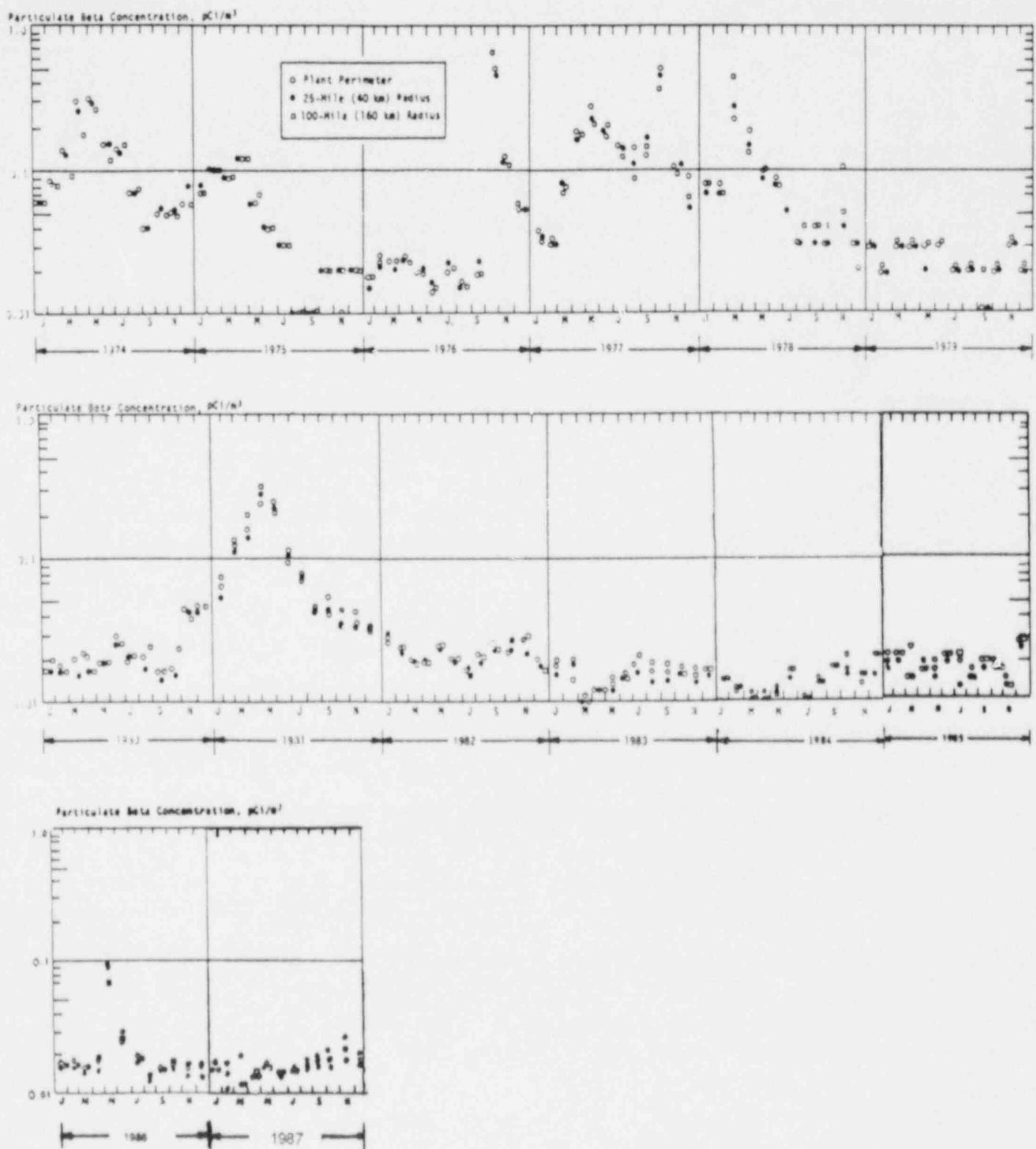


Fig. 2-3
Beta radioactivity in air

SRP TLD PLANT PERIMETER LOCATIONS

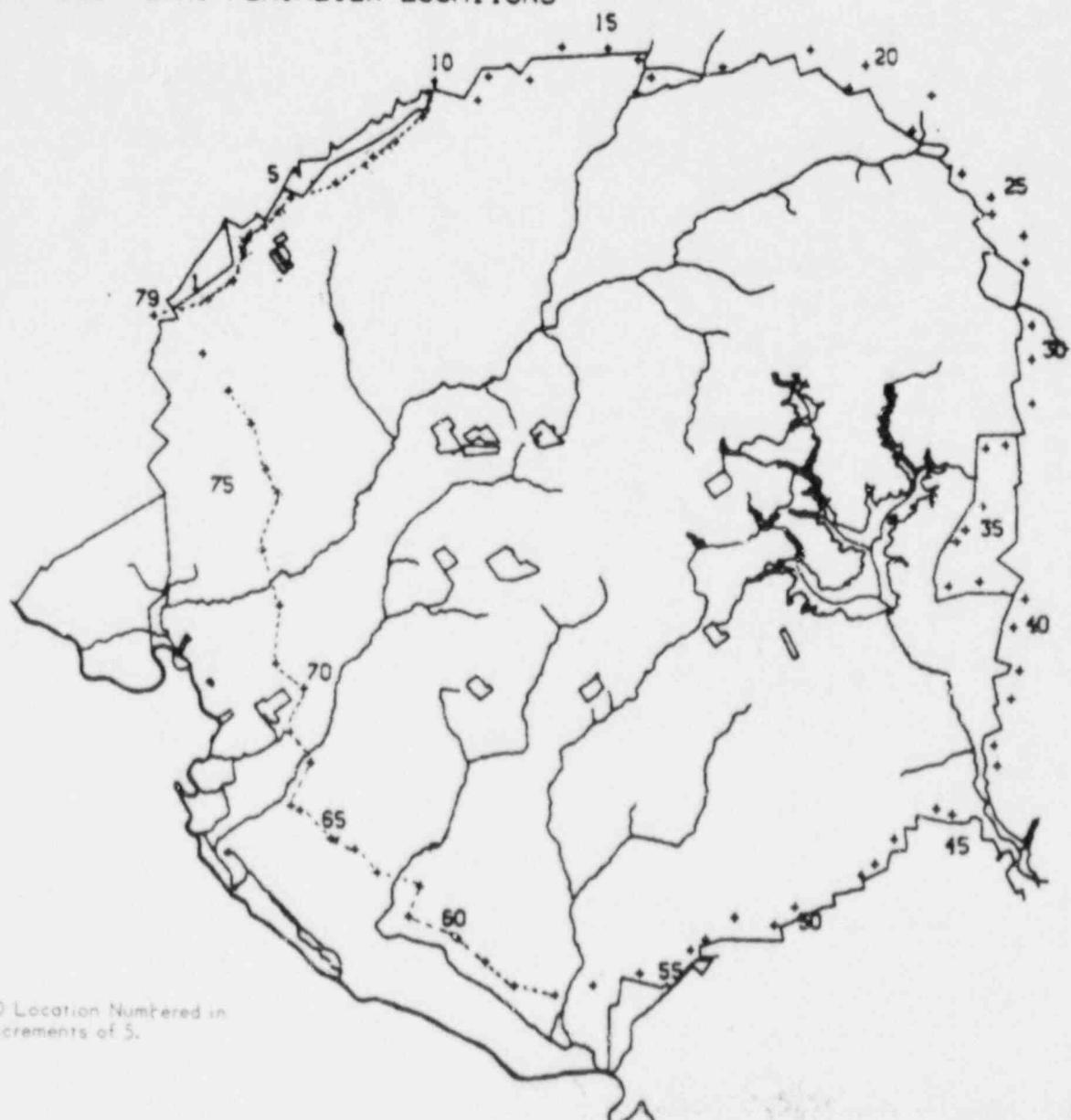
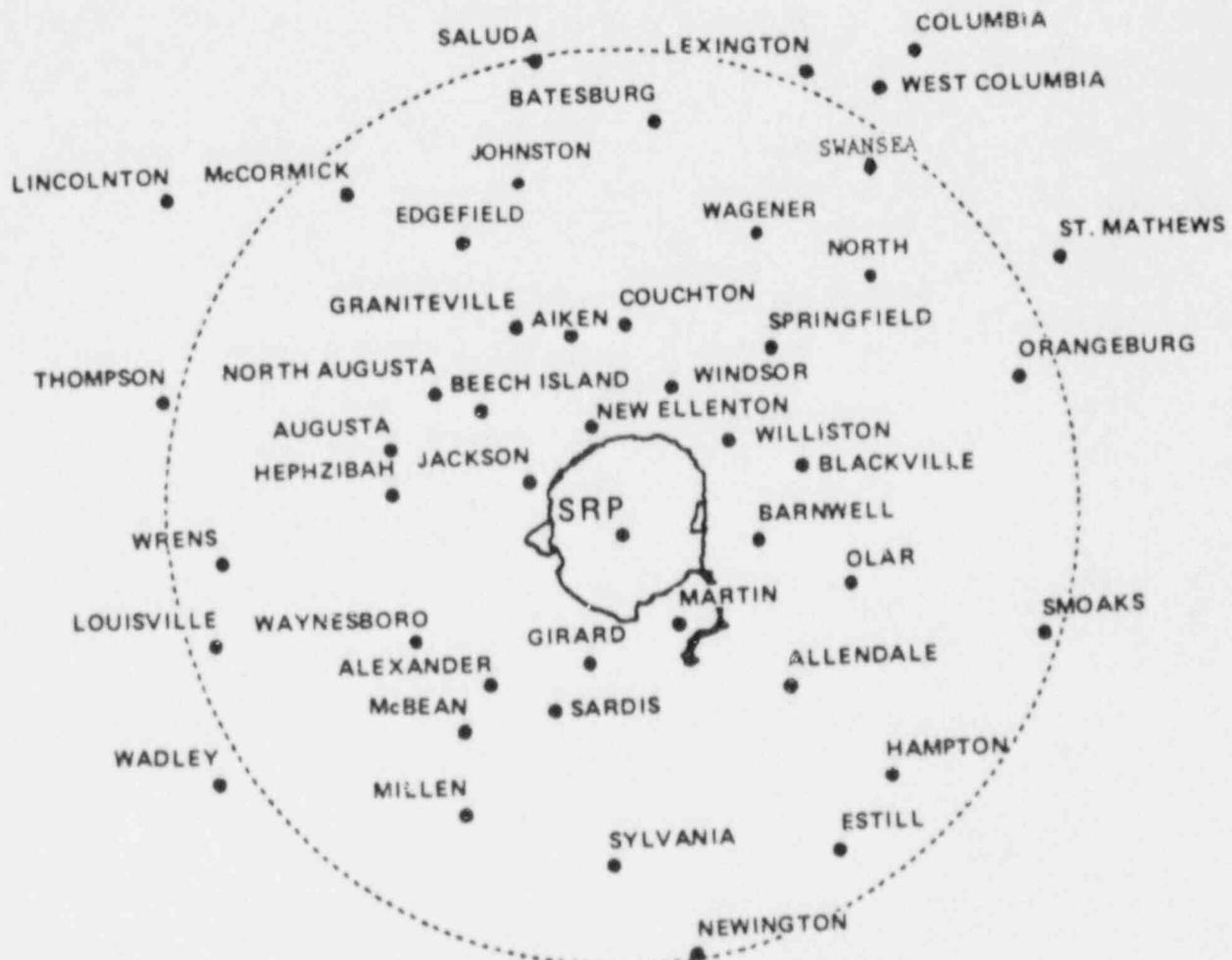


Fig. 2-4
SRP TLD plant perimeter locations



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

STATESBORO

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

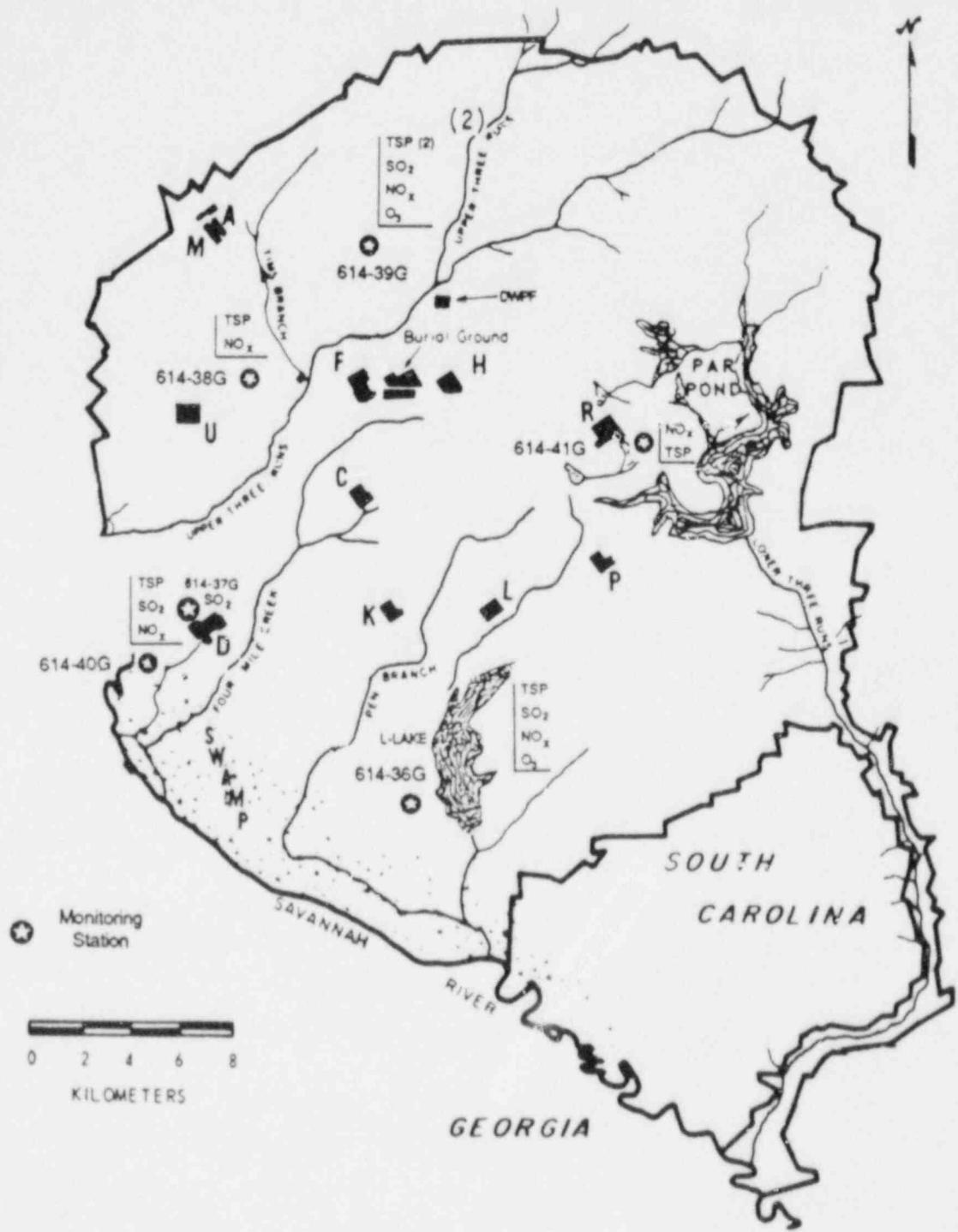


Fig. 2-6
Ambient air quality monitoring locations

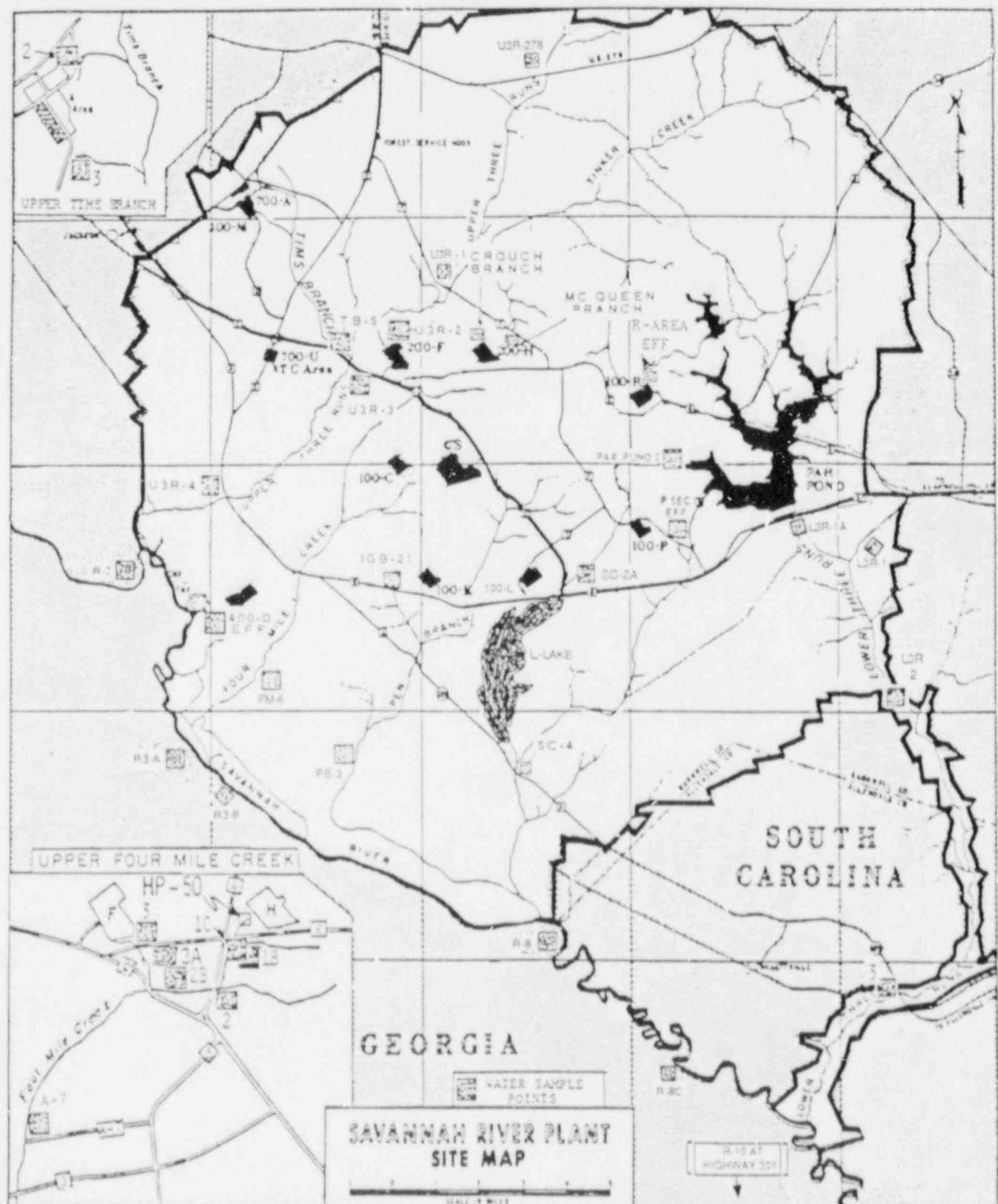


Fig. 3-1
Stream and river sample locations

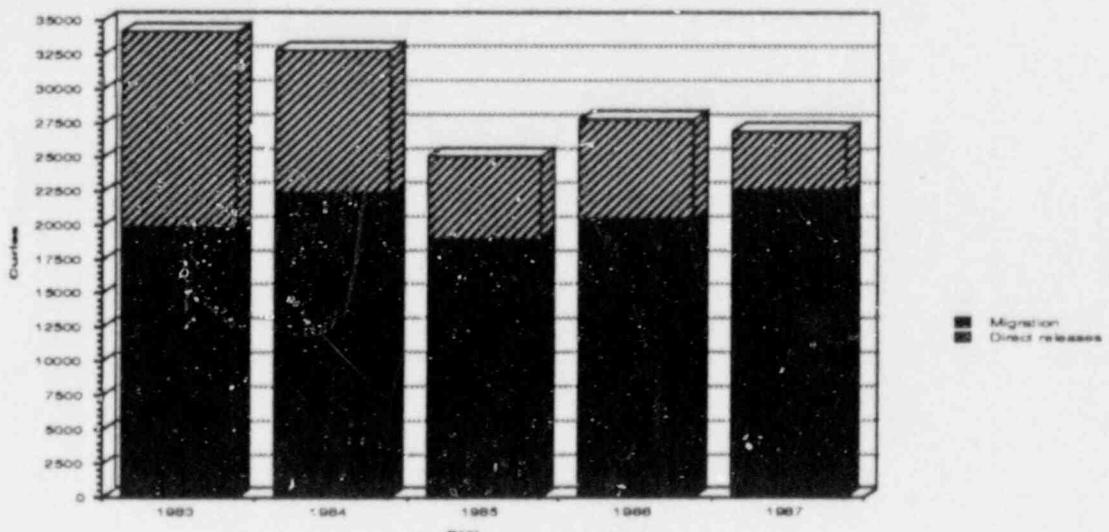


Fig. 3-2
Tritium releases at source

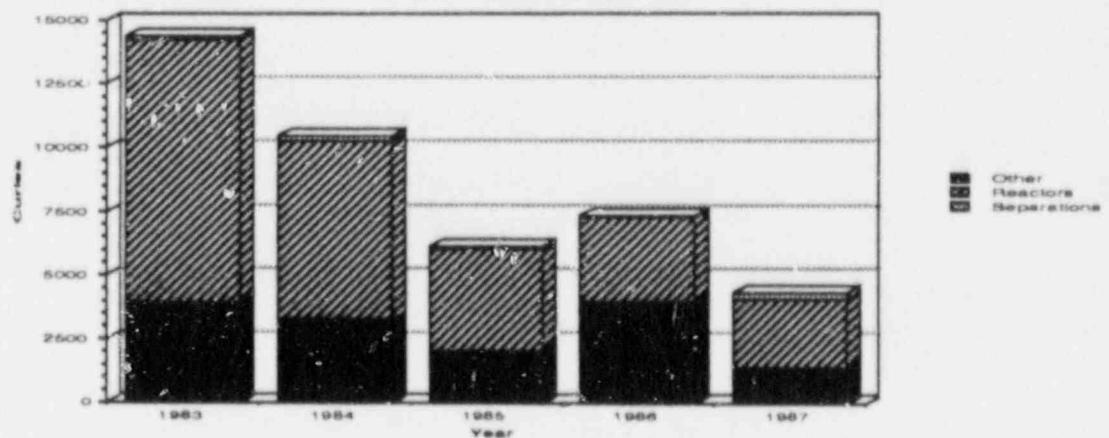


Fig. 3-3
Direct tritium releases to streams excluding seepage basin migration

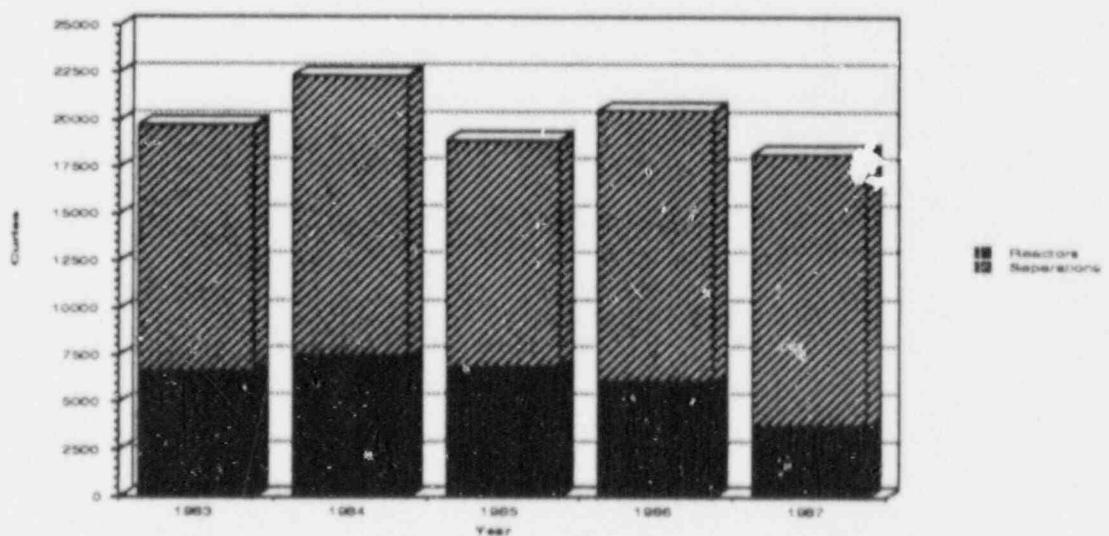


Fig. 3-4
Tritium migration from seepage basins

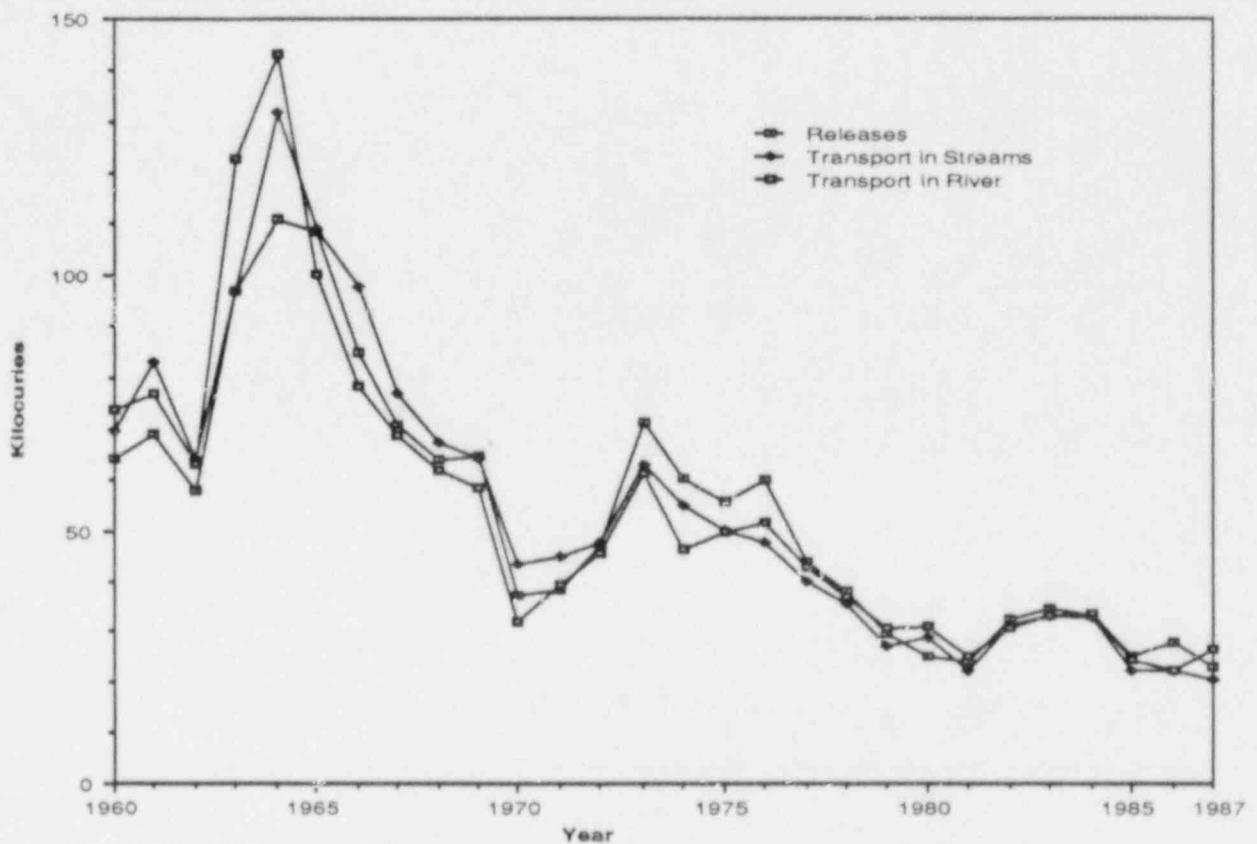


Fig. 3-5
Tritium balance summary, 1960-1987

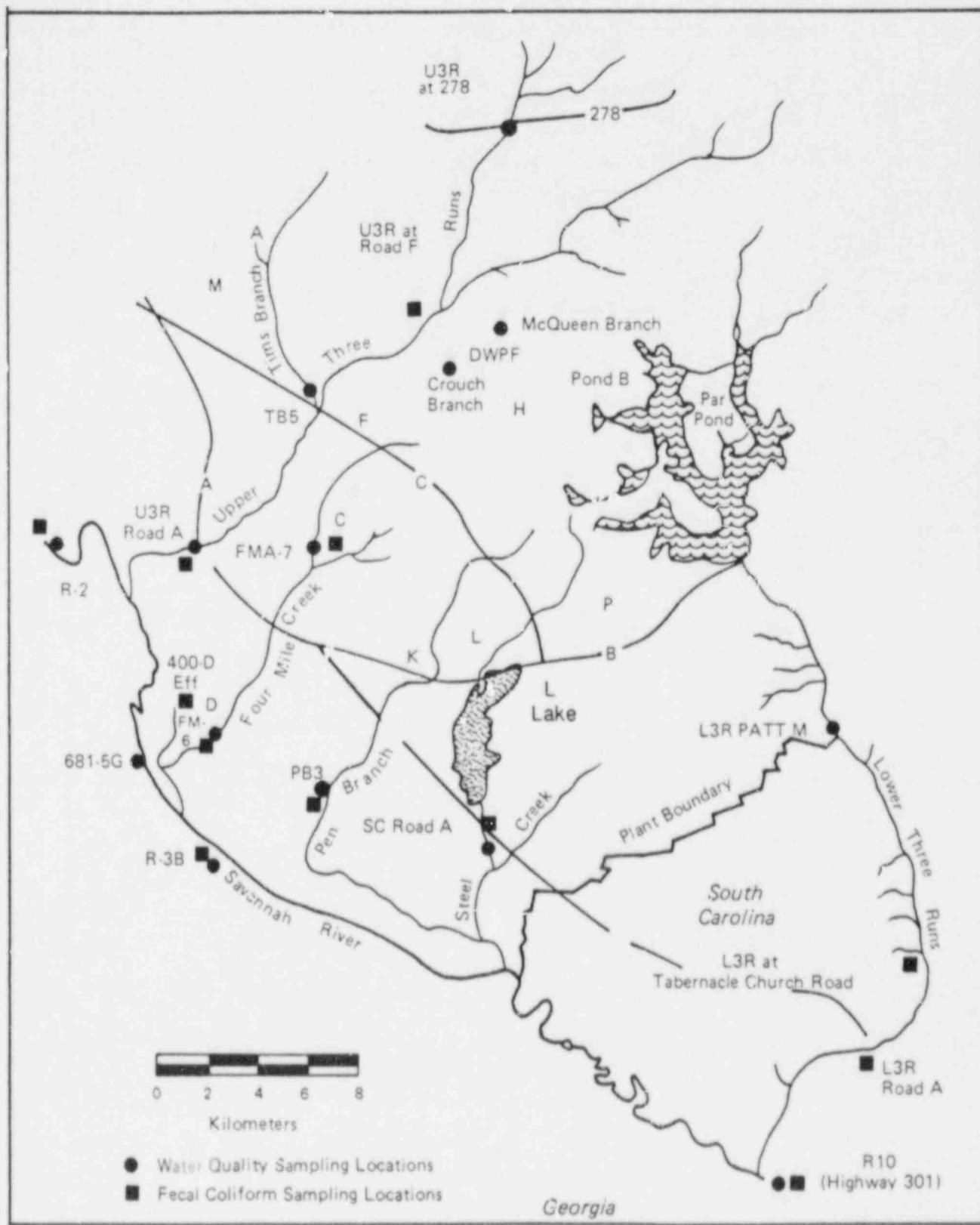


Fig. 3-6
Water quality sampling locations



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

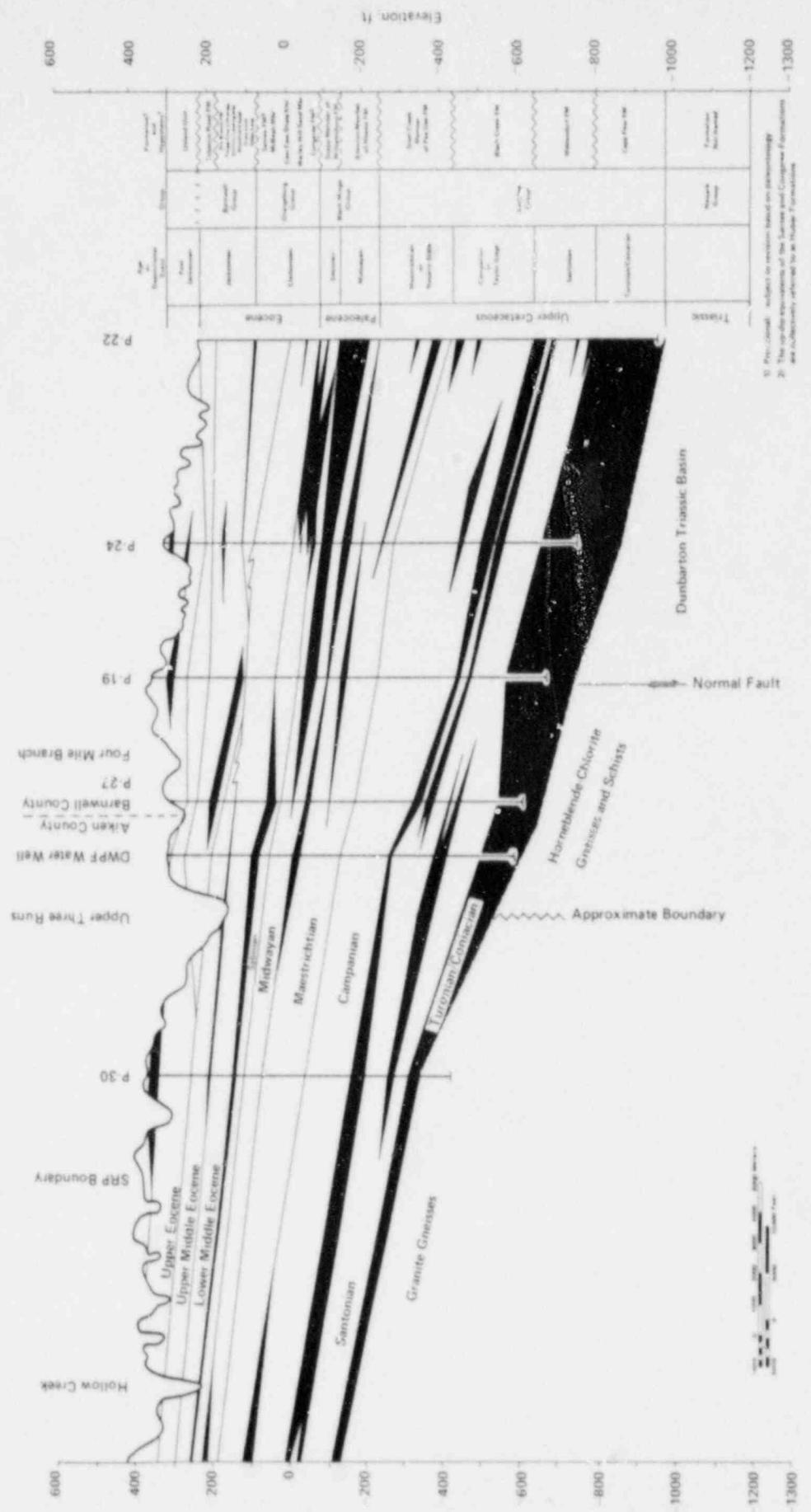


Fig. 4-1
Geologic Cross Section of SRP

BURIAL GROUND

G 8 7G

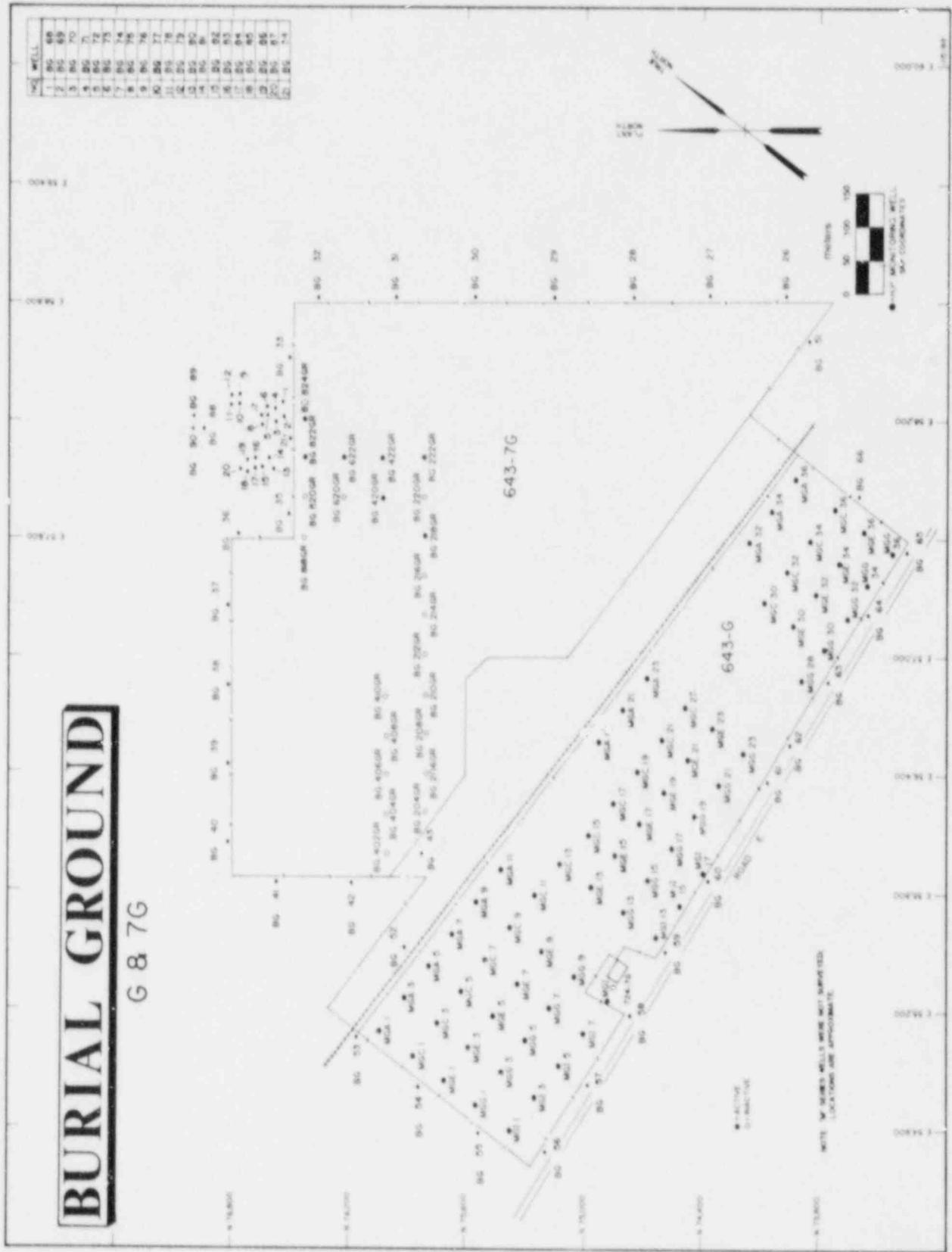


Fig. 4-2
Solid Waste Storage Facility Wells

F - A R E A

CANYON

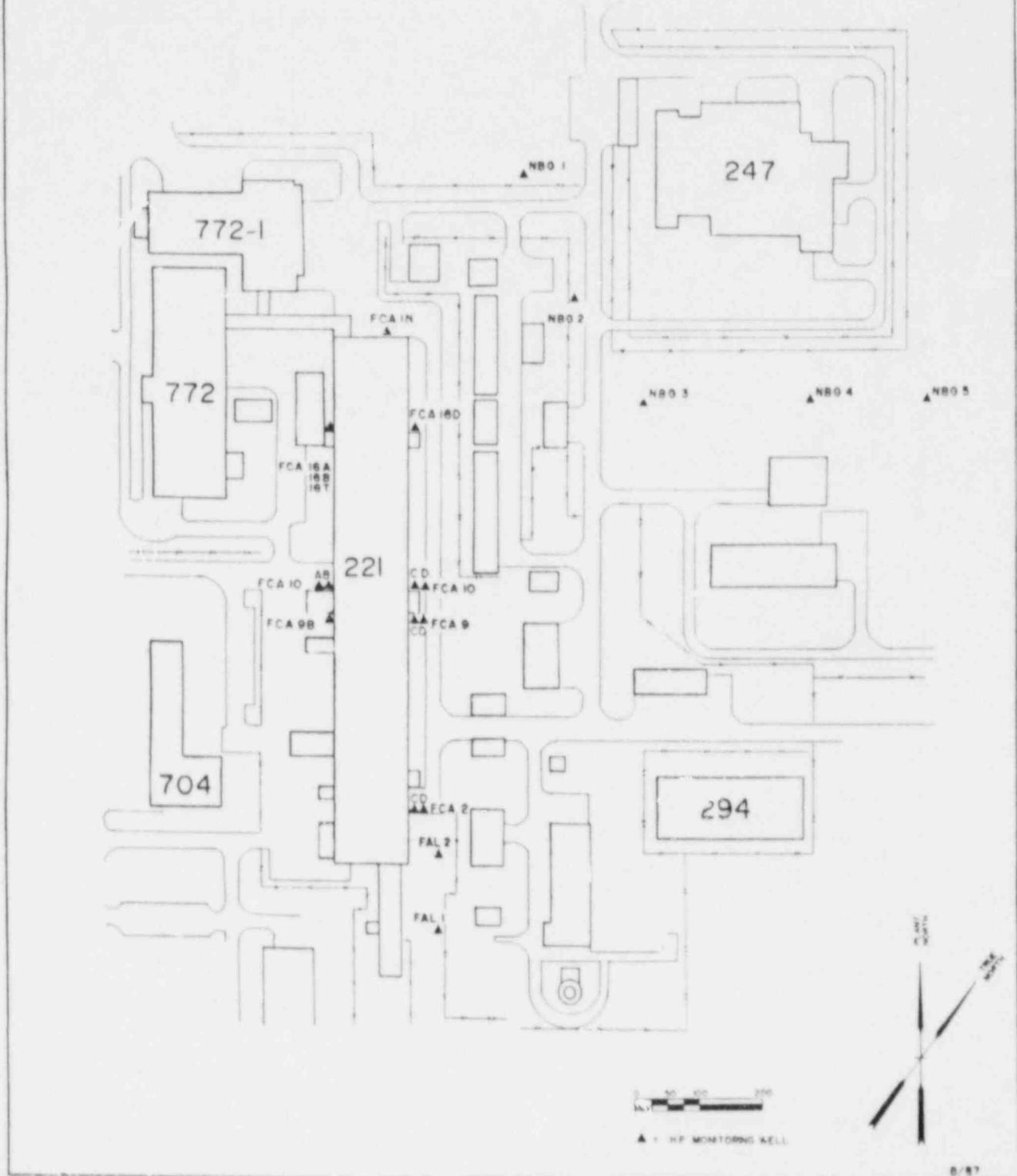


Fig. 4-3
F-Area A Line and Canyon Buildings

F-AREA ACID/CAUSTIC BASIN

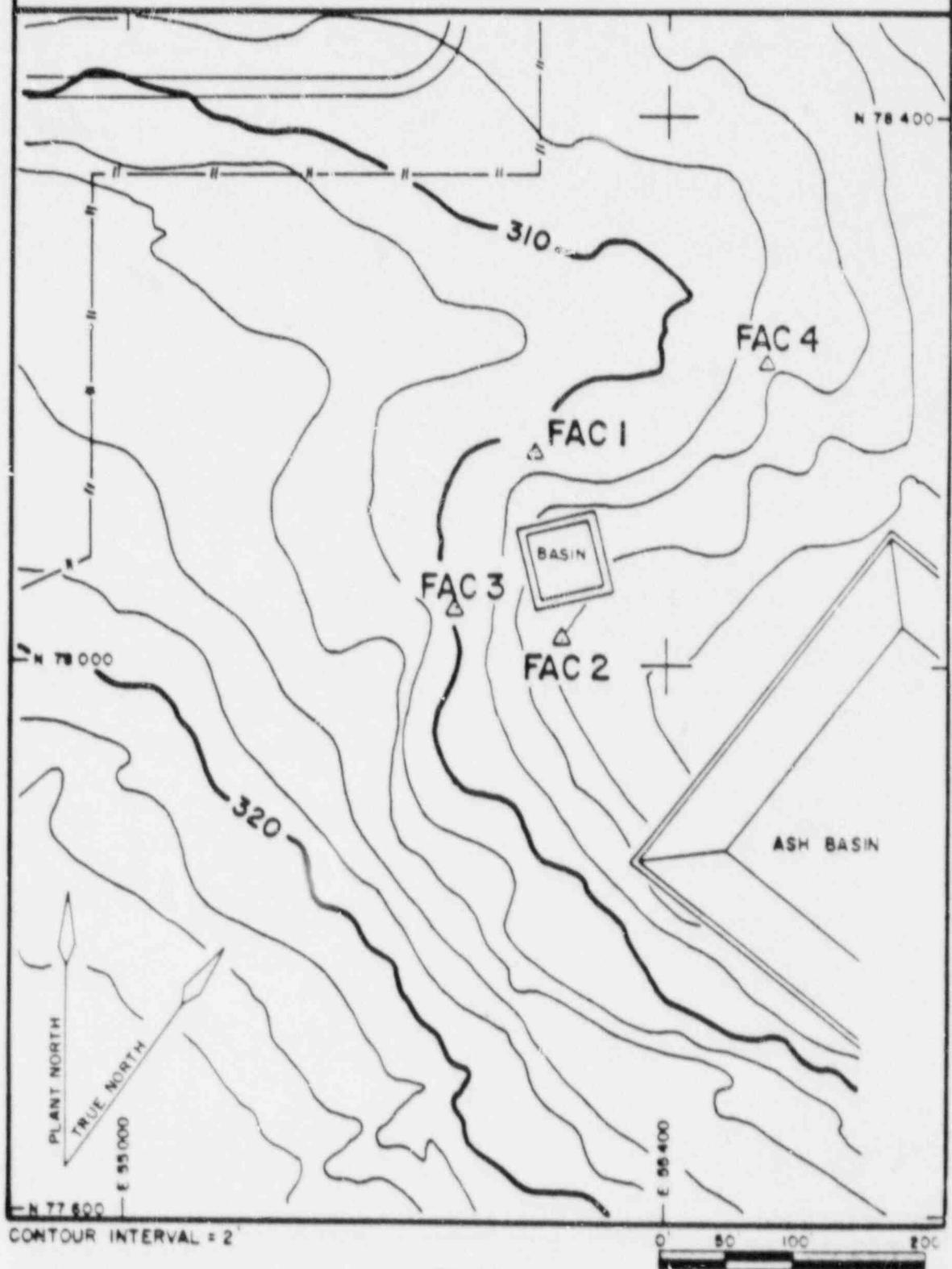


Fig. 4-4
F-Area Acid/Caustic Basin Wells

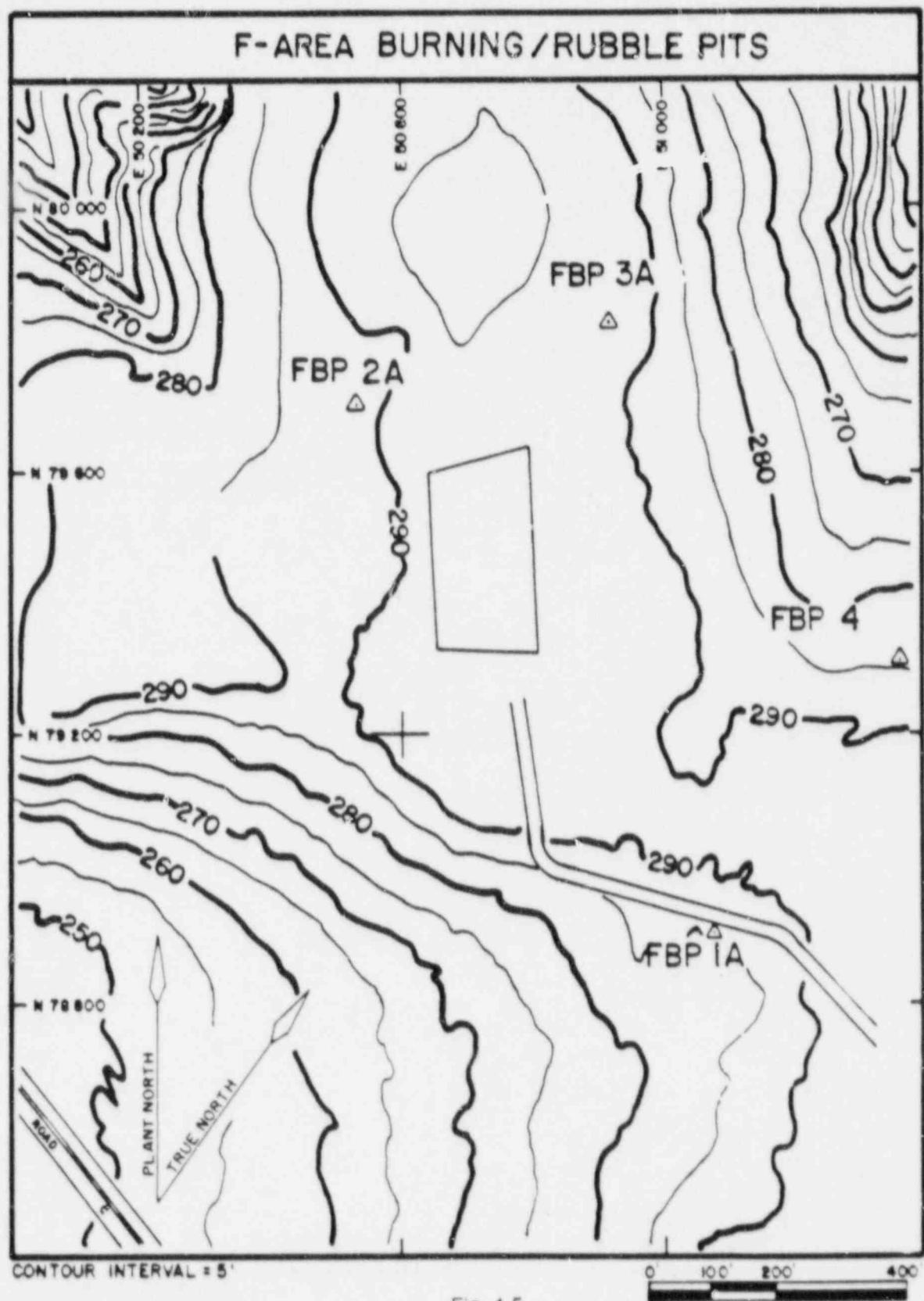


Fig. 4-5
F-Area Burning/Rubble Pits

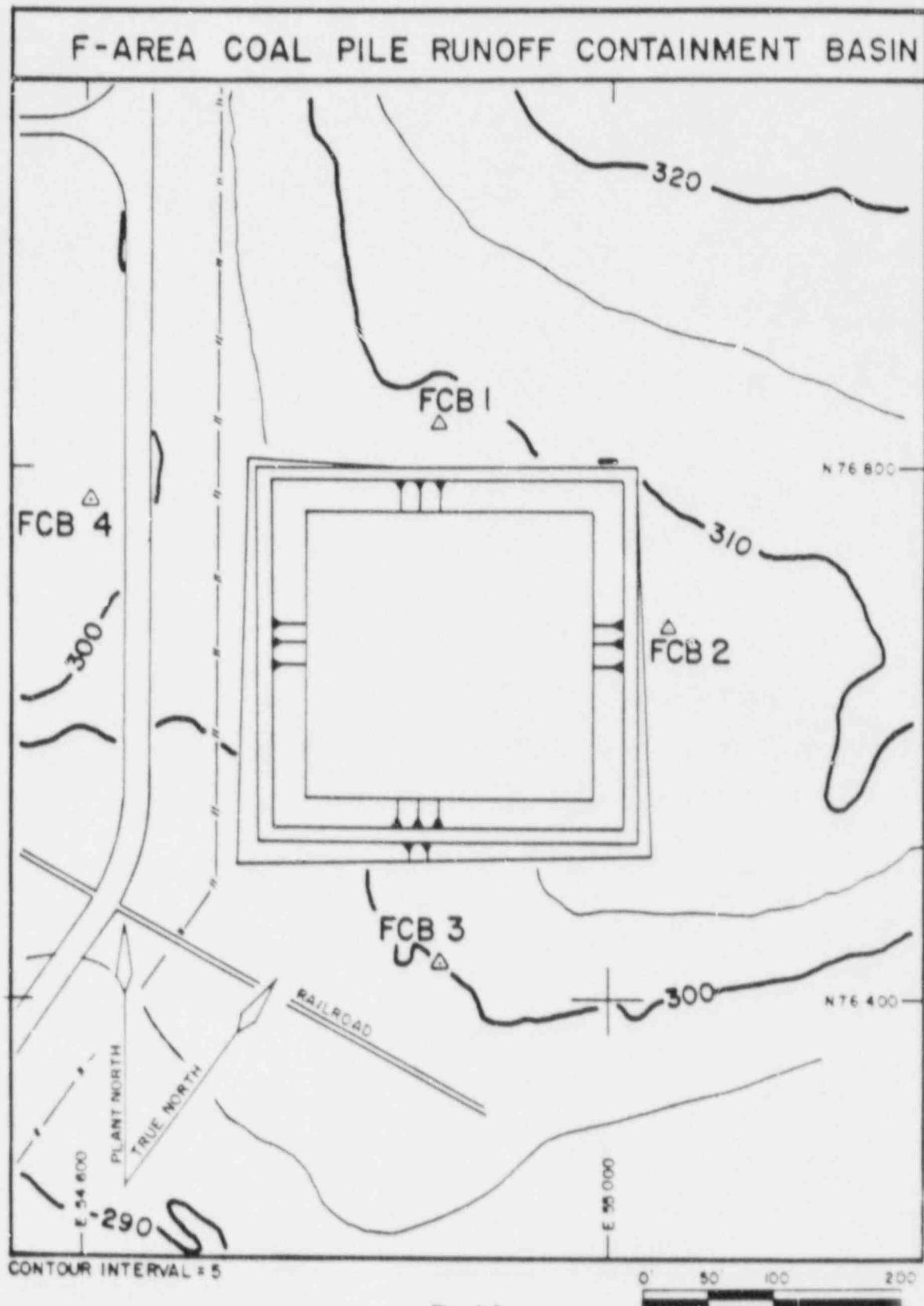


Fig. 4-6
F-Area Coal Pile Runoff Containment Basin

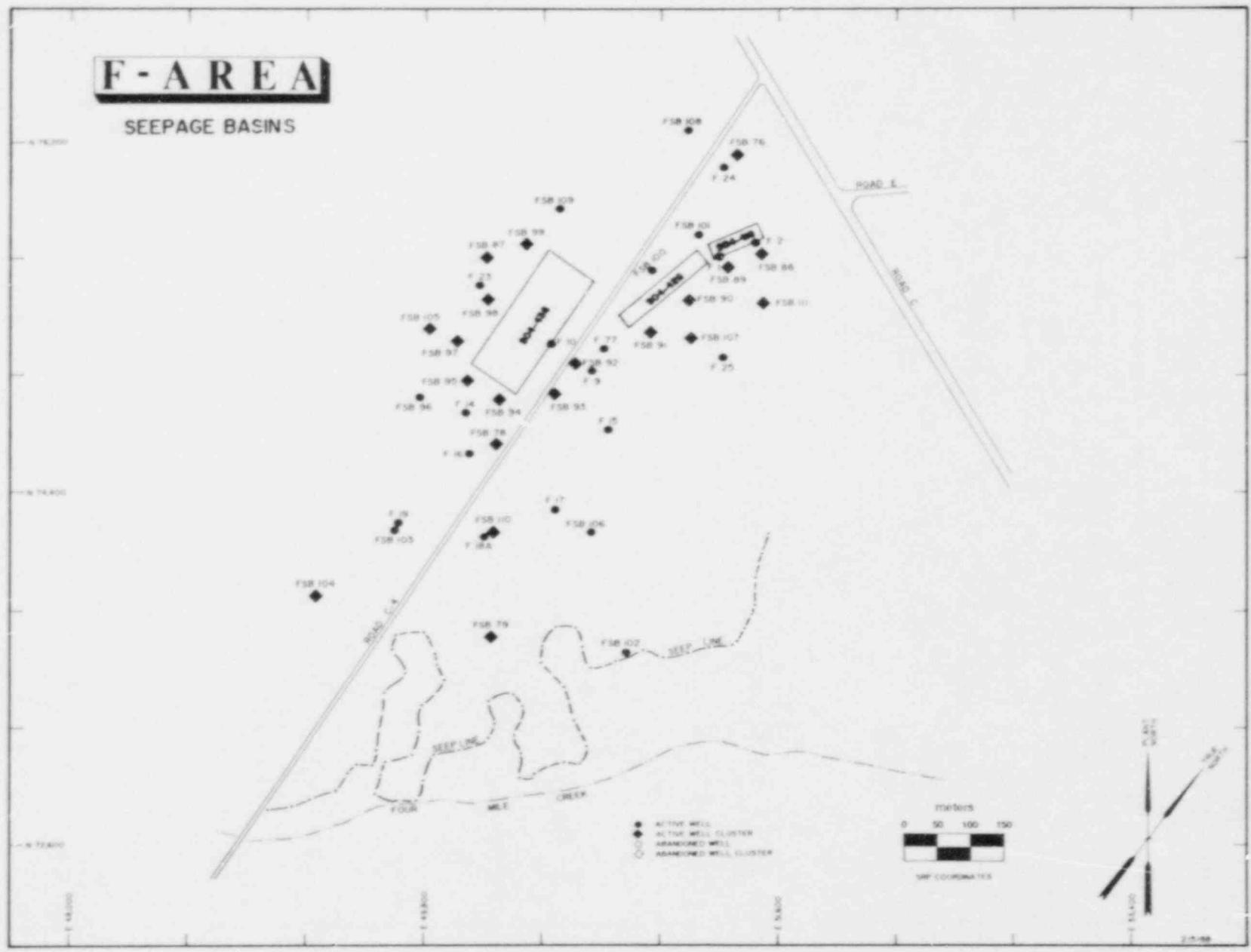


Fig. 4-7
F-Area Seepage Basins

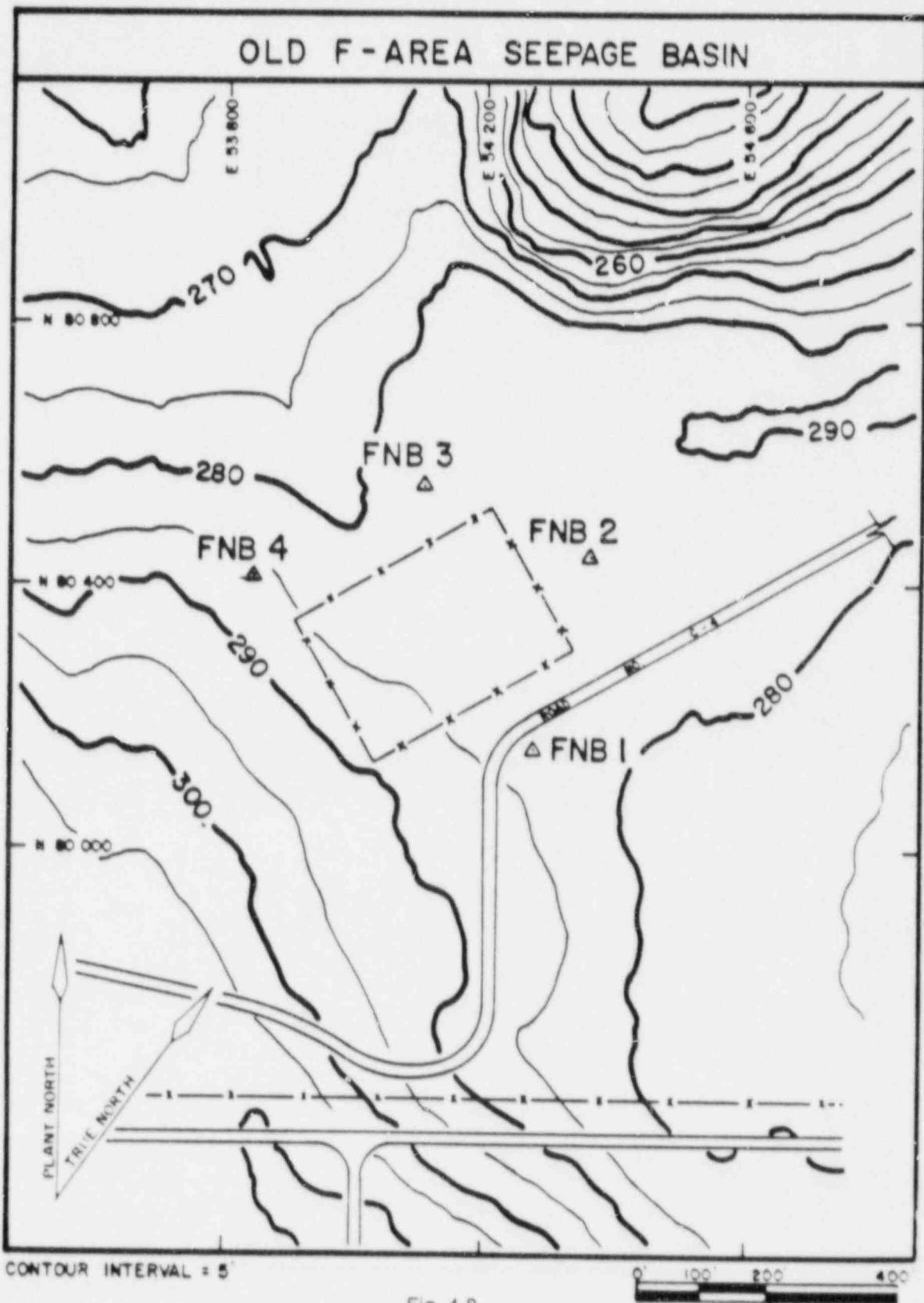


Fig. 4-8
Old F-Area Seepage Basin

F - AREA

TANK FARM

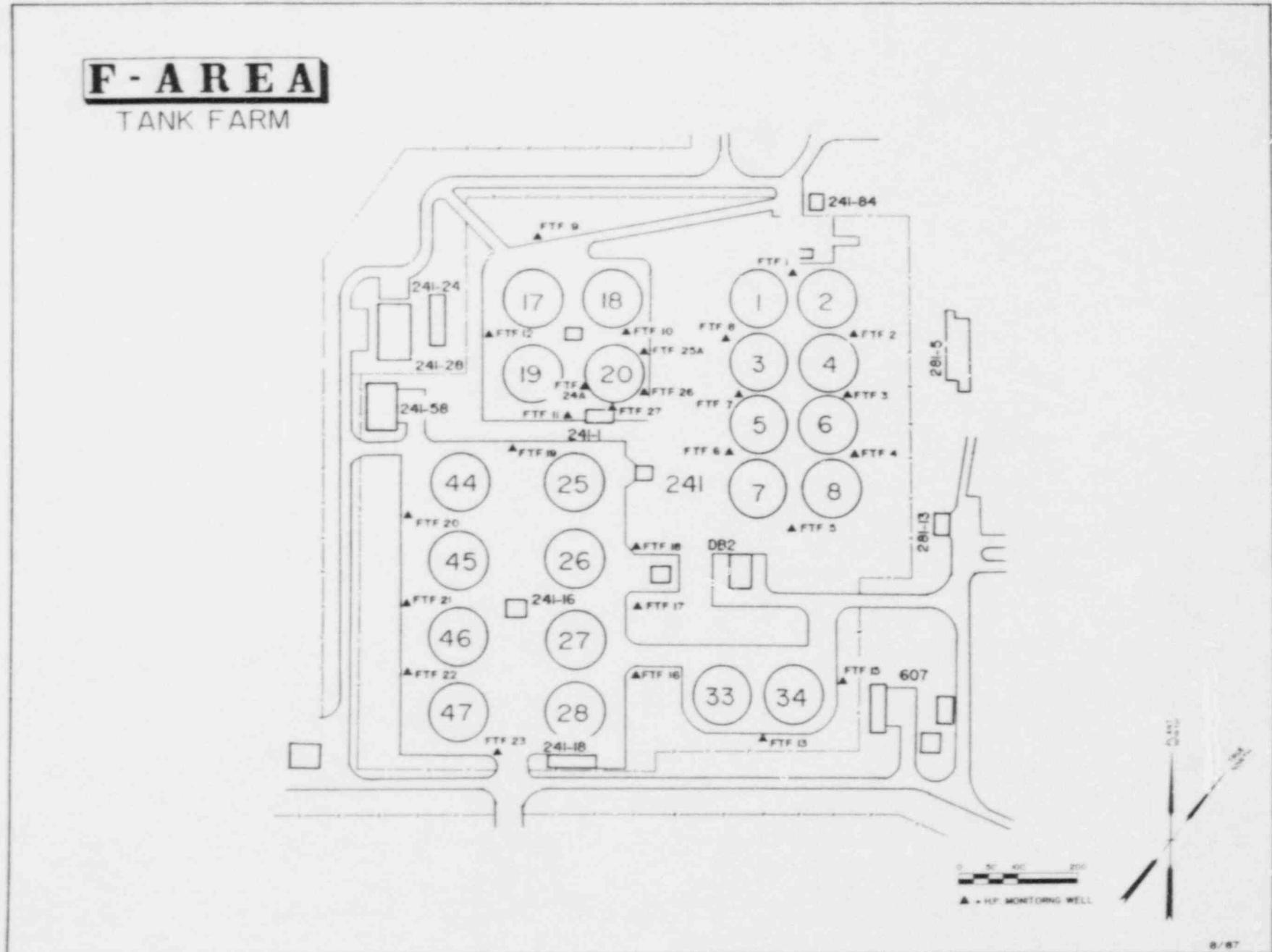


Fig. 4-9
F-Area Tank Farm

- 23 -

H - A R E A

CANYON

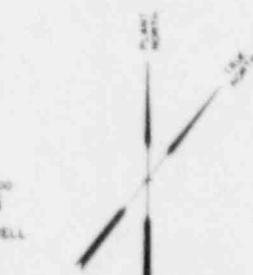
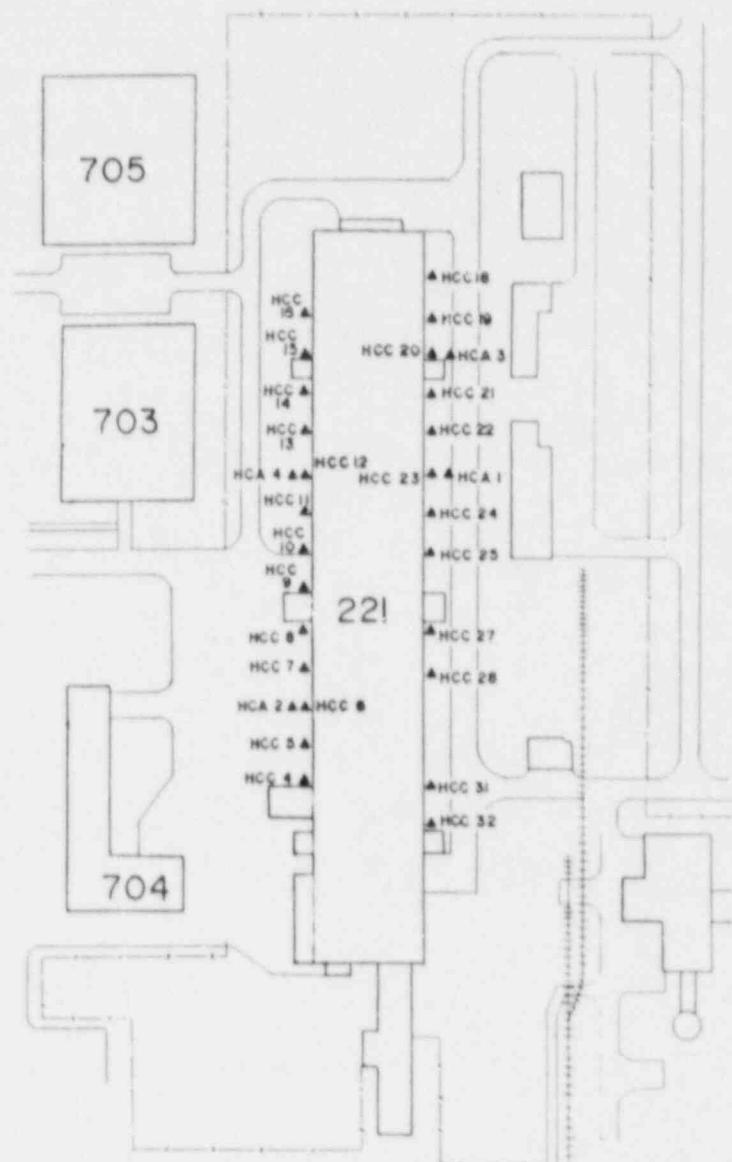


Fig. 4-10
H-Area Canyon Building

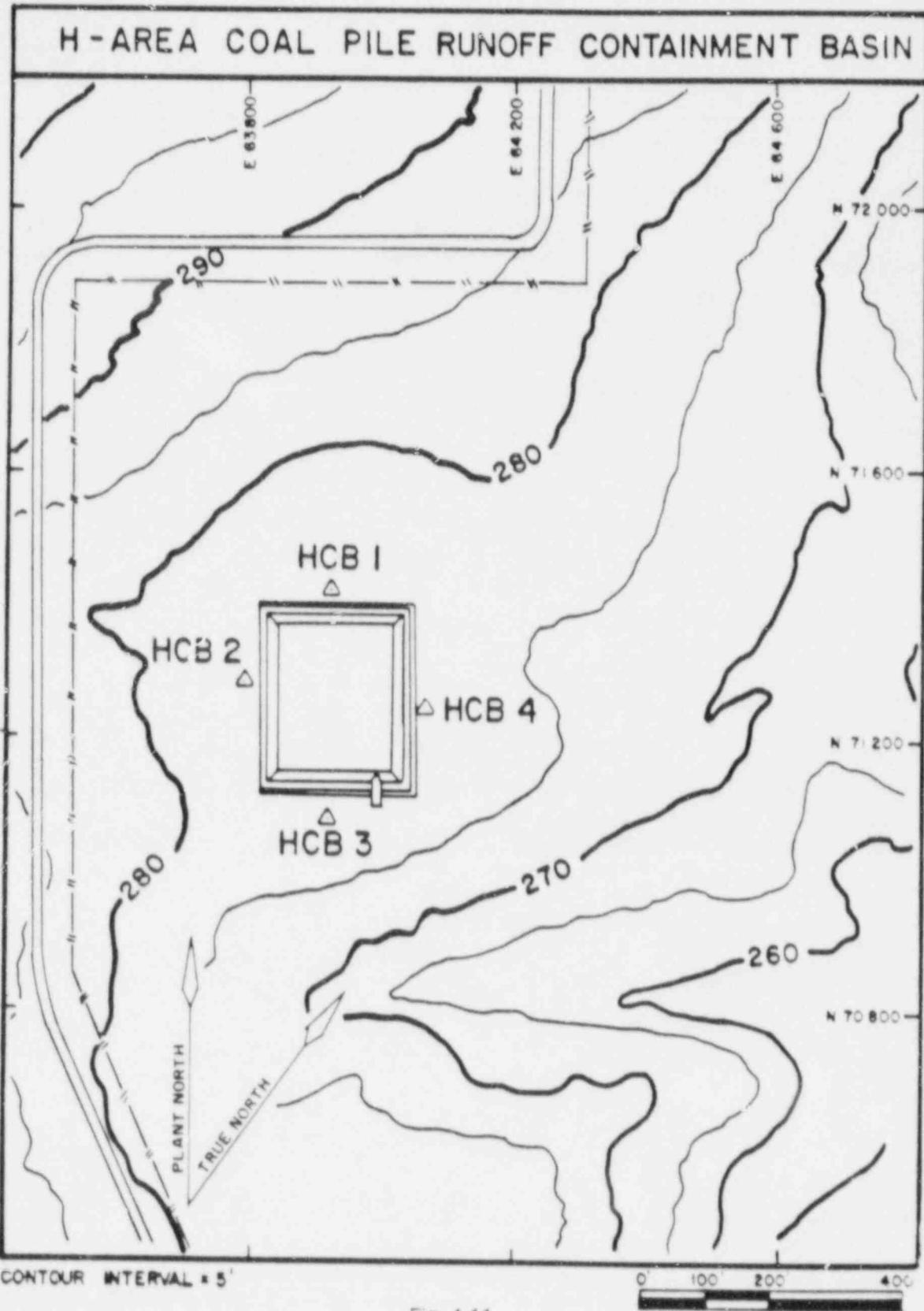


Fig. 4-11
H-Area Coal Pile Runoff Containment Basin

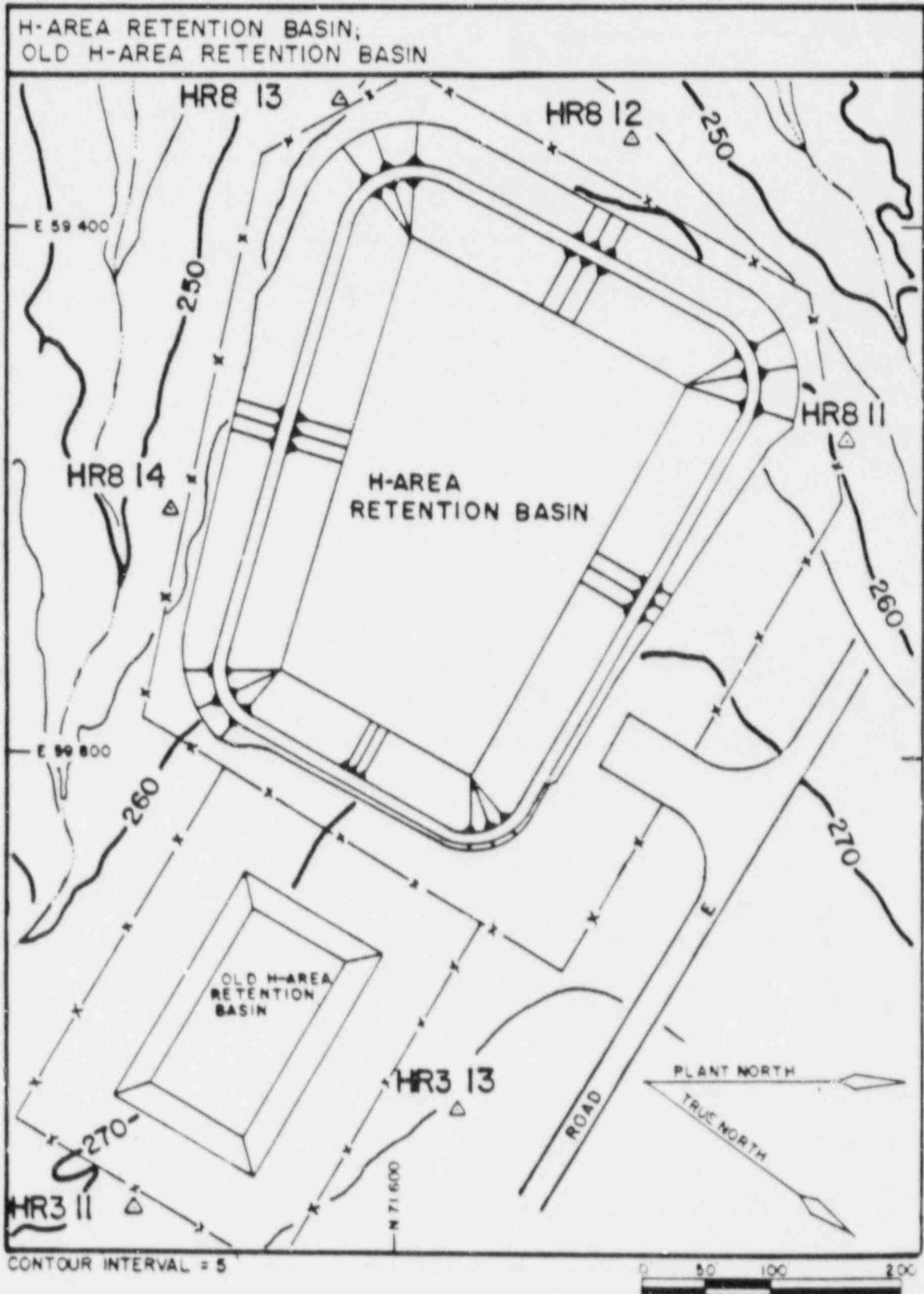


Fig. 4-12
H-Area Retention Basins

H - AREA

SEE PAGE BASNS

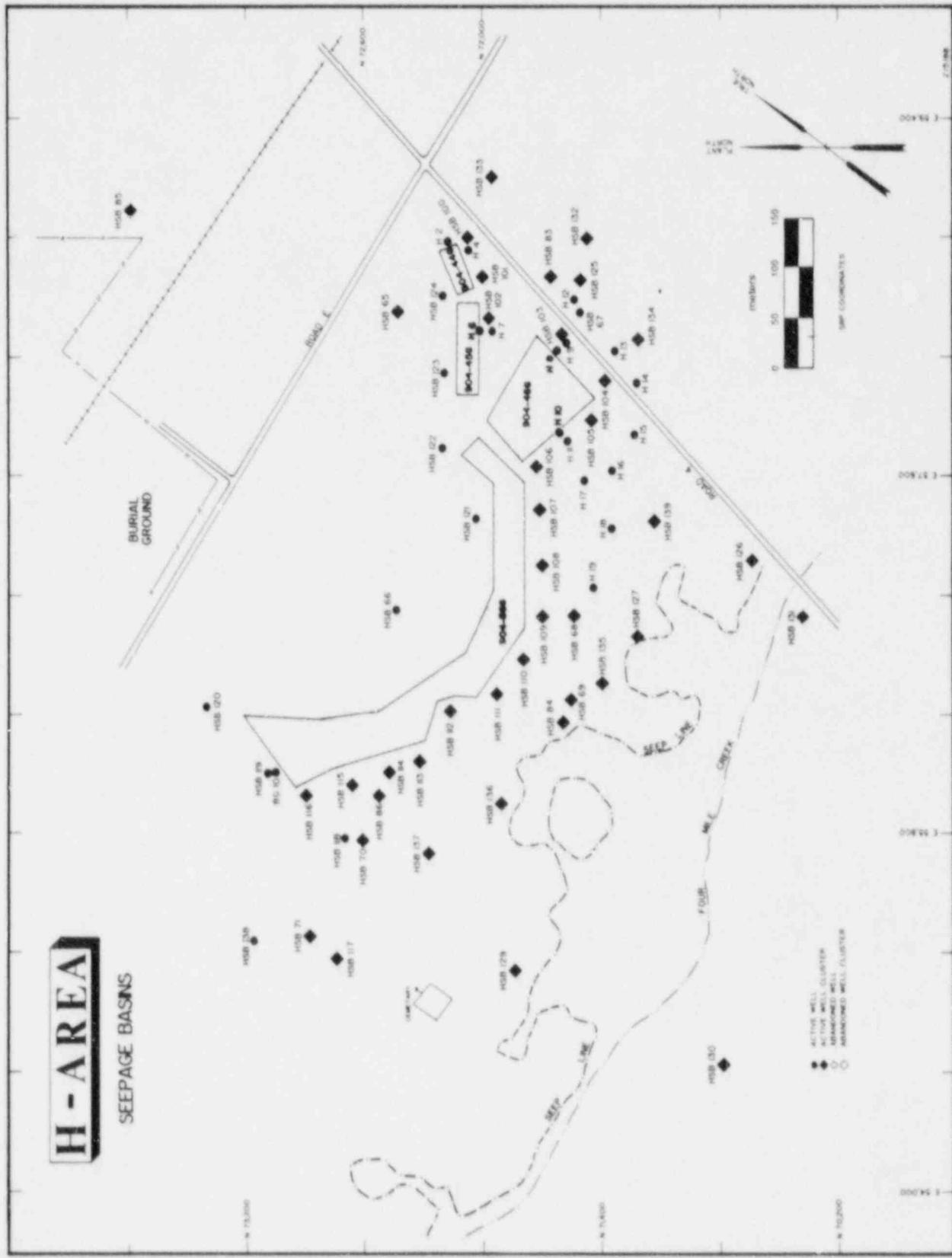


Fig. 4-13
H-Area Seepage Basins

H-AREA

TANK FARM

▲ HTF 17

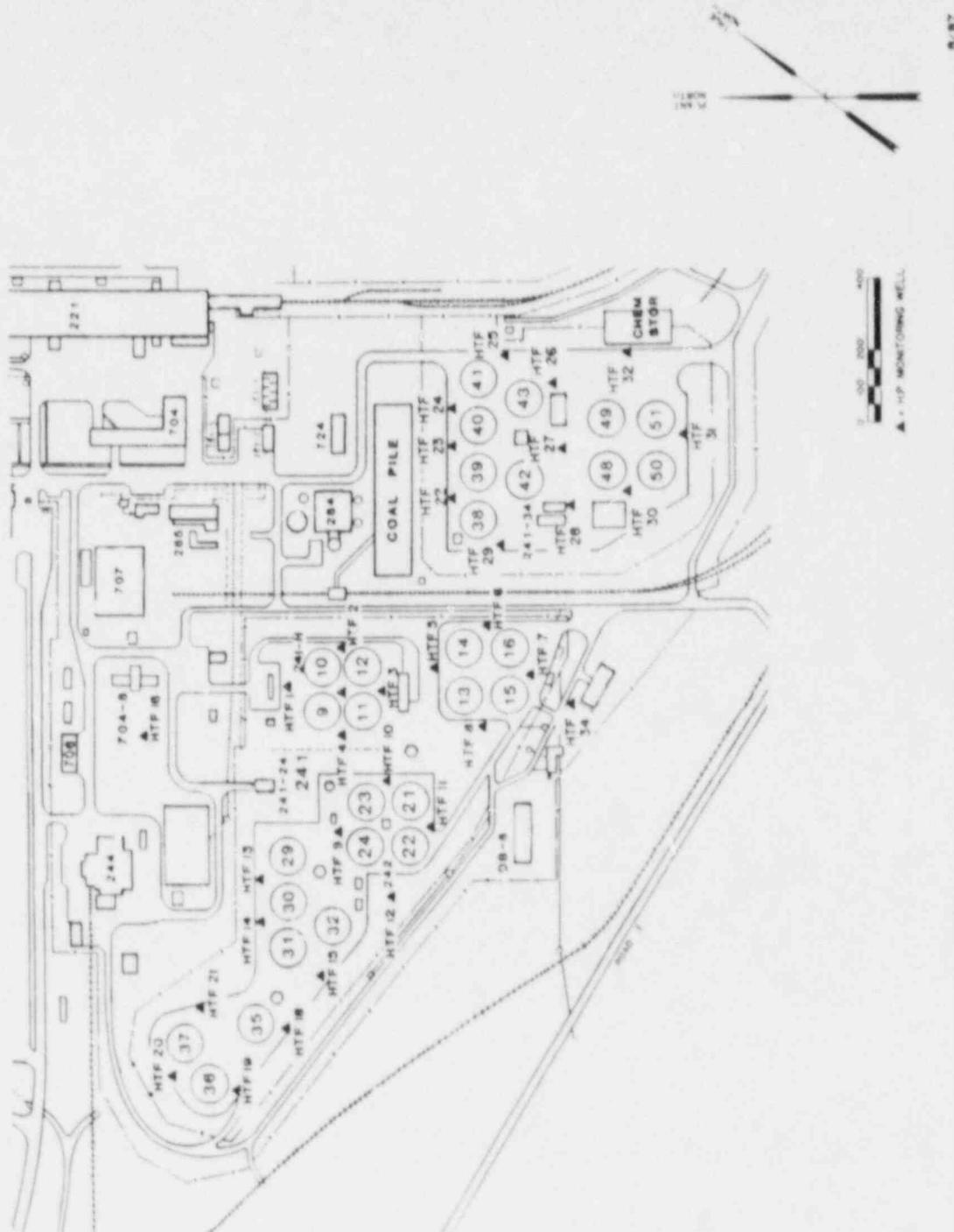


Fig. 4-14
H-Area Tank Farm

S - A R E A



Fig. 4-15
S Area

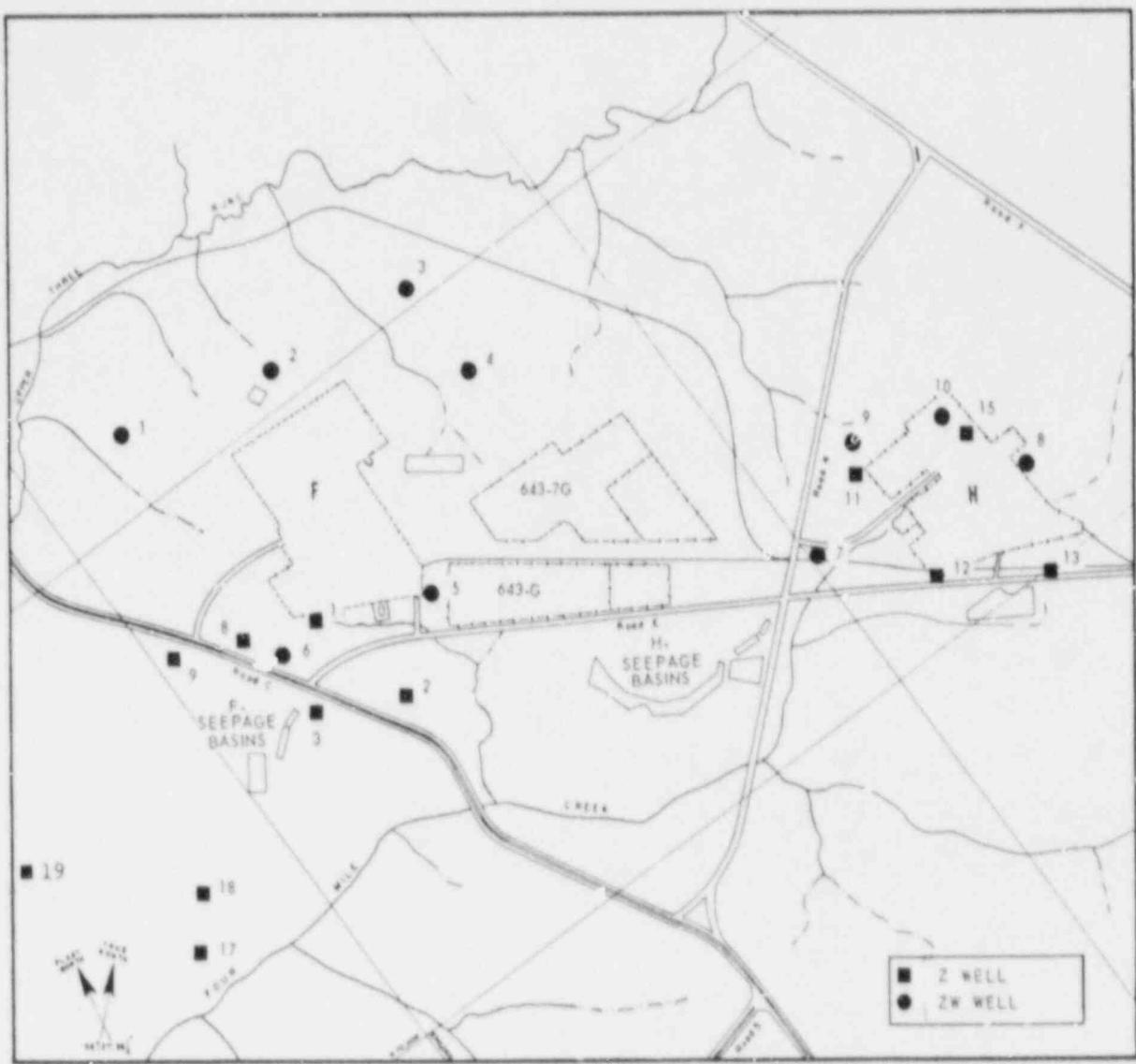
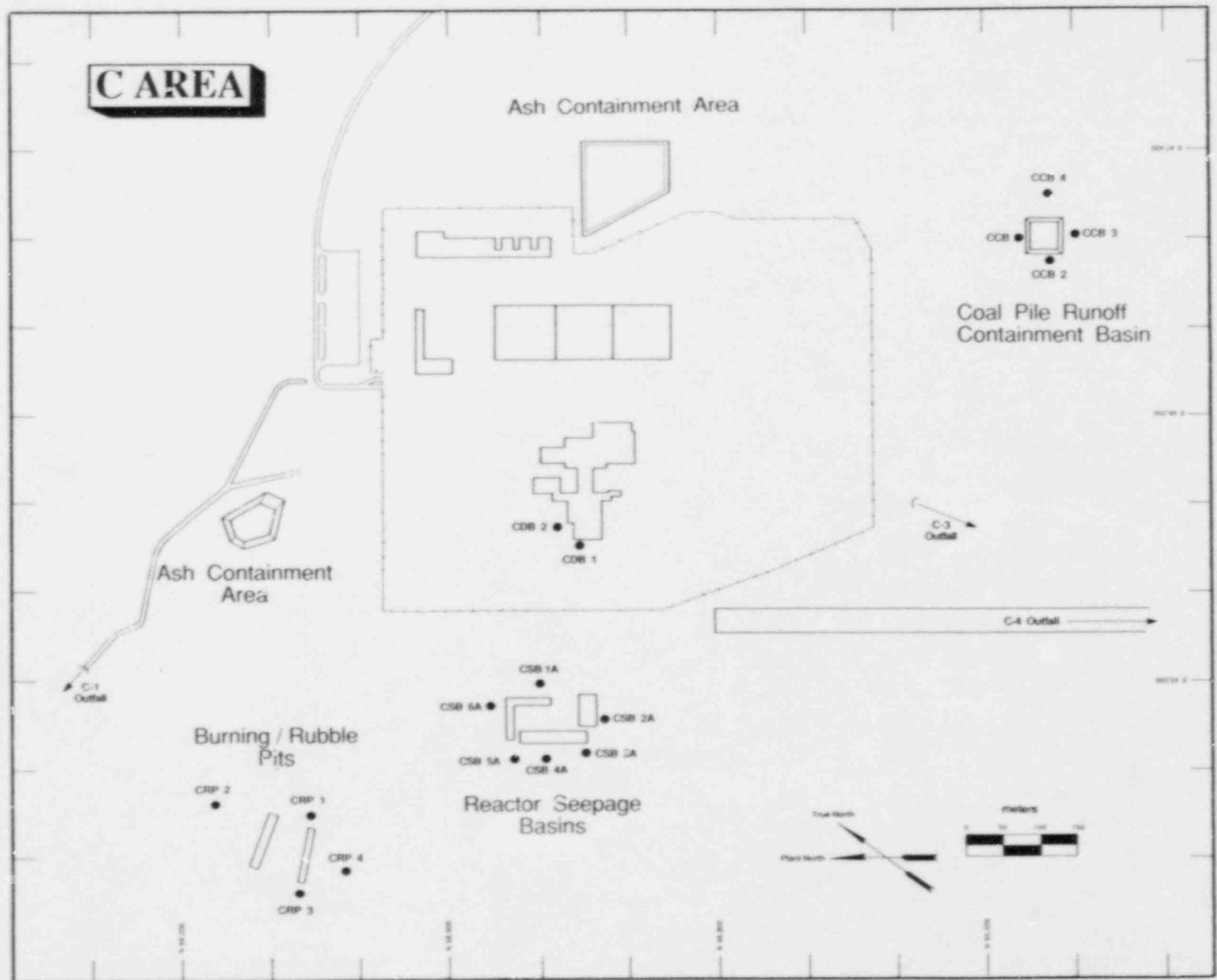


Fig. 4-16
F- and H-Separations Areas

FIG 4-17
C-Area Wells



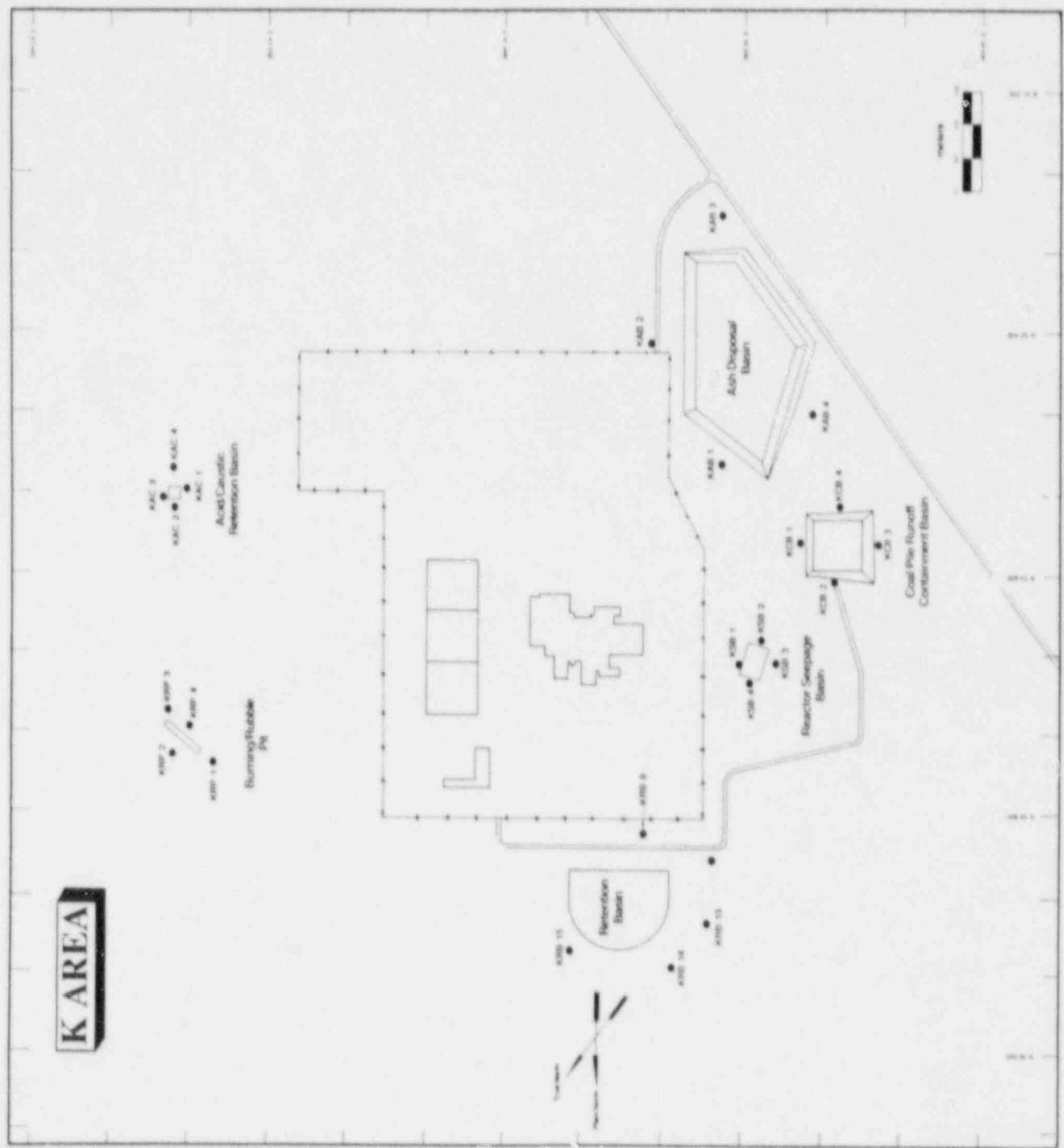


Fig. 4-18
K-Area Wells

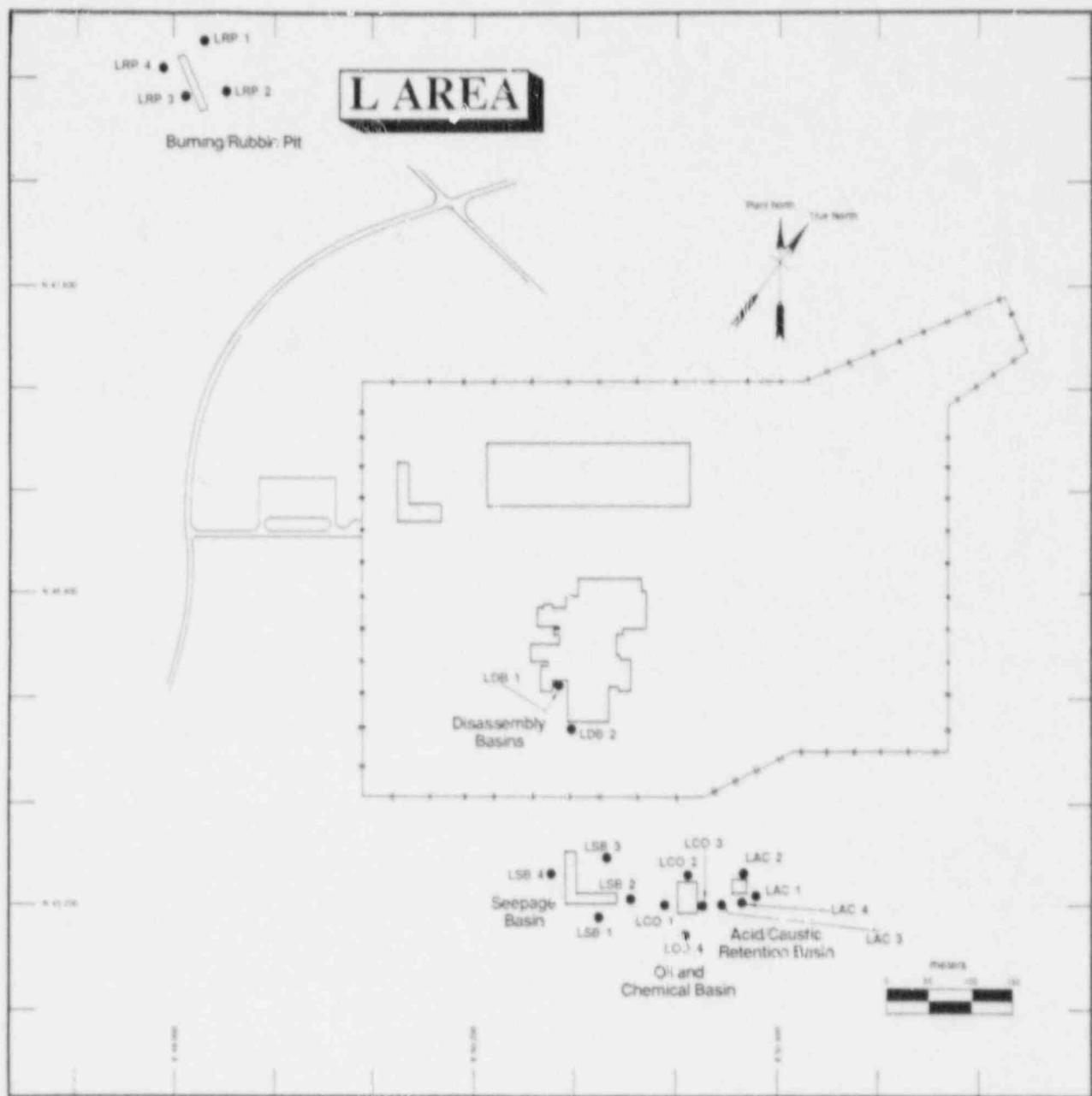


Fig. 4-19
L-Area Wells

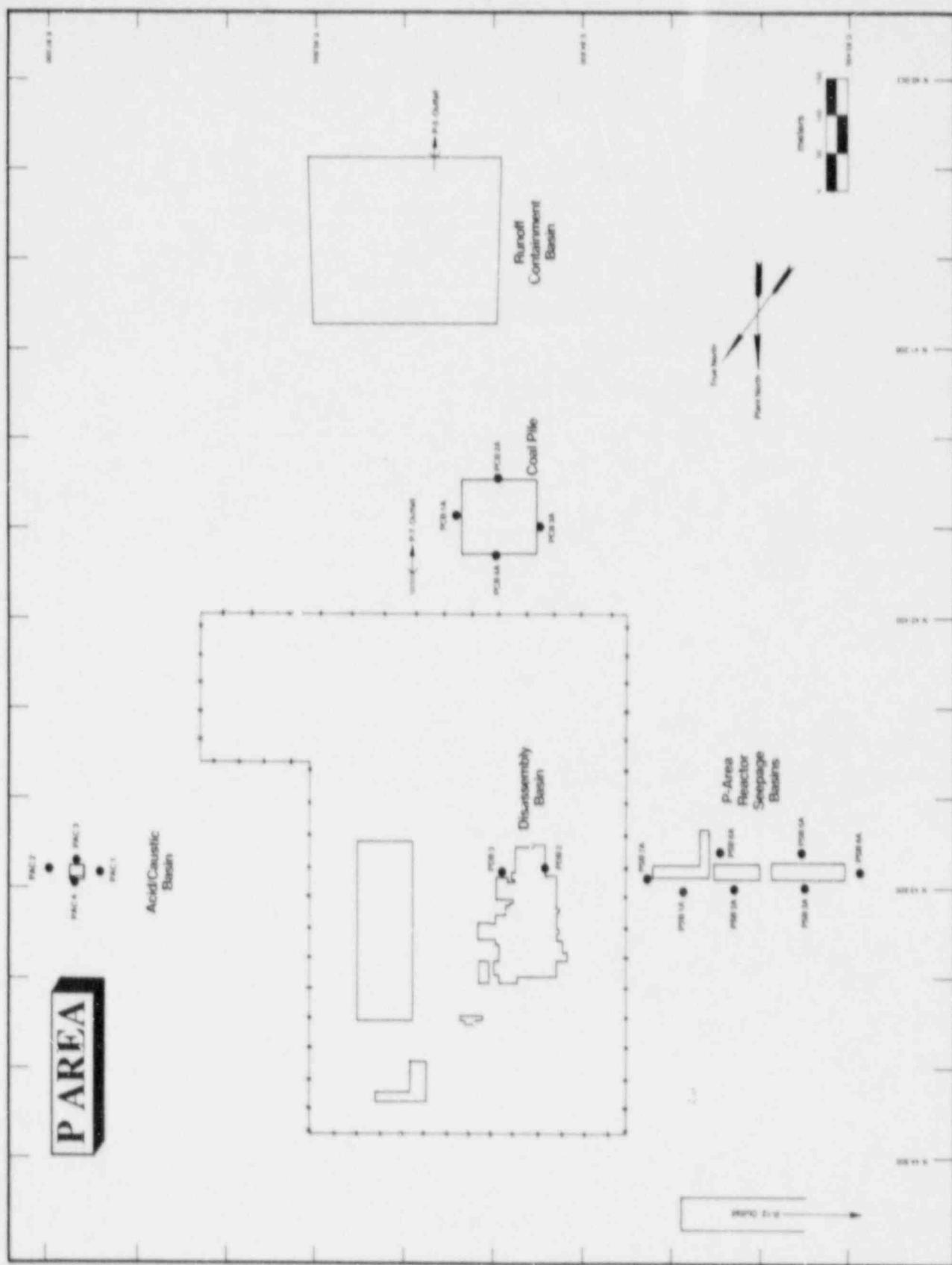


Fig. 4-20
P-Area Wells

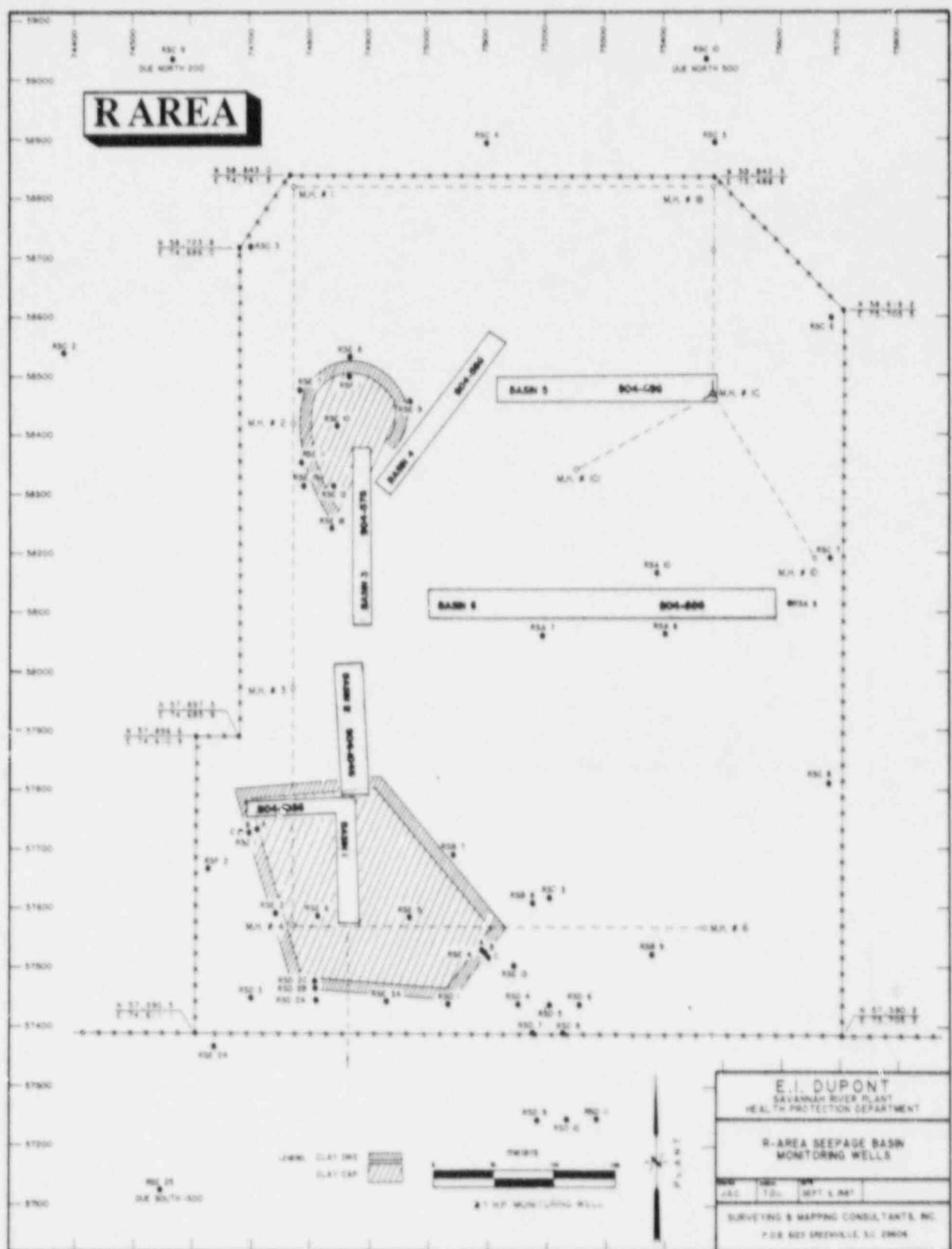


Fig. 4-21
R-Area Seepage Basins

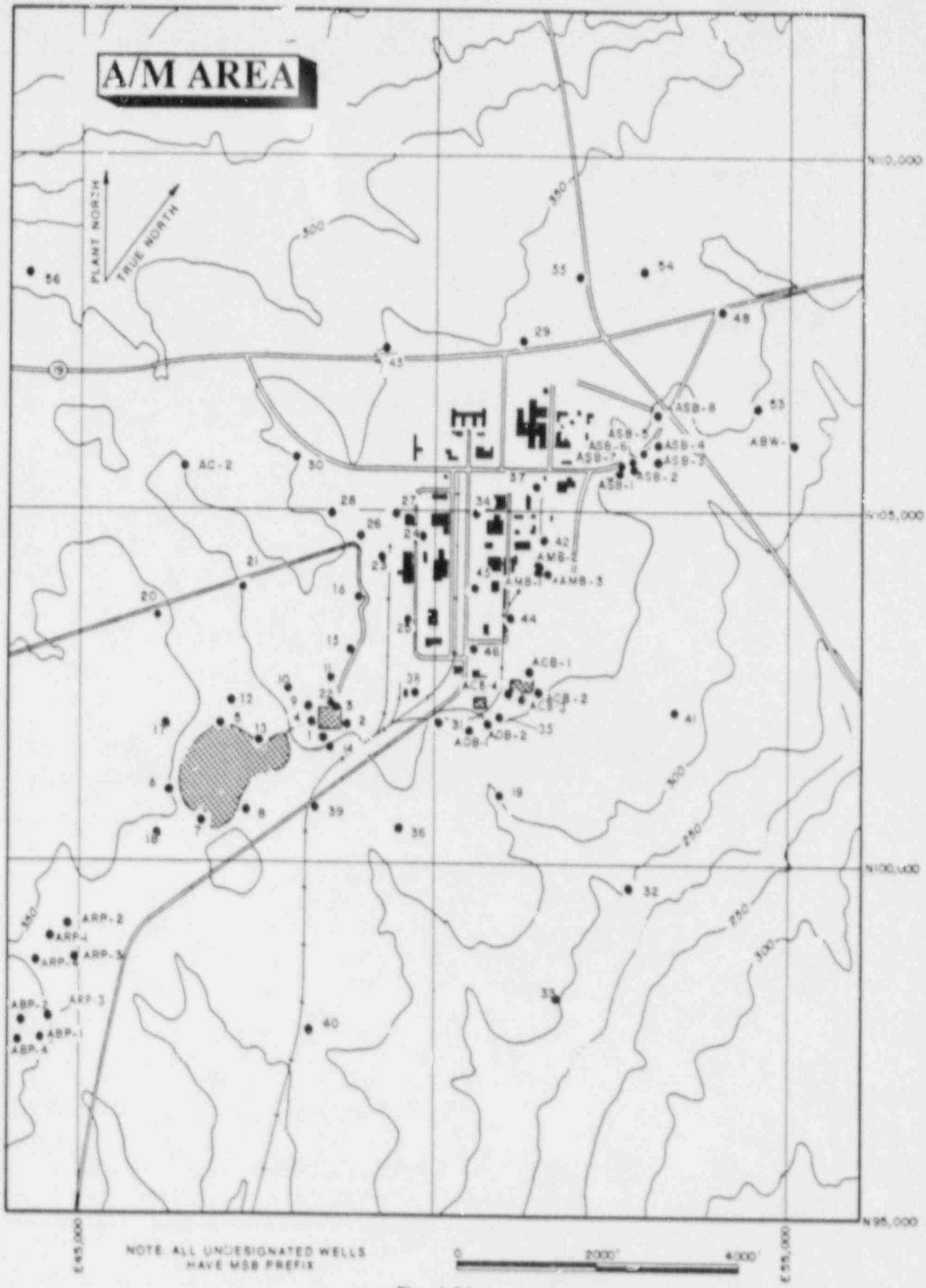


Fig. 4-22
A/M-Area Wells

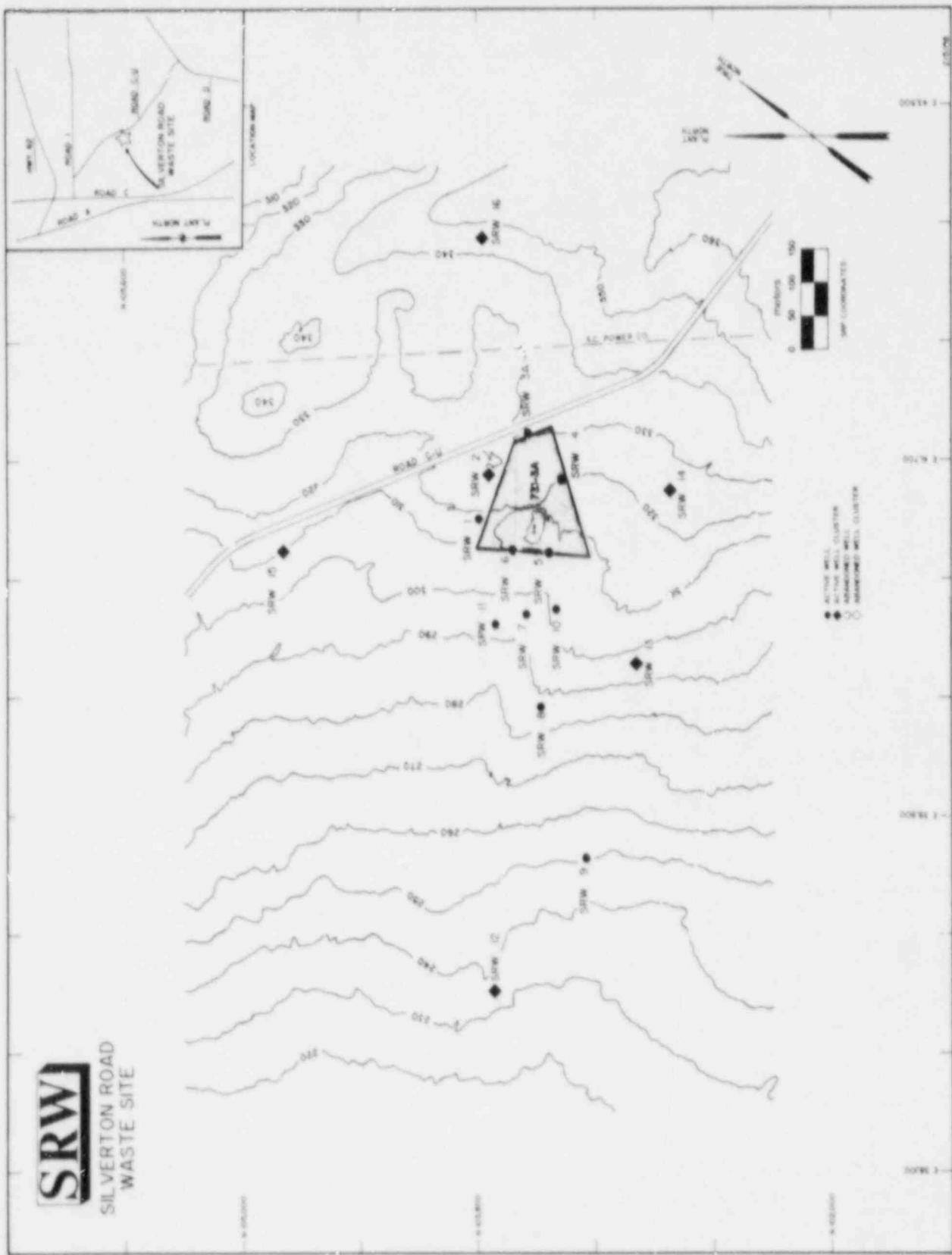


Fig. 4-23
Silverton Road Waste Site

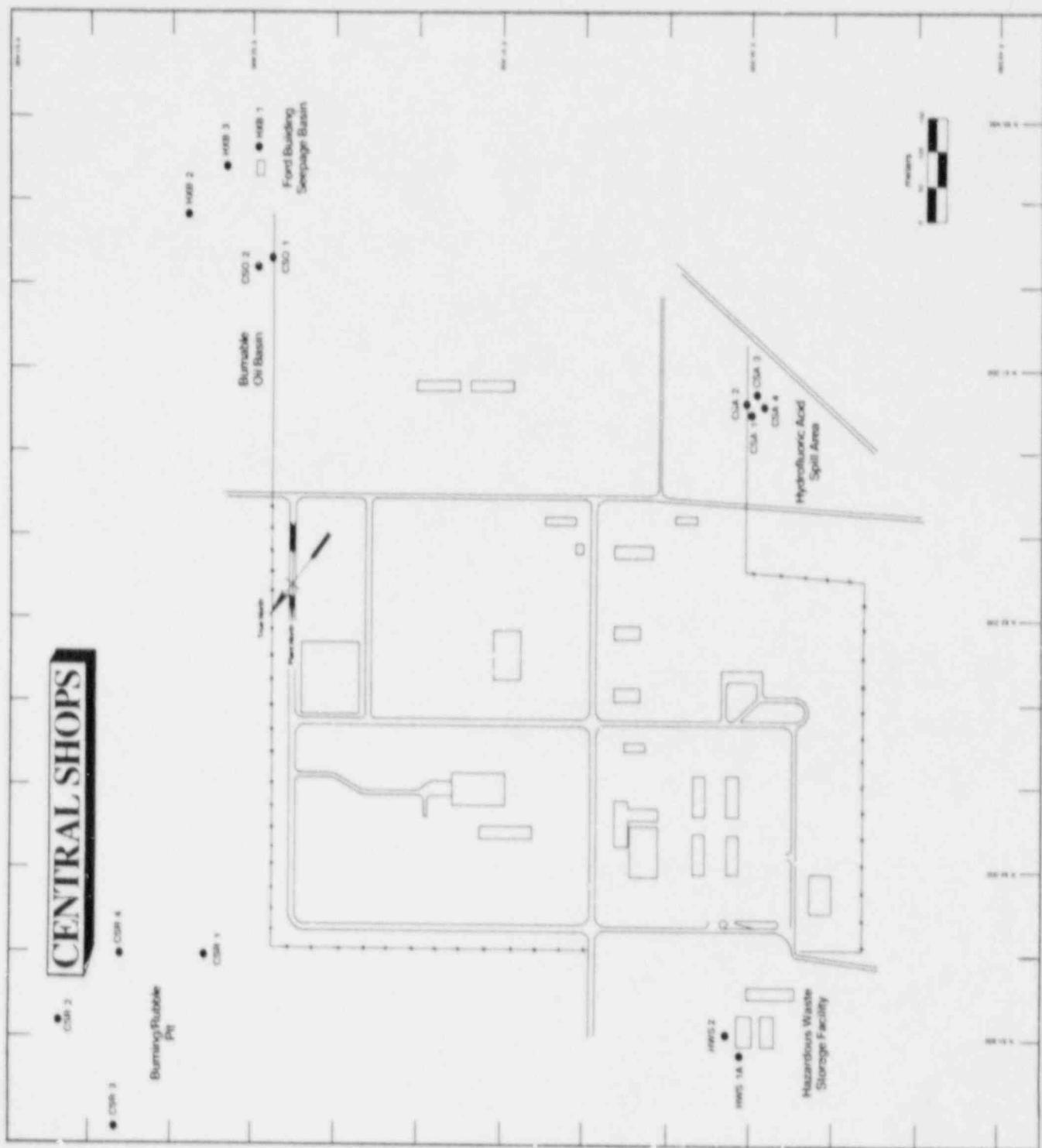


Fig. 4-24
CS-Area Wells

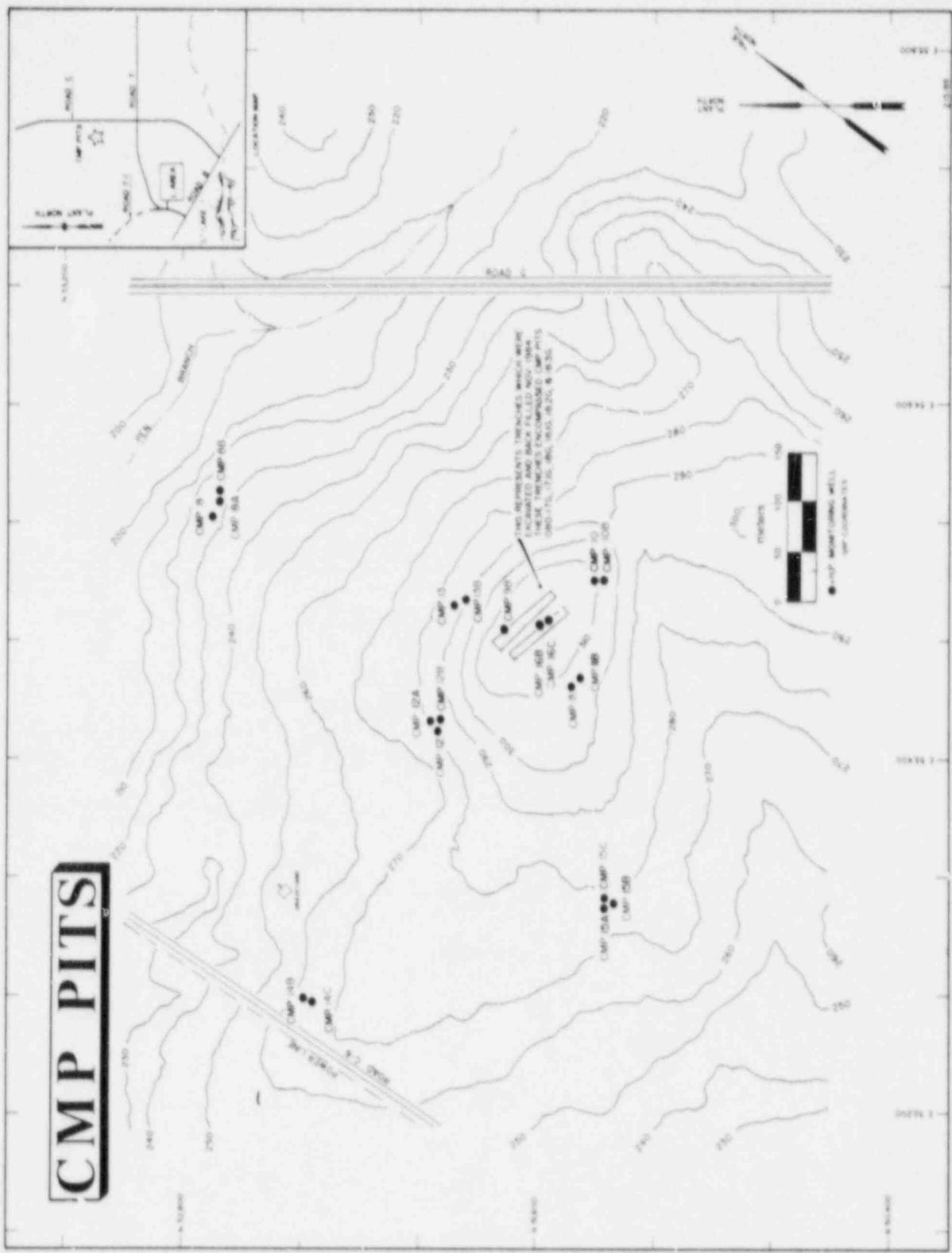


Fig. 4-25
CMP Burial Pits

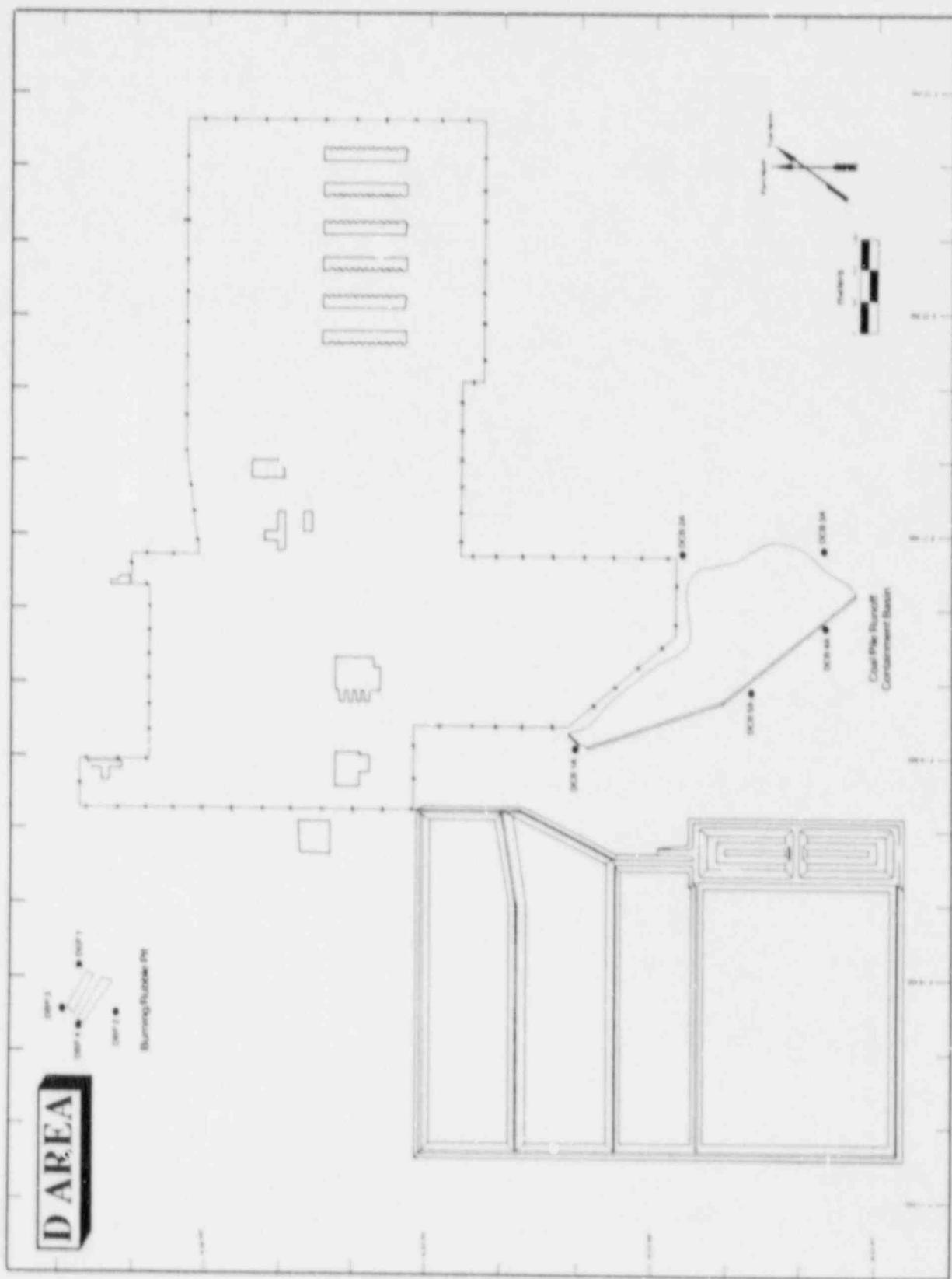


Fig. 4-26
D-Area Wells

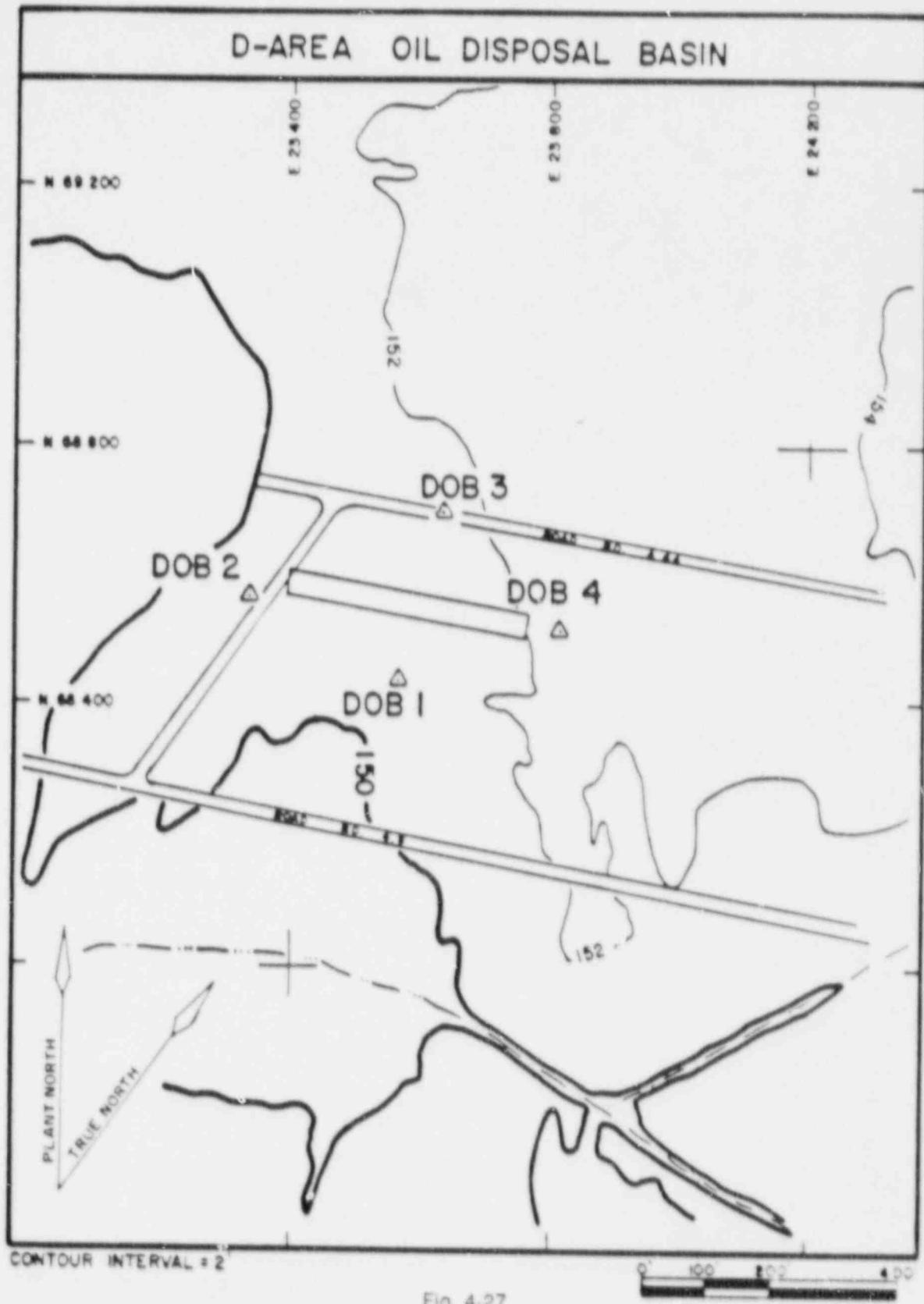


Fig. 4-27
D-Area Oil Disposal basin

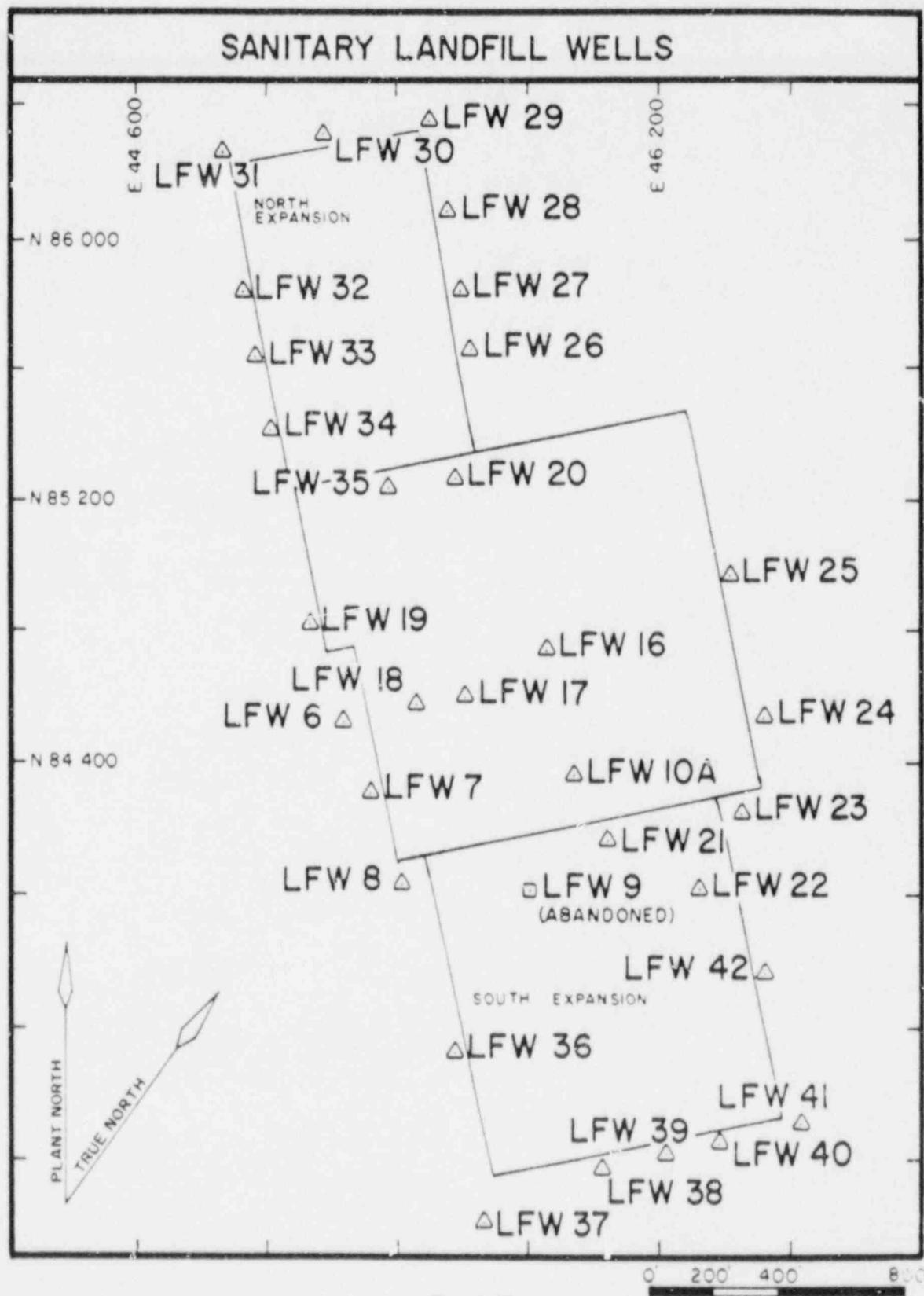


Fig. 4-28
Sanitary Landfill

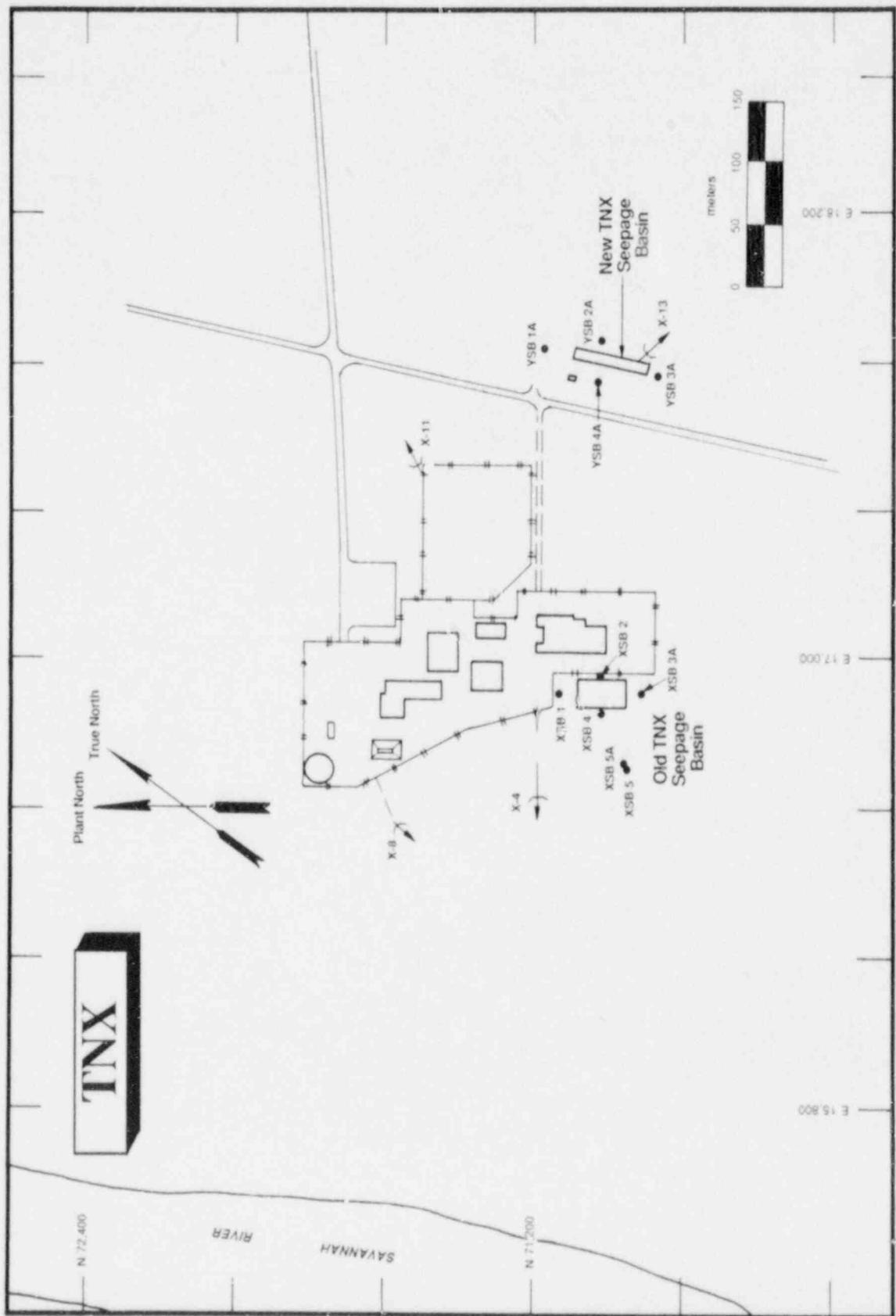


Fig. 4-29
New, Old TNX Seepage Basins

ROAD A WASTE SITE

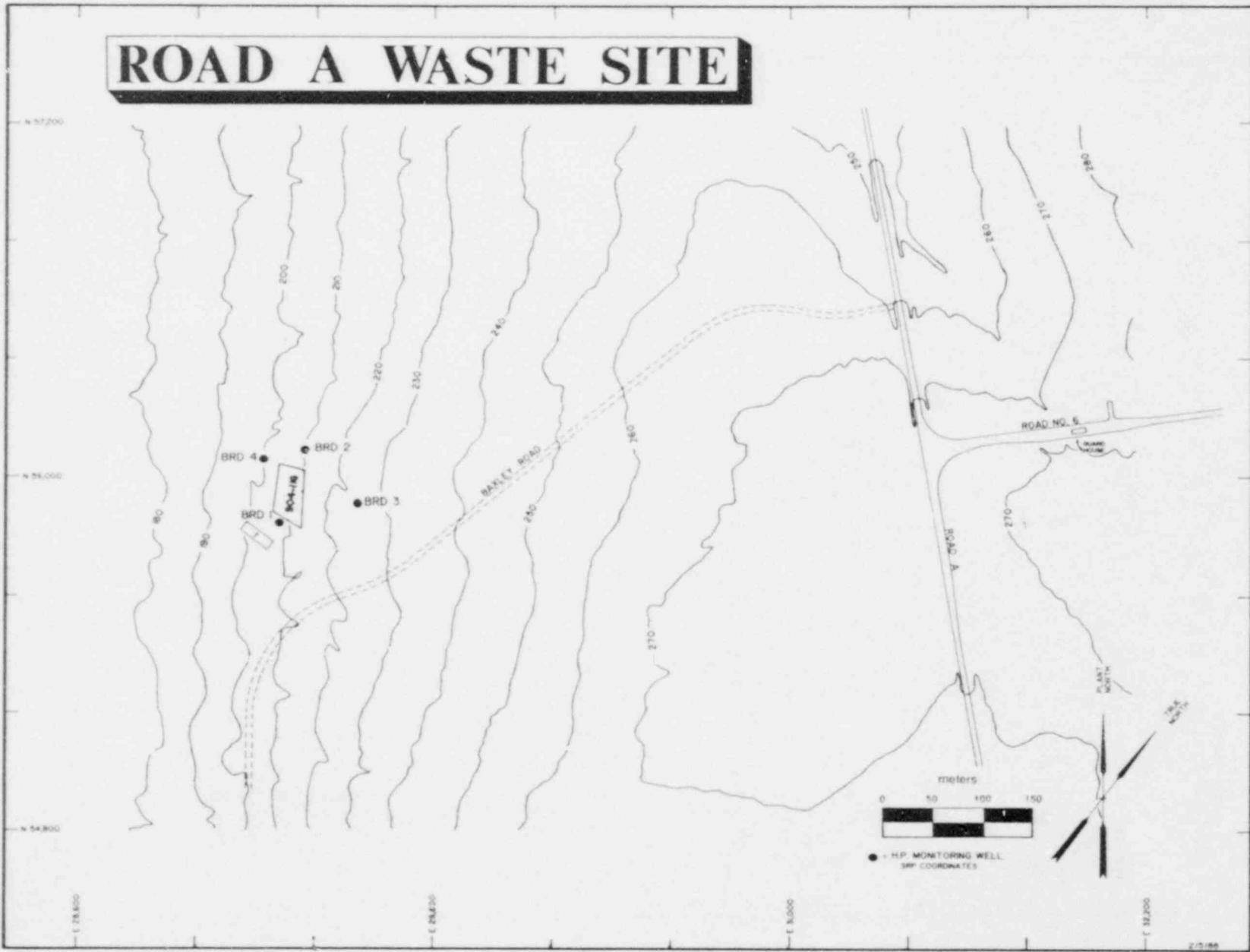


Fig. 4-30
Road A Chemical Basin

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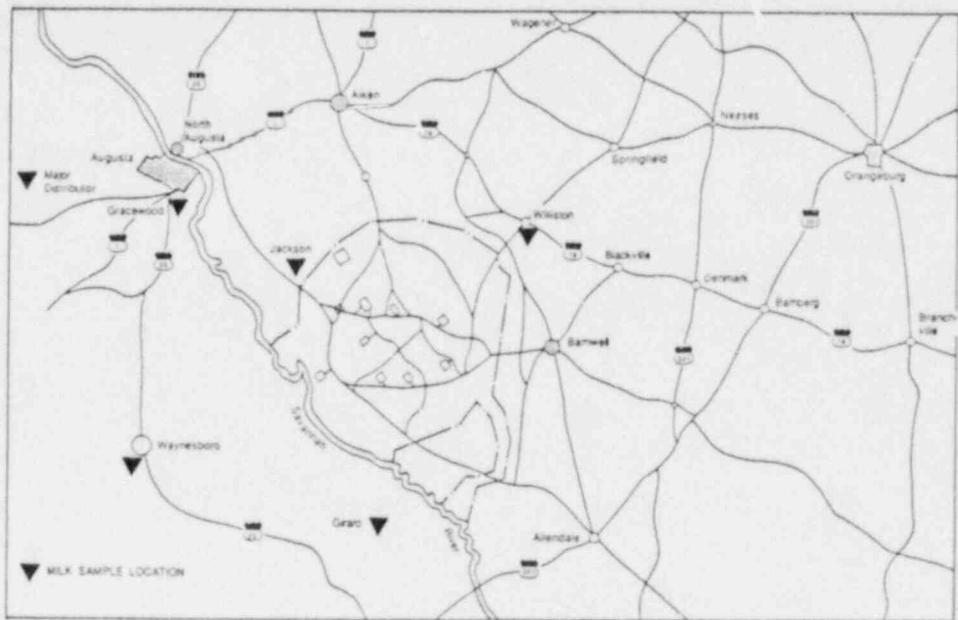


Fig. 5-1
Milk sample locations

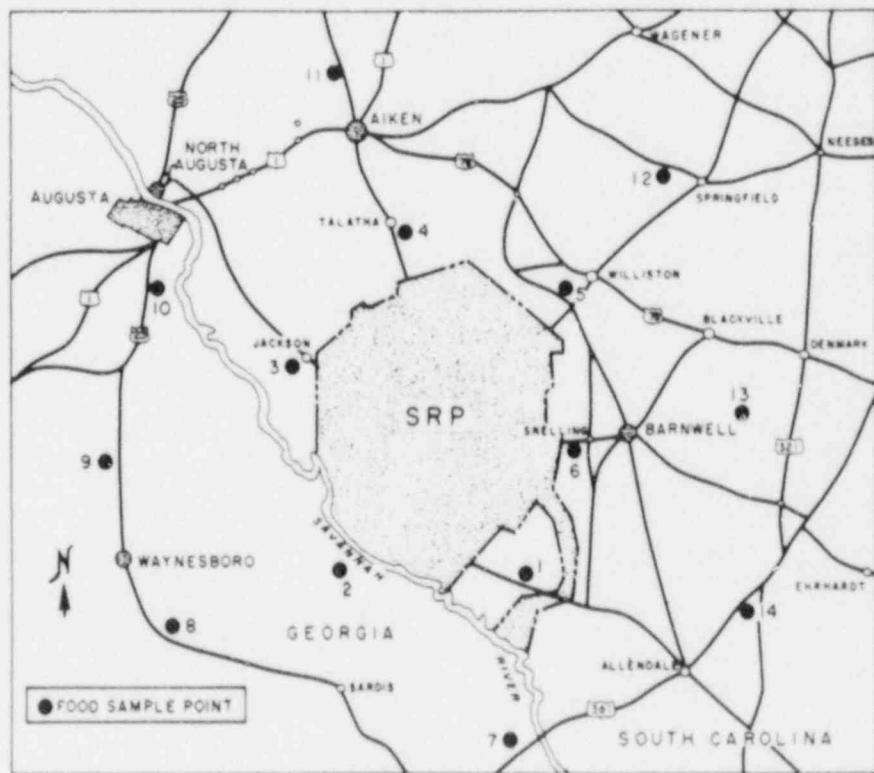


Fig. 5-2
Food sample locations

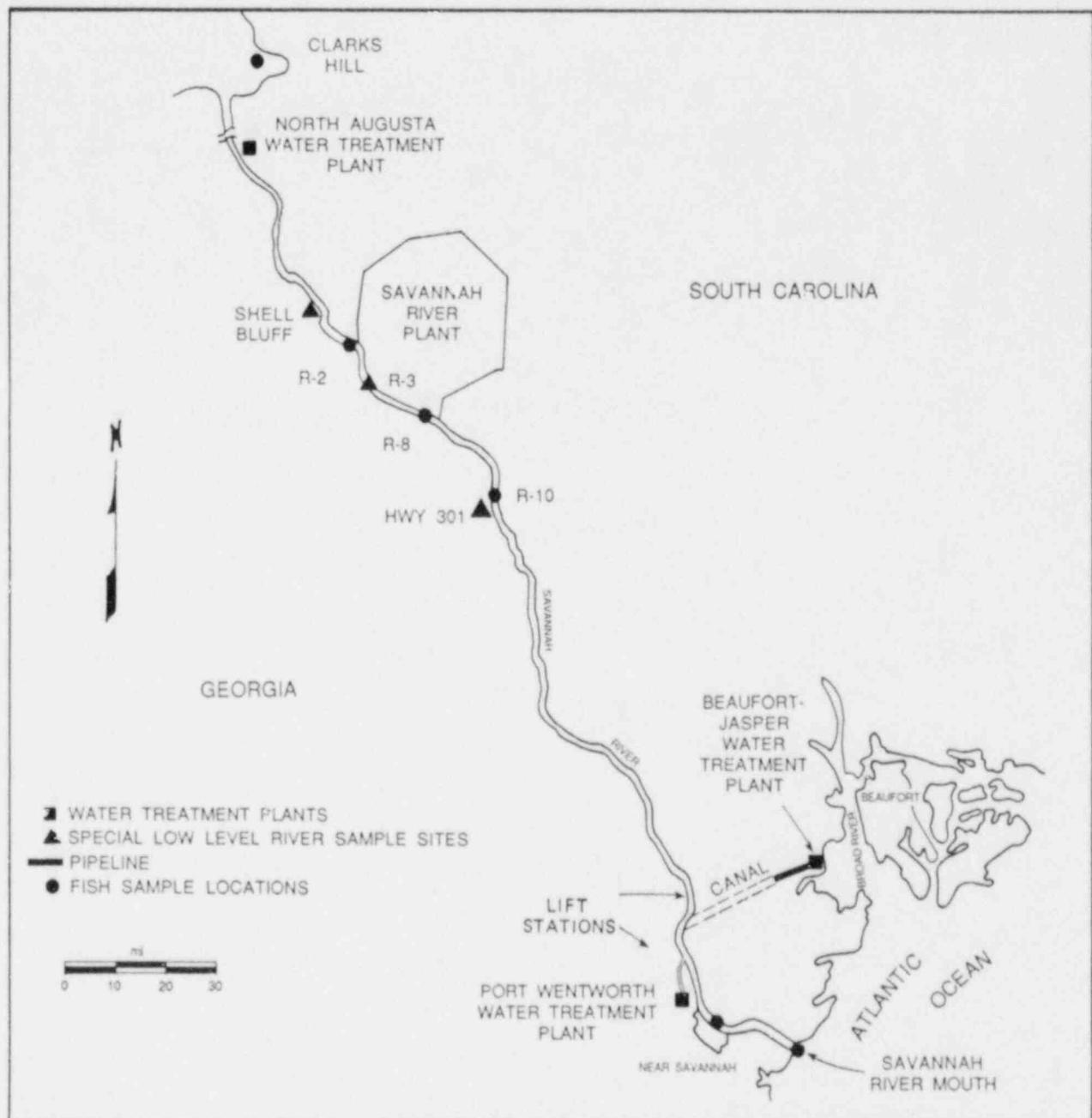


Fig. 5-3
Fish sample and water treatment plant locations

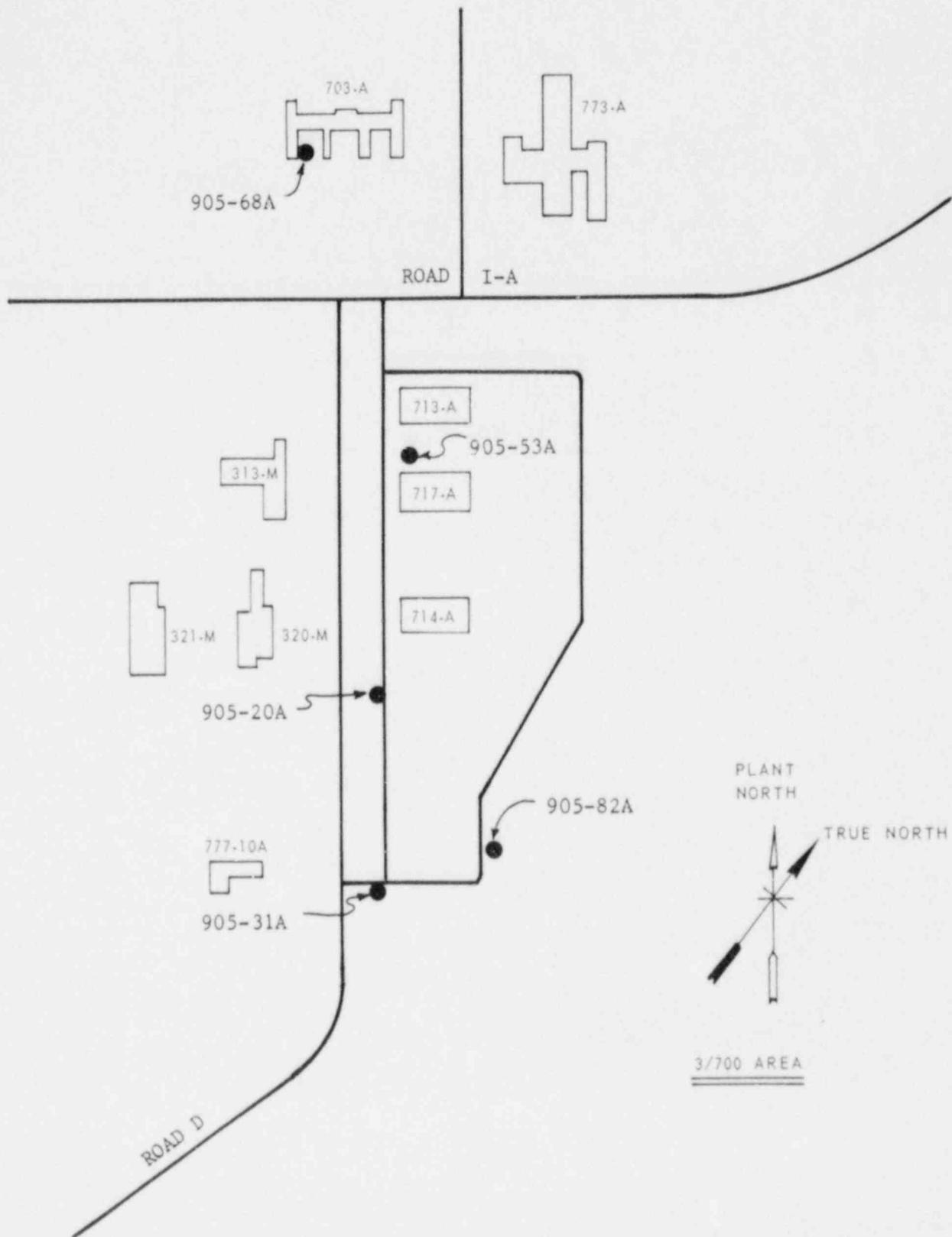


Fig. 5-4
A-Administration Area well locations

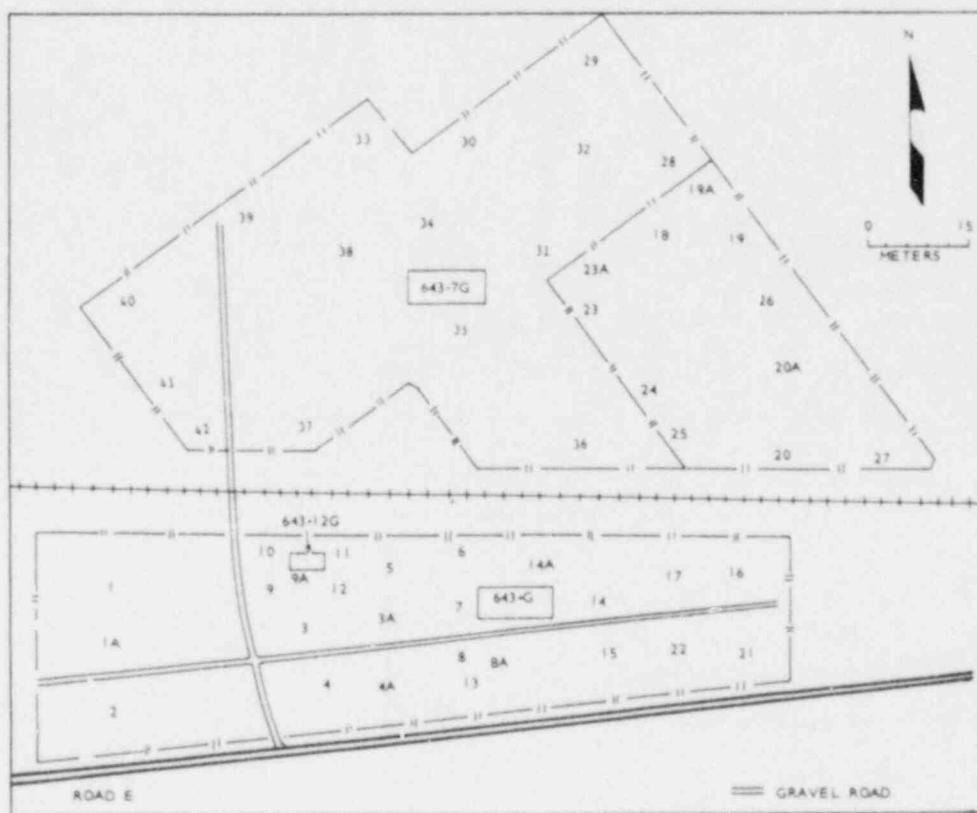


Fig. 7-1
Vegetation sampling locations inside
the Solid Waste Storage Facility fence

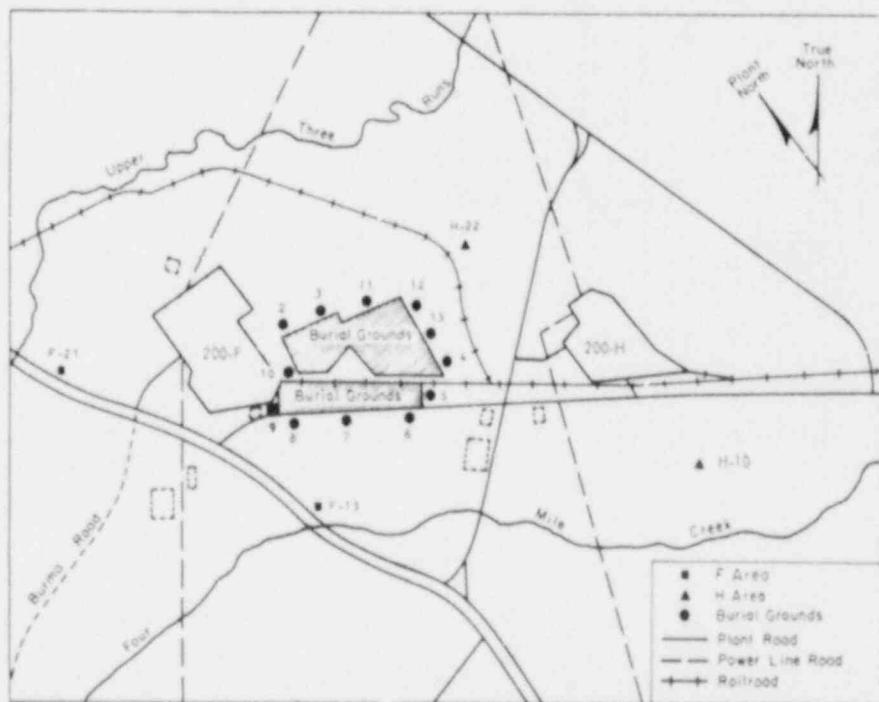


Fig. 7-2
Vegetation sampling locations outside F and H Areas
and Solid Waste Storage Facility fences

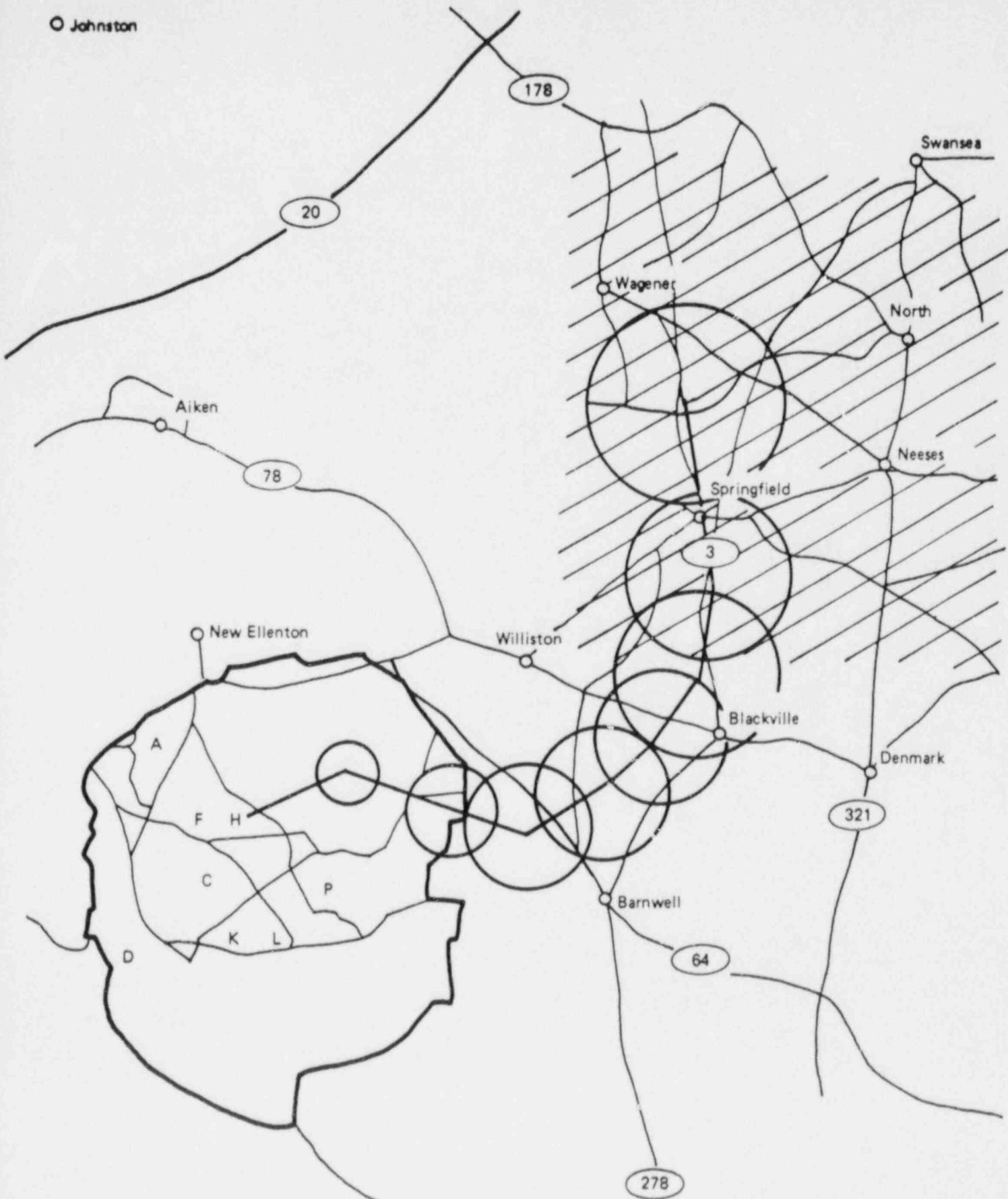


Fig. 8-1
Movement of tritium cloud after July 31, 1987 tritium release
(lined area indicates where the cloud broke up due to thunderstorms)

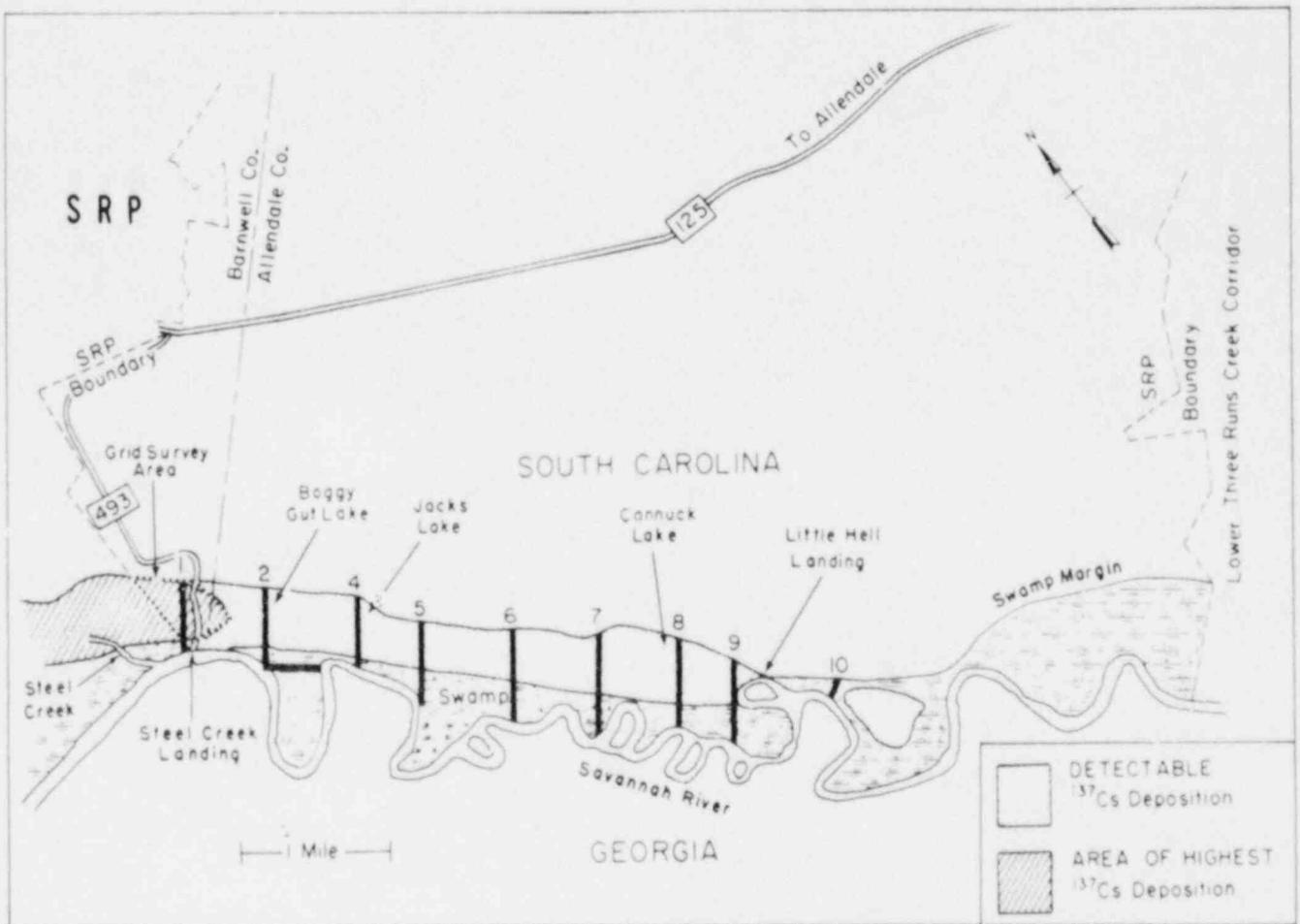
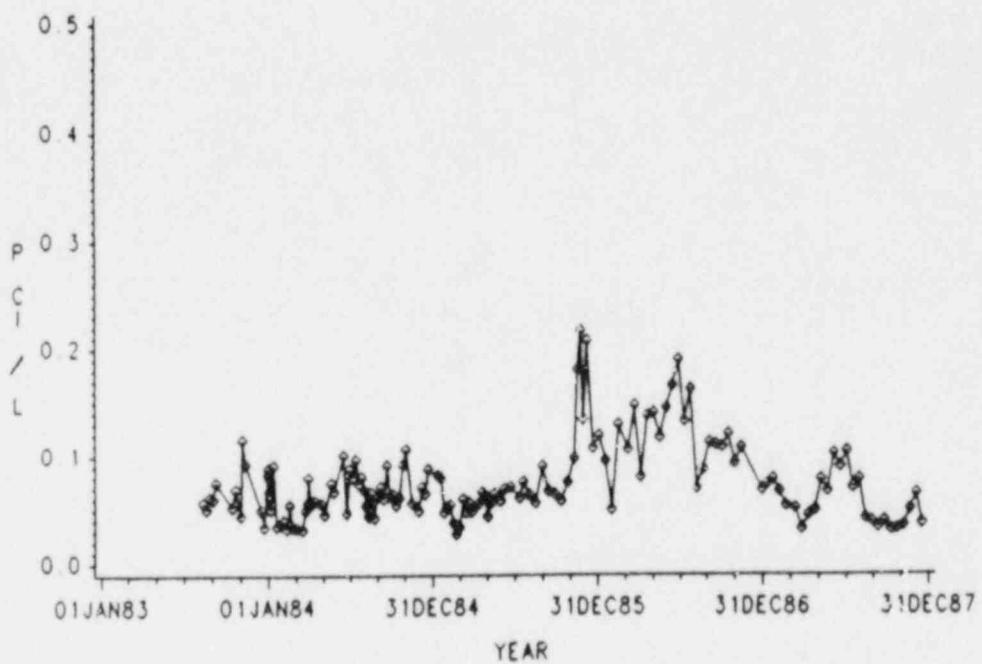


Fig. 8-2
Monitoring trails in the Savannah River swamp

CS-137 CONCENTRATIONS AT HIGHWAY 301



CS-137 CONCENTRATIONS AT SHELL BLUFF

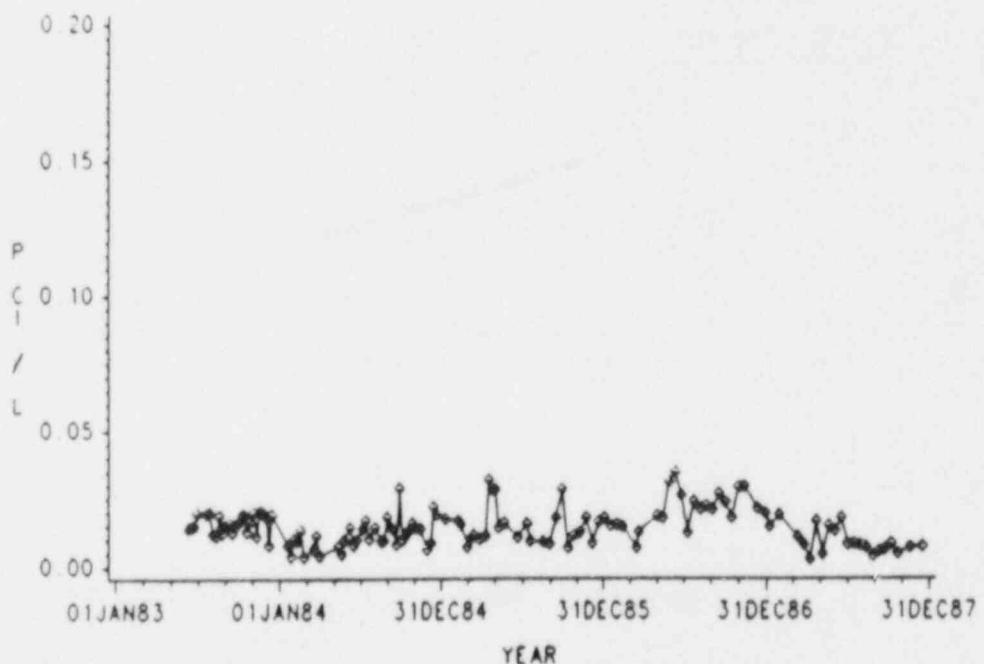


Fig. 8-3
Low-level Cs-137 concentrations in the Savannah River

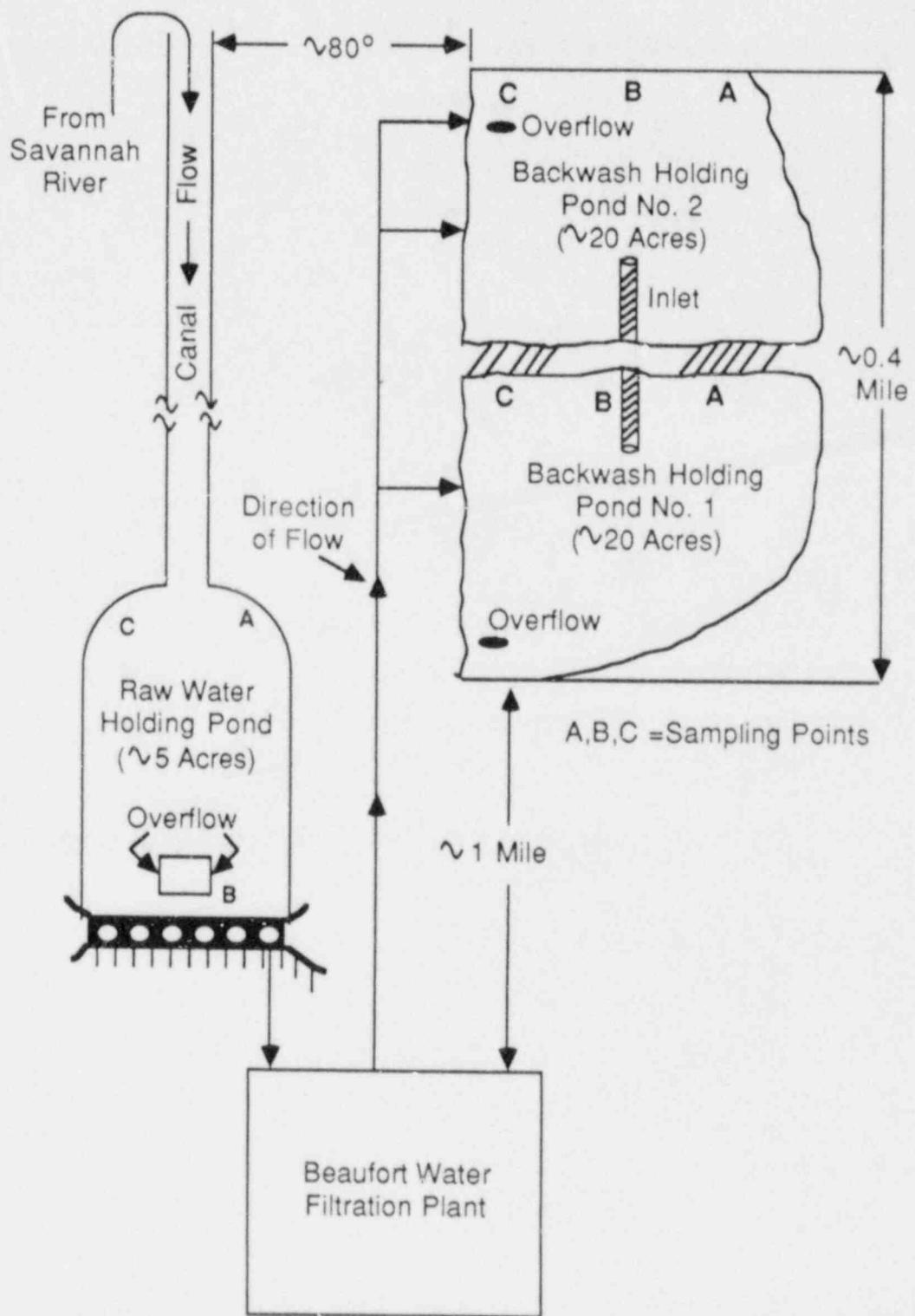


Fig. 8-4
Holding ponds at Beaufort-Jasper water treatment plant

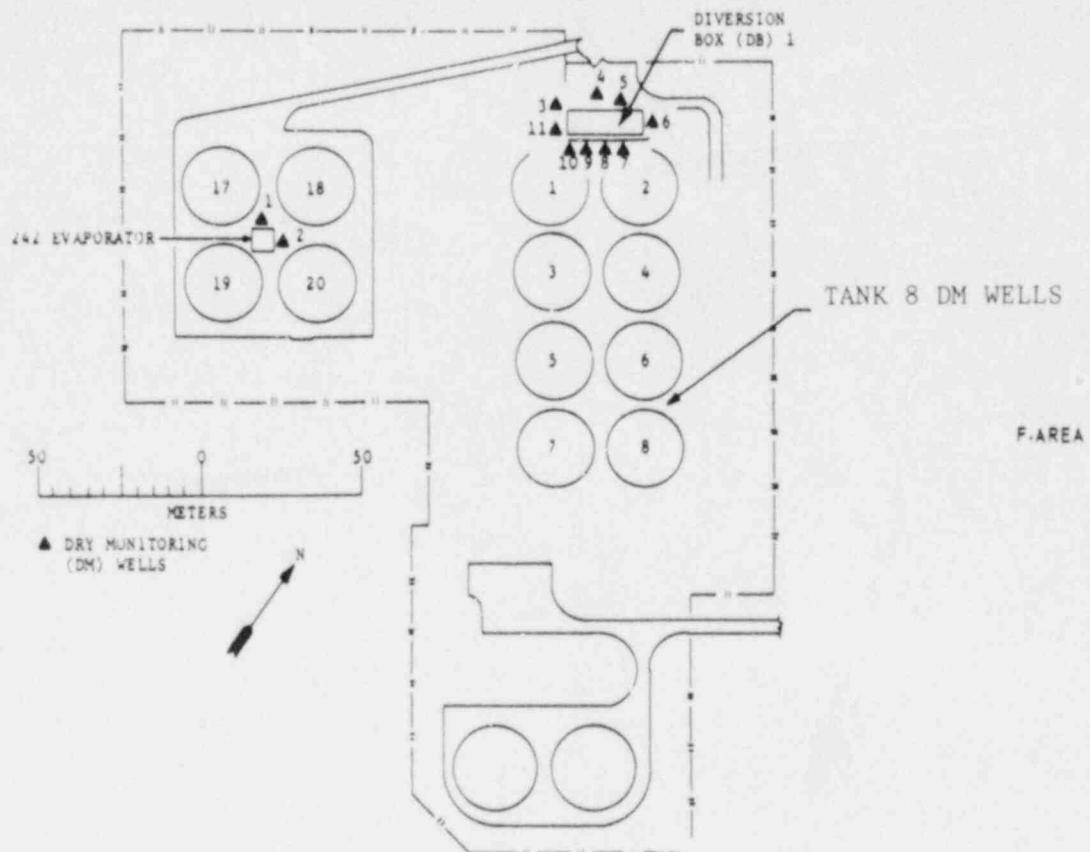


Fig. 8-5
F-Area Tank Farm Dry Monitoring wells

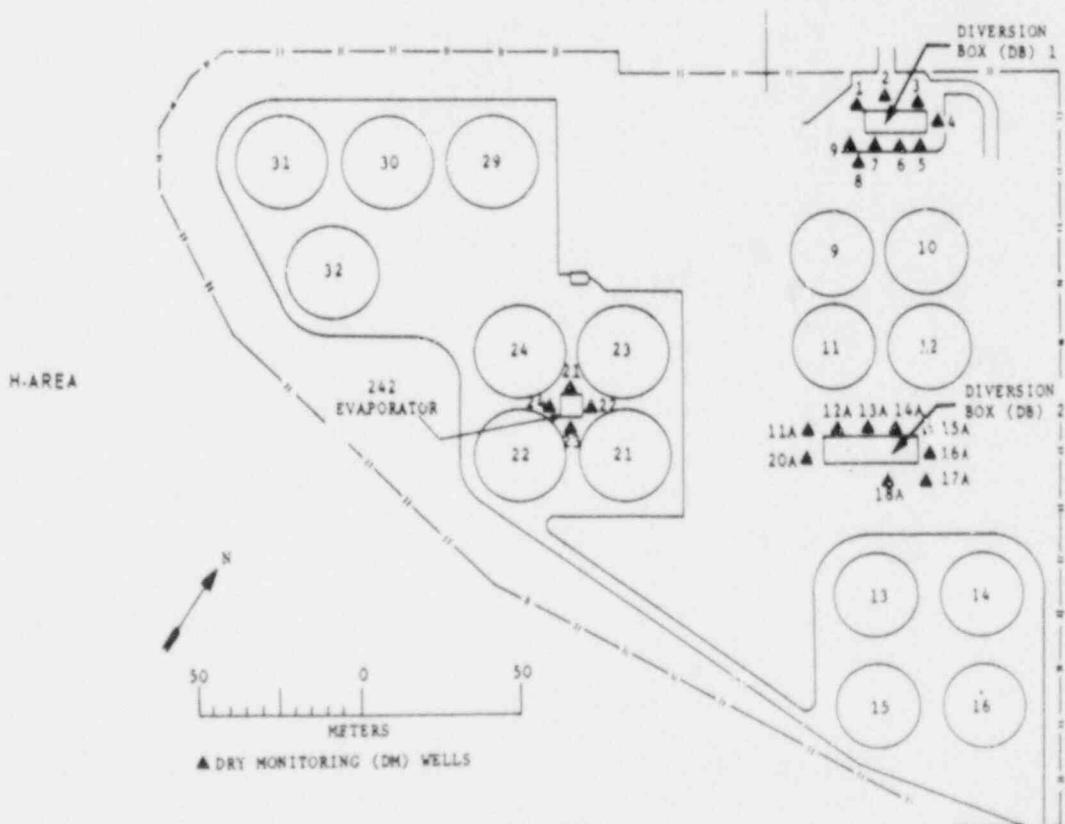


Fig. 8-6
H-Area Tank Farm Dry Monitoring wells

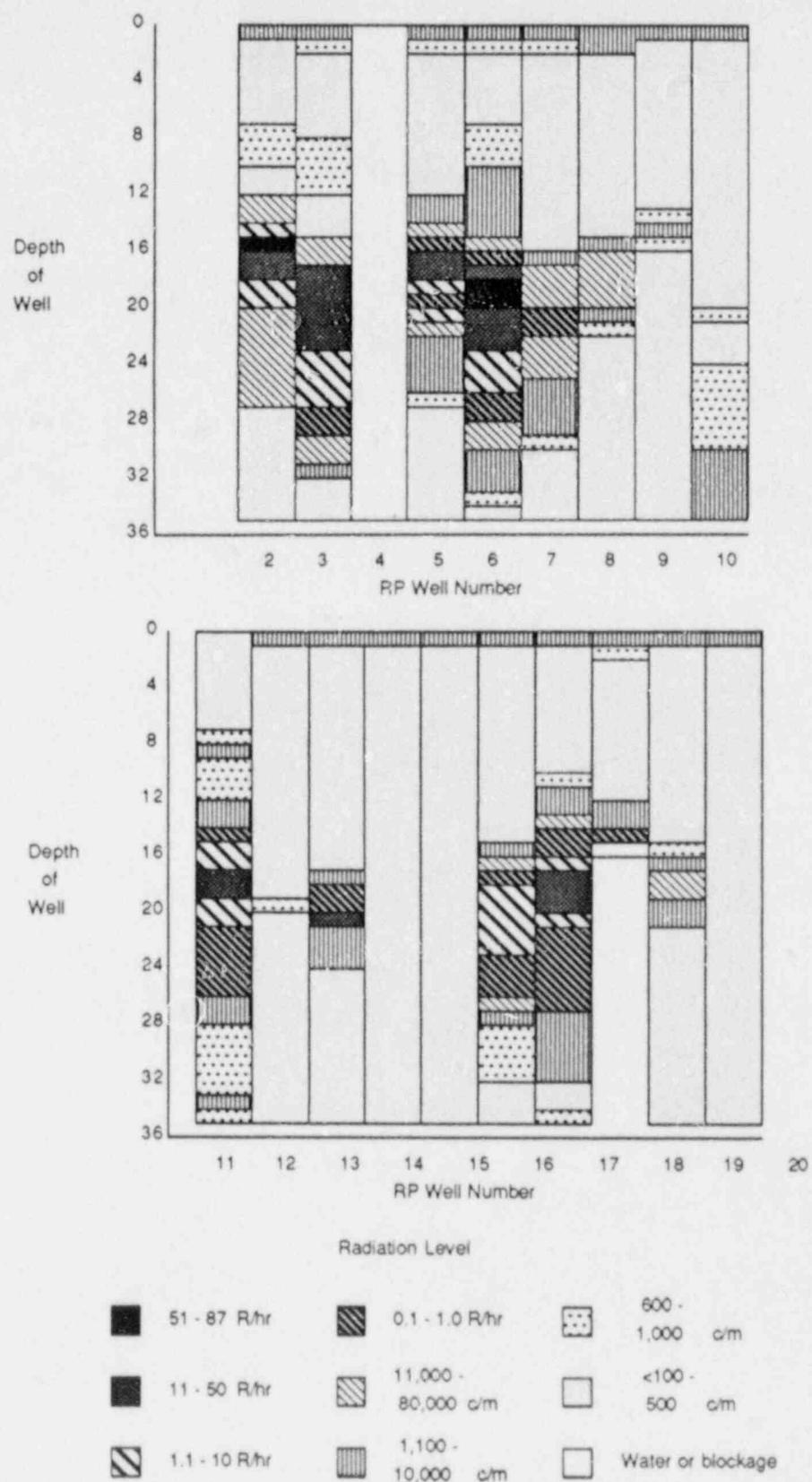
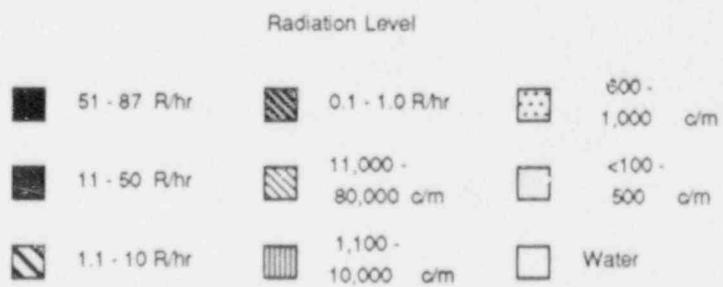
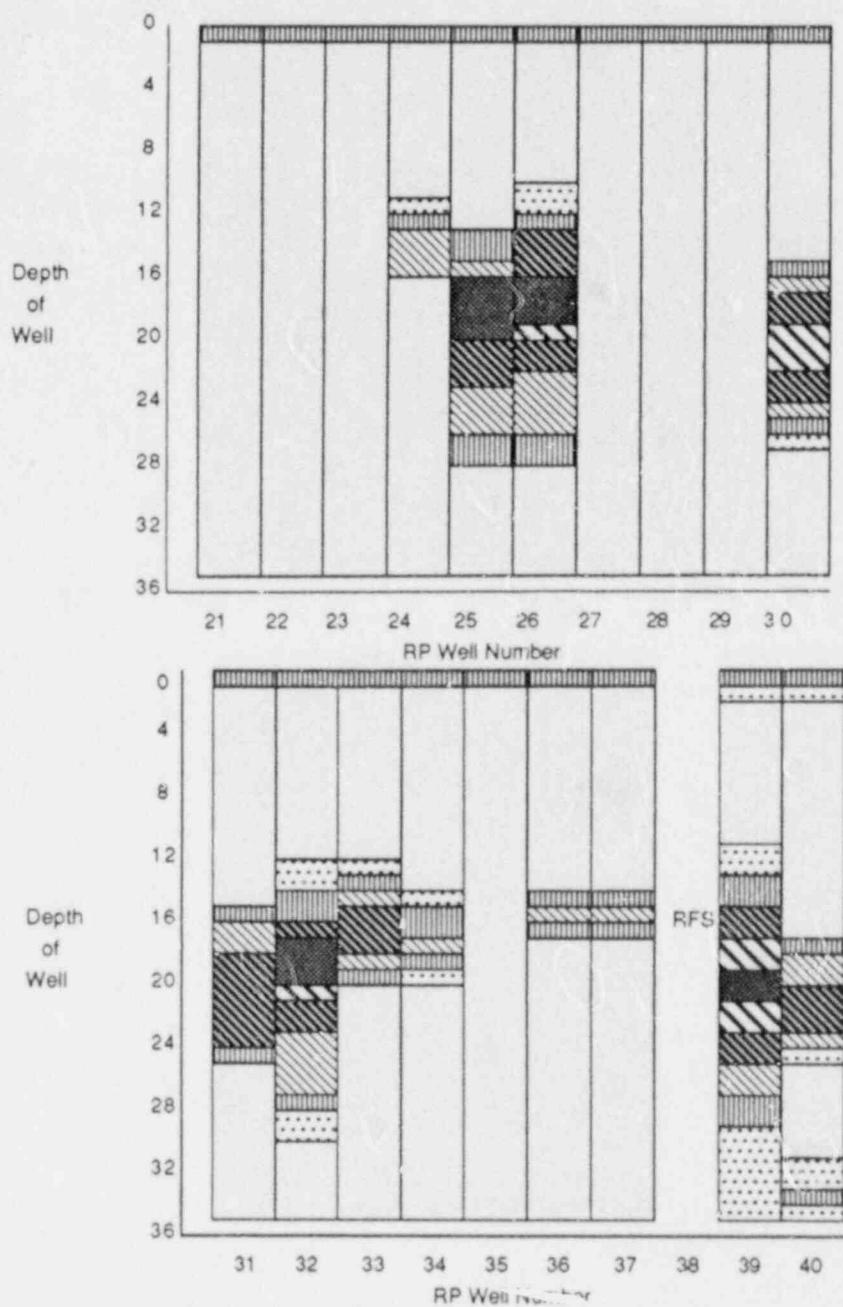


Fig. 8-7
Radiation levels in F-Area Dry Monitoring wells



RFS indicates removed from service.

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

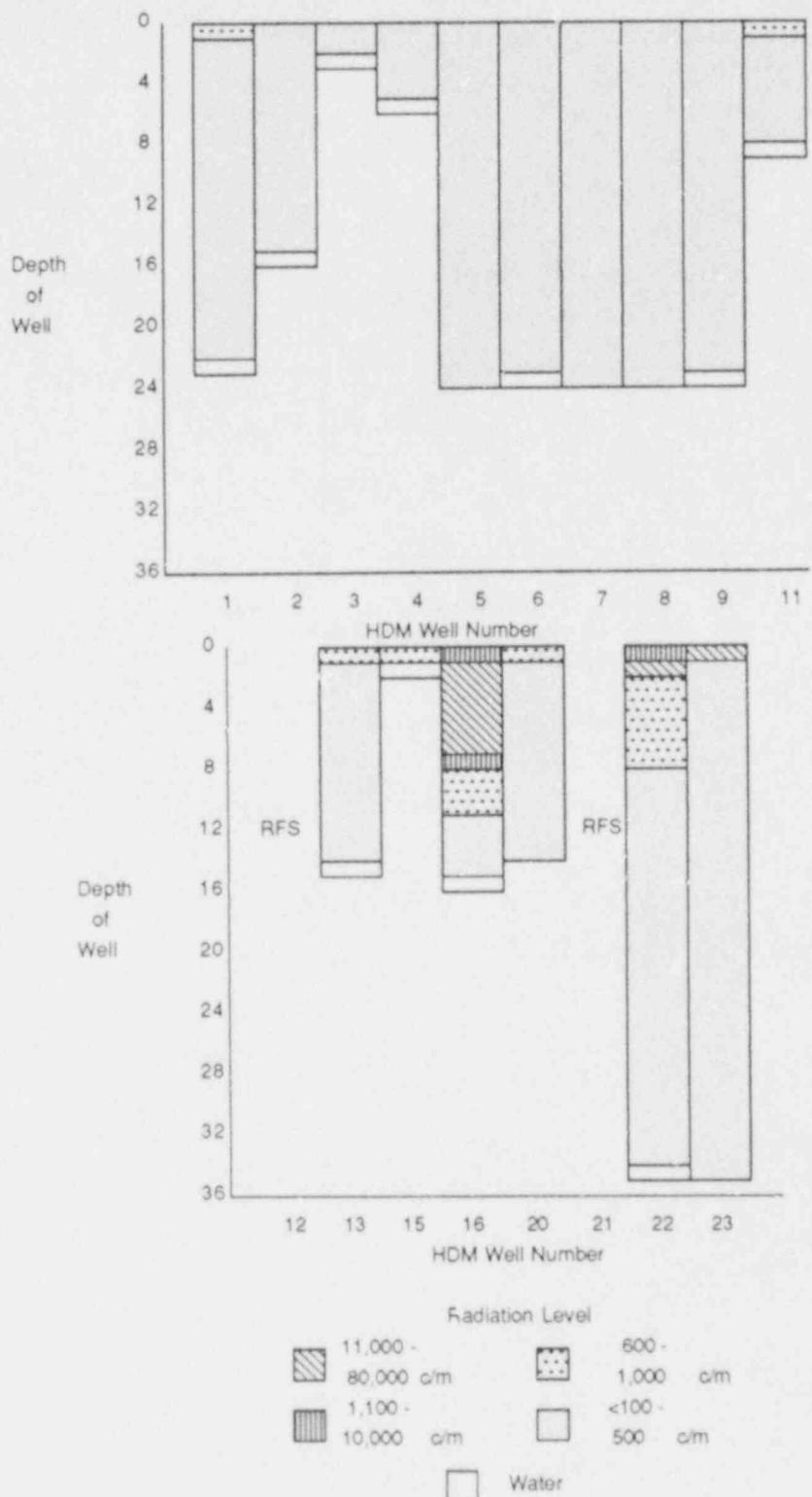


Fig. 8-8
Radiation levels in H-Area Dry Monitoring wells

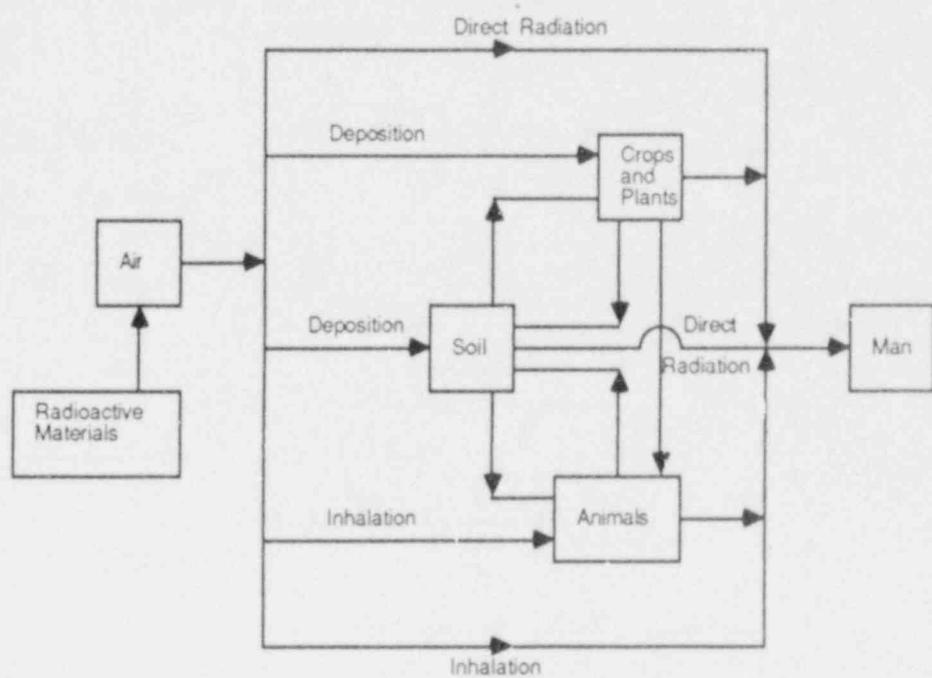


Fig. 9-1
Simplified pathways between radioactive materials released to atmosphere and man

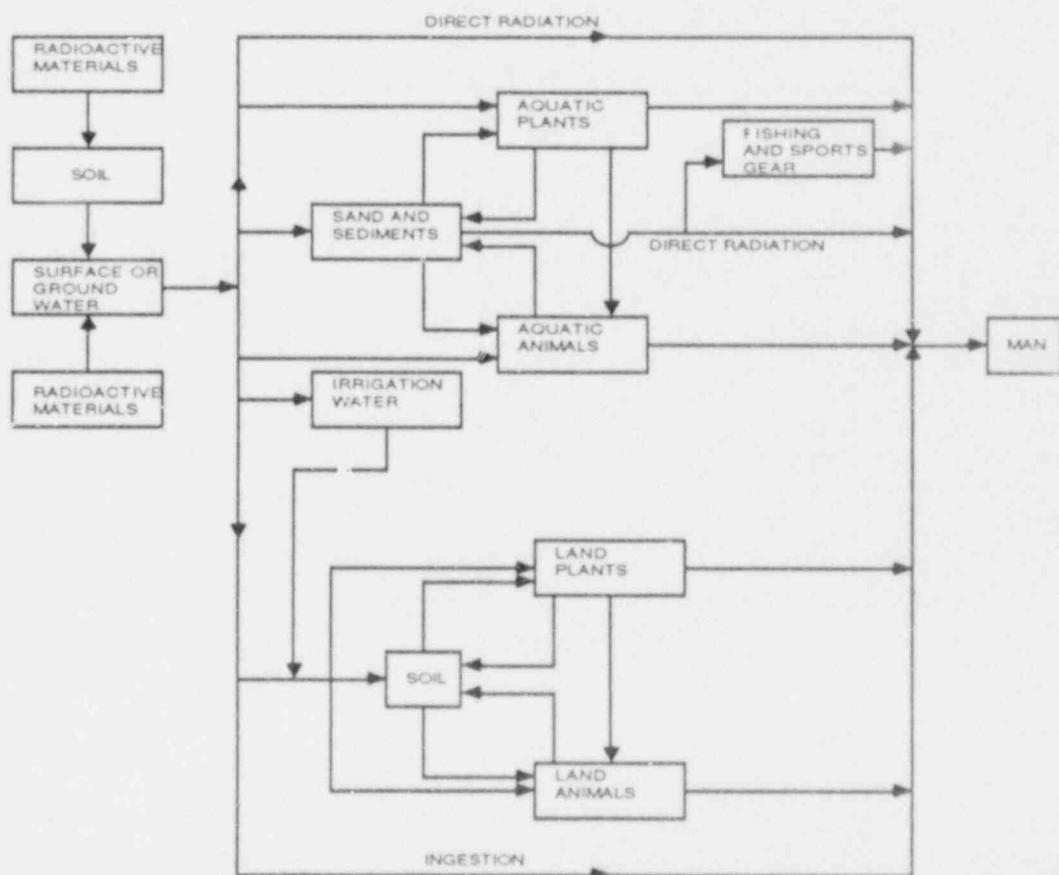


Fig. 9-2
Simplified pathways between radioactive materials released to ground or surface waters and man

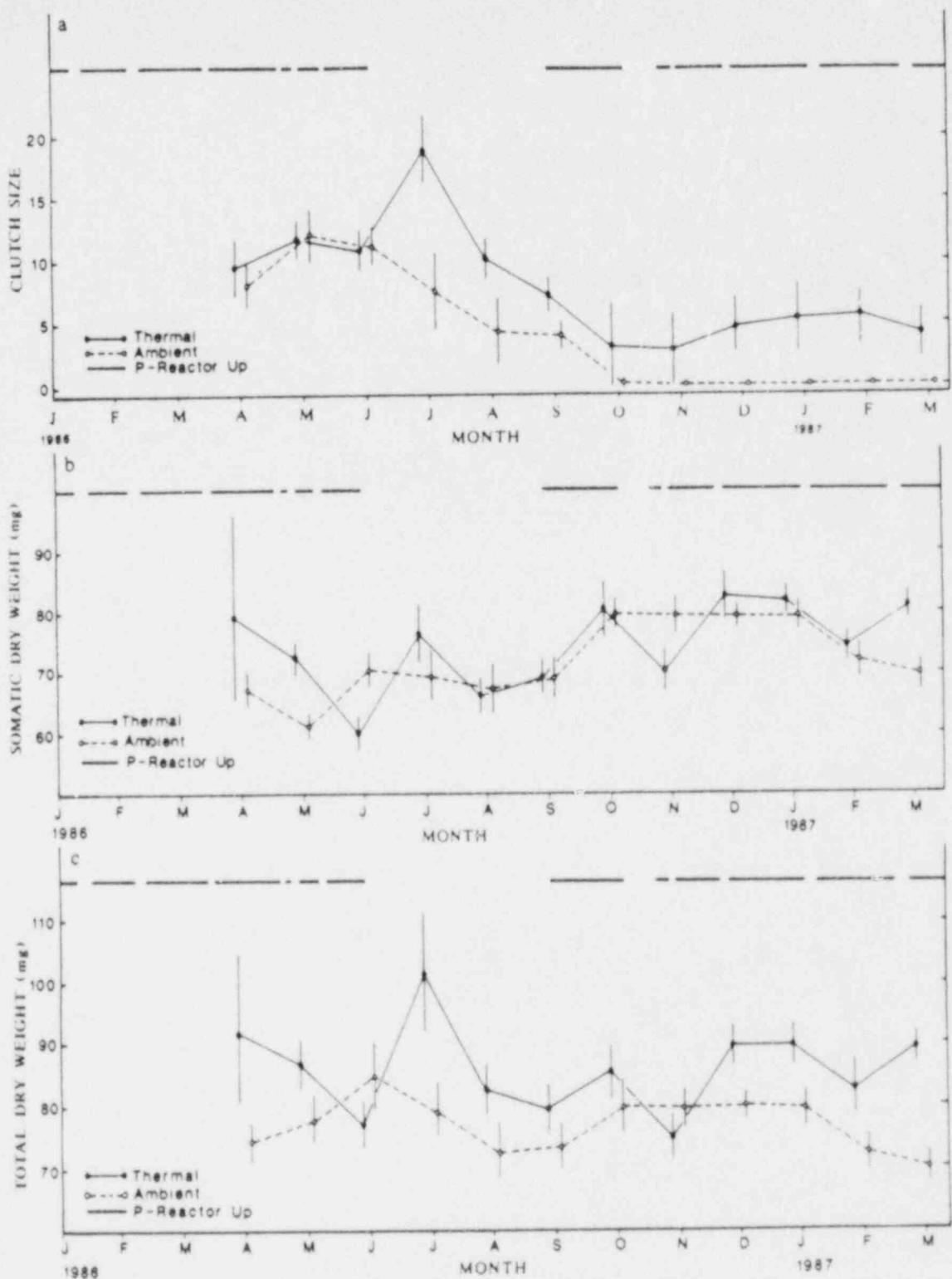


Fig.12-1
Life history parameters of fishes from
Risher Pond (ambient) and Pond C (thermal)

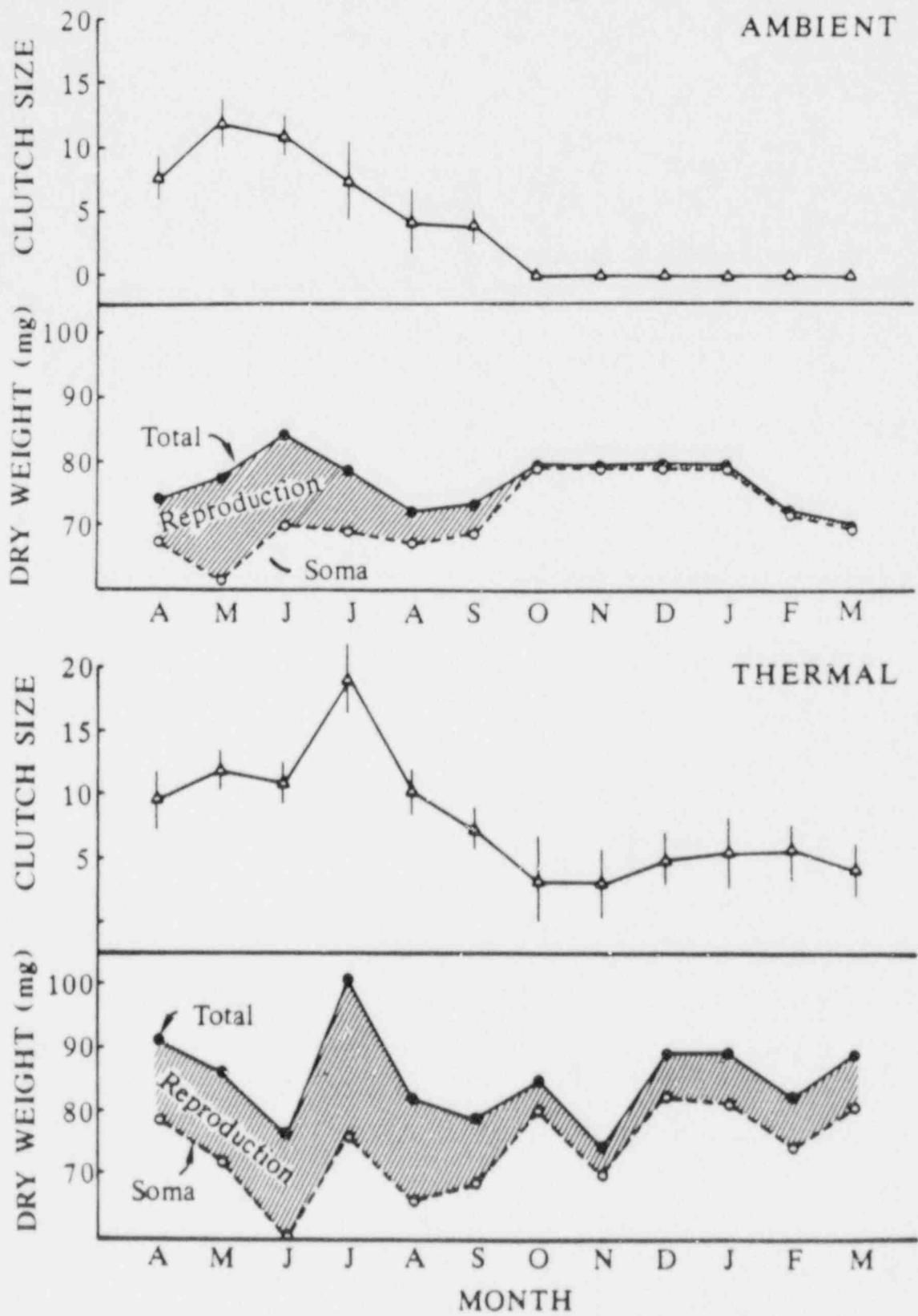


Fig. 12-2
Summaries of life history parameters for *Gambusia affinis*
in Risher Pond and Pond C

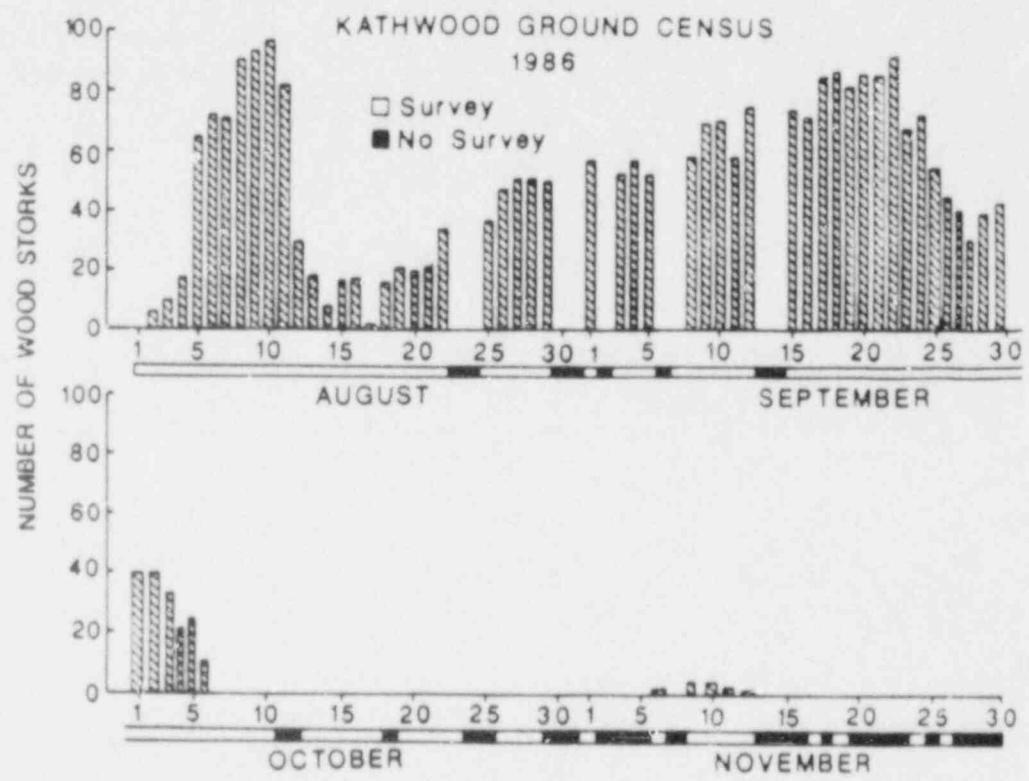


Fig. 12-3
Maximum numbers of wood storks observed at
Kathwood foraging ponds during 1986

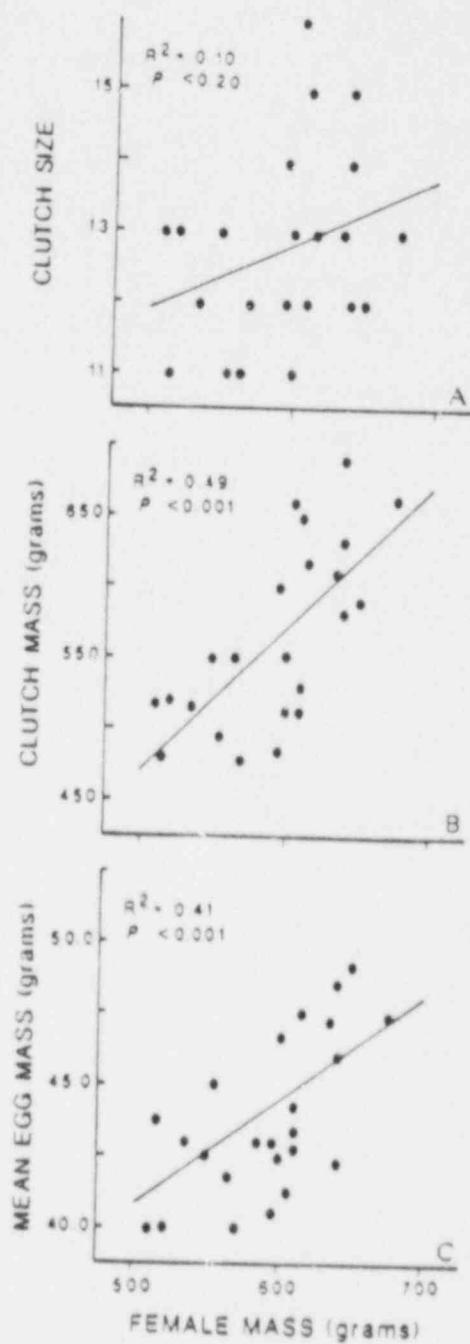


Fig. 12-4
Relationship of (a) clutch size, (b) clutch mass, and
(c) mean egg mass to the body mass of female wood ducks

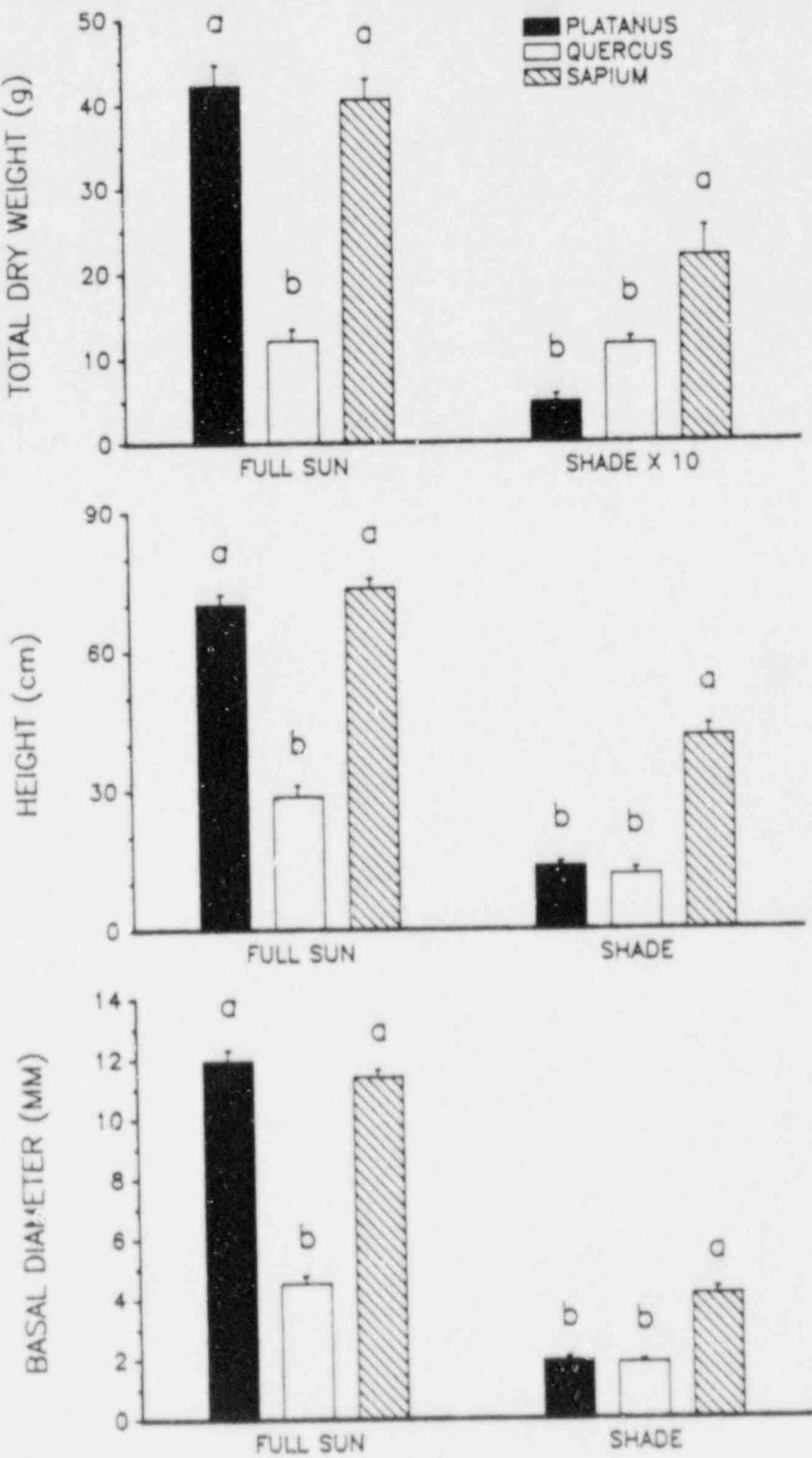


Fig. 12-5
Size of Chinese tallow tree, American sycamore, and cherrybark
oak seedlings subjected to different light regimes



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>	Calculated Individual <u>Dose, mrem^a</u>		<u>Population Size</u>	Calculated Population dose, <u>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
Water Treatment Plants <u>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) 71,000 (water plants)	164,000 20,900
Subtotal (Natural)	295			185,000
Medical Radiation ^{e,f}	53		555,100 (within 80km) 71,000 (water plants)	29,400 3,800
Subtotal (Medical)	53			33,200
Consumer Products	10		555,100 (within 80km) 71,000 (water plants)	5,600 700
Subtotal (Consumer Products)	10			6,300
Weapons Test Fallout	<1.0		555,000 (within 80km) 71,000 (water plants)	600 100
Subtotal (weapons Tests)	<1.0			700
Other	<1.0		555,000 (within 80km) 71,000 (water plants)	600 100
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 2 STD DEV</u>
<u><u>ALPHA FCI/CUBIC M</u></u>						
<u><u>ONPLANT</u></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	2.2	±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><u>PLANT PERIMETER</u></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><u>25-MILE RADIUS</u></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><u>100-MILE RADIUS</u></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</u>	<u>2 STD DEV</u>
<u>NONVOL BETA, FC/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.

LOCATION	NO. OF SAMPLES	MAXIMUM	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN 2 STD DEV
<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 COMP	12	0.47	±0.33	-0.23	±0.24	0.03 ±0.36
AVERAGE						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	±7.7	120 ±54
100-MILE RADIUS	10	460	±110	2.3	±0.42	190 ±230
AVERAGE						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	10	0.00	±190	0.00	±3.6	0.00 -
AVERAGE						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	10	0.00	±190	0.00	±16	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 2 STD DEV</u>
<u>I-131. FCI/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. FCI/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. FCI/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>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN</u>	<u>2 STD DEV</u>
<u>PU-239, ACI/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>MONTHLY COMPOSITE</u>							
3/700 AREA	10	0.00	±190	0.00	±0	0.00	-
F AREA	10	0.00	±190	0.00	±	0.00	-
H AREA	11	0.00	±190	0.00	-	0.00	-
BG NORTH	4	0.00	±190	0.00	±	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>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>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN</u>	<u>2 STD DEV</u>
<u>H-3. PCI/CU M</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	±6.9	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 ± 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 Emission Source</u>	<u>Calculated Avg. Conc. at Plant Perimeter, 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>	Avg. Individual Dose, mrem ^a	Percent of Total Dose
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>	Avg. Individual Dose, mrem ^a	Percent of Total Dose
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>
Gases and Vapors:				
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
Particulates:				
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 person-rem^a</u>	<u>Percent of 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 person-rem^a</u>	<u>Percent of 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 2 STD DEV
<u>SRP TYPE TLD, MR/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
PAT 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
O 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.

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>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.

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>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>DWPF</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>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 VOGTE</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 VOGTE</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.

LOCATION	NO. OF SAMPLES	MAXIMUM	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN 2 STD DEV
<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, MR./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	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.

LOCATION	NO. OF SAMPLES	MAXIMUM	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN 2 STD DEV
<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-TG 1	4	0.28	±0.04	0.25	±0.04	0.27
643-TG 2	4	0.46	±0.07	0.22	±0.03	0.31
643-TG 3	4	0.36	±0.05	0.28	±0.04	0.32
643-TG 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.

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>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-EV</u>
<u>SRP TYPE TLD. MR/DAY</u>						
PLANT PERIMETER						
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.

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 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	0.33	±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	±0.03	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. MR/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 O	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 O	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 O	0					
HEPHZIBAH, GA I	4	0.22	±0.02	0.20	±0.02	0.21
LINCOLNTON, GA O	0					
LINCOLNTON, GA I	3	0.15	±0.02	0.13	±0.01	0.14
LOUISVILLE, GA O	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 O	0					
MCBEAN, GA I	4	0.28	±0.03	0.23	±0.02	0.26
MILLEN, GA O	0					
MILLEN, GA I	4	0.23	±0.02	0.17	±0.02	0.21
NEWINGTON, GA O	0					
NEWINGTON, GA I	4	0.43	±0.03	0.36	±0.03	0.40
SARDIS, GA O	0					
SARDIS, GA I	4	0.29	±0.03	0.27	±0.02	0.28
STATESBORO, GA O	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 O	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 O	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 O	0					
WADLEY, GA I	4	0.33	±0.03	0.22	±0.02	0.29
WAYNESBORO, GA O	4	0.24	±0.02	0.17	±0.02	0.21
WAYNESBORO, GA I	4	0.22	±0.02	0.17	±0.02	0.20
WRENS, GA O	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 2 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	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>						
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	0					
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-LEESVILLESC O	0					
BATESB-LEESVILLESC 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
INDOOR GAMMA RADIATION MEASUREMENTS
. . . A TWO-STATE AREA, 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, 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
<u>PANASONIC TLD. MR/DAY</u>							
<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					
ALLENDALE, SC	O	4	0.22	± 0.03	0.16	± 0.02	0.19
ALLENDALE, SC	I	0					
BARNWELL, SC	O	4	0.28	± 0.04	0.24	± 0.04	0.26
BARNWELL, SC	I	0					
BATES B-LEESVILLE, SC	O	3	0.37	± 0.06	0.35	± 0.05	0.36
BATES B-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	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN ± 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 (DNTSVIL)	O	4	0.35	±0.05	0.29	±0.04	0.33
COLUMBIA (DNTSVIL)	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.

LOCATION		NO. OF SAMPLES	MAXIMUM	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN 2 STD DEV
<u>PANASONIC TLD. MR/DAY, CONTD.</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
SPR. IGFIELD, 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 ($\mu\text{g}/\text{m}^3$)	1st ^a	24 hr	250	24 hr	37.7	-	57.9	56.2 ^b	63.1	41.6
			60	QGM ^d	26.9	-	29.1	48.6 ^c		
		24 hr	250	24 hr	97.3	-	64.4	28.5 ^b	30.4	25.9
			60	QGM ^d	29.2	-	28.4	28.4 ^c		
		24 hr	250	24 hr	-	-	53.6	96.8 ^b	120.0	90.1
			60	QGM ^d	-	-	23.4	91.0 ^c		
	2nd ^e	24 hr	250	24 hr	-	-	22.2	32.7 ^b	38.0	35.2
			60	QGM ^d	-	-	11.1	26.8 ^b	23.2	28.1
		24 hr	150	24 hr	-	-	22.2	26.1 ^c		
			50	QGM ^d	-	-	11.1	34.5 ^b	34.7	33.9
		Annual	60	AGM ^f (TSP)	28.0	-	28.4	22.1 ^c		
			50	AGM (PM ₁₀)	-	-	11.1	15.6 ^b	16.5	18.3
			50	AGM (PM ₁₀)	-	-	11.1	13.0 ^c		
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

South Carolina Locations ^b	No. of Observations	<u>SUSPENDED PARTICULATES, $\mu\text{g}/\text{m}^3$</u>			<u>Exceeds Std</u>				
		24-hour Maximum	Geometric Mean	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	---	---	---	---	---				
<u>SULFUR DIOXIDE, $\mu\text{g}/\text{m}^3$</u>									
South Carolina Locations ^b	No. of Observations	24-hour Maximum	Arithmetic Mean	<u>Exceeds Std</u>					
				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	---	---	---	---	---	---			
<u>NITROGEN DIOXIDE, $\mu\text{g}/\text{m}^3$</u>									
South Carolina Locations ^b	No. of Observations	24-hour Maximum	Arithmetic Mean	<u>Exceeds Std</u>					
				SC 100 (yr)					
1	---	---	---	---					
2	---	---	---	---					
3	---	---	---	---					
4	1960	47 ^c	8	no					
<u>LEAD, $\mu\text{g}/\text{m}^3$</u>									
South Carolina Locations ^b	No. of Observations	Maximum Quarterly Average	<u>Exceeds Std</u>						
			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, $\mu\text{g}/\text{m}^3$

<u>Georgia Locations^b</u>	<u>No. of Observations</u>	<u>24-hour Maximum</u>	<u>Geometric Mean</u>	<u>Exceeds Std.</u>	
				<u>GA 150 (24-hr)</u>	<u>GA 75 (yr)</u>
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, $\mu\text{g}/\text{m}^3$

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

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

<u>Georgia Locations^b</u>	<u>No. of Observations</u>	<u>Maximum Quarterly Average</u>	<u>Exceeds Std.</u>	
			<u>GA 1.5 (Quarterly Mean)</u>	
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>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± STD DEV</u>
<u>ALPHA, PCIL</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 HIGHWAY 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, PCIL</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	-0.13	±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, PCIM/L</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</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>SR-89, 90, PCU</u>							
SAVANNAH RIVER							
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 PLANTIC	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, PCU</u>							
R-2 ABOVE PLANTIC	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, PCU</u>							
R-2 ABOVE PLANTIC	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, PCU</u>							
R-2 ABOVE PLANTIC	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, PCU</u>							
R-2 ABOVE PLANTIC	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, PCU</u>							
R-2 ABOVE PLANTIC	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, PCU</u>							
R-2 ABOVE PLANTIC	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	-

- Insufficient data.

TABLE 3-1
RADIOACTIVITY IN SAVANNAH RIVER 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>I-131, PCU/L</u>						
R-2 ABOVE PLANTIC	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, PCU/L</u>						
R-2 ABOVE PLANTIC	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, PCU/L</u>						
R-2 ABOVE PLANTIC	50	9.7	±2.2	0.00	±1.3	0.32
R-3A ABOVE VOGTLE	51	11	±2.9	0.00	±1.3	1.0
R-3B BELOW VOGTLE	50	8.9	±1.9	0.00	±1.4	0.43
R-10 HIGHWAY 301 IC	51	1.6	±25	0.00	±0.62	0.03
AVERAGE						0.45
<u>CE-141, 144, PCU/L</u>						
R-2 ABOVE PLANTIC	50	2.6	±20	0.00	±7.4	0.05
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
<u>BA-140 LA-140, PCU/L</u>						
R-2 ABOVE PLANTIC	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, PCU/L</u>						
R-2 ABOVE PLANTIC	11	1.30	±0.65	0.07	±0.30	0.46
R-3A ABOVE VOGTLE	11	0.55	±0.28	0.03	±0.16	0.27
R-3B BELOW VOGTLE	11	1.40	±0.66	-0.02	±0.16	0.32
R-10 HIGHWAY 301 IC	11	1.40	±0.36	0.29	±0.20	0.56

- 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, PCU/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 ±6.4
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>NONVOL BETA, PCU</u>						
<u>TIMS 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>						
L3R-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</u>	<u>2 STD DEV</u>
<u>H-3, PCI/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
HH-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>U/Pu, PC/L</u></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><u>Mn-54, PC/L</u></u>						
<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><u>Cr-51, PC/L</u></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><u>Co-60, PC/L</u></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 2 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>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, PCIL</u>						
<u>FOUR MILE CREEK</u> FM-6 ROAD A	11	25	± 4.5	0.00	± 9.1	3.0 ± 15
<u>CE-141, 144, PCIL</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	3.4	± 2.4	0.00	± 9.3	0.36 ± 2.0
<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>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± STD DEV</u>
<u>ALPHA, PCI/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, PCI/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
<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, PCI/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, PCI/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
<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, PCI/ML</u>						
<u>200-E</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
<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-E</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, PCI/ML</u>						
<u>200-E</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>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN</u>	<u>2 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 ± STD DEV</u>
<u>BU-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>BU-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>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN 2 STD DEV</u>
<u>I-131, PCI/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, PCI/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, PCI/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>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± STD DEV</u>
<u>CE-141.144, PCU/ML</u>						
<u>200-E</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, PCU/L</u>						
<u>TNX</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>	
	Tritium	Sr-89.90
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 $1.17 \times$ 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

ID	Location	<u>Curies</u>			Water Volume (Liters)
		Tritium	Sr-89.90	Cs-137 ^a	
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				
FM-2	H-Area retention basin 2.5 mile downstream from Road E	11	0.000	0.106 ^b	2.1E9
FM-2B	Above Entry of F-Area effluent	600	0.010	0.083	6.4E9
FM-3A	0.3 mile downstream from Road E	5830	0.085	0.007	7.5E9 ^c
FM-A7	Downstream at Road A-7	6160	0.007	0.041	2.6E9
FM-6	Road A	14750	0.28	0.118	1.5E10
		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 $1.17 \times$ 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>								
Reactor								
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		
100-K	Process Sewer to Steel Creek	3	8	8	8	.		
	Reactor HX Cooling Water to Pen Branch	3,023	2,590	2,080	1,640	7.26		
100-C	Process Sewer to Pen Branch	179	100	130	68	0.3		
	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		
Separations								
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		
400-D								
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 % of Total To River	
	1984	1985	1986	1987		
<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	Tritium Available for Transport to River Measured <u>at Source^a</u>	Curies (Ci)	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	30,800
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		<u>Below SRP^a</u>	<u>Beaufort-Jasper^b</u>	<u>Port Wentworth^c</u>
	Released At Emission	<u>Source</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>	<u>Maximum Individual^a mrem^b</u>	<u>Percent of 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>	<u>Maximum Individual^a mrem^b</u>	<u>Percent of 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 SRL 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 (Wackenut 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	13	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	.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	6.6	
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.

Parameter	Units	No. of Analyses	Maximum	Minimum	Arithmetic Mean	2 Std Dev
<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

<u>Location</u>	<u>No. of Samples</u>	Colonyes/100 ml.					
		<u>Weekly Values</u>		<u>Monthly</u>		<u>Geometric Mean^a</u>	<u>Average</u>
		<u>Maximum</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Minimum</u>		
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 colonyes/100 mL based on five consecutive samples during any 30-day period; nor exceed 2000 colonyes/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.

Parameter	Units	No. of Analyses	Maximum	Minimum	Arithmetic Mean	2 Std Dev
<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.

Parameter	Units	No. of Analyses	Maximum	Minimum	Mean	Arithmetic 2 Std Dev
Crouch Branch						
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
Lower 3 Runs Patterson Mill^b						
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	5.8	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 Mean</u>	<u>2 Std Dev</u>
McQueen Branch						
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
Pen Branch Road A17^b						
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.

<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>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	±38
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</u>	<u>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	288	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>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>						
BG 26	4	1.16	+0.72	0.41	+0.59	0.71
BG 27	4	1.04	+0.78	0.10	+0.33	0.48
BG 28	4	0.87	+0.64	0.38	+0.47	0.54
BG 29	4	0.77	+0.61	0.19	+0.38	0.44
BG 30	4	1.56	+0.90	0.39	+0.55	0.90
BG 31	4	1.73	+0.86	0.49	+0.59	0.98
BG 32	4	3.66	+1.22	0.67	+0.58	2.46
BG 33	4	2.31	+0.98	0.83	+0.72	1.51
BG 34	4	1.18	+1.01	0.41	+0.41	1.77
BG 35	4	0.78	+0.68	0.31	+0.55	.54
BG 36	4	0.67	+0.58	0.00	+0.41	0.38
BG 37	4	2.02	+0.92	0.77	+0.61	1.40
BG 38	4	1.73	+0.86	0.58	+0.54	1.06
BG 39	4	1.56	+0.87	0.29	+0.43	1.13
BG 40	4	0.87	+0.64	-0.20	+0.28	0.39
BG 41	4	0.67	+0.58	+0.10	+0.34	0.36
BG 42	4	2.31	+0.98	1.35	+0.86	1.78
BG 43	4	0.52	+0.46	0.10	+0.33	0.33
BG 51	4	0.62	+0.59	0.29	+0.52	0.40
BG 52	4	2.28	+0.97	1.24	+0.78	1.63
BG 53	4	0.58	+0.54	+0.10	+0.36	0.24
BG 54	4	0.20	+0.48	0.00	+0.27	0.10
BG 55	4	2.31	+1.02	0.31	+0.55	1.18
BG 56	4	3.56	+1.20	0.29	+0.52	1.53
BG 57	4	1.06	+0.69	+0.20	+0.28	0.36
BG 58	4	1.83	+0.88	0.29	+0.43	0.86
BG 59	4	0.93	+0.75	0.19	+0.38	0.52
BG 60	4	1.44	+0.79	0.31	+0.55	0.87
BG 61	4	0.48	+0.51	+0.10	+0.19	0.14
BG 62	4	0.93	+0.75	0.10	+0.44	0.40
BG 63	4	0.88	+0.70	0.41	+0.59	0.61
BG 64	4	0.78	+0.68	0.21	+0.51	0.46
BG 65	4	0.96	+0.67	0.31	+0.55	0.68
BG 66	4	0.68	+0.65	+0.10	+0.36	0.29
BG 67	4	1.35	+0.77	0.41	+0.59	0.88
BG 68	1	0.73	+0.56	0.73	+0.56	0.73
BG 69	1	1.15	+0.76	1.15	+0.76	1.15
BG 70	1	0.63	+0.51	0.63	+0.51	0.63
BG 71	1	1.15	+0.70	1.15	+0.70	1.15
BG 72	1	1.15	+0.70	1.15	+0.70	1.15
BG 73	1	1.15	+0.70	1.15	+0.70	1.15
BG 74	1	1.89	+0.89	1.89	+0.89	1.89
BG 75	1	1.05	+0.66	1.05	+0.66	1.05
BG 76	1	1.78	+0.87	1.78	+0.87	1.78
BG 77	1	1.05	+0.66	1.05	+0.66	1.05
BG 78	1	1.15	+0.70	1.15	+0.70	1.15
BG 79	1	1.68	+0.84	1.68	+0.84	1.68
BG 80	1	0.52	+0.56	0.52	+0.56	0.52
BG 81	1	0.31	+0.47	0.31	+0.47	0.31
BG 82	1	0.10	+0.36	0.10	+0.36	0.10
BG 83	1	1.15	+0.70	1.15	+0.70	1.15

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>Gross Alpha (pCi/L)</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.</u>	<u>95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err.</u>	<u>95% Cl.</u>	<u>Average</u>
Gross Alpha (pCi/L)								
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

*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>
Gross Alpha (pCi/L)						
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>Maximum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Minimum</u>	<u>Ct. Err. 95% Cl.</u>	<u>Average</u>
Nonvolatile Beta (pCi/L)						
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	0.68	+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>						
BG 84	1	2.44	+1.63	2.44	+1.63	2.44
BG 85	1	1.73	+1.56	1.73	+1.56	1.73
BG 86	1	1.89	+1.57	1.89	+1.57	1.89
BG 87	1	0.39	+1.42	0.39	+1.42	0.39
BG 88	1	-0.39	+1.33	-0.39	+1.33	-0.39
BG 89	1	-1.02	+1.25	-1.02	+1.25	-1.02
BG 90	1	-0.08	+1.36	-0.08	+1.36	-0.08
<u>Inside 643+7G</u>						
BG 204GR*	1	13	*	13	*	13
BG 206GR*	2	92	*	76	*	84
BG 208GR*	2	25	*	<1	*	13
BG 210GR*	1	1	*	1	*	1
BG 212GR*	2	5	*	1	*	3
BG 216GR*	1	15	*	15	*	15
BG 218GR*	2	<1	*	<1	*	<1
BG 220GR*	2	2	*	<1	*	1.5
BG 222GR*	4	9	*	<1	*	6.6
BG 402GR*	1	<1	*	<1	*	<1
BG 404GR*	1	55	*	55	*	55
BG 406GR*	1	4	*	4	*	4
BG 408GR*	1	1	*	1	*	1
BG 410GR*	2	4	*	3	*	3.5
BG 420GR*	2	8	*	2	*	5
BG 422GR*	4	29	*	<1	*	10.7
BG 620GR*	2	7	*	2	*	4.5
BG 818GR*	1	8	*	8	*	8
BG 820GR*	1	16	*	16	*	16
BG 822GR*	4	748	*	8	*	195

*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>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
MG 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	3.05	+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	+1.2b	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
MGC 15	3	1.98	+1.54	0.55	+1.36	1.39

*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>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

Perimeter Wells	No. of Samples	Maximum	Ct. Err.		Ct. Err.		<u>Average</u>
			95% Cl.	Minimum	95% Cl.	201	
<u>H-3 (pCi/mL)</u>							
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	+4.4	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>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>						
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	-	299
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	-	13,400	-	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

Tank Farm	No. of Samples	Maximum	Ct. Err. 95% Cl.	Minimum	Ct. Err. 95% Cl.	Average
Gross Alpha (pCi/L)						
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	3.39	+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
Nonvolatile Beta (pCi/L)						
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	2.54
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	12	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

Canyon Wells	No. of Samples	Maximum	Ct. Err. 95% Cl.	Minimum	Ct. Err. 95% Cl.	Average
<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
F1F 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

Well: FAC 3, F-Area Acid/Caustic Basin				Well: PAL 1, F-Area A Line							
Parameter	Units	02/08/87	05/05/87	08/05/87	10/03/87	Parameter	Units	03/10/87	05/19/87	09/07/87	11/15/87
Sampling Method		-	-	Bail	Bail	Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	-	-	70.3	70.3	Water Elevation	meters	66.3	66.9	66.5	66.8
pH	pH	-	-	6.7	7.9	pH	pH	6.8	6.9	6.8	6.6
Conductivity	umhos/cm	-	-	288	193	Conductivity	umhos/cm	150	210	175	169
TDS	mg/L	-	-	-	-	TDS	mg/L	92	84	104	92
Arsenic	mg/L	-	-	-	-	Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	-	-	-	-	Barium	mg/L	0.016	0.020	0.016	0.018
Beryllium	mg/L	-	-	-	-	Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	-	-	<0.002	-	Cadmium	mg/L	-	-	-	-
Calcium	mg/L	-	-	-	-	Calcium	mg/L	12.6	-	-	-
Chloride	mg/L	-	-	-	-	Chloride	mg/L	3.9	-	-	-
Chromium	mg/L	-	-	-	-	Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-	Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-	Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	-	-	-	-	Fluoride	mg/L	0.74	0.37	0.30	0.10
Iron	mg/L	-	-	-	-	Iron	mg/L	0.016	-	0.145	-
Lead	mg/L	-	-	0.029	-	Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	-	-	-	-	Magnesium	mg/L	3.55	-	-	-
Manganese	mg/L	-	-	0.019	-	Manganese	mg/L	0.051	-	0.058	-
Mercury	mg/L	-	-	<0.0002	-	Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	-	-	-	-	Nickel	mg/L	-	-	-	-
Potassium	mg/L	-	-	-	-	Potassium	mg/L	1.39	-	-	-
Selenium	mg/L	-	-	-	-	Selenium	mg/L	<0.002	<0.002	<0.002	0.002
Silica	mg/L	-	-	-	-	Silica	mg/L	5.80	-	-	-
Silver	mg/L	-	-	-	-	Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	-	-	6.01	-	Sodium	mg/L	14.9	-	-	-
Total Phosphate	mg/L	-	-	2.36	-	Total Phosphate	mg/L	0.110	-	-	-
Zinc	mg/L	-	-	-	-	Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	-	-	-	-	NO ₃ (as N)	mg/L	0.05	0.05	0.31	0.43
SO ₄	mg/L	-	-	-	-	SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	-	-	-	-	Phenols	mg/L	<0.008	-	-	-
Tot. Org. Carbon	mg/L	-	-	-	-	Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	-	-	-	-	Tot. Org. Halogen	mg/L	0.029	0.023	0.020	0.027
Carbon Tet.	mg/L	-	-	-	-	Carbon Tet.	mg/L	-	-	0.001	-
Chloroform	mg/L	-	-	-	-	Chloroform	mg/L	-	-	<0.001	-
Tetrachloroethene	mg/L	-	-	-	-	Tetrachloroethene	mg/L	-	-	<0.001	-
Trichloroethene	mg/L	-	-	-	-	Trichloroethene	mg/L	-	-	0.037	-
1,1,1-TCE	mg/L	-	-	-	-	1,1,1-TCE	mg/L	-	-	<0.001	-
Gross Alpha	pCi/L	-	-	36.5	-	Gross Alpha	pCi/L	3.0	2.4	2.0	-
Nonvol. Beta	pCi/L	-	-	38.4	-	Nonvol. Beta	pCi/L	10.4	9.7	12.0	-
Total Radium	pCi/L	-	-	23.1	-	Total Radium	pCi/L	0.9	<1.0	1.5	-
Tritium	pCi/mL	-	-	-	-	Tritium	pCi/mL	0.72	<0.70	<0.70	1.20

Well: FAC 4, F-Area Acid/Caustic Basin				Well: PAL 2, F-Area A Line							
Parameter	Units	02/08/87	05/05/87	07/16/87	10/01/87	Parameter	Units	03/10/87	05/19/87	09/07/87	11/15/87
Sampling Method		Pump	Pump	Pump	Pump	Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	69.7	69.8	70.0	70.0	Water Elevation	meters	66.4	66.4	66.4	66.2
pH	pH	5.0	5.2	5.4	5.2	pH	pH	6.7	6.5	6.0	-
Conductivity	umhos/cm	130	130	126	122	Conductivity	umhos/cm	140	150	200	100
TDS	mg/L	58	-	-	-	TDS	mg/L	90	62	62	60
Arsenic	mg/L	<0.002	-	-	-	Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.037	-	-	-	Barium	mg/L	0.018	0.019	0.014	0.014
Beryllium	mg/L	-	-	-	-	Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	<0.002	-	Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	8.84	-	-	-	Calcium	mg/L	8.52	-	-	-
Chloride	mg/L	2.5	-	-	-	Chloride	mg/L	3.7	-	-	-
Chromium	mg/L	<0.004	-	-	-	Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-	Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-	Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-	Fluoride	mg/L	0.15	0.24	0.20	0.98
Iron	mg/L	0.040	-	-	-	Iron	mg/L	0.402	-	0.031	-
Lead	mg/L	<0.006	-	<0.006	-	Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	3.30	-	-	-	Magnesium	mg/L	2.02	-	-	-
Manganese	mg/L	0.272	-	0.304	-	Manganese	mg/L	0.180	-	0.225	-
Mercury	mg/L	<0.0002	-	<0.0002	-	Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	-	-	-	-	Nickel	mg/L	-	-	-	-
Potassium	mg/L	3.72	-	-	-	Potassium	mg/L	1.22	-	-	-
Selenium	mg/L	<0.002	-	-	-	Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	4.57	-	-	-	Silica	mg/L	5.03	-	-	-
Silver	mg/L	<0.0020	-	-	-	Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	3.21	-	3.60	-	Sodium	mg/L	17.1	-	-	-
Total Phosphate	mg/L	0.077	0.080	0.060	-	Total Phosphate	mg/L	0.370	-	-	-
Zinc	mg/L	0.009	-	-	-	Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.20	-	-	-	NO ₃ (as N)	mg/L	0.05	0.15	0.50	0.40
SO ₄	mg/L	51.0	-	46.0	-	SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-	Phenols	mg/L	0.005	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	<1.000	-	Tot. Org. Carbon	mg/L	1.10	<1.000	1.00	<1.000
Tot. Org. Halogen	mg/L	<0.005	-	0.009	-	Tot. Org. Halogen	mg/L	0.016	0.029	0.019	0.030
Carbon Tet.	mg/L	-	-	-	-	Carbon Tet.	mg/L	-	-	0.001	-
Chloroform	mg/L	-	-	-	-	Chloroform	mg/L	-	-	0.001	-
Tetrachloroethene	mg/L	-	-	-	-	Tetrachloroethene	mg/L	-	-	<0.001	-
Trichloroethene	mg/L	-	-	-	-	Trichloroethene	mg/L	-	-	0.031	-
1,1,1-TCE	mg/L	-	-	-	-	1,1,1-TCE	mg/L	-	-	<0.001	-
Gross Alpha	pCi/L	13.5	-	18.7	-	Gross Alpha	pCi/L	3.0	3.6	2.1	-
Nonvol. Beta	pCi/L	14.2	-	12.2	-	Nonvol. Beta	pCi/L	12.5	7.4	12.0	-
Total Radium	pCi/L	11.5	-	9.6	-	Total Radium	pCi/L	0.7	<1.0	1.4	-
Tritium	pCi/mL	1.22	-	-	-	Tritium	pCi/mL	1.20	-	<0.70	1.90

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Other Analytes (mg/L)		
(GCMS Scan Analytes: Table 4-25, Vol. II)		
FAL 1 05/19/87	Benzene	<0.03
	Uranium	<1
FAL 1 09/07/87	Uranium	<1
	GCMS Scan detected the following: None	
FAL 1 11/15/87	Benzene	<0.00004
	Uranium	<1
FAL 2 05/19/87	Benzene	<0.03
	Uranium	<1
FAL 2 09/07/87	Uranium	<1
	GCMS Scan detected the following: None	
FAL 2 11/15/87	Benzene	<0.00004
	Uranium	<1

Well: FBP 2A, F-Area Burning/Rubble Pits				
SRP Grid	N 79711.4	meters (MSL)		
Coordinates	E 50534.1	Screen Zone Elevation	50.9+41.8	
Latitude	33.284521°N	Top of Casing Elevation	88.11	
Longitude	81.688571°W	Casing Material	PVC	
Parameter	Units	03/24/87	05/26/87	08/26/87
Sampling Method		Pump	Pump	Pump
Water Elevation	meters	57.4	58.2	58.7
pH		5.2	5.4	5.1
Conductivity	umhos/cm	41	48	52
TDS	mg/L	14	-	-
Arsenic	mg/L	<0.002	-	-
Barium	mg/L	<0.004	-	-
Beryllium	mg/L	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002
Calcium	mg/L	1.23	-	-
Chloride	mg/L	3.1	-	-
Chromium	mg/L	<0.004	-	-
Copper	mg/L	-	-	-
Cyanide	mg/L	-	-	-
Fluoride	mg/L	0.14	-	-
Iron	mg/L	0.018	0.062	0.029
Lead	mg/L	<0.006	0.008	<0.006
Magnesium	mg/L	0.429	-	-
Manganese	mg/L	0.009	0.017	0.021
Mercury	mg/L	<0.0002	-	-
Nickel	mg/L	<0.004	-	-
Potassium	mg/L	0.420	-	-
Selenium	mg/L	<0.002	-	-
Silica	mg/L	3.58	-	-
Silver	mg/L	<0.0020	-	-
Sodium	mg/L	4.37	-	-
Total Phosphate	mg/L	0.040	-	-
Zinc	mg/L	-	-	-
NO ₃ (as N)	mg/L	1.27	1.50	10.2
SO ₄	mg/L	5.0	-	-
Phenols	mg/L	<0.002	-	-
Tot. Org. Carbon	mg/L	<1.000	1.00	<1.000
Tot. Org. Halogen	mg/L	0.049	0.078	0.185
Carbon Tet.	mg/L	0.002	0.006	<0.001
Chloroform	mg/L	0.001	<0.001	<0.001
Tetrachloroethene	mg/L	0.017	0.040	<0.001
Trichloroethene	mg/L	0.013	0.046	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	3.0	1.8	2.9
Nonvol. Beta	pCi/L	7.6	9.7	9.9
Total Radium	pCi/L	<1.0	0.8	2.2
Tritium	pCi/mL	8.15	7.95	8.00

Well: FBP 1A, F-Area Burning/Rubble Pits					
SRP Grid	N 78893.0	meters (MSL)			
Coordinates	E 51080.7	Screen Zone Elevation			
Latitude	33.283604°N	58.5+49.3			
Longitude	81.685542°W	87.75			
Parameter	Units	03/24/87	05/26/87	07/28/87	10/24/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	62.8	63.1	63.2	61.9
pH		4.7	4.9	5.4	5.2
Conductivity	umhos/cm	182	130	84	87
TDS	mg/L	116	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.048	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	13.9	-	-	-
Chloride	mg/L	3.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.14	-	-	-
Iron	mg/L	0.034	0.072	0.043	0.059
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	4.57	-	-	-
Manganese	mg/L	0.057	0.033	0.026	0.026
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.860	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	4.44	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	4.91	-	-	-
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	16.9	12.0	7.93	12.8
SO ₄	mg/L	5.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	0.012	0.014	0.016	0.007
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	0.007	0.007	0.005	0.005
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	9.1	3.0	3.0	2.5
Nonvol. Beta	pCi/L	98.2	82.4	81.8	77.3
Total Radium	pCi/L	3.2	3.4	0.9	1.1
Tritium	pCi/mL	11.1	9.90	8.70	8.00

Well: FBP 3A, F-Area Burning/Rubble Pits				
SRP Grid	N 79838.9	meters (MSL)		
Coordinates	E 50913.4	Screen Zone Elevation	52.1+43.0	
Latitude	33.285423°N	Top of Casing Elevation	89.27	
Longitude	81.687821°W	Casing Material	PVC	
Parameter	Units	03/24/87	05/26/87	08/26/87
Sampling Method		Pump	Pump	Pump
Water Elevation	meters	58.3	59	59.2
pH		5.3	5.7	5.3
Conductivity	umhos/cm	62	58	58
TDS	mg/L	36	-	-
Arsenic	mg/L	<0.002	-	-
Barium	mg/L	0.011	-	-
Beryllium	mg/L	-	-	-
Cadmium	mg/L	<0.002	0.002	<0.002
Calcium	mg/L	4.10	-	-
Chloride	mg/L	3.5	-	-
Chromium	mg/L	<0.004	-	-
Copper	mg/L	-	-	-
Cyanide	mg/L	-	-	-
Fluoride	mg/L	0.14	-	-
Iron	mg/L	0.012	0.134	0.145
Lead	mg/L	<0.006	0.072	<0.006
Magnesium	mg/L	0.593	-	-
Manganese	mg/L	0.007	0.023	0.009
Mercury	mg/L	<0.0001	-	-
Nickel	mg/L	<0.004	-	-
Potassium	mg/L	0.540	-	-
Selenium	mg/L	<0.002	-	-
Silica	mg/L	4.34	-	-
Silver	mg/L	<0.0020	-	-
Sodium	mg/L	4.90	-	-
Total Phosphate	mg/L	0.030	-	-
Zinc	mg/L	-	-	-
NO ₃ (as N)	mg/L	0.31	0.30	0.67
SO ₄	mg/L	10.0	-	-
Phenols	mg/L	<0.002	-	-
Tot. Org. Carbon	mg/L	<1.000	2.00	4.00
Tot. Org. Halogen	mg/L	0.007	0.005	0.006
Carbon Tet.	mg/L	<0.001	<0.001	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	0.003	0.003	0.003
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	3.0	1.7	3.0
Nonvol. Beta	pCi/L	3.3	3.1	2.0
Total Radium	pCi/L	<1.0	0.6	<1.0
Tritium	pCi/mL	5.83	5.47	5.80

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Well: FBP 4, F-Area Burning/Rubble Pits

Parameter	Units	meters (MSL)			
		03/14/87	05/28/87	08/11/87	10/24/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	64.4	64.5	64.5	64.5
pH	pH	4.6	5.2	4.8	5.3
Conductivity	umhos/cm	24	24	23	24
TDS	mg/L	8	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	0.434	-	-	-
Chloride	mg/L	3.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.11	-	-	-
Iron	mg/L	0.010	0.032	0.151	0.017
Lead	mg/L	<0.006	<0.006	0.010	<0.006
Magnesium	mg/L	0.288	-	-	-
Manganese	mg/L	<0.002	0.002	0.004	0.003
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.300	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.13	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.12	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.44	0.45	0.76	0.68
SO ₄	mg/L	<5.0	-	-	-
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
Gross Alpha	pCi/L	4.1	6.3	3.6	-
Nonvol. Beta	pCi/L	5.7	4.3	5.3	-
Total Radium	pCi/L	2.6	6.3	2.7	-
Tritium	pCi/mL	8.28	9.26	7.40	7.30

Well: FCA 9D, F-Area Canyon Building

Parameter	Units	meters (MSL)			
		02/23/87	05/19/87	09/12/87	11/15/87
Sampling Method		Bail	Bail	Bail	Bail
Water Elevation	meters	68.9	69.3	69.1	69
pH	pH	8.2	4.8	4.5	4.4
Conductivity	umhos/cm	180	140	85	89
TDS	mg/L	120	-	-	-
Arsenic	mg/L	0.002	<0.002	<0.002	0.002
Barium	mg/L	0.046	0.037	0.015	0.015
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	0.004	<0.002
Calcium	mg/L	19.3	-	-	-
Chloride	mg/L	12.0	6.6	3.1	4.5
Chromium	mg/L	<0.004	<0.004	0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.21	0.22	0.10	-
Iron	mg/L	4.82	0.030	0.015	0.033
Lead	mg/L	0.012	<0.006	0.016	0.006
Magnesium	mg/L	0.381	-	-	-
Manganese	mg/L	0.016	0.031	0.034	0.030
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.09	-	-	-
Selenium	mg/L	<0.001	0.003	0.002	<0.002
Silica	mg/L	1.91	-	-	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	11.5	11.2	6.84	6.70
Total Phosphate	mg/L	4.56	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	11.1	11.0	7.84	3.02
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	0.002	<0.005	0.006	<0.005
Tot. Org. Carbon	mg/L	5.10	5.00	7.00	8.10
Tot. Org. Halogen	mg/L	0.027	0.027	0.058	0.027
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	21.1	17.1	18.7	-
Nonvol. Beta	pCi/L	24.7	25.3	26.0	-
Total Radium	pCi/L	21.0	11.0	25.5	-
Tritium	pCi/mL	8.29	-	8.70	-

Well: FCA 2D, F-Area Canyon Building

Parameter	Units	meters (MSL)			
		03/04/87	05/20/87	09/13/87	11/15/87
Sampling Method	-	-	-	-	-
Water Elevation	meters	68.3	69.2	69.3	69.1
pH	pH	3.8	4.1	4.0	4.5
Conductivity	umhos/cm	1600	980	540	188
TDS	mg/L	888	-	-	-
Arsenic	mg/L	<0.002	<0.002	0.002	0.002
Barium	mg/L	0.306	0.195	0.130	0.090
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.022	0.015	0.015	0.010
Calcium	mg/L	83.8	-	-	-
Chloride	mg/L	3.7	5.3	2.8	4.3
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	0.96	0.16	1.10
Iron	mg/L	0.066	0.131	0.031	0.050
Lead	mg/L	0.110	0.052	0.037	0.024
Magnesium	mg/L	34.0	-	-	-
Manganese	mg/L	1.29	0.875	0.380	0.341
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	-	-	-	-
Potassium	mg/L	3.50	-	-	-
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	4.72	-	-	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	4.64	4.84	4.20	3.87
Total Phosphate	mg/L	3.94	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	173	90.0	87.8	39.0
SO ₄	mg/L	13.0	-	-	-
Phenols	mg/L	<0.002	<0.005	0.075	<0.005
Tot. Org. Carbon	mg/L	3.09	6.00	14.0	3.20
Tot. Org. Halogen	mg/L	0.307	0.323	0.180	0.355
Carbon Tet.	mg/L	<0.001	<0.001	<0.010	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.010	<0.001
Tetrachloroethene	mg/L	0.003	<0.001	<0.010	0.003
Trichloroethene	mg/L	0.427	0.570	0.165	0.287
1,1,1-TCE	mg/L	<0.001	<0.001	<0.010	<0.001
Gross Alpha	pCi/L	1530	124	412	-
Nonvol. Beta	pCi/L	2320	260	940	-
Total Radium	pCi/L	58.5	21.4	22.5	-
Tritium	pCi/mL	33.8	-	21.8	-

Well: FCA 10A, F-Area Canyon Building

Parameter	Units	meters (MSL)			
		03/03/87	05/20/87	09/13/87	11/15/87
Sampling Method		Bail	Bail	Bail	Bail
Water Elevation	meters	68.8	68.9	69.0	68.9
pH	pH	7.0	6.4	6.6	7.5
Conductivity	umhos/cm	100	115	215	110
TDS	mg/L	70	-	-	-
Arsenic	mg/L	<0.002	<0.002	<0.002	0.002
Barium	mg/L	0.008	0.012	0.010	0.010
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	0.002
Calcium	mg/L	5.71	-	-	-
Chloride	mg/L	6.8	9.0	6.3	6.2
Chromium	mg/L	<0.004	<0.004	<0.004	0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	0.15	0.16	<0.10
Iron	mg/L	0.073	0.014	0.005	0.033
Lead	mg/L	<0.006	<0.006	<0.006	0.006
Magnesium	mg/L	0.732	-	-	-
Manganese	mg/L	0.004	0.012	0.012	0.093
Mercury	mg/L	<0.0002	<0.0002	<0.0002	0.0002
Nickel	mg/L	-	-	-	-
Potassium	mg/L	3.14	-	-	-
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	7.23	-	-	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	9.54	9.39	11.1	11.6
Total Phosphate	mg/L	4.25	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	3.60	4.40	7.79	6.96
SO ₄	mg/L	5.0	-	-	-
Phenols	mg/L	0.005	<0.005	0.006	<0.005
Tot. Org. Carbon	mg/L	8.00	3.00	5.00	5.10
Tot. Org. Halogen	mg/L	0.134	0.020	0.066	0.069
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	24.2	8.0	21.0	-
Nonvol. Beta	pCi/L	33.7	13.9	28.6	-
Total Radium	pCi/L	19.0	12.0	36.7	-
Tritium	pCi/mL	10.2	-	9.90	-

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Well: FCA 10D, F-Area Canyon Building

SRP Grid N 78640.0
Coordinates E 53732.0
Latitude 33.287371°N
Longitude 81.678070°W

Screen Zone Elevation 73.0-66.9
Top of Casing Elevation 94.88
Casing Material Steel

Parameter	Units	02/25/87	05/19/87	09/12/87	11/15/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	68.9	69.2	69.1	69	
pH	4.8	5.4	4.7	5.8		
Conductivity	umhos/cm	100	105	120	97	
TDS	mg/L	84	-	-	-	
Arsenic	mg/L	-	<0.002	<0.002	<0.002	
Barium	mg/L	-	0.027	0.026	0.031	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	-	0.004	0.008	0.003	
Calcium	mg/L	-	-	-	-	
Chloride	mg/L	82.0	7.0	3.0	-	
Chromium	mg/L	-	<0.004	<0.004	<0.004	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.15	0.43	0.18	-	
Iron	mg/L	-	0.034	0.022	0.052	
Lead	mg/L	-	<0.006	<0.006	<0.006	
Magnesium	mg/L	-	-	-	-	
Manganese	mg/L	-	0.026	0.025	0.024	
Mercury	mg/L	-	<0.0002	<0.0002	<0.0002	
Nickel	mg/L	-	-	-	-	
Potassium	mg/L	-	-	-	-	
Selenium	mg/L	-	<0.002	<0.002	0.002	
Silica	mg/L	2.73	-	-	-	
Silver	mg/L	-	<0.0020	<0.0020	<0.0020	
Sodium	mg/L	-	5.10	5.72	6.11	
Total Phosphate	mg/L	0.663	-	-	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	8.44	7.20	8.64	7.46	
SO ₄	mg/L	12.0	-	-	-	
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005	
Tot. Org. Carbon	mg/L	<1.000	2.00	2.00	1.80	
Tot. Org. Halogen	mg/L	0.011	0.019	<0.005	0.033	
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	-	-	-	-	
Nonvol. Beta	pCi/L	-	-	-	-	
Total Radium	pCi/L	-	-	-	-	
Tritium	pCi/mL	10.5	-	8.90	-	

Well: FCA 16D, F-Area Canyon Building

SRP Grid N 78898.5
Coordinates E 53719.5
Latitude 33.28793°N
Longitude 81.678605°W

Screen Zone Elevation 73.5-67.4
Top of Casing Elevation 94.70
Casing Material Steel

Parameter	Units	02/25/87	05/19/87	09/12/87	11/15/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	68.8	68.8	68.9	68.9	
pH	6.5	6.2	6.0	6.3		
Conductivity	umhos/cm	120	100	92	86	
TDS	mg/L	92	-	-	-	
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002	
Barium	mg/L	0.021	0.017	0.012	0.014	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	<0.002	0.003	<0.002	
Calcium	mg/L	7.92	-	-	-	
Chloride	mg/L	6.2	3.8	3.9	5.7	
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.20	0.14	0.14	<0.10	
Iron	mg/L	0.012	0.023	0.013	0.039	
Lead	mg/L	0.006	<0.006	<0.006	<0.006	
Magnesium	mg/L	0.620	-	-	-	
Manganese	mg/L	0.032	0.027	0.005	0.006	
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	
Nickel	mg/L	-	-	-	-	
Potassium	mg/L	10.2	-	-	-	
Selenium	mg/L	<0.002	<0.002	<0.002	0.002	
Silica	mg/L	2.87	-	-	-	
Silver	mg/L	<0.0020	<0.0020	<0.0010	<0.0020	
Sodium	mg/L	1.54	0.70	5.71	6.28	
Total Phosphate	mg/L	5.80	-	-	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	2.30	2.40	5.43	2.94	
SO ₄	mg/L	7.5	-	-	-	
Phenols	mg/L	0.006	0.005	0.018	<0.005	
Tot. Org. Carbon	mg/L	9.00	6.00	6.00	9.70	
Tot. Org. Halogen	mg/L	0.190	0.012	0.075	0.093	
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	<0.002	<0.003	0.004	0.004	
Trichloroethene	mg/L	<0.001	<0.001	0.008	<0.001	
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001	
Gross Alpha	pCi/L	20.0	7.3	4.4	-	
Nonvol. Beta	pCi/L	44.9	21.3	32.3	-	
Total Radium	pCi/L	17.9	8.0	12.1	-	
Tritium	pCi/mL	9.43	-	8.20	-	

Well: FCA 16A, F-Area Canyon Building

SRP Grid N 78899.5
Coordinates E 53568.8
Latitude 33.28787°N
Longitude 81.6789004°W

Screen Zone Elevation 71.7-65.6
Top of Casing Elevation 95.15
Casing Material Steel

Parameter	Units	03/03/87	05/20/87	09/12/87	11/15/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	68.8	68.8	68.9	68.9	
pH	6.5	6.2	6.0	6.3		
Conductivity	umhos/cm	120	100	92	86	
TDS	mg/L	92	-	-	-	
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002	
Barium	mg/L	0.021	0.017	0.012	0.014	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	<0.002	0.003	<0.002	
Calcium	mg/L	7.92	-	-	-	
Chloride	mg/L	6.2	3.8	3.9	5.7	
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.20	0.14	0.14	<0.10	
Iron	mg/L	0.012	0.023	0.013	0.039	
Lead	mg/L	0.006	<0.006	<0.006	<0.006	
Magnesium	mg/L	0.620	-	-	-	
Manganese	mg/L	0.032	0.027	0.005	0.006	
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	
Nickel	mg/L	-	-	-	-	
Potassium	mg/L	10.2	-	-	-	
Selenium	mg/L	<0.002	<0.002	<0.002	0.002	
Silica	mg/L	2.87	-	-	-	
Silver	mg/L	<0.0020	<0.0020	<0.0010	<0.0020	
Sodium	mg/L	1.54	0.70	5.71	6.28	
Total Phosphate	mg/L	5.80	-	-	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	2.30	2.40	5.43	2.94	
SO ₄	mg/L	7.5	-	-	-	
Phenols	mg/L	0.006	0.005	0.018	<0.005	
Tot. Org. Carbon	mg/L	9.00	6.00	6.00	9.70	
Tot. Org. Halogen	mg/L	0.190	0.012	0.075	0.093	
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	<0.002	<0.003	0.004	0.004	
Trichloroethene	mg/L	<0.001	<0.001	0.008	<0.001	
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001	
Gross Alpha	pCi/L	20.0	7.3	4.4	-	
Nonvol. Beta	pCi/L	44.9	21.3	32.3	-	
Total Radium	pCi/L	17.9	8.0	12.1	-	
Tritium	pCi/mL	9.43	-	8.20	-	

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

FCA 2D 03/04/87	Uranium	3.53
FCA 2D 05/20/87	Trichlorofluoromethane	0.071
FCA 2D 09/13/87	Uranium	0.999
FCA 2D 11/15/87	Trichlorofluoromethane	0.300
FCA 2D 01/03/88	Uranium	0.001
FCA 9D 09/12/87	Uranium	0.0129
FCA 9D 11/15/87	Uranium	None
FCA 9D 01/03/88	Uranium	0.001
FCA 10A 03/03/87	Uranium	0.001
FCA 10A 05/20/87	GCMS Scan detected the following:	None
FCA 10A 09/13/87	Uranium	0.0127
FCA 10A 11/15/87	GCMS Scan detected the following:	None

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

FCA 100 05/19/87
 GCMS Scan detected the following: None

FCA 100 09/12/87
 GCMS Scan detected the following: None

FCA 100 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 0.006

FCA 16D 02/25/87
 Uranium <1

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

FCA 16D 09/12/87
 Uranium 0.0011
 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	meters (MSL)			
Coordinates E	55046.7	Screen Zone Elevation	71.7-62.5		
Latitude	33.283181°N	Top of Casing Elevation	93.68		
Longitude	81.670800°W	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	pH	4.9	4.8	5.1	4.9
Conductivity	umhos/cm	26	32	29	29
TDS	mg/L	20	-	-	-
Arsenic	ng/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	0.475	-	-	-
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	3.04	-	-	-
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 meters (MSL)
 Coordinates E 54871.8
 Latitude 33.283240°N
 Longitude 81.671363°W

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	pH	12.5	12.1	12.0	11.7
Conductivity	umhos/cm	1700	2200	1800	1692
TDS	mg/L	-	-	-	-
Arsenic	ng/L	<0.002	-	-	-
Barium	mg/L	0.144	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	487	-	-	-
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	1.45	-	-	-
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 meters (MSL)
 Coordinates E 54874.4
 Latitude 33.283434°N
 Longitude 81.670764°W

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	92.1
pH	pH	6.1	6.7	6.4	6.2
Conductivity	umhos/cm	74	160	83	79
TDS	mg/L	58	-	-	-
Arsenic	mg/L	<0.007	-	-	-
Barium	mg/L	0.009	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	18.1	-	-	-
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	-	0.058	-
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	0.370	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.98	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.30	-	-	-
Total Phosphate	mg/L	0.561	-	-	-
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	2.5	-	6.7	-
Tritium	pCi/mL	8.93	-	-	-

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Well: PCB 4, F-Area Coal Pile Runoff Containment Basin

		meters (MSL)			
SRP Grid	N 76780.4	Screen Zone Elevation	71.3-82.3		
Coordinates	E 54605.9	Top of Casing Elevation	93.45		
Latitude	33.284685°N	Casing Material	PVC		
Longitude	81.672156°W				
Parameter	Units	03/10/87	05/19/87	09/07/87	11/12/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	69.3	70	70.1	70
pH		5.5	5.1	5.2	5.6
Conductivity	umhos/cm	4	32	39	31
TDS	mg/L	22	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.008	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.00	-	-	-
Chloride	mg/L	3.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.042	-	0.011	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.201	-	1.32	-
Lead	mg/L	<0.006	-	0.006	-
Magnesium	mg/L	0.324	-	-	-
Manganese	mg/L	0.053	-	0.054	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.490	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.08	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.56	-	-	-
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	0.981	-	-	-
NO ₃ (as N)	mg/L	1.28	-	-	-
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	<3.0	-	1.6	-
Nonvol. Beta	pCi/L	6.4	-	-	-
Total Radium	pCi/L	<1.0	-	0.5	-
Tritium	pCi/mL	31.2	-	-	-

Well: PCB 2, Old F-Area Seepage Basin

		meters (MSL)			
SRP Grid	N 80442.3	Screen Zone Elevation	64.2-55.1		
Coordinates	E 54362.1	Latitude	33.292385°N	Top of Casing Elevation	87.72
Longitude	81.679913°W	Casing Material	PVC		
Parameter	Units	02/08/87	05/26/87	08/24/87	12/09/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	62.5	63.2	63.4	63
pH		3.6	3.7	3.8	3.4
Conductivity	umhos/cm	320	290	235	250
TDS	mg/L	138	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.120	-	-	-
Beryllium	mg/L	<0.005	-	<0.005	-
Cadmium	mg/L	<0.002	-	<0.003	-
Calcium	mg/L	5.56	-	-	-
Chloride	mg/L	3.1	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	0.014	-	0.053	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	-	<0.10	-
Iron	mg/L	0.099	-	0.159	-
Lead	mg/L	0.010	-	0.052	-
Magnesium	mg/L	9.37	-	-	-
Manganese	mg/L	0.402	-	0.250	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	0.021	-	0.016	-
Potassium	mg/L	0.960	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.38	-	-	-
Silver	mg/L	<0.0020	-	<0.0020	-
Sodium	mg/L	19.3	12.1	10.4	7.85
Total Phosphate	mg/L	0.066	-	-	-
Zinc	mg/L	-	-	0.062	-
NO ₃ (as N)	mg/L	31.1	25.0	8.36	21.9
SO ₄	mg/L	<5.0	-	-	-
Phenols	mg/L	<0.002	-	0.002	-
Int. Org. Carbon	mg/L	11.000	2.00	4.00	1.20
Tot. Org. Halogen	mg/L	0.011	0.010	0.020	-
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	-	0.008	0.013	0.027
1,1,1-TCE	mg/L	-	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	61.4	-	59.1	-
Nonvol. Beta	pCi/L	701	-	496	-
Total Radium	pCi/L	9.5	-	8.3	-
Tritium	pCi/mL	657	471	380	495

Well: PCB 1, Old F-Area Seepage Basin

		meters (MSL)			
SRP Grid	N 80151.5	Screen Zone Elevation	63.2-54.0		
Coordinates	E 54271.6	Top of Casing Elevation	86.55		
Latitude	33.291594°N	Casing Material	PVC		
Longitude	81.679586°W				
Parameter	Units	02/08/87	05/26/87	08/24/87	12/09/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	63.9	64.1	64.4	64.3
pH		4.5	4.6	4.8	4.2
Conductivity	umhos/cm	76	77	76	81
TDS	mg/L	54	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.010	-	0.021	-
Beryllium	mg/L	<0.003	-	0.005	-
Cadmium	mg/L	<0.002	-	0.002	-
Calcium	mg/L	1.87	-	-	-
Chloride	mg/L	3.7	-	-	-
Chromium	mg/L	<0.004	-	0.004	-
Copper	mg/L	0.006	-	0.019	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	<0.10	-
Iron	mg/L	0.040	-	0.044	-
Lead	mg/L	0.011	-	0.032	-
Magnesium	mg/L	1.13	-	-	-
Manganese	mg/L	0.017	-	0.020	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	0.004	-	0.004	-
Potassium	mg/L	0.510	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.42	-	-	-
Silver	mg/L	<0.0020	-	<0.0020	-
Sodium	mg/L	7.32	7.72	7.96	13.3
Total Phosphate	mg/L	0.010	-	0.034	-
Zinc	mg/L	-	-	3.77	7.54
NO ₃ (as N)	mg/L	5.70	6.00	3.77	7.54
SO ₄	mg/L	<5.0	-	-	-
Phenols	mg/L	<0.002	-	0.005	-
Tot. Org. Carbon	mg/L	<1.000	1.00	1.00	<1.000
Tot. Org. Halogen	mg/L	0.060	0.071	0.066	-
Carbon Tet.	mg/L	-	<0.001	<0.005	<0.001
Chloroform	mg/L	-	<0.001	<0.003	<0.001
Tetrachloroethene	mg/L	-	<0.001	<0.005	<0.001
Trichloroethene	mg/L	-	<0.009	0.068	0.044
1,1,1-TCE	mg/L	-	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	<3.0	-	5.0	-
Nonvol. Beta	pCi/L	5.5	-	7.8	-
Total Radium	pCi/L	<1.0	-	1.2	-
Tritium	pCi/mL	311	297	290	271

Well: PCB 3, Old F-Area Seepage Basin

		meters (MSL)			
SRP Grid	N 80553.1	Screen Zone Elevation	64.6-55.5		
Coordinates	E 54105.8	Latitude	33.292122°N	Top of Casing Elevation	86.56
Longitude	81.680803°W	Casing Material	PVC		
Parameter	Units	02/08/87	05/26/87	08/24/87	12/09/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	63.2	63.3	64.1	63.7
pH		4.1	4.3	4.3	3.9
Conductivity	umhos/cm	121	145	118	116
TDS	mg/L	92	-	-	-
Arsenic	mg/L	<0.002	-	<0.002	-
Barium	mg/L	0.950	-	0.053	-
Beryllium	mg/L	<0.005	-	<0.005	-
Cadmium	mg/L	<0.002	-	<0.002	-
Calcium	mg/L	3.40	-	-	-
Chloride	mg/L	3.1	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	0.005	-	0.013	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	0.18	-
Iron	mg/L	0.028	-	0.054	-
Lead	mg/L	0.009	-	0.014	-
Magnesium	mg/L	1.84	-	-	-
Manganese	mg/L	0.178	-	0.200	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	0.006	-	0.006	-
Potassium	mg/L	0.580	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.52	-	-	-
Silver	mg/L	<0.0010	-	<0.0010	-
Sodium	mg/L	5.82	6.19	6.26	6.10
Total Phosphate	mg/L	0.014	-	-	-
Zinc	mg/L	-	-	0.112	-
NO ₃ (as N)	mg/L	8.50	11.3	19.2	9.99
SO ₄	mg/L	<5.0	-	-	-
Phenols	mg/L	<0.002	-	0.005	-
Tot. Org. Carbon	mg/L	<1.000	4.00	2.00	13.0
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	12.5	-	8.6	-
Nonvol. Beta	pCi/L	125	-	113	-
Total Radium	pCi/L	3.1	-	5.7	-
Tritium	pCi/mL	97.0	126	106	110

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Well: FSB 76, F-Area Seepage Basins						
	SRP Grid	N 76141-6	Screen Zone Elevation	meters (MSL)		
	Coordinates E 51388.8			69.2-80.0		
	Latitude 33.27802°N		Top of Casing Elevation	89.67		
	Longitude 81.67938°W		Casing Material	PVC		
FNB 1 05/16/87	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 05/16/87	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 05/16/87	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: FSB 76A, F-Area Seepage Basins						
	SRP Grid	N 76111-9	Screen Zone Elevation	meters (MSL)		
	Coordinates E 51391.8			14.4-11.2		
	Latitude 33.27805°N		Top of Casing Elevation	89.58		
	Longitude 81.67939°W		Casing Material	PVC		
Parameter	Units	02/04/87	04/08/87	07/18/87	10/01/87	
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	-	66.2	66.6	66.5	
pH	pH	5.2	5.1	5.1	5.6	
Conductivity	umhos/cm	82	70	60	56	
TDS	mg/L	56	-	-	-	
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	3.9	-	-	-	
Phenols	mg/L	0.002	-	-	-	
Tot. Org. Carbon	mg/L	1.000	1.000	1.80	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	-	-	-	-	
Gross Alpha	pCi/L	1.7	7.0	3.2	5.1	
Nonvol. Beta	pCi/L	11.6	12.0	8.6	5.9	
Total Radium	pCi/L	1.4	1.0	1.4	-	
Tritium	pCi/mL	481	403	400	347	

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Well: FSB 76B, F-Area Seepage Basins							Well: FSB 77, F-Area Seepage Basins						
Parameter	Units	01/07/87	04/08/87	07/18/87	11/01/87		Parameter	Units	01/07/87	04/08/87	07/18/87	11/01/87	
Sampling Method		Pump	Pump	Pump	Pump		Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	46.1	46.5	46.8	46.2		Water Elevation	meters	64.5	65	65.5	65.2	
pH	pH	6.4	6.8	7.1	6.6		pH	pH	3.7	3.9	3.9	4.0	
Conductivity	umhos/cm	145	142	141	128		Conductivity	umhos/cm	350	440	500	485	
TDS	mg/L	84	94	108	76		TDS	mg/L	100	-	-	-	
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002		Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	0.020	0.021	0.022	0.020		Barium	mg/L	0.000	-	0.100	0.074	
Beryllium	mg/L	-	-	-	-		Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002		Cadmium	mg/L	0.002	0.005	0.006	0.008	
Calcium	mg/L	23.6	22.8	24.2	59.5		Chloride	mg/L	0.533	-	-	-	
Chloride	mg/L	2.7	2.7	3.0	3.1		Chromium	mg/L	1.8	-	-	-	
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004		Copper	mg/L	<0.004	<0.004	<0.004	<0.004	
Copper	mg/L	-	-	-	-		Cyanide	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-		Fluoride	mg/L	0.25	-	-	-	
Fluoride	mg/L	0.23	0.17	0.31	0.32		Iron	mg/L	0.025	0.625	0.033	0.027	
Iron	mg/L	0.010	0.009	0.011	0.017		Lead	mg/L	0.028	0.028	0.031	0.022	
Lead	mg/L	<0.006	<0.006	<0.006	<0.006		Magnesium	mg/L	0.425	-	-	-	
Magnesium	mg/L	0.689	0.632	0.648	0.633		Manganese	mg/L	0.058	0.205	0.176	0.201	
Manganese	mg/L	<0.002	<0.002	<0.002	0.004		Mercury	mg/L	<0.002	<0.002	<0.002	<0.002	
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002		Nickel	mg/L	-	0.009	-	-	
Nickel	mg/L	-	<0.004	-	-		Potassium	mg/L	0.397	-	-	-	
Potassium	mg/L	0.812	0.800	0.740	0.758		Selenium	mg/L	<0.002	-	-	-	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002		Silica	mg/L	6.52	-	-	-	
Silica	mg/L	3.09	8.84	9.12	-		Silver	mg/L	<0.0020	-	-	-	
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020		Sodium	mg/L	12.2	31.2	29.2	-	
Sodium	mg/L	1.90	1.81	1.79	1.56		Total Phosphate	mg/L	0.027	<0.020	0.030	-	
Total Phosphate	mg/L	0.386	0.240	0.360	0.170		Zinc	mg/L	0.061	0.107	0.088	0.083	
Zinc	mg/L	<0.008	0.008	0.008	0.087		NO ₃ (as N)	mg/L	24.0	50.0	45.8	71.4	
NO ₃ (as N)	mg/L	0.50	0.47	0.96	0.78		SO ₄	mg/L	<3.0	-	-	-	
SO ₄	mg/L	4.5	1.0	<5.0	10.0		Phenols	mg/L	<0.002	-	-	-	
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005		Tot. Org. Carbon	mg/L	<1.000	<1.000	1.10	<1.000	
Tot. Org. Carbon	mg/L	1.50	1.00	<1.000	<1.000		Tot. Org. Halogen	mg/L	<0.005	<0.005	0.005	<0.005	
Tot. Org. Halogen	mg/L	<0.005	<0.005	<0.005	<0.005		Carbon Tet.	mg/L	-	-	-	-	
Carbon Tet.	mg/L	-	-	-	-		Chloroform	mg/L	-	-	-	-	
Chloroform	mg/L	-	-	-	-		Tetrachloroethene	mg/L	-	-	-	-	
Tetrachloroethene	mg/L	-	-	-	-		Trichloroethene	mg/L	-	-	-	-	
Trichloroethene	mg/L	-	-	-	-		1,1,1-TCE	mg/L	-	-	-	-	
1,1,1-TCE	mg/L	-	-	-	-		Gross Alpha	pCi/L	161	158	152	140	
Gross Alpha	pCi/L	3.0	<3.0	<3.0	<3.0		Nonvol. Beta	pCi/L	378	894	881	726	
Nonvol. Beta	pCi/L	<2.0	<2.0	<2.0	<2.0		Total Radium	pCi/L	8.8	17.9	11.9	-	
Total Radium	pCi/L	<1.0	<1.0	<1.0	<1.0		Tritium	pCi/mL	-	5400	5830	7970	
Well: FSB 76C, F-Area Seepage Basins							Well: FSB 78, F-Area Seepage Basins						
Parameter	Units	01/07/87	04/08/87	07/18/87	10/01/87		Parameter	Units	01/08/87	04/02/87	07/18/87	10/10/87	
Sampling Method		Pump	Pump	Pump	Pump		Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	64.6	65	65.2	65		Water Elevation	meters	63.3	64	64.2	63.9	
pH	pH	5.6	5.9	6.2	6.1		pH	pH	3.0	3.5	4.0	-	
Conductivity	umhos/cm	59	49	46	51		Conductivity	umhos/cm	4000	3100	3200	3400	
TDS	mg/L	30	34	28	44		TDS	mg/L	1280	-	-	-	
Arsenic	mg/L	<0.002	<0.001	<0.002	<0.202		Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	0.006	0.908	0.007	0.01		Barium	mg/L	0.157	-	0.230	0.215	
Beryllium	mg/L	-	-	-	-		Cadmium	mg/L	0.005	0.015	0.038	0.031	
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002		Chloride	mg/L	3.88	-	-	-	
Calcium	mg/L	6.04	3.45	7.10	6.76		Chromium	mg/L	1.4	-	-	-	
Chloride	mg/L	3.1	2.3	3.8	2.5		Chromium	mg/L	0.020	0.019	0.019	0.022	
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004		Copper	mg/L	-	-	-	-	
Copper	mg/L	-	-	-	-		Cyanide	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-		Fluoride	mg/L	0.18	-	-	-	
Fluoride	mg/L	0.13	<0.10	0.25	0.22		Iron	mg/L	0.137	0.099	0.238	0.174	
Iron	mg/L	0.023	0.017	0.050	0.006		Lead	mg/L	0.169	0.006	0.006	<0.006	
Lead	mg/L	<0.006	<0.006	<0.006	0.006		Magnesium	mg/L	1.04	-	-	-	
Magnesium	mg/L	0.364	0.360	0.387	0.348		Manganese	mg/L	0.714	0.742	0.791	0.483	
Manganese	mg/L	0.030	0.028	0.025	0.020		Mercury	mg/L	0.0003	0.0003	0.0003	0.0003	
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002		Nickel	mg/L	-	0.046	-	-	
Nickel	mg/L	-	<0.004	-	-		Potassium	mg/L	3.75	-	-	-	
Potassium	mg/L	0.554	0.500	0.477	0.521		Selenium	mg/L	<0.002	-	-	-	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002		Silica	mg/L	13.9	-	-	-	
Silica	mg/L	4.44	4.68	4.57	-		Silver	mg/L	0.0080	-	-	-	
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020		Sodium	mg/L	125	108	77.2	56.0	
Sodium	mg/L	2.06	2.20	2.21	1.78		Total Phosphate	mg/L	0.087	<0.020	0.020	-	
Total Phosphate	mg/L	0.042	0.060	0.050	0.130		Zinc	mg/L	0.193	0.135	0.200	0.218	
Zinc	mg/L	0.021	0.027	0.038	0.024		NO ₃ (as N)	mg/L	4.0	307	14.2	34.5	
NO ₃ (as N)	mg/L	1.30	1.18	1.47	1.65		SO ₄	mg/L	17.5	-	-	-	
SO ₄	mg/L	<3.0	<3.0	5.0	5.0		Phenols	mg/L	0.037	-	-	-	
Phenols	mg/L	<0.002	<0.002	0.005	<0.005		Tot. Org. Carbon	mg/L	15.0	3.00	2.00	2.20	
Tot. Org. Carbon	mg/L	<1.000	<1.000	1.40	<1.000		Tot. Org. Halogen	mg/L	0.005	0.005	0.005	<0.005	
Tot. Org. Halogen	mg/L	<0.005	<0.005	<0.005	<0.005		Carbon Tet.	mg/L	-	-	-	-	
Carbon Tet.	mg/L	-	-	-	-		Chloroform	mg/L	-	-	-	-	
Chloroform	mg/L	-	-	-	-		Tetrachloroethene	mg/L	-	-	-	-	
Tetrachloroethene	mg/L	-	-	-	-		Trichloroethene	mg/L	-	-	-	-	
Trichloroethene	mg/L	-	-	-	-		1,1,1-TCE	mg/L	-	-	-	-	
1,1,1-TCE	mg/L	-	-	-	-		Gross Alpha	pCi/L	1140	619	678	853	
Gross Alpha	pCi/L	3.0	<3.0	<3.0	<3.0		Nonvol. Beta	pCi/L	2100	1790	5200	4920	
Nonvol. Beta	pCi/L	<2.0	<2.0	<2.0	<2.0		Total Radium	pCi/L	34.1	-	37.2	-	
Total Radium	pCi/L	<1.0	<1.0	<1.0	<1.0		Tritium	pCi/mL	67200	26400	30400	36100	
Tritium	pCi/mL	-	3.11	3.31	3.20								

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Well: FSB 78A, F-Area Seepage Basins

Parameter	Units	meters (MSL)			
		01/06/87	04/02/87	07/28/87	10/10/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	47.4	47.2	47.3	47.1
pH		6.1	6.4	6.8	3.7
Conductivity	umhos/cm	140	138	120	135
TDS	mg/L	102	102	136	142
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.020	0.022	0.020	0.019
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.003	<0.002	<0.002
Calcium	mg/L	18.8	18.4	18.4	19.6
Chloride	mg/L	1.2	3.1	3.0	2.6
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.22	0.46	0.22	0.32
Iron	mg/L	0.017	0.028	0.026	0.012
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.374	0.628	0.626	0.376
Manganese	mg/L	0.027	0.022	0.018	0.017
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	-	<0.004	-	-
Potassium	mg/L	1.62	1.50	1.74	1.60
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	12.3	12.6	12.9	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	2.80	2.12	2.30	1.87
Total Phosphate	mg/L	0.245	0.203	0.200	0.270
Zinc	mg/L	0.005	0.004	0.011	<0.002
NO ₃ (as N)	mg/L	0.10	0.19	0.22	0.89
SO ₄	mg/L	12.5	<3.0	15.0	7.4
Phenols	mg/L	<0.003	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	1.40	<1.000	1.10	<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	-	x	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	<3.0	3.0	<3.0
Nonvol. Beta	pCi/L	2.7	<2.0	2.0	<2.0
Total Radium	pCi/L	<1.0	<1.0	1.0	<1.0
Tritium	pCi/mL	<1.00	14.9	17.2	25.8

Well: FSB 78C, F-Area Seepage Basins

Parameter	Units	meters (MSL)			
		01/06/87	04/02/87	07/28/87	10/10/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	62.7	63.2	63.4	63.7
pH		4.4	4.7	5.0	3.9
Conductivity	umhos/cm	2300	2100	2400	2100
TDS	mg/L	1340	1740	1610	1600
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.334	0.402	0.437	0.450
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.015	0.015	0.020	0.024
Calcium	mg/L	172	166	185	182
Chloride	mg/L	2.7	2.7	3.0	2.0
Chromium	mg/L	0.007	0.005	0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.24	0.63	0.44	0.44
Iron	mg/L	0.401	0.276	0.244	0.199
Lead	mg/L	0.083	0.056	0.089	0.037
Magnesium	mg/L	29.3	29.0	29.1	30.5
Manganese	mg/L	3.78	4.18	4.26	5.23
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	-	0.085	-	-
Potassium	mg/L	14.3	11.0	13.4	9.44
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	5.37	4.42	3.89	-
Silver	mg/L	0.0040	0.0020	0.0020	0.0050
Sodium	mg/L	112	115	118	109
Total Phosphate	mg/L	0.047	0.020	0.060	0.130
Zinc	mg/L	0.486	0.470	0.572	0.637
NO ₃ (as N)	mg/L	250	220	102	222
SO ₄	mg/L	<3.0	<3.0	<5.0	<5.0
Phenols	mg/L	<0.004	<0.002	<0.005	0.007
Tot. Org. Carbon	mg/L	10.0	2.00	2.00	1.80
Tot. Org. Halogen	mg/L	0.010	0.007	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	732	111	35.2	26.2
Nonvol. Beta	pCi/L	1600	1390	1360	1680
Total Radium	pCi/L	30.4	30.4	30.7	30.8
Tritium	pCi/mL	17500	9810	9550	9770

Well: FSB 78B, F-Area Seepage Basins

Parameter	Units	meters (MSL)			
		01/06/87	04/02/87	07/28/87	10/10/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	61.6	62	61.8	61.5
pH		3.3	3.6	3.5	3.2
Conductivity	umhos/cm	2000	1850	1800	2050
TDS	mg/L	780	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.361	-	0.391	0.422
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.004	0.004	0.004	0.005
Calcium	mg/L	2.49	-	-	-
Chloride	mg/L	2.1	-	-	-
Chromium	mg/L	<0.004	0.005	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.20	-	-	-
Iron	mg/L	0.179	0.200	0.281	0.228
Lead	mg/L	0.070	0.058	<0.006	<0.006
Magnesium	mg/L	1.10	-	-	-
Manganese	mg/L	3.70	2.97	3.67	4.59
Mercury	mg/L	0.0003	0.0008	0.0007	0.0006
Nickel	mg/L	-	0.035	-	-
Potassium	mg/L	2.04	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	36.6	-	-	-
Silver	mg/L	0.0030	-	-	-
Sodium	mg/L	106	140	152	136
Total Phosphate	mg/L	0.037	0.020	0.040	-
Zinc	mg/L	0.150	0.128	0.138	0.159
NO ₃ (as N)	mg/L	200	182	90.6	205
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	8.20	1.00	2.00	2.20
Tot. Org. Halogen	mg/L	0.010	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	712	29.7	377	385
Nonvol. Beta	pCi/L	1370	173	1270	1640
Total Radium	pCi/L	35.6	-	35.4	-
Tritium	pCi/mL	39100	24100	25100	18700

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Well: FSB 79A, F-Area Seepage Basin

Parameter	Units	01/05/87	04/01/87	07/18/87	10/10/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	47.8	47.7	47.9	47.7	
pH	pH	6.0	6.5	6.4	5.6	
Conductivity	umhos/cm	88	108	86	90	
TDS	mg/L	72	76	138	106	
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002	
Barium	mg/L	0.015	0.018	0.018	0.015	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002	
Calcium	mg/L	14.3	13.2	13.9	14.0	
Chloride	mg/L	2.3	2.1	2.1	2.6	
Chromium	mg/L	<0.004	0.004	<0.004	<0.004	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.18	0.43	0.16	0.25	
Iron	mg/L	0.010	0.032	0.023	0.126	
Lead	mg/L	<0.006	<0.006	<0.006	<0.006	
Magnesium	mg/L	0.519	0.512	0.540	0.470	
Manganese	mg/L	0.003	0.015	0.002	0.002	
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	
Nickel	mg/L	-	<0.004	-	-	
Potassium	mg/L	1.06	1.09	1.07	1.02	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	
Silica	mg/L	8.18	8.34	8.46	-	
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	
Sodium	mg/L	1.73	2.36	1.96	1.43	
Total Phosphate	mg/L	0.153	0.150	0.110	0.240	
Zinc	mg/L	0.011	0.006	0.004	0.002	
NO ₃ (as N)	mg/L	0.25	0.21	0.78	0.81	
SO ₄	mg/L	3.0	<3.0	<3.0	<3.0	
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005	
Tot. Org. Carbon	mg/L	8.00	<1.000	<1.000	6.30	
Tot. Org. Halogen	mg/L	<0.003	<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	2.1	<2.0	2.4	2.0	
Total Radium	pCi/L	<1.0	<1.0	<1.0	<1.0	
Tritium	pCi/mL	61.00	12.6	13.8	12.7	

Well: FSB 79C, F-Area Seepage Basin

Parameter	Units	01/05/87	04/01/87	07/18/87	10/10/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	59.9	60.4	60	59.9	
pH	pH	3.4	3.7	3.6	3.4	
Conductivity	umhos/cm	2200	2250	2000	2000	
TDS	mg/L	834	906	870	1030	
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002	
Barium	mg/L	0.393	0.392	0.600	0.635	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	0.026	0.029	0.035	0.038	
Calcium	mg/L	13.4	13.5	17.6	18.8	
Chloride	mg/L	1.8	2.0	1.5	-	
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.20	0.51	0.58	0.37	
Iron	mg/L	0.015	0.040	0.057	0.083	
Lead	mg/L	0.104	<0.008	0.006	<0.006	
Magnesium	mg/L	6.78	7.42	9.32	10.4	
Manganese	mg/L	3.26	3.15	3.06	3.12	
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	
Nickel	mg/L	-	0.059	-	-	
Potassium	mg/L	2.78	2.80	2.89	2.40	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	
Silica	mg/L	12.1	13.0	13.2	-	
Silver	mg/L	0.0040	<0.0020	<0.0020	<0.0040	
Sodium	mg/L	125	134	140	123	
Total Phosphate	mg/L	0.057	<0.020	0.060	0.130	
Zinc	mg/L	0.177	0.163	0.202	0.258	
NO ₃ (as N)	mg/L	240	218	21.1	20.9	
SO ₄	mg/L	<3.0	<3.0	<3.0	<3.0	
Phenols	mg/L	<0.002	<0.002	<0.005	0.006	
Tot. Org. Carbon	mg/L	9.35	<1.000	1.70	2.50	
Tot. Org. Halogen	mg/L	0.011	0.008	0.010	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	1850	555	869	819	
Nonvol. Beta	pCi/L	4310	448	4530	4580	
Total Radium	pCi/L	111	101	101	106	
Tritium	pCi/mL	25600	13400	12500	11400	

Well: FSB 79B, F-Area Seepage Basin

Parameter	Units	01/05/87	04/01/87	07/18/87	10/10/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	27.8-24.6	-	-	-	
pH	pH	6.5	6.8	6.6	6.7	
Conductivity	umhos/cm	180	162	158	180	
TDS	mg/L	100	124	194	144	
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002	
Barium	mg/L	0.026	0.023	0.026	0.022	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002	
Calcium	mg/L	29.3	30.2	29.0	30.3	
Chloride	mg/L	2.5	2.5	3.1	2.8	
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	0.25	0.55	0.28	0.31	
Fluoride	mg/L	0.25	0.55	-	-	
Iron	mg/L	0.086	0.023	0.101	0.022	
Lead	mg/L	<0.006	<0.006	<0.006	<0.006	
Magnesium	mg/L	0.597	0.518	0.570	0.497	
Manganese	mg/L	0.011	0.003	0.003	<0.002	
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	
Nickel	mg/L	-	<0.004	-	-	
Potassium	mg/L	0.690	0.570	0.780	0.688	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	
Silica	mg/L	11.6	11.4	12.0	-	
Silver	mg/L	<0.0020	0.0020	<0.0020	<0.0020	
Sodium	mg/L	2.11	1.82	2.28	1.59	
Total Phosphate	mg/L	0.492	0.279	0.450	0.450	
Zinc	mg/L	0.094	0.008	0.024	<0.002	
NO ₃ (as N)	mg/L	0.55	0.80	1.15	1.01	
SO ₄	mg/L	7.5	<1.0	5.0	<5.0	
Phenols	mg/L	<0.002	<0.002	<0.005	0.005	
Tot. Org. Carbon	mg/L	1.20	<1.000	<1.000	<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	<3.0	<3.0	<3.0	<3.0	
Nonvol. Beta	pCi/L	2.6	<2.0	3.3	<3.0	
Total Radium	pCi/L	<1.0	<1.0	0.4	<1.0	
Tritium	pCi/mL	<1.00	12.9	16.2	16.3	

Well: FSB 87A, F-Area Seepage Basin

Parameter	Units	01/03/87	04/01/87	07/20/87	10/01/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	46.9	47	47.2	46.6	
pH	pH	6.5	6.8	6.6	6.7	
Conductivity	umhos/cm	120	122	103	102	
TDS	mg/L	88	98	106	78	
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002	
Barium	mg/L	0.014	0.020	0.018	0.018	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	<0.003	<0.002	<0.002	
Calcium	mg/L	15.2	17.2	17.4	20.4	
Chloride	mg/L	2.9	2.0	2.6	2.3	
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.25	0.51	0.23	0.29	
Iron	mg/L	0.010	0.021	0.015	0.010	
Lead	mg/L	<0.006	<0.006	<0.006	<0.006	
Magnesium	mg/L	0.549	0.634	0.590	0.598	
Manganese	mg/L	0.003	0.013	0.003	0.005	
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	
Nickel	mg/L	-	<0.004	-	-	
Potassium	mg/L	0.936	1.09	1.10	1.09	
Selenium	mg/L	<0.002	<0.002	0.002	<0.002	
Silica	mg/L	10.9	11.2	11.5	-	
Silver	mg/L	0.0020	0.0020	0.0020	0.0020	
Sodium	mg/L	1.84	1.97	1.00	1.77	
Total Phosphate	mg/L	0.270	0.130	0.170	0.400	
Zinc	mg/L	<0.002	0.006	0.012	0.141	
NO ₃ (as N)	mg/L	0.20	0.19	0.89	0.73	
SO ₄	mg/L	12.5	<3.0	6.5	<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	<0.005	<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	<3.0	<3.0	<3.0	<3.0	
Nonvol. Beta	pCi/L	2.0</				

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Well: FSB 878, F-Area Seepage Basins

Parameter	Unit	meters (MSL)			
		01/05/87	04/01/87	07/20/87	10/01/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	45.9	46.1	46.4	45.6
pH	pH	6.3	6.1	6.6	6.4
Conductivity	umhos/cm	86	78	78	81
TDS	mg/L	42	56	64	78
Arsenic	mg/L	<0.001	<0.002	<0.002	<0.002
Barium	mg/L	0.005	0.010	0.006	0.006
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	16.4	9.84	11.0	12.4
Chloride	mg/L	2.3	2.3	2.2	2.0
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.40	0.39	0.56	2.20
Iron	mg/L	0.011	0.008	0.183	0.011
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.467	0.498	0.558	0.459
Manganese	mg/L	<0.002	0.027	0.006	0.004
Mercury	mg/L	<0.0002	0.0014	<0.0002	<0.0002
Nickel	mg/L	-	0.004	-	-
Potassium	mg/L	1.20	1.10	1.11	0.990
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	6.10	6.19	7.00	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	1.53	3.36	2.50	2.05
Total Phosphate	mg/L	1.18	0.520	1.33	1.80
Zinc	mg/L	<0.006	0.008	0.011	<0.002
NO ₃ (as N)	mg/L	1.60	1.65	3.56	1.93
SO ₄	mg/L	5.0	<3.0	5.0	5.0
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	2.00
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	<3.0	<3.0	9.6
Nonvol. Beta	pCi/L	2.1	52.0	4.8	10.8
Total Radium	pCi/L	<1.0	<1.0	<1.0	1.4
Tritium	pCi/mL	-	44.0	47.8	47.5

Well: FSB 870, F-Area Seepage Basins

Parameter	Units	meters (MSL)			
		01/05/87	04/01/87	07/20/87	10/01/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	45.9	46.1	46.4	45.6
pH	pH	6.3	6.1	6.6	6.4
Conductivity	umhos/cm	86	78	78	81
TDS	mg/L	42	56	64	78
Arsenic	mg/L	<0.001	<0.002	<0.002	<0.002
Barium	mg/L	0.005	0.010	0.006	0.006
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	16.4	9.84	11.0	12.4
Chloride	mg/L	2.3	2.3	2.2	2.0
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.40	0.39	0.56	2.20
Iron	mg/L	0.011	0.008	0.183	0.011
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.467	0.498	0.558	0.459
Manganese	mg/L	<0.002	0.027	0.006	0.004
Mercury	mg/L	<0.0002	0.0014	<0.0002	<0.0002
Nickel	mg/L	-	0.004	-	-
Potassium	mg/L	1.20	1.10	1.11	0.990
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	6.10	6.19	7.00	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	1.53	3.36	2.50	2.05
Total Phosphate	mg/L	1.18	0.520	1.33	1.80
Zinc	mg/L	<0.006	0.008	0.011	<0.002
NO ₃ (as N)	mg/L	1.60	1.65	3.56	1.93
SO ₄	mg/L	5.0	<3.0	5.0	5.0
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	2.00
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	<3.0	<3.0	9.6
Nonvol. Beta	pCi/L	2.1	52.0	4.8	10.8
Total Radium	pCi/L	<1.0	<1.0	<1.0	1.4
Tritium	pCi/mL	-	44.0	47.8	47.5

Well: FSB 870, F-Area Seepage Basins

Parameter	Units	meters (MSL)			
		01/05/87	04/01/87	07/20/87	10/01/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	45.9	46.1	46.4	45.6
pH	pH	6.5	6.4	6.6	6.7
Conductivity	umhos/cm	85	100	110	108
TDS	mg/L	50	84	72	88
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.008	0.013	0.017	0.015
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	9.04	8.37	9.89	11.9
Chloride	mg/L	2.3	2.0	2.8	2.4
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.13	0.10	0.14	0.23
Iron	mg/L	0.011	0.011	0.048	0.042
Lead	mg/L	0.011	0.006	0.007	<0.006
Magnesium	mg/L	0.670	0.804	1.05	1.21
Manganese	mg/L	<0.002	0.005	0.019	0.007
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	-	0.004	-	-
Potassium	mg/L	0.658	0.700	0.810	0.708
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	3.92	4.01	3.85	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	3.77	4.53	6.36	4.64
Total Phosphate	mg/L	0.027	0.020	0.030	0.010
Zinc	mg/L	0.008	0.008	0.032	<0.002
NO ₃ (as N)	mg/L	4.40	5.64	8.84	1.70
SO ₄	mg/L	7.0	3.0	5.0	5.0
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	1.00	1.80
Tot. Org. Halogen	mg/L	<0.005	<0.005	0.083	<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	1.6
Nonvol. Beta	pCi/L	4.0	22.0	8.0	8.8
Total Radium	pCi/L	<1.0	0.7	1.2	1.0
Tritium	pCi/mL	-	310	492	587

Well: FSB 880, F-Area Seepage Basins

Parameter	Units	meters (MSL)			
		01/05/87	04/01/87	07/20/87	10/01/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	45.9	46.1	46.4	45.6
pH	pH	5.5	6.4	6.6	6.7
Conductivity	umhos/cm	85	100	110	108
TDS	mg/L	50	84	72	88
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.008	0.013	0.017	0.015
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	9.04	8.37	9.89	11.9
Chloride	mg/L	2.3	2.0	2.8	2.4
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.13	0.10	0.14	0.23
Iron	mg/L	0.011	0.011	0.048	0.042
Lead	mg/L	0.011	0.006	0.007	<0.006
Magnesium	mg/L	0.670	0.804	1.05	1.21
Manganese	mg/L	<0.002	0.005	0.019	0.007
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	-	0.004	-	-
Potassium	mg/L	0.658	0.700	0.810	0.708
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	3.92	4.01	3.85	-
Silver	mg/L	-	-	-	-
Sodium	mg/L	3.77	4.53	6.36	4.64
Total Phosphate	mg/L	0.027	0.020	0.030	0.010
Zinc	mg/L	0.008	0.008	0.032	<0.002
NO ₃ (as N)	mg/L	4.40	5.64	8.84	1.70
SO ₄	mg/L	7.0	3.0	5.0	5.0
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	1.00	1.80
Tot. Org. Halogen	mg/L	<0.005	<0.005	0.083	<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	1.6
Nonvol. Beta	pCi/L	4.0	22.0	8.0	8.8
Total Radium	pCi/L	<1.0	0.7	1.2	1.0
Tritium	pCi/mL	-	310	492	587

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Well: FSB 88D, F-Area Seepage Basins

SRP Grid	N 75621.8	meters (MSL)	
Coordinates E	51527.0	Screen Zone Elevation	67.7-61.6
Latitude	33.277098°N	Top of Casing Elevation	86.07
Longitude	81.678011°W	Casing Material	PVC

Parameter	Units	12/01/87
Sampling Method		Pump
Water Elevation	meters	66.1
pH	pH	4.7
Conductivity	umhos/cm	697
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	1.98
Manganese	mg/L	0.639
Mercury	mg/L	0.0018
Nickel	mg/L	0.011
Potassium	mg/L	9.30
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	0.300
NO ₃ (as N)	mg/L	70.6
SO ₄	mg/L	<5.7
Phenols	mg/L	<0.003
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: FSB 89D, F-Area Seepage Basins

Parameter	Units	12/01/87
Sampling Method		Pump
Water Elevation	meters	65.1
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	0.014
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	1.00
Tot. Org. Halogen	mg/L	0.008
Carbon Tet.	mg/L	0.005
Chloroform	mg/L	0.005
Tetrachloroethene	mg/L	0.005
Trichloroethene	mg/L	0.003
1,1,1-TCE	mg/L	0.005
Gross Alpha	pCi/L	75.7
Nonvol. Beta	pCi/L	712
Total Radium	pCi/L	5.9
Tritium	pCi/mL	2310

Well: FSB 89C, F-Area Seepage Basins

SRP Grid	N 75593.2	meters (MSL)	
Coordinates E	51345.2	Screen Zone Elevation	50.6-47.6
Latitude	33.278650°N	Top of Casing Elevation	85.74
Longitude	81.678357°W	Casing Material	PVC

Parameter	Units	12/01/87
Sampling Method		Pump
Water Elevation	meters	64.8
pH	pH	6.7
Conductivity	umhos/cm	106
TDS	mg/L	56
Arsenic	mg/L	<0.002
Barium	mg/L	0.018
Beryllium	mg/L	<0.003
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	<0.002
Nickel	mg/L	<0.004
Potassium	mg/L	3.53
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	<5.0
Phenols	mg/L	<0.003
Tot. Org. Carbon	mg/L	<1.00
Tot. Org. Halogen	mg/L	0.010
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	0.8
Tritium	pCi/mL	34.2

Well: FSB 90C, F-Area Seepage Basins

SRP Grid	N 75587.9	meters (MSL)	
Coordinates E	51348.6	Screen Zone Elevation	51.2-48.2
Latitude	33.273593°N	Top of Casing Elevation	84.85
Longitude	81.678544°W	Casing Material	PVC

Parameter	Units	11/30/87
Sampling Method		Pump
Water Elevation	meters	64.3
pH	pH	7.1
Conductivity	umhos/cm	213
TDS	mg/L	180
Arsenic	mg/L	<0.002
Barium	mg/L	0.082
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	<0.003
Fluoride	mg/L	0.27
Iron	mg/L	0.015
Lead	mg/L	<0.006
Magnesium	mg/L	2.88
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	<9.0020
Sodium	mg/L	11.5
Total Phosphate	mg/L	0.030
Zinc	mg/L	0.019
NO ₃ (as N)	mg/L	10.9
SO ₄	mg/L	<5.0
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	<1.00
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	<0.003
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	3.7
Nonvol. Beta	pCi/L	12.3
Total Radium	pCi/L	3.9
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	meters (MSL)
Coordinates E	51140.7	Screen Zone Elevation
Latitude	33.275926°N	Top of Casing Elevation
Longitude	81.678553°W	Casing Material PVC
Parameter	Units	11/30/87
Sampling Method		Pump
Water Elevation	meters	65.6
pH	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	6.7
Chromium	mg/L	<0.004
Copper	mg/L	<0.004
Cyanide	mg/L	0.018
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	<0.003
Trichloroethene	mg/L	<0.005
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	65.6
Nonvol. Beta	pCi/L	578
Total Radium	pCi/L	14.4
Tritium	pCi/mL	9440

Well: FSB 91D, F-Area Seepage Basins

SRP Grid	N 75207.6	meters (MSL)
Coordinates E	50946.6	Screen Zone Elevation
Latitude	33.275235°N	Top of Casing Elevation
Longitude	81.678735°W	Casing Material PVC
Parameter	Units	11/30/87
Sampling Method		Pump
Water Elevation	meters	65.3
pH	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	<0.003
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 75113.3	meters (MSL)
Coordinates E	50955.5	Screen Zone Elevation
Latitude	33.275235°N	Top of Casing Elevation
Longitude	81.678718°W	Casing Material PVC
Parameter	Units	11/30/87
Sampling Method		Pump
Water Elevation	meters	64.5
pH	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	60.1
Chloride	mg/L	3.2
Chromium	mg/L	<0.004
Copper	mg/L	<0.004
Cyanide	mg/L	0.016
Fluoride	mg/L	1.19
Iron	mg/L	0.015
Lead	mg/L	<0.006
Magnesium	mg/L	0.393
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	<0.003
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.003
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	11.5
Nonvol. Beta	pCi/L	1680
Total Radium	pCi/L	38.6
Tritium	pCi/mL	3460

Well: FSB 92D, F-Area Seepage Basins

SRP Grid	N 75045.8	meters (MSL)
Coordinates E	50937.6	Screen Zone Elevation
Latitude	33.274242°N	Top of Casing Elevation
Longitude	81.678445°W	Casing Material PVC
Parameter	Units	12/01/87
Sampling Method		Pump
Water Elevation	meters	65
pH	pH	3.2
Conductivity	umhos/cm	2360
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	0.038
Fluoride	mg/L	0.30
Iron	mg/L	0.114
Lead	mg/L	0.131
Magnesium	mg/L	18.5
Manganese	mg/L	1.50
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	169
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	<0.003
Chloroform	mg/L	<0.005
Tetrachloroethene	mg/L	<0.005
Trichloroethene	mg/L	<0.003
1,1,1-TCE	mg/L	<0.005
Gross Alpha	pCi/L	806
Nonvol. Beta	pCi/L	9980
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 33.273732°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		
Water Elevation	meters	63.7
pH	pH	6.1
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	18.3
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	4.03
Manganese	mg/L	0.102
Mercury	mg/L	0.0002
Nickel	mg/L	0.006
Potassium	mg/L	2.16
Selenium	mg/L	0.002
Silica	mg/L	-
Silver	mg/L	0.0020
Sodium	mg/L	26.8
Total Phosphate	mg/L	0.100
Zinc	mg/L	0.036
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 74899.0
Coordinates E 50180.0
Latitude 33.271235°N
Longitude 81.680095°W

Screen Zone Elevation 45.7+42.6
Top of Casing Elevation 83.68
Casing Material PVC

Parameter	Units	11/30/87
Sampling Method		
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	0.118
Lead	mg/L	0.007
Magnesium	mg/L	0.068
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+60.3
Top of Casing Elevation 84.15
Casing Material PVC

Parameter	Units	11/30/87
Sampling Method		
Water Elevation	meters	64.6
pH	pH	6.8
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	7.3
Nonvol. Beta	pCi/L	40.2
Total Radium	pCi/L	1.0
Tritium	pCi/mL	184

Well: FSB 95C, F-Area Seepage Basins

SRP Grid N 74971.7
Coordinates E 50016.7
Latitude 33.271196°N
Longitude 81.680725°W

Screen Zone Elevation 47.5+44.4
Top of Casing Elevation 88.56
Casing Material PVC

Parameter	Units	12/01/87
Sampling Method		
Water Elevation	meters	63.3
pH	pH	6.7
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	11.1
Manganese	mg/L	0.215
Mercury	mg/L	<0.0002
Nickel	mg/L	0.072
Potassium	mg/L	6.32
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	15.0
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	11.0
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

Parameter	Units	11/30/87
Sampling Method		Pump
Water Elevation	meters	46.6
pH		11.5
Conductivity	µhos/cm	1797
TDS	mg/L	634
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	3.3
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	19.6
Selenium	mg/L	<0.001
Silica	mg/L	-
Silver	mg/L	0.0010
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	3.50
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

Parameter	Units	11/30/87
Sampling Method		Pump
Water Elevation	meters	63.6
pH		11.0
Conductivity	µhos/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	110
Total Radium	pCi/L	2.4
Tritium	pCi/mL	2650

Well: FSB 97A, F-Area Seepage Basins

Parameter	Units	11/30/87
Sampling Method		Pump
Water Elevation	meters	64.6
pH		10.9
Conductivity	µhos/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	0.060
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 75389.8	Screen Zone Elevation	18.9-25.8	meters (MSL)
Coordinates	E 50121.8	Top of Casing Elevation	86.25	
Latitude	33.27429°N			
Longitude	81.68126°W	Casing Material	PVC	
Parameter	Units			
Sampling Method		12/01/87		
Water Elevation	meters	Pump	Sampling Method	
pH	pH	45.9	Water Elevation	meters
Conductivity	umhos/cm	11.2	pH	66.2
TDS	mg/L	695	Conductivity	54.7
Arsenic	mg/L	118	TDS	370
Barium	mg/L	0.009	Arsenic	<0.002
Beryllium	mg/L	0.105	Barium	0.070
Cadmium	mg/L	0.005	Beryllium	<0.005
Calcium	mg/L	0.002	Cadmium	<0.002
Chloride	mg/L	41.8	Calcium	50.0
Chromium	mg/L	2.7	Chloride	46.0
Copper	mg/L	0.004	Chromium	3.6
Cyanide	mg/L	<0.003	Copper	0.004
Fluoride	mg/L	0.24	Cyanide	0.040
Iron	mg/L	0.034	Fluoride	0.4
Lead	mg/L	0.006	Iron	0.025
Magnesium	mg/L	0.116	Lead	0.006
Manganese	mg/L	0.002	Magnesium	3.76
Mercury	mg/L	0.0002	Manganese	0.058
Nickel	mg/L	0.004	Mercury	<0.0002
Potassium	mg/L	13.5	Nickel	0.019
Selenium	mg/L	0.002	Potassium	17.5
Silica	mg/L	-	Selenium	0.002
Silver	mg/L	0.0020	Silica	-
Sodium	mg/L	42.0	Silver	-
Total Phosphate	mg/L	0.040	Sodium	44.8
Zinc	mg/L	0.133	Total Phosphate	0.090
NO ₃ (as N)	mg/L	1.32	Zinc	0.442
SO ₄	mg/L	13.3	NO ₃ (as N)	41.8
Phenols	mg/L	0.005	SO ₄	25.0
Tot. Org. Carbon	mg/L	1.20	Phenols	<0.005
Tot. Org. Halogen	mg/L	0.007	Tot. Org. Carbon	4.20
Carbon Tet.	mg/L	<0.005	Tot. Org. Halogen	0.029
Chloroform	mg/L	<0.005	Carbon Tet.	<0.005
Tetrachloroethene	mg/L	<0.005	Chloroform	<0.005
Trichloroethene	mg/L	<0.005	Tetrachloroethene	<0.005
1,1,1-TCE	mg/L	<0.005	Trichloroethene	<0.005
Gross Alpha	pCi/L	4.3	1,1,1-TCE	<0.005
Nonvol. Beta	pCi/L	11.7	Gross Alpha	23.3
Total Radium	pCi/L	1.0	Nonvol. Beta	102
Tritium	pCi/mL	33.9	Total Radium	3.3

Well: FSB 98D, F-Area Seepage Basins

SRP Grid	N 75371.9	Screen Zone Elevation	66.7-60.6	meters (MSL)
Coordinates	E 50111.6	Top of Casing Elevation	86.28	
Latitude	33.27423°N			
Longitude	81.68125°W	Casing Material	PVC	
Parameter	Units			
Sampling Method		12/01/87		
Water Elevation	meters	Pump	Sampling Method	
pH	pH	45.9	Water Elevation	meters
Conductivity	umhos/cm	11.2	pH	8.7
TDS	mg/L	695	Conductivity	54.7
Arsenic	mg/L	118	TDS	370
Barium	mg/L	0.009	Arsenic	<0.002
Beryllium	mg/L	0.105	Barium	0.070
Cadmium	mg/L	0.005	Beryllium	<0.005
Calcium	mg/L	0.002	Cadmium	<0.002
Chloride	mg/L	41.8	Calcium	50.0
Chromium	mg/L	2.7	Chloride	46.0
Copper	mg/L	0.004	Chromium	3.6
Cyanide	mg/L	<0.003	Copper	0.004
Fluoride	mg/L	0.24	Cyanide	0.040
Iron	mg/L	0.034	Fluoride	0.4
Lead	mg/L	0.006	Iron	0.025
Magnesium	mg/L	0.116	Lead	0.006
Manganese	mg/L	0.002	Magnesium	3.76
Mercury	mg/L	0.0002	Manganese	0.058
Nickel	mg/L	-	Mercury	<0.0002
Potassium	mg/L	13.5	Nickel	0.019
Selenium	mg/L	0.002	Potassium	17.5
Silica	mg/L	-	Selenium	0.002
Silver	mg/L	0.0020	Silica	-
Sodium	mg/L	42.0	Silver	-
Total Phosphate	mg/L	0.040	Sodium	44.8
Zinc	mg/L	0.133	Total Phosphate	0.090
NO ₃ (as N)	mg/L	1.32	Zinc	0.442
SO ₄	mg/L	13.3	NO ₃ (as N)	41.8
Phenols	mg/L	0.005	SO ₄	25.0
Tot. Org. Carbon	mg/L	1.20	Phenols	<0.005
Tot. Org. Halogen	mg/L	0.007	Tot. Org. Carbon	4.20
Carbon Tet.	mg/L	<0.005	Tot. Org. Halogen	0.029
Chloroform	mg/L	<0.005	Carbon Tet.	<0.005
Tetrachloroethene	mg/L	<0.005	Chloroform	<0.005
Trichloroethene	mg/L	<0.005	Tetrachloroethene	<0.005
1,1,1-TCE	mg/L	<0.005	Trichloroethene	<0.005
Gross Alpha	pCi/L	4.3	1,1,1-TCE	<0.005
Nonvol. Beta	pCi/L	11.7	Gross Alpha	23.3
Total Radium	pCi/L	1.0	Nonvol. Beta	102
Tritium	pCi/mL	33.9	Total Radium	3.3

Well: FSB 98C, F-Area Seepage Basins

SRP Grid	N 75381.2	Screen Zone Elevation	47.8-44.7	meters (MSL)
Coordinates	E 50121.8	Top of Casing Elevation	86.28	
Latitude	33.27426°N			
Longitude	81.68125°W	Casing Material	PVC	
Parameter	Units			
Sampling Method		12/01/87		
Water Elevation	meters	Pump	Sampling Method	
pH	pH	43.8	Water Elevation	meters
Conductivity	umhos/cm	1020	pH	45.8
TDS	mg/L	1450	Conductivity	9.8
Arsenic	mg/L	0.002	TDS	10
Barium	mg/L	8.96	Arsenic	0.003
Beryllium	mg/L	0.005	Barium	0.022
Cadmium	mg/L	0.016	Beryllium	0.005
Calcium	mg/L	15.1	Cadmium	0.002
Chloride	mg/L	4.0	Calcium	22.1
Chromium	mg/L	0.004	Chloride	1.9
Copper	mg/L	0.129	Chromium	0.004
Cyanide	mg/L	0.051	Copper	0.004
Fluoride	mg/L	0.42	Cyanide	0.005
Iron	mg/L	0.087	Fluoride	0.33
Lead	mg/L	0.007	Iron	0.029
Magnesium	mg/L	4.62	Lead	0.006
Manganese	mg/L	5.70	Magnesium	1.10
Mercury	mg/L	0.0002	Manganese	0.003
Nickel	mg/L	-	Mercury	<0.0002
Potassium	mg/L	4.74	Nickel	0.004
Selenium	mg/L	0.002	Potassium	0.004
Silica	mg/L	-	Selenium	0.002
Silver	mg/L	0.0030	Silica	-
Sodium	mg/L	171	Silver	-
Total Phosphate	mg/L	0.020	Sodium	40.0020
Zinc	mg/L	-	Total Phosphate	19.8
NO ₃ (as N)	mg/L	1.5	Zinc	0.470
SO ₄	mg/L	13.0	NO ₃ (as N)	1.58
Phenols	mg/L	0.017	SO ₄	25.0
Tot. Org. Carbon	mg/L	1.10	Phenols	<0.005
Tot. Org. Halogen	mg/L	0.030	Tot. Org. Carbon	0.0005
Carbon Tet.	mg/L	<0.005	Tot. Org. Halogen	0.0005
Chloroform	mg/L	<0.005	Carbon Tet.	<0.005
Tetrachloroethene	mg/L	<0.005	Chloroform	<0.005
Trichloroethene	mg/L	<0.005	Tetrachloroethene	<0.005
1,1,1-TCE	mg/L	<0.005	Trichloroethene	<0.005
Gross Alpha	pCi/L	827	1,1,1-TCE	<0.005
Nonvol. Beta	pCi/L	2240	Gross Alpha	0.005
Total Radium	pCi/L	155	Nonvol. Beta	1.9
Tritium	pCi/mL	13900	Total Radium	12.9

Well: FSB 99A, F-Area Seepage Basins

SRP Grid	N 75675.6	Screen Zone Elevation	31.6-28.3	meters (MSL)
Coordinates	E 50314.8	Top of Casing Elevation	87.66	
Latitude	33.27523°N			
Longitude	81.68130°W	Casing Material	PVC	
Parameter	Units			
Sampling Method		12/01/87		
Water Elevation	meters	Pump	Sampling Method	
pH	pH	43.8	Water Elevation	meters
Conductivity	umhos/cm	10	pH	45.8
TDS	mg/L	10	Conductivity	9.8
Arsenic	mg/L	0.003	TDS	10
Barium	mg/L	0.022	Arsenic	0.003
Beryllium	mg/L	0.005	Barium	0.005
Cadmium	mg/L	0.002	Beryllium	0.005
Calcium	mg/L	22.1	Cadmium	0.002
Chloride	mg/L	1.9	Calcium	22.1
Chromium	mg/L	0.004	Chloride	1.9
Copper	mg/L	0.004	Chromium	0.004
Cyanide	mg/L	0.005	Copper	0.004
Fluoride	mg/L	0.33	Cyanide	0.005
Iron	mg/L	0.029	Fluoride	0.33
Lead	mg/L	0.006	Iron	0.029
Magnesium	mg/L	1.10	Lead	0.006
Manganese	mg/L	1.10	Magnesium	1.10
Mercury	mg/L	0.003	Manganese	0.003
Nickel	mg/L	0.004	Mercury	<0.0002
Potassium	mg/L	4.70	Nickel	0.004
Selenium	mg/L	0.002	Potassium	4.70
Silica	mg/L	-	Selenium	0.002
Silver	mg/L	-	Silica	-
Sodium	mg/L	171	Silver	-
Total Phosphate	mg/L	0.020	Sodium	44.8
Zinc	mg/L	-	Total Phosphate	0.090
NO ₃ (as N)	mg/L	1.5	Zinc	0.470
SO ₄	mg/L	13.0	NO ₃ (as N)	1.58
Phenols	mg/L	0.017	SO ₄	25.0
Tot. Org. Carbon	mg/L	1.10	Phenols	<0.005
Tot. Org. Halogen	mg/L	0.030	Tot. Org. Carbon	0.0005
Carbon Tet.	mg/L	<0.005	Tot. Org. Halogen	0.0005
Chloroform	mg/L	<0.005	Carbon Tet.	<0.005
Tetrachloroethene	mg/L	<0.005	Chloroform	<0.005
Trichloroethene	mg/L	<0.005	Tetrachloroethene	<0.005
1,1,1-TCE	mg/L	<0.005	Trichloroethene	<0.005
Gross Alpha	pCi/L	827	1,1,1-TCE	<0.005
Nonvol. Beta	pCi/L	2240	Gross Alpha	0.005
Total Radium	pCi/L	155	Nonvol. Beta	1.9
Tritium	pCi/mL	13900	Total Radium	12.9

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Well: FSB 99C, F-Area Seepage Basin

SRP Grid	N 75683.7	Screen Zone Elevation	51.0-47.9
Coordinates E	50170.6	Top of Casing Elevation	87.69
Latitude	33.273268°N	Casing Material	PVC
Longitude	81.681308°W		

Parameter

Units

meters (MSL)

Sampling Method	
Water Elevation	meters
pH	6.8
Conductivity	umhos/cm
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

12/01/87

Well: FSB100A, F-Area Seepage Basin

SRP Grid	N 75534.4	Screen Zone Elevation	52.2-29.2
Coordinates E	50958.4	Top of Casing Elevation	87.17
Latitude	33.275977°N	Casing Material	PVC
Longitude	81.679339°W		

Parameter

Units

meters (MSL)

Sampling Method	
Water Elevation	meters
pH	6.1
Conductivity	184
TDS	98
Arsenic	<0.002
Barium	0.025
Beryllium	0.005
Cadmium	0.002
Calcium	10.4
Chloride	1.5
Chromium	0.004
Copper	0.004
Cyanide	0.005
Fluoride	0.33
Iron	0.039
Lead	0.008
Magnesium	2.94
Manganese	0.026
Mercury	<0.0002
Nickel	0.004
Potassium	5.88
Selenium	<0.002
Silica	-
Silver	<0.0020
Sodium	23.2
Total Phosphate	0.250
Zinc	0.070
NO ₃ (as N)	16.9
SO ₄	5.0
Phenols	0.005
Tot. Org. Carbon	1.000
Tot. Org. Halogen	<0.001
Carbon Tet.	<0.005
Chloroform	<0.005
Tetrachloroethene	<0.005
Trichloroethene	<0.001
1,1,1-TCE	<0.005
Gross Alpha	7.7
Nonvol. Beta	25.4
Total Radium	2.9
Tritium	1470

12/01/87

Well: FSB 99D, F-Area Seepage Basin

SRP Grid	N 75691.7	Screen Zone Elevation	31.4-28.3
Coordinates E	50328.9	Top of Casing Elevation	87.92
Latitude	33.275294°N	Casing Material	PVC
Longitude	81.681307°W		

Parameter

Units

meters (MSL)

Sampling Method	
Water Elevation	meters
pH	6.3
Conductivity	1798
TDS	772
Arsenic	0.002
Barium	0.140
Beryllium	0.005
Cadmium	0.007
Calcium	26.2
Chloride	3.9
Chromium	0.005
Copper	0.028
Cyanide	0.028
Fluoride	0.39
Iron	0.111
Lead	0.007
Magnesium	4.55
Manganese	0.347
Mercury	<0.0002
Nickel	0.014
Potassium	3.29
Selenium	<0.002
Silica	-
Silver	0.0030
Sodium	44.4
Total Phosphate	0.120
Zinc	0.143
NO ₃ (as N)	193
SO ₄	5.0
Phenols	0.009
Tot. Org. Carbon	1.40
Tot. Org. Halogen	0.038
Carbon Tet.	<0.005
Chloroform	<0.005
Tetrachloroethene	<0.005
Trichloroethene	<0.005
1,1,1-TCE	<0.005
Gross Alpha	6.82
Nonvol. Beta	1920
Total Radium	13.7
Tritium	27400

12/01/87

Well: FSB101A, F-Area Seepage Basin

SRP Grid	N 75119.0	Screen Zone Elevation	31.4-28.3
Coordinates E	51191.3	Top of Casing Elevation	87.92
Latitude	33.278765°N	Casing Material	PVC
Longitude	81.679084°W		

Parameter

Units

meters (MSL)

Sampling Method	
Water Elevation	meters
pH	9.6
Conductivity	211
TDS	138
Arsenic	0.002
Barium	0.058
Beryllium	0.005
Cadmium	0.002
Calcium	34.6
Chloride	2.3
Chromium	0.004
Copper	0.004
Cyanide	0.005
Fluoride	0.26
Iron	0.044
Lead	0.001
Magnesium	1.11
Manganese	0.008
Mercury	<0.0002
Nickel	0.004
Potassium	3.15
Selenium	<0.002
Silica	-
Silver	<0.0020
Sodium	8.08
Total Phosphate	0.180
Zinc	0.009
NO ₃ (as N)	1.77
SO ₄	5.0
Phenols	0.005
Tot. Org. Carbon	1.000
Tot. Org. Halogen	0.005
Carbon Tet.	<0.005
Chloroform	<0.005
Tetrachloroethene	<0.005
Trichloroethene	<0.005
1,1,1-TCE	<0.005
Gross Alpha	1.9
Nonvol. Beta	5.0
Total Radium	0.8
Tritium	0.80

12/01/87

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Well: FSB10BD, F-Area Seepage Basin

SRP Grid	N 76260.7	Screen Zone Elevation	meters (MSL)
Coordinates E	51142.3	Top of Casing Elevation	68.2-62.1
Latitude	33.277883°N	Casing Material	PVC
Longitude	81.680265°W		40.80
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	ng/L	0.002	
Barium	ng/L	0.019	
Beryllium	ng/L	<0.005	
Cadmium	ng/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	ng/L	<0.0772	
Nickel	ng/L	<0.004	
Potassium	mg/L	1.22	
Selenium	mg/L	<0.002	
Silica	mg/L	-	
Silver	mg/L	<0.0010	
Sodium	mg/L	1.59	
Total Phosphate	mg/L	<0.020	
Zinc	mg/L	0.034	
NO ₃ (as N)	mg/L	1.38	
SO ₄	mg/L	9.3	
Phenols	mg/L	<0.005	
Tot. Org. Carbon	mg/L	1.40	
Tot. Org. Halogen	mg/L	0.010	
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	2.6	
Total Radium	pCi/L	1.0	
Tritium	pCi/mL	10.3	

Well: FSB110C, F-Area Seepage Basin

SRP Grid	N	Coordinates E	Screen Zone Elevation	meters (MSL)
				0.000000°N
			Top of Casing Elevation	0.00
			Casing Material	
Parameter	Units			10/27/87
Sampling Method		Pump		
Water Elevation	meters	66.3		
pH		7.7		
Conductivity	umhos/cm	136		
TDS	mg/L	960		
Arsenic	ng/L	0.002		
Barium	ng/L	0.019		
Beryllium	ng/L	<0.005		
Cadmium	ng/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	ng/L	<0.0772		
Nickel	ng/L	<0.004		
Potassium	mg/L	1.22		
Selenium	mg/L	<0.002		
Silica	mg/L	-		
Silver	mg/L	<0.0010		
Sodium	mg/L	1.59		
Total Phosphate	mg/L	<0.020		
Zinc	mg/L	0.034		
NO ₃ (as N)	mg/L	1.38		
SO ₄	mg/L	9.3		
Phenols	mg/L	<0.005		
Tot. Org. Carbon	mg/L	1.40		
Tot. Org. Halogen	mg/L	0.010		
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	2.6		
Total Radium	pCi/L	1.0		
Tritium	pCi/mL	10.3		

Well: FSB109D, F-Area Seepage Basin

SRP Grid	N 75855.9	Screen Zone Elevation	meters (MSL)
Coordinates E	50488.6	Top of Casing Elevation	68.8-62.7
Latitude	33.275921°N	Casing Material	PVC
Longitude	81.681200°W		89.33

Parameter

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	ng/L	0.006
Barium	ng/L	0.028
Beryllium	ng/L	<0.005
Cadmium	ng/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	ng/L	<0.0002
Nickel	ng/L	0.021
Potassium	mg/L	1.34
Selenium	mg/L	<0.002
Silica	mg/L	-
Silver	mg/L	<0.0020
Sodium	mg/L	35.3
Total Phosphate	mg/L	0.070
Zinc	mg/L	0.048
NO ₃ (as N)	mg/L	23.8
SO ₄	mg/L	<3.0
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	<0.005
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: FBR 4, Old F-Area Seepage Basin

SRP Grid	N 80409.8	Screen Zone Elevation	meters (MSL)
Coordinates E	53843.5	Top of Casing Elevation	63.9-54.7
Latitude	33.291487°N	Casing Material	PVC
Longitude	81.681213°W		88.84

Parameter	Units	01/08/87	04/14/87	08/24/87	12/09/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	64.5	64.6	65.3	65.3
pH		4.3	4.5	4.7	4.1
Conductivity	umhos/cm	23	41	34	32
TDS	mg/L	14	-	-	-
Arsenic	ng/L	<0.002	-	-	-
Barium	ng/L	0.007	-	0.009	-
Beryllium	ng/L	<0.005	-	0.005	-
Cadmium	ng/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	ng/L	<0.0002	-	0.0002	-
Nickel	ng/L	<0.004	-	0.004	-
Potassium	mg/L	0.320	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.51	-	-	-
Silver	mg/L	<0.0020	-	0.0020	-
Sodium	mg/L	2.01	2.43	2.83	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	1.43
SO ₄	mg/L	<3.0	-	-	-
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	-	<3.0	-
Nonvol. Beta	pCi/L	3.5	-	3.1	-
Total Radium	pCi/L	1.3	-	1.4	-
Tritium	pCi/mL	7.51	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. II)		
FSB 88C	10/27/87	
Endrin	<0.0001	
Silvex	<0.00009	
2,4-D	<0.0003	
FSB 88C	12/01/87	
Appendix IX Analysis detected the following:		
Bis(2-ethylhexyl) Phthalate	0.078	
FSB 88D	10/27/87	
Pest/Herb* Analysis detected the following:		
Silvex	0.0001	
FSB 88D	12/01/87	
Appendix IX Analysis detected the following:		
Bis(2-ethylhexyl) Phthalate	0.060	
Cobalt	0.004	
Cyanide	0.025	
Thallium	0.012	
FSB 89C	10/25/87	
Pest/Herb* Analysis detected the following:		
None		
FSB 89C	12/01/87	
Appendix IX Analysis detected the following:		
Trichlorofluoromethane	0.006	
Carbon Disulfide	0.001	
Di-n-octyl Phthalate	0.012	
FSB 89D	10/25/87	
Pest/Herb* Analysis detected the following:		
None		
FSB 89D	12/01/87	
Appendix IX Analysis detected the following:		
Cobalt	0.020	
Cyanide	0.026	
Thallium	0.005	
FSB 90C	10/26/87	
Pest/Herb* Analysis detected the following:		
None		
FSB 90C	11/30/87	
Appendix IX Analysis detected the following:		
Bis(2-ethylhexyl) Phthalate	0.061	
FSB 90D	10/26/87	
Pest/Herb* Analysis detected the following:		
Lindane	0.00008	
Silvex	0.00023	
FSB 90D	11/30/87	
Appendix IX Analysis detected the following:		
Bis(2-ethylhexyl) Phthalate	0.642	
Cobalt	0.002	
Cyanide	0.019	
Di-n-octyl Phthalate	0.083	
Thallium	0.010	
FSB 91C	10/26/87	
Pest/Herb* Analysis detected the following:		
None		
FSB 91C	11/30/87	
Appendix IX Analysis detected the following:		
Trichlorofluoromethane	0.001	
Cyanide	0.016	
Thallium	0.005	
FSB 91D	10/26/87	
Pest/Herb* Analysis detected the following:		
None		
FSB 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	
FSB 92D	10/26/87	
Pest/Herb* Analysis detected the following:		
Silvex	0.0001	
FSB 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	
FSB 93C	10/18/87	
Pest/Herb* Analysis detected the following:		
None		
FSB 93C	11/30/87	
Appendix IX Analysis detected the following:		
Bis(2-ethylhexyl) Phthalate	0.055	
Cyanide	0.005	
Sulfide	2.30	
FSB 93D	10/19/87	
Pest/Herb* Analysis detected the following:		
None		
FSB 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	0.063	
Thallium	0.005	
FSB 94C	10/19/87	
Pest/Herb* Analysis detected the following:		
None		
FSB 94C	11/30/87	
Appendix IX Analysis detected the following:		
Bis(2-ethylhexyl) Phthalate	0.200	
Trichlorofluoromethane	0.002	
Cyanide	0.012	
Methyl Ethyl Ketone	0.004	
Thallium	0.011	
Vanadium	0.005	
FSB 95C	10/18/87	
Pest/Herb* Analysis detected the following:		
None		
FSB 95C	11/03/87	
Appendix IX Analysis detected the following:		
Cobalt	0.010	
Carbon Disulfide	0.003	
Cyanide	0.025	
Thallium	0.003	
Vinyl Acetate	0.001	
FSB 96A	10/19/87	
Pest/Herb* Analysis detected the following:		
Methoxychlor	0.0014	
FSB 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	
FSB 97A	10/18/87	
Pest/Herb* Analysis detected the following:		
None		
FSB 97A	11/30/87	
Appendix IX Analysis detected the following:		
None		
FSB 97C	10/19/87	
Pest/Herb* Analysis detected the following:		
None		
FSB 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 10/28/87 Pest/Herb* Analysis detected the following: Lindane 0.00017 Silver 0.0001	FSB101A 10/25/87 Pest/Herb* Analysis detected the following: None																																									
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	FSB101A 12/01/87 Appendix IX Analysis detected the following: Di-n-octyl Phthalate 0.020																																									
FSB 98A 10/18/87 Pest/Herb* Analysis detected the following: None	FSB108D 10/25/87 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	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																																									
FSB 98C 10/18/87 Pest/Herb* Analysis detected the following: None	FSB109D 10/13/87 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 0.052 Thallium 0.012	FSB109D 12/02/87 Appendix IX Analysis detected the following: Bis(2-ethylhexyl) Phthalate 0.170 Di-n-octyl Phthalate 0.021																																									
FSB 98D 10/19/87 Pest/Herb* Analysis detected the following: Lindane 0.00008	FSB110C 10/27/87 Pest/Herb* Analysis detected the following: Silver 0.00009																																									
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 0.019	Well: PTF 2, F-Area Tank Farm SRP Grid N 77336.0 meters (MSL) Coordinates E 53375.1 Latitude 33.283742°N Longitude 81.676739°W Screen Zone Elevation 73.0-66.9 Top of Casing Elevation 85.74 Casing Material PVC																																									
FSB 99A 10/13/87 Pest/Herb* Analysis detected the following: None	<table border="1"><thead><tr><th>Parameter</th><th>Units</th><th>01/22/87</th><th>04/24/87</th><th>07/22/87</th><th>10/26/87</th></tr></thead><tbody><tr><td>Sampling Method</td><td>Bail</td><td>Bail</td><td>Bail</td><td>Bail</td></tr><tr><td>Water Elevation</td><td>meters</td><td>68.4</td><td>69</td><td>68.7</td><td>68.5</td></tr><tr><td>pH</td><td>pH</td><td>6.9</td><td>6.8</td><td>7.7</td><td>6.7</td></tr><tr><td>Conductivity</td><td>umhos/cm</td><td>247</td><td>132</td><td>87</td><td>155</td></tr><tr><td>Sodium</td><td>mg/L</td><td>-</td><td>-</td><td>6.97</td><td>1.61</td></tr><tr><td>NO₃ (as N)</td><td>mg/L</td><td>-</td><td>-</td><td>0.36</td><td>0.53</td></tr></tbody></table>	Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87	Sampling Method	Bail	Bail	Bail	Bail	Water Elevation	meters	68.4	69	68.7	68.5	pH	pH	6.9	6.8	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
Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87																																					
Sampling Method	Bail	Bail	Bail	Bail																																						
Water Elevation	meters	68.4	69	68.7	68.5																																					
pH	pH	6.9	6.8	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																																					
FSB 99A 12/02/87 Appendix IX Analysis detected the following: Bis(2-ethylhexyl) Phthalate 0.011	Well: PTF 3, F-Area Tank Farm SRP Grid N 77235.3 meters (MSL) Coordinates E 53244.8 Latitude 33.283470°N Longitude 81.676623°W Screen Zone Elevation 67.4-66.5 Top of Casing Elevation 85.34 Casing Material Steel																																									
FSB 99C 10/13/87 Pest/Herb* Analysis detected the following: None	<table border="1"><thead><tr><th>Parameter</th><th>Units</th><th>01/22/87</th><th>04/24/87</th><th>07/22/87</th><th>10/26/87</th></tr></thead><tbody><tr><td>Sampling Method</td><td>Bail</td><td>Bail</td><td>Bail</td><td>Bail</td></tr><tr><td>Water Elevation</td><td>meters</td><td>68.7</td><td>68.4</td><td>68.6</td><td>68.5</td></tr><tr><td>pH</td><td>pH</td><td>6.9</td><td>6.8</td><td>7.1</td><td>6.7</td></tr><tr><td>Conductivity</td><td>umhos/cm</td><td>150</td><td>125</td><td>101</td><td>119</td></tr><tr><td>Sodium</td><td>mg/L</td><td>-</td><td>-</td><td>5.43</td><td>4.77</td></tr><tr><td>NO₃ (as N)</td><td>mg/L</td><td>-</td><td>-</td><td>0.32</td><td>0.33</td></tr></tbody></table>	Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87	Sampling Method	Bail	Bail	Bail	Bail	Water Elevation	meters	68.7	68.4	68.6	68.5	pH	pH	6.9	6.8	7.1	6.7	Conductivity	umhos/cm	150	125	101	119	Sodium	mg/L	-	-	5.43	4.77	NO ₃ (as N)	mg/L	-	-	0.32	0.33
Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87																																					
Sampling Method	Bail	Bail	Bail	Bail																																						
Water Elevation	meters	68.7	68.4	68.6	68.5																																					
pH	pH	6.9	6.8	7.1	6.7																																					
Conductivity	umhos/cm	150	125	101	119																																					
Sodium	mg/L	-	-	5.43	4.77																																					
NO ₃ (as N)	mg/L	-	-	0.32	0.33																																					
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 0.018	Well: PTF 4, F-Area Tank Farm SRP Grid N 77132.9 meters (MSL) Coordinates E 53268.2 Latitude 33.283281°N Longitude 81.676363°W Screen Zone Elevation 72.1-66.0 Top of Casing Elevation 84.88 Casing Material PVC																																									
FSB 99D 10/13/87 Pest/Herb* Analysis detected the following: None	<table border="1"><thead><tr><th>Parameter</th><th>Units</th><th>01/22/87</th><th>04/24/87</th><th>07/22/87</th><th>10/26/87</th></tr></thead><tbody><tr><td>Sampling Method</td><td>Bail</td><td>Bail</td><td>Bail</td><td>Bail</td></tr><tr><td>Water Elevation</td><td>meters</td><td>68.3</td><td>68.7</td><td>68.5</td><td>68.5</td></tr><tr><td>pH</td><td>pH</td><td>7.2</td><td>7.0</td><td>7.4</td><td>7.0</td></tr><tr><td>Conductivity</td><td>umhos/cm</td><td>102</td><td>105</td><td>94</td><td>99</td></tr><tr><td>Sodium</td><td>mg/L</td><td>-</td><td>-</td><td>6.63</td><td>5.49</td></tr><tr><td>NO₃ (as N)</td><td>mg/L</td><td>-</td><td>-</td><td>0.48</td><td>1.26</td></tr></tbody></table>	Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87	Sampling Method	Bail	Bail	Bail	Bail	Water Elevation	meters	68.3	68.7	68.5	68.5	pH	pH	7.2	7.0	7.4	7.0	Conductivity	umhos/cm	102	105	94	99	Sodium	mg/L	-	-	6.63	5.49	NO ₃ (as N)	mg/L	-	-	0.48	1.26
Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87																																					
Sampling Method	Bail	Bail	Bail	Bail																																						
Water Elevation	meters	68.3	68.7	68.5	68.5																																					
pH	pH	7.2	7.0	7.4	7.0																																					
Conductivity	umhos/cm	102	105	94	99																																					
Sodium	mg/L	-	-	6.63	5.49																																					
NO ₃ (as N)	mg/L	-	-	0.48	1.26																																					
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	<table border="1"><thead><tr><th>Parameter</th><th>Units</th><th>01/22/87</th><th>04/24/87</th><th>07/22/87</th><th>10/26/87</th></tr></thead><tbody><tr><td>Sampling Method</td><td>Bail</td><td>Bail</td><td>Bail</td><td>Bail</td></tr><tr><td>Water Elevation</td><td>meters</td><td>68.3</td><td>68.7</td><td>68.5</td><td>68.5</td></tr><tr><td>pH</td><td>pH</td><td>7.2</td><td>7.0</td><td>7.4</td><td>7.0</td></tr><tr><td>Conductivity</td><td>umhos/cm</td><td>102</td><td>105</td><td>94</td><td>99</td></tr><tr><td>Sodium</td><td>mg/L</td><td>-</td><td>-</td><td>6.63</td><td>5.49</td></tr><tr><td>NO₃ (as N)</td><td>mg/L</td><td>-</td><td>-</td><td>0.48</td><td>1.26</td></tr></tbody></table>	Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87	Sampling Method	Bail	Bail	Bail	Bail	Water Elevation	meters	68.3	68.7	68.5	68.5	pH	pH	7.2	7.0	7.4	7.0	Conductivity	umhos/cm	102	105	94	99	Sodium	mg/L	-	-	6.63	5.49	NO ₃ (as N)	mg/L	-	-	0.48	1.26
Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87																																					
Sampling Method	Bail	Bail	Bail	Bail																																						
Water Elevation	meters	68.3	68.7	68.5	68.5																																					
pH	pH	7.2	7.0	7.4	7.0																																					
Conductivity	umhos/cm	102	105	94	99																																					
Sodium	mg/L	-	-	6.63	5.49																																					
NO ₃ (as N)	mg/L	-	-	0.48	1.26																																					
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 0.052 Sulfide 1.10 Thallium 0.008																																										

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Well: PTF 5, F-Area Tank Farm

Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	69	68.5	68.8	68.5	
pH	pH	7.0	7.0	5.2	7.4	
Conductivity	umhos/cm	522	327	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

Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	68	68.5	68.8	68.5	
pH	pH	7.0	7.0	5.2	7.4	
Conductivity	umhos/cm	522	327	522	358	
Sodium	mg/L	-	-	40.2	42.8	
NO ₃ (as N)	mg/L	-	-	1.24	1.91	

Well: PTF 7, F-Area Tank Farm

Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
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 9, F-Area Tank Farm

Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	68.2	68.2	68.4	68.3	
pH	pH	7.1	9	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 10, F-Area Tank Farm

Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
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 11, F-Area Tank Farm

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

Well: PTF 12, F-Area Tank Farm

Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
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 13, F-Area Tank Farm

Parameter	Units	01/22/87	04/24/87	07/22/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	69	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 15, F-Area Tank Farm

Parameter	Units	01/23/87	04/24/87	07/22/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
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 16, F-Area Tank Farm

Parameter	Units	01/23/87	04/24/87	07/23/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	68.3	68.1	68.2	68.2	
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	-	-	2.04	1.85	

Well: PTF 17, F-Area Tank Farm

Parameter	Units	01/23/87	04/24/87	07/23/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	67.8	68.1	68.2	68.2	
pH	pH	6.0	7.5	6.9	6.2	
Conductivity	umhos/cm	45	65	56	53	
Sodium	mg/L	-	-	5.47	3.53	
NO ₃ (as N)	mg/L	-	-	2.22	3.51	

Well: PTF 18, F-Area Tank Farm

Parameter	Units	01/23/87	04/24/87	07/23/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
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	-	-	5.12	6.85	
NO ₃ (as N)	mg/L	-	-	1.38	1.45	

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Well: PTF 19, F-Area Tank Farm

SRP Grid	N 77119.1	Screen Zone Elevation	69.6-60.4	meters (MSL)
Coordinates E	52670.4	Top of Casing Elevation	87.53	
Latitude	33.281220°N	Casing Material	PVC	
Longitude	81.677849°W			

Parameter	Units	01/23/87	04/24/87	07/23/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	67.6	67.8	67.9	68	
pH	pH	5.6	5.4	8.1	5.5	
Conductivity	umhos/cm	62	68	70	62	
Sodium	mg/L	-	-	10.1	10.0	
NO ₃ (as N)	mg/L	-	-	4.80	4.81	

Well: PTF 20, F-Area Tank Farm

SRP Grid	N 77015.0	Screen Zone Elevation	69.6-60.4	meters (MSL)
Coordinates E	52500.0	Top of Casing Elevation	87.50	
Latitude	33.281167°N	Casing Material	PVC	
Longitude	81.678156°W			

Parameter	Units	01/23/87	04/24/87	07/23/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	67.4	67.7	67.8	67.9	
pH	pH	5.4	5.1	8.1	5.4	
Conductivity	umhos/cm	73	71	60	41	
Sodium	mg/L	-	-	5.90	3.97	
NO ₃ (as N)	mg/L	-	-	2.05	1.98	

Well: PTF 21, F-Area Tank Farm

SRP Grid	N 78866.7	Screen Zone Elevation	69.6-60.6	meters (MSL)
Coordinates E	52496.6	Top of Casing Elevation	87.53	
Latitude	33.281437°N	Casing Material	PVC	
Longitude	81.677871°W			

Parameter	Units	01/23/87	04/24/87	07/23/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	67.4	67.7	67.8	67.8	
pH	pH	10.1	11.8	11.8	12.5	
Conductivity	umhos/cm	130	2380	2800	194	
Sodium	mg/L	-	-	22.6	23.3	
NO ₃ (as N)	mg/L	-	-	0.50	0.59	

Well: PTF 22, F-Area Tank Farm

SRP Grid	N 78751.3	Screen Zone Elevation	73.9-64.8	meters (MSL)
Coordinates E	52494.7	Top of Casing Elevation	87.41	
Latitude	33.281175°N	Casing Material	PVC	
Longitude	81.677658°W			

Parameter	Units	01/23/87	04/24/87	07/23/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	67.3	67.7	67.8	67.8	
pH	pH	4.9	6.4	5.8	7.6	
Conductivity	umhos/cm	51	71	50	56	
Sodium	mg/L	-	-	6.68	5.18	
NO ₃ (as N)	mg/L	-	-	1.66	1.78	

Well: PTF 23, F-Area Tank Farm

SRP Grid	N 78611.8	Screen Zone Elevation	70.5-61.3	meters (MSL)
Coordinates E	52480.3	Top of Casing Elevation	87.17	
Latitude	33.281137°N	Casing Material	PVC	
Longitude	81.676951°W			

Parameter	Units	01/23/87	04/24/87	07/23/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	67.4	67.7	68	67.7	
pH	pH	5.0	5.2	6.2	5.8	
Conductivity	umhos/cm	56	67	52	55	
Sodium	mg/L	-	-	5.54	4.58	
NO ₃ (as N)	mg/L	-	-	3.82	3.23	

Well: PTF 24A, F-Area Tank Farm

SRP Grid	N 77256.8	Screen Zone Elevation	70.9-64.8	meters (MSL)
Coordinates E	52780.8	Top of Casing Elevation	82.38	
Latitude	33.282760°N	Casing Material	PVC	
Longitude	81.677887°W			

Parameter	Units	01/22/87	04/24/87	07/23/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	67.8	67.9	68.2	67.6	
pH	pH	7.4	8.1	8.8	8.0	
Conductivity	umhos/cm	200	158	153	178	
Sodium	mg/L	-	-	18.1	15.51	
NO ₃ (as N)	mg/L	-	-	5.84	6.90	

Well: PTF 25A, F-Area Tank Farm

SRP Grid	N 77308.4	Screen Zone Elevation	71.0-64.8	meters (MSL)
Coordinates E	52868.7	Top of Casing Elevation	82.55	
Latitude	33.283018°N	Casing Material	PVC	
Longitude	81.677756°W			

Parameter	Units	01/22/87	04/24/87	07/23/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	68.2	68	68.4	68.2	
pH	pH	9.6	7.5	7.5	7.7	
Conductivity	umhos/cm	310	201	180	189	
Sodium	mg/L	-	-	-	15.9	
NO ₃ (as N)	mg/L	-	-	-	120	

Well: PTF 26, F-Area Tank Farm

SRP Grid	N 77250.0	Screen Zone Elevation	69.6-62.9	meters (MSL)
Coordinates E	52823.5	Top of Casing Elevation	82.57	
Latitude	33.281699°N	Casing Material	PVC	
Longitude	81.677825°W			

Parameter	Units	01/22/87	04/24/87	07/23/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	68.1	68	68.3	68.2	
pH	pH	8.6	7.5	7.6	7.7	
Conductivity	umhos/cm	263	190	190	175	
Sodium	mg/L	-	-	11.9	9.48	
NO ₃ (as N)	mg/L	-	-	1.88	6.65	

Well: PTF 27, F-Area Tank Farm

SRP Grid	N 77227.2	Screen Zone Elevation	74.2-65.1	meters (MSL)
Coordinates E	52823.5	Top of Casing Elevation	82.44	
Latitude	33.281764°N	Casing Material	PVC	
Longitude	81.677717°W			

Parameter	Units	03/10/87	05/19/87	09/07/87	11/11/87	meters (MSL)
Sampling Method	Pump	Pump	Pump	Pump		
Water Elevation	meters	67.8	68.3	68.3	68.3	
pH	pH	6.1	5.7	5.6	5.5	
Conductivity	umhos/cm	8	93	93	88	
TDS	mg/L	42	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	0.015	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	-	-	
Calcium	mg/L	6.08	-	-	-	
Chloride	mg/L	3.3	-	-	-	
Chromium	mg/L	<0.004	-	-	-	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	<1	-	-	-	
Fluoride	mg/L	<0.10	-	-	-	
Iron	mg/L	0.037	-	-	-	
Lead	mg/L	0.009	-	-	0.038	
Magnesium	mg/L	1.18	-	-	-	
Manganese	mg/L	0.015	-	-	0.014	
Mercury	mg/L	0.0002	-	-	<0.002	
Nickel	mg/L	-	-	-	-	
Potassium	mg/L	0.520	-	-	-	
Selenium	mg/L	<0.002	-	-	-	
Silica	mg/L	4.48	-	-	-	
Silver	mg/L	<0.020	-	-	-	
Sodium	mg/L	6.84	-	-	-	
Total Phosphate	mg/L	0.120	-	-	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	4.38	-	-	5.71	
SO ₄	mg/L	3.0	-	-	-	
Phenols	mg/L	<0.002	-	-	-	
Tot. Org. Carbon	mg/L	2.10	-	-	2.00	
Tot. D.O.C. Halogen	mg/L	0.073	-	-	0.039	
Carbon Tetrachloride	mg/L	-	-	-	-	
Chloroform	mg/L	-	-	-	-	
Tetrachloroethene	mg/L	-	-	-	-	
Trichloroethene	mg/L	-	-	-	0.059	
1,1,1-TCE	mg/L	-	-	-	-	
Gross Alpha	pCi/L	<3.0	-	-	3.0	
Nonvol. Beta	pCi/L	7.1	-	-	-	
Total Radium	pCi/L	0.9	-	-	-	
Tritium	pCi/mL	229	-	-	203	

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

Well: NBC 2, Naval Fuels Background Wells				Well: NBC 4, Naval Fuels Background Wells	
		meters (MSL)		meters (MSL)	
SRP Grid	N 780939.8	Screen Zone Elevation	71.2+61.1	SRP Grid	N 78942.1
Coordinates	E 53958.4	Top of Casing Elevation	95.31	Coordinates	E 54329.2
Latitude	33.288778°N	Casing Material	PVC	Latitude	33.289014°N
Longitude	81.6718067°W			Longitude	81.677084°W
Parameter	Units	03/10/87	05/19/87	09/07/87	11/13/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	68.1	68.6	68.6	68.8
pH		5.6	6.1	5.4	5.3
Conductivity	umhos/cm	190	275	335	266
TDS	mg/L	136	*	*	*
Arsenic	mg/L	<0.002	*	*	*
Barium	mg/L	0.029	*	*	*
Beryllium	mg/L	*	*	*	*
Cadmium	mg/L	<0.002	*	*	*
Calcium	mg/L	7.51	*	*	*
Chloride	mg/L	4.7	*	*	*
Chromium	mg/L	<0.004	*	*	*
Copper	mg/L	*	*	*	*
Cyanide	mg/L	*	*	*	*
Fluoride	mg/L	<0.10	*	*	*
Iron	mg/L	0.259	*	*	*
Lead	mg/L	0.015	*	0.025	*
Magnesium	mg/L	2.10	*	*	*
Manganese	mg/L	0.059	*	0.062	*
Mercury	mg/L	<0.0002	*	0.0003	*
Nickel	mg/L	*	*	*	*
Potassium	mg/L	0.720	*	*	*
Selenium	mg/L	<0.002	*	*	*
Silica	mg/L	4.99	*	*	*
Silver	mg/L	<0.0020	*	*	*
Sodium	mg/L	27.8	*	*	*
Total Phosphate	mg/L	0.950	*	*	*
Zinc	mg/L	*	*	*	*
NO ₃ (as N)	mg/L	20.6	*	31.7	*
SO ₄	mg/L	13.0	*	*	*
Phenols	mg/L	<0.002	*	*	*
Tot. Org. Carbon	mg/L	3.80	*	1.00	*
Tot. Org. Halogen	mg/L	0.027	*	0.033	*
Carbon Tet.	mg/L	*	*	0.005	*
Chloroform	mg/L	*	*	0.005	*
Tetrachloroethene	mg/L	*	*	0.006	*
Trichloroethene	mg/L	*	*	0.027	*
1,1,1-TCE	mg/L	*	*	0.005	*
Gross Alpha	pCi/L	9.3	*	13.0	*
Nonvol. Beta	pCi/L	26.5	*	*	*
Total Radium	pCi/L	1.3	*	*	*
Tritium	pCi/mL	807	*	897	*

Well: NBC 3, Naval Fuels Background Wells				Well: NBC 5, Naval Fuels Background Wells	
		meters (MSL)		meters (MSL)	
SRP Grid	N 780939.6	Screen Zone Elevation	71.2+61.6	SRP Grid	N 78943.4
Coordinates	E 53408.1	Top of Casing Elevation	95.21	Coordinates	E 54115.6
Latitude	33.288582°N	Casing Material	PVC	Latitude	33.289311°N
Longitude	81.677767°W			Longitude	81.676596°W
Parameter	Units	03/04/87	05/19/87	09/07/87	11/13/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	66.3	66.7	66.6	69.6
pH		6.7	6.8	6.5	6.5
Conductivity	umhos/cm	138	140	150	82
TDS	mg/L	140	*	*	*
Arsenic	mg/L	<0.002	*	*	*
Barium	mg/L	0.028	*	*	*
Beryllium	mg/L	*	*	*	*
Cadmium	mg/L	<0.002	*	*	*
Calcium	mg/L	27.5	*	*	*
Chloride	mg/L	3.5	*	*	*
Chromium	mg/L	<0.004	*	*	*
Copper	mg/L	*	*	*	*
Cyanide	mg/L	*	*	*	*
Fluoride	mg/L	<0.10	*	*	*
Iron	mg/L	0.004	*	*	*
Lead	mg/L	0.010	*	0.007	*
Magnesium	mg/L	0.907	*	*	*
Manganese	mg/L	0.004	*	0.008	*
Mercury	mg/L	<0.0002	*	0.0002	*
Nickel	mg/L	*	*	*	*
Potassium	mg/L	0.570	*	*	*
Selenium	mg/L	<0.002	*	*	*
Silica	mg/L	4.41	*	*	*
Silver	mg/L	<0.0020	*	*	*
Sodium	mg/L	2.76	*	*	*
Total Phosphate	mg/L	0.149	*	*	*
Zinc	mg/L	*	*	*	*
NO ₃ (as N)	mg/L	1.65	*	1.85	*
SO ₄	mg/L	13.0	*	*	*
Phenols	mg/L	<0.002	*	*	*
Tot. Org. Carbon	mg/L	1.50	*	2.30	*
Tot. Org. Halogen	mg/L	0.018	*	0.013	*
Carbon Tet.	mg/L	*	*	0.005	*
Chloroform	mg/L	*	*	0.005	*
Tetrachloroethene	mg/L	*	*	0.005	*
Trichloroethene	mg/L	*	*	0.011	*
1,1,1-TCE	mg/L	*	*	0.005	*
Gross Alpha	pCi/L	<3.0	*	13.0	*
Nonvol. Beta	pCi/L	12.0	*	*	*
Total Radium	pCi/L	<1.0	*	*	*
Tritium	pCi/mL	16.3	*	13.3	*

TABLE 4-3
CHEMICAL CONCENTRATIONS IN F-AREA GROUNDWATER

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

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

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

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

NBG 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>
Gross Alpha (pCi/L)						
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
Nonvolatile Beta (pCi/L)						
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

Old Retention Basin	No. of Samples	Maximum	Ct. Err. 95% Cl.	Minimum	Ct. Err. 95% Cl.	Average
<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

Retention Basin	No. of Samples	Maximum	Ct. Err. 95% Cl.	Minimum	Ct. Err. 95% Cl.	Average
<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

Tank Farm	No. of Samples	Maximum	Ct. Err. 95% Cl.	Minimum	Ct. Err. 95% Cl.	Average
Gross Alpha (pCi/L)						
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	1 ^a	1.35	+1.00	0.00	+0.39	0.60
HTF 4	1	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

Tank Farm	No. of Samples	Maximum	Ct. Err. 95% Cl.	Minimum	Ct. Err. 95% Cl.	Average
Nonvolatile Beta (pCi/L)						
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	3.84	+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>
H-3 (pCi/mL)						
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	+1.72	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	49.2
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
Cr-51 (pCi/mL)						
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
Co-60 (pCi/mL)						
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

Tank Farm	No. of Samples	Maximum	Ct. Err. 95% Cl.	Minimum	Ct. Err. 95% Cl.	Average
<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>R-3 (pCi/mL)</u>						
241 H	2	635	+12.8	614	+6.38	625

TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER

Well: HCA 1, H-Area Canyon Building

SRP Grid N 72521.7
Coordinates E 63109.0
Latitude 33.289138°N
Longitude 81.641482°W

Screen Zone Elevation 83.4-77.3
Top of Casing Elevation 94.48
Casing Material PVC

Parameter	Units	03/10/87	05/18/87	09/13/87	12/16/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	81.4	81.6	81.8	81.6
pH	pH	6.2	10.0	7.2	6.5
Conductivity	umhos/cm	100	260	140	128
TDS	mg/L	48	168	88	-
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.013	0.027	0.015	0.056
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	1.43	7.00	3.21	5.53
Chloride	mg/L	1.9	2.3	2.2	3.4
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.16	0.27	0.10	-
Iron	mg/L	0.041	1.53	0.111	0.008
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.342	0.521	0.530	1.34
Manganese	mg/L	0.004	0.012	0.003	0.008
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	-	-	-	-
Potassium	mg/L	8.89	20.1	14.8	8.62
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	4.94	4.10	4.70	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	14.2	17.9	13.6	8.42
Total Phosphate	mg/L	0.100	0.050	0.123	0.090
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.69	1.30	1.60	1.55
SO ₄	mg/L	8.0	9.3	3.8	3.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	1.00	<1.000
Tot. Org. Halogen	mg/L	0.012	0.005	0.009	-
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	4.1	3.1
Nonvol. Beta	pCi/L	11.3	16.7	14.8	8.2
Total Radium	pCi/L	0.4	0.8	2.8	0.6
Tritium	pCi/mL	204	187	103	138

Well: HCA 3, H-Area Canyon Building

Parameter	Units	03/22/87	05/18/87	09/13/87	12/16/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	81.2	81.5	81.8	81.7
pH	pH	6.9	6.6	5.9	5.7
Conductivity	umhos/cm	140	120	82	86
TDS	mg/L	86	76	58	-
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.021	0.031	0.039	0.044
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	7.76	9.09	9.59	10.0
Chloride	mg/L	2.3	1.8	1.7	2.3
Chromium	mg/L	<0.008	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.19	0.10	0.10	-
Iron	mg/L	0.015	0.293	0.048	0.068
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	1.13	1.98	1.82	2.11
Manganese	mg/L	0.016	0.116	0.110	0.115
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	-	-	-	-
Potassium	mg/L	4.85	2.01	1.78	1.35
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	3.35	2.70	2.32	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	12.2	3.53	2.60	2.37
Total Phosphate	mg/L	0.020	0.050	0.284	0.160
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.30	0.30	0.64	0.47
SO ₄	mg/L	15.0	3.8	3.1	3.0
Phenols	mg/L	<0.002	<0.005	0.010	<0.005
Tot. Org. Carbon	mg/L	1.00	1.00	2.00	<1.000
Tot. Org. Halogen	mg/L	0.019	0.011	0.011	-
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	3.2	0.1	2.0	3.0
Nonvol. Beta	pCi/L	5.8	6.0	2.8	3.9
Total Radium	pCi/L	0.9	<1.0	1.8	0.6
Tritium	pCi/mL	152	199	160	144

Well: HCA 2, H-Area Canyon Building

SRP Grid N 72523.8
Coordinates E 62943.3
Latitude 33.288302°N
Longitude 81.641451°W

Screen Zone Elevation 83.3-73.8
Top of Casing Elevation 94.73
Casing Material PVC

Parameter	Units	03/26/87	05/18/87	09/13/87	12/16/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	81.4	81.9	82.1	81.8
pH	pH	5.8	5.7	5.6	5.1
Conductivity	umhos/cm	160	200	140	158
TDS	mg/L	24	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.029	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	2.18	-	-	-
Chloride	mg/L	2.6	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.018	-	-	-
Lead	mg/L	<0.006	-	0.006	-
Magnesium	mg/L	2.37	-	-	-
Manganese	mg/L	0.040	-	0.025	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.00	-	-	-
Selenium	mg/L	0.002	-	-	-
Silica	mg/L	2.42	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	5.39	-	-	-
Total Phosphate	mg/L	0.010	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.04	-	-	-
SO ₄	mg/L	37.5	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	4.00	-
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	5.2	-	-	-
Nonvol. Beta	pCi/L	10.2	-	-	-
Total Radium	pCi/L	3.5	-	4.9	-
Tritium	pCi/mL	88.4	-	90.7	-

Well: HCA 4, H-Area Canyon Building

Parameter	Units	03/26/87	05/18/87	09/13/87	12/16/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	81	81.6	81.6	81.7
pH	pH	5.3	5.9	5.7	5.8
Conductivity	umhos/cm	34	50	41	47
TDS	mg/L	10	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.020	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.95	-	-	-
Chloride	mg/L	3.2	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.013	-	-	-
Lead	mg/L	<0.001	-	-	0.009
Magnesium	mg/L	0.518	-	-	-
Manganese	mg/L	0.050	-	-	0.038
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.970	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	4.41	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	3.20	-	-	-
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.06	-	-	-
SO ₄	mg/L	13.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.00	-	-	<1.000
Tot. Org. Halogen	mg/L	<0.016	-	-	0.012
Carbon Tet.	mg/L	<0.001	-	-	<0.001
Chloroform	mg/L	<0.001	-	-	<0.001
Tetrachloroethene	mg/L	<0.013	-	-	0.013
Trichloroethene	mg/L	<0.008	-	-	0.007
1,1,1-TCE	mg/L	<0.001	-	-	<0.001
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	12.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	1.6
Tritium	pCi/mL	34.0	-	-	41.8

TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER

Other Analyses (mg/L)
 (GOMS Scan and Pest/Herb* Analyses; Table 4-25, Vol. III)

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

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

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

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

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

Well: HCB 2, H-Area Coal Pile Runoff Containment Basin					
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	81.6
pH		4.1	3.8	4.2	3.0
Conductivity	umhos/cm	240	580	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	22.3	-	-	-
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	-	3.76	-
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	3.39	-	-	-
Silver	mg/L	0.0020	-	-	-
Sodium	mg/L	6.70	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	0.320	-	-	-
NO ₃ (as N)	mg/L	0.51	-	-	-
SO ₄	mg/L	150	-	760	-
Phenols	mg/L	0.002	-	-	-
Tot. Org. Carbon	mg/L	1.000	-	3.60	-
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	2.4	-	21.7	-
Nonvol. Beta	pCi/L	4.9	-	34.9	-
Total Radium	pCi/L	1.0	-	5.0	-
Tritium	pCi/mL	21.2	-	40.0	-

Well: HCB 1, H-Area Coal Pile Runoff Containment Basin

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	79.8
pH		4.7	4.8	5.4	4.9
Conductivity	umhos/cm	60	61	55	59
TDS	mg/L	63	-	-	-
Arsenic	mg/L	0.030	-	-	-
Barium	mg/L	0.038	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.002	-	-	-
Calcium	mg/L	1.86	-	-	-
Chloride	mg/L	5.8	-	-	-
Chromium	mg/L	0.004	-	-	-
Copper	mg/L	0.013	-	0.006	-
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	0.288	-	0.239	-
Mercury	mg/L	0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.400	-	-	-
Selenium	mg/L	0.002	-	-	-
Silica	mg/L	2.83	-	-	-
Silver	mg/L	0.0030	-	-	-
Sodium	mg/L	5.09	-	-	-
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	-	5.0	-
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	<0.0	-	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: HCB 3, H-Area Coal Pile Runoff Containment Basin					
Parameter	Units	02/07/87	04/30/87	07/29/87	10/03/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	81.7	81.5	81	81
pH		4.7	4.6	5.2	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	0.003	-	0.010	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.041	-	0.098	-
Lead	mg/L	0.015	-	0.018	-
Magnesium	mg/L	0.530	-	-	-
Manganese	mg/L	0.012	-	0.036	-
Mercury	mg/L	0.0005	-	-	-
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	1.0	-	15.0	-
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	<0.0	-	1.0	-
Nonvol. Beta	pCi/L	2.0	-	2.0	-
Total Radium	pCi/L	0.0	-	0.0	-
Tritium	pCi/mL	42.8	-	34.5	-

TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER

Well: HCB 4, H-Area Coal Pile Runoff Containment Basin				Well: HBR 13, Old H-Area Retention Basin							
Parameter	Units	02/10/87	04/30/87	07/29/87	10/03/87	Parameter	Units	02/10/87	05/11/87	07/21/87	10/26/87
Sampling Method		Pump	Pump	Pump	Pump	Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	81.2	80.8	80.4	80.3	Water Elevation	meters	80.5	78.9	79	77.8
pH	pH	4.8	4.9	4.6	4.7	pH	pH	6.7	7.3	6.6	6.8
Conductivity	umhos/cm	110	102	76	68	Conductivity	umhos/cm	120	142	120	141
TDS	mg/L	82	-	-	-	TDS	mg/L	120	-	-	-
Arsenic	ng/L	<0.002	-	-	-	Arsenic	ng/L	<0.002	-	-	-
Barium	mg/L	0.032	-	-	-	Barium	mg/L	0.012	-	-	-
Beryllium	mg/L	-	-	-	-	Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-	Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	5.48	-	-	-	Calcium	mg/L	18.7	-	-	-
Chloride	mg/L	3.7	-	-	-	Chloride	mg/L	5.6	-	-	-
Chromium	mg/L	<0.004	-	-	-	Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	0.007	-	Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-	Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-	Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.026	-	0.032	-	Iron	mg/L	0.034	-	-	-
Lead	mg/L	0.007	-	0.006	-	Lead	mg/L	0.006	-	-	-
Magnesium	mg/L	2.21	-	-	-	Magnesium	mg/L	0.578	-	-	-
Manganese	mg/L	0.115	-	0.063	-	Manganese	mg/L	<0.002	-	-	-
Mercury	mg/L	<0.0002	-	-	-	Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	-	-	-	-	Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.600	-	-	-	Potassium	mg/L	0.440	-	-	-
Selenium	mg/L	<0.002	-	-	-	Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	4.62	-	-	-	Silica	mg/L	7.70	-	-	-
Silver	mg/L	<0.0070	-	-	-	Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	5.51	-	-	-	Sodium	mg/L	5.34	-	-	-
Total Phosphate	mg/L	0.020	-	-	-	Total Phosphate	mg/L	0.035	-	-	-
Zinc	mg/L	0.047	-	-	-	Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.17	-	-	-	NO ₃ (as N)	mg/L	2.43	-	-	-
SO ₄	mg/L	77.0	-	10.0	-	SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-	Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.30	-	Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	<0.005	-	0.005	-	Tot. Org. Halogen	mg/L	<0.005	0.008	0.005	0.005
Carbon Tet.	mg/L	-	-	-	-	Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-	Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-	1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	4.2	-	2.1	-	Gross Alpha	pCi/L	13.0	13.0	2.5	-
Nonvol. Beta	pCi/L	2.7	-	2.2	-	Nonvol. Beta	pCi/L	2.7	4.9	6.8	-
Total Radium	pCi/L	1.0	-	1.1	-	Total Radium	pCi/L	<1.0	1.6	0.6	-
Tritium	pCi/mL	28.5	-	29.3	-	Tritium	pCi/mL	43.3	-	45.3	23.8

Well: HBR 11, Old H-Area Retention Basin				Well: HBR 11, H-Area Retention Basin							
Parameter	Units	02/10/87	05/11/87	07/21/87	10/24/87	Parameter	Units	02/10/87	05/11/87	07/21/87	10/24/87
Sampling Method		Pump	Pump	Pump	Pump	Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	80.2	79.1	79	78	Water Elevation	meters	75.6	75.1	75.3	74.7
pH	pH	4.4	4.7	4.8	5.1	pH	pH	4.4	4.7	4.6	5.1
Conductivity	umhos/cm	45	47	48	44	Conductivity	umhos/cm	27	28	32	31
TDS	mg/L	46	-	-	-	TDS	mg/L	16	-	-	-
Arsenic	ng/L	<0.002	-	-	-	Arsenic	ng/L	<0.002	-	-	-
Barium	mg/L	0.004	-	-	-	Barium	mg/L	0.005	-	-	-
Beryllium	mg/L	-	-	-	-	Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-	Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.125	-	-	-	Calcium	mg/L	0.473	-	-	-
Chloride	mg/L	6.0	-	-	-	Chloride	mg/L	2.7	-	-	-
Chromium	mg/L	<0.004	-	-	-	Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-	Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-	Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-	Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.024	-	-	-	Iron	mg/L	0.046	-	-	-
Lead	mg/L	<0.006	-	-	-	Lead	mg/L	0.012	0.009	0.017	0.018
Magnesium	mg/L	0.167	-	-	-	Magnesium	mg/L	0.156	-	-	-
Manganese	mg/L	0.004	-	-	-	Manganese	mg/L	<0.001	0.002	0.009	<0.001
Mercury	mg/L	<0.0004	<0.0002	0.0003	0.0008	Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-	Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.320	-	-	-	Potassium	mg/L	0.600	-	-	-
Selenium	mg/L	<0.002	-	-	-	Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.63	-	-	-	Silica	mg/L	2.38	-	-	-
Silver	mg/L	<0.0020	-	-	-	Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	5.51	-	-	-	Sodium	mg/L	2.98	3.33	2.58	3.60
Total Phosphate	mg/L	0.055	-	-	-	Total Phosphate	mg/L	0.101	-	-	-
Zinc	mg/L	-	-	-	-	Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.28	-	-	-	NO ₃ (as N)	mg/L	0.97	-	1.48	-
SO ₄	mg/L	3.0	-	-	-	SO ₄	mg/L	0.50	-	-	-
Phenols	mg/L	<0.002	-	-	-	Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	<1.000	1.00	1.000	Tot. Org. Carbon	mg/L	<1.000	1.00	2.00	1.000
Tot. Org. Halogen	mg/L	0.019	0.022	0.134	0.043	Tot. Org. Halogen	mg/L	0.005	<0.005	0.005	0.005
Carbon Tet.	mg/L	-	-	0.005	-	Carbon Tet.	mg/L	-	-	0.005	-
Chloroform	mg/L	-	-	0.005	-	Chloroform	mg/L	-	-	0.005	-
Tetrachloroethene	mg/L	-	-	0.005	-	Tetrachloroethene	mg/L	-	-	0.005	-
Trichloroethene	mg/L	-	-	0.005	-	Trichloroethene	mg/L	-	-	0.005	-
1,1,1-TCE	mg/L	-	-	0.005	-	1,1,1-TCE	mg/L	-	-	0.005	-
Gross Alpha	pCi/L	13.0	<3.0	3.0	-	Gross Alpha	pCi/L	1.3	3.7	1.6	3.0
Nonvol. Beta	pCi/L	12.0	2.1	<0.8	-	Nonvol. Beta	pCi/L	2.1	2.7	3.3	2.3
Total Radium	pCi/L	11.0	1.1	0.7	-	Total Radium	pCi/L	0.8	1.1	1.0	1.0
Tritium	pCi/mL	28.6	-	29.3	42.9	Tritium	pCi/mL	59.5	-	57.4	58.2

TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER

Well: HRR 12, H-Area Retention Basin

Parameter	Units	02/11/87	05/11/87	07/21/87	10/24/87	meters (MSL)
Sampling Method		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	46	37	35	
TDS	mg/L	18	-	-	-	
Arsenic	mg/L	0.002	-	-	-	
Barium	mg/L	0.003	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	0.003	-	-	-	
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	0.280	-	-	-	
Selenium	mg/L	0.002	-	-	-	
Silica	mg/L	2.47	-	-	-	
Silver	mg/L	0.0020	-	-	-	
Sodium	mg/L	3.39	3.24	3.28	3.00	
Total Phosphate	mg/L	0.050	-	-	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	1.28	-	1.75	-	
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	<0.005	<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: HRR 13, H-Area Retention Basin

Parameter	Units	02/11/87	05/11/87	07/21/87	10/24/87	meters (MSL)
Sampling method		Pump	Pump	Pump	Pump	
Water Elevation	meters	72.2	72.5	72.5	72.1	
pH	-	4.5	4.4	4.5	4.6	
Conductivity	umhos/cm	33	56	62	54	
TDS	mg/L	26	-	-	-	
Arsenic	mg/L	0.002	-	-	-	
Barium	mg/L	0.008	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	0.003	-	-	-	
Calcium	mg/L	0.710	-	-	-	
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	6.76	6.64	6.76	
Total Phosphate	mg/L	0.285	-	-	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	1.33	-	1.88	-	
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	0.005	<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	1.1	5.6	4.9	6.4	
Nonvol. Beta	pCi/L	5.5	7.8	6.2	7.8	
Total Radium	pCi/L	1.9	2.5	1.8	3.2	
Tritium	pCi/mL	38.8	-	36.8	32.1	

Well: HRR 14, H-Area Retention Basin

Parameter	Units	02/11/87	05/11/87	07/21/87	10/24/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	74.4	74.4	74.4	74.3	
pH	-	4.5	4.3	4.4	4.4	
Conductivity	umhos/cm	420	380	390	380	
TDS	mg/L	284	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	0.032	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	-	-	
Calcium	mg/L	3.92	-	-	-	
Chloride	mg/L	4.5	-	-	-	
Chromium	mg/L	<0.004	-	-	-	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.10	-	-	-	
Iron	mg/L	0.018	-	-	-	
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	31.8	44.2	50.0	51.1	
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	33.6	33.6	44.6	
Nonvol. Beta	pCi/L	22.4	26.1	26.1	27.8	
Total Radium	pCi/L	9.1	13.3	12.6	12.8	
Tritium	pCi/mL	5.48	-	7.30	5.10	

Other Analyses (mg/L)

(GCMS Scan Analytes: Table 4-25, Vol. II)

HRR 11 07/21/87

GCMS Scan detected the following: None

HRR 11 07/21/87

GCMS Scan detected the following: None

TAF. 4.5

CHEMICAL CONCENTRATION IN H-AREA GROUNDWATER

Well: BSB 65, B-Area Seepage Basins					
SBP Grid	N 72425.6	Screen Zone Elevation	meters (ft)		
Coordinates	E 58432.0	Top of Casing Elevation	73.9-84.7		
Latitude	33.281296°N	Casing Material	82.90 PVC		
Longitude	81.653622°W	Parameter	Units	01/08/87	04/08/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	71.1	72.7	72.3	71.5
pH	4.6	4.5	4.7	4.5	
Conductivity	µmhos/cm	48	37	41	43
TDS	mg/L	38	-	-	-
Arsenic	ng/L	0.002	-	-	-
Barium	mg/L	0.913	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.002	0.002	0.002	0.002
Calcium	mg/L	0.873	-	-	-
Chloride	mg/L	3.1	-	-	-
Chromium	mg/L	0.004	0.004	0.004	0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.18	-	-	-
Iron	mg/L	0.009	0.018	0.012	0.058
Lead	mg/L	0.017	0.015	0.014	0.012
Magnesium	mg/L	1.30	-	-	-
Manganese	mg/L	0.002	0.002	0.002	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	0.337	-	-	-
Selenium	mg/L	0.002	-	-	-
Silica	mg/L	2.57	-	-	-
Silver	mg/L	0.0020	-	-	-
Sodium	mg/L	2.05	2.50	2.19	2.79
Total Phosphate	mg/L	0.032	0.060	-	0.080
Zinc	mg/L	0.009	0.012	0.082	0.142
ND ₃ (as N)	mg/L	2.05	1.70	3.64	4.55
SO ₄	mg/L	11.5	-	-	-
Phenols	mg/L	0.002	-	-	-
Tot. Org. Carbon	mg/L	3.80	1.000	1.10	3.00
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	1.0	13.0	13.0	3.0
Neon-22	pCi/L	<2.0	<2.0	22.0	2.0
Total Radium	pCi/L	<1.0	-	0.8	-
Tritium	pCi/L mL	108	70.4	85.1	81.1

Well: BSB-658, B-Area Seepage Basins				meters (MSL)	
SBP Grid	N 72445.6	Screen Zone Elevation	40.6+37.6		
Coordinates	E 58429.4	Top of Casing Elevation	83.42		
Latitude	33.28132°N	Casing Material	PVC		
Longitude	81.65364°W				
Parameter	Units	01/06/87	04/06/87	07/14/87	10/03/87
Sampling Method		Furn.	Pump	Pump	Pump
Water Elevation	meters	68.7	69.4	69.3	68.9
pH	-	7.3	7.4	7.5	7.0
Conductivity	µmhos/cm	220	205	173	210
TDS	mg/L	100	132	138	108
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.014	0.015	0.016	0.015
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	42.6	38.4	37.3	39.8
Chloride	mg/L	2.5	2.7	2.5	2.7
Chromium	mg/L	0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.11	0.10	0.10	0.13
Iron	mg/L	0.006	0.016	0.017	0.030
Lead	mg/L	<0.005	<0.005	<0.005	<0.004
Magnesium	mg/L	0.832	0.841	0.841	0.799
Manganese	mg/L	<0.002	<0.002	<0.002	<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	0.531	0.580	0.646	0.719
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	7.50	7.34	7.51	-
Silver	mg/L	<0.020	<0.020	<0.020	<0.020
Sodium	mg/L	2.06	1.89	2.16	1.93
Total Phosphate	mg/L	0.017	0.020	0.010	0.010
Zinc	mg/L	0.002	0.006	0.002	0.012
NO ₃ (as N)	mg/L	0.10	<0.05	0.61	0.59
SO ₄	mg/L	13.0	13.0	15.0	15.0
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	8.30	11.000	1.20	2.10
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	<3.0	<3.0	<3.0
Novonol, Beta	pCi/L	<2.0	<2.0	<2.0	<2.0
Total Radium	pCi/L	<1.0	<1.0	<1.0	<1.0
Tritium	atoms/m	<1.00	<0.10	<0.10	<0.10

Well: BSB 65A, B-Area Seepage Basics				
SBP Grid	8 72436.2			Meters (MSL)
Coordinates E	58436.0	Screen Zone Elevation	22.3-19.0	
Latitude	33.281326°N	Top of Casing Elevation	83.39	
Longitude	81.653632°W	Casing Material	PVC	
Parameter	Units	01/08/87	04/08/87	07/14/97
Sampling Method		Pump	Pump	Pump
Water Elevation	meters	51.1	51.5	52.1
pH		7.1	7.2	7.2
Conductivity	umhos/cm	210	215	173
TDS	mg/L	150	148	142
Arsenic	mg/L	<0.002	<0.002	<0.002
Barium	mg/L	0.038	0.040	0.037
Beryllium	mg/L	-	-	-
Cadmium	mg/L	>0.002	>0.002	<0.002
Calcium	mg/L	37.2	37.8	36.0
Chloride	mg/L	2.9	3.9	3.0
Chromium	mg/L	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-
Cyanide	mg/L	-	-	-
Fluoride	mg/L	0.12	0.15	0.10
Iron	mg/L	0.005	0.018	0.010
Lead	mg/L	<0.006	<0.006	<0.006
Magnesium	mg/L	0.887	0.710	0.698
Manganese	mg/L	<0.002	<0.002	<0.002
Mercury	mg/L	<0.0002	<0.0002	<0.0002
Nickel	mg/L	<0.004	<0.004	<0.004
Potassium	mg/L	2.31	1.84	1.79
Selenium	mg/L	<0.002	<0.002	<0.002
Silica	mg/L	11.6	11.9	11.5
Silver	mg/L	<0.0020	<0.0020	<0.0020
Sodium	mg/L	2.22	1.94	2.34
Total Phosphate	mg/L	0.057	0.050	0.050
Zinc	mg/L	<0.002	<0.008	0.003
NO ₃ (as N)	mg/L	0.10	0.05	0.60
SO ₄	mg/L	10.0	13.0	8.0
Phenols	mg/L	<0.003	<0.002	<0.005
Tot. Org. Carbon	mg/L	1.80	1.00	1.50
Tot. Org. Halogen	mg/L	<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
Monval. Beta	pCi/L	1.7	12.0	2.8
Total Radium	pCi/L	<1.0	<1.0	<0.7
Tritium	pCi/mL	<1.00	<0.70	<0.70

Well: BSB 65C, E-Area Seepage Basins					meters (mSL)
ERP Grid	N	72439.6	Screen Zone Elevation	66.8-83.3	
Coordinate	E	58447.1	Top of Casing Elevation	83.38	
Latitude		33.28135°N	Casing Material	PVC	
Longitude		81.653609°W			
Parameter	Unit	01/06/87	04/06/87	07/14/87	10/01/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	71.1	71	72.3	71.7
pH		4.7	-	5.1	4.8
Conductivity	umhos/cm	78	52	52	54
TDS	mg/L	62	54	55	55
Arsenic	mg/L	0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.007	0.006	0.008	0.008
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.002	<0.002	<0.002	<0.004
Calcium	mg/L	1.92	2.29	18.6	5.18
Chloride	mg/L	7.4	3.9	9.2	3.9
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	0.10	<0.10	0.12
Iron	mg/L	0.019	0.014	0.026	0.037
Lead	mg/L	0.011	<0.008	<0.006	0.008
Magnesium	mg/L	0.492	0.374	0.663	0.686
Manganese	mg/L	0.037	0.013	0.012	0.016
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	0.192	0.180	0.500	0.500
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	3.09	3.33	3.30	-
Silvers	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	7.34	5.11	5.67	5.13
Total Phosphate	mg/L	0.027	0.020	0.040	0.040
Zinc	mg/L	0.028	0.034	0.022	0.034
NO ₃ (as N)	mg/L	3.40	2.95	4.98	6.15
SO ₄	mg/L	<3.0	<3.0	11.0	5.0
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	1.50	<1.000	<1.000	1.30
Tot. Org. Halogen	mg/L	<0.005	<0.005	<0.005	<0.005
Carbon Tetr.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Dioxin Alpha	pg/m ³ /mL	<3.0	<3.0	<3.0	<3.0
Novonil Beta	pg/m ³ /mL	<1.8	<2.0	<2.0	<1.9
Total Radium	pg/m ³ /mL	<1.0	<1.0	<1.0	<1.0
Tritium	pg/m ³ /mL	<1.00	31.1	32.4	32.6

TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER

Well: HSB 66, H-Area Seepage Basins

Parameter	Units	meters (MSL)			
		01/07/87	04/11/87	07/09/87	10/04/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	69.6	70.8	70.4	69.8
pH	-	4.7	5.0	5.3	4.6
Conductivity	uhmhos/cm	44	26	25	31
TDS	mg/L	20	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	1.58	-	-	-
Chloride	mg/L	3.3	-	-	-
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.13	-	-	-
Iron	mg/L	0.020	0.013	0.015	0.128
Lead	mg/L	0.010	0.008	0.006	0.008
Magnesium	mg/L	0.398	-	-	-
Manganese	mg/L	0.013	0.007	0.006	0.007
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	0.312	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	4.13	-	-	-
Silver	mg/L	<0.0008	-	-	-
Sodium	mg/L	2.47	2.67	2.72	2.35
Total Phosphate	mg/L	0.118	0.040	0.180	0.120
Zinc	mg/L	0.018	0.011	0.046	0.038
NO ₃ (as N)	mg/L	1.10	0.98	1.80	1.46
SO ₄	mg/L	1.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.40	11.000	<1.000	1.80
Tot. Org. Halogen	mg/L	<0.005	<0.1.0	<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	13.0	13.0	1.8	2.6
Nonvol. Beta	pCi/L	12.0	12.0	1.8	2.7
Total Radium	pCi/L	1.0	1.0	0.7	-
Tritium	pCi/mL	-	9.61	24.9	10.4

Well: HSB 68, H-Area Seepage Basins

Parameter	Units	meters (MSL)			
		01/07/87	04/09/87	07/13/87	10/04/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	69.6	69.7	69.1	68.8
pH	-	4.3	4.3	4.1	4.0
Conductivity	uhmhos/cm	140	160	200	232
TDS	mg/L	92	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.019	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	0.002	0.003
Calcium	mg/L	1.84	-	-	-
Chloride	mg/L	3.9	-	-	-
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	0.028	0.033	0.043	0.033
Lead	mg/L	0.009	0.007	0.008	0.013
Magnesium	mg/L	0.982	-	-	-
Manganese	mg/L	0.321	0.144	0.146	0.149
Mercury	mg/L	0.0015	0.0017	0.0028	0.0041
Nickel	mg/L	<0.004	<0.004	<0.004	<0.004
Potassium	mg/L	0.390	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.32	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	17.4	15.5	21.0	30.5
Total Phosphate	mg/L	0.030	0.020	0.120	0.080
Zinc	mg/L	0.102	0.019	0.025	0.035
NO ₃ (as N)	mg/L	8.40	15.0	19.7	28.2
SO ₄	mg/L	12.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	11.000	1.000	1.20	<1.000
Tot. Org. Halogen	mg/L	0.019	0.009	0.009	0.007
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	11.3	16.3	29.3	15.3
Nonvol. Beta	pCi/L	6.51	11.90	12.80	14.70
Total Radium	pCi/L	9.2	13.1	14.0	-
Tritium	pCi/mL	2080	2110	3840	4870

Well: HSB 67, H-Area Seepage Basins

Parameter	Units	meters (MSL)			
		01/15/87	04/11/87	07/21/87	10/04/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	69.6	69.7	69.1	68.8
pH	-	4.3	4.3	4.1	4.0
Conductivity	uhmhos/cm	140	160	200	232
TDS	mg/L	92	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.019	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	0.002	0.003
Calcium	mg/L	1.84	-	-	-
Chloride	mg/L	3.9	-	-	-
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	0.028	0.033	0.043	0.033
Lead	mg/L	0.009	0.007	0.008	0.013
Magnesium	mg/L	0.982	-	-	-
Manganese	mg/L	0.321	0.144	0.146	0.149
Mercury	mg/L	0.0015	0.0017	0.0028	0.0041
Nickel	mg/L	<0.004	<0.004	<0.004	<0.004
Potassium	mg/L	0.390	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.32	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	17.4	15.5	21.0	30.5
Total Phosphate	mg/L	0.030	0.020	0.120	0.080
Zinc	mg/L	0.102	0.019	0.025	0.035
NO ₃ (as N)	mg/L	8.40	15.0	19.7	28.2
SO ₄	mg/L	12.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	11.000	1.000	1.20	<1.000
Tot. Org. Halogen	mg/L	0.019	0.009	0.009	0.007
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	11.3	16.3	29.3	15.3
Nonvol. Beta	pCi/L	6.51	11.90	12.80	14.70
Total Radium	pCi/L	9.2	13.1	14.0	-
Tritium	pCi/mL	2080	2110	3840	4870

Well: HSB 68A, H-Area Seepage Basins

Parameter	Units	meters (MSL)			
		01/15/87	04/09/87	07/13/87	10/04/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	52.2	52.2	52.2	52.2
pH	-	7.3	7.1	7.0	6.7
conductivity	uhmhos/cm	180	160	14	160
TDS	mg/L	122	102	118	104
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.034	0.033	0.032	0.036
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	26.2	25.0	23.5	22.7
Chloride	mg/L	3.1	2.7	1.8	2.5
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	0.18	0.20	0.17
Iron	mg/L	0.015	0.033	0.018	0.016
Lead	mg/L	0.006	0.006	0.006	0.006
Magnesium	mg/L	0.100	0.138	0.508	0.472
Manganese	mg/L	<0.002	<0.002	<0.002	<0.002
Mercury	mg/L	<0.002	<0.002	<0.002	<0.002
Nickel	mg/L	-	-	-	-
Potassium	mg/L	3.70	2.10	2.48	10.2
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	19.3	11.0	10.7	-
Silver	mg/L	<0.0040	<0.0020	<0.0020	<0.0020
Sodium	mg/L	2.88	2.54	2.49	2.18
Total Phosphate	mg/L	0.180	0.150	0.200	0.170
Zinc	mg/L	0.005	0.014	0.003	0.012
NO ₃ (as N)	mg/L	0.15	0.08	0.68	0.58
SO ₄	mg/L	10.7	8.3	8.5	10.0
Phenols	mg/L	<0.002	<0.002	<0.002	<0.002
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	<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	1.4	3.0	3.7	3.0
Nonvol. Beta	pCi/L	21.0	18.7	23.8	14.4
Total Radium	pCi/L	11.0	11.0	11.0	11.0
Tritium	pCi/mL	5580	81.1	78.1	55.0

TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER

Well: BSB 688, H-Area Seepage Basin

Parameter	Units	03/16/87	04/09/87	07/14/87	10/04/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters (MSL)	66.9	67.4	67.1	66.7
pH		7.2	7.1	9.1	6.9
Conductivity	umhos/cm	210	211	110	120
TDS	mg/L	118	72	180	72
Arsenic	mg/L	<0.002	0.003	0.002	<0.002
Barium	mg/L	0.034	0.045	0.043	0.088
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	0.005	<0.002	<0.002
Calcium	mg/L	49.4	12.1	49.9	21.1
Chloride	mg/L	3.1	3.1	3.8	3.0
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	60.10	0.12	0.27	1.90
Iron	mg/L	0.006	0.005	0.012	0.035
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	1.40	0.543	2.23	0.508
Manganese	mg/L	0.004	0.004	<0.002	0.004
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	1.02	6.40	0.925	3.91
Selenium	mg/L	<0.005	<0.002	<0.002	<0.002
Silica	mg/L	8.25	5.75	9.23	4
Silver	mg/L	0.0040	<0.0020	<0.0020	<0.0020
Sodium	mg/L	2.59	6.83	2.47	4.71
Total Phosphate	mg/L	0.110	<0.020	0.140	0.190
Zinc	mg/L	0.006	0.004	0.003	0.002
NO ₃ (as N)	mg/L	0.22	0.76	0.85	1.33
SO ₄	mg/L	13.0	13.0	5.3	5.0
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	1.80	1.80
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	5.7	13.0	13.0	7.0
Nonvol. Beta	pCi/L	25.0	18.0	14.9	14.8
Total Radium	pCi/L	11.0	11.0	11.0	0.8
Tritium	pCi/ml	38.0	608	26.3	859

Well: BSB 69, H-Area Seepage Basin

Parameter	Units	03/01/87	04/11/87	07/14/87	10/04/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters (MSL)	67.9	68.4	68.5	67.5
pH		7.2	7.1	4.1	4.0
Conductivity	umhos/cm	210	211	400	439
TDS	mg/L	118	72	228	72
Arsenic	mg/L	<0.002	0.003	<0.002	<0.002
Barium	mg/L	0.034	0.045	0.043	0.088
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	0.005	<0.002	<0.002
Calcium	mg/L	49.4	12.1	49.9	21.1
Chloride	mg/L	3.1	3.1	3.8	3.0
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	60.10	0.12	0.27	1.90
Iron	mg/L	0.006	0.005	0.012	0.035
Lead	mg/L	<0.006	<0.006	<0.007	<0.006
Magnesium	mg/L	1.40	0.543	2.23	0.508
Manganese	mg/L	0.004	0.004	<0.002	0.004
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	<0.004	<0.004	<0.017	0.026
Potassium	mg/L	1.02	6.40	0.925	3.91
Selenium	mg/L	<0.005	<0.002	<0.002	<0.002
Silica	mg/L	8.25	5.75	9.23	4
Silver	mg/L	0.0040	<0.0020	<0.0020	<0.0020
Sodium	mg/L	2.59	6.83	2.47	4.71
Total Phosphate	mg/L	0.110	<0.020	0.140	0.190
Zinc	mg/L	0.006	0.004	0.003	0.002
NO ₃ (as N)	mg/L	0.22	0.76	0.85	1.33
SO ₄	mg/L	13.0	13.0	5.3	5.0
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	1.80	1.80
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	5.7	13.0	13.0	7.0
Nonvol. Beta	pCi/L	25.0	18.0	14.9	14.8
Total Radium	pCi/L	11.0	11.0	11.0	0.8
Tritium	pCi/ml	38.0	608	26.3	859

Well: BSB 69C, H-Area Seepage Basin

Parameter	Units	03/16/87	04/09/87	07/14/87	10/04/87
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Well: BSB 70, H-Area Seepage Basin

Parameter	Units	03/04/87	04/11/87	07/11/87	10/04/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters (MSL)	71.9	52	70.5	69.6
pH		5.9	5.7	5.4	5.2
Conductivity	umhos/cm	73	141	136	53
TDS	mg/L	84	98	90	56
Arsenic	mg/L	<0.004	0.003	<0.002	<0.002
Barium	mg/L	0.020	0.031	0.020	0.018
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	6.48	6.10	5.80	5.81
Chloride	mg/L	4.1	3.9	4.2	3.1
Chromium	mg/L	0.004	0.004	0.004	0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	0.16	0.18	0.24
Iron	mg/L	0.002	0.020	0.048	0.058
Lead	mg/L	0.012	0.018	0.020	0.006
Magnesium	mg/L	1.33	1.21	1.73	1.24
Manganese	mg/L	0.053	0.048	0.051	0.050
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	1.28	1.16	1.29	0.940
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	4.32	4.42	4.83	3
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	14.3	13.1	14.3	14.1
Total Phosphate	mg/L	0.030	0.030	0.070	0.070
Zinc	mg/L	0.125	0.203	0.207	0.158
NO ₃ (as N)	mg/L	12.4	12.1	12.4	12.5
SO ₄	mg/L	13.0	13.0	39.2	5.6
Phenols	mg/L	<0.002	0.002	0.005	0.005
Tot. Org. Carbon	mg/L	7.18	13.000	11.000	1.40
Tot. Org. Halogen	mg/L	0.005	0.006	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	3.5	13.0	12.0	9.0
Nonvol. Beta	pCi/L	17.5	10.1	10.7	8.9
Total Radium	pCi/L	1.0	0.7	1.1	0.5
Tritium	pCi/ml	1990	2100	1880	1820

TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER

Well: BSB 71, B-Area Seepage Basin

SRP Grid N 72875.9
Coordinates E 55179.2 Screen Zone Elevation 71.6-82.4
Latitude 33.27714878 Top of Casing Elevation 73.18
Longitude 81.66279878 Casing Material PVC

Parameter	Units	01/24/87	04/11/87	07/21/87	10/05/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	69.6	70	68.8	68.2
pH	-	4.9	5.2	5.2	4.9
Conductivity	umhos/cm	36	22	135	105
TDS	mg/L	8	18	102	15
Arsenic	ng/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	<0.004	<0.004	<0.014	<0.014
Boron	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	1.01	0.673	1.48	2.26
Chloride	mg/L	3.7	3.5	4.8	3.3
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.22
Iron	mg/L	<0.020	<0.033	<0.018	<0.042
Lead	mg/L	<0.008	<0.007	<0.019	<0.014
Magnesium	mg/L	0.540	0.414	1.21	1.03
Manganese	mg/L	<0.002	<0.002	<0.015	<0.012
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	0.253	0.230	0.500	0.350
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	1.91	2.08	2.58	-
Silver	mg/L	<0.0030	<0.0020	<0.0020	<0.0020
Sodium	mg/L	2.84	2.54	15.8	12.0
Total Phosphate	mg/L	0.030	0.040	0.110	0.070
Zinc	mg/L	0.048	0.023	0.059	0.077
NO ₃ (as N)	mg/L	0.07	0.05	11.7	9.92
SO ₄	mg/L	<3.0	<3.0	<5.0	<5.0
Phenols	mg/L	<0.003	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	1.40	<1.000	1.40	<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	13.0	13.0	8.0	5.5
Nonvol. Beta	pCi/L	2.8	2.0	33.1	18.0
Total Radium	pCi/L	1.0	1.0	1.2	0.6
Tritium	pCi/mL	87.1	72.5	1950	1180

Well: BSB 77B, B-Area Seepage Basin

SRP Grid N 71039.6
Coordinates E 58534.9 Screen Zone Elevation 40.2-56.9
Latitude 33.27982378 Top of Casing Elevation 72.23
Longitude 81.65166778 Casing Material PVC

Parameter	Units	01/24/87	04/07/87	07/13/87	10/01/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	68.4	69.7	68.7	68.2
pH	-	5.8	6.9	5.8	6.5
Conductivity	umhos/cm	142	140	120	119
TDS	mg/L	102	106	118	106
Arsenic	ng/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	<0.043	<0.044	<0.043	<0.041
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	20.7	19.3	17.8	20.1
Chloride	mg/L	3.1	3.3	3.6	3.6
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	<0.30	0.41	0.31
Iron	mg/L	0.016	0.014	0.015	0.014
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.661	0.639	0.659	0.629
Manganese	mg/L	<0.007	<0.008	<0.003	<0.003
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	1.22	0.980	1.06	1.03
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	11.9	12.5	12.6	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	8.12	3.51	4.02	3.28
Total Phosphate	mg/L	0.180	0.140	0.170	0.140
Zinc	mg/L	0.008	0.007	0.002	0.046
NO ₃ (as N)	mg/L	0.12	0.11	0.68	0.48
SO ₄	mg/L	3.0	3.0	5.0	10.0
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	1.40	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	13.0	13.0	13.0	13.0
Nonvol. Beta	pCi/L	2.8	2.0	22.0	12.0
Total Radium	pCi/L	1.0	1.0	1.0	1.0
Tritium	pCi/mL	26.6	22.9	20.4	20.3

Well: BSB 83A, B-Area Seepage Basin

SRP Grid N 71638.3
Coordinates E 58604.2 Screen Zone Elevation 52.2-59.9
Latitude 33.27983578 Top of Casing Elevation 72.33
Longitude 81.65166078 Casing Material PVC

Parameter	Units	01/24/87	04/07/87	07/13/87	10/10/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	69	69.7	69.2	68.8
pH	-	5.3	5.6	5.3	4.8
Conductivity	umhos/cm	35	28	25	24
TDS	mg/L	40	38	54	51
Arsenic	ng/L	<0.001	<0.002	<0.002	<0.002
Barium	mg/L	<0.004	<0.003	<0.004	<0.004
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	1.29	2.60	1.10	2.23
Chloride	mg/L	2.9	2.8	3.3	3.1
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.15	0.16	0.27	0.24
Iron	mg/L	0.012	0.008	0.018	0.022
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.451	0.552	0.425	0.528
Manganese	mg/L	<0.007	<0.008	<0.007	<0.025
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	<0.004	<0.004	<0.004	<0.007
Potassium	mg/L	0.770	0.660	0.621	0.680
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	8.23	6.19	6.40	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	2.06	2.24	1.88	2.10
Total Phosphate	mg/L	0.080	0.010	0.110	0.130
Zinc	mg/L	0.021	0.025	0.013	0.081
NO ₃ (as N)	mg/L	0.13	0.11	0.80	0.67
SO ₄	mg/L	3.0	3.0	5.0	5.0
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	<1.00
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	13.0	13.0	13.0	13.0
Nonvol. Beta	pCi/L	2.0	2.0	2.0	2.0
Total Radium	pCi/L	1.0	1.0	1.0	1.0
Tritium	pCi/mL	2.19	1.31	1.90	1.80

TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER

Well: HSB 830, H-Area Seepage Basin

PARAMETER	UNITS	METERS (MSL)			
		01/26/87	04/08/87	07/13/87	10/03/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	70	69.9	69.7	69.6
pH	5.2	5.3	5.0	4.9	
Conductivity	umhos/cm	105	238	114	940
TDS	mg/L	82	168	98	824
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.031	0.043	0.047	0.147
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	2.61	3.38	2.90	2.80
Chloride	mg/L	2.9	3.7	2.7	5.6
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	0.10	0.16	0.32
Iron	mg/L	0.012	0.042	0.009	0.078
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	1.51	1.70	1.48	1.70
Manganese	mg/L	0.041	0.041	0.122	0.10
Mercury	mg/L	0.0002	0.0004	0.0003	0.0082
Nickel	mg/L	0.005	0.004	0.004	0.006
Potassium	mg/L	0.665	0.570	1.16	0.827
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	3.11	3.03	3.70	-
Silver	mg/L	0.0040	<0.0020	<0.0020	<0.0020
Sodium	mg/L	14.2	30.9	27.8	200
Total Phosphate	mg/L	0.030	0.020	0.020	0.210
Zinc	mg/L	0.011	0.015	0.010	0.034
NO ₃ (as N)	mg/L	8.20	23.6	23.2	118
SO ₄	mg/L	3.0	4.0	50.5	<5.0
Phenols	mg/L	<0.002	<0.002	0.002	<0.002
Tot. Org. Carbon	mg/L	2.80	<1.000	1.40	1.70
Tot. Org. Halogen	mg/L	0.003	<0.003	0.003	0.011
Carbon Tet.	mg/L	-	-	-0.005	-
Chloroform	mg/L	-	-	-0.009	-
Tetrachloroethene	mg/L	-	-	<0.005	-
Trichloroethene	mg/L	-	-	<0.005	-
1,1,1-TCE	mg/L	-	-	<0.003	-
Gross Alpha	pCi/L	2.8	2.4	2.4	6.4
Netvol. Beta	pCi/L	18.3	23.7	32.5	35.9
Total Radium	pCi/L	<1.0	<1.0	2.2	20.4
Tritium	pCi/mL	1380	4220	3260	25100

Well: HSB 840, H-Area Seepage Basin

PARAMETER	UNITS	METERS (MSL)			
		01/26/87	04/08/87	07/13/87	10/03/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	64	64.9	65.1	64.9
pH	5.2	5.3	5.0	4.9	
Conductivity	umhos/cm	105	238	114	940
TDS	mg/L	82	168	98	824
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.040	0.043	0.048	0.068
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	2.61	3.38	2.90	2.80
Chloride	mg/L	2.9	3.7	2.7	5.6
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	0.10	0.16	0.32
Iron	mg/L	0.012	0.042	0.009	0.078
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	1.51	1.70	1.48	1.70
Manganese	mg/L	0.041	0.041	0.122	0.10
Mercury	mg/L	0.0002	0.0004	0.0003	0.0082
Nickel	mg/L	0.005	0.004	0.004	0.006
Potassium	mg/L	0.665	0.570	1.16	0.827
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	3.11	3.03	3.70	-
Silver	mg/L	0.0040	<0.0020	<0.0020	<0.0020
Sodium	mg/L	13.5	31.5	9.1	5.31
Total Phosphate	mg/L	0.160	0.100	0.130	0.210
Zinc	mg/L	0.006	0.003	0.007	<0.002
NO ₃ (as N)	mg/L	3.91	2.02	1.33	1.14
SO ₄	mg/L	3.0	3.0	3.0	3.0
Phenols	mg/L	<0.002	<0.002	<0.002	<0.005
Tot. Org. Carbon	mg/L	3.50	<1.000	1.40	1.30
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	5.2	<3.0	3.0	3.0
Netvol. Beta	pCi/L	38.0	8.3	6.9	7.4
Total Radium	pCi/L	1.7	<1.0	<1.0	<1.0
Tritium	pCi/mL	1800	740	268	208

Well: HSB 840, H-Area Seepage Basin

PARAMETER	UNITS	METERS (MSL)			
		01/26/87	04/08/87	07/13/87	10/03/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	64	64.4	64.1	64.9
pH	5.2	5.3	5.1	5.4	
Conductivity	umhos/cm	100	120	114	120
TDS	mg/L	56	68	104	60
Arsenic	mg/L	0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.025	0.023	0.014	0.009
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	3.11	12.7	11.6	26.5
Chloride	mg/L	3.1	3.1	4.4	3.5
Chromium	mg/L	0.015	0.005	0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	0.13	0.19	0.25
Iron	mg/L	0.018	0.026	0.060	0.189
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.470	0.473	0.300	0.502
Manganese	mg/L	<0.002	<0.002	<0.002	0.007
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	6.24	5.00	5.03	4.05
Selenium	mg/L	0.002	<0.002	<0.002	<0.002
Silica	mg/L	4.01	4.52	4.10	-
Silver	mg/L	0.0030	<0.0020	<0.0020	<0.0020
Sodium	mg/L	13.13	5.76	5.13	4.28
Total Phosphate	mg/L	0.040	0.080	0.080	0.100
Zinc	mg/L	0.004	0.004	0.009	0.110
NO ₃ (as N)	mg/L	1.03	0.93	1.45	1.38
SO ₄	mg/L	3.0	<3.0	<3.0	<3.0
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	<0.005	<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	2.3	<3.0	<3.0	1.3
Netvol. Beta	pCi/L	15.9	5.2	11.4	5.2
Total Radium	pCi/L	1.0	<1.0	<1.0	<1.0
Tritium	pCi/mL	262	248	248	254

TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER

Well: HSB 84D, H-Area Seepage Basin

SRP Grid N 71583.9
Coordinates E 56349.9
Latitude 33.276031°N
Longitude 81.65741°W

Parameter	Units	01/01/87	04/08/87	07/13/87	10/03/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	67.6	67.8	67.6	67
pH	pH	5.3	4.3	4.3	4.0
Conductivity	umhos/cm	180	162	136	160
TDS	mg/L	100	84	4	100
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.038	0.028	0.021	0.024
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	2.61	2.22	1.80	5.82
Chloride	mg/L	3.9	4.1	4.3	3.1
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	0.20	0.12	0.23
Iron	mg/L	0.005	0.047	0.079	0.075
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	1.21	0.958	0.892	0.901
Manganese	mg/L	0.180	0.107	0.058	0.122
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	<0.004	<0.004	0.008	0.005
Potassium	mg/L	1.04	0.680	0.630	0.581
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	6.11	6.05	5.24	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	23.3	16.9	13.4	15.0
Total Phosphate	mg/L	0.020	0.020	<0.020	0.070
Zinc	mg/L	0.029	0.019	0.012	0.172
NO ₃ (as N)	mg/L	20.3	15.2	12.8	15.6
SO ₄	mg/L	3.0	3.0	45.0	5.0
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	3.00	1.000	<1.000	<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	16.1	7.8	3.2	4.0
Nonvol. Beta	pCi/L	1030	684	135	721
Total Radium	pCi/L	12.1	6.7	5.0	7.0
Tritium	pCi/mL	8500	5530	8410	9350

Well: HSB 85B, H-Area Seepage Basin

Parameter	Units	01/08/87	04/13/87	07/09/87	10/14/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	11.2	11.7	12.1	11.7
pH	pH	11.4	8.4	8.9	8.8
Conductivity	umhos/cm	1400	195	177	190
TDS	mg/L	64	274	46	238
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.184	0.038	0.032	0.026
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	96.5	19.4	21.0	22.7
Chloride	mg/L	2.0	2.0	2.1	1.4
Chromium	mg/L	0.005	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.35	0.31	0.14	0.43
Iron	mg/L	0.010	0.024	0.066	0.016
Lead	mg/L	0.011	<0.006	<0.006	<0.006
Magnesium	mg/L	0.038	1.04	0.831	0.791
Manganese	mg/L	<0.002	<0.002	<0.002	<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	15.8	2.90	6.19	2.99
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	6.78	4.06	7.62	-
Silver	mg/L	0.0040	<0.0020	<0.0020	<0.0020
Sodium	mg/L	28.2	9.25	3.48	9.12
Total Phosphate	mg/L	0.138	<0.010	0.120	0.140
Zinc	mg/L	0.002	0.002	0.003	<0.002
NO ₃ (as N)	mg/L	0.10	0.36	0.65	0.60
SO ₄	mg/L	10.0	<3.0	3.7	5.0
Phenols	mg/L	<0.002	<0.002	0.005	<0.005
Tot. Org. Carbon	mg/L	1.00	<1.000	1.20	1.50
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	3.3	<3.0	3.0	3.2
Nonvol. Beta	pCi/L	17.8	24.2	4.2	11.3
Total Radium	pCi/L	1.0	0.7	3.2	1.3
Tritium	pCi/mL	-	5.89	0.70	0.70

Well: HSB 85A, H-Area Seepage Basin

SRP Grid N 71791.9
Coordinates E 56943.4
Latitude 33.285152°N
Longitude 81.654929°W

Parameter	Units	01/07/87	04/12/87	07/08/87	10/04/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	51.2	51.3	51	51
pH	pH	6.7	6.9	6	6.7
Conductivity	umhos/cm	200	195	206	203
TDS	mg/L	130	130	92	106
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.035	0.038	0.038	0.033
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	37.1	31.9	32.5	36.1
Chloride	mg/L	2.5	2.8	3.0	2.6
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.15	0.14	0.22	0.26
Iron	mg/L	0.012	0.006	0.018	0.041
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.810	0.792	0.756	0.775
Manganese	mg/L	<0.002	<0.002	<0.002	<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	2.29	2.10	1.75	1.61
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	13.6	13.0	12.3	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	23.32	2.38	2.36	1.95
Total Phosphate	mg/L	0.118	0.020	0.130	0.110
Zinc	mg/L	0.010	0.010	0.005	0.046
NO ₃ (as N)	mg/L	0.05	<0.05	0.56	0.57
SO ₄	mg/L	12.5	5.0	7.2	5.0
Phenols	mg/L	0.005	<0.002	0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	900	1.30	1.70
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	<3.0	(3.0)	1.7
Nonvol. Beta	pCi/L	8	22.0	<2.0	<2.0
Total Radium	pCi/L	<1.0	<1.0	<1.0	<1.0
Tritium	pCi/mL	-	0.70	<0.70	<0.70

Well: HSB 85C, H-Area Seepage Basin

Parameter	Units	01/07/87	04/12/87	07/08/87	10/04/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	72.5	73.2	74	73.6
pH	pH	4.5	4.8	5.0	4.8
Conductivity	umhos/cm	36	27	28	30
TDS	mg/L	28	18	15	23
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.004	0.005	0.003	0.006
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	0.639	1.04	0.351	0.660
Chloride	mg/L	2.0	2.3	2.5	2.1
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.18	<0.10	<0.10	0.16
Iron	mg/L	0.027	0.012	0.017	0.017
Lead	mg/L	<0.006	0.008	0.006	<0.006
Magnesium	mg/L	0.096	0.147	0.090	0.103
Manganese	mg/L	0.003	0.005	0.004	0.004
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	0.186	0.140	1.00	<0.500
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	2.78	2.97	2.80	-
Silver	mg/L	0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	2.60	2.88	3.11	2.69
Total Phosphate	mg/L	0.027	<0.020	0.110	0.070
Zinc	mg/L	0.014	0.006	0.008	<0.002
NO ₃ (as N)	mg/L	1.40	1.24	1.70	1.73
SO ₄	mg/L	<3.0	<3.0	8.0	<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	<0.005	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	<3.0	<3.0	1.5
Nonvol. Beta	pCi/L	1.1	<2.0	<2.0	<2.0
Total Radium	pCi/L	1.0	<1.0	<1.0	0.7
Tritium	pCi/mL	-	<0.70	<0.70	1.00

TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER

Well: HSB 86A, H-Area Seepage Basin

SRP Grid N 72520.2
Coordinates E 55985.9
Latitude 33.277514°N
Longitude 81.660247°W

Parameter	Units	01/24/87	04/12/87	07/12/87	10/03/87
Screen Zone Elevation	meters (MSL)	22.5-19.2			
Top of Casing Elevation	meters (MSL)	79.98			
Casing Material	PVC				

Parameter	Units	01/24/87	04/12/87	07/12/87	10/03/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	51.2	50.9	51.2	50.8
pH		6.5	6.6	6.5	6.2
Conductivity	umhos/cm	160	140	138	150
TDS	mg/L	90	104	150	42
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.024	0.023	0.024	0.021
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	22.6	20.8	20.2	27.9
Chloride	mg/L	3.3	3.1	3.6	2.6
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	0.14	0.34	0.27
Iron	mg/L	0.024	0.010	0.017	0.019
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.707	0.701	0.696	0.687
Manganese	mg/L	<0.002	<0.003	<0.002	<0.007
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	1.41	1.30	1.36	0.991
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	12.3	12.6	12.3	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	2.21	2.01	2.19	1.72
Total Phosphate	mg/L	0.250	0.070	0.220	0.270
Zinc	mg/L	0.008	0.007	0.006	0.018
NO ₃ (as N)	mg/L	<0.05	3.10	0.58	0.37
SO ₄	mg/L	17.0	10.0	10.3	5.0
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	1.000	1.000	1.000	2.90
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	<3.0	<3.0	2.0
Nonvol. Beta	pCi/L	<2.0	<2.0	<2.0	<2.0
Total Radium	pCi/L	<1.0	<1.0	<1.0	0.6
Tritium	pCi/mL	8.94	10.4	10.7	9.60

Well: HSB 86C, H-Area Seepage Basin

Parameter	Units	01/24/87	04/12/87	07/12/87	10/03/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	-0.3	70.9	70.1	68.9
pH		4.6	4.8	4.7	4.3
Conductivity	umhos/cm	440	440	533	540
TDS	mg/L	194	208	258	248
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.018	0.022	0.025	0.020
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.004	0.005	0.006	0.005
Calcium	mg/L	2.39	3.02	3.30	3.80
Chloride	mg/L	3.1	3.7	3.5	2.5
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	0.17	0.11	0.17
Iron	mg/L	0.019	0.019	0.013	0.020
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	1.04	1.28	1.60	1.45
Manganese	mg/L	1.05	1.57	1.65	1.60
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	0.029	0.043	0.050	0.044
Potassium	mg/L	4.26	4.40	5.47	4.67
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	2.80	2.90	2.97	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	51.3	39.9	68.2	79.3
Total Phosphate	mg/L	0.020	<0.010	0.200	0.050
Zinc	mg/L	0.017	0.016	0.022	0.028
NO ₃ (as N)	mg/L	4.6	51.2	57.0	59.7
SO ₄	mg/L	26.1	5.3	5.0	5.0
Phenols	mg/L	<0.002	<0.002	<0.005	<0.005
Tot. Org. Carbon	mg/L	3.40	<1.000	61.000	<1.000
Tot. Org. Halogen	mg/L	0.006	<0.001	0.014	<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	21.7	6.9	7.5	4.4
Nonvol. Beta	pCi/L	79.5	137	126	170
Total Radium	pCi/L	3.7	11.4	5.9	4.2
Tritium	pCi/mL	18400	23300	29700	30200

Well: HSB 86B, H-Area Seepage Basin

Parameter	Units	01/24/87	04/12/87	07/12/87	10/03/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	70.4	70.9	70.2	69.6
pH		4.0	3.9	3.7	3.9
Conductivity	umhos/cm	510	480	469	395
TDS	mg/L	308	286	182	170
Arsenic	mg/L	<0.002	<0.001	<0.002	0.002
Barium	mg/L	0.049	0.067	0.074	0.065
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	2.30	4.52	7.34	9.00
Chloride	mg/L	3.1	3.7	3.5	2.1
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	0.28	0.31	0.35
Iron	mg/L	0.030	0.224	0.053	0.075
Lead	mg/L	0.018	0.010	0.012	0.006
Magnesium	mg/L	0.680	0.908	1.09	1.16
Manganese	mg/L	0.302	0.416	0.341	0.450
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	0.010	0.016	0.020	0.021
Potassium	mg/L	2.50	2.70	2.64	2.36
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	13.0	13.8	14.8	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	61.3	48.9	28.9	19.3
Total Phosphate	mg/L	0.030	<0.020	0.050	0.060
Zinc	mg/L	0.032	0.084	0.119	0.175
NO ₃ (as N)	mg/L	55.4	57.5	46.0	36.7
SO ₄	mg/L	12.0	5.6	5.0	5.0
Phenols	mg/L	<0.002	<0.002	<0.005	0.006
Tot. Org. Carbon	mg/L	4.69	<1.000	1.00	1.30
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	475	89.6	60.8	45.2
Nonvol. Beta	pCi/L	4700	6780	4040	6250
Total Radium	pCi/L	19.6	33.2	43.7	43.0
Tritium	pCi/mL	89600	33200	26900	23000

TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER

Other Analyses (mg/L)			
(GCMS Scan Analytes: Table 4-25, Vol. II)			
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 80A 07/13/87	Aluminum	0.065	
HSB 80B 07/13/87	Aluminum	0.069	
HSB 80C 07/13/87	Aluminum	0.099	
HSB 80D 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			
SRP Grid	N 71745.0	Coordinates E 62067.0	meters (MSL)
Latitude	33.285720°N	Screen Zone Elevation	78.3-72.2
Longitude	81.642728°W	Top of Casing Elevation	85.95
		Casing Material	Steel
Parameter	Unit	01/23/87	04/27/87
Sampling Method	Bail	Bail	Bail
Water Elevation	meters	80.8	82.2
pH	pH	6.9	6.9
Conductivity	umhos/cm	247	255
Sodium	mg/L	-	305
NO ₃ (as N)	mg/L	-	7.33
		-	5.96
		-	0.66
		-	0.34

Well: HTF 2, H-Area Tank Farm			
SRP Grid	N 71810.0	Coordinates E 62175.0	meters (MSL)
Latitude	33.285598°N	Screen Zone Elevation	78.3-72.2
Longitude	81.642181°W	Top of Casing Elevation	85.89
		Casing Material	Steel
Parameter	Units	01/23/87	04/27/87
Sampling Method	Bail	Bail	Bail
Water Elevation	meters	81	82.7
pH	pH	7.1	6.1
Conductivity	umhos/cm	156	173
Sodium	mg/L	-	210
NO ₃ (as N)	mg/L	-	178
		-	6.5
		-	4.56
		-	0.33

Well: HTF 3, H-Area Tank Farm			
SRP Grid	N 71510.0	Coordinates E 62067.0	meters (MSL)
Latitude	33.285200°N	Screen Zone Elevation	-
Longitude	81.642271°W	Top of Casing Elevation	85.55
		Casing Material	Steel
Parameter	Units	01/23/87	04/27/87
Sampling Method	Bail	Bail	Bail
Water Elevation	meters	80.9	82.7
pH	pH	6.6	7.0
Conductivity	umhos/cm	188	177
Sodium	mg/L	-	5.86
NO ₃ (as N)	mg/L	-	4.78
		-	0.63
		-	0.34

Well: HTF 4, H-Area Tank Farm			
SRP Grid	N 71630.0	Coordinates E 61942.0	meters (MSL)
Latitude	33.285262°N	Screen Zone Elevation	77.8-71.7
Longitude	81.642834°W	Top of Casing Elevation	86.22
		Casing Material	Steel
Parameter	Units	01/23/87	04/27/87
Sampling Method	Bail	Bail	Bail
Water Elevation	meters	80.4	82.3
pH	pH	6.1	6.4
Conductivity	umhos/cm	136	161
Sodium	mg/L	-	183
NO ₃ (as N)	mg/L	-	130
		-	6.8
		-	2.62
		-	0.30

Well: HTF 5, H-Area Tank Farm			
SRP Grid	N 71390.0	Coordinates E 62110.0	meters (MSL)
Latitude	33.285005°N	Screen Zone Elevation	86.7-80.6
Longitude	81.641925°W	Top of Casing Elevation	93.20
		Casing Material	Steel
Parameter	Units	01/23/87	04/27/87
Sampling Method	Bail	Bail	Bail
Water Elevation	meters	84.4	84.4
pH	pH	5.4	6.9
Conductivity	umhos/cm	49	45
Sodium	mg/L	-	4.50
NO ₃ (as N)	mg/L	-	2.74
		-	2.13
		-	2.01

Well: HTF 6, H-Area Tank Farm			
SRP Grid	N 71259.0	Coordinates E 62228.0	meters (MSL)
Latitude	33.284908°N	Screen Zone Elevation	86.4-80.3
Longitude	81.541360°W	Top of Casing Elevation	93.08
		Casing Material	Steel
Parameter	Units	01/23/87	04/27/87
Sampling Method	Bail	Bail	Bail
Water Elevation	meters	84	83.8
pH	pH	5.8	5.4
Conductivity	umhos/cm	45	46
Sodium	mg/L	-	4.93
NO ₃ (as N)	mg/L	-	3.22
		-	1.90
		-	1.60

TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER

Well: HTF 7, H-Area Tank Farm

Parameter	Units	03/30/87	04/27/87	07/28/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	82.5	83.1	84	84.4	
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 8, H-Area Tank Farm

Parameter	Units	03/30/87	04/27/87	07/28/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	82	82.6	84.1	84	
pH	5.2	6.5	4.3	4.5		
Conductivity	umhos/cm	50	24	34	35	
Sodium	mg/L	-	-	4.60	2.71	
NO ₃ (as N)	mg/L	-	-	2.04	1.76	

Well: HTF 9, H-Area Tank Farm

Parameter	Units	01/27/87	02/27/87	07/28/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	79.7	82	83.5	83.2	
pH	6.3	6.6	6.2	6.4		
Conductivity	umhos/cm	70	93	30	52	
Sodium	mg/L	-	-	4.42	3.99	
NO ₃ (as N)	mg/L	-	-	0.52	0.38	

Well: HTF 10, H-Area Tank Farm

Parameter	Units	01/26/87	04/27/87	07/30/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	79.4	81.7	83.2	83.1	
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 11, H-Area Tank Farm

Parameter	Units	01/26/87	04/27/87	07/30/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	78.7	81.8	83.2	83.2	
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 12, H-Area Tank Farm

Parameter	Units	01/26/87	04/27/87	07/28/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	78.7	81.7	83	83.2	
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 13, H-Area Tank Farm

Parameter	Units	03/30/87	04/27/87	07/30/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	81.7	82.1	83.3	83.4	
pH	6.6	6.8	5.9	5.8		
Conductivity	umhos/cm	50	69	40	30	
Sodium	mg/L	-	-	-	6.10	3.60
NO ₃ (as N)	mg/L	-	-	-	0.95	0.82

Well: HTF 14, H-Area Tank Farm

Parameter	Units	03/30/87	06/21/87	07/28/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	-	82.4	82.1	83.2	
pH	-	-	6.4	5.3	5.9	
Conductivity	umhos/cm	-	62	58	50	
Sodium	mg/L	-	-	-	7.98	8.34
NO ₃ (as N)	mg/L	-	-	-	3.56	1.80

Well: HTF 15, H-Area Tank Farm

Parameter	Units	03/30/87	04/21/87	07/30/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	81.8	82.3	83.1	83.2	
pH	5.0	4.8	4.2	4.9		
Conductivity	umhos/cm	54	52	49	50	
Sodium	mg/L	-	-	-	3.40	
NO ₃ (as N)	mg/L	-	-	-	4.82	

Well: HTF 16, H-Area Tank Farm

Parameter	Units	02/23/87	04/27/87	08/24/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	80.9	81.7	82.1	82.2	
pH	5.5	6.4	4.4	5.1		
Conductivity	umhos/cm	44	55	48	46	
Sodium	mg/L	-	-	-	3.40	
NO ₃ (as N)	mg/L	-	-	-	4.82	

Well: HTF 17, H-Area Tank Farm

Parameter	Units	01/23/87	04/27/87	07/30/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	77.4	80.5	80.5	80.2	
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 18, H-Area Tank Farm

Parameter	Units	01/26/87	04/27/87	07/30/87	10/26/87	meters (MSL)
Sampling Method	Bail	Bail	Bail	Bail		
Water Elevation	meters	80.6	81	82.7	83.4	
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 19, H-Area Tank Farm

SRP Grid	N 71902.5	Screen Zone Elevation	81.0-74.9	meters (MSL)
Coordinates E	61079.2	Top of Casing Elevation	98.99	
Latitude	33.284457°N	Casing Material	PVC	
Longitude	81.645635°W			

Parameter	Units	01/26/87	04/27/87	07/30/87	10/26/87
Sampling Method	Bail	Bail	Bail	Bail	
Water Elevation	meters	81.3	82	82	82.1
pH	pH	4.8	5.0	5.6	4.7
Conductivity	umhos/cm	51	36	29	38
Sodium	mg/L	-	-	4.63	3.03
NO ₃ (as N)	mg/L	-	-	0.97	0.74

Well: HTP 20, H-Area Tank Farm

SRP Grid	N 72073.3	Screen Zone Elevation	82.9-76.8	meters (MSL)
Coordinates E	61086.4	Top of Casing Elevation	99.02	
Latitude	33.284847°N	Casing Material	PVC	
Longitude	81.645948°W			

Parameter	Units	01/26/87	04/27/87	07/30/87	10/26/87
Sampling Method	Bail	Bail	Bail	Bail	
Water Elevation	meters	81	81.7	81.9	81.5
pH	pH	4.6	5.3	5.1	4.6
Conductivity	umhos/cm	56	48	48	50
Sodium	mg/L	-	-	5.56	4.89
NO ₃ (as N)	mg/L	-	-	3.30	3.15

Well: HTP 21, H-Area Tank Farm

SRP Grid	N 71982.7	Screen Zone Elevation	80.0-73.9	meters (MSL)
Coordinates E	61261.0	Top of Casing Elevation	98.96	
Latitude	33.284957°N	Casing Material	PVC	
Longitude	81.645342°W			

Parameter	Units	01/26/87	04/27/87	07/30/87	10/26/87
Sampling Method	Bail	Bail	Bail	Bail	
Water Elevation	meters	80.6	81.7	82.2	82.2
pH	pH	4.6	5.3	5.8	4.5
Conductivity	umhos/cm	63	51	40	1365
Sodium	mg/L	-	-	6.63	4.17
NO ₃ (as N)	mg/L	-	-	1.20	1.59

Well: HTP 22, H-Area Tank Farm

SRP Grid	N 71363.4	Screen Zone Elevation	82.7-76.6	meters (MSL)
Coordinates E	61553.6	Top of Casing Elevation	101.65	
Latitude	33.285670°N	Casing Material	PVC	
Longitude	81.640705°W			

Parameter	Units	01/27/87	04/27/87	07/30/87	10/26/87
Sampling Method	Bail	Bail	Bail	Bail	
Water Elevation	meters	81.8	83.3	83.7	83.8
pH	pH	6.5	7.2	7.4	6.6
Conductivity	umhos/cm	173	248	101	121
Sodium	mg/L	-	-	10.1	7.20
NO ₃ (as N)	mg/L	-	-	15.0	0.79

Well: HTP 23, H-Area Tank Farm

SRP Grid	N 71363.1	Screen Zone Elevation	84.4-78.3	meters (MSL)
Coordinates E	62070.3	Top of Casing Elevation	101.80	
Latitude	33.285859°N	Casing Material	PVC	
Longitude	81.640397°W			

Parameter	Units	01/30/87	04/22/87	07/30/87	10/26/87
Sampling Method	Bail	Bail	Bail	Bail	
Water Elevation	meters	83.1	83.5	83.6	83.6
pH	pH	8.0	7.4	6.7	6.7
Conductivity	umhos/cm	132	122	162	104
Sodium	mg/L	-	-	6.53	4.79
NO ₃ (as N)	mg/L	-	-	1.93	1.80

Well: HTP 24, H-Area Tank Farm

SRP Grid	N 71362.6	Screen Zone Elevation	84.7-78.6	meters (MSL)
Coordinates E	62775.6	Top of Casing Elevation	101.77	
Latitude	33.286030°N	Casing Material	PVC	
Longitude	81.640119°W			

Parameter	Units	01/30/87	04/27/87	07/30/87	10/26/87
Sampling Method	Bail	Bail	Bail	Bail	
Water Elevation	meters	82.9	86.2	83.5	83.5
pH	pH	5.7	6.3	5.4	5.2
Conductivity	umhos/cm	42	40	54	43
Sodium	mg/L	-	-	6.29	2.15
NO ₃ (as N)	mg/L	-	-	3.30	3.40

Well: HTP 25, H-Area Tank Farm

SRP Grid	N 71274.3	Screen Zone Elevation	83.1-77.0	meters (MSL)
Coordinates E	62902.0	Top of Casing Elevation	101.89	
Latitude	33.285930°N	Casing Material	PVC	
Longitude	81.639517°W			

Parameter	Units	01/27/87	04/27/87	07/30/87	10/26/87
Sampling Method	Bail	Bail	Bail	Bail	
Water Elevation	meters	82.1	86.3	83.5	83.4
pH	pH	5.9	6.4	5.4	5.6
Conductivity	umhos/cm	54	51	33	34
Sodium	mg/L	-	-	3.22	2.35
NO ₃ (as N)	mg/L	-	-	0.99	1.20

Well: HTP 26, H-Area Tank Farm

SRP Grid	N 71090.7	Screen Zone Elevation	84.0-77.9	meters (MSL)
Coordinates E	62815.7	Top of Casing Elevation	102.26	
Latitude	33.285494°N	Casing Material	PVC	
Longitude	81.639485°W			

Parameter	Units	01/27/87	04/27/87	07/30/87	10/26/87
Sampling Method	Bail	Bail	Bail	Bail	
Water Elevation	meters	82.3	83.2	83.6	83.6
pH	pH	6.2	6.2	5.1	5.1
Conductivity	umhos/cm	131	60	75	73
Sodium	mg/L	-	-	3.81	2.54
NO ₃ (as N)	mg/L	-	-	3.51	3.88

Well: HTP 27, H-Area Tank Farm

SRP Grid	N 71057.9	Screen Zone Elevation	85.1-79.0	meters (MSL)
Coordinates E	62660.3	Top of Casing Elevation	101.53	
Latitude	33.285168°N	Casing Material	PVC	
Longitude	81.639831°W			

Parameter	Units	01/27/87	04/27/87	07/30/87	10/26/87
Sampling Method	Bail	Bail	Bail	Bail	
Water Elevation	meters	82.1	83.3	-	83.8
pH	pH	4.7	5.1	2.4	4.3
Conductivity	umhos/cm	39	30	61	31
Sodium	mg/L	-	-	3.92	2.82
NO ₃ (as N)	mg/L	-	-	1.84	1.58

Well: HTP 28, H-Area Tank Farm

SRP Grid	N 71229.9	Screen Zone Elevation	88.4-79.2	meters (MSL)
Coordinates E	62414.9	Top of Casing Elevation	101.65	
Latitude	33.285148°N	Casing Material	PVC	
Longitude	81.640811°W			

Parameter	Units	01/27/87	04/27/87	07/30/87	10/26/87
Sampling Method	Bail	Bail	Bail	Bail	
Water Elevation	meters	83.7	83.2	84	83.8
pH	pH	5.7	6.2	5.8	6.0
Conductivity	umhos/cm	45	49	138	38
Sodium	mg/L	-	-	8.58	6.30
NO ₃ (as N)	mg/L	-	-	-	2.88

Well: HTP 31, H-Area Tank Farm

SRP Grid	N 70747.0	Screen Zone Elevation	81.3-75.2	meters (MSL)
Coordinates E	62662.5	Top of Casing Elevation	99.88	
Latitude	33.284484°N	Casing Material	PVC	
Longitude	81.639221°W			

Parameter	Units	01/26/87	04/27/87	07/30/87	10/26/87
Sampling Method	Bail	Bail	Bail	Bail	
Water Elevation	meters	82.3	83.3	83.9	84
pH	pH	4.9	6.0	4.7	4.9
Conductivity	umhos/cm	104	71	42	43
Sodium	mg/L	-	-	9.75	5.20
NO ₃ (as N)	mg/L	-	-	2.91	4.80

TABLE 4-5
CHEMICAL CONCENTRATIONS IN H-AREA GROUNDWATER

Well: HTP 32, H-Area Tank Farm

SRP Grid	N 70880.6	Screen Zone Elevation	meters (MSL)		
Coordinates	E 62807.9	Top of Casing Elevation	82.6-76.5		
Latitude	33.285016°N	Casing Material	PVC		
Longitude	81.639098°W				
Parameter	Units	01/26/87	04/27/87	07/30/87	10/26/87
Sampling Method		Bail	Bail	Bail	Bail
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	Screen Zone Elevation	meters (MSL)		
Coordinates	E 61978.5	Top of Casing Elevation	82.6-76.7		
Latitude	33.284246°N	Casing Material	PVC		
Longitude	81.641794°W				
Parameter	Units	01/23/87	04/27/87	07/28/87	10/26/87
Sampling Method		Bail	Bail	Bail	Bail
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: SBG 1, S-Area Background Wells

Parameter	Units	01/20/87	04/30/87	07/29/87	10/05/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	72.4	73	73	72.8	
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	3.83	-	-	-	
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	33.0	-	-	-	
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: SBG 3, S-Area Background Wells

Parameter	Units	01/20/87	04/30/87	07/29/87	10/05/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	72.3	72.8	72.9	73.1	
pH	4.0	4.8	5.0	5.1		
Conductivity	umhos/cm	30	21	22	20	
TDS	mg/L	34	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	0.003	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	-	-	
Calcium	mg/L	0.629	-	-	-	
Chloride	mg/L	2.3	-	-	-	
Chromium	mg/L	<0.004	-	-	-	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	<0.10	-	-	-	
Iron	mg/L	0.013	-	-	-	
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	0.399	-	-	-	
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	33.0	-	-	-	
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	-	16.4	-	

Well: SBG 2, S-Area Background Wells

Parameter	Units	01/20/87	04/30/87	07/29/87	10/05/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	72.3	72.8	72.9	73.1	
pH	4.0	4.8	5.0	5.1		
Conductivity	umhos/cm	30	21	22	20	
TDS	mg/L	34	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	0.003	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	-	-	
Calcium	mg/L	0.629	-	-	-	
Chloride	mg/L	2.3	-	-	-	
Chromium	mg/L	<0.004	-	-	-	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	<0.10	-	-	-	
Iron	mg/L	0.013	-	-	-	
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	0.399	-	-	-	
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	33.0	-	-	-	
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	-	16.4	-	

Well: SBG 4, S-Area Background Wells

Parameter	Units	01/20/87	04/30/87	07/29/87	10/05/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	73.3	73.5	73.5	73.6	
pH	3.8	4.8	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	0.674	-	-	-	
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	<0.039	-	<0.039	-	
Carbon Tet.	mg/L	-	-	-	-	
Chloroform	mg/L	-	-	-	-	
Tetrachloroethene	mg/L	-	-	-	-	
Trichloroethene	mg/L	-	-	-	-	
1,1,1-TCE	mg/L	-	-	-	-	
Gross Alpha	pCi/L	3.2	-	-	-	
Nonvol. Beta	pCi/L	10.4	-	-	-	
Total Radium	pCi/L	<1.0	-	-	-	
Tritium	pCi/mL	9.67	-	10.7	-	

TABLE 4-6
CHEMICAL CONCENTRATIONS IN S-AREA GROUNDWATER

Well: SBG 5, S-Area Background Wells

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

meters (MSL)

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	91	75	63	58
TDS	mg/L	54	58	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	0.836
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 ₂ (as N)	mg/L	0.68	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	<0.001	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	<0.0	<0.0	<0.0	-
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

Other Analyses (mg/L)

(GCMS Scan Analytes: Table 4-25, Vol. II)

SBG 4 07/29/87

GCMS Scan detected the following:
trans-1,2-Dichloroethene 0.017

Well: SBG 6, S-Area Background Wells

SRP Grid N 73599.3
Coordinates E 63860.0
Latitude 33.292747°N
Longitude 81.641607°W

meters (MSL)

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	12	-	-	-
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	0.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.006	-	-	-
Lead	mg/L	0.024	-	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 ₂ (as N)	mg/L	1.75	-	-	-
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.40	-
Tot. Org. Halogen	mg/L	<0.003	-	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	<0.0	-	-	-
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: ZBG 1, Z-Area Background Wells

Parameter	Units	meters (MSL)		
		06/01/87	08/27/87	12/14/87
Sampling Method		Pump	Pump	Pump
Water Elevation	meters	71.8	71.9	71.6
pH		6.4	6.5	6.3
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	0.517	0.441
Manganese	mg/L	0.030	0.019	0.013
Mercury	mg/L	<0.002	<0.002	<0.002
Nickel	mg/L	-	-	-
Potassium	mg/L	0.650	0.500	0.500
Selenium	mg/L	<0.002	<0.002	<0.002
Silica	mg/L	3.93	3.13	-
Silver	mg/L	<0.020	<0.020	<0.020
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	1.8	<2.0	<2.0
Total Radium	pCi/L	<1.0	0.4	<1.0
Tritium	pCi/mL	13.7	14.4	16.3

Well: ZBG 2, Z-Area Background Wells

Parameter	Units	meters (MSL)		
		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	2.53	-
Silver	mg/L	<0.020	<0.020	<0.020
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: ZBG 1P, Z-Area Background Wells

Parameter	Units	meters (MSL)		
		06/22/87	08/29/87	12/14/87
Sampling Method		Bail	Bail	Bail
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. II)

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

TABLE 4-8
RADIOACTIVITY IN Z AND ZW WELLS GROUNDWATER

F and H Areas	No. of Samples	Maximum	Ct. Err.	Minimum	Ct. Err.	Average
			95% Cl.		95% Cl.	
<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>Seeage 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

Parameter	Units	03/15/87	04/28/87	08/10/87	10/11/87
Sampling Method		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	10	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	pCi/mL	8.42	-	-	-

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

Parameter	Units	03/15/87	04/28/87	08/10/87	10/11/87
Sampling Method		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	0.013	-	-	-
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 2, C-Area Coal Pile Runoff Containment Basin

Parameter	Units	03/15/87	04/28/87	08/10/87	10/11/87
Sampling Method		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	0.013	-	-	-
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

Parameter	Units	03/15/87	04/28/87	08/10/87	10/11/87
Sampling Method		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

Parameter	Units	meters (MSL)			
		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	pH	6.3	6.6	6.2	5.6
Conductivity	umhos/cm	120	120	89	98
TDS	mg/L	114	112	-	-
Arsenic	ng/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	0.140	-	-
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	11.3	-	-
Total Radium	pCi/L	2.7	1.7	2.0	-
Tritium	pCi/mL	305	-	218	-

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

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

CDB 2 03/18/87

Pest/Herb* Analysis detected the following:

None

Well: CDB 2, C-Area Disassembly Basin

Parameter	Units	meters (MSL)			
		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	pH	5.9	6.6	5.9	5.4
Conductivity	umhos/cm	115	95	82	92
TDS	mg/L	48	72	-	-
Arsenic	ng/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	-

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

Parameter	Units	meters (MSL)			
		03/15/87	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	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: CRP 2, C-Area Burning/Rubble Pit

Parameter	Units	meters (MSL)			
		03/15/87	04/28/87	08/10/87	11/10/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	61.9	63.2	63.2	63.1
pH	pH	5.0	5.1	5.1	5.8
Conductivity	umhos/cm	18	6	18	15
TDS	mg/L	14	-	-	-
Arsenic	ng/L	<0.002	-	-	-
Barium	mg/L	0.005	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.944	-	-	-
Chloride	mg/L	2.5	-	-	-
Chromium	mg/L	<0.004	-	0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.013	-	-	-
Lead	mg/L	0.008	-	0.012	-
Magnesium	mg/L	0.175	-	-	-
Manganese	mg/L	0.040	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.390	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.73	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.36	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.26	-	-	-
SO ₄	mg/L	12.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	1.000	1.000	<1.000
Tot. Org. Halogen	mg/L	0.018	0.007	0.009	0.018
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	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	0.6	-	-	-
Tritium	pCi/mL	167	-	-	-

Well: CRP 4, C-Area Burning/Rubble Pit

Parameter	Units	meters (MSL)			
		03/15/87	04/28/87	08/10/87	11/10/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	62.7	63.2	63.3	63.3
pH	pH	4.9	5.1	5.1	5.7
Conductivity	umhos/cm	20	21	21	19
TDS	mg/L	14	-	-	-
Arsenic	ng/L	<0.002	-	-	-
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.00	-	-	-
Chloride	mg/L	2.3	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.019	-	-	-
Lead	mg/L	<0.006	-	<0.006	-
Magnesium	mg/L	0.184	-	-	-
Manganese	mg/L	0.002	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.380	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	1.78	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.57	-	-	-
Total Phosphate	mg/L	0.050	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.64	-	-	-
SO ₄	mg/L	13.0	-	-	-
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	<0.005	<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	<0.006	-	<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	0.9	-	-	-
Tritium	pCi/mL	13.7	-	-	-

Well: CRP 3, C-Area Burning/Rubble Pit

Parameter	Units	meters (MSL)			
		03/15/87	04/28/87	08/10/87	11/10/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	-	-	-	-
pH	pH	11.9	11.4	11.8	11.5
Conductivity	umhos/cm	1800	490	1700	1660
TDS	mg/L	360	-	-	-
Arsenic	ng/L	0.002	-	-	-
Barium	mg/L	0.012	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	18	-	-	-
Chloride	mg/L	6.2	-	-	-
Chromium	mg/L	0.108	-	0.074	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.17	-	-	-
Iron	mg/L	0.008	-	-	-
Lead	mg/L	0.418	-	0.115	-
Magnesium	mg/L	0.074	-	-	-
Manganese	mg/L	<0.002	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	16.5	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	5.54	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	8.92	-	-	-
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.87	-	-	-
SO ₄	mg/L	35.0	-	-	-
Phenols	mg/L	0.021	-	-	-
Tot. Org. Carbon	mg/L	1.30	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	2.69	2.65	1.54	0.340
Carbon Tet.	mg/L	<0.001	-	<0.100	-
Chloroform	mg/L	<0.006	-	<0.100	-
Tetrachloroethene	mg/L	<0.001	-	<0.100	-
Trichloroethene	mg/L	3.20	-	3.00	-
1,1,1-TCE	mg/L	<0.001	-	<0.100	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	11.0	-	-	-
Total Radium	pCi/L	0.6	-	-	-
Tritium	pCi/mL	19.8	-	-	-

Well: CSB 1A, C-Area Reactor Seepage Basins

Parameter	Units	meters (MSL)			
		03/02/87	05/28/87	08/17/87	11/10/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	64	64.3	64.3	64.4
pH	pH	11.8	11.7	10.6	11.0
Conductivity	umhos/cm	1600	1600	535	636
TDS	mg/L	380	-	-	-
Arsenic	ng/L	<0.002	-	<0.002	-
Barium	mg/L	0.016	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	130	-	-	-
Chloride	mg/L	3.7	-	-	-
Chromium	mg/L	0.066	-	0.155	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.14	-	-	-
Iron	mg/L	0.033	-	0.028	-
Lead	mg/L	0.189	-	0.006	-
Magnesium	mg/L	0.023	-	-	-
Manganese	mg/L	<0.002	-	<0.002	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	7.95	-	-	-
Potassium	mg/L	9.95	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.11	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	6.78	-	-	-
Total Phosphate	mg/L	0.027	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.90	-	-	-
SO ₄	mg/L	10.0	-	-	-
Phenols	mg/L	0.070	-	-	-
Tot. Org. Carbon	mg/L	1.60	-	24.0	-
Tot. Org. Halogen	mg/L	0.027	-	0.039	-
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	0.002	-	0.033	-
1,1,1-TCE	mg/L	<0.001	-	<0.001	-
Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	5.4	-	-	-
Total Radium	pCi/L	<1.0	-	<1.0	-
Tritium	pCi/mL	36.3	-	62.8	-

TABLE 4-10
CHEMICAL CONCENTRATIONS IN C-AREA GROUNDWATER

Well: CSB 2A, C-Area Reactor Seepage Basins

SRP Grid N 67310.2
Coordinates E 44802.6
Latitude 33.247743°N
Longitude 81.679567°W

Parameter	Units	03/02/87	05/28/87	08/17/87	11/10/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	63.8	63.5	64.1	64.2	67.8-58.7
pH	pH	5.8	6.1	7.0	6.3	
Conductivity	umhos/cm	34	44	53	57	
TDS	mg/L	26	-	-	-	
Arsenic	mg/L	<0.002	-	<0.002	-	
Barium	mg/L	0.013	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	-	-	
Calcium	mg/L	4.37	-	-	-	
Chloride	mg/L	2.5	-	-	-	
Chromium	mg/L	<0.004	-	<0.004	-	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	<0.10	-	-	-	
Iron	mg/L	0.066	-	0.061	-	
Lead	mg/L	0.027	-	0.019	-	
Magnesium	mg/L	0.778	-	-	-	
Manganese	mg/L	0.021	-	0.035	-	
Mercury	mg/L	<0.0002	-	-	-	
Nickel	mg/L	-	-	-	-	
Potassium	mg/L	0.810	-	-	-	
Selenium	mg/L	<0.002	-	-	-	
Silica	mg/L	2.37	-	-	-	
Silver	mg/L	<0.0020	-	-	-	
Sodium	mg/L	1.41	-	-	-	
Total Phosphate	mg/L	0.032	-	-	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	0.48	-	-	-	
SO ₄	mg/L	<3.0	-	-	-	
Phenols	mg/L	<0.002	-	-	-	
Tot. Org. Carbon	mg/L	<1.000	-	1.10	-	
Tot. Org. Halogen	mg/L	0.008	-	0.006	-	
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	-	0.040	-	
1,1,1-TCE	mg/L	<0.001	-	<0.001	-	
Gross Alpha	pCi/L	1.8	-	-	-	
Nonvol. Beta	pCi/L	<2.0	-	-	-	
Total Radium	pCi/L	<1.0	-	1.0	-	
Tritium	pCi/mL	30.6	-	69.9	-	

Well: CSB 4A, C-Area Reactor Seepage Basins

Parameter	Units	01/13/87	05/28/87	08/17/87	11/10/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	63.4	63.8	64.2	64	66.4-57.3
pH	pH	5.8	6.4	5.0	6.7	
Conductivity	umhos/cm	84	58	47	51	
TDS	mg/L	50	-	-	-	
Arsenic	mg/L	<0.002	-	<0.002	-	
Barium	mg/L	0.019	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	-	-	
Calcium	mg/L	11.7	-	-	-	
Chloride	mg/L	2.9	-	-	-	
Chromium	mg/L	<0.004	-	<0.004	-	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	<0.10	-	-	-	
Iron	mg/L	0.006	-	0.100	-	
Lead	mg/L	<0.006	-	<0.006	-	
Magnesium	mg/L	1.15	-	-	-	
Manganese	mg/L	0.017	-	0.015	-	
Mercury	mg/L	<0.0002	-	-	-	
Nickel	mg/L	-	-	-	-	
Potassium	mg/L	0.840	-	-	-	
Selenium	mg/L	<0.002	-	-	-	
Silica	mg/L	3.90	-	-	-	
Silver	mg/L	<0.0020	-	-	-	
Sodium	mg/L	2.87	-	-	-	
Total Phosphate	mg/L	0.140	-	-	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	1.38	-	-	-	
SO ₄	mg/L	<3.0	-	-	-	
Phenols	mg/L	0.003	-	-	-	
Tot. Org. Carbon	mg/L	8.00	-	27.0	-	
Tot. Org. Halogen	mg/L	0.015	-	0.244	-	
Carbon Tet.	mg/L	<0.001	-	<0.002	-	
Chloroform	mg/L	<0.001	-	<0.002	-	
Tetrachloroethene	mg/L	<0.001	-	<0.002	-	
Trichloroethene	mg/L	<0.003	-	0.069	-	
1,1,1-TCE	mg/L	<0.001	-	<0.002	-	
Gross Alpha	pCi/L	<3.0	-	-	-	
Nonvol. Beta	pCi/L	3.2	-	-	-	
Total Radium	pCi/L	<1.0	-	2.4	-	
Tritium	pCi/mL	86300	-	46400	-	
						46300

Well: CSB 3A, C-Area Reactor Seepage Basins

SRP Grid N 67385.6
Coordinates E 44848.3
Latitude 33.247658°N
Longitude 81.680120°W

Parameter	Units	03/02/87	05/28/87	08/17/87	11/10/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	63.4	63.8	64.2	64	68.0-58.8
pH	pH	6.8	6.4	5.0	6.7	
Conductivity	umhos/cm	84	58	47	51	
TDS	mg/L	50	-	-	-	
Arsenic	mg/L	<0.002	-	<0.002	-	
Barium	mg/L	0.019	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	-	-	
Calcium	mg/L	11.7	-	-	-	
Chloride	mg/L	2.9	-	-	-	
Chromium	mg/L	<0.004	-	<0.004	-	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	<0.10	-	-	-	
Iron	mg/L	0.006	-	0.100	-	
Lead	mg/L	<0.006	-	<0.006	-	
Magnesium	mg/L	1.15	-	-	-	
Manganese	mg/L	0.017	-	0.015	-	
Mercury	mg/L	<0.0002	-	-	-	
Nickel	mg/L	-	-	-	-	
Potassium	mg/L	0.840	-	-	-	
Selenium	mg/L	<0.002	-	-	-	
Silica	mg/L	3.90	-	-	-	
Silver	mg/L	<0.0020	-	-	-	
Sodium	mg/L	2.87	-	-	-	
Total Phosphate	mg/L	0.140	-	-	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	1.38	-	-	-	
SO ₄	mg/L	<3.0	-	-	-	
Phenols	mg/L	0.003	-	-	-	
Tot. Org. Carbon	mg/L	8.00	-	27.0	-	
Tot. Org. Halogen	mg/L	0.015	-	0.244	-	
Carbon Tet.	mg/L	<0.001	-	<0.002	-	
Chloroform	mg/L	<0.001	-	<0.002	-	
Tetrachloroethene	mg/L	<0.001	-	<0.002	-	
Trichloroethene	mg/L	<0.003	-	0.069	-	
1,1,1-TCE	mg/L	<0.001	-	<0.002	-	
Gross Alpha	pCi/L	<3.0	-	-	-	
Nonvol. Beta	pCi/L	3.2	-	-	-	
Total Radium	pCi/L	<1.0	-	2.4	-	
Tritium	pCi/mL	86300	-	46400	-	
						46300

Well: CSB 5A, C-Area Reactor Seepage Basins

SRP Grid N 67751.6
Coordinates E 44618.9
Latitude 33.248420°N
Longitude 81.680908°W

Parameter	Units	03/02/87	05/28/87	08/17/87	11/10/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	63.4	63.8	64.2	63.9	63.9
pH	pH	11.2	11.4	11.3	11.7	10.7
Conductivity	umhos/cm	440	620	260	319	
TDS	mg/L	118	-	-	-	
Arsenic	mg/L	<0.002	-	<0.002	-	
Barium	mg/L	0.018	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	-	-	
Calcium	mg/L	36.7	-	-	-	
Chloride	mg/L	1.6	-	-	-	
Chromium	mg/L	0.006	-	0.007	-	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.17	-	-	-	
Iron	mg/L	0.013	-	-	0.029	
Lead	mg/L	0.007	-	-	0.006	
Magnesium	mg/L	0.17	-	-	-	
Manganese	mg/L	<0.002	-	<0.002	-	
Mercury	mg/L	<0.0002	-	<0.0002	-	
Nickel	mg/L	-	-	-	-	
Potassium	mg/L	4.29	-	-	-	
Selenium	mg/L	<0.002	-	-	-	
Silica	mg/L	3.29	-	-	-	
Silver	mg/L	<0.0020	-	-	-	
Sodium	mg/L	4.71	-	-	-	
Total Phosphate	mg/L	0.040	-	-	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	0.82	-	-	-	
SO ₄	mg/L	10.0	-	-	-	
Phenols	mg/L	<0.002	-	-	-	
Tot. Org. Carbon	mg/L	4.00	-	-	3.90	
Tot. Org. Halogen	mg/L	0.105	-	-	0.086	
Carbon Tet.	mg/L	<0.001	-	-	0.010	
Chloroform	mg/L	<0.001	-	-	0.010	
Tetrachloroethene	mg/L	<0.001	-	-	0.010	
Trichloroethene	mg/L	0.203	-	-	0.050	
1,1,1-TCE	mg/L	0.010	-	-	0.010	
Gross Alpha	pCi/L	<3.0	-	-	-	
Nonvol. Beta	pCi/L	5.3	-	-	-	
Total Radium	pCi/L	<1.0	-	1.3	-	
Tritium	pCi/mL	7850	-	6340	-	
						6340

TABLE 4-10
CHEMICAL CONCENTRATIONS IN C-AREA GROUNDWATER

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

SRP Grid	N 67812.4	Screen Zone Elevation	67.0-57.8
Coordinates	E 44863.8	Top of Casing Elevation	87.41
Latitude	33.248954°N	Casing Material	PVC
Longitude	81.680381°W		

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		10.3	9.9	10.7	9.1
Conductivity	µhos/cm	150	140	140	126
TDS	mg/L	50	-	-	-
Arsenic	mg/L	<0.002	-	<0.002	-
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cesium	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	-	0.021	-
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

Retention Basin	No. of Samples	Maximum	Ct. Err. 95% Cl.	Minimum	Ct. Err. 95% Cl.	Average
Gross Alpha (pCi/L)						
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
Nonvolatile Beta (pCi/L)						
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	3.46	+1.67	0.84	+1.19	2.17
KRB 15	4	96.5	+5.53	44.5	+3.96	62.8
H-3 (pCi/mL)						
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

Well: KAB 1, K-Area Ash Basin

Parameter	Units	03/11/87	05/23/87	08/18/87	10/22/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	64.1	64.7	65.1	64.4	
pH		6.2	6.2	6.8	5.9	
Conductivity	umhos/cm	245	300	300	345	
TDS	mg/L	140	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	0.049	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	-	-	
Calcium	mg/L	9.29	-	-	-	
Chloride	mg/L	10.5	-	-	-	
Chromium	mg/L	<0.004	-	-	-	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.10	-	-	-	
Iron	mg/L	7.25	-	0.100	-	
Lead	mg/L	<0.006	-	-	-	
Magnesium	mg/L	5.44	-	-	-	
Manganese	mg/L	0.683	-	0.006	-	
Mercury	mg/L	<0.0002	-	-	-	
Nickel	mg/L	<0.004	-	-	-	
Potassium	mg/L	16.6	-	-	-	
Selenium	mg/L	<0.002	-	-	-	
Silica	mg/L	2.48	-	-	-	
Silver	mg/L	<0.0020	-	-	-	
Sodium	mg/L	16.3	-	-	-	
Total Phosphate	mg/L	0.010	-	-	-	
Zinc	mg/L	0.044	-	-	-	
NO ₃ (as N)	mg/L	0.08	-	-	-	
SO ₄	mg/L	67.0	-	68.1	-	
Phenols	mg/L	<0.002	-	-	-	
Tot. Org. Carbon	mg/L	<1.000	-	2.60	-	
Tot. Org. Halogen	mg/L	0.007	-	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	10.6	-	3.0	-	
Nonvol. Beta	pCi/L	35.8	-	-	-	
Total Radium	pCi/L	3.2	-	1.2	-	
Tritium	pCi/mL	8.61	-	-	-	

Well: KAB 3, K-Area Ash Basin

Parameter	Units	03/11/87	05/23/87	08/18/87	10/22/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	63.1	63.7	64.9	64.2	61.6
pH		6.2	5.2	5.9	5.0	
Conductivity	umhos/cm	94	87	130	143	
TDS	mg/L	60	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	0.018	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	-	-	
Calcium	mg/L	4.44	-	-	-	
Chloride	mg/L	7.6	-	-	-	
Chromium	mg/L	<0.004	-	-	-	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.10	-	-	-	
Iron	mg/L	0.320	-	0.160	-	
Lead	mg/L	<0.006	-	-	-	
Magnesium	mg/L	2.14	-	-	-	
Manganese	mg/L	0.016	-	0.015	-	
Mercury	mg/L	<0.0002	-	-	-	
Nickel	mg/L	0.006	-	-	-	
Potassium	mg/L	3.30	-	-	-	
Selenium	mg/L	0.002	-	-	-	
Silica	mg/L	1.19	-	-	-	
Sodium	mg/L	<0.0020	-	-	-	
Total Phosphate	mg/L	0.030	-	-	-	
Zinc	mg/L	0.023	-	-	-	
NO ₃ (as N)	mg/L	1.22	-	-	-	
SO ₄	mg/L	21.0	-	17.6	-	
Phenols	mg/L	<0.002	-	-	-	
Tot. Org. Carbon	mg/L	<1.000	-	1.40	-	
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	4.5	-	6.5	-	
Nonvol. Beta	pCi/L	8.1	-	-	-	
Total Radium	pCi/L	5.0	-	2.9	-	
Tritium	pCi/mL	9.49	-	-	-	

Well: KAB 2, K-Area Ash Basin

Parameter	Units	03/11/87	05/23/87	08/18/87	10/22/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	65.5	66.3	66.4	65.7	
pH		6.7	6.7	6.8	6.0	
Conductivity	umhos/cm	542	560	580	534	
TDS	mg/L	104	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	0.032	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	-	-	
Calcium	mg/L	79.4	-	-	-	
Chloride	mg/L	13.2	-	-	-	
Chromium	mg/L	<0.004	-	-	-	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.26	-	-	-	
Iron	mg/L	0.054	-	0.054	-	
Lead	mg/L	<0.006	-	-	-	
Magnesium	mg/L	8.44	-	-	-	
Manganese	mg/L	0.004	-	0.030	-	
Mercury	mg/L	<0.0002	-	-	-	
Nickel	mg/L	<0.004	-	-	-	
Potassium	mg/L	8.35	-	-	-	
Selenium	mg/L	0.003	-	-	-	
Silica	mg/L	2.16	-	-	-	
Silver	mg/L	<0.0020	-	-	-	
Sodium	mg/L	16.9	-	-	-	
Total Phosphate	mg/L	0.040	-	-	-	
Zinc	mg/L	0.014	-	-	-	
NO ₃ (as N)	mg/L	1.15	-	-	-	
SO ₄	mg/L	36.0	-	109	-	
Phenols	mg/L	<0.002	-	-	-	
Tot. Org. Carbon	mg/L	3.00	-	2.10	-	
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	<3.0	-	36.4	-	
Nonvol. Beta	pCi/L	20.8	-	-	-	
Total Radium	pCi/L	<1.0	-	1.8	-	
Tritium	pCi/mL	9.17	-	-	-	

Well: KAB 4, K-Area Ash Basin

Parameter	Units	03/11/87	05/23/87	08/18/87	10/22/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	63.3	64	64.1	63.6	
pH		6.5	6.7	7.0	6.7	
Conductivity	umhos/cm	542	580	620	657	
TDS	mg/L	306	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	0.087	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	-	-	
Calcium	mg/L	79.9	-	-	-	
Chloride	mg/L	10.1	-	-	-	
Chromium	mg/L	<0.004	-	-	-	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.10	-	-	-	
Iron	mg/L	0.050	-	0.035	-	
Lead	mg/L	<0.006	-	-	-	
Magnesium	mg/L	10.4	-	-	-	
Manganese	mg/L	0.005	-	0.009	-	
Mercury	mg/L	<0.0002	-	-	-	
Nickel	mg/L	<0.004	-	-	-	
Potassium	mg/L	14.1	-	-	-	
Selenium	mg/L	<0.002	-	-	-	
Silica	mg/L	0.677	-	-	-	
Silver	mg/L	<0.0020	-	-	-	
Sodium	mg/L	13.2	-	-	-	
Total Phosphate	mg/L	0.030	-	-	-	
Zinc	mg/L	0.007	-	-	-	
NO ₃ (as N)	mg/L	0.30	-	-	-	
SO ₄	mg/L	41.0	-	37.6	-	
Phenols	mg/L	<0.002	-	-	-	
Tot. Org. Carbon	mg/L	2.00	-	1.80	-	
Tot. Org. Halogen	mg/L	0.006	-	0.030	-	
Carbon Tet.	mg/L	-	-	-	-	
Chloroform	mg/L	-	-	-	-	
Tetrachloroethene	mg/L	-	-	-	-	
Trichloroethene	mg/L	-	-	-	-	
1,1,1-TCE	mg/L	-	-	-	-	
Gross Alpha	pCi/L	21.8	-	18.0	-	
Nonvol. Beta	pCi/L	32.2	-	8.4	-	
Total Radium	pCi/L	13.6	-	-	-	
Tritium	pCi/mL	10.4	-	-	-	

TABLE 4-12
CHEMICAL CONCENTRATIONS IN K-AREA GROUNDWATER

Well: KAC 1, K-Area Acid/Caustic Basin

SRP Grid N 53167.0
Coordinates E 42614.8
Latitude 33.212893°N
Longitude 81.657865°W

Screen Zone Elevation 69.8-60.7
Top of Casing Elevation 81.07
Casing Material PVC

Parameter	Units	03/19/87	05/24/87	08/19/87	11/08/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	66	66.7	66.2	66.1	
pH	pH	5.8	5.8	5.5	5.6	
Conductivity	umhos/cm	2650	2400	2750	2340	
TDS	mg/L	1690	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	0.033	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	<0.002	-	
Calcium	mg/L	16.1	-	-	-	
Chloride	mg/L	29.8	-	-	-	
Chromium	mg/L	<0.004	-	-	-	
Copper	mg/L	0.007	0.025	0.006	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.74	-	-	-	
Iron	mg/L	0.015	-	0.227	-	
Lead	mg/L	0.012	-	-	-	
Magnesium	mg/L	9.06	-	-	-	
Manganese	mg/L	0.097	-	0.123	-	
Mercury	mg/L	0.0004	-	-	-	
Nickel	mg/L	-	-	-	-	
Potassium	mg/L	0.930	-	-	-	
Selenium	mg/L	0.004	-	0.003	-	
Silica	mg/L	4.99	-	-	-	
Silver	mg/L	0.0040	-	-	-	
Sodium	mg	25.0	-	453	-	
Total Phosphate	mg	0.080	0.040	0.160	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	0.58	-	-	-	
SO ₄	mg/L	10.0	-	970	-	
Phenols	mg/L	<0.002	-	-	-	
Tot. Org. Carbon	mg/L	1.50	-	1.40	-	
Tot. Org. Halogen	mg/L	0.022	-	0.055	-	
Carbon Tet.	mg/L	-	-	-	-	
Chloroform	mg/L	-	-	-	-	
Tetrachloroethene	mg/L	-	-	-	-	
Trichloroethene	mg/L	-	-	-	-	
1,1,1-TCE	mg/L	-	-	-	-	
Gross Alpha	pCi/L	42.2	-	20.8	-	
Nonvol. Beta	pCi/L	<2.0	-	<2.0	-	
Total Radium	pCi/L	5.3	-	3.9	-	
Tritium	pCi/mL	2.69	-	-	-	

Well: KAC 3, K-Area Acid/Caustic Basin

SRP Grid N 53201.8
Coordinates E 42723.9
Latitude 33.213148°N
Longitude 81.657646°W

Screen Zone Elevation 68.8-55.7
Top of Casing Elevation 78.57
Casing Material PVC

Parameter	Units	03/19/87	05/24/87	08/19/87	11/08/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	66.9	67.1	66.3	66.1	
pH	pH	6.1	6.5	6.5	6.9	
Conductivity	umhos/cm	170	280	420	194	
TDS	mg/L	128	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	<0.004	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	0.004	-	
Calcium	mg/L	1.24	-	-	-	
Chloride	mg/L	2.9	-	-	-	
Chromium	mg/L	<0.004	-	-	-	
Copper	mg/L	0.042	0.005	0.080	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.24	-	-	-	
Iron	mg/L	0.045	-	0.127	-	
Lead	mg/L	<0.006	-	-	-	
Magnesium	mg/L	0.418	-	-	-	
Manganese	mg/L	0.003	-	0.009	-	
Mercury	mg/L	<0.0002	-	-	-	
Nickel	mg/L	-	-	-	-	
Potassium	mg/L	0.620	-	-	-	
Selenium	mg/L	<0.007	-	0.002	-	
Silica	mg/L	2.88	-	-	-	
Silver	mg/L	<0.001	-	-	-	
Sodium	mg/L	24.0	-	78.2	-	
Total Phosphate	mg/L	0.040	1.00	0.240	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	0.10	-	-	-	
SO ₄	mg/L	31.5	-	53.0	-	
Phenols	mg/L	<0.002	-	-	-	
Tot. Org. Carbon	mg/L	1.00	-	1.000	-	
Tot. Org. Halogen	mg/L	0.011	-	0.032	-	
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	-	5.0	-	
Nonvol. Beta	pCi/L	<2.0	-	<2.0	-	
Total Radium	pCi/L	<1.0	-	<1.0	-	
Tritium	pCi/mL	12.5	-	-	-	

Well: KAC 2, K-Area Acid/Caustic Basin

SRP Grid N 53255.5
Coordinates E 42677.2
Latitude 33.213191°N
Longitude 81.657873°W

Screen Zone Elevation 68.7-59.6
Top of Casing Elevation 78.48
Casing Material PVC

Parameter	Units	03/19/87	05/24/87	08/19/87	11/08/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	66.9	67.1	66.3	66.1	
pH	pH	6.1	6.5	6.5	6.9	
Conductivity	umhos/cm	170	280	420	194	
TDS	mg/L	128	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	<0.004	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	0.004	-	
Calcium	mg/L	1.24	-	-	-	
Chloride	mg/L	2.9	-	-	-	
Chromium	mg/L	<0.004	-	-	-	
Copper	mg/L	0.042	0.005	0.080	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.24	-	-	-	
Iron	mg/L	0.045	-	0.127	-	
Lead	mg/L	<0.006	-	-	-	
Magnesium	mg/L	0.418	-	-	-	
Manganese	mg/L	0.003	-	0.009	-	
Mercury	mg/L	<0.0002	-	-	-	
Nickel	mg/L	-	-	-	-	
Potassium	mg/L	0.620	-	-	-	
Selenium	mg/L	<0.007	-	0.002	-	
Silica	mg/L	2.88	-	-	-	
Silver	mg/L	<0.001	-	-	-	
Sodium	mg/L	24.0	-	78.2	-	
Total Phosphate	mg/L	0.040	1.00	0.240	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	0.10	-	-	-	
SO ₄	mg/L	31.5	-	53.0	-	
Phenols	mg/L	<0.002	-	-	-	
Tot. Org. Carbon	mg/L	1.00	-	1.000	-	
Tot. Org. Halogen	mg/L	0.011	-	0.032	-	
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	-	5.0	-	
Nonvol. Beta	pCi/L	<2.0	-	<2.0	-	
Total Radium	pCi/L	<1.0	-	<1.0	-	
Tritium	pCi/mL	12.5	-	-	-	

Well: KAC 4, K-Area Acid/Caustic Basin

SRP Grid N 53035.5
Coordinates E 42678.4
Latitude 33.212743°N
Longitude 81.657483°W

Screen Zone Elevation 63.4-54.3
Top of Casing Elevation 79.24
Casing Material PVC

Parameter	Units	03/19/87	05/24/87	08/19/87	11/08/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	65.8	66.3	66	65.7	
pH	pH	5.2	5.4	4.6	5.5	
Conductivity	umhos/cm	170	125	180	161	
TDS	mg/L	122	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	0.005	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	0.002	-	
Calcium	mg/L	0.765	-	-	-	
Chloride	mg/L	10.5	-	-	-	
Chromium	mg/L	<0.004	-	-	-	
Copper	mg/L	0.005	0.044	0.004	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.10	-	-	-	
Iron	mg/L	0.106	-	0.028	-	
Lead	mg/L	<0.006	-	-	-	
Magnesium	mg/L	0.497	-	-	-	
Manganese	mg/L	0.006	-	0.006	-	
Mercury	mg/L	<0.0002	-	-	-	
Nickel	mg/L	-	-	-	-	
Potassium	mg/L	0.320	-	-	-	
Selenium	mg/L	<0.002	-	0.002	-	
Silica	mg/L	3.18	-	-	-	
Silver	mg/L	<0.0020	-	-	-	
Sodium	mg/L	27.8	-	24.8	-	
Total Phosphate	mg/L	0.030	0.040	0.080	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	0.63	-	-	-	
SO ₄	mg/L	39.8	-	28.0	-	
Phenols	mg/L	<0.002	-	-	-	
Tot. Org. Carbon	mg/L	1.00	-	-	-	
Tot. Org. Halogen	mg/L	0.008	-	0.010	-	
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	-	2.0	-	
Total Radium	pCi/L	<1.0	-	1.0	-	
Tritium	pCi/mL	4.26	-	-	-	

TABLE 4-12
CHEMICAL CONCENTRATIONS IN K-AREA GROUNDWATER

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

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 33634.4			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
Sampling Method		Pump	Pump	Pump
Water Elevation	meters	62.9	63.5	63.9
pH	pH	4.8	4.9	4.3
Conductivity	umhos/cm	67	59	51
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	0.066	-	-
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 Tetr.	mg/L	-	-	-
Chloroform	mg/L	-	-	-
Tetrachloroethene	mg/L	-	-	-
Trichloroethene	mg/L	-	-	-
1,1,1-ICE	mg/L	-	-	-
Gross Alpha	pCi/L	5.0	-	3.0
Nonvol. Beta	pCi/L	4.4	-	-
Total Radium	pCi/L	1.0	-	1.1
Tritium	pCi/m ³	34.3	-	-

Well: RCB 1, X-Area Coal Fly Ash Runoff Containment Basin

SRP Grid N 53453.0 meters (NSL)
 Coordinates E 39523.1 Screen Zone Elevation 65.1+56.0
 Latitude 33.20848°N Top of Casing Elevation 79.37
 Longitude 81.66555°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	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	7.4	-	-	-
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	<0.0010	-	-	-
Sodium	mg/L	7.49	-	-	-
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	3.45	-	-	-
SO ₄	mg/L	32.5	-	68.3	-
Phenols	mg/L	<0.001	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	4.30	-
Tot. Org. Halogen	mg/L	<0.005	-	0.005	-
Carbon Tetr.	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	-
Netvol. Beta	pCi/L	14.1	-	-	-
Total Radium	pCi/L	0.7	-	1.2	-
Tritium	pCi/mL	12.9	-	-	-

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

Well ECD 3, K-Area Coal File Hubolt Containment Basin
 SRP Grid N 53440.5 meters (MSL)
 Coordinates E 29139.2 Screen Zone Elevation 65.3-56.1
 Latitude 33.20782°N Top of Casing Elevation 75.56

<u>Parameter</u>	<u>Units</u>	<u>03/22/87</u>	<u>05/17/87</u>	<u>08/18/87</u>	<u>10/16/87</u>
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	62.7	63.2	63.5	63.4
pH	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	0.003	-	-	-
Calcium	mg/L	34.9	-	-	-
Chloride	mg/L	3.5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	0.023
Ivanide	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	8.90	-	-	-
Silver	mg/L	<0.0010	-	-	-
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	-	-	-	-
Cross Alpha	pCi/L	29.8	-	-	32.8
Novvol. Beta	pCi/L	27.0	-	-	-
Total Radium	pCi/L	14.5	-	-	13.5
Tritium	pCi/L	27.4	-	-	-

TABLE 4-12
CHEMICAL CONCENTRATIONS IN K-AREA GROUNDWATER

Well: KCB 4, K-Area Coal Pile Runoff Containment Basin

SRP Grid	N 53256.1	Screen Zone Elevation	66.7-57.6	meters (MSL)
Coordinates	E 39315.6	Top of Casing Elevation	77.90	
Latitude	33.207707°N	Casing Material	PVC	
Longitude	81.665719°W			

Parameter	Units	03/22/87	05/17/87	08/18/87	10/16/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	63.4	64	64.3	64.1
pH	mg/L	5.7	5.8	4.9	6.2
Conductivity	umhos/cm	375	355	390	568
TDS	mg/L	208	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	42.3	-	-	-
Chloride	mg/L	16.0	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.29	-	-	-
Iron	mg/L	0.059	-	-	-
Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	1.06	-	-	-
Manganese	mg/L	0.010	-	0.012	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	9.61	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	0.180	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	16.1	-	-	-
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.25	-	-	-
SO ₄	mg/L	112	-	89.3	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.00	-	<1.000	-
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	10.8	-	-	-
Total Radium	pCi/L	0.6	-	2.8	-
Tritium	pCi/mL	10.2	-	-	-

Parameter	Units	03/23/87	05/20/87	09/08/87	11/23/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	63.6	64	64.3	64	
pH	mg/L	5.7	5.8	5.3	4.8	
Conductivity	umhos/cm	95	55	59	61	
TDS	mg/L	78	54	36	-	
Arsenic	mg/L	<0.002	<0.002	<0.002	-	
Barium	mg/L	0.035	0.025	0.018	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	<0.002	<0.002	-	
Calcium	mg/L	4.85	5.22	2.75	-	
Chloride	mg/L	4.9	5.1	4.1	-	
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	0.058	0.045	0.031	-	
Lead	mg/L	0.020	0.019	0.044	-	
Magnesium	mg/L	0.617	0.784	0.772	-	
Manganese	mg/L	0.143	0.128	0.120	-	
Mercury	mg/L	0.0003	0.0010	0.0007	-	
Nickel	mg/L	-	-	-	-	
Pt. Taxium	mg/L	1.09	0.880	<0.500	-	
Selenium	mg/L	<0.002	<0.002	<0.002	-	
Silica	mg/L	4.40	4.35	4.32	-	
Silver	mg/L	0.0020	<0.0020	<0.0020	-	
Sodium	mg/L	2.01	5.87	6.10	-	
Total Phosphate	mg/L	0.070	0.020	0.441	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	1.90	1.80	0.12	-	
SO ₄	mg/L	5.0	3.0	1.2	-	
Phenols	mg/L	<0.002	<0.003	0.003	-	
Tot. Org. Carbon	mg/L	8.00	<1.000	2.00	-	
Tot. Org. Halogen	mg/L	0.078	0.112	0.167	-	
Carbon Tet.	mg/L	-	-	-	-	
Chloroform	mg/L	-	-	-	-	
Tetrachloroethene	mg/L	-	-	-	-	
Trichloroethene	mg/L	-	-	-	-	
1,1,1-TCE	mg/L	-	-	-	-	
Gross Alpha	pCi/L	4.4	<3.0	1.8	-	
Nonvol. Beta	pCi/L	4.8	-	2.0	-	
Total Radium	pCi/L	1.7	0.8	0.6	-	
Tritium	pCi/mL	1020	978	1430	-	

Well: KCB 1, K-Area Disassembly Basin

SRP Grid	N 54050.5	Screen Zone Elevation	62.7-56.3	meters (MSL)
Coordinates	E 40425.9	Top of Casing Elevation	83.24	
Latitude	33.211276°N	Casing Material	PVC	
Longitude	81.665339°W			

Parameter	Units	03/23/87	05/20/87	09/08/87	11/23/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	63.9	64.3	64.5	64.3
pH	mg/L	6.0	5.8	5.9	5.2
Conductivity	umhos/cm	126	130	122	114
TDS	mg/L	86	86	82	-
Arsenic	mg/L	<0.002	<0.001	<0.001	-
Barium	mg/L	0.083	0.085	0.089	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	-
Calcium	mg/L	5.20	5.88	6.70	-
Chloride	mg/L	7.7	14.3	2.9	-
Chromium	mg/L	<0.004	<0.004	<0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.18	0.15	0.10	-
Iron	mg/L	0.251	0.117	0.116	-
Lead	mg/L	0.142	0.010	0.075	-
Magnesium	mg/L	1.25	1.68	1.83	-
Manganese	mg/L	0.648	0.781	0.810	-
Mercury	mg/L	<0.0003	<0.0002	<0.0002	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	3.12	4.18	3.27	-
Selenium	mg/L	<0.002	<0.002	<0.002	-
Silica	mg/L	4.40	4.00	3.89	-
Silver	mg/L	<0.0020	<0.0020	<0.0010	-
Sodium	mg/L	10.7	7.55	7.42	-
Total Phosphate	mg/L	0.020	0.210	0.102	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	3.61	3.80	9.51	-
SO ₄	mg/L	14.0	9.5	10.2	-
Phenols	mg/L	<0.002	<0.005	0.003	-
Tot. Org. Carbon	mg/L	1.50	<1.000	3.00	-
Tot. Org. Halogen	mg/L	0.013	0.076	0.045	-
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	6.3	4.5	-
Nonvol. Beta	pCi/L	2.0	11.7	7.5	-
Total Radium	pCi/L	3.1	4.1	4.9	-
Tritium	pCi/mL	4380	1660	1560	-

Parameter	Units	03/23/87	05/20/87	09/08/87	11/23/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	63.9	64.3	64.5	64.3	
pH	mg/L	6.5	6.3	6.6	6.4	
Conductivity	umhos/cm	432	380	518	546	
TDS	mg/L	300	212	250	-	
Arsenic	mg/L	<0.002	<0.002	<0.002	-	
Barium	mg/L	0.086	0.078	0.076	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	<0.002	<0.002	-	
Calcium	mg/L	67.5	48.5	63.2	-	
Chloride	mg/L	3.5	5.6	3.4	-	
Chromium	mg/L	<0.004	<0.004	<0.004	-	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.22	0.15	0.10	-	
Iron	mg/L	0.390	0.111	0.025	-	
Lead	mg/L	0.006	<0.006	<0.006	-	
Magnesium	mg/L	5.09	4.47	4.62	-	
Manganese	mg/L	0.350	0.094	0.051	-	
Mercury	mg/L	<0.0002	<0.0002	<0.0002	-	
Nickel	mg/L	-	-	-	-	
Potassium	mg/L	17.4	6.25	8.46	-	
Selenium	mg/L	<0.002	<0.002	<0.002	-	
Silica	mg/L	4.30	2.60	2.05	-	
Silver	mg/L	<0.0030	<0.0020	<0.0020	-	
Sodium	mg/L	22.9	17.3	14.0	-	
Total Phosphate	mg/L	0.060	0.090	0.148	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	0.07	0.15	0.88	-	
SO ₄	mg/L	43.0	37.3	36.6	-	
Phenols	mg/L	<0.002	<0.005	<0.005	-	
Tot. Org. Carbon	mg/L	1.60	<1.000	2.00	-	
Tot. Org. Halogen	mg/L	0.018	0.067	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	18.3	3.9	4.9	-	
Nonvol. Beta	pCi/L	27.6	6.9	9.3	-	
Total Radium	pCi/L	4.6	1.0	3.4	-	
Tritium	pCi/mL	237	284	285	-	

TABLE 4-12
CHEMICAL CONCENTRATIONS IN K-AREA GROUNDWATER

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

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

Well: KRB 8, K-Area Retention Basin

Parameter	Units	02/24/87	05/24/87	08/23/87	12/18/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	63.7	64.4	67.3	64	
pH		5.2	4.9	5.4	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	-	0.078	-	
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	-	20.0	-	
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 13, K-Area Retention Basin

Parameter	Units	02/24/87	05/24/87	08/23/87	12/18/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	62.7	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	52.0	-	<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: KRB 14, K-Area Retention Basin

		meters (NSL)			
Parameter	Units	02/24/87	05/24/87	08/23/87	12/19/87
Sampling Method		Bail	Bail	Bail	Pump
Water Elevation	meters	62.2	62.8	62.6	62.2
pH		6.1	6.0	5.9	6.0
Conductivity	umhos/cm	78	68	80	56
TDS	mg/L	58	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.021	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	0.002	-
Calcium	mg/L	6.01	-	-	-
Chloride	mg/L	10.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.008	-	0.030	-
Lead	mg/L	0.010	-	<0.006	-
Magnesium	mg/L	0.445	-	-	-
Manganese	mg/L	0.055	-	0.031	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.88	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.34	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	7.93	-	-	-
Total Phosphate	mg/L	0.465	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.86	-	-	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	11.0	-	4.00	-
Tot. Org. Halogen	mg/L	0.047	-	0.039	-
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	6.6	-	-	-
Nonvol. Beta	pCi/L	8.6	-	5.4	-
Total Radium	pCi/L	2.6	-	2.0	-
Tritium	pCi/mL	29100	-	13100	-

Well: KRB 1, K-Area Burning/Rubble Pit

		meters (NSL)			
Parameter	Units	02/24/87	05/23/87	08/19/87	11/08/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	66.1	66.8	66.6	66.6
pH		4.9	4.9	4.7	4.7
Conductivity	umhos/cm	30	34	38	34
TDS	mg/L	<5	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.017	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.594	-	-	-
Chloride	mg/L	1.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.048	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.142	-	0.193	-
Lead	mg/L	0.099	-	0.019	-
Magnesium	mg/L	0.349	-	-	-
Manganese	mg/L	0.023	-	0.020	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.190	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.93	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	3.08	-	3.60	-
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.85	-	-	-
SO ₄	mg/L	<3.0	-	-	-
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	<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	<3.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	14.1	-	-	-

Well: KRB 15, K-Area Retention Basin

		meters (NSL)			
Parameter	Units	02/24/87	05/24/87	08/23/87	12/19/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	62.8	63	62.7	62.5
pH		6.5	6.5	5.5	6.7
Conductivity	umhos/cm	54	49	48	42
TDS	mg/L	40	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.010	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	0.002	-
Calcium	mg/L	4.88	-	-	-
Chloride	mg/L	3.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.71	-	-	-
Iron	mg/L	0.015	-	0.040	-
Lead	mg/L	0.008	-	0.029	-
Magnesium	mg/L	0.463	-	-	-
Manganese	mg/L	0.014	-	0.026	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.990	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	1.32	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	4.37	-	-	-
Total Phosphate	mg/L	0.047	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.83	-	-	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.003	-	-	-
Tot. Org. Carbon	mg/L	3.80	-	3.00	-
Tot. Org. Halogen	mg/L	0.009	-	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	2.8	-	-	-
Nonvol. Beta	pCi/L	79.0	-	91.0	-
Total Radium	pCi/L	1.0	-	2.1	-
Tritium	pCi/mL	140000	-	61100	-

Well: KRB 2, K-Area Burning/Rubble Pit

		meters (NSL)			
Parameter	Units	02/24/87	05/23/87	08/19/87	11/08/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	65.9	67.4	66.6	66.5
pH		4.9	5.3	4.7	5.6
Conductivity	umhos/cm	26	28	36	29
TDS	mg/L	<5	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.015	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.81	-	-	-
Chloride	mg/L	2.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.404	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.018	-	0.020	-
Lead	mg/L	0.032	-	0.027	-
Magnesium	mg/L	0.247	-	-	-
Manganese	mg/L	0.007	-	0.008	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.170	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	1.98	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.39	-	2.58	-
Total Phosphate	mg/L	0.017	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.24	-	-	-
SO ₄	mg/L	<3.0	-	-	-
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	<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	2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	12.5	-	-	-

TABLE 4-12
CHEMICAL CONCENTRATIONS IN K-AREA GROUNDWATER

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

SRP Grid N 54248.7
Coordinates E 42514.3
Latitude 33.215811°N
Longitude 81.659440°W

Screen Zone Elevation meters (MSL)
Top of Casing Elevation 72.4-83.2
Casing Material PVC

Parameter	Units	03/25/87	05/23/87	08/19/87	11/08/87
Sampling Method		Pump	Pump	Pump	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	1.01	-	-	-
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	0.018	-	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	4.0	-	-	-
Total Radium	pCi/L	0.8	-	-	-
Tritium	pCi/mL	9.29	-	-	-

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 meters (MSL)
Top of Casing Elevation 66.7-57.5
Casing Material PVC

Parameter	Units	03/25/87	05/23/87	08/19/87	11/08/87
Sampling Method		Pump	Pump	Pump	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	-	0.033	-
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	-	8.45	-
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	<0.001	-	-	-
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	-	0.005	-
Tetrachloroethene	mg/L	0.080	-	0.119	-
Trichloroethene	mg/L	0.032	-	0.043	-
1,1,1-TCE	mg/L	<0.001	-	0.005	-
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 39808.8
Latitude 33.210252°N
Longitude 81.666956°W

Screen Zone Elevation meters (MSL)
Top of Casing Elevation 62.7-53.5
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	62.7	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	9	-	-	-
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	8.8	-	-	-
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	-	482	-

TABLE 4-12
CHEMICAL CONCENTRATIONS IN K-AREA GROUNDWATER

Well: KSB 2, K-Area Reactor Seepage Basin

		meters (MSL)			
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	63.6	63.7	63.6
pH	-	4.6	4.8	4.4	4.7
Conductivity	µhos/cm	27	28	28	28
TDS	mg/L	38	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.008	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.213	-	-	-
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	0.0	-	-	-
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

		meters (MSL)			
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	63.3	63.4
pH	-	4.5	4.7	4.1	4.6
Conductivity	µhos/cm	38	39	38	38
TDS	mg/L	35	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.007	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.688	-	-	-
Chloride	mg/L	3.2	-	-	-
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	<0.001	-	-	-
Silica	mg/L	3.34	-	-	-
Silver	mg/L	<0.0010	-	-	-
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	0.0	-	-	-
Nonvol. Beta	pCi/L	72.0	-	-	-
Total Radium	pCi/L	11.0	-	-	-
Tritium	pCi/mL	288	-	200	-

Well: KSB 3, K-Area Reactor Seepage Basin

		meters (MSL)			
Parameter	Units	02/23/87	05/17/87	08/22/87	11/12/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	62.3	63.4	63.3	63.4
pH	-	4.5	4.7	4.1	4.6
Conductivity	µhos/cm	38	39	38	38
TDS	mg/L	35	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.007	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.688	-	-	-
Chloride	mg/L	3.2	-	-	-
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	<0.001	-	-	-
Silica	mg/L	3.34	-	-	-
Silver	mg/L	<0.0010	-	-	-
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	0.0	-	-	-
Nonvol. Beta	pCi/L	72.0	-	-	-
Total Radium	pCi/L	11.0	-	-	-
Tritium	pCi/mL	288	-	200	-

TABLE 4-13
CHEMICAL CONCENTRATIONS IN L-AREA GROUNDWATER

Well: LAC 1, L-Area Acid/Caustic Basin

SRP Grid N 45238.8
Coordinates E 51188.8
Latitude 33.209551°N
Longitude 81.619578°W

Screen Zone Elevation 67.4-58.2
Top of Casing Elevation 72.60
Casing Material PVC

Parameter	Units	03/11/87	05/16/87	08/13/87	10/15/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	66.2	66.4	65.8	65.8
pH		4.9	4.7	4.7	5.0
Conductivity	umhos/cm	27	25	26	28
TDS	mg/L	<5	-	-	-
Arsenic	mg/L	<0.002	x	x	-
Barium	mg/L	0.006	x	x	-
Beryllium	mg/L	-	x	x	-
Cadmium	mg/L	<0.002	x	x	-
Calcium	mg/L	0.513	-	x	-
Chloride	mg/L	3.9	-	x	-
Chromium	mg/L	<0.004	x	x	-
Copper	mg/L	0.034	-	x	-
Cyanide	mg/L	-	x	x	-
Fluoride	mg/L	0.13	-	x	-
Iron	mg/L	0.053	x	0.073	-
Lead	mg/L	0.018	x	0.017	-
Magnesium	mg/L	0.537	-	x	-
Manganese	mg/L	0.006	-	x	-
Mercury	mg/L	<0.0002	-	x	-
Nickel	mg/L	-	x	x	-
Potassium	mg/L	0.250	-	x	-
Selenium	mg/L	<0.002	x	<0.002	-
Silica	mg/L	3.40	-	x	-
Silver	mg/L	<0.020	x	-	-
Sodium	mg/L	4.06	-	2.20	-
Total Phosphate	mg/L	0.030	0.050	0.020	-
Zinc	mg/L	0.069	-	x	-
NO ₃ (as N)	mg/L	0.84	-	x	-
SO ₄	mg/L	4.0	-	5.0	-
Phenols	mg/L	<0.002	-	x	-
Tot. Org. Carbon	mg/L	2.00	-	<1.000	-
Tot. Org. Halogen	mg/L	0.028	-	<0.005	-
Carbon Tet.	mg/L	<0.001	-	<0.001	-
Chloroform	mg/L	<0.001	-	<0.001	-
Tetrachloroethene	mg/L	0.020	-	<0.001	-
Trichloroethene	mg/L	0.010	-	<0.001	-
1,1,1-TCE	mg/L	<0.001	-	<0.001	-
Gross Alpha	pCi/L	<1.0	-	x	-
Nonvol. Beta	pCi/L	<2.0	-	x	-
Total Radium	pCi/L	0.8	-	x	-
Tritium	pCi/mL	17.0	-	x	-

Well: LAC 3, L-Area Acid/Caustic Basin

SRP Grid N 45201.9
Coordinates E 51186.8
Latitude 33.209256°N
Longitude 81.619854°W

Screen Zone Elevation 67.3-58.1
Top of Casing Elevation 72.48
Casing Material PVC

Parameter	Units	03/17/87	05/16/87	08/13/87	10/15/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	66.4	66.5	64.8	65.9
pH		4.9	6.6	7.7	9.2
Conductivity	umhos/cm	350	160	250	270
TDS	mg/L	236	-	-	-
Arsenic	mg/L	<0.002	-	x	-
Barium	mg/L	<0.004	-	x	-
Beryllium	mg/L	-	x	x	-
Cadmium	mg/L	<0.002	-	x	-
Calcium	mg/L	0.275	-	x	-
Chloride	mg/L	2.9	-	x	-
Chromium	mg/L	<0.004	-	x	-
Copper	mg/L	<0.004	-	x	-
Cyanide	mg/L	-	x	x	-
Fluoride	mg/L	0.24	-	x	-
Iron	mg/L	0.024	-	0.444	x
Lead	mg/L	<0.006	-	<0.006	x
Magnesium	mg/L	0.040	-	x	-
Manganese	mg/L	<0.002	-	x	-
Mercury	mg/L	<3.0002	-	x	-
Nickel	mg/L	-	x	x	-
Potassium	mg/L	0.330	-	x	-
Selenium	mg/L	<0.002	-	<0.002	-
Silica	mg/L	6.70	-	x	-
Silver	mg/L	0.020	-	x	-
Sodium	mg/L	81.2	-	58.4	-
Total Phosphate	mg/L	0.110	0.050	0.070	-
Zinc	mg/L	0.004	-	x	-
NO ₃ (as N)	mg/L	0.46	-	x	-
SO ₄	mg/L	5.0	-	10.0	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	2.20	-	1.00	-
Tot. Org. Halogen	mg/L	0.034	-	0.015	-
Carbon Tet.	mg/L	<0.001	-	<0.001	-
Chloroform	mg/L	<0.001	-	<0.001	-
Tetrachloroethene	mg/L	0.019	-	0.011	-
Trichloroethene	mg/L	0.027	-	0.015	-
1,1,1-TCE	mg/L	<0.001	-	<0.001	-
Gross Alpha	pCi/L	<1.0	-	x	-
Nonvol. Beta	pCi/L	5.0	-	x	-
Total Radium	pCi/L	<1.0	-	x	-
Tritium	pCi/mL	7.46	-	x	-

Well: LAC 2, L-Area Acid/Caustic Basin

SRP Grid N 45230.4
Coordinates E 51270.2
Latitude 33.209876°N
Longitude 81.619884°W

Screen Zone Elevation 68.1-58.9
Top of Casing Elevation 73.21
Casing Material PVC

Parameter	Units	03/11/87	05/16/87	08/13/87	10/15/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	66.1	66.5	65.9	66
pH		5.0	4.9	6.3	5.1
Conductivity	umhos/cm	24	27	30	25
TDS	mg/L	<5	-	x	-
Arsenic	mg/L	<0.002	-	x	-
Barium	mg/L	<0.018	-	x	-
Beryllium	mg/L	-	x	x	-
Cadmium	mg/L	<0.002	-	x	-
Calcium	mg/L	0.550	-	x	-
Chloride	mg/L	2.0	-	x	-
Chromium	mg/L	0.004	-	x	-
Copper	mg/L	0.090	-	x	-
Cyanide	mg/L	-	x	x	-
Fluoride	mg/L	0.12	-	x	-
Iron	mg/L	0.043	-	0.032	-
Lead	mg/L	0.019	-	0.029	-
Magnesium	mg/L	1.93	-	x	-
Manganese	mg/L	<0.002	-	x	-
Mercury	mg/L	<0.0002	-	x	-
Nickel	mg/L	-	x	x	-
Potassium	mg/L	0.650	-	x	-
Selenium	mg/L	<0.002	-	<0.002	-
Silica	mg/L	4.56	-	x	-
Silver	mg/L	<0.020	-	x	-
Sodium	mg/L	1.93	-	2.50	-
Total Phosphate	mg/L	0.010	0.080	0.020	-
Zinc	mg/L	0.023	-	x	-
NO ₃ (as N)	mg/L	1.21	-	x	-
SO ₄	mg/L	3.0	-	5.0	-
Phenols	mg/L	<0.002	-	x	-
Tot. Org. Carbon	mg/L	<1.000	-	1.00	-
Tot. Org. Halogen	mg/L	0.764	-	0.108	-
Carbon Tet.	mg/L	<0.001	-	<0.001	-
Chloroform	mg/L	<0.001	-	<0.001	-
Tetrachloroethene	mg/L	0.020	-	<0.003	-
Trichloroethene	mg/L	0.017	-	0.124	-
1,1,1-TCE	mg/L	<0.001	-	<0.001	-
Gross Alpha	pCi/L	2.2	-	x	-
Nonvol. Beta	pCi/L	4.6	-	x	-
Total Radium	pCi/L	0.9	-	x	-
Tritium	pCi/mL	9.21	-	x	-

Well: LAC 4, L-Area Acid/Caustic Basin

SRP Grid N 45210.1
Coordinates E 51270.4
Latitude 33.209417°N
Longitude 81.619655°W

Screen Zone Elevation 65.6-56.5
Top of Casing Elevation 72.28
Casing Material PVC

Parameter	Units	03/17/87	05/16/87	08/05/87	10/15/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	66.4	66.4	65.8	65.9
pH		6.5	6.3	7.3	6.5
Conductivity	umhos/cm	108	92	160	138
TDS	mg/L	108	-	-	-
Arsenic	mg/L	<0.002	-	x	-
Barium	mg/L	<0.004	-	x	-
Beryllium	mg/L	-	x	x	-
Cadmium	mg/L	<0.002	-	x	-
Calcium	mg/L	3.16	-	x	-
Chloride	mg/L	2.9	-	x	-
Chromium	mg/L	0.004	-	x	-
Copper	mg/L	0.004	-	x	-
Cyanide	mg/L	-	x	x	-
Fluoride	mg/L	0.21	-	x	-
Iron	mg/L	0.039	-	0.187	-
Lead	mg/L	<0.006	-	<0.006	-
Magnesium	mg/L	0.370	-	x	-
Manganese	mg/L	<0.002	-	x	-
Mercury	mg/L	<0.0002	-	x	-
Nickel	mg/L	-	x	x	-
Potassium	mg/L	0.710	-	x	-
Selenium	mg/L	<0.002	-	<0.002	-
Silica	mg/L	4.49	-	x	-
Silver	mg/L	<0.020	-	x	-
Sodium	mg/L	18.8	-	1.30	-
Total Phosphate	mg/L	0.050	0.050	0.118	-
Zinc	mg/L	0.006	-	x	-
NO ₃ (as N)	mg/L	0.38	-	x	-
SO ₄	mg/L	3.0	-	11.0	-
Phenols	mg/L	<0.002	-	x	-
Tot. Org. Carbon	mg/L	<1.000	-	2.00	-
Tot. Org. Halogen	mg/L	0.006	-	0.014	-
Carbon Tet.	mg/L	<0.001	-	<0.001	-
Chloroform	mg/L	<0.001	-	<0.001	-
Tetrachloroethene	mg/L	0.004	-	0.009	-
Trichloroethene	mg/L	0.002	-	0.020	-
1,1,1-TCE	mg/L	<0.001	-	<0.001	-
Gross Alpha	pCi/L	<2.0	-	x	-
Nonvol. Beta	pCi/L	3.1	-	x	-
Total Radium	pCi/L	<1.0	-	x	-
Tritium	pCi/mL	10.7	-	x	-

TABLE 4-13
CHEMICAL CONCENTRATIONS IN L-AREA GROUNDWATER

Well: LCO 1, L-Area Oil and Chemical Basin

SRP Grid	N 45198.2	Screen Zone Elevation	68.8-59.7	meters (MSL)
Coordinates E	50957.7	Top of Casing Elevation	73.36	
Latitude	33.208874°N	Casing Material	PVC	
Longitude	81.620450°W			
Parameter	Units	03/02/87	05/16/87	08/16/87
Sampling Method	Pump	Pump	Pump	Pump
Water Elevation	meters	65.8	65.7	65.2
pH	pH	5.7	5.6	5.5
Conductivity	umhos/cm	79	78	69
TDS	mg/L	40	-	65
Arsenic	mg/L	<0.002	-	-
Barium	mg/L	<0.004	-	-
Beryllium	mg/L	-	-	-
Cadmium	mg/L	<0.002	-	-
Calcium	mg/L	0.609	-	-
Chloride	mg/L	3.7	-	-
Chromium	mg/L	<0.004	-	<0.004
Copper	mg/L	-	-	-
Cyanide	mg/L	-	-	-
Fluoride	mg/L	0.10	-	-
Iron	mg/L	0.051	-	0.051
Lead	mg/L	<0.006	-	<0.008
Magnesium	mg/L	0.170	-	-
Manganese	mg/L	0.004	-	<0.002
Mercury	mg/L	<0.0002	-	<0.0002
Nickel	mg/L	0.006	0.008	0.007
Potassium	mg/L	13.1	-	-
Selenium	mg/L	<0.002	-	-
Silica	mg/L	2.47	-	-
Silicate	mg/L	<0.0020	-	-
SO ₄ ²⁻	mg/L	4.98	-	-
Total Phosphate	mg/L	0.650	-	-
Zinc	mg/L	-	-	-
NO ₃ (as N)	mg/L	1.85	-	-
SO ₄	mg/L	3.0	-	<5.0
Phenol	mg/L	<0.002	-	-
Tot. Org. Carbon	mg/L	1.50	-	1.80
Tot. Org. Halogen	mg/L	<0.005	-	0.013
Carbon Tet.	mg/L	<0.001	-	<0.001
Chloroform	mg/L	<0.001	-	<0.001
Tetrachloroethene	mg/L	0.003	-	<0.002
Trichloroethene	mg/L	<0.001	-	<0.001
1,1,1-TCE	mg/L	<0.001	-	<0.001
Gross Alpha	pCi/L	<3.0	-	-
Nonvol. Beta	pCi/L	39.8	-	36.1
Total Radium	pCi/L	<1.0	-	1.2
Tritium	pCi/mL	1050	-	1220

Well: LCO 3, L-Area Oil and Chemical Basin

SRP Grid	N 45203.0	Screen Zone Elevation	69.0-59.8	meters (MSL)
Coordinates E	51113.2	Top of Casing Elevation	73.58	
Latitude	33.208138°N	Casing Material	PVC	
Longitude	81.6.0050°W			
Parameter	Units	03/02/87	05/16/87	08/16/87
Sampling Method	Pump	Pump	Pump	Pump
Water Elevation	meters	65.9	66.1	65.7
pH	pH	9.6	9.7	9.0
Conductivity	umhos/cm	350	320	348
TDS	mg/L	198	-	-
Arsenic	mg/L	0.003	-	-
Barium	mg/L	<0.004	-	-
Beryllium	mg/L	-	-	-
Cadmium	mg/L	<0.002	-	-
Calcium	mg/L	0.179	-	-
Chloride	mg/L	3.7	-	-
Chromium	mg/L	<0.004	-	<0.004
Copper	mg/L	-	-	-
Cyanide	mg/L	-	-	-
Fluoride	mg/L	0.18	-	-
Iron	mg/L	0.020	-	0.071
Lead	mg/L	<0.006	-	<0.006
Magnesium	mg/L	0.022	-	-
Manganese	mg/L	<0.001	-	<0.002
Mercury	mg/L	<0.0002	-	<0.0012
Nickel	mg/L	<0.004	0.004	0.004
Potassium	mg/L	0.340	-	-
Selenium	mg/L	<0.002	-	-
Silica	mg/L	2.83	-	-
Silv	mg/L	<0.0020	-	-
Sodium	mg/L	81.5	-	-
Total Phosphate	mg/L	0.294	-	-
Zinc	mg/L	-	-	-
NO ₃ (as N)	mg/L	0.42	-	-
SO ₄	mg/L	17.0	-	<5.0
Phenols	mg/L	<0.002	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.80
Tot. Org. Halogen	mg/L	0.022	-	0.023
Carbon Tet.	mg/L	<0.001	-	<0.001
Chloroform	mg/L	<0.001	-	<0.001
Tetrachloroethene	mg/L	0.013	-	0.011
Trichloroethene	mg/L	0.015	-	0.012
1,1,1-TCE	mg/L	<0.001	-	<0.001
Gross Alpha	pCi/L	<3.0	-	-
Nonvol. Beta	pCi/L	7.0	-	6.3
Total Radium	pCi/L	1.0	-	<1.0
Tritium	pCi/mL	10.9	-	9.90

Well: LCO 2, L-Area Oil and Chemical Basin

SRP Grid	N 45117.8	Screen Zone Elevation	69.1-59.9	meters (MSL)
Coordinates E	51043.4	Top of Casing Elevation	73.64	
Latitude	33.204278°N	Casing Material	PVC	
Longitude	81.620456°W			
Parameter	Units	03/02/87	05/16/87	08/16/87
Sampling Method	Pump	Pump	Pump	Pump
Water Elevation	meters	65.7	66.4	65.7
pH	pH	4.6	4.5	4.5
Conductivity	umhos/cm	33	36	34
TDS	mg/L	20	-	-
Arsenic	mg/L	<0.002	-	-
Barium	mg/L	<0.004	-	-
Beryllium	mg/L	-	-	-
Cadmium	mg/L	<0.002	-	-
Calcium	mg/L	0.558	-	-
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	0.030	-	0.042
Lead	mg/L	0.036	-	0.015
Magnesium	mg/L	0.581	-	-
Manganese	mg/L	0.005	-	<0.002
Mercury	mg/L	<0.0002	-	<0.0002
Nickel	mg/L	<0.004	<0.004	<0.004
Potassium	mg/L	0.190	-	-
Selenium	mg/L	<0.002	-	-
Silica	mg/L	2.82	-	-
Silv	mg/L	<0.0020	-	-
SO ₄	mg/L	3.15	-	-
Tc phosphate	mg/L	0.711	-	-
Zinc	mg/L	61	-	-
NO ₃ (as N)	mg/L	-	<5.0	-
SO ₄	mg/L	-	-	-
Phenols	mg/L	-	-	-
Tot. Org. Carbon	mg/L	6.1	-	-
Carbon Tet.	mg/L	12	-	-
Chloroform	mg/L	0.008	-	3.90
Tetrachloroethene	mg/L	0.001	-	<0.001
Trichloroethene	mg/L	0.001	-	0.007
1,1,1-TCE	mg/L	0.001	-	<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	18.7	-	9.70

Well: LCO 4, L-Area Oil and Chemical Basin

SRP Grid	N 45087.4	Screen Zone Elevation	67.8-58.6	meters (MSL)
Coordinates E	51038.7	Top of Casing Elevation	72.30	
Latitude	33.208756°N	Casing Material	PVC	
Longitude	81.620018°W			
Parameter	Units	03/02/87	05/16/87	08/16/87
Sampling Method	Pump	Jump	Pump	Pump
Water Elevation	meters	65.8	65.1	64.4
pH	pH	4.9	4.6	4.6
Conductivity	umhos/cm	550	980	1046
TDS	mg/L	430	-	-
Arsenic	mg/L	<0.002	-	-
Barium	mg/L	0.018	-	-
Beryllium	mg/L	-	-	-
Cadmium	mg/L	<0.002	-	-
Calcium	mg/L	1.14	-	-
Chloride	mg/L	13.8	-	-
Chromium	mg/L	<0.004	-	<0.004
Copper	mg/L	-	-	-
Cyanide	mg/L	-	-	-
Fluoride	mg/L	0.25	-	-
Iron	mg/L	0.101	-	0.232
Lead	mg/L	0.049	-	0.019
Magnesium	mg/L	1.69	-	-
Manganese	mg/L	0.084	-	0.110
Mercury	mg/L	<0.0013	-	<0.0020
Nickel	mg/L	0.010	0.014	0.012
Potassium	mg/L	1.03	-	-
Selenium	mg/L	0.703	-	-
Silica	mg/L	2.93	-	-
Silver	mg/L	<0.0020	-	-
Sodium	mg/L	1.7	-	-
Total Phosphate	mg/L	0.020	-	-
Zinc	mg/L	-	-	-
NO ₃ (as N)	mg/L	1.97	-	-
SO ₄	mg/L	252	-	420
Phenols	mg/L	<0.002	-	-
Tot. Org. Carbon	mg/L	1.50	-	2.70
Carbon Tet.	mg/L	0.032	-	0.051
Chloroform	mg/L	<0.001	-	<0.001
Tetrachloroethene	mg/L	0.040	-	0.047
Trichloroethene	mg/L	<0.001	-	<0.001
1,1,1-TCE	mg/L	<0.001	-	<0.001
Gross Alpha	pCi/L	<3.0	-	-
Nonvol. Beta	pCi/L	9.1	-	9.4
Total Radium	pCi/L	2.8	-	4.4
Tritium	pCi/mL	354	-	94.2

TABLE 4-13
CHEMICAL CONCENTRATIONS IN L-AREA GROUNDWATER

Well: LDB 1, L-Area Disassembly Basin

Parameter	Units	meters (MSL)			
		03/18/87	05/21/87	09/09/87	11/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	66	66.4	66.2	65.8
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	1.47	-	-	-
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.57	-	-	-
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	-	1.0	-
Tritium	pCi/mL	4.97	-	-	-

Well: LDB 2, L-Area Disassembly Basin

Parameter	Units	meters (MSL)			
		03/18/87	05/21/87	09/09/87	11/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	66.2	66.5	66.3	65.9
pH		5.4	5.5	5.8	4.8
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	0.010	-	-	-
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	-	2.00	-
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	-	<3.2	-
Nonvol. Beta	pCi/L	3.0	-	-	-
Total Radium	pCi/L	1.0	-	0.9	-
Tritium	pCi/mL	5.19	-	-	-

Other Analyses (mg/L)

(GCMS Scan Analytes: Table 4-25, Vol. II)

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. III)

LRP 3 08/13/87

GCMS Scan detected the following: None

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

Parameter	Units	meters (MSL)			
		03/11/87	05/16/87	08/13/87	11/05/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	-	63.4	63.6	63.5
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	<0.002	-	-	-
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	<3.0	-	-	-
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: LRP 2, L-Area Burning/Bubble Pit

SRP Grid N 48352.9
Coordinates E 48214.4
Latitude 33.21301°N
Longitude 81.63113°W

Screen Zone Elevation 65.4-56.3
Top of Casing Elevation 78.24
Casing Material PVC

Parameter	Units	03/11/87	05/16/87	08/13/87	11/05/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	63.3	64.2	63.9	63.9	
pH	pH	6.0	5.0	5.1	5.3	
Conductivity	umhos/cm	21	22	25	24	
TDS	mg/L	8	-	-	-	
Arsenic	mg/L	<0.003	-	-	-	
Barium	mg/L	0.009	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	-	-	
Calcium	mg/L	0.657	-	-	-	
Chloride	mg/L	2.9	-	-	-	
Chromium	mg/L	<0.004	-	-	-	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.12	-	-	-	
Iron	mg/L	0.024	-	0.030	-	
Lead	mg/L	0.081	-	0.054	-	
Magnesium	mg/L	0.320	-	-	-	
Manganese	mg/L	0.014	-	-	-	
Mercury	mg/L	<0.0002	-	-	-	
Nickel	mg/L	0.007	-	-	-	
Potassium	mg/L	0.300	-	-	-	
Selenium	mg/L	<0.002	-	-	-	
Silica	mg/L	3.34	-	-	-	
Silver	mg/L	<0.0040	-	-	-	
Sodium	mg/L	2.05	-	-	-	
Total Phosphate	mg/L	0.020	-	-	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	0.51	-	0.88	-	
SO ₄	mg/L	<3.0	-	-	-	
Phenols	mg/L	<0.003	-	-	-	
Tot. Org. Carbon	mg/L	<1.000	-	1.000	-	
Tot. Org. Halogen	mg/L	<0.005	-	0.005	-	
C ₄ Ben. 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	3.49	-	-	-	

Well: LRP 4, L-Area Burning/Bubble Pit

Parameter	Units	03/11/87	05/16/87	08/13/87	11/05/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	62.7	63.6	63.8	63.5	
pH	pH	5.6	4.8	4.7	5.1	
Conductivity	umhos/cm	26	26	26	24	
TDS	mg/L	22	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	0.008	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	-	-	
Calcium	mg/L	0.710	-	-	-	
Chloride	mg/L	3.1	-	-	-	
Chromium	mg/L	<0.004	-	-	-	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.18	-	-	-	
Iron	mg/L	0.010	-	0.051	-	
Lead	mg/L	0.008	-	0.008	-	
Magnesium	mg/L	0.386	-	-	-	
Manganese	mg/L	0.009	-	-	-	
Mercury	mg/L	<0.002	-	-	-	
Nickel	mg/L	<0.004	-	-	-	
Potassium	mg/L	0.480	-	-	-	
Selenium	mg/L	<0.02	-	-	-	
Silica	mg/L	3.75	-	-	-	
Silver	mg/L	<0.0020	-	-	-	
Sodium	mg/L	2.20	-	-	-	
Total Phosphate	mg/L	0.030	-	-	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	0.92	-	1.21	-	
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	1.5	-	-	-	
Nonvol. Beta	pCi/L	4.0	-	-	-	
Total Radium	pCi/L	1.1	-	-	-	
Tritium	pCi/mL	1.71	-	-	-	

Well: LRP 3, L-Area Burning/Bubble Pit

SRP Grid N 48333.6
Coordinates E 48057.7
Latitude 33.21271°N
Longitude 81.63113°W

Screen Zone Elevation 67.5-58.3
Top of Casing Elevation 78.70
Casing Material PVC

Parameter	Units	03/11/87	05/16/87	08/13/87	11/05/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	62.8	63.9	63.8	63.6	
pH	pH	5.7	5.0	4.8	5.2	
Conductivity	umhos/cm	26	28	43	59	
TDS	mg/L	26	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	0.010	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	-	-	
Calcium	mg/L	1.10	-	-	-	
Chloride	mg/L	3.3	-	-	-	
Chromium	mg/L	<0.004	-	-	-	
Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.10	-	-	-	
Iron	mg/L	0.022	-	0.068	-	
Lead	mg/L	0.021	-	0.021	-	
Magnesium	mg/L	1.10	-	-	-	
Manganese	mg/L	0.016	-	-	-	
Mercury	mg/L	<0.0002	-	-	-	
Nickel	mg/L	<0.004	-	-	-	
Potassium	mg/L	0.530	-	-	-	
Selenium	mg/L	<0.002	-	-	-	
Silica	mg/L	3.34	-	-	-	
Silver	mg/L	<0.0020	-	-	-	
Sodium	mg/L	2.48	-	-	-	
Total Phosphate	mg/L	0.020	-	-	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	0.78	-	1.00	-	
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	-	0.010	-	
Carbon Tet.	mg/L	-	-	<0.005	-	
Chloroform	mg/L	-	-	<0.005	-	
Tetrachloroethene	mg/L	-	-	0.010	-	
Trichloroethene	mg/L	-	-	<0.005	-	
1,1,1-TCE	mg/L	-	-	0.005	-	
Gross Alpha	pCi/L	<3.0	-	-	-	
Nonvol. Beta	pCi/L	2.5	-	-	-	
Total Radium	pCi/L	<1.0	-	-	-	
Tritium	pCi/mL	3.79	-	-	-	

Well: LRP 1, L-Area Reactor Seepage Basin

SRP Grid N 45153.9
Coordinates E 50700.9
Latitude 33.20835°N
Longitude 81.62103°W

Screen Zone Elevation 67.9-58.7
Top of Casing Elevation 70.92
Casing Material PVC

Parameter	Units	03/09/87	05/16/87	08/17/87	10/15/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	65.7	64	64	64.5	
pH	pH	5.0	4.8	4.4	4.8	
Conductivity	umhos/cm	24	25	25	21	
TDS	mg/L	16	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	0.005	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	-	-	
Calcium	mg/L	0.511	-	-	-	
Chloride	mg/L	3.0	-	-	-	
Chromium	mg/L	<0.004	-	-	-	
Copper	mg/L	<0.009	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.17	-	-	-	
Iron	mg/L	0.011	-	-	-	
Lead	mg/L	0.019	-	-	0.016	
Magnesium	mg/L	0.564	-	-	-	
Manganese	mg/L	-	-	-	-	
Mercury	mg/L	<0.0002	-	-	-	
Nickel	mg/L	-	-	-	-	
Potassium	mg/L	0.590	-	-	-	
Selenium	mg/L	<0.002	-	-	-	
Silica	mg/L	2.31	-	-	-	
Silver	mg/L	<0.0020	-	-	-	
Sodium	mg/L	1.20	-	-	-	
Total Phosphate	mg/L	0.020	-	-	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	1.13	-	-	-	
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	-	-	0.007	
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	2.6	-	-	-	
Total Radium	pCi/L	<1.0	-	-	-	
Tritium	pCi/mL	193	-	-	968	

TABLE 4-13
CHEMICAL CONCENTRATIONS IN L-AREA GROUNDWATER

Well: LSB 2, L-Area Reactor Seepage Basin

Parameter	Units	meters (MSL)			
		03/09/87	05/16/87	08/17/87	10/15/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	66	65	64.3	64.3
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	0.021	-	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	<0.0070	-	-	-
Sodium	mg/L	1.31	-	-	-
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	-	1.38	-
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	-	-	-
Neonel, Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	1.0	-	-	-
Tritium	pCi/mL	7.27	-	6.50	-

Well: LSB 3, L-Area Reactor Seepage Basin

Parameter	Units	meters (MSL)			
		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	3.1	4.8	4.4	4.9
Conductivity	umhos/cm	21	22	22	19
TDS	mg/L	13	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.011	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.540	-	-	-
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	0.012	-	0.015	-
Magnesium	mg/L	0.438	-	-	-
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	<0.0010	-	-	-
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	-	-	-
Neonel, Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	1.0	-	-	-
Tritium	pCi/mL	7.31	-	6.30	-

Well: LSB 4, L-Area Reactor Seepage Basin

Parameter	Units	meters (MSL)			
		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	0.026	-	-	-
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	-	-	-
Neonel, Beta	pCi/L	4.7	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	299	-	1290	-

TABLE 4-14
RADIOACTIVITY IN P-AREA GROUNDWATER

<u>Seepage Basins</u>	<u>No. of 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>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

Well: PAC 1, P-Area Acid/Caustic Basin						Well: PAC 3, P-Area Acid/Caustic Basin					
Parameter	Units	03/07/87	04/29/87	08/12/87	11/05/87	Parameter	Units	03/07/87	04/29/87	08/12/87	11/05/87
Sampling Method		Pump	Pump	Pump	Pump	Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	87.7	87.4	86.6	86.4	Water Elevation	meters	83.6	83.1	82.8	82.9
pH	pH	5.5	4.9	5.2	5.4	pH	pH	6.0	5.7	7.5	6.1
Conductivity	umhos/cm	44	46	47	51	Conductivity	umhos/cm	170	245	385	385
TDS	mg/L	20	-	-	-	TDS	mg/L	60	-	-	-
Arsenic	mg/L	<0.002	-	-	-	Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.042	-	-	-	Barium	mg/L	0.089	-	-	-
Beryllium	mg/L	-	-	-	-	Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-	Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.67	-	-	-	Calcium	mg/L	1.2	-	-	-
Chloride	mg/L	4.9	-	-	-	Chloride	mg/L	8.0	-	-	-
Chromium	mg/L	<0.004	-	-	-	Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-	Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-	Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-	Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.068	-	0.062	-	Iron	mg/L	0.052	-	0.423	-
Lead	mg/L	<0.006	-	-	-	Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	0.571	-	-	-	Magnesium	mg/L	2.48	-	-	-
Manganese	mg/L	0.005	-	-	-	Manganese	mg/L	0.005	-	-	-
Mercury	mg/L	<0.0002	-	-	-	Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-	Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	2.19	-	-	-	Potassium	mg/L	1.11	-	-	-
Selenium	mg/L	<0.002	-	<0.002	-	Selenium	mg/L	<0.002	-	<0.002	-
Silica	mg/L	2.16	-	-	-	Silica	mg/L	4.82	-	-	-
Silver	mg/L	<0.0020	-	<0.0020	-	Silver	mg/L	<0.0020	-	<0.0020	-
Sodium	mg/L	3.18	-	4.90	-	Sodium	mg/L	17.6	-	38.2	-
Total Phosphate	mg/L	0.030	-	-	-	Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	-	-	-	-	Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.72	-	-	-	NO ₃ (as N)	mg/L	0.06	-	-	-
SO ₄	mg/L	<3.0	-	<5.0	-	SO ₄	mg/L	43.0	-	82.0	-
Phenols	mg/L	<0.002	-	-	-	Phenols	mg/L	<0.002	-	-	-
Tet. Org. Carbon	mg/L	2.10	-	1.000	-	Tet. Org. Carbon	mg/L	<1.000	-	3.00	-
Tet. Org. Halogen	mg/L	<0.005	-	<0.005	-	Tet. Org. Halogen	mg/L	<0.005	-	0.009	-
Carbon Tet.	mg/L	-	-	-	-	Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-	Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-	1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	3.0	-	-	-	Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-	Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-	Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	12.9	-	-	-	Tritium	pCi/mL	10.4	-	-	-

Well: PAC 2, P-Area Acid/Caustic Basin						Well: PAC 4, P-Area Acid/Caustic Basin					
Parameter	Units	03/07/87	04/29/87	08/12/87	11/05/87	Parameter	Units	03/07/87	04/29/87	08/12/87	11/05/87
Sampling Method		Pump	Pump	Pump	Pump	Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	83.6	83.3	83	82.9	Water Elevation	meters	87.1	87.1	86.7	86.6
pH	pH	5.4	5.3	5.8	6.2	pH	pH	4.4	5.2	7.3	5.7
Conductivity	umhos/cm	51	68	110	103	Conductivity	umhos/cm	138	220	210	207
TDS	mg/L	10	-	-	-	TDS	mg/L	118	-	-	-
Arsenic	mg/L	<0.002	-	-	-	Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.028	-	-	-	Barium	mg/L	0.012	-	-	-
Beryllium	mg/L	-	-	-	-	Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-	Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.05	-	-	-	Calcium	mg/L	0.414	-	-	-
Chloride	mg/L	3.9	-	-	-	Chloride	mg/L	8.6	-	-	-
Chromium	mg/L	<0.004	-	-	-	Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-	Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-	Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-	Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.122	-	2.42	-	Iron	mg/L	0.038	-	0.072	-
Lead	mg/L	<0.006	-	-	-	Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	0.830	-	-	-	Magnesium	mg/L	0.380	-	-	-
Manganese	mg/L	0.016	-	-	-	Manganese	mg/L	0.003	-	-	-
Mercury	mg/L	<0.002	-	-	-	Mercury	mg/L	<0.002	-	-	-
Nickel	mg/L	<0.004	-	-	-	Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	1.39	-	-	-	Potassium	mg/L	1.01	-	-	-
Selenium	mg/L	<0.002	-	<0.002	-	Selenium	mg/L	0.003	-	0.003	-
Silica	mg/L	1.03	-	-	-	Silica	mg/L	2.98	-	-	-
Silica	mg/L	<0.0020	-	<0.0020	-	Silica	mg/L	<0.0020	-	<0.0020	-
Sodium	mg/L	4.20	-	10.2	-	Sodium	mg/L	38.0	-	32.8	-
Total Phosphate	mg/L	0.020	-	-	-	Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	-	-	-	-	Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.05	-	-	-	NO ₃ (as N)	mg/L	1.23	-	-	-
SO ₄	mg/L	10.0	-	12.0	-	SO ₄	mg/L	86.0	-	47.0	-
Phenols	mg/L	<0.002	-	-	-	Phenols	mg/L	<0.002	-	-	-
Tet. Org. Carbon	mg/L	3.70	-	50.0	-	Tet. Org. Carbon	mg/L	<1.000	-	2.00	-
Tet. Org. Halogen	mg/L	<0.003	-	0.018	-	Tet. Org. Halogen	mg/L	<0.003	-	0.005	-
Carbon Tet.	mg/L	-	-	-	-	Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-	Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-	1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	3.0	-	-	-	Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	3.0	-	-	-	Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-	Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	4.77	-	-	-	Tritium	pCi/mL	12.6	-	-	-

TABLE 4-15
CHEMICAL CONCENTRATIONS IN P-AREA GROUNDWATER

Well: PCB 1A, P-Area Coal Pile Runoff Containment Basin					Well: PCB 3A, P-Area Coal Pile Runoff Containment Basin						
		meters (MSL)					meters (MSL)				
Parameter	Units	03/07/87	04/29/87	08/12/87	11/04/87	Parameter	Units	03/07/87	04/29/87	08/12/87	11/04/87
Sampling Method		Pump	Pump	Pump	Pump	Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	87.4	87.6	87.1	87.1	Water Elevation	meters	87.8	88.2	88.8	88.6
pH	pH	4.8	4.0	4.1	4.7	pH	pH	3.9	3.4	3.4	3.5
Conductivity	umhos/cm	141	530	142	114	Conductivity	umhos/cm	1300	1450	13.5	952
TDS	mg/L	110	-	-	-	TDS	mg/L	1210	-	-	-
Arsenic	mg/L	<0.002	-	-	-	Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.050	-	-	-	Barium	mg/L	0.020	-	-	-
Beryllium	mg/L	<0.005	-	-	-	Beryllium	mg/L	0.017	-	-	-
Cadmium	mg/L	<0.002	-	<0.002	-	Cadmium	mg/L	0.009	-	0.012	-
Calcium	mg/L	14.0	-	-	-	Calcium	mg/L	39.4	-	-	-
Chloride	mg/L	5.1	-	-	-	Chloride	mg/L	1.1	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-	Chromium	mg/L	0.020	-	0.021	-
Copper	mg/L	0.033	-	0.004	-	Copper	mg/L	0.555	-	0.920	-
Cyanide	mg/L	-	-	-	-	Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.11	-	-	-	Fluoride	mg/L	0.62	-	-	-
Iron	mg/L	0.052	-	0.960	-	Iron	mg/L	0.335	-	1.12	-
Lead	mg/L	0.023	-	<0.006	-	Lead	mg/L	<0.006	-	0.062	-
Magnesium	mg/L	4.47	-	-	-	Magnesium	mg/L	19.9	-	-	-
Manganese	mg/L	0.340	-	0.261	-	Manganese	mg/L	2.00	-	2.84	-
Mercury	mg/L	<0.0002	-	-	-	Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	0.022	-	0.005	-	Nickel	mg/L	0.468	-	0.393	-
Potassium	mg/L	1.55	-	-	-	Potassium	mg/L	1.17	-	-	-
Selenium	mg/L	<0.002	-	<0.002	-	Selenium	mg/L	0.011	-	0.002	-
Silica	mg/L	2.78	-	-	-	Silica	mg/L	13.4	-	-	-
Silver	mg/L	<0.0020	-	-	-	Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	4.57	-	-	-	Sodium	mg/L	2.37	-	-	-
Total Phosphate	mg/L	0.017	-	-	-	Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	-	-	-	-	Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.21	-	-	-	NO ₃ (as N)	mg/L	0.53	-	-	-
SO ₄	mg/L	5.5	-	20.0	-	SO ₄	mg/L	831	-	106	-
Phenols	mg/L	<0.002	-	-	-	Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	2.00	-	41.0	-	Tot. Org. Carbon	mg/L	2.70	-	21.0	-
Tot. Org. Halogen	mg/L	<0.005	-	0.017	-	Tot. Org. Halogen	mg/L	<0.005	-	0.008	-
Carbon Tet.	mg/L	-	-	-	-	Carbon Tet.	mg/L	-	-	0.005	-
Chloroform	mg/L	-	-	-	-	Chloroform	mg/L	-	-	0.005	-
Tetrachloroethene	mg/L	-	-	-	-	Tetrachloroethene	mg/L	-	-	0.005	-
Trichloroethene	mg/L	-	-	-	-	Trichloroethene	mg/L	-	-	0.005	-
1,1,1-TCE	mg/L	-	-	-	-	1,1,1-TCE	mg/L	-	-	0.005	-
Gross Alpha	pCi/L	<3.0	-	<3.0	-	Gross Alpha	pCi/L	<3.0	-	<3.0	-
Nonvol. Beta	pCi/L	8.1	-	-	-	Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	1.0	-	Total Radium	pCi/L	<1.0	-	0.3	-
Tritium	pCi/mL	15.2	-	-	-	Tritium	pCi/mL	12.2	-	-	-

Well: PCB 2A, P-Area Coal Pile Runoff Containment Basin					Well: PCB 4A, P-Area Coal Pile Runoff Containment Basin						
		meters (MSL)					meters (MSL)				
Parameter	Units	03/07/87	04/29/87	08/12/87	12/29/87	Parameter	Units	03/07/87	04/29/87	08/12/87	11/04/87
Sampling Method		Pump	Pump	Pump	Pump	Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	87.1	87.1	86.7	86.1	Water Elevation	meters	87	87.1	86.7	86.6
pH	pH	5.5	4.7	4.1	5.4	pH	pH	4.6	3.9	3.9	4.2
Conductivity	umhos/cm	51	47	58	55	Conductivity	umhos/cm	79	110	180	97
TDS	mg/L	22	-	-	-	TDS	mg/L	30	-	-	-
Arsenic	mg/L	<0.002	-	-	-	Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.010	-	-	-	Barium	mg/L	0.008	-	-	-
Beryllium	mg/L	<0.005	-	-	-	Beryllium	mg/L	<0.005	-	-	-
Cadmium	mg/L	<0.002	-	<0.002	-	Cadmium	mg/L	<0.002	-	0.005	-
Calcium	mg/L	2.38	-	-	-	Calcium	mg/L	1.52	-	-	-
Chloride	mg/L	5.3	-	-	-	Chloride	mg/L	7.6	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-	Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	0.008	-	0.009	-	Copper	mg/L	0.061	-	0.065	-
Cyanide	mg/L	-	-	-	-	Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-	Fluoride	mg/L	0.24	-	-	-
Iron	mg/L	0.060	-	0.580	-	Iron	mg/L	0.023	-	0.110	-
Lead	mg/L	0.015	-	0.009	-	Lead	mg/L	0.046	-	0.042	-
Magnesium	mg/L	0.199	-	-	-	Magnesium	mg/L	0.818	-	-	-
Manganese	mg/L	0.011	-	0.020	-	Manganese	mg/L	0.092	-	0.256	-
Mercury	mg/L	<0.0002	-	-	-	Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	<0.004	-	Nickel	mg/L	0.009	-	0.016	-
Potassium	mg/L	1.50	-	-	-	Potassium	mg/L	0.130	-	-	-
Selenium	mg/L	<0.002	-	<0.002	-	Selenium	mg/L	<0.002	-	<0.002	-
Silica	mg/L	2.11	-	-	-	Silica	mg/L	3.19	-	-	-
Silver	mg/L	<0.0020	-	-	-	Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	5.20	-	-	-	Sodium	mg/L	7.01	-	-	-
Total Phosphate	mg/L	0.020	-	-	-	Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	-	-	-	-	Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.06	-	-	-	NO ₃ (as N)	mg/L	<0.05	-	-	-
SO ₄	mg/L	5.0	-	<5.0	-	SO ₄	mg/L	7.0	-	32.0	-
Phenols	mg/L	<0.002	-	-	-	Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	2.00	-	3.00	-	Tot. Org. Carbon	mg/L	>1.0	-	9.00	-
Tot. Org. Halogen	mg/L	<0.005	-	0.014	-	Tot. Org. Halogen	mg/L	<0.005	-	0.014	-
Carbon Tet.	mg/L	-	-	-	-	Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-	Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-	1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	<3.0	-	Gross Alpha	pCi/L	<3.0	-	<3.0	-
Nonvol. Beta	pCi/L	52.0	-	-	-	Nonvol. Beta	pCi/L	<1.0	-	-	-
Total Radium	pCi/L	<1.0	-	<1.0	-	Total Radium	pCi/L	<1.0	-	1.8	-
Tritium	pCi/mL	12.2	-	-	-	Tritium	pCi/mL	12.4	-	-	-

TABLE 4-15
CHEMICAL CONCENTRATIONS IN P-AREA GROUNDWATER

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

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

Well: PDB 3, P-Area Disassembly Basin				
Parameter	Units	03/18/87	05/21/87	09/09/87
Sampling Method	Pump	Pump	Pump	Pump
Water Elevation	meters	85.3	85.9	85.8
pH	-	5.4	6.1	6.0
Conductivity	µhos/cm	56	55	56
TDS	mg/L	12	26	38
Arsenic	mg/L	<0.002	<0.002	0.002
Barium	mg/L	0.023	0.016	0.021
Beryllium	mg/L	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002
Calcium	mg/L	3.33	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	<0.0001	<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	1.00	1.000	<1.000
Tot. Org. Halogen	mg/L	0.006	0.008	0.006
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	<2.0	<2.0	<2.0
Total Radium	pCi/L	<1.0	0.5	0.3
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 33.271620°N Top of Casing Elevation 97.38

Longitude 81.580853°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	85.2	85.8	85.4	
pH	-	5.7	5.5	5.7	
Conductivity	µhos/cm	61	63	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	0.020	0.081	
Lead	mg/L	0.038	0.023	0.034	
Magnesium	mg/L	0.924	0.856	0.762	
Manganese	mg/L	0.021	0.019	0.012	
Mercury	mg/L	<0.0001	0.0003	0.0003	
Nickel	mg/L	-	-	-	
Potassium	mg/L	0.910	1.24	0.979	
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	4.18	3.10	
Total Phosphate	mg/L	<0.010	0.100	0.032	
Zinc	mg/L	-	-	-	
NO ₃ (as N)	mg/L	2.11	2.20	3.19	
SO ₄	mg/L	<5.0	4.0	4.8	
Phenols	mg/L	<0.002	<0.005	<0.005	
Tot. Org. 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	-	-	-	
Gross 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. II)

PDB 2 03/18/87	
Pest/Herb* Analysis detected the following:	
None	
PDB 3 03/18/87	
Pest/Herb* Analysis detected the following:	
None	

TABLE 4-15
CHEMICAL CONCENTRATIONS IN P-AREA GROUNDWATER

Well: PRP 1A, P-Area Burning/Rubble Pit				Well: PRP 3, P-Area Burning/Rubble Pit							
		meters (MSL)				meters (MSL)					
Parameter	Units	03/07/87	04/29/87	05/12/87	11/11/87	Parameter	Units	03/17/87	04/29/87	05/12/87	11/11/87
Sampling Method		Pump	Pump	Pump	Pump	Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	76.7	76.7	76.1	76.1	Water Elevation	meters	79	78.9	77.7	77.4
pH	pH	5.1	4.5	4.3	5.1	pH	pH	5.0	4.8	4.7	4.8
Conductivity	umhos/cm	42	41	42	40	Conductivity	umhos/cm	110	100	96	97
TDS	mg/L	1210	-	-	-	TDS	mg/L	82	-	-	-
Arsenic	mg/L	<0.002	-	-	-	Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.098	-	-	-	Barium	mg/L	0.043	-	-	-
Beryllium	mg/L	-	-	-	-	Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-	Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.23	-	-	-	Calcium	mg/L	0.971	-	-	-
Chloride	mg/L	4.1	-	-	-	Chloride	mg/L	6.8	-	-	-
Chromium	mg/L	<0.004	-	-	-	Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.013	-	-	-	Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	-	-	-	-	Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-	Fluoride	mg/L	0.18	-	-	-
Iron	mg/L	0.076	-	0.200	-	Iron	mg/L	0.165	-	0.224	-
Lead	mg/L	1.022	-	0.022	-	Lead	mg/L	0.022	-	0.065	-
Magnesium	mg/L	0.862	-	-	-	Magnesium	mg/L	1.46	-	-	-
Manganese	mg/L	0.007	-	0.006	-	Manganese	mg/L	0.085	-	0.084	-
Mercury	mg/L	<0.0002	-	-	-	Mercury	mg/L	<0.0006	-	-	-
Nickel	mg/L	<0.004	-	-	-	Nickel	mg/L	<0.007	-	-	-
Potassium	mg/L	1.41	-	-	-	Potassium	mg/L	0.740	-	-	-
Selenium	mg/L	<0.002	-	-	-	Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.70	-	-	-	Silica	mg/L	3.18	-	-	-
Silver	mg/L	<0.0020	-	-	-	Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	3.13	-	-	-	Sodium	mg/L	12.2	-	-	-
Total Phosphate	mg/L	0.030	-	-	-	Total Phosphate	mg/L	0.060	-	-	-
Zinc	mg/L	-	-	-	-	Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	2.08	-	-	-	NO ₃ (as N)	mg/L	1.43	-	-	-
SO ₄	mg/L	<3.0	-	-	-	SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-	Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.30	-	1.000	-	Tot. Org. Carbon	mg/L	1.50	-	5.00	-
Tot. Org. Halogen	mg/L	-	<0.005	<0.005	<0.005	Tot. Org. Halogen	mg/L	0.519	0.029	0.698	<0.005
Carbon Tet.	mg/L	<0.001	-	<0.001	-	Carbon Tet.	mg/L	<0.001	-	0.001	-
Chloroform	mg/L	<0.001	-	<0.001	-	Chloroform	mg/L	<0.001	-	0.001	-
Tetrachloroethene	mg/L	<0.001	-	<0.001	-	Tetrachloroethene	mg/L	0.043	-	0.031	-
Trichloroethene	mg/L	<0.001	-	<0.001	-	Trichloroethene	mg/L	0.042	-	0.252	-
1,1,1-TCE	mg/L	<0.001	-	<0.001	-	1,1,1-TCE	mg/L	0.290	-	0.494	-
Gross Alpha	pCi/L	3.0	-	-	-	Gross Alpha	pCi/L	5.4	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-	Nonvol. Beta	pCi/L	7.6	-	-	-
Total Radium	pCi/L	<1.0	-	-	-	Total Radium	pCi/L	1.8	-	-	-
Tritium	pCi/mL	83.9	-	-	-	Tritium	pCi/mL	20.0	-	-	-

Well: PRP 2, P-Area Burning/Rubble Pit				Well: PRP 4, P-Area Burning/Rubble Pit							
		meters (MSL)				meters (MSL)					
Parameter	Units	03/07/87	04/29/87	05/12/87	11/11/87	Parameter	Units	03/07/87	04/29/87	05/12/87	11/11/87
Sampling Method		Pump	Pump	Pump	Pump	Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	79.3	79.1	78	77.5	Water Elevation	meters	79.6	79.7	78.9	78.5
pH	pH	4.9	4.7	5.2	5.0	pH	pH	4.8	4.6	4.6	4.8
Conductivity	umhos/cm	22	28	36	27	Conductivity	umhos/cm	32	34	36	33
TDS	mg/L	12	-	-	-	TDS	mg/L	20	-	-	-
Arsenic	mg/L	<0.002	-	-	-	Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.014	-	-	-	Barium	mg/L	0.019	-	-	-
Beryllium	mg/L	-	-	-	-	Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-	Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.06	-	-	-	Calcium	mg/L	0.987	-	-	-
Chloride	mg/L	3.3	-	-	-	Chloride	mg/L	4.3	-	-	-
Chromium	mg/L	<0.004	-	-	-	Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.006	-	-	-	Copper	mg/L	<0.004	-	-	-
Cyanide	mg/L	-	-	-	-	Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-	Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.040	-	0.091	-	Iron	mg/L	0.018	-	0.765	-
Lead	mg/L	<0.006	-	0.006	-	Lead	mg/L	<0.006	-	0.006	-
Magnesium	mg/L	0.678	-	-	-	Magnesium	mg/L	0.958	-	-	-
Manganese	mg/L	0.002	-	0.005	-	Manganese	mg/L	0.002	-	0.007	-
Mercury	mg/L	<0.0002	-	-	-	Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-	Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.390	-	-	-	Potassium	mg/L	0.480	-	-	-
Selenium	mg/L	<0.002	-	-	-	Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.21	-	-	-	Silica	mg/L	3.03	-	-	-
Silver	mg/L	<0.0020	-	-	-	Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.17	-	-	-	Sodium	mg/L	1.83	-	-	-
Total Phosphate	mg/L	0.020	-	-	-	Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	-	-	-	-	Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.60	-	-	-	NO ₃ (as N)	mg/L	1.43	-	-	-
SO ₄	mg/L	<3.0	-	-	-	SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-	Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	2.00	-	Tot. Org. Carbon	mg/L	<1.000	-	2.00	-
Tot. Org. Halogen	mg/L	<0.005	<0.005	<0.005	<0.005	Tot. Org. Halogen	mg/L	<0.005	0.065	<0.005	<0.005
Carbon Tet.	mg/L	<0.001	-	<0.001	-	Carbon Tet.	mg/L	<0.001	-	<0.001	-
Chloroform	mg/L	<0.001	-	<0.001	-	Chloroform	mg/L	<0.001	-	<0.001	-
Tetrachloroethene	mg/L	<0.001	-	<0.001	-	Tetrachloroethene	mg/L	<0.002	-	<0.001	-
Trichloroethene	mg/L	<0.001	-	<0.001	-	Trichloroethene	mg/L	<0.001	-	<0.001	-
1,1,1-TCE	mg/L	<0.001	-	<0.001	-	1,1,1-TCE	mg/L	<0.001	-	<0.001	-
Gross Alpha	pCi/L	3.0	-	-	-	Gross Alpha	pCi/L	<3.0	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-	Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-	Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	12.1	-	-	-	Tritium	pCi/mL	8.47	-	-	-

TABLE 4-15
CHEMICAL CONCENTRATIONS IN P-AREA GROUNDWATER

Well: PSB 1A, P-Area Reactor Seepage Basins

Parameter	Units	meters (MSL)			
		03/01/87	04/29/87	08/15/87	11/12/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	84.8	85.7	85.3	84.9
pH	pH	7.1	6.5	7.0	7.3
Conductivity	umhos/cm	76	81	105	71
TDS	mg/L	48	-	-	-
Arsenic	mg/L	<0.002	-	0.002	-
Barium	mg/L	0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.002	-	-	-
Calcium	mg/L	9.04	-	-	-
Chloride	mg/L	6.4	-	-	-
Chromium	mg/L	0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.063	-	-	-
Lead	mg/L	<0.006	-	0.006	-
Magnesium	mg/L	0.214	-	-	-
Manganese	mg/L	<0.002	-	<0.002	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.370	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.80	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	4.75	-	4.40	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.15	-	2.04	-
SO ₄	mg/L	4.0	-	-	-
Phenols	mg/L	<0.001	-	-	-
Tot. Org. Carbon	mg/L	5.00	-	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	4.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	190000	-	130	-

Well: PSB 4A, P-Area Reactor Seepage Basins

Parameter	Units	meters (MSL)			
		03/01/87	04/29/87	08/15/87	11/12/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	83.8	84.9	84.5	84.1
pH	pH	4.8	4.6	4.8	4.7
Conductivity	umhos/cm	46	44	45	38
TDS	mg/L	26	-	-	-
Arsenic	mg/L	<0.002	-	<0.002	-
Barium	mg/L	0.032	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.626	-	-	-
Chloride	mg/L	3.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.037	-	-	-
Lead	mg/L	0.077	-	0.060	-
Magnesium	mg/L	0.676	-	-	-
Manganese	mg/L	0.006	-	0.006	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.576	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.08	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	4.11	-	5.03	-
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	2.75	-	13.7	-
SO ₄	mg/L	1.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	9.00	-	<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	2.7	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	5700	-	28.6	-

Well: PSB 3A, P-Area Reactor Seepage Basins

Parameter	Units	meters (MSL)			
		03/01/87	04/29/87	08/15/87	11/12/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	84.2	85	84.8	84.1
pH	pH	4.8	4.6	6.6	5.1
Conductivity	umhos/cm	34	36	44	28
TDS	mg/L	18	-	-	-
Arsenic	mg/L	<0.002	-	0.002	-
Barium	mg/L	0.012	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.30	-	-	-
Chloride	mg/L	4.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.011	-	-	-
Lead	mg/L	0.074	-	0.057	-
Magnesium	mg/L	1.11	-	-	-
Manganese	mg/L	0.012	-	0.11	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.880	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.47	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.73	-	2.00	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	2.19	-	7.20	-
SO ₄	mg/L	13.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	7.00	-	2.000	-
Tot. Org. Halogen	mg/L	<0.005	-	0.003	-
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	4.3	-	-	-
Total Radium	pCi/L	1.3	-	-	-
Tritium	pCi/mL	66800	-	117000	-

Well: PSB 5A, P-Area Reactor Seepage Basins

Parameter	Units	meters (MSL)			
		03/01/87	04/29/87	08/15/87	11/12/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	84.5	85.3	85.1	84.7
pH	pH	5.1	4.8	4.8	4.8
Conductivity	umhos/cm	38	36	32	26
TDS	mg/L	22	-	-	-
Arsenic	mg/L	<0.002	-	<0.002	-
Barium	mg/L	0.010	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	2.42	-	-	-
Chloride	mg/L	4.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.032	-	-	-
Lead	mg/L	0.040	-	0.059	-
Magnesium	mg/L	0.496	-	-	-
Manganese	mg/L	0.006	-	0.003	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.20	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.37	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.41	-	2.40	-
Total Phosphate	mg/L	0.011	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.53	-	0.08	-
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	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	3.4	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	114	-	44.2	-

TABLE 4-15
CHEMICAL CONCENTRATIONS IN P-AREA GROUNDWATER

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

Parameter	Units	meters (MSL)			
		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	0.756	-	-	-
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	-	-	-	-
Gross Alpha	pCi/L	17.0	-	-	-
Nonvol. Beta	pCi/L	5.7	-	-	-
Total Radium	pCi/L	1.0	-	-	-
Tritium	pCi/mL	136000	-	161000	-

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

Parameter	Units	meters (MSL)			
		Pump	Pump	Pump	Pump
Water Elevation	meters	84.1	85.5	85.3	85.1
pH		8.5	8.2	8.3	8.8
Conductivity	umhos/cm	76	78	95	54
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	6.00	-	1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	0.003	-
Carbon Tet.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	17.0	-	-	-
Nonvol. Beta	pCi/L	5.7	-	-	-
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>
Gross Alpha (pCi/L)						
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

Seepage Basins	No. of Samples	Maximum	Ct. Err. 95% Cl.	Minimum	Ct. Err. 95% Cl.	Average
Nonvolatile Beta (pCi/L)						
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 14	2	3.25	+1.41	2.03	+1.44	2.64
RSE 15	2	91.6	+5.04	58.2	+4.28	74.9
H-3 (pCi/mL)						
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	+0.73	4.60
RSE 8	1	4.91	+1.17	4.91	+1.67	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: RAC 1, R-Area Acid/Caustic Basin

Parameter	Units	meters (MSL)			
		02/12/87	05/02/87	07/26/87	10/05/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	84.2	83.8	83.1	83.3
pH	4.9	5.0	4.8	5.0	
Conductivity	umhos/cm	89	74	65	90
TDS	mg/L	76	-	-	-
Arsenic	ng/L	<0.002	-	-	-
Barium	mg/L	0.031	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	8.60	-	-	-
Chloride	mg/L	1.8	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.011	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.075	-	-	-
Lead	mg/L	0.013	-	0.012	-
Magnesium	mg/L	1.82	-	-	-
Manganese	mg/L	0.025	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.06	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.88	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.08	-	3.62	-
Total Phosphate	mg/L	0.035	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	3.76	-	-	-
SO ₄	mg/L	8.0	-	10.0	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.20	-	3.10	-
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	<3.0	-	6.1	-
Nonvol. Beta	pCi/L	3.0	-	-	-
Total Radium	pCi/L	<1.0	-	1.0	-
Tritium	pCi/mL	4.51	-	-	-

Well: RAC 2, R-Area Acid/Caustic Basin

Parameter	Units	meters (MSL)			
		02/12/87	05/02/87	07/26/87	10/05/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	83.4	83.2	82.9	83
pH	4.9	4.8	4.6	4.9	
Conductivity	umhos/cm	50	52	65	44
TDS	mg/L	24	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.026	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	2.09	-	-	-
Chloride	mg/L	2.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.144	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.041	-	-	-
Lead	mg/L	0.032	-	0.044	-
Magnesium	mg/L	1.93	-	-	-
Manganese	mg/L	0.032	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.530	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.73	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.35	-	2.14	-
Total Phosphate	mg/L	0.035	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	2.18	-	-	-
SO ₄	mg/L	<3.0	-	<5.0	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.00	-	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	1.7	-	<3.0	-
Nonvol. Beta	pCi/L	2.8	-	-	-
Total Radium	pCi/L	<1.0	-	0.8	-
Tritium	pCi/mL	4.59	-	-	-

Well: RAC 3, R-Area Acid/Caustic Basin

Parameter	Units	meters (MSL)			
		02/12/87	05/02/87	07/26/87	10/05/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	83.4	83.1	82.7	82.9
pH	4.7	4.8	5.5	5.0	
Conductivity	umhos/cm	36	38	46	39
TDS	mg/L	40	-	-	-
Arsenic	mg/L	<0.001	-	-	-
Barium	mg/L	0.042	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.984	-	-	-
Chloride	mg/L	4.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.020	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.044	-	-	-
Lead	mg/L	<0.006	-	-	0.006
Magnesium	mg/L	0.939	-	-	-
Manganese	mg/L	0.018	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.360	-	-	-
Selenium	mg/L	<0.003	-	-	-
Silica	mg/L	2.42	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.71	-	-	2.80
Total Phosphate	mg/L	0.014	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.79	-	-	-
SO ₄	mg/L	<3.0	-	-	15.0
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	-	4.20
Tot. Org. Halogen	mg/L	<0.001	-	-	<0.003
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	<1.0	-	-	<1.0
Tritium	pCi/mL	2.36	-	-	-

Well: RAC 4, R-Area Acid/Caustic Basin

Parameter	Units	meters (MSL)			
		02/12/87	05/02/87	07/26/87	10/05/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	83.1	83.2	82.7	82.8
pH	5.1	4.9	4.6	4.9	
Conductivity	umhos/cm	36	34	39	39
TDS	mg/L	40	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.016	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.10	-	-	-
Chloride	mg/L	4.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.014	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.044	-	-	-
Lead	mg/L	<0.006	-	-	0.006
Magnesium	mg/L	0.939	-	-	-
Manganese	mg/L	0.018	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.360	-	-	-
Selenium	mg/L	<0.003	-	-	-
Silica	mg/L	2.42	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.71	-	-	2.80
Total Phosphate	mg/L	0.014	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.79	-	-	-
SO ₄	mg/L	<3.0	-	-	15.0
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	-	4.20
Tot. Org. Halogen	mg/L	<0.001	-	-	<0.003
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	<1.0	-	-	<1.0
Tritium	pCi/mL	2.36	-	-	-

TABLE 4-17
CHEMICAL CONCENTRATIONS IN R-AREA GROUNDWATER

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

Parameter	Units	02/14/87	03/02/87	07/26/87	10/07/87	meters (MSL)
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	ng/L	<0.002	-	-	-	
Barium	ng/L	0.024	-	-	-	
Beryllium	ng/L	-	-	-	-	
Cadmium	ng/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	ng/L	0.10	-	-	-	
Iron	mg/L	0.047	-	-	-	
Lead	mg/L	0.010	-	0.010	-	
Magnesium	mg/L	0.917	-	-	-	
Manganese	ng/L	0.003	-	-	-	
Mercury	ng/L	<0.0002	-	-	-	
Nickel	ng/L	-	-	-	-	
Potassium	mg/L	0.440	-	-	-	
Selenium	ng/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	0.0	-	0.0	-	
Nonvol. Beta	pCi/L	3.0	-	-	-	
Total Radium	pCi/L	1.0	-	-	-	
Tritium	pCi/mL	3.15	-	-	-	

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

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

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

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

Parameter	Units	02/14/87	03/02/87	07/26/87	10/07/87	meters (MSL)
Sampling Method	Pump	Pump	Pump	Pump		
Water Elevation	meters	81.4	81.7	80.8	80.7	
pH	-	4.3	4.8	4.5	4.5	
Conductivity	umhos/cm	42	38	25	28	
TDS	mg/L	22	-	-	-	
Arsenic	ng/L	<0.002	-	-	-	
Barium	ng/L	0.036	-	-	-	
Beryllium	ng/L	-	-	-	-	
Cadmium	ng/L	<0.002	-	-	-	
Calcium	mg/L	0.840	-	-	-	
Chloride	mg/L	2.9	-	-	-	
Chromium	mg/L	0.004	-	-	-	
Copper	mg/L	-	-	-	-	
Cyanide	ng/L	-	-	-	-	
Fluoride	ng/L	0.10	-	-	-	
Iron	mg/L	0.034	-	-	-	
Lead	mg/L	0.017	-	<0.006	-	
Magnesium	mg/L	0.981	-	-	-	
Manganese	ng/L	0.008	-	-	-	
Mercury	ng/L	<0.0002	-	-	-	
Nickel	ng/L	-	-	-	-	
Potassium	mg/L	1.93	-	-	-	
Selenium	ng/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	-	-	<0.005	-	
1,1,1-TCE	mg/L	-	-	0.5	-	
Gross Alpha	pCi/L	0.0	-	0.0	-	
Nonvol. Beta	pCi/L	3.0	-	-	-	
Total Radium	pCi/L	1.0	-	-	-	
Tritium	pCi/mL	3.10	-	-	-	

Well: RSE 24, X-Area Reactor Seepage Basins

Parameter	Units	03/23/87	05/27/87	08/20/87	12/16/87	meters (MSL)
Sampling Method	Pump	Pump	Pump	Pump		
Water Elevation	meters	86.1	85.9	85.6	84.6	
pH	-	5.9	6.2	6.1	5.7	
Conductivity	umhos/cm	56	38	37	31	
TDS	mg/L	50	46	45	-	
Arsenic	ng/L	<0.002	<0.002	<0.002	<0.002	
Barium	ng/L	0.005	<0.004	<0.004	<0.004	
Beryllium	ng/L	<0.005	-	-	-	
Cadmium	ng/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	ng/L	-	-	-	-	
Fluoride	ng/L	0.34	0.24	<0.10	-	
Iron	mg/L	0.058	0.026	0.039	-	
Lead	mg/L	<0.006	<0.006	<0.006	<0.006	
Magnesium	mg/L	0.243	0.328	0.321	0.376	
Manganese	mg/L	0.002	0.002	0.003	0.003	
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	
Nickel	mg/L	<0.004	-	-	-	
Potassium	mg/L	0.160	0.136	1.42	<0.500	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	
Silica	mg/L	2.78	2.70	2.42	-	
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	<0.010	<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	<3.0	<3.0	<3.0	
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005	
Tot. Org. Carbon	mg/L	<1.000	2.00	1.40	1.600	
Tot. Org. Halogen	mg/L	<0.009	<0.003	<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	<0.0	<0.0	<0.0	<0.0	
Nonvol. Beta	pCi/L	<0.0	<1.6	1.7	<2.0	
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: RSE 25, R-Area Reactor Seepage Basins

Parameter	Units	meters (MSL)			
		03/23/87	05/27/87	08/20/87	12/16/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	84.5	84.3	83.9	83.3
pH	pH	5.5	6.0	5.2	
Conductivity	umhos/cm	65	64	74	82
TDS	mg/L	34	52	30	42
n-terpenic	ng/L	<0.002	<0.002	<0.002	<0.002
Boron	mg/L	0.016	0.013	0.017	0.016
Beryllium	mg/L	<0.005	-	-	-
Cadmium	ng/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	1.82	4.86	7.43	3.18
Chloride	mg/L	4.1	5.3	4.5	2.3
Chromium	ng/L	<0.004	<0.004	<0.004	<0.004
Copper	ng/L	0.006	-	-	-
Cyanide	ng/L	-	-	-	-
Fluoride	mg/L	0.30	0.21	0.10	<0.10
Iron	mg/L	0.175	0.036	0.340	0.040
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.756	0.886	0.814	0.696
Manganese	mg/L	0.011	0.015	0.010	0.007
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	1.16	1.15	0.790	0.537
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	3.41	3.35	3.47	-
Silver	ng/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	5.85	6.84	5.82	6.12
Total Phosphate	mg/L	<0.010	<0.020	0.070	0.080
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	3.14	3.30	12.7	1.82
SO ₄	mg/L	15.0	13.0	21.0	15.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	1.10	1.000
Tot. Org. Halogen	mg/L	<0.005	0.007	<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	2.0	4.8	3.0	<2.0
Total Radium	pCi/L	6.0	4.0	0.8	<1.0
Tritium	pCi/mL	-	2.92	3.00	4.10

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

RSE 24 05/27/87

Pest/Herb* Analysis detected the following:

None

RSE 25 05/27/87

Pest/Herb* Analysis detected the following:

None

Well: RSE 1, R-Area Reactor Seepage Basins

Parameter	Units	meters (MSL)			
		03/21/87	05/27/87	08/15/87	11/01/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	85.7	85.5	85.2	84.7
pH	pH	6.0	5.8	5.8	6.0
Conductivity	umhos/cm	103	80	83	72
TDS	mg/L	82	64	94	40
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.011	0.009	0.008	0.009
Beryllium	mg/L	<0.005	-	-	-
Cadmium	ng/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	5.92	8.83	7.13	12.2
Chloride	mg/L	2.0	3.5	2.9	2.5
Chromium	ng/L	<0.004	<0.004	<0.004	<0.004
Copper	ng/L	<0.004	-	-	-
Cyanide	ng/L	-	-	-	-
Fluoride	mg/L	0.34	0.23	0.10	0.25
Iron	mg/L	0.073	0.052	0.100	-
Lead	mg/L	<0.008	<0.008	<0.008	<0.008
Magnesium	mg/L	0.424	0.893	0.890	0.926
Manganese	mg/L	<0.002	0.010	0.011	0.013
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	<0.008	-	-	-
Potassium	mg/L	4.41	0.580	0.558	0.546
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	3.62	4.05	4.05	-
Silver	ng/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	8.34	5.47	5.00	4.81
Total Phosphate	mg/L	<0.020	0.030	0.040	<0.020
Tin	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	3.40	3.60	3.43	4.08
SO ₄	mg/L	15.0	12.0	13.0	15.0
Phenols	mg/L	<0.002	<0.005	0.034	0.003
Tot. Org. Carbon	mg/L	1.00	1.00	8.20	1.10
Tot. Org. Halogen	mg/L	0.008	0.011	0.001	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	5.0	4.7	4.0	<4.0
Total Radium	pCi/L	<1.0	<1.0	<1.0	<1.0
Tritium	pCi/mL	-	2.04	3.13	2.88

Well: RSE 2, R Area Reactor Seepage Basins

Parameter	Units	meters (MSL)			
		03/21/87	05/27/87	08/15/87	11/01/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	85.6	85.5	85.2	84.7
pH	pH	6.0	5.8	5.8	6.0
Conductivity	umhos/cm	103	80	83	72
TDS	mg/L	82	64	94	40
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.011	0.009	0.008	0.009
Beryllium	mg/L	<0.005	-	-	-
Cadmium	ng/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	5.92	8.83	7.13	12.2
Chloride	mg/L	2.0	3.5	2.9	2.5
Chromium	ng/L	<0.004	<0.004	<0.004	<0.004
Copper	ng/L	<0.004	-	-	-
Cyanide	ng/L	-	-	-	-
Fluoride	mg/L	0.34	0.23	0.10	0.25
Iron	mg/L	0.073	0.052	0.100	-
Lead	mg/L	<0.008	<0.008	<0.008	<0.008
Magnesium	mg/L	0.424	0.893	0.890	0.926
Manganese	mg/L	<0.002	0.010	0.011	0.013
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	<0.008	-	-	-
Potassium	mg/L	4.41	0.580	0.558	0.546
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	3.62	4.05	4.05	-
Silver	ng/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	8.34	5.47	5.00	4.81
Total Phosphate	mg/L	<0.020	0.030	0.040	<0.020
Tin	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	3.40	3.60	3.43	4.08
SO ₄	mg/L	15.0	12.0	13.0	15.0
Phenols	mg/L	<0.002	<0.005	0.034	0.003
Tot. Org. Carbon	mg/L	1.00	1.00	8.20	1.10
Tot. Org. Halogen	mg/L	0.008	0.011	0.001	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	5.0	4.7	4.0	<4.0
Total Radium	pCi/L	<1.0	<1.0	<1.0	<1.0
Tritium	pCi/mL	-	2.13	2.33	2.90

TABLE 4-17
CHEMICAL CONCENTRATIONS IN R-AREA GROUNDWATER

Well: RSW 3, R-Area Reactor Seepage Basins

Parameter	Units	meters (MSL)			
		Pump	Pump	Pump	Pump
Water Elevation	meters	86.6	85.8	85.4	84.7
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	2.99	3.00	8.78
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	<0.030	<0.020	<0.020	<0.020
Sodium	mg/L	5.85	5.51	6.66	6.74
Total Phosphate	mg/L	0.020	0.080	0.050	0.040
Zinc	mg/L	x	-	-	-
NO ₃ (-, +)	mg/L	0.17	0.20	0.51	0.52
SO ₄	mg/L	25.0	33.0	35.0	10.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	1.02	<1.000	1.00
Tot. Org. Halogen	mg/L	<0.005	<0.005	<0.005	<0.005
Carbon Tetr.	mg/L	x	-	-	-
Chloroform	mg/L	x	-	-	-
Tetrachloroethene	mg/L	x	-	-	-
Trichloroethene	mg/L	x	-	-	-
1,1,1-TCE	mg/L	x	-	-	-
Gross Alpha	pCi/L	<3.0	2.4	5.3	-
Nonvol. Beta	pCi/L	22.0	4.8	5.9	x
Total Radium	pCi/L	<1.0	<1.0	<1.0	x
Tritium	pCi/L	x	<0.70	1.09	1.30

RSF 1 05/27/87

Pest/Herb* Analysis detected the following:
 None

RSF 2 05/27/87

Pest/Herb* Analysis detected the following:
 None

RSF 3 05/27/87

Pest/Herb* Analysis detected the following:
 None

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

Well: ABP 1A, A-Area Metals Burning Pit

SRP Grid N 97501.6
 Coordinates E 44425.6
 Latitude 33.313881°N
 Longitude 81.739240°W

meters (MSL)
 Screen Zone Elevation 61.8-52.7
 Top of Casing Elevation 109.69
 Casing Material PVC

Well: ABP 3, A-Area Metals Burning Pit

SRP Grid N 97794.1
 Coordinates E 44509.3
 Latitude 33.314664°N
 Longitude 81.739188°W

meters (MSL)
 Screen Zone Elevation 72.2-63.1
 Top of Casing Elevation 107.80
 Casing Material PVC

Parameter	Units	01/11/87	04/21/87	07/27/87	10/17/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	68	68.1	67.8	67.7
pH	pH	4.5	4.9	5.3	5.8
Conductivity	umhos/cm	23	18	18	17
TDS	mg/L	52	*	*	*
Arsenic	mg/L	*	*	<0.002	*
Barium	mg/L	*	*	<0.004	*
Beryllium	ng/L	*	*	*	*
Cadmium	mg/L	*	*	<0.002	*
Calcium	mg/L	*	*	0.963	*
Chloride	mg/L	2.0	*	*	*
Chromium	mg/L	*	*	<0.004	*
Copper	mg/L	*	*	*	*
Cyanide	mg/L	*	*	*	*
Fluoride	mg/L	0.10	*	*	*
Iron	mg/L	*	*	0.032	*
Lead	mg/L	*	*	<0.006	*
Magnesium	mg/L	*	*	0.271	*
Manganese	mg/L	*	*	0.003	*
Mercury	mg/L	*	*	<0.0002	*
Nickel	mg/L	*	*	*	*
Potassium	mg/L	*	*	0.500	*
Selenium	mg/L	<0.002	*	<0.002	*
Silica	mg/L	2.78	*	2.85	*
Silver	mg/L	*	*	<0.0020	*
Sodium	mg/L	*	*	1.15	*
Total Phosphate	mg/L	0.027	*	*	*
Zinc	mg/L	*	*	*	*
NO ₃ (as N)	mg/L	0.55	*	*	*
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	<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
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	0.0	*	<0.001	<0.001
Nonvol. Beta	pCi/L	1.2	*	*	*
Total Radium	pCi/L	1.0	*	*	*
Tritium	pCi/mL	2.30	*	*	*

Well: ABP 2A, A-Area Metals Burning Pit

SRP Grid N 97784.3
 Coordinates E 44518.8
 Latitude 33.313761°N
 Longitude 81.740158°W

meters (MSL)

Screen Zone Elevation 64.3-55.4

Top of Casing Elevation 111.35

Casing Material PVC

Well: ABP 4, A-Area Metals Burning Pit

SRP Grid N 97489.7
 Coordinates E 44098.0
 Latitude 33.313317°N
 Longitude 81.740084°W

meters (MSL)

Screen Zone Elevation 64.8-55.6

Top of Casing Elevation 111.03

Casing Material PVC

Parameter	Units	01/11/87	04/21/87	07/27/87	10/17/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	67.8	68	67.4	67.5
pH	pH	4.5	4.9	4.9	5.9
Conductivity	umhos/cm	27	14	19	17
TDS	mg/L	22	*	*	*
Arsenic	mg/L	*	*	<0.002	*
Barium	mg/L	*	*	<0.004	*
Beryllium	ng/L	*	*	*	*
Cadmium	mg/L	*	*	0.003	*
Calcium	mg/L	*	*	0.820	*
Chloride	mg/L	1.8	*	2	*
Chromium	mg/L	*	*	<0.004	*
Copper	mg/L	*	*	*	*
Cyanide	mg/L	*	*	*	*
Fluoride	mg/L	0.10	*	*	*
Iron	mg/L	*	*	0.118	*
Lead	mg/L	*	*	0.007	*
Magnesium	mg/L	*	*	0.243	*
Manganese	mg/L	*	*	0.008	*
Nickel	mg/L	*	*	<0.002	*
Potassium	mg/L	*	*	0.500	*
Selenium	mg/L	<0.002	*	<0.002	*
Silica	mg/L	3.19	*	3.30	*
Silver	mg/L	*	*	<0.0020	*
Sodium	mg/L	*	*	1.13	*
Total Phosphate	mg/L	0.032	*	*	*
Zinc	mg/L	*	*	*	*
NO ₃ (as N)	mg/L	0.55	*	*	*
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	0.013	0.015	0.014	0.013
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	<0.002	<0.001	<0.001
Trichloroethene	mg/L	<0.001	<0.030	0.019	0.018
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	0.0	*	*	*
Nonvol. Beta	pCi/L	2.0	*	*	*
Total Radium	pCi/L	1.0	*	*	*
Tritium	pCi/mL	1.80	*	*	*

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

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

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

Well: ACB 1A, A-Area Coal Pile Runoff Containment Basin				
SRP Grid	N 102622.9	Screen Zone Elevation	75.5-86.3	meters (MSL)
Coordinates	E 51369.9	Latitude	71.336543°N	Top of Casing Elevation
		Longitude	73.9417°W	Casing Material PVC
Parameter	Units	01/19/87	04/22/87	07/19/87
Sampling Method	Pump	Pump	Pump	Pump
Water Elevation	meters	73.3	73.3	73.5
pH	4.9	6.0	5.8	5.8
Conductivity	umhos/cm	66	80	77
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	<0.003	-	-
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
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	<3.0	-	-
Nonvol. Beta	pCi/L	2.8	<2.0	-
Total Radium	pCi/L	<1.0	-	-
Tritium	pCi/mL	1.40	<0.70	-

Well: ABP 1, A-Area Background Well

SRP Grid N 105939.9 meters (MSL)
Coordinates E 55016.4 Screen Zone Elevation 65.6-56.4
Latitude 33.34983°N Top of Casing Elevation 98.99
Longitude 81.72776°W Casing Material PVC

Parameter	Units	01/07/87	06/15/87	08/05/87	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	0.489	-	-	-
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	0.58	-	-	-
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	0.008	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	<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 meters (MSL)
Coordinates E 51561.3 Screen Zone Elevation 72.5-83.3
Latitude 33.33627°N Top of Casing Elevation 106.62
Longitude 81.729916°W 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	0.008	-	0.018	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.012	-	-	-
Lead	mg/L	0.008	-	-	-
Magnesium	mg/L	0.070	-	-	-
Manganese	mg/L	<0.002	-	-	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.302	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.40	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	197	-	-	-
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

Parameter	Units	meters (MSL)			
		01/15/87	04/22/87	07/19/87	10/18/87
Sampling Method	Pump	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	<0.003	-	-	-
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	2.60	-	-	-

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

ACB 2A 07/19/87

GC/MS Scan detected the following: None

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

Parameter	Units	meters (MSL)			
		01/15/87	04/22/87	07/19/87	10/18/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	70.8	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	0.010	-	-	-
Magnesium	mg/L	0.510	-	-	-
Manganese	mg/L	0.007	-	-	-
Mercury	mg/L	<0.0003	-	0.0005	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.348	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.07	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.48	-	-	-
Total Phosphate	ug/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	2.10	-	-	-

Well: AMR 1A, Metallurgical Lab Seepage Basin

Parameter	Units	meters (MSL)			
		01/15/87	04/22/87	07/20/87	10/18/87
Sampling Method	Pump	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	61	62	67
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	0.003	-	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	1.64	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	8.12	-	-	-
Total Phosphate	ug/L	0.040	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.40	-	-	-
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	<0.004	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: AMB 2, Metallurgical Lab Seepage Basin

SRP Grid N 104164.8
 Coordinates E 51517.9 Screen Zone Elevation 76.6-67.7
 Latitude 33.340193°N Top of Casing Elevation 113.61
 Longitude 81.733526°W Casing Material PVC

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	72.8	72.4	72.1
pH	4.1	5.2	5.2	4.8	
Conductivity	umhos/cm	45	38	37	41
TDS	mg/L	42	*	*	*
Arsenic	mg/L	<0.002	*	*	*
Barium	mg/L	<0.004	*	*	*
Beryllium	mg/L	*	*	*	*
Cadmium	mg/L	<0.002	*	*	*
Calcium	mg/L	0.147	*	*	*
Chloride	mg/L	3.9	*	*	*
Chromium	mg/L	<0.004	*	(0.004)	*
Copper	mg/L	*	*	*	*
Cyanide	mg/L	*	*	*	*
Fluoride	mg/L	<0.10	*	*	*
Iron	mg/L	0.014	*	*	*
Lead	mg/L	0.010	*	0.012	*
Magnesium	mg/L	0.190	*	*	*
Manganese	mg/L	0.004	*	0.004	*
Mercury	mg/L	<0.0002	*	(0.0002)	*
Nickel	mg/L	*	*	*	*
Potassium	mg/L	0.182	*	*	*
Selenium	mg/L	<0.002	*	*	*
Silica	mg/L	3.07	*	*	*
Silver	mg/L	<0.0010	*	*	*
Sodium	mg/L	6.79	*	*	*
Total Phosphate	mg/L	0.020	*	*	*
Zinc	mg/L	*	*	*	*
NO ₃ (as N)	mg/L	0.90	*	*	*
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	0.078	0.064	0.023	0.030
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	*
Chloroform	mg/L	<0.001	0.001	<0.001	*
Tetrachloroethene	mg/L	<0.003	0.003	<0.001	*
Trichloroethene	mg/L	0.048	0.058	0.005	*
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	*
Gross Alpha	pCi/L	3.0	*	<3.0	*
Nonvol. Beta	pCi/L	<2.0	*	1.9	*
Total Radium	pCi/L	1.1	*	1.1	*
Tritium	pCi/mL	0.62	*	*	*

Well: AOB 1, Motor Shop Oil Basin

Parameter	Units	01/19/87	04/20/87	07/20/87	10/17/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	*	*	*	*
pH	4.8	4.8	4.8	5.8	
Conductivity	umhos/cm	45	31	40	38
TDS	mg/L	32	*	*	*
Arsenic	mg/L	<0.002	*	*	*
Barium	mg/L	0.012	*	*	*
Beryllium	mg/L	*	*	*	*
Cadmium	mg/L	<0.002	*	*	*
Calcium	mg/L	1.83	*	*	*
Chloride	mg/L	3.7	*	*	*
Chromium	mg/L	<0.004	*	(0.004)	*
Copper	mg/L	*	*	*	*
Cyanide	mg/L	*	*	*	*
Fluoride	mg/L	<0.10	*	*	*
Iron	mg/L	0.032	*	*	*
Lead	mg/L	0.007	*	*	*
Magnesium	mg/L	0.722	*	*	*
Manganese	mg/L	0.013	*	*	*
Mercury	mg/L	<0.0002	*	*	*
Nickel	mg/L	0.005	*	*	*
Potassium	mg/L	0.398	*	*	*
Selenium	mg/L	<0.002	*	*	*
Silica	mg/L	3.59	*	*	*
Silver	mg/L	<0.0020	*	*	*
Sodium	mg/L	2.01	*	*	*
Total Phosphate	mg/L	0.030	*	*	*
Zinc	mg/L	*	*	*	*
NO ₃ (as N)	mg/L	1.20	*	*	*
SO ₄	mg/L	<3.0	*	*	*
Phenols	mg/L	<0.002	*	*	*
Tot. Org. Carbon	mg/L	1.40	*	2.10	*
Tot. Org. Halogen	mg/L	0.100	*	0.184	*
Carbon Tet.	mg/L	<0.001	<0.001	<0.010	<0.010
Chloroform	mg/L	<0.001	<0.001	<0.010	<0.010
Tetrachloroethene	mg/L	<0.027	0.064	0.073	0.094
Trichloroethene	mg/L	<0.038	0.055	0.069	0.112
1,1,1-TCE	mg/L	<0.001	<0.001	<0.010	<0.010
Gross Alpha	pCi/L	3.0	*	*	*
Nonvol. Beta	pCi/L	<2.0	*	*	*
Total Radium	pCi/L	<1.0	*	*	*
Tritium	pCi/mL	1.92	*	*	*

Well: AMB 3A, Metallurgical Lab Seepage Basin

SRP Grid N 104011.5
 Coordinates E 51625.1 Screen Zone Elevation 76.6-67.5
 Latitude 33.340029°N Top of Casing Elevation 113.78
 Longitude 81.732946°W Casing Material PVC

Parameter	Units	01/19/87	04/14/87	07/20/87	10/18/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	72.3	72.1	72.5	72.2
pH	4.6	5.4	5.5	5.5	
Conductivity	umhos/cm	54	45	41	46
TDS	mg/L	40	*	*	*
Arsenic	mg/L	<0.002	*	*	*
Barium	mg/L	<0.004	*	*	*
Beryllium	mg/L	*	*	*	*
Cadmium	mg/L	<0.002	*	*	*
Calcium	mg/L	1.20	*	*	*
Chloride	mg/L	3.5	*	*	*
Chromium	mg/L	<0.004	*	(0.004)	*
Copper	mg/L	*	*	*	*
Cyanide	mg/L	*	*	*	*
Fluoride	mg/L	<0.10	*	*	*
Iron	mg/L	0.018	*	*	*
Lead	mg/L	<0.006	*	0.006	*
Magnesium	mg/L	0.165	*	*	*
Manganese	mg/L	0.010	*	0.018	*
Mercury	mg/L	<0.0002	*	(0.0000)	*
Nickel	mg/L	*	*	*	*
Potassium	mg/L	0.174	*	*	*
Selenium	mg/L	<0.002	*	*	*
Silica	mg/L	3.07	*	*	*
Silver	mg/L	<0.0010	*	*	*
Sodium	mg/L	7.44	*	*	*
Total Phosphate	mg/L	0.030	*	*	*
Zinc	mg/L	*	*	*	*
NO ₃ (as N)	mg/L	0.28	*	*	*
SO ₄	mg/L	9.8	*	*	*
Phenols	mg/L	<0.002	*	*	*
Tot. Org. Carbon	mg/L	1.30	*	(1.000)	*
Tot. Org. Halogen	mg/L	<0.005	<0.005	0.003	<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	0.002	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	3.0	*	1.8	*
Nonvol. Beta	pCi/L	<2.0	*	2.0	*
Total Radium	pCi/L	<1.0	*	<1.0	*
Tritium	pCi/mL	0.13	*	*	*

Well: AOB 2, Motor Shop Oil Basin

Parameter	Units	01/19/87	04/20/87	07/20/87	10/17/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	73.4	71.6	73.6	71.5
pH	4.6	5.3	5.1	5.5	
Conductivity	umhos/cm	34	27	25	26
TDS	mg/L	28	*	*	*
Arsenic	mg/L	<0.002	*	*	*
Barium	mg/L	<0.004	*	*	*
Beryllium	mg/L	*	*	*	*
Cadmium	mg/L	<0.002	*	*	*
Calcium	mg/L	0.833	*	*	*
Chloride	mg/L	3.1	*	*	*
Chromium	mg/L	<0.004	*	(0.004)	*
Copper	mg/L	*	*	*	*
Cyanide	mg/L	*	*	*	*
Fluoride	mg/L	<0.1v	*	*	*
Iron	mg/L	0.035	*	*	*
Lead	mg/L	0.006	*	*	*
Magnesium	mg/L	0.332	*	*	*
Manganese	mg/L	0.009	*	*	*
Mercury	mg/L	<0.0002	*	*	*
Nickel	mg/L	0.006	*	*	*
Potassium	mg/L	0.393	*	*	*
Selenium	mg/L	<0.002	*	*	*
Silica	mg/L	3.54	*	*	*
Silver	mg/L	<0.0020	*	*	*
Sodium	mg/L	2.30	*	*	*
Total Phosphate	mg/L	0.020	*	*	*
Zinc	mg/L	*	*	*	*
NO ₃ (as N)	mg/L	0.80	*	*	*
SO ₄	mg/L	<3.0	*	*	*
Phenols	mg/L	<0.002	*	*	*
Tot. Org. Carbon	mg/L	<1.000	*	1.40	*
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	<1.0	*	*	*
Tritium	pCi/mL	0.97	*	*	*

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

Other Analyses (mg/L)

AOS 1	01/19/87	Endrin	<0.0001
		Lindane	<0.00025
		Methoxychlor	<0.0005
		Toxaphene	<0.001
AOS 1	07/20/87	Endrin	<0.0001
AOS 2	01/19/87	Endrin	<0.0001
		Lindane	<0.00005
		Methoxychlor	<0.0005
		Toxaphene	<0.001
AOS 2	07/20/87	Endrin	<0.0001

Well: ARP 2, A-Area Burning/Rubble Pits

Parameter	Units	02/03/87	04/21/87	07/22/87	10/17/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	-	-	-	-
pH	pH	5.0	4.8	5.1	5.5
Conductivity	umhos/cm	24	16	16	18
TDS	mg/L	6	+	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.0004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.470	-	-	-
Chloride	mg/L	2.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.011	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.028	-	-	-
Lead	mg/L	0.010	-	<0.005	-
Magnesium	mg/L	0.440	-	-	-
Manganese	mg/L	0.003	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.430	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.33	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.37	-	-	-
Total Phosphate	mg/L	0.070	-	-	-
Zinc	mg/L	<0.002	-	-	-
NO ₃ (as N)	mg/L	0.57	-	-	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.001	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.000	-
Tot. Org. Halogen	mg/L	<0.005	-	0.008	-
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	0.002	<0.001	0.004	0.005
Trichloroethene	mg/L	0.001	<0.001	0.003	0.004
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	1.2	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	0.9	-
Tritium	pCi/mL	2.22	-	-	-

Well: ARP 1A, A-Area Burning/Rubble Pits

Parameter	Units	02/03/87	04/21/87	07/20/87	10/17/87	meters (MSL)
SRP Grid	N 99102.9					
Coordinates E 44317.4		Screen Zone Elevation	68.0-58.6			
Latitude	33.31744°N	Top of Casing Elevation	108.13			
Longitude	81.74243°W	Casing Material PVC				

Parameter

Parameter	Units	02/03/87	04/21/87	07/20/87	10/17/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	68.2	68.4	68.1	68	
pH	pH	4.9	4.9	5.0	5.3	
Conductivity	umhos/cm	42	42	41	44	
TDS	mg/L	22	+	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	0.014	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.001	-	-	-	
Calcium	mg/L	1.19	-	-	-	
Chloride	mg/L	4.3	-	-	-	
Chromium	mg/L	<0.004	-	-	-	
Copper	mg/L	0.015	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	<0.10	-	-	-	
Iron	mg/L	0.048	-	-	-	
Lead	mg/L	0.014	-	0.010	-	
Magnesium	mg/L	0.960	-	-	-	
Manganese	mg/L	0.016	-	-	-	
Mercury	mg/L	<0.0002	-	-	-	
Nickel	mg/L	<0.004	-	-	-	
Potassium	mg/L	0.470	-	-	-	
Selenium	mg/L	<0.002	-	-	-	
Silica	mg/L	3.33	-	-	-	
Silver	mg/L	<0.0020	-	-	-	
Sodium	mg/L	2.98	-	-	-	
Total Phosphate	mg/L	0.015	-	-	-	
Zinc	mg/L	<0.002	-	-	-	
NO ₃ (as N)	mg/L	0.90	-	-	-	
SO ₄	mg/L	10.7	-	-	-	
Phenols	mg/L	<0.002	-	-	-	
Tot. Org. Carbon	mg/L	<1.000	-	2.10	-	
Tot. Org. Halogen	mg/L	0.015	-	0.014	-	
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	<0.001	
Chloroform	mg/L	0.005	0.004	0.002	0.004	
Tetrachloroethene	mg/L	2.002	0.001	<0.001	0.002	
Trichloroethene	mg/L	0.013	0.014	0.006	0.011	
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001	
Gross Alpha	pCi/L	13.0	-	-	-	
Nonvol. Beta	pCi/L	12.0	-	-	-	
Total Radium	pCi/L	1.7	-	0.9	-	
Tritium	pCi/mL	2.58	-	-	-	

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

Well: AER 4, A-Area Burning/Rubble Pits

SRP Grid N 98567.7
 Coordinates E 44374.8
 Latitude 33.316135°N
 Longitude 81.741447°W

Screen Zone Elevation 69.4-60.3
 Top of Casing Elevation 106.19
 Casing Material PVC

Parameter	Units	01/03/87	04/11/87	07/20/87	10/17/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	66.8	66.9	66.7	66.3
pH	pH	4.7	4.9	3.1	3.3
Conductivity	umhos/cm	30	21	20	22
TDS	mg/L	55	*	*	*
Arsenic	mg/L	<0.002	*	*	*
Barium	mg/L	0.008	*	*	*
Beryllium	mg/L	*	*	*	*
Cadmium	mg/L	<0.002	*	*	*
Calcium	mg/L	0.860	*	*	*
Chloride	mg/L	5.1	*	*	*
Chromium	mg/L	<0.004	*	*	*
Copper	mg/L	0.015	*	*	*
Cyanide	mg/L	*	*	*	*
Fluoride	mg/L	<0.10	*	*	*
Iron	mg/L	0.038	*	*	*
Lead	mg/L	0.021	*	0.011	*
Magnesium	mg/L	0.330	*	*	*
Manganese	mg/L	0.013	*	*	*
Mercury	mg/L	<0.0002	*	*	*
Nickel	mg/L	<0.004	*	*	*
Potassium	mg/L	0.290	*	*	*
Selenium	mg/L	<0.002	*	*	*
Silica	mg/L	3.54	*	*	*
Silver	mg/L	<0.0020	*	*	*
Sodium	mg/L	1.56	*	*	*
Total Phosphate	mg/L	0.060	*	*	*
Zinc	mg/L	<0.002	*	*	*
NO ₃ (as N)	mg/L	0.51	*	*	*
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	<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	<0.003	<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	*	0.7	*
Tritium	pCi/mi	4.61	*	*	*

Well: ASB 2A, Savannah River Laboratory Seepage Basins

SRP Grid N 105608.8
 Coordinates E 52856.9
 Latitude 33.345572°N
 Longitude 81.732810°W

Screen Zone Elevation 75.3-66.1
 Top of Casing Elevation 106.37
 Casing Material PVC

Parameter	Units	01/20/87	04/25/87	08/02/87	10/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	73.3	73.4	74.4	73.1
pH	pH	4.1	4.9	6.0	5.4
Conductivity	umhos/cm	51	55	58	65
TDS	mg/L	18	*	*	*
Arsenic	mg/L	<0.002	*	*	*
Barium	mg/L	0.014	*	*	*
Beryllium	mg/L	*	*	*	*
Cadmium	mg/L	0.062	*	*	*
Calcium	mg/L	4.15	*	*	*
Chloride	mg/L	6.2	*	*	*
Chromium	mg/L	<0.004	*	<0.004	*
Copper	mg/L	0.006	*	*	*
Cyanide	mg/L	*	*	*	*
Fluoride	mg/L	0.13	*	*	*
Iron	mg/L	0.044	*	0.060	*
Lead	mg/L	<0.006	*	0.015	*
Magnesium	mg/L	0.727	*	*	*
Manganese	mg/L	0.042	*	0.041	*
Mercury	mg/L	<0.0002	*	*	*
Nickel	mg/L	<0.004	*	*	*
Potassium	mg/L	0.410	*	*	*
Selenium	mg/L	<0.002	*	*	*
Silica	mg/L	1.55	*	*	*
Silver	mg/L	<0.0020	*	*	*
Sodium	mg/L	2.79	*	3.91	*
Total Phosphate	mg/L	0.030	*	*	*
Zinc	mg/L	0.042	*	*	*
NO ₃ (as N)	mg/L	0.17	*	*	*
SO ₄	mg/L	6.0	*	*	*
Phenols	mg/L	<0.002	*	*	*
Tot. Org. Carbon	mg/L	2.00	*	>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	3.5	*	2.4	*
Nonvol. Beta	pCi/L	2.8	*	*	*
Total Radium	pCi/L	5.5	*	4.7	*
Tritium	pCi/mL	1.63	*	*	*

Well: ASB 1A, Savannah River Laboratory Seepage Basins

SRP Grid N 105530.0
 Coordinates E 52814.0
 Latitude 33.345012°N
 Longitude 81.733306°W

Screen Zone Elevation 73.3-66.2
 Top of Casing Elevation 106.40
 Casing Material PVC

Parameter	Units	01/20/87	04/25/87	08/02/87	10/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	73	72.9	74.3	72.3
pH	pH	4.0	4.9	5.6	5.2
Conductivity	umhos/cm	53	47	51	54
TDS	mg/L	44	*	*	*
Arsenic	mg/L	<0.002	*	*	*
Barium	mg/L	0.012	*	*	*
Beryllium	mg/L	*	*	*	*
Cadmium	mg/L	<0.001	*	*	*
Calcium	mg/L	2.07	*	*	*
Chloride	mg/L	5.8	*	*	*
Chromium	mg/L	<0.004	*	<0.004	*
Copper	mg/L	*	*	*	*
Cyanide	mg/L	*	*	*	*
Fluoride	mg/L	0.12	*	*	*
Iron	mg/L	0.013	*	0.022	*
Lead	mg/L	0.007	*	0.009	*
Magnesium	mg/L	0.733	*	*	*
Manganese	mg/L	0.092	*	0.130	*
Mercury	mg/L	<0.0002	*	*	*
Nickel	mg/L	<0.006	*	*	*
Potassium	mg/L	0.375	*	*	*
Selenium	mg/L	<0.002	*	*	*
Silica	mg/L	2.07	*	*	*
Silver	mg/L	<0.0020	*	*	*
Sodium	mg/L	2.14	*	3.22	*
Total Phosphate	mg/L	0.030	*	*	*
Zinc	mg/L	0.015	*	*	*
NO ₃ (as N)	mg/L	0.12	*	*	*
SO ₄	mg/L	3.6	*	*	*
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	<0.001	<0.001	<0.001	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.004	<0.004	<0.003
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	3.3	*	2.1	*
Nonvol. Beta	pCi/L	2.6	*	*	*
Total Radium	pCi/L	2.6	*	4.8	*
Tritium	pCi/mL	1.58	*	*	*

Well: ASB 3A, Savannah River Laboratory Seepage Basins

SRP Grid N 105674.4
 Coordinates E 52812.7
 Latitude 33.346162°N
 Longitude 81.732115°W

Screen Zone Elevation 73.6-66.4
 Top of Casing Elevation 105.15
 Casing Material PVC

Parameter	Units	01/20/87	04/25/87	08/02/87	10/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	73.4	73.4	74.6	73.3
pH	pH	5.8	5.7	6.3	5.6
Conductivity	umhos/cm	53	44	37	39
TDS	mg/L	20	*	*	*
Arsenic	mg/L	<0.002	*	*	*
Barium	mg/L	0.030	*	*	*
Beryllium	mg/L	*	*	*	*
Cadmium	mg/L	<0.001	*	*	*
Calcium	mg/L	4.48	*	*	*
Chloride	mg/L	5.6	*	*	*
Chromium	mg/L	<0.004	*	<0.004	*
Copper	mg/L	<0.004	*	*	*
Cyanide	mg/L	*	*	*	*
Fluoride	mg/L	<0.10	*	*	*
Iron	mg/L	0.017	*	0.022	*
Lead	mg/L	0.006	*	0.023	*
Magnesium	mg/L	1.23	*	*	*
Manganese	mg/L	0.010	*	0.010	*
Mercury	mg/L	<0.0002	*	*	*
Nickel	mg/L	<0.008	*	*	*
Potassium	mg/L	0.130	*	*	*
Selenium	mg/L	<0.002	*	*	*
Silica	mg/L	2.70	*	*	*
Silver	mg/L	<0.0020	*	*	*
Sodium	mg/L	2.87	*	2.43	*
Total Phosphate	mg/L	0.030	*	*	*
Zinc	mg/L	0.002	*	*	*
SO ₄ (as N)	mg/L	0.07	*	*	*
Phenols	mg/L	<0.002	*	*	*
Tot. Org. Carbon	mg/L	<1.000	*	3.00	*
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	5.7	*	3.4	*
Nonvol. Beta	pCi/L	1.9	*	*	*
Total Radium	pCi/L	5.5	*	4.8	*
Tritium	pCi/mL	8.24	*	*	*

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

Well: ASB 4, Savannah River Laboratory Seepage Basins

Parameter	Units	02/07/87	04/26/87	08/05/87	10/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	73	72.9	73.2	72.8
pH	5.4	4.4	5.7	5.4	
Conductivity	umhos/cm	60	50	46	45
TDS	mg/L	12	-	-	-
Arsenic	ng/L	<0.002	-	-	-
Barium	mg/L	0.016	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	2.04	-	-	-
Chloride	mg/L	5.3	-	-	-
Chromium	ng/L	<0.004	-	0.004	-
Copper	mg/L	0.018	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.103	-	0.740	-
Lead	mg/L	<0.006	-	0.006	-
Magnesium	mg/L	1.35	-	-	-
Manganese	mg/L	0.004	-	0.008	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	0.030	-	-	-
Potassium	mg/L	0.130	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	-	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	3.15	-	3.48	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	0.031	-	-	-
NO ₃ (as N)	mg/L	0.18	-	-	-
SO ₄	mg/L	10.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tet. Org. Carbon	mg/L	3.30	-	11.000	-
Tet. Org. Halogen	mg/L	0.006	-	0.008	-
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	0.005	0.006	0.017	0.003
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	3.0	-	3.4	-
Neonvol. Beta	pCi/L	3.0	-	-	-
Total Radium	pCi/L	2.9	-	2.0	-
Tritium	pCi/mL	3.06	-	-	-

Well: ASB 5A, Savannah River Laboratory Seepage Basins

Parameter	Units	02/03/87	04/25/87	08/02/87	10/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	72.8	73	72.8	72.9
pH	5.3	5.2	6.3	4.8	
Conductivity	umhos/cm	38	39	38	46
TDS	mg/L	18	-	-	-
Arsenic	ng/L	<0.002	-	-	-
Barium	mg/L	0.010	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.54	-	-	-
Chloride	mg/L	6.4	-	-	-
Chromium	ng/L	<0.004	-	0.004	-
Copper	mg/L	0.012	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.027	-	0.074	-
Lead	mg/L	0.007	-	0.010	-
Magnesium	mg/L	0.870	-	-	-
Manganese	mg/L	0.011	-	0.019	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	0.005	-	-	-
Potassium	mg/L	0.400	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.59	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	3.42	-	2.60	-
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	0.004	-	-	-
NO ₃ (as N)	mg/L	0.35	-	-	-
SO ₄	mg/L	12.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.000	-
Tot. Org. Halogen	mg/L	0.058	-	0.019	-
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	0.002	0.001	0.002	0.002
Trichloroethene	mg/L	0.096	0.023	0.028	0.015
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	3.5	-	1.7	-
Neonvol. Beta	pCi/L	8.2	-	-	-
Total Radium	pCi/L	1.7	-	2.9	-
Tritium	pCi/mL	3.58	-	-	-

Well: ASB 5A, Savannah River Laboratory Seepage Basins

Parameter	Units	02/03/87	04/26/87	08/03/87	10/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	72.8	72.9	72.8	72.7
pH	5.3	4.7	4.7	6.0	4.6
Conductivity	umhos/cm	41	44	44	53
TDS	mg/L	12	-	-	-
Arsenic	ng/L	<0.002	-	-	-
Barium	mg/L	0.009	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.50	-	-	-
Chloride	mg/L	5.8	-	-	-
Chromium	ng/L	<0.004	-	0.004	-
Copper	mg/L	0.004	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.048	-	0.071	-
Lead	mg/L	0.008	-	0.014	-
Magnesium	mg/L	0.761	-	-	-
Manganese	mg/L	0.038	-	0.046	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.450	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.80	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	3.21	-	3.64	-
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	0.012	-	-	-
NO ₃ (as N)	mg/L	0.33	-	-	-
SO ₄	mg/L	5.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tet. Org. Carbon	mg/L	<1.000	-	1.00	-
Tet. Org. Halogen	mg/L	0.008	-	<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	0.005	0.002	0.002	0.002
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	5.0	-	3.1	-
Neonvol. Beta	pCi/L	4.9	-	-	-
Total Radium	pCi/L	4.3	-	4.5	-
Tritium	pCi/mL	3.24	-	-	-

Well: ASB 7, Savannah River Laboratory Seepage Basins

Parameter	Units	02/03/87	04/25/87	08/02/87	10/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	72.4	72.5	72.2	72.3
pH	4.8	4.9	6.0	5.1	
Conductivity	umhos/cm	54	56	56	60
TDS	mg/L	18	14	84	75
Arsenic	ng/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.008	0.009	0.010	0.009
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	1.55	1.32	9.49	2.42
Chloride	mg/L	7.6	7.4	8.4	8.9
Chromium	ng/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	0.005	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	0.11	0.12	0.20
Iron	mg/L	0.017	0.014	0.075	0.032
Lead	mg/L	0.013	0.014	0.021	0.010
Magnesium	mg/L	0.780	0.785	1.08	0.807
Manganese	mg/L	0.040	0.044	0.050	0.047
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	0.004	-	-	-
Potassium	mg/L	0.340	0.450	0.562	0.524
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	2.49	2.48	2.51	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	5.18	6.10	6.60	7.20
Total Phosphate	mg/L	<0.010	0.040	0.020	0.060
Zinc	mg/L	0.012	-	-	-
NO ₃ (as N)	mg/L	0.91	0.97	2.57	1.68
SO ₄	mg/L	<3.0	3.9	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	0.005	-	0.005	0.004
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	0.003	0.001	0.002	0.002
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	2.3	3.8	2.6	4.3
Neonvol. Beta	pCi/L	3.0	2.9	2.0	3.9
Total Radium	pCi/L	2.4	3.4	2.3	3.2
Tritium	pCi/mL	6.11	-	7.50	7.60

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

Well A-8, Savannah River Laboratory Seepage Basins

Parameter	Units	01/13/87	04/26/87	08/03/87	10/18/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	71.9	71.8	71.7	70.8
pH	4.4	<4.5	4.4	5.0	
Conductivity	umhos/cm	55	39	39	42
TDS	mg/L	16	18	64	28
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	<0.004	0.006	0.005	0.005
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.003	<0.002	<0.002	<0.002
Calcium	mg/L	0.490	0.775	1.27	4.73
Chloride	mg/L	5.3	6.6	8.0	5.9
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	0.103	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	0.11	0.19	0.25
Iron	mg/L	0.020	0.017	0.020	0.559
Lead	mg/L	0.019	0.023	0.013	0.017
Magnesium	mg/L	0.350	0.388	0.387	0.434
Manganese	mg/L	0.002	0.003	0.003	0.005
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0003
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.372	0.410	<0.500	0.537
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	3.33	3.40	3.38	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	3.92	4.39	4.19	4.32
Total Phosphate	mg/L	0.020	0.020	0.020	0.070
Zinc	mg/L	0.019	-	-	-
NO ₃ (as N)	mg/L	0.82	0.34	1.18	1.31
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	11.000	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	2.40	-	2.13	1.90
Carbon Tet.	mg/L	<0.001	<0.100	<0.200	<0.001
Chloroform	mg/L	<0.001	5.119	<2.200	0.027
Tetrachloroethene	mg/L	<0.009	<0.009	<0.009	<0.001
Trichloroethene	mg/L	<0.84	<0.200	3.20	1.39
1,1,1-TCE	mg/L	<0.001	<0.200	<0.200	<0.001
Gross Alpha	pCi/L	1.1	<3.0	2.2	<3.0
Neonol. Beta	pCi/L	1.2	<2.0	2.5	<2.0
Total Radium	pCi/L	2.2	1.5	1.0	1.0
Tritium	pCi/mL	6.30	-	3.90	4.90

Well A-8B, Savannah River Laboratory Seepage Basins

Parameter	Units	04/26/87	08/03/87	10/18/87
Sampling Method	Pump	Pump	Pump	Pump
Water Elevation	meters	68.1	67.1	67.3
pH	5.2	5.2	4.9	
Conductivity	umhos/cm	31	32	31
TDS	mg/L	8	98	20
Arsenic	mg/L	<0.002	<0.002	<0.002
Barium	mg/L	0.006	0.006	0.006
Beryllium	mg/L	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002
Calcium	mg/L	1.32	1.83	1.45
Chloride	mg/L	1.6	2.7	2.6
Chromium	mg/L	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-
Cyanide	mg/L	-	-	-
Fluoride	mg/L	0.42	0.17	0.15
Iron	mg/L	0.043	0.040	0.020
Lead	mg/L	<0.006	<0.006	<0.006
Magnesium	mg/L	0.399	0.424	0.370
Manganese	mg/L	0.008	0.008	0.007
Mercury	mg/L	0.0005	<0.0002	<0.0002
Nickel	mg/L	-	-	-
Potassium	mg/L	0.280	0.500	0.550
Selenium	mg/L	<0.002	<0.002	<0.002
Silica	mg/L	3.53	3.52	-
Silver	mg/L	<0.0020	<0.0020	0.0020
Sodium	mg/L	3.61	3.59	3.44
Total Phosphate	mg/L	0.090	0.090	0.070
Zinc	mg/L	1.30	1.93	1.89
NO ₃ (as N)	mg/L	1.30	1.11	1.17
SO ₄	mg/L	<3.0	<3.0	<3.0
Phenols	mg/L	<0.003	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	-	0.881	0.927
Carbon Tet.	mg/L	<0.001	0.023	<0.001
Chloroform	mg/L	<0.001	0.035	0.091
Tetrachloroethene	mg/L	0.007	<0.025	0.012
Trichloroethene	mg/L	1.11	1.54	0.678
1,1,1-TCE	mg/L	<0.001	<0.025	<0.001
Gross Alpha	pCi/L	<3.0	1.1	1.7
Neonol. Beta	pCi/L	<2.0	<2.0	<2.0
Total Radium	pCi/L	0.7	<1.0	0.5
Tritium	pCi/mL	-	3.10	1.20

Well A-8A, Savannah River Laboratory Seepage Basins

Parameter	Units	04/26/87	08/03/87	10/18/87
Sampling Method	Pump	Pump	Pump	Pump
Water Elevation	meters	67.7	66.8	66.4
pH	5.6	5.8	5.9	
Conductivity	umhos/cm	21	21	29
TDS	mg/L	10	70	24
Arsenic	mg/L	<0.002	<0.002	<0.002
Barium	mg/L	0.006	0.007	0.006
Beryllium	mg/L	-	-	-
Cadmium	mg/L	0.005	0.005	0.006
Calcium	mg/L	1.55	2.29	2.80
Chloride	mg/L	1.8	2.5	2.6
Chromium	mg/L	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-
Cyanide	mg/L	-	-	-
Fluoride	mg/L	0.40	0.12	0.25
Iron	mg/L	0.042	0.027	0.020
Lead	mg/L	<0.006	<0.006	<0.006
Magnesium	mg/L	0.315	0.367	0.364
Manganese	mg/L	0.009	0.010	0.013
Mercury	mg/L	<0.0002	<0.0002	<0.0002
Nickel	mg/L	-	-	-
Potassium	mg/L	0.310	<0.500	0.811
Selenium	mg/L	<0.002	<0.002	<0.002
Silica	mg/L	3.55	3.47	-
Silver	mg/L	<0.0020	<0.0020	<0.0020
Sodium	mg/L	2.20	2.07	2.07
Total Phosphate	mg/L	0.030	0.010	0.070
Zinc	mg/L	-	-	-
NO ₃ (as N)	mg/L	0.90	1.12	1.27
SO ₄	mg/L	<3.0	<3.0	<5.0
Phenols	mg/L	<0.005	<0.005	<0.005
Tot. Org. Carbon	mg/L	1.10	<1.000	<1.000
Tot. Org. Halogen	mg/L	-	0.006	<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	0.004	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	<3.0	<3.0	<3.0
Neonol. Beta	pCi/L	<2.0	<2.0	<2.0
Total Radium	pCi/L	<1.0	<1.0	<1.0
Tritium	pCi/mL	-	0.70	0.70

Well A-8C, Savannah River Laboratory Seepage Basins

Parameter	Units	04/26/87	08/03/87	10/18/87
Sampling Method	Pump	Pump	Pump	Pump
Water Elevation	meters	68.5	68.2	68.3
pH	4.7	4.5	5.0	
Conductivity	umhos/cm	44	44	45
TDS	mg/L	18	8	48
Arsenic	mg/L	<0.002	<0.002	<0.002
Barium	mg/L	0.010	0.010	0.010
Beryllium	mg/L	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002
Calcium	mg/L	2.05	2.04	3.80
Chloride	mg/L	5.12	6.1	5.8
Chromium	mg/L	<0.004	<0.004	<0.004
Copper	mg/L	-	-	-
Cyanide	mg/L	-	-	-
Fluoride	mg/L	0.40	0.17	0.30
Iron	mg/L	0.031	0.055	0.059
Lead	mg/L	<0.006	<0.006	<0.006
Magnesium	mg/L	0.634	0.669	0.664
Manganese	mg/L	0.008	0.007	0.007
Mercury	mg/L	0.0007	0.0010	0.0008
Nickel	mg/L	-	-	-
Potassium	mg/L	0.210	0.500	0.500
Selenium	mg/L	<0.002	<0.002	<0.002
Silica	mg/L	3.86	3.79	-
Silver	mg/L	<0.0020	<0.0020	<0.0020
Sodium	mg/L	4.01	0.50	3.86
Total Phosphate	mg/L	0.030	<0.020	0.070
Zinc	mg/L	-	-	-
NO ₃ (as N)	mg/L	1.50	1.88	1.91
SO ₄	mg/L	<3.0	<3.0	<3.0
Phenols	mg/L	<0.005	<0.003	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	-	1.11	1.01
Carbon Tet.	mg/L	<0.004	<0.004	<0.001
Chloroform	mg/L	<0.004	<0.004	<0.001
Tetrachloroethene	mg/L	0.148	0.079	0.124
Trichloroethene	mg/L	0.980	1.62	1.01
1,1,1-TCE	mg/L	<0.001	<0.050	<0.001
Gross Alpha	pCi/L	<3.0	1.2	2.7
Neonol. Beta	pCi/L	<2.0	3.4	3.8
Total Radium	pCi/L	1.4	1.0	0.6
Tritium	pCi/mL	-	25.1	27.1

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

Well: ASB 9, Savannah River Laboratory Seepage Basins

Parameter	Units	02/08/87	04/22/87	07/20/87	10/18/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	73.5	73.8	73.9	73.6	
pH		5.7	5.0	5.1	5.0	
Conductivity	umhos/cm	31	22	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	
Chlorides	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	0.026	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	
Silicon	mg/L	<0.002	<0.002	<0.002	<0.002	
Silica	mg/L	2.22	2.34	2.41	-	
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	
Sodium	mg/L	1.94	2.05	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	8.3	<5.0	
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005	
Tot. Org. Carbon	mg/L	>1,000	1,170	>1,000	>1,000	
Tot. Org. Halogen	mg/L	0.030	-	0.019	<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	<1.0	1.4	1.7	
Nonvol. Beta	pCi/L	3.0	<2.0	2.0	2.1	
Total Radium	pCi/L	<1.0	1.0	1.8	1.4	
Tritium	pCi/mL	1.84	-	1.60	2.00	

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

Parameter	Units	02/10/87	07/21/87	meters (MSL)
Sampling Method		Pump	Pump	
Water Elevation	meters	66.8	66.9	
pH		5.7	5.4	
Conductivity	umhos/cm	28	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 (RMET Program Information)

Parameter	Units	02/10/87	04/11/87	07/21/87	10/02/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	67.2	67.4	67.3	66.9	
pH		5.5	5.5	5.4	5.5	
Conductivity	umhos/cm	30	32	29	33	
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	<0.010	<0.100	<0.100	

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

Parameter	Units	02/10/87	04/11/87	07/21/87	10/02/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	68.3	68.5	68.5	68.2	
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	1.98	2.79	1.17	1.55	
1,1,1-TCE	mg/L	<0.200	<0.001	<1.000	<0.200	

Parameter	Units	02/10/87	04/11/87	07/21/87	10/02/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	65.6	65.8	65.7	64.9	
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	

Parameter	Units	02/10/87	04/11/87	07/21/87	10/02/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	67.1	67.1	67.1	67.1	
pH		6.4	6.4	6.4	6.4	
Conductivity	umhos/cm	67	67	67	67	
Chloroform	mg/L	<0.010	<0.010	<0.010	<0.010	
Tetrachloroethene	mg/L	0.034	0.034	0.034	0.034	
Trichloroethene	mg/L	0.049	0.049	0.049	0.049	
1,1,1-TCE	mg/L	<0.010	<0.010	<0.010	<0.010	

Other Analyses (mg/L)

(GCMS Scan and Pest/Herb* Analytes: Table 4-25, Vol. II)

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 87012.6
 Coordinates E 45129.0
 Latitude 33.31349°N
 Longitude 81.73643°W

Screen Zone Elevation 68.9-62.8
 Top of Casing Elevation 100.09
 Casing Material PVC

meters (MSL)

Parameter	Units	08/05/87	11/14/87
Sampling Method		Pump	Pump
Water Elevation	meters	68.3	68.1
pH	pH	6.7	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	0.213	-
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	4.69	-
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 ₃ (as N)	mg/L	0.53	1.34
SO ₄	mg/L	3.0	<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	0.037	-
1,1,1-TCE	mg/L	<0.005	-
Cross Alpha	pCi/L	<3.0	-
Neonvol. Beta	pCi/L	<2.0	-
Total Radium	pCi/L	1.0	-
Tritium	pCi/mL	1.00	-

Well: MCB 5, Miscellaneous Chemical Basin

SRP Grid N 87335.6
 Coordinates E 44883.9
 Latitude 33.31423°N
 Longitude 81.73776°W

Screen Zone Elevation 69.0-62.9
 Top of Casing Elevation 103.51
 Casing Material PVC

meters (MSL)

Parameter	Units	08/05/87	11/14/87
Sampling Method		Pump	Pump
Water Elevation	meters	67.3	67.9
pH	pH	11.3	10.4
Conductivity	umhos/cm	450	120
TDS	mg/L	86	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	0.098	<0.006
Lead	mg/L	<0.006	-
Magnesium	mg/L	0.045	-
Manganese	mg/L	<0.002	<0.003
Mercury	mg/L	-	<0.0002
Nickel	mg/L	-	-
Potassium	mg/L	2.44	0.814
Selenium	mg/L	<0.002	<0.002
Silica	mg/L	4.64	-
Silver	mg/L	<0.0020	<0.0020
Sodium	mg/L	5.82	1.82
Total Phosphate	mg/L	0.330	0.100
Zinc	mg/L	-	-
NO ₃ (as N)	mg/L	0.32	0.37
SO ₄	mg/L	45.0	45.0
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	<0.005	-
Trichloroethene	mg/L	0.129	-
1,1,1-TCE	mg/L	<0.005	-
Cross Alpha	pCi/L	<3.0	-
Neonvol. Beta	pCi/L	<2.0	-
Total Radium	pCi/L	0.1	-
Tritium	pCi/mL	2.00	-

Well: MCB 4, Miscellaneous Chemical Basin

SRP Grid N 87531.9
 Coordinates E 44705.1
 Latitude 33.31440°N
 Longitude 81.73851°W

Screen Zone Elevation 70.0-67.6
 Top of Casing Elevation 106.80
 Casing Material PVC

meters (MSL)

Parameter	Units	08/05/87	11/14/87
Sampling Method		Pump	Pump
Water Elevation	meters	68.2	68
pH	pH	6.7	7.0
Conductivity	umhos/cm	40	38
TDS	mg/L	5	28
Arsenic	mg/L	<0.012	<0.002
Barium	mg/L	0.005	0.005
Beryllium	mg/L	-	-
Cadmium	mg/L	<0.002	<0.002
Calcium	mg/L	4.23	8.25
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	1.21	0.812
Selenium	mg/L	0.002	<0.002
Silica	mg/L	3.57	-
Silver	mg/L	<0.0028	<0.0010
Sodium	mg/L	4.01	2.48
Total Phosphate	mg/L	0.030	0.030
Zinc	mg/L	-	-
NO ₃ (as N)	mg/L	0.37	<0.38
SO ₄	mg/L	3.0	<5.0
Phenols	mg/L	0.005	<0.005
Tot. Org. Carbon	mg/L	1.750	1.000
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	-
Cross Alpha	pCi/L	<3.0	-
Neonvol. Beta	pCi/L	3.6	-
Total Radium	pCi/L	1.0	-
Tritium	pCi/mL	2.00	-

Well: MCB 6, Miscellaneous Chemical Basin

SRP Grid N 87425.7
 Coordinates E 44814.0
 Latitude 33.31300°N
 Longitude 81.737016°W

meters (MSL)

Parameter	Units	11/14/87
Sampling Method		Pump
Water Elevation	meters	67.6
pH	pH	6.3
Conductivity	umhos/cm	32
TDS	mg/L	96
Arsenic	mg/L	<0.001
Ba, U	mg/L	0.001
Beryllium	mg/L	-
Cadmium	mg/L	0.002
Calcium	mg/L	3.83
Chloride	mg/L	3.5
Chromium	mg/L	<0.004
Copper	mg/L	-
Cyanide	mg/L	-
Fluoride	mg/L	-
Iron	mg/L	0.197
Lead	mg/L	<0.004
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	8.42
Total Phosphate	mg/L	0.330
Zinc	mg/L	-
NO ₃ (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	-
Cross Alpha	pCi/L	3.1
Neonvol. Beta	pCi/L	4.9
Total Radium	pCi/L	1.3
Tritium	pCi/mL	0.40

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

Well: MCB 3, Miscellaneous Chemical Basin (RMET Program Information)

SRP Grid	N 97012.6	meters (NSL)	
Coordinates E	43129.0	Screen Zone Elevation	68.9-62.8
Latitude	33.31394°N	Top of Casing Elevation	100.09
Longitude	81.73643°W	Casing Material	PVC

Parameter	Units	05/07/87
Sampling Method		Pump
Water Elevation	meters	67.8
pH	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 97032.5	meters (NSL)	
Coordinates E	44705.1	Screen Zone Elevation	
Latitude	33.31440°N	Top of Casing Elevation	106.80
Longitude	81.73836°W	Casing Material PVC	

Parameter	Units	05/07/87
Sampling Method		Pump
Water Elevation	meters	67.2
pH	pH	6.7
Conductivity	umhos/cm	89
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	meters (NSL)	
Coordinates E	44853.9	Screen Zone Elevation	
Latitude	33.31423°N	Top of Casing Elevation	107.51
Longitude	81.73776°W	Casing Material PVC	

Parameter	Units	05/07/87
Sampling Method		Pump
Water Elevation	meters	68
pH	pH	11.3
Conductivity	umhos/cm	470
Chloroform	mg/L	<0.001
Tetrachloroethene	mg/L	0.011
Trichloroethene	mg/L	0.064
1,1,1-TCE	mg/L	<0.001

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

MCB 2 08/05/87

GCMC Scan detected the following: None

Pest/Herb* Analysis detected the following:

None

MCB 4 08/05/87

GCMC Scan detected the following: None

Pest/Herb* Analysis detected the following:

None

MCB 5 08/05/87

GCMC Scan detected the following: None

Pest/Herb* Analysis detected the following:

None

Parameter	Units	01/13/87	04/16/87	07/09/87	11/01/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	71.8	71.8	71.8	72
pH	pH	3.4	4.4	4.4	4.2
Conductivity	umhos/cm	55	63	45	40
TDS	mg/L	24	30	15	15
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	0.23
Iron	mg/L	0.017	0.017	0.028	0.061
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	<0.12	*	<0.002	<0.002
Silica	mg/L	3.44	*	*	*
Silver	mg/L	<0.0010	<0.0020	<0.0030	<0.0030
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	0.034	0.044	0.018	0.028
NO ₃ (as N)	mg/L	2.60	2.95	4.84	3.27
SO ₄	mg/L	3.0	3.0	10.8	15.0
Phenols	mg/L	<0.002	<0.002	0.003	<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	0.036	0.010	0.020	0.009
Tetrachloroethene	mg/L	0.163	0.146	0.084	0.060
Trichloroethene	mg/L	0.163	0.146	0.084	0.060
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	3.2	2.7	2.5	3.8
Nonvol. Beta	pCi/L	8.3	7.0	7.4	5.9
Total Radium	pCi/L	4.8	3.3	3.8	5.2
Tritium	pCi/mL	1.10	*	*	*

Well: MCB 2A, M-Area Settling Basin

SRP Grid	N 102028.3	meters (NSL)	
Coordinates E	48746.4	Screen Zone Elevation	
Latitude	33.30944°N	Top of Casing Elevation	107.50
Longitude	81.73666°W	Casing Material PVC	

Parameter	Units	01/13/87	04/16/87	07/09/87	11/11/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	72.1	72.1	72.1	71.9
pH	pH	3.8	4.3	4.3	3.9
Conductivity	umhos/cm	70	63	56	44
TDS	mg/L	50	22	15	30
Arse-As	mg/L	<0.002	*	<0.002	<0.002
Barium	mg/L	0.013	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	0.014	0.072	0.083	0.084
Cyanide	mg/L	<0.001	<0.003	<0.003	<0.005
Fluoride	mg/L	<0.10	0.11	0.10	0.20
Iron	mg/L	0.017	0.035	0.010	0.014
Lead	mg/L	0.032	0.026	0.018	0.014
Magnesium	mg/L	0.680	*	*	*
Manganese	mg/L	0.012	0.008	0.006	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
NO ₃ (as N)	mg/L	4.43	3.73	5.21	4.92
SO ₄	mg/L	7.5	3.0	11.4	5.0
Phenols	mg/L	<0.002	<0.002	<0.003	<0.005
Tot. Org. Carbon	mg/L	<1.000	1.000	1.20	<1.000
Tot. Org. Halogen	mg/L	0.788	1.20	1.36	0.862
Carbon Tet.	mg/L	0.007	<0.001	<0.001	<0.001
Chloroform	mg/L	0.013	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	0.355	0.632	2.14	0.533
Trichloroethene	mg/L	0.425	0.600	0.488	0.212
1,1,1-TCE	mg/L	0.001	0.014	0.014	<0.020
Gross Alpha	pCi/L	10.8	10.5	8.5	3.9
Nonvol. Beta	pCi/L	9.5	8.0	8.7	5.6
Total Radium	pCi/L	13.2	8.8	7.6	9.0
Tritium	pCi/mL	2.48	*	*	*

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

Well: MSB 3A, M-Area Settling Basin

SRP Grid N 101189.9
 Coordinates E 48533.7 Screen Zone Elevation 79.2-70.0
 Latitude 33.330987°N Top of Casing Elevation 109.66
 Longitude 81.737480°W Casing Material PVC

Parameter	Units	01/31/87	04/20/87	08/04/87	10/11/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	-	-	-	-	
pH	pH	3.8	6.7	5.6	6.5	
Conductivity	umhos/cm	240	1400	1800	1940	
TDS	mg/L	166	818	1060	1360	
Arsenic	ng/L	0.002	-	<0.002	<0.002	
Barium	mg/L	>0.54	0.026	0.012	0.003	
Beryllium	mg/L	0.001	-	-	-	
Cadmium	mg/L	0.002	<0.002	<0.002	0.002	
Calcium	mg/L	11.3	-	-	-	
Chloride	mg/L	6.8	19.9	26.5	16.3	
Chromium	mg/L	0.056	<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	0.042	0.082	0.230	
Lead	mg/L	0.013	<0.006	<0.006	<0.006	
Magnesium	mg/L	3.08	-	-	-	
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	0.324	
Potassium	mg/L	0.518	-	-	-	
Selenium	mg/L	<0.002	-	0.002	<0.002	
Silica	mg/L	7.28	-	-	-	
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	0.288	
NO ₂ (as NO)	mg/L	21.8	116	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	25.4	10.0	15.0	
Tot. Org. Halogen	mg/L	192	188	213	217	
Carbon Tet.	mg/L	0.005	<0.001	0.012	<0.000	
Chloroform	mg/L	<0.001	<0.001	<0.000	<0.000	
Tetrachloroethene	mg/L	128	250	99.5	272	
Trichloroethene	mg/L	10.7	84.8	91.8	125	
1,1,1-TCE	mg/L	0.011	0.013	0.049	<0.000	
Cross Alpha	pCi/L	30.4	<3.0	97.2	38.4	
Nonvol. Beta	pCi/L	19.3	19.2	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 1014971.5
 Coordinates E 48598.7 Screen Zone Elevation 75.5-66.3
 Latitude 33.327964°N Top of Casing Elevation 103.03
 Longitude 81.741160°W Casing Material PVC

Parameter	Units	01/31/87	04/20/87	07/27/87	10/17/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	-	-	-	-	
pH	pH	3.8	5.7	5.6	5.5	
Conductivity	umhos/cm	240	1400	1800	1940	
TDS	mg/L	166	818	1060	1360	
Arsenic	ng/L	0.002	-	<0.002	<0.002	
Barium	mg/L	>0.54	0.026	0.012	0.003	
Beryllium	mg/L	0.001	-	-	-	
Cadmium	mg/L	0.002	<0.002	0.002	-	
Calcium	mg/L	11.3	-	-	-	
Chloride	mg/L	6.8	19.9	26.5	16.3	
Chromium	mg/L	0.056	<0.004	<0.004	0.007	
Copper	mg/L	0.013	0.004	0.009	0.034	
Cyanide	mg/L	0.005	0.009	0.006	0.014	
Fluoride	mg/L	0.10	0.43	0.60	0.54	
Iron	mg/L	0.193	0.042	0.082	0.230	
Lead	mg/L	0.013	<0.006	<0.006	0.007	
Magnesium	mg/L	3.08	-	-	-	
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	0.324	
Potassium	mg/L	0.518	-	-	-	
Selenium	mg/L	<0.002	-	0.002	<0.002	
Silica	mg/L	7.28	-	-	-	
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	
Sodium	mg/L	13.8	33.3	39.2	34.6	
Total Phosphate	mg/L	0.030	0.050	0.030	0.030	
Zinc	mg/L	0.122	0.025	0.019	0.040	
NO ₃ (as N)	mg/L	21.8	116	47.8	151	
SO ₄	mg/L	5.0	85.8	120	124	
Phenols	mg/L	<0.002	0.009	0.005	0.005	
Tot. Org. Carbon	mg/L	1.60	25.4	10.0	15.0	
Tot. Org. Halogen	mg/L	192	188	213	217	
Carbon Tet.	mg/L	0.005	<0.001	0.012	<0.001	
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001	
Tetrachloroethene	mg/L	128	250	99.5	272	
Trichloroethene	mg/L	10.7	84.8	91.8	125	
1,1,1-TCE	mg/L	0.011	0.013	0.049	<0.000	
Cross Alpha	pCi/L	17.5	<3.0	93.0	3.0	
Nonvol. Beta	pCi/L	15.8	19.2	130	119	
Total Radium	pCi/L	27.2	4.1	15.7	15.4	
Tritium	pCi/mL	1.03	-	-	-	

Well: MSB 6A, M-Area Settling Basin

SRP Grid N 1014933.4
 Coordinates E 48533.0 Screen Zone Elevation 73.7-68.5
 Latitude 33.330007°N Top of Casing Elevation 108.17
 Longitude 81.737615°W Casing Material PVC

Parameter	Units	01/31/87	04/16/87	08/04/87	10/11/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	71.8	71.8	71.4	71.3	
pH	pH	5.8	6.0	6.4	7.4	
Conductivity	umhos/cm	3040	2400	1750	2600	
TDS	mg/L	2160	32	1690	1440	
Arsenic	ng/L	0.002	-	<0.002	<0.002	
Barium	mg/L	0.014	0.007	0.003	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	6.7	2.9	9.5	7.0	
Chromium	mg/L	0.004	<0.004	<0.004	0.004	
Copper	mg/L	0.118	0.152	0.067	0.032	
Cyanide	mg/L	0.005	0.009	0.006	0.014	
Fluoride	mg/L	0.17	0.16	0.11	0.35	
Iron	mg/L	0.058	0.075	0.043	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	0.009	0.004	0.004	<0.004	
Potassium	mg/L	1.43	-	-	-	
Selenium	mg/L	0.006	-	0.006	0.003	
Silica	mg/L	8.00	-	-	-	
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	0.016	0.037	
NO ₃ (as N)	mg/L	238	120	74.6	160	
SO ₄	mg/L	11500	9.0	228	133	
Phenols	mg/L	0.030	0.062	<0.005	0.004	
Tot. Org. Carbon	mg/L	1.10	1.00	2.00	1.70	
Tot. Org. Halogen	mg/L	4.17	3.91	29.8	2.73	
Carbon Tet.	mg/L	0.072	0.001	0.001	<0.001	
Chloroform	mg/L	0.100	0.200	<0.001	<0.001	
Tetrachloroethene	mg/L	4.60	8.52	2.82	2.39	
Trichloroethene	mg/L	4.89	1.04	3.81	3.12	
1,1,1-TCE	mg/L	0.001	0.058	0.048	0.033	
Cross Alpha	pCi/L	18.6	3.0	72.4	18.6	
Nonvol. Beta	pCi/L	30.7	132	115	34.6	
Total Radium	pCi/L	18.4	1.0	4.8	3.8	
Tritium	pCi/mL	0.75	-	-	-	

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

Well: MBS 7A, M-Area Settling Basin

SRP Grid	N 100585.7	Screen Zone Elevation	73.8-84.6
Coordinates E	48726.1	Top of Casing Elevation	105.00
Latitude	33.324456°N	Casing Material PVC	
Longitude	81.739182°W		

Parameter	Units	01/31/87	04/20/87	07/09/87	10/17/87
Sampling Method		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	68	64	82	78
TDS	mg/L	64	50	18	22
Arsenic	mg/L	<0.002	-	<0.002	<0.002
Barium	mg/L	0.011	0.013	0.014	0.013
Beryllium	mg/L	<0.003	-	-	-
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	0.12
Iron	mg/L	0.029	0.031	0.065	0.140
Lead	mg/L	<0.006	0.010	<0.006	<0.006
Magnesium	mg/L	0.590	-	-	-
Manganese	mg/L	0.015	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	<0.003	-	<0.002	<0.002
Silica	mg/L	3.84	-	-	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0016
Sodium	mg/L	8.52	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	0.026
NO ₃ (as N)	mg/L	4.71	5.27	8.08	12.8
SO ₄	mg/L	3.0	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	1.150	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	0.048	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	2.8
Nonvol. Beta	pCi/L	2.8	2.0	2.4	5.1
Total Radium	pCi/L	2.2	2.0	2.3	2.6
Tritium	pCi/mL	2.09	-	-	-

Well: MBS 8A, M-Area Settling Basin

SRP Grid	N 100815.1	Screen Zone Elevation	73.9-84.8
Coordinates E	47293.2	Top of Casing Elevation	104.91
Latitude	33.325889°N	Casing Material PVC	
Longitude	81.738133°W		

Parameter	Units	01/31/87	04/20/87	07/04/87	10/17/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	71.2	71	70.8	70.6
pH	pH	4.4	5.0	4.9	4.6
Conductivity	umhos/cm	420	460	340	300
TDS	mg/L	348	330	270	196
Arsenic	mg/L	<0.002	-	<0.002	<0.002
Barium	mg/L	0.018	0.018	0.017	0.013
Beryllium	mg/L	<0.003	-	-	-
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	<0.003	<0.005	<0.005	<0.005
Fluoride	mg/L	0.10	0.11	0.10	0.26
Iron	mg/L	0.017	0.034	0.040	0.095
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	0.017
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	<0.003	-	<0.002	<0.002
Silica	mg/L	1.43	-	-	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	0.1	81.6	18.7	31.7
Total Phosphate	mg/L	0.040	0.040	0.040	0.040
Zinc	mg/L	0.194	0.013	0.011	0.037
NO ₃ (as N)	mg/L	51.2	55.8	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
Tet. 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	0.925	0.047	0.127	0.028
Trichloroethene	mg/L	0.010	0.017	0.059	0.049
1,1,1-TCE	mg/L	<0.001	0.004	0.004	<0.001
Gross Alpha	pCi/L	57.2	8.2	10.9	20.8
Nonvol. Beta	pCi/L	137	157	117	99.9
Total Radium	pCi/L	14.4	10.2	8.6	6.5
Tritium	pCi/mL	1.21	-	-	-

Well: MBS 9A, M-Area Settling Basin

SRP Grid	N 102236.7	Screen Zone Elevation	43.8-42.3
Coordinates E	48242.5	Top of Casing Elevation	109.54
Latitude	33.330182°N	Casing Material PVC	
Longitude	81.73801°W		

Parameter	Units	01/31/87	05/05/87	07/27/87	11/08/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	65.6	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	164
Arsenic	mg/L	<0.006	0.006	<0.007	0.008
Barium	mg/L	<0.005	<0.005	<0.005	0.005
Beryllium	mg/L	<0.005	<0.005	<0.005	0.005
Calcium	mg/L	3.88	3.01	3.40	6.13
Chloride	mg/L	2.9	1.8	3.1	2.9
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	<0.004	<0.004	<0.004	<0.004
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005
Fluoride	mg/L	0.10	0.37	0.22	0.18
Iron	mg/L	0.021	0.082	0.025	0.018
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	<0.002	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	0.060	0.030
Zinc	mg/L	0.873	1.24	1.20	4.06
NO ₃ (as N)	mg/L	0.52	0.32	0.72	0.62
SO ₄	mg/L	7.5	13.0	7.0	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	1.6	2.0	2.0	2.0
Total Radium	pCi/L	1.0	2.0	1.9	1.0
Tritium	pCi/mL	0.68	*	*	*

Well: MBS 9B, M-Area Settling Basin

SRP Grid	N 102239.4	Screen Zone Elevation	63.6-62.1
Coordinates E	48251.7	Top of Casing Elevation	109.60
Latitude	33.330603°N	Casing Material PVC	
Longitude	81.738382°W		

Parameter	Units	01/31/87	05/05/87	07/27/87	11/08/87
Sampling Method		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	136	146	240
TDS	mg/L	88	258	280	292
Arsenic	mg/L	0.011	0.032	0.032	0.038
Barium	mg/L	<0.005	<0.005	<0.005	<0.005
Beryllium	mg/L	<0.001	<0.001	<0.001	<0.001
Calcium	mg/L	10.3	32.7	38.9	41.5
Chloride	mg/L	3.5	4.5	6.9	8.8
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	<0.009	<0.005	<0.005	<0.005
Fluoride	mg/L	0.38	0.64	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	1.07
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	19.3	21.1	21.3
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	28.6	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	8.3
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 102448.6
 Coordinates E 48273.0 Screen Zone Elevation 71.5-67.4
 Latitude 33.330651°N Top of Casing Elevation 109.43
 Longitude 81.739338°W Casing Material PVC

Parameter	Units	01/31/87	05/05/87	07/27/87	11/08/87	meters (MSL)
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	151	110	181	
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	0.064	0.072	0.050	0.014	
Magnesium	mg/L	3.92	2.57	2.02	2.41	
Manganese	mg/L	0.311	0.333	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	2.53	2.90	2.43	
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	<0.001	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	1.74	*	*	*	

Well: MSB 10B, M-Area Settling Basin

SRP Grid N 102488.2
 Coordinates E 47943.1 Screen Zone Elevation 47.1-45.6
 Latitude 33.330649°N Top of Casing Elevation 108.11
 Longitude 81.739617°W Casing Material PVC

Parameter	Units	02/08/87	05/05/87	07/26/87	11/08/87	meters (MSL)
Sampling Method	Pump	Pump	Pump	Pump		
Water Elevation	meters	65.4	65.9	65.8	65.2	
pH	5.6	5.6	5.7	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	<1.0	*	*	*	
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 102431.8
 Coordinates E 47954.4 Screen Zone Elevation 71.3-35.9
 Latitude 33.330587°N Top of Casing Elevation 108.20
 Longitude 81.739578°W Casing Material PVC

Parameter	Units	02/08/87	05/05/87	07/26/87	11/08/87	meters (MSL)
Sampling Method	Pump	Pump	Pump	Pump		
Water Elevation	meters	64.9	65.1	65.2	64.8	
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	1.14	*	*	*	
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	0.038	*	*	*	
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	1.80	
Total Phosphate	mg/L	0.040	*	*	*	
Zinc	mg/L	1.90	*	*	*	
NO ₃ (as N)	mg/L	0.17	0.15	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 102465.6
 Coordinates E 47951.1 Screen Zone Elevation 81.9-62.6
 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	meters (MSL)
Sampling Method	Pump	Pump	Pump	Pump		
Water Elevation	meters	71.3	71.3	71.6	71	
pH	6.6	6.5	6.6	9.3		
Conductivity	umhos/cm	211	215	217	282	
TDS	mg/L	184	158	306	166	
Barium	mg/L	0.092	*	*	*	
Beryllium	mg/L	<0.005	*	*	*	
Calcium	mg/L	1.92	*	*	*	
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	17.5	16.4	17	18.0	
Total Phosphate	mg/L	<0.030	*	*	*	
Zinc	mg/L	0.971	*	*	*	
NO ₃ (as N)	mg/L	14.3	15.5	17.9	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

SER Grid	N 102638.9	Screen Zone Elevation	41.3+38.7	meters (MSL)
Coordinates E	48577.6	Top of Casing Elevation	111.12	
Latitude	33.332018°N	Casing Material	PVC	
Longitude	81.738301°W			

Parameter	Units	02/03/87	04/25/87	07/26/87	11/07/87
Sampling Method		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	49	43	45
TDS	mg/L	32	36	40	62
Barium	mg/L	<0.005	<0.006	<0.006	<0.007
Beryllium	mg/L	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	6.18	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	<0.003	<0.003	<0.003
Fluoride	mg/L	<0.10	<0.10	0.24	0.19
Iron	mg/L	0.017	0.015	0.021	0.017
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.280	0.299	0.300	0.330
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	<.23	1.86	1.60	1.54
Total Phosphate	mg/L	0.070	0.140	0.120	0.090
Zinc	mg/L	0.814	0.748	0.820	0.815
NO ₃ (as N)	mg/L	0.34	0.20	0.59	0.51
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

SER Grid	N 102658.6	Screen Zone Elevation	55.6+54.1	meters (MSL)
Coordinates E	48579.4	Top of Casing Elevation	111.22	
Latitude	33.332065°N	Casing Material	PVC	
Longitude	81.738335°W			

Parameter	Units	02/03/87	04/25/87	07/26/87	11/07/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	68.2	68.2	68.5	67.6
pH		5.2	5.2	5.4	5.7
Conductivity	umhos/cm	217	198	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	0.18
Iron	mg/L	0.025	0.029	0.076	0.032
Lead	mg/L	0.017	0.011	0.013	<0.008
Magnesium	mg/L	7.47	5.98	5.38	3.54
Manganese	mg/L	0.041	0.032	0.018	0.014
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	0.020	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	8.7
Total Radium	pCi/L	5.5	4.1	2.9	2.6
Tritium	pCi/mL	<0.68	*	*	*

Well: MSB 11B, M-Area Settling Basin

SER Grid	N 102648.4	Screen Zone Elevation	50.5+48.9	meters (MSL)
Coordinates E	48578.3	Top of Casing Elevation	111.19	
Latitude	33.332042°N	Casing Material	PVC	
Longitude	81.738318°W			

Parameter	Units	02/03/87	04/25/87	07/26/87	11/07/87
Sampling Method		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	8.40	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	0.20
Iron	mg/L	0.018	0.018	0.028	0.037
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
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	1.80	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	0.18	0.13	0.43	0.49
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	2.1	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

SER Grid	N 102649.5	Screen Zone Elevation	63.5+62.0	meters (MSL)
Coordinates E	48579.7	Top of Casing Elevation	111.31	
Latitude	33.332089°N	Casing Material	PVC	
Longitude	81.738335°W			

Parameter	Units	02/03/87	04/25/87	07/26/87	11/07/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	71.8	71.8	72.1	71.4
pH		5.3	5.3	5.5	5.6
Conductivity	umhos/cm	27	34	30	28
TDS	mg/L	16	8	8	28
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	0.610	0.877	1.50	2.24
Chloride	mg/L	3.1	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	0.179	0.433	0.16	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	0.030	0.070	0.020
Zinc	mg/L	2.04	2.00	2.40	0.178
NO ₃ (as N)	mg/L	1.17	1.38	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	3.6
Nonvol. Beta	pCi/L	2.0	2.0	2.0	3.5
Total Radium	pCi/L	2.0	2.0	2.2	1.4
Tritium	pCi/mL	1.40	*	*	*

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

Well: MSB 11F, M-Area Settling Basin

SRP Grid N 102629.3
 Coordinates E 48577.0
 Latitude 33.331998°N
 Longitude 81.738184°W

Screen Zone Elevation 71.9-67.8
 Top of Casing Elevation 111.19
 Casing Material PVC

meters (MSL)

Parameter	Units	02/03/87	04/23/87	07/26/87	11/07/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	-	-	71.4	
pH	pH	4.4	4.4	4.5	5.0
Conductivity	umhos/cm	68	70	53	52
TDS	mg/L	12	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	1.68	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	0.013
Cyanide	mg/L	10.005	<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	0.991
NO ₃ (as N)	mg/L	8.16	5.08	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	10.8	13.8
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	x	x	x

Well: MSB 12B, M-Area Settling Basin

SRP Grid N 102251.8
 Coordinates E 47139.6
 Latitude 33.328814°N
 Longitude 81.761334°W

meters (MSL)

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	pH	5.6	5.7	5.7	5.5
Conductivity	umhos/cm	167	168	167	145
TDS	mg/L	120	114	48	112
Barium	mg/L	0.011	x	x	x
Beryllium	mg/L	<0.005	x	x	x
Calcium	mg/L	3.37	x	x	x
Chloride	mg/L	4.3	x	x	x
Chromium	mg/L	<0.004	x	x	x
Copper	mg/L	<0.004	x	x	x
Cyanide	mg/L	<0.005	x	x	x
Fluoride	mg/L	<0.10	x	x	x
Iron	mg/L	0.018	x	x	x
Lead	mg/L	0.008	x	x	x
Magnesium	mg/L	1.34	x	x	x
Manganese	mg/L	0.011	x	x	x
Nickel	mg/L	<0.004	x	x	x
Sodium	mg/L	21.6	20.9	20.0	19.7
Total Phosphate	mg/L	<0.010	x	x	x
Zinc	mg/L	5.01	x	x	x
NO ₃ (as N)	mg/L	17.4	16.5	16.6	15.3
SO ₄	mg/L	7.5	x	x	x
Phenols	mg/L	<0.002	x	x	x
Gross Alpha	pCi/L	2.2	x	x	x
Nonvol. Beta	pCi/L	4.4	x	x	x
Total Radium	pCi/L	2.2	x	x	x
Tritium	pCi/mL	0.68	x	x	x

Well: MSB 12A, M-Area Settling Basin

SRP Grid N 102283.2
 Coordinates E 47138.2
 Latitude 33.328815°N
 Longitude 81.741399°W

meters (MSL)

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	64.3	
pH	pH	5.7	5.8	5.1	6.2
Conductivity	umhos/cm	24	26	21	20
TDS	mg/L	22	32	138	28
Baileys	mg/L	<0.004	x	x	x
Beryllium	mg/L	<0.005	x	x	x
Calcium	mg/L	0.479	x	x	x
Chloride	mg/L	1.7	x	x	x
Chromium	mg/L	<0.004	x	x	x
Copper	mg/L	<0.004	x	x	x
Cyanide	mg/L	<0.005	x	x	x
Fluoride	mg/L	<0.10	x	x	x
Iron	mg/L	0.001	x	x	x
Lead	mg/L	0.013	x	x	x
Magnesium	mg/L	0.207	x	x	x
Manganese	mg/L	0.011	x	x	x
Nickel	mg/L	<0.004	x	x	x
Sodium	mg/L	1.51	1.62	1.37	1.46
Total Phosphate	mg/L	0.040	x	x	x
Zinc	mg/L	3.68	x	x	x
NO ₃ (as N)	mg/L	0.26	0.15	0.64	0.60
SO ₄	mg/L	12.0	x	x	x
Phenols	mg/L	<0.002	x	x	x
Gross Alpha	pCi/L	3.0	x	x	x
Nonvol. Beta	pCi/L	2.0	x	x	x
Total Radium	pCi/L	2.0	x	x	x
Tritium	pCi/mL	<0.68	x	x	x

Well: MSB 12C, M-Area Settling Basin

SRP Grid N 102274.4
 Coordinates E 47138.4
 Latitude 33.328822°N
 Longitude 81.741382°W

meters (MSL)

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	69.4	68.9
pH	pH	5.7	5.8	5.7	5.7
Conductivity	umhos/cm	68	78	182	181
TDS	mg/L	136	136	178	104
Barium	mg/L	0.011	x	x	x
Beryllium	mg/L	<0.005	x	x	x
Calcium	mg/L	4.97	x	x	x
Chloride	mg/L	4.3	x	x	x
Chromium	mg/L	<0.004	x	x	x
Copper	mg/L	<0.004	x	x	x
Cyanide	mg/L	<0.005	x	x	x
Fluoride	mg/L	<0.10	x	x	x
Iron	mg/L	0.001	x	x	x
Lead	mg/L	0.010	x	x	x
Magnesium	mg/L	2.02	x	x	x
Manganese	mg/L	0.016	x	x	x
Nickel	mg/L	<0.004	x	x	x
Sodium	mg/L	20.3	20.0	21.2	22.4
Total Phosphate	mg/L	0.025	x	x	x
Zinc	mg/L	3.12	x	x	x
NO ₃ (as N)	mg/L	17.8	17.5	17.9	18.5
SO ₄	mg/L	3.0	x	x	x
Phenols	mg/L	<0.002	x	x	x
Gross Alpha	pCi/L	9.5	x	x	x
Nonvol. Beta	pCi/L	11.4	x	x	x
Total Radium	pCi/L	3.5	x	x	x
Tritium	pCi/mL	<0.68	x	x	x

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

Well: MBB 12B, M-Area Settling Basin

SRP Grid N 101262.2
 Coordinates E 47139.7
 Latitude 33.32851°N
 Longitude 81.741254°W

Screen Zone Elevation 74.5-88.4
 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	pH	8.0	6.9	6.9	-
Conductivity	umhos/cm	168	219	149	-
TDS	mg/L	118	118	100	-
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	0.025	-	-	-
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	13.0	-	-	-
Nonvol. Beta	pCi/L	1.8	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	<0.68	-	-	-

Well: MBB 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	07/26/87	11/14/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	60.7	63.7	65.3	65
pH	pH	10.8	10.1	10.6	11.3
Conductivity	umhos/cm	266	188	307	630
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	<0.008	-	-	-
Magnesium	mg/L	<0.020	-	-	-
Manganese	mg/L	<0.002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	14.8	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	16.0
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	0.064	-	-	-
Gross Alpha	pCi/L	1.3	-	-	-
Nonvol. Beta	pCi/L	18.6	-	-	-
Total Radium	pCi/L	1.0	-	-	-
Tritium	pCi/mL	<0.68	-	-	-

Well: MBB 13A, M-Area Settling Basin

SRP Grid N 101725.7
 Coordinates E 47525.4
 Latitude 33.328281°N
 Longitude 81.738295°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	pH	5.6	5.7	5.7	5.9
Conductivity	umhos/cm	24	27	26	21
TDS	mg/L	38	32	36	34
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	0.893	-	-	-
Chloride	mg/L	2.1	-	-	-
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	1.65
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	3.04	-	-	-
NO ₃ (as N)	mg/L	0.25	0.18	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	12.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	<0.68	-	-	-

Well: MBB 14A, M-Area Settling Basin

SRP Grid N 101629.5
 Coordinates E 48521.9
 Latitude 33.299696°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	04/21/87	07/26/87	11/07/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	67.5	-	-	66.5
pH	pH	5.5	5.6	5.4	6.4
Conductivity	umhos/cm	112	112	127	125
TDS	mg/L	92	84	98	98
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	2.8	3.8	3.9
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	<0.004	<0.004	<0.004	0.003
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	0.013	0.011	0.051
Lead	mg/L	0.008	0.008	<0.006	0.006
Magnesium	mg/L	2.79	2.89	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	3.87	5.90	5.44
Total Phosphate	mg/L	0.016	0.010	0.010	0.010
Zinc	mg/L	1.87	1.68	1.99	0.275
NO ₃ (as N)	mg/L	11.0	11.0	12.6	12.8
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	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 48514.1 Screen Zone Elevation 59.0-57.5
 Latitude 33.328712°N Top of Casing Elevation 106.28
 Longitude 81.736510°W 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	pH	5.7	5.7	5.8	5.9
Conductivity	umhos/cm	170	165	175	180
TDS	mg/L	130	138	120	154
Barium	ng/L	0.049	0.048	0.047	0.047
Beryllium	ng/L	<0.003	0.003	<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	ng/L	<0.004	<0.004	<0.004	<0.004
Copper	ng/L	<0.004	<0.004	<0.004	<0.006
Cyanide	ng/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	0.012	0.039	0.248
Lead	mg/L	<0.006	0.007	<0.006	<0.006
Magnesium	mg/L	3.42	3.34	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	15.6	16.8	16.5
Total Phosphate	mg/L	0.040	0.020	0.030	0.020
Zinc	mg/L	3.71	2.08	2.70	0.194
NO ₃ (as N)	mg/L	18.7	15.4	20.3	19.0
SO ₄	mg/L	<3.0	<3.0	15.0	5.0
Phenols	mg/L	<0.002	<0.005	<0.005	0.005
Gross Alpha	pCi/L	1.6	3.0	2.5	6.4
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 482137.7 Screen Zone Elevation 48.6-47.1
 Latitude 33.328748°N Top of Casing Elevation 109.11
 Longitude 81.743153°W 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	67	67.1	67.2	66.6
pH	pH	5.7	5.7	5.5	5.6
Conductivity	umhos/cm	160	152	165	170
TDS	mg/L	100	120	158	124
Barium	ng/L	0.034	-	-	-
Beryllium	ng/L	<0.003	-	-	-
Calcium	mg/L	8.98	-	-	-
Chloride	mg/L	5.6	-	-	-
Chromium	ng/L	<0.004	-	-	-
Copper	ng/L	<0.004	-	-	-
Cyanide	ng/L	<0.005	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.017	-	-	-
Lead	mg/L	0.018	-	-	-
Magnesium	mg/L	3.35	-	-	-
Manganese	ng/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 Screen Zone Elevation 74.3-68.2
 Latitude 33.328733°N Top of Casing Elevation 106.28
 Longitude 81.736333°W 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	pH	7.7	8.6	7.0	7.7
Conductivity	umhos/cm	94	91	90	100
TDS	mg/L	74	62	68	100
Barium	ng/L	0.011	0.011	0.012	0.012
Beryllium	ng/L	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	14.6	13.5	12.3	21.1
Chloride	mg/L	3.1	2.1	3.4	3.1
Chromium	ng/L	<0.004	0.004	<0.004	0.004
Copper	ng/L	<0.004	<0.004	<0.004	<0.004
Cyanide	ng/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	0.048
Lead	mg/L	<0.006	0.006	<0.006	0.006
Magnesium	mg/L	0.684	2.99	0.710	0.777
Manganese	ng/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	0.210	0.120	0.090
Zinc	mg/L	0.107	0.064	0.170	0.210
NO ₃ (as N)	mg/L	2.70	2.74	3.83	3.33
SO ₄	mg/L	3.0	<3.0	15.0	15.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Gross Alpha	pCi/L	1.4	3.0	5.5	10.4
Nonvol. Beta	pCi/L	2.0	<2.0	8.0	7.7
Total Radium	pCi/L	2.7	1.9	3.5	3.1
Tritium	pCi/mL	2.33	-	-	-

Well: MSB 17B, M-Area Settling Basin

SRP Grid N 101994.6
 Coordinates E 482137.7 Screen Zone Elevation 57.9-56.4
 Latitude 33.328773°N Top of Casing Elevation 109.08
 Longitude 81.743209°W 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	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	ng/L	<0.005	-	-	-
Calcium	mg/L	3.89	-	-	-
Chloride	mg/L	<5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	<0.004	-	-	-
Cyanide	ng/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	18.3	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	19.2
SO ₄	mg/L	10.7	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	3.8	-	-	-
Nonvol. Beta	pCi/L	6.7	-	-	-
Total Radium	pCi/L	5.3	-	-	-
Tritium	pCi/mL	0.68	-	-	-

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

Well: MBB 18A, M-Area Settling Basin

SRP Grid N 100416.1
 Coordinates E 46110.6 Screen Zone Elevation 49.5-47.9
 Latitude 33.323075°N Top of Casing Elevation 103.69
 Longitude 81.740473°W Casing Material PVC

Parameter	Units	02/08/87	05/05/87	07/28/87	11/14/87
Sampling Method	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	38	40	36
TDS	mg/L	32	64	82	62
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	0.374	-	-	-
Manganese	mg/L	<0.008	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	2.50	2.49	2.36	2.49
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	1.70	-	-	-
NO ₃ (as N)	mg/L	.93	2.00	2.56	2.48
SO ₄	mg/L	15.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-
Netvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	0.70	-	-	-

Well: MBB 18C, M-Area Settling Basin

SRP Grid N 100430.9
 Coordinates E 46121.4 Screen Zone Elevation 59.3-63.2
 Latitude 33.323126°N Top of Casing Elevation 103.81
 Longitude 81.740473°W Casing Material PVC

Parameter	Units	02/08/87	05/05/87	07/28/87	11/14/87
Sampling Method	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	55	52	64	30
Barium	mg/L	<0.008	-	-	-
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	3.07	2.10	1.72
Total Phosphate	mg/L	0.166	-	-	-
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	-	-	-
Netvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	2.3	-	-	-
Tritium	pCi/mL	2.06	-	-	-

Well: MBB 18B, M-Area Settling Basin

SRP Grid N 100424.1
 Coordinates E 46115.7 Screen Zone Elevation 60.0-58.5
 Latitude 33.323102°N Top of Casing Elevation 103.72
 Longitude 81.740473°W Casing Material PVC

Parameter	Units	02/08/87	05/05/87	07/28/87	11/14/87
Sampling Method	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	126	123	145	115
TDS	mg/L	162	101	108	96
Barium	mg/L	0.025	-	-	-
Beryllium	mg/L	<0.005	-	-	-
Calcium	mg/L	1.07	-	-	-
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	0.027	-	-	-
Lead	mg/L	0.010	-	-	-
Magnesium	mg/L	0.872	-	-	-
Manganese	mg/L	0.011	-	-	-
Nickel	mg/L	<0.004	-	-	-
Sodium	mg/L	15.0	12.8	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	9.18
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Gross Alpha	pCi/L	3.0	-	-	-
Netvol. Beta	pCi/L	4.0	-	-	-
Total Radium	pCi/L	1.0	-	-	-
Tritium	pCi/mL	1.18	-	-	-

Well: MBB 20A, M-Area Settling Basin

SRP Grid N 103545.1
 Coordinates E 46040.5 Screen Zone Elevation 49.1-47.6
 Latitude 33.329916°N Top of Casing Elevation 107.89
 Longitude 81.746692°W Casing Material PVC

Parameter	Units	02/08/87	05/05/87	07/28/87	11/14/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	67.6	67.8	67.9	67.5
pH		5.8	5.7	5.8	5.8
Conductivity	umhos/cm	27	28	28	26
TDS	mg/L	46	30	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	0.003	-	-	-
Lead	mg/L	0.008	-	-	-
Magnesium	mg/L	0.388	-	-	-
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	-	-	-
Netvol. 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: MBB 206, M-Area Settling Basin

SRP Grid N 103556.3
 Coordinates E 46088.8
 Latitude 33.329981°N
 Longitude 81.746739°W

		meters (MSL)
Screen Zone Elevation	70.8-84.7	
Top of Casing Elevation	107.68	
Casing Material PVC		

Parameter	Units	02/08/87	05/05/87	07/18/87	12/11/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	70.7	70.8	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	86	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	3.67	3.34	2.81	2.99
Total Phosphate	mg/L	0.076	<	<	<
Zinc	mg/L	0.034	<	<	<
NO ₃ (as N)	mg/L	2.40	2.50	2.16	5.83
SO ₄	mg/L	63.0	<	<	<
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	1.98	<	<	<

Well: MBB 21C, M-Area Settling Basin

SRP Grid N 103973.0
 Coordinates E 47234.6
 Latitude 33.332774°N
 Longitude 81.744433°W

		meters (MSL)
Screen Zone Elevation	70.8-84.6	
Top of Casing Elevation	107.71	
Casing Material PVC		

Parameter	Units	02/03/87	04/27/87	07/18/87	12/11/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	71.5	71.5	71.8	71.3
pH	5.8	5.5	5.7	5.5	5.4
Conductivity	umhos/cm	22	24	26	26
TDS	mg/L	30	8	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	0.080	<	<	<
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	<1.0	<	<	<
Nonvol. Beta	pCi/L	<2.0	<	<	<
Total Radium	pCi/L	<1.0	<	<	<
Tritium	pCi/mL	1.98	<	<	<

Well: MBB 21A, M-Area Settling Basin

SRP Grid N 103567.0
 Coordinates E 47215.0
 Latitude 33.332774°N
 Longitude 81.744433°W

		meters (MSL)
Screen Zone Elevation	70.8-84.6	
Top of Casing Elevation	107.71	
Casing Material PVC		

Parameter	Units	02/03/87	04/27/87	07/18/87	12/11/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	68.5	68.5	68.5	
pH	5.7	5.8	5.8	5.3	
Conductivity	umhos/cm	22	26	23	
TDS	mg/L	30	18	46	26
Barium	mg/L	<0.004	<	<	<
Beryllium	mg/L	<0.003	<	<	<
Calcium	mg/L	0.459	<	<	<
Chloride	mg/L	2.0	<	<	<
Chromium	mg/L	<0.004	<	<	<
Copper	mg/L	<0.004	<	<	<
Cyanide	mg/L	<0.003	<	<	<
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	1.13	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	1.18	1.12
SO ₄	mg/L	3.0	<	<	<
Phenols	mg/L	<0.002	<	<	<
Gross Alpha	pCi/L	<1.0	<	<	<
Nonvol. Beta	pCi/L	<2.0	<	<	<
Total Radium	pCi/L	<1.0	<	<	<
Tritium	pCi/mL	0.68	<	<	<

Well: MBB 29B, M-Area Settling Basin

SRP Grid N 107319.3
 Coordinates E 51217.3
 Latitude 33.348676°N
 Longitude 81.740455°W

		meters (MSL)
Screen Zone Elevation	48.7-45.0	
Top of Casing Elevation	111.31	
Casing Material PVC		

Parameter	Units	01/26/87	04/26/87	08/04/87	12/17/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	69.3	69.3	69.2	69.3
pH	4.0	4.7	4.4	4.2	
Conductivity	umhos/cm	18	21	28	22
TDS	mg/L	14	26	56	55
Barium	mg/L	0.003	<	<	<
Beryllium	mg/L	0.001	<	<	<
Calcium	mg/L	0.621	<	<	<
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	<0.003	<	0.005	0.005
Fluoride	mg/L	<0.10	<	<	<
Iron	mg/L	0.013	<	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	1.98
Total Phosphate	mg/L	0.010	<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	<1.0	<1.0	<1.0	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: MSL 29C, M-Area Settling Basin

SRP Grid N 107315.0
 Coordinates E 51206.6
 Latitude 33.346648°N
 Longitude 81.740476°W

meters (MSL)
 Screen Zone Elevation 55.2-53.5
 Top of Casing Elevation 111.31
 Casing Material PVC

Parameter	Units	01/26/87	04/06/87	08/04/87	11/17/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	71.9	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	-	2.3	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	0.015
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	5.07	-	-	-
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	0.008	-	0.011	0.018
SO ₃ (as N)	mg/L	1.55	1.52	1.81	1.67
SO ₄	mg/L	<3.0	-	<5.0	<3.0
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	<2.8
Total Radium	pCi/L	1.0	1.1	2.0	0.5
Tritium	pCi/mL	1.02	-	-	-

Well: MSL 39A, M-Area Settling Basin

SRP Grid N 100837.6
 Coordinates E 48367.3
 Latitude 33.32769°N
 Longitude 81.73535°W

Parameter	Units	03/05/87	07/28/87	12/11/87
Sampling Method		Pump	Pump	Pump
Water Elevation	meters	64.4	64.6	64.3
pH	-	5.8	6.1	5.5
Conductivity	umhos/cm	53	69	61
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	<0.005	-	-
Magnesium	mg/L	0.428	-	-
Manganese	mg/L	0.044	-	-
Nickel	mg/L	0.009	0.005	0.084
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: MSL 29D, M-Area Settling Basin

SRP Grid N 107323.2
 Coordinates E 51226.9
 Latitude 33.346700°N
 Longitude 81.740438°W

meters (MSL)
 Screen Zone Elevation 64.9-64.6
 Top of Casing Elevation 111.28
 Casing Material PVC

Parameter	Units	01/26/87	04/06/87	08/04/87	11/17/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	71.9	71.7	72.1	71.8
pH	-	5.0	4.4	4.8	4.2
Conductivity	umhos/cm	19	38	36	78
TDS	mg/L	22	20	72	19
Barium	mg/L	0.007	-	0.008	0.014
Beryllium	mg/L	<0.001	-	-	-
Calcium	mg/L	0.290	-	-	-
Chloride	mg/L	2.8	-	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	-	0.121	0.033
Lead	mg/L	0.011	0.010	0.011	0.008
Magnesium	mg/L	0.443	-	-	-
Manganese	mg/L	0.004	-	0.004	0.014
Nickel	mg/L	<0.004	<0.004	0.012	0.012
Sodium	mg/L	4.59	3.93	3.44	3.46
Total Phosphate	mg/L	0.030	<0.020	0.020	0.070
Zinc	mg/L	0.012	-	0.007	0.054
SO ₃ (as N)	mg/L	2.18	2.18	2.04	2.04
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	9.4	8.1	5.8	8.3
Tritium	pCi/mL	1.40	-	-	-

Well: MSL 39B, M-Area Settling Basin

SRP Grid N 100818.6
 Coordinates E 48376.9
 Latitude 33.327724°N
 Longitude 81.73539°W

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	4.4
Conductivity	umhos/cm	153	158	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 100852.1
 Coordinates E 48386.7 Screen Zone Elevation 61.1-59.4
 Latitude 33.327757°N Top of Casing Elevation 104.08
 Longitude 81.735328°W Casing Material PVC

Parameter	Units	05/05/87	07/28/87	12/11/87
Sampling Method		Pump	Pump	Pump
Water Elevation	meters	66.4	66.7	66.4
pH	pH	4.4	4.6	4.1
Conductivity	umhos/cm	79	78	79
TDS	mg/L	56	84	64
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	0.034
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	8.50	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 107275.9
 Coordinates E 49297.7 Screen Zone Elevation 43.2-44.5
 Latitude 33.343428°N Top of Casing Elevation 109.08
 Longitude 81.745437°W 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	42	32	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	<0.003
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.021	-	0.022	0.019
Lead	mg/L	<0.008	0.008	<0.008	<0.006
Magnesium	mg/L	0.398	-	-	-
Manganese	mg/L	0.013	-	0.010	0.013
Nickel	mg/L	<0.004	0.004	<0.004	0.008
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	0.018	-	<0.005	<0.005
Gross Alpha	pCi/L	<3.0	-	<3.0	<3.0
Nonvol. Beta	pCi/L	<2.0	-	<2.0	1.5
Total Radium	pCi/L	1.0	-	<1.0	<1.0
Tritium	pCi/mL	0.68	-	-	-

Well: MSB 39D, M-Area Settling Basin

SRP Grid N 100852.7
 Coordinates E 48396.0 Screen Zone Elevation 73.3-67.0
 Latitude 33.327786°N Top of Casing Elevation 104.15
 Longitude 81.735316°W 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	5.3	4.8
Conductivity	umhos/cm	34	36	36
TDS	mg/L	30	36	26
Barium	mg/L	0.007	-	-
Beryllium	mg/L	<0.005	-	-
Calcium	mg/L	1.66	-	-
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	0.677	-	-
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 Screen Zone Elevation 53.9-52.1
 Latitude 33.343465°N Top of Casing Elevation 109.11
 Longitude 81.745387°W 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	27
Barium	mg/L	<0.004	-	<0.004	<0.004
Beryllium	mg/L	<0.001	-	-	-
Calcium	mg/L	1.65	-	-	-
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	0.461	-	-	-
Manganese	mg/L	0.008	-	0.060	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	0.013
NO ₃ (as N)	mg/L	1.40	1.33	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	0.5
Tritium	pCi/mL	0.68	-	-	-

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

Well: MSL 43D, M-Area Settling Basin

SRP Grid N 107274-2
 Coordinates E 49322.0
 Latitude 33.343480°N
 Longitude 81.745360°W

meters (MSL)

Screen Zone Elevation
 Top of Casing Elevation
 Casing Material PVC

67.5-61.3
 108.96

MSL 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-Dichloroethylene 0.012

MSL 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

MSL 3A 01/31/87
 Aluminum 2.95
 Cyanide <0.005
 Antimony <0.003

Uranium <0.1
 Pest/Herb* Analysis detected the following:
 None

MSL 3A 04/20/87
 Aluminum 0.016
 Cyanide 0.032
 Antimony <0.003
 Uranium <1

GCMS Scan detected the following: None

Other Analyses (mg/L)

(GCMS Scan and Pest/Herb* Analytes: Table 4-25, Vol. III)

MSL 1A 01/13/87

Aluminum 0.170
 Cyanide <0.005
 Antimony <0.003
 Uranium <1
 Pest/Herb* Analysis detected the following:
 None

MSL 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 0.028
 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

MSL 1A 04/16/87

Aluminum 0.134
 Cyanide <0.005
 Antimony <0.003
 Uranium <1
 GCMS Scan detected the following:
 trans-1,2-Dichloroethene 0.019

MSL 3A 09/10/87

Cyanide 0.033

MSL 3A 10/22/87

Aluminum 0.220
 Cyanide 0.037
 Antimony <0.003
 Tin <0.12
 Uranium <1
 Endrin <0.005

Lindane <0.003
 Methoxychlor <0.025
 Toxaphene <0.050

GCMS Scan detected the following:
 Dibromochloromethane 0.016
 Toluene 0.001
 1,1,2,2-Tetrachloroethane 0.001
 trans-1,2-Dichloroethene 1.36
 1,1-Dichloroethylene 0.015
 1,1-Dichloroethane 0.017
 1,1,2-Trichloroethane 0.085

MSL 1A 07/09/87

Aluminum 0.130
 Cyanide <0.005
 Antimony <0.003
 Uranium <1
 Endrin <0.0001
 GCMS Scan detected the following:
 None

MSL 4A 02/04/87

Aluminum <0.020
 Cyanide <0.005
 Antimony <0.003
 Uranium <1
 Pest/Herb* Analysis detected the following:
 None

MSL 1A 11/01/87

Aluminum 0.198
 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

MSL 4A 04/16/87

Aluminum 0.021
 Cyanide <0.005
 Antimony <0.003
 Uranium <1
 Pest/Herb* Analysis detected the following:
 None

MSL 2A 01/31/87

Aluminum 0.736
 Cyanide <0.005
 Antimony <0.003
 Uranium <1
 Endrin <0.0001
 GCMS Scan detected the following:
 trans-1,2-Dichloroethene 0.009

MSL 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

MSL 2A 04/16/87

Aluminum 0.707
 Cyanide <0.005
 Antimony <0.003
 Uranium <1
 GCMS Scan detected the following:
 1,2-Dichloroethane 0.126

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

MSB AA 08/04/87		MSB TA 01/31/87	
Aluminum	0.04*	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:			
Chloroethene	0.010		
1,1,2,2-Tetrachloroethane	0.040		
trans-1,2-Dichloroethene	0.620		
1,1-Dichloroethylene	0.037		
1,1-Dichloroethane	0.011		
MSB AA 10/11/87		MSB TA 04/09/87	
Aluminum	<0.020	Aluminum	0.023
Cyanide	0.014	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Tin	<0.12	Uranium	<1
Uranium	<1	GCMS Scan detected the following: None	
Endrin	0.0001		
GCMS Scan detected the following:			
trans-1,2-Dichloroethene	0.138		
MSB SA 01/31/87		MSB TA 10/17/87	
Aluminum	0.022	Aluminum	0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Uranium	<0.1	Tin	<0.12
Pest/Herb* Analysis detected the following: None		Uranium	<1
GCMS Scan detected the following:		Endrin	<0.0001
1,1-Dichloroethane	0.008	GCMS Scan detected the following: None	
MSB SA 04/20/87		MSB BA 01/31/87	
Aluminum	<0.020	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-Dichloroethylene	0.008		
1,1-Dichloroethane	0.009		
MSB SA 07/27/87		MSB BA 04/20/87	
Aluminum	0.048	Aluminum	0.046
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Uranium	<1	Uranium	<1
Endrin	<0.0001	GCMS Scan detected the following: None	
GCMS Scan detected the following:			
1,1-Dichloroethylene	0.008		
1,1-Dichloroethane	0.009		
MSB SA 10/17/87		MSB BA 08/04/87	
Aluminum	0.034	Aluminum	0.051
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Tin	<0.12	Uranium	<1
Uranium	<1	GCMS Scan detected the following: 1,1,2,2-Tetrachloroethane	0.010
Endrin	<0.0001		
GCMS Scan detected the following:			
1,1-Dichloroethylene	0.010		
MSB SA 01/31/87		MSB BA 10/17/87	
Aluminum	0.014	Aluminum	0.050
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.004
Uranium	<0.1	Tin	<0.12
Pest/Herb* Analysis detected the following: None		Uranium	<1
GCMS Scan detected the following:		Endrin	<0.0001
MSB SA 04/20/87		GCMS Scan detected the following: None	
Aluminum	0.026		
Cyanide	<0.005		
Antimony	<0.003		
Uranium	<1		
GCMS Scan detected the following: None			
MSB SA 07/06/87		MSB BA 01/31/87	
Aluminum	<0.020	Aluminum	0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Uranium	<1		
Endrin	<0.0001		
GCMS Scan detected the following: None			
MSB SA 10/17/87		MSB BA 07/27/87	
Aluminum	0.026	Aluminum	0.015
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Tin	<0.12		
Uranium	<1		
Endrin	<0.0001		
GCMS Scan detected the following: None			
MSB SA 10/17/87		MSB BA 11/08/87	
Aluminum	0.026	Aluminum	0.029
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Tin	<0.12		
Uranium	<1		
Endrin	<0.0001		
GCMS Scan detected the following: None			
MSB SA 10/17/87		MSB BA 01/31/87	
Aluminum	0.026	Aluminum	0.170
Cyanide	<0.005	Cyanide	<0.008
Antimony	<0.003	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

MSE 9B 05/02/87		MSE 11B 11/02/87	
Aluminum	0.078	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Tin	<0.12	Tin	<0.12
MSE 9B 07/27/87		MSE 11C 02/03/87	
Aluminum	0.045	Aluminum	0.150
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSE 9B 11/08/87		MSE 11C 04/25/87	
Aluminum	0.145	Aluminum	0.162
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Tin	<0.12		
MSE 9C 01/31/87		MSE 11C 07/26/87	
Aluminum	1.58	Aluminum	0.154
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSE 9C 05/05/87		MSE 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	Tin	<0.12
MSE 9C 07/27/87		MSE 11D 02/03/87	
Aluminum	3.06	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSE 9C 11/08/87		MSE 11D 04/25/87	
Aluminum	4.06	Aluminum	0.040
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Tin	<0.12		
MSE 10A 02/08/87		MSE 11D 07/26/87	
Aluminum	<0.020	Aluminum	0.045
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSE 10B 02/08/87		MSE 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		
MSE 10C 07/08/87		MSE 11E 02/03/87	
Aluminum	<0.020	Aluminum	1.08
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSE 11A 02/03/87		MSE 11F 04/25/87	
Aluminum	<0.020	Aluminum	0.087
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSE 11A 04/25/87		MSE 11F 07/26/87	
Aluminum	<0.020	Aluminum	0.890
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSE 11A 07/26/87		MSE 11F 11/07/87	
Aluminum	0.033	Aluminum	0.619
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Tin	<0.12	Tin	<0.12
MSE 11B 02/03/87		MSE 12A 02/03/87	
Aluminum	<0.020	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSE 11B 04/25/87		MSE 12B 02/03/87	
Aluminum	<0.020	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSE 11B 07/26/87		MSE 12C 02/03/87	
Aluminum	0.024	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Tin	<0.12		
MSE 11B 07/26/87		MSE 12D 02/03/87	
Aluminum	0.024	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Tin	<0.12		
MSE 11B 07/26/87		MSE 12D 07/26/87	
Aluminum	0.024	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSE 11B 07/26/87		MSE 12D 11/07/87	
Aluminum	0.024	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
Tin	<0.12		

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

MSB 13A 02/03/87		MSB 18B 02/08/87	
Aluminum	<0.020	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSB 13B 02/04/87		MSB 18C 02/08/87	
Aluminum	0.013	Aluminum	<0.020
Cyanide	0.007	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSB 14A 02/03/87		MSB 20A 02/08/87	
Aluminum	0.025	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSB 14B 04/27/87		MSB 20C 02/08/87	
Aluminum	0.046	Aluminum	0.096
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSB 14A 07/26/87		MSB 21A 02/03/87	
Aluminum	0.052	Aluminum	<0.020
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Antimony	<0.003
MSB 14A 11/07/87		MSB 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		
MSB 14B 03/03/87		MSB 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	
MSB 14B 04/27/87		MSB 29B 04/06/87	
Aluminum	0.038	Aluminum	0.027
Cyanide	<0.005	Uranium	<0.1
Antimony	<0.003	GCMS Scan detected the following: None	
		Pest/Herb* Analysis detected the following:	
		None	
MSB 14B 07/26/87		MSB 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	
MSB 14B 11/07/87		MSB 29B 12/11/87	
Aluminum	0.066	Aluminum	0.047
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	
MSB 14C 02/03/87		MSB 29B 08/04/87	
Aluminum	0.038	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	
MSB 14C 04/27/87		MSB 29C 01/26/87	
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	
MSB 14C 07/26/87		MSB 29C 04/06/87	
Aluminum	0.039	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	
MSB 14C 11/07/87		MSB 29C 08/04/87	
Aluminum	0.058	Aluminum	0.034
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Uranium	<1
Tin	<0.12	GCMS Scan detected the following: None	
		Pest/Herb* Analysis detected the following:	
		None	
MSB 17A 01/25/87		MSB 29C 08/04/87	
Aluminum	0.040	Aluminum	0.034
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Uranium	<1
		GCMS Scan detected the following: None	
		Pest/Herb* Analysis detected the following:	
		None	
MSB 17B 01/29/87		MSB 29C 08/04/87	
Aluminum	0.120	Aluminum	0.034
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Uranium	<1
		GCMS Scan detected the following: None	
		Pest/Herb* Analysis detected the following:	
		None	
MSB 18A 02/06/87		MSB 29C 08/04/87	
Aluminum	<0.020	Aluminum	0.034
Cyanide	<0.005	Cyanide	<0.005
Antimony	<0.003	Uranium	<1
		GCMS Scan detected the following: None	
		Pest/Herb* Analysis detected the following:	
		None	

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

MSB 29C 12/17/87	Aluminum 0.040 Cyanide <0.005 Tin <0.12 Uranium <1 GCMS Scan detected the following: None Pest/Herb* Analysis detected the following: None	MSB 43A 01/29/87 Aluminum 0.020 Cyanide <0.005 Antimony <0.003 Uranium <0.1 Pest/Herb* Analysis detected the following: None
MSB 29D 01/26/87	Aluminum 0.047 Cyanide <0.005 Antimony <0.003 Uranium <0.1 Pest/Herb* Analysis detected the following: None	MSB 43A 04/06/87 Aluminum 0.011 Uranium <0.1 GCMS Scan detected the following: None Pest/Herb* Analysis detected the following: None
MSB 29D 04/06/87	Aluminum 0.042 Uranium <0.1 GCMS Scan detected the following: None Pest/Herb* Analysis detected the following: None	MSB 43A 08/04/87 Aluminum 0.038 Cyanide <0.005 Uranium <1 GCMS Scan detected the following: None Pest/Herb* Analysis detected the following: None
MSB 29D 08/04/87	Aluminum 0.056 Cyanide <0.005 Uranium <1 GCMS Scan detected the following: None Pest/Herb* Analysis detected the following: None	MSB 43A 12/19/87 Aluminum 0.029 Cyanide <0.005 Tin <0.12 Uranium <1 GCMS Scan detected the following: None Pest/Herb* Analysis detected the following: None
MSB 29D 12/17/87	Aluminum 0.074 Cyanide <0.005 Tin <0.12 Uranium <1 GCMS Scan detected the following: None Pest/Herb* Analysis detected the following: None	MSB 43B 01/29/87 Aluminum 0.035 Cyanide <0.005 Antimony <0.003 Uranium <0.1 Pest/Herb* Analysis detected the following: None
MSB 39A 05/05/87	Aluminum <0.020 Cyanide <0.005 Antimony <0.003	MSB 43B 04/06/87 Aluminum <0.010 Uranium <0.1 GCMS Scan detected the following: None Pest/Herb* Analysis detected the following: None
MSB 39A 07/28/87	Aluminum 0.075	MSB 43B 08/04/87 Aluminum 0.540 Cyanide <0.005 Uranium <1 GCMS Scan detected the following: None Pest/Herb* Analysis detected the following: None
MSB 39A 12/31/87	Aluminum <0.020	MSB 43B 12/19/87 Aluminum 0.028 Cyanide <0.005 Tin <0.12 Uranium <1 GCMS Scan detected the following: None Pest/Herb* Analysis detected the following: None
MSB 39B 05/05/87	Aluminum 0.073 Cyanide <0.005 Antimony <0.003	MSB 43D 01/29/87 Aluminum 0.031 Cyanide <0.005 Antimony <0.003 Uranium <0.1 Pest/Herb* Analysis detected the following: None
MSB 39B 07/28/87	Aluminum 0.064	MSB 43D 04/06/87 Aluminum 0.043 Uranium <0.1 GCMS Scan detected the following: None Pest/Herb* Analysis detected the following: None
MSB 39B 12/31/87	Aluminum 0.084	MSB 43D 08/04/87 Aluminum 0.028 Cyanide <0.005 Tin <0.12 Uranium <1 GCMS Scan detected the following: None Pest/Herb* Analysis detected the following: None
MSB 39C 05/05/87	Aluminum 0.147 Cyanide <0.005 Antimony <0.003	MSB 43D 04/06/87 Aluminum 0.043 Uranium <0.1 GCMS Scan detected the following: None Pest/Herb* Analysis detected the following: None
MSB 39C 07/28/87	Aluminum 0.140	MSB 43D 08/04/87 Aluminum 0.068 Cyanide <0.005 Uranium <1 GCMS Scan detected the following: None Pest/Herb* Analysis detected the following: None
MSB 39C 12/31/87	Aluminum 0.134	
MSB 39D 05/05/87	Aluminum 0.612 Cyanide <0.005 Antimony <0.003	
MSB 39D 07/28/87	Aluminum 0.028	
MSB 39D 12/31/87	Aluminum 0.051	

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

MGR 43D 12/19/87

Aluminum 0.038
 Cyanide <0.005
 Tin 70.12
 Uranium <1
 GCNS Scan detected the following: None
 Fex/Herb* Analysis detected the following:
 None

Well: AC 1A, (RMET Program Information)

Parameter	Units	01/20/87	07/09/87	meters (MSL)
SRP Grid	N 105865.0			
Coordinates E	421238.8	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	meters (MSL)
Sampling Method	Pump	Pump	Pump	
Water Elevation	meters	66.2	66.9	
pH	pH	5.8	5.7	
Conductivity	umhos/cm	23	24	
Chloroform	mg/L	<0.001	<0.001	
Tetra-chloroethene	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)

Parameter	Units	01/20/87	07/09/87	meters (MSL)
SRP Grid	N 105862.8			
Coordinates E	421250.5	Screen Zone Elevation	-	
Latitude	33.328810°N	Top of Casing Elevation	80.22	
Longitude	81.751233°W	Casing Material		

Parameter	Units	01/20/87	07/09/87	meters (MSL)
Sampling Method	Pump	Pump	Pump	
Water Elevation	meters	66.3	66.9	
pH	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)

Parameter	Units	01/08/87	07/08/87	meters (MSL)
SRP Grid	N 105836.4			
Coordinates E	421286.6	Screen Zone Elevation	45.4-43.9	
Latitude	33.335134°N	Top of Casing Elevation	105.70	
Longitude	81.749792°W	Casing Material	PVC	

Parameter	Units	01/08/87	07/08/87	meters (MSL)
Sampling Method	Pump	Pump	Pump	
Water Elevation	meters	69.3	69.5	
pH	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)

Parameter	Units	01/08/87	07/08/87	meters (MSL)
SRP Grid	N 105848.7			
Coordinates E	421244.5	Screen Zone Elevation	47.7-56.6	
Latitude	33.335187°N	Top of Casing Elevation	5.67	
Longitude	81.749774°W	Casing Material	PVC	

Parameter	Units	01/08/87	07/08/87	meters (MSL)
Sampling Method	Pump	Pump	Pump	
Water Elevation	meters	71.7	72.1	
pH	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: AC 3A, (RMET Program Information)

Parameter	Units	01/08/87	07/16/87	meters (MSL)
SRP Grid	N 105889.1			
Coordinates E	42119.8	Screen Zone Elevation	47.6-45.9	
Latitude	33.317824°N	Top of Casing Elevation	92.72	
Longitude	81.732094°W	Casing Material	PVC	

Parameter	Units	01/20/87	07/16/87	10/20/87	meters (MSL)
Sampling Method	Pump	Pump	Pump		
Water Elevation	meters	65.4	65.4	65.4	
pH	pH	6.5	6.7	6.1	
Conductivity	umhos/cm	55	49	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)

Parameter	Units	01/08/87	07/16/87	meters (MSL)
SRP Grid	N 105885.5			
Coordinates E	42113.8	Screen Zone Elevation	45.6-59.5	
Latitude	33.317830°N	Top of Casing Elevation	92.69	
Longitude	81.732125°W	Casing Material	PVC	

Parameter	Units	01/20/87	07/16/87	10/20/87	meters (MSL)
Sampling Method	Pump	Pump	Pump		
Water Elevation	meters	65.7	65.8	66	
pH	pH	10.2	9.5	9.5	
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	

Well: SW 1, Silverton Road Waste Site

Parameter	Units	03/15/87	05/16/87	09/03/87	11/12/87	meters (MSL)
Sampling Method	Pump	Pump	Pump	Pump	Pump	
Water Elevation	meters	7	65.4	65.7	65.8	
pH	pH	5.5	5.5	5.2	4.8	
Conductivity	umhos/cm	14	17	18	16	
TDS	mg/L	15	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	<0.004	-	-	-	
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 ₂ (as N)	mg/L	0.47	-	-	-	
SO ₄	mg/L	13.0	-	-	-	
Phenols	mg/L	<0.002	-	-	-	
Tot. Org. Carbon	mg/L	<1.000	<1.000	2.00	11.000	
Tot. Org. Halogen	mg/L	<0.005	<0.003	<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	
i,i,i-TCE	mg/L	<0.001	<0.001	<0.001	<0.001	
Orono, Alpha	mg/L	<0.001	<0.001	<0.001	<0.001	
Orono, Beta	mg/L	<0.001	<0.001	<0.001	<0.001	
Total Radium	pCi/L	1.0	1.1	0.7	1.3	
Tritium	pCi/mL	1.46	-	-	-	

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

Well SRW 2, Silverton Road Waste Site

SRP Grid N 103721.8
 Coordinates E 41621.2 Screen Zone Elevation 69.7+60.5
 Latitude 33.323059°N Top of Casing Elevation 97.71
 Longitude 81.758708°W Casing Material PVC

Parameter	Units	03/14/87	05/16/87	09/03/87	11/01/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	65.7	65.9	65.2	65.5
pH	pH	4.7	4.7	4.8	4.5
Conductivity	umhos/cm	40	45	48	50
TDS	mg/L	6	-	-	-
Arsenic	ng/L	0.002	-	-	-
Barium	mg/L	0.001	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.002	-	-	-
Calcium	mg/L	1.01	-	-	-
Chloride	mg/L	1.9	-	-	-
Chromium	mg/L	0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.050	0.025	0.035	0.041
Lead	mg/L	0.017	0.012	0.017	0.015
Magnesium	mg/L	0.783	-	-	-
Manganese	mg/L	0.001	0.004	0.006	0.007
Mercury	mg/L	0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.390	-	-	-
Selenium	mg/L	0.002	-	-	-
Silica	mg/L	3.73	-	-	-
Silver	mg/L	0.0020	-	-	-
Sodium	mg/L	3.72	-	-	-
Total Phosphate	mg/L	0.270	-	-	-
Zinc	mg/L	0.011	0.016	0.016	0.123
NO ₃ (as N)	mg/L	1.22	-	-	-
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	0.002	-	-	-
Tot. Org. Carbon	mg/L	1.000	1.000	15.0	1.000
Tot. Org. Halogen	mg/L	0.019	0.018	0.021	0.022
Carbon Tet.	mg/L	0.001	0.001	0.002	0.002
Chloroform	mg/L	0.010	0.020	0.030	0.027
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	0.001	0.001	0.001	0.001
Stront. Beta	pCi/L	4.8	-	-	-
Total Radium	pCi/L	1.2	-	-	-
Tritium	pCi/mL	1.18	-	-	-

Well SRW 2B, Silverton Road Waste Site

SRP Grid N 103721.8
 Coordinates E 41621.2 Screen Zone Elevation 69.6+60.5
 Latitude 33.323084°N Top of Casing Elevation 97.71
 Longitude 81.758711°W Casing Material PVC

Parameter	Units	03/14/87	05/16/87	09/03/87	11/12/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	64	64.2	64.2	64
pH	pH	5.3	5.3	5.3	5.0
Conductivity	umhos/cm	18	20	21	18
TDS	mg/L	-	-	-	-
Arsenic	mg/L	0.002	-	-	-
Barium	mg/L	0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.001	-	-	-
Calcium	mg/L	0.485	-	-	-
Chloride	mg/L	3.8	-	-	-
Chromium	mg/L	0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.019	0.019	0.041	0.011
Lead	mg/L	0.008	0.006	0.006	0.008
Magnesium	mg/L	0.243	-	-	-
Manganese	mg/L	0.004	0.003	0.004	0.005
Mercury	mg/L	0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.450	-	-	-
Selenium	mg/L	0.002	-	-	-
Silica	mg/L	7.10	-	-	-
Silver	mg/L	0.0020	-	-	-
Sodium	mg/L	1.51	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	0.046	0.032	0.041	0.131
NO ₃ (as N)	mg/L	0.29	-	-	-
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	0.005	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
Gross Alpha	pCi/L	3.0	-	-	-
Stront. Beta	pCi/L	2.0	-	-	-
Total Radium	pCi/L	1.0	1.0	1.0	1.0
Tritium	pCi/mL	0.10	-	-	-

Well SRW 2A, Silverton Road Waste Site

SRP Grid N 103720.8
 Coordinates E 41621.2 Screen Zone Elevation 60.0+67.0
 Latitude 33.323069°N Top of Casing Elevation 97.71
 Longitude 81.758708°W Casing Material PVC

Parameter	Units	03/14/87	05/16/87	09/03/87	11/12/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	63.7	63.9	63.8	63.7
pH	pH	5.0	5.1	4.7	-
Conductivity	umhos/cm	18	19	20	18
TDS	mg/L	6	-	-	-
Arsenic	mg/L	0.002	-	-	-
Barium	mg/L	0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.001	-	-	-
Calcium	mg/L	0.485	-	-	-
Chloride	mg/L	3.8	-	-	-
Chromium	mg/L	0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.019	0.019	0.041	0.011
Lead	mg/L	0.008	0.006	0.006	0.008
Magnesium	mg/L	0.243	-	-	-
Manganese	mg/L	0.004	0.003	0.004	0.005
Mercury	mg/L	0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.450	-	-	-
Selenium	mg/L	0.002	-	-	-
Silica	mg/L	7.10	-	-	-
Silver	mg/L	0.0020	-	-	-
Sodium	mg/L	1.51	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	0.046	0.032	0.041	0.131
NO ₃ (as N)	mg/L	0.29	-	-	-
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	0.005	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
Gross Alpha	pCi/L	3.0	-	-	-
Stront. Beta	pCi/L	2.0	-	-	-
Total Radium	pCi/L	1.0	1.0	1.0	1.0
Tritium	pCi/mL	0.10	-	-	-

Well SRW 3A, Silverton Road Waste Site

SRP Grid N 103720.8
 Coordinates E 41621.2 Screen Zone Elevation 58.9+69.7
 Latitude 33.323071°N Top of Casing Elevation 101.22
 Longitude 81.757718°W Casing Material PVC

Parameter	Units	03/15/87	05/17/87	09/03/87	11/12/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	65.6	65.7	65.8	66
pH	pH	5.2	5.6	5.1	4.9
Conductivity	umhos/cm	25	19	20	18
TDS	mg/L	15	-	-	-
Arsenic	mg/L	0.002	-	-	-
Barium	mg/L	0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.002	-	-	-
Calcium	mg/L	0.569	-	-	-
Chloride	mg/L	2.9	-	-	-
Chromium	mg/L	0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.009	0.039	0.028	0.004
Lead	mg/L	0.006	0.006	0.006	0.006
Magnesium	mg/L	0.370	-	-	-
Manganese	mg/L	0.010	0.009	0.009	0.007
Mercury	mg/L	0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.246	-	-	-
Selenium	mg/L	0.002	-	-	-
Silica	mg/L	4.18	-	-	-
Silver	mg/L	0.0020	-	-	-
Sodium	mg/L	1.74	-	-	-
Total Phosphate	mg/L	0.010	-	-	-
Zinc	mg/L	0.008	0.033	0.031	0.017
NO ₃ (as N)	mg/L	0.55	-	-	-
SO ₄	mg/L	7.0	-	-	-
Phenols	mg/L	0.002	-	-	-
Tot. Org. Carbon	mg/L	1.16	1.000	4.06	1.000
Tot. Org. Halogen	mg/L	0.005	0.003	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	-	-	-
Stront. Beta	pCi/L	2.0	-	-	-
Total Radium	pCi/L	1.0	0.5	0.3	0.4
Tritium	pCi/mL	0.71	-	-	-

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

Well: SW 4, Silverton Road Waste Site

SER Grid N 103358.9
 Coordinates E 41612.9 Screen Zone Elevation 67.8-58.7
 Latitude 33.322235°N Top of Casing Elevation 97.56
 Longitude 81.758042°W Casing Material PVC

Parameter	Units	03/15/87	05/17/87	09/03/87	12/12/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	65.4	65.5	65.7	65.9
pH	pH	5.0	5.0	4.8	4.5
Conductivity	microsiemens	40	50	51	70
TDS	mg/L	8	x	x	x
Arsenic	mg/L	0.002	x	x	x
Barium	mg/L	0.012	x	x	x
Beryllium	mg/L	-	x	x	x
Cadmium	mg/L	0.062	x	x	x
Calcium	mg/L	1.08	x	x	x
Chloride	mg/L	3.9	x	x	x
Chromium	mg/L	0.004	x	x	x
Copper	mg/L	x	x	x	x
Cyanide	mg/L	x	x	x	x
Fluoride	mg/L	0.10	x	x	x
Iron	mg/L	0.030	0.023	0.031	0.014
Lead	mg/L	0.014	0.015	0.015	0.014
Magnesium	mg/L	1.09	x	x	x
Manganese	mg/L	0.009	0.008	0.007	0.011
Mercury	mg/L	0.0002	x	x	x
Nickel	mg/L	x	x	x	x
Potassium	mg/L	0.570	x	x	x
Selenium	mg/L	0.002	x	x	x
Silica	mg/L	4.54	x	x	x
Silver	mg/L	0.0020	x	x	x
Sodium	mg/L	3.80	x	x	x
Total Phosphate	mg/L	0.030	x	x	x
Zinc	mg/L	0.021	0.023	0.029	0.031
NO ₃ (as N)	mg/L	2.07	x	x	x
SO ₄	mg/L	13.0	x	x	x
Phenols	mg/L	0.002	x	x	x
Tot. Org. Carbon	mg/L	1.000	1.000	1.000	1.000
Tot. Org. Halogen	mg/L	0.011	0.018	0.019	0.012
Carbon Tet.	mg/L	0.001	<0.001	<0.001	<0.001
Chloroform	mg/L	0.012	0.013	<0.001	0.014
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
Croce Alpha	pCi/L	1.0	x	x	x
Novel. Beta	pCi/L	2.7	x	x	x
Total Radium	pCi/L	1.0	0.6	0.8	0.5
Tritium	pCi/mL	1.41	x	x	x

Well: SW 5, Silverton Road Waste Site

SER Grid N 103418.2
 Coordinates E 41620.0 Screen Zone Elevation 68.5-59.3
 Latitude 33.321758°N Top of Casing Elevation 94.30
 Longitude 81.759136°W Casing Material PVC

Parameter	Units	03/15/87	05/17/87	09/03/87	12/12/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	64.9	65.1	64	65.4
pH	pH	5.1	5.1	5.0	4.7
Conductivity	microsiemens	38	51	43	42
TDS	mg/L	26	x	x	x
Arsenic	mg/L	0.002	x	x	x
Barium	mg/L	0.012	x	x	x
Beryllium	mg/L	1	x	x	x
Cadmium	mg/L	0.002	x	x	x
Calcium	mg/L	1.78	x	x	x
Chloride	mg/L	5.6	x	x	x
Chromium	mg/L	0.004	x	x	x
Copper	mg/L	x	x	x	x
Cyanide	mg/L	x	x	x	x
Fluoride	mg/L	0.10	x	x	x
Iron	mg/L	0.028	0.050	0.031	0.018
Lead	mg/L	0.017	0.021	0.015	0.014
Magnesium	mg/L	1.13	x	x	x
Manganese	mg/L	0.010	0.010	0.008	0.009
Mercury	mg/L	0.0002	x	x	x
Nickel	mg/L	x	x	x	x
Potassium	mg/L	0.610	x	x	x
Selenium	mg/L	0.002	x	x	x
Silica	mg/L	6.75	x	x	x
Silver	mg/L	0.0020	x	x	x
Sodium	mg/L	1.35	x	x	x
Total Phosphate	mg/L	0.040	x	x	x
Zinc	mg/L	0.187	0.192	0.199	0.180
NO ₃ (as N)	mg/L	0.54	x	x	x
SO ₄	mg/L	13.0	x	x	x
Phenols	mg/L	0.002	x	x	x
Tot. Org. Carbon	mg/L	7.10	7.00	1.000	1.000
Tot. Org. Halogen	mg/L	0.020	0.025	0.011	0.012
Carbon Tet.	mg/L	0.003	0.005	0.008	0.008
Chloroform	mg/L	0.010	0.018	0.011	0.002
Tetrachloroethene	mg/L	0.001	0.001	0.001	0.001
Trichloroethene	mg/L	0.004	0.002	0.003	0.004
1,1,1-TCE	mg/L	0.004	<0.001	<0.001	<0.001
Croce Alpha	pCi/L	1.0	x	x	x
Novel. Beta	pCi/L	2.0	x	x	x
Total Radium	pCi/L	1.0	1.0	1.0	1.0
Tritium	pCi/mL	0.89	x	x	x

Well: SW 6, Silverton Road Waste Site

SER Grid N 103602.7
 Coordinates E 41243.9 Screen Zone Elevation 67.8-58.7
 Latitude 33.321758°N Top of Casing Elevation 93.18
 Longitude 81.759487°W Casing Material PVC

Parameter	Units	03/15/87	05/17/87	09/03/87	12/12/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	65	65.5	65.5	65.6
pH	pH	5.5	5.4	5.4	5.0
Conductivity	microsiemens	25	40	28	38
TDS	mg/L	55	x	x	x
Arsenic	mg/L	0.002	x	x	x
Barium	mg/L	0.008	x	x	x
Beryllium	mg/L	x	x	x	x
Cadmium	mg/L	0.002	x	x	x
Calcium	mg/L	0.768	x	x	x
Chloride	mg/L	3.2	x	x	x
Chromium	mg/L	<0.004	x	x	x
Copper	mg/L	x	x	x	x
Cyanide	mg/L	x	x	x	x
Fluoride	mg/L	0.10	x	x	x
Iron	mg/L	0.030	0.028	0.042	0.009
Lead	mg/L	0.006	0.008	0.012	0.007
Magnesium	mg/L	0.558	x	x	x
Mercury	mg/L	0.0002	x	x	x
Nickel	mg/L	x	x	x	x
Potassium	mg/L	0.240	x	x	x
Selenium	mg/L	0.002	x	x	x
Silica	mg/L	3.98	x	x	x
Silver	mg/L	0.0020	x	x	x
Sodium	mg/L	3.06	x	x	x
Total Phosphate	mg/L	0.040	x	x	x
Zinc	mg/L	0.043	0.087	0.044	0.058
NO ₃ (as N)	mg/L	1.12	x	x	x
SO ₄	mg/L	13.0	x	x	x
Phenols	mg/L	0.002	x	x	x
Tot. Org. Carbon	mg/L	1.000	1.000	2.00	1.40
Tot. Org. Halogen	mg/L	0.021	0.042	0.043	0.048
Carbon Tet.	mg/L	0.003	0.002	0.009	0.011
Chloroform	mg/L	0.019	0.004	0.005	0.017
Tetrachloroethene	mg/L	0.001	0.001	0.001	0.002
Trichloroethene	mg/L	0.002	0.002	0.001	0.003
1,1,1-TCE	mg/L	0.001	<0.001	<0.001	<0.001
Croce Alpha	pCi/L	1.0	x	x	x
Novel. Beta	pCi/L	2.0	x	x	x
Total Radium	pCi/L	0.7	0.7	0.8	0.8
Tritium	pCi/mL	0.70	x	x	x

Well: SW 7, Silverton Road Waste Site

SER Grid N 103541.5
 Coordinates E 40926.2 Screen Zone Elevation 68.3-60.2
 Latitude 33.321918°N Top of Casing Elevation 91.16
 Longitude 81.760202°W Casing Material PVC

Parameter	Units	03/15/87	05/16/87	09/10/87	12/12/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	64.6	65	65.2	65.1
pH	pH	5.7	5.6	4.9	4.9
Conductivity	microsiemens	25	28	24	24
TDS	mg/L	24	x	x	x
Arsenic	mg/L	<0.002	x	x	x
Barium	mg/L	0.004	x	x	x
Beryllium	mg/L	x	x	x	x
Cadmium	mg/L	0.002	x	x	x
Calcium	mg/L	1.80	x	x	x
Chloride	mg/L	4.5	x	x	x
Chromium	mg/L	0.004	x	x	x
Copper	mg/L	x	x	x	x
Cyanide	mg/L	x	x	x	x
Fluoride	mg/L	0.10	x	x	x
Iron	mg/L	0.042	0.048	0.045	0.035
Lead	mg/L	0.018	0.021	0.018	0.017
Magnesium	mg/L	0.493	x	x	x
Manganese	mg/L	0.064	0.003	0.003	0.004
Mercury	mg/L	0.0002	x	x	x
Nickel	mg/L	x	x	x	x
Potassium	mg/L	0.180	x	x	x
Selenium	mg/L	0.002	x	x	x
Silica	mg/L	3.78	x	x	x
Silver	mg/L	0.0020	x	x	x
Sodium	mg/L	2.42	x	x	x
Total Phosphate	mg/L	0.020	x	x	x
Zinc	mg/L	0.098	0.085	0.070	0.101
NO ₃ (as N)	mg/L	0.68	x	x	x
SO ₄	mg/L	13.0	x	x	x
Phenols	mg/L	0.002	x	x	x
Tot. Org. Carbon	mg/L	1.000	1.000	2.00	1.00
Tot. Org. Halogen	mg/L	0.032	0.017	0.011	0.018
Carbon Tet.	mg/L	0.061	0.005	0.003	0.016
Chloroform	mg/L	0.017	0.015	0.003	0.010
Tetrachloroethene	mg/L	0.002	0.002	0.001	0.004
Trichloroethene	mg/L	0.004	0.004	0.002	0.006
1,1,1-TCE	mg/L	0.011	<0.001	<0.001	<0.001
Croce Alpha	pCi/L	1.0	x	x	x
Novel. Beta	pCi/L	2.0	x	x	x
Total Radium	pCi/L	0.6	0.8	0.6	0.8
Tritium	pCi/mL	0.48	x	x	x

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

Well: SRW 8, Silverton Road Waste Site

		meters (MSL)			
SRP Grid	N 103470.0	Screen Zone Elevation	85.7-89.6	Top of Casing Elevation	87.81
Coordinates E	40455.9	Latitude	33.320589°N	Longitude	81.741301°W
		Casing Material	PVC		
Parameter	Units	03/14/87	05/16/87	08/29/87	12/13/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	81.8	84.9	84.8	84.3
pH	pH	5.6	5.7	5.7	5.6
Conductivity	umhos/cm	21	29	27	27
TDS	mg/L	22	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	3.17	-	-	-
Chloride	mg/L	2.9	-	-	-
Chromium	mg/L	0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.007	0.041	0.086	0.028
Lead	mg/L	0.006	<0.006	0.007	0.008
Manganese	mg/L	0.012	-	-	-
Manganese	mg/L	0.003	0.004	0.006	0.005
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	-	-	-	-
Silica	mg/L	4.18	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.97	-	-	-
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	0.055	0.056	0.081	0.159
NO ₃ (as N)	mg/L	0.58	-	-	-
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	0.008	0.008	0.015	0.023
Carbon Tet.	mg/L	0.002	0.003	0.002	0.006
Chloroform	mg/L	0.002	0.039	0.003	0.012
Tetrachloroethene	mg/L	<0.001	<0.001	0.001	0.001
Trichloroethene	mg/L	0.001	0.001	0.003	0.008
1,1,1-TCE	mg/L	<0.001	0.001	0.001	0.001
Gross Alpha	pCi/L	3.0	-	-	-
Neonol. Beta	pCi/L	2.4	-	-	-
Total Barium	pCi/L	11.0	0.8	0.5	0.8
Uranium	pCi/mL	1.39	-	-	-

Well: SRW 9, Silverton Road Waste Site

		meters (MSL)			
SRP Grid	N 103258.8	Screen Zone Elevation	59.8-60.7	Top of Casing Elevation	71.23
Coordinates E	39688.4	Latitude	33.318871°N	Longitude	81.762813°W
		Casing Material	PVC		
Parameter	Units	03/14/87	05/16/87	09/02/87	12/13/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	61.1	62.1	61.8	61.3
pH	pH	5.4	5.0	5.3	4.8
Conductivity	umhos/cm	17	20	18	21
TDS	mg/L	20	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.43	-	-	-
Chloride	mg/L	2.8	-	-	-
Chromium	mg/L	0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.088	0.029	0.029	0.008
Lead	mg/L	0.006	0.006	0.010	0.006
Manganese	mg/L	0.298	-	-	-
Manganese	mg/L	0.003	0.002	0.003	0.003
Mercury	mg/L	<0.002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.380	-	-	-
Selenium	mg/L	0.002	-	-	-
Silica	mg/L	3.81	-	-	-
Silica	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.49	-	-	-
Total Phosphate	mg/L	0.010	-	-	-
Zinc	mg/L	0.012	0.011	0.030	0.102
NO ₃ (as N)	mg/L	0.42	-	-	-
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.10	1.000	1.000	1.000
Tot. Org. Halogen	mg/L	0.007	0.006	0.006	0.008
Carbon Tet.	mg/L	<0.001	<0.001	0.001	0.001
Chloroform	mg/L	0.002	0.002	0.001	0.004
Tetrachloroethene	mg/L	<0.001	0.001	0.004	0.001
Trichloroethene	mg/L	0.004	0.004	0.002	0.004
1,1,1-TCE	mg/L	<0.001	<0.001	0.001	0.001
Gross Alpha	pCi/L	3.0	-	-	-
Neonol. Beta	pCi/L	2.0	-	-	-
Total Radium	pCi/L	0.7	0.6	0.6	1.0
Uranium	pCi/mL	0.70	-	-	-

Well: SRW 9A, Silverton Road Waste Site

		meters (MSL)			
SRP Grid	N 103251.1	Screen Zone Elevation	37.9-34.9	Top of Casing Elevation	77.20
Coordinates E	39692.9	Latitude	33.318871°N	Longitude	81.762813°W
		Casing Material	PVC		
Parameter	Units	03/14/87	05/16/87	09/02/87	12/13/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	61.3	61.4	61.1	61
pH	pH	5.2	5.1	5.0	4.9
Conductivity	umhos/cm	19	18	20	17
TDS	mg/L	24	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.558	-	-	-
Chloride	mg/L	2.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.041	0.082	0.038	0.015
Lead	mg/L	0.011	0.007	0.007	0.006
Magnesium	mg/L	0.120	-	-	-
Manganese	mg/L	0.003	0.004	0.003	0.003
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.210	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	4.29	-	-	-
Silica	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.80	-	-	-
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	0.059	0.067	0.037	0.088
NO ₃ (as N)	mg/L	0.74	-	-	-
SO ₄	mg/L	1.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.10	1.000	2.00	1.000
Tot. Org. Halogen	mg/L	0.005	0.005	0.003	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	-	-	-
Neonol. Beta	pCi/L	2.8	-	-	-
Total Radium	pCi/L	0.6	1.2	1.0	1.0
Uranium	pCi/mL	0.70	-	-	-

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

Well: SRW 10, Silverton Road Waste Site

SRP Grid N 103187-8
 Coordinates E 40944.1 Screen Zone Elevation 68.0-58.8
 Latitude 33.321106°N Top of Casing Elevation 90.47
 Longitude 81.755956°W Casing Material PVC

Parameter	Date	03/15/87	05/16/87	09/10/87	12/13/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	-	65.4	65.5	-
pH	ppH	5.8	5.1	4.5	5.1
Conductivity	micro/cm	25	22	22	19
TDS	mg/L	12	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.005	-	-	-
Boron	mg/L	-	-	-	-
Chromium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.598	-	-	-
Chloride	mg/L	5.7	-	-	-
Chromium	mg/L	0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.015	0.012	0.032	0.013
Lead	mg/L	0.010	0.012	0.010	0.008
Magnesium	mg/L	0.551	-	-	-
Manganese	mg/L	0.003	0.003	0.007	0.005
Nickel	mg/L	0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.280	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.88	-	-	-
Silver	mg/L	<0.020	-	-	-
Sodium	mg/L	2.53	-	-	-
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	0.015	0.013	0.092	0.015
NO ₃ (as N)	mg/L	0.58	-	-	-
SO ₄	mg/L	13.0	-	-	-
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	0.004	<0.005
Carbon Tetr.	mg/L	<0.001	0.002	<0.001	<0.001
Chloroform	mg/L	<0.002	0.003	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001	<0.001	<0.001
Trichloroethene	mg/L	<0.001	0.002	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	0.001	<0.001	<0.001
Gross Alpha	pCi/L	1.0	-	-	-
Natural Radium	pCi/L	0.20	-	-	-
Total Radium	pCi/L	0.5	0.8	1.0	-
Tritium	pCi/mL	2.27	-	-	-

Well: SRW 11, Silverton Road Waste Site

SRP Grid N 103189-2
 Coordinates E 40944.2 Screen Zone Elevation 67.2-58.1
 Latitude 33.321106°N Top of Casing Elevation 90.18
 Longitude 81.755956°W Casing Material PVC

Parameter	Date	03/15/87	05/16/87	09/10/87	12/13/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	64.4	63	63.2	65
pH	ppH	5.0	4.8	4.8	4.9
Conductivity	micro/cm	19	21	22	19
TDS	mg/L	12	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.004	-	-	-
Boron	mg/L	-	-	-	-
Chromium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.562	-	-	-
Chloride	mg/L	0.345	-	-	-
Chromium	mg/L	5.3	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.017	0.025	0.031	0.010
Lead	mg/L	0.018	0.015	0.017	0.008
Magnesium	mg/L	0.324	-	-	-
Manganese	mg/L	0.003	0.002	0.005	0.002
Nickel	mg/L	0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.300	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.38	-	-	-
Silver	mg/L	<0.020	-	-	-
Sodium	mg/L	1.92	-	-	-
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	0.022	0.023	0.056	0.031
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	3.00	1.90
Tot. Org. Halogen	mg/L	<0.025	0.023	0.026	<0.005
Carbon Tetr.	mg/L	<0.001	0.008	0.005	<0.001
Chloroform	mg/L	<0.001	0.014	0.007	<0.001
Tetrachloroethene	mg/L	<0.001	0.001	0.003	<0.001
Trichloroethene	mg/L	<0.004	0.011	0.007	<0.004
1,1,1-TCE	mg/L	<0.004	0.001	0.003	<0.001
Gross Alpha	pCi/L	1.0	-	-	-
Natural Radium	pCi/L	0.2	-	-	-
Total Radium	pCi/L	0.5	0.8	1.0	-
Tritium	pCi/mL	1.83	-	-	-

Well: SRW 12A, Silverton Road Waste Site

SRP Grid N 103110-3
 Coordinates E 39013.3 Screen Zone Elevation 64.7-53.7
 Latitude 33.321106°N Top of Casing Elevation 72.02
 Longitude 81.755956°W Casing Material PVC

Parameter	Date	03/16/87	05/16/87	08/31/87	12/13/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	60.1	61.2	58	59.3
pH	ppH	5.0	4.8	4.5	4.5
Conductivity	micro/cm	17	18	21	18
TDS	mg/L	16	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.004	-	-	-
Boron	mg/L	-	-	-	-
Chromium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.540	-	-	-
Chloride	mg/L	2.5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.004	0.013	0.039	0.006
Lead	mg/L	0.011	0.011	0.008	0.006
Magnesium	mg/L	0.228	-	-	-
Manganese	mg/L	0.003	0.004	0.002	0.002
Nickel	mg/L	<0.002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.420	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.90	-	-	-
Silicate	mg/L	0.020	-	-	-
Sodium	mg/L	1.82	-	-	-
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	0.142	-	-	-
NO ₃ (as N)	mg/L	0.07	-	-	-
SO ₄	mg/L	13.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	<0.025	0.019	0.005	<0.005
Carbon Tetr.	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	1.0	-	-	-
Natural Radium	pCi/L	0.2	-	-	-
Total Radium	pCi/L	0.5	1.0	1.0	-
Tritium	pCi/mL	1.48	-	-	-

Well: SRW 12B, Silverton Road Waste Site

SRP Grid N 103102-7
 Coordinates E 39020.3 Screen Zone Elevation 47.8-46.8
 Latitude 33.321106°N Top of Casing Elevation 72.02
 Longitude 81.755956°W Casing Material PVC

Parameter	Date	03/16/87	05/16/87	08/31/87	12/13/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	58.8	58.8	57.4	57.3
pH	ppH	5.4	5.3	5.0	5.6
Conductivity	micro/cm	12	18	18	12
TDS	mg/L	15	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.004	-	-	-
Boron	mg/L	-	-	-	-
Chromium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.837	-	-	-
Chloride	mg/L	2.5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.040	0.044	0.095	0.050
Lead	mg/L	0.006	0.007	0.006	0.006
Magnesium	mg/L	0.177	-	-	-
Manganese	mg/L	0.005	0.004	0.001	0.003
Nickel	mg/L	<0.002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.250	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.98	-	-	-
Silicate	mg/L	0.020	-	-	-
Sodium	mg/L	1.14	-	-	-
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	0.142	-	-	-
NO ₃ (as N)	mg/L	0.07	-	-	-
SO ₄	mg/L	13.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	<0.025	0.005	0.005	<0.005
Carbon Tetr.	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	1.0	-	-	-
Natural Radium	pCi/L	0.2	-	-	-
Total Radium	pCi/L	0.5	1.0	1.0	-
Tritium	pCi/mL	1.48	-	-	-

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

Well: SRW 12C, Silverton Road Waste Site

Parameter	Units	03/18/87	03/18/87	08/29/87	12/13/87	METERS (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	60.7	61.2	60.4	59.9	
pH	pH	5.7	5.3	4.7	5.3	
Conductivity	microsiemens/cm	18	14	17	18	
TDS	mg/L	8	5	5	5	
Arsenic	ng/L	<0.002	<	<	<	
Barium	mg/L	<0.004	<	<	<	
Beryllium	mg/L	<	<	<	<	
Cadmium	mg/L	<0.002	<	<	<	
Calcium	mg/L	0.618	<	<	<	
Chloride	mg/L	1.4	<	<	<	
Chromium	mg/L	<0.004	<	<	<	
Copper	mg/L	<	<	<	<	
Cranium	mg/L	<	<	<	<	
Fluoride	mg/L	0.10	<	<	<	
Iron	mg/L	0.031	0.030	0.113	0.070	
Lead	mg/L	0.004	0.004	0.006	0.031	
Magnesium	mg/L	0.253	<	<	<	
Manganese	mg/L	0.006	0.005	0.006	0.007	
Mercury	mg/L	<0.001	<	<	<	
Nickel	mg/L	<	<	<	<	
Potassium	mg/L	0.170	<	<	<	
Selenium	mg/L	<0.002	<	<	<	
Silica	mg/L	1.33	<	<	<	
Silver	mg/L	<0.0010	<	<	<	
Sodium	mg/L	1.14	<	<	<	
Total Phosphate	mg/L	0.020	<	<	<	
Zinc	mg/L	0.572	0.451	0.402	0.375	
NO ₃ (as N)	mg/L	0.16	<	<	<	
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	<0.005	<0.005	<0.005	
Carbon Tel.	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	<	<	<	
Nuclol. Beta	pCi/L	1.9	<	<	<	
Total Radium	pCi/L	1.0	0.5	1.0	1.0	
Tritium	pCi/mL	1.45	<	<	<	

Well: SRW 13A, Silverton Road Waste Site

Parameter	Units	03/17/87	03/15/87	08/29/87	12/13/87	METERS (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	61.2	62.2	61.9	61.9	
pH	pH	5.0	5.0	4.8	4.8	
Conductivity	microsiemens/cm	18	21	21	19	
TDS	mg/L	12	<	<	<	
Arsenic	ng/L	<0.002	<	<	<	
Barium	mg/L	<0.004	<	<	<	
Beryllium	mg/L	<	<	<	<	
Cadmium	mg/L	<0.003	<	<	<	
Calcium	mg/L	0.511	<	<	<	
Chloride	mg/L	2.0	<	<	<	
Chromium	mg/L	<0.004	<	<	<	
Copper	mg/L	<	<	<	<	
Cyanide	mg/L	<	<	<	<	
Fluoride	mg/L	0.10	<	<	<	
Iron	mg/L	0.026	0.023	0.210	0.017	
Lead	mg/L	0.012	0.008	0.009	0.008	
Magnesium	mg/L	0.258	<	<	<	
Manganese	mg/L	0.004	7.004	0.007	0.003	
Mercury	mg/L	<0.0002	<	<	<	
Nickel	mg/L	<	<	<	<	
Potassium	mg/L	0.370	<	<	<	
Selenium	mg/L	<0.002	<	<	<	
Silica	mg/L	3.08	<	<	<	
Silver	mg/L	<0.0020	<	<	<	
Sodium	mg/L	1.81	<	<	<	
Total Phosphate	mg/L	0.030	<	<	<	
Zinc	mg/L	0.613	0.023	0.033	0.012	
NO ₃ (as N)	mg/L	0.81	<	<	<	
SO ₄	mg/L	<5.0	<	<	<	
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	<0.005	<0.005	<0.005	
Carbon Tel.	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	<0.002	<0.001	
Gross Alpha	pCi/L	1.0	<	<	<	
Nuclol. Beta	pCi/L	12.9	<	<	<	
Total Radium	pCi/L	1.0	0.0	1.0	1.0	
Tritium	pCi/mL	0.70	<	<	<	

Well: SRW 13B, Silverton Road Waste Site

Parameter	Units	03/17/87	03/15/87	08/29/87	12/13/87	METERS (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	62.3	62.8	62.6	62.3	
pH	pH	5.2	5.1	4.8	4.4	
Conductivity	microsiemens/cm	17	18	20	17	
TDS	mg/L	18	<	<	<	
Arsenic	ng/L	<0.002	<	<	<	
Barium	mg/L	<0.004	<	<	<	
Beryllium	mg/L	<	<	<	<	
Cadmium	mg/L	<0.002	<	<	<	
Calcium	mg/L	0.573	<	<	<	
Chloride	mg/L	8.4	<	<	<	
Chromium	mg/L	<0.004	<	<	<	
Copper	mg/L	<	<	<	<	
Cyanide	mg/L	<	<	<	<	
Fluoride	mg/L	0.10	<	<	<	
Iron	mg/L	0.011	0.031	0.077	0.007	
Lead	mg/L	0.020	0.018	0.021	0.015	
Magnesium	mg/L	6.710	<	<	<	
Manganese	mg/L	0.012	0.012	0.013	0.009	
Mercury	mg/L	<0.002	<	<	<	
Nickel	mg/L	<	<	<	<	
Potassium	mg/L	0.110	<	<	<	
Selenium	mg/L	<0.002	<	<	<	
Silica	mg/L	4.03	<	<	<	
Silver	mg/L	<0.0010	<	<	<	
Sodium	mg/L	1.45	<	<	<	
Total Phosphate	mg/L	0.020	<	<	<	
Zinc	mg/L	0.302	0.282	0.280	0.196	
NO ₃ (as N)	mg/L	0.86	<	<	<	
SO ₄	mg/L	<5.0	<	<	<	
Phenols	mg/L	<0.005	<	<	<	
Tot. Org. Carbon	mg/L	1.000	1.000	1.000	2.00	1.000
Tot. Org. Halogen	mg/L	<0.005	<0.005	<0.005	<0.005	0.001
Carbon Tel.	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	2.6	<	<	<	
Nuclol. Beta	pCi/L	3.1	<	<	<	
Total Radium	pCi/L	0.9	<1.0	0.8	0.8	1.0
Tritium	pCi/mL	0.70	<	<	<	

Well: SRW 13C, Silverton Road Waste Site

Parameter	Units	03/17/87	03/15/87	08/29/87	12/13/87	METERS (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	64.2	64.7	64.7	64.2	
pH	pH	5.4	5.4	4.8	5.1	
Conductivity	microsiemens/cm	22	25	28	23	
TDS	mg/L	26	<	<	<	
Arsenic	ng/L	<0.002	<	<	<	
Barium	mg/L	<0.005	<	<	<	
Beryllium	mg/L	<	<	<	<	
Cadmium	mg/L	<0.001	<	<	<	
Calcium	mg/L	0.758	<	<	<	
Chloride	mg/L	8.4	<	<	<	
Chromium	mg/L	<0.004	<	<	<	
Copper	mg/L	<	<	<	<	
Cyanide	mg/L	<	<	<	<	
Fluoride	mg/L	0.13	<	<	<	
Iron	mg/L	0.021	0.044	0.161	0.049	
Lead	mg/L	0.011	0.010	0.014	0.014	
Magnesium	mg/L	0.419	<	<	<	
Manganese	mg/L	0.018	0.018	0.023	0.018	
Mercury	mg/L	<0.002	<	<	<	
Nickel	mg/L	<	<	<	<	
Potassium	mg/L	0.320	<	<	<	
Selenium	mg/L	<0.002	<	<	<	
Silica	mg/L	4.59	<	<	<	
Silver	mg/L	<0.0010	<	<	<	
Sodium	mg/L	1.87	<	<	<	
Total Phosphate	mg/L	0.070	<	<	<	
Zinc	mg/L	0.302	0.282	0.280	0.196	
NO ₃ (as N)	mg/L	0.86	<	<	<	
SO ₄	mg/L	<5.0	<	<	<	
Phenols	mg/L	<0.005	<	<	<	
Tot. Org. Carbon	mg/L	1.000	1.000	1.000	2.00	1.000
Tot. Org. Halogen	mg/L	<0.005	<0.005	<0.005	<0.005	0.001
Carbon Tel.	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	2.6	<	<	<	
Nuclol. Beta	pCi/L	3.1	<	<	<	
Total Radium	pCi/L	0.9	<1.0	0.8	0.8	1.0
Tritium	pCi/mL	0.70	<	<	<	

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

Well: SRW 1AA, Silverton Road Waste Site

SRF Grid N 102831-3
 Coordinates E 415138.6 Screen Zone Elevation 37.7-46.7
 Latitude 33.320945°N Top of Casing Elevation 99.63
 Longitude 81.757208°W Casing Material PVC

PARAMETER	UNITS	03/17/87	05/15/87	08/29/87	12/13/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	82.8	82.9	82.8	82.8
pH	-	5.6	5.4	6.0	5.3
Conductivity	µmhos/cm	23	24	23	23
TDS	mg/L	26	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.008	-	-	-
Boron	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	2.83	-	-	-
Chloride	mg/L	1.6	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.14	-	-	-
Iron	mg/L	0.011	0.029	0.023	0.015
Lead	mg/L	0.006	0.007	0.008	0.006
Magnesium	mg/L	0.460	-	-	-
Manganese	mg/L	0.008	0.006	0.007	0.007
Mercury	mg/L	0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.420	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	5.08	-	-	-
Silver	mg/L	<0.020	-	-	-
Sodium	mg/L	1.57	-	-	-
Total Phosphate	mg/L	0.010	-	-	-
Zinc	mg/L	0.038	0.033	0.021	0.021
NO ₂ (as N)	mg/L	1.40	-	-	-
SO ₄	mg/L	5.0	-	-	-
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	<0.005	<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	<0.002	<0.001	<0.001	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	1.8	-	-	-
Neonel. Beta	pCi/L	0.0	-	-	-
Total Radium	pCi/L	1.8	1.8	1.0	1.0
Tritium	pCi/mi ³	0.70	-	-	-

Well: SRW 1AC, Silverton Road Waste Site

SRF Grid N 102834-2
 Coordinates E 415148.9 Screen Zone Elevation 39.8-40.5
 Latitude 33.320943°N Top of Casing Elevation 99.63
 Longitude 81.757174°W Casing Material PVC

PARAMETER	UNITS	03/17/87	05/15/87	08/29/87	12/13/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	-	-	-	-
pH	-	5.5	5.3	5.3	5.3
Conductivity	µmhos/cm	16	18	18	18
TDS	mg/L	-	-	-	-
Arsenic	mg/L	-	-	-	-
Barium	mg/L	-	-	-	-
Boron	mg/L	-	-	-	-
Boron	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	0.014	0.073	0.054	0.014
Magnesium	mg/L	0.006	0.007	0.008	0.006
Manganese	mg/L	0.449	-	-	-
Mercury	mg/L	0.012	0.015	0.015	0.017
Nickel	mg/L	0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.430	-	-	-
Selenium	mg/L	0.001	-	-	-
Silica	mg/L	5.19	-	-	-
Silver	mg/L	<0.020	-	-	-
Sodium	mg/L	1.84	-	-	-
Total Phosphate	mg/L	0.010	-	-	-
Zinc	mg/L	0.040	0.061	0.062	0.032
NO ₂ (as N)	mg/L	0.95	-	-	-
SO ₄	mg/L	5.0	-	-	-
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	<0.005	<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
Gross Alpha	pCi/L	1.8	-	-	-
Neonel. Beta	pCi/L	0.0	-	-	-
Total Radium	pCi/L	1.8	1.8	1.0	1.0
Tritium	pCi/mi ³	0.70	-	-	-

Well: SRW 1AB, Silverton Road Waste Site

SRF Grid N 102836-1
 Coordinates E 415138.1 Screen Zone Elevation 32.8-46.7
 Latitude 33.320942°N Top of Casing Elevation 99.63
 Longitude 81.757193°W Casing Material PVC

PARAMETER	UNITS	03/17/87	05/15/87	08/29/87	12/13/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	82.8	82.8	82.8	82.8
pH	-	5.7	5.5	5.4	5.5
Conductivity	µmhos/cm	23	24	23	24
TDS	mg/L	20	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	-	-	-	-
Boron	mg/L	-	-	-	-
Boron	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.75	-	-	-
Chloride	mg/L	1.5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.014	0.073	0.054	0.014
Lead	mg/L	0.006	0.007	0.008	0.006
Magnesium	mg/L	0.449	-	-	-
Manganese	mg/L	0.012	0.015	0.015	0.017
Mercury	mg/L	0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.430	-	-	-
Selenium	mg/L	0.001	-	-	-
Silica	mg/L	5.19	-	-	-
Silver	mg/L	<0.020	-	-	-
Sodium	mg/L	1.84	-	-	-
Total Phosphate	mg/L	0.010	-	-	-
Zinc	mg/L	0.040	0.061	0.062	0.032
NO ₂ (as N)	mg/L	0.95	-	-	-
SO ₄	mg/L	5.0	-	-	-
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	<0.005	<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
Gross Alpha	pCi/L	1.8	-	-	-
Neonel. Beta	pCi/L	0.0	-	-	-
Total Radium	pCi/L	1.8	1.8	1.0	1.0
Tritium	pCi/mi ³	0.70	-	-	-

Well: SRW 1A, Silverton Road Waste Site

SRF Grid N 102834-2
 Coordinates E 415148.9 Screen Zone Elevation 32.8-40.5
 Latitude 33.320943°N Top of Casing Elevation 97.26
 Longitude 81.757198°W Casing Material PVC

PARAMETER	UNITS	03/01/87	05/15/87	08/29/87	12/13/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	82.8	82.8	82.8	82.8
pH	-	5.6	5.3	5.9	5.6
Conductivity	µmhos/cm	23	24	23	24
TDS	mg/L	34	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	-	-	-	-
Boron	mg/L	-	-	-	-
Boron	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.68	-	-	-
Chloride	mg/L	3.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.21	-	-	-
Iron	mg/L	0.010	0.047	0.047	0.030
Lead	mg/L	0.006	0.006	0.006	0.006
Magnesium	mg/L	0.278	-	-	-
Manganese	mg/L	0.011	0.012	0.014	0.016
Mercury	mg/L	0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.420	-	-	-
Selenium	mg/L	0.002	-	-	-
Silica	mg/L	5.13	-	-	-
Silver	mg/L	<0.020	-	-	-
Sodium	mg/L	1.56	-	-	-
Total Phosphate	mg/L	0.011	-	-	-
Zinc	mg/L	0.085	0.085	0.078	0.121
NO ₂ (as N)	mg/L	0.87	-	-	-
SO ₄	mg/L	4.0	-	-	-
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	<0.005	<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
Gross Alpha	pCi/L	1.8	-	-	-
Neonel. Beta	pCi/L	0.0	-	-	-
Total Radium	pCi/L	1.8	1.8	1.0	1.0
Tritium	pCi/mi ³	0.70	-	-	-

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

Well: SRW 15B, Silverton Road Waste Site

Parameter	Units	03/01/87	05/15/87	09/02/87	12/12/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	64.8	64.8	64.7	64.6
pH	5.5	5.5	5.5	5.2	
Conductivity	micro/cm	17	18	19	17
TDS	mg/L	58	x	x	x
Arsenic	mg/L	0.003	x	x	x
Barium	mg/L	0.008	x	x	x
Beryllium	mg/L	-	x	x	x
Cadmium	mg/L	0.001	x	x	x
Calcium	mg/L	0.928	x	x	x
Chloride	mg/L	3.1	x	x	x
Chromium	mg/L	0.004	x	x	x
Copper	mg/L	-	x	x	x
Cyanide	mg/L	x	x	x	x
Fluoride	mg/L	0.23	x	x	x
Iron	mg/L	0.010	0.038	0.189	0.031
Lead	mg/L	0.011	0.010	0.010	0.006
Magnesium	mg/L	0.248	-	x	x
Manganese	mg/L	0.004	0.008	0.007	0.006
Mercury	mg/L	<0.0002	x	x	x
Nickel	mg/L	-	x	x	x
Potassium	mg/L	0.380	x	x	x
Selenium	mg/L	0.002	x	x	x
Silica	mg/L	3.17	x	x	x
Silver	mg/L	0.0020	x	x	x
Sodium	mg/L	1.44	x	x	x
Total Phosphate	mg/L	0.017	x	x	x
Zinc	mg/L	0.053	0.039	0.053	0.071
NO ₃ (as N)	mg/L	0.37	x	x	x
SO ₄	mg/L	13.0	x	x	x
Phenols	mg/L	0.002	-	x	x
Tot. Org. Carbon	mg/L	<1.000	<1.000	1.000	1.000
Tot. Org. Halogen	mg/L	0.003	0.008	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	1.4	x	x	x
Neonel. Beta	pCi/L	9.1	x	x	x
Total Radium	pCi/L	1.0	1.3	2.3	2.1
Tritium	pCi/mL	1.50	x	x	x

Well: SRW 15C, Silverton Road Waste Site

Parameter	Units	03/01/87	05/15/87	09/02/87	12/12/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	65.3	65.3	65.8	65.8
pH	5.4	5.3	5.6	5.5	
Conductivity	micro/cm	15	18	19	18
TDS	mg/L	24	x	x	x
Arsenic	mg/L	0.002	x	x	x
Barium	mg/L	0.008	x	x	x
Beryllium	mg/L	-	x	x	x
Cadmium	mg/L	0.001	x	x	x
Calcium	mg/L	0.780	x	x	x
Chloride	mg/L	2.5	x	x	x
Chromium	mg/L	0.004	x	x	x
Copper	mg/L	-	x	x	x
Cyanide	mg/L	x	x	x	x
Fluoride	mg/L	0.10	-	x	x
Iron	mg/L	0.020	0.021	0.080	0.021
Lead	mg/L	0.006	0.010	0.008	0.007
Magnesium	mg/L	0.273	x	x	x
Manganese	mg/L	0.012	0.008	0.010	0.008
Mercury	mg/L	<0.0002	x	x	x
Nickel	mg/L	-	x	x	x
Potassium	mg/L	0.260	x	x	x
Selenium	mg/L	0.002	x	x	x
Silica	mg/L	3.55	x	x	x
Silver	mg/L	0.0020	x	x	x
Sodium	mg/L	1.34	x	x	x
Total Phosphate	mg/L	0.010	x	x	x
Zinc	mg/L	0.043	0.023	0.036	0.013
NO ₃ (as N)	mg/L	0.48	x	x	x
SO ₄	mg/L	13.0	x	x	x
Phenols	mg/L	0.002	-	x	x
Tot. Org. Carbon	mg/L	<1.000	<1.000	1.000	1.000
Tot. Org. Halogen	mg/L	0.003	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	1.8	x	x	x
Neonel. Beta	pCi/L	12.9	x	x	x
Total Radium	pCi/L	1.1	1.6	0.9	1.6
Tritium	pCi/mL	1.50	x	x	x

Well: SRW 16A, Silverton Road Waste Site

Parameter	Units	03/01/87	05/15/87	09/02/87	12/12/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	66.1	66.2	67.2	
pH	8.0	5.8	5.7	5.7	
Conductivity	micro/cm	30	27	30	27
TDS	mg/L	36	-	-	-
Arsenic	mg/L	<0.002	-	x	x
Barium	mg/L	0.008	-	x	x
Beryllium	mg/L	-	-	x	x
Cadmium	mg/L	<0.002	-	x	x
Calcium	mg/L	2.38	-	x	x
Chloride	mg/L	2.1	-	x	x
Chromium	mg/L	<0.004	-	x	x
Copper	mg/L	-	-	x	x
Cyanide	mg/L	<0.01	-	x	x
Fluoride	mg/L	0.11	-	x	x
Iron	mg/L	0.049	-	0.137	0.123
Lead	mg/L	<0.006	-	0.007	0.006
Magnesium	mg/L	0.17	-	0.017	0.017
Manganese	mg/L	0.012	-	0.017	0.017
Mercury	mg/L	<0.002	-	-	-
Nickel	mg/L	-	-	x	x
Potassium	mg/L	0.640	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	4.61	-	x	x
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.81	-	x	x
Total Phosphate	mg/L	0.037	-	-	-
Zinc	mg/L	0.051	-	0.040	0.048
NO ₃ (as N)	mg/L	0.74	-	-	-
SO ₄	mg/L	13.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.000	1.000
Tot. Org. Halogen	mg/L	0.008	-	0.008	0.008
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	13.0	-	-	-
Neonel. Beta	pCi/L	4.0	-	-	-
Total Radium	pCi/L	1.0	-	0.4	1.3
Tritium	pCi/mL	0.71	-	-	-

Well: SRW 16B, Silverton Road Waste Site

Parameter	Units	03/01/87	05/15/87	09/02/87	12/12/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	66.1	66.1	66.3	66.4
pH	5.4	5.4	5.4	5.3	
Conductivity	micro/cm	20	20	22	28
TDS	mg/L	14	-	-	-
Arsenic	mg/L	<0.002	-	x	x
Barium	mg/L	0.008	-	x	x
Beryllium	mg/L	-	-	x	x
Cadmium	mg/L	<0.002	-	x	x
Calcium	mg/L	0.780	-	x	x
Chloride	mg/L	2.7	-	x	x
Chromium	mg/L	<0.004	-	x	x
Copper	mg/L	-	-	x	x
Cyanide	mg/L	<0.01	-	x	x
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.031	-	0.037	0.174
Lead	mg/L	0.013	-	0.019	0.014
Magnesium	mg/L	0.350	-	-	-
Manganese	mg/L	0.023	-	0.024	0.023
Mercury	mg/L	<0.002	-	-	-
Nickel	mg/L	-	-	x	x
Potassium	mg/L	0.390	-	-	-
Silicon	mg/L	<0.002	-	x	x
Silica	mg/L	3.60	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.81	-	-	-
Total Phosphate	mg/L	0.011	-	-	-
Zinc	mg/L	0.148	-	0.125	0.070
NO ₃ (as N)	mg/L	0.73	-	-	-
SO ₄	mg/L	13.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.000	1.000
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	13.0	-	-	-
Neonel. Beta	pCi/L	12.0	-	-	-
Total Radium	pCi/L	1.0	-	1.2	0.8
Tritium	pCi/mL	1.98	-	-	-

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

Well: SWW INC, Silverton Road Waste Site

SRT Grid N 103172-4
 Coordinates E 42841.8 Screen Zone Elevation 71.8-82.7
 Latitude 33.32555°N Top of Casing Elevation 105.64
 Longitude 81.755609°W Casing Material PVC

PARAMETER	UNITS	SAMPLES (mg/L)			
		01/01/87	01/13/87	01/22/87	12/12/87
Pump Method		Pump	Pump	Pump	Pump
Water Elevation	meters	66.4	66.1	66.3	66.7
pH	5.6	5.3	5.2	5.2	
Conductivity	µmhos/cm	15	16	18	18
TDS	mg/L	22	-	-	-
Arsenic	mg/L	0.000	-	-	-
Barium	mg/L	0.007	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.002	-	-	-
Calcium	mg/L	0.453	-	-	-
Chloride	mg/L	0.3	-	-	-
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	0.261	-	-	-
Manganese	mg/L	0.014	0.015	0.017	0.018
Mercury	mg/L	0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.450	-	-	-
Selenium	mg/L	0.002	-	-	-
Silica	mg/L	3.36	-	-	-
Silver	mg/L	0.0020	-	-	-
Sodium	mg/L	1.48	-	-	-
Total Phosphate	mg/L	0.011	-	-	-
VOC	mg/L	0.037	0.032	0.029	0.026
NO _x (as N)	mg/L	0.31	-	-	-
SO ₄	mg/L	3.9	-	-	-
Phenols	mg/L	0.002	-	-	-
Total Org. Carbon	mg/L	<1.000	<1.000	<1.000	<1.000
Total Org. Halogen	mg/L	0.005	<0.004	<0.003	-
Carbon Tetr.	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
total TOC	mg/L	<0.001	<0.001	<0.001	<0.001
Gross alpha	pCi/L	1.0	-	-	-
bromel. beta	pCi/L	12.0	-	-	-
Total Radium	pCi/L	2.0	1.5	1.6	1.3
Tritium	pCi/L/L	1.56	-	-	-

Other Analyses (mg/L)

(GOMS Scan Analyses, Table A-23, Vol. II)

SWW 2 04/03/87

GOMS Scan detected the following: None

SWW 9 08/02/87

GOMS Scan detected the following: None

TABLE 4-19
CHEMICAL CONCENTRATIONS IN CENTRAL SHOPS GROUNDWATER

Well: CSA 1, Central Shops Hydrofluoric Acid Spill Area				Well: CSA 3, Central Shops Hydrofluoric Acid Spill Area								
		meters (MSL)				meters (MSL)						
Parameter	Units	01/21/87	04/27/87	07/22/87	10/02/87	Parameter	Units	01/21/87	04/27/87	07/22/87	10/02/87	
Sampling Method	Pump	Pump	Pump	Pump	Pump	Sampling Method	Pump	Pump	Pump	Pump	Pump	
Water Elevation	meters	74.1	74.6	74.6	74.6	Water Elevation	meters	74	74.7	74.6	74.6	74.6
Coordinates	E 50197.0	Screen Zone Elevation	79.9-70.7			pH	4.8	4.8	4.8	4.8	5.1	
Latitude	33.244377°N	Top of Casing Elevation	88.63			Conductivity	umhos/cm	62	51	54		
Longitude	81.654580°W	Casing Material	PVC			TDS	mg/L	14	-	-		
Parameter	Units	01/21/87	04/27/87	07/22/87	10/02/87	Parameter	Units	01/21/87	04/27/87	07/22/87	10/02/87	
Arsenic	mg/L	<0.002	-	-	-	Arsenic	mg/L	<0.002	-	-	-	-
Barium	mg/L	0.025	-	-	-	Barium	mg/L	0.010	-	-	-	-
Beryllium	mg/L	-	-	-	-	Beryllium	mg/L	-	-	-	-	-
Cadmium	mg/L	<0.002	-	<0.002	-	Cadmium	mg/L	<0.002	-	<0.002	-	-
Calcium	mg/L	1.78	-	-	-	Calcium	mg/L	1.91	-	-	-	-
Chloride	mg/L	3.7	-	-	-	Chloride	mg/L	3.7	-	-	-	-
Chromium	mg/L	<0.004	-	-	-	Chromium	mg/L	<0.004	-	-	-	-
Copper	mg/L	-	-	-	-	Copper	mg/L	-	-	-	-	-
Cyanide	mg/L	-	-	-	-	Cyanide	mg/L	-	-	-	-	-
Fluoride	mg/L	<0.10	-	0.18	-	Fluoride	mg/L	<0.10	-	0.17	-	-
Iron	mg/L	0.019	-	-	-	Iron	mg/L	0.026	-	-	-	-
Lead	mg/L	<0.006	-	0.026	-	Lead	mg/L	<0.006	-	0.010	-	-
Magnesium	mg/L	1.17	-	-	-	Magnesium	mg/L	<0.822	-	-	-	-
Manganese	mg/L	0.003	-	-	-	Manganese	mg/L	<0.002	-	-	-	-
Mercury	mg/L	<0.0002	-	-	-	Mercury	mg/L	<0.0002	-	-	-	-
Nickel	mg/L	0.004	-	-	-	Nickel	mg/L	-	-	-	-	-
Potassium	mg/L	0.370	-	-	-	Potassium	mg/L	0.600	-	-	-	-
Selenium	mg/L	<0.002	-	-	-	Selenium	mg/L	<0.002	-	-	-	-
Silica	mg/L	3.16	-	-	-	Silica	mg/L	3.21	-	-	-	-
Silver	mg/L	<0.0020	-	-	-	Silver	mg/L	<0.0020	-	-	-	-
Sodium	mg/L	4.14	-	-	-	Sodium	mg/L	3.31	-	-	-	-
Total Phosphate	mg/L	0.040	-	-	-	Total Phosphate	mg/L	0.030	-	-	-	-
Zinc	mg/L	0.021	-	-	-	Zinc	mg/L	-	-	-	-	-
NO ₃ (as N)	mg/L	3.12	-	-	-	NO ₃ (as N)	mg/L	2.83	-	-	-	-
SO ₄	mg/L	<3.0	-	-	-	SO ₄	mg/L	3.0	-	-	-	-
Phenols	mg/L	<0.002	-	-	-	Phenols	mg/L	<0.002	-	-	-	-
Tot. Org. Carbon	mg/L	1.00	-	1.90	-	Tot. Org. Carbon	mg/L	1.00	-	1.30	-	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-	Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-	-
Carbon Tet.	mg/L	-	-	-	-	Carbon Tet.	mg/L	-	-	-	-	-
Chloroform	mg/L	-	-	-	-	Chloroform	mg/L	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	Tetrachloroethene	mg/L	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	Trichloroethene	mg/L	-	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-	1,1,1-TCE	mg/L	-	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-	Gross Alpha	pCi/L	<3.0	-	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-	Nonvol. Beta	pCi/L	<2.0	-	-	-	-
Total Radium	pCi/L	<1.0	-	-	-	Total Radium	pCi/L	<1.0	-	-	-	-
Tritium	pCi/mL	6.05	-	-	-	Tritium	pCi/mL	7.46	-	-	-	-

Well: CSA 2, Central Shops Hydrofluoric Acid Spill Area				Well: CSA 4, Central Shops Hydrofluoric Acid Spill Area								
		meters (MSL)				meters (MSL)						
Parameter	Units	01/21/87	04/27/87	07/22/87	10/02/87	Parameter	Units	01/21/87	04/27/87	07/22/87	10/02/87	
Sampling Method	Pump	Pump	Pump	Pump	Pump	Sampling Method	Pump	Pump	Pump	Pump	Pump	
Water Elevation	meters	74.1	74.9	75.1	74.8	Water Elevation	meters	73.9	74.5	74.6	74.5	74.5
Coordinates	E 50128.8	Screen Zone Elevation	75.6-66.5			pH	4.5	4.7	4.8	4.9	5.1	
Latitude	33.244309°N	Top of Casing Elevation	88.42			Conductivity	umhos/cm	48	52	44	46	46
Longitude	81.654538°W	Casing Material	PVC			TDS	mg/L	32	-	-	-	-
Parameter	Units	01/21/87	04/27/87	07/22/87	10/02/87	Parameter	Units	01/21/87	04/27/87	07/22/87	10/02/87	
Arsenic	mg/L	<0.002	-	-	-	Arsenic	mg/L	<0.002	-	-	-	-
Barium	mg/L	0.011	-	-	-	Barium	mg/L	0.032	-	-	-	-
Beryllium	mg/L	-	-	-	-	Beryllium	mg/L	-	-	-	-	-
Cadmium	mg/L	<0.002	-	<0.002	-	Cadmium	mg/L	<0.010	-	<0.002	-	-
Calcium	mg/L	1.39	-	-	-	Calcium	mg/L	1.90	-	-	-	-
Chloride	mg/L	13.0	-	-	-	Chloride	mg/L	2.7	-	-	-	-
Chromium	mg/L	<0.004	-	-	-	Chromium	mg/L	<0.004	-	-	-	-
Copper	mg/L	-	-	-	-	Copper	mg/L	-	-	-	-	-
Cyanide	mg/L	-	-	-	-	Cyanide	mg/L	-	-	-	-	-
Fluoride	mg/L	<0.10	-	0.19	-	Fluoride	mg/L	<0.10	-	0.16	-	-
Iron	mg/L	0.019	-	-	-	Iron	mg/L	0.014	-	-	-	-
Lead	mg/L	<0.006	-	0.011	-	Lead	mg/L	<0.006	-	0.010	-	-
Magnesium	mg/L	0.946	-	-	-	Magnesium	mg/L	0.854	-	-	-	-
Manganese	mg/L	<0.002	-	-	-	Manganese	mg/L	0.007	-	-	-	-
Mercury	mg/L	<0.0002	-	-	-	Mercury	mg/L	<0.0002	-	-	-	-
Nickel	mg/L	-	-	-	-	Nickel	mg/L	-	-	-	-	-
Potassium	mg/L	0.570	-	-	-	Potassium	mg/L	0.550	-	-	-	-
Selenium	mg/L	<0.002	-	-	-	Selenium	mg/L	<0.002	-	-	-	-
Silica	mg/L	3.37	-	-	-	Silica	mg/L	3.21	-	-	-	-
Silver	mg/L	<0.0020	-	-	-	Silver	mg/L	<0.0020	-	-	-	-
Sodium	mg/L	2.40	-	-	-	Sodium	mg/L	3.32	-	-	-	-
Total Phosphate	mg/L	0.030	-	-	-	Total Phosphate	mg/L	0.030	-	-	-	-
Zinc	mg/L	-	-	-	-	Zinc	mg/L	-	-	-	-	-
NO ₃ (as N)	mg/L	2.63	-	-	-	NO ₃ (as N)	mg/L	2.78	-	-	-	-
SO ₄	mg/L	<3.0	-	-	-	SO ₄	mg/L	<3.0	-	-	-	-
Phenols	mg/L	<0.002	-	-	-	Phenols	mg/L	<0.002	-	-	-	-
Tot. Org. Carbon	mg/L	1.00	-	1.20	-	Tot. Org. Carbon	mg/L	1.00	-	2.20	-	-
Tot. Org. Halogen	mg/L	<0.005	-	<0.005	-	Tot. Org. Halogen	mg/L	0.006	-	<0.005	-	-
Carbon Tet.	mg/L	-	-	-	-	Carbon Tet.	mg/L	-	-	-	-	-
Chloroform	mg/L	-	-	-	-	Chloroform	mg/L	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	Tetrachloroethene	mg/L	-	-	-	-	-
Trichloroethene	mg/L	-	-	-	-	Trichloroethene	mg/L	-	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-	1,1,1-TCE	mg/L	-	-	-	-	-
Gross Alpha	pCi/L	<3.0	-	-	-	Gross Alpha	pCi/L	<3.0	-	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-	Nonvol. Beta	pCi/L	2.6	-	-	-	-
Total Radium	pCi/L	<1.0	-	-	-	Total Radium	pCi/L	<1.0	-	-	-	-
Tritium	pCi/mL	6.80	-	-	-	Tritium	pCi/mL	8.85	-	-	-	-

TABLE 4-19
CHEMICAL CONCENTRATIONS IN CENTRAL SHOPS
GROUNDWATER

Well: CSO 1, Fire Department Training Facility

SRP Grid	N 61071.1	Screen Zone Elevation	79.9-80.7	meters (MSL)
Coordinates	E 52484.2	Top of Casing Elevation	92.62	
Latitude	33.246478°N	Casing Material	PVC	
Longitude	81.647234°W			

Parameter	Units	01/21/87	04/28/87	07/22/87	10/02/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	76.9	77.6	77.9	77.6
pH		4.5	4.8	4.9	4.8
Conductivity	umhos/cm	52	34	34	34
TDS	mg/L	58	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.058	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.777	-	-	-
Chloride	mg/L	4.5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.039	-	-	-
Lead	mg/L	0.009	-	0.009	-
Magnesium	mg/L	0.803	-	-	-
Manganese	mg/L	0.017	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.47	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	9.66	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.91	-	-	-
Total Phosphate	mg/L	0.050	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.67	-	-	-
SO ₄	mg/L	3.6	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	4.00	-	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	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	10.4	-	-	-

Well: CSO 2, Fire Department Training Facility

SRP Grid	N 61114.3	Screen Zone Elevation	73.1-83.9	meters (MSL)
Coordinates	E 52559.0	Top of Casing Elevation	92.01	
Latitude	33.246893°N	Casing Material	PVC	
Longitude	81.647121°W			

Parameter	Units	01/21/87	04/28/87	07/22/87	10/02/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	76.9	77.7	-	77.7
pH		3.7	4.7	4.9	4.8
Conductivity	umhos/cm	40	30	32	31
TDS	mg/L	44	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.037	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.578	-	-	-
Chloride	mg/L	2.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.15	-	-	-
Iron	mg/L	0.012	-	-	-
Lead	mg/L	<0.005	-	<0.006	-
Magnesium	mg/L	0.555	-	-	-
Manganese	mg/L	0.003	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.980	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	7.79	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.02	-	-	-
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.17	-	-	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	-	1.50	-
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	11.1	-	-	-

Well: CSR 1, Central Shops Burning/Rubble Pits

SRP Grid	N 64413.1	Screen Zone Elevation	81.4-72.3	meters (MSL)
Coordinates	E 52804.3	Top of Casing Elevation	83.54	
Latitude	33.25438°N	Casing Material	PVC	
Longitude	81.65180°W			

Parameter	Units	01/21/87	04/28/87	07/22/87	10/02/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	78.6	78.6	78.9	78.4
pH		4.7	4.5	4.7	5.1
Conductivity	umhos/cm	61	64	42	31
TDS	mg/L	50	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.019	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.86	-	-	-
Chloride	mg/L	5.8	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.012	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.036	-	-	0.068
Lead	mg/L	0.01	-	-	0.014
Magnesium	mg/L	1.37	-	-	-
Manganese	mg/L	0.019	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	1.55	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.88	-	-	-
Silver	mg/L	<0.0010	-	-	-
Sodium	mg/L	3.60	-	-	-
Total Phosphate	mg/L	0.014	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.03	-	-	-
SO ₄	mg/L	13.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.00	-	-	1.50
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	1.1	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	11.1	-	-	-

Well: CSR 2, Central Shops Burning/Rubble Pits

SRP Grid	N 64733.2	Screen Zone Elevation	87.0-77.9	meters (MSL)
Coordinates	E 53525.1	Top of Casing Elevation	90.73	
Latitude	33.25627°N	Casing Material	PVC	
Longitude	81.65180°W			

Parameter	Units	02/21/87	04/27/87	07/23/87	11/09/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	80.4	-	79	78.8
pH		5.0	4.8	5.3	5.8
Conductivity	umhos/cm	30	21	28	25
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	0.474	-	-	-
Chloride	mg/L	3.7	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	0.023	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.168	-	-	0.417
Lead	mg/L	0.012	-	-	0.043
Magnesium	mg/L	0.336	-	-	-
Manganese	mg/L	0.006	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	0.053	-	-	-
Potassium	mg/L	0.610	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.19	-	-	-
Silver	mg/L	<0.0010	-	-	-
Sodium	mg/L	1.77	-	-	-
Total Phosphate	mg/L	0.014	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.05	-	-	-
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	3.00	-	-	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	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	9.74	-	-	-

TABLE 4-19
CHEMICAL CONCENTRATIONS IN CENTRAL SHOPS
GROUNDWATER

Well: CSR 3, Central Shops Burning/Rubble Pits

Parameter	Units	meters (MSL)			
		02/10/87	04/27/87	07/23/87	12/18/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	78.3	78.9	78.5	77.8
pH		4.6	4.6	4.0	5.3
Conductivity	umhos/cm	25	21	24	15
TDS	mg/L	16	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.007	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.380	-	-	-
Chloride	mg/L	4.1	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	0.008	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.050	-	0.108	-
Lead	mg/L	0.007	-	0.020	-
Magnesium	mg/L	0.355	-	-	-
Manganese	mg/L	0.004	-	-	-
Mercury	mg/L	<0.002	-	-	-
Nickel	mg/L	0.004	-	-	-
Potassium	mg/L	0.350	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.06	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.97	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	<0.05	-	-	-
SO ₄	mg/L	6.0	-	-	-
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	<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	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	11.4	-	-	-

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

CSR 1 07/23/87
GCMS Scan detected the following: None

Well: CSR 4, Central Shops Burning/Rubble Pits

Parameter	Units	meters (MSL)			
		02/10/87	04/27/87	07/23/87	11/06/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	78.9	79.4	79.3	78.3
pH		4.7	4.8	4.8	5.2
Conductivity	umhos/cm	20	23	33	26
TDS	mg/L	40	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.008	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.499	-	-	-
Chloride	mg/L	-	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	0.005	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.018	-	0.036	-
Lead	mg/L	<0.004	-	0.008	-
Magnesium	mg/L	0.370	-	-	-
Manganese	mg/L	<0.002	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.250	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.27	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.82	-	-	-
Total Phosphate	mg/L	0.025	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	<0.05	-	-	-
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	<0.015	-	<0.015	-
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	-	-	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	11.2	-	-	-

Well: BWS 1A, Hazardous Waste Storage Facility at Central Shops

Parameter	Units	meters (MSL)			
		02/09/87	04/17/87	07/23/87	10/29/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	74.6	75.1	75.1	74.9
pH		4.8	4.7	4.7	4.7
Conductivity	umhos/cm	19	23	26	25
TDS	mg/L	26	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.009	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.002	-	-	-
Calcium	mg/L	0.304	-	-	-
Chloride	mg/L	2.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.032	-	-	-
Lead	mg/L	0.007	-	<0.006	-
Magnesium	mg/L	0.312	-	-	-
Manganese	mg/L	<0.002	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.860	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.39	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.05	-	-	-
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.90	-	-	-
SO ₄	mg/L	6.0	-	-	-
Phenols	mg/L	<0.001	-	-	-
Tot. Org. Carbon	mg/L	<1.000	1.00	1.20	<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	<3.0	-	<3.0	-
Nonvol. Beta	pCi/L	1.5	-	-	-
Total Radium	pCi/L	1.0	-	-	-
Tritium	pCi/mL	9.17	-	-	-

TABLE 4-19
CHEMICAL CONCENTRATIONS IN CENTRAL SHOPS
GROUNDWATER

Well: EWS 2, Hazardous Waste Storage Facility at Central Shops

SRP Grid	N 64786.3	meters (MSL)		
Coordinates E	50346.4	Screen Zone Elevation	74.8-65.6	
Latitude	33.251108°N	Top of Casing Elevation	98.51	
Longitude	81.660074°W	Casing Material	PVC	

Parameter	Units	02/09/87	04/27/87	07/23/87	10/29/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	74.9	75.3	75.4	75.1
pH	pH	4.8	4.9	4.5	4.8
Conductivity	umhos/cm	20	24	24	23
TDS	mg/L	50	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.016	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.289	-	-	-
Chloride	mg/L	3.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.008	-	-	-
Lead	mg/L	<0.006	-	0.007	-
Magnesium	mg/L	0.345	-	-	-
Manganese	mg/L	<0.002	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.580	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	1.24	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.29	-	-	-
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.89	-	-	-
SO ₄	mg/L	5.0	-	-	-
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	<0.005	<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	-	1.6	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	1.0	-	-	-
Tritium	pCi/mL	8.72	-	-	-

Parameter	Units	02/09/87	04/28/87	07/22/87	10/02/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	76.9	77.9	78	77.7
pH	pH	4.6	4.7	4.9	4.9
Conductivity	umhos/cm	25	27	30	26
TDS	mg/L	60	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.020	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.383	-	-	-
Chloride	mg/L	3.1	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.10	-	-	-
Iron	mg/L	0.024	-	-	-
Lead	mg/L	<0.006	-	-	-
Magnesium	mg/L	0.331	-	-	-
Manganese	mg/L	0.004	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.910	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	6.67	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.29	-	-	-
Total Phosphate	mg/L	0.020	0.030	<0.020	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.14	-	-	-
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	0.007	-	-	-
Tet. Org. Carbon	mg/L	<1.000	-	-	-
Tet. 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	2.1	-	-	-
Total Radium	pCi/L	1.2	-	-	-
Tritium	pCi/mL	3.51	-	-	-

Well: EWS 1, Ford Building Seepage Basin

SRP Grid	N 60549.7	meters (MSL)		
Coordinates E	52537.8	Screen Zone Elevation	74.4-65.3	
Latitude	33.245544°N	Top of Casing Elevation	93.33	
Longitude	81.660287°W	Casing Material	PVC	

Parameter	Units	01/21/87	04/28/87	07/22/87	10/02/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	76.6	77.6	77.5	76.9
pH	pH	4.1	4.6	4.9	4.9
Conductivity	umhos/cm	36	28	30	27
TDS	mg/L	30	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.025	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.672	-	-	-
Chloride	mg/L	2.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.031	-	-	-
Lead	mg/L	<0.006	-	0.007	-
Magnesium	mg/L	0.366	-	-	-
Manganese	mg/L	<0.002	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.810	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	4.62	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.47	-	-	-
Total Phosphate	mg/L	0.030	0.030	-	-
Zinc	mg/L	0.043	-	-	-
NO ₃ (as N)	mg/L	1.30	-	-	-
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	-	-	-	-

Parameter	Units	01/11/87	04/28/87	07/22/87	10/02/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	76.8	77.8	77.7	77.3
pH	pH	3.9	4.7	4.9	5.0
Conductivity	umhos/cm	35	27	29	25
TDS	mg/L	34	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.025	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.342	-	-	-
Chloride	mg/L	2.3	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.012	-	-	-
Lead	mg/L	<0.006	-	<0.008	-
Magnesium	mg/L	0.334	-	-	-
Manganese	mg/L	<0.002	-	-	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.900	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	7.37	-	-	-
Silver	mg/L	<0.0030	-	-	-
Sodium	mg/L	2.43	-	-	-
Total Phosphate	mg/L	0.030	0.030	<0.020	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.10	-	-	-
SO ₄	mg/L	3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	2.00	-	<1.000	-
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	1.0	-	-	-
Tritium	pCi/mL	6.22	-	-	-

TABLE 4-20
CHEMICAL CONCENTRATIONS IN CMP PITS GROUNDWATER

Well: CMP 8, Chemicals, Metals, Pesticides Burial Pits

Parameter	Units	meters (MSL)			
		02/14/87	05/06/87	08/22/87	12/06/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	61.9	62.1	61.8	61.7
pH	-	5.6	5.4	5.1	6.1
Conductivity	umhos/cm	27	34	28	26
TDS	mg/L	12	-	-	-
Arsenic	ng/L	<0.002	-	-	-
Barium	mg/L	0.008	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	2.66	-	-	-
Chloride	mg/L	2.7	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.037	0.030	0.017	0.031
Lead	mg/L	0.012	0.014	0.008	0.017
Magnesium	mg/L	0.42	-	-	-
Manganese	mg/L	0.008	0.010	0.003	0.009
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.330	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.73	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.28	-	-	-
Total Phosphate	mg/L	0.154	-	-	-
Zinc	mg/L	0.217	-	0.207	-
NO ₃ (as N)	mg/L	0.72	-	-	-
SO ₄	mg/L	<5.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	<0.003	<0.003	<0.003	<0.003
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	-	<3.0	-
Nonvol. Beta	pCi/L	2.8	-	1.7	-
Total Radium	pCi/L	0.7	-	0.9	-
Tritium	pCi/mL	3.58	-	-	-

Well: CMP 8B, Chemicals, Metals, Pesticides Burial Pits

Parameter	Units	meters (MSL)			
		02/14/87	05/06/87	08/22/87	12/06/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	60.2	60.5	60.2	60.3
pH	-	6.8	6.7	6.5	6.9
Conductivity	umhos/cm	130	140	130	122
TDS	mg/L	94	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.019	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	22.9	-	-	-
Chloride	mg/L	3.3	-	-	-
Chromium	mg/L	0.006	-	0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.21	-	-	-
Iron	mg/L	0.042	0.035	0.040	0.039
Lax-	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	1.18	-	-	-
Manganese	mg/L	<0.002	<0.002	0.003	0.006
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	1.93	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	1.64	-	-	-
Silver	mg/L	<0.0010	-	-	-
Sodium	mg/L	2.24	-	-	-
Total Phosphate	mg/L	0.706	-	-	-
Zinc	mg/L	0.010	-	0.030	-
NO ₃ (as N)	mg/L	0.17	-	-	-
SO ₄	mg/L	<5.0	-	-	-
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	<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	-	7.0	-
Nonvol. Beta	pCi/L	<2.0	-	<2.0	-
Total Radium	pCi/L	1.0	-	<1.0	-
Tritium	pCi/mL	<0.70	-	-	-

Well: CMP 8A, Chemicals, Metals, Pesticides Burial Pits

Parameter	Units	meters (MSL)			
		02/14/87	05/06/87	08/22/87	12/06/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	55.5	55.7	55.2	55.1
pH	-	6.6	6.2	5.9	6.6
Conductivity	umhos/cm	110	130	120	106
TDS	mg/L	88	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.024	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	19.0	-	-	-
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	0.259	0.240	0.250	0.260
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	9.82	-	-	-
Manganese	mg/L	0.023	0.024	0.023	0.016
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	2.21	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	7.56	-	-	-
Silver	mg/L	<0.0010	-	-	-
Sodium	mg/L	2.47	-	-	-
Total Phosphate	mg/L	0.102	-	-	-
Zinc	mg/L	0.015	-	0.022	-
NO ₃ (as N)	mg/L	0.05	-	-	-
SO ₄	mg/L	27.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	<1.000	7.40	<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
Gross Alpha	pCi/L	<3.0	-	1.0	-
Nonvol. Beta	pCi/L	2.1	-	2.0	-
Total Radium	pCi/L	<1.0	-	1.0	-
Tritium	pCi/mL	<0.70	-	-	-

Well: CMP 9B, Chemicals, Metals, Pesticides Burial Pits

Parameter	Units	meters (MSL)			
		02/17/87	05/06/87	08/22/87	12/05/87
Sampling Method	-	-	-	-	Pump
Water Elevation	meters	-	-	-	59.1
pH	-	-	-	-	9.4
Conductivity	umhos/cm	-	-	-	122
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	-	-	-	0.070
Lead	mg/L	-	-	-	0.006
Magnesium	mg/L	-	-	-	-
Manganese	mg/L	-	-	-	<0.002
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	-	-	-	2.90
Tot. Org. Halogen	mg/L	-	-	-	0.007
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	-	-	-	-
Nonvol. Beta	pCi/L	-	-	-	-
Total Radium	pCi/L	-	-	-	-
Tritium	pCi/mL	-	-	-	-

TABLE 4-20
CHEMICAL CONCENTRATIONS IN CMP PITS GROUNDWATER

Well: CMP 10, Chemicals, Metals, Pesticides Burial Pits

SRP Grid	N 51390.4	Screen Zone Elevation	66.7-57.5	meters (MSL)	
Coordinates E	54006.5	Top of Casing Elevation	94.76		
Latitude	33.227545°N	Casing Material	PVC		
Longitude	81.624438°W				
Parameter	Units	02/17/87	05/06/87	08/22/87	11/01/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	66.6	67	67.2	67.2
pH		5.7	5.1	5.6	5.6
Conductivity	umhos/cm	22	23	26	18
TDS	mg/L	18	-	-	-
Arsenic	ng/L	<0.002	-	-	-
Barium	ng/L	0.012	-	-	-
Beryllium	ng/L	-	-	-	-
Cadmium	ng/L	<0.002	-	-	-
Calcium	mg/L	1.03	-	-	-
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	0.067	0.022	0.063	0.022
Lead	mg/L	0.019	0.024	0.012	0.017
Magnesium	ng/L	0.240	-	-	-
Manganese	ng/L	0.008	0.011	0.011	0.009
Mercury	ng/L	<0.0002	-	-	-
Nickel	ng/L	0.004	-	-	-
Potassium	ng/L	0.900	-	-	-
Selenium	ng/L	<0.002	-	-	-
Silica	mg/L	4.09	-	-	-
Silver	ng/L	<0.0020	-	-	-
Sodium	mg/L	1.60	-	-	-
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	0.015	-	0.055	-
NO ₃ (as N)	mg/L	0.05	-	-	-
SO ₄	mg/L	15.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	<1.000	2.60	1.000
Tot. Org. Halogen	mg/L	<0.005	<0.005	<0.005	0.007
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	-	3.0	-
Nonvol. Beta	pCi/L	1.5	-	<2.0	-
Total Radium	pCi/L	1.0	-	<1.0	-
Tritium	pCi/mL	4.24	-	-	-

Well: CMP 11, Chemicals, Metals, Pesticides Burial Pits

SRP Grid	N 51481.3	Screen Zone Elevation	65.8-56.4	meters (MSL)	
Coordinates E	53640.6	Top of Casing Elevation	94.64		
Latitude	33.227150°N	Casing Material	PVC		
Longitude	81.625578°W				
Parameter	Units	02/15/87	05/06/87	08/23/87	11/06/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	64.1	64.6	64.9	64.3
pH		4.8	5.4	6.0	5.4
Conductivity	umhos/cm	54	41	32	24
TDS	mg/L	24	-	-	-
Arsenic	ng/L	<0.002	-	-	-
Barium	ng/L	0.026	-	-	-
Beryllium	ng/L	-	-	-	-
Cadmium	ng/L	<0.002	-	-	-
Calcium	mg/L	5.08	-	-	-
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	0.141	0.016	0.181	0.058
Lead	mg/L	0.021	0.272	0.018	0.014
Magnesium	mg/L	0.835	-	-	-
Manganese	mg/L	0.018	0.019	0.012	0.009
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	0.004	-	-	-
Potassium	mg/L	1.04	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	4.61	-	-	-
Silver	mg/L	0.0050	-	-	-
Sodium	mg/L	3.27	-	-	-
Total Phosphate	mg/L	0.076	-	-	-
Zinc	mg/L	0.066	-	0.058	-
NO ₃ (as N)	mg/L	<0.05	-	-	-
SO ₄	mg/L	20.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	<1.000	7.10	1.000
Tot. Org. Halogen	mg/L	0.012	0.160	0.008	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	5.5	-	1.8	-
Nonvol. Beta	pCi/L	3.9	-	3.8	-
Total Radium	pCi/L	2.6	-	2.4	-
Tritium	pCi/mL	2.07	-	-	-

Well: CMP 10B, Chemicals, Metals, Pesticides Burial Pits

SRP Grid	N 51380.7	Screen Zone Elevation	44.9-41.9	meters (MSL)	
Coordinates E	54005.9	Top of Casing Elevation	94.73		
Latitude	33.227511°N	Casing Material	PVC		
Longitude	81.624421°W				
Parameter	Units	02/17/87	05/06/87	08/22/87	11/05/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	58.5	59.7	59.2	59.3
pH		7.8	7.1	6.3	7.4
Conductivity	umhos/cm	200	202	200	184
TDS	mg/L	122	-	-	-
Arsenic	ng/L	<0.002	-	-	-
Barium	ng/L	0.013	-	-	-
Beryllium	ng/L	-	-	-	-
Cadmium	ng/L	<0.002	-	-	-
Calcium	mg/L	38.9	-	-	-
Chloride	mg/L	2.9	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.055	0.021	0.018	0.076
Lead	mg/L	0.006	<0.006	0.006	0.008
Magnesium	ng/L	0.847	-	-	-
Manganese	mg/L	<0.002	0.001	0.002	0.005
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	1.08	-	-	-
Selenium	ng/L	<0.002	-	-	-
Silica	mg/L	7.56	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.98	-	-	-
Total Phosphate	mg/L	0.056	-	-	-
Zinc	mg/L	0.011	-	0.013	-
NO ₃ (as N)	mg/L	0.05	-	-	-
SO ₄	mg/L	15.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.10	<1.000	1.000	1.30
Tot. Org. Halogen	mg/L	<0.005	<0.003	<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	-	3.0	-
Nonvol. Beta	pCi/L	2.0	-	2.0	-
Total Radium	pCi/L	1.0	-	1.0	-
Tritium	pCi/mL	<0.70	-	-	-

Well: CMP 11B, Chemicals, Metals, Pesticides Burial Pits

SRP Grid	N 51456.6	Screen Zone Elevation	45.9-42.9	meters (MSL)	
Coordinates E	53661.9	Top of Casing Elevation	94.54		
Latitude	33.227130°N	Casing Material	PVC		
Longitude	81.625474°W				
Parameter	Units	02/15/87	05/06/87	08/23/87	12/05/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	59.5	59.7	59.7	59.2
pH		7.5	6.8	7.8	7.3
Conductivity	umhos/cm	185	200	180	164
TDS	mg/L	108	-	-	-
Arsenic	ng/L	<0.002	-	-	-
Barium	ng/L	0.018	-	-	-
Beryllium	ng/L	-	-	-	-
Cadmium	ng/L	<0.002	-	-	-
Calcium	mg/L	37.9	-	-	-
Chloride	mg/L	2.3	-	-	-
Chromium	mg/L	0.004	-	<0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.019	0.018	0.088	0.017
Lead	mg/L	0.006	0.006	0.006	0.006
Magnesium	mg/L	0.661	-	-	-
Manganese	mg/L	0.002	<0.002	0.003	0.003
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	1.18	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	7.56	-	-	-
Silver	mg/L	<0.0010	-	-	-
Sodium	mg/L	2.01	-	-	-
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	0.028	-	0.017	-
NO ₃ (as N)	mg/L	0.18	-	-	-
SO ₄	mg/L	5.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	<1.000	11.4	1.000
Tot. Org. Halogen	mg/L	<0.005	<0.003	<0.005	0.003
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	-	3.0	-
Nonvol. Beta	pCi/L	2.0	-	2.0	-
Total Radium	pCi/L	1.0	-	1.0	-
Tritium	pCi/mL	<0.70	-	-	-

TABLE 4-20
CHEMICAL CONCENTRATIONS IN CMP PITS GROUNDWATER

Well: CMP 12, Chemicals, Metals, Pesticides Burial Pits

Parameter	Units	02/15/87	05/06/87	08/23/87	12/06/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	63.7	64	64.3	64.3
pH		5.2	5.5	6.0	5.7
Conductivity	umhos/cm	19	21	18	18
TDS	mg/L	16	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.007	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.29	-	-	-
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	0.073	0.085	0.123	0.060
Lead	mg/L	<0.006	0.010	0.016	0.015
Magnesium	mg/L	0.207	-	-	-
Manganese	mg/L	0.005	0.006	0.008	0.010
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.500	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.99	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.34	-	-	-
Total Phosphate	mg/L	0.170	-	-	-
Zinc	mg/L	0.213	-	0.194	-
NO ₃ (as N)	mg/L	0.10	-	-	-
SO ₄	mg/L	13.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	<1.000	10.0	<1.000
Tot. Org. Halogen	mg/L	<0.005	0.469	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	0.003	<0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001
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	1.75	-	-	-

Well: CMP 12A, Chemicals, Metals, Pesticides Burial Pits

Parameter	Units	02/15/87	05/06/87	08/23/87	12/06/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	55.1	55.3	55	54.8
pH		6.9	6.9	7.2	6.9
Conductivity	umhos/cm	200	210	180	168
TDS	mg/L	112	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.038	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	34.1	-	-	-
Chloride	mg/L	3.7	-	-	-
Chromium	mg/L	<0.004	-	0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.170	0.196	0.170	0.194
Lead	mg/L	<0.006	0.006	0.006	<0.006
Magnesium	mg/L	1.28	-	-	-
Manganese	mg/L	0.098	0.121	0.117	0.112
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	1.49	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	7.45	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.36	-	-	-
Total Phosphate	mg/L	0.272	-	-	-
Zinc	mg/L	0.034	-	0.023	-
NO ₃ (as N)	mg/L	0.05	-	-	-
SO ₄	mg/L	27.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.000	<1.000	<1.000	1.10
Tot. Org. Halogen	mg/L	<0.001	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
Gross Alpha	pCi/L	3.0	-	3.0	-
Nonvol. Beta	pCi/L	2.0	-	4.8	-
Total Radium	pCi/L	0.8	-	1.0	-
Tritium	pCi/mL	0.70	-	-	-

Well: CMP 12B, Chemicals, Metals, Pesticides Burial Pits

Parameter	Units	02/15/87	05/06/87	08/23/87	12/06/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	59.2	59.3	58.9	59.1
pH		7.2	7.5	7.7	7.4
Conductivity	umhos/cm	200	210	180	170
TDS	mg/L	116	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.028	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	37.2	-	-	-
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	0.024	-	0.036	0.027
Lead	mg/L	<0.006	<0.006	<0.006	0.006
Magnesium	mg/L	0.608	-	-	-
Manganese	mg/L	<0.002	<0.002	<0.002	0.002
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.960	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	6.99	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.85	-	-	-
Total Phosphate	mg/L	0.035	-	-	-
Zinc	mg/L	0.066	-	-	0.014
NO ₃ (as N)	mg/L	0.12	-	-	-
SO ₄	mg/L	16.0	-	-	-
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	0.005	<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
Gross Alpha	pCi/L	3.0	-	3.0	-
Nonvol. Beta	pCi/L	2.0	-	3.4	-
Total Radium	pCi/L	<1.0	-	<1.0	-
Tritium	pCi/mL	0.82	-	-	-

Well: CMP 13, Chemicals, Metals, Pesticides Burial Pits

Parameter	Units	02/15/87	05/06/87	08/23/87	12/06/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	62.9	63.3	63.5	63.2
pH		6.5	6.7	6.9	6.8
Conductivity	umhos/cm	78	84	137	-
TDS	mg/L	56	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.022	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	12.5	-	-	-
Chloride	mg/L	2.5	-	-	-
Chromium	mg/L	<0.004	-	0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.018	0.026	0.108	0.012
Lead	mg/L	0.006	0.013	0.009	0.030
Magnesium	mg/L	0.679	-	-	-
Manganese	mg/L	0.016	0.024	0.023	0.017
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.590	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	5.33	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.05	-	-	-
Total Phosphate	mg/L	0.004	-	-	-
Zinc	mg/L	0.149	-	-	0.154
NO ₃ (as N)	mg/L	0.05	-	-	-
SO ₄	mg/L	5.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	1.00	<1.000	<1.000
Tot. Org. Halogen	mg/L	0.017	0.035	0.019	0.012
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	0.007
Chloroform	mg/L	<0.001	<0.001	<0.001	0.008
Tetrachloroethene	mg/L	<0.006	0.008	<0.001	0.001
Trichloroethene	mg/L	<0.008	0.009	0.009	0.001
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	0.001
Gross Alpha	pCi/L	2.5	-	3.0	-
Nonvol. Beta	pCi/L	3.0	-	4.8	-
Total Radium	pCi/L	1.2	-	1.2	-
Tritium	pCi/mL	1.58	-	-	-

TABLE 4-20
CHEMICAL CONCENTRATIONS IN CMP PITS GROUNDWATER

Well: CMP 13B, Chemicals, Metals, Pesticides Burial Pits

Parameter	Units	meters (MSL)			
		02/15/87	04/14/87	08/23/87	12/06/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	59.2	58.9	59.3	59.1
pH		7.3	7.9	7.9	8.1
Conductivity	umhos/cm	145	200	180	170
TDS	mg/L	112	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.029	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.003	-	-	-
Calcium	mg/L	36.4	-	-	-
Chloride	mg/L	3.3	-	-	-
Chromium	mg/L	0.005	-	<0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.036	0.018	0.031	0.033
Lead	mg/L	<0.006	<0.006	<0.006	0.006
Magnesium	mg/L	0.618	-	-	-
Manganese	mg/L	<0.002	<0.002	0.004	0.003
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	1.28	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	7.82	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.32	-	-	-
Total Phosphate	mg/L	0.076	-	-	-
Zinc	mg/L	0.012	-	0.016	-
NO ₃ (as N)	mg/L	<0.05	-	-	-
SO ₄	mg/L	13.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	<1.200	<1.000	1.10
Tot. Org. Halogen	mg/L	<0.001	<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
Gross Alpha	pCi/L	<3.0	-	<3.0	-
Nonvol. Beta	pCi/L	<2.0	-	3.1	-
Total Radium	pCi/L	<1.0	-	<1.0	-
Tritium	pCi/mL	0.76	-	-	-

Well: CMP 14C, Chemicals, Metals, Pesticides Burial Pits

Parameter	Units	meters (MSL)			
		02/17/87	05/06/87	08/22/87	12/05/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	64.5	65.3	65.1	65.2
pH		5.3	4.8	5.5	4.9
Conductivity	umhos/cm	20	21	18	17
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	0.962	-	-	-
Chloride	mg/L	2.9	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.016	0.026	0.021	0.011
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.236	-	-	-
Manganese	mg/L	0.003	0.005	0.005	0.006
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	0.004	-	-	-
Potassium	mg/L	0.180	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.06	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.46	-	-	-
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	0.913	-	0.022	-
NO ₃ (as N)	mg/L	0.24	-	-	-
SO ₄	mg/L	20.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	2.00	<1.000	<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
Gross Alpha	pCi/L	<3.0	-	<3.0	-
Nonvol. Beta	pCi/L	<2.0	-	<2.0	-
Total Radium	pCi/L	<1.0	-	-	0.6
Tritium	pCi/mL	4.22	-	-	-

Well: CMP 14B, Chemicals, Metals, Pesticides Burial Pits

Parameter	Units	meters (MSL)			
		02/17/87	05/06/87	08/22/87	12/05/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	59.1	59.3	59.1	59.1
pH		7.6	7.2	7.1	7.4
Conductivity	umhos/cm	190	180	180	148
TDS	mg/L	104	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.018	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.003	-	-	-
Calcium	mg/L	35.1	-	-	-
Chloride	mg/L	3.3	-	-	-
Chromium	mg/L	0.014	-	<0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.025	0.023	0.017	0.011
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.431	-	-	-
Manganese	mg/L	<0.002	<0.002	0.003	0.005
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.670	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	5.33	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.82	-	-	-
Total Phosphate	mg/L	0.056	-	-	-
Zinc	mg/L	0.008	-	0.018	-
NO ₃ (as N)	mg/L	0.19	-	-	-
SO ₄	mg/L	19.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.000	6.00	<1.000	<1.000
Tot. Org. Halogen	mg/L	<0.005	<0.005	<0.005	<0.005
Carbon Tet.	mg/L	<0.001	0.009	<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	-	<3.0	-
Nonvol. Beta	pCi/L	<2.0	-	<2.0	-
Total Radium	pCi/L	<1.0	-	0.4	-
Tritium	pCi/mL	0.85	-	-	-

Well: CMP 15A, Chemicals, Metals, Pesticides Burial Pits

Parameter	Units	meters (MSL)			
		02/15/87	05/06/87	08/22/87	12/05/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	54.8	55.3	55.1	54.4
pH		6.6	6.5	7.0	6.6
Conductivity	umhos/cm	140	140	150	101
TDS	mg/L	80	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.028	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	11.9	-	-	-
Chloride	mg/L	2.5	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	0.45	-	-	-
Fluoride	mg/L	-	-	-	-
Iron	mg/L	0.166	0.185	0.194	0.219
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.716	-	-	-
Manganese	mg/L	0.034	0.027	0.026	0.006
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	8.38	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	7.30	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	6.32	-	-	-
Total Phosphate	mg/L	0.406	-	-	-
Zinc	mg/L	0.012	-	0.017	-
NO ₃ (as N)	mg/L	<0.05	-	-	-
SO ₄	mg/L	19.0	-	-	-
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	<0.005	<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
Gross Alpha	pCi/L	<3.0	-	<3.0	-
Nonvol. Beta	pCi/L	<1.0	-	0.4	-
Total Radium	pCi/L	<1.0	-	-	1.3
Tritium	pCi/mL	0.70	-	-	-

TABLE 4-20
CHEMICAL CONCENTRATIONS IN CMP PITS GROUNDWATER

Well: CMP 15B, Chemicals, Metals, Pesticides Burial Pits
 SRP Grid N 51349-5 meters (MSL)
 Coordinates E 52904.7
 Latitude 33.225658°N Screen Zone Elevation 47.3-44.2
 Longitude 81.627259°W Top of Casing Elevation 84.24
 Casing Material PVC

Parameter	Units	02/15/87	05/06/87	08/23/87	11/06/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	61.4	62.6	62.4	62.1
pH		10.5	11.0	10.6	10.9
Conductivity	µhos/cm	180	360	280	232
TDS	mg/L	100	-	-	-
Arsenic	ng/L	<0.001	-	-	-
Barium	mg/L	0.098	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	16.1	-	-	-
Chloride	mg/L	3.5	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.12	-	-	-
Iron	mg/L	0.039	0.031	0.036	0.048
Lead	mg/L	<0.006	0.008	<0.006	0.006
Magnesium	mg/L	0.132	-	-	-
Manganese	mg/L	<0.002	<0.002	0.003	0.003
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	15.5	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	5.64	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	10.0	-	-	-
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	0.017	-	0.039	-
NO ₃ (as N)	mg/L	0.07	-	-	-
SO ₄	mg/L	<5.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	2.40	3.00	8.40	1.10
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	<0.01	<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	2.4	-	2.2	-
Monval. Beta	pCi/L	18.9	-	20.4	-
Total Radium	pCi/L	1.1	-	2.9	-
Tritium	pCi/L	1.06	-	-	-

Well: CMP 15C, Chemicals, Metals, Pesticides Burial Pits
 SRE Grid N 51361.4 meters (MSL)
 Coordinates E 52907.8
 Latitude 33.225897°N Screen Zone Elevation 76.4-87.2
 Longitude W 81.627247° Top of Casing Elevation 84.43
 Casing Material PVC

Parameter	Units	02/15/87	05/06/87	08/23/87	12/06/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	*	73.1	72.7	72.1
pH	pH	5.0	5.3	5.7	6.0
Conductivity	umhos/cm	20	16	18	14
TDS	mg/L	30	*	*	*
Arsenic	mg/L	<0.002	*	*	*
Barium	mg/L	0.009	*	*	*
Beryllium	mg/L	*	*	*	*
Cadmium	mg/L	<0.002	*	*	*
Calcium	mg/L	1.16	*	*	*
Chloride	mg/L	2.7	*	*	*
Chromium	mg/L	<0.004	*	<0.004	*
Copper	mg/L	*	*	*	*
Cyanide	mg/L	*	*	*	*
Fluoride	mg/L	0.10	*	*	*
Itron	mg/L	0.033	0.056	0.168	0.123
Lead	mg/L	<0.004	<0.006	<0.006	0.010
Magnesium	mg/L	0.184	*	*	*
Manganese	mg/L	0.023	0.014	0.006	0.004
Mercury	mg/L	<0.0002	*	*	*
Nickel	mg/L	<0.004	*	*	*
Potassium	mg/L	0.530	*	*	*
Selenium	mg/L	<0.002	*	*	*
Silica	mg/L	2.85	*	*	*
Silver	mg/L	<0.0020	*	*	*
Sodium	mg/L	1.75	*	*	*
Total Phosphate	mg/L	0.004	*	*	*
Zinc	mg/L	0.024	*	0.023	*
NO ₃ (as N)	mg/L	<0.05	*	*	*
SO ₄	mg/L	3.0	*	*	*
Phenols	mg/L	<0.002	*	*	*
Tet. Org. Carbon	mg/L	<1.000	<1.000	1.20	1.000
Tet. Org. Halogen	mg/L	<0.005	<0.005	<0.005	<0.005
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	<0.001
Chloro-TH	mg/L	<0.001	<0.001	<0.001	<0.001
Tetra- <i>n</i> -octene	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	*	3.0	*
Nonvol. Beta	pCi/L	2.0	*	12.0	*
Total Radium	pCi/L	1.0	*	1.0	*
Tritium	pCi/mL	4.80	*	*	*

Well: CMP 15B, Chemicals, Metals, Pesticides Burial Pits							Well: CMP 16B, Chemicals, Metals, Pesticides Burial Pits						
SRP Grid	N 51349.5				meters (MSL)		SRP Grid	N 51576.7				meters (MSL)	
Coordinates	E 52904.7	Screen Zone	Elevation	47.3-44.2			Coordinates	E 53849.9	Screen Zone	Elevation	46.3-43.2		
Latitude	33.225658°N	Top of Casing	Elevation	84.24			Latitude	33.227702°N	Top of Casing	Elevation	96.80		
Longitude	81.627259°W	Casing Material	PVC				Longitude	81.625212°W	Casing Material	PVC			
Parameter	Units	02/15/87	05/06/87	08/23/87	12/06/87		Parameter	Units	02/17/87	05/06/87	08/22/87	12/05/87	
Sampling Method		Pump	Pump	Pump	Pump		Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	61.4	62.6	62.4	62.1		Water Elevation	meters	59.3	59.7	58.9	59.2	
pH	pH	10.5	11.0	10.6	10.9		pH	pH	7.8	7.3	7.7	7.4	
Conductivity	umhos/cm	180	360	280	232		Conductivity	umhos/cm	202	220	220	169	
TDS	mg/L	100	-	-	-		TDS	mg/L	128	-	-	-	
Arsenic	ng/L	<0.001	-	-	-		Arsenic	ng/L	<0.002	-	-	-	
Barium	mg/L	0.098	-	-	-		Barium	mg/L	0.036	-	-	-	
Beryllium	mg/L	-	-	-	-		Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	-	-	-		Cadmium	mg/L	<0.002	-	-	-	
Calcium	mg/L	16.1	-	-	-		Calcium	mg/L	36.8	-	-	-	
Chloride	mg/L	3.5	-	-	-		Chloride	mg/L	2.5	-	-	-	
Chromium	mg/L	<0.004	-	<0.004	-		Chromium	mg/L	0.005	-	<0.004	-	
Copper	mg/L	-	-	-	-		Copper	mg/L	-	-	-	-	
Cyanide	mg/L	-	-	-	-		Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	0.12	-	-	-		Fluoride	mg/L	<0.10	-	-	-	
Iron	mg/L	0.039	0.031	0.036	0.048		Iron	mg/L	0.028	0.022	0.015	0.020	
Lead	mg/L	<0.006	0.008	<0.006	<0.006		Lead	mg/L	<0.006	<0.006	<0.006	<0.006	
Magnesium	mg/L	0.132	-	-	-		Magnesium	mg/L	0.679	-	-	-	
Manganese	mg/L	<0.002	<0.002	0.003	0.003		Manganese	mg/L	<0.002	<0.002	<0.002	0.003	
Mercury	mg/L	<0.0002	-	-	-		Mercury	mg/L	<0.0002	-	-	-	
Nickel	mg/L	<0.004	-	-	-		Nickel	mg/L	<0.005	-	-	-	
Potassium	mg/L	15.5	-	-	-		Potassium	mg/L	1.07	-	-	-	
Selenium	mg/L	<0.002	-	-	-		Selenium	mg/L	<0.002	-	-	-	
Silica	mg/L	5.64	-	-	-		Silica	mg/L	7.97	-	-	-	
Silver	mg/L	<0.0020	-	-	-		Silver	mg/L	<0.0010	-	-	-	
Sodium	mg/L	10.0	-	-	-		Sodium	mg/L	2.05	-	-	-	
Total Phosphate	mg/L	<0.010	-	-	-		Total Phosphate	mg/L	<0.010	-	-	-	
Zinc	mg/L	0.017	-	0.039	-		Zinc	mg/L	0.010	-	0.023	-	
NO ₃ (as N)	mg/L	0.07	-	-	-		NO ₃ (as N)	mg/L	0.13	-	-	-	
SO ₄	mg/L	<5.0	-	-	-		SO ₄	mg/L	7.5	-	-	-	
Phenols	mg/L	<0.002	-	-	-		Phenols	mg/L	<0.002	-	-	-	
Tot. Org. Carbon	mg/L	2.40	3.00	8.40	1.10		Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	<1.000	
Tot. Org. Halogen	mg/L	<0.005	<0.005	<0.005	<0.005		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		Carbon Tet.	mg/L	<0.001	<0.002	<0.001	<0.001	
Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001		Chloroform	mg/L	<0.001	<0.001	<0.001	<0.001	
Tetrachloroethene	mg/L	<0.01	<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		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		1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.001	
Gross Alpha	pCi/L	1.4	-	2.2	-		Gross Alpha	pCi/L	<3.0	-	<3.0	-	
Nonvol. Beta	pCi/L	18.9	-	20.4	-		Nonvol. Beta	pCi/L	<2.0	-	<2.0	-	
Total Radium	pCi/L	1.1	-	2.9	-		Total Radium	pCi/L	1.0	-	1.0	-	
Tritium	pCi/L	1.06	-	-	-		Tritium	pCi/L	<0.70	-	-	-	

SRP Grid N 31361.4 Coordinates E 52907.8 Latitude 33.225689°N Longitude 81.627274°W					meters (MSL)		Other Analytes (mg/L)		
					ICCHS Scan Analytes Table 4-25, Vol. II				
Parameter	Units	02/15/87	05/06/87	08/23/87	12/06/87	CMP 8	05/06/87	Benzene	<0.0009
Sampling Method		Pump	Pump	Pump	Pump	CMP 8	08/22/87	Benzene	<0.00004
Water Elevation	meters	+	73.1	12.7	72.1				
pH	pH	5.0	5.3	5.7	6.0	CMP 8	12/06/87	Benzene	<0.0009
Conductivity	umhos/cm	20	16	18	14				
TDS	mg/L	30	+	+	+				
Arsenic	mg/L	<0.002	+	+	+				
Barium	mg/L	<0.009	+	+	+	CMP 8A	05/06/87	Benzene	<0.0009
Beryllium	mg/L	+	+	+	+				
Cadmium	mg/L	<0.002	+	+	+				
Calcium	mg/L	1.16	+	+	+	CMP 8A	08/22/87	Benzene	<0.00004
Chloride	mg/L	2.7	+	+	+				
Chromium	mg/L	<0.004	+	<0.004	+				
Copper	mg/L	+	+	+	+	CMP 8A	12/06/87	Benzene	<0.0009
Cyanide	mg/L	+	+	+	+				
Fluoride	mg/L	0.10	0.056	0.168	0.123				
Iron	mg/L	0.031	0.031	0.036	0.030	CMP 8B	05/06/87	Benzene	<0.0009
Lead	mg/L	<0.006	<0.006	<0.006	0.010				
Magnesium	mg/L	0.184	+	+	+				
Manganese	mg/L	0.023	0.014	0.006	0.004				
Mercury	mg/L	<0.0002	+	+	+	CMP 8B	08/22/87	Benzene	<0.00004
Nickel	mg/L	<0.004	+	+	+				
Potassium	mg/L	0.530	+	+	+				
Selenium	mg/L	<0.002	+	+	+				
Silica	mg/L	2.85	+	+	+	CMP 8B	12/06/87	Benzene	<0.0009
Silver	mg/L	<0.0020	+	+	+				
Sodium	mg/L	1.75	+	+	+				
Total Phosphate	mg/L	0.004	+	+	+	CMP 9B	12/05/87	Benzene	<0.0009
Zinc	mg/L	0.024	+	0.023	+				
NO ₃ (as N)	mg/L	<0.05	+	+	+				
SO ₄	mg/L	5.0	+	+	+				
Phenols	mg/L	<0.002	+	+	+	CMP 10	05/06/87	Benzene	<0.0009
Tot. Org. Carbon	mg/L	<1.000	<1.000	1.20	1.000				
Tot. Org. Halogen	mg/L	<0.005	<0.005	<0.005	<0.005				
Carbon Tetr.	mg/L	<0.001	<0.001	<0.001	<0.001	CMP 10	08/22/87	Benzene	<0.00004
Chloro "A"	mg/L	<0.001	<0.001	<0.001	<0.001				
Tetracl. Aethene	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	CMP 10	11/01/87	Benzene	<0.00004
Crocs Alpha	pCi/L	3.0	+	3.0	+				
Nonvol. Beta	pCi/L	<2.0	+	12.0	+				
Total Radium	pCi/L	<1.0	+	1.0	+	CMP 10B	05/06/87	Benzene	<0.0009
Tritium	pCi/mL	4.80	+	+	+				

TABLE 4-20
CHEMICAL CONCENTRATIONS IN CMP PITS GROUNDWATER

CMP 108 08/22/87 Benzene	<0.0004	CMP 15A 08/25/87 Benzene	<0.0004
CMP 108 12/05/87 Benzene	<0.0009	CMP 15A 12/05/87 Benzene	<0.0009
CMP 11 05/06/87 Benzene	<0.0009	CMP 15B 05/06/87 Benzene	<0.0009
CMP 11 08/23/87 GCMS Scan detected the following: 1,2-Dichloroethane	0.003	CMP 15B 08/23/87 Benzene	<0.0004
CMP 11 12/06/87 Benzene	<0.0009	CMP 15B 12/06/87 Benzene	<0.0009
CMP 11B 05/06/87 Benzene	<0.0009	CMP 15C 05/06/87 Benzene	<0.0009
CMP 11B 08/23/87 Benzene	<0.0004	CMP 15C 08/23/87 Benzene	<0.0004
CMP 11B 12/05/87 Benzene	<0.0004	CMP 15C 12/06/87 Benzene	<0.0009
CMP 12 05/06/87 Benzene	<0.0009	CMP 16B 05/06/87 Benzene	<0.0009
CMP 12 08/23/87 Benzene	<0.0004	CMP 16B 08/22/87 Benzene	<0.0004
CMP 12 12/06/87 Benzene	<0.0009	CMP 16B 12/05/87 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	<0.0004		
CMP 12B 12/06/87 Benzene	<0.0009		
CMP 13 05/06/87 Benzene	<0.0009		
CMP 13 08/23/87 Benzene	<0.0004		
CMP 13 12/06/87 Benzene	<0.0009		
CMP 13B 06/14/87 Benzene	<0.0014		
CMP 13B 08/23/87 Benzene	<0.0004		
CMP 13B 12/06/87 Benzene	<0.0009		
CMP 14B 05/06/87 Benzene	<0.0009		
CMP 14B 08/22/87 Benzene	<0.0004		
CMP 14B 12/05/87 Benzene	<0.0009		
CMP 14C 05/06/87 Benzene	<0.0009		
CMP 14C 08/22/87 Benzene	<0.0004		
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: DBP 1, D-Area Burning/Rubble Pits

SRP Grid	N 66691.4	meters (MSL)			
Coordinates E	18661.8	Screen Zone Elevation	37.5-28.4		
Latitude	33.203698°N	Top of Casing Elevation	41.21		
Longitude	81.747129°W	Casing Material	PVC		
Parameter	Units	03/14/87	05/03/87	08/01/87	10/03/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	37.8	36.7	35.7	35.7
pH	pH	4.5	4.8	5.2	4.6
Conductivity	umhos/cm	81	71	60	51
TDS	mg/L	32	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.025	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	2.69	-	-	-
Chloride	mg/L	3.5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.037	-	0.068	-
Lead	mg/L	0.009	-	<0.006	-
Magnesium	mg/L	2.65	-	-	-
Manganese	mg/L	0.018	-	0.023	-
Mercury	mg/L	<0.002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.53	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.78	-	-	-
Silver	mg/L	<0.0010	-	-	-
Sodium	mg/L	3.10	-	-	-
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	0.034	-	-	-
NO ₃ (as N)	mg/L	5.36	-	-	-
SO ₄	mg/L	<3.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.10	-	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	-	-	-
Nonvol. Beta	pCi/L	2.8	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	6.25	-	-	-

Well: DBP 3, D-Area Burning/Rubble Pits

SRP Grid	N 66775.5	meters (MSL)			
Coordinates E	18427.5	Screen Zone Elevation	35.5-26.3		
Latitude	33.203499°N	Top of Casing Elevation	39.10		
Longitude	81.747908°W	Casing Material	PVC		
Parameter	Units	03/14/87	05/03/87	08/01/87	10/03/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	37.1	36.5	35.7	36.1
pH	pH	5.0	5.1	5.7	5.3
Conductivity	umhos/cm	78	63	50	49
TDS	mg/L	48	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.027	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.75	-	-	-
Chloride	mg/L	7.4	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.103	-	-	0.081
Lead	mg/L	<0.006	-	-	<0.006
Magnesium	mg/L	0.526	-	-	-
Manganese	mg/L	0.026	-	-	0.010
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.01	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.68	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	9.83	-	-	-
Total Phosphate	mg/L	0.027	-	-	-
Zinc	mg/L	0.041	-	-	-
NO ₃ (as N)	mg/L	4.01	-	-	-
SO ₄	mg/L	12.2	-	-	-
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	-	-	-
Nonvol. Beta	pCi/L	2.0	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	4.93	-	-	-

Well: DBP 2, D-Area Burning/Rubble Pits

SRP Grid	N 66478.2	meters (MSL)			
Coordinates E	18401.3	Screen Zone Elevation	34.8-25.7		
Latitude	33.201809°N	Top of Casing Elevation	38.49		
Longitude	81.747384°W	Casing Material	PVC		
Parameter	Units	03/14/87	05/03/87	08/01/87	10/03/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	36.2	35.8	34.8	34.9
pH	pH	4.4	4.4	4.8	4.5
Conductivity	umhos/cm	140	125	130	92
TDS	mg/L	66	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.056	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	3.81	-	-	-
Chloride	mg/L	14.2	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.11	-	-	-
Iron	mg/L	0.052	-	0.973	-
Lead	mg/L	<0.006	-	0.013	-
Magnesium	mg/L	4.21	-	-	-
Manganese	mg/L	0.111	-	0.162	-
Mercury	mg/L	<0.0003	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.40	-	-	-
Selenium	mg/L	0.002	-	-	-
Silica	mg/L	5.54	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	8.58	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	0.043	-	-	-
NO ₃ (as N)	mg/L	2.28	-	-	-
SO ₄	mg/L	27.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	2.10	-	1.00	-
Tot. Org. Halogen	mg/L	0.021	-	0.082	-
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	-	-	-
Nonvol. Beta	pCi/L	2.0	-	-	-
Total Radium	pCi/L	1.0	-	-	-
Tritium	pCi/mL	4.18	-	-	-

Well: DBP 4, D-Area Burning/Rubble Pits

SRP Grid	N 16679.6	meters (MSL)			
Coordinates E	18342.1	Screen Zone Elevation	34.8-25.7		
Latitude	33.203147°N	Top of Casing Elevation	38.46		
Longitude	81.747947°W	Casing Material	PVC		
Parameter	Units	03/14/87	05/03/87	08/01/87	10/03/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	37	36.3	35.2	35.3
pH	pH	4.1	4.1	4.8	4.5
Conductivity	umhos/cm	173	192	91	56
TDS	mg/L	70	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.048	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	7.78	-	-	-
Chloride	mg/L	6.0	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.18	-	-	-
Iron	mg/L	0.094	-	-	0.033
Lead	mg/L	<0.006	-	-	<0.006
Magnesium	mg/L	2.20	-	-	-
Manganese	mg/L	1.11	-	-	0.005
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	1.70	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	4.69	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	8.24	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	0.105	-	-	-
NO ₃ (as N)	mg/L	0.24	-	-	-
SO ₄	mg/L	50.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	3.10	-	-	<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	-	-	<0.002
Trichloroethene	mg/L	<0.001	-	-	<0.005
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	-	-	-
Tritium	pCi/mL	1.51	-	-	-

TABLE 4-21
CHEMICAL CONCENTRATIONS IN D-AREA GROUNDWATER

Well: DCB 1A, D-Area Coal Pile Runoff Containment Basin
meters (MSL)

SRP Grid	N 64028.5	Screen Zone Elevation	36.6+27.5
Coordinates E	19856.3	Top of Casing Elevation	38.74
Latitude	33°19'56.0"N	Casing Material	PVC
Longitude	81°33'45.5"W		

Parameter	Units	03/17/87	05/04/87	08/01/87	10/03/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	35.6	35.2	35	34.8
pH	pH	2.4	2.4	2.9	2.3
Conductivity	umhos/cm	9400	7250	6950	5310
TDS	mg/L	11700	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.009	-	-	-
Beryllium	mg/L	0.080	-	0.081	-
Cadmium	mg/L	<0.080	-	0.028	-
Calcium	mg/L	146	-	-	-
Chloride	mg/L	15.0	-	-	-
Chromium	mg/L	0.196	-	0.097	-
Copper	mg/L	1.78	-	0.551	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	1.04	-	1.08	-
Iron	mg/L	1690	-	420	-
Lead	mg/L	0.310	-	0.008	-
Magnesium	mg/L	428	-	-	-
Manganese	mg/L	51.8	-	38.7	-
Mercury	mg/L	<0.0002	-	0.0005	-
Nickel	mg/L	1.02	-	3.52	-
Potassium	mg/L	0.600	-	-	-
Selenium	mg/L	0.006	-	0.004	-
Silica	mg/L	74.0	-	-	-
Silver	mg/L	0.0150	-	0.0100	-
Sodium	mg/L	3.8	-	-	-
Total Phosphate	mg/L	0.040	-	-	-
Zinc	mg/L	-	-	8.62	-
NO ₃ (as N)	mg/L	-	-	-	-
SO ₄	mg/L	1840	-	4160	-
Phenols	mg/L	0.001	-	-	-
Tot. Org. Carbon	mg/L	7.00	-	8.00	-
Tot. Org. Halogen	mg/L	0.033	-	0.125	-
Carbon Tet.	mg/L	-	-	0.001	-
Chloroform	mg/L	-	-	0.001	-
Tetrachloroethene	mg/L	-	-	0.001	-
Trichloroethene	mg/L	-	-	0.034	-
1,1,1-TCE	mg/L	-	-	0.001	-
Gross Alpha	pCi/L	4.3	-	92.1	-
Nonvol. Beta	pCi/L	8.7	-	-	-
Total Radium	pCi/L	5.3	-	21.3	-
Tritium	pCi/mL	8.90	-	-	-

Parameter	Units	03/17/87	05/04/87	07/25/87	10/03/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	37.2	36.9	36.6	36.3
pH	pH	5.0	5.1	4.9	5.1
Conductivity	umhos/cm	122	81	64	69
TDS	mg/L	60	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.082	-	-	-
Beryllium	mg/L	<0.005	-	<0.005	-
Cadmium	mg/L	0.002	-	<0.002	-
Calcium	mg/L	8.57	-	-	-
Chloride	mg/L	7.8	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	<0.004	-	0.005	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.12	-	0.18	-
Iron	mg/L	0.097	-	0.304	-
Lead	mg/L	<0.006	-	<0.007	-
Magnesium	mg/L	2.65	-	-	-
Manganese	mg/L	0.348	-	0.098	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	<0.004	-	<0.004	-
Potassium	mg/L	0.140	-	-	-
Selenium	mg/L	<0.002	-	<0.002	-
Silica	mg/L	3.68	-	-	-
Silver	mg/L	<0.0020	-	<0.0020	-
Sodium	mg/L	7.02	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	-	-	0.013	-
NO ₃ (as N)	mg/L	0.08	-	-	-
SO ₄	mg/L	23.5	-	10.0	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.60	-	1.90	-
Tot. Org. Halogen	mg/L	0.005	-	0.019	-
Carbon Tet.	mg/L	-	-	<0.001	-
Chloroform	mg/L	-	-	<0.001	-
Tetrachloroethene	mg/L	-	-	0.001	-
Trichloroethene	mg/L	-	-	0.006	-
1,1,1-TCE	mg/L	-	-	0.002	-
Gross Alpha	pCi/L	<3.0	-	1.2	-
Nonvol. Beta	pCi/L	<2.0	-	-	-
Total Radium	pCi/L	<1.0	-	<1.0	-
Tritium	pCi/mL	10.4	-	-	-

Well: DCB 2A, D-Area Coal Pile Runoff Containment Basin
meters (MSL)

SRP Grid	N 63436.1	Screen Zone Elevation	38.8+29.7
Coordinates E	20855.2	Top of Casing Elevation	40.93
Latitude	33°20'04.7"N	Casing Material	PVC
Longitude	81°34'49.3"W		

Parameter	Units	03/17/87	05/04/87	07/27/87	10/03/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	38.2	38.3	37.8	37.6
pH	pH	4.9	4.9	5.5	5.0
Conductivity	umhos/cm	49	47	52	64
TDS	mg/L	40	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.019	-	-	-
Beryllium	mg/L	<0.005	-	0.005	-
Cadmium	mg/L	<0.002	-	0.002	-
Calcium	mg/L	2.36	-	-	-
Chloride	mg/L	4.1	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	0.073	-	0.140	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.12	-	0.11	-
Iron	mg/L	0.248	-	0.024	-
Lead	mg/L	0.008	-	0.020	-
Magnesium	mg/L	0.971	-	-	-
Manganese	mg/L	0.027	-	0.019	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	0.004	-	0.004	-
Potassium	mg/L	0.850	-	-	-
Selenium	mg/L	<0.002	-	0.002	-
Silica	mg/L	7.05	-	-	-
Silver	mg/L	<0.0020	-	<0.0020	-
Sodium	mg/L	2.75	-	-	-
Total Phosphate	mg/L	0.380	-	-	-
Zinc	mg/L	-	-	0.058	-
NO ₃ (as N)	mg/L	2.12	-	-	-
SO ₄	mg/L	15.0	-	15.0	-
Phenols	mg/L	<0.002	-	<0.002	-
Tot. Org. Carbon	mg/L	1.50	-	11.000	-
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	-	1.8	-
Nonvol. Beta	pCi/L	52.0	-	-	-
Total Radium	pCi/L	0.7	-	1.0	-
Tritium	pCi/mL	4.13	-	-	-

Parameter	Units	03/17/87	05/04/87	07/25/87	10/03/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	36.4	36.4	36.1	36
pH	pH	4.3	4.4	4.2	4.2
Conductivity	umhos/cm	370	375	760	824
TDS	mg/L	398	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.197	-	-	-
Beryllium	mg/L	<0.008	-	<0.010	-
Cadmium	mg/L	<0.002	-	<0.003	-
Calcium	mg/L	81.5	-	-	-
Chloride	mg/L	3.5	-	-	-
Chromium	mg/L	<0.004	-	<0.004	-
Copper	mg/L	0.020	-	0.026	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.71	-	0.77	-
Iron	mg/L	0.136	-	0.083	-
Lead	mg/L	0.007	-	0.013	-
Magnesium	mg/L	30.5	-	-	-
Manganese	mg/L	0.589	-	1.10	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	0.047	-	0.119	-
Potassium	mg/L	1.30	-	-	-
Selenium	mg/L	<0.002	-	<0.002	-
Silica	mg/L	3.79	-	-	-
Silver	mg/L	<0.0020	-	<0.0020	-
Sodium	mg/L	4.13	-	-	-
Total Phosphate	mg/L	0.030	-	-	-
Zinc	mg/L	-	-	0.384	-
NO ₃ (as N)	mg/L	0.82	-	-	-
SO ₄	mg/L	260	-	406	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.00	-	1.40	-
Tot. Org. Halogen	mg/L	0.005	-	0.029	-
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	8.3	-	13.7	-
Nonvol. Beta	pCi/L	5.3	-	-	-
Total Radium	pCi/L	3.2	-	1.0	-
Tritium	pCi/mL	7.75	-	-	-

TABLE 4-21
CHEMICAL CONCENTRATIONS IN D-AREA GROUNDWATER

Well: DCB 5A, D-Area Coal Pile Runoff Containment Basin
 SRF Grid N 63126.1
 Coordinates E 20139.8
 Latitude 33.198228°N
 Longitude 81.736317°W

Parameter	Units	03/17/87	05/04/87	07/25/87	10/03/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	36.4	36.3	36.1	35.9
pH		4.7	3.3	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	0.023	-	<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	3.6	-	3.0	-
Nonvol. Beta	pCi/L	2.0	-	-	-
Total Radium	pCi/L	0.7	-	1.5	-
Tritium	pCi/mL	6.09	-	-	-

Well: DCB 6, D-Area Coal Pile Runoff Containment Basin
 SRF Grid N 64167.9
 Coordinates E 19979.3
 Latitude 33.200198°N
 Longitude 81.738762°W

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	<0.001
Barium	mg/L	0.010
Beryllium	mg/L	-
Cadmium	mg/L	<0.002
Calcium	mg/L	223
Chloride	mg/L	8.1
Chromium	mg/L	0.488
Copper	mg/L	-
Cyanide	mg/L	-
Fluoride	mg/L	4.50
Iron	mg/L	99.1
Lead	mg/L	0.004
Magnesium	mg/L	238
Manganese	mg/L	19.6
Mercury	mg/L	0.0001
Nickel	mg/L	-
Potassium	mg/L	8.16
Selenium	mg/L	0.002
Silica	mg/L	-
Silver	mg/L	0.0110
Sodium	mg/L	28.1
Total Phosphate	mg/L	0.980
Zinc	mg/L	-
NO ₃ (as N)	mg/L	0.21
SO ₄	mg/L	2700
Phenols	mg/L	0.010
Tot. Org. Carbon	mg/L	5.40
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	59.2
Nonvol. Beta	pCi/L	41.2
Total Radium	pCi/L	15.3
Tritium	pCi/mL	5.80

Well: DCB 7, D-Area Coal Pile Runoff Containment Basin
 SRF Grid N 64001.4
 Coordinates E 20036.3
 Latitude 33.199998°N
 Longitude 81.738289°W

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	0.006
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 8, D-Area Coal Pile Runoff Containment Basin
 SRF Grid N 63431.9
 Coordinates E 21014.1
 Latitude 33.200425°N
 Longitude 81.734694°W

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	<0.007
Barium	mg/L	0.014
Beryllium	mg/L	-
Cadmium	mg/L	<0.003
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	0.737
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	meters (MSL)	
Coordinates E	19807.4	Screen Zone Elevation	35.8+29.7
Latitude	33.200039°N	Top of Casing Elevation	37.28
Longitude	81.739259°W	Casing Material	PVC

Parameter

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	ng/L	0.030
Barium	ng/L	0.022
Beryllium	ng/L	-
Cadmium	ng/L	0.004
Calcium	ng/L	166
Chloride	ng/L	7.3
Chromium	ng/L	0.015
Copper	ng/L	-
Cyanide	ng/L	-
Fluoride	ng/L	3.50
Iron	ng/L	18.5
Lead	ng/L	<0.006
Magnesium	ng/L	79.4
Manganese	ng/L	52.7
Mercury	ng/L	0.0009
Nickel	ng/L	-
Potassium	ng/L	4.83
Selenium	ng/L	<0.002
Silica	ng/L	-
Silver	ng/L	0.0080
Sodium	ng/L	14.3
Total Phosphate	mg/L	0.200
Zinc	ng/L	-
NO ₃ (as N)	ng/L	0.87
SO ₄	ng/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	3.80

Well: DCB 11, D-Area Coal Pile Runoff Containment Basin

SRP Grid	N 64638.3	meters (MSL)	
Coordinates E	19248.6	Screen Zone Elevation	38.6+32.6
Latitude	33.200116°N	Top of Casing Elevation	39.80
Longitude	81.741597°W	Casing Material	PVC

Parameter

Parameter	Units	10/06/87
Sampling Method		Pump
Water Elevation	meters	38.6
pH	pH	3.4
Conductivity	umhos/cm	4680
TDS	mg/L	4550
Arsenic	ng/L	0.003
Barium	ng/L	0.048
Beryllium	ng/L	-
Cadmium	ng/L	0.032
Calcium	ng/L	378
Chloride	ng/L	9.3
Chromium	ng/L	0.200
Copper	ng/L	-
Cyanide	ng/L	-
Fluoride	ng/L	0.15
Iron	ng/L	172
Lead	ng/L	0.020
Magnesium	ng/L	159
Manganese	ng/L	9.83
Mercury	ng/L	<0.0002
Nickel	ng/L	-
Potassium	ng/L	109
Selenium	ng/L	<0.002
Silica	ng/L	-
Silver	ng/L	0.0090
Sodium	ng/L	63.2
Total Phosphate	mg/L	0.080
Zinc	ng/L	-
NO ₃ (as N)	ng/L	0.28
SO ₄	ng/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 63801.1	meters (MSL)	
Coordinates E	19852.3	Screen Zone Elevation	36.5+30.4
Latitude	33.199155°N	Top of Casing Elevation	37.76
Longitude	81.738087°W	Casing Material	PVC

Parameter

Parameter	Units	10/06/87
Sampling Method		Pump
Water Elevation	meters	34.7
pH	pH	2.6
Conductivity	umhos/cm	3580
TDS	mg/L	3100
Arsenic	ng/L	0.024
Barium	ng/L	0.013
Beryllium	ng/L	-
Cadmium	ng/L	0.007
Calcium	ng/L	88.7
Chloride	ng/L	3.3
Chromium	ng/L	0.076
Copper	ng/L	-
Cyanide	ng/L	-
Fluoride	ng/L	3.70
Iron	ng/L	77.0
Lead	ng/L	<0.006
Magnesium	ng/L	82.6
Manganese	ng/L	9.05
Mercury	ng/L	<0.0002
Nickel	ng/L	-
Potassium	ng/L	1.03
Selenium	ng/L	<0.002
Silica	ng/L	-
Silver	ng/L	0.0060
Sodium	ng/L	8.50
Total Phosphate	mg/L	0.180
Zinc	ng/L	-
NO ₃ (as N)	ng/L	0.52
SO ₄	ng/L	1540
Phenols	mg/L	<0.005
Tot. Org. Carbon	mg/L	1.20
Tot. Org. Halogen	mg/L	0.041
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 1a, D-Area Coal Pile Runoff Containment Basin

SRP Grid	N 65150.0	meters (MSL)	
Coordinates E	18519.8	Screen Zone Elevation	34.1+28.0
Latitude	33.200073°N	Top of Casing Elevation	35.63
Longitude	81.744481°W	Casing Material	PVC

Parameter

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	ng/L	<0.003
Barium	ng/L	0.049
Beryllium	ng/L	-
Cadmium	ng/L	<0.002
Calcium	ng/L	3.81
Chloride	ng/L	10.7
Chromium	ng/L	<0.004
Copper	ng/L	-
Cyanide	ng/L	-
Fluoride	ng/L	0.21
Iron	ng/L	0.025
Lead	ng/L	<0.006
Magnesium	ng/L	0.656
Manganese	ng/L	0.023
Mercury	ng/L	<0.0002
Nickel	ng/L	-
Potassium	ng/L	1.32
Selenium	ng/L	<0.002
Silica	ng/L	-
Silver	ng/L	<0.0020
Sodium	ng/L	15.4
Total Phosphate	mg/L	-
Zinc	ng/L	-
NO ₃ (as N)	ng/L	1.68
SO ₄	ng/L	15.0
Phenols	mg/L	<0.003
Tot. Org. Carbon	mg/L	<0.003
Tot. Org. Halogen	mg/L	3.80
Carbon Tet.	mg/L	0.093
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	1.5
Total Radium	pCi/L	0.5
Tritium	pCi/mL	216

TABLE 4-21
CHEMICAL CONCENTRATIONS IN D-AREA GROUNDWATER

Other Analytes (mg/L)					Well: DOB 2, D-Area Oil Disposal Basin					meters (MSL)	
(Pest/Herb* Analytes: Table 4-25, Vol. II)					SRP Grid	N 68568.0	Screen Zone Elevation	44.3-35.1			
					Coordinates E 23340.8						
					Latitude	33.215486°N	Top of Casing Elevation	46.39			
					Longitude	81.738472°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	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	-	-	0.297						
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					Well: DOB 3, D-Area Oil Disposal Basin					meters (MSL)	
					SRP Grid	N 68438.1	Screen Zone Elevation	44.3-35.0			
					Coordinates E 23367.8						
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	44.2	43.3	42.5						
pH		6.0	6.0	6.8	5.5						
Conductivity	umhos/cm	100	93	178	130						
TDS	mg/L	64	-	-	-						
Arsenic	mg/L	<0.002	-	-	-						
Barium	mg/L	0.013	-	-	-						
Beryllium	mg/L	-	-	-	-						
Cadmium	mg/L	<0.002	-	-	-						
Calcium	mg/L	5.41	-	-	-						
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	5.90	-	12.1	-						
Tot. Org. Halogen	mg/L	0.013	-	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	-	-	-						

TABLE 4-21
CHEMICAL CONCENTRATIONS IN D-AREA GROUNDWATER

Well: DOB 4, D-Area Oil Disposal Basin

SRP Grid	N 68514.4		meters (MSL)	
Coordinates E	23815.6	Screen Zone Elevation	42.4-33.3	
Latitude	33.21614°N	Top of Casing Elevation	46.63	
Longitude	81.73719°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

Well: LPW 6, Sanitary Landfill

Parameter	Units	meters (MSL)			
		01/08/87	05/07/87	08/06/87	10/31/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	46.5	46.8	46.7	46.5
pH	6.5	6.5	7.1	6.7	
Conductivity	umhos/cm	200	380	380	260
TDS	mg/L	66	-	-	-
Arsenic	mg/L	<0.002	-	<0.003	<0.002
Barium	mg/L	0.008	-	0.008	-
Beryllium	mg/L	-	-	<0.005	-
Cadmium	mg/L	0.003	<0.002	0.013	<0.002
Calcium	mg/L	3.67	-	6.88	-
Chloride	mg/L	9.9	-	23.8	-
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	<0.004	-
Cyanide	mg/L	-	-	<0.005	<0.005
Fluoride	mg/L	0.27	-	-	-
Iron	mg/L	15.0	-	45.9	-
Lead	mg/L	0.008	<0.006	<0.006	<0.006
Magnesium	mg/L	3.97	-	12.6	-
Manganese	mg/L	0.012	-	0.027	-
Mercury	mg/L	<0.0002	-	<0.0002	<0.0002
Nickel	mg/L	-	-	<0.004	-
Potassium	mg/L	1.07	-	1.68	-
Selenium	mg/L	<0.002	-	<0.002	<0.002
Silica	mg/L	2.62	-	-	-
Silver	mg/L	<0.0030	-	<0.0020	<0.0020
Sodium	mg/L	8.02	-	1.44	-
Total Phosphate	mg/L	0.032	-	0.040	0.130
Zinc	mg/L	-	-	<0.043	-
NO ₃ (as N)	mg/L	0.10	-	0.41	0.45
SO ₄	mg/L	3.0	-	5.0	<5.0
Phenols	mg/L	<0.002	0.026	0.008	0.011
Tot. Org. Carbon	mg/L	7.60	6.00	6.00	7.50
Tot. Org. Halogen	mg/L	0.100	0.425	0.369	0.193
Carbon Tet.	mg/L	-	<0.001	<0.001	<0.005
Chloroform	mg/L	-	<0.001	<0.001	<0.005
Tetrachloroethene	mg/L	-	<0.001	<0.001	<0.005
Trichloroethene	mg/L	-	<0.004	<0.003	<0.005
1,1,1-TCE	mg/L	-	<0.001	<0.001	<0.005
Gross Alpha	pCi/L	2.8	-	3.0	-
Nonvol. Beta	pCi/L	6.0	-	5.6	-
Total Radium	pCi/L	1.7	-	2.1	-
Tritium	pCi/mL	-	21.9	17.4	-

Well: LPW 8, Sanitary Landfill

Parameter	Units	meters (MSL)			
		01/12/87	05/07/87	08/06/87	10/31/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	45.5	45.7	45.7	45.4
pH	6.8	6.8	7.3	6.9	
Conductivity	umhos/cm	650	510	500	480
TDS	mg/L	240	-	-	-
Arsenic	mg/L	0.014	-	0.015	0.009
Barium	mg/L	0.005	-	0.005	-
Beryllium	mg/L	-	-	-	<0.005
Cadmium	mg/L	0.007	<0.002	<0.002	<0.002
Calcium	mg/L	8.47	-	11.4	-
Chloride	mg/L	38.4	-	28.1	-
Chromium	mg/L	<0.004	<0.004	<0.004	0.064
Copper	mg/L	-	-	-	<0.004
Cyanide	mg/L	-	-	<0.005	<0.005
Fluoride	mg/L	0.18	-	-	0.51
Iron	mg/L	90.3	-	96.8	-
Lead	mg/L	0.017	<0.006	0.011	0.008
Magnesium	mg/L	12.0	-	19.4	-
Manganese	mg/L	0.074	-	0.046	-
Mercury	mg/L	<0.0002	-	<0.0002	<0.0002
Nickel	mg/L	-	-	-	<0.004
Potassium	mg/L	1.51	-	1.16	-
Selenium	mg/L	<0.002	-	<0.002	<0.002
Silica	mg/L	1.63	-	-	-
Silver	mg/L	<0.0020	-	<0.0020	<0.0020
Sodium	mg/L	36.4	-	24.9	-
Total Phosphate	mg/L	0.012	-	0.040	<0.020
Zinc	mg/L	-	-	-	0.122
NO ₃ (as N)	mg/L	<0.05	-	0.36	0.40
SO ₄	mg/L	<3.0	-	<5.0	<5.0
Phenols	mg/L	0.025	0.051	0.101	0.035
Tot. Org. Carbon	mg/L	9.00	29.0	50.0	25.0
Tot. Org. Halogen	mg/L	0.320	0.685	0.593	0.329
Carbon Tet.	mg/L	-	<0.001	<0.001	<0.005
Chloroform	mg/L	-	<0.001	<0.001	<0.005
Tetrachloroethene	mg/L	-	<0.001	<0.001	<0.005
Trichloroethene	mg/L	-	<0.004	0.007	<0.005
1,1,1-TCE	mg/L	-	<0.001	<0.001	<0.005
Gross Alpha	pCi/L	4.6	-	3.0	-
Nonvol. Beta	pCi/L	7.7	-	9.0	-
Total Radium	pCi/L	4.3	-	1.3	-
Tritium	pCi/mL	96.1	-	18.6	-

Well: LPW 7, Sanitary Landfill

Parameter	Units	meters (MSL)			
		01/08/87	05/07/87	08/06/87	10/31/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	46	46.3	46	46
pH	6.5	6.9	7.3	7.0	
Conductivity	umhos/cm	390	505	500	570
TDS	mg/L	180	-	-	-
Arsenic	mg/L	0.015	-	0.023	0.018
Barium	mg/L	0.022	-	0.018	-
Beryllium	mg/L	-	-	<0.003	-
Cadmium	mg/L	<0.002	<0.002	<0.002	0.002
Calcium	mg/L	17.4	-	15.1	-
Chloride	mg/L	27.6	-	37.3	-
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	-	-	<0.004	-
Cyanide	mg/L	-	-	0.012	<0.003
Fluoride	mg/L	0.33	-	-	0.43
Iron	mg/L	61.1	-	55.5	-
Lead	mg/L	<0.006	0.007	<0.006	0.008
Magnesium	mg/L	17.2	-	22.8	-
Manganese	mg/L	0.033	-	0.039	-
Mercury	mg/L	<0.0002	-	<0.0001	<0.0001
Nickel	mg/L	-	-	<0.004	-
Potassium	mg/L	2.84	-	1.93	-
Selenium	mg/L	<0.002	-	<0.002	0.002
Silica	mg/L	1.74	-	-	-
Silver	mg/L	<0.0020	-	<0.0020	<0.0020
Sodium	mg/L	21.9	-	38.9	-
Total Phosphate	mg/L	0.057	-	0.080	0.010
Zinc	mg/L	-	-	<0.052	-
NO ₃ (as N)	mg/L	<0.05	-	0.39	0.44
SO ₄	mg/L	<3.0	-	5.0	<5.0
Phenols	mg/L	0.022	0.018	0.030	0.018
Tot. Org. Carbon	mg/L	28.5	8.00	16.0	11.5
Tot. Org. Halogen	mg/L	0.270	0.320	0.573	0.517
Carbon Tet.	mg/L	-	<0.001	<0.001	<0.005
Chloroform	mg/L	-	<0.001	<0.001	<0.005
Tetrachloroethene	mg/L	-	<0.001	<0.001	<0.005
Trichloroethene	mg/L	-	<0.002	<0.028	<0.003
1,1,1-TCE	mg/L	-	<0.001	<0.001	<0.001
Gross Alpha	pCi/L	28.6	-	33.0	-
Nonvol. Beta	pCi/L	23.9	-	7.2	-
Total Radium	pCi/L	6.7	-	2.1	-
Tritium	pCi/mL	-	16.7	31.1	-

Well: LPW 10A, Sanitary Landfill

Parameter	Units	meters (MSL)			
		02/21/87	05/07/87	08/05/87	10/25/87
Sampling Method	Pump	Pump	Pump	Pump	Pump
Water Elevation	meters	46.5	46.4	46.1	45.9
pH	6.8	5.0	4.7	5.6	
Conductivity	umhos/cm	18	18	18	20
TDS	mg/L	50	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	0.467	-	-	-
Chloride	mg/L	2.7	-	3.0	-
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	<0.020	-	0.940	-
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.514	-	-	-
Manganese	mg/L	<0.002	-	0.008	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.290	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.29	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	0.88	-	-	-
Total Phosphate	mg/L	0.027	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.29	-	-	-
SO ₄	mg/L	8.5	-	<5.0	-
Phenols	mg/L	0.005	<0.005	-	-
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	<0.005	<0.005	<0.005	<0.020
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	2.4	-	3.6	-
Nonvol. Beta	pCi/L	5.9	-	4.8	-
Total Radium	pCi/L	1.8	-	2.6	-
Tritium	pCi/mL	9.61	-	5.60	-

TABLE 4-22
CHEMICAL CONCENTRATIONS IN SANITARY LANDFILL GROUNDWATER

Well LPW 16, Sanitary Landfill

SRP Grid N 84748.9
 Coordinates E 45452.6
 Latitude 33.286018°N
 Longitude 81.710686°W

Screen Zone Elevation 48.0-39.9
 Top of Casing Elevation 54.50
 Casing Material PVC

Parameter	Units	01/12/87	05/10/87	08/05/87	10/25/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	46.6	47.4	46.6	46.7
pH		4.8	4.7	4.8	5.2
Conductivity	umhos/cm	38	30	28	28
TDS	mg/L	60	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.006	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	0.002	<0.002	<0.002	<0.002
Calcium	mg/L	0.580	-	-	-
chloride	mg/L	2.3	-	3.4	-
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	0.246	-	0.184	-
Lead	mg/L	0.009	0.006	0.011	0.007
Magnesium	mg/L	0.850	-	-	-
Manganese	mg/L	0.002	-	0.038	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.418	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.97	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.23	-	-	-
Total Phosphate	mg/L	0.027	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.50	-	-	-
SO ₄	mg/L	3.0	-	5.0	-
Phenols	mg/L	0.002	0.003	-	-
Tot. Org. Carbon	mg/L	1.000	1.000	1.00	1.000
Tot. Org. Halogen	mg/L	0.010	0.016	0.019	0.027
Carbon Tet.	mg/L	-	<0.001	<0.001	-
Chloroform	mg/L	-	<0.001	<0.001	-
Tetrachloroethene	mg/L	-	0.002	0.001	-
Trichloroethene	mg/L	-	<0.001	<0.001	-
1,1,1-TCE	mg/L	-	<0.007	0.008	-
Gross Alpha	pCi/L	2.0	-	2.1	-
Nonvol. Beta	pCi/L	3.6	-	4.4	-
Total Radium	pCi/L	1.7	-	0.9	-
Tritium	pCi/mL	5.20	-	0.70	-

Well LPW 17, Sanitary Landfill

SRP Grid N 84607.8
 Coordinates E 45460.7
 Latitude 33.287293°N
 Longitude 81.71048°W

Screen Zone Elevation 48.2-39.0
 Top of Casing Elevation 54.19
 Casing Material PVC

Parameter	Units	01/12/87	05/10/87	08/05/87	10/25/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	46.8	47.9	46.9	46.6
pH		6.8	6.6	6.6	6.6
Conductivity	umhos/cm	405	400	380	440
TDS	mg/L	84	-	-	-
Arsenic	mg/L	0.008	-	0.032	0.007
Barium	mg/L	0.003	-	0.006	-
Beryllium	mg/L	-	-	-	<0.005
Cadmium	mg/L	0.014	<0.002	0.002	<0.002
Calcium	mg/L	3.77	-	8.72	-
Chloride	mg/L	21.4	-	19.6	-
Chromium	mg/L	<0.004	<0.004	0.056	<0.004
Copper	mg/L	-	-	-	0.004
Cyanide	mg/L	-	-	<0.005	<0.005
Fluoride	mg/L	0.10	-	-	0.33
Iron	mg/L	10.0	-	74.1	-
Lead	mg/L	0.010	0.007	0.004	0.009
Magnesium	mg/L	0.960	-	13.0	-
Manganese	mg/L	0.048	-	0.046	-
Mercury	mg/L	<0.0002	-	<0.0002	<0.0001
Nickel	mg/L	-	-	-	<0.004
Potassium	mg/L	0.481	-	0.558	-
Selenium	mg/L	<0.002	-	0.002	<0.002
Silica	mg/L	1.89	-	-	-
Silver	mg/L	<0.0020	-	0.0020	<0.0020
Sodium	mg/L	18.5	-	16.3	-
Total Phosphate	mg/L	0.017	-	0.040	0.040
Zinc	mg/L	-	-	0.037	-
NO ₃ (as N)	mg/L	0.15	-	0.13	-
SO ₄	mg/L	3.0	-	16.0	15.0
Phenols	mg/L	0.035	0.047	0.101	0.086
Tot. Org. Carbon	mg/L	10.8	14.0	48.0	11.0
Tot. Org. Halogen	mg/L	0.193	0.170	0.441	0.187
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	-	<0.003	0.008	<0.005
1,1,1-TCE	mg/L	-	<0.001	0.003	<0.005
Gross Alpha	pCi/L	13.0	-	13.0	-
Nonvol. Beta	pCi/L	4.3	-	2.0	-
Total Radium	pCi/L	1.1	-	1.5	-
Tritium	pCi/mL	7.10	-	9.70	-

Well LPW 18, Sanitary Landfill

SRP Grid N 84577.3
 Coordinates E 45459.4
 Latitude 33.286997°N
 Longitude 81.711188°W

Screen Zone Elevation 48.6-39.5
 Top of Casing Elevation 53.46
 Casing Material PVC

Parameter	Units	01/14/87	05/10/87	08/05/87	10/25/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	46.9	47.2	46.9	46.6
pH		6.3	6.8	7.1	6.6
Conductivity	umhos/cm	360	300	260	370
TDS	mg/L	90	-	-	-
Arsenic	mg/L	0.014	-	0.013	0.013
Barium	mg/L	0.004	-	0.005	-
Beryllium	mg/L	-	-	-	<0.005
Cadmium	mg/L	0.004	<0.002	<0.002	0.002
Calcium	mg/L	4.75	-	5.84	-
Chloride	mg/L	22.4	-	19.4	-
Chromium	mg/L	0.004	0.004	0.004	0.004
Copper	mg/L	-	-	-	<0.004
Cyanide	mg/L	-	-	<0.005	<0.005
Fluoride	mg/L	0.17	-	-	0.39
Iron	mg/L	27.7	-	46.7	-
Lead	mg/L	0.006	<0.006	<0.006	0.006
Magnesium	mg/L	8.41	-	8.84	-
Manganese	mg/L	0.028	-	0.032	-
Mercury	mg/L	<0.0002	-	<0.0002	0.0002
Nickel	mg/L	-	-	-	<0.004
Potassium	mg/L	1.21	-	1.02	-
Selenium	mg/L	<0.002	-	<0.002	0.002
Silica	mg/L	2.19	-	-	-
Silver	mg/L	<0.0020	-	<0.0020	0.0020
Sodium	mg/L	19.1	-	14.2	-
Total Phosphate	mg/L	0.030	-	0.040	0.030
Zinc	mg/L	-	-	-	0.213
NO ₃ (as N)	mg/L	0.10	-	0.42	0.53
SO ₄	mg/L	3.9	-	5.0	5.0
Phenols	mg/L	0.016	0.040	0.032	0.038
Tot. Org. Carbon	mg/L	6.10	17.0	13.0	8.20
Tot. Org. Halogen	mg/L	0.220	0.204	0.365	0.187
Carbon Tet.	mg/L	-	<0.001	<0.001	0.005
Chloroform	mg/L	-	<0.001	<0.001	0.005
Tetrachloroethene	mg/L	-	<0.001	<0.001	0.003
Trichloroethene	mg/L	-	<0.001	<0.001	0.003
1,1,1-TCE	mg/L	-	<0.001	<0.001	0.005
Gross Alpha	pCi/L	3.0	-	0.30	-
Nonvol. Beta	pCi/L	3.5	-	3.4	-
Total Radium	pCi/L	2.1	-	1.3	-
Tritium	pCi/mL	83.0	-	3.40	-

Well LPW 19, Sanitary Landfill

SRP Grid N 84817.2
 Coordinates E 451135.4
 Latitude 33.286998°N
 Longitude 81.711201°W

Screen Zone Elevation 48.7-39.5
 Top of Casing Elevation 53.88
 Casing Material PVC

Parameter	Units	01/14/87	05/07/87	08/08/87	10/25/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	47.1	47.5	47.1	47
pH		4.7	5.1	5.1	5.6
Conductivity	umhos/cm	30	22	22	18
TDS	mg/L	10	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	0.002	0.004	0.002
Calcium	mg/L	0.566	-	-	-
Chloride	mg/L	2.3	-	2.8	-
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	0.093	-	0.130	-
Lead	mg/L	<0.006	0.006	0.006	0.008
Magnesium	mg/L	0.693	-	-	-
Manganese	mg/L	<0.002	0.002	0.003	-
Mercury	mg/L	<0.002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.487	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	1.87	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.78	-	-	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.32	-	-	-
SO ₄	mg/L	3.9	-	5.0	-
Phenols	mg/L	<0.002	0.003	-	-
Tot. Org. Carbon	mg/L	1.000	1.000	1.000	1.000
Tot. Org. Halogen	mg/L	0.003	0.003	0.003	0.003
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	2.4	-	2.2	-
Nonvol. Beta	pCi/L	2.8	-	4.8	-
Total Radium	pCi/L	2.0	-	1.1	-
Tritium	pCi/mL	4.00	-	4.50	-

TABLE 4-22
CHEMICAL CONCENTRATIONS IN SANITARY LANDFILL GROUNDWATER

Well: LPW 20, Sanitary Landfill

SRP Grid	N 85262.6	Screen Zone Elevation	50.1-41.0	meters (MSL)
Coordinates	E 45582.9	Top of Casing Elevation	55.14	
Latitude	33.288714°N	Casing Material	PVC	
Longitude	81.712395°W			

Parameter	Units	01/14/87	05/07/87	08/08/87	10/23/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	48	48.6	48.1	48
pH		4.0	5.0	5.2	5.1
Conductivity	umhos/cm	26	18	12	16
TDS	mg/L	14	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.005	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	0.251	-	-	-
Chloride	mg/L	2.9	-	2.7	-
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	-	0.059	-
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.330	-	-	-
Manganese	mg/L	<0.002	-	0.003	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.200	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	2.56	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	0.92	-	-	-
Total Phosphate	mg/L	<0.020	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.28	-	-	-
SO ₄	mg/L	<3.0	-	<5.0	-
Phenols	mg/L	<0.002	<0.005	-	-
Tot. Org. Carbon	mg/L	1.10	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	<0.005	<0.005	<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	1.3	-	13.0	-
Nonvol. Beta	pCi/L	2.5	-	3.8	-
Total Radium	pCi/L	2.1	-	1.0	-
Tritium	pCi/mL	4.30	-	4.10	-

Well: LPW 21, Sanitary Landfill

SRP Grid	N 84178.3	Screen Zone Elevation	48.6-39.5	meters (MSL)
Coordinates	E 46149.4	Top of Casing Elevation	53.10	
Latitude	33.287241°N	Casing Material	PVC	
Longitude	81.708795°W			

Parameter	Units	01/14/87	05/10/87	08/08/87	10/31/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	43.8	46.1	45.9	45.3
pH		3.7	4.7	5.1	5.3
Conductivity	umhos/cm	23	16	21	23
TDS	mg/L	15	-	-	-
Arsenic	mg/L	<0.002	-	<0.002	<0.002
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	-	-	<0.005	<0.005
Cadmium	mg/L	0.004	<0.002	<0.002	<0.002
Calcium	mg/L	0.210	-	-	-
Chloride	mg/L	3.3	-	2.8	-
Chromium	mg/L	<0.004	<0.004	0.004	0.004
Copper	mg/L	-	-	<0.008	<0.004
Cyanide	mg/L	-	-	<0.003	<0.003
Fluoride	mg/L	<0.10	-	0.14	0.16
Iron	mg/L	0.038	-	0.052	-
Lead	mg/L	<0.006	<0.006	0.006	0.009
Magnesium	mg/L	0.269	-	-	-
Manganese	mg/L	<0.002	-	0.008	-
Mercury	mg/L	<0.0002	-	<0.0002	<0.0005
Nickel	mg/L	-	-	<0.004	<0.004
Potassium	mg/L	0.258	-	-	-
Selenium	mg/L	<0.002	-	<0.002	<0.002
Silica	mg/L	3.02	-	-	-
Silver	mg/L	<0.0010	-	<0.0020	<0.0020
Sodium	mg/L	0.94	-	-	-
Total Phosphate	mg/L	<0.020	-	<0.020	<0.010
Zinc	mg/L	-	-	0.012	0.199
NO ₃ (as N)	mg/L	0.10	-	1.03	0.97
SO ₄	mg/L	<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	<0.034	0.379	0.281	0.631
Carbon Tet.	mg/L	-	<0.001	<0.001	<0.003
Chloroform	mg/L	-	<0.001	<0.001	<0.003
Tetrachloroethene	mg/L	-	<0.001	<0.001	<0.001
Trichloroethene	mg/L	-	<0.002	<0.004	<0.005
1,1,1-TCE	mg/L	-	0.013	0.012	<0.005
Gross Alpha	pCi/L	1.0	-	13.0	-
Nonvol. Beta	pCi/L	1.1	-	3.1	-
Total Radium	pCi/L	1.4	-	0.8	-
Tritium	pCi/mL	5.80	-	5.70	-

Well: LPW 22, Sanitary Landfill

SRP Grid	N 84223.6	Screen Zone Elevation	46.4-37.2	meters (MSL)
Coordinates	E 46325.2	Top of Casing Elevation	53.09	
Latitude	33.287628°N	Casing Material	PVC	
Longitude	81.708421°W			

Parameter	Units	01/14/87	05/10/87	08/08/87	10/15/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	45.6	46.1	45.6	45.3
pH		3.8	4.7	5.2	5.3
Conductivity	umhos/cm	29	17	20	19
TDS	mg/L	<5	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.004	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	0.257	-	-	-
Chloride	mg/L	2.5	-	3.1	-
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	0.047	-	0.048	-
Lead	mg/L	0.012	0.006	0.006	0.006
Magnesium	mg/L	0.335	-	-	-
Manganese	mg/L	<0.002	-	0.002	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.320	-	-	-
Selenium	mg/L	<0.003	-	-	-
Silica	mg/L	3.12	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.74	-	-	-
Total Phosphate	mg/L	<0.020	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	0.12	-	-	-
SO ₄	mg/L	<3.0	-	<5.0	-
Phenols	mg/L	<0.002	<0.005	-	-
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	0.015	0.009	0.012	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	-	<0.001	<0.001	-
1,1,1-TCE	mg/L	-	<0.001	<0.001	-
Gross Alpha	pCi/L	1.1	-	<3.0	-
Nonvol. Beta	pCi/L	1.6	-	<2.0	-
Total Radium	pCi/L	1.5	-	0.8	-
Tritium	pCi/mL	5.00	-	4.90	-

TABLE 4-22
CHEMICAL CONCENTRATIONS IN SANITARY LANDFILL GROUNDWATER

Well: LPW 24, Sanitary Landfill

SRP Grid N 84544.2
 Coordinates E 45620.8
 Latitude 33.288657°N
 Longitude 81.708529°W

Parameter	Units	01/14/87	05/10/87	08/08/87	10/25/87	meters (MSL)
Sampling Method	Pump	Pump	Pump	Pump		
Water Elevation	meters	46.5	46.8	46.5	46.1	47.0-37.9
pH	-	4.0	4.9	4.4	5.5	
Conductivity	umhos/cm	26	16	22	16	
TDS	mg/L	<5	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	<0.006	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	<0.002	0.004	<0.002	
Calcium	mg/L	0.371	-	-	-	
Chloride	mg/L	2.7	-	2.9	-	
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	0.046	-	0.047	-	
Lead	mg/L	0.009	0.008	0.008	0.011	
Magnesium	mg/L	0.398	-	-	-	
Manganese	mg/L	<0.001	-	0.006	-	
Mercury	mg/L	<0.0002	-	-	-	
Nickel	mg/L	-	-	-	-	
Potassium	mg/L	0.536	-	-	-	
Selenium	mg/L	<0.002	-	-	-	
Silica	mg/L	2.81	-	-	-	
Silver	mg/L	<0.0020	-	-	-	
Sodium	mg/L	129	-	-	-	
Total Phosphate	mg/L	<0.020	-	-	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	0.44	-	-	-	
SO ₄	mg/L	3.0	-	<5.0	-	
Phenols	mg/L	<0.002	<0.003	-	-	
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	<1.000	
Tot. Org. Halogen	mg/L	<0.005	0.010	<0.005	<0.005	
Carbon Tetr.	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	1.9	-	1.4	-	
Nonvol. Beta	pCi/L	4.9	-	2.5	-	
Total Radium	pCi/L	1.7	-	1.4	-	
Tritium	pCi/mL	5.00	-	2.80	-	

Well: LPW 26, Sanitary Landfill

Parameter	Units	02/18/87	05/09/87	08/08/87	10/23/87	meters (MSL)
Sampling Method	Pump	Pump	Pump	Pump		
Water Elevation	meters	49	49.3	48.9	48.8	50.3-33.9
pH	-	4.9	5.0	4.8	5.3	
Conductivity	umhos/cm	14	16	14	15	
TDS	mg/L	18	-	-	-	
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002	
Barium	mg/L	<0.005	0.004	<0.004	0.004	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	0.021	<0.002	<0.002	
Calcium	mg/L	0.656	0.252	1.30	1.11	
Chloride	mg/L	2.5	2.0	2.7	1.8	
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004	
Copper	mg/L	0.004	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	<0.10	0.31	<0.10	0.12	
Iron	mg/L	0.006	0.053	0.025	0.035	
Lead	mg/L	<0.006	<0.006	<0.006	<0.006	
Magnesium	mg/L	0.213	0.245	0.302	0.283	
Manganese	mg/L	<0.002	<0.002	0.002	0.002	
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	
Nickel	mg/L	<0.004	-	-	-	
Potassium	mg/L	0.190	0.050	0.500	0.230	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	
Silica	mg/L	2.49	2.43	2.48	-	
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	
Sodium	mg/L	1.61	1.67	1.20	1.16	
Total Phosphate	mg/L	<0.010	0.050	0.040	<0.020	
Zinc	mg/L	0.010	-	-	-	
NO ₃ (as N)	mg/L	0.14	0.10	0.48	0.54	
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	<1.000	<1.000	<1.000	<1.000	
Tot. Org. Halogen	mg/L	<0.005	0.005	0.015	<0.005	
Carbon Tetr.	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	<3.0	1.8	2.3	
Nonvol. Beta	pCi/L	2.0	<2.0	1.9	2.0	
Total Radium	pCi/L	0.6	<1.4	0.6	0.8	
Tritium	pCi/mL	3.71	-	4.80	4.50	

Well: LPW 25, Sanitary Landfill

SRP Grid N 84567.2
 Coordinates E 45625.7
 Latitude 33.289437°N
 Longitude 81.709602°W

Parameter	Units	01/14/87	05/10/87	08/08/87	10/25/87	meters (MSL)
Sampling Method	Pump	Pump	Pump	Pump		
Water Elevation	meters	47.1	47.9	47.3	46.8	46.6-37.4
pH	-	3.8	4.7	4.3	5.5	
Conductivity	umhos/cm	28	18	20	18	
TDS	mg/L	22	-	-	-	
Arsenic	mg/L	<0.002	-	-	-	
Barium	mg/L	<0.004	-	-	-	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	<0.002	0.007	<0.002	
Calcium	mg/L	0.298	-	-	-	
Chloride	mg/L	2.5	-	2.6	-	
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	0.036	-	0.042	-	
Lead	mg/L	0.008	<0.008	0.006	0.008	
Magnesium	mg/L	0.552	-	-	-	
Manganese	mg/L	<0.002	-	0.041	-	
Mercury	mg/L	<0.0002	-	-	-	
Nickel	mg/L	-	-	-	-	
Potassium	mg/L	0.278	-	-	-	
Selenium	mg/L	<0.002	-	-	-	
Silica	mg/L	2.92	-	-	-	
Silver	mg/L	<0.0020	-	-	-	
Sodium	mg/L	1.16	-	-	-	
Total Phosphate	mg/L	0.020	-	-	-	
Zinc	mg/L	-	-	-	-	
NO ₃ (as N)	mg/L	0.63	-	-	-	
SO ₄	mg/L	3.0	-	<5.0	-	
Phenols	mg/L	<0.002	<0.003	-	-	
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	<1.000	
Tot. Org. Halogen	mg/L	<0.005	0.006	<0.005	<0.005	
Carbon Tetr.	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	-	3.2	-	
Nonvol. Beta	pCi/L	11.0	-	6.4	-	
Total Radium	pCi/L	4.0	-	2.3	-	
Tritium	pCi/mL	4.20	-	4.80	-	

Well: LPW 27, Sanitary Landfill

Parameter	Units	02/18/87	05/09/87	08/08/87	11/03/87	meters (MSL)
Sampling Method	Pump	Pump	Pump	Pump		
Water Elevation	meters	49.2	49.3	49.3	49.3	49.9-43.5
pH	-	5.1	5.0	4.7	5.9	
Conductivity	umhos/cm	18	18	18	18	
TDS	mg/L	16	-	-	-	
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002	
Barium	mg/L	0.010	0.007	0.007	0.007	
Beryllium	mg/L	-	-	-	-	
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002	
Calcium	mg/L	1.33	0.481	1.90	4.28	
Chloride	mg/L	2.3	2.1	2.8	2.3	
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004	
Copper	mg/L	0.006	-	-	-	
Cyanide	mg/L	-	-	-	-	
Fluoride	mg/L	<0.10	0.39	<0.10	0.32	
Iron	mg/L	0.011	0.071	0.044	0.044	
Lead	mg/L	<0.008	<0.008	<0.008	<0.008	
Magnesium	mg/L	0.350	0.324	0.370	0.391	
Manganese	mg/L	0.005	0.004	0.006	0.007	
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	
Nickel	mg/L	<0.004	-	-	-	
Potassium	mg/L	0.280	0.140	0.500	0.500	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	
Silica	mg/L	2.74	2.83	2.82	-	
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	
Sodium	mg/L	1.19	1.24	1.30	1.24	
Total Phosphate	mg/L	<0.010	0.030	<0.020	<0.020	
Zinc	mg/L	0.035	-	-	-	
NO ₃ (as N)	mg/L	0.34	0.15	0.54	0.84	
SO ₄	mg/L	5.0	<3.0	<3.0	<3.0	
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005	
Tot. Org. Carbon	mg/L	1.00	<1.000	<1.000	<1.000	
Tot. Org. Halogen	mg/L	0.007	<0.005	<0.005	<0.005	
Carbon Tetr.	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	<3.0	3.0	3.0	
Nonvol. Beta	pCi/L	2.0	<2.0	1.4	1.4	
Total Radium	pCi/L	1.0	<1.0	1.0	1.0	
Tritium	pCi/mL	3.64	-	6.50	7.20	

TABLE 4-22
CHEMICAL CONCENTRATIONS IN SANITARY LANDFILL GROUNDWATER

Well: LPW 28, Sanitary Landfill				Well: LPW 30, Sanitary Landfill							
Parameter	Units	01/18/87	05/09/87	08/08/87	10/25/87	Parameter	Units	01/18/87	05/09/87	08/08/87	10/31/87
Sampling Method		Pump	Pump	Pump	Pump	Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	49.5	49.9	49.3	49.2	Water Elevation	meters	49.7	50.5	50.1	49.9
pH		5.6	5.7	5.4	6.0	pH		6.8	6.2	6.3	6.9
Conductivity	umhos/cm	30	42	26	23	Conductivity	umhos/cm	61	52	36	38
TDS	mg/L	18	-	-	-	TDS	mg/L	58	-	-	-
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002	Arsenic	mg/L	0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.018	0.012	0.013	0.011	Barium	mg/L	0.007	0.008	0.007	0.007
Beryllium	mg/L	-	-	-	-	Beryllium	mg/L	-	-	-	0.005
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002	Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	2.43	2.16	3.63	1.86	Calcium	mg/L	9.84	7.41	4.68	4.48
Chloride	mg/L	2.3	2.2	2.4	1.7	Chloride	mg/L	1.8	1.4	1.7	1.1
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004	Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	0.004	-	-	-	Copper	mg/L	0.004	-	-	<0.004
Cyanide	mg/L	-	-	-	-	Cyanide	mg/L	-	-	<0.005	<0.005
Fluoride	mg/L	<0.10	0.19	<0.10	0.13	Fluoride	mg/L	<0.10	0.16	0.17	0.23
Iron	mg/L	0.029	0.077	0.066	0.300	Iron	mg/L	0.012	0.042	0.070	0.122
Lead	mg/L	<0.006	<0.006	<0.006	0.010	Lead	mg/L	<0.006	<0.006	<0.006	0.012
Magnesium	mg/L	0.497	0.558	0.490	0.395	Magnesium	mg/L	0.138	0.470	0.546	0.506
Manganese	mg/L	0.011	0.008	0.009	0.008	Manganese	mg/L	0.003	0.008	0.008	0.009
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	0.004	-	-	-	Nickel	mg/L	<0.004	-	-	<0.004
Potassium	mg/L	0.810	0.820	0.938	0.600	Potassium	mg/L	0.400	0.260	0.300	0.500
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	3.16	2.84	2.67	-	Silica	mg/L	3.31	3.80	3.23	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	Silver	mg/L	0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	1.70	1.14	1.40	1.32	Sodium	mg/L	1.37	2.36	1.51	1.00
Total Phosphate	mg/L	0.011	0.030	0.020	0.020	Total Phosphate	mg/L	0.110	0.050	0.100	0.030
Zinc	mg/L	0.047	-	-	-	Zinc	mg/L	0.010	-	-	0.011
NO ₃ (as N)	mg/L	0.75	0.25	0.78	0.79	NO ₃ (as N)	mg/L	0.24	0.20	0.81	1.14
SO ₄	mg/L	11.0	5.8	15.0	5.0	SO ₄	mg/L	<5.0	3.5	<5.0	<5.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005	Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Tot. Org. Carbon	mg/L	1.00	<1.000	<1.000	<1.000	Tot. Org. Carbon	mg/L	1.000	1.00	1.000	1.000
Tot. Org. Halogen	mg/L	0.028	<0.005	<0.005	0.007	Tot. Org. Halogen	mg/L	<0.003	<0.005	<0.005	<0.005
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	-	Carbon Tet.	mg/L	<0.001	<0.001	<0.001	<0.005
Chloroform	mg/L	<0.001	<0.001	<0.001	-	Chloroform	mg/L	<0.001	<0.001	<0.001	<0.005
Tetrachloroethene	mg/L	<0.001	<0.001	<0.001	-	Tetrachloroethene	mg/L	<0.001	<0.001	<0.001	<0.005
Trichloroethene	mg/L	<0.001	<0.001	<0.001	-	Trichloroethene	mg/L	<0.001	<0.001	<0.001	<0.005
1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	-	1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	<0.005
Gross Alpha	pCi/L	<3.0	3.0	1.0	2.6	Gross Alpha	pCi/L	<3.0	3.0	3.0	3.0
Nonvol. Beta	pCi/L	<2.0	2.7	2.0	4.1	Nonvol. Beta	pCi/L	<2.0	2.0	2.0	2.0
Total Radium	pCi/L	0.7	1.1	1.4	1.4	Total Radium	pCi/L	<1.0	<1.0	0.6	0.4
Tritium	pCi/mL	3.82	-	4.20	4.50	Tritium	pCi/mL	2.84	-	4.40	4.60

Well: LPW 29, Sanitary Landfill				Well: LPW 31, Sanitary Landfill							
Parameter	Units	01/18/87	05/09/87	08/09/87	10/25/87	Parameter	Units	01/18/87	05/09/87	08/09/87	10/25/87
Sampling Method		Pump	Pump	Pump	Pump	Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	49.9	50.3	50.3	49.6	Water Elevation	meters	49.8	50.2	49.4	49.8
pH		4.7	4.6	4.8	7.0	pH		5.7	5.5	5.5	5.6
Conductivity	umhos/cm	23	24	23	21	Conductivity	umhos/cm	25	26	20	19
TDS	mg/L	14	-	-	-	TDS	mg/L	10	-	-	-
Arsenic	mg/L	<0.002	<0.003	<0.002	<0.002	Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.019	0.019	0.012	0.010	Barium	mg/L	0.003	0.008	0.006	0.006
Beryllium	mg/L	-	-	-	-	Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002	Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	0.940	1.30	1.80	1.33	Calcium	mg/L	1.31	1.44	4.81	1.91
Chloride	mg/L	2.3	1.8	1.7	1.4	Chloride	mg/L	2.0	2.3	2.7	1.7
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004	Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	0.008	-	-	-	Copper	mg/L	0.004	-	-	-
Cyanide	mg/L	-	-	-	-	Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	0.15	<0.10	0.11	Fluoride	mg/L	<0.10	0.13	0.10	<0.10
Iron	mg/L	0.013	0.087	0.128	0.032	Iron	mg/L	0.018	0.031	0.031	0.024
Lead	mg/L	0.006	0.006	0.006	0.006	Lead	mg/L	0.006	0.006	0.006	0.006
Magnesium	mg/L	0.532	0.573	0.834	0.806	Magnesium	mg/L	0.293	0.336	0.463	0.396
Manganese	mg/L	0.009	0.007	0.008	0.008	Manganese	mg/L	0.011	0.011	0.010	0.008
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	0.004	-	-	-	Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.540	0.510	0.764	0.647	Potassium	mg/L	0.900	1.13	0.739	0.630
Selenium	mg/L	0.002	0.002	0.002	0.002	Selenium	mg/L	0.002	0.002	0.002	0.002
Silica	mg/L	2.87	2.78	2.67	-	Silica	mg/L	3.36	3.19	3.09	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	1.13	1.10	1.14	0.95	Sodium	mg/L	1.32	1.58	1.49	1.36
Total Phosphate	mg/L	0.011	0.040	0.020	0.020	Total Phosphate	mg/L	0.010	0.010	0.030	0.020
Zinc	mg/L	0.014	-	-	-	Zinc	mg/L	0.017	-	-	-
NO ₃ (as N)	mg/L	0.87	0.85	1.15	1.21	NO ₃ (as N)	mg/L	0.12	0.13	0.46	0.53
SO ₄	mg/L	5.0	3.0	5.0	5.0	SO ₄	mg/L	<5.0	3.0	<5.0	<5.0
Phenols	mg/L	<0.002	<0.003	<0.003	<0.003	Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Tot. Org. Carbon	mg/L	1.00	1.00	1.00	1.00	Tot. Org. Carbon	mg/L	1.000	1.00	1.000	1.000
Tot. Org. Halogen	mg/L	0.007	0.003	0.010	0.005	Tot. Org. Halogen	mg/L	0.006	0.006	0.005	0.005
Carbon Tet.	mg/L	0.001	0.001	0.001	-	Carbon Tet.	mg/L	0.001	0.001	0.001	-
Chloroform	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	-	Tetrachloroethene	mg/L	<0.001	<0.001	<0.001	-
Trichloroethene	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	-	1,1,1-TCE	mg/L	<0.001	<0.001	<0.001	-
Gross Alpha	pCi/L	1.9	1.0	1.9	4.6	Gross Alpha	pCi/L	<3.0	3.0	3.0	2.6
Nonvol. Beta	pCi/L	2.8	2.8	1.9	2.1	Nonvol. Beta	pCi/L	<2.0	2.0	2.0	2.0
Total Radium	pCi/L	1.8	1.6	1.9	1.8	Total Radium	pCi/L	0.10	0.9	1.0	0.7
Tritium	pCi/mL	1.14	-	3.60	3.80	Tritium	pCi/mL	1.28	-	3.00	3.30

TABLE 4-22
CHEMICAL CONCENTRATIONS IN SANITARY LANDFILL GROUNDWATER

Well: LPW 32, Sanitary Landfill

SRP Grid	N 85836.8	Screen Zone Elevation	50.3-43.9	meters (MSL)
Coordinates E	44935.9	Top of Casing Elevation	68.30	
Latitude	33.288927°N	Casing Material	PVC	
Longitude	81.715214°W			

Parameter	Units	02/18/87	05/09/87	08/09/87	10/31/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	49.1	49.6	49.3	48.9
pH	pH	5.7	5.4	5.4	6.3
Conductivity	umhos/cm	31	23	18	19
TDS	mg/L	<5	-	-	-
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.008	0.008	0.005	0.005
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	1.45	0.843	2.53	1.46
Chloride	mg/L	2.7	2.2	2.7	3.2
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	0.007	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.12	0.13	<0.10	0.25
Iron	mg/L	0.023	0.088	0.021	0.093
Lead	mg/L	<0.006	0.018	<0.006	<0.006
Magnesium	mg/L	0.337	0.317	0.350	0.484
Manganese	mg/L	0.024	0.016	0.010	0.008
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	1.18	0.650	0.633	0.519
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	3.18	2.94	2.94	-
Silver	mg/L	<0.020	<0.020	<0.020	<0.020
Sodium	mg/L	2.78	1.85	1.58	2.00
Total Phosphate	mg/L	<0.010	0.030	<0.020	<0.020
Zinc	mg/L	0.021	-	-	-
NO ₃ (as N)	mg/L	0.41	0.15	0.58	0.67
SO ₄	mg/L	5.0	3.0	5.0	5.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	1.00	<1.000	<1.000
Tot. Org. Halogen	mg/L	0.032	-	<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	<3.0	<3.0	<3.0	2.1
Nonvol. Beta	pCi/L	<2.0	2.0	2.3	2.8
Total Radium	pCi/L	<1.0	<1.0	0.8	1.2
Tritium	pCi/mL	3.14	-	3.40	4.10

Well: LPW 34, Sanitary Landfill

Parameter	Units	02/19/87	05/08/87	08/09/87	10/25/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	48.5	48.8	48.5	48.2
pH	pH	5.7	5.4	5.2	6.0
Conductivity	umhos/cm	26	22	22	19
TDS	mg/L	38	-	-	-
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.007	0.007	0.006	0.005
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	0.940	0.713	1.60	1.78
Chloride	mg/L	2.7	2.3	2.6	2.1
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	0.005	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	0.13	<0.10	0.12
Iron	mg/L	0.014	0.025	0.040	0.111
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.340	0.334	0.421	0.390
Manganese	mg/L	0.011	0.005	0.007	0.006
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.670	0.900	0.688	0.704
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	2.95	3.04	2.72	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	1.83	1.86	1.54	1.46
Total Phosphate	mg/L	<0.010	0.050	<0.020	<0.020
Zinc	mg/L	0.016	-	-	-
NO ₃ (as N)	mg/L	0.36	0.15	0.57	0.71
SO ₄	mg/L	5.0	3.0	<5.0	<5.0
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Tot. Org. Carbon	mg/L	1.00	1.00	1.000	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	-
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	<3.0	<3.0	<3.0	2.2
Nonvol. Beta	pCi/L	<2.0	2.0	<2.0	3.8
Total Radium	pCi/L	<1.0	1.2	0.7	1.2
Tritium	pCi/mL	3.54	-	3.60	3.60

Well: LPW 33, Sanitary Landfill

SRP Grid	N 85633.8	Screen Zone Elevation	50.3-43.9	meters (MSL)
Coordinates E	44973.0	Top of Casing Elevation	65.25	
Latitude	33.288539°N	Casing Material	PVC	
Longitude	81.714722°W			

Parameter	Units	02/18/87	05/08/87	08/09/87	10/31/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	48.8	49.2	48	48.7
pH	pH	5.5	5.2	5.2	5.2
Conductivity	umhos/cm	23	16	18	17
TDS	mg/L	18	-	-	-
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.005	<0.004	0.005	<0.004
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	0.675	0.514	1.40	1.10
Chloride	mg/L	2.5	2.3	2.7	3.0
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	0.007	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.13	0.11	<0.10	0.25
Iron	mg/L	0.013	0.011	0.036	0.045
Lead	mg/L	<0.006	<0.006	0.006	0.006
Magnesium	mg/L	0.307	0.331	0.661	0.342
Manganese	mg/L	0.009	0.005	0.012	0.003
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.540	0.220	0.506	0.500
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	2.95	2.86	2.62	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	1.86	1.46	1.51	1.60
Total Phosphate	mg/L	<0.010	0.050	0.030	<0.020
Zinc	mg/L	0.014	-	-	-
NO ₃ (as N)	mg/L	0.33	0.15	0.35	0.85
SO ₄	mg/L	5.0	<3.0	5.0	8.7
Phenols	mg/L	<0.002	<0.005	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	1.00	<1.000	<1.000
Tot. Org. Halogen	mg/L	<0.05	<0.05	<0.05	0.048
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	<3.0	1.1	<3.0	2.8
Nonvol. Beta	pCi/L	2.5	<2.0	4.0	6.0
Total Radium	pCi/L	<1.0	1.0	2.7	0.8
Tritium	pCi/mL	3.07	-	2.80	3.50

Well: LPW 35, Sanitary Landfill

Parameter	Units	02/19/87	05/08/87	08/09/87	10/25/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	48.1	48.5	48.3	47.8
pH	pH	5.2	5.3	5.2	5.2
Conductivity	umhos/cm	18	19	18	22
TDS	mg/L	38	-	-	-
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.005	0.005	0.004	0.004
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	0.775	0.593	2.80	1.28
Chloride	mg/L	2.5	2.0	2.8	1.9
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	0.006	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	0.11	0.14	<0.10	0.23
Iron	mg/L	0.017	0.014	0.047	0.004
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	0.356	0.371	0.351	0.371
Manganese	mg/L	0.010	0.007	0.006	0.002
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	<0.004	-	-	-
Potassium	mg/L	0.300	0.150	<0.500	0.500
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	2.80	2.73	2.46	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	1.61	1.89	1.57	1.50
Total Phosphate	mg/L	<0.010	0.030	0.030	<0.020
Zinc	mg/L	0.013	-	-	-
NO ₃ (as N)	mg/L	0.36	0.15	0.55	0.56
SO ₄	mg/L	5.0	<3.0	5.0	<5.0
Phenols	mg/L	<0.001	<0.005	<0.005	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	<1.000	<1.000
Tot. Org. Halogen	mg/L	<0.005	<0.005	0.013	<0.005
Carbon Tet.	mg/L	<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	&

TABLE 4-22
CHEMICAL CONCENTRATIONS IN SANITARY LANDFILL GROUNDWATER

Well LPW 36, Sanitary Landfill

SRP Grid N 83155.5
 Coordinates E 45582.3
 Latitude 33.28689°N
 Longitude 81.707039°W

Parameter	Units	02/19/87	04/14/87	08/11/87	10/31/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	44.6	44.8	44.4	43.8
pH	pH	5.6	5.8	5.8	5.3
Conductivity	umhos/cm	202	225	220	220
TDS	mg/L	128	-	-	-
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.010	0.010	0.007	0.008
Beryllium	mg/L	-	-	<0.005	<0.005
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	3.76	6.14	2.41	7.96
Chloride	mg/L	2.0	22.0	26.9	23.5
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	0.005	-	0.010	<0.004
Cyanide	mg/L	-	-	<0.005	<0.005
Fluoride	mg/L	0.14	0.11	0.10	0.17
Iron	mg/L	0.598	0.180	0.212	0.206
Lead	mg/L	<0.006	<0.006	<0.006	<0.006
Magnesium	mg/L	9.36	11.3	10.5	12.3
Manganese	mg/L	0.319	0.016	0.009	0.008
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	0.004	-	<0.004	<0.004
Potassium	mg/L	0.440	0.380	0.812	0.500
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	5.07	4.88	4.42	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	17.8	16.9	20.4	17.8
Total Phosphate	mg/L	<0.010	0.050	0.040	0.020
Zinc	mg/L	0.018	-	0.015	0.078
NO ₃ (as N)	mg/L	<0.05	<0.05	<0.05	<0.05
SO ₄	mg/L	5.0	13.0	5.0	5.0
Phenols	mg/L	0.004	0.003	0.005	0.006
Tot. Org. Carbon	mg/L	4.00	3.00	15.9	4.90
Tot. Org. Halogen	mg/L	0.282	0.186	0.687	0.296
Carbon Tet.	mg/L	<0.001	-	<0.001	<0.005
Chloroform	mg/L	<0.001	-	<0.001	<0.005
Tetrachloroethene	mg/L	<0.001	-	<0.001	<0.005
Trichloroethene	mg/L	0.010	-	0.017	0.014
1,1,1-TCE	mg/L	0.002	-	<0.001	<0.005
Gross Alpha	pCi/L	<3.0	3.0	0.0	3.1
Nonvol. Beta	pCi/L	5.7	7.1	3.4	9.8
Total Radium	pCi/L	<1.0	1.5	1.7	-
Tritium	pCi/mL	8.18	-	13.1	17.3

Well LPW 38, Sanitary Landfill

SRP Grid N 83172.3
 Coordinates E 46018.1
 Latitude 33.28480°N
 Longitude 81.707185°W

Parameter	Units	02/21/87	05/08/87	08/11/87	11/01/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	44	43.9	43.6	43.2
pH	pH	5.1	5.2	5.0	5.5
Conductivity	umhos/cm	27	26	31	30
TDS	mg/L	32	-	-	-
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.009	0.007	0.007	0.005
Beryllium	mg/L	-	-	<0.005	<0.005
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	1.03	0.710	2.03	1.65
Chloride	mg/L	3.1	3.4	2.8	2.8
Chromium	mg/L	0.001	<0.004	<0.004	<0.004
Copper	mg/L	0.008	-	0.003	<0.004
Cyanide	mg/L	0.15	0.10	<0.10	0.17
Fluoride	mg/L	0.014	0.033	0.079	0.034
Iron	mg/L	<0.006	<0.006	0.011	0.013
Lead	mg/L	-	-	-	-
Magnesium	mg/L	0.637	0.581	0.789	0.600
Manganese	mg/L	0.016	0.012	0.014	0.006
Mercury	mg/L	<0.0002	<0.0002	0.0003	<0.0002
Nickel	mg/L	0.004	-	0.004	<0.004
Potassium	mg/L	0.440	0.220	<0.500	<0.500
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	4.01	4.01	4.42	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	1.84	1.83	2.15	1.71
Teta ⁺ Phosphate	mg/L	0.017	0.030	0.040	<0.020
Zinc	mg/L	0.025	-	0.029	0.071
NO ₃ (as N)	mg/L	0.68	0.50	1.95	0.79
SO ₄	mg/L	3.0	3.0	5.0	5.0
Phenols	mg/L	<0.002	<0.005	0.043	<0.005
Tot. Org. Carbon	mg/L	1.30	1.00	4.00	<1.00
Tot. Org. Halogen	mg/L	0.110	0.010	0.175	0.036
Carbon Tet.	mg/L	<0.001	<0.001	<0.001	<0.005
Chloroform	mg/L	0.001	0.002	0.001	<0.005
Tetrachloroethene	mg/L	0.041	0.004	0.004	<0.005
Trichloroethene	mg/L	0.035	0.035	0.044	0.013
1,1,1-TCE	mg/L	<0.001	0.013	0.010	<0.005
Gross Alpha	pCi/L	<3.0	<3.0	<3.0	1.2
Nonvol. Beta	pCi/L	2.0	2.0	2.0	2.0
Total Radium	pCi/L	<1.0	<1.0	<1.0	0.3
Tritium	pCi/mL	20.2	-	7.20	7.40

Well LPW 37, Sanitary Landfill

SRP Grid N 83113.2
 Coordinates E 45587.7
 Latitude 33.284100°N
 Longitude 81.707993°W

Parameter	Units	02/21/87	05/08/87	08/11/87	11/01/87
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SRP Grid N 83219.1
 Coordinates E 46218.5
 Latitude 33.28520°N
 Longitude 81.706738°W

Parameter	Units	02/21/87	05/08/87	08/11/87	11/01/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	44	44	43.5	43.3
pH	pH	5.1	5.1	4.9	5.1
Conductivity	umhos/cm	14	12	15	14
TDS	mg/L	32	-	-	-
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	0.004	<0.004	<0.004	<0.004
Beryllium	mg/L	-	-	<0.005	<0.005
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002
Calcium	mg/L	0.439	0.243	1.30	2.63
Chloride	mg/L	2.7	2.0	2.9	2.0
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004
Copper	mg/L	<0.004	-	<0.004	<0.004
Cyanide	mg/L	-	-	<0.005	<0.005
Fluoride	mg/L	<0.10	0.19	0.10	0.11
Iron	mg/L	0.029	0.023	0.015	0.034
Lead	mg/L	<0.006	<0.006	<0.006	0.013
Magnesium	mg/L	0.326	0.287	0.287	0.299
Manganese	mg/L	0.003	<0.002	<0.002	<0.002
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	0.004	-	<0.004	<0.004
Potassium	mg/L	0.150	0.140	<0.500	<0.500
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002
Silica	mg/L	2.89	2.89	2.81	-
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Sodium	mg/L	1.07	1.24	1.13	1.10
Total Phosphate	mg/L	<0.010	0.030	<0.020	<0.020
Zinc	mg/L	0.011	-	0.028	0.106
NO ₃ (as N)	mg/L	0.16	0.10	0.55	0.50
SO ₄	mg/L	3.0	3.0	5.0	5.0
Phenols	mg/L	<0.002	<0.005	0.016	<0.005
Tot. Org. Carbon	mg/L	<1.000	<1.000	8.00	1.20
Tot. Org. Halogen	mg/L	0.033	0.053	0.441	0.448
Carbon Tet.	mg/L	-	<0.001	<0.001	<0.005
Chloroform	mg/L	-	<0.001	<0.001	<0.005
Tetrachloroethene	mg/L	-	<0.001	<0.001	<0.005
Trichloroethene	mg/L	-	<0.001	<0.001	<0.005
1,1,1-TCE	mg/L	-	<0.001	<0.001	<0.005
Gross Alpha	pCi/L	<3.0	<3.0	<3.0	1.2
Nonvol. Beta	pCi/L	2.0	2.0	3.8	1.9
Total Radium	pCi/L	<1.0	<1.0	<1.0	0.8
Tritium	pCi/mL	8.30	-	5.40	6.10

TABLE 4-22
CHEMICAL CONCENTRATIONS IN SANITARY LANDFILL
GROUNDWATER

Well: LPW 40, Sanitary Landfill

Parameter	Units	02/21/87	05/08/87	08/11/87	11/01/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	43.7	43.8	43.5	43.1	
pH	pH	5.0	5.2	5.0	6.0	
Conductivity	umhos/cm	13	12	15	14	
TDS	mg/L	32	-	-	-	
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002	
Barium	mg/L	<0.004	<0.004	<0.004	<0.004	
Beryllium	mg/L	-	-	<0.005	<0.005	
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002	
Calcium	mg/L	0.326	0.263	0.334	2.75	
Chloride	mg/L	2.7	3.2	2.4	2.2	
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004	
Copper	mg/L	0.004	-	<0.004	<0.004	
Cyanide	mg/L	-	-	<0.005	<0.005	
Fluoride	mg/L	<0.10	0.17	<0.10	0.21	
Iron	mg/L	0.010	0.022	0.046	0.055	
Lead	mg/L	<0.006	<0.006	<0.006	<0.006	
Magnesium	mg/L	0.248	0.240	0.230	0.293	
Manganese	mg/L	<0.002	<0.002	<0.002	<0.002	
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	
Nickel	mg/L	<0.004	-	<0.004	<0.004	
Potassium	mg/L	0.310	0.180	0.500	0.300	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.003	
Silica	mg/L	2.71	2.68	2.56	-	
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	
Sodium	mg/L	1.12	1.13	1.14	1.28	
Total Phosphate	mg/L	0.011	0.030	0.020	0.020	
Zinc	mg/L	0.008	-	0.037	0.124	
NO ₃ (as N)	mg/L	0.08	<0.05	0.31	0.37	
SO ₄	mg/L	3.0	<3.0	<5.0	15.0	
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	0.005	0.009	<0.005	<0.005	
Carbon Tet.	mg/L	0.001	<0.001	0.001	0.005	
Chloroform	mg/L	0.001	<0.001	0.001	0.005	
Tetrachloroethene	mg/L	0.001	<0.001	0.001	<0.005	
Trichloroethene	mg/L	0.001	<0.001	0.001	<0.005	
1,1,1-TCE	mg/L	0.001	<0.001	0.001	<0.005	
Gross Alpha	pCi/L	1.0	1.8	3.0	1.3	
Nonvol. Beta	pCi/L	<2.0	<2.0	2.0	1.4	
Total Radium	pCi/L	1.0	<1.0	0.5	1.0	
Tritium	pCi/mL	3.41	-	6.90	6.20	

Well: LPW 42, Sanitary Landfill

Parameter	Units	02/21/87	05/08/87	09/16/87	11/01/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	43.7	43.8	43.5	43.1	
pH	pH	5.0	5.2	5.0	6.0	
Conductivity	umhos/cm	13	12	15	14	
TDS	mg/L	32	-	-	-	
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002	
Barium	mg/L	<0.004	<0.004	<0.004	<0.004	
Beryllium	mg/L	-	-	<0.005	<0.005	
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002	
Calcium	mg/L	0.326	0.263	0.334	2.75	
Chloride	mg/L	2.7	3.2	2.4	2.2	
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004	
Copper	mg/L	0.004	-	<0.004	<0.004	
Cyanide	mg/L	-	-	<0.005	<0.005	
Fluoride	mg/L	<0.10	0.12	<0.10	0.18	
Iron	mg/L	0.014	0.040	0.016	0.015	
Lead	mg/L	<0.006	<0.006	0.006	<0.006	
Magnesium	mg/L	0.258	0.241	0.248	0.277	
Manganese	mg/L	<0.002	<0.002	<0.002	<0.002	
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	
Nickel	mg/L	<0.004	-	<0.004	<0.004	
Potassium	mg/L	0.320	0.190	0.500	0.300	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	
Silica	mg/L	2.89	3.14	2.88	-	
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	
Sodium	mg/L	1.12	1.14	1.04	1.04	
Total Phosphate	mg/L	0.011	0.030	0.020	0.020	
Zinc	mg/L	0.008	-	0.014	0.123	
NO ₃ (as N)	mg/L	0.08	<0.05	0.39	1.56	
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	2.00	1.000	
Tot. Org. Halogen	mg/L	0.005	0.005	0.006	0.005	
Carbon Tet.	mg/L	0.001	0.001	0.001	0.005	
Chloroform	mg/L	<0.001	<0.001	0.001	0.003	
Tetrachloroethene	mg/L	<0.001	<0.001	0.001	<0.005	
Trichloroethene	mg/L	<0.001	<0.001	0.001	<0.005	
1,1,1-TCE	mg/L	<0.001	<0.001	0.001	<0.005	
Gross Alpha	pCi/L	1.0	1.8	3.0	1.4	
Nonvol. Beta	pCi/L	1.8	<2.0	2.3	2.3	
Total Radium	pCi/L	1.0	0.8	1.0	0.7	
Tritium	pCi/mL	3.41	-	6.90	6.20	

Well: LPW 41, Sanitary Landfill

Parameter	Units	02/21/87	05/08/87	08/11/87	11/01/87	meters (MSL)
Sampling Method		Pump	Pump	Pump	Pump	
Water Elevation	meters	44.5	44.5	43.7	43.4	
pH	pH	4.9	5.2	5.0	6.5	
Conductivity	umhos/cm	13	13	14	12	
TDS	mg/L	28	-	-	-	
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002	
Barium	mg/L	<0.004	<0.004	<0.004	<0.004	
Beryllium	mg/L	-	-	<0.005	<0.005	
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002	
Calcium	mg/L	0.935	0.296	0.542	2.53	
Chloride	mg/L	1.6	1.6	2.8	1.2	
Chromium	mg/L	<0.004	<0.004	<0.004	<0.004	
Copper	mg/L	0.004	-	<0.004	<0.004	
Cyanide	mg/L	-	-	<0.005	<0.005	
Fluoride	mg/L	<0.10	0.12	<0.10	0.18	
Iron	mg/L	0.014	0.040	0.016	0.015	
Lead	mg/L	<0.006	<0.006	0.006	<0.006	
Magnesium	mg/L	0.258	0.241	0.248	0.277	
Manganese	mg/L	<0.002	<0.002	<0.002	<0.002	
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	
Nickel	mg/L	<0.004	-	<0.004	<0.004	
Potassium	mg/L	0.320	0.190	0.500	0.300	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	
Silica	mg/L	2.89	3.14	2.88	-	
Silver	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	
Sodium	mg/L	1.12	1.14	1.04	1.04	
Total Phosphate	mg/L	0.011	0.030	0.020	0.020	
Zinc	mg/L	0.008	-	0.014	0.123	
NO ₃ (as N)	mg/L	0.08	<0.05	0.39	1.56	
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	2.00	1.000	
Tot. Org. Halogen	mg/L	0.005	0.005	0.006	0.005	
Carbon Tet.	mg/L	0.001	0.001	0.001	0.005	
Chloroform	mg/L	<0.001	<0.001	0.001	0.003	
Tetrachloroethene	mg/L	<0.001	<0.001	0.001	<0.005	
Trichloroethene	mg/L	<0.001	<0.001	0.001	<0.005	
1,1,1-TCE	mg/L	<0.001	<0.001	0.001	<0.005	
Gross Alpha	pCi/L	1.0	1.8	3.0	1.4	
Nonvol. Beta	pCi/L	1.8	<2.0	2.3	2.3	
Total Radium	pCi/L	1.0	0.8	1.0	0.7	
Tritium	pCi/mL	3.41	-	6.90	6.20	

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

LFW 6	08/06/87	Bromide	<0.5
		Cyanide	<0.005
		Total Organic Nitrogen	8.40
		BNA Analysis detected the following:	
		Bis(2-ethylhexyl) Phthalate	0.031
		1,4-Dichlorobenzene	0.023
		Pest/Herb Analysis detected the following:	
		Delta-Benzene Hexachloride	0.0003
		GCMS Scan detected the following:	
		trans-1,2-Dichloroethene	0.103
		1,1-Dichloroethane	0.038
LFW 6	10/31/87	Bromide	<0.5
		Cyanide	<0.005
		Tin	<0.12
		Thallium	<0.002
		Total Organic Nitrogen	<0.3
		BNA Analysis detected the following:	
		1,4-Dichlorobenzene	0.018
		Pest/Herb Analysis detected the following:	
		beta-Benzene Hexachloride	0.00005
		GCMS Scan detected the following:	
		trans-1,2-Dichloroethene	0.143
		1,1-Dichloroethane	0.021

TABLE 4-22
CHEMICAL CONCENTRATIONS IN SANITARY LANDFILL
GROUNDWATER

LFW 7 08/06/87	Bromide <0.5 Cyanide 0.012 Total Organic Nitrogen 5.44 BNA Analysis detected the following: Bis(2-ethylhexyl) Phthalate 0.093 Diethyl Phthalate 0.015 1,4-Dichlorobenzene 0.077 Pest/Herb Analysis detected the following: delta-Benzene Hexachloride 0.0002 GCMS Scan detected the following: Chloroethane 0.013 Ethylbenzene 0.028 Toluene 0.024 trans-1,2-Dichloroethene 0.412 1,1-Dichloroethane 0.093 1,2-Dichloroethane 0.007	LFW 17 10/31/87 Bromide <0.5 Cyanide 0.005 Tin 0.12 Thallium 0.002 Total Organic Nitrogen 0.560 BNA Analysis detected the following: Bis(2-ethylhexyl) Phthalate 0.013 1,4-Dichlorobenzene 0.023 Pest/Herb Analysis detected the following: alpha-Endosulfan 0.0005 beta-Benzene Hexachloride 0.0007 GCMS Scan detected the following: Chloroethane 0.017 Dibromo-chloromethane 0.019 Toluene 0.019 trans-1,2-Dichloroethene 0.161 1,1-Dichloroethane 0.041 1,2-Dichloroethane 0.018
LFW 7 10/31/87	Bromide <0.5 Cyanide 0.005 Lindane 0.0008 Tin 0.12 Thallium <0.002 Total Organic Nitrogen 1.12 BNA Analysis detected the following: 1,4-Dichlorobenzene 0.047 GCMS Scan detected the following: Ethylbenzene 0.023 trans-1,2-Dichloroethene 0.520 1,1-Dichloroethane 0.060 1,2-Dichloroethane 0.007	LFW 18 08/06/87 Bromide <0.5 Cyanide <0.005 Total Organic Nitrogen 7.84 BNA Analysis detected the following: Bis(2-ethylhexyl) Phthalate 0.150 1,4-Dichlorobenzene 0.024 Pest/Herb Analysis detected the following: None GCMS Scan detected the following: Ethylbenzene 0.012 Toluene 0.017 trans-1,2-Dichloroethene 0.265 1,1-Dichloroethane 0.031
LFW 8 08/06/87	Bromide <0.5 Cyanide 0.005 Total Organic Nitrogen 8.68 BNA Analysis detected the following: Bis(2-ethylhexyl) Phthalate 0.441 1,4-Dichlorobenzene 0.075 Pest/Herb Analysis detected the following: None GCMS Scan detected the following: Chloroethane 0.011 Ethylbenzene 0.053 Toluene 0.041 trans-1,1-Dichloroethene 0.291 1,1-Dichloroethane 0.140 1,2-Dichloroethane 0.007	LFW 18 10/31/87 Bromide <0.5 Cyanide <0.005 Tin 0.12 Thallium <0.002 Total Organic Nitrogen 1.68 BNA Analysis detected the following: Bis(2-ethylhexyl) Phthalate 0.018 1,4-Dichlorobenzene 0.013 Pest/Herb Analysis detected the following: alpha-Endosulfan 0.001 GCMS Scan detected the following: Toluene 0.075 trans-1,2-Dichloroethene 0.174 1,1-Dichloroethane 0.027 1,2-Dichloroethane 0.005
LFW 8 10/31/87	Bromide <0.5 Cyanide 0.005 Tin 0.12 Thallium <0.002 Total Organic Nitrogen 0.3 BNA Analysis detected the following: 1,4-Dichlorobenzene 0.045 Pest/Herb Analysis detected the following: None GCMS Scan detected the following: Ethylbenzene 0.017 Toluene 0.023 trans-1,2-Dichloroethene 0.231 1,1-Dichloroethane 0.081	LFW 21 08/08/87 GCMS Scan detected the following: Trichlorofluoromethane 0.024 1,1-Dichloroethane 0.009
LFW 16 08/03/87	GCMS Scan detected the following: Trichlorofluoromethane 0.031	LFW 21 09/16/87 Bromide <0.5 Cyanide <0.005 Tin 0.11 Thallium <0.002 Total Organic Nitrogen 4.48 BNA Analysis detected the following: None Pest/Herb Analysis detected the following: None GCMS Scan detected the following: 1,1-Dichloroethane 0.01
LFW 17 08/06/87	Bromide <0.5 Cyanide <0.005 Total Organic Nitrogen 10.4 BNA Analysis detected the following: Diethyl Phthalate 0.011 1,4-Dichlorobenzene 0.036 Pest/Herb Analysis detected the following: None GCMS Scan detected the following: Chloroethane 0.016 Ethylbenzene 0.020 Toluene 0.033 trans-1,2-Dichloroethene 0.231 1,1-Dichloroethane 0.050 1,2-Dichloroethane 0.019	LFW 21 10/31/87 Bromide <0.5 Cyanide <0.005 Tin 0.12 Thallium <0.002 Total Organic Nitrogen <0.3 BNA Analysis detected the following: Bis(2-ethylhexyl) Phthalate 0.245 Pest/Herb Analysis detected the following: None GCMS Scan detected the following: None
LFW 26 02/18/87	Pest/Herb* Analysis detected the following: None	LFW 26 02/18/87 Pest/Herb* Analysis detected the following: None
LFW 27 02/18/87	Pest/Herb* Analysis detected the following: None	LFW 27 02/18/87 Pest/Herb* Analysis detected the following: None
LFW 28 02/18/87	Pest/Herb* Analysis detected the following: None	LFW 28 02/18/87 Pest/Herb* Analysis detected the following: None

TABLE 4-22
CHEMICAL CONCENTRATIONS IN SANITARY LANDFILL GROUNDWATER

LFW 28	08/08/87		LFW 37	02/21/87	
GCMS Scan detected the following:	None	Pest/Herb* Analysis detected the following:			
LFW 29	02/18/87	Pest/Herb* Analysis detected the following: None	Lindane	0.00007	
LFW 30	02/18/87	Pest/Herb* Analysis detected the following: None	Silvex	0.00038	
LFW 30	08/06/87				
Bromide	<0.5	LFW 37	08/11/87		
Cyanide	<0.005	GCMS Scan detected the following:			
Total Organic Nitrogen	11.8	Trichlorofluoromethane	0.016		
BNA Analysis detected the following:		trans-1,2-Dichloroethene	0.057		
Bis(2-ethylhexyl) Phthalate	0.202	1,1-Dichloroethane	0.045		
Di-n-octyl Phthalate	0.024				
Pest/Herb Analysis detected the following:	None				
GCMS Scan detected the following:	None				
LFW 30	10/31/87				
Bromide	<0.5	LFW 37	09/16/87		
Cyanide	<0.005	Bromide	<0.5		
Tin	<0.12	Cyanide	<0.005		
Thallium	<0.002	Tin	<0.11		
Total Organic Nitrogen	<0.3	Thallium	<0.002		
BNA Analysis detected the following:	None	Total Organic Nitrogen	2.24		
Pest/Herb Analysis detected the following:	None	BNA Analysis detected the following:			
GCMS Scan detected the following:	None	Bis(2-ethylhexyl) Phthalate	0.218		
LFW 31	02/18/87	Pest/Herb Analysis detected the following:	None		
Pest/Herb* Analysis detected the following: None		GCMS Scan detected the following:			
LFW 32	01/18/87	Pest/Herb Analysis detected the following:			
Pest/Herb* Analysis detected the following: None		trans-1,2-Dichloroethylene	0.090		
LFW 32	08/09/87		1,1-Dichloroethane	0.008	
GCMS Scan detected the following:	None	1,1-Dichloroethane	0.080		
LFW 33	01/19/87		1,2-Dichloroethane	0.022	
Pest/Herb* Analysis detected the following: None					
LFW 34	02/19/87				
Pest/Herb* Analysis detected the following: None					
LFW 35	02/19/87				
Pest/Herb* Analysis detected the following: None					
LFW 36	08/11/87				
GCMS Scan detected the following:		LFW 38	02/21/87		
trans-1,2-Dichloroethylene	0.125	Pest/Herb* Analysis detected the following: None			
1,1-Dichloroethane	0.058				
1,1-Dichloroethane	0.006				
LFW 36	02/18/87				
Pest/Herb* Analysis detected the following: None		LFW 38	08/11/87		
		GCMS Scan detected the following:			
LFW 38	08/17/87		Trichlorofluoromethane	0.018	
Bromide	<0.5	trans-1,2-Dichloroethene	0.016		
Cyanide	<0.003	1,1-Dichloroethane	0.024		
Tin	<0.11				
Thallium	<0.002				
Total Organic Nitrogen	2.80				
BNA Analysis detected the following:		LFW 38	09/16/87		
Bis(2-ethylhexyl) Phthalate	0.606	Bromide	<0.5		
Diethyl Phthalate	0.014	Cyanide	<0.005		
1,4-Dichlorobenzene	0.022	Tin	<0.11		
Pest/Herb Analysis detected the following:		Thallium	<0.002		
Aldrin	0.00003	Total Organic Nitrogen	5.04		
delta-Benzene Hexachloride	0.0001	BNA Analysis detected the following:			
GCMS Scan detected the following:		Bis(2-ethylhexyl) Phthalate	0.171		
trans-1,2-Dichloroethene	0.154	Pest/Herb Analysis detected the following:	None		
1,1-Dichloroethane	0.015	GCMS Scan detected the following:			
1,2-Dichloroethane	0.008	trans-1,2-Dichloroethene	0.020		
LFW 38	10/31/87	1,1-Dichloroethane	0.015		
Bromide	<0.5				
Cyanide	<0.005				
Tin	<0.12				
Thallium	<0.002				
Total Organic Nitrogen	0.560				
BNA Analysis detected the following:		LFW 39	02/21/87		
1,4-Dichlorobenzene	0.034	Pest/Herb* Analysis detected the following: None			
Pest/Herb Analysis detected the following:					
beta-Benzene Hexachloride	0.0003				
Heptachlor	0.0001				
GCMS Scan detected the following:		LFW 39	08/11/87		
trans-1,2-Dichloroethene	0.148	GCMS Scan detected the following:	None		
1,1-Dichloroethane	0.064				
1,2-Dichloroethane	0.001				

TABLE 4-22
CHEMICAL CONCENTRATIONS IN SANITARY LANDFILL
GROUNDWATER

LFW 39	09/16/87	Bromide	<0.5	LFW 42	09/16/87	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				
LFW 39	11/01/87	Bromide	<0.5	LFW 42	11/01/87	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				
LFW 40	02/21/87	Pest/Herb* Analysis detected the following:	None				
LFW 40	08/11/87	GCMS Scan detected the following:	None				
LFW 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				
LFW 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				
LFW 41	02/21/87	Pest/Herb* Analysis detected the following:	None				
LFW 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				
LFW 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				
LFW 42	02/21/87	Pest/Herb* Analysis detected the following:	None				

TABLE 4-23
CHEMICAL CONCENTRATIONS IN TNX GROUNDWATER

Well: XSB 1, Old TNX Seepage Basin

SRP Grid N 71133.1
Coordinates E 16901.0
Latitude 33.210637°N
Longitude 81.780389°W

Screen Zone Elevation 34.1-28.0
Top of Casing Elevation 47.24
Casing Material Steel

Parameter	Units	03/24/87	05/26/87	08/20/87	11/09/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	31.9	31.8	31.1	30.9
pH	mg/L	6.3	6.1	5.2	6.2
Conductivity	umhos/cm	140	140	140	161
TDS	mg/L	88	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.081	-	0.084	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	0.002	-
Calcium	mg/L	12.5	-	-	-
Chloride	mg/L	1.8	-	-	-
Chromium	mg/L	0.094	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	<9.000	-	-	-
Fluoride	mg/L	0.18	-	-	-
Iron	mg/L	0.019	-	0.046	-
Lead	mg/L	0.210	-	0.012	-
Magnesium	mg/L	2.82	-	-	-
Manganese	mg/L	0.043	-	0.032	-
Mercury	mg/L	<0.0002	-	<0.0002	-
Nickel	mg/L	0.006	-	0.004	-
Potassium	mg/L	3.16	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	3.93	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.98	-	8.12	-
Total Phosphate	mg/L	0.180	-	-	-
Zinc	mg/L	0.827	-	-	-
NO _x (as N)	mg/L	12.4	-	19.9	-
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	0.158	-	0.088	-
Carbon Tet.	mg/L	0.004	-	0.003	-
Chloroform	mg/L	<0.001	-	<0.001	-
Tetrachloroethene	mg/L	<0.001	-	<0.001	-
Trichloroethene	mg/L	0.080	-	<0.001	-
1,1,1-TCT	mg/L	<0.001	-	<0.001	-
Gross Alpha	pCi/L	1.0	-	2.9	-
Neonol, Beta	pCi/L	7.7	-	7.8	-
Total Radium	pCi/L	1.1	-	1.1	-
Tritium	pCi/mL	5.10	-	-	-

Well: XSB 3A, Old TNX Seepage Basin

Parameter	Units	03/24/87	05/26/87	08/20/87	11/09/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	30.9	30.8	42.3	30.3
pH	mg/L	5.3	5.0	4.4	5.3
Conductivity	umhos/cm	135	140	120	98
TDS	mg/L	8+	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.023	-	0.018	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	0.002	-
Calcium	mg/L	4.10	-	-	-
Chloride	mg/L	5.1	-	-	-
Chromium	mg/L	0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	<5.000	-	-	-
Fluoride	mg/L	0.19	-	-	-
Iron	mg/L	0.029	-	0.031	-
Lead	mg/L	0.032	-	0.006	-
Manganese	mg/L	0.925	-	-	-
Manganese	mg/L	0.030	-	0.034	-
Mercury	mg/L	<0.0002	-	0.0002	-
Nickel	mg/L	<0.004	-	0.004	-
Potassium	mg/L	1.46	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	0.73	-	-	-
Silicon	mg/L	<0.0020	-	-	-
Sodium	mg/L	12.1	-	12.5	-
Total Phosphate	mg/L	0.010	-	-	-
Zinc	mg/L	0.013	-	-	-
NO _x (as N)	mg/L	8.40	-	3.30	-
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	0.007	-	0.073	-
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	0.005	-	0.008	-
1,1,1-TCE	mg/L	<0.001	-	0.001	-
Gross Alpha	pCi/L	3.0	-	3.3	-
Neonol, Beta	pCi/L	2.0	-	5.8	-
Total Radium	pCi/L	2.2	-	1.3	-
Tritium	pCi/mL	7.26	-	-	-

Well: XSB 2, Old TNX Seepage Basin

SRP Grid N 71014.7
Coordinates E 16901.0
Latitude 33.210637°N
Longitude 81.780389°W

Screen Zone Elevation 34.6-28.5
Top of Casing Elevation 46.87
Casing Material Steel

Parameter	Units	03/24/87	05/26/87	08/20/87	11/09/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	31.3	32.3	32.2	31
pH	mg/L	4.1	3.9	4.1	4.9
Conductivity	umhos/cm	200	2100	1650	1318
TDS	mg/L	1370	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.557	-	0.380	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	0.002	-
Calcium	mg/L	51.4	-	-	-
Chloride	mg/L	6.0	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	<0.000	-	-	-
Fluoride	mg/L	0.18	-	-	-
Iron	mg/L	0.118	-	0.148	-
Lead	mg/L	0.00	-	0.118	-
Magnesium	mg/L	5.74	-	-	-
Manganese	mg/L	0.74	-	1.44	-
Mercury	mg/L	<0.0104	-	0.0115	-
Nickel	mg/L	0.148	-	0.120	-
Potassium	mg/L	6.83	-	-	-
Selenium	mg/L	<0.007	-	-	-
Silica	mg/L	6.10	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	265	-	250	-
Total Phosphate	mg/L	0.250	-	-	-
Zinc	mg/L	0.185	-	-	-
NO _x (as N)	mg/L	22.0	-	40.0	-
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	0.118	-	0.014	-
Carbon Tet.	mg/L	<0.001	-	0.001	-
Chloroform	mg/L	<0.001	-	0.005	-
Tetrachloroethene	mg/L	<0.001	-	0.003	-
Trichloroethene	mg/L	0.508	-	0.543	-
1,1,1-TCT	mg/L	<0.001	-	0.016	-
Gross Alpha	pCi/L	125	-	82.1	-
Neonol, Beta	pCi/L	93.3	-	97.2	-
Total Radium	pCi/L	58.0	-	95.0	-
Tritium	pCi/mL	7.40	-	-	-

Well: XSB 4, Old TNX Seepage Basin

Parameter	Units	03/17/87	05/26/87	08/20/87	11/09/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	30.7	30.2	30.1	30
pH	mg/L	4.1	3.9	4.3	4.9
Conductivity	umhos/cm	880	560	240	250
TDS	mg/L	378	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	<0.014	-	0.102	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	0.002	-
Calcium	mg/L	19.6	-	-	-
Chloride	mg/L	6.0	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	<1.000	-	-	-
Fluoride	mg/L	0.17	-	-	-
Iron	mg/L	0.315	-	0.024	-
Lead	mg/L	0.084	-	0.018	-
Manganese	mg/L	1.11	-	0.284	-
Manganese	mg/L	1.11	-	0.0172	-
Mercury	mg/L	<0.0123	-	0.0012	-
Nickel	mg/L	0.117	-	0.013	-
Potassium	mg/L	5.27	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	17.1	-	-	-
Silicon	mg/L	0.020	-	-	-
Sodium	mg/L	99.4	-	74.1	-
Total Phosphate	mg/L	0.020	-	-	-
Zinc	mg/L	0.134	-	-	-
NO _x (as N)	mg/L	95.0	-	14.1	-
SO ₄	mg/L	15.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	<1.00	-	1.000	-
Tot. Org. Halogen	mg/L	0.118	-	0.014	-
Carbon Tet.	mg/L	<0.001	-	0.005	-
Chloroform	mg/L	<0.001	-	0.005	-
Tetrachloroethene	mg/L	<0.003	-	0.005	-
Trichloroethene	mg/L	0.126	-	0.092	-
1,1,1-TCE	mg/L	<0.042	-	0.005	-
Gross Alpha	pCi/L	120	-	18.4	-
Neonol, Beta	pCi/L	171	-	13.0	-
Total Radium	pCi/L	31.6	-	4.0	-
Tritium	pCi/mL	18.8	-	-	-

TABLE 4-23
CHEMICAL CONCENTRATIONS IN TNX GROUNDWATER

Well: XSB 5A, Old TNX Seepage Basin

Parameter	Units	meters (MSL)			
		03/14/87	03/26/87	08/20/87	11/09/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	30.8	30.5	30.1	30
pH	4.5	4.4	4.4	4.6	
Conductivity	uhmhos/cm	250	245	160	122
TDS	mg/L	178	*	*	*
Arsenic	ng/L	<0.002	*	*	*
Barium	ppm	0.058	*	0.030	*
Boron	ppm	*	*	*	*
Cadmium	ug/L	<0.002	*	0.002	*
Calcium	mg/L	13.4	*	*	*
Chloride	mg/L	7.4	*	*	*
Chromium	mg/L	<0.004	*	*	*
Copper	mg/L	*	*	*	*
Cyanide	mg/L	<5.000	*	*	*
Fluoride	mg/L	10.10	*	*	*
Iron	mg/L	0.045	*	0.026	*
Lead	mg/L	0.075	*	0.042	*
Magnesium	mg/L	2.09	*	*	*
Manganese	mg/L	0.031	*	0.022	*
Mercury	mg/L	0.0005	*	<0.0002	*
Nickel	mg/L	<0.004	*	0.004	*
Potassium	mg/L	2.17	*	*	*
Selenium	mg/L	<0.002	*	*	*
Silica	mg/L	3.98	*	*	*
Silver	mg/L	<0.0020	*	*	*
Sodium	mg/L	13.7	*	17.7	*
Total Phosphate	mg/L	0.040	*	*	*
Zinc	mg/L	0.069	*	*	*
NO ₃ (as N)	mg/L	24.3	*	6.42	*
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	0.049	*	0.012	*
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	<0.003	*	<0.003	*
1,1,1-TCE	mg/L	<0.005	*	<0.001	*
Gross Alpha	pCi/L	16.5	*	3.4	*
Nonvol. Beta	pCi/L	15.8	*	11.3	*
Total Radium	pCi/L	4.3	*	1.8	*
Tritium	pCi/mL	5.89	*	*	*

Other Analyses (mg/L)
(OCMB Scan Analytes: Table 4-23, Vol. II),

XSB 1	03/24/87	CS
XSB 2	03/24/87	CS
XSB 3A	03/24/87	CS
XSB 4	03/17/87	CS
XSB 5A	03/14/87	CS

Well: YSB 1A, New TNX Seepage Basin

Parameter	Units	meters (MSL)			
		03/14/87	03/26/87	07/30/87	10/09/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	37.5	37.8	36.9	36.5
pH	5.4	5.4	5.4	5.4	
Conductivity	uhmhos/cm	51	51	44	48
TDS	mg/L	26	*	*	*
Arsenic	mg/L	<0.002	*	*	*
Barium	mg/L	<0.014	*	*	*
Beryllium	mg/L	*	*	*	*
Cadmium	mg/L	<0.002	*	*	*
Calcium	mg/L	2.47	*	*	*
Chloride	mg/L	3.9	*	*	*
Chromium	mg/L	<0.004	*	*	*
Copper	mg/L	*	*	*	*
Cyanide	mg/L	*	*	*	*
Fluoride	mg/L	0.10	*	*	*
Iron	mg/L	0.090	*	0.090	*
Lead	mg/L	0.006	*	*	*
Magnesium	mg/L	0.506	*	*	*
Manganese	mg/L	<0.003	*	*	*
Mercury	mg/L	<0.0002	*	<0.0002	*
Nickel	mg/L	<0.004	*	0.005	*
Potassium	mg/L	1.33	*	*	*
Selenium	mg/L	<0.002	*	*	*
Silica	mg/L	3.98	*	*	*
Silver	mg/L	<0.0020	*	*	*
Sodium	mg/L	7.53	*	5.04	*
Total Phosphate	mg/L	0.030	0.030	0.030	*
Zinc	mg/L	0.023	*	*	*
NO ₃ (as N)	mg/L	0.95	*	1.11	*
SO ₄	mg/L	<1.0	*	*	*
Phenols	mg/L	<0.002	*	*	*
Tot. Org. Carbon	mg/L	2.40	*	1.000	*
Tot. Org. Halogen	mg/L	<0.005	*	0.001	*
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	4.1	*	2.7	*
Total Radium	pCi/L	1.0	*	1.0	*
Tritium	pCi/mL	3.76	*	*	*

Well: YSB 2A, New TNX Seepage Basin

Parameter	Units	meters (MSL)			
		03/14/87	03/26/87	07/30/87	10/09/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	37.5	37.8	36.9	36.5
pH	5.4	5.4	5.4	5.4	
Conductivity	uhmhos/cm	51	51	44	48
TDS	mg/L	26	*	*	*
Arsenic	mg/L	<0.002	*	*	*
Barium	mg/L	<0.014	*	*	*
Beryllium	mg/L	*	*	*	*
Cadmium	mg/L	<0.002	*	*	*
Calcium	mg/L	2.47	*	*	*
Chloride	mg/L	3.9	*	*	*
Chromium	mg/L	<0.004	*	*	*
Copper	mg/L	*	*	*	*
Cyanide	mg/L	*	*	*	*
Fluoride	mg/L	0.10	*	*	*
Iron	mg/L	0.090	*	0.090	*
Lead	mg/L	0.006	*	*	*
Magnesium	mg/L	0.506	*	*	*
Manganese	mg/L	<0.003	*	*	*
Mercury	mg/L	<0.0002	*	<0.0002	*
Nickel	mg/L	<0.004	*	0.005	*
Potassium	mg/L	1.33	*	*	*
Selenium	mg/L	<0.002	*	*	*
Silica	mg/L	3.98	*	*	*
Silver	mg/L	<0.0020	*	*	*
Sodium	mg/L	7.53	*	5.04	*
Total Phosphate	mg/L	0.030	0.030	0.030	*
Zinc	mg/L	0.023	*	*	*
NO ₃ (as N)	mg/L	0.95	*	1.11	*
SO ₄	mg/L	<1.0	*	*	*
Phenols	mg/L	<0.002	*	*	*
Tot. Org. Carbon	mg/L	2.40	*	1.000	*
Tot. Org. Halogen	mg/L	<0.005	*	0.001	*
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	4.1	*	2.7	*
Total Radium	pCi/L	1.0	*	1.0	*
Tritium	pCi/mL	4.89	*	*	*

TABLE 4-23
CHEMICAL CONCENTRATIONS IN TNX GROUNDWATER

Well: YSB 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		43.88
Longitude	81.757809°W	Casing Material	PVC	

Parameter	Units	03/14/87	05/04/87	07/20/87	10/09/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	37.7	37.4	36.5	36.2
pH	pH	6.1	6.3	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	4.5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.088	-	0.110	-
Lead	ug/L	<0.006	-	-	-
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	-	8.91	-
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 Tetr.	mg/L	-	-	-	-
Chloroform	mg/L	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-
Trichloroethene	mg/L	-	-	-	-
1,1,1-TCE	mg/L	-	-	-	-
Gross Alpha	pCi/L	0.3.0	-	<3.0	-
Nonvol. Beta	pCi/L	6.6	-	12.0	-
Total Radium	pCi/L	<1.0	-	13.0	-
Tritium	pCi/mL	8.28	-	-	-

Well: YSB 4A, New TNX Seepage Basin

SRP Grid	N 71020.9			meters (MSL)
Coordinates E	17740.1	Screen Zone Elevation		38.9-29.7
Latitude	33.211760°N	Top of Casing Elevation		44.07
Longitude	81.757963°W	Casing Material	PVC	

Parameter	Units	03/14/87	05/04/87	07/20/87	10/09/87
Sampling Method		Pump	Pump	Pump	Pump
Water Elevation	meters	38.9	37.1	36.4	36.1
pH	pH	5.1	5.0	5.8	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	4.18	-	-	-
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	ug/L	<0.006	-	-	-
Magnesium	mg/L	1.33	-	-	-
Manganese	mg/L	0.018	-	-	-
Mercury	mg/L	<0.0001	-	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	0.018	-	-	-
NO ₃ (as N)	mg/L	11.7	-	8.72	-
SO ₄	mg/L	19.0	-	-	-
Phenols	mg/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.40	-	1.80	-
Tot. Org. Halogen	mg/L	<0.005	-	0.005	-
Carbon Tetr.	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	8.2	-	12.0	-
Total Radium	pCi/L	1.8	-	1.4	-
Tritium	pCi/mL	8.77	-	-	-

TABLE 4-24
CHEMICAL CONCENTRATIONS IN OTHER SITES GROUNDWATER

Well: BRD 1, Road A Chemical Basin

SRP Grid N 55860.5
Coordinates E 29217.7
Latitude 33.197085°N
Longitude 81.698178°W

Screen Zone Elevation 54.5-45.4
Top of Casing Elevation 62.72
Casing Material PVC

Parameter	Units	02/11/87	05/05/87	08/01/87	10/25/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	50.6	51.3	51.2	50.9
pH	pH	4.7	5.0	5.5	5.8
Conductivity	umhos/cm	31	32	33	33
TDS	mg/L	30	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.017	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.01	-	-	-
Chloride	mg/L	2.8	-	-	-
Chromium	mg/L	0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.629	-	-	-
Lead	mg/L	0.012	0.013	0.013	0.018
Magnesium	mg/L	0.490	-	-	-
Manganese	mg/L	0.039	-	0.041	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.712	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	5.14	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.32	2.61	3.03	2
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.76	2.05	2.00	2.04
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	<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	<3.0	1.7	-
Nonvol. Beta	pCi/L	1.6	<2.0	1.7	-
Total Radium	pCi/L	1.1	1.3	1.4	-
Tritium	pCi/mL	2.16	-	-	-

Well: BRD 3, Road A Chemical Basin

SRP Grid N 55918.7
Coordinates E 29218.9
Latitude 33.197640°N
Longitude 81.697604°W

Screen Zone Elevation 57.5-48.3
Top of Casing Elevation 67.17
Casing Material PVC

Parameter	Units	02/11/87	05/05/87	07/23/87	10/25/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	50.6	51.3	51.2	50.9
pH	pH	4.7	5.0	5.5	5.8
Conductivity	umhos/cm	31	32	33	33
TDS	mg/L	30	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.017	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.01	-	-	-
Chloride	mg/L	2.8	-	-	-
Chromium	mg/L	0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.629	-	-	-
Lead	mg/L	0.012	-	-	-
Magnesium	mg/L	0.490	-	-	-
Manganese	mg/L	0.039	-	0.041	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.712	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	5.14	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	2.32	2.61	3.03	2
Total Phosphate	mg/L	<0.010	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.69	2.05	2.00	2.04
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	<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	<3.0	1.7	-
Nonvol. Beta	pCi/L	1.6	<2.0	1.7	-
Total Radium	pCi/L	1.1	1.3	1.4	-
Tritium	pCi/mL	2.16	-	-	-

Well: BRD 2, Road A Chemical Basin

SRP Grid N 56093.3
Coordinates E 29217.1
Latitude 33.197729°N
Longitude 81.698217°W

Screen Zone Elevation 54.4-45.3
Top of Casing Elevation 60.18
Casing Material PVC

Parameter	Units	02/11/87	05/05/87	07/21/87	10/25/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	51.1	51.2	51.3	51.1
pH	pH	5.3	5.6	6.2	5.7
Conductivity	umhos/cm	28	32	31	30
TDS	mg/L	24	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.006	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	1.66	-	-	-
Chloride	mg/L	2.7	-	-	-
Chromium	mg/L	0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	-	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.010	-	-	-
Lead	mg/L	0.010	0.015	0.036	0.016
Magnesium	mg/L	0.342	-	-	-
Manganese	mg/L	0.007	-	0.008	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.456	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	4.52	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.91	1.94	2.04	2.11
Total Phosphate	mg/L	0.025	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.35	1.10	1.53	1.48
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	<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	1.4	<3.0	<3.0	-
Nonvol. Beta	pCi/L	3.8	<2.0	1.5	-
Total Radium	pCi/L	0.8	0.8	0.4	-
Tritium	pCi/mL	1.80	-	-	-

Well: BRD 4, Road A Chemical Basin

SRP Grid N 56060.4
Coordinates E 29219.2
Latitude 33.197431°N
Longitude 81.697207°W

Screen Zone Elevation 48.5-39.3
Top of Casing Elevation 60.32
Casing Material PVC

Parameter	Units	02/11/87	04/14/87	07/23/87	10/25/87
Sampling Method	Pump	Pump	Pump	Pump	
Water Elevation	meters	50.8	51	51.1	50.8
pH	pH	4.7	4.8	4.9	5.3
Conductivity	umhos/cm	24	26	26	23
TDS	mg/L	<5	-	-	-
Arsenic	mg/L	<0.002	-	-	-
Barium	mg/L	0.005	-	-	-
Beryllium	mg/L	-	-	-	-
Cadmium	mg/L	<0.002	-	-	-
Calcium	mg/L	0.915	-	-	-
Chloride	mg/L	2.5	-	-	-
Chromium	mg/L	<0.004	-	-	-
Copper	mg/L	-	-	-	-
Cyanide	mg/L	<0.10	-	-	-
Fluoride	mg/L	<0.10	-	-	-
Iron	mg/L	0.012	-	-	-
Lead	mg/L	0.007	<0.005	0.008	<0.006
Magnesium	mg/L	0.361	-	-	-
Manganese	mg/L	0.005	-	0.006	-
Mercury	mg/L	<0.0002	-	-	-
Nickel	mg/L	-	-	-	-
Potassium	mg/L	0.420	-	-	-
Selenium	mg/L	<0.002	-	-	-
Silica	mg/L	4.11	-	-	-
Silver	mg/L	<0.0020	-	-	-
Sodium	mg/L	1.54	1.93	1.93	2.42
Total Phosphate	mg/L	0.014	-	-	-
Zinc	mg/L	-	-	-	-
NO ₃ (as N)	mg/L	1.15	1.12	1.48	1.34
SO ₄	mg/L	8.0	-	-	-
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	<3.0	1.2	-
Nonvol. Beta	pCi/L	2.0	<2.0	1.0	<1.0
Total Radium	pCi/L	1.0	0.7	1.0	-
Tritium	pCi/mL	2.19	-	-	-

TABLE 4-24
CHEMICAL CONCENTRATIONS IN OTHER SITES GROUNDWATER

Well: CBW 1, Background Well Near Hawthorne Fire Tower		Meters (MSL)			
SRP Grid	N 87385.2	Screen Zone Elevation	85.0-76.1	Top of Casing Elevation	101.68
Coordinates	E 87162.0	Casing Material	FVC		
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	6.7	5.0	5.3	5.3
Conductivity	umhos/cm	.5	20	15	16
TDS	mg/L	12	-	-	-
Arsenic	ng/L	<0.002	-	-	-
Barium	ng/L	<0.004	-	-	-
Beryllium	ng/L	-	-	-	-
Cadmium	ng/L	<0.002	-	-	-
Calcium	ng/L	0.868	-	-	-
Chloride	ng/L	2.1	-	-	-
Chromium	ng/L	<0.004	-	-	-
Copper	ng/L	-	-	-	-
Cyanide	ng/L	-	-	-	-
Fluoride	ng/L	0.10	-	-	-
Iron	ng/L	0.027	-	-	-
Lead	ng/L	0.013	-	<0.006	-
Magnesium	ng/L	0.183	-	-	-
Manganese	ng/L	0.014	-	-	-
Mercury	ng/L	<0.002	-	-	-
Nickel	ng/L	-	-	-	-
Potassium	ng/L	0.170	-	-	-
Selenium	ng/L	<0.002	-	-	-
Silica	ng/L	3.18	-	-	-
Silver	ng/L	<0.0020	-	-	-
Sodium	ng/L	1.12	-	-	-
Total Phosphate	ng/L	0.300	-	-	-
Zinc	ng/L	-	-	-	-
NO ₃ (as N)	ng/L	<0.05	-	-	-
SO ₄	ng/L	<5.0	-	-	-
Phenols	ng/L	<0.002	-	-	-
Tot. Org. Carbon	mg/L	1.06	-	<1.030	-
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	8.8	-	-	-
Total Radium	pCi/L	<1.0	-	-	-
Tritium	pCi/mL	2.67	-	-	-

TABLE 4-25
DETECTION LIMITS FOR OTHER CONSTITUENTS

Constituent	Detection Limit (mg/L)	Constituent	Detection Limit (mg/L)
GCMS Scan			
1,1,2,2-Tetrachloroethane			
1,1,2-Trichloroethane	0.01	2,4-D	0.0003
1,1-Dichloroethane	0.005	Endrin	0.00007
1,1-Dichloroethylene	0.005	Lindane	0.00001
1,2-Dichloroethane	0.001	Methoxychlor	0.0005
1,2-Dichloropropane	0.01	Silvex (2,4,5-T)	0.00009
2-Chloroethylvinyl Ether	0.01	Toxaphene	0.00176
Benzene	0.005		
Bromodichloromethane	0.005		
Bromoform	0.01		
Bromomethane	0.01		
Chlorobenzene	0.005		
Chloroethane	0.01		
Chloroethylene	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)			
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-Dichlorophenoxy	0.01	Aldrin	0.0002
2,4-Dimethylphenol	0.01	Chlordane	0.0026
2,4-Dinitrophenol	0.05	Dieldrin	0.00004
2,4-Dinitrotoluene	0.02	Endosulfan Sulfate	0.00011
2,6-Dinitrotoluene	0.02	Endrin Alderhyde	0.00013
2-Chlorotoluene	0.01	Heptachlor	0.00002
2-Chlorophenol	0.01	Heptachlor Epoxide	0.00003
2-Methyl-4-tert-nitrophenol	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
Benzidine	0.04	delta-Benzene Hexachloride	0.00002
Benz(a)anthracene	0.01		
Benz(a)pyrene	0.02		
Benzol(g,h,i)perylene	0.02		
Benzol(k)fluoranthene	0.02		
Bis(2-chloroethoxy)methane	0.02		
Bis(2-chloroethyl)ether	0.01		
Bis(2-chloroisopropylether	0.02		
Bis(2-ethylhexyl) Phthalate	0.01		
Butylbenzyl Phthalate	0.01		
Chrysene	0.02		
Di-n-butyl Phthalate	0.01		
Di-n-octyl Phthalate	0.01		
Dibenzo(a,h)anthracene	0.02		
Diethyl Phthalate	0.01		
Dimethyl Phthalate	0.01		
Fluoranthene	0.01		
Fluorene	0.01		
Hexachlorobenzene	0.01		
Hexachlorobutadiene	0.01		
Hexachlorocyclopentadiene	0.01		
Hexachloroethane	0.01		
Indenol(1,2,3-c,d)pyrene	0.02		
Iso-phorone	0.01		
N-Nitrosodi-n-propylamine	0.01		
N-Nitrosodimethylamine	0.01		
N-Nitrosodiphenylamine	0.01		
Naphthalene	0.01		
Nitrobenzene	0.01		
Pentachlorophenol	0.01		
Phenanthrene	0.01		
Pyrene	0.01		
Pesticides/Herbicides (Pest/Herb*) Short List			
* An asterisk following the Pest/Herb callout indicates that only the analyses in this table were conducted.			
Pesticides/Herbicides (Pest/Herb)			
Appendix IX			
alpha-Benzene Hexachloride	0.00001		
Acetone	0.1		
Acetophenone	0.01		
Acrolein	0.01		
Acrylonitrile	0.008		
alpha-Endosulfan	0.00004		
Aldrin	0.00002		
Acenaphthene	0.01		
Acenaphthylene	0.01		
Aniline	0.01		
Anthracene	0.01		
Allyl Chloride	0.1		
Azimphos Methyl	0.0077		
Benz(a)anthracene	0.01		
Benzol(a)pyrene	0.01		
beta-Benzene Hexachloride	0.00001		
Butylbenzyl Phthalate	0.01		
beta-Endosulfan	0.00006		
Benzoic Acid	0.01		
Benzol(g,h,i)perylene	0.01		
Benzol(k)fluoranthene	0.01		
Bromodichloromethane	0.005		
Benzyl Alcohol	0.02		
Bis(2-chloroethyl) Ether	0.01		
Bis(2-chloroethoxy) Methane	0.01		
Bis(2-chloroisopropyl) Ether	0.01		
Bis(2-ethylhexyl) phthalate	0.01		
Trichlorofluoromethane	0.005		
Bromoform	0.003		
Chrysene	0.01		
Bromomethane	0.01		
Chloromethane	0.01		
Acetonitrile (Methyl Cyanide)	0.017		
Chlorobenzilate	0.01		
Chlorobenzene	0.005		
Chlordane	0.0026		
Chlorpyrifos	0.0063		
Pentachlorobenzene	0.01		
Pentachloroethane	0.01		

TABLE 4-25
DETECTION LIMITS FOR OTHER CONSTITUENTS, CONT'D.

<u>Constituent</u>	<u>Detection Limit (mg/L)</u>	<u>Constituent</u>	<u>Detection Limit (mg/L)</u>
Appendix IX cont.		Appendix IX cont.	
Pentachloronitrobenzene	0.01	Antimony	0.003
Hexachlorobenzene	0.01	Selenium	0.00025
Hexachlorocyclopentadiene	0.01	Silvers	0.12
Hexachloroethane	0.01	Tin	0.025
Cobalt	0.002	Styphos	0.005
Carbon Disulfide	0.003	Styrene	0.005
Cyanide	0.005	Sulfide	1
Chloroethene	0.01	Sulproteos	0.0071
Chloroethane	0.01	1,2,4,5-Tetrachlorobenzene	0.01
Benzene	0.005	1,1,2,2-Tetra-chloroethane	0.003
Benzene-thiol	0.01	1,1,1,2-Tetrachloroethane	0.005
Dibenz(a,h)anthracene	0.01	Thallium	0.002
delta-Benzene Hexachloride	0.00002	Tetraphene	0.00176
Dibromochloromethane	0.005	trans-1,2-Dichloroethene	0.005
Diethyl Phthalate	0.01	trans-1,4-Dichloro-2-butene	0.005
Diazinon	0.005	Vanadium	0.002
Dibenzofuran	0.01	Vinyl Acetate	0.005
Dichlorvos	0.011	1-Naphthylamine	0.01
Dioxin	0.00005	1-Nitrosopiperidine	0.01
Disulfoton	0.0015	1,1-Dichloroethylene	0.005
Dieidrin	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	1,2-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	1,2-Dichlorobenzene	0.01
Fluoranthene	0.01	cis-1,3-Dichloropropene	0.005
Fenthion	0.0065	trans-1,3-Dichloropropene	0.005
Fluorene	0.01	1,3-Dinitrobenzene	0.01
Turans	0.00005	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
Ideeno(1,2,3-c,d)pyrene	0.01	2-Chloroethylvinyl Ether	0.005
Iodomethane	0.005	2-Chlorophenol	0.01
Isonaafrole	0.01	2-Chloronaphthalene	0.01
Isonophrone	0.01	2-Dinitrophenol	0.01
Lindane	0.00001	2-Hexanone	0.03
Malononitrile	0.01	2-Methylnaphthalene	0.01
Methacrylonitrile	0.005	2-Methyl Phenol	0.01
Toluene	0.005	2-Nitroaniline	0.01
Methyl-ethyl ketone	0.1	2-Vicoline	0.01
Methyl Methacrylate	0.003	2,3,4,6-Tetrachlorophenol	0.01
Methyl Methanesulfonate	0.01	2,4-O	0.00689
Merphos	0.01	2,4-Dichlorophenol	0.01
Malathion	0.0064	2,4-Dimethylphenol	0.01
m-Xylene	0.005	2,4-Dinitrophenol	0.01
Naphthalene	0.01	2,4-Dinitrotoluene	0.01
Nitrobenzene	0.01	2,4,5-Trichlorophenol	0.01
N-Nitro- <i>n</i> -dimethylamine	0.01	2,4,6-Trichlorophenol	0.01
N-Nitroso- <i>n</i> -butylamine	0.01	2,4-Dichlorophenol	0.01
N-Nitroso- <i>n</i> -propylamine	0.01	2,6-Dinitrotoluene	0.01
N-Nitroso- <i>n</i> -ethylamine	0.01	3-Methylcholanthrene	0.01
N-Nitrosoethylmethylamine	0.01	3-Nitroaniline	0.05
N-Nitrosomorpholine	0.01	3,3-Dichlorobenzidine	0.02
N-Nitrosodiphenylamine	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	0.00068	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	7,12-Dimethylbenz[a]anthracene	0.01
2,2'-Bis(4-chlorophenyl)-1,1-dichloroethane	0.00008		
2,2'-Bis(4-chlorophenyl)-1,1-dichloroethene	0.00004		
2,2'-Bis(4-chlorophenyl)-1,1,1-trichloroethane	0.00012		
Propionitrile	0.003		
Parathion Ethyl	0.0071		
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

<u>Radioactive Constituent</u>	<u>DWS (pCi/L)</u>	<u>Burial Grounds</u>			
		<u>(BG)</u>	<u>(MGA)</u>	<u>(MGC)</u>	<u>(MGE)</u>
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

<u>Radioactive Constituent</u>	<u>DWS (pCi/L)</u>	<u>Burial Grounds</u>	
		<u>(MGG)</u>	<u>(MGI)</u>
Gross Alpha	15	618	6
Nonvol. Beta	NA	12,600	175
Tritium	20 pCi/mL	118,000,000	302,000

<u>Radioactive Constituent</u>	<u>DWS (pCi/L)</u>	<u>F Area</u>			
		<u>Seepage Basins (F)</u>	<u>Acid/Caustic Basin (FAC)</u>	<u>A Line (FAL)</u>	<u>Burning/Rubble Pits (FBP)</u>
Gross Alpha	15	192	36.5	3.6	8.1
Nonvol. Beta	NA	2,420	38.4	12.5	98.2
Radium	5	-	23.1	1.5	6.3
Strontium 90	8	231	-	-	-
Tritium	20 pCi/mL	67,200	1.22	1.90	11.1

<u>Radioactive Constituent</u>	<u>DWS (pCi/L)</u>	<u>F Area</u>				
		<u>Coal Pile Runoff Basin (FCB)</u>	<u>Old Seepage Basin (FNB)</u>	<u>Seepage Basins (FSB)</u>	<u>Tank Farm (FTF)</u>	<u>Naval Fuels (NFG)</u>
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		Coal Pile Runoff	
		Seepage Basins (H)	Canyon Building (HCA)	Basin (HCB)	Old 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		Tank Farm	
		Retention Basin (HR8)	Seepage Basins (HSB)	Tank (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			ZW Wells (ZW)
		S Area (SBG)	Z Area (ZBG)	Z Wells (Z)	
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

Radioactive Constituent	DWS (pCi/L)	<u>C Area</u>				
		Coal		Dis-assembly (CDB)	Burning/ Rubble Pit (CRP)	Reactor Seepage Basins (CSB)
		Pile	Runoff Basin (CCB)			
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	
<u>K Area</u>						
Radioactive Constituent	DWS (pCi/L)	Coal				
		Ash Basin (KAB)	Acid/Caustic Basin (KAC)	Runoff Basin (KCB)	Dis-assembly Basin (KDB)	Retention Basin (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	5.3	14.5	5.0	2.6
Tritium	20 pCi/mL	10.4	12.5	34.5	4,380	238,000
<u>K Area</u>						
Radioactive Constituent	DWS (pCi/L)	Burning/ Rubble Reactor Seepage				
		Pit (KRP)	Basin (KSB)			
Gross Alpha	1 ^e	<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				Reactor Seepage Basin (LSB)
		Acid/ Caustic Basin (LAC)	Oil and Chemical Basin (LCO)	Dis- assembly Basin (LDB)	Burning/ Rubble Pit (LRP)	
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				Reactor Seepage Basins (PSB)
		Acid/ Caustic Basin (PAC)	Coal Pile Runoff Basin (PCB)	Dis- assembly Basin (PDB)	Burning/ Rubble Pit (PRP)	
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				Reactor Seepage Basins (RSC)
		Acid/ Caustic Basin (RAC)	Burning/ Rubble Pits (RRP)	Reactor Seepage Basins (RSA)	Reactor Seepage Basins (RSB)	
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 (RSF)
		Reactor Seepage Basins (RSD)	Reactor Seepage Basins (RSE)	Reactor Seepage Basins (RSF)	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	A/M Areas			Coal Pile Runoff Basin (ACB)	Met. Lab. Seepage Basin (AMB)	Motor Shop Oil Basin (AOB)
	DWS (pCi/L)	Metals Burning Pit (ABP)	Back- Ground Well (ABW)			
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	A/M Areas			Misc. Chemical Basin (MCB)	M-Area Settling Basin (MSB)	Silver-ton Road (SRW)
	DWS (pCi/L)	Burning/ Rubble Pits (ARP)	SRL Seepage Basins (ASB)			
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	Central Shops			Hydro- fluoric Spill Area (CSA)	Fire Dept. Training Facility (CSO)	Burning/ Rubble Pits (CSR)
	DWS (pCi/L)	Fire Dept. Training Facility (CSO)	Burning/ Rubble Pits (CSR)			
Gross Alpha	15	<3.0	<3.0	Hydro- fluoric Spill Area (CSA)	Fire Dept. Training Facility (CSO)	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

Radioactive Constituent	DWS (pCi/L)	D and TNX Areas				New (YSB)
		Burning/ Rubble	Pile Pits (DBP)	Oil Runoff Basin (DCB)	Disposal Basin (DOB)	
						Old TNX Seepage Basin (XSB)
Gross Alpha	15	<3.0	92.1	<3.0	125	6.3
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	<3.0	28.6	
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	F Area				
	DWS (mg/L)	Acid/ Caustic	A Line (FAL)	Burning/ Rubble Pits (FBP)	Canyon Building (FCA)
		Basin (FAC)			
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
Trichlene	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		Old		Tank	Naval
		Pile	Runoff	Seepage	Basin		
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
Trichlene	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			
		Coal		Old Retention Basin (HR3)	Retention Basin (HR8)
		Canyon Building (HCA)	Pile Runoff Basin (HCB)		
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
Trichlene	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

<u>Constituent</u>	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	-
Trichlene	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
Trichlene	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		Burning/ Rubble (CRP)	Reactor Seepage (CSB)
		Pile Runoff Basin	Dis- assembly Basin (CCB)		
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
Trichlene	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 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	K Area					
	DWS (mg/L)	Coal		Dis-assembly Basin (KDB)	Reten- tion Basin (KRB)	
		Ash Basin (KAB)	Acid/ Caustic Basin (KAC)			
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
Trichlene	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	K Area		
	DWS (mg/L)	Burning/ Rubble	Reactor Seepage
		Pit (KRP)	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	-
Trichlorethane	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		Dis- assembly Basin (LDB)	Burning/ Rubble Pit (LRP)	Reactor Seepage Basin (LSB)
		Acid/ Caustic Basin (LAC)	Oil and Chemical Basin (LCO)			
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	-
Trichlene	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)	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	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	<0.002
Chromium	0.05	<0.004	0.030	<0.004	<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	0.0002	<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		-
Chloreform	0.1*	-	<0.005	-	<0.001		-
Trichlene	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	-	-	<0.0004	<0.0004
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	-	-
Trichlene	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	A/M Areas					
	DWS (mg/L)	Metals Burning Pit (ABP)	Back- Ground Well (ABW)	Coal Pile Runoff (ACB)	Met. Lab. Seepage (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
Trichlene	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	A' Areas					
	DWS (mg/L)	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
Trichlene	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	Central Shops					Ford Building Seepage Basin (HXB)
	DWS (mg/L)	Hydro- fluoric Spill Area (CSA)	Fire Dept. Training Facility (CSO)	Burning/ Rubble Pits (CSR)	Hazard- ous Waste Storage (HWS)	
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	-	-
Trichlene	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	D and TNX Areas					
	DWS (mg/L)	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	-
Trichlene	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	Miscellaneous Sites				
	DWS (mg/L)	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
Trichlene	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	25	0.37	±0.20	-0.40	±0.33	0.17 ±0.30
AVERAGE						0.63 ±1.1
<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	3	7.6	±6.4	4.8	±2.7	6.6 -
AVERAGE						7.0 ±5.9
<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 ±1.7
WAYNESBORO, GA	26	5.7	±2.4	0.00	±1.9	1.5 ±4.6
MAJOR DISTRIBUTOR	26	5.6	±1.7	0.00	±6.1	1.6 ±4.1
AVERAGE						2.1 ±4.8
<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	26	0.00	±2.4	0.00	±7.1	0.00 -
AVERAGE						0.02 ±0.61

- Insufficient data.

TABLE 5-1
RADIOACTIVITY IN FOOD

Type Food	No. of Samples	Maximum	CT ERR 95% CL	Minimum	CT ERR 95% CL	Arithmetic Mean	2 Std. Dev.
Sr-90, pCi/g (wet weight)							
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	0.69	±0.096	-0.081	±0.079	-	-
Zr-Nb-95, pCi/g (wet weight)							
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	-	-
Ru-103, 106, pCi/g (wet weight)							
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	-	-
Cs-137, pCi/g (wet weight)							
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	-	-
K-40, pCi/g (wet weight)							
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.

Type Food	No. of Samples	Maximum	CT ERR 95% CL	Minimum	CT ERR 95% CL	Arithmetic Mean	2 Std. Dev.
Tritium, pCi/mL (free water)							
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/Pu, pCi/g (wet weight)							
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	-	-
Pu-239, fCi/g (wet weight)							
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	-	-
Pu-238, fCi/g (wet weight)							
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	Maximum	CT ERR 95% CL	Minimum	CT ERR 95% CL	Arithmetic 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

<u>Site</u>	<u>No. of Samples</u>		Ct. Err.		Ct. Err.		<u>2 Std Dev.</u>
		<u>Maximum</u>	<u>95% Cl.</u>	<u>Minimum</u>	<u>95% Cl.</u>	<u>Average</u>	
Plant							
		Gross Alpha (pCi/L)					
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
Town Source							
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
Treatment Plant							
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.

<u>Site</u>	<u>No. of Samples</u>	<u>Maximum</u>	Ct. Err. <u>95% Cl.</u>	<u>Minimum</u>	Ct. Err. <u>95% Cl.</u>	<u>Average</u>	<u>2 Std Dev.</u>
<u>Plant</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	2.18
Jackson Gate	4	1.32	1.03	0.44	1.09	1.01	0.72
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
<u>Town Source</u>							
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	
New Ellenton Well	2	1.62	1.08	0.87	1.14	1.24	0.44
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
<u>Treatment Plant</u>							
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.

<u>Site</u>	<u>No. of Samples</u>	<u>Maximum</u>	Ct. Err. <u>95% Cl.</u>	<u>Minimum</u>	Ct. Err. <u>95% Cl.</u>	<u>Average</u>	<u>2 Std Dev.</u>
Plant							
		H-3 (pCi/mL)					
A Area	4	0.18	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 Augusto 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

<u>Location</u>	<u>No. of Samples</u>	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	400	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.

<u>Location</u>	<u>No. of Samples</u>	Residual Chlorine (ppm)			Total Coliform (colonies/100mL)		
		<u>Maximum</u>	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Average</u>
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-E</u>	<u>200-H</u>
pH (pH units) (lab)	7.35	7.03	6.57	7.34	6.80	4.63
Conductivity ($\mu\text{mhos}/\text{cm}$)	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 ($\mu\text{mhos}/\text{cm}$)	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	48	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 ($\mu\text{mhos}/\text{cm}$)	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-Dichloroethylene (1,1-Dichloroethylene)	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
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
Tetrachloroethylene (perchloro 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
Trichloroethylene (trichloro ethylene)	<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 (µg/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-Dichloroethylene (1,1-Dichloroethylene)	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethylene (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
Tetrachloroethylene (perchloro 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 (trichloro (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>	1,1,1-Trichloroethane			Trichloroethylene			Tetrachloroethylene		
			<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	41.3	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

Sample Location	No. of Samples	Maximum Concentration $\mu\text{g/L}$ (ppb)		
		1,1,1-Trichloroethane	Trichloroethylene	Tetrachloroethylene
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

<u>Location</u>	<u>Species</u>	<u>No. of Samples</u>	<u>Gross Alpha in Flesh, pCi/g</u>		
			<u>Maximum</u>	<u>Minimum</u>	<u>Arithmetic Mean</u> <u>± 2 Std Dev</u>
<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
	Croker	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.

<u>Location</u>	<u>Species</u>	<u>No. of Samples</u>	<u>Gross Beta in Flesh, pCi/g</u>		
			<u>Maximum</u>	<u>Minimum</u>	<u>Arithmetic Mean ± 2 Std Dev</u>
<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
	Croaker	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	8.8 ±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
Pen Branch	Crappie	1	4.4 ±1.4	4.4 ±1.4	-
	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.

<u>Location</u>	<u>Species</u>	<u>No. of Samples</u>	Whole Fish, Cs-137, pCi/g		
			<u>Maximum</u>	<u>Minimum</u>	<u>Arithmetic Mean ± 2 Std Dev</u>
<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	0.96±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	-
<u>Ponds</u>					
Par Pond	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	-
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.

<u>Location</u>	<u>Species</u>	<u>No. of Samples</u>	<u>Whole Fish, Cs-137, pCi/g</u>		
			<u>Maximum</u>	<u>Minimum</u>	<u>Arithmetic Mean ± 2 Std Dev</u>
<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

<u>Location</u>	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)

<u>Location</u>	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

Species	No. of Animals	Cs-137 Concentrations, pCi/g		
		Maximum	Minimum	Mean
Deer	606	45	<1	5 ± 5
Hog	123	11	<1	3 ± 2

TABLE 6-4
SUMMARY OF CESIUM-137 IN DEER

Year	No. of Deer		Average, pCi/g		Maximum, pCi/g	
	SRP	SCCP ^a	SRP	SCCP ^a	SRP	SCCP ^a
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	1,251	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	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
11/14/87	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		
12/12/87	4996	13	4.2 ± 0.3		<1.1
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>	Tritium in Flesh (pCi/mL) ^a
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	5.9 ± 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	120 ± 20
11/11/87	Hog	5762	<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>	I-129 Thyroid	Cs-137 Thyroid	Cs-137 Muscle
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 \pm 2 Std Dev			3.02 \pm 4.01	1.98 \pm 1.32	3.76 \pm 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 #	Nonvolatile				
			Alpha (pCi/g)	Beta (pCi/g)	Sr-89,90 (pCi/g)	Cs-137 (pCi/g)	K-40 (pCi/g)
1/8/87	Comp. 12	(#1)	0.0 ± 0.23	1.98 ± 1.37		0.51 ± 0.22	2.69 ± 0.97
1/8/87	Comp. 10	(#2)	-0.08 ± 0.17	3.06 ± 1.47		1.58 ± 0.30	5.92 ± 1.98
1/8/87	Comp. 10	(#3)	0.58 ± 0.5	3.48 ± 1.49		1.64 ± 0.20	0.88 ± 0.51
1/8/87	Comp. 14	(#4)	0.42 ± 0.44	3.72 ± 1.52		0.62 ± 0.12	<2.23
							5.72 ± 1.31
							2.01 ± 1.20
							1.76 ± 1.19
							3.63 ± 1.25

Date	Bone	ID #	Nonvolatile				
			Alpha (pCi/g)	Beta (pCi/g)	Sr-89,90 (pCi/g)	Cs-137 (pCi/g)	K-40 (pCi/g)
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>CADMUM. mg/kg (dry weight)</u>			
		<u>Tissue</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	0.19	7.20	2.56 ± 4.02
		Kidney	0.72	5.50	3.78 ± 2.41

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

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

TABLE 7-1
RADIOACTIVITY DEPOSITED IN RAINWATER

	pCi/m ²	pCi/m ²	pCi/m ²	nCi/m ²					
Location	Alpha	Nonvol	Sr-89-90	Be-7	Cs-137	I-131	Bu-106	Zr-95	Ce-144
Onplant	Beta							Nb-95	
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				

<u>Location</u>	<u>pCi/m²</u>	<u>pCi/m²</u>
<u>Onplant</u>	<u>Pu-239</u>	<u>Pu-238</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

<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>H-3, pCi/mL</u>							
<u>Plant Perimeter</u>							
Dark Horse	23	85	±0.88	-7.7	±0.18	4.6	±3.5
<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)			
	Sr-90 ^b	Cs-137 ^b	Pu-238 ^b	Pu-239 ^b
<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)			
	Sr-90 ^b	Cs-137 ^b	Pu-238 ^b	Pu-239 ^b
<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	Max	Avg
Sr-90										
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		
Cs-137										
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		
Pu-238										
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.

Pu-239	Deposition, mCi/km ²							
	F Area		H Area		Plant Perimeter		100-Mile Radius	
	Max	Avg	Max	Avg	Max	Avg	Max	Avg
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	Cs-137, pCi/g (dry weight) (0-8 cm depth)				
		1975-1984				
		Arithmetic				
	Mile	Mean ± 2 STD DEV	1985 ^a	1986 ^a	1987 ^a	
<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	
<hr/>						
K-40, pCi/g (dry weight) (0-8 cm depth)						
Location	River	1982-1984				
		Arithmetic				
		Mean ± 2 STD DEV	1985 ^a	1986 ^a	1987 ^a	
<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.

Location	River	Mile	Co-60, pCi/g (dry weight) (0-8 cm depth)			
			1977-1984			
			Arithmetic Mean \pm 2 STD DEV	1985 ^a	1986 ^a	1987 ^a
<u>Savannah River</u>						
Below Four Mile Creek		150.2	0.18 \pm 0.64	-	-	-
Above Little Hell Landing		136.5	0.13 \pm 0.46	-	-	-
Below Little Hell Landing		134.0	0.2 \pm 0.74	-	-	-
Above Lower Three Runs		129.5	0.18 \pm 0.64	-	-	-
Highway 301		118.7	0.18 \pm 0.64	-	-	-
Control Above Plant						
Demier's Landing		160.5	0.15 \pm 0.56	-	-	-
<u>SRP Streams</u>						
Four Mile at Road A-7			0.9 \pm 1.8	3.4 \pm 0.2	-	-
Four Mile A-7A (in Beaver Pond)			0.95 \pm 0.42	b	-	0.77 \pm 0.14
Four Mile Discharge at Swamp			2.0 \pm 2.5	-	-	0.07 \pm 0.03
Pen Branch Discharge at Swamp			2.5 \pm 6.6	-	-	1.8 \pm 0.31
Steel Creek at Road B			4.5 \pm 19	-	-	-
Steel Creek Discharge at Swamp			2.2 \pm 5	-	0.22 \pm 0.03	1.1 \pm 0.16
Steel Creek - Pen Branch Mouth			0.18 \pm 0.5	-	-	1.8 \pm 0.28
Lower Three Runs Mouth			0.11 \pm 0.52	-	-	-
Control						
Upper Three Runs Mouth			0.55 \pm 0.21	-	-	-
<hr/>						
Sr-90, pCi/g (dry weight) (0-8 cm depth)						
Location	River	Mile	1976-1984			
			Arithmetic Mean \pm 2 STD DEV	1985 ^a	1986 ^a	1987 ^a
<u>Savannah River</u>						
Below Four Mile Creek		150.2	0.06 \pm 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 \pm 0.10	b	0.01 \pm 0.04	0.06 \pm 0.05
Below Little Hell Landing		134.0	0.13 \pm 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 \pm 0.08	0.06 \pm 0.04	0.05 \pm 0.04	0.04 \pm 0.04
Highway 301		118.7	0.09 \pm 0.14	b	0.04 \pm 0.04	0.03 \pm 0.05
Control Above Plant						
Demier's Landing		160.5	0.07 \pm 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 \pm 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 \pm 3.8	b	0.01 \pm 0.04	0.98 \pm 0.22
Four Mile Discharge at Swamp			0.39 \pm 0.42	0.47 \pm 0.14	0.15 \pm 0.05	0.32 \pm 0.14
Pen Branch Discharge at Swamp			0.14 \pm 0.18	0.03 \pm 0.02	-0.01 \pm 0.04	b
Steel Creek at Road B			0.2 \pm 0.62	0.07 \pm 0.10	0.07 \pm 0.05	0.06 \pm 0.14
Steel Creek Discharge at Swamp			0.16 \pm 0.28	0.01 \pm 0.02	0.01 \pm 0.04	0.02 \pm 0.14
Steel Creek - Pen Branch Mouth			0.15 \pm 0.18	0.01 \pm 0.02	0.16 \pm 0.05	-0.01 \pm 0.14
Lower Three Runs Mouth			0.08 \pm 0.18	0.16 \pm 0.10	-0.01 \pm 0.04	0.025 \pm 0.14
Control						
Upper Three Runs Mouth			0.22 \pm 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.

Pu-238, pCi/g (dry weight) (0-8 cm depth)					
1975-1984					
Location	River	Arithmetic			
		Mile	Mean \pm 2 STD DEV	1985 ^a	1986 ^a
<u>Savannah River</u>					1987 ^a
Below Four Mile Creek		150.2	0.001 \pm 0.004	0.0001 \pm 0.001	0.0002 \pm 0.0008
Above Little Hell Landing		136.5	0.002 \pm 0.002	0.005 \pm 0.002	< 0.006
Below Little Hell Landing		134.0	0.002 \pm 0.006	0.001 \pm 0.001	0.0006 \pm 0.0005
Above Lower Three Runs		129.5	0.002 \pm 0.002	0.012 \pm 0.002	< 0.006
Highway 301		118.7	0.002 \pm 0.002	b	0.0002 \pm 0.0005
Control Above Plant					< 0.002
Demier's Landing		160.5	0.002 \pm 0.002	0.0004 \pm 0.001	0.0002 \pm 0.0002
<u>SRP Streams</u>					
Four Mile at Road A-7		0.37	\pm 0.74	1.26 \pm 0.023	0.036 \pm 0.003
Four Mile A-7A (in Beaver Pond)		0.2	\pm 0.0	b	0.022 \pm 0.003
Four Mile Discharge at Swamp		0.078	\pm 0.17	0.006 \pm 0.001	0.002 \pm 0.001
Pen Branch Discharge at Swamp		0.011	\pm 0.14	0.019 \pm 0.003	0.0002 \pm 0.0009
Steel Creek at Road B		0.032	\pm 0.039	0.006 \pm 0.001	0.0008 \pm 0.0006
Steel Creek Discharge at Swamp		0.045	\pm 0.11	0.20 \pm 0.008	0.022 \pm 0.003
Steel Creek - Pen Branch Mouth		0.002	\pm 0.002	0.0004 \pm 0.0006	0.0008 \pm 0.0005
Lower Three Runs Mouth		0.007	\pm 0.030	0.0007 \pm 0.001	0.0005 \pm 0.0009
Control					0.02 \pm 0.0
Upper Three Runs Mouth		0.003	\pm 0.004	0.0003 \pm 0.0004	0.003 \pm 0.002
Pu-239, pCi/g (dry weight) (0-8 cm depth)					
1975-1984					
Location	River	Arithmetic			
		Mile	Mean \pm 2 STD DEV	1985 ^a	1986 ^a
<u>Savannah River</u>					1987 ^a
Below Four Mile Creek		150.2	0.002 \pm 0.002	0.0004 \pm 0.005	0.0008 \pm 0.001
Above Little Hell Landing		136.5	0.006 \pm 0.008	0.003 \pm 0.002	0.018 \pm 0.0014
Below Little Hell Landing		134.0	0.011 \pm 0.034	0.001 \pm 0.001	0.0008 \pm 0.0005
Above Lower Three Runs		129.5	0.003 \pm 0.004	0.005 \pm 0.001	0.002 \pm 0.008
Highway 301		118.7	0.003 \pm 0.004	0.0005 \pm 0.002	0.002 \pm 0.007
Control Above Plant					0.006 \pm 0.002
Demier's Landing		160.5	0.003 \pm 0.004	0.0013 \pm 0.001	0.0005 \pm 0.0003
<u>SRP Streams</u>					
Four Mile at Road A-7		0.23	\pm 0.66	0.38 \pm 0.012	0.016 \pm 0.002
Four Mile A-7A (in Beaver Pond)		0.19	\pm 0.084	b	0.011 \pm 0.002
Four Mile Discharge at Swamp		0.046	\pm 0.09	0.006 \pm 0.001	0.001 \pm 0.0008
Pen Branch Discharge at Swamp		0.02	\pm 0.034	0.032 \pm 0.004	0.0004 \pm 0.0008
Steel Creek at Road B		0.04	\pm 0.1	0.008 \pm 0.001	0.004 \pm 0.002
Steel Creek Discharge at Swamp		0.031	\pm 0.04	0.12 \pm 0.007	0.015 \pm 0.002
Steel Creek - Pen Branch Mouth		0.002	\pm 0.002	0.0008 \pm 0.000	0.002 \pm 0.0006
Lower Three Runs Mouth		0.01	\pm 0.029	0.001 \pm 0.001	0.0012 \pm 0.003
Control					0.02 \pm 0.0
Upper Three Runs Mouth		0.015	\pm 0.024	0.0006 \pm 0.000	0.009 \pm 0.003
					0.0116 \pm 0.004

^a \pm value is the 2-sigma counting error.

^b No analysis.

TABLE 7-6
RADIOACTIVITY IN VEGETATION

LOCATION	NO. OF SAMPLES	MAXIMUM	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN ± STD DEV
<u>ALPHA, PC/G</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.

LOCATION	NO. OF SAMPLES	MAXIMUM	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN 2 STD DEV
<u>NONVOL BETA PC/LG</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.

LOCATION	NO. OF SAMPLES	MAXIMUM	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN ± STD DEV
<u>H-3, PCI/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	24	±0.32	0.64	±2.4	1.7
GREENPOND	4	22	±0.51	1.5	±0.33	7.8
HIGHWAY 21/167	4	68	±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	±2.7
<u>25-MR VEGETATION</u>						
ALLENDALE	4	5.7	±0.35	0.14	±0.28	2.0
AUGUSTA ^c	0					
HIGHWAY 301 ^c	1	2.5	±2.4	2.5	±2.4	2.5
ANGLEY	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.

LOCATION	NO. OF SAMPLES	MAXIMUM	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN ± STD DEV
<u>SR-89, 90, PCIG</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, PCIG</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, PCIG</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, PCIG</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, PCIG</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, PCIG</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.

LOCATION	NO. OF SAMPLES	MAXIMUM	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN ± STD DEV
<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

<u>Location</u>	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
1A	0.04 ± 0.14	0.08 ± 0.16	13	± 1.2
2	0.00 ± 0.11	0.35 ± 0.26	15	± 1.3
3	0.00 ± 0.11	0.20 ± 0.21	14	± 1.3
3A	0.27 ± 0.23	0.31 ± 0.25	14	± 1.3
4	0.98 ± 0.40	0.12 ± 0.17	22	± 1.6
4A	0.12 ± 0.17	0.04 ± 0.14	18	± 1.4
5	0.08 ± 0.16	0.04 ± 0.14	50	± 2.3
6	0.0 ± 0.11	0.04 ± 0.14	16	± 1.4
7	0.08 ± 0.16	1.01 ± 0.30	20	± 1.5
8	0.23 ± 0.22	0.12 ± 0.17	13	± 1.2
8A	0.35 ± 0.26	0.08 ± 0.15	19	± 1.5
9	1.3 ± 0.49	-0.08 ± 0.15	48	± 2.5
9A	1.1 ± 0.45	7.62 ± 1.10	131	± 4.0
10	0.39 ± 0.29	-0.12 ± 0.13	31	± 2.0
11	0.35 ± 0.28	0.35 ± 0.30	106	± 3.6
12	0.70 ± 0.37	0.27 ± 0.28	170	± 4.6
13	-0.04 ± 0.08	0.08 ± 0.15	16	± 1.3
14	0.04 ± 0.14	0.19 ± 0.20	13	± 1.3
14A	0.12 ± 0.17	0.19 ± 0.20	12	± 1.2
15	0.47 ± 0.29	0.12 ± 0.17	19	± 1.5
16	0.39 ± 0.27	0.00 ± 0.11	19	± 1.5
17	0.02 ± 0.21	0.04 ± 0.13	18	± 1.4
18	0.02 ± 0.21	0.31 ± 0.24	27	± 1.7
19	0.35 ± 0.28	0.15 ± 0.19	21	± 1.7
19A	0.22 ± 0.14	0.04 ± 0.14	17	± 1.4
20	0.35 ± 0.26	0.04 ± 0.14	17	± 1.4
20A*	0.08 ± 0.16		9.4	± 1.1
21	0.00 ± 0.11	0.25 ± 0.23	19	± 1.5
22	0.08 ± 0.16	0.00 ± 0.12	12	± 1.2
23	0.16 ± 0.19	0.04 ± 0.14	14	± 1.3
23A	0.04 ± 0.14	0.08 ± 0.17	13	± 1.2
24	0.08 ± 0.16	0.08 ± 0.17	10	± 1.1
25	0.02 ± 0.21	0.17 ± 0.20	8.8	± 1.0
26*	0.08 ± 0.16		15	± 1.3
27	0.08 ± 0.16	0.12 ± 0.18	12	± 1.2
28	0.12 ± 0.17	0.12 ± 0.18	12	± 1.2
29	0.23 ± 0.22	0.04 ± 0.14	17	± 1.4
30*	0.02 ± 0.21		39	± 2.0
31	1.7 ± 0.53	-0.004 ± 0.08	22	± 1.6
32	0.32 ± 0.25	0.004 ± 0.13	37	± 2.0
33	0.04 ± 0.14	0.00 ± 0.11	20	± 1.5
34*	0.08 ± 0.16		20	± 1.5
35*	0.26 ± 0.25		12	± 1.4
36	0.04 ± 0.14	0.15 ± 0.19	9	± 1.1
37	0.04 ± 0.14	0.19 ± 0.20	11	± 1.2
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)

LOCATION	NO. OF SAMPLES	MAXIMUM	CTERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN ± STD DEV
<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	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN ± STD DEV
K-40, PCIG						
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	±4.7	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
MN-54, PCIG						
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 ±
ZR-95, NB-95, PCIG						
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.

LOCATION	NO. OF SAMPLES	MAXIMUM	CT ERR 95% CL	MINIMUM	CT ERR 95% CL	ARITHMETIC MEAN ± STD. DEV.
<u>BU-103, 106, PCI/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						
<u>CS-137, PCI/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, PCI/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>CT ERR 95% CL</u>	<u>MINIMUM</u>	<u>CT ERR 95% CL</u>	<u>ARITHMETIC MEAN ± STD. DEV.</u>
<u>SB-125, PCU/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, PCU/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

Ref. No.	Location	Tritium pCi/mL
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

Ref. No.	Location	Tritium pCi/mL
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

Ref. No.	Location	Tritium pCi/mL
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

Ref. No.	Location	Tritium pCi/ml
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	0.26 ± 1.11
302	Hwy. 389, 7 mi. from Neeses toward Wagener	0.37 ± 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>	Tritium <u>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 Cemetery	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 GC #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)

Area	Tritium Concentrations From Drinking Water Samples			<u>1986 EM Average^b</u>
	<u>Date Collected</u>	<u>EM Concentration</u>	<u>SRL Concentration</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	

Area	Tritium Concentrations From Well Heads		
	<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 <u>1972-1985</u>	<u>mR/Day</u>			
				Panasonic Test TLDs <u>Sept. 1986</u>	SRP ^a TLDs <u>Sept. 1986</u>	Panasonic ^{b,c} TLDs <u>April 1987</u>	Panasonic ^c TLDs <u>Sept. 1987</u>
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 ± .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
		805	0.17 ± 0.04		0.34 ± 0.03		0.17 ± 0.03
		0	0.22 ± 0.05		0.40 ± 0.03		0.24 ± 0.04
140.8	2	207	0.25 ± 0.05	0.57 ± 0.03	0.45 ± 0.04	0.23 ± 0.03	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
		975	0.18 ± 0.04		0.41 ± 0.03		0.20 ± 0.03
		0	0.23 ± 0.04		0.41 ± 0.03		0.25 ± 0.04
139.5	3	281	0.26 ± 0.08	0.74 ± 0.06	0.45 ± 0.04	0.19 ± 0.03	0.27 ± 0.04
		627	0.23 ± 0.02		0.36 ± 0.03		0.23 ± 0.03
		0	0.27 ± 0.05		0.31 ± 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
138.5	5	729	0.29 ± 0.29	0.57 ± 0.03	0.34 ± 0.03	0.21 ± 0.03	0.24 ± 0.04
		0	0.23 ± 0.06		0.04 ± 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
		0	0.24 ± 0.06		0.40 ± 0.03		0.24 ± 0.04
137	6	549	0.32 ± 0.06	0.71 ± 0.02	0.35 ± 0.03	0.21 ± 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
		0	0.23 ± 0.06		0.41 ± 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
136.3	7	823 ^d	0.25 ± 0.03	0.40 ± 0.03	0.58 ± 0.04	0.22 ± 0.03	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 <u>1972-1985</u>	<u>mR/Day</u>				
				Panasonic Test TLDs	SRP ^a TLDs	Panasonic ^{b,c} TLDs <u>Sept. 1986</u>	Panasonic ^c TLDs <u>Sept. 1987</u>	
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	
		915	0.24 ± 0.04		0.41 ± 0.03	0.25 ± 0.04	0.24 ± 0.04	
135.5	9	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	
		769	0.21 ± 0.04		0.38 ± 0.03	0.22 ± 0.03	0.21 ± 0.03	
134.4	10	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 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 8-5
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		1976		1977		1982		1985
			cm	cm	cm	cm	cm	cm	cm	cm	
141.5	1	0	41								
		178	14	21	18	13	± 0.36	19	± 0.5	24	± 0.33
		358	46								
		550	261	174	100	110	± 0.95	114	± 0.9	135	± 1.0
		656	75								
		805	1	1	1		0.57 ± 0.07		0.6 ± 0.1		0.96 ± 0.07
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	3	0	2	<1	1	1.4	± 0.18		0.6 ± 0.1		
to		281	2	2	2	2.7	± 0.21		0.9 ± 0.2		
140.8		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
		573	86								
		640	141	<1	99	158	± 1.1	67	± 0.9	106	± 0.86
		773	2	<1	1	1.1	± 0.13	0.6	± 0.1	0.78	± 0.06
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		
		884	5								
		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	Trail	Mile	Number	Distance From River (Meters)	Cs-137, pCi/g (dry weight)							
					1975 cm	1976 cm	1977 cm	1982 cm	1985 cm	1986 cm	1987 cm	
135.5	9	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			
134.4	10	134.4	10	762	1	2	2	2.0 ± 0.2	0.2 ± 0.1			
				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	Trail	Mile	Number	Distance From River (Meters)	Sr-90, pCi/g (dry weight)			
					1977 cm	1985 cm	1986 cm	1987 cm
141.5	1	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	140.8	2	207		0.06 ± 0.01		
139.5	3	139.5	3	0		0.15 ± 0.04		
to 140.8								
139	4	139	4	293		0.34 ± 0.05		
138.5	5	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	137	6	549		0.44 ± 0.06		
136.3	7	136.3	7	579		0.17 ± 0.04		
135.7	8	135.7	8	168		0.47 ± 0.06		
135.5	9	135.5	9	621		0.36 ± 0.06		
134.4	10	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					
		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
		358	3	2					<0.68	<0.34
		550	122	103	100	132	58	± 16	32	± 2
		656	22	189					36	± 1.6
		805	2	<1	<1	2	0.7	± 0.8	0.7	± 0.6
										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	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
		573	15	3						
		640	36	6	<1	12	12	± 1.0	3.4	± 0.9
		773	<1	<1	<1	2	0.8	± 0.6	0.0	± 1.1
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	Trail	Distance From River	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	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
		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	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		
		627	15 ± 12		
139	4	293	11 ± 10		
		580	30 ± 8		
		729	12 ± 13		
138.5	5	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 8-9
CESIUM-137 IN AQUATIC SPECIES

<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 \pm 2 Std. Dev.</u>
Boggy Gut Lake (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 \pm 1.1	0.4 \pm 0.6
1985	7	0.1 \pm 0.8	0.03 \pm 0.05
Catfish			
1977	2	0.2	0.2
Dry in 1987			
Jacks Lake (Trail 7)			
Composite			
1974	7	5.8	4.0
Bass			
1975	1	4.5	-
1982	1	0.5 \pm 0.3	-
1986	3	1.9 \pm 0.94	1.3 \pm 1.8
Bream			
1975	2	2.1	1.3
1977	1	<0.1	-
1982	5	0.7 \pm 1.1	0.4 \pm 0.3
1985	21	0.4 \pm 0.3	0.07 \pm 0.1
1986	8	1.8 \pm 2.4	1.1 \pm 2.1
Carp			
1977	1	<0.1	-
Catfish			
1986	2	0.89 \pm 0.47	0.88 \pm 0.51
Crappie			
1977	1	<0.6	-
1982	1	0.3 \pm 0.4	-
Crayfish			
1986	1	0.94 \pm 1.7	-
Jackfish			
1982	2	0.5 \pm 0.1	0.4
1986	1	1.1 \pm 0.36	-
1987	1	0.63 \pm 0.06	-
Sucker			
1982	2	0.2 \pm 0.2	0.2
1985	21	0.3 \pm 0.4	0.1 \pm 0.2
1986	2	0.81 \pm 0.43	0.70 \pm 0.42
Turtle			
1982	1	0.2 \pm 0.2	-
1986	1	0.7 \pm 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	<u>Cs-137 in Whole Fish, pCi/g (wet weight)</u>	
		Maximum	Average \pm 2 Std. Dev.
Cannuck Lake (Trail 8)			
Composite 1974	14	6.1	3.8
Bass 1986	1	0.43 \pm 0.09	-
Bream 1975	5	3.8	2.2
1982	8	0.6 \pm 0.8	0.3 \pm 0.3
1985	4	0.23 \pm 0.38	0.2
1986	7	2.8 \pm 1.2	1.6 \pm 1.2
1987	8	1.2 \pm 0.06	0.47 \pm 0.72
Catfish 1977	1	<0.1	-
1985	2	0.4 \pm 0.2	0.4
1987	1	0.58 \pm 0.02	-
Crappie 1982	1	0.3 \pm 0.1	-
Jackfish 1982	1	0.1 \pm 0.3	-
Shad 1985	1	0.1 \pm 0.7	-
Sucker 1982	1	0.6 \pm 0.4	-
Turtle 1982	2	0.5 \pm 0.2	0.4 \pm 0.03
1985	3	0.2 \pm 0.5	0.1
River 2 (Control)			
All Species 1974	89	1.8	1.1
1975	41	2.4	0.1
Bass 1986	3	0.08 \pm 0.29	0.03 \pm 0.30
1987	1	0.0 \pm 0.03	-
Bowfin 1986	1	0.07 \pm 0.04	-
Bream 1977	8	<0.1	<0.1
1985	6	0.0 \pm 0.8	-
1986	28	0.50 \pm 1.4	0.13 \pm 0.93
1987	26	1.1 \pm 0.22	0.19 \pm 0.66

^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 \pm 2 Std. Dev.
Catfish			
1976	6	<.01	<.01
1977	9	<.01	<.01
1982	7	0.2	<0.08
1985	7	0.0 \pm 0.4	-
1986	25	0.47 \pm 0.67	0.10 \pm 0.59
1987	5	0.44 \pm 0.88	0.09 \pm 0.39
Crappie			
1986	7	0.42 \pm 1.5	0.11 \pm 0.77
1987	12	0.39 \pm 0.12	0.16 \pm 0.25
Eel			
1986	1	0.0 \pm 0.19	-
Jackfish			
1986	1	0.11 \pm 0.40	-
Sucker			
1986	1	0.0 \pm 0.31	-
Shad			
1986	1	0.06 \pm 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 ($\mu\text{Ci/L}$)	Counting Error	Average ($\mu\text{Ci/L}$)	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	0.14	± 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 Holding Pond	6/24/86	0.6 ± 0.5	4.9 ± 1.3	2,900 ± 1,200	<62
	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 Holding Pond No. 1	6/24/86	0.2 ± 0.4	3.2 ± 1.1	1,200 ± 1,100	<62
	9/18/86	0.6 ± 0.9	9.7 ± 2.7	1,700 ± 1,200	<61
	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 Holding Pond No. 2	6/24/86	0.3 ± 0.4	2.7 ± 1.1	1,800 ± 1,200	<70
	9/18/86	0.8 ± 0.9	6.7 ± 2.5	2,000 ± 1,200	<65
	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>pCi/g (dry weight)</u>				
		<u>Alpha</u>	<u>Nonvolatile Beta</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	6/24/86	0.6 ± 0.3	21.9 ± 1.6	<0.7	10 ± 3	1.4 ± 0.3
Holding Pond	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	6/24/86	0.2 ± 0.2	9.6 ± 1.1	<0.6	8 ± 3	0.5 ± 0.2
Holding Pond	9/18/86	0.9 ± 0.4	10.3 ± 1.1	<0.5	7 ± 3	0.3 ± 0.2
No. 1	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	6/24/86	1 ± 0.4	15.7 ± 1.3	<1	27 ± 9	
Holding Pond	9/18/86		9.2 ± 1.1	<0.7	8 ± 4	
No. 2	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	6/25/86	0.07 ± 0.5		0.2 ± 0.3
Pond No. 1	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.

TABLE 8-14
RADIOACTIVITY IN SEDIMENT AT THE
BEAUFORT-JASPER WATER TREATMENT PLANT^a

<u>Location</u>	<u>Sample Date</u>	<u>Depth of Sediment (Inches)</u>	<u>pCi/g (dry weight)</u>				
			<u>Cs-137</u>	<u>K-40</u>	<u>Sr-89.90</u>	<u>Alpha</u>	<u>Nonvolatile Beta</u>
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			
		6-12					
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
		6-12					
	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
		6-12					
	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
		6-12					

^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

<u>Location</u>	<u>Sample Date</u>	<u>Depth of Sediment (Inches)</u>	<u>pCi/g (dry weight)</u>				<u>Nonvolatile Beta</u>
			<u>Cs-137</u>	<u>K-40</u>	<u>Sr-89</u>	<u>Alpha</u>	
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			
		6-12	<0.03	5 ± 1		0.4 ± 0.3	5.0 ± 0.8
	9/18/86	0-3	0.7 ± 0.3	<3.1		0.2 ± 0.2	4.9 ± 0.8
		3-9	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			
<u>Location</u>	<u>Sample Date</u>	<u>Depth (Inches)</u>	<u>fCi/g (dry weight)</u>				<u>Pu-238</u>
			<u>Pu-238</u>		<u>Pu-239</u>		
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	
		3-9					
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 (wet weight, whole fish)</u>
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

Date	Location	River	Miles	Distance		Temp.	Dissolved	Turbidity	Cond.	Suspended	Canal	
				Canal	From							
				(In.)	Depth	NW	Bank, (Ft.)	pH	mg/L	mg/L	/cm	mg/L
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 ± 1,300	<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	<u>pCi/g (dry weight)</u>				<u>fCi/g (dry weight)</u>	
		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					
	4/02/87	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			
	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		
Abercorn Creek Pump	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
	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			
Water Treatment Plant Settling Basin	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	0.10 ± 0.27
		3-9	<0.1	5 ± 1	0.14 ± 0.2	0.38 ± 0.46	0.04 ± 0.31
	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>	Depth of Sediment (Inches)	<u>pCi/g (dry weight)</u>	
			Alpha	Nonvolatile Beta
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
	4/02/87	0-3	0.3 ± 0.3	10.7 ± 1.3
		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

<u>Location</u>	<u>Water Samples, pCi/l</u>			
	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	660,687	7.5		<8
Road A	625,608	10.0		<7
Road C	819,715			<7

<u>Location</u>	<u>Soil Samples, pCi/g</u>			
	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>	<u>Soil Samples (5) from:</u>
	Rd A7, 4M Delta, 4MES ^b , Rd C <u>μg/liter</u>	Rd A7, Rd A7 Floodplain, 4M Delta, 4MES ^b , Rd C <u>μg/kg</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>		<u>Soil Samples (5) from:</u> Rd A7, Rd A7 Floodplain, 4M Delta, 4MES ^b , Rd C <u>µg/liter</u> <u>µg/kg</u>
	Rd A7, 4M Delta,	4MES ^b , Rd C	
	<u>µg/liter</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
dibenz(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

BASE/NEUTRAL EXTRACTABLES
 (Continued)

Compound

nitrobenzene
 N-nitrosodi-n-propylamine
 N-nitrosodiphenylamine^c
 phenanthrene
 pyrene
 1,2,4-trichlorobenzene

Water Samples (4) from:
 Rd A7, 4M Delta,
 4MES^b, Rd C
 $\mu\text{g/liter}$

ND
 ND
 ND
 ND
 ND
 ND

Soil Samples (5) from:
 Rd A7, Rd A7 Floodplain,
 4M Delta, 4MES^b, Rd C
 $\mu\text{g/kg}$

ND
 ND
 ND
 ND
 ND
 ND

NOTES: 10. = Quantitation Limit for water
 1,000. = Quantitation Limit for soil
 ND = not detected

ACID EXTRACTABLES

Compound

benzoic acid^c
 4-chloro-3-methylphenol
 2-chlorophenol
 2,4-dichlorophenol
 2,4-dimethylphenol
 2,4-dinitrophenol^c
 2-methyl-4,6-dinitrophenol^c
 2-methylphenol
 4-methylphenol
 2-nitrophenol
 4-nitrophenol^c
 pentachlorophenol^c
 phenol
 2,4,5-trichlorophenol^c
 2,4,6-trichlorophenol

Water Samples (4) from:
 Rd A7, 4M Delta,
 4MES^b, Rd C
 $\mu\text{g/liter}$

ND
 ND

Soil Samples (5) from:
 Rd A7, Rd A7 Floodplain,
 4M Delta, 4MES^b, Rd C
 $\mu\text{g/kg}$

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 PCB'S

Compound	Water Samples (4) from:		Soil Samples (5) from:			
	Rd A7, 4M Delta, 4MES ^b , Rd C	µg/liter	Rd A7	4MES ^b	4M Delta	Rd C
			µg/gram	µg/gram	µg/gram	µg/gram
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

<u>METALS</u>	Water Samples			
	Rd A7 mg/liter	4M Delta mg/liter	4MES ^b mg/liter	Rd C mg/liter
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

<u>METALS</u>	Soil Samples				
	Rd A7 mg/kg	Rd A7 Floodplain mg/kg	4M Delta mg/kg	4MES ^b mg/kg	Rd C mg/kg
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	36	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
<u>MISCELLANEOUS</u>					
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
4MESC ^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
4MESC ^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
4MESC ^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
α BHC	0.01	0.16
β BHA	0.01	0.48
γ BHC	0.01	0.28
δ BHC	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}
(μg/L)

	River 2 Above Plant			River 10 Below Plant			Upper Three Runs @ Rd. E		
	1985	1986	1987	1985	1986	1987	1985	1986	1987
Aldrin	<0.009	<0.006	<0.02	<0.009	<0.006	<0.02	<0.009	<0.006	<0.02
αBHC	<0.009	<0.004	<0.01	<0.009	<0.004	<0.01		0.004	<0.01
βBHC	<0.014	<0.007	<0.01	<0.014	<0.007	<0.01			<0.01
γBHC	<0.009	<0.003	<0.01	<0.009	<0.003	<0.01	<0.009	<0.004	<0.01
εBHC			<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
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			<0.04			<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
PCS 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
PCS 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 PCB'S
IN STREAM AND RIVER WATER, CONT'D.^{a,b}
 $(\mu\text{g/L})$

	Steel Creek @ Rd. A			Par Pond Pumphouse			Lower Three Runs @ Rd. A		
	1985	1986	1987	1985	1986	1987	1985	1986	1987
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
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			<0.04			<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 1018			<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 PCB'S
IN STREAM AND RIVER SEDIMENT^{a,b}
(μg/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
αBHC			<1.56	1.5	<0.31	<1.56			<1.56
βBHC	17	17	<4.80	11	12	<4.80	<0.33	<0.69	<4.80
γBHC	<0.19	<0.37	<2.08	<0.19	<0.37	<2.78			<2.08
δBHC			<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	<0.18	<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	
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			<0.4			<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
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 PCB'S
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			<134
PCB 1016			<137			<137			<137
Toxaphene			<43.8			<43.8			<438
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 PCB'S
IN STREAM AND RIVER SEDIMENT, CONT'D.^{a,b}
 $(\mu\text{g}/\text{Kg})$

	Steel Creek @ Rd. A			Par Pond Pumphouse			Lower Three Runs @ Rd. A		
	1985	1986	1987	1985	1986	1987	1985	1986	1987
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			<3.44	<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>	Age Distribution, %		
		<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

Pathway	Average Individual				Maximized Individual			
	Infant	Child	Teen	Adult	Infant	Child	Teen	Adult
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

Average Individual	Infant	Child	Teen	Adult
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
Maximum Individual				
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 9-4
METEOROLOGICAL DATA FOR 1982 - 1986

USNRC COMPUTER CODE - X00000, VERSION 2.0 RUN DATA: 87-072 (SER. 6/29/83 VERSION)
38180 WIND STATS H-AREA 80 MIN 82M 82 86 STABILITY FROM SIGMA A

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION											ATMOSPHERIC STABILITY CLASS A									
UMAX (M/S)	N	NNNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL			
2.00	0.372	0.317	0.398	0.372	0.361	0.249	0.275	0.275	0.298	0.306	0.381	0.374	0.382	0.388	0.335	0.291	5.299			
4.00	0.450	0.588	0.751	0.783	0.728	0.573	0.482	0.495	0.521	0.636	0.780	1.008	0.825	0.683	0.486	0.382	10.154			
6.00	0.105	0.094	0.128	0.181	0.128	0.138	0.071	0.099	0.110	0.162	0.217	0.241	0.248	0.180	0.134	0.097	2.309			
8.00	0.008	0.010	0.003	0.008	0.008	0.003	0.008	0.018	0.013	0.008	0.026	0.010	0.029	0.013	0.018	0.016	0.196			
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.003	0.010	0.003	0.000	0.008	0.000	0.003	0.000	0.034			
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008			
TOTAL	0.93	1.03	1.24	1.34	1.23	0.98	0.84	0.89	0.94	1.12	1.38	1.64	1.49	1.25	0.95	0.79	18.00			

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION											ATMOSPHERIC STABILITY CLASS B									
UMAX (M/S)	N	NNNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL			
2.00	0.055	0.071	0.065	0.094	0.055	0.055	0.056	0.050	0.058	0.097	0.073	0.092	0.094	0.081	0.079	0.073	1.149			
4.00	0.178	0.291	0.390	0.450	0.312	0.272	0.230	0.199	0.325	0.278	0.414	0.602	0.419	0.390	0.189	0.141	5.019			
6.00	0.115	0.162	0.330	0.278	0.152	0.128	0.102	0.073	0.170	0.217	0.278	0.422	0.377	0.233	0.110	0.086	3.234			
8.00	0.016	0.000	0.018	0.010	0.003	0.010	0.010	0.010	0.054	0.026	0.047	0.034	0.097	0.084	0.071	0.018	0.477			
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	0.008	0.010	0.055			
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
TOTAL	0.36	0.52	0.80	0.83	0.52	0.47	0.40	0.53	0.58	0.63	0.81	1.15	1.00	0.74	0.46	0.33	9.93			

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION											ATMOSPHERIC STABILITY CLASS C									
UMAX (M/S)	N	NNNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL			
2.00	0.079	0.076	0.113	0.162	0.065	0.050	0.062	0.055	0.063	0.102	0.126	0.123	0.115	0.144	0.071	0.063	1.453			
4.00	0.265	0.539	0.817	0.791	0.479	0.374	0.319	0.356	0.429	0.474	0.597	0.681	0.568	0.319	0.202	7.687				
6.00	0.173	0.471	0.966	0.542	0.306	0.241	0.225	0.223	0.368	0.537	0.490	0.649	0.596	0.424	0.244	0.144	6.588			
8.00	0.050	0.079	0.207	0.052	0.037	0.031	0.037	0.034	0.079	0.170	0.157	0.204	0.318	0.275	0.064	0.092	1.906			
12.00	0.003	0.003	0.005	0.003	0.000	0.000	0.008	0.010	0.016	0.018	0.081	0.110	0.126	0.024	0.021	0.442				
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009			
TOTAL	0.56	1.17	2.11	1.56	0.89	0.75	0.84	0.68	0.97	1.30	1.39	1.74	1.68	1.43	0.74	0.52	18.08			

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION											ATMOSPHERIC STABILITY CLASS D									
UMAX (M/S)	N	NNNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL			
2.00	0.068	0.071	0.068	0.063	0.060	0.045	0.031	0.063	0.079	0.089	0.079	0.102	0.183	0.102	0.080	0.047	1.228			
4.00	0.380	0.631	1.136	0.940	0.717	0.600	0.513	0.683	0.712	0.717	0.728	0.723	0.751	0.626	0.361	0.322	10.541			
6.00	0.304	0.741	1.361	0.785	0.547	0.505	0.644	0.869	0.945	0.859	0.780	0.861	0.989	0.442	0.244	11.929				
8.00	0.110	0.178	0.278	0.129	0.060	0.139	0.186	0.249	0.317	0.270	0.207	0.267	0.432	0.364	0.152	0.068	3.385			
12.00	0.031	0.031	0.042	0.000	0.005	0.013	0.058	0.060	0.029	0.050	0.071	0.115	0.202	0.165	0.034	0.013	0.909			
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008			
TOTAL	0.89	1.65	2.89	1.91	1.38	1.30	1.43	1.91	2.08	1.99	1.86	2.07	2.53	2.35	1.05	0.69	28.00			

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION											ATMOSPHERIC STABILITY CLASS E									
UMAX (M/S)	N	NNNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL			
2.00	0.031	0.026	0.050	0.037	0.021	0.037	0.042	0.068	0.047	0.047	0.050	0.060	0.063	0.050	0.042	0.050	0.710			
4.00	0.262	0.333	0.523	0.489	0.442	0.437	0.495	0.634	0.529	0.442	0.463	0.372	0.481	0.327	0.304	0.191	8.664			
6.00	0.372	0.655	1.089	0.851	0.702	0.582	0.833	1.066	1.060	0.940	1.050	0.827	0.751	0.702	0.385	0.223	12.057			
8.00	0.029	0.052	0.058	0.063	0.071	0.055	0.029	0.060	0.141	0.120	0.123	0.152	0.081	0.039	0.018	0.018	1.110			
12.00	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006			
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
TOTAL	0.89	1.07	1.70	1.42	1.24	1.09	1.40	1.83	1.78	1.55	1.69	1.40	1.36	1.12	0.75	0.48	20.55			

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION											ATMOSPHERIC STABILITY CLASS F									
UMAX (M/S)	N	NNNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL			
2.00	0.003	0.008	0.008	0.000	0.003	0.003	0.005	0.042	0.013	0.024	0.010	0.005	0.005	0.003	0.010	0.013	0.154			
4.00	0.037	0.063	0.084	0.052	0.050	0.089	0.071	0.126	0.066	0.097	0.079	0.052	0.034	0.045	0.016	0.045	1.019			
6.00	0.194	0.372	0.374	0.317	0.204	0.173	0.144	0.293	0.275	0.259	0.301	0.275	0.131	0.063	0.071	0.358				
8.00	0.005	0.037	0.042																	

TABLE 9-5
80-KM-RADIUS POPULATION DISTRIBUTION AROUND SRP

Site Population Data

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	1.000E+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	0-0.1	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
VNW	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, KGR

Dir	0-0.1	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
VNW	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	3.599E+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 SPP

Site Vegetation Production, KGR

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	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	5.805E+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 (/M²) = 6.78E-03

AGRICULTURAL PRODUCTIVITY

PRODUCT	CAP USE	PRODUCTION	EXPORT	T.POP SERVED
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 ± 1 sigma</u>
Gross Alpha	20	0.57	100% ^a
Nonvolatile Beta	20	1.60	100% ^a
Chemical Cesium	20	2.22	72% ± 16%
Strontium-89,90	20	2.05	78% ± 14%
Strontium-90	20	1.62	99% ± 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.

Sample Type	Nuclide	Counting Interval (minutes)	Routine Aliquot	Lower Limit of Detection
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>	Counter LLD (pCi/sac.)	8 liters LLD (pCi/L)	25 liters LLD (pCi/L)
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>	LLD (pCi/gram)
B-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

<u>Nuclide</u>	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 (pCi/sample)</u>	<u>Geo. #2 LLD^b (pCi/sample)</u>	<u>Geo. #5 LLD^c (pCi/sample)</u>
Be-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 L'D 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 $\pm 20\%$ ^f		
	SRP ^b			EPA ^c							
<u>Gross Alpha</u>											
10/22/86	26	\pm	4	40	\pm	5	0.65	105	51		
01/23/87	7	\pm	2	11	\pm	5	0.64	128	54		
03/20/87	2	\pm	0.8	3	\pm	5	0.67	99	27		
04/20/87	22	\pm	4	30	\pm	8	0.73	114	58		
05/22/87	8	\pm	3	11	\pm	5	0.73	121	52		
07/24/87	6	\pm	1	5	\pm	5	1.2	113	-		
09/18/87	3.67	\pm	2	4	\pm	5	0.92	136	93		
<u>Gross Beta</u>											
10/22/86	50	\pm	4	51	\pm	5	0.98	101	76		
01/23/87	8	\pm	1.5	10	\pm	5	0.8	130	67		
03/20/87	11	\pm	2	13	\pm	5	0.85	99	77		
04/20/87	46	\pm	4	66	\pm	5	0.70	114	83		
05/22/87	6	\pm	1	7	\pm	5	0.86	122	53		
07/24/87	4	\pm	1	5	\pm	5	0.8	111	-		
09/18/87	12	\pm	2	12	\pm	5	1.0	135	82		
<u>MILK Samples, pCi/L</u>											
<u>Cs-137</u>											
06/26/87	85	\pm	9	74	\pm	5	1.14	78	86		
<u>Sr-90</u>											
10/31/86	<MDA							20			
06/26/87	37	\pm	5	0.0	\pm	1.5	1.1	46	37		
35	\pm	5	35	\pm	1.5						
<u>FOOD Samples, pCi/L</u>											
<u>Cs-137</u>											
01/30/87	80.3	\pm	8.0	84.0	\pm	5.0	0.96	38	84		
07/31/87	44	\pm	6	50	\pm	5	0.88	40	70		
<u>Sr-90</u>											
01/30/87	34.7	\pm	45.0	49.0	\pm	10.0	0.71	24	13		
07/31/87	<MDA							21	14		
30.0	\pm	1.5									
<u>AIR FILTER Samples, pCi/Filter</u>											
<u>Cs-137</u>											
04/10/87	14	\pm	4	8	\pm	5	1.8	89	51		
08/28/87	15.3	\pm	2.0	10	\pm	5	1.53	94	93		
<u>Gross Alpha</u>											
08/28/87	3	\pm	1	10	\pm	5	0.3	110	96		
<u>Gross Beta</u>											
08/28/87	18.3	\pm	2.0	30	\pm	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 $\pm 20\%$ of the EPA value.

TABLE 11-7
EML INTERLABORATORY COMPARISON
OF ANALYTICAL RESULTS

Analysis and Sample Data ^a	WATER Samples, pCi/ml				Ratio SRP/EML ^d	No. of Labs ^e	% of Labs Within $\pm 20\%$ ^f
	SRP ^b		EML ^c				
<u>H-3</u>							
05/87	29.3	\pm	0.53	33.7	0.87	24	76
09/87	20.6	\pm	0.38	19.1	1.09	29	76
<u>Mn-54</u>							
05/87	5.24	\pm	0.08	4.72	1.11	23	73
09/87	2.36	\pm	0.22	2.28	1.04	31	96
<u>Co-60</u>							
05/87	4.42	\pm	0.08	4.59	0.96	23	95
09/87	2.10	\pm	0.20	2.27	0.92	31	100
<u>Cs-137</u>							
05/87	2.51	\pm	0.05	2.34	1.07	25	92
09/87	2.43	\pm	0.26	2.28	1.06	32	93
<u>Pu-239</u>							
05/87	0.081	\pm	0.003	0.137	0.59	18	30
09/87	0.185	\pm	0.003	0.266	0.70	22	20
<u>Am-241</u>							
05/87	0.13	\pm	0.03	0.131	1.00	16	87
09/87	0.128	\pm	0.025	0.140	0.91	16	76
<u>Uranium, μg</u>							
05/87	0.21	\pm	0.03	0.206	1.02	13	92
09/87	0.14	\pm	0.003	0.157	0.89	11	66
<u>Sr-90</u>							
05/87	1.4	\pm	1.0	1.33	1.05	15	93
09/87	0.28	\pm	0.05	0.252	1.11	20	95
 <u>SOIL Samples, pCi/g</u>							
<u>K-40</u>							
05/87	1.16	\pm	0.08	1.05	1.10	15	68
09/87	29.6	\pm	1.3	20.0	1.48	20	54
<u>Cs-137</u>							
05/87	0.57	\pm	0.03	0.48	1.19	25	92
09/87	0.27	\pm	0.05	0.21	1.28	25	57
<u>Pu-239</u>							
05/87	1.56	\pm	0.024	1.88	0.83	21	63
09/87	0.034	\pm	0.003	0.029	1.17	21	33
<u>Sr-90</u>							
05/87	0.70	\pm	0.30	0.184	3.80	9	58
09/87	13.5	\pm	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 $\pm 20\%$ 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
 <u>TISSUE Samples, pCi/g</u>							
<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 % 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	4.8	-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</u>	<u>Linear Regression</u>	
		<u>Difference, ppm</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	<u>Linear Regression</u>	
			% 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

Sampler	Average % Difference
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

<u>Site</u>	<u>Analyzer</u>	<u>% Average Difference, ppm</u>	<u>Linear Regression % Difference</u>	<u>Bias, ppm</u>
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
Cadmium	54	55	46.6	-	63.2	48.6	-	61.2
Chromium	528	514	400	-	606	425	-	581
Copper	1,060	953	859	-	1,020	880	-	1,000
Iron	1,050	1,096	947	-	1,210	980	-	1,180
Lead	670	685	584	-	778	608	-	753
Manganese	426	381	337	-	419	348	-	409
Nickel	820	762	670	-	853	693	-	831
Zinc	1,100	1,059	926	-	1,160	955	-	1,130
<u>Miscellaneous Analyses (mg/L)</u>								
pH, pH units	5.22	5.2	5.06	-	5.30	5.09	-	5.27
Total suspended solids	79	80.9	62.1	-	87.0	65.2	-	84.0
Oil and grease	6.8	8.0	1.34	-	12.8	2.77	-	11.4
<u>Nutrients (mg/L)</u>								
Nitrate-Nitrogen	4.01	4.00	3.26	-	4.69	3.43	-	4.52
Total phosphorus	5.95	5.90	4.84	-	7.03	5.10	-	6.77
<u>Demand (mg/L)</u>								
5-day BOD	37.2	35.0	21.2	-	48.7	24.6	-	45.3

^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 mg⁻)

<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 - AZ
 (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 ($\mu\text{g/L}$)	<2	<2	<0.5
Gross Alpha (pCi/L)	3.5 2.3		2.0
Arsenic ($\mu\text{g/L}$)	<2	<2	<3
Barium ($\mu\text{g/L}$)	10	12	<100
Nonvolatile Beta (pCi/L)	6.2 9.3		5.1
Calcium (mg/L)	1.54	1.56	1.71
Carbon Tetrachloride ($\mu\text{g/L}$)	<1.0	<1.0	<1.0
Cadmium ($\mu\text{g/L}$)	<2	<2	<6
Chloroform ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	<4	<4	<50
Copper ($\mu\text{g/L}$)	12	10	<50
Fluoride (mg/L)	<0.10	<0.10	<0.10
Iron ($\mu\text{g/L}$)	27	29	20
Mercury ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	11	13	<20
Sodium (mg/L)	5.42	4.53	2.39
Nickel ($\mu\text{g/L}$)	5	<4	<50
Nitrate as Nitrogen (mg/L)	0.35	0.31	0.57
Lead ($\mu\text{g/L}$)	7	<6	5
pH (pH)	5.27	4.71	4.87
Phenols ($\mu\text{g/L}$)	<2	<2	5
Selenium ($\mu\text{g/L}$)	<2	<2	<6
Silica (mg/L)	2.49	2.49	7.10
Sulfate (mg/L)	12.0	7.5	5.0
Tetrachloroethylene ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	56	60	87
Total Radium (pCi/L)	1.7 3.5		1.3
Total Phosphates ($\mu\text{g/L}$)	60	60	36
Trichloroethylene ($\mu\text{g/L}$)	96.4	69.0	85.5
1,1,1-Trichloroethane ($\mu\text{g/L}$)	<1.0	<1.0	<1.0
Zinc ($\mu\text{g/L}$)	4	26	<20

WELL: DCB 1A

Silver ($\mu\text{g/L}$)	15 15		<0.5
Gross Alpha (pCi/L)	4.3		83.1
Arsenic ($\mu\text{g/L}$)	<2		<3
Barium ($\mu\text{g/L}$)	9 9		<100

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

1st Quarter

Analysis	Envirodyne	Blind Replicate	ECS
WELL: DCB 1A (cont.)			
Beryllium ($\mu\text{g/L}$)	80 78		109
Nonvolatile Beta (pCi/L)	8.7		83.0
Calcium (mg/L)	146 150		302
Cadmium ($\mu\text{g/L}$)	<80 <80		92
Chloride (mg/L)	15.0		3.94
Specific Conductance (μmhos)	8050		8040
Chromium ($\mu\text{g/L}$)	196 172		239
Copper ($\mu\text{g/L}$)	1760 1780		1590
Fluoride (mg/L)	1.04		<0.10
Iron (mg/L)	1690 1760		1520
Mercury ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	7020 7200		7540
Lead ($\mu\text{g/L}$)	310 283		56
pH (pH)	2.37		2.42
Phenols ($\mu\text{g/L}$)	<2		<2
Selenium ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	33		18
Total Phosphates ($\mu\text{g/L}$)	40		27

WELL: FSB 76

Silver ($\mu\text{g/L}$)	<2	<2	<0.5
Gross Alpha (pCi/L)	1.7 5.1 6.9		2.8
Arsenic ($\mu\text{g/L}$)	<2	<2	<3
Barium ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<2	<2	<6
Chloride (mg/L)	2.3	2.7 2.7	1.86
Specific Conductance (μmhos)	69.5	71.7	67.0
Chromium ($\mu\text{g/L}$)	<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 ($\mu\text{g}/\text{L}$)	48	56	<20
Mercury ($\mu\text{g}/\text{L}$)	<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 ($\mu\text{g}/\text{L}$)	6	6	<20
Sodium (mg/L)	10.3	10.0	10.1
Nitrate as Nitrogen (mg/L)	8.60	6.82	6.49
Lead ($\mu\text{g}/\text{L}$)	51	60	63
pH (pH)	5.23	5.19	5.15
Phenols ($\mu\text{g}/\text{L}$)	<2	<2	5
Selenium ($\mu\text{g}/\text{L}$)	<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 ($\mu\text{g}/\text{L}$)	<5.0	<5.0	<10.0
Total Radium (pCi/L)	1.4 2.3 1.5		1.5
Total Phosphates ($\mu\text{g}/\text{L}$)	14	<10	13

WELL: HR3 11

Silver ($\mu\text{g}/\text{L}$)	<2	<2	<0.5
Gross Alpha (pCi/L)	<3.0 <3.0		2.3
Arsenic ($\mu\text{g}/\text{L}$)	<2	<2	<3
Barium ($\mu\text{g}/\text{L}$)	4	5	<100
Nonvolatile Beta (pCi/L)	<2.0 <2.0		5.3
Calcium (mg/L)	0.225	0.176	0.148
Cadmium ($\mu\text{g}/\text{L}$)	<2	<2	<6
Chloride (mg/L)	6.0	6.6	5.5
Specific Conductance (μmhos)	40.4	40.3 38.8	39.7
Chromium ($\mu\text{g}/\text{L}$)	<4	<4	<50
Fluoride (mg/L)	<0.1	<0.1	<0.1
Iron ($\mu\text{g}/\text{L}$)	24	16	<20
Mercury ($\mu\text{g}/\text{L}$)	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 ($\mu\text{g}/\text{L}$)	4	3	<20
Sodium (mg/L)	5.71	5.64	4.65
Nitrate as Nitrogen (mg/L)	1.26	1.29	1.25
Lead ($\mu\text{g}/\text{L}$)	<6	<6	8
pH (pH)	4.56	4.43 4.45	4.18
Phenols ($\mu\text{g}/\text{L}$)	<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 ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	19	47	18
Total Radium (pCi/L)	<1.0 <1.0		1.3
Total Phosphates ($\mu\text{g/L}$)	55	81	182
WELL: HSB 70			
Silver ($\mu\text{g/L}$)	<2 <2		<0.5
Gross Alpha (pCi/L)	1.9		1.5
Arsenic ($\mu\text{g/L}$)	<2		<3
Barium ($\mu\text{g/L}$)	80 77		<100
Nonvolatile Beta (pCi/L)	15.3		4.3
Calcium (mg/L)	4.65 4.73		4.43
Cadmium ($\mu\text{g/L}$)	<2 <2		<6
Chloride (mg/L)	3.1		1.46
Specific Conductance (μmhos)	55.5		51.0
Chromium ($\mu\text{g/L}$)	<4 <4		<50
Fluoride (mg/L)	<0.1		<0.1
Iron ($\mu\text{g/L}$)	14 15		<20
Mercury ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	17 17		25
Sodium (mg/L)	1.34 1.35		1.09
Nickel ($\mu\text{g/L}$)	<4		<4
Nitrate as Nitrogen (mg/L)	0.82 0.80		0.71
Lead ($\mu\text{g/L}$)	7 8		12
pH (pH)	4.98		4.94
Phenols ($\mu\text{g/L}$)	<2		4
Selenium ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	<5.0		15.0
Total Radium (pCi/L)	<1.0		1.4
Total Phosphates ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	2	<2	<0.5
Gross Alpha (pCi/L)	<3.0 <3.0		<1.0
Arsenic ($\mu\text{g/L}$)	6	8	9
Barium ($\mu\text{g/L}$)	6	6	<100
Nonvolatile Beta (pCi/L)	3.1 4.7		<1.0
Calcium (mg/L)	2.86	2.88	2.37
Cadmium ($\mu\text{g/L}$)	<2	<2	<6
Chloride (mg/L)	10.3	10.3	11.2
Specific Conductance (μmhos)	811	811	846
Chromium ($\mu\text{g/L}$)	<4	<4	<50
Copper ($\mu\text{g/L}$)	<4	<4	<50
Fluoride (mg/L)	1.09	1.12	0.86
Iron ($\mu\text{g/L}$)	30	9	810
Mercury ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	<2	<2	25
Sodium (mg/L)	169	176	156
Nitrate as Nitrogen (mg/L)	0.49 0.49	0.48	0.49
Lead ($\mu\text{g/L}$)	<6	<6	9.6
pH (pH)	8.55	8.63	8.63
Phenols ($\mu\text{g/L}$)	<2	<2	<2
Selenium ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<5.0	<5.0	<10.0

WELL: LAC 4

Silver ($\mu\text{g/L}$)	<2	<2	<0.5
Gross Alpha (pCi/L)	<3.0 <3.0		<1.0
Arsenic ($\mu\text{g/L}$)	<2	<2 <2	<3
Barium ($\mu\text{g/L}$)	<4	<4	<100
Nonvolatile Beta (pCi/L)	3.1 <2.0		<1.0
Calcium (mg/L)	3.16	3.21	2.77
Carbon Tetrachloride ($\mu\text{g/L}$)	<1.0	<1.0 <1.0	<1.0
Cadmium ($\mu\text{g/L}$)	<2	<2	<6
Chloroform ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<4	17	<50
Copper ($\mu\text{g/L}$)	<4	<4	<50
Fluoride (mg/L)	0.21	0.21	<0.1
Iron ($\mu\text{g/L}$)	59	78	238
Mercury ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	<2	7	<20
Sodium (mg/L)	16.8	16.9	20.4
Nitrate as Nitrogen (mg/L)	0.38	0.37	0.39
Lead ($\mu\text{g/L}$)	<6	<6	4
pH (pH)	7.1	6.96	6.57
Phenols ($\mu\text{g/L}$)	<2	<2	7
Selenium ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	6.0	6.0	<10.0
Total Phosphates ($\mu\text{g/L}$)	50	30	18
Trichloroethylene ($\mu\text{g/L}$)	2.03	2.48 4.43	4.76
1,1,1-Trichloroethane ($\mu\text{g/L}$)	<1.0	<1.0 <1.0	3.3
Zinc ($\mu\text{g/L}$)	6	10	<20

WELL: MSB 4A

Silver ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<2	<2	<3 <3
Barium ($\mu\text{g/L}$)	14 13	9	<100 <100
Beryllium ($\mu\text{g/L}$)	<5 <5 <5	<0.3	<0.3
Nonvolatile Beta ($\mu\text{g/L}$)	30.7		135.8
Calcium (mg/L)	4.42 4.20	7.64	13.1 13.1
Carbon Tetrachloride ($\mu\text{g/L}$)	72.5		<5.0 <5.0
Cadmium ($\mu\text{g/L}$)	<2 <2	<2	<6 <6
Chloroform ($\mu\text{g/L}$)	300		<5.0 <5.0
Chloride (mg/L)	4.7		9.85 9.85
Specific Conductance (μmhos)	2650 2770 2860 2910		2770 2770

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: MSB 4A (cont.)			
Chromium ($\mu\text{g/L}$)	<4 <4	<4	<50 <50
Copper ($\mu\text{g/L}$)	118 115	134	97 97
Cyanide ($\mu\text{g/L}$)	<5.0		<5.0 <5.0
Endrin ($\mu\text{g/L}$)	<0.1		<0.006 <0.006
Fluoride (mg/L)	0.27		<0.1 <0.1
Iron ($\mu\text{g/L}$)	58 54	189	40 40
Mercury ($\mu\text{g/L}$)	<0.2	<0.2	<0.1 <0.1
Potassium (mg/L)	1.45 1.46	1.3	1.05 1.05
Lindane ($\mu\text{g/L}$)	<0.05		<0.003 <0.003
Methoxychlor ($\mu\text{g/L}$)	<0.5		<0.05 <0.05
Magnesium (mg/L)	1.68 1.54	1.44	1.32 1.32
Manganese ($\mu\text{g/L}$)	27 25	25	29 29
Sodium (mg/L)	253 254	262	443 443
Nickel ($\mu\text{g/L}$)	<4 <4	<4	<50 <50
Nitrate as Nitrogen (mg/L)	238		235 235
Lead ($\mu\text{g/L}$)	7 <6	7	<3 <3
pH (pH)	6.11 5.84 5.84		5.72 5.72
Phenols ($\mu\text{g/L}$)	5.87 5.82		
Antimony (mg/L)	30		2 2
Selenium ($\mu\text{g/L}$)	<0.003	<0.003	<0.01 <0.01
Silica (mg/L)	6	7	20 20
Silver ($\mu\text{g/L}$)	6.0		12.9 12.9
Sulfate (mg/L)	<2.0		<0.005 <0.005
Tetrachloroethylene ($\mu\text{g/L}$)	11450		345 345
Total Dissolved Solids (mg/L)	4600		5890 5890
Total Organic Carbon (mg/L)	2182 2184		2010 2010
Total Radium (pCi/L)	2.1 2.2 2.6 2.8		<1.0 <1.0
Total Organic Halogens ($\mu\text{g/L}$)	2.5		
Total Phosphates ($\mu\text{g/L}$)	18.9		8.5
Trichloroethylene ($\mu\text{g/L}$)	4168 4004		12000
Toxaphene ($\mu\text{g/L}$)	4581 4000		
Uranium ($\mu\text{g/L}$)	52		71 71
1,1,1-Trichloroethane ($\mu\text{g/L}$)	4991		6240 6240
2,4-D ($\mu\text{g/L}$)	<1.0 <1.0		<0.02 <0.25
Zinc ($\mu\text{g/L}$)	<1000 <1000	<1000	<10.0 <10.0
	<1.0		142 142
	<20.0		<0.02 <0.02
	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 ($\mu\text{g/L}$)	2	3	<0.5
Gross Alpha (pCi/L)	5.2 <3.0 2.8		<1.0
Arsenic ($\mu\text{g/L}$)	<2	<2	<3
Barium ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<1.0	<1.0	<1.0
Cadmium ($\mu\text{g/L}$)	<2	<2	<6
Chloroform ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	<4	<4	<50
Copper ($\mu\text{g/L}$)	<4	<4	<50
Fluoride (mg/L)	0.18	0.1	<0.1
Iron ($\mu\text{g/L}$)	165	231	900
Mercury ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	85	85	92
Sodium (mg/L)	12.2	12.1	12.8
Nickel ($\mu\text{g/L}$)	7	12	<50
Nitrate as Nitrogen (mg/L)	1.43	1.43	1.44
Lead ($\mu\text{g/L}$)	22	26	30
pH (pH)	4.95	4.95	4.66
Phenols ($\mu\text{g/L}$)	<2	<2	<2
Selenium ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	519	485	549
Total Phosphates ($\mu\text{g/L}$)	60	50	27
Trichloroethylene ($\mu\text{g/L}$)	41.9	113	<1.0
1,1,1-Trichloroethane ($\mu\text{g/L}$)	290	332	<1.0

WELL: XSB 4

Silver ($\mu\text{g/L}$)	2 2	<2	<0.5
Gross Alpha (pCi/L)	120.0 94.1		133.8
Arsenic ($\mu\text{g/L}$)	<2	<2	<3
Barium ($\mu\text{g/L}$)	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 ($\mu\text{g}/\text{L}$)	<1.0	<1.0	42.5
Cadmium ($\mu\text{g}/\text{L}$)	<2 <2	<2	<6
Chloroform ($\mu\text{g}/\text{L}$)	<1.0	<1.0	9.55
Chloride (mg/L)	6.0	6.0	5.9
Specific Conductance (μmhos)	827	819	814
Chromium ($\mu\text{g}/\text{L}$)	<4 <4	<4	<50
Cyanide (mg/L)	<5.0	<5.0	<0.005
Fluoride (mg/L)	0.27	0.26	0.52
Iron ($\mu\text{g}/\text{L}$)	315 315	81	651
Mercury ($\mu\text{g}/\text{L}$)	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 ($\mu\text{g}/\text{L}$)	1110 1100	1070	1120
Sodium (mg/L)	99.8 107.0	97.3	101.0
Nickel ($\mu\text{g}/\text{L}$)	117 115	110	129
Nitrate as Nitrogen (mg/L)	95.0	102.0	88.8
Lead ($\mu\text{g}/\text{L}$)	19 17	64	69
pH (pH)	3.92	3.87	3.86
Phenols ($\mu\text{g}/\text{L}$)	<2	<2	<1
Selenium ($\mu\text{g}/\text{L}$)	<2	<2	<6
Silica (mg/L)	13.1	12.9	24.3
Sulfate (mg/L)	<5.0	<5.0	7.8
Tetrachloroethylene ($\mu\text{g}/\text{L}$)	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 ($\mu\text{g}/\text{L}$)	338	347	422
Total Phosphates ($\mu\text{g}/\text{L}$)	20	20	50
Trichloroethylene ($\mu\text{g}/\text{L}$)	526	525	774
1,1,1-Trichloroethane ($\mu\text{g}/\text{L}$)	41.6	39.3	<1.0
Zinc ($\mu\text{g}/\text{L}$)	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 ($\mu\text{g/L}$)	<1	<1	<1	<1
Chloroform ($\mu\text{g/L}$)	<1	<1	<1	<1
Tetrachloroethylene ($\mu\text{g/L}$)	<1	<1	<1	<1
Total Organic Halogens ($\mu\text{g/L}$)	<5	<5	<5	<10
Trichloroethylene ($\mu\text{g/L}$)	1.64	<1	<1	3.76
1,1,1-Trichloroethane ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	<6		<6	<3
Total Radium (pCi/L)	0.7		<1	<1
WELL: CMP 13B				
Carbon Tetrachloride ($\mu\text{g/L}$)	<1		<1	<1
Chloroform ($\mu\text{g/L}$)	<1		<1	<1
Specific Conductance (μmhos)	177.0	178.0	179.0	160.0
Benzene ($\mu\text{g/L}$)	<1.4	<1.4	<1.4	<1
Iron ($\mu\text{g/L}$)	18.0	12.0	10.0	<20
Manganese ($\mu\text{g/L}$)	<2	<2	<2	<20
Lead ($\mu\text{g/L}$)	<6	<6	<6	<20
pH (pH)	8.13	8.17	8.18	7.53
Tetrachloroethylene ($\mu\text{g/L}$)	<1		<1	<1
Total Organic Carbon (mg/L)	<1		<1	<1
Total Organic Halogens ($\mu\text{g/L}$)	<5		<5	<10
Trichloroethylene ($\mu\text{g/L}$)	<1		<1	<1
1,1,1-Trichloroethane ($\mu\text{g/L}$)	<1		<1	<1
WELL: FNB 4				
Bromodichloromethane ($\mu\text{g/L}$)	<5		<5	<1
Trichlorofluoromethane ($\mu\text{g/L}$)	<5		<5	<1
Carbon Tetrachloride ($\mu\text{g/L}$)	<1	<5	<1 <5	<1
Bromoform ($\mu\text{g/L}$)	<10		<10	<2
Chloroform ($\mu\text{g/L}$)	<1	<5	1.0 <5	<1
Bromomethane ($\mu\text{g/L}$)	<10		<10	<2
Chloromethane ($\mu\text{g/L}$)	<10		<10	<1
Chlorobenzene ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	<10	<10	
Chloroethane ($\mu\text{g/L}$)	<10	<10	<1
Benzene ($\mu\text{g/L}$)	<30 <5	<30 <5	<1
Dibromochloromethane ($\mu\text{g/L}$)	<5	<5	<1
Ethyl Benzene ($\mu\text{g/L}$)	<5	<5	<1
Toluene ($\mu\text{g/L}$)	<30 <5	<30 <5	<1
Metaxylene ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	<10 <10		
Tetrachloroethylene ($\mu\text{g/L}$)	<1 <5	<1 <5	<1
Total Organic Carbon (mg/L)	<1 <1		2.4
Total Organic Halogens ($\mu\text{g/L}$)	<5	<5 <5	<10
Trichloroethylene ($\mu\text{g/L}$)	<1 <5	<1 <5	<1
Tritium (pCi/mL)	6.33	6.61 6.90	6.12
Trans-1,2-Dichloroethene ($\mu\text{g/L}$)	<5	<5	<1
Uranium ($\mu\text{g/L}$)	<1000	<1000 <1000 <10	
1,1-Dichloroethylene ($\mu\text{g/L}$)	<5	<5	<1
1,1-Dichloroethane ($\mu\text{g/L}$)	<5	<5	<1
1,1,1-Trichloroethane ($\mu\text{g/L}$)	<1 <5	<1 <5	<1
1,1,2-Trichloroethane ($\mu\text{g/L}$)	<5	<5	<1
1,2-Dichloroethane ($\mu\text{g/L}$)	<1	<1	<1
1,2-Dichloropropane ($\mu\text{g/L}$)	<10	<10	<1
Cis-1,3-Dichloropropene ($\mu\text{g/L}$)	<5	<5	<1
Trans-1,3-Dichloropropene ($\mu\text{g/L}$)	<5	<5	
2-Chloroethylvinyl Ether ($\mu\text{g/L}$)	<10	<10	<1

WELL: FSB 76A

Silver ($\mu\text{g/L}$)	<2	<2	<0.5
Gross Alpha (pCi/L)	1.7	<3	1.5
Arsenic ($\mu\text{g/L}$)	<2	<2	<3
Barium ($\mu\text{g/L}$)	22.0	22.0	<100
Nonvolatile Beta (pCi/L)	5.7	<2	4.8
Calcium (mg/L)	19.1	18.4	17.4
Cadmium ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	<4	<4	<50
Fluoride (mg/L)	0.2 0.2	0.2	0.132
Iron ($\mu\text{g/L}$)	10.0	11.0	<20
Mercury ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	7.0	6.0	<20
Sodium (mg/L)	3.16	3.12	2.34
Nickel ($\mu\text{g/L}$)	<4	<4	<50
Nitrate as Nitrogen (mg/L)	<0.05	<0.05	0.01
Lead ($\mu\text{g/L}$)	<6	<6	<3
pH (pH)	6.76	6.76 6.76 6.73	6.73
Phenols ($\mu\text{g/L}$)	<2	<2	<1
Selenium ($\mu\text{g/L}$)	<2	<2	<6
Silica (mg/L)	11.9	12.2	26.2
Sulfate (mg/L)	7.0	8.0 8.0	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 ($\mu\text{g/L}$)	<5	<5 <5	<1
Total Phosphates ($\mu\text{g/L}$)	320.0	30.0	283.0
Tritium (pCi/mL)	<0.7	<0.7	
Zinc ($\mu\text{g/L}$)	10.0	10.0	<20
WELL: HSB 86B			
Silver ($\mu\text{g/L}$)	<2	<2	<0.5
Gross Alpha (pCi/L)	<3	<3	<1
Arsenic ($\mu\text{g/L}$)	<2	<2	<3
Barium ($\mu\text{g/L}$)	36.0	36.0	<100
Nonvolatile Beta (pCi/L)	<2	<2	1.9
Calcium (mg/L)	39.8	39.0	35.9
Cadmium ($\mu\text{g/L}$)	<2	<2	<6
Chloride (mg/L)	4.5	3.1	2.44
Specific Conductance (μmhos)	213.0 213.0	214.0	208.0
Chromium ($\mu\text{g/L}$)	<4	<4	<50
Fluoride (mg/L)	<0.1	0.1 <0.1	<0.1
Iron ($\mu\text{g/L}$)	8.0	5.0	<20
Mercury ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	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 Duplicate</u>	<u>ECS</u>
WELL : HSB 86B (cont.)			
Nickel ($\mu\text{g/L}$)	<4	<4	<50
Nitrate as Nitrogen (mg/L)	<0.05	<0.05	<0.02
Lead ($\mu\text{g/L}$)	<6	<6	<3
pH (pH)	7.46 7.46	7.46	7.32
Phenols ($\mu\text{g/L}$)	<2	<2	3.0
Selenium ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	<5 <5	<5	<10
Total Radium (pCi/L)	<1 <1	<1	<1
Total Phosphates ($\mu\text{g/L}$)	<20	60.0	50.0
Tritium (pCi/mL)	2.63 2.51	2.62	
Zinc ($\mu\text{g/L}$)	4.0	2.0	<20
WELL: LFW 36			
Silver ($\mu\text{g/L}$)	<2	<2	<0.5
Gross Alpha (pCi/L)	<3	3.8	2.5
Arsenic ($\mu\text{g/L}$)	<2 <2	<2	<3
Barium ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<2	<2	<6
Chloride (mg/L)	22.0	22.2	24.9
Specific Conductance (μmhos)	207.0	212.0	178.0
Chromium ($\mu\text{g/L}$)	<4	<4	<50
Fluoride (mg/L)	0.11	0.11	<0.10
Iron ($\mu\text{g/L}$)	180	188	115
Mercury ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<6	<6	<3
pH (pH)	5.96	5.87	5.63
Phenols ($\mu\text{g/L}$)	3.0 3.0	5.0	3.0
Selenium ($\mu\text{g/L}$)	<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 ($\mu\text{g}/\text{L}$)	186.0	197.0	290.0
Total Phosphates ($\mu\text{g}/\text{L}$)	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 Replicate</u>	<u>ECS</u>
WELL: ABP 1A			
Silver ($\mu\text{g/L}$)	<2	<2	<0.5
Arsenic ($\mu\text{g/L}$)	<2	<2	<3
Barium ($\mu\text{g/L}$)	<4	5	<100
Calcium (mg/L)	0.963 1.09	4.76	0.512
Carbon Tetrachloride ($\mu\text{g/L}$)	<1 <1	<1	<1
Cadmium ($\mu\text{g/L}$)	<2	<2	<6
Chloroform ($\mu\text{g/L}$)	<1 <1	<1	<1
Specific Conductance (μmhos)	12.6	13.5	14.0
Chromium ($\mu\text{g/L}$)	<4	<4	<50
Iron ($\mu\text{g/L}$)	22	54	148
Mercury ($\mu\text{g/L}$)	<0.2	<0.2	<0.1
Potassium (mg/L)	<0.5	<0.5	<0.3
Lithium ($\mu\text{g/L}$)	<5	5	<20
Magnesium (mg/L)	0.221 0.221	0.410	0.200
Manganese ($\mu\text{g/L}$)	3.0	7.0	<20
Sodium (mg/L)	1.150	0.121	0.944
Lead ($\mu\text{g/L}$)	<6 <6	<6	<3
pH (pH)	5.20	5.03	4.87
Selenium ($\mu\text{g/L}$)	<2	<2	<6
Silica (mg/L)	2.85	2.80	2.90
Tetrachloroethylene ($\mu\text{g/L}$)	<1 <1	<1	1.34
Total Organic Carbon (mg/L)	<1	<1	<1
Total Organic Halogens ($\mu\text{g/L}$)	<5	<5	<10
Trichloroethylene ($\mu\text{g/L}$)	<1 <1	<1	<1
1,1,1-Trichloroethane ($\mu\text{g/L}$)	<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 ($\mu\text{mhos}/\text{cm}$)	27.2	26.9	25.0
Manganese ($\mu\text{g/L}$)	15	8	<20
Sodium (mg/L)	2.10	2.04	1.94
Nitrate as Nitrogen (mg/L)	1.44	1.53	0.99
Lead ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	<2	<2	<2	<0.5
Gross Alpha (pCi/L)	1.8		<3	1.0
Beryllium ($\mu\text{g/L}$)	<5	<5	<5	<3
Carbon Tetrachloride ($\mu\text{g/L}$)	<1		<1	<1
Cadmium ($\mu\text{g/L}$)	<2	<2	<2	<6
Chloroform ($\mu\text{g/L}$)	<1		<1	<1
Chromium ($\mu\text{g/L}$)	<4	<4	<4	<50
Copper ($\mu\text{g/L}$)	140	140	130	86
Fluoride (mg/L)	0.11		0.22 0.24	0.10
Iron ($\mu\text{g/L}$)	24.0		56.0	<20
Mercury ($\mu\text{g/L}$)	<0.2		<0.2	<0.1
Manganese ($\mu\text{g/L}$)	19.0	19.0	19.0	<20
Nickel ($\mu\text{g/L}$)	<4	<4	<4	<50
Lead ($\mu\text{g/L}$)	20	23	22	23
pH (pH)	5.06		5.06 5.07	4.89
Selenium ($\mu\text{g/L}$)	<2		<2	<6
Sulfate (mg/L)	<5		<5	1.5
Tetrachloroethylene ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	<5		<5	<10
Trichloroethylene ($\mu\text{g/L}$)	<1		1.1	2.5
1,1,1-Trichloroethane ($\mu\text{g/L}$)	<1		<1	<1
Zinc ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<1		<1	<1
Cadmium ($\mu\text{g/L}$)	<2	<2	<2	<6
Chloroform ($\mu\text{g/L}$)	<1		<1	<1
Specific Conductance (μmhos)	82.0	83.6	82.7	83.0
Iron ($\mu\text{g/L}$)	43	44	70	<20
Manganese ($\mu\text{g/L}$)	26	25	25	<20
Nitrate as Nitrogen (mg/L)	8.21		7.93	6.99
Lead ($\mu\text{g/L}$)	<6	<6	<6	20
pH (pH)	4.00	4.03	4.00	4.62
Tetrachloroethylene ($\mu\text{g/L}$)	<1		<1	1.37
Total Organic Carbon (mg/L)	<1	<1	<1	<1
Total Organic Halogens ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	5.25		<1	6.11
Tritium (pCi/mL)	8.70		7.90	
1,1,1-Trichloroethane	<1		<1	<1
WELL: FSB 78A				
Silver ($\mu\text{g/L}$)	<2	<2	<2	<0.5
Gross Alpha (pCi/L)	<3		<3	<1
Arsenic ($\mu\text{g/L}$)	<2		<2	<3
Barium ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<2	<2	<2	<6
Chloride (mg/L)	3.00		3.00	2.56
Specific Conductance (μmhos)	99.2		111.0	109.0
Chromium ($\mu\text{g/L}$)	<4	<4	<4	<50
Fluoride (mg/L)	0.22		0.22	0.10
Iron ($\mu\text{g/L}$)	26.0	22.0	27.0	51.0
Mercury ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<6	<6	<6	14
pH (pH)	5.94		6.74	6.38
Phenols ($\mu\text{g/L}$)	<5		<5	<2
Selenium ($\mu\text{g/L}$)	<2		<2	<6
Silica (mg/L)	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 ($\mu\text{g/L}$)	<5		<5	<10
Total Phosphates ($\mu\text{g/L}$)	<20		60	183
Tritium (pCi/mL)	17.2		18.9	
Zinc ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<2	<2	<2	<0.5
Aluminum ($\mu\text{g/L}$)	33	30	46 42	<100
Gross Alpha (pCi/L)	3.6		2.5	3.0
Arsenic ($\mu\text{g/L}$)	<2		<2	<3
Barium ($\mu\text{g/L}$)	10	10	10 10	<100
Nonvolatile Beta (pCi/L)	70.4		63.8	68.1
Bromodichloromethane ($\mu\text{g/L}$)	<5		<5	<1
Trichlorofluoromethane	<5		<5	<1
Carbon Tetrachloride ($\mu\text{g/L}$)	<1	<5	<1 <5	<1
Cadmium ($\mu\text{g/L}$)	<2	<2	<2 <2	<6
Bromoform ($\mu\text{g/L}$)	<10		<10	<2
Chloroform ($\mu\text{g/L}$)	<5	27	<1 <5	<1
Bromomethane ($\mu\text{g/L}$)	<10		<10	<2
Chloromethane ($\mu\text{g/L}$)	<10		<10	<1
Chloride (mg/L)	5.8		5.2	4.4
Chlorobenzene ($\mu\text{g/L}$)	<5		<5	<1
Specific Conductance (μmhos)	195	195	189	203
Chromium ($\mu\text{g/L}$)	<4	<4	<4 6	<50
Copper ($\mu\text{g/L}$)	6	6	7 7	<50
Cyanide ($\mu\text{g/L}$)	<5	<5	<5	<5
Chloroethene ($\mu\text{g/L}$)	<10		<10	<1
Chloroethane ($\mu\text{g/L}$)	<10		<10	<1
Benzene ($\mu\text{g/L}$)	<5		<5	<1
Dibromochloromethane ($\mu\text{g/L}$)	<5		<5	<1
Endrin ($\mu\text{g/L}$)	<0.1		<0.1	<0.005
Ethyl Benzene ($\mu\text{g/L}$)	<5		<5	<1
Fluoride (mg/L)	0.16		0.24	<0.10
Iron ($\mu\text{g/L}$)	42	48	40 54	24
Mercury ($\mu\text{g/L}$)	<0.2		<0.2	<0.1
Toluene ($\mu\text{g/L}$)	<5		<5	<1
Manganese ($\mu\text{g/L}$)	16.0	16.0	16 16	<20
Sodium (mg/L)	40.7		39.2 37.9	41.3
Nickel ($\mu\text{g/L}$)	<4	<4	<4 <4	<50
Nitrate as Nitrogen (mg/L)	23.4		23.4	22.0
Lead ($\mu\text{g/L}$)	7	7	8 11	12
pH (pH)	5.25	5.23	5.25	5.09
Phenols ($\mu\text{g/L}$)	<5		<5	<2
Antimony ($\mu\text{g/L}$)	<3			<10
Selenium ($\mu\text{g/L}$)	<2		<2	<6
Sulfate (mg/L)	5.0		<5 <5	1.7
1,1,2,2-Tetrachloroethane	<10		<10	<1
Tetrachloroethylene ($\mu\text{g/L}$)	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 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>Enwright</u>	<u>Weston</u>
WELL: ASB 88				
Silver ($\mu\text{g/L}$)	<2	<2	<10	<10
Gross Alpha (pCi/L)	1.7	1.4	<0.7	0
Arsenic ($\mu\text{g/L}$)	<2	<2	<5	-
Barium ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<25	<1	<10	-
Cadmium ($\mu\text{g/L}$)	<2	<2	<10	<5
Chloroform ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	<4	<4	<50	<10
Fluoride (mg/L)	0.25	0.25	<0.2	<0.1
Iron ($\mu\text{g/L}$)	20.0	37.0	<50	<100
Mercury ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<6	<6	<1	<5
pH (pH)	5.39	4.02	5.4	5.7
Phenols ($\mu\text{g/L}$)	<5	<5	2	<5
Selenium ($\mu\text{g/L}$)	<2	<2	<3	-
Sulfate (mg/L)	<5	<5	<5	<5
Tetrachloroethylene ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	927	840	796	980
Total Phosphates ($\mu\text{g/L}$)	70	90	68	73
Trichloroethylene ($\mu\text{g/L}$)	<40	678	938	870
Tritium (pCi/mL)	1.2	1.2	0.59	1.4
1,1,1-Trichloroethane ($\mu\text{g/L}$)	<25	<1	<10	<1
WELL: CMP 10				
Carbon Tetrachloride ($\mu\text{g/L}$)	<1	<1	<1	-
Chloroform ($\mu\text{g/L}$)	<1	<1	<1	-
Specific Conductance (μmhos)	16.8	48.9	17	18.2
Benzene ($\mu\text{g/L}$)	<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>Enviodyne</u>	<u>Blind Replicate</u>	<u>Enwright</u>	<u>Weston</u>
WELL: CMP 10 (cont.)				
Iron ($\mu\text{g/L}$)	22	10	<50	<100
Manganese ($\mu\text{g/L}$)	9	9	<20	<15
Lead ($\mu\text{g/L}$)	17	16	18	19.1
pH (pH)	5.44	5.1	5.4	5.4
Tetrachloroethylene ($\mu\text{g/L}$)	<1	<1	<1	-
Total Organic Carbon (mg/L)	<1	<1	<5	<0.5
Total Organic Halogens ($\mu\text{g/L}$)	7	<5	<10	<10 <10
Trichloroethylene ($\mu\text{g/L}$)	<1	<1	<1	-
1,1,1-Trichloroethane ($\mu\text{g/L}$)	<1	<1	<1	-
WELL: FSB 76B				
Silver ($\mu\text{g/L}$)	<2	<2	<10	<10
Gross Alpha (pCi/L)	<3.0	<3.0	3.3	0
Arsenic ($\mu\text{g/L}$)	<2	<2	<5	-
Barium ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<2	<2	<100	<5
Chloride (mg/L)	3.10	3.10	2.19	<2.5
Specific Conductance (μmhos)	154	123	123	136
Chromium ($\mu\text{g/L}$)	<4	<4	<50	<10
Fluoride (mg/L)	0.32 0.32	0.30	<0.2	0.139 0.139
Iron ($\mu\text{g/L}$)	17	16	<50	<100
Mercury ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<6	<6	<1	<5
pH (pH)	6.75	6.79	6.9	6.9 6.9
Phenols ($\mu\text{g/L}$)	<5	<5	3	<5
Selenium ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	<5	<5	<10	21
Total Phosphates ($\mu\text{g/L}$)	270 290	260 270	313	311
Tritium (pCi/mL)	1.3	1.3	0.00	0
Zinc ($\mu\text{g/L}$)	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 Replicate</u>	<u>Enwright</u>	<u>Weston</u>
WELL: HSB 83B					
Silver ($\mu\text{g/L}$)	<2	<2	<2	<10	<10
Gross Alpha (pCi/L)	<3.0		<3.0	<0.8	0
Arsenic ($\mu\text{g/L}$)	2		<2	<5	-
Barium ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<2	<2	<2	<10	<5
Chloride (mg/L)	3.60		3.60	2.49	<2.5
Specific Conductance (μmhos)	114		121	121	112
Chromium ($\mu\text{g/L}$)	<4	<4	<4	<50	<10
Fluoride (mg/L)	0.31		0.34	<0.2	0.176
Iron ($\mu\text{g/L}$)	18		14	<50	<100
Mercury ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	3	3	4	<20	<15
Sodium (mg/L)	3.28	3.36	3.29	3.95	5.26
Nickel ($\mu\text{g/L}$)	<4.0		<4.0	<50	<40
Nitrate as Nitrogen (mg/L)	0.48		0.48	1.31	<0.1 <0.1
Lead ($\mu\text{g/L}$)	<6	<6	<6	<1	<5
pH (pH)	6.67		6.95	6.8	7.0
Phenols ($\mu\text{g/L}$)	<5		<5	<2	<5
Selenium ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	<5		<5	<10	26
Total Phosphates ($\mu\text{g/L}$)	440	390	210	460	231 231
Tritium (pCi/mL)	20.5		20.2	23.6	20.0
Zinc ($\mu\text{g/L}$)	11	15	46	<10	30

WELL: LFW 27

Silver ($\mu\text{g/L}$)	<2	<2	<10	<10
Gross Alpha (pCi/L)	<3.0	<3.0	<0.7	0
Arsenic ($\mu\text{g/L}$)	<2	<2	<5	-
Barium ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<2	3	<10	<5
Chloride (mg/L)	2.50	2.70	1.96	<2.5

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: LFW 27 (cont.)				
Specific Conductance (μmhos)	35.3	29.6	11	14.1
Chromium ($\mu\text{g/L}$)	<4	<4	<50	<10
Fluoride (mg/L)	0.22	0.17	<0.2	<0.1
Iron ($\mu\text{g/L}$)	44.0	23.0	<50	<100
Mercury ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	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 ($\mu\text{g/L}$)	<6	<6	2	<5
pH (pH)	5.29	5.31	5.4	5.5
Phenols ($\mu\text{g/L}$)	<5	<5	6	7
Selenium ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	<5	<5	<10	<10
Total Phosphates ($\mu\text{g/L}$)	<20	30 20	6	<20
Tritium (pCi/mL)	7.2	6.1	1.22	5.9
WELL: MSB 1A				
Silver ($\mu\text{g/L}$)	<2	<2	<10	<10
Aluminum ($\mu\text{g/L}$)	196	188	<400	252
Gross Alpha (pCi/L)	8.8	11.5	<0.7	8
Arsenic ($\mu\text{g/L}$)	<2	<2	-	-
Barium ($\mu\text{g/L}$)	<4	8	<100	<200
Nonvolatile Beta (pCi/L)	5.9	6.7	<1	0
Bromodichloromethane ($\mu\text{g/L}$)	<5	<5	<1	<5
Trichlorofluoromethane ($\mu\text{g/L}$)	<5	<5	<1	-
Carbon Tetrachloride ($\mu\text{g/L}$)	<1	<5	<1	<5
Cadmium ($\mu\text{g/L}$)	2	<2	<10	<5
Bromoform ($\mu\text{g/L}$)	<10	<10	<1	<5
Chloroform ($\mu\text{g/L}$)	<1	<5	<1	<5
Bromomethane ($\mu\text{g/L}$)	<10	<10	<1	<10
Chloromethane ($\mu\text{g/L}$)	<10	<10	<1	<10
Chloride (mg/L)	3.70	3.00	1.96	<2.5
Chlorobenzene ($\mu\text{g/L}$)	<5	<5	<1	<5
Specific Conductance (μmhos)	49.1, 44.2, 44.3 47.7, 51.0	57.7	40	43.7
Chromium ($\mu\text{g/L}$)	<4	<4	<50	<10
Copper ($\mu\text{g/L}$)	39	42	45	101

- No analysis performed.

TABLE 11-11
1987 GROUNDWATER QUALITY ASSURANCE
ANALYSIS RESULTS, CONT'D.

4th Quarter

<u>Analysis</u>	<u>Enviodyne</u>	<u>Blind Replicate</u>	<u>Enwright</u>	<u>Weston</u>			
WELL: MSB 1A (cont.)							
Cyanide ($\mu\text{g/L}$)	<5	<5	<20				
Chloroethene ($\mu\text{g/L}$)	<10	<10	<1	<10			
Chloroethane ($\mu\text{g/L}$)	<10	<10	<1	<10			
Benzene ($\mu\text{g/L}$)	<5	<5	<1	<5			
Dibromochloromethane ($\mu\text{g/L}$)	<5	<5	<1	<5			
Endrin ($\mu\text{g/L}$)	<0.1	<0.1	-	-			
Ethyl Benzene ($\mu\text{g/L}$)	<5	<5	<1	<5			
Fluoride (mg/L)	0.25	0.21	<0.2	<0.1, 0.235			
Iron ($\mu\text{g/L}$)	61	71	<50	<100			
Mercury ($\mu\text{g/L}$)	<0.2	<0.2	<0.2	<0.2			
Toluene ($\mu\text{g/L}$)	<5	<5	<1	<5			
Manganese ($\mu\text{g/L}$)	11	8	<20	<15			
Sodium (mg/L)	3.06	2.68	3.01	<5			
Nickel ($\mu\text{g/L}$)	<4	<4	<50	<40			
Nitrate as Nitrogen (mg/L)	5.27	3.06	3.14	2.5			
Lead ($\mu\text{g/L}$)	11	11	12	11.7			
pH (pH)	4.61, 4.44, 4.39 4.08, 4.24	4.48	4.1	4.2			
Phenols ($\mu\text{g/L}$)	<5	<5	<2	<5			
Antimony ($\mu\text{g/L}$)	<3	<3	<200	<60			
Selenium ($\mu\text{g/L}$)	<2	<2	-	-			
Sulfate (mg/L)	<5	<5	<5	<5			
1,1,2,2-Tetrachloroethane ($\mu\text{g/L}$)	<10	<10	<1	<5			
Tetrachloroethylene ($\mu\text{g/L}$)	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	<5	1.9			
	<1	<1					
Total Organic Halogens ($\mu\text{g/L}$)	37	36	42	30	27		
	38	40					
	36						
Total Phosphates ($\mu\text{g/L}$)	30	<20	6	64			
Trichloroethylene ($\mu\text{g/L}$)	59.8	74.4	61.8	59.9	74	58	48
trans-1,2-Dichloroethene ($\mu\text{g/L}$)	8.7	7.4	<1	6			
Uranium (mg/L)	<1	<1	<1	<0.001			
1,1-Dichloroethylene ($\mu\text{g/L}$)	<5	<5	<1	<5			
1,1-Dichloroethane ($\mu\text{g/L}$)	<5	<5	<1	<5			
1,1,1-Trichloroethane ($\mu\text{g/L}$)	<1	<5	<1	<5			
1,1,2-Trichloroethane ($\mu\text{g/L}$)	<5	<5	<1	<5			
1,2-Dichloroethane ($\mu\text{g/L}$)	<1	<1	<1	<5			
1,2-Dichloropropane ($\mu\text{g/L}$)	<10	<10	<1	<5			
cis-1,3-Dichloropropene ($\mu\text{g/L}$)	<5	<5	<1	<5			
trans-1,3-Dichloropropene ($\mu\text{g/L}$)	<5	<5	<1	<5			
2-Chloroethylvinyl Ether ($\mu\text{g/L}$)	<10	<10	<1	<10			
Zinc ($\mu\text{g/L}$)	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 Replicate</u>	<u>Enwright</u>	<u>Weston</u>
WELL: MSB 11B				
Aluminum ($\mu\text{g/L}$)	<20	23 <20	<400	<200
Gross Alpha (pCi/L)	<3.0	<3.0 <3.0	<1.3	0
Barium ($\mu\text{g/L}$)	7	7 7	<0.1	<200
Beryllium ($\mu\text{g/L}$)	<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 ($\mu\text{g/L}$)	<4	<4 <4	<50	<10
Copper ($\mu\text{g/L}$)	<4	<4 <4	<20	34.2
Cyanide ($\mu\text{g/L}$)	<5	<5 <5	<20	-
Fluoride (mg/L)	0.20	0.17	<0.2	<0.1
Iron ($\mu\text{g/L}$)	57	46	<50	<100
Magnesium (mg/L)	0.221	0.245 0.241	0.239	-
Manganese ($\mu\text{g/L}$)	4	5 4	<20	<15
Sodium (mg/L)	1.31	1.34 1.40	1.37	2.92
Nickel ($\mu\text{g/L}$)	<4	<4 <4	<50	<40
Nitrate as Nitrogen (mg/L)	0.490 0.500	0.510	0.90	0.116
Lead ($\mu\text{g/L}$)	<6	<6 <6	2	<5
Phenols ($\mu\text{g/L}$)	<5	<5	3	<5
Antimony ($\mu\text{g/L}$)	<3	<3	<200	<60
Sulfate (mg/L)	<5 <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 ($\mu\text{g/L}$)	80	70	78	85
Zinc ($\mu\text{g/L}$)	387	489 467	444	445
WELL: SRW 2				
Carbon Tetrachloride ($\mu\text{g/L}$)	1.71	1.95	3	-
Chloroform ($\mu\text{g/L}$)	26.6	31.8	28	-
Specific Conductance (μmhos)	48.1	58.1	45	50.3 50.3
Iron ($\mu\text{g/L}$)	12	9	<50	<100
Manganese ($\mu\text{g/L}$)	7	8	<20	<15
Lead ($\mu\text{g/L}$)	13	9	11	9.4
pH	4.53	4.59	4.7	4.6
Tetrachloroethylene ($\mu\text{g/L}$)	<1	<1	<1	<1
Total Organic Carbon (mg/L)	<1 <1	<1	<5	0.919
Total Radium (pCi/L)	1.8 1.5	1.6	1.7	1.1
Total Organic Halogens ($\mu\text{g/L}$)	22	31	<10	21
Trichloroethylene ($\mu\text{g/L}$)	2.06	2.69	3	2.4
1,1,1-Trichloroethane ($\mu\text{g/L}$)	<1	<1	<1	<1
Zinc ($\mu\text{g/L}$)	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 Longevity	Density Ind./h	Biomass (kg/ha)	Soma	Eggs
		PL (mm)	BWM (g)	PL (mm)	BWM (g)	Yrs	PL (mm)	BWM (g)				
<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 \pm 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>	Period 1 <u>1966-70</u>	Period 2 <u>1974-77</u>	Period 3 <u>1978-81</u>	Period 4 <u>1982-84</u>	All <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.