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Hanford Site Near-Facility Environmental Monitoring Data Report for Calendar Year 2003

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September 2004

Prepared for the U.S. Department of Energy
under Contract DE-AC06-76RL01830

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HANFORD SITE NEAR-FACILITY ENVIRONMENTAL MONITORING DATA REPORT FOR CALENDAR YEAR 2003

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CONTENTS

LIST OF TERMS

ALARA	As Low As Reasonably Achievable
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	*Code of Federal Regulations*
CSB	Canister Storage Building
DCG	derived concentration guide
DOE	U.S. Department of Energy
EDE	effective dose equivalent
ERC	Environmental Restoration Contractor
ERDF	Environmental Restoration Disposal Facility
ESD	environmental sites database
FH	Fluor Hanford, Inc.
GPS	global positioning system
HEPA	high-efficiency particulate air (filter)
HGIS	Hanford Geographical Information System
IDF	Integrated Disposal Facility
ILAW	Immobilized Low-Activity Waste Disposal
LWDF	Liquid Waste Disposal Facility
MCL	maximum contaminant level
PHMC	Project Hanford Management Contract
PNNL	Pacific Northwest National Laboratory
PFP	Plutonium Finishing Plant
PUREX	Plutonium-Uranium Extraction (Facility)
QA	quality assurance
RCRA	Resource Conservation and Recovery Act
RPP	River Protection Project
TLD	thermoluminescent dosimeters
WAC	*Washington Administrative Code*
WDOH	Washington State Department of Health
WSCF	Waste Sampling and Characterization Facility

1.0 NEAR-FACILITY ENVIRONMENTAL MONITORING AT HANFORD

Near-facility environmental monitoring is defined as monitoring near facilities that have the potential to discharge or have discharged, stored, or disposed of radioactive or hazardous materials. Monitoring locations are associated with nuclear facilities such as the Plutonium Finishing Plant (PFP), Canister Storage Building (CSB), and the K Basins; inactive nuclear facilities such as N Reactor and the Plutonium-Uranium Extraction (PUREX) Facility; and waste storage or disposal facilities such as burial grounds, cribs, ditches, ponds, tank farms, and trenches.

Much of the monitoring consists of collecting and analyzing environmental samples and methodically surveying areas near facilities. The program is also designed to evaluate acquired analytical data, determine the effectiveness of facility effluent monitoring and controls, assess the adequacy of containment at waste disposal units, and detect and monitor unusual conditions. The program implements applicable portions of U.S. Department of Energy (DOE) Orders 435.1, 450.1 (replaced DOE Order 5400.1 in January 2003), and 5400.5 (DOE 1993); DOE Manual 231.1-1A, *Environment, Safety, and Health Reporting Manual*; *Washington Administrative Code* (WAC) 246-247; Title 40, *Code of Federal Regulations* (CFR) Part 61 (40 CFR 61), Subpart H; and 10 CFR 835.

Several types of environmental media are sampled near facilities to monitor waste management and restoration activities, and to evaluate the effectiveness of effluent treatment and control practices. Routine sampling and monitoring includes ambient air, water, external radiation, soil, and vegetation. The parameters typically monitored are radionuclide concentrations and radiation fields. Sampling methods are discussed in detail in the Duratek Technical Services, *Operational Environmental Monitoring*, DTS-OEM-001.

Samples are collected from known or expected effluent pathways. These pathways are generally downwind of potential or actual airborne releases and down gradient of liquid discharges. Table 1-1 shows the type, quantity, and location of routine near-facility monitoring samples collected in 2003.

Table 1-1. Near-Facility Routine Environmental Monitoring Samples and Locations, 2003.

	Number of sample	Operational area								
Sample Type	**locations**	100-B/C	100-D/DR	100-K	100-F	100-H	100-N	ERDF[a]	200/600	300/400
Air	82	6	3	11	6	2	5	3	41[b]	5
Soil	82	5	0	2	2	0	1	1	57	14
Vegetation	65	0	0	0	0	0	4	0	48	13
External radiation	134	4	0	20	5	0	14	3	67	21
Water	10	0	0	0	0	0	10	0	0	0

[a]Environmental Restoration Disposal Facility in the 200 West Area.

[b]Includes 1 station at the Wye Barricade, 19 in the 200 East Area, and 21 in the 200 West Area.

Strontium-90 results for this report period show overall lower values compared to historical trends. This was primarily due to changes in laboratory background correction calculations that were implemented in 2003. Both historical and current values are within accepted statistical ranges as evidenced by laboratory quality assurance (QA) and performance evaluation programs.

Waste disposal sites and the surrounding terrain are surveyed to detect and characterize radioactive surface contamination. Routine radiological surveys are conducted across the surfaces of underground radioactive material areas and along the perimeters of contamination areas. Locations include cribs, trenches, retention basins, ponds, ditches, solid waste disposal sites, unplanned release sites, tank farms, stabilized waste disposal sites, roads, and firebreaks in and around the Site operational areas.

Nonroutine, investigative samples are also collected as part of the Near-Facility Environmental Monitoring Program to confirm the absence or presence of radioactive and/or hazardous contaminants.

A Noxious Weed Control Program has been developed on the Hanford Site in response to Federal, State, and local laws requiring eradication or control of noxious weeds. A general discussion of the program and of control measures is provided in Section 8.0 of this Appendix.

This Appendix contains brief discussions, specific sampling location information, and complete analytical data results for the various near-facility environmental monitoring efforts for 2003. Detailed discussions and summarized analytical results are provided in Section 3.2 ("Near-Facility Environmental Monitoring") of the *Hanford Site Environmental Report for Calendar Year 2003* (PNNL-14687).

1.1 AIR MONITORING

Near-facility air sampling monitors the effectiveness of waste management and environmental remediation controls, and effluent treatment systems in reducing effluents and emissions. These air samplers also monitor diffuse source emissions.

Ambient air monitoring is conducted to determine baseline concentrations of radionuclides in the operations areas, assess the impact of operations on the local environment, and monitor diffuse and fugitive emissions from sources located within the operations area. These measurements also provide an indication of the Project Hanford Management Contract (PHMC), River Protection Project (RPP), and Environmental Restoration Contractor (ERC) managed facilities' performance and are used to demonstrate compliance with environmental protection criteria.

In 2003, air radioactivity was sampled by a network of continuously operating samplers at 82 locations. Location-specific maps and monitoring results are provided in Section 2.0.

1.2 GROUNDWATER MONITORING

The Near-Facility Environmental Monitoring Program did not conduct groundwater monitoring in 2002. Detailed discussion of groundwater monitoring management strategies and the 2003 monitoring results can be found in PNNL-14687 (Section 6.0, "Groundwater Monitoring") and in the *Hanford Site Groundwater Monitoring for Fiscal Year 2003*, PNNL-14548 (Hartman et al. 2004).

1.3 SOIL AND VEGETATION SAMPLING

Soil and vegetation samples were collected on or adjacent to waste disposal units, and from locations downwind and near or within the boundaries of the operating facilities. Samples were collected to detect potential migration and deposition of facility effluents. Migration of radionuclides can occur as the result of resuspension from radioactively contaminated surface areas, absorption by the roots of vegetation growing on or near underground and surface water disposal units, or intrusion by animals.

Radiological analyses of soil and vegetation samples included strontium-90, plutonium-239/240, isotopic uranium, and gamma-emitting radionuclides. Location-specific maps and the analytical results are presented in Section 3.0.

1.4 EXTERNAL RADIATION

External radiation levels were monitored near facilities and waste handling, storage, and disposal sites to measure, assess, and control the impacts of operations. Thermoluminescent dosimeters (TLDs) are used at numerous fixed locations to gather dose rate information over extended periods of time. TLD results can be used individually or averaged to determine dose rates in a given area for a particular sampling period.

Environmental dosimeters measure dose rates from all types of external radiation sources, including cosmic radiation, naturally occurring radioactivity in air and soil, and fallout from nuclear weapons testing, as well as any contribution from Hanford Site activities. During any year, changes in soil moisture and snow cover can cause external radiation levels to vary from 15% to 25% at any given location. The results are reported in units of millirems per year (mrem/yr). Individual TLD results and their locations are provided in Section 4.0.

1.5 RIVERBANK SPRINGS MONITORING

The springs along the 100-N Area Columbia River shoreline (N-Springs) were sampled in 2003 to assess the effectiveness of effluent and contamination controls. Ten water samples were collected. The radiological analyses were performed onsite at the Waste Sampling and Characterization Facility (WSCF), and the analyses included tritium, strontium-90, and

gamma-emitting radionuclides. A location-specific map and the analytical results of the sampling are presented in Section 5.0.

1.6 RADIOLOGICAL SURVEYS

In 2003, the Hanford Site had approximately 3,651 ha (9,022 acres) of posted outdoor surface contamination, and 666 ha (1,646 acres) of posted underground radioactive material, not including the production facilities (e.g., PUREX, T-Plant, etc.). The total area of surface contamination was approximately six times larger than the area of underground radioactive material.

Since 1996, a global positioning system (GPS) has been utilized to accurately measure the surface area of these radiologically controlled sites. This collected information was entered into the Hanford Geographical Information System (HGIS), a computer database maintained by Fluor Hanford, Inc (FH). Survey location maps are provided in Section 6.0.

1.7 INVESTIGATIVE SAMPLING

Investigative sampling was conducted in the operations areas to confirm the absence or presence of radioactive and/or hazardous contaminants. Investigative sampling took place near facilities, such as storage and disposal sites, for at least one of the following reasons:

- To follow up radiological surface surveys that had indicated radioactive contamination was present.
- To conduct preoperational surveys to characterize the radiological/hazardous conditions at a site prior to facility construction, operation, or ultimate remediation.
- To determine if biotic intrusion (e.g., animal burrows or deep-rooted vegetation) has created a potential for contaminants to spread.
- To determine the integrity of waste containment systems.

Generally, the predominant radionuclides detected during these efforts were activation and fission products in the 100 Areas, fission products in the 200 Areas, and uranium in the 300 Area. Hazardous chemicals generally have not been identified above background levels in preoperational environmental monitoring samples. Special characterization samples collected in 2003 included soil and a cottontail rabbit from the 200 West Area, mice from the 100-K East Area, and a starling from the 300 Area. Complete results, including counting errors and field instrument and dose rate readings, where appropriate, are provided in Section 7.0.

1.8 NOXIOUS WEED CONTROL PROGRAM

The Noxious Weed Control Program on the Hanford Site has been developed in response to Federal, State, and local laws requiring eradication or control of noxious weeds. A noxious weed is defined as "any plant which when established is highly destructive, competitive, or difficult to control by cultural or chemical practices." Typically, noxious weeds are non-native (alien) species that invade and displace native species, reduce habitat for fish and wildlife, and contribute to the extinction of sensitive species.

Ten plant species are on a high priority list for control at Hanford. These species are Yellow Starthistle (*Centaurea solstitialis*), Rush Skeletonweed (*Chondrilla juncea*), Babysbreath (*Gypsophila paniculata*), Medusa Head (*Taeniatherum asperum*), Dalmatian Toadflax (*Linaria genistifolia ssp. Dalmatica*), Spotted Knapweed (*Centaurea maculosa*), Diffuse Knapweed (*Centaurea diffusa*), Russian Knapweed (*Acroptilon repens*), Saltcedar (*Tamarix spp.),* and Purple Loosestrife (*Lythrum salicaria).*

Maps generally depicting the spatial distribution of these species across the Hanford Site can be found in Section 8.0.

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2.0 AMBIENT AIR MONITORING

Air samplers are located primarily at or near (within approximately 500 m [1,600 ft]) sites and/or facilities having the potential for, or history of, environmental releases, with emphasis on potential source terms as well as prevailing wind direction. Meteorological conditions are monitored continuously by the Pacific Northwest National Laboratory (PNNL) meteorology stations, which are strategically positioned in and around the Hanford Site.

For 2003, a network of continuously operating samplers at 82 locations (Table 2-1) sampled radioactivity in air. Location-specific maps are illustrated in Figures 2-1 through 2-11. Historical air sampling results for the 100-K, 100-N, 200 and 300 Areas are represented in graph form in Figures 2-12 through 2-23. A summary of ambient air sampling results for selected radionuclides collected during 2003 is presented in Table 2-2. The 2003 composited, sampler-specific monitoring results are provided in Table 2-3. Additional discussion of the 2003 results can be found in Section 3.2 of PNNL-14687.

Strontium-90 in air results for this report period show overall lower values compared to historical trends. This was primarily due to changes in laboratory background correction calculations that were implemented in 2003. Both historical and current values are within accepted statistical ranges as evidenced by laboratory QA and performance evaluation programs.

Several PNNL ambient air monitoring stations were utilized to provide additional information for several ERC remediation projects. The projects and the associated PNNL stations are the 100-B/C, 100-F, 100-KR-1 and 100-NR-1 remedial action projects (PNNL station "Yakima Barricade"), 300-FF-1&2 remedial action project (PNNL stations "300NE," "300 Trench" and "300 Water Intake"), and the Environmental Restoration Disposal Facility (ERDF) project (PNNL station "200 West SE"). The 2003 air monitoring results for these locations can be found in Table 2-4.

Air monitoring within the 300 and 400 Areas was performed by PNNL as part of the Site Surface Environmental Surveillance Project. Data acquired are reviewed by Near-Facility Monitoring personnel. A more detailed discussion of these results is provided in PNNL-14687, Section 4.1, "Air Surveillance."

Near-facility environmental air samplers operate at a flow rate of 0.057 m^3/min (2 ft^3/min), drawing a sample through a 47 mm (2 in.), open-faced filter about 2 m (6 ft) aboveground. All sample filters are exchanged biweekly, held one week (to allow for decay of short-lived natural radioactivity), and then sent to the analytical laboratory for initial analysis of total alpha and total beta activity. These initial analyses serve as an indicator of potential environmental problems.

Depending on project/facility requirements, the filters were stored until the end of either a three- or six-month sample period, then segregated and composited by sample location for specific radionuclide analysis as shown in Table 2-1. Segregating and compositing air filters by

site provides a larger sample size and, thus, a more sensitive and accurate measurement of the concentration of airborne radionuclides.

To help assess the impact of Site operations, monitoring results are compared to DOE derived concentration guides (DCGs), to the results obtained from the distant communities of Yakima and Sunnyside as reported by PNNL Site Environmental Surveillance Program, and to data acquired from collocated sampling locations managed by Near-Facility Monitoring, PNNL and the Washington State Department of Health (WDOH). Collocated sampling results are used for comparability and precision of data.

Table 2-1. Near-Facility Air Sampling Locations and Analyses, 2003.

Site	Number of samplers	EDP code[a]	Analyses	
			Bi-weekly	Composite[b]
100-B/C Remedial Action project	5	N464, N465, N466, N496, N497	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
118-C-4 Decomissioning project	1	N536	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
105-D Interim Safe Storage project	1	N523	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
105-DR Interim Safe Storage project	2	N492, N515	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
105-F Interim Safe Storage project	2	N494, N495	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
105-F Remedial Action project	4	N519, N520, N521, N522	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
105-H Interim Safe Storage project	2	N524, N525	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
100-K Spent Nuclear Fuels	8	N401, N402, N403,[c] N404, N476, N477, N478, N479	Gross α, β	GEA, Sr-90, Pu-iso, U-iso, Pu-241, Am-241
100-KR-1 Remedial Action project	3	N528, N529, N530	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
100-NR-1 Remedial Action project and 100-N Surveillance and Maintenance/Transition project	5	N102, N103, N105, N106, N526	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
200 East Area	17	N019, N158, N498, N499, N957, N967, N968, N969, N970, N972, N973, N976, N977, N978, N984,[c] N985, N999	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
Canister Storage Building (200 East Area)	2	N480, N481	Gross α, β	GEA, Sr-90, Pu-iso, U-iso, Pu-241, Am-241
200 West Area	21	N155, N161, N165, N168, N200, N304, N433, N441, N442, N449, N456, N457, N956, N963, N964, N965, N966, N974, N975, N987, N994	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
300-FF-1&2 Remedial Action projects	5	N130, N485, N486, N487, N527	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
Environmental Restoration Disposal Facility	3	N482,[c] N517, N518,	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
600 Area	1	N981[d]	Gross α, β	GEA, Sr-90, Pu-iso, U-iso

[a]EDP Code = Sampler location code.

[b]GEA = Gamma energy analysis; Pu-iso = isotopic plutonium-238 and plutonium-239/240; U-iso = isotopic uranium-234, uranium-235, and uranium-238.

[c]Collocated sampling location with Washington State Department of Health (WDOH).

[d]Collocated sampling location with WDOH and Pacific Northwest National Laboratory.

Figure 2-1. 100-B/C Area Air Sampler Locations.

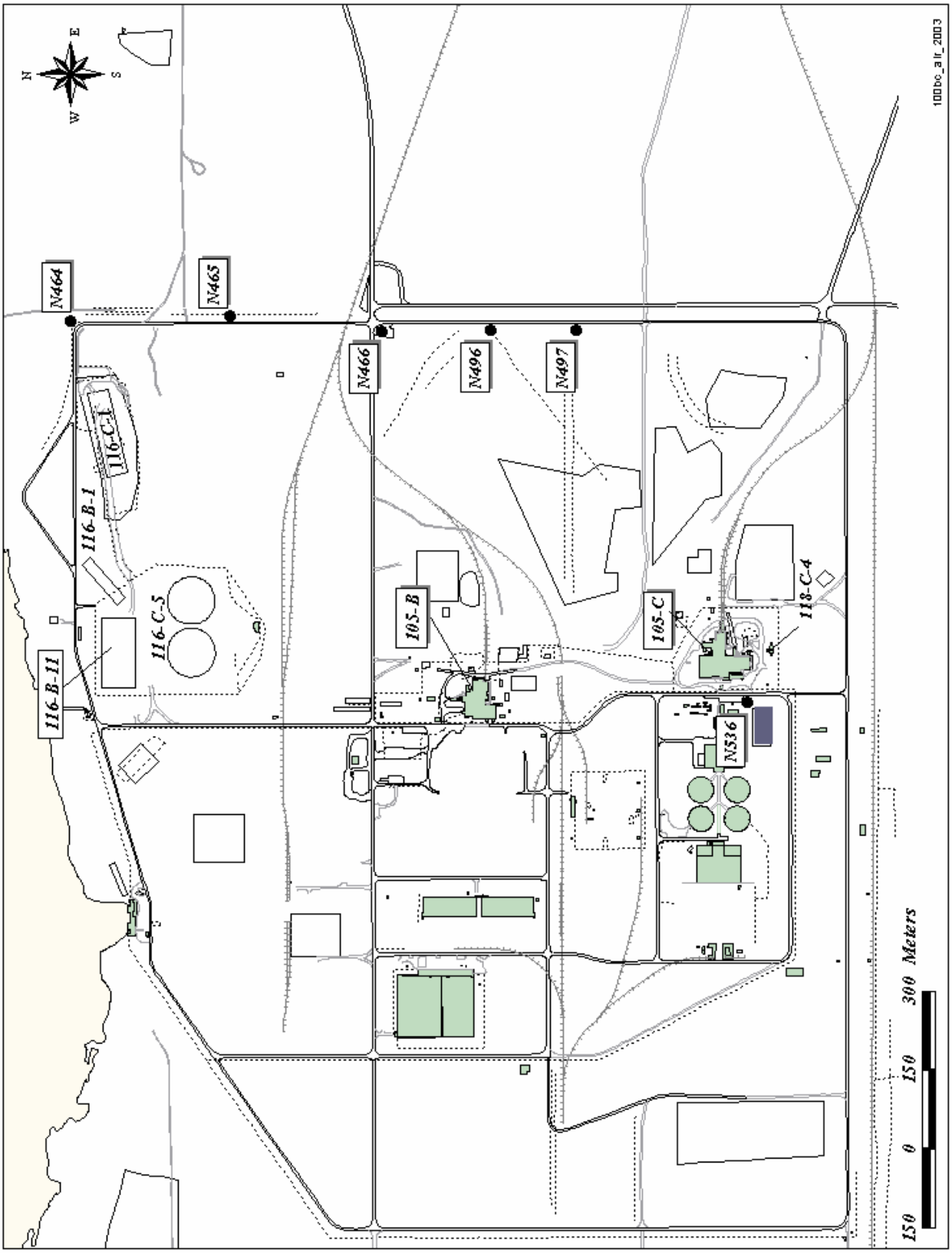

Figure 2-2. 100-D/DR Area Air Sampler Locations.

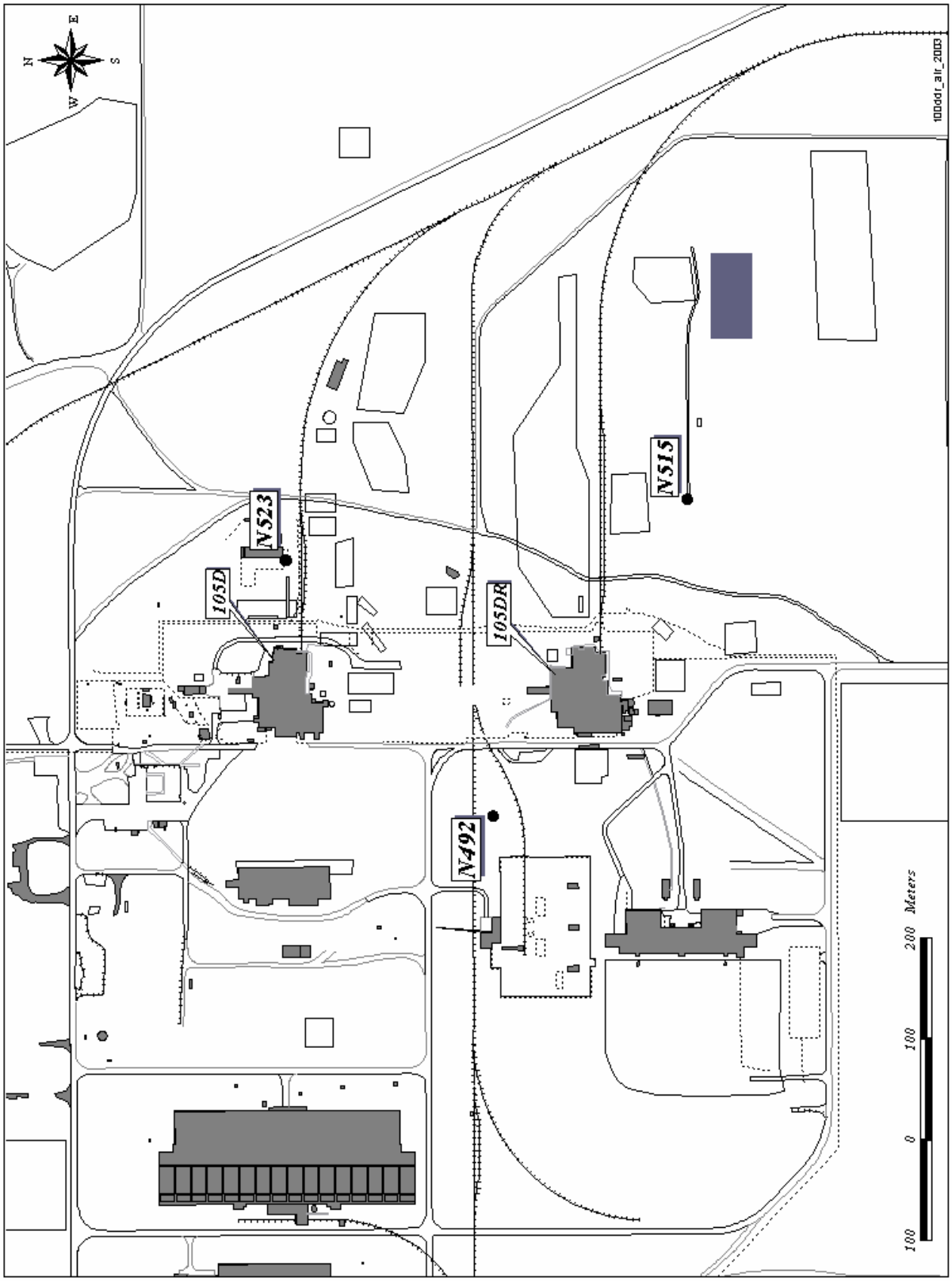

Figure 2-3. 100-F Area Air Sampler Locations.

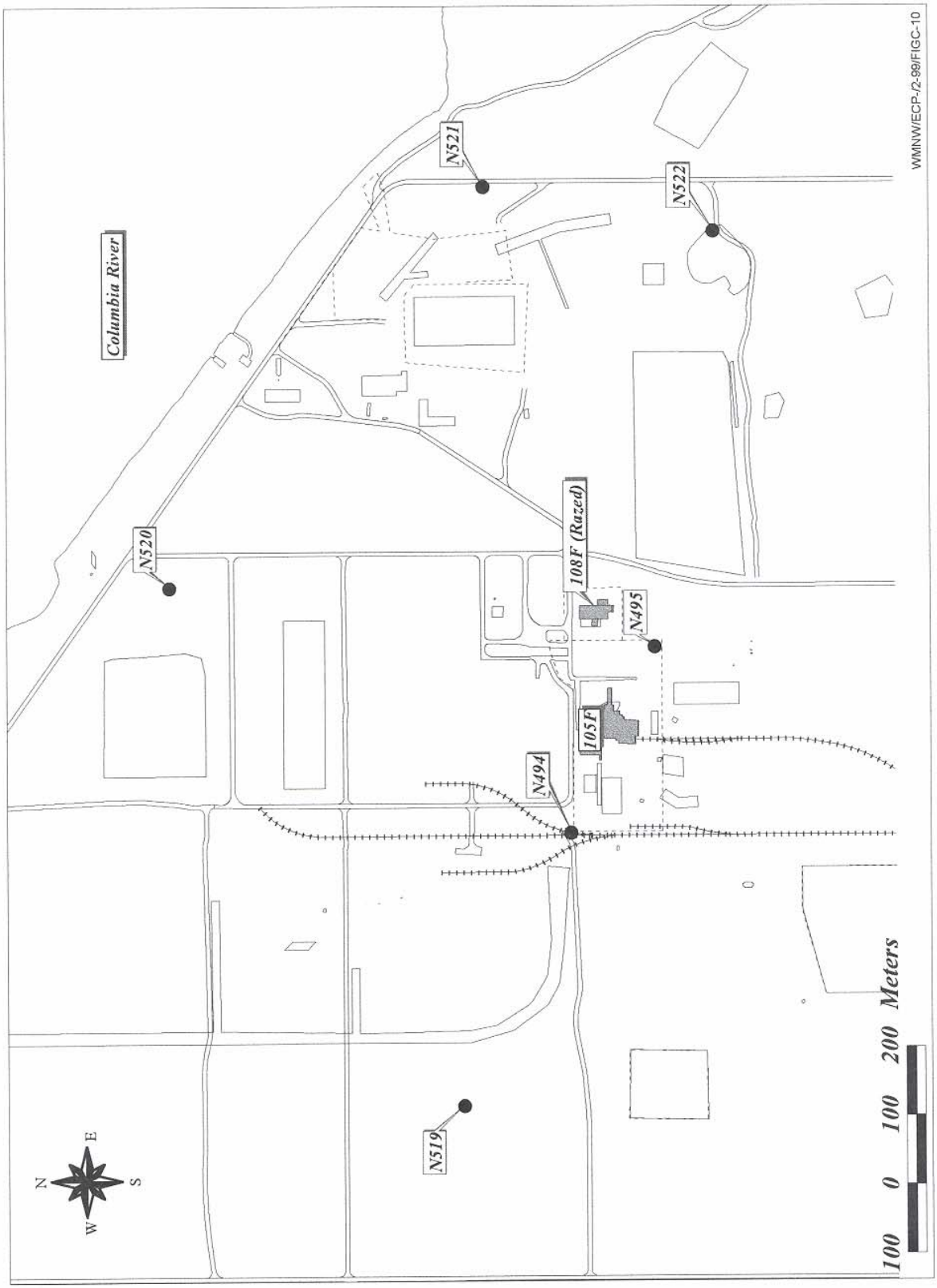

Figure 2-4. 100-H Area Air Sampler Locations.

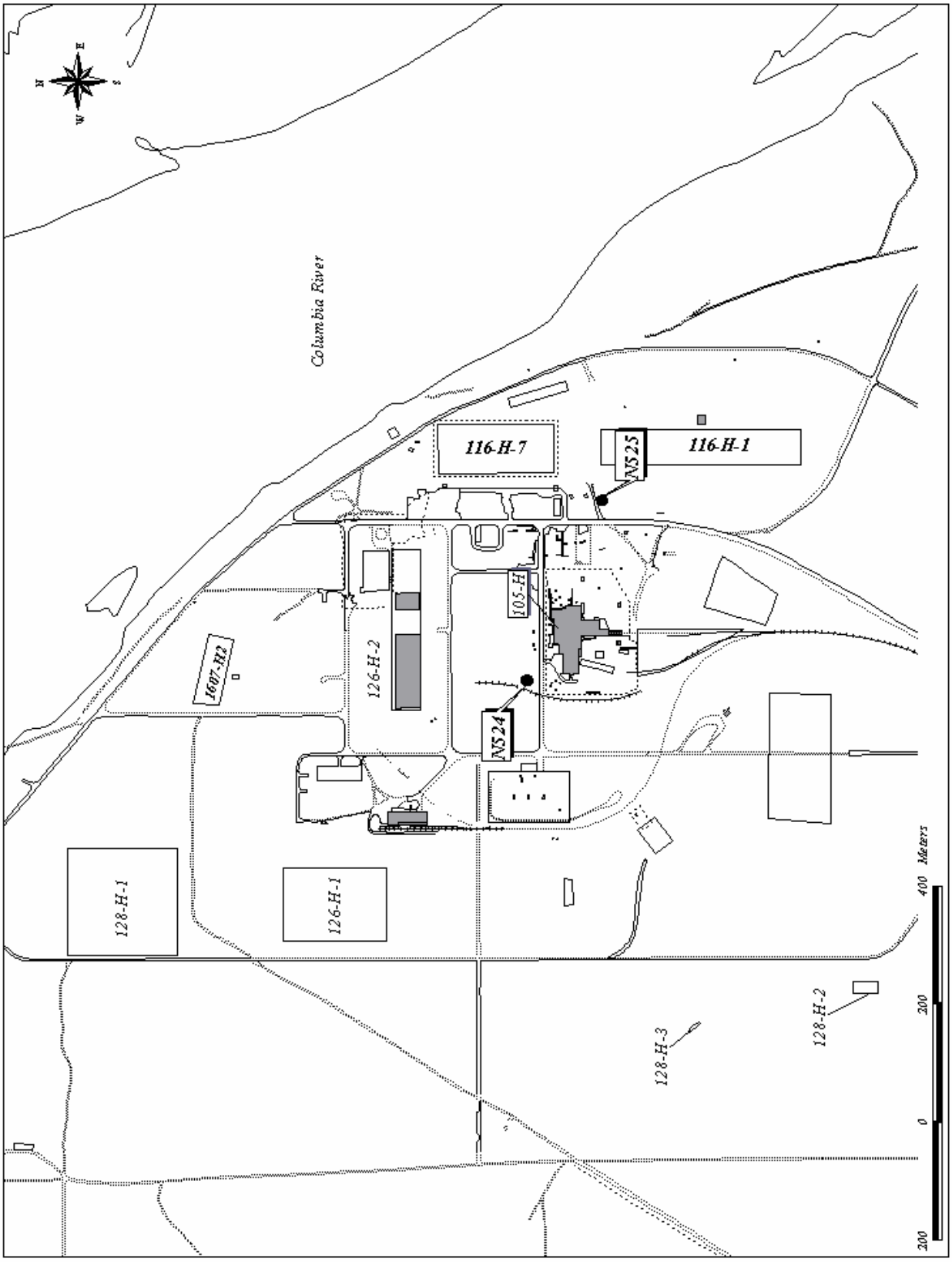

Figure 2-5. 100-K Area Air Sampler Locations.

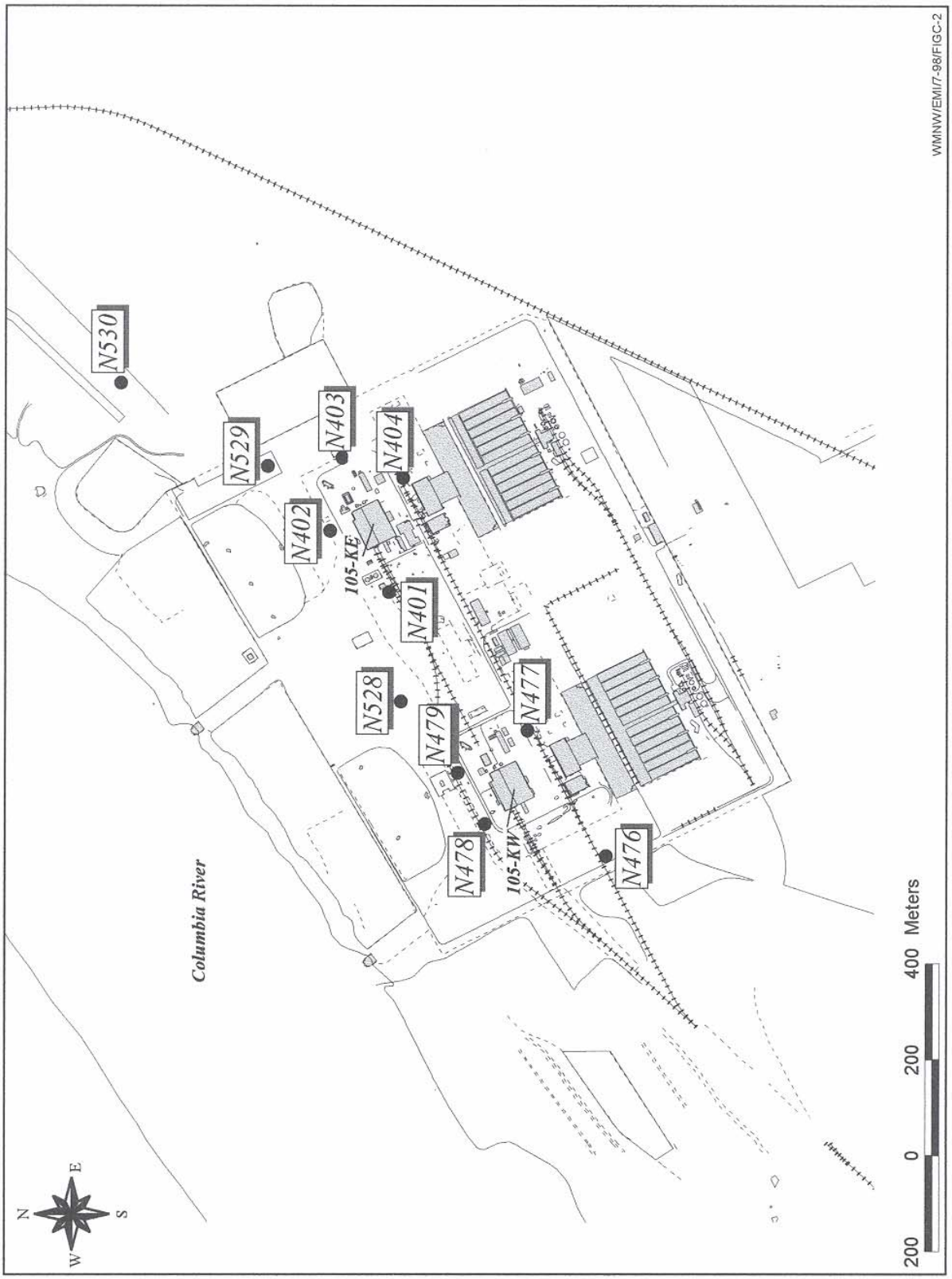

Figure 2-6. 100-N Area Air Sampler Locations.

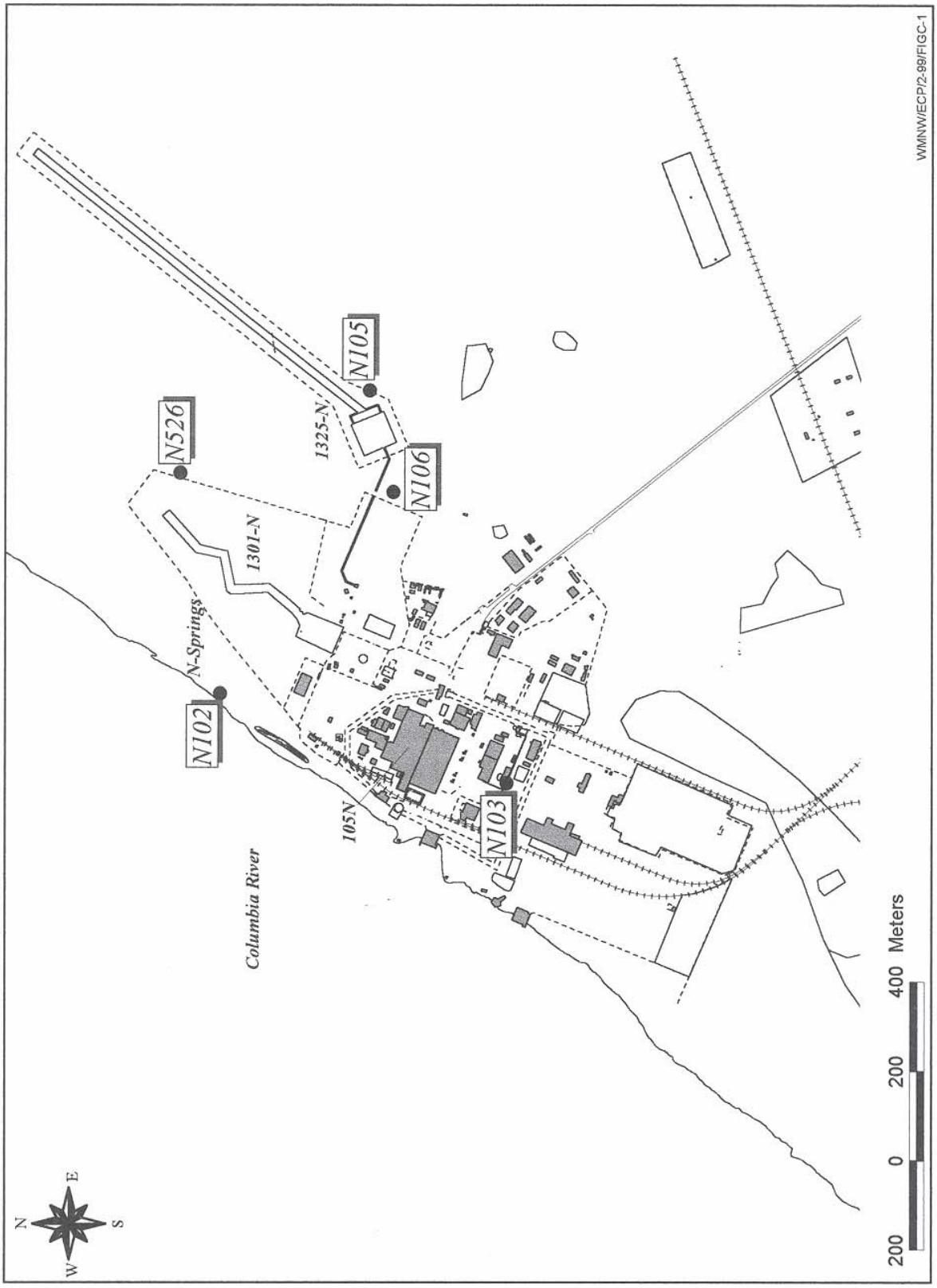

Figure 2-7. 200 East Area Air Sampler Locations.

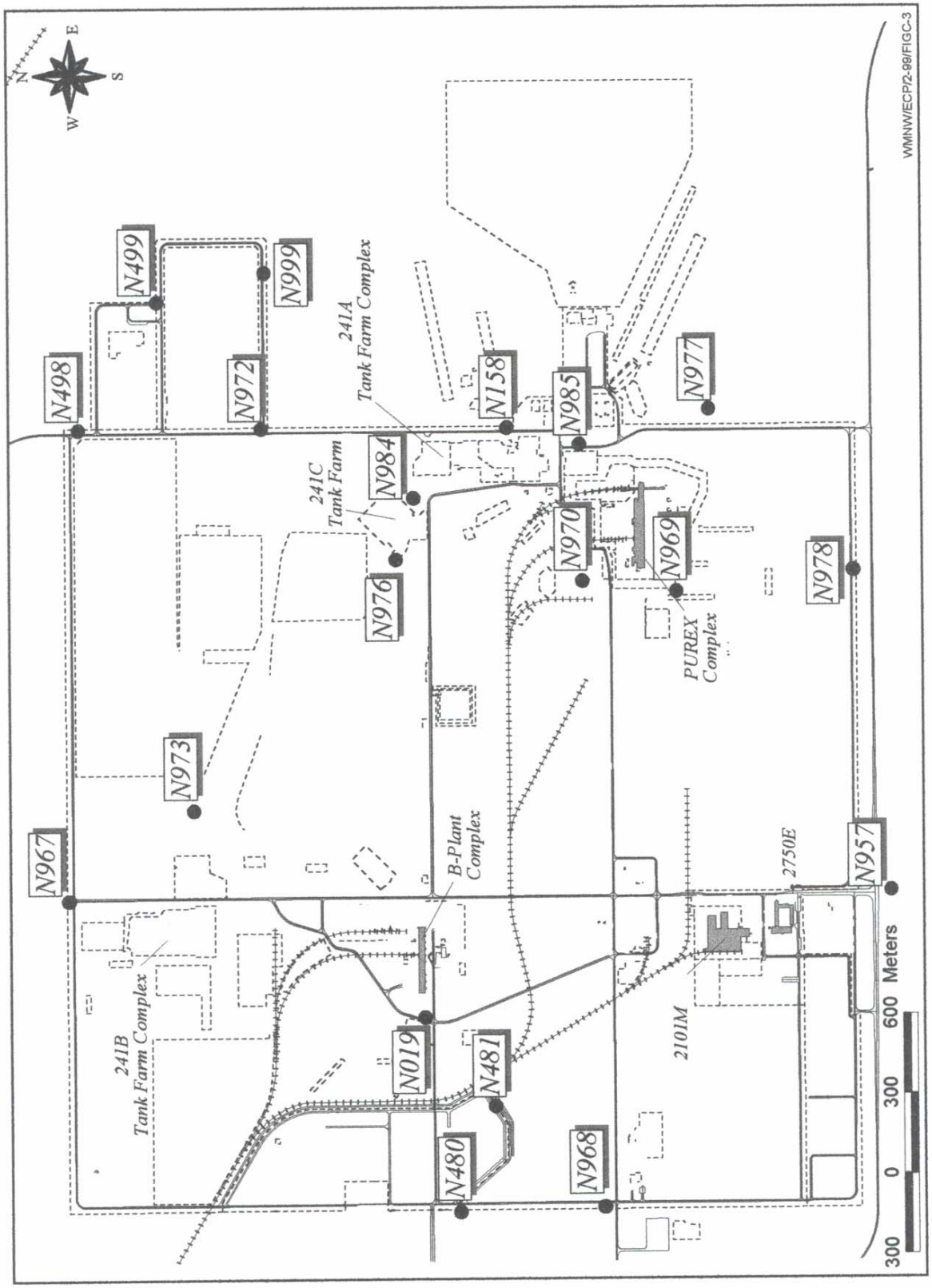

Figure 2-8. 200 West Area Air Sampler Locations.

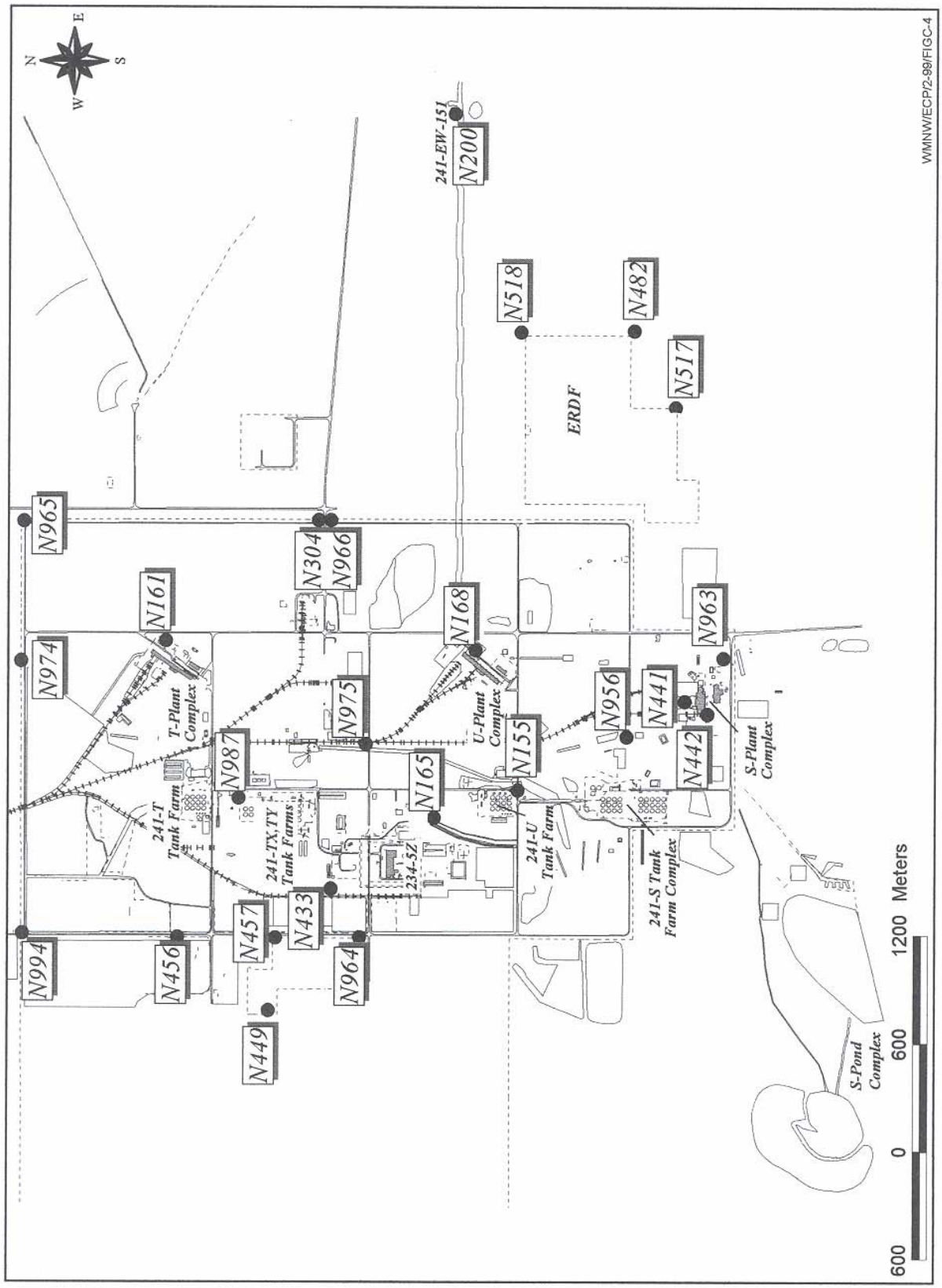

Figure 2-9. 300 Area Air Sampler Locations.

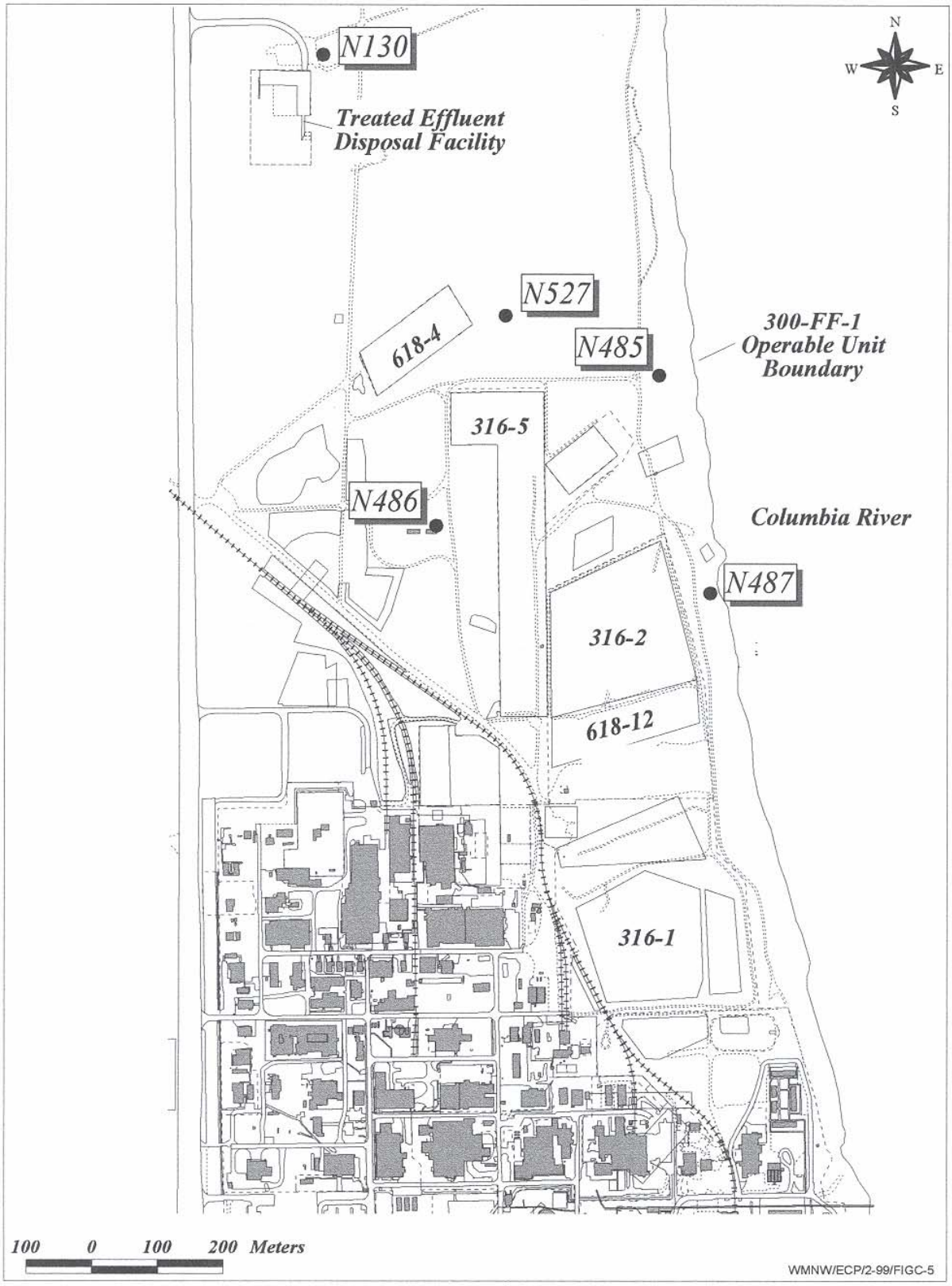

Figure 2-10. Environmental Restoration Disposal Facility Air Sampler Locations.

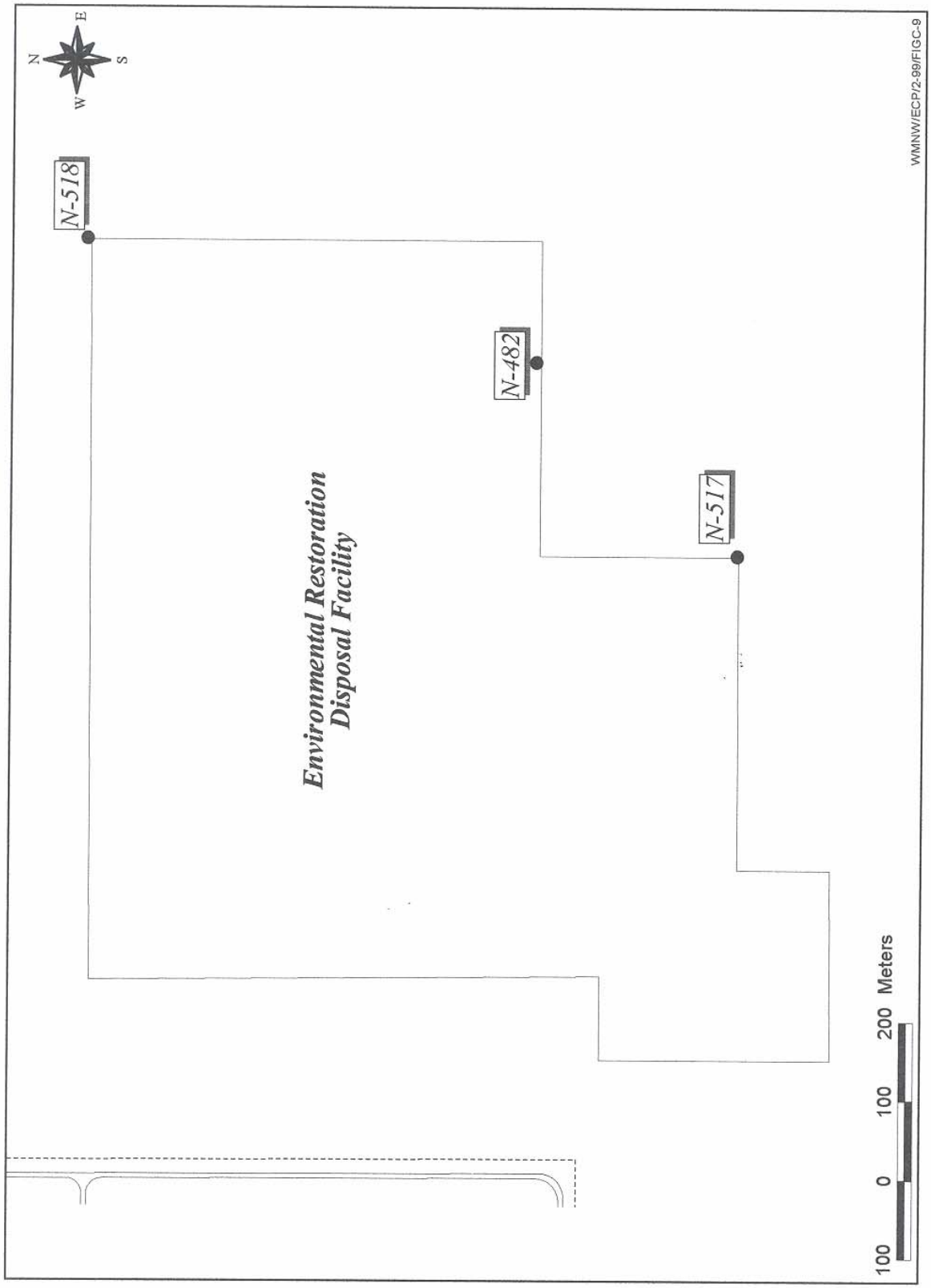

Figure 2-11. 600 Area Air Sampler Location.

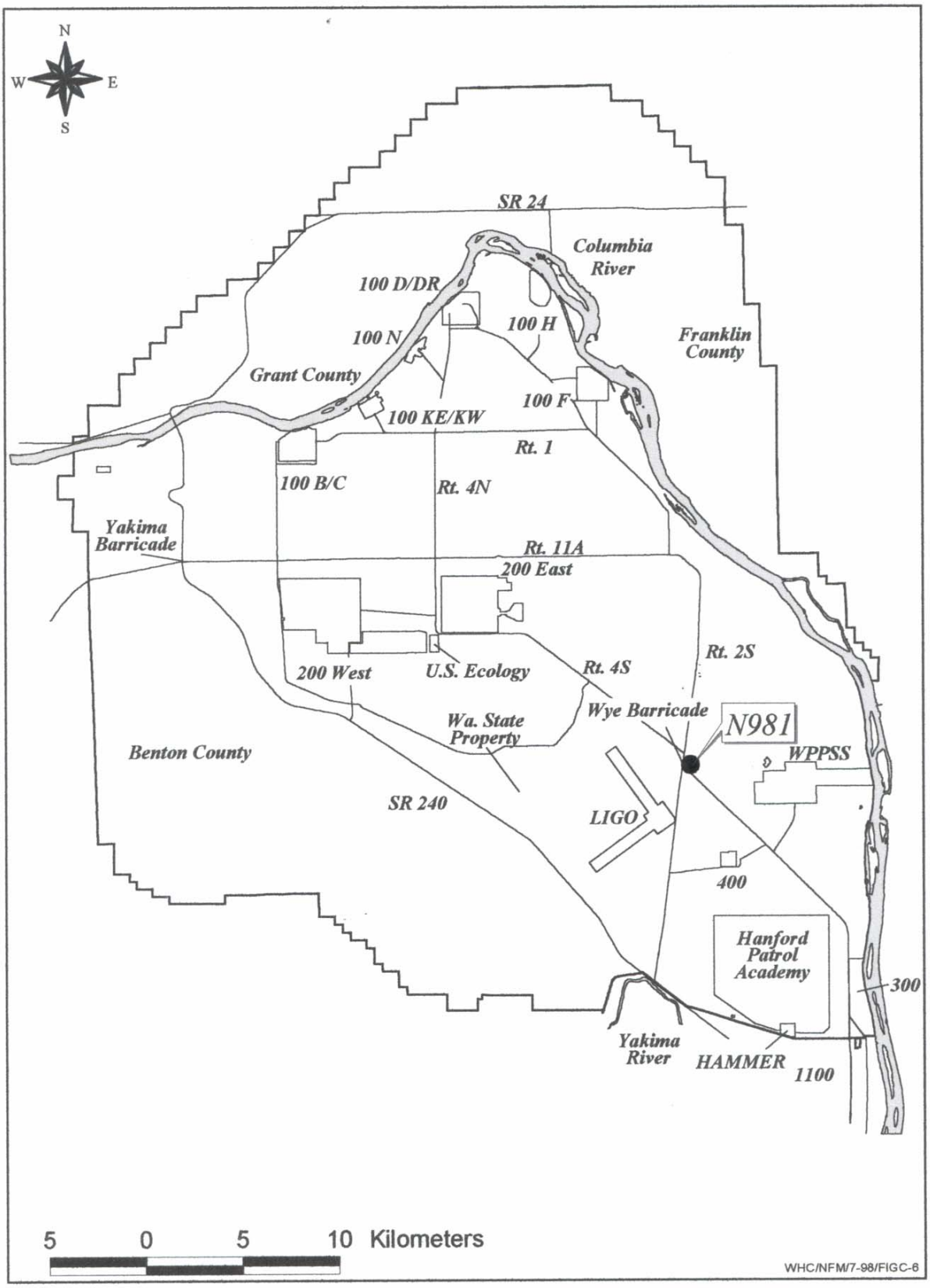

Figure 2-12. Annual Average Strontium-90 Concentrations in Air, 100-K Area.

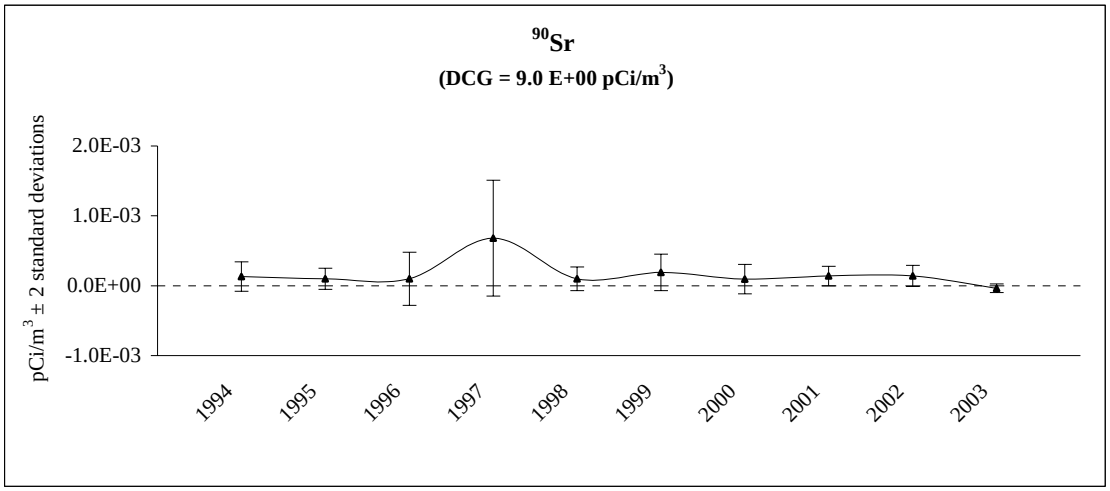

Figure 2-13. Annual Average Plutonium-239/240 Concentrations in Air, 100-K Area.

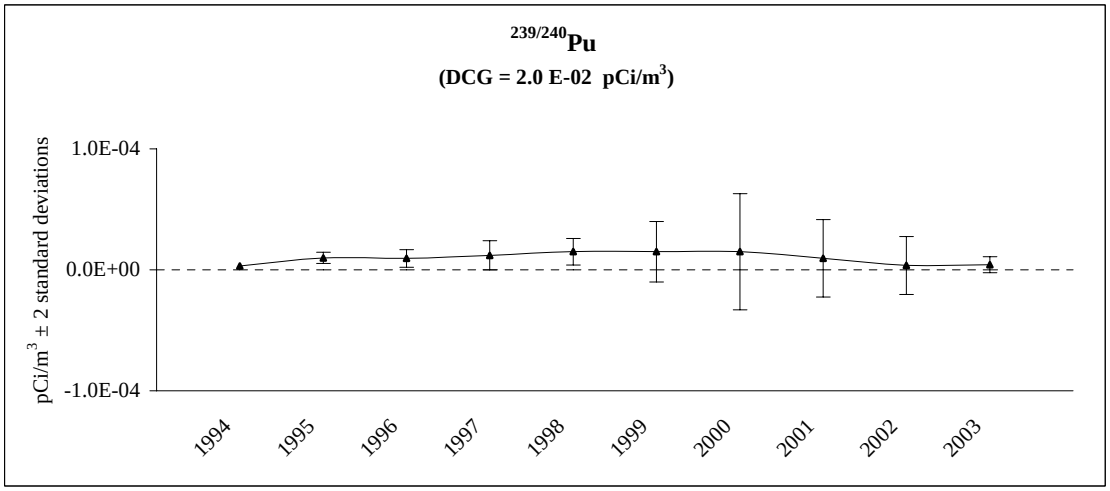

Figure 2-14. Annual Average Americium-241 Concentrations in Air, 100-K Area.

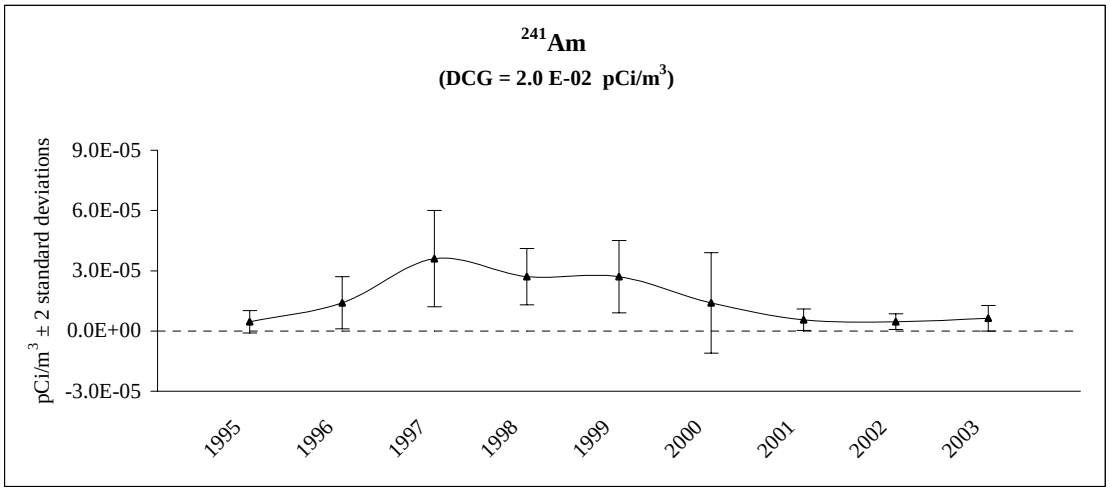

Figure 2-15. Annual Average Cobalt-60 Concentrations in Air, 100-N.

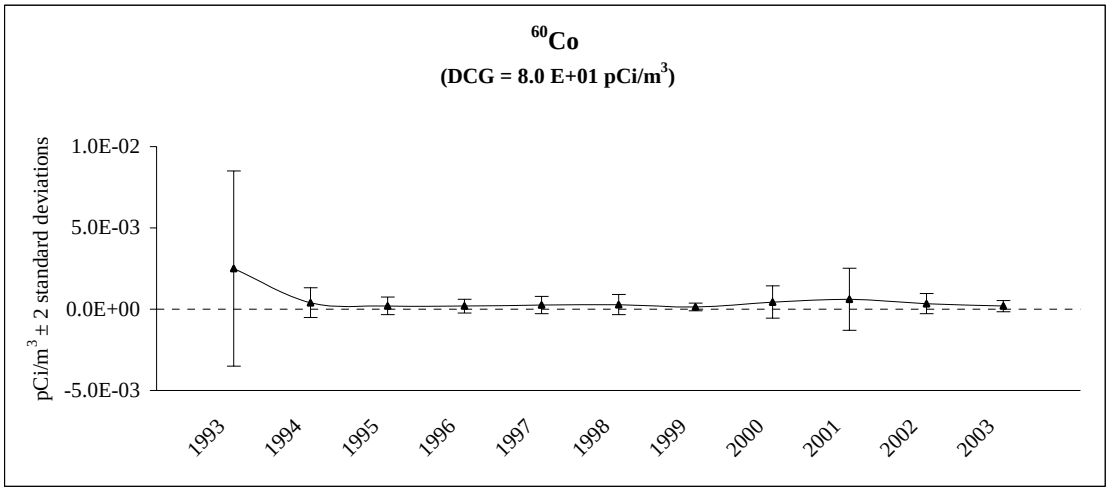

Figure 2-16. Annual Average Strontium-90 Concentrations in Air, 100-N.

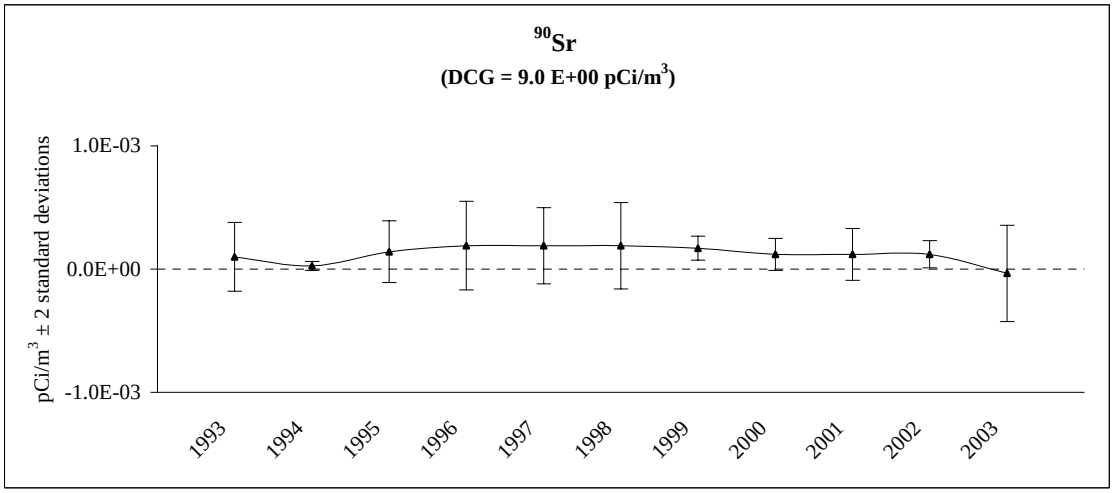

Figure 2-17. Annual Average Cesium-137 Concentrations in Air, 100-N.

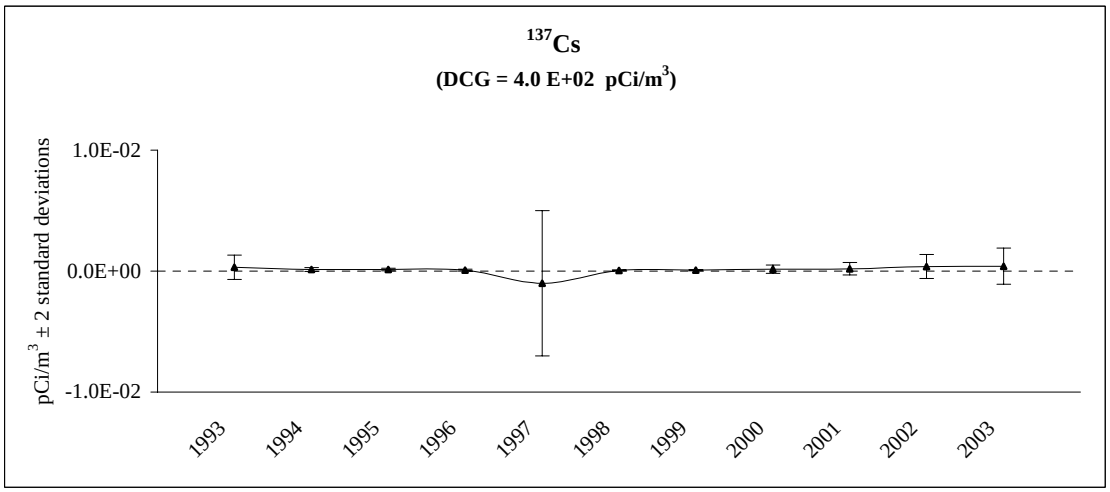

Figure 2-18. Annual Average Plutonium-239/240 Concentrations in Air, 100-N Area.

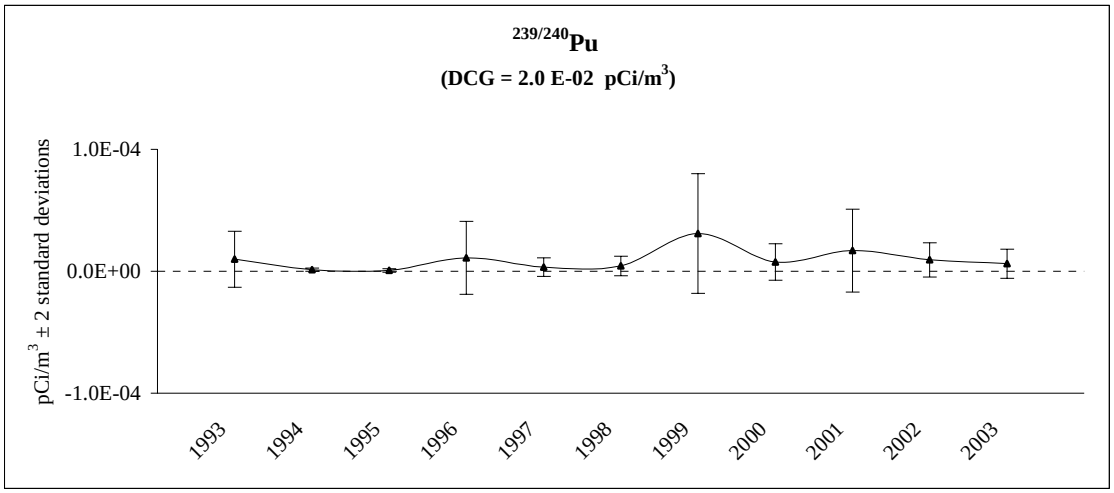

Figure 2-19. Annual Average Strontium-90 Concentrations in Air, 200 Areas.

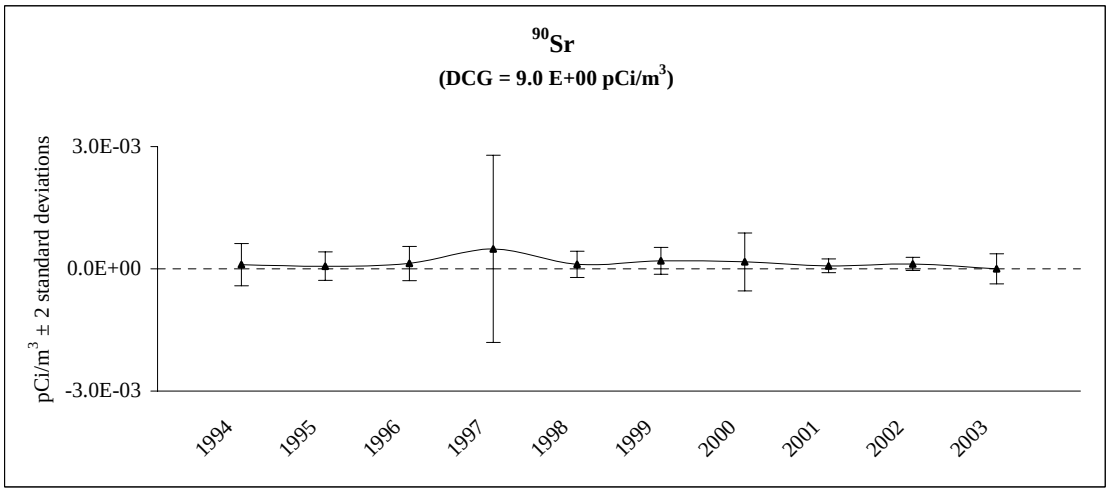

Figure 2-20. Annual Average Cesium-137 Concentrations in Air, 200 Areas.

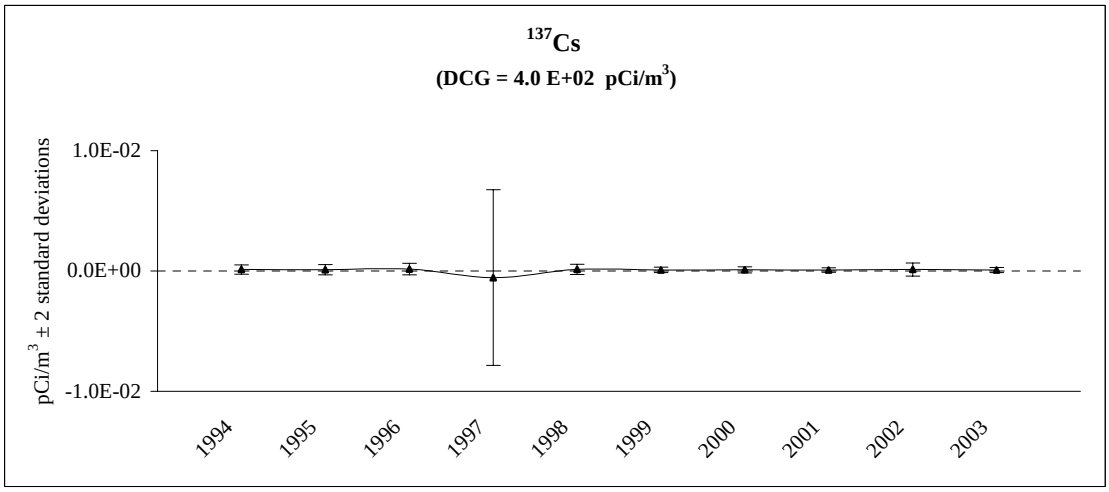

Figure 2-21. Annual Average Plutonium-239/240 Concentrations in Air, 200 Areas.

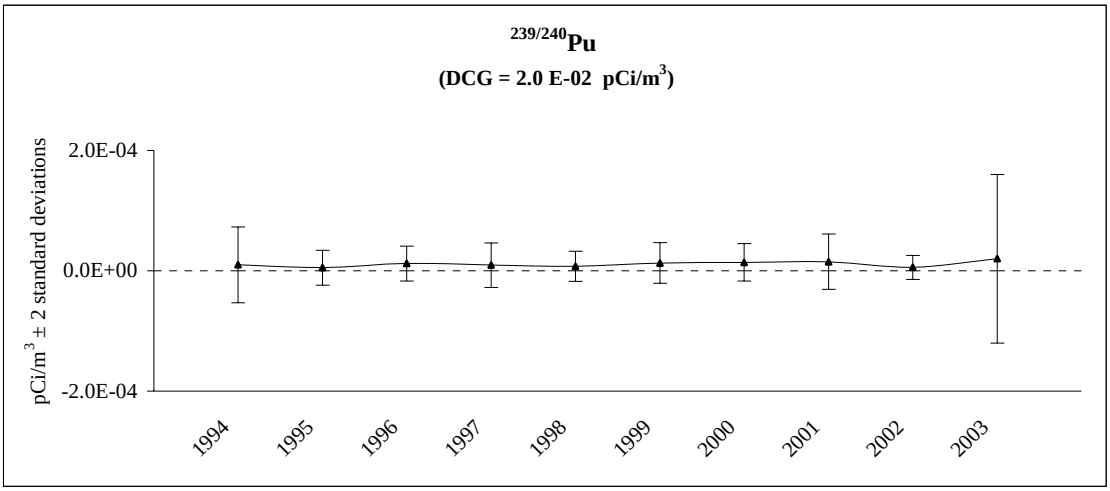

Figure 2-22. Annual Average Uranium-234 Concentrations in Air, 300 Area.

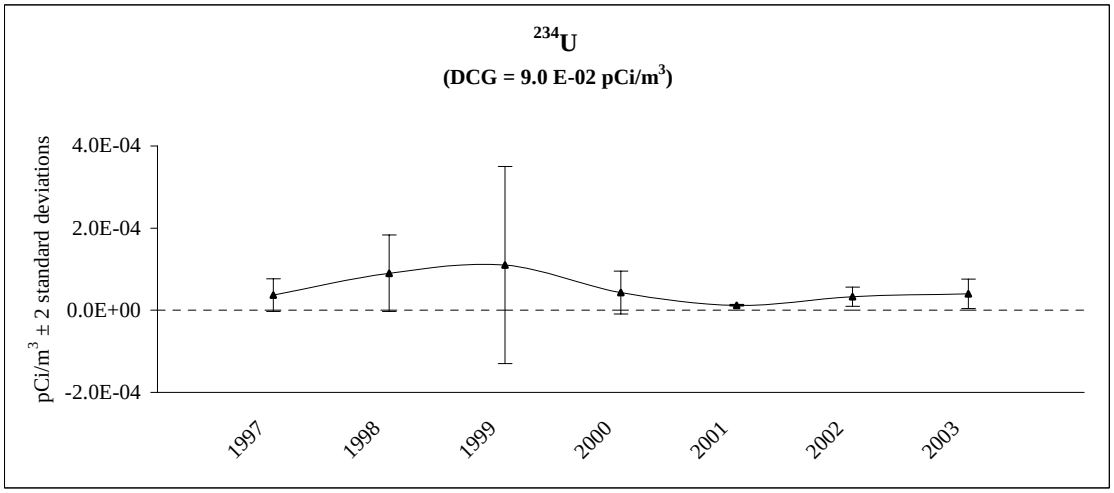

Figure 2-23. Annual Average Uranium-238 Concentrations in Air, 300 Area.

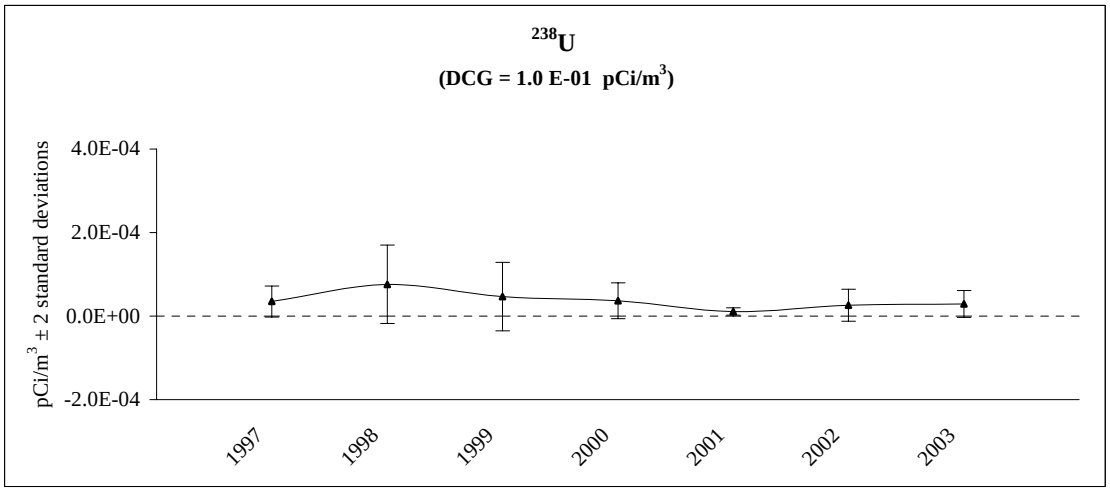

Table 2-2. Summary of Ambient Air Sampling Results (pCi/m^3) for Selected Radionuclides, 2003.

Isotope	Number of Detects	Samples	Mean[a]	Maximum[b]	Location	Sampler
^{60}Co	2	158	8.1E-06 ± 2.7E-04	4.2E-04 ± 1.8E-04	100-N	N526
^{137}Cs	17	158	7.8E-05 ± 5.3E-04	2.5E-03 ± 7.9E-04	100-N	N526
$^{239/240}Pu$	38	151	1.6E-05 ± 1.1E-04	5.0E-04 ± 1.9E-04	200 West	N165
^{90}Sr	15	151	-2.4E-05 ± 4.6E-04	1.0E-03 ± 3.3E-04	200 East	N984
^{234}U	136	158	1.6E-05 ± 2.1E-05	6.9E-05 ± 2.8E-05	300-FF-1	N487
^{235}U	34	158	3.2E-06 ± 7.0E-06	2.2E-05 ± 2.2E-05	105-D	N523
^{238}U	136	158	1.3E-05 ± 1.9E-05	6.4E-05 ± 9.6E-05	105-D	N523

[a] ± 2 standard deviations
[b] ± total analytical uncertainty

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty).

Location	Isotope	Result ± Uncertainty	RQ*
N464 (100-B/C)	^{144}Ce	-1.8E-04 ± 7.8E-04	U
Composite Period	^{60}Co	3.0E-05 ± 7.3E-05	U
01/06/03 to 06/23/03	^{134}Cs	2.9E-05 ± 8.9E-05	U
	^{137}Cs	7.4E-05 ± 7.8E-05	U
	^{152}Eu	-1.9E-05 ± 1.9E-04	U
	^{154}Eu	8.7E-05 ± 2.1E-04	U
	^{155}Eu	-6.9E-05 ± 2.2E-04	U
	^{238}Pu	1.9E-05 ± 1.8E-05	U
	$^{239/240}$Pu	9.3E-07 ± 9.6E-07	U
	^{103}Ru	8.4E-05 ± 8.6E-05	U
	^{106}Ru	-4.4E-04 ± 6.6E-04	U
	^{125}Sb	1.2E-04 ± 1.9E-04	U
	^{113}Sn	-2.0E-05 ± 9.0E-05	U
	^{90}Sr	-7.0E-05 ± 8.9E-05	U
	^{234}U	3.5E-06 ± 3.6E-06	
	^{235}U	9.3E-07 ± 1.9E-06	U
	^{238}U	5.2E-06 ± 4.7E-06	
	^{65}Zn	-1.5E-04 ± 1.7E-04	U
N465 (100-B/C)	^{144}Ce	-4.6E-05 ± 4.6E-04	U
Composite Period	^{60}Co	4.4E-06 ± 4.4E-05	U
01/06/03 to 06/23/03	^{134}Cs	-4.7E-05 ± 8.8E-05	U
	^{137}Cs	5.7E-05 ± 9.0E-05	U
	^{152}Eu	5.5E-05 ± 1.9E-04	U
	^{154}Eu	6.3E-05 ± 2.8E-04	U
	^{155}Eu	-4.1E-05 ± 1.9E-04	U
	^{238}Pu	-1.1E-06 ± 1.1E-05	U
	$^{239/240}$Pu	-1.1E-06 ± 4.9E-06	U
	^{103}Ru	2.6E-05 ± 7.2E-05	U
	^{106}Ru	-2.1E-04 ± 7.5E-04	U
	^{125}Sb	-2.0E-04 ± 2.1E-04	U
	^{113}Sn	2.9E-05 ± 7.9E-05	U
	^{90}Sr	6.9E-05 ± 9.9E-05	U
	^{234}U	9.2E-06 ± 6.3E-06	
	^{235}U	2.5E-06 ± 3.1E-06	
	^{238}U	2.3E-06 ± 2.8E-06	
	^{65}Zn	-1.1E-04 ± 1.8E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N464 (100-B/C)	^{144}Ce	5.2E-04 ± 6.7E-04	U
Composite Period	^{60}Co	8.1E-05 ± 9.0E-05	U
06/23/03 to 12/15/03	^{134}Cs	-5.0E-05 ± 7.1E-05	U
	^{137}Cs	-2.4E-05 ± 6.9E-05	U
	^{152}Eu	-1.1E-04 ± 1.7E-04	U
	^{154}Eu	2.4E-05 ± 2.4E-04	U
	^{155}Eu	-2.0E-05 ± 1.7E-04	U
	^{238}Pu	-2.0E-06 ± 1.6E-05	U
	$^{239/240}$Pu	2.0E-06 ± 4.1E-06	U
	^{103}Ru	-3.1E-06 ± 3.1E-05	U
	^{106}Ru	6.2E-05 ± 6.0E-04	U
	^{125}Sb	-3.8E-05 ± 1.4E-04	U
	^{113}Sn	1.8E-05 ± 8.0E-05	U
	^{90}Sr	7.7E-06 ± 8.0E-06	U
	^{234}U	1.4E-05 ± 8.5E-06	
	^{235}U	3.5E-06 ± 4.3E-06	U
	^{238}U	9.3E-06 ± 6.7E-06	
	^{65}Zn	1.2E-04 ± 2.1E-04	U
N465 (100-B/C)	^{144}Ce	-3.3E-04 ± 8.3E-04	U
Composite Period	^{60}Co	-8.8E-06 ± 8.8E-05	U
06/23/03 to 12/15/03	^{134}Cs	-8.0E-05 ± 9.8E-05	U
	^{137}Cs	-1.6E-05 ± 7.9E-05	U
	^{152}Eu	6.5E-05 ± 1.8E-04	U
	^{154}Eu	2.7E-04 ± 3.2E-04	U
	^{155}Eu	-2.1E-04 ± 2.1E-04	U
	^{238}Pu	2.2E-05 ± 1.9E-05	U
	$^{239/240}$Pu	4.0E-06 ± 4.1E-06	
	^{103}Ru	5.5E-05 ± 1.0E-04	U
	^{106}Ru	-2.7E-04 ± 7.1E-04	U
	^{125}Sb	-3.7E-05 ± 1.7E-04	U
	^{113}Sn	-1.6E-05 ± 9.1E-05	U
	^{90}Sr	-1.5E-05 ± 7.8E-05	U
	^{234}U	2.0E-05 ± 1.1E-05	
	^{235}U	2.5E-06 ± 3.1E-06	
	^{238}U	6.9E-06 ± 5.2E-06	
	^{65}Zn	-1.3E-04 ± 2.7E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N466 (100-B/C) Composite Period 01/06/03 to 06/23/03	^{144}Ce	-1.9E-04 ± 5.6E-04	U
	^{60}Co	4.9E-06 ± 4.9E-05	U
	^{134}Cs	2.1E-05 ± 7.7E-05	U
	^{137}Cs	9.3E-06 ± 6.6E-05	U
	^{152}Eu	3.8E-06 ± 3.8E-05	U
	^{154}Eu	-4.5E-05 ± 2.1E-04	U
	^{155}Eu	-1.2E-05 ± 1.2E-04	U
	^{238}Pu	-3.5E-06 ± 1.5E-05	U
	$^{239/240}$Pu	9.1E-07 ± 9.5E-07	U
	^{103}Ru	-2.4E-05 ± 7.9E-05	U
	^{106}Ru	-1.6E-04 ± 6.4E-04	U
	^{125}Sb	-8.6E-05 ± 1.5E-04	U
	^{113}Sn	1.0E-04 ± 8.3E-05	U
	^{90}Sr	7.6E-06 ± 7.6E-05	U
	^{234}U	1.8E-05 ± 1.0E-05	
	^{235}U	2.7E-06 ± 4.1E-06	U
	^{238}U	8.4E-06 ± 6.1E-06	
	^{65}Zn	-8.4E-05 ± 1.8E-04	U
N496 (100-B/C) Composite Period 01/06/03 to 06/23/03	^{144}Ce	2.2E-04 ± 7.7E-04	U
	^{60}Co	1.9E-05 ± 6.7E-05	U
	^{134}Cs	8.1E-06 ± 7.7E-05	U
	^{137}Cs	-4.3E-05 ± 7.0E-05	U
	^{152}Eu	-1.8E-04 ± 2.2E-04	U
	^{154}Eu	7.8E-06 ± 7.8E-05	U
	^{155}Eu	5.9E-05 ± 2.2E-04	U
	^{238}Pu	-2.7E-06 ± 1.5E-05	U
	$^{239/240}$Pu	9.1E-07 ± 9.4E-07	U
	^{103}Ru	-8.2E-06 ± 8.2E-05	U
	^{106}Ru	-2.0E-04 ± 6.8E-04	U
	^{125}Sb	-3.3E-05 ± 1.7E-04	U
	^{113}Sn	4.5E-05 ± 8.4E-05	U
	^{90}Sr	-1.1E-04 ± 1.1E-04	U
	^{234}U	2.8E-06 ± 2.9E-06	
	^{235}U	3.9E-06 ± 3.7E-06	
	^{238}U	7.0E-06 ± 5.1E-06	
	^{65}Zn	-1.9E-04 ± 2.0E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N466 (100-B/C) Composite Period 06/23/03 to 12/22/03	^{144}Ce	2.3E-05 ± 2.3E-04	U
	^{60}Co	1.6E-05 ± 8.7E-05	U
	^{134}Cs	-6.9E-05 ± 9.2E-05	U
	^{137}Cs	-4.7E-05 ± 8.0E-05	U
	^{152}Eu	3.0E-05 ± 1.9E-04	U
	^{154}Eu	-4.2E-05 ± 3.0E-04	U
	^{155}Eu	-4.5E-05 ± 1.8E-04	U
	^{238}Pu	-2.8E-06 ± 1.6E-05	U
	$^{239/240}$Pu	9.2E-07 ± 4.9E-06	U
	^{103}Ru	6.6E-06 ± 6.6E-05	U
	^{106}Ru	-2.0E-04 ± 6.9E-04	U
	^{125}Sb	3.6E-05 ± 1.7E-04	U
	^{113}Sn	-2.1E-05 ± 7.8E-05	U
	^{90}Sr	-8.5E-05 ± 9.2E-05	U
	^{234}U	9.2E-06 ± 6.5E-06	
	^{235}U	2.4E-06 ± 3.0E-06	
	^{238}U	9.2E-06 ± 6.2E-06	
	^{65}Zn	1.3E-04 ± 2.1E-04	U
N496 (100-B/C) Composite Period 06/23/03 to 12/22/03	^{144}Ce	2.4E-04 ± 6.0E-04	U
	^{60}Co	-1.4E-06 ± 1.4E-05	U
	^{134}Cs	-6.3E-05 ± 7.2E-05	U
	^{137}Cs	1.3E-05 ± 6.2E-05	U
	^{152}Eu	3.5E-05 ± 1.4E-04	U
	^{154}Eu	-2.9E-05 ± 2.2E-04	U
	^{155}Eu	-4.6E-05 ± 1.4E-04	U
	^{238}Pu	-1.1E-05 ± 1.5E-05	U
	$^{239/240}$Pu	7.0E-06 ± 6.0E-06	
	^{103}Ru	-2.3E-05 ± 7.8E-05	U
	^{106}Ru	-1.5E-04 ± 5.6E-04	U
	^{125}Sb	-1.1E-04 ± 1.4E-04	U
	^{113}Sn	-7.6E-06 ± 7.5E-05	U
	^{90}Sr	-6.5E-05 ± 9.7E-05	U
	^{234}U	1.0E-05 ± 6.5E-06	
	^{235}U	4.8E-06 ± 4.3E-06	
	^{238}U	1.9E-05 ± 1.0E-05	
	^{65}Zn	1.1E-04 ± 2.0E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N497 (100-B/C) Composite Period 01/06/03 to 06/23/03	^{144}Ce	-8.0E-05 ± 7.6E-04	U
	^{60}Co	1.7E-06 ± 1.7E-05	U
	^{134}Cs	3.8E-05 ± 8.1E-05	U
	^{137}Cs	3.0E-05 ± 7.7E-05	U
	^{152}Eu	5.3E-05 ± 2.0E-04	U
	^{154}Eu	-7.9E-05 ± 2.6E-04	U
	^{155}Eu	1.5E-04 ± 1.9E-04	U
	^{238}Pu	-4.5E-06 ± 1.0E-05	U
	$^{239/240}Pu$	9.1E-07 ± 1.8E-06	U
	^{103}Ru	9.1E-05 ± 9.1E-05	U
	^{106}Ru	-3.6E-04 ± 6.9E-04	U
	^{125}Sb	8.5E-05 ± 1.8E-04	U
	^{113}Sn	-6.9E-05 ± 9.3E-05	U
	^{90}Sr	-7.6E-05 ± 7.8E-05	U
	^{234}U	9.1E-06 ± 6.2E-06	
	^{235}U	-8.3E-07 ± 1.7E-06	U
	^{238}U	6.9E-06 ± 5.2E-06	
	^{65}Zn	-1.7E-04 ± 2.0E-04	U
N536 (100-B/C) Composite Period 02/26/03 to 07/07/03	^{144}Ce	-5.8E-04 ± 9.9E-04	U
	^{60}Co	4.1E-05 ± 1.2E-04	U
	^{134}Cs	6.6E-05 ± 1.3E-04	U
	^{137}Cs	-1.2E-05 ± 1.2E-04	U
	^{152}Eu	1.6E-06 ± 1.6E-05	U
	^{154}Eu	2.4E-04 ± 3.4E-04	U
	^{155}Eu	8.8E-05 ± 2.5E-04	U
	^{238}Pu	2.1E-05 ± 2.1E-05	U
	$^{239/240}Pu$	7.0E-06 ± 7.9E-06	U
	^{103}Ru	-3.9E-05 ± 1.2E-04	U
	^{106}Ru	1.5E-04 ± 1.0E-03	U
	^{125}Sb	8.4E-05 ± 2.6E-04	U
	^{113}Sn	-2.3E-05 ± 1.3E-04	U
	^{90}Sr	7.1E-05 ± 1.4E-04	U
	^{234}U	1.0E-05 ± 7.9E-06	
	^{235}U	4.4E-06 ± 5.4E-06	U
	^{238}U	1.2E-05 ± 9.1E-06	
	^{65}Zn	8.0E-05 ± 2.5E-04	U
N497 (100-B/C) Composite Period 06/23/03 to 12/22/03	^{144}Ce	-3.0E-04 ± 7.9E-04	U
	^{60}Co	6.3E-05 ± 7.3E-05	U
	^{134}Cs	-1.3E-05 ± 8.2E-05	U
	^{137}Cs	-7.6E-06 ± 6.5E-05	U
	^{152}Eu	-3.0E-04 ± 3.1E-04	U
	^{154}Eu	-1.1E-04 ± 2.1E-04	U
	^{155}Eu	3.4E-05 ± 1.9E-04	U
	^{238}Pu	3.8E-06 ± 1.1E-05	U
	$^{239/240}Pu$	9.4E-07 ± 5.6E-06	U
	^{103}Ru	1.1E-05 ± 8.4E-05	U
	^{106}Ru	1.7E-04 ± 6.3E-04	U
	^{125}Sb	-3.4E-05 ± 1.7E-04	U
	^{113}Sn	-1.9E-05 ± 8.5E-05	U
	^{90}Sr	-5.1E-05 ± 9.7E-05	U
	^{234}U	9.4E-06 ± 6.8E-06	
	^{235}U	3.4E-06 ± 3.5E-06	
	^{238}U	8.0E-06 ± 7.0E-06	U
	^{65}Zn	-1.1E-04 ± 2.0E-04	U
N492 (100-D/DR) Composite Period 01/07/03 to 03/17/03	^{144}Ce	-1.1E-03 ± 1.7E-03	U
	^{60}Co	1.5E-04 ± 2.2E-04	U
	^{134}Cs	-2.7E-04 ± 2.7E-04	U
	^{137}Cs	-7.4E-05 ± 2.0E-04	U
	^{152}Eu	2.7E-04 ± 4.4E-04	U
	^{154}Eu	2.4E-04 ± 6.1E-04	U
	^{155}Eu	1.3E-04 ± 4.4E-04	U
	^{238}Pu	1.6E-05 ± 1.8E-05	U
	$^{239/240}Pu$	1.8E-06 ± 3.6E-06	U
	^{103}Ru	-6.2E-05 ± 1.9E-04	U
	^{106}Ru	-6.5E-05 ± 6.5E-04	U
	^{125}Sb	-1.2E-04 ± 4.8E-04	U
	^{113}Sn	4.2E-05 ± 2.1E-04	U
	^{90}Sr	1.7E-04 ± 2.4E-04	U
	^{234}U	2.4E-05 ± 2.0E-05	U
	^{235}U	1.8E-06 ± 1.9E-06	U
	^{238}U	-1.8E-06 ± 6.4E-06	U
	^{65}Zn	-1.4E-04 ± 4.2E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N492 (100-D/DR)	^{144}Ce	-4.8E-04 ± 1.1E-03	U
Composite Period	^{60}Co	-7.3E-05 ± 1.3E-04	U
03/17/03 to 06/23/03	^{134}Cs	-4.3E-05 ± 1.2E-04	U
	^{137}Cs	-9.8E-06 ± 9.8E-05	U
	^{152}Eu	-1.7E-04 ± 2.6E-04	U
	^{154}Eu	-2.7E-05 ± 2.7E-04	U
	^{155}Eu	-2.1E-04 ± 2.8E-04	U
	^{238}Pu	6.8E-06 ± 2.7E-05	U
	$^{239/240}Pu$	1.7E-06 ± 7.7E-06	U
	^{103}Ru	5.9E-05 ± 9.4E-05	U
	^{106}Ru	2.4E-04 ± 1.0E-03	U
	^{125}Sb	7.3E-05 ± 2.8E-04	U
	^{113}Sn	-1.3E-04 ± 1.3E-04	U
	^{90}Sr	-1.3E-05 ± 1.2E-04	U
	^{234}U	1.6E-05 ± 1.1E-05	
	^{235}U	2.6E-06 ± 3.7E-06	U
	^{238}U	7.3E-06 ± 7.4E-06	U
	^{65}Zn	-1.9E-04 ± 2.9E-04	U
N492 (100-D/DR)	^{144}Ce	-1.5E-04 ± 9.9E-04	U
Composite Period	^{60}Co	3.6E-05 ± 1.3E-04	U
09/16/03 to 12/22/03	^{134}Cs	1.7E-05 ± 1.3E-04	U
	^{137}Cs	-4.4E-05 ± 1.1E-04	U
	^{152}Eu	-1.4E-05 ± 1.4E-04	U
	^{154}Eu	-2.4E-04 ± 4.0E-04	U
	^{155}Eu	-3.6E-04 ± 3.7E-04	U
	^{238}Pu	1.6E-05 ± 2.1E-05	U
	$^{239/240}Pu$	1.6E-06 ± 1.7E-06	U
	^{103}Ru	-3.6E-05 ± 1.0E-04	U
	^{106}Ru	-3.0E-04 ± 1.0E-03	U
	^{125}Sb	9.1E-05 ± 2.7E-04	U
	^{113}Sn	-1.3E-04 ± 1.3E-04	U
	^{90}Sr	4.0E-05 ± 2.4E-04	U
	^{234}U	2.7E-05 ± 1.5E-05	
	^{235}U	1.6E-05 ± 1.2E-05	
	^{238}U	1.6E-05 ± 1.1E-05	
	^{65}Zn	-3.5E-04 ± 3.6E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N492 (100-D/DR)	^{144}Ce	8.9E-04 ± 1.6E-03	U
Composite Period	^{60}Co	-3.5E-05 ± 2.1E-04	U
06/23/03 to 09/16/03	^{134}Cs	-3.5E-05 ± 2.0E-04	U
	^{137}Cs	-1.7E-04 ± 2.0E-04	U
	^{152}Eu	2.6E-04 ± 4.2E-04	U
	^{154}Eu	1.2E-04 ± 6.0E-04	U
	^{155}Eu	-3.5E-04 ± 4.3E-04	U
	^{238}Pu	2.6E-05 ± 3.0E-05	U
	$^{239/240}Pu$	1.3E-05 ± 1.1E-05	
	^{103}Ru	-8.5E-06 ± 8.5E-05	U
	^{106}Ru	-6.3E-04 ± 1.9E-03	U
	^{125}Sb	1.8E-04 ± 4.1E-04	U
	^{113}Sn	-1.2E-04 ± 1.8E-04	U
	^{90}Sr	2.1E-04 ± 2.4E-04	
	^{234}U	1.5E-05 ± 1.3E-05	
	^{235}U	6.1E-06 ± 7.4E-06	
	^{238}U	7.4E-06 ± 7.6E-06	
	^{65}Zn	4.3E-05 ± 4.3E-04	U
N515 (100-D/DR)	^{144}Ce	1.9E-03 ± 2.0E-03	U
Composite Period	^{60}Co	-1.5E-04 ± 2.0E-04	U
01/07/03 to 03/17/03	^{134}Cs	-1.6E-04 ± 2.3E-04	U
	^{137}Cs	7.6E-06 ± 7.6E-05	U
	^{152}Eu	-7.8E-05 ± 4.9E-04	U
	^{154}Eu	-3.8E-04 ± 6.5E-04	U
	^{155}Eu	-1.1E-04 ± 5.6E-04	U
	^{238}Pu	-1.9E-06 ± 1.6E-05	U
	$^{239/240}Pu$	3.7E-06 ± 7.5E-06	U
	^{103}Ru	-1.7E-04 ± 2.2E-04	U
	^{106}Ru	-1.2E-04 ± 1.2E-03	U
	^{125}Sb	-1.6E-04 ± 4.8E-04	U
	^{113}Sn	-1.9E-04 ± 2.4E-04	U
	^{90}Sr	-8.3E-05 ± 2.1E-04	U
	^{234}U	2.3E-05 ± 1.6E-05	
	^{235}U	5.2E-06 ± 7.4E-06	U
	^{238}U	7.1E-06 ± 1.3E-05	U
	^{65}Zn	-1.0E-04 ± 4.3E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N515 (100-D/DR) Composite Period 03/17/03 to 06/23/03	^{144}Ce	5.1E-04 ± 9.1E-04	U
	^{60}Co	4.2E-05 ± 9.5E-05	U
	^{134}Cs	-7.3E-05 ± 9.5E-05	U
	^{137}Cs	5.5E-05 ± 8.0E-05	U
	^{152}Eu	-1.5E-04 ± 2.5E-04	U
	^{154}Eu	2.6E-06 ± 2.6E-05	U
	^{155}Eu	-1.6E-04 ± 2.5E-04	U
	^{238}Pu	3.2E-06 ± 1.6E-05	U
	$^{239/240}$Pu	1.6E-06 ± 7.3E-06	U
	^{103}Ru	1.7E-06 ± 1.7E-05	U
	^{106}Ru	-3.6E-04 ± 7.3E-04	U
	^{125}Sb	-8.1E-05 ± 2.0E-04	U
	^{113}Sn	2.4E-05 ± 9.4E-05	U
	^{90}Sr	-2.9E-04 ± 3.0E-04	U
	^{234}U	1.3E-05 ± 1.2E-05	U
	^{235}U	1.4E-05 ± 1.0E-05	
	^{238}U	1.4E-05 ± 1.0E-05	
	^{65}Zn	-2.4E-05 ± 2.3E-04	U
N515 (100-D/DR) Composite Period 09/16/03 to 12/22/03	^{144}Ce	2.2E-03 ± 2.3E-03	
	^{60}Co	3.0E-05 ± 1.8E-04	U
	^{134}Cs	-3.8E-05 ± 1.5E-04	U
	^{137}Cs	-1.5E-05 ± 1.3E-04	U
	^{152}Eu	-9.6E-05 ± 3.8E-04	U
	^{154}Eu	2.0E-05 ± 2.0E-04	U
	^{155}Eu	7.1E-05 ± 3.3E-04	U
	^{238}Pu	1.9E-05 ± 2.4E-05	U
	$^{239/240}$Pu	1.9E-05 ± 1.3E-05	
	^{103}Ru	7.4E-05 ± 1.2E-04	U
	^{106}Ru	1.2E-03 ± 1.2E-03	U
	^{125}Sb	-1.3E-04 ± 3.2E-04	U
	^{113}Sn	3.9E-05 ± 1.5E-04	U
	^{90}Sr	-3.9E-05 ± 2.0E-04	U
	^{234}U	2.2E-05 ± 1.4E-05	
	^{235}U	1.2E-06 ± 1.2E-05	U
	^{238}U	8.3E-06 ± 6.9E-06	
	^{65}Zn	2.2E-04 ± 4.0E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N515 (100-D/DR) Composite Period 06/23/03 to 09/16/03	^{144}Ce	-7.5E-04 ± 1.1E-03	U
	^{60}Co	-7.2E-05 ± 1.7E-04	U
	^{134}Cs	-2.4E-05 ± 1.9E-04	U
	^{137}Cs	1.2E-05 ± 1.2E-04	U
	^{152}Eu	1.6E-05 ± 1.6E-04	U
	^{154}Eu	2.3E-04 ± 4.7E-04	U
	^{155}Eu	-2.5E-04 ± 3.7E-04	U
	^{238}Pu	7.6E-06 ± 1.8E-05	U
	$^{239/240}$Pu	-3.9E-06 ± 5.5E-06	U
	^{103}Ru	-4.7E-05 ± 1.3E-04	U
	^{106}Ru	-8.0E-04 ± 1.3E-03	U
	^{125}Sb	-1.8E-04 ± 3.6E-04	U
	^{113}Sn	-3.3E-05 ± 2.0E-04	U
	^{90}Sr	2.5E-04 ± 2.1E-04	
	^{234}U	1.6E-05 ± 1.3E-05	
	^{235}U	1.8E-06 ± 3.7E-06	U
	^{238}U	2.0E-05 ± 1.3E-05	
	^{65}Zn	-2.2E-04 ± 3.8E-04	U
N523 (100-D/DR) Composite Period 01/07/03 to 03/17/03	^{144}Ce	1.9E-03 ± 1.1E-02	U
	^{60}Co	3.6E-04 ± 1.2E-03	U
	^{134}Cs	3.1E-04 ± 9.6E-04	U
	^{137}Cs	-5.2E-04 ± 1.1E-03	U
	^{152}Eu	8.4E-04 ± 2.8E-03	U
	^{154}Eu	-1.9E-03 ± 3.8E-03	U
	^{155}Eu	1.1E-03 ± 2.3E-03	U
	^{238}Pu	9.7E-06 ± 9.7E-06	U
	$^{239/240}$Pu	9.7E-06 ± 1.9E-05	U
	^{103}Ru	6.9E-05 ± 6.9E-04	U
	^{106}Ru	3.2E-03 ± 9.2E-03	U
	^{125}Sb	2.6E-03 ± 2.3E-03	U
	^{113}Sn	3.5E-04 ± 1.1E-03	U
	^{90}Sr	-5.0E-04 ± 1.3E-03	U
	^{234}U	5.7E-05 ± 6.3E-05	U
	^{235}U	2.1E-05 ± 4.2E-05	U
	^{238}U	4.8E-05 ± 5.3E-05	U
	^{65}Zn	-8.8E-04 ± 2.7E-03	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N523 (100-D/DR) Composite Period 03/17/03 to 06/23/03	^{144}Ce	-1.4E-03 ± 5.6E-03	U
	^{60}Co	-2.1E-05 ± 2.1E-04	U
	^{134}Cs	-2.8E-04 ± 6.2E-04	U
	^{137}Cs	2.6E-04 ± 5.4E-04	U
	^{152}Eu	-5.9E-04 ± 1.7E-03	U
	^{154}Eu	-1.3E-03 ± 1.6E-03	U
	^{155}Eu	8.4E-04 ± 1.5E-03	U
	^{238}Pu	-6.8E-05 ± 9.6E-05	U
	$^{239/240}Pu$	1.4E-05 ± 3.4E-05	U
	^{103}Ru	-4.0E-04 ± 5.1E-04	U
	^{106}Ru	1.6E-03 ± 4.8E-03	U
	^{125}Sb	7.3E-04 ± 1.3E-03	U
	^{113}Sn	1.4E-04 ± 6.1E-04	U
	^{90}Sr	-1.9E-04 ± 5.7E-04	U
	^{234}U	5.5E-05 ± 4.1E-05	
	^{235}U	-7.4E-06 ± 1.5E-05	U
	^{238}U	2.0E-05 ± 2.5E-05	
	^{65}Zn	-2.2E-04 ± 1.5E-03	U
N523 (100-D/DR) Composite Period 12/09/03 to 12/22/03	^{144}Ce	5.8E-05 ± 5.8E-04	U
	^{60}Co	1.9E-04 ± 3.7E-04	U
	^{134}Cs	2.2E-04 ± 4.0E-04	U
	^{137}Cs	-6.6E-05 ± 3.2E-04	U
	^{152}Eu	-2.4E-04 ± 1.0E-03	U
	^{154}Eu	1.6E-05 ± 1.6E-04	U
	^{155}Eu	-3.3E-04 ± 7.4E-04	U
	^{238}Pu	5.2E-05 ± 1.4E-04	U
	$^{239/240}Pu$	2.5E-05 ± 3.7E-05	U
	^{103}Ru	-1.9E-04 ± 0.0E+00	U
	^{106}Ru	7.4E-04 ± 2.9E-03	U
	^{125}Sb	8.4E-05 ± 7.0E-04	U
	^{113}Sn	-2.4E-04 ± 3.0E-04	U
	^{90}Sr	-7.5E-05 ± 1.3E-04	U
	^{234}U	2.3E-05 ± 2.3E-05	U
	^{235}U	1.3E-05 ± 1.6E-05	U
	^{238}U	1.2E-05 ± 1.4E-05	U
	^{65}Zn	3.6E-04 ± 9.7E-04	U
N523 (100-D/DR) Composite Period 06/23/03 to 08/19/03	^{144}Ce	7.4E-03 ± 1.8E-02	U
	^{60}Co	-1.4E-03 ± 2.0E-03	U
	^{134}Cs	-1.1E-03 ± 1.9E-03	U
	^{137}Cs	1.3E-03 ± 1.8E-03	U
	^{152}Eu	-2.0E-03 ± 4.7E-03	U
	^{154}Eu	1.2E-03 ± 6.2E-03	U
	^{155}Eu	2.0E-03 ± 5.4E-03	U
	^{238}Pu	-2.8E-04 ± 5.9E-04	U
	$^{239/240}Pu$	3.0E-04 ± 2.4E-04	
	^{103}Ru	-7.9E-05 ± 7.9E-04	U
	^{106}Ru	-3.4E-03 ± 1.7E-02	U
	^{125}Sb	-2.6E-03 ± 4.1E-03	U
	^{113}Sn	-1.8E-04 ± 1.8E-03	U
	^{90}Sr	-1.8E-03 ± 2.9E-03	U
	^{234}U	4.4E-05 ± 1.4E-04	U
	^{235}U	2.2E-05 ± 2.2E-05	U
	^{238}U	6.4E-05 ± 9.6E-05	U
	^{65}Zn	-3.2E-03 ± 3.7E-03	U
N494 (100-F) Composite Period 01/07/03 to 03/18/03	^{144}Ce	4.9E-04 ± 1.7E-03	U
	^{60}Co	9.7E-05 ± 1.7E-04	U
	^{134}Cs	-1.5E-04 ± 1.8E-04	U
	^{137}Cs	1.1E-05 ± 1.1E-04	U
	^{152}Eu	-1.8E-04 ± 4.4E-04	U
	^{154}Eu	4.3E-04 ± 4.8E-04	U
	^{155}Eu	-1.2E-04 ± 4.9E-04	U
	^{238}Pu	5.6E-06 ± 1.6E-05	U
	$^{239/240}Pu$	3.6E-06 ± 7.3E-06	U
	^{103}Ru	3.5E-05 ± 1.9E-04	U
	^{106}Ru	3.5E-04 ± 1.6E-03	U
	^{125}Sb	-8.2E-05 ± 4.2E-04	U
	^{113}Sn	-2.3E-05 ± 2.0E-04	U
	^{90}Sr	-2.5E-04 ± 2.6E-04	U
	^{234}U	4.0E-05 ± 2.1E-05	
	^{235}U	4.0E-06 ± 8.0E-06	U
	^{238}U	4.0E-05 ± 2.0E-05	
	^{65}Zn	-5.3E-04 ± 5.4E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N494 (100-F) Composite Period 03/18/03 to 06/24/03	^{144}Ce	-6.4E-04 ± 1.2E-03	U
	^{60}Co	-1.4E-04 ± 1.6E-04	U
	^{134}Cs	-1.3E-04 ± 1.5E-04	U
	^{137}Cs	6.4E-05 ± 1.4E-04	U
	^{152}Eu	-6.4E-05 ± 3.3E-04	U
	^{154}Eu	-1.1E-04 ± 4.9E-04	U
	^{155}Eu	-7.7E-05 ± 3.1E-04	U
	^{238}Pu	-1.4E-06 ± 1.4E-05	U
	$^{239/240}$Pu	7.3E-06 ± 8.3E-06	U
	^{103}Ru	-4.6E-05 ± 1.2E-04	U
	^{106}Ru	3.1E-04 ± 1.2E-03	U
	^{125}Sb	1.1E-04 ± 3.0E-04	U
	^{113}Sn	-8.5E-06 ± 8.5E-05	U
	^{90}Sr	-3.9E-05 ± 1.6E-04	U
	^{234}U	1.1E-05 ± 8.6E-06	
	^{235}U	3.0E-06 ± 6.1E-06	U
	^{238}U	1.1E-05 ± 1.0E-05	U
	^{65}Zn	2.6E-04 ± 3.5E-04	U
N494 (100-F) Composite Period 09/16/03 to 12/22/03	^{144}Ce	-5.8E-04 ± 1.3E-03	U
	^{60}Co	6.1E-05 ± 1.2E-04	U
	^{134}Cs	1.3E-04 ± 1.7E-04	U
	^{137}Cs	3.1E-05 ± 1.2E-04	U
	^{152}Eu	-1.8E-05 ± 1.8E-04	U
	^{154}Eu	-2.9E-04 ± 4.3E-04	U
	^{155}Eu	-1.4E-04 ± 3.4E-04	U
	^{238}Pu	-4.4E-06 ± 2.1E-05	U
	$^{239/240}$Pu	-1.5E-06 ± 3.0E-06	U
	^{103}Ru	-1.4E-05 ± 9.8E-05	U
	^{106}Ru	-3.3E-04 ± 1.0E-03	U
	^{125}Sb	3.9E-05 ± 3.0E-04	U
	^{113}Sn	-5.5E-05 ± 1.2E-04	U
	^{90}Sr	5.3E-05 ± 2.2E-04	U
	^{234}U	1.5E-05 ± 1.2E-05	
	^{235}U	2.9E-06 ± 4.2E-06	U
	^{238}U	1.3E-05 ± 9.5E-06	
	^{65}Zn	-4.5E-04 ± 4.6E-04	U
N494 (100-F) Composite Period 06/24/03 to 09/16/03	^{144}Ce	5.2E-04 ± 1.1E-03	U
	^{60}Co	4.3E-05 ± 1.7E-04	U
	^{134}Cs	-1.3E-04 ± 1.8E-04	U
	^{137}Cs	4.3E-05 ± 1.5E-04	U
	^{152}Eu	-1.9E-05 ± 1.9E-04	U
	^{154}Eu	8.0E-04 ± 5.1E-04	U
	^{155}Eu	1.0E-04 ± 3.6E-04	U
	^{238}Pu	2.4E-05 ± 2.7E-05	U
	$^{239/240}$Pu	5.0E-06 ± 9.1E-06	U
	^{103}Ru	5.1E-05 ± 1.3E-04	U
	^{106}Ru	-1.9E-04 ± 1.3E-03	U
	^{125}Sb	-1.7E-04 ± 3.4E-04	U
	^{113}Sn	3.1E-05 ± 1.9E-04	U
	^{90}Sr	-3.1E-04 ± 3.2E-04	U
	^{234}U	2.3E-05 ± 1.6E-05	
	^{235}U	1.8E-06 ± 6.3E-06	U
	^{238}U	1.0E-05 ± 1.0E-05	U
	^{65}Zn	-6.3E-05 ± 3.9E-04	U
N495 (100-F) Composite Period 01/07/03 to 03/18/03	^{144}Ce	7.4E-04 ± 1.6E-03	U
	^{60}Co	2.7E-04 ± 2.5E-04	U
	^{134}Cs	7.3E-05 ± 2.3E-04	U
	^{137}Cs	-6.9E-05 ± 2.0E-04	U
	^{152}Eu	3.8E-04 ± 4.4E-04	U
	^{154}Eu	-6.4E-04 ± 6.7E-04	U
	^{155}Eu	-2.7E-04 ± 4.7E-04	U
	^{238}Pu	3.5E-06 ± 1.4E-05	U
	$^{239/240}$Pu	3.5E-06 ± 7.1E-06	U
	^{103}Ru	1.1E-04 ± 2.1E-04	U
	^{106}Ru	-2.8E-04 ± 1.9E-03	U
	^{125}Sb	7.9E-05 ± 4.6E-04	U
	^{113}Sn	2.4E-04 ± 2.5E-04	U
	^{90}Sr	7.4E-05 ± 2.5E-04	U
	^{234}U	2.2E-05 ± 1.5E-05	
	^{235}U	2.2E-06 ± 7.8E-06	U
	^{238}U	4.1E-06 ± 8.2E-06	U
	^{65}Zn	-1.9E-04 ± 5.1E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N495 (100-F)	^{144}Ce	-3.4E-04 ± 1.0E-03	U
Composite Period	^{60}Co	5.5E-05 ± 1.4E-04	U
03/18/03 to 06/24/03	^{134}Cs	1.6E-04 ± 1.4E-04	U
	^{137}Cs	1.3E-04 ± 1.3E-04	U
	^{152}Eu	1.2E-04 ± 2.6E-04	U
	^{154}Eu	-4.3E-04 ± 4.5E-04	U
	^{155}Eu	2.0E-04 ± 2.5E-04	U
	^{238}Pu	1.6E-05 ± 2.4E-05	U
	$^{239/240}$Pu	1.8E-05 ± 1.3E-05	
	^{103}Ru	5.3E-05 ± 9.4E-05	U
	^{106}Ru	-4.1E-04 ± 9.8E-04	U
	^{125}Sb	-2.7E-05 ± 2.2E-04	U
	^{113}Sn	-1.6E-06 ± 1.6E-05	U
	^{90}Sr	-1.4E-04 ± 1.5E-04	U
	^{234}U	9.3E-06 ± 9.4E-06	U
	^{235}U	8.8E-06 ± 8.9E-06	U
	^{238}U	9.3E-06 ± 1.0E-05	U
	^{65}Zn	3.3E-04 ± 3.3E-04	U
N495 (100-F)	^{144}Ce	6.8E-04 ± 1.2E-03	U
Composite Period	^{60}Co	-2.5E-05 ± 1.5E-04	U
09/16/03 to 12/22/03	^{134}Cs	-3.7E-05 ± 1.3E-04	U
	^{137}Cs	1.3E-05 ± 1.3E-04	U
	^{152}Eu	2.2E-04 ± 3.0E-04	U
	^{154}Eu	1.1E-04 ± 4.4E-04	U
	^{155}Eu	-4.2E-05 ± 3.1E-04	U
	^{238}Pu	1.3E-05 ± 2.5E-05	U
	$^{239/240}$Pu	-3.3E-06 ± 1.1E-05	U
	^{103}Ru	4.2E-05 ± 1.1E-04	U
	^{106}Ru	-7.6E-05 ± 7.6E-04	U
	^{125}Sb	2.2E-04 ± 2.8E-04	U
	^{113}Sn	-2.5E-05 ± 1.2E-04	U
	^{90}Sr	4.5E-05 ± 2.0E-04	U
	^{234}U	3.2E-05 ± 1.7E-05	
	^{235}U	8.7E-06 ± 9.8E-06	U
	^{238}U	2.4E-05 ± 1.4E-05	
	^{65}Zn	-4.2E-04 ± 4.3E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N495 (100-F)	^{144}Ce	1.3E-03 ± 1.7E-03	U
Composite Period	^{60}Co	8.3E-05 ± 1.6E-04	U
06/24/03 to 09/16/03	^{134}Cs	-1.7E-04 ± 2.1E-04	U
	^{137}Cs	7.6E-05 ± 1.5E-04	U
	^{152}Eu	-1.4E-04 ± 4.6E-04	U
	^{154}Eu	1.3E-05 ± 1.3E-04	U
	^{155}Eu	6.8E-07 ± 6.8E-06	U
	^{238}Pu	1.3E-05 ± 1.8E-05	U
	$^{239/240}$Pu	3.7E-06 ± 9.4E-06	U
	^{103}Ru	2.5E-05 ± 1.4E-04	U
	^{106}Ru	-7.9E-04 ± 1.4E-03	U
	^{125}Sb	6.0E-05 ± 3.7E-04	U
	^{113}Sn	8.4E-06 ± 8.4E-05	U
	^{90}Sr	-3.9E-04 ± 4.0E-04	U
	^{234}U	2.9E-05 ± 1.7E-05	
	^{235}U	2.0E-06 ± 6.9E-06	U
	^{238}U	2.1E-05 ± 1.4E-05	
	^{65}Zn	-4.0E-04 ± 4.1E-04	U
N519 (100-F)	^{144}Ce	-5.2E-04 ± 7.8E-04	U
Composite Period	^{60}Co	-6.2E-05 ± 1.1E-04	U
01/07/03 to 04/30/03	^{134}Cs	4.4E-05 ± 1.2E-04	U
	^{137}Cs	1.9E-05 ± 9.6E-05	U
	^{152}Eu	5.6E-05 ± 2.3E-04	U
	^{154}Eu	6.2E-05 ± 2.9E-04	U
	^{155}Eu	-5.6E-05 ± 2.1E-04	U
	^{238}Pu	-7.3E-06 ± 2.0E-05	U
	$^{239/240}$Pu	1.8E-06 ± 3.6E-06	U
	^{103}Ru	1.3E-05 ± 1.2E-04	U
	^{106}Ru	-5.6E-05 ± 5.6E-04	U
	^{125}Sb	5.2E-05 ± 2.1E-04	U
	^{113}Sn	-9.3E-05 ± 1.2E-04	U
	^{90}Sr	-2.3E-05 ± 1.6E-04	U
	^{234}U	9.3E-06 ± 7.0E-06	
	^{235}U	6.8E-06 ± 6.1E-06	
	^{238}U	6.1E-06 ± 5.5E-06	
	^{65}Zn	9.8E-05 ± 2.6E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N520 (100-F)	^{144}Ce	2.2E-04 ± 1.3E-03	U
Composite Period	^{60}Co	-3.8E-05 ± 1.6E-04	U
01/07/03 to 04/30/03	^{134}Cs	5.3E-05 ± 1.3E-04	U
	^{137}Cs	1.5E-04 ± 1.4E-04	U
	^{152}Eu	-6.3E-05 ± 3.1E-04	U
	^{154}Eu	3.2E-04 ± 4.3E-04	U
	^{155}Eu	-1.2E-04 ± 3.5E-04	U
	^{238}Pu	-5.1E-06 ± 2.1E-05	U
	$^{239/240}Pu$	-3.4E-06 ± 6.8E-06	U
	^{103}Ru	-9.0E-05 ± 1.5E-04	U
	^{106}Ru	1.0E-03 ± 1.2E-03	U
	^{125}Sb	-1.4E-04 ± 3.0E-04	U
	^{113}Sn	8.6E-05 ± 1.6E-04	U
	^{90}Sr	-2.0E-04 ± 2.0E-04	U
	^{234}U	6.1E-06 ± 7.5E-06	U
	^{235}U	5.3E-06 ± 5.5E-06	
	^{238}U	4.9E-06 ± 6.0E-06	U
	^{65}Zn	-2.0E-04 ± 3.4E-04	U
N522 (100-F)	^{144}Ce	-7.7E-04 ± 1.3E-03	U
Composite Period	^{60}Co	7.8E-06 ± 7.8E-05	U
01/07/03 to 04/30/03	^{134}Cs	-4.8E-05 ± 1.2E-04	U
	^{137}Cs	3.5E-05 ± 1.2E-04	U
	^{152}Eu	1.3E-04 ± 3.2E-04	U
	^{154}Eu	1.3E-04 ± 3.1E-04	U
	^{155}Eu	7.5E-06 ± 7.5E-05	U
	^{238}Pu	-3.4E-06 ± 2.6E-05	U
	$^{239/240}Pu$	1.8E-06 ± 1.8E-06	U
	^{103}Ru	8.8E-06 ± 8.8E-05	U
	^{106}Ru	9.7E-04 ± 1.2E-03	U
	^{125}Sb	4.8E-05 ± 2.7E-04	U
	^{113}Sn	-6.8E-07 ± 6.9E-06	U
	^{90}Sr	3.8E-05 ± 1.4E-04	U
	^{234}U	1.2E-05 ± 8.4E-06	
	^{235}U	3.5E-06 ± 4.3E-06	
	^{238}U	7.6E-06 ± 6.4E-06	
	^{65}Zn	-2.1E-04 ± 2.7E-04	U
N521 (100-F)	^{144}Ce	9.8E-04 ± 1.2E-03	U
Composite Period	^{60}Co	4.1E-05 ± 1.2E-04	U
01/07/03 to 04/30/03	^{134}Cs	-4.0E-05 ± 1.3E-04	U
	^{137}Cs	5.3E-06 ± 5.4E-05	U
	^{152}Eu	-2.3E-04 ± 3.4E-04	U
	^{154}Eu	1.9E-04 ± 3.9E-04	U
	^{155}Eu	-4.8E-04 ± 5.0E-04	U
	^{238}Pu	1.5E-06 ± 1.5E-05	U
	$^{239/240}Pu$	5.4E-05 ± 2.7E-05	
	^{103}Ru	-4.9E-05 ± 1.5E-04	U
	^{106}Ru	-6.7E-04 ± 1.2E-03	U
	^{125}Sb	9.0E-05 ± 2.8E-04	U
	^{113}Sn	2.1E-05 ± 1.6E-04	U
	^{90}Sr	-1.1E-04 ± 1.3E-04	U
	^{234}U	2.5E-05 ± 1.4E-05	
	^{235}U	7.6E-06 ± 6.8E-06	
	^{238}U	5.8E-06 ± 7.1E-06	U
	^{65}Zn	-1.9E-04 ± 2.7E-04	U
N524 (100-H)	^{144}Ce	8.6E-04 ± 1.8E-03	U
Composite Period	^{60}Co	5.2E-05 ± 2.3E-04	U
01/07/03 to 03/17/03	^{134}Cs	4.9E-05 ± 2.5E-04	U
	^{137}Cs	4.7E-05 ± 2.1E-04	U
	^{152}Eu	-2.2E-04 ± 4.7E-04	U
	^{154}Eu	4.0E-04 ± 6.7E-04	U
	^{155}Eu	-1.8E-04 ± 4.5E-04	U
	^{238}Pu	1.8E-06 ± 1.1E-05	U
	$^{239/240}Pu$	-3.9E-06 ± 5.5E-06	U
	^{103}Ru	1.3E-04 ± 2.1E-04	U
	^{106}Ru	2.9E-03 ± 2.0E-03	U
	^{125}Sb	1.3E-05 ± 1.3E-04	U
	^{113}Sn	3.7E-05 ± 2.1E-04	U
	^{90}Sr	-2.8E-04 ± 2.8E-04	U
	^{234}U	8.0E-06 ± 9.7E-06	U
	^{235}U	2.0E-06 ± 2.1E-06	U
	^{238}U	3.9E-06 ± 7.8E-06	U
	^{65}Zn	-1.6E-04 ± 5.3E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N524 (100-H)	^{144}Ce	4.6E-04 ± 1.0E-03	U
Composite Period	^{60}Co	2.4E-05 ± 1.3E-04	U
03/17/03 to 06/24/03	^{134}Cs	-3.3E-06 ± 3.3E-05	U
	^{137}Cs	8.6E-06 ± 8.6E-05	U
	^{152}Eu	6.8E-05 ± 2.5E-04	U
	^{154}Eu	-2.0E-04 ± 3.9E-04	U
	^{155}Eu	5.9E-05 ± 2.7E-04	U
	^{238}Pu	-6.6E-06 ± 2.3E-05	U
	$^{239/240}$Pu	3.1E-05 ± 1.9E-05	
	^{103}Ru	-7.3E-05 ± 9.8E-05	U
	^{106}Ru	-4.0E-04 ± 9.2E-04	U
	^{125}Sb	1.4E-04 ± 3.0E-04	U
	^{113}Sn	-3.2E-05 ± 1.1E-04	U
	^{90}Sr	3.4E-04 ± 1.9E-04	
	^{234}U	1.6E-05 ± 1.1E-05	
	^{235}U	8.8E-06 ± 7.9E-06	
	^{238}U	1.1E-05 ± 8.5E-06	
	^{65}Zn	-2.9E-06 ± 2.9E-05	U
N524 (100-H)	^{144}Ce	-9.8E-04 ± 1.3E-03	U
Composite Period	^{60}Co	-1.6E-04 ± 1.6E-04	U
09/16/03 to 12/22/03	^{134}Cs	-3.3E-05 ± 1.4E-04	U
	^{137}Cs	6.2E-04 ± 3.1E-04	
	^{152}Eu	-1.3E-04 ± 4.0E-04	U
	^{154}Eu	-2.1E-04 ± 4.2E-04	U
	^{155}Eu	3.2E-05 ± 3.2E-04	U
	^{238}Pu	-6.2E-06 ± 2.1E-05	U
	$^{239/240}$Pu	4.9E-05 ± 2.5E-05	
	^{103}Ru	1.8E-06 ± 1.8E-05	U
	^{106}Ru	-1.1E-03 ± 1.1E-03	U
	^{125}Sb	-2.3E-05 ± 2.3E-04	U
	^{113}Sn	3.6E-10 ± 3.6E-09	U
	^{90}Sr	2.3E-04 ± 2.2E-04	
	^{234}U	2.8E-05 ± 1.6E-05	
	^{235}U	4.2E-06 ± 6.4E-06	U
	^{238}U	2.1E-05 ± 1.3E-05	
	^{65}Zn	2.0E-04 ± 3.4E-04	U
N524 (100-H)	^{144}Ce	-8.8E-04 ± 1.6E-03	U
Composite Period	^{60}Co	6.8E-05 ± 1.7E-04	U
06/24/03 to 09/16/03	^{134}Cs	-2.8E-05 ± 1.5E-04	U
	^{137}Cs	1.1E-03 ± 4.0E-04	
	^{152}Eu	8.8E-05 ± 4.1E-04	U
	^{154}Eu	2.0E-04 ± 4.1E-04	U
	^{155}Eu	-1.4E-04 ± 4.6E-04	U
	^{238}Pu	2.7E-05 ± 3.5E-05	U
	$^{239/240}$Pu	1.6E-04 ± 6.4E-05	
	^{103}Ru	-9.8E-06 ± 9.8E-05	U
	^{106}Ru	5.4E-04 ± 1.4E-03	U
	^{125}Sb	-7.8E-05 ± 4.1E-04	U
	^{113}Sn	7.8E-05 ± 1.8E-04	U
	^{90}Sr	6.7E-04 ± 2.6E-04	
	^{234}U	3.0E-05 ± 2.0E-05	
	^{235}U	1.8E-06 ± 1.9E-06	U
	^{238}U	2.0E-05 ± 1.4E-05	
	^{65}Zn	1.7E-04 ± 3.2E-04	U
N525 (100-H)	^{144}Ce	-4.4E-04 ± 1.8E-03	U
Composite Period	^{60}Co	5.2E-05 ± 1.9E-04	U
01/07/03 to 03/17/03	^{134}Cs	1.5E-04 ± 2.0E-04	U
	^{137}Cs	-2.1E-04 ± 2.2E-04	U
	^{152}Eu	-6.9E-04 ± 7.1E-04	U
	^{154}Eu	-3.0E-05 ± 3.0E-04	U
	^{155}Eu	2.3E-05 ± 2.3E-04	U
	^{238}Pu	2.0E-06 ± 2.1E-06	U
	$^{239/240}$Pu	-5.9E-06 ± 1.1E-05	U
	^{103}Ru	2.5E-05 ± 2.3E-04	U
	^{106}Ru	-8.2E-04 ± 1.5E-03	U
	^{125}Sb	-1.4E-04 ± 4.3E-04	U
	^{113}Sn	-1.3E-04 ± 2.0E-04	U
	^{90}Sr	-2.2E-04 ± 2.3E-04	U
	^{234}U	1.4E-05 ± 1.2E-05	
	^{235}U	1.8E-06 ± 1.9E-06	U
	^{238}U	9.1E-06 ± 1.0E-05	U
	^{65}Zn	-2.0E-05 ± 2.0E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N525 (100-H)	^{144}Ce	2.3E-04 ± 7.5E-04	U
Composite Period	^{60}Co	3.9E-05 ± 8.9E-05	U
03/17/03 to 06/24/03	^{134}Cs	-1.3E-05 ± 7.2E-05	U
	^{137}Cs	-5.7E-06 ± 5.7E-05	U
	^{152}Eu	-6.5E-05 ± 1.6E-04	U
	^{154}Eu	-5.0E-05 ± 2.4E-04	U
	^{155}Eu	8.6E-05 ± 1.6E-04	U
	^{238}Pu	-1.0E-05 ± 1.9E-05	U
	$^{239/240}Pu$	-1.4E-06 ± 5.0E-06	U
	^{103}Ru	3.8E-05 ± 6.2E-05	U
	^{106}Ru	-7.4E-04 ± 7.7E-04	U
	^{125}Sb	-4.8E-05 ± 1.6E-04	U
	^{113}Sn	-2.7E-05 ± 7.3E-05	U
	^{90}Sr	-1.2E-04 ± 1.6E-04	U
	^{234}U	9.6E-06 ± 9.0E-06	U
	^{235}U	1.3E-06 ± 4.5E-06	U
	^{238}U	1.1E-05 ± 8.2E-06	
	^{65}Zn	1.2E-05 ± 1.2E-04	U
N525 (100-H)	^{144}Ce	-4.9E-04 ± 1.1E-03	U
Composite Period	^{60}Co	1.2E-04 ± 1.5E-04	U
09/16/03 to 12/22/03	^{134}Cs	1.0E-04 ± 1.2E-04	U
	^{137}Cs	4.0E-05 ± 1.2E-04	U
	^{152}Eu	-6.9E-05 ± 2.7E-04	U
	^{154}Eu	-8.5E-05 ± 3.9E-04	U
	^{155}Eu	1.0E-04 ± 2.9E-04	U
	^{238}Pu	4.9E-06 ± 2.7E-05	U
	$^{239/240}Pu$	3.2E-06 ± 1.0E-05	U
	^{103}Ru	1.2E-05 ± 1.0E-04	U
	^{106}Ru	-3.3E-04 ± 9.3E-04	U
	^{125}Sb	7.0E-05 ± 2.7E-04	U
	^{113}Sn	3.7E-05 ± 1.1E-04	U
	^{90}Sr	-2.7E-04 ± 2.8E-04	U
	^{234}U	3.1E-05 ± 1.7E-05	
	^{235}U	4.0E-06 ± 5.0E-06	
	^{238}U	8.7E-06 ± 7.2E-06	
	^{65}Zn	7.6E-05 ± 2.9E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N525 (100-H)	^{144}Ce	-3.9E-04 ± 1.7E-03	U
Composite Period	^{60}Co	-8.5E-05 ± 1.6E-04	U
06/24/03 to 09/16/03	^{134}Cs	-8.6E-05 ± 1.7E-04	U
	^{137}Cs	8.1E-05 ± 1.6E-04	U
	^{152}Eu	-8.9E-05 ± 4.2E-04	U
	^{154}Eu	-3.3E-05 ± 3.3E-04	U
	^{155}Eu	-1.2E-04 ± 4.6E-04	U
	^{238}Pu	-7.2E-06 ± 2.7E-05	U
	$^{239/240}Pu$	1.8E-06 ± 1.8E-06	U
	^{103}Ru	2.3E-05 ± 1.5E-04	U
	^{106}Ru	-1.8E-04 ± 1.3E-03	U
	^{125}Sb	-7.8E-05 ± 3.9E-04	U
	^{113}Sn	6.9E-05 ± 1.8E-04	U
	^{90}Sr	-3.3E-05 ± 2.6E-04	U
	^{234}U	1.9E-05 ± 1.4E-05	
	^{235}U	3.9E-06 ± 7.9E-06	U
	^{238}U	1.1E-05 ± 1.1E-05	U
	^{65}Zn	3.5E-04 ± 3.6E-04	U
N401 (100-K)	^{241}Am	1.2E-05 ± 1.7E-05	U
Composite Period	^{144}Ce	5.9E-05 ± 5.9E-04	U
01/06/03 to 06/23/03	^{60}Co	7.5E-05 ± 8.8E-05	U
	^{134}Cs	-1.2E-05 ± 7.9E-05	U
	^{137}Cs	-8.5E-05 ± 8.8E-05	U
	^{152}Eu	6.0E-05 ± 1.9E-04	U
	^{154}Eu	1.1E-04 ± 2.7E-04	U
	^{155}Eu	1.5E-05 ± 1.5E-04	U
	^{238}Pu	1.1E-05 ± 3.4E-05	U
	$^{239/240}Pu$	3.8E-06 ± 7.8E-06	U
	^{241}Pu	1.7E-04 ± 1.2E-03	U
	^{103}Ru	3.7E-05 ± 6.8E-05	U
	^{106}Ru	4.4E-05 ± 4.4E-04	U
	^{125}Sb	1.2E-04 ± 1.7E-04	U
	^{113}Sn	7.6E-05 ± 8.9E-05	U
	^{90}Sr	4.5E-05 ± 9.6E-05	U
	^{234}U	1.1E-05 ± 7.0E-06	
	^{235}U	5.5E-06 ± 4.7E-06	
	^{238}U	9.8E-06 ± 6.4E-06	
	^{65}Zn	6.1E-05 ± 1.9E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N401 (100-K) Composite Period 06/23/03 to 12/22/03	^{241}Am	1.1E-05 ± 1.6E-05	U
	^{144}Ce	8.2E-05 ± 6.8E-04	U
	^{60}Co	4.2E-05 ± 6.9E-05	U
	^{134}Cs	-3.2E-05 ± 6.6E-05	U
	^{137}Cs	-2.8E-05 ± 6.8E-05	U
	^{152}Eu	-1.0E-04 ± 2.1E-04	U
	^{154}Eu	-1.8E-04 ± 2.3E-04	U
	^{155}Eu	-3.1E-05 ± 1.9E-04	U
	^{238}Pu	-1.3E-05 ± 3.0E-05	U
	$^{239/240}$Pu	1.2E-05 ± 9.8E-06	
	^{241}Pu	-6.4E-04 ± 6.6E-04	U
	^{103}Ru	-1.9E-05 ± 5.9E-05	U
	^{106}Ru	-9.8E-05 ± 5.5E-04	U
	^{125}Sb	1.4E-04 ± 1.7E-04	U
	^{113}Sn	-1.4E-05 ± 6.9E-05	U
	^{90}Sr	-2.9E-05 ± 8.6E-05	U
	^{234}U	1.5E-05 ± 8.5E-06	
	^{235}U	8.0E-07 ± 1.6E-06	U
	^{238}U	1.5E-05 ± 8.9E-06	
	^{65}Zn	2.3E-04 ± 1.9E-04	U
N402 (100-K) Composite Period 06/23/03 to 12/22/03	^{241}Am	-9.5E-07 ± 9.5E-06	U
	^{144}Ce	-6.5E-04 ± 6.7E-04	U
	^{60}Co	-6.6E-05 ± 8.1E-05	U
	^{134}Cs	-1.7E-05 ± 6.9E-05	U
	^{137}Cs	7.7E-06 ± 6.7E-05	U
	^{152}Eu	1.4E-04 ± 1.5E-04	U
	^{154}Eu	-1.4E-04 ± 2.3E-04	U
	^{155}Eu	-2.9E-05 ± 1.5E-04	U
	^{238}Pu	1.2E-05 ± 2.6E-05	U
	$^{239/240}$Pu	3.5E-06 ± 7.1E-06	U
	^{241}Pu	4.7E-04 ± 7.4E-04	U
	^{103}Ru	-1.8E-06 ± 1.8E-05	U
	^{106}Ru	-6.2E-04 ± 6.4E-04	U
	^{125}Sb	3.0E-05 ± 1.3E-04	U
	^{113}Sn	-2.4E-05 ± 6.3E-05	U
	^{90}Sr	-1.2E-04 ± 1.2E-04	U
	^{234}U	1.1E-05 ± 8.5E-06	
	^{235}U	8.1E-07 ± 8.4E-07	U
	^{238}U	1.8E-05 ± 1.0E-05	
	^{65}Zn	-7.4E-06 ± 7.4E-05	U

Location	Isotope	Result ± Uncertainty	RQ*
N402 (100-K) Composite Period 01/06/03 to 06/23/03	^{241}Am	7.1E-06 ± 1.4E-05	U
	^{144}Ce	-1.3E-04 ± 7.8E-04	U
	^{60}Co	-4.8E-05 ± 1.0E-04	U
	^{134}Cs	-2.5E-05 ± 9.8E-05	U
	^{137}Cs	1.0E-04 ± 9.2E-05	U
	^{152}Eu	2.5E-05 ± 2.0E-04	U
	^{154}Eu	2.3E-04 ± 2.9E-04	U
	^{155}Eu	2.2E-05 ± 2.0E-04	U
	^{238}Pu	-9.0E-06 ± 2.9E-05	U
	$^{239/240}$Pu	1.1E-05 ± 1.1E-05	U
	^{241}Pu	1.1E-05 ± 1.1E-04	U
	^{103}Ru	7.1E-05 ± 8.9E-05	U
	^{106}Ru	2.8E-04 ± 7.8E-04	U
	^{125}Sb	1.1E-04 ± 1.9E-04	U
	^{113}Sn	2.4E-05 ± 9.2E-05	U
	^{90}Sr	-5.7E-05 ± 8.7E-05	U
	^{234}U	9.0E-06 ± 6.0E-06	
	^{235}U	2.9E-06 ± 3.0E-06	
	^{238}U	8.0E-06 ± 5.5E-06	
	^{65}Zn	5.3E-05 ± 2.2E-04	U
N403 (100-K) Composite Period 01/06/03 to 06/23/03	^{241}Am	1.9E-06 ± 1.5E-05	U
	^{144}Ce	-4.3E-05 ± 4.3E-04	U
	^{60}Co	1.7E-05 ± 8.3E-05	U
	^{134}Cs	2.8E-05 ± 7.3E-05	U
	^{137}Cs	5.4E-05 ± 6.5E-05	U
	^{152}Eu	-2.0E-04 ± 2.1E-04	U
	^{154}Eu	5.6E-07 ± 5.6E-06	U
	^{155}Eu	1.2E-04 ± 1.5E-04	U
	^{238}Pu	-1.3E-05 ± 2.0E-05	U
	$^{239/240}$Pu	5.9E-06 ± 7.2E-06	
	^{241}Pu	8.9E-04 ± 1.1E-03	U
	^{103}Ru	3.8E-05 ± 6.1E-05	U
	^{106}Ru	2.2E-04 ± 6.1E-04	U
	^{125}Sb	-9.0E-05 ± 1.5E-04	U
	^{113}Sn	3.7E-05 ± 7.1E-05	U
	^{90}Sr	-3.7E-05 ± 8.2E-05	U
	^{234}U	7.1E-06 ± 5.9E-06	
	^{235}U	2.3E-06 ± 2.8E-06	
	^{238}U	1.1E-05 ± 6.9E-06	
	^{65}Zn	-5.3E-05 ± 1.5E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N403 (100-K) Composite Period 06/23/03 to 12/22/03	^{241}Am	7.9E-06 ± 1.5E-05	U
	^{144}Ce	2.7E-04 ± 6.8E-04	U
	^{60}Co	8.1E-05 ± 9.3E-05	U
	^{134}Cs	3.2E-05 ± 8.3E-05	U
	^{137}Cs	3.1E-05 ± 7.5E-05	U
	^{152}Eu	1.2E-04 ± 1.8E-04	U
	^{154}Eu	1.1E-04 ± 2.6E-04	U
	^{155}Eu	6.4E-05 ± 1.7E-04	U
	^{238}Pu	-1.6E-06 ± 1.6E-05	U
	$^{239/240}$Pu	4.6E-06 ± 7.0E-06	U
	^{241}Pu	-4.2E-04 ± 4.4E-04	U
	^{103}Ru	-5.5E-05 ± 7.1E-05	U
	^{106}Ru	1.9E-04 ± 6.2E-04	U
	^{125}Sb	-8.1E-05 ± 1.7E-04	U
	^{113}Sn	2.3E-05 ± 7.8E-05	U
	^{90}Sr	1.0E-04 ± 9.9E-05	
	^{234}U	1.6E-05 ± 9.7E-06	
	^{235}U	5.2E-06 ± 5.3E-06	U
	^{238}U	1.5E-05 ± 9.2E-06	
	^{65}Zn	5.2E-05 ± 2.2E-04	U
N404 (100-K) Composite Period 06/23/03 to 12/22/03	^{241}Am	-5.5E-06 ± 1.3E-05	U
	^{144}Ce	1.2E-04 ± 5.2E-04	U
	^{60}Co	1.8E-05 ± 8.7E-05	U
	^{134}Cs	-3.3E-05 ± 7.0E-05	U
	^{137}Cs	2.8E-05 ± 5.7E-05	U
	^{152}Eu	-6.1E-05 ± 1.4E-04	U
	^{154}Eu	-1.5E-04 ± 2.2E-04	U
	^{155}Eu	1.5E-05 ± 1.3E-04	U
	^{238}Pu	-3.2E-06 ± 2.5E-05	U
	$^{239/240}$Pu	-6.4E-06 ± 7.8E-06	U
	^{241}Pu	-4.4E-04 ± 4.6E-04	U
	^{103}Ru	9.2E-06 ± 5.2E-05	U
	^{106}Ru	4.0E-05 ± 4.0E-04	U
	^{125}Sb	4.6E-05 ± 1.3E-04	U
	^{113}Sn	6.2E-06 ± 6.2E-05	U
	^{90}Sr	-9.1E-05 ± 9.4E-05	U
	^{234}U	1.8E-05 ± 9.8E-06	
	^{235}U	-7.0E-07 ± 1.4E-06	U
	^{238}U	6.7E-06 ± 5.3E-06	
	^{65}Zn	1.2E-05 ± 1.3E-04	U
N404 (100-K) Composite Period 01/06/03 to 06/23/03	^{241}Am	1.3E-05 ± 1.6E-05	U
	^{144}Ce	-3.6E-05 ± 3.6E-04	U
	^{60}Co	-3.2E-05 ± 9.3E-05	U
	^{134}Cs	2.2E-05 ± 8.5E-05	U
	^{137}Cs	-1.2E-04 ± 1.2E-04	U
	^{152}Eu	1.6E-04 ± 2.1E-04	U
	^{154}Eu	3.8E-04 ± 3.1E-04	U
	^{155}Eu	9.2E-05 ± 2.1E-04	U
	^{238}Pu	2.4E-05 ± 2.9E-05	U
	$^{239/240}$Pu	9.7E-06 ± 1.2E-05	U
	^{241}Pu	2.8E-04 ± 1.2E-03	U
	^{103}Ru	-1.5E-05 ± 6.9E-05	U
	^{106}Ru	-4.8E-04 ± 7.2E-04	U
	^{125}Sb	-3.7E-05 ± 1.9E-04	U
	^{113}Sn	4.4E-05 ± 8.6E-05	U
	^{90}Sr	1.6E-05 ± 9.9E-05	U
	^{234}U	1.3E-05 ± 8.2E-06	
	^{235}U	1.7E-06 ± 2.4E-06	U
	^{238}U	4.6E-06 ± 4.2E-06	
	^{65}Zn	-3.1E-05 ± 1.9E-04	U
N476 (100-K) Composite Period 01/06/03 to 06/23/03	^{241}Am	1.1E-05 ± 1.5E-05	U
	^{144}Ce	7.6E-04 ± 7.9E-04	U
	^{60}Co	4.8E-05 ± 9.9E-05	U
	^{134}Cs	-2.9E-05 ± 8.7E-05	U
	^{137}Cs	-2.1E-05 ± 7.8E-05	U
	^{152}Eu	9.0E-05 ± 2.0E-04	U
	^{154}Eu	-6.7E-05 ± 2.6E-04	U
	^{155}Eu	-1.3E-05 ± 1.3E-04	U
	^{238}Pu	3.8E-06 ± 3.0E-05	U
	$^{239/240}$Pu	1.9E-06 ± 3.8E-06	U
	^{241}Pu	3.6E-04 ± 1.1E-03	U
	^{103}Ru	-7.0E-05 ± 8.9E-05	U
	^{106}Ru	-2.0E-05 ± 2.0E-04	U
	^{125}Sb	2.3E-05 ± 1.9E-04	U
	^{113}Sn	-3.3E-05 ± 9.2E-05	U
	^{90}Sr	-5.3E-05 ± 7.7E-05	U
	^{234}U	1.1E-05 ± 7.6E-06	
	^{235}U	1.6E-06 ± 4.0E-06	U
	^{238}U	5.9E-06 ± 5.5E-06	U
	^{65}Zn	-2.3E-04 ± 2.4E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N476 (100-K) Composite Period 06/23/03 to 12/22/03	^{241}Am	8.3E-06 ± 1.4E-05	U
	^{144}Ce	2.1E-04 ± 7.9E-04	U
	^{60}Co	5.9E-05 ± 9.4E-05	U
	^{134}Cs	-3.3E-05 ± 9.6E-05	U
	^{137}Cs	9.1E-05 ± 8.6E-05	U
	^{152}Eu	7.1E-05 ± 2.1E-04	U
	^{154}Eu	-2.4E-04 ± 2.7E-04	U
	^{155}Eu	1.3E-04 ± 1.9E-04	U
	^{238}Pu	1.1E-05 ± 2.1E-05	U
	$^{239/240}$Pu	-3.2E-06 ± 6.6E-06	U
	^{241}Pu	3.8E-05 ± 3.8E-04	U
	^{103}Ru	2.6E-05 ± 9.9E-05	U
	^{106}Ru	-1.3E-04 ± 7.1E-04	U
	^{125}Sb	8.8E-05 ± 1.8E-04	U
	^{113}Sn	1.3E-05 ± 9.2E-05	U
	^{90}Sr	-1.1E-04 ± 1.2E-04	U
	^{234}U	1.7E-05 ± 9.9E-06	
	^{235}U	1.7E-06 ± 3.4E-06	U
	^{238}U	8.3E-06 ± 5.9E-06	
	^{65}Zn	-1.7E-04 ± 2.3E-04	U
N477 (100-K) Composite Period 06/23/03 to 12/22/03	^{241}Am	5.3E-06 ± 4.9E-06	U
	^{144}Ce	2.9E-05 ± 2.9E-04	U
	^{60}Co	-3.0E-05 ± 9.3E-05	U
	^{134}Cs	-2.1E-05 ± 6.7E-05	U
	^{137}Cs	2.0E-05 ± 6.0E-05	U
	^{152}Eu	2.6E-04 ± 1.8E-04	U
	^{154}Eu	2.0E-04 ± 2.3E-04	U
	^{155}Eu	1.2E-05 ± 1.3E-04	U
	^{238}Pu	-2.8E-06 ± 1.6E-05	U
	$^{239/240}$Pu	4.2E-06 ± 7.7E-06	U
	^{241}Pu	-3.3E-04 ± 3.4E-04	U
	^{103}Ru	-6.8E-07 ± 6.8E-06	U
	^{106}Ru	-7.2E-05 ± 5.7E-04	U
	^{125}Sb	-6.9E-05 ± 1.4E-04	U
	^{113}Sn	1.6E-05 ± 6.7E-05	U
	^{90}Sr	7.0E-06 ± 7.0E-05	U
	^{234}U	1.6E-05 ± 9.7E-06	
	^{235}U	7.7E-07 ± 1.6E-06	U
	^{238}U	1.2E-05 ± 7.8E-06	
	^{65}Zn	-2.6E-04 ± 2.7E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N477 (100-K) Composite Period 01/06/03 to 06/23/03	^{241}Am	1.1E-06 ± 1.1E-05	U
	^{144}Ce	2.5E-04 ± 7.7E-04	U
	^{60}Co	5.0E-05 ± 7.9E-05	U
	^{134}Cs	-8.6E-06 ± 7.7E-05	U
	^{137}Cs	-2.5E-05 ± 7.5E-05	U
	^{152}Eu	2.3E-05 ± 2.2E-04	U
	^{154}Eu	-2.5E-04 ± 2.5E-04	U
	^{155}Eu	-8.6E-05 ± 2.2E-04	U
	^{238}Pu	-6.1E-06 ± 3.3E-05	U
	$^{239/240}$Pu	-4.0E-06 ± 1.0E-05	U
	^{241}Pu	3.1E-04 ± 1.1E-03	U
	^{103}Ru	-2.7E-05 ± 9.0E-05	U
	^{106}Ru	-2.8E-04 ± 7.9E-04	U
	^{125}Sb	-7.6E-05 ± 1.8E-04	U
	^{113}Sn	-2.0E-05 ± 8.8E-05	U
	^{90}Sr	-6.7E-05 ± 7.6E-05	U
	^{234}U	9.0E-06 ± 6.5E-06	
	^{235}U	3.2E-06 ± 4.0E-06	U
	^{238}U	9.7E-06 ± 6.5E-06	
	^{65}Zn	-1.2E-04 ± 1.7E-04	U
N478 (100-K) Composite Period 01/06/03 to 06/23/03	^{241}Am	1.7E-06 ± 1.1E-05	U
	^{144}Ce	5.6E-04 ± 7.6E-04	U
	^{60}Co	-6.0E-06 ± 6.0E-05	U
	^{134}Cs	1.7E-05 ± 8.7E-05	U
	^{137}Cs	-8.7E-06 ± 7.9E-05	U
	^{152}Eu	5.1E-05 ± 2.1E-04	U
	^{154}Eu	9.1E-05 ± 2.9E-04	U
	^{155}Eu	-3.2E-05 ± 2.0E-04	U
	^{238}Pu	2.0E-05 ± 3.0E-05	U
	$^{239/240}$Pu	5.8E-06 ± 1.1E-05	U
	^{241}Pu	2.8E-04 ± 1.0E-03	U
	^{103}Ru	1.7E-05 ± 9.3E-05	U
	^{106}Ru	-3.4E-04 ± 7.1E-04	U
	^{125}Sb	5.5E-05 ± 1.8E-04	U
	^{113}Sn	-2.2E-05 ± 8.6E-05	U
	^{90}Sr	7.6E-06 ± 7.6E-05	U
	^{234}U	9.9E-06 ± 7.6E-06	
	^{235}U	2.3E-06 ± 3.6E-06	U
	^{238}U	6.4E-06 ± 5.3E-06	
	^{65}Zn	8.0E-05 ± 2.1E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N478 (100-K) Composite Period 06/23/03 to 12/22/03	^{241}Am	1.9E-05 ± 1.5E-05	U
	^{144}Ce	1.6E-04 ± 1.1E-03	U
	^{60}Co	-1.2E-04 ± 1.3E-04	U
	^{134}Cs	3.0E-05 ± 1.2E-04	U
	^{137}Cs	-1.2E-06 ± 1.2E-05	U
	^{152}Eu	3.0E-04 ± 3.0E-04	U
	^{154}Eu	1.9E-04 ± 3.6E-04	U
	^{155}Eu	4.3E-06 ± 4.3E-05	U
	^{238}Pu	1.8E-06 ± 1.9E-06	U
	$^{239/240}Pu$	5.3E-06 ± 6.5E-06	
	^{241}Pu	-3.7E-05 ± 3.9E-05	U
	^{103}Ru	-2.3E-05 ± 1.3E-04	U
	^{106}Ru	9.7E-05 ± 9.7E-04	U
	^{125}Sb	-1.3E-04 ± 2.0E-04	U
	^{113}Sn	5.9E-05 ± 1.2E-04	U
	^{90}Sr	-8.2E-05 ± 9.3E-05	U
	^{234}U	1.2E-05 ± 7.3E-06	
	^{235}U	3.8E-06 ± 3.7E-06	
	^{238}U	8.9E-06 ± 6.9E-06	
	^{65}Zn	-3.4E-04 ± 3.5E-04	U
N479 (100-K) Composite Period 06/23/03 to 12/22/03	^{241}Am	-8.6E-07 ± 8.6E-06	U
	^{144}Ce	1.1E-05 ± 1.1E-04	U
	^{60}Co	5.4E-05 ± 8.8E-05	U
	^{134}Cs	-8.2E-05 ± 8.9E-05	U
	^{137}Cs	3.9E-06 ± 3.9E-05	U
	^{152}Eu	-2.9E-05 ± 2.0E-04	U
	^{154}Eu	7.1E-05 ± 2.6E-04	U
	^{155}Eu	-3.5E-05 ± 1.7E-04	U
	^{238}Pu	-3.4E-06 ± 2.7E-05	U
	$^{239/240}Pu$	8.6E-06 ± 9.7E-06	U
	^{241}Pu	3.9E-04 ± 7.2E-04	U
	^{103}Ru	-7.1E-06 ± 7.2E-05	U
	^{106}Ru	-4.4E-04 ± 6.5E-04	U
	^{125}Sb	-4.8E-05 ± 1.7E-04	U
	^{113}Sn	-1.0E-05 ± 8.1E-05	U
	^{90}Sr	-1.1E-04 ± 1.1E-04	U
	^{234}U	1.7E-05 ± 9.1E-06	
	^{235}U	3.0E-06 ± 3.1E-06	
	^{238}U	9.3E-06 ± 6.2E-06	
	^{65}Zn	-8.9E-05 ± 2.4E-04	U
N479 (100-K) Composite Period 01/06/03 to 06/23/03	^{241}Am	9.2E-06 ± 1.4E-05	U
	^{144}Ce	-2.2E-04 ± 8.2E-04	U
	^{60}Co	-7.6E-05 ± 8.1E-05	U
	^{134}Cs	-6.2E-05 ± 8.4E-05	U
	^{137}Cs	1.7E-05 ± 7.5E-05	U
	^{152}Eu	-1.3E-05 ± 1.3E-04	U
	^{154}Eu	6.4E-05 ± 2.3E-04	U
	^{155}Eu	5.7E-05 ± 2.2E-04	U
	^{238}Pu	9.2E-06 ± 3.0E-05	U
	$^{239/240}Pu$	6.7E-06 ± 1.0E-05	U
	^{241}Pu	3.1E-04 ± 1.2E-03	U
	^{103}Ru	-6.8E-05 ± 9.3E-05	U
	^{106}Ru	-4.2E-04 ± 7.0E-04	U
	^{125}Sb	5.5E-05 ± 1.8E-04	U
	^{113}Sn	-7.5E-05 ± 8.9E-05	U
	^{90}Sr	7.7E-06 ± 7.7E-05	U
	^{234}U	9.2E-06 ± 7.9E-06	U
	^{235}U	4.2E-06 ± 6.4E-06	U
	^{238}U	7.7E-06 ± 5.6E-06	
	^{65}Zn	-9.7E-05 ± 1.8E-04	U
N528 (100-K) Composite Period 01/07/03 to 06/23/03	^{144}Ce	-3.2E-04 ± 8.6E-04	U
	^{60}Co	-5.5E-05 ± 8.1E-05	U
	^{134}Cs	6.1E-05 ± 8.5E-05	U
	^{137}Cs	7.2E-05 ± 7.7E-05	U
	^{152}Eu	-5.4E-05 ± 2.3E-04	U
	^{154}Eu	-1.3E-04 ± 2.2E-04	U
	^{155}Eu	-9.2E-05 ± 2.2E-04	U
	^{238}Pu	-9.4E-07 ± 9.4E-06	U
	$^{239/240}Pu$	2.9E-06 ± 4.4E-06	U
	^{103}Ru	4.5E-06 ± 4.5E-05	U
	^{106}Ru	-1.6E-04 ± 7.1E-04	U
	^{125}Sb	1.1E-04 ± 2.0E-04	U
	^{113}Sn	-6.9E-05 ± 9.8E-05	U
	^{90}Sr	-3.6E-07 ± 3.6E-06	U
	^{234}U	1.1E-05 ± 7.1E-06	
	^{235}U	3.3E-06 ± 3.4E-06	
	^{238}U	9.4E-06 ± 6.8E-06	
	^{65}Zn	-3.2E-04 ± 3.4E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N528 (100-K) Composite Period 06/23/03 to 12/22/03	^{144}Ce	-5.2E-04 ± 6.7E-04	U
	^{60}Co	-7.0E-05 ± 1.0E-04	U
	^{134}Cs	-1.1E-05 ± 7.7E-05	U
	^{137}Cs	-5.8E-06 ± 5.8E-05	U
	^{152}Eu	-1.8E-05 ± 1.6E-04	U
	^{154}Eu	-1.3E-04 ± 2.5E-04	U
	^{155}Eu	-1.3E-04 ± 1.7E-04	U
	^{238}Pu	-7.9E-06 ± 1.5E-05	U
	$^{239/240}$Pu	7.1E-06 ± 6.7E-06	U
	^{103}Ru	-1.1E-05 ± 8.6E-05	U
	^{106}Ru	-4.0E-04 ± 6.0E-04	U
	^{125}Sb	3.1E-05 ± 1.6E-04	U
	^{113}Sn	-3.9E-06 ± 3.9E-05	U
	^{90}Sr	-2.0E-04 ± 2.0E-04	U
	^{234}U	2.2E-05 ± 1.2E-05	
	^{235}U	2.5E-06 ± 3.8E-06	U
	^{238}U	9.5E-06 ± 6.8E-06	
	^{65}Zn	2.6E-05 ± 2.0E-04	U
N529 (100-K) Composite Period 06/23/03 to 12/22/03	^{144}Ce	7.8E-05 ± 7.1E-04	U
	^{60}Co	1.1E-04 ± 8.4E-05	U
	^{134}Cs	-4.1E-05 ± 6.6E-05	U
	^{137}Cs	1.7E-05 ± 6.1E-05	U
	^{152}Eu	2.6E-04 ± 2.2E-04	U
	^{154}Eu	-4.5E-05 ± 1.9E-04	U
	^{155}Eu	3.2E-05 ± 1.9E-04	U
	^{238}Pu	-1.3E-05 ± 1.4E-05	U
	$^{239/240}$Pu	9.9E-06 ± 8.6E-06	U
	^{103}Ru	-9.2E-06 ± 8.0E-05	U
	^{106}Ru	1.9E-04 ± 5.6E-04	U
	^{125}Sb	-9.3E-05 ± 1.6E-04	U
	^{113}Sn	2.9E-05 ± 9.5E-05	U
	^{90}Sr	-2.7E-05 ± 9.4E-05	U
	^{234}U	2.0E-05 ± 1.0E-05	
	^{235}U	2.8E-06 ± 3.5E-06	U
	^{238}U	1.5E-05 ± 8.5E-06	
	^{65}Zn	-4.8E-05 ± 1.8E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N529 (100-K) Composite Period 01/07/03 to 06/23/03	^{144}Ce	3.8E-04 ± 8.0E-04	U
	^{60}Co	-4.8E-05 ± 1.0E-04	U
	^{134}Cs	-2.5E-06 ± 2.5E-05	U
	^{137}Cs	2.3E-04 ± 1.7E-04	
	^{152}Eu	4.8E-05 ± 2.0E-04	U
	^{154}Eu	5.6E-05 ± 2.5E-04	U
	^{155}Eu	1.3E-04 ± 2.0E-04	U
	^{238}Pu	1.4E-05 ± 1.5E-05	U
	$^{239/240}$Pu	8.3E-07 ± 8.6E-07	U
	^{103}Ru	-4.0E-06 ± 4.0E-05	U
	^{106}Ru	-2.8E-04 ± 7.4E-04	U
	^{125}Sb	4.7E-05 ± 1.9E-04	U
	^{113}Sn	2.8E-05 ± 8.8E-05	U
	^{90}Sr	-2.6E-06 ± 2.6E-05	U
	^{234}U	7.1E-06 ± 6.3E-06	U
	^{235}U	7.6E-07 ± 2.7E-06	U
	^{238}U	9.1E-06 ± 6.1E-06	
	^{65}Zn	-5.3E-05 ± 2.2E-04	U
N530 (100-K) Composite Period 01/07/03 to 06/23/03	^{144}Ce	2.5E-04 ± 7.7E-04	U
	^{60}Co	5.1E-05 ± 8.1E-05	U
	^{134}Cs	4.3E-05 ± 7.9E-05	U
	^{137}Cs	1.2E-07 ± 1.2E-06	U
	^{152}Eu	-6.8E-05 ± 1.9E-04	U
	^{154}Eu	1.0E-04 ± 2.2E-04	U
	^{155}Eu	1.2E-04 ± 2.2E-04	U
	^{238}Pu	2.9E-06 ± 1.7E-05	U
	$^{239/240}$Pu	4.9E-06 ± 5.5E-06	U
	^{103}Ru	-5.1E-08 ± 5.1E-07	U
	^{106}Ru	-3.4E-06 ± 3.4E-05	U
	^{125}Sb	6.3E-05 ± 2.1E-04	U
	^{113}Sn	-2.7E-05 ± 8.3E-05	U
	^{90}Sr	-1.5E-05 ± 9.0E-05	U
	^{234}U	6.7E-06 ± 5.9E-06	U
	^{235}U	2.4E-06 ± 3.0E-06	
	^{238}U	8.2E-06 ± 5.9E-06	
	^{65}Zn	-3.5E-07 ± 3.5E-06	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N530 (100-K)	^{144}Ce	-7.7E-05 ± 6.2E-04	U
Composite Period	^{60}Co	-2.2E-05 ± 7.8E-05	U
06/23/03 to 12/22/03	^{134}Cs	-1.4E-05 ± 6.5E-05	U
	^{137}Cs	-4.3E-06 ± 4.3E-05	U
	^{152}Eu	2.6E-05 ± 1.5E-04	U
	^{154}Eu	-7.2E-06 ± 7.2E-05	U
	^{155}Eu	8.4E-05 ± 1.8E-04	U
	^{238}Pu	1.7E-06 ± 1.3E-05	U
	$^{239/240}Pu$	2.5E-06 ± 3.1E-06	
	^{103}Ru	-1.6E-05 ± 7.3E-05	U
	^{106}Ru	-2.8E-04 ± 5.5E-04	U
	^{125}Sb	5.5E-06 ± 5.6E-05	U
	^{113}Sn	4.4E-05 ± 6.8E-05	U
	^{90}Sr	-1.2E-04 ± 1.3E-04	U
	^{234}U	1.6E-05 ± 9.4E-06	
	^{235}U	1.5E-06 ± 3.1E-06	U
	^{238}U	1.0E-05 ± 6.6E-06	
	^{65}Zn	-3.8E-04 ± 3.9E-04	U
N102 (100-N)	^{144}Ce	1.0E-04 ± 6.4E-04	U
Composite Period	^{60}Co	1.1E-04 ± 9.4E-05	U
06/23/03 to 12/22/03	^{134}Cs	-3.9E-05 ± 7.0E-05	U
	^{137}Cs	8.0E-05 ± 7.1E-05	U
	^{152}Eu	3.0E-05 ± 1.6E-04	U
	^{154}Eu	2.1E-05 ± 2.1E-04	U
	^{155}Eu	9.6E-05 ± 1.7E-04	U
	^{238}Pu	-1.4E-05 ± 1.4E-05	U
	$^{239/240}Pu$	3.5E-06 ± 4.4E-06	U
	^{103}Ru	-2.8E-05 ± 6.5E-05	U
	^{106}Ru	-2.2E-04 ± 5.5E-04	U
	^{125}Sb	-1.1E-04 ± 1.7E-04	U
	^{113}Sn	-6.9E-05 ± 7.1E-05	U
	^{90}Sr	-2.3E-04 ± 2.4E-04	U
	^{234}U	1.5E-05 ± 8.8E-06	
	^{235}U	-8.3E-07 ± 2.9E-06	U
	^{238}U	1.5E-05 ± 8.8E-06	
	^{65}Zn	-8.3E-06 ± 8.3E-05	U

Location	Isotope	Result ± Uncertainty	RQ*
N102 (100-N)	^{144}Ce	-1.0E-04 ± 8.2E-04	U
Composite Period	^{60}Co	1.1E-05 ± 7.9E-05	U
01/07/03 to 06/23/03	^{134}Cs	2.5E-05 ± 8.3E-05	U
	^{137}Cs	3.7E-05 ± 7.6E-05	U
	^{152}Eu	-4.1E-05 ± 2.3E-04	U
	^{154}Eu	-5.9E-05 ± 2.3E-04	U
	^{155}Eu	-1.7E-04 ± 2.3E-04	U
	^{238}Pu	-3.9E-06 ± 1.2E-05	U
	$^{239/240}Pu$	1.2E-05 ± 8.0E-06	
	^{103}Ru	-4.6E-05 ± 8.7E-05	U
	^{106}Ru	3.7E-04 ± 6.8E-04	U
	^{125}Sb	-4.0E-05 ± 1.9E-04	U
	^{113}Sn	2.0E-05 ± 9.4E-05	U
	^{90}Sr	-9.3E-05 ± 9.6E-05	U
	^{234}U	9.3E-06 ± 6.5E-06	
	^{235}U	7.6E-07 ± 2.7E-06	U
	^{238}U	6.2E-06 ± 4.7E-06	
	^{65}Zn	3.0E-05 ± 2.0E-04	U
N103 (100-N)	^{144}Ce	3.2E-06 ± 3.2E-05	U
Composite Period	^{60}Co	3.8E-05 ± 9.7E-05	U
01/07/03 to 06/23/03	^{134}Cs	-9.6E-06 ± 8.6E-05	U
	^{137}Cs	-3.5E-05 ± 7.7E-05	U
	^{152}Eu	-1.9E-05 ± 1.9E-04	U
	^{154}Eu	-1.9E-04 ± 3.4E-04	U
	^{155}Eu	-9.9E-05 ± 2.0E-04	U
	^{238}Pu	-1.3E-05 ± 1.6E-05	U
	$^{239/240}Pu$	3.0E-06 ± 6.7E-06	U
	^{103}Ru	7.2E-06 ± 7.2E-05	U
	^{106}Ru	-2.8E-04 ± 6.7E-04	U
	^{125}Sb	-4.0E-05 ± 2.3E-04	U
	^{113}Sn	4.1E-05 ± 9.4E-05	U
	^{90}Sr	4.5E-04 ± 1.8E-04	
	^{234}U	1.4E-05 ± 8.6E-06	
	^{235}U	1.5E-06 ± 4.3E-06	U
	^{238}U	8.5E-06 ± 5.8E-06	
	^{65}Zn	2.1E-04 ± 2.3E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N103 (100-N)	^{144}Ce	-3.1E-05 ± 3.1E-04	U
Composite Period	^{60}Co	4.7E-05 ± 8.0E-05	U
06/23/03 to 12/22/03	^{134}Cs	3.7E-05 ± 7.0E-05	U
	^{137}Cs	-5.6E-06 ± 5.7E-05	U
	^{152}Eu	-2.0E-04 ± 2.1E-04	U
	^{154}Eu	2.2E-05 ± 1.9E-04	U
	^{155}Eu	-9.5E-05 ± 2.0E-04	U
	^{238}Pu	-9.0E-06 ± 1.5E-05	U
	$^{239/240}$Pu	5.2E-06 ± 5.9E-06	U
	^{103}Ru	-2.4E-05 ± 7.2E-05	U
	^{106}Ru	-1.9E-04 ± 5.6E-04	U
	^{125}Sb	7.7E-05 ± 1.5E-04	U
	^{113}Sn	3.0E-06 ± 3.0E-05	U
	^{90}Sr	-1.4E-04 ± 1.5E-04	U
	^{234}U	1.7E-05 ± 1.0E-05	
	^{235}U	7.5E-07 ± 1.5E-06	U
	^{238}U	1.2E-05 ± 7.6E-06	
	^{65}Zn	-1.6E-04 ± 1.7E-04	U
N105 (100-N)	^{144}Ce	4.7E-04 ± 1.1E-03	U
Composite Period	^{60}Co	5.4E-04 ± 2.3E-04	
06/23/03 to 09/30/03	^{134}Cs	3.5E-05 ± 1.2E-04	U
	^{137}Cs	2.8E-04 ± 2.1E-04	
	^{152}Eu	-1.4E-04 ± 2.7E-04	U
	^{154}Eu	2.1E-04 ± 4.0E-04	U
	^{155}Eu	2.1E-05 ± 2.1E-04	U
	^{238}Pu	-1.2E-05 ± 2.7E-05	U
	$^{239/240}$Pu	5.0E-06 ± 1.0E-05	U
	^{103}Ru	-8.3E-05 ± 1.2E-04	U
	^{106}Ru	-3.3E-04 ± 1.0E-03	U
	^{125}Sb	9.8E-05 ± 2.6E-04	U
	^{113}Sn	-2.3E-05 ± 1.2E-04	U
	^{90}Sr	-1.3E-04 ± 1.7E-04	U
	^{234}U	2.4E-05 ± 1.4E-05	
	^{235}U	3.2E-06 ± 4.5E-06	U
	^{238}U	1.4E-05 ± 1.1E-05	
	^{65}Zn	-1.9E-04 ± 3.4E-04	U
N105 (100-N)	^{144}Ce	-1.5E-04 ± 7.8E-04	U
Composite Period	^{60}Co	2.2E-04 ± 9.8E-05	
01/07/03 to 06/23/03	^{134}Cs	-5.5E-05 ± 8.4E-05	U
	^{137}Cs	3.6E-04 ± 1.7E-04	
	^{152}Eu	-2.0E-04 ± 2.1E-04	U
	^{154}Eu	7.2E-05 ± 2.0E-04	U
	^{155}Eu	4.6E-05 ± 2.2E-04	U
	^{238}Pu	-1.9E-06 ± 1.1E-05	U
	$^{239/240}$Pu	6.8E-06 ± 6.4E-06	U
	^{103}Ru	1.5E-05 ± 8.5E-05	U
	^{106}Ru	5.0E-04 ± 7.2E-04	U
	^{125}Sb	3.9E-05 ± 1.9E-04	U
	^{113}Sn	3.9E-05 ± 9.5E-05	U
	^{90}Sr	-5.4E-05 ± 5.6E-05	U
	^{234}U	1.1E-05 ± 7.4E-06	
	^{235}U	1.6E-06 ± 3.2E-06	U
	^{238}U	2.2E-06 ± 2.7E-06	
	^{65}Zn	1.1E-04 ± 1.7E-04	U
N106 (100-N)	^{144}Ce	-1.4E-05 ± 1.4E-04	U
Composite Period	^{60}Co	5.1E-05 ± 8.2E-05	U
01/07/03 to 06/23/03	^{134}Cs	3.0E-05 ± 6.9E-05	U
	^{137}Cs	-3.7E-06 ± 3.7E-05	U
	^{152}Eu	8.4E-05 ± 1.7E-04	U
	^{154}Eu	7.2E-06 ± 7.2E-05	U
	^{155}Eu	8.4E-05 ± 1.5E-04	U
	^{238}Pu	7.3E-06 ± 1.4E-05	U
	$^{239/240}$Pu	-3.7E-06 ± 4.5E-06	U
	^{103}Ru	-6.4E-05 ± 7.6E-05	U
	^{106}Ru	6.2E-04 ± 7.0E-04	U
	^{125}Sb	-7.2E-05 ± 1.5E-04	U
	^{113}Sn	1.8E-05 ± 7.6E-05	U
	^{90}Sr	-8.3E-05 ± 8.6E-05	U
	^{234}U	8.3E-06 ± 6.3E-06	
	^{235}U	2.3E-06 ± 3.4E-06	U
	^{238}U	6.3E-06 ± 4.8E-06	
	^{65}Zn	6.3E-05 ± 1.9E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N106 (100-N)	^{144}Ce	-5.8E-04 ± 8.4E-04	U
Composite Period	^{60}Co	1.1E-04 ± 1.0E-04	U
06/23/03 to 12/22/03	^{134}Cs	-7.8E-06 ± 7.8E-05	U
	^{137}Cs	1.1E-05 ± 8.5E-05	U
	^{152}Eu	2.8E-05 ± 1.9E-04	U
	^{154}Eu	5.6E-06 ± 5.6E-05	U
	^{155}Eu	-1.8E-04 ± 2.1E-04	U
	^{238}Pu	4.0E-06 ± 1.2E-05	U
	$^{239/240}$Pu	4.8E-06 ± 6.4E-06	U
	^{103}Ru	3.3E-05 ± 1.1E-04	U
	^{106}Ru	-8.9E-05 ± 8.5E-04	U
	^{125}Sb	1.3E-04 ± 2.0E-04	U
	^{113}Sn	-1.7E-05 ± 9.3E-05	U
	^{90}Sr	-1.8E-04 ± 1.8E-04	U
	^{234}U	1.3E-05 ± 8.7E-06	
	^{235}U	-1.5E-06 ± 3.9E-06	U
	^{238}U	1.0E-05 ± 7.4E-06	
	^{65}Zn	-3.9E-05 ± 2.0E-04	U
N526 (100-N)	^{144}Ce	-1.4E-04 ± 9.0E-04	U
Composite Period	^{60}Co	3.3E-04 ± 1.6E-04	
06/23/03 to 12/22/03	^{134}Cs	-4.6E-05 ± 7.7E-05	U
	^{137}Cs	8.4E-04 ± 3.3E-04	
	^{152}Eu	-8.9E-05 ± 2.2E-04	U
	^{154}Eu	9.0E-06 ± 9.0E-05	U
	^{155}Eu	-2.5E-05 ± 2.0E-04	U
	^{238}Pu	4.5E-06 ± 1.3E-05	U
	$^{239/240}$Pu	5.4E-06 ± 6.1E-06	U
	^{103}Ru	-1.8E-05 ± 8.0E-05	U
	^{106}Ru	-1.5E-04 ± 6.2E-04	U
	^{125}Sb	-9.6E-05 ± 1.6E-04	U
	^{113}Sn	8.0E-05 ± 8.5E-05	U
	^{90}Sr	2.2E-05 ± 9.3E-05	U
	^{234}U	9.7E-06 ± 6.8E-06	
	^{235}U	5.7E-06 ± 4.8E-06	
	^{238}U	1.6E-05 ± 9.1E-06	
	^{65}Zn	-2.2E-04 ± 2.2E-04	U
N526 (100-N)	^{144}Ce	-3.7E-04 ± 8.4E-04	U
Composite Period	^{60}Co	4.2E-04 ± 1.8E-04	
01/07/03 to 06/23/03	^{134}Cs	3.1E-05 ± 9.0E-05	U
	^{137}Cs	2.5E-03 ± 7.9E-04	
	^{152}Eu	9.0E-05 ± 2.2E-04	U
	^{154}Eu	1.3E-04 ± 2.1E-04	U
	^{155}Eu	-1.6E-04 ± 2.3E-04	U
	^{238}Pu	-5.1E-06 ± 1.8E-05	U
	$^{239/240}$Pu	2.0E-05 ± 1.2E-05	
	^{103}Ru	2.6E-05 ± 1.0E-04	U
	^{106}Ru	-1.4E-04 ± 7.0E-04	U
	^{125}Sb	6.2E-05 ± 2.0E-04	U
	^{113}Sn	3.5E-05 ± 9.9E-05	U
	^{90}Sr	7.7E-05 ± 1.0E-04	U
	^{234}U	6.4E-06 ± 5.3E-06	
	^{235}U	1.5E-06 ± 3.1E-06	U
	^{238}U	8.4E-06 ± 6.1E-06	
	^{65}Zn	4.6E-05 ± 1.6E-04	U
N482 (ERDF)	^{144}Ce	1.1E-04 ± 7.2E-04	U
Composite Period	^{60}Co	5.1E-05 ± 9.9E-05	U
01/08/03 to 06/24/03	^{134}Cs	-1.4E-04 ± 1.5E-04	U
	^{137}Cs	8.4E-05 ± 7.7E-05	U
	^{152}Eu	-1.5E-04 ± 1.9E-04	U
	^{154}Eu	6.6E-05 ± 2.8E-04	U
	^{155}Eu	4.0E-05 ± 2.0E-04	U
	^{238}Pu	-9.3E-07 ± 8.9E-06	U
	$^{239/240}$Pu	1.9E-06 ± 2.7E-06	U
	^{103}Ru	-1.7E-05 ± 9.2E-05	U
	^{106}Ru	4.8E-05 ± 4.8E-04	U
	^{125}Sb	-3.8E-05 ± 1.9E-04	U
	^{113}Sn	-3.8E-05 ± 9.0E-05	U
	^{90}Sr	-8.5E-05 ± 8.8E-05	U
	^{234}U	1.1E-05 ± 7.6E-06	
	^{235}U	1.8E-06 ± 3.6E-06	U
	^{238}U	4.0E-06 ± 3.9E-06	
	^{65}Zn	-1.9E-04 ± 2.2E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N482 (ERDF)	^{144}Ce	1.4E-05 ± 1.4E-04	U
Composite Period	^{60}Co	-5.8E-05 ± 8.0E-05	U
06/24/03 to 12/22/03	^{134}Cs	1.3E-06 ± 1.3E-05	U
	^{137}Cs	2.8E-05 ± 6.4E-05	U
	^{152}Eu	-3.7E-05 ± 1.6E-04	U
	^{154}Eu	-1.0E-04 ± 2.1E-04	U
	^{155}Eu	1.5E-07 ± 1.5E-06	U
	^{238}Pu	1.1E-05 ± 1.3E-05	U
	$^{239/240}$Pu	3.2E-06 ± 4.5E-06	U
	^{103}Ru	1.2E-06 ± 1.2E-05	U
	^{106}Ru	8.7E-05 ± 6.4E-04	U
	^{125}Sb	1.2E-04 ± 1.4E-04	U
	^{113}Sn	3.5E-05 ± 6.9E-05	U
	^{90}Sr	1.0E-04 ± 1.1E-04	
	^{234}U	2.2E-05 ± 1.2E-05	
	^{235}U	2.4E-06 ± 3.7E-06	U
	^{238}U	2.7E-05 ± 1.4E-05	
	^{65}Zn	7.9E-05 ± 1.6E-04	U
N517 (ERDF)	^{144}Ce	3.3E-04 ± 6.5E-04	U
Composite Period	^{60}Co	1.5E-05 ± 7.7E-05	U
06/24/03 to 12/22/03	^{134}Cs	5.6E-05 ± 7.1E-05	U
	^{137}Cs	7.6E-05 ± 5.9E-05	U
	^{152}Eu	1.7E-05 ± 1.6E-04	U
	^{154}Eu	7.2E-05 ± 2.3E-04	U
	^{155}Eu	-5.3E-05 ± 1.5E-04	U
	^{238}Pu	3.2E-06 ± 1.3E-05	U
	$^{239/240}$Pu	4.8E-06 ± 5.4E-06	U
	^{103}Ru	1.8E-05 ± 6.6E-05	U
	^{106}Ru	-2.2E-04 ± 5.8E-04	U
	^{125}Sb	-1.8E-05 ± 1.3E-04	U
	^{113}Sn	1.7E-05 ± 7.1E-05	U
	^{90}Sr	6.8E-05 ± 1.1E-04	U
	^{234}U	2.6E-05 ± 1.3E-05	
	^{235}U	3.8E-06 ± 4.3E-06	U
	^{238}U	1.8E-05 ± 9.8E-06	
	^{65}Zn	1.6E-04 ± 1.6E-04	U
N517 (ERDF)	^{144}Ce	6.3E-04 ± 6.1E-04	U
Composite Period	^{60}Co	-6.8E-05 ± 8.8E-05	U
01/08/03 to 06/24/03	^{134}Cs	-1.7E-06 ± 1.7E-05	U
	^{137}Cs	2.4E-05 ± 7.8E-05	U
	^{152}Eu	-5.7E-05 ± 1.6E-04	U
	^{154}Eu	7.2E-05 ± 2.5E-04	U
	^{155}Eu	-1.6E-05 ± 1.5E-04	U
	^{238}Pu	-5.5E-06 ± 1.7E-05	U
	$^{239/240}$Pu	2.2E-06 ± 3.2E-06	U
	^{103}Ru	-2.4E-05 ± 7.9E-05	U
	^{106}Ru	-8.2E-05 ± 6.3E-04	U
	^{125}Sb	-2.2E-05 ± 1.6E-04	U
	^{113}Sn	4.4E-05 ± 8.7E-05	U
	^{90}Sr	-1.4E-04 ± 1.4E-04	U
	^{234}U	2.1E-05 ± 1.2E-05	
	^{235}U	3.8E-06 ± 4.7E-06	U
	^{238}U	1.2E-05 ± 8.1E-06	
	^{65}Zn	4.6E-06 ± 4.6E-05	U
N518 (ERDF)	^{144}Ce	-1.5E-04 ± 8.0E-04	U
Composite Period	^{60}Co	5.4E-05 ± 9.4E-05	U
01/08/03 to 06/24/03	^{134}Cs	3.3E-05 ± 8.8E-05	U
	^{137}Cs	1.8E-05 ± 8.0E-05	U
	^{152}Eu	-5.0E-05 ± 2.0E-04	U
	^{154}Eu	7.8E-06 ± 7.8E-05	U
	^{155}Eu	-7.1E-06 ± 7.1E-05	U
	^{238}Pu	-9.3E-07 ± 9.3E-06	U
	$^{239/240}$Pu	-9.3E-07 ± 5.0E-06	U
	^{103}Ru	-9.3E-06 ± 9.3E-05	U
	^{106}Ru	-1.8E-05 ± 1.8E-04	U
	^{125}Sb	-1.2E-05 ± 1.2E-04	U
	^{113}Sn	8.5E-05 ± 1.0E-04	U
	^{90}Sr	-1.2E-04 ± 1.2E-04	U
	^{234}U	2.7E-05 ± 1.4E-05	
	^{235}U	5.8E-06 ± 5.2E-06	
	^{238}U	1.9E-05 ± 1.1E-05	
	^{65}Zn	-2.0E-04 ± 2.1E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N518 (ERDF)	^{144}Ce	2.3E-04 ± 7.1E-04	U
Composite Period	^{60}Co	-3.1E-05 ± 9.3E-05	U
06/24/03 to 12/22/03	^{134}Cs	3.3E-05 ± 9.7E-05	U
	^{137}Cs	7.1E-05 ± 8.5E-05	U
	^{152}Eu	1.4E-04 ± 2.2E-04	U
	^{154}Eu	-1.8E-04 ± 2.8E-04	U
	^{155}Eu	-1.2E-04 ± 1.9E-04	U
	^{238}Pu	-1.2E-05 ± 1.6E-05	U
	$^{239/240}$Pu	4.6E-06 ± 5.6E-06	U
	^{103}Ru	-7.7E-05 ± 8.1E-05	U
	^{106}Ru	-8.3E-07 ± 8.3E-06	U
	^{125}Sb	-1.7E-04 ± 1.9E-04	U
	^{113}Sn	-3.4E-05 ± 8.6E-05	U
	^{90}Sr	3.9E-05 ± 1.0E-04	U
	^{234}U	1.3E-05 ± 8.1E-06	
	^{235}U	4.3E-06 ± 4.2E-06	
	^{238}U	1.7E-05 ± 9.8E-06	
	^{65}Zn	-1.5E-05 ± 1.5E-04	U
N019 (200-East)	^{144}Ce	1.7E-04 ± 6.0E-04	U
Composite Period	^{60}Co	1.1E-05 ± 7.9E-05	U
06/23/03 to 12/22/03	^{134}Cs	6.0E-05 ± 6.9E-05	U
	^{137}Cs	2.0E-05 ± 6.8E-05	U
	^{152}Eu	2.5E-05 ± 1.5E-04	U
	^{154}Eu	2.2E-05 ± 2.1E-04	U
	^{155}Eu	-8.4E-05 ± 1.6E-04	U
	^{238}Pu	-1.1E-05 ± 1.5E-05	U
	$^{239/240}$Pu	4.3E-06 ± 6.1E-06	U
	^{103}Ru	8.2E-05 ± 6.0E-05	U
	^{106}Ru	3.1E-04 ± 5.2E-04	U
	^{125}Sb	-2.7E-05 ± 1.4E-04	U
	^{113}Sn	-2.2E-05 ± 6.5E-05	U
	^{90}Sr	-2.3E-04 ± 1.1E-04	U
	^{234}U	1.8E-05 ± 1.0E-05	
	^{235}U	1.7E-06 ± 4.2E-06	U
	^{238}U	1.7E-05 ± 9.5E-06	
	^{65}Zn	-2.3E-04 ± 2.4E-04	U
N019 (200-East)	^{144}Ce	-1.0E-05 ± 1.1E-04	U
Composite Period	^{60}Co	-8.5E-06 ± 8.6E-05	U
01/06/03 to 06/23/03	^{134}Cs	1.3E-05 ± 7.3E-05	U
	^{137}Cs	-1.6E-05 ± 9.2E-05	U
	^{152}Eu	-4.7E-06 ± 4.7E-05	U
	^{154}Eu	9.9E-06 ± 9.9E-05	U
	^{155}Eu	1.3E-05 ± 1.3E-04	U
	^{238}Pu	1.0E-05 ± 1.5E-05	U
	$^{239/240}$Pu	9.2E-07 ± 9.6E-07	U
	^{103}Ru	9.6E-06 ± 6.4E-05	U
	^{106}Ru	1.3E-04 ± 7.0E-04	U
	^{125}Sb	-2.1E-04 ± 2.1E-04	U
	^{113}Sn	-9.7E-06 ± 9.1E-05	U
	^{90}Sr	1.5E-05 ± 1.2E-04	U
	^{234}U	6.2E-06 ± 5.9E-06	U
	^{235}U	2.5E-06 ± 3.1E-06	
	^{238}U	3.2E-06 ± 3.9E-06	U
	^{65}Zn	-1.4E-04 ± 2.2E-04	U
N158 (200-East)	^{144}Ce	-4.3E-04 ± 7.1E-04	U
Composite Period	^{60}Co	-2.3E-05 ± 8.9E-05	U
01/06/03 to 06/23/03	^{134}Cs	1.1E-04 ± 1.1E-04	U
	^{137}Cs	1.4E-04 ± 1.3E-04	
	^{152}Eu	3.7E-05 ± 1.8E-04	U
	^{154}Eu	5.2E-05 ± 2.7E-04	U
	^{155}Eu	-7.1E-05 ± 1.9E-04	U
	^{238}Pu	6.6E-06 ± 1.4E-05	U
	$^{239/240}$Pu	9.1E-07 ± 9.4E-07	U
	^{103}Ru	1.0E-05 ± 6.7E-05	U
	^{106}Ru	1.1E-04 ± 6.2E-04	U
	^{125}Sb	-6.5E-05 ± 1.9E-04	U
	^{113}Sn	-1.2E-05 ± 8.1E-05	U
	^{90}Sr	-1.2E-04 ± 1.3E-04	U
	^{234}U	1.2E-05 ± 7.6E-06	
	^{235}U	7.6E-07 ± 2.7E-06	U
	^{238}U	5.0E-06 ± 4.7E-06	U
	^{65}Zn	-1.0E-04 ± 1.9E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N158 (200-East)	^{144}Ce	-1.3E-04 ± 7.9E-04	U
Composite Period	^{60}Co	7.6E-05 ± 8.5E-05	U
06/23/03 to 12/22/03	^{134}Cs	3.0E-05 ± 8.1E-05	U
	^{137}Cs	1.7E-04 ± 1.7E-04	
	^{152}Eu	-1.2E-04 ± 1.9E-04	U
	^{154}Eu	-3.6E-06 ± 3.6E-05	U
	^{155}Eu	-1.5E-04 ± 2.2E-04	U
	^{238}Pu	-1.1E-06 ± 1.1E-05	U
	$^{239/240}$Pu	1.1E-06 ± 1.1E-06	U
	^{103}Ru	-2.3E-05 ± 6.6E-05	U
	^{106}Ru	-6.7E-04 ± 7.0E-04	U
	^{125}Sb	1.3E-04 ± 1.7E-04	U
	^{113}Sn	2.3E-05 ± 7.8E-05	U
	^{90}Sr	-1.3E-04 ± 1.3E-04	U
	^{234}U	1.8E-05 ± 1.0E-05	
	^{235}U	8.1E-07 ± 8.4E-07	U
	^{238}U	9.7E-06 ± 7.0E-06	
	^{65}Zn	6.5E-05 ± 1.9E-04	U
N480 (200-East)	^{241}Am	5.0E-06 ± 7.6E-06	U
Composite Period	^{144}Ce	-3.0E-04 ± 5.6E-04	U
06/23/03 to 12/22/03	^{60}Co	-8.1E-06 ± 8.1E-05	U
	^{134}Cs	-6.7E-06 ± 6.7E-05	U
	^{137}Cs	-5.2E-05 ± 6.3E-05	U
	^{152}Eu	-5.9E-05 ± 1.5E-04	U
	^{154}Eu	-8.8E-05 ± 2.4E-04	U
	^{155}Eu	1.2E-04 ± 1.5E-04	U
	^{238}Pu	-1.5E-05 ± 2.4E-05	U
	$^{239/240}$Pu	3.6E-06 ± 9.0E-06	U
	^{241}Pu	-2.2E-04 ± 2.3E-04	U
	^{103}Ru	-8.3E-06 ± 6.7E-05	U
	^{106}Ru	-2.1E-04 ± 5.7E-04	U
	^{125}Sb	-2.7E-05 ± 1.3E-04	U
	^{113}Sn	-8.1E-06 ± 6.9E-05	U
	^{90}Sr	-1.2E-04 ± 1.2E-04	U
	^{234}U	1.2E-05 ± 7.2E-06	
	^{235}U	1.5E-06 ± 3.1E-06	U
	^{238}U	5.6E-06 ± 4.4E-06	
	^{65}Zn	-4.4E-05 ± 1.8E-04	U
N480 (200-East)	^{241}Am	4.0E-06 ± 1.2E-05	U
Composite Period	^{144}Ce	3.8E-05 ± 3.8E-04	U
01/06/03 to 06/23/03	^{60}Co	-8.1E-05 ± 1.0E-04	U
	^{134}Cs	-2.8E-05 ± 8.2E-05	U
	^{137}Cs	3.7E-05 ± 8.1E-05	U
	^{152}Eu	3.0E-05 ± 2.0E-04	U
	^{154}Eu	-5.6E-05 ± 3.4E-04	U
	^{155}Eu	6.7E-05 ± 1.9E-04	U
	^{238}Pu	3.7E-05 ± 2.8E-05	
	$^{239/240}$Pu	2.0E-06 ± 4.0E-06	U
	^{241}Pu	1.2E-04 ± 1.2E-03	U
	^{103}Ru	3.3E-05 ± 8.8E-05	U
	^{106}Ru	-1.9E-05 ± 1.9E-04	U
	^{125}Sb	2.7E-05 ± 1.9E-04	U
	^{113}Sn	4.3E-05 ± 9.3E-05	U
	^{90}Sr	-1.5E-05 ± 8.2E-05	U
	^{234}U	1.3E-05 ± 8.3E-06	
	^{235}U	4.9E-06 ± 4.4E-06	
	^{238}U	1.2E-05 ± 7.5E-06	
	^{65}Zn	-1.6E-04 ± 2.0E-04	U
N481 (200-East)	^{241}Am	6.7E-06 ± 1.0E-05	U
Composite Period	^{144}Ce	-1.7E-04 ± 7.8E-04	U
01/06/03 to 06/23/03	^{60}Co	2.6E-05 ± 7.2E-05	U
	^{134}Cs	-5.7E-05 ± 7.9E-05	U
	^{137}Cs	6.8E-06 ± 6.8E-05	U
	^{152}Eu	-5.3E-05 ± 1.9E-04	U
	^{154}Eu	1.8E-05 ± 1.8E-04	U
	^{155}Eu	3.4E-05 ± 2.2E-04	U
	^{238}Pu	1.2E-05 ± 3.1E-05	U
	$^{239/240}$Pu	2.1E-05 ± 1.6E-05	
	^{241}Pu	-8.4E-04 ± 8.4E-03	U
	^{103}Ru	-1.9E-05 ± 9.8E-05	U
	^{106}Ru	-1.0E-04 ± 6.8E-04	U
	^{125}Sb	-1.4E-04 ± 1.9E-04	U
	^{113}Sn	-1.0E-05 ± 8.9E-05	U
	^{90}Sr	-7.6E-06 ± 7.6E-05	U
	^{234}U	8.4E-06 ± 6.6E-06	
	^{235}U	8.4E-06 ± 6.9E-06	
	^{238}U	9.2E-06 ± 6.9E-06	
	^{65}Zn	8.7E-05 ± 1.8E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N481 (200-East)	^{241}Am	-2.9E-06 ± 1.0E-05	U
Composite Period	^{144}Ce	6.6E-05 ± 6.7E-04	U
06/23/03 to 12/22/03	^{60}Co	1.9E-05 ± 7.3E-05	U
	^{134}Cs	-4.4E-05 ± 7.2E-05	U
	^{137}Cs	-8.4E-06 ± 6.6E-05	U
	^{152}Eu	-1.1E-04 ± 1.9E-04	U
	^{154}Eu	-1.5E-04 ± 2.3E-04	U
	^{155}Eu	3.6E-05 ± 2.2E-04	U
	^{238}Pu	6.7E-06 ± 2.3E-05	U
	$^{239/240}$Pu	3.3E-06 ± 8.3E-06	U
	^{241}Pu	3.6E-04 ± 6.7E-04	U
	^{103}Ru	4.9E-06 ± 4.9E-05	U
	^{106}Ru	2.3E-04 ± 6.1E-04	U
	^{125}Sb	3.2E-06 ± 3.2E-05	U
	^{113}Sn	1.9E-05 ± 7.8E-05	U
	^{90}Sr	3.0E-05 ± 1.2E-04	U
	^{234}U	7.3E-06 ± 5.8E-06	
	^{235}U	5.0E-06 ± 4.2E-06	
	^{238}U	9.0E-06 ± 6.3E-06	
	^{65}Zn	2.9E-05 ± 1.7E-04	U
N498 (200-East)	^{144}Ce	-2.6E-04 ± 7.0E-04	U
Composite Period	^{60}Co	-1.5E-05 ± 7.2E-05	U
06/23/03 to 12/22/03	^{134}Cs	-2.5E-05 ± 6.9E-05	U
	^{137}Cs	-5.1E-05 ± 6.6E-05	U
	^{152}Eu	-1.2E-04 ± 1.8E-04	U
	^{154}Eu	-2.2E-05 ± 2.1E-04	U
	^{155}Eu	3.1E-05 ± 1.9E-04	U
	^{238}Pu	-7.0E-06 ± 1.1E-05	U
	$^{239/240}$Pu	1.4E-05 ± 9.0E-06	
	^{103}Ru	-3.7E-05 ± 7.1E-05	U
	^{106}Ru	-4.4E-05 ± 4.4E-04	U
	^{125}Sb	5.4E-05 ± 1.6E-04	U
	^{113}Sn	-8.4E-05 ± 8.7E-05	U
	^{90}Sr	5.8E-05 ± 1.0E-04	U
	^{234}U	1.7E-05 ± 9.3E-06	
	^{235}U	1.4E-06 ± 2.9E-06	U
	^{238}U	1.1E-05 ± 7.0E-06	
	^{65}Zn	-3.9E-05 ± 1.8E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N498 (200-East)	^{144}Ce	-2.5E-04 ± 7.4E-04	U
Composite Period	^{60}Co	3.8E-05 ± 9.1E-05	U
01/06/03 to 06/23/03	^{134}Cs	3.5E-05 ± 8.1E-05	U
	^{137}Cs	3.3E-05 ± 8.3E-05	U
	^{152}Eu	7.6E-05 ± 1.9E-04	U
	^{154}Eu	-3.2E-04 ± 3.3E-04	U
	^{155}Eu	-1.4E-04 ± 2.0E-04	U
	^{238}Pu	-9.1E-06 ± 1.5E-05	U
	$^{239/240}$Pu	9.9E-07 ± 5.2E-06	U
	^{103}Ru	-5.1E-06 ± 5.1E-05	U
	^{106}Ru	-5.4E-04 ± 7.1E-04	U
	^{125}Sb	-1.6E-05 ± 1.6E-04	U
	^{113}Sn	-1.1E-05 ± 8.0E-05	U
	^{90}Sr	4.5E-04 ± 1.8E-04	
	^{234}U	1.6E-05 ± 9.1E-06	
	^{235}U	2.5E-06 ± 3.1E-06	
	^{238}U	7.6E-06 ± 6.3E-06	
	^{65}Zn	1.7E-05 ± 1.7E-04	U
N499 (200-East)	^{144}Ce	-1.5E-04 ± 7.5E-04	U
Composite Period	^{60}Co	1.4E-05 ± 9.8E-05	U
01/06/03 to 06/23/03	^{134}Cs	-1.0E-04 ± 1.1E-04	U
	^{137}Cs	-2.0E-06 ± 2.0E-05	U
	^{152}Eu	7.3E-05 ± 2.0E-04	U
	^{154}Eu	1.3E-04 ± 2.8E-04	U
	^{155}Eu	-8.4E-05 ± 1.9E-04	U
	^{238}Pu	-6.9E-06 ± 1.2E-05	U
	$^{239/240}$Pu	8.6E-07 ± 3.0E-06	U
	^{103}Ru	-3.1E-05 ± 8.5E-05	U
	^{106}Ru	-3.4E-04 ± 8.3E-04	U
	^{125}Sb	-5.5E-05 ± 1.8E-04	U
	^{113}Sn	5.2E-05 ± 9.0E-05	U
	^{90}Sr	6.3E-05 ± 9.3E-05	U
	^{234}U	1.0E-05 ± 6.9E-06	
	^{235}U	4.8E-06 ± 4.3E-06	
	^{238}U	8.6E-06 ± 5.9E-06	
	^{65}Zn	7.6E-05 ± 2.2E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N499 (200-East)	^{144}Ce	-1.7E-04 ± 6.4E-04	U
Composite Period	^{60}Co	1.9E-06 ± 1.9E-05	U
06/23/03 to 12/22/03	^{134}Cs	-4.6E-05 ± 7.4E-05	U
	^{137}Cs	1.8E-05 ± 5.9E-05	U
	^{152}Eu	-2.2E-04 ± 2.3E-04	U
	^{154}Eu	-7.8E-05 ± 2.2E-04	U
	^{155}Eu	1.6E-05 ± 1.6E-04	U
	^{238}Pu	-6.5E-06 ± 1.4E-05	U
	$^{239/240}$Pu	3.2E-06 ± 3.9E-06	
	^{103}Ru	5.1E-06 ± 5.1E-05	U
	^{106}Ru	8.9E-05 ± 5.9E-04	U
	^{125}Sb	4.1E-05 ± 1.5E-04	U
	^{113}Sn	8.8E-05 ± 9.0E-05	U
	^{90}Sr	-1.3E-04 ± 1.4E-04	U
	^{234}U	2.6E-05 ± 1.4E-05	
	^{235}U	7.8E-06 ± 5.9E-06	
	^{238}U	1.6E-05 ± 9.0E-06	
	^{65}Zn	-2.1E-05 ± 2.0E-04	U
N957 (200-East)	^{144}Ce	-2.6E-05 ± 2.6E-04	U
Composite Period	^{60}Co	-2.3E-05 ± 6.8E-05	U
06/23/03 to 12/23/03	^{134}Cs	-6.4E-06 ± 6.4E-05	U
	^{137}Cs	5.8E-05 ± 6.4E-05	U
	^{152}Eu	-2.3E-04 ± 2.4E-04	U
	^{154}Eu	4.7E-05 ± 2.1E-04	U
	^{155}Eu	1.9E-04 ± 2.2E-04	U
	^{238}Pu	7.4E-06 ± 9.1E-06	U
	$^{239/240}$Pu	3.7E-06 ± 3.8E-06	
	^{103}Ru	-7.0E-06 ± 6.7E-05	U
	^{106}Ru	3.6E-04 ± 5.9E-04	U
	^{125}Sb	-1.8E-06 ± 1.8E-05	U
	^{113}Sn	1.6E-05 ± 7.3E-05	U
	^{90}Sr	-7.4E-05 ± 9.5E-05	U
	^{234}U	1.5E-05 ± 8.7E-06	
	^{235}U	4.2E-06 ± 4.7E-06	U
	^{238}U	1.2E-05 ± 7.4E-06	
	^{65}Zn	1.6E-04 ± 1.8E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N957 (200-East)	^{144}Ce	-7.3E-04 ± 8.3E-04	U
Composite Period	^{60}Co	-4.1E-05 ± 7.6E-05	U
01/06/03 to 06/23/03	^{134}Cs	-4.5E-05 ± 7.4E-05	U
	^{137}Cs	7.2E-05 ± 7.6E-05	U
	^{152}Eu	-1.0E-04 ± 1.9E-04	U
	^{154}Eu	1.2E-05 ± 1.2E-04	U
	^{155}Eu	-1.2E-04 ± 2.2E-04	U
	^{238}Pu	-7.2E-06 ± 1.2E-05	U
	$^{239/240}$Pu	8.4E-06 ± 7.0E-06	U
	^{103}Ru	8.9E-06 ± 7.7E-05	U
	^{106}Ru	1.8E-05 ± 1.8E-04	U
	^{125}Sb	-2.7E-05 ± 1.9E-04	U
	^{113}Sn	-4.5E-05 ± 9.1E-05	U
	^{90}Sr	2.1E-04 ± 1.2E-04	
	^{234}U	8.4E-06 ± 7.6E-06	U
	^{235}U	2.2E-06 ± 4.9E-06	U
	^{238}U	3.4E-06 ± 3.9E-06	U
	^{65}Zn	4.9E-05 ± 1.7E-04	U
N967 (200-East)	^{144}Ce	-1.0E-04 ± 8.0E-04	U
Composite Period	^{60}Co	6.9E-05 ± 7.7E-05	U
01/06/03 to 06/23/03	^{134}Cs	3.9E-05 ± 8.2E-05	U
	^{137}Cs	2.1E-04 ± 1.4E-04	
	^{152}Eu	-2.2E-04 ± 2.3E-04	U
	^{154}Eu	-3.2E-05 ± 2.2E-04	U
	^{155}Eu	-2.3E-04 ± 2.4E-04	U
	^{238}Pu	-2.8E-06 ± 1.2E-05	U
	$^{239/240}$Pu	4.6E-06 ± 6.5E-06	U
	^{103}Ru	8.3E-06 ± 7.7E-05	U
	^{106}Ru	-1.1E-04 ± 6.9E-04	U
	^{125}Sb	2.6E-07 ± 2.6E-06	U
	^{113}Sn	-1.6E-06 ± 1.6E-05	U
	^{90}Sr	-9.8E-05 ± 1.0E-04	U
	^{234}U	6.5E-06 ± 6.1E-06	U
	^{235}U	4.7E-06 ± 4.3E-06	
	^{238}U	4.3E-06 ± 4.4E-06	U
	^{65}Zn	-2.5E-04 ± 2.6E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N967 (200-East)	^{144}Ce	6.3E-05 ± 6.0E-04	U
Composite Period	^{60}Co	5.5E-05 ± 7.9E-05	U
06/23/03 to 12/22/03	^{134}Cs	-2.0E-05 ± 7.5E-05	U
	^{137}Cs	1.1E-04 ± 8.3E-05	U
	^{152}Eu	-1.1E-04 ± 1.4E-04	U
	^{154}Eu	-1.2E-04 ± 2.0E-04	U
	^{155}Eu	7.9E-05 ± 1.4E-04	U
	^{238}Pu	1.1E-05 ± 1.6E-05	U
	$^{239/240}$Pu	2.6E-05 ± 1.4E-05	
	^{103}Ru	-9.2E-06 ± 5.9E-05	U
	^{106}Ru	-1.8E-04 ± 5.1E-04	U
	^{125}Sb	-8.0E-05 ± 1.3E-04	U
	^{113}Sn	3.8E-05 ± 6.5E-05	U
	^{90}Sr	7.1E-04 ± 2.4E-04	
	^{234}U	5.8E-06 ± 8.8E-06	U
	^{235}U	-3.2E-06 ± 5.7E-06	U
	^{238}U	6.5E-06 ± 6.8E-06	U
	^{65}Zn	-6.4E-05 ± 1.7E-04	U
N968 (200-East)	^{144}Ce	-2.3E-04 ± 6.8E-04	U
Composite Period	^{60}Co	3.7E-05 ± 6.6E-05	U
06/23/03 to 12/22/03	^{134}Cs	-8.6E-06 ± 7.2E-05	U
	^{137}Cs	4.8E-06 ± 4.8E-05	U
	^{152}Eu	2.1E-05 ± 1.7E-04	U
	^{154}Eu	-6.9E-05 ± 2.0E-04	U
	^{155}Eu	2.6E-06 ± 2.6E-05	U
	^{238}Pu	9.4E-06 ± 1.3E-05	U
	$^{239/240}$Pu	2.3E-06 ± 3.5E-06	U
	^{103}Ru	1.8E-05 ± 7.0E-05	U
	^{106}Ru	-3.9E-04 ± 5.6E-04	U
	^{125}Sb	3.6E-05 ± 1.5E-04	U
	^{113}Sn	-1.1E-05 ± 7.1E-05	U
	^{90}Sr	-4.4E-05 ± 1.1E-04	U
	^{234}U	2.0E-05 ± 1.1E-05	
	^{235}U	-7.3E-07 ± 3.3E-06	U
	^{238}U	1.3E-05 ± 7.9E-06	
	^{65}Zn	-9.2E-05 ± 1.5E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N968 (200-East)	^{144}Ce	8.9E-05 ± 7.8E-04	U
Composite Period	^{60}Co	5.1E-05 ± 7.9E-05	U
01/06/03 to 06/23/03	^{134}Cs	-5.8E-05 ± 1.1E-04	U
	^{137}Cs	4.4E-05 ± 7.8E-05	U
	^{152}Eu	6.9E-07 ± 6.9E-06	U
	^{154}Eu	-4.6E-05 ± 2.1E-04	U
	^{155}Eu	-6.7E-05 ± 2.2E-04	U
	^{238}Pu	-6.8E-06 ± 1.4E-05	U
	$^{239/240}$Pu	1.7E-06 ± 3.5E-06	U
	^{103}Ru	-7.8E-05 ± 1.0E-04	U
	^{106}Ru	-4.6E-04 ± 6.9E-04	U
	^{125}Sb	1.3E-05 ± 1.3E-04	U
	^{113}Sn	1.7E-05 ± 1.0E-04	U
	^{90}Sr	-8.6E-05 ± 8.9E-05	U
	^{234}U	1.2E-05 ± 8.3E-06	
	^{235}U	7.8E-07 ± 2.7E-06	U
	^{238}U	8.6E-06 ± 6.4E-06	
	^{65}Zn	5.2E-06 ± 5.2E-05	U
N969 (200-East)	^{144}Ce	-6.6E-04 ± 7.9E-04	U
Composite Period	^{60}Co	1.6E-05 ± 9.6E-05	U
01/06/03 to 06/23/03	^{134}Cs	8.8E-05 ± 1.0E-04	U
	^{137}Cs	3.3E-05 ± 9.1E-05	U
	^{152}Eu	-2.4E-05 ± 2.0E-04	U
	^{154}Eu	-1.5E-06 ± 1.5E-05	U
	^{155}Eu	-5.4E-05 ± 2.0E-04	U
	^{238}Pu	8.3E-06 ± 1.8E-05	U
	$^{239/240}$Pu	3.2E-06 ± 3.9E-06	
	^{103}Ru	2.0E-05 ± 9.1E-05	U
	^{106}Ru	-5.4E-04 ± 8.7E-04	U
	^{125}Sb	-1.1E-04 ± 2.0E-04	U
	^{113}Sn	-5.5E-05 ± 9.6E-05	U
	^{90}Sr	-3.3E-05 ± 1.1E-04	U
	^{234}U	1.2E-05 ± 8.7E-06	
	^{235}U	7.1E-06 ± 6.2E-06	
	^{238}U	1.2E-05 ± 7.9E-06	
	^{65}Zn	-1.6E-06 ± 1.6E-05	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N969 (200-East)	^{144}Ce	-4.7E-04 ± 6.1E-04	U
Composite Period	^{60}Co	4.1E-05 ± 6.6E-05	U
06/23/03 to 12/23/03	^{134}Cs	-6.9E-05 ± 7.2E-05	U
	^{137}Cs	-3.0E-05 ± 6.3E-05	U
	^{152}Eu	-7.4E-06 ± 7.4E-05	U
	^{154}Eu	-1.2E-05 ± 1.2E-04	U
	^{155}Eu	3.7E-05 ± 1.5E-04	U
	^{238}Pu	4.0E-06 ± 1.0E-05	U
	$^{239/240}Pu$	1.2E-05 ± 8.5E-06	
	^{103}Ru	-4.5E-05 ± 6.3E-05	U
	^{106}Ru	-8.9E-05 ± 5.2E-04	U
	^{125}Sb	8.9E-05 ± 1.4E-04	U
	^{113}Sn	-2.8E-05 ± 6.2E-05	U
	^{90}Sr	-5.1E-05 ± 1.0E-04	U
	^{234}U	1.5E-05 ± 8.8E-06	
	^{235}U	6.8E-07 ± 7.0E-07	U
	^{238}U	6.8E-06 ± 5.7E-06	
	^{65}Zn	-1.1E-04 ± 1.7E-04	U
N970 (200-East)	^{144}Ce	-3.8E-04 ± 6.8E-04	U
Composite Period	^{60}Co	7.2E-05 ± 8.1E-05	U
06/23/03 to 12/22/03	^{134}Cs	-7.4E-05 ± 9.0E-05	U
	^{137}Cs	-1.9E-05 ± 6.9E-05	U
	^{152}Eu	-1.0E-04 ± 1.8E-04	U
	^{154}Eu	1.0E-04 ± 2.5E-04	U
	^{155}Eu	-1.6E-04 ± 1.8E-04	U
	^{238}Pu	-1.8E-06 ± 9.6E-06	U
	$^{239/240}Pu$	8.6E-07 ± 3.9E-06	U
	^{103}Ru	2.5E-07 ± 2.5E-06	U
	^{106}Ru	-4.4E-04 ± 6.4E-04	U
	^{125}Sb	-1.8E-05 ± 1.7E-04	U
	^{113}Sn	-3.3E-05 ± 8.2E-05	U
	^{90}Sr	-5.8E-05 ± 9.6E-05	U
	^{234}U	1.6E-05 ± 9.3E-06	
	^{235}U	4.5E-06 ± 4.1E-06	
	^{238}U	1.2E-05 ± 7.6E-06	
	^{65}Zn	1.8E-04 ± 2.2E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N970 (200-East)	^{144}Ce	-1.4E-04 ± 5.3E-04	U
Composite Period	^{60}Co	9.3E-05 ± 9.1E-05	U
01/06/03 to 06/23/03	^{134}Cs	-1.3E-05 ± 7.0E-05	U
	^{137}Cs	-6.9E-06 ± 6.7E-05	U
	^{152}Eu	4.2E-05 ± 1.6E-04	U
	^{154}Eu	-9.8E-05 ± 2.1E-04	U
	^{155}Eu	5.8E-05 ± 1.5E-04	U
	^{238}Pu	-7.5E-07 ± 7.3E-06	U
	$^{239/240}Pu$	2.3E-06 ± 3.6E-06	U
	^{103}Ru	9.1E-06 ± 7.1E-05	U
	^{106}Ru	-2.1E-04 ± 6.5E-04	U
	^{125}Sb	1.4E-04 ± 1.6E-04	U
	^{113}Sn	2.0E-05 ± 7.6E-05	U
	^{90}Sr	-6.8E-05 ± 1.0E-04	U
	^{234}U	6.5E-06 ± 5.1E-06	
	^{235}U	2.1E-06 ± 3.9E-06	U
	^{238}U	6.5E-06 ± 4.8E-06	
	^{65}Zn	-1.3E-05 ± 1.3E-04	U
N972 (200-East)	^{144}Ce	4.2E-04 ± 7.8E-04	U
Composite Period	^{60}Co	-6.1E-05 ± 7.6E-05	U
01/06/03 to 06/23/03	^{134}Cs	-3.8E-05 ± 7.8E-05	U
	^{137}Cs	7.8E-05 ± 8.4E-05	U
	^{152}Eu	-9.6E-05 ± 1.9E-04	U
	^{154}Eu	2.8E-04 ± 2.3E-04	U
	^{155}Eu	-2.4E-04 ± 2.5E-04	U
	^{238}Pu	8.3E-07 ± 7.6E-06	U
	$^{239/240}Pu$	1.7E-06 ± 3.4E-06	U
	^{103}Ru	1.5E-05 ± 7.8E-05	U
	^{106}Ru	3.0E-04 ± 6.9E-04	U
	^{125}Sb	6.9E-05 ± 1.8E-04	U
	^{113}Sn	3.0E-05 ± 8.6E-05	U
	^{90}Sr	1.5E-07 ± 1.5E-06	U
	^{234}U	8.3E-06 ± 6.3E-06	
	^{235}U	6.7E-07 ± 7.0E-07	U
	^{238}U	4.7E-06 ± 3.9E-06	
	^{65}Zn	-3.5E-05 ± 1.5E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N972 (200-East)	^{144}Ce	2.7E-05 ± 2.7E-04	U
Composite Period	^{60}Co	7.1E-06 ± 7.1E-05	U
06/23/03 to 12/22/03	^{134}Cs	-3.6E-06 ± 3.6E-05	U
	^{137}Cs	-1.3E-05 ± 6.4E-05	U
	^{152}Eu	-5.4E-05 ± 1.4E-04	U
	^{154}Eu	2.7E-07 ± 2.7E-06	U
	^{155}Eu	8.8E-05 ± 1.5E-04	U
	^{238}Pu	-3.7E-06 ± 1.2E-05	U
	$^{239/240}$Pu	1.2E-06 ± 2.4E-06	U
	^{103}Ru	-6.0E-05 ± 6.3E-05	U
	^{106}Ru	-4.9E-04 ± 5.6E-04	U
	^{125}Sb	-3.7E-05 ± 1.4E-04	U
	^{113}Sn	-1.1E-05 ± 6.8E-05	U
	^{90}Sr	7.1E-05 ± 9.4E-05	U
	^{234}U	8.5E-06 ± 6.1E-06	
	^{235}U	1.6E-06 ± 3.1E-06	U
	^{238}U	9.2E-06 ± 6.5E-06	
	^{65}Zn	-3.1E-05 ± 2.0E-04	U
N973 (200-East)	^{144}Ce	1.1E-04 ± 7.0E-04	U
Composite Period	^{60}Co	2.7E-05 ± 7.8E-05	U
06/23/03 to 12/22/03	^{134}Cs	-4.3E-05 ± 7.1E-05	U
	^{137}Cs	4.3E-05 ± 7.4E-05	U
	^{152}Eu	-8.4E-05 ± 1.9E-04	U
	^{154}Eu	9.0E-05 ± 2.3E-04	U
	^{155}Eu	1.3E-05 ± 1.3E-04	U
	^{238}Pu	7.4E-06 ± 1.4E-05	U
	$^{239/240}$Pu	1.9E-06 ± 4.9E-06	U
	^{103}Ru	-3.0E-05 ± 6.7E-05	U
	^{106}Ru	-1.4E-04 ± 6.1E-04	U
	^{125}Sb	1.3E-04 ± 1.6E-04	U
	^{113}Sn	3.2E-05 ± 7.8E-05	U
	^{90}Sr	2.2E-05 ± 1.1E-04	U
	^{234}U	1.1E-05 ± 7.4E-06	
	^{235}U	1.6E-06 ± 2.2E-06	U
	^{238}U	5.8E-06 ± 4.6E-06	
	^{65}Zn	1.2E-05 ± 1.2E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N973 (200-East)	^{144}Ce	1.3E-04 ± 8.1E-04	U
Composite Period	^{60}Co	3.6E-05 ± 9.9E-05	U
01/06/03 to 06/23/03	^{134}Cs	-2.6E-05 ± 8.7E-05	U
	^{137}Cs	3.0E-04 ± 1.5E-04	
	^{152}Eu	-1.1E-04 ± 2.0E-04	U
	^{154}Eu	-9.0E-05 ± 3.3E-04	U
	^{155}Eu	-1.3E-04 ± 1.9E-04	U
	^{238}Pu	-3.1E-06 ± 1.6E-05	U
	$^{239/240}$Pu	1.1E-06 ± 3.7E-06	U
	^{103}Ru	6.5E-05 ± 8.9E-05	U
	^{106}Ru	1.3E-04 ± 7.6E-04	U
	^{125}Sb	6.6E-05 ± 1.7E-04	U
	^{113}Sn	-2.3E-05 ± 9.6E-05	U
	^{90}Sr	4.0E-05 ± 1.1E-04	U
	^{234}U	1.3E-05 ± 7.9E-06	
	^{235}U	3.3E-06 ± 3.4E-06	
	^{238}U	1.5E-05 ± 8.5E-06	
	^{65}Zn	-1.9E-04 ± 2.0E-04	U
N976 (200-East)	^{144}Ce	-1.4E-05 ± 1.4E-04	U
Composite Period	^{60}Co	-1.4E-05 ± 7.6E-05	U
01/06/03 to 06/23/03	^{134}Cs	-6.2E-05 ± 7.7E-05	U
	^{137}Cs	6.4E-05 ± 7.9E-05	U
	^{152}Eu	-2.5E-05 ± 1.8E-04	U
	^{154}Eu	1.1E-04 ± 2.3E-04	U
	^{155}Eu	-2.0E-05 ± 2.0E-04	U
	^{238}Pu	4.6E-06 ± 1.2E-05	U
	$^{239/240}$Pu	-2.3E-06 ± 4.2E-06	U
	^{103}Ru	-8.7E-05 ± 9.0E-05	U
	^{106}Ru	5.1E-04 ± 7.1E-04	U
	^{125}Sb	2.3E-05 ± 1.8E-04	U
	^{113}Sn	-5.2E-05 ± 8.5E-05	U
	^{90}Sr	-2.3E-05 ± 8.7E-05	U
	^{234}U	1.5E-05 ± 9.0E-06	
	^{235}U	5.1E-06 ± 4.8E-06	U
	^{238}U	2.0E-05 ± 1.1E-05	
	^{65}Zn	1.3E-04 ± 1.7E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N976 (200-East)	^{144}Ce	5.2E-04 ± 6.3E-04	U
Composite Period	^{60}Co	5.6E-05 ± 8.9E-05	U
06/23/03 to 12/22/03	^{134}Cs	1.3E-05 ± 7.0E-05	U
	^{137}Cs	1.4E-04 ± 1.3E-04	
	^{152}Eu	3.0E-05 ± 1.4E-04	U
	^{154}Eu	5.2E-04 ± 3.5E-04	
	^{155}Eu	4.4E-05 ± 1.5E-04	U
	^{238}Pu	6.1E-06 ± 1.1E-05	U
	$^{239/240}$Pu	4.4E-06 ± 4.2E-06	
	^{103}Ru	4.0E-05 ± 6.2E-05	U
	^{106}Ru	3.1E-04 ± 5.4E-04	U
	^{125}Sb	9.3E-05 ± 1.4E-04	U
	^{113}Sn	1.2E-05 ± 6.9E-05	U
	^{90}Sr	1.6E-04 ± 1.1E-04	
	^{234}U	2.9E-05 ± 1.4E-05	
	^{235}U	4.2E-06 ± 4.8E-06	U
	^{238}U	4.0E-05 ± 1.9E-05	
	^{65}Zn	1.2E-04 ± 1.6E-04	U
N977 (200-East)	^{144}Ce	7.2E-05 ± 6.9E-04	U
Composite Period	^{60}Co	-3.3E-05 ± 7.0E-05	U
06/23/03 to 12/22/03	^{134}Cs	2.7E-05 ± 6.3E-05	U
	^{137}Cs	-8.5E-05 ± 8.9E-05	U
	^{152}Eu	6.6E-05 ± 1.5E-04	U
	^{154}Eu	-1.2E-04 ± 2.4E-04	U
	^{155}Eu	-2.7E-05 ± 1.5E-04	U
	^{238}Pu	4.8E-06 ± 9.2E-06	U
	$^{239/240}$Pu	-4.8E-06 ± 5.0E-06	U
	^{103}Ru	1.2E-05 ± 6.2E-05	U
	^{106}Ru	-4.3E-05 ± 4.3E-04	U
	^{125}Sb	-9.8E-05 ± 1.4E-04	U
	^{113}Sn	3.2E-05 ± 6.4E-05	U
	^{90}Sr	1.5E-05 ± 8.2E-05	U
	^{234}U	1.2E-05 ± 7.9E-06	
	^{235}U	3.5E-06 ± 3.7E-06	
	^{238}U	1.5E-05 ± 8.9E-06	
	^{65}Zn	-6.0E-05 ± 1.8E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N977 (200-East)	^{144}Ce	-2.7E-04 ± 7.6E-04	U
Composite Period	^{60}Co	-2.5E-05 ± 1.0E-04	U
01/06/03 to 06/23/03	^{134}Cs	-1.6E-05 ± 8.4E-05	U
	^{137}Cs	-2.2E-05 ± 8.0E-05	U
	^{152}Eu	1.8E-04 ± 2.0E-04	U
	^{154}Eu	9.7E-06 ± 9.7E-05	U
	^{155}Eu	1.7E-04 ± 1.9E-04	U
	^{238}Pu	-2.5E-06 ± 1.2E-05	U
	$^{239/240}$Pu	4.1E-06 ± 4.6E-06	U
	^{103}Ru	-6.2E-07 ± 6.2E-06	U
	^{106}Ru	-2.0E-05 ± 2.0E-04	U
	^{125}Sb	1.2E-04 ± 1.8E-04	U
	^{113}Sn	-1.9E-05 ± 8.9E-05	U
	^{90}Sr	-1.8E-04 ± 1.9E-04	U
	^{234}U	5.9E-06 ± 5.5E-06	U
	^{235}U	1.6E-06 ± 3.3E-06	U
	^{238}U	5.9E-06 ± 5.5E-06	U
	^{65}Zn	-1.0E-04 ± 2.0E-04	U
N978 (200-East)	^{144}Ce	3.4E-04 ± 7.1E-04	U
Composite Period	^{60}Co	1.5E-06 ± 1.5E-05	U
01/06/03 to 06/23/03	^{134}Cs	-4.3E-05 ± 9.1E-05	U
	^{137}Cs	-4.9E-06 ± 4.9E-05	U
	^{152}Eu	4.3E-05 ± 1.8E-04	U
	^{154}Eu	2.5E-05 ± 2.5E-04	U
	^{155}Eu	1.4E-04 ± 1.9E-04	U
	^{238}Pu	6.1E-06 ± 1.4E-05	U
	$^{239/240}$Pu	1.8E-05 ± 1.1E-05	
	^{103}Ru	1.9E-05 ± 8.2E-05	U
	^{106}Ru	-2.8E-04 ± 7.6E-04	U
	^{125}Sb	2.2E-05 ± 1.7E-04	U
	^{113}Sn	-3.2E-05 ± 8.7E-05	U
	^{90}Sr	7.5E-05 ± 9.6E-05	U
	^{234}U	1.3E-05 ± 7.5E-06	
	^{235}U	3.8E-06 ± 4.6E-06	U
	^{238}U	1.0E-05 ± 6.7E-06	
	^{65}Zn	2.3E-05 ± 2.1E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N978 (200-East)	^{144}Ce	1.3E-05 ± 1.3E-04	U
Composite Period	^{60}Co	4.5E-05 ± 9.4E-05	U
06/23/03 to 12/23/03	^{134}Cs	-5.7E-05 ± 9.2E-05	U
	^{137}Cs	1.3E-05 ± 7.8E-05	U
	^{152}Eu	-8.7E-05 ± 2.1E-04	U
	^{154}Eu	8.9E-05 ± 2.8E-04	U
	^{155}Eu	-6.8E-05 ± 1.7E-04	U
	^{238}Pu	-2.4E-06 ± 1.0E-05	U
	$^{239/240}$Pu	2.4E-06 ± 4.8E-06	U
	^{103}Ru	1.0E-05 ± 7.8E-05	U
	^{106}Ru	-6.0E-04 ± 7.0E-04	U
	^{125}Sb	-4.6E-05 ± 1.7E-04	U
	^{113}Sn	3.3E-05 ± 8.2E-05	U
	^{90}Sr	7.5E-06 ± 7.5E-05	
	^{234}U	1.4E-05 ± 8.9E-06	
	^{235}U	5.1E-06 ± 5.2E-06	U
	^{238}U	1.9E-05 ± 1.1E-05	
	^{65}Zn	6.0E-05 ± 2.2E-04	U
N984 (200-East)	^{144}Ce	-1.8E-04 ± 7.5E-04	U
Composite Period	^{60}Co	-8.8E-05 ± 9.1E-05	U
06/23/03 to 12/22/03	^{134}Cs	-1.7E-05 ± 6.9E-05	U
	^{137}Cs	8.5E-05 ± 8.3E-05	U
	^{152}Eu	-2.3E-04 ± 2.4E-04	U
	^{154}Eu	5.9E-06 ± 5.9E-05	U
	^{155}Eu	-1.2E-04 ± 2.1E-04	U
	^{238}Pu	1.8E-06 ± 9.4E-06	U
	$^{239/240}$Pu	2.2E-05 ± 1.2E-05	
	^{103}Ru	-4.6E-06 ± 4.6E-05	U
	^{106}Ru	-3.2E-04 ± 6.3E-04	U
	^{125}Sb	-5.4E-05 ± 1.5E-04	U
	^{113}Sn	-6.5E-06 ± 6.5E-05	U
	^{90}Sr	1.0E-03 ± 3.3E-04	
	^{234}U	1.3E-05 ± 8.1E-06	
	^{235}U	3.6E-06 ± 3.8E-06	
	^{238}U	1.0E-05 ± 7.2E-06	
	^{65}Zn	4.8E-05 ± 1.5E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N984 (200-East)	^{144}Ce	-2.2E-05 ± 2.2E-04	U
Composite Period	^{60}Co	6.3E-05 ± 9.4E-05	U
01/06/03 to 06/23/03	^{134}Cs	6.4E-05 ± 9.3E-05	U
	^{137}Cs	2.8E-04 ± 1.6E-04	
	^{152}Eu	1.3E-04 ± 1.9E-04	U
	^{154}Eu	-3.4E-05 ± 2.8E-04	U
	^{155}Eu	4.4E-05 ± 2.0E-04	U
	^{238}Pu	2.0E-06 ± 1.5E-05	U
	$^{239/240}$Pu	2.9E-06 ± 3.6E-06	
	^{103}Ru	-1.9E-05 ± 8.8E-05	U
	^{106}Ru	-7.1E-06 ± 7.1E-05	U
	^{125}Sb	2.5E-05 ± 2.0E-04	U
	^{113}Sn	1.2E-05 ± 8.9E-05	U
	^{90}Sr	6.5E-04 ± 2.3E-04	
	^{234}U	1.0E-05 ± 6.6E-06	
	^{235}U	8.4E-07 ± 1.7E-06	U
	^{238}U	1.2E-05 ± 7.6E-06	
	^{65}Zn	1.6E-05 ± 1.6E-04	U
N985 (200-East)	^{144}Ce	-2.7E-05 ± 2.7E-04	U
Composite Period	^{60}Co	-8.7E-05 ± 9.3E-05	U
01/06/03 to 06/23/03	^{134}Cs	-4.2E-05 ± 8.0E-05	U
	^{137}Cs	2.0E-04 ± 1.3E-04	
	^{152}Eu	-2.4E-05 ± 1.6E-04	U
	^{154}Eu	-7.5E-05 ± 2.2E-04	U
	^{155}Eu	2.0E-05 ± 1.6E-04	U
	^{238}Pu	5.3E-06 ± 1.3E-05	U
	$^{239/240}$Pu	9.2E-07 ± 9.5E-07	U
	^{103}Ru	-4.8E-05 ± 8.6E-05	U
	^{106}Ru	2.1E-04 ± 6.5E-04	U
	^{125}Sb	1.3E-04 ± 1.7E-04	U
	^{113}Sn	-1.4E-05 ± 7.8E-05	U
	^{90}Sr	3.0E-05 ± 8.9E-05	U
	^{234}U	9.2E-06 ± 7.1E-06	
	^{235}U	7.6E-07 ± 3.4E-06	U
	^{238}U	1.2E-05 ± 7.7E-06	
	^{65}Zn	1.2E-04 ± 1.9E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N985 (200-East)	^{144}Ce	5.4E-05 ± 5.4E-04	U
Composite Period	^{60}Co	-4.7E-05 ± 7.8E-05	U
06/23/03 to 12/22/03	^{134}Cs	4.0E-05 ± 6.9E-05	U
	^{137}Cs	1.3E-04 ± 9.8E-05	
	^{152}Eu	-7.4E-05 ± 1.5E-04	U
	^{154}Eu	1.0E-04 ± 2.2E-04	U
	^{155}Eu	-1.7E-05 ± 1.6E-04	U
	^{238}Pu	5.6E-06 ± 1.0E-05	U
	$^{239/240}$Pu	5.6E-06 ± 6.3E-06	U
	^{103}Ru	1.7E-05 ± 6.3E-05	U
	^{106}Ru	-1.5E-04 ± 5.2E-04	U
	^{125}Sb	-4.6E-06 ± 4.6E-05	U
	^{113}Sn	1.6E-06 ± 1.6E-05	U
	^{90}Sr	1.5E-04 ± 9.7E-05	
	^{234}U	2.4E-05 ± 1.2E-05	
	^{235}U	3.3E-06 ± 4.7E-06	U
	^{238}U	1.5E-05 ± 8.9E-06	
	^{65}Zn	-1.2E-04 ± 1.6E-04	U
N999 (200-East)	^{144}Ce	-5.5E-04 ± 8.0E-04	U
Composite Period	^{60}Co	8.8E-05 ± 7.9E-05	U
06/23/03 to 12/22/03	^{134}Cs	-2.4E-05 ± 7.1E-05	U
	^{137}Cs	8.4E-05 ± 7.5E-05	U
	^{152}Eu	1.5E-05 ± 1.5E-04	U
	^{154}Eu	-7.9E-05 ± 2.1E-04	U
	^{155}Eu	2.4E-05 ± 1.8E-04	U
	^{238}Pu	-5.9E-06 ± 1.2E-05	U
	$^{239/240}$Pu	8.5E-07 ± 8.8E-07	U
	^{103}Ru	3.7E-06 ± 3.7E-05	U
	^{106}Ru	1.2E-05 ± 1.2E-04	U
	^{125}Sb	1.7E-04 ± 1.5E-04	U
	^{113}Sn	3.7E-05 ± 7.6E-05	U
	^{90}Sr	8.5E-05 ± 9.7E-05	U
	^{234}U	1.6E-05 ± 9.3E-06	
	^{235}U	2.6E-06 ± 3.1E-06	
	^{238}U	1.5E-05 ± 9.0E-06	
	^{65}Zn	2.0E-04 ± 2.5E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N999 (200-East)	^{144}Ce	5.7E-04 ± 7.7E-04	U
Composite Period	^{60}Co	2.8E-05 ± 8.7E-05	U
01/06/03 to 06/23/03	^{134}Cs	6.1E-06 ± 6.2E-05	U
	^{137}Cs	4.5E-05 ± 8.4E-05	U
	^{152}Eu	-1.5E-04 ± 1.8E-04	U
	^{154}Eu	7.5E-05 ± 2.3E-04	U
	^{155}Eu	7.3E-05 ± 2.0E-04	U
	^{238}Pu	9.0E-07 ± 9.0E-06	U
	$^{239/240}$Pu	1.7E-06 ± 2.5E-06	U
	^{103}Ru	-6.6E-05 ± 8.6E-05	U
	^{106}Ru	-5.7E-04 ± 7.7E-04	U
	^{125}Sb	-4.8E-05 ± 2.0E-04	U
	^{113}Sn	-2.8E-05 ± 8.4E-05	U
	^{90}Sr	-2.2E-05 ± 1.1E-04	U
	^{234}U	6.4E-06 ± 6.1E-06	U
	^{235}U	7.0E-06 ± 5.8E-06	
	^{238}U	9.7E-06 ± 6.3E-06	
	^{65}Zn	1.2E-04 ± 2.0E-04	U
N155 (200-West)	^{144}Ce	-2.5E-04 ± 7.2E-04	U
Composite Period	^{60}Co	-4.7E-06 ± 4.7E-05	U
01/06/03 to 06/23/03	^{134}Cs	2.7E-05 ± 7.9E-05	U
	^{137}Cs	5.1E-04 ± 2.1E-04	
	^{152}Eu	-1.4E-04 ± 2.0E-04	U
	^{154}Eu	1.0E-04 ± 1.9E-04	U
	^{155}Eu	-1.3E-04 ± 2.1E-04	U
	^{238}Pu	-9.0E-07 ± 9.0E-06	U
	$^{239/240}$Pu	9.7E-06 ± 7.3E-06	
	^{103}Ru	-5.8E-05 ± 7.2E-05	U
	^{106}Ru	-6.2E-05 ± 6.2E-04	U
	^{125}Sb	1.1E-04 ± 1.9E-04	U
	^{113}Sn	3.1E-05 ± 8.7E-05	U
	^{90}Sr	-3.0E-05 ± 9.8E-05	U
	^{234}U	2.7E-06 ± 4.4E-06	U
	^{235}U	2.2E-06 ± 3.4E-06	U
	^{238}U	6.1E-06 ± 4.6E-06	
	^{65}Zn	-1.2E-04 ± 1.7E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N155 (200-West)	^{144}Ce	9.0E-05 ± 5.7E-04	U
Composite Period	^{60}Co	-2.8E-05 ± 7.7E-05	U
06/23/03 to 12/22/03	^{134}Cs	3.0E-05 ± 7.3E-05	U
	^{137}Cs	4.5E-04 ± 1.9E-04	
	^{152}Eu	8.7E-05 ± 1.5E-04	U
	^{154}Eu	-2.6E-05 ± 2.5E-04	U
	^{155}Eu	-1.2E-05 ± 1.2E-04	U
	^{238}Pu	-1.0E-05 ± 2.3E-05	U
	$^{239/240}Pu$	2.0E-05 ± 1.3E-05	
	^{103}Ru	-1.3E-06 ± 1.3E-05	U
	^{106}Ru	-2.0E-04 ± 5.3E-04	U
	^{125}Sb	6.6E-06 ± 6.6E-05	U
	^{113}Sn	-9.9E-06 ± 6.6E-05	U
	^{90}Sr	-1.5E-05 ± 8.7E-05	U
	^{234}U	1.3E-05 ± 8.1E-06	
	^{235}U	2.2E-06 ± 3.4E-06	U
	^{238}U	1.0E-05 ± 6.4E-06	
	^{65}Zn	1.6E-05 ± 1.6E-04	U
N161 (200-West)	^{144}Ce	6.7E-04 ± 7.2E-04	U
Composite Period	^{60}Co	5.7E-05 ± 9.8E-05	U
06/23/03 to 12/22/03	^{134}Cs	-5.3E-05 ± 9.2E-05	U
	^{137}Cs	1.6E-05 ± 8.2E-05	U
	^{152}Eu	6.7E-05 ± 2.2E-04	U
	^{154}Eu	1.1E-04 ± 2.6E-04	U
	^{155}Eu	-5.2E-05 ± 2.0E-04	U
	^{238}Pu	-4.3E-06 ± 1.6E-05	U
	$^{239/240}Pu$	6.5E-06 ± 7.4E-06	U
	^{103}Ru	-3.4E-05 ± 7.1E-05	U
	^{106}Ru	-9.0E-05 ± 6.5E-04	U
	^{125}Sb	-7.0E-05 ± 1.7E-04	U
	^{113}Sn	-5.8E-05 ± 8.3E-05	U
	^{90}Sr	-6.1E-05 ± 1.1E-04	U
	^{234}U	1.4E-05 ± 8.4E-06	
	^{235}U	8.3E-07 ± 1.7E-06	U
	^{238}U	1.1E-05 ± 7.2E-06	
	^{65}Zn	2.2E-04 ± 2.2E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N161 (200-West)	^{144}Ce	3.4E-04 ± 5.9E-04	U
Composite Period	^{60}Co	5.2E-05 ± 8.7E-05	U
01/06/03 to 06/23/03	^{134}Cs	-2.9E-06 ± 2.9E-05	U
	^{137}Cs	4.9E-05 ± 7.7E-05	U
	^{152}Eu	-3.4E-05 ± 1.6E-04	U
	^{154}Eu	1.1E-04 ± 1.9E-04	U
	^{155}Eu	4.8E-05 ± 1.5E-04	U
	^{238}Pu	-2.6E-06 ± 6.8E-06	U
	$^{239/240}Pu$	6.2E-06 ± 5.2E-06	
	^{103}Ru	-1.2E-05 ± 6.3E-05	U
	^{106}Ru	-2.7E-04 ± 6.2E-04	U
	^{125}Sb	-7.0E-05 ± 1.6E-04	U
	^{113}Sn	3.0E-05 ± 7.0E-05	U
	^{90}Sr	-1.5E-05 ± 1.4E-04	U
	^{234}U	1.7E-05 ± 9.5E-06	
	^{235}U	3.9E-06 ± 4.5E-06	U
	^{238}U	8.5E-06 ± 6.1E-06	
	^{65}Zn	-2.0E-04 ± 2.0E-04	U
N165 (200-West)	^{144}Ce	-6.4E-04 ± 7.8E-04	U
Composite Period	^{60}Co	1.6E-04 ± 9.0E-05	U
01/06/03 to 06/23/03	^{134}Cs	-3.6E-05 ± 7.5E-05	U
	^{137}Cs	1.5E-04 ± 8.8E-05	U
	^{152}Eu	1.9E-05 ± 1.8E-04	U
	^{154}Eu	-1.5E-04 ± 2.1E-04	U
	^{155}Eu	1.9E-05 ± 1.9E-04	U
	^{238}Pu	8.2E-06 ± 1.0E-05	U
	$^{239/240}Pu$	2.8E-04 ± 1.1E-04	
	^{103}Ru	1.6E-05 ± 6.9E-05	U
	^{106}Ru	4.9E-04 ± 6.4E-04	U
	^{125}Sb	-4.8E-05 ± 1.9E-04	U
	^{113}Sn	-1.0E-04 ± 1.1E-04	U
	^{90}Sr	-1.3E-04 ± 1.3E-04	U
	^{234}U	1.2E-05 ± 7.5E-06	
	^{235}U	5.1E-06 ± 4.7E-06	U
	^{238}U	6.6E-06 ± 4.8E-06	
	^{65}Zn	-1.2E-04 ± 1.5E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N165 (200-West)	^{144}Ce	3.2E-04 ± 5.3E-04	U
Composite Period	^{60}Co	3.0E-05 ± 7.4E-05	U
06/23/03 to 12/22/03	^{134}Cs	7.4E-05 ± 6.1E-05	U
	^{137}Cs	7.6E-05 ± 7.3E-05	U
	^{152}Eu	-4.6E-05 ± 1.4E-04	U
	^{154}Eu	-1.4E-04 ± 2.2E-04	U
	^{155}Eu	-4.7E-05 ± 1.4E-04	U
	^{238}Pu	-1.1E-06 ± 1.1E-05	U
	$^{239/240}Pu$	5.0E-04 ± 1.9E-04	
	^{103}Ru	3.1E-05 ± 5.6E-05	U
	^{106}Ru	-5.9E-04 ± 6.2E-04	U
	^{125}Sb	-1.0E-05 ± 1.1E-04	U
	^{113}Sn	-9.2E-07 ± 9.2E-06	U
	^{90}Sr	-5.7E-05 ± 8.9E-05	U
	^{234}U	1.2E-05 ± 7.3E-06	
	^{235}U	2.1E-06 ± 3.9E-06	U
	^{238}U	1.6E-05 ± 8.9E-06	
	^{65}Zn	4.5E-06 ± 4.5E-05	U
N168 (200-West)	^{144}Ce	-7.2E-04 ± 8.0E-04	U
Composite Period	^{60}Co	4.4E-06 ± 4.4E-05	U
06/23/03 to 12/22/03	^{134}Cs	-1.5E-05 ± 7.3E-05	U
	^{137}Cs	1.9E-05 ± 7.2E-05	U
	^{152}Eu	-7.9E-05 ± 2.0E-04	U
	^{154}Eu	9.9E-06 ± 9.9E-05	U
	^{155}Eu	-1.1E-05 ± 1.1E-04	U
	^{238}Pu	-8.6E-06 ± 1.2E-05	U
	$^{239/240}Pu$	4.1E-06 ± 6.2E-06	U
	^{103}Ru	2.3E-05 ± 6.5E-05	U
	^{106}Ru	-2.4E-05 ± 2.4E-04	U
	^{125}Sb	9.3E-05 ± 1.7E-04	U
	^{113}Sn	1.7E-05 ± 7.8E-05	U
	^{90}Sr	8.6E-06 ± 8.6E-05	U
	^{234}U	1.9E-05 ± 1.1E-05	
	^{235}U	3.3E-06 ± 3.4E-06	
	^{238}U	1.9E-05 ± 1.0E-05	
	^{65}Zn	6.3E-05 ± 1.9E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N168 (200-West)	^{144}Ce	-3.4E-04 ± 7.2E-04	U
Composite Period	^{60}Co	-1.5E-05 ± 9.3E-05	U
01/06/03 to 06/23/03	^{134}Cs	3.8E-06 ± 3.8E-05	U
	^{137}Cs	6.4E-05 ± 9.4E-05	U
	^{152}Eu	5.1E-05 ± 1.9E-04	U
	^{154}Eu	-2.1E-05 ± 2.1E-04	U
	^{155}Eu	2.1E-04 ± 2.0E-04	U
	^{238}Pu	-3.4E-06 ± 1.4E-05	U
	$^{239/240}Pu$	5.1E-06 ± 4.6E-06	
	^{103}Ru	3.2E-05 ± 7.6E-05	U
	^{106}Ru	4.5E-04 ± 7.4E-04	U
	^{125}Sb	-1.2E-05 ± 1.2E-04	U
	^{113}Sn	1.4E-05 ± 8.3E-05	U
	^{90}Sr	-6.9E-05 ± 1.1E-04	U
	^{234}U	2.0E-05 ± 1.1E-05	
	^{235}U	5.6E-06 ± 4.7E-06	
	^{238}U	1.2E-05 ± 7.7E-06	
	^{65}Zn	-1.0E-04 ± 2.2E-04	U
N200 (200-West)	^{144}Ce	-2.1E-04 ± 8.5E-04	U
Composite Period	^{60}Co	-2.8E-05 ± 1.2E-04	U
02/25/03 to 06/24/03	^{134}Cs	-1.2E-04 ± 1.2E-04	U
	^{137}Cs	8.2E-05 ± 1.1E-04	U
	^{152}Eu	1.8E-04 ± 2.7E-04	U
	^{154}Eu	2.3E-04 ± 3.0E-04	U
	^{155}Eu	-1.8E-04 ± 2.5E-04	U
	^{238}Pu	1.3E-05 ± 2.6E-05	U
	$^{239/240}Pu$	1.5E-06 ± 3.1E-06	U
	^{103}Ru	4.8E-05 ± 9.4E-05	U
	^{106}Ru	2.7E-04 ± 9.5E-04	U
	^{125}Sb	-1.1E-05 ± 1.1E-04	U
	^{113}Sn	-3.6E-05 ± 1.2E-04	U
	^{90}Sr	-1.9E-04 ± 1.9E-04	U
	^{234}U	9.6E-06 ± 7.2E-06	
	^{235}U	5.9E-06 ± 5.6E-06	
	^{238}U	5.4E-06 ± 6.6E-06	U
	^{65}Zn	-2.8E-04 ± 3.0E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N200 (200-West)	^{144}Ce	1.9E-04 ± 6.9E-04	U
Composite Period	^{60}Co	7.3E-05 ± 9.1E-05	U
06/24/03 to 12/22/03	^{134}Cs	-1.6E-05 ± 9.3E-05	U
	^{137}Cs	2.0E-05 ± 8.9E-05	U
	^{152}Eu	-3.4E-05 ± 1.8E-04	U
	^{154}Eu	5.4E-05 ± 2.6E-04	U
	^{155}Eu	-1.2E-04 ± 2.0E-04	U
	^{238}Pu	1.6E-06 ± 1.1E-05	U
	$^{239/240}Pu$	4.0E-06 ± 3.9E-06	
	^{103}Ru	4.3E-05 ± 7.3E-05	U
	^{106}Ru	-2.6E-04 ± 6.9E-04	U
	^{125}Sb	-1.1E-04 ± 1.8E-04	U
	^{113}Sn	2.2E-05 ± 7.9E-05	U
	^{90}Sr	-7.4E-05 ± 1.2E-04	U
	^{234}U	1.6E-05 ± 9.4E-06	
	^{235}U	8.2E-07 ± 1.6E-06	U
	^{238}U	1.8E-05 ± 9.8E-06	
	^{65}Zn	2.4E-05 ± 1.9E-04	U
N304 (200-West)	^{144}Ce	5.3E-05 ± 5.3E-04	U
Composite Period	^{60}Co	-3.0E-05 ± 7.5E-05	U
06/23/03 to 12/22/03	^{134}Cs	4.7E-06 ± 4.7E-05	U
	^{137}Cs	3.1E-05 ± 6.5E-05	U
	^{152}Eu	1.3E-04 ± 1.5E-04	U
	^{154}Eu	-9.2E-05 ± 2.6E-04	U
	^{155}Eu	4.4E-05 ± 1.5E-04	U
	^{238}Pu	-2.6E-06 ± 1.2E-05	U
	$^{239/240}Pu$	6.9E-06 ± 6.0E-06	
	^{103}Ru	-2.9E-05 ± 5.7E-05	U
	^{106}Ru	4.6E-04 ± 6.0E-04	U
	^{125}Sb	7.3E-05 ± 1.3E-04	U
	^{113}Sn	2.7E-06 ± 2.7E-05	U
	^{90}Sr	-1.3E-04 ± 1.4E-04	U
	^{234}U	1.3E-05 ± 8.0E-06	
	^{235}U	1.6E-06 ± 2.3E-06	U
	^{238}U	1.7E-05 ± 9.4E-06	
	^{65}Zn	6.8E-05 ± 1.8E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N304 (200-West)	^{144}Ce	-1.4E-04 ± 7.6E-04	U
Composite Period	^{60}Co	-1.5E-05 ± 7.0E-05	U
01/06/03 to 06/23/03	^{134}Cs	1.9E-05 ± 7.8E-05	U
	^{137}Cs	-6.4E-06 ± 6.4E-05	U
	^{152}Eu	1.3E-04 ± 2.1E-04	U
	^{154}Eu	-1.6E-05 ± 1.6E-04	U
	^{155}Eu	-6.6E-05 ± 2.1E-04	U
	^{238}Pu	-1.1E-06 ± 1.1E-05	U
	$^{239/240}Pu$	7.0E-06 ± 6.3E-06	
	^{103}Ru	-1.0E-05 ± 7.3E-05	U
	^{106}Ru	-4.7E-04 ± 6.7E-04	U
	^{125}Sb	1.9E-05 ± 1.9E-04	U
	^{113}Sn	-6.3E-06 ± 6.3E-05	U
	^{90}Sr	-2.3E-05 ± 9.6E-05	U
	^{234}U	2.7E-05 ± 1.8E-05	
	^{235}U	1.3E-05 ± 1.5E-05	U
	^{238}U	1.5E-05 ± 1.3E-05	
	^{65}Zn	-1.5E-06 ± 1.5E-05	U
N433 (200-West)	^{144}Ce	5.8E-04 ± 7.2E-04	U
Composite Period	^{60}Co	6.6E-06 ± 6.6E-05	U
01/06/03 to 06/23/03	^{134}Cs	-1.6E-05 ± 9.2E-05	U
	^{137}Cs	7.1E-05 ± 8.8E-05	U
	^{152}Eu	-5.2E-06 ± 5.2E-05	U
	^{154}Eu	-8.4E-06 ± 8.4E-05	U
	^{155}Eu	1.2E-04 ± 1.9E-04	U
	^{238}Pu	-2.0E-05 ± 2.1E-05	U
	$^{239/240}Pu$	2.3E-04 ± 9.4E-05	
	^{103}Ru	4.8E-05 ± 7.6E-05	U
	^{106}Ru	-3.4E-04 ± 9.0E-04	U
	^{125}Sb	3.2E-05 ± 1.7E-04	U
	^{113}Sn	1.8E-05 ± 8.5E-05	U
	^{90}Sr	-1.3E-04 ± 1.4E-04	U
	^{234}U	2.2E-05 ± 1.1E-05	
	^{235}U	5.0E-06 ± 4.5E-06	
	^{238}U	1.9E-05 ± 1.0E-05	
	^{65}Zn	-1.3E-04 ± 2.0E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N433 (200-West)	^{144}Ce	4.1E-04 ± 8.7E-04	U
Composite Period	^{60}Co	3.1E-06 ± 3.1E-05	U
06/23/03 to 12/22/03	^{134}Cs	2.3E-05 ± 8.3E-05	U
	^{137}Cs	4.6E-05 ± 7.5E-05	U
	^{152}Eu	-3.7E-05 ± 2.3E-04	U
	^{154}Eu	-2.1E-04 ± 3.1E-04	U
	^{155}Eu	-6.2E-05 ± 2.3E-04	U
	^{238}Pu	-3.9E-06 ± 1.5E-05	U
	$^{239/240}Pu$	2.5E-05 ± 1.4E-05	
	^{103}Ru	-1.1E-05 ± 7.6E-05	U
	^{106}Ru	-1.3E-04 ± 6.5E-04	U
	^{125}Sb	-1.5E-04 ± 1.9E-04	U
	^{113}Sn	-3.4E-05 ± 8.6E-05	U
	^{90}Sr	-4.9E-05 ± 1.0E-04	U
	^{234}U	2.1E-05 ± 1.2E-05	
	^{235}U	3.6E-06 ± 4.4E-06	U
	^{238}U	2.7E-05 ± 1.4E-05	
	^{65}Zn	3.0E-04 ± 2.3E-04	U
N441 (200-West)	^{144}Ce	9.8E-04 ± 9.5E-04	U
Composite Period	^{60}Co	-4.7E-05 ± 8.5E-05	U
06/23/03 to 12/22/03	^{134}Cs	-3.8E-05 ± 9.0E-05	U
	^{137}Cs	1.0E-04 ± 8.2E-05	U
	^{152}Eu	9.0E-05 ± 1.6E-04	U
	^{154}Eu	1.6E-04 ± 2.5E-04	U
	^{155}Eu	2.7E-05 ± 1.6E-04	U
	^{238}Pu	5.3E-06 ± 1.3E-05	U
	$^{239/240}Pu$	1.9E-05 ± 1.0E-05	
	^{103}Ru	4.6E-05 ± 6.4E-05	U
	^{106}Ru	-5.3E-04 ± 7.6E-04	U
	^{125}Sb	-7.0E-05 ± 1.6E-04	U
	^{113}Sn	2.3E-05 ± 7.6E-05	U
	^{90}Sr	1.4E-04 ± 1.1E-04	
	^{234}U	2.4E-05 ± 1.3E-05	
	^{235}U	4.8E-06 ± 4.3E-06	
	^{238}U	1.6E-05 ± 9.2E-06	
	^{65}Zn	7.3E-05 ± 1.7E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N441 (200-West)	^{144}Ce	-1.7E-04 ± 5.5E-04	U
Composite Period	^{60}Co	-1.4E-05 ± 7.4E-05	U
01/06/03 to 06/23/03	^{134}Cs	3.5E-05 ± 7.8E-05	U
	^{137}Cs	1.2E-04 ± 8.3E-05	U
	^{152}Eu	-9.4E-05 ± 1.6E-04	U
	^{154}Eu	2.6E-05 ± 2.1E-04	U
	^{155}Eu	-1.8E-05 ± 1.4E-04	U
	^{238}Pu	5.4E-06 ± 1.5E-05	U
	$^{239/240}Pu$	4.5E-06 ± 6.4E-06	U
	^{103}Ru	-2.9E-05 ± 5.9E-05	U
	^{106}Ru	-3.5E-04 ± 6.1E-04	U
	^{125}Sb	-2.3E-06 ± 2.3E-05	U
	^{113}Sn	-2.1E-06 ± 2.1E-05	U
	^{90}Sr	-7.5E-05 ± 1.1E-04	U
	^{234}U	1.4E-05 ± 7.9E-06	
	^{235}U	3.8E-06 ± 3.7E-06	
	^{238}U	9.0E-06 ± 6.0E-06	
	^{65}Zn	-1.4E-04 ± 1.5E-04	U
N442 (200-West)	^{144}Ce	-2.6E-05 ± 2.6E-04	U
Composite Period	^{60}Co	2.9E-06 ± 2.9E-05	U
01/06/03 to 06/23/03	^{134}Cs	-1.4E-05 ± 7.7E-05	U
	^{137}Cs	1.5E-04 ± 9.1E-05	U
	^{152}Eu	-3.3E-05 ± 1.8E-04	U
	^{154}Eu	-1.8E-05 ± 1.8E-04	U
	^{155}Eu	-2.4E-04 ± 2.5E-04	U
	^{238}Pu	1.1E-06 ± 1.1E-06	U
	$^{239/240}Pu$	5.4E-06 ± 6.7E-06	U
	^{103}Ru	2.8E-06 ± 2.8E-05	U
	^{106}Ru	-8.3E-04 ± 8.6E-04	U
	^{125}Sb	8.2E-05 ± 1.8E-04	U
	^{113}Sn	-3.4E-05 ± 7.6E-05	U
	^{90}Sr	6.8E-05 ± 1.0E-04	U
	^{234}U	4.9E-06 ± 4.1E-06	
	^{235}U	1.5E-06 ± 2.2E-06	U
	^{238}U	7.5E-06 ± 5.3E-06	
	^{65}Zn	-1.2E-04 ± 1.8E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N442 (200-West)	^{144}Ce	7.3E-05 ± 5.1E-04	U
Composite Period	^{60}Co	9.7E-05 ± 8.5E-05	U
06/23/03 to 12/22/03	^{134}Cs	3.7E-05 ± 7.1E-05	U
	^{137}Cs	8.3E-05 ± 6.5E-05	U
	^{152}Eu	-7.0E-06 ± 7.0E-05	U
	^{154}Eu	2.6E-04 ± 2.2E-04	U
	^{155}Eu	4.7E-05 ± 1.4E-04	U
	^{238}Pu	9.2E-06 ± 1.3E-05	U
	$^{239/240}$Pu	1.1E-04 ± 4.6E-05	
	^{103}Ru	-3.8E-05 ± 5.3E-05	U
	^{106}Ru	5.7E-05 ± 5.4E-04	U
	^{125}Sb	3.2E-04 ± 2.6E-04	
	^{113}Sn	1.4E-05 ± 6.0E-05	U
	^{90}Sr	4.9E-05 ± 1.0E-04	U
	^{234}U	1.2E-05 ± 9.6E-06	U
	^{235}U	-2.7E-06 ± 5.4E-06	U
	^{238}U	1.1E-05 ± 7.6E-06	
	^{65}Zn	2.9E-05 ± 1.5E-04	U
N449 (200-West)	^{144}Ce	3.5E-04 ± 8.3E-04	U
Composite Period	^{60}Co	1.6E-05 ± 1.3E-04	U
06/23/03 to 12/22/03	^{134}Cs	2.0E-05 ± 8.9E-05	U
	^{137}Cs	7.6E-05 ± 8.0E-05	U
	^{152}Eu	1.7E-04 ± 2.0E-04	U
	^{154}Eu	-5.3E-05 ± 2.8E-04	U
	^{155}Eu	-4.3E-05 ± 2.1E-04	U
	^{238}Pu	2.1E-05 ± 2.0E-05	U
	$^{239/240}$Pu	8.7E-06 ± 7.2E-06	
	^{103}Ru	-6.7E-05 ± 7.8E-05	U
	^{106}Ru	4.5E-04 ± 7.7E-04	U
	^{125}Sb	5.2E-05 ± 1.8E-04	U
	^{113}Sn	-1.5E-05 ± 9.2E-05	U
	^{90}Sr	-2.4E-04 ± 2.5E-04	U
	^{234}U	1.5E-05 ± 1.0E-05	
	^{235}U	1.0E-06 ± 5.4E-06	U
	^{238}U	1.5E-05 ± 9.4E-06	
	^{65}Zn	-1.5E-04 ± 2.1E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N449 (200-West)	^{144}Ce	-1.0E-03 ± 1.1E-03	U
Composite Period	^{60}Co	9.7E-06 ± 9.7E-05	U
01/06/03 to 06/23/03	^{134}Cs	9.0E-05 ± 8.4E-05	U
	^{137}Cs	-3.4E-05 ± 9.2E-05	U
	^{152}Eu	1.3E-04 ± 2.0E-04	U
	^{154}Eu	5.0E-05 ± 2.6E-04	U
	^{155}Eu	7.1E-05 ± 1.9E-04	U
	^{238}Pu	-1.3E-05 ± 1.6E-05	U
	$^{239/240}$Pu	3.5E-06 ± 4.3E-06	
	^{103}Ru	-4.1E-05 ± 7.3E-05	U
	^{106}Ru	-2.8E-04 ± 7.6E-04	U
	^{125}Sb	7.7E-05 ± 1.7E-04	U
	^{113}Sn	4.7E-05 ± 9.1E-05	U
	^{90}Sr	-4.8E-05 ± 1.0E-04	U
	^{234}U	1.4E-05 ± 8.5E-06	
	^{235}U	3.4E-06 ± 4.2E-06	U
	^{238}U	9.5E-06 ± 7.2E-06	
	^{65}Zn	-9.9E-05 ± 2.5E-04	U
N456 (200-West)	^{144}Ce	-6.6E-05 ± 6.6E-04	U
Composite Period	^{60}Co	-3.5E-05 ± 9.4E-05	U
01/06/03 to 06/23/03	^{134}Cs	-7.1E-05 ± 1.0E-04	U
	^{137}Cs	1.1E-04 ± 9.4E-05	U
	^{152}Eu	6.5E-05 ± 1.8E-04	U
	^{154}Eu	5.2E-05 ± 2.3E-04	U
	^{155}Eu	1.1E-06 ± 1.1E-05	U
	^{238}Pu	8.5E-06 ± 1.8E-05	U
	$^{239/240}$Pu	6.3E-06 ± 6.4E-06	U
	^{103}Ru	-8.9E-06 ± 8.5E-05	U
	^{106}Ru	-6.0E-04 ± 8.5E-04	U
	^{125}Sb	-8.6E-05 ± 1.8E-04	U
	^{113}Sn	-1.0E-06 ± 1.0E-05	U
	^{90}Sr	-6.9E-05 ± 1.0E-04	U
	^{234}U	1.3E-05 ± 8.1E-06	
	^{235}U	4.0E-06 ± 4.5E-06	U
	^{238}U	1.4E-05 ± 8.4E-06	
	^{65}Zn	-9.5E-05 ± 2.1E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N456 (200-West)	^{144}Ce	3.3E-04 ± 6.1E-04	U
Composite Period	^{60}Co	1.3E-05 ± 7.8E-05	U
06/23/03 to 12/22/03	^{134}Cs	-3.1E-05 ± 6.1E-05	U
	^{137}Cs	5.5E-05 ± 6.6E-05	U
	^{152}Eu	5.8E-05 ± 1.4E-04	U
	^{154}Eu	-3.6E-05 ± 2.2E-04	U
	^{155}Eu	1.1E-04 ± 1.6E-04	U
	^{238}Pu	4.0E-06 ± 1.5E-05	U
	$^{239/240}Pu$	2.0E-06 ± 5.0E-06	U
	^{103}Ru	1.2E-06 ± 1.2E-05	U
	^{106}Ru	-1.8E-04 ± 5.0E-04	U
	^{125}Sb	3.8E-05 ± 1.4E-04	U
	^{113}Sn	-2.6E-05 ± 6.5E-05	U
	^{90}Sr	-1.1E-04 ± 1.2E-04	U
	^{234}U	1.7E-05 ± 1.0E-05	
	^{235}U	1.8E-06 ± 2.5E-06	U
	^{238}U	1.8E-05 ± 1.1E-05	
	^{65}Zn	1.3E-04 ± 1.7E-04	U
N457 (200-West)	^{144}Ce	-6.8E-05 ± 6.1E-04	U
Composite Period	^{60}Co	-1.7E-05 ± 7.9E-05	U
06/23/03 to 12/22/03	^{134}Cs	4.8E-05 ± 6.9E-05	U
	^{137}Cs	9.3E-05 ± 7.1E-05	U
	^{152}Eu	3.0E-06 ± 3.0E-05	U
	^{154}Eu	-3.6E-05 ± 2.5E-04	U
	^{155}Eu	-5.6E-05 ± 1.6E-04	U
	^{238}Pu	3.7E-06 ± 5.3E-06	U
	$^{239/240}Pu$	2.8E-06 ± 3.4E-06	
	^{103}Ru	-1.3E-05 ± 6.2E-05	U
	^{106}Ru	1.2E-04 ± 5.6E-04	U
	^{125}Sb	-2.4E-06 ± 2.4E-05	U
	^{113}Sn	3.0E-05 ± 6.7E-05	U
	^{90}Sr	-1.4E-05 ± 9.4E-05	U
	^{234}U	1.3E-05 ± 8.0E-06	
	^{235}U	2.2E-06 ± 2.7E-06	
	^{238}U	1.5E-05 ± 8.6E-06	
	^{65}Zn	1.3E-04 ± 1.8E-04	U
N457 (200-West)	^{144}Ce	-3.8E-04 ± 7.8E-04	U
Composite Period	^{60}Co	-4.1E-05 ± 7.8E-05	U
01/06/03 to 06/23/03	^{134}Cs	-7.1E-05 ± 8.1E-05	U
	^{137}Cs	7.9E-05 ± 7.9E-05	U
	^{152}Eu	-1.9E-05 ± 1.9E-04	U
	^{154}Eu	-4.0E-05 ± 2.1E-04	U
	^{155}Eu	-8.4E-05 ± 2.1E-04	U
	^{238}Pu	8.5E-06 ± 1.8E-05	U
	$^{239/240}Pu$	7.2E-06 ± 6.8E-06	U
	^{103}Ru	-6.7E-05 ± 8.4E-05	U
	^{106}Ru	-1.4E-04 ± 7.0E-04	U
	^{125}Sb	-7.4E-05 ± 1.9E-04	U
	^{113}Sn	3.9E-05 ± 8.6E-05	U
	^{90}Sr	7.7E-06 ± 7.7E-05	U
	^{234}U	7.2E-06 ± 5.7E-06	
	^{235}U	3.9E-06 ± 3.8E-06	
	^{238}U	5.7E-06 ± 4.6E-06	
	^{65}Zn	-1.5E-04 ± 1.7E-04	U
N956 (200-West)	^{144}Ce	-6.0E-04 ± 7.9E-04	U
Composite Period	^{60}Co	2.9E-05 ± 9.9E-05	U
01/06/03 to 06/23/03	^{134}Cs	2.4E-05 ± 8.5E-05	U
	^{137}Cs	4.2E-04 ± 1.9E-04	
	^{152}Eu	-1.1E-04 ± 1.9E-04	U
	^{154}Eu	-7.5E-06 ± 7.5E-05	U
	^{155}Eu	-2.4E-05 ± 1.9E-04	U
	^{238}Pu	3.3E-06 ± 1.4E-05	U
	$^{239/240}Pu$	6.7E-06 ± 5.8E-06	
	^{103}Ru	6.3E-06 ± 6.3E-05	U
	^{106}Ru	-8.6E-04 ± 8.9E-04	U
	^{125}Sb	-5.3E-05 ± 1.8E-04	U
	^{113}Sn	5.9E-05 ± 9.6E-05	U
	^{90}Sr	-1.1E-04 ± 1.1E-04	U
	^{234}U	2.0E-05 ± 1.1E-05	
	^{235}U	7.3E-07 ± 7.3E-06	U
	^{238}U	1.2E-05 ± 7.5E-06	
	^{65}Zn	1.5E-05 ± 1.5E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N956 (200-West)	^{144}Ce	-3.7E-04 ± 5.7E-04	U
Composite Period	^{60}Co	3.8E-05 ± 7.7E-05	U
06/23/03 to 12/22/03	^{134}Cs	5.1E-06 ± 5.1E-05	U
	^{137}Cs	2.3E-04 ± 1.4E-04	
	^{152}Eu	3.3E-05 ± 1.5E-04	U
	^{154}Eu	2.1E-04 ± 2.4E-04	U
	^{155}Eu	-5.0E-05 ± 1.5E-04	U
	^{238}Pu	8.1E-06 ± 1.1E-05	U
	$^{239/240}Pu$	4.6E-06 ± 5.3E-06	U
	^{103}Ru	4.0E-05 ± 6.8E-05	U
	^{106}Ru	-1.8E-04 ± 5.5E-04	U
	^{125}Sb	-7.7E-05 ± 1.5E-04	U
	^{113}Sn	2.3E-05 ± 6.7E-05	U
	^{90}Sr	-7.4E-06 ± 7.4E-05	U
	^{234}U	1.7E-05 ± 9.9E-06	
	^{235}U	4.6E-06 ± 4.1E-06	
	^{238}U	2.2E-05 ± 1.2E-05	
	^{65}Zn	1.5E-04 ± 1.9E-04	U
N963 (200-West)	^{144}Ce	8.1E-05 ± 5.8E-04	U
Composite Period	^{60}Co	8.8E-05 ± 8.9E-05	U
06/23/03 to 12/22/03	^{134}Cs	-4.0E-05 ± 7.7E-05	U
	^{137}Cs	2.4E-05 ± 6.6E-05	U
	^{152}Eu	-2.1E-05 ± 1.4E-04	U
	^{154}Eu	-8.6E-05 ± 2.1E-04	U
	^{155}Eu	1.3E-05 ± 1.3E-04	U
	^{238}Pu	8.8E-07 ± 5.0E-07	U
	$^{239/240}Pu$	6.4E-05 ± 2.8E-05	
	^{103}Ru	-2.6E-05 ± 6.3E-05	U
	^{106}Ru	3.2E-04 ± 5.6E-04	U
	^{125}Sb	3.9E-05 ± 1.4E-04	U
	^{113}Sn	8.8E-06 ± 6.8E-05	U
	^{90}Sr	-1.2E-04 ± 1.2E-04	U
	^{234}U	1.2E-05 ± 7.9E-06	
	^{235}U	1.6E-06 ± 2.3E-06	U
	^{238}U	1.1E-05 ± 7.0E-06	
	^{65}Zn	-4.9E-07 ± 4.9E-06	U
N963 (200-West)	^{144}Ce	-1.1E-05 ± 1.1E-04	U
Composite Period	^{60}Co	6.2E-05 ± 9.2E-05	U
01/06/03 to 06/23/03	^{134}Cs	1.3E-05 ± 8.2E-05	U
	^{137}Cs	5.9E-05 ± 7.9E-05	U
	^{152}Eu	-7.6E-06 ± 7.6E-05	U
	^{154}Eu	-1.9E-05 ± 1.9E-04	U
	^{155}Eu	3.1E-05 ± 1.9E-04	U
	^{238}Pu	8.4E-07 ± 8.7E-07	U
	$^{239/240}Pu$	1.6E-05 ± 9.6E-06	
	^{103}Ru	4.6E-05 ± 7.7E-05	U
	^{106}Ru	-4.2E-04 ± 7.6E-04	U
	^{125}Sb	9.8E-05 ± 1.8E-04	U
	^{113}Sn	-4.4E-05 ± 8.9E-05	U
	^{90}Sr	-1.5E-05 ± 7.7E-05	U
	^{234}U	1.4E-05 ± 8.0E-06	
	^{235}U	1.5E-06 ± 2.1E-06	U
	^{238}U	4.1E-06 ± 3.7E-06	
	^{65}Zn	-3.9E-05 ± 1.8E-04	U
N964 (200-West)	^{144}Ce	2.3E-04 ± 7.2E-04	U
Composite Period	^{60}Co	1.2E-05 ± 9.2E-05	U
01/06/03 to 06/23/03	^{134}Cs	5.4E-05 ± 9.6E-05	U
	^{137}Cs	1.1E-05 ± 8.5E-05	U
	^{152}Eu	3.6E-06 ± 3.6E-05	U
	^{154}Eu	1.0E-04 ± 2.9E-04	U
	^{155}Eu	9.2E-06 ± 9.2E-05	U
	^{238}Pu	1.4E-05 ± 1.3E-05	U
	$^{239/240}Pu$	1.6E-06 ± 4.0E-06	U
	^{103}Ru	3.4E-05 ± 7.6E-05	U
	^{106}Ru	2.2E-04 ± 7.8E-04	U
	^{125}Sb	1.6E-04 ± 2.0E-04	U
	^{113}Sn	-3.6E-05 ± 9.0E-05	U
	^{90}Sr	7.7E-06 ± 7.7E-05	U
	^{234}U	1.3E-05 ± 7.6E-06	
	^{235}U	1.5E-06 ± 2.2E-06	U
	^{238}U	5.6E-06 ± 4.5E-06	
	^{65}Zn	3.1E-05 ± 2.0E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N964 (200-West)	^{144}Ce	2.4E-04 ± 8.5E-04	U
Composite Period	^{60}Co	-2.2E-05 ± 7.2E-05	U
06/23/03 to 12/22/03	^{134}Cs	-4.4E-05 ± 7.2E-05	U
	^{137}Cs	-1.2E-05 ± 6.7E-05	U
	^{152}Eu	-1.4E-04 ± 1.7E-04	U
	^{154}Eu	9.4E-05 ± 2.0E-04	U
	^{155}Eu	1.6E-05 ± 1.6E-04	U
	^{238}Pu	-3.5E-06 ± 8.8E-06	U
	$^{239/240}Pu$	4.4E-06 ± 4.3E-06	
	^{103}Ru	-1.1E-07 ± 1.1E-06	U
	^{106}Ru	1.7E-04 ± 5.4E-04	U
	^{125}Sb	-2.5E-05 ± 1.6E-04	U
	^{113}Sn	4.4E-06 ± 4.4E-05	U
	^{90}Sr	7.5E-06 ± 7.5E-05	U
	^{234}U	1.2E-05 ± 7.4E-06	
	^{235}U	7.5E-07 ± 2.6E-06	U
	^{238}U	1.4E-05 ± 7.9E-06	
	^{65}Zn	-5.9E-05 ± 1.6E-04	U
N965 (200-West)	^{144}Ce	9.9E-05 ± 5.9E-04	U
Composite Period	^{60}Co	-8.7E-06 ± 6.8E-05	U
06/23/03 to 12/22/03	^{134}Cs	5.4E-05 ± 6.8E-05	U
	^{137}Cs	7.2E-06 ± 5.8E-05	U
	^{152}Eu	-1.0E-04 ± 1.5E-04	U
	^{154}Eu	-6.8E-05 ± 2.6E-04	U
	^{155}Eu	8.4E-05 ± 1.5E-04	U
	^{238}Pu	3.5E-06 ± 6.4E-06	U
	$^{239/240}Pu$	2.6E-06 ± 4.0E-06	U
	^{103}Ru	-1.9E-06 ± 1.9E-05	U
	^{106}Ru	9.5E-05 ± 4.9E-04	U
	^{125}Sb	-1.1E-05 ± 1.1E-04	U
	^{113}Sn	2.4E-04 ± 2.0E-04	U
	^{90}Sr	-2.9E-05 ± 1.1E-04	U
	^{234}U	9.4E-06 ± 6.8E-06	
	^{235}U	8.0E-07 ± 8.3E-07	U
	^{238}U	9.4E-06 ± 6.5E-06	
	^{65}Zn	1.4E-04 ± 2.2E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N965 (200-West)	^{144}Ce	-6.2E-04 ± 8.0E-04	U
Composite Period	^{60}Co	2.1E-05 ± 7.6E-05	U
01/06/03 to 06/23/03	^{134}Cs	1.9E-05 ± 8.0E-05	U
	^{137}Cs	7.7E-05 ± 8.3E-05	U
	^{152}Eu	-8.3E-06 ± 8.3E-05	U
	^{154}Eu	1.5E-04 ± 2.4E-04	U
	^{155}Eu	-2.2E-05 ± 2.2E-04	U
	^{238}Pu	1.7E-06 ± 1.2E-05	U
	$^{239/240}Pu$	1.7E-06 ± 4.3E-06	U
	^{103}Ru	5.1E-05 ± 8.0E-05	U
	^{106}Ru	-1.4E-04 ± 6.5E-04	U
	^{125}Sb	-3.7E-05 ± 1.8E-04	U
	^{113}Sn	-1.4E-05 ± 9.2E-05	U
	^{90}Sr	-7.8E-05 ± 8.8E-05	U
	^{234}U	1.2E-05 ± 7.5E-06	
	^{235}U	4.6E-06 ± 4.1E-06	
	^{238}U	6.3E-06 ± 4.8E-06	
	^{65}Zn	-1.6E-04 ± 2.0E-04	U
N966 (200-West)	^{144}Ce	-4.8E-05 ± 4.8E-04	U
Composite Period	^{60}Co	-2.8E-05 ± 9.3E-05	U
01/06/03 to 06/23/03	^{134}Cs	4.7E-05 ± 7.9E-05	U
	^{137}Cs	1.1E-07 ± 1.1E-06	U
	^{152}Eu	1.5E-04 ± 2.0E-04	U
	^{154}Eu	8.0E-05 ± 2.6E-04	U
	^{155}Eu	4.5E-05 ± 1.8E-04	U
	^{238}Pu	-5.2E-06 ± 9.5E-06	U
	$^{239/240}Pu$	2.6E-06 ± 4.0E-06	U
	^{103}Ru	3.4E-05 ± 7.7E-05	U
	^{106}Ru	3.7E-04 ± 6.7E-04	U
	^{125}Sb	-1.4E-04 ± 1.9E-04	U
	^{113}Sn	-3.9E-05 ± 8.1E-05	U
	^{90}Sr	-2.2E-05 ± 9.0E-05	U
	^{234}U	9.7E-06 ± 6.7E-06	
	^{235}U	-7.3E-07 ± 1.5E-06	U
	^{238}U	7.4E-06 ± 5.9E-06	
	^{65}Zn	-1.5E-04 ± 1.8E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N966 (200-West)	^{144}Ce	7.9E-05 ± 6.6E-04	U
Composite Period	^{60}Co	-1.2E-04 ± 1.3E-04	U
06/23/03 to 12/22/03	^{134}Cs	-4.4E-05 ± 8.6E-05	U
	^{137}Cs	-1.4E-05 ± 7.5E-05	U
	^{152}Eu	7.4E-05 ± 1.8E-04	U
	^{154}Eu	2.2E-04 ± 2.4E-04	U
	^{155}Eu	-1.2E-04 ± 1.7E-04	U
	^{238}Pu	7.8E-07 ± 2.7E-06	U
	$^{239/240}Pu$	4.0E-06 ± 4.6E-06	U
	^{103}Ru	-1.8E-05 ± 7.5E-05	U
	^{106}Ru	-2.5E-04 ± 6.0E-04	U
	^{125}Sb	-5.8E-05 ± 1.7E-04	U
	^{113}Sn	-2.1E-05 ± 7.1E-05	U
	^{90}Sr	-5.7E-05 ± 9.2E-05	U
	^{234}U	1.4E-05 ± 9.4E-06	
	^{235}U	8.5E-07 ± 8.9E-07	U
	^{238}U	1.5E-05 ± 9.0E-06	
	^{65}Zn	5.0E-05 ± 2.0E-04	U
N974 (200-West)	^{144}Ce	2.4E-04 ± 6.2E-04	U
Composite Period	^{60}Co	-3.9E-05 ± 8.1E-05	U
06/23/03 to 12/22/03	^{134}Cs	-2.2E-05 ± 7.0E-05	U
	^{137}Cs	-2.2E-05 ± 6.1E-05	U
	^{152}Eu	-6.7E-05 ± 1.6E-04	U
	^{154}Eu	2.5E-04 ± 2.4E-04	U
	^{155}Eu	-3.0E-05 ± 1.5E-04	U
	^{238}Pu	9.7E-06 ± 1.4E-05	U
	$^{239/240}Pu$	3.7E-06 ± 6.8E-06	U
	^{103}Ru	-1.8E-05 ± 5.9E-05	U
	^{106}Ru	1.7E-04 ± 4.7E-04	U
	^{125}Sb	-8.3E-05 ± 1.5E-04	U
	^{113}Sn	-4.6E-05 ± 6.6E-05	U
	^{90}Sr	-1.7E-04 ± 1.8E-04	U
	^{234}U	1.2E-05 ± 8.1E-06	
	^{235}U	7.5E-07 ± 1.5E-06	U
	^{238}U	1.3E-05 ± 8.1E-06	
	^{65}Zn	3.8E-05 ± 1.6E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N974 (200-West)	^{144}Ce	-3.5E-04 ± 7.6E-04	U
Composite Period	^{60}Co	4.7E-06 ± 4.7E-05	U
01/06/03 to 06/23/03	^{134}Cs	5.6E-06 ± 5.7E-05	U
	^{137}Cs	8.1E-05 ± 9.4E-05	U
	^{152}Eu	3.3E-05 ± 1.9E-04	U
	^{154}Eu	1.2E-05 ± 1.2E-04	U
	^{155}Eu	4.0E-05 ± 2.1E-04	U
	^{238}Pu	-4.7E-06 ± 1.2E-05	U
	$^{239/240}Pu$	3.1E-06 ± 4.4E-06	U
	^{103}Ru	-2.0E-05 ± 8.3E-05	U
	^{106}Ru	-1.8E-04 ± 7.9E-04	U
	^{125}Sb	4.4E-05 ± 2.0E-04	U
	^{113}Sn	-5.8E-05 ± 9.7E-05	U
	^{90}Sr	-1.2E-04 ± 1.2E-04	U
	^{234}U	7.7E-06 ± 5.8E-06	
	^{235}U	7.0E-07 ± 7.3E-07	U
	^{238}U	5.6E-06 ± 4.9E-06	
	^{65}Zn	2.4E-04 ± 2.3E-04	U
N975 (200-West)	^{144}Ce	3.6E-04 ± 5.6E-04	U
Composite Period	^{60}Co	-7.3E-06 ± 7.3E-05	U
01/06/03 to 06/23/03	^{134}Cs	-8.4E-06 ± 7.6E-05	U
	^{137}Cs	5.3E-05 ± 7.2E-05	U
	^{152}Eu	1.0E-04 ± 1.6E-04	U
	^{154}Eu	-8.2E-05 ± 2.7E-04	U
	^{155}Eu	-4.5E-06 ± 4.5E-05	U
	^{238}Pu	7.7E-07 ± 8.0E-07	U
	$^{239/240}Pu$	9.3E-06 ± 6.7E-06	
	^{103}Ru	-3.3E-05 ± 7.0E-05	U
	^{106}Ru	3.2E-04 ± 6.5E-04	U
	^{125}Sb	3.9E-06 ± 3.9E-05	U
	^{113}Sn	-7.2E-05 ± 8.1E-05	U
	^{90}Sr	-3.9E-05 ± 9.8E-05	U
	^{234}U	1.4E-05 ± 8.3E-06	
	^{235}U	3.1E-06 ± 3.2E-06	
	^{238}U	4.9E-06 ± 4.6E-06	U
	^{65}Zn	-1.8E-04 ± 1.9E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N975 (200-West)	^{144}Ce	3.8E-05 ± 3.8E-04	U
Composite Period	^{60}Co	-4.3E-05 ± 9.0E-05	U
06/23/03 to 12/22/03	^{134}Cs	-4.5E-05 ± 8.8E-05	U
	^{137}Cs	2.5E-05 ± 7.5E-05	U
	^{152}Eu	-6.5E-05 ± 2.1E-04	U
	^{154}Eu	4.3E-05 ± 2.6E-04	U
	^{155}Eu	6.2E-05 ± 1.8E-04	U
	^{238}Pu	8.8E-06 ± 1.3E-05	U
	$^{239/240}Pu$	3.3E-05 ± 1.7E-05	
	^{103}Ru	1.4E-05 ± 7.9E-05	U
	^{106}Ru	6.4E-04 ± 6.8E-04	U
	^{125}Sb	-2.5E-04 ± 2.6E-04	U
	^{113}Sn	-3.9E-05 ± 7.9E-05	U
	^{90}Sr	-6.6E-05 ± 1.0E-04	U
	^{234}U	1.8E-05 ± 1.0E-05	
	^{235}U	5.2E-06 ± 4.4E-06	
	^{238}U	7.4E-06 ± 6.1E-06	
	^{65}Zn	1.0E-04 ± 2.1E-04	U
N987 (200-West)	^{144}Ce	6.2E-04 ± 7.6E-04	U
Composite Period	^{60}Co	8.1E-07 ± 8.1E-06	U
06/23/03 to 12/22/03	^{134}Cs	-4.0E-05 ± 9.1E-05	U
	^{137}Cs	8.1E-05 ± 8.3E-05	U
	^{152}Eu	1.2E-04 ± 2.0E-04	U
	^{154}Eu	2.3E-04 ± 2.8E-04	U
	^{155}Eu	5.7E-05 ± 1.8E-04	U
	^{238}Pu	1.3E-06 ± 1.3E-06	U
	$^{239/240}Pu$	3.8E-06 ± 8.4E-06	U
	^{103}Ru	1.5E-05 ± 7.9E-05	U
	^{106}Ru	-1.0E-04 ± 6.6E-04	U
	^{125}Sb	-8.9E-06 ± 8.9E-05	U
	^{113}Sn	5.7E-06 ± 5.7E-05	U
	^{90}Sr	-1.1E-04 ± 1.2E-04	U
	^{234}U	1.1E-05 ± 8.5E-06	
	^{235}U	5.2E-06 ± 4.7E-06	
	^{238}U	1.4E-05 ± 8.5E-06	
	^{65}Zn	1.2E-04 ± 2.2E-04	U
N987 (200-West)	^{144}Ce	3.0E-04 ± 8.0E-04	U
Composite Period	^{60}Co	-3.9E-05 ± 9.2E-05	U
01/06/03 to 06/23/03	^{134}Cs	-3.5E-05 ± 8.0E-05	U
	^{137}Cs	5.8E-05 ± 8.1E-05	U
	^{152}Eu	-1.2E-04 ± 2.4E-04	U
	^{154}Eu	1.6E-04 ± 2.1E-04	U
	^{155}Eu	-1.7E-04 ± 2.2E-04	U
	^{238}Pu	-5.7E-06 ± 1.2E-05	U
	$^{239/240}Pu$	3.2E-06 ± 3.9E-06	U
	^{103}Ru	1.1E-05 ± 8.1E-05	U
	^{106}Ru	2.9E-04 ± 6.9E-04	U
	^{125}Sb	-7.8E-05 ± 1.8E-04	U
	^{113}Sn	-4.6E-05 ± 9.3E-05	U
	^{90}Sr	-3.1E-05 ± 9.7E-05	U
	^{234}U	9.2E-06 ± 6.5E-06	
	^{235}U	-7.6E-07 ± 3.4E-06	U
	^{238}U	7.2E-06 ± 5.7E-06	
	^{65}Zn	-7.0E-05 ± 1.8E-04	U
N994 (200-West)	^{144}Ce	3.0E-04 ± 7.7E-04	U
Composite Period	^{60}Co	-6.8E-05 ± 9.5E-05	U
01/06/03 to 06/23/03	^{134}Cs	5.5E-05 ± 5.8E-05	U
	^{137}Cs	-1.5E-05 ± 7.6E-05	U
	^{152}Eu	2.4E-05 ± 1.8E-04	U
	^{154}Eu	-2.4E-04 ± 2.6E-04	U
	^{155}Eu	2.9E-05 ± 1.9E-04	U
	^{238}Pu	-7.1E-06 ± 1.4E-05	U
	$^{239/240}Pu$	9.1E-07 ± 3.2E-06	U
	^{103}Ru	-6.1E-06 ± 6.1E-05	U
	^{106}Ru	-5.0E-04 ± 7.4E-04	U
	^{125}Sb	2.8E-04 ± 2.1E-04	U
	^{113}Sn	3.6E-05 ± 9.2E-05	U
	^{90}Sr	-3.8E-05 ± 9.6E-05	U
	^{234}U	5.2E-06 ± 4.9E-06	U
	^{235}U	4.9E-06 ± 4.5E-06	
	^{238}U	7.5E-06 ± 5.9E-06	
	^{65}Zn	-2.2E-04 ± 2.3E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N994 (200-West)	^{144}Ce	-3.2E-04 ± 6.0E-04	U
Composite Period	^{60}Co	-5.5E-05 ± 7.8E-05	U
06/23/03 to 12/22/03	^{134}Cs	-1.8E-05 ± 7.4E-05	U
	^{137}Cs	-1.6E-05 ± 6.0E-05	U
	^{152}Eu	9.2E-05 ± 1.6E-04	U
	^{154}Eu	-2.3E-04 ± 2.7E-04	U
	^{155}Eu	-1.9E-05 ± 1.5E-04	U
	^{238}Pu	-1.2E-06 ± 1.0E-05	U
	$^{239/240}$Pu	1.2E-06 ± 1.3E-06	U
	^{103}Ru	5.3E-05 ± 6.7E-05	U
	^{106}Ru	-1.8E-04 ± 5.6E-04	U
	^{125}Sb	-6.8E-05 ± 1.6E-04	U
	^{113}Sn	-1.9E-05 ± 6.7E-05	U
	^{90}Sr	-1.3E-04 ± 1.3E-04	U
	^{234}U	1.4E-05 ± 8.9E-06	
	^{235}U	1.6E-06 ± 3.2E-06	U
	^{238}U	1.5E-05 ± 8.8E-06	
	^{65}Zn	-1.4E-04 ± 1.8E-04	U
N485 (300-FF-1&2)	^{144}Ce	-9.2E-04 ± 1.1E-03	U
Composite Period	^{60}Co	3.0E-04 ± 1.3E-04	U
06/24/03 to 09/30/03	^{134}Cs	4.7E-05 ± 1.3E-04	U
	^{137}Cs	-9.9E-06 ± 9.9E-05	U
	^{152}Eu	-7.6E-05 ± 2.5E-04	U
	^{154}Eu	-1.9E-04 ± 3.9E-04	U
	^{155}Eu	-4.5E-05 ± 2.5E-04	U
	^{103}Ru	-6.0E-05 ± 1.2E-04	U
	^{106}Ru	-3.2E-04 ± 1.0E-03	U
	^{125}Sb	-2.1E-04 ± 2.6E-04	U
	^{113}Sn	-8.1E-05 ± 1.2E-04	U
	^{234}U	3.6E-05 ± 1.9E-05	
	^{235}U	4.3E-06 ± 5.2E-06	
	^{238}U	2.0E-05 ± 1.2E-05	
	^{65}Zn	4.9E-04 ± 3.9E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N485 (300-FF-1&2)	^{144}Ce	-8.0E-05 ± 8.0E-04	U
Composite Period	^{60}Co	1.3E-05 ± 8.3E-05	U
01/07/03 to 06/24/03	^{134}Cs	-5.3E-05 ± 8.6E-05	U
	^{137}Cs	8.4E-05 ± 8.7E-05	U
	^{152}Eu	-1.6E-04 ± 2.5E-04	U
	^{154}Eu	3.3E-04 ± 3.3E-04	U
	^{155}Eu	-2.1E-05 ± 2.1E-04	U
	^{103}Ru	3.4E-05 ± 8.9E-05	U
	^{106}Ru	2.2E-04 ± 6.6E-04	U
	^{125}Sb	4.0E-05 ± 1.8E-04	U
	^{113}Sn	-2.5E-05 ± 9.5E-05	U
	^{234}U	3.6E-05 ± 1.7E-05	
	^{235}U	4.1E-06 ± 4.2E-06	U
	^{238}U	3.8E-05 ± 1.8E-05	
	^{65}Zn	-2.1E-04 ± 2.2E-04	U
N486 (300-FF-1&2)	^{144}Ce	4.5E-04 ± 8.3E-04	U
Composite Period	^{60}Co	-1.4E-05 ± 7.5E-05	U
01/07/03 to 06/24/03	^{134}Cs	-7.5E-05 ± 9.0E-05	U
	^{137}Cs	3.7E-05 ± 7.1E-05	U
	^{152}Eu	-6.8E-05 ± 1.9E-04	U
	^{154}Eu	-1.0E-04 ± 2.2E-04	U
	^{155}Eu	-2.7E-04 ± 2.8E-04	U
	^{103}Ru	-2.9E-05 ± 8.6E-05	U
	^{106}Ru	6.0E-04 ± 6.7E-04	U
	^{125}Sb	1.6E-04 ± 1.8E-04	U
	^{113}Sn	-3.2E-06 ± 3.2E-05	U
	^{234}U	2.4E-05 ± 1.2E-05	
	^{235}U	-7.6E-07 ± 2.7E-06	U
	^{238}U	1.3E-05 ± 7.8E-06	
	^{65}Zn	1.1E-04 ± 1.7E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N486 (300-FF-1&2)	^{144}Ce	1.3E-03 ± 1.1E-03	U
Composite Period	^{60}Co	-1.5E-05 ± 1.4E-04	U
06/24/03 to 09/30/03	^{134}Cs	-8.2E-06 ± 8.2E-05	U
	^{137}Cs	-5.0E-05 ± 1.1E-04	U
	^{152}Eu	-1.0E-04 ± 2.7E-04	U
	^{154}Eu	-6.1E-05 ± 3.5E-04	U
	^{155}Eu	-2.2E-06 ± 2.2E-05	U
	^{103}Ru	-5.5E-07 ± 5.5E-06	U
	^{106}Ru	1.2E-03 ± 1.0E-03	U
	^{125}Sb	2.0E-04 ± 2.6E-04	U
	^{113}Sn	-3.9E-05 ± 1.4E-04	U
	^{234}U	4.4E-05 ± 2.2E-05	
	^{235}U	2.9E-06 ± 4.1E-06	U
	^{238}U	3.4E-05 ± 1.8E-05	
	^{65}Zn	3.2E-04 ± 3.6E-04	U
N487 (300-FF-1&2)	^{144}Ce	5.5E-04 ± 1.2E-03	U
Composite Period	^{60}Co	-4.0E-05 ± 1.6E-04	U
06/24/03 to 09/30/03	^{134}Cs	1.1E-04 ± 1.5E-04	U
	^{137}Cs	-1.4E-05 ± 1.3E-04	U
	^{152}Eu	-8.7E-05 ± 2.6E-04	U
	^{154}Eu	3.8E-05 ± 3.8E-04	U
	^{155}Eu	-1.1E-05 ± 1.1E-04	U
	^{103}Ru	-5.1E-06 ± 5.1E-05	U
	^{106}Ru	5.8E-04 ± 1.0E-03	U
	^{125}Sb	-2.0E-04 ± 2.9E-04	U
	^{113}Sn	-9.2E-05 ± 1.3E-04	U
	^{234}U	6.9E-05 ± 2.8E-05	
	^{235}U	7.1E-06 ± 6.7E-06	
	^{238}U	4.2E-05 ± 1.9E-05	
	^{65}Zn	-1.9E-04 ± 3.4E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N487 (300-FF-1&2)	^{144}Ce	4.3E-04 ± 8.1E-04	U
Composite Period	^{60}Co	4.3E-05 ± 9.2E-05	U
01/07/03 to 06/24/03	^{134}Cs	-2.6E-05 ± 8.5E-05	U
	^{137}Cs	2.2E-05 ± 8.1E-05	U
	^{152}Eu	1.3E-04 ± 2.0E-04	U
	^{154}Eu	1.7E-04 ± 2.6E-04	U
	^{155}Eu	-1.2E-04 ± 1.9E-04	U
	^{103}Ru	-1.1E-04 ± 1.1E-04	U
	^{106}Ru	-2.8E-04 ± 6.8E-04	U
	^{125}Sb	6.7E-05 ± 1.8E-04	U
	^{113}Sn	1.0E-04 ± 1.0E-04	U
	^{234}U	4.2E-05 ± 1.9E-05	
	^{235}U	5.0E-06 ± 4.5E-06	
	^{238}U	4.0E-05 ± 1.8E-05	
	^{65}Zn	-2.0E-05 ± 2.0E-04	U
N527 (300-FF-1&2)	^{144}Ce	-4.0E-04 ± 7.9E-04	U
Composite Period	^{60}Co	-1.9E-05 ± 9.5E-05	U
01/07/03 to 06/24/03	^{134}Cs	-4.3E-05 ± 8.7E-05	U
	^{137}Cs	6.9E-05 ± 7.9E-05	U
	^{152}Eu	-3.6E-05 ± 1.9E-04	U
	^{154}Eu	1.5E-04 ± 2.7E-04	U
	^{155}Eu	1.0E-04 ± 1.8E-04	U
	^{103}Ru	-5.8E-05 ± 9.5E-05	U
	^{106}Ru	-5.8E-06 ± 5.8E-05	U
	^{125}Sb	-6.8E-05 ± 1.8E-04	U
	^{113}Sn	5.1E-05 ± 8.6E-05	U
	^{234}U	6.9E-05 ± 3.0E-05	
	^{235}U	5.1E-06 ± 4.6E-06	
	^{238}U	5.8E-05 ± 2.5E-05	
	^{65}Zn	-4.3E-06 ± 4.3E-05	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-3. Near-Facility Air Sampling Results, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
N130 (300 TEDF) Composite Period 01/07/03 to 06/24/03	^{144}Ce	-1.6E-04 ± 8.1E-04	U
	^{60}Co	-5.5E-05 ± 7.3E-05	U
	^{134}Cs	7.5E-05 ± 8.5E-05	U
	^{137}Cs	-5.5E-06 ± 5.6E-05	U
	^{152}Eu	-1.7E-04 ± 2.1E-04	U
	^{154}Eu	2.4E-04 ± 2.6E-04	U
	^{155}Eu	-7.1E-05 ± 2.1E-04	U
	^{238}Pu	9.9E-06 ± 2.4E-05	U
	$^{239/240}$Pu	4.1E-06 ± 8.3E-06	U
	^{103}Ru	6.0E-05 ± 7.4E-05	U
	^{106}Ru	2.0E-04 ± 6.7E-04	U
	^{125}Sb	-2.7E-05 ± 1.9E-04	U
	^{113}Sn	-2.8E-05 ± 8.8E-05	U
	^{90}Sr	-2.6E-04 ± 2.7E-04	U
	^{234}U	1.5E-05 ± 8.9E-06	
	^{235}U	2.4E-06 ± 3.0E-06	
	^{238}U	6.6E-06 ± 5.5E-06	
	^{65}Zn	1.4E-05 ± 1.4E-04	U
N981 (WYE Barricade) Composite Period 01/07/03 to 06/24/03	^{144}Ce	-2.3E-04 ± 5.7E-04	U
	^{60}Co	5.2E-06 ± 5.2E-05	U
	^{134}Cs	-4.8E-05 ± 6.7E-05	U
	^{137}Cs	-1.6E-05 ± 6.7E-05	U
	^{152}Eu	-1.9E-05 ± 1.5E-04	U
	^{154}Eu	-1.2E-04 ± 2.0E-04	U
	^{155}Eu	3.9E-05 ± 1.5E-04	U
	^{238}Pu	-5.6E-06 ± 1.6E-05	U
	$^{239/240}$Pu	2.8E-06 ± 3.4E-06	
	^{103}Ru	-6.2E-05 ± 7.1E-05	U
	^{106}Ru	-1.5E-04 ± 6.2E-04	U
	^{125}Sb	7.3E-05 ± 1.5E-04	U
	^{113}Sn	1.5E-05 ± 7.8E-05	U
	^{90}Sr	1.3E-04 ± 1.1E-04	
	^{234}U	5.8E-06 ± 5.4E-06	U
	^{235}U	5.5E-06 ± 5.1E-06	U
	^{238}U	5.8E-06 ± 4.6E-06	
	^{65}Zn	-9.1E-05 ± 1.6E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N130 (300 TEDF) Composite Period 06/24/03 to 12/22/03	^{144}Ce	1.4E-04 ± 6.4E-04	U
	^{60}Co	5.8E-05 ± 8.6E-05	U
	^{134}Cs	3.9E-06 ± 3.9E-05	U
	^{137}Cs	-1.8E-05 ± 7.3E-05	U
	^{152}Eu	4.4E-05 ± 1.7E-04	U
	^{154}Eu	-8.6E-05 ± 2.5E-04	U
	^{155}Eu	-1.2E-04 ± 1.9E-04	U
	^{238}Pu	1.6E-06 ± 1.2E-05	U
	$^{239/240}$Pu	1.6E-06 ± 4.5E-06	U
	^{103}Ru	-3.3E-05 ± 6.5E-05	U
	^{106}Ru	4.6E-04 ± 6.6E-04	U
	^{125}Sb	-1.8E-06 ± 1.8E-05	U
	^{113}Sn	4.3E-05 ± 7.5E-05	U
	^{90}Sr	-7.0E-06 ± 6.5E-05	U
	^{234}U	2.5E-05 ± 1.2E-05	
	^{235}U	5.5E-06 ± 4.4E-06	
	^{238}U	1.3E-05 ± 7.6E-06	
	^{65}Zn	7.6E-05 ± 2.1E-04	U
N981 (WYE Barricade) Composite Period 06/24/03 to 12/22/03	^{144}Ce	-9.7E-05 ± 5.4E-04	U
	^{60}Co	-1.6E-05 ± 7.5E-05	U
	^{134}Cs	3.8E-05 ± 7.3E-05	U
	^{137}Cs	5.0E-05 ± 7.3E-05	U
	^{152}Eu	8.6E-06 ± 8.6E-05	U
	^{154}Eu	2.8E-04 ± 2.3E-04	U
	^{155}Eu	-1.2E-04 ± 1.4E-04	U
	^{238}Pu	1.0E-05 ± 1.6E-05	U
	$^{239/240}$Pu	3.7E-05 ± 1.9E-05	
	^{103}Ru	-6.2E-06 ± 6.2E-05	U
	^{106}Ru	-3.3E-05 ± 3.3E-04	U
	^{125}Sb	-7.5E-05 ± 1.4E-04	U
	^{113}Sn	-3.9E-05 ± 6.7E-05	U
	^{90}Sr	2.9E-05 ± 1.2E-04	U
	^{234}U	1.1E-05 ± 7.1E-06	
	^{235}U	2.6E-06 ± 3.9E-06	U
	^{238}U	6.3E-06 ± 5.5E-06	
	^{65}Zn	2.2E-04 ± 1.8E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Pacific Northwest National Laboratory Air Sampling Data, 2003 (pCi/m^3 ± total analytical uncertainty).

Sampler	Isotope	Result ± Uncertainty	RQ*
200 W SE	^{60}Co	-3.1E-04 ± 6.9E-04	U
Composite Period	^{134}Cs	-3.0E-04 ± 6.8E-04	U
12/31/02 - 04/08/03	^{137}Cs	2.2E-04 ± 4.7E-04	U
	^{152}Eu	-4.2E-04 ± 1.3E-03	U
	^{154}Eu	-4.8E-04 ± 1.8E-03	U
	^{155}Eu	3.7E-04 ± 9.3E-04	U
	^{238}Pu	-5.1E-07 ± 1.5E-06	U
	$^{239,240}Pu$	2.0E-06 ± 2.2E-06	U
	^{106}Ru	-1.8E-03 ± 5.4E-03	U
	^{125}Sb	-8.3E-04 ± 1.2E-03	U
	^{90}Sr	1.3E-04 ± 9.2E-05	U
200 W SE	^{60}Co	1.4E-04 ± 6.4E-04	U
Composite Period	^{134}Cs	2.3E-05 ± 6.7E-04	U
06/30/03 - 10/07/03	^{137}Cs	8.5E-06 ± 6.1E-04	U
	^{152}Eu	4.9E-04 ± 1.6E-03	U
	^{154}Eu	1.3E-03 ± 1.9E-03	U
	^{155}Eu	5.3E-04 ± 1.6E-03	U
	^{238}Pu	5.0E-07 ± 1.6E-06	U
	$^{239,240}Pu$	5.3E-06 ± 3.4E-06	
	^{106}Ru	4.0E-03 ± 7.7E-03	U
	^{125}Sb	-2.5E-04 ± 1.3E-03	U
	^{90}Sr	2.1E-05 ± 4.3E-05	U
	^{234}U	2.2E-05 ± 9.3E-06	
	^{235}U	-4.4E-07 ± 2.5E-06	U
	^{238}U	2.7E-05 ± 1.0E-05	
300 NE	^{60}Co	1.5E-04 ± 6.3E-04	U
Composite Period	^{134}Cs	-4.8E-05 ± 5.4E-04	U
01/08/03 - 04/02/03	^{137}Cs	9.7E-05 ± 5.2E-04	U
	^{152}Eu	9.6E-04 ± 1.3E-03	U
	^{154}Eu	8.7E-04 ± 1.4E-03	U
	^{155}Eu	-9.1E-04 ± 8.3E-04	U
	^{238}Pu	-3.3E-07 ± 1.1E-06	U
	$^{239,240}Pu$	6.2E-07 ± 1.1E-06	U
	^{106}Ru	7.1E-04 ± 5.1E-03	U
	^{125}Sb	1.1E-03 ± 1.7E-03	U
	^{90}Sr	2.5E-05 ± 5.7E-05	U
	^{234}U	4.1E-05 ± 1.7E-05	
	^{235}U	1.1E-06 ± 5.5E-06	U
	^{238}U	1.5E-05 ± 1.2E-05	

Sampler	Isotope	Result ± Uncertainty	RQ*
200 W SE	^{60}Co	-2.6E-04 ± 5.5E-04	U
Composite Period	^{134}Cs	2.5E-04 ± 3.8E-04	U
04/08/03 - 06/30/03	^{137}Cs	1.6E-04 ± 4.5E-04	U
	^{152}Eu	-1.4E-04 ± 1.1E-03	U
	^{154}Eu	-1.1E-03 ± 1.5E-03	U
	^{155}Eu	-3.6E-05 ± 6.9E-04	U
	^{238}Pu	-5.9E-07 ± 2.5E-06	U
	$^{239,240}Pu$	2.7E-06 ± 3.4E-06	U
	^{106}Ru	-7.9E-04 ± 3.9E-03	U
	^{125}Sb	4.1E-04 ± 1.1E-03	U
	^{90}Sr	-4.5E-05 ± 1.1E-04	U
	^{234}U	1.5E-05 ± 8.3E-06	
	^{235}U	-4.5E-07 ± 2.1E-06	U
	^{238}U	2.7E-05 ± 1.1E-05	
200 W SE	^{60}Co	-5.0E-04 ± 8.3E-04	U
Composite Period	^{134}Cs	3.8E-05 ± 7.7E-04	U
10/07/03 - 12/30/03	^{137}Cs	3.2E-06 ± 5.7E-04	U
	^{152}Eu	5.5E-04 ± 1.5E-03	U
	^{154}Eu	7.0E-04 ± 1.5E-03	U
	^{155}Eu	-6.8E-06 ± 9.4E-04	U
	^{238}Pu	9.0E-07 ± 2.2E-06	U
	$^{239,240}Pu$	2.0E-06 ± 3.3E-06	U
	^{106}Ru	-3.3E-04 ± 6.3E-03	U
	^{125}Sb	-5.4E-04 ± 1.5E-03	U
	^{90}Sr	8.3E-05 ± 5.5E-05	
	^{234}U	4.5E-05 ± 1.6E-05	
	^{235}U	-2.1E-07 ± 4.3E-06	U
	^{238}U	1.6E-04 ± 3.7E-05	
300 NE	^{60}Co	4.7E-04 ± 6.4E-04	U
Composite Period	^{134}Cs	1.5E-04 ± 5.7E-04	U
04/02/03 - 07/10/03	^{137}Cs	2.1E-04 ± 4.5E-04	U
	^{152}Eu	-5.8E-04 ± 1.3E-03	U
	^{154}Eu	-1.1E-03 ± 2.1E-03	U
	^{155}Eu	9.0E-04 ± 1.2E-03	U
	^{238}Pu	-8.0E-07 ± 1.1E-06	U
	$^{239,240}Pu$	-6.2E-07 ± 1.1E-06	U
	^{106}Ru	4.0E-03 ± 5.8E-03	U
	^{125}Sb	1.8E-03 ± 1.5E-03	U
	^{90}Sr	-9.1E-06 ± 5.2E-05	U
	^{234}U	2.1E-05 ± 1.5E-05	
	^{235}U	4.0E-06 ± 8.0E-06	U
	^{238}U	2.7E-05 ± 1.8E-05	

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Pacific Northwest National Laboratory Air Sampling Data, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Sampler	Isotope	Result ± Uncertainty	RQ*
300 NE	^{60}Co	7.3E-04 ± 9.5E-04	U
Composite Period	^{134}Cs	2.5E-04 ± 6.2E-04	U
07/10/03 - 09/30/03	^{137}Cs	-1.5E-04 ± 7.2E-04	U
	^{152}Eu	5.8E-04 ± 1.6E-03	U
	^{154}Eu	1.1E-03 ± 1.3E-03	U
	^{155}Eu	-6.4E-04 ± 8.8E-04	U
	^{238}Pu	5.3E-07 ± 1.0E-06	U
	$^{239,240}Pu$	1.7E-07 ± 6.0E-07	U
	^{106}Ru	-1.3E-03 ± 6.6E-03	U
	^{125}Sb	-1.4E-03 ± 1.4E-03	U
	^{90}Sr	2.6E-05 ± 2.9E-05	U
	^{234}U	6.0E-05 ± 1.8E-05	
	^{235}U	1.3E-06 ± 3.3E-06	U
	^{238}U	3.9E-05 ± 1.4E-05	
300 NE			
Sample Period			
12/26/02 - 01/22/03	^{3}H	8.0E+00 ± 1.4E+00	
02/19/03 - 03/20/03	^{3}H	7.3E+00 ± 1.5E+00	
03/20/03 - 04/15/03	^{3}H	6.0E+00 ± 1.2E+00	
04/15/03 - 05/13/03	^{3}H	7.0E+00 ± 1.3E+00	
05/13/03 - 06/12/03	^{3}H	8.2E+00 ± 1.6E+00	
06/12/03 - 07/10/03	^{3}H	1.2E+01 ± 1.2E+00	
300 TRENCH	^{60}Co	-1.2E-04 ± 7.0E-04	U
Composite Period	^{134}Cs	8.3E-04 ± 7.5E-04	U
01/08/03 - 04/02/03	^{137}Cs	2.3E-04 ± 5.6E-04	U
	^{152}Eu	-3.9E-04 ± 1.2E-03	U
	^{154}Eu	-1.1E-03 ± 2.0E-03	U
	^{155}Eu	6.0E-04 ± 1.0E-03	U
	^{106}Ru	-3.3E-03 ± 5.1E-03	U
	^{125}Sb	-5.8E-04 ± 1.5E-03	U
	^{234}U	1.5E-05 ± 1.3E-05	U
	^{235}U	4.7E-06 ± 5.1E-06	U
	^{238}U	1.9E-05 ± 1.5E-05	U
300 TRENCH	^{60}Co	1.6E-04 ± 8.6E-04	U
Composite Period	^{134}Cs	-4.5E-04 ± 6.2E-04	U
07/10/03 - 09/30/03	^{137}Cs	-2.4E-04 ± 5.9E-04	U
	^{152}Eu	1.2E-03 ± 1.8E-03	U
	^{154}Eu	1.6E-03 ± 2.9E-03	U
	^{155}Eu	-3.5E-04 ± 1.1E-03	U
	^{106}Ru	5.5E-04 ± 6.7E-03	U
	^{125}Sb	-2.4E-04 ± 1.7E-03	U
	^{234}U	6.2E-05 ± 2.0E-05	
	^{235}U	7.7E-07 ± 3.2E-06	U
	^{238}U	4.2E-05 ± 1.6E-05	

Sampler	Isotope	Result ± Uncertainty	RQ*
300 NE	^{60}Co	6.0E-04 ± 7.5E-04	U
Composite Period	^{134}Cs	7.8E-05 ± 5.3E-04	U
09/30/03 - 01/08/04	^{137}Cs	-1.9E-04 ± 5.3E-04	U
	^{152}Eu	-3.3E-04 ± 1.4E-03	U
	^{154}Eu	8.8E-05 ± 1.7E-03	U
	^{155}Eu	8.9E-04 ± 9.8E-04	U
	^{238}Pu	1.6E-07 ± 9.5E-07	U
	$^{239,240}Pu$	1.7E-06 ± 1.8E-06	U
	^{106}Ru	-2.6E-03 ± 6.4E-03	U
	^{125}Sb	-5.5E-04 ± 1.2E-03	U
	^{90}Sr	5.9E-05 ± 3.4E-05	
	^{234}U	1.2E-04 ± 3.1E-05	
	^{235}U	3.7E-06 ± 7.0E-06	U
	^{238}U	1.0E-04 ± 2.8E-05	
300 NE			
Sample Period			
07/10/03 - 08/08/03	^{3}H	8.5E+00 ± 1.7E+00	
08/08/03 - 09/03/03	^{3}H	1.2E+01 ± 2.1E+00	
09/03/03 - 09/30/03	^{3}H	9.0E+00 ± 1.1E+00	
09/30/03 - 10/29/03	^{3}H	1.4E+01 ± 2.3E+00	
10/29/03 - 11/25/03	^{3}H	3.8E+00 ± 7.4E-01	
11/25/03 - 12/23/03	^{3}H	1.1E+01 ± 1.8E+00	
300 TRENCH	^{60}Co	-2.8E-04 ± 6.9E-04	U
Composite Period	^{134}Cs	-1.9E-04 ± 6.5E-04	U
04/02/03 - 07/10/03	^{137}Cs	-1.6E-04 ± 5.0E-04	U
	^{152}Eu	-3.3E-04 ± 1.3E-03	U
	^{154}Eu	1.4E-03 ± 1.8E-03	U
	^{155}Eu	2.8E-04 ± 8.7E-04	U
	^{106}Ru	-8.7E-04 ± 5.1E-03	U
	^{125}Sb	-2.6E-04 ± 1.3E-03	U
	^{234}U	2.1E-05 ± 1.2E-05	
	^{235}U	-4.3E-07 ± 4.8E-06	U
	^{238}U	4.3E-05 ± 1.5E-05	
300 TRENCH	^{234}U	1.0E-04 ± 3.0E-05	
Composite Period	^{235}U	8.9E-05 ± 2.8E-05	
09/30/03 - 01/08/04			

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Pacific Northwest National Laboratory Air Sampling Data, 2003 (pCi/m^3 ± total analytical uncertainty). (cont)

Sampler	Isotope	Result ± Uncertainty	RQ*
300 TRENCH			
Sample Period			
12/26/02 - 01/22/03	^{3}H	3.8E+00 ± 9.1E-01	
01/22/03 - 02/19/03	^{3}H	9.7E+00 ± 1.8E+00	
02/19/03 - 03/20/03	^{3}H	5.2E+00 ± 1.1E+00	
03/20/03 - 04/15/03	^{3}H	4.7E+00 ± 1.0E+00	
04/15/03 - 05/13/03	^{3}H	7.3E+00 ± 1.4E+00	
05/13/03 - 06/12/03	^{3}H	8.0E+00 ± 1.5E+00	
300 WATER INTAKE			
Sample Period			
12/26/02 - 01/22/03	^{3}H	1.2E+01 ± 2.3E+00	
01/22/03 - 02/19/03	^{3}H	6.9E+00 ± 1.4E+00	
02/19/03 - 03/20/03	^{3}H	2.8E+00 ± 8.2E-01	
03/20/03 - 04/15/03	^{3}H	9.4E+00 ± 1.6E+00	
04/15/03 - 05/13/03	^{3}H	1.1E+01 ± 1.8E+00	
05/13/03 - 06/12/03	^{3}H	9.0E+00 ± 1.7E+00	
Yakima Barricade	^{60}Co	2.3E-04 ± 3.2E-04	U
Composite Period	^{134}Cs	-1.6E-04 ± 3.2E-04	U
01/08/03 - 04/02/03	^{137}Cs	1.8E-04 ± 3.3E-04	U
	^{152}Eu	5.7E-04 ± 6.4E-04	U
	^{154}Eu	5.1E-05 ± 1.0E-03	U
	^{155}Eu	-2.7E-05 ± 6.0E-04	U
	^{238}Pu	-4.3E-07 ± 5.6E-07	U
	$^{239,240}Pu$	7.0E-07 ± 9.0E-07	U
	^{106}Ru	-1.5E-04 ± 2.9E-03	U
	^{125}Sb	-1.3E-08 ± 8.5E-04	U
	^{90}Sr	2.5E-05 ± 2.9E-05	U
Yakima Barricade	^{60}Co	7.8E-05 ± 3.3E-04	U
Composite Period	^{134}Cs	-5.1E-05 ± 4.3E-04	U
07/01/03 - 10/03/03	^{137}Cs	-2.4E-04 ± 4.3E-04	U
	^{152}Eu	-1.1E-03 ± 1.2E-03	U
	^{154}Eu	-1.0E-03 ± 1.3E-03	U
	^{155}Eu	1.6E-05 ± 9.3E-04	U
	^{238}Pu	2.5E-08 ± 4.7E-07	U
	$^{239,240}Pu$	1.4E-07 ± 4.3E-07	U
	^{106}Ru	-1.3E-03 ± 3.9E-03	U
	^{125}Sb	-5.3E-04 ± 1.1E-03	U

Sampler	Isotope	Result ± Uncertainty	RQ*
300 TRENCH			
Sample Period			
06/12/03 - 07/10/03	^{3}H	5.5E+00 ± 7.8E-01	
07/10/03 - 08/08/03	^{3}H	8.8E+00 ± 1.7E+00	
08/08/03 - 09/03/03	^{3}H	1.0E+01 ± 1.9E+00	
09/03/03 - 09/30/03	^{3}H	6.8E+00 ± 9.2E-01	
10/28/03 - 11/25/03	^{3}H	2.5E+00 ± 6.3E-01	
11/25/03 - 12/23/03	^{3}H	3.8E+00 ± 8.5E-01	
300 WATER INTAKE			
Sample Period			
06/12/03 - 07/10/03	^{3}H	8.4E+00 ± 9.5E-01	
08/08/03 - 09/03/03	^{3}H	1.7E+01 ± 3.2E+00	
09/03/03 - 09/30/03	^{3}H	5.5E+00 ± 8.5E-01	
09/30/03 - 10/29/03	^{3}H	1.0E+01 ± 1.9E+00	
10/29/03 - 11/25/03	^{3}H	5.0E+00 ± 9.4E-01	
11/25/03 - 12/23/03	^{3}H	6.0E+00 ± 1.1E+00	
Yakima Barricade	^{60}Co	2.0E-04 ± 3.0E-04	U
Composite Period	^{134}Cs	-9.5E-05 ± 3.1E-04	U
04/02/03 - 07/11/03	^{137}Cs	-2.1E-04 ± 2.4E-04	U
	^{152}Eu	-1.7E-04 ± 6.7E-04	U
	^{154}Eu	2.7E-04 ± 7.8E-04	U
	^{155}Eu	-3.1E-04 ± 5.4E-04	U
	^{238}Pu	2.3E-07 ± 7.8E-07	U
	$^{239,240}Pu$	5.2E-07 ± 6.7E-07	U
	^{106}Ru	-1.4E-03 ± 2.4E-03	U
	^{125}Sb	-1.3E-04 ± 6.2E-04	U
	^{90}Sr	-1.4E-05 ± 3.4E-05	U
Yakima Barricade	^{60}Co	-3.9E-05 ± 4.0E-04	U
Composite Period	^{134}Cs	1.6E-04 ± 2.9E-04	U
10/03/03 - 01/09/04	^{137}Cs	-2.2E-04 ± 2.5E-04	U
	^{152}Eu	-2.0E-04 ± 6.9E-04	U
	^{154}Eu	1.3E-03 ± 1.0E-03	U
	^{155}Eu	2.1E-04 ± 5.9E-04	U
	^{238}Pu	0.0E+00 ± 6.3E-07	U
	$^{239,240}Pu$	0.0E+00 ± 6.2E-07	U
	^{106}Ru	-6.6E-04 ± 3.0E-03	U
	^{125}Sb	2.0E-04 ± 7.9E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

3.0 SOIL AND VEGETATION MONITORING

The radionuclide content of soil and vegetation was measured to evaluate long-term trends in environmental accumulation of radioactivity in the 100, 200/600, and 300/400 Areas. Soil and vegetation samples were collected on or near facilities that store, handle, or dispose of radioactive waste. The number of soil and vegetation samples collected in 2003 and their locations are shown in Table 3-1.

Table 3-1. Soil and Vegetation Samples Collected in 2003.

Sample type	Number of sample locations	Operational area						
		100-B/C	100-F	100-K	100-N	200/600[a]	300/400	ERDF[b]
Soil	82	5	2	2	1	57	14	1
Vegetation	65	0	0	0	4	48	13	0

[a]Odd-numbered soil and vegetation sampling locations in the 200/600 Areas are sampled in odd-numbered years.

[b]Environmental Restoration Disposal Facility (ERDF).

Soil sampling locations are illustrated in Figures 3-1 through 3-9. Historical soil sampling results for the 100, 200/600, and 300/400 Areas are displayed in Table 3-2. The 2003 soil sampling results for all areas are provided in Table 3-3.

Vegetation sampling locations are illustrated in Figures 3-10 through 3-15. Historical vegetation sampling results for the 100-N, 200/600, and 300/400 Areas are displayed in Table 3-4. The 2003 vegetation sampling results for all areas are provided in Table 3-5.

Radionuclide analyses indicated that cobalt-60, strontium-90, cesium-137, plutonium-239/240, and uranium were consistently detectable in both soil and vegetation samples in 2003. Generally, the predominant radionuclides observed in soil samples were activation and fission products in the 100 Areas, fission products in the 200 Areas, and uranium in the 300 Area. For vegetation samples, the predominant radionuclides were generally activation and fission products in the 100 Areas, fission products in the 200 Areas, and uranium in the 300 Area.

Strontium-90 results for soil and vegetation samples for this report period showed a frequent occurrence of negative (i.e., less than zero) concentrations. This was primarily due to changes in laboratory background correction calculations that were implemented in 2003. Both historical and current values are within accepted statistical ranges as evidenced by laboratory QA and performance evaluation programs.

Additional discussion of the 2003 results can be found in Section 3.2 of PNNL-14687.

Figure 3-1. 2003 Soil Sampling Locations, 100-B/C Area.

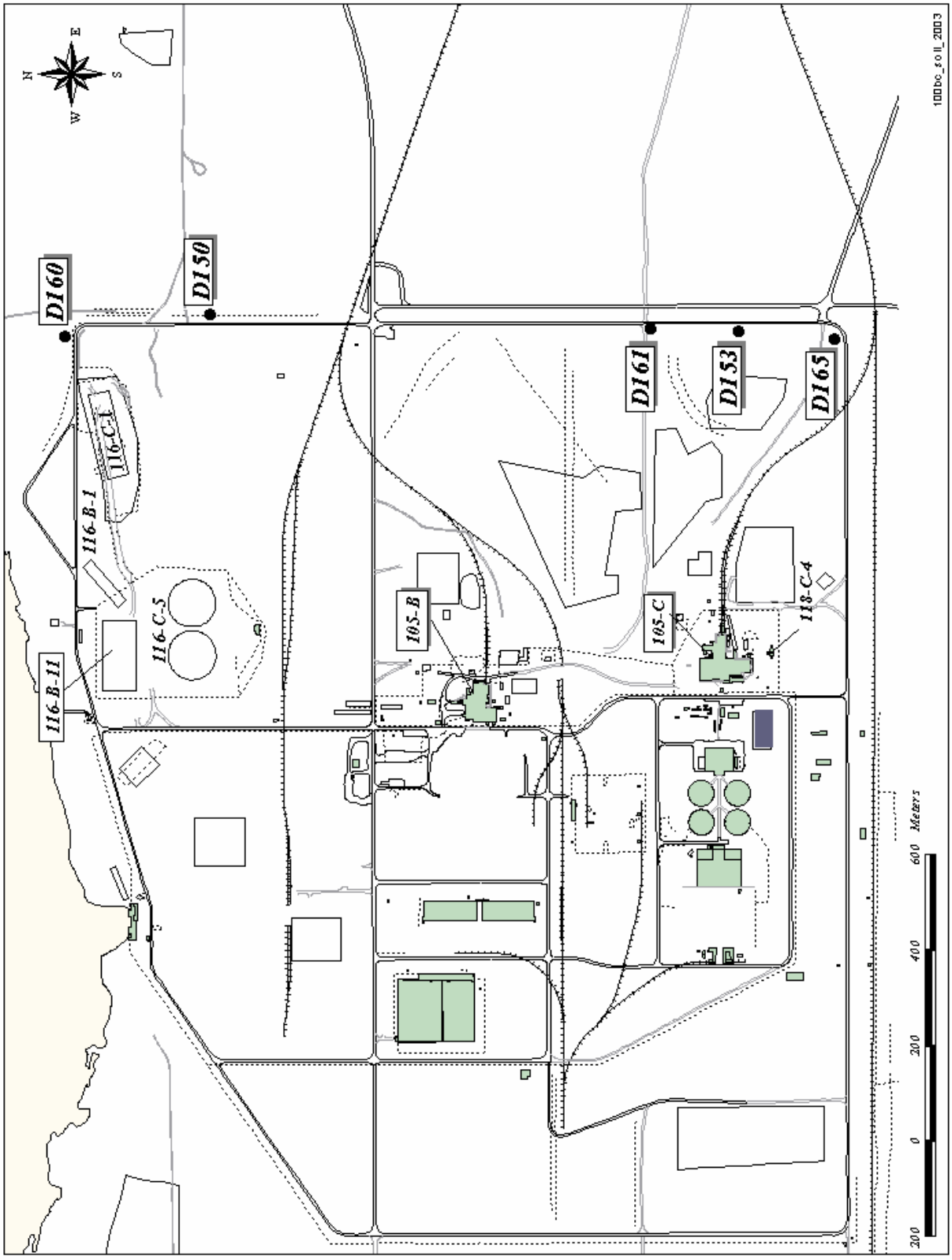

Figure 3-2. 2003 Soil Sampling Locations, 100-F Area.

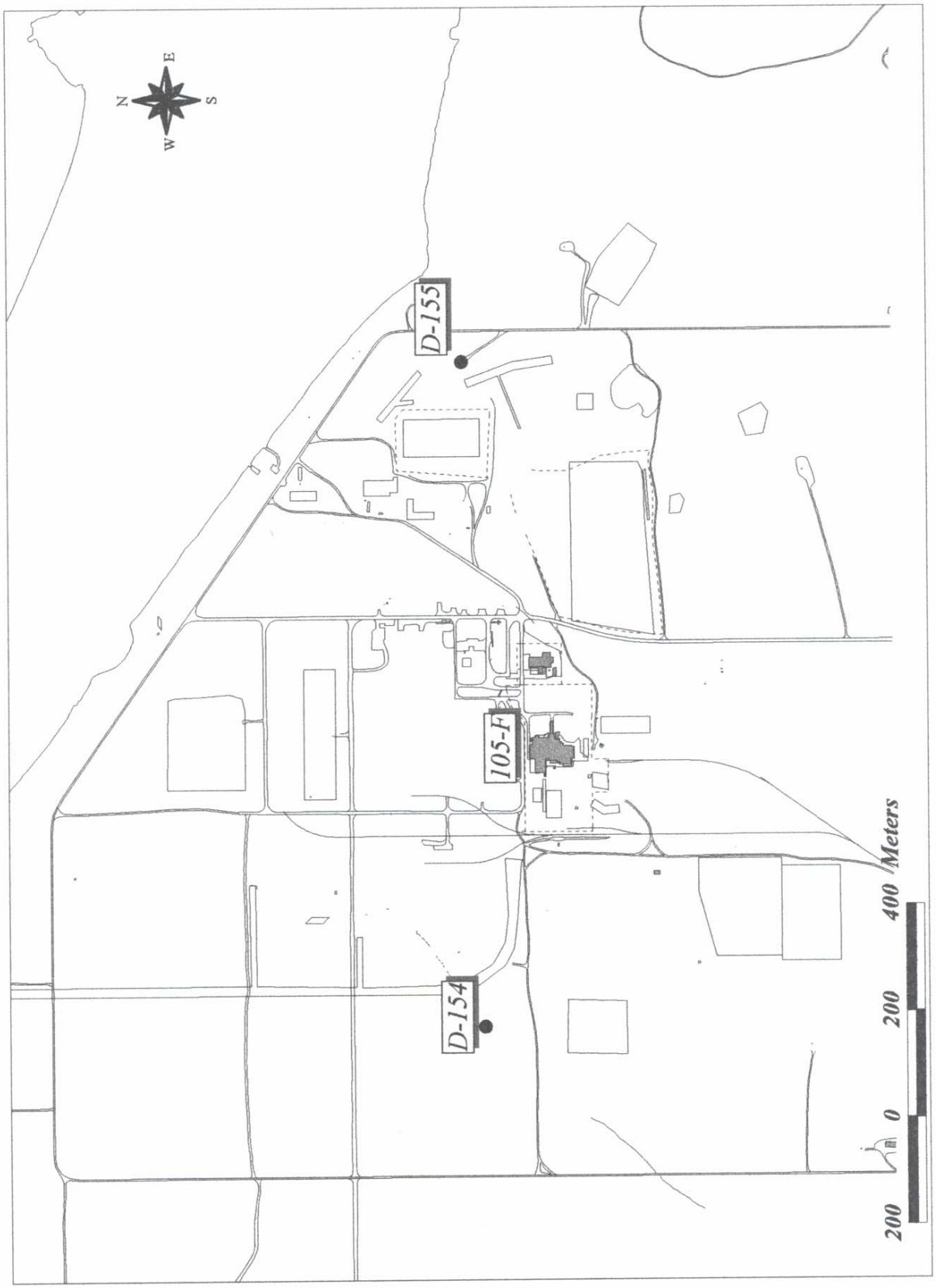

Figure 3-3. 2003 Soil Sampling Locations, 100-K Area.

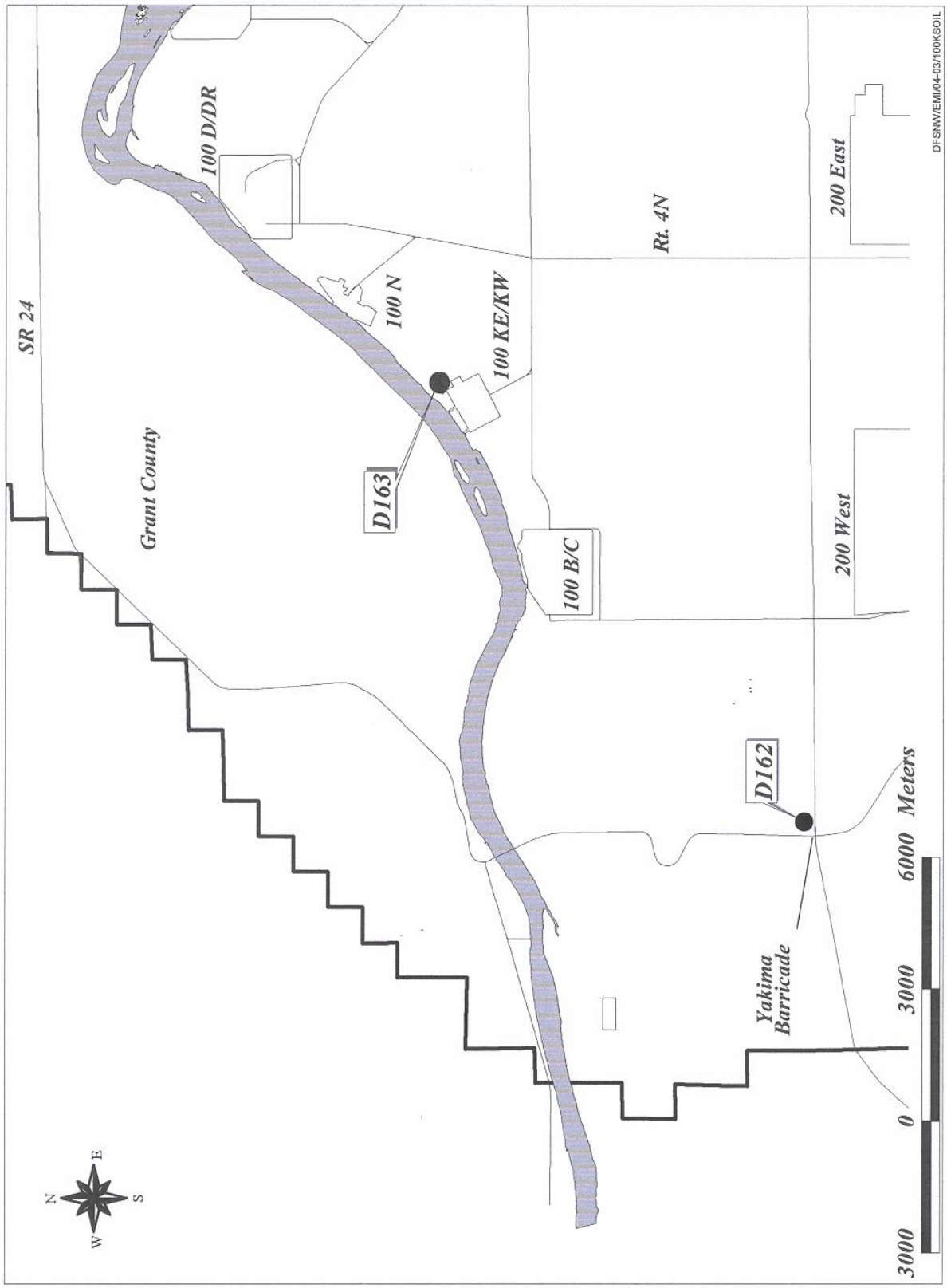

Figure 3-4. 2003 Soil Sampling Locations, 100-N Area.

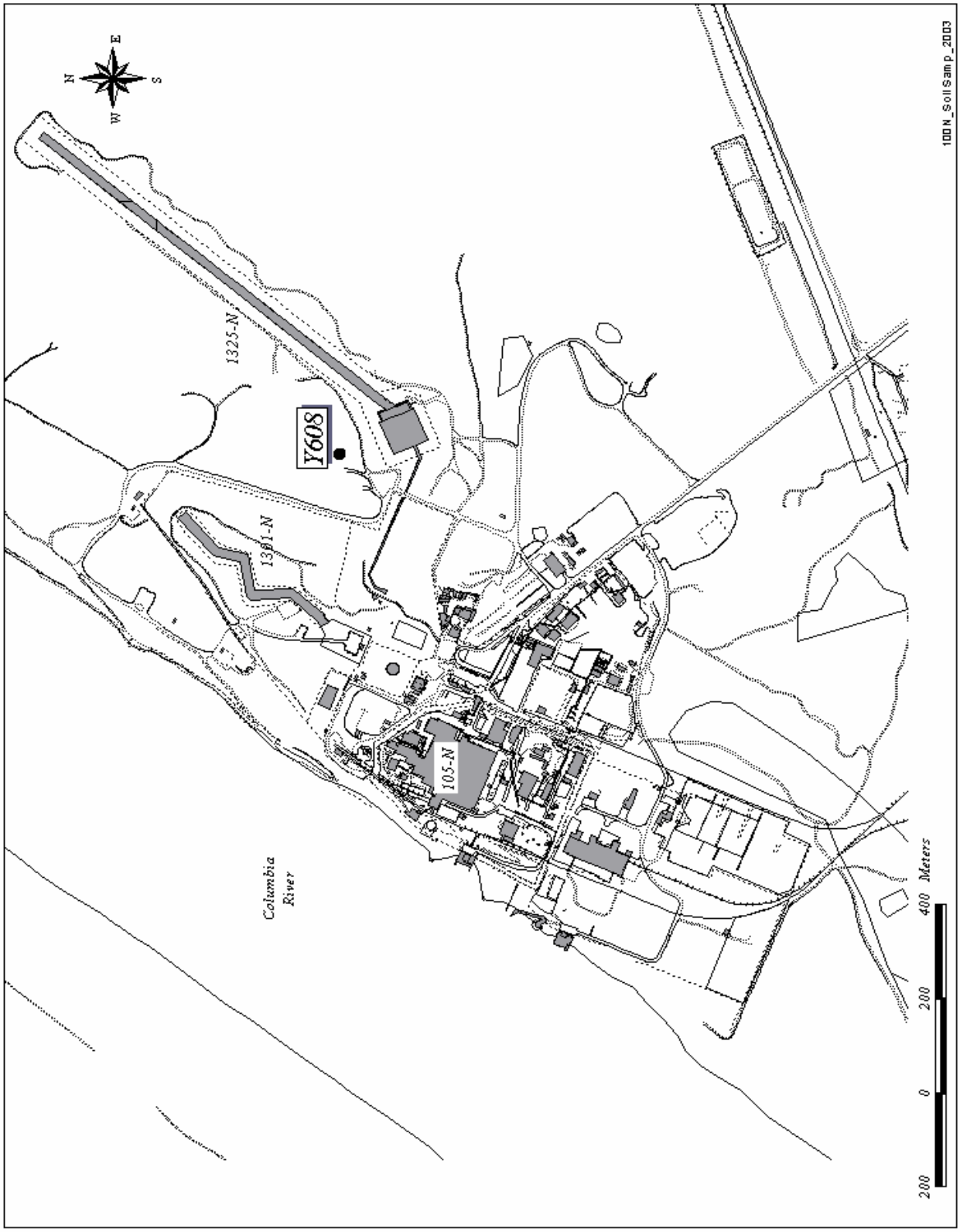

Figure 3-5. 2003 Soil Sampling Locations, 200 East Area.

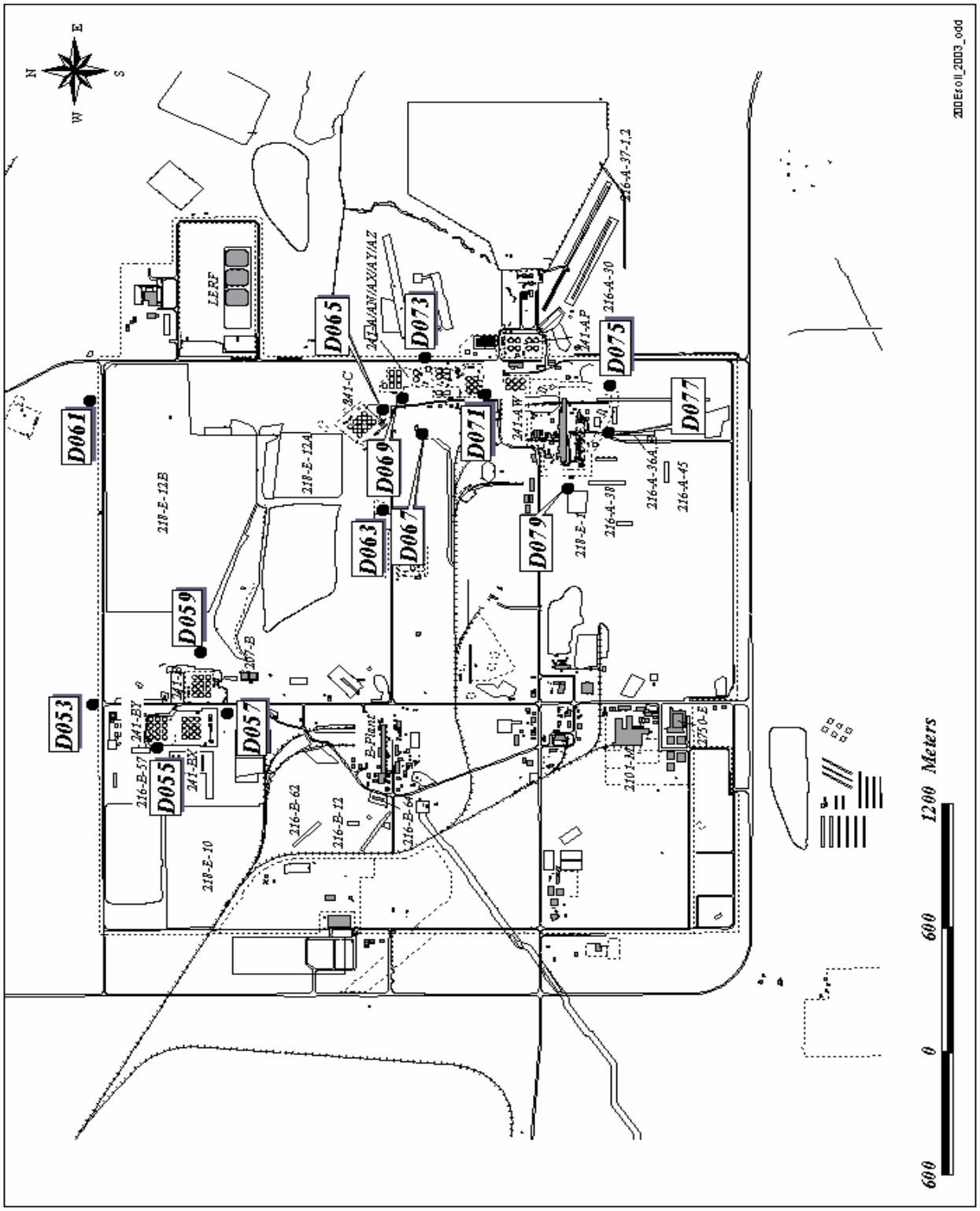

Figure 3-6. 2003 Soil Sampling Locations, 200 West Area.

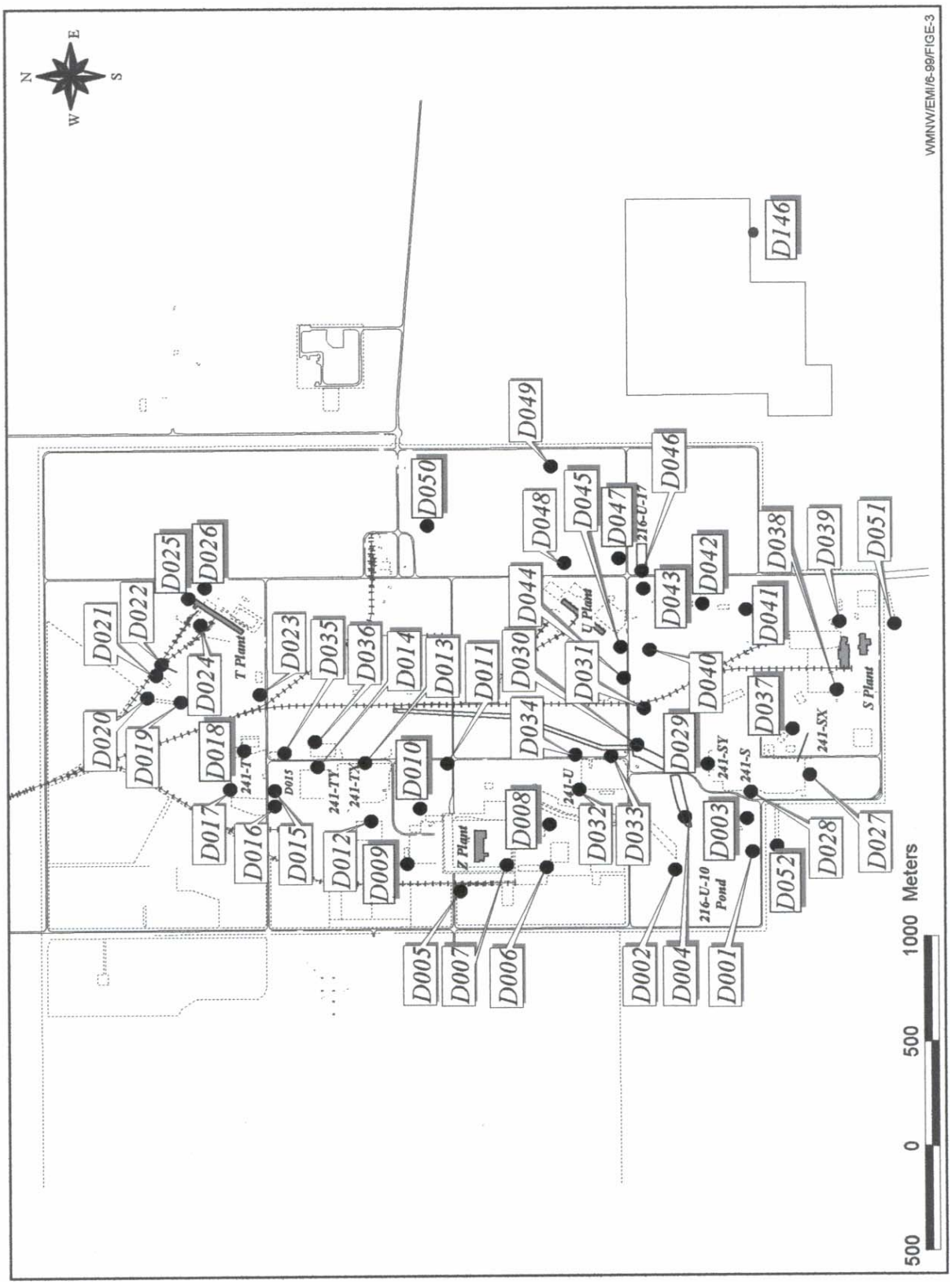

Figure 3-7. 2003 Soil Sampling Locations, 300 Area.

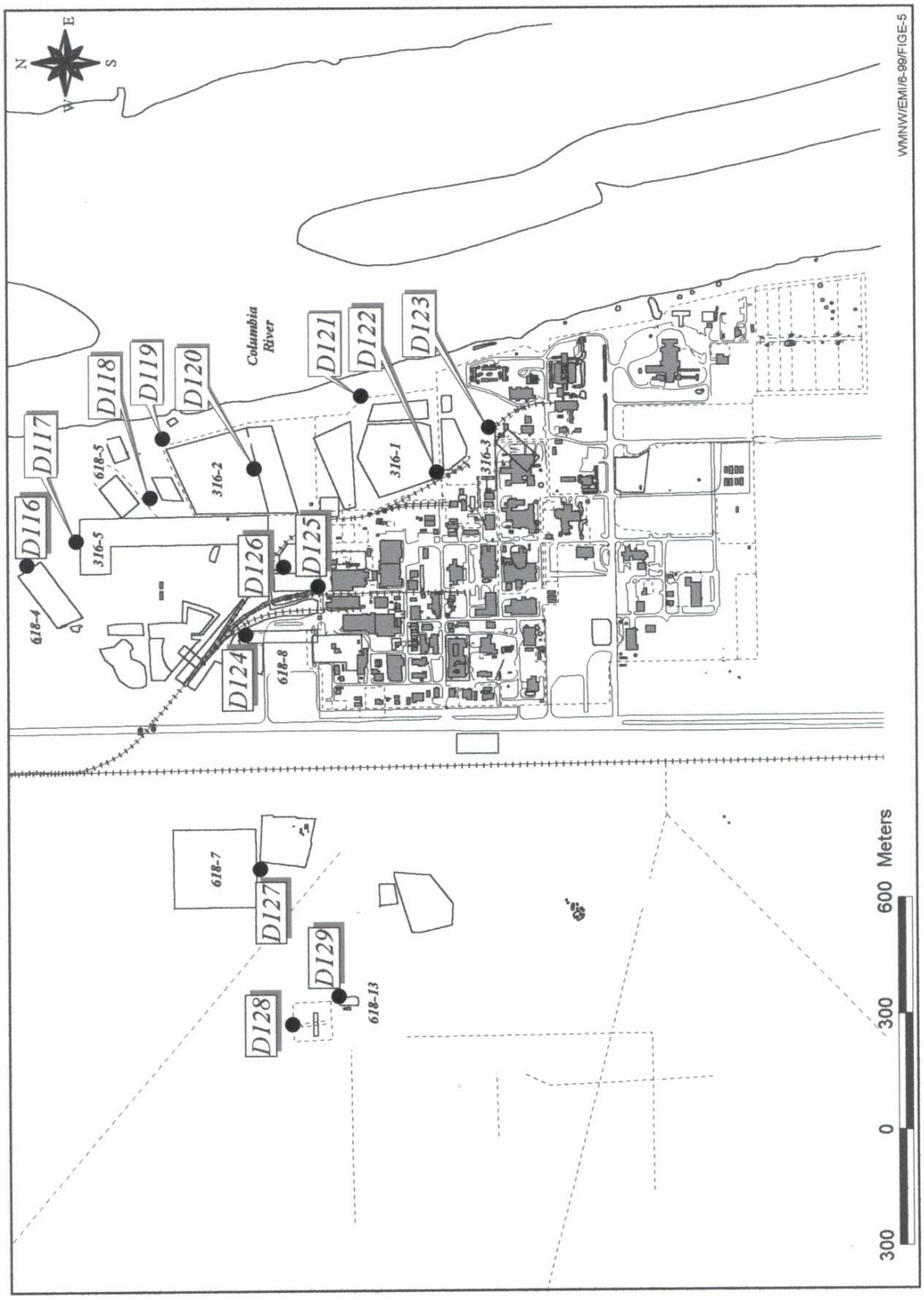

Figure 3-8. 2003 Soil Sampling Locations, 400 Area.

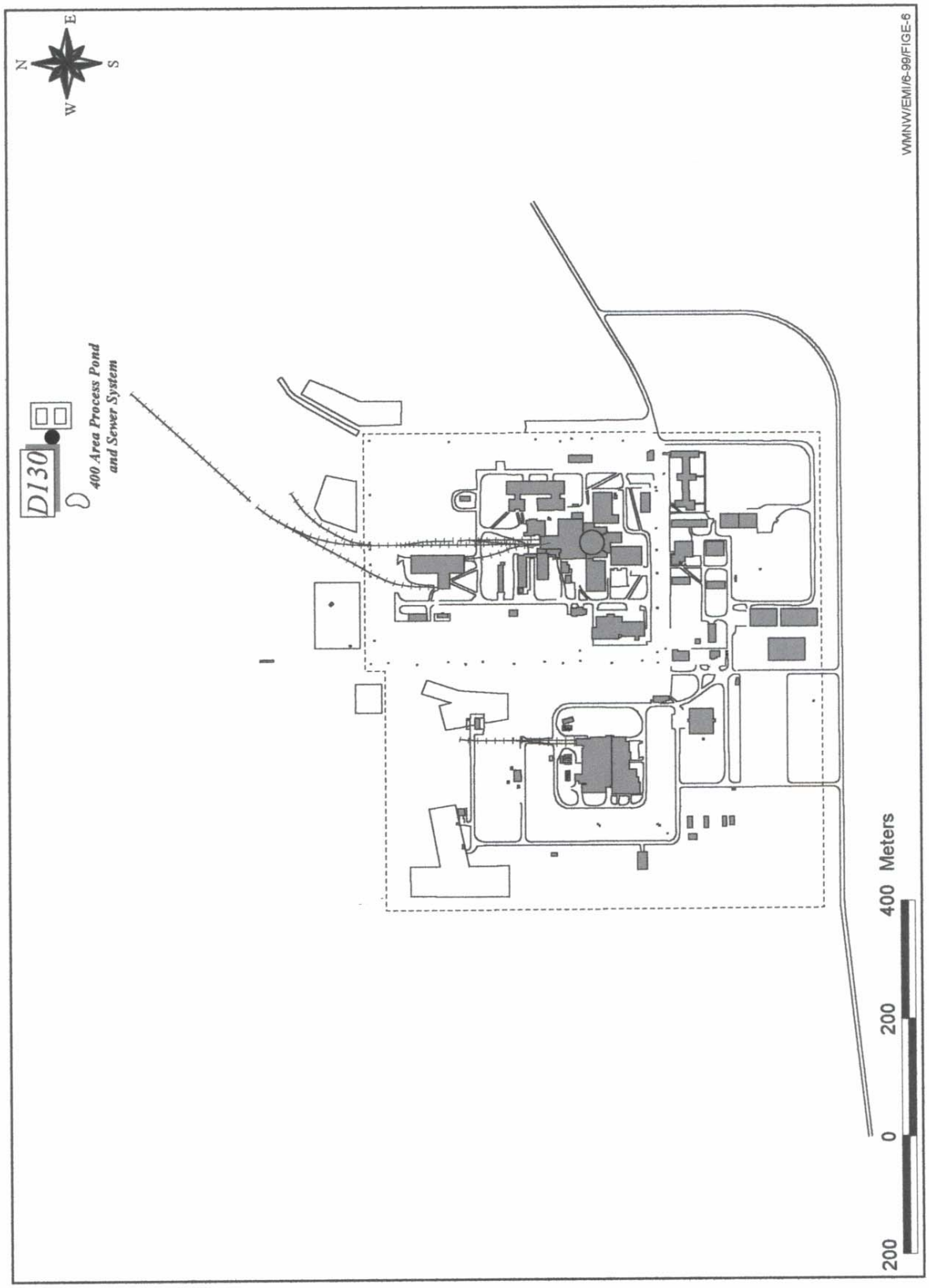

Figure 3-9. 2003 Soil Sampling Locations, 600 Area.

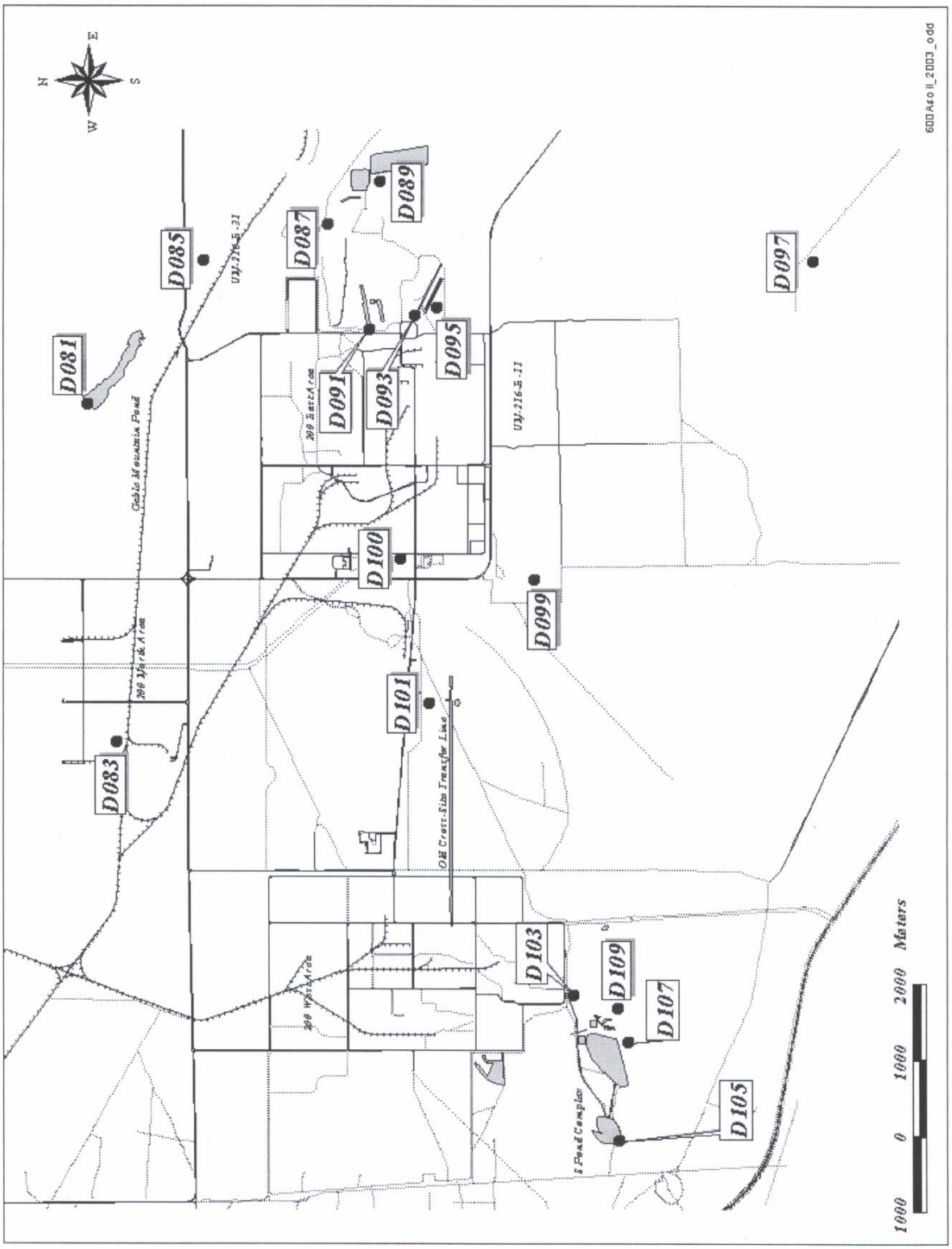

Table 3-2. Average Radionuclide Concentrations (pCi/g[a]) in Hanford Soils, 1995 through 2003.

100 Areas

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	^{239,240}Pu
1995	9.4E-01 ± 9.9E+01	1.3E-01 ± 6.9E-02	5.1E-01 ± 2.4E-01	9.1E-02 ± 1.0E-02	9.7E-02 ± 2.7E-02	1.4E-02 ± 9.3E-03
1996	1.5E+00 ± 1.1E+00	2.0E-01 ± 7.6E-02	7.7E-01 ± 4.1E-01	5.7E-02 ± 8.0E-03	5.7E-01 ± 1.2E-01	4.3E-02 ± 1.6E-02
1997	2.5E+00 ± 3.0E-01	3.9E-01 ± 6.5E-01	8.9E-01 ± 8.9E-01	2.1E-01 ± 3.8E-02	2.1E-01 ± 3.4E-02	9.1E-01 ± 1.6E+00
1998	4.9E+00 ± 7.7E+00	1.2E+00 ± 1.1E+00	3.1E+00 ± 4.1E+00	2.1E-01 ± 6.0E-02	1.7E-01 ± 3.0E-02	1.5E-01 ± 1.3E-01
1999	1.6E+00 ± 2.1E+00	2.0E+00 ± 2.0E+00	8.4E-01 ± 8.1E-01	2.2E-01 ± 3.0E-02	2.0E-01 ± 3.0E-02	2.9E-02 ± 2.3E-02
2000	3.1E+00 ± 3.0E+00	8.4E-01 ± 4.5E-01	2.5E+00 ± 2.3E+00	2.2E-01 ± 8.7E-02	2.2E-01 ± 3.2E-02	5.8E-02 ± 3.3E-02
2001	4.0E-01 ± 3.4E-01	4.8E-01 ± 3.0E-01	3.9E-01 ± 1.6E-01	2.4E-01 ± 3.6E-02	2.5E-01 ± 2.7E-02	3.1E-02 ± 2.0E-02
2002	3.0E-01 ± 1.1E+00	1.5E-01 ± 4.7E-01	2.6E-01 ± 5.1E-01	1.3E-01 ± 4.7E-02	1.1E-01 ± 3.9E-02	6.1E-03 ± 6.1E-03
2003	1.8E-01 ± 2.1E-02	-8.2E-02 ± 2.4E-01	2.1E-01 ± 3.6E-02	1.4E-01 ± 4.8E-02	1.5E-01 ± 5.1E-02	1.8E-03 ± 6.3E-03

200/600 Areas

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	^{239,240}Pu
1995	4.0E-03 ± 4.0E-03	4.9E-01 ± 1.8E-01	2.7E+00 ± 1.1E+00	1.2E-01 ± 1.7E-02	1.2E-01 ± 1.6E-02	7.0E-02 ± 3.0E-02
1996	3.0E-03 ± 3.0E-03	3.5E-01 ± 2.0E-01	2.0E+00 ± 7.0E-01	1.0E-01 ± 1.2E-02	1.1E-01 ± 1.2E-02	1.6E-01 ± 1.0E-01
1997	3.0E-02 ± 2.0E-02	6.7E-01 ± 2.3E-01	1.8E+00 ± 4.0E-01	2.0E-01 ± 1.4E-02	2.0E-01 ± 1.4E-02	1.0E-01 ± 7.0E-02
1998	1.9E-02 ± 6.0E-03	5.0E-01 ± 1.4E-01	1.1E+00 ± 4.0E-01	1.9E-01 ± 1.0E-02	1.9E-01 ± 1.0E-02	1.3E-01 ± 1.0E-02
1999	Not Detected	1.1E+00 ± 5.0E-01	1.4E+00 ± 5.0E-01	2.3E-01 ± 2.0E-02	2.2E-01 ± 2.0E-02	1.0E-01 ± 5.0E-02
2000	6.0E-03 ± 6.0E-03	1.1E+00 ± 2.0E-01	1.4E+00 ± 5.0E-01	2.3E-01 ± 3.0E-02	2.3E-01 ± 3.0E-02	4.1E-01 ± 4.2E-01
2001	Not Detected	5.5E-01 ± 2.3E-01	1.5E+00 ± 5.4E-01	2.2E-01 ± 1.4E-02	2.2E-01 ± 1.4E-02	1.3E-01 ± 6.2E-02
2002	Not Detected	2.7E-01 ± 6.6E-01	1.4E+00 ± 4.3E+00	1.7E-01 ± 1.0E-01	1.7E-01 ± 1.1E-01	1.2E-01 ± 7.2E-01
2003	2.4E-03 ± 1.3E-02	8.4E-02 ± 6.3E-01	1.8E+00 ± 6.3E-01	1.6E-01 ± 9.6E-02	1.7E-01 ± 1.0E-01	9.3E-02 ± 5.0E-01

300/400 Areas

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	^{239,240}Pu
1995	2.0E-03 ± 1.0E-03	5.0E-02 ± 2.0E-02	2.4E-01 ± 1.1E-01	2.1E+00 ± 2.0E+00	2.1E+00 ± 2.1E+00	2.6E-02 ± 2.4E-02
1996	2.0E-03 ± 6.0E-03	4.0E-02 ± 1.0E-02	1.5E-01 ± 7.0E-02	1.3E+00 ± 1.0E+00	1.2E+00 ± 1.0E+00	2.5E-02 ± 3.3E-02
1997	Not Detected	4.5E-01 ± 1.9E-01	7.0E-02 ± 3.0E-02	9.0E-01 ± 1.0E-01	9.0E-01 ± 9.0E-01	3.8E-02 ± 4.9E-02
1998	Not Detected	2.4E-01 ± 1.2E-01	9.0E-02 ± 8.0E-02	8.5E-01 ± 9.8E-01	8.2E-01 ± 9.8E-01	4.5E-02 ± 5.7E-02
1999	Not Detected	8.7E-01 ± 1.9E-01	9.0E-02 ± 3.0E-02	7.5E-01 ± 5.4E-01	7.1E-01 ± 5.3E-01	4.0E-02 ± 2.0E-02
2000	Not Detected	5.9E-01 ± 1.8E-01	1.4E-01 ± 6.0E-02	5.4E+00 ± 5.6E+00	5.4E+00 ± 5.7E+00	1.7E-01 ± 8.0E-02
2001	Not Detected	Not Detected	5.0E-02 ± 2.1E-02	9.4E-01 ± 7.1E-01	9.5E-01 ± 7.3E-01	4.1E-02 ± 2.6E-02
2002	Not Detected	2.8E-02 ± 2.9E-02	7.4E-02 ± 1.3E-01	1.5E+00 ± 6.4E+00	1.5E+00 ± 6.4E+00	2.4E-02 ± 9.9E-02
2003	Not Detected	5.6E-02 ± 7.3E-02	8.1E-02 ± 1.4E-01	1.3E+00 ± 5.1E+00	1.3E+00 ± 5.2E+00	7.5E-02 ± 3.8E-01

[a] ± 2 standard deviations

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty).

Location	Isotope	Result	± Error	RQ*
D146	^{144}Ce	-2.8E-02	± 9.8E-02	U
(ERDF)	^{60}Co	1.1E-02	± 7.8E-03	
	^{134}Cs	2.6E-02	± 9.6E-03	U
	^{137}Cs	2.3E-02	± 8.4E-03	
	^{152}Eu	-6.3E-03	± 2.0E-02	U
	^{154}Eu	-2.4E-03	± 1.9E-02	U
	^{155}Eu	1.9E-02	± 2.6E-02	U
	^{238}Pu	-4.8E-03	± 1.3E-02	U
	^{239,240}Pu	-3.2E-03	± 6.4E-03	U
	^{103}Ru	-1.2E-03	± 5.1E-03	U
	^{106}Ru	1.0E-02	± 4.6E-02	U
	^{125}Sb	-4.3E-03	± 1.5E-02	U
	^{113}Sn	-2.7E-03	± 6.8E-03	U
	^{90}Sr	3.9E-02	± 2.2E-01	U
	^{234}U	1.8E-01	± 5.9E-02	
	^{235}U	1.1E-02	± 1.0E-02	
	^{238}U	2.0E-01	± 6.4E-02	
	^{65}Zn	-9.4E-03	± 1.5E-02	U
D153	^{144}Ce	-2.1E-02	± 1.0E-01	U
(100-B/C	^{60}Co	-4.9E-03	± 5.2E-03	U
Remedial	^{134}Cs	3.0E-02	± 9.7E-03	U
Action)	^{137}Cs	2.6E-01	± 4.4E-02	
	^{152}Eu	-5.5E-03	± 1.9E-02	U
	^{154}Eu	2.3E-03	± 1.7E-02	U
	^{155}Eu	4.7E-02	± 2.6E-02	U
	^{238}Pu	2.4E-02	± 4.1E-02	U
	^{239,240}Pu	1.8E-01	± 6.1E-02	
	^{103}Ru	-7.2E-04	± 5.3E-03	U
	^{106}Ru	2.4E-02	± 4.4E-02	U
	^{125}Sb	4.7E-03	± 1.5E-02	U
	^{113}Sn	-1.9E-03	± 7.0E-03	U
	^{90}Sr	-1.0E-01	± 2.4E-01	U
	^{234}U	1.6E-01	± 5.4E-02	
	^{235}U	8.5E-03	± 1.0E-02	U
	^{238}U	1.6E-01	± 5.4E-02	
	^{65}Zn	-3.8E-03	± 1.4E-02	U

Location	Isotope	Result	± Error	RQ*
D150	^{144}Ce	-7.9E-02	± 1.6E-01	U
(100-B/C	^{60}Co	1.6E-02	± 1.1E-02	U
Remedial	^{134}Cs	3.5E-02	± 1.1E-02	U
Action)	^{137}Cs	3.8E-01	± 6.1E-02	
	^{152}Eu	2.7E-01	± 3.0E-02	
	^{154}Eu	1.6E-02	± 2.8E-02	U
	^{155}Eu	5.8E-02	± 4.8E-02	U
	^{238}Pu	1.2E-02	± 1.9E-02	U
	^{239,240}Pu	1.9E-03	± 8.6E-03	U
	^{103}Ru	-1.6E-03	± 8.7E-03	U
	^{106}Ru	9.9E-03	± 7.2E-02	U
	^{125}Sb	8.3E-03	± 2.2E-02	U
	^{113}Sn	1.8E-03	± 1.1E-02	U
	^{90}Sr	-2.5E-01	± 2.5E-01	U
	^{234}U	1.3E-01	± 4.7E-02	
	^{235}U	2.1E-02	± 1.6E-02	
	^{238}U	1.6E-01	± 5.4E-02	
	^{65}Zn	1.5E-02	± 3.8E-02	U
D160	^{144}Ce	-6.9E-03	± 6.9E-02	U
(100-B/C	^{60}Co	2.2E-03	± 8.1E-03	U
Remedial	^{134}Cs	2.1E-02	± 1.2E-02	U
Action)	^{137}Cs	1.3E-01	± 2.7E-02	
	^{152}Eu	6.4E-02	± 2.5E-02	
	^{154}Eu	-1.1E-02	± 2.6E-02	U
	^{155}Eu	-6.1E-03	± 4.4E-02	U
	^{238}Pu	-2.4E-02	± 3.4E-02	U
	^{239,240}Pu	7.9E-03	± 9.5E-03	U
	^{103}Ru	2.9E-03	± 9.0E-03	U
	^{106}Ru	-3.2E-02	± 7.6E-02	U
	^{125}Sb	6.8E-03	± 2.4E-02	U
	^{113}Sn	1.5E-02	± 1.3E-02	U
	^{90}Sr	3.4E-01	± 3.2E-01	
	^{234}U	1.7E-01	± 5.6E-02	
	^{235}U	4.1E-03	± 8.2E-03	U
	^{238}U	1.6E-01	± 5.4E-02	
	^{65}Zn	2.0E-02	± 2.4E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D161 (100-B/C Remedial Action)	^{144}Ce	1.4E-01	± 1.6E-01	U
	^{60}Co	-1.3E-02	± 1.3E-02	U
	^{134}Cs	3.1E-02	± 1.2E-02	U
	^{137}Cs	1.7E-01	± 3.2E-02	
	^{152}Eu	2.9E-01	± 2.9E-02	
	^{154}Eu	1.6E-02	± 3.3E-02	U
	^{155}Eu	4.9E-02	± 4.3E-02	U
	^{238}Pu	1.5E-02	± 3.6E-02	U
	^{239,240}Pu	1.3E-02	± 1.6E-02	U
	^{103}Ru	-6.1E-03	± 8.5E-03	U
	^{106}Ru	-1.3E-02	± 7.8E-02	U
	^{125}Sb	-3.9E-03	± 2.3E-02	U
	^{113}Sn	-8.8E-03	± 1.1E-02	U
	^{90}Sr	-7.3E-02	± 2.6E-01	U
	^{234}U	1.5E-01	± 5.3E-02	
	^{235}U	6.4E-03	± 7.7E-03	
	^{238}U	1.4E-01	± 4.9E-02	
	^{65}Zn	1.8E-03	± 1.8E-02	U
D154 (100-F Remedial Action)	^{144}Ce	-1.4E-03	± 1.4E-02	U
	^{60}Co	-7.1E-03	± 8.2E-03	U
	^{134}Cs	3.5E-02	± 1.3E-02	U
	^{137}Cs	8.9E-02	± 2.2E-02	
	^{152}Eu	-1.8E-02	± 4.0E-02	U
	^{154}Eu	-9.3E-03	± 2.6E-02	U
	^{155}Eu	4.4E-02	± 3.0E-02	U
	^{238}Pu	9.2E-03	± 3.2E-02	U
	^{239,240}Pu	2.3E-03	± 2.3E-02	U
	^{103}Ru	1.2E-03	± 7.1E-03	U
	^{106}Ru	3.4E-02	± 6.8E-02	U
	^{125}Sb	1.1E-02	± 2.1E-02	U
	^{113}Sn	1.0E-03	± 9.6E-03	U
	^{90}Sr	5.7E-02	± 2.2E-01	U
	^{234}U	1.2E-01	± 3.8E-02	
	^{235}U	6.5E-03	± 7.8E-03	
	^{238}U	1.1E-01	± 3.6E-02	
	^{65}Zn	4.4E-02	± 2.3E-02	U

Location	Isotope	Result	± Error	RQ*
D165 (100-B/C Remedial Action)	^{144}Ce	-5.1E-02	± 1.1E-01	U
	^{60}Co	4.3E-03	± 5.6E-03	U
	^{134}Cs	4.3E-02	± 1.3E-02	U
	^{137}Cs	1.8E-01	± 3.0E-02	
	^{152}Eu	7.1E-04	± 7.1E-03	U
	^{154}Eu	7.8E-03	± 1.8E-02	U
	^{155}Eu	5.6E-02	± 3.9E-02	
	^{238}Pu	-5.6E-03	± 2.5E-02	U
	^{239,240}Pu	1.8E-03	± 9.5E-03	U
	^{103}Ru	-7.2E-04	± 5.4E-03	U
	^{106}Ru	1.9E-02	± 4.5E-02	U
	^{125}Sb	3.2E-03	± 1.6E-02	U
	^{113}Sn	-4.7E-03	± 7.4E-03	U
	^{90}Sr	3.4E-01	± 2.7E-01	
	^{234}U	1.3E-01	± 4.7E-02	
	^{235}U	6.7E-03	± 8.0E-03	
	^{238}U	9.6E-02	± 3.7E-02	
	^{65}Zn	1.1E-03	± 1.1E-02	U
D155 (100-F Remedial Action)	^{144}Ce	5.0E-02	± 1.3E-01	U
	^{60}Co	6.8E-03	± 6.5E-03	U
	^{134}Cs	3.6E-02	± 1.2E-02	U
	^{137}Cs	2.5E-01	± 3.6E-02	
	^{152}Eu	3.2E-01	± 3.0E-02	
	^{154}Eu	4.8E-02	± 3.0E-02	U
	^{155}Eu	2.2E-03	± 2.2E-02	U
	^{238}Pu	1.9E-03	± 1.9E-02	U
	^{239,240}Pu	5.7E-03	± 1.0E-02	U
	^{103}Ru	-2.1E-03	± 6.4E-03	U
	^{106}Ru	-1.2E-02	± 5.9E-02	U
	^{125}Sb	6.0E-03	± 2.0E-02	U
	^{113}Sn	-6.2E-03	± 9.3E-03	U
	^{90}Sr	-1.4E-01	± 2.3E-01	U
	^{234}U	6.7E-02	± 2.8E-02	
	^{235}U	7.9E-03	± 7.9E-03	
	^{238}U	9.2E-02	± 3.1E-02	
	^{65}Zn	-7.3E-03	± 2.9E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D162	^{144}Ce	-1.3E-01	± 2.0E-01	U
(100-KR-1	^{60}Co	4.2E-03	± 8.4E-03	U
Remedial	^{134}Cs	3.2E-02	± 1.6E-02	U
Action)	^{137}Cs	1.3E-01	± 2.8E-02	
	^{152}Eu	1.3E-02	± 5.5E-02	U
	^{154}Eu	-5.8E-03	± 2.8E-02	U
	^{155}Eu	1.7E-02	± 4.7E-02	U
	^{238}Pu	-3.4E-02	± 3.4E-02	U
	^{239,240}Pu	2.1E-03	± 1.1E-02	U
	^{103}Ru	-2.9E-03	± 9.7E-03	U
	^{106}Ru	6.0E-02	± 8.0E-02	U
	^{125}Sb	-1.3E-02	± 2.6E-02	U
	^{113}Sn	-5.6E-03	± 1.2E-02	U
	^{90}Sr	2.3E-01	± 2.6E-01	
	^{234}U	1.3E-01	± 4.7E-02	
	^{235}U	1.2E-02	± 1.2E-02	U
	^{238}U	1.4E-01	± 4.9E-02	
	^{65}Zn	3.8E-03	± 2.5E-02	U
Y608	^{144}Ce	-2.6E-02	± 1.5E-01	U
(100-N)	^{60}Co	1.8E-01	± 2.2E-02	
	^{134}Cs	4.0E-02	± 1.4E-02	U
	^{137}Cs	2.1E-01	± 3.7E-02	
	^{152}Eu	-1.1E-02	± 3.2E-02	U
	^{154}Eu	-1.6E-02	± 2.3E-02	U
	^{155}Eu	3.3E-02	± 3.6E-02	U
	^{238}Pu	-1.8E-03	± 1.7E-02	U
	^{239,240}Pu	1.8E-03	± 6.3E-03	U
	^{103}Ru	-2.4E-03	± 7.5E-03	U
	^{106}Ru	-4.1E-02	± 6.6E-02	U
	^{125}Sb	2.4E-04	± 2.4E-03	U
	^{113}Sn	-3.0E-04	± 3.0E-03	U
	^{90}Sr	-8.2E-02	± 2.4E-01	U
	^{234}U	1.4E-01	± 4.9E-02	
	^{235}U	6.5E-03	± 1.2E-02	U
	^{238}U	1.5E-01	± 5.1E-02	
	^{65}Zn	-2.9E-03	± 2.0E-02	U

Location	Isotope	Result	± Error	RQ*
D163	^{144}Ce	-1.8E-02	± 1.5E-01	U
(100-KR-1	^{60}Co	5.1E-03	± 7.8E-03	U
Remedial	^{134}Cs	4.0E-02	± 1.5E-02	U
Action)	^{137}Cs	2.1E-01	± 3.0E-02	
	^{152}Eu	1.2E-01	± 2.6E-02	
	^{154}Eu	4.3E-02	± 3.5E-02	U
	^{155}Eu	8.2E-02	± 5.5E-02	U
	^{238}Pu	1.5E-02	± 2.1E-02	U
	^{239,240}Pu	1.1E-02	± 1.3E-02	U
	^{103}Ru	8.8E-04	± 8.0E-03	U
	^{106}Ru	-1.4E-02	± 7.2E-02	U
	^{125}Sb	-3.9E-03	± 2.1E-02	U
	^{113}Sn	-1.7E-02	± 1.7E-02	U
	^{90}Sr	-3.1E-01	± 3.1E-01	U
	^{234}U	2.1E-01	± 6.9E-02	
	^{235}U	2.0E-02	± 1.6E-02	
	^{238}U	2.0E-01	± 6.6E-02	
	^{65}Zn	-1.4E-02	± 2.2E-02	U
D001	^{144}Ce	-1.1E-01	± 1.3E-01	U
(200 West)	^{60}Co	1.6E-03	± 6.5E-03	U
	^{134}Cs	2.4E-02	± 1.1E-02	
	^{137}Cs	5.4E-01	± 8.8E-02	
	^{152}Eu	-1.2E-02	± 2.3E-02	U
	^{154}Eu	1.2E-02	± 2.3E-02	U
	^{155}Eu	3.2E-02	± 3.1E-02	U
	^{238}Pu	3.3E-03	± 1.2E-02	U
	^{239,240}Pu	6.6E-02	± 2.2E-02	
	^{103}Ru	-4.0E-04	± 4.1E-03	U
	^{106}Ru	1.5E-02	± 5.6E-02	U
	^{125}Sb	1.1E-02	± 2.0E-02	U
	^{113}Sn	-1.8E-03	± 8.9E-03	U
	^{90}Sr	6.6E-02	± 2.0E-01	U
	^{234}U	1.2E-01	± 3.7E-02	
	^{235}U	1.2E-02	± 1.2E-02	U
	^{238}U	1.4E-01	± 4.1E-02	
	^{65}Zn	-6.5E-03	± 1.7E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D003	^{144}Ce	-1.7E-02	± 1.3E-01	U
(200 West)	^{60}Co	-1.5E-03	± 6.3E-03	U
	^{134}Cs	3.5E-02	± 1.0E-02	
	^{137}Cs	8.6E-01	± 1.4E-01	
	^{152}Eu	-1.3E-02	± 2.6E-02	U
	^{154}Eu	-8.5E-03	± 2.0E-02	U
	^{155}Eu	3.9E-02	± 4.1E-02	U
	^{238}Pu	-1.7E-03	± 1.0E-02	U
	^{239,240}Pu	3.8E-02	± 1.7E-02	
	^{103}Ru	-1.8E-03	± 6.5E-03	U
	^{106}Ru	6.8E-03	± 5.5E-02	U
	^{125}Sb	2.0E-02	± 2.1E-02	U
	^{113}Sn	-1.3E-03	± 9.1E-03	U
	^{90}Sr	2.1E-01	± 2.3E-01	U
	^{234}U	1.8E-01	± 5.0E-02	
	^{235}U	8.1E-03	± 8.1E-03	
	^{238}U	2.0E-01	± 5.4E-02	
	^{65}Zn	-3.6E-03	± 1.7E-02	U
D007	^{144}Ce	5.8E-02	± 1.2E-01	U
(200 West)	^{60}Co	-9.1E-04	± 8.0E-03	U
	^{134}Cs	4.5E-02	± 1.6E-02	
	^{137}Cs	5.1E-01	± 8.6E-02	
	^{152}Eu	-1.1E-02	± 2.4E-02	U
	^{154}Eu	1.4E-02	± 3.0E-02	U
	^{155}Eu	8.6E-02	± 4.0E-02	U
	^{238}Pu	6.2E-03	± 9.3E-03	U
	^{239,240}Pu	8.6E-02	± 2.9E-02	
	^{103}Ru	2.0E-03	± 7.3E-03	U
	^{106}Ru	3.1E-02	± 6.8E-02	U
	^{125}Sb	-2.0E-02	± 2.4E-02	U
	^{113}Sn	3.7E-03	± 9.8E-03	U
	^{90}Sr	-2.7E-01	± 2.7E-01	U
	^{234}U	1.4E-01	± 4.3E-02	
	^{235}U	2.5E-02	± 1.7E-02	
	^{238}U	1.4E-01	± 4.2E-02	
	^{65}Zn	2.3E-02	± 2.2E-02	U

Location	Isotope	Result	± Error	RQ*
D005	^{144}Ce	-1.2E-01	± 1.3E-01	U
(200 West)	^{60}Co	1.1E-03	± 8.3E-03	U
	^{134}Cs	4.0E-02	± 1.6E-02	
	^{137}Cs	1.1E-01	± 2.5E-02	
	^{152}Eu	1.9E-02	± 3.9E-02	U
	^{154}Eu	1.1E-02	± 3.1E-02	U
	^{155}Eu	3.9E-02	± 4.4E-02	U
	^{238}Pu	3.4E-03	± 1.1E-02	U
	^{239,240}Pu	1.2E-02	± 9.2E-03	
	^{103}Ru	-1.2E-03	± 7.0E-03	U
	^{106}Ru	-3.4E-02	± 7.1E-02	U
	^{125}Sb	1.4E-02	± 2.1E-02	U
	^{113}Sn	-8.0E-03	± 1.0E-02	U
	^{90}Sr	-1.9E-01	± 1.9E-01	U
	^{234}U	1.8E-01	± 5.0E-02	
	^{235}U	8.5E-03	± 8.5E-03	
	^{238}U	1.9E-01	± 5.3E-02	
	^{65}Zn	4.7E-02	± 2.4E-02	
D009	^{144}Ce	-1.1E-01	± 1.9E-01	U
(200 West)	^{60}Co	-1.3E-04	± 1.3E-03	U
	^{134}Cs	4.3E-02	± 1.5E-02	
	^{137}Cs	5.9E-01	± 1.0E-01	
	^{152}Eu	1.2E-02	± 5.3E-02	U
	^{154}Eu	-5.4E-02	± 5.4E-02	U
	^{155}Eu	1.4E-03	± 1.4E-02	U
	^{238}Pu	-1.0E-02	± 2.9E-02	U
	^{239,240}Pu	5.8E-02	± 2.8E-02	
	^{103}Ru	-1.1E-03	± 8.8E-03	U
	^{106}Ru	-2.0E-02	± 7.4E-02	U
	^{125}Sb	-5.6E-03	± 2.6E-02	U
	^{113}Sn	9.9E-03	± 1.2E-02	U
	^{90}Sr	5.8E-01	± 2.6E-01	
	^{234}U	1.2E-01	± 3.7E-02	
	^{235}U	1.3E-02	± 1.1E-02	
	^{238}U	1.2E-01	± 3.7E-02	
	^{65}Zn	-5.1E-03	± 2.3E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D011	^{144}Ce	4.7E-02	± 1.8E-01	U
(200 West)	^{60}Co	-6.5E-03	± 8.5E-03	U
	^{134}Cs	3.3E-02	± 1.5E-02	
	^{137}Cs	2.6E+00	± 4.7E-01	
	^{152}Eu	-2.2E-02	± 4.5E-02	U
	^{154}Eu	-1.3E-02	± 2.7E-02	U
	^{155}Eu	1.8E-03	± 1.8E-02	U
	^{238}Pu	-9.4E-03	± 1.5E-02	U
	^{239,240}Pu	3.3E-01	± 7.9E-02	
	^{103}Ru	5.7E-03	± 9.8E-03	U
	^{106}Ru	-7.5E-02	± 8.5E-02	U
	^{125}Sb	-2.4E-04	± 2.4E-03	U
	^{113}Sn	5.0E-03	± 1.3E-02	U
	^{90}Sr	-7.2E-02	± 1.7E-01	U
	^{234}U	1.4E-01	± 4.3E-02	
	^{235}U	2.1E-02	± 1.4E-02	
	^{238}U	1.4E-01	± 4.3E-02	
	^{65}Zn	-1.5E-02	± 2.2E-02	U
D015	^{144}Ce	-2.0E-02	± 1.3E-01	U
(200 West)	^{60}Co	1.0E-03	± 6.2E-03	U
	^{134}Cs	3.4E-02	± 1.0E-02	
	^{137}Cs	1.8E+00	± 2.9E-01	
	^{152}Eu	2.4E-02	± 3.1E-02	U
	^{154}Eu	6.9E-03	± 2.2E-02	U
	^{155}Eu	6.9E-03	± 3.2E-02	U
	^{238}Pu	4.2E-03	± 3.4E-02	U
	^{239,240}Pu	1.3E-02	± 1.4E-02	U
	^{103}Ru	-2.0E-04	± 1.9E-03	U
	^{106}Ru	-2.2E-02	± 6.3E-02	U
	^{125}Sb	1.9E-03	± 1.9E-02	U
	^{113}Sn	2.7E-03	± 1.0E-02	U
	^{90}Sr	2.0E-01	± 2.0E-01	U
	^{234}U	1.2E-01	± 4.0E-02	
	^{235}U	9.5E-03	± 9.5E-03	
	^{238}U	8.7E-02	± 3.2E-02	
	^{65}Zn	-1.7E-03	± 1.7E-02	U

Location	Isotope	Result	± Error	RQ*
D013	^{144}Ce	2.3E-02	± 1.9E-01	U
(200 West)	^{60}Co	-6.7E-04	± 6.7E-03	U
	^{134}Cs	2.4E-02	± 1.2E-02	
	^{137}Cs	9.0E+00	± 1.4E+00	
	^{152}Eu	-1.2E-02	± 4.7E-02	U
	^{154}Eu	6.9E-03	± 2.7E-02	U
	^{155}Eu	3.5E-02	± 4.5E-02	U
	^{238}Pu	5.5E-03	± 1.3E-02	U
	^{239,240}Pu	1.1E-02	± 9.2E-03	
	^{103}Ru	1.9E-03	± 1.2E-02	U
	^{106}Ru	-2.8E-02	± 9.0E-02	U
	^{125}Sb	2.9E-02	± 4.0E-02	U
	^{113}Sn	1.8E-04	± 1.8E-03	U
	^{90}Sr	-1.3E-01	± 1.8E-01	U
	^{234}U	1.3E-01	± 4.0E-02	
	^{235}U	9.9E-03	± 1.2E-02	U
	^{238}U	1.4E-01	± 4.2E-02	
	^{65}Zn	-1.2E-02	± 1.9E-02	U
D017	^{144}Ce	-8.2E-02	± 1.6E-01	U
(200 West)	^{60}Co	-9.8E-04	± 7.7E-03	U
	^{134}Cs	3.7E-02	± 1.2E-02	
	^{137}Cs	2.1E+00	± 3.4E-01	
	^{152}Eu	-1.5E-02	± 4.7E-02	U
	^{154}Eu	-1.2E-02	± 3.0E-02	U
	^{155}Eu	6.3E-02	± 3.9E-02	U
	^{238}Pu	1.7E-02	± 1.3E-02	
	^{239,240}Pu	6.9E-02	± 2.6E-02	
	^{103}Ru	3.4E-03	± 9.0E-03	U
	^{106}Ru	4.0E-02	± 7.8E-02	U
	^{125}Sb	1.0E-02	± 2.7E-02	U
	^{113}Sn	8.2E-03	± 1.2E-02	U
	^{90}Sr	4.7E-02	± 2.1E-01	U
	^{234}U	1.7E-01	± 4.9E-02	
	^{235}U	1.9E-02	± 1.3E-02	
	^{238}U	1.5E-01	± 4.4E-02	
	^{65}Zn	6.1E-02	± 2.4E-02	

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D019	^{144}Ce	6.9E-02	± 1.2E-01	U
(200 West)	^{60}Co	-2.7E-04	± 2.7E-03	U
	^{134}Cs	3.7E-02	± 1.1E-02	
	^{137}Cs	1.8E+00	± 3.0E-01	
	^{152}Eu	2.6E-02	± 2.8E-02	U
	^{154}Eu	-2.6E-02	± 2.9E-02	U
	^{155}Eu	2.1E-02	± 3.2E-02	U
	^{238}Pu	1.8E-03	± 1.3E-02	U
	^{239,240}Pu	5.7E-02	± 2.4E-02	
	^{103}Ru	-7.2E-03	± 8.3E-03	U
	^{106}Ru	-1.4E-02	± 7.3E-02	U
	^{125}Sb	-1.5E-02	± 2.7E-02	U
	^{113}Sn	-7.4E-03	± 1.1E-02	U
	^{90}Sr	2.1E-01	± 2.5E-01	U
	^{234}U	1.4E-01	± 4.1E-02	
	^{235}U	7.4E-03	± 7.4E-03	
	^{238}U	1.3E-01	± 3.8E-02	
	^{65}Zn	8.8E-03	± 2.2E-02	U
D023	^{144}Ce	-1.9E-01	± 2.2E-01	U
(200 West)	^{60}Co	6.1E-03	± 1.1E-02	U
	^{134}Cs	3.7E-02	± 1.5E-02	
	^{137}Cs	2.9E+00	± 5.3E-01	
	^{152}Eu	-5.3E-02	± 5.3E-02	U
	^{154}Eu	-6.6E-03	± 3.6E-02	U
	^{155}Eu	5.6E-02	± 5.4E-02	U
	^{238}Pu	2.2E-03	± 2.2E-02	U
	^{239,240}Pu	4.0E-02	± 2.2E-02	
	^{103}Ru	-1.1E-02	± 1.3E-02	U
	^{106}Ru	5.1E-02	± 1.1E-01	U
	^{125}Sb	1.4E-02	± 3.7E-02	U
	^{113}Sn	1.0E-02	± 1.7E-02	U
	^{90}Sr	6.9E-02	± 2.6E-01	U
	^{234}U	1.1E-01	± 3.6E-02	
	^{235}U	1.0E-02	± 1.1E-02	U
	^{238}U	1.2E-01	± 3.7E-02	
	^{65}Zn	2.2E-02	± 2.8E-02	U

Location	Isotope	Result	± Error	RQ*
D021	^{144}Ce	-7.3E-02	± 2.1E-01	U
(200 West)	^{60}Co	-9.4E-04	± 8.8E-03	U
	^{134}Cs	4.7E-02	± 1.7E-02	
	^{137}Cs	2.0E-01	± 4.0E-02	
	^{152}Eu	-1.1E-02	± 5.6E-02	U
	^{154}Eu	-7.8E-03	± 3.3E-02	U
	^{155}Eu	5.6E-02	± 6.0E-02	U
	^{238}Pu	2.0E-02	± 3.2E-02	U
	^{239,240}Pu	1.6E-02	± 1.3E-02	
	^{103}Ru	-3.0E-03	± 9.5E-03	U
	^{106}Ru	-4.6E-02	± 8.2E-02	U
	^{125}Sb	1.6E-02	± 2.8E-02	U
	^{113}Sn	1.2E-02	± 1.3E-02	U
	^{90}Sr	6.7E-02	± 2.2E-01	U
	^{234}U	1.3E-01	± 4.0E-02	
	^{235}U	9.7E-03	± 8.8E-03	
	^{238}U	1.1E-01	± 3.4E-02	
	^{65}Zn	1.2E-02	± 2.5E-02	U
D025	^{144}Ce	-1.2E-01	± 1.6E-01	U
(200 West)	^{60}Co	1.8E-01	± 2.0E-02	
	^{134}Cs	3.2E-02	± 1.1E-02	
	^{137}Cs	6.1E+00	± 9.8E-01	
	^{152}Eu	2.0E-02	± 3.4E-02	U
	^{154}Eu	-2.7E-02	± 2.7E-02	U
	^{155}Eu	4.7E-02	± 4.2E-02	U
	^{238}Pu	-1.2E-02	± 3.7E-02	U
	^{239,240}Pu	3.9E-01	± 9.4E-02	
	^{103}Ru	1.6E-03	± 1.0E-02	U
	^{106}Ru	4.2E-04	± 4.2E-03	U
	^{125}Sb	4.4E-02	± 3.4E-02	U
	^{113}Sn	-4.1E-03	± 1.4E-02	U
	^{90}Sr	3.1E-01	± 2.5E-01	U
	^{234}U	1.6E-01	± 4.6E-02	
	^{235}U	8.6E-03	± 8.6E-03	
	^{238}U	1.6E-01	± 4.6E-02	
	^{65}Zn	-7.9E-03	± 1.9E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D027	^{144}Ce	-1.5E-01	± 1.5E-01	U
(200 West)	^{60}Co	-4.5E-03	± 5.8E-03	U
	^{134}Cs	3.5E-02	± 1.2E-02	
	^{137}Cs	9.5E-01	± 1.5E-01	
	^{152}Eu	-2.0E-02	± 2.3E-02	U
	^{154}Eu	-1.1E-04	± 1.1E-03	U
	^{155}Eu	3.1E-02	± 3.4E-02	U
	^{238}Pu	8.1E-03	± 3.2E-02	U
	^{239,240}Pu	6.0E-03	± 9.0E-03	U
	^{103}Ru	-2.7E-04	± 2.7E-03	U
	^{106}Ru	-2.0E-02	± 5.3E-02	U
	^{125}Sb	1.1E-02	± 1.9E-02	U
	^{113}Sn	1.3E-03	± 8.9E-03	U
	^{90}Sr	-2.4E-01	± 2.4E-01	U
	^{234}U	1.9E-01	± 5.3E-02	
	^{235}U	2.5E-02	± 1.5E-02	
	^{238}U	1.8E-01	± 5.0E-02	
	^{65}Zn	8.0E-03	± 2.2E-02	U
D031	^{144}Ce	-1.7E-02	± 1.5E-01	U
(200 West)	^{60}Co	1.9E-03	± 7.2E-03	U
	^{134}Cs	2.2E-02	± 1.1E-02	
	^{137}Cs	3.1E+00	± 5.1E-01	
	^{152}Eu	1.3E-03	± 1.3E-02	U
	^{154}Eu	-4.0E-02	± 4.0E-02	U
	^{155}Eu	2.2E-02	± 3.4E-02	U
	^{238}Pu	6.0E-03	± 9.0E-03	U
	^{239,240}Pu	1.2E-01	± 3.8E-02	
	^{103}Ru	-4.8E-04	± 4.8E-03	U
	^{106}Ru	-3.4E-02	± 8.1E-02	U
	^{125}Sb	-1.5E-02	± 2.9E-02	U
	^{113}Sn	3.3E-03	± 1.2E-02	U
	^{90}Sr	4.2E-01	± 2.7E-01	
	^{234}U	1.3E-01	± 4.2E-02	
	^{235}U	6.5E-03	± 1.2E-02	U
	^{238}U	1.7E-01	± 4.9E-02	
	^{65}Zn	5.4E-02	± 2.2E-02	

Location	Isotope	Result	± Error	RQ*
D029	^{144}Ce	6.6E-03	± 6.6E-02	U
(200 West)	^{60}Co	-4.3E-03	± 5.8E-03	U
	^{134}Cs	3.3E-02	± 1.1E-02	
	^{137}Cs	1.3E+00	± 2.1E-01	
	^{152}Eu	-1.1E-03	± 1.1E-02	U
	^{154}Eu	-2.7E-02	± 2.7E-02	U
	^{155}Eu	1.6E-02	± 3.1E-02	U
	^{238}Pu	1.8E-03	± 1.8E-02	U
	^{239,240}Pu	4.1E-02	± 2.1E-02	
	^{103}Ru	1.7E-03	± 6.6E-03	U
	^{106}Ru	-8.5E-03	± 5.7E-02	U
	^{125}Sb	3.8E-03	± 2.1E-02	U
	^{113}Sn	-3.7E-03	± 9.7E-03	U
	^{90}Sr	-2.0E-01	± 2.4E-01	U
	^{234}U	1.4E-01	± 4.5E-02	
	^{235}U	1.4E-02	± 1.5E-02	U
	^{238}U	1.2E-01	± 4.0E-02	
	^{65}Zn	-2.4E-03	± 1.7E-02	U
D033	^{144}Ce	-4.2E-02	± 1.6E-01	U
(200 West)	^{60}Co	-5.7E-03	± 7.4E-03	U
	^{134}Cs	4.8E-02	± 1.4E-02	
	^{137}Cs	7.6E+00	± 1.2E+00	
	^{152}Eu	3.4E-02	± 3.8E-02	U
	^{154}Eu	-5.0E-03	± 2.4E-02	U
	^{155}Eu	5.0E-02	± 5.0E-02	U
	^{238}Pu	7.2E-03	± 1.4E-02	U
	^{239,240}Pu	4.8E-02	± 2.2E-02	
	^{103}Ru	-1.3E-02	± 1.3E-02	U
	^{106}Ru	8.4E-02	± 8.9E-02	U
	^{125}Sb	-1.6E-02	± 3.4E-02	U
	^{113}Sn	8.0E-03	± 1.5E-02	U
	^{90}Sr	9.5E-01	± 2.9E-01	
	^{234}U	1.6E-01	± 4.6E-02	
	^{235}U	1.2E-02	± 1.4E-02	U
	^{238}U	1.5E-01	± 4.5E-02	
	^{65}Zn	2.8E-02	± 1.9E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D035	^{144}Ce	1.1E-01	± 1.9E-01	U
(200 West)	^{60}Co	-1.1E-03	± 6.0E-03	U
	^{134}Cs	2.7E-02	± 1.1E-02	
	^{137}Cs	4.0E+00	± 6.7E-01	
	^{152}Eu	-9.2E-03	± 4.8E-02	U
	^{154}Eu	-4.1E-03	± 2.3E-02	U
	^{155}Eu	2.0E-02	± 4.5E-02	U
	^{238}Pu	8.3E-03	± 3.1E-02	U
	^{239,240}Pu	3.3E-02	± 1.9E-02	
	^{103}Ru	-3.0E-04	± 3.0E-03	U
	^{106}Ru	3.6E-02	± 8.7E-02	U
	^{125}Sb	-7.3E-03	± 3.0E-02	U
	^{113}Sn	-3.2E-03	± 1.3E-02	U
	^{90}Sr	-6.8E-02	± 1.9E-01	U
	^{234}U	1.3E-01	± 4.0E-02	
	^{235}U	6.4E-03	± 9.6E-03	U
	^{238}U	1.5E-01	± 4.4E-02	
	^{65}Zn	9.3E-04	± 9.3E-03	U
D039	^{144}Ce	2.5E-02	± 1.2E-01	U
(200 West)	^{60}Co	-7.9E-04	± 5.6E-03	U
	^{134}Cs	2.4E-02	± 8.6E-03	
	^{137}Cs	3.6E+00	± 5.7E-01	
	^{152}Eu	-6.3E-03	± 3.0E-02	U
	^{154}Eu	5.3E-03	± 2.1E-02	U
	^{155}Eu	2.6E-02	± 3.2E-02	U
	^{238}Pu	1.0E-02	± 3.3E-02	U
	^{239,240}Pu	6.7E-01	± 1.5E-01	
	^{103}Ru	-2.0E-03	± 7.9E-03	U
	^{106}Ru	-2.3E-02	± 6.1E-02	U
	^{125}Sb	-1.3E-02	± 2.5E-02	U
	^{113}Sn	-2.2E-03	± 1.1E-02	U
	^{90}Sr	5.3E-01	± 2.2E-01	
	^{234}U	1.2E-01	± 3.8E-02	
	^{235}U	1.3E-02	± 1.2E-02	U
	^{238}U	1.5E-01	± 4.5E-02	
	^{65}Zn	-1.7E-02	± 1.7E-02	U

Location	Isotope	Result	± Error	RQ*
D037	^{144}Ce	5.9E-02	± 1.9E-01	U
(200 West)	^{60}Co	-1.2E-03	± 7.6E-03	U
	^{134}Cs	2.8E-02	± 1.1E-02	
	^{137}Cs	6.8E+00	± 1.2E+00	
	^{152}Eu	-7.2E-03	± 3.9E-02	U
	^{154}Eu	-3.6E-02	± 3.6E-02	U
	^{155}Eu	-3.2E-02	± 4.4E-02	U
	^{238}Pu	1.7E-03	± 1.7E-02	U
	^{239,240}Pu	4.4E-02	± 2.0E-02	
	^{103}Ru	8.5E-03	± 1.2E-02	U
	^{106}Ru	6.6E-02	± 8.9E-02	U
	^{125}Sb	-2.8E-02	± 3.6E-02	U
	^{113}Sn	9.3E-03	± 1.5E-02	U
	^{90}Sr	8.2E-01	± 2.5E-01	
	^{234}U	1.1E-01	± 3.5E-02	
	^{235}U	1.9E-03	± 1.9E-02	U
	^{238}U	1.0E-01	± 3.3E-02	
	^{65}Zn	1.5E-02	± 1.9E-02	U
D041	^{144}Ce	6.6E-04	± 6.6E-03	U
(200 West)	^{60}Co	-8.0E-03	± 8.3E-03	U
	^{134}Cs	4.0E-02	± 1.6E-02	
	^{137}Cs	4.9E-01	± 8.2E-02	
	^{152}Eu	7.5E-03	± 3.1E-02	U
	^{154}Eu	-1.3E-03	± 1.3E-02	U
	^{155}Eu	3.6E-02	± 4.3E-02	U
	^{238}Pu	-1.4E-02	± 2.5E-02	U
	^{239,240}Pu	3.9E-02	± 2.0E-02	
	^{103}Ru	-1.0E-03	± 9.1E-03	U
	^{106}Ru	-4.2E-02	± 7.8E-02	U
	^{125}Sb	1.6E-02	± 2.5E-02	U
	^{113}Sn	-4.0E-03	± 1.2E-02	U
	^{90}Sr	-3.2E-01	± 3.2E-01	U
	^{234}U	1.4E-01	± 4.6E-02	
	^{235}U	2.2E-02	± 1.6E-02	
	^{238}U	1.8E-01	± 5.4E-02	
	^{65}Zn	4.0E-02	± 2.5E-02	

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D043	^{144}Ce	-3.9E-02	± 1.2E-01	U
(200 West)	^{60}Co	-1.4E-03	± 7.9E-03	U
	^{134}Cs	3.8E-02	± 1.4E-02	
	^{137}Cs	1.2E+00	± 2.0E-01	
	^{152}Eu	-1.4E-02	± 2.6E-02	U
	^{154}Eu	-1.6E-02	± 2.6E-02	U
	^{155}Eu	3.8E-02	± 4.0E-02	U
	^{238}Pu	5.6E-03	± 2.9E-02	U
	^{239,240}Pu	1.0E-01	± 3.3E-02	
	^{103}Ru	-4.1E-03	± 8.5E-03	U
	^{106}Ru	-4.8E-02	± 6.9E-02	U
	^{125}Sb	-1.2E-02	± 2.2E-02	U
	^{113}Sn	-3.0E-03	± 1.1E-02	U
	^{90}Sr	-1.3E-01	± 1.6E-01	U
	^{234}U	3.5E-01	± 1.0E-01	
	^{235}U	3.5E-02	± 2.1E-02	
	^{238}U	4.1E-01	± 1.2E-01	
	^{65}Zn	1.7E-02	± 2.1E-02	U
D047	^{144}Ce	6.8E-03	± 6.8E-02	U
(200 West)	^{60}Co	3.3E-04	± 3.3E-03	U
	^{134}Cs	4.6E-02	± 1.3E-02	
	^{137}Cs	1.6E+00	± 2.9E-01	
	^{152}Eu	-4.6E-02	± 4.6E-02	U
	^{154}Eu	-1.5E-02	± 2.7E-02	U
	^{155}Eu	4.5E-02	± 5.0E-02	U
	^{238}Pu	1.9E-03	± 1.9E-03	U
	^{239,240}Pu	1.9E-02	± 1.6E-02	U
	^{103}Ru	-3.6E-03	± 1.0E-02	U
	^{106}Ru	-1.8E-03	± 1.8E-02	U
	^{125}Sb	4.0E-03	± 2.6E-02	U
	^{113}Sn	-3.4E-03	± 1.2E-02	U
	^{90}Sr	-1.2E-02	± 1.2E-01	U
	^{234}U	2.4E-01	± 7.4E-02	
	^{235}U	2.2E-02	± 1.5E-02	
	^{238}U	2.4E-01	± 7.4E-02	
	^{65}Zn	-5.6E-03	± 2.2E-02	U

Location	Isotope	Result	± Error	RQ*
D045	^{144}Ce	-2.2E-01	± 2.2E-01	U
(200 West)	^{60}Co	-2.9E-03	± 6.7E-03	U
	^{134}Cs	2.9E-02	± 1.1E-02	
	^{137}Cs	6.2E+00	± 1.0E+00	
	^{152}Eu	-4.8E-02	± 6.0E-02	U
	^{154}Eu	-1.6E-02	± 2.2E-02	U
	^{155}Eu	-2.1E-02	± 5.1E-02	U
	^{238}Pu	7.8E-03	± 2.7E-02	U
	^{239,240}Pu	1.2E-01	± 3.8E-02	
	^{103}Ru	6.0E-03	± 1.4E-02	U
	^{106}Ru	-2.8E-02	± 8.7E-02	U
	^{125}Sb	1.8E-03	± 1.8E-02	U
	^{113}Sn	-8.3E-03	± 1.7E-02	U
	^{90}Sr	1.5E+00	± 3.0E-01	
	^{234}U	1.8E-01	± 5.9E-02	
	^{235}U	1.4E-02	± 1.1E-02	
	^{238}U	1.7E-01	± 5.6E-02	
	^{65}Zn	5.2E-03	± 1.9E-02	U
D049	^{144}Ce	2.1E-02	± 1.5E-01	U
(200 West)	^{60}Co	-5.2E-03	± 9.4E-03	U
	^{134}Cs	4.2E-02	± 1.8E-02	
	^{137}Cs	4.9E-01	± 8.5E-02	
	^{152}Eu	3.9E-02	± 4.0E-02	U
	^{154}Eu	-2.0E-02	± 3.3E-02	U
	^{155}Eu	5.9E-02	± 4.7E-02	U
	^{238}Pu	-2.5E-02	± 3.0E-02	U
	^{239,240}Pu	4.0E-02	± 1.9E-02	
	^{103}Ru	-1.6E-03	± 1.0E-02	U
	^{106}Ru	-5.4E-03	± 5.4E-02	U
	^{125}Sb	6.8E-03	± 2.7E-02	U
	^{113}Sn	1.4E-02	± 1.3E-02	U
	^{90}Sr	-5.9E-02	± 2.2E-01	U
	^{234}U	1.5E-01	± 4.9E-02	
	^{235}U	1.5E-02	± 1.1E-02	
	^{238}U	1.9E-01	± 6.1E-02	
	^{65}Zn	6.0E-02	± 2.9E-02	

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D051	^{144}Ce	-1.0E-01	± 1.1E-01	U
(200 West)	^{60}Co	2.6E-03	± 7.5E-03	U
	^{134}Cs	3.4E-02	± 1.5E-02	
	^{137}Cs	2.8E-01	± 5.0E-02	
	^{152}Eu	-1.6E-02	± 2.2E-02	U
	^{154}Eu	-2.7E-03	± 2.4E-02	U
	^{155}Eu	4.8E-02	± 4.0E-02	U
	^{238}Pu	-1.3E-02	± 2.7E-02	U
	^{239,240}Pu	2.8E-02	± 1.5E-02	
	^{103}Ru	-4.5E-03	± 7.5E-03	U
	^{106}Ru	1.2E-02	± 6.3E-02	U
	^{125}Sb	-1.9E-03	± 1.9E-02	U
	^{113}Sn	3.7E-03	± 1.0E-02	U
	^{90}Sr	-1.1E-01	± 1.8E-01	U
	^{234}U	1.8E-01	± 5.9E-02	
	^{235}U	8.7E-03	± 1.4E-02	U
	^{238}U	2.2E-01	± 7.0E-02	
	^{65}Zn	2.5E-02	± 2.1E-02	U
D055	^{144}Ce	1.4E-02	± 1.4E-01	U
(200 East)	^{60}Co	7.8E-04	± 6.7E-03	U
	^{134}Cs	3.1E-02	± 1.0E-02	
	^{137}Cs	2.2E+00	± 4.1E-01	
	^{152}Eu	-1.8E-03	± 1.8E-02	U
	^{154}Eu	5.4E-03	± 2.5E-02	U
	^{155}Eu	1.9E-02	± 3.3E-02	U
	^{238}Pu	2.1E-02	± 2.9E-02	U
	^{239,240}Pu	7.5E-03	± 1.0E-02	U
	^{103}Ru	-4.4E-03	± 8.9E-03	U
	^{106}Ru	-1.5E-02	± 6.6E-02	U
	^{125}Sb	3.7E-03	± 2.4E-02	U
	^{113}Sn	-7.4E-03	± 1.1E-02	U
	^{90}Sr	1.1E-01	± 1.9E-01	U
	^{234}U	1.9E-01	± 6.3E-02	
	^{235}U	4.5E-03	± 6.3E-03	U
	^{238}U	1.9E-01	± 6.3E-02	
	^{65}Zn	2.6E-03	± 1.8E-02	U

Location	Isotope	Result	± Error	RQ*
D053	^{144}Ce	6.1E-02	± 1.3E-01	U
(200 East)	^{60}Co	-3.9E-03	± 6.6E-03	U
	^{134}Cs	4.4E-02	± 1.4E-02	
	^{137}Cs	7.1E-01	± 1.1E-01	
	^{152}Eu	-4.2E-03	± 2.5E-02	U
	^{154}Eu	1.4E-03	± 1.4E-02	U
	^{155}Eu	5.8E-02	± 4.2E-02	U
	^{238}Pu	-1.2E-02	± 2.9E-02	U
	^{239,240}Pu	1.9E-03	± 1.9E-02	U
	^{103}Ru	3.0E-03	± 7.4E-03	U
	^{106}Ru	-2.0E-03	± 2.0E-02	U
	^{125}Sb	3.0E-04	± 3.0E-03	U
	^{113}Sn	-5.8E-03	± 9.7E-03	U
	^{90}Sr	-1.1E-01	± 2.1E-01	U
	^{234}U	2.0E-01	± 6.6E-02	
	^{235}U	1.4E-02	± 1.4E-02	U
	^{238}U	1.4E-01	± 4.9E-02	
	^{65}Zn	-7.3E-04	± 7.3E-03	U
D057	^{144}Ce	-2.5E-01	± 2.5E-01	U
(200 East)	^{60}Co	1.3E-03	± 6.5E-03	U
	^{134}Cs	4.2E-02	± 1.5E-02	
	^{137}Cs	1.4E+01	± 2.3E+00	
	^{152}Eu	-8.0E-03	± 7.5E-02	U
	^{154}Eu	-2.0E-02	± 2.2E-02	U
	^{155}Eu	-1.1E-02	± 6.1E-02	U
	^{238}Pu	2.7E-02	± 3.8E-02	U
	^{239,240}Pu	5.4E-02	± 2.6E-02	
	^{103}Ru	-9.9E-03	± 1.8E-02	U
	^{106}Ru	1.2E-01	± 1.1E-01	U
	^{125}Sb	3.0E-02	± 5.0E-02	U
	^{113}Sn	-2.3E-02	± 2.3E-02	U
	^{90}Sr	1.6E-01	± 1.6E-01	U
	^{234}U	1.6E-01	± 5.6E-02	
	^{235}U	9.1E-03	± 9.1E-03	
	^{238}U	1.7E-01	± 5.8E-02	
	^{65}Zn	3.0E-02	± 1.8E-02	

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D059	^{144}Ce	-5.6E-02	± 1.6E-01	U
(200 East)	^{60}Co	-1.6E-03	± 6.7E-03	U
	^{134}Cs	5.0E-02	± 1.5E-02	
	^{137}Cs	4.2E+00	± 6.7E-01	
	^{152}Eu	-1.5E-03	± 1.5E-02	U
	^{154}Eu	-1.4E-02	± 2.5E-02	U
	^{155}Eu	1.5E-03	± 1.5E-02	U
	^{238}Pu	3.7E-03	± 9.3E-03	U
	^{239,240}Pu	1.1E-02	± 9.2E-03	
	^{103}Ru	-5.5E-04	± 5.5E-03	U
	^{106}Ru	3.5E-02	± 7.3E-02	U
	^{125}Sb	4.1E-03	± 3.0E-02	U
	^{113}Sn	-8.4E-03	± 1.3E-02	U
	^{90}Sr	-3.5E-03	± 3.5E-02	U
	^{234}U	1.4E-01	± 4.9E-02	
	^{235}U	1.7E-02	± 1.3E-02	
	^{238}U	1.6E-01	± 5.4E-02	
	^{65}Zn	-1.2E-02	± 1.9E-02	U
D063	^{144}Ce	1.4E-02	± 1.4E-01	U
(200 East)	^{60}Co	-3.8E-04	± 3.8E-03	U
	^{134}Cs	4.7E-02	± 1.4E-02	
	^{137}Cs	5.2E-01	± 8.8E-02	
	^{152}Eu	-6.4E-03	± 3.8E-02	U
	^{154}Eu	-3.3E-02	± 3.3E-02	U
	^{155}Eu	4.1E-02	± 4.3E-02	U
	^{238}Pu	1.9E-03	± 1.9E-02	U
	^{239,240}Pu	3.5E-02	± 2.2E-02	
	^{103}Ru	-6.3E-03	± 9.4E-03	U
	^{106}Ru	-1.4E-02	± 7.9E-02	U
	^{125}Sb	2.0E-02	± 2.4E-02	U
	^{113}Sn	-5.3E-03	± 1.2E-02	U
	^{90}Sr	3.0E-01	± 2.1E-01	
	^{234}U	2.6E-01	± 8.1E-02	
	^{235}U	1.6E-02	± 1.2E-02	
	^{238}U	2.2E-01	± 6.8E-02	
	^{65}Zn	7.7E-02	± 2.8E-02	

Location	Isotope	Result	± Error	RQ*
D061	^{144}Ce	-1.2E-01	± 1.5E-01	U
(200 East)	^{60}Co	-2.5E-05	± 2.5E-04	U
	^{134}Cs	3.9E-02	± 1.3E-02	
	^{137}Cs	1.4E+00	± 2.3E-01	
	^{152}Eu	-2.1E-02	± 2.7E-02	U
	^{154}Eu	-1.3E-02	± 2.2E-02	U
	^{155}Eu	8.3E-02	± 5.0E-02	U
	^{238}Pu	2.0E-03	± 2.0E-02	U
	^{239,240}Pu	4.0E-03	± 5.6E-03	U
	^{103}Ru	2.8E-04	± 2.8E-03	U
	^{106}Ru	-1.2E-02	± 6.4E-02	U
	^{125}Sb	-3.0E-03	± 2.3E-02	U
	^{113}Sn	-4.2E-03	± 1.1E-02	U
	^{90}Sr	-1.5E-01	± 1.8E-01	U
	^{234}U	1.3E-01	± 4.7E-02	
	^{235}U	2.1E-03	± 4.2E-03	U
	^{238}U	1.7E-01	± 5.6E-02	
	^{65}Zn	-6.9E-03	± 1.9E-02	U
D065	^{144}Ce	-7.7E-04	± 7.7E-03	U
(200 East)	^{60}Co	-8.3E-04	± 6.9E-03	U
	^{134}Cs	4.8E-02	± 1.5E-02	
	^{137}Cs	1.7E+00	± 3.0E-01	
	^{152}Eu	1.5E-02	± 4.0E-02	U
	^{154}Eu	-3.1E-02	± 3.1E-02	U
	^{155}Eu	5.0E-02	± 3.6E-02	U
	^{238}Pu	-1.4E-02	± 3.1E-02	U
	^{239,240}Pu	2.0E-03	± 2.0E-02	U
	^{103}Ru	2.5E-03	± 9.0E-03	U
	^{106}Ru	1.7E-02	± 6.6E-02	U
	^{125}Sb	8.9E-03	± 2.4E-02	U
	^{113}Sn	8.6E-03	± 1.1E-02	U
	^{90}Sr	2.3E-01	± 2.4E-01	U
	^{234}U	1.5E-01	± 5.4E-02	
	^{235}U	4.8E-03	± 9.6E-03	U
	^{238}U	1.7E-01	± 5.8E-02	
	^{65}Zn	1.1E-02	± 1.9E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D067	^{144}Ce	9.4E-02	± 1.7E-01	U
(200 East)	^{60}Co	1.9E-03	± 7.0E-03	U
	^{134}Cs	4.7E-02	± 1.5E-02	
	^{137}Cs	1.2E-02	± 8.4E-03	U
	^{152}Eu	7.2E-03	± 4.6E-02	U
	^{154}Eu	-2.9E-02	± 2.9E-02	U
	^{155}Eu	2.3E-02	± 4.8E-02	U
	^{238}Pu	1.4E-02	± 2.5E-02	U
	^{239,240}Pu	6.4E-03	± 9.0E-03	U
	^{103}Ru	1.4E-03	± 8.6E-03	U
	^{106}Ru	-2.8E-02	± 6.8E-02	U
	^{125}Sb	1.3E-02	± 2.2E-02	U
	^{113}Sn	2.1E-03	± 1.1E-02	U
	^{90}Sr	-2.0E-01	± 2.0E-01	U
	^{234}U	1.9E-01	± 6.1E-02	
	^{235}U	9.6E-03	± 1.3E-02	U
	^{238}U	1.7E-01	± 5.6E-02	
	^{65}Zn	1.9E-02	± 2.0E-02	U
D071	^{144}Ce	5.7E-02	± 1.4E-01	U
(200 East)	^{60}Co	-4.1E-03	± 8.8E-03	U
	^{134}Cs	3.9E-02	± 1.5E-02	
	^{137}Cs	1.9E-01	± 3.8E-02	
	^{152}Eu	-1.5E-02	± 2.9E-02	U
	^{154}Eu	-3.2E-02	± 3.2E-02	U
	^{155}Eu	4.0E-02	± 4.4E-02	U
	^{238}Pu	-2.9E-02	± 3.5E-02	U
	^{239,240}Pu	6.2E-02	± 2.9E-02	
	^{103}Ru	-1.1E-02	± 1.1E-02	U
	^{106}Ru	6.7E-02	± 7.6E-02	U
	^{125}Sb	1.8E-02	± 2.1E-02	U
	^{113}Sn	2.3E-03	± 1.1E-02	U
	^{90}Sr	7.3E-02	± 1.6E-01	U
	^{234}U	1.6E-01	± 5.3E-02	
	^{235}U	1.2E-02	± 1.0E-02	
	^{238}U	1.4E-01	± 4.9E-02	
	^{65}Zn	1.5E-02	± 2.4E-02	U

Location	Isotope	Result	± Error	RQ*
D069	^{144}Ce	6.4E-02	± 1.2E-01	U
(200 East)	^{60}Co	-3.1E-03	± 6.3E-03	U
	^{134}Cs	2.7E-02	± 1.1E-02	
	^{137}Cs	5.3E-01	± 8.6E-02	
	^{152}Eu	-1.7E-02	± 2.2E-02	U
	^{154}Eu	-1.0E-02	± 2.0E-02	U
	^{155}Eu	5.1E-02	± 3.4E-02	U
	^{238}Pu	3.3E-02	± 3.3E-02	U
	^{239,240}Pu	1.7E-03	± 1.7E-03	U
	^{103}Ru	2.7E-03	± 7.8E-03	U
	^{106}Ru	-5.6E-02	± 5.6E-02	U
	^{125}Sb	1.1E-02	± 1.9E-02	U
	^{113}Sn	-7.9E-03	± 9.1E-03	U
	^{90}Sr	-2.4E-02	± 1.6E-01	U
	^{234}U	3.1E-01	± 9.3E-02	
	^{235}U	3.7E-02	± 2.0E-02	
	^{238}U	3.0E-01	± 9.0E-02	
	^{65}Zn	-5.3E-03	± 1.6E-02	U
D073	^{144}Ce	-8.7E-02	± 1.2E-01	U
(200 East)	^{60}Co	-3.6E-03	± 6.8E-03	U
	^{134}Cs	3.1E-02	± 1.0E-02	
	^{137}Cs	1.9E+00	± 3.2E-01	
	^{152}Eu	-3.8E-03	± 2.5E-02	U
	^{154}Eu	-3.0E-02	± 3.0E-02	U
	^{155}Eu	3.5E-02	± 2.9E-02	U
	^{238}Pu	-4.3E-03	± 2.3E-02	U
	^{239,240}Pu	1.1E-02	± 1.0E-02	
	^{103}Ru	-4.2E-03	± 8.7E-03	U
	^{106}Ru	1.6E-02	± 6.4E-02	U
	^{125}Sb	-7.7E-03	± 2.1E-02	U
	^{113}Sn	-7.6E-04	± 7.6E-03	U
	^{90}Sr	-8.5E-02	± 1.7E-01	U
	^{234}U	2.0E-01	± 6.6E-02	
	^{235}U	1.1E-02	± 1.0E-02	
	^{238}U	2.1E-01	± 6.7E-02	
	^{65}Zn	1.7E-02	± 1.9E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D075	^{144}Ce	1.2E-01	± 1.3E-01	U
(200 East)	^{60}Co	-1.1E-03	± 7.5E-03	U
	^{134}Cs	3.2E-02	± 1.4E-02	
	^{137}Cs	2.9E-01	± 5.5E-02	
	^{152}Eu	-2.5E-02	± 3.0E-02	U
	^{154}Eu	-3.7E-02	± 3.7E-02	U
	^{155}Eu	3.6E-02	± 3.4E-02	U
	^{238}Pu	3.5E-03	± 1.7E-02	U
	^{239,240}Pu	3.0E-02	± 1.7E-02	
	^{103}Ru	-5.4E-03	± 9.0E-03	U
	^{106}Ru	-3.9E-02	± 6.7E-02	U
	^{125}Sb	-6.4E-03	± 2.1E-02	U
	^{113}Sn	2.6E-03	± 1.0E-02	U
	^{90}Sr	4.2E-01	± 2.1E-01	
	^{234}U	2.0E-01	± 6.4E-02	
	^{235}U	9.6E-03	± 8.9E-03	
	^{238}U	2.3E-01	± 7.1E-02	
	^{65}Zn	1.2E-02	± 2.1E-02	U
D079	^{144}Ce	9.4E-02	± 1.4E-01	U
(200 East)	^{60}Co	1.5E-03	± 7.0E-03	U
	^{134}Cs	3.3E-02	± 9.6E-03	
	^{137}Cs	6.1E-01	± 1.1E-01	
	^{152}Eu	-1.4E-02	± 3.0E-02	U
	^{154}Eu	-2.1E-02	± 2.1E-02	U
	^{155}Eu	4.8E-02	± 4.0E-02	U
	^{238}Pu	-6.0E-03	± 1.9E-02	U
	^{239,240}Pu	3.2E-02	± 1.9E-02	
	^{103}Ru	-3.0E-03	± 7.6E-03	U
	^{106}Ru	1.4E-02	± 6.0E-02	U
	^{125}Sb	1.2E-02	± 2.0E-02	U
	^{113}Sn	1.9E-04	± 1.9E-03	U
	^{90}Sr	1.2E-02	± 1.2E-01	U
	^{234}U	1.8E-01	± 6.1E-02	
	^{235}U	2.2E-02	± 1.7E-02	
	^{238}U	2.0E-01	± 6.6E-02	
	^{65}Zn	-4.0E-03	± 1.8E-02	U

Location	Isotope	Result	± Error	RQ*
D077	^{144}Ce	9.1E-03	± 9.1E-02	U
(200 East)	^{60}Co	2.7E-03	± 6.3E-03	U
	^{134}Cs	3.2E-02	± 1.4E-02	
	^{137}Cs	3.6E-01	± 6.5E-02	
	^{152}Eu	-1.4E-02	± 4.3E-02	U
	^{154}Eu	-1.4E-02	± 2.1E-02	U
	^{155}Eu	-6.4E-03	± 4.3E-02	U
	^{238}Pu	2.4E-02	± 2.6E-02	U
	^{239,240}Pu	2.9E-02	± 1.8E-02	
	^{103}Ru	-6.5E-03	± 8.2E-03	U
	^{106}Ru	4.7E-02	± 6.1E-02	U
	^{125}Sb	-5.2E-03	± 2.1E-02	U
	^{113}Sn	5.3E-03	± 1.0E-02	U
	^{90}Sr	-1.6E-01	± 2.1E-01	U
	^{234}U	1.2E-01	± 4.3E-02	
	^{235}U	6.0E-03	± 9.0E-03	U
	^{238}U	1.2E-01	± 4.3E-02	
	^{65}Zn	-5.1E-03	± 1.8E-02	U
D081	^{144}Ce	-7.4E-02	± 1.2E-01	U
(600 Area)	^{60}Co	-6.2E-03	± 6.2E-03	U
	^{134}Cs	3.8E-02	± 1.3E-02	
	^{137}Cs	6.6E-02	± 1.5E-02	
	^{152}Eu	-2.4E-02	± 2.4E-02	U
	^{154}Eu	-9.6E-03	± 2.0E-02	U
	^{155}Eu	3.4E-02	± 2.8E-02	U
	^{238}Pu	2.0E-03	± 1.6E-02	U
	^{239,240}Pu	4.0E-03	± 5.6E-03	U
	^{103}Ru	3.6E-03	± 6.7E-03	U
	^{106}Ru	2.3E-02	± 5.5E-02	U
	^{125}Sb	-4.7E-03	± 1.8E-02	U
	^{113}Sn	-4.1E-03	± 8.4E-03	U
	^{90}Sr	-2.1E-02	± 2.1E-01	U
	^{234}U	1.2E-01	± 4.3E-02	
	^{235}U	1.1E-02	± 1.2E-02	U
	^{238}U	1.2E-01	± 4.3E-02	
	^{65}Zn	-1.5E-03	± 1.5E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D083	^{144}Ce	-1.1E-01	± 1.6E-01	U
(600 Area)	^{60}Co	6.6E-03	± 9.0E-03	U
	^{134}Cs	4.7E-02	± 1.6E-02	
	^{137}Cs	1.4E+00	± 2.3E-01	
	^{152}Eu	-2.6E-02	± 3.6E-02	U
	^{154}Eu	-2.8E-02	± 3.1E-02	U
	^{155}Eu	1.5E-02	± 3.8E-02	U
	^{238}Pu	1.9E-02	± 2.7E-02	U
	^{239,240}Pu	7.6E-02	± 3.6E-02	
	^{103}Ru	4.0E-04	± 4.1E-03	U
	^{106}Ru	-2.1E-02	± 8.5E-02	U
	^{125}Sb	-7.9E-03	± 2.8E-02	U
	^{113}Sn	3.2E-03	± 1.3E-02	U
	^{90}Sr	-1.4E-01	± 1.9E-01	U
	^{234}U	1.5E-01	± 5.3E-02	
	^{235}U	2.7E-02	± 2.0E-02	
	^{238}U	1.2E-01	± 4.6E-02	
	^{65}Zn	5.4E-02	± 2.7E-02	
D087	^{144}Ce	6.7E-02	± 1.9E-01	U
(600 Area)	^{60}Co	9.0E-03	± 8.8E-03	U
	^{134}Cs	3.1E-02	± 1.2E-02	
	^{137}Cs	2.1E-02	± 1.1E-02	
	^{152}Eu	-5.1E-03	± 5.0E-02	U
	^{154}Eu	-5.8E-03	± 2.9E-02	U
	^{155}Eu	2.7E-03	± 2.7E-02	U
	^{238}Pu	1.8E-03	± 1.8E-03	U
	^{239,240}Pu	1.8E-03	± 3.6E-03	U
	^{103}Ru	-9.4E-03	± 9.9E-03	U
	^{106}Ru	2.0E-03	± 2.0E-02	U
	^{125}Sb	9.4E-03	± 2.4E-02	U
	^{113}Sn	-4.8E-03	± 1.2E-02	U
	^{90}Sr	-8.9E-02	± 1.6E-01	U
	^{234}U	2.3E-01	± 7.4E-02	
	^{235}U	3.1E-02	± 1.8E-02	
	^{238}U	1.6E-01	± 5.4E-02	
	^{65}Zn	9.1E-03	± 2.2E-02	U

Location	Isotope	Result	± Error	RQ*
D085	^{144}Ce	-5.0E-02	± 1.6E-01	U
(600 Area)	^{60}Co	1.6E-03	± 8.8E-03	U
	^{134}Cs	4.5E-02	± 1.9E-02	
	^{137}Cs	4.5E-01	± 7.8E-02	
	^{152}Eu	3.6E-02	± 3.7E-02	U
	^{154}Eu	-2.3E-02	± 3.0E-02	U
	^{155}Eu	1.9E-02	± 3.6E-02	U
	^{238}Pu	7.5E-03	± 1.9E-02	U
	^{239,240}Pu	2.8E-02	± 1.8E-02	
	^{103}Ru	2.6E-03	± 1.0E-02	U
	^{106}Ru	-3.0E-03	± 3.0E-02	U
	^{125}Sb	-1.4E-02	± 2.5E-02	U
	^{113}Sn	2.2E-03	± 1.2E-02	U
	^{90}Sr	-1.2E-01	± 2.0E-01	U
	^{234}U	1.3E-01	± 4.5E-02	
	^{235}U	2.1E-02	± 1.6E-02	
	^{238}U	1.7E-01	± 5.6E-02	
	^{65}Zn	4.7E-02	± 2.7E-02	
D089	^{144}Ce	-7.6E-02	± 1.4E-01	U
(600 Area)	^{60}Co	2.2E-03	± 6.4E-03	U
	^{134}Cs	4.1E-02	± 1.2E-02	
	^{137}Cs	4.0E-01	± 6.5E-02	
	^{152}Eu	-3.9E-02	± 3.9E-02	U
	^{154}Eu	-6.4E-03	± 4.0E-02	U
	^{155}Eu	3.2E-02	± 3.6E-02	U
	^{238}Pu	-1.5E-02	± 2.7E-02	U
	^{239,240}Pu	5.8E-03	± 8.7E-03	U
	^{103}Ru	-2.4E-03	± 7.2E-03	U
	^{106}Ru	-3.3E-02	± 5.7E-02	U
	^{125}Sb	4.4E-03	± 1.9E-02	U
	^{113}Sn	-2.7E-03	± 9.2E-03	U
	^{90}Sr	-1.7E-01	± 1.7E-01	U
	^{234}U	1.4E-01	± 5.0E-02	
	^{235}U	6.8E-03	± 8.2E-03	
	^{238}U	1.4E-01	± 4.9E-02	
	^{65}Zn	1.2E-02	± 1.6E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D091	^{144}Ce	1.2E-01	± 1.5E-01	U
(600 Area)	^{60}Co	-1.1E-03	± 7.1E-03	U
	^{134}Cs	4.2E-02	± 1.2E-02	
	^{137}Cs	2.0E+00	± 3.5E-01	
	^{152}Eu	-2.6E-02	± 3.3E-02	U
	^{154}Eu	-5.4E-03	± 2.3E-02	U
	^{155}Eu	2.1E-02	± 3.5E-02	U
	^{238}Pu	1.4E-02	± 2.0E-02	U
	^{239,240}Pu	3.2E-03	± 4.5E-03	U
	^{103}Ru	8.5E-03	± 9.6E-03	U
	^{106}Ru	2.3E-02	± 7.0E-02	U
	^{125}Sb	-8.8E-03	± 2.4E-02	U
	^{113}Sn	-9.1E-04	± 9.1E-03	U
	^{90}Sr	-9.1E-03	± 9.1E-02	U
	^{234}U	1.7E-01	± 5.4E-02	
	^{235}U	3.7E-03	± 7.4E-03	U
	^{238}U	2.0E-01	± 6.4E-02	
	^{65}Zn	3.0E-03	± 1.9E-02	U
D095	^{144}Ce	1.6E-02	± 1.2E-01	U
(600 Area)	^{60}Co	-1.4E-04	± 1.4E-03	U
	^{134}Cs	3.1E-02	± 9.0E-03	
	^{137}Cs	5.7E-01	± 9.1E-02	
	^{152}Eu	-1.4E-02	± 2.1E-02	U
	^{154}Eu	1.5E-02	± 1.6E-02	U
	^{155}Eu	5.4E-02	± 3.6E-02	U
	^{238}Pu	-2.0E-03	± 2.0E-02	U
	^{239,240}Pu	1.2E-02	± 1.2E-02	U
	^{103}Ru	-3.9E-03	± 6.7E-03	U
	^{106}Ru	2.0E-02	± 4.8E-02	U
	^{125}Sb	-2.7E-03	± 1.7E-02	U
	^{113}Sn	-8.2E-04	± 8.2E-03	U
	^{90}Sr	1.1E-01	± 1.6E-01	U
	^{234}U	2.0E-01	± 6.6E-02	
	^{235}U	1.8E-02	± 1.4E-02	
	^{238}U	1.7E-01	± 5.9E-02	
	^{65}Zn	-7.2E-04	± 7.2E-03	U

Location	Isotope	Result	± Error	RQ*
D093	^{144}Ce	-5.8E-02	± 1.1E-01	U
(600 Area)	^{60}Co	2.0E-03	± 5.5E-03	U
	^{134}Cs	2.9E-02	± 1.2E-02	
	^{137}Cs	1.1E+00	± 1.5E-01	
	^{152}Eu	-7.9E-03	± 2.5E-02	U
	^{154}Eu	4.9E-03	± 3.2E-02	U
	^{155}Eu	2.6E-02	± 3.0E-02	U
	^{238}Pu	-5.3E-03	± 1.5E-02	U
	^{239,240}Pu	4.2E-02	± 2.0E-02	
	^{103}Ru	-7.6E-03	± 7.6E-03	U
	^{106}Ru	1.6E-02	± 5.3E-02	U
	^{125}Sb	-5.7E-03	± 1.9E-02	U
	^{113}Sn	-5.1E-03	± 9.0E-03	U
	^{90}Sr	2.5E-01	± 2.2E-01	
	^{234}U	1.8E-01	± 6.1E-02	
	^{235}U	9.6E-03	± 1.2E-02	U
	^{238}U	1.9E-01	± 6.5E-02	
	^{65}Zn	-6.7E-03	± 1.5E-02	U
D097	^{144}Ce	7.5E-03	± 7.5E-02	U
(600 Area)	^{60}Co	-3.0E-03	± 7.4E-03	U
	^{134}Cs	4.6E-02	± 1.4E-02	
	^{137}Cs	8.6E-02	± 1.9E-02	
	^{152}Eu	-2.3E-02	± 2.9E-02	U
	^{154}Eu	-1.9E-02	± 2.8E-02	U
	^{155}Eu	3.6E-02	± 3.8E-02	U
	^{238}Pu	1.7E-03	± 1.7E-02	U
	^{239,240}Pu	8.5E-03	± 7.9E-03	
	^{103}Ru	-1.7E-03	± 8.3E-03	U
	^{106}Ru	3.8E-02	± 6.5E-02	U
	^{125}Sb	6.5E-03	± 1.9E-02	U
	^{113}Sn	-7.1E-03	± 9.7E-03	U
	^{90}Sr	-9.3E-02	± 2.0E-01	U
	^{234}U	1.8E-01	± 6.1E-02	
	^{235}U	9.2E-03	± 9.2E-03	
	^{238}U	1.4E-01	± 5.0E-02	
	^{65}Zn	2.0E-02	± 2.0E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D099	^{144}Ce	-8.7E-02	± 1.4E-01	U
(600 Area)	^{60}Co	1.2E-03	± 8.0E-03	U
	^{134}Cs	1.3E-02	± 1.1E-02	U
	^{137}Cs	3.4E-01	± 5.9E-02	
	^{152}Eu	-3.8E-02	± 3.8E-02	U
	^{154}Eu	-2.4E-02	± 2.7E-02	U
	^{155}Eu	6.1E-02	± 3.8E-02	U
	^{238}Pu	1.8E-03	± 1.5E-02	U
	^{239,240}Pu	1.1E-02	± 1.2E-02	U
	^{103}Ru	4.2E-03	± 8.9E-03	U
	^{106}Ru	-1.9E-02	± 6.9E-02	U
	^{125}Sb	8.6E-03	± 2.2E-02	U
	^{113}Sn	-2.7E-03	± 1.1E-02	U
	^{90}Sr	2.8E-01	± 2.2E-01	
	^{234}U	2.4E-01	± 7.7E-02	
	^{235}U	5.6E-02	± 2.7E-02	
	^{238}U	1.9E-01	± 6.5E-02	
	^{65}Zn	5.2E-02	± 2.5E-02	
D103	^{144}Ce	-3.6E-02	± 1.6E-01	U
(600 Area)	^{60}Co	-6.8E-03	± 6.8E-03	U
	^{134}Cs	3.0E-02	± 1.1E-02	
	^{137}Cs	9.3E-01	± 1.6E-01	
	^{152}Eu	1.4E-02	± 4.8E-02	U
	^{154}Eu	4.2E-03	± 2.6E-02	U
	^{155}Eu	3.8E-02	± 4.2E-02	U
	^{238}Pu	3.1E-03	± 6.2E-03	U
	^{239,240}Pu	9.9E-02	± 3.4E-02	
	^{103}Ru	-1.6E-03	± 9.9E-03	U
	^{106}Ru	2.5E-02	± 6.9E-02	U
	^{125}Sb	1.5E-02	± 2.4E-02	U
	^{113}Sn	-7.3E-03	± 1.2E-02	U
	^{90}Sr	-2.0E-02	± 1.8E-01	U
	^{234}U	1.5E-01	± 5.1E-02	
	^{235}U	7.3E-03	± 8.8E-03	U
	^{238}U	1.4E-01	± 4.6E-02	
	^{65}Zn	2.8E-02	± 1.9E-02	U

Location	Isotope	Result	± Error	RQ*
D101	^{144}Ce	1.4E-02	± 1.2E-01	U
(600 Area)	^{60}Co	-1.4E-03	± 7.0E-03	U
	^{134}Cs	3.4E-02	± 1.1E-02	
	^{137}Cs	2.5E-01	± 4.4E-02	
	^{152}Eu	-1.7E-02	± 2.0E-02	U
	^{154}Eu	3.6E-02	± 3.0E-02	U
	^{155}Eu	6.1E-02	± 4.1E-02	U
	^{238}Pu	7.8E-03	± 8.6E-03	U
	^{239,240}Pu	2.0E-02	± 1.2E-02	
	^{103}Ru	5.2E-03	± 7.8E-03	U
	^{106}Ru	-2.1E-03	± 2.1E-02	U
	^{125}Sb	-3.4E-03	± 1.8E-02	U
	^{113}Sn	6.9E-03	± 9.2E-03	U
	^{90}Sr	2.7E-01	± 2.2E-01	U
	^{234}U	1.1E-01	± 4.0E-02	
	^{235}U	2.1E-02	± 1.4E-02	
	^{238}U	1.5E-01	± 5.1E-02	
	^{65}Zn	4.2E-02	± 1.9E-02	
D105	^{144}Ce	-9.4E-02	± 1.3E-01	U
(600 Area)	^{60}Co	3.1E-04	± 3.1E-03	U
	^{134}Cs	4.2E-02	± 1.5E-02	
	^{137}Cs	2.0E-01	± 3.8E-02	
	^{152}Eu	-2.3E-02	± 4.3E-02	U
	^{154}Eu	-8.4E-03	± 3.4E-02	U
	^{155}Eu	1.3E-02	± 3.4E-02	U
	^{238}Pu	1.4E-02	± 3.8E-02	U
	^{239,240}Pu	2.2E-01	± 7.0E-02	
	^{103}Ru	-2.5E-03	± 9.7E-03	U
	^{106}Ru	5.4E-02	± 7.6E-02	U
	^{125}Sb	3.1E-03	± 2.3E-02	U
	^{113}Sn	4.1E-03	± 1.3E-02	U
	^{90}Sr	-2.6E-01	± 2.6E-01	U
	^{234}U	9.3E-02	± 3.6E-02	
	^{235}U	1.1E-02	± 1.0E-02	
	^{238}U	1.5E-01	± 5.1E-02	
	^{65}Zn	8.6E-02	± 4.0E-02	

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D107 (600 Area)	^{144}Ce	3.1E-02	± 1.0E-01	U
	^{60}Co	2.0E-03	± 6.9E-03	U
	^{134}Cs	2.6E-02	± 8.8E-03	
	^{137}Cs	8.6E-02	± 1.8E-02	
	^{152}Eu	-2.9E-02	± 2.9E-02	U
	^{154}Eu	-7.1E-04	± 7.1E-03	U
	^{155}Eu	6.4E-02	± 3.9E-02	U
	^{238}Pu	1.8E-03	± 1.8E-02	U
	^{239,240}Pu	1.2E-01	± 4.3E-02	
	^{103}Ru	-2.2E-03	± 7.4E-03	U
	^{106}Ru	1.2E-02	± 6.0E-02	U
	^{125}Sb	6.3E-03	± 1.7E-02	U
	^{113}Sn	-5.2E-03	± 8.8E-03	U
	^{90}Sr	2.8E-03	± 2.8E-02	U
	^{234}U	1.3E-01	± 4.4E-02	
	^{235}U	1.8E-02	± 1.2E-02	
	^{238}U	1.6E-01	± 5.1E-02	
	^{65}Zn	2.1E-02	± 1.8E-02	U
D111 (Duplicate of D051, 200 West)	^{144}Ce	3.2E-03	± 3.2E-02	U
	^{60}Co	-1.2E-03	± 7.7E-03	U
	^{134}Cs	5.3E-02	± 1.7E-02	
	^{137}Cs	2.0E-01	± 4.0E-02	
	^{152}Eu	9.1E-03	± 3.0E-02	U
	^{154}Eu	-3.3E-03	± 2.9E-02	U
	^{155}Eu	3.3E-02	± 3.9E-02	U
	^{238}Pu	-8.6E-03	± 2.7E-02	U
	^{239,240}Pu	1.9E-02	± 1.5E-02	
	^{103}Ru	-3.7E-03	± 9.1E-03	U
	^{106}Ru	-1.2E-02	± 6.8E-02	U
	^{125}Sb	-1.0E-02	± 2.1E-02	U
	^{113}Sn	-3.1E-03	± 1.0E-02	U
	^{90}Sr	5.2E-02	± 1.9E-01	U
	^{234}U	1.6E-01	± 5.3E-02	
	^{235}U	1.1E-02	± 9.5E-03	
	^{238}U	1.4E-01	± 4.8E-02	
	^{65}Zn	-1.9E-02	± 2.2E-02	U

Location	Isotope	Result	± Error	RQ*
D109 (600 Area)	^{144}Ce	2.5E-02	± 1.7E-01	U
	^{60}Co	9.6E-04	± 6.7E-03	U
	^{134}Cs	4.1E-02	± 1.5E-02	
	^{137}Cs	6.7E-01	± 1.2E-01	
	^{152}Eu	-9.7E-05	± 9.7E-04	U
	^{154}Eu	-1.0E-02	± 2.2E-02	U
	^{155}Eu	1.8E-02	± 4.1E-02	U
	^{238}Pu	3.3E-02	± 3.3E-02	U
	^{239,240}Pu	1.8E+00	± 4.7E-01	
	^{103}Ru	-5.7E-03	± 1.0E-02	U
	^{106}Ru	3.0E-02	± 6.8E-02	U
	^{125}Sb	1.1E-03	± 1.1E-02	U
	^{113}Sn	-6.2E-03	± 1.2E-02	U
	^{90}Sr	1.4E-01	± 2.0E-01	U
	^{234}U	1.4E-01	± 4.8E-02	
	^{235}U	1.1E-02	± 9.5E-03	
	^{238}U	1.3E-01	± 4.5E-02	
	^{65}Zn	3.2E-02	± 2.0E-02	
D113 (Duplicate of D083, 600 Area)	^{144}Ce	1.4E-02	± 1.3E-01	U
	^{60}Co	-1.0E-03	± 5.7E-03	U
	^{134}Cs	3.2E-02	± 1.1E-02	
	^{137}Cs	3.1E-01	± 5.1E-02	
	^{152}Eu	-7.2E-03	± 2.1E-02	U
	^{154}Eu	-4.7E-03	± 2.1E-02	U
	^{155}Eu	2.2E-02	± 2.7E-02	U
	^{238}Pu	-1.8E-03	± 1.2E-02	U
	^{239,240}Pu	2.3E-02	± 1.6E-02	
	^{103}Ru	-1.3E-03	± 6.8E-03	U
	^{106}Ru	-3.4E-02	± 4.9E-02	U
	^{125}Sb	1.0E-02	± 1.7E-02	U
	^{113}Sn	-8.8E-03	± 8.8E-03	U
	^{90}Sr	-1.4E-01	± 1.6E-01	U
	^{234}U	1.3E-01	± 4.5E-02	
	^{235}U	1.7E-02	± 1.3E-02	
	^{238}U	1.2E-01	± 4.2E-02	
	^{65}Zn	-8.8E-03	± 1.5E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D116	^{144}Ce	-6.1E-03	± 6.1E-02	U
(300 Area)	^{60}Co	-2.8E-03	± 4.6E-03	U
	^{134}Cs	2.8E-02	± 7.5E-03	
	^{137}Cs	2.4E-02	± 1.1E-02	
	^{152}Eu	-9.8E-03	± 1.8E-02	U
	^{154}Eu	-2.0E-03	± 1.6E-02	U
	^{155}Eu	2.3E-02	± 2.7E-02	U
	^{238}Pu	-2.3E-02	± 3.0E-02	U
	^{239,240}Pu	1.8E-03	± 8.1E-03	U
	^{103}Ru	-7.9E-04	± 4.9E-03	U
	^{106}Ru	1.5E-02	± 4.1E-02	U
	^{125}Sb	3.7E-03	± 1.4E-02	U
	^{113}Sn	-4.7E-03	± 6.8E-03	U
	^{90}Sr	1.6E-02	± 8.8E-02	U
	^{234}U	2.2E-01	± 5.9E-02	
	^{235}U	1.7E-02	± 1.2E-02	
	^{238}U	1.8E-01	± 5.0E-02	
	^{65}Zn	-8.3E-03	± 1.3E-02	U
D119	^{144}Ce	-1.1E-01	± 1.2E-01	U
(300 Area)	^{60}Co	2.2E-03	± 6.3E-03	U
	^{134}Cs	2.4E-02	± 1.0E-02	
	^{137}Cs	1.6E-01	± 2.6E-02	
	^{152}Eu	-2.5E-02	± 2.6E-02	U
	^{154}Eu	-2.3E-03	± 2.1E-02	U
	^{155}Eu	4.1E-02	± 2.9E-02	U
	^{238}Pu	2.3E-02	± 1.6E-02	
	^{239,240}Pu	7.3E-01	± 1.5E-01	
	^{103}Ru	5.6E-03	± 6.5E-03	U
	^{106}Ru	1.0E-03	± 1.0E-02	U
	^{125}Sb	-4.4E-04	± 4.4E-03	U
	^{113}Sn	4.4E-03	± 8.2E-03	U
	^{90}Sr	6.7E-03	± 6.7E-02	U
	^{234}U	8.5E+00	± 1.6E+00	
	^{235}U	4.1E-01	± 9.8E-02	
	^{238}U	8.6E+00	± 1.6E+00	
	^{65}Zn	5.3E-02	± 1.9E-02	

Location	Isotope	Result	± Error	RQ*
D117	^{144}Ce	-1.1E-01	± 1.1E-01	U
(300 Area)	^{60}Co	-1.2E-03	± 5.0E-03	U
	^{134}Cs	2.5E-02	± 7.4E-03	
	^{137}Cs	2.4E-02	± 8.3E-03	
	^{152}Eu	3.4E-03	± 1.7E-02	U
	^{154}Eu	-2.1E-03	± 1.7E-02	U
	^{155}Eu	2.4E-02	± 2.5E-02	U
	^{238}Pu	1.3E-02	± 1.1E-02	U
	^{239,240}Pu	9.6E-03	± 1.1E-02	U
	^{103}Ru	4.3E-04	± 4.3E-03	U
	^{106}Ru	2.8E-02	± 4.6E-02	U
	^{125}Sb	4.6E-03	± 1.4E-02	U
	^{113}Sn	-9.9E-04	± 6.9E-03	U
	^{90}Sr	-6.8E-02	± 9.9E-02	U
	^{234}U	1.5E-01	± 4.4E-02	
	^{235}U	2.2E-02	± 1.5E-02	
	^{238}U	1.4E-01	± 4.2E-02	
	^{65}Zn	6.1E-03	± 1.4E-02	U
D121	^{144}Ce	6.6E-02	± 1.1E-01	U
(300 Area)	^{60}Co	-3.3E-03	± 6.2E-03	U
	^{134}Cs	2.5E-02	± 1.2E-02	
	^{137}Cs	-2.2E-03	± 6.4E-03	U
	^{152}Eu	-3.8E-03	± 2.3E-02	U
	^{154}Eu	-1.4E-02	± 2.1E-02	U
	^{155}Eu	2.2E-02	± 2.7E-02	U
	^{238}Pu	-3.7E-03	± 3.1E-02	U
	^{239,240}Pu	3.7E-03	± 9.3E-03	U
	^{103}Ru	-5.2E-05	± 5.2E-04	U
	^{106}Ru	-6.4E-03	± 5.4E-02	U
	^{125}Sb	-6.1E-03	± 1.6E-02	U
	^{113}Sn	-3.4E-03	± 7.8E-03	U
	^{90}Sr	7.1E-02	± 1.3E-01	U
	^{234}U	4.0E-01	± 9.2E-02	
	^{235}U	2.0E-02	± 1.4E-02	
	^{238}U	3.9E-01	± 9.0E-02	
	^{65}Zn	1.7E-03	± 1.6E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D123	^{144}Ce	-8.1E-02	± 9.5E-02	U
(300 Area)	^{60}Co	5.6E-03	± 5.2E-03	U
	^{134}Cs	2.6E-02	± 1.1E-02	
	^{137}Cs	2.3E-02	± 9.8E-03	
	^{152}Eu	1.3E-03	± 1.3E-02	U
	^{154}Eu	-9.0E-03	± 1.8E-02	U
	^{155}Eu	1.5E-02	± 2.5E-02	U
	^{238}Pu	5.4E-03	± 3.0E-02	U
	^{239,240}Pu	3.6E-03	± 7.2E-03	U
	^{103}Ru	-2.8E-03	± 5.4E-03	U
	^{106}Ru	3.6E-03	± 3.6E-02	U
	^{125}Sb	-5.8E-03	± 1.5E-02	U
	^{113}Sn	-1.1E-03	± 7.9E-03	U
	^{90}Sr	-7.4E-02	± 8.9E-02	U
	^{234}U	1.6E-01	± 4.6E-02	
	^{235}U	2.1E-03	± 4.2E-03	U
	^{238}U	2.0E-01	± 5.4E-02	
	^{65}Zn	1.4E-02	± 1.3E-02	U
D125	^{144}Ce	1.3E-01	± 1.0E-01	U
(300 Area)	^{60}Co	1.1E-03	± 5.7E-03	U
	^{134}Cs	2.9E-02	± 1.0E-02	
	^{137}Cs	2.0E-01	± 2.8E-02	
	^{152}Eu	-1.4E-02	± 1.8E-02	U
	^{154}Eu	9.8E-03	± 1.9E-02	U
	^{155}Eu	3.5E-03	± 2.4E-02	U
	^{238}Pu	-2.1E-02	± 2.5E-02	U
	^{239,240}Pu	4.6E-03	± 5.5E-03	
	^{103}Ru	-2.1E-03	± 5.5E-03	U
	^{106}Ru	1.9E-03	± 1.9E-02	U
	^{125}Sb	-7.7E-03	± 1.5E-02	U
	^{113}Sn	-6.2E-03	± 7.3E-03	U
	^{90}Sr	1.3E-01	± 1.2E-01	U
	^{234}U	7.6E-01	± 1.6E-01	
	^{235}U	5.8E-02	± 2.3E-02	
	^{238}U	6.5E-01	± 1.4E-01	
	^{65}Zn	6.6E-04	± 6.6E-03	U

Location	Isotope	Result	± Error	RQ*
D124	^{144}Ce	6.0E-02	± 1.0E-01	U
(300 Area)	^{60}Co	-2.2E-03	± 5.0E-03	U
	^{134}Cs	2.9E-02	± 8.6E-03	
	^{137}Cs	5.1E-02	± 1.0E-02	
	^{152}Eu	5.0E-03	± 1.8E-02	U
	^{154}Eu	-8.7E-03	± 1.7E-02	U
	^{155}Eu	2.9E-02	± 2.9E-02	U
	^{238}Pu	1.7E-03	± 1.7E-02	U
	^{239,240}Pu	-1.7E-03	± 9.0E-03	U
	^{103}Ru	-3.5E-04	± 3.5E-03	U
	^{106}Ru	-2.3E-03	± 2.3E-02	U
	^{125}Sb	1.5E-02	± 1.5E-02	U
	^{113}Sn	-4.5E-03	± 7.2E-03	U
	^{90}Sr	-1.2E-02	± 1.1E-01	U
	^{234}U	2.2E-01	± 5.7E-02	
	^{235}U	7.2E-03	± 1.2E-02	U
	^{238}U	1.8E-01	± 4.9E-02	
	^{65}Zn	-6.2E-03	± 1.4E-02	U
D126	^{144}Ce	-7.5E-02	± 1.0E-01	U
(300 Area)	^{60}Co	-2.1E-03	± 6.4E-03	U
	^{134}Cs	2.5E-02	± 1.2E-02	
	^{137}Cs	1.3E-02	± 8.1E-03	
	^{152}Eu	-1.4E-02	± 1.9E-02	U
	^{154}Eu	4.8E-03	± 2.2E-02	U
	^{155}Eu	2.7E-02	± 2.4E-02	U
	^{238}Pu	-2.9E-02	± 2.9E-02	U
	^{239,240}Pu	1.9E-03	± 8.6E-03	U
	^{103}Ru	-1.7E-03	± 6.1E-03	U
	^{106}Ru	-3.6E-02	± 6.2E-02	U
	^{125}Sb	1.7E-02	± 2.0E-02	U
	^{113}Sn	-2.3E-03	± 7.9E-03	U
	^{90}Sr	1.2E-02	± 1.1E-01	U
	^{234}U	1.8E-01	± 5.2E-02	
	^{235}U	1.3E-02	± 1.2E-02	U
	^{238}U	1.5E-01	± 4.5E-02	
	^{65}Zn	2.9E-02	± 1.9E-02	

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D127	^{144}Ce	-2.1E-02	± 1.0E-01	U
(300 Area)	^{60}Co	2.9E-03	± 6.4E-03	U
	^{134}Cs	1.7E-02	± 8.8E-03	
	^{137}Cs	2.1E-01	± 3.4E-02	
	^{152}Eu	-1.4E-02	± 2.7E-02	U
	^{154}Eu	-4.6E-03	± 2.0E-02	U
	^{155}Eu	6.2E-02	± 2.8E-02	
	^{238}Pu	1.7E-03	± 6.0E-03	U
	^{239,240}Pu	1.4E-02	± 1.1E-02	
	^{103}Ru	1.4E-03	± 6.6E-03	U
	^{106}Ru	-9.0E-03	± 5.5E-02	U
	^{125}Sb	7.2E-03	± 1.7E-02	U
	^{113}Sn	2.5E-04	± 2.5E-03	U
	^{90}Sr	3.0E-01	± 1.2E-01	
	^{234}U	2.2E-01	± 5.7E-02	
	^{235}U	1.0E-02	± 1.1E-02	U
	^{238}U	1.7E-01	± 4.8E-02	
	^{65}Zn	4.9E-02	± 1.9E-02	
D129	^{144}Ce	-3.6E-02	± 1.0E-01	U
(300 Area)	^{60}Co	-5.1E-04	± 4.8E-03	U
	^{134}Cs	2.0E-02	± 7.2E-03	
	^{137}Cs	1.3E-01	± 2.1E-02	
	^{152}Eu	1.5E-02	± 2.1E-02	U
	^{154}Eu	-6.6E-03	± 1.6E-02	U
	^{155}Eu	2.7E-02	± 2.9E-02	U
	^{238}Pu	-1.4E-02	± 2.8E-02	U
	^{239,240}Pu	1.1E-02	± 1.2E-02	U
	^{103}Ru	-5.1E-04	± 5.1E-03	U
	^{106}Ru	1.6E-02	± 4.3E-02	U
	^{125}Sb	9.4E-03	± 1.5E-02	U
	^{113}Sn	-2.5E-03	± 7.3E-03	U
	^{90}Sr	1.7E-02	± 8.8E-02	U
	^{234}U	3.2E-01	± 7.7E-02	
	^{235}U	2.7E-02	± 1.5E-02	
	^{238}U	4.6E-01	± 1.0E-01	
	^{65}Zn	4.4E-03	± 1.4E-02	U

Location	Isotope	Result	± Error	RQ*
D128	^{144}Ce	-8.3E-03	± 8.3E-02	U
(300 Area)	^{60}Co	1.2E-03	± 5.2E-03	U
	^{134}Cs	2.1E-02	± 7.3E-03	
	^{137}Cs	1.2E-01	± 2.2E-02	
	^{152}Eu	-1.2E-02	± 1.9E-02	U
	^{154}Eu	-9.0E-03	± 1.7E-02	U
	^{155}Eu	4.8E-02	± 3.4E-02	U
	^{238}Pu	4.0E-03	± 1.3E-02	U
	^{239,240}Pu	6.0E-03	± 7.2E-03	
	^{103}Ru	4.4E-04	± 4.4E-03	U
	^{106}Ru	2.9E-03	± 2.9E-02	U
	^{125}Sb	1.9E-02	± 1.7E-02	U
	^{113}Sn	-3.0E-03	± 8.1E-03	U
	^{90}Sr	6.2E-02	± 9.3E-02	U
	^{234}U	1.6E-01	± 4.6E-02	
	^{235}U	1.7E-02	± 1.2E-02	
	^{238}U	2.0E-01	± 5.4E-02	
	^{65}Zn	3.5E-02	± 1.5E-02	
D130	^{144}Ce	8.2E-05	± 8.1E-04	U
(400 Area)	^{60}Co	-2.8E-03	± 5.5E-03	U
	^{134}Cs	2.2E-02	± 8.7E-03	
	^{137}Cs	1.2E-02	± 7.4E-03	
	^{152}Eu	-1.0E-02	± 1.9E-02	U
	^{154}Eu	8.0E-03	± 2.0E-02	U
	^{155}Eu	1.8E-02	± 2.7E-02	U
	^{238}Pu	8.6E-03	± 2.9E-02	U
	^{239,240}Pu	3.4E-03	± 6.8E-03	U
	^{103}Ru	-2.0E-03	± 6.4E-03	U
	^{106}Ru	-3.2E-02	± 4.9E-02	U
	^{125}Sb	1.6E-03	± 1.6E-02	U
	^{113}Sn	-1.7E-03	± 7.9E-03	U
	^{90}Sr	1.8E-01	± 1.3E-01	U
	^{234}U	9.0E-02	± 3.2E-02	
	^{235}U	4.0E-03	± 5.6E-03	U
	^{238}U	1.2E-01	± 3.8E-02	
	^{65}Zn	-7.2E-03	± 1.5E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-3. 2003 Soil Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result	± Error	RQ*
D131 (Duplicate of D119, 300 Area)	^{144}Ce	-6.8E-03	± 6.8E-02	U
	^{60}Co	-2.0E-03	± 4.8E-03	U
	^{134}Cs	2.8E-02	± 9.2E-03	
	^{137}Cs	1.3E-01	± 1.9E-02	
	^{152}Eu	7.1E-04	± 7.1E-03	U
	^{154}Eu	-1.2E-02	± 1.9E-02	U
	^{155}Eu	6.7E-02	± 3.6E-02	U
	^{238}Pu	5.2E-03	± 2.8E-02	U
	^{239,240}Pu	2.5E-01	± 6.3E-02	
	^{103}Ru	3.2E-03	± 6.1E-03	U
	^{106}Ru	5.9E-03	± 4.6E-02	U
	^{125}Sb	1.4E-02	± 1.5E-02	U
	^{113}Sn	-5.2E-03	± 7.7E-03	U
	^{90}Sr	6.7E-02	± 1.1E-01	U
	^{234}U	6.4E+00	± 1.2E+00	
	^{235}U	3.1E-01	± 7.8E-02	
	^{238}U	6.5E+00	± 1.2E+00	
	^{65}Zn	-5.5E-03	± 1.5E-02	U

Location	Isotope	Result	± Error	RQ*
D140 (Duplicate of D123, 300 Area)	^{144}Ce	2.4E-02	± 1.2E-01	U
	^{60}Co	4.7E-03	± 6.2E-03	U
	^{134}Cs	2.8E-02	± 8.6E-03	
	^{137}Cs	3.8E-02	± 1.1E-02	
	^{152}Eu	-1.4E-04	± 1.4E-03	U
	^{154}Eu	-3.7E-03	± 1.9E-02	U
	^{155}Eu	3.7E-02	± 3.3E-02	U
	^{238}Pu	-4.9E-03	± 1.5E-02	U
	^{239,240}Pu	6.6E-03	± 7.9E-03	U
	^{103}Ru	1.1E-03	± 6.7E-03	U
	^{106}Ru	-6.0E-02	± 6.0E-02	U
	^{125}Sb	1.5E-02	± 1.6E-02	U
	^{113}Sn	-3.6E-03	± 8.0E-03	U
	^{90}Sr	7.2E-02	± 9.4E-02	U
	^{234}U	2.0E-01	± 5.2E-02	
	^{235}U	7.8E-03	± 7.8E-03	
	^{238}U	2.2E-01	± 5.7E-02	
	^{65}Zn	3.3E-02	± 2.3E-02	

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Figure 3-10. 2003 Vegetation Sampling Locations, 100 N Area.

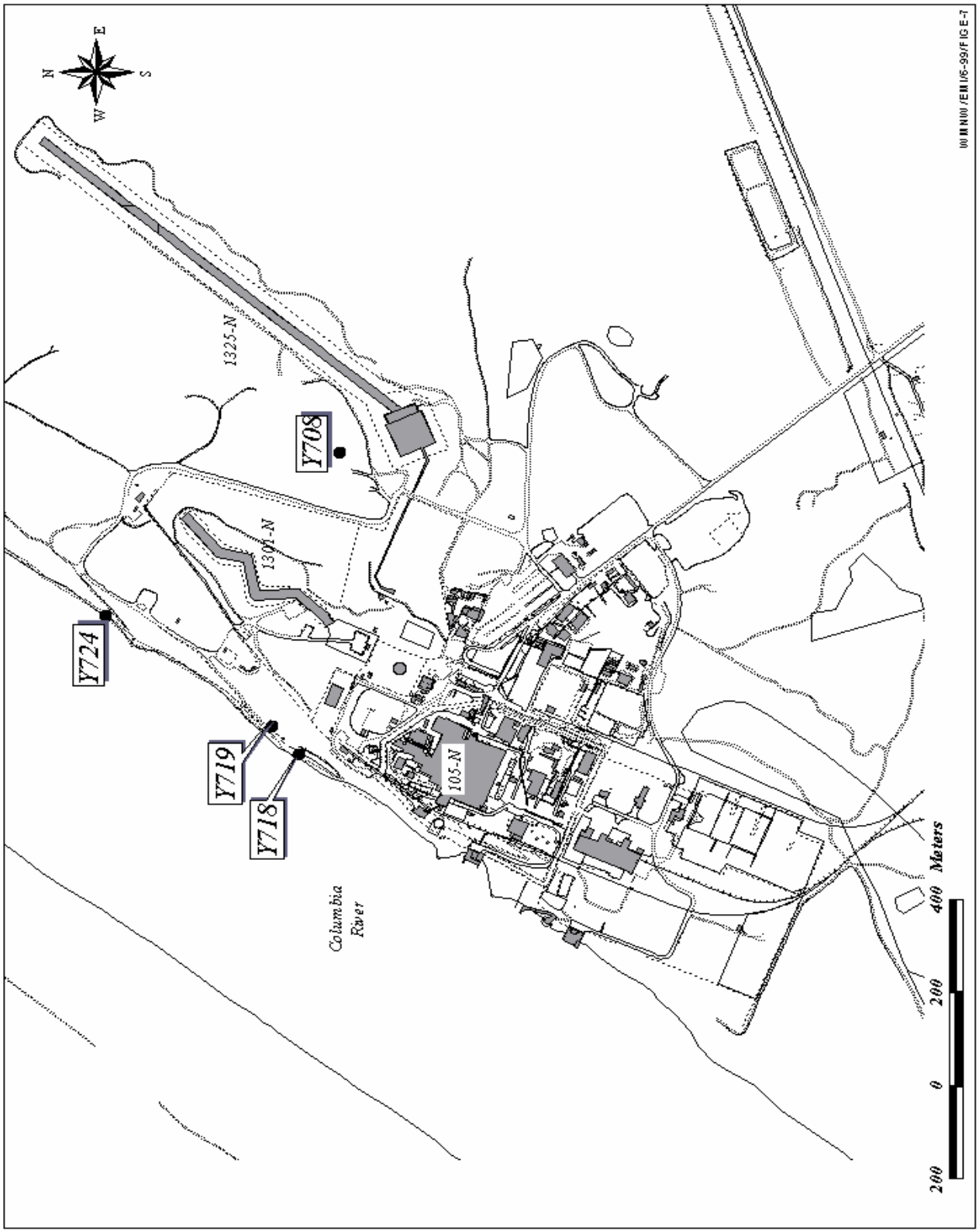

Figure 3-11. 2003 Vegetation Sampling Locations, 200 East Area.

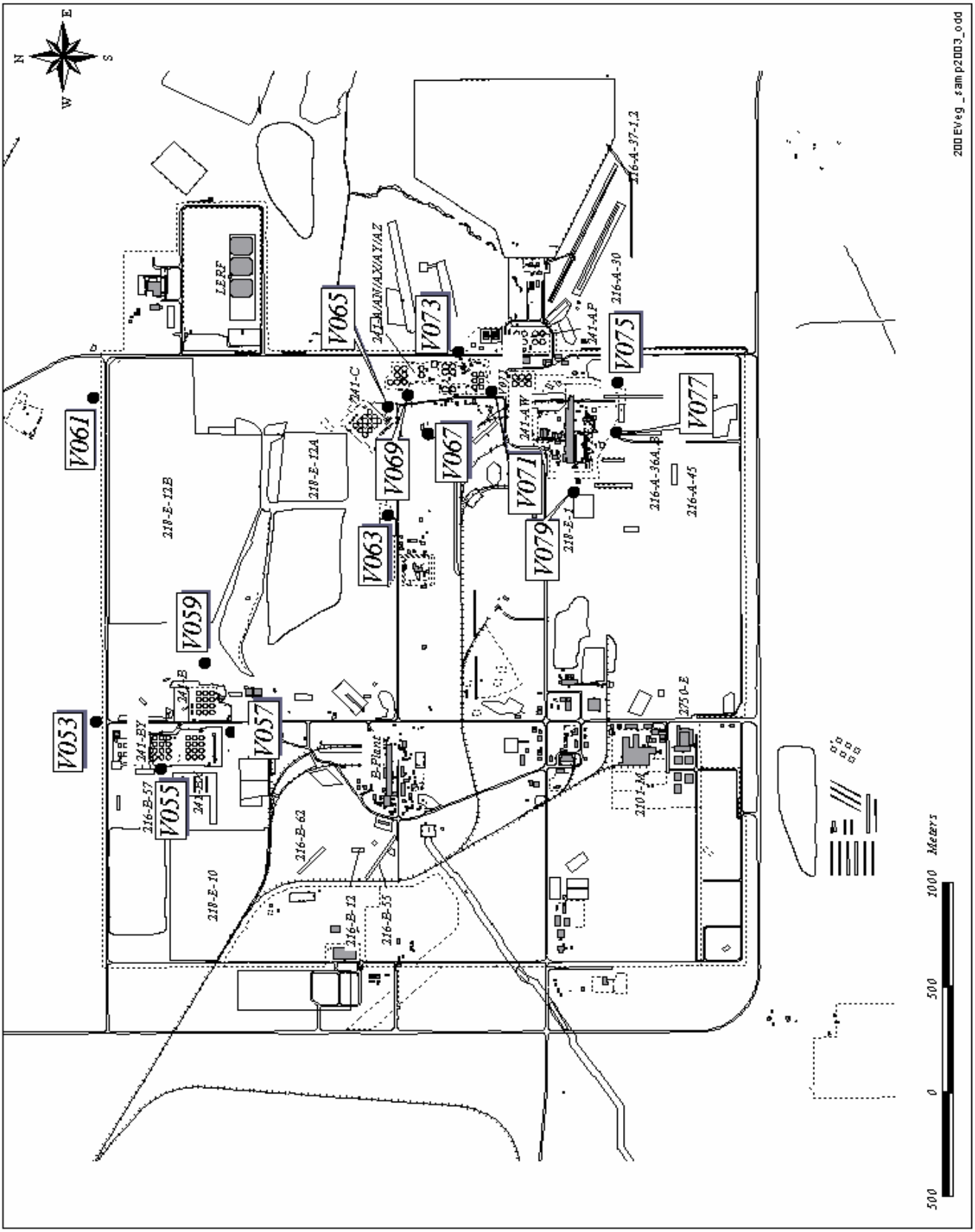

Figure 3-12. 2003 Vegetation Sampling Locations, 200 West Area.

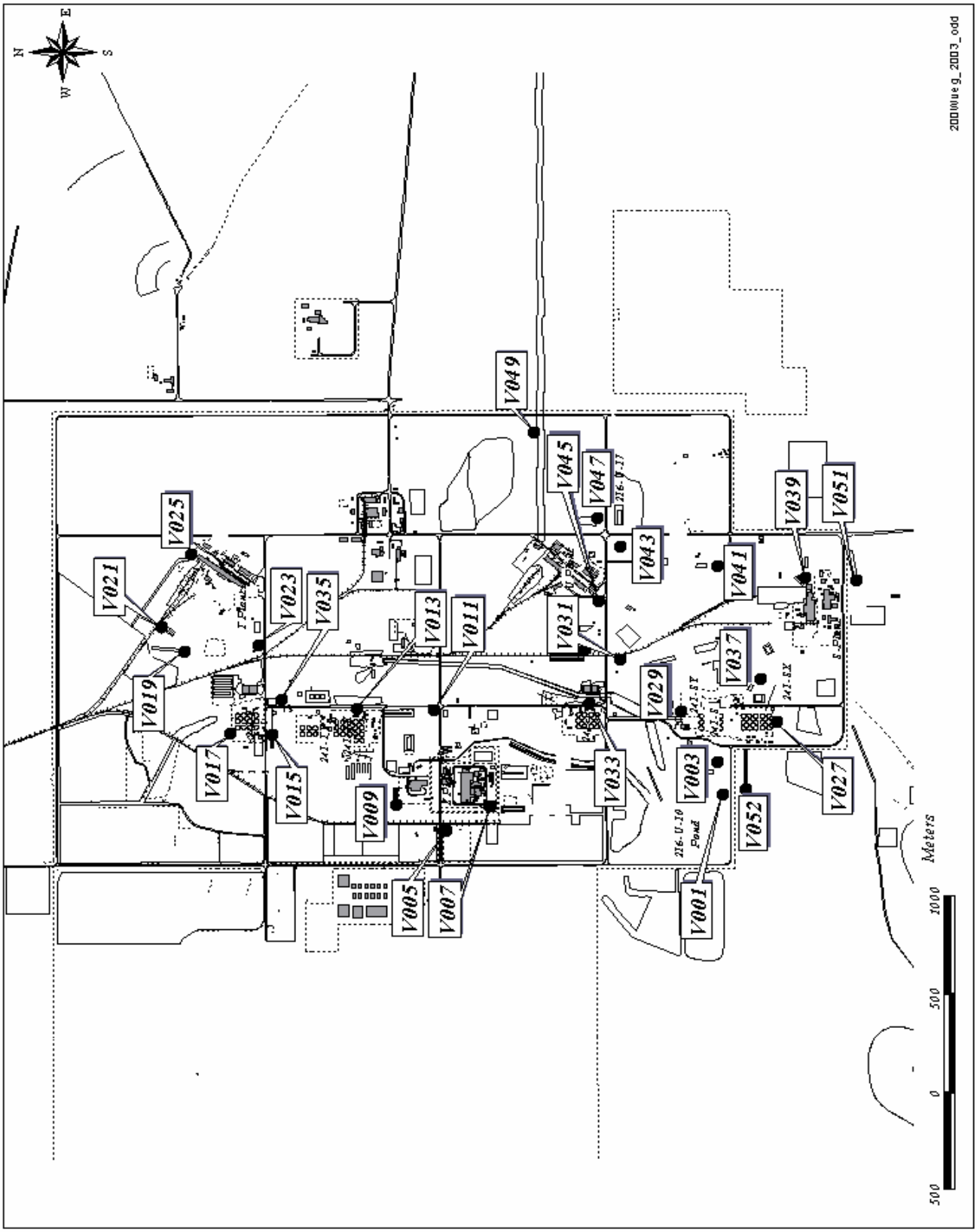

Figure 3-13. 2003 Vegetation Sampling Locations, 300 Area.

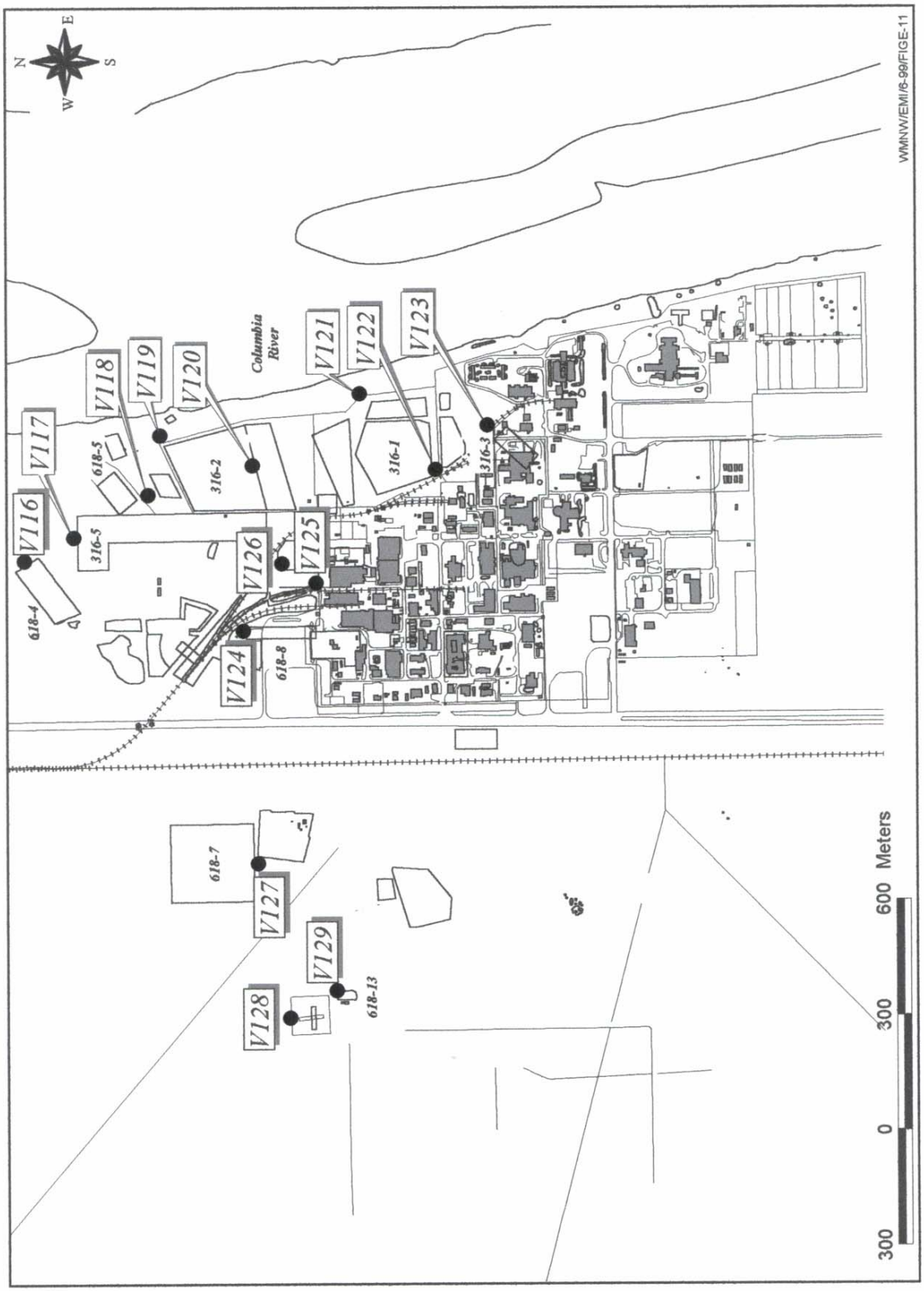

Figure 3-14. 2003 Vegetation Sampling Locations, 400 Area.

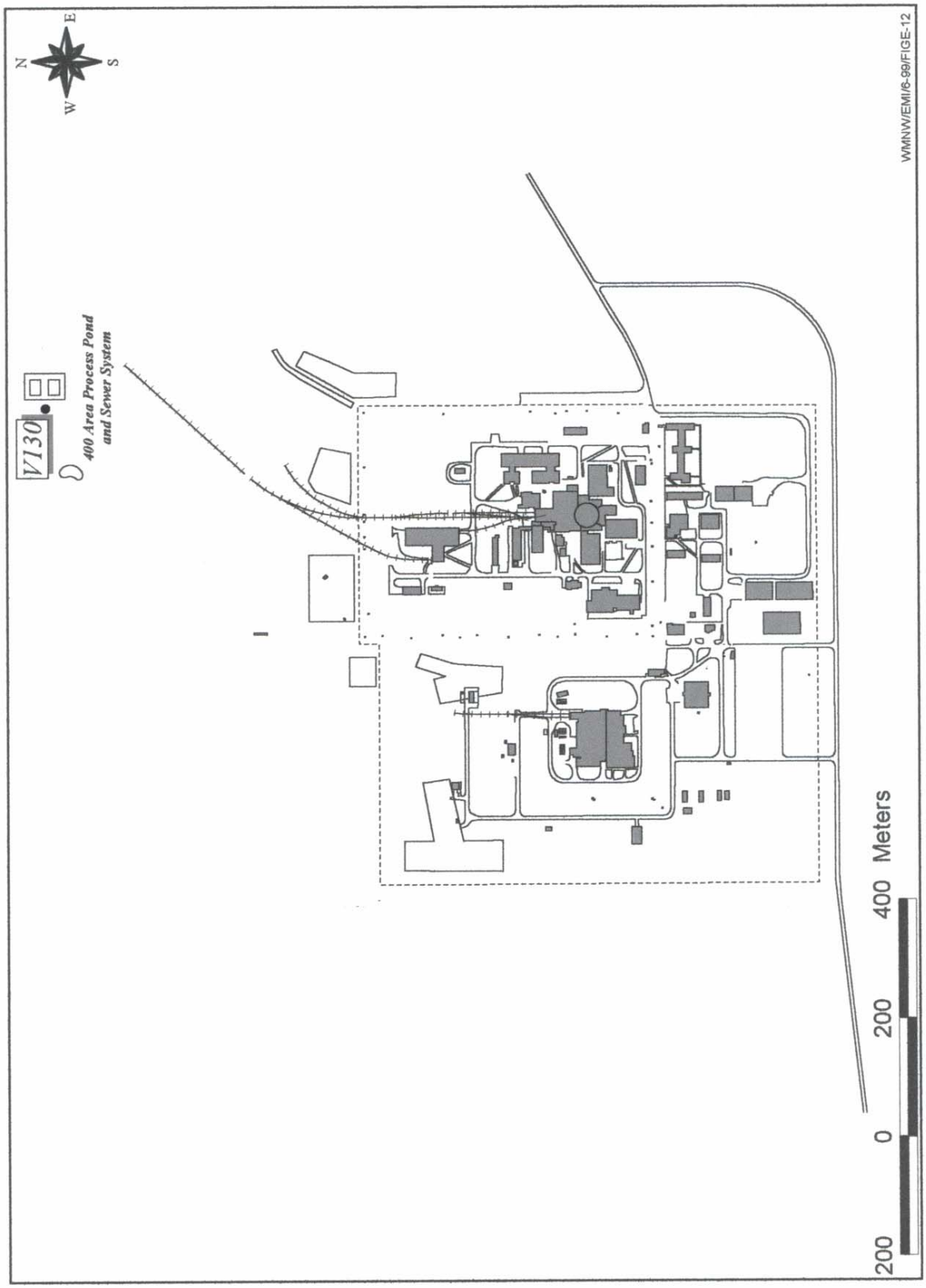

Figure 3-15. 2003 Vegetation Sampling Locations, 600 Area.

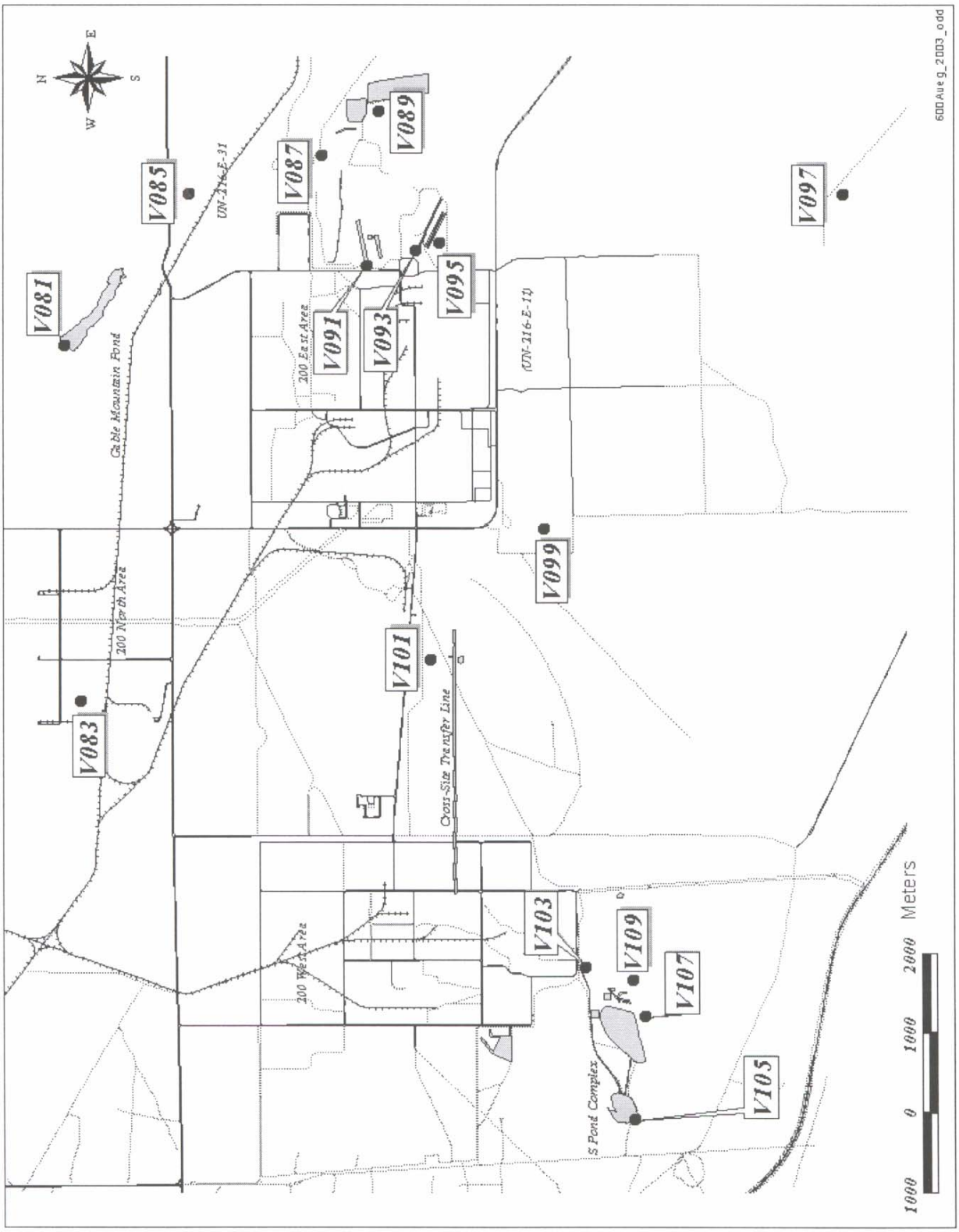

Table 3-4. Average Radionuclide Concentrations (pCi/g[a]) in Hanford Vegetation, 1995 through 2003.

100-N Area

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	^{239,240}Pu
1995	3.0E-02 ± 5.1E-02	5.4E+00 ± 4.8E+00	8.1E-02 ± 4.4E-02	1.1E-02 ± 6.6E-03	9.2E-03 ± 4.8E-03	3.3E-03 ± 1.6E-03
1996	2.4E+00 ± 4.5E+00	2.3E+02 ± 4.4E+02	2.3E+02 ± 2.0E+02	2.6E-02 ± 3.2E-02	2.2E-02 ± 1.7E-01	-5.1E-03 ± 0.0E+00
1997	4.2E-01 ± 5.0E-02	3.6E+00 ± 5.3E+00	1.6E-01 ± 7.7E-02	1.3E-02 ± 2.9E-03	9.7E-03 ± 4.7E-03	Not Detected
1998	6.2E-01 ± 6.5E-01	1.2E+01 ± 6.0E+00	3.8E+01 ± 6.5E+01	1.4E-02 ± 6.0E-03	8.7E-03 ± 4.4E-03	4.2E-03 ± 2.3E-03
1999	6.1E-01 ± 5.9E-01	9.1E+01 ± 1.0E+02	2.5E+02 ± 2.5E+02	2.8E-02 ± 1.0E-03	2.1E-02 ± 7.0E-03	2.2E-02 ± 1.0E-02
2000	4.8E-02 ± 3.2E-02	5.7E+00 ± 8.7E+00	2.0E-01 ± 1.2E-01	3.3E-02 ± 2.7E-02	2.4E-02 ± 1.8E-02	9.1E-03 ± 8.3E-03
2001	8.9E-01 ± 1.3E+00	3.5E+00 ± 3.4E+00	3.8E-01 ± 2.2E-01	9.8E-03 ± 2.4E-03	9.2E-03 ± 2.9E-03	2.4E-02 ± 2.5E-02
2002	3.7E-03 ± 3.7E-02	5.4E+00 ± 1.8E+01	2.4E-03 ± 8.4E-03	9.8E-03 ± 4.5E-03	5.1E-03 ± 2.9E-03	1.9E-03 ± 5.3E-03
2003	6.6E-02 ± 6.8E-02	1.4E+01 ± 4.5E+01	1.5E-01 ± 1.5E-01	6.8E-03 ± 2.1E-03	4.6E-03 ± 2.9E-03	-2.8E-04 ± 7.0E-03

200/600 Areas

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	^{239,240}Pu
1995	1.4E-02 ± 2.1E-02	1.4E-02 ± 2.1E-02	1.6E-01 ± 1.4E-01	1.1E-02 ± 6.3E-03	7.9E-03 ± 4.4E-03	4.9E-03 ± 2.9E-03
1996	2.6E-02 ± 2.4E-02	3.7E-01 ± 1.8E-01	6.9E-02 ± 3.0E-02	5.0E-03 ± 1.0E-03	5.0E-03 ± 1.0E-03	4.1E-03 ± 3.1E-03
1997	Not Detected	2.9E+00 ± 2.5E+00	1.3E-01 ± 6.0E-02	1.5E-02 ± 2.4E-03	1.1E-02 ± 2.1E-03	6.6E-03 ± 1.0E-04
1998	Not Detected	3.3E-01 ± 1.3E-01	2.1E-01 ± 9.0E-02	1.6E-02 ± 3.0E-03	9.7E-03 ± 1.3E-03	1.8E-02 ± 8.0E-03
1999	Not Detected	7.9E-01 ± 3.8E-01	1.3E-01 ± 4.0E-02	3.3E-02 ± 6.0E-03	2.3E-02 ± 4.0E-03	1.4E-02 ± 4.0E-03
2000	Not Detected	1.3E+00 ± 8.0E-01	1.6E-01 ± 6.0E-02	2.0E-02 ± 3.0E-02	1.4E-02 ± 2.0E-03	3.3E-02 ± 2.8E-02
2001	Not Detected	1.0E+00 ± 6.2E-01	1.7E-01 ± 6.5E-02	1.9E-02 ± 2.8E-03	1.8E-02 ± 2.6E-03	2.1E-02 ± 7.1E-03
2002	3.2E-04 ± 1.8E-03	3.2E-01 ± 1.1E+00	8.9E-02 ± 4.2E-01	1.6E-02 ± 1.6E-02	1.4E-02 ± 1.5E-02	8.8E-03 ± 2.4E-02
2003	1.6E-02 ± 2.1E-01	1.5E+00 ± 1.0E+01	2.7E-01 ± 2.0E+00	1.0E-02 ± 9.7E-03	8.4E-03 ± 9.0E-03	2.7E-03 ± 7.9E-03

300/400 Areas

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	^{239,240}Pu
1995	4.0E-02 ± 3.0E-02	5.1E-02 ± 2.4E-02	Not Detected	5.6E-02 ± 4.1E-02	5.6E-02 ± 4.1E-02	3.5E-04 ± 1.9E-04
1996	7.1E-03 ± 2.0E-02	6.3E-02 ± 2.5E-02	1.6E-02 ± 1.6E-02	4.9E-02 ± 3.9E-02	4.7E-02 ± 3.8E-02	3.8E-04 ± 1.9E-04
1997	Not Detected	6.6E-01 ± 3.9E-01	Not Detected	6.9E-02 ± 4.8E-02	6.2E-02 ± 4.5E-02	4.4E-04 ± 2.9E-04
1998	Not Detected	1.0E-01 ± 6.0E-02	Not Detected	4.6E-02 ± 3.3E-02	4.4E-02 ± 3.6E-02	8.4E-03 ± 4.5E-03
1999	Not Detected	4.5E-01 ± 7.0E-02	Not Detected	9.4E-02 ± 5.3E-02	8.9E-01 ± 5.9E-02	7.1E-03 ± 3.2E-03
2000	Not Detected	2.1E-01 ± 3.0E-02	Not Detected	1.8E-02 ± 1.9E-02	1.7E-02 ± 1.9E-02	9.1E-03 ± 2.4E-03
2001	Not Detected	2.6E-01 ± 1.1E-01	Not Detected	9.8E-02 ± 8.0E-02	1.1E-01 ± 8.8E-02	5.8E-03 ± 1.5E-03
2002	Not Detected	2.1E-01 ± 4.7E-01	1.1E-02 ± 7.9E-02	3.2E-02 ± 5.5E-02	2.9E-02 ± 5.8E-02	-3.6E-04 ± 7.2E-04
2003	5.0E-03 ± 3.8E-02	-8.2E-02 ± 2.0E-01	-9.4E-03 ± 4.4E-02	4.3E-02 ± 1.1E-01	3.6E-02 ± 1.9E-01	1.7E-03 ± 1.7E-02

[a] ± 2 standard deviations

Table 3-5. 2003 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).

Location	Isotope	Result ± Error	RQ*
Y708	^{144}Ce	8.1E-02 ± 5.6E-01	U
(100-N)	^{60}Co	1.7E-01 ± 6.4E-02	
	^{134}Cs	4.0E-02 ± 4.6E-02	U
	^{137}Cs	5.1E-01 ± 1.3E-01	
	^{152}Eu	-1.2E-01 ± 1.3E-01	U
	^{154}Eu	-8.3E-02 ± 1.4E-01	U
	^{155}Eu	-7.6E-02 ± 1.4E-01	U
	^{238}Pu	3.0E-03 ± 1.5E-02	U
	^{239,240}Pu	4.0E-03 ± 6.4E-03	U
	^{103}Ru	-2.4E-02 ± 3.9E-02	U
	^{106}Ru	-3.1E-01 ± 3.9E-01	U
	^{125}Sb	-1.6E-02 ± 1.1E-01	U
	^{113}Sn	-6.8E-03 ± 4.9E-02	U
	^{90}Sr	5.1E-03 ± 5.1E-02	U
	^{234}U	5.7E-03 ± 5.1E-03	U
	^{235}U	8.9E-04 ± 3.1E-03	U
	^{238}U	4.1E-03 ± 4.5E-03	U
	^{65}Zn	-1.9E-01 ± 1.9E-01	U
Y719	^{144}Ce	4.9E-01 ± 5.3E-01	U
(N Springs	^{60}Co	2.5E-02 ± 4.6E-02	U
Shoreline)	^{134}Cs	8.0E-03 ± 5.1E-02	U
	^{137}Cs	4.2E-02 ± 4.3E-02	U
	^{152}Eu	-7.6E-03 ± 7.6E-02	U
	^{154}Eu	-9.6E-02 ± 1.4E-01	U
	^{155}Eu	7.5E-02 ± 1.5E-01	U
	^{238}Pu	9.4E-04 ± 9.4E-03	U
	^{239,240}Pu	-1.9E-03 ± 3.8E-03	U
	^{103}Ru	-1.7E-02 ± 3.8E-02	U
	^{106}Ru	2.2E-01 ± 3.9E-01	U
	^{125}Sb	-7.8E-02 ± 1.0E-01	U
	^{113}Sn	1.9E-02 ± 5.1E-02	U
	^{90}Sr	5.3E+01 ± 7.9E+00	
	^{234}U	5.9E-03 ± 5.3E-03	U
	^{235}U	2.8E-03 ± 4.2E-03	U
	^{238}U	5.9E-03 ± 4.7E-03	
	^{65}Zn	8.5E-02 ± 1.1E-01	U

Location	Isotope	Result ± Error	RQ*
Y718	^{144}Ce	-1.5E-01 ± 4.8E-01	U
(N Springs	^{60}Co	2.3E-02 ± 4.3E-02	U
Shoreline)	^{134}Cs	1.2E-02 ± 4.4E-02	U
	^{137}Cs	-2.0E-02 ± 4.2E-02	U
	^{152}Eu	-8.6E-02 ± 1.4E-01	U
	^{154}Eu	-9.3E-02 ± 1.4E-01	U
	^{155}Eu	-3.5E-02 ± 1.5E-01	U
	^{238}Pu	-1.9E-03 ± 7.6E-03	U
	^{239,240}Pu	9.5E-04 ± 3.3E-03	U
	^{103}Ru	4.2E-03 ± 3.7E-02	U
	^{106}Ru	1.7E-01 ± 4.6E-01	U
	^{125}Sb	3.6E-03 ± 3.6E-02	U
	^{113}Sn	7.0E-03 ± 4.7E-02	U
	^{90}Sr	1.7E+00 ± 3.4E-01	
	^{234}U	7.2E-03 ± 5.1E-03	
	^{235}U	2.6E-03 ± 4.7E-03	U
	^{238}U	2.4E-03 ± 4.3E-03	U
	^{65}Zn	1.4E-01 ± 1.2E-01	U
Y724	^{144}Ce	1.9E-01 ± 6.3E-01	U
(N Springs	^{60}Co	4.4E-02 ± 4.6E-02	U
Shoreline)	^{134}Cs	1.8E-03 ± 1.8E-02	U
	^{137}Cs	4.9E-02 ± 4.8E-02	U
	^{152}Eu	3.6E-02 ± 2.5E-01	U
	^{154}Eu	7.5E-03 ± 7.5E-02	U
	^{155}Eu	-8.3E-02 ± 1.7E-01	U
	^{238}Pu	9.0E-03 ± 1.6E-02	U
	^{239,240}Pu	-4.0E-03 ± 4.0E-03	U
	^{103}Ru	2.3E-02 ± 4.3E-02	U
	^{106}Ru	-1.8E-01 ± 4.2E-01	U
	^{125}Sb	2.9E-02 ± 1.2E-01	U
	^{113}Sn	3.4E-02 ± 5.5E-02	U
	^{90}Sr	2.4E-01 ± 1.2E-01	
	^{234}U	8.3E-03 ± 5.6E-03	
	^{235}U	2.7E-03 ± 3.2E-03	
	^{238}U	5.8E-03 ± 4.6E-03	
	^{65}Zn	1.3E-01 ± 1.1E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-5. 2003 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Error	RQ*
V001	^{144}Ce	-5.6E-01 ± 8.5E-01	U
(200 West)	^{60}Co	-2.3E-03 ± 2.3E-02	U
	^{134}Cs	-5.8E-03 ± 5.8E-02	U
	^{137}Cs	1.3E-01 ± 7.0E-02	
	^{152}Eu	-1.0E-01 ± 2.2E-01	U
	^{154}Eu	-2.8E-01 ± 2.8E-01	U
	^{155}Eu	1.3E-02 ± 1.3E-01	U
	^{238}Pu	1.9E-03 ± 1.4E-02	U
	^{239,240}Pu	-9.4E-04 ± 4.2E-03	U
	^{103}Ru	-1.3E-02 ± 6.1E-02	U
	^{106}Ru	1.6E-01 ± 5.5E-01	U
	^{125}Sb	7.3E-02 ± 1.6E-01	U
	^{113}Sn	1.0E-02 ± 7.2E-02	U
	^{90}Sr	2.2E+00 ± 4.6E-01	
	^{234}U	2.0E-02 ± 1.1E-02	
	^{235}U	1.1E-03 ± 2.2E-03	U
	^{238}U	1.0E-02 ± 6.6E-03	
	^{65}Zn	-2.2E-01 ± 2.2E-01	U
V007	^{144}Ce	-2.0E-01 ± 3.8E-01	U
(200 West)	^{60}Co	-6.6E-03 ± 2.9E-02	U
	^{134}Cs	1.5E-02 ± 2.9E-02	U
	^{137}Cs	2.4E-02 ± 2.8E-02	U
	^{152}Eu	8.7E-02 ± 8.5E-02	U
	^{154}Eu	-7.3E-02 ± 8.9E-02	U
	^{155}Eu	-2.5E-02 ± 9.6E-02	U
	^{238}Pu	1.3E-02 ± 1.2E-02	U
	^{239,240}Pu	3.5E-03 ± 4.9E-03	U
	^{103}Ru	-4.3E-03 ± 2.6E-02	U
	^{106}Ru	5.8E-02 ± 2.4E-01	U
	^{125}Sb	4.3E-02 ± 8.2E-02	U
	^{113}Sn	-5.2E-03 ± 3.5E-02	U
	^{90}Sr	-8.6E-02 ± 8.6E-02	U
	^{234}U	6.4E-03 ± 8.3E-03	U
	^{235}U	3.0E-03 ± 3.6E-03	
	^{238}U	1.0E-02 ± 6.8E-03	
	^{65}Zn	-2.9E-01 ± 2.9E-01	U

Location	Isotope	Result ± Error	RQ*
V003	^{144}Ce	-1.0E-01 ± 7.3E-01	U
(200 West)	^{60}Co	-1.4E-02 ± 6.2E-02	U
	^{134}Cs	3.4E-02 ± 5.8E-02	U
	^{137}Cs	1.3E+00 ± 2.6E-01	
	^{152}Eu	-5.4E-02 ± 1.6E-01	U
	^{154}Eu	1.6E-01 ± 2.1E-01	U
	^{155}Eu	1.1E-01 ± 2.0E-01	U
	^{238}Pu	-9.7E-03 ± 1.4E-02	U
	^{239,240}Pu	2.9E-03 ± 6.4E-03	U
	^{103}Ru	1.5E-02 ± 5.1E-02	U
	^{106}Ru	-1.7E-01 ± 5.0E-01	U
	^{125}Sb	7.8E-02 ± 1.4E-01	U
	^{113}Sn	-2.7E-03 ± 2.7E-02	U
	^{90}Sr	2.5E+01 ± 3.8E+00	
	^{234}U	1.7E-02 ± 1.0E-02	
	^{235}U	4.4E-03 ± 6.6E-03	U
	^{238}U	1.5E-02 ± 9.4E-03	
	^{65}Zn	1.6E-01 ± 1.6E-01	U
V009	^{144}Ce	-1.9E-01 ± 4.9E-01	U
(200 West)	^{60}Co	1.6E-02 ± 4.4E-02	U
	^{134}Cs	3.2E-03 ± 3.2E-02	U
	^{137}Cs	5.3E-03 ± 4.5E-02	U
	^{152}Eu	-2.5E-02 ± 1.1E-01	U
	^{154}Eu	-7.7E-02 ± 1.4E-01	U
	^{155}Eu	-5.1E-02 ± 1.3E-01	U
	^{238}Pu	3.7E-03 ± 1.6E-02	U
	^{239,240}Pu	6.5E-03 ± 6.3E-03	U
	^{103}Ru	1.3E-02 ± 4.0E-02	U
	^{106}Ru	6.3E-02 ± 3.9E-01	U
	^{125}Sb	3.4E-02 ± 1.1E-01	U
	^{113}Sn	-2.9E-03 ± 2.9E-02	U
	^{90}Sr	-7.2E-02 ± 7.9E-02	U
	^{234}U	1.6E-02 ± 8.8E-03	
	^{235}U	4.7E-03 ± 4.3E-03	
	^{238}U	9.5E-03 ± 6.0E-03	
	^{65}Zn	-2.0E-02 ± 1.0E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-5. 2003 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Error	RQ*
V011	^{144}Ce	2.2E-01 ± 3.3E-01	U
(200 West)	^{60}Co	-5.5E-03 ± 3.4E-02	U
	^{134}Cs	3.1E-02 ± 3.3E-02	U
	^{137}Cs	2.1E-02 ± 3.0E-02	U
	^{152}Eu	-3.2E-02 ± 8.5E-02	U
	^{154}Eu	1.6E-02 ± 1.0E-01	U
	^{155}Eu	-8.2E-02 ± 9.0E-02	U
	^{238}Pu	1.2E-02 ± 1.7E-02	U
	^{239,240}Pu	4.2E-03 ± 7.1E-03	U
	^{103}Ru	7.4E-03 ± 2.8E-02	U
	^{106}Ru	-1.5E-01 ± 2.9E-01	U
	^{125}Sb	6.6E-02 ± 7.1E-02	U
	^{113}Sn	-1.5E-02 ± 3.6E-02	U
	^{90}Sr	-2.3E-02 ± 9.7E-02	U
	^{234}U	1.1E-02 ± 8.0E-03	
	^{235}U	5.6E-03 ± 5.4E-03	U
	^{238}U	1.1E-02 ± 6.8E-03	
	^{65}Zn	-2.9E-02 ± 8.2E-02	U
V017	^{144}Ce	5.7E-02 ± 3.5E-01	U
(200 West)	^{60}Co	-6.1E-03 ± 2.6E-02	U
	^{134}Cs	-5.6E-03 ± 2.4E-02	U
	^{137}Cs	8.0E-02 ± 4.4E-02	
	^{152}Eu	-1.3E-02 ± 7.9E-02	U
	^{154}Eu	6.2E-03 ± 6.2E-02	U
	^{155}Eu	-2.1E-02 ± 9.0E-02	U
	^{238}Pu	-1.8E-03 ± 1.4E-02	U
	^{239,240}Pu	2.6E-03 ± 3.9E-03	U
	^{103}Ru	-1.6E-03 ± 1.6E-02	U
	^{106}Ru	8.6E-02 ± 2.3E-01	U
	^{125}Sb	-3.7E-03 ± 3.7E-02	U
	^{113}Sn	-1.5E-02 ± 3.2E-02	U
	^{90}Sr	-1.2E-01 ± 1.2E-01	U
	^{234}U	3.6E-03 ± 5.8E-03	U
	^{235}U	2.0E-03 ± 2.8E-03	U
	^{238}U	8.9E-03 ± 6.4E-03	
	^{65}Zn	-1.3E-01 ± 1.3E-01	U

Location	Isotope	Result ± Error	RQ*
V015	^{144}Ce	-7.1E-02 ± 5.6E-01	U
(200 West)	^{60}Co	-1.5E-04 ± 1.5E-03	U
	^{134}Cs	-3.9E-02 ± 4.3E-02	U
	^{137}Cs	7.1E-02 ± 6.4E-02	
	^{152}Eu	-1.8E-01 ± 1.8E-01	U
	^{154}Eu	7.8E-02 ± 1.4E-01	U
	^{155}Eu	-6.8E-02 ± 1.6E-01	U
	^{238}Pu	1.2E-02 ± 1.4E-02	U
	^{239,240}Pu	5.8E-03 ± 6.4E-03	U
	^{103}Ru	-4.1E-03 ± 3.8E-02	U
	^{106}Ru	-1.9E-01 ± 3.5E-01	U
	^{125}Sb	1.4E-02 ± 1.0E-01	U
	^{113}Sn	-7.9E-03 ± 4.7E-02	U
	^{90}Sr	4.9E-01 ± 1.5E-01	
	^{234}U	7.6E-03 ± 6.2E-03	
	^{235}U	1.0E-03 ± 2.0E-03	U
	^{238}U	7.6E-03 ± 6.8E-03	U
	^{65}Zn	-8.1E-02 ± 9.9E-02	U
V019	^{144}Ce	1.5E-01 ± 4.2E-01	U
(200 West)	^{60}Co	2.7E-02 ± 3.9E-02	U
	^{134}Cs	8.5E-03 ± 3.9E-02	U
	^{137}Cs	3.5E-02 ± 3.7E-02	U
	^{152}Eu	-3.3E-02 ± 9.9E-02	U
	^{154}Eu	4.9E-02 ± 1.2E-01	U
	^{155}Eu	8.3E-02 ± 1.1E-01	U
	^{238}Pu	-9.0E-04 ± 9.0E-03	U
	^{239,240}Pu	9.0E-04 ± 4.0E-03	U
	^{103}Ru	-1.9E-02 ± 3.3E-02	U
	^{106}Ru	-2.1E-01 ± 3.6E-01	U
	^{125}Sb	-4.8E-02 ± 9.4E-02	U
	^{113}Sn	-2.9E-02 ± 4.1E-02	U
	^{90}Sr	-1.0E-01 ± 1.0E-01	U
	^{234}U	4.7E-03 ± 4.3E-03	
	^{235}U	3.1E-03 ± 3.7E-03	
	^{238}U	2.8E-03 ± 4.2E-03	U
	^{65}Zn	-2.4E-02 ± 8.9E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-5. 2003 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Error	RQ*
V021	^{144}Ce	3.4E-01 ± 5.1E-01	U
	^{60}Co	4.6E-02 ± 5.8E-02	U
	^{134}Cs	-2.3E-02 ± 5.0E-02	U
	^{137}Cs	1.2E-02 ± 4.8E-02	U
	^{152}Eu	-8.9E-03 ± 8.9E-02	U
	^{154}Eu	-3.1E-02 ± 1.9E-01	U
	^{155}Eu	1.9E-02 ± 1.4E-01	U
	^{238}Pu	1.9E-03 ± 4.7E-03	U
	^{239,240}Pu	2.8E-03 ± 3.4E-03	
	^{103}Ru	-2.3E-02 ± 4.2E-02	U
	^{106}Ru	-2.5E-01 ± 4.2E-01	U
	^{125}Sb	-1.7E-02 ± 1.1E-01	U
	^{113}Sn	-1.8E-02 ± 5.1E-02	U
	^{90}Sr	8.3E-01 ± 1.7E-01	
	^{234}U	1.4E-02 ± 8.4E-03	
	^{235}U	9.8E-04 ± 9.8E-03	U
	^{238}U	5.9E-03 ± 6.5E-03	U
	^{65}Zn	1.2E-01 ± 1.3E-01	U
V025	^{144}Ce	-9.6E-02 ± 4.3E-01	U
(200 West)	^{60}Co	-3.5E-03 ± 3.5E-02	U
	^{134}Cs	-1.7E-02 ± 3.2E-02	U
	^{137}Cs	1.1E-01 ± 5.2E-02	
	^{152}Eu	2.2E-02 ± 9.3E-02	U
	^{154}Eu	-1.3E-01 ± 1.3E-01	U
	^{155}Eu	-2.9E-02 ± 1.1E-01	U
	^{238}Pu	-9.9E-04 ± 9.9E-03	U
	^{239,240}Pu	9.9E-04 ± 6.5E-03	U
	^{103}Ru	-1.7E-02 ± 3.5E-02	U
	^{106}Ru	4.7E-02 ± 3.0E-01	U
	^{125}Sb	-2.0E-02 ± 8.3E-02	U
	^{113}Sn	-3.1E-02 ± 3.9E-02	U
	^{90}Sr	-6.4E-02 ± 7.7E-02	U
	^{234}U	1.2E-02 ± 7.0E-03	
	^{235}U	3.6E-03 ± 3.6E-03	
	^{238}U	2.4E-03 ± 4.3E-03	U
	^{65}Zn	-2.2E-02 ± 8.9E-02	U

Location	Isotope	Result ± Error	RQ*
V023	^{144}Ce	7.1E-02 ± 4.9E-01	U
	^{60}Co	1.2E-02 ± 3.6E-02	U
	^{134}Cs	-4.3E-02 ± 4.3E-02	U
	^{137}Cs	5.7E-02 ± 5.8E-02	U
	^{152}Eu	-1.2E-01 ± 1.2E-01	U
	^{154}Eu	-4.1E-02 ± 1.2E-01	U
	^{155}Eu	-5.9E-02 ± 1.4E-01	U
	^{238}Pu	-2.7E-03 ± 7.8E-03	U
	^{239,240}Pu	9.0E-04 ± 1.8E-03	U
	^{103}Ru	1.2E-02 ± 3.5E-02	U
	^{106}Ru	2.8E-01 ± 3.2E-01	U
	^{125}Sb	-1.5E-02 ± 9.4E-02	U
	^{113}Sn	-7.5E-03 ± 4.3E-02	U
	^{90}Sr	9.3E-02 ± 8.4E-02	U
	^{234}U	8.5E-03 ± 7.0E-03	U
	^{235}U	-9.2E-04 ± 1.8E-03	U
	^{238}U	8.5E-03 ± 5.6E-03	
	^{65}Zn	-4.7E-02 ± 9.0E-02	U
V027	^{144}Ce	2.0E-02 ± 2.0E-01	U
(200 West)	^{60}Co	2.7E-03 ± 2.7E-02	U
	^{134}Cs	-1.1E-02 ± 2.7E-02	U
	^{137}Cs	2.3E-02 ± 2.9E-02	U
	^{152}Eu	-4.9E-02 ± 8.3E-02	U
	^{154}Eu	9.3E-04 ± 9.3E-03	U
	^{155}Eu	5.3E-02 ± 9.0E-02	U
	^{238}Pu	7.7E-03 ± 1.4E-02	U
	^{239,240}Pu	1.7E-03 ± 4.2E-03	U
	^{103}Ru	4.2E-03 ± 2.5E-02	U
	^{106}Ru	7.0E-02 ± 2.4E-01	U
	^{125}Sb	-2.8E-03 ± 2.8E-02	U
	^{113}Sn	1.6E-02 ± 3.4E-02	U
	^{90}Sr	-1.4E-02 ± 8.9E-02	U
	^{234}U	9.0E-03 ± 7.4E-03	U
	^{235}U	8.9E-04 ± 8.9E-03	U
	^{238}U	1.5E-02 ± 8.2E-03	
	^{65}Zn	-2.0E-01 ± 2.0E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-5. 2003 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Error	RQ*
V029	^{144}Ce	-6.6E-03 ± 6.6E-02	U
(200 West)	^{60}Co	-2.3E-02 ± 2.8E-02	U
	^{134}Cs	2.2E-02 ± 2.8E-02	U
	^{137}Cs	5.0E-02 ± 3.6E-02	U
	^{152}Eu	-7.6E-02 ± 8.4E-02	U
	^{154}Eu	-2.7E-02 ± 8.5E-02	U
	^{155}Eu	3.8E-02 ± 9.5E-02	U
	^{238}Pu	-1.4E-02 ± 1.7E-02	U
	^{239,240}Pu	6.0E-03 ± 5.8E-03	U
	^{103}Ru	-3.1E-02 ± 3.1E-02	U
	^{106}Ru	2.2E-01 ± 2.5E-01	U
	^{125}Sb	-5.9E-02 ± 7.6E-02	U
	^{113}Sn	-1.1E-02 ± 3.6E-02	U
	^{90}Sr	-1.8E-01 ± 1.8E-01	U
	^{234}U	6.4E-03 ± 5.0E-03	
	^{235}U	3.0E-03 ± 4.5E-03	U
	^{238}U	7.3E-03 ± 5.3E-03	
	^{65}Zn	4.1E-02 ± 6.7E-02	U
V033	^{144}Ce	1.3E+00 ± 1.4E+00	U
(200 West)	^{60}Co	-2.0E-02 ± 1.0E-01	U
	^{134}Cs	1.1E-02 ± 1.0E-01	U
	^{137}Cs	3.3E+00 ± 6.1E-01	
	^{152}Eu	-1.4E-02 ± 1.4E-01	U
	^{154}Eu	-8.5E-02 ± 3.1E-01	U
	^{155}Eu	-1.3E-04 ± 1.3E-03	U
	^{238}Pu	9.4E-04 ± 9.4E-03	U
	^{239,240}Pu	3.8E-03 ± 5.3E-03	U
	^{103}Ru	4.8E-02 ± 1.0E-01	U
	^{106}Ru	4.0E-01 ± 8.5E-01	U
	^{125}Sb	-9.7E-02 ± 2.6E-01	U
	^{113}Sn	6.1E-03 ± 6.1E-02	U
	^{90}Sr	2.4E+01 ± 3.0E+00	
	^{234}U	2.0E-02 ± 1.1E-02	
	^{235}U	1.1E-03 ± 2.2E-03	U
	^{238}U	1.3E-02 ± 7.9E-03	
	^{65}Zn	-1.3E-01 ± 2.3E-01	U

Location	Isotope	Result ± Error	RQ*
V031	^{144}Ce	-1.5E-01 ± 3.9E-01	U
(200 West)	^{60}Co	-4.3E-03 ± 2.9E-02	U
	^{134}Cs	7.0E-03 ± 3.3E-02	U
	^{137}Cs	8.8E-02 ± 4.4E-02	
	^{152}Eu	-3.7E-02 ± 8.9E-02	U
	^{154}Eu	2.7E-02 ± 9.8E-02	U
	^{155}Eu	2.0E-02 ± 1.1E-01	U
	^{238}Pu	-1.1E-03 ± 1.1E-02	U
	^{239,240}Pu	1.1E-03 ± 1.1E-03	U
	^{103}Ru	-1.9E-02 ± 3.0E-02	U
	^{106}Ru	5.2E-03 ± 5.2E-02	U
	^{125}Sb	-4.9E-02 ± 8.0E-02	U
	^{113}Sn	3.5E-03 ± 3.5E-02	U
	^{90}Sr	2.1E-01 ± 1.0E-01	
	^{234}U	9.3E-03 ± 6.1E-03	
	^{235}U	4.1E-03 ± 4.9E-03	U
	^{238}U	1.0E-02 ± 6.3E-03	
	^{65}Zn	-1.1E-02 ± 7.7E-02	U
V035	^{144}Ce	3.0E-02 ± 3.0E-01	U
(200 West)	^{60}Co	2.4E-02 ± 3.0E-02	U
	^{134}Cs	-3.4E-03 ± 3.4E-02	U
	^{137}Cs	1.0E-01 ± 5.1E-02	
	^{152}Eu	3.2E-03 ± 3.2E-02	U
	^{154}Eu	4.9E-02 ± 9.6E-02	U
	^{155}Eu	4.7E-02 ± 1.0E-01	U
	^{238}Pu	1.0E-03 ± 1.0E-03	U
	^{239,240}Pu	2.0E-03 ± 2.8E-03	U
	^{103}Ru	8.4E-03 ± 3.1E-02	U
	^{106}Ru	-7.9E-02 ± 2.7E-01	U
	^{125}Sb	5.5E-02 ± 7.8E-02	U
	^{113}Sn	-4.2E-03 ± 3.8E-02	U
	^{90}Sr	5.5E-02 ± 1.3E-01	U
	^{234}U	7.8E-03 ± 6.5E-03	
	^{235}U	2.1E-03 ± 2.9E-03	U
	^{238}U	1.2E-02 ± 8.0E-03	
	^{65}Zn	-1.2E-01 ± 1.2E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-5. 2003 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Error	RQ*
V039	^{144}Ce	1.4E-02 ± 1.4E-01	U
(200 West)	^{60}Co	1.9E-02 ± 2.5E-02	U
	^{134}Cs	-6.6E-03 ± 2.6E-02	U
	^{137}Cs	1.5E-02 ± 2.6E-02	U
	^{152}Eu	-1.4E-03 ± 1.4E-02	U
	^{154}Eu	1.3E-02 ± 8.0E-02	U
	^{155}Eu	3.1E-02 ± 8.5E-02	U
	^{238}Pu	1.0E-03 ± 1.0E-03	U
	^{239,240}Pu	6.2E-03 ± 5.3E-03	
	^{103}Ru	1.3E-02 ± 2.6E-02	U
	^{106}Ru	1.5E-01 ± 2.3E-01	U
	^{125}Sb	-6.2E-03 ± 6.2E-02	U
	^{113}Sn	-5.7E-04 ± 5.7E-03	U
	^{90}Sr	9.3E-02 ± 1.1E-01	U
	^{234}U	9.3E-04 ± 1.9E-03	U
	^{235}U	2.0E-03 ± 2.8E-03	U
	^{238}U	4.6E-03 ± 4.3E-03	
	^{65}Zn	-1.6E-01 ± 1.6E-01	U
V043	^{144}Ce	6.7E-02 ± 5.1E-01	U
(200 West)	^{60}Co	-1.7E-02 ± 4.3E-02	U
	^{134}Cs	-2.0E-02 ± 4.2E-02	U
	^{137}Cs	4.2E-02 ± 4.4E-02	U
	^{152}Eu	7.1E-02 ± 1.1E-01	U
	^{154}Eu	-2.3E-02 ± 1.2E-01	U
	^{155}Eu	-7.6E-02 ± 1.4E-01	U
	^{238}Pu	3.5E-03 ± 1.3E-02	U
	^{239,240}Pu	1.8E-03 ± 4.5E-03	U
	^{103}Ru	-1.2E-02 ± 4.0E-02	U
	^{106}Ru	-2.2E-03 ± 2.2E-02	U
	^{125}Sb	-2.5E-02 ± 1.0E-01	U
	^{113}Sn	-3.0E-02 ± 4.8E-02	U
	^{90}Sr	-2.1E-01 ± 2.1E-01	U
	^{234}U	1.6E-02 ± 9.0E-03	
	^{235}U	4.7E-03 ± 4.4E-03	
	^{238}U	1.4E-02 ± 7.8E-03	
	^{65}Zn	9.6E-02 ± 9.8E-02	U

Location	Isotope	Result ± Error	RQ*
V041	^{144}Ce	6.8E-02 ± 4.3E-01	U
(200 West)	^{60}Co	-2.2E-02 ± 3.4E-02	U
	^{134}Cs	1.4E-02 ± 3.4E-02	U
	^{137}Cs	6.5E-02 ± 3.6E-02	
	^{152}Eu	-4.9E-02 ± 9.9E-02	U
	^{154}Eu	2.7E-02 ± 1.0E-01	U
	^{155}Eu	-1.9E-03 ± 1.9E-02	U
	^{238}Pu	2.8E-03 ± 1.4E-02	U
	^{239,240}Pu	-3.6E-03 ± 4.3E-03	U
	^{103}Ru	2.3E-02 ± 3.4E-02	U
	^{106}Ru	1.0E-01 ± 3.0E-01	U
	^{125}Sb	-7.3E-02 ± 8.4E-02	U
	^{113}Sn	9.5E-03 ± 4.0E-02	U
	^{90}Sr	5.8E-02 ± 1.3E-01	U
	^{234}U	9.7E-03 ± 6.3E-03	
	^{235}U	3.9E-03 ± 3.9E-03	
	^{238}U	8.0E-03 ± 6.2E-03	
	^{65}Zn	2.0E-02 ± 8.5E-02	U
V045	^{144}Ce	-2.8E+00 ± 2.8E+01	U
(200 West)	^{60}Co	7.2E-01 ± 3.1E+00	U
	^{134}Cs	1.1E+00 ± 3.2E+00	U
	^{137}Cs	6.0E+00 ± 4.3E+00	
	^{152}Eu	-6.3E+00 ± 7.7E+00	U
	^{154}Eu	3.8E-01 ± 3.8E+00	U
	^{155}Eu	-3.4E-01 ± 3.4E+00	U
	^{238}Pu	-6.9E-03 ± 1.5E-02	U
	^{239,240}Pu	6.0E-03 ± 5.3E-03	U
	^{103}Ru	1.3E-01 ± 1.3E+00	U
	^{106}Ru	3.0E+00 ± 3.0E+01	U
	^{125}Sb	-3.8E+00 ± 7.5E+00	U
	^{113}Sn	-8.8E-01 ± 3.7E+00	U
	^{90}Sr	-4.5E-02 ± 1.2E-01	U
	^{234}U	2.0E-02 ± 9.4E-03	
	^{235}U	2.7E-03 ± 3.2E-03	
	^{238}U	9.8E-03 ± 6.6E-03	
	^{65}Zn	-1.2E+01 ± 1.2E+01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-5. 2003 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Error	RQ*
V047	^{144}Ce	-1.3E-01 ± 6.8E-01	U
(200 West)	^{60}Co	5.2E-02 ± 5.0E-02	U
	^{134}Cs	2.1E-03 ± 2.1E-02	U
	^{137}Cs	1.3E-01 ± 5.6E-02	
	^{152}Eu	-8.9E-02 ± 1.5E-01	U
	^{154}Eu	8.0E-02 ± 1.4E-01	U
	^{155}Eu	-2.5E-02 ± 1.9E-01	U
	^{238}Pu	-8.6E-04 ± 8.6E-03	U
	^{239,240}Pu	8.6E-04 ± 4.6E-03	U
	^{103}Ru	-4.7E-03 ± 4.7E-02	U
	^{106}Ru	-2.9E-01 ± 4.5E-01	U
	^{125}Sb	4.3E-02 ± 1.3E-01	U
	^{113}Sn	-1.2E-02 ± 6.3E-02	U
	^{90}Sr	2.4E-01 ± 1.5E-01	
	^{234}U	2.2E-02 ± 1.0E-02	
	^{235}U	4.6E-03 ± 4.3E-03	
	^{238}U	1.8E-02 ± 9.4E-03	
	^{65}Zn	-1.5E-01 ± 1.5E-01	U
V051	^{144}Ce	-2.9E-01 ± 3.8E-01	U
(200 West)	^{60}Co	-1.5E-02 ± 2.8E-02	U
	^{134}Cs	-5.2E-03 ± 2.9E-02	U
	^{137}Cs	3.2E-02 ± 3.0E-02	U
	^{152}Eu	-3.9E-02 ± 8.2E-02	U
	^{154}Eu	-4.6E-02 ± 8.7E-02	U
	^{155}Eu	5.6E-02 ± 9.4E-02	U
	^{238}Pu	-3.5E-03 ± 4.9E-03	U
	^{239,240}Pu	8.8E-04 ± 4.0E-03	U
	^{103}Ru	-1.3E-02 ± 2.9E-02	U
	^{106}Ru	-2.0E-02 ± 2.0E-01	U
	^{125}Sb	5.6E-02 ± 7.7E-02	U
	^{113}Sn	2.3E-02 ± 3.7E-02	U
	^{90}Sr	9.9E-03 ± 9.9E-02	U
	^{234}U	1.5E-02 ± 8.4E-03	
	^{235}U	7.3E-03 ± 5.5E-03	
	^{238}U	1.8E-02 ± 9.0E-03	
	^{65}Zn	-1.4E-01 ± 1.4E-01	U

Location	Isotope	Result ± Error	RQ*
V049	^{144}Ce	-4.6E-01 ± 6.9E-01	U
(200 West)	^{60}Co	-1.8E-03 ± 1.8E-02	U
	^{134}Cs	5.9E-03 ± 5.2E-02	U
	^{137}Cs	-3.0E-02 ± 5.3E-02	U
	^{152}Eu	-5.5E-03 ± 5.5E-02	U
	^{154}Eu	3.7E-02 ± 1.4E-01	U
	^{155}Eu	-4.1E-02 ± 1.7E-01	U
	^{238}Pu	-2.0E-03 ± 1.7E-02	U
	^{239,240}Pu	5.0E-03 ± 6.0E-03	U
	^{103}Ru	-5.6E-02 ± 5.6E-02	U
	^{106}Ru	6.9E-02 ± 4.7E-01	U
	^{125}Sb	-4.7E-02 ± 1.4E-01	U
	^{113}Sn	1.3E-02 ± 6.8E-02	U
	^{90}Sr	-1.3E-01 ± 1.3E-01	U
	^{234}U	1.4E-02 ± 9.2E-03	
	^{235}U	7.2E-03 ± 5.8E-03	
	^{238}U	1.0E-02 ± 7.0E-03	
	^{65}Zn	-3.9E-01 ± 3.9E-01	U
V053	^{144}Ce	1.4E-02 ± 1.4E-01	U
(200 East)	^{60}Co	2.3E-02 ± 3.4E-02	U
	^{134}Cs	8.8E-03 ± 3.5E-02	U
	^{137}Cs	-1.1E-02 ± 3.5E-02	U
	^{152}Eu	-4.1E-02 ± 8.5E-02	U
	^{154}Eu	-1.4E-01 ± 1.4E-01	U
	^{155}Eu	2.1E-02 ± 1.1E-01	U
	^{238}Pu	-9.4E-04 ± 8.2E-03	U
	^{239,240}Pu	9.4E-04 ± 9.4E-03	U
	^{103}Ru	2.8E-02 ± 3.4E-02	U
	^{106}Ru	9.0E-02 ± 2.9E-01	U
	^{125}Sb	-9.8E-03 ± 8.1E-02	U
	^{113}Sn	-1.0E-02 ± 3.8E-02	U
	^{90}Sr	-7.6E-02 ± 1.1E-01	U
	^{234}U	8.2E-03 ± 6.1E-03	
	^{235}U	2.7E-03 ± 4.1E-03	U
	^{238}U	7.4E-03 ± 5.8E-03	
	^{65}Zn	-4.4E-02 ± 7.9E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-5. 2003 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Error	RQ*
V055	^{144}Ce	1.0E-01 ± 3.6E-01	U
(200 East)	^{60}Co	-1.1E-02 ± 2.8E-02	U
	^{134}Cs	-1.7E-02 ± 2.8E-02	U
	^{137}Cs	8.5E-02 ± 6.0E-02	
	^{152}Eu	-1.6E-02 ± 8.3E-02	U
	^{154}Eu	-6.8E-02 ± 8.4E-02	U
	^{155}Eu	-1.8E-02 ± 8.9E-02	U
	^{238}Pu	4.8E-03 ± 1.5E-02	U
	^{239,240}Pu	9.6E-04 ± 5.8E-03	U
	^{103}Ru	-9.1E-03 ± 2.6E-02	U
	^{106}Ru	2.5E-02 ± 2.4E-01	U
	^{125}Sb	2.2E-02 ± 7.2E-02	U
	^{113}Sn	-1.2E-03 ± 1.2E-02	U
	^{90}Sr	1.8E-01 ± 1.3E-01	
	^{234}U	1.0E-02 ± 7.5E-03	
	^{235}U	5.1E-03 ± 5.6E-03	U
	^{238}U	1.0E-02 ± 6.6E-03	
	^{65}Zn	-1.1E-01 ± 1.1E-01	U
V059	^{144}Ce	-1.3E-01 ± 4.4E-01	U
(200 East)	^{60}Co	9.7E-03 ± 3.2E-02	U
	^{134}Cs	1.2E-02 ± 3.5E-02	U
	^{137}Cs	1.2E-01 ± 6.0E-02	
	^{152}Eu	-1.6E-02 ± 9.9E-02	U
	^{154}Eu	-8.6E-04 ± 8.6E-03	U
	^{155}Eu	-4.5E-02 ± 1.1E-01	U
	^{238}Pu	-8.6E-03 ± 1.7E-02	U
	^{239,240}Pu	2.2E-03 ± 3.1E-03	U
	^{103}Ru	2.3E-03 ± 2.3E-02	U
	^{106}Ru	-3.4E-01 ± 3.4E-01	U
	^{125}Sb	4.3E-02 ± 8.8E-02	U
	^{113}Sn	-4.4E-02 ± 4.4E-02	U
	^{90}Sr	7.1E-02 ± 1.2E-01	U
	^{234}U	6.5E-03 ± 6.4E-03	U
	^{235}U	2.0E-03 ± 5.6E-03	U
	^{238}U	9.3E-04 ± 9.3E-04	U
	^{65}Zn	-8.1E-02 ± 8.1E-02	U

Location	Isotope	Result ± Error	RQ*
V057	^{144}Ce	9.3E-02 ± 3.2E-01	U
(200 East)	^{60}Co	-4.1E-02 ± 4.1E-02	U
	^{134}Cs	-3.6E-03 ± 3.6E-02	U
	^{137}Cs	3.4E-02 ± 3.7E-02	U
	^{152}Eu	8.2E-03 ± 8.0E-02	U
	^{154}Eu	-3.8E-02 ± 1.0E-01	U
	^{155}Eu	3.6E-02 ± 9.0E-02	U
	^{238}Pu	1.4E-02 ± 1.4E-02	U
	^{239,240}Pu	9.2E-04 ± 9.2E-03	U
	^{103}Ru	4.9E-04 ± 4.9E-03	U
	^{106}Ru	-2.0E-02 ± 2.0E-01	U
	^{125}Sb	-1.1E-02 ± 7.3E-02	U
	^{113}Sn	-1.6E-02 ± 3.5E-02	U
	^{90}Sr	1.7E-01 ± 1.4E-01	
	^{234}U	1.2E-02 ± 7.4E-03	
	^{235}U	9.1E-04 ± 3.2E-03	U
	^{238}U	6.7E-03 ± 5.0E-03	
	^{65}Zn	3.8E-02 ± 8.2E-02	U
V061	^{144}Ce	-6.4E-02 ± 4.1E-01	U
(200 East)	^{60}Co	1.0E-02 ± 3.5E-02	U
	^{134}Cs	-6.9E-03 ± 3.2E-02	U
	^{137}Cs	2.4E-02 ± 3.1E-02	U
	^{152}Eu	-7.9E-02 ± 1.0E-01	U
	^{154}Eu	6.4E-03 ± 6.4E-02	U
	^{155}Eu	-2.5E-02 ± 1.1E-01	U
	^{238}Pu	-2.7E-02 ± 2.7E-02	U
	^{239,240}Pu	4.7E-03 ± 5.2E-03	U
	^{103}Ru	-1.9E-02 ± 2.9E-02	U
	^{106}Ru	-1.0E-01 ± 2.7E-01	U
	^{125}Sb	3.0E-02 ± 8.3E-02	U
	^{113}Sn	1.2E-02 ± 3.7E-02	U
	^{90}Sr	-1.2E-01 ± 1.2E-01	U
	^{234}U	6.3E-03 ± 5.0E-03	
	^{235}U	2.0E-03 ± 4.0E-03	U
	^{238}U	1.2E-02 ± 7.3E-03	
	^{65}Zn	-9.6E-02 ± 9.6E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-5. 2003 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Error	RQ*
V063	^{144}Ce	2.9E-01 ± 7.9E-01	U
(200 East)	^{60}Co	3.4E-02 ± 5.8E-02	U
	^{134}Cs	2.4E-02 ± 5.8E-02	U
	^{137}Cs	-2.4E-02 ± 5.9E-02	U
	^{152}Eu	-1.4E-01 ± 1.7E-01	U
	^{154}Eu	-1.5E-01 ± 2.0E-01	U
	^{155}Eu	-4.4E-02 ± 2.0E-01	U
	^{238}Pu	-6.4E-03 ± 1.8E-02	U
	^{239,240}Pu	4.2E-03 ± 5.9E-03	U
	^{103}Ru	-1.9E-03 ± 1.9E-02	U
	^{106}Ru	-7.0E-02 ± 5.2E-01	U
	^{125}Sb	-3.9E-02 ± 1.5E-01	U
	^{113}Sn	7.4E-02 ± 7.3E-02	U
	^{90}Sr	1.2E+01 ± 1.8E+00	
	^{234}U	1.8E-02 ± 1.0E-02	
	^{235}U	2.4E-03 ± 3.4E-03	U
	^{238}U	2.2E-03 ± 3.1E-03	U
	^{65}Zn	-4.3E-01 ± 4.3E-01	U
V081	^{144}Ce	1.4E-01 ± 3.3E-01	U
(600 Area)	^{60}Co	-1.7E-02 ± 2.4E-02	U
	^{134}Cs	1.1E-02 ± 2.4E-02	U
	^{137}Cs	9.5E-03 ± 2.3E-02	U
	^{152}Eu	-3.3E-02 ± 7.0E-02	U
	^{154}Eu	-2.1E-02 ± 8.4E-02	U
	^{155}Eu	-1.8E-02 ± 8.0E-02	U
	^{238}Pu	-1.0E-03 ± 8.7E-03	U
	^{239,240}Pu	1.1E-03 ± 1.1E-02	U
	^{103}Ru	-4.7E-03 ± 2.3E-02	U
	^{106}Ru	1.2E-01 ± 2.1E-01	U
	^{125}Sb	-1.3E-03 ± 1.3E-02	U
	^{113}Sn	-1.8E-02 ± 3.0E-02	U
	^{90}Sr	-8.9E-02 ± 1.2E-01	U
	^{234}U	9.6E-03 ± 7.6E-03	
	^{235}U	1.9E-03 ± 4.7E-03	U
	^{238}U	7.0E-03 ± 5.2E-03	
	^{65}Zn	-1.5E-01 ± 1.5E-01	U

Location	Isotope	Result ± Error	RQ*
V079	^{144}Ce	-3.8E-02 ± 3.3E-01	U
(200 East)	^{60}Co	2.7E-04 ± 2.7E-03	U
	^{134}Cs	8.3E-03 ± 2.6E-02	U
	^{137}Cs	1.1E-02 ± 2.6E-02	U
	^{152}Eu	8.7E-03 ± 7.5E-02	U
	^{154}Eu	-1.0E-02 ± 8.4E-02	U
	^{155}Eu	3.8E-03 ± 3.8E-02	U
	^{238}Pu	2.3E-03 ± 8.7E-03	U
	^{239,240}Pu	2.3E-03 ± 5.8E-03	U
	^{103}Ru	-2.6E-02 ± 2.6E-02	U
	^{106}Ru	-1.5E-01 ± 2.3E-01	U
	^{125}Sb	-7.7E-03 ± 6.5E-02	U
	^{113}Sn	8.9E-04 ± 8.9E-03	U
	^{90}Sr	-5.9E-02 ± 1.2E-01	U
	^{234}U	1.2E-02 ± 7.4E-03	
	^{235}U	2.9E-03 ± 3.5E-03	
	^{238}U	1.3E-02 ± 7.5E-03	
	^{65}Zn	-9.9E-02 ± 9.9E-02	U
V083	^{144}Ce	-1.6E-01 ± 3.7E-01	U
(600 Area)	^{60}Co	1.0E-02 ± 3.6E-02	U
	^{134}Cs	-2.2E-02 ± 3.6E-02	U
	^{137}Cs	-4.1E-03 ± 3.3E-02	U
	^{152}Eu	-7.6E-02 ± 9.1E-02	U
	^{154}Eu	-7.4E-02 ± 1.1E-01	U
	^{155}Eu	1.6E-01 ± 9.9E-02	U
	^{238}Pu	1.3E-02 ± 1.8E-02	U
	^{239,240}Pu	1.1E-03 ± 5.8E-03	U
	^{103}Ru	2.5E-02 ± 3.1E-02	U
	^{106}Ru	-4.1E-02 ± 2.9E-01	U
	^{125}Sb	-1.4E-02 ± 8.0E-02	U
	^{113}Sn	-3.1E-02 ± 4.0E-02	U
	^{90}Sr	-5.9E-02 ± 1.4E-01	U
	^{234}U	8.6E-03 ± 7.1E-03	U
	^{235}U	2.4E-03 ± 3.4E-03	U
	^{238}U	3.8E-03 ± 4.6E-03	U
	^{65}Zn	-1.8E-01 ± 1.8E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-5. 2003 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Error	RQ*
V085	^{144}Ce	-4.6E-03 ± 4.6E-02	U
(600 Area)	^{60}Co	-8.6E-03 ± 3.7E-02	U
	^{134}Cs	-1.3E-02 ± 4.1E-02	U
	^{137}Cs	9.4E-03 ± 3.8E-02	U
	^{152}Eu	3.9E-02 ± 1.6E-01	U
	^{154}Eu	-3.9E-02 ± 1.1E-01	U
	^{155}Eu	-2.7E-02 ± 1.5E-01	U
	^{238}Pu	1.8E-02 ± 1.4E-02	U
	^{239,240}Pu	9.5E-04 ± 1.9E-03	U
	^{103}Ru	5.1E-03 ± 3.8E-02	U
	^{106}Ru	-3.0E-01 ± 3.5E-01	U
	^{125}Sb	-3.6E-02 ± 1.0E-01	U
	^{113}Sn	-8.9E-03 ± 4.6E-02	U
	^{90}Sr	-9.2E-02 ± 1.4E-01	U
	^{234}U	8.4E-03 ± 5.4E-03	
	^{235}U	2.8E-03 ± 3.4E-03	
	^{238}U	6.1E-03 ± 4.5E-03	
V089	^{144}Ce	2.5E-01 ± 4.4E-01	U
(600 Area)	^{60}Co	-1.4E-03 ± 1.4E-02	U
	^{134}Cs	-1.6E-02 ± 3.5E-02	U
	^{137}Cs	-8.2E-03 ± 3.2E-02	U
	^{152}Eu	-3.3E-02 ± 1.0E-01	U
	^{154}Eu	3.1E-02 ± 1.1E-01	U
	^{155}Eu	-5.4E-02 ± 1.1E-01	U
	^{238}Pu	-2.1E-02 ± 2.3E-02	U
	^{239,240}Pu	3.9E-03 ± 6.2E-03	U
	^{103}Ru	1.9E-02 ± 3.2E-02	U
	^{106}Ru	-2.7E-03 ± 2.7E-02	U
	^{125}Sb	-1.1E-01 ± 1.1E-01	U
	^{113}Sn	-2.2E-02 ± 3.9E-02	U
	^{90}Sr	-9.2E-02 ± 1.2E-01	U
	^{234}U	5.8E-03 ± 5.2E-03	U
	^{235}U	3.6E-03 ± 3.6E-03	
	^{238}U	5.8E-03 ± 4.6E-03	
	^{65}Zn	1.4E-03 ± 1.4E-02	U

Location	Isotope	Result ± Error	RQ*
V087	^{144}Ce	-4.2E-01 ± 7.8E-01	U
(600 Area)	^{60}Co	-2.7E-03 ± 2.7E-02	U
	^{134}Cs	-4.0E-02 ± 7.2E-02	U
	^{137}Cs	1.8E-01 ± 1.1E-01	
	^{152}Eu	-4.1E-02 ± 1.7E-01	U
	^{154}Eu	-2.2E-02 ± 1.8E-01	U
	^{155}Eu	-6.6E-02 ± 2.1E-01	U
	^{238}Pu	-9.1E-03 ± 1.6E-02	U
	^{239,240}Pu	1.0E-03 ± 2.0E-03	U
	^{103}Ru	1.4E-02 ± 5.9E-02	U
	^{106}Ru	1.6E-01 ± 5.6E-01	U
	^{125}Sb	1.5E-02 ± 1.5E-01	U
	^{113}Sn	2.0E-02 ± 7.6E-02	U
	^{90}Sr	1.1E-01 ± 1.6E-01	U
	^{234}U	5.1E-03 ± 5.6E-03	U
	^{235}U	4.6E-03 ± 5.1E-03	U
	^{238}U	6.8E-03 ± 5.1E-03	
V091	^{144}Ce	5.7E-02 ± 3.6E-01	U
(600 Area)	^{60}Co	3.2E-03 ± 3.1E-02	U
	^{134}Cs	1.2E-02 ± 3.0E-02	U
	^{137}Cs	4.4E-01 ± 1.0E-01	
	^{152}Eu	-3.6E-03 ± 3.6E-02	U
	^{154}Eu	7.6E-03 ± 7.6E-02	U
	^{155}Eu	-7.4E-02 ± 9.8E-02	U
	^{238}Pu	8.3E-04 ± 8.3E-03	U
	^{239,240}Pu	-1.7E-03 ± 2.4E-03	U
	^{103}Ru	-1.9E-03 ± 1.9E-02	U
	^{106}Ru	-5.1E-02 ± 2.7E-01	U
	^{125}Sb	-2.7E-02 ± 7.3E-02	U
	^{113}Sn	-3.9E-03 ± 3.3E-02	U
	^{90}Sr	9.3E-01 ± 1.9E-01	
	^{234}U	1.6E-02 ± 8.3E-03	
	^{235}U	1.2E-02 ± 7.3E-03	
	^{238}U	2.2E-02 ± 1.0E-02	
	^{65}Zn	-1.3E-02 ± 7.5E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-5. 2003 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Error	RQ*
V093	^{144}Ce	7.0E-01 ± 7.4E-01	U
(600 Area)	^{60}Co	3.3E-02 ± 4.9E-02	U
	^{134}Cs	-4.6E-02 ± 5.5E-02	U
	^{137}Cs	2.2E-02 ± 5.1E-02	U
	^{152}Eu	-1.8E-01 ± 1.8E-01	U
	^{154}Eu	8.2E-02 ± 1.4E-01	U
	^{155}Eu	1.9E-01 ± 2.0E-01	U
	^{238}Pu	-1.8E-03 ± 1.8E-02	U
	^{239,240}Pu	-1.8E-03 ± 3.6E-03	U
	^{103}Ru	1.1E-02 ± 5.7E-02	U
	^{106}Ru	-5.5E-01 ± 5.5E-01	U
	^{125}Sb	-6.7E-02 ± 1.4E-01	U
	^{113}Sn	-4.5E-02 ± 6.3E-02	U
	^{90}Sr	-1.2E-01 ± 1.2E-01	U
	^{234}U	4.7E-03 ± 4.0E-03	
	^{235}U	4.3E-03 ± 5.2E-03	U
	^{238}U	1.6E-03 ± 4.0E-03	U
	^{65}Zn	-7.9E-02 ± 1.1E-01	U
V097	^{144}Ce	8.2E-02 ± 2.9E-01	U
(600 Area)	^{60}Co	3.2E-03 ± 1.9E-02	U
	^{134}Cs	1.3E-02 ± 2.6E-02	U
	^{137}Cs	-5.1E-03 ± 2.1E-02	U
	^{152}Eu	-4.9E-03 ± 4.9E-02	U
	^{154}Eu	2.4E-02 ± 6.5E-02	U
	^{155}Eu	5.6E-02 ± 7.2E-02	U
	^{238}Pu	1.6E-02 ± 1.6E-02	U
	^{239,240}Pu	-8.8E-04 ± 3.1E-03	U
	^{103}Ru	6.6E-03 ± 2.0E-02	U
	^{106}Ru	5.1E-02 ± 1.8E-01	U
	^{125}Sb	-7.7E-02 ± 7.7E-02	U
	^{113}Sn	-3.0E-02 ± 3.0E-02	U
	^{90}Sr	6.5E-02 ± 1.2E-01	U
	^{234}U	9.8E-03 ± 6.2E-03	
	^{235}U	2.7E-03 ± 3.2E-03	
	^{238}U	5.7E-03 ± 4.6E-03	
	^{65}Zn	-5.1E-02 ± 5.3E-02	U

Location	Isotope	Result ± Error	RQ*
V095	^{144}Ce	-8.4E-02 ± 3.7E-01	U
(600 Area)	^{60}Co	-2.4E-02 ± 3.0E-02	U
	^{134}Cs	1.7E-02 ± 3.0E-02	U
	^{137}Cs	6.0E-02 ± 5.8E-02	
	^{152}Eu	-6.3E-03 ± 6.3E-02	U
	^{154}Eu	1.4E-02 ± 1.2E-01	U
	^{155}Eu	4.4E-02 ± 9.7E-02	U
	^{238}Pu	-6.0E-03 ± 1.4E-02	U
	^{239,240}Pu	2.4E-03 ± 3.4E-03	U
	^{103}Ru	2.1E-03 ± 2.1E-02	U
	^{106}Ru	-8.2E-02 ± 2.4E-01	U
	^{125}Sb	2.4E-02 ± 7.3E-02	U
	^{113}Sn	-1.4E-02 ± 3.4E-02	U
	^{90}Sr	7.1E-01 ± 1.8E-01	
	^{234}U	9.8E-03 ± 6.6E-03	
	^{235}U	1.8E-03 ± 3.6E-03	U
	^{238}U	5.7E-03 ± 4.6E-03	
	^{65}Zn	-2.0E-01 ± 2.0E-01	U
V099	^{144}Ce	1.8E-02 ± 1.8E-01	U
(600 Area)	^{60}Co	2.4E-02 ± 2.6E-02	U
	^{134}Cs	-2.2E-02 ± 2.6E-02	U
	^{137}Cs	-8.0E-03 ± 2.5E-02	U
	^{152}Eu	8.9E-03 ± 6.4E-02	U
	^{154}Eu	-1.7E-02 ± 7.9E-02	U
	^{155}Eu	7.1E-02 ± 8.2E-02	U
	^{238}Pu	1.6E-02 ± 1.4E-02	U
	^{239,240}Pu	1.0E-03 ± 1.0E-02	U
	^{103}Ru	-1.3E-02 ± 2.3E-02	U
	^{106}Ru	2.6E-01 ± 2.2E-01	U
	^{125}Sb	-2.8E-02 ± 5.9E-02	U
	^{113}Sn	-1.1E-04 ± 1.1E-03	U
	^{90}Sr	4.8E+00 ± 7.2E-01	
	^{234}U	4.9E-03 ± 4.8E-03	U
	^{235}U	1.8E-03 ± 3.6E-03	U
	^{238}U	1.6E-03 ± 3.2E-03	U
	^{65}Zn	1.4E-03 ± 1.4E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-5. 2003 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Error	RQ*
V101	^{144}Ce	-1.2E-02 ± 1.2E-01	U
(600 Area)	^{60}Co	-8.0E-03 ± 2.5E-02	U
	^{134}Cs	-2.2E-02 ± 2.6E-02	U
	^{137}Cs	1.4E-02 ± 3.0E-02	U
	^{152}Eu	-5.4E-02 ± 7.6E-02	U
	^{154}Eu	-5.2E-02 ± 9.4E-02	U
	^{155}Eu	-1.1E-02 ± 8.6E-02	U
	^{238}Pu	9.3E-04 ± 9.3E-03	U
	^{239,240}Pu	-1.9E-03 ± 3.8E-03	U
	^{103}Ru	-3.7E-03 ± 2.5E-02	U
	^{106}Ru	-1.2E-01 ± 2.1E-01	U
	^{125}Sb	2.7E-02 ± 7.1E-02	U
	^{113}Sn	-3.3E-02 ± 3.4E-02	U
	^{90}Sr	-1.8E-02 ± 1.1E-01	U
	^{234}U	8.4E-03 ± 6.0E-03	
	^{235}U	-1.0E-03 ± 3.5E-03	U
	^{238}U	4.7E-03 ± 4.4E-03	
	^{65}Zn	-6.3E-03 ± 6.3E-02	U
V105	^{144}Ce	4.3E-02 ± 4.3E-01	U
(600 Area)	^{60}Co	-5.7E-03 ± 3.8E-02	U
	^{134}Cs	6.6E-05 ± 6.6E-04	U
	^{137}Cs	1.1E-02 ± 3.8E-02	U
	^{152}Eu	8.7E-03 ± 8.6E-02	U
	^{154}Eu	-7.5E-02 ± 1.3E-01	U
	^{155}Eu	1.7E-01 ± 1.1E-01	U
	^{238}Pu	-6.2E-03 ± 8.7E-03	U
	^{239,240}Pu	1.0E-02 ± 7.4E-03	
	^{103}Ru	-1.1E-02 ± 4.2E-02	U
	^{106}Ru	2.3E-02 ± 2.3E-01	U
	^{125}Sb	-4.4E-02 ± 9.3E-02	U
	^{113}Sn	-4.3E-04 ± 4.2E-03	U
	^{90}Sr	6.0E-02 ± 1.4E-01	U
	^{234}U	9.5E-03 ± 6.2E-03	
	^{235}U	1.9E-03 ± 2.7E-03	U
	^{238}U	6.9E-03 ± 5.2E-03	
	^{65}Zn	1.0E-01 ± 1.0E-01	U

Location	Isotope	Result ± Error	RQ*
V103	^{144}Ce	2.5E-01 ± 3.8E-01	U
(600 Area)	^{60}Co	-2.9E-03 ± 2.6E-02	U
	^{134}Cs	-8.1E-03 ± 2.7E-02	U
	^{137}Cs	1.2E-02 ± 2.8E-02	U
	^{152}Eu	-2.0E-02 ± 8.1E-02	U
	^{154}Eu	3.0E-02 ± 8.5E-02	U
	^{155}Eu	3.2E-02 ± 9.2E-02	U
	^{238}Pu	4.5E-03 ± 1.9E-02	U
	^{239,240}Pu	6.8E-03 ± 5.8E-03	
	^{103}Ru	-5.8E-04 ± 5.8E-03	U
	^{106}Ru	-1.8E-01 ± 2.2E-01	U
	^{125}Sb	6.8E-02 ± 7.6E-02	U
	^{113}Sn	-4.4E-03 ± 3.5E-02	U
	^{90}Sr	1.3E-02 ± 1.2E-01	U
	^{234}U	1.0E-02 ± 6.3E-03	
	^{235}U	8.3E-04 ± 8.3E-03	U
	^{238}U	6.7E-03 ± 5.0E-03	
	^{65}Zn	5.2E-02 ± 7.1E-02	U
V107	^{144}Ce	-4.8E-02 ± 3.4E-01	U
(600 Area)	^{60}Co	-1.0E-02 ± 3.4E-02	U
	^{134}Cs	2.3E-02 ± 3.2E-02	U
	^{137}Cs	4.6E-03 ± 3.1E-02	U
	^{152}Eu	7.6E-04 ± 7.6E-03	U
	^{154}Eu	-1.5E-01 ± 1.5E-01	U
	^{155}Eu	2.3E-02 ± 1.0E-01	U
	^{238}Pu	-2.5E-03 ± 6.2E-03	U
	^{239,240}Pu	1.2E-03 ± 1.2E-03	U
	^{103}Ru	1.1E-02 ± 3.2E-02	U
	^{106}Ru	-1.1E-01 ± 2.9E-01	U
	^{125}Sb	-3.6E-03 ± 3.6E-02	U
	^{113}Sn	-2.6E-02 ± 3.7E-02	U
	^{90}Sr	-1.6E-01 ± 1.6E-01	U
	^{234}U	2.6E-03 ± 3.1E-03	
	^{235}U	8.8E-04 ± 8.8E-04	U
	^{238}U	6.2E-03 ± 5.0E-03	
	^{65}Zn	2.7E-02 ± 8.7E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-5. 2003 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Error	RQ*
V109 (600 Area)	^{144}Ce	-1.3E-01 ± 5.5E-01	U
	^{60}Co	-1.7E-02 ± 3.5E-02	U
	^{134}Cs	-7.0E-03 ± 3.9E-02	U
	^{137}Cs	3.2E-02 ± 4.3E-02	U
	^{152}Eu	-8.6E-02 ± 1.3E-01	U
	^{154}Eu	6.1E-02 ± 1.1E-01	U
	^{155}Eu	7.6E-02 ± 1.5E-01	U
	^{238}Pu	9.2E-04 ± 9.2E-04	U
	^{239,240}Pu	2.3E-02 ± 1.1E-02	
	^{103}Ru	-2.1E-02 ± 4.0E-02	U
	^{106}Ru	7.1E-02 ± 3.5E-01	U
	^{125}Sb	6.8E-03 ± 6.8E-02	U
	^{113}Sn	-2.2E-02 ± 4.8E-02	U
	^{90}Sr	-1.0E-02 ± 1.0E-01	U
	^{234}U	1.1E-02 ± 6.7E-03	
	^{235}U	9.2E-04 ± 3.2E-03	U
	^{238}U	6.8E-03 ± 6.1E-03	U
	^{65}Zn	-8.7E-02 ± 8.9E-02	U
V113 (Duplicate of V083, 600 Area)	^{144}Ce	-3.1E-02 ± 3.1E-01	U
	^{60}Co	-8.5E-03 ± 3.2E-02	U
	^{134}Cs	-2.4E-02 ± 3.5E-02	U
	^{137}Cs	-4.1E-04 ± 4.1E-03	U
	^{152}Eu	-8.2E-02 ± 1.0E-01	U
	^{154}Eu	4.1E-03 ± 4.1E-02	U
	^{155}Eu	-2.8E-02 ± 1.1E-01	U
	^{238}Pu	-1.0E-03 ± 4.5E-03	U
	^{239,240}Pu	1.0E-03 ± 1.0E-03	U
	^{103}Ru	-6.8E-03 ± 3.2E-02	U
	^{106}Ru	-6.6E-02 ± 2.7E-01	U
	^{125}Sb	2.1E-02 ± 8.4E-02	U
	^{113}Sn	-6.7E-04 ± 6.7E-03	U
	^{90}Sr	2.0E+00 ± 3.0E-01	
	^{234}U	1.2E-02 ± 7.1E-03	
	^{235}U	1.9E-03 ± 2.7E-03	U
	^{238}U	7.1E-03 ± 5.9E-03	
	^{65}Zn	-3.4E-01 ± 3.4E-01	U

Location	Isotope	Result ± Error	RQ*
V111 (Duplicate of V007, 200 West)	^{144}Ce	-2.2E-01 ± 5.2E-01	U
	^{60}Co	-1.2E-02 ± 4.1E-02	U
	^{134}Cs	1.3E-02 ± 4.2E-02	U
	^{137}Cs	6.3E-03 ± 4.2E-02	U
	^{152}Eu	1.0E-01 ± 1.2E-01	U
	^{154}Eu	-1.6E-01 ± 1.6E-01	U
	^{155}Eu	9.7E-02 ± 1.4E-01	U
	^{238}Pu	-2.1E-03 ± 4.2E-03	U
	^{239,240}Pu	1.0E-03 ± 4.5E-03	U
	^{103}Ru	7.6E-03 ± 3.9E-02	U
	^{106}Ru	1.1E-01 ± 3.5E-01	U
	^{125}Sb	5.0E-02 ± 1.0E-01	U
	^{113}Sn	-1.6E-02 ± 4.9E-02	U
	^{90}Sr	-1.0E-01 ± 1.0E-01	U
	^{234}U	9.9E-03 ± 6.9E-03	
	^{235}U	2.0E-03 ± 4.0E-03	U
	^{238}U	5.4E-03 ± 4.6E-03	
	^{65}Zn	-9.9E-03 ± 9.7E-02	U
V116 (300 Area)	^{144}Ce	-6.9E-02 ± 4.5E-01	U
	^{60}Co	1.5E-02 ± 3.0E-02	U
	^{134}Cs	2.7E-04 ± 2.7E-03	U
	^{137}Cs	4.1E-03 ± 3.1E-02	U
	^{152}Eu	-7.2E-02 ± 1.2E-01	U
	^{154}Eu	5.6E-02 ± 9.3E-02	U
	^{155}Eu	4.9E-02 ± 1.1E-01	U
	^{238}Pu	-2.6E-03 ± 3.9E-03	U
	^{239,240}Pu	8.6E-04 ± 8.6E-03	U
	^{103}Ru	-3.4E-04 ± 3.4E-03	U
	^{106}Ru	1.8E-01 ± 3.3E-01	U
	^{125}Sb	7.2E-03 ± 7.2E-02	U
	^{113}Sn	1.3E-02 ± 4.4E-02	U
	^{90}Sr	-6.1E-02 ± 1.2E-01	U
	^{234}U	6.0E-02 ± 2.0E-02	
	^{235}U	5.0E-03 ± 4.3E-03	
	^{238}U	5.3E-02 ± 1.9E-02	
	^{65}Zn	-1.2E-01 ± 1.2E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-5. 2003 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Error	RQ*
V117	^{144}Ce	-2.7E-01 ± 5.3E-01	U
(300 Area)	^{60}Co	2.4E-02 ± 3.6E-02	U
	^{134}Cs	-2.8E-02 ± 3.3E-02	U
	^{137}Cs	-1.5E-02 ± 3.4E-02	U
	^{152}Eu	4.9E-02 ± 9.1E-02	U
	^{154}Eu	-6.1E-02 ± 1.0E-01	U
	^{155}Eu	1.6E-02 ± 1.1E-01	U
	^{238}Pu	-4.2E-03 ± 1.4E-02	U
	^{239,240}Pu	3.3E-03 ± 4.6E-03	U
	^{103}Ru	9.5E-03 ± 3.4E-02	U
	^{106}Ru	-5.2E-02 ± 3.1E-01	U
	^{125}Sb	-4.0E-03 ± 4.0E-02	U
	^{113}Sn	5.5E-02 ± 4.1E-02	U
	^{90}Sr	-1.5E-01 ± 1.5E-01	U
	^{234}U	2.0E-02 ± 9.6E-03	
	^{235}U	1.8E-03 ± 4.5E-03	U
	^{238}U	1.7E-02 ± 8.5E-03	
	^{65}Zn	-4.0E-03 ± 4.0E-02	U
V121	^{144}Ce	-2.0E-01 ± 3.1E-01	U
(300 Area)	^{60}Co	3.1E-03 ± 3.1E-02	U
	^{134}Cs	4.2E-03 ± 3.8E-02	U
	^{137}Cs	-9.8E-03 ± 2.9E-02	U
	^{152}Eu	-2.9E-02 ± 8.0E-02	U
	^{154}Eu	5.2E-02 ± 9.6E-02	U
	^{155}Eu	6.7E-03 ± 6.7E-02	U
	^{238}Pu	9.7E-03 ± 1.6E-02	U
	^{239,240}Pu	2.0E-03 ± 4.0E-03	U
	^{103}Ru	2.5E-03 ± 2.5E-02	U
	^{106}Ru	-4.9E-02 ± 2.7E-01	U
	^{125}Sb	1.1E-02 ± 7.3E-02	U
	^{113}Sn	2.1E-02 ± 3.7E-02	U
	^{90}Sr	-6.8E-02 ± 1.1E-01	U
	^{234}U	4.0E-02 ± 1.4E-02	
	^{235}U	3.8E-03 ± 3.8E-03	
	^{238}U	3.5E-02 ± 1.3E-02	
	^{65}Zn	-2.6E-02 ± 7.7E-02	U

Location	Isotope	Result ± Error	RQ*
V119	^{144}Ce	5.1E-02 ± 3.5E-01	U
(300 Area)	^{60}Co	2.0E-02 ± 3.4E-02	U
	^{134}Cs	-4.4E-03 ± 4.1E-02	U
	^{137}Cs	-8.4E-03 ± 3.2E-02	U
	^{152}Eu	-2.9E-02 ± 8.6E-02	U
	^{154}Eu	-4.3E-02 ± 1.0E-01	U
	^{155}Eu	-5.5E-02 ± 9.1E-02	U
	^{238}Pu	-1.8E-03 ± 1.3E-02	U
	^{239,240}Pu	2.6E-03 ± 3.9E-03	U
	^{103}Ru	2.3E-02 ± 3.2E-02	U
	^{106}Ru	1.1E-01 ± 2.9E-01	U
	^{125}Sb	-5.2E-02 ± 8.7E-02	U
	^{113}Sn	-1.3E-02 ± 3.9E-02	U
	^{90}Sr	-2.4E-01 ± 2.4E-01	U
	^{234}U	2.2E-01 ± 4.8E-02	
	^{235}U	1.8E-02 ± 9.0E-03	
	^{238}U	1.9E-01 ± 4.4E-02	
	^{65}Zn	7.6E-03 ± 7.6E-02	U
V123	^{144}Ce	-2.8E-01 ± 5.0E-01	U
(300 Area)	^{60}Co	2.7E-02 ± 3.8E-02	U
	^{134}Cs	-1.8E-02 ± 3.8E-02	U
	^{137}Cs	2.3E-02 ± 3.6E-02	U
	^{152}Eu	-1.1E-01 ± 1.1E-01	U
	^{154}Eu	-1.3E-02 ± 1.2E-01	U
	^{155}Eu	-9.7E-02 ± 1.4E-01	U
	^{238}Pu	-6.1E-03 ± 1.8E-02	U
	^{239,240}Pu	8.7E-04 ± 8.7E-03	U
	^{103}Ru	3.1E-03 ± 3.1E-02	U
	^{106}Ru	-2.6E-01 ± 3.3E-01	U
	^{125}Sb	-9.7E-03 ± 9.7E-02	U
	^{113}Sn	-4.5E-03 ± 4.5E-02	U
	^{90}Sr	-9.5E-02 ± 1.2E-01	U
	^{234}U	1.1E-02 ± 7.7E-03	
	^{235}U	4.5E-03 ± 4.9E-03	U
	^{238}U	7.4E-03 ± 5.6E-03	
	^{65}Zn	-1.5E-01 ± 1.5E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-5. 2003 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Error	RQ*
V124	^{144}Ce	-1.7E-01 ± 3.1E-01	U
(300 Area)	^{60}Co	-2.7E-03 ± 2.2E-02	U
	^{134}Cs	1.4E-04 ± 1.4E-03	U
	^{137}Cs	-9.1E-03 ± 2.3E-02	U
	^{152}Eu	1.9E-02 ± 6.9E-02	U
	^{154}Eu	-1.7E-02 ± 6.7E-02	U
	^{155}Eu	-7.1E-02 ± 8.0E-02	U
	^{238}Pu	6.6E-03 ± 1.2E-02	U
	^{239,240}Pu	3.3E-03 ± 3.3E-03	
	^{103}Ru	1.0E-02 ± 2.3E-02	U
	^{106}Ru	-1.4E-01 ± 2.0E-01	U
	^{125}Sb	5.6E-02 ± 6.4E-02	U
	^{113}Sn	2.6E-02 ± 3.4E-02	U
	^{90}Sr	-7.1E-02 ± 9.4E-02	U
	^{234}U	2.5E-02 ± 1.1E-02	
	^{235}U	8.2E-03 ± 5.7E-03	
	^{238}U	2.3E-02 ± 9.9E-03	
	^{65}Zn	-1.4E-01 ± 1.4E-01	U
V126	^{144}Ce	-3.4E-02 ± 3.2E-01	U
(300 Area)	^{60}Co	-9.4E-03 ± 2.5E-02	U
	^{134}Cs	-3.8E-03 ± 2.3E-02	U
	^{137}Cs	-2.6E-02 ± 2.6E-02	U
	^{152}Eu	3.3E-02 ± 7.3E-02	U
	^{154}Eu	-6.7E-02 ± 6.7E-02	U
	^{155}Eu	-3.9E-02 ± 8.2E-02	U
	^{238}Pu	4.8E-03 ± 1.0E-02	U
	^{239,240}Pu	-1.9E-03 ± 3.8E-03	U
	^{103}Ru	5.8E-04 ± 5.8E-03	U
	^{106}Ru	-4.1E-02 ± 2.0E-01	U
	^{125}Sb	7.6E-02 ± 6.9E-02	U
	^{113}Sn	-1.3E-02 ± 3.3E-02	U
	^{90}Sr	-1.9E-02 ± 9.9E-02	U
	^{234}U	2.6E-02 ± 1.1E-02	
	^{235}U	4.6E-03 ± 4.2E-03	
	^{238}U	1.8E-02 ± 8.5E-03	
	^{65}Zn	-1.2E-02 ± 5.8E-02	U

Location	Isotope	Result ± Error	RQ*
V125	^{144}Ce	2.1E-01 ± 4.6E-01	U
(300 Area)	^{60}Co	4.2E-03 ± 3.2E-02	U
	^{134}Cs	-1.1E-03 ± 1.1E-02	U
	^{137}Cs	-3.6E-03 ± 3.1E-02	U
	^{152}Eu	-5.5E-02 ± 8.2E-02	U
	^{154}Eu	-9.3E-02 ± 9.4E-02	U
	^{155}Eu	-8.0E-03 ± 8.0E-02	U
	^{238}Pu	-2.5E-03 ± 1.0E-02	U
	^{239,240}Pu	4.1E-03 ± 3.7E-03	
	^{103}Ru	-2.2E-02 ± 3.1E-02	U
	^{106}Ru	8.8E-02 ± 2.8E-01	U
	^{125}Sb	3.4E-02 ± 8.0E-02	U
	^{113}Sn	-1.0E-02 ± 3.7E-02	U
	^{90}Sr	-1.4E-01 ± 1.4E-01	U
	^{234}U	3.4E-02 ± 1.3E-02	
	^{235}U	1.2E-02 ± 7.4E-03	
	^{238}U	2.2E-02 ± 1.1E-02	
	^{65}Zn	-3.3E-03 ± 3.3E-02	U
V127	^{144}Ce	2.4E-01 ± 4.9E-01	U
(300 Area)	^{60}Co	-1.5E-02 ± 2.8E-02	U
	^{134}Cs	2.7E-03 ± 2.7E-02	U
	^{137}Cs	-6.5E-02 ± 6.5E-02	U
	^{152}Eu	-6.7E-02 ± 1.1E-01	U
	^{154}Eu	5.1E-02 ± 9.8E-02	U
	^{155}Eu	-1.2E-01 ± 1.2E-01	U
	^{238}Pu	-8.7E-04 ± 8.7E-03	U
	^{239,240}Pu	8.7E-04 ± 8.7E-03	U
	^{103}Ru	-1.6E-02 ± 3.6E-02	U
	^{106}Ru	-9.3E-02 ± 3.1E-01	U
	^{125}Sb	5.0E-02 ± 9.7E-02	U
	^{113}Sn	-1.3E-02 ± 5.0E-02	U
	^{90}Sr	-4.9E-02 ± 1.3E-01	U
	^{234}U	1.3E-02 ± 7.1E-03	
	^{235}U	1.7E-03 ± 2.4E-03	U
	^{238}U	1.0E-02 ± 6.5E-03	
	^{65}Zn	2.2E-02 ± 8.2E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-5. 2003 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Error	RQ*
V128 (300 Area)	^{144}Ce	9.5E-02 ± 3.6E-01	U
	^{60}Co	-3.1E-02 ± 3.6E-02	U
	^{134}Cs	3.2E-02 ± 3.6E-02	U
	^{137}Cs	-1.6E-02 ± 3.3E-02	U
	^{152}Eu	-6.9E-02 ± 8.9E-02	U
	^{154}Eu	4.4E-02 ± 1.1E-01	U
	^{155}Eu	1.4E-02 ± 9.2E-02	U
	^{238}Pu	6.2E-03 ± 8.1E-03	U
	^{239,240}Pu	2.6E-03 ± 4.7E-03	U
	^{103}Ru	-4.4E-02 ± 4.4E-02	U
	^{106}Ru	1.1E-01 ± 3.1E-01	U
	^{125}Sb	-4.5E-03 ± 4.5E-02	U
	^{113}Sn	-3.6E-03 ± 3.6E-02	U
	^{90}Sr	1.7E-01 ± 1.5E-01	U
	^{234}U	8.7E-03 ± 5.7E-03	
	^{235}U	4.8E-03 ± 4.4E-03	
	^{238}U	5.2E-03 ± 6.2E-03	U
	^{65}Zn	-7.5E-03 ± 7.5E-02	U
V131 (Duplicate of V116, 300 Area)	^{144}Ce	2.8E-01 ± 4.6E-01	U
	^{60}Co	1.4E-02 ± 3.0E-02	U
	^{134}Cs	5.9E-03 ± 3.2E-02	U
	^{137}Cs	-1.8E-02 ± 3.2E-02	U
	^{152}Eu	1.0E-03 ± 1.0E-02	U
	^{154}Eu	1.7E-02 ± 8.0E-02	U
	^{155}Eu	-3.1E-02 ± 1.1E-01	U
	^{238}Pu	-2.5E-03 ± 5.0E-03	U
	^{239,240}Pu	8.3E-04 ± 8.3E-03	U
	^{103}Ru	1.9E-02 ± 5.8E-02	U
	^{106}Ru	2.8E-01 ± 2.9E-01	U
	^{125}Sb	5.6E-02 ± 9.2E-02	U
	^{113}Sn	2.0E-02 ± 5.0E-02	U
	^{90}Sr	-2.1E-01 ± 2.1E-01	U
	^{234}U	5.9E-02 ± 1.8E-02	
	^{235}U	9.2E-03 ± 6.6E-03	
	^{238}U	7.3E-02 ± 2.0E-02	
	^{65}Zn	4.0E-02 ± 1.2E-01	U

Location	Isotope	Result ± Error	RQ*
V129 (300 Area)	^{144}Ce	-2.9E-01 ± 4.4E-01	U
	^{60}Co	8.1E-03 ± 3.0E-02	U
	^{134}Cs	-1.5E-02 ± 3.2E-02	U
	^{137}Cs	1.8E-02 ± 3.1E-02	U
	^{152}Eu	1.4E-02 ± 1.1E-01	U
	^{154}Eu	-3.4E-03 ± 3.4E-02	U
	^{155}Eu	-6.7E-02 ± 1.2E-01	U
	^{238}Pu	-3.2E-03 ± 3.8E-03	U
	^{239,240}Pu	8.0E-04 ± 1.6E-03	U
	^{103}Ru	-1.0E-02 ± 3.6E-02	U
	^{106}Ru	-1.0E-01 ± 2.7E-01	U
	^{125}Sb	2.8E-02 ± 8.3E-02	U
	^{113}Sn	-3.6E-02 ± 4.2E-02	U
	^{90}Sr	-1.2E-01 ± 1.2E-01	U
	^{234}U	1.2E-02 ± 7.3E-03	
	^{235}U	3.5E-03 ± 4.2E-03	U
	^{238}U	7.2E-03 ± 5.0E-03	
	^{65}Zn	-1.2E-02 ± 8.8E-02	U
V132 (Duplicate of V123, 300 Area)	^{144}Ce	4.4E-01 ± 7.0E-01	U
	^{60}Co	8.2E-03 ± 5.8E-02	U
	^{134}Cs	-1.6E-03 ± 1.6E-02	U
	^{137}Cs	4.0E-03 ± 4.0E-02	U
	^{152}Eu	-7.5E-02 ± 1.8E-01	U
	^{154}Eu	-7.1E-02 ± 2.0E-01	U
	^{155}Eu	-1.7E-01 ± 1.7E-01	U
	^{238}Pu	6.7E-03 ± 5.8E-03	U
	^{239,240}Pu	1.5E-03 ± 3.0E-03	U
	^{103}Ru	-1.7E-02 ± 9.8E-02	U
	^{106}Ru	-1.1E-01 ± 5.4E-01	U
	^{125}Sb	8.4E-02 ± 1.5E-01	U
	^{113}Sn	-3.5E-02 ± 7.9E-02	U
	^{90}Sr	-1.4E-02 ± 1.2E-01	U
	^{234}U	2.4E-02 ± 1.3E-02	
	^{235}U	8.4E-03 ± 7.6E-03	
	^{238}U	1.2E-02 ± 1.1E-02	U
	^{65}Zn	1.3E-01 ± 1.6E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

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4.0 EXTERNAL RADIATION

External radiation fields were monitored near facilities and waste handling, storage, and disposal sites to measure and assess the impacts of operations. TLDs were used at numerous fixed locations to gather dose rate information over extended periods of time, typically three months.

In 2003, there were 134 TLD locations collecting external radiation information. At three of the operational areas, the dosimeter results showed a decrease of 6% or more in external radiation from 2002 levels. In the 100-K Area, there was temporary, significant increase in the annual average dose rate, attributable to the transfer and storage of radioactive materials associated with fuel storage basins clean-up activities (see details below). At the remaining operational areas, changes in the external radiation levels from 2002 to 2003 were 5% or less. The number of TLD locations and a comparison summary between the 2002 and 2003 TLD results for each of the operational areas is provided in Table 4-1. Individual TLD results for 2003 are provided in Table 4-2. Maps illustrating TLD locations in 2003 are provided in Figures 4-1 through 4-10.

Table 4-1. Thermoluminescent Dosimeter Results (mrem/yr ± 2 standard deviations) for 2002 and 2003.

Area	Number of locations, 2003	2002		2003		% Change[a]
		Maximum	Mean ± 2SD	Maximum	Mean ± 2SD	
100-B/C	4	93	87 ± 9.0	88	85 ± 5.0	-2
100-F	5	93	86 ± 9.0	80	76 ± 4.0	-12
100-K	11	439	129 ± 210	523	162 ± 304	26
CVDF[b]	4	83	79 ± 5.0	82	80 ± 6.0	1
100-KR-1	5	106	96 ± 20	103	95 ± 15	-1
100-N	14	1042	274 ± 543	993	261 ± 485	-5
200 East Area	42	289	113 ± 97	482	118 ± 138	4
200 West Area	24	215	108 ± 64	189	106 ± 52	-2
200 North (212-R)	1	3400	3200 ± 400	3400	3000 ± 570	-6
300 Area	8	129	99 ± 39	112	92 ± 24	-7
300 TEDF[c]	6	88	85 ± 4.0	90	85 ± 5.0	0
400 Area	7	86	82 ± 5.0	85	81 ± 5.0	-1
ERDF[d]	3	95	90 ± 10	99	94 ± 11	4

[a]Numbers indicate a decrease (-) or increase from the 2002 mean.
[b]CVDF = Cold Vacuum Drying Facility (100-K Area).
[c]TEDF = 300 Area Treated Effluent Disposal Facility.
[d]ERDF = Environmental Restoration Disposal Facility.

Noteworthy observations in dose rate monitoring during 2003 included:

- In the 100-K Area, compared to 2002, there was an overall 26% increase in the 2003 annual average dose rate. This increase was due to temporary, elevated dose rates at two monitoring locations situated near radioactive materials transfer and

storage areas -- one near the 105-K East load-out station and the other near the 105-K West fuel storage basin. Dose rates at both locations decreased by year's end to typical Site background levels. The 2003 quarterly results from these locations as compared to the 100-K Area dose rate average are shown in graph form in Figure 4-11.

- In the 100-N Area, three of the five monitoring locations near the retired 116-N-1 Liquid Waste Disposal Facility (LWDF) Trench showed a slight increase of approximately 17% in annual average dose rate levels compared to those measured at these locations in 2002. This increase may be ascribed to the selective removal of low-level, radioactively contaminated material from selected portions of the Trench soil column. Removal of this layer of natural shielding from atop the residual, slightly higher-level radioactively contaminated subsurface materials led to the moderate increases observed in dose rates in the immediate vicinity of the excavation work. Remedial action activities will resume in mid-2004 to remove additional contamination with a scheduled completion date of fiscal year 2005. Figure 4-12 provides four year trend plots of quarterly dose rates from these three monitoring locations.

- In the 100-N Area, the 2003 annual average dose rate levels at the three monitoring locations at the 116-N-3 Facility showed a decrease of approximately 12% from 2002 levels. This reduction in dose rates was directly attributable to the removal of source material from the waste disposal facilities by the ERC. Overall, the average dose rate measured in the 100-N Area in 2003 was ~5% lower than that measured in 2002. Figure 4-13 provides four year trend plots of quarterly dose rates from these three monitoring locations.

Figure 4-1. 2003 Thermoluminescent Dosimeter Locations, 100-B/C Area.

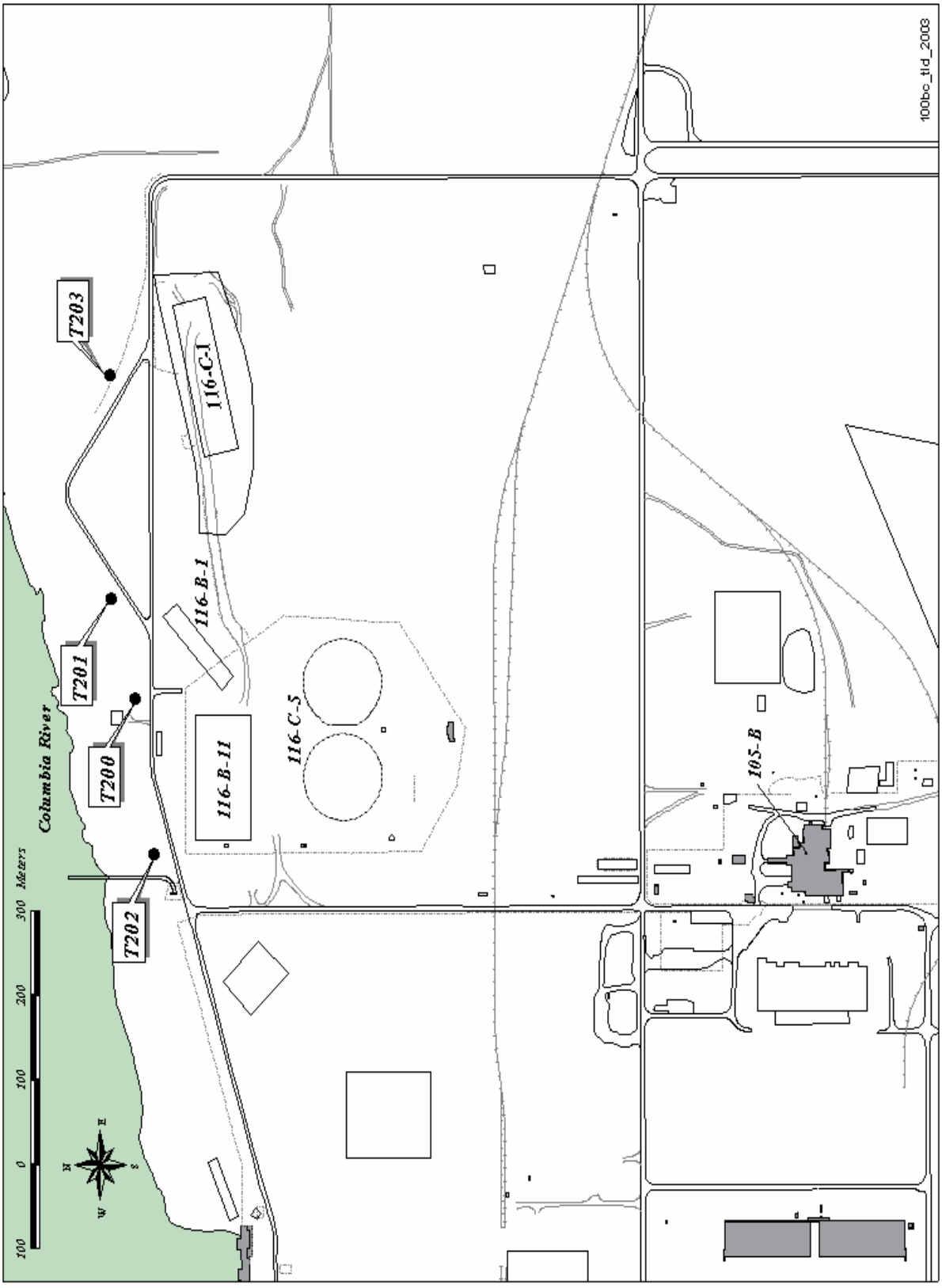


Figure 4-2. 2003 Thermoluminescent Dosimeter Locations, 100-F Area.

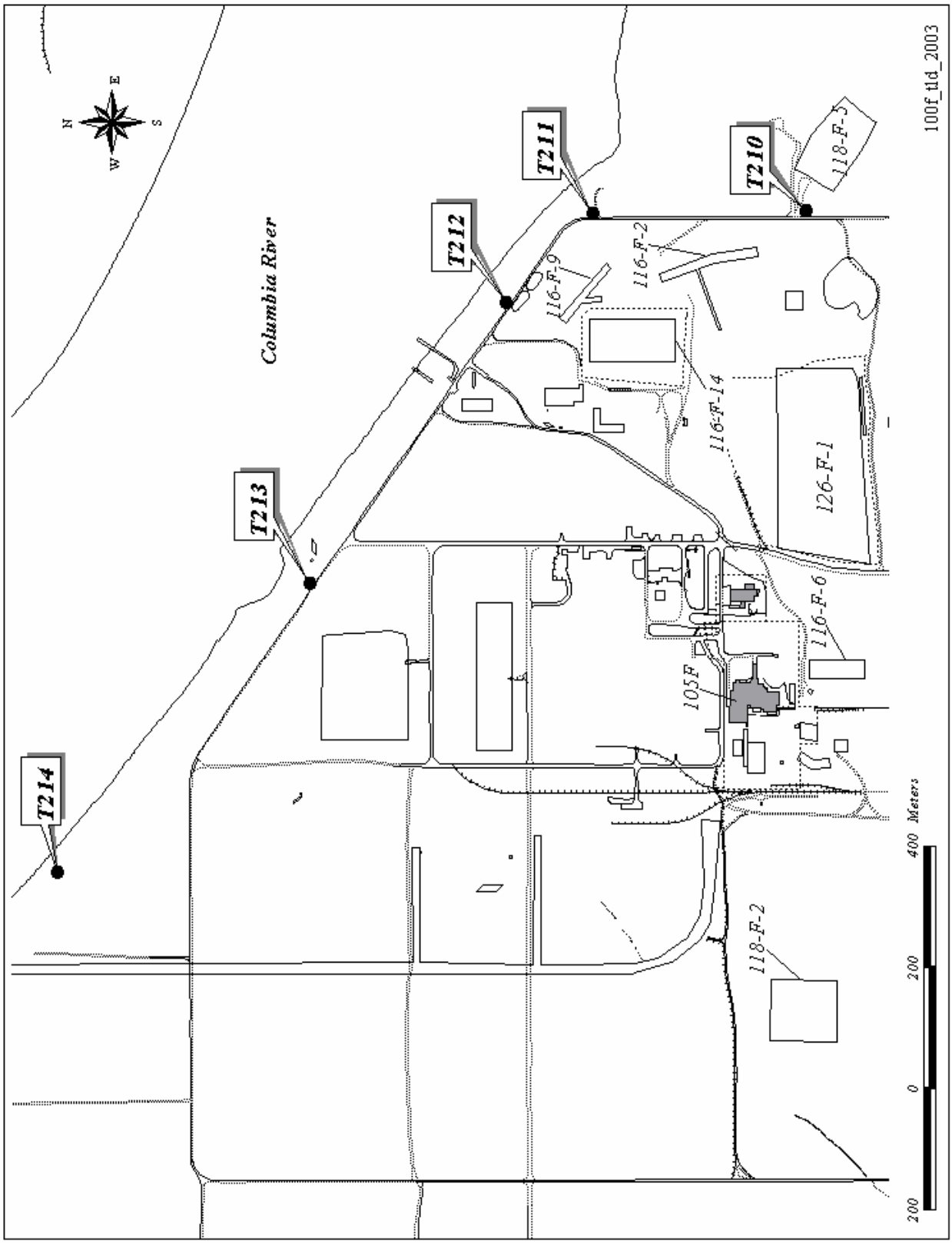


Figure 4-3. 2003 Thermoluminescent Dosimeter Locations, 100-K Area, Cold Vacuum Drying Facility and 100-KR-1.

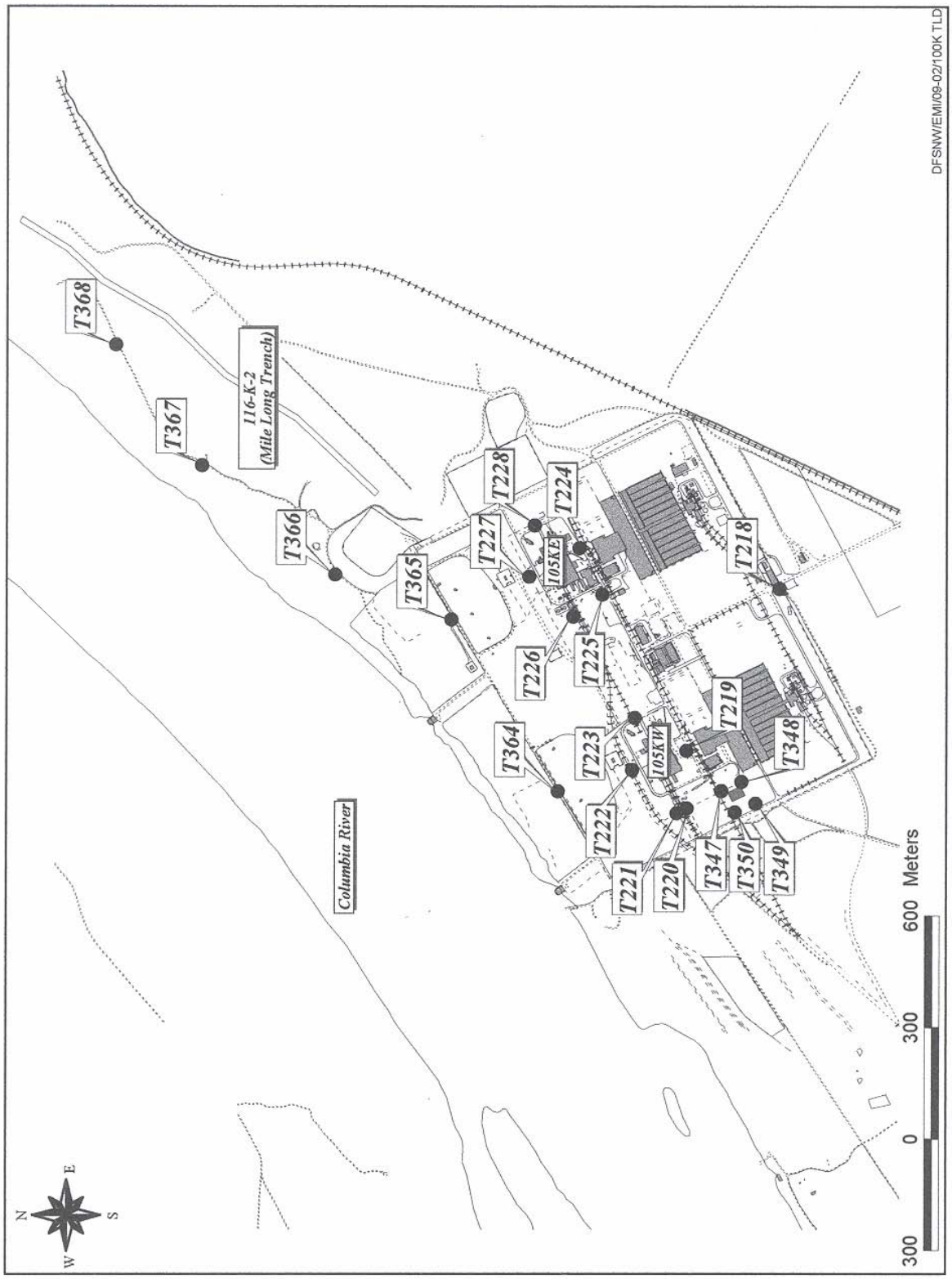


Figure 4-4. 2003 Thermoluminescent Dosimeter Locations, 100-N Area.

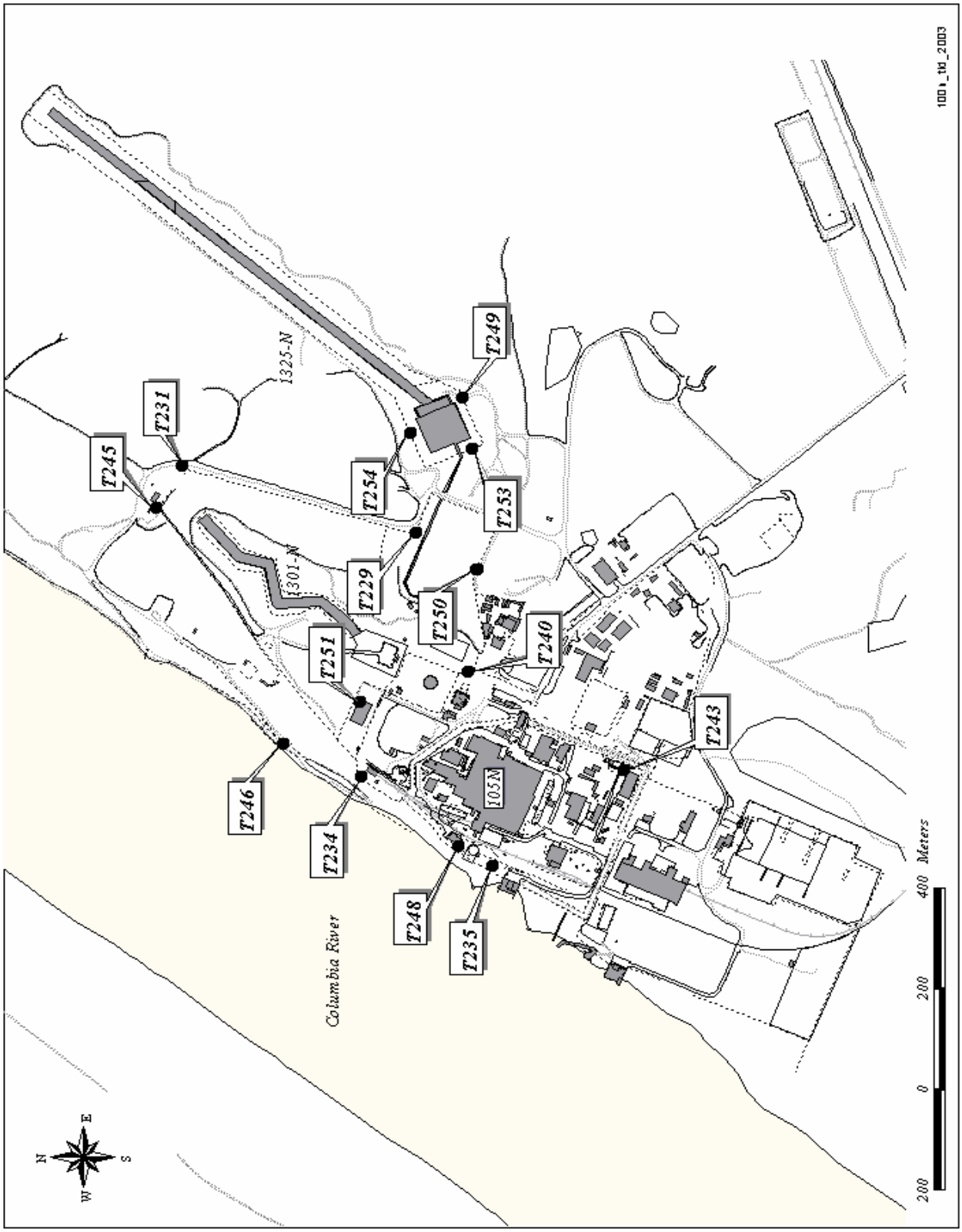


Figure 4-5. 2003 Thermoluminescent Dosimeter Locations, 200 East Area.

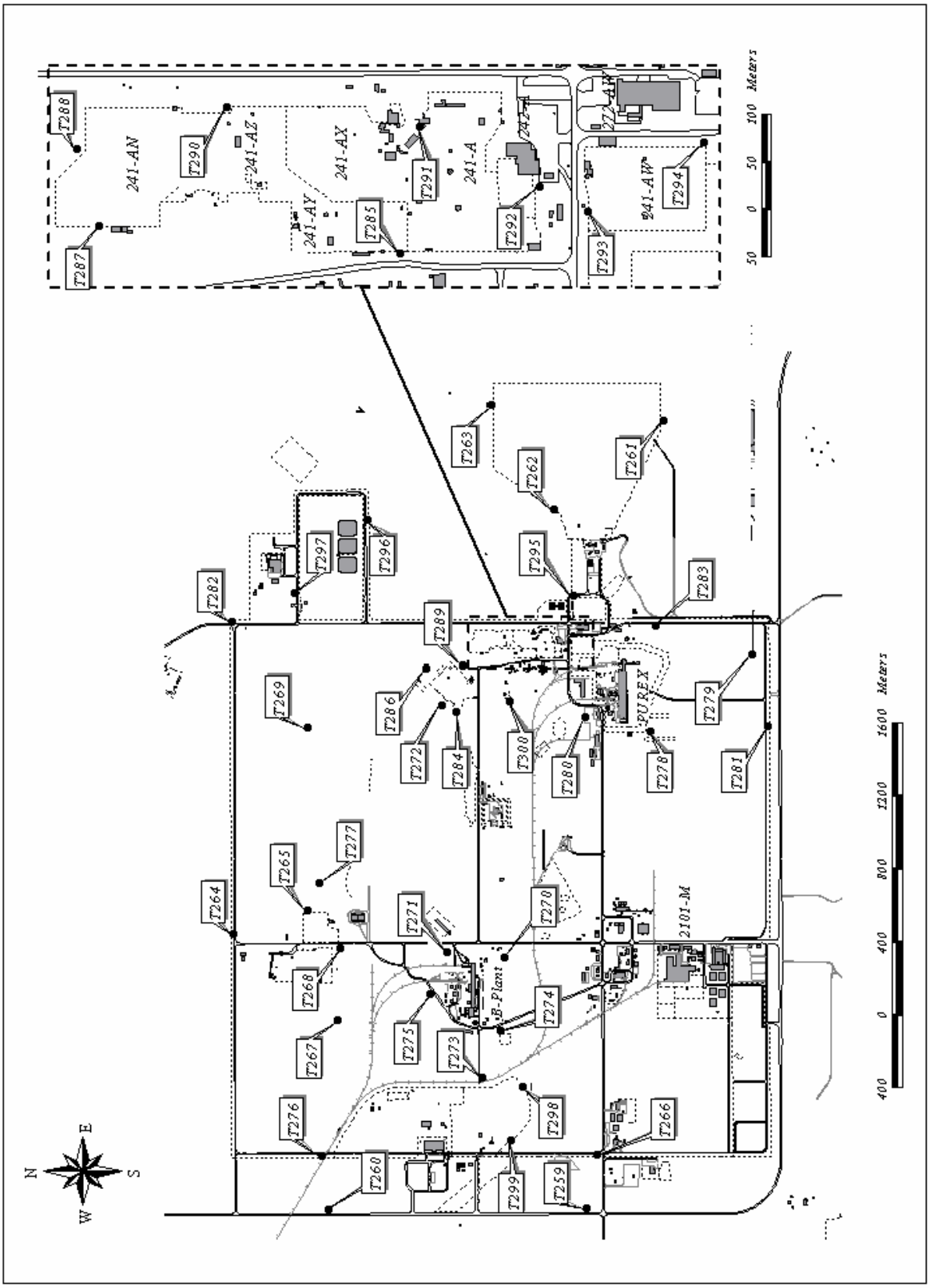


Figure 4-6. 2003 Thermoluminescent Dosimeter Locations, 200 West Area.

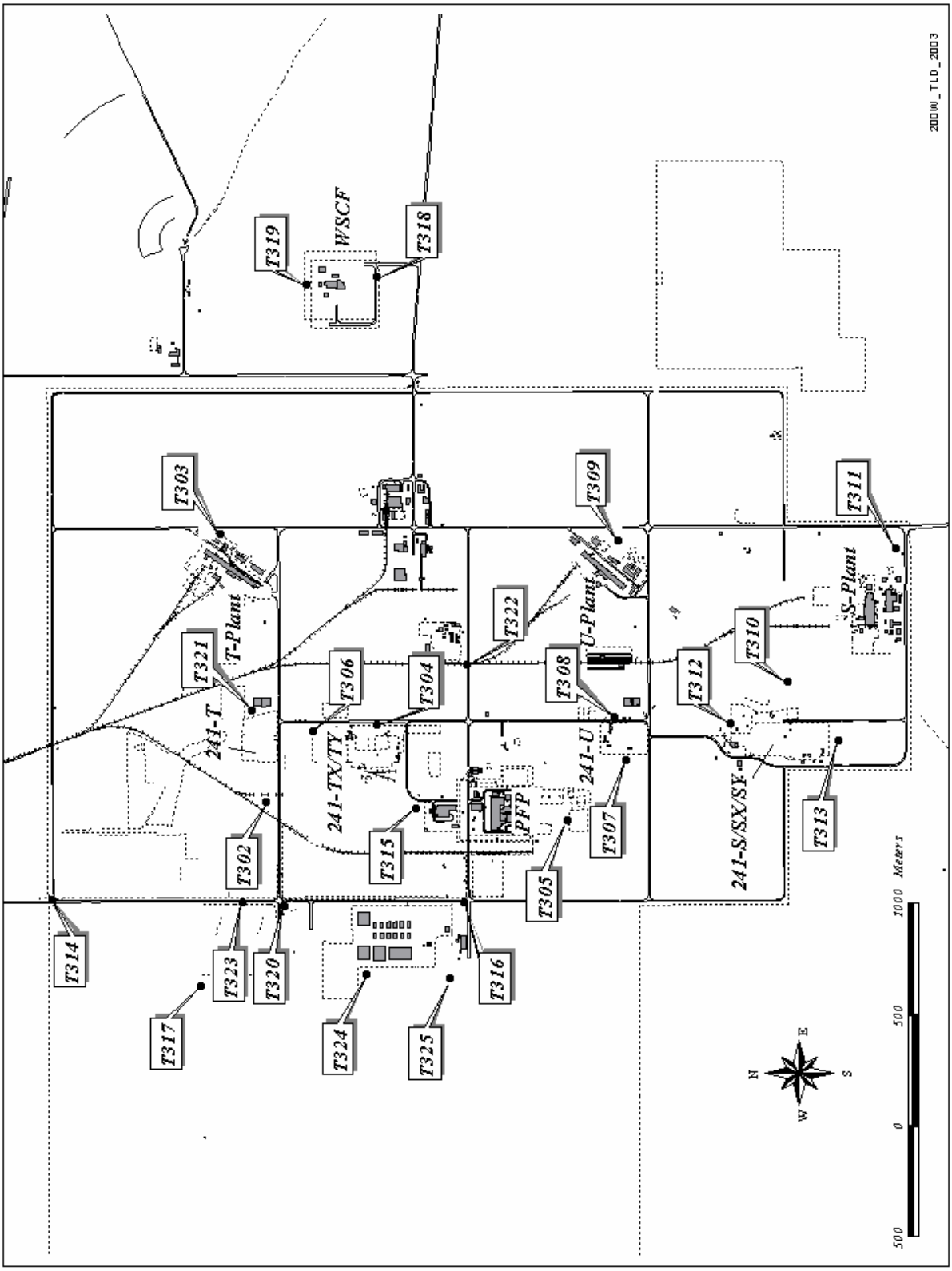


Figure 4-7. 2003 Thermoluminescent Dosimeter Locations, 200 North Area.

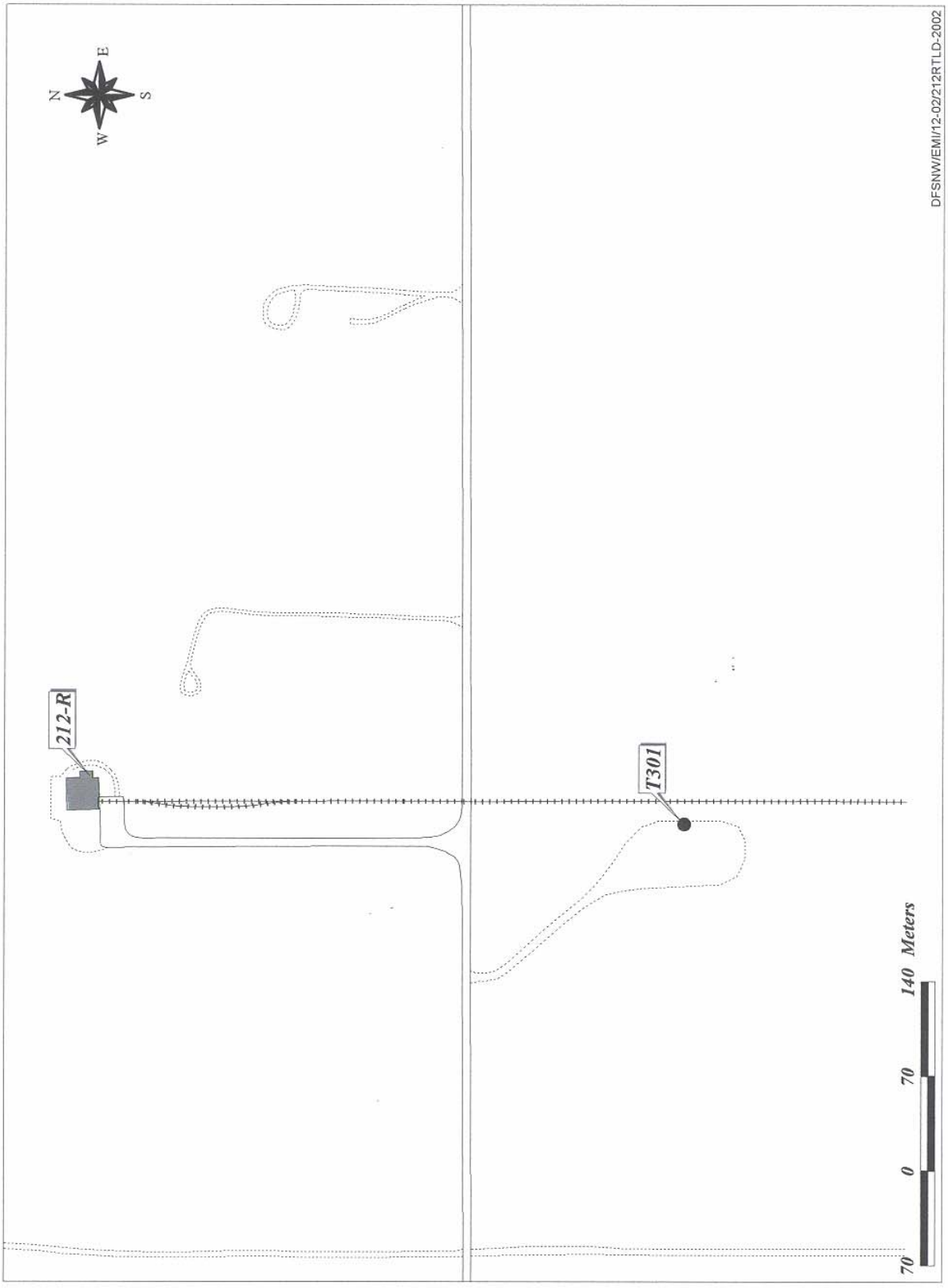


Figure 4-8. 2003 Thermoluminescent Dosimeter Locations, 300 Area Treated Effluent Disposal Facility and 300 Area.

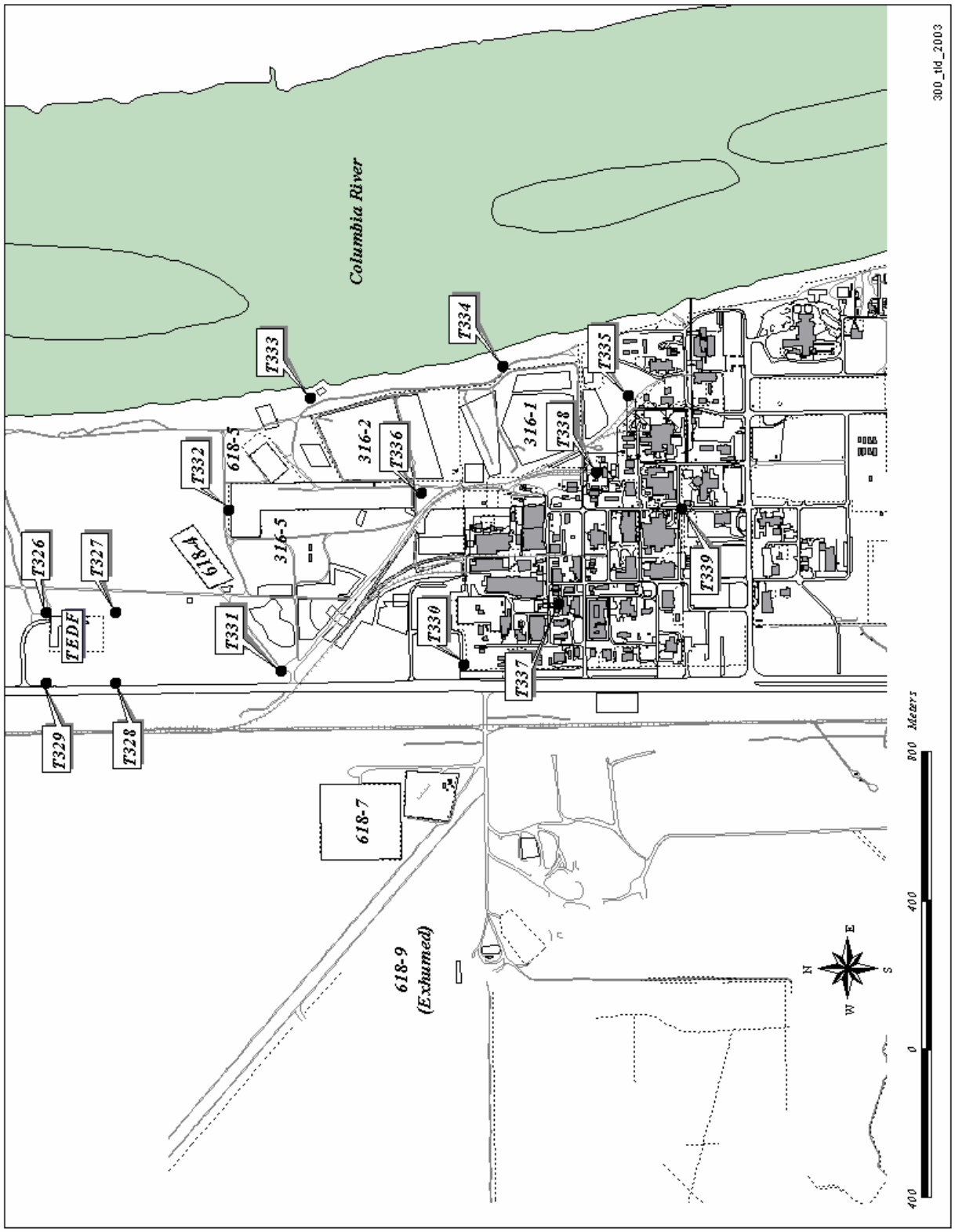


Figure 4-9. 2003 Thermoluminescent Dosimeter Locations, 400 Area.

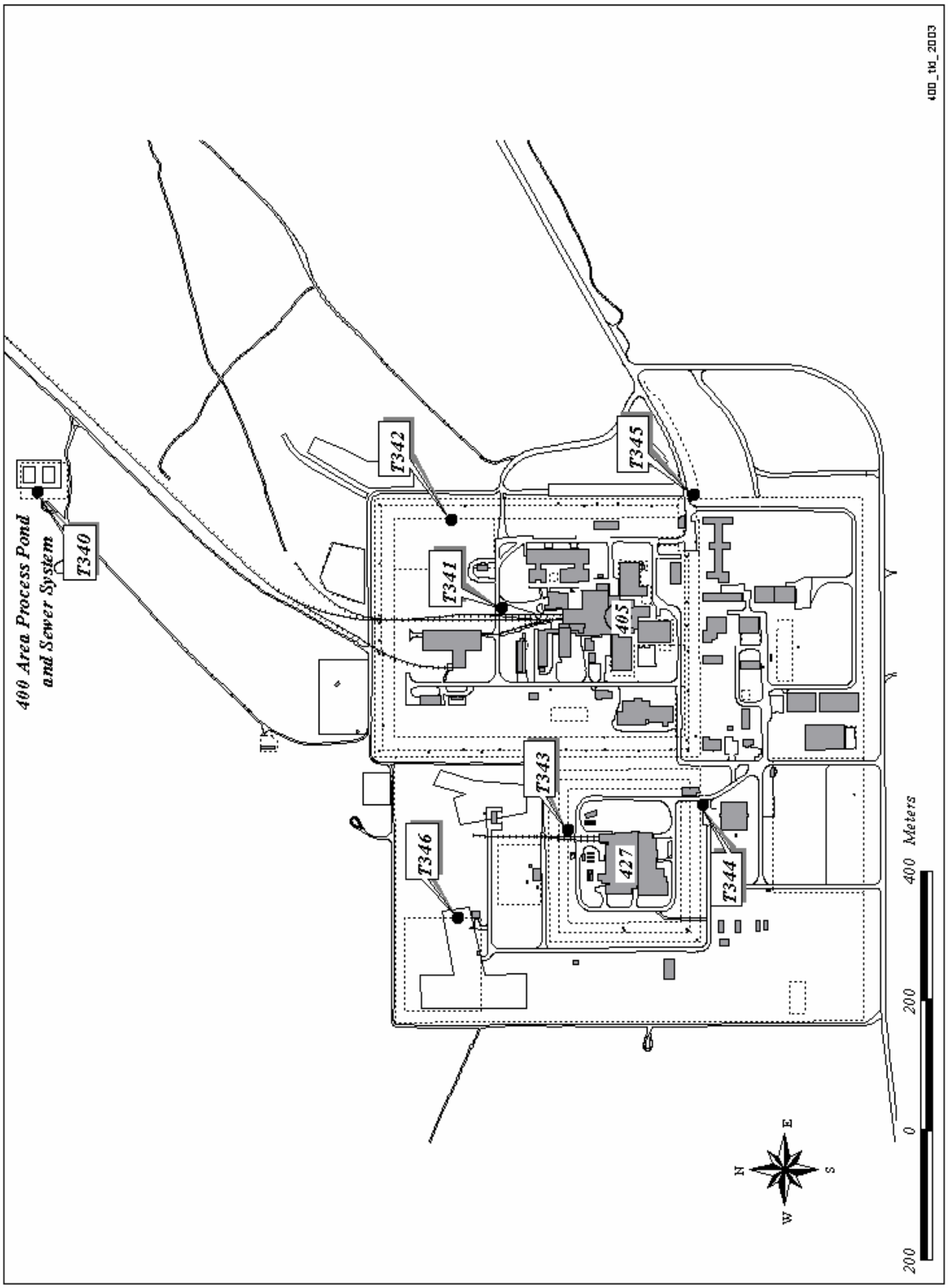


Figure 4-10. 2003 Thermoluminescent Dosimeter Locations,
Environmental Restoration Disposal Facility.

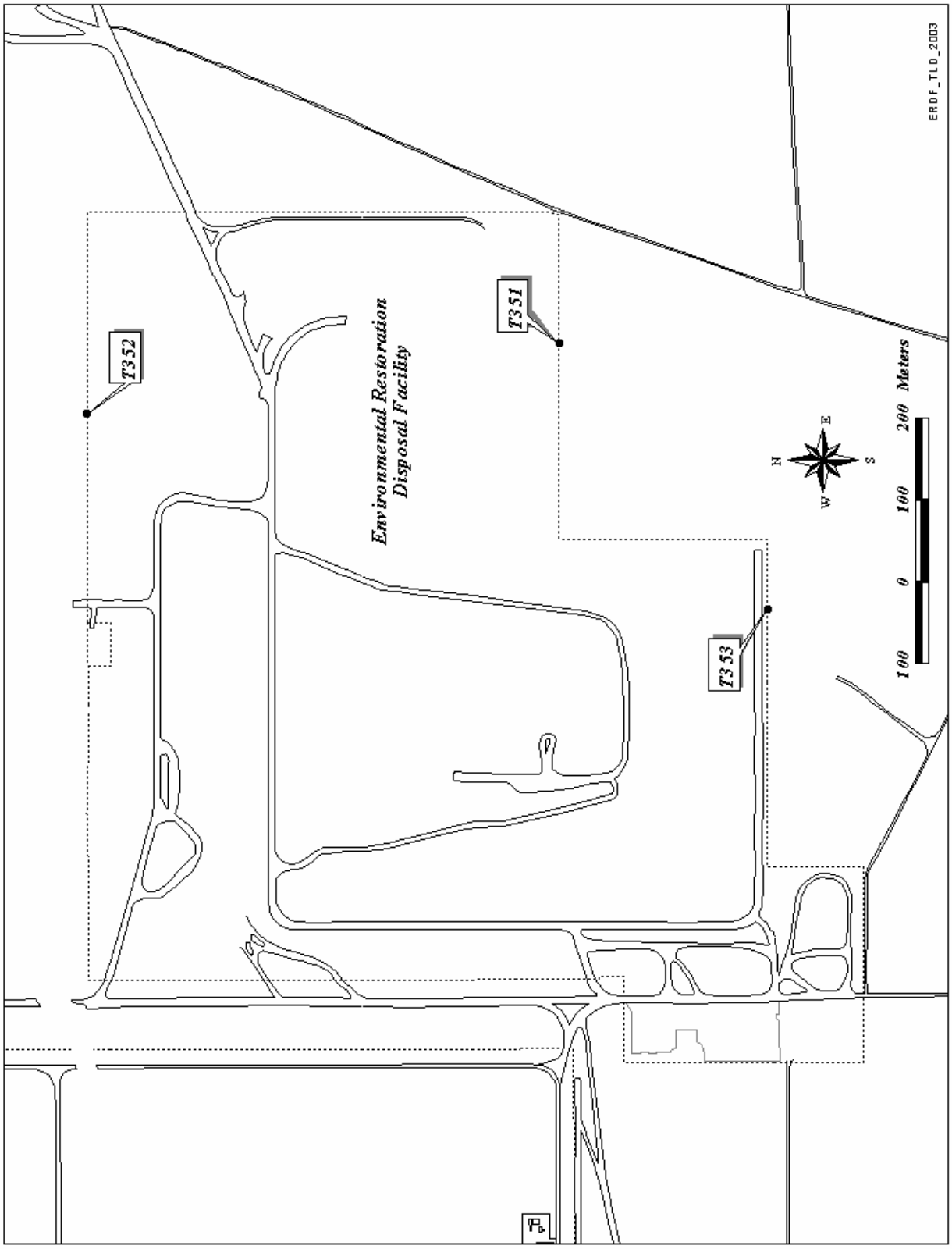
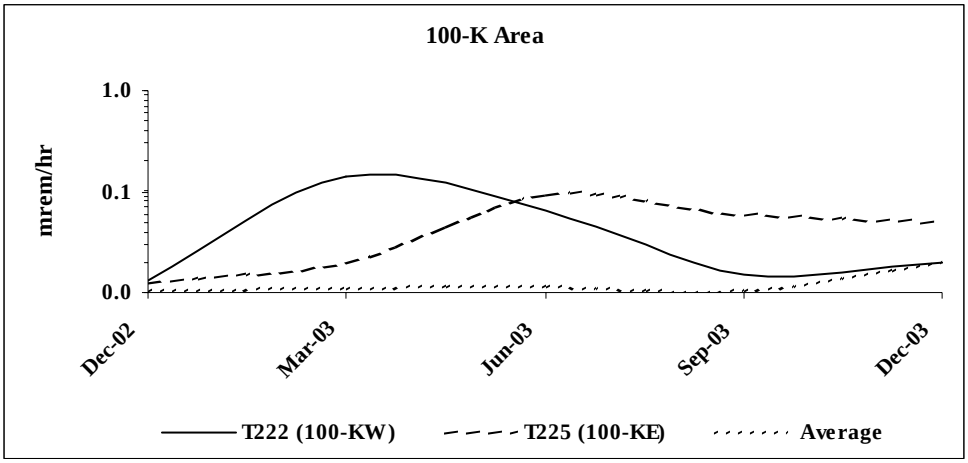


Figure 4-11. Thermoluminescent Dosimeter Results, 100-K Area



note: 100-K area, "average" values do not include T222 and T225 results.

Figure 4-12. Thermoluminescent Dosimeter Results, 100-N Area

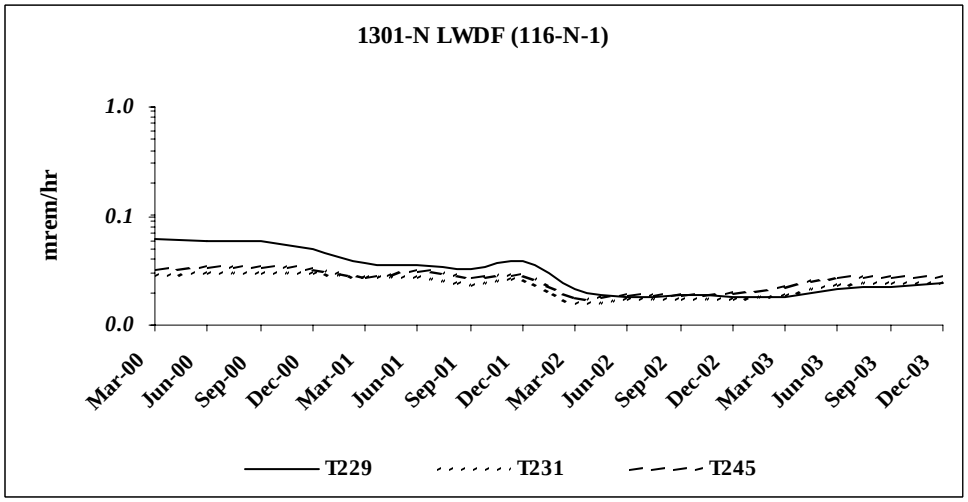


Figure 4-13. Thermoluminescent Dosimeter Results, 100-N Area

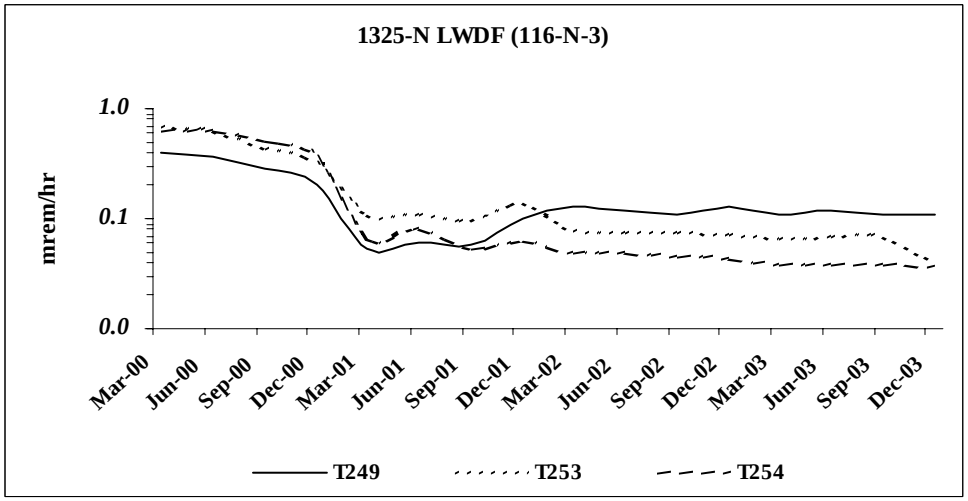


Table 4-2. 2003 Thermoluminescent Dosimeter Results.

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
100-B/C RA	1st Quarter '03	T200	0.01	0.23	22.0	86	124
		T201	0.01	0.23	21.2	82	124
		T202	0.01	0.23	21.4	83	124
		T203	0.01	0.21	19.8	77	124
	2nd Quarter '03	T200	0.01	0.24	21.6	88	119
		T201			TLD not found		
		T202	0.01	0.23	21.0	85	119
		T203	0.01	0.23	20.4	83	119
	3rd Quarter '03	T200	0.01	0.25	24.4	92	127
		T201	0.01	0.24	23.2	88	126
		T202	0.01	0.24	22.8	86	127
		T203	0.01	0.22	21.6	81	127
	4th Quarter '03	T200			TLD not found		
		T201	0.01	0.23	20.9	85	120
		T202	0.01	0.24	21.3	86	120
		T203	0.01	0.24	21.2	86	120

100-B/C RA, Annual Average ± 2 Standard Deviation (2SD)

EDP Code	mrem/hr ± 2SD	mrem/day ± 2SD	mrem/qtr ± 2SD	mrem/yr ± 2SD
T200	0.01 ± 0.001	0.24 ± 0.02	22.1 ± 1.6	88 ± 6
T201	0.01 ± 0.001	0.23 ± 0.02	21.3 ± 1.5	85 ± 6
T202	0.01 ± 0.000	0.23 ± 0.01	21.3 ± 0.7	85 ± 3
T203	0.01 ± 0.001	0.22 ± 0.02	20.4 ± 1.9	82 ± 7

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
100-F RA	1st Quarter '03	T210	0.01	0.23	20.8	82	122
		T211	0.01	0.23	20.8	82	122
		T212	0.01	0.23	20.7	82	122
		T213	0.01	0.22	20.2	80	122
		T214	0.01	0.24	22	87	122
	2nd Quarter '03	T210	0.01	0.19	15.4	69	110
		T211	0.01	0.19	15.4	69	110
		T212	0.01	0.19	15.1	68	110
		T213	0.01	0.18	14.8	67	110
		T214	0.01	0.20	15.9	72	110

100-F RA, Annual Average ± 2 Standard Deviation (2SD)

EDP Code	mrem/hr ± 2SD	mrem/day ± 2SD	mrem/qtr ± 2SD	mrem/yr ± 2SD
T210	0.01 ± 0.002	0.21 ± 0.05	19.1 ± 4.6	76 ± 18
T211	0.01 ± 0.002	0.21 ± 0.05	19.1 ± 4.6	76 ± 18
T212	0.01 ± 0.002	0.21 ± 0.06	18.9 ± 5.0	76 ± 20
T213	0.01 ± 0.002	0.20 ± 0.05	18.5 ± 4.7	74 ± 19
T214	0.01 ± 0.003	0.22 ± 0.06	20.0 ± 5.4	80 ± 22

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
100-K Area	1st Quarter '03	T218	0.01	0.20	19.0	74	124
		T219	0.01	0.22	20.6	80	124
		T220	0.01	0.24	22.7	88	124
		T221	0.01	0.28	26	101	124
		T222	0.01	0.36	33.6	131	124
		T223	0.01	0.21	19.7	76	124
		T224	0.01	0.23	21.2	82	124
		T225	0.06	1.44	135.4	526	124
		T226	0.01	0.28	26.3	102	124
		T227	0.02	0.40	37.3	145	124
		T228	0.01	0.23	21.8	85	124
	2nd Quarter '03	T218	0.01	0.21	18.8	76	119
		T219	0.01	0.24	21.6	88	119
		T220	0.01	0.27	23.8	97	119
		T221	0.01	0.30	27.0	110	119
		T222	0.06	1.54	138.2	561	119
		T223	0.01	0.26	23.7	96	119
		T224	0.01	0.24	21.7	88	119
		T225	0.09	2.22	199.9	811	119
		T226	0.01	0.31	28.1	114	119
		T227	0.02	0.40	35.6	145	119
		T228	0.01	0.24	21.4	87	119
	3rd Quarter '03	T218	0.01	0.21	20.5	77	127
		T219	0.01	0.26	24.8	93	127
		T220	0.01	0.25	24.2	91	127
		T221	0.01	0.30	28.9	109	127
		T222	0.14	3.43	332.3	1250	127
		T223	0.02	0.36	35.1	132	127
		T224	0.01	0.23	21.9	83	127
		T225	0.02	0.48	46.2	174	127
		T226	0.01	0.23	22.7	86	127
		T227	0.01	0.35	34.3	129	127
		T228	0.01	0.23	22.0	83	127

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
100-K Area	4th Quarter '03	T218	0.01	0.21	19.1	77	120
		T219	0.01	0.21	18.9	77	120
		T220	0.01	0.25	22.1	90	120
		T221	0.01	0.27	24.0	98	120
		T222	0.01	0.31	28.0	113	120
		T223	0.01	0.22	20.1	82	120
		T224	0.01	0.23	20.7	84	120
		T225	0.01	0.30	27.4	111	120
		T226	0.01	0.23	21.0	85	120
		T227	0.01	0.36	32.0	130	120
		T228	0.01	0.24	21.4	87	120

100-K Area, Annual Average ± 2 Standard Deviation (2SD)

EDP Code	mrem/hr ± 2SD	mrem/day ± 2SD	mrem/qtr ± 2SD	mrem/yr ± 2SD
T218	0.01 ± 0.000	0.21 ± 0.01	19.0 ± 0.8	76 ± 3
T219	0.01 ± 0.002	0.23 ± 0.04	21.1 ± 3.8	84 ± 15
T220	0.01 ± 0.001	0.25 ± 0.02	22.8 ± 1.9	91 ± 8
T221	0.01 ± 0.001	0.29 ± 0.03	26.1 ± 3.0	104 ± 12
T222	0.06 ± 0.122	1.43 ± 2.92	131 ± 266	523 ± 1060
T223	0.01 ± 0.006	0.27 ± 0.14	24.2 ± 12.6	97 ± 50
T224	0.01 ± 0.001	0.23 ± 0.01	21.0 ± 1.3	84 ± 5
T225	0.05 ± 0.075	1.10 ± 1.79	101 ± 163	402 ± 653
T226	0.01 ± 0.003	0.26 ± 0.08	24.1 ± 7.0	97 ± 28
T227	0.02 ± 0.002	0.38 ± 0.05	34.2 ± 4.5	137 ± 18
T228	0.01 ± 0.000	0.23 ± 0.01	21.3 ± 0.9	85 ± 4

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
CVDF (100-K Area)	1st Quarter '03	T347	0.01	0.22	20.9	81	124
		T348	0.01	0.21	20.2	78	124
		T349	0.01	0.20	18.9	74	124
		T350	0.01	0.20	19.2	75	124
	2nd Quarter '03	T347	0.01	0.23	20.5	83	119
		T348	0.01	0.23	20.8	85	119
		T349	0.01	0.22	19.5	79	119
		T350	0.01	0.22	20.1	81	119
	3rd Quarter '03	T347	0.01	0.23	22.6	85	127
		T348	0.01	0.23	22	83	127
		T349	0.01	0.21	20.3	76	127
		T350	0.01	0.23	22	83	127
	4th Quarter '03	T347	0.01	0.22	19.9	81	120
		T348	0.01	0.22	19.4	79	120
		T349	0.01	0.21	18.8	76	120
		T350	0.01	0.21	18.8	76	120

CVDF, Annual Average ± 2 Standard Deviation (2SD)

EDP Code	mrem/hr ± 2SD	mrem/day ± 2SD	mrem/qtr ± 2SD	mrem/yr ± 2SD
T347	0.01 ± 0.001	0.23 ± 0.01	20.6 ± 1.1	82 ± 4
T348	0.01 ± 0.001	0.22 ± 0.02	20.3 ± 1.5	81 ± 6
T349	0.01 ± 0.001	0.21 ± 0.01	19.0 ± 1.2	76 ± 5
T350	0.01 ± 0.001	0.22 ± 0.02	19.7 ± 2.0	79 ± 8

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
100-KR-1 RA	1st Quarter '03	T364	0.01	0.25	22.9	90	123
		T365	0.01	0.23	21.1	83	123
		T366	0.01	0.26	24.2	95	123
		T367	0.01	0.25	23.6	93	123
		T368	0.01	0.27	24.7	97	123
	2nd Quarter '03	T364	0.01	0.25	22.7	92	119
		T365	0.01	0.22	20.0	81	119
		T366	0.01	0.28	25.0	101	119
		T367	0.01	0.27	24.7	100	119
		T368	0.01	0.28	25.5	104	119
	3rd Quarter '03	T364	0.01	0.26	25.5	96	127
		T365	0.01	0.23	22.0	83	127
		T366	0.01	0.27	26.4	99	127
		T367	0.01	0.26	25.0	94	127
		T368	0.01	0.28	26.9	101	127
	4th Quarter '03	T364	0.01	0.25	22.4	91	120
		T365	0.01	0.23	20.9	85	120
		T366	0.01	0.27	24.6	100	120
		T367	0.01	0.28	24.8	101	120
		T368	0.01	0.30	27.2	110	120

100-KR-1, Annual Average ± 2 Standard Deviation (2SD)

EDP Code	mrem/hr ± 2SD	mrem/day ± 2SD	mrem/qtr ± 2SD	mrem/yr ± 2SD
T364	0.01 ± 0.001	0.25 ± 0.01	23.1 ± 1.4	92 ± 5
T365	0.01 ± 0.000	0.23 ± 0.01	20.7 ± 0.7	83 ± 3
T366	0.01 ± 0.001	0.27 ± 0.02	24.7 ± 1.4	99 ± 5
T367	0.01 ± 0.001	0.27 ± 0.02	24.2 ± 2.1	97 ± 8
T368	0.01 ± 0.001	0.28 ± 0.03	25.7 ± 2.8	103 ± 11

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
100-N Area	1st Quarter '03	T229	0.02	0.44	41.0	161	123
		T231	0.02	0.45	41.7	164	123
		T234	0.01	0.30	27.9	110	123
		T235	0.02	0.57	53.4	210	123
		T240	0.02	0.45	42.0	165	123
		T243	0.01	0.22	20.1	79	123
		T245	0.02	0.53	49.3	194	123
		T246	0.01	0.28	25.7	101	123
		T248	0.03	0.79	73.6	289	123
		T249	0.11	2.67	248	973	123
		T250	0.01	0.30	27.9	110	123
		T251	0.01	0.29	27.1	107	123
		T253	0.07	1.60	149.2	586	123
		T254	0.04	0.91	84.6	332	123
	2nd Quarter '03	T229	0.02	0.51	46.8	188	120
		T231	0.02	0.56	51.1	205	120
		T234	0.01	0.31	28.5	114	120
		T235	0.02	0.55	50.5	203	120
		T240	0.02	0.44	39.9	160	120
		T243	0.01	0.22	20.4	82	120
		T245	0.03	0.67	61.0	245	120
		T246	0.01	0.31	28.2	113	120
		T248	0.03	0.80	72.8	292	120
		T249	0.12	2.87	260.9	1047	120
		T250	0.01	0.32	28.9	116	120
		T251	0.01	0.31	28.5	114	120
		T253	0.07	1.66	151.3	607	120
		T254	0.04	0.92	83.6	335	120
	3rd Quarter '03	T229	0.02	0.53	50.4	192	126
		T231	0.02	0.58	55.4	211	126
		T234	0.01	0.34	32.6	124	126
		T235	0.02	0.54	51.4	196	126
		T240	0.02	0.44	42.4	161	126
		T243	0.01	0.21	20.5	78	126
		T245	0.03	0.67	64.8	246	126
		T246	0.01	0.31	30.1	115	126
		T248	0.03	0.77	74.2	282	126
		T249	0.11	2.69	257.9	981	126
		T250	0.01	0.32	30.4	116	126
		T251	0.01	0.33	31.8	121	126
		T253	0.07	1.68	161.5	614	126
		T254	0.04	0.90	86.8	330	126

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
100-N Area	4th Quarter '03	T229	0.02	0.58	52.4	210	121
		T231	0.02	0.59	53.3	214	121
		T234	0.01	0.30	27.3	110	121
		T235	0.02	0.55	49.7	199	121
		T240	0.02	0.43	38.9	156	121
		T243	0.01	0.23	21.2	85	121
		T245	0.03	0.67	61.4	246	121
		T246	0.01	0.29	26.0	104	121
		T248	0.03	0.73	66.3	266	121
		T249	0.11	2.67	242.8	973	121
		T250	0.01	0.30	27.6	111	121
		T251	0.01	0.32	29.1	117	121
		T253	0.04	0.96	86.9	349	121
		T254	0.04	0.89	80.7	324	121

100-N Area, Annual Average ± 2 Standard Deviation (2SD)

EDP Code	mrem/hr ± 2SD	mrem/day ± 2SD	mrem/qtr ± 2SD	mrem/yr ± 2SD
T229	0.02 ± 0.005	0.51 ± 0.11	46.9 ± 10.2	187 ± 41
T231	0.02 ± 0.005	0.54 ± 0.13	49.6 ± 11.7	198 ± 47
T234	0.01 ± 0.002	0.31 ± 0.04	28.6 ± 3.4	114 ± 13
T235	0.02 ± 0.001	0.55 ± 0.03	50.4 ± 3.0	202 ± 12
T240	0.02 ± 0.001	0.44 ± 0.02	40.1 ± 1.8	161 ± 7
T243	0.01 ± 0.001	0.22 ± 0.02	20.2 ± 1.5	81 ± 6
T245	0.03 ± 0.006	0.64 ± 0.14	58.2 ± 13.1	233 ± 52
T246	0.01 ± 0.002	0.30 ± 0.04	27.1 ± 3.4	108 ± 13
T248	0.03 ± 0.003	0.77 ± 0.06	70.6 ± 5.8	282 ± 23
T249	0.11 ± 0.008	2.72 ± 0.20	248 ± 17.9	993 ± 71
T250	0.01 ± 0.001	0.31 ± 0.02	28.3 ± 1.7	113 ± 7
T251	0.01 ± 0.001	0.31 ± 0.03	28.7 ± 3	115 ± 12
T253	0.06 ± 0.029	1.48 ± 0.70	135 ± 64	540 ± 255
T254	0.04 ± 0.001	0.90 ± 0.03	82.6 ± 2.5	330 ± 10

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 East Area	1st Quarter '03	T259	0.01	0.24	21.7	87	121
		T260	0.01	0.23	20.6	83	121
		T261	0.01	0.23	21.3	84	122
		T262	0.01	0.24	21.7	86	122
		T263	0.01	0.22	20.5	81	122
		T264	0.01	0.30	27.5	110	121
		T265	0.01	0.30	26.9	108	121
		T266	0.01	0.23	21.1	85	121
		T267	0.01	0.25	22.6	91	121
		T268	0.01	0.32	29.0	116	121
		T269	0.01	0.24	21.9	88	121
		T270	0.01	0.35	31.8	127	121
		T271	0.01	0.26	23.4	94	121
		T272	0.01	0.29	26.1	105	121
		T273	0.01	0.22	20.2	81	121
		T274	0.01	0.22	20.3	82	121
		T275	0.01	0.24	21.7	87	121
		T276	0.01	0.22	20.0	80	121
		T277	0.01	0.25	22.7	91	121
		T278	0.01	0.24	22.0	88	121
		T279	0.01	0.23	20.6	83	121
		T280	0.01	0.23	21.3	85	121
		T281	0.01	0.23	21.3	85	121
		T282	0.01	0.22	20.2	81	121
		T283	0.01	0.23	20.6	83	121
		T284	0.01	0.29	26.5	106	121
		T285	0.02	0.56	51.8	205	122
		T286	0.02	0.39	35.4	142	121
		T287	0.02	0.38	34.7	138	122
		T288	0.02	0.38	35.2	140	122
		T289	0.02	0.40	36.6	147	121
		T290	0.01	0.30	27.6	110	122
		T291	0.02	0.46	41.9	166	122
		T292	0.06	1.43	131.5	522	122
		T293	0.02	0.36	33.3	132	122
		T294	0.03	0.67	61.3	243	122
		T295	0.02	0.54	49.6	197	122
		T296	0.01	0.25	22.7	91	121
		T297	0.01	0.24	22.0	88	121
		T298	0.01	0.22	20.3	82	121
		T299	0.01	0.25	22.9	92	121
		T300	0.01	0.27	24.1	97	121

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 East Area	2nd Quarter '03	T259	0.01	0.23	22.1	84	125
		T260	0.01	0.22	21.3	81	125
		T261	0.01	0.23	21.8	84	124
		T262	0.01	0.23	21.5	82	124
		T263	0.01	0.23	22.0	84	124
		T264	0.01	0.30	28.8	110	125
		T265	0.01	0.29	27.6	105	125
		T266	0.01	0.24	22.7	87	125
		T267	0.01	0.25	23.6	90	125
		T268	0.01	0.31	29.5	112	125
		T269	0.01	0.24	23.1	88	125
		T270	0.02	0.38	36.1	137	125
		T271	0.01	0.25	24.2	92	125
		T272	0.01	0.28	26.9	102	125
		T273	0.01	0.23	22.0	84	125
		T274	0.01	0.23	21.8	83	125
		T275	0.01	0.22	21.4	81	125
		T276	0.01	0.21	20.1	77	125
		T277	0.01	0.25	23.6	90	125
		T278	0.01	0.22	21.5	82	125
		T279	0.01	0.21	20.4	77	125
		T280	0.01	0.23	22.0	84	125
		T281	0.01	0.23	22.1	84	125
		T282	0.01	0.23	21.6	82	125
		T283	0.01	0.22	21.5	82	125
		T284	0.01	0.28	26.8	102	125
		T285	0.02	0.53	50.1	193	124
		T286	0.02	0.42	40.0	152	125
		T287	0.02	0.44	41.8	161	124
		T288	0.02	0.46	43.9	169	124
		T289	0.02	0.36	34.9	133	125
		T290	0.01	0.30	28.3	109	124
		T291	0.02	0.45	42.8	165	124
		T292	0.07	1.59	150.6	579	124
		T293	0.01	0.35	33.3	128	124
		T294	0.04	0.88	83.2	320	124
		T295	0.01	0.23	21.9	84	124
		T296	0.01	0.25	23.5	90	125
		T297	0.01	0.23	21.9	83	125
		T298	0.01	0.22	21.1	80	125
		T299	0.01	0.24	23.2	88	125
		T300	0.01	0.24	23.4	89	125

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 East Area	3rd Quarter '03	T259	0.01	0.24	21.8	88	121
		T260	0.01	0.23	20.5	82	121
		T261	0.01	0.25	22.9	91	122
		T262	0.01	0.24	21.7	86	122
		T263	0.01	0.24	21.8	87	122
		T264	0.01	0.31	28.7	114	122
		T265	0.01	0.35	31.9	126	122
		T266	0.01	0.24	22.5	89	122
		T267	0.01	0.26	23.5	93	122
		T268	0.01	0.33	30.4	121	122
		T269	0.01	0.27	25.1	100	122
		T270	0.02	0.40	37.1	147	122
		T271	0.01	0.29	26.3	104	122
		T272	0.01	0.30	27.6	109	122
		T273	0.01	0.23	21.5	85	122
		T274	0.01	0.25	22.6	90	122
		T275	0.01	0.25	22.9	91	122
		T276	0.01	0.23	20.9	83	122
		T277	0.01	0.26	24.1	96	122
		T278	0.01	0.23	20.9	83	122
		T279	0.01	0.24	21.7	86	122
		T280	0.01	0.24	22.3	88	122
		T281	0.01	0.26	23.7	94	122
		T282	0.01	0.23	21.0	83	122
		T283	0.01	0.25	23.4	93	122
		T284	0.01	0.30	28.0	111	122
		T285	0.02	0.58	53.6	213	122
		T286	0.02	0.37	33.8	134	122
		T287	0.02	0.59	54.6	217	122
		T288	0.02	0.59	54.2	215	122
		T289	0.02	0.37	34.4	136	122
		T290	0.01	0.33	30.6	121	122
		T291	0.02	0.50	45.9	182	122
		T292	0.06	1.38	126.9	504	122
		T293	0.02	0.51	46.7	185	122
		T294	0.03	0.62	56.7	225	122
		T295	0.01	0.25	23.0	91	122
		T296	0.01	0.26	24.0	95	122
		T297	0.01	0.23	21.5	85	122
		T298	0.01	0.22	19.9	79	122
		T299	0.01	0.26	24.0	95	122
		T300	0.01	0.26	24.2	96	122

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 East Area	4th Quarter '03	T259	0.01	0.24	21.7	87	121
		T260	0.01	0.22	19.8	80	121
		T261	0.01	0.24	22.1	89	121
		T262	0.01	0.22	20.2	81	121
		T263	0.01	0.23	21.0	84	121
		T264	0.01	0.29	26.5	108	120
		T265	0.01	0.30	26.6	108	120
		T266	0.01	0.23	21.1	86	120
		T267	0.01	0.26	23.5	95	120
		T268	0.01	0.32	28.8	117	120
		T269	0.01	0.26	23.9	96	121
		T270	0.02	0.38	34.4	139	120
		T271	0.01	0.25	22.9	93	120
		T272	0.01	0.28	25.4	102	121
		T273	0.01	0.22	19.9	81	120
		T274	0.01	0.23	20.6	84	120
		T275	0.01	0.24	21.5	87	120
		T276	0.01	0.23	20.8	84	120
		T277	0.01	0.24	21.6	88	120
		T278	0.01	0.23	20.7	83	121
		T279	0.01	0.22	20.5	82	121
		T280	0.01	0.23	20.8	83	121
		T281	0.01	0.24	21.9	88	121
		T282	0.01	0.24	22.0	88	121
		T283	0.01	0.26	23.4	94	121
		T284	0.01	0.29	26.2	105	121
		T285	0.02	0.55	49.7	199	121
		T286	0.02	0.38	34.4	138	121
		T287	0.02	0.41	37.6	151	121
		T288	0.03	0.78	71.1	285	121
		T289	0.01	0.33	30.4	122	121
		T290	0.02	0.40	36.8	148	121
		T291	0.02	0.44	40.3	162	121
		T292	0.04	0.87	79.6	319	121
		T293	0.01	0.32	29.5	118	121
		T294	0.02	0.50	45.5	182	121
		T295	0.01	0.22	20.1	81	121
		T296	0.01	0.24	22.1	89	121
		T297	0.01	0.23	20.8	83	121
		T298	0.01	0.22	20.2	82	120
		T299	0.01	0.23	20.3	82	120
		T300	0.01	0.24	22.3	89	121

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

200 East Area, Annual Average ± 2 Standard Deviation (2SD)				
EDP Code	**mrem/hr ± 2SD**	**mrem/day ± 2SD**	**mrem/qtr ± 2SD**	**mrem/yr ± 2SD**
T259	0.01 ± 0.000	0.24 ± 0.01	21.6 ± 0.8	86 ± 3
T260	0.01 ± 0.000	0.22 ± 0.01	20.3 ± 0.7	81 ± 3
T261	0.01 ± 0.001	0.24 ± 0.02	21.7 ± 1.7	87 ± 7
T262	0.01 ± 0.001	0.23 ± 0.01	21.0 ± 1.3	84 ± 5
T263	0.01 ± 0.001	0.23 ± 0.01	21.0 ± 1.1	84 ± 4
T264	0.01 ± 0.001	0.30 ± 0.01	27.6 ± 1.3	110 ± 5
T265	0.01 ± 0.002	0.31 ± 0.05	27.9 ± 4.9	112 ± 20
T266	0.01 ± 0.000	0.24 ± 0.01	21.6 ± 1.0	86 ± 4
T267	0.01 ± 0.001	0.25 ± 0.01	23.0 ± 1.2	92 ± 5
T268	0.01 ± 0.001	0.32 ± 0.02	29.1 ± 1.7	116 ± 7
T269	0.01 ± 0.001	0.25 ± 0.03	23.2 ± 3.0	93 ± 12
T270	0.02 ± 0.002	0.38 ± 0.04	34.4 ± 4.1	138 ± 16
T271	0.01 ± 0.001	0.26 ± 0.03	23.9 ± 2.9	96 ± 12
T272	0.01 ± 0.001	0.29 ± 0.02	26.2 ± 1.7	105 ± 7
T273	0.01 ± 0.001	0.23 ± 0.01	20.7 ± 1.1	83 ± 4
T274	0.01 ± 0.001	0.23 ± 0.02	21.1 ± 1.8	84 ± 7
T275	0.01 ± 0.001	0.24 ± 0.02	21.6 ± 1.9	86 ± 8
T276	0.01 ± 0.001	0.22 ± 0.02	20.2 ± 1.7	81 ± 7
T277	0.01 ± 0.001	0.25 ± 0.02	22.8 ± 1.6	91 ± 6
T278	0.01 ± 0.001	0.23 ± 0.02	21.0 ± 1.5	84 ± 6
T279	0.01 ± 0.001	0.22 ± 0.02	20.5 ± 1.8	82 ± 7
T280	0.01 ± 0.001	0.23 ± 0.01	21.3 ± 1.2	85 ± 5
T281	0.01 ± 0.001	0.24 ± 0.02	21.9 ± 2.2	88 ± 9
T282	0.01 ± 0.001	0.23 ± 0.02	20.9 ± 1.6	84 ± 6
T283	0.01 ± 0.001	0.24 ± 0.03	21.9 ± 3.2	88 ± 13
T284	0.01 ± 0.001	0.29 ± 0.02	26.5 ± 1.9	106 ± 8
T285	0.02 ± 0.002	0.55 ± 0.05	50.6 ± 4.3	202 ± 17
T286	0.02 ± 0.002	0.39 ± 0.04	35.4 ± 3.8	142 ± 15
T287	0.02 ± 0.008	0.46 ± 0.19	41.6 ± 17.4	166 ± 69
T288	0.02 ± 0.015	0.55 ± 0.35	50.4 ± 31.7	202 ± 127
T289	0.02 ± 0.002	0.37 ± 0.06	33.6 ± 5.2	134 ± 21
T290	0.01 ± 0.004	0.33 ± 0.10	30.4 ± 9.0	122 ± 36
T291	0.02 ± 0.002	0.46 ± 0.05	42.2 ± 4.6	169 ± 18
T292	0.06 ± 0.026	1.32 ± 0.62	121 ± 56	482 ± 225
T293	0.02 ± 0.007	0.39 ± 0.16	35.2 ± 15	141 ± 60
T294	0.03 ± 0.013	0.67 ± 0.31	60.8 ± 28.7	243 ± 115
T295	0.01 ± 0.013	0.31 ± 0.31	28.3 ± 27.9	113 ± 112
T296	0.01 ± 0.001	0.25 ± 0.02	22.8 ± 1.4	91 ± 6
T297	0.01 ± 0.001	0.23 ± 0.01	21.2 ± 1.2	85 ± 5
T298	0.01 ± 0.000	0.22 ± 0.01	20.2 ± 0.6	81 ± 2
T299	0.01 ± 0.001	0.25 ± 0.03	22.4 ± 2.8	89 ± 11
T300	0.01 ± 0.001	0.25 ± 0.02	23.2 ± 2.1	93 ± 8

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 West Area	1st Quarter '03	T302	0.01	0.25	22.9	92	121
		T303	0.01	0.31	28.6	115	121
		T304	0.02	0.36	33.2	133	121
		T305	0.01	0.24	22.1	89	121
		T306	0.01	0.30	27.2	109	121
		T307	0.01	0.30	27.0	109	121
		T308	0.01	0.26	23.9	96	121
		T309	0.01	0.24	21.4	86	121
		T310	0.01	0.29	26.5	107	121
		T311	0.01	0.26	23.6	95	121
		T312	0.02	0.39	35.9	144	121
		T313	0.02	0.56	50.9	204	121
		T314	0.01	0.24	21.6	87	121
		T315	0.01	0.24	21.9	88	121
		T316	0.01	0.26	23.8	95	121
		T317	0.01	0.25	22.7	91	121
		T318	0.01	0.24	21.5	86	121
		T319	0.01	0.24	21.8	88	121
		T320	0.01	0.29	26.4	106	121
		T321	0.01	0.29	26.1	105	121
		T322	0.01	0.22	19.6	79	121
		T323	0.01	0.24	22.2	89	121
		T324	0.02	0.44	40.4	162	121
		T325	0.01	0.33	30.4	122	121
	2nd Quarter '03	T302	0.01	0.25	23.6	90	125
		T303	0.01	0.30	29.0	110	125
		T304	0.01	0.35	34.0	129	125
		T305	0.01	0.26	25.4	97	125
		T306	0.01	0.27	25.9	98	125
		T307	0.01	0.28	26.5	101	125
		T308	0.01	0.26	24.8	94	125
		T309	0.01	0.23	22.4	85	125
		T310	0.01	0.29	27.7	105	125
		T311	0.01	0.25	23.6	90	125
		T312	0.02	0.50	48.4	184	125
		T313	0.02	0.50	48.5	184	125
		T314	0.01	0.25	23.8	91	125
		T315	0.01	0.24	22.7	86	125
		T316	0.01	0.23	22.5	85	125
		T317	0.01	0.25	23.9	91	125
		T318	0.01	0.23	21.9	83	125
		T319	0.01	0.23	22.2	84	125
		T320	0.01	0.28	26.6	101	125
		T321	0.01	0.26	25.0	95	125
		T322	0.01	0.21	20.0	76	125
		T323	0.01	0.23	22.0	84	125
		T324	0.01	0.27	26.1	99	125
		T325	0.01	0.34	32.2	122	125

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 West Area	3rd Quarter '03	T302	0.01	0.26	23.5	94	121
		T303	0.01	0.34	31.4	126	121
		T304	0.02	0.36	33.0	132	121
		T305	0.01	0.25	23.1	93	121
		T306	0.01	0.31	28.4	114	121
		T307	0.01	0.31	28.3	113	121
		T308	0.01	0.29	26.5	106	121
		T309	0.01	0.25	22.7	91	121
		T310	0.01	0.31	28.1	113	121
		T311	0.01	0.25	22.9	92	121
		T312	0.02	0.52	47.4	190	121
		T313	0.02	0.51	46.3	186	121
		T314	0.01	0.25	23.0	92	121
		T315	0.01	0.26	24.1	97	121
		T316	0.01	0.26	23.3	93	121
		T317	0.01	0.26	23.3	93	121
		T318	0.01	0.23	21.3	86	121
		T319	0.01	0.26	23.4	94	121
		T320	0.01	0.31	28.5	114	121
		T321	0.01	0.31	28.2	113	121
		T322	0.01	0.23	20.9	84	121
		T323	0.01	0.25	23.1	93	121
		T324	0.01	0.33	29.9	120	121
		T325	0.02	0.37	33.7	135	121
	4th Quarter '03	T302	0.01	0.25	23.0	92	121
		T303	0.01	0.32	29.0	117	121
		T304	0.01	0.34	31.3	126	121
		T305	0.01	0.23	20.6	83	121
		T306	0.01	0.30	27.4	110	121
		T307	0.01	0.29	26.0	104	121
		T308	0.01	0.28	25.5	102	121
		T309	0.01	0.23	20.9	84	121
		T310	0.01	0.29	26.3	105	121
		T311	0.01	0.24	22.1	89	121
		T312	0.02	0.42	38.3	153	121
		T313	0.02	0.50	45.1	181	121
		T314	0.01	0.24	21.7	87	121
		T315	0.01	0.25	22.9	92	121
		T316	0.01	0.24	21.5	86	121
		T317	0.01	0.25	22.7	91	121
		T318	0.01	0.22	19.9	80	121
		T319	0.01	0.23	20.6	82	121
		T320	0.01	0.30	27.4	110	121
		T321	0.01	0.29	26.0	104	121
		T322	0.01	0.23	20.6	83	121
		T323	0.01	0.28	25.7	103	121
		T324	0.01	0.29	26.3	106	121
		T325	0.01	0.33	30.4	122	121

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

200 West Area, Annual Average ± 2 Standard Deviation (2SD)

EDP Code	mrem/hr ± 2SD	mrem/day ± 2SD	mrem/qtr ± 2SD	mrem/yr ± 2SD
T302	0.01 ± 0.000	0.25 ± 0.01	23.0 ± 1.0	92 ± 4
T303	0.01 ± 0.002	0.32 ± 0.04	29.2 ± 3.3	117 ± 13
T304	0.01 ± 0.001	0.36 ± 0.02	32.5 ± 1.7	130 ± 7
T305	0.01 ± 0.001	0.25 ± 0.03	22.5 ± 3.0	90 ± 12
T306	0.01 ± 0.002	0.30 ± 0.04	26.9 ± 3.3	108 ± 13
T307	0.01 ± 0.001	0.29 ± 0.03	26.7 ± 2.7	107 ± 11
T308	0.01 ± 0.001	0.27 ± 0.03	24.9 ± 2.8	99 ± 11
T309	0.01 ± 0.001	0.24 ± 0.02	21.6 ± 1.6	86 ± 6
T310	0.01 ± 0.001	0.29 ± 0.02	26.9 ± 1.8	107 ± 7
T311	0.01 ± 0.001	0.25 ± 0.01	22.8 ± 1.3	91 ± 5
T312	0.02 ± 0.005	0.46 ± 0.12	42.0 ± 11.3	168 ± 45
T313	0.02 ± 0.002	0.52 ± 0.06	47.2 ± 5.2	189 ± 21
T314	0.01 ± 0.001	0.24 ± 0.01	22.3 ± 1.4	89 ± 5
T315	0.01 ± 0.001	0.25 ± 0.03	22.7 ± 2.3	91 ± 9
T316	0.01 ± 0.001	0.25 ± 0.03	22.5 ± 2.5	90 ± 10
T317	0.01 ± 0.000	0.25 ± 0.01	22.9 ± 0.6	92 ± 2
T318	0.01 ± 0.001	0.23 ± 0.02	20.9 ± 1.5	84 ± 6
T319	0.01 ± 0.001	0.24 ± 0.03	21.7 ± 2.5	87 ± 10
T320	0.01 ± 0.001	0.30 ± 0.03	26.9 ± 2.8	108 ± 11
T321	0.01 ± 0.002	0.29 ± 0.04	26.0 ± 3.6	104 ± 14
T322	0.01 ± 0.001	0.22 ± 0.02	20.1 ± 1.9	80 ± 7
T323	0.01 ± 0.002	0.25 ± 0.04	23.0 ± 4.1	92 ± 16
T324	0.01 ± 0.006	0.33 ± 0.15	30.3 ± 14.1	121 ± 56
T325	0.01 ± 0.002	0.34 ± 0.04	31.3 ± 3.3	125 ± 13

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
212-R (200 North)	1st Quarter '03	T301	0.32	7.79	708.7	2843	121
	2nd Quarter '03	T301	0.32	7.59	727.9	2769	125
	3rd Quarter '03	T301	0.39	9.29	845.8	3393	121
	4th Quarter '03	T301	0.36	8.57	788.8	3128	122

212-R, Annual Average ± 2 Standard Deviation (2SD)

EDP Code	mrem/hr ± 2SD	mrem/day ± 2SD	mrem/qtr ± 2SD	mrem/yr ± 2SD
T301	0.35 ± 0.065	8.3 ± 1.6	757 ± 143	3030 ± 571

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
300 Area	1st Quarter '03	T332	0.01	0.24	22.3	86	125
		T333	0.01	0.24	22.5	87	125
		T334	0.01	0.23	21.7	83	125
		T335	0.01	0.26	24.7	95	125
		T336	0.01	0.22	21.0	81	125
		T337	0.01	0.24	22.7	87	125
		T338	0.01	0.31	29.2	112	125
		T339	0.01	0.28	26.9	103	125
	2nd Quarter '03	T332	0.01	0.22	18.8	81	114
		T333	0.01	0.23	20.0	86	114
		T334	0.01	0.22	18.8	81	114
		T335	0.01	0.25	21.3	92	114
		T336	0.01	0.22	18.7	81	114
		T337	0.01	0.25	21.1	91	114
		T338	0.01	0.30	25.7	111	114
		T339	0.01	0.32	27.2	117	114
	3rd Quarter '03	T332	0.01	0.22	22.0	81	130
		T333	0.01	0.25	25.0	91	130
		T334	0.01	0.24	23.8	87	130
		T335	0.01	0.25	24.6	90	130
		T336	0.01	0.22	22.3	82	130
		T337	0.01	0.24	23.5	86	130
		T338	0.01	0.30	30.3	111	130
		T339	0.01	0.32	32.4	118	130
	4th Quarter '03	T332	0.01	0.22	20.2	82	120
		T333	0.01	0.24	21.6	87	120
		T334	0.01	0.23	20.3	82	120
		T335	0.01	0.25	22.5	91	120
		T336	0.01	0.24	21.4	87	120
		T337	0.01	0.24	21.6	88	120
		T338	0.01	0.31	27.9	113	120
		T339	0.01	0.28	25.4	103	120

300 Area, Annual Average ± 2 Standard Deviation (2SD)

EDP Code	mrem/hr ± 2SD	mrem/day ± 2SD	mrem/qtr ± 2SD	mrem/yr ± 2SD
T332	0.01 ± 0.001	0.23 ± 0.01	20.6 ± 1.2	82 ± 5
T333	0.01 ± 0.001	0.24 ± 0.01	22.0 ± 1.2	88 ± 5
T334	0.01 ± 0.001	0.23 ± 0.01	20.9 ± 1.3	83 ± 5
T335	0.01 ± 0.001	0.25 ± 0.01	22.9 ± 1.1	92 ± 4
T336	0.01 ± 0.001	0.23 ± 0.02	20.6 ± 1.5	82 ± 6
T337	0.01 ± 0.001	0.24 ± 0.01	22.0 ± 1.0	88 ± 4
T338	0.01 ± 0.000	0.31 ± 0.01	27.9 ± 0.6	112 ± 2
T339	0.01 ± 0.002	0.30 ± 0.05	27.6 ± 4.2	110 ± 17

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
300 TEDF	1st Quarter '03	T326	0.01	0.23	21.4	82	125
		T327	0.01	0.23	21.9	84	125
		T328	0.01	0.24	23.0	88	125
		T329	0.01	0.23	21.9	84	125
		T330	0.01	0.21	20.2	78	125
		T331	0.01	0.23	22.1	85	125
	2nd Quarter '03	T326	0.01	0.24	20.1	87	114
		T327	0.01	0.23	19.2	83	114
		T328	0.01	0.23	19.8	85	114
		T329	0.01	0.23	19.7	85	114
		T330	0.01	0.24	20.1	86	114
		T331	0.01	0.23	19.9	86	114
	3rd Quarter '03	T326	0.01	0.23	23.4	85	130
		T327	0.01	0.23	23.4	85	130
		T328	0.01	0.27	26.9	98	130
		T329	0.01	0.23	22.9	84	130
		T330	0.01	0.24	23.9	87	130
		T331	0.01	0.23	23.4	85	130
	4th Quarter '03	T326	0.01	0.23	20.7	84	120
		T327	0.01	0.23	20.7	84	120
		T328	0.01	0.24	21.4	87	120
		T329	0.01	0.23	20.9	85	120
		T330	0.01	0.22	20.1	81	120
		T331	0.01	0.25	22.8	93	120

300 TEDF, Annual Average ± 2 Standard Deviation (2SD)

EDP Code	mrem/hr ± 2SD	mrem/day ± 2SD	mrem/qtr ± 2SD	mrem/yr ± 2SD
T326	0.01 ± 0.000	0.23 ± 0.01	21.1 ± 0.9	84 ± 4
T327	0.01 ± 0.000	0.23 ± 0.01	21.0 ± 0.6	84 ± 2
T328	0.01 ± 0.001	0.25 ± 0.03	22.5 ± 2.9	90 ± 12
T329	0.01 ± 0.000	0.23 ± 0.00	21.1 ± 0.3	84 ± 1
T330	0.01 ± 0.001	0.23 ± 0.02	20.8 ± 2.3	83 ± 9
T331	0.01 ± 0.001	0.24 ± 0.02	21.8 ± 1.8	87 ± 7

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
400 Area	1st Quarter '03	T340	0.01	0.22	21.3	82	125
		T341	0.01	0.21	20.1	77	125
		T342	0.01	0.22	20.7	80	125
		T343	0.01	0.22	20.8	80	125
		T344	0.01	0.22	21.2	82	125
		T345	0.01	0.22	21.0	81	125
		T346	0.01	0.21	20.2	78	125
	2nd Quarter '03	T340	0.01	0.22	19.0	82	114
		T341	0.01	0.22	18.7	80	114
		T342	0.01	0.23	19.2	83	114
		T343	0.01	0.22	18.5	79	114
		T344	0.01	0.22	18.6	80	114
		T345	0.01	0.21	17.8	77	114
		T346	0.01	0.21	18.2	78	114
	3rd Quarter '03	T340	0.01	0.24	23.7	87	130
		T341	0.01	0.21	21.4	78	130
		T342	0.01	0.24	23.5	86	130
		T343	0.01	0.22	21.8	80	130
		T344	0.01	0.23	22.6	83	130
		T345	0.01	0.22	22.0	80	130
		T346	0.01	0.22	22.1	81	130
	4th Quarter '03	T340	0.01	0.24	21.9	89	120
		T341	0.01	0.21	19.2	78	120
		T342	0.01	0.23	21.1	86	120
		T343	0.01	0.22	19.9	81	120
		T344	0.01	0.22	20.0	81	120
		T345	0.01	0.22	19.9	81	120
		T346	0.01	0.21	19.1	78	120

400 Area, Annual Average ± 2 Standard Deviation (2SD)

EDP Code	mrem/hr ± 2SD	mrem/day ± 2SD	mrem/qtr ± 2SD	mrem/yr ± 2SD
T340	0.01 ± 0.001	0.23 ± 0.02	21.2 ± 1.7	85 ± 7
T341	0.01 ± 0.000	0.21 ± 0.01	19.6 ± 0.7	78 ± 3
T342	0.01 ± 0.001	0.23 ± 0.02	20.9 ± 1.5	83 ± 6
T343	0.01 ± 0.000	0.22 ± 0.00	20.0 ± 0.3	80 ± 1
T344	0.01 ± 0.000	0.22 ± 0.01	20.3 ± 0.5	81 ± 2
T345	0.01 ± 0.001	0.22 ± 0.01	19.9 ± 1.0	80 ± 4
T346	0.01 ± 0.000	0.22 ± 0.01	19.6 ± 0.8	78 ± 3

Table 4-2. 2003 Thermoluminescent Dosimeter Results. (cont)

Location	Sample Period	EDP Code	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
ERDF	1st Quarter '03	T351	0.01	0.24	18.8	89	107
		T352	0.01	0.29	22.6	107	107
		T353	0.01	0.28	21.3	101	107
	2nd Quarter '03	T351	0.01	0.24	23.1	89	124
		T352	0.01	0.27	25.2	97	124
		T353	0.01	0.26	24.8	95	124
	3rd Quarter '03	T351	0.01	0.23	20.6	85	118
		T352	0.01	0.27	23.5	98	118
		T353	0.01	0.26	23.2	96	118
	4th Quarter '03	T351	TLD not submitted for analysis				
		T352	0.01	0.26	23.1	96	118
		T353	0.01	0.25	21.8	90	118

ERDF, Annual Average ± 2 Standard Deviation (2SD)

EDP Code	mrem/hr ± 2SD	mrem/day ± 2SD	mrem/qtr ± 2SD	mrem/yr ± 2SD
T351	0.01 ± 0.001	0.24 ± 0.01	21.9 ± 1.1	88 ± 4
T352	0.01 ± 0.001	0.27 ± 0.03	24.8 ± 2.7	99 ± 11
T353	0.01 ± 0.001	0.26 ± 0.02	23.9 ± 2.2	96 ± 9

5.0 100-N RIVERBANK SPRINGS MONITORING

In 2003, water samples were taken only at the riverbank springs in the 100-N Area. All radiological analyses were performed onsite at the WSCF. Analyses for riverbank springs water included tritium, strontium-90, and gamma-emitting radionuclides. Sampling locations are illustrated in Figure 5-1.

Riverbank springs and/or shoreline seepage wells along the 100-N Area shoreline are sampled annually to verify that the reported radionuclide releases to the Columbia River are conservative (i.e., not underreported). In the past, radioactive effluent streams sent to the 1301-N and 1325-N LWDFs in the 100-N Area contributed to the release of radionuclides to the Columbia River through their migration with the groundwater. Radionuclides from these facilities enter the Columbia River along the riverbank region commonly called N Springs.

The amount of radionuclides entering the river at these springs is calculated based on analyses of samples routinely collected from monitoring well 199-N-46, located near the shoreline. To calculate these releases, conservatively high radionuclide activities in samples collected from well 199-N-46 are multiplied by the estimated groundwater discharged into the river. The estimated groundwater flow rate used to calculate 2003 releases from the springs was 42 L/min (11 gal/min). The results of the annual riverbank spring samples can then be compared to the activities measured in well 199-N-46 to ensure that activities in the well reflect the highest activities of radionuclides in the groundwater. Additional discussion of the release calculations may be found in *Environmental Releases for Calendar Year 2003*, HNF-EP-0527-13 (Diediker 2004).

In October 2003, 10 samples were collected from the 13 shoreline wells. Three wells were dry and could not be sampled. The shoreline seepage well samples were collected using a bailer, carefully lowered into each well water column to avoid sediment suspension, and a 4-L (1-gal) sample was obtained. The sampling methods are discussed in more detail in DTS-OEM-001.

In 2003, strontium-90 was detected in eight of the ten riverbank springs samples. The highest concentrations were from wells Y302 (near well 199-N-46), and Y311 (downstream of well 199-N-46). Strontium-90 concentrations did not exceed the DOE DCG value at any well. Tritium and gamma-emitting radionuclide concentrations were below analytical detection limits in all ten samples collected in 2003. The 2003 data results from riverbank springs sampling are summarized in Table 5-1. Historical tritium and strontium-90 sampling results are provided in Tables 5-2 and 5-3.

Figure 5-1. 100-N Area Shoreline Seepage Well Locations.

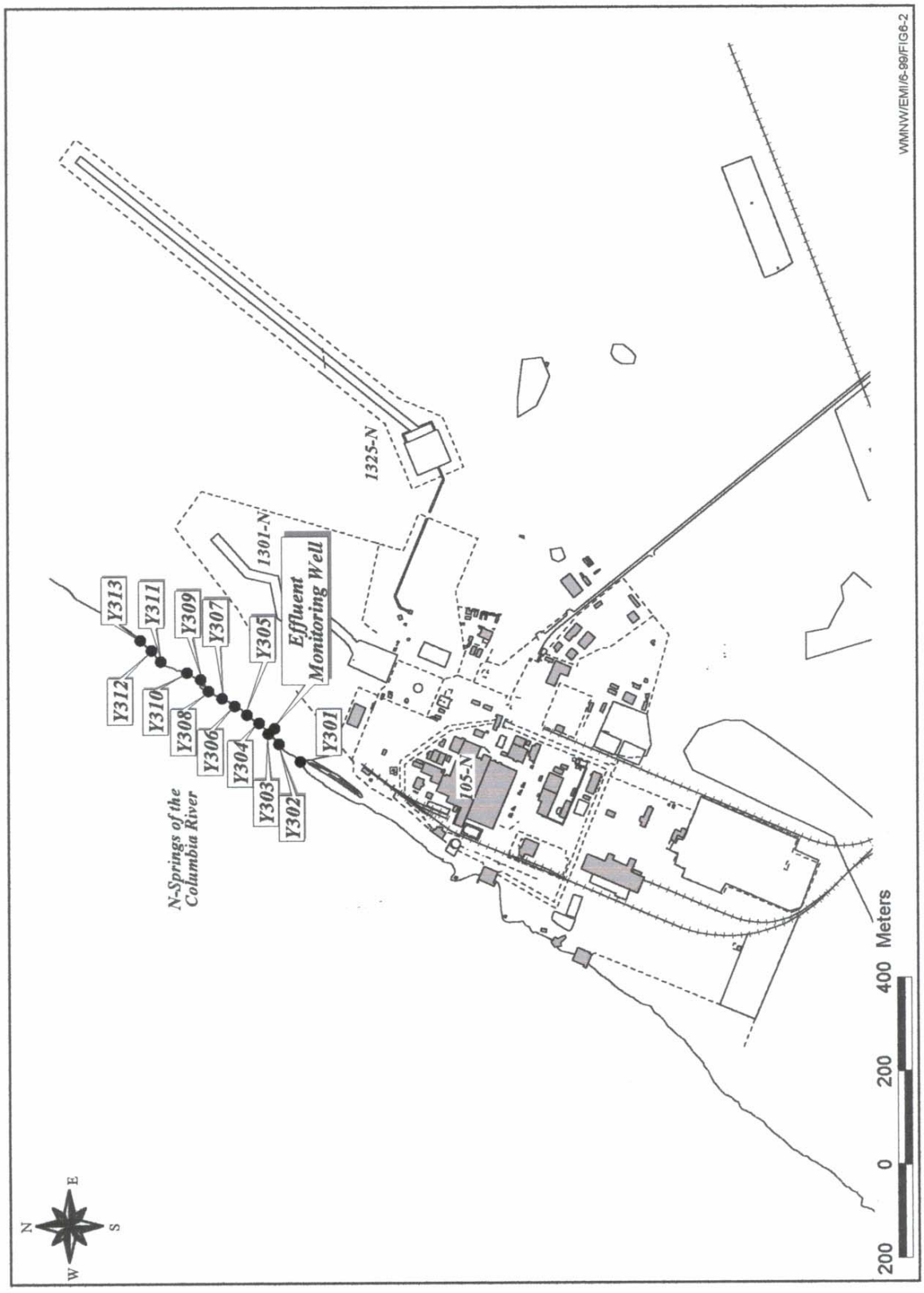


Table 5-1. 2003 Radiological Results for N-Springs Water Samples
(pCi/L ± total analytical uncertainty).

Location	Isotope	Result ± Uncertainty	RQ*
Y302	^{144}Ce	-3.3E+00 ± 3.3E+01	U
	^{60}Co	4.2E+00 ± 4.2E+00	U
	^{134}Cs	-4.4E-01 ± 4.3E+00	U
	^{137}Cs	4.1E+00 ± 6.3E+00	U
	^{152}Eu	1.9E+00 ± 1.3E+01	U
	^{154}Eu	3.2E+00 ± 1.1E+01	U
	^{155}Eu	-7.0E+00 ± 1.3E+01	U
	^{3}H	2.4E+01 ± 5.4E+01	U
	^{103}Ru	-9.2E-01 ± 4.5E+00	U
	^{106}Ru	9.3E-01 ± 9.3E+00	U
	^{125}Sb	1.1E+01 ± 1.3E+01	U
	^{113}Sn	-4.4E+00 ± 5.9E+00	U
	^{90}Sr	2.3E+01 ± 3.4E+00	
	^{65}Zn	3.4E+00 ± 9.5E+00	U
Y303	^{144}Ce	2.2E+01 ± 5.8E+01	U
	^{60}Co	-4.2E+00 ± 5.2E+00	U
	^{134}Cs	-2.3E+00 ± 7.2E+00	U
	^{137}Cs	8.1E+00 ± 9.2E+00	U
	^{152}Eu	-6.8E+00 ± 1.5E+01	U
	^{154}Eu	-4.5E+00 ± 1.6E+01	U
	^{155}Eu	-1.4E+00 ± 1.4E+01	U
	^{3}H	4.5E-01 ± 2.4E+00	U
	^{103}Ru	-8.5E-01 ± 5.6E+00	U
	^{106}Ru	2.1E+01 ± 4.9E+01	U
	^{125}Sb	1.5E+00 ± 1.4E+01	U
	^{113}Sn	-7.3E+00 ± 1.1E+01	U
	^{90}Sr	5.9E+00 ± 1.5E+00	
	^{65}Zn	4.3E+00 ± 1.4E+01	U
Y305	^{144}Ce	-1.4E+01 ± 7.6E+01	U
	^{60}Co	3.6E+00 ± 5.3E+00	U
	^{134}Cs	-2.5E+00 ± 5.7E+00	U
	^{137}Cs	1.0E+00 ± 5.5E+00	U
	^{152}Eu	-5.4E+00 ± 2.1E+01	U
	^{154}Eu	-4.5E+00 ± 1.5E+01	U
	^{155}Eu	-2.3E+00 ± 2.0E+01	U
	^{3}H	1.9E+01 ± 4.9E+01	U
	^{103}Ru	5.3E+00 ± 5.9E+00	U
	^{106}Ru	4.5E+01 ± 4.9E+01	U
	^{125}Sb	5.3E+00 ± 1.6E+01	U
	^{113}Sn	1.0E+00 ± 7.3E+00	U
	^{90}Sr	3.8E+00 ± 1.3E+00	
	^{65}Zn	-1.9E+01 ± 1.9E+01	U
Y306	^{144}Ce	1.2E+01 ± 5.3E+01	U
	^{60}Co	2.8E+00 ± 4.9E+00	U
	^{134}Cs	-2.6E+00 ± 5.3E+00	U
	^{137}Cs	-5.6E+00 ± 5.6E+00	U
	^{152}Eu	-8.9E+00 ± 1.6E+01	U
	^{154}Eu	2.5E+00 ± 1.4E+01	U
	^{155}Eu	-5.1E+00 ± 1.4E+01	U
	^{3}H	-7.5E+01 ± 1.2E+02	U
	^{103}Ru	7.0E+00 ± 5.9E+00	U
	^{106}Ru	1.3E+01 ± 4.9E+01	U
	^{125}Sb	-8.6E+00 ± 1.3E+01	U
	^{113}Sn	1.8E+00 ± 6.1E+00	U
	^{90}Sr	2.0E+00 ± 7.0E-01	
	^{65}Zn	7.1E-01 ± 7.1E+00	U
Y307	^{144}Ce	5.6E+01 ± 7.2E+01	U
	^{60}Co	-2.5E-01 ± 2.5E+00	U
	^{134}Cs	-4.3E-01 ± 4.3E+00	U
	^{137}Cs	1.4E+00 ± 5.4E+00	U
	^{152}Eu	3.6E+00 ± 1.7E+01	U
	^{154}Eu	-3.3E+00 ± 1.4E+01	U
	^{155}Eu	-3.6E+00 ± 1.9E+01	U
	^{3}H	4.5E-01 ± 3.6E+00	U
	^{103}Ru	-5.6E-01 ± 5.4E+00	U
	^{106}Ru	-4.0E+01 ± 4.9E+01	U
	^{125}Sb	4.1E-01 ± 4.1E+00	U
	^{113}Sn	-3.2E+00 ± 6.8E+00	U
	^{90}Sr	3.8E+00 ± 9.5E-01	
	^{65}Zn	3.8E-01 ± 3.8E+00	U
Y308	^{144}Ce	6.9E+00 ± 6.9E+01	U
	^{60}Co	1.4E+00 ± 5.1E+00	U
	^{134}Cs	5.0E+00 ± 5.7E+00	U
	^{137}Cs	4.4E-01 ± 4.3E+00	U
	^{152}Eu	5.4E+00 ± 1.5E+01	U
	^{154}Eu	1.2E+01 ± 1.5E+01	U
	^{155}Eu	-9.4E+00 ± 1.8E+01	U
	^{3}H	-1.8E+00 ± 7.7E+00	U
	^{103}Ru	1.9E+00 ± 5.1E+00	U
	^{106}Ru	7.0E+01 ± 7.7E+01	U
	^{125}Sb	-1.6E+01 ± 1.6E+01	U
	^{113}Sn	3.4E+00 ± 6.5E+00	U
	^{90}Sr	8.4E+00 ± 1.7E+00	
	^{65}Zn	1.1E+00 ± 1.1E+01	U

RQ* = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 5-1. 2003 Radiological Results for N-Springs Water Samples
(pCi/L ± total analytical uncertainty). (cont)

Location	Isotope	Result ± Uncertainty	RQ*
Y309	^{144}Ce	-6.5E+01 ± 7.3E+01	U
	^{60}Co	2.1E+00 ± 5.1E+00	U
	^{134}Cs	6.0E+00 ± 5.7E+00	U
	^{137}Cs	1.0E+00 ± 5.6E+00	U
	^{152}Eu	-7.7E+00 ± 1.9E+01	U
	^{154}Eu	-6.6E+00 ± 1.4E+01	U
	^{155}Eu	-4.7E+00 ± 2.0E+01	U
	^{3}H	-1.4E+02 ± 1.7E+02	U
	^{103}Ru	-4.1E-01 ± 4.1E+00	U
	^{106}Ru	-1.4E+01 ± 4.9E+01	U
	^{125}Sb	-2.5E+00 ± 1.5E+01	U
	^{113}Sn	4.8E+00 ± 7.0E+00	U
	^{90}Sr	1.7E+00 ± 6.8E-01	U
	^{65}Zn	2.0E+00 ± 1.2E+01	U
Y312	^{144}Ce	-2.6E+00 ± 2.6E+01	U
	^{60}Co	-7.1E+00 ± 7.1E+00	U
	^{134}Cs	3.1E+00 ± 5.6E+00	U
	^{137}Cs	-2.2E+00 ± 5.8E+00	U
	^{152}Eu	-6.4E+00 ± 1.6E+01	U
	^{154}Eu	1.8E+00 ± 1.6E+01	U
	^{155}Eu	-1.6E+01 ± 2.1E+01	U
	^{3}H	-5.9E+01 ± 5.9E+02	U
	^{103}Ru	-2.3E-01 ± 2.3E+00	U
	^{106}Ru	1.9E+01 ± 5.0E+01	U
	^{125}Sb	3.7E-01 ± 3.7E+00	U
	^{113}Sn	8.6E-02 ± 8.6E-01	U
	^{90}Sr	7.4E+00 ± 1.5E+00	
	^{65}Zn	-2.3E-01 ± 2.3E+00	U

Location	Isotope	Result ± Uncertainty	RQ*
Y311	^{144}Ce	5.9E+01 ± 5.6E+01	U
	^{60}Co	-1.3E+00 ± 4.1E+00	U
	^{134}Cs	-3.9E+00 ± 4.3E+00	U
	^{137}Cs	7.9E-02 ± 7.9E-01	U
	^{152}Eu	1.1E+00 ± 1.1E+01	U
	^{154}Eu	1.9E+00 ± 1.2E+01	U
	^{155}Eu	2.2E+00 ± 1.4E+01	U
	^{3}H	1.9E+01 ± 2.1E+01	U
	^{103}Ru	8.8E-01 ± 4.1E+00	U
	^{106}Ru	1.0E+01 ± 3.6E+01	U
	^{125}Sb	6.2E-01 ± 6.2E+00	U
	^{113}Sn	-1.8E+00 ± 5.7E+00	U
	^{90}Sr	2.1E+01 ± 3.1E+00	
	^{65}Zn	-1.3E+00 ± 1.0E+01	U
Y313	^{144}Ce	9.6E+00 ± 5.7E+01	U
	^{60}Co	-3.3E-01 ± 3.3E+00	U
	^{134}Cs	1.0E+00 ± 6.6E+00	U
	^{137}Cs	-4.8E+00 ± 5.5E+00	U
	^{152}Eu	8.7E+00 ± 1.5E+01	U
	^{154}Eu	8.8E+00 ± 1.5E+01	U
	^{155}Eu	3.9E+00 ± 1.4E+01	U
	^{3}H	-1.2E+02 ± 1.3E+02	U
	^{103}Ru	-4.3E-01 ± 4.3E+00	U
	^{106}Ru	1.1E+01 ± 4.9E+01	U
	^{125}Sb	-1.4E+00 ± 1.3E+01	U
	^{113}Sn	-2.5E+00 ± 5.9E+00	U
	^{90}Sr	-1.0E-01 ± 1.0E+00	U
	^{65}Zn	-8.9E+00 ± 1.2E+01	U

RQ* = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 5-2. Historical N-Springs Shoreline Tritium Concentrations (pCi/L ± overall analytical uncertainty).

Year	Y301	Y302	Effluent monitoring well	Y303	Y304	Y305	Y306
1987	6.8E+04	7.6E+04	9.5E+04	9.2E+04	9.4E+04	8.8E+04	7.9E+04
1988	5.7E+03	2.8E+04	7.5E+04	6.9E+04	7.4E+04	NS	NS
1989	2.5E+04	2.8E+04	3.9E+04	3.6E+04	5.0E+04	NS	6.8E+04
1990	2.9E+04	3.2E+04	3.8E+04	3.6E+04	NS	NS	3.4E+03
1991	2.2E+02	8.4E+01	3.7E+04	2.6E+03	3.4E+04	NS	4.0E+02
1992	7.2E+02	NS	5.0E+04	9.5E-01	NS	NS	1.5E+02
1993	2.8E+02	1.3E+02	2.7E+04 ± 2.1E+03	1.4E+02	5.6E+02	1.0E+02	1.8E+02
1994	NS	4.0E+01 ± 1.9E+02	2.6E+04 ± 2.1E+03	4.0E+01	NS	NS	1.2E+02 ± 2.0E+02
1995	NS	NS	5.2E+03	-1.2E+01 ± 1.2E+02	NS	NS	-4.4E+01 ± 1.5E+02
1996	2.5E+02	8.5E+02 ± 2.5E+02	2.0E+04 ± 1.6E+03	1.6E+04 ± 1.3E+03	4.2E+03 ± 5.0E+02	1.6E+02 ± 2.2E+02	2.2E+02 ± 2.1E+02
1997	-4.3E+01 ± 5.6E+01	3.6E+01 ± 3.2E+01	1.6E+04 ± 1.3E+03	3.0E+03 ± 6.0E+02	-6.3E+02 ± 1.1E+03	-5.7E+01 ± 9.1E+01	-1.1E+02 ± 5.4E+02
1998	NS	4.6E+02 ± 2.1E+02	1.6E+04 ± 5.1E+03	1.4E+02 ± 3.6E+01	NS	3.7E+02 ± 2.6E+02	4.3E+02 ± 2.2E+02
1999	9.7E+01 ± 7.4E+01	1.0E+02 ± 7.0E+01	1.3E+02 ± 7.9E+01	1.9E+02 ± 9.7E+01	NS	4.7E+01 ± 4.7E+01	3.6E+00 ± 7.6E+00
2000	1.3E+03 ± 3.3E+02	2.8E+02 ± 1.5E+02	7.0E+03 ± 3.1E+03	2.8E+02 ± 1.5E+02	2.8E+02 ± 1.4E+02	2.0E+02 ± 1.4E+02	2.0E+02 ± 1.4E+02
2001	9.9E-01 ± 8.9E-01	9.9E-01 ± 7.9E-01	5.0E+03 ± 5.1E+02	9.6E+01 ± 6.7E+01	NS	5.9E+01 ± 6.2E+01	5.0E+01 ± 6.5E+01
2002	-3.0E+02 ± 4.8E+02	-3.2E+02 ± 5.1E+02	2.9E+02 ± 2.9E+01[a]	-4.7E+02 ± 8.0E+02	NS	-4.9E+02 ± 4.9E+02	-3.6E+02 ± 3.6E+02
2003	NS	2.4E+01 ± 5.4E+01	6.3E+02 ± 6.7E+02[a]	4.5E-01 ± 2.4E+00	NS	1.9E+01 ± 4.9E+01	-7.5E+01 ± 1.2E+02

Year	Y307	Y308	Y309	Y310	Y311	Y312	Y313
1987	7.3E+04	4.6E+04	7.5E+04	4.0E+03	5.8E+04	2.1E+04	1.3E+03
1988	1.1E+04	3.0E+04	1.0E+04	NS	2.9E+04	1.9E+04	3.0E+03
1989	NS	7.7E+04	7.0E+04	3.5E+04	4.2E+04	NS	NS
1990	NS	1.4E+04	3.5E+03	9.7E+03	3.8E+04	2.0E+04	NS
1991	8.1E+02	2.1E+03	6.5E+03	7.9E+02	7.1E+02	2.4E+03	9.3E+00
1992	NS	NS	3.0E+02	4.3E+02	6.5E+02	1.7E+02	NS
1993	NS	NS	NS	NS	NS	NS	NS
1994	8.5E+01 ± 1.9E+02	1.3E+02 ± 2.0E+02	8.4E+01 ± 1.9E+02	4.0E+02 ± 2.1E+02	4.5E+02 ± 2.1E+02	2.9E+02 ± 2.0E+02	NS
1995	-2.1E+00 ± 2.1E+01	-2.3E+01 ± 1.4E+02	-3.1E+01 ± 1.4E+02	-1.2E+01 ± 1.2E+02	3.2E+02 ± 1.6E+02	5.0E+02 ± 1.8E+02	NS
1996	1.9E+02 ± 2.1E+02	2.4E+02 ± 2.1E+02	NS	NS	2.2E+02 ± 2.1E+02	NS	NS
1997	-1.4E+02 ± 1.4E+03	-1.2E+02 ± 8.2E+02	-6.4E+01 ± 1.0E+02	-1.1E+02 ± 5.4E+02	2.6E+01 ± 2.1E+01	NS	NS
1998	3.5E+02 ± 2.6E+02	NS	3.5E+02 ± 2.7E+02	3.0E+02 ± 2.1E+02	5.6E+02 ± 2.5E+02	6.2E+02 ± 2.5E+02	5.2E+02 ± 2.6E+02
1999	2.7E+02 ± 1.1E+02	1.1E+02 ± 8.8E+01	NS	1.3E+02 ± 8.5E+01	1.8E+02 ± 9.9E+01	1.5E+02 ± 9.8E+01	NS
2000	3.0E+02 ± 1.5E+02	2.4E+02 ± 1.4E+02	1.9E+02 ± 1.3E+02	2.4E+02 ± 1.4E+02	4.0E+02 ± 1.6E+02	3.7E+02 ± 1.7E+02	2.5E+02 ± 1.4E+02
2001	9.7E+01 ± 9.9E+01	NS	1.9E+02 ± 1.1E+02	8.8E+01 ± 9.7E+01	5.3E+01 ± 8.5E+01	9.9E-01 ± 2.4E+00	NS
2002	-4.3E+02 ± 4.3E+02	-3.2E+02 ± 3.8E+02	-3.5E+02 ± 3.9E+02	-3.4E+02 ± 3.4E+02	-2.6E+02 ± 3.6E+02	-2.3E+02 ± 4.3E+02	NS
2003	4.5E-01 ± 3.6E+00	-1.8E+00 ± 7.7E+00	-1.4E+02 ± 1.7E+02	NS	1.9E+01 ± 2.1E+01	-5.9E+01 ± 5.9E+02	-1.2E+02 ± 1.3E+02

NS - Not sampled.

[a]Average of two samples ± 2 standard deviations.

Table 5-3. Historical N-Springs Shoreline Strontium-90 Concentrations (pCi/L ± overall analytical uncertainty).

Year	Y301	Y302	Effluent monitoring well	Y303	Y304	Y305	Y306
1987	1.7E+03	2.7E+03	6.1E+03	8.3E+03	4.1E+03	9.5E+02	7.2E+02
1988	8.7E+02	3.0E+03	7.9E+03	9.1E+03	3.5E+03	NS	NS
1989	9.8E+02	2.1E+03	6.5E+03	5.4E+03	3.8E+03	NS	8.9E+02
1990	2.4E+03	2.9E+03	4.9E+03	7.1E+03	NS	NS	1.5E+02
1991	1.6E+01	2.4E+01	6.9E+03	1.4E+03	3.2E+03	NS	8.6E+01
1992	NS	NS	6.3E+03	1.5E+02	NS	NS	9.6E+00
1993	1.2E+01	8.3E+01	7.4E+03 ± 1.3E+03	1.2E+02	4.1E+03	4.1E+01	1.3E+01
1994	NS	1.1E+02 ± 2.6E+01	6.6E+03 ± 1.4E+03	1.2+E02	NS	NS	6.4E+00 ± 1.7E+00
1995	NS	NS	5.7E+03 ± 1.4E+03	3.0E+02 ± 5.1E+01	NS	NS	7.0E+00 ± 1.4E+00
1996	5.8E+01	2.6E+02 ± 6.5E+01	1.4E+04 ± 4.1E+03	5.8E+03 ± 1.6E+03	9.5E+02 ± 2.6E+02	3.7E+01 ± 1.0E+01	1.6E+01 ± 4.2E+00
1997	3.1E+01 ± 4.7E+00	2.0E+02 ± 2.8E+01	1.0E+04 ± 3.5E+03	3.2E+03 ± 3.8E+02	1.7E+02 ± 2.2E+01	2.6E+01 ± 4.7E+00	3.1E+00 ± 1.6E+00
1998	NS	1.1E+02 ± 1.3E+01	1.4E+04 ± 2.1E+03	1.9E+03 ± 2.3E+02	NS	1.7E+01 ± 2.6E+00	7.7E+00 ± 1.5E+00
1999	7.1E+00 ± 1.4E+00	4.9E+01 ± 7.4E+00	3.2E+03 ± 4.8E+02	1.3E+03 ± 2.0E+02	NS	3.0E+01 ± 4.5E+00	8.1E+00 ± 1.6E+00
2000	8.3E+00 ± 1.7E+00	1.1E+01 ± 1.6E+00	1.3E+04 ± 4.0E+03	1.3E+02 ± 2.6E+01	1.8E+02 ± 2.7E+01	7.1E+00 ± 1.4E+00	4.0E+00 ± 1.0E+00
2001	4.3E+00 ± 8.6E-01	1.9E+01 ± 2.8E+00	9.7E+03 ± 2.2E+03	4.5E+01 ± 6.8E+00	NS	9.6E+00 ± 1.9E+00	3.3E+00 ± 8.2E-01
2002	5.2E+00 ± 1.0E+00	2.2E+01 ± 4.4E+00	3.7E+03 ± 3.7E+02[a]	8.2E+01 ± 1.6E+01	NS	5.2E+00 ± 1.0E+00	1.6E+00 ± 5.6E-01
2003	NS	2.3E+01 ± 3.4E+00	4.1E+03 ± 2.0E+03[a]	5.9E+00 ± 1.5E+00	NS	3.8E+00 ± 1.3E+00	2.0E+00 ± 7.0E-01

Year	Y307	Y308	Y309	Y310	Y311	Y312	Y313
1987	1.3E+01	4.2E+01	2.4E+02	5.7E+01	6.6E+02	5.8E+01	5.0E+01
1988	1.5E+01	3.2E+01	4.1E+01	NS	3.4E+02	4.0E+01	5.8E+01
1989	NS	7.8E+01	2.9E+02	1.6E+02	9.5E+02	NS	NS
1990	NS	9.0E+01	4.4E+01	3.1E+01	5.8E+02	5.4E+01	NS
1991	1.4E+01	2.8E+01	1.0E+02	1.5E+01	4.0E+02	8.9E+00	8.1E+00
1992	NS	NS	8.1E+00	6.7E+00	1.1E+02	7.1E+00	NS
1993	NS	NS	NS	NS	NS	NS	NS
1994	3.8E+00 ± 8.7E-01	1.2E+01 ± 2.5E+00	3.4E+00 ± 9.2E-01	3.8E+00 ± 1.0E+00	5.1E+01 ± 1.1E+01	1.8E+01 ± 4.3E+00	NS
1995	3.8E+00 ± 8.0E-01	1.4E+01 ± 2.7E+00	5.5E+00 ± 1.2E+00	7.0E+00 ± 1.4E+00	7.1E+01 ± 1.3E+01	1.9E+01 ± 3.6E+00	NS
1996	6.5E+00 ± 1.8E+00	2.2E+01 ± 5.7E+00	NS	NS	1.7E+02 ± 4.9E+01	NS	NS
1997	3.6E-01 ± 1.9E+00	1.1E+01 ± 2.2E+00	5.6E+00 ± 1.7E+00	7.6E-01 ± 2.0E+00	1.5E+02 ± 2.0E+01	NS	NS
1998	1.5E+01 ± 2.3E+00	NS	5.1E+00 ± 1.0E+00	2.9E+00 ± 8.7E-01	1.1E+02 ± 1.4E+01	1.8E+01 ± 2.3E+00	3.6E+00 ± 1.1E+00
1999	1.9E+00 ± 7.6E-01	2.5E+00 ± 7.5E-01	NS	4.0E+00 ± 8.8E-01	4.3E+01 ± 6.5E+00	9.2E+00 ± 1.5E+00	NS
2000	3.3E+00 ± 8.2E-01	4.5E+00 ± 1.1E+00	2.2E+00 ± 6.6E-01	7.0E-01 ± 5.6E-01	4.8E+01 ± 1.2E+01	3.8E+00 ± 7.6E-01	2.0E-01 ± 4.4E-01
2001	3.4E+00 ± 8.5E-01	NS	2.5E+00 ± 7.5E-01	2.8E+00 ± 8.4E-01	3.4E+01 ± 5.1E+00	6.0E+00 ± 1.2E+00	NS
2002	6.0E-01 ± 5.1E-01	6.9E+00 ± 1.4E+00	1.9E+00 ± 5.7E-01	1.2E+00 ± 6.6E-01	3.1E+01 ± 4.7E+00	8.6E+00 ± 1.7E+00	NS
2003	3.8E+00 ± 9.5E-01	8.4E+00 ± 1.7E+00	1.7E+00 ± 6.8E-01	NS	2.1E+01 ± 3.1E+00	7.4E+00 ± 1.5E+00	-1.0E-01 ± 1.0E+00

NS - Not sampled.

[a]Average of two samples ± 2 standard deviations.

6.0 RADIOLOGICAL SURVEYS

In 2003, there were approximately 3,651 ha (9,022 acres) of posted outdoor contamination areas and 666 ha (1,646 acres) of posted underground radioactive materials areas at the Hanford Site. Survey locations are illustrated in Figures 6-1 through 6-10. These areas were typically associated with cribs, trenches, burial grounds, tank farms, and covered ponds and ditches.

The posted contamination areas vary in number and size between years because of an ongoing effort to clean, stabilize, and remediate areas of known contamination. Concurrently, new areas of contamination are also being identified. Approximately 2 ha (5 acres) in the 200 West Area were reclassified from underground radioactive materials areas to contamination/ soil contamination areas during 2003. Six, small contaminated sites in the 200 East Area and one site in the 200 West Area, all totaling less than 1 ha (2 acres), were stabilized and down-posted to underground radioactive materials areas during the year. Several small contaminated areas totaling less than 0.5 ha (1 acre) were added to the 100-H Area total.

Remedial actions in the 100 Areas are ongoing, with decommissioning of facilities and cleanup of inactive waste sites ahead of schedule. The amount of area already remediated is not fully reflected in the reporting of outdoor areas posted as soil contamination areas and/or underground radioactive material areas. These areas are in the various stages of sampling, analysis, regulatory approval, and the posting change status.

It was estimated that the external dose rate at 80% of the identified outdoor contamination areas was less than 1 mrem/hr, although direct dose rate readings from isolated radioactive specks (a diameter less than 0.6 cm [0.25 in.]) could have been considerably higher. Contamination levels of this magnitude did not significantly add to dose rates for the public or Hanford Site workers in 2003.

Figure 6-1. 2003 Radiological Survey Locations, 100-B/C Area.

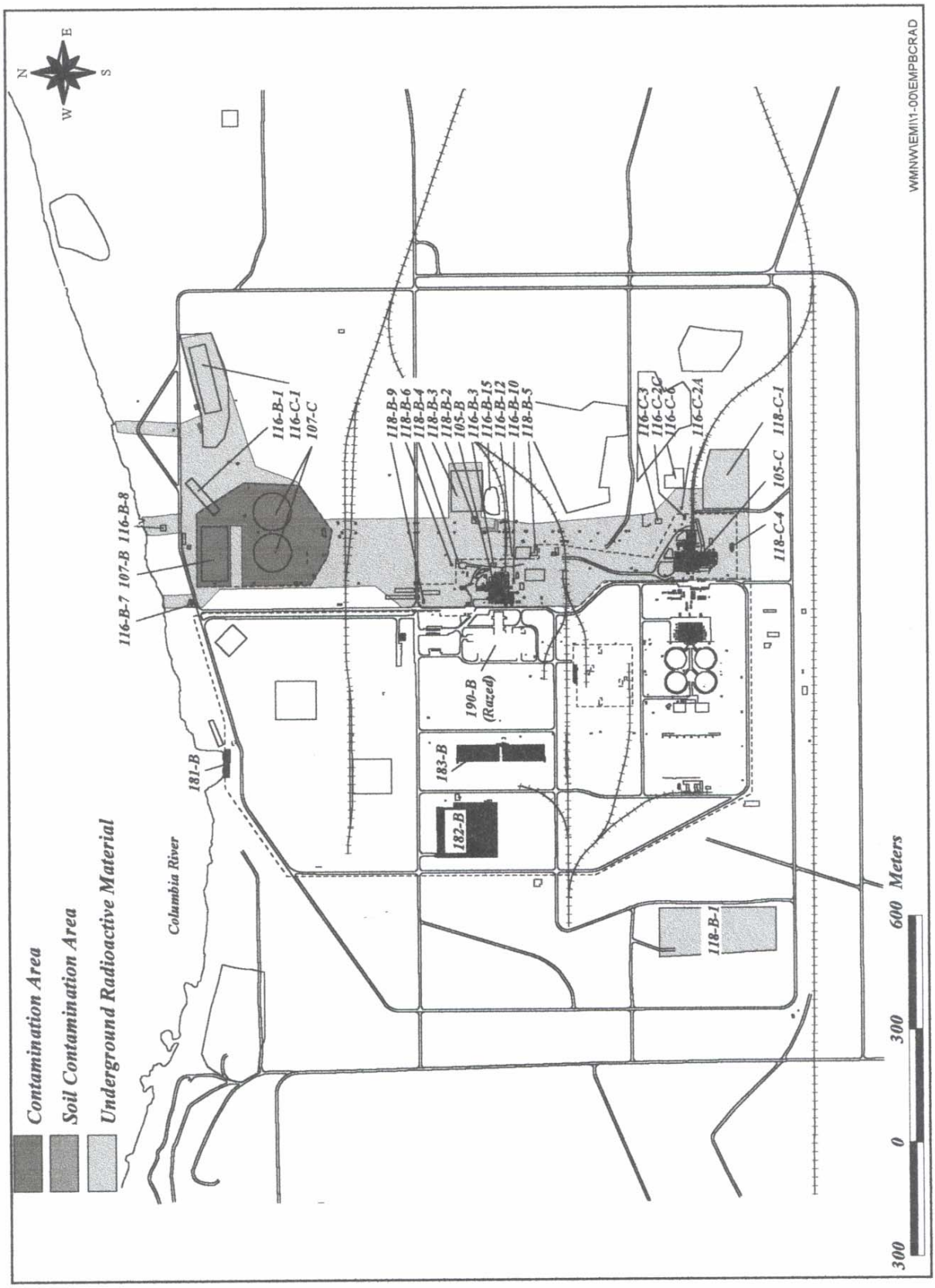


Figure 6-2. 2003 Radiological Survey Locations, 100-D/DR Area.

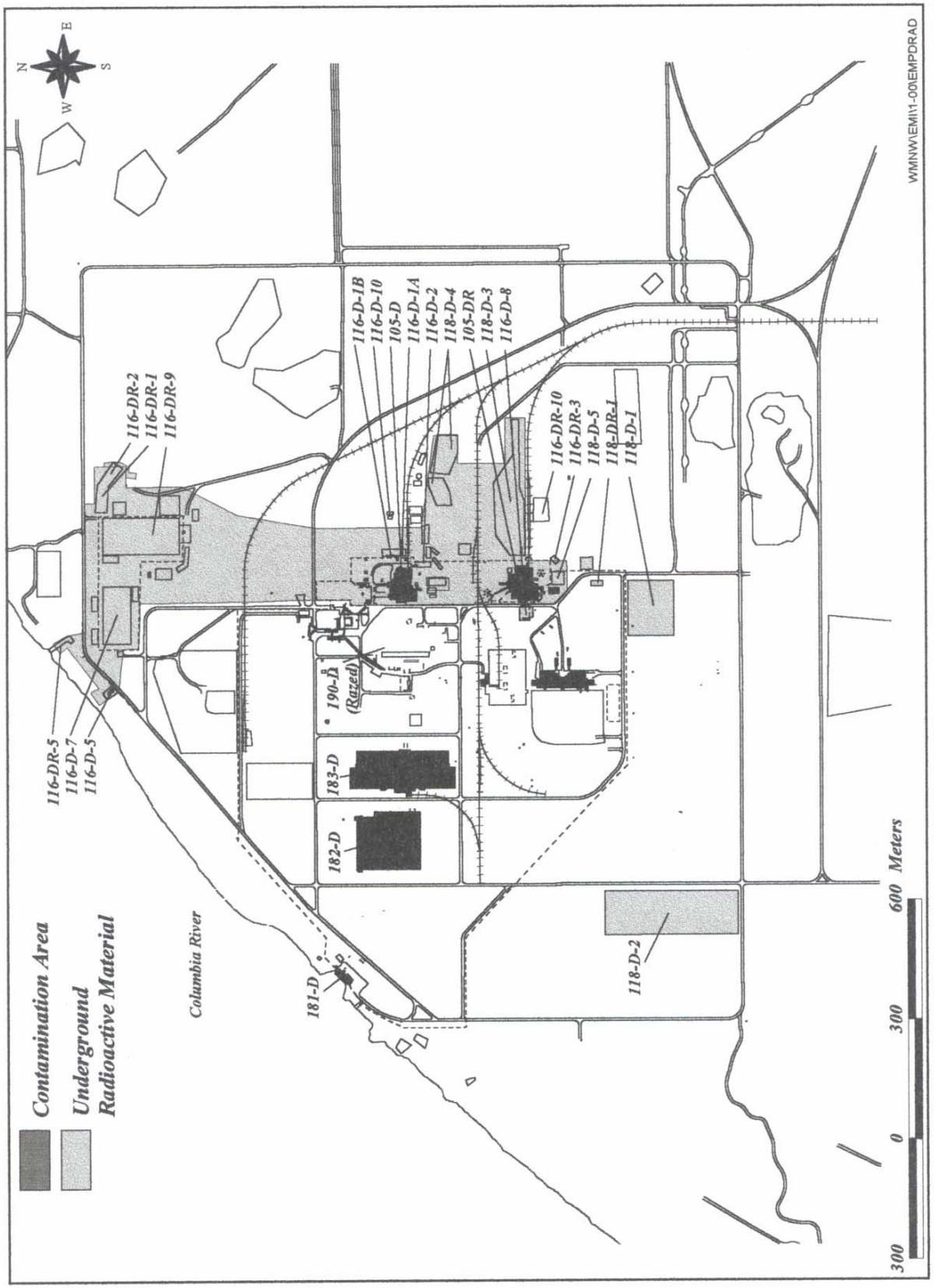


Figure 6-3. 2003 Radiological Survey Locations, 100-F Area.

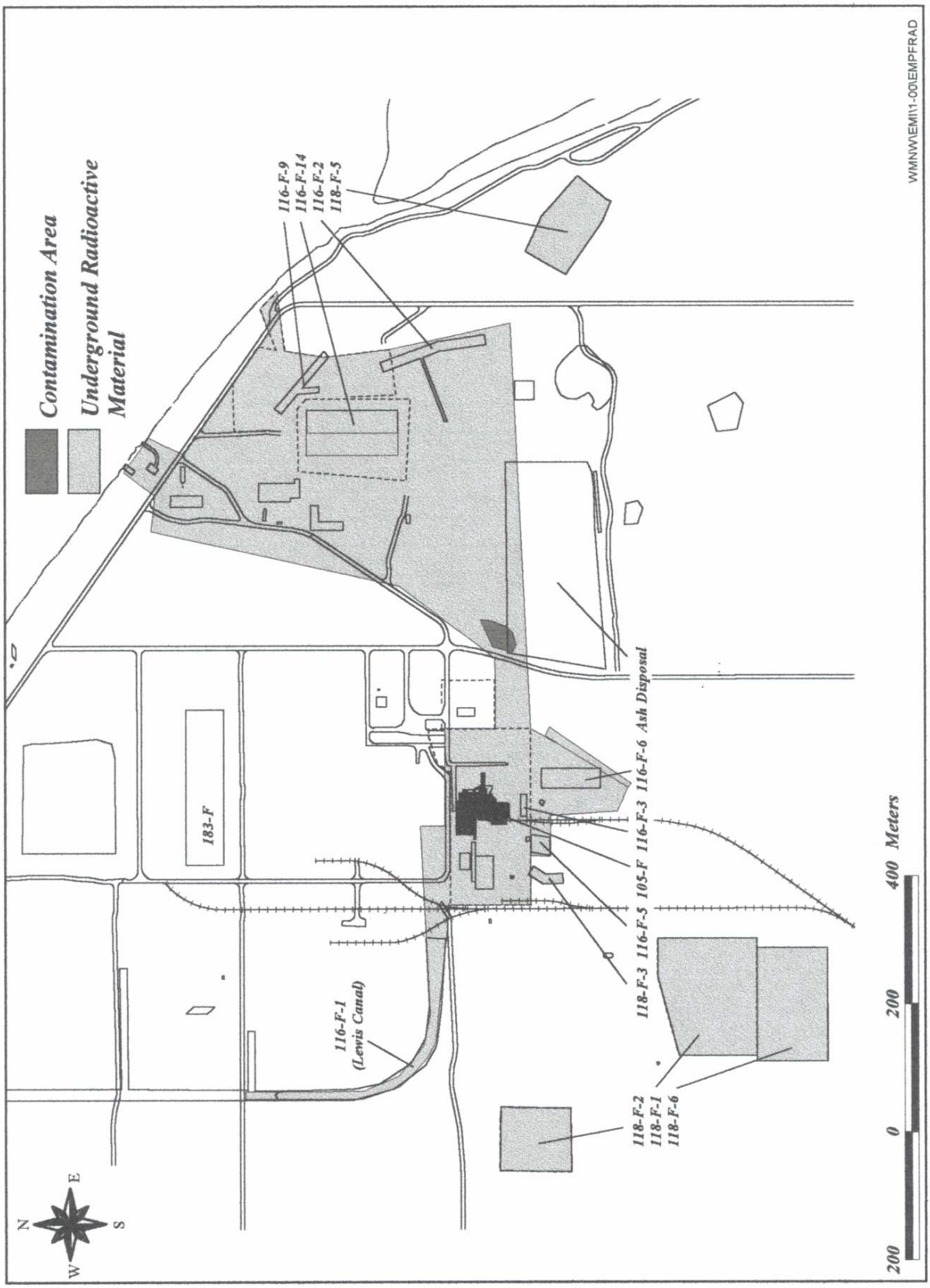


Figure 6-4. 2003 Radiological Survey Locations, 100-H Area.

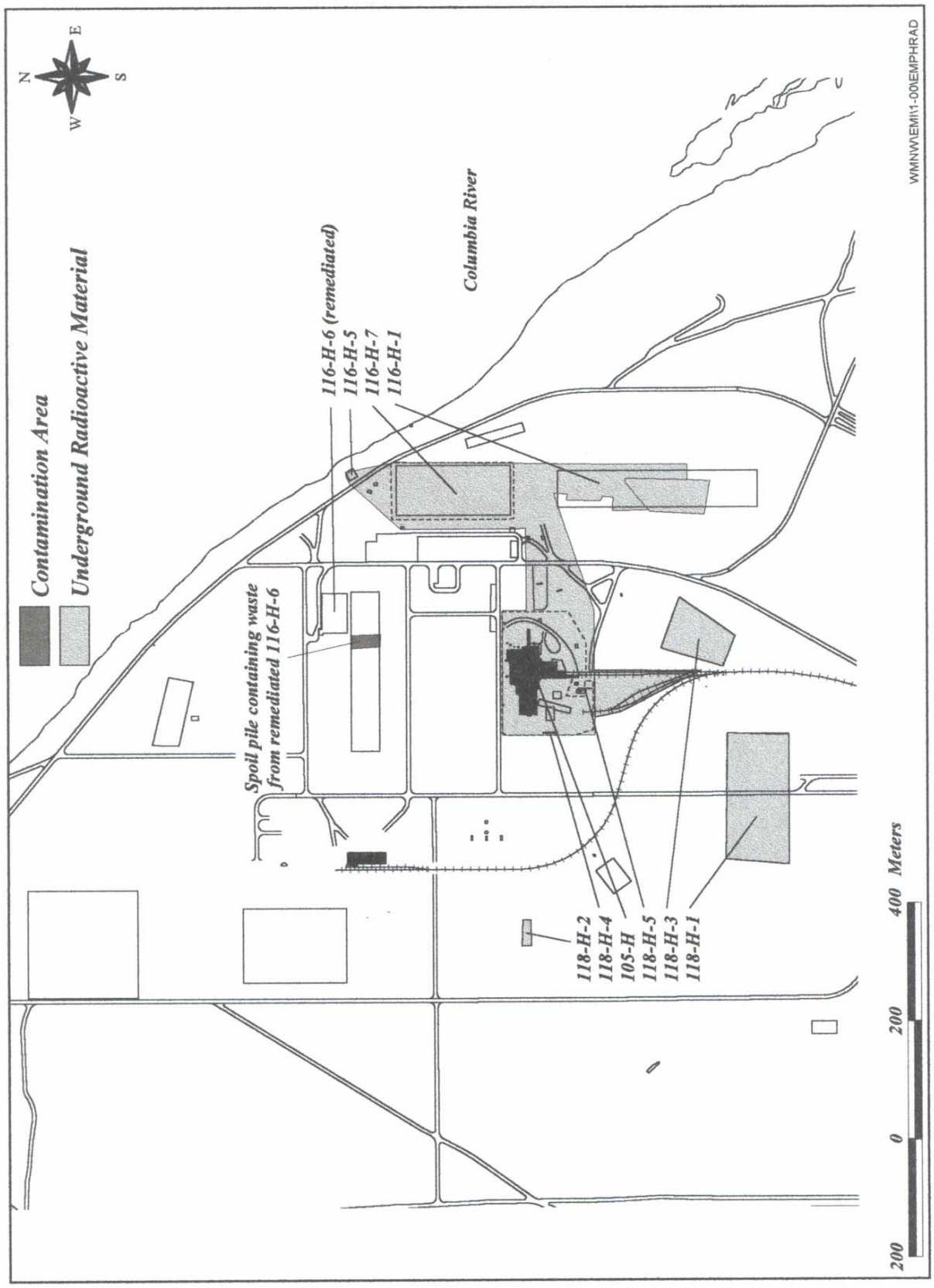


Figure 6-5. 2003 Radiological Survey Locations, 100-K Area.

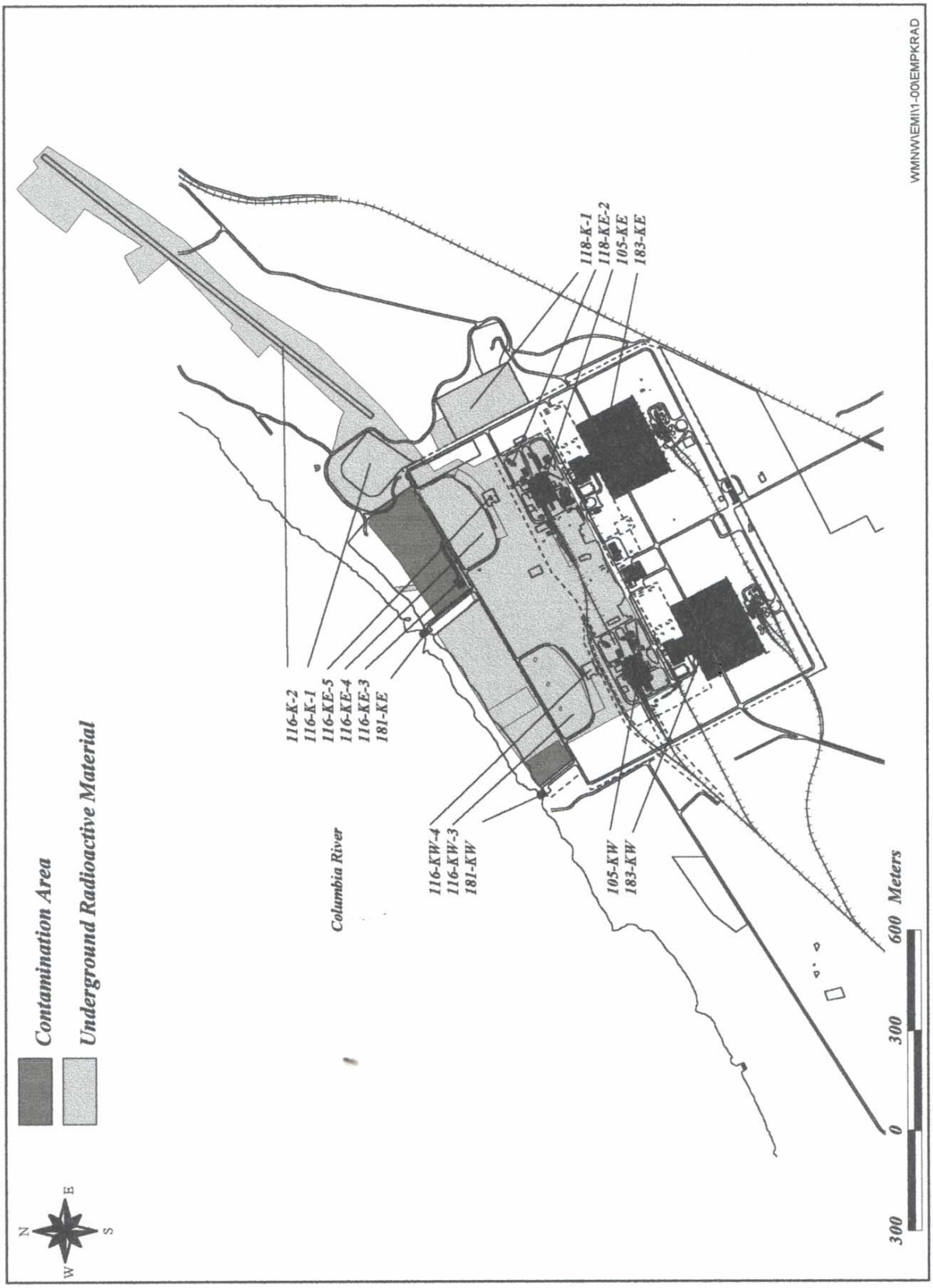


Figure 6-6. 2003 Radiological Survey Locations, 100-N Area.

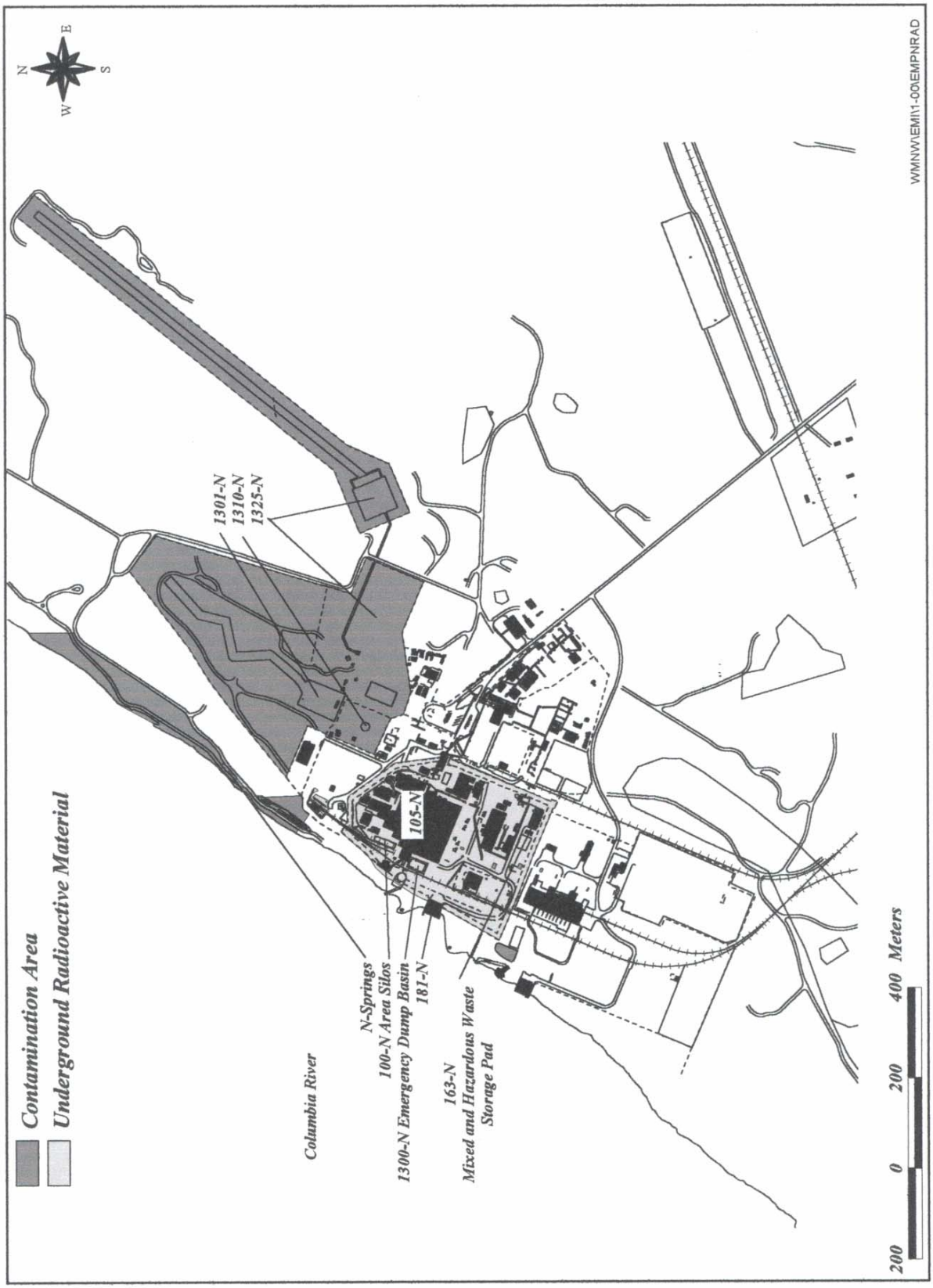


Figure 6-7. 2003 Radiological Survey Locations, 200 East Area.

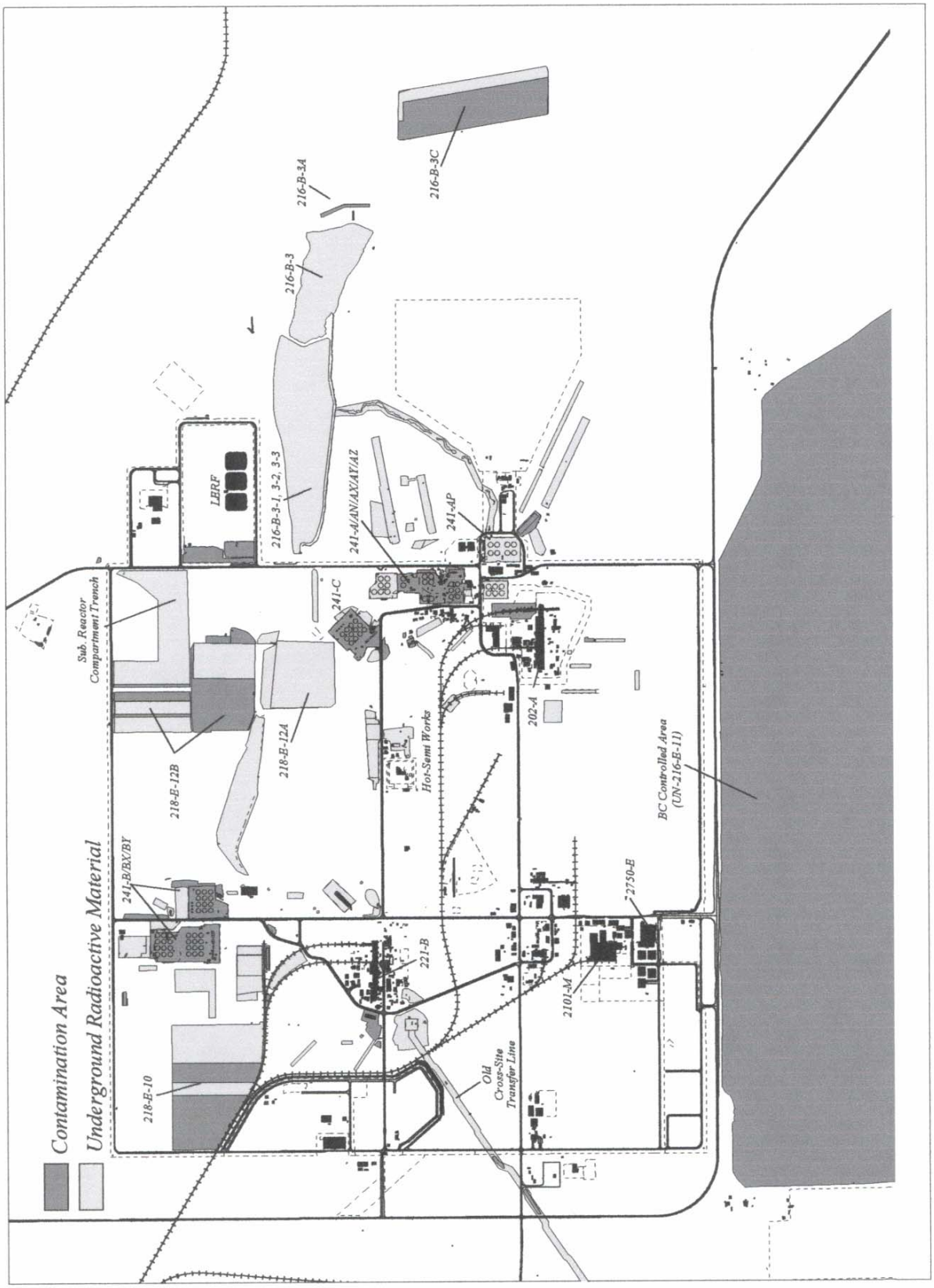


Figure 6-8. 2003 Radiological Survey Locations, 200 West Area.

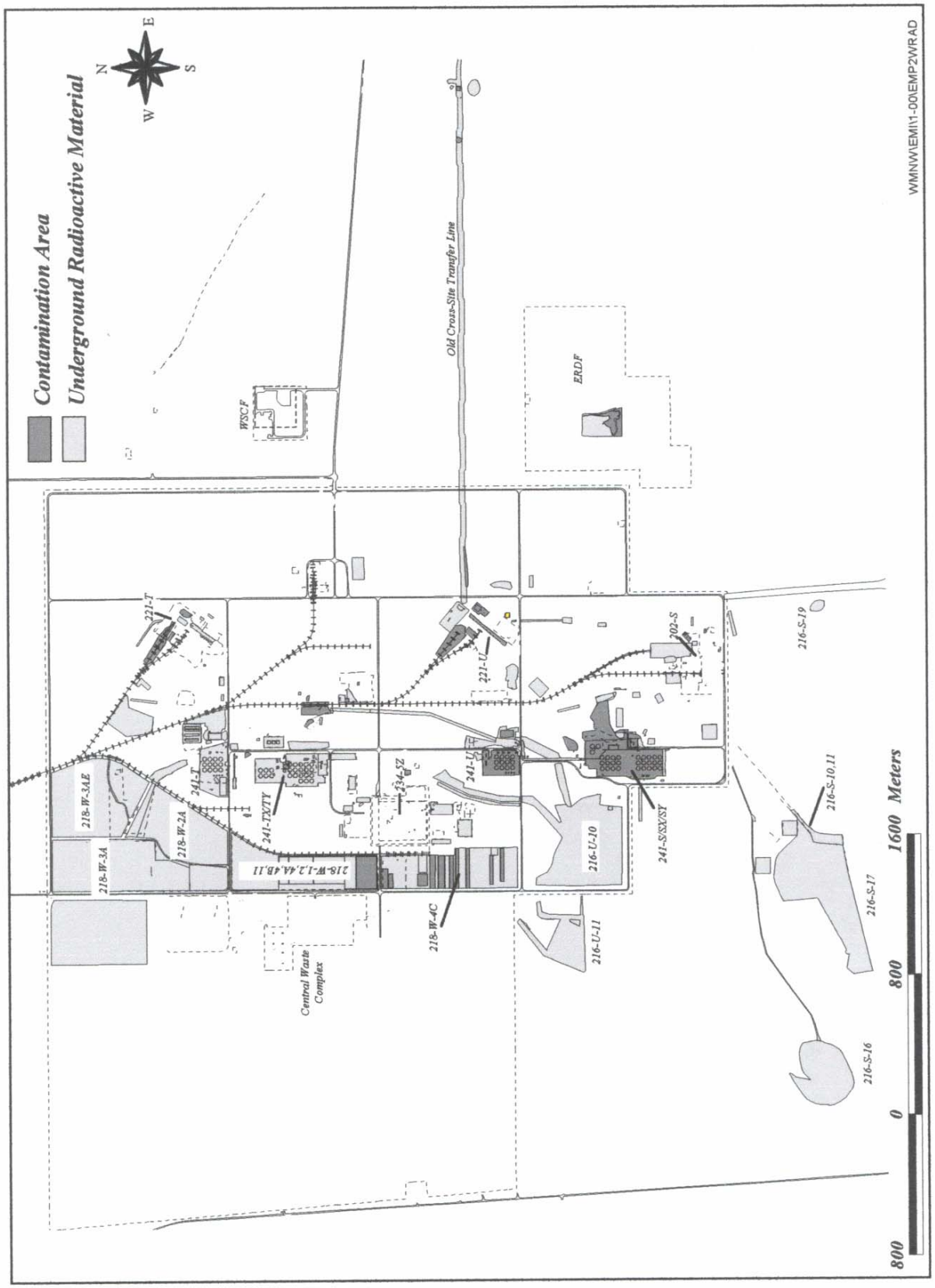


Figure 6-9. 2003 Radiological Survey Locations, 300 Area.

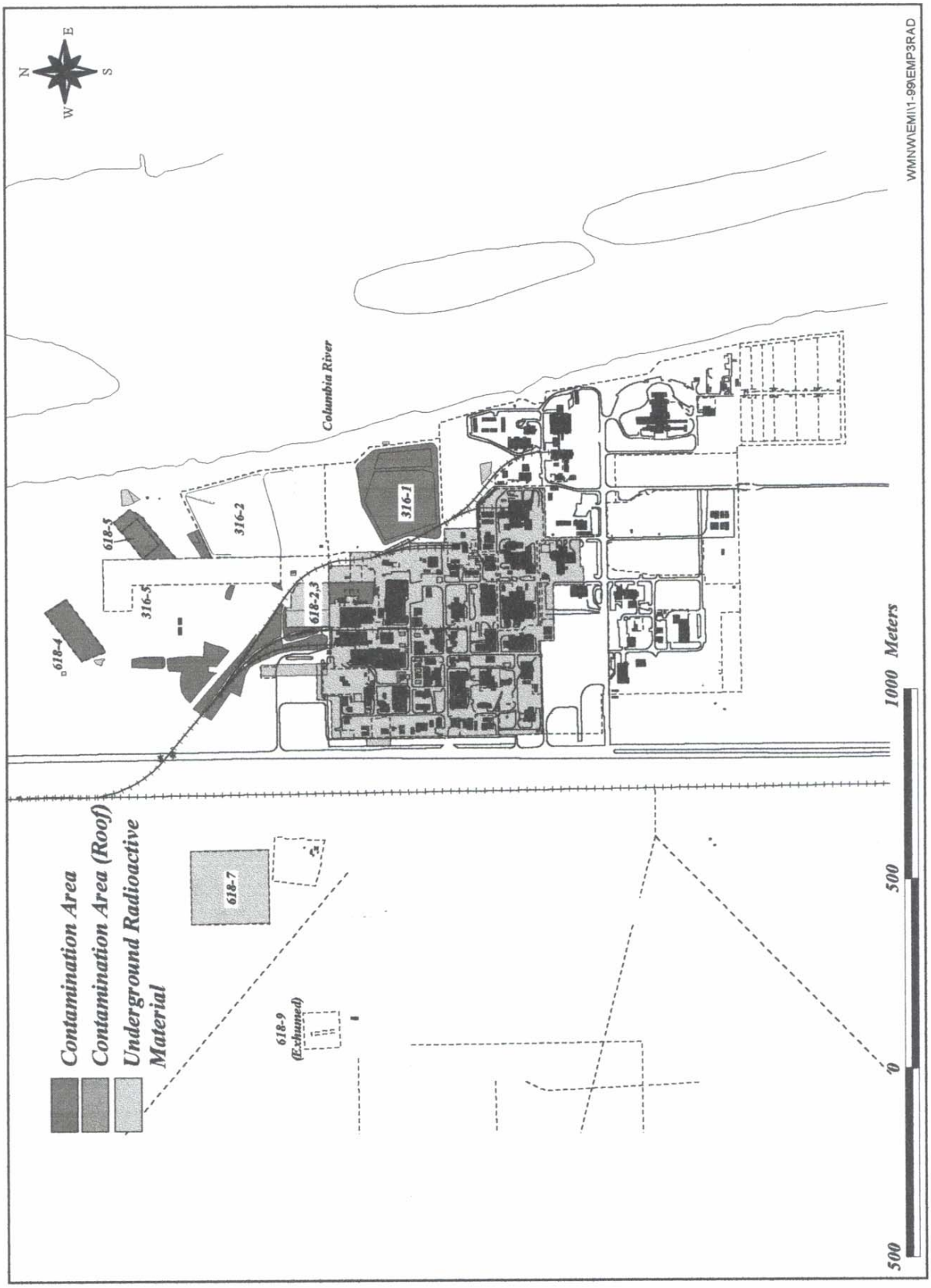
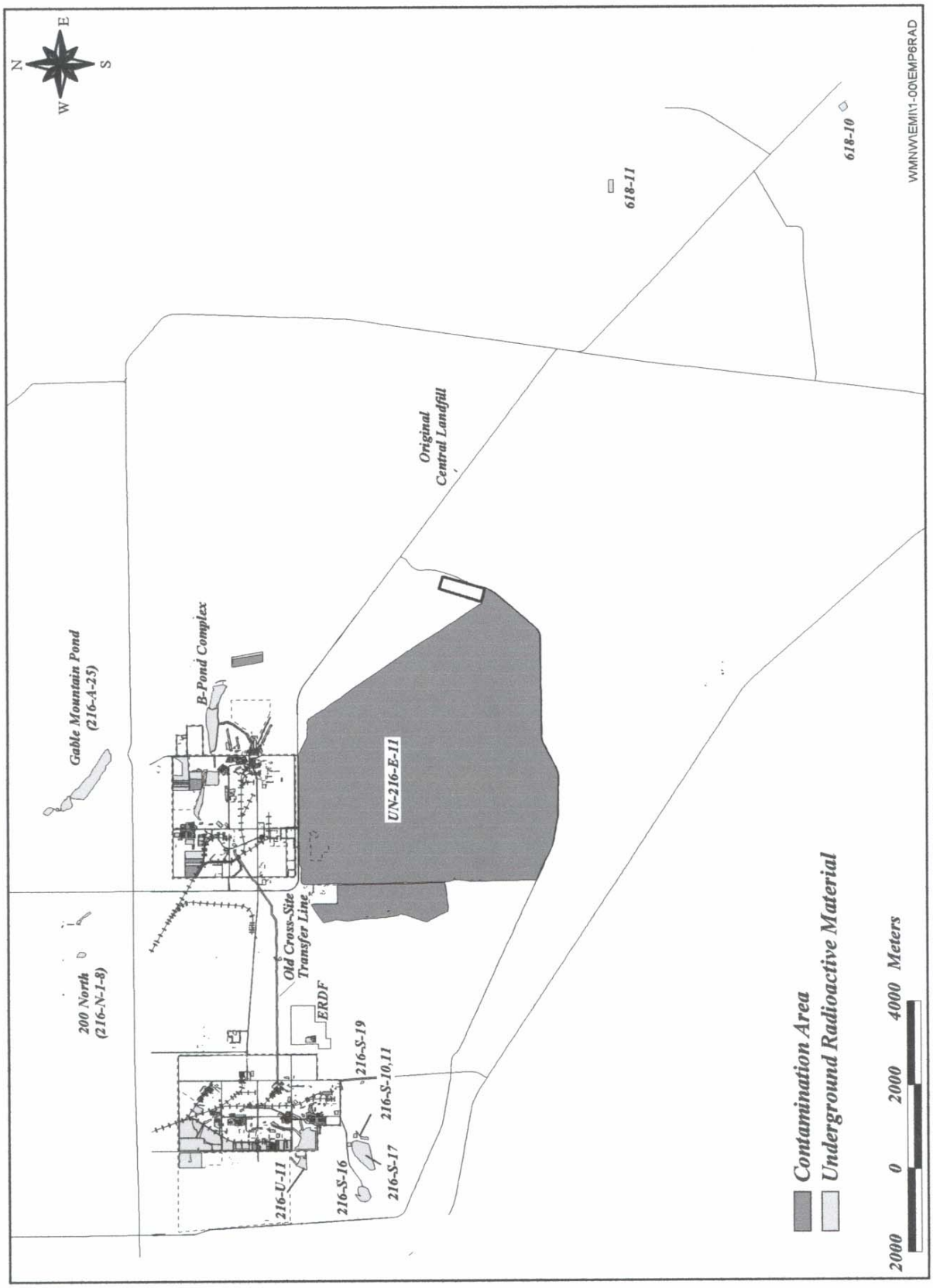


Figure 6-10. 2003 Radiological Survey Locations, 600 Area.



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7.0 INVESTIGATIVE SAMPLING

Investigative samples were collected where known or suspected radioactive contamination was present, or to verify radiological conditions at project sites. Examples of investigative samples collected during 2003 included soil, vegetation, animals, and animal feces. Selected samples were analyzed for radionuclides at the 222-S Laboratory (200 West Area) and the results are provided in Table 7-1. Eighty-nine contaminated environmental samples were collected and disposed without isotopic analyses during clean-up operations during 2003. Field instrument readings were recorded for each and the results are provided in Table 7-2.

7.1 SOIL

During 2003, there were 30 instances of radiological contamination in which soil was identified as the carrier of contamination. One of these soil samples was submitted to the laboratory for radioisotopic analysis. Of the 30, 19 were identified only as specks or soil specks. Often, specks observed under high magnification are found to be small pieces of decomposed vegetation, most often tumbleweeds. External radioactivity levels ranged from slightly above background (approximately 2,500 disintegration's per minute [dpm]/100 cm^2) to 3,600,000 dpm/100 cm^2. Contaminated areas were radiologically posted or cleaned up. The number of contamination incidents, the range of radiation dose rate levels, and radionuclide concentrations observed in 2003 were generally within historical ranges.

7.2 VEGETATION

In 2003, there were 32 instances in which vegetation was identified as the carrier of radiological contamination. None of these vegetation samples were submitted to the laboratory for radioisotopic analysis and the radioactivity levels were mostly within historical ranges. One contaminated vegetation instance had field readings in excess of one million dpm/100 cm^2.

The number of incidents in 2003 (32) is up from 16 in 2002, though still down from the high of 84 incidents in 1999. This overall decrease can be attributed to improvements in the deep-rooted weed prevention program. Nevertheless, contaminated tumbleweeds that grew in recent years continue to be identified by radiological surveys. It is expected that as contaminated vegetation from past years is identified and cleaned up, subsequent years will show the results of program improvements.

7.3 ANIMALS

Animals were collected either as part of an integrated pest management program or as a result of radiological surveys finding contaminated wildlife-related material (e.g., feces, nests, etc.). Animals were collected directly from or near facilities in an effort to monitor and track effectiveness of preventive measures designed to deter animal intrusion. For 2003, the number

of animals or animal-related materials found to be contaminated with radioactivity, 32 instances, the radioactivity levels and the range of radionuclide concentrations were within historical ranges. Of the 32 instances of radiological contamination caused by animals, 19 were caused by mud dauber wasp activity in the 100-H (18) and 100-N (1) Areas. In each case, decommissioning activities exposed contaminated soil and made it available for mud dauber wasp nest building.

After the shut down of the 105-H reactor, the fuel storage basins were backfilled with soil. To prevent airborne contamination from the soil during decontamination and decommissioning activities, the backfill was kept wet. Mud dauber wasps then used the mud created during this activity to build nests at various places in the 100-H Area. Contamination levels found in the wasp nests ranged from a low of 32,500 dpm/100 cm^2 beta/gamma to a high of 1,200,000 dpm/100 cm^2 beta/gamma and 1,300 dpm/100 cm^2 alpha. The contaminated areas created by the wasp nests were posted and will be cleaned up at a later date.

Similarly, in the 100-N Area, the contaminated mud dauber wasp nests came from the contaminated soil removal activities during the decommissioning of the 1325-N trench.

In 2003, six animals, or animal-related contamination instances were identified and from these, nine samples were submitted to the laboratory for analysis.

- In November 2002, two separate instances of contaminated mice were found along the perimeter of the 241-BX/BY tank farm (200 East Area). The results are reported here as the analyses had not been completed in time to be included in the 2002 data report. Contaminants included strontium-89/90 and cesium-137.

- In February 2003, contaminated soil was found to the west of the 241-TX/TY tank farm (200 West Area) in an old construction debris site. Contaminants included strontium-89/90 and cesium-137.

- In June 2003, a contaminated mouse was found in the 105-KE radiological monitoring office. Contaminants included strontium-89/90 and cesium-137.

- In June 2003, a contaminated starling carcass was found in the 317 Building stair well. Contaminants included cobalt-60, strontium-89/90, and cesium-134/137.

- In August 2003, a contaminated house mouse was found at 105-KE reactor building. Contaminants included strontium-89/90 and cesium-137.

- In August 2003, a contaminated cottontail rabbit was found outside the 272-S paint shop east of the 241-S/SX/SY tank farm complex (200 West Area). The rabbit was divided into four parts, skin, bone, gastrointestinal tract, and muscle. Contaminants included strontium-89/90 and cesium-137 with the highest result in the muscle.

7.4 SPECIAL CHARACTERIZATION SAMPLING

Special characterization projects were conducted in 2003 to ascertain the radiological status, and in some cases, the physical properties of site-specific operations and included the following:

A preoperational monitoring plan (*Remote-Handled Immobilized Low-Activity Waste Disposal Facility Preoperational Monitoring Plan*, RPP-6877 [Horton et al. 2000]) has been developed in support of the Waste Vitrification initiative. As part of this plan, an on-going environmental survey is being conducted on the proposed location for the Integrated Disposal Facility (IDF), formerly the Immobilized Low-Activity Waste Disposal (ILAW) Facility, in the 200 East Area. Tasks completed in 2003 included bulk soil sampling for geophysical properties. Following the completion of all the tasks outlined in the monitoring plan, the data collected will be published in a final report. The report is currently scheduled for publication in 2005.

Soil, vegetation and ground-dwelling invertebrate samples were collected at Gable Mountain Pond and B-Pond in October 2003 to identify potential exposure pathways and support remedial action decisions (Lane et al. 2003).

Table 7-1. Investigative Sample Results, 2003.

Sample						Result[a] Analytical
Number	Matrix	TSN	Location	Date	Isotope	(pCi/Sample)[b] ± Uncertainty
6911	Mouse	180360	241-BX/BY Tank Farm (200 East Area)	11/13/02	^{60}Co	<6.8E+00
					$^{89,90}Sr$	3.7E+02 ± 4.7E+00
					^{134}Cs	<2.4E+01
					^{137}Cs	1.4E+01 ± 4.4E-01
					^{152}Eu	<6.2E+01
					^{154}Eu	<3.9E+01
					^{155}Eu	<7.3E+01
					$^{Total}U$[c]	<2.2E+04
					^{238}Pu	<3.7E-01 ± 1.0E+02
					$^{239,240}Pu$	<2.1E-01 ± 1.0E+02
6912	Mouse	180360	241-BX/BY Tank Farm (200 East Area)	11/19/02	^{60}Co	<1.2E+00
					$^{89,90}Sr$	<7.0E+03 ± 6.2E-01
					^{134}Cs	<1.3E+01
					^{137}Cs	<5.3E+04
					^{152}Eu	<3.6E+01
					^{154}Eu	<6.0E+00
					^{155}Eu	<4.1E+01
					$^{Total}U$[c]	<1.3E=04
					^{238}Pu	<3.3E-01 ± 1.0E+02
					$^{239,240}Pu$	<1.8E-01 ± 1.0E+02
6913	Soil	100	241-TX/YY Tank Farm (200 West Area)	02/13/03	^{60}Co	<1.8E-01
					$^{89,90}Sr$	<1.9E-01 ± 1.4E+02
					^{134}Cs	<1.4E-01
					^{137}Cs	<3.0E+03 ± 2.3E-01
					^{152}Eu	<3.4E+00
					^{154}Eu	<4.6E-01
					^{155}Eu	<4.2E+00
					$^{Total}U$[c]	<1.0E+03
					^{238}Pu	<4.2E-01 ± 1.0E+02
					$^{239,240}Pu$	<5.9E-01 ± 1.4E+02

Table 7-1. Investigative Sample Results, 2003. (cont)

Sample						Result[a] Analytical
Number	Matrix	TSN	Location	Date	Isotope	(pCi/g)[b] ± Uncertainty
6914	Mouse	180360	105-KE RM Office (100-K Area)	06/13/03	^{60}Co	<1.1E+00
					^{89,90}Sr	1.00E+02 ± 4.2E+00
					^{134}Cs	<9.1E-01
					^{137}Cs	3.70E+01 ± 5.1E+00
					^{152}Eu	<2.0E+00
					^{154}Eu	<3.0E+00
					^{155}Eu	<2.7E+00
					^{Total}U[c]	<6.0E+02
					^{238}Pu	<2.3E+00 ± 9.6E+00
					^{239,240}Pu	<2.1E+00 ± 6.2E+00
6915	Starling Carcass	179637	317 Building Stair Well (300 Area)	06/13/03	^{60}Co	2.2E+00 ± 9.2E+00
					^{89,90}Sr	3.2E+01 ± 7.3E+00
					^{134}Cs	3.5E+00 ± 7.8E+00
					^{137}Cs	1.6E+03 ± 2.5E-01
					^{152}Eu	<1.6E+00
					^{154}Eu	<5.8E-01
					^{155}Eu	<2.0E+00
					^{Total}U[c]	<5.2E+02
					^{238}Pu	<9.7E-01 ± 1.1E+01
					^{239,240}Pu	<5.5E-01 ± 1.4E+01
6916	House Mouse	180360	105-KE (100-K Area)	08/05/03	^{60}Co	<1.0E+00
					^{89,90}Sr	7.6E+00 ± 4.1E+00
					^{134}Cs	<9.8E-01
					^{137}Cs	2.0E+02 ± 2.1E+01
					^{152}Eu	<1.9E+00
					^{154}Eu	<2.8E+00
					^{155}Eu	<1.5E+00
					^{Total}U[c]	<7.3E+02
					^{238}Pu	<1.7E+00 ± 1.0E+02
					^{239,240}Pu	<1.3E+00 ± 7.1E+00

Table 7-1. Investigative Sample Results, 2003. (cont)

Sample						Result[a] Analytical
Number	Matrix	TSN	Location	Date	Isotope	(pCi/gm)[b] ± Uncertainty
6917	Cotton Tail Rabbit Skin	180126	272-S Paint Shop (200 West Area)	08/05/03	^{60}Co	<1.7E-01
					$^{89,90}Sr$	2.3E+02 ± 1.5E+00
					^{134}Cs	<8.2E-01
					^{137}Cs	1.3E+03 ± 4.3E-01
					^{152}Eu	<2.0E+00
					^{154}Eu	<1.2E+00
					^{155}Eu	<1.5E+00
					$^{Total}U$[c]	<8.0E+02
					^{238}Pu	<3.9E-01 ± 1.0E+02
					$^{239,240}Pu$	<2.0E-01 ± 1.5E+01
6918	Cotton Tail Rabbit Bone	180126	272-S Paint Shop (200 West Area)	08/05/03	^{60}Co	<9.1E-01
					$^{89,90}Sr$	3.1E+03 ± 5.4E-01
					^{134}Cs	<1.4E+00
					^{137}Cs	1.4E+00 ± 7.3E-01
					^{152}Eu	<303E+00
					^{154}Eu	<2.9E+00
					^{155}Eu	<2.6E+00
					$^{Total}U$[c]	<1.2E+03
					^{238}Pu	<8.7E-01 ± 1.0E+02
					$^{239,240}Pu$	<4.4E-01 ± 1.0E+02
6919	Cotton Tail Rabbit GI Tract	180126	272-S Paint Shop (200 West Area)	08/05/03	^{60}Co	<2.2E-01
					$^{89,90}Sr$	2.7E+01 ± 6.1E+00
					^{134}Cs	<6.8E-01
					^{137}Cs	1.2E+03 ± 3.8E-01
					^{152}Eu	<1.6E+00
					^{154}Eu	<5.2E-01
					^{155}Eu	<1.2E+00
					$^{Total}U$[c]	<6.6E+02
					^{238}Pu	<3.0E-01 ± 1.0E+02
					$^{239,240}Pu$	<1.7E-01 ± 1.0E+02

Table 7-1. Investigative Sample Results, 2003. (cont)

Sample						Result[a]	Analytical
Number	Matrix	TSN	Location	Date	Isotope	(pCi/L)[d]	± Uncertainty
6920	Cotton Tail Rabbit Muscle	180126	272-S Paint Shop (200 West Area)	08/05/03	^{60}Co	<2.2E-01	
					$^{89,90}Sr$	6.3E+01	± 1.9E+00
					^{134}Cs	<9.4E-01	
					^{137}Cs	2.2E+03	± 2.9E-01
					^{152}Eu	<2.3E+00	
					^{154}Eu	<5.9E-01	
					^{155}Eu	<1.6E+00	
					$^{Total}U$[c]	<9.1E+02	
					^{238}Pu	<4.0E-01	± 1.0E+02
					$^{239,240}Pu$	<2.6E-01	± 1.0E+02

[a]A "<" symbol indicates that the analyte was analyzed for but not detected. Uncertainty values were not reported by the laboratory for all results.

[b]To convert to international metric system units (SI), multiply pCi/g by 0.03704 to obtain Bq/g.

[c]Total uranium concentrations are reported by the laboratory in units of ug/g. These results have been converted to pCi/g using a specific activity of 9.6E+05 pCi/g for total uranium.

[d]To convert to international metric system units (SI), multiply pCi/L by 0.03704 to obtain Bq/L.

Table 7-2. Investigative Samples Not Analyzed, 2003.

Date	Sample matrix	Location	Field reading (Beta/Gamma)
02/10/03	Speck in soil	West of 241-U tank farm perimeter	199,000dpm/100cm^2
02/19/03	Soil	200-W-92 West of 241-TX/TY	750,000dpm/100cm^2
02/21/03	Spot on ground	RBA South of 221-B Plant	11,000dpm/100cm^2
03/03/03	Soil between RR Tracks	200-W-83	200,000dpm/100cm^2
03/06/03	Soil	216-B-3A Pond SCA/CA Area	2,500dpm/100cm^2
03/07/03	Rabbit Feces	200-W-54	10,000dpm/100cm^2
03/10/03	Speck in soil	West of 241-C Tank Farm	60,000dpm/100cm^2
03/18/03	Choker	6290 Crane & Rigging Facility	30,000dpm/100cm^2
03/24/03	Speck	241-C Tank Farm Perimeter	400,000dpm/100cm^2
03/25/03	Speck	241-AX Tank Farm Perimeter	80,000dpm/100cm^2
03/31/03	8-Tumbleweeds	216-A-34 Crib	36,000dpm/100cm^2
04/08/03	Scaffold Knuckle	300 Area Laydown Yard	10,000dpm/100cm^2
04/16/03	Concrete Pad	219-S TSD	440,000dpm/100cm^2
04/17/03	Tumbleweed	241-B Tank Farm Perimeter	990,000dpm/100cm^2
04/21/03	Electrical Wire	2101-M Laydown Yard	1,204dpm/100cm^2 Alpha
04/29/03	Soil Speck	NW Corner 241-TX/TY Tank Farm Fence	199,000dpm/100cm^2
05/06/03	8-Tumbleweeds	216-B-3 Pond	24,000dpm/100cm^2
05/13/03	Soil	Outside of the posted 200-E-121UPR	14,000dpm/100cm^2
05/14/03	Soil	Outside the posted 200-W-091	30,000dpm/100cm^2
05/21/03	Tumbleweeds/Grass	218-E-12A Burial Ground	114,000dpm/100cm^2
05/28/03	Speck	South East Corner 241-A Tank Farm	11,000dpm/100cm^2
06/13/03	Specks	West side of the 241-B Tank Farm	90,000dpm/100cm^2
06/26/03	Mud Dauber Wasp Nest	Counting Booth at the 105-H Reactor Building	1,200,000 dpm/100cm^2
07/08/03	Rocks/Soil	100-H Fuel Storage Basin	2,000,000dpm/100cm^2
07/09/03	Soil Specks	200-E-122	200,000dpm/100cm^2
07/14/03	Mud Dauber Wasp Nest	Counting Booth at the 105-H Reactor Building	440,000 dpm/100cm^2
07/14/03	Mud Dauber Wasp Nest	Counting Booth at the 105-H Reactor Building	1,300 dpm/100cm^2 alpha
07/16/03	Specks	West side of 241-B Tank Farm	100,000dpm/100cm^2
07/23/03	Specks	North side of 241-S Tank Farm	300,000dpm/100cm^2
07/23/03	Specks	Near the 272-S Maintenance Shop	400,000dpm/100cm^2
08/05/03	Mud Dauber Wasp Nest	Inside Air Monitoring Dog House @ 1325-N	>2,000 dpm/100cm^2
08/08/03	Rabbit Feces	272-S RMA	100,000dpm/100cm^2
08/08/03	Base of Rabbit Brush/Soil	272-S RMA	240,000dpm/100cm^2
08/08/03	Speck	Near the 241-SX Tank Farm	90,000dpm/100cm^2
08/08/03	Mud Dauber Wasp Nests	105-H Drinking Water Station	200,000dpm/100cm^2
08/11/03	Speck	241-ER-151Perimeter	350,000dpm/100cm^2
08/11/03	Mud Dauber Wasp Nests	105-H Power Poles & Chemical Storage Cabinet	270,000dpm/100cm^2
08/12/03	Mud Dauber Wasp Nests	1143 Maintenance Build. Generator	260,000dpm/100cm^2
08/13/03	Mud Dauber Wasp Nests	Outside the 105-H D&D Perimeter Fence	800,000dpm/100cm^2
08/13/03	Bird Feces	Outside the 105-H D&D Perimeter Fence	800,000dpm/100cm^2
08/13/03	Mud Dauber Wasp Nests	1713-H Warehouse Building	560,000dpm/100cm^2
08/18/03	Mud Dauber Wasp Nests	126-H-2 (105-H Clear Well)	1,200,000dpm/100cm^2
08/18/03	Tumbleweed Fragments	inside posted CA @ 200-E-121	900,000dpm/100cm^2
08/19/03	Mud Dauber Wasp Nests	1713-H Warehouse Parking Area RR Ties	399,000dpm/100cm^2
08/20/03	Owl Pellet	Outside the 105-H Fuel Storage Basins	57,900dpm/100cm^2
08/20/03	Tumbleweed	Outside the 241-B Tank Farm	1,200,000dpm/100cm^2
08/21/03	Soil & Tumbleweed Fragments	200-E-132 outside 241-BX/BY	3,600,000dpm/100cm^2
08/21/03	Mud Dauber Wasp Nests	Power poles approx. 1/2 m. west of 1713-H	106,000dpm/100cm^2

Table 7-2. Investigative Samples Not Analyzed, 2003. (cont)

Date	Sample Matrix	Location	Field reading (Beta/Gamma)
08/28/03	Speck	East Perimeter of 241-S	800,000dpm/100cm^2
08/28/03	Mud Dauber Wasp Nest	Power Poles east of 1713-H	114,000dpm/100cm^2
09/02/03	Mud Dauber Nest	Power pole #130 west of 1713-H	32,500dpm/100cm^2
09/02/03	Speck	241-ER-151Perimeter	450,000dpm/100cm^2
09/03/03	Specks in soil	North stairs of the 1713-H Warehouse Building	199,000dpm/100cm^2
09/03/03	Soil	Around perimeter of UPR-200-E-78	600,000dpm/100cm^2
09/03/03	3-Soil Specks	241-BX-155 Diversion Box	>1,000,000dpm/100cm^2
09/04/03	Tumbleweed	South of the 241-B Diversion Box	60,000dpm/100cm^2
09/05/03	Fence Post (wasp nests)	West of the 1713-H Warehouse	200,000dpm/100cm^2
09/10/03	Tumbleweed	Northeast of 241-U (UN-216-W-35)	120,000dpm/100cm^2
09/11/03	Stainless Steel Canister	126-B-3 Coal Pit	100,000dpm/100cm^2
09/16/03	Tumbleweed Fragment	North Fenceline of 241-SY Tank Farm	70,000dpm/100cm^2
09/17/03	Tumbleweed	Northeast of 241-C (UN-216-E-115)	6,000dpm/100cm^2
09/22/03	Speck	inside 244-A lift station perimeter	400,000dpm/100cm^2
09/22/03	(6) Mud Dauber Nests	105-H south of 116-H-1	280,000dpm/100cm^2
10/03/03	(21) Mud Dauber Nests	105-H south of 116-H-1	540,000dpm/100cm^2
10/03/03	Tumbleweeds	216-U-10 Pond	60,000dpm/100cm^2
10/14/03	Tumbleweed Fragments	6290 Riggers Loft	220,000dpm/100cm^2
10/15/03	Starling Carcass	B-Cell inside of 327 Building	100,000dpm/100cm^2
10/21/03	Tumbleweeds	TC-4 Rail Road Spur UPR-200-E-43	30,000dpm/100cm^2
10/21/03	Tumbleweed Fragment	Old 200-E Burn Pit 200-E-53	60,000dpm/100cm^2
10/28/03	Rabbit Brush/Tumbleweeds	200-E-139 (CA north of 241-C)	18,000dpm/100cm^2
10/29/03	Specks	241-C Tank Farm Perimeter	400,000dpm/100cm^2
10/29/03	Choker	MO-235 Crane & Rigging Facility	240,000dpm/100cm^2
10/30/03	Tumbleweeds	216-U-10 Pond	60,000dpm/100cm^2
10/31/03	Tumbleweeds	216-U-10 Pond	96,000dpm/100cm^2
11/03/03	Tumbleweeds	East Side of 200-E-121	85,000dpm/100cm^2
11/03/03	Tumbleweeds	216-U-10 Pond	96,000dpm/100cm^2
11/04/03	Tumbleweeds	216-U-10 Pond	60,000dpm/100cm^2
11/04/03	Mud Dauber Nests	Well 199-H3-2A, 105-H area	349,000dpm/100cm^2
11/05/03	Tumbleweeds	216-U-10 Pond	60,000dpm/100cm^2
11/11/03	Tumbleweeds	216-T-21 Trench	240,000dpm/100cm^2
11/11/03	Tumbleweeds	241-A Tank Farm Perimeter	21,500dpm/100cm^2
11/11/03	Tumbleweeds	241-BYTank Farm Perimeter	60,000dpm/100cm^2
11/12/03	Tumbleweeds	216-Z-5 Trench	42,000dpm/100cm^2
11/12/03	Mud Dauber Wasp Nest	Well 1-N-125 south of the 1304-N Dump Tank	156,000dpm/PA
11/17/03	Tumbleweeds	North East perimeter of 218-E-12B	800,000dpm/100cm2
11/19/03	Tumbleweed Fragments	Eastern Fenceline 241-SX/SY	99,000dpm/100cm2
11/19/03	Tumbleweeds	216-U-10 Pond	96,000dpm/100cm2
11/20/03	Tumbleweeds	UPR-600-20 Cross Site Transfer Line	24,000dpm/100cm2
12/04/03	Tumbleweeds	East of 241-A & West of 216-A-8 Crib	30,000dpm/100cm2
12/16/03	Soil	North of 241-SX/SY by 242-S	80,000dpm/100cm2

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8.0 NOXIOUS WEED CONTROL PROGRAM

Ten plant species are on a high priority list for control at the Hanford Site. These species are listed below, with a summary of the 2003 control activities. Major populations of noxious weeds on the Hanford Site are illustrated in Figure 8-1.

Yellow Starthistle (*Centaurea solstitialis)*. Yellow starthistle represents the most rapidly expanding weed infestation in the Western United States. Hanford is at a critical point in the infestation cycle. Over 2,023 ha (5,000 acres) have been infested, and a seed bank has been established in the soil. Many additional acres have scattered starthistle infestation. Applications of aerial herbicides in 1998 and 1999 have been effective, with minimal germination in 2002. In 2003, significant germination was observed and plants were again controlled by aerial herbicide applications. Biological control organisms, primarily the hairy weevil (*Eustenopus villosus*) and the bud weevil (*Bangasternus orientalis*) were commonly found in starthistle during 2003. It was observed that buds flowering early through mid season were heavily infested with weevils. However, buds flowering late in the season showed reduced infestation of the flowering heads.

Rush Skeletonweed (*Chondrilla juncea)*. Rush skeletonweed is widely scattered over large areas on the Hanford Site. Although areas of dense infestation have largely been eliminated, a considerable population remains as scattered individuals. Populations of skeletonweed have increased on some areas burned in the 24 Command fire (June 2000).

In 2003, control of rush skeletonweed concentrated on the area north of HAMMER and the Hanford Patrol Training Academy. Herbicides were aerially applied to approximately 1,200 acres with a relatively heavy rush skeletonweed population. The effectiveness of the application will be evaluated during the spring of 2004.

As in most years, some populations were highly affected by the bio-controls, and flowering was eliminated. Other populations were less affected, and some were not significantly impacted by the bio-control agent.

Medusahead (*Taeniatherum asperum*). Hand pulling was once again used to control the small population of Medusahead on the 200 Area plateau. Plants were pulled before seeds were mature. Monitoring and eradication efforts will continue in 2004 as the plants mature to the point where they can be distinguished from neighboring grass species.

Babysbreath (*Gypsophila paniculata)*. Efforts to control babysbreath in 2003 concentrated on the main infestation at the Hanford Townsite. Although babysbreath is resistant to control by herbicides, effective herbicides exist that kill the upper portions of the plant. Controlling the top of the plant prevents flowering and additional seed production as well as depleting energy reserves in the roots until the plant succumbs. The invasion on the Hanford Site is relatively small, and control by attrition is the practical alternative.

Dalmatian Toadflax (*Linaria genistifolia ssp. Dalmatica)*. In 2003, control of dalmatian toadflax focused on a small population at 100-B/C Area. The species at Hanford has yielded to past control efforts. Seedlings of the long-lived perennial plant will be eliminated as they are identified.

Spotted Knapweed (*Centaurea maculosa)*. Most populations of spotted knapweed on the Hanford Site have been reduced to scattered individuals, or seedlings germinating from the long-lived seeds. Cooperative work with neighboring landowners continues to eliminate spotted knapweed near the Hanford Site.

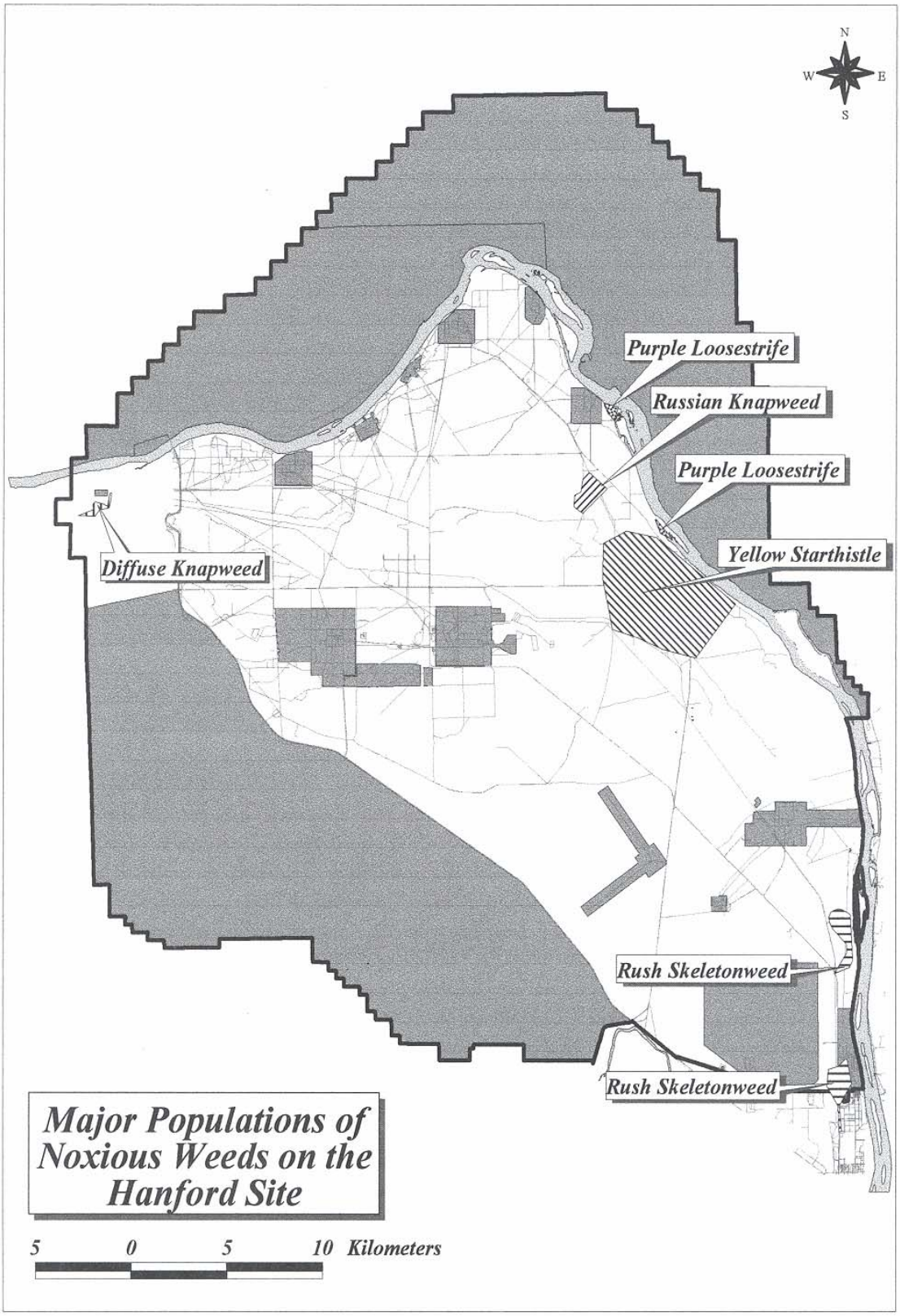
Diffuse Knapweed (*Centaurea diffusa)*. Aerial applications for control of diffuse knapweed have been effective in the past. Spot treatment of scattered individuals continued in 2003. Herbicide control of populations of diffuse knapweed near the high water mark of the Columbia River has not been actively pursued due to the biological sensitivity of the area. Biological controls have been established and their effectiveness continues to be monitored.

Russian Knapweed (*Acroptilon repens)*. Biological controls for Russian knapweed are limited, and their success in the arid climate of Hanford has been poor. Chemicals and techniques are being developed that may prove effective with this difficult to control species.

Saltcedar (*Tamarix spp.)*. Several individual plants of saltcedar are found on the Hanford Site. Most are remaining from ornamental plantings near homes in the early part of the previous century. A few populations are the result of natural seed dispersal. Most individuals south and west of the Columbia River have been eliminated. Those remaining continue to be treated with herbicide and will be monitored until they no longer show signs of life.

Purple Loosestrife (*Lythrum salicaria)*. Purple loosestrife has established only sparse populations along the south and west bank of the Columbia River. Portions of the riverbank and slews are monitored for purple loosestrife and identified individuals are controlled.

Figure 8-1. Major Populations of Noxious Weeds, 2003.



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9.0 QUALITY ASSURANCE

QA may be defined as the actions necessary to provide confidence that an item, process, or program meets or exceeds that user's requirements and expectations. The near-facility environmental monitoring QA program consists of procedures and guides to demonstrate that environmental monitoring techniques and analyses are performed within established limits of acceptance. This is documented in the *Near-Facility Environmental Monitoring Quality Assurance Project Plan* (McKinney 2003).

Written operating procedures are an integral part of near-facility environmental monitoring QA. Procedures for field operations are provided in internal manual DTS-OEM-001. This section briefly describes the essential components of the near-facility environmental monitoring QA program.

9.1 DOCUMENTATION

Record keeping is a vital part of any environmental monitoring program. Maintenance of environmental data is important from a QA standpoint, from a regulatory standpoint, and for trend analyses and optimization of environmental monitoring procedures. Each phase of near-facility environmental monitoring is documented. This documentation includes environmental sample logbooks, quarterly reports, annual reports, and occurrence reports.

9.2 SAMPLE REPLICATION

Replicate sampling and subsequent analyses are the primary means of assessing sample variability. Duplicate samples of air, water, soil, sediment, and vegetation are collected.

9.3 DATA ANALYSIS

Environmental data are reviewed to determine compliance with applicable federal and company guides. The data are analyzed both graphically and by standard statistical tests to determine trends and impacts on the environment. Newly acquired data are compared with historical data and natural background levels. Routine environmental data are stored on both magnetic media (i.e., in a computer environment) and hard-copy printouts.

9.4 TRAINING

To ensure quality and consistency in sample collection and handling, all personnel performing such work received formal training. All radiological control technicians are required to complete a certification program. In addition, those radiological control technicians assigned to environmental monitoring receive special classroom orientation and on-the-job training by

experienced personnel. Duratek Technical Services Environmental Monitoring and Investigations personnel, in addition to their formal training received while obtaining professional degrees, have received training in courses taught through Washington State University, the Harvard School of Public Health, and various other institutions.

9.5 SAMPLE FREQUENCY

1. Ambient air sample filters are collected biweekly.

2. Radiological surveys of roads are performed quarterly, bimonthly, or annually.

3. The TLDs are exchanged quarterly.

4. Radiological surveys of waste sites are performed quarterly, semiannually, or annually depending on the operating status, condition, and history of the site.

5. Soil, vegetation, and surface water samples are collected annually.

9.6 ANALYTICAL PROCEDURES

Three laboratories provided routine analytical support to the near-facility environmental monitoring: PNNL, the WSCF, and the 222-S Analytical Laboratory. Samples are analyzed in accordance with prescribed procedures and quality control guides that are described briefly in the following paragraphs.

9.6.1 Pacific Northwest National Laboratory Radiation Standards and Engineering

9.6.1.1 Thermoluminescent Dosimeters. External radiation levels are measured using TLDs. The Hanford Site uses the Harshaw 8807 dosimeter and the Harshaw 8800 reader. The TLDs are calibrated, packaged, and read by the PNNL Radiation Calibration Laboratory, Radiation Standards and Engineering Department. All TLD work is performed in accordance with formal, written procedures.

9.6.2 222-S and Waste Sampling and Characterization Facility Analytical Laboratories

The 222-S and WSCF laboratories also provide analytical support to near-facility environmental monitoring. Formal, written laboratory procedures are used in analyzing samples. The 222-S Laboratory is normally used for samples containing higher than normal environmental levels of radioactivity. The WSCF is used for the samples containing typical environmental

levels of radioactivity. The WSCF also participates in an annual Quality Assurance Task Force (QATF) intercomparison program coordinated by the Radiation Protection division of the WDOH.

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10.0 GLOSSARY

Accessible Soils: Hanford soils that are not behind security fences must meet a 10 mrem/yr effective dose equivalent (EDE) limit from Hanford Site operations to the most exposed member of the public.

As Low As Reasonably Achievable (ALARA): The implementation of ALARA is described in HNF-PRO-1620, *ALARA Program Scope*. This concept applies to maintaining releases at or below prescribed regulatory limits.

Average Soil Contamination: Contamination generally dispersed through the soil. Numerically, the radioactivity content averaged over a suitable mass of soil.

Background Radiation: Refers to regional levels of radioactivity produced by sources other than those of specific interest (e.g., the nuclear activities at the Hanford Site).

Becquerel (Bq): The standard international unit of radioactivity. One Becquerel is one disintegration per second or: Bq = 2.7 E-11 Ci

Biological Transport: Means of biological transport may include one or more of the following processes:

- Movement of subsurface radioactivity to the surface by physiological vegetative processes.
- Dispersion of such vegetation by the wind.
- Contaminated urine and feces deposited by animals that have gained access to and ingested radioactive materials.
- Contaminated animals themselves that have ingested radioactive materials directly or ingested other contaminated animals or plants.
- Physical displacement of radioactive materials by burrowing animals.
- Nests built using contaminated materials.

Biota: The plant and animal life of a specific region.

Burial Ground: A land area specifically designated to receive contaminated solid or solidified liquid waste packages and equipment. The contaminated articles are usually placed in trenches and covered with overburden.

Byproduct: A material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slag or distillation column bottoms. The term does not include a coproduct that is produced for the general public's use and is ordinarily used in the form in which it is produced by the process.

Calibration: Determining the deviation of an instrument from a standard traceable to the National Bureau of Standards or other recognized agency and reporting the deviations and/or eliminating them by adjustment.

Chemical Processing: Chemical treatment of material to separate desired components selectively. At the Hanford Site, plutonium, uranium, and fission products were chemically separated from irradiated fuels.

Committed Dose Equivalent: The predicted total dose equivalent to a tissue or organ over a 50-year period after a known intake of a radionuclide into the body. It does not include contributions from external dose. Committed dose equivalent is expressed in units of rem (or sievert).

Committed Effective Dose Equivalent: The sum of the committed dose equivalents to various tissues in the body, each multiplied by the appropriate weighing factor. Committed effective dose equivalent is expressed in units of rem (or sievert).

Composite Sample: A number of random samples initially collected from a waste and combined into a single sample; this sample is analyzed for the contaminants of concern.

***Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA)**: Commonly known as "Superfund," CERCLA was enacted to respond to uncontrolled releases of hazardous substances to the environment, primarily at inactive sites that were not adequately addressed by the *Resource Conservation and Recovery Act of 1976* (RCRA). CERCLA also applies to actively managed facilities and any onshore or offshore facility.

Controlled Area: An area where access is controlled to protect individuals from exposure to radiation and/or radioactive materials.

Contamination Area: Any area where contamination levels are greater than the values specified in Chapter 2, Table 2-2, *PHMC Radiological Control Manual*, HNF-5173, but less than or equal to 100 times those values.

Crib: An underground structure designed to receive liquid waste that percolates into the soil directly or percolates into the soil after having traveled through a connected tile field.

Decommissioning: Actions taken to reduce the potential health and safety impacts of DOE-controlled contaminated facilities. Actions could include stabilizing, reducing, or removing radioactivity or demolishing the contaminated facilities.

Decontamination: The removal of radioactive or hazardous contamination from facilities, equipment, or soils by washing, heating, chemical or electrochemical treating, mechanical cleaning, or other techniques.

Derived Concentration Guide for Public Exposure (DCG-Public): The concentration of a radionuclide in air or water that, under conditions of continuous exposure for one year by one exposure mode (e.g., ingestion of water, submersion in air, or inhalation of air), would result in an EDE equal to the annual dose limit applicable to the group exposed. For exposure of the public, the DCG is the radionuclide concentration in air or water that would result in an EDE of 100 mrem (1 mSv) to a person having the characteristics of the reference manual.

Diffuse Source: A source or sources of radioactive or chemical contaminants released into the environment that do not have a defined point or origin of release (a nonpoint source). Such sources are also known as area sources.

Disposal Facility: Any facility or part of a facility where hazardous and/or radioactive waste is intentionally placed or where any land or water wastes will remain after closure.

Ditch: An open surface site for transport of liquid wastes to a pond or trench structure designed for percolation.

Ecology: The Washington State Department of Ecology.

Effective Dose Equivalent: The summation of the products of the dose equivalent received by specified tissues of the body and a tissue-specific weighing factor. This sum is a risk-equivalent value and can be used to estimate the health-effects risk of the exposed individual. The tissue-specific weighing factor represents the fraction of the total health risk resulting from uniform whole-body irradiation that would be contributed by that particular tissue. The EDE includes the committed EDE from internal deposition of radionuclides and the EDE caused by penetrating radiation from sources outside the body. EDE is expressed in units of rem (or sievert).

Effluent: An airborne or liquid discharge from a facility after all engineered waste treatment and effluent controls have been performed. The term includes onsite discharges to the atmosphere, lagoons, ponds, cribs, injection wells, French drains, or ditches. The term does not include solid waste stored or removed for disposal or waste that is contained in retention basins or tanks before treatment and/or disposal.

Emissions Unit: Regarding air pollutant emissions, any part of a stationary source that emits or would have the potential to emit any pollutant subject to regulation.

Environmental Monitoring Plan: A two-part document prepared for each site, facility, or process that uses, generates, releases, or manages significant pollutants or hazardous materials.

Environmental Sites Database (ESD): A database of environmental sites that is administered by the ERC.

External Radiation: Radiation originating from a source outside the body.

Facility: A processing plant, tank farm, shop, laboratory, powerhouse, or laundry. Including all contiguous land and structures, other appurtenances, and improvements on land used for recycling, reusing, reclaiming, transferring, storing, and treating of dangerous waste (including treatment, storage, and disposal sites as well as groundwater wells). (40 CFR 264, "Standards for Owners and Operators of Hazardous Waste Treatment Storage and Disposal Facilities," and WAC 173-303-040.)

Facility-Specific Environmental Monitoring: Routine environmental monitoring of all environmental media (air, biota, etc.) around facility parameters.

Field Blank: Aliquots of analyte-free water or solvents brought to the field in sealed containers and transported to the laboratory with the sample container. Field blanks include trip blanks and equipment blanks.

Field Duplicate: Field duplicates are collected at specified frequencies and are used to document precision. The field duplicate precision depends on the variance of waste composition, sampling techniques, and analytical technique.

Fugitive Emissions: Material that is generated incidental to an operation, process, or activity and that is released or dispersed into the open air. Fugitive emissions occur via pathways that do not allow routine measurement at the point of release.

Grab Sample: A single sample removed from a sample medium over a short time interval.

Groundwater: Water that exists below the water table, also referred to as the zone of saturation. However, the capillary fringe directly above can be completely saturated if the sediment is fine enough. To avoid this ambiguous term, the use of phreatic water, which is water that enters freely into wells under both confined and unconfined conditions is suggested. Phreatic water is a term originally applied only to water that occurs in the upper part of the zone of saturation under water table conditions (unconfined groundwater or well water), but has come to be applied to all water in the zone of saturation, thus making it an exact synonym of groundwater. Above the water table is the vadose zone, where water pressures are less than atmospheric pressure. This zone still contains water, but the water is held to the soil particles or other groundwater material by capillary force. Thus, while this water still can move within the vadose zone, it cannot move out of the zone into a well or other place is exposed to atmospheric pressure. The dividing line between water in the vadose zone and phreatic water is the atmospheric pressure between the two, with the pressure of vadose water being below atmospheric pressure and that of phreatic water (i.e., groundwater) above atmospheric pressure.

High-Efficiency Particulate Air (HEPA) Filter: To qualify as a HEPA filter, a filter must achieve an efficiency of 99.97% under laboratory conditions and 99.95% after installation for the removal of airborne particulates greater than 3 E-05 cm (0.3 microns).

High-Level Nuclear Waste: Spent nuclear fuel or radioactive waste resulting directly from the dissolution and reprocessing of spent nuclear fuel. Secondary waste streams resulting from the dissolution and reprocessing of spent nuclear fuel are not considered high-level waste.

Immobile Radionuclides: All those radionuclides that are sorbed onto Hanford Site soils and usually would not migrate through the vadose zone or the groundwater below the future control zone.

Inaccessible Soils: Areas from which the general public is excluded (by fences, posting, patrols, or distance), but that are still subject to meteorological effects, are subject to a 10 mrem/yr operational EDE limit.

Inactive Crib: A crib that has been designated as permanently out of service.

Inactive Radioactive Waste Site: Any waste site that is no longer needed for current operational programs and that is not currently an active waste disposal site.

Inactive Waste Sites: Inactive waste sites include units such as burial grounds, unplanned release sites, cribs, ditches, ponds, trenches, and basins, abandoned storage areas, drains, single-shell tank piping, transfer pits, and jumper boxes.

Less Than Detectable: An analytical term for a concentration in a sample that is lower than the minimum detection capabilities of that analytical equipment or process.

Low-Level Waste: Any gaseous, liquid, or solid radioactive waste not classified as high-level waste, transuranic waste, or spent nuclear fuel, as defined by DOE Order 435.1, *Radioactive Waste Management*.

Maximum Contaminant Level (MCL): The drinking water standards specified in 40 CFR 141, "National Primary Drinking Water Regulations." See Appendix C, "Maximum Contaminant Levels."

Mean: Average value of a series of measurements.

Minimum Detection Limit: Smallest amount or concentration of a radionuclide or nonradioactive element that can be reliably detected in a sample.

Mixed Waste: Dangerous waste that also contains enough radioactivity to be classified as radioactive waste.

Monitoring System: Instrumentation that provides measurement of an airborne or liquid waste stream parameters. The system includes a detector and associated readout components. A continuous monitoring system measures the stream parameters on a near-real-time basis or as specified in applicable Environmental Protection Agency regulations, 40 CFR 52, "Approval and Promulgation of Implementation Plans," Appendix E; 40 CFR 51, "Requirements for Preparation, Adoption, and Submittal of Implementation Plans," Appendix P, or as defined in

applicable American National Standards Institute standards. A radiation monitoring system is a system in which radiation or radioactivity is the measured parameter. An integrating monitoring system totals the instantaneously measured parameter over some time period. A sampling system does not measure or read out an instantaneous stream parameter.

Near Facility Environmental Monitoring: The collection and analysis of samples of air, water, soil, biota, and other media near nuclear facilities on DOE sites and their environs and the measurement of external radiation to demonstrate compliance with applicable standards and assess radiation exposures to employees and members of the public, and the near-field environment.

Nonroutine Activities: Any actions on a large-scale (>5 acres), including stabilization, soil removal, fixative or sealant application, other surface treatments, or other activities that could affect future remediation activities in an inactive waste site.

Not Detected: A reporting term which describes any or all of the following: the overall analytical error was greater than the radionuclide concentration itself; or, after allowing for the subtraction of the background level of the radionuclide, the resulting concentration was less than zero; or, no radio analytical peak was detected during the analysis.

Operations: In this report, this term loosely refers to Fluor Project Hanford activities including chemical processing, waste management, and decommissioning.

Pesticide: As defined in 40 CFR 162 ("State Registration of Pesticide Products"), the term pesticide covers all pest-control chemicals such as herbicides, rodenticides, and insecticides.

Plutonium Processing and Handling Facility: Any facility constructed primarily to process plutonium (including plutonium-238) and that handles in-process plutonium.

Plutonium Storage Facility: Any facility constructed to store strategic (category I) quantities of plutonium.

Point Source: A single defined point (origin) of an airborne release, such as a vent or stack.

Pond: A surface impoundment used to contain or percolate low-level liquid radioactive waste, mixed waste, or hazardous waste.

Quality Assurance: A process designed to maintain the quality of the results of a program within established limits of acceptance.

Radiation Survey: Evaluation of an area or object with portable instruments to identify radioactive materials and radiation fields present.

Radioactive Byproduct: Any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or using special nuclear material. The nonradioactive hazardous component of the waste material will be subject to regulation under the RCRA.

Radioactive Liquid Effluent: A liquid effluent that has a reasonable potential for containing radioactive materials in quantities such that the annual average concentration is equal to or greater than the MCL.

Radiological Control Area: An area where access is controlled to protect individuals from exposure to radiation and/or radioactive materials. Radiological control areas include, but are not limited to, areas posted as radiation areas, surface contamination, and underground radioactive materials, to describe the radiological condition of the area within.

Radiological Posting: Information in the form of signs and barriers to inform people of radiological conditions that warrant avoidance or special precautions for entry.

Representative Sample: The average stream parameter being measured occurs in the sample in the same average proportion that it occurs in the environmental discharge.

Retired Waste Site: A waste site that is isolated and no longer available to receive waste in any form.

Routine Activities: Any actions on a small-scale (<5 acres), including radioactive hot-spot removal, vegetation removal, fencing, posting, herbicide spraying, stabilization, or immediate spill response) in an inactive waste site. In general, these routine actions shall not interfere with RCRA/CERCLA response or site investigations.

Sampling System: Instrumentation and equipment that remove a part of a liquid or airborne waste stream for subsequent quantitative determination of stream parameters. The system generally employs such devices as filters, other sample collection media, or effluent traps of some kind. A continuous sampling system removes a part of the stream continuously except during sample change, maintenance, repair, or other necessary outages. A grab sampling system removes an instantaneous part of the stream or removes a part of the stream over a time period.

Sediment Column: The sediment beneath a crib. It can mean either all the sediment beneath the bottom of the crib extending to the water table or all sediment beneath a crib contaminated by radioactive materials.

Site: The location of a significant event, a prehistoric or historic occupation or activity, or a building or structure (whether standing, ruined, or vanished) where the location itself maintains historical or archeological value, regardless of the value of any existing structure.

Soil at depth: Soil below 91 cm (36 in.).

Soil Contamination: Contaminated soil not releasable in accordance with DOE Order 5400.5.

Solid Waste: Any discarded material that is not excluded by WAC 173-303-017(2) or that is not excluded by a variance granted under WAC 173-303-017(5). Materials are solid waste if they are: (1) abandoned by being disposed of, burned, or incinerated, or (2) accumulated, stored, or treated (but not recycled) before (or in lieu of) being abandoned by being disposed of, burned, or incinerated. In addition, a solid waste includes any material considered to be inherently waste-like.

Speck Contamination: Single grains of soil, rust particles, feces, or pieces of vegetation.

Spot Contamination: A spot or quantity of contamination less than 1 cm^3 in volume, or areal contamination less than 15 cm^2 in area.

Stabilization: The process of covering surface contaminated areas with clean backfill or topsoil.

Standard: A specified set of rules or conditions concerned with the classification of components; delineation of procedures; definition of terms; designation of materials, performance, design, or operations; or measurements of quality in describing materials, products, systems, services, or practices. A standard is more general than a procedure or specification and more specific than a criterion.

Standard Deviation: A measure of the range of values about the mean.

Standard Error of the Mean: A measure of the uncertainty in the estimated mean of averaged values.

Surface Soil: Soil from 0 cm (0 in.) to 5 cm (2 in.) deep.

Surplus Facilities: Surplus facilities include all facilities that have been accepted into a decommissioning program.

Survey: A method to detect the release, disposal, or presence of radioactive materials or hazardous substances under a specific set of conditions to determine actual or potential hazards. Such an evaluation may include, but is not limited to, tests, physical examinations, and measurements of radiation or concentrations of materials.

Suspect Waste Site: A site, believed to have been previously unknown or undocumented, that, because of characteristics present at the site or historical information about the site, is suspected of containing waste (i.e., non-dangerous, hazardous, dangerous, mixed, and radioactive).

Tank Farm: An area of large underground tanks designed to store up to 1 Mgal each of high-level liquid waste.

Thermoluminescent Dosimeter: A chip or series of chips used for measuring external gamma radiation. It consists of a material capable of absorbing energy imparted by ionizing radiation, then emitting light as a result of thermal stimulation. A measure of that light is proportional to the radioactivity absorbed.

Topsoil: The soil used as a plant growth medium at the surface to a depth of 30 cm as measured at the restabilization site. Topsoil is added soil to support the stabilization of a retired disposal facility with the objective of controlling erosion, establishing the growth of perennial grasses, and preventing the growth of deep-rooted vegetation.

Total Analytical Uncertainty: All analytical measurements include some degree of uncertainty as a consequence of a series of unavoidable and unintentional inaccuracies related to the collection and analysis of samples. Examples of these inaccuracies can include errors associated with reading and recording results, sample handling and processing, instrument calibrations, numerical rounding, and randomness of radioactive decay. The total analytical uncertainty value implies that approximately 95% of the time a recount or reanalysis of the sample would give a value somewhere in the range between the initial reported value plus or minus the total analytical uncertainty.

Transuranic (TRU) Radionuclide: Any radionuclide having an atomic number greater than 92 (DOE Order 435.1).

Transuranic Waste: Without regard to source or form, radioactive waste that at the end of institutional control periods is contaminated with alpha-emitting transuranium radionuclides with half-lives greater than 20 years and concentrations greater than 100 nCi/g (3700 Bq/g). The Waste Isolation Pilot Plant, high-level waste, and spent nuclear fuel as defined by DOE Order 435.1 are specifically excluded from this definition.

Trip Blank: A type of field blank used to accompany sample containers to and from the field and to detect contamination or cross-contamination that occurs during sample handling and transportation.

Uncontaminated Soil: A soil or a land area that requires no controls or restrictions in any way for radiation protection purposes and/or meets the contamination limit specifications.

Underground Radioactive Material: A radiological posting status where subsurface radioactivity is present but where surface contamination does not exceed the soil standards.

Unity Rule: If more than one radionuclide is present, the sum of the fractions represented by each radionuclide concentration divided by its respective limiting concentration (administrative control value) shall not exceed unity. This rule could also apply to parameters other than radionuclide concentration.

Unplanned Release Site: An area that was contaminated by an unplanned release of radioactive contamination, making it a radiological control area.

Unrestricted Release: Values below which unrestricted release of soils will occur will be defined in an applicable record of decision.

U.S. Environmental Protection Agency: The federal agency chartered with carrying out and monitoring the environmental regulations.

Waste Information Data System: A database that identifies waste management units on the Hanford Site. It is a subset of the ESD.

Waste Management: The activity involved with storing, disposing of, shipping, handling, and monitoring all radioactive waste.

Waste Sites: Any facility used for the planned disposal of hazardous, radioactive, toxic, or nonradioactive/nontoxic waste.

Water Table: The upper boundary of an unconfined aquifer below which saturated groundwater occurs.

Table 10-1. Radionuclide Nomenclature.

Radionuclide	Symbol	Half-Life
Tritium	^{3}H	12.3 yr
Beryllium-7	^{7}Be	53.28 d
Carbon-14	^{14}C	5.72E+03 yr
Sodium-22	^{22}Na	2.6 yr
Potassium-40	^{40}K	1.26 E+09 yr
Argon-41	^{41}Ar	1.8 h
Chromium-51	^{51}Cr	27.7 d
Manganese-54	^{54}Mn	312 d
Cobalt-58	^{58}Co	71 d
Iron-59	^{59}Fe	45 d
Cobalt-60	^{60}Co	5.3 yr
Nickel-63	^{63}Ni	100 yr
Zinc-65	^{65}Zn	243.8 d
Krypton-85	^{85}Kr	10.7 yr
Strontium-89	^{89}Sr	50.5 d
Strontium-90	^{90}Sr	29.1 yr
Niobium-95	^{95}Nb	35.0 d
Zirconium-95	^{95}Zr	64.0 d
Technetium-99	^{99}Tc	2.12 E+05 yr
Ruthenium-103	^{103}Ru	39.4 d
Ruthenium-106	^{106}Ru	1.0 yr
Tin-113	^{113}Sn	115 d
Antimony-124	^{124}Sb	60 d
Antimony-125	^{125}Sb	2.7 yr
Iodine-129	^{129}I	1.7 E+07 yr
Iodine-131	^{131}I	8.0 d
Barium-133	^{133}Ba	10.53 yr

Radionuclide	Symbol	Half-Life
Cesium-134	^{134}Cs	2.1 yr
Cesium-137	^{137}Cs	30.3 yr
Cerium-141	^{141}Ce	32.5 d
Cerium-144	^{144}Ce	284.6 d
Promethium-147	^{147}Pm	13.4 min
Europium-152	^{152}Eu	13.5 yr
Europium-154	^{154}Eu	8.6 yr
Europium-155	^{155}Eu	4.7 yr
Thallium-208	^{208}Tl	3.1 min
Bismuth-212	^{212}Bi	60.6 min
Lead-212	^{212}Pb	10.6 h
Polonium-212	^{212}Po	0.3×10^{-6} s
Polonium-216	^{216}Po	0.15 s
Radon-220	^{220}Rn	55.6 s
Radium-226	^{226}Ra	1.60 E+03 yr
Radium-228	^{228}Ra	5.75 yr
Thorium-232	^{232}Th	1.40 E+10 yr
Uranium Total	U or Uranium	4.50 E+09 yr
Uranium-234	^{234}U	2.40 E+05 yr
Uranium-235	^{235}U	7.00 E+08 yr
Uranium-236	^{236}U	2.30 E+07 yr
Uranium-238	^{238}U	4.50 E+09 yr
Plutonium-238	^{238}Pu	87.7 yr
Plutonium-239/240	$^{239,240}Pu$	2.40 E+04 yr
Plutonium-241	^{241}Pu	14.4 yr
Americium-241	^{241}Am	433 yr

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11.0 STANDARDS

Table 11-1. U.S. Department of Energy Derived Concentration Guides.[a]

Radionuclide	DCG Air (pCi/m^3)	DCG Liquid (pCi/L)
^{3}H	1.0E+05	2.0E+06
^{14}C	6.0E+03	7.0E+04
^{40}K	9.0E+02	7.0E+03
^{41}Ar	1.0E+04	0.0E+00
^{51}Cr	6.0E+04	1.0E+06
^{54}Mn	2.0E+03	5.0E+04
^{59}Fe	8.0E+02	2.0E+04
^{58}Co	2.0E+03	4.0E+04
^{60}Co	8.0E+01	5.0E+03
^{65}Zn	6.0E+02	9.0E+03
^{85}Kr	3.0E+06	0.0E+00
^{89}Sr	3.0E+02	2.0E+04
^{90}Sr	9.0E+00	1.0E+03
^{95}Zr	6.0E+02	4.0E+04
^{95}Nb	3.0E+03	6.0E+04
^{99}Tc	2.0E+03	1.0E+05
^{103}Ru	2.0E+03	5.0E+04
^{106}Ru	3.0E+01	6.0E+03
^{113}Sn	1.0E+03	5.0E+04
^{124}Sb	6.0E+02	1.0E+04
^{125}Sb	1.0E+03	5.0E+04
^{129}I	7.0E+01	5.0E+02
^{131}I	4.0E+02	3.0E+03
^{134}Cs	2.0E+02	2.0E+03
^{137}Cs	4.0E+02	3.0E+03
^{141}Ce	1.0E+03	5.0E+04
^{144}Ce	3.0E+01	7.0E+03
^{147}Pm	3.0E+02	1.0E+05
^{152}Eu	5.0E+01	2.0E+04
^{154}Eu	5.0E+01	2.0E+04
^{155}Eu	3.0E+02	1.0E+05
^{208}Tl	5.0E+03	0.0E+00
^{212}Bi	6.0E+02	1.0E+05
^{214}Bi	2.0E+03	6.0E+05
^{212}Pb	8.0E+01	3.0E+03
^{214}Pb	2.0E+03	2.0E+05
^{212}Po	1.0E+00	8.0E+01
^{216}Po	1.0E+00	8.0E+01
^{220}Rn	3.0E+03	0.0E+00
^{224}Ra	4.0E+00	4.0E+02
^{226}Ra	1.0E+00	1.0E+02
^{228}Ac	4.0E+01	6.0E+04
^{232}Th	7.0E-03	5.0E+01
$^{Total}U$	1.0E-01	6.0E+02
^{234}U	9.0E-02	5.0E+02
^{235}U	1.0E-01	6.0E+02
^{236}U	1.0E-01	5.0E+02
^{238}U	1.0E-01	6.0E+02
^{238}Pu	3.0E-02	4.0E+01
$^{239,240}Pu$	2.0E-02	3.0E+01
^{241}Pu	1.0E+00	2.0E+03
^{241}Am	2.0E-02	3.0E+01
Total Alpha	2.0E-02	3.0E+01
Total Beta	9.0E+00	1.0E+03

[a]From DOE Order 5400.5.

Table 11-2. EPA Concentration Levels for Environmental Compliance.[a]
(Radionuclide Concentrations [pCi/m^3] in Air)

Radionuclide	Concentration	Radionuclide	Concentration
^{3}H	1.5E+03	^{137}Cs	1.9E-02
^{14}C	1.0E+01	^{141}Ce	6.3E+00
^{40}K	2.7E-02	^{144}Ce	6.2E-01
^{41}Ar	1.7E+03	^{147}Pm	1.1E+01
^{51}Cr	3.1E+01	^{152}Eu	2.0E-02
^{54}Mn	2.8E-01	^{154}Eu	2.3E-02
^{59}Fe	6.7E-01	^{155}Eu	5.9E-01
^{58}Co	6.7E-01	^{212}Bi	5.6E+01
^{60}Co	1.7E-02	^{214}Bi	1.4E+02
^{65}Zn	9.1E-02	^{212}Pb	6.3E+00
^{85}Kr	1.0E+06	^{214}Pb	1.2E+02
^{89}Sr	1.8E+00	^{224}Ra	1.5E-01
^{90}Sr	1.9E-02	^{226}Ra	3.3E-03
^{95}Zr	6.7E-01	^{228}Ac	3.7E+00
^{95}Nb	2.2E+00	^{232}Th	6.2E-04
^{99}Tc	1.4E-01	^{234}U	7.7E-03
^{103}Ru	2.6E+00	^{235}U	7.1E-03
^{106}Ru	3.4E-01	^{236}U	7.7E-03
^{113}Sn	1.4E+00	^{238}U	8.3E-03
^{124}Sb	5.3E-01	^{238}Pu	2.1E-03
^{125}Sb	1.6E-01	$^{239/240}Pu$	2.0E-03
^{129}I	9.1E-03	^{241}Pu	1.0E-01
^{131}I	2.1E-01	^{241}Am	1.9E-03
^{134}Cs	2.7E-02		

a - from 40 CFR 61, Subpart I, Appendix E, Table 2

Table 11-3. Inaccessible Soil Concentrations (pCi/g).

Radionuclide	100 BDKN	100 F, H	200 West Area	200 East Area	300 Area	400 Area
^{3}H	1.4 E+08	7.4 E+07	3.7 E+08	2.0 E+08	9.5 E+06	1.4 E+07
^{14}C	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05
^{55}Fe	9.7 E+06	9.7 E+06	3.6 E+10	1.9 E+10	1.0 E+07	1.4 E+09
^{58}Co	9.8 E+06	9.8 E+06	8.1 E+09	4.3 E+09	1.2 E+07	3.1 E+08
^{60}Co	9.9 E+05	9.9 E+05	5.7 E+08	3.0 E+08	1.0 E+06	9.9 E+06
^{63}Ni	1.5 E+08	1.5 E+08	6.9 E+09	6.9 E+09	1.5 E+08	2.2 E+08
^{90}Sr*	8.3 E+05	8.3 E+05	2.2 E+08	1.2 E+08	8.3 E+05	8.4 E+06
^{99}Tc	1.3 E+07	1.3 E+07	1.3 E+07	1.3 E+07	1.3 E+07	1.3 E+07
^{106}Ru*	2.0 E+07	2.0 E+07	5.7 E+08	3.0 E+08	1.5 E+07	2.2 E+07
^{125}Sb*	9.1 E+06	9.1 E+06	5.7 E+09	3.0 E+09	9.2 E+06	1.1 E+08
^{129}I	2.8 E+05	2.8 E+05	2.8 E+05	2.8 E+05	2.2 E+05	2.8 E+05
^{134}Cs	1.7 E+04	1.7 E+04	2.5 E+08	1.4 E+08	2.4 E+04	9.7 E+06
^{137}Ce*	1.7 E+04	1.7 E+04	3.5 E+08	1.8 E+08	1.7 E+04	1.3 E+07
^{144}Cs*	1.4 E+06	1.4 E+06	7.4 E+08	4.0 E+08	1.9 E+06	2.8 E+07
^{147}Pm	3.4 E+07	3.4 E+07	7.4 E+09	4.0 E+09	3.5 E+07	2.8 E+08
^{152}Eu	4.5 E+06	4.5 E+06	1.2 E+09	6.2 E+08	4.6 E+06	4.5 E+07
^{154}Eu	3.3 E+06	3.3 E+06	8.8 E+08	4.7 E+08	3.3 E+06	3.4 E+07
^{155}Eu	2.3 E+07	2.3 E+07	6.9 E+09	3.7 E+09	2.4 E+07	2.6 E+08
^{226}Ra*	1.3 E+05	1.3 E+05	2.1 E+05	2.1 E+05	1.3 E+05	1.4 E+05
^{227}Ac*	2.4 E+03	2.4 E+03	5.4 E+04	2.9 E+04	1.4 E+03	2.1 E+03
^{232}Th*	2.0 E+04	2.0 E+04	2.0 E+04	2.0 E+04	4.7 E+03	7.1 E+03
^{232}U*	5.5 E+04	5.5 E+04	1.4 E+05	1.4 E+05	9.9 E+03	1.5 E+04
^{233}U	4.5 E+05	4.5 E+05	4.5 E+05	4.5 E+05	6.7 E+04	1.0 E+05
^{234}U	4.6 E+05	4.6 E+05	4.6 E+05	4.6 E+05	6.9 E+04	1.0 E+05
^{235}U*	4.9 E+05	4.9 E+05	4.9 E+05	4.9 E+05	7.3 E+04	1.1 E+05
^{236}U	4.9 E+05	4.9 E+05	4.9 E+05	4.9 E+05	7.1 E+04	1.1 E+05
^{238}U*	4.7 E+05	4.7 E+05	4.7 E+05	4.7 E+05	7.7 E+04	1.2 E+05
^{237}Np*	8.9 E+02	8.9 E+02	8.9 E+02	8.9 E+02	8.9 E+02	8.9 E+02
^{238}Pu	1.3 E+04	1.3 E+04	8.8 E+05	4.7 E+05	1.3 E+04	3.4 E+04
^{239}Pu	1.2 E+04	1.2 E+04	1.2 E+04	1.2 E+04	1.2 E+04	1.2 E+04
^{240}Pu	1.2 E+04	1.2 E+04	1.4 E+04	1.4 E+04	1.2 E+04	1.2 E+04
^{241}Pu	6.1 E+05	6.1 E+05	4.2 E+07	2.2 E+07	6.1 E+05	1.2 E+06
^{241}Am	2.5 E+04	2.5 E+04	7.4 E+05	4.0 E+05	1.9 E+04	2.8 E+04

Note: Asterisks mark nuclides with progeny that are assumed to be present in equilibrium amounts. However, ^{234}U was not included in the ^{238}U limits. For supporting references see WHC-SD-EN-TI-070.

Table 11-4. Accessible Soil Concentrations (pCi/g).

Radionuclide	100 BDKN	100 F, H	200 West Area	200 East Area	300 Area	400 Area
^{3}H	1.4 E+08	7.4 E+07	3.7 E+08	2.0 E+08	9.5 E+06	1.4 E+07
^{14}C	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05
^{55}Fe	5.3 E+05	5.3 E+05	5.3 E+05	5.3 E+05	5.3 E+05	5.3 E+05
^{58}Co	1.8 E+01	1.8 E+01	1.8 E+01	1.8 E+01	1.8 E+01	1.8 E+01
^{60}Co	7.1 E+00	7.1 E+00	7.1 E+00	7.1 E+00	7.1 E+00	7.1 E+00
^{63}Ni	2.5 E+07	2.5 E+07	2.5 E+07	2.5 E+07	2.5 E+07	2.5 E+07
^{90}Sr*	2.8 E+03	2.8 E+03	2.8 E+03	2.8 E+03	2.8 E+03	2.8 E+03
^{99}Tc	1.0 E+06	1.0 E+06	1.0 E+06	1.0 E+06	1.0 E+06	1.0 E+06
^{106}Ru*	7.7 E+01	7.7 E+01	7.7 E+01	7.7 E+01	7.7 E+01	7.7 E+01
^{125}Sb*	3.7 E+01	3.7 E+01	3.7 E+01	3.7 E+01	3.7 E+01	3.7 E+01
^{129}I	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04
^{134}Cs	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01
^{137}Cs*	3.0 E+01	3.0 E+01	3.0 E+01	3.0 E+01	3.0 E+01	3.0 E+01
^{144}Ce*	3.3 E+02	3.3 E+02	3.3 E+02	3.3 E+02	3.3 E+02	3.3 E+02
^{147}Pm	1.1 E+06	1.1 E+06	1.1 E+06	1.1 E+06	1.1 E+06	1.1 E+06
^{152}Eu	1.5 E+01	1.5 E+01	1.5 E+01	1.5 E+01	1.5 E+01	1.5 E+01
^{154}Eu	1.4 E+01	1.4 E+01	1.4 E+01	1.4 E+01	1.4 E+01	1.4 E+01
^{155}Eu	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02
^{226}Ra*	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01
^{227}Ac*	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01
^{232}Th*	5.9 E+00	5.9 E+00	5.9 E+00	5.9 E+00	5.9 E+00	5.9 E+00
^{232}U*	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01
^{233}U	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02
^{234}U	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02
^{235}U*	1.7 E+02	1.7 E+02	1.7 E+02	1.7 E+02	1.7 E+02	1.7 E+02
^{236}U	6.7 E+02	6.7 E+02	6.7 E+02	6.7 E+02	6.7 E+02	6.7 E+02
^{238}U*	3.7 E+02	3.7 E+02	3.7 E+02	3.7 E+02	3.7 E+02	3.7 E+02
^{237}Np*	4.8 E+01	4.8 E+01	4.8 E+01	4.8 E+01	4.8 E+01	4.8 E+01
^{238}Pu	2.1 E+02	2.1 E+02	2.1 E+02	2.1 E+02	2.1 E+02	2.1 E+02
^{239}Pu	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02
^{240}Pu	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02
^{241}Pu	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04
^{241}Am	1.8 E+02	1.8 E+02	1.8 E+02	1.8 E+02	1.8 E+02	1.8 E+02

Note: Asterisks mark nuclides with progeny that are assumed to be present in equilibrium amounts. However, ^{234}U was not included in the ^{238}U limits. For supporting references see WHC-SD-EN-TI-070.

12.0 DATA SUMMARY METHODS

Measuring any physical quantity has some degree of inherent uncertainty. This uncertainty results from the combination of all possible inaccuracies in the measurements process, including such factors as the reading of the result, the calibration of the measuring device, and numerical rounding errors.

In this report, individual radioactive measurements are accompanied by a plus or minus (±) value, which represents the total propagated analytical uncertainty (or 2-sigma counting error). The two-sigma counting error gives information on what the measurement might be if the same sample were counted again under identical conditions. The two-sigma counting error implies that approximately 95% of the time, a recount of the same sample would give a value within plus or minus the two-sigma counting error at the value reported.

Values in the tables that are less than the minimum detectable activity indicate that the reported result might have come from a sample with no radioactivity. Such values are considered below the detection limits of the measuring instrument. Also note that each radioactive measurement must have the random background radioactivity of the measuring instrument subtracted; therefore, negative results are possible, especially when the sample has very little radioactivity.

Reported averages also are accompanied by a plus or minus (±) value, which represents two standard deviations from the mean. If the data fluctuate randomly, this is a measure of the uncertainty in the estimated average of the data because of this randomness.

Where averages of averages are reported, the plus or minus (±) value represents two standard errors of the mean.

The mean, X, is computed as:

$$X = \frac{1}{n}\sum_{i=1}^{n} X_i$$

where X_i is the ith measurement and n is the number of measurements.

The standard error of the mean was computed as:

$$SE = \sqrt{\frac{S^2}{n}}$$

where S^2, the variance of the n measurements, was computed as:

$$S_M^2 = \frac{1}{n-1}\sum_{i=1}^{n}(X_i - X)^2$$

This estimator, S^2, includes the variance among the samples and the counting variance. The estimated S^2 occasionally may be less than the average counting variance.

13.0 REFERENCES

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