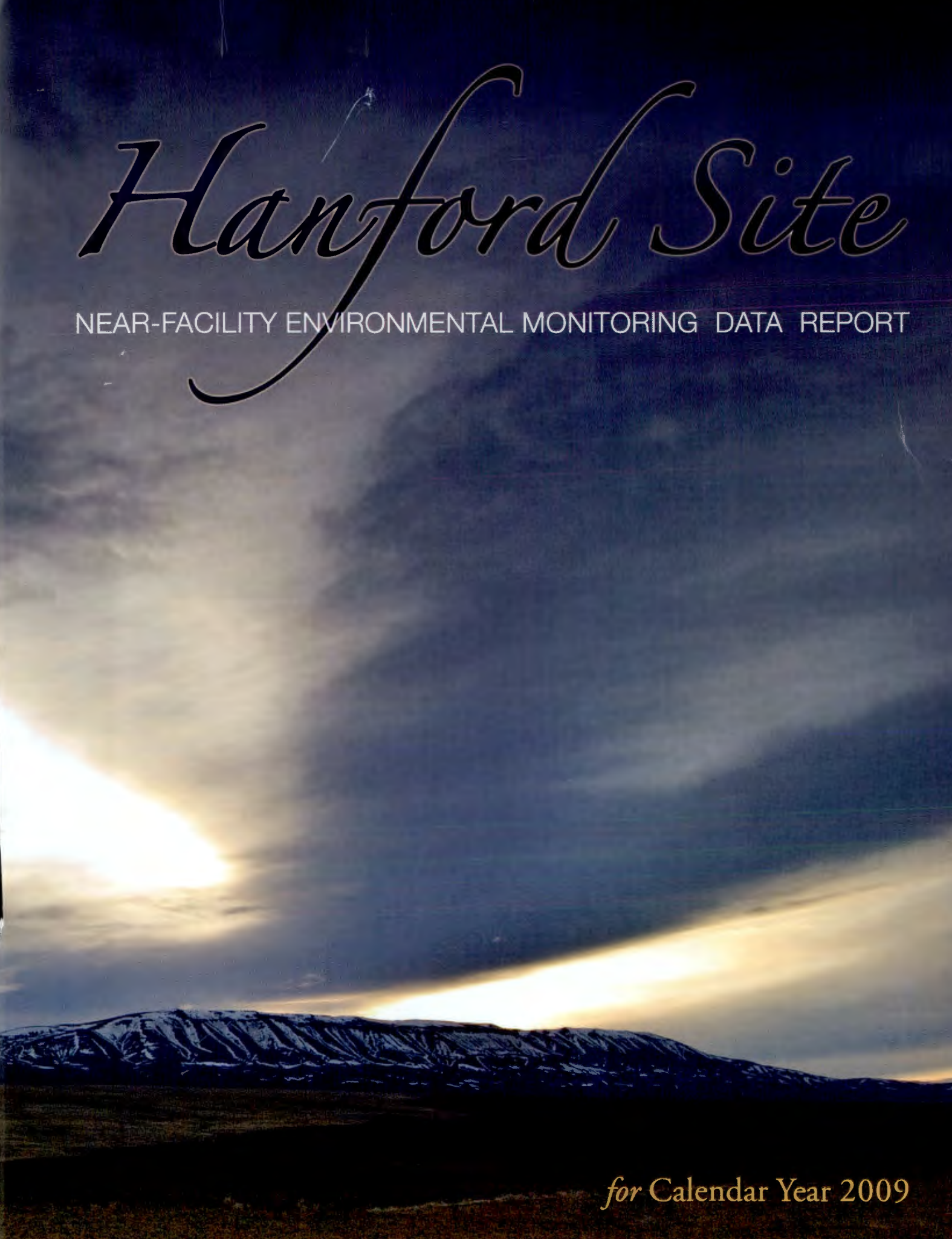
Hanford Site

NEAR-FACILITY ENVIRONMENTAL MONITORING DATA REPORT



for Calendar Year 2009

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof, or Battelle Memorial Institute. This report is a summary of major or significant activities occurring at the Hanford Site only, and is not a full disclosure of all details associated with Hanford-related activities, nor a substitute for legally required information subject to reporting requirements regarding releases, violations, etc.

PACIFIC NORTHWEST NATIONAL LABORATORY
operated by
BATTELLE
for the
UNITED STATES DEPARTMENT OF ENERGY
under Contract DE-AC05-76RL01830

Printed in the United States of America

May be available to DOE and DOE contractors from the Office of Scientific and Technical Information, P.O. Box 62, Oak Ridge, TN 37831-0062; ph: (865) 576-8401 fax: (865) 576-5728 email: reports@adonis.osti.gov

Available to the public from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Rd., Springfield, VA 22161 ph: (800) 553-6847 fax: (703) 605-6900 email: orders@ntis.fedworld.gov online ordering: http://www.ntis.gov/ordering.htm

The cover photo shows the setting winter sun trying to penetrate a thick layer of altocumulus and cirrus clouds, providing a dramatic backdrop for Rattlesnake Mountain. Warming temperatures have melted recent snow, leaving a stark contrast in the foreground. Photo is courtesy of S Butner, Pacific Northwest National Laboratory, Richland, Washington. The cover design is by SB Colson, Pacific Northwest National Laboratory, Richland, Washington.

This document was printed on recycled paper.

0091066

Document Review and Approval

Document Title: Hanford Site Near-Facility Environmental Monitoring Data Report for Calendar Year 2009.

Document Number: PNNL-19455, Appendix 2

Responsible Contacts:

Author:	C.J. Perkins	376-2049
Manager:	J.J. Dorian	376-2343

Reviewers	Organization
Dorian, J.J.	Mission Support Alliance
Dorsey, M.C.	Mission Support Alliance
Homan, N.A.	CH2M Hill Plateau Remediation Company
McKinney, S.M.	Mission Support Alliance
Peterson, K.A.	Mission Support Alliance
Wilde, J.W.	Mission Support Alliance
Woolard, J.G.	Washington Closure Hanford

Approval Signatures	Date
(Author: C.J. Perkins)	8/3/10
(Responsible Manager: J.J. Dorian)	8/3/10

RECEIVED
OCT 12 2010
EDMC

PNNL-19455, APP. 2

Hanford Site Near-Facility Environmental Monitoring Data Report for Calendar Year 2009

C. J. Perkins
M. C. Dorsey
S. M. McKinney
J.W. Wilde

Mission Support Alliance, LLC
Richland, Washington 99352

September 2010

Prepared for
the U.S. Department of Energy
under Contract DE-AC05-76RL01830

Submitted by
Pacific Northwest National Laboratory
Richland, Washington 99354

LIST OF TERMS

Bq	Becquerel
CERCLA	*Comprehensive Environmental Response, Compensation, and Liability Act of 1980*
CFR	*Code of Federal Regulations*
CHPRC	CH2M HILL Plateau Remediation Company
CSB	Canister Storage Building
CVDF	Cold Vacuum Drying Facility
DCG	derived concentration guides
DOE	U.S. Department of Energy
dpm	disintegrations per minute
EDE	effective dose equivalent
EDP (code)	environmental data point (identification number indicating sample location)
ERDF	Environmental Restoration Disposal Facility
GEA	gamma energy analysis
IDF	Integrated Disposal Facility
LERF	Liquid Effluent Retention Facility
LLBG	low-level burial ground
MSA	Mission Support Alliance, LLC
mrem/yr	millirems/year
NFM	Near-facility monitoring
PFP	Plutonium Finishing Plant
PNNL	Pacific Northwest National Laboratory
PUREX	Plutonium-Uranium Extraction
QA	quality assurance
RCC	River Corridor Closure
RCRA	*Resource Conservation and Recovery Act of 1976*
RPP	River Protection Project
TEDF	Treated Effluent Disposal Facility
TLD	thermoluminescent dosimeter
URMA	Underground Radioactive Material Area
WAC	*Washington Administrative Code*
WDOH	Washington State Department of Health
WSCF	Waste Sampling and Characterization Facility

CONTENTS

1.0 NEAR-FACILITY ENVIRONMENTAL MONITORING AT HANFORD 1-1

2.0 AMBIENT AIR MONITORING 2-1

3.0 SOIL MONITORING 3-1

4.0 VEGETATION MONITORING 4-1

5.0 EXTERNAL RADIATION 5-1

6.0 RADIOLOGICAL SURVEYS 6-1

7.0 INVESTIGATIVE SAMPLING 7-1

8.0 QUALITY ASSURANCE 8-1

9.0 GLOSSARY 9-1

10.0 STANDARDS 10-1

11.0 DATA SUMMARY METHODS 11-1

12.0 REFERENCES 12-1

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 Canister Storage Building (CSB); inactive nuclear facilities such as N Reactor, the Plutonium-Uranium Extraction (PUREX) Facility, and the Plutonium Finishing Plant (PFP); 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 (DOE 2001), 450.1A (DOE 2008), and 5400.5 (DOE 1993); DOE Manual 231.1-1A (DOE 2007), *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 environmental restoration activities, and to evaluate the effectiveness of effluent treatment and control practices. Routine sampling and monitoring includes ambient air, soil, vegetation, and external radiation. The parameters typically monitored are radionuclide concentrations and radiation fields. Sampling methods are discussed in detail in Mission Support Alliance, LLC (MSA), MSC-PRO-46517, *Near-Facility Environmental Monitoring*, (MSA 2010).

Samples are collected from known or expected effluent pathways. These pathways are generally downwind of potential or actual airborne releases and down gradient of past liquid discharges. Table 1-1 shows the type and location of routine near-facility monitoring (NFM) samples collected in 2009.

Table 1-1. Near-Facility Routine Environmental Monitoring Samples and Locations, 2009.

Sample Type	Number of Sample Locations	Operational Area								
		100-K	100-N	100-D	100-H	200 East	200 West	300/ 400	600	ERDF[a]
Air	84	10	3	4	4	21	24	7	8	3
Soil	73	0	0	0	4	13	26	14	15	1
Vegetation	58	0	3	0	0	8	18	14	15	0
External Radiation	119	18	5	0	0	43	24	25	1	3

(a) Environmental Restoration Disposal Facility in the 200 West Area.

This Appendix contains brief discussions, specific sampling location information, and complete analytical data results for the various near-facility environmental monitoring efforts for 2009. Detailed discussions and summarized analytical results are provided in PNNL-19455, *Hanford Site Environmental Report for Calendar Year 2009* (PNNL 2010a)

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 Plateau Remediation Contract (PRC), River Protection Project (RPP), and River Corridor Closure (RCC) Project managed facilities' performance and are used to demonstrate compliance with environmental protection criteria.

In 2009, air radioactivity was sampled by a network of continuously operating samplers at 84 locations. Location-specific maps and monitoring results are provided in Section 2.0, "Ambient Air Monitoring."

1.2 SOIL SAMPLING

Soil samples were collected on or adjacent to waste disposal units and from locations downwind and near or within the boundaries of the operating facilities. Soil 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 or intrusion by animals.

Radiological analyses of soil 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, "Soil Monitoring."

1.3 VEGETATION SAMPLING

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. Vegetation samples were collected to detect potential migration of facility effluents. Migration of radionuclides into vegetation can occur primarily as the result of absorption by the roots growing on or near underground and surface water disposal units.

Radiological analyses of 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 4.0, "Vegetation Monitoring."

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 5.0, "External Radiation."

1.5 RADIOLOGICAL SURVEYS

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 farm perimeters, stabilized waste disposal sites, roads, and firebreaks in and around the Site operational areas. A discussion and survey location maps are provided in Section 6.0, "Radiological Surveys."

In 2009, the Hanford Site had approximately 3,581 ha (8,849 acres) of posted outdoor surface contamination, and 578 ha (1,429 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.

1.6 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. Complete results and general discussion of special characterization samples analyzed in 2009, are provided in Section 7.0, "Investigative Sampling."

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.

A network of continuously operating samplers at 84 near-facility monitoring locations sampled radioactivity in air during 2009. Some air sampling stations provided monitoring for more than one project (Table 2-1). Data from several PNNL ambient air monitoring stations were utilized in 2009 to provide additional air monitoring information for several RCC remediation projects. The RCC projects and the associated PNNL stations are listed in Table 2-2. The 2009, PNNL air monitoring results can be found in PNNL-19455, Appendix 1.

Near-facility air monitoring location maps are provided in Figures 2-1 through 2-10. Historical air sampling results for selected radionuclides for the 100-K, 100-N, 200 and 300 Areas are represented in graph form in Figures 2-11 through 2-22.

A summary of near-facility ambient air sampling results collected during 2009 is presented in Table 2-3. The 2009 composited, sampler-specific monitoring results are provided in Table 2-4. Additional discussion of the 2009 air sampling results can be found in Section 8.2 of PNNL-19455.

The Hanford Site Air Operating permit (Federal Facility License FF-01) requires regulatory notification for composite [isotopic] air sample results that exceed 10% of the U.S. Environmental Protection Agency's Table 2 (40 CFR 61, Appendix E, Table 2) values. During 2009, the following notifications were submitted to the Washington State Department of Health (WDOH):

<u>First Half of 2009</u>

- NFM station N165 (200 West Area): Plutonium-239/240

  One suspected source of this elevated result is the nearby, retired 216-ZP-1C crib/trench. This facility received liquid waste from PFP until 1995. In November 2002, the building that had provided electrical service to N165 was demolished and the station was relocated to the present location. Historical plutonium-239/240 results observed at monitoring station N165 are included in Figure 2-22.

- NFM station N987 (200 West Area, East of TX/TY Tank Farm): Plutonium-239/240

  No facility/project activity was determined to be the attributable cause of this elevated result. Review of the biweekly air sample results obtained during the composite period revealed that there were no statistically elevated total alpha/beta results during the period.

- NFM station N401 (100-K East Area): Cs-137

- NFM station N402 (100-K East Area): Am-241, Cs-137, Pu-239/240 and Sr-90

- NFM station N403 (100-K East Area): Am-241, Cs-137, Pu-239/240 and Sr-90

- NFM station N404 (100-K East Area): Cs-137

  Demolition of the K-East Basin and the removal of the contaminated soil that had been underneath it were ongoing during 2009 and were the probable cause of these elevated results.

<u>Second Half of 2009</u>

- NFM station N019 (200 East Area, near B-Plant): Cs-137

  While no facility/project activity was determined to be a direct cause of this elevated result, it may have resulted from the B Plant Canyon ventilation system being out of service between August 2009 and March 2010. Review of the biweekly air sample results obtained during the composite period revealed that there were no statistically elevated total alpha/beta results during the period.

- NFM station N401 (100-K East Area): Am-241, Cs-137, Pu-239/240 and Sr-90

- NFM station N402 (100-K East Area): Am-241, Cs-137, Pu-239/240 and Sr-90

- NFM station N403 (100-K East Area): Am-241, Cs-137, Pu-239/240 and Sr-90

- NFM station N404 (100-K East Area): Am-241, Cs-137, Pu-239/240 and Sr-90

  Demolition of the K-East Basin and the removal of the contaminated soil that had been underneath it were ongoing during 2009 and were the probable cause of these elevated results.

- NFM station N477 (100-K West Area): Cs-137

- NFM station N478 (100-K West Area): Cs-137

- NFM station N479 (100-K West Area): Cs-137

Demolition activities at the K-East Basin and the removal and transport of the resulting contaminated soil/debris were the probable causes of the elevated results at K-West.

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.

All air sampling results are compared to DOE derived concentration guides (DCG) and/or U.S. Environmental Protection Agency concentration levels and are also statistically evaluated. To help assess the impact of Site operations, monitoring results are compared to the results obtained from the distant community of Yakima as reported by the PNNL Site Environmental Surveillance Program, and to data acquired from collocated sampling locations managed by NFM, PNNL and WDOH. Collocated sampling results are used for comparability and precision of data.

Table 2-1. Near-Facility Air Sampling Locations and Analyses, 2009.

Site	Number of Samplers	EDP Code [a]	Analyses: Bi-weekly	Analyses: Composite [b]
100-D Area Field Remediation project[c]	4	N467, N468, N514, N515	Gross α, β	GEA, Sr-90, Pu-iso, U-iso, Am-241
100-H Area Field Remediation project[c]	4	N508, N509, N510, N574	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
100-K Basins Closure	8	N401, N402, N403[d], N404, N476, N477, N478, N479	Gross α, β	GEA, Sr-90, Pu-iso, U-iso Pu-241, Am-241
118-K-1 Field Remediation project[c]	3	N403, N534, N535	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
100-N Area D4 project	3	N102, N103, N106	Gross α, β	GEA, Sr-90, Pu-iso, U-iso, Am-241
200 East Area	17	N019, N158, N498, N499, N957 N967, N968, N969, N970, N972, N973, N976, N977, N978, N984[d], N985, N999	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
BC Controlled Area	4	N572, N573, N957, N978	Gross α, β	GEA, Sr-90, Pu-iso, U-iso Pu-241, Am-241
Canister Storage Building (200 East Area)	2	N480, N481	Gross α, β	GEA, Sr-90, Pu-iso, U-iso Pu-241, Am-241
Integrated Disposal Facility (200 East Area)	2	N532, N559	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
200 West Area	24	N155, N161, N165[d], N168, N20(N304, N433, N441, N442, N449, N456, N457, N551, N554, N555, N956, N963, N964, N965, N966, N974, N975, N987, N994	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
200-North Decontamination & Demolition project	4	N563, N564, N567, N568	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
200-UW-1 Decontamination & Demolition project (200 West Area)	4	N168, N550, N956, N963	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
300 Area Decontamination & Demolition project[c]	1	N557	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
300-FF-2 Field Remediation project (300 Area)[c]	6	N130, N527, N537, N538, N539 N540	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
Environmental Restoration Disposal Facility	5	N482[d], N517, N518, N550, N96:	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
600 Area (WYE Barricade)	1	N981[e]	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) PNNL air sampling station(s) provide supplemental air monitoring data. See Table 2-2 for a listing of locations.

(d) Collocated sampling location with WDOH.

(e) Collocated sampling location with WDOH and PNNL.

Table 2-2. Pacific Northwest National Laboratory Supplemental Air Sampling Locations[a], 2009.

Site	Sampling Location
100-D Area Field Remediation project	Yakima Barricade
100-H Field Remediation project	100-H Area ,Yakima Barricade
118-K-1 Field Remediation project	E 100 K ,Yakima Barricade
300 Area Decontamination & Demolition project	300 NE, 300 South Gate, 300 Trench, 300 Water Intake, 300 South West
300-FF-2 Field Remediation project	300 NE, 300 Trench, 300 Water Intake

(a) Maps showing specific locations are available in PNNL-19455.

Figure 2-1. 100-D Area Air Sampler Locations.

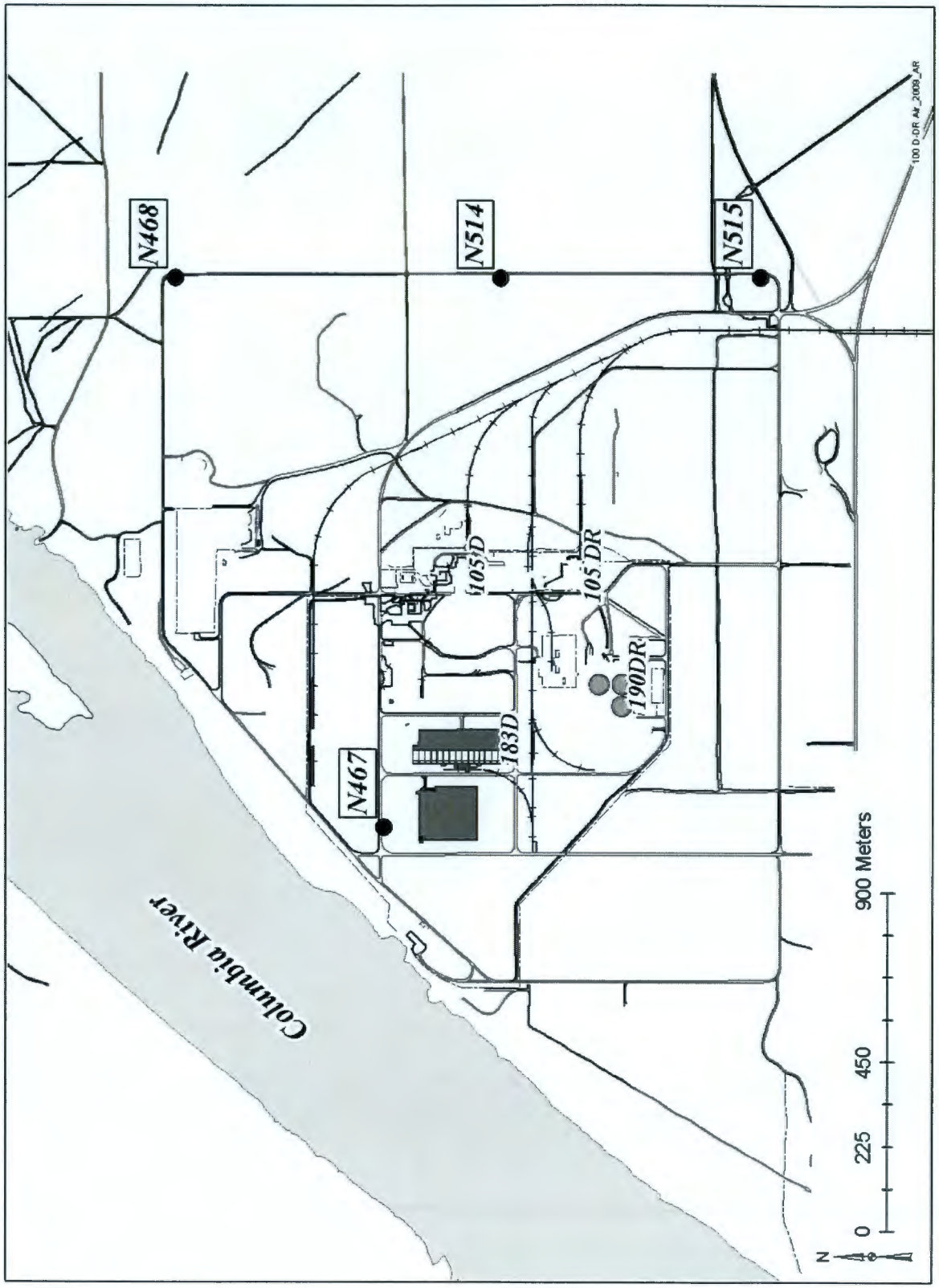
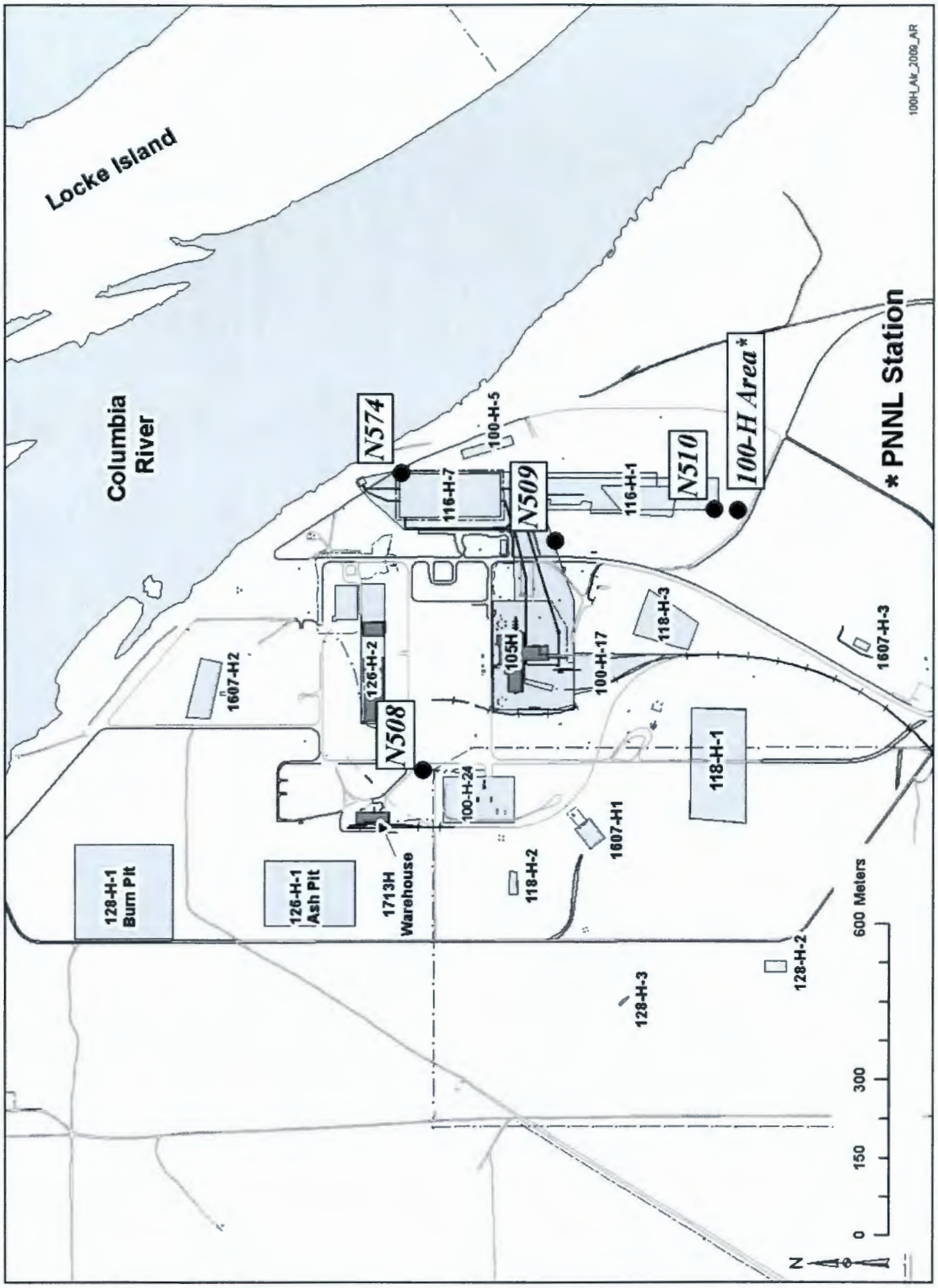


Figure 2-2. 100-H Area Air Sampler Locations.



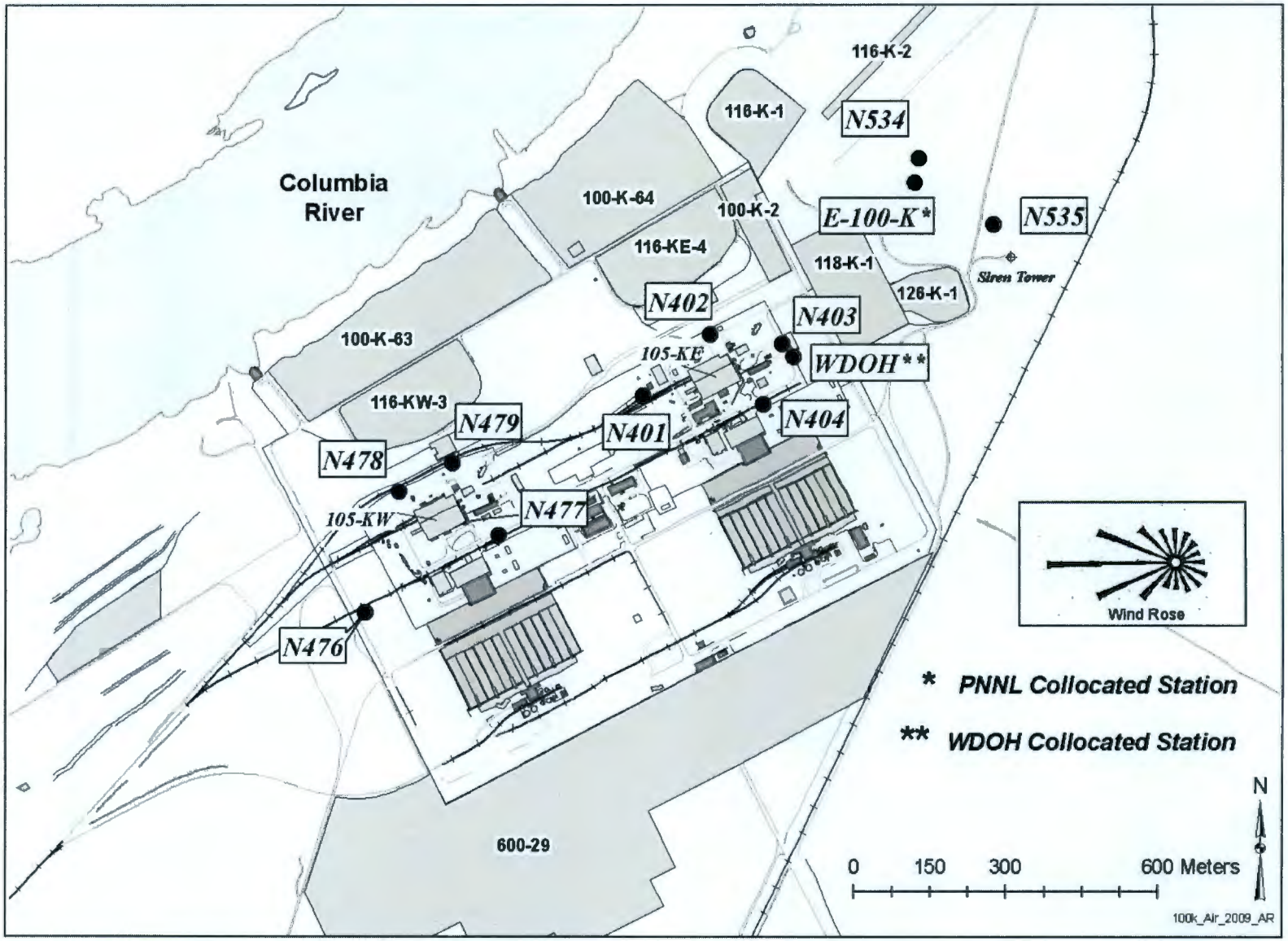
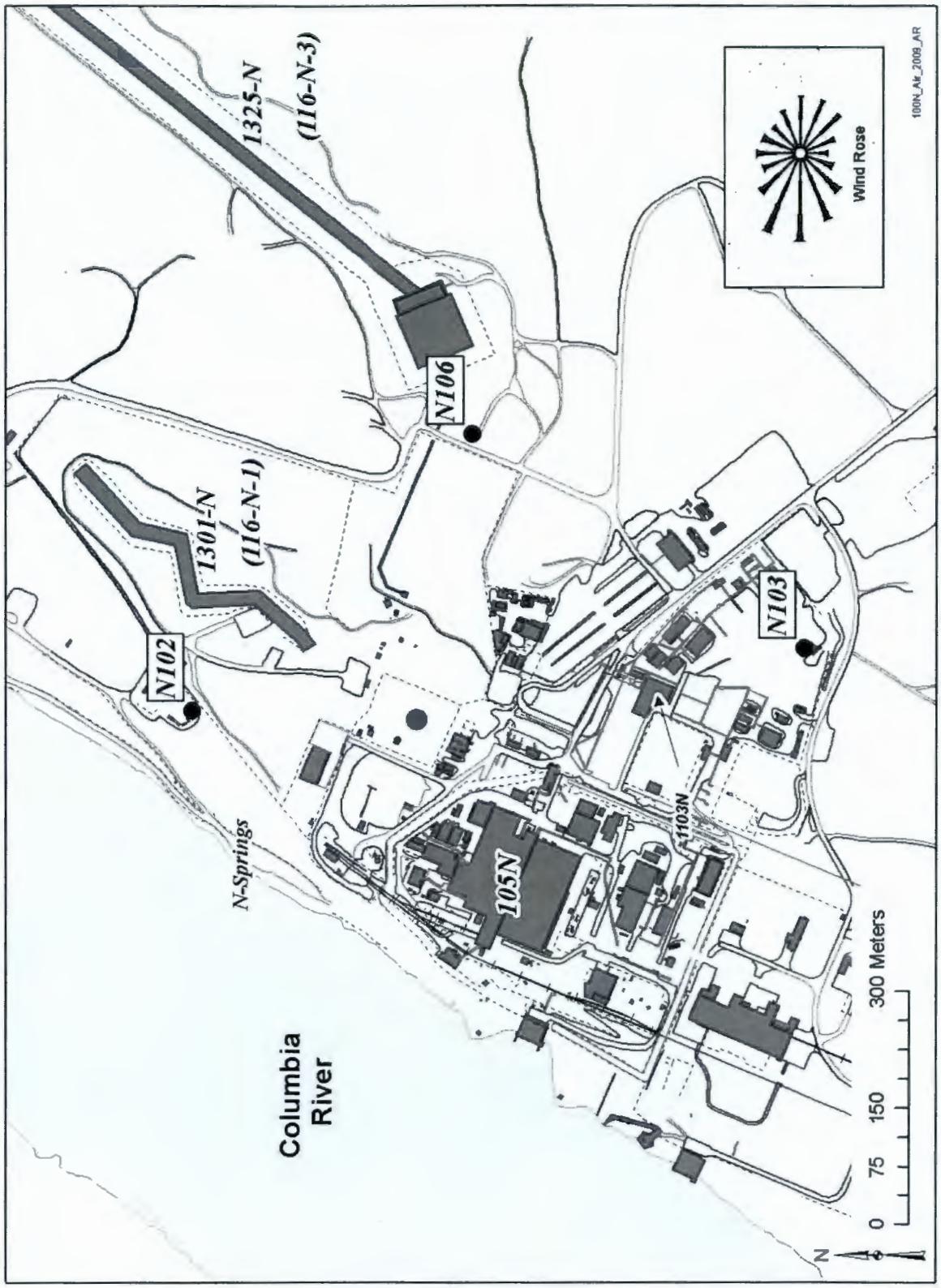


Figure 2-3. 100-K Area Air Sampler Locations.

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



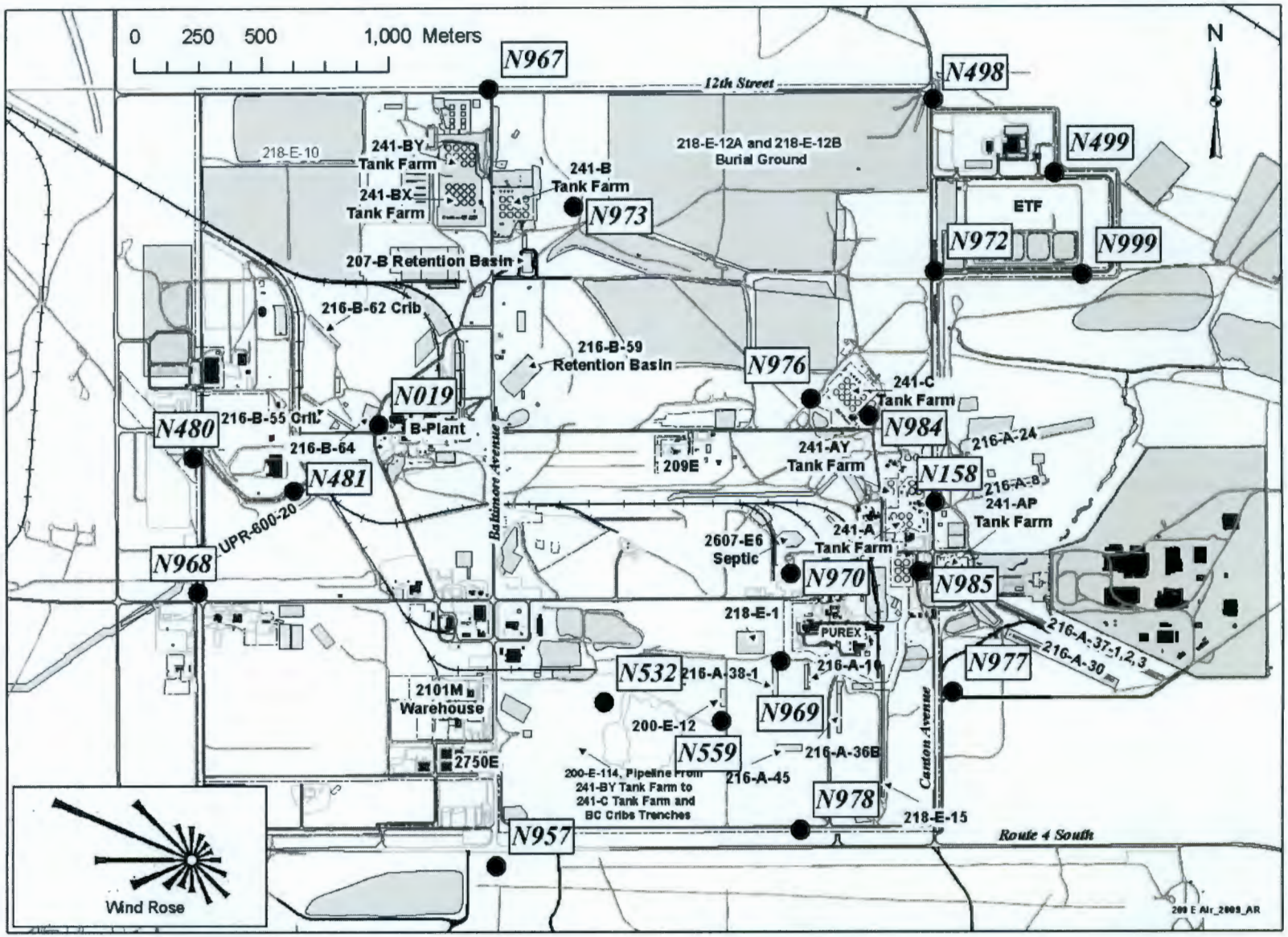


Figure 2-5. 200-East Area Air Sampler Locations.

Figure 2-6. BC Controlled Area Air Sampler Locations.

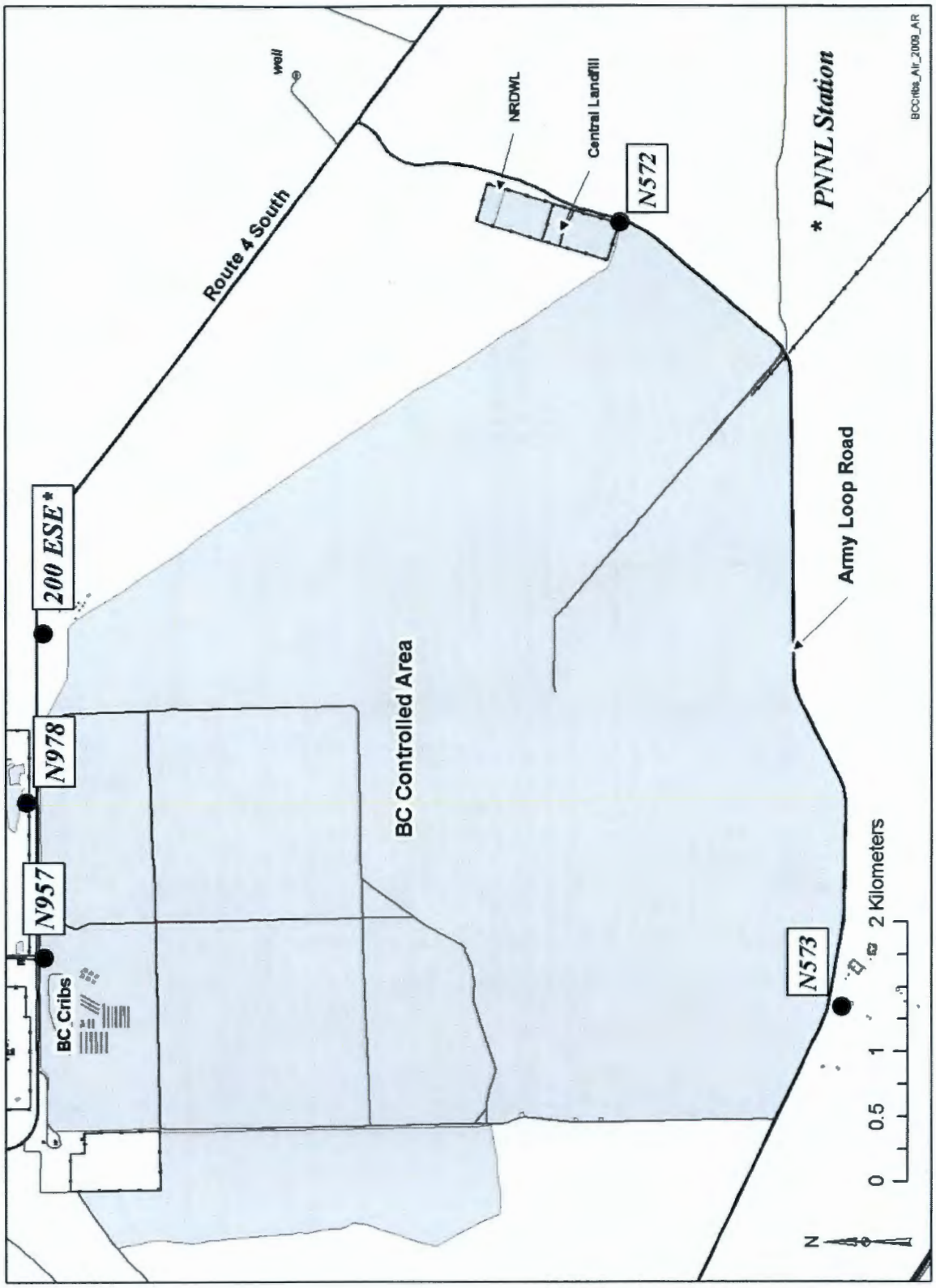


Figure 2-7. 200-West Area Air Sampler Locations.

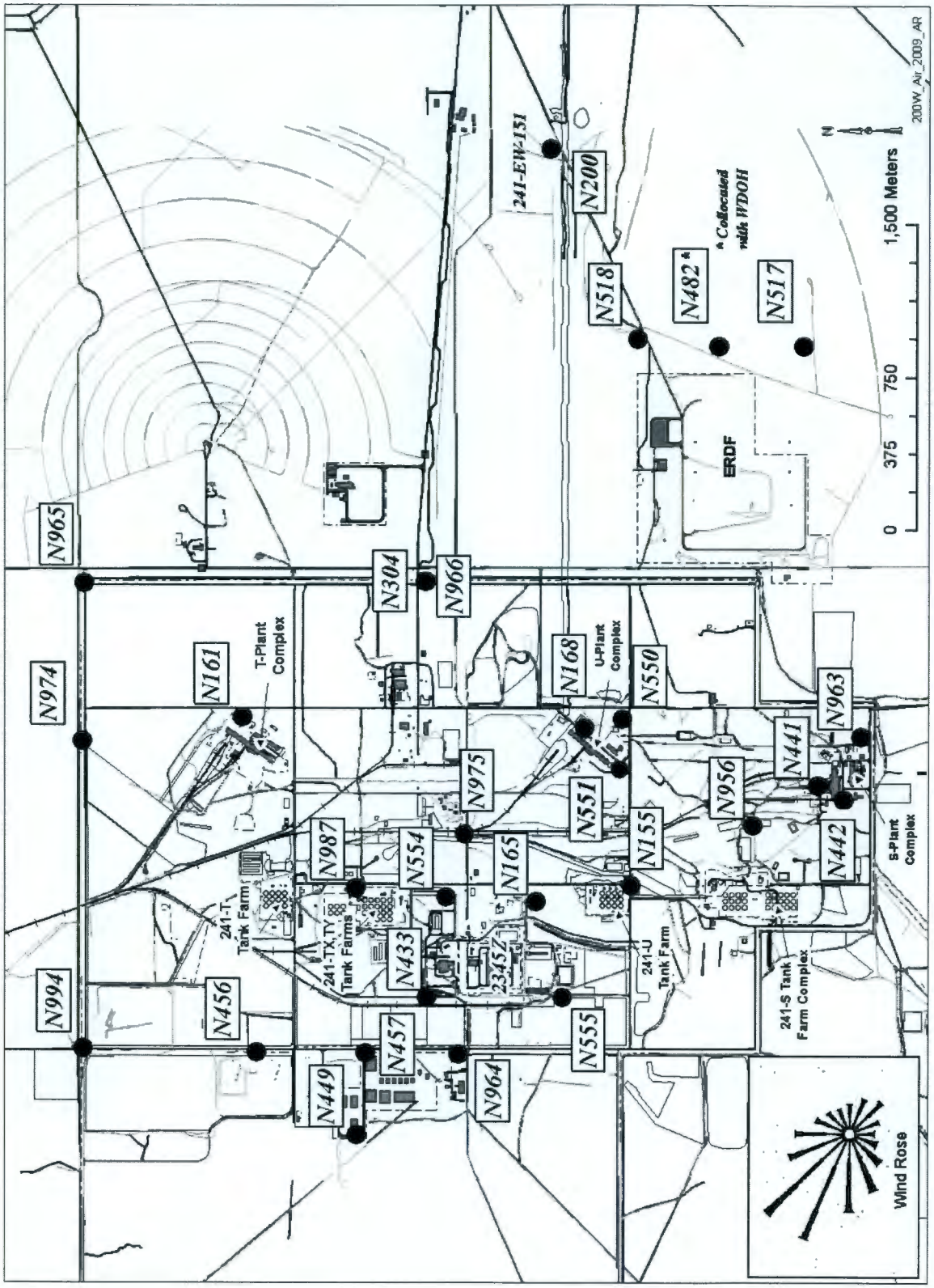


Figure 2-8. 200-North Area Air Sampler Locations.

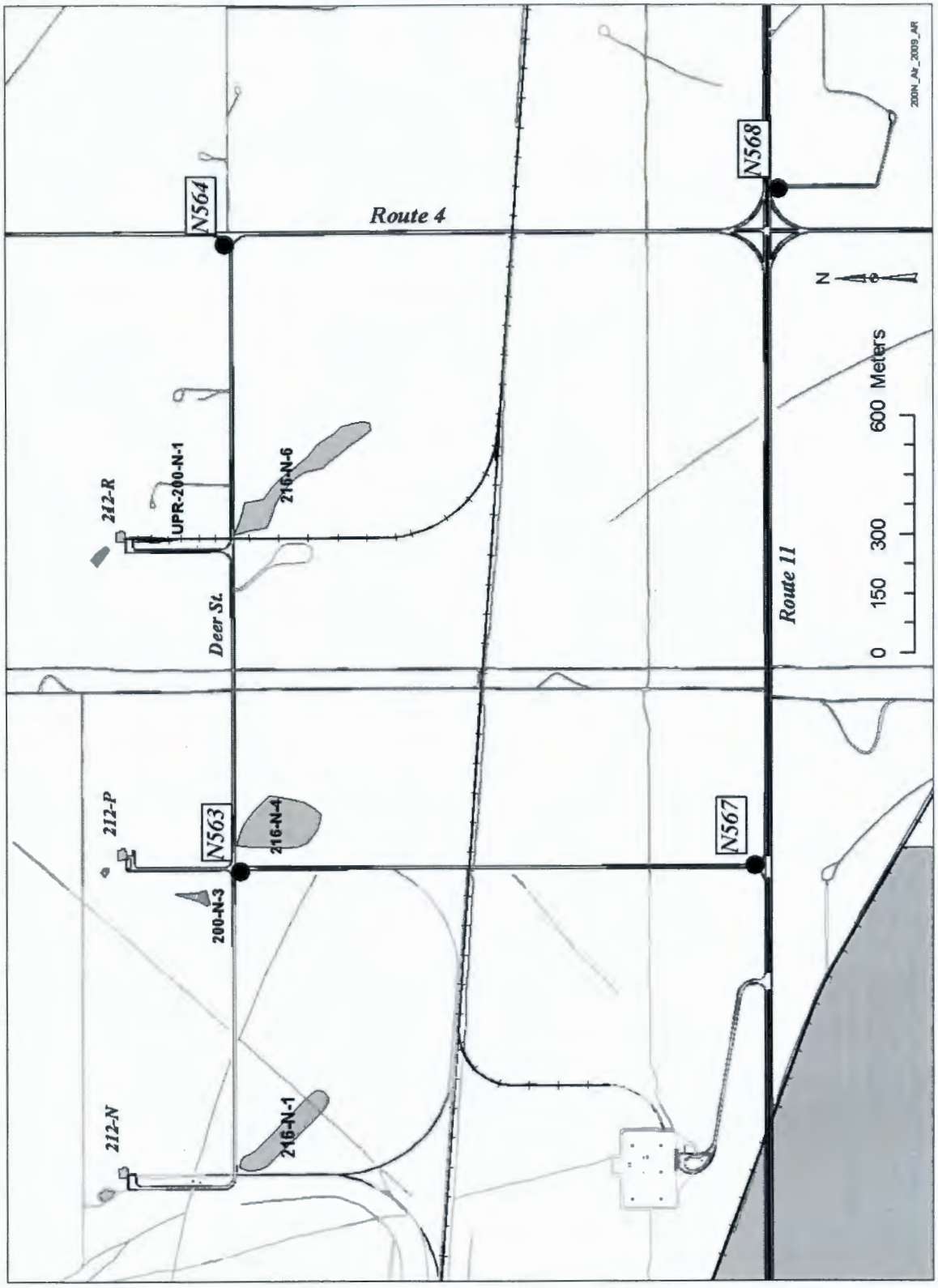


Figure 2-9. 300 Area Air Sampler Locations.

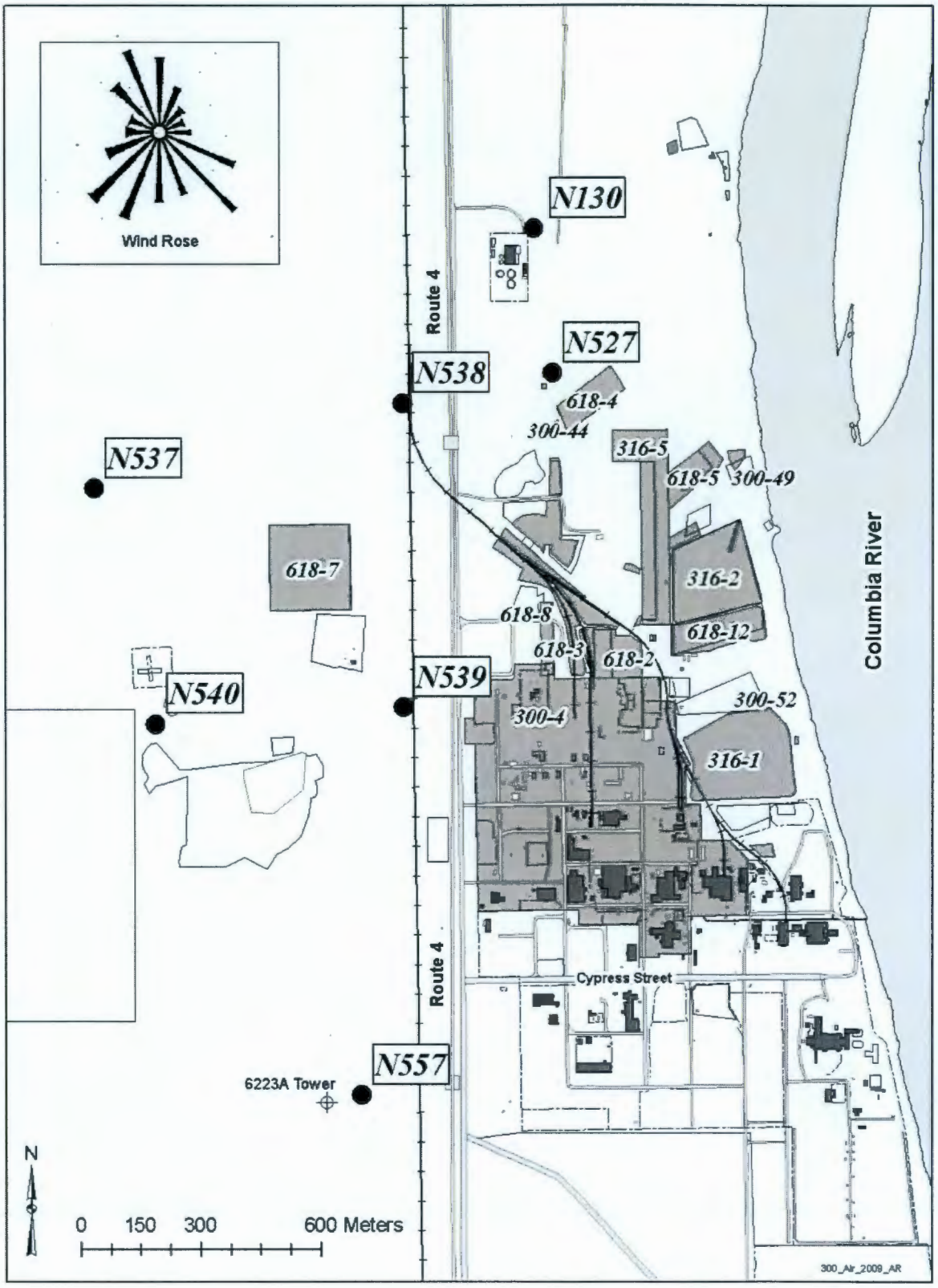


Figure 2-10. 600 Area Air Sampler Location.

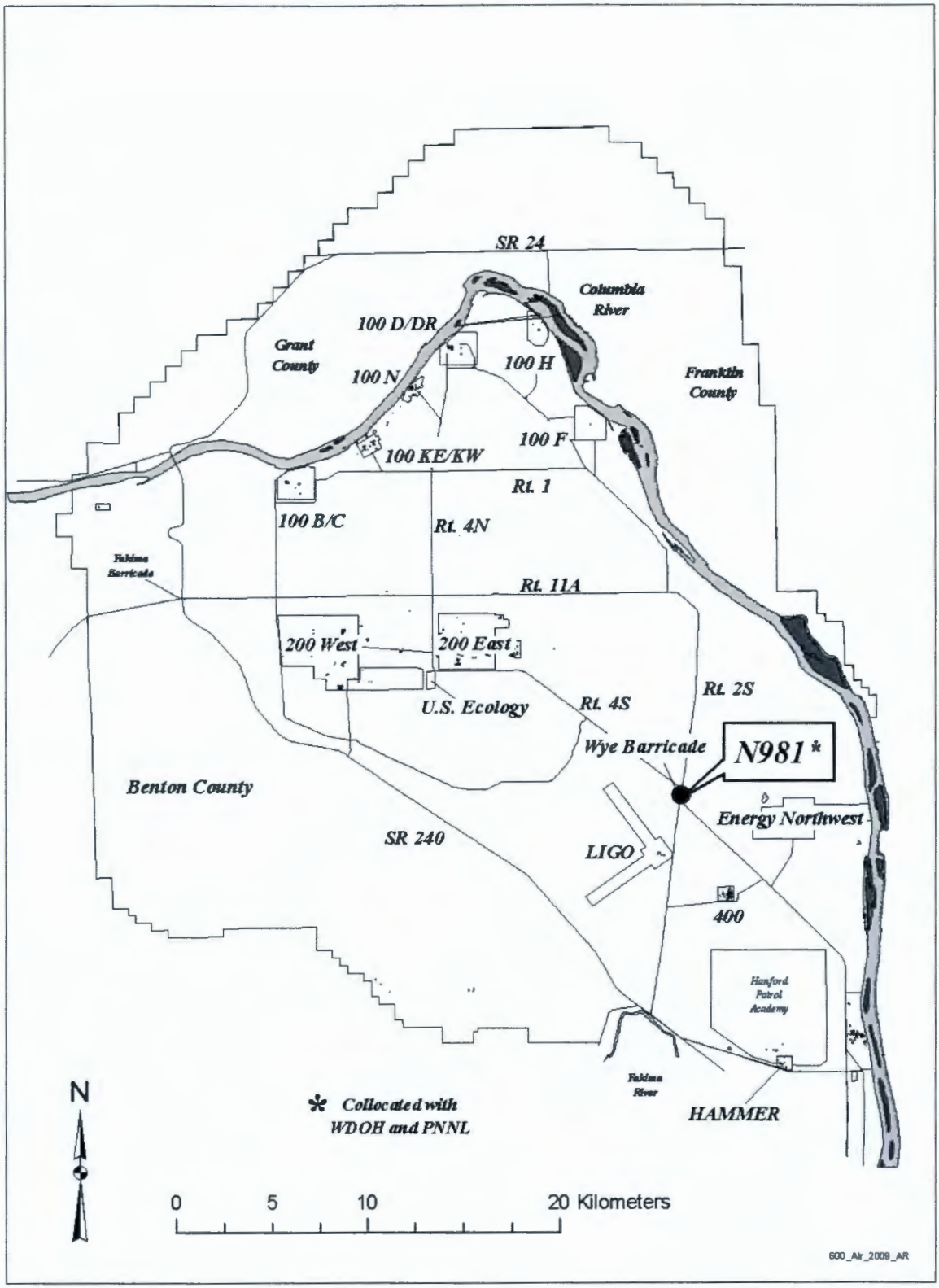


Figure 2-11. Annual Average Strontium-90 Concentrations in Air, 100-K Area.

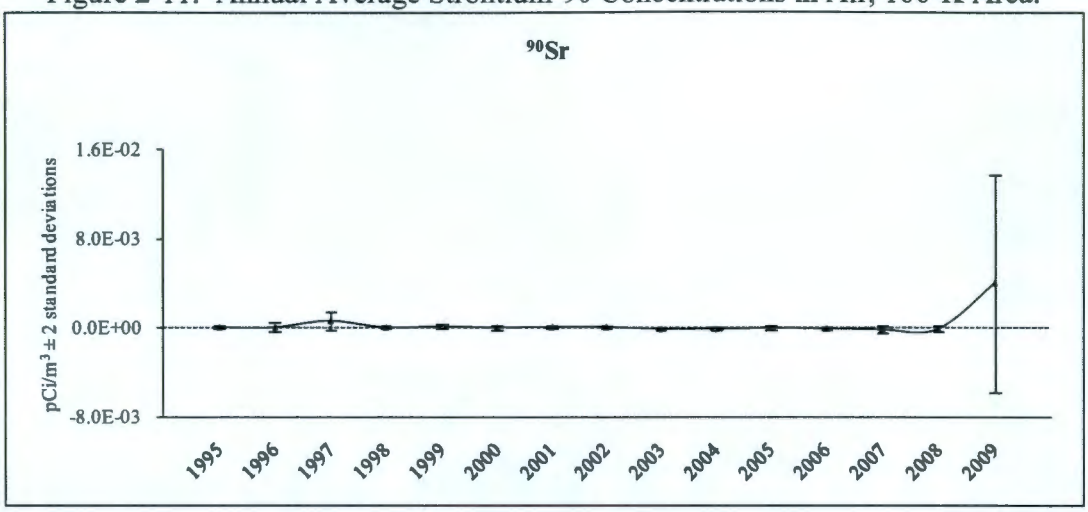


Figure 2-12. Annual Average Cesium-137 Concentrations in Air, 100-K Area.

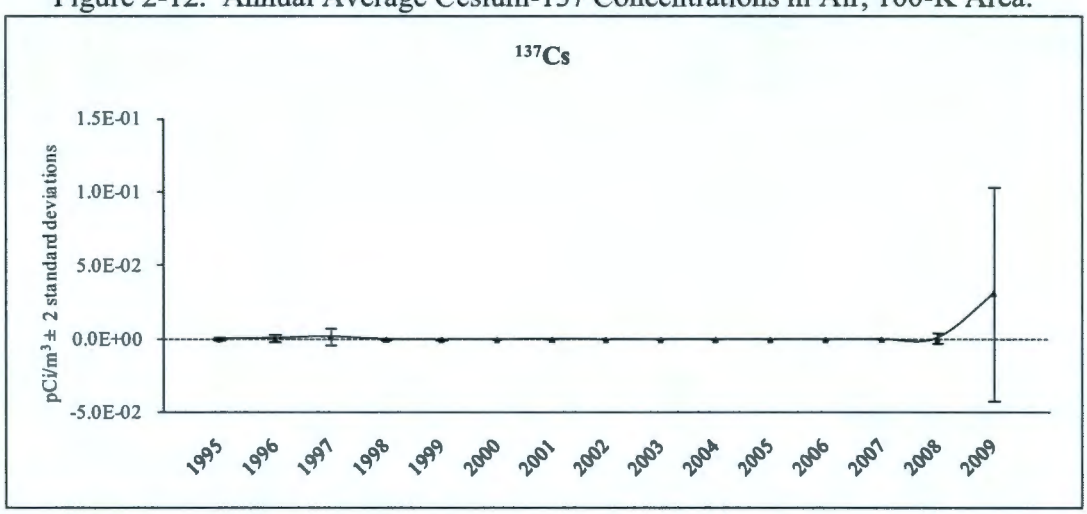


Figure 2-13. Annual Average Plutonium-239/240 Concentrations in Air, 100-K Area.

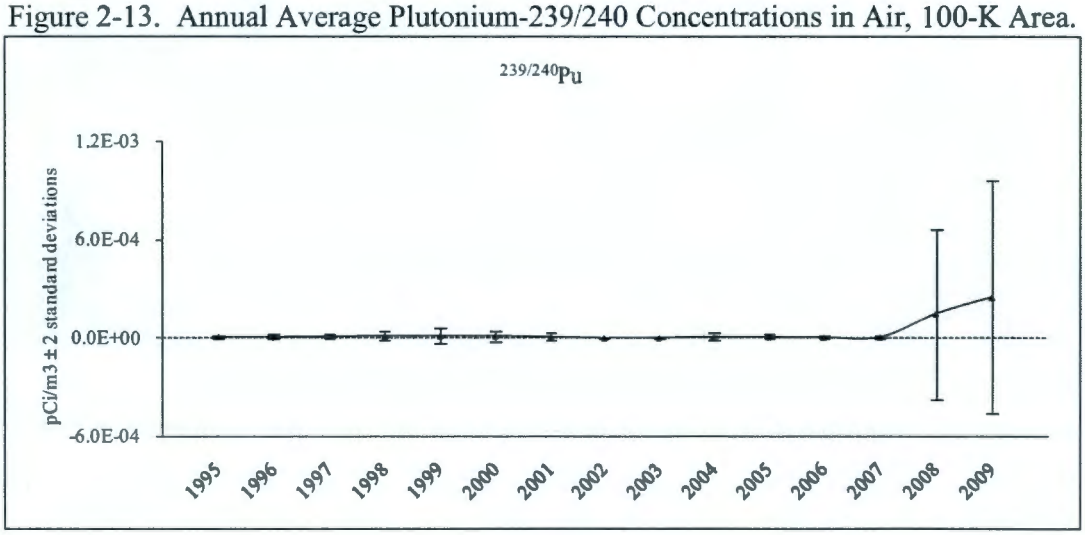


Figure 2-14. Annual Average Americium-241 Concentrations in Air, 100-K Area.

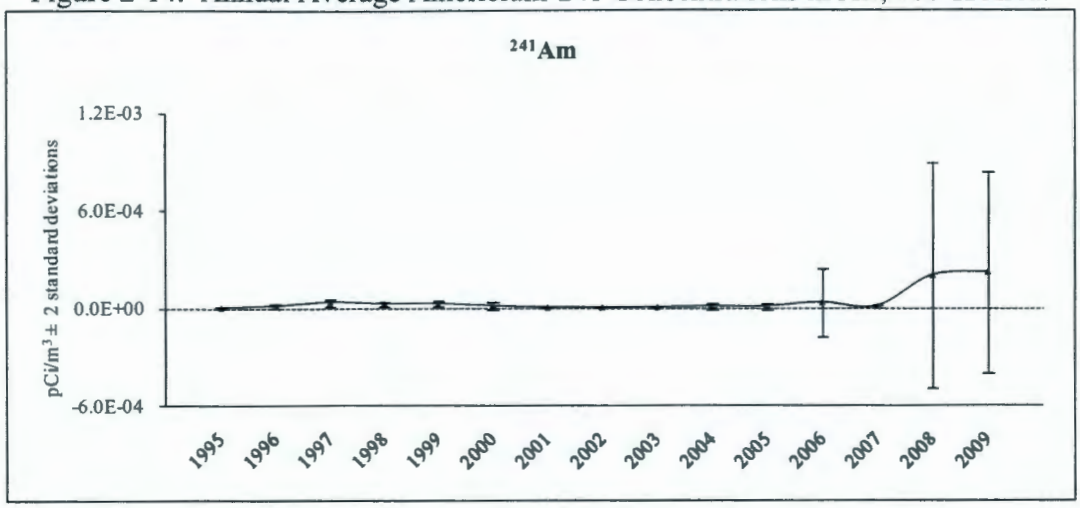


Figure 2-15. Annual Average Strontium-90 Concentrations in Air, 100-N.

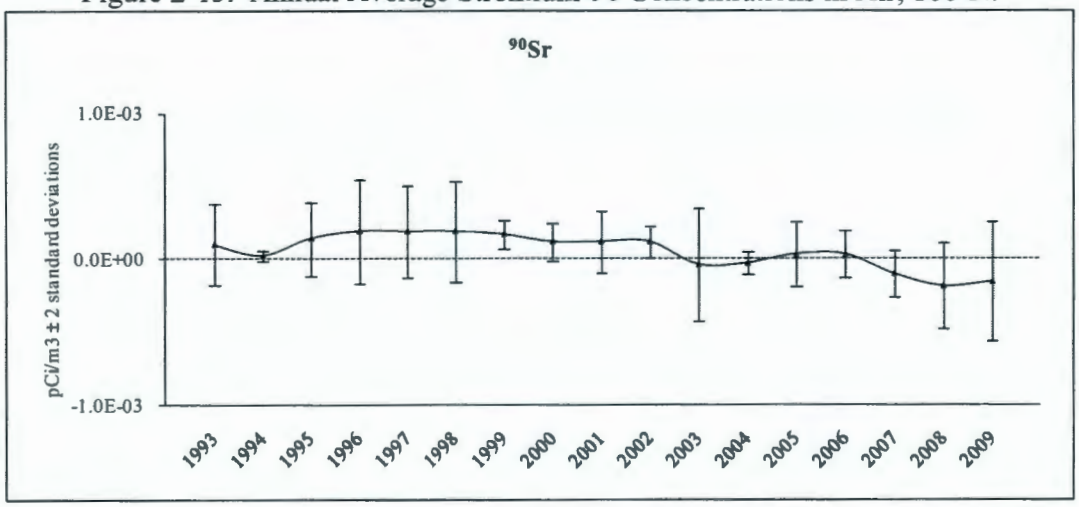


Figure 2-16. Annual Average Cesium-137 Concentrations in Air, 100-N.

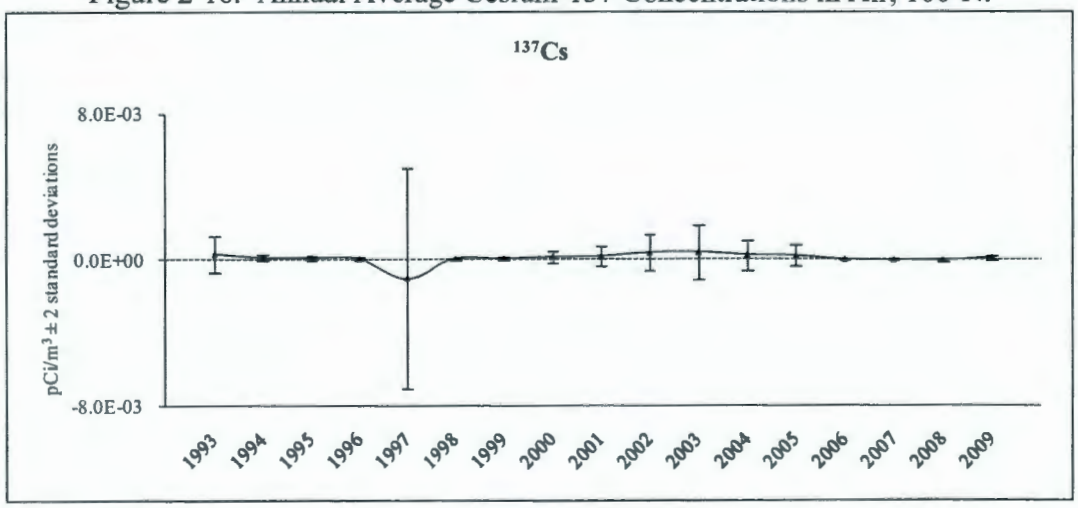


Figure 2-17. Annual Average Plutonium-239/240 Concentrations in Air, 100-N Area.

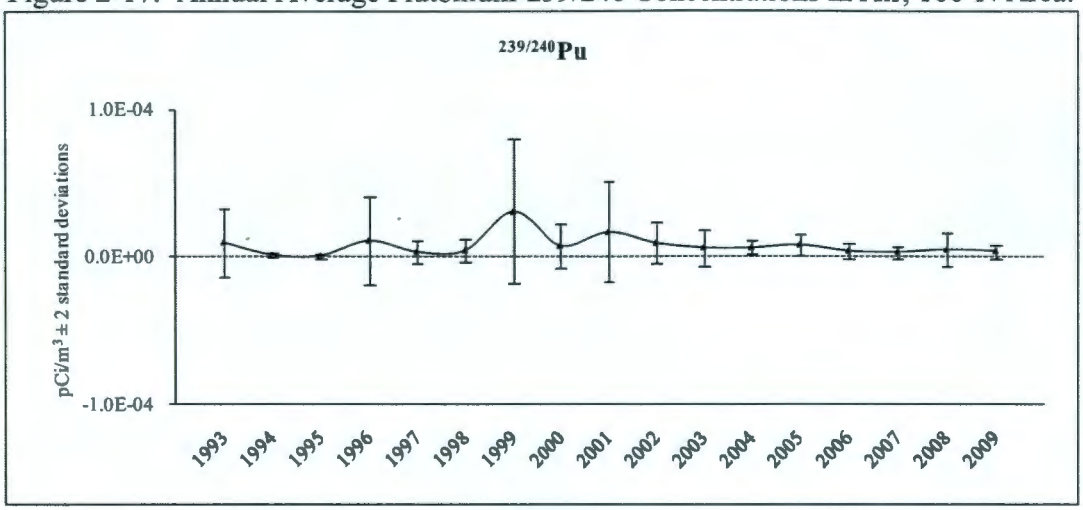


Figure 2-18. Annual Average Strontium-90 Concentrations in Air, 200 Areas.

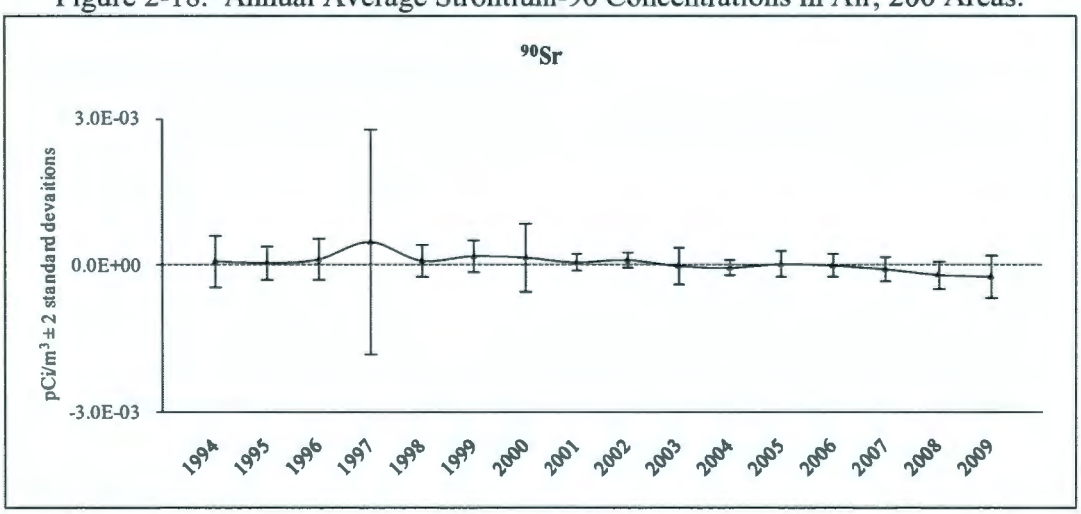


Figure 2-19. Annual Average Cesium-137 Concentrations in Air, 200 Areas.

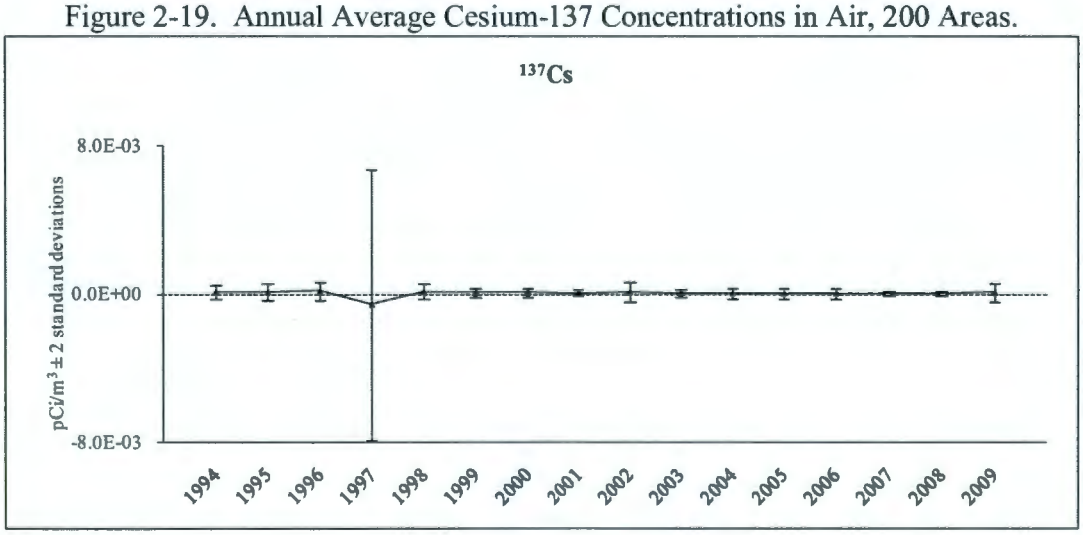


Figure 2-20. Annual Average Plutonium-239/240 Concentrations in Air, 200 Areas and N165.

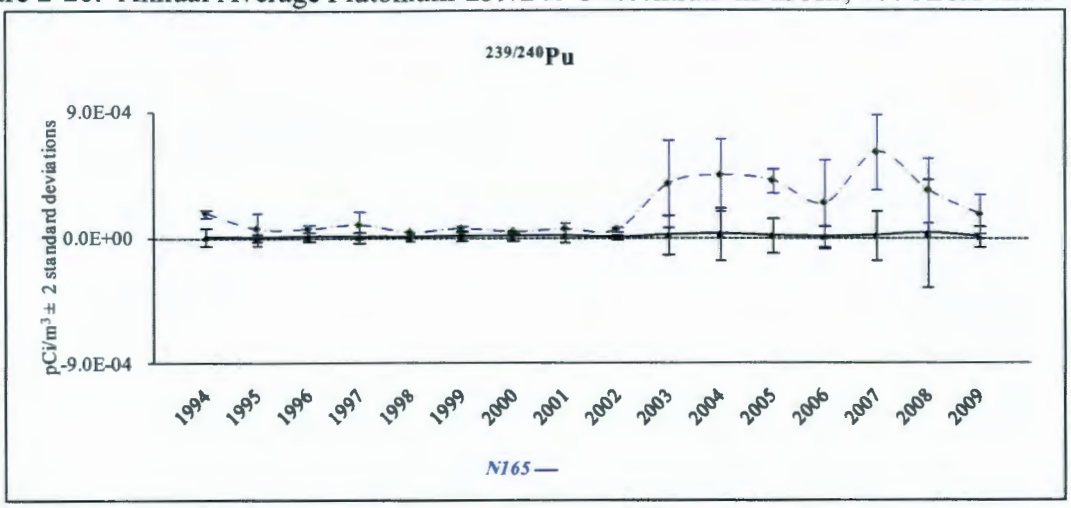


Figure 2-21. Annual Average Uranium-234 Concentrations in Air, 300 Area.

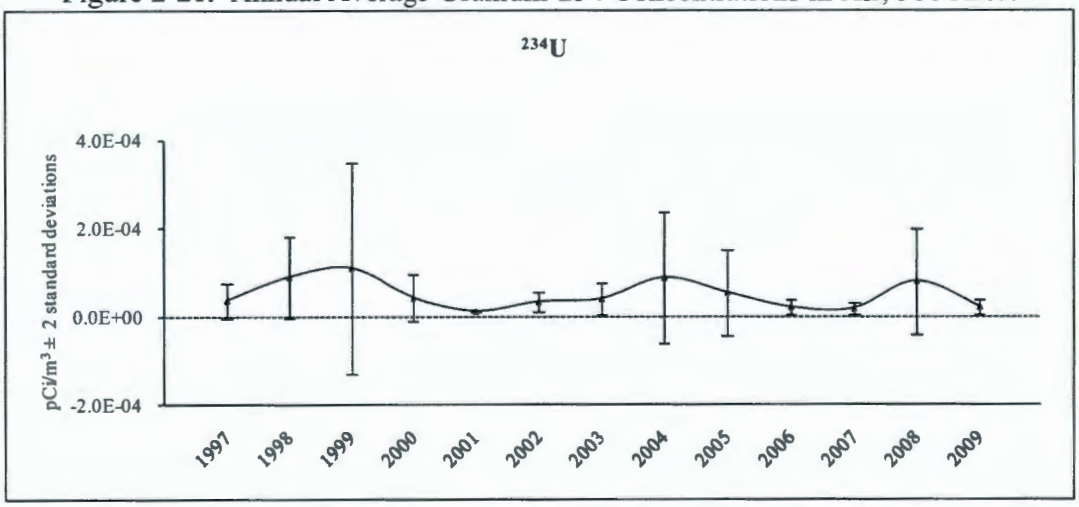


Figure 2-22. Annual Average Uranium-238 Concentrations in Air, 300 Area.

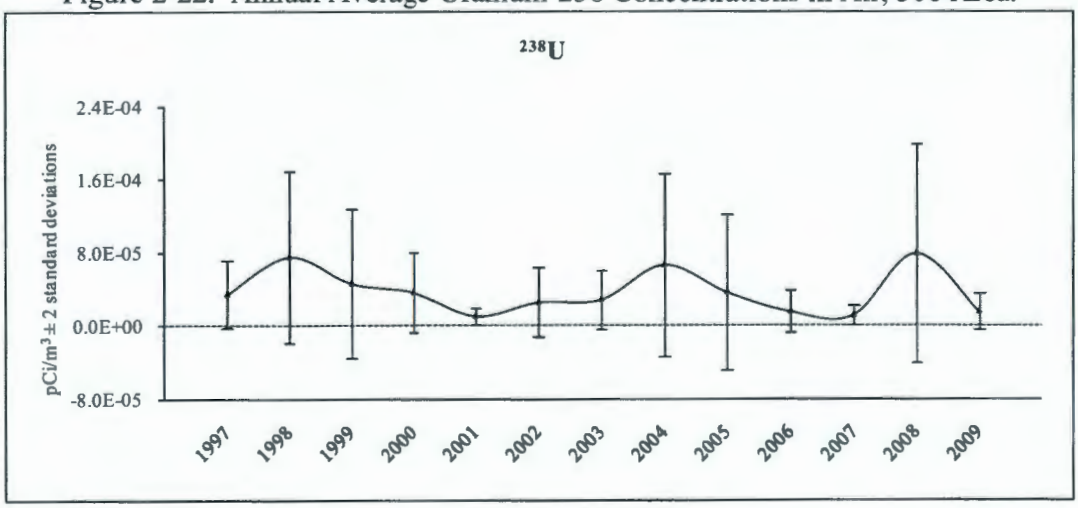


Table 2-3. Summary of Near-Facility Ambient Air Sampling Results (pCi/m^3), 2009.

Isotope	Number of Samples	Number of Detects	Mean[a]	Maximum[b]	Location	Sampler
^{241}Am	40	36	9.6E-05 ± 4.5E-04	1.1E-03 ± 3.9E-04	100-K East	N402
^{60}Co	162	1	3.4E-07 ± 1.2E-04	3.0E-04 ± 4.2E-04	300-FF-2	N538
^{134}Cs	162	1	1.1E-05 ± 1.1E-04	3.4E-04 ± 2.8E-04	200 West Area	N499
^{137}Cs	162	37	3.1E-03 ± 2.9E-02	1.2E-01 ± 3.9E-02	100-K East	N402
^{152}Eu	162	0	-3.3E-06 ± 2.5E-04	4.0E-04 ± 8.4E-04	300-FF-2	N537
^{154}Eu	162	0	1.8E-05 ± 3.1E-04	7.8E-04 ± 7.5E-04	200-North	N568
^{155}Eu	162	0	-2.0E-05 ± 2.7E-04	2.5E-04 ± 5.0E-04	200-North	N563
^{238}Pu	162	6	4.0E-06 ± 3.9E-05	1.5E-04 ± 7.1E-05	100-K East	N401
$^{239/240}$Pu	162	47	3.2E-05 ± 2.7E-04	1.2E-03 ± 4.7E-04	100-K East	N402
^{241}Pu	22	6	1.4E-03 ± 4.7E-03	9.2E-03 ± 2.9E-03	100-K East	N402
^{103}Ru	8	0	-1.0E-05 ± 7.7E-05	3.3E-05 ± 7.1E-05	200 East Area	N498
^{106}Ru	162	1	-1.1E-05 ± 1.0E-03	1.9E-03 ± 1.3E-03	100-K East	N401
^{125}Sb	162	0	1.0E-05 ± 2.3E-04	6.9E-04 ± 7.6E-04	300-FF-2	N539
^{113}Sn	8	0	8.2E-06 ± 4.5E-05	3.5E-05 ± 8.9E-05	200 West Area	N965
^{90}Sr	156	11	2.0E-04 ± 4.1E-03	1.5E-02 ± 4.4E-03	100-K East	N404
^{234}U	162	141	1.3E-05 ± 1.6E-05	5.4E-05 ± 2.4E-05	200-North	N564
^{235}U	162	17	2.5E-06 ± 5.8E-06	2.1E-05 ± 1.5E-05	200-North	N563
^{238}U	162	132	1.0E-05 ± 1.2E-05	3.8E-05 ± 1.8E-05	ERDF	N517
^{65}Zn	8	0	-3.5E-06 ± 2.1E-04	1.6E-04 ± 2.2E-04	200 West Area	N965
gross α	1973	1869	1.3E-03 ± 1.7E-03	2.0E-02 ± 2.5E-03	100-K East	N402
gross β	1973	1970	2.2E-02 ± 8.4E-02	1.2E+00 ± 8.4E-02	100-K East	N402

(a) ± 2 standard deviations
(b) ± total analytical uncertainty

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 1 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N467	12/30/08	01/13/09	gross α	6.4E-04 ± 5.1E-04
(100-D)	12/30/08	01/13/09	gross β	1.4E-02 ± 1.8E-03
	01/13/09	01/27/09	gross α	9.4E-04 ± 5.7E-04
	01/13/09	01/27/09	gross β	4.2E-02 ± 3.9E-03
	01/27/09	02/10/09	gross α	1.7E-03 ± 6.2E-04
	01/27/09	02/10/09	gross β	2.2E-02 ± 2.5E-03
	02/10/09	02/24/09	gross α	8.6E-04 ± 5.7E-04
	02/10/09	02/24/09	gross β	2.6E-02 ± 2.8E-03
	02/24/09	03/10/09	gross α	1.0E-03 ± 4.7E-04
	02/24/09	03/10/09	gross β	1.6E-02 ± 2.0E-03
	03/10/09	03/24/09	gross α	1.1E-03 ± 5.1E-04
	03/10/09	03/24/09	gross β	1.5E-02 ± 1.9E-03
	03/24/09	04/07/09	gross α	6.4E-04 ± 5.1E-04
	03/24/09	04/07/09	gross β	1.0E-02 ± 1.5E-03
	04/07/09	04/21/09	gross α	6.1E-04 ± 5.1E-04
	04/07/09	04/21/09	gross β	1.7E-02 ± 2.2E-03
	04/21/09	05/05/09	gross α	1.8E-03 ± 6.7E-04
	04/21/09	05/05/09	gross β	1.4E-02 ± 1.9E-03
	05/05/09	05/19/09	gross α	4.0E-04 ± 4.5E-04
	05/05/09	05/19/09	gross β	6.0E-03 ± 1.1E-03
	05/19/09	06/02/09	gross α	3.1E-04 ± 4.2E-04
	05/19/09	06/02/09	gross β	1.3E-02 ± 1.7E-03
	06/02/09	06/16/09	gross α	1.4E-03 ± 5.7E-04
	06/02/09	06/16/09	gross β	1.8E-02 ± 2.1E-03
	06/16/09	07/02/09	gross α	2.6E-04 ± 3.6E-04
	06/16/09	07/02/09	gross β	1.1E-02 ± 1.5E-03
	07/02/09	07/14/09	gross α	8.2E-04 ± 5.9E-04
	07/02/09	07/14/09	gross β	1.4E-02 ± 1.9E-03
	07/14/09	07/28/09	gross α	1.0E-03 ± 6.2E-04
	07/14/09	07/28/09	gross β	1.6E-02 ± 2.0E-03
	07/28/09	08/11/09	gross α	7.6E-04 ± 5.5E-04
	07/28/09	08/11/09	gross β	2.1E-02 ± 2.4E-03
	08/11/09	08/25/09	gross α	1.2E-03 ± 5.3E-04
	08/11/09	08/25/09	gross β	1.3E-02 ± 1.8E-03
	08/25/09	09/09/09	gross α	6.9E-04 ± 5.0E-04
	08/25/09	09/09/09	gross β	1.6E-02 ± 1.9E-03
	09/09/09	09/23/09	gross α	1.9E-03 ± 6.7E-04
	09/09/09	09/23/09	gross β	1.6E-02 ± 2.1E-03
	09/23/09	10/06/09	gross α	6.7E-04 ± 5.6E-04
	09/23/09	10/06/09	gross β	1.5E-02 ± 2.1E-03
	10/06/09	10/20/09	gross α	1.5E-03 ± 5.8E-04
	10/06/09	10/20/09	gross β	2.1E-02 ± 2.4E-03
	10/20/09	11/03/09	gross α	4.0E-04 ± 4.3E-04
	10/20/09	11/03/09	gross β	1.3E-02 ± 1.7E-03
	11/03/09	11/17/09	gross α	1.2E-03 ± 5.2E-04
	11/03/09	11/17/09	gross β	1.3E-02 ± 1.8E-03
	11/17/09	12/01/09	gross α	7.4E-04 ± 5.3E-04
	11/17/09	12/01/09	gross β	1.6E-02 ± 2.0E-03
	12/01/09	12/16/09	gross α	1.2E-03 ± 5.4E-04
	12/01/09	12/16/09	gross β	2.9E-02 ± 3.0E-03
	12/16/09	12/31/09	gross α	1.7E-03 ± 6.2E-04
	12/16/09	12/31/09	gross β	2.9E-02 ± 3.0E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N467	12/30/08 to 07/02/09	^{241}Am	8.0E-06 ± 5.2E-06	
		^{60}Co	1.5E-05 ± 8.5E-05	U
		^{134}Cs	7.4E-05 ± 8.1E-05	U
		^{137}Cs	6.5E-06 ± 6.5E-05	U
		^{152}Eu	2.0E-05 ± 1.7E-04	U
		^{154}Eu	-1.6E-04 ± 2.4E-04	U
		^{155}Eu	6.1E-05 ± 1.9E-04	U
		^{238}Pu	8.5E-06 ± 1.3E-05	U
		$^{239/240}$Pu	2.3E-06 ± 3.6E-06	U
		^{106}Ru	-6.1E-05 ± 6.1E-04	U
		^{125}Sb	1.9E-04 ± 1.7E-04	U
		^{90}Sr	-2.3E-04 ± 2.4E-04	U
		^{234}U	6.8E-06 ± 7.4E-06	U
		^{235}U	2.1E-06 ± 3.1E-06	U
		^{238}U	3.9E-06 ± 4.1E-06	
N467	07/02/09 to 12/31/09	^{241}Am	7.8E-06 ± 5.1E-06	
		^{60}Co	-7.9E-06 ± 8.0E-05	U
		^{134}Cs	5.8E-05 ± 7.1E-05	U
		^{137}Cs	8.9E-05 ± 7.4E-05	U
		^{152}Eu	-2.2E-05 ± 1.9E-04	U
		^{154}Eu	-6.0E-05 ± 2.3E-04	U
		^{155}Eu	-2.0E-05 ± 1.9E-04	U
		^{238}Pu	-1.1E-06 ± 3.6E-06	U
		$^{239/240}$Pu	3.4E-06 ± 3.4E-06	U
		^{106}Ru	1.5E-05 ± 1.5E-04	U
		^{125}Sb	1.7E-04 ± 1.9E-04	U
		^{90}Sr	-6.2E-05 ± 6.4E-05	U
		^{234}U	1.2E-05 ± 7.9E-06	
		^{235}U	2.2E-06 ± 2.6E-06	
		^{238}U	1.2E-05 ± 7.2E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 2 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N468	12/30/08	01/13/09	gross α	1.2E-03 ± 5.3E-04
(100-D)	12/30/08	01/13/09	gross β	1.2E-02 ± 1.6E-03
	01/13/09	01/27/09	gross α	1.8E-03 ± 6.4E-04
	01/13/09	01/27/09	gross β	4.0E-02 ± 3.8E-03
	01/27/09	02/10/09	gross α	1.5E-03 ± 5.8E-04
	01/27/09	02/10/09	gross β	2.3E-02 ± 2.6E-03
	02/10/09	02/24/09	gross α	1.7E-03 ± 6.2E-04
	02/10/09	02/24/09	gross β	2.1E-02 ± 2.3E-03
	02/24/09	03/10/09	gross α	1.3E-03 ± 5.4E-04
	02/24/09	03/10/09	gross β	1.4E-02 ± 1.8E-03
	03/10/09	03/24/09	gross α	1.6E-03 ± 6.2E-04
	03/10/09	03/24/09	gross β	1.3E-02 ± 1.7E-03
	03/24/09	04/07/09	gross α	1.2E-03 ± 5.2E-04
	03/24/09	04/07/09	gross β	1.0E-02 ± 1.5E-03
	04/07/09	04/21/09	gross α	1.1E-03 ± 5.0E-04
	04/07/09	04/21/09	gross β	1.4E-02 ± 1.9E-03
	04/21/09	05/05/09	gross α	1.2E-03 ± 5.2E-04
	04/21/09	05/05/09	gross β	1.2E-02 ± 1.6E-03
	05/05/09	05/19/09	gross α	5.0E-04 ± 4.7E-04
	05/05/09	05/19/09	gross β	7.8E-03 ± 1.3E-03
	05/19/09	06/02/09	gross α	8.3E-04 ± 5.5E-04
	05/19/09	06/02/09	gross β	1.1E-02 ± 1.5E-03
	06/02/09	06/16/09	gross α	4.0E-04 ± 4.3E-04
	06/02/09	06/16/09	gross β	1.6E-02 ± 2.0E-03
	06/16/09	07/02/09	gross α	8.4E-04 ± 5.1E-04
	06/16/09	07/02/09	gross β	8.6E-03 ± 1.3E-03
	07/02/09	07/14/09	gross α	7.4E-04 ± 5.9E-04
	07/02/09	07/14/09	gross β	1.2E-02 ± 1.7E-03
	07/14/09	07/28/09	gross α	8.6E-04 ± 5.8E-04
	07/14/09	07/28/09	gross β	1.5E-02 ± 1.9E-03
	07/28/09	08/11/09	gross α	1.2E-03 ± 5.1E-04
	07/28/09	08/11/09	gross β	1.7E-02 ± 2.0E-03
	08/11/09	08/25/09	gross α	8.9E-04 ± 5.6E-04
	08/11/09	08/25/09	gross β	1.4E-02 ± 1.9E-03
	08/25/09	09/09/09	gross α	1.7E-04 ± 3.3E-04
	08/25/09	09/09/09	gross β	1.4E-02 ± 1.8E-03
	09/09/09	09/23/09	gross α	1.3E-03 ± 5.4E-04
	09/09/09	09/23/09	gross β	1.7E-02 ± 2.1E-03
	09/23/09	10/06/09	gross α	1.5E-03 ± 6.0E-04
	09/23/09	10/06/09	gross β	1.2E-02 ± 1.8E-03
	10/06/09	10/20/09	gross α	1.3E-03 ± 5.5E-04
	10/06/09	10/20/09	gross β	2.1E-02 ± 2.4E-03
	10/20/09	11/03/09	gross α	1.6E-03 ± 6.1E-04
	10/20/09	11/03/09	gross β	1.2E-02 ± 1.7E-03
	11/03/09	11/17/09	gross α	1.2E-03 ± 5.2E-04
	11/03/09	11/17/09	gross β	1.7E-02 ± 2.1E-03
	11/17/09	12/01/09	gross α	1.6E-03 ± 6.0E-04
	11/17/09	12/01/09	gross β	1.5E-02 ± 1.9E-03
	12/01/09	12/16/09	gross α	2.5E-03 ± 7.5E-04
	12/01/09	12/16/09	gross β	3.9E-02 ± 3.7E-03
	12/16/09	12/31/09	gross α	1.6E-03 ± 6.0E-04
	12/16/09	12/31/09	gross β	3.1E-02 ± 3.1E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N468	12/30/08 to 07/02/09	^{241}Am	1.4E-05 ± 7.6E-06	
		^{60}Co	3.3E-05 ± 7.0E-05	U
		^{134}Cs	1.6E-05 ± 7.0E-05	U
		^{137}Cs	8.5E-05 ± 7.0E-05	U
		^{152}Eu	-5.2E-05 ± 1.4E-04	U
		^{154}Eu	-6.5E-05 ± 1.9E-04	U
		^{155}Eu	4.4E-05 ± 1.3E-04	U
		^{238}Pu	-2.0E-06 ± 1.2E-05	U
		$^{239/240}$Pu	2.0E-06 ± 3.6E-06	U
		^{106}Ru	8.1E-05 ± 5.7E-04	U
		^{125}Sb	4.4E-05 ± 1.4E-04	U
		^{90}Sr	-3.2E-04 ± 3.4E-04	U
		^{234}U	4.8E-06 ± 4.4E-06	
		^{235}U	8.2E-07 ± 8.6E-07	U
		^{238}U	7.2E-06 ± 6.0E-06	
N468	07/02/09 to 12/31/09	^{241}Am	6.6E-06 ± 5.0E-06	
		^{60}Co	2.4E-05 ± 7.4E-05	U
		^{134}Cs	-6.6E-06 ± 6.6E-05	U
		^{137}Cs	9.6E-05 ± 7.4E-05	U
		^{152}Eu	-5.2E-05 ± 2.0E-04	U
		^{154}Eu	-1.7E-05 ± 1.7E-04	U
		^{155}Eu	8.2E-05 ± 1.8E-04	U
		^{238}Pu	-1.7E-05 ± 1.6E-05	U
		$^{239/240}$Pu	6.9E-07 ± 3.1E-06	U
		^{106}Ru	-1.6E-04 ± 6.6E-04	U
		^{125}Sb	-2.0E-05 ± 1.6E-04	U
		^{90}Sr	1.5E-04 ± 2.4E-04	U
		^{234}U	7.1E-06 ± 5.7E-06	
		^{235}U	1.3E-06 ± 1.9E-06	U
		^{238}U	1.0E-05 ± 6.2E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 3 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N514	12/30/08	01/13/09	gross α	5.9E-04 ± 5.0E-04
(100-D)	12/30/08	01/13/09	gross β	1.3E-02 ± 1.8E-03
	01/13/09	01/27/09	gross α	2.1E-03 ± 6.8E-04
	01/13/09	01/27/09	gross β	4.7E-02 ± 4.4E-03
	01/27/09	02/10/09	gross α	6.1E-04 ± 5.0E-04
	01/27/09	02/10/09	gross β	2.1E-02 ± 2.4E-03
	02/10/09	02/24/09	gross α	1.0E-03 ± 4.9E-04
	02/10/09	02/24/09	gross β	2.9E-02 ± 3.0E-03
	02/24/09	03/10/09	gross α	1.4E-03 ± 5.6E-04
	02/24/09	03/10/09	gross β	1.0E-02 ± 1.5E-03
	03/10/09	03/24/09	gross α	1.1E-03 ± 5.2E-04
	03/10/09	03/24/09	gross β	1.4E-02 ± 2.0E-03
	03/24/09	04/07/09	gross α	8.4E-04 ± 5.7E-04
	03/24/09	04/07/09	gross β	1.3E-02 ± 1.8E-03
	04/07/09	04/21/09	gross α	1.1E-03 ± 5.0E-04
	04/07/09	04/21/09	gross β	1.2E-02 ± 1.6E-03
	04/21/09	05/05/09	gross α	8.5E-04 ± 5.6E-04
	04/21/09	05/05/09	gross β	1.4E-02 ± 1.8E-03
	05/05/09	05/19/09	gross α	8.5E-04 ± 5.6E-04
	05/05/09	05/19/09	gross β	7.8E-03 ± 1.3E-03
	05/19/09	06/02/09	gross α	2.6E-03 ± 9.2E-04
	05/19/09	06/02/09	gross β	2.3E-02 ± 2.9E-03
	06/02/09	06/16/09	gross α	5.8E-04 ± 6.4E-04
	06/02/09	06/16/09	gross β	2.1E-02 ± 2.7E-03
	06/16/09	07/02/09	gross α	5.1E-04 ± 4.3E-04
	06/16/09	07/02/09	gross β	1.1E-02 ± 1.5E-03
	07/02/09	07/14/09	gross α	4.3E-04 ± 5.0E-04
	07/02/09	07/14/09	gross β	1.6E-02 ± 2.1E-03
	07/14/09	07/28/09	gross α	9.6E-04 ± 5.9E-04
	07/14/09	07/28/09	gross β	1.3E-02 ± 1.7E-03
	07/28/09	08/11/09	gross α	1.5E-03 ± 5.8E-04
	07/28/09	08/11/09	gross β	1.8E-02 ± 2.2E-03
	08/11/09	08/25/09	gross α	7.3E-04 ± 5.3E-04
	08/11/09	08/25/09	gross β	1.1E-02 ± 1.6E-03
	08/25/09	09/09/09	gross α	1.3E-03 ± 5.2E-04
	08/25/09	09/09/09	gross β	1.9E-02 ± 2.2E-03
	09/09/09	09/23/09	gross α	1.0E-03 ± 4.8E-04
	09/09/09	09/23/09	gross β	1.7E-02 ± 2.1E-03
	09/23/09	10/06/09	gross α	1.8E-04 ± 3.9E-04
	09/23/09	10/06/09	gross β	1.4E-02 ± 1.8E-03
	10/06/09	10/20/09	gross α	1.6E-03 ± 6.0E-04
	10/06/09	10/20/09	gross β	2.1E-02 ± 2.4E-03
	10/20/09	11/03/09	gross α	1.4E-03 ± 5.5E-04
	10/20/09	11/03/09	gross β	1.3E-02 ± 1.8E-03
	11/03/09	11/17/09	gross α	1.3E-03 ± 5.6E-04
	11/03/09	11/17/09	gross β	1.1E-02 ± 1.5E-03
	11/17/09	12/01/09	gross α	9.1E-04 ± 5.8E-04
	11/17/09	12/01/09	gross β	1.4E-02 ± 1.9E-03
	12/01/09	12/16/09	gross α	2.0E-03 ± 6.8E-04
	12/01/09	12/16/09	gross β	4.0E-02 ± 3.8E-03
	12/16/09	12/31/09	gross α	1.6E-03 ± 5.9E-04
	12/16/09	12/31/09	gross β	2.3E-02 ± 2.5E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N514	12/30/08 to 07/02/09	^{241}Am	7.4E-06 ± 5.5E-06	
		^{60}Co	-4.6E-05 ± 8.5E-05	U
		^{134}Cs	-5.0E-06 ± 5.0E-05	U
		^{137}Cs	-5.4E-05 ± 6.5E-05	U
		^{152}Eu	-6.0E-05 ± 1.5E-04	U
		^{154}Eu	-1.3E-04 ± 2.2E-04	U
		^{155}Eu	-3.7E-05 ± 1.4E-04	U
		^{238}Pu	-4.7E-06 ± 1.6E-05	U
		$^{239/240}$Pu	4.7E-06 ± 5.3E-06	U
		^{106}Ru	2.8E-04 ± 6.0E-04	U
		^{125}Sb	1.2E-04 ± 1.5E-04	U
		^{90}Sr	-5.3E-04 ± 5.5E-04	U
		^{234}U	1.1E-05 ± 7.1E-06	
		^{235}U	-8.0E-07 ± 1.6E-06	U
		^{238}U	1.2E-05 ± 7.7E-06	
N514	07/02/09 to 12/31/09	^{241}Am	1.0E-05 ± 6.2E-06	
		^{60}Co	-2.8E-05 ± 7.9E-05	U
		^{134}Cs	-9.1E-06 ± 6.7E-05	U
		^{137}Cs	2.9E-05 ± 6.1E-05	U
		^{152}Eu	5.3E-05 ± 1.6E-04	U
		^{154}Eu	7.0E-05 ± 2.0E-04	U
		^{155}Eu	1.8E-04 ± 1.8E-04	U
		^{238}Pu	1.8E-05 ± 1.6E-05	U
		$^{239/240}$Pu	3.5E-06 ± 3.9E-06	U
		^{106}Ru	-9.9E-05 ± 5.6E-04	U
		^{125}Sb	2.3E-05 ± 1.5E-04	U
		^{90}Sr	-1.4E-04 ± 1.5E-04	U
		^{234}U	1.0E-05 ± 6.4E-06	
		^{235}U	7.0E-07 ± 2.5E-06	U
		^{238}U	1.4E-05 ± 8.3E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 4 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N515	12/30/08	01/13/09	gross α	9.2E-04 ± 5.8E-04
(100-D)	12/30/08	01/13/09	gross β	1.5E-02 ± 2.0E-03
	01/13/09	01/27/09	gross α	2.3E-03 ± 7.1E-04
	01/13/09	01/27/09	gross β	4.8E-02 ± 4.4E-03
	01/27/09	02/10/09	gross α	1.6E-03 ± 6.1E-04
	01/27/09	02/10/09	gross β	1.9E-02 ± 2.2E-03
	02/10/09	02/24/09	gross α	9.0E-04 ± 5.7E-04
	02/10/09	02/24/09	gross β	2.7E-02 ± 2.9E-03
	02/24/09	03/10/09	gross α	1.2E-03 ± 5.1E-04
	02/24/09	03/10/09	gross β	1.0E-02 ± 1.5E-03
	03/10/09	03/24/09	gross α	1.1E-03 ± 5.1E-04
	03/10/09	03/24/09	gross β	1.4E-02 ± 1.9E-03
	03/24/09	04/07/09	gross α	1.3E-03 ± 5.4E-04
	03/24/09	04/07/09	gross β	1.2E-02 ± 1.7E-03
	04/07/09	04/21/09	gross α	7.4E-04 ± 5.4E-04
	04/07/09	04/21/09	gross β	1.1E-02 ± 1.5E-03
	04/21/09	05/05/09	gross α	1.3E-03 ± 5.3E-04
	04/21/09	05/05/09	gross β	1.2E-02 ± 1.6E-03
	05/05/09	05/19/09	gross α	7.2E-04 ± 5.2E-04
	05/05/09	05/19/09	gross β	8.3E-03 ± 1.3E-03
	05/19/09	06/02/09	gross α	1.4E-03 ± 5.6E-04
	05/19/09	06/02/09	gross β	1.8E-02 ± 2.2E-03
	06/02/09	06/16/09	gross α	6.2E-04 ± 5.0E-04
	06/02/09	06/16/09	gross β	1.7E-02 ± 2.0E-03
	06/16/09	07/02/09	gross α	1.0E-03 ± 4.5E-04
	06/16/09	07/02/09	gross β	1.3E-02 ± 1.7E-03
	07/02/09	07/14/09	gross α	1.2E-03 ± 5.5E-04
	07/02/09	07/14/09	gross β	1.6E-02 ± 2.1E-03
	07/14/09	07/28/09	gross α	1.7E-03 ± 6.3E-04
	07/14/09	07/28/09	gross β	1.8E-02 ± 2.1E-03
	07/28/09	08/11/09	gross α	1.7E-03 ± 6.2E-04
	07/28/09	08/11/09	gross β	1.9E-02 ± 2.3E-03
	08/11/09	08/25/09	gross α	1.1E-03 ± 5.0E-04
	08/11/09	08/25/09	gross β	1.1E-02 ± 1.6E-03
	08/25/09	09/09/09	gross α	1.2E-03 ± 5.0E-04
	08/25/09	09/09/09	gross β	1.9E-02 ± 2.2E-03
	09/09/09	09/23/09	gross α	1.0E-03 ± 4.7E-04
	09/09/09	09/23/09	gross β	1.7E-02 ± 2.1E-03
	09/23/09	10/06/09	gross α	1.2E-03 ± 5.4E-04
	09/23/09	10/06/09	gross β	1.2E-02 ± 1.7E-03
	10/06/09	10/20/09	gross α	1.4E-03 ± 5.5E-04
	10/06/09	10/20/09	gross β	2.3E-02 ± 2.6E-03
	10/20/09	11/03/09	gross α	1.8E-03 ± 6.4E-04
	10/20/09	11/03/09	gross β	1.4E-02 ± 1.9E-03
	11/03/09	11/17/09	gross α	8.6E-04 ± 5.8E-04
	11/03/09	11/17/09	gross β	1.2E-02 ± 1.6E-03
	11/17/09	12/01/09	gross α	1.2E-03 ± 5.2E-04
	11/17/09	12/01/09	gross β	1.6E-02 ± 2.0E-03
	12/01/09	12/16/09	gross α	1.8E-03 ± 6.2E-04
	12/01/09	12/16/09	gross β	3.3E-02 ± 3.3E-03
	12/16/09	12/31/09	gross α	2.6E-03 ± 7.7E-04
	12/16/09	12/31/09	gross β	3.7E-02 ± 3.5E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N515	12/30/08 to 07/02/09	^{241}Am	1.4E-05 ± 7.6E-06	
		^{60}Co	3.7E-05 ± 6.3E-05	U
		^{134}Cs	1.5E-05 ± 6.5E-05	U
		^{137}Cs	5.1E-05 ± 5.8E-05	U
		^{152}Eu	5.8E-05 ± 1.5E-04	U
		^{154}Eu	-2.2E-04 ± 2.3E-04	U
		^{155}Eu	1.9E-05 ± 1.6E-04	U
		^{238}Pu	7.5E-07 ± 7.5E-06	U
		$^{239/240}$Pu	2.2E-06 ± 2.7E-06	
		^{106}Ru	-4.5E-04 ± 6.0E-04	U
		^{125}Sb	3.3E-05 ± 1.3E-04	U
		^{90}Sr	-2.6E-04 ± 2.7E-04	U
		^{234}U	7.3E-06 ± 5.3E-06	
		^{235}U	5.1E-06 ± 4.3E-06	
		^{238}U	1.0E-05 ± 6.7E-06	
N515	07/02/09 to 12/31/09	^{241}Am	5.4E-06 ± 4.1E-06	
		^{60}Co	-2.3E-05 ± 9.7E-05	U
		^{134}Cs	-2.6E-05 ± 8.2E-05	U
		^{137}Cs	6.1E-05 ± 7.9E-05	U
		^{152}Eu	-1.6E-05 ± 1.6E-04	U
		^{154}Eu	-1.4E-04 ± 2.7E-04	U
		^{155}Eu	1.2E-04 ± 1.7E-04	U
		^{238}Pu	5.9E-06 ± 1.2E-05	U
		$^{239/240}$Pu	5.9E-06 ± 5.2E-06	
		^{106}Ru	1.7E-04 ± 6.8E-04	U
		^{125}Sb	-1.4E-04 ± 1.8E-04	U
		^{90}Sr	-1.7E-04 ± 1.8E-04	U
		^{234}U	6.7E-06 ± 5.3E-06	
		^{235}U	2.2E-06 ± 2.7E-06	
		^{238}U	1.3E-05 ± 7.8E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 5 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N508	12/30/08	01/13/09	gross α	2.6E-04 ± 3.9E-04
(100-H)	12/30/08	01/13/09	gross β	1.5E-02 ± 2.0E-03
	01/13/09	01/27/09	gross α	2.5E-03 ± 7.5E-04
	01/13/09	01/27/09	gross β	5.3E-02 ± 4.9E-03
	01/27/09	02/10/09	gross α	2.0E-03 ± 6.9E-04
	01/27/09	02/10/09	gross β	2.3E-02 ± 2.5E-03
	02/10/09	02/24/09	gross α	1.5E-03 ± 5.8E-04
	02/10/09	02/24/09	gross β	3.2E-02 ± 3.3E-03
	02/24/09	03/10/09	gross α	1.3E-03 ± 5.3E-04
	02/24/09	03/10/09	gross β	1.4E-02 ± 1.8E-03
	03/10/09	03/24/09	gross α	1.7E-03 ± 6.5E-04
	03/10/09	03/24/09	gross β	1.7E-02 ± 2.2E-03
	03/24/09	04/07/09	gross α	1.0E-03 ± 4.8E-04
	03/24/09	04/07/09	gross β	1.3E-02 ± 1.8E-03
	04/07/09	04/21/09	gross α	1.7E-03 ± 6.3E-04
	04/07/09	04/21/09	gross β	1.2E-02 ± 1.7E-03
	04/21/09	05/05/09	gross α	9.6E-04 ± 5.9E-04
	04/21/09	05/05/09	gross β	1.3E-02 ± 1.7E-03
	05/05/09	05/19/09	gross α	1.1E-03 ± 5.0E-04
	05/05/09	05/19/09	gross β	9.3E-03 ± 1.4E-03
	05/19/09	06/02/09	gross α	6.9E-04 ± 5.2E-04
	05/19/09	06/02/09	gross β	2.0E-02 ± 2.3E-03
	06/02/09	06/16/09	gross α	6.5E-04 ± 5.3E-04
	06/02/09	06/16/09	gross β	1.5E-02 ± 2.0E-03
	06/16/09	07/02/09	gross α	8.0E-04 ± 5.0E-04
	06/16/09	07/02/09	gross β	1.0E-02 ± 1.4E-03
	07/02/09	07/14/09	gross α	1.3E-03 ± 6.0E-04
	07/02/09	07/14/09	gross β	1.8E-02 ± 2.3E-03
	07/14/09	07/28/09	gross α	7.6E-04 ± 5.5E-04
	07/14/09	07/28/09	gross β	1.5E-02 ± 1.9E-03
	07/28/09	08/11/09	gross α	1.4E-03 ± 5.5E-04
	07/28/09	08/11/09	gross β	1.9E-02 ± 2.3E-03
	08/11/09	08/25/09	gross α	7.5E-04 ± 5.5E-04
	08/11/09	08/25/09	gross β	1.5E-02 ± 1.9E-03
	08/25/09	09/09/09	gross α	7.7E-04 ± 5.2E-04
	08/25/09	09/09/09	gross β	1.9E-02 ± 2.2E-03
	09/09/09	09/23/09	gross α	8.0E-04 ± 5.5E-04
	09/09/09	09/23/09	gross β	1.7E-02 ± 2.1E-03
	09/23/09	10/06/09	gross α	1.1E-03 ± 6.9E-04
	09/23/09	10/06/09	gross β	1.7E-02 ± 2.2E-03
	10/06/09	10/20/09	gross α	1.7E-03 ± 6.2E-04
	10/06/09	10/20/09	gross β	2.1E-02 ± 2.4E-03
	10/20/09	11/03/09	gross α	2.5E-03 ± 7.5E-04
	10/20/09	11/03/09	gross β	1.4E-02 ± 1.8E-03
	11/03/09	11/17/09	gross α	7.5E-04 ± 5.5E-04
	11/03/09	11/17/09	gross β	1.2E-02 ± 1.7E-03
	11/17/09	12/01/09	gross α	1.4E-03 ± 5.6E-04
	11/17/09	12/01/09	gross β	2.0E-02 ± 2.4E-03
	12/01/09	12/16/09	gross α	2.2E-03 ± 7.7E-04
	12/01/09	12/16/09	gross β	3.8E-02 ± 3.8E-03
	12/16/09	12/31/09	gross α	2.2E-03 ± 7.3E-04
	12/16/09	12/31/09	gross β	4.3E-02 ± 4.1E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N508	12/30/08 to 07/02/09	^{60}Co	1.9E-05 ± 5.4E-05	U
		^{134}Cs	-3.4E-05 ± 6.9E-05	U
		^{137}Cs	9.4E-05 ± 6.2E-05	U
		^{152}Eu	9.6E-05 ± 1.5E-04	U
		^{154}Eu	2.2E-06 ± 2.2E-05	U
		^{155}Eu	5.8E-05 ± 1.5E-04	U
		^{238}Pu	-3.9E-06 ± 1.1E-05	
		$^{239/240}$Pu	7.7E-07 ± 8.0E-07	
		^{106}Ru	-3.8E-04 ± 5.4E-04	U
		^{125}Sb	7.3E-06 ± 7.3E-05	U
		^{90}Sr	-9.1E-05 ± 9.4E-05	U
		^{234}U	4.4E-06 ± 4.5E-06	U
		^{235}U	5.6E-06 ± 5.3E-06	U
		^{238}U	5.9E-06 ± 4.7E-06	
N508	07/02/09 to 12/31/09	^{241}Am	1.2E-05 ± 6.8E-06	
		^{60}Co	8.4E-06 ± 7.9E-05	U
		^{134}Cs	1.7E-05 ± 8.1E-05	U
		^{137}Cs	5.4E-05 ± 7.0E-05	U
		^{152}Eu	4.1E-05 ± 2.1E-04	U
		^{154}Eu	1.3E-04 ± 2.9E-04	U
		^{155}Eu	1.5E-08 ± 1.5E-07	U
		^{238}Pu	-8.8E-06 ± 1.6E-05	U
		$^{239/240}$Pu	1.5E-06 ± 2.2E-06	U
		^{106}Ru	6.3E-06 ± 6.3E-05	U
		^{125}Sb	3.9E-06 ± 3.9E-05	U
		^{90}Sr	-1.9E-04 ± 2.0E-04	U
		^{234}U	9.2E-06 ± 7.1E-06	
		^{235}U	2.3E-06 ± 2.8E-06	
		^{238}U	1.1E-05 ± 7.4E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 6 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N509	12/30/08	01/13/09	gross α	4.9E-04 ± 4.8E-04
(100-H)	12/30/08	01/13/09	gross β	1.4E-02 ± 1.9E-03
	01/13/09	01/27/09	gross α	2.1E-03 ± 6.8E-04
	01/13/09	01/27/09	gross β	4.5E-02 ± 4.3E-03
	01/27/09	02/10/09	gross α	1.7E-03 ± 6.3E-04
	01/27/09	02/10/09	gross β	2.2E-02 ± 2.4E-03
	02/10/09	02/24/09	gross α	1.7E-03 ± 6.3E-04
	02/10/09	02/24/09	gross β	3.3E-02 ± 3.4E-03
	02/24/09	03/10/09	gross α	1.2E-03 ± 5.1E-04
	02/24/09	03/10/09	gross β	1.3E-02 ± 1.7E-03
	03/10/09	03/24/09	gross α	7.3E-04 ± 5.5E-04
	03/10/09	03/24/09	gross β	1.4E-02 ± 1.9E-03
	03/24/09	04/07/09	gross α	1.5E-03 ± 5.9E-04
	03/24/09	04/07/09	gross β	1.0E-02 ± 1.6E-03
	04/07/09	04/21/09	gross α	1.4E-03 ± 5.8E-04
	04/07/09	04/21/09	gross β	1.5E-02 ± 1.9E-03
	04/21/09	05/05/09	gross α	1.1E-03 ± 5.0E-04
	04/21/09	05/05/09	gross β	1.5E-02 ± 1.9E-03
	05/05/09	05/19/09	gross α	5.2E-04 ± 4.7E-04
	05/05/09	05/19/09	gross β	9.9E-03 ± 1.5E-03
	05/19/09	06/02/09	gross α	1.4E-03 ± 5.5E-04
	05/19/09	06/02/09	gross β	2.0E-02 ± 2.3E-03
	06/02/09	06/16/09	gross α	1.7E-03 ± 6.3E-04
	06/02/09	06/16/09	gross β	1.8E-02 ± 2.1E-03
	06/16/09	07/02/09	gross α	9.0E-04 ± 4.2E-04
	06/16/09	07/02/09	gross β	1.2E-02 ± 1.6E-03
	07/02/09	07/14/09	gross α	1.5E-03 ± 6.3E-04
	07/02/09	07/14/09	gross β	1.5E-02 ± 2.1E-03
	07/14/09	07/28/09	gross α	1.1E-03 ± 5.0E-04
	07/14/09	07/28/09	gross β	1.7E-02 ± 2.1E-03
	07/28/09	08/11/09	gross α	2.4E-03 ± 1.0E-03
	07/28/09	08/11/09	gross β	3.7E-02 ± 4.5E-03
	08/11/09	08/25/09	gross α	2.1E-03 ± 7.0E-04
	08/11/09	08/25/09	gross β	1.1E-02 ± 1.5E-03
	08/25/09	09/09/09	gross α	6.5E-04 ± 4.9E-04
	08/25/09	09/09/09	gross β	1.8E-02 ± 2.2E-03
	09/09/09	09/23/09	gross α	1.8E-03 ± 6.5E-04
	09/09/09	09/23/09	gross β	2.1E-02 ± 2.5E-03
	09/23/09	10/06/09	gross α	3.3E-04 ± 4.6E-04
	09/23/09	10/06/09	gross β	1.3E-02 ± 1.8E-03
	10/06/09	10/20/09	gross α	1.2E-03 ± 5.3E-04
	10/06/09	10/20/09	gross β	2.0E-02 ± 2.4E-03
	10/20/09	11/03/09	gross α	6.9E-04 ± 5.2E-04
	10/20/09	11/03/09	gross β	1.3E-02 ± 1.8E-03
	11/03/09	11/17/09	gross α	1.7E-03 ± 6.3E-04
	11/03/09	11/17/09	gross β	1.0E-02 ± 1.5E-03
	11/17/09	12/01/09	gross α	8.0E-04 ± 5.5E-04
	11/17/09	12/01/09	gross β	1.5E-02 ± 2.0E-03
	12/01/09	12/16/09	gross α	1.6E-03 ± 6.0E-04
	12/01/09	12/16/09	gross β	3.6E-02 ± 3.5E-03
	12/16/09	12/31/09	gross α	1.5E-03 ± 5.8E-04
	12/16/09	12/31/09	gross β	3.7E-02 ± 3.6E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N509	12/30/08 to 07/02/09	^{60}Co	3.1E-05 ± 8.3E-05	U
		^{134}Cs	7.4E-06 ± 7.1E-05	U
		^{137}Cs	7.0E-06 ± 6.3E-05	U
		^{152}Eu	1.8E-04 ± 1.7E-04	U
		^{154}Eu	7.7E-05 ± 2.0E-04	U
		^{155}Eu	2.0E-04 ± 1.7E-04	U
		^{238}Pu	-4.7E-06 ± 1.4E-05	
		$^{239/240}$Pu	9.4E-07 ± 1.9E-06	
		^{106}Ru	-5.2E-05 ± 5.2E-04	U
		^{125}Sb	-1.5E-06 ± 1.5E-05	U
		^{90}Sr	-1.3E-04 ± 1.3E-04	U
		^{234}U	7.5E-06 ± 6.3E-06	
		^{235}U	8.1E-07 ± 2.8E-06	U
		^{238}U	8.2E-06 ± 5.9E-06	
N509	07/02/09 to 12/31/09	^{241}Am	1.4E-05 ± 7.7E-06	
		^{60}Co	8.3E-06 ± 8.3E-05	U
		^{134}Cs	6.5E-05 ± 8.9E-05	U
		^{137}Cs	4.3E-05 ± 7.7E-05	U
		^{152}Eu	-6.0E-05 ± 1.8E-04	U
		^{154}Eu	7.3E-05 ± 2.6E-04	U
		^{155}Eu	5.6E-05 ± 1.8E-04	U
		^{238}Pu	-7.8E-06 ± 1.4E-05	U
		$^{239/240}$Pu	1.6E-06 ± 3.2E-06	U
		^{106}Ru	-2.9E-04 ± 7.2E-04	U
		^{125}Sb	-1.5E-04 ± 1.9E-04	U
		^{90}Sr	-3.5E-04 ± 3.6E-04	U
		^{234}U	1.0E-05 ± 7.4E-06	
		^{235}U	3.0E-06 ± 3.2E-06	
		^{238}U	1.2E-05 ± 7.6E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 7 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N510	12/30/08	01/13/09	gross α	1.0E-03 ± 4.9E-04
(100-H)	12/30/08	01/13/09	gross β	1.5E-02 ± 1.9E-03
	01/13/09	01/27/09	gross α	1.8E-03 ± 6.4E-04
	01/13/09	01/27/09	gross β	4.2E-02 ± 4.1E-03
	01/27/09	02/10/09	gross α	1.6E-03 ± 6.1E-04
	01/27/09	02/10/09	gross β	2.1E-02 ± 2.3E-03
	02/10/09	02/24/09	gross α	1.0E-03 ± 4.9E-04
	02/10/09	02/24/09	gross β	3.3E-02 ± 3.4E-03
	02/24/09	03/10/09	gross α	8.3E-04 ± 5.5E-04
	02/24/09	03/10/09	gross β	1.2E-02 ± 1.6E-03
	03/10/09	03/24/09	gross α	8.4E-04 ± 5.8E-04
	03/10/09	03/24/09	gross β	1.4E-02 ± 1.9E-03
	03/24/09	04/07/09	gross α	6.0E-04 ± 5.0E-04
	03/24/09	04/07/09	gross β	1.1E-02 ± 1.6E-03
	04/07/09	04/21/09	gross α	1.2E-03 ± 5.4E-04
	04/07/09	04/21/09	gross β	1.2E-02 ± 1.7E-03
	04/21/09	05/05/09	gross α	8.0E-04 ± 5.8E-04
	04/21/09	05/05/09	gross β	1.7E-02 ± 2.1E-03
	05/05/09	05/19/09	gross α	6.1E-04 ± 4.9E-04
	05/05/09	05/19/09	gross β	7.5E-03 ± 1.2E-03
	05/19/09	06/02/09	gross α	1.2E-03 ± 5.3E-04
	05/19/09	06/02/09	gross β	1.9E-02 ± 2.3E-03
	06/02/09	06/16/09	gross α	1.1E-03 ± 7.6E-04
	06/02/09	06/16/09	gross β	1.8E-02 ± 2.4E-03
	06/16/09	07/02/09	gross α	1.2E-03 ± 4.8E-04
	06/16/09	07/02/09	gross β	1.1E-02 ± 1.5E-03
	07/02/09	07/14/09	gross α	9.4E-04 ± 6.4E-04
	07/02/09	07/14/09	gross β	1.5E-02 ± 2.1E-03
	07/14/09	07/28/09	gross α	1.3E-03 ± 5.6E-04
	07/14/09	07/28/09	gross β	1.4E-02 ± 1.8E-03
	07/28/09	08/11/09	gross α	1.4E-03 ± 5.7E-04
	07/28/09	08/11/09	gross β	1.6E-02 ± 2.1E-03
	08/11/09	08/25/09	gross α	1.6E-03 ± 6.1E-04
	08/11/09	08/25/09	gross β	1.4E-02 ± 1.9E-03
	08/25/09	09/09/09	gross α	5.5E-04 ± 4.6E-04
	08/25/09	09/09/09	gross β	1.5E-02 ± 1.9E-03
	09/09/09	09/23/09	gross α	1.7E-03 ± 6.5E-04
	09/09/09	09/23/09	gross β	1.9E-02 ± 2.3E-03
	09/23/09	10/06/09	gross α	5.9E-04 ± 5.5E-04
	09/23/09	10/06/09	gross β	1.4E-02 ± 1.9E-03
	10/06/09	10/20/09	gross α	2.2E-03 ± 7.1E-04
	10/06/09	10/20/09	gross β	2.8E-02 ± 3.0E-03
	10/20/09	11/03/09	gross α	1.5E-03 ± 5.8E-04
	10/20/09	11/03/09	gross β	1.2E-02 ± 1.7E-03
	11/03/09	11/17/09	gross α	7.5E-04 ± 5.5E-04
	11/03/09	11/17/09	gross β	1.1E-02 ± 1.6E-03
	11/17/09	12/01/09	gross α	4.6E-04 ± 4.5E-04
	11/17/09	12/01/09	gross β	1.8E-02 ± 2.1E-03
	12/01/09	12/16/09	gross α	2.0E-03 ± 6.8E-04
	12/01/09	12/16/09	gross β	4.1E-02 ± 3.9E-03
	12/16/09	12/31/09	gross α	2.2E-03 ± 7.0E-04
	12/16/09	12/31/09	gross β	3.6E-02 ± 3.5E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N510	12/30/08 to 07/02/09	^{60}Co	6.1E-06 ± 6.1E-05	U
		^{134}Cs	-4.9E-05 ± 8.6E-05	U
		^{137}Cs	-2.3E-05 ± 7.6E-05	U
		^{152}Eu	-3.6E-06 ± 3.6E-05	U
		^{154}Eu	2.4E-04 ± 2.8E-04	U
		^{155}Eu	-1.2E-04 ± 2.0E-04	U
		^{238}Pu	-6.1E-06 ± 1.4E-05	
		$^{239/240}$Pu	7.8E-07 ± 8.1E-07	
		^{106}Ru	-4.8E-04 ± 7.6E-04	U
		^{125}Sb	-4.5E-05 ± 1.7E-04	U
		^{90}Sr	-1.2E-05 ± 1.3E-05	U
		^{234}U	9.6E-06 ± 6.8E-06	
		^{235}U	8.1E-07 ± 1.6E-06	U
		^{238}U	1.1E-05 ± 7.1E-06	
N510	07/02/09 to 12/31/09	^{241}Am	3.3E-06 ± 3.2E-06	
		^{60}Co	-3.7E-05 ± 5.3E-05	U
		^{134}Cs	-3.2E-05 ± 5.0E-05	U
		^{137}Cs	3.7E-05 ± 4.4E-05	U
		^{152}Eu	1.2E-04 ± 1.1E-04	U
		^{154}Eu	8.4E-05 ± 1.6E-04	U
		^{155}Eu	-6.1E-07 ± 6.1E-06	U
		^{238}Pu	-4.3E-06 ± 1.2E-05	U
		$^{239/240}$Pu	5.8E-06 ± 4.6E-06	
		^{106}Ru	-6.9E-06 ± 6.9E-05	U
		^{125}Sb	-2.5E-05 ± 9.7E-05	U
		^{90}Sr	2.3E-04 ± 2.4E-04	
		^{234}U	1.2E-05 ± 7.3E-06	
		^{235}U	6.5E-07 ± 6.8E-07	U
		^{238}U	9.1E-06 ± 6.3E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 8 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N574	12/30/08	01/13/09	gross α	2.9E-04 ± 4.1E-04
(100-H)	12/30/08	01/13/09	gross β	1.2E-02 ± 1.8E-03
	01/13/09	01/27/09	gross α	1.3E-03 ± 5.4E-04
	01/13/09	01/27/09	gross β	4.0E-02 ± 4.3E-03
	01/27/09	02/10/09	gross α	1.2E-03 ± 5.3E-04
	01/27/09	02/10/09	gross β	1.9E-02 ± 2.4E-03
	02/10/09	02/24/09	gross α	1.1E-03 ± 5.2E-04
	02/10/09	02/24/09	gross β	2.7E-02 ± 3.1E-03
	02/24/09	03/10/09	gross α	7.8E-04 ± 5.4E-04
	02/24/09	03/10/09	gross β	1.9E-02 ± 2.4E-03
	03/10/09	03/24/09	gross α	1.6E-03 ± 6.2E-04
	03/10/09	03/24/09	gross β	1.1E-02 ± 1.7E-03
	03/24/09	04/07/09	gross α	8.4E-04 ± 5.6E-04
	03/24/09	04/07/09	gross β	1.0E-02 ± 1.5E-03
	04/07/09	04/21/09	gross α	8.4E-04 ± 5.5E-04
	04/07/09	04/21/09	gross β	1.3E-02 ± 1.8E-03
	04/21/09	05/05/09	gross α	8.9E-04 ± 5.6E-04
	04/21/09	05/05/09	gross β	1.7E-02 ± 2.3E-03
	05/05/09	05/19/09	gross α	1.0E-03 ± 4.8E-04
	05/05/09	05/19/09	gross β	8.9E-03 ± 1.5E-03
	05/19/09	06/02/09	gross α	4.6E-04 ± 2.0E-03
	05/19/09	06/02/09	gross β	4.0E-04 ± 2.2E-03
	06/02/09	06/16/09	gross α	8.2E-04 ± 8.9E-04
	06/02/09	06/16/09	gross β	1.8E-02 ± 2.9E-03
	06/16/09	07/02/09	gross α	7.5E-04 ± 4.9E-04
	06/16/09	07/02/09	gross β	1.0E-02 ± 1.5E-03
	07/02/09	07/14/09	gross α	4.8E-04 ± 5.4E-04
	07/02/09	07/14/09	gross β	1.6E-02 ± 2.3E-03
	07/14/09	07/28/09	gross α	1.8E-03 ± 6.6E-04
	07/14/09	07/28/09	gross β	1.9E-02 ± 2.5E-03
	07/28/09	08/11/09	gross α	1.2E-03 ± 5.4E-04
	07/28/09	08/11/09	gross β	1.6E-02 ± 2.2E-03
	08/11/09	08/25/09	gross α	1.4E-03 ± 5.9E-04
	08/11/09	08/25/09	gross β	1.7E-02 ± 2.2E-03
	08/25/09	09/09/09	gross α	9.4E-04 ± 5.8E-04
	08/25/09	09/09/09	gross β	1.5E-02 ± 2.1E-03
	09/09/09	09/23/09	gross α	1.5E-03 ± 6.0E-04
	09/09/09	09/23/09	gross β	2.0E-02 ± 2.6E-03
	09/23/09	10/06/09	gross α	7.9E-04 ± 5.9E-04
	09/23/09	10/06/09	gross β	1.3E-02 ± 2.0E-03
	10/06/09	10/20/09	gross α	1.2E-03 ± 5.4E-04
	10/06/09	10/20/09	gross β	1.9E-02 ± 2.4E-03
	10/20/09	11/03/09	gross α	6.2E-04 ± 5.0E-04
	10/20/09	11/03/09	gross β	9.8E-03 ± 1.5E-03
	11/03/09	11/17/09	gross α	7.4E-04 ± 5.3E-04
	11/03/09	11/17/09	gross β	1.3E-02 ± 1.8E-03
	11/17/09	12/01/09	gross α	1.3E-03 ± 5.4E-04
	11/17/09	12/01/09	gross β	1.7E-02 ± 2.2E-03
	12/01/09	12/16/09	gross α	2.0E-03 ± 6.6E-04
	12/01/09	12/16/09	gross β	4.2E-02 ± 4.4E-03
	12/16/09	12/31/09	gross α	2.6E-03 ± 7.6E-04
	12/16/09	12/31/09	gross β	4.6E-02 ± 4.9E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N574	12/30/08 to 07/02/09	^{60}Co	4.7E-05 ± 9.5E-05	U
		^{134}Cs	-1.9E-05 ± 8.2E-05	U
		^{137}Cs	3.3E-05 ± 7.5E-05	U
		^{152}Eu	4.8E-05 ± 2.0E-04	U
		^{154}Eu	-2.4E-04 ± 2.5E-04	U
		^{155}Eu	-1.4E-04 ± 2.1E-04	U
		^{238}Pu	5.0E-06 ± 1.4E-05	U
		$^{239/240}$Pu	-8.3E-07 ± 3.7E-06	U
		^{106}Ru	-3.1E-04 ± 7.0E-04	U
		^{125}Sb	7.7E-05 ± 1.8E-04	U
		^{90}Sr	-2.3E-04 ± 2.4E-04	U
		^{234}U	8.9E-06 ± 6.9E-06	
		^{235}U	1.6E-06 ± 2.4E-06	U
		^{238}U	7.5E-06 ± 5.9E-06	
N574	07/02/09 to 12/31/09	^{241}Am	5.6E-06 ± 5.2E-06	U
		^{60}Co	-1.2E-05 ± 9.6E-05	U
		^{134}Cs	6.0E-06 ± 6.0E-05	U
		^{137}Cs	2.0E-05 ± 7.8E-05	U
		^{152}Eu	3.2E-05 ± 1.8E-04	U
		^{154}Eu	4.0E-05 ± 2.4E-04	U
		^{155}Eu	-9.9E-05 ± 1.7E-04	U
		^{238}Pu	1.2E-06 ± 2.9E-06	U
		$^{239/240}$Pu	3.0E-06 ± 2.9E-06	
		^{106}Ru	-1.6E-04 ± 6.6E-04	U
		^{125}Sb	-6.9E-05 ± 1.8E-04	U
		^{90}Sr	-1.6E-04 ± 1.7E-04	U
		^{234}U	1.0E-05 ± 6.6E-06	
		^{235}U	1.4E-06 ± 2.0E-06	U
		^{238}U	3.1E-06 ± 4.0E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 9 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N401	12/30/08	01/13/09	gross α	6.4E-04 ± 5.2E-04
(100-K)	12/30/08	01/13/09	gross β	1.0E-02 ± 1.5E-03
	01/13/09	01/27/09	gross α	1.4E-03 ± 5.7E-04
	01/13/09	01/27/09	gross β	4.5E-02 ± 4.2E-03
	01/27/09	02/10/09	gross α	1.8E-03 ± 6.3E-04
	01/27/09	02/10/09	gross β	3.0E-02 ± 3.0E-03
	02/10/09	02/24/09	gross α	2.4E-03 ± 7.5E-04
	02/10/09	02/24/09	gross β	3.2E-02 ± 3.2E-03
	02/24/09	03/10/09	gross α	5.1E-04 ± 4.7E-04
	02/24/09	03/10/09	gross β	1.4E-02 ± 1.8E-03
	03/10/09	03/24/09	gross α	1.1E-03 ± 5.0E-04
	03/10/09	03/24/09	gross β	1.7E-02 ± 2.0E-03
	03/24/09	04/07/09	gross α	9.9E-04 ± 6.1E-04
	03/24/09	04/07/09	gross β	1.1E-02 ± 1.6E-03
	04/07/09	04/21/09	gross α	1.7E-03 ± 6.3E-04
	04/07/09	04/21/09	gross β	1.2E-02 ± 1.6E-03
	04/21/09	05/05/09	gross α	2.1E-03 ± 6.9E-04
	04/21/09	05/05/09	gross β	4.7E-02 ± 4.4E-03
	05/05/09	05/19/09	gross α	6.2E-03 ± 1.2E-03
	05/05/09	05/19/09	gross β	2.7E-01 ± 2.0E-02
	05/19/09	06/02/09	gross α	2.9E-04 ± 4.2E-04
	05/19/09	06/02/09	gross β	2.3E-02 ± 2.6E-03
	06/02/09	06/16/09	gross α	1.9E-03 ± 6.9E-04
	06/02/09	06/16/09	gross β	1.1E-01 ± 8.9E-03
	06/16/09	07/01/09	gross α	1.2E-03 ± 5.2E-04
	06/16/09	07/01/09	gross β	6.6E-02 ± 5.7E-03
	07/01/09	07/14/09	gross α	1.4E-03 ± 5.8E-04
	07/01/09	07/14/09	gross β	7.1E-02 ± 6.1E-03
	07/14/09	07/28/09	gross α	5.9E-03 ± 1.2E-03
	07/14/09	07/28/09	gross β	2.3E-01 ± 1.7E-02
	07/28/09	08/11/09	gross α	1.4E-02 ± 2.0E-03
	07/28/09	08/11/09	gross β	3.1E-01 ± 2.3E-02
	08/11/09	08/25/09	gross α	2.4E-03 ± 7.3E-04
	08/11/09	08/25/09	gross β	4.1E-02 ± 3.9E-03
	08/25/09	09/09/09	gross α	1.9E-03 ± 6.5E-04
	08/25/09	09/09/09	gross β	9.1E-02 ± 7.5E-03
	09/09/09	09/23/09	gross α	1.6E-03 ± 6.1E-04
	09/09/09	09/23/09	gross β	5.7E-02 ± 5.0E-03
	09/23/09	10/06/09	gross α	1.1E-03 ± 5.2E-04
	09/23/09	10/06/09	gross β	1.4E-02 ± 2.0E-03
	10/06/09	10/20/09	gross α	6.2E-04 ± 5.0E-04
	10/06/09	10/20/09	gross β	2.1E-02 ± 2.4E-03
	10/20/09	11/03/09	gross α	9.5E-04 ± 5.9E-04
	10/20/09	11/03/09	gross β	1.0E-02 ± 1.5E-03
	11/03/09	11/17/09	gross α	6.3E-04 ± 5.0E-04
	11/03/09	11/17/09	gross β	1.4E-02 ± 1.8E-03
	11/17/09	12/01/09	gross α	1.3E-03 ± 5.5E-04
	11/17/09	12/01/09	gross β	1.4E-02 ± 1.8E-03
	12/01/09	12/16/09	gross α	2.8E-03 ± 7.7E-04
	12/01/09	12/16/09	gross β	4.7E-02 ± 4.3E-03
	12/16/09	12/30/09	gross α	1.9E-03 ± 6.6E-04
	12/16/09	12/30/09	gross β	4.1E-02 ± 4.0E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N401	12/30/08 to 07/01/09	^{241}Am	8.2E-05 ± 3.2E-05	
		^{60}Co	4.5E-05 ± 9.0E-05	U
		^{134}Cs	4.4E-05 ± 9.7E-05	U
		^{137}Cs	3.3E-02 ± 1.1E-02	
		^{152}Eu	1.7E-05 ± 1.7E-03	U
		^{154}Eu	2.6E-04 ± 2.3E-04	U
		^{155}Eu	-4.5E-05 ± 2.3E-04	U
		^{238}Pu	8.5E-06 ± 2.8E-05	U
		$^{239/240}$Pu	1.1E-04 ± 4.9E-05	
		^{241}Pu	3.6E-04 ± 3.6E-02	U
		^{106}Ru	1.9E-03 ± 1.3E-03	
		^{125}Sb	3.4E-05 ± 3.2E-04	U
		^{90}Sr	1.9E-03 ± 6.5E-04	
		^{234}U	4.5E-06 ± 4.5E-06	U
		^{235}U	2.8E-06 ± 3.6E-06	U
		^{238}U	8.4E-06 ± 5.6E-06	
N401	07/01/09 to 12/30/09	^{241}Am	8.1E-04 ± 2.9E-04	
		^{60}Co	-1.5E-05 ± 7.3E-05	U
		^{134}Cs	5.8E-05 ± 7.4E-05	U
		^{137}Cs	3.8E-02 ± 1.2E-02	
		^{152}Eu	-7.8E-05 ± 2.6E-04	U
		^{154}Eu	3.4E-04 ± 2.5E-04	U
		^{155}Eu	-1.3E-04 ± 2.0E-04	U
		^{238}Pu	1.5E-04 ± 7.1E-05	
		$^{239/240}$Pu	9.6E-04 ± 3.7E-04	
		^{241}Pu	7.2E-03 ± 2.3E-03	
		^{106}Ru	2.6E-04 ± 7.4E-04	U
		^{125}Sb	3.0E-04 ± 3.0E-04	U
		^{90}Sr	9.0E-03 ± 2.8E-03	
		^{234}U	1.0E-05 ± 7.0E-06	
		^{235}U	2.8E-06 ± 3.0E-06	
		^{238}U	9.0E-06 ± 6.2E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 10 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N402	12/30/08	01/13/09	gross α	6.4E-04 ± 5.2E-04
(100-K)	12/30/08	01/13/09	gross β	1.4E-02 ± 1.8E-03
	01/13/09	01/27/09	gross α	9.5E-04 ± 5.9E-04
	01/13/09	01/27/09	gross β	3.5E-02 ± 3.4E-03
	01/27/09	02/10/09	gross α	1.8E-03 ± 6.3E-04
	01/27/09	02/10/09	gross β	2.6E-02 ± 2.8E-03
	02/10/09	02/24/09	gross α	1.5E-03 ± 5.9E-04
	02/10/09	02/24/09	gross β	2.9E-02 ± 2.9E-03
	02/24/09	03/10/09	gross α	8.4E-04 ± 5.7E-04
	02/24/09	03/10/09	gross β	1.3E-02 ± 1.7E-03
	03/10/09	03/24/09	gross α	2.9E-03 ± 8.5E-04
	03/10/09	03/24/09	gross β	1.5E-02 ± 1.9E-03
	03/24/09	04/07/09	gross α	9.5E-04 ± 5.9E-04
	03/24/09	04/07/09	gross β	9.9E-03 ± 1.5E-03
	04/07/09	04/21/09	gross α	1.4E-03 ± 5.6E-04
	04/07/09	04/21/09	gross β	1.1E-02 ± 1.5E-03
	04/21/09	05/05/09	gross α	1.5E-03 ± 5.8E-04
	04/21/09	05/05/09	gross β	3.6E-02 ± 3.6E-03
	05/05/09	05/19/09	gross α	2.7E-03 ± 7.8E-04
	05/05/09	05/19/09	gross β	6.8E-02 ± 5.9E-03
	05/19/09	06/02/09	gross α	6.2E-04 ± 5.0E-04
	05/19/09	06/02/09	gross β	2.2E-02 ± 2.5E-03
	06/02/09	06/16/09	gross α	1.2E-03 ± 5.3E-04
	06/02/09	06/16/09	gross β	2.3E-01 ± 1.8E-02
	06/16/09	07/01/09	gross α	3.7E-03 ± 9.2E-04
	06/16/09	07/01/09	gross β	8.0E-01 ± 5.8E-02
	07/01/09	07/14/09	gross α	1.1E-03 ± 6.6E-04
	07/01/09	07/14/09	gross β	1.3E-01 ± 1.1E-02
	07/14/09	07/28/09	gross α	2.0E-02 ± 2.5E-03
	07/14/09	07/28/09	gross β	1.2E+00 ± 8.4E-02
	07/28/09	08/11/09	gross α	4.3E-03 ± 1.0E-03
	07/28/09	08/11/09	gross β	1.6E-01 ± 1.2E-02
	08/11/09	08/25/09	gross α	3.5E-03 ± 9.1E-04
	08/11/09	08/25/09	gross β	1.9E-01 ± 1.5E-02
	08/25/09	09/09/09	gross α	3.2E-03 ± 8.5E-04
	08/25/09	09/09/09	gross β	1.0E-01 ± 8.1E-03
	09/09/09	09/23/09	gross α	5.8E-03 ± 1.2E-03
	09/09/09	09/23/09	gross β	1.2E-01 ± 9.7E-03
	09/23/09	10/06/09	gross α	1.1E-03 ± 5.2E-04
	09/23/09	10/06/09	gross β	1.9E-02 ± 2.3E-03
	10/06/09	10/20/09	gross α	1.4E-03 ± 5.8E-04
	10/06/09	10/20/09	gross β	1.9E-02 ± 2.2E-03
	10/20/09	11/03/09	gross α	1.2E-03 ± 5.3E-04
	10/20/09	11/03/09	gross β	1.5E-02 ± 1.9E-03
	11/03/09	11/17/09	gross α	2.0E-03 ± 6.8E-04
	11/03/09	11/17/09	gross β	1.5E-02 ± 1.9E-03
	11/17/09	12/01/09	gross α	2.3E-03 ± 7.3E-04
	11/17/09	12/01/09	gross β	2.9E-02 ± 3.0E-03
	12/01/09	12/14/09	gross α	2.9E-03 ± 8.4E-04
	12/01/09	12/14/09	gross β	5.3E-02 ± 4.9E-03
	12/14/09	12/30/09	gross α	1.2E-03 ± 4.8E-04
	12/14/09	12/30/09	gross β	2.3E-02 ± 2.5E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N402	12/30/08 to 07/01/09	^{241}Am	2.0E-04 ± 7.5E-05	
		^{60}Co	1.2E-04 ± 1.1E-04	
		^{134}Cs	-3.5E-05 ± 7.5E-05	U
		^{137}Cs	7.3E-02 ± 2.4E-02	
		^{152}Eu	-7.9E-05 ± 3.2E-04	U
		^{154}Eu	2.9E-05 ± 2.1E-04	U
		^{155}Eu	-4.2E-05 ± 2.4E-04	U
		^{238}Pu	4.7E-05 ± 3.4E-05	
		$^{239/240}$Pu	2.6E-04 ± 1.1E-04	
		^{241}Pu	1.5E-03 ± 8.4E-04	
		^{106}Ru	-4.8E-04 ± 9.1E-04	U
		^{125}Sb	-8.0E-05 ± 3.9E-04	U
		^{90}Sr	9.7E-03 ± 3.0E-03	
		^{234}U	1.3E-05 ± 8.0E-06	
		^{235}U	2.9E-06 ± 3.1E-06	
		^{238}U	5.3E-06 ± 4.2E-06	
N402	07/01/09 to 12/30/09	^{241}Am	1.1E-03 ± 3.9E-04	
		^{60}Co	3.4E-05 ± 6.7E-05	U
		^{134}Cs	2.9E-05 ± 6.9E-05	U
		^{137}Cs	1.2E-01 ± 3.9E-02	
		^{152}Eu	-1.3E-04 ± 3.9E-04	U
		^{154}Eu	2.0E-05 ± 2.0E-04	U
		^{155}Eu	1.2E-05 ± 1.2E-04	U
		^{238}Pu	1.3E-04 ± 7.1E-05	
		$^{239/240}$Pu	1.2E-03 ± 4.7E-04	
		^{241}Pu	9.2E-03 ± 2.9E-03	
		^{106}Ru	-3.5E-04 ± 9.7E-04	U
		^{125}Sb	-8.9E-05 ± 4.8E-04	U
		^{90}Sr	1.1E-02 ± 3.4E-03	
		^{234}U	9.1E-06 ± 7.3E-06	
		^{235}U	7.6E-07 ± 2.7E-06	U
		^{238}U	7.0E-06 ± 5.9E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 11 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N403	12/30/08	01/13/09	gross α	6.4E-04 ± 5.2E-04
(100-K)	12/30/08	01/13/09	gross β	1.6E-02 ± 2.0E-03
	01/13/09	01/27/09	gross α	1.3E-03 ± 5.5E-04
	01/13/09	01/27/09	gross β	3.4E-02 ± 3.4E-03
	01/27/09	02/10/09	gross α	1.4E-03 ± 5.5E-04
	01/27/09	02/10/09	gross β	1.2E-01 ± 9.6E-03
	02/10/09	02/24/09	gross α	1.6E-03 ± 6.2E-04
	02/10/09	02/24/09	gross β	4.5E-02 ± 4.2E-03
	02/24/09	03/10/09	gross α	9.6E-04 ± 5.9E-04
	02/24/09	03/10/09	gross β	1.4E-02 ± 1.8E-03
	03/10/09	03/24/09	gross α	1.6E-03 ± 6.4E-04
	03/10/09	03/24/09	gross β	1.4E-02 ± 1.9E-03
	03/24/09	04/07/09	gross α	6.4E-04 ± 5.2E-04
	03/24/09	04/07/09	gross β	1.4E-02 ± 1.8E-03
	04/07/09	04/21/09	gross α	1.1E-03 ± 5.0E-04
	04/07/09	04/21/09	gross β	1.4E-02 ± 1.8E-03
	04/21/09	05/05/09	gross α	1.4E-03 ± 5.5E-04
	04/21/09	05/05/09	gross β	2.0E-02 ± 2.3E-03
	05/05/09	05/19/09	gross α	4.2E-03 ± 1.0E-03
	05/05/09	05/19/09	gross β	2.3E-01 ± 1.7E-02
	05/19/09	06/02/09	gross α	1.6E-03 ± 6.1E-04
	05/19/09	06/02/09	gross β	1.0E-01 ± 8.1E-03
	06/02/09	06/16/09	gross α	8.1E-04 ± 5.9E-04
	06/02/09	06/16/09	gross β	9.2E-02 ± 7.7E-03
	06/16/09	07/01/09	gross α	2.2E-03 ± 7.1E-04
	06/16/09	07/01/09	gross β	5.3E-01 ± 3.9E-02
	07/01/09	07/14/09	gross α	8.0E-04 ± 5.9E-04
	07/01/09	07/14/09	gross β	6.4E-02 ± 5.6E-03
	07/14/09	07/28/09	gross α	6.9E-03 ± 1.3E-03
	07/14/09	07/28/09	gross β	3.8E-01 ± 2.8E-02
	07/28/09	08/11/09	gross α	1.6E-03 ± 6.1E-04
	07/28/09	08/11/09	gross β	1.5E-01 ± 1.2E-02
	08/11/09	08/25/09	gross α	2.2E-03 ± 7.1E-04
	08/11/09	08/25/09	gross β	3.2E-01 ± 2.4E-02
	08/25/09	09/09/09	gross α	2.3E-03 ± 7.2E-04
	08/25/09	09/09/09	gross β	3.6E-02 ± 3.5E-03
	09/09/09	09/23/09	gross α	1.1E-03 ± 5.1E-04
	09/09/09	09/23/09	gross β	9.3E-02 ± 7.7E-03
	09/23/09	10/06/09	gross α	8.9E-04 ± 6.1E-04
	09/23/09	10/06/09	gross β	1.7E-02 ± 2.2E-03
	10/06/09	10/20/09	gross α	1.1E-03 ± 5.0E-04
	10/06/09	10/20/09	gross β	1.9E-02 ± 2.2E-03
	10/20/09	11/03/09	gross α	8.6E-04 ± 5.8E-04
	10/20/09	11/03/09	gross β	1.1E-02 ± 1.6E-03
	11/03/09	11/17/09	gross α	7.4E-04 ± 5.3E-04
	11/03/09	11/17/09	gross β	1.2E-02 ± 1.7E-03
	11/17/09	12/01/09	gross α	7.3E-04 ± 5.3E-04
	11/17/09	12/01/09	gross β	1.5E-02 ± 1.9E-03
	12/01/09	12/16/09	gross α	1.9E-03 ± 6.4E-04
	12/01/09	12/16/09	gross β	4.2E-02 ± 4.0E-03
	12/16/09	12/30/09	gross α	1.6E-03 ± 6.0E-04
	12/16/09	12/30/09	gross β	3.6E-02 ± 3.6E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N403	12/30/08 to 07/01/09	^{241}Am	2.6E-04 ± 9.4E-05	
		^{60}Co	-2.8E-05 ± 7.2E-05	U
		^{134}Cs	-1.2E-05 ± 8.2E-05	U
		^{137}Cs	7.5E-02 ± 2.4E-02	
		^{152}Eu	-4.5E-04 ± 4.7E-04	U
		^{154}Eu	1.5E-04 ± 2.0E-04	U
		^{155}Eu	-1.2E-04 ± 3.0E-04	U
		^{238}Pu	4.5E-05 ± 4.1E-05	U
		$^{239/240}$Pu	3.0E-04 ± 1.3E-04	
		^{241}Pu	1.9E-03 ± 1.1E-03	
		^{106}Ru	7.7E-05 ± 7.7E-04	U
		^{125}Sb	2.5E-04 ± 3.9E-04	U
		^{90}Sr	7.0E-03 ± 2.1E-03	
		^{234}U	9.8E-06 ± 7.0E-06	
		^{235}U	2.3E-06 ± 2.8E-06	
		^{238}U	7.0E-06 ± 5.2E-06	
N403	07/01/09 to 12/30/09	^{241}Am	4.7E-04 ± 1.7E-04	
		^{60}Co	-2.3E-05 ± 7.3E-05	U
		^{134}Cs	1.7E-05 ± 7.4E-05	U
		^{137}Cs	5.8E-02 ± 1.9E-02	
		^{152}Eu	3.3E-04 ± 3.7E-04	U
		^{154}Eu	1.3E-04 ± 2.1E-04	U
		^{155}Eu	3.7E-05 ± 2.7E-04	U
		^{238}Pu	5.4E-05 ± 4.1E-05	U
		$^{239/240}$Pu	4.9E-04 ± 1.9E-04	
		^{241}Pu	3.5E-03 ± 1.2E-03	
		^{106}Ru	-1.3E-04 ± 1.1E-03	U
		^{125}Sb	9.8E-05 ± 3.8E-04	U
		^{90}Sr	7.7E-03 ± 2.4E-03	
		^{234}U	1.2E-05 ± 7.7E-06	
		^{235}U	2.8E-06 ± 3.6E-06	U
		^{238}U	1.1E-05 ± 7.3E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 12 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N404	12/30/08	01/13/09	gross α	3.0E-04 ± 4.2E-04
(100-K)	12/30/08	01/13/09	gross β	1.4E-02 ± 1.8E-03
	01/13/09	01/27/09	gross α	1.9E-03 ± 6.5E-04
	01/13/09	01/27/09	gross β	3.8E-02 ± 3.6E-03
	01/27/09	02/10/09	gross α	1.1E-03 ± 4.9E-04
	01/27/09	02/10/09	gross β	3.0E-02 ± 3.0E-03
	02/10/09	02/24/09	gross α	2.0E-03 ± 6.8E-04
	02/10/09	02/24/09	gross β	4.8E-02 ± 4.4E-03
	02/24/09	03/10/09	gross α	1.9E-03 ± 6.6E-04
	02/24/09	03/10/09	gross β	9.6E-03 ± 1.4E-03
	03/10/09	03/24/09	gross α	1.2E-03 ± 5.5E-04
	03/10/09	03/24/09	gross β	1.4E-02 ± 1.8E-03
	03/24/09	04/07/09	gross α	2.3E-03 ± 7.5E-04
	03/24/09	04/07/09	gross β	1.5E-02 ± 1.9E-03
	04/07/09	04/21/09	gross α	1.4E-03 ± 5.6E-04
	04/07/09	04/21/09	gross β	1.5E-02 ± 2.0E-03
	04/21/09	05/05/09	gross α	1.2E-03 ± 5.4E-04
	04/21/09	05/05/09	gross β	1.7E-02 ± 2.1E-03
	05/05/09	05/19/09	gross α	1.4E-03 ± 5.8E-04
	05/05/09	05/19/09	gross β	6.3E-02 ± 5.5E-03
	05/19/09	06/02/09	gross α	1.4E-03 ± 5.9E-04
	05/19/09	06/02/09	gross β	2.7E-02 ± 2.9E-03
	06/02/09	06/16/09	gross α	8.3E-04 ± 6.1E-04
	06/02/09	06/16/09	gross β	3.8E-02 ± 3.8E-03
	06/16/09	07/01/09	gross α	1.2E-03 ± 5.2E-04
	06/16/09	07/01/09	gross β	1.1E-01 ± 8.6E-03
	07/01/09	07/14/09	gross α	1.6E-03 ± 6.6E-04
	07/01/09	07/14/09	gross β	1.0E-01 ± 8.4E-03
	07/14/09	07/28/09	gross α	5.8E-03 ± 1.2E-03
	07/14/09	07/28/09	gross β	3.2E-01 ± 2.4E-02
	07/28/09	08/11/09	gross α	3.7E-03 ± 9.8E-04
	07/28/09	08/11/09	gross β	6.5E-01 ± 4.7E-02
	08/11/09	08/25/09	gross α	2.7E-03 ± 8.3E-04
	08/11/09	08/25/09	gross β	8.9E-02 ± 7.5E-03
	08/25/09	09/09/09	gross α	2.5E-03 ± 7.8E-04
	08/25/09	09/09/09	gross β	3.2E-02 ± 3.3E-03
	09/09/09	09/23/09	gross α	1.7E-03 ± 6.6E-04
	09/09/09	09/23/09	gross β	1.1E-01 ± 8.7E-03
	09/23/09	10/06/09	gross α	2.1E-03 ± 7.9E-04
	09/23/09	10/06/09	gross β	1.9E-02 ± 2.5E-03
	10/06/09	10/20/09	gross α	2.2E-03 ± 7.7E-04
	10/06/09	10/20/09	gross β	2.0E-02 ± 2.4E-03
	10/20/09	11/03/09	gross α	4.2E-04 ± 4.7E-04
	10/20/09	11/03/09	gross β	1.2E-02 ± 1.7E-03
	11/03/09	11/17/09	gross α	1.0E-03 ± 6.2E-04
	11/03/09	11/17/09	gross β	1.1E-02 ± 1.6E-03
	11/17/09	12/01/09	gross α	6.7E-04 ± 5.4E-04
	11/17/09	12/01/09	gross β	1.3E-02 ± 1.8E-03
	12/01/09	12/16/09	gross α	3.4E-03 ± 9.2E-04
	12/01/09	12/16/09	gross β	5.2E-02 ± 4.8E-03
	12/16/09	12/30/09	gross α	2.5E-03 ± 7.9E-04
	12/16/09	12/30/09	gross β	3.8E-02 ± 3.8E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N404	12/30/08 to 07/01/09	^{241}Am	7.6E-05 ± 3.0E-05	
		^{60}Co	-3.0E-05 ± 7.7E-05	U
		^{134}Cs	7.4E-06 ± 7.4E-05	U
		^{137}Cs	1.6E-02 ± 4.8E-03	
		^{152}Eu	1.2E-04 ± 2.3E-04	U
		^{154}Eu	8.3E-06 ± 8.3E-05	U
		^{155}Eu	-2.3E-06 ± 2.4E-05	U
		^{238}Pu	1.5E-05 ± 1.1E-05	
		$^{239/240}$Pu	8.2E-05 ± 3.5E-05	
		^{241}Pu	1.1E-03 ± 8.4E-04	U
		^{106}Ru	-2.5E-04 ± 7.0E-04	U
		^{125}Sb	-1.4E-04 ± 2.5E-04	U
		^{90}Sr	1.5E-03 ± 4.9E-04	
		^{234}U	8.3E-06 ± 5.3E-06	
		^{235}U	2.2E-06 ± 2.6E-06	
		^{238}U	4.7E-06 ± 4.1E-06	
N404	07/01/09 to 12/30/09	^{241}Am	4.0E-04 ± 1.4E-04	
		^{60}Co	1.8E-05 ± 9.4E-05	U
		^{134}Cs	3.9E-05 ± 8.1E-05	U
		^{137}Cs	7.2E-02 ± 2.2E-02	
		^{152}Eu	-3.1E-05 ± 3.2E-04	U
		^{154}Eu	-8.3E-05 ± 2.4E-04	U
		^{155}Eu	-3.6E-05 ± 2.6E-04	U
		^{238}Pu	6.3E-05 ± 4.3E-05	
		$^{239/240}$Pu	4.3E-04 ± 1.7E-04	
		^{241}Pu	2.9E-03 ± 1.0E-03	
		^{106}Ru	1.2E-03 ± 1.1E-03	U
		^{125}Sb	9.2E-05 ± 3.9E-04	U
		^{90}Sr	1.5E-02 ± 4.4E-03	
		^{234}U	1.2E-05 ± 7.8E-06	
		^{235}U	2.3E-06 ± 2.8E-06	
		^{238}U	1.2E-05 ± 7.1E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 13 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N476	12/30/08	01/13/09	gross α	5.3E-04 ± 4.9E-04
(100-K)	12/30/08	01/13/09	gross β	1.3E-02 ± 1.7E-03
	01/13/09	01/27/09	gross α	1.9E-03 ± 6.5E-04
	01/13/09	01/27/09	gross β	3.8E-02 ± 3.7E-03
	01/27/09	02/10/09	gross α	1.8E-03 ± 6.4E-04
	01/27/09	02/10/09	gross β	2.9E-02 ± 3.1E-03
	02/10/09	02/24/09	gross α	9.6E-04 ± 5.9E-04
	02/10/09	02/24/09	gross β	2.6E-02 ± 2.7E-03
	02/24/09	03/10/09	gross α	1.5E-03 ± 5.9E-04
	02/24/09	03/10/09	gross β	1.3E-02 ± 1.8E-03
	03/10/09	03/24/09	gross α	1.4E-03 ± 5.8E-04
	03/10/09	03/24/09	gross β	1.4E-02 ± 1.8E-03
	03/24/09	04/07/09	gross α	3.0E-04 ± 4.0E-04
	03/24/09	04/07/09	gross β	7.9E-03 ± 1.3E-03
	04/07/09	04/21/09	gross α	1.0E-03 ± 6.5E-04
	04/07/09	04/21/09	gross β	1.3E-02 ± 1.9E-03
	04/21/09	05/05/09	gross α	1.9E-03 ± 6.9E-04
	04/21/09	05/05/09	gross β	1.5E-02 ± 1.9E-03
	05/05/09	05/19/09	gross α	7.7E-04 ± 5.6E-04
	05/05/09	05/19/09	gross β	7.7E-03 ± 1.3E-03
	05/19/09	06/02/09	gross α	1.0E-03 ± 6.2E-04
	05/19/09	06/02/09	gross β	1.5E-02 ± 1.9E-03
	06/02/09	06/16/09	gross α	1.4E-03 ± 5.7E-04
	06/02/09	06/16/09	gross β	2.3E-02 ± 2.5E-03
	06/16/09	07/01/09	gross α	3.8E-04 ± 4.1E-04
	06/16/09	07/01/09	gross β	1.2E-02 ± 1.6E-03
	07/01/09	07/14/09	gross α	9.8E-04 ± 6.5E-04
	07/01/09	07/14/09	gross β	1.4E-02 ± 1.9E-03
	07/14/09	07/28/09	gross α	1.1E-03 ± 6.6E-04
	07/14/09	07/28/09	gross β	2.0E-02 ± 2.4E-03
	07/28/09	08/11/09	gross α	9.0E-04 ± 5.9E-04
	07/28/09	08/11/09	gross β	3.5E-02 ± 3.5E-03
	08/11/09	08/25/09	gross α	1.4E-03 ± 5.8E-04
	08/11/09	08/25/09	gross β	1.6E-02 ± 2.1E-03
	08/25/09	09/09/09	gross α	1.2E-03 ± 5.1E-04
	08/25/09	09/09/09	gross β	1.7E-02 ± 2.0E-03
	09/09/09	09/23/09	gross α	1.9E-03 ± 6.7E-04
	09/09/09	09/23/09	gross β	2.1E-02 ± 2.5E-03
	09/23/09	10/06/09	gross α	8.8E-04 ± 6.6E-04
	09/23/09	10/06/09	gross β	1.7E-02 ± 2.3E-03
	10/06/09	10/20/09	gross α	1.9E-03 ± 7.0E-04
	10/06/09	10/20/09	gross β	2.3E-02 ± 2.6E-03
	10/20/09	11/03/09	gross α	6.6E-04 ± 5.3E-04
	10/20/09	11/03/09	gross β	1.2E-02 ± 1.6E-03
	11/03/09	11/17/09	gross α	9.6E-04 ± 6.1E-04
	11/03/09	11/17/09	gross β	1.5E-02 ± 2.0E-03
	11/17/09	12/01/09	gross α	9.7E-04 ± 7.0E-04
	11/17/09	12/01/09	gross β	1.4E-02 ± 2.0E-03
	12/01/09	12/16/09	gross α	3.3E-03 ± 9.5E-04
	12/01/09	12/16/09	gross β	4.2E-02 ± 4.1E-03
	12/16/09	12/30/09	gross α	3.8E-03 ± 9.9E-04
	12/16/09	12/30/09	gross β	4.1E-02 ± 3.9E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N476	12/30/08 to 07/01/09	^{241}Am	7.4E-06 ± 4.9E-06	
		^{60}Co	-3.1E-05 ± 8.9E-05	U
		^{134}Cs	7.5E-05 ± 7.9E-05	U
		^{137}Cs	5.5E-04 ± 2.2E-04	
		^{152}Eu	-1.2E-05 ± 1.2E-04	U
		^{154}Eu	-4.7E-05 ± 2.0E-04	U
		^{155}Eu	-1.6E-04 ± 1.8E-04	U
		^{238}Pu	-1.2E-06 ± 5.2E-06	U
		$^{239/240}$Pu	1.2E-05 ± 8.3E-06	
		^{241}Pu	6.3E-04 ± 7.5E-04	U
		^{106}Ru	-3.0E-04 ± 6.4E-04	U
		^{125}Sb	1.8E-04 ± 1.8E-04	U
		^{90}Sr	-2.7E-04 ± 2.8E-04	U
		^{234}U	9.2E-06 ± 5.7E-06	
		^{235}U	7.5E-07 ± 1.5E-06	U
		^{238}U	3.7E-06 ± 3.7E-06	U
N476	07/01/09 to 12/30/09	^{241}Am	2.7E-05 ± 1.4E-05	
		^{60}Co	2.9E-05 ± 7.3E-05	U
		^{134}Cs	4.4E-05 ± 6.8E-05	U
		^{137}Cs	1.9E-03 ± 6.2E-04	
		^{152}Eu	1.1E-04 ± 1.8E-04	U
		^{154}Eu	1.3E-04 ± 2.0E-04	U
		^{155}Eu	-1.3E-04 ± 1.9E-04	U
		^{238}Pu	-1.6E-06 ± 1.6E-05	U
		$^{239/240}$Pu	2.7E-05 ± 1.7E-05	
		^{241}Pu	-2.0E-04 ± 2.1E-04	U
		^{106}Ru	-4.5E-04 ± 6.2E-04	U
		^{125}Sb	-8.3E-05 ± 1.6E-04	U
		^{90}Sr	6.7E-05 ± 2.7E-04	U
		^{234}U	1.2E-05 ± 7.3E-06	
		^{235}U	2.3E-06 ± 2.8E-06	
		^{238}U	3.5E-06 ± 3.9E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 14 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N477	12/30/08	01/13/09	gross α	1.8E-03 ± 6.4E-04
(100-K)	12/30/08	01/13/09	gross β	1.3E-02 ± 1.7E-03
	01/13/09	01/27/09	gross α	3.9E-04 ± 4.2E-04
	01/13/09	01/27/09	gross β	1.4E-03 ± 5.1E-04
	01/27/09	02/10/09	gross α	2.2E-03 ± 6.9E-04
	01/27/09	02/10/09	gross β	3.6E-02 ± 3.5E-03
	02/10/09	02/24/09	gross α	9.6E-04 ± 5.9E-04
	02/10/09	02/24/09	gross β	2.6E-02 ± 2.8E-03
	02/24/09	03/10/09	gross α	1.2E-03 ± 5.2E-04
	02/24/09	03/10/09	gross β	1.6E-02 ± 2.0E-03
	03/10/09	03/24/09	gross α	2.6E-03 ± 7.8E-04
	03/10/09	03/24/09	gross β	1.4E-02 ± 1.8E-03
	03/24/09	04/07/09	gross α	7.6E-04 ± 5.4E-04
	03/24/09	04/07/09	gross β	1.2E-02 ± 1.6E-03
	04/07/09	04/21/09	gross α	1.3E-03 ± 5.5E-04
	04/07/09	04/21/09	gross β	1.4E-02 ± 1.9E-03
	04/21/09	05/05/09	gross α	1.6E-03 ± 6.1E-04
	04/21/09	05/05/09	gross β	1.3E-02 ± 1.8E-03
	05/05/09	05/19/09	gross α	5.0E-04 ± 4.7E-04
	05/05/09	05/19/09	gross β	8.7E-03 ± 1.3E-03
	05/19/09	06/02/09	gross α	7.4E-04 ± 5.3E-04
	05/19/09	06/02/09	gross β	1.6E-02 ± 1.9E-03
	06/02/09	06/16/09	gross α	1.6E-03 ± 6.0E-04
	06/02/09	06/16/09	gross β	2.8E-02 ± 2.9E-03
	06/16/09	07/01/09	gross α	1.2E-03 ± 5.0E-04
	06/16/09	07/01/09	gross β	1.4E-02 ± 1.8E-03
	07/01/09	07/14/09	gross α	1.2E-03 ± 5.4E-04
	07/01/09	07/14/09	gross β	1.4E-02 ± 1.9E-03
	07/14/09	07/28/09	gross α	1.8E-03 ± 6.7E-04
	07/14/09	07/28/09	gross β	2.6E-02 ± 2.8E-03
	07/28/09	08/11/09	gross α	8.7E-04 ± 5.8E-04
	07/28/09	08/11/09	gross β	4.0E-02 ± 3.9E-03
	08/11/09	08/25/09	gross α	1.4E-03 ± 5.5E-04
	08/11/09	08/25/09	gross β	1.7E-02 ± 2.1E-03
	08/25/09	09/09/09	gross α	9.0E-04 ± 5.5E-04
	08/25/09	09/09/09	gross β	1.9E-02 ± 2.1E-03
	09/09/09	09/23/09	gross α	2.1E-03 ± 6.9E-04
	09/09/09	09/23/09	gross β	2.2E-02 ± 2.5E-03
	09/23/09	10/06/09	gross α	1.0E-03 ± 6.6E-04
	09/23/09	10/06/09	gross β	1.3E-02 ± 1.9E-03
	10/06/09	10/20/09	gross α	1.7E-03 ± 6.3E-04
	10/06/09	10/20/09	gross β	2.3E-02 ± 2.5E-03
	10/20/09	11/03/09	gross α	8.5E-04 ± 5.6E-04
	10/20/09	11/03/09	gross β	1.3E-02 ± 1.7E-03
	11/03/09	11/17/09	gross α	4.8E-04 ± 4.6E-04
	11/03/09	11/17/09	gross β	1.6E-02 ± 2.0E-03
	11/17/09	12/01/09	gross α	6.3E-04 ± 5.0E-04
	11/17/09	12/01/09	gross β	1.3E-02 ± 1.8E-03
	12/01/09	12/16/09	gross α	2.1E-03 ± 7.2E-04
	12/01/09	12/16/09	gross β	4.2E-02 ± 3.9E-03
	12/16/09	12/30/09	gross α	1.8E-03 ± 6.7E-04
	12/16/09	12/30/09	gross β	3.8E-02 ± 3.7E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N477	12/30/08 to 07/01/09	^{241}Am	1.4E-05 ± 7.7E-06	
		^{60}Co	2.2E-05 ± 1.0E-04	U
		^{134}Cs	6.4E-05 ± 1.1E-04	U
		^{137}Cs	1.1E-03 ± 4.0E-04	
		^{152}Eu	1.9E-04 ± 2.1E-04	U
		^{154}Eu	-5.1E-04 ± 5.2E-04	U
		^{155}Eu	8.9E-05 ± 2.0E-04	U
		^{238}Pu	-1.3E-06 ± 2.7E-06	U
		$^{239/240}$Pu	4.0E-06 ± 6.2E-06	
		^{241}Pu	3.1E-04 ± 8.0E-04	U
		^{106}Ru	-4.4E-04 ± 7.4E-04	U
		^{125}Sb	6.0E-05 ± 2.1E-04	U
		^{90}Sr	-6.9E-05 ± 7.2E-05	U
		^{234}U	1.2E-05 ± 7.3E-06	
		^{235}U	6.9E-07 ± 3.2E-06	U
		^{238}U	8.7E-06 ± 6.0E-06	
N477	07/01/09 to 12/30/09	^{241}Am	3.5E-05 ± 1.5E-05	
		^{60}Co	6.9E-06 ± 6.9E-05	U
		^{134}Cs	-1.2E-05 ± 7.1E-05	U
		^{137}Cs	2.5E-03 ± 8.0E-04	
		^{152}Eu	-1.6E-04 ± 2.3E-04	U
		^{154}Eu	-1.5E-04 ± 2.2E-04	U
		^{155}Eu	-9.9E-05 ± 1.8E-04	U
		^{238}Pu	1.6E-05 ± 2.8E-05	U
		$^{239/240}$Pu	5.4E-05 ± 2.9E-05	
		^{241}Pu	5.7E-04 ± 6.0E-04	U
		^{106}Ru	1.2E-04 ± 6.2E-04	U
		^{125}Sb	1.1E-04 ± 1.8E-04	U
		^{90}Sr	3.4E-04 ± 2.4E-04	
		^{234}U	7.7E-06 ± 5.9E-06	
		^{235}U	-7.7E-07 ± 3.4E-06	U
		^{238}U	7.0E-06 ± 5.9E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 15 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N478	12/30/08	01/13/09	gross α	8.6E-04 ± 5.7E-04
(100-K)	12/30/08	01/13/09	gross β	1.4E-02 ± 1.8E-03
	01/13/09	01/27/09	gross α	1.6E-03 ± 5.9E-04
	01/13/09	01/27/09	gross β	4.0E-02 ± 3.8E-03
	01/27/09	02/10/09	gross α	1.2E-03 ± 5.2E-04
	01/27/09	02/10/09	gross β	3.7E-02 ± 3.7E-03
	02/10/09	02/24/09	gross α	1.7E-03 ± 6.2E-04
	02/10/09	02/24/09	gross β	2.7E-02 ± 2.8E-03
	02/24/09	03/10/09	gross α	4.6E-04 ± 4.5E-04
	02/24/09	03/10/09	gross β	1.7E-02 ± 2.1E-03
	03/10/09	03/24/09	gross α	7.6E-04 ± 5.5E-04
	03/10/09	03/24/09	gross β	1.5E-02 ± 1.9E-03
	03/24/09	04/07/09	gross α	8.7E-04 ± 5.7E-04
	03/24/09	04/07/09	gross β	1.0E-02 ± 1.5E-03
	04/07/09	04/21/09	gross α	5.9E-04 ± 5.0E-04
	04/07/09	04/21/09	gross β	1.3E-02 ± 1.7E-03
	04/21/09	05/05/09	gross α	1.3E-03 ± 5.6E-04
	04/21/09	05/05/09	gross β	1.3E-02 ± 1.8E-03
	05/05/09	05/19/09	gross α	1.7E-04 ± 3.6E-04
	05/05/09	05/19/09	gross β	1.1E-02 ± 1.5E-03
	05/19/09	06/02/09	gross α	1.4E-03 ± 5.8E-04
	05/19/09	06/02/09	gross β	1.6E-02 ± 2.0E-03
	06/02/09	06/16/09	gross α	7.6E-04 ± 5.4E-04
	06/02/09	06/16/09	gross β	2.1E-02 ± 2.3E-03
	06/16/09	07/01/09	gross α	6.8E-04 ± 4.9E-04
	06/16/09	07/01/09	gross β	1.3E-02 ± 1.7E-03
	07/01/09	07/14/09	gross α	4.4E-04 ± 4.8E-04
	07/01/09	07/14/09	gross β	1.4E-02 ± 1.9E-03
	07/14/09	07/28/09	gross α	1.0E-03 ± 6.4E-04
	07/14/09	07/28/09	gross β	1.6E-02 ± 2.1E-03
	07/28/09	08/11/09	gross α	9.8E-04 ± 6.0E-04
	07/28/09	08/11/09	gross β	5.3E-02 ± 4.8E-03
	08/11/09	08/25/09	gross α	1.5E-03 ± 5.8E-04
	08/11/09	08/25/09	gross β	1.7E-02 ± 2.1E-03
	08/25/09	09/09/09	gross α	9.0E-04 ± 5.5E-04
	08/25/09	09/09/09	gross β	1.7E-02 ± 2.0E-03
	09/09/09	09/23/09	gross α	2.6E-03 ± 7.6E-04
	09/09/09	09/23/09	gross β	2.6E-02 ± 2.8E-03
	09/23/09	10/06/09	gross α	1.2E-03 ± 5.7E-04
	09/23/09	10/06/09	gross β	1.3E-02 ± 1.9E-03
	10/06/09	10/20/09	gross α	1.7E-03 ± 6.4E-04
	10/06/09	10/20/09	gross β	2.5E-02 ± 2.7E-03
	10/20/09	11/03/09	gross α	2.2E-03 ± 7.1E-04
	10/20/09	11/03/09	gross β	1.8E-02 ± 2.1E-03
	11/03/09	11/17/09	gross α	1.1E-03 ± 5.1E-04
	11/03/09	11/17/09	gross β	1.2E-02 ± 1.7E-03
	11/17/09	12/01/09	gross α	7.4E-04 ± 5.3E-04
	11/17/09	12/01/09	gross β	1.4E-02 ± 1.8E-03
	12/01/09	12/16/09	gross α	1.7E-03 ± 6.5E-04
	12/01/09	12/16/09	gross β	3.4E-02 ± 3.4E-03
	12/16/09	12/30/09	gross α	2.0E-03 ± 7.1E-04
	12/16/09	12/30/09	gross β	3.9E-02 ± 3.8E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N478	12/30/08 to 07/01/09	^{241}Am	1.5E-05 ± 8.3E-06	
		^{60}Co	3.5E-05 ± 8.2E-05	U
		^{134}Cs	-5.3E-05 ± 7.6E-05	U
		^{137}Cs	1.1E-03 ± 3.7E-04	
		^{152}Eu	-1.9E-04 ± 2.0E-04	U
		^{154}Eu	6.7E-05 ± 2.5E-04	U
		^{155}Eu	8.1E-05 ± 1.7E-04	U
		^{238}Pu	1.2E-06 ± 1.2E-06	U
		$^{239/240}$Pu	7.3E-06 ± 7.4E-06	U
		^{241}Pu	6.8E-04 ± 8.2E-04	U
		^{106}Ru	-2.4E-04 ± 6.7E-04	U
		^{125}Sb	-1.0E-04 ± 1.7E-04	U
		^{90}Sr	-7.7E-05 ± 8.0E-05	U
		^{234}U	7.0E-06 ± 5.5E-06	
		^{235}U	6.9E-07 ± 3.1E-06	U
		^{238}U	6.3E-06 ± 4.8E-06	
N478	07/01/09 to 12/30/09	^{241}Am	4.1E-05 ± 1.8E-05	
		^{60}Co	8.2E-05 ± 8.1E-05	U
		^{134}Cs	1.0E-05 ± 7.2E-05	U
		^{137}Cs	2.2E-03 ± 7.0E-04	
		^{152}Eu	4.5E-06 ± 4.5E-05	U
		^{154}Eu	-1.7E-04 ± 2.0E-04	U
		^{155}Eu	-8.5E-05 ± 1.5E-04	U
		^{238}Pu	1.7E-06 ± 1.7E-06	U
		$^{239/240}$Pu	3.2E-05 ± 2.1E-05	
		^{241}Pu	4.4E-04 ± 6.6E-04	U
		^{106}Ru	2.9E-04 ± 6.1E-04	U
		^{125}Sb	1.1E-04 ± 1.7E-04	U
		^{90}Sr	4.9E-04 ± 3.2E-04	
		^{234}U	1.5E-05 ± 8.6E-06	
		^{235}U	2.3E-06 ± 2.8E-06	
		^{238}U	9.1E-06 ± 6.1E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 16 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N479	12/30/08	01/13/09	gross α	5.2E-04 ± 4.8E-04
(100-K)	12/30/08	01/13/09	gross β	1.1E-02 ± 1.6E-03
	01/13/09	01/27/09	gross α	1.7E-03 ± 6.2E-04
	01/13/09	01/27/09	gross β	4.1E-02 ± 3.9E-03
	01/27/09	02/10/09	gross α	1.3E-03 ± 5.4E-04
	01/27/09	02/10/09	gross β	4.2E-02 ± 4.0E-03
	02/10/09	02/24/09	gross α	8.5E-04 ± 5.6E-04
	02/10/09	02/24/09	gross β	3.0E-02 ± 3.1E-03
	02/24/09	03/10/09	gross α	8.9E-04 ± 5.6E-04
	02/24/09	03/10/09	gross β	1.3E-02 ± 1.8E-03
	03/10/09	03/24/09	gross α	1.3E-03 ± 5.6E-04
	03/10/09	03/24/09	gross β	1.5E-02 ± 1.9E-03
	03/24/09	04/07/09	gross α	1.1E-03 ± 6.5E-04
	03/24/09	04/07/09	gross β	9.6E-03 ± 1.5E-03
	04/07/09	04/21/09	gross α	1.2E-03 ± 5.2E-04
	04/07/09	04/21/09	gross β	1.7E-02 ± 2.1E-03
	04/21/09	05/05/09	gross α	7.3E-04 ± 5.3E-04
	04/21/09	05/05/09	gross β	1.6E-02 ± 2.0E-03
	05/05/09	05/19/09	gross α	9.5E-04 ± 5.9E-04
	05/05/09	05/19/09	gross β	7.0E-03 ± 1.2E-03
	05/19/09	06/02/09	gross α	1.6E-03 ± 6.1E-04
	05/19/09	06/02/09	gross β	1.5E-02 ± 1.9E-03
	06/02/09	06/16/09	gross α	9.6E-04 ± 5.9E-04
	06/02/09	06/16/09	gross β	2.1E-02 ± 2.4E-03
	06/16/09	07/01/09	gross α	6.8E-04 ± 4.9E-04
	06/16/09	07/01/09	gross β	1.6E-02 ± 1.9E-03
	07/01/09	07/14/09	gross α	1.2E-03 ± 5.3E-04
	07/01/09	07/14/09	gross β	1.3E-02 ± 1.7E-03
	07/14/09	07/28/09	gross α	1.1E-03 ± 5.3E-04
	07/14/09	07/28/09	gross β	2.0E-02 ± 2.3E-03
	07/28/09	08/11/09	gross α	9.6E-04 ± 5.9E-04
	07/28/09	08/11/09	gross β	4.3E-02 ± 4.0E-03
	08/11/09	08/25/09	gross α	6.9E-04 ± 5.2E-04
	08/11/09	08/25/09	gross β	1.4E-02 ± 1.9E-03
	08/25/09	09/09/09	gross α	7.8E-04 ± 5.1E-04
	08/25/09	09/09/09	gross β	1.8E-02 ± 2.1E-03
	09/09/09	09/23/09	gross α	2.7E-03 ± 7.8E-04
	09/09/09	09/23/09	gross β	2.4E-02 ± 2.7E-03
	09/23/09	10/06/09	gross α	1.1E-03 ± 5.4E-04
	09/23/09	10/06/09	gross β	1.8E-02 ± 2.3E-03
	10/06/09	10/20/09	gross α	1.2E-03 ± 5.2E-04
	10/06/09	10/20/09	gross β	2.1E-02 ± 2.3E-03
	10/20/09	11/03/09	gross α	9.6E-04 ± 5.9E-04
	10/20/09	11/03/09	gross β	1.4E-02 ± 1.8E-03
	11/03/09	11/17/09	gross α	1.1E-03 ± 5.1E-04
	11/03/09	11/17/09	gross β	1.5E-02 ± 2.0E-03
	11/17/09	12/01/09	gross α	1.1E-03 ± 5.0E-04
	11/17/09	12/01/09	gross β	1.5E-02 ± 1.9E-03
	12/01/09	12/16/09	gross α	1.6E-03 ± 6.1E-04
	12/01/09	12/16/09	gross β	4.5E-02 ± 4.2E-03
	12/16/09	12/30/09	gross α	1.6E-03 ± 6.2E-04
	12/16/09	12/30/09	gross β	3.8E-02 ± 3.7E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N479	12/30/08 to 07/01/09	^{241}Am	1.6E-05 ± 8.4E-06	
		^{60}Co	4.3E-05 ± 8.8E-05	U
		^{134}Cs	1.1E-04 ± 8.3E-05	U
		^{137}Cs	9.3E-04 ± 3.4E-04	
		^{152}Eu	5.8E-05 ± 2.0E-04	U
		^{154}Eu	-1.1E-04 ± 2.4E-04	U
		^{155}Eu	-9.9E-05 ± 1.9E-04	U
		^{238}Pu	2.5E-06 ± 5.1E-06	U
		$^{239/240}$Pu	1.0E-05 ± 8.6E-06	
		^{241}Pu	8.0E-04 ± 7.9E-04	U
		^{106}Ru	-6.2E-04 ± 7.5E-04	U
		^{125}Sb	-6.6E-05 ± 1.9E-04	U
		^{90}Sr	-4.0E-05 ± 4.2E-05	U
		^{234}U	7.7E-06 ± 5.0E-06	
		^{235}U	6.8E-07 ± 1.4E-06	U
		^{238}U	2.2E-06 ± 2.8E-06	U
N479	07/01/09 to 12/30/09	^{241}Am	3.5E-05 ± 1.6E-05	
		^{60}Co	6.0E-06 ± 6.0E-05	U
		^{134}Cs	3.0E-05 ± 7.5E-05	U
		^{137}Cs	1.9E-03 ± 6.5E-04	
		^{152}Eu	1.3E-05 ± 1.3E-04	U
		^{154}Eu	1.3E-04 ± 2.0E-04	U
		^{155}Eu	-2.3E-05 ± 1.7E-04	U
		^{238}Pu	-8.7E-06 ± 2.3E-05	U
		$^{239/240}$Pu	3.3E-05 ± 2.0E-05	
		^{241}Pu	1.9E-04 ± 5.4E-04	U
		^{106}Ru	3.6E-05 ± 3.6E-04	U
		^{125}Sb	3.6E-05 ± 1.5E-04	U
		^{90}Sr	7.0E-05 ± 2.1E-04	U
		^{234}U	7.5E-06 ± 5.7E-06	
		^{235}U	2.2E-06 ± 2.7E-06	
		^{238}U	4.8E-06 ± 4.5E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 17 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N534	09/23/09	10/06/09	gross α	4.2E-04 ± 4.7E-04
(118-K-1,	09/23/09	10/06/09	gross β	1.3E-02 ± 1.8E-03
100-K)	10/06/09	10/20/09	gross α	2.0E-03 ± 9.5E-04
	10/06/09	10/20/09	gross β	2.7E-02 ± 3.9E-03
	10/20/09	11/03/09	gross α	2.1E-03 ± 6.9E-04
	10/20/09	11/03/09	gross β	1.2E-02 ± 1.8E-03
	11/03/09	11/17/09	gross α	8.6E-04 ± 5.8E-04
	11/03/09	11/17/09	gross β	1.1E-02 ± 1.6E-03
	11/17/09	12/01/09	gross α	1.4E-03 ± 5.6E-04
	11/17/09	12/01/09	gross β	1.3E-02 ± 1.9E-03
	12/01/09	12/16/09	gross α	2.4E-03 ± 7.4E-04
	12/01/09	12/16/09	gross β	3.6E-02 ± 4.0E-03
	12/16/09	12/30/09	gross α	9.9E-04 ± 6.1E-04
	12/16/09	12/30/09	gross β	4.0E-02 ± 4.3E-03
N535	09/23/09	10/06/09	gross α	7.9E-04 ± 5.8E-04
(118-K-1,	09/23/09	10/06/09	gross β	9.9E-03 ± 1.6E-03
100-K)	10/06/09	10/20/09	gross α	6.0E-04 ± 5.1E-04
	10/06/09	10/20/09	gross β	2.4E-02 ± 3.0E-03
	10/20/09	11/03/09	gross α	1.1E-03 ± 9.6E-04
	10/20/09	11/03/09	gross β	1.3E-02 ± 2.5E-03
	11/03/09	11/17/09	gross α	5.3E-04 ± 5.0E-04
	11/03/09	11/17/09	gross β	1.1E-02 ± 1.7E-03
	11/17/09	12/01/09	gross α	6.9E-04 ± 5.2E-04
	11/17/09	12/01/09	gross β	1.6E-02 ± 2.2E-03
	12/01/09	12/16/09	gross α	1.3E-03 ± 5.5E-04
	12/01/09	12/16/09	gross β	3.5E-02 ± 3.8E-03
	12/16/09	12/30/09	gross α	2.0E-03 ± 6.8E-04
	12/16/09	12/30/09	gross β	3.6E-02 ± 3.9E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N534	09/23/09 to 12/30/09	^{60}Co	-2.2E-05 ± 1.4E-04	U
		^{134}Cs	-6.5E-05 ± 1.4E-04	U
		^{137}Cs	2.1E-04 ± 2.0E-04	U
		^{152}Eu	-6.5E-05 ± 3.2E-04	U
		^{154}Eu	-2.8E-06 ± 2.8E-05	U
		^{155}Eu	-9.1E-05 ± 3.4E-04	U
		^{238}Pu	2.9E-06 ± 5.8E-06	U
		$^{239/240}$Pu	5.7E-06 ± 9.2E-06	U
		^{106}Ru	3.1E-04 ± 1.2E-03	U
		^{125}Sb	6.3E-05 ± 2.9E-04	U
		^{90}Sr	-2.0E-04 ± 2.0E-04	U
		^{234}U	5.5E-06 ± 1.1E-05	U
		^{235}U	1.5E-06 ± 3.1E-06	U
		^{238}U	4.2E-06 ± 6.3E-06	U
N535	09/23/09 to 12/30/09	^{60}Co	-2.2E-05 ± 1.7E-04	U
		^{134}Cs	-2.3E-05 ± 1.6E-04	U
		^{137}Cs	8.5E-05 ± 1.4E-04	U
		^{152}Eu	-3.8E-04 ± 3.9E-04	U
		^{154}Eu	-4.0E-04 ± 4.7E-04	U
		^{155}Eu	1.5E-04 ± 3.4E-04	U
		^{238}Pu	4.6E-06 ± 4.8E-06	
		$^{239/240}$Pu	2.3E-06 ± 5.6E-06	U
		^{106}Ru	-1.5E-04 ± 1.2E-03	U
		^{125}Sb	1.4E-05 ± 1.4E-04	U
		^{90}Sr	1.0E-04 ± 2.8E-04	U
		^{234}U	1.6E-05 ± 1.2E-05	
		^{235}U	1.4E-06 ± 2.9E-06	U
		^{238}U	2.6E-06 ± 5.3E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 18 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N102	12/30/08	01/13/09	gross α	9.9E-04 ± 6.1E-04
(100-N)	12/30/08	01/13/09	gross β	1.3E-02 ± 1.8E-03
	01/13/09	01/27/09	gross α	6.2E-04 ± 5.0E-04
	01/13/09	01/27/09	gross β	4.4E-02 ± 4.7E-03
	01/27/09	02/10/09	gross α	3.0E-03 ± 8.4E-04
	01/27/09	02/10/09	gross β	1.7E-02 ± 2.2E-03
	02/10/09	02/24/09	gross α	1.4E-03 ± 5.9E-04
	02/10/09	02/24/09	gross β	2.3E-02 ± 2.8E-03
	02/24/09	03/10/09	gross α	1.2E-03 ± 5.3E-04
	02/24/09	03/10/09	gross β	1.2E-02 ± 1.7E-03
	03/10/09	03/24/09	gross α	2.2E-03 ± 7.4E-04
	03/10/09	03/24/09	gross β	1.4E-02 ± 1.9E-03
	03/24/09	04/07/09	gross α	1.1E-03 ± 5.2E-04
	03/24/09	04/07/09	gross β	1.0E-02 ± 1.6E-03
	04/07/09	04/21/09	gross α	7.5E-04 ± 5.4E-04
	04/07/09	04/21/09	gross β	1.3E-02 ± 1.9E-03
	04/21/09	05/05/09	gross α	1.2E-03 ± 5.6E-04
	04/21/09	05/05/09	gross β	1.7E-02 ± 2.4E-03
	05/05/09	05/19/09	gross α	1.2E-03 ± 5.2E-04
	05/05/09	05/19/09	gross β	8.9E-03 ± 1.5E-03
	05/19/09	06/02/09	gross α	6.2E-04 ± 5.0E-04
	05/19/09	06/02/09	gross β	1.2E-02 ± 1.7E-03
	06/02/09	06/16/09	gross α	1.3E-03 ± 5.6E-04
	06/02/09	06/16/09	gross β	1.7E-02 ± 2.2E-03
	06/16/09	07/02/09	gross α	7.6E-04 ± 5.1E-04
	06/16/09	07/02/09	gross β	1.2E-02 ± 1.6E-03
	07/02/09	07/14/09	gross α	3.3E-04 ± 4.7E-04
	07/02/09	07/14/09	gross β	1.3E-02 ± 1.9E-03
	07/14/09	07/28/09	gross α	1.4E-03 ± 5.6E-04
	07/14/09	07/28/09	gross β	2.0E-02 ± 2.5E-03
	07/28/09	08/11/09	gross α	8.6E-04 ± 5.8E-04
	07/28/09	08/11/09	gross β	1.6E-02 ± 2.1E-03
	08/11/09	08/25/09	gross α	1.5E-03 ± 5.8E-04
	08/11/09	08/25/09	gross β	1.5E-02 ± 2.0E-03
	08/25/09	09/09/09	gross α	7.8E-04 ± 5.3E-04
	08/25/09	09/09/09	gross β	1.7E-02 ± 2.2E-03
	09/09/09	09/23/09	gross α	7.3E-04 ± 5.4E-04
	09/09/09	09/23/09	gross β	1.6E-02 ± 2.1E-03
	09/23/09	10/06/09	gross α	3.8E-04 ± 4.5E-04
	09/23/09	10/06/09	gross β	1.4E-02 ± 2.0E-03
	10/06/09	10/20/09	gross α	1.4E-03 ± 5.7E-04
	10/06/09	10/20/09	gross β	1.8E-02 ± 2.3E-03
	10/20/09	11/03/09	gross α	1.3E-03 ± 5.5E-04
	10/20/09	11/03/09	gross β	1.1E-02 ± 1.7E-03
	11/03/09	11/17/09	gross α	8.5E-04 ± 5.6E-04
	11/03/09	11/17/09	gross β	1.7E-02 ± 2.2E-03
	11/17/09	12/01/09	gross α	2.6E-03 ± 8.0E-04
	11/17/09	12/01/09	gross β	1.1E-02 ± 1.7E-03
	12/01/09	12/16/09	gross α	2.1E-03 ± 6.7E-04
	12/01/09	12/16/09	gross β	3.9E-02 ± 4.2E-03
	12/16/09	12/31/09	gross α	1.9E-03 ± 6.6E-04
	12/16/09	12/31/09	gross β	3.8E-02 ± 4.1E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N102	12/30/08 to 07/02/09	^{241}Am	9.9E-06 ± 6.8E-06	
		^{60}Co	-2.8E-05 ± 7.1E-05	U
		^{134}Cs	2.2E-05 ± 6.9E-05	U
		^{137}Cs	1.0E-04 ± 9.6E-05	U
		^{152}Eu	-5.7E-05 ± 1.5E-04	U
		^{154}Eu	1.5E-04 ± 2.1E-04	U
		^{155}Eu	6.0E-05 ± 1.4E-04	U
		^{238}Pu	-6.8E-06 ± 1.0E-05	U
		$^{239/240}$Pu	3.4E-06 ± 3.8E-06	U
		^{106}Ru	-9.0E-06 ± 9.0E-05	U
		^{125}Sb	-1.5E-05 ± 1.4E-04	U
		^{90}Sr	-4.7E-06 ± 4.8E-06	U
		^{234}U	4.5E-06 ± 4.6E-06	U
		^{235}U	2.1E-06 ± 2.6E-06	
		^{238}U	7.1E-06 ± 5.4E-06	
N102	07/02/09 to 12/31/09	^{241}Am	8.1E-06 ± 6.1E-06	
		^{60}Co	-4.9E-05 ± 8.9E-05	U
		^{134}Cs	-6.8E-05 ± 8.0E-05	U
		^{137}Cs	1.2E-04 ± 1.3E-04	
		^{152}Eu	8.3E-05 ± 1.8E-04	U
		^{154}Eu	6.1E-05 ± 2.2E-04	U
		^{155}Eu	6.1E-05 ± 1.3E-04	U
		^{238}Pu	-7.6E-07 ± 7.7E-06	U
		$^{239/240}$Pu	2.3E-06 ± 4.2E-06	U
		^{106}Ru	-2.1E-05 ± 2.1E-04	U
		^{125}Sb	4.4E-05 ± 1.8E-04	U
		^{90}Sr	-2.2E-04 ± 2.3E-04	U
		^{234}U	9.3E-06 ± 6.4E-06	
		^{235}U	7.2E-07 ± 1.5E-06	U
		^{238}U	8.6E-06 ± 5.8E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 19 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N103	12/30/08	01/13/09	gross α	4.2E-04 ± 4.6E-04
(100-N)	12/30/08	01/13/09	gross β	1.3E-02 ± 1.8E-03
	01/13/09	01/27/09	gross α	9.5E-04 ± 5.9E-04
	01/13/09	01/27/09	gross β	3.8E-02 ± 3.7E-03
	01/27/09	02/10/09	gross α	1.4E-03 ± 5.6E-04
	01/27/09	02/10/09	gross β	2.1E-02 ± 2.4E-03
	02/10/09	02/24/09	gross α	1.7E-03 ± 6.3E-04
	02/10/09	02/24/09	gross β	2.7E-02 ± 2.8E-03
	02/24/09	03/10/09	gross α	7.3E-04 ± 5.3E-04
	02/24/09	03/10/09	gross β	1.1E-02 ± 1.5E-03
	03/10/09	03/24/09	gross α	1.2E-03 ± 5.4E-04
	03/10/09	03/24/09	gross β	1.3E-02 ± 1.8E-03
	03/24/09	04/07/09	gross α	5.3E-04 ± 5.0E-04
	03/24/09	04/07/09	gross β	8.8E-03 ± 1.4E-03
	04/07/09	04/21/09	gross α	7.5E-04 ± 5.4E-04
	04/07/09	04/21/09	gross β	1.3E-02 ± 1.7E-03
	04/21/09	05/05/09	gross α	2.6E-04 ± 4.0E-04
	04/21/09	05/05/09	gross β	1.6E-02 ± 2.0E-03
	05/05/09	05/19/09	gross α	8.0E-04 ± 5.5E-04
	05/05/09	05/19/09	gross β	9.0E-03 ± 1.4E-03
	05/19/09	06/02/09	gross α	1.0E-03 ± 6.2E-04
	05/19/09	06/02/09	gross β	1.4E-02 ± 1.8E-03
	06/02/09	06/16/09	gross α	4.1E-04 ± 4.6E-04
	06/02/09	06/16/09	gross β	2.0E-02 ± 2.3E-03
	06/16/09	07/02/09	gross α	8.8E-04 ± 5.5E-04
	06/16/09	07/02/09	gross β	8.8E-03 ± 1.3E-03
	07/02/09	07/14/09	gross α	1.0E-03 ± 6.8E-04
	07/02/09	07/14/09	gross β	1.5E-02 ± 2.0E-03
	07/14/09	07/28/09	gross α	1.5E-03 ± 6.0E-04
	07/14/09	07/28/09	gross β	2.0E-02 ± 2.4E-03
	07/28/09	08/11/09	gross α	8.8E-04 ± 5.9E-04
	07/28/09	08/11/09	gross β	1.7E-02 ± 2.1E-03
	08/11/09	08/25/09	gross α	6.3E-04 ± 5.0E-04
	08/11/09	08/25/09	gross β	1.1E-02 ± 1.6E-03
	08/25/09	09/09/09	gross α	1.6E-03 ± 5.9E-04
	08/25/09	09/09/09	gross β	1.8E-02 ± 2.1E-03
	09/09/09	09/23/09	gross α	1.1E-03 ± 5.2E-04
	09/09/09	09/23/09	gross β	1.6E-02 ± 2.0E-03
	09/23/09	10/06/09	gross α	1.0E-03 ± 9.7E-04
	09/23/09	10/06/09	gross β	3.7E-02 ± 4.6E-03
	10/06/09	10/20/09	gross α	9.9E-04 ± 6.1E-04
	10/06/09	10/20/09	gross β	2.2E-02 ± 2.5E-03
	10/20/09	11/03/09	gross α	9.5E-04 ± 5.9E-04
	10/20/09	11/03/09	gross β	1.1E-02 ± 1.5E-03
	11/03/09	11/17/09	gross α	2.1E-03 ± 6.9E-04
	11/03/09	11/17/09	gross β	1.5E-02 ± 1.9E-03
	11/17/09	12/01/09	gross α	1.7E-03 ± 6.3E-04
	11/17/09	12/01/09	gross β	1.4E-02 ± 1.8E-03
	12/01/09	12/16/09	gross α	1.6E-03 ± 5.7E-04
	12/01/09	12/16/09	gross β	4.0E-02 ± 3.8E-03
	12/16/09	12/31/09	gross α	2.9E-03 ± 8.0E-04
	12/16/09	12/31/09	gross β	4.0E-02 ± 3.8E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N103	12/30/08 to 07/02/09	^{241}Am	1.7E-05 ± 9.5E-06	
		^{60}Co	6.5E-05 ± 7.5E-05	U
		^{134}Cs	1.4E-05 ± 5.8E-05	U
		^{137}Cs	1.1E-04 ± 9.7E-05	
		^{152}Eu	2.7E-06 ± 2.7E-05	U
		^{154}Eu	-1.6E-06 ± 1.6E-05	U
		^{155}Eu	9.8E-06 ± 9.8E-05	U
		^{238}Pu	-2.5E-06 ± 1.2E-05	U
		$^{239/240}$Pu	8.8E-06 ± 6.5E-06	
		^{106}Ru	9.3E-05 ± 5.1E-04	U
		^{125}Sb	2.3E-05 ± 1.4E-04	U
		^{90}Sr	-4.3E-04 ± 4.4E-04	U
		^{234}U	6.2E-06 ± 5.8E-06	U
		^{235}U	1.5E-06 ± 3.1E-06	U
		^{238}U	1.1E-05 ± 6.9E-06	
N103	07/02/09 to 12/31/09	^{241}Am	1.1E-05 ± 7.5E-06	
		^{60}Co	-1.6E-05 ± 7.7E-05	U
		^{134}Cs	2.3E-05 ± 7.8E-05	U
		^{137}Cs	2.4E-04 ± 1.5E-04	
		^{152}Eu	-5.6E-07 ± 5.6E-06	U
		^{154}Eu	6.6E-05 ± 2.4E-04	U
		^{155}Eu	1.0E-04 ± 1.8E-04	U
		^{238}Pu	1.9E-05 ± 1.8E-05	U
		$^{239/240}$Pu	1.6E-06 ± 5.0E-06	U
		^{106}Ru	-2.1E-04 ± 7.4E-04	U
		^{125}Sb	-8.7E-05 ± 1.6E-04	U
		^{90}Sr	-3.1E-04 ± 3.2E-04	U
		^{234}U	8.7E-06 ± 6.7E-06	
		^{235}U	1.5E-06 ± 3.0E-06	U
		^{238}U	1.0E-05 ± 6.5E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 20 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N106	12/30/08	01/13/09	gross α	4.3E-04 ± 4.8E-04
(100-N)	12/30/08	01/13/09	gross β	1.4E-02 ± 1.8E-03
	01/13/09	01/27/09	gross α	2.6E-03 ± 7.9E-04
	01/13/09	01/27/09	gross β	3.6E-02 ± 3.5E-03
	01/27/09	02/10/09	gross α	2.1E-03 ± 6.9E-04
	01/27/09	02/10/09	gross β	1.8E-02 ± 2.2E-03
	02/10/09	02/24/09	gross α	2.1E-03 ± 7.2E-04
	02/10/09	02/24/09	gross β	2.8E-02 ± 3.0E-03
	02/24/09	03/10/09	gross α	8.7E-04 ± 5.8E-04
	02/24/09	03/10/09	gross β	1.5E-02 ± 1.9E-03
	03/10/09	03/24/09	gross α	1.1E-03 ± 5.3E-04
	03/10/09	03/24/09	gross β	1.2E-02 ± 1.7E-03
	03/24/09	04/07/09	gross α	1.1E-03 ± 5.2E-04
	03/24/09	04/07/09	gross β	1.1E-02 ± 1.6E-03
	04/07/09	04/21/09	gross α	1.1E-03 ± 5.0E-04
	04/07/09	04/21/09	gross β	1.2E-02 ± 1.7E-03
	04/21/09	05/05/09	gross α	1.8E-03 ± 6.4E-04
	04/21/09	05/05/09	gross β	1.9E-02 ± 2.3E-03
	05/05/09	05/19/09	gross α	1.0E-03 ± 4.8E-04
	05/05/09	05/19/09	gross β	1.1E-02 ± 1.6E-03
	05/19/09	06/02/09	gross α	1.5E-03 ± 6.0E-04
	05/19/09	06/02/09	gross β	1.4E-02 ± 1.9E-03
	06/02/09	06/16/09	gross α	8.6E-04 ± 5.8E-04
	06/02/09	06/16/09	gross β	1.8E-02 ± 2.1E-03
	06/16/09	07/02/09	gross α	7.6E-04 ± 5.1E-04
	06/16/09	07/02/09	gross β	8.9E-03 ± 1.3E-03
	07/02/09	07/14/09	gross α	1.1E-03 ± 7.1E-04
	07/02/09	07/14/09	gross β	1.5E-02 ± 2.0E-03
	07/14/09	07/28/09	gross α	1.5E-03 ± 6.0E-04
	07/14/09	07/28/09	gross β	2.1E-02 ± 2.5E-03
	07/28/09	08/11/09	gross α	1.6E-03 ± 6.2E-04
	07/28/09	08/11/09	gross β	1.8E-02 ± 2.1E-03
	08/11/09	08/25/09	gross α	1.9E-03 ± 6.5E-04
	08/11/09	08/25/09	gross β	1.3E-02 ± 1.7E-03
	08/25/09	09/09/09	gross α	9.4E-04 ± 5.8E-04
	08/25/09	09/09/09	gross β	1.6E-02 ± 1.9E-03
	09/09/09	09/23/09	gross α	1.0E-03 ± 6.2E-04
	09/09/09	09/23/09	gross β	1.4E-02 ± 1.8E-03
	09/23/09	10/06/09	gross α	8.9E-04 ± 6.1E-04
	09/23/09	10/06/09	gross β	1.5E-02 ± 2.0E-03
	10/06/09	10/20/09	gross α	1.9E-03 ± 6.9E-04
	10/06/09	10/20/09	gross β	2.1E-02 ± 2.4E-03
	10/20/09	11/03/09	gross α	1.8E-03 ± 6.7E-04
	10/20/09	11/03/09	gross β	1.1E-02 ± 1.5E-03
	11/03/09	11/17/09	gross α	1.9E-03 ± 6.7E-04
	11/03/09	11/17/09	gross β	1.0E-02 ± 1.5E-03
	11/17/09	12/01/09	gross α	1.7E-03 ± 6.3E-04
	11/17/09	12/01/09	gross β	1.6E-02 ± 2.0E-03
	12/01/09	12/16/09	gross α	1.6E-03 ± 6.0E-04
	12/01/09	12/16/09	gross β	4.3E-02 ± 4.1E-03
	12/16/09	12/31/09	gross α	2.2E-03 ± 7.0E-04
	12/16/09	12/31/09	gross β	3.9E-02 ± 3.8E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N106	12/30/08 to 07/02/09	^{241}Am	7.7E-06 ± 5.2E-06	
		^{60}Co	3.4E-05 ± 8.7E-05	U
		^{134}Cs	-5.8E-05 ± 7.3E-05	U
		^{137}Cs	2.0E-04 ± 1.1E-04	
		^{152}Eu	1.7E-04 ± 1.7E-04	U
		^{154}Eu	-3.8E-05 ± 2.2E-04	U
		^{155}Eu	-1.4E-04 ± 1.8E-04	U
		^{238}Pu	-8.7E-06 ± 1.1E-05	U
		$^{239/240}$Pu	3.3E-06 ± 3.7E-06	U
		^{106}Ru	8.7E-05 ± 5.6E-04	U
		^{125}Sb	-3.7E-05 ± 1.5E-04	U
		^{90}Sr	-1.6E-04 ± 1.6E-04	U
		^{234}U	7.2E-06 ± 5.5E-06	
		^{235}U	1.4E-06 ± 2.1E-06	U
		^{238}U	6.6E-06 ± 4.9E-06	
N106	07/02/09 to 12/31/09	^{241}Am	1.0E-05 ± 6.4E-06	
		^{60}Co	-1.0E-05 ± 7.5E-05	U
		^{134}Cs	-1.8E-05 ± 7.2E-05	U
		^{137}Cs	6.6E-05 ± 6.5E-05	U
		^{152}Eu	1.0E-05 ± 1.0E-04	U
		^{154}Eu	-6.3E-05 ± 2.0E-04	U
		^{155}Eu	-6.1E-05 ± 1.8E-04	U
		^{238}Pu	-2.3E-06 ± 2.9E-06	U
		$^{239/240}$Pu	4.6E-06 ± 3.6E-06	
		^{106}Ru	-3.6E-05 ± 3.6E-04	U
		^{125}Sb	3.3E-06 ± 3.3E-05	U
		^{90}Sr	2.0E-04 ± 2.6E-04	
		^{234}U	1.0E-05 ± 6.9E-06	
		^{235}U	1.6E-06 ± 3.2E-06	U
		^{238}U	6.5E-06 ± 5.7E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 21 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N019	12/30/08	01/12/09	gross α	1.3E-03 ± 5.9E-04
(200-E)	12/30/08	01/12/09	gross β	1.2E-02 ± 1.8E-03
	01/12/09	01/26/09	gross α	1.9E-03 ± 7.0E-04
	01/12/09	01/26/09	gross β	3.6E-02 ± 3.6E-03
	01/26/09	02/09/09	gross α	2.6E-03 ± 8.1E-04
	01/26/09	02/09/09	gross β	3.3E-02 ± 3.4E-03
	02/09/09	02/23/09	gross α	2.4E-03 ± 7.6E-04
	02/09/09	02/23/09	gross β	2.8E-02 ± 2.9E-03
	02/23/09	03/09/09	gross α	2.0E-03 ± 6.8E-04
	02/23/09	03/09/09	gross β	1.5E-02 ± 1.9E-03
	03/09/09	03/23/09	gross α	1.5E-03 ± 6.0E-04
	03/09/09	03/23/09	gross β	1.8E-02 ± 2.1E-03
	03/23/09	04/06/09	gross α	6.5E-04 ± 5.3E-04
	03/23/09	04/06/09	gross β	9.4E-03 ± 1.4E-03
	04/06/09	04/20/09	gross α	2.0E-03 ± 7.2E-04
	04/06/09	04/20/09	gross β	1.3E-02 ± 1.8E-03
	04/20/09	05/04/09	gross α	2.4E-03 ± 7.5E-04
	04/20/09	05/04/09	gross β	2.1E-02 ± 2.5E-03
	05/04/09	05/18/09	gross α	5.0E-04 ± 4.9E-04
	05/04/09	05/18/09	gross β	7.4E-03 ± 1.3E-03
	05/18/09	06/01/09	gross α	1.1E-03 ± 5.3E-04
	05/18/09	06/01/09	gross β	1.3E-02 ± 1.7E-03
	06/01/09	06/15/09	gross α	1.0E-03 ± 6.4E-04
	06/01/09	06/15/09	gross β	1.5E-02 ± 1.9E-03
	06/15/09	06/30/09	gross α	1.8E-03 ± 6.3E-04
	06/15/09	06/30/09	gross β	1.2E-02 ± 1.6E-03
	06/30/09	07/13/09	gross α	8.8E-04 ± 5.9E-04
	06/30/09	07/13/09	gross β	1.3E-02 ± 1.7E-03
	07/13/09	07/27/09	gross α	8.0E-04 ± 5.5E-04
	07/13/09	07/27/09	gross β	1.8E-02 ± 2.2E-03
	07/27/09	08/10/09	gross α	1.7E-03 ± 6.3E-04
	07/27/09	08/10/09	gross β	2.0E-02 ± 2.3E-03
	08/10/09	08/24/09	gross α	9.6E-04 ± 5.9E-04
	08/10/09	08/24/09	gross β	1.6E-03 ± 5.5E-04
	08/24/09	09/08/09	gross α	9.5E-04 ± 4.4E-04
	08/24/09	09/08/09	gross β	3.9E-02 ± 3.6E-03
	09/08/09	09/21/09	gross α	1.0E-03 ± 6.7E-04
	09/08/09	09/21/09	gross β	1.1E-02 ± 1.7E-03
	09/21/09	10/05/09	gross α	1.1E-03 ± 5.1E-04
	09/21/09	10/05/09	gross β	1.4E-02 ± 1.9E-03
	10/05/09	10/19/09	gross α	1.9E-03 ± 6.7E-04
	10/05/09	10/19/09	gross β	1.7E-02 ± 2.1E-03
	10/19/09	11/02/09	gross α	1.2E-03 ± 5.2E-04
	10/19/09	11/02/09	gross β	8.0E-03 ± 1.3E-03
	11/02/09	11/16/09	gross α	9.7E-04 ± 5.9E-04
	11/02/09	11/16/09	gross β	1.4E-02 ± 1.8E-03
	11/16/09	11/30/09	gross α	2.6E-03 ± 8.1E-04
	11/16/09	11/30/09	gross β	1.5E-02 ± 1.9E-03
	11/30/09	12/14/09	gross α	2.5E-03 ± 7.7E-04
	11/30/09	12/14/09	gross β	4.2E-02 ± 4.0E-03
	12/14/09	12/28/09	gross α	2.5E-03 ± 7.4E-04
	12/14/09	12/28/09	gross β	3.3E-02 ± 3.3E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N019	12/30/08 to 06/30/09	^{60}Co	-1.9E-05 ± 8.7E-05	U
		^{134}Cs	1.5E-05 ± 8.0E-05	U
		^{137}Cs	6.3E-05 ± 7.9E-05	U
		^{152}Eu	-1.1E-04 ± 1.9E-04	U
		^{154}Eu	1.8E-05 ± 1.8E-04	U
		^{155}Eu	1.4E-04 ± 1.8E-04	U
		^{238}Pu	7.0E-06 ± 1.5E-05	U
		$^{239/240}$Pu	7.0E-07 ± 7.2E-07	U
		^{106}Ru	2.0E-04 ± 6.5E-04	U
		^{125}Sb	6.8E-05 ± 1.6E-04	U
		^{90}Sr	-2.9E-04 ± 3.0E-04	U
		^{234}U	1.1E-05 ± 9.0E-06	
		^{235}U	1.0E-06 ± 1.0E-05	U
		^{238}U	6.2E-06 ± 6.3E-06	U
N019	06/30/09 to 12/28/09	^{60}Co	6.8E-05 ± 6.7E-05	U
		^{134}Cs	2.5E-05 ± 6.3E-05	U
		^{137}Cs	2.3E-03 ± 7.7E-04	
		^{152}Eu	7.5E-05 ± 1.7E-04	U
		^{154}Eu	1.5E-04 ± 2.0E-04	U
		^{155}Eu	-2.0E-05 ± 1.8E-04	U
		^{238}Pu	-1.9E-06 ± 2.9E-06	U
		$^{239/240}$Pu	6.3E-07 ± 1.3E-06	U
		^{106}Ru	-3.8E-05 ± 3.9E-04	U
		^{125}Sb	4.0E-06 ± 4.0E-05	U
		^{90}Sr	-2.1E-04 ± 2.1E-04	U
		^{234}U	1.1E-05 ± 8.8E-06	U
		^{235}U	2.7E-06 ± 3.2E-06	
		^{238}U	7.3E-06 ± 6.1E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 22 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N158	12/30/08	01/12/09	gross α	3.0E-04 ± 4.2E-04
(200-E)	12/30/08	01/12/09	gross β	1.0E-02 ± 1.5E-03
	01/12/09	01/26/09	gross α	1.9E-03 ± 6.7E-04
	01/12/09	01/26/09	gross β	3.2E-02 ± 3.2E-03
	01/26/09	02/09/09	gross α	1.2E-03 ± 5.2E-04
	01/26/09	02/09/09	gross β	2.8E-02 ± 2.1E-03
	02/09/09	02/23/09	gross α	7.6E-04 ± 5.5E-04
	02/09/09	02/23/09	gross β	2.2E-02 ± 2.4E-03
	02/23/09	03/09/09	gross α	6.3E-04 ± 5.2E-04
	02/23/09	03/09/09	gross β	1.2E-02 ± 1.6E-03
	03/09/09	03/23/09	gross α	1.7E-03 ± 6.3E-04
	03/09/09	03/23/09	gross β	1.6E-02 ± 2.0E-03
	03/23/09	04/06/09	gross α	1.7E-03 ± 6.5E-04
	03/23/09	04/06/09	gross β	8.4E-03 ± 1.3E-03
	04/06/09	04/20/09	gross α	1.1E-03 ± 5.1E-04
	04/06/09	04/20/09	gross β	1.3E-02 ± 1.7E-03
	04/20/09	05/04/09	gross α	1.6E-03 ± 6.0E-04
	04/20/09	05/04/09	gross β	1.7E-02 ± 2.1E-03
	05/04/09	05/18/09	gross α	1.2E-03 ± 5.4E-04
	05/04/09	05/18/09	gross β	1.1E-02 ± 1.6E-03
	05/18/09	06/01/09	gross α	3.0E-04 ± 4.2E-04
	05/18/09	06/01/09	gross β	1.4E-02 ± 1.8E-03
	06/01/09	06/15/09	gross α	6.5E-04 ± 5.3E-04
	06/01/09	06/15/09	gross β	1.8E-02 ± 2.1E-03
	06/15/09	06/30/09	gross α	4.9E-04 ± 4.6E-04
	06/15/09	06/30/09	gross β	1.1E-02 ± 1.6E-03
	06/30/09	07/13/09	gross α	5.6E-04 ± 5.2E-04
	06/30/09	07/13/09	gross β	1.2E-02 ± 1.7E-03
	07/13/09	07/27/09	gross α	2.1E-03 ± 6.9E-04
	07/13/09	07/27/09	gross β	1.6E-02 ± 2.1E-03
	07/27/09	08/10/09	gross α	8.8E-04 ± 5.9E-04
	07/27/09	08/10/09	gross β	2.1E-02 ± 2.4E-03
	08/10/09	08/24/09	gross α	6.3E-04 ± 5.0E-04
	08/10/09	08/24/09	gross β	1.1E-02 ± 1.6E-03
	08/24/09	09/08/09	gross α	1.2E-03 ± 5.2E-04
	08/24/09	09/08/09	gross β	1.6E-02 ± 1.9E-03
	09/08/09	09/22/09	gross α	9.9E-04 ± 6.1E-04
	09/08/09	09/22/09	gross β	1.6E-02 ± 2.0E-03
	09/22/09	10/05/09	gross α	2.9E-04 ± 4.3E-04
	09/22/09	10/05/09	gross β	1.4E-02 ± 1.9E-03
	10/05/09	10/19/09	gross α	1.3E-03 ± 5.6E-04
	10/05/09	10/19/09	gross β	2.0E-02 ± 2.3E-03
	10/19/09	11/02/09	gross α	6.3E-04 ± 5.2E-04
	10/19/09	11/02/09	gross β	1.2E-02 ± 1.7E-03
	11/02/09	11/16/09	gross α	1.1E-03 ± 5.1E-04
	11/02/09	11/16/09	gross β	1.6E-02 ± 2.0E-03
	11/16/09	11/30/09	gross α	2.0E-03 ± 7.2E-04
	11/16/09	11/30/09	gross β	1.6E-02 ± 2.1E-03
	11/30/09	12/14/09	gross α	2.6E-03 ± 7.9E-04
	11/30/09	12/14/09	gross β	4.6E-02 ± 4.4E-03
	12/14/09	12/29/09	gross α	1.6E-03 ± 5.8E-04
	12/14/09	12/29/09	gross β	3.8E-02 ± 3.6E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N158	12/30/08 to 06/30/09	^{60}Co	3.6E-05 ± 6.5E-05	U
		^{134}Cs	-4.7E-05 ± 6.7E-05	U
		^{137}Cs	9.0E-05 ± 8.6E-05	U
		^{152}Eu	5.5E-05 ± 1.6E-04	U
		^{154}Eu	2.1E-05 ± 1.9E-04	U
		^{155}Eu	3.6E-05 ± 1.6E-04	U
		^{238}Pu	-2.1E-06 ± 1.3E-05	U
		$^{239/240}$Pu	3.4E-06 ± 4.3E-06	U
		^{106}Ru	-1.3E-04 ± 5.2E-04	U
		^{125}Sb	5.4E-05 ± 1.3E-04	U
		^{90}Sr	-2.5E-04 ± 2.6E-04	U
		^{234}U	7.7E-06 ± 6.8E-06	
		^{235}U	3.2E-06 ± 4.9E-06	U
		^{238}U	7.7E-06 ± 6.2E-06	
N158	06/30/09 to 12/29/09	^{60}Co	-1.7E-05 ± 8.2E-05	U
		^{134}Cs	1.4E-05 ± 7.2E-05	U
		^{137}Cs	1.4E-04 ± 8.5E-05	U
		^{152}Eu	-1.8E-04 ± 2.0E-04	U
		^{154}Eu	3.3E-05 ± 2.4E-04	U
		^{155}Eu	7.4E-05 ± 1.5E-04	U
		^{238}Pu	-6.1E-07 ± 2.7E-06	U
		$^{239/240}$Pu	1.8E-06 ± 2.2E-06	
		^{106}Ru	-2.3E-04 ± 5.8E-04	U
		^{125}Sb	-1.8E-04 ± 1.9E-04	U
		^{90}Sr	6.2E-06 ± 6.2E-05	U
		^{234}U	7.0E-06 ± 6.2E-06	U
		^{235}U	-8.5E-07 ± 3.8E-06	U
		^{238}U	1.0E-05 ± 7.4E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 23 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N480	12/30/08	01/12/09	gross α	9.1E-04 ± 6.0E-04
(200-E)	12/30/08	01/12/09	gross β	1.1E-02 ± 1.6E-03
	01/12/09	01/26/09	gross α	1.7E-03 ± 6.2E-04
	01/12/09	01/26/09	gross β	3.3E-02 ± 3.3E-03
	01/26/09	02/09/09	gross α	1.3E-03 ± 5.5E-04
	01/26/09	02/09/09	gross β	2.8E-02 ± 3.0E-03
	02/09/09	02/23/09	gross α	1.3E-03 ± 5.5E-04
	02/09/09	02/23/09	gross β	2.4E-02 ± 2.6E-03
	02/23/09	03/09/09	gross α	1.4E-03 ± 5.5E-04
	02/23/09	03/09/09	gross β	1.6E-02 ± 2.1E-03
	03/09/09	03/23/09	gross α	2.1E-03 ± 7.3E-04
	03/09/09	03/23/09	gross β	1.6E-02 ± 2.1E-03
	03/23/09	04/06/09	gross α	1.0E-03 ± 9.1E-04
	03/23/09	04/06/09	gross β	4.6E-03 ± 1.3E-03
	04/20/09	05/04/09	gross α	1.3E-03 ± 6.1E-04
	04/20/09	05/04/09	gross β	1.4E-02 ± 2.0E-03
	05/04/09	05/18/09	gross α	4.2E-04 ± 4.7E-04
	05/04/09	05/18/09	gross β	8.3E-03 ± 1.3E-03
	05/18/09	06/01/09	gross α	7.6E-04 ± 5.5E-04
	05/18/09	06/01/09	gross β	1.6E-02 ± 2.0E-03
	06/01/09	06/15/09	gross α	6.5E-04 ± 5.2E-04
	06/01/09	06/15/09	gross β	2.0E-02 ± 2.3E-03
	06/15/09	06/30/09	gross α	5.9E-04 ± 4.8E-04
	06/15/09	06/30/09	gross β	7.6E-03 ± 1.2E-03
	06/30/09	07/13/09	gross α	1.1E-03 ± 6.6E-04
	06/30/09	07/13/09	gross β	1.7E-02 ± 2.1E-03
	07/13/09	07/27/09	gross α	7.5E-04 ± 5.5E-04
	07/13/09	07/27/09	gross β	1.6E-02 ± 2.0E-03
	07/27/09	08/10/09	gross α	1.4E-03 ± 5.7E-04
	07/27/09	08/10/09	gross β	1.7E-02 ± 2.0E-03
	08/10/09	08/24/09	gross α	1.1E-03 ± 4.9E-04
	08/10/09	08/24/09	gross β	1.2E-02 ± 1.7E-03
	08/24/09	09/08/09	gross α	4.7E-04 ± 4.3E-04
	08/24/09	09/08/09	gross β	1.9E-02 ± 2.1E-03
	09/08/09	09/22/09	gross α	2.4E-03 ± 7.3E-04
	09/08/09	09/22/09	gross β	1.7E-02 ± 2.1E-03
	09/22/09	10/05/09	gross α	9.7E-04 ± 6.1E-04
	09/22/09	10/05/09	gross β	1.5E-02 ± 2.0E-03
	10/05/09	10/19/09	gross α	2.2E-03 ± 7.1E-04
	10/05/09	10/19/09	gross β	2.2E-02 ± 2.4E-03
	10/19/09	11/02/09	gross α	6.1E-04 ± 4.9E-04
	10/19/09	11/02/09	gross β	1.2E-02 ± 1.6E-03
	11/02/09	11/16/09	gross α	1.4E-03 ± 5.6E-04
	11/02/09	11/16/09	gross β	1.4E-02 ± 1.9E-03
	11/16/09	11/30/09	gross α	1.6E-03 ± 6.1E-04
	11/16/09	11/30/09	gross β	1.7E-02 ± 2.0E-03
	11/30/09	12/14/09	gross α	2.3E-03 ± 7.5E-04
	11/30/09	12/14/09	gross β	3.9E-02 ± 3.7E-03
	12/14/09	12/28/09	gross α	1.6E-03 ± 6.2E-04
	12/14/09	12/28/09	gross β	3.0E-02 ± 3.1E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N480	12/30/08 to 06/30/09	^{241}Am	3.6E-06 ± 4.0E-06	U
		^{60}Co	-3.6E-05 ± 8.2E-05	U
		^{134}Cs	-1.7E-05 ± 8.0E-05	U
		^{137}Cs	-5.0E-05 ± 7.0E-05	U
		^{152}Eu	-1.1E-04 ± 1.7E-04	U
		^{154}Eu	1.7E-04 ± 2.1E-04	U
		^{155}Eu	1.1E-04 ± 1.9E-04	U
		^{238}Pu	2.0E-05 ± 3.6E-05	U
		$^{239/240}$Pu	1.8E-06 ± 1.8E-05	U
		^{241}Pu	5.4E-04 ± 8.4E-04	U
		^{106}Ru	8.9E-05 ± 6.6E-04	U
		^{125}Sb	-4.2E-05 ± 1.6E-04	U
		^{90}Sr	-3.1E-04 ± 3.2E-04	U
		^{234}U	7.0E-06 ± 5.1E-06	
		^{235}U	3.8E-06 ± 3.7E-06	
		^{238}U	9.8E-06 ± 6.3E-06	
N480	06/30/09 to 12/28/09	^{241}Am	4.2E-06 ± 4.2E-06	U
		^{60}Co	8.7E-06 ± 8.0E-05	U
		^{134}Cs	-1.8E-05 ± 7.4E-05	U
		^{137}Cs	1.3E-04 ± 1.0E-04	
		^{152}Eu	-1.5E-04 ± 1.7E-04	U
		^{154}Eu	1.9E-05 ± 1.9E-04	U
		^{155}Eu	-1.8E-05 ± 1.4E-04	U
		^{238}Pu	-1.5E-06 ± 1.5E-05	U
		$^{239/240}$Pu	5.8E-06 ± 7.4E-06	U
		^{241}Pu	-1.6E-04 ± 1.7E-04	U
		^{106}Ru	2.1E-04 ± 6.1E-04	U
		^{125}Sb	-4.9E-05 ± 1.6E-04	U
		^{90}Sr	-1.4E-05 ± 1.5E-05	U
		^{234}U	8.0E-06 ± 5.9E-06	
		^{235}U	6.7E-07 ± 1.4E-06	U
		^{238}U	9.8E-06 ± 6.4E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 24 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N481	12/30/08	01/12/09	gross α	-4.6E-05 ± 2.2E-04
(200-E)	12/30/08	01/12/09	gross β	1.2E-02 ± 1.7E-03
	01/12/09	01/26/09	gross α	1.8E-03 ± 6.4E-04
	01/12/09	01/26/09	gross β	3.8E-02 ± 3.7E-03
	01/26/09	02/09/09	gross α	2.4E-03 ± 7.4E-04
	01/26/09	02/09/09	gross β	3.5E-02 ± 3.5E-03
	02/09/09	02/23/09	gross α	1.3E-03 ± 5.5E-04
	02/09/09	02/23/09	gross β	2.6E-02 ± 2.7E-03
	02/23/09	03/09/09	gross α	5.9E-04 ± 4.9E-04
	02/23/09	03/09/09	gross β	1.7E-02 ± 2.1E-03
	03/09/09	03/23/09	gross α	5.4E-04 ± 5.0E-04
	03/09/09	03/23/09	gross β	1.6E-02 ± 2.0E-03
	03/23/09	04/06/09	gross α	1.2E-03 ± 5.3E-04
	03/23/09	04/06/09	gross β	7.9E-03 ± 1.3E-03
	04/06/09	04/20/09	gross α	1.2E-03 ± 5.3E-04
	04/06/09	04/20/09	gross β	1.1E-02 ± 1.6E-03
	04/20/09	05/04/09	gross α	1.7E-03 ± 6.4E-04
	04/20/09	05/04/09	gross β	1.5E-02 ± 1.9E-03
	05/04/09	05/18/09	gross α	9.0E-04 ± 6.0E-04
	05/04/09	05/18/09	gross β	7.1E-03 ± 1.2E-03
	05/18/09	06/01/09	gross α	1.7E-03 ± 7.6E-04
	05/18/09	06/01/09	gross β	2.5E-02 ± 3.0E-03
	06/01/09	06/15/09	gross α	8.0E-04 ± 5.7E-04
	06/01/09	06/15/09	gross β	1.7E-02 ± 2.1E-03
	06/15/09	06/30/09	gross α	6.1E-04 ± 4.9E-04
	06/15/09	06/30/09	gross β	9.8E-03 ± 1.4E-03
	06/30/09	07/13/09	gross α	1.8E-03 ± 7.8E-04
	06/30/09	07/13/09	gross β	2.1E-02 ± 2.7E-03
	07/13/09	07/27/09	gross α	1.4E-03 ± 8.5E-04
	07/13/09	07/27/09	gross β	1.9E-02 ± 2.5E-03
	07/27/09	08/10/09	gross α	1.6E-03 ± 6.1E-04
	07/27/09	08/10/09	gross β	2.1E-02 ± 2.4E-03
	08/10/09	08/24/09	gross α	1.2E-03 ± 5.2E-04
	08/10/09	08/24/09	gross β	1.4E-02 ± 1.9E-03
	08/24/09	09/08/09	gross α	6.9E-04 ± 5.0E-04
	08/24/09	09/08/09	gross β	1.7E-02 ± 2.0E-03
	09/08/09	09/21/09	gross α	2.2E-03 ± 7.4E-04
	09/08/09	09/21/09	gross β	1.9E-02 ± 2.4E-03
	09/21/09	10/05/09	gross α	1.0E-03 ± 6.3E-04
	09/21/09	10/05/09	gross β	1.4E-02 ± 1.9E-03
	10/05/09	10/19/09	gross α	1.3E-03 ± 5.5E-04
	10/05/09	10/19/09	gross β	2.2E-02 ± 2.4E-03
	10/19/09	11/02/09	gross α	6.3E-04 ± 5.1E-04
	10/19/09	11/02/09	gross β	8.3E-03 ± 1.3E-03
	11/02/09	11/16/09	gross α	1.0E-03 ± 4.9E-04
	11/02/09	11/16/09	gross β	1.7E-02 ± 2.2E-03
	11/16/09	11/30/09	gross α	6.4E-04 ± 5.2E-04
	11/16/09	11/30/09	gross β	1.6E-02 ± 2.0E-03
	11/30/09	12/14/09	gross α	1.5E-03 ± 6.1E-04
	11/30/09	12/14/09	gross β	3.4E-02 ± 3.4E-03
	12/14/09	12/28/09	gross α	2.0E-03 ± 6.9E-04
	12/14/09	12/28/09	gross β	3.2E-02 ± 3.2E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N481	12/30/08 to 06/30/09	^{241}Am	8.8E-06 ± 6.1E-06	
		^{60}Co	-5.9E-05 ± 8.5E-05	U
		^{134}Cs	9.3E-07 ± 9.3E-06	U
		^{137}Cs	1.2E-05 ± 7.8E-05	U
		^{152}Eu	-5.1E-05 ± 1.8E-04	U
		^{154}Eu	2.9E-04 ± 3.0E-04	U
		^{155}Eu	3.0E-05 ± 1.4E-04	U
		^{238}Pu	3.6E-06 ± 3.6E-05	U
		$^{239/240}$Pu	1.1E-05 ± 1.2E-05	U
		^{241}Pu	8.8E-05 ± 8.0E-04	U
		^{106}Ru	3.8E-05 ± 3.8E-04	U
		^{125}Sb	-8.8E-06 ± 8.8E-05	U
		^{90}Sr	-1.9E-04 ± 2.0E-04	U
		^{234}U	1.2E-05 ± 8.0E-06	
		^{235}U	3.9E-06 ± 4.4E-06	U
		^{238}U	7.1E-06 ± 5.6E-06	
N481	12/30/08 to 06/30/09	^{241}Am	4.9E-06 ± 4.5E-06	U
		^{60}Co	2.6E-05 ± 6.7E-05	U
		^{134}Cs	8.4E-06 ± 6.7E-05	U
		^{137}Cs	3.1E-05 ± 6.0E-05	U
		^{152}Eu	1.2E-04 ± 1.8E-04	U
		^{154}Eu	5.4E-05 ± 2.0E-04	U
		^{155}Eu	6.4E-05 ± 1.8E-04	U
		^{238}Pu	3.6E-05 ± 3.0E-05	U
		$^{239/240}$Pu	4.7E-06 ± 8.5E-06	U
		^{241}Pu	-5.1E-04 ± 5.3E-04	U
		^{106}Ru	3.3E-04 ± 5.4E-04	U
		^{125}Sb	-3.5E-05 ± 1.6E-04	U
		^{90}Sr	-1.2E-04 ± 1.2E-04	U
		^{234}U	8.7E-06 ± 5.9E-06	
		^{235}U	3.3E-06 ± 3.5E-06	
		^{238}U	6.0E-06 ± 4.5E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 25 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N498	12/30/08	01/12/09	gross α	2.7E-03 ± 8.2E-04
(200-E)	12/30/08	01/12/09	gross β	2.1E-02 ± 2.5E-03
	01/12/09	01/26/09	gross α	2.0E-03 ± 6.8E-04
	01/12/09	01/26/09	gross β	3.4E-02 ± 3.3E-03
	01/26/09	02/09/09	gross α	2.3E-03 ± 7.1E-04
	01/26/09	02/09/09	gross β	2.8E-02 ± 3.0E-03
	02/09/09	02/23/09	gross α	2.0E-03 ± 6.8E-04
	02/09/09	02/23/09	gross β	3.5E-02 ± 3.5E-03
	02/23/09	03/09/09	gross α	1.1E-03 ± 5.0E-04
	02/23/09	03/09/09	gross β	1.0E-02 ± 1.5E-03
	03/09/09	03/23/09	gross α	1.3E-03 ± 5.4E-04
	03/09/09	03/23/09	gross β	1.4E-02 ± 1.9E-03
	03/23/09	04/06/09	gross α	1.2E-03 ± 5.3E-04
	03/23/09	04/06/09	gross β	9.2E-03 ± 1.5E-03
	04/06/09	04/20/09	gross α	9.8E-04 ± 6.0E-04
	04/06/09	04/20/09	gross β	1.1E-02 ± 1.6E-03
	04/20/09	05/04/09	gross α	1.3E-03 ± 5.3E-04
	04/20/09	05/04/09	gross β	1.5E-02 ± 1.9E-03
	05/04/09	05/18/09	gross α	2.9E-04 ± 4.0E-04
	05/04/09	05/18/09	gross β	7.6E-03 ± 1.2E-03
	05/18/09	06/01/09	gross α	1.3E-03 ± 5.5E-04
	05/18/09	06/01/09	gross β	1.4E-02 ± 1.8E-03
	06/01/09	06/15/09	gross α	9.8E-04 ± 6.0E-04
	06/01/09	06/15/09	gross β	1.9E-02 ± 2.3E-03
	06/15/09	06/30/09	gross α	7.7E-04 ± 5.3E-04
	06/15/09	06/30/09	gross β	1.2E-02 ± 1.7E-03
	06/30/09	07/13/09	gross α	8.9E-04 ± 5.9E-04
	06/30/09	07/13/09	gross β	1.4E-02 ± 1.8E-03
	07/13/09	07/27/09	gross α	1.0E-03 ± 6.2E-04
	07/13/09	07/27/09	gross β	1.3E-02 ± 1.8E-03
	07/27/09	08/10/09	gross α	2.5E-03 ± 7.5E-04
	07/27/09	08/10/09	gross β	2.1E-02 ± 2.4E-03
	08/10/09	08/24/09	gross α	9.1E-04 ± 5.8E-04
	08/10/09	08/24/09	gross β	1.3E-02 ± 1.8E-03
	08/24/09	09/08/09	gross α	6.0E-04 ± 4.8E-04
	08/24/09	09/08/09	gross β	1.5E-02 ± 1.9E-03
	09/08/09	09/21/09	gross α	1.8E-03 ± 6.6E-04
	09/08/09	09/21/09	gross β	1.7E-02 ± 2.2E-03
	09/21/09	10/05/09	gross α	4.5E-04 ± 5.0E-04
	09/21/09	10/05/09	gross β	1.8E-02 ± 2.2E-03
	10/05/09	10/19/09	gross α	1.0E-03 ± 5.0E-04
	10/05/09	10/19/09	gross β	2.6E-02 ± 2.9E-03
	10/19/09	11/02/09	gross α	6.3E-04 ± 5.0E-04
	10/19/09	11/02/09	gross β	1.1E-02 ± 1.5E-03
	11/02/09	11/16/09	gross α	1.1E-03 ± 5.1E-04
	11/02/09	11/16/09	gross β	1.4E-02 ± 1.9E-03
	11/16/09	11/30/09	gross α	8.5E-04 ± 5.6E-04
	11/16/09	11/30/09	gross β	1.7E-02 ± 2.1E-03
	11/30/09	12/14/09	gross α	1.2E-03 ± 5.4E-04
	11/30/09	12/14/09	gross β	3.6E-02 ± 3.5E-03
	12/14/09	12/29/09	gross α	1.5E-03 ± 5.8E-04
	12/14/09	12/29/09	gross β	3.2E-02 ± 3.2E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N498	12/30/08 to 06/30/09	^{60}Co	-5.2E-05 ± 9.0E-05	U
		^{134}Cs	-2.8E-05 ± 7.5E-05	U
		^{137}Cs	7.1E-05 ± 7.2E-05	U
		^{152}Eu	-3.0E-05 ± 1.7E-04	U
		^{154}Eu	2.6E-04 ± 2.4E-04	U
		^{155}Eu	-1.7E-04 ± 1.9E-04	U
		^{238}Pu	7.4E-07 ± 7.4E-06	U
		$^{239/240}$Pu	-7.4E-07 ± 2.6E-06	U
		^{106}Ru	8.6E-04 ± 7.0E-04	U
		^{125}Sb	-1.5E-04 ± 1.8E-04	U
		^{90}Sr	-2.0E-04 ± 2.1E-04	U
		^{234}U	8.7E-06 ± 8.1E-06	U
		^{235}U	5.7E-06 ± 6.4E-06	U
		^{238}U	4.3E-06 ± 4.9E-06	U
N498	06/30/09 to 12/29/09	^{60}Co	-3.7E-06 ± 3.7E-05	U
		^{134}Cs	3.1E-05 ± 6.7E-05	U
		^{137}Cs	3.4E-05 ± 5.8E-05	U
		^{152}Eu	2.2E-05 ± 1.5E-04	U
		^{154}Eu	2.6E-06 ± 2.6E-05	U
		^{155}Eu	2.8E-05 ± 1.7E-04	U
		^{238}Pu	7.4E-06 ± 1.1E-05	U
		$^{239/240}$Pu	3.3E-06 ± 3.2E-06	
		^{103}Ru	3.3E-05 ± 7.1E-05	U
		^{106}Ru	2.9E-04 ± 5.3E-04	U
		^{125}Sb	-1.6E-05 ± 1.4E-04	U
		^{113}Sn	2.4E-05 ± 7.1E-05	U
		^{90}Sr	-1.5E-04 ± 1.6E-04	U
		^{234}U	1.9E-05 ± 1.0E-05	
		^{235}U	8.6E-07 ± 1.8E-06	U
		^{238}U	8.3E-06 ± 5.7E-06	
		^{65}Zn	5.0E-05 ± 1.6E-04	U

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 26 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N499	12/30/08	01/12/09	gross α	1.2E-03 ± 5.4E-04
(200-E)	12/30/08	01/12/09	gross β	1.7E-02 ± 2.2E-03
	01/12/09	01/26/09	gross α	3.2E-03 ± 8.6E-04
	01/12/09	01/26/09	gross β	4.7E-02 ± 4.4E-03
	01/26/09	02/09/09	gross α	4.3E-03 ± 1.0E-03
	01/26/09	02/09/09	gross β	3.9E-02 ± 3.7E-03
	02/09/09	02/23/09	gross α	2.4E-03 ± 7.4E-04
	02/09/09	02/23/09	gross β	3.0E-02 ± 3.2E-03
	02/23/09	03/09/09	gross α	1.3E-03 ± 5.5E-04
	02/23/09	03/09/09	gross β	1.3E-02 ± 1.7E-03
	03/09/09	03/23/09	gross α	1.5E-03 ± 5.8E-04
	03/09/09	03/23/09	gross β	1.7E-02 ± 2.1E-03
	03/23/09	04/06/09	gross α	9.4E-04 ± 5.9E-04
	03/23/09	04/06/09	gross β	8.9E-03 ± 1.4E-03
	04/06/09	04/20/09	gross α	1.7E-03 ± 6.4E-04
	04/06/09	04/20/09	gross β	1.3E-02 ± 1.7E-03
	04/20/09	05/04/09	gross α	2.8E-04 ± 3.9E-04
	04/20/09	05/04/09	gross β	1.4E-02 ± 1.8E-03
	05/04/09	05/18/09	gross α	8.8E-04 ± 5.8E-04
	05/04/09	05/18/09	gross β	1.2E-02 ± 1.7E-03
	05/18/09	06/01/09	gross α	5.8E-04 ± 4.9E-04
	05/18/09	06/01/09	gross β	1.9E-02 ± 2.3E-03
	06/01/09	06/15/09	gross α	1.0E-03 ± 6.2E-04
	06/01/09	06/15/09	gross β	1.8E-02 ± 2.2E-03
	06/15/09	06/30/09	gross α	1.2E-03 ± 5.1E-04
	06/15/09	06/30/09	gross β	1.2E-02 ± 1.7E-03
	06/30/09	07/13/09	gross α	1.1E-03 ± 5.2E-04
	06/30/09	07/13/09	gross β	1.9E-02 ± 2.3E-03
	07/13/09	07/27/09	gross α	1.3E-03 ± 5.6E-04
	07/13/09	07/27/09	gross β	1.7E-02 ± 2.0E-03
	07/27/09	08/10/09	gross α	2.1E-03 ± 6.9E-04
	07/27/09	08/10/09	gross β	2.0E-02 ± 2.4E-03
	08/10/09	08/24/09	gross α	7.5E-04 ± 5.5E-04
	08/10/09	08/24/09	gross β	1.4E-02 ± 1.9E-03
	08/24/09	09/08/09	gross α	1.2E-03 ± 5.0E-04
	08/24/09	09/08/09	gross β	2.2E-02 ± 2.4E-03
	09/08/09	09/21/09	gross α	2.0E-03 ± 7.0E-04
	09/08/09	09/21/09	gross β	1.8E-02 ± 2.3E-03
	09/21/09	10/05/09	gross α	9.4E-04 ± 6.3E-04
	09/21/09	10/05/09	gross β	1.2E-02 ± 1.7E-03
	10/05/09	10/19/09	gross α	1.9E-03 ± 6.6E-04
	10/05/09	10/19/09	gross β	2.0E-02 ± 2.3E-03
	10/19/09	11/02/09	gross α	9.1E-04 ± 5.7E-04
	10/19/09	11/02/09	gross β	1.4E-02 ± 1.9E-03
	11/02/09	11/16/09	gross α	8.1E-04 ± 5.5E-04
	11/02/09	11/16/09	gross β	1.6E-02 ± 2.1E-03
	11/16/09	11/30/09	gross α	1.6E-03 ± 6.0E-04
	11/16/09	11/30/09	gross β	1.6E-02 ± 2.1E-03
	11/30/09	12/14/09	gross α	2.5E-03 ± 7.7E-04
	11/30/09	12/14/09	gross β	3.8E-02 ± 3.7E-03
	12/14/09	12/29/09	gross α	1.5E-03 ± 5.7E-04
	12/14/09	12/29/09	gross β	3.7E-02 ± 3.5E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N499	12/30/08 to 06/30/09	^{60}Co	-1.5E-05 ± 8.1E-05	U
		^{134}Cs	3.4E-04 ± 2.8E-04	
		^{137}Cs	1.0E-04 ± 8.6E-05	U
		^{152}Eu	-6.3E-05 ± 1.5E-04	U
		^{154}Eu	5.3E-05 ± 2.2E-04	U
		^{155}Eu	-5.4E-05 ± 1.4E-04	U
		^{238}Pu	-2.0E-06 ± 1.4E-05	
		$^{239/240}$Pu	9.7E-07 ± 3.4E-06	
		^{106}Ru	-4.6E-04 ± 6.2E-04	U
		^{125}Sb	1.7E-05 ± 1.5E-04	U
		^{90}Sr	-1.9E-04 ± 2.0E-04	U
		^{234}U	9.5E-06 ± 7.0E-06	
		^{235}U	7.8E-07 ± 8.1E-07	U
		^{238}U	8.8E-06 ± 6.6E-06	
N499	06/30/09 to 12/29/09	^{60}Co	-4.3E-05 ± 9.5E-05	U
		^{134}Cs	8.8E-05 ± 8.9E-05	U
		^{137}Cs	2.5E-04 ± 1.4E-04	
		^{152}Eu	-5.8E-06 ± 5.8E-05	U
		^{154}Eu	1.8E-05 ± 1.8E-04	U
		^{155}Eu	3.8E-05 ± 1.4E-04	U
		^{238}Pu	1.4E-06 ± 3.4E-06	U
		$^{239/240}$Pu	1.4E-06 ± 2.0E-06	U
		^{106}Ru	7.3E-05 ± 6.3E-04	U
		^{125}Sb	-9.5E-05 ± 1.8E-04	U
		^{90}Sr	-1.2E-04 ± 1.2E-04	U
		^{234}U	1.0E-05 ± 7.0E-06	
		^{235}U	3.6E-06 ± 4.1E-06	U
		^{238}U	1.0E-05 ± 6.4E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 27 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N532	12/30/08	01/14/09	gross α	1.4E-04 ± 3.2E-04
(200-E)	12/30/08	01/14/09	gross β	1.4E-02 ± 2.0E-03
	01/14/09	01/28/09	gross α	2.7E-03 ± 7.9E-04
	01/14/09	01/28/09	gross β	4.6E-02 ± 4.9E-03
	01/28/09	02/11/09	gross α	1.4E-03 ± 5.7E-04
	01/28/09	02/11/09	gross β	2.7E-02 ± 3.1E-03
	02/11/09	02/25/09	gross α	1.1E-03 ± 5.1E-04
	02/11/09	02/25/09	gross β	3.0E-02 ± 3.4E-03
	02/25/09	03/11/09	gross α	7.2E-04 ± 5.2E-04
	02/25/09	03/11/09	gross β	1.5E-02 ± 2.0E-03
	03/11/09	03/25/09	gross α	1.3E-03 ± 5.3E-04
	03/11/09	03/25/09	gross β	1.2E-02 ± 1.8E-03
	03/25/09	04/08/09	gross α	4.8E-04 ± 4.6E-04
	03/25/09	04/08/09	gross β	1.3E-02 ± 1.9E-03
	04/08/09	04/22/09	gross α	1.3E-03 ± 5.6E-04
	04/08/09	04/22/09	gross β	1.3E-02 ± 1.9E-03
	04/22/09	05/06/09	gross α	5.3E-04 ± 4.9E-04
	04/22/09	05/06/09	gross β	1.0E-02 ± 1.6E-03
	05/06/09	05/20/09	gross α	8.5E-04 ± 5.6E-04
	05/06/09	05/20/09	gross β	8.1E-03 ± 1.3E-03
	05/20/09	06/03/09	gross α	1.0E-03 ± 5.0E-04
	05/20/09	06/03/09	gross β	1.9E-02 ± 2.4E-03
	06/03/09	06/17/09	gross α	1.2E-03 ± 5.4E-04
	06/03/09	06/17/09	gross β	1.7E-02 ± 2.2E-03
	06/17/09	07/02/09	gross α	1.2E-03 ± 5.1E-04
	06/17/09	07/02/09	gross β	1.1E-02 ± 1.6E-03
	07/02/09	07/15/09	gross α	1.0E-03 ± 6.4E-04
	07/02/09	07/15/09	gross β	1.7E-02 ± 2.4E-03
	07/15/09	07/29/09	gross α	1.3E-03 ± 5.6E-04
	07/15/09	07/29/09	gross β	1.7E-02 ± 2.2E-03
	07/29/09	08/12/09	gross α	1.2E-03 ± 5.4E-04
	07/29/09	08/12/09	gross β	1.9E-02 ± 2.5E-03
	08/12/09	08/26/09	gross α	9.7E-04 ± 6.0E-04
	08/12/09	08/26/09	gross β	1.5E-02 ± 2.0E-03
	08/26/09	09/10/09	gross α	5.5E-04 ± 4.6E-04
	08/26/09	09/10/09	gross β	1.9E-02 ± 2.4E-03
	09/10/09	09/22/09	gross α	9.2E-04 ± 6.3E-04
	09/10/09	09/22/09	gross β	1.7E-02 ± 2.4E-03
	09/22/09	10/07/09	gross α	4.2E-04 ± 4.7E-04
	09/22/09	10/07/09	gross β	1.3E-02 ± 1.9E-03
	10/07/09	10/21/09	gross α	1.0E-03 ± 4.9E-04
	10/07/09	10/21/09	gross β	2.1E-02 ± 2.7E-03
	10/21/09	11/04/09	gross α	6.9E-04 ± 5.2E-04
	10/21/09	11/04/09	gross β	1.4E-02 ± 2.0E-03
	11/04/09	11/18/09	gross α	1.5E-03 ± 6.0E-04
	11/04/09	11/18/09	gross β	1.2E-02 ± 1.8E-03
	11/18/09	12/02/09	gross α	7.9E-04 ± 5.4E-04
	11/18/09	12/02/09	gross β	1.7E-02 ± 2.3E-03
	12/02/09	12/18/09	gross α	1.5E-03 ± 5.8E-04
	12/02/09	12/18/09	gross β	3.8E-02 ± 4.1E-03
	12/18/09	12/31/09	gross α	2.7E-03 ± 8.4E-04
	12/18/09	12/31/09	gross β	4.4E-02 ± 4.7E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N532	12/30/08 to 07/02/09	^{60}Co	-3.6E-05 ± 8.9E-05	U
		^{134}Cs	-2.1E-05 ± 8.2E-05	U
		^{137}Cs	4.8E-05 ± 7.2E-05	U
		^{152}Eu	1.2E-05 ± 1.2E-04	U
		^{154}Eu	1.7E-04 ± 2.5E-04	U
		^{155}Eu	2.4E-05 ± 1.4E-04	U
		^{238}Pu	3.7E-06 ± 1.6E-05	
		$^{239/240}$Pu	2.8E-06 ± 3.4E-06	
		^{106}Ru	5.9E-05 ± 5.9E-04	U
		^{125}Sb	7.0E-05 ± 1.8E-04	U
		^{90}Sr	-2.5E-05 ± 2.6E-05	U
		^{234}U	1.2E-05 ± 8.3E-06	
		^{235}U	8.4E-07 ± 1.7E-06	U
		^{238}U	8.4E-06 ± 6.0E-06	
N532	07/02/09 to 12/31/09	^{60}Co	-3.3E-06 ± 3.3E-05	U
		^{134}Cs	-2.8E-05 ± 7.1E-05	U
		^{137}Cs	6.3E-05 ± 6.4E-05	U
		^{152}Eu	1.5E-04 ± 1.6E-04	U
		^{154}Eu	1.2E-04 ± 1.8E-04	U
		^{155}Eu	-4.8E-05 ± 1.6E-04	U
		^{238}Pu	2.8E-06 ± 3.0E-06	
		$^{239/240}$Pu	7.1E-07 ± 1.4E-06	U
		^{106}Ru	-4.9E-04 ± 6.4E-04	U
		^{125}Sb	-9.0E-05 ± 1.4E-04	U
		^{90}Sr	-2.6E-04 ± 2.7E-04	U
		^{234}U	5.7E-06 ± 5.0E-06	U
		^{235}U	6.9E-07 ± 1.4E-06	U
		^{238}U	6.3E-06 ± 4.6E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 28 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N559	12/30/08	01/14/09	gross α	1.1E-03 ± 4.9E-04
(200-E)	12/30/08	01/14/09	gross β	1.1E-02 ± 1.6E-03
	01/14/09	01/28/09	gross α	1.8E-03 ± 6.4E-04
	01/14/09	01/28/09	gross β	4.2E-02 ± 4.4E-03
	01/28/09	02/11/09	gross α	1.4E-03 ± 1.0E-03
	01/28/09	02/11/09	gross β	1.5E-02 ± 2.5E-03
	02/11/09	02/25/09	gross α	8.6E-04 ± 5.8E-04
	02/11/09	02/25/09	gross β	2.4E-02 ± 2.9E-03
	02/25/09	03/11/09	gross α	1.0E-03 ± 4.8E-04
	02/25/09	03/11/09	gross β	1.5E-02 ± 2.1E-03
	03/11/09	03/25/09	gross α	6.3E-04 ± 5.0E-04
	03/11/09	03/25/09	gross β	1.1E-02 ± 1.7E-03
	03/25/09	04/08/09	gross α	1.1E-03 ± 5.1E-04
	03/25/09	04/08/09	gross β	1.1E-02 ± 1.6E-03
	04/08/09	04/22/09	gross α	1.3E-03 ± 5.5E-04
	04/08/09	04/22/09	gross β	1.0E-02 ± 1.6E-03
	04/22/09	05/06/09	gross α	9.1E-04 ± 5.8E-04
	04/22/09	05/06/09	gross β	1.0E-02 ± 1.6E-03
	05/06/09	05/20/09	gross α	3.7E-04 ± 4.3E-04
	05/06/09	05/20/09	gross β	9.5E-03 ± 1.5E-03
	05/20/09	06/03/09	gross α	9.1E-04 ± 5.8E-04
	05/20/09	06/03/09	gross β	1.6E-02 ± 2.2E-03
	06/03/09	06/17/09	gross α	9.6E-04 ± 5.9E-04
	06/03/09	06/17/09	gross β	1.9E-02 ± 2.4E-03
	06/17/09	07/02/09	gross α	4.4E-04 ± 4.2E-04
	06/17/09	07/02/09	gross β	1.2E-02 ± 1.8E-03
	07/02/09	07/15/09	gross α	1.4E-03 ± 5.8E-04
	07/02/09	07/15/09	gross β	1.8E-02 ± 2.4E-03
	07/15/09	07/29/09	gross α	1.1E-03 ± 5.0E-04
	07/15/09	07/29/09	gross β	1.5E-02 ± 2.1E-03
	07/29/09	08/12/09	gross α	1.5E-03 ± 6.0E-04
	07/29/09	08/12/09	gross β	1.4E-02 ± 2.0E-03
	08/12/09	08/26/09	gross α	1.3E-03 ± 5.6E-04
	08/12/09	08/26/09	gross β	1.4E-02 ± 1.9E-03
	08/26/09	09/10/09	gross α	1.0E-03 ± 4.7E-04
	08/26/09	09/10/09	gross β	1.6E-02 ± 2.2E-03
	09/10/09	09/22/09	gross α	1.4E-03 ± 6.1E-04
	09/10/09	09/22/09	gross β	2.1E-02 ± 2.7E-03
	09/22/09	10/07/09	gross α	1.2E-03 ± 5.2E-04
	09/22/09	10/07/09	gross β	1.2E-02 ± 1.7E-03
	10/07/09	10/21/09	gross α	1.2E-03 ± 5.4E-04
	10/07/09	10/21/09	gross β	2.2E-02 ± 2.7E-03
	10/21/09	11/04/09	gross α	1.3E-03 ± 5.5E-04
	10/21/09	11/04/09	gross β	1.1E-02 ± 1.6E-03
	11/04/09	11/18/09	gross α	1.0E-03 ± 4.9E-04
	11/04/09	11/18/09	gross β	1.3E-02 ± 1.8E-03
	12/02/09	12/18/09	gross α	1.0E-03 ± 4.5E-04
	12/02/09	12/18/09	gross β	3.8E-02 ± 4.1E-03
	12/18/09	12/31/09	gross α	1.5E-03 ± 6.0E-04
	12/18/09	12/31/09	gross β	4.0E-02 ± 4.4E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N559	12/30/08 to 07/02/09	^{60}Co	2.4E-05 ± 7.8E-05	U
		^{134}Cs	-1.0E-05 ± 7.2E-05	U
		^{137}Cs	-4.2E-06 ± 4.2E-05	U
		^{152}Eu	2.3E-05 ± 1.4E-04	U
		^{154}Eu	-6.4E-05 ± 2.3E-04	U
		^{155}Eu	-7.2E-05 ± 1.4E-04	U
		^{238}Pu	6.1E-06 ± 1.5E-05	U
		$^{239/240}$Pu	-3.8E-06 ± 3.7E-06	U
		^{106}Ru	-1.4E-04 ± 5.7E-04	U
		^{125}Sb	4.9E-05 ± 1.4E-04	U
		^{90}Sr	-3.2E-04 ± 3.3E-04	U
		^{234}U	8.0E-06 ± 6.4E-06	
		^{235}U	2.4E-06 ± 4.3E-06	U
		^{238}U	8.7E-06 ± 6.0E-06	
N559	07/02/09 to 12/31/09	^{60}Co	2.0E-05 ± 8.8E-05	U
		^{134}Cs	1.9E-05 ± 8.4E-05	U
		^{137}Cs	4.2E-05 ± 7.8E-05	U
		^{152}Eu	1.9E-05 ± 1.9E-04	U
		^{154}Eu	-2.2E-05 ± 2.2E-04	U
		^{155}Eu	1.5E-05 ± 1.5E-04	U
		^{238}Pu	5.5E-07 ± 4.0E-06	U
		$^{239/240}$Pu	5.5E-07 ± 5.7E-07	U
		^{106}Ru	-2.1E-04 ± 7.4E-04	U
		^{125}Sb	-5.7E-05 ± 1.7E-04	U
		^{90}Sr	-1.2E-04 ± 1.3E-04	U
		^{234}U	1.4E-05 ± 8.4E-06	
		^{235}U	5.9E-06 ± 5.6E-06	U
		^{238}U	1.2E-05 ± 7.8E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 29 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N957	12/30/08	01/12/09	gross α	4.3E-04 ± 4.8E-04
(200-E)	12/30/08	01/12/09	gross β	1.0E-02 ± 1.6E-03
	01/12/09	01/26/09	gross α	2.4E-03 ± 7.5E-04
	01/12/09	01/26/09	gross β	3.4E-02 ± 3.4E-03
	01/26/09	02/10/09	gross α	9.9E-04 ± 4.6E-04
	01/26/09	02/10/09	gross β	2.6E-02 ± 2.7E-03
	02/10/09	02/23/09	gross α	1.5E-03 ± 6.2E-04
	02/10/09	02/23/09	gross β	2.3E-02 ± 2.6E-03
	02/23/09	03/10/09	gross α	1.3E-03 ± 9.6E-04
	02/23/09	03/10/09	gross β	1.8E-02 ± 2.7E-03
	03/10/09	03/24/09	gross α	1.2E-03 ± 5.5E-04
	03/10/09	03/24/09	gross β	1.5E-02 ± 1.9E-03
	03/24/09	04/07/09	gross α	1.2E-03 ± 5.4E-04
	03/24/09	04/07/09	gross β	8.3E-03 ± 1.3E-03
	04/07/09	04/21/09	gross α	1.0E-03 ± 6.1E-04
	04/07/09	04/21/09	gross β	1.3E-02 ± 1.7E-03
	04/21/09	05/05/09	gross α	1.6E-03 ± 6.0E-04
	04/21/09	05/05/09	gross β	1.5E-02 ± 1.9E-03
	05/05/09	05/19/09	gross α	1.0E-03 ± 5.0E-04
	05/05/09	05/19/09	gross β	1.1E-02 ± 1.6E-03
	05/19/09	06/02/09	gross α	5.3E-04 ± 4.8E-04
	05/19/09	06/02/09	gross β	1.6E-02 ± 2.0E-03
	06/02/09	06/16/09	gross α	7.4E-04 ± 5.3E-04
	06/02/09	06/16/09	gross β	1.8E-02 ± 2.1E-03
	06/16/09	07/02/09	gross α	1.6E-04 ± 3.1E-04
	06/16/09	07/02/09	gross β	1.0E-02 ± 1.4E-03
	07/02/09	07/14/09	gross α	1.0E-03 ± 7.0E-04
	07/02/09	07/14/09	gross β	1.5E-02 ± 2.0E-03
	07/14/09	07/28/09	gross α	1.7E-03 ± 6.5E-04
	07/14/09	07/28/09	gross β	1.7E-02 ± 2.1E-03
	07/28/09	08/11/09	gross α	9.8E-04 ± 6.0E-04
	07/28/09	08/11/09	gross β	1.7E-02 ± 2.0E-03
	08/11/09	08/25/09	gross α	1.1E-03 ± 5.0E-04
	08/11/09	08/25/09	gross β	1.2E-02 ± 1.6E-03
	08/25/09	09/09/09	gross α	1.1E-03 ± 4.9E-04
	08/25/09	09/09/09	gross β	1.5E-02 ± 1.8E-03
	09/09/09	09/22/09	gross α	1.6E-03 ± 6.2E-04
	09/09/09	09/22/09	gross β	2.1E-02 ± 2.5E-03
	09/22/09	10/06/09	gross α	1.5E-03 ± 6.2E-04
	09/22/09	10/06/09	gross β	1.3E-02 ± 1.9E-03
	10/06/09	10/20/09	gross α	3.3E-03 ± 1.2E-03
	10/06/09	10/20/09	gross β	2.2E-02 ± 3.0E-03
	10/20/09	11/03/09	gross α	1.2E-03 ± 5.4E-04
	10/20/09	11/03/09	gross β	1.2E-02 ± 1.7E-03
	11/03/09	11/17/09	gross α	1.8E-03 ± 6.9E-04
	11/03/09	11/17/09	gross β	1.4E-02 ± 1.9E-03
	11/17/09	12/01/09	gross α	1.5E-03 ± 6.0E-04
	11/17/09	12/01/09	gross β	1.7E-02 ± 2.0E-03
	12/01/09	12/16/09	gross α	1.5E-03 ± 5.8E-04
	12/01/09	12/16/09	gross β	3.6E-02 ± 3.5E-03
	12/16/09	12/31/09	gross α	2.1E-03 ± 6.8E-04
	12/16/09	12/31/09	gross β	3.9E-02 ± 3.7E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N957	12/30/08 to 07/02/09	^{60}Co	-4.3E-05 ± 8.2E-05	U
		^{134}Cs	-1.4E-05 ± 7.8E-05	U
		^{137}Cs	8.8E-05 ± 8.8E-05	U
		^{152}Eu	6.7E-05 ± 1.8E-04	U
		^{154}Eu	-1.4E-04 ± 2.7E-04	U
		^{155}Eu	-2.0E-06 ± 2.0E-05	U
		^{238}Pu	7.9E-07 ± 7.9E-06	U
		$^{239/240}$Pu	-7.9E-07 ± 2.8E-06	U
		^{106}Ru	5.5E-04 ± 6.4E-04	U
		^{125}Sb	-8.7E-05 ± 1.7E-04	U
		^{90}Sr	-3.4E-04 ± 3.6E-04	U
		^{234}U	1.1E-05 ± 7.6E-06	
		^{235}U	1.9E-06 ± 2.8E-06	U
		^{238}U	3.5E-06 ± 6.6E-06	U
N957	07/02/09 to 12/31/09	^{60}Co	-1.3E-05 ± 7.9E-05	U
		^{134}Cs	3.5E-05 ± 6.9E-05	U
		^{137}Cs	1.4E-04 ± 1.3E-04	
		^{152}Eu	-6.1E-05 ± 1.7E-04	U
		^{154}Eu	-4.8E-05 ± 2.0E-04	U
		^{155}Eu	-2.0E-05 ± 1.7E-04	U
		^{238}Pu	1.2E-06 ± 1.8E-06	U
		$^{239/240}$Pu	1.2E-06 ± 3.1E-06	U
		^{106}Ru	-3.0E-04 ± 6.0E-04	U
		^{125}Sb	-6.8E-06 ± 6.8E-05	U
		^{90}Sr	-1.7E-04 ± 1.7E-04	U
		^{234}U	1.0E-05 ± 7.1E-06	
		^{235}U	-1.6E-06 ± 3.2E-06	U
		^{238}U	7.8E-06 ± 6.3E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 30 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N967	12/30/08	01/12/09	gross α	5.5E-04 ± 5.2E-04
(200-E)	12/30/08	01/12/09	gross β	9.7E-03 ± 1.5E-03
	01/12/09	01/26/09	gross α	1.2E-03 ± 5.2E-04
	01/12/09	01/26/09	gross β	3.4E-02 ± 3.4E-03
	01/26/09	02/09/09	gross α	1.1E-03 ± 4.9E-04
	01/26/09	02/09/09	gross β	3.1E-02 ± 3.1E-03
	02/09/09	02/23/09	gross α	1.4E-03 ± 5.7E-04
	02/09/09	02/23/09	gross β	2.6E-02 ± 2.7E-03
	02/23/09	03/09/09	gross α	8.3E-04 ± 5.6E-04
	02/23/09	03/09/09	gross β	1.7E-02 ± 2.1E-03
	03/09/09	03/23/09	gross α	1.9E-03 ± 6.8E-04
	03/09/09	03/23/09	gross β	1.6E-02 ± 2.1E-03
	03/23/09	04/06/09	gross α	8.1E-04 ± 5.9E-04
	03/23/09	04/06/09	gross β	1.1E-02 ± 1.6E-03
	04/06/09	04/20/09	gross α	5.4E-04 ± 5.0E-04
	04/06/09	04/20/09	gross β	1.2E-02 ± 1.6E-03
	04/20/09	05/04/09	gross α	1.5E-03 ± 5.9E-04
	04/20/09	05/04/09	gross β	2.0E-02 ± 2.4E-03
	05/04/09	05/18/09	gross α	9.0E-04 ± 6.1E-04
	05/04/09	05/18/09	gross β	1.1E-02 ± 1.6E-03
	05/18/09	06/01/09	gross α	1.9E-03 ± 6.8E-04
	05/18/09	06/01/09	gross β	1.5E-02 ± 1.9E-03
	06/01/09	06/15/09	gross α	1.8E-03 ± 6.8E-04
	06/01/09	06/15/09	gross β	1.7E-02 ± 2.1E-03
	06/15/09	06/30/09	gross α	6.2E-04 ± 5.0E-04
	06/15/09	06/30/09	gross β	1.1E-02 ± 1.5E-03
	06/30/09	07/13/09	gross α	1.4E-03 ± 6.2E-04
	06/30/09	07/13/09	gross β	1.3E-02 ± 1.8E-03
	07/13/09	07/27/09	gross α	1.8E-03 ± 6.7E-04
	07/13/09	07/27/09	gross β	1.8E-02 ± 2.3E-03
	07/27/09	08/10/09	gross α	1.7E-03 ± 6.6E-04
	07/27/09	08/10/09	gross β	1.9E-02 ± 2.3E-03
	08/10/09	08/24/09	gross α	9.2E-04 ± 6.1E-04
	08/10/09	08/24/09	gross β	1.3E-02 ± 1.8E-03
	08/24/09	09/08/09	gross α	6.2E-04 ± 5.1E-04
	08/24/09	09/08/09	gross β	1.9E-02 ± 2.2E-03
	09/08/09	09/21/09	gross α	1.9E-03 ± 7.1E-04
	09/08/09	09/21/09	gross β	2.0E-02 ± 2.4E-03
	09/21/09	10/05/09	gross α	1.0E-03 ± 6.7E-04
	09/21/09	10/05/09	gross β	1.3E-02 ± 1.8E-03
	10/05/09	10/19/09	gross α	1.3E-03 ± 5.5E-04
	10/05/09	10/19/09	gross β	2.1E-02 ± 2.4E-03
	10/19/09	11/02/09	gross α	8.7E-04 ± 5.7E-04
	10/19/09	11/02/09	gross β	1.2E-02 ± 1.6E-03
	11/02/09	11/16/09	gross α	1.5E-03 ± 6.2E-04
	11/02/09	11/16/09	gross β	1.1E-02 ± 1.6E-03
	11/16/09	11/30/09	gross α	9.5E-04 ± 6.5E-04
	11/16/09	11/30/09	gross β	1.6E-02 ± 2.2E-03
	11/30/09	12/14/09	gross α	1.9E-03 ± 6.9E-04
	11/30/09	12/14/09	gross β	4.8E-02 ± 4.6E-03
	12/14/09	12/29/09	gross α	1.3E-03 ± 5.4E-04
	12/14/09	12/29/09	gross β	2.9E-02 ± 3.0E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N967	12/30/08 to 06/30/09	^{60}Co	3.5E-05 ± 1.1E-04	U
		^{134}Cs	3.2E-06 ± 3.2E-05	U
		^{137}Cs	1.5E-04 ± 1.2E-04	U
		^{152}Eu	3.1E-05 ± 2.7E-04	U
		^{154}Eu	1.6E-04 ± 3.6E-04	U
		^{155}Eu	7.0E-05 ± 2.0E-04	U
		^{238}Pu	8.1E-07 ± 8.4E-07	U
		$^{239/240}$Pu	-8.0E-07 ± 3.6E-06	U
		^{106}Ru	6.9E-05 ± 6.9E-04	U
		^{125}Sb	1.0E-04 ± 2.7E-04	U
		^{90}Sr	-2.3E-04 ± 2.4E-04	U
		^{234}U	1.3E-05 ± 8.0E-06	
		^{235}U	-8.8E-07 ± 3.0E-06	U
		^{238}U	6.4E-06 ± 5.1E-06	
N967	06/30/09 to 12/29/09	^{60}Co	-1.4E-05 ± 7.0E-05	U
		^{134}Cs	-5.4E-06 ± 5.4E-05	U
		^{137}Cs	8.1E-05 ± 7.2E-05	U
		^{152}Eu	-1.0E-04 ± 1.7E-04	U
		^{154}Eu	3.4E-05 ± 2.0E-04	U
		^{155}Eu	-7.4E-05 ± 1.9E-04	U
		^{238}Pu	-1.5E-06 ± 9.5E-06	U
		$^{239/240}$Pu	2.3E-06 ± 4.1E-06	U
		^{103}Ru	-6.6E-05 ± 1.1E-04	U
		^{106}Ru	-4.1E-05 ± 4.1E-04	U
		^{125}Sb	-1.2E-04 ± 1.5E-04	U
		^{113}Sn	-2.5E-05 ± 8.7E-05	U
		^{90}Sr	-3.7E-04 ± 3.9E-04	U
		^{234}U	5.4E-06 ± 5.1E-06	U
		^{235}U	1.7E-06 ± 4.2E-06	U
		^{238}U	5.4E-06 ± 5.5E-06	U
		^{65}Zn	-4.9E-05 ± 1.8E-04	U

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 31 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N968	12/30/08	01/12/09	gross α	1.0E-03 ± 6.4E-04
(200-E)	12/30/08	01/12/09	gross β	1.3E-02 ± 1.8E-03
	01/12/09	01/26/09	gross α	1.9E-03 ± 6.6E-04
	01/12/09	01/26/09	gross β	3.5E-02 ± 3.4E-03
	01/26/09	02/09/09	gross α	1.5E-03 ± 5.7E-04
	01/26/09	02/09/09	gross β	3.1E-02 ± 3.1E-03
	02/09/09	02/23/09	gross α	1.9E-03 ± 6.6E-04
	02/09/09	02/23/09	gross β	2.4E-02 ± 2.6E-03
	02/23/09	03/09/09	gross α	9.2E-04 ± 5.8E-04
	02/23/09	03/09/09	gross β	1.5E-02 ± 2.0E-03
	03/09/09	03/23/09	gross α	1.2E-03 ± 5.2E-04
	03/09/09	03/23/09	gross β	1.4E-02 ± 1.8E-03
	03/23/09	04/06/09	gross α	1.2E-03 ± 5.5E-04
	03/23/09	04/06/09	gross β	8.2E-03 ± 1.3E-03
	04/06/09	04/20/09	gross α	1.1E-03 ± 5.0E-04
	04/06/09	04/20/09	gross β	1.3E-02 ± 1.7E-03
	04/20/09	05/04/09	gross α	1.3E-03 ± 5.4E-04
	04/20/09	05/04/09	gross β	1.8E-02 ± 2.2E-03
	05/04/09	05/18/09	gross α	9.4E-04 ± 5.9E-04
	05/04/09	05/18/09	gross β	9.7E-03 ± 1.5E-03
	05/18/09	06/01/09	gross α	7.4E-04 ± 5.3E-04
	05/18/09	06/01/09	gross β	1.4E-02 ± 1.8E-03
	06/01/09	06/15/09	gross α	8.5E-04 ± 5.6E-04
	06/01/09	06/15/09	gross β	1.7E-02 ± 2.0E-03
	06/15/09	06/30/09	gross α	5.9E-04 ± 4.7E-04
	06/15/09	06/30/09	gross β	8.7E-03 ± 1.3E-03
	06/30/09	07/13/09	gross α	1.2E-03 ± 5.5E-04
	06/30/09	07/13/09	gross β	1.5E-02 ± 2.0E-03
	07/13/09	07/27/09	gross α	6.9E-04 ± 5.2E-04
	07/13/09	07/27/09	gross β	1.5E-02 ± 1.9E-03
	07/27/09	08/10/09	gross α	1.1E-03 ± 5.1E-04
	07/27/09	08/10/09	gross β	1.8E-02 ± 2.1E-03
	08/10/09	08/24/09	gross α	1.0E-03 ± 4.9E-04
	08/10/09	08/24/09	gross β	1.2E-02 ± 1.7E-03
	08/24/09	09/08/09	gross α	7.0E-04 ± 5.1E-04
	08/24/09	09/08/09	gross β	1.4E-02 ± 1.8E-03
	09/08/09	09/21/09	gross α	7.4E-04 ± 5.5E-04
	09/08/09	09/21/09	gross β	1.6E-02 ± 2.1E-03
	09/21/09	10/05/09	gross α	8.9E-04 ± 6.0E-04
	09/21/09	10/05/09	gross β	1.1E-02 ± 1.6E-03
	10/05/09	10/19/09	gross α	7.4E-04 ± 5.3E-04
	10/05/09	10/19/09	gross β	2.0E-02 ± 2.3E-03
	10/19/09	11/02/09	gross α	1.4E-03 ± 5.7E-04
	10/19/09	11/02/09	gross β	1.1E-02 ± 1.5E-03
	11/02/09	11/16/09	gross α	1.1E-03 ± 5.1E-04
	11/02/09	11/16/09	gross β	1.0E-02 ± 1.5E-03
	11/16/09	11/30/09	gross α	1.0E-03 ± 4.8E-04
	11/16/09	11/30/09	gross β	1.5E-02 ± 2.0E-03
	11/30/09	12/14/09	gross α	2.5E-03 ± 7.5E-04
	11/30/09	12/14/09	gross β	4.6E-02 ± 4.3E-03
	12/14/09	12/28/09	gross α	1.4E-03 ± 5.8E-04
	12/14/09	12/28/09	gross β	3.1E-02 ± 3.2E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N968	12/30/08 to 06/30/09	^{60}Co	-2.9E-05 ± 8.2E-05	U
		^{134}Cs	-2.2E-06 ± 2.2E-05	U
		^{137}Cs	5.3E-05 ± 6.9E-05	U
		^{152}Eu	-1.7E-04 ± 1.8E-04	U
		^{154}Eu	1.9E-04 ± 2.4E-04	U
		^{155}Eu	-6.7E-05 ± 1.8E-04	U
		^{238}Pu	-5.7E-06 ± 1.2E-05	U
		$^{239/240}$Pu	7.1E-07 ± 3.8E-06	U
		^{106}Ru	2.9E-04 ± 7.8E-04	U
		^{125}Sb	3.4E-05 ± 1.5E-04	U
		^{90}Sr	-2.5E-04 ± 2.6E-04	U
		^{234}U	1.1E-05 ± 7.2E-06	
		^{235}U	-7.5E-07 ± 2.6E-06	U
		^{238}U	1.6E-05 ± 9.4E-06	
N968	06/30/09 to 12/28/09	^{60}Co	-2.0E-05 ± 8.3E-05	U
		^{134}Cs	4.7E-05 ± 8.0E-05	U
		^{137}Cs	7.2E-05 ± 7.2E-05	U
		^{152}Eu	4.9E-05 ± 2.1E-04	U
		^{154}Eu	1.1E-04 ± 2.5E-04	U
		^{155}Eu	-1.7E-04 ± 1.5E-04	U
		^{238}Pu	5.2E-07 ± 5.4E-07	U
		$^{239/240}$Pu	1.0E-06 ± 2.1E-06	U
		^{106}Ru	-4.0E-04 ± 6.5E-04	U
		^{125}Sb	8.7E-05 ± 1.8E-04	U
		^{90}Sr	-5.0E-04 ± 5.2E-04	U
		^{234}U	1.3E-05 ± 7.8E-06	
		^{235}U	3.0E-06 ± 3.2E-06	
		^{238}U	7.6E-06 ± 5.8E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 32 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N969	12/30/08	01/12/09	gross α	6.1E-04 ± 5.1E-04
(200-E)	12/30/08	01/12/09	gross β	1.8E-02 ± 2.2E-03
	01/12/09	01/26/09	gross α	2.6E-03 ± 7.6E-04
	01/12/09	01/26/09	gross β	4.8E-02 ± 4.4E-03
	01/26/09	02/09/09	gross α	2.3E-03 ± 7.1E-04
	01/26/09	02/09/09	gross β	3.2E-02 ± 3.3E-03
	02/09/09	02/23/09	gross α	6.2E-04 ± 5.1E-04
	02/09/09	02/23/09	gross β	2.2E-02 ± 2.4E-03
	02/23/09	03/09/09	gross α	1.3E-03 ± 5.4E-04
	02/23/09	03/09/09	gross β	1.4E-02 ± 1.8E-03
	03/09/09	03/23/09	gross α	1.3E-03 ± 5.5E-04
	03/09/09	03/23/09	gross β	1.6E-02 ± 2.0E-03
	03/23/09	04/06/09	gross α	7.4E-04 ± 5.3E-04
	03/23/09	04/06/09	gross β	9.6E-03 ± 1.4E-03
	04/06/09	04/20/09	gross α	8.5E-04 ± 5.6E-04
	04/06/09	04/20/09	gross β	1.1E-02 ± 1.5E-03
	04/20/09	05/04/09	gross α	1.2E-03 ± 5.4E-04
	04/20/09	05/04/09	gross β	1.8E-02 ± 2.2E-03
	05/04/09	05/18/09	gross α	8.6E-04 ± 5.8E-04
	05/04/09	05/18/09	gross β	7.5E-03 ± 1.2E-03
	05/18/09	06/01/09	gross α	1.5E-03 ± 5.8E-04
	05/18/09	06/01/09	gross β	1.7E-02 ± 2.1E-03
	06/01/09	06/15/09	gross α	1.6E-03 ± 6.1E-04
	06/01/09	06/15/09	gross β	1.4E-02 ± 1.8E-03
	06/15/09	06/30/09	gross α	1.9E-03 ± 6.4E-04
	06/15/09	06/30/09	gross β	1.2E-02 ± 1.6E-03
	06/30/09	07/13/09	gross α	8.0E-04 ± 5.7E-04
	06/30/09	07/13/09	gross β	1.5E-02 ± 1.9E-03
	07/13/09	07/27/09	gross α	7.7E-04 ± 5.6E-04
	07/13/09	07/27/09	gross β	1.4E-02 ± 1.9E-03
	07/27/09	08/10/09	gross α	2.2E-03 ± 7.3E-04
	07/27/09	08/10/09	gross β	2.3E-02 ± 2.5E-03
	08/10/09	08/24/09	gross α	1.0E-03 ± 4.9E-04
	08/10/09	08/24/09	gross β	1.4E-02 ± 1.9E-03
	08/24/09	09/08/09	gross α	1.2E-03 ± 5.1E-04
	08/24/09	09/08/09	gross β	1.9E-02 ± 2.2E-03
	09/08/09	09/22/09	gross α	1.1E-03 ± 5.2E-04
	09/08/09	09/22/09	gross β	1.5E-02 ± 1.9E-03
	09/22/09	10/05/09	gross α	1.2E-03 ± 5.7E-04
	09/22/09	10/05/09	gross β	1.4E-02 ± 1.9E-03
	10/05/09	10/19/09	gross α	1.9E-03 ± 6.5E-04
	10/05/09	10/19/09	gross β	2.4E-02 ± 2.6E-03
	10/19/09	11/02/09	gross α	5.0E-04 ± 4.6E-04
	10/19/09	11/02/09	gross β	1.2E-02 ± 1.6E-03
	11/02/09	11/16/09	gross α	1.4E-03 ± 5.6E-04
	11/02/09	11/16/09	gross β	1.7E-02 ± 2.1E-03
	11/16/09	11/30/09	gross α	7.1E-04 ± 5.3E-04
	11/16/09	11/30/09	gross β	1.8E-02 ± 2.2E-03
	11/30/09	12/14/09	gross α	2.0E-03 ± 6.8E-04
	11/30/09	12/14/09	gross β	4.1E-02 ± 4.0E-03
	12/14/09	12/29/09	gross α	1.4E-03 ± 5.7E-04
	12/14/09	12/29/09	gross β	3.2E-02 ± 3.2E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N969	12/30/08 to 06/30/09	^{60}Co	3.0E-05 ± 7.2E-05	U
		^{134}Cs	4.1E-05 ± 6.9E-05	U
		^{137}Cs	2.1E-05 ± 6.3E-05	U
		^{152}Eu	1.4E-04 ± 1.4E-04	U
		^{154}Eu	2.0E-05 ± 2.0E-04	U
		^{155}Eu	1.0E-04 ± 1.4E-04	U
		^{238}Pu	-1.3E-06 ± 9.3E-06	U
		$^{239/240}$Pu	-1.3E-06 ± 2.0E-06	U
		^{106}Ru	3.7E-05 ± 3.7E-04	U
		^{125}Sb	3.3E-05 ± 1.5E-04	U
		^{90}Sr	-6.7E-05 ± 7.0E-05	U
		^{234}U	9.0E-06 ± 6.2E-06	
		^{235}U	6.4E-07 ± 6.6E-07	
		^{238}U	5.8E-06 ± 4.4E-06	
N969	06/30/09 to 12/29/09	^{60}Co	-2.5E-05 ± 8.6E-05	U
		^{134}Cs	1.7E-05 ± 7.7E-05	U
		^{137}Cs	3.9E-05 ± 7.0E-05	U
		^{152}Eu	-9.6E-05 ± 1.7E-04	U
		^{154}Eu	-8.9E-05 ± 2.2E-04	U
		^{155}Eu	1.0E-06 ± 1.0E-05	U
		^{238}Pu	-1.1E-06 ± 4.6E-06	U
		$^{239/240}$Pu	5.8E-07 ± 6.0E-07	U
		^{106}Ru	-2.8E-04 ± 6.1E-04	U
		^{125}Sb	5.4E-05 ± 1.6E-04	U
		^{90}Sr	-3.7E-04 ± 3.8E-04	U
		^{234}U	7.5E-06 ± 5.8E-06	
		^{235}U	6.3E-07 ± 6.6E-07	U
		^{238}U	5.0E-06 ± 4.0E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 33 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N970	12/30/08	01/12/09	gross α	9.7E-04 ± 6.1E-04
(200-E)	12/30/08	01/12/09	gross β	1.1E-02 ± 1.6E-03
	01/12/09	01/26/09	gross α	2.1E-03 ± 6.8E-04
	01/12/09	01/26/09	gross β	4.1E-02 ± 4.0E-03
	01/26/09	02/09/09	gross α	1.8E-03 ± 6.4E-04
	01/26/09	02/09/09	gross β	2.5E-02 ± 2.7E-03
	02/09/09	02/23/09	gross α	9.7E-04 ± 6.0E-04
	02/09/09	02/23/09	gross β	2.4E-02 ± 2.6E-03
	02/23/09	03/09/09	gross α	1.9E-03 ± 6.6E-04
	02/23/09	03/09/09	gross β	1.7E-02 ± 2.0E-03
	03/09/09	03/23/09	gross α	1.5E-03 ± 5.8E-04
	03/09/09	03/23/09	gross β	1.8E-02 ± 2.2E-03
	03/23/09	04/06/09	gross α	6.4E-04 ± 5.1E-04
	03/23/09	04/06/09	gross β	6.2E-03 ± 1.1E-03
	04/06/09	04/20/09	gross α	1.1E-03 ± 5.1E-04
	04/06/09	04/20/09	gross β	1.4E-02 ± 1.9E-03
	04/20/09	05/04/09	gross α	8.9E-04 ± 5.6E-04
	04/20/09	05/04/09	gross β	1.5E-02 ± 1.9E-03
	05/04/09	05/18/09	gross α	2.2E-03 ± 7.5E-04
	05/04/09	05/18/09	gross β	8.9E-03 ± 1.4E-03
	05/18/09	06/01/09	gross α	1.5E-03 ± 5.8E-04
	05/18/09	06/01/09	gross β	1.5E-02 ± 1.9E-03
	06/01/09	06/15/09	gross α	2.1E-03 ± 7.3E-04
	06/01/09	06/15/09	gross β	2.0E-02 ± 2.4E-03
	06/15/09	06/30/09	gross α	1.1E-03 ± 4.9E-04
	06/15/09	06/30/09	gross β	9.3E-03 ± 1.4E-03
	06/30/09	07/13/09	gross α	6.8E-04 ± 5.4E-04
	06/30/09	07/13/09	gross β	1.2E-02 ± 1.7E-03
	07/13/09	07/27/09	gross α	1.0E-03 ± 6.2E-04
	07/13/09	07/27/09	gross β	1.3E-02 ± 1.7E-03
	07/27/09	08/10/09	gross α	1.9E-03 ± 6.8E-04
	07/27/09	08/10/09	gross β	2.0E-02 ± 2.3E-03
	08/10/09	08/24/09	gross α	1.2E-03 ± 5.4E-04
	08/10/09	08/24/09	gross β	1.2E-02 ± 1.7E-03
	08/24/09	09/08/09	gross α	5.9E-04 ± 4.7E-04
	08/24/09	09/08/09	gross β	1.9E-02 ± 2.2E-03
	09/08/09	09/22/09	gross α	2.0E-03 ± 7.0E-04
	09/08/09	09/22/09	gross β	1.2E-02 ± 1.7E-03
	09/22/09	10/05/09	gross α	7.3E-04 ± 5.9E-04
	09/22/09	10/05/09	gross β	1.2E-02 ± 1.8E-03
	10/05/09	10/19/09	gross α	1.7E-03 ± 6.2E-04
	10/05/09	10/19/09	gross β	1.8E-02 ± 2.1E-03
	10/19/09	11/02/09	gross α	9.6E-04 ± 5.9E-04
	10/19/09	11/02/09	gross β	1.4E-02 ± 1.8E-03
	11/02/09	11/16/09	gross α	2.6E-03 ± 1.1E-03
	11/02/09	11/16/09	gross β	2.4E-02 ± 3.4E-03
	11/16/09	11/30/09	gross α	1.6E-03 ± 6.2E-04
	11/16/09	11/30/09	gross β	1.9E-02 ± 2.3E-03
	11/30/09	12/14/09	gross α	2.0E-03 ± 6.8E-04
	11/30/09	12/14/09	gross β	4.3E-02 ± 4.1E-03
	12/14/09	12/29/09	gross α	9.1E-04 ± 5.7E-04
	12/14/09	12/29/09	gross β	2.8E-02 ± 2.9E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N970	12/30/08 to 06/30/09	^{60}Co	-4.0E-05 ± 6.0E-05	U
		^{134}Cs	3.6E-05 ± 6.3E-05	U
		^{137}Cs	2.5E-05 ± 6.0E-05	U
		^{152}Eu	-2.6E-05 ± 1.4E-04	U
		^{154}Eu	-2.1E-04 ± 2.1E-04	U
		^{155}Eu	-1.7E-05 ± 1.6E-04	U
		^{238}Pu	1.7E-05 ± 1.7E-05	U
		$^{239/240}$Pu	3.4E-06 ± 3.6E-06	
		^{103}Ru	1.1E-05 ± 9.5E-05	U
		^{106}Ru	5.7E-04 ± 5.7E-04	U
		^{125}Sb	-1.1E-04 ± 1.4E-04	U
		^{113}Sn	-7.1E-06 ± 7.1E-05	U
		^{90}Sr	-3.2E-04 ± 3.4E-04	U
		^{234}U	1.6E-05 ± 9.3E-06	
		^{235}U	4.3E-06 ± 4.1E-06	
		^{238}U	1.1E-05 ± 7.5E-06	
		^{65}Zn	6.9E-05 ± 1.3E-04	U
N970	06/30/09 to 12/29/09	^{60}Co	1.9E-05 ± 9.2E-05	U
		^{134}Cs	4.1E-06 ± 4.1E-05	U
		^{137}Cs	3.6E-05 ± 7.8E-05	U
		^{152}Eu	8.4E-05 ± 1.8E-04	U
		^{154}Eu	3.6E-06 ± 3.6E-05	U
		^{155}Eu	-3.7E-05 ± 1.7E-04	U
		^{238}Pu	2.6E-06 ± 4.4E-06	U
		$^{239/240}$Pu	1.1E-06 ± 2.6E-06	U
		^{106}Ru	-3.0E-04 ± 6.9E-04	U
		^{125}Sb	4.0E-05 ± 1.8E-04	U
		^{90}Sr	7.4E-05 ± 2.8E-04	U
		^{234}U	7.4E-06 ± 5.9E-06	
		^{235}U	2.2E-06 ± 2.7E-06	
		^{238}U	3.4E-06 ± 3.3E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 34 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N972	12/30/08	01/12/09	gross α	5.2E-04 ± 5.0E-04
(200-E)	12/30/08	01/12/09	gross β	1.1E-02 ± 1.7E-03
	01/12/09	01/26/09	gross α	1.9E-03 ± 6.4E-04
	01/12/09	01/26/09	gross β	4.5E-02 ± 4.3E-03
	01/26/09	02/09/09	gross α	1.7E-03 ± 6.1E-04
	01/26/09	02/09/09	gross β	3.0E-02 ± 3.1E-03
	02/09/09	02/23/09	gross α	5.3E-04 ± 4.9E-04
	02/09/09	02/23/09	gross β	2.7E-02 ± 2.8E-03
	02/23/09	03/09/09	gross α	1.6E-03 ± 6.1E-04
	02/23/09	03/09/09	gross β	1.4E-02 ± 1.9E-03
	03/09/09	03/23/09	gross α	1.1E-03 ± 5.0E-04
	03/09/09	03/23/09	gross β	1.9E-02 ± 2.2E-03
	03/23/09	04/06/09	gross α	9.6E-04 ± 5.9E-04
	03/23/09	04/06/09	gross β	7.2E-03 ± 1.2E-03
	04/06/09	04/20/09	gross α	1.9E-03 ± 6.4E-04
	04/06/09	04/20/09	gross β	1.4E-02 ± 1.8E-03
	04/20/09	05/04/09	gross α	7.8E-04 ± 5.3E-04
	04/20/09	05/04/09	gross β	1.6E-02 ± 2.0E-03
	05/04/09	05/18/09	gross α	7.5E-04 ± 5.5E-04
	05/04/09	05/18/09	gross β	7.2E-03 ± 1.2E-03
	05/18/09	06/01/09	gross α	6.8E-04 ± 5.1E-04
	05/18/09	06/01/09	gross β	1.4E-02 ± 1.8E-03
	06/01/09	06/15/09	gross α	9.3E-04 ± 5.8E-04
	06/01/09	06/15/09	gross β	2.0E-02 ± 2.2E-03
	06/15/09	06/30/09	gross α	3.7E-04 ± 4.0E-04
	06/15/09	06/30/09	gross β	6.7E-03 ± 1.1E-03
	06/30/09	07/13/09	gross α	6.8E-04 ± 5.4E-04
	06/30/09	07/13/09	gross β	1.6E-02 ± 2.0E-03
	07/13/09	07/27/09	gross α	5.1E-04 ± 4.7E-04
	07/13/09	07/27/09	gross β	9.6E-03 ± 1.4E-03
	07/27/09	08/10/09	gross α	1.5E-03 ± 5.8E-04
	07/27/09	08/10/09	gross β	1.8E-02 ± 2.1E-03
	08/10/09	08/24/09	gross α	1.1E-03 ± 5.0E-04
	08/10/09	08/24/09	gross β	1.4E-02 ± 1.9E-03
	08/24/09	09/08/09	gross α	1.6E-03 ± 5.9E-04
	08/24/09	09/08/09	gross β	1.7E-02 ± 2.0E-03
	09/08/09	09/22/09	gross α	5.2E-04 ± 4.9E-04
	09/08/09	09/22/09	gross β	1.1E-02 ± 1.6E-03
	09/22/09	10/05/09	gross α	4.4E-04 ± 4.9E-04
	09/22/09	10/05/09	gross β	1.4E-02 ± 1.9E-03
	10/05/09	10/19/09	gross α	9.6E-04 ± 5.9E-04
	10/05/09	10/19/09	gross β	1.9E-02 ± 2.2E-03
	10/19/09	11/02/09	gross α	2.9E-04 ± 3.9E-04
	10/19/09	11/02/09	gross β	1.1E-02 ± 1.6E-03
	11/02/09	11/16/09	gross α	1.4E-03 ± 5.6E-04
	11/02/09	11/16/09	gross β	1.6E-02 ± 2.1E-03
	11/16/09	11/30/09	gross α	5.8E-04 ± 4.9E-04
	11/16/09	11/30/09	gross β	1.7E-02 ± 2.1E-03
	11/30/09	12/14/09	gross α	2.3E-03 ± 7.3E-04
	11/30/09	12/14/09	gross β	4.3E-02 ± 4.1E-03
	12/14/09	12/29/09	gross α	1.9E-03 ± 6.5E-04
	12/14/09	12/29/09	gross β	3.2E-02 ± 3.2E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N972	12/30/08 to 06/30/09	^{60}Co	1.7E-05 ± 7.9E-05	U
		^{134}Cs	-6.0E-06 ± 6.0E-05	U
		^{137}Cs	4.6E-05 ± 7.2E-05	U
		^{152}Eu	6.2E-05 ± 1.6E-04	U
		^{154}Eu	7.9E-06 ± 7.9E-05	U
		^{155}Eu	-4.7E-05 ± 1.7E-04	U
		^{238}Pu	6.2E-07 ± 6.2E-06	U
		$^{239/240}$Pu	1.2E-06 ± 2.5E-06	U
		^{106}Ru	-1.7E-04 ± 6.2E-04	U
		^{125}Sb	5.6E-05 ± 1.5E-04	U
		^{90}Sr	-3.4E-04 ± 3.5E-04	U
		^{234}U	1.2E-05 ± 7.6E-06	
		^{235}U	7.2E-07 ± 2.5E-06	U
		^{238}U	8.5E-06 ± 6.2E-06	
N972	06/30/09 to 12/29/09	^{60}Co	3.2E-05 ± 8.5E-05	U
		^{134}Cs	-5.2E-05 ± 7.3E-05	U
		^{137}Cs	5.3E-05 ± 6.4E-05	U
		^{152}Eu	-4.2E-05 ± 1.5E-04	U
		^{154}Eu	-9.4E-05 ± 2.0E-04	U
		^{155}Eu	7.3E-06 ± 7.3E-05	U
		^{238}Pu	5.1E-07 ± 3.1E-06	U
		$^{239/240}$Pu	1.0E-06 ± 1.5E-06	U
		^{106}Ru	-3.9E-04 ± 6.2E-04	U
		^{125}Sb	-6.0E-06 ± 6.0E-05	U
		^{90}Sr	-2.4E-04 ± 2.5E-04	U
		^{234}U	7.3E-06 ± 6.1E-06	
		^{235}U	1.6E-06 ± 2.3E-06	U
		^{238}U	5.1E-06 ± 5.2E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 35 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N973	12/30/08	01/12/09	gross α	8.8E-04 ± 6.0E-04
(200-E)	12/30/08	01/12/09	gross β	1.2E-02 ± 1.8E-03
	01/12/09	01/26/09	gross α	2.1E-03 ± 6.9E-04
	01/12/09	01/26/09	gross β	4.3E-02 ± 4.1E-03
	01/26/09	02/09/09	gross α	1.9E-03 ± 6.7E-04
	01/26/09	02/09/09	gross β	3.0E-02 ± 3.1E-03
	02/09/09	02/23/09	gross α	2.0E-03 ± 6.8E-04
	02/09/09	02/23/09	gross β	2.8E-02 ± 2.9E-03
	02/23/09	03/09/09	gross α	1.3E-03 ± 5.5E-04
	02/23/09	03/09/09	gross β	1.4E-02 ± 1.8E-03
	03/09/09	03/23/09	gross α	7.3E-04 ± 5.5E-04
	03/09/09	03/23/09	gross β	1.7E-02 ± 2.1E-03
	03/23/09	04/06/09	gross α	1.2E-03 ± 5.4E-04
	03/23/09	04/06/09	gross β	9.4E-03 ± 1.5E-03
	04/06/09	04/20/09	gross α	2.2E-03 ± 7.3E-04
	04/06/09	04/20/09	gross β	1.4E-02 ± 1.9E-03
	04/20/09	05/04/09	gross α	1.3E-03 ± 5.6E-04
	04/20/09	05/04/09	gross β	1.7E-02 ± 2.1E-03
	05/04/09	05/18/09	gross α	1.1E-03 ± 5.3E-04
	05/04/09	05/18/09	gross β	7.6E-03 ± 1.3E-03
	05/18/09	06/01/09	gross α	7.3E-04 ± 5.5E-04
	05/18/09	06/01/09	gross β	1.6E-02 ± 2.1E-03
	06/01/09	06/15/09	gross α	1.4E-03 ± 5.9E-04
	06/01/09	06/15/09	gross β	1.9E-02 ± 2.3E-03
	06/15/09	06/30/09	gross α	1.1E-03 ± 4.9E-04
	06/15/09	06/30/09	gross β	1.1E-02 ± 1.5E-03
	06/30/09	07/13/09	gross α	1.3E-03 ± 5.6E-04
	06/30/09	07/13/09	gross β	1.4E-02 ± 1.8E-03
	07/13/09	07/27/09	gross α	1.0E-03 ± 6.2E-04
	07/13/09	07/27/09	gross β	1.4E-02 ± 1.9E-03
	07/27/09	08/10/09	gross α	1.8E-03 ± 6.5E-04
	07/27/09	08/10/09	gross β	1.7E-02 ± 2.1E-03
	08/10/09	08/24/09	gross α	1.0E-03 ± 6.4E-04
	08/10/09	08/24/09	gross β	1.4E-02 ± 2.0E-03
	08/24/09	09/08/09	gross α	1.2E-03 ± 5.1E-04
	08/24/09	09/08/09	gross β	1.9E-02 ± 2.2E-03
	09/08/09	09/21/09	gross α	1.8E-03 ± 6.7E-04
	09/08/09	09/21/09	gross β	1.7E-02 ± 2.1E-03
	09/21/09	10/05/09	gross α	8.6E-04 ± 6.3E-04
	09/21/09	10/05/09	gross β	1.2E-02 ± 1.7E-03
	10/05/09	10/19/09	gross α	1.6E-03 ± 6.1E-04
	10/05/09	10/19/09	gross β	2.3E-02 ± 2.5E-03
	10/19/09	11/02/09	gross α	1.1E-03 ± 4.9E-04
	10/19/09	11/02/09	gross β	1.4E-02 ± 1.8E-03
	11/02/09	11/16/09	gross α	1.8E-03 ± 6.4E-04
	11/02/09	11/16/09	gross β	1.4E-02 ± 1.9E-03
	11/16/09	11/30/09	gross α	1.5E-03 ± 6.0E-04
	11/16/09	11/30/09	gross β	1.8E-02 ± 2.2E-03
	11/30/09	12/14/09	gross α	3.0E-03 ± 8.6E-04
	11/30/09	12/14/09	gross β	4.3E-02 ± 4.2E-03
	12/14/09	12/29/09	gross α	1.7E-03 ± 6.1E-04
	12/14/09	12/29/09	gross β	3.3E-02 ± 3.3E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N973	12/30/08 to 06/30/09	^{60}Co	-3.3E-05 ± 7.9E-05	U
		^{134}Cs	-3.0E-05 ± 6.9E-05	U
		^{137}Cs	-7.9E-06 ± 6.8E-05	U
		^{152}Eu	3.8E-05 ± 1.6E-04	U
		^{154}Eu	-1.8E-07 ± 1.8E-06	U
		^{155}Eu	-1.2E-04 ± 1.3E-04	U
		^{238}Pu	1.3E-05 ± 1.6E-05	U
		$^{239/240}$Pu	3.1E-05 ± 1.5E-05	
		^{106}Ru	4.3E-04 ± 6.2E-04	U
		^{125}Sb	-1.0E-04 ± 1.7E-04	U
		^{90}Sr	-1.5E-04 ± 1.6E-04	U
		^{234}U	9.6E-06 ± 6.6E-06	
		^{235}U	7.5E-07 ± 1.5E-06	U
		^{238}U	6.2E-06 ± 4.8E-06	
N973	06/30/09 to 12/29/09	^{60}Co	1.8E-05 ± 6.5E-05	U
		^{134}Cs	4.8E-05 ± 6.5E-05	U
		^{137}Cs	2.0E-04 ± 1.1E-04	
		^{152}Eu	-8.2E-05 ± 1.7E-04	U
		^{154}Eu	1.4E-05 ± 1.4E-04	U
		^{155}Eu	-7.4E-05 ± 1.7E-04	U
		^{238}Pu	5.5E-07 ± 5.7E-07	U
		$^{239/240}$Pu	2.2E-06 ± 2.3E-06	
		^{106}Ru	-8.1E-05 ± 5.6E-04	U
		^{125}Sb	-3.8E-05 ± 1.4E-04	U
		^{90}Sr	-7.3E-05 ± 7.5E-05	U
		^{234}U	5.6E-06 ± 5.3E-06	U
		^{235}U	1.5E-06 ± 2.2E-06	U
		^{238}U	7.0E-06 ± 5.2E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 36 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N976	12/30/08	01/12/09	gross α	1.3E-03 ± 5.7E-04
(200-E)	12/30/08	01/12/09	gross β	1.4E-02 ± 1.9E-03
	01/12/09	01/26/09	gross α	2.5E-03 ± 7.5E-04
	01/12/09	01/26/09	gross β	3.7E-02 ± 3.7E-03
	01/26/09	02/09/09	gross α	2.5E-03 ± 7.4E-04
	01/26/09	02/09/09	gross β	3.1E-02 ± 3.2E-03
	02/09/09	02/23/09	gross α	8.6E-04 ± 5.7E-04
	02/09/09	02/23/09	gross β	2.5E-02 ± 2.6E-03
	02/23/09	03/09/09	gross α	1.2E-03 ± 5.2E-04
	02/23/09	03/09/09	gross β	1.5E-02 ± 1.9E-03
	03/09/09	03/23/09	gross α	1.4E-03 ± 5.7E-04
	03/09/09	03/23/09	gross β	1.6E-02 ± 2.0E-03
	03/23/09	04/06/09	gross α	9.0E-04 ± 5.9E-04
	03/23/09	04/06/09	gross β	7.4E-03 ± 1.2E-03
	04/06/09	04/20/09	gross α	6.2E-04 ± 5.2E-04
	04/06/09	04/20/09	gross β	1.4E-02 ± 1.9E-03
	04/20/09	05/04/09	gross α	1.4E-03 ± 5.6E-04
	04/20/09	05/04/09	gross β	1.7E-02 ± 2.1E-03
	05/04/09	05/18/09	gross α	1.1E-03 ± 5.3E-04
	05/04/09	05/18/09	gross β	1.1E-02 ± 1.6E-03
	05/18/09	06/01/09	gross α	5.7E-04 ± 4.8E-04
	05/18/09	06/01/09	gross β	1.3E-02 ± 1.7E-03
	06/01/09	06/15/09	gross α	1.3E-03 ± 5.6E-04
	06/01/09	06/15/09	gross β	1.6E-02 ± 2.0E-03
	06/15/09	06/30/09	gross α	1.1E-03 ± 4.7E-04
	06/15/09	06/30/09	gross β	9.7E-03 ± 1.4E-03
	06/30/09	07/13/09	gross α	1.5E-03 ± 5.9E-04
	06/30/09	07/13/09	gross β	1.4E-02 ± 1.9E-03
	07/13/09	07/27/09	gross α	9.5E-04 ± 5.9E-04
	07/13/09	07/27/09	gross β	1.4E-02 ± 1.8E-03
	07/27/09	08/10/09	gross α	2.8E-04 ± 3.9E-04
	07/27/09	08/10/09	gross β	1.5E-02 ± 1.9E-03
	08/10/09	08/24/09	gross α	4.6E-04 ± 4.5E-04
	08/10/09	08/24/09	gross β	1.2E-02 ± 1.6E-03
	08/24/09	09/08/09	gross α	4.7E-04 ± 4.3E-04
	08/24/09	09/08/09	gross β	1.6E-02 ± 1.9E-03
	09/08/09	09/22/09	gross α	1.3E-03 ± 5.6E-04
	09/08/09	09/22/09	gross β	1.5E-02 ± 1.9E-03
	09/22/09	10/05/09	gross α	5.5E-04 ± 5.2E-04
	09/22/09	10/05/09	gross β	1.2E-02 ± 1.7E-03
	10/05/09	10/19/09	gross α	1.4E-03 ± 5.5E-04
	10/05/09	10/19/09	gross β	2.0E-02 ± 2.3E-03
	10/19/09	11/02/09	gross α	1.2E-03 ± 5.2E-04
	10/19/09	11/02/09	gross β	1.0E-02 ± 1.5E-03
	11/02/09	11/16/09	gross α	1.4E-03 ± 5.6E-04
	11/02/09	11/16/09	gross β	1.8E-02 ± 2.2E-03
	11/16/09	11/30/09	gross α	2.7E-03 ± 7.8E-04
	11/16/09	11/30/09	gross β	1.5E-02 ± 1.9E-03
	11/30/09	12/14/09	gross α	1.1E-03 ± 5.1E-04
	11/30/09	12/14/09	gross β	4.0E-02 ± 3.9E-03
	12/14/09	12/29/09	gross α	2.1E-03 ± 6.8E-04
	12/14/09	12/29/09	gross β	3.2E-02 ± 3.2E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N976	12/30/08 to 06/30/09	^{60}Co	-3.3E-05 ± 9.9E-05	U
		^{134}Cs	3.6E-06 ± 3.6E-05	U
		^{137}Cs	2.4E-04 ± 1.2E-04	
		^{152}Eu	1.0E-04 ± 1.6E-04	U
		^{154}Eu	2.3E-04 ± 2.3E-04	U
		^{155}Eu	6.3E-07 ± 6.3E-06	U
		^{238}Pu	7.5E-07 ± 7.5E-06	U
		$^{239/240}$Pu	7.8E-07 ± 8.1E-07	U
		^{106}Ru	4.9E-04 ± 6.4E-04	U
		^{125}Sb	6.2E-05 ± 1.6E-04	U
		^{90}Sr	-2.8E-04 ± 2.9E-04	U
		^{234}U	1.0E-05 ± 7.9E-06	
		^{235}U	8.0E-07 ± 5.3E-06	U
		^{238}U	1.8E-05 ± 1.1E-05	
N976	06/30/09 to 12/29/09	^{60}Co	-1.0E-05 ± 8.1E-05	U
		^{134}Cs	2.7E-06 ± 2.7E-05	U
		^{137}Cs	-4.7E-05 ± 6.7E-05	U
		^{152}Eu	-6.2E-05 ± 1.6E-04	U
		^{154}Eu	-1.2E-04 ± 2.1E-04	U
		^{155}Eu	-5.3E-06 ± 5.3E-05	U
		^{238}Pu	1.0E-06 ± 2.6E-06	U
		$^{239/240}$Pu	1.0E-06 ± 1.5E-06	U
		^{106}Ru	6.9E-05 ± 6.0E-04	U
		^{125}Sb	2.0E-05 ± 1.5E-04	U
		^{90}Sr	-2.5E-04 ± 2.6E-04	U
		^{234}U	1.4E-05 ± 8.8E-06	
		^{235}U	6.5E-07 ± 6.7E-07	U
		^{238}U	1.3E-05 ± 7.6E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 37 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N977	12/30/08	01/12/09	gross α	7.4E-04 ± 5.6E-04
(200-E)	12/30/08	01/12/09	gross β	1.3E-02 ± 1.8E-03
	01/12/09	01/26/09	gross α	2.0E-03 ± 6.6E-04
	01/12/09	01/26/09	gross β	3.8E-02 ± 3.7E-03
	01/26/09	02/09/09	gross α	1.3E-03 ± 5.4E-04
	01/26/09	02/09/09	gross β	3.6E-02 ± 3.5E-03
	02/09/09	02/23/09	gross α	1.1E-03 ± 4.9E-04
	02/09/09	02/23/09	gross β	2.3E-02 ± 2.5E-03
	02/23/09	03/09/09	gross α	8.3E-04 ± 5.5E-04
	02/23/09	03/09/09	gross β	1.1E-02 ± 1.6E-03
	03/09/09	03/23/09	gross α	9.1E-04 ± 5.8E-04
	03/09/09	03/23/09	gross β	1.7E-02 ± 2.1E-03
	03/23/09	04/06/09	gross α	6.3E-04 ± 5.0E-04
	03/23/09	04/06/09	gross β	1.0E-02 ± 1.5E-03
	04/06/09	04/20/09	gross α	1.2E-03 ± 5.3E-04
	04/06/09	04/20/09	gross β	1.3E-02 ± 1.7E-03
	04/20/09	05/04/09	gross α	1.0E-03 ± 4.9E-04
	04/20/09	05/04/09	gross β	1.7E-02 ± 2.1E-03
	05/04/09	05/18/09	gross α	8.6E-04 ± 5.8E-04
	05/04/09	05/18/09	gross β	9.8E-03 ± 1.5E-03
	05/18/09	06/01/09	gross α	1.2E-03 ± 5.2E-04
	05/18/09	06/01/09	gross β	1.5E-02 ± 1.9E-03
	06/01/09	06/15/09	gross α	1.1E-03 ± 5.3E-04
	06/01/09	06/15/09	gross β	1.9E-02 ± 2.2E-03
	06/15/09	06/30/09	gross α	9.2E-04 ± 5.6E-04
	06/15/09	06/30/09	gross β	1.1E-02 ± 1.5E-03
	06/30/09	07/13/09	gross α	1.3E-03 ± 5.6E-04
	06/30/09	07/13/09	gross β	1.4E-02 ± 1.8E-03
	07/13/09	07/27/09	gross α	8.9E-04 ± 5.9E-04
	07/13/09	07/27/09	gross β	1.5E-02 ± 2.0E-03
	07/27/09	08/10/09	gross α	2.0E-03 ± 6.9E-04
	07/27/09	08/10/09	gross β	2.0E-02 ± 2.3E-03
	08/10/09	08/24/09	gross α	1.1E-03 ± 5.1E-04
	08/10/09	08/24/09	gross β	1.3E-02 ± 1.8E-03
	08/24/09	09/08/09	gross α	1.0E-03 ± 4.6E-04
	08/24/09	09/08/09	gross β	1.8E-02 ± 2.1E-03
	09/08/09	09/22/09	gross α	1.3E-03 ± 5.7E-04
	09/08/09	09/22/09	gross β	1.5E-02 ± 1.9E-03
	09/22/09	10/05/09	gross α	8.4E-04 ± 6.2E-04
	09/22/09	10/05/09	gross β	1.8E-02 ± 2.2E-03
	10/05/09	10/19/09	gross α	1.2E-03 ± 5.2E-04
	10/05/09	10/19/09	gross β	2.1E-02 ± 2.4E-03
	10/19/09	11/02/09	gross α	6.4E-04 ± 5.2E-04
	10/19/09	11/02/09	gross β	1.2E-02 ± 1.6E-03
	11/02/09	11/16/09	gross α	1.8E-03 ± 6.4E-04
	11/02/09	11/16/09	gross β	1.5E-02 ± 2.0E-03
	11/16/09	11/30/09	gross α	9.9E-04 ± 6.2E-04
	11/16/09	11/30/09	gross β	1.7E-02 ± 2.2E-03
	11/30/09	12/14/09	gross α	2.7E-03 ± 8.0E-04
	11/30/09	12/14/09	gross β	4.1E-02 ± 4.0E-03
	12/14/09	12/29/09	gross α	1.2E-03 ± 5.2E-04
	12/14/09	12/29/09	gross β	3.0E-02 ± 3.0E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N977	12/30/08 to 06/30/09	^{60}Co	-3.6E-05 ± 8.0E-05	U
		^{134}Cs	1.3E-05 ± 8.9E-05	U
		^{137}Cs	4.8E-05 ± 7.2E-05	U
		^{152}Eu	3.1E-05 ± 1.7E-04	U
		^{154}Eu	3.3E-06 ± 3.3E-05	U
		^{155}Eu	-4.1E-06 ± 4.1E-05	U
		^{238}Pu	5.2E-06 ± 1.1E-05	U
		$^{239/240}$Pu	3.0E-06 ± 4.4E-06	U
		^{106}Ru	5.0E-04 ± 7.0E-04	U
		^{125}Sb	-2.3E-05 ± 1.6E-04	U
		^{90}Sr	-3.9E-04 ± 4.1E-04	U
		^{234}U	8.4E-06 ± 6.3E-06	
		^{235}U	2.5E-06 ± 3.0E-06	
		^{238}U	9.2E-06 ± 6.7E-06	
N977	06/30/09 to 12/29/09	^{60}Co	2.0E-05 ± 7.2E-05	U
		^{134}Cs	1.3E-05 ± 6.6E-05	U
		^{137}Cs	5.3E-05 ± 6.4E-05	U
		^{152}Eu	3.3E-05 ± 1.6E-04	U
		^{154}Eu	-1.9E-05 ± 1.9E-04	U
		^{155}Eu	-3.9E-05 ± 1.7E-04	U
		^{238}Pu	-5.5E-07 ± 3.3E-06	U
		$^{239/240}$Pu	2.2E-06 ± 2.3E-06	
		^{106}Ru	3.5E-04 ± 5.9E-04	U
		^{125}Sb	1.0E-04 ± 1.5E-04	U
		^{90}Sr	-2.6E-04 ± 2.7E-04	U
		^{234}U	8.6E-06 ± 6.1E-06	
		^{235}U	1.4E-06 ± 2.9E-06	U
		^{238}U	6.6E-06 ± 5.5E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 38 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N978	12/30/08	01/12/09	gross α	6.1E-04 ± 5.1E-04
(200-E)	12/30/08	01/12/09	gross β	1.3E-02 ± 1.8E-03
	01/12/09	01/26/09	gross α	2.6E-03 ± 7.9E-04
	01/12/09	01/26/09	gross β	4.7E-02 ± 4.5E-03
	01/26/09	02/09/09	gross α	3.1E-03 ± 8.4E-04
	01/26/09	02/09/09	gross β	3.3E-02 ± 3.4E-03
	02/09/09	02/23/09	gross α	1.5E-03 ± 6.0E-04
	02/09/09	02/23/09	gross β	2.3E-02 ± 2.5E-03
	02/23/09	03/09/09	gross α	6.5E-04 ± 5.2E-04
	02/23/09	03/09/09	gross β	1.3E-02 ± 1.8E-03
	03/09/09	03/23/09	gross α	1.6E-03 ± 6.0E-04
	03/09/09	03/23/09	gross β	1.6E-02 ± 2.0E-03
	03/23/09	04/06/09	gross α	1.1E-03 ± 5.0E-04
	03/23/09	04/06/09	gross β	1.2E-02 ± 1.6E-03
	04/06/09	04/20/09	gross α	7.8E-04 ± 5.3E-04
	04/06/09	04/20/09	gross β	1.4E-02 ± 1.8E-03
	04/20/09	05/04/09	gross α	5.9E-04 ± 4.9E-04
	04/20/09	05/04/09	gross β	1.6E-02 ± 2.0E-03
	05/04/09	05/18/09	gross α	1.2E-03 ± 5.3E-04
	05/04/09	05/18/09	gross β	8.5E-03 ± 1.3E-03
	05/18/09	06/01/09	gross α	1.8E-03 ± 6.6E-04
	05/18/09	06/01/09	gross β	1.9E-02 ± 2.3E-03
	06/01/09	06/15/09	gross α	1.2E-03 ± 5.5E-04
	06/01/09	06/15/09	gross β	1.6E-02 ± 2.0E-03
	06/15/09	06/30/09	gross α	4.9E-04 ± 4.5E-04
	06/15/09	06/30/09	gross β	1.1E-02 ± 1.5E-03
	06/30/09	07/13/09	gross α	4.3E-04 ± 4.7E-04
	06/30/09	07/13/09	gross β	1.5E-02 ± 2.0E-03
	07/13/09	07/27/09	gross α	1.8E-03 ± 6.6E-04
	07/13/09	07/27/09	gross β	1.3E-02 ± 1.8E-03
	07/27/09	08/10/09	gross α	1.1E-03 ± 5.1E-04
	07/27/09	08/10/09	gross β	2.0E-02 ± 2.3E-03
	08/10/09	08/24/09	gross α	1.6E-03 ± 6.0E-04
	08/10/09	08/24/09	gross β	1.5E-02 ± 2.0E-03
	08/24/09	09/08/09	gross α	8.0E-04 ± 5.2E-04
	08/24/09	09/08/09	gross β	1.8E-02 ± 2.1E-03
	09/08/09	09/22/09	gross α	1.3E-03 ± 5.7E-04
	09/08/09	09/22/09	gross β	1.3E-02 ± 1.7E-03
	09/22/09	10/05/09	gross α	6.0E-04 ± 5.6E-04
	09/22/09	10/05/09	gross β	1.5E-02 ± 2.0E-03
	10/05/09	10/19/09	gross α	1.0E-03 ± 6.2E-04
	10/05/09	10/19/09	gross β	2.1E-02 ± 2.4E-03
	10/19/09	11/02/09	gross α	3.9E-04 ± 4.2E-04
	10/19/09	11/02/09	gross β	1.7E-02 ± 2.0E-03
	11/02/09	11/16/09	gross α	1.2E-03 ± 5.4E-04
	11/02/09	11/16/09	gross β	1.9E-02 ± 2.3E-03
	11/16/09	11/30/09	gross α	1.3E-03 ± 5.5E-04
	11/16/09	11/30/09	gross β	1.8E-02 ± 1.8E-03
	11/30/09	12/14/09	gross α	2.2E-03 ± 7.7E-04
	11/30/09	12/14/09	gross β	4.6E-02 ± 4.5E-03
	12/14/09	12/29/09	gross α	1.9E-03 ± 6.5E-04
	12/14/09	12/29/09	gross β	2.9E-02 ± 2.9E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N978	12/30/08 to 06/30/09	^{60}Co	3.9E-05 ± 7.9E-05	U
		^{134}Cs	1.0E-04 ± 8.2E-05	U
		^{137}Cs	2.0E-04 ± 1.0E-04	
		^{152}Eu	4.1E-06 ± 4.1E-05	U
		^{154}Eu	3.8E-05 ± 2.1E-04	U
		^{155}Eu	2.0E-05 ± 1.3E-04	U
		^{238}Pu	7.0E-06 ± 1.1E-05	U
		$^{239/240}$Pu	-2.8E-06 ± 3.6E-06	U
		^{106}Ru	-8.2E-05 ± 5.9E-04	U
		^{125}Sb	-2.6E-06 ± 2.6E-05	U
		^{90}Sr	-3.1E-04 ± 3.2E-04	U
		^{234}U	9.6E-06 ± 6.8E-06	
		^{235}U	2.4E-06 ± 2.9E-06	
		^{238}U	4.4E-06 ± 5.0E-06	U
N978	06/30/09 to 12/29/09	^{60}Co	1.5E-05 ± 8.0E-05	U
		^{134}Cs	4.5E-05 ± 7.6E-05	U
		^{137}Cs	5.3E-05 ± 6.8E-05	U
		^{152}Eu	-1.0E-04 ± 1.9E-04	U
		^{154}Eu	-8.1E-05 ± 2.2E-04	U
		^{155}Eu	2.6E-05 ± 1.3E-04	U
		^{238}Pu	-5.3E-07 ± 1.1E-06	U
		$^{239/240}$Pu	5.3E-07 ± 5.5E-07	U
		^{106}Ru	6.6E-04 ± 6.3E-04	U
		^{125}Sb	3.2E-05 ± 1.7E-04	U
		^{90}Sr	-2.3E-04 ± 2.4E-04	U
		^{234}U	1.0E-05 ± 7.1E-06	
		^{235}U	3.0E-06 ± 3.2E-06	
		^{238}U	8.8E-06 ± 5.9E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 39 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N984	12/30/08	01/12/09	gross α	8.6E-04 ± 5.9E-04
(200-E)	12/30/08	01/12/09	gross β	1.4E-02 ± 1.9E-03
	01/12/09	01/26/09	gross α	2.4E-03 ± 7.3E-04
	01/12/09	01/26/09	gross β	4.2E-02 ± 4.0E-03
	01/26/09	02/09/09	gross α	2.1E-03 ± 6.7E-04
	01/26/09	02/09/09	gross β	3.2E-02 ± 3.3E-03
	02/09/09	02/23/09	gross α	1.3E-03 ± 5.4E-04
	02/09/09	02/23/09	gross β	2.8E-02 ± 2.9E-03
	02/23/09	03/09/09	gross α	7.4E-04 ± 5.3E-04
	02/23/09	03/09/09	gross β	1.4E-02 ± 1.8E-03
	03/09/09	03/23/09	gross α	9.1E-04 ± 5.8E-04
	03/09/09	03/23/09	gross β	1.4E-02 ± 1.8E-03
	03/23/09	04/06/09	gross α	1.6E-03 ± 6.0E-04
	03/23/09	04/06/09	gross β	8.1E-03 ± 1.3E-03
	04/06/09	04/20/09	gross α	9.4E-04 ± 5.9E-04
	04/06/09	04/20/09	gross β	1.3E-02 ± 1.8E-03
	04/20/09	05/04/09	gross α	1.5E-03 ± 5.9E-04
	04/20/09	05/04/09	gross β	3.3E-02 ± 3.4E-03
	05/04/09	05/18/09	gross α	9.4E-04 ± 6.3E-04
	05/04/09	05/18/09	gross β	1.0E-02 ± 1.6E-03
	05/18/09	06/01/09	gross α	1.3E-03 ± 5.5E-04
	05/18/09	06/01/09	gross β	1.8E-02 ± 2.2E-03
	06/01/09	06/15/09	gross α	5.5E-04 ± 5.1E-04
	06/01/09	06/15/09	gross β	1.9E-02 ± 2.2E-03
	06/15/09	06/30/09	gross α	1.2E-03 ± 5.1E-04
	06/15/09	06/30/09	gross β	1.2E-02 ± 1.6E-03
	06/30/09	07/13/09	gross α	1.3E-03 ± 5.7E-04
	06/30/09	07/13/09	gross β	1.6E-02 ± 2.0E-03
	07/13/09	07/27/09	gross α	9.1E-04 ± 6.1E-04
	07/13/09	07/27/09	gross β	1.5E-02 ± 2.0E-03
	07/27/09	08/10/09	gross α	1.2E-03 ± 5.4E-04
	07/27/09	08/10/09	gross β	1.7E-02 ± 2.1E-03
	08/10/09	08/24/09	gross α	1.3E-03 ± 5.5E-04
	08/10/09	08/24/09	gross β	1.4E-02 ± 1.8E-03
	08/24/09	09/08/09	gross α	9.0E-04 ± 5.5E-04
	08/24/09	09/08/09	gross β	1.8E-02 ± 2.1E-03
	09/08/09	09/22/09	gross α	1.1E-03 ± 5.1E-04
	09/08/09	09/22/09	gross β	1.5E-02 ± 1.9E-03
	09/22/09	10/05/09	gross α	3.0E-04 ± 4.3E-04
	09/22/09	10/05/09	gross β	9.7E-03 ± 1.5E-03
	10/05/09	10/19/09	gross α	3.0E-03 ± 1.2E-03
	10/05/09	10/19/09	gross β	2.9E-02 ± 3.7E-03
	10/19/09	11/02/09	gross α	1.3E-03 ± 5.5E-04
	10/19/09	11/02/09	gross β	1.2E-02 ± 1.6E-03
	11/02/09	11/16/09	gross α	1.7E-03 ± 6.4E-04
	11/02/09	11/16/09	gross β	2.0E-02 ± 2.4E-03
	11/16/09	11/30/09	gross α	1.0E-03 ± 6.6E-04
	11/16/09	11/30/09	gross β	1.9E-02 ± 2.4E-03
	11/30/09	12/14/09	gross α	2.0E-03 ± 6.9E-04
	11/30/09	12/14/09	gross β	4.2E-02 ± 4.1E-03
	12/14/09	12/29/09	gross α	1.4E-03 ± 5.6E-04
	12/14/09	12/29/09	gross β	2.9E-02 ± 3.0E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N984	12/30/08 to 06/30/09	^{60}Co	7.5E-05 ± 1.1E-04	U
		^{134}Cs	-1.5E-05 ± 7.7E-05	U
		^{137}Cs	4.2E-04 ± 2.1E-04	
		^{152}Eu	-3.4E-05 ± 2.1E-04	U
		^{154}Eu	-1.7E-04 ± 2.4E-04	U
		^{155}Eu	9.0E-07 ± 9.0E-06	U
		^{238}Pu	6.7E-07 ± 7.0E-07	U
		$^{239/240}$Pu	5.4E-06 ± 5.4E-06	U
		^{106}Ru	1.0E-04 ± 6.8E-04	U
		^{125}Sb	-8.4E-05 ± 1.6E-04	U
		^{90}Sr	7.9E-05 ± 1.6E-04	U
		^{234}U	9.9E-06 ± 8.5E-06	U
		^{235}U	4.2E-06 ± 5.7E-06	U
		^{238}U	1.1E-05 ± 7.6E-06	
N984	06/30/09 to 12/29/09	^{60}Co	-5.4E-05 ± 9.0E-05	U
		^{134}Cs	-7.3E-05 ± 1.0E-04	U
		^{137}Cs	2.2E-04 ± 1.2E-04	
		^{152}Eu	-8.5E-05 ± 2.0E-04	U
		^{154}Eu	-1.1E-04 ± 2.7E-04	U
		^{155}Eu	6.7E-05 ± 1.9E-04	U
		^{238}Pu	5.7E-07 ± 1.2E-06	U
		$^{239/240}$Pu	1.1E-06 ± 2.8E-06	U
		^{103}Ru	-7.6E-05 ± 1.4E-04	U
		^{106}Ru	-2.3E-05 ± 2.3E-04	U
		^{125}Sb	-3.0E-05 ± 1.9E-04	U
		^{113}Sn	8.9E-06 ± 8.9E-05	U
		^{90}Sr	-2.1E-04 ± 2.2E-04	U
		^{234}U	8.0E-06 ± 6.4E-06	
		^{235}U	2.2E-06 ± 2.7E-06	
		^{238}U	1.0E-05 ± 6.7E-06	
		^{65}Zn	6.0E-05 ± 2.6E-04	U

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 40 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N985	12/30/08	01/12/09	gross α	1.4E-03 ± 5.7E-04
(200-E)	12/30/08	01/12/09	gross β	1.4E-02 ± 1.8E-03
	01/12/09	01/26/09	gross α	1.6E-03 ± 6.0E-04
	01/12/09	01/26/09	gross β	4.3E-02 ± 4.1E-03
	01/26/09	02/09/09	gross α	2.7E-03 ± 7.7E-04
	01/26/09	02/09/09	gross β	2.7E-02 ± 2.8E-03
	02/09/09	02/23/09	gross α	1.4E-03 ± 5.4E-04
	02/09/09	02/23/09	gross β	2.4E-02 ± 2.6E-03
	02/23/09	03/09/09	gross α	7.2E-04 ± 5.2E-04
	02/23/09	03/09/09	gross β	1.1E-02 ± 1.5E-03
	03/09/09	03/23/09	gross α	8.0E-04 ± 5.5E-04
	03/09/09	03/23/09	gross β	1.6E-02 ± 2.0E-03
	03/23/09	04/06/09	gross α	1.1E-03 ± 5.2E-04
	03/23/09	04/06/09	gross β	9.0E-03 ± 1.4E-03
	04/06/09	04/20/09	gross α	1.1E-03 ± 5.1E-04
	04/06/09	04/20/09	gross β	1.3E-02 ± 1.8E-03
	04/20/09	05/04/09	gross α	1.0E-03 ± 4.9E-04
	04/20/09	05/04/09	gross β	1.6E-02 ± 2.1E-03
	05/04/09	05/18/09	gross α	9.1E-04 ± 6.1E-04
	05/04/09	05/18/09	gross β	1.1E-02 ± 1.6E-03
	05/18/09	06/01/09	gross α	1.7E-03 ± 6.4E-04
	05/18/09	06/01/09	gross β	1.6E-02 ± 2.1E-03
	06/01/09	06/15/09	gross α	1.5E-03 ± 6.0E-04
	06/01/09	06/15/09	gross β	1.6E-02 ± 2.0E-03
	06/15/09	06/30/09	gross α	9.2E-04 ± 5.6E-04
	06/15/09	06/30/09	gross β	9.5E-03 ± 1.4E-03
	06/30/09	07/13/09	gross α	9.2E-04 ± 6.1E-04
	06/30/09	07/13/09	gross β	1.3E-02 ± 1.7E-03
	07/13/09	07/27/09	gross α	4.2E-04 ± 4.7E-04
	07/13/09	07/27/09	gross β	1.3E-02 ± 1.7E-03
	07/27/09	08/10/09	gross α	7.6E-04 ± 5.5E-04
	07/27/09	08/10/09	gross β	2.0E-02 ± 2.3E-03
	08/10/09	08/24/09	gross α	8.0E-04 ± 5.5E-04
	08/10/09	08/24/09	gross β	1.5E-02 ± 1.9E-03
	08/24/09	09/08/09	gross α	1.1E-03 ± 4.9E-04
	08/24/09	09/08/09	gross β	1.7E-02 ± 2.0E-03
	09/08/09	09/22/09	gross α	1.7E-03 ± 6.4E-04
	09/08/09	09/22/09	gross β	1.5E-02 ± 1.9E-03
	09/22/09	10/05/09	gross α	8.8E-04 ± 6.5E-04
	09/22/09	10/05/09	gross β	1.4E-02 ± 1.9E-03
	10/05/09	10/19/09	gross α	1.4E-03 ± 5.8E-04
	10/05/09	10/19/09	gross β	2.6E-02 ± 2.8E-03
	10/19/09	11/02/09	gross α	9.6E-04 ± 5.9E-04
	10/19/09	11/02/09	gross β	1.1E-02 ± 1.5E-03
	11/02/09	11/16/09	gross α	1.1E-03 ± 5.1E-04
	11/02/09	11/16/09	gross β	1.6E-02 ± 2.0E-03
	11/16/09	11/30/09	gross α	1.1E-03 ± 5.4E-04
	11/16/09	11/30/09	gross β	1.8E-02 ± 2.2E-03
	11/30/09	12/14/09	gross α	2.7E-03 ± 8.0E-04
	11/30/09	12/14/09	gross β	4.1E-02 ± 4.0E-03
	12/14/09	12/29/09	gross α	1.4E-03 ± 5.7E-04
	12/14/09	12/29/09	gross β	3.2E-02 ± 3.2E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N985	12/30/08 to 06/30/09	^{60}Co	-2.0E-05 ± 9.0E-05	U
		^{134}Cs	-7.2E-05 ± 9.4E-05	U
		^{137}Cs	3.2E-05 ± 7.4E-05	U
		^{152}Eu	-3.8E-06 ± 3.8E-05	U
		^{154}Eu	4.5E-05 ± 2.5E-04	U
		^{155}Eu	2.6E-05 ± 1.7E-04	U
		^{238}Pu	6.9E-07 ± 6.9E-06	U
		$^{239/240}$Pu	6.9E-07 ± 7.1E-07	U
		^{106}Ru	1.9E-04 ± 7.4E-04	U
		^{125}Sb	-1.4E-05 ± 1.4E-04	U
		^{90}Sr	-3.7E-04 ± 3.8E-04	U
		^{234}U	1.1E-05 ± 6.8E-06	
		^{235}U	3.7E-06 ± 3.6E-06	
		^{238}U	9.5E-06 ± 6.8E-06	
N985	06/30/09 to 12/29/09	^{60}Co	-1.7E-05 ± 7.9E-05	U
		^{134}Cs	1.4E-05 ± 8.3E-05	U
		^{137}Cs	1.0E-04 ± 8.4E-05	U
		^{152}Eu	3.9E-05 ± 1.6E-04	U
		^{154}Eu	-2.5E-04 ± 2.5E-04	U
		^{155}Eu	3.5E-05 ± 1.4E-04	U
		^{238}Pu	-5.4E-07 ± 1.1E-06	U
		$^{239/240}$Pu	1.1E-06 ± 2.7E-06	U
		^{106}Ru	-3.8E-04 ± 6.1E-04	U
		^{125}Sb	-3.2E-08 ± 3.2E-07	U
		^{90}Sr	4.3E-05 ± 3.4E-04	U
		^{234}U	8.4E-06 ± 6.7E-06	
		^{235}U	7.6E-07 ± 1.6E-06	U
		^{238}U	7.7E-06 ± 5.5E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 41 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N999	12/30/08	01/12/09	gross α	8.6E-04 ± 5.8E-04
(200-E)	12/30/08	01/12/09	gross β	1.5E-02 ± 2.0E-03
	01/12/09	01/26/09	gross α	1.8E-03 ± 6.2E-04
	01/12/09	01/26/09	gross β	5.0E-02 ± 4.6E-03
	01/26/09	02/09/09	gross α	1.9E-03 ± 6.5E-04
	01/26/09	02/09/09	gross β	3.7E-02 ± 3.6E-03
	02/09/09	02/23/09	gross α	1.2E-03 ± 5.1E-04
	02/09/09	02/23/09	gross β	2.6E-02 ± 2.7E-03
	02/23/09	03/09/09	gross α	1.2E-03 ± 5.2E-04
	02/23/09	03/09/09	gross β	1.1E-02 ± 1.6E-03
	03/09/09	03/23/09	gross α	2.6E-04 ± 4.0E-04
	03/09/09	03/23/09	gross β	1.7E-02 ± 2.1E-03
	03/23/09	04/06/09	gross α	1.6E-03 ± 6.1E-04
	03/23/09	04/06/09	gross β	8.6E-03 ± 1.3E-03
	04/06/09	04/20/09	gross α	1.2E-03 ± 5.3E-04
	04/06/09	04/20/09	gross β	1.5E-02 ± 2.0E-03
	04/20/09	05/04/09	gross α	1.8E-03 ± 6.4E-04
	04/20/09	05/04/09	gross β	1.9E-02 ± 2.3E-03
	05/04/09	05/18/09	gross α	1.7E-03 ± 6.5E-04
	05/04/09	05/18/09	gross β	9.4E-03 ± 1.4E-03
	05/18/09	06/01/09	gross α	1.3E-03 ± 5.4E-04
	05/18/09	06/01/09	gross β	1.8E-02 ± 2.2E-03
	06/01/09	06/15/09	gross α	5.2E-04 ± 4.8E-04
	06/01/09	06/15/09	gross β	1.7E-02 ± 2.0E-03
	06/15/09	06/30/09	gross α	1.1E-03 ± 4.9E-04
	06/15/09	06/30/09	gross β	1.1E-02 ± 1.5E-03
	06/30/09	07/13/09	gross α	1.4E-03 ± 5.7E-04
	06/30/09	07/13/09	gross β	1.3E-02 ± 1.7E-03
	07/13/09	07/27/09	gross α	9.8E-04 ± 6.1E-04
	07/13/09	07/27/09	gross β	1.3E-02 ± 1.8E-03
	07/27/09	08/10/09	gross α	1.3E-03 ± 5.5E-04
	07/27/09	08/10/09	gross β	2.1E-02 ± 2.3E-03
	08/10/09	08/24/09	gross α	5.7E-04 ± 4.8E-04
	08/10/09	08/24/09	gross β	1.4E-02 ± 1.8E-03
	08/24/09	09/08/09	gross α	5.7E-04 ± 4.6E-04
	08/24/09	09/08/09	gross β	1.6E-02 ± 1.9E-03
	09/08/09	09/21/09	gross α	2.0E-03 ± 7.1E-04
	09/08/09	09/21/09	gross β	1.8E-02 ± 2.2E-03
	09/21/09	10/05/09	gross α	6.7E-04 ± 5.5E-04
	09/21/09	10/05/09	gross β	1.1E-02 ± 1.6E-03
	10/05/09	10/19/09	gross α	1.4E-03 ± 5.5E-04
	10/05/09	10/19/09	gross β	2.3E-02 ± 2.5E-03
	10/19/09	11/02/09	gross α	3.9E-04 ± 4.2E-04
	10/19/09	11/02/09	gross β	1.3E-02 ± 1.7E-03
	11/02/09	11/16/09	gross α	5.7E-04 ± 4.8E-04
	11/02/09	11/16/09	gross β	1.3E-02 ± 1.8E-03
	11/16/09	11/30/09	gross α	1.4E-03 ± 5.5E-04
	11/16/09	11/30/09	gross β	1.7E-02 ± 2.1E-03
	11/30/09	12/14/09	gross α	3.3E-03 ± 8.8E-04
	11/30/09	12/14/09	gross β	4.6E-02 ± 4.3E-03
	12/14/09	12/29/09	gross α	1.7E-03 ± 6.1E-04
	12/14/09	12/29/09	gross β	3.3E-02 ± 3.2E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N999	12/30/08 to 06/30/09	^{60}Co	4.1E-05 ± 8.1E-05	U
		^{134}Cs	7.9E-06 ± 7.9E-05	U
		^{137}Cs	9.2E-05 ± 8.0E-05	U
		^{152}Eu	8.8E-05 ± 1.9E-04	U
		^{154}Eu	-5.4E-05 ± 2.4E-04	U
		^{155}Eu	9.7E-05 ± 1.4E-04	U
		^{238}Pu	1.2E-06 ± 3.3E-06	U
		$^{239/240}$Pu	5.7E-07 ± 6.0E-07	U
		^{106}Ru	-2.5E-04 ± 6.9E-04	U
		^{125}Sb	-8.9E-06 ± 9.0E-05	U
		^{90}Sr	-2.7E-04 ± 2.8E-04	U
		^{234}U	1.1E-05 ± 7.7E-06	
		^{235}U	4.8E-06 ± 4.4E-06	
		^{238}U	1.5E-05 ± 9.3E-06	
N999	06/30/09 to 12/29/09	^{60}Co	-3.1E-05 ± 8.1E-05	U
		^{134}Cs	-4.3E-05 ± 7.5E-05	U
		^{137}Cs	5.5E-05 ± 7.6E-05	U
		^{152}Eu	-1.6E-05 ± 1.6E-04	U
		^{154}Eu	-2.6E-05 ± 2.3E-04	U
		^{155}Eu	-2.4E-05 ± 1.5E-04	U
		^{238}Pu	1.6E-06 ± 1.9E-06	
		$^{239/240}$Pu	3.2E-06 ± 3.3E-06	U
		^{106}Ru	3.6E-07 ± 3.6E-06	U
		^{125}Sb	9.2E-05 ± 1.7E-04	U
		^{90}Sr	-2.6E-04 ± 2.7E-04	U
		^{234}U	1.4E-05 ± 8.1E-06	
		^{235}U	6.1E-07 ± 1.8E-07	U
		^{238}U	7.3E-06 ± 5.4E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 42 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N572	07/15/09	07/15/09	gross α	2.8E-03 ± 1.5E-02
(BC CA)	07/15/09	07/15/09	gross β	1.5E-02 ± 1.9E-02
	07/27/09	07/27/09	gross α	-3.4E-03 ± 9.6E-03
	07/27/09	07/27/09	gross β	4.4E-02 ± 2.2E-02
	09/23/09	10/06/09	gross α	1.2E-03 ± 7.5E-04
	09/23/09	10/06/09	gross β	1.5E-02 ± 2.2E-03
	10/06/09	10/20/09	gross α	1.2E-03 ± 5.6E-04
	10/06/09	10/20/09	gross β	2.1E-02 ± 2.6E-03
	10/20/09	11/03/09	gross α	7.6E-04 ± 5.6E-04
	10/20/09	11/03/09	gross β	1.3E-02 ± 1.8E-03
	11/03/09	11/17/09	gross α	5.5E-04 ± 5.0E-04
	11/03/09	11/17/09	gross β	1.6E-02 ± 2.2E-03
	11/17/09	12/01/09	gross α	1.1E-03 ± 5.3E-04
	11/17/09	12/01/09	gross β	9.4E-03 ± 1.5E-03
	12/01/09	12/16/09	gross α	1.9E-03 ± 6.6E-04
	12/01/09	12/16/09	gross β	4.1E-02 ± 4.4E-03
	12/16/09	12/31/09	gross α	2.6E-03 ± 7.7E-04
	12/16/09	12/31/09	gross β	5.0E-02 ± 5.2E-03
N573	07/15/09	07/28/09	gross α	1.7E-03 ± 6.5E-04
(BC CA)	07/15/09	07/28/09	gross β	1.4E-02 ± 1.6E-03
	07/28/09	08/11/09	gross α	2.2E-03 ± 7.3E-04
	07/28/09	08/11/09	gross β	1.6E-02 ± 2.2E-03
	08/11/09	08/25/09	gross α	6.6E-04 ± 5.3E-04
	08/11/09	08/25/09	gross β	1.3E-02 ± 1.9E-03
	08/25/09	09/09/09	gross α	8.3E-04 ± 5.5E-04
	08/25/09	09/09/09	gross β	1.7E-02 ± 2.2E-03
	09/09/09	09/23/09	gross α	1.2E-03 ± 5.2E-04
	09/09/09	09/23/09	gross β	1.4E-02 ± 2.0E-03
	09/23/09	10/06/09	gross α	1.2E-03 ± 5.9E-04
	09/23/09	10/06/09	gross β	1.4E-02 ± 2.1E-03
	10/06/09	10/20/09	gross α	4.0E-04 ± 4.5E-04
	10/06/09	10/20/09	gross β	1.9E-02 ± 2.4E-03
	10/20/09	11/03/09	gross α	1.0E-03 ± 6.2E-04
	10/20/09	11/03/09	gross β	1.3E-02 ± 1.8E-03
	11/03/09	11/17/09	gross α	6.3E-04 ± 5.1E-04
	11/03/09	11/17/09	gross β	1.4E-02 ± 2.0E-03
	11/17/09	12/01/09	gross α	9.0E-04 ± 5.9E-04
	11/17/09	12/01/09	gross β	1.5E-02 ± 2.0E-03
	12/01/09	12/16/09	gross α	1.4E-03 ± 5.7E-04
	12/01/09	12/16/09	gross β	4.2E-02 ± 4.5E-03
	12/16/09	12/31/09	gross α	1.7E-03 ± 6.2E-04
	12/16/09	12/31/09	gross β	4.3E-02 ± 4.6E-03

BC CA = BC Controlled Area

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N572	07/15/09 to 12/31/09	^{60}Co	5.8E-06 ± 5.8E-05	U
		^{134}Cs	9.4E-05 ± 1.4E-04	U
		^{137}Cs	-1.2E-05 ± 1.2E-04	U
		^{152}Eu	-5.8E-05 ± 3.1E-04	U
		^{154}Eu	3.8E-04 ± 4.4E-04	U
		^{155}Eu	1.9E-04 ± 2.7E-04	U
		^{238}Pu	1.1E-06 ± 4.9E-06	U
		$^{239/240}$Pu	3.3E-06 ± 3.9E-06	
		^{106}Ru	-1.7E-07 ± 1.7E-06	U
		^{125}Sb	1.1E-04 ± 3.0E-04	U
		^{90}Sr	-3.6E-04 ± 3.7E-04	U
		^{234}U	1.4E-05 ± 1.1E-05	
		^{235}U	4.1E-06 ± 4.9E-06	
		^{238}U	1.2E-05 ± 9.0E-06	
N573	07/15/09 to 12/31/09	^{60}Co	1.5E-05 ± 7.1E-05	U
		^{134}Cs	-1.3E-06 ± 1.3E-05	U
		^{137}Cs	-4.7E-06 ± 4.7E-05	U
		^{152}Eu	-8.8E-05 ± 1.8E-04	U
		^{154}Eu	3.6E-05 ± 2.0E-04	U
		^{155}Eu	-1.0E-05 ± 1.0E-04	U
		^{238}Pu	-2.4E-06 ± 3.1E-06	U
		$^{239/240}$Pu	4.3E-06 ± 3.6E-06	
		^{106}Ru	-1.2E-04 ± 6.6E-04	U
		^{125}Sb	-1.7E-04 ± 1.7E-04	U
		^{90}Sr	-5.5E-06 ± 5.7E-06	U
		^{234}U	5.0E-06 ± 6.1E-06	U
		^{235}U	1.5E-06 ± 2.3E-06	U
		^{238}U	9.9E-06 ± 6.8E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 43 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N155	12/29/08	01/12/09	gross α	3.3E-04 ± 6.9E-04
(200-W)	12/29/08	01/12/09	gross β	6.6E-03 ± 1.6E-03
	03/09/09	03/23/09	gross α	1.6E-04 ± 8.7E-04
	03/09/09	03/23/09	gross β	9.6E-03 ± 2.3E-03
	03/23/09	04/06/09	gross α	1.1E-03 ± 5.1E-04
	03/23/09	04/06/09	gross β	9.0E-03 ± 1.4E-03
	04/06/09	04/20/09	gross α	9.6E-04 ± 5.9E-04
	04/06/09	04/20/09	gross β	1.5E-02 ± 1.9E-03
	04/20/09	05/04/09	gross α	1.0E-03 ± 4.8E-04
	04/20/09	05/04/09	gross β	1.9E-02 ± 2.3E-03
	05/04/09	05/18/09	gross α	1.2E-03 ± 5.3E-04
	05/04/09	05/18/09	gross β	9.2E-03 ± 1.5E-03
	05/18/09	06/01/09	gross α	1.4E-03 ± 5.9E-04
	05/18/09	06/01/09	gross β	1.5E-02 ± 2.0E-03
	06/01/09	06/15/09	gross α	1.1E-03 ± 5.1E-04
	06/01/09	06/15/09	gross β	1.6E-02 ± 2.0E-03
	06/15/09	06/29/09	gross α	8.5E-04 ± 5.7E-04
	06/15/09	06/29/09	gross β	1.2E-02 ± 1.6E-03
	06/29/09	07/13/09	gross α	1.1E-03 ± 5.2E-04
	06/29/09	07/13/09	gross β	1.4E-02 ± 1.8E-03
	07/13/09	07/27/09	gross α	9.6E-04 ± 6.1E-04
	07/13/09	07/27/09	gross β	1.9E-02 ± 2.3E-03
	07/27/09	08/10/09	gross α	1.2E-03 ± 5.5E-04
	07/27/09	08/10/09	gross β	1.8E-02 ± 2.2E-03
	08/10/09	08/24/09	gross α	9.9E-04 ± 6.1E-04
	08/10/09	08/24/09	gross β	1.3E-02 ± 1.7E-03
	08/24/09	09/08/09	gross α	8.1E-04 ± 5.4E-04
	08/24/09	09/08/09	gross β	1.4E-02 ± 1.8E-03
	09/08/09	09/21/09	gross α	1.0E-03 ± 6.4E-04
	09/08/09	09/21/09	gross β	1.5E-02 ± 1.9E-03
	09/21/09	10/05/09	gross α	6.5E-04 ± 5.5E-04
	09/21/09	10/05/09	gross β	1.7E-02 ± 2.2E-03
	10/05/09	10/19/09	gross α	1.7E-03 ± 6.3E-04
	10/05/09	10/19/09	gross β	1.8E-02 ± 2.1E-03
	10/19/09	11/02/09	gross α	3.9E-04 ± 4.4E-04
	10/19/09	11/02/09	gross β	1.0E-02 ± 1.5E-03
	11/02/09	11/16/09	gross α	1.8E-03 ± 6.4E-04
	11/02/09	11/16/09	gross β	1.3E-02 ± 1.7E-03
	11/16/09	11/30/09	gross α	1.5E-03 ± 6.0E-04
	11/16/09	11/30/09	gross β	1.5E-02 ± 1.9E-03
	11/30/09	12/14/09	gross α	2.3E-03 ± 7.3E-04
	11/30/09	12/14/09	gross β	4.0E-02 ± 3.9E-03
	12/14/09	12/28/09	gross α	2.5E-03 ± 7.6E-04
	12/14/09	12/28/09	gross β	3.2E-02 ± 3.3E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N155	12/29/08 to 06/29/09	^{60}Co	4.6E-05 ± 1.3E-04	U
		^{134}Cs	1.3E-04 ± 1.3E-04	U
		^{137}Cs	3.3E-05 ± 1.0E-04	U
		^{152}Eu	2.1E-04 ± 2.6E-04	U
		^{154}Eu	-6.8E-05 ± 3.4E-04	U
		^{155}Eu	9.7E-05 ± 2.3E-04	U
		^{238}Pu	6.3E-06 ± 2.0E-05	U
		$^{239/240}$Pu	5.3E-06 ± 8.4E-06	U
		^{106}Ru	-1.2E-04 ± 8.7E-04	U
		^{125}Sb	-8.5E-05 ± 2.4E-04	U
		^{90}Sr	-3.0E-04 ± 3.1E-04	U
		^{234}U	2.6E-05 ± 1.6E-05	
		^{235}U	-1.8E-06 ± 8.1E-06	U
		^{238}U	8.3E-06 ± 8.0E-06	
N155	06/29/09 to 12/28/09	^{60}Co	-5.1E-05 ± 8.4E-05	U
		^{134}Cs	6.7E-05 ± 7.5E-05	U
		^{137}Cs	1.3E-04 ± 8.6E-05	U
		^{152}Eu	2.3E-05 ± 1.9E-04	U
		^{154}Eu	6.8E-05 ± 2.2E-04	U
		^{155}Eu	-1.2E-04 ± 1.8E-04	U
		^{238}Pu	6.2E-07 ± 2.2E-06	U
		$^{239/240}$Pu	6.8E-06 ± 4.8E-06	
		^{106}Ru	-4.1E-04 ± 6.6E-04	U
		^{125}Sb	-4.3E-05 ± 1.5E-04	U
		^{90}Sr	2.6E-06 ± 2.6E-05	U
		^{234}U	8.1E-06 ± 7.6E-06	U
		^{235}U	5.0E-06 ± 5.4E-06	
		^{238}U	8.1E-06 ± 6.8E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 44 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N161	12/29/08	01/12/09	gross α	1.3E-03 ± 5.6E-04
(200-W)	12/29/08	01/12/09	gross β	1.1E-02 ± 1.6E-03
	01/12/09	01/26/09	gross α	2.1E-03 ± 7.0E-04
	01/12/09	01/26/09	gross β	3.4E-02 ± 3.4E-03
	01/26/09	02/09/09	gross α	1.9E-03 ± 6.7E-04
	01/26/09	02/09/09	gross β	3.1E-02 ± 3.1E-03
	02/09/09	02/23/09	gross α	1.4E-03 ± 5.8E-04
	02/09/09	02/23/09	gross β	2.4E-02 ± 2.6E-03
	02/23/09	03/09/09	gross α	7.5E-04 ± 5.5E-04
	02/23/09	03/09/09	gross β	1.4E-02 ± 1.8E-03
	03/09/09	03/23/09	gross α	1.2E-03 ± 5.4E-04
	03/09/09	03/23/09	gross β	1.5E-02 ± 1.9E-03
	03/23/09	04/06/09	gross α	4.1E-04 ± 4.6E-04
	03/23/09	04/06/09	gross β	7.7E-03 ± 1.3E-03
	04/06/09	04/20/09	gross α	7.4E-04 ± 5.3E-04
	04/06/09	04/20/09	gross β	1.2E-02 ± 1.6E-03
	04/20/09	05/04/09	gross α	1.5E-03 ± 5.8E-04
	04/20/09	05/04/09	gross β	1.9E-02 ± 2.3E-03
	05/04/09	05/18/09	gross α	5.0E-04 ± 4.9E-04
	05/04/09	05/18/09	gross β	1.1E-02 ± 1.6E-03
	05/18/09	06/01/09	gross α	5.3E-04 ± 5.0E-04
	05/18/09	06/01/09	gross β	1.7E-02 ± 2.1E-03
	06/01/09	06/15/09	gross α	1.4E-03 ± 5.8E-04
	06/01/09	06/15/09	gross β	1.7E-02 ± 2.1E-03
	06/15/09	06/29/09	gross α	1.0E-03 ± 6.2E-04
	06/15/09	06/29/09	gross β	1.0E-02 ± 1.5E-03
	06/29/09	07/13/09	gross α	4.1E-04 ± 4.6E-04
	06/29/09	07/13/09	gross β	1.3E-02 ± 1.7E-03
	07/13/09	07/27/09	gross α	1.1E-03 ± 5.1E-04
	07/13/09	07/27/09	gross β	1.8E-02 ± 2.2E-03
	07/27/09	08/10/09	gross α	2.3E-03 ± 7.5E-04
	07/27/09	08/10/09	gross β	1.7E-02 ± 2.1E-03
	08/10/09	08/24/09	gross α	8.8E-04 ± 5.8E-04
	08/10/09	08/24/09	gross β	1.1E-02 ± 1.5E-03
	08/24/09	09/08/09	gross α	7.2E-04 ± 5.3E-04
	08/24/09	09/08/09	gross β	1.5E-02 ± 1.9E-03
	09/08/09	09/21/09	gross α	1.8E-03 ± 6.9E-04
	09/08/09	09/21/09	gross β	1.6E-02 ± 2.1E-03
	09/21/09	10/05/09	gross α	7.3E-04 ± 5.5E-04
	09/21/09	10/05/09	gross β	1.3E-02 ± 1.8E-03
	10/05/09	10/19/09	gross α	1.4E-03 ± 5.9E-04
	10/05/09	10/19/09	gross β	1.9E-02 ± 2.2E-03
	10/19/09	11/02/09	gross α	8.6E-04 ± 5.8E-04
	10/19/09	11/02/09	gross β	1.1E-02 ± 1.5E-03
	11/02/09	11/16/09	gross α	1.8E-03 ± 6.5E-04
	11/02/09	11/16/09	gross β	1.5E-02 ± 1.9E-03
	11/16/09	11/30/09	gross α	1.6E-03 ± 6.6E-04
	11/16/09	11/30/09	gross β	1.7E-02 ± 2.2E-03
	11/30/09	12/14/09	gross α	2.5E-03 ± 7.7E-04
	11/30/09	12/14/09	gross β	4.3E-02 ± 4.1E-03
	12/14/09	12/28/09	gross α	1.2E-03 ± 5.3E-04
	12/14/09	12/28/09	gross β	3.2E-02 ± 3.3E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N161	12/29/08 to 06/29/09	^{60}Co	1.3E-05 ± 8.8E-05	U
		^{134}Cs	-5.9E-05 ± 9.2E-05	U
		^{137}Cs	-4.5E-05 ± 7.3E-05	U
		^{152}Eu	-5.2E-05 ± 1.9E-04	U
		^{154}Eu	1.7E-05 ± 1.7E-04	U
		^{155}Eu	2.4E-05 ± 1.8E-04	U
		^{238}Pu	6.7E-06 ± 1.0E-05	U
		$^{239/240}$Pu	5.3E-06 ± 4.7E-06	
		^{106}Ru	-3.5E-04 ± 7.0E-04	U
		^{125}Sb	3.5E-05 ± 1.8E-04	U
		^{90}Sr	-2.2E-04 ± 2.3E-04	U
		^{234}U	9.1E-06 ± 6.7E-06	
		^{235}U	-1.0E-06 ± 2.0E-06	U
		^{238}U	7.3E-06 ± 5.8E-06	
N161	06/29/09 to 12/28/09	^{60}Co	4.3E-06 ± 4.3E-05	U
		^{134}Cs	-3.2E-05 ± 6.6E-05	U
		^{137}Cs	3.4E-05 ± 7.2E-05	U
		^{152}Eu	2.4E-05 ± 1.5E-04	U
		^{154}Eu	1.3E-04 ± 1.9E-04	U
		^{155}Eu	-1.8E-05 ± 1.7E-04	U
		^{238}Pu	-7.4E-07 ± 3.9E-06	U
		$^{239/240}$Pu	5.2E-06 ± 4.3E-06	
		^{106}Ru	2.7E-04 ± 5.4E-04	U
		^{125}Sb	-1.7E-05 ± 1.4E-04	U
		^{90}Sr	-1.2E-04 ± 1.3E-04	U
		^{234}U	1.2E-05 ± 7.8E-06	
		^{235}U	8.0E-07 ± 8.0E-06	U
		^{238}U	9.2E-06 ± 7.1E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 45 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N165	12/29/08	01/12/09	gross α	8.7E-04 ± 5.8E-04
(200-W)	12/29/08	01/12/09	gross β	1.0E-02 ± 1.5E-03
	01/12/09	01/26/09	gross α	1.2E-03 ± 5.2E-04
	01/12/09	01/26/09	gross β	3.2E-02 ± 3.2E-03
	01/26/09	02/09/09	gross α	1.8E-03 ± 6.4E-04
	01/26/09	02/09/09	gross β	3.2E-02 ± 3.2E-03
	02/09/09	02/23/09	gross α	1.9E-03 ± 6.7E-04
	02/09/09	02/23/09	gross β	2.3E-02 ± 2.5E-03
	02/23/09	03/09/09	gross α	1.2E-03 ± 5.4E-04
	02/23/09	03/09/09	gross β	1.2E-02 ± 1.7E-03
	03/09/09	03/23/09	gross α	1.2E-03 ± 5.2E-04
	03/09/09	03/23/09	gross β	1.1E-02 ± 1.5E-03
	03/23/09	04/06/09	gross α	1.6E-03 ± 6.1E-04
	03/23/09	04/06/09	gross β	8.2E-03 ± 1.3E-03
	04/06/09	04/20/09	gross α	8.5E-04 ± 5.6E-04
	04/06/09	04/20/09	gross β	1.1E-02 ± 1.6E-03
	04/20/09	05/04/09	gross α	2.1E-03 ± 6.9E-04
	04/20/09	05/04/09	gross β	1.7E-02 ± 2.1E-03
	05/04/09	05/18/09	gross α	1.3E-03 ± 5.7E-04
	05/04/09	05/18/09	gross β	8.0E-03 ± 1.4E-03
	05/18/09	06/01/09	gross α	1.7E-03 ± 6.3E-04
	05/18/09	06/01/09	gross β	1.6E-02 ± 2.0E-03
	06/01/09	06/15/09	gross α	6.3E-04 ± 5.2E-04
	06/01/09	06/15/09	gross β	1.5E-02 ± 1.9E-03
	06/15/09	06/29/09	gross α	1.3E-03 ± 5.5E-04
	06/15/09	06/29/09	gross β	9.2E-03 ± 1.4E-03
	06/29/09	07/13/09	gross α	1.5E-03 ± 6.1E-04
	06/29/09	07/13/09	gross β	1.4E-02 ± 1.9E-03
	07/13/09	07/27/09	gross α	1.4E-03 ± 5.9E-04
	07/13/09	07/27/09	gross β	1.9E-02 ± 2.4E-03
	07/27/09	08/10/09	gross α	2.4E-03 ± 7.7E-04
	07/27/09	08/10/09	gross β	1.9E-02 ± 2.3E-03
	08/10/09	08/24/09	gross α	1.1E-03 ± 5.1E-04
	08/10/09	08/24/09	gross β	1.2E-02 ± 1.6E-03
	08/24/09	09/08/09	gross α	3.8E-04 ± 4.2E-04
	08/24/09	09/08/09	gross β	1.6E-02 ± 1.9E-03
	09/08/09	09/21/09	gross α	1.8E-03 ± 6.7E-04
	09/08/09	09/21/09	gross β	1.3E-02 ± 1.8E-03
	09/21/09	10/05/09	gross α	8.7E-04 ± 6.0E-04
	09/21/09	10/05/09	gross β	1.3E-02 ± 1.9E-03
	10/05/09	10/19/09	gross α	8.9E-04 ± 5.9E-04
	10/05/09	10/19/09	gross β	1.6E-02 ± 2.0E-03
	10/19/09	11/02/09	gross α	7.3E-04 ± 5.3E-04
	10/19/09	11/02/09	gross β	9.2E-03 ± 1.4E-03
	11/02/09	11/16/09	gross α	1.5E-03 ± 5.9E-04
	11/02/09	11/16/09	gross β	1.1E-02 ± 1.6E-03
	11/16/09	11/30/09	gross α	1.4E-03 ± 5.9E-04
	11/16/09	11/30/09	gross β	1.8E-02 ± 2.2E-03
	11/30/09	12/14/09	gross α	1.7E-03 ± 6.3E-04
	11/30/09	12/14/09	gross β	4.3E-02 ± 4.1E-03
	12/14/09	12/28/09	gross α	2.3E-03 ± 7.2E-04
	12/14/09	12/28/09	gross β	3.5E-02 ± 3.5E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N165	12/29/08 to 06/29/09	^{241}Am	4.3E-05 ± 1.9E-05	
		^{60}Co	-3.0E-05 ± 9.9E-05	U
		^{134}Cs	-1.7E-05 ± 9.0E-05	U
		^{137}Cs	4.0E-05 ± 6.6E-05	U
		^{152}Eu	-1.1E-04 ± 2.0E-04	U
		^{154}Eu	-1.1E-04 ± 2.3E-04	U
		^{155}Eu	1.2E-04 ± 1.9E-04	U
		^{238}Pu	2.6E-05 ± 3.3E-05	U
		$^{239/240}$Pu	2.4E-04 ± 1.0E-04	
		^{241}Pu	7.2E-04 ± 7.5E-04	U
		^{106}Ru	1.2E-04 ± 5.9E-04	U
		^{125}Sb	9.9E-05 ± 1.6E-04	U
		^{90}Sr	-3.4E-04 ± 3.5E-04	U
		^{234}U	6.0E-06 ± 5.6E-06	U
		^{235}U	5.6E-06 ± 5.1E-06	
		^{238}U	9.4E-06 ± 6.7E-06	
N165	06/29/09 to 12/28/09	^{241}Am	2.8E-05 ± 1.3E-05	
		^{60}Co	-1.1E-05 ± 8.0E-05	U
		^{134}Cs	2.5E-05 ± 8.1E-05	U
		^{137}Cs	-2.1E-05 ± 7.3E-05	U
		^{152}Eu	-7.3E-05 ± 2.1E-04	U
		^{154}Eu	-4.7E-05 ± 2.3E-04	U
		^{155}Eu	-5.5E-05 ± 1.4E-04	U
		^{238}Pu	9.5E-06 ± 2.4E-05	U
		$^{239/240}$Pu	1.0E-04 ± 4.7E-05	
		^{241}Pu	-2.2E-05 ± 2.2E-05	U
		^{106}Ru	5.3E-04 ± 6.6E-04	U
		^{125}Sb	-1.1E-04 ± 1.9E-04	U
		^{90}Sr	-3.8E-04 ± 4.0E-04	U
		^{234}U	9.1E-06 ± 6.7E-06	
		^{235}U	2.8E-06 ± 3.0E-06	
		^{238}U	8.4E-06 ± 6.2E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 46 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N168	12/29/08	01/12/09	gross α	1.7E-04 ± 3.6E-04
(200-W)	12/29/08	01/12/09	gross β	7.3E-03 ± 1.2E-03
	01/12/09	01/26/09	gross α	2.1E-03 ± 7.0E-04
	01/12/09	01/26/09	gross β	3.1E-02 ± 3.1E-03
	01/26/09	02/09/09	gross α	1.5E-03 ± 5.9E-04
	01/26/09	02/09/09	gross β	2.8E-02 ± 2.9E-03
	02/09/09	02/23/09	gross α	1.3E-03 ± 5.5E-04
	02/09/09	02/23/09	gross β	2.4E-02 ± 2.6E-03
	02/23/09	03/09/09	gross α	8.7E-04 ± 5.8E-04
	02/23/09	03/09/09	gross β	1.3E-02 ± 1.8E-03
	03/09/09	03/23/09	gross α	1.6E-03 ± 6.3E-04
	03/09/09	03/23/09	gross β	1.4E-02 ± 1.9E-03
	03/23/09	04/06/09	gross α	1.5E-03 ± 6.0E-04
	03/23/09	04/06/09	gross β	8.9E-03 ± 1.4E-03
	04/06/09	04/20/09	gross α	9.9E-04 ± 6.0E-04
	04/06/09	04/20/09	gross β	1.1E-02 ± 1.6E-03
	04/20/09	05/04/09	gross α	7.1E-04 ± 5.3E-04
	04/20/09	05/04/09	gross β	1.6E-02 ± 2.1E-03
	05/04/09	05/18/09	gross α	1.0E-03 ± 5.0E-04
	05/04/09	05/18/09	gross β	1.0E-02 ± 1.5E-03
	05/18/09	06/01/09	gross α	1.2E-03 ± 5.5E-04
	05/18/09	06/01/09	gross β	1.5E-02 ± 2.0E-03
	06/01/09	06/15/09	gross α	9.1E-04 ± 6.1E-04
	06/01/09	06/15/09	gross β	1.7E-02 ± 2.1E-03
	06/15/09	06/29/09	gross α	1.7E-04 ± 3.6E-04
	06/15/09	06/29/09	gross β	1.0E-02 ± 1.5E-03
	06/29/09	07/13/09	gross α	5.4E-04 ± 5.0E-04
	06/29/09	07/13/09	gross β	1.3E-02 ± 1.8E-03
	07/13/09	07/27/09	gross α	1.5E-03 ± 6.1E-04
	07/13/09	07/27/09	gross β	1.9E-02 ± 2.3E-03
	07/27/09	08/10/09	gross α	1.6E-03 ± 6.2E-04
	07/27/09	08/10/09	gross β	1.9E-02 ± 2.2E-03
	08/10/09	08/24/09	gross α	6.5E-04 ± 5.2E-04
	08/10/09	08/24/09	gross β	1.2E-02 ± 1.6E-03
	08/24/09	09/08/09	gross α	9.4E-04 ± 5.8E-04
	08/24/09	09/08/09	gross β	1.6E-02 ± 2.0E-03
	09/08/09	09/21/09	gross α	8.2E-04 ± 6.0E-04
	09/08/09	09/21/09	gross β	1.4E-02 ± 1.9E-03
	09/21/09	10/05/09	gross α	7.6E-04 ± 5.7E-04
	09/21/09	10/05/09	gross β	1.4E-02 ± 1.9E-03
	10/05/09	10/19/09	gross α	1.1E-03 ± 5.1E-04
	10/05/09	10/19/09	gross β	1.8E-02 ± 2.1E-03
	10/19/09	11/02/09	gross α	8.6E-04 ± 5.8E-04
	10/19/09	11/02/09	gross β	1.4E-02 ± 1.8E-03
	11/02/09	11/16/09	gross α	1.2E-03 ± 5.2E-04
	11/02/09	11/16/09	gross β	1.9E-02 ± 2.2E-03
	11/16/09	11/30/09	gross α	1.1E-03 ± 6.9E-04
	11/16/09	11/30/09	gross β	1.5E-02 ± 2.0E-03
	11/30/09	12/14/09	gross α	1.9E-03 ± 6.7E-04
	11/30/09	12/14/09	gross β	4.5E-02 ± 4.3E-03
	12/14/09	12/28/09	gross α	2.3E-03 ± 7.2E-04
	12/14/09	12/28/09	gross β	3.6E-02 ± 3.6E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N168	12/29/08 to 06/29/09	^{60}Co	-6.2E-06 ± 6.2E-05	U
		^{134}Cs	2.4E-05 ± 8.8E-05	U
		^{137}Cs	1.6E-05 ± 6.9E-05	U
		^{152}Eu	1.0E-04 ± 1.9E-04	U
		^{154}Eu	1.4E-04 ± 2.6E-04	U
		^{155}Eu	1.5E-04 ± 1.6E-04	U
		^{238}Pu	6.5E-06 ± 1.1E-05	U
		$^{239/240}$Pu	3.9E-06 ± 4.4E-06	U
		^{106}Ru	-2.8E-04 ± 7.7E-04	U
		^{125}Sb	5.2E-05 ± 1.6E-04	U
		^{90}Sr	-2.4E-04 ± 2.5E-04	U
		^{234}U	1.7E-05 ± 1.1E-05	
		^{235}U	1.9E-06 ± 2.8E-06	U
		^{238}U	1.9E-05 ± 1.1E-05	
N168	06/29/09 to 12/28/09	^{60}Co	-1.9E-05 ± 7.9E-05	U
		^{134}Cs	4.8E-05 ± 8.0E-05	U
		^{137}Cs	7.4E-05 ± 7.8E-05	U
		^{152}Eu	-1.2E-04 ± 1.9E-04	U
		^{154}Eu	7.7E-05 ± 2.3E-04	U
		^{155}Eu	-7.1E-06 ± 7.1E-05	U
		^{238}Pu	-5.6E-07 ± 2.5E-06	U
		$^{239/240}$Pu	8.4E-06 ± 5.2E-06	
		^{106}Ru	3.3E-04 ± 6.5E-04	U
		^{125}Sb	-6.1E-05 ± 1.8E-04	U
		^{90}Sr	-1.2E-04 ± 1.2E-04	U
		^{234}U	1.3E-05 ± 8.9E-06	
		^{235}U	-2.5E-06 ± 3.8E-06	U
		^{238}U	1.9E-05 ± 1.1E-05	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 47 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N200	12/31/08	01/13/09	gross α	6.6E-04 ± 5.4E-04
(200-W)	12/31/08	01/13/09	gross β	1.3E-02 ± 1.7E-03
	01/13/09	01/27/09	gross α	1.7E-03 ± 6.4E-04
	01/13/09	01/27/09	gross β	3.7E-02 ± 3.6E-03
	01/27/09	02/10/09	gross α	8.3E-04 ± 5.5E-04
	01/27/09	02/10/09	gross β	2.6E-02 ± 2.7E-03
	02/10/09	02/24/09	gross α	1.7E-03 ± 6.4E-04
	02/10/09	02/24/09	gross β	2.9E-02 ± 3.0E-03
	02/24/09	03/10/09	gross α	2.3E-03 ± 7.3E-04
	02/24/09	03/10/09	gross β	1.6E-02 ± 2.0E-03
	03/10/09	03/24/09	gross α	6.3E-04 ± 5.2E-04
	03/10/09	03/24/09	gross β	1.2E-02 ± 1.6E-03
	03/24/09	04/07/09	gross α	1.2E-03 ± 5.3E-04
	03/24/09	04/07/09	gross β	9.7E-03 ± 1.4E-03
	04/07/09	04/21/09	gross α	7.3E-04 ± 5.2E-04
	04/07/09	04/21/09	gross β	1.3E-02 ± 1.7E-03
	04/21/09	05/05/09	gross α	6.8E-04 ± 5.1E-04
	04/21/09	05/05/09	gross β	1.2E-02 ± 1.7E-03
	05/05/09	05/19/09	gross α	1.1E-03 ± 5.1E-04
	05/05/09	05/19/09	gross β	1.2E-02 ± 1.7E-03
	05/19/09	06/02/09	gross α	9.7E-04 ± 6.0E-04
	05/19/09	06/02/09	gross β	1.2E-02 ± 1.7E-03
	06/02/09	06/16/09	gross α	9.5E-04 ± 5.9E-04
	06/02/09	06/16/09	gross β	1.6E-02 ± 2.0E-03
	06/16/09	07/02/09	gross α	7.5E-04 ± 5.0E-04
	06/16/09	07/02/09	gross β	9.5E-03 ± 1.4E-03
	07/02/09	07/14/09	gross α	7.4E-04 ± 6.0E-04
	07/02/09	07/14/09	gross β	1.4E-02 ± 1.9E-03
	07/14/09	07/28/09	gross α	3.6E-04 ± 4.1E-04
	07/14/09	07/28/09	gross β	1.7E-02 ± 2.1E-03
	07/28/09	08/11/09	gross α	7.3E-04 ± 5.3E-04
	07/28/09	08/11/09	gross β	1.6E-02 ± 2.0E-03
	08/11/09	08/25/09	gross α	9.4E-04 ± 5.7E-04
	08/11/09	08/25/09	gross β	1.2E-02 ± 1.7E-03
	08/25/09	09/09/09	gross α	8.2E-04 ± 6.1E-04
	08/25/09	09/09/09	gross β	1.6E-02 ± 2.0E-03
	09/09/09	09/22/09	gross α	5.3E-04 ± 5.9E-04
	09/09/09	09/22/09	gross β	1.2E-02 ± 1.9E-03
	09/22/09	10/06/09	gross α	8.9E-04 ± 6.1E-04
	09/22/09	10/06/09	gross β	1.4E-02 ± 2.0E-03
	10/06/09	10/20/09	gross α	9.6E-04 ± 5.9E-04
	10/06/09	10/20/09	gross β	1.4E-02 ± 1.8E-03
	10/20/09	11/03/09	gross α	5.0E-04 ± 4.7E-04
	10/20/09	11/03/09	gross β	8.2E-03 ± 1.3E-03
	11/03/09	11/17/09	gross α	1.3E-03 ± 5.3E-04
	11/03/09	11/17/09	gross β	1.2E-02 ± 1.6E-03
	11/17/09	12/01/09	gross α	1.3E-03 ± 5.5E-04
	11/17/09	12/01/09	gross β	1.4E-02 ± 1.8E-03
	12/01/09	12/16/09	gross α	1.5E-03 ± 5.6E-04
	12/01/09	12/16/09	gross β	4.0E-02 ± 3.8E-03
	12/16/09	12/31/09	gross α	1.9E-03 ± 6.3E-04
	12/16/09	12/31/09	gross β	3.4E-02 ± 3.3E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N200	12/31/08 to 07/02/09	^{60}Co	8.5E-05 ± 7.8E-05	U
		^{134}Cs	1.7E-05 ± 7.2E-05	U
		^{137}Cs	-5.4E-05 ± 6.5E-05	U
		^{152}Eu	3.8E-05 ± 1.5E-04	U
		^{154}Eu	6.1E-05 ± 2.2E-04	U
		^{155}Eu	-1.0E-05 ± 1.0E-04	U
		^{238}Pu	5.0E-06 ± 1.3E-05	U
		$^{239/240}$Pu	-1.4E-06 ± 3.5E-06	U
		^{103}Ru	2.7E-05 ± 8.3E-05	U
		^{106}Ru	-1.1E-04 ± 5.6E-04	U
		^{125}Sb	-7.8E-05 ± 1.4E-04	U
		^{113}Sn	-2.5E-05 ± 7.3E-05	U
		^{90}Sr	-1.9E-04 ± 2.0E-04	U
		^{234}U	2.0E-05 ± 1.1E-05	
		^{235}U	1.9E-06 ± 5.3E-06	U
		^{238}U	1.0E-05 ± 7.6E-06	
		^{65}Zn	-5.7E-05 ± 1.8E-04	U
N200	07/02/09 to 12/31/09	^{60}Co	5.0E-05 ± 8.4E-05	U
		^{134}Cs	-4.6E-05 ± 8.0E-05	U
		^{137}Cs	1.0E-04 ± 7.8E-05	U
		^{152}Eu	-6.0E-05 ± 1.9E-04	U
		^{154}Eu	9.0E-05 ± 2.3E-04	U
		^{155}Eu	-8.1E-05 ± 1.7E-04	U
		^{238}Pu	-1.4E-06 ± 2.0E-06	U
		$^{239/240}$Pu	1.4E-06 ± 2.0E-06	U
		^{106}Ru	8.0E-05 ± 6.5E-04	U
		^{125}Sb	-8.8E-05 ± 1.6E-04	U
		^{90}Sr	-4.5E-05 ± 4.7E-05	U
		^{234}U	1.5E-05 ± 9.4E-06	
		^{235}U	1.7E-06 ± 3.4E-06	U
		^{238}U	2.0E-05 ± 1.1E-05	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 48 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N304	12/29/08	01/12/09	gross α	7.6E-04 ± 5.5E-04
(200-W)	12/29/08	01/12/09	gross β	1.1E-02 ± 1.5E-03
	01/12/09	01/26/09	gross α	1.4E-03 ± 5.6E-04
	01/12/09	01/26/09	gross β	3.5E-02 ± 3.4E-03
	01/26/09	02/09/09	gross α	1.6E-03 ± 5.9E-04
	01/26/09	02/09/09	gross β	2.9E-02 ± 2.9E-03
	02/09/09	02/23/09	gross α	9.6E-04 ± 5.9E-04
	02/09/09	02/23/09	gross β	2.4E-02 ± 2.6E-03
	02/23/09	03/09/09	gross α	1.1E-03 ± 5.0E-04
	02/23/09	03/09/09	gross β	1.1E-02 ± 1.5E-03
	03/09/09	03/23/09	gross α	1.2E-03 ± 5.4E-04
	03/09/09	03/23/09	gross β	1.6E-02 ± 2.0E-03
	03/23/09	04/06/09	gross α	6.3E-04 ± 5.2E-04
	03/23/09	04/06/09	gross β	7.8E-03 ± 1.3E-03
	04/06/09	04/20/09	gross α	8.5E-04 ± 5.6E-04
	04/06/09	04/20/09	gross β	1.1E-02 ± 1.6E-03
	04/20/09	05/04/09	gross α	2.2E-03 ± 7.1E-04
	04/20/09	05/04/09	gross β	1.9E-02 ± 2.3E-03
	05/04/09	05/18/09	gross α	4.9E-04 ± 4.7E-04
	05/04/09	05/18/09	gross β	1.2E-02 ± 1.7E-03
	05/18/09	06/01/09	gross α	8.9E-04 ± 5.9E-04
	05/18/09	06/01/09	gross β	1.4E-02 ± 1.9E-03
	06/01/09	06/15/09	gross α	1.8E-03 ± 6.7E-04
	06/01/09	06/15/09	gross β	1.9E-02 ± 2.2E-03
	06/15/09	06/30/09	gross α	8.3E-04 ± 5.5E-04
	06/15/09	06/30/09	gross β	9.9E-03 ± 1.4E-03
	06/30/09	07/13/09	gross α	1.1E-03 ± 6.7E-04
	06/30/09	07/13/09	gross β	1.4E-02 ± 1.9E-03
	07/13/09	07/27/09	gross α	1.5E-03 ± 6.1E-04
	07/13/09	07/27/09	gross β	1.5E-02 ± 2.0E-03
	07/27/09	08/10/09	gross α	1.6E-03 ± 6.2E-04
	07/27/09	08/10/09	gross β	1.6E-02 ± 2.0E-03
	08/10/09	08/24/09	gross α	1.7E-03 ± 6.3E-04
	08/10/09	08/24/09	gross β	1.1E-02 ± 1.6E-03
	08/24/09	09/08/09	gross α	1.4E-03 ± 5.6E-04
	08/24/09	09/08/09	gross β	1.7E-02 ± 2.0E-03
	09/08/09	09/21/09	gross α	1.8E-03 ± 6.7E-04
	09/08/09	09/21/09	gross β	1.4E-02 ± 1.9E-03
	09/21/09	10/05/09	gross α	1.6E-03 ± 6.3E-04
	09/21/09	10/05/09	gross β	1.5E-02 ± 2.0E-03
	10/05/09	10/19/09	gross α	1.3E-03 ± 5.6E-04
	10/05/09	10/19/09	gross β	1.9E-02 ± 2.2E-03
	10/19/09	11/02/09	gross α	7.5E-04 ± 5.5E-04
	10/19/09	11/02/09	gross β	8.1E-03 ± 1.3E-03
	11/02/09	11/16/09	gross α	1.7E-03 ± 6.3E-04
	11/02/09	11/16/09	gross β	1.2E-02 ± 1.7E-03
	11/16/09	11/30/09	gross α	1.7E-03 ± 6.8E-04
	11/16/09	11/30/09	gross β	1.3E-02 ± 1.8E-03
	11/30/09	12/14/09	gross α	2.0E-03 ± 6.9E-04
	11/30/09	12/14/09	gross β	4.6E-02 ± 4.4E-03
	12/14/09	12/28/09	gross α	2.1E-03 ± 6.7E-04
	12/14/09	12/28/09	gross β	3.1E-02 ± 3.2E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N304	12/29/08 to 06/30/09	^{60}Co	1.0E-04 ± 8.7E-05	U
		^{134}Cs	3.7E-05 ± 8.8E-05	U
		^{137}Cs	3.1E-05 ± 6.7E-05	U
		^{152}Eu	-7.8E-05 ± 1.7E-04	U
		^{154}Eu	6.2E-05 ± 2.1E-04	U
		^{155}Eu	-7.8E-06 ± 7.8E-05	U
		^{238}Pu	-7.0E-06 ± 9.6E-06	U
		$^{239/240}$Pu	7.0E-07 ± 7.3E-07	U
		^{106}Ru	3.2E-04 ± 5.9E-04	U
		^{125}Sb	-3.0E-06 ± 3.0E-05	U
		^{90}Sr	-2.0E-04 ± 2.0E-04	U
		^{234}U	1.5E-05 ± 1.0E-05	
		^{235}U	1.1E-06 ± 1.1E-06	U
		^{238}U	5.2E-06 ± 5.9E-06	U
N304	06/30/09 to 12/28/09	^{60}Co	9.0E-06 ± 8.0E-05	U
		^{134}Cs	-1.8E-05 ± 7.3E-05	U
		^{137}Cs	3.4E-05 ± 6.7E-05	U
		^{152}Eu	1.5E-05 ± 1.5E-04	U
		^{154}Eu	-2.2E-04 ± 2.5E-04	U
		^{155}Eu	-1.8E-05 ± 1.4E-04	U
		^{238}Pu	-2.4E-06 ± 3.0E-06	U
		$^{239/240}$Pu	2.4E-06 ± 2.5E-06	
		^{106}Ru	-4.1E-04 ± 5.8E-04	U
		^{125}Sb	6.3E-06 ± 6.3E-05	U
		^{90}Sr	2.0E-05 ± 1.6E-04	U
		^{234}U	1.5E-05 ± 8.8E-06	
		^{235}U	1.5E-06 ± 3.1E-06	U
		^{238}U	9.1E-06 ± 6.4E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 49 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N433	12/29/08	01/12/09	gross α	5.2E-04 ± 4.8E-04
(200-W)	12/29/08	01/12/09	gross β	1.1E-02 ± 1.5E-03
	01/12/09	01/26/09	gross α	8.6E-04 ± 5.8E-04
	01/12/09	01/26/09	gross β	3.3E-02 ± 3.3E-03
	01/26/09	02/09/09	gross α	2.3E-03 ± 7.2E-04
	01/26/09	02/09/09	gross β	2.8E-02 ± 2.9E-03
	02/09/09	02/23/09	gross α	2.3E-03 ± 7.3E-04
	02/09/09	02/23/09	gross β	3.0E-02 ± 3.0E-03
	02/23/09	03/09/09	gross α	4.9E-03 ± 1.1E-03
	02/23/09	03/09/09	gross β	3.1E-02 ± 3.3E-03
	03/09/09	03/23/09	gross α	1.0E-03 ± 6.9E-04
	03/09/09	03/23/09	gross β	1.4E-02 ± 2.0E-03
	03/23/09	04/06/09	gross α	2.5E-03 ± 1.1E-03
	03/23/09	04/06/09	gross β	1.3E-02 ± 2.2E-03
	04/06/09	04/20/09	gross α	9.4E-04 ± 5.9E-04
	04/06/09	04/20/09	gross β	1.1E-02 ± 1.7E-03
	04/20/09	05/04/09	gross α	1.1E-03 ± 5.2E-04
	04/20/09	05/04/09	gross β	1.5E-02 ± 2.0E-03
	05/04/09	05/18/09	gross α	8.6E-04 ± 6.3E-04
	05/04/09	05/18/09	gross β	6.5E-03 ± 1.2E-03
	05/18/09	06/01/09	gross α	1.1E-03 ± 5.2E-04
	05/18/09	06/01/09	gross β	1.5E-02 ± 1.9E-03
	06/01/09	06/15/09	gross α	1.7E-03 ± 6.4E-04
	06/01/09	06/15/09	gross β	2.0E-02 ± 2.4E-03
	06/15/09	06/29/09	gross α	5.3E-04 ± 4.9E-04
	06/15/09	06/29/09	gross β	9.2E-03 ± 1.4E-03
	06/29/09	07/13/09	gross α	1.2E-03 ± 5.4E-04
	06/29/09	07/13/09	gross β	1.9E-02 ± 2.3E-03
	07/13/09	07/27/09	gross α	9.4E-04 ± 6.3E-04
	07/13/09	07/27/09	gross β	1.2E-02 ± 1.7E-03
	07/27/09	08/10/09	gross α	2.3E-03 ± 7.5E-04
	07/27/09	08/10/09	gross β	2.6E-02 ± 2.8E-03
	08/10/09	08/24/09	gross α	2.6E-03 ± 8.6E-04
	08/10/09	08/24/09	gross β	1.7E-02 ± 2.3E-03
	08/24/09	09/08/09	gross α	4.2E-04 ± 4.5E-04
	08/24/09	09/08/09	gross β	1.8E-02 ± 2.2E-03
	09/08/09	09/21/09	gross α	6.9E-03 ± 1.4E-03
	09/08/09	09/21/09	gross β	4.0E-02 ± 4.0E-03
	09/21/09	10/05/09	gross α	1.2E-03 ± 5.6E-04
	09/21/09	10/05/09	gross β	1.5E-02 ± 2.1E-03
	10/05/09	10/19/09	gross α	2.6E-03 ± 7.9E-04
	10/05/09	10/19/09	gross β	2.2E-02 ± 2.5E-03
	10/19/09	11/02/09	gross α	1.4E-03 ± 5.8E-04
	10/19/09	11/02/09	gross β	1.3E-02 ± 1.7E-03
	11/02/09	11/16/09	gross α	8.0E-04 ± 5.8E-04
	11/02/09	11/16/09	gross β	1.5E-02 ± 2.0E-03
	11/16/09	11/30/09	gross α	2.6E-03 ± 8.4E-04
	11/16/09	11/30/09	gross β	1.9E-02 ± 2.3E-03
	11/30/09	12/14/09	gross α	3.9E-03 ± 1.0E-03
	11/30/09	12/14/09	gross β	4.0E-02 ± 3.9E-03
	12/14/09	12/28/09	gross α	1.9E-03 ± 6.9E-04
	12/14/09	12/28/09	gross β	3.2E-02 ± 3.2E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N433	12/29/08 to 06/29/09	^{60}Co	2.3E-05 ± 9.4E-05	U
		^{134}Cs	-3.9E-05 ± 9.0E-05	U
		^{137}Cs	1.0E-04 ± 8.4E-05	U
		^{152}Eu	8.2E-05 ± 2.1E-04	U
		^{154}Eu	-6.4E-05 ± 2.7E-04	U
		^{155}Eu	-2.8E-04 ± 2.9E-04	U
		^{238}Pu	8.4E-07 ± 8.5E-06	U
		$^{239/240}$Pu	2.4E-06 ± 4.3E-06	U
		^{106}Ru	1.6E-04 ± 7.1E-04	U
		^{125}Sb	5.4E-05 ± 1.8E-04	U
		^{90}Sr	-3.1E-04 ± 3.2E-04	U
		^{234}U	1.7E-05 ± 9.7E-06	
		^{235}U	4.2E-06 ± 4.1E-06	
		^{238}U	9.2E-06 ± 6.3E-06	
N433	06/29/09 to 12/28/09	^{60}Co	4.9E-05 ± 7.3E-05	U
		^{134}Cs	3.3E-05 ± 7.4E-05	U
		^{137}Cs	2.7E-05 ± 6.4E-05	U
		^{152}Eu	1.9E-05 ± 1.6E-04	U
		^{154}Eu	4.6E-05 ± 2.0E-04	U
		^{155}Eu	-6.1E-06 ± 6.1E-05	U
		^{238}Pu	4.5E-06 ± 1.4E-05	U
		$^{239/240}$Pu	1.4E-05 ± 8.5E-06	
		^{106}Ru	4.4E-04 ± 6.3E-04	U
		^{125}Sb	1.4E-05 ± 1.4E-04	U
		^{90}Sr	-1.1E-04 ± 1.1E-04	U
		^{234}U	1.5E-05 ± 9.6E-06	
		^{235}U	9.6E-07 ± 4.3E-06	U
		^{238}U	1.2E-05 ± 8.7E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 50 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N441	12/29/08	01/12/09	gross α	9.9E-04 ± 6.1E-04
(200-W)	12/29/08	01/12/09	gross β	1.1E-02 ± 1.5E-03
	01/12/09	01/26/09	gross α	2.1E-03 ± 6.9E-04
	01/12/09	01/26/09	gross β	3.7E-02 ± 3.6E-03
	01/26/09	02/09/09	gross α	2.0E-03 ± 6.7E-04
	01/26/09	02/09/09	gross β	3.7E-02 ± 3.7E-03
	02/09/09	02/23/09	gross α	2.9E-03 ± 8.2E-04
	02/09/09	02/23/09	gross β	2.5E-02 ± 2.6E-03
	02/23/09	03/09/09	gross α	1.6E-03 ± 6.0E-04
	02/23/09	03/09/09	gross β	1.6E-02 ± 2.0E-03
	03/09/09	03/23/09	gross α	1.2E-03 ± 5.2E-04
	03/09/09	03/23/09	gross β	1.5E-02 ± 1.9E-03
	03/23/09	04/06/09	gross α	9.3E-04 ± 5.7E-04
	03/23/09	04/06/09	gross β	7.3E-03 ± 1.2E-03
	04/06/09	04/20/09	gross α	8.9E-04 ± 5.6E-04
	04/06/09	04/20/09	gross β	1.3E-02 ± 1.8E-03
	04/20/09	05/04/09	gross α	1.1E-03 ± 5.0E-04
	04/20/09	05/04/09	gross β	1.8E-02 ± 2.1E-03
	05/04/09	05/18/09	gross α	4.0E-04 ± 4.5E-04
	05/04/09	05/18/09	gross β	7.5E-03 ± 1.2E-03
	05/18/09	06/01/09	gross α	1.3E-03 ± 5.3E-04
	05/18/09	06/01/09	gross β	1.3E-02 ± 1.7E-03
	06/01/09	06/15/09	gross α	1.8E-03 ± 6.3E-04
	06/01/09	06/15/09	gross β	1.9E-02 ± 2.2E-03
	06/15/09	06/30/09	gross α	4.7E-04 ± 4.3E-04
	06/15/09	06/30/09	gross β	1.0E-02 ± 1.5E-03
	06/30/09	07/13/09	gross α	1.4E-03 ± 5.7E-04
	06/30/09	07/13/09	gross β	1.4E-02 ± 1.8E-03
	07/13/09	07/27/09	gross α	7.5E-04 ± 5.5E-04
	07/13/09	07/27/09	gross β	1.5E-02 ± 1.9E-03
	07/27/09	08/10/09	gross α	1.3E-03 ± 5.5E-04
	07/27/09	08/10/09	gross β	2.0E-02 ± 2.3E-03
	08/10/09	08/24/09	gross α	1.3E-03 ± 5.4E-04
	08/10/09	08/24/09	gross β	1.3E-02 ± 1.8E-03
	08/24/09	09/08/09	gross α	5.9E-04 ± 4.7E-04
	08/24/09	09/08/09	gross β	1.8E-02 ± 2.0E-03
	09/08/09	09/21/09	gross α	5.2E-03 ± 1.1E-03
	09/08/09	09/21/09	gross β	2.3E-02 ± 2.6E-03
	09/21/09	10/05/09	gross α	1.9E-03 ± 6.6E-04
	09/21/09	10/05/09	gross β	1.7E-02 ± 2.1E-03
	10/05/09	10/19/09	gross α	1.5E-03 ± 5.9E-04
	10/05/09	10/19/09	gross β	2.4E-02 ± 2.6E-03
	10/19/09	11/02/09	gross α	5.4E-04 ± 5.0E-04
	10/19/09	11/02/09	gross β	1.4E-02 ± 1.8E-03
	11/02/09	11/16/09	gross α	2.5E-03 ± 7.5E-04
	11/02/09	11/16/09	gross β	1.7E-02 ± 2.1E-03
	11/16/09	11/30/09	gross α	1.2E-03 ± 5.2E-04
	11/16/09	11/30/09	gross β	1.2E-02 ± 1.6E-03
	11/30/09	12/14/09	gross α	1.6E-03 ± 6.1E-04
	11/30/09	12/14/09	gross β	4.2E-02 ± 4.0E-03
	12/14/09	12/28/09	gross α	1.7E-03 ± 6.4E-04
	12/14/09	12/28/09	gross β	2.7E-02 ± 2.9E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N441	12/29/08 to 06/30/09	^{60}Co	-1.7E-05 ± 6.6E-05	U
		^{134}Cs	5.2E-06 ± 5.2E-05	U
		^{137}Cs	1.3E-05 ± 6.6E-05	U
		^{152}Eu	-7.5E-05 ± 1.5E-04	U
		^{154}Eu	7.5E-05 ± 2.0E-04	U
		^{155}Eu	6.5E-05 ± 1.7E-04	U
		^{238}Pu	8.0E-06 ± 1.2E-05	U
		$^{239/240}$Pu	2.0E-06 ± 3.6E-06	U
		^{106}Ru	6.0E-05 ± 5.6E-04	U
		^{125}Sb	1.1E-06 ± 1.1E-05	U
		^{90}Sr	-2.2E-04 ± 2.3E-04	U
		^{234}U	1.3E-05 ± 7.8E-06	
		^{235}U	-6.6E-07 ± 6.8E-07	U
		^{238}U	3.3E-06 ± 4.2E-06	U
N441	06/30/09 to 12/28/09	^{60}Co	-5.9E-05 ± 1.1E-04	U
		^{134}Cs	3.7E-05 ± 8.0E-05	U
		^{137}Cs	-2.8E-05 ± 9.1E-05	U
		^{152}Eu	-7.4E-05 ± 2.0E-04	U
		^{154}Eu	-1.4E-04 ± 2.4E-04	U
		^{155}Eu	2.8E-05 ± 1.3E-04	U
		^{238}Pu	3.2E-06 ± 1.2E-05	U
		$^{239/240}$Pu	5.1E-06 ± 4.4E-06	
		^{106}Ru	-6.8E-05 ± 6.2E-04	U
		^{125}Sb	-1.2E-04 ± 1.8E-04	U
		^{90}Sr	-1.2E-04 ± 1.2E-04	U
		^{234}U	7.1E-06 ± 5.5E-06	
		^{235}U	2.6E-06 ± 3.1E-06	
		^{238}U	7.9E-06 ± 6.2E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 51 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N442	12/29/08	01/12/09	gross α	1.1E-03 ± 4.9E-04
(200-W)	12/29/08	01/12/09	gross β	1.2E-02 ± 1.6E-03
	01/12/09	01/26/09	gross α	1.0E-03 ± 4.8E-04
	01/12/09	01/26/09	gross β	3.6E-02 ± 3.5E-03
	01/26/09	02/09/09	gross α	2.4E-03 ± 7.2E-04
	01/26/09	02/09/09	gross β	3.4E-02 ± 3.4E-03
	02/09/09	02/23/09	gross α	1.3E-03 ± 5.3E-04
	02/09/09	02/23/09	gross β	2.2E-02 ± 2.4E-03
	02/23/09	03/09/09	gross α	7.9E-04 ± 5.4E-04
	02/23/09	03/09/09	gross β	1.6E-02 ± 2.0E-03
	03/09/09	03/23/09	gross α	9.6E-04 ± 5.9E-04
	03/09/09	03/23/09	gross β	1.5E-02 ± 1.9E-03
	03/23/09	04/06/09	gross α	9.6E-04 ± 5.9E-04
	03/23/09	04/06/09	gross β	9.1E-03 ± 1.4E-03
	04/06/09	04/20/09	gross α	1.4E-03 ± 5.5E-04
	04/06/09	04/20/09	gross β	2.0E-02 ± 2.3E-03
	04/20/09	05/04/09	gross α	8.6E-04 ± 5.8E-04
	04/20/09	05/04/09	gross β	1.5E-02 ± 1.9E-03
	05/04/09	05/18/09	gross α	1.0E-03 ± 6.3E-04
	05/04/09	05/18/09	gross β	9.3E-03 ± 1.4E-03
	05/18/09	06/01/09	gross α	1.6E-03 ± 6.1E-04
	05/18/09	06/01/09	gross β	1.6E-02 ± 2.0E-03
	06/01/09	06/15/09	gross α	1.7E-03 ± 6.3E-04
	06/01/09	06/15/09	gross β	1.8E-02 ± 2.1E-03
	06/15/09	06/30/09	gross α	1.4E-03 ± 5.4E-04
	06/15/09	06/30/09	gross β	1.2E-02 ± 1.6E-03
	06/30/09	07/13/09	gross α	1.1E-03 ± 6.5E-04
	06/30/09	07/13/09	gross β	1.4E-02 ± 1.9E-03
	07/13/09	07/27/09	gross α	1.7E-03 ± 6.6E-04
	07/13/09	07/27/09	gross β	1.4E-02 ± 1.9E-03
	07/27/09	08/10/09	gross α	1.5E-03 ± 6.0E-04
	07/27/09	08/10/09	gross β	1.8E-02 ± 2.2E-03
	08/10/09	08/24/09	gross α	1.6E-03 ± 6.3E-04
	08/10/09	08/24/09	gross β	1.5E-02 ± 2.0E-03
	08/24/09	09/08/09	gross α	1.4E-03 ± 5.5E-04
	08/24/09	09/08/09	gross β	1.7E-02 ± 2.0E-03
	09/08/09	09/21/09	gross α	2.6E-03 ± 8.0E-04
	09/08/09	09/21/09	gross β	1.9E-02 ± 2.4E-03
	09/21/09	10/05/09	gross α	1.8E-03 ± 6.8E-04
	09/21/09	10/05/09	gross β	1.4E-02 ± 2.0E-03
	10/05/09	10/19/09	gross α	1.4E-03 ± 5.7E-04
	10/05/09	10/19/09	gross β	2.3E-02 ± 2.5E-03
	10/19/09	11/02/09	gross α	1.4E-03 ± 5.7E-04
	10/19/09	11/02/09	gross β	1.2E-02 ± 1.6E-03
	11/02/09	11/16/09	gross α	1.1E-03 ± 5.1E-04
	11/02/09	11/16/09	gross β	1.3E-02 ± 1.8E-03
	11/16/09	11/30/09	gross α	1.5E-03 ± 6.1E-04
	11/16/09	11/30/09	gross β	1.5E-02 ± 1.9E-03
	11/30/09	12/14/09	gross α	2.6E-03 ± 8.1E-04
	11/30/09	12/14/09	gross β	3.8E-02 ± 3.7E-03
	12/14/09	12/28/09	gross α	1.7E-03 ± 6.4E-04
	12/14/09	12/28/09	gross β	3.0E-02 ± 3.0E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N442	12/29/08 to 06/30/09	^{60}Co	-5.9E-05 ± 7.8E-05	U
		^{134}Cs	-1.3E-06 ± 1.3E-05	U
		^{137}Cs	2.0E-05 ± 6.7E-05	U
		^{152}Eu	-2.0E-05 ± 1.6E-04	U
		^{154}Eu	-3.8E-05 ± 2.1E-04	U
		^{155}Eu	2.8E-05 ± 1.3E-04	U
		^{238}Pu	-2.2E-06 ± 1.1E-05	U
		$^{239/240}$Pu	3.6E-06 ± 4.6E-06	U
		^{106}Ru	2.9E-04 ± 6.1E-04	U
		^{125}Sb	1.2E-04 ± 1.6E-04	U
		^{90}Sr	-1.1E-04 ± 1.2E-04	U
		^{234}U	1.3E-05 ± 1.0E-05	
		^{235}U	1.1E-06 ± 1.1E-05	U
		^{238}U	7.6E-06 ± 7.7E-06	U
N442	06/30/09 to 12/28/09	^{60}Co	-3.1E-05 ± 8.0E-05	U
		^{134}Cs	-1.1E-05 ± 7.4E-05	U
		^{137}Cs	5.3E-05 ± 6.8E-05	U
		^{152}Eu	-4.6E-05 ± 1.8E-04	U
		^{154}Eu	-5.0E-05 ± 2.2E-04	U
		^{155}Eu	-8.8E-05 ± 1.8E-04	U
		^{238}Pu	9.7E-06 ± 1.3E-05	U
		$^{239/240}$Pu	1.4E-06 ± 3.4E-06	U
		^{103}Ru	-1.2E-05 ± 7.8E-05	U
		^{106}Ru	1.0E-04 ± 6.8E-04	U
		^{125}Sb	2.8E-04 ± 1.9E-04	U
		^{113}Sn	3.1E-05 ± 8.0E-05	U
		^{90}Sr	-1.1E-04 ± 1.1E-04	U
		^{234}U	7.2E-06 ± 6.4E-06	U
		^{235}U	8.8E-07 ± 1.8E-06	U
		^{238}U	9.7E-06 ± 6.6E-06	
		^{65}Zn	-4.5E-05 ± 1.8E-04	U

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 52 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N449	12/29/08	01/12/09	gross α	9.7E-04 ± 5.9E-04
(200-W)	12/29/08	01/12/09	gross β	1.2E-02 ± 1.6E-03
	01/12/09	01/26/09	gross α	1.3E-03 ± 5.5E-04
	01/12/09	01/26/09	gross β	3.3E-02 ± 3.3E-03
	01/26/09	02/09/09	gross α	2.1E-03 ± 6.9E-04
	01/26/09	02/09/09	gross β	3.1E-02 ± 3.2E-03
	02/09/09	02/23/09	gross α	1.5E-03 ± 5.9E-04
	02/09/09	02/23/09	gross β	2.4E-02 ± 2.6E-03
	02/23/09	03/09/09	gross α	1.2E-03 ± 5.4E-04
	02/23/09	03/09/09	gross β	1.5E-02 ± 1.9E-03
	03/09/09	03/23/09	gross α	1.7E-03 ± 7.9E-04
	03/09/09	03/23/09	gross β	2.0E-02 ± 2.7E-03
	03/23/09	04/06/09	gross α	7.8E-04 ± 5.6E-04
	03/23/09	04/06/09	gross β	7.8E-03 ± 1.3E-03
	04/06/09	04/20/09	gross α	7.0E-04 ± 5.3E-04
	04/06/09	04/20/09	gross β	1.3E-02 ± 1.8E-03
	04/20/09	05/04/09	gross α	1.5E-03 ± 6.1E-04
	04/20/09	05/04/09	gross β	1.5E-02 ± 1.9E-03
	05/04/09	05/18/09	gross α	5.5E-04 ± 5.1E-04
	05/04/09	05/18/09	gross β	8.3E-03 ± 1.3E-03
	05/18/09	06/01/09	gross α	1.4E-03 ± 5.7E-04
	05/18/09	06/01/09	gross β	1.3E-02 ± 1.7E-03
	06/01/09	06/15/09	gross α	1.6E-03 ± 6.2E-04
	06/01/09	06/15/09	gross β	1.9E-02 ± 2.2E-03
	06/15/09	06/29/09	gross α	9.8E-04 ± 6.0E-04
	06/15/09	06/29/09	gross β	8.7E-03 ± 1.4E-03
	06/29/09	07/13/09	gross α	1.1E-03 ± 5.0E-04
	06/29/09	07/13/09	gross β	1.6E-02 ± 1.9E-03
	07/13/09	07/27/09	gross α	1.6E-03 ± 6.4E-04
	07/13/09	07/27/09	gross β	1.4E-02 ± 1.9E-03
	07/27/09	08/10/09	gross α	1.5E-03 ± 6.0E-04
	07/27/09	08/10/09	gross β	2.1E-02 ± 2.4E-03
	08/10/09	08/24/09	gross α	1.8E-03 ± 6.7E-04
	08/10/09	08/24/09	gross β	1.2E-02 ± 1.7E-03
	08/24/09	09/08/09	gross α	1.2E-03 ± 5.2E-04
	08/24/09	09/08/09	gross β	1.6E-02 ± 1.9E-03
	09/08/09	09/21/09	gross α	2.4E-03 ± 7.8E-04
	09/08/09	09/21/09	gross β	1.9E-02 ± 2.4E-03
	09/21/09	10/05/09	gross α	1.7E-03 ± 6.8E-04
	09/21/09	10/05/09	gross β	1.2E-02 ± 1.8E-03
	10/05/09	10/19/09	gross α	1.9E-03 ± 6.7E-04
	10/05/09	10/19/09	gross β	2.3E-02 ± 2.6E-03
	10/19/09	11/02/09	gross α	1.3E-03 ± 5.4E-04
	10/19/09	11/02/09	gross β	1.1E-02 ± 1.5E-03
	11/02/09	11/16/09	gross α	2.5E-03 ± 7.9E-04
	11/02/09	11/16/09	gross β	1.5E-02 ± 2.0E-03
	11/16/09	11/30/09	gross α	1.8E-03 ± 6.8E-04
	11/16/09	11/30/09	gross β	1.5E-02 ± 2.0E-03
	11/30/09	12/14/09	gross α	1.6E-03 ± 6.7E-04
	11/30/09	12/14/09	gross β	4.3E-02 ± 4.1E-03
	12/14/09	12/28/09	gross α	1.9E-03 ± 6.9E-04
	12/14/09	12/28/09	gross β	2.8E-02 ± 2.9E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N449	12/29/08 to 06/29/09	^{60}Co	1.2E-05 ± 8.0E-05	U
		^{134}Cs	-6.8E-05 ± 7.6E-05	U
		^{137}Cs	3.7E-05 ± 7.0E-05	U
		^{152}Eu	-2.1E-05 ± 2.0E-04	U
		^{154}Eu	1.9E-04 ± 2.2E-04	U
		^{155}Eu	-9.0E-05 ± 1.8E-04	U
		^{238}Pu	-2.2E-06 ± 1.0E-05	U
		$^{239/240}$Pu	1.5E-05 ± 8.7E-06	
		^{106}Ru	1.3E-04 ± 6.0E-04	U
		^{125}Sb	-1.3E-05 ± 1.3E-04	U
		^{90}Sr	-1.3E-04 ± 1.3E-04	U
		^{234}U	1.7E-05 ± 1.0E-05	
		^{235}U	2.7E-06 ± 3.3E-06	
		^{238}U	1.9E-05 ± 1.1E-05	
N449	06/29/09 to 12/28/09	^{60}Co	-8.1E-05 ± 9.5E-05	U
		^{134}Cs	-7.1E-05 ± 7.4E-05	U
		^{137}Cs	1.2E-04 ± 8.2E-05	U
		^{152}Eu	1.7E-04 ± 1.9E-04	U
		^{154}Eu	2.5E-04 ± 2.6E-04	U
		^{155}Eu	-5.6E-05 ± 1.6E-04	U
		^{238}Pu	-8.3E-06 ± 1.3E-05	U
		$^{239/240}$Pu	2.1E-06 ± 3.7E-06	U
		^{106}Ru	-3.0E-05 ± 3.1E-04	U
		^{125}Sb	4.0E-05 ± 1.7E-04	U
		^{90}Sr	2.1E-04 ± 1.9E-04	
		^{234}U	9.7E-06 ± 7.4E-06	
		^{235}U	1.8E-06 ± 2.6E-06	U
		^{238}U	8.1E-06 ± 5.9E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 53 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N456	12/29/08	01/12/09	gross α	6.3E-04 ± 5.1E-04
(200-W)	12/29/08	01/12/09	gross β	1.0E-02 ± 1.5E-03
	01/12/09	01/26/09	gross α	7.2E-04 ± 5.2E-04
	01/12/09	01/26/09	gross β	3.2E-02 ± 3.2E-03
	01/26/09	02/09/09	gross α	1.0E-03 ± 4.7E-04
	01/26/09	02/09/09	gross β	2.1E-02 ± 2.4E-03
	02/09/09	02/23/09	gross α	1.3E-03 ± 5.5E-04
	02/09/09	02/23/09	gross β	2.7E-02 ± 2.8E-03
	02/23/09	03/09/09	gross α	1.1E-03 ± 5.0E-04
	02/23/09	03/09/09	gross β	1.8E-02 ± 2.2E-03
	03/09/09	03/23/09	gross α	7.8E-04 ± 5.6E-04
	03/09/09	03/23/09	gross β	1.6E-02 ± 2.1E-03
	03/23/09	04/06/09	gross α	5.3E-04 ± 4.8E-04
	03/23/09	04/06/09	gross β	6.4E-03 ± 1.1E-03
	04/06/09	04/20/09	gross α	8.2E-04 ± 5.6E-04
	04/06/09	04/20/09	gross β	1.3E-02 ± 1.8E-03
	04/20/09	05/04/09	gross α	1.6E-03 ± 6.1E-04
	04/20/09	05/04/09	gross β	1.2E-02 ± 1.6E-03
	05/04/09	05/18/09	gross α	3.0E-04 ± 4.2E-04
	05/04/09	05/18/09	gross β	3.4E-03 ± 8.3E-04
	05/18/09	06/01/09	gross α	1.1E-03 ± 5.0E-04
	05/18/09	06/01/09	gross β	1.3E-02 ± 1.8E-03
	06/01/09	06/15/09	gross α	1.1E-03 ± 5.1E-04
	06/01/09	06/15/09	gross β	1.9E-02 ± 2.2E-03
	06/15/09	06/29/09	gross α	6.4E-04 ± 5.1E-04
	06/15/09	06/29/09	gross β	9.9E-03 ± 1.5E-03
	06/29/09	07/13/09	gross α	6.3E-04 ± 5.1E-04
	06/29/09	07/13/09	gross β	1.0E-02 ± 1.5E-03
	07/13/09	07/27/09	gross α	8.1E-04 ± 5.9E-04
	07/13/09	07/27/09	gross β	1.9E-02 ± 2.3E-03
	07/27/09	08/10/09	gross α	8.5E-04 ± 5.6E-04
	07/27/09	08/10/09	gross β	1.8E-02 ± 2.1E-03
	08/10/09	08/24/09	gross α	7.1E-04 ± 5.4E-04
	08/10/09	08/24/09	gross β	8.3E-03 ± 1.4E-03
	08/24/09	09/08/09	gross α	1.0E-03 ± 4.6E-04
	08/24/09	09/08/09	gross β	1.4E-02 ± 1.8E-03
	09/08/09	09/21/09	gross α	2.4E-03 ± 7.6E-04
	09/08/09	09/21/09	gross β	1.8E-02 ± 2.2E-03
	09/21/09	10/05/09	gross α	7.3E-04 ± 5.5E-04
	09/21/09	10/05/09	gross β	1.5E-02 ± 2.0E-03
	10/05/09	10/19/09	gross α	1.4E-03 ± 5.7E-04
	10/05/09	10/19/09	gross β	2.2E-02 ± 2.5E-03
	10/19/09	11/02/09	gross α	4.0E-04 ± 4.3E-04
	10/19/09	11/02/09	gross β	1.2E-02 ± 1.6E-03
	11/02/09	11/16/09	gross α	1.6E-03 ± 6.0E-04
	11/02/09	11/16/09	gross β	1.5E-02 ± 1.9E-03
	11/16/09	11/30/09	gross α	1.2E-03 ± 5.4E-04
	11/16/09	11/30/09	gross β	1.2E-02 ± 1.7E-03
	11/30/09	12/14/09	gross α	3.1E-03 ± 8.8E-04
	11/30/09	12/14/09	gross β	3.9E-02 ± 3.8E-03
	12/14/09	12/28/09	gross α	1.6E-03 ± 6.1E-04
	12/14/09	12/28/09	gross β	3.0E-02 ± 3.1E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N456	12/29/08 to 06/29/09	^{60}Co	-1.8E-05 ± 8.0E-05	U
		^{134}Cs	2.4E-05 ± 7.8E-05	U
		^{137}Cs	-4.7E-06 ± 4.7E-05	U
		^{152}Eu	-4.2E-05 ± 2.1E-04	U
		^{154}Eu	9.2E-06 ± 9.2E-05	U
		^{155}Eu	-1.6E-04 ± 1.7E-04	U
		^{238}Pu	-3.3E-06 ± 9.9E-06	U
		$^{239/240}$Pu	2.0E-06 ± 3.6E-06	U
		^{106}Ru	-3.1E-04 ± 7.6E-04	U
		^{125}Sb	-4.8E-05 ± 1.9E-04	U
		^{90}Sr	-1.3E-04 ± 1.3E-04	U
		^{234}U	1.8E-05 ± 1.0E-05	
		^{235}U	1.6E-06 ± 2.4E-06	U
		^{238}U	7.4E-06 ± 5.4E-06	
N456	06/29/09 to 12/28/09	^{60}Co	-3.3E-05 ± 7.5E-05	U
		^{134}Cs	-6.1E-06 ± 6.1E-05	U
		^{137}Cs	4.2E-05 ± 7.0E-05	U
		^{152}Eu	-8.7E-05 ± 2.0E-04	U
		^{154}Eu	-3.3E-05 ± 2.2E-04	U
		^{155}Eu	5.0E-05 ± 1.3E-04	U
		^{238}Pu	2.1E-06 ± 1.2E-05	U
		$^{239/240}$Pu	4.2E-06 ± 4.2E-06	U
		^{106}Ru	8.0E-06 ± 8.0E-05	U
		^{125}Sb	-3.3E-05 ± 1.7E-04	U
		^{90}Sr	-8.6E-05 ± 8.9E-05	U
		^{234}U	9.3E-06 ± 7.0E-06	
		^{235}U	9.2E-07 ± 1.9E-06	U
		^{238}U	1.3E-05 ± 8.8E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 54 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N457	12/29/08	01/12/09	gross α	5.5E-04 ± 5.0E-04
(200-W)	12/29/08	01/12/09	gross β	1.3E-02 ± 1.7E-03
	01/12/09	01/26/09	gross α	1.2E-03 ± 5.1E-04
	01/12/09	01/26/09	gross β	3.4E-02 ± 3.3E-03
	01/26/09	02/09/09	gross α	1.4E-03 ± 5.6E-04
	01/26/09	02/09/09	gross β	3.1E-02 ± 3.2E-03
	02/09/09	02/23/09	gross α	8.5E-04 ± 5.6E-04
	02/09/09	02/23/09	gross β	2.3E-02 ± 2.5E-03
	02/23/09	03/09/09	gross α	6.8E-04 ± 5.1E-04
	02/23/09	03/09/09	gross β	1.9E-02 ± 2.2E-03
	03/09/09	03/23/09	gross α	1.2E-03 ± 5.4E-04
	03/09/09	03/23/09	gross β	1.4E-02 ± 1.8E-03
	03/23/09	04/06/09	gross α	9.6E-04 ± 5.9E-04
	03/23/09	04/06/09	gross β	9.5E-03 ± 1.4E-03
	04/06/09	04/20/09	gross α	1.2E-03 ± 7.2E-04
	04/06/09	04/20/09	gross β	1.4E-02 ± 2.0E-03
	04/20/09	05/04/09	gross α	1.6E-03 ± 6.1E-04
	04/20/09	05/04/09	gross β	1.5E-02 ± 1.9E-03
	05/04/09	05/18/09	gross α	7.9E-04 ± 5.8E-04
	05/04/09	05/18/09	gross β	8.3E-03 ± 1.3E-03
	05/18/09	06/01/09	gross α	6.1E-04 ± 4.9E-04
	05/18/09	06/01/09	gross β	1.4E-02 ± 1.8E-03
	06/01/09	06/15/09	gross α	7.4E-04 ± 5.3E-04
	06/01/09	06/15/09	gross β	1.6E-02 ± 2.0E-03
	06/15/09	06/29/09	gross α	1.1E-03 ± 4.9E-04
	06/15/09	06/29/09	gross β	7.9E-03 ± 1.3E-03
	06/29/09	07/13/09	gross α	9.7E-04 ± 5.9E-04
	06/29/09	07/13/09	gross β	1.4E-02 ± 1.8E-03
	07/13/09	07/27/09	gross α	8.9E-04 ± 5.9E-04
	07/13/09	07/27/09	gross β	1.3E-02 ± 1.8E-03
	07/27/09	08/10/09	gross α	2.1E-03 ± 7.1E-04
	07/27/09	08/10/09	gross β	1.9E-02 ± 2.3E-03
	08/10/09	08/24/09	gross α	1.0E-03 ± 4.9E-04
	08/10/09	08/24/09	gross β	1.4E-02 ± 1.8E-03
	08/24/09	09/08/09	gross α	8.0E-04 ± 5.2E-04
	08/24/09	09/08/09	gross β	1.8E-02 ± 2.1E-03
	09/08/09	09/21/09	gross α	2.0E-03 ± 7.0E-04
	09/08/09	09/21/09	gross β	1.8E-02 ± 2.3E-03
	09/21/09	10/05/09	gross α	9.0E-04 ± 6.1E-04
	09/21/09	10/05/09	gross β	1.3E-02 ± 1.9E-03
	10/05/09	10/19/09	gross α	2.1E-03 ± 6.9E-04
	10/05/09	10/19/09	gross β	2.2E-02 ± 2.5E-03
	10/19/09	11/02/09	gross α	8.3E-04 ± 5.5E-04
	10/19/09	11/02/09	gross β	1.1E-02 ± 1.5E-03
	11/02/09	11/16/09	gross α	1.0E-03 ± 4.9E-04
	11/02/09	11/16/09	gross β	1.5E-02 ± 1.9E-03
	11/16/09	11/30/09	gross α	1.1E-03 ± 5.2E-04
	11/16/09	11/30/09	gross β	1.6E-02 ± 2.0E-03
	11/30/09	12/14/09	gross α	2.1E-03 ± 7.3E-04
	11/30/09	12/14/09	gross β	2.7E-02 ± 2.9E-03
	12/14/09	12/28/09	gross α	1.7E-03 ± 6.2E-04
	12/14/09	12/28/09	gross β	2.7E-02 ± 2.9E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N457	12/29/08 to 06/29/09	^{60}Co	5.5E-05 ± 8.5E-05	U
		^{134}Cs	5.7E-05 ± 8.8E-05	U
		^{137}Cs	4.0E-05 ± 7.3E-05	U
		^{152}Eu	5.9E-05 ± 2.0E-04	U
		^{154}Eu	1.3E-04 ± 2.4E-04	U
		^{155}Eu	-1.3E-04 ± 1.8E-04	U
		^{238}Pu	-7.3E-07 ± 7.3E-06	U
		$^{239/240}$Pu	5.1E-06 ± 5.2E-06	U
		^{106}Ru	-1.2E-04 ± 6.3E-04	U
		^{125}Sb	3.3E-05 ± 1.7E-04	U
		^{90}Sr	-1.7E-04 ± 1.8E-04	U
		^{234}U	1.3E-05 ± 9.2E-06	
		^{235}U	5.0E-06 ± 5.6E-06	U
		^{238}U	6.4E-06 ± 6.0E-06	U
N457	06/29/09 to 12/28/09	^{60}Co	-3.0E-05 ± 8.3E-05	U
		^{134}Cs	-1.2E-05 ± 7.4E-05	U
		^{137}Cs	8.9E-05 ± 1.0E-04	U
		^{152}Eu	-6.8E-06 ± 6.8E-05	U
		^{154}Eu	-1.2E-04 ± 2.4E-04	U
		^{155}Eu	-1.3E-04 ± 1.8E-04	U
		^{238}Pu	-8.3E-06 ± 1.3E-05	U
		$^{239/240}$Pu	1.0E-05 ± 6.7E-06	
		^{103}Ru	1.5E-05 ± 8.3E-05	U
		^{106}Ru	5.8E-05 ± 5.8E-04	U
		^{125}Sb	-6.0E-05 ± 1.5E-04	U
		^{113}Sn	2.4E-05 ± 8.4E-05	U
		^{90}Sr	-2.8E-05 ± 2.9E-05	U
		^{234}U	1.2E-05 ± 8.2E-06	
		^{235}U	7.2E-07 ± 2.0E-07	U
		^{238}U	8.8E-06 ± 6.0E-06	
		^{65}Zn	-2.1E-04 ± 2.2E-04	U

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 55 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N550	12/29/08	01/12/09	gross α	1.1E-03 ± 5.2E-04
(200-W)	12/29/08	01/12/09	gross β	1.1E-02 ± 1.7E-03
	01/12/09	01/26/09	gross α	2.4E-03 ± 7.4E-04
	01/12/09	01/26/09	gross β	5.0E-02 ± 5.3E-03
	01/26/09	02/09/09	gross α	1.6E-03 ± 6.1E-04
	01/26/09	02/09/09	gross β	2.6E-02 ± 3.1E-03
	02/09/09	02/23/09	gross α	2.0E-03 ± 6.9E-04
	02/09/09	02/23/09	gross β	3.2E-02 ± 3.7E-03
	02/23/09	03/09/09	gross α	7.6E-04 ± 5.5E-04
	02/23/09	03/09/09	gross β	1.3E-02 ± 1.9E-03
	03/09/09	03/23/09	gross α	1.4E-03 ± 6.0E-04
	03/09/09	03/23/09	gross β	1.6E-02 ± 2.3E-03
	03/23/09	04/06/09	gross α	6.0E-04 ± 5.1E-04
	03/23/09	04/06/09	gross β	8.3E-03 ± 1.4E-03
	04/06/09	04/20/09	gross α	9.1E-04 ± 6.1E-04
	04/06/09	04/20/09	gross β	1.1E-02 ± 1.7E-03
	04/20/09	05/04/09	gross α	1.2E-03 ± 5.2E-04
	04/20/09	05/04/09	gross β	1.8E-02 ± 2.3E-03
	05/04/09	05/18/09	gross α	6.8E-04 ± 5.5E-04
	05/04/09	05/18/09	gross β	8.9E-03 ± 1.5E-03
	05/18/09	06/01/09	gross α	1.5E-03 ± 6.0E-04
	05/18/09	06/01/09	gross β	1.8E-02 ± 2.4E-03
	06/01/09	06/15/09	gross α	1.0E-03 ± 6.4E-04
	06/01/09	06/15/09	gross β	1.9E-02 ± 2.4E-03
	06/15/09	06/29/09	gross α	7.0E-04 ± 5.3E-04
	06/15/09	06/29/09	gross β	1.4E-02 ± 2.0E-03
	06/29/09	07/13/09	gross α	1.1E-03 ± 5.1E-04
	06/29/09	07/13/09	gross β	1.6E-02 ± 2.2E-03
	07/13/09	07/27/09	gross α	1.4E-03 ± 6.0E-04
	07/13/09	07/27/09	gross β	1.5E-02 ± 2.1E-03
	07/27/09	08/10/09	gross α	1.1E-03 ± 5.2E-04
	07/27/09	08/10/09	gross β	2.2E-02 ± 2.8E-03
	08/10/09	08/24/09	gross α	1.2E-03 ± 5.4E-04
	08/10/09	08/24/09	gross β	1.0E-02 ± 1.6E-03
	08/24/09	09/08/09	gross α	1.1E-03 ± 4.9E-04
	08/24/09	09/08/09	gross β	1.7E-02 ± 2.3E-03
	09/08/09	09/21/09	gross α	1.6E-03 ± 6.4E-04
	09/08/09	09/21/09	gross β	1.6E-02 ± 2.3E-03
	09/21/09	10/05/09	gross α	1.3E-03 ± 5.9E-04
	09/21/09	10/05/09	gross β	1.3E-02 ± 1.9E-03
	10/05/09	10/19/09	gross α	1.5E-03 ± 5.8E-04
	10/05/09	10/19/09	gross β	2.3E-02 ± 2.9E-03
	10/19/09	11/02/09	gross α	1.0E-03 ± 4.8E-04
	10/19/09	11/02/09	gross β	1.1E-02 ± 1.6E-03
	11/02/09	11/16/09	gross α	1.9E-03 ± 6.9E-04
	11/02/09	11/16/09	gross β	1.4E-02 ± 2.0E-03
	11/16/09	11/30/09	gross α	6.5E-04 ± 5.5E-04
	11/16/09	11/30/09	gross β	1.7E-02 ± 2.3E-03
	11/30/09	12/14/09	gross α	1.9E-03 ± 6.9E-04
	11/30/09	12/14/09	gross β	3.8E-02 ± 4.2E-03
	12/14/09	12/28/09	gross α	1.8E-03 ± 6.5E-04
	12/14/09	12/28/09	gross β	3.2E-02 ± 3.6E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N550	12/29/08 to 06/29/09	^{60}Co	-2.8E-06 ± 2.8E-05	U
		^{134}Cs	7.6E-05 ± 7.5E-05	U
		^{137}Cs	1.1E-04 ± 1.0E-04	
		^{152}Eu	-4.2E-05 ± 1.7E-04	U
		^{154}Eu	-1.1E-04 ± 2.2E-04	U
		^{155}Eu	-6.5E-05 ± 1.5E-04	U
		^{238}Pu	-1.2E-05 ± 1.4E-05	U
		$^{239/240}$Pu	5.3E-06 ± 5.4E-06	U
		^{106}Ru	-1.3E-04 ± 6.6E-04	U
		^{125}Sb	6.9E-05 ± 1.4E-04	U
		^{90}Sr	-6.5E-05 ± 6.7E-05	U
		^{234}U	2.8E-05 ± 1.4E-05	
		^{235}U	9.7E-06 ± 7.1E-06	
		^{238}U	1.8E-05 ± 1.0E-05	
N550	06/29/09 to 12/28/09	^{60}Co	1.7E-05 ± 8.1E-05	U
		^{134}Cs	-1.9E-05 ± 9.2E-05	U
		^{137}Cs	5.1E-05 ± 7.4E-05	U
		^{152}Eu	3.7E-05 ± 1.7E-04	U
		^{154}Eu	-6.3E-05 ± 2.3E-04	U
		^{155}Eu	1.1E-05 ± 1.1E-04	U
		^{238}Pu	1.3E-06 ± 2.6E-06	U
		$^{239/240}$Pu	1.9E-06 ± 3.5E-06	U
		^{106}Ru	-6.8E-04 ± 7.1E-04	U
		^{125}Sb	-7.2E-05 ± 1.7E-04	U
		^{90}Sr	-3.2E-05 ± 3.3E-05	U
		^{234}U	2.0E-05 ± 1.0E-05	
		^{235}U	5.7E-06 ± 4.5E-06	
		^{238}U	1.8E-05 ± 9.7E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 56 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N551	01/12/09	01/26/09	gross α	2.1E-03 ± 6.9E-04
(200-W)	01/12/09	01/26/09	gross β	3.8E-02 ± 4.1E-03
	01/26/09	02/09/09	gross α	1.5E-03 ± 5.8E-04
	01/26/09	02/09/09	gross β	3.1E-02 ± 3.5E-03
	02/09/09	02/23/09	gross α	1.9E-03 ± 6.7E-04
	02/09/09	02/23/09	gross β	3.4E-02 ± 3.9E-03
	02/23/09	03/09/09	gross α	6.1E-04 ± 4.9E-04
	02/23/09	03/09/09	gross β	1.2E-02 ± 1.7E-03
	03/09/09	03/23/09	gross α	1.1E-03 ± 5.2E-04
	03/09/09	03/23/09	gross β	1.8E-02 ± 2.4E-03
	03/23/09	04/06/09	gross α	9.4E-04 ± 5.9E-04
	03/23/09	04/06/09	gross β	9.0E-03 ± 1.5E-03
	04/06/09	04/20/09	gross α	1.0E-03 ± 6.5E-04
	04/06/09	04/20/09	gross β	1.1E-02 ± 1.7E-03
	04/20/09	05/04/09	gross α	1.1E-03 ± 5.1E-04
	04/20/09	05/04/09	gross β	1.6E-02 ± 2.1E-03
	05/04/09	05/18/09	gross α	4.3E-04 ± 4.6E-04
	05/04/09	05/18/09	gross β	9.1E-03 ± 1.5E-03
	05/18/09	06/01/09	gross α	1.3E-03 ± 5.5E-04
	05/18/09	06/01/09	gross β	1.7E-02 ± 2.3E-03
	06/01/09	06/15/09	gross α	1.5E-03 ± 6.2E-04
	06/01/09	06/15/09	gross β	1.6E-02 ± 2.2E-03
	06/15/09	06/30/09	gross α	4.5E-04 ± 4.3E-04
	06/15/09	06/30/09	gross β	1.1E-02 ± 1.7E-03
	06/30/09	07/13/09	gross α	1.4E-03 ± 5.9E-04
	06/30/09	07/13/09	gross β	1.8E-02 ± 2.5E-03
	07/13/09	07/27/09	gross α	1.2E-03 ± 5.5E-04
	07/13/09	07/27/09	gross β	1.4E-02 ± 2.0E-03
	07/27/09	08/10/09	gross α	1.3E-03 ± 5.5E-04
	07/27/09	08/10/09	gross β	2.1E-02 ± 2.7E-03
	08/10/09	08/24/09	gross α	1.4E-03 ± 6.0E-04
	08/10/09	08/24/09	gross β	1.2E-02 ± 1.8E-03
	08/24/09	09/08/09	gross α	1.9E-03 ± 6.6E-04
	08/24/09	09/08/09	gross β	2.1E-02 ± 2.7E-03
	09/08/09	09/21/09	gross α	1.0E-03 ± 6.3E-04
	09/08/09	09/21/09	gross β	1.7E-02 ± 2.4E-03
	09/21/09	10/05/09	gross α	1.3E-03 ± 6.1E-04
	09/21/09	10/05/09	gross β	1.3E-02 ± 1.9E-03
	10/05/09	10/19/09	gross α	1.3E-03 ± 5.7E-04
	10/05/09	10/19/09	gross β	2.2E-02 ± 2.8E-03
	10/19/09	11/02/09	gross α	1.1E-03 ± 5.3E-04
	10/19/09	11/02/09	gross β	1.2E-02 ± 1.9E-03
	11/02/09	11/16/09	gross α	9.4E-04 ± 6.3E-04
	11/02/09	11/16/09	gross β	1.1E-02 ± 1.7E-03
	11/16/09	11/30/09	gross α	1.6E-03 ± 6.7E-04
	11/16/09	11/30/09	gross β	1.8E-02 ± 2.6E-03
	11/30/09	12/14/09	gross α	1.9E-03 ± 7.3E-04
	11/30/09	12/14/09	gross β	3.4E-02 ± 3.9E-03
	12/14/09	12/28/09	gross α	7.5E-04 ± 5.4E-04
	12/14/09	12/28/09	gross β	3.8E-02 ± 4.1E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N551	01/12/09 to 06/30/09	^{60}Co	-1.4E-05 ± 6.8E-05	U
		^{134}Cs	1.0E-05 ± 6.7E-05	U
		^{137}Cs	2.2E-04 ± 1.1E-04	
		^{152}Eu	-1.0E-04 ± 1.7E-04	U
		^{154}Eu	-1.8E-05 ± 1.8E-04	U
		^{155}Eu	-9.9E-06 ± 9.9E-05	U
		^{238}Pu	1.5E-06 ± 1.2E-05	U
		$^{239/240}$Pu	4.6E-06 ± 5.6E-06	U
		^{106}Ru	-2.9E-04 ± 6.3E-04	U
		^{125}Sb	1.4E-05 ± 1.4E-04	U
		^{90}Sr	-2.9E-04 ± 3.0E-04	
		^{234}U	1.8E-05 ± 1.0E-05	
		^{235}U	3.3E-06 ± 3.5E-06	
		^{238}U	1.9E-05 ± 1.1E-05	
N551	06/30/09 to 12/28/09	^{60}Co	2.6E-05 ± 7.8E-05	U
		^{134}Cs	-5.1E-05 ± 7.9E-05	U
		^{137}Cs	2.6E-04 ± 1.5E-04	
		^{152}Eu	-2.8E-05 ± 1.9E-04	U
		^{154}Eu	-5.9E-05 ± 2.1E-04	U
		^{155}Eu	-4.9E-05 ± 1.9E-04	U
		^{238}Pu	5.8E-06 ± 9.0E-06	U
		$^{239/240}$Pu	1.8E-05 ± 9.8E-06	
		^{106}Ru	3.2E-05 ± 3.2E-04	U
		^{125}Sb	5.3E-05 ± 1.5E-04	U
		^{90}Sr	-1.9E-04 ± 2.0E-04	U
		^{234}U	4.1E-05 ± 1.9E-05	
		^{235}U	9.2E-06 ± 7.7E-06	
		^{238}U	2.7E-05 ± 1.4E-05	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 57 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N554	12/29/08	01/12/09	gross α	2.9E-04 ± 4.1E-04
(200-W)	12/29/08	01/12/09	gross β	1.1E-02 ± 1.7E-03
	01/12/09	01/26/09	gross α	1.9E-03 ± 6.6E-04
	01/12/09	01/26/09	gross β	4.1E-02 ± 4.4E-03
	01/26/09	02/09/09	gross α	1.3E-03 ± 5.3E-04
	01/26/09	02/09/09	gross β	2.6E-02 ± 3.1E-03
	02/09/09	02/23/09	gross α	2.6E-03 ± 7.8E-04
	02/09/09	02/23/09	gross β	3.7E-02 ± 4.1E-03
	02/23/09	03/09/09	gross α	5.2E-04 ± 4.7E-04
	02/23/09	03/09/09	gross β	1.3E-02 ± 1.8E-03
	03/09/09	03/23/09	gross α	1.2E-03 ± 5.4E-04
	03/09/09	03/23/09	gross β	1.4E-02 ± 2.1E-03
	03/23/09	04/06/09	gross α	6.0E-04 ± 5.1E-04
	03/23/09	04/06/09	gross β	1.1E-02 ± 1.7E-03
	04/06/09	04/20/09	gross α	1.1E-03 ± 5.3E-04
	04/06/09	04/20/09	gross β	1.3E-02 ± 1.8E-03
	04/20/09	05/04/09	gross α	4.0E-04 ± 4.3E-04
	04/20/09	05/04/09	gross β	1.3E-02 ± 1.8E-03
	05/04/09	05/18/09	gross α	9.0E-04 ± 6.0E-04
	05/04/09	05/18/09	gross β	8.7E-03 ± 1.4E-03
	05/18/09	06/01/09	gross α	1.4E-03 ± 5.6E-04
	05/18/09	06/01/09	gross β	1.7E-02 ± 2.3E-03
	06/01/09	06/15/09	gross α	1.2E-03 ± 5.4E-04
	06/01/09	06/15/09	gross β	1.5E-02 ± 2.1E-03
	06/15/09	06/29/09	gross α	3.6E-04 ± 4.2E-04
	06/15/09	06/29/09	gross β	1.1E-02 ± 1.7E-03
	06/29/09	07/13/09	gross α	8.4E-04 ± 5.7E-04
	06/29/09	07/13/09	gross β	1.4E-02 ± 2.0E-03
	07/13/09	07/27/09	gross α	1.4E-03 ± 5.8E-04
	07/13/09	07/27/09	gross β	1.7E-02 ± 2.2E-03
	07/27/09	08/10/09	gross α	2.6E-04 ± 4.0E-04
	07/27/09	08/10/09	gross β	1.9E-02 ± 2.5E-03
	08/10/09	08/24/09	gross α	1.2E-03 ± 5.5E-04
	08/10/09	08/24/09	gross β	1.2E-02 ± 1.7E-03
	08/24/09	09/08/09	gross α	1.3E-03 ± 5.2E-04
	08/24/09	09/08/09	gross β	1.6E-02 ± 2.1E-03
	09/08/09	09/21/09	gross α	1.3E-03 ± 5.7E-04
	09/08/09	09/21/09	gross β	1.5E-02 ± 2.1E-03
	09/21/09	10/05/09	gross α	1.4E-03 ± 6.0E-04
	09/21/09	10/05/09	gross β	1.3E-02 ± 1.9E-03
	10/05/09	10/19/09	gross α	1.5E-03 ± 6.0E-04
	10/05/09	10/19/09	gross β	2.0E-02 ± 2.6E-03
	10/19/09	11/02/09	gross α	1.0E-03 ± 4.9E-04
	10/19/09	11/02/09	gross β	1.4E-02 ± 1.9E-03
	11/02/09	11/16/09	gross α	9.8E-04 ± 6.1E-04
	11/02/09	11/16/09	gross β	1.0E-02 ± 1.6E-03
	11/16/09	11/30/09	gross α	7.3E-04 ± 5.5E-04
	11/16/09	11/30/09	gross β	1.8E-02 ± 2.4E-03
	11/30/09	12/14/09	gross α	1.1E-03 ± 5.1E-04
	11/30/09	12/14/09	gross β	3.2E-02 ± 3.6E-03
	12/14/09	12/28/09	gross α	2.2E-03 ± 7.1E-04
	12/14/09	12/28/09	gross β	3.3E-02 ± 3.7E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N554	12/29/08 to 06/29/09	^{60}Co	7.3E-05 ± 1.3E-04	U
		^{134}Cs	3.2E-05 ± 1.1E-04	U
		^{137}Cs	9.3E-05 ± 1.1E-04	U
		^{152}Eu	1.9E-04 ± 3.1E-04	U
		^{154}Eu	-2.4E-04 ± 3.5E-04	U
		^{155}Eu	-1.2E-04 ± 2.1E-04	U
		^{238}Pu	1.6E-06 ± 1.4E-05	U
		$^{239/240}$Pu	6.4E-06 ± 6.0E-06	U
		^{106}Ru	4.1E-04 ± 1.0E-03	U
		^{125}Sb	-1.0E-04 ± 2.6E-04	U
		^{90}Sr	-1.2E-04 ± 1.3E-04	
		^{234}U	1.3E-05 ± 8.9E-06	
		^{235}U	6.1E-06 ± 5.1E-06	
		^{238}U	9.5E-06 ± 7.3E-06	
N554	06/29/09 to 12/28/09	^{60}Co	-1.7E-05 ± 9.1E-05	U
		^{134}Cs	1.8E-05 ± 9.5E-05	U
		^{137}Cs	1.2E-04 ± 9.3E-05	U
		^{152}Eu	9.1E-05 ± 2.0E-04	U
		^{154}Eu	1.8E-04 ± 2.4E-04	U
		^{155}Eu	-2.7E-05 ± 1.4E-04	U
		^{238}Pu	5.6E-07 ± 5.8E-07	U
		$^{239/240}$Pu	3.3E-05 ± 1.5E-05	
		^{106}Ru	-2.3E-04 ± 6.7E-04	U
		^{125}Sb	9.4E-05 ± 1.9E-04	U
		^{90}Sr	-1.7E-05 ± 1.8E-05	U
		^{234}U	1.3E-05 ± 9.8E-06	
		^{235}U	-2.0E-06 ± 4.9E-06	U
		^{238}U	2.0E-05 ± 1.1E-05	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 58 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N555	12/29/08	01/12/09	gross α	1.1E-03 ± 5.1E-04
(200-W)	12/29/08	01/12/09	gross β	1.1E-02 ± 1.6E-03
	01/12/09	01/26/09	gross α	2.4E-03 ± 7.4E-04
	01/12/09	01/26/09	gross β	4.0E-02 ± 4.3E-03
	01/26/09	02/09/09	gross α	1.8E-03 ± 6.4E-04
	01/26/09	02/09/09	gross β	2.7E-02 ± 3.1E-03
	02/09/09	02/23/09	gross α	1.6E-03 ± 6.1E-04
	02/09/09	02/23/09	gross β	3.3E-02 ± 3.7E-03
	02/23/09	03/09/09	gross α	3.7E-04 ± 4.3E-04
	02/23/09	03/09/09	gross β	1.6E-02 ± 2.2E-03
	03/09/09	03/23/09	gross α	8.3E-04 ± 5.5E-04
	03/09/09	03/23/09	gross β	1.3E-02 ± 1.8E-03
	03/23/09	04/06/09	gross α	1.3E-03 ± 5.5E-04
	03/23/09	04/06/09	gross β	9.6E-03 ± 1.5E-03
	04/06/09	04/20/09	gross α	1.6E-03 ± 6.2E-04
	04/06/09	04/20/09	gross β	1.1E-02 ± 1.6E-03
	04/20/09	05/04/09	gross α	1.9E-03 ± 6.6E-04
	04/20/09	05/04/09	gross β	1.7E-02 ± 2.3E-03
	05/04/09	05/18/09	gross α	1.0E-03 ± 4.8E-04
	05/04/09	05/18/09	gross β	9.2E-03 ± 1.5E-03
	05/18/09	06/01/09	gross α	5.7E-04 ± 4.8E-04
	05/18/09	06/01/09	gross β	1.8E-02 ± 2.4E-03
	06/01/09	06/15/09	gross α	1.5E-03 ± 6.0E-04
	06/01/09	06/15/09	gross β	2.0E-02 ± 2.5E-03
	06/15/09	06/30/09	gross α	9.3E-04 ± 4.4E-04
	06/15/09	06/30/09	gross β	1.1E-02 ± 1.7E-03
	06/30/09	07/13/09	gross α	7.2E-04 ± 5.5E-04
	06/30/09	07/13/09	gross β	1.7E-02 ± 2.3E-03
	07/13/09	07/27/09	gross α	1.2E-03 ± 5.5E-04
	07/13/09	07/27/09	gross β	1.4E-02 ± 2.0E-03
	07/27/09	08/10/09	gross α	1.0E-03 ± 4.8E-04
	07/27/09	08/10/09	gross β	2.3E-02 ± 2.8E-03
	08/10/09	08/24/09	gross α	1.4E-03 ± 5.9E-04
	08/10/09	08/24/09	gross β	1.2E-02 ± 1.8E-03
	08/24/09	09/08/09	gross α	2.0E-03 ± 6.6E-04
	08/24/09	09/08/09	gross β	2.0E-02 ± 2.5E-03
	09/08/09	09/21/09	gross α	1.1E-03 ± 5.1E-04
	09/08/09	09/21/09	gross β	2.0E-02 ± 2.6E-03
	09/21/09	10/05/09	gross α	9.4E-04 ± 6.0E-04
	09/21/09	10/05/09	gross β	1.2E-02 ± 1.8E-03
	10/05/09	10/19/09	gross α	6.2E-04 ± 5.1E-04
	10/05/09	10/19/09	gross β	1.8E-02 ± 2.3E-03
	10/19/09	11/02/09	gross α	1.3E-03 ± 5.5E-04
	10/19/09	11/02/09	gross β	1.3E-02 ± 1.8E-03
	11/02/09	11/16/09	gross α	7.3E-04 ± 5.4E-04
	11/02/09	11/16/09	gross β	1.0E-02 ± 1.5E-03
	11/16/09	11/30/09	gross α	5.8E-04 ± 4.9E-04
	11/16/09	11/30/09	gross β	1.9E-02 ± 2.5E-03
	11/30/09	12/14/09	gross α	1.2E-03 ± 5.4E-04
	11/30/09	12/14/09	gross β	3.6E-02 ± 4.0E-03
	12/14/09	12/28/09	gross α	1.4E-03 ± 5.7E-04
	12/14/09	12/28/09	gross β	3.6E-02 ± 4.0E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N555	12/29/08 to 06/30/09	^{60}Co	9.5E-06 ± 7.9E-05	U
		^{134}Cs	-1.4E-06 ± 1.4E-05	U
		^{137}Cs	2.1E-05 ± 6.8E-05	U
		^{152}Eu	2.7E-05 ± 1.9E-04	U
		^{154}Eu	-4.6E-05 ± 2.1E-04	U
		^{155}Eu	1.9E-04 ± 1.7E-04	U
		^{238}Pu	1.5E-06 ± 1.0E-05	U
		$^{239/240}$Pu	7.5E-07 ± 7.8E-07	U
		^{106}Ru	1.7E-04 ± 6.0E-04	U
		^{125}Sb	-7.0E-05 ± 1.4E-04	U
		^{90}Sr	-5.1E-05 ± 5.3E-05	U
		^{234}U	1.2E-05 ± 7.7E-06	
		^{235}U	5.5E-06 ± 5.6E-06	U
		^{238}U	9.4E-06 ± 6.3E-06	
N555	06/30/09 to 12/28/09	^{60}Co	5.3E-05 ± 8.5E-05	U
		^{134}Cs	2.8E-05 ± 7.9E-05	U
		^{137}Cs	6.1E-05 ± 7.1E-05	U
		^{152}Eu	-2.3E-05 ± 2.1E-04	U
		^{154}Eu	1.2E-04 ± 2.4E-04	U
		^{155}Eu	-4.2E-05 ± 1.8E-04	U
		^{238}Pu	3.1E-06 ± 5.2E-06	U
		$^{239/240}$Pu	8.8E-06 ± 5.5E-06	
		^{106}Ru	-7.5E-05 ± 5.9E-04	U
		^{125}Sb	3.3E-05 ± 1.5E-04	U
		^{90}Sr	-1.2E-04 ± 1.2E-04	U
		^{234}U	5.8E-06 ± 5.9E-06	U
		^{235}U	1.8E-06 ± 3.7E-06	U
		^{238}U	1.3E-05 ± 8.3E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 59 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N956	12/29/08	01/12/09	gross α	6.4E-04 ± 5.2E-04
(200-W)	12/29/08	01/12/09	gross β	1.1E-02 ± 1.6E-03
	01/12/09	01/26/09	gross α	1.4E-03 ± 5.7E-04
	01/12/09	01/26/09	gross β	3.9E-02 ± 3.7E-03
	01/26/09	02/09/09	gross α	2.0E-03 ± 6.7E-04
	01/26/09	02/09/09	gross β	3.0E-02 ± 3.0E-03
	02/09/09	02/23/09	gross α	1.1E-03 ± 5.1E-04
	02/09/09	02/23/09	gross β	2.5E-02 ± 2.7E-03
	02/23/09	03/09/09	gross α	5.9E-04 ± 4.9E-04
	02/23/09	03/09/09	gross β	1.4E-02 ± 1.9E-03
	03/09/09	03/23/09	gross α	6.6E-04 ± 5.3E-04
	03/09/09	03/23/09	gross β	1.7E-02 ± 2.1E-03
	03/23/09	04/06/09	gross α	5.3E-04 ± 5.0E-04
	03/23/09	04/06/09	gross β	7.3E-03 ± 1.2E-03
	04/06/09	04/20/09	gross α	1.2E-03 ± 5.2E-04
	04/06/09	04/20/09	gross β	1.1E-02 ± 1.6E-03
	04/20/09	05/04/09	gross α	9.1E-04 ± 5.7E-04
	04/20/09	05/04/09	gross β	1.4E-02 ± 1.8E-03
	05/04/09	05/18/09	gross α	6.2E-04 ± 5.2E-04
	05/04/09	05/18/09	gross β	9.8E-03 ± 1.5E-03
	05/18/09	06/01/09	gross α	9.6E-04 ± 5.9E-04
	05/18/09	06/01/09	gross β	1.6E-02 ± 1.9E-03
	06/01/09	06/15/09	gross α	7.4E-04 ± 5.3E-04
	06/01/09	06/15/09	gross β	2.1E-02 ± 2.4E-03
	06/15/09	06/30/09	gross α	9.2E-04 ± 5.6E-04
	06/15/09	06/30/09	gross β	9.2E-03 ± 1.4E-03
	06/30/09	07/13/09	gross α	8.0E-04 ± 5.9E-04
	06/30/09	07/13/09	gross β	1.3E-02 ± 1.8E-03
	07/13/09	07/27/09	gross α	1.3E-03 ± 5.6E-04
	07/13/09	07/27/09	gross β	1.7E-02 ± 2.2E-03
	07/27/09	08/10/09	gross α	8.8E-04 ± 5.9E-04
	07/27/09	08/10/09	gross β	2.1E-02 ± 2.4E-03
	08/10/09	08/24/09	gross α	1.1E-03 ± 5.2E-04
	08/10/09	08/24/09	gross β	1.0E-02 ± 1.5E-03
	08/24/09	09/08/09	gross α	9.1E-04 ± 5.6E-04
	08/24/09	09/08/09	gross β	1.6E-02 ± 1.9E-03
	09/08/09	09/21/09	gross α	1.2E-03 ± 5.4E-04
	09/08/09	09/21/09	gross β	1.8E-02 ± 2.2E-03
	09/21/09	10/05/09	gross α	6.2E-04 ± 5.2E-04
	09/21/09	10/05/09	gross β	1.6E-02 ± 2.1E-03
	10/05/09	10/19/09	gross α	1.3E-03 ± 5.6E-04
	10/05/09	10/19/09	gross β	2.0E-02 ± 2.3E-03
	10/19/09	11/02/09	gross α	1.4E-03 ± 5.8E-04
	10/19/09	11/02/09	gross β	1.2E-02 ± 1.6E-03
	11/02/09	11/16/09	gross α	1.4E-03 ± 5.7E-04
	11/02/09	11/16/09	gross β	1.2E-02 ± 1.6E-03
	11/16/09	11/30/09	gross α	1.5E-03 ± 6.0E-04
	11/16/09	11/30/09	gross β	1.8E-02 ± 2.2E-03
	11/30/09	12/14/09	gross α	2.3E-03 ± 7.3E-04
	11/30/09	12/14/09	gross β	4.7E-02 ± 4.3E-03
	12/14/09	12/28/09	gross α	1.6E-03 ± 6.1E-04
	12/14/09	12/28/09	gross β	3.2E-02 ± 3.3E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N956	12/29/08 to 06/30/09	^{60}Co	-2.5E-05 ± 7.2E-05	U
		^{134}Cs	3.3E-05 ± 5.9E-05	U
		^{137}Cs	1.0E-04 ± 9.5E-05	
		^{152}Eu	1.3E-05 ± 1.3E-04	U
		^{154}Eu	-5.0E-05 ± 1.8E-04	U
		^{155}Eu	-2.2E-05 ± 1.6E-04	U
		^{238}Pu	6.7E-06 ± 1.2E-05	U
		$^{239/240}$Pu	2.2E-06 ± 4.5E-06	U
		^{106}Ru	9.4E-05 ± 5.6E-04	U
		^{125}Sb	4.3E-05 ± 1.4E-04	U
		^{90}Sr	-2.4E-04 ± 2.5E-04	U
		^{234}U	1.0E-05 ± 7.1E-06	
		^{235}U	2.1E-06 ± 2.6E-06	
		^{238}U	1.4E-05 ± 8.0E-06	
N956	06/30/09 to 12/28/09	^{60}Co	-3.9E-06 ± 3.9E-05	U
		^{134}Cs	6.1E-06 ± 6.1E-05	U
		^{137}Cs	2.0E-04 ± 1.3E-04	
		^{152}Eu	-3.1E-05 ± 1.6E-04	U
		^{154}Eu	6.9E-05 ± 2.4E-04	U
		^{155}Eu	6.6E-05 ± 1.5E-04	U
		^{238}Pu	3.7E-06 ± 3.7E-06	U
		$^{239/240}$Pu	2.4E-06 ± 3.9E-06	U
		^{106}Ru	1.0E-04 ± 6.1E-04	U
		^{125}Sb	1.3E-06 ± 1.3E-05	U
		^{90}Sr	-4.1E-04 ± 4.3E-04	U
		^{234}U	1.3E-05 ± 8.2E-06	
		^{235}U	3.4E-06 ± 3.7E-06	
		^{238}U	7.8E-06 ± 5.8E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 60 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N963	12/29/08	01/12/09	gross α	9.4E-04 ± 5.8E-04
(200-W)	12/29/08	01/12/09	gross β	1.1E-02 ± 1.5E-03
	01/12/09	01/26/09	gross α	5.7E-04 ± 7.7E-04
	01/12/09	01/26/09	gross β	2.9E-03 ± 1.0E-03
	01/26/09	02/09/09	gross α	1.7E-03 ± 6.1E-04
	01/26/09	02/09/09	gross β	2.5E-02 ± 2.7E-03
	02/09/09	02/23/09	gross α	1.8E-03 ± 6.6E-04
	02/09/09	02/23/09	gross β	2.4E-02 ± 2.7E-03
	02/23/09	03/09/09	gross α	1.2E-03 ± 5.4E-04
	02/23/09	03/09/09	gross β	1.4E-02 ± 1.9E-03
	03/09/09	03/23/09	gross α	7.6E-04 ± 5.5E-04
	03/09/09	03/23/09	gross β	1.3E-02 ± 1.7E-03
	03/23/09	04/06/09	gross α	9.8E-04 ± 6.0E-04
	03/23/09	04/06/09	gross β	7.5E-03 ± 1.2E-03
	04/06/09	04/20/09	gross α	6.3E-04 ± 5.0E-04
	04/06/09	04/20/09	gross β	1.3E-02 ± 1.8E-03
	04/20/09	05/04/09	gross α	1.0E-03 ± 4.7E-04
	04/20/09	05/04/09	gross β	1.5E-02 ± 2.0E-03
	05/04/09	05/18/09	gross α	9.2E-04 ± 5.8E-04
	05/04/09	05/18/09	gross β	9.8E-03 ± 1.5E-03
	05/18/09	06/01/09	gross α	9.6E-04 ± 5.9E-04
	05/18/09	06/01/09	gross β	1.5E-02 ± 1.9E-03
	06/01/09	06/15/09	gross α	1.9E-03 ± 6.5E-04
	06/01/09	06/15/09	gross β	1.8E-02 ± 2.1E-03
	06/15/09	06/30/09	gross α	9.8E-04 ± 4.5E-04
	06/15/09	06/30/09	gross β	1.1E-02 ± 1.5E-03
	06/30/09	07/13/09	gross α	9.5E-04 ± 6.4E-04
	06/30/09	07/13/09	gross β	1.4E-02 ± 1.8E-03
	07/13/09	07/27/09	gross α	8.2E-04 ± 5.6E-04
	07/13/09	07/27/09	gross β	1.8E-02 ± 2.2E-03
	07/27/09	08/10/09	gross α	2.0E-03 ± 6.7E-04
	07/27/09	08/10/09	gross β	1.8E-02 ± 2.2E-03
	08/10/09	08/24/09	gross α	1.2E-03 ± 5.2E-04
	08/10/09	08/24/09	gross β	1.2E-02 ± 1.6E-03
	08/24/09	09/08/09	gross α	1.2E-03 ± 5.2E-04
	08/24/09	09/08/09	gross β	1.6E-02 ± 1.9E-03
	09/08/09	09/21/09	gross α	1.1E-03 ± 5.0E-04
	09/08/09	09/21/09	gross β	1.7E-02 ± 2.2E-03
	09/21/09	10/05/09	gross α	1.3E-03 ± 5.5E-04
	09/21/09	10/05/09	gross β	1.4E-02 ± 1.9E-03
	10/05/09	10/19/09	gross α	1.4E-03 ± 5.9E-04
	10/05/09	10/19/09	gross β	2.0E-02 ± 2.3E-03
	10/19/09	11/02/09	gross α	8.4E-04 ± 5.6E-04
	10/19/09	11/02/09	gross β	1.0E-02 ± 1.5E-03
	11/02/09	11/16/09	gross α	8.5E-04 ± 5.6E-04
	11/02/09	11/16/09	gross β	1.5E-02 ± 1.9E-03
	11/16/09	11/30/09	gross α	1.4E-03 ± 5.8E-04
	11/16/09	11/30/09	gross β	1.8E-02 ± 2.1E-03
	11/30/09	12/14/09	gross α	2.2E-03 ± 7.1E-04
	11/30/09	12/14/09	gross β	3.8E-02 ± 3.7E-03
	12/14/09	12/28/09	gross α	1.6E-03 ± 5.9E-04
	12/14/09	12/28/09	gross β	2.9E-02 ± 3.1E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N963	12/29/08 to 06/30/09	^{60}Co	1.2E-05 ± 7.4E-05	U
		^{134}Cs	-2.3E-05 ± 7.7E-05	U
		^{137}Cs	5.7E-06 ± 5.7E-05	U
		^{152}Eu	3.3E-05 ± 2.1E-04	U
		^{154}Eu	1.8E-04 ± 2.4E-04	U
		^{155}Eu	-9.3E-05 ± 1.8E-04	U
		^{238}Pu	-4.8E-06 ± 8.6E-06	U
		$^{239/240}$Pu	-2.1E-06 ± 3.7E-06	U
		^{106}Ru	1.5E-04 ± 6.4E-04	U
		^{125}Sb	8.7E-05 ± 1.6E-04	U
		^{90}Sr	-4.4E-04 ± 4.6E-04	U
		^{234}U	1.4E-05 ± 8.2E-06	
		^{235}U	7.0E-07 ± 1.4E-06	U
		^{238}U	5.2E-06 ± 4.5E-06	
N963	06/30/09 to 12/28/09	^{60}Co	-3.4E-05 ± 8.4E-05	U
		^{134}Cs	-2.2E-05 ± 8.0E-05	U
		^{137}Cs	2.6E-05 ± 7.5E-05	U
		^{152}Eu	-1.7E-05 ± 1.7E-04	U
		^{154}Eu	4.4E-05 ± 2.4E-04	U
		^{155}Eu	-7.2E-05 ± 1.4E-04	U
		^{238}Pu	1.6E-05 ± 8.3E-06	
		$^{239/240}$Pu	2.8E-06 ± 3.5E-06	U
		^{106}Ru	5.6E-05 ± 5.6E-04	U
		^{125}Sb	-3.2E-06 ± 3.2E-05	U
		^{90}Sr	-1.1E-04 ± 1.2E-04	U
		^{234}U	9.4E-06 ± 6.5E-06	
		^{235}U	7.4E-07 ± 3.9E-06	U
		^{238}U	8.1E-06 ± 6.2E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 61 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N964	12/29/08	01/12/09	gross α	2.8E-04 ± 4.0E-04
(200-W)	12/29/08	01/12/09	gross β	9.5E-03 ± 1.4E-03
	01/12/09	01/26/09	gross α	1.5E-03 ± 5.8E-04
	01/12/09	01/26/09	gross β	3.6E-02 ± 3.5E-03
	01/26/09	02/09/09	gross α	7.2E-04 ± 5.2E-04
	01/26/09	02/09/09	gross β	2.8E-02 ± 2.9E-03
	02/09/09	02/23/09	gross α	8.7E-04 ± 5.8E-04
	02/09/09	02/23/09	gross β	2.2E-02 ± 2.5E-03
	02/23/09	03/09/09	gross α	1.0E-03 ± 4.7E-04
	02/23/09	03/09/09	gross β	1.3E-02 ± 1.8E-03
	03/09/09	03/23/09	gross α	8.5E-04 ± 5.6E-04
	03/09/09	03/23/09	gross β	1.5E-02 ± 1.9E-03
	03/23/09	04/06/09	gross α	6.2E-04 ± 5.0E-04
	03/23/09	04/06/09	gross β	8.3E-03 ± 1.3E-03
	04/06/09	04/20/09	gross α	4.0E-04 ± 4.4E-04
	04/06/09	04/20/09	gross β	1.1E-02 ± 1.6E-03
	04/20/09	05/04/09	gross α	2.3E-03 ± 7.3E-04
	04/20/09	05/04/09	gross β	1.6E-02 ± 2.0E-03
	05/04/09	05/18/09	gross α	2.6E-04 ± 3.9E-04
	05/04/09	05/18/09	gross β	1.2E-02 ± 1.7E-03
	05/18/09	06/01/09	gross α	7.4E-04 ± 5.3E-04
	05/18/09	06/01/09	gross β	1.3E-02 ± 1.7E-03
	06/01/09	06/15/09	gross α	9.7E-04 ± 5.9E-04
	06/01/09	06/15/09	gross β	1.5E-02 ± 1.9E-03
	06/15/09	06/29/09	gross α	6.2E-04 ± 5.0E-04
	06/15/09	06/29/09	gross β	8.9E-03 ± 1.4E-03
	06/29/09	07/13/09	gross α	1.5E-03 ± 6.0E-04
	06/29/09	07/13/09	gross β	1.2E-02 ± 1.7E-03
	07/13/09	07/27/09	gross α	6.6E-04 ± 5.0E-04
	07/13/09	07/27/09	gross β	5.8E-03 ± 1.1E-03
	07/27/09	08/10/09	gross α	5.9E-04 ± 4.9E-04
	07/27/09	08/10/09	gross β	8.3E-03 ± 1.3E-03
	08/10/09	08/24/09	gross α	1.1E-03 ± 5.0E-04
	08/10/09	08/24/09	gross β	1.1E-02 ± 1.6E-03
	08/24/09	09/08/09	gross α	1.0E-03 ± 4.7E-04
	08/24/09	09/08/09	gross β	1.6E-02 ± 2.0E-03
	09/08/09	09/21/09	gross α	1.2E-03 ± 5.3E-04
	09/08/09	09/21/09	gross β	1.5E-02 ± 2.0E-03
	09/21/09	10/05/09	gross α	1.0E-03 ± 5.0E-04
	09/21/09	10/05/09	gross β	1.4E-02 ± 1.9E-03
	10/05/09	10/19/09	gross α	1.2E-03 ± 5.2E-04
	10/05/09	10/19/09	gross β	1.9E-02 ± 2.2E-03
	10/19/09	11/02/09	gross α	3.9E-04 ± 4.4E-04
	10/19/09	11/02/09	gross β	8.0E-03 ± 1.3E-03
	11/02/09	11/16/09	gross α	1.5E-03 ± 5.8E-04
	11/02/09	11/16/09	gross β	1.4E-02 ± 1.8E-03
	11/16/09	11/30/09	gross α	3.7E-04 ± 5.0E-04
	11/16/09	11/30/09	gross β	1.3E-02 ± 1.9E-03
	11/30/09	12/14/09	gross α	2.0E-03 ± 7.0E-04
	11/30/09	12/14/09	gross β	3.9E-02 ± 3.8E-03
	12/14/09	12/28/09	gross α	2.2E-03 ± 7.1E-04
	12/14/09	12/28/09	gross β	3.0E-02 ± 3.1E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N964	12/29/08 to 06/29/09	^{60}Co	-3.4E-05 ± 1.2E-04	U
		^{134}Cs	4.7E-05 ± 1.1E-04	U
		^{137}Cs	9.1E-06 ± 8.9E-05	U
		^{152}Eu	1.8E-04 ± 2.6E-04	U
		^{154}Eu	7.7E-05 ± 3.6E-04	U
		^{155}Eu	-6.6E-05 ± 2.0E-04	U
		^{238}Pu	8.2E-06 ± 1.4E-05	U
		$^{239/240}$Pu	2.3E-06 ± 3.5E-06	U
		^{106}Ru	-6.2E-04 ± 9.5E-04	U
		^{125}Sb	-7.8E-06 ± 7.8E-05	U
		^{90}Sr	-3.3E-04 ± 3.4E-04	U
		^{234}U	1.3E-05 ± 8.3E-06	
		^{235}U	1.8E-06 ± 2.6E-06	U
		^{238}U	9.0E-06 ± 6.4E-06	
N964	06/29/09 to 12/28/09	^{60}Co	1.1E-05 ± 7.0E-05	U
		^{134}Cs	3.2E-07 ± 3.2E-06	U
		^{137}Cs	1.2E-05 ± 7.1E-05	U
		^{152}Eu	-1.2E-05 ± 1.2E-04	U
		^{154}Eu	8.9E-06 ± 8.9E-05	U
		^{155}Eu	-6.2E-05 ± 1.7E-04	U
		^{238}Pu	2.3E-06 ± 3.3E-06	U
		$^{239/240}$Pu	2.3E-06 ± 2.4E-06	
		^{106}Ru	2.9E-04 ± 6.5E-04	U
		^{125}Sb	1.1E-04 ± 1.6E-04	U
		^{90}Sr	-3.2E-04 ± 3.3E-04	U
		^{234}U	1.3E-05 ± 8.7E-06	
		^{235}U	-3.1E-06 ± 3.3E-06	U
		^{238}U	1.2E-05 ± 7.5E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 62 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N965	12/29/08	01/12/09	gross α	1.1E-03 ± 5.1E-04
(200-W)	12/29/08	01/12/09	gross β	8.9E-03 ± 1.4E-03
	01/12/09	01/26/09	gross α	1.5E-03 ± 5.8E-04
	01/12/09	01/26/09	gross β	3.4E-02 ± 3.3E-03
	01/26/09	02/09/09	gross α	1.4E-03 ± 5.5E-04
	01/26/09	02/09/09	gross β	3.0E-02 ± 3.0E-03
	02/09/09	02/23/09	gross α	1.7E-03 ± 6.3E-04
	02/09/09	02/23/09	gross β	2.0E-02 ± 2.3E-03
	02/23/09	03/09/09	gross α	1.6E-03 ± 6.0E-04
	02/23/09	03/09/09	gross β	1.0E-02 ± 1.6E-03
	03/09/09	03/23/09	gross α	1.5E-03 ± 5.8E-04
	03/09/09	03/23/09	gross β	1.2E-02 ± 1.6E-03
	03/23/09	04/06/09	gross α	5.2E-04 ± 4.8E-04
	03/23/09	04/06/09	gross β	8.7E-03 ± 1.4E-03
	04/06/09	04/20/09	gross α	1.4E-03 ± 5.7E-04
	04/06/09	04/20/09	gross β	1.2E-02 ± 1.6E-03
	04/20/09	05/04/09	gross α	1.4E-03 ± 5.6E-04
	04/20/09	05/04/09	gross β	1.6E-02 ± 2.0E-03
	05/04/09	05/18/09	gross α	9.2E-04 ± 5.8E-04
	05/04/09	05/18/09	gross β	9.1E-03 ± 1.4E-03
	05/18/09	06/01/09	gross α	1.3E-03 ± 5.3E-04
	05/18/09	06/01/09	gross β	1.6E-02 ± 1.9E-03
	06/01/09	06/15/09	gross α	5.2E-04 ± 4.7E-04
	06/01/09	06/15/09	gross β	1.9E-02 ± 2.2E-03
	06/15/09	06/29/09	gross α	1.5E-03 ± 6.5E-04
	06/15/09	06/29/09	gross β	1.4E-02 ± 2.0E-03
	06/29/09	07/13/09	gross α	1.4E-03 ± 6.4E-04
	06/29/09	07/13/09	gross β	1.8E-02 ± 2.3E-03
	07/13/09	07/27/09	gross α	1.6E-03 ± 6.0E-04
	07/13/09	07/27/09	gross β	1.4E-02 ± 1.9E-03
	07/27/09	08/10/09	gross α	1.1E-03 ± 5.1E-04
	07/27/09	08/10/09	gross β	1.7E-02 ± 2.1E-03
	08/10/09	08/24/09	gross α	7.2E-04 ± 5.2E-04
	08/10/09	08/24/09	gross β	1.5E-02 ± 1.9E-03
	08/24/09	09/08/09	gross α	1.2E-03 ± 5.1E-04
	08/24/09	09/08/09	gross β	1.6E-02 ± 2.0E-03
	09/08/09	09/21/09	gross α	1.2E-03 ± 5.3E-04
	09/08/09	09/21/09	gross β	1.6E-02 ± 2.1E-03
	09/21/09	10/05/09	gross α	5.7E-04 ± 4.8E-04
	09/21/09	10/05/09	gross β	1.5E-02 ± 1.9E-03
	10/05/09	10/19/09	gross α	9.8E-04 ± 6.1E-04
	10/05/09	10/19/09	gross β	1.6E-02 ± 2.0E-03
	10/19/09	11/02/09	gross α	1.6E-03 ± 6.1E-04
	10/19/09	11/02/09	gross β	9.9E-03 ± 1.5E-03
	11/02/09	11/16/09	gross α	2.3E-03 ± 7.3E-04
	11/02/09	11/16/09	gross β	1.3E-02 ± 1.7E-03
	11/16/09	11/30/09	gross α	1.5E-03 ± 6.0E-04
	11/16/09	11/30/09	gross β	1.8E-02 ± 2.2E-03
	11/30/09	12/14/09	gross α	2.1E-03 ± 6.9E-04
	11/30/09	12/14/09	gross β	4.2E-02 ± 3.9E-03
	12/14/09	12/28/09	gross α	1.6E-03 ± 6.0E-04
	12/14/09	12/28/09	gross β	3.1E-02 ± 3.2E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N965	12/29/08 to 06/29/09	^{60}Co	3.3E-05 ± 6.5E-05	U
		^{134}Cs	-8.6E-06 ± 6.6E-05	U
		^{137}Cs	-7.1E-06 ± 5.6E-05	U
		^{152}Eu	6.6E-05 ± 1.4E-04	U
		^{154}Eu	-1.8E-05 ± 1.8E-04	U
		^{155}Eu	1.0E-04 ± 1.6E-04	U
		^{238}Pu	-1.4E-06 ± 1.2E-05	U
		$^{239/240}$Pu	5.0E-06 ± 5.1E-06	U
		^{106}Ru	1.7E-04 ± 5.6E-04	U
		^{125}Sb	1.8E-04 ± 1.5E-04	U
		^{90}Sr	-2.7E-04 ± 2.8E-04	U
		^{234}U	1.0E-05 ± 7.0E-06	
		^{235}U	4.6E-06 ± 4.7E-06	U
		^{238}U	7.0E-06 ± 5.5E-06	
N965	06/29/09 to 12/28/09	^{60}Co	-8.3E-05 ± 9.7E-05	U
		^{134}Cs	-2.4E-05 ± 8.5E-05	U
		^{137}Cs	1.3E-05 ± 7.4E-05	U
		^{152}Eu	5.6E-05 ± 1.6E-04	U
		^{154}Eu	-1.0E-04 ± 2.6E-04	U
		^{155}Eu	9.0E-05 ± 1.7E-04	U
		^{238}Pu	6.1E-07 ± 2.7E-06	U
		$^{239/240}$Pu	6.1E-07 ± 1.2E-06	U
		^{103}Ru	-1.5E-05 ± 1.2E-04	U
		^{106}Ru	1.5E-04 ± 6.9E-04	U
		^{125}Sb	-3.8E-05 ± 1.7E-04	U
		^{113}Sn	3.5E-05 ± 8.9E-05	U
		^{90}Sr	-2.6E-04 ± 2.7E-04	U
		^{234}U	8.5E-06 ± 6.3E-06	
		^{235}U	6.5E-07 ± 6.5E-06	U
		^{238}U	9.8E-06 ± 6.3E-06	
		^{65}Zn	1.6E-04 ± 2.2E-04	U

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 63 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N966	12/29/08	01/12/09	gross α	6.6E-04 ± 5.4E-04
(200-W)	12/29/08	01/12/09	gross β	1.1E-02 ± 1.6E-03
	01/12/09	01/26/09	gross α	1.5E-03 ± 5.8E-04
	01/12/09	01/26/09	gross β	4.1E-02 ± 3.9E-03
	01/26/09	02/09/09	gross α	1.7E-03 ± 6.1E-04
	01/26/09	02/09/09	gross β	3.3E-02 ± 3.2E-03
	02/09/09	02/23/09	gross α	1.3E-03 ± 5.5E-04
	02/09/09	02/23/09	gross β	2.8E-02 ± 2.9E-03
	02/23/09	03/09/09	gross α	9.4E-04 ± 5.9E-04
	02/23/09	03/09/09	gross β	1.5E-02 ± 2.0E-03
	03/09/09	03/23/09	gross α	1.4E-03 ± 5.7E-04
	03/09/09	03/23/09	gross β	1.5E-02 ± 1.9E-03
	03/23/09	04/06/09	gross α	6.3E-04 ± 5.2E-04
	03/23/09	04/06/09	gross β	7.9E-03 ± 1.3E-03
	04/06/09	04/20/09	gross α	8.5E-04 ± 5.6E-04
	04/06/09	04/20/09	gross β	1.3E-02 ± 1.7E-03
	04/20/09	05/04/09	gross α	9.1E-04 ± 5.7E-04
	04/20/09	05/04/09	gross β	2.0E-02 ± 2.3E-03
	05/04/09	05/18/09	gross α	8.3E-04 ± 5.6E-04
	05/04/09	05/18/09	gross β	9.6E-03 ± 1.5E-03
	05/18/09	06/01/09	gross α	4.0E-04 ± 4.4E-04
	05/18/09	06/01/09	gross β	1.5E-02 ± 1.9E-03
	06/01/09	06/15/09	gross α	1.2E-03 ± 5.4E-04
	06/01/09	06/15/09	gross β	1.9E-02 ± 2.2E-03
	06/15/09	06/30/09	gross α	1.5E-03 ± 5.7E-04
	06/15/09	06/30/09	gross β	1.2E-02 ± 1.6E-03
	06/30/09	07/13/09	gross α	1.5E-03 ± 6.3E-04
	06/30/09	07/13/09	gross β	1.3E-02 ± 1.8E-03
	07/13/09	07/27/09	gross α	1.7E-03 ± 6.4E-04
	07/13/09	07/27/09	gross β	1.6E-02 ± 2.1E-03
	07/27/09	08/10/09	gross α	8.6E-04 ± 5.8E-04
	07/27/09	08/10/09	gross β	1.7E-02 ± 2.1E-03
	08/10/09	08/24/09	gross α	7.4E-04 ± 5.3E-04
	08/10/09	08/24/09	gross β	1.3E-02 ± 1.7E-03
	08/24/09	09/08/09	gross α	8.1E-04 ± 5.4E-04
	08/24/09	09/08/09	gross β	1.6E-02 ± 1.9E-03
	09/08/09	09/21/09	gross α	1.6E-03 ± 6.1E-04
	09/08/09	09/21/09	gross β	1.8E-02 ± 2.2E-03
	09/21/09	10/05/09	gross α	1.6E-03 ± 6.1E-04
	09/21/09	10/05/09	gross β	1.7E-02 ± 2.1E-03
	10/05/09	10/19/09	gross α	1.0E-03 ± 6.4E-04
	10/05/09	10/19/09	gross β	2.3E-02 ± 2.6E-03
	10/19/09	11/02/09	gross α	6.2E-04 ± 5.0E-04
	10/19/09	11/02/09	gross β	1.2E-02 ± 1.6E-03
	11/02/09	11/16/09	gross α	1.4E-03 ± 5.6E-04
	11/02/09	11/16/09	gross β	1.4E-02 ± 1.8E-03
	11/16/09	11/30/09	gross α	1.3E-03 ± 5.7E-04
	11/16/09	11/30/09	gross β	1.3E-02 ± 1.8E-03
	11/30/09	12/14/09	gross α	1.4E-03 ± 5.8E-04
	11/30/09	12/14/09	gross β	4.7E-02 ± 4.4E-03
	12/14/09	12/28/09	gross α	2.4E-03 ± 7.4E-04
	12/14/09	12/28/09	gross β	3.5E-02 ± 3.5E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N966	12/29/08 to 06/30/09	^{60}Co	7.2E-05 ± 8.3E-05	U
		^{134}Cs	-1.0E-05 ± 7.3E-05	U
		^{137}Cs	-1.6E-05 ± 6.4E-05	U
		^{152}Eu	5.3E-05 ± 1.6E-04	U
		^{154}Eu	-5.6E-05 ± 2.2E-04	U
		^{155}Eu	9.5E-07 ± 9.5E-06	U
		^{238}Pu	-1.2E-05 ± 1.3E-05	U
		$^{239/240}$Pu	6.9E-07 ± 7.1E-07	U
		^{106}Ru	-2.6E-04 ± 6.0E-04	U
		^{125}Sb	5.3E-05 ± 1.5E-04	U
		^{90}Sr	-2.4E-04 ± 2.5E-04	U
		^{234}U	1.2E-05 ± 7.6E-06	
		^{235}U	8.0E-07 ± 2.8E-06	U
		^{238}U	5.1E-06 ± 4.8E-06	U
N966	06/30/09 to 12/28/09	^{60}Co	9.1E-06 ± 7.6E-05	U
		^{134}Cs	6.1E-07 ± 6.1E-06	U
		^{137}Cs	1.3E-04 ± 8.0E-05	U
		^{152}Eu	1.1E-06 ± 1.1E-05	U
		^{154}Eu	1.1E-05 ± 1.1E-04	U
		^{155}Eu	6.1E-05 ± 1.3E-04	U
		^{238}Pu	5.3E-07 ± 1.1E-06	U
		$^{239/240}$Pu	7.5E-06 ± 4.8E-06	
		^{106}Ru	7.9E-04 ± 8.4E-04	U
		^{125}Sb	-6.6E-06 ± 6.6E-05	U
		^{90}Sr	-4.4E-04 ± 4.5E-04	U
		^{234}U	7.1E-06 ± 6.0E-06	
		^{235}U	2.1E-06 ± 2.6E-06	
		^{238}U	5.2E-06 ± 4.5E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 64 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N974	12/29/08	01/12/09	gross α	8.3E-04 ± 5.7E-04
(200-W)	12/29/08	01/12/09	gross β	1.4E-02 ± 1.9E-03
	01/12/09	01/26/09	gross α	1.9E-03 ± 6.7E-04
	01/12/09	01/26/09	gross β	4.3E-02 ± 4.2E-03
	01/26/09	02/09/09	gross α	3.5E-03 ± 9.0E-04
	01/26/09	02/09/09	gross β	3.5E-02 ± 3.6E-03
	02/09/09	02/23/09	gross α	1.5E-03 ± 6.0E-04
	02/09/09	02/23/09	gross β	2.4E-02 ± 2.7E-03
	02/23/09	03/09/09	gross α	4.4E-04 ± 4.7E-04
	02/23/09	03/09/09	gross β	1.5E-02 ± 2.0E-03
	03/09/09	03/23/09	gross α	2.6E-03 ± 8.1E-04
	03/09/09	03/23/09	gross β	1.5E-02 ± 2.0E-03
	03/23/09	04/06/09	gross α	1.1E-03 ± 6.6E-04
	03/23/09	04/06/09	gross β	8.5E-03 ± 1.4E-03
	04/06/09	04/20/09	gross α	1.2E-03 ± 5.4E-04
	04/06/09	04/20/09	gross β	1.5E-02 ± 2.0E-03
	04/20/09	05/04/09	gross α	1.6E-03 ± 6.3E-04
	04/20/09	05/04/09	gross β	1.8E-02 ± 2.3E-03
	05/04/09	05/18/09	gross α	9.6E-04 ± 6.5E-04
	05/04/09	05/18/09	gross β	6.8E-03 ± 1.2E-03
	05/18/09	06/01/09	gross α	1.1E-03 ± 5.3E-04
	05/18/09	06/01/09	gross β	1.9E-02 ± 2.3E-03
	06/01/09	06/15/09	gross α	1.1E-03 ± 6.6E-04
	06/01/09	06/15/09	gross β	1.8E-02 ± 2.2E-03
	06/15/09	06/29/09	gross α	7.5E-04 ± 5.4E-04
	06/15/09	06/29/09	gross β	1.1E-02 ± 1.6E-03
	06/29/09	07/13/09	gross α	6.7E-04 ± 5.3E-04
	06/29/09	07/13/09	gross β	1.2E-02 ± 1.7E-03
	07/13/09	07/27/09	gross α	8.1E-04 ± 5.9E-04
	07/13/09	07/27/09	gross β	2.2E-02 ± 2.5E-03
	07/27/09	08/10/09	gross α	1.4E-03 ± 5.9E-04
	07/27/09	08/10/09	gross β	2.2E-02 ± 2.5E-03
	08/10/09	08/24/09	gross α	1.8E-03 ± 6.7E-04
	08/10/09	08/24/09	gross β	1.3E-02 ± 1.8E-03
	08/24/09	09/08/09	gross α	1.2E-03 ± 5.3E-04
	08/24/09	09/08/09	gross β	1.7E-02 ± 2.1E-03
	09/08/09	09/21/09	gross α	1.1E-03 ± 6.7E-04
	09/08/09	09/21/09	gross β	1.5E-02 ± 2.0E-03
	09/21/09	10/05/09	gross α	8.1E-04 ± 5.9E-04
	09/21/09	10/05/09	gross β	1.3E-02 ± 1.8E-03
	10/05/09	10/19/09	gross α	1.5E-03 ± 6.0E-04
	10/05/09	10/19/09	gross β	2.3E-02 ± 2.6E-03
	10/19/09	11/02/09	gross α	1.1E-03 ± 5.0E-04
	10/19/09	11/02/09	gross β	9.6E-03 ± 1.4E-03
	11/02/09	11/16/09	gross α	1.8E-03 ± 6.7E-04
	11/02/09	11/16/09	gross β	1.8E-02 ± 2.3E-03
	11/16/09	11/30/09	gross α	1.1E-03 ± 7.0E-04
	11/16/09	11/30/09	gross β	1.8E-02 ± 2.3E-03
	11/30/09	12/14/09	gross α	2.6E-03 ± 8.1E-04
	11/30/09	12/14/09	gross β	4.8E-02 ± 4.6E-03
	12/14/09	12/28/09	gross α	1.4E-03 ± 5.7E-04
	12/14/09	12/28/09	gross β	3.1E-02 ± 3.1E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N974	12/29/08 to 06/29/09	^{60}Co	-1.3E-05 ± 7.0E-05	U
		^{134}Cs	-4.0E-05 ± 6.8E-05	U
		^{137}Cs	5.8E-06 ± 5.5E-05	U
		^{152}Eu	2.8E-05 ± 1.5E-04	U
		^{154}Eu	6.0E-05 ± 2.0E-04	U
		^{155}Eu	2.9E-05 ± 1.7E-04	U
		^{238}Pu	-1.4E-05 ± 1.4E-05	U
		$^{239/240}$Pu	-8.0E-07 ± 5.3E-06	U
		^{106}Ru	-9.9E-05 ± 5.8E-04	U
		^{125}Sb	-3.4E-05 ± 1.4E-04	U
		^{90}Sr	-3.0E-04 ± 3.1E-04	U
		^{234}U	9.3E-06 ± 6.4E-06	
		^{235}U	7.5E-07 ± 3.4E-06	U
		^{238}U	8.6E-06 ± 6.1E-06	
N974	06/29/09 to 12/28/09	^{60}Co	-7.5E-05 ± 8.6E-05	U
		^{134}Cs	3.1E-05 ± 8.6E-05	U
		^{137}Cs	2.0E-04 ± 1.4E-04	
		^{152}Eu	1.9E-05 ± 1.9E-04	U
		^{154}Eu	9.4E-05 ± 2.3E-04	U
		^{155}Eu	-1.0E-04 ± 1.8E-04	U
		^{238}Pu	7.9E-07 ± 2.7E-06	U
		$^{239/240}$Pu	2.3E-06 ± 2.8E-06	
		^{106}Ru	-4.4E-04 ± 6.7E-04	U
		^{125}Sb	1.7E-04 ± 1.8E-04	U
		^{90}Sr	2.4E-05 ± 2.5E-05	U
		^{234}U	1.1E-05 ± 7.9E-06	
		^{235}U	4.8E-06 ± 4.4E-06	
		^{238}U	7.4E-06 ± 5.8E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 65 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N975	12/29/08	01/12/09	gross α	7.0E-04 ± 5.3E-04
(200-W)	12/29/08	01/12/09	gross β	1.2E-02 ± 1.7E-03
	01/12/09	01/26/09	gross α	2.5E-03 ± 7.6E-04
	01/12/09	01/26/09	gross β	4.1E-02 ± 3.9E-03
	01/26/09	02/09/09	gross α	2.3E-03 ± 7.3E-04
	01/26/09	02/09/09	gross β	3.1E-02 ± 3.2E-03
	02/09/09	02/23/09	gross α	1.7E-03 ± 6.3E-04
	02/09/09	02/23/09	gross β	2.7E-02 ± 2.8E-03
	02/23/09	03/09/09	gross α	9.6E-04 ± 5.9E-04
	02/23/09	03/09/09	gross β	9.5E-03 ± 1.4E-03
	03/09/09	03/23/09	gross α	1.7E-03 ± 6.3E-04
	03/09/09	03/23/09	gross β	1.5E-02 ± 2.0E-03
	03/23/09	04/06/09	gross α	7.8E-04 ± 5.6E-04
	03/23/09	04/06/09	gross β	7.3E-03 ± 1.2E-03
	04/06/09	04/20/09	gross α	1.4E-03 ± 5.7E-04
	04/06/09	04/20/09	gross β	1.3E-02 ± 1.8E-03
	04/20/09	05/04/09	gross α	1.7E-03 ± 6.3E-04
	04/20/09	05/04/09	gross β	1.8E-02 ± 2.2E-03
	05/04/09	05/18/09	gross α	1.6E-03 ± 6.4E-04
	05/04/09	05/18/09	gross β	6.4E-03 ± 1.2E-03
	05/18/09	06/01/09	gross α	1.4E-03 ± 5.7E-04
	05/18/09	06/01/09	gross β	1.6E-02 ± 2.1E-03
	06/01/09	06/15/09	gross α	8.9E-04 ± 5.9E-04
	06/01/09	06/15/09	gross β	1.8E-02 ± 2.2E-03
	06/15/09	06/29/09	gross α	1.6E-03 ± 6.0E-04
	06/15/09	06/29/09	gross β	9.6E-03 ± 1.4E-03
	06/29/09	07/13/09	gross α	7.9E-04 ± 5.7E-04
	06/29/09	07/13/09	gross β	1.3E-02 ± 1.8E-03
	07/13/09	07/27/09	gross α	1.1E-03 ± 6.6E-04
	07/13/09	07/27/09	gross β	1.4E-02 ± 1.8E-03
	07/27/09	08/10/09	gross α	1.8E-03 ± 6.7E-04
	07/27/09	08/10/09	gross β	2.0E-02 ± 2.3E-03
	08/10/09	08/24/09	gross α	7.3E-04 ± 5.5E-04
	08/10/09	08/24/09	gross β	1.4E-02 ± 1.9E-03
	08/24/09	09/08/09	gross α	8.4E-04 ± 5.5E-04
	08/24/09	09/08/09	gross β	1.5E-02 ± 1.9E-03
	09/08/09	09/21/09	gross α	5.5E-04 ± 5.2E-04
	09/08/09	09/21/09	gross β	1.2E-02 ± 1.7E-03
	09/21/09	10/05/09	gross α	4.1E-04 ± 4.6E-04
	09/21/09	10/05/09	gross β	9.9E-03 ± 1.5E-03
	10/05/09	10/19/09	gross α	1.3E-03 ± 5.3E-04
	10/05/09	10/19/09	gross β	2.1E-02 ± 2.4E-03
	10/19/09	11/02/09	gross α	8.5E-04 ± 5.6E-04
	10/19/09	11/02/09	gross β	1.2E-02 ± 1.6E-03
	11/02/09	11/16/09	gross α	7.8E-04 ± 5.4E-04
	11/02/09	11/16/09	gross β	1.2E-02 ± 1.6E-03
	11/16/09	11/30/09	gross α	1.9E-03 ± 6.7E-04
	11/16/09	11/30/09	gross β	1.3E-02 ± 1.9E-03
	11/30/09	12/14/09	gross α	2.2E-03 ± 7.1E-04
	11/30/09	12/14/09	gross β	3.9E-02 ± 3.8E-03
	12/14/09	12/28/09	gross α	1.9E-03 ± 6.7E-04
	12/14/09	12/28/09	gross β	2.8E-02 ± 2.9E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N975	12/29/08 to 06/29/09	^{60}Co	-6.0E-05 ± 9.2E-05	U
		^{134}Cs	-1.4E-05 ± 7.1E-05	U
		^{137}Cs	1.4E-04 ± 1.0E-04	
		^{152}Eu	-4.2E-05 ± 2.0E-04	U
		^{154}Eu	-5.6E-05 ± 2.2E-04	U
		^{155}Eu	-2.4E-06 ± 2.4E-05	U
		^{238}Pu	6.9E-06 ± 1.1E-05	U
		$^{239/240}$Pu	3.2E-05 ± 1.6E-05	
		^{106}Ru	9.5E-05 ± 6.2E-04	U
		^{125}Sb	2.5E-07 ± 2.5E-06	U
		^{90}Sr	-2.0E-04 ± 2.1E-04	U
		^{234}U	1.3E-05 ± 8.4E-06	
		^{235}U	2.6E-06 ± 3.9E-06	U
		^{238}U	8.6E-06 ± 6.1E-06	
N975	06/29/09 to 12/28/09	^{60}Co	3.6E-05 ± 8.7E-05	U
		^{134}Cs	-1.5E-05 ± 9.2E-05	U
		^{137}Cs	-2.6E-05 ± 8.8E-05	U
		^{152}Eu	-5.9E-05 ± 2.0E-04	U
		^{154}Eu	-9.8E-05 ± 3.1E-04	U
		^{155}Eu	3.7E-05 ± 1.8E-04	U
		^{238}Pu	-3.3E-06 ± 6.6E-06	U
		$^{239/240}$Pu	1.8E-05 ± 1.2E-05	
		^{106}Ru	-2.5E-04 ± 6.6E-04	U
		^{125}Sb	3.3E-06 ± 3.3E-05	U
		^{90}Sr	-2.5E-04 ± 2.5E-04	U
		^{234}U	6.1E-06 ± 5.0E-06	
		^{235}U	1.5E-06 ± 2.2E-06	U
		^{238}U	7.4E-06 ± 5.3E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 66 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N987	12/29/08	01/12/09	gross α	9.9E-04 ± 6.8E-04
(200-W)	12/29/08	01/12/09	gross β	1.8E-02 ± 2.4E-03
	01/12/09	01/26/09	gross α	2.3E-03 ± 7.3E-04
	01/12/09	01/26/09	gross β	4.2E-02 ± 4.0E-03
	01/26/09	02/09/09	gross α	2.6E-03 ± 7.8E-04
	01/26/09	02/09/09	gross β	3.8E-02 ± 3.8E-03
	02/09/09	02/23/09	gross α	4.1E-04 ± 4.4E-04
	02/09/09	02/23/09	gross β	2.7E-02 ± 2.8E-03
	02/23/09	03/09/09	gross α	1.4E-03 ± 5.7E-04
	02/23/09	03/09/09	gross β	1.3E-02 ± 1.7E-03
	03/09/09	03/23/09	gross α	1.1E-03 ± 5.3E-04
	03/09/09	03/23/09	gross β	1.8E-02 ± 2.2E-03
	03/23/09	04/06/09	gross α	8.0E-04 ± 5.8E-04
	03/23/09	04/06/09	gross β	6.9E-03 ± 1.2E-03
	04/06/09	04/20/09	gross α	4.4E-03 ± 1.0E-03
	04/06/09	04/20/09	gross β	1.3E-02 ± 1.7E-03
	04/20/09	05/04/09	gross α	1.4E-03 ± 5.5E-04
	04/20/09	05/04/09	gross β	2.0E-02 ± 2.3E-03
	05/04/09	05/18/09	gross α	5.3E-04 ± 5.9E-04
	05/04/09	05/18/09	gross β	7.4E-03 ± 1.4E-03
	05/18/09	06/01/09	gross α	1.0E-03 ± 4.8E-04
	05/18/09	06/01/09	gross β	1.1E-02 ± 1.6E-03
	06/01/09	06/15/09	gross α	9.8E-04 ± 6.1E-04
	06/01/09	06/15/09	gross β	1.7E-02 ± 2.1E-03
	06/15/09	06/29/09	gross α	1.2E-03 ± 5.1E-04
	06/15/09	06/29/09	gross β	9.2E-03 ± 1.4E-03
	06/29/09	07/13/09	gross α	1.2E-03 ± 5.3E-04
	06/29/09	07/13/09	gross β	1.4E-02 ± 1.8E-03
	07/13/09	07/27/09	gross α	5.2E-04 ± 4.9E-04
	07/13/09	07/27/09	gross β	1.5E-02 ± 1.9E-03
	07/27/09	08/10/09	gross α	1.7E-03 ± 6.3E-04
	07/27/09	08/10/09	gross β	2.0E-02 ± 2.3E-03
	08/10/09	08/24/09	gross α	8.1E-04 ± 5.5E-04
	08/10/09	08/24/09	gross β	1.3E-02 ± 1.8E-03
	08/24/09	09/08/09	gross α	5.7E-04 ± 4.6E-04
	08/24/09	09/08/09	gross β	1.7E-02 ± 2.0E-03
	09/08/09	09/21/09	gross α	5.2E-03 ± 5.8E-03
	09/08/09	09/21/09	gross β	1.0E-02 ± 5.5E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N987	12/29/08 to 06/29/09	^{60}Co	7.3E-05 ± 8.4E-05	U
		^{134}Cs	-3.0E-05 ± 7.7E-05	U
		^{137}Cs	9.1E-05 ± 7.7E-05	U
		^{152}Eu	-1.6E-04 ± 1.7E-04	U
		^{154}Eu	1.1E-04 ± 2.5E-04	U
		^{155}Eu	2.3E-04 ± 1.6E-04	U
		^{238}Pu	2.1E-06 ± 9.9E-06	U
		$^{239/240}$Pu	2.8E-04 ± 1.1E-04	
		^{106}Ru	-4.8E-04 ± 6.5E-04	U
		^{125}Sb	-9.8E-06 ± 9.8E-05	U
		^{90}Sr	-2.9E-04 ± 3.0E-04	U
		^{234}U	1.2E-05 ± 7.8E-06	
		^{235}U	1.6E-06 ± 2.3E-06	U
		^{238}U	1.2E-05 ± 7.2E-06	
N987	06/29/09 to 09/21/09	^{60}Co	1.0E-04 ± 1.8E-04	U
		^{134}Cs	1.1E-05 ± 1.1E-04	U
		^{137}Cs	-1.9E-05 ± 1.8E-04	U
		^{152}Eu	-8.3E-05 ± 3.9E-04	U
		^{154}Eu	-2.3E-04 ± 4.7E-04	U
		^{155}Eu	-5.9E-05 ± 4.1E-04	U
		^{238}Pu	1.4E-06 ± 1.4E-06	U
		$^{239/240}$Pu	9.4E-06 ± 7.7E-06	
		^{106}Ru	2.2E-04 ± 1.4E-03	U
		^{125}Sb	1.2E-04 ± 3.6E-04	U
		^{90}Sr	-1.2E-03 ± 1.2E-03	U
		^{234}U	9.2E-06 ± 9.2E-06	U
		^{235}U	3.3E-06 ± 6.8E-06	U
		^{238}U	7.6E-06 ± 8.5E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 67 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N994	12/29/08	01/12/09	gross α	1.0E-03 ± 4.9E-04
(200-W)	12/29/08	01/12/09	gross β	1.1E-02 ± 1.6E-03
	01/12/09	01/26/09	gross α	2.1E-03 ± 6.8E-04
	01/12/09	01/26/09	gross β	3.7E-02 ± 3.7E-03
	01/26/09	02/09/09	gross α	2.1E-03 ± 6.8E-04
	01/26/09	02/09/09	gross β	3.2E-02 ± 3.2E-03
	02/09/09	02/23/09	gross α	1.2E-03 ± 5.1E-04
	02/09/09	02/23/09	gross β	2.5E-02 ± 2.7E-03
	02/23/09	03/09/09	gross α	5.6E-04 ± 5.1E-04
	02/23/09	03/09/09	gross β	4.6E-03 ± 9.8E-04
	03/09/09	03/23/09	gross α	1.1E-03 ± 5.3E-04
	03/09/09	03/23/09	gross β	1.4E-02 ± 2.0E-03
	03/23/09	04/06/09	gross α	5.2E-04 ± 4.7E-04
	03/23/09	04/06/09	gross β	8.5E-03 ± 1.3E-03
	04/06/09	04/20/09	gross α	1.1E-03 ± 5.1E-04
	04/06/09	04/20/09	gross β	1.1E-02 ± 1.6E-03
	04/20/09	05/04/09	gross α	1.6E-03 ± 6.0E-04
	04/20/09	05/04/09	gross β	2.0E-02 ± 2.4E-03
	05/04/09	05/18/09	gross α	7.9E-04 ± 8.8E-04
	05/04/09	05/18/09	gross β	4.2E-04 ± 7.4E-04
	05/18/09	06/01/09	gross α	3.7E-03 ± 1.3E-03
	05/18/09	06/01/09	gross β	3.3E-02 ± 4.2E-03
	06/01/09	06/15/09	gross α	1.5E-03 ± 6.0E-04
	06/01/09	06/15/09	gross β	1.7E-02 ± 2.1E-03
	06/15/09	06/29/09	gross α	7.1E-04 ± 5.2E-04
	06/15/09	06/29/09	gross β	1.0E-02 ± 1.5E-03
	06/29/09	07/13/09	gross α	1.1E-03 ± 5.2E-04
	06/29/09	07/13/09	gross β	1.3E-02 ± 1.7E-03
	07/13/09	07/27/09	gross α	1.8E-03 ± 6.5E-04
	07/13/09	07/27/09	gross β	1.3E-02 ± 1.8E-03
	07/27/09	08/10/09	gross α	1.1E-03 ± 5.0E-04
	07/27/09	08/10/09	gross β	1.8E-02 ± 2.1E-03
	08/10/09	08/24/09	gross α	1.1E-03 ± 5.1E-04
	08/10/09	08/24/09	gross β	1.8E-02 ± 2.2E-03
	08/24/09	09/08/09	gross α	5.8E-04 ± 6.3E-04
	08/24/09	09/08/09	gross β	2.6E-02 ± 3.1E-03
	09/08/09	09/21/09	gross α	6.9E-04 ± 5.6E-04
	09/08/09	09/21/09	gross β	1.5E-02 ± 1.9E-03
	09/21/09	10/05/09	gross α	1.1E-03 ± 5.1E-04
	09/21/09	10/05/09	gross β	1.1E-02 ± 1.6E-03
	10/05/09	10/19/09	gross α	1.4E-03 ± 5.7E-04
	10/05/09	10/19/09	gross β	2.1E-02 ± 2.4E-03
	10/19/09	11/02/09	gross α	8.3E-04 ± 5.5E-04
	10/19/09	11/02/09	gross β	1.0E-02 ± 1.5E-03
	11/02/09	11/16/09	gross α	1.4E-03 ± 5.6E-04
	11/02/09	11/16/09	gross β	1.3E-02 ± 1.7E-03
	11/16/09	11/30/09	gross α	1.2E-03 ± 5.3E-04
	11/16/09	11/30/09	gross β	1.6E-02 ± 2.1E-03
	11/30/09	12/14/09	gross α	2.8E-03 ± 8.0E-04
	11/30/09	12/14/09	gross β	4.6E-02 ± 4.3E-03
	12/14/09	12/28/09	gross α	1.1E-03 ± 5.1E-04
	12/14/09	12/28/09	gross β	2.7E-02 ± 2.8E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N994	12/29/08 to 06/29/09	^{60}Co	1.7E-05 ± 7.7E-05	U
		^{134}Cs	-1.9E-05 ± 6.9E-05	U
		^{137}Cs	1.8E-05 ± 6.5E-05	U
		^{152}Eu	7.2E-05 ± 1.6E-04	U
		^{154}Eu	5.7E-05 ± 1.9E-04	U
		^{155}Eu	4.3E-05 ± 1.8E-04	U
		^{238}Pu	1.5E-06 ± 9.9E-06	U
		$^{239/240}$Pu	7.3E-07 ± 4.9E-06	U
		^{106}Ru	1.9E-04 ± 6.2E-04	U
		^{125}Sb	6.0E-07 ± 6.0E-06	U
		^{90}Sr	-3.4E-04 ± 3.5E-04	U
		^{234}U	3.7E-06 ± 3.6E-06	
		^{235}U	1.6E-06 ± 3.3E-06	U
		^{238}U	7.5E-06 ± 5.5E-06	
N994	06/29/09 to 12/28/09	^{60}Co	4.4E-05 ± 9.0E-05	U
		^{134}Cs	-5.9E-05 ± 9.3E-05	U
		^{137}Cs	4.1E-05 ± 8.6E-05	U
		^{152}Eu	-1.8E-05 ± 1.8E-04	U
		^{154}Eu	-1.7E-04 ± 3.1E-04	U
		^{155}Eu	7.9E-06 ± 8.0E-05	U
		^{238}Pu	5.5E-07 ± 5.7E-07	U
		$^{239/240}$Pu	1.7E-06 ± 2.0E-06	
		^{106}Ru	7.4E-05 ± 7.1E-04	U
		^{125}Sb	1.5E-04 ± 2.1E-04	U
		^{90}Sr	-3.8E-04 ± 4.0E-04	U
		^{234}U	8.8E-06 ± 5.7E-06	
		^{235}U	-6.8E-07 ± 1.4E-06	U
		^{238}U	5.0E-06 ± 4.7E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 68 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N563	05/04/09	05/19/09	gross α	7.2E-04 ± 4.9E-04
(200-North)	05/04/09	05/19/09	gross β	9.1E-03 ± 1.4E-03
	05/19/09	06/02/09	gross α	8.7E-04 ± 5.8E-04
	05/19/09	06/02/09	gross β	1.5E-02 ± 2.0E-03
	06/02/09	06/16/09	gross α	1.6E-03 ± 6.2E-04
	06/02/09	06/16/09	gross β	1.8E-02 ± 2.3E-03
	06/16/09	06/30/09	gross α	6.3E-04 ± 5.1E-04
	06/16/09	06/30/09	gross β	8.6E-03 ± 1.4E-03
	06/30/09	07/14/09	gross α	7.6E-04 ± 5.6E-04
	06/30/09	07/14/09	gross β	1.2E-02 ± 1.8E-03
	07/14/09	07/28/09	gross α	7.7E-04 ± 5.8E-04
	07/14/09	07/28/09	gross β	1.9E-02 ± 2.5E-03
	07/28/09	08/11/09	gross α	9.1E-04 ± 6.1E-04
	07/28/09	08/11/09	gross β	1.6E-02 ± 2.2E-03
	08/11/09	08/25/09	gross α	5.3E-04 ± 4.8E-04
	08/11/09	08/25/09	gross β	1.4E-02 ± 2.0E-03
	08/25/09	09/09/09	gross α	1.3E-03 ± 5.3E-04
	08/25/09	09/09/09	gross β	1.7E-02 ± 2.2E-03
	09/09/09	09/23/09	gross α	1.4E-03 ± 5.9E-04
	09/09/09	09/23/09	gross β	1.5E-02 ± 2.2E-03
	09/23/09	10/07/09	gross α	8.7E-04 ± 5.9E-04
	09/23/09	10/07/09	gross β	1.1E-02 ± 1.8E-03
	10/07/09	10/21/09	gross α	9.1E-04 ± 6.1E-04
	10/07/09	10/21/09	gross β	1.8E-02 ± 2.4E-03
	10/21/09	11/04/09	gross α	3.5E-04 ± 4.9E-04
	10/21/09	11/04/09	gross β	1.0E-02 ± 1.7E-03
	11/04/09	11/18/09	gross α	5.4E-04 ± 5.0E-04
	11/04/09	11/18/09	gross β	1.3E-02 ± 1.8E-03
	11/18/09	12/02/09	gross α	5.6E-04 ± 5.1E-04
	11/18/09	12/02/09	gross β	1.7E-02 ± 2.3E-03
	12/02/09	12/18/09	gross α	1.4E-03 ± 5.6E-04
	12/02/09	12/18/09	gross β	4.1E-02 ± 4.4E-03
	12/18/09	12/31/09	gross α	1.6E-03 ± 6.3E-04
	12/18/09	12/31/09	gross β	4.3E-02 ± 4.7E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N563	05/04/09 to 06/30/09	^{60}Co	-8.8E-05 ± 2.4E-04	U
		^{134}Cs	7.7E-05 ± 2.2E-04	U
		^{137}Cs	-4.9E-05 ± 1.9E-04	U
		^{152}Eu	1.4E-04 ± 4.4E-04	U
		^{154}Eu	2.0E-04 ± 6.2E-04	U
		^{155}Eu	2.5E-04 ± 5.0E-04	U
		^{238}Pu	-3.4E-05 ± 3.9E-05	U
		$^{239/240}$Pu	-2.4E-06 ± 1.1E-05	U
		^{106}Ru	-4.1E-04 ± 1.8E-03	U
		^{125}Sb	-2.6E-04 ± 4.3E-04	U
		^{90}Sr	-1.3E-03 ± 1.3E-03	U
		^{234}U	1.7E-05 ± 1.4E-05	
		^{235}U	2.1E-05 ± 1.5E-05	
		^{238}U	4.2E-06 ± 8.5E-06	U
N563	06/30/09 to 12/31/09	^{60}Co	1.4E-05 ± 8.6E-05	U
		^{134}Cs	1.0E-04 ± 8.8E-05	U
		^{137}Cs	1.1E-04 ± 1.1E-04	U
		^{152}Eu	1.6E-04 ± 2.0E-04	U
		^{154}Eu	1.2E-04 ± 2.4E-04	U
		^{155}Eu	1.6E-05 ± 1.4E-04	U
		^{238}Pu	5.4E-07 ± 3.2E-06	U
		$^{239/240}$Pu	3.8E-06 ± 3.1E-06	
		^{106}Ru	-2.4E-04 ± 6.0E-04	U
		^{125}Sb	1.3E-05 ± 1.3E-04	U
		^{90}Sr	-5.0E-06 ± 5.2E-06	U
		^{234}U	2.4E-05 ± 1.3E-05	
		^{235}U	2.4E-06 ± 2.9E-06	
		^{238}U	1.5E-05 ± 8.9E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 69 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N564	05/04/09	05/19/09	gross α	5.5E-04 ± 4.6E-04
(200-North)	05/04/09	05/19/09	gross β	1.1E-02 ± 1.7E-03
	05/19/09	06/02/09	gross α	1.4E-03 ± 5.8E-04
	05/19/09	06/02/09	gross β	1.4E-02 ± 2.0E-03
	06/02/09	06/16/09	gross α	9.5E-04 ± 6.3E-04
	06/02/09	06/16/09	gross β	1.9E-02 ± 2.4E-03
	06/16/09	06/30/09	gross α	8.8E-04 ± 5.8E-04
	06/16/09	06/30/09	gross β	1.0E-02 ± 1.6E-03
	06/30/09	07/14/09	gross α	2.2E-03 ± 7.7E-04
	06/30/09	07/14/09	gross β	1.3E-02 ± 1.9E-03
	07/14/09	07/28/09	gross α	1.5E-03 ± 6.7E-04
	07/14/09	07/28/09	gross β	1.9E-02 ± 2.7E-03
	07/28/09	08/11/09	gross α	1.8E-03 ± 7.0E-04
	07/28/09	08/11/09	gross β	1.9E-02 ± 2.5E-03
	08/11/09	08/25/09	gross α	1.4E-03 ± 6.0E-04
	08/11/09	08/25/09	gross β	1.6E-02 ± 2.2E-03
	08/25/09	09/09/09	gross α	1.2E-03 ± 5.4E-04
	08/25/09	09/09/09	gross β	1.4E-02 ± 2.0E-03
	09/09/09	09/23/09	gross α	9.6E-04 ± 6.1E-04
	09/09/09	09/23/09	gross β	2.0E-02 ± 2.6E-03
	09/23/09	10/07/09	gross α	8.7E-04 ± 6.6E-04
	09/23/09	10/07/09	gross β	1.6E-02 ± 2.3E-03
	10/07/09	10/21/09	gross α	2.1E-03 ± 7.6E-04
	10/07/09	10/21/09	gross β	1.9E-02 ± 2.5E-03
	10/21/09	11/04/09	gross α	8.1E-04 ± 6.0E-04
	10/21/09	11/04/09	gross β	9.3E-03 ± 1.5E-03
	11/04/09	11/18/09	gross α	4.5E-04 ± 4.9E-04
	11/04/09	11/18/09	gross β	1.4E-02 ± 2.0E-03
	11/18/09	12/02/09	gross α	8.0E-04 ± 5.8E-04
	11/18/09	12/02/09	gross β	1.2E-02 ± 1.8E-03
	12/02/09	12/18/09	gross α	2.1E-03 ± 7.0E-04
	12/02/09	12/18/09	gross β	3.6E-02 ± 3.9E-03
	12/18/09	12/31/09	gross α	2.0E-03 ± 7.0E-04
	12/18/09	12/31/09	gross β	3.4E-02 ± 3.9E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N564	05/04/09 to 06/30/09	^{60}Co	-5.0E-05 ± 2.8E-04	U
		^{134}Cs	2.6E-04 ± 2.5E-04	U
		^{137}Cs	9.7E-05 ± 2.3E-04	U
		^{152}Eu	-1.6E-04 ± 6.5E-04	U
		^{154}Eu	-9.5E-05 ± 7.8E-04	U
		^{155}Eu	-1.7E-04 ± 5.6E-04	U
		^{238}Pu	1.4E-05 ± 4.8E-05	U
		$^{239/240}$Pu	8.4E-06 ± 1.0E-05	
		^{106}Ru	-8.5E-04 ± 2.2E-03	U
		^{125}Sb	-1.6E-04 ± 5.4E-04	U
		^{90}Sr	-1.5E-03 ± 1.5E-03	U
		^{234}U	2.9E-05 ± 2.0E-05	
		^{235}U	1.3E-05 ± 1.5E-05	U
		^{238}U	1.7E-05 ± 1.8E-05	U
N564	06/30/09 to 12/31/09	^{60}Co	2.5E-06 ± 2.5E-05	U
		^{134}Cs	-1.4E-05 ± 8.7E-05	U
		^{137}Cs	1.2E-04 ± 8.7E-05	U
		^{152}Eu	-5.2E-05 ± 2.0E-04	U
		^{154}Eu	5.9E-05 ± 2.5E-04	U
		^{155}Eu	9.2E-05 ± 2.0E-04	U
		^{238}Pu	1.7E-06 ± 3.0E-06	U
		$^{239/240}$Pu	2.8E-06 ± 2.7E-06	
		^{106}Ru	4.2E-04 ± 7.0E-04	U
		^{125}Sb	-6.1E-05 ± 1.8E-04	U
		^{90}Sr	-5.8E-05 ± 6.0E-05	U
		^{234}U	5.4E-05 ± 2.4E-05	
		^{235}U	6.5E-06 ± 5.2E-06	
		^{238}U	8.9E-06 ± 6.5E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 70 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N567	05/04/09	05/19/09	gross α	9.4E-04 ± 4.3E-04
(200-North)	05/04/09	05/19/09	gross β	9.6E-03 ± 1.4E-03
	05/19/09	06/02/09	gross α	1.2E-03 ± 5.5E-04
	05/19/09	06/02/09	gross β	1.7E-02 ± 2.3E-03
	06/02/09	06/16/09	gross α	4.3E-04 ± 4.6E-04
	06/02/09	06/16/09	gross β	2.0E-02 ± 2.5E-03
	06/16/09	06/30/09	gross α	1.1E-03 ± 5.2E-04
	06/16/09	06/30/09	gross β	1.0E-02 ± 1.6E-03
	06/30/09	07/14/09	gross α	1.0E-03 ± 6.3E-04
	06/30/09	07/14/09	gross β	1.2E-02 ± 1.8E-03
	07/14/09	07/28/09	gross α	1.2E-03 ± 5.6E-04
	07/14/09	07/28/09	gross β	2.0E-02 ± 2.6E-03
	07/28/09	08/11/09	gross α	1.4E-03 ± 8.7E-04
	07/28/09	08/11/09	gross β	1.8E-02 ± 2.7E-03
	08/11/09	08/25/09	gross α	1.6E-03 ± 6.3E-04
	08/11/09	08/25/09	gross β	1.3E-02 ± 1.9E-03
	08/25/09	09/09/09	gross α	8.5E-04 ± 5.7E-04
	08/25/09	09/09/09	gross β	1.6E-02 ± 2.1E-03
	09/09/09	09/23/09	gross α	2.0E-03 ± 7.0E-04
	09/09/09	09/23/09	gross β	1.9E-02 ± 2.5E-03
	09/23/09	10/07/09	gross α	6.9E-04 ± 5.8E-04
	09/23/09	10/07/09	gross β	1.5E-02 ± 2.2E-03
	10/07/09	10/21/09	gross α	1.6E-03 ± 6.6E-04
	10/07/09	10/21/09	gross β	1.9E-02 ± 2.5E-03
	10/21/09	11/04/09	gross α	9.6E-04 ± 6.5E-04
	10/21/09	11/04/09	gross β	1.2E-02 ± 1.8E-03
	11/04/09	11/18/09	gross α	2.5E-03 ± 8.0E-04
	11/04/09	11/18/09	gross β	1.3E-02 ± 1.9E-03
	11/18/09	12/02/09	gross α	1.0E-03 ± 6.4E-04
	11/18/09	12/02/09	gross β	1.6E-02 ± 2.2E-03
	12/02/09	12/18/09	gross α	8.3E-04 ± 5.5E-04
	12/02/09	12/18/09	gross β	4.1E-02 ± 4.4E-03
	12/18/09	12/31/09	gross α	2.4E-03 ± 7.8E-04
	12/18/09	12/31/09	gross β	5.2E-02 ± 5.5E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N567	05/04/09 to 06/30/09	^{60}Co	6.9E-05 ± 2.3E-04	U
		^{134}Cs	7.6E-05 ± 2.5E-04	U
		^{137}Cs	-3.1E-06 ± 3.1E-05	U
		^{152}Eu	1.7E-04 ± 5.4E-04	U
		^{154}Eu	1.0E-04 ± 6.4E-04	U
		^{155}Eu	-1.7E-04 ± 4.6E-04	U
		^{238}Pu	-1.9E-05 ± 4.8E-05	U
		$^{239/240}$Pu	2.4E-06 ± 1.1E-05	U
		^{106}Ru	-3.2E-04 ± 2.2E-03	U
		^{125}Sb	1.3E-05 ± 1.3E-04	U
		^{90}Sr	-1.0E-03 ± 1.0E-03	U
		^{234}U	1.4E-05 ± 1.2E-05	
		^{235}U	5.0E-06 ± 1.0E-05	U
		^{238}U	1.1E-05 ± 1.3E-05	U
N567	06/30/09 to 12/31/09	^{60}Co	4.0E-05 ± 9.6E-05	U
		^{134}Cs	-1.7E-06 ± 1.7E-05	U
		^{137}Cs	7.0E-05 ± 9.3E-05	U
		^{152}Eu	8.8E-05 ± 1.9E-04	U
		^{154}Eu	-1.0E-04 ± 2.8E-04	U
		^{155}Eu	-8.9E-05 ± 2.0E-04	U
		^{238}Pu	6.9E-07 ± 2.4E-06	U
		$^{239/240}$Pu	4.9E-06 ± 4.0E-06	
		^{106}Ru	3.7E-04 ± 8.1E-04	U
		^{125}Sb	-2.2E-04 ± 2.2E-04	U
		^{90}Sr	2.8E-05 ± 2.0E-04	U
		^{234}U	7.5E-06 ± 5.9E-06	
		^{235}U	8.2E-07 ± 2.9E-06	U
		^{238}U	3.8E-06 ± 4.7E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 71 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N568	05/04/09	05/19/09	gross α	1.3E-03 ± 5.4E-04
(200-North)	05/04/09	05/19/09	gross β	7.7E-03 ± 1.3E-03
	05/19/09	06/02/09	gross α	1.5E-03 ± 6.2E-04
	05/19/09	06/02/09	gross β	1.4E-02 ± 2.0E-03
	06/02/09	06/16/09	gross α	9.2E-04 ± 6.1E-04
	06/02/09	06/16/09	gross β	1.7E-02 ± 2.3E-03
	06/16/09	07/01/09	gross α	5.9E-04 ± 4.8E-04
	06/16/09	07/01/09	gross β	1.1E-02 ± 1.6E-03
	07/01/09	07/14/09	gross α	7.7E-04 ± 6.3E-04
	07/01/09	07/14/09	gross β	1.6E-02 ± 2.3E-03
	07/14/09	07/28/09	gross α	1.7E-03 ± 6.9E-04
	07/14/09	07/28/09	gross β	1.8E-02 ± 2.5E-03
	07/28/09	08/11/09	gross α	1.9E-03 ± 7.2E-04
	07/28/09	08/11/09	gross β	1.9E-02 ± 2.5E-03
	08/11/09	08/25/09	gross α	1.9E-03 ± 6.9E-04
	08/11/09	08/25/09	gross β	1.3E-02 ± 1.9E-03
	08/25/09	09/09/09	gross α	1.5E-03 ± 6.4E-04
	08/25/09	09/09/09	gross β	1.5E-02 ± 2.1E-03
	09/09/09	09/23/09	gross α	2.3E-03 ± 7.6E-04
	09/09/09	09/23/09	gross β	1.8E-02 ± 2.5E-03
	09/23/09	10/07/09	gross α	9.2E-04 ± 6.3E-04
	09/23/09	10/07/09	gross β	1.2E-02 ± 1.9E-03
	10/07/09	10/21/09	gross α	9.1E-04 ± 6.1E-04
	10/07/09	10/21/09	gross β	2.0E-02 ± 2.5E-03
	10/21/09	11/04/09	gross α	3.2E-04 ± 4.5E-04
	10/21/09	11/04/09	gross β	1.2E-02 ± 1.9E-03
	11/04/09	11/18/09	gross α	1.4E-03 ± 6.1E-04
	11/04/09	11/18/09	gross β	1.6E-02 ± 2.2E-03
	11/18/09	12/02/09	gross α	5.3E-04 ± 4.8E-04
	11/18/09	12/02/09	gross β	1.3E-02 ± 1.8E-03
	12/02/09	12/18/09	gross α	2.0E-03 ± 6.6E-04
	12/02/09	12/18/09	gross β	4.4E-02 ± 4.6E-03
	12/18/09	12/31/09	gross α	1.8E-03 ± 6.6E-04
	12/18/09	12/31/09	gross β	4.7E-02 ± 5.0E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N568	05/04/09 to 07/01/09	^{60}Co	6.7E-05 ± 2.7E-04	U
		^{134}Cs	-6.4E-06 ± 6.4E-05	U
		^{137}Cs	8.1E-05 ± 2.0E-04	U
		^{152}Eu	-1.4E-04 ± 5.0E-04	U
		^{154}Eu	7.8E-04 ± 7.5E-04	U
		^{155}Eu	-4.7E-05 ± 4.7E-04	U
		^{238}Pu	1.8E-05 ± 5.9E-05	U
		$^{239/240}$Pu	1.2E-05 ± 1.5E-05	U
		^{106}Ru	-1.6E-03 ± 2.2E-03	U
		^{125}Sb	-5.8E-05 ± 5.0E-04	U
		^{90}Sr	-1.1E-03 ± 1.1E-03	U
		^{234}U	1.9E-05 ± 1.5E-05	
		^{235}U	-2.6E-06 ± 5.3E-06	U
		^{238}U	1.2E-05 ± 1.3E-05	U
N568	07/01/09 to 12/31/09	^{60}Co	3.4E-05 ± 9.1E-05	U
		^{134}Cs	5.0E-05 ± 8.6E-05	U
		^{137}Cs	8.6E-05 ± 7.9E-05	U
		^{152}Eu	-7.1E-05 ± 1.8E-04	U
		^{154}Eu	-1.8E-04 ± 2.6E-04	U
		^{155}Eu	2.0E-04 ± 1.7E-04	U
		^{238}Pu	6.1E-07 ± 6.4E-07	U
		$^{239/240}$Pu	6.1E-07 ± 1.2E-06	U
		^{106}Ru	1.1E-04 ± 6.6E-04	U
		^{125}Sb	2.4E-05 ± 1.6E-04	U
		^{90}Sr	1.0E-04 ± 1.8E-04	U
		^{234}U	9.4E-06 ± 6.3E-06	
		^{235}U	1.6E-06 ± 2.3E-06	U
		^{238}U	7.3E-06 ± 5.7E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 72 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N557	12/31/08	01/14/09	gross α	1.1E-03 ± 5.2E-04
(300 Area)	12/31/08	01/14/09	gross β	9.7E-03 ± 1.5E-03
	01/14/09	01/28/09	gross α	2.2E-03 ± 7.2E-04
	01/14/09	01/28/09	gross β	4.7E-02 ± 4.9E-03
	01/28/09	02/11/09	gross α	1.5E-03 ± 6.0E-04
	01/28/09	02/11/09	gross β	2.4E-02 ± 2.9E-03
	02/11/09	02/25/09	gross α	1.1E-03 ± 5.3E-04
	02/11/09	02/25/09	gross β	2.4E-02 ± 2.9E-03
	02/25/09	03/11/09	gross α	1.4E-03 ± 5.7E-04
	02/25/09	03/11/09	gross β	1.9E-02 ± 2.4E-03
	03/11/09	03/25/09	gross α	2.2E-03 ± 7.2E-04
	03/11/09	03/25/09	gross β	1.5E-02 ± 2.1E-03
	03/25/09	04/08/09	gross α	9.1E-04 ± 6.1E-04
	03/25/09	04/08/09	gross β	1.3E-02 ± 1.9E-03
	04/08/09	04/22/09	gross α	8.7E-04 ± 5.8E-04
	04/08/09	04/22/09	gross β	1.1E-02 ± 1.7E-03
	04/22/09	05/06/09	gross α	1.4E-03 ± 5.6E-04
	04/22/09	05/06/09	gross β	1.5E-02 ± 2.1E-03
	05/06/09	05/20/09	gross α	1.5E-03 ± 5.8E-04
	05/06/09	05/20/09	gross β	1.0E-02 ± 1.6E-03
	05/20/09	06/03/09	gross α	7.3E-04 ± 5.5E-04
	05/20/09	06/03/09	gross β	1.6E-02 ± 2.2E-03
	06/03/09	06/17/09	gross α	1.0E-03 ± 6.4E-04
	06/03/09	06/17/09	gross β	1.9E-02 ± 2.4E-03
	06/17/09	07/02/09	gross α	9.6E-04 ± 4.6E-04
	06/17/09	07/02/09	gross β	1.1E-02 ± 1.7E-03
	07/02/09	07/15/09	gross α	1.2E-03 ± 5.6E-04
	07/02/09	07/15/09	gross β	1.6E-02 ± 2.3E-03
	07/15/09	07/29/09	gross α	1.1E-03 ± 5.1E-04
	07/15/09	07/29/09	gross β	1.6E-02 ± 2.1E-03
	07/29/09	08/12/09	gross α	1.0E-03 ± 6.4E-04
	07/29/09	08/12/09	gross β	1.5E-02 ± 2.0E-03
	08/12/09	08/26/09	gross α	7.8E-04 ± 5.8E-04
	08/12/09	08/26/09	gross β	1.3E-02 ± 1.8E-03
	08/26/09	09/10/09	gross α	9.6E-04 ± 4.6E-04
	08/26/09	09/10/09	gross β	1.7E-02 ± 2.2E-03
	09/10/09	09/22/09	gross α	1.9E-03 ± 7.1E-04
	09/10/09	09/22/09	gross β	1.8E-02 ± 2.5E-03
	09/22/09	10/07/09	gross α	2.1E-03 ± 7.4E-04
	09/22/09	10/07/09	gross β	1.5E-02 ± 2.2E-03
	10/07/09	10/21/09	gross α	5.5E-04 ± 5.1E-04
	10/07/09	10/21/09	gross β	1.9E-02 ± 2.4E-03
	10/21/09	11/04/09	gross α	1.0E-03 ± 6.2E-04
	10/21/09	11/04/09	gross β	1.2E-02 ± 1.7E-03
	11/04/09	11/18/09	gross α	9.8E-04 ± 6.1E-04
	11/04/09	11/18/09	gross β	1.7E-02 ± 2.2E-03
	11/18/09	12/02/09	gross α	6.6E-04 ± 5.3E-04
	11/18/09	12/02/09	gross β	1.7E-02 ± 2.3E-03
	12/02/09	12/18/09	gross α	2.4E-03 ± 7.6E-04
	12/02/09	12/18/09	gross β	4.6E-02 ± 4.9E-03
	12/18/09	12/31/09	gross α	1.8E-03 ± 6.8E-04
	12/18/09	12/31/09	gross β	4.3E-02 ± 4.8E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N557	12/31/08 to 03/25/09	^{60}Co	-7.8E-05 ± 1.6E-04	U
		^{134}Cs	-3.2E-06 ± 3.2E-05	U
		^{137}Cs	7.5E-05 ± 1.3E-04	U
		^{152}Eu	-5.9E-04 ± 3.6E-04	U
		^{154}Eu	3.2E-04 ± 5.0E-04	U
		^{155}Eu	-1.1E-04 ± 3.6E-04	U
		^{238}Pu	1.0E-05 ± 2.1E-05	U
		$^{239/240}$Pu	2.9E-05 ± 1.7E-05	
		^{106}Ru	-6.8E-04 ± 1.2E-03	U
		^{125}Sb	-8.0E-05 ± 3.0E-04	U
		^{90}Sr	-3.6E-04 ± 3.7E-04	U
		^{234}U	1.9E-05 ± 1.3E-05	
		^{235}U	3.5E-06 ± 5.2E-06	U
		^{238}U	8.1E-06 ± 7.8E-06	
N557	03/25/09 to 07/02/09	^{60}Co	1.3E-04 ± 1.4E-04	U
		^{134}Cs	1.0E-04 ± 1.4E-04	U
		^{137}Cs	3.0E-05 ± 1.1E-04	U
		^{152}Eu	8.9E-05 ± 3.0E-04	U
		^{154}Eu	2.1E-04 ± 4.7E-04	U
		^{155}Eu	2.0E-04 ± 2.8E-04	U
		^{238}Pu	-1.6E-05 ± 2.1E-05	U
		$^{239/240}$Pu	-3.9E-06 ± 7.0E-06	U
		^{106}Ru	6.9E-04 ± 1.0E-03	U
		^{125}Sb	7.2E-05 ± 2.5E-04	U
		^{90}Sr	-4.4E-04 ± 4.5E-04	
		^{234}U	2.5E-05 ± 1.6E-05	
		^{235}U	1.9E-06 ± 1.9E-06	U
		^{238}U	1.3E-05 ± 1.1E-05	
N557	07/02/09 to 10/07/09	^{60}Co	-3.3E-05 ± 1.7E-04	U
		^{134}Cs	5.2E-05 ± 1.7E-04	U
		^{137}Cs	9.8E-05 ± 1.4E-04	U
		^{152}Eu	-1.7E-05 ± 1.7E-04	U
		^{154}Eu	-9.2E-05 ± 4.6E-04	U
		^{155}Eu	-3.2E-04 ± 3.7E-04	U
		^{238}Pu	1.4E-06 ± 1.4E-05	U
		$^{239/240}$Pu	-1.4E-06 ± 8.6E-06	U
		^{106}Ru	1.2E-03 ± 1.2E-03	U
		^{125}Sb	1.5E-04 ± 3.2E-04	U
		^{90}Sr	-4.1E-04 ± 4.2E-04	U
		^{234}U	3.3E-05 ± 1.9E-05	
		^{235}U	6.5E-06 ± 6.9E-06	
		^{238}U	3.3E-05 ± 1.8E-05	
N557	10/07/09 to 12/31/09	^{60}Co	-2.8E-05 ± 2.0E-04	U
		^{134}Cs	5.5E-05 ± 1.6E-04	U
		^{137}Cs	-9.3E-05 ± 1.4E-04	U
		^{152}Eu	1.5E-04 ± 4.0E-04	U
		^{154}Eu	-4.1E-05 ± 4.1E-04	U
		^{155}Eu	1.7E-04 ± 3.7E-04	U
		^{238}Pu	-1.3E-06 ± 2.6E-06	U
		$^{239/240}$Pu	1.3E-06 ± 4.6E-06	U
		^{106}Ru	1.9E-04 ± 1.3E-03	U
		^{125}Sb	-8.8E-05 ± 3.4E-04	U
		^{90}Sr	-7.9E-04 ± 8.1E-04	U
		^{234}U	2.1E-05 ± 1.4E-05	
		^{235}U	5.4E-06 ± 6.5E-06	
		^{238}U	1.3E-05 ± 1.0E-05	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 73 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N527	12/31/08	01/14/09	gross α	4.6E-04 ± 4.5E-04
(300 Area)	12/31/08	01/14/09	gross β	1.1E-02 ± 1.6E-03
	01/14/09	01/28/09	gross α	1.8E-03 ± 6.2E-04
	01/14/09	01/28/09	gross β	4.8E-02 ± 4.4E-03
	01/28/09	02/11/09	gross α	9.5E-04 ± 5.9E-04
	01/28/09	02/11/09	gross β	2.2E-02 ± 2.4E-03
	02/11/09	02/25/09	gross α	8.9E-04 ± 5.6E-04
	02/11/09	02/25/09	gross β	2.7E-02 ± 2.9E-03
	02/25/09	03/11/09	gross α	4.9E-04 ± 4.5E-04
	02/25/09	03/11/09	gross β	1.1E-02 ± 1.5E-03
	03/11/09	03/25/09	gross α	1.5E-03 ± 5.9E-04
	03/11/09	03/25/09	gross β	1.5E-02 ± 2.0E-03
	03/25/09	04/08/09	gross α	7.8E-04 ± 5.3E-04
	03/25/09	04/08/09	gross β	1.4E-02 ± 1.9E-03
	04/08/09	04/22/09	gross α	8.4E-04 ± 5.6E-04
	04/08/09	04/22/09	gross β	1.2E-02 ± 1.6E-03
	04/22/09	05/06/09	gross α	1.3E-03 ± 5.3E-04
	04/22/09	05/06/09	gross β	9.4E-03 ± 1.4E-03
	05/06/09	05/20/09	gross α	5.0E-04 ± 4.6E-04
	05/06/09	05/20/09	gross β	8.6E-03 ± 1.3E-03
	05/20/09	06/03/09	gross α	7.8E-04 ± 5.4E-04
	05/20/09	06/03/09	gross β	1.6E-02 ± 2.1E-03
	06/03/09	06/17/09	gross α	9.6E-04 ± 5.9E-04
	06/03/09	06/17/09	gross β	1.7E-02 ± 2.0E-03
	06/17/09	07/02/09	gross α	7.4E-04 ± 5.0E-04
	06/17/09	07/02/09	gross β	1.2E-02 ± 1.6E-03
	07/02/09	07/15/09	gross α	1.1E-03 ± 5.3E-04
	07/02/09	07/15/09	gross β	1.7E-02 ± 2.2E-03
	07/15/09	07/29/09	gross α	8.4E-04 ± 5.5E-04
	07/15/09	07/29/09	gross β	1.7E-02 ± 2.0E-03
	07/29/09	08/12/09	gross α	1.3E-03 ± 5.4E-04
	07/29/09	08/12/09	gross β	1.9E-02 ± 2.3E-03
	08/12/09	08/26/09	gross α	8.4E-04 ± 5.6E-04
	08/12/09	08/26/09	gross β	1.5E-02 ± 1.9E-03
	08/26/09	09/10/09	gross α	6.5E-04 ± 4.9E-04
	08/26/09	09/10/09	gross β	1.9E-02 ± 2.2E-03
	09/10/09	09/22/09	gross α	3.3E-03 ± 1.3E-03
	09/10/09	09/22/09	gross β	3.2E-02 ± 4.3E-03
	09/22/09	10/07/09	gross α	1.1E-03 ± 1.1E-03
	09/22/09	10/07/09	gross β	2.6E-02 ± 3.6E-03
	10/07/09	10/21/09	gross α	1.5E-03 ± 5.8E-04
	10/07/09	10/21/09	gross β	2.4E-02 ± 2.7E-03
	10/21/09	11/04/09	gross α	1.0E-03 ± 4.9E-04
	10/21/09	11/04/09	gross β	1.6E-02 ± 2.0E-03
	11/04/09	11/18/09	gross α	1.7E-03 ± 6.3E-04
	11/04/09	11/18/09	gross β	1.3E-02 ± 1.7E-03
	11/18/09	12/02/09	gross α	5.8E-04 ± 4.9E-04
	11/18/09	12/02/09	gross β	1.7E-02 ± 2.1E-03
	12/02/09	12/18/09	gross α	2.3E-03 ± 7.1E-04
	12/02/09	12/18/09	gross β	4.5E-02 ± 4.1E-03
	12/18/09	12/31/09	gross α	7.0E-04 ± 5.6E-04
	12/18/09	12/31/09	gross β	4.3E-02 ± 4.1E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N527	12/31/08 to 07/02/09	^{60}Co	1.4E-05 ± 6.2E-05	U
		^{134}Cs	-5.6E-05 ± 6.1E-05	U
		^{137}Cs	-3.1E-07 ± 3.1E-06	U
		^{152}Eu	-1.1E-04 ± 1.5E-04	U
		^{154}Eu	2.0E-04 ± 1.9E-04	U
		^{155}Eu	-9.9E-05 ± 1.5E-04	U
		^{238}Pu	-6.2E-06 ± 1.2E-05	
		$^{239/240}$Pu	2.1E-06 ± 4.2E-06	
		^{106}Ru	-1.7E-04 ± 5.5E-04	U
		^{125}Sb	-2.9E-05 ± 1.5E-04	U
		^{234}U	1.2E-05 ± 7.2E-06	
		^{235}U	3.0E-06 ± 3.2E-06	
		^{238}U	1.0E-05 ± 6.6E-06	
N527	07/02/09 to 12/31/09	^{60}Co	6.5E-06 ± 6.5E-05	U
		^{134}Cs	5.5E-06 ± 5.6E-05	U
		^{137}Cs	1.0E-05 ± 7.1E-05	U
		^{152}Eu	5.7E-05 ± 1.5E-04	U
		^{154}Eu	1.8E-05 ± 1.8E-04	U
		^{155}Eu	-8.1E-05 ± 1.5E-04	U
		^{238}Pu	-6.8E-07 ± 2.4E-06	U
		$^{239/240}$Pu	1.4E-06 ± 2.8E-06	U
		^{106}Ru	6.3E-04 ± 6.6E-04	U
		^{125}Sb	-7.4E-05 ± 1.6E-04	U
		^{234}U	2.4E-05 ± 1.3E-05	
		^{235}U	2.6E-06 ± 4.0E-06	U
		^{238}U	2.4E-05 ± 1.3E-05	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 74 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N537	12/31/08	01/14/09	gross α	1.0E-03 ± 4.9E-04
(300 Area)	12/31/08	01/14/09	gross β	1.4E-02 ± 2.0E-03
	01/14/09	01/28/09	gross α	2.2E-03 ± 7.0E-04
	01/14/09	01/28/09	gross β	5.4E-02 ± 5.6E-03
	01/28/09	02/03/09	gross α	1.7E-03 ± 1.2E-03
	01/28/09	02/03/09	gross β	2.0E-02 ± 3.3E-03
N538	12/31/08	01/14/09	gross α	3.7E-04 ± 4.3E-04
(300 Area)	12/31/08	01/14/09	gross β	1.5E-02 ± 2.1E-03
	01/14/09	01/28/09	gross α	2.0E-03 ± 6.7E-04
	01/14/09	01/28/09	gross β	4.3E-02 ± 4.7E-03
	01/28/09	02/03/09	gross α	1.4E-03 ± 1.2E-03
	01/28/09	02/03/09	gross β	2.0E-02 ± 3.2E-03
N539	12/31/08	01/14/09	gross α	1.2E-03 ± 5.2E-04
	12/31/08	01/14/09	gross β	1.4E-02 ± 2.0E-03
	01/14/09	01/28/09	gross α	2.3E-03 ± 7.4E-04
	01/14/09	01/28/09	gross β	5.4E-02 ± 5.6E-03
	01/28/09	02/03/09	gross α	1.8E-03 ± 1.3E-03
	01/28/09	02/03/09	gross β	1.6E-02 ± 2.9E-03
N540	12/31/08	01/14/09	gross α	4.8E-04 ± 4.6E-04
(300 Area)	12/31/08	01/14/09	gross β	1.3E-02 ± 1.9E-03
	01/14/09	01/28/09	gross α	2.3E-03 ± 7.2E-04
	01/14/09	01/28/09	gross β	5.0E-02 ± 5.2E-03
	01/28/09	02/03/09	gross α	1.2E-03 ± 1.1E-03
	01/28/09	02/03/09	gross β	1.6E-02 ± 2.8E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N537	12/31/08 to 02/03/09	^{60}Co	-4.6E-04 ± 4.6E-04	U
		^{134}Cs	1.2E-04 ± 4.2E-04	U
		^{137}Cs	-2.0E-04 ± 3.2E-04	U
		^{152}Eu	4.0E-04 ± 8.4E-04	U
		^{154}Eu	2.2E-04 ± 1.2E-03	U
		^{155}Eu	-7.8E-04 ± 8.7E-04	U
		^{238}Pu	-2.5E-05 ± 6.8E-05	U
		$^{239/240}$Pu	4.2E-06 ± 8.6E-06	U
		^{106}Ru	1.5E-03 ± 3.2E-03	U
		^{125}Sb	6.1E-04 ± 8.1E-04	U
		^{234}U	1.9E-05 ± 2.1E-05	U
		^{235}U	8.3E-06 ± 1.2E-05	U
		^{238}U	1.1E-05 ± 1.4E-05	
N538	12/31/08 to 02/03/09	^{60}Co	3.0E-04 ± 4.2E-04	U
		^{134}Cs	-1.5E-04 ± 3.6E-04	U
		^{137}Cs	-1.9E-04 ± 3.5E-04	U
		^{152}Eu	2.1E-04 ± 9.3E-04	U
		^{154}Eu	-1.6E-04 ± 1.1E-03	U
		^{155}Eu	-3.5E-04 ± 8.7E-04	U
		^{238}Pu	-3.7E-05 ± 8.2E-05	U
		$^{239/240}$Pu	8.2E-06 ± 2.3E-05	U
		^{106}Ru	1.6E-03 ± 3.2E-03	U
		^{125}Sb	-7.1E-05 ± 7.1E-04	U
		^{234}U	1.9E-05 ± 3.2E-05	U
		^{235}U	3.7E-06 ± 3.8E-06	U
		^{238}U	3.4E-05 ± 2.9E-05	U
N539	12/31/08 to 02/03/09	^{60}Co	-1.7E-04 ± 3.7E-04	U
		^{134}Cs	-6.9E-05 ± 3.4E-04	U
		^{137}Cs	4.8E-05 ± 3.2E-04	U
		^{152}Eu	-6.3E-04 ± 8.2E-04	U
		^{154}Eu	3.1E-04 ± 1.2E-03	U
		^{155}Eu	-2.0E-04 ± 8.5E-04	U
		^{238}Pu	-2.1E-05 ± 7.8E-05	U
		$^{239/240}$Pu	4.2E-06 ± 1.4E-05	U
		^{106}Ru	-1.5E-03 ± 3.1E-03	U
		^{125}Sb	6.9E-04 ± 7.6E-04	U
		^{234}U	2.9E-05 ± 2.3E-05	
		^{235}U	3.7E-06 ± 3.7E-06	U
		^{238}U	7.4E-06 ± 1.8E-05	U
N540	12/31/08 to 02/03/09	^{60}Co	-3.6E-05 ± 3.6E-04	U
		^{134}Cs	-5.6E-06 ± 5.6E-05	U
		^{137}Cs	-1.6E-04 ± 3.4E-04	U
		^{152}Eu	1.6E-04 ± 8.6E-04	U
		^{154}Eu	-4.2E-04 ± 1.2E-03	U
		^{155}Eu	-9.1E-04 ± 9.3E-04	U
		^{238}Pu	4.6E-05 ± 7.5E-05	U
		$^{239/240}$Pu	4.1E-06 ± 2.0E-05	U
		^{106}Ru	-3.7E-03 ± 3.9E-03	U
		^{125}Sb	2.4E-04 ± 8.1E-04	U
		^{234}U	3.9E-05 ± 3.2E-05	
		^{235}U	1.7E-05 ± 1.8E-05	
		^{238}U	2.7E-05 ± 2.2E-05	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 75 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N130	12/31/08	01/14/09	gross α	7.7E-04 ± 5.6E-04
(300 Area)	12/31/08	01/14/09	gross β	1.1E-02 ± 1.6E-03
	01/14/09	01/28/09	gross α	1.3E-03 ± 5.5E-04
	01/14/09	01/28/09	gross β	4.0E-02 ± 3.8E-03
	01/28/09	02/11/09	gross α	1.5E-03 ± 5.8E-04
	01/28/09	02/11/09	gross β	2.2E-02 ± 2.4E-03
	02/11/09	02/25/09	gross α	1.2E-03 ± 5.2E-04
	02/11/09	02/25/09	gross β	2.5E-02 ± 2.6E-03
	02/25/09	03/11/09	gross α	5.1E-04 ± 4.7E-04
	02/25/09	03/11/09	gross β	1.3E-02 ± 1.7E-03
	03/11/09	03/25/09	gross α	9.8E-04 ± 6.1E-04
	03/11/09	03/25/09	gross β	1.5E-02 ± 1.9E-03
	03/25/09	04/08/09	gross α	1.1E-03 ± 5.1E-04
	03/25/09	04/08/09	gross β	1.4E-02 ± 1.8E-03
	04/08/09	04/22/09	gross α	9.6E-04 ± 5.9E-04
	04/08/09	04/22/09	gross β	1.3E-02 ± 1.7E-03
	04/22/09	05/06/09	gross α	1.5E-03 ± 5.8E-04
	04/22/09	05/06/09	gross β	1.2E-02 ± 1.7E-03
	05/06/09	05/20/09	gross α	1.0E-03 ± 4.8E-04
	05/06/09	05/20/09	gross β	1.1E-02 ± 1.6E-03
	05/20/09	06/03/09	gross α	1.8E-03 ± 6.5E-04
	05/20/09	06/03/09	gross β	1.3E-02 ± 1.7E-03
	06/03/09	06/17/09	gross α	8.7E-04 ± 5.8E-04
	06/03/09	06/17/09	gross β	1.7E-02 ± 2.0E-03
	06/17/09	07/02/09	gross α	6.9E-04 ± 5.0E-04
	06/17/09	07/02/09	gross β	1.1E-02 ± 1.5E-03
	07/02/09	07/15/09	gross α	6.9E-04 ± 5.6E-04
	07/02/09	07/15/09	gross β	1.6E-02 ± 2.0E-03
	07/15/09	07/29/09	gross α	1.5E-03 ± 5.8E-04
	07/15/09	07/29/09	gross β	2.1E-02 ± 2.4E-03
	07/29/09	08/12/09	gross α	1.5E-03 ± 6.0E-04
	07/29/09	08/12/09	gross β	1.6E-02 ± 2.0E-03
	08/12/09	08/26/09	gross α	1.0E-03 ± 4.8E-04
	08/12/09	08/26/09	gross β	1.6E-02 ± 1.9E-03
	08/26/09	09/10/09	gross α	6.1E-04 ± 5.0E-04
	08/26/09	09/10/09	gross β	1.5E-02 ± 1.9E-03
	09/10/09	09/22/09	gross α	1.1E-03 ± 7.1E-04
	09/10/09	09/22/09	gross β	1.7E-02 ± 2.1E-03
	09/22/09	10/07/09	gross α	1.3E-03 ± 5.4E-04
	09/22/09	10/07/09	gross β	1.4E-02 ± 1.9E-03
	10/07/09	10/21/09	gross α	1.3E-03 ± 9.8E-04
	10/07/09	10/21/09	gross β	2.0E-02 ± 2.9E-03
	10/21/09	11/04/09	gross α	1.2E-03 ± 5.5E-04
	10/21/09	11/04/09	gross β	1.1E-02 ± 1.6E-03
	11/04/09	11/18/09	gross α	1.3E-03 ± 5.5E-04
	11/04/09	11/18/09	gross β	1.6E-02 ± 1.9E-03
	11/18/09	12/02/09	gross α	1.4E-03 ± 5.8E-04
	11/18/09	12/02/09	gross β	1.3E-02 ± 1.7E-03
	12/02/09	12/18/09	gross α	2.2E-03 ± 6.7E-04
	12/02/09	12/18/09	gross β	5.0E-02 ± 4.6E-03
	12/18/09	12/31/09	gross α	1.7E-03 ± 6.5E-04
	12/18/09	12/31/09	gross β	4.2E-02 ± 4.1E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N130	12/31/08 to 07/02/09	^{60}Co	-1.0E-04 ± 1.1E-04	U
		^{134}Cs	2.3E-05 ± 7.0E-05	U
		^{137}Cs	1.6E-05 ± 6.2E-05	U
		^{152}Eu	1.1E-05 ± 1.1E-04	U
		^{154}Eu	1.0E-05 ± 1.0E-04	U
		^{155}Eu	3.1E-05 ± 1.6E-04	U
		^{238}Pu	-6.3E-06 ± 1.3E-05	U
		$^{239/240}$Pu	1.4E-06 ± 4.0E-06	U
		^{106}Ru	-1.8E-04 ± 5.9E-04	U
		^{125}Sb	1.5E-06 ± 1.5E-05	U
		^{90}Sr	-3.3E-04 ± 3.5E-04	U
		^{234}U	1.3E-05 ± 9.2E-06	
		^{235}U	6.2E-06 ± 5.6E-06	
		^{238}U	5.7E-06 ± 5.1E-06	
N130	07/02/09 to 12/31/09	^{60}Co	4.3E-06 ± 4.3E-05	U
		^{134}Cs	6.0E-05 ± 8.7E-05	U
		^{137}Cs	-4.6E-05 ± 7.8E-05	U
		^{152}Eu	-1.0E-05 ± 1.0E-04	U
		^{154}Eu	1.9E-05 ± 1.9E-04	U
		^{155}Eu	2.0E-05 ± 1.5E-04	U
		^{238}Pu	6.0E-07 ± 6.2E-07	U
		$^{239/240}$Pu	6.0E-07 ± 1.2E-06	U
		^{106}Ru	2.7E-06 ± 2.7E-05	U
		^{125}Sb	-1.4E-04 ± 2.0E-04	U
		^{90}Sr	-2.5E-04 ± 2.6E-04	U
		^{234}U	1.3E-05 ± 8.9E-06	
		^{235}U	4.0E-06 ± 4.3E-06	
		^{238}U	9.2E-06 ± 7.3E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 76 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N482	12/31/08	01/13/09	gross α	5.5E-04 ± 5.0E-04
(ERDF)	12/31/08	01/13/09	gross β	1.1E-02 ± 1.6E-03
	01/13/09	01/27/09	gross α	1.8E-03 ± 6.4E-04
	01/13/09	01/27/09	gross β	3.6E-02 ± 3.5E-03
	01/27/09	02/10/09	gross α	1.0E-03 ± 4.8E-04
	01/27/09	02/10/09	gross β	3.1E-02 ± 3.2E-03
	02/10/09	02/24/09	gross α	1.3E-03 ± 5.5E-04
	02/10/09	02/24/09	gross β	2.3E-02 ± 2.5E-03
	02/24/09	03/10/09	gross α	9.5E-04 ± 6.5E-04
	02/24/09	03/10/09	gross β	6.2E-03 ± 1.2E-03
	03/10/09	03/24/09	gross α	1.0E-03 ± 6.4E-04
	03/10/09	03/24/09	gross β	1.3E-02 ± 1.8E-03
	03/24/09	04/07/09	gross α	2.3E-03 ± 7.9E-04
	03/24/09	04/07/09	gross β	1.7E-02 ± 2.2E-03
	04/07/09	04/21/09	gross α	1.1E-03 ± 5.3E-04
	04/07/09	04/21/09	gross β	1.5E-02 ± 2.0E-03
	04/21/09	05/05/09	gross α	3.5E-04 ± 4.7E-04
	04/21/09	05/05/09	gross β	8.2E-03 ± 1.4E-03
	05/05/09	05/19/09	gross α	8.2E-04 ± 5.9E-04
	05/05/09	05/19/09	gross β	6.2E-03 ± 1.2E-03
	05/19/09	06/02/09	gross α	1.3E-03 ± 5.7E-04
	05/19/09	06/02/09	gross β	1.4E-02 ± 1.9E-03
	06/02/09	06/16/09	gross α	8.0E-04 ± 5.8E-04
	06/02/09	06/16/09	gross β	1.7E-02 ± 2.1E-03
	06/16/09	07/06/09	gross α	6.0E-04 ± 4.3E-04
	06/16/09	07/06/09	gross β	8.4E-03 ± 1.1E-03
	07/06/09	07/14/09	gross α	1.5E-03 ± 1.0E-03
	07/06/09	07/14/09	gross β	1.1E-02 ± 1.9E-03
	07/14/09	07/28/09	gross α	1.1E-03 ± 6.7E-04
	07/14/09	07/28/09	gross β	1.1E-02 ± 1.7E-03
	07/28/09	08/11/09	gross α	7.2E-04 ± 5.8E-04
	07/28/09	08/11/09	gross β	1.0E-02 ± 1.5E-03
	08/11/09	08/25/09	gross α	7.5E-04 ± 5.7E-04
	08/11/09	08/25/09	gross β	9.0E-03 ± 1.5E-03
	08/25/09	09/09/09	gross α	5.7E-04 ± 5.2E-04
	08/25/09	09/09/09	gross β	1.1E-02 ± 1.6E-03
	09/09/09	09/23/09	gross α	1.1E-03 ± 5.4E-04
	09/09/09	09/23/09	gross β	1.8E-02 ± 2.3E-03
	09/23/09	10/06/09	gross α	1.2E-03 ± 5.6E-04
	09/23/09	10/06/09	gross β	1.0E-02 ± 1.6E-03
	10/06/09	10/20/09	gross α	1.0E-03 ± 6.4E-04
	10/06/09	10/20/09	gross β	1.3E-02 ± 1.7E-03
	10/20/09	11/03/09	gross α	3.6E-04 ± 7.0E-04
	10/20/09	11/03/09	gross β	8.0E-03 ± 1.7E-03
	11/03/09	11/17/09	gross α	1.4E-03 ± 5.7E-04
	11/03/09	11/17/09	gross β	1.1E-02 ± 1.6E-03
	11/17/09	12/01/09	gross α	1.4E-03 ± 5.7E-04
	11/17/09	12/01/09	gross β	1.5E-02 ± 1.9E-03
	12/01/09	12/16/09	gross α	1.2E-03 ± 5.1E-04
	12/01/09	12/16/09	gross β	3.2E-02 ± 3.2E-03
	12/16/09	12/30/09	gross α	7.7E-04 ± 5.6E-04
	12/16/09	12/30/09	gross β	3.0E-02 ± 2.2E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N482	12/31/08 to 07/06/09	^{60}Co	-6.7E-06 ± 6.7E-05	U
		^{134}Cs	-1.1E-06 ± 1.1E-05	U
		^{137}Cs	4.0E-05 ± 7.6E-05	U
		^{152}Eu	2.6E-05 ± 2.0E-04	U
		^{154}Eu	7.8E-05 ± 2.2E-04	U
		^{155}Eu	-1.4E-04 ± 1.8E-04	U
		^{238}Pu	4.3E-06 ± 9.0E-06	U
		$^{239/240}$Pu	7.9E-06 ± 6.6E-06	
		^{106}Ru	-7.8E-06 ± 7.8E-05	U
		^{125}Sb	8.5E-05 ± 1.6E-04	U
		^{90}Sr	-3.3E-04 ± 3.5E-04	U
		^{234}U	2.3E-05 ± 1.3E-05	
		^{235}U	1.8E-06 ± 2.7E-06	U
		^{238}U	1.9E-05 ± 1.1E-05	
N482	07/06/09 to 12/30/09	^{60}Co	-3.2E-05 ± 8.2E-05	U
		^{134}Cs	-3.0E-05 ± 8.4E-05	U
		^{137}Cs	2.0E-04 ± 1.4E-04	
		^{152}Eu	1.4E-04 ± 1.5E-04	U
		^{154}Eu	3.5E-04 ± 3.5E-04	U
		^{155}Eu	-9.5E-06 ± 9.6E-05	U
		^{238}Pu	5.1E-06 ± 1.4E-05	U
		$^{239/240}$Pu	1.4E-05 ± 9.0E-06	
		^{106}Ru	-4.2E-04 ± 6.1E-04	U
		^{125}Sb	-8.2E-05 ± 1.7E-04	U
		^{90}Sr	-1.0E-04 ± 1.1E-04	U
		^{234}U	3.1E-05 ± 1.6E-05	
		^{235}U	3.1E-06 ± 4.8E-06	U
		^{238}U	3.1E-05 ± 1.6E-05	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 77 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N517	12/31/08	01/13/09	gross α	6.2E-04 ± 5.3E-04
(ERDF)	12/31/08	01/13/09	gross β	1.3E-02 ± 1.9E-03
	01/13/09	01/27/09	gross α	2.8E-03 ± 8.0E-04
	01/13/09	01/27/09	gross β	4.0E-02 ± 3.9E-03
	01/27/09	02/10/09	gross α	1.5E-03 ± 5.9E-04
	01/27/09	02/10/09	gross β	2.4E-02 ± 2.6E-03
	02/10/09	02/24/09	gross α	1.8E-03 ± 6.2E-04
	02/10/09	02/24/09	gross β	2.6E-02 ± 2.8E-03
	02/24/09	03/10/09	gross α	3.5E-04 ± 4.7E-04
	02/24/09	03/10/09	gross β	9.8E-03 ± 1.5E-03
	03/10/09	03/24/09	gross α	1.1E-03 ± 7.0E-04
	03/10/09	03/24/09	gross β	1.3E-02 ± 2.0E-03
	03/24/09	04/07/09	gross α	-6.8E-05 ± 1.9E-04
	03/24/09	04/07/09	gross β	3.8E-03 ± 8.7E-04
	04/07/09	04/21/09	gross α	9.4E-04 ± 5.8E-04
	04/07/09	04/21/09	gross β	1.2E-02 ± 1.6E-03
	04/21/09	05/05/09	gross α	8.8E-04 ± 5.8E-04
	04/21/09	05/05/09	gross β	8.7E-03 ± 1.4E-03
	05/05/09	05/19/09	gross α	9.9E-04 ± 6.0E-04
	05/05/09	05/19/09	gross β	6.3E-03 ± 1.1E-03
	05/19/09	06/02/09	gross α	4.8E-04 ± 4.6E-04
	05/19/09	06/02/09	gross β	4.9E-03 ± 1.0E-03
	06/02/09	06/16/09	gross α	9.8E-04 ± 6.1E-04
	06/02/09	06/16/09	gross β	4.3E-03 ± 9.1E-04
	06/16/09	07/06/09	gross α	2.4E-04 ± 3.2E-04
	06/16/09	07/06/09	gross β	2.2E-03 ± 5.6E-04
	07/06/09	07/14/09	gross α	8.6E-04 ± 8.3E-04
	07/06/09	07/14/09	gross β	4.3E-03 ± 1.3E-03
	07/14/09	07/28/09	gross α	1.0E-03 ± 6.2E-04
	07/14/09	07/28/09	gross β	5.4E-03 ± 1.0E-03
	07/28/09	08/11/09	gross α	7.8E-04 ± 5.3E-04
	07/28/09	08/11/09	gross β	1.9E-02 ± 2.2E-03
	08/11/09	08/25/09	gross α	6.9E-05 ± 3.7E-04
	08/11/09	08/25/09	gross β	7.8E-03 ± 1.4E-03
	08/25/09	09/09/09	gross α	4.6E-04 ± 4.4E-04
	08/25/09	09/09/09	gross β	9.0E-03 ± 1.4E-03
	09/09/09	09/23/09	gross α	3.0E-04 ± 4.4E-04
	09/09/09	09/23/09	gross β	1.6E-02 ± 2.1E-03
	09/23/09	10/06/09	gross α	7.7E-05 ± 4.1E-04
	09/23/09	10/06/09	gross β	7.4E-03 ± 1.4E-03
	10/06/09	10/20/09	gross α	1.0E-03 ± 5.0E-04
	10/06/09	10/20/09	gross β	1.5E-02 ± 1.9E-03
	10/20/09	11/03/09	gross α	5.8E-04 ± 4.9E-04
	10/20/09	11/03/09	gross β	8.1E-03 ± 1.3E-03
	11/03/09	11/17/09	gross α	5.3E-04 ± 5.0E-04
	11/03/09	11/17/09	gross β	9.8E-03 ± 1.5E-03
	11/17/09	12/01/09	gross α	1.0E-03 ± 4.9E-04
	11/17/09	12/01/09	gross β	1.3E-02 ± 1.8E-03
	12/01/09	12/16/09	gross α	1.0E-03 ± 4.7E-04
	12/01/09	12/16/09	gross β	1.1E-02 ± 1.5E-03
	12/16/09	12/30/09	gross α	2.0E-03 ± 6.8E-04
	12/16/09	12/30/09	gross β	3.9E-02 ± 2.6E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N517	12/31/08 to 07/06/09	^{60}Co	2.1E-07 ± 2.2E-07	U
		^{134}Cs	-3.5E-05 ± 8.0E-05	U
		^{137}Cs	1.3E-04 ± 9.0E-05	U
		^{152}Eu	1.2E-04 ± 1.7E-04	U
		^{154}Eu	-2.1E-05 ± 2.1E-04	U
		^{155}Eu	-1.4E-04 ± 1.8E-04	U
		^{238}Pu	3.2E-06 ± 1.8E-05	
		$^{239/240}$Pu	4.3E-06 ± 5.5E-06	
		^{106}Ru	5.8E-06 ± 5.8E-05	U
		^{125}Sb	-1.0E-04 ± 1.6E-04	U
		^{90}Sr	-2.0E-04 ± 2.1E-04	U
		^{234}U	5.3E-05 ± 2.4E-05	
		^{235}U	3.9E-06 ± 3.8E-06	
		^{238}U	3.8E-05 ± 1.8E-05	
N517	07/06/09 to 12/30/09	^{60}Co	-2.2E-05 ± 8.2E-05	U
		^{134}Cs	-2.2E-05 ± 8.0E-05	U
		^{137}Cs	3.8E-04 ± 1.5E-04	
		^{152}Eu	-1.2E-04 ± 1.9E-04	U
		^{154}Eu	-2.2E-04 ± 2.5E-04	U
		^{155}Eu	1.1E-04 ± 1.9E-04	U
		^{238}Pu	2.5E-06 ± 4.5E-06	U
		$^{239/240}$Pu	1.5E-05 ± 8.7E-06	
		^{106}Ru	2.1E-05 ± 2.1E-04	U
		^{125}Sb	-1.4E-04 ± 1.6E-04	U
		^{90}Sr	6.8E-05 ± 1.5E-04	U
		^{234}U	2.7E-05 ± 2.0E-05	
		^{235}U	4.0E-06 ± 9.9E-06	U
		^{238}U	2.6E-05 ± 1.7E-05	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 78 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N518	12/31/08	01/13/09	gross α	9.7E-04 ± 6.1E-04
(ERDF)	12/31/08	01/13/09	gross β	1.6E-02 ± 2.1E-03
	01/13/09	01/27/09	gross α	2.9E-03 ± 8.1E-04
	01/13/09	01/27/09	gross β	4.2E-02 ± 4.0E-03
	01/27/09	02/10/09	gross α	7.3E-04 ± 5.3E-04
	01/27/09	02/10/09	gross β	2.5E-02 ± 2.7E-03
	02/10/09	02/24/09	gross α	1.5E-03 ± 5.9E-04
	02/10/09	02/24/09	gross β	2.7E-02 ± 2.9E-03
	02/24/09	03/10/09	gross α	5.2E-04 ± 4.7E-04
	02/24/09	03/10/09	gross β	4.4E-03 ± 9.2E-04
	03/10/09	03/24/09	gross α	7.3E-04 ± 5.5E-04
	03/10/09	03/24/09	gross β	9.9E-03 ± 1.5E-03
	03/24/09	04/07/09	gross α	4.8E-04 ± 4.7E-04
	03/24/09	04/07/09	gross β	6.0E-03 ± 1.2E-03
	04/07/09	04/21/09	gross α	9.9E-04 ± 6.1E-04
	04/07/09	04/21/09	gross β	1.1E-02 ± 1.6E-03
	04/21/09	05/05/09	gross α	1.1E-03 ± 6.7E-04
	04/21/09	05/05/09	gross β	1.2E-02 ± 1.7E-03
	05/05/09	05/19/09	gross α	1.8E-04 ± 3.5E-04
	05/05/09	05/19/09	gross β	3.1E-03 ± 7.7E-04
	05/19/09	06/02/09	gross α	6.0E-04 ± 5.1E-04
	05/19/09	06/02/09	gross β	1.2E-02 ± 1.7E-03
	06/02/09	06/16/09	gross α	5.5E-04 ± 5.1E-04
	06/02/09	06/16/09	gross β	1.2E-02 ± 1.7E-03
	06/16/09	07/06/09	gross α	5.6E-04 ± 4.0E-04
	06/16/09	07/06/09	gross β	8.6E-03 ± 1.0E-03
	07/06/09	07/14/09	gross α	1.0E-03 ± 8.7E-04
	07/06/09	07/14/09	gross β	1.0E-02 ± 2.0E-03
	07/14/09	07/28/09	gross α	9.0E-04 ± 5.9E-04
	07/14/09	07/28/09	gross β	1.5E-02 ± 2.0E-03
	07/28/09	08/11/09	gross α	1.5E-03 ± 5.8E-04
	07/28/09	08/11/09	gross β	1.5E-02 ± 2.0E-03
	08/11/09	08/25/09	gross α	1.4E-03 ± 5.8E-04
	08/11/09	08/25/09	gross β	1.4E-02 ± 1.8E-03
	08/25/09	09/09/09	gross α	1.0E-03 ± 4.9E-04
	08/25/09	09/09/09	gross β	1.3E-02 ± 1.8E-03
	09/09/09	09/23/09	gross α	1.1E-03 ± 5.3E-04
	09/09/09	09/23/09	gross β	1.7E-02 ± 2.2E-03
	09/23/09	10/06/09	gross α	1.0E-03 ± 7.5E-04
	09/23/09	10/06/09	gross β	7.1E-03 ± 1.4E-03
	10/06/09	10/20/09	gross α	1.0E-03 ± 4.9E-04
	10/06/09	10/20/09	gross β	2.0E-02 ± 2.3E-03
	10/20/09	11/03/09	gross α	7.9E-04 ± 5.4E-04
	10/20/09	11/03/09	gross β	8.1E-03 ± 1.3E-03
	11/03/09	11/17/09	gross α	7.1E-04 ± 5.8E-04
	11/03/09	11/17/09	gross β	1.2E-02 ± 1.7E-03
	11/17/09	12/01/09	gross α	7.3E-04 ± 5.5E-04
	11/17/09	12/01/09	gross β	1.3E-02 ± 1.8E-03
	12/01/09	12/16/09	gross α	1.4E-03 ± 5.9E-04
	12/01/09	12/16/09	gross β	4.4E-02 ± 4.1E-03
	12/16/09	12/30/09	gross α	1.7E-03 ± 6.2E-04
	12/16/09	12/30/09	gross β	4.1E-02 ± 2.6E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N518	12/31/08 to 07/06/09	^{60}Co	5.7E-05 ± 8.8E-05	U
		^{134}Cs	6.0E-06 ± 6.0E-05	U
		^{137}Cs	9.3E-05 ± 1.0E-04	U
		^{152}Eu	-8.5E-05 ± 1.5E-04	U
		^{154}Eu	-1.6E-05 ± 1.6E-04	U
		^{155}Eu	1.7E-04 ± 1.4E-04	U
		^{238}Pu	-1.2E-05 ± 1.4E-05	
		$^{239/240}$Pu	4.1E-06 ± 6.1E-06	
		^{106}Ru	-8.9E-05 ± 5.9E-04	U
		^{125}Sb	6.8E-06 ± 6.9E-05	U
		^{90}Sr	-2.1E-04 ± 2.2E-04	U
		^{234}U	1.4E-05 ± 9.0E-06	
		^{235}U	2.5E-06 ± 3.0E-06	
		^{238}U	1.5E-05 ± 8.9E-06	
N518	07/06/09 to 12/30/09	^{60}Co	-1.8E-05 ± 9.2E-05	U
		^{134}Cs	7.2E-05 ± 8.9E-05	U
		^{137}Cs	1.2E-04 ± 9.3E-05	U
		^{152}Eu	-2.8E-05 ± 1.7E-04	U
		^{154}Eu	-1.4E-05 ± 1.4E-04	U
		^{155}Eu	3.3E-06 ± 3.3E-05	U
		^{238}Pu	9.1E-07 ± 1.8E-06	U
		$^{239/240}$Pu	3.7E-06 ± 4.6E-06	U
		^{106}Ru	5.0E-04 ± 7.5E-04	U
		^{125}Sb	7.8E-05 ± 1.8E-04	U
		^{90}Sr	-2.6E-04 ± 2.7E-04	U
		^{234}U	2.0E-05 ± 1.1E-05	
		^{235}U	7.5E-07 ± 2.0E-07	U
		^{238}U	2.3E-05 ± 1.2E-05	

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

Table 2-4. Near-Facility Air Sampling Results, 2009 (pCi/m^3 ± total analytical uncertainty). (Sheet 79 of 79)

Location	Sample On	Sample Off	Isotope	Result ± Uncertainty
N981	12/31/08	01/13/09	gross α	1.2E-03 ± 5.5E-04
(600 Area)	12/31/08	01/13/09	gross β	1.4E-02 ± 2.0E-03
	01/13/09	01/27/09	gross α	1.7E-03 ± 6.2E-04
	01/13/09	01/27/09	gross β	4.6E-02 ± 4.3E-03
	01/27/09	02/10/09	gross α	2.2E-03 ± 6.9E-04
	01/27/09	02/10/09	gross β	2.9E-02 ± 3.0E-03
	02/10/09	02/24/09	gross α	1.1E-03 ± 5.0E-04
	02/10/09	02/24/09	gross β	2.0E-02 ± 2.3E-03
	02/24/09	03/10/09	gross α	6.3E-04 ± 5.0E-04
	02/24/09	03/10/09	gross β	1.1E-02 ± 1.6E-03
	03/10/09	03/24/09	gross α	2.3E-03 ± 7.5E-04
	03/10/09	03/24/09	gross β	1.8E-02 ± 2.2E-03
	03/24/09	04/07/09	gross α	1.1E-03 ± 5.1E-04
	03/24/09	04/07/09	gross β	1.0E-02 ± 1.5E-03
	04/07/09	04/21/09	gross α	1.3E-03 ± 5.4E-04
	04/07/09	04/21/09	gross β	1.5E-02 ± 1.9E-03
	04/21/09	05/05/09	gross α	1.8E-03 ± 6.6E-04
	04/21/09	05/05/09	gross β	1.4E-02 ± 1.9E-03
	05/05/09	05/19/09	gross α	7.7E-04 ± 5.7E-04
	05/05/09	05/19/09	gross β	8.5E-03 ± 1.4E-03
	05/19/09	06/02/09	gross α	1.2E-03 ± 5.4E-04
	05/19/09	06/02/09	gross β	1.5E-02 ± 2.0E-03
	06/02/09	06/16/09	gross α	1.7E-03 ± 6.4E-04
	06/02/09	06/16/09	gross β	1.9E-02 ± 2.2E-03
	06/16/09	07/02/09	gross α	1.2E-03 ± 5.0E-04
	06/16/09	07/02/09	gross β	1.1E-02 ± 1.5E-03
	07/02/09	07/14/09	gross α	1.2E-03 ± 7.2E-04
	07/02/09	07/14/09	gross β	1.4E-02 ± 1.9E-03
	07/14/09	07/28/09	gross α	1.4E-03 ± 5.9E-04
	07/14/09	07/28/09	gross β	1.8E-02 ± 2.2E-03
	07/28/09	08/11/09	gross α	1.9E-03 ± 6.8E-04
	07/28/09	08/11/09	gross β	1.8E-02 ± 2.1E-03
	08/11/09	08/25/09	gross α	1.1E-03 ± 5.1E-04
	08/11/09	08/25/09	gross β	1.8E-02 ± 2.3E-03
	08/25/09	09/09/09	gross α	1.3E-03 ± 5.5E-04
	08/25/09	09/09/09	gross β	2.0E-02 ± 2.3E-03
	09/09/09	09/22/09	gross α	1.2E-03 ± 5.8E-04
	09/09/09	09/22/09	gross β	1.2E-02 ± 1.7E-03
	09/22/09	10/06/09	gross α	5.2E-04 ± 4.9E-04
	09/22/09	10/06/09	gross β	1.8E-02 ± 2.2E-03
	10/06/09	10/20/09	gross α	1.4E-03 ± 5.9E-04
	10/06/09	10/20/09	gross β	2.7E-02 ± 2.9E-03
	10/20/09	11/03/09	gross α	1.4E-03 ± 5.8E-04
	10/20/09	11/03/09	gross β	1.3E-02 ± 1.7E-03
	11/03/09	11/17/09	gross α	1.3E-03 ± 5.7E-04
	11/03/09	11/17/09	gross β	1.8E-02 ± 2.2E-03
	11/17/09	12/01/09	gross α	1.8E-03 ± 6.4E-04
	11/17/09	12/01/09	gross β	1.8E-02 ± 2.2E-03
	12/01/09	12/16/09	gross α	2.0E-03 ± 6.8E-04
	12/01/09	12/16/09	gross β	4.3E-02 ± 4.2E-03
	12/16/09	12/31/09	gross α	1.9E-03 ± 6.6E-04
	12/16/09	12/31/09	gross β	3.3E-02 ± 3.2E-03

Location	Composite Period	Isotope	Result ± Uncertainty	RQ
N981	12/31/08 to 07/02/09	^{60}Co	1.8E-05 ± 8.4E-05	U
		^{134}Cs	-1.0E-05 ± 7.4E-05	U
		^{137}Cs	5.1E-05 ± 6.6E-05	U
		^{152}Eu	-7.1E-05 ± 1.6E-04	U
		^{154}Eu	1.7E-04 ± 2.3E-04	U
		^{155}Eu	-1.5E-04 ± 1.6E-04	U
		^{238}Pu	6.1E-06 ± 1.1E-05	U
		$^{239/240}$Pu	1.4E-06 ± 3.9E-06	U
		^{106}Ru	-1.4E-04 ± 6.4E-04	U
		^{125}Sb	4.1E-06 ± 4.1E-05	U
		^{90}Sr	-2.6E-04 ± 2.7E-04	U
		^{234}U	1.2E-05 ± 7.8E-06	
		^{235}U	4.2E-06 ± 4.1E-06	
		^{238}U	1.1E-05 ± 7.1E-06	
N981	07/02/09 to 12/31/09	^{60}Co	1.9E-07 ± 1.9E-06	U
		^{134}Cs	6.0E-05 ± 8.2E-05	U
		^{137}Cs	5.9E-05 ± 7.3E-05	U
		^{152}Eu	1.3E-04 ± 2.0E-04	U
		^{154}Eu	9.9E-05 ± 2.1E-04	U
		^{155}Eu	5.2E-05 ± 1.8E-04	U
		^{238}Pu	1.0E-06 ± 2.1E-06	U
		$^{239/240}$Pu	-1.6E-06 ± 1.9E-06	U
		^{106}Ru	2.6E-04 ± 6.6E-04	U
		^{125}Sb	-4.3E-05 ± 1.6E-04	U
		^{90}Sr	-1.6E-04 ± 1.7E-04	U
		^{234}U	7.0E-06 ± 5.8E-06	
		^{235}U	1.4E-06 ± 2.0E-06	U
		^{238}U	8.3E-06 ± 5.5E-06	

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

This page intentionally left blank.

3.0 SOIL MONITORING

The radionuclide content of soil was measured to evaluate long-term trends in environmental accumulation of radioactivity in the 100, 200/600, and 300/400 Areas. Soil samples were collected on or near facilities that store, handle, or dispose of radioactive waste. The number of soil samples collected in 2009 and their locations are shown in Table 3-1.

Table 3-1. Soil Samples Collected During 2009.

Number of Samples	Operational Area						
	100-H	200 West[a]	200 East[a]	600[a]	300[a]	400	ERDF[b]
81	4	27	14	18	16	1	1

(a) Number of samples includes one or more Replicate Samples.
(b) Environmental Restoration Disposal Facility in the 200 West Area.

Soil sampling locations are illustrated in Figures 3-1 through 3-6. Radionuclide analyses indicated that strontium-90, cesium-137, plutonium-239/240, and uranium were detectable in soil samples in 2009. Generally, the predominant radionuclides observed were activation and fission products in the 100 Areas, fission products in the 200 Areas, and uranium in the 300 Area.

A summary of near-facility soil sampling results for selected radionuclides collected during 2009 is presented in Table 3-2. Historical soil sampling results for the 100, 200/600, and 300/400 Areas are displayed in Table 3-3. The 2009 soil sampling results for all areas are provided in Table 3-4.

One sample in the 300 Area showed an unusually elevated strontium-90 result. This elevated result was found in one sample in a single occurrence. Cleanup efforts continue in the 300 Area, possibly attributing to the elevated results.

Additional discussion of the 2009 soil sampling results can be found in Section 8.9.1 of PNNL-19455.

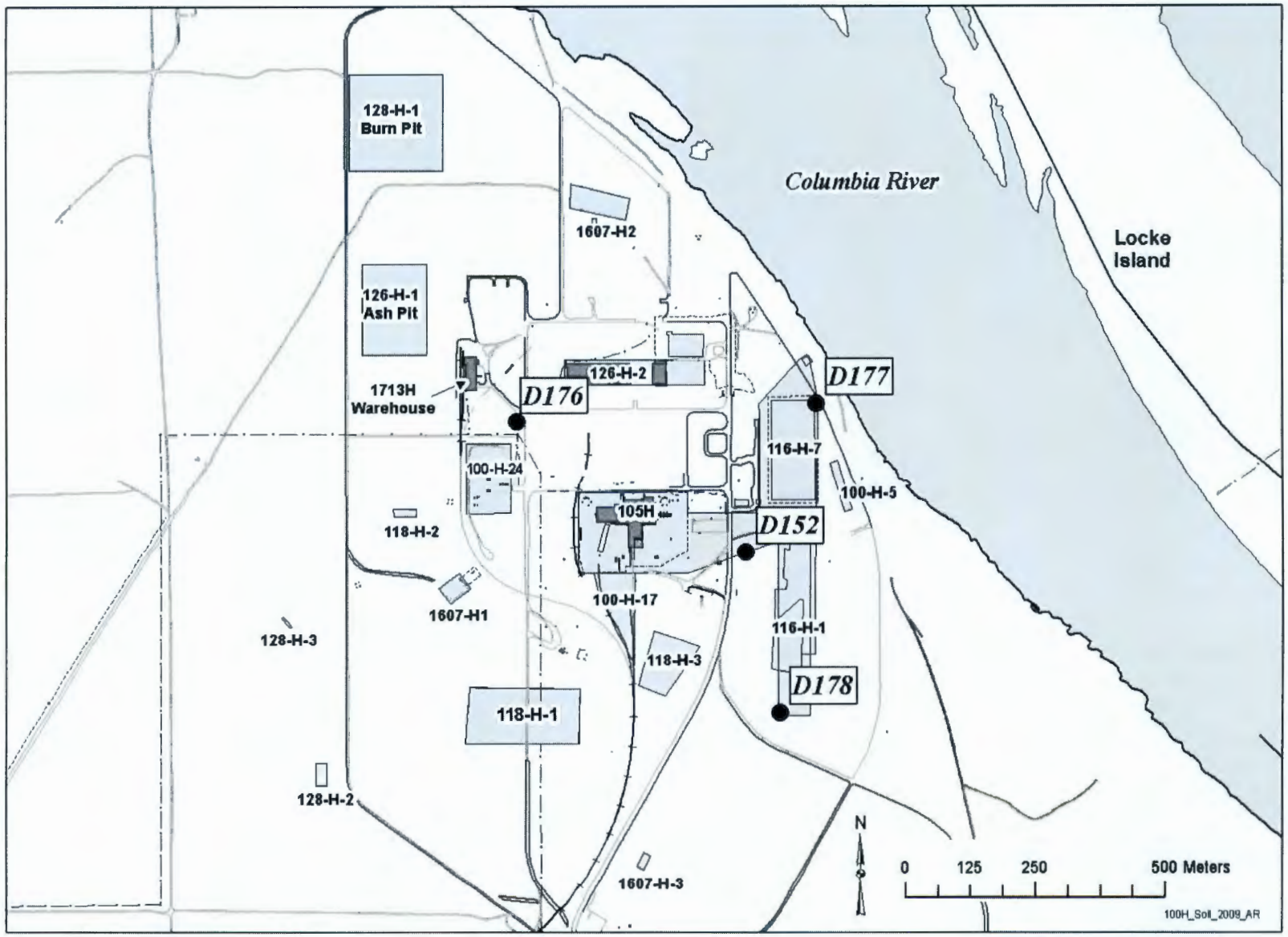


Figure 3-1. 2009 Soil Sampling Locations, 100-H.

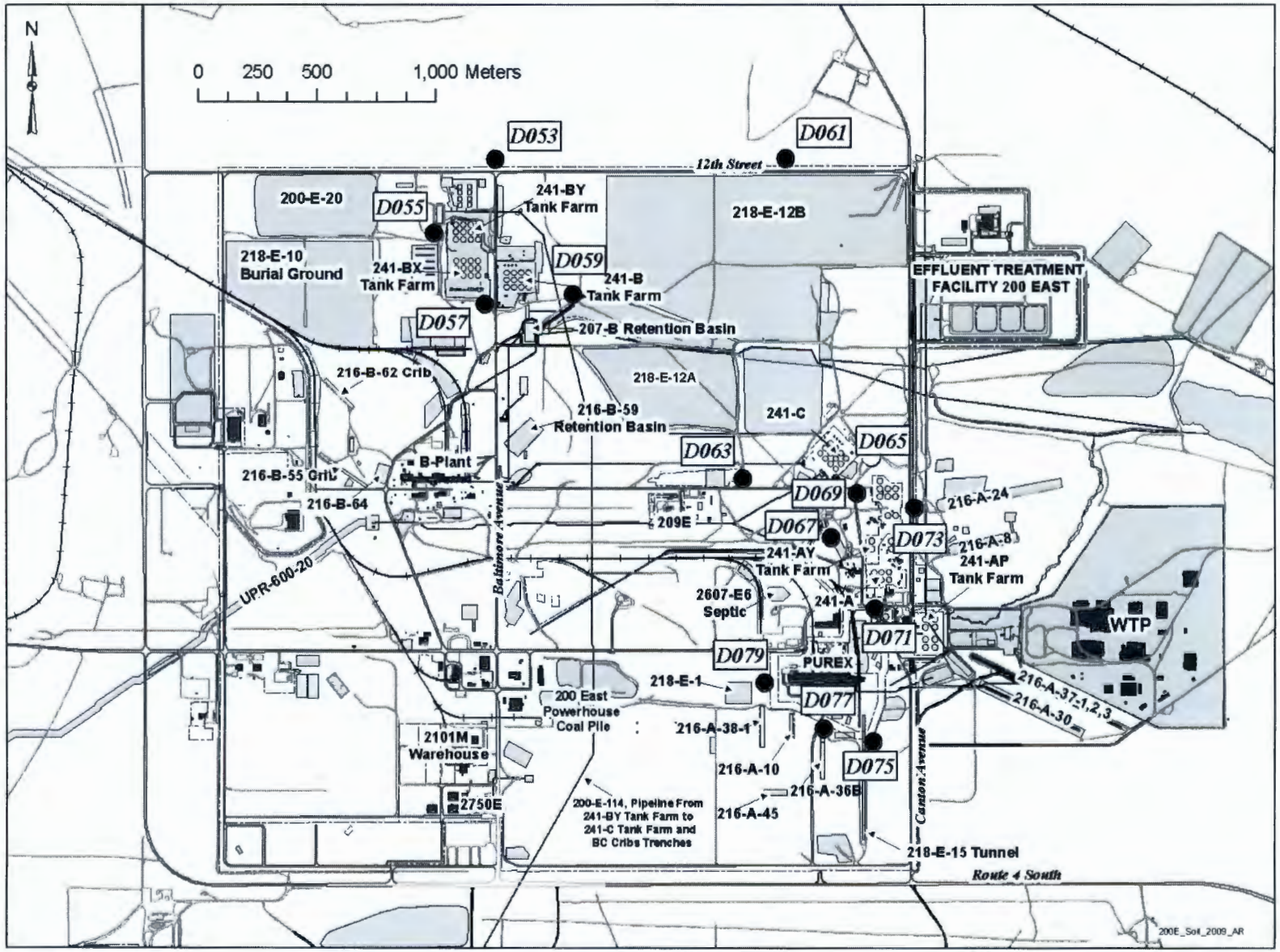


Figure 3-2. 2009 Soil Sampling Locations, 200 East Area.

Figure 3-3. 2009 Soil Sampling Locations, 200 West Area.

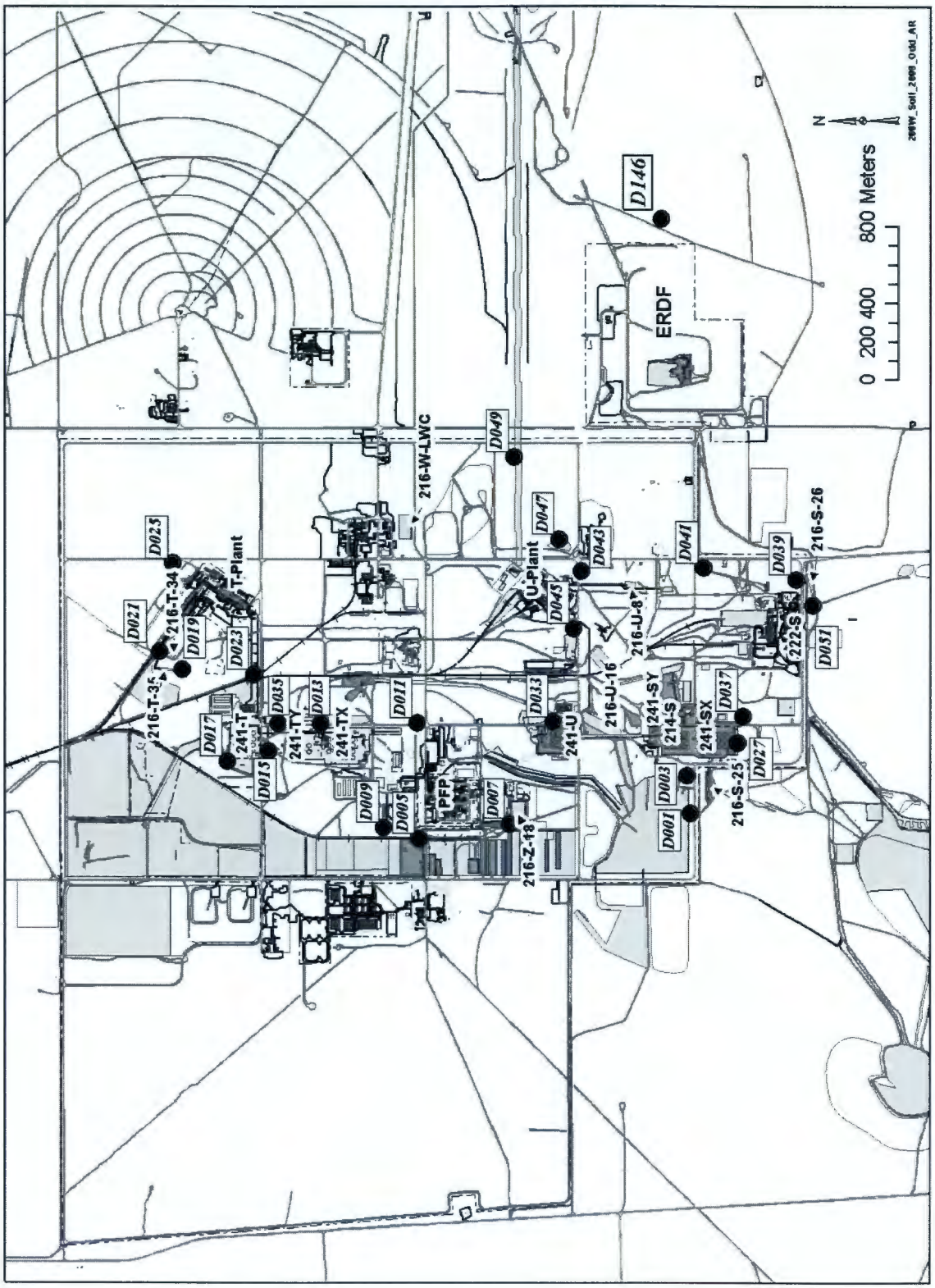


Figure 3-4. 2009 Soil Sampling Locations, 300 Area.

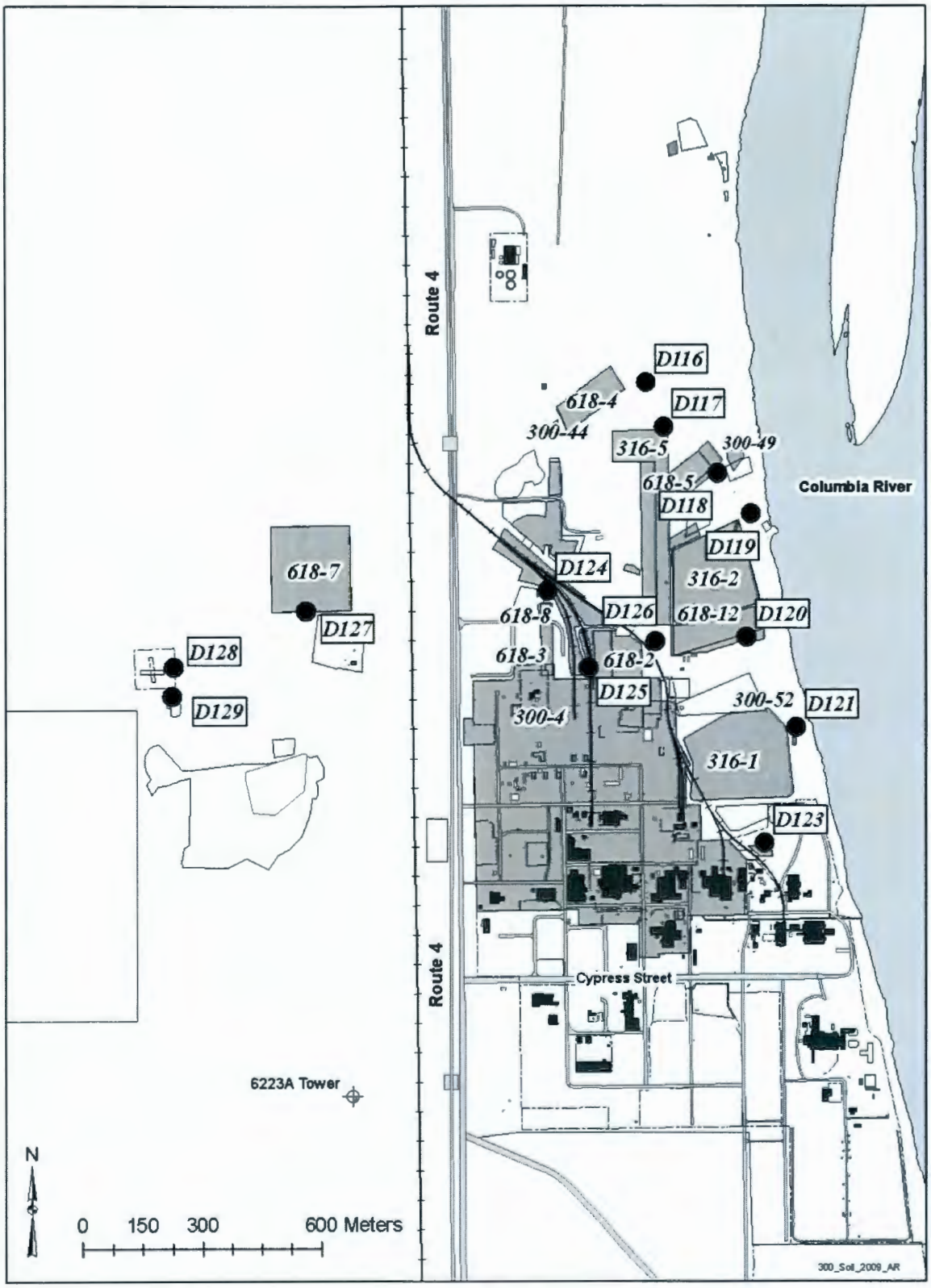


Figure 3-5. 2009 Soil Sampling Locations, 400 Area.

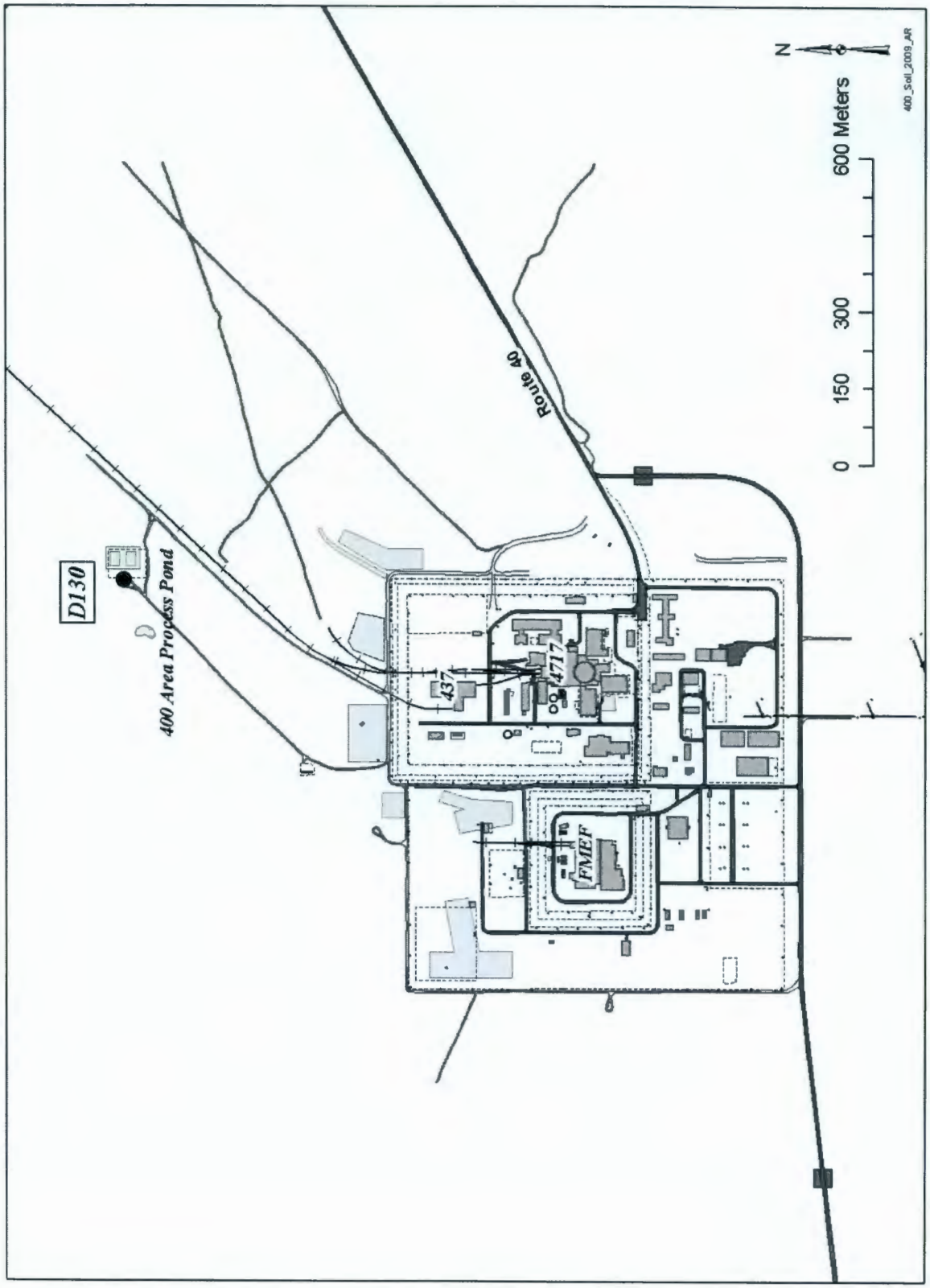


Figure 3-6. 2009 Soil Sampling Locations, 600 Area.

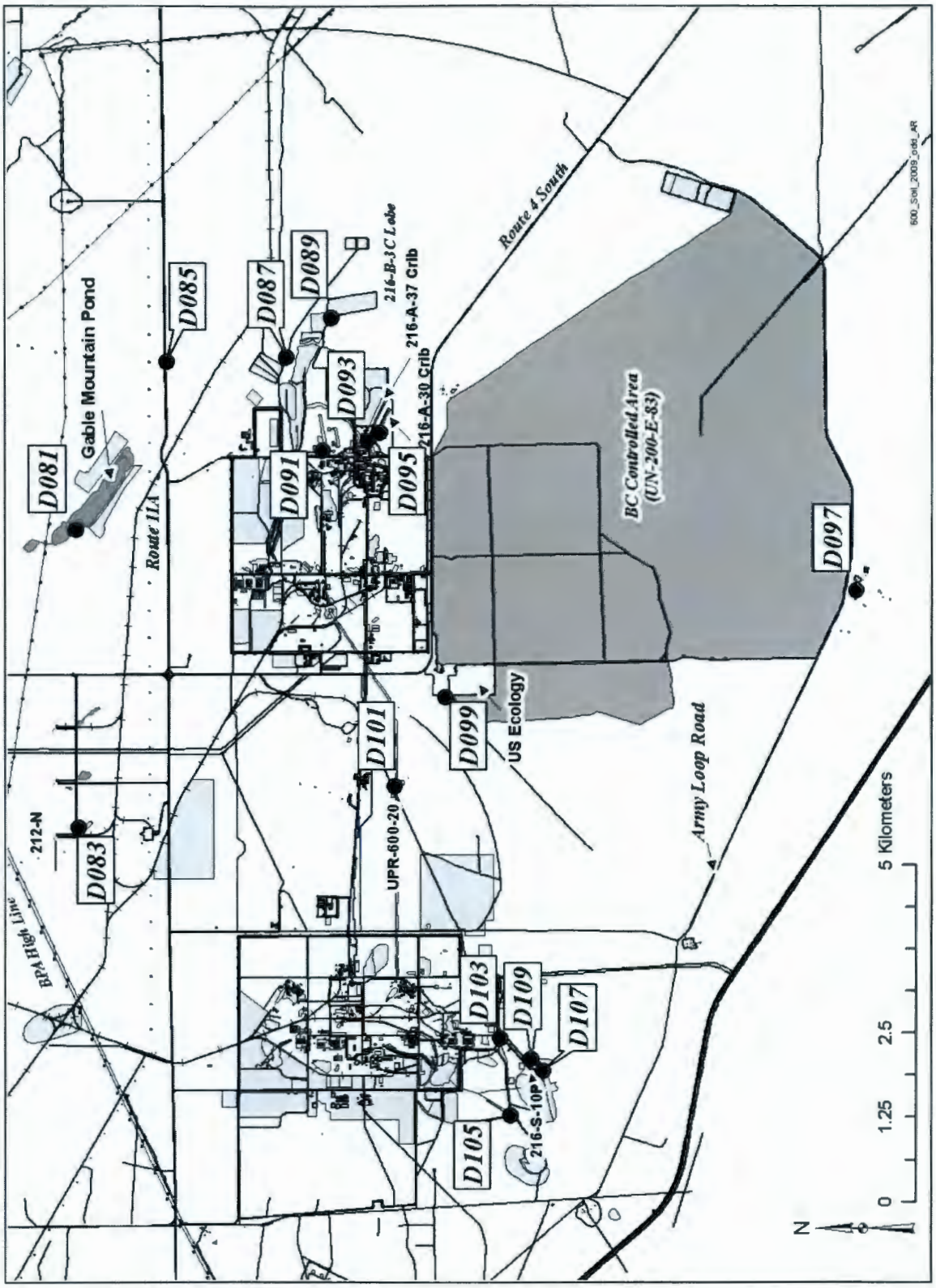


Table 3-2. Summary of Near-Facility Soil Sampling Results (pCi/g)[a] for Selected Radionuclides, 2009.

Isotope	Number of Samples[b]	Number of Detects	Average[c]	Maximum[d]	Location Area	Location Site ID
^{144}Ce	81	0	-1.6E-02 ± 1.7E-01	1.8E-01 ± 1.5E-01[e]	600	D113
^{60}Co	81	0	-1.0E-03 ± 7.4E-03	9.9E-03 ± 7.7E-03[e]	200-W	D029
^{134}Cs	81	79	3.4E-02 ± 2.1E-02	6.3E-02 ± 2.6E-02	600	D105
^{137}Cs	81	76	9.3E-01 ± 3.5E+00	9.8E+00 ± 1.7E+00	200-E	D057
^{152}Eu	81	3	-5.9E-03 ± 4.5E-02	1.1E-01 ± 2.5E-02	100-H	D177
^{154}Eu	81	0	-7.2E-03 ± 3.1E-02	4.0E-02 ± 3.8E-02[e]	200-E	D065
^{155}Eu	81	15	3.6E-02 ± 4.5E-02	1.0E-01 ± 5.2E-02	200-W	D011
^{238}Pu	81	1	3.5E-03 ± 3.0E-02	5.7E-02 ± 3.6E-02	200-W	D007
$^{239/240}Pu$	81	42	5.2E-02 ± 2.3E-01	8.4E-01 ± 2.3E-01	200-W	D011
^{103}Ru	81	0	-7.0E-04 ± 1.1E-02	2.5E-02 ± 2.9E-02[e]	200-W	D013
^{106}Ru	81	0	-2.7E-03 ± 7.8E-02	1.0E-01 ± 1.1E-01[e]	600	D091
^{125}Sb	81	0	3.2E-03 ± 2.6E-02	5.1E-02 ± 3.6E-02[e]	200-W	D043
^{113}Sn	81	0	-2.6E-03 ± 1.3E-02	1.4E-02 ± 2.1E-02[e]	600	D091
^{90}Sr	81	5	1.9E-01 ± 1.2E+01	5.5E+01 ± 7.1E+00	300	D125
^{234}U	81	81	3.1E-01 ± 1.2E+00	5.0E+00 ± 1.3E+00	300	D131
^{235}U	81	45	2.3E-02 ± 6.7E-02	2.7E-01 ± 8.6E-02	300	D131
^{238}U	81	81	3.2E-01 ± 1.3E+00	4.9E+00 ± 1.3E+00	300	D131
^{65}Zn	81	10	1.0E-02 ± 3.3E-02	5.2E-02 ± 2.2E-02	200-E	D063

(a) 1 pCi = 0.037 Bq.

(b) Includes replicate samples and/or multiple samples collected at some locations.

(c) Average ± two standard deviations.

(d) Maximum ± analytical uncertainty.

(e) Maximum value reported is a non detect.

Table 3-3. Average Radionuclide Concentrations (pCi/g)[a] in Hanford Soils, 1999 through 2009.

100 Areas

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	$^{239,240}Pu$
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
2004	3.9E-01 ± 2.0E+00	-1.3E-01 ± 5.7E-01	3.8E-01 ± 1.1E+00	1.3E-01 ± 5.9E-02	1.4E-01 ± 6.4E-02	1.1E-01 ± 6.0E-01
2005	3.5E-02 ± 1.8E-01	-4.3E-02 ± 6.1E-01	3.2E-01 ± 1.2E+00	1.3E-01 ± 6.5E-02	1.3E-01 ± 5.8E-02	1.1E-02 ± 4.3E-02
2006	7.3E-01 ± 6.8E+00	Not Detected	7.0E+00 ± 6.0E+01	1.3E-01 ± 9.5E-02	1.3E-01 ± 8.6E-02	1.1E-02 ± 2.0E-02
2007	No Soil Samples Collected in 100 Areas During 2007					
2008	Not Detected	-3.7E-01 ± 8.4E-01	2.0E-01 ± 4.0E-01	1.5E-01 ± 9.4E-02	1.2E-01 ± 7.9E-02	Not Detected
2009	Not Detected	Not Detected	3.2E-01 ± 4.6E-01	1.2E-01 ± 2.2E-02	1.3E-01 ± 3.7E-02	2.2E-02 ± 1.4E-02

200/600 Areas

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	$^{239,240}Pu$
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
2004	8.1E-04 ± 1.1E-02	1.3E-01 ± 7.8E-01	2.8E+00 ± 1.7E+01	1.7E-01 ± 1.9E-01	1.7E-01 ± 1.5E-01	3.5E-01 ± 3.2E+00
2005	Not Detected	2.7E-02 ± 5.4E-01	1.5E+00 ± 5.1E+00	1.6E-01 ± 9.6E-02	1.5E-01 ± 8.8E-02	8.0E-02 ± 4.6E-01
2006	Not Detected	2.6E-01 ± 2.1E+00	1.3E+00 ± 4.3E+00	1.7E-01 ± 2.3E-01	1.7E-01 ± 2.2E-01	9.3E-02 ± 5.2E-01
2007	Not Detected	1.5E+00 ± 1.5E+01	1.4E+00 ± 4.7E+00	1.6E-01 ± 1.1E-01	1.6E-01 ± 1.3E-01	1.8E-01 ± 1.6E+00
2008	2.2E-04 ± 8.5E-03	-3.7E-01 ± 8.1E-01	1.0E+00 ± 3.9E+00	1.6E-01 ± 7.4E-02	1.6E-01 ± 7.1E-02	1.3E-01 ± 7.3E-01
2009	Not Detected	-5.4E-01 ± 9.4E-01	1.1E+00 ± 3.7E+00	1.7E-01 ± 1.3E-01	1.8E-01 ± 1.4E-01	6.6E-02 ± 2.6E-01

300/400 Areas

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	$^{239,240}Pu$
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
2004	Not Detected	Not Detected	9.2E-02 ± 1.4E-01	9.6E-01 ± 2.9E+00	9.7E-01 ± 3.0E+00	2.8E-02 ± 6.7E-02
2005	Not Detected	Not Detected	5.0E-02 ± 1.1E-01	5.6E-01 ± 1.6E+00	5.6E-01 ± 1.6E+00	1.4E-02 ± 3.5E-02
2006	Not Detected	6.5E-02 ± 5.6E-01	9.4E-02 ± 1.4E-01	1.2E+00 ± 3.3E+00	1.2E+00 ± 3.4E+00	1.8E-02 ± 4.9E-02
2007	Not Detected	Not Detected	9.1E-02 ± 2.1E-02	8.2E-01 ± 2.2E+00	8.0E-01 ± 2.2E+00	1.7E-02 ± 4.6E-02
2008	Not Detected	-1.4E-01 ± 5.5E-01	3.8E-02 ± 8.6E-02	5.5E-01 ± 1.2E+00	5.2E-01 ± 1.0E+00	8.2E-03 ± 1.6E-02
2009	Not Detected	3.0E+00 ± 2.6E+01	5.8E-02 ± 8.7E-02	8.2E-01 ± 2.4E+00	8.6E-01 ± 2.5E+00	1.3E-02 ± 3.8E-02

(a) ± 2 standard deviations

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 1 of 21)

Location	Isotope	Result ± Error	RQ
D152 (100-H)	^{144}Ce	1.4E-01 ± 1.5E-01	U
	^{60}Co	-2.1E-03 ± 8.5E-03	U
	^{134}Cs	3.6E-02 ± 1.6E-02	
	^{137}Cs	2.8E-01 ± 5.5E-02	
	^{152}Eu	7.5E-02 ± 2.3E-02	
	^{154}Eu	-2.0E-02 ± 2.7E-02	U
	^{155}Eu	4.1E-02 ± 3.9E-02	U
	^{238}Pu	2.0E-02 ± 2.1E-02	U
	$^{239/240}Pu$	2.6E-02 ± 1.8E-02	
	^{103}Ru	-2.9E-03 ± 7.7E-03	U
	^{106}Ru	1.1E-02 ± 8.2E-02	U
	^{125}Sb	8.1E-03 ± 2.2E-02	U
	^{113}Sn	4.4E-03 ± 1.1E-02	U
	^{90}Sr	-8.9E-01 ± 8.9E-01	U
	^{234}U	1.1E-01 ± 4.2E-02	
	^{235}U	1.7E-02 ± 1.3E-02	
	^{238}U	1.2E-01 ± 4.4E-02	
	^{65}Zn	1.6E-02 ± 2.2E-02	U
D176 (100-H)	^{144}Ce	4.6E-02 ± 1.5E-01	U
	^{60}Co	2.4E-03 ± 8.9E-03	U
	^{134}Cs	2.5E-02 ± 2.0E-02	
	^{137}Cs	6.9E-01 ± 1.2E-01	
	^{152}Eu	2.3E-02 ± 3.6E-02	U
	^{154}Eu	3.3E-03 ± 2.8E-02	U
	^{155}Eu	2.2E-02 ± 3.7E-02	U
	^{238}Pu	1.1E-02 ± 3.0E-02	U
	$^{239/240}Pu$	2.6E-02 ± 1.6E-02	
	^{103}Ru	-3.9E-03 ± 8.4E-03	U
	^{106}Ru	9.3E-03 ± 7.9E-02	U
	^{125}Sb	1.7E-02 ± 2.4E-02	U
	^{113}Sn	3.2E-03 ± 1.1E-02	U
	^{90}Sr	-8.7E-01 ± 8.7E-01	U
	^{234}U	1.3E-01 ± 4.7E-02	
	^{235}U	1.1E-02 ± 1.0E-02	
	^{238}U	1.1E-01 ± 4.2E-02	
	^{65}Zn	2.2E-02 ± 2.4E-02	U
D177 (100-H)	^{144}Ce	-9.7E-03 ± 9.7E-02	U
	^{60}Co	2.5E-04 ± 2.5E-03	U
	^{134}Cs	4.3E-02 ± 1.7E-02	
	^{137}Cs	2.1E-01 ± 4.0E-02	
	^{152}Eu	1.1E-01 ± 2.5E-02	
	^{154}Eu	-4.8E-03 ± 2.9E-02	U
	^{155}Eu	2.3E-02 ± 4.0E-02	U
	^{238}Pu	-1.0E-02 ± 2.8E-02	U
	$^{239/240}Pu$	1.0E-02 ± 1.1E-02	U
	^{103}Ru	-2.5E-04 ± 2.5E-03	U
	^{106}Ru	8.2E-02 ± 7.3E-02	U
	^{125}Sb	1.1E-02 ± 2.2E-02	U
	^{113}Sn	-2.2E-03 ± 1.0E-02	U
	^{90}Sr	-1.6E+00 ± 1.6E+00	U
	^{234}U	1.2E-01 ± 4.4E-02	
	^{235}U	2.2E-03 ± 9.9E-03	U
	^{238}U	1.3E-01 ± 4.7E-02	
	^{65}Zn	1.7E-02 ± 3.0E-02	U
D178 (100-H)	^{144}Ce	6.6E-03 ± 6.6E-02	U
	^{60}Co	8.6E-03 ± 8.3E-03	U
	^{134}Cs	5.1E-02 ± 1.7E-02	
	^{137}Cs	8.6E-02 ± 2.3E-02	
	^{152}Eu	-5.6E-03 ± 2.5E-02	U
	^{154}Eu	-3.6E-02 ± 3.6E-02	U
	^{155}Eu	3.3E-02 ± 3.1E-02	U
	^{238}Pu	1.0E-02 ± 3.0E-02	U
	$^{239/240}Pu$	2.6E-02 ± 1.6E-02	
	^{103}Ru	-2.9E-03 ± 7.4E-03	U
	^{106}Ru	5.1E-03 ± 5.1E-02	U
	^{125}Sb	-1.5E-03 ± 1.5E-02	U
	^{113}Sn	2.8E-03 ± 9.6E-03	U
	^{90}Sr	-5.9E-01 ± 5.9E-01	U
	^{234}U	1.4E-01 ± 4.8E-02	
	^{235}U	8.3E-03 ± 8.5E-03	
	^{238}U	1.6E-01 ± 5.4E-02	
	^{65}Zn	4.5E-02 ± 2.5E-02	

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 2 of 21)

Location	Isotope	Result ± Error	RQ
D001	^{144}Ce	-7.8E-03 ± 7.8E-02	U
(200-W)	^{60}Co	-6.6E-03 ± 7.1E-03	U
	^{134}Cs	2.4E-02 ± 1.1E-02	
	^{137}Cs	4.5E-01 ± 7.4E-02	
	^{152}Eu	-1.4E-02 ± 2.2E-02	U
	^{154}Eu	-2.2E-02 ± 2.3E-02	U
	^{155}Eu	5.0E-02 ± 3.7E-02	
	^{238}Pu	2.1E-03 ± 2.1E-02	U
	$^{239/240}Pu$	3.4E-02 ± 2.0E-02	
	^{103}Ru	-5.5E-03 ± 1.1E-02	U
	^{106}Ru	-5.2E-03 ± 5.2E-02	U
	^{125}Sb	-7.0E-03 ± 1.9E-02	U
	^{113}Sn	-7.8E-03 ± 1.0E-02	U
	^{90}Sr	-1.0E+00 ± 1.0E+00	U
	^{234}U	1.6E-01 ± 5.6E-02	
	^{235}U	2.3E-02 ± 1.6E-02	
	^{238}U	1.8E-01 ± 6.1E-02	
	^{65}Zn	3.3E-02 ± 2.2E-02	

Location	Isotope	Result ± Error	RQ
D003	^{144}Ce	3.3E-03 ± 3.3E-02	U
(200-W)	^{60}Co	-2.3E-03 ± 5.5E-03	U
	^{134}Cs	2.5E-02 ± 1.0E-02	
	^{137}Cs	6.0E-01 ± 1.0E-01	
	^{152}Eu	-1.5E-02 ± 2.5E-02	U
	^{154}Eu	6.4E-03 ± 2.1E-02	U
	^{155}Eu	5.4E-02 ± 3.5E-02	
	^{238}Pu	-9.6E-03 ± 3.6E-02	U
	$^{239/240}Pu$	2.7E-02 ± 1.9E-02	
	^{103}Ru	-4.1E-04 ± 4.1E-03	U
	^{106}Ru	-6.9E-04 ± 6.9E-03	U
	^{125}Sb	-2.6E-03 ± 1.8E-02	U
	^{113}Sn	-1.2E-02 ± 1.2E-02	U
	^{90}Sr	-7.1E-01 ± 7.1E-01	U
	^{234}U	1.4E-01 ± 5.0E-02	
	^{235}U	6.9E-03 ± 8.1E-03	
	^{238}U	1.5E-01 ± 5.3E-02	
	^{65}Zn	-2.1E-04 ± 2.1E-03	U

Location	Isotope	Result ± Error	RQ
D005	^{144}Ce	6.2E-03 ± 6.2E-02	U
(200-W)	^{60}Co	-4.7E-03 ± 5.1E-03	U
	^{134}Cs	3.6E-02 ± 1.2E-02	
	^{137}Cs	6.6E-02 ± 1.3E-02	
	^{152}Eu	-5.3E-03 ± 1.8E-02	U
	^{154}Eu	8.8E-03 ± 1.8E-02	U
	^{155}Eu	3.0E-02 ± 3.1E-02	U
	^{238}Pu	2.7E-02 ± 3.3E-02	U
	$^{239/240}Pu$	5.8E-03 ± 8.8E-03	U
	^{103}Ru	-3.7E-03 ± 8.4E-03	U
	^{106}Ru	2.5E-02 ± 4.7E-02	U
	^{125}Sb	-8.9E-03 ± 1.5E-02	U
	^{113}Sn	-5.4E-03 ± 8.4E-03	U
	^{90}Sr	-1.1E+00 ± 1.1E+00	U
	^{234}U	1.5E-01 ± 5.3E-02	
	^{235}U	1.4E-02 ± 1.2E-02	
	^{238}U	1.4E-01 ± 5.0E-02	
	^{65}Zn	-2.0E-02 ± 2.0E-02	U

Location	Isotope	Result ± Error	RQ
D007	^{144}Ce	-8.5E-02 ± 1.7E-01	U
(200-W)	^{60}Co	-1.5E-03 ± 9.9E-03	U
	^{134}Cs	2.8E-02 ± 1.7E-02	
	^{137}Cs	1.1E-01 ± 2.2E-02	
	^{152}Eu	-2.5E-02 ± 4.0E-02	U
	^{154}Eu	-1.0E-02 ± 3.2E-02	U
	^{155}Eu	2.1E-03 ± 2.1E-02	U
	^{238}Pu	5.7E-02 ± 3.6E-02	
	$^{239/240}Pu$	1.1E-01 ± 4.2E-02	
	^{103}Ru	-1.1E-02 ± 1.7E-02	U
	^{106}Ru	1.9E-02 ± 9.4E-02	U
	^{125}Sb	-1.6E-02 ± 2.9E-02	U
	^{113}Sn	-1.6E-02 ± 1.6E-02	U
	^{90}Sr	-8.1E-01 ± 8.1E-01	U
	^{234}U	1.1E-01 ± 4.2E-02	
	^{235}U	7.2E-03 ± 1.3E-02	U
	^{238}U	1.3E-01 ± 4.7E-02	
	^{65}Zn	-9.3E-03 ± 2.9E-02	U

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 3 of 21)

Location	Isotope	Result ± Error	RQ
D009 (200-W)	^{144}Ce	-6.9E-02 ± 1.7E-01	U
	^{60}Co	-9.5E-03 ± 9.5E-03	U
	^{134}Cs	4.1E-02 ± 1.1E-02	
	^{137}Cs	3.4E-01 ± 4.7E-02	
	^{152}Eu	2.2E-02 ± 3.7E-02	U
	^{154}Eu	4.1E-03 ± 2.9E-02	U
	^{155}Eu	4.4E-02 ± 3.8E-02	U
	^{238}Pu	-7.8E-03 ± 3.2E-02	U
	$^{239/240}Pu$	4.1E-02 ± 2.1E-02	
	^{103}Ru	5.8E-03 ± 1.3E-02	U
	^{106}Ru	-1.8E-02 ± 7.2E-02	U
	^{125}Sb	-6.8E-03 ± 2.2E-02	U
	^{113}Sn	-5.0E-03 ± 1.4E-02	U
	^{90}Sr	-4.8E-01 ± 5.1E-01	U
	^{234}U	1.4E-01 ± 5.0E-02	
	^{235}U	1.4E-02 ± 1.2E-02	
	^{238}U	1.6E-01 ± 5.6E-02	
	^{65}Zn	1.9E-02 ± 2.2E-02	U
D013 (200-W)	^{144}Ce	6.4E-02 ± 2.5E-01	U
	^{60}Co	6.9E-03 ± 1.2E-02	U
	^{134}Cs	4.5E-02 ± 2.3E-02	
	^{137}Cs	5.4E+00 ± 8.1E-01	
	^{152}Eu	-1.3E-03 ± 1.3E-02	U
	^{154}Eu	1.2E-02 ± 4.3E-02	U
	^{155}Eu	6.6E-02 ± 6.0E-02	U
	^{238}Pu	1.1E-02 ± 2.7E-02	U
	$^{239/240}Pu$	1.0E-01 ± 3.4E-02	U
	^{103}Ru	2.5E-02 ± 2.9E-02	U
	^{106}Ru	6.8E-02 ± 1.3E-01	U
	^{125}Sb	-5.1E-04 ± 5.1E-03	U
	^{113}Sn	-9.5E-03 ± 2.7E-02	U
	^{90}Sr	-5.3E-01 ± 5.3E-01	U
	^{234}U	1.6E-01 ± 5.6E-02	
	^{235}U	2.6E-02 ± 1.8E-02	
	^{238}U	1.3E-01 ± 4.8E-02	
	^{65}Zn	6.4E-03 ± 3.4E-02	U

Location	Isotope	Result ± Error	RQ
D011 (200-W)	^{144}Ce	-1.2E-01 ± 1.3E-01	U
	^{60}Co	-3.7E-03 ± 7.3E-03	U
	^{134}Cs	2.9E-02 ± 1.1E-02	
	^{137}Cs	2.8E-01 ± 5.0E-02	
	^{152}Eu	-1.3E-02 ± 2.4E-02	U
	^{154}Eu	-2.3E-02 ± 2.4E-02	U
	^{155}Eu	1.0E-01 ± 5.2E-02	
	^{238}Pu	-5.8E-03 ± 3.5E-02	U
	$^{239/240}Pu$	8.4E-01 ± 2.3E-01	
	^{103}Ru	-8.2E-03 ± 1.2E-02	U
	^{106}Ru	6.9E-02 ± 7.8E-02	U
	^{125}Sb	4.1E-03 ± 2.0E-02	U
	^{113}Sn	-3.1E-03 ± 1.1E-02	U
	^{90}Sr	-5.2E-01 ± 5.2E-01	U
	^{234}U	1.4E-01 ± 5.0E-02	
	^{235}U	2.3E-02 ± 1.6E-02	
	^{238}U	1.4E-01 ± 5.0E-02	
	^{65}Zn	4.4E-02 ± 2.2E-02	
D015 (200-W)	^{144}Ce	4.5E-02 ± 1.5E-01	U
	^{60}Co	-2.0E-03 ± 6.8E-03	U
	^{134}Cs	2.6E-02 ± 1.0E-02	
	^{137}Cs	8.0E-01 ± 1.5E-01	
	^{152}Eu	5.1E-03 ± 3.1E-02	U
	^{154}Eu	-2.1E-02 ± 2.4E-02	U
	^{155}Eu	5.0E-02 ± 3.6E-02	U
	^{238}Pu	8.0E-03 ± 3.4E-02	U
	$^{239/240}Pu$	4.0E-03 ± 1.1E-02	U
	^{103}Ru	6.8E-05 ± 6.8E-04	U
	^{106}Ru	-3.4E-02 ± 6.6E-02	U
	^{125}Sb	-1.4E-02 ± 2.1E-02	U
	^{113}Sn	-1.4E-02 ± 1.4E-02	U
	^{90}Sr	-1.0E+00 ± 1.0E+00	U
	^{234}U	1.6E-01 ± 5.4E-02	
	^{235}U	2.1E-02 ± 1.4E-02	
	^{238}U	1.3E-01 ± 4.5E-02	
	^{65}Zn	2.6E-02 ± 2.0E-02	U

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 4 of 21)

Location	Isotope	Result ± Error	RQ
D017	^{144}Ce	5.1E-02 ± 1.3E-01	U
(200-W)	^{60}Co	4.1E-03 ± 5.4E-03	U
	^{134}Cs	3.9E-02 ± 1.2E-02	
	^{137}Cs	2.7E-01 ± 4.5E-02	
	^{152}Eu	-5.8E-04 ± 5.8E-03	U
	^{154}Eu	-3.6E-03 ± 1.9E-02	U
	^{155}Eu	5.2E-02 ± 3.8E-02	
	^{238}Pu	6.2E-03 ± 3.8E-02	U
	$^{239/240}Pu$	4.1E-03 ± 1.2E-02	U
	^{103}Ru	2.9E-03 ± 9.3E-03	U
	^{106}Ru	4.9E-02 ± 5.1E-02	U
	^{125}Sb	2.8E-02 ± 2.0E-02	U
	^{113}Sn	-7.6E-04 ± 7.6E-03	U
	^{90}Sr	-1.1E+00 ± 1.1E+00	U
	^{234}U	1.5E-01 ± 5.3E-02	
	^{235}U	2.1E-02 ± 1.5E-02	
	^{238}U	1.7E-01 ± 5.8E-02	
	^{65}Zn	-3.6E-03 ± 2.4E-02	U

Location	Isotope	Result ± Error	RQ
D019	^{144}Ce	-1.2E-01 ± 1.2E-01	U
(200-W)	^{60}Co	-5.3E-03 ± 7.5E-03	U
	^{134}Cs	3.8E-02 ± 1.3E-02	
	^{137}Cs	3.8E-01 ± 6.4E-02	
	^{152}Eu	-9.0E-03 ± 2.5E-02	U
	^{154}Eu	-1.5E-02 ± 2.4E-02	U
	^{155}Eu	6.7E-02 ± 3.9E-02	
	^{238}Pu	2.2E-03 ± 2.2E-03	U
	$^{239/240}Pu$	2.5E-02 ± 2.0E-02	
	^{103}Ru	-1.9E-03 ± 1.1E-02	U
	^{106}Ru	-3.7E-02 ± 6.5E-02	U
	^{125}Sb	1.2E-02 ± 2.0E-02	U
	^{113}Sn	-1.1E-02 ± 1.1E-02	U
	^{90}Sr	-6.1E-01 ± 6.1E-01	U
	^{234}U	1.6E-01 ± 5.6E-02	
	^{235}U	5.0E-02 ± 2.6E-02	
	^{238}U	1.3E-01 ± 4.7E-02	
	^{65}Zn	4.2E-02 ± 2.2E-02	

Location	Isotope	Result ± Error	RQ
D021	^{144}Ce	-4.6E-02 ± 1.6E-01	U
(200-W)	^{60}Co	-2.2E-03 ± 6.3E-03	U
	^{134}Cs	4.0E-02 ± 1.4E-02	
	^{137}Cs	2.3E-01 ± 4.2E-02	
	^{152}Eu	-8.7E-03 ± 2.9E-02	U
	^{154}Eu	-1.8E-02 ± 2.5E-02	U
	^{155}Eu	2.9E-02 ± 3.7E-02	U
	^{238}Pu	1.0E-02 ± 2.9E-02	U
	$^{239/240}Pu$	1.4E-02 ± 1.5E-02	U
	^{103}Ru	1.0E-03 ± 1.0E-02	U
	^{106}Ru	4.5E-02 ± 5.4E-02	U
	^{125}Sb	-2.2E-03 ± 2.0E-02	U
	^{113}Sn	-6.0E-03 ± 1.1E-02	U
	^{90}Sr	-1.5E-01 ± 4.0E-01	U
	^{234}U	1.5E-01 ± 5.3E-02	
	^{235}U	2.8E-02 ± 1.9E-02	
	^{238}U	1.4E-01 ± 5.0E-02	
	^{65}Zn	-2.2E-03 ± 1.9E-02	U

Location	Isotope	Result ± Error	RQ
D023	^{144}Ce	3.4E-02 ± 1.3E-01	U
(200-W)	^{60}Co	-2.2E-03 ± 5.8E-03	U
	^{134}Cs	3.1E-02 ± 1.1E-02	
	^{137}Cs	9.4E-01 ± 1.5E-01	
	^{152}Eu	1.3E-02 ± 2.3E-02	U
	^{154}Eu	1.4E-03 ± 1.4E-02	U
	^{155}Eu	4.0E-02 ± 3.6E-02	U
	^{238}Pu	1.5E-02 ± 2.7E-02	U
	$^{239/240}Pu$	1.9E-02 ± 1.6E-02	U
	^{103}Ru	-1.7E-03 ± 1.1E-02	U
	^{106}Ru	5.5E-04 ± 5.5E-03	U
	^{125}Sb	1.2E-02 ± 2.0E-02	U
	^{113}Sn	2.9E-03 ± 1.0E-02	U
	^{90}Sr	-4.1E-01 ± 4.1E-01	U
	^{234}U	1.7E-01 ± 5.9E-02	
	^{235}U	2.9E-02 ± 1.9E-02	
	^{238}U	1.4E-01 ± 5.0E-02	
	^{65}Zn	-3.6E-03 ± 1.7E-02	U

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 5 of 21)

Location	Isotope	Result ± Error	RQ
D025	^{144}Ce	-2.8E-02 ± 3.5E-02	U
(200-W)	^{60}Co	-1.7E-04 ± 1.7E-03	U
	^{134}Cs	1.0E-02 ± 3.0E-03	
	^{137}Cs	1.2E+00 ± 2.1E-01	
	^{152}Eu	-1.5E-03 ± 8.3E-03	U
	^{154}Eu	-3.3E-03 ± 6.5E-03	U
	^{155}Eu	1.5E-02 ± 9.5E-03	U
	^{238}Pu	-6.1E-03 ± 3.2E-02	U
	$^{239/240}Pu$	3.7E-01 ± 1.1E-01	
	^{103}Ru	-1.5E-03 ± 3.0E-03	U
	^{106}Ru	-2.1E-02 ± 2.1E-02	U
	^{125}Sb	2.3E-03 ± 7.1E-03	U
	^{113}Sn	1.5E-03 ± 3.4E-03	U
	^{90}Sr	-5.8E-01 ± 5.8E-01	U
	^{234}U	2.5E-01 ± 8.0E-02	
	^{235}U	3.5E-02 ± 2.2E-02	
	^{238}U	1.9E-01 ± 6.5E-02	
	^{65}Zn	-7.8E-03 ± 7.8E-03	U

Location	Isotope	Result ± Error	RQ
D027	^{144}Ce	6.8E-02 ± 1.2E-01	U
(200-W)	^{60}Co	-3.6E-03 ± 5.3E-03	U
	^{134}Cs	2.5E-02 ± 1.1E-02	
	^{137}Cs	4.4E-01 ± 6.0E-02	
	^{152}Eu	-1.0E-02 ± 2.0E-02	U
	^{154}Eu	-5.7E-03 ± 1.8E-02	U
	^{155}Eu	2.3E-02 ± 2.7E-02	U
	^{238}Pu	2.2E-03 ± 2.2E-02	U
	$^{239/240}Pu$	2.9E-02 ± 2.2E-02	
	^{103}Ru	3.7E-03 ± 7.3E-03	U
	^{106}Ru	-4.1E-02 ± 5.0E-02	U
	^{125}Sb	6.1E-03 ± 1.7E-02	U
	^{113}Sn	-2.5E-04 ± 2.5E-03	U
	^{90}Sr	-3.2E-01 ± 4.1E-01	U
	^{234}U	2.5E-01 ± 8.0E-02	
	^{235}U	3.7E-02 ± 2.2E-02	
	^{238}U	2.1E-01 ± 6.9E-02	
	^{65}Zn	9.5E-03 ± 2.0E-02	U

Location	Isotope	Result ± Error	RQ
D029	^{144}Ce	4.0E-02 ± 1.6E-01	U
(200-W)	^{60}Co	9.9E-03 ± 7.7E-03	U
	^{134}Cs	3.4E-02 ± 1.2E-02	
	^{137}Cs	2.5E+00 ± 4.1E-01	
	^{152}Eu	-8.4E-03 ± 3.5E-02	U
	^{154}Eu	-3.4E-02 ± 3.4E-02	U
	^{155}Eu	4.4E-02 ± 3.7E-02	U
	^{238}Pu	2.1E-03 ± 2.1E-02	U
	$^{239/240}Pu$	8.2E-02 ± 3.4E-02	
	^{103}Ru	-1.9E-03 ± 1.4E-02	U
	^{106}Ru	6.9E-02 ± 8.2E-02	U
	^{125}Sb	-7.6E-03 ± 2.6E-02	U
	^{113}Sn	-3.2E-03 ± 1.4E-02	U
	^{90}Sr	2.4E-01 ± 4.0E-01	U
	^{234}U	2.2E-01 ± 7.3E-02	
	^{235}U	5.1E-02 ± 2.7E-02	
	^{238}U	1.7E-01 ± 5.9E-02	
	^{65}Zn	3.7E-02 ± 2.2E-02	

Location	Isotope	Result ± Error	RQ
D031	^{144}Ce	3.8E-02 ± 1.4E-01	U
(200-W)	^{60}Co	-6.2E-04 ± 6.2E-03	U
	^{134}Cs	4.1E-02 ± 1.3E-02	
	^{137}Cs	2.4E+00 ± 3.0E-01	
	^{152}Eu	1.4E-02 ± 3.9E-02	U
	^{154}Eu	-2.6E-02 ± 2.6E-02	U
	^{155}Eu	5.1E-02 ± 3.4E-02	
	^{238}Pu	2.8E-02 ± 2.6E-02	U
	$^{239/240}Pu$	1.1E-01 ± 4.2E-02	
	^{103}Ru	4.6E-04 ± 4.6E-03	U
	^{106}Ru	1.3E-02 ± 7.6E-02	U
	^{125}Sb	1.9E-02 ± 2.8E-02	U
	^{113}Sn	-2.3E-03 ± 1.4E-02	U
	^{90}Sr	3.9E-02 ± 3.9E-01	U
	^{234}U	1.2E-01 ± 4.4E-02	
	^{235}U	9.0E-03 ± 9.3E-03	
	^{238}U	1.4E-01 ± 5.0E-02	
	^{65}Zn	1.3E-02 ± 2.0E-02	U

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 6 of 21)

Location	Isotope	Result ± Error	RQ
D033	^{144}Ce	-1.7E-01 ± 1.7E-01	U
(200-W)	^{60}Co	1.6E-03 ± 6.2E-03	U
	^{134}Cs	1.6E-02 ± 1.4E-02	
	^{137}Cs	2.6E+00 ± 4.7E-01	
	^{152}Eu	1.1E-02 ± 4.4E-02	U
	^{154}Eu	-1.6E-02 ± 2.0E-02	U
	^{155}Eu	1.7E-02 ± 3.6E-02	U
	^{238}Pu	1.0E-02 ± 2.7E-02	U
	$^{239/240}Pu$	1.1E-01 ± 4.2E-02	
	^{103}Ru	7.7E-03 ± 1.3E-02	U
	^{106}Ru	2.2E-03 ± 2.2E-02	U
	^{125}Sb	3.0E-03 ± 2.4E-02	U
	^{113}Sn	3.3E-03 ± 1.3E-02	U
	^{90}Sr	-4.0E-01 ± 4.4E-01	U
	^{234}U	1.2E-01 ± 4.6E-02	
	^{235}U	2.3E-03 ± 1.0E-02	U
	^{238}U	1.3E-01 ± 4.8E-02	
	^{65}Zn	-2.4E-03 ± 1.8E-02	U
D035	^{144}Ce	-2.6E-02 ± 2.1E-01	U
(200-W)	^{60}Co	3.8E-03 ± 6.7E-03	U
	^{134}Cs	2.3E-02 ± 1.2E-02	
	^{137}Cs	3.4E+00 ± 6.2E-01	
	^{152}Eu	3.7E-03 ± 3.7E-02	U
	^{154}Eu	-1.0E-02 ± 2.2E-02	U
	^{155}Eu	3.7E-02 ± 4.5E-02	U
	^{238}Pu	1.9E-02 ± 3.9E-02	U
	$^{239/240}Pu$	7.3E-03 ± 1.1E-02	U
	^{103}Ru	-8.6E-03 ± 1.2E-02	U
	^{106}Ru	-1.0E-02 ± 7.4E-02	U
	^{125}Sb	-2.0E-02 ± 2.7E-02	U
	^{113}Sn	-3.4E-03 ± 1.4E-02	U
	^{90}Sr	1.4E-01 ± 4.4E-01	U
	^{234}U	1.6E-01 ± 5.9E-02	
	^{235}U	3.5E-02 ± 2.4E-02	
	^{238}U	1.5E-01 ± 5.6E-02	
	^{65}Zn	1.3E-02 ± 1.9E-02	U
D037	^{144}Ce	5.8E-02 ± 1.3E-01	U
(200-W)	^{60}Co	-6.4E-03 ± 7.7E-03	U
	^{134}Cs	4.6E-02 ± 1.5E-02	
	^{137}Cs	2.2E+00 ± 3.6E-01	
	^{152}Eu	-4.0E-02 ± 4.0E-02	U
	^{154}Eu	-4.0E-02 ± 4.0E-02	U
	^{155}Eu	1.1E-02 ± 3.1E-02	U
	^{238}Pu	-4.0E-03 ± 2.7E-02	U
	$^{239/240}Pu$	4.0E-02 ± 2.1E-02	
	^{103}Ru	2.3E-03 ± 1.3E-02	U
	^{106}Ru	-1.0E-01 ± 1.0E-01	U
	^{125}Sb	9.8E-03 ± 2.5E-02	U
	^{113}Sn	5.6E-03 ± 1.2E-02	U
	^{90}Sr	-5.2E-01 ± 5.2E-01	U
	^{234}U	1.3E-01 ± 4.7E-02	
	^{235}U	1.5E-02 ± 1.2E-02	
	^{238}U	1.3E-01 ± 4.7E-02	
	^{65}Zn	3.3E-02 ± 2.3E-02	U
D039	^{144}Ce	4.7E-02 ± 1.4E-01	U
(200-W)	^{60}Co	4.2E-03 ± 7.9E-03	U
	^{134}Cs	3.6E-02 ± 1.3E-02	
	^{137}Cs	1.2E+00 ± 1.6E-01	
	^{152}Eu	-1.8E-02 ± 3.4E-02	U
	^{154}Eu	2.6E-03 ± 2.5E-02	U
	^{155}Eu	6.8E-02 ± 3.6E-02	
	^{238}Pu	-2.1E-03 ± 2.1E-02	U
	$^{239/240}Pu$	3.7E-01 ± 1.1E-01	
	^{103}Ru	4.9E-03 ± 1.3E-02	U
	^{106}Ru	-5.2E-02 ± 7.4E-02	U
	^{125}Sb	4.1E-03 ± 2.6E-02	U
	^{113}Sn	1.0E-02 ± 1.3E-02	U
	^{90}Sr	1.7E-01 ± 4.5E-01	U
	^{234}U	1.9E-01 ± 6.3E-02	
	^{235}U	1.1E-02 ± 1.0E-02	
	^{238}U	1.4E-01 ± 5.0E-02	
	^{65}Zn	1.7E-02 ± 3.4E-02	U

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 7 of 21)

Location	Isotope	Result ± Error	RQ
D041	^{144}Ce	7.7E-02 ± 1.5E-01	U
(200-W)	^{60}Co	6.0E-04 ± 6.0E-03	U
	^{134}Cs	4.0E-02 ± 1.3E-02	
	^{137}Cs	2.5E-01 ± 4.8E-02	
	^{152}Eu	-9.9E-03 ± 4.0E-02	U
	^{154}Eu	2.3E-02 ± 2.7E-02	U
	^{155}Eu	2.8E-02 ± 3.5E-02	U
	^{238}Pu	2.3E-02 ± 3.4E-02	U
	$^{239/240}Pu$	3.0E-02 ± 1.8E-02	
	^{103}Ru	-3.9E-03 ± 1.1E-02	U
	^{106}Ru	-6.4E-03 ± 6.4E-02	U
	^{125}Sb	1.8E-02 ± 2.0E-02	U
	^{113}Sn	-5.0E-03 ± 1.1E-02	U
	^{90}Sr	-9.3E-01 ± 9.3E-01	U
	^{234}U	1.6E-01 ± 5.6E-02	
	^{235}U	1.7E-02 ± 1.4E-02	
	^{238}U	1.8E-01 ± 6.1E-02	
	^{65}Zn	2.1E-02 ± 2.2E-02	U
D045	^{144}Ce	-1.3E-01 ± 1.8E-01	U
(200-W)	^{60}Co	9.7E-04 ± 6.8E-03	U
	^{134}Cs	4.0E-02 ± 1.1E-02	
	^{137}Cs	4.1E+00 ± 7.3E-01	
	^{152}Eu	7.2E-03 ± 4.5E-02	U
	^{154}Eu	2.3E-03 ± 2.3E-02	U
	^{155}Eu	1.4E-02 ± 4.1E-02	U
	^{238}Pu	2.1E-03 ± 2.1E-02	U
	$^{239/240}Pu$	1.0E-01 ± 3.9E-02	
	^{103}Ru	5.0E-03 ± 1.5E-02	U
	^{106}Ru	-1.2E-02 ± 7.8E-02	U
	^{125}Sb	-1.0E-02 ± 2.9E-02	U
	^{113}Sn	-2.0E-02 ± 2.0E-02	U
	^{90}Sr	6.7E-01 ± 4.7E-01	
	^{234}U	3.7E-01 ± 1.1E-01	
	^{235}U	2.9E-02 ± 1.8E-02	
	^{238}U	4.0E-01 ± 1.2E-01	
	^{65}Zn	1.2E-02 ± 2.0E-02	U

Location	Isotope	Result ± Error	RQ
D043	^{144}Ce	8.6E-02 ± 2.0E-01	U
(200-W)	^{60}Co	3.2E-03 ± 1.1E-02	U
	^{134}Cs	5.7E-02 ± 2.2E-02	
	^{137}Cs	1.4E+00 ± 2.0E-01	
	^{152}Eu	-2.6E-02 ± 4.5E-02	U
	^{154}Eu	9.1E-03 ± 3.6E-02	U
	^{155}Eu	3.6E-02 ± 4.3E-02	U
	^{238}Pu	-1.5E-02 ± 4.0E-02	U
	$^{239/240}Pu$	1.2E-01 ± 4.6E-02	
	^{103}Ru	-1.4E-02 ± 1.8E-02	U
	^{106}Ru	-9.6E-04 ± 9.6E-03	U
	^{125}Sb	5.1E-02 ± 3.6E-02	U
	^{113}Sn	1.3E-02 ± 1.9E-02	U
	^{90}Sr	-2.2E-01 ± 4.0E-01	U
	^{234}U	4.3E-01 ± 1.2E-01	
	^{235}U	2.0E-02 ± 1.6E-02	
	^{238}U	4.5E-01 ± 1.3E-01	
	^{65}Zn	1.3E-02 ± 3.0E-02	U
D047	^{144}Ce	1.1E-01 ± 1.5E-01	U
(200-W)	^{60}Co	2.4E-03 ± 7.1E-03	U
	^{134}Cs	3.4E-02 ± 1.1E-02	
	^{137}Cs	2.7E+00 ± 4.5E-01	
	^{152}Eu	-2.8E-02 ± 3.1E-02	U
	^{154}Eu	-6.0E-03 ± 2.7E-02	U
	^{155}Eu	1.9E-02 ± 3.7E-02	U
	^{238}Pu	3.6E-02 ± 3.7E-02	U
	$^{239/240}Pu$	1.1E-01 ± 4.2E-02	
	^{103}Ru	1.7E-03 ± 1.4E-02	U
	^{106}Ru	1.6E-02 ± 7.9E-02	U
	^{125}Sb	-1.4E-02 ± 2.7E-02	U
	^{113}Sn	-7.5E-03 ± 1.4E-02	U
	^{90}Sr	-5.8E-01 ± 5.8E-01	U
	^{234}U	3.7E-01 ± 1.1E-01	
	^{235}U	1.6E-02 ± 1.4E-02	U
	^{238}U	4.2E-01 ± 1.3E-01	
	^{65}Zn	4.1E-02 ± 2.2E-02	

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 8 of 21)

Location	Isotope	Result ± Error	RQ
D049	^{144}Ce	-8.1E-03 ± 8.1E-02	U
(200-W)	^{60}Co	2.5E-04 ± 2.5E-03	U
	^{134}Cs	3.3E-02 ± 9.0E-03	
	^{137}Cs	3.9E-01 ± 6.4E-02	
	^{152}Eu	-1.6E-02 ± 2.0E-02	U
	^{154}Eu	-1.9E-02 ± 1.8E-02	U
	^{155}Eu	2.2E-02 ± 2.8E-02	U
	^{238}Pu	1.7E-02 ± 2.8E-02	U
	$^{239/240}Pu$	2.0E-02 ± 1.8E-02	U
	^{103}Ru	-2.3E-03 ± 8.0E-03	U
	^{106}Ru	1.0E-02 ± 5.0E-02	U
	^{125}Sb	1.4E-02 ± 1.7E-02	U
	^{113}Sn	-5.7E-03 ± 8.8E-03	U
	^{90}Sr	-7.7E-01 ± 7.7E-01	U
	^{234}U	1.7E-01 ± 5.8E-02	
	^{235}U	1.1E-02 ± 1.2E-02	U
	^{238}U	1.4E-01 ± 4.9E-02	
	^{65}Zn	1.4E-02 ± 2.1E-02	U
D111	^{144}Ce	-5.4E-02 ± 1.5E-01	U
(200-W)	^{60}Co	9.3E-04 ± 5.9E-03	U
Replicate of	^{134}Cs	3.8E-02 ± 9.6E-03	
D051	^{137}Cs	3.3E-01 ± 4.5E-02	
	^{152}Eu	-2.9E-02 ± 3.1E-02	U
	^{154}Eu	2.0E-02 ± 2.1E-02	U
	^{155}Eu	4.1E-02 ± 4.1E-02	U
	^{238}Pu	3.7E-03 ± 1.2E-02	U
	$^{239/240}Pu$	5.0E-02 ± 2.2E-02	
	^{103}Ru	3.2E-03 ± 7.2E-03	U
	^{106}Ru	-2.5E-02 ± 6.0E-02	U
	^{125}Sb	7.1E-03 ± 1.9E-02	U
	^{113}Sn	-1.9E-03 ± 9.3E-03	U
	^{90}Sr	-5.8E-01 ± 5.8E-01	U
	^{234}U	1.3E-01 ± 4.7E-02	
	^{235}U	8.2E-03 ± 8.4E-03	
	^{238}U	1.4E-01 ± 4.9E-02	
	^{65}Zn	-3.2E-03 ± 1.6E-02	U

Location	Isotope	Result ± Error	RQ
D051	^{144}Ce	9.0E-02 ± 1.3E-01	U
(200-W)	^{60}Co	-2.0E-03 ± 5.7E-03	U
	^{134}Cs	3.8E-02 ± 1.3E-02	
	^{137}Cs	7.1E-01 ± 1.1E-01	
	^{152}Eu	-3.5E-03 ± 2.1E-02	U
	^{154}Eu	2.9E-03 ± 2.1E-02	U
	^{155}Eu	4.5E-02 ± 3.0E-02	U
	^{238}Pu	2.3E-02 ± 3.1E-02	U
	$^{239/240}Pu$	6.1E-02 ± 2.9E-02	
	^{103}Ru	2.4E-03 ± 8.5E-03	U
	^{106}Ru	1.3E-02 ± 5.4E-02	U
	^{125}Sb	7.1E-03 ± 1.9E-02	U
	^{113}Sn	-3.3E-03 ± 1.1E-02	U
	^{90}Sr	-3.4E-01 ± 4.7E-01	U
	^{234}U	2.8E-01 ± 8.7E-02	
	^{235}U	2.0E-02 ± 1.6E-02	
	^{238}U	2.9E-01 ± 9.0E-02	
	^{65}Zn	-6.2E-03 ± 1.6E-02	U
D053	^{144}Ce	7.2E-02 ± 1.8E-01	U
(200-E)	^{60}Co	-2.7E-03 ± 5.9E-03	U
	^{134}Cs	4.5E-02 ± 1.3E-02	
	^{137}Cs	8.3E+00 ± 1.3E+00	
	^{152}Eu	-2.6E-03 ± 2.6E-02	U
	^{154}Eu	2.2E-02 ± 3.4E-02	U
	^{155}Eu	8.2E-03 ± 4.2E-02	U
	^{238}Pu	7.6E-03 ± 1.4E-02	U
	$^{239/240}Pu$	2.6E-02 ± 1.5E-02	
	^{103}Ru	-2.4E-03 ± 1.5E-02	U
	^{106}Ru	-6.1E-02 ± 8.0E-02	U
	^{125}Sb	-1.2E-04 ± 1.2E-03	U
	^{113}Sn	-2.3E-03 ± 1.7E-02	U
	^{90}Sr	-3.6E-01 ± 4.7E-01	U
	^{234}U	1.6E-01 ± 5.4E-02	
	^{235}U	1.1E-02 ± 1.0E-02	
	^{238}U	1.1E-01 ± 4.1E-02	
	^{65}Zn	-6.2E-03 ± 1.7E-02	U

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 9 of 21)

Location	Isotope	Result ± Error	RQ
D055	^{144}Ce	-7.7E-03 ± 7.7E-02	U
(200-E)	^{60}Co	-7.1E-03 ± 6.8E-03	U
	^{134}Cs	1.6E-02 ± 1.0E-02	
	^{137}Cs	2.6E-01 ± 4.4E-02	
	^{152}Eu	-7.9E-05 ± 7.9E-04	U
	^{154}Eu	7.1E-03 ± 2.5E-02	U
	^{155}Eu	2.8E-02 ± 2.7E-02	U
	^{238}Pu	1.4E-02 ± 3.0E-02	U
	$^{239/240}Pu$	3.9E-03 ± 5.6E-03	U
	^{103}Ru	4.3E-03 ± 8.5E-03	U
	^{106}Ru	-3.9E-02 ± 5.8E-02	U
	^{125}Sb	-3.0E-03 ± 1.8E-02	U
	^{113}Sn	-2.3E-03 ± 9.0E-03	U
	^{90}Sr	-1.8E+00 ± 1.8E+00	U
	^{234}U	1.5E-01 ± 5.1E-02	
	^{235}U	6.1E-03 ± 1.1E-02	U
	^{238}U	1.4E-01 ± 4.8E-02	
	^{65}Zn	2.3E-02 ± 2.0E-02	U

Location	Isotope	Result ± Error	RQ
D057	^{144}Ce	8.1E-02 ± 2.1E-01	U
(200-E)	^{60}Co	-6.1E-04 ± 6.1E-03	U
	^{134}Cs	2.6E-02 ± 1.0E-02	
	^{137}Cs	9.8E+00 ± 1.7E+00	
	^{152}Eu	3.1E-02 ± 5.1E-02	U
	^{154}Eu	1.3E-02 ± 2.3E-02	U
	^{155}Eu	3.6E-02 ± 4.8E-02	U
	^{238}Pu	-4.5E-03 ± 3.2E-02	U
	$^{239/240}Pu$	2.3E-02 ± 1.8E-02	
	^{103}Ru	-6.8E-03 ± 1.6E-02	U
	^{106}Ru	-8.2E-02 ± 9.1E-02	U
	^{125}Sb	-2.2E-02 ± 3.8E-02	U
	^{113}Sn	1.2E-02 ± 1.8E-02	U
	^{90}Sr	-3.6E-01 ± 4.9E-01	U
	^{234}U	1.7E-01 ± 5.8E-02	
	^{235}U	2.1E-03 ± 4.2E-03	U
	^{238}U	1.8E-01 ± 5.9E-02	
	^{65}Zn	2.6E-03 ± 1.7E-02	U

Location	Isotope	Result ± Error	RQ
D059	^{144}Ce	-2.3E-02 ± 1.4E-01	U
(200-E)	^{60}Co	6.4E-04 ± 6.2E-03	U
	^{134}Cs	7.4E-03 ± 7.4E-03	U
	^{137}Cs	1.7E+00 ± 2.7E-01	
	^{152}Eu	-8.2E-04 ± 8.2E-03	U
	^{154}Eu	-8.1E-04 ± 8.1E-03	U
	^{155}Eu	1.4E-02 ± 3.2E-02	U
	^{238}Pu	-3.0E-02 ± 3.0E-02	U
	$^{239/240}Pu$	4.3E-03 ± 1.2E-02	U
	^{103}Ru	-8.3E-03 ± 1.0E-02	U
	^{106}Ru	-2.1E-02 ± 5.8E-02	U
	^{125}Sb	1.5E-02 ± 2.2E-02	U
	^{113}Sn	-7.7E-03 ± 1.1E-02	U
	^{90}Sr	-6.9E-01 ± 6.9E-01	U
	^{234}U	1.6E-01 ± 5.4E-02	
	^{235}U	8.6E-03 ± 8.9E-03	
	^{238}U	1.7E-01 ± 5.8E-02	
	^{65}Zn	-2.6E-03 ± 2.6E-02	U

Location	Isotope	Result ± Error	RQ
D061	^{144}Ce	9.1E-02 ± 1.8E-01	U
(200-E)	^{60}Co	-4.6E-03 ± 8.4E-03	U
	^{134}Cs	4.4E-02 ± 1.7E-02	
	^{137}Cs	1.5E+00 ± 2.7E-01	
	^{152}Eu	-3.7E-02 ± 4.6E-02	U
	^{154}Eu	-2.5E-02 ± 2.8E-02	U
	^{155}Eu	5.2E-02 ± 5.4E-02	U
	^{238}Pu	2.3E-03 ± 2.3E-03	U
	$^{239/240}Pu$	9.4E-03 ± 1.2E-02	U
	^{103}Ru	4.6E-04 ± 4.6E-03	U
	^{106}Ru	-4.9E-02 ± 8.0E-02	U
	^{125}Sb	-1.1E-02 ± 2.7E-02	U
	^{113}Sn	-5.2E-03 ± 1.4E-02	U
	^{90}Sr	-1.1E+00 ± 1.1E+00	U
	^{234}U	1.3E-01 ± 4.8E-02	
	^{235}U	9.4E-03 ± 9.7E-03	
	^{238}U	1.6E-01 ± 5.6E-02	
	^{65}Zn	1.5E-02 ± 2.3E-02	U

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 10 of 21)

Location	Isotope	Result ± Error	RQ
D063	^{144}Ce	2.4E-02 ± 1.2E-01	U
(200-E)	^{60}Co	3.7E-03 ± 8.7E-03	U
	^{134}Cs	4.3E-02 ± 1.4E-02	
	^{137}Cs	2.7E-01 ± 4.5E-02	
	^{152}Eu	-3.7E-02 ± 3.0E-02	U
	^{154}Eu	-2.2E-02 ± 2.5E-02	U
	^{155}Eu	3.8E-02 ± 3.5E-02	U
	^{238}Pu	2.8E-02 ± 3.8E-02	U
	$^{239/240}Pu$	6.5E-03 ± 9.8E-03	U
	^{103}Ru	-9.4E-04 ± 8.5E-03	U
	^{106}Ru	-5.3E-02 ± 6.6E-02	U
	^{125}Sb	-8.1E-03 ± 2.0E-02	U
	^{113}Sn	-1.1E-03 ± 9.8E-03	U
	^{90}Sr	-7.6E-01 ± 7.6E-01	U
	^{234}U	2.5E-01 ± 8.0E-02	
	^{235}U	2.1E-03 ± 2.1E-03	U
	^{238}U	2.4E-01 ± 7.7E-02	
	^{65}Zn	5.2E-02 ± 2.2E-02	

Location	Isotope	Result ± Error	RQ
D065	^{144}Ce	4.8E-02 ± 1.5E-01	U
(200-E)	^{60}Co	4.9E-04 ± 4.9E-03	U
	^{134}Cs	4.0E-02 ± 1.2E-02	
	^{137}Cs	2.8E+00 ± 4.5E-01	
	^{152}Eu	-4.1E-02 ± 3.6E-02	U
	^{154}Eu	4.0E-02 ± 3.8E-02	U
	^{155}Eu	3.9E-02 ± 3.9E-02	U
	^{238}Pu	-1.9E-02 ± 3.3E-02	U
	$^{239/240}Pu$	6.4E-03 ± 1.3E-02	U
	^{103}Ru	-1.0E-02 ± 1.2E-02	U
	^{106}Ru	1.7E-02 ± 7.8E-02	U
	^{125}Sb	7.2E-03 ± 2.7E-02	U
	^{113}Sn	2.2E-03 ± 1.3E-02	U
	^{90}Sr	-9.2E-01 ± 9.2E-01	U
	^{234}U	1.4E-01 ± 4.9E-02	
	^{235}U	4.5E-03 ± 9.1E-03	U
	^{238}U	1.5E-01 ± 5.3E-02	
	^{65}Zn	3.2E-02 ± 1.8E-02	

Location	Isotope	Result ± Error	RQ
D067	^{144}Ce	-3.1E-02 ± 1.1E-01	U
(200-E)	^{60}Co	7.0E-04 ± 5.1E-03	U
	^{134}Cs	4.4E-02 ± 1.2E-02	
	^{137}Cs	4.6E-02 ± 1.1E-02	
	^{152}Eu	1.0E-02 ± 2.1E-02	U
	^{154}Eu	-7.5E-03 ± 2.0E-02	U
	^{155}Eu	3.7E-02 ± 3.2E-02	U
	^{238}Pu	-5.1E-02 ± 4.7E-02	U
	$^{239/240}Pu$	4.7E-03 ± 9.5E-03	U
	^{103}Ru	-4.3E-03 ± 6.3E-03	U
	^{106}Ru	-1.7E-02 ± 4.7E-02	U
	^{125}Sb	-5.3E-04 ± 5.3E-03	U
	^{113}Sn	1.4E-03 ± 7.7E-03	U
	^{90}Sr	-3.0E-03 ± 3.0E-02	U
	^{234}U	2.1E-01 ± 6.7E-02	
	^{235}U	1.7E-02 ± 1.4E-02	
	^{238}U	2.2E-01 ± 7.0E-02	
	^{65}Zn	8.1E-04 ± 8.1E-03	U

Location	Isotope	Result ± Error	RQ
D069	^{144}Ce	1.5E-01 ± 1.9E-01	U
(200-E)	^{60}Co	-4.3E-03 ± 9.5E-03	U
	^{134}Cs	4.7E-02 ± 1.7E-02	
	^{137}Cs	2.3E-01 ± 4.6E-02	
	^{152}Eu	-1.5E-02 ± 4.2E-02	U
	^{154}Eu	-3.2E-02 ± 2.9E-02	U
	^{155}Eu	-7.3E-03 ± 4.5E-02	U
	^{238}Pu	1.5E-02 ± 4.0E-02	U
	$^{239/240}Pu$	2.4E-03 ± 8.3E-03	U
	^{103}Ru	-2.7E-03 ± 1.1E-02	U
	^{106}Ru	7.3E-03 ± 7.3E-02	U
	^{125}Sb	-6.0E-03 ± 2.5E-02	U
	^{113}Sn	-3.2E-03 ± 1.3E-02	U
	^{90}Sr	-9.4E-01 ± 9.4E-01	U
	^{234}U	1.1E-01 ± 4.3E-02	
	^{235}U	5.0E-03 ± 1.2E-02	U
	^{238}U	1.4E-01 ± 5.2E-02	
	^{65}Zn	-1.7E-03 ± 1.7E-02	U

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 11 of 21)

Location	Isotope	Result ± Error	RQ
D071	^{144}Ce	1.1E-01 ± 1.7E-01	U
(200-E)	^{60}Co	-1.2E-03 ± 9.7E-03	U
	^{134}Cs	3.0E-02 ± 1.6E-02	
	^{137}Cs	4.6E-01 ± 6.4E-02	
	^{152}Eu	-1.7E-02 ± 4.2E-02	U
	^{154}Eu	-1.3E-02 ± 3.3E-02	U
	^{155}Eu	5.1E-02 ± 4.1E-02	U
	^{238}Pu	2.4E-03 ± 2.4E-03	U
	$^{239/240}Pu$	-2.4E-03 ± 8.3E-03	U
	^{103}Ru	9.5E-03 ± 1.2E-02	U
	^{106}Ru	3.4E-02 ± 9.0E-02	U
	^{125}Sb	8.7E-03 ± 2.9E-02	U
	^{113}Sn	1.9E-04 ± 1.9E-03	U
	^{90}Sr	-1.0E+00 ± 1.0E+00	U
	^{234}U	1.2E-01 ± 4.4E-02	
	^{235}U	1.2E-02 ± 1.0E-02	
	^{238}U	1.3E-01 ± 4.7E-02	
	^{65}Zn	-2.2E-02 ± 2.8E-02	U

Location	Isotope	Result ± Error	RQ
D073	^{144}Ce	-1.7E-02 ± 1.2E-01	U
(200-E)	^{60}Co	-2.1E-03 ± 5.1E-03	U
	^{134}Cs	2.9E-02 ± 9.3E-03	
	^{137}Cs	1.3E+00 ± 2.1E-01	
	^{152}Eu	-1.3E-02 ± 2.2E-02	U
	^{154}Eu	-2.0E-02 ± 2.0E-02	U
	^{155}Eu	3.8E-02 ± 4.2E-02	U
	^{238}Pu	3.2E-02 ± 4.0E-02	U
	$^{239/240}Pu$	5.0E-03 ± 7.2E-03	U
	^{103}Ru	-2.8E-04 ± 2.8E-03	U
	^{106}Ru	-7.4E-03 ± 5.1E-02	U
	^{125}Sb	-1.4E-02 ± 1.8E-02	U
	^{113}Sn	-5.1E-04 ± 5.1E-03	U
	^{90}Sr	-8.9E-01 ± 8.9E-01	U
	^{234}U	1.5E-01 ± 5.3E-02	
	^{235}U	8.4E-03 ± 1.0E-02	U
	^{238}U	2.3E-01 ± 7.4E-02	
	^{65}Zn	4.3E-03 ± 1.4E-02	U

D075	^{144}Ce	-6.0E-02 ± 1.2E-01	U
(200-E)	^{60}Co	-4.9E-04 ± 4.9E-03	U
	^{134}Cs	2.5E-02 ± 1.1E-02	
	^{137}Cs	1.3E-01 ± 2.5E-02	
	^{152}Eu	-9.4E-03 ± 1.8E-02	U
	^{154}Eu	-3.4E-03 ± 2.0E-02	U
	^{155}Eu	3.4E-02 ± 3.7E-02	U
	^{238}Pu	1.8E-02 ± 2.9E-02	U
	$^{239/240}Pu$	9.7E-02 ± 3.9E-02	
	^{103}Ru	4.6E-03 ± 9.5E-03	U
	^{106}Ru	2.6E-03 ± 2.6E-02	U
	^{125}Sb	1.3E-02 ± 1.6E-02	U
	^{113}Sn	-5.1E-03 ± 8.7E-03	U
	^{90}Sr	-6.4E-01 ± 6.4E-01	U
	^{234}U	1.5E-01 ± 5.3E-02	
	^{235}U	1.4E-02 ± 1.4E-02	U
	^{238}U	1.2E-01 ± 4.4E-02	
	^{65}Zn	6.9E-03 ± 1.6E-02	U

D077	^{144}Ce	2.8E-02 ± 1.2E-01	U
(200-E)	^{60}Co	4.1E-03 ± 6.3E-03	U
	^{134}Cs	3.6E-02 ± 1.0E-02	
	^{137}Cs	2.4E-01 ± 4.3E-02	
	^{152}Eu	-1.4E-02 ± 2.5E-02	U
	^{154}Eu	-2.2E-03 ± 2.1E-02	U
	^{155}Eu	5.5E-02 ± 4.5E-02	
	^{238}Pu	1.9E-02 ± 2.9E-02	U
	$^{239/240}Pu$	6.3E-03 ± 1.7E-02	U
	^{103}Ru	2.3E-03 ± 7.7E-03	U
	^{106}Ru	1.5E-02 ± 5.8E-02	U
	^{125}Sb	1.3E-02 ± 1.8E-02	U
	^{113}Sn	-4.1E-03 ± 8.5E-03	U
	^{90}Sr	-1.0E+00 ± 1.0E+00	U
	^{234}U	1.8E-01 ± 6.1E-02	
	^{235}U	1.6E-02 ± 1.3E-02	
	^{238}U	2.2E-01 ± 7.0E-02	
	^{65}Zn	2.9E-02 ± 1.9E-02	

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 12 of 21)

Location	Isotope	Result ± Error	RQ
D143	^{144}Ce	-8.3E-02 ± 1.9E-01	U
(200-E)	^{60}Co	-3.8E-03 ± 8.7E-03	U
Replicate	^{134}Cs	5.3E-02 ± 1.7E-02	
of D053)	^{137}Cs	6.4E+00 ± 1.1E+00	
	^{152}Eu	-1.9E-02 ± 3.6E-02	U
	^{154}Eu	-2.1E-02 ± 2.6E-02	U
	^{155}Eu	5.1E-02 ± 4.3E-02	U
	^{238}Pu	1.8E-03 ± 1.8E-03	U
	$^{239/240}Pu$	4.1E-02 ± 1.9E-02	
	^{103}Ru	1.0E-02 ± 1.2E-02	U
	^{106}Ru	3.0E-02 ± 9.3E-02	U
	^{125}Sb	3.2E-02 ± 3.5E-02	U
	^{113}Sn	5.2E-03 ± 1.5E-02	U
	^{90}Sr	1.1E-01 ± 5.3E-01	U
	^{234}U	2.1E-01 ± 6.9E-02	
	^{235}U	9.4E-03 ± 1.4E-02	U
	^{238}U	2.4E-01 ± 7.7E-02	
	^{65}Zn	3.2E-02 ± 2.2E-02	U
D083	^{144}Ce	-3.6E-02 ± 1.4E-01	U
(600 Area)	^{60}Co	1.5E-03 ± 6.0E-03	U
	^{134}Cs	3.1E-02 ± 9.5E-03	
	^{137}Cs	3.4E-01 ± 5.6E-02	
	^{152}Eu	-9.5E-03 ± 2.0E-02	U
	^{154}Eu	1.5E-02 ± 2.2E-02	U
	^{155}Eu	6.7E-02 ± 4.1E-02	
	^{238}Pu	-2.1E-02 ± 3.1E-02	U
	$^{239/240}Pu$	2.5E-02 ± 1.8E-02	
	^{103}Ru	-1.0E-03 ± 7.9E-03	U
	^{106}Ru	3.4E-02 ± 6.2E-02	U
	^{125}Sb	-4.3E-03 ± 1.9E-02	U
	^{113}Sn	-3.6E-03 ± 9.1E-03	U
	^{90}Sr	1.7E-01 ± 5.4E-01	
	^{234}U	1.1E-01 ± 4.1E-02	
	^{235}U	1.6E-02 ± 1.3E-02	
	^{238}U	1.1E-01 ± 4.1E-02	
	^{65}Zn	-1.2E-02 ± 1.7E-02	U

Location	Isotope	Result ± Error	RQ
D081	^{144}Ce	-4.3E-02 ± 4.5E-02	U
(600 Area)	^{60}Co	1.3E-03 ± 3.5E-03	U
	^{134}Cs	1.1E-02 ± 6.3E-03	
	^{137}Cs	2.0E-02 ± 7.0E-03	
	^{152}Eu	1.8E-02 ± 1.2E-02	
	^{154}Eu	-1.0E-02 ± 1.3E-02	U
	^{155}Eu	-1.4E-03 ± 1.4E-02	U
	^{238}Pu	-1.4E-02 ± 4.1E-02	U
	$^{239/240}Pu$	2.3E-03 ± 2.3E-02	U
	^{103}Ru	-6.5E-04 ± 3.5E-03	U
	^{106}Ru	9.2E-03 ± 2.8E-02	U
	^{125}Sb	-7.4E-05 ± 7.4E-04	U
	^{113}Sn	-2.6E-03 ± 4.8E-03	U
	^{90}Sr	-3.8E-01 ± 4.9E-01	U
	^{234}U	1.4E-01 ± 5.0E-02	
	^{235}U	2.3E-03 ± 8.0E-03	U
	^{238}U	1.4E-01 ± 4.9E-02	
	^{65}Zn	6.5E-03 ± 9.7E-03	U
D085	^{144}Ce	8.7E-03 ± 8.7E-02	U
(600 Area)	^{60}Co	-5.0E-03 ± 6.7E-03	U
	^{134}Cs	3.6E-02 ± 1.3E-02	
	^{137}Cs	1.4E-01 ± 2.5E-02	
	^{152}Eu	-7.9E-03 ± 2.4E-02	U
	^{154}Eu	-6.0E-03 ± 2.4E-02	U
	^{155}Eu	6.7E-02 ± 4.3E-02	
	^{238}Pu	2.0E-03 ± 2.0E-03	U
	$^{239/240}Pu$	4.0E-03 ± 5.7E-03	U
	^{103}Ru	-1.7E-03 ± 8.3E-03	U
	^{106}Ru	-5.0E-03 ± 5.0E-02	U
	^{125}Sb	-2.2E-03 ± 1.9E-02	U
	^{113}Sn	-9.3E-03 ± 9.5E-03	U
	^{90}Sr	-5.8E-01 ± 5.8E-01	U
	^{234}U	9.6E-02 ± 3.9E-02	
	^{235}U	1.0E-02 ± 1.4E-02	U
	^{238}U	1.6E-01 ± 5.6E-02	
	^{65}Zn	-7.5E-04 ± 7.5E-03	U

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 13 of 21)

Location	Isotope	Result ± Error	RQ
D087	^{144}Ce	-6.3E-02 ± 2.3E-01	U
(600 Area)	^{60}Co	5.4E-03 ± 9.1E-03	U
	^{134}Cs	3.1E-02 ± 1.3E-02	
	^{137}Cs	1.5E-01 ± 3.2E-02	
	^{152}Eu	-3.6E-02 ± 4.2E-02	U
	^{154}Eu	7.2E-04 ± 7.2E-03	U
	^{155}Eu	2.0E-02 ± 5.3E-02	U
	^{238}Pu	-3.8E-03 ± 9.3E-03	U
	$^{239/240}Pu$	7.7E-03 ± 9.5E-03	U
	^{103}Ru	2.8E-03 ± 1.2E-02	U
	^{106}Ru	-7.2E-02 ± 9.0E-02	U
	^{125}Sb	1.9E-02 ± 3.0E-02	U
	^{113}Sn	-1.0E-04 ± 1.0E-03	U
	^{90}Sr	-1.2E+00 ± 1.2E+00	U
	^{234}U	2.1E-01 ± 6.7E-02	
	^{235}U	8.6E-03 ± 8.9E-03	
	^{238}U	1.8E-01 ± 5.9E-02	
	^{65}Zn	3.0E-03 ± 2.7E-02	U

Location	Isotope	Result ± Error	RQ
D089	^{144}Ce	1.4E-04 ± 1.4E-03	U
(600 Area)	^{60}Co	-4.0E-03 ± 5.5E-03	U
	^{134}Cs	3.3E-02 ± 1.2E-02	
	^{137}Cs	3.8E-02 ± 1.1E-02	
	^{152}Eu	-2.6E-03 ± 1.8E-02	U
	^{154}Eu	-1.6E-03 ± 1.6E-02	U
	^{155}Eu	3.6E-02 ± 2.6E-02	U
	^{238}Pu	9.4E-03 ± 4.4E-02	U
	$^{239/240}Pu$	2.3E-03 ± 2.3E-03	U
	^{103}Ru	-2.5E-03 ± 6.5E-03	U
	^{106}Ru	2.4E-02 ± 4.4E-02	U
	^{125}Sb	8.0E-03 ± 1.5E-02	U
	^{113}Sn	2.1E-04 ± 2.1E-03	U
	^{90}Sr	5.0E-01 ± 4.8E-01	
	^{234}U	1.8E-01 ± 6.1E-02	
	^{235}U	7.2E-03 ± 8.5E-03	
	^{238}U	1.9E-01 ± 6.5E-02	
	^{65}Zn	-1.0E-02 ± 1.5E-02	U

Location	Isotope	Result ± Error	RQ
D091	^{144}Ce	-2.3E-01 ± 2.3E-01	U
(600 Area)	^{60}Co	2.6E-03 ± 1.2E-02	U
	^{134}Cs	4.0E-02 ± 1.8E-02	
	^{137}Cs	7.0E-01 ± 1.3E-01	
	^{152}Eu	-4.0E-02 ± 6.3E-02	U
	^{154}Eu	-1.6E-02 ± 3.9E-02	U
	^{155}Eu	-1.6E-02 ± 6.0E-02	U
	^{238}Pu	5.9E-03 ± 8.9E-03	U
	$^{239/240}Pu$	7.8E-03 ± 9.7E-03	U
	^{103}Ru	-6.1E-03 ± 1.5E-02	U
	^{106}Ru	1.0E-01 ± 1.1E-01	U
	^{125}Sb	2.0E-02 ± 3.6E-02	U
	^{113}Sn	1.4E-02 ± 2.1E-02	U
	^{90}Sr	-2.0E-01 ± 4.7E-01	U
	^{234}U	1.8E-01 ± 6.1E-02	
	^{235}U	6.7E-03 ± 1.5E-02	U
	^{238}U	1.8E-01 ± 5.9E-02	
	^{65}Zn	1.0E-02 ± 3.4E-02	U

Location	Isotope	Result ± Error	RQ
D093	^{144}Ce	-5.6E-02 ± 1.1E-01	U
(600 Area)	^{60}Co	-2.9E-03 ± 5.5E-03	U
	^{134}Cs	3.1E-02 ± 1.1E-02	
	^{137}Cs	2.0E-01 ± 3.4E-02	
	^{152}Eu	-1.5E-02 ± 2.1E-02	U
	^{154}Eu	-1.3E-02 ± 2.1E-02	U
	^{155}Eu	3.8E-02 ± 3.3E-02	U
	^{238}Pu	4.3E-03 ± 8.6E-03	U
	$^{239/240}Pu$	1.9E-02 ± 1.3E-02	
	^{103}Ru	-3.6E-03 ± 7.0E-03	U
	^{106}Ru	2.2E-02 ± 4.9E-02	U
	^{125}Sb	4.6E-03 ± 1.6E-02	U
	^{113}Sn	-4.0E-03 ± 8.0E-03	U
	^{90}Sr	-5.4E-02 ± 4.4E-01	U
	^{234}U	1.6E-01 ± 5.6E-02	
	^{235}U	1.8E-02 ± 1.4E-02	
	^{238}U	2.0E-01 ± 6.8E-02	
	^{65}Zn	-6.0E-03 ± 1.6E-02	U

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 14 of 21)

Location	Isotope	Result ± Error	RQ
D095	^{144}Ce	9.0E-02 ± 1.2E-01	U
(600 Area)	^{60}Co	-4.0E-03 ± 5.8E-03	U
	^{134}Cs	4.0E-02 ± 1.3E-02	
	^{137}Cs	3.4E-01 ± 5.6E-02	
	^{152}Eu	5.8E-03 ± 2.0E-02	U
	^{154}Eu	-2.5E-03 ± 1.9E-02	U
	^{155}Eu	4.1E-02 ± 4.6E-02	U
	^{238}Pu	-1.8E-03 ± 6.2E-03	U
	$^{239/240}Pu$	2.5E-02 ± 1.4E-02	
	^{103}Ru	5.4E-03 ± 7.7E-03	U
	^{106}Ru	-3.9E-03 ± 3.9E-02	U
	^{125}Sb	-4.4E-03 ± 1.8E-02	U
	^{113}Sn	-7.0E-03 ± 8.9E-03	U
	^{90}Sr	-3.2E-01 ± 5.3E-01	U
	^{234}U	1.4E-01 ± 4.9E-02	
	^{235}U	1.5E-02 ± 1.3E-02	U
	^{238}U	1.6E-01 ± 5.4E-02	
	^{65}Zn	-1.2E-02 ± 1.7E-02	U
D097	^{144}Ce	-1.2E-01 ± 1.7E-01	U
(600 Area)	^{60}Co	-3.2E-03 ± 1.2E-02	U
	^{134}Cs	3.4E-02 ± 1.8E-02	
	^{137}Cs	1.3E-01 ± 3.4E-02	
	^{152}Eu	-2.4E-02 ± 3.9E-02	U
	^{154}Eu	4.7E-04 ± 4.7E-03	U
	^{155}Eu	5.8E-02 ± 6.2E-02	U
	^{238}Pu	-7.7E-03 ± 1.3E-02	U
	$^{239/240}Pu$	7.7E-03 ± 7.9E-03	
	^{103}Ru	9.6E-04 ± 9.6E-03	U
	^{106}Ru	-2.2E-02 ± 9.3E-02	U
	^{125}Sb	-1.2E-02 ± 2.8E-02	U
	^{113}Sn	-6.1E-03 ± 1.4E-02	U
	^{90}Sr	-6.8E-01 ± 6.8E-01	U
	^{234}U	1.4E-01 ± 5.0E-02	
	^{235}U	4.5E-03 ± 6.5E-03	U
	^{238}U	1.6E-01 ± 5.6E-02	
	^{65}Zn	1.4E-02 ± 3.2E-02	U
D099	^{144}Ce	-6.4E-02 ± 1.5E-01	U
(600 Area)	^{60}Co	4.2E-04 ± 4.2E-03	U
	^{134}Cs	3.8E-02 ± 1.1E-02	
	^{137}Cs	4.3E-02 ± 1.4E-02	
	^{152}Eu	1.5E-03 ± 1.5E-02	U
	^{154}Eu	9.5E-03 ± 2.4E-02	U
	^{155}Eu	4.9E-02 ± 4.1E-02	U
	^{238}Pu	8.0E-03 ± 2.4E-02	U
	$^{239/240}Pu$	2.0E-03 ± 9.0E-03	U
	^{103}Ru	-5.2E-03 ± 1.1E-02	U
	^{106}Ru	2.0E-02 ± 6.0E-02	U
	^{125}Sb	1.1E-02 ± 1.9E-02	U
	^{113}Sn	-1.5E-02 ± 1.5E-02	U
	^{90}Sr	-4.6E-01 ± 4.6E-01	U
	^{234}U	2.2E-01 ± 7.0E-02	
	^{235}U	2.0E-02 ± 1.4E-02	
	^{238}U	2.0E-01 ± 6.6E-02	
	^{65}Zn	1.6E-02 ± 6.2E-03	U
D101	^{144}Ce	-5.4E-02 ± 2.3E-01	U
(600 Area)	^{60}Co	-1.6E-03 ± 9.8E-03	U
	^{134}Cs	3.4E-02 ± 2.5E-02	
	^{137}Cs	9.5E-02 ± 2.5E-02	
	^{152}Eu	1.7E-02 ± 4.3E-02	U
	^{154}Eu	-3.3E-02 ± 3.2E-02	U
	^{155}Eu	4.7E-02 ± 5.4E-02	U
	^{238}Pu	-1.8E-03 ± 9.5E-03	U
	$^{239/240}Pu$	5.5E-03 ± 6.4E-03	
	^{103}Ru	-7.2E-03 ± 1.2E-02	U
	^{106}Ru	4.3E-02 ± 9.4E-02	U
	^{125}Sb	1.5E-02 ± 2.9E-02	U
	^{113}Sn	7.1E-03 ± 1.6E-02	U
	^{90}Sr	-2.0E-01 ± 4.2E-01	U
	^{234}U	1.1E-01 ± 4.3E-02	
	^{235}U	1.6E-02 ± 1.3E-02	
	^{238}U	1.6E-01 ± 5.6E-02	
	^{65}Zn	7.3E-03 ± 2.7E-02	U

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 15 of 21)

Location	Isotope	Result ± Error	RQ
D103	^{144}Ce	-2.4E-01 ± 2.6E-01	U
(600 Area)	^{60}Co	8.3E-04 ± 8.3E-03	U
	^{134}Cs	5.4E-02 ± 3.3E-02	
	^{137}Cs	8.9E-01 ± 1.4E-01	
	^{152}Eu	-2.1E-02 ± 9.3E-02	U
	^{154}Eu	-7.9E-03 ± 5.2E-02	U
	^{155}Eu	-3.8E-02 ± 6.4E-02	U
	^{238}Pu	2.0E-03 ± 1.2E-02	U
	$^{239/240}Pu$	3.0E-01 ± 8.1E-02	
	^{103}Ru	-4.1E-03 ± 2.2E-02	U
	^{106}Ru	-3.7E-02 ± 1.6E-01	U
	^{125}Sb	-3.4E-02 ± 5.3E-02	U
	^{113}Sn	2.9E-03 ± 2.5E-02	U
	^{90}Sr	-1.1E-01 ± 4.6E-01	U
	^{234}U	1.4E-01 ± 5.0E-02	
	^{235}U	2.3E-03 ± 4.6E-03	U
	^{238}U	1.8E-01 ± 6.1E-02	
	^{65}Zn	4.3E-02 ± 4.3E-02	U
D105	^{144}Ce	-1.6E-01 ± 1.7E-01	U
(600 Area)	^{60}Co	-2.6E-03 ± 1.1E-02	U
	^{134}Cs	6.3E-02 ± 2.6E-02	
	^{137}Cs	1.5E-01 ± 3.6E-02	
	^{152}Eu	6.8E-03 ± 4.0E-02	U
	^{154}Eu	-7.0E-03 ± 4.5E-02	U
	^{155}Eu	4.1E-02 ± 4.5E-02	U
	^{238}Pu	-1.7E-03 ± 5.9E-03	U
	$^{239/240}Pu$	1.7E-01 ± 4.9E-02	
	^{103}Ru	-4.1E-03 ± 1.3E-02	U
	^{106}Ru	-6.3E-02 ± 9.9E-02	U
	^{125}Sb	6.0E-03 ± 3.0E-02	U
	^{113}Sn	-2.4E-03 ± 1.4E-02	U
	^{90}Sr	-1.0E+00 ± 1.0E+00	U
	^{234}U	1.5E-01 ± 5.3E-02	
	^{235}U	1.5E-02 ± 1.3E-02	U
	^{238}U	1.5E-01 ± 5.3E-02	
	^{65}Zn	2.5E-02 ± 3.5E-02	U
D107	^{144}Ce	-1.0E-01 ± 2.0E-01	U
(600 Area)	^{60}Co	-7.1E-03 ± 9.7E-03	U
	^{134}Cs	3.2E-02 ± 1.4E-02	
	^{137}Cs	2.5E-01 ± 4.9E-02	
	^{152}Eu	-2.2E-02 ± 4.2E-02	U
	^{154}Eu	-2.3E-02 ± 3.1E-02	U
	^{155}Eu	4.9E-02 ± 5.6E-02	U
	^{238}Pu	1.9E-03 ± 1.9E-03	U
	$^{239/240}Pu$	1.0E-01 ± 3.5E-02	
	^{103}Ru	-9.7E-03 ± 1.1E-02	U
	^{106}Ru	1.4E-02 ± 9.2E-02	U
	^{125}Sb	-1.3E-02 ± 2.8E-02	U
	^{113}Sn	2.5E-03 ± 1.6E-02	U
	^{90}Sr	-9.0E-01 ± 9.0E-01	U
	^{234}U	1.4E-01 ± 5.0E-02	
	^{235}U	2.1E-02 ± 1.6E-02	
	^{238}U	1.6E-01 ± 5.6E-02	
	^{65}Zn	-2.6E-03 ± 2.6E-02	U
D109	^{144}Ce	3.9E-02 ± 1.8E-01	U
(600 Area)	^{60}Co	-8.6E-03 ± 1.1E-02	U
	^{134}Cs	3.3E-02 ± 1.8E-02	
	^{137}Cs	3.6E-01 ± 6.6E-02	
	^{152}Eu	1.2E-02 ± 3.9E-02	U
	^{154}Eu	-2.0E-02 ± 3.3E-02	U
	^{155}Eu	5.2E-02 ± 4.7E-02	U
	^{238}Pu	3.3E-03 ± 9.4E-03	U
	$^{239/240}Pu$	1.5E-01 ± 4.5E-02	
	^{103}Ru	-6.0E-03 ± 1.3E-02	U
	^{106}Ru	6.2E-03 ± 6.2E-02	U
	^{125}Sb	-4.4E-03 ± 2.9E-02	U
	^{113}Sn	-2.6E-03 ± 1.4E-02	U
	^{90}Sr	-6.3E-01 ± 6.3E-01	U
	^{234}U	2.4E-01 ± 7.7E-02	
	^{235}U	1.3E-02 ± 1.1E-02	
	^{238}U	1.6E-01 ± 5.4E-02	
	^{65}Zn	3.9E-03 ± 3.0E-02	U

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 16 of 21)

Location	Isotope	Result ± Error	RQ
D113	^{144}Ce	1.8E-01 ± 1.5E-01	U
(600 Area)	^{60}Co	-6.7E-04 ± 6.7E-03	U
Replicate of	^{134}Cs	2.2E-02 ± 1.1E-02	
D081	^{137}Cs	1.3E-02 ± 9.0E-03	U
	^{152}Eu	-3.9E-02 ± 3.9E-02	U
	^{154}Eu	-7.3E-03 ± 2.9E-02	U
	^{155}Eu	5.3E-02 ± 4.0E-02	U
	^{238}Pu	-1.7E-03 ± 3.4E-03	U
	$^{239/240}Pu$	-1.7E-03 ± 3.4E-03	U
	^{103}Ru	3.5E-03 ± 7.6E-03	U
	^{106}Ru	1.8E-02 ± 6.4E-02	U
	^{125}Sb	-3.9E-03 ± 2.0E-02	U
	^{113}Sn	-1.3E-03 ± 1.0E-02	U
	^{90}Sr	-1.0E+00 ± 1.0E+00	U
	^{234}U	1.3E-01 ± 4.7E-02	
	^{235}U	8.4E-03 ± 8.7E-03	
	^{238}U	1.5E-01 ± 5.3E-02	
	^{65}Zn	2.0E-02 ± 3.3E-02	U

Location	Isotope	Result ± Error	RQ
D115	^{144}Ce	-1.6E-01 ± 2.1E-01	U
(600 Area)	^{60}Co	-3.7E-03 ± 1.1E-02	U
Replicate of	^{134}Cs	3.8E-02 ± 1.5E-02	
D093	^{137}Cs	2.7E-01 ± 5.3E-02	
	^{152}Eu	-1.6E-02 ± 3.6E-02	U
	^{154}Eu	-2.0E-02 ± 3.5E-02	U
	^{155}Eu	9.4E-02 ± 5.6E-02	
	^{238}Pu	3.7E-03 ± 7.4E-03	U
	$^{239/240}Pu$	1.3E-02 ± 1.0E-02	
	^{103}Ru	1.2E-04 ± 1.2E-03	U
	^{106}Ru	-4.2E-02 ± 9.9E-02	U
	^{125}Sb	1.5E-02 ± 2.9E-02	U
	^{113}Sn	-5.7E-03 ± 1.4E-02	U
	^{90}Sr	-4.6E-01 ± 4.7E-01	U
	^{234}U	1.9E-01 ± 6.5E-02	
	^{235}U	9.4E-03 ± 1.2E-02	U
	^{238}U	2.1E-01 ± 6.9E-02	
	^{65}Zn	1.8E-02 ± 3.1E-02	U

Location	Isotope	Result ± Error	RQ
D145	^{144}Ce	-1.0E-01 ± 1.1E-01	U
(600 Area)	^{60}Co	2.1E-04 ± 2.1E-03	U
Replicate of	^{134}Cs	4.9E-02 ± 1.7E-02	
D097	^{137}Cs	1.6E-01 ± 3.1E-02	
	^{152}Eu	-1.8E-02 ± 2.6E-02	U
	^{154}Eu	-4.8E-03 ± 2.7E-02	U
	^{155}Eu	4.3E-02 ± 4.1E-02	U
	^{238}Pu	1.7E-03 ± 1.0E-02	U
	$^{239/240}Pu$	1.0E-02 ± 8.4E-03	
	^{103}Ru	-2.4E-04 ± 2.4E-03	U
	^{106}Ru	-2.8E-02 ± 6.1E-02	U
	^{125}Sb	3.0E-02 ± 1.9E-02	U
	^{113}Sn	-1.2E-02 ± 1.2E-02	U
	^{90}Sr	-1.2E-01 ± 4.5E-01	U
	^{234}U	2.2E-01 ± 7.0E-02	
	^{235}U	1.4E-02 ± 1.2E-02	
	^{238}U	2.8E-01 ± 8.7E-02	
	^{65}Zn	2.5E-02 ± 2.1E-02	U

Location	Isotope	Result ± Error	RQ
D116	^{144}Ce	-8.4E-02 ± 1.1E-01	U
(300 Area)	^{60}Co	-4.3E-03 ± 5.6E-03	U
	^{134}Cs	2.0E-02 ± 1.0E-02	
	^{137}Cs	6.0E-02 ± 1.3E-02	
	^{152}Eu	-8.4E-03 ± 1.7E-02	U
	^{154}Eu	9.1E-03 ± 1.7E-02	U
	^{155}Eu	3.9E-02 ± 3.1E-02	U
	^{238}Pu	1.6E-03 ± 9.6E-03	U
	$^{239/240}Pu$	1.5E-02 ± 1.0E-02	
	^{103}Ru	-5.5E-03 ± 8.7E-03	U
	^{106}Ru	-2.4E-02 ± 4.8E-02	U
	^{125}Sb	6.3E-03 ± 1.5E-02	U
	^{113}Sn	-3.8E-03 ± 8.3E-03	U
	^{90}Sr	5.1E-01 ± 3.6E-01	
	^{234}U	1.4E-01 ± 4.9E-02	
	^{235}U	8.6E-03 ± 1.2E-02	U
	^{238}U	1.5E-01 ± 5.3E-02	
	^{65}Zn	2.1E-03 ± 1.7E-02	U

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 17 of 21)

Location	Isotope	Result ± Error	RQ
D117	^{144}Ce	6.2E-02 ± 1.1E-01	U
(300 Area)	^{60}Co	-4.9E-04 ± 4.9E-03	U
	^{134}Cs	2.8E-02 ± 9.3E-03	
	^{137}Cs	1.5E-01 ± 2.6E-02	
	^{152}Eu	6.3E-03 ± 1.9E-02	U
	^{154}Eu	1.3E-03 ± 1.3E-02	U
	^{155}Eu	6.0E-02 ± 3.5E-02	
	^{238}Pu	-6.8E-03 ± 1.1E-02	U
	$^{239/240}Pu$	1.9E-02 ± 1.2E-02	
	^{103}Ru	-7.4E-03 ± 8.8E-03	U
	^{106}Ru	-1.8E-02 ± 5.0E-02	U
	^{125}Sb	8.1E-03 ± 1.6E-02	U
	^{113}Sn	-8.4E-03 ± 8.6E-03	U
	^{90}Sr	-2.9E-01 ± 3.8E-01	U
	^{234}U	5.0E-01 ± 1.4E-01	
	^{235}U	4.7E-02 ± 2.4E-02	
	^{238}U	4.6E-01 ± 1.3E-01	
	^{65}Zn	5.1E-03 ± 1.6E-02	U
D118	^{144}Ce	-3.0E-03 ± 3.0E-02	U
(300 Area)	^{60}Co	-2.5E-03 ± 5.0E-03	U
	^{134}Cs	2.2E-02 ± 7.6E-03	
	^{137}Cs	1.5E-02 ± 6.9E-03	
	^{152}Eu	-1.3E-02 ± 1.8E-02	U
	^{154}Eu	-9.1E-04 ± 9.1E-03	U
	^{155}Eu	2.7E-02 ± 2.4E-02	U
	^{238}Pu	-5.0E-03 ± 7.5E-03	U
	$^{239/240}Pu$	3.3E-03 ± 4.7E-03	U
	^{103}Ru	4.6E-04 ± 4.6E-03	U
	^{106}Ru	-2.2E-02 ± 4.6E-02	U
	^{125}Sb	-6.1E-03 ± 1.4E-02	U
	^{113}Sn	3.0E-03 ± 8.1E-03	U
	^{90}Sr	-3.8E-01 ± 4.6E-01	U
	^{234}U	4.3E-01 ± 1.2E-01	
	^{235}U	3.6E-02 ± 2.0E-02	
	^{238}U	4.4E-01 ± 1.3E-01	
	^{65}Zn	-1.9E-03 ± 1.5E-02	U
D119	^{144}Ce	-7.1E-02 ± 1.4E-01	U
(300 Area)	^{60}Co	-1.9E-03 ± 6.8E-03	U
	^{134}Cs	5.2E-02 ± 1.8E-02	
	^{137}Cs	4.8E-02 ± 1.4E-02	
	^{152}Eu	-1.6E-02 ± 3.6E-02	U
	^{154}Eu	-1.4E-02 ± 2.3E-02	U
	^{155}Eu	3.0E-02 ± 3.3E-02	U
	^{238}Pu	4.7E-03 ± 1.9E-02	U
	$^{239/240}Pu$	4.5E-02 ± 1.9E-02	
	^{103}Ru	3.6E-03 ± 8.8E-03	U
	^{106}Ru	-1.5E-02 ± 6.1E-02	U
	^{125}Sb	1.2E-02 ± 1.8E-02	U
	^{113}Sn	-1.5E-02 ± 1.5E-02	U
	^{90}Sr	-1.3E-01 ± 3.6E-01	U
	^{234}U	2.8E+00 ± 7.3E-01	
	^{235}U	1.3E-01 ± 4.7E-02	
	^{238}U	2.8E+00 ± 7.3E-01	
	^{65}Zn	3.9E-02 ± 2.8E-02	
D120	^{144}Ce	-3.9E-02 ± 1.1E-01	U
(300 Area)	^{60}Co	4.8E-04 ± 4.8E-03	U
	^{134}Cs	3.7E-02 ± 1.2E-02	
	^{137}Cs	7.0E-03 ± 7.3E-03	U
	^{152}Eu	9.6E-03 ± 1.9E-02	U
	^{154}Eu	-4.0E-03 ± 2.0E-02	U
	^{155}Eu	3.9E-02 ± 3.2E-02	U
	^{238}Pu	8.4E-03 ± 1.7E-02	U
	$^{239/240}Pu$	5.1E-03 ± 7.7E-03	U
	^{103}Ru	1.7E-03 ± 8.6E-03	U
	^{106}Ru	-9.7E-03 ± 4.9E-02	U
	^{125}Sb	-2.3E-04 ± 2.3E-03	U
	^{113}Sn	1.8E-04 ± 1.8E-03	U
	^{90}Sr	-5.5E-01 ± 5.5E-01	U
	^{234}U	3.2E-01 ± 9.9E-02	
	^{235}U	2.5E-02 ± 1.6E-02	
	^{238}U	3.6E-01 ± 1.1E-01	
	^{65}Zn	4.2E-03 ± 1.6E-02	U

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 18 of 21)

Location	Isotope	Result ± Error	RQ
D121	^{144}Ce	-4.2E-02 ± 1.1E-01	U
(300 Area)	^{60}Co	-9.1E-04 ± 5.1E-03	U
	^{134}Cs	2.7E-02 ± 8.4E-03	
	^{137}Cs	7.3E-02 ± 1.5E-02	
	^{152}Eu	-2.4E-03 ± 1.8E-02	U
	^{154}Eu	5.5E-03 ± 2.0E-02	U
	^{155}Eu	2.9E-02 ± 2.7E-02	U
	^{238}Pu	1.5E-03 ± 6.7E-03	U
	$^{239/240}Pu$	1.2E-02 ± 9.8E-03	
	^{103}Ru	-3.9E-03 ± 8.4E-03	U
	^{106}Ru	1.3E-02 ± 4.7E-02	U
	^{125}Sb	1.1E-02 ± 1.5E-02	U
	^{113}Sn	9.0E-04 ± 8.1E-03	U
	^{90}Sr	-3.4E-02 ± 3.4E-01	U
	^{234}U	7.7E-01 ± 2.2E-01	
	^{235}U	4.0E-02 ± 2.1E-02	
	^{238}U	7.8E-01 ± 2.2E-01	
	^{65}Zn	-5.8E-03 ± 1.6E-02	U

Location	Isotope	Result ± Error	RQ
D123	^{144}Ce	9.3E-03 ± 9.3E-02	U
(300 Area)	^{60}Co	4.0E-03 ± 5.2E-03	U
	^{134}Cs	2.2E-02 ± 9.7E-03	
	^{137}Cs	1.6E-02 ± 9.2E-03	
	^{152}Eu	-8.6E-03 ± 1.6E-02	U
	^{154}Eu	-1.6E-02 ± 1.9E-02	U
	^{155}Eu	3.2E-02 ± 2.6E-02	U
	^{238}Pu	-8.1E-03 ± 2.6E-02	U
	$^{239/240}Pu$	2.0E-03 ± 4.0E-03	U
	^{103}Ru	2.8E-03 ± 6.9E-03	U
	^{106}Ru	-7.3E-03 ± 4.5E-02	U
	^{125}Sb	-1.0E-02 ± 1.5E-02	U
	^{113}Sn	-2.3E-03 ± 7.4E-03	U
	^{90}Sr	-4.6E-01 ± 4.6E-01	U
	^{234}U	1.6E-01 ± 5.4E-02	
	^{235}U	6.4E-03 ± 7.6E-03	
	^{238}U	1.5E-01 ± 5.3E-02	
	^{65}Zn	-5.2E-03 ± 1.5E-02	U

Location	Isotope	Result ± Error	RQ
D124	^{144}Ce	-1.4E-01 ± 1.4E-01	U
(300 Area)	^{60}Co	-2.3E-04 ± 2.3E-03	U
	^{134}Cs	3.0E-02 ± 1.1E-02	
	^{137}Cs	7.2E-02 ± 1.5E-02	
	^{152}Eu	-4.7E-03 ± 1.6E-02	U
	^{154}Eu	-1.0E-02 ± 1.7E-02	U
	^{155}Eu	6.7E-03 ± 2.5E-02	U
	^{238}Pu	-2.0E-02 ± 2.4E-02	U
	$^{239/240}Pu$	2.2E-03 ± 7.6E-03	U
	^{103}Ru	6.6E-05 ± 6.6E-04	U
	^{106}Ru	-1.5E-02 ± 4.6E-02	U
	^{125}Sb	1.3E-03 ± 1.3E-02	U
	^{113}Sn	-4.4E-03 ± 7.6E-03	U
	^{90}Sr	9.1E-01 ± 4.6E-01	
	^{234}U	1.9E-01 ± 6.3E-02	
	^{235}U	1.6E-02 ± 1.4E-02	U
	^{238}U	1.9E-01 ± 6.3E-02	
	^{65}Zn	7.1E-03 ± 1.5E-02	U

Location	Isotope	Result ± Error	RQ
D125	^{144}Ce	-1.5E-01 ± 1.4E-01	U
(300 Area)	^{60}Co	-8.5E-04 ± 8.5E-03	U
	^{134}Cs	3.9E-02 ± 1.5E-02	
	^{137}Cs	1.4E-02 ± 1.3E-02	U
	^{152}Eu	-1.9E-02 ± 3.7E-02	U
	^{154}Eu	-3.1E-02 ± 3.2E-02	U
	^{155}Eu	3.7E-02 ± 3.4E-02	U
	^{238}Pu	-8.9E-03 ± 8.9E-03	U
	$^{239/240}Pu$	1.2E-02 ± 9.5E-03	
	^{103}Ru	-3.9E-03 ± 1.3E-02	U
	^{106}Ru	3.6E-02 ± 9.2E-02	U
	^{125}Sb	-1.0E-03 ± 1.0E-02	U
	^{113}Sn	-2.3E-03 ± 1.5E-02	U
	^{90}Sr	5.5E+01 ± 7.1E+00	
	^{234}U	7.0E-01 ± 2.0E-01	
	^{235}U	4.1E-02 ± 2.3E-02	
	^{238}U	5.6E-01 ± 1.6E-01	
	^{65}Zn	-9.9E-04 ± 9.9E-03	U

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 19 of 21)

Location	Isotope	Result ± Error	RQ
D126	^{144}Ce	-4.3E-02 ± 1.0E-01	U
(300 Area)	^{60}Co	2.2E-03 ± 5.2E-03	U
	^{134}Cs	2.6E-02 ± 1.0E-02	
	^{137}Cs	3.6E-02 ± 1.0E-02	
	^{152}Eu	8.8E-04 ± 8.8E-03	U
	^{154}Eu	2.6E-05 ± 2.6E-04	U
	^{155}Eu	4.1E-02 ± 3.1E-02	U
	^{238}Pu	1.6E-03 ± 8.5E-03	U
	$^{239/240}Pu$	1.1E-02 ± 8.7E-03	
	^{103}Ru	2.3E-03 ± 6.6E-03	U
	^{106}Ru	5.1E-02 ± 5.2E-02	U
	^{125}Sb	6.0E-03 ± 1.5E-02	U
	^{113}Sn	-1.2E-03 ± 7.4E-03	U
	^{90}Sr	-7.7E-01 ± 7.7E-01	U
	^{234}U	1.2E+00 ± 3.2E-01	
	^{235}U	8.9E-02 ± 3.6E-02	
	^{238}U	9.8E-01 ± 2.6E-01	
	^{65}Zn	-1.5E-03 ± 1.4E-02	U
	^{65}Zn	4.6E-03 ± 2.4E-02	U

Location	Isotope	Result ± Error	RQ
D127	^{144}Ce	-7.8E-02 ± 1.4E-01	U
(300 Area)	^{60}Co	-9.2E-03 ± 9.2E-03	U
	^{134}Cs	3.7E-02 ± 1.2E-02	
	^{137}Cs	1.1E-01 ± 2.7E-02	
	^{152}Eu	8.0E-03 ± 3.2E-02	U
	^{154}Eu	-4.8E-02 ± 2.4E-02	U
	^{155}Eu	2.1E-02 ± 3.3E-02	U
	^{238}Pu	-1.7E-03 ± 7.6E-03	U
	$^{239/240}Pu$	1.7E-03 ± 7.6E-03	U
	^{103}Ru	-7.4E-03 ± 8.2E-03	U
	^{106}Ru	1.2E-03 ± 1.2E-02	U
	^{125}Sb	8.0E-03 ± 1.9E-02	U
	^{113}Sn	-1.1E-02 ± 1.1E-02	U
	^{90}Sr	-1.9E-01 ± 3.0E-01	U
	^{234}U	1.9E-01 ± 6.3E-02	
	^{235}U	2.2E-02 ± 1.5E-02	
	^{238}U	1.3E-01 ± 4.7E-02	
	^{65}Zn	1.2E-02 ± 2.0E-02	U
	^{65}Zn	3.9E-02 ± 2.2E-02	

Location	Isotope	Result ± Error	RQ
D128	^{144}Ce	8.7E-02 ± 1.4E-01	U
(300 Area)	^{60}Co	-5.9E-03 ± 7.4E-03	U
	^{134}Cs	3.6E-02 ± 1.2E-02	
	^{137}Cs	1.2E-01 ± 2.7E-02	
	^{152}Eu	-1.6E-02 ± 4.0E-02	U
	^{154}Eu	-2.5E-02 ± 2.4E-02	U
	^{155}Eu	5.6E-02 ± 4.0E-02	
	^{238}Pu	8.5E-03 ± 1.0E-02	U
	$^{239/240}Pu$	1.0E-02 ± 9.7E-03	U
	^{103}Ru	-1.0E-03 ± 9.0E-03	U
	^{106}Ru	5.1E-02 ± 6.6E-02	U
	^{125}Sb	-4.3E-04 ± 4.3E-03	U
	^{113}Sn	-1.1E-02 ± 1.1E-02	U
	^{90}Sr	-2.4E-01 ± 3.3E-01	U
	^{234}U	7.1E-01 ± 2.0E-01	
	^{235}U	6.2E-02 ± 2.8E-02	
	^{238}U	1.9E+00 ± 4.9E-01	
	^{65}Zn	6.4E-03 ± 2.0E-02	U
	^{65}Zn	7.6E+00 ± 1.2E+01	U

Location	Isotope	Result ± Error	RQ
D129	^{144}Ce	-5.3E-02 ± 1.1E-01	U
(300 Area)	^{60}Co	-3.6E-03 ± 5.8E-03	U
	^{134}Cs	3.0E-02 ± 1.0E-02	
	^{137}Cs	1.2E-01 ± 2.2E-02	
	^{152}Eu	1.6E-03 ± 1.6E-02	U
	^{154}Eu	9.7E-03 ± 1.8E-02	U
	^{155}Eu	4.1E-02 ± 3.3E-02	U
	^{238}Pu	-1.2E-02 ± 1.2E-02	U
	$^{239/240}Pu$	5.8E-03 ± 6.8E-03	
	^{103}Ru	1.0E-02 ± 8.4E-03	U
	^{106}Ru	-1.1E-02 ± 5.2E-02	U
	^{125}Sb	4.7E-03 ± 1.7E-02	U
	^{113}Sn	-2.3E-03 ± 8.7E-03	U
	^{90}Sr	-8.1E-01 ± 8.1E-01	U
	^{234}U	1.6E-01 ± 5.6E-02	
	^{235}U	2.3E-02 ± 1.6E-02	
	^{238}U	2.1E-01 ± 6.9E-02	
	^{65}Zn	-9.3E-03 ± 1.6E-02	U

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 20 of 21)

Location	Isotope	Result ± Error	RQ
D131 (300 Area) Replicate of D119	^{144}Ce	7.6E-03 ± 7.6E-02	U
	^{60}Co	1.4E-03 ± 5.4E-03	U
	^{134}Cs	2.9E-02 ± 1.0E-02	
	^{137}Cs	8.5E-02 ± 1.7E-02	
	^{152}Eu	4.3E-03 ± 1.9E-02	U
	^{154}Eu	9.5E-06 ± 9.5E-05	U
	^{155}Eu	5.0E-02 ± 3.7E-02	
	^{238}Pu	1.7E-03 ± 1.7E-03	U
	$^{239/240}Pu$	7.6E-02 ± 2.8E-02	
	^{103}Ru	1.6E-04 ± 1.6E-03	U
	^{106}Ru	2.3E-02 ± 4.7E-02	U
	^{125}Sb	1.5E-02 ± 1.6E-02	U
	^{113}Sn	-4.4E-03 ± 7.8E-03	U
	^{90}Sr	-5.1E-01 ± 5.1E-01	U
	^{234}U	5.0E+00 ± 1.3E+00	
	^{235}U	2.7E-01 ± 8.6E-02	
	^{238}U	4.9E+00 ± 1.3E+00	
	^{65}Zn	-8.4E-03 ± 1.6E-02	U
D140 (300 Area) Replicate of D123	^{144}Ce	-2.1E-01 ± 2.1E-01	U
	^{60}Co	-1.8E-04 ± 1.8E-03	U
	^{134}Cs	2.9E-02 ± 2.0E-02	U
	^{137}Cs	1.8E-02 ± 1.8E-02	U
	^{152}Eu	-2.0E-02 ± 6.6E-02	U
	^{154}Eu	5.2E-03 ± 5.2E-02	U
	^{155}Eu	-2.7E-02 ± 5.4E-02	U
	^{238}Pu	-3.4E-03 ± 9.7E-03	U
	$^{239/240}Pu$	1.7E-03 ± 1.7E-02	U
	^{103}Ru	3.8E-03 ± 1.7E-02	U
	^{106}Ru	-1.2E-01 ± 1.4E-01	U
	^{125}Sb	-7.7E-03 ± 4.4E-02	U
	^{113}Sn	-3.7E-03 ± 2.1E-02	U
	^{90}Sr	-4.3E-01 ± 4.3E-01	U
	^{234}U	1.3E-01 ± 4.8E-02	
	^{235}U	8.9E-03 ± 9.2E-03	
	^{238}U	1.4E-01 ± 4.9E-02	
	^{65}Zn	1.6E-02 ± 4.0E-02	U

Location	Isotope	Result ± Error	RQ
D139 (300 Area) Replicate of D118	^{144}Ce	-7.9E-03 ± 7.9E-03	U
	^{60}Co	-9.1E-04 ± 9.1E-03	U
	^{134}Cs	4.0E-02 ± 2.4E-02	
	^{137}Cs	1.1E-02 ± 1.2E-02	U
	^{152}Eu	-3.9E-02 ± 3.9E-02	U
	^{154}Eu	-1.4E-02 ± 3.2E-02	U
	^{155}Eu	2.7E-02 ± 2.9E-02	U
	^{238}Pu	-1.2E-02 ± 1.3E-02	U
	$^{239/240}Pu$	1.7E-03 ± 5.9E-03	U
	^{103}Ru	4.2E-03 ± 1.0E-02	U
	^{106}Ru	-6.0E-02 ± 8.4E-02	U
	^{125}Sb	2.8E-02 ± 2.6E-02	U
	^{113}Sn	6.5E-03 ± 1.2E-02	U
	^{90}Sr	-2.3E-01 ± 3.5E-01	U
	^{234}U	3.5E-01 ± 1.0E-01	
	^{235}U	2.3E-02 ± 1.9E-02	U
	^{238}U	3.3E-01 ± 9.9E-02	
	^{65}Zn	1.6E-02 ± 2.5E-02	U
D130 (400 Area)	^{144}Ce	2.0E-03 ± 2.0E-02	U
	^{60}Co	-3.4E-03 ± 5.4E-03	U
	^{134}Cs	3.0E-02 ± 1.2E-02	
	^{137}Cs	3.2E-02 ± 1.1E-02	
	^{152}Eu	-5.5E-03 ± 1.8E-02	U
	^{154}Eu	4.4E-03 ± 1.8E-02	U
	^{155}Eu	2.2E-02 ± 2.6E-02	U
	^{238}Pu	1.0E-02 ± 1.3E-02	U
	$^{239/240}Pu$	1.7E-03 ± 3.4E-03	U
	^{103}Ru	-6.2E-03 ± 7.4E-03	U
	^{106}Ru	-2.8E-02 ± 5.0E-02	U
	^{125}Sb	-4.2E-03 ± 1.6E-02	U
	^{113}Sn	2.1E-04 ± 2.1E-03	U
	^{90}Sr	4.1E-02 ± 3.7E-01	U
	^{234}U	2.4E-01 ± 7.4E-02	
	^{235}U	1.8E-02 ± 1.5E-02	
	^{238}U	2.0E-01 ± 6.4E-02	
	^{65}Zn	-3.6E-03 ± 1.6E-02	U

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

Table 3-4. 2009 Soil Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 21 of 21)

Location	Isotope	Result ± Error	RQ
D146	^{144}Ce	2.9E-02 ± 1.0E-01	U
(200-W)	^{60}Co	-2.9E-03 ± 7.5E-03	U
	^{134}Cs	4.2E-02 ± 1.5E-02	
	^{137}Cs	1.6E-02 ± 9.9E-03	
	^{152}Eu	-7.6E-04 ± 7.6E-03	U
	^{154}Eu	-2.9E-03 ± 2.1E-02	U
	^{155}Eu	4.6E-02 ± 3.0E-02	
	^{238}Pu	1.1E-02 ± 1.2E-02	U
	$^{239/240}Pu$	1.8E-03 ± 1.8E-02	U
	^{103}Ru	3.4E-03 ± 6.4E-03	U
	^{106}Ru	6.6E-03 ± 5.7E-02	U
	^{125}Sb	-2.1E-03 ± 1.8E-02	U
	^{113}Sn	-1.5E-03 ± 8.2E-03	U
	^{90}Sr	-1.6E+00 ± 1.6E+00	U
	^{234}U	1.9E-01 ± 6.7E-02	
	^{235}U	7.8E-03 ± 9.2E-03	
	^{238}U	1.6E-01 ± 5.8E-02	
	^{65}Zn	7.7E-03 ± 1.7E-02	U

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

4.0 VEGETATION MONITORING

The radionuclide content of vegetation was measured to evaluate long-term trends in environmental accumulation of radioactivity in the 100, 200/600, and 300/400 Areas. Vegetation samples were collected on or near facilities that store, handle, or dispose of radioactive waste. The number of vegetation samples collected in 2009 and their locations are shown in Table 4-1.

Table 4-1. Number and Locations of Vegetation Samples Collected Near Hanford Facilities and Operations in 2009.

Number of Samples	Operational Area					
	100-N	200-East	200-West[a]	300[a]	400	600[a]
64	3	8	19	16	1	17

(a) Number of samples includes one or more Replicate Samples.

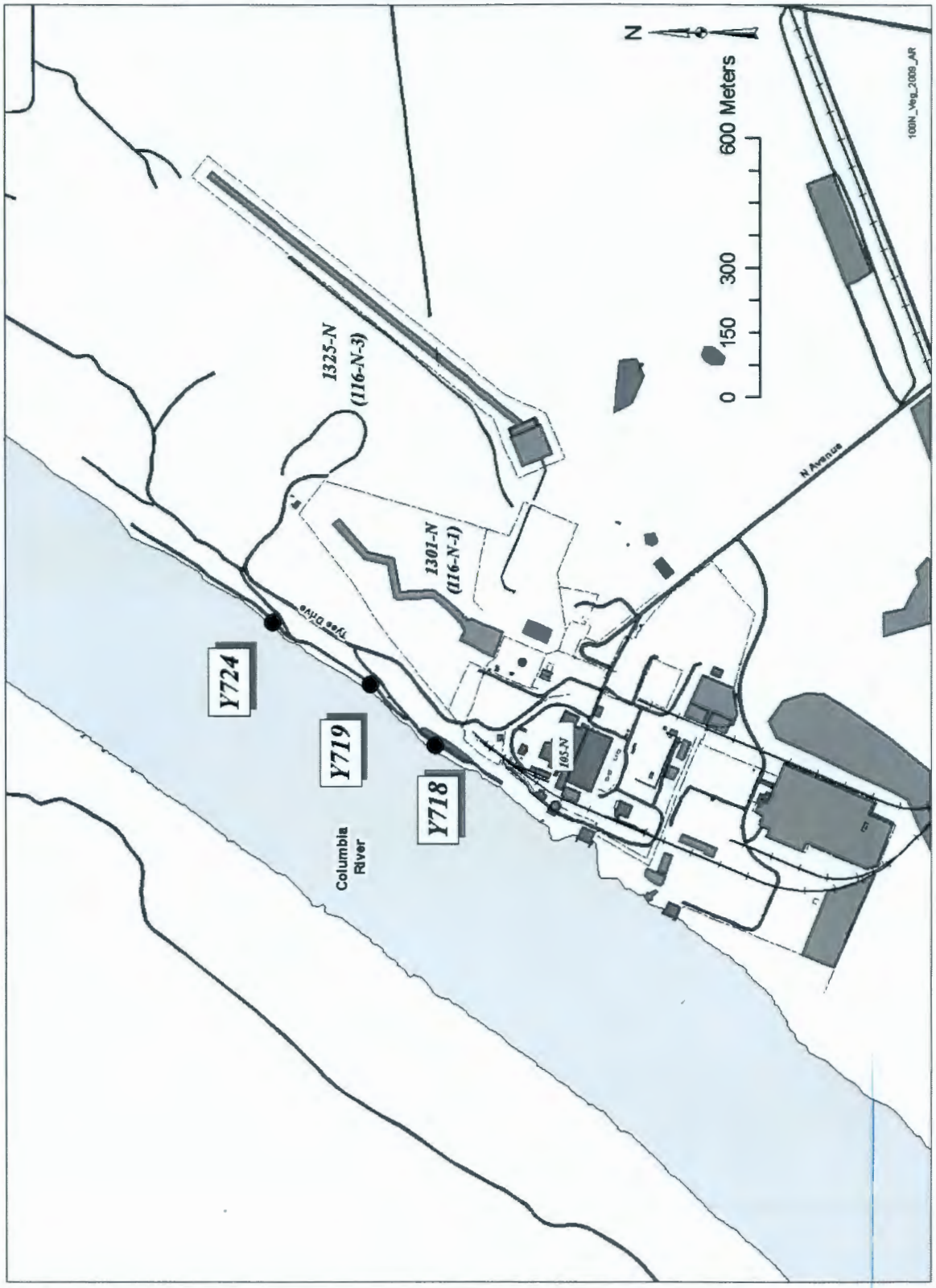
Vegetation sampling locations are illustrated in Figures 4-1 through 4-6. Radionuclide analyses indicated that strontium-90, cesium-137, plutonium-238, plutonium-239/240, and uranium were detectable in vegetation samples in 2009. Historically, the predominant radionuclides observed in vegetation samples were activation and fission products in the 100 Areas, fission products in the 200 Areas, and uranium in the 300 Area.

A summary of near-facility vegetation sampling results for selected radionuclides collected during 2009 is presented in Table 4-2. Historical vegetation sampling results for the 100-N, 200/600, and 300/400 Areas are displayed in Table 4-3. The 2009 vegetation sampling results for all areas are provided in Table 4-4.

Strontium-90 in 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 during 2003. Both historical and current values are within accepted statistical ranges as evidenced by laboratory quality assurance (QA) and performance evaluation programs.

Additional discussion of the 2009 vegetation results can be found in Section 8.10.2 of PNNL-19455.

Figure 4-1. 2009 Vegetation Sampling Locations, 100 N Area.



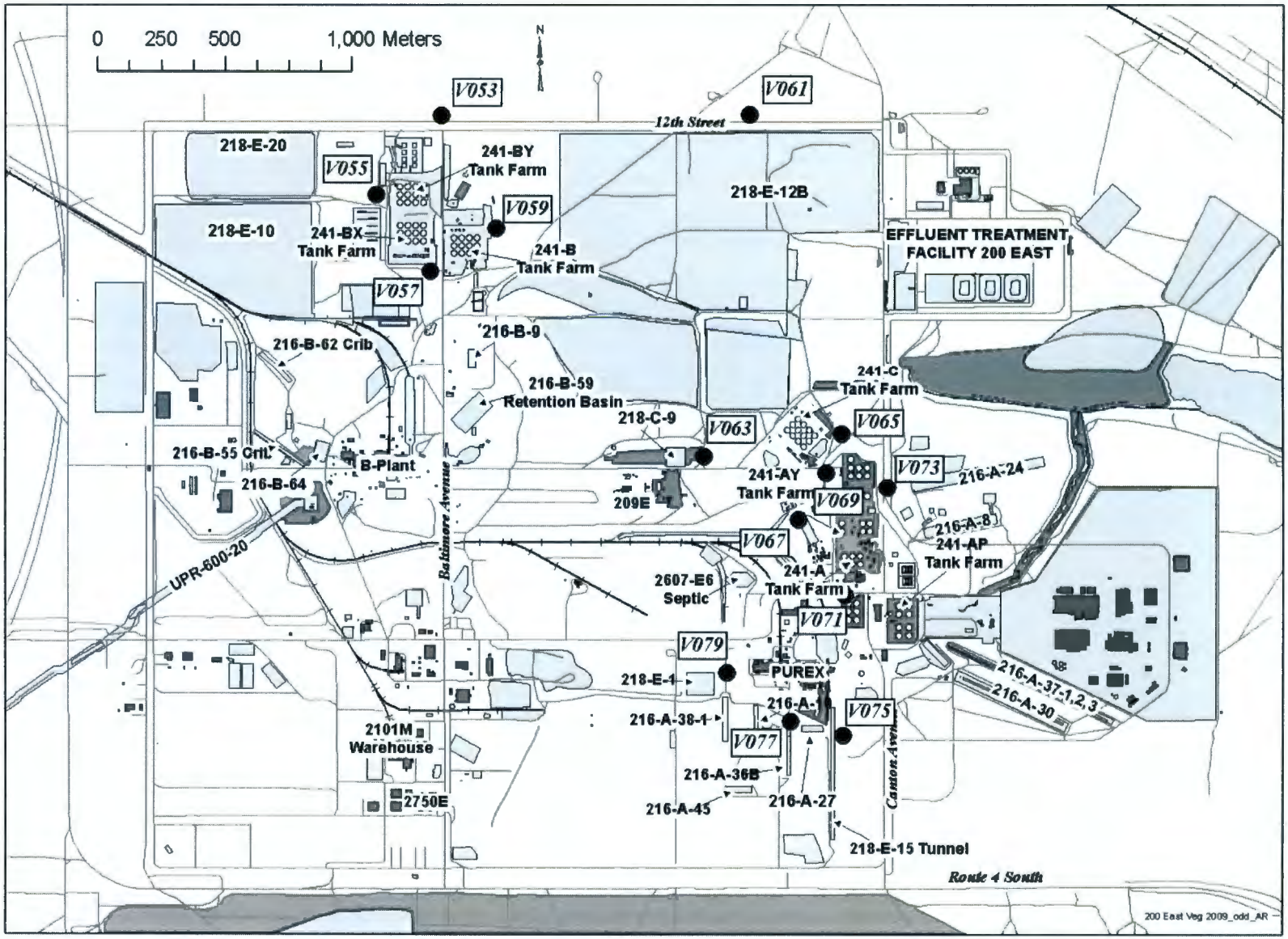


Figure 4-2. 2009 Vegetation Sampling Locations, 200 East Area.

Figure 4-3. 2009 Vegetation Sampling Locations, 200 West Area.

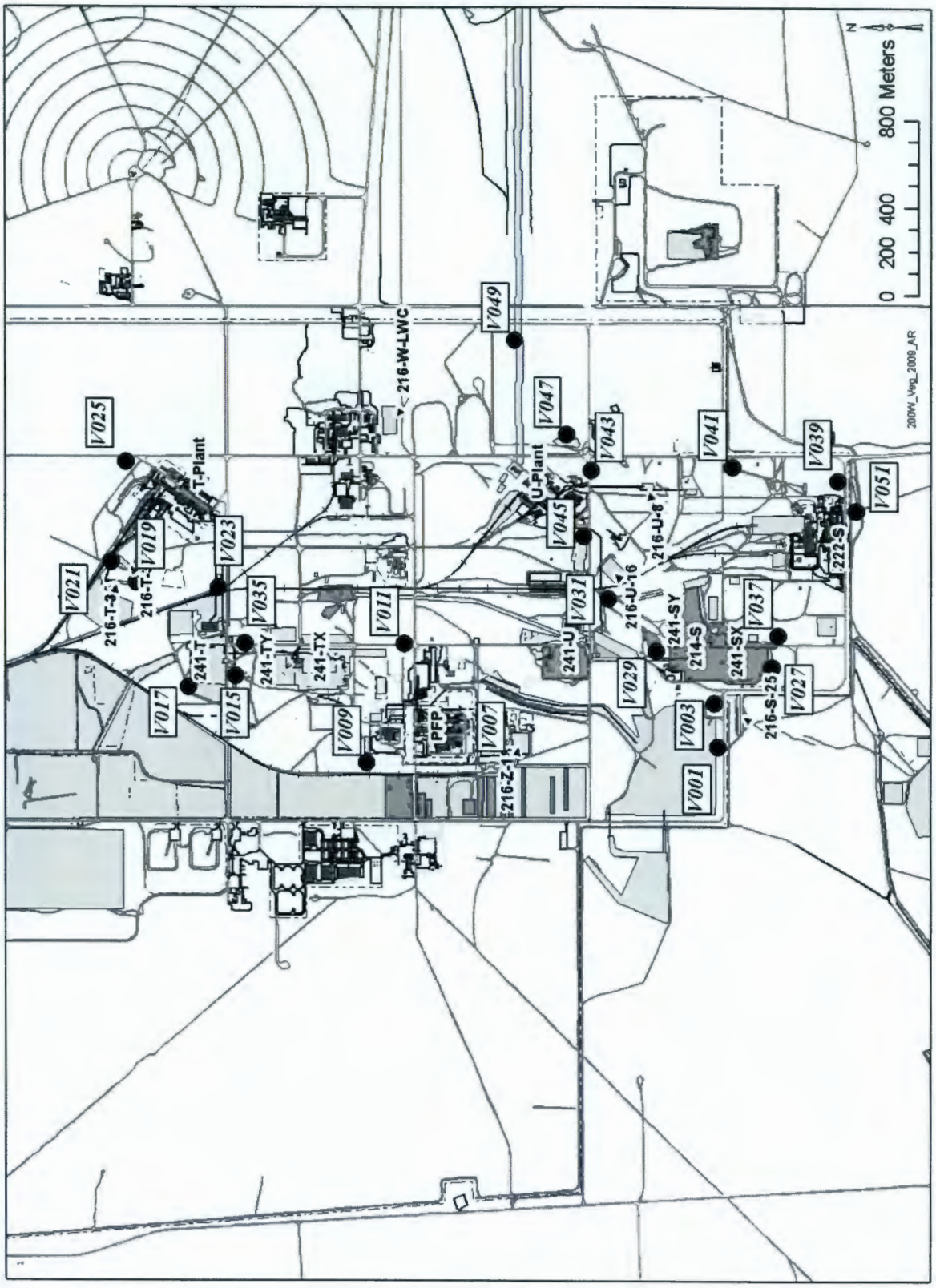


Figure 4-4. 2009 Vegetation Sampling Locations, 300 Area.

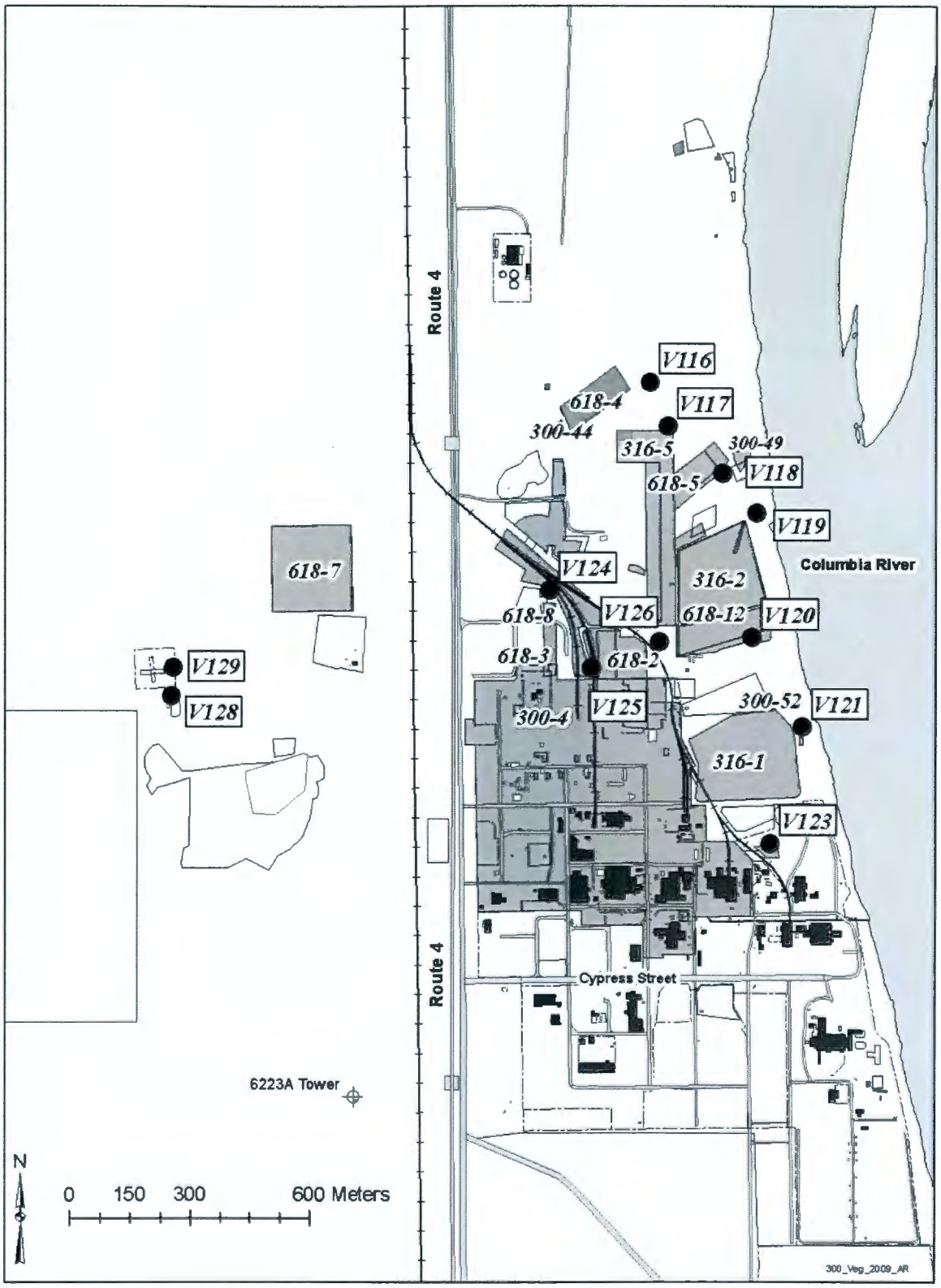


Figure 4-5. 2009 Vegetation Sampling Locations, 400 Area.

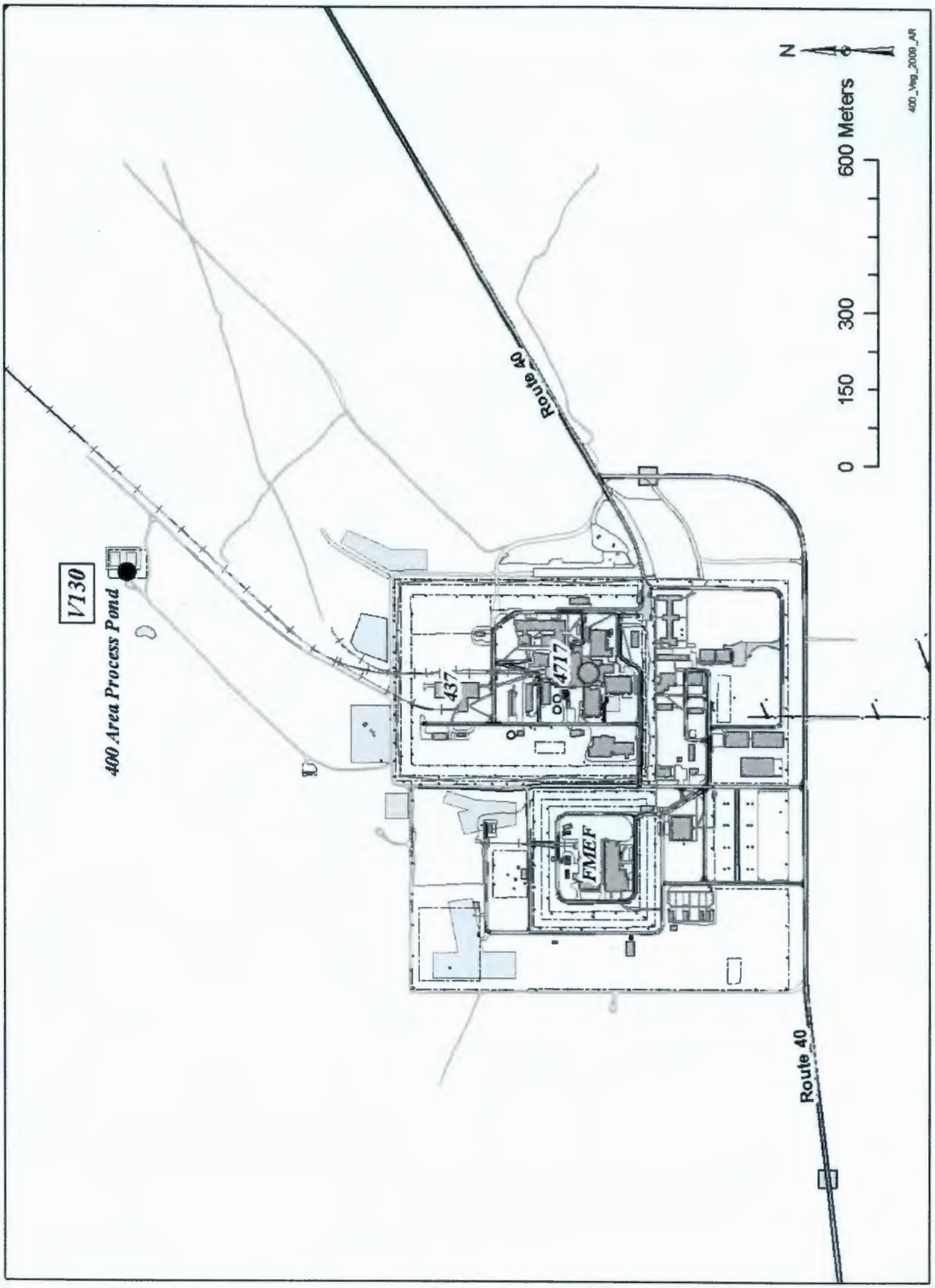


Figure 4-6. 2009 Vegetation Sampling Locations, 600 Area.

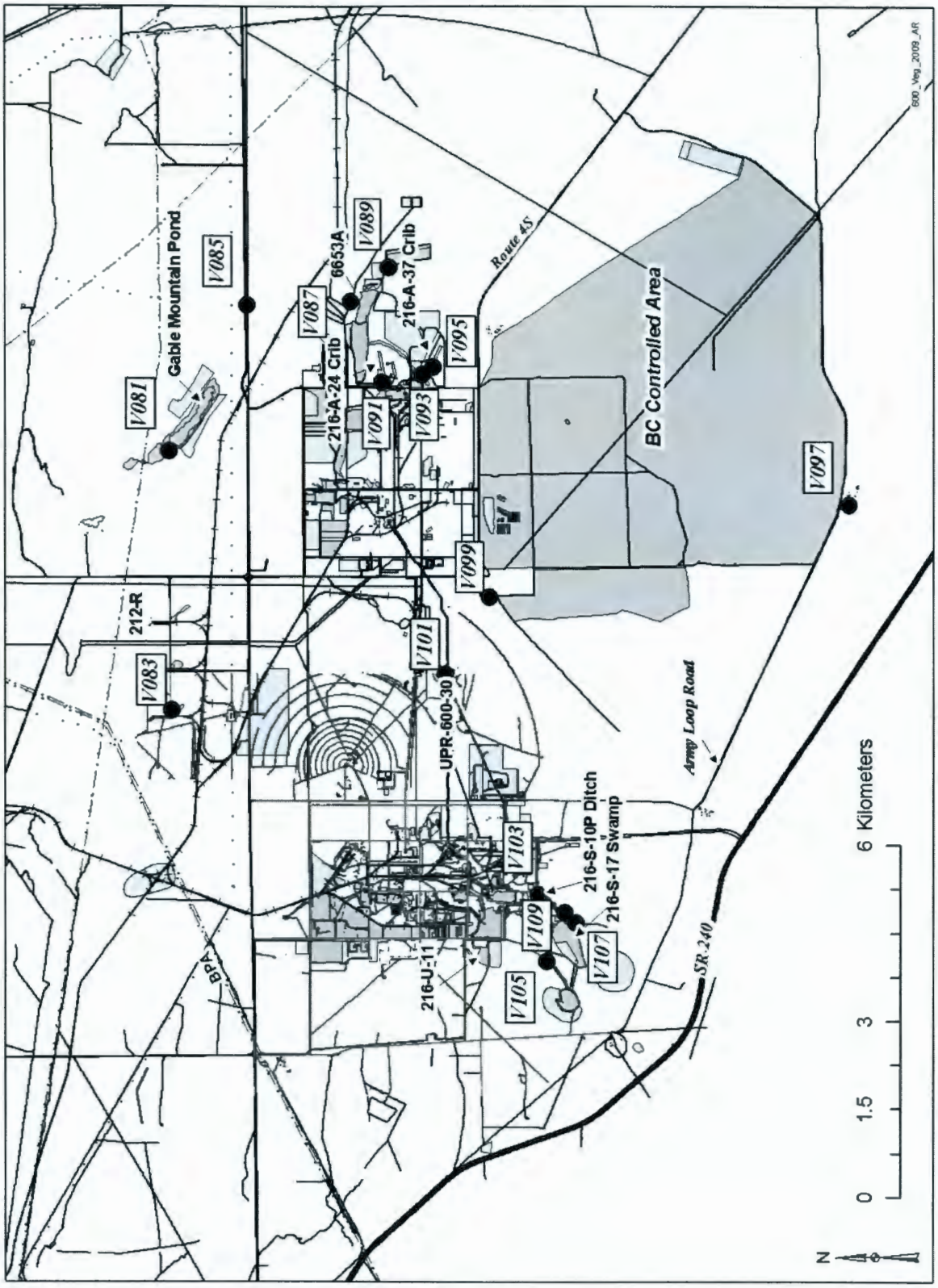


Table 4-2. Summary of Near-Facility Vegetation Sampling Results (pCi/g)[a] for Selected Radionuclides, 2009.

Isotope	Number of Samples[b]	Number of Detects	Average[c]	Maximum[d]	Location Area	Location Site
^{144}Ce	64	0	-3.2E-03 ± 8.1E-01	1.5E+00 ± 1.6E+00[e]	200-W	V019
^{60}Co	64	0	-2.6E-03 ± 6.8E-02	7.1E-02 ± 1.1E-01[e]	600	V081
^{134}Cs	64	0	1.1E-02 ± 8.2E-02	1.3E-01 ± 1.4E-01[e]	200-W	V047
^{137}Cs	64	3	1.6E-02 ± 1.0E-01	1.8E-01 ± 1.3E-01[e]	600	V103
^{152}Eu	64	0	-6.7E-03 ± 2.0E-01	2.7E-01 ± 2.7E-01[e]	200-W	V041
^{154}Eu	64	0	1.2E-02 ± 2.3E-01	3.1E-01 ± 3.7E-01[e]	200-W	V019
^{155}Eu	64	0	1.8E-03 ± 2.1E-01	3.8E-01 ± 2.9E-01[e]	300	V119
^{238}Pu	64	2	9.7E-04 ± 2.3E-02	4.6E-02 ± 2.2E-02	300	V128
$^{239/240}Pu$	64	9	1.3E-03 ± 1.8E-02	2.9E-02 ± 1.2E-02	600	V103
^{103}Ru	64	0	9.5E-03 ± 1.6E-01	2.2E-01 ± 2.6E-01[e]	300	V125
^{106}Ru	64	1	6.3E-02 ± 8.3E-01	1.6E+00 ± 9.3E-01[e]	300	V125
^{125}Sb	64	0	-2.0E-02 ± 1.8E-01	1.6E-01 ± 2.8E-01[e]	600	V081
^{113}Sn	64	1	-6.8E-03 ± 2.0E-01	3.1E-01 ± 1.8E-01	200-W	V045
^{90}Sr	64	3	-1.8E-01 ± 5.8E-01	1.1E+00 ± 2.5E-01	100-N	Y719
^{234}U	64	52	2.6E-02 ± 1.1E-01	4.4E-01 ± 1.8E-01	300	V120
^{235}U	64	11	4.9E-03 ± 1.9E-02	7.9E-02 ± 7.1E-02[e]	300	V120
^{238}U	64	58	2.2E-02 ± 1.3E-01	5.2E-01 ± 1.9E-01	300	V120
^{65}Zn	64	0	-6.2E-02 ± 3.4E-01	3.9E-01 ± 4.6E-01[e]	600	V095

(a) 1 pCi = 0.037 Bq

(b) Includes replicate samples

(c) Average ± two standard deviations

(d) Maximum ± analytical uncertainty

(e) Maximum value reported is a non detect

Table 4-3. Average Radionuclide Concentrations (pCi/g)[a] in Hanford Vegetation, 1998 through 2009.

100-N Area

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	$^{239,240}Pu$
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
2004	1.5E-02 ± 1.8E-01	1.1E+01 ± 5.1E+01	4.5E-02 ± 8.7E-02	9.3E-03 ± 7.8E-03	4.8E-03 ± 2.7E-03	Not Detected
2005	Not Detected	5.4E+00 ± 1.9E+01	Not Detected	5.0E-03 ± 2.3E-03	5.8E-03 ± 3.6E-03	Not Detected
2006	Not Detected	2.8E+00 ± 7.4E+00	Not Detected	1.2E-02 ± 1.3E-02	7.7E-03 ± 9.9E-03	Not Detected
2007	Not Detected	Not Detected	Not Detected	1.6E-02 ± 2.5E-03	6.2E-03 ± 8.3E-03	Not Detected
2008	Not Detected	Not Detected	Not Detected	7.2E-03 ± 4.7E-03	8.1E-03 ± 1.9E-03	Not Detected
2009	Not Detected	9.7E-02 ± 1.4E+00	Not Detected	1.0E-02 ± 8.3E-03	4.5E-03 ± 5.4E-03	Not Detected

200/600 Areas

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	$^{239,240}Pu$
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
2004	Not Detected	2.2E-01 ± 8.8E+00	4.2E-02 ± 1.4E-01	9.7E-03 ± 1.0E-02	8.2E-03 ± 9.3E-03	2.9E-03 ± 1.0E-02
2005	Not Detected	1.4E-01 ± 1.1E+00	3.0E-02 ± 1.3E-01	1.1E-02 ± 9.5E-03	8.9E-03 ± 9.7E-03	2.6E-03 ± 6.6E-03
2006	Not Detected	3.2E-01 ± 1.1E+00	5.7E-02 ± 5.0E-01	1.6E-02 ± 1.6E-02	1.4E-02 ± 1.5E-02	8.8E-03 ± 2.4E-02
2007	Not Detected	-1.0E-01 ± 3.4E-01	3.4E-02 ± 3.8E-01	1.4E-02 ± 1.3E-02	1.2E-02 ± 1.4E-02	3.2E-03 ± 1.1E-02
2008	Not Detected	-1.8E-01 ± 7.8E-01	4.6E-02 ± 1.3E-01	1.6E-02 ± 1.0E-02	1.0E-02 ± 1.1E-02	1.8E-02 ± 1.1E-01
2009	Not Detected	-1.2E-01 ± 4.2E-01	2.7E-02 ± 1.1E-01	1.5E-02 ± 1.5E-02	1.2E-02 ± 1.2E-02	3.0E-03 ± 1.2E-02

300/400 Areas

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	$^{239,240}Pu$
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
2004	Not Detected	Not Detected	Not Detected	3.3E-01 ± 8.8E-02	2.5E-02 ± 7.3E-02	Not Detected
2005	Not Detected	Not Detected	Not Detected	3.0E-02 ± 6.7E-02	2.4E-02 ± 5.9E-02	3.8E-03 ± 8.9E-03
2006	Not Detected	Not Detected	Not Detected	4.2E-02 ± 1.1E-01	3.6E-02 ± 1.0E-01	2.8E-03 ± 6.6E-03
2007	Not Detected	Not Detected	Not Detected	2.3E-02 ± 2.6E-02	1.9E-02 ± 2.6E-02	Not Detected
2008	Not Detected	Not Detected	Not Detected	2.4E-02 ± 2.1E-02	1.9E-02 ± 2.9E-02	2.3E-03 ± 7.7E-03
2009	Not Detected	Not Detected	Not Detected	5.5E-02 ± 2.0E-01	5.2E-02 ± 2.4E-01	-2.9E-03 ± 2.8E-02

(a) ± 2 standard deviations

Table 4-4. 2009 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).
(Sheet 1 of 16)

Location	Isotope	Result ± Error	RQ
Y718	^{144}Ce	3.6E-01 ± 5.4E-01	U
(100-N)	^{60}Co	3.0E-02 ± 4.1E-02	U
N Springs	^{134}Cs	7.8E-03 ± 4.2E-02	U
Shoreline	^{137}Cs	1.4E-02 ± 3.9E-02	U
	^{152}Eu	-3.8E-02 ± 1.1E-01	U
	^{154}Eu	-1.2E-01 ± 1.2E-01	U
	^{155}Eu	3.7E-02 ± 1.2E-01	U
	^{238}Pu	8.7E-04 ± 8.7E-04	U
	$^{239/240}$Pu	8.7E-04 ± 3.9E-03	U
	^{103}Ru	-1.6E-02 ± 1.1E-01	U
	^{106}Ru	3.2E-01 ± 4.1E-01	U
	^{125}Sb	3.4E-02 ± 1.1E-01	U
	^{113}Sn	1.2E-03 ± 1.2E-02	U
	^{90}Sr	-2.4E-01 ± 2.4E-01	U
	^{234}U	1.2E-02 ± 7.7E-03	
	^{235}U	8.2E-04 ± 8.2E-04	U
	^{238}U	7.4E-03 ± 5.3E-03	
	^{65}Zn	-3.0E-01 ± 3.0E-01	U
Y724	^{144}Ce	-3.5E-01 ± 5.4E-01	U
(100-N)	^{60}Co	-8.5E-05 ± 8.5E-04	U
N Springs	^{134}Cs	-1.7E-03 ± 1.7E-02	U
Shoreline	^{137}Cs	7.4E-03 ± 4.8E-02	U
	^{152}Eu	-2.4E-02 ± 1.3E-01	U
	^{154}Eu	3.4E-02 ± 1.6E-01	U
	^{155}Eu	-2.1E-02 ± 1.3E-01	U
	^{238}Pu	-2.8E-02 ± 7.1E-02	U
	$^{239/240}$Pu	-8.0E-03 ± 2.5E-02	U
	^{103}Ru	-9.7E-02 ± 1.3E-01	U
	^{106}Ru	-6.6E-02 ± 4.7E-01	U
	^{125}Sb	9.2E-02 ± 1.2E-01	U
	^{113}Sn	-5.7E-02 ± 7.3E-02	U
	^{90}Sr	-5.7E-01 ± 5.7E-01	U
	^{234}U	4.4E-03 ± 6.9E-03	U
	^{235}U	2.9E-03 ± 4.4E-03	U
	^{238}U	8.7E-04 ± 8.7E-03	U
	^{65}Zn	-4.5E-02 ± 1.3E-01	U

Location	Isotope	Result ± Error	RQ
Y719	^{144}Ce	1.0E-02 ± 1.0E-01	U
(100-N)	^{60}Co	3.1E-02 ± 5.9E-02	U
N Springs	^{134}Cs	9.2E-03 ± 6.6E-02	U
Shoreline	^{137}Cs	-9.8E-03 ± 5.6E-02	U
	^{152}Eu	1.8E-02 ± 1.5E-01	U
	^{154}Eu	1.8E-01 ± 1.7E-01	U
	^{155}Eu	-3.7E-02 ± 1.6E-01	U
	^{238}Pu	3.9E-03 ± 1.4E-02	U
	$^{239/240}$Pu	3.0E-03 ± 4.5E-03	U
	^{103}Ru	7.0E-02 ± 1.7E-01	U
	^{106}Ru	1.6E+00 ±	
	^{125}Sb	-6.8E-02 ± 1.4E-01	U
	^{113}Sn	5.6E-04 ± 5.6E-03	U
	^{90}Sr	1.1E+00 ± 2.5E-	
	^{234}U	1.4E-02 ± 8.7E-03	
	^{235}U	6.7E-03 ± 6.6E-03	U
	^{238}U	5.3E-03 ± 5.8E-03	U
	^{65}Zn	-6.5E-02 ± 1.5E-01	U
V001	^{144}Ce	-2.8E-01 ±	U
(200-W)	^{60}Co	-2.4E-02 ± 1.5E-01	U
	^{134}Cs	3.0E-03 ± 3.0E-02	U
	^{137}Cs	6.2E-02 ± 1.5E-01	U
	^{152}Eu	2.2E-01 ± 4.1E-01	U
	^{154}Eu	8.2E-03 ± 8.2E-02	U
	^{155}Eu	-3.4E-01 ± 4.1E-01	U
	^{238}Pu	-8.3E-04 ± 3.7E-03	U
	$^{239/240}$Pu	-1.7E-03 ± 2.4E-03	U
	^{103}Ru	9.8E-02 ± 3.5E-01	U
	^{106}Ru	-1.7E-01 ±	U
	^{125}Sb	-9.5E-02 ± 4.1E-01	U
	^{113}Sn	1.5E-02 ± 1.5E-01	U
	^{90}Sr	-2.2E-01 ± 2.5E-01	U
	^{234}U	1.2E-02 ± 8.2E-03	
	^{235}U	6.2E-03 ± 5.3E-03	
	^{238}U	1.0E-02 ± 6.6E-03	
	^{65}Zn	-5.7E-02 ± 3.8E-01	U

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

Table 4-4. 2009 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 2 of 16)

Location	Isotope	Result ± Error	RQ
V003 (200-W)	^{144}Ce	-4.4E-01 ± 8.8E-01	U
	^{60}Co	4.2E-02 ± 8.1E-02	U
	^{134}Cs	-5.3E-02 ± 9.6E-02	U
	^{137}Cs	-3.4E-02 ± 7.6E-02	U
	^{152}Eu	-1.3E-01 ± 2.4E-01	U
	^{154}Eu	-1.9E-01 ± 2.3E-01	U
	^{155}Eu	7.2E-02 ± 1.9E-01	U
	^{238}Pu	2.6E-03 ± 5.2E-03	U
	$^{239/240}$Pu	-8.6E-04 ± 3.0E-03	U
	^{103}Ru	6.1E-02 ± 2.3E-01	U
	^{106}Ru	-3.1E-01 ± 7.2E-01	U
	^{125}Sb	-1.4E-01 ± 1.9E-01	U
	^{113}Sn	-6.3E-03 ± 6.3E-02	U
	^{90}Sr	4.5E-02 ± 2.0E-01	U
	^{234}U	9.5E-03 ± 7.0E-03	
	^{235}U	2.1E-03 ± 5.2E-03	U
	^{238}U	7.6E-03 ± 6.3E-03	
	^{65}Zn	2.4E-03 ± 2.4E-02	U
V007 (200-W)	^{144}Ce	-6.2E-01 ±	U
	^{60}Co	-6.7E-02 ± 8.3E-02	U
	^{134}Cs	3.3E-02 ± 1.0E-01	U
	^{137}Cs	-2.2E-02 ± 9.0E-02	U
	^{152}Eu	1.0E-01 ± 2.6E-01	U
	^{154}Eu	1.5E-03 ± 1.5E-02	U
	^{155}Eu	-3.5E-02 ± 2.8E-01	U
	^{238}Pu	1.6E-03 ± 3.2E-03	U
	$^{239/240}$Pu	7.8E-04 ± 1.6E-03	U
	^{103}Ru	1.3E-01 ± 2.7E-01	U
	^{106}Ru	8.9E-01 ± 9.4E-01	U
	^{125}Sb	-1.2E-01 ± 2.3E-01	U
	^{113}Sn	2.0E-01 ± 1.5E-01	U
	^{90}Sr	-5.5E-02 ± 1.9E-01	U
	^{234}U	1.0E-02 ± 7.2E-03	
	^{235}U	3.7E-03 ± 4.6E-03	U
	^{238}U	9.3E-03 ± 6.1E-03	
	^{65}Zn	9.7E-02 ± 2.3E-01	U
V009 (200-W)	^{144}Ce	4.6E-01 ± 9.4E-01	U
	^{60}Co	-3.4E-03 ± 3.4E-02	U
	^{134}Cs	3.4E-03 ± 3.4E-02	U
	^{137}Cs	7.7E-03 ± 6.3E-02	U
	^{152}Eu	-6.7E-02 ± 1.8E-01	U
	^{154}Eu	-4.9E-02 ± 1.9E-01	U
	^{155}Eu	5.0E-02 ± 1.9E-01	U
	^{238}Pu	7.6E-04 ± 7.6E-04	U
	$^{239/240}$Pu	4.6E-03 ± 4.5E-03	U
	^{103}Ru	1.0E-02 ± 1.0E-01	U
	^{106}Ru	3.7E-01 ± 6.3E-01	U
	^{125}Sb	7.4E-02 ± 1.8E-01	U
	^{113}Sn	1.4E-01 ± 1.3E-01	U
	^{90}Sr	-3.7E-01 ± 3.7E-01	U
	^{234}U	1.5E-02 ± 9.6E-03	
	^{235}U	1.0E-03 ± 2.0E-03	U
	^{238}U	2.3E-02 ± 1.1E-02	
	^{65}Zn	-3.4E-02 ± 2.0E-01	U
V011 (200-W)	^{144}Ce	-7.8E-02 ± 7.8E-01	U
	^{60}Co	8.9E-03 ± 8.9E-02	U
	^{134}Cs	-4.5E-02 ± 1.1E-01	U
	^{137}Cs	4.7E-02 ± 9.7E-02	U
	^{152}Eu	-1.8E-01 ± 2.7E-01	U
	^{154}Eu	-1.5E-02 ± 1.5E-01	U
	^{155}Eu	-1.9E-01 ± 2.7E-01	U
	^{238}Pu	2.5E-03 ± 3.8E-03	U
	$^{239/240}$Pu	5.0E-03 ± 4.2E-03	
	^{103}Ru	-1.5E-02 ± 1.5E-01	U
	^{106}Ru	3.8E-01 ±	U
	^{125}Sb	-1.8E-02 ± 1.8E-01	U
	^{113}Sn	-1.1E-01 ± 1.6E-01	U
	^{90}Sr	-6.5E-01 ± 6.5E-01	U
	^{234}U	3.3E-02 ± 1.4E-02	
	^{235}U	4.8E-03 ± 4.5E-03	
	^{238}U	1.2E-02 ± 7.8E-03	
	^{65}Zn	-2.1E-01 ± 2.5E-01	U

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

Table 4-4. 2009 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).
(Sheet 3 of 16)

Location	Isotope	Result ± Error	RQ
V019	^{144}Ce	1.5E+00 ±	U
(200-W)	^{60}Co	-8.4E-02 ± 1.3E-01	U
	^{134}Cs	9.1E-03 ± 9.1E-02	U
	^{137}Cs	1.1E-01 ± 1.4E-01	U
	^{152}Eu	-5.9E-02 ± 3.8E-01	U
	^{154}Eu	3.1E-01 ± 3.7E-01	U
	^{155}Eu	7.7E-02 ± 3.7E-01	U
	^{238}Pu	-2.8E-03 ± 5.0E-03	U
	$^{239/240}$Pu	2.8E-03 ± 3.3E-03	
	^{103}Ru	1.7E-01 ± 3.0E-01	U
	^{106}Ru	3.7E-01 ±	U
	^{125}Sb	-1.5E-01 ± 3.2E-01	U
	^{113}Sn	-1.1E-01 ± 2.1E-01	U
	^{90}Sr	1.4E-01 ± 2.7E-01	U
	^{234}U	1.1E-02 ± 6.9E-03	
	^{235}U	6.1E-03 ± 5.2E-03	
	^{238}U	1.5E-02 ± 8.4E-03	
	^{65}Zn	1.2E-01 ± 3.3E-01	U
V029	^{144}Ce	-2.5E-01 ± 5.0E-01	U
(200-W)	^{60}Co	6.9E-02 ± 5.7E-02	U
	^{134}Cs	1.1E-02 ± 5.3E-02	U
	^{137}Cs	6.1E-02 ± 4.9E-02	U
	^{152}Eu	5.8E-02 ± 1.2E-01	U
	^{154}Eu	-1.1E-01 ± 1.7E-01	U
	^{155}Eu	1.0E-01 ± 1.1E-01	U
	^{238}Pu	2.3E-03 ± 4.1E-03	U
	$^{239/240}$Pu	3.8E-03 ± 4.1E-03	U
	^{103}Ru	1.3E-01 ± 1.1E-01	U
	^{106}Ru	3.7E-02 ± 3.7E-01	U
	^{125}Sb	4.7E-02 ± 1.1E-01	U
	^{113}Sn	1.9E-02 ± 6.9E-02	U
	^{90}Sr	-4.0E-01 ± 4.0E-01	U
	^{234}U	1.6E-02 ± 9.3E-03	
	^{235}U	3.0E-03 ± 4.5E-03	U
	^{238}U	1.4E-02 ± 7.8E-03	
	^{65}Zn	-9.4E-02 ± 1.2E-01	U

Location	Isotope	Result ± Error	RQ
V027	^{144}Ce	2.8E-01 ± 4.5E-01	U
(200-W)	^{60}Co	1.2E-02 ± 3.2E-02	U
	^{134}Cs	-1.4E-03 ± 1.4E-02	U
	^{137}Cs	7.5E-02 ± 4.3E-02	
	^{152}Eu	2.2E-02 ± 9.7E-02	U
	^{154}Eu	-2.5E-02 ± 1.0E-01	U
	^{155}Eu	-7.4E-04 ± 7.4E-03	U
	^{238}Pu	-3.2E-03 ± 7.5E-03	U
	$^{239/240}$Pu	2.4E-03 ± 4.3E-03	U
	^{103}Ru	3.1E-02 ± 8.3E-02	U
	^{106}Ru	1.7E-02 ± 1.7E-01	U
	^{125}Sb	-5.0E-02 ± 9.5E-02	U
	^{113}Sn	-9.5E-03 ± 5.7E-02	U
	^{90}Sr	-4.0E-01 ± 4.0E-01	U
	^{234}U	1.9E-02 ± 9.7E-03	
	^{235}U	-9.6E-04 ± 3.3E-03	U
	^{238}U	8.8E-03 ± 6.5E-03	
	^{65}Zn	-2.4E-01 ± 2.4E-01	U
V031	^{144}Ce	1.0E-01 ± 5.5E-01	U
(200-W)	^{60}Co	-1.4E-02 ± 3.9E-02	U
	^{134}Cs	1.7E-02 ± 5.0E-02	U
	^{137}Cs	6.4E-02 ± 5.0E-02	U
	^{152}Eu	-2.3E-02 ± 1.3E-01	U
	^{154}Eu	2.8E-02 ± 1.2E-01	U
	^{155}Eu	-1.4E-01 ± 1.4E-01	U
	^{238}Pu	-7.4E-04 ± 3.9E-03	U
	$^{239/240}$Pu	5.2E-03 ± 4.1E-03	
	^{103}Ru	-4.4E-02 ± 1.0E-01	U
	^{106}Ru	-5.8E-02 ± 4.2E-01	U
	^{125}Sb	2.5E-02 ± 1.1E-01	U
	^{113}Sn	-4.7E-02 ± 6.8E-02	U
	^{90}Sr	-4.6E-01 ± 4.6E-01	U
	^{234}U	1.6E-02 ± 9.0E-03	
	^{235}U	6.8E-03 ± 5.4E-03	
	^{238}U	1.2E-02 ± 7.1E-03	
	^{65}Zn	-2.7E-01 ± 2.7E-01	U

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

Table 4-4. 2009 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).
(Sheet 4 of 16)

Location	Isotope	Result ± Error	RQ
V037	^{144}Ce	3.6E-01 ± 4.7E-01	U
(200-W)	^{60}Co	-1.2E-02 ± 3.5E-02	U
	^{134}Cs	4.1E-03 ± 3.6E-02	U
	^{137}Cs	9.1E-02 ± 5.5E-02	
	^{152}Eu	6.2E-02 ± 1.0E-01	U
	^{154}Eu	4.4E-02 ± 1.0E-01	U
	^{155}Eu	9.1E-02 ± 1.0E-01	U
	^{238}Pu	7.6E-03 ± 7.6E-03	U
	$^{239/240}$Pu	9.1E-03 ± 5.6E-03	
	^{103}Ru	-8.6E-02 ± 9.4E-02	U
	^{106}Ru	-2.2E-01 ± 4.0E-01	U
	^{125}Sb	-2.0E-02 ± 9.7E-02	U
	^{113}Sn	5.8E-04 ± 5.8E-03	U
	^{90}Sr	-3.0E-01 ± 3.0E-01	U
	^{234}U	1.7E-02 ± 9.7E-03	
	^{235}U	2.9E-03 ± 4.4E-03	U
	^{238}U	1.2E-02 ± 7.6E-03	
	^{65}Zn	-2.7E-01 ± 2.7E-01	U
V039	^{144}Ce	8.3E-01 ±	U
(200-W)	^{60}Co	1.2E-02 ± 1.0E-01	U
	^{134}Cs	6.9E-02 ± 1.2E-01	U
	^{137}Cs	1.0E-01 ± 9.8E-02	U
	^{152}Eu	2.8E-02 ± 2.7E-01	U
	^{154}Eu	-3.2E-02 ± 3.0E-01	U
	^{155}Eu	-7.0E-02 ± 3.0E-01	U
	^{238}Pu	9.7E-04 ± 9.7E-04	U
	$^{239/240}$Pu	3.9E-03 ± 4.0E-03	
	^{103}Ru	-1.5E-01 ± 2.3E-01	U
	^{106}Ru	-7.4E-01 ±	U
	^{125}Sb	7.2E-02 ± 2.6E-01	U
	^{113}Sn	9.1E-02 ± 1.6E-01	U
	^{90}Sr	-2.6E-01 ± 2.6E-01	U
	^{234}U	1.8E-02 ± 9.7E-03	
	^{235}U	2.8E-03 ± 3.3E-03	
	^{238}U	1.3E-02 ± 7.5E-03	
	^{65}Zn	-7.8E-02 ± 2.5E-01	U
V041	^{144}Ce	-1.3E-01 ±	U
(200-W)	^{60}Co	2.3E-02 ± 9.6E-02	U
	^{134}Cs	-2.7E-02 ± 1.0E-01	U
	^{137}Cs	9.7E-02 ± 1.0E-01	U
	^{152}Eu	2.7E-01 ± 2.7E-01	U
	^{154}Eu	1.5E-01 ± 2.4E-01	U
	^{155}Eu	-2.3E-02 ± 2.3E-01	U
	^{238}Pu	1.7E-03 ± 5.4E-03	U
	$^{239/240}$Pu	2.6E-03 ± 3.0E-03	
	^{103}Ru	-4.7E-02 ± 2.2E-01	U
	^{106}Ru	-9.0E-01 ±	U
	^{125}Sb	-7.3E-02 ± 2.4E-01	U
	^{113}Sn	7.2E-02 ± 1.4E-01	U
	^{90}Sr	-1.8E-01 ± 2.6E-01	U
	^{234}U	9.7E-03 ± 9.2E-03	U
	^{235}U	-1.2E-03 ± 4.2E-03	U
	^{238}U	8.6E-03 ± 7.1E-03	
	^{65}Zn	-2.1E-01 ± 2.5E-01	U
V043	^{144}Ce	-3.0E-02 ± 3.0E-01	U
(200-W)	^{60}Co	1.8E-03 ± 1.8E-02	U
	^{134}Cs	-1.5E-02 ± 7.9E-02	U
	^{137}Cs	4.9E-02 ± 6.8E-02	U
	^{152}Eu	2.8E-02 ± 1.7E-01	U
	^{154}Eu	-1.1E-01 ± 2.0E-01	U
	^{155}Eu	1.7E-01 ± 1.9E-01	U
	^{238}Pu	1.2E-02 ± 9.6E-03	U
	$^{239/240}$Pu	-6.2E-03 ± 6.6E-03	U
	^{103}Ru	-3.2E-02 ± 1.5E-01	U
	^{106}Ru	-1.8E-01 ± 6.8E-01	U
	^{125}Sb	1.5E-02 ± 1.5E-01	U
	^{113}Sn	9.9E-03 ± 9.9E-02	U
	^{90}Sr	-1.2E-01 ± 2.6E-01	U
	^{234}U	4.1E-02 ± 1.6E-02	
	^{235}U	5.9E-03 ± 5.8E-03	U
	^{238}U	4.2E-02 ± 1.7E-02	
	^{65}Zn	2.8E-02 ± 1.8E-01	U

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

Table 4-4. 2009 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).
(Sheet 5 of 16)

Location	Isotope	Result ± Error	RQ
V045	^{144}Ce	-3.2E-01 ± 7.4E-01	U
(200-W)	^{60}Co	-4.7E-02 ± 7.6E-02	U
	^{134}Cs	3.0E-02 ± 8.0E-02	U
	^{137}Cs	5.6E-02 ± 6.7E-02	U
	^{152}Eu	-8.7E-02 ± 1.8E-01	U
	^{154}Eu	1.9E-01 ± 2.4E-01	U
	^{155}Eu	8.8E-02 ± 1.6E-01	U
	^{238}Pu	4.9E-03 ± 1.9E-02	U
	$^{239/240}$Pu	2.2E-02 ± 1.3E-02	
	^{103}Ru	4.6E-02 ± 1.5E-01	U
	^{106}Ru	-4.8E-02 ± 4.8E-01	U
	^{125}Sb	1.2E-01 ± 1.8E-01	U
	^{113}Sn	3.1E-01 ± 1.8E-01	
	^{90}Sr	-1.8E-01 ± 2.3E-01	U
	^{234}U	2.0E-02 ± 1.0E-02	
	^{235}U	1.9E-03 ± 2.7E-03	U
	^{238}U	1.0E-02 ± 6.8E-03	
	^{65}Zn	-1.8E-01 ± 1.8E-01	U
V047	^{144}Ce	1.2E-01 ±	U
(200-W)	^{60}Co	3.3E-02 ± 5.3E-02	U
	^{134}Cs	1.3E-01 ± 1.4E-01	U
	^{137}Cs	6.2E-02 ± 5.2E-02	U
	^{152}Eu	-4.0E-02 ± 1.4E-01	U
	^{154}Eu	-1.4E-01 ± 1.6E-01	U
	^{155}Eu	-7.3E-02 ± 1.7E-01	U
	^{238}Pu	-7.7E-04 ± 4.6E-03	U
	$^{239/240}$Pu	1.5E-03 ± 2.1E-03	U
	^{103}Ru	-3.0E-05 ± 3.5E-05	
	^{106}Ru	-3.1E-01 ± 9.1E-01	U
	^{125}Sb	3.4E-02 ± 1.6E-01	U
	^{113}Sn	-4.1E-01 ± 6.7E-01	U
	^{90}Sr	-3.4E-01 ± 3.4E-01	U
	^{234}U	2.7E-02 ± 1.2E-02	
	^{235}U	2.8E-03 ± 3.3E-03	
	^{238}U	2.1E-02 ± 1.0E-02	
	^{65}Zn	-4.1E-01 ± 4.1E-01	U
V049	^{144}Ce	9.2E-02 ± 7.1E-01	U
(200-W)	^{60}Co	-2.2E-02 ± 7.0E-02	U
	^{134}Cs	8.9E-03 ± 8.2E-02	U
	^{137}Cs	4.5E-02 ± 7.7E-02	U
	^{152}Eu	7.4E-04 ± 7.4E-03	U
	^{154}Eu	3.8E-02 ± 2.2E-01	U
	^{155}Eu	-3.8E-02 ± 1.6E-01	U
	^{238}Pu	8.0E-04 ± 8.0E-04	U
	$^{239/240}$Pu	6.4E-03 ± 4.7E-03	
	^{103}Ru	1.6E-01 ± 1.7E-01	U
	^{106}Ru	1.3E-02 ± 1.3E-01	U
	^{125}Sb	-1.2E-01 ± 1.8E-01	U
	^{113}Sn	-2.3E-02 ± 1.0E-01	U
	^{90}Sr	-1.3E-01 ± 1.8E-01	U
	^{234}U	2.0E-02 ± 1.0E-02	
	^{235}U	3.9E-03 ± 6.2E-03	U
	^{238}U	1.4E-02 ± 8.3E-03	
	^{65}Zn	2.1E-01 ± 2.2E-01	U
V051	^{144}Ce	2.5E-01 ± 9.1E-01	U
(200-W)	^{60}Co	-2.9E-02 ± 7.1E-02	U
	^{134}Cs	-4.2E-02 ± 8.1E-02	U
	^{137}Cs	5.7E-02 ± 7.8E-02	U
	^{152}Eu	6.6E-02 ± 1.9E-01	U
	^{154}Eu	-1.6E-02 ± 1.6E-01	U
	^{155}Eu	-6.2E-03 ± 6.2E-02	U
	^{238}Pu	6.5E-03 ± 8.6E-03	U
	$^{239/240}$Pu	3.7E-03 ± 3.8E-03	
	^{103}Ru	1.5E-02 ± 1.5E-01	U
	^{106}Ru	-7.1E-01 ± 7.6E-01	U
	^{125}Sb	4.1E-02 ± 1.8E-01	U
	^{113}Sn	-4.9E-02 ± 1.1E-01	U
	^{90}Sr	-1.9E-01 ± 1.9E-01	U
	^{234}U	1.9E-02 ± 1.0E-02	
	^{235}U	4.4E-03 ± 5.5E-03	U
	^{238}U	8.0E-03 ± 6.0E-03	
	^{65}Zn	-4.2E-02 ± 1.8E-01	U

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

Table 4-4. 2009 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 6 of 16)

Location	Isotope	Result ± Error	RQ
V111 (200-West, Replicate of V007)	^{144}Ce	4.4E-01 ± 4.7E-01	U
	^{60}Co	-9.9E-03 ± 3.5E-02	U
	^{134}Cs	6.7E-03 ± 3.6E-02	U
	^{137}Cs	-1.3E-02 ± 4.2E-02	U
	^{152}Eu	9.8E-02 ± 1.0E-01	U
	^{154}Eu	-7.3E-02 ± 1.0E-01	U
	^{155}Eu	2.6E-02 ± 1.0E-01	U
	^{238}Pu	-8.2E-03 ± 1.9E-02	U
	$^{239/240}$Pu	3.1E-03 ± 3.7E-03	
	^{103}Ru	2.0E-03 ± 2.0E-02	U
	^{106}Ru	1.3E-01 ± 3.4E-01	U
	^{125}Sb	3.1E-02 ± 1.0E-01	U
	^{113}Sn	-1.8E-03 ± 1.8E-02	U
	^{90}Sr	7.0E-03 ± 7.0E-02	U
	^{234}U	1.1E-02 ± 7.6E-03	
	^{235}U	1.8E-03 ± 3.6E-03	U
	^{238}U	9.1E-03 ± 6.8E-03	
	^{65}Zn	-6.4E-02 ± 1.1E-01	U
V053 (200-E)	^{144}Ce	3.9E-02 ± 3.9E-01	U
	^{60}Co	2.7E-02 ± 4.0E-02	U
	^{134}Cs	-3.2E-02 ± 4.1E-02	U
	^{137}Cs	-3.5E-03 ± 3.5E-02	U
	^{152}Eu	-7.3E-02 ± 1.1E-01	U
	^{154}Eu	1.8E-02 ± 1.1E-01	U
	^{155}Eu	-8.0E-03 ± 8.0E-02	U
	^{238}Pu	-1.2E-02 ± 1.8E-02	U
	$^{239/240}$Pu	1.2E-03 ± 4.2E-03	U
	^{103}Ru	3.6E-02 ± 1.0E-01	U
	^{106}Ru	2.6E-02 ± 2.6E-01	U
	^{125}Sb	-3.6E-02 ± 1.1E-01	U
	^{113}Sn	-3.0E-02 ± 6.9E-02	U
	^{90}Sr	-2.3E-01 ± 2.4E-01	U
	^{234}U	1.2E-02 ± 7.3E-03	
	^{235}U	2.7E-03 ± 3.2E-03	
	^{238}U	9.9E-03 ± 6.2E-03	
	^{65}Zn	4.8E-02 ± 1.1E-01	U

Location	Isotope	Result ± Error	RQ
V139 (200-West, Replicate V015)	^{144}Ce	2.1E-01 ± 5.7E-01	U
	^{60}Co	-3.0E-02 ± 4.7E-02	U
	^{134}Cs	-1.9E-02 ± 5.3E-02	U
	^{137}Cs	1.8E-02 ± 5.0E-02	U
	^{152}Eu	-6.2E-02 ± 1.3E-01	U
	^{154}Eu	1.6E-01 ± 1.4E-01	U
	^{155}Eu	-7.8E-02 ± 1.4E-01	U
	^{238}Pu	9.8E-04 ± 9.8E-03	U
	$^{239/240}$Pu	9.7E-04 ± 9.7E-04	U
	^{103}Ru	-1.4E-02 ± 1.1E-01	U
	^{106}Ru	1.2E-01 ± 4.6E-01	U
	^{125}Sb	4.0E-03 ± 4.0E-02	U
	^{113}Sn	1.3E-03 ± 1.3E-02	U
	^{90}Sr	-1.3E-01 ± 2.0E-01	U
	^{234}U	1.2E-02 ± 7.6E-03	
	^{235}U	3.7E-03 ± 3.8E-03	
	^{238}U	8.4E-03 ± 5.7E-03	
	^{65}Zn	-8.3E-02 ± 1.3E-01	U
V055 (200-E)	^{144}Ce	-1.1E+00 ±	U
	^{60}Co	4.1E-03 ± 4.1E-02	U
	^{134}Cs	3.8E-02 ± 7.2E-02	U
	^{137}Cs	1.3E-02 ± 6.9E-02	U
	^{152}Eu	-7.0E-02 ± 2.0E-01	U
	^{154}Eu	9.3E-02 ± 1.9E-01	U
	^{155}Eu	-8.1E-02 ± 2.1E-01	U
	^{238}Pu	6.5E-03 ± 1.0E-02	U
	$^{239/240}$Pu	-9.3E-04 ± 3.2E-03	U
	^{103}Ru	-3.0E-02 ± 1.6E-01	U
	^{106}Ru	9.1E-02 ± 6.8E-01	U
	^{125}Sb	-5.8E-02 ± 1.9E-01	U
	^{113}Sn	9.7E-02 ± 1.2E-01	U
	^{90}Sr	-2.1E-01 ± 2.1E-01	U
	^{234}U	1.1E-02 ± 6.5E-03	
	^{235}U	2.6E-03 ± 3.9E-03	U
	^{238}U	4.0E-03 ± 4.4E-03	U
	^{65}Zn	7.8E-02 ± 1.7E-01	U

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

Table 4-4. 2009 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).
(Sheet 7 of 16)

Location	Isotope	Result ± Error	RQ
V057	^{144}Ce	1.3E-01 ± 8.7E-01	U
(200-E)	^{60}Co	6.7E-03 ± 6.7E-02	U
	^{134}Cs	1.1E-01 ± 9.8E-02	U
	^{137}Cs	2.5E-02 ± 7.6E-02	U
	^{152}Eu	-1.5E-01 ± 2.1E-01	U
	^{154}Eu	-4.1E-02 ± 2.1E-01	U
	^{155}Eu	-3.9E-02 ± 2.1E-01	U
	^{238}Pu	9.8E-03 ± 9.9E-03	U
	$^{239/240}$Pu	-3.9E-03 ± 7.9E-03	U
	^{103}Ru	-1.4E-02 ± 1.4E-01	U
	^{106}Ru	1.1E-01 ± 7.4E-01	U
	^{125}Sb	-1.3E-01 ± 1.7E-01	U
	^{113}Sn	-4.3E-02 ± 1.2E-01	U
	^{90}Sr	-6.7E-02 ± 1.9E-01	U
	^{234}U	1.6E-02 ± 9.6E-03	
	^{235}U	2.1E-03 ± 5.2E-03	U
	^{238}U	9.6E-03 ± 7.1E-03	
	^{65}Zn	1.2E-01 ± 1.7E-01	U

Location	Isotope	Result ± Error	RQ
V059	^{144}Ce	-4.9E-01 ±	U
(200-E)	^{60}Co	3.7E-02 ± 1.0E-01	U
	^{134}Cs	4.5E-02 ± 1.1E-01	U
	^{137}Cs	2.5E-02 ± 1.1E-01	U
	^{152}Eu	8.0E-02 ± 2.8E-01	U
	^{154}Eu	2.5E-01 ± 3.0E-01	U
	^{155}Eu	-4.7E-02 ± 2.7E-01	U
	^{238}Pu	-9.2E-03 ± 1.2E-02	U
	$^{239/240}$Pu	9.2E-04 ± 4.1E-03	U
	^{103}Ru	1.6E-01 ± 2.6E-01	U
	^{106}Ru	5.1E-01 ±	U
	^{125}Sb	-1.3E-01 ± 2.5E-01	U
	^{113}Sn	5.5E-02 ± 1.6E-01	U
	^{90}Sr	1.1E-02 ± 1.1E-01	U
	^{234}U	6.1E-03 ± 5.4E-03	U
	^{235}U	1.9E-03 ± 2.7E-03	U
	^{238}U	5.3E-03 ± 4.6E-03	
	^{65}Zn	1.6E-01 ± 2.7E-01	U

Location	Isotope	Result ± Error	RQ
V061	^{144}Ce	1.9E-01 ±	U
(200-E)	^{60}Co	-1.4E-02 ± 1.0E-01	U
	^{134}Cs	-4.9E-02 ± 1.2E-01	U
	^{137}Cs	1.1E-01 ± 1.1E-01	U
	^{152}Eu	-3.5E-01 ± 3.5E-01	U
	^{154}Eu	-5.0E-02 ± 3.2E-01	U
	^{155}Eu	3.5E-02 ± 2.4E-01	U
	^{238}Pu	-9.2E-04 ± 9.2E-03	U
	$^{239/240}$Pu	9.2E-04 ±	U
	^{103}Ru	1.5E-01 ± 2.6E-01	U
	^{106}Ru	-1.6E-01 ± 9.6E-01	U
	^{125}Sb	-1.3E-02 ± 1.3E-01	U
	^{113}Sn	2.9E-02 ± 1.7E-01	U
	^{90}Sr	-1.6E-01 ± 1.9E-01	U
	^{234}U	8.6E-03 ± 8.2E-03	U
	^{235}U	5.2E-03 ± 6.4E-03	U
	^{238}U	8.6E-03 ± 6.7E-03	
	^{65}Zn	-3.7E-01 ± 3.7E-01	U

Location	Isotope	Result ± Error	RQ
V063	^{144}Ce	4.4E-01 ± 5.2E-01	U
(200-E)	^{60}Co	-1.4E-02 ± 3.7E-02	U
	^{134}Cs	4.6E-02 ± 4.1E-02	U
	^{137}Cs	-6.5E-03 ± 3.8E-02	U
	^{152}Eu	-9.4E-02 ± 1.1E-01	U
	^{154}Eu	-4.2E-02 ± 1.1E-01	U
	^{155}Eu	-8.7E-02 ± 1.1E-01	U
	^{238}Pu	1.2E-03 ± 1.2E-02	U
	$^{239/240}$Pu	2.4E-03 ± 4.8E-03	U
	^{103}Ru	5.0E-02 ± 9.6E-02	U
	^{106}Ru	-3.3E-02 ± 3.3E-01	U
	^{125}Sb	-1.8E-02 ± 1.1E-01	U
	^{113}Sn	-4.6E-02 ± 6.5E-02	U
	^{90}Sr	2.4E-01 ± 1.9E-01	
	^{234}U	1.1E-02 ± 7.5E-03	
	^{235}U	2.9E-03 ± 3.4E-03	
	^{238}U	8.7E-03 ± 5.9E-03	
	^{65}Zn	-8.8E-02 ± 1.2E-01	U

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

Table 4-4. 2009 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 8 of 16)

Location	Isotope	Result ± Error	RQ
V077	^{144}Ce	-4.7E-01 ± 9.9E-01	U
(200-E)	^{60}Co	-2.4E-02 ± 7.8E-02	U
	^{134}Cs	4.0E-02 ± 7.7E-02	U
	^{137}Cs	3.5E-03 ± 3.5E-02	U
	^{152}Eu	2.2E-01 ± 2.0E-01	U
	^{154}Eu	-1.9E-02 ± 1.9E-01	U
	^{155}Eu	-1.3E-03 ± 1.3E-02	U
	^{238}Pu	-1.6E-03 ± 3.2E-03	U
	$^{239/240}$Pu	8.2E-04 ± 8.2E-03	U
	^{103}Ru	-2.4E-02 ± 1.7E-01	U
	^{106}Ru	-2.8E-01 ± 7.4E-01	U
	^{125}Sb	-1.3E-01 ± 1.9E-01	U
	^{113}Sn	4.3E-02 ± 1.2E-01	U
	^{90}Sr	1.3E-01 ± 2.2E-01	U
	^{234}U	1.1E-02 ± 7.5E-03	
	^{235}U	2.0E-03 ± 2.9E-03	U
	^{238}U	1.6E-02 ± 8.6E-03	
	^{65}Zn	2.6E-03 ± 2.5E-02	U
V081	^{144}Ce	4.2E-01 ±	U
(600 Area)	^{60}Co	7.1E-02 ± 1.1E-01	U
	^{134}Cs	-3.1E-02 ± 1.4E-01	U
	^{137}Cs	-1.2E-01 ± 1.2E-01	U
	^{152}Eu	-1.6E-01 ± 3.0E-01	U
	^{154}Eu	-3.5E-02 ± 3.4E-01	U
	^{155}Eu	-5.6E-02 ± 2.9E-01	U
	^{238}Pu	-1.1E-02 ± 1.5E-02	U
	$^{239/240}$Pu	7.8E-03 ± 6.5E-03	
	^{103}Ru	-1.4E-01 ± 3.0E-01	U
	^{106}Ru	-1.6E-01 ±	U
	^{125}Sb	1.6E-01 ± 2.8E-01	U
	^{113}Sn	1.0E-01 ± 1.7E-01	U
	^{90}Sr	-1.6E-01 ± 1.9E-01	U
	^{234}U	9.3E-03 ± 6.3E-03	
	^{235}U	4.1E-03 ± 5.1E-03	U
	^{238}U	4.6E-03 ± 4.3E-03	
	^{65}Zn	-2.4E-02 ± 2.4E-01	U

Location	Isotope	Result ± Error	RQ
V079	^{144}Ce	-2.2E-01 ± 5.9E-01	U
(200-E)	^{60}Co	1.3E-02 ± 5.1E-02	U
	^{134}Cs	2.6E-02 ± 6.0E-02	U
	^{137}Cs	-1.8E-03 ± 1.8E-02	U
	^{152}Eu	-7.5E-02 ± 1.4E-01	U
	^{154}Eu	1.4E-01 ± 1.4E-01	U
	^{155}Eu	-1.0E-01 ± 1.7E-01	U
	^{238}Pu	9.1E-04 ± 3.2E-03	U
	$^{239/240}$Pu	2.7E-03 ± 3.2E-03	
	^{103}Ru	-6.4E-02 ± 1.5E-01	U
	^{106}Ru	-1.9E-01 ± 6.9E-01	U
	^{125}Sb	-9.5E-02 ± 1.4E-01	U
	^{113}Sn	3.9E-02 ± 9.0E-02	U
	^{90}Sr	-2.1E-01 ± 2.1E-01	U
	^{234}U	2.6E-02 ± 1.2E-02	
	^{235}U	3.1E-03 ± 3.7E-03	
	^{238}U	1.2E-02 ± 8.2E-03	
	^{65}Zn	-2.5E-01 ± 2.5E-01	U
V083	^{144}Ce	-4.9E-02 ± 4.9E-01	U
(600 Area)	^{60}Co	4.9E-02 ± 9.7E-02	U
	^{134}Cs	8.6E-02 ± 1.1E-01	U
	^{137}Cs	-3.6E-03 ± 3.6E-02	U
	^{152}Eu	1.3E-01 ± 3.2E-01	U
	^{154}Eu	-1.6E-01 ± 2.8E-01	U
	^{155}Eu	-1.0E-01 ± 3.7E-01	U
	^{238}Pu	9.6E-04 ± 9.6E-03	U
	$^{239/240}$Pu	1.9E-03 ± 3.8E-03	U
	^{103}Ru	1.1E-01 ± 2.5E-01	U
	^{106}Ru	4.9E-01 ± 9.6E-01	U
	^{125}Sb	-2.2E-01 ± 2.5E-01	U
	^{113}Sn	3.7E-02 ± 1.8E-01	U
	^{90}Sr	-4.8E-02 ± 2.0E-01	U
	^{234}U	1.6E-02 ± 9.1E-03	
	^{235}U	4.1E-03 ± 4.2E-03	
	^{238}U	1.1E-02 ± 6.9E-03	
	^{65}Zn	1.6E-01 ± 2.9E-01	U

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

Table 4-4. 2009 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).
(Sheet 9 of 16)

Location	Isotope	Result ± Error	RQ
V085	^{144}Ce	1.8E-01 ± 9.3E-01	U
(600 Area)	^{60}Co	1.7E-02 ± 6.9E-02	U
	^{134}Cs	3.8E-02 ± 8.2E-02	U
	^{137}Cs	-1.6E-02 ± 7.1E-02	U
	^{152}Eu	-9.5E-02 ± 2.0E-01	U
	^{154}Eu	1.1E-01 ± 1.9E-01	U
	^{155}Eu	1.5E-01 ± 2.1E-01	U
	^{238}Pu	1.0E-02 ± 1.1E-02	U
	$^{239/240}$Pu	-9.1E-04 ± 3.2E-03	U
	^{103}Ru	-3.6E-02 ± 1.6E-01	U
	^{106}Ru	-4.4E-01 ± 6.8E-01	U
	^{125}Sb	-5.7E-03 ± 5.7E-02	U
	^{113}Sn	-9.7E-03 ± 9.7E-02	U
	^{90}Sr	-3.0E-03 ± 3.0E-02	U
	^{234}U	2.3E-02 ± 1.2E-02	
	^{235}U	7.1E-03 ± 6.4E-03	U
	^{238}U	9.2E-03 ± 6.8E-03	
	^{65}Zn	2.7E-01 ± 2.2E-01	U
V087	^{144}Ce	-1.1E-01 ± 5.2E-01	U
(600 Area)	^{60}Co	-1.4E-02 ± 3.8E-02	U
	^{134}Cs	-1.8E-02 ± 4.5E-02	U
	^{137}Cs	1.3E-01 ± 7.3E-02	
	^{152}Eu	9.9E-02 ± 1.1E-01	U
	^{154}Eu	-1.0E-01 ± 1.1E-01	U
	^{155}Eu	-8.5E-03 ± 8.5E-02	U
	^{238}Pu	1.5E-02 ± 1.1E-02	
	$^{239/240}$Pu	-8.6E-03 ± 6.7E-03	U
	^{103}Ru	-5.8E-02 ± 1.0E-01	U
	^{106}Ru	-1.9E-01 ± 3.7E-01	U
	^{125}Sb	7.0E-02 ± 1.1E-01	U
	^{113}Sn	-3.3E-02 ± 6.8E-02	U
	^{90}Sr	-1.8E-01 ± 2.2E-01	U
	^{234}U	9.3E-03 ± 7.3E-03	
	^{235}U	5.1E-03 ± 4.7E-03	
	^{238}U	1.2E-02 ± 7.3E-03	
	^{65}Zn	-3.2E-01 ± 3.2E-01	U
V089	^{144}Ce	8.9E-01 ±	U
(600 Area)	^{60}Co	-7.3E-03 ± 4.6E-02	U
	^{134}Cs	7.0E-03 ± 5.7E-02	U
	^{137}Cs	2.7E-02 ± 4.4E-02	U
	^{152}Eu	5.4E-02 ± 1.2E-01	U
	^{154}Eu	-3.8E-02 ± 1.3E-01	U
	^{155}Eu	7.8E-02 ± 1.3E-01	U
	^{238}Pu	8.1E-03 ± 1.6E-02	U
	$^{239/240}$Pu	-9.0E-04 ± 4.8E-03	U
	^{103}Ru	-8.8E-06 ± 3.2E-05	
	^{106}Ru	-5.5E-02 ± 5.5E-01	U
	^{125}Sb	-3.4E-03 ± 3.4E-02	U
	^{113}Sn	-3.4E-01 ± 6.3E-01	U
	^{90}Sr	-1.2E-01 ± 1.7E-01	U
	^{234}U	1.7E-02 ± 9.3E-03	
	^{235}U	4.8E-03 ± 4.5E-03	
	^{238}U	1.1E-02 ± 6.7E-03	
	^{65}Zn	-2.5E-02 ± 2.5E-01	U
V091	^{144}Ce	-8.2E-01 ±	U
(600 Area)	^{60}Co	-4.6E-02 ± 8.6E-02	U
	^{134}Cs	3.6E-02 ± 9.9E-02	U
	^{137}Cs	-1.3E-02 ± 8.1E-02	U
	^{152}Eu	-7.0E-02 ± 2.4E-01	U
	^{154}Eu	1.4E-01 ± 2.5E-01	U
	^{155}Eu	8.0E-02 ± 2.6E-01	U
	^{238}Pu	9.2E-04 ± 9.2E-04	U
	$^{239/240}$Pu	9.2E-04 ± 3.2E-03	U
	^{103}Ru	1.1E-01 ± 2.2E-01	U
	^{106}Ru	7.7E-01 ± 9.2E-01	U
	^{125}Sb	1.8E-02 ± 1.7E-01	U
	^{113}Sn	2.9E-02 ± 1.5E-01	U
	^{90}Sr	1.0E-01 ± 2.0E-01	U
	^{234}U	2.7E-02 ± 1.3E-02	
	^{235}U	2.2E-03 ± 4.4E-03	U
	^{238}U	1.1E-02 ± 8.2E-03	
	^{65}Zn	9.5E-02 ± 2.2E-01	U

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

Table 4-4. 2009 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).
(Sheet 10 of 16)

Location	Isotope	Result ± Error	RQ
V093	^{144}Ce	-5.7E-02 ± 5.7E-01	U
(600 Area)	^{60}Co	1.9E-02 ± 6.0E-02	U
	^{134}Cs	3.8E-02 ± 6.4E-02	U
	^{137}Cs	-7.0E-03 ± 5.5E-02	U
	^{152}Eu	-2.4E-02 ± 1.5E-01	U
	^{154}Eu	1.1E-02 ± 1.1E-01	U
	^{155}Eu	1.4E-01 ± 1.8E-01	U
	^{238}Pu	-8.7E-03 ± 1.3E-02	U
	$^{239/240}$Pu	7.0E-03 ± 5.8E-03	
	^{103}Ru	1.9E-02 ± 1.4E-01	U
	^{106}Ru	8.9E-02 ± 5.7E-01	U
	^{125}Sb	1.4E-01 ± 1.4E-01	U
	^{113}Sn	2.4E-02 ± 8.9E-02	U
	^{90}Sr	6.0E-01 ± 2.4E-01	
	^{234}U	2.0E-02 ± 1.1E-02	
	^{235}U	6.0E-03 ± 5.2E-03	
	^{238}U	1.7E-02 ± 9.3E-03	
	^{65}Zn	-5.7E-03 ± 5.7E-02	U
V095	^{144}Ce	3.8E-01 ±	U
(600 Area)	^{60}Co	-2.8E-02 ± 1.5E-01	U
	^{134}Cs	-1.4E-03 ± 1.4E-02	U
	^{137}Cs	-8.0E-02 ± 1.5E-01	U
	^{152}Eu	8.6E-03 ± 8.6E-02	U
	^{154}Eu	2.9E-01 ± 4.5E-01	U
	^{155}Eu	-2.8E-01 ± 4.3E-01	U
	^{238}Pu	1.5E-02 ± 1.6E-02	U
	$^{239/240}$Pu	-2.7E-03 ± 3.2E-03	U
	^{103}Ru	-8.7E-02 ± 3.7E-01	U
	^{106}Ru	8.1E-02 ± 8.1E-01	U
	^{125}Sb	5.6E-03 ± 5.6E-02	U
	^{113}Sn	-8.5E-02 ± 2.3E-01	U
	^{90}Sr	-3.1E-02 ± 1.9E-01	U
	^{234}U	7.4E-03 ± 6.2E-03	U
	^{235}U	9.0E-04 ± 4.0E-03	U
	^{238}U	1.4E-02 ± 7.7E-03	
	^{65}Zn	3.9E-01 ± 4.6E-01	U
V097	^{144}Ce	-3.6E-01 ± 9.3E-01	U
(600 Area)	^{60}Co	2.5E-02 ± 9.3E-02	U
	^{134}Cs	1.5E-03 ± 1.5E-02	U
	^{137}Cs	1.1E-02 ± 8.6E-02	U
	^{152}Eu	-8.2E-02 ± 2.3E-01	U
	^{154}Eu	8.7E-02 ± 2.7E-01	U
	^{155}Eu	1.4E-03 ± 1.4E-02	U
	^{238}Pu	1.7E-02 ± 2.3E-02	U
	$^{239/240}$Pu	1.1E-02 ± 1.1E-02	U
	^{103}Ru	4.4E-03 ± 4.4E-02	U
	^{106}Ru	3.3E-02 ± 3.3E-01	U
	^{125}Sb	-9.4E-02 ± 2.2E-01	U
	^{113}Sn	-6.4E-02 ± 1.3E-01	U
	^{90}Sr	3.3E-01 ± 2.1E-01	U
	^{234}U	1.7E-02 ± 9.0E-03	
	^{235}U	1.8E-03 ± 3.6E-03	U
	^{238}U	1.4E-02 ± 8.4E-03	
	^{65}Zn	-4.5E-02 ± 2.2E-01	U
V099	^{144}Ce	-6.3E-01 ± 6.5E-01	U
(600 Area)	^{60}Co	-4.4E-02 ± 4.9E-02	U
	^{134}Cs	2.6E-02 ± 5.7E-02	U
	^{137}Cs	3.7E-02 ± 5.2E-02	U
	^{152}Eu	-6.0E-02 ± 1.3E-01	U
	^{154}Eu	3.4E-02 ± 1.5E-01	U
	^{155}Eu	-7.6E-03 ± 7.6E-02	U
	^{238}Pu	7.7E-04 ± 4.6E-03	U
	$^{239/240}$Pu	2.3E-03 ± 2.7E-03	
	^{103}Ru	-9.7E-02 ± 1.5E-01	U
	^{106}Ru	1.8E-01 ± 5.2E-01	U
	^{125}Sb	-1.5E-01 ± 1.5E-01	U
	^{113}Sn	9.8E-03 ± 8.4E-02	U
	^{90}Sr	-1.6E-01 ± 1.7E-01	U
	^{234}U	1.7E-02 ± 9.7E-03	
	^{235}U	9.6E-04 ± 3.3E-03	U
	^{238}U	1.6E-02 ± 9.3E-03	
	^{65}Zn	5.8E-02 ± 1.5E-01	U

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

Table 4-4. 2009 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).
(Sheet 11 of 16)

Location	Isotope	Result ± Error	RQ
V101	^{144}Ce	-1.1E-01 ±	U
(600 Area)	^{60}Co	-1.4E-02 ± 1.0E-01	U
	^{134}Cs	-1.4E-03 ± 1.4E-02	U
	^{137}Cs	8.4E-03 ± 8.4E-02	U
	^{152}Eu	1.8E-02 ± 1.8E-01	U
	^{154}Eu	-1.7E-01 ± 3.2E-01	U
	^{155}Eu	-5.6E-02 ± 2.5E-01	U
	^{238}Pu	3.3E-03 ± 1.6E-02	U
	$^{239/240}$Pu	1.1E-03 ± 1.1E-03	U
	^{103}Ru	5.1E-02 ± 2.5E-01	U
	^{106}Ru	2.2E-01 ± 9.7E-01	U
	^{125}Sb	6.4E-02 ± 2.8E-01	U
	^{113}Sn	-3.7E-02 ± 1.7E-01	U
	^{90}Sr	4.0E-02 ± 2.1E-01	U
	^{234}U	1.2E-02 ± 7.1E-03	
	^{235}U	1.9E-03 ± 2.7E-03	U
	^{238}U	7.9E-03 ± 6.2E-03	
	^{65}Zn	-4.5E-01 ± 2.8E-01	U
V105	^{144}Ce	-3.9E-02 ± 3.9E-01	U
(600 Area)	^{60}Co	3.3E-03 ± 3.3E-02	U
	^{134}Cs	-8.0E-02 ± 1.0E-01	U
	^{137}Cs	2.1E-02 ± 7.6E-02	U
	^{152}Eu	1.5E-01 ± 2.0E-01	U
	^{154}Eu	1.6E-01 ± 2.3E-01	U
	^{155}Eu	-2.9E-02 ± 2.4E-01	U
	^{238}Pu	6.1E-03 ± 1.7E-02	U
	$^{239/240}$Pu	3.5E-03 ± 4.4E-03	U
	^{103}Ru	7.1E-03 ± 7.1E-02	U
	^{106}Ru	2.9E-03 ± 2.9E-02	U
	^{125}Sb	5.6E-02 ± 2.1E-01	U
	^{113}Sn	-9.3E-02 ± 1.2E-01	U
	^{90}Sr	-1.1E-01 ± 1.6E-01	U
	^{234}U	6.9E-03 ± 6.2E-03	U
	^{235}U	9.4E-04 ± 1.9E-03	U
	^{238}U	6.0E-03 ± 5.3E-03	U
	^{65}Zn	5.3E-02 ± 2.0E-01	U

Location	Isotope	Result ± Error	RQ
V103	^{144}Ce	-3.2E-01 ±	U
(600 Area)	^{60}Co	7.2E-03 ± 7.2E-02	U
	^{134}Cs	9.7E-02 ± 1.6E-01	U
	^{137}Cs	1.8E-01 ± 1.3E-01	U
	^{152}Eu	-4.3E-02 ± 3.3E-01	U
	^{154}Eu	4.9E-02 ± 3.7E-01	U
	^{155}Eu	1.8E-01 ± 3.6E-01	U
	^{238}Pu	8.1E-04 ± 3.6E-03	U
	$^{239/240}$Pu	2.9E-02 ± 1.2E-02	
	^{103}Ru	-2.6E-02 ± 2.6E-01	U
	^{106}Ru	9.3E-02 ± 9.3E-01	U
	^{125}Sb	8.6E-02 ± 3.1E-01	U
	^{113}Sn	-1.8E-01 ± 2.1E-01	U
	^{90}Sr	-5.0E-03 ± 5.0E-02	U
	^{234}U	2.6E-02 ± 1.2E-02	
	^{235}U	4.3E-03 ± 4.4E-03	
	^{238}U	2.0E-02 ± 1.0E-02	
	^{65}Zn	-1.1E-01 ± 3.4E-01	U
V107	^{144}Ce	2.3E-01 ± 8.9E-01	U
(600 Area)	^{60}Co	-7.8E-02 ± 8.9E-02	U
	^{134}Cs	-4.3E-02 ± 9.9E-02	U
	^{137}Cs	-1.3E-02 ± 8.5E-02	U
	^{152}Eu	-9.5E-02 ± 2.2E-01	U
	^{154}Eu	6.7E-02 ± 2.5E-01	U
	^{155}Eu	-5.8E-02 ± 2.0E-01	U
	^{238}Pu	8.9E-04 ± 1.8E-03	U
	$^{239/240}$Pu	2.7E-03 ± 3.2E-03	
	^{103}Ru	7.6E-02 ± 2.3E-01	U
	^{106}Ru	-6.5E-02 ± 6.5E-01	U
	^{125}Sb	-1.0E-01 ± 2.1E-01	U
	^{113}Sn	3.6E-02 ± 1.3E-01	U
	^{90}Sr	-1.4E-01 ± 1.7E-01	U
	^{234}U	1.4E-02 ± 8.5E-03	
	^{235}U	2.4E-03 ± 3.5E-03	U
	^{238}U	8.7E-03 ± 6.5E-03	
	^{65}Zn	-7.3E-03 ± 7.3E-02	U

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

Table 4-4. 2009 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).
(Sheet 12 of 16)

Location	Isotope	Result ± Error	RQ
V109 (600 Area)	^{144}Ce	-2.8E-01 ± 6.1E-01	U
	^{60}Co	-2.7E-02 ± 4.5E-02	U
	^{134}Cs	-1.1E-03 ± 1.1E-02	U
	^{137}Cs	8.9E-03 ± 4.6E-02	U
	^{152}Eu	-2.5E-02 ± 1.2E-01	U
	^{154}Eu	-5.3E-02 ± 1.4E-01	U
	^{155}Eu	1.8E-01 ± 1.5E-01	U
	^{238}Pu	7.2E-04 ± 2.5E-03	U
	$^{239/240}Pu$	3.6E-03 ± 3.9E-03	U
	^{103}Ru	-4.4E-02 ± 1.3E-01	U
	^{106}Ru	-2.1E-02 ± 2.1E-01	U
	^{125}Sb	3.1E-02 ± 1.4E-01	U
	^{113}Sn	9.7E-02 ± 8.0E-02	U
	^{90}Sr	-1.5E-01 ± 1.5E-01	U
	^{234}U	7.6E-03 ± 6.4E-03	U
	^{235}U	1.8E-03 ± 2.6E-03	U
	^{238}U	1.1E-02 ± 6.7E-03	
	^{65}Zn	-8.6E-02 ± 1.2E-01	U
V143 (600 Area, Replicate of V097)	^{144}Ce	-6.3E-02 ± 6.3E-01	U
	^{60}Co	3.1E-03 ± 3.1E-02	U
	^{134}Cs	-1.0E-01 ± 1.1E-01	U
	^{137}Cs	-4.0E-02 ± 8.3E-02	U
	^{152}Eu	3.4E-02 ± 2.3E-01	U
	^{154}Eu	6.9E-02 ± 2.8E-01	U
	^{155}Eu	4.2E-02 ± 2.5E-01	U
	^{238}Pu	-6.5E-03 ± 1.4E-02	U
	$^{239/240}Pu$	9.3E-04 ± 9.3E-04	U
	^{103}Ru	-1.5E-01 ± 2.4E-01	U
	^{106}Ru	9.2E-02 ± 9.2E-01	U
	^{125}Sb	-1.1E-01 ± 2.4E-01	U
	^{113}Sn	-2.4E-02 ± 1.4E-01	U
	^{90}Sr	-1.1E-01 ± 1.6E-01	U
	^{234}U	7.9E-03 ± 7.1E-03	U
	^{235}U	2.9E-03 ± 3.4E-03	
	^{238}U	6.2E-03 ± 5.0E-03	
	^{65}Zn	-2.9E-02 ± 2.2E-01	U

Location	Isotope	Result ± Error	RQ
V113 (600 Area, Replicate V083)	^{144}Ce	2.1E-01 ± 6.8E-01	U
	^{60}Co	-4.2E-02 ± 5.5E-02	U
	^{134}Cs	2.7E-02 ± 6.6E-02	U
	^{137}Cs	-4.6E-02 ± 7.1E-02	U
	^{152}Eu	-5.7E-02 ± 1.6E-01	U
	^{154}Eu	6.7E-02 ± 1.8E-01	U
	^{155}Eu	-1.5E-02 ± 1.4E-01	U
	^{238}Pu	1.1E-02 ± 1.7E-02	U
	$^{239/240}Pu$	1.0E-03 ± 3.5E-03	U
	^{103}Ru	-1.4E-02 ± 1.4E-01	U
	^{106}Ru	-6.4E-02 ± 5.8E-01	U
	^{125}Sb	-1.2E-01 ± 1.7E-01	U
	^{113}Sn	7.5E-02 ± 9.7E-02	U
	^{90}Sr	-3.2E-01 ± 3.2E-01	U
	^{234}U	5.4E-03 ± 1.1E-02	U
	^{235}U	5.4E-03 ± 5.4E-03	U
	^{238}U	1.1E-02 ± 1.6E-02	U
	^{65}Zn	-1.2E-01 ± 1.6E-01	U
V116 (300 Area)	^{144}Ce	-2.9E-01 ± 8.2E-01	U
	^{60}Co	4.3E-02 ± 6.7E-02	U
	^{134}Cs	1.1E-02 ± 7.3E-02	U
	^{137}Cs	-1.8E-02 ± 6.6E-02	U
	^{152}Eu	-5.8E-03 ± 5.8E-02	U
	^{154}Eu	-1.5E-01 ± 2.0E-01	U
	^{155}Eu	1.3E-02 ± 1.3E-01	U
	^{238}Pu	-4.3E-03 ± 1.2E-02	U
	$^{239/240}Pu$	-1.7E-03 ± 2.4E-03	U
	^{103}Ru	-1.9E-02 ± 1.7E-01	U
	^{106}Ru	-5.3E-01 ± 6.8E-01	U
	^{125}Sb	-1.3E-02 ± 1.3E-01	U
	^{113}Sn	-4.5E-02 ± 1.1E-01	U
	^{90}Sr	2.3E-02 ± 2.0E-01	U
	^{234}U	1.5E-02 ± 8.5E-03	
	^{235}U	3.8E-03 ± 3.9E-03	
	^{238}U	9.5E-03 ± 6.6E-03	
	^{65}Zn	-3.8E-02 ± 1.6E-01	U

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

Table 4-4. 2009 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).
(Sheet 13 of 16)

Location	Isotope	Result ± Error	RQ
V117 (300 Area)	^{144}Ce	6.8E-02 ± 6.7E-01	U
	^{60}Co	6.2E-03 ± 4.9E-02	U
	^{134}Cs	3.6E-02 ± 5.9E-02	U
	^{137}Cs	4.1E-03 ± 4.1E-02	U
	^{152}Eu	9.8E-02 ± 1.4E-01	U
	^{154}Eu	7.1E-02 ± 1.4E-01	U
	^{155}Eu	3.5E-02 ± 1.6E-01	U
	^{238}Pu	-7.3E-03 ± 1.2E-02	U
	$^{239/240}$Pu	1.0E-02 ± 6.5E-03	
	^{103}Ru	-1.6E-01 ± 1.6E-01	U
	^{106}Ru	8.6E-02 ± 5.0E-01	U
	^{125}Sb	-4.2E-02 ± 1.3E-01	U
	^{113}Sn	-4.0E-02 ± 8.3E-02	U
	^{90}Sr	-7.4E-01 ± 7.4E-01	U
	^{234}U	1.1E-02 ± 1.0E-02	U
	^{235}U	2.2E-03 ± 3.2E-03	U
	^{238}U	7.2E-03 ± 6.5E-03	U
	^{65}Zn	1.5E-01 ± 1.1E-01	U
V118 (300 Area)	^{144}Ce	2.9E-01 ± 6.1E-01	U
	^{60}Co	2.5E-02 ± 4.3E-02	U
	^{134}Cs	5.9E-02 ± 4.9E-02	U
	^{137}Cs	-2.6E-02 ± 4.7E-02	U
	^{152}Eu	1.7E-03 ± 1.7E-02	U
	^{154}Eu	-5.2E-02 ± 1.3E-01	U
	^{155}Eu	8.2E-02 ± 1.3E-01	U
	^{238}Pu	-8.9E-04 ± 8.9E-03	U
	$^{239/240}$Pu	1.8E-03 ± 4.4E-03	U
	^{103}Ru	-6.0E-02 ± 1.2E-01	U
	^{106}Ru	1.0E-02 ± 1.0E-01	U
	^{125}Sb	1.6E-02 ± 1.3E-01	U
	^{113}Sn	-7.5E-02 ± 7.7E-02	U
	^{90}Sr	-2.7E-01 ± 2.7E-01	U
	^{234}U	2.2E-02 ± 1.0E-02	
	^{235}U	5.5E-03 ± 5.4E-03	U
	^{238}U	1.5E-02 ± 8.1E-03	
	^{65}Zn	-3.9E-01 ± 3.9E-01	U
V119 (300 Area)	^{144}Ce	-1.8E-01 ±	U
	^{60}Co	-2.7E-02 ± 1.2E-01	U
	^{134}Cs	2.7E-02 ± 1.3E-01	U
	^{137}Cs	6.4E-02 ± 1.2E-01	U
	^{152}Eu	-1.1E-01 ± 3.2E-01	U
	^{154}Eu	-3.0E-01 ± 3.4E-01	U
	^{155}Eu	3.8E-01 ± 2.9E-01	U
	^{238}Pu	6.6E-03 ± 1.4E-02	U
	$^{239/240}$Pu	-1.9E-03 ± 2.7E-03	U
	^{103}Ru	4.6E-02 ± 3.1E-01	U
	^{106}Ru	-1.4E-01 ±	U
	^{125}Sb	-1.9E-01 ± 3.2E-01	U
	^{113}Sn	-8.6E-02 ± 2.0E-01	U
	^{90}Sr	-4.3E-01 ± 4.3E-01	U
	^{234}U	1.5E-01 ± 4.7E-02	
	^{235}U	1.3E-02 ± 8.2E-03	
	^{238}U	1.2E-01 ± 3.8E-02	
	^{65}Zn	-1.3E-01 ± 3.1E-01	U
V120 (300 Area)	^{144}Ce	-7.1E-02 ± 5.5E-01	U
	^{60}Co	-8.1E-03 ± 3.8E-02	U
	^{134}Cs	1.7E-02 ± 4.4E-02	U
	^{137}Cs	2.6E-02 ± 4.2E-02	U
	^{152}Eu	-3.0E-02 ± 1.2E-01	U
	^{154}Eu	-8.0E-02 ± 1.2E-01	U
	^{155}Eu	-2.7E-02 ± 1.1E-01	U
	^{238}Pu	-5.7E-02 ± 1.5E-01	U
	$^{239/240}$Pu	-5.7E-02 ± 5.7E-02	U
	^{103}Ru	-3.3E-02 ± 1.1E-01	U
	^{106}Ru	-7.9E-02 ± 3.8E-01	U
	^{125}Sb	6.8E-03 ± 6.8E-02	U
	^{113}Sn	-1.5E-02 ± 6.9E-02	U
	^{90}Sr	-3.4E-01 ± 3.4E-01	U
	^{234}U	4.4E-01 ± 1.8E-01	
	^{235}U	7.9E-02 ± 7.1E-02	U
	^{238}U	5.2E-01 ± 1.9E-01	
	^{65}Zn	1.3E-01 ± 1.1E-01	U

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

Table 4-4. 2009 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).
(Sheet 14 of 16)

Location	Isotope	Result ± Error	RQ
V121	^{144}Ce	-9.2E-02 ± 5.8E-01	U
(300 Area)	^{60}Co	-3.2E-02 ± 5.0E-02	U
	^{134}Cs	-1.0E-02 ± 5.5E-02	U
	^{137}Cs	-3.4E-02 ± 4.7E-02	U
	^{152}Eu	-1.9E-02 ± 1.3E-01	U
	^{154}Eu	5.2E-02 ± 1.4E-01	U
	^{155}Eu	7.4E-02 ± 1.4E-01	U
	^{238}Pu	4.8E-03 ± 1.5E-02	U
	$^{239/240}$Pu	-9.6E-04 ± 3.3E-03	U
	^{103}Ru	4.7E-02 ± 1.2E-01	U
	^{106}Ru	4.0E-01 ± 5.0E-01	U
	^{125}Sb	1.2E-01 ± 1.2E-01	U
	^{113}Sn	-2.9E-02 ± 7.4E-02	U
	^{90}Sr	-3.4E-01 ± 3.4E-01	U
	^{234}U	5.9E-02 ± 2.2E-02	
	^{235}U	9.4E-03 ± 7.9E-03	U
	^{238}U	4.2E-02 ± 1.7E-02	
	^{65}Zn	-1.5E-01 ± 1.5E-01	U
V124	^{144}Ce	-3.3E-01 ± 6.2E-01	U
(300 Area)	^{60}Co	-2.6E-02 ± 4.4E-02	U
	^{134}Cs	5.8E-04 ± 5.8E-03	U
	^{137}Cs	-1.8E-02 ± 4.7E-02	U
	^{152}Eu	-2.6E-02 ± 1.2E-01	U
	^{154}Eu	2.6E-02 ± 1.4E-01	U
	^{155}Eu	3.0E-02 ± 1.5E-01	U
	^{238}Pu	-1.8E-03 ± 1.5E-02	U
	$^{239/240}$Pu	-2.8E-03 ± 5.0E-03	U
	^{103}Ru	1.5E-02 ± 1.2E-01	U
	^{106}Ru	-3.6E-02 ± 3.5E-01	U
	^{125}Sb	-3.6E-02 ± 1.2E-01	U
	^{113}Sn	3.4E-02 ± 7.4E-02	U
	^{90}Sr	-6.1E-01 ± 6.1E-01	U
	^{234}U	1.9E-02 ± 1.0E-02	
	^{235}U	1.0E-02 ± 7.8E-03	
	^{238}U	1.1E-02 ± 7.1E-03	
	^{65}Zn	-1.3E-03 ± 1.3E-02	U

Location	Isotope	Result ± Error	RQ
V123	^{144}Ce	1.8E-01 ± 5.7E-01	U
(300 Area)	^{60}Co	5.6E-02 ± 5.7E-02	U
	^{134}Cs	3.9E-02 ± 6.0E-02	U
	^{137}Cs	5.9E-02 ± 5.9E-02	U
	^{152}Eu	5.0E-03 ± 5.0E-02	U
	^{154}Eu	1.4E-03 ± 1.4E-02	U
	^{155}Eu	-5.1E-02 ± 1.3E-01	U
	^{238}Pu	9.3E-04 ± 9.3E-03	U
	$^{239/240}$Pu	-2.8E-03 ± 4.2E-03	U
	^{103}Ru	7.2E-02 ± 1.3E-01	U
	^{106}Ru	7.6E-02 ± 5.2E-01	U
	^{125}Sb	-8.9E-02 ± 1.4E-01	U
	^{113}Sn	1.4E-02 ± 9.0E-02	U
	^{90}Sr	-5.9E-01 ± 5.9E-01	U
	^{234}U	9.5E-03 ± 8.8E-03	U
	^{235}U	9.5E-04 ± 9.5E-04	U
	^{238}U	1.2E-02 ± 8.6E-03	
	^{65}Zn	-1.2E-01 ± 1.4E-01	U
V125	^{144}Ce	4.0E-01 ±	U
(300 Area)	^{60}Co	-9.4E-02 ± 1.3E-01	U
	^{134}Cs	5.7E-02 ± 1.1E-01	U
	^{137}Cs	-1.6E-02 ± 1.0E-01	U
	^{152}Eu	1.0E-01 ± 3.0E-01	U
	^{154}Eu	1.8E-01 ± 2.9E-01	U
	^{155}Eu	-9.2E-02 ± 2.4E-01	U
	^{238}Pu	-3.5E-03 ± 1.4E-02	U
	$^{239/240}$Pu	-1.8E-03 ± 3.6E-03	U
	^{103}Ru	2.2E-01 ± 2.6E-01	U
	^{106}Ru	1.6E+00 ± 9.3E-	U
	^{125}Sb	-7.6E-02 ± 2.7E-01	U
	^{113}Sn	3.6E-02 ± 1.7E-01	U
	^{90}Sr	-6.8E-01 ± 6.8E-01	U
	^{234}U	3.5E-02 ± 1.5E-02	
	^{235}U	8.2E-03 ± 6.6E-03	
	^{238}U	2.3E-02 ± 1.2E-02	
	^{65}Zn	-3.9E-01 ± 3.9E-01	U

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

Table 4-4. 2009 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).
(Sheet 15 of 16)

Location	Isotope	Result ± Error	RQ
V126	^{144}Ce	-1.8E-01 ± 6.0E-01	U
(300 Area)	^{60}Co	4.5E-02 ± 3.5E-02	U
	^{134}Cs	5.1E-02 ± 4.9E-02	U
	^{137}Cs	-8.8E-03 ± 4.4E-02	U
	^{152}Eu	-6.6E-02 ± 1.3E-01	U
	^{154}Eu	-1.3E-02 ± 1.2E-01	U
	^{155}Eu	1.1E-02 ± 1.1E-01	U
	^{238}Pu	-8.8E-04 ± 8.8E-03	U
	$^{239/240}$Pu	-8.7E-04 ± 3.0E-03	U
	^{103}Ru	-2.0E-02 ± 1.1E-01	U
	^{106}Ru	6.2E-01 ± 4.4E-01	U
	^{125}Sb	6.8E-02 ± 1.1E-01	U
	^{113}Sn	5.5E-03 ± 5.5E-02	U
	^{90}Sr	-6.8E-01 ± 6.8E-01	U
	^{234}U	3.7E-02 ± 1.6E-02	
	^{235}U	2.0E-03 ± 2.9E-03	U
	^{238}U	2.7E-02 ± 1.2E-02	
	^{65}Zn	4.9E-02 ± 1.3E-01	U
V127	^{144}Ce	-8.4E-02 ± 4.8E-01	U
(300 Area)	^{60}Co	-2.6E-02 ± 4.0E-02	U
	^{134}Cs	-4.1E-03 ± 4.1E-02	U
	^{137}Cs	-2.0E-02 ± 4.0E-02	U
	^{152}Eu	9.1E-02 ± 9.8E-02	U
	^{154}Eu	-4.2E-02 ± 1.2E-01	U
	^{155}Eu	3.4E-02 ± 1.2E-01	U
	^{238}Pu	9.2E-03 ± 1.8E-02	U
	$^{239/240}$Pu	3.4E-03 ± 5.1E-03	U
	^{103}Ru	2.1E-02 ± 9.1E-02	U
	^{106}Ru	-9.1E-02 ± 3.9E-01	U
	^{125}Sb	2.7E-02 ± 1.0E-01	U
	^{113}Sn	2.0E-02 ± 6.4E-02	U
	^{90}Sr	-3.1E-01 ± 3.1E-01	U
	^{234}U	3.0E-02 ± 1.4E-02	
	^{235}U	6.7E-03 ± 5.8E-03	
	^{238}U	2.3E-02 ± 1.2E-02	
	^{65}Zn	-2.0E-01 ± 2.0E-01	U
V128	^{144}Ce	3.6E-01 ± 5.5E-01	U
(300 Area)	^{60}Co	-8.2E-03 ± 4.5E-02	U
	^{134}Cs	-4.9E-02 ± 5.0E-02	U
	^{137}Cs	-1.4E-02 ± 4.5E-02	U
	^{152}Eu	-5.1E-03 ± 5.1E-02	U
	^{154}Eu	-2.4E-02 ± 1.4E-01	U
	^{155}Eu	9.4E-02 ± 1.3E-01	U
	^{238}Pu	4.6E-02 ± 2.2E-02	
	$^{239/240}$Pu	2.6E-03 ± 5.3E-03	U
	^{103}Ru	3.0E-02 ± 1.2E-01	U
	^{106}Ru	1.6E-01 ± 4.8E-01	U
	^{125}Sb	-1.4E-01 ± 1.4E-01	U
	^{113}Sn	1.1E-02 ± 6.7E-02	U
	^{90}Sr	-2.0E-01 ± 2.1E-01	U
	^{234}U	8.8E-03 ± 9.2E-03	U
	^{235}U	4.3E-03 ± 4.4E-03	
	^{238}U	1.6E-02 ± 9.4E-03	
	^{65}Zn	-9.3E-02 ± 1.5E-01	U
V129	^{144}Ce	-1.7E-01 ± 5.4E-01	U
(300 Area)	^{60}Co	3.8E-03 ± 3.8E-02	U
	^{134}Cs	-3.1E-02 ± 5.3E-02	U
	^{137}Cs	-3.5E-02 ± 4.8E-02	U
	^{152}Eu	9.9E-02 ± 1.3E-01	U
	^{154}Eu	2.4E-02 ± 1.5E-01	U
	^{155}Eu	4.8E-02 ± 1.2E-01	U
	^{238}Pu	-4.3E-03 ± 1.7E-02	U
	$^{239/240}$Pu	-4.3E-03 ± 6.9E-03	U
	^{103}Ru	-1.5E-02 ± 1.2E-01	U
	^{106}Ru	2.0E-01 ± 4.8E-01	U
	^{125}Sb	1.4E-01 ± 1.3E-01	U
	^{113}Sn	-5.2E-03 ± 5.2E-02	U
	^{90}Sr	-3.0E-01 ± 3.0E-01	U
	^{234}U	1.6E-02 ± 9.9E-03	
	^{235}U	4.1E-03 ± 5.1E-03	U
	^{238}U	1.4E-02 ± 8.5E-03	
	^{65}Zn	-1.3E-01 ± 1.4E-01	U

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

Table 4-4. 2009 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (Sheet 16 of 16)

Location	Isotope	Result ± Error	RQ
V131 (300 Area, Replicate of V116)	^{144}Ce	-3.9E-01 ± 5.2E-01	U
	^{60}Co	-9.5E-03 ± 4.5E-02	U
	^{134}Cs	1.4E-02 ± 4.3E-02	U
	^{137}Cs	-1.5E-02 ± 3.9E-02	U
	^{152}Eu	3.7E-02 ± 1.1E-01	U
	^{154}Eu	-3.2E-02 ± 1.1E-01	U
	^{155}Eu	-8.5E-03 ± 8.5E-02	U
	^{238}Pu	5.0E-03 ± 1.6E-02	U
	$^{239/240}Pu$	1.0E-03 ± 1.0E-02	U
	^{103}Ru	4.0E-02 ± 9.3E-02	U
	^{106}Ru	1.7E-01 ± 3.9E-01	U
	^{125}Sb	1.2E-02 ± 1.0E-01	U
	^{113}Sn	4.0E-02 ± 6.2E-02	U
	^{90}Sr	-3.5E-01 ± 3.5E-01	U
	^{234}U	1.3E-02 ± 8.6E-03	
	^{235}U	1.0E-03 ± 4.5E-03	U
	^{238}U	1.5E-02 ± 8.4E-03	
	^{65}Zn	-8.4E-02 ± 9.8E-02	U
V138 (300 Area, Replicate of V118)	^{144}Ce	1.3E-01 ± 5.3E-01	U
	^{60}Co	8.1E-03 ± 4.2E-02	U
	^{134}Cs	4.3E-04 ± 4.3E-03	U
	^{137}Cs	-6.1E-02 ± 6.1E-02	U
	^{152}Eu	3.8E-03 ± 3.8E-02	U
	^{154}Eu	-8.2E-02 ± 1.3E-01	U
	^{155}Eu	-6.0E-02 ± 1.2E-01	U
	^{238}Pu	-5.8E-03 ± 1.9E-02	U
	$^{239/240}Pu$	5.8E-03 ± 6.3E-03	U
	^{103}Ru	4.3E-02 ± 9.0E-02	U
	^{106}Ru	1.2E-01 ± 4.3E-01	U
	^{125}Sb	-1.4E-01 ± 1.4E-01	U
	^{113}Sn	-2.5E-02 ± 6.5E-02	U
	^{90}Sr	-2.4E-01 ± 2.4E-01	U
	^{234}U	2.0E-02 ± 1.0E-02	
	^{235}U	4.1E-03 ± 4.2E-03	
	^{238}U	8.4E-03 ± 6.0E-03	
	^{65}Zn	-5.1E-02 ± 1.1E-01	U

Location	Isotope	Result ± Error	RQ
V132 (300 Area, Replicate V123	^{144}Ce	-3.0E-01 ± 6.2E-01	U
	^{60}Co	5.9E-03 ± 5.4E-02	U
	^{134}Cs	3.7E-02 ± 6.6E-02	U
	^{137}Cs	-2.2E-02 ± 5.8E-02	U
	^{152}Eu	-1.0E-01 ± 1.6E-01	U
	^{154}Eu	7.2E-02 ± 1.7E-01	U
	^{155}Eu	-5.5E-02 ± 1.3E-01	U
	^{238}Pu	-1.9E-03 ± 1.6E-02	U
	$^{239/240}Pu$	-1.9E-03 ± 4.7E-03	U
	^{103}Ru	-4.2E-03 ± 4.2E-02	U
	^{106}Ru	-1.1E-01 ± 5.4E-01	U
	^{125}Sb	8.7E-02 ± 1.6E-01	U
	^{113}Sn	-8.6E-03 ± 8.6E-02	U
	^{90}Sr	-3.6E-01 ± 3.6E-01	U
	^{234}U	2.9E-02 ± 1.4E-02	
	^{235}U	6.3E-03 ± 6.9E-03	U
	^{238}U	1.1E-02 ± 8.2E-03	
	^{65}Zn	1.2E-01 ± 1.6E-01	U
V130 (400 Area)	^{144}Ce	-1.2E-01 ± 3.8E-01	U
	^{60}Co	2.5E-02 ± 3.8E-02	U
	^{134}Cs	1.4E-02 ± 4.1E-02	U
	^{137}Cs	-4.6E-02 ± 4.6E-02	U
	^{152}Eu	-2.6E-02 ± 9.2E-02	U
	^{154}Eu	-4.9E-02 ± 1.1E-01	U
	^{155}Eu	2.7E-02 ± 8.8E-02	U
	^{238}Pu	1.3E-02 ± 1.8E-02	U
	$^{239/240}Pu$	2.8E-03 ± 4.2E-03	U
	^{103}Ru	-2.5E-02 ± 8.1E-02	U
	^{106}Ru	-1.3E-01 ± 3.6E-01	U
	^{125}Sb	4.1E-02 ± 9.0E-02	U
	^{113}Sn	1.3E-02 ± 5.6E-02	U
	^{90}Sr	-3.1E-01 ± 3.1E-01	U
	^{234}U	1.6E-02 ± 9.4E-03	
	^{235}U	2.2E-03 ± 3.2E-03	U
	^{238}U	1.4E-02 ± 9.2E-03	
	^{65}Zn	2.0E-02 ± 1.1E-01	U

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

This page intentionally left blank.

5.0 EXTERNAL RADIATION

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

In 2009, there were 119 TLD locations collecting external radiation information. The number of TLD locations in each operational area and a summary table comparing the 2008 and 2009 TLD results are provided in Table 5-1. Additional discussion of external radiation monitoring conducted near facilities and operations during 2009 can be found in Section 8.13 of PNNL-19455 (PNNL 2010a).

Table 5-1. Thermoluminscent Dosimeter Results (mrem/yr)[a] for 2008 and 2009.

Hanford Site Locations	Number of Dosimeters	2008		2009		
		Maximum[b]	Average[c,d]	Maximum[b]	Average[c,d]	% Change[e]
100-K	14	574 ± 42	192 ± 255	1,525 ± 2,814	278 ± 735	45%
100-N	5	106 ± 9	88 ± 25	133 ± 64	96 ± 47	10%
200-East	42	280 ± 37	103 ± 80	285 ± 55	102 ± 78	0%
200-West	24	259 ± 135	105 ± 77	189 ± 21	99 ± 50	-5%
200-North (212-R)[f]	1	1,663 ± 250	1,647 ± 26	1,697 ± 254	1,552 ± 323	-6%
300 Area	8	103 ± 7	83 ± 17	101 ± 9	82 ± 17	<1%
300 TEDF	6	83 ± 7	81 ± 3	84 ± 13	80 ± 5	<1%
300-FF-2	4	81 ± 8	79 ± 4	81 ± 12	80 ± 10	<1%
400 Area	7	94 ± 9	81 ± 12	92 ± 8	79 ± 13	-2%
CVDF	4	302 ± 18	151 ± 203	243 ± 316	138 ± 149	-8%
ERDF	3	80 ± 10	79 ± 4	91 ± 23	85 ± 12	8%
IDF[f]	1	87 ± 13	85 ± 5	93 ± 14	88 ± 7	4%

(a) To convert to international metric system units, multiply mrem/yr by 0.01 to obtain mSv/yr.

(b) Maximum values are ± analytical uncertainty.

(c) ± 2 standard deviations.

(d) Each dosimeter is collected and read quarterly.

(e) Numbers indicate a decrease (-) or increase from the 2008 mean.

(f) Maximum value represents highest quarterly value ± analytical uncertainty.

CVDF = Cold Vacuum Drying Facility (100 K Area).

ERDF = Environmental Restoration Disposal Facility (200 West Area).

IDF = Integrated Disposal Facility (200 East Area).

TEDF = 300 Area Treated Effluent Disposal Facility.

Observations in dose rate monitoring during 2009 included the following:

- The external radiation levels measured at most of the operational areas during 2009 were ± 10% of 2008 levels.

- Cleanup activities for the K Basins Closure project were ongoing during 2009. Removal of potentially contaminated soil beneath the K East Basin attributed to noticeable increases in average dose rates at all TLD locations in the immediate vicinity of the cleanup work. Dose-rate levels measured in 2009 at monitoring stations in the K West area and the Cold Vacuum Drying Facility were, conversely, noticeably decreased compared to 2008 levels. Quarterly dose rate levels for each of the facilities/projects at 100-K Area are presented in graph form in Figure 5-1.

- Dose rates observed at the N Springs shoreline TLD location were approximately 2% lower in 2009 than in 2008. Figure 5-2 provides historical trend plots of quarterly dose rates at the 116-N-1, 100-N Area and N-Springs monitoring locations.

- Dose rates observed in the 200-East and 200-West Areas during 2009 were comparable to levels measured in 2008. Dose rates at the 212-R Facility, while again in 2009 the highest on site, were approximately 6% lower than those measured during 2008. Figure 5-3 provides historical trend plots of quarterly dose rate levels for each of the 200 Area operational areas.

- Dose rates measured during 2009 at ERDF were approximately 8% higher than 2008 levels.

- Dose rates measured at the 300 Area Treated Effluent Disposal Facility (TEDF), 300-FF-2 Field Remediation project, and in the 400 Area were consistent with previous years' measurements. Figure 5-4 provides historical trend plots of quarterly dose rate levels for each of these operational areas.

- Maps showing the 2009 TLD locations are provided in Figures 5-5 through 5-11 and individual 2009 TLD results are provided in Table 5-2.

Figure 5-1. Average Quarterly Dose Rates, 100-K Area.

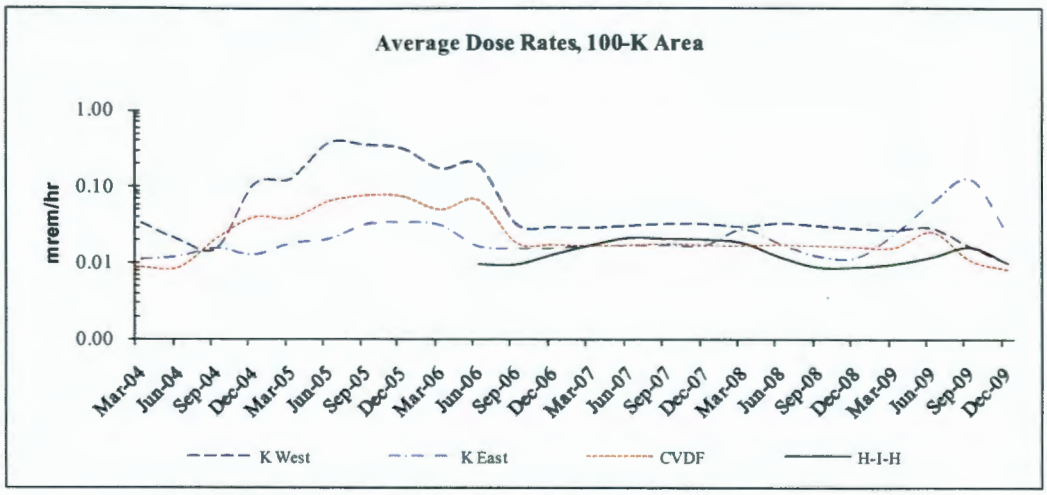


Figure 5-2. Average Quarterly Dose Rates, 100-N Area.

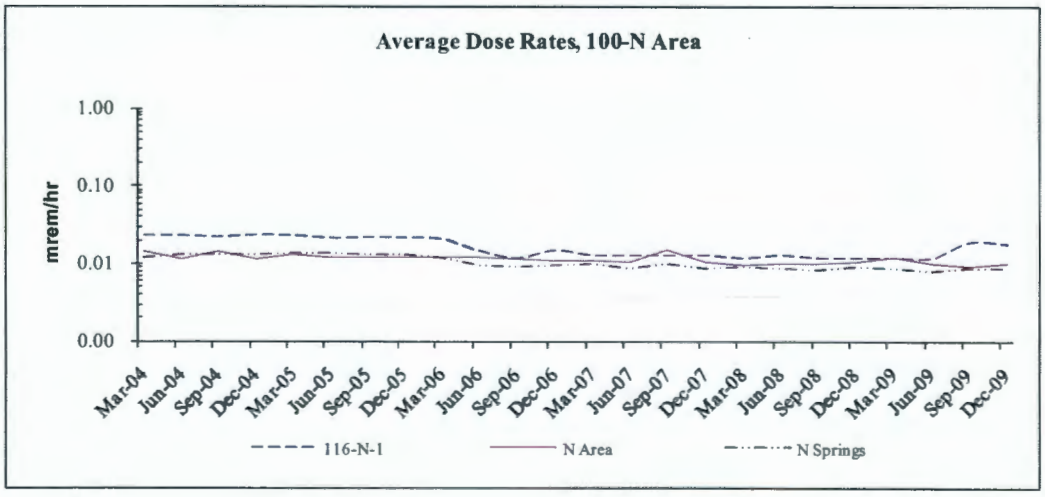


Figure 5-3. Average Quarterly Dose Rates, 200 Areas.

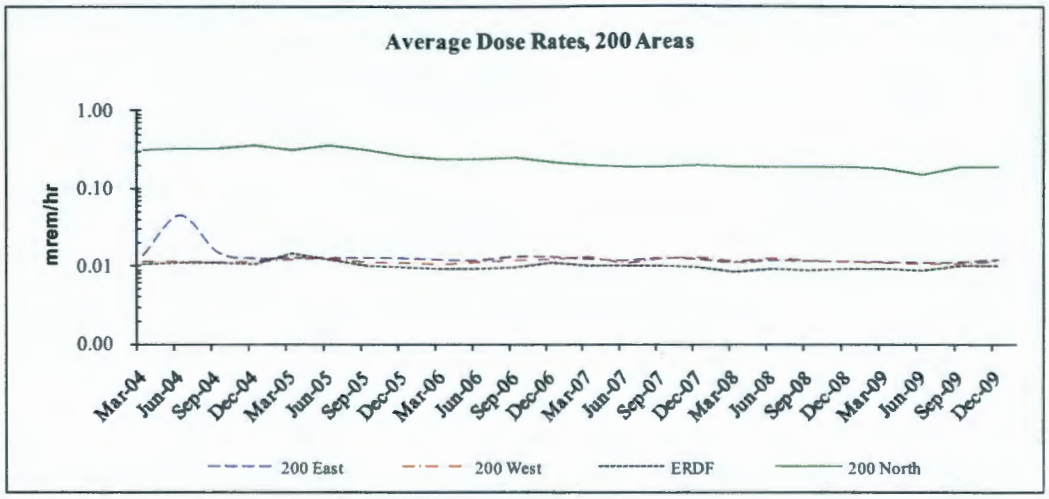


Figure 5-4. Average Quarterly Dose Rates, 300 and 400 Areas.

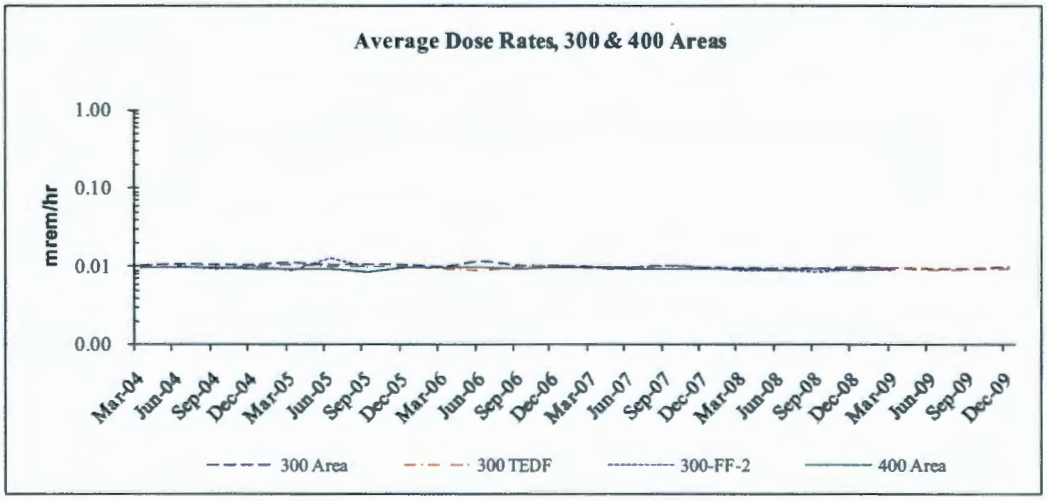


Figure 5-5. 100-K Area Thermoluminescent Dosimeter Locations.

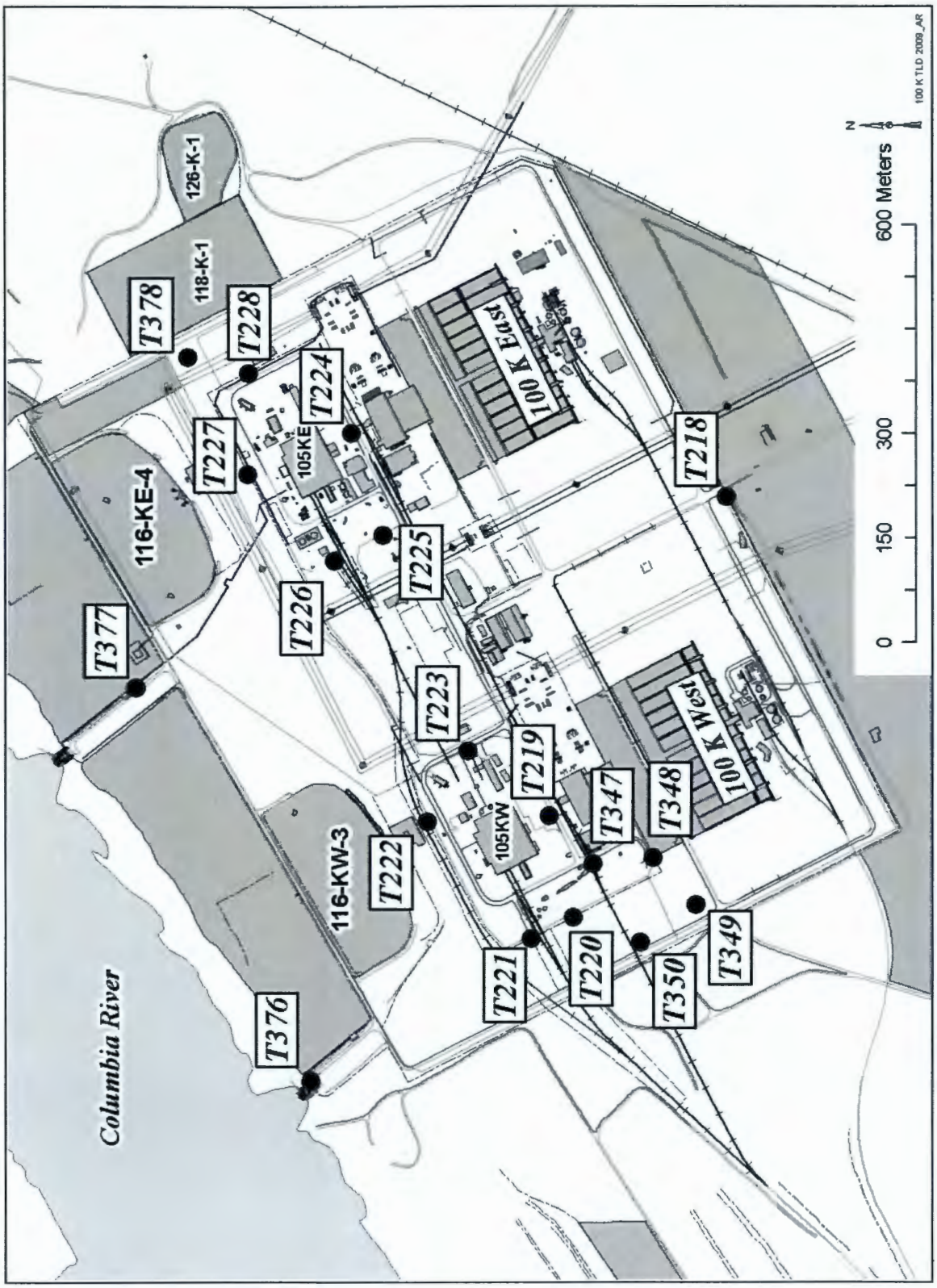
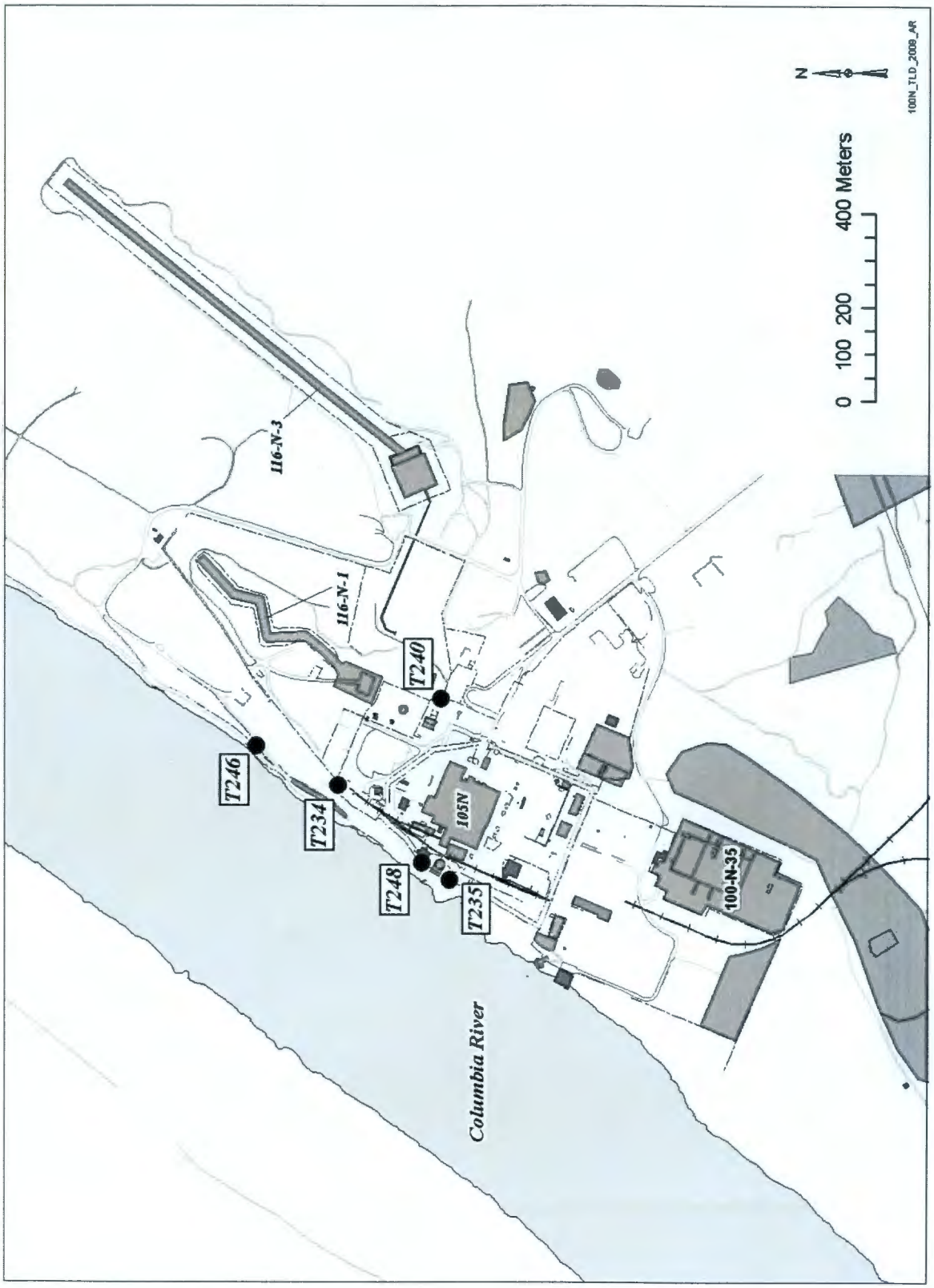


Figure 5-6. 100-N Area Thermoluminescent Dosimeter Locations.



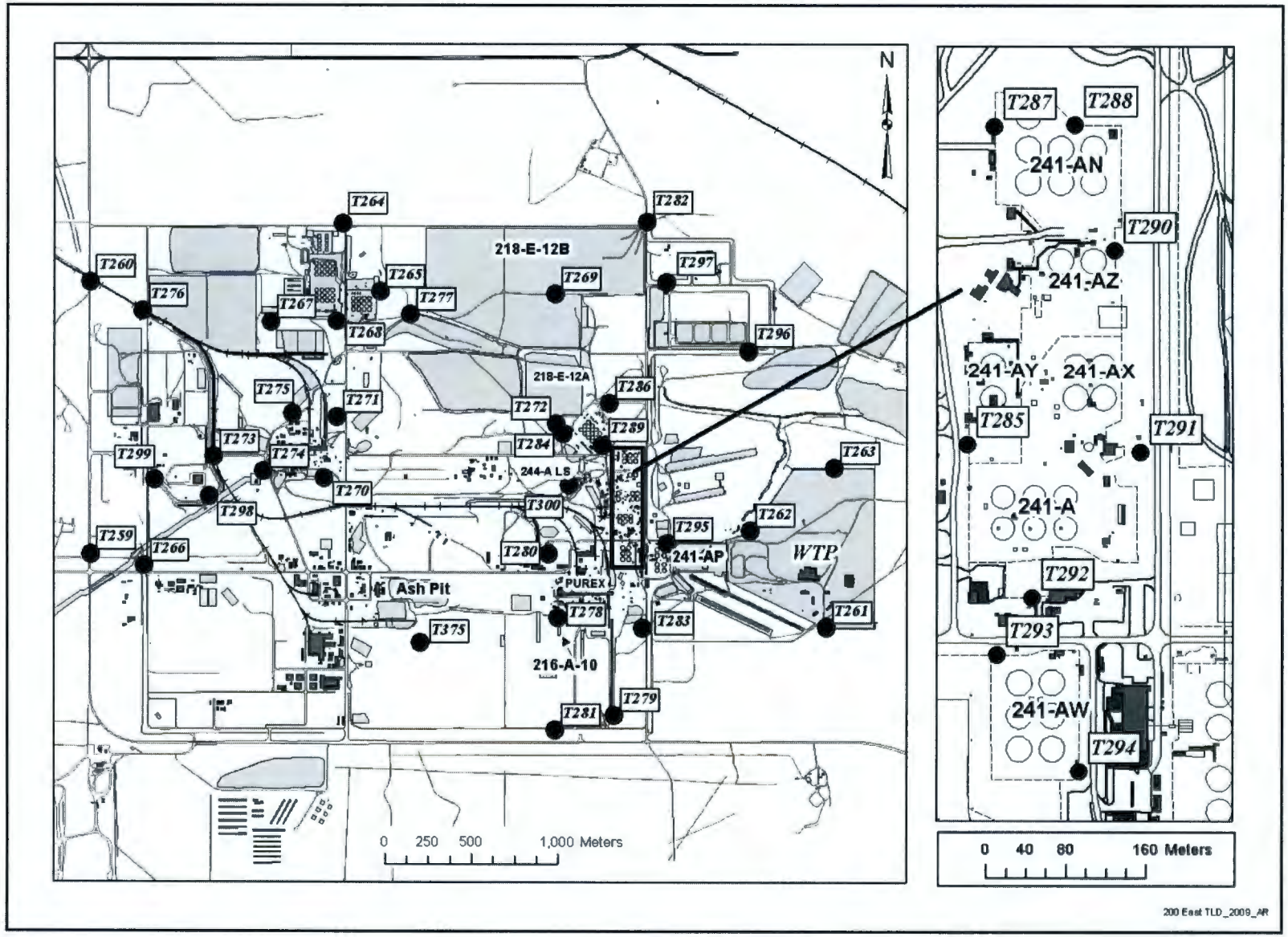


Figure 5-7. 200 East Area Thermoluminescent Dosimeter Locations.

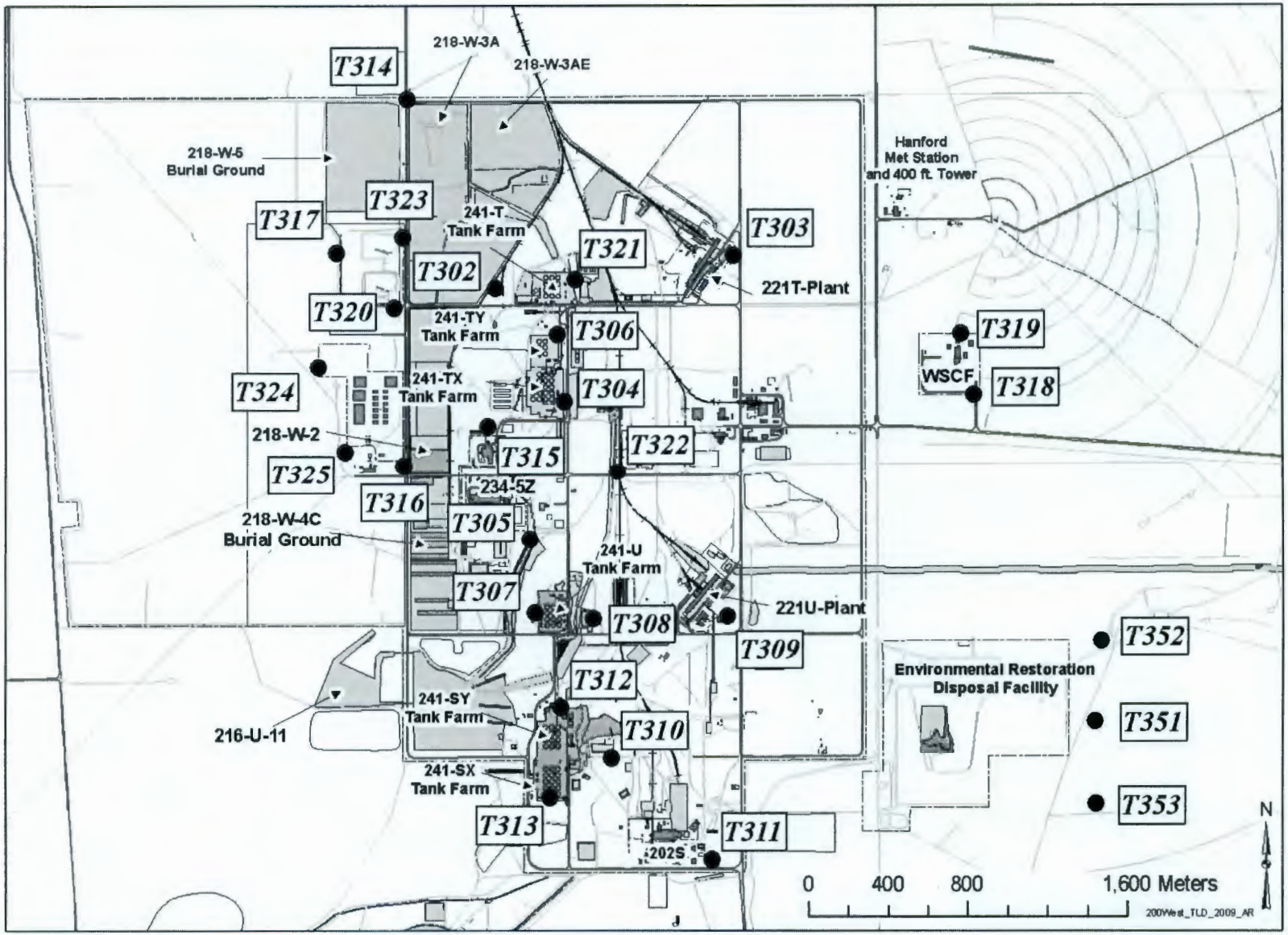


Figure 5-8. 200 West Area Thermoluminescent Dosimeter Locations.

Figure 5-9. 200 North Area Thermoluminescent Dosimeter Location.

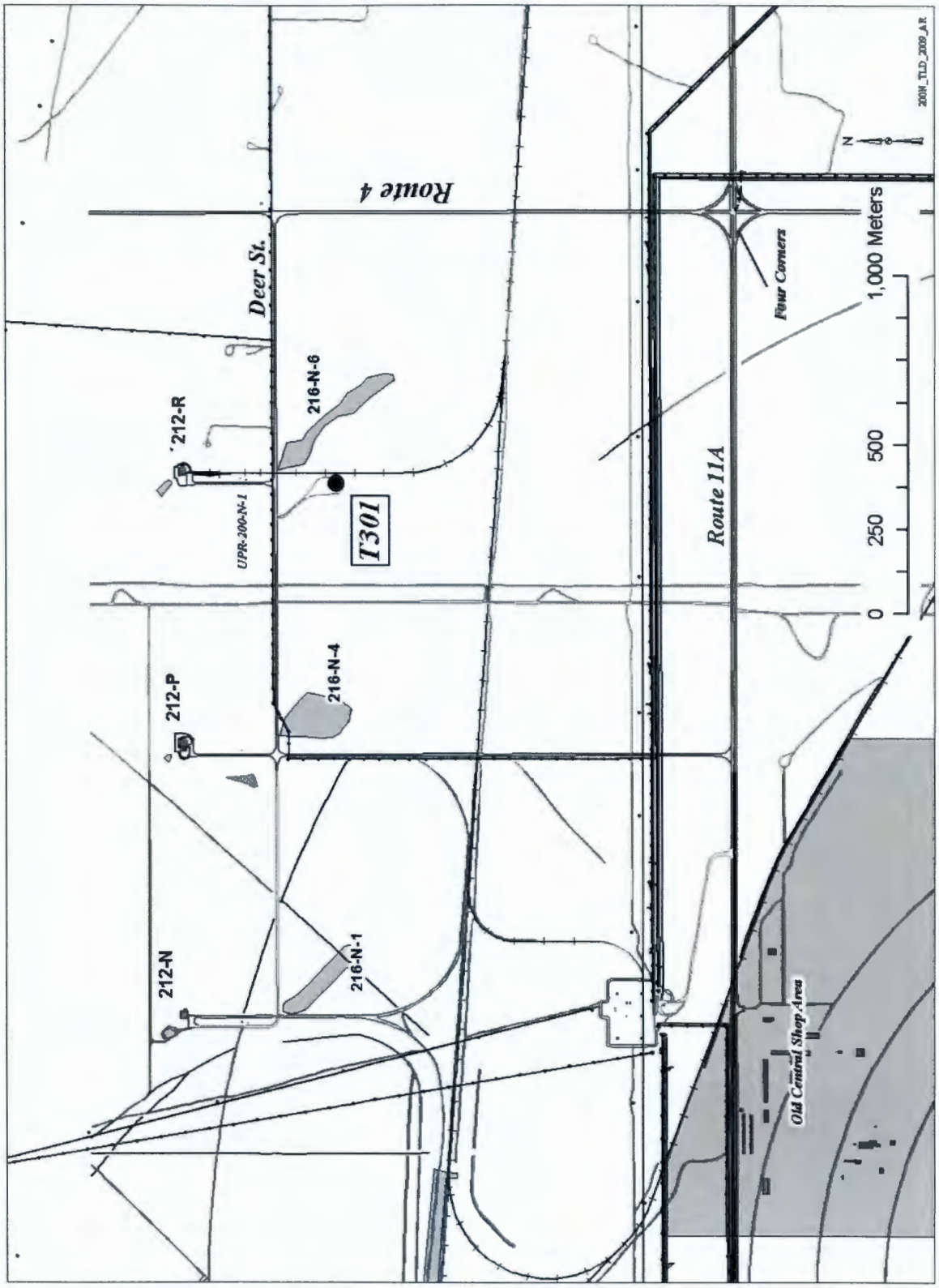


Figure 5-10. 300 Area Treated Effluent Disposal Facility and 300 Area Thermoluminescent Dosimeter Locations.

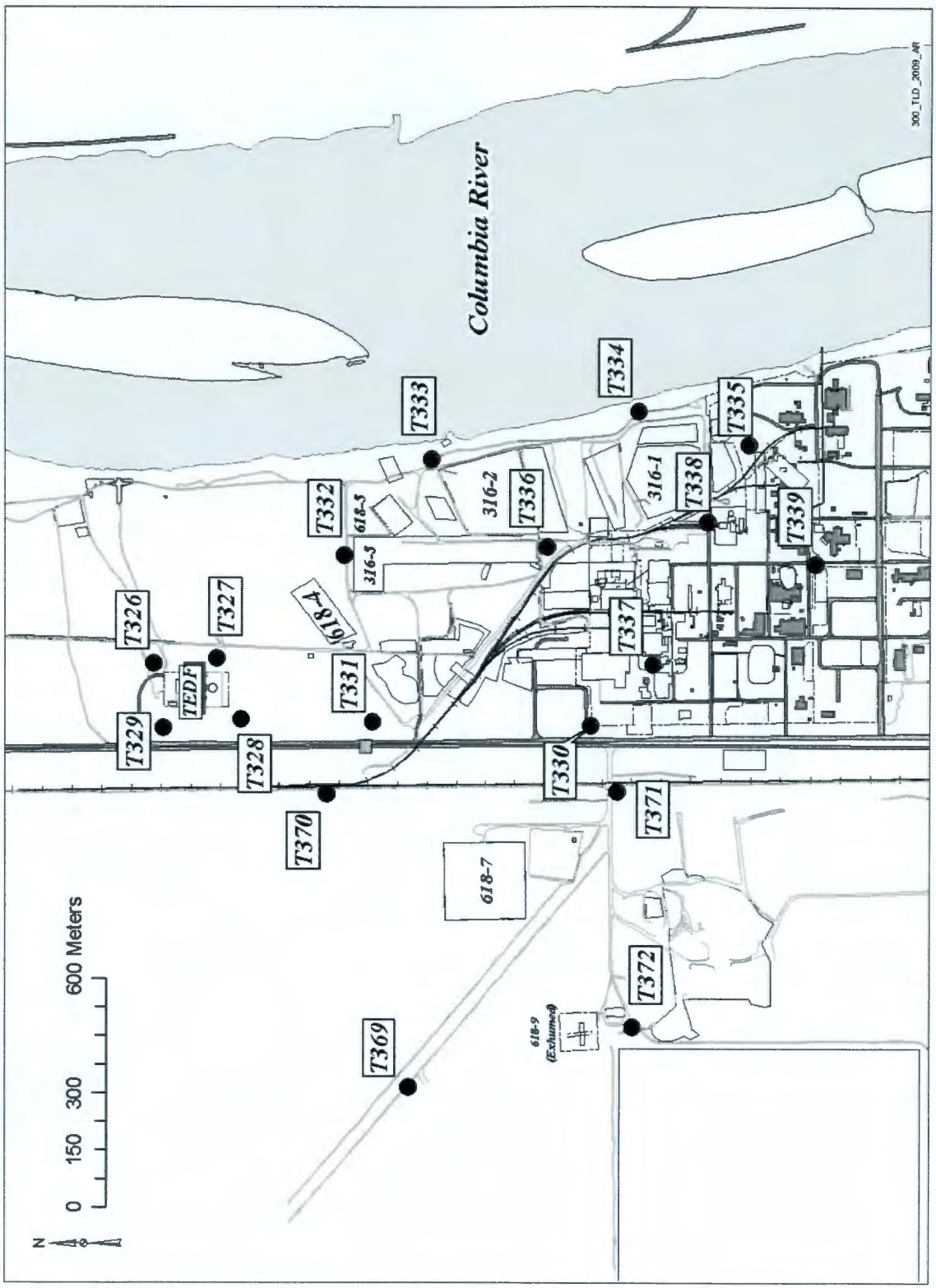


Figure 5-11. 400 Area Thermoluminescent Dosimeter Locations.

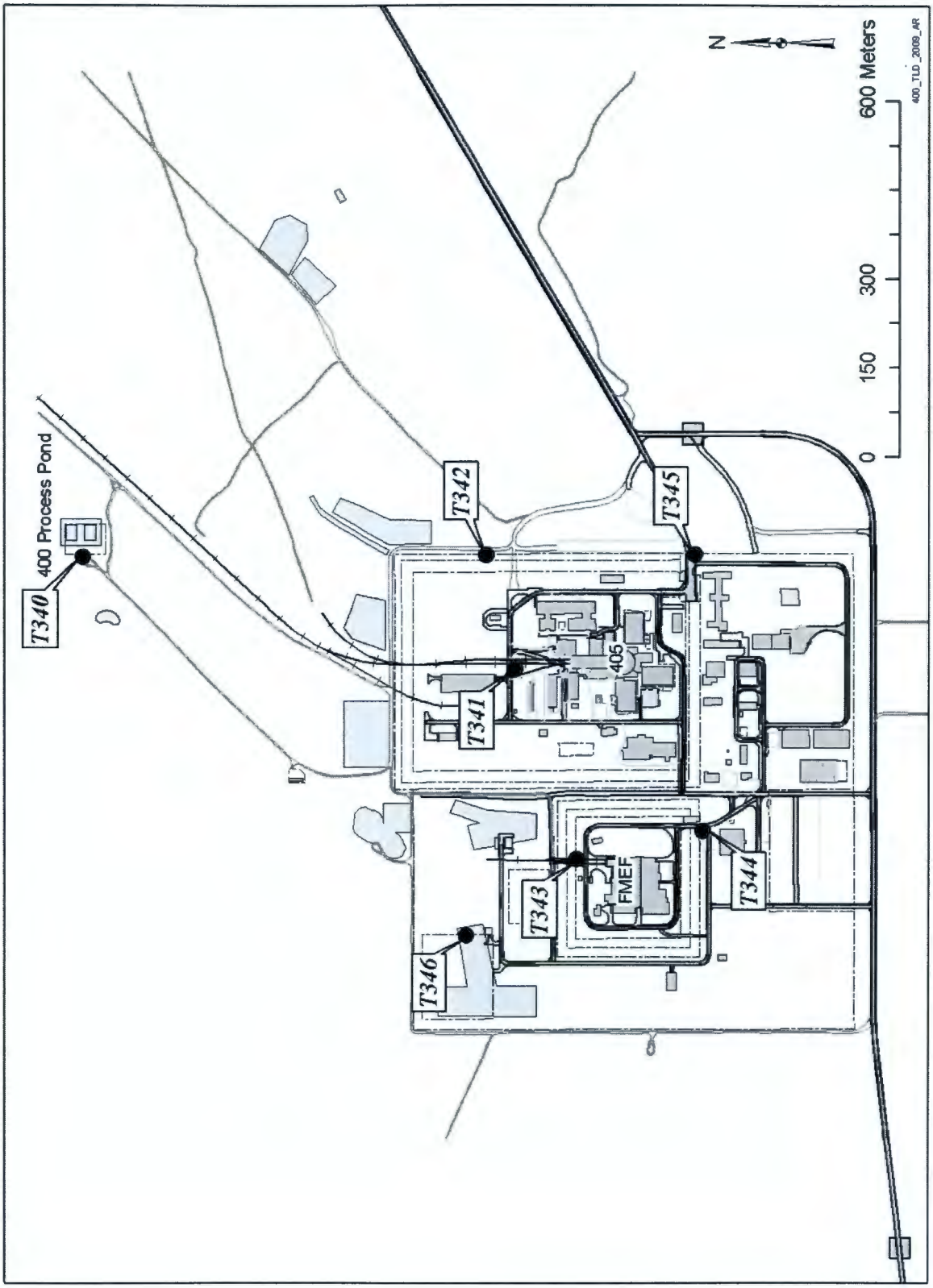


Table 5-2. 2009 Thermoluminescent Dosimeter Results. (Sheet 1 of 13)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
100-K	T218	1st Quarter '09	0.020	0.48	47.1	174	99
Area	T219		0.052	1.24	121.7	454	98
	T220		0.023	0.55	54.3	200	99
	T221		0.024	0.57	56.5	208	99
	T222		0.023	0.54	53.5	197	99
	T223		0.012	0.29	28.3	104	99
	T224		0.012	0.30	29.2	109	98
	T225		0.022	0.53	52.5	194	99
	T226		0.017	0.40	39.2	146	98
	T227		0.056	1.34	131.2	489	98
	T228		0.014	0.34	33.2	124	98
	T376		0.009	0.22	21.4	80	98
	T377		0.008	0.19	19.0	71	98
	T378		0.012	0.29	28.2	105	98
	T218	2nd Quarter '09	0.011	0.26	25.3	95	97
	T219		0.056	1.34	129.8	488	97
	T220		0.024	0.59	56.8	214	97
	T221		0.024	0.57	55.0	207	97
	T222		0.026	0.61	59.5	224	97
	T223		0.012	0.30	28.7	108	97
	T224		0.023	0.55	53.6	202	97
	T225		0.033	0.80	77.6	292	97
	T226		0.037	0.88	85.3	321	97
	T227		0.186	4.45	431.8	1,625	97
	T228		0.031	0.75	73.0	275	97
	T376		0.008	0.19	18.7	70	97
	T377		0.009	0.22	21.3	80	97
	T378		0.019	0.45	44.1	166	97
	T218	3rd Quarter '09	0.008	0.20	18.2	73	91
	T219		0.020	0.48	43.3	174	91
	T220		0.014	0.33	30.4	122	91
	T221		0.017	0.41	36.9	148	91
	T222		0.019	0.45	40.9	164	91
	T223		0.011	0.26	24.0	96	91
	T224		0.046	1.11	101.3	407	91
	T225		0.048	1.15	104.7	420	91
	T226		0.073	1.74	158.5	636	91
	T227		0.397	9.52	866.1	3,474	91
	T228		0.056	1.34	122.0	489	91
	T376		0.008	0.20	18.1	73	91
	T377		0.012	0.29	26.1	105	91
	T378		0.028	0.66	60.4	242	91
	T218	4th Quarter '09	0.009	0.21	17.5	77	83
	T219		0.009	0.22	17.9	79	83
	T220		0.010	0.25	20.4	90	83
	T221		0.012	0.30	24.8	109	83
	T222		0.010	0.25	20.7	91	83
	T223		0.009	0.21	17.5	77	83
	T224		0.014	0.33	27.6	122	83
	T225		0.015	0.35	29.3	129	83
	T226		0.017	0.41	34.4	151	83
	T227		0.057	1.36	113.1	497	83
	T228		0.015	0.35	29.2	128	83
	T376		0.008	0.20	16.5	73	83
	T377		0.010	0.23	19.5	86	83
	T378		0.013	0.30	24.9	109	83

Table 5-2. 2009 Thermoluminescent Dosimeter Results. (Sheet 2 of 13)

Location			mrem/hr	mrem/day	mrem/qtr	mrem/year
100-K	T218	Annual Averages	0.012 ± 0.011	0.29 ± 0.26	26.7 ± 23.5	107 ± 94
Area	T219	± 2 Standard Deviations	0.035 ± 0.046	0.85 ± 1.11	77.3 ± 101.7	309 ± 407
(cont'd)	T220		0.018 ± 0.014	0.44 ± 0.33	39.9 ± 30.1	160 ± 120
	T221		0.020 ± 0.011	0.47 ± 0.27	42.7 ± 24.2	171 ± 97
	T222		0.020 ± 0.013	0.47 ± 0.32	43.0 ± 28.8	172 ± 115
	T223		0.011 ± 0.003	0.27 ± 0.08	24.3 ± 6.9	97 ± 28
	T224		0.024 ± 0.031	0.57 ± 0.75	52.4 ± 68.8	209 ± 275
	T225		0.030 ± 0.029	0.71 ± 0.69	65.1 ± 63.4	260 ± 254
	T226		0.036 ± 0.052	0.86 ± 1.26	78.5 ± 114.8	314 ± 459
	T227		0.174 ± 0.321	4.18 ± 7.71	381.4 ± 703.5	1,525 ± 2814
	T228		0.029 ± 0.039	0.70 ± 0.94	63.7 ± 85.9	255 ± 344
	T376		0.008 ± 0.001	0.20 ± 0.02	18.5 ± 2.0	74 ± 8
	T377		0.010 ± 0.003	0.23 ± 0.08	21.2 ± 7.2	85 ± 29
	T378		0.018 ± 0.015	0.43 ± 0.35	39.0 ± 32.0	156 ± 128

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
100-N	T234	1st Quarter '09	0.009	0.23	21.9	82	97
Area	T235		0.012	0.30	28.9	109	97
	T240		0.012	0.30	28.9	109	97
	T246		0.009	0.21	20.0	76	97
	T248		0.014	0.35	33.5	126	97
	T234	2nd Quarter '09	0.009	0.21	20.5	76	99
	T235		0.010	0.24	23.7	87	99
	T240		0.012	0.29	28.8	106	99
	T246		0.008	0.19	19.0	70	99
	T248		0.011	0.27	26.7	98	99
	T234	3rd Quarter '09	0.009	0.21	18.9	78	89
	T235		0.009	0.22	19.7	81	89
	T240		0.019	0.45	40.2	165	89
	T246		0.009	0.21	19.0	78	89
	T248		0.010	0.23	20.6	85	89
	T234	4th Quarter '09	0.009	0.21	17.1	78	80
	T235		0.010	0.25	19.7	90	80
	T240		0.018	0.44	35.2	160	80
	T246		0.009	0.21	16.8	77	80
	T248		0.011	0.26	20.4	93	80
	T234	Annual Averages	0.009 ± 0.001	0.21 ± 0.02	19.6 ± 1.4	78 ± 6	
	T235	± 2 Standard Deviations	0.010 ± 0.003	0.25 ± 0.07	23.0 ± 6.0	92 ± 24	
	T240		0.015 ± 0.007	0.36 ± 0.17	33.3 ± 15.9	133 ± 64	
	T246		0.009 ± 0.001	0.20 ± 0.02	18.7 ± 1.7	75 ± 7	
	T248		0.012 ± 0.004	0.28 ± 0.10	25.3 ± 9.0	101 ± 36	

Table 5-2. 2009 Thermoluminescent Dosimeter Results. (Sheet 3 of 13)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 East	T259	1st Quarter '09	0.010	0.23	19.2	84	83
Area	T260		0.009	0.21	17.9	78	84
	T261		0.009	0.21	17.9	77	85
	T262		0.009	0.20	17.2	74	85
	T263		0.010	0.23	19.5	84	85
	T264		0.011	0.27	22.6	98	84
	T265		0.012	0.29	24.9	107	85
	T266		0.010	0.24	19.8	87	83
	T267		0.010	0.25	20.9	91	84
	T268		0.014	0.32	27.2	118	84
	T269		0.010	0.24	20.3	87	85
	T270		0.014	0.34	28.4	124	84
	T271		0.010	0.24	20.2	88	84
	T272		0.011	0.27	23.8	100	87
	T273		0.009	0.21	18.0	78	84
	T274		0.010	0.23	19.2	84	84
	T275		0.010	0.23	19.4	85	84
	T276		0.009	0.22	18.8	82	84
	T277		0.010	0.24	20.2	88	84
	T278		0.010	0.23	19.1	83	84
	T279		0.009	0.21	17.8	78	84
	T280		0.009	0.22	18.7	81	85
	T281		0.009	0.22	18.0	79	84
	T282		0.009	0.21	17.6	75	85
	T283		0.010	0.24	20.2	87	85
	T284		0.012	0.30	25.3	109	85
	T285		0.012	0.29	24.8	106	85
	T286		0.015	0.35	29.6	129	84
	T287		0.014	0.34	29.2	125	85
	T288		0.022	0.53	45.0	193	85
	T289		0.018	0.42	35.8	154	85
	T290		0.012	0.28	23.9	103	85
	T291		0.013	0.31	26.6	114	85
	T292		0.029	0.70	59.7	257	85
	T293		0.012	0.29	24.4	105	85
	T294		0.019	0.47	39.6	170	85
	T295		0.010	0.24	20.0	86	85
	T296		0.010	0.23	20.0	86	85
	T297		0.010	0.23	19.8	85	85
	T298		0.009	0.22	17.9	79	83
	T299		0.010	0.24	19.5	86	83
	T300		0.010	0.24	20.4	89	84

Table 5-2. 2009 Thermoluminescent Dosimeter Results. (Sheet 4 of 13)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 East	T259	2nd Quarter '09	0.009	0.22	21.1	79	98
Area	T260		0.009	0.21	20.5	77	97
(cont'd)	T261		0.009	0.21	20.3	77	96
	T262		0.009	0.21	19.8	75	96
	T263		0.008	0.20	19.2	73	96
	T264		0.011	0.26	24.6	94	96
	T265		0.013	0.30	28.4	109	95
	T266		0.009	0.22	21.9	82	98
	T267		0.010	0.23	21.8	83	96
	T268		0.012	0.28	27.0	103	96
	T269		0.010	0.25	23.5	90	95
	T270		0.013	0.32	31.0	117	97
	T271		0.009	0.21	20.7	78	97
	T272		0.011	0.27	25.6	97	96
	T273		0.009	0.21	20.0	75	97
	T274		0.009	0.21	20.2	76	97
	T275		0.010	0.23	22.0	83	97
	T276		0.009	0.21	20.3	76	97
	T277		0.010	0.24	23.0	87	96
	T278		0.009	0.21	19.9	75	97
	T279		0.009	0.22	21.1	79	97
	T280		0.009	0.21	19.9	75	97
	T281		0.009	0.21	19.9	75	97
	T282		0.009	0.20	19.8	75	97
	T283		0.009	0.21	20.5	78	96
	T284		0.013	0.31	29.9	114	96
	T285		0.012	0.29	27.6	105	96
	T286		0.015	0.36	34.2	130	96
	T287		0.013	0.31	30.2	115	96
	T288		0.025	0.59	56.7	216	96
	T289		0.020	0.48	45.8	174	96
	T290		0.011	0.27	25.6	97	96
	T291		0.013	0.32	30.6	116	96
	T292		0.030	0.73	69.7	265	96
	T293		0.012	0.29	28.3	108	96
	T294		0.018	0.44	41.9	159	96
	T295		0.009	0.21	20.6	78	96
	T296		0.011	0.27	26.3	99	97
	T297		0.009	0.22	21.4	81	97
	T298		0.009	0.21	20.4	76	98
	T299		0.009	0.22	21.5	80	98
	T300		0.010	0.24	23.7	88	98

Table 5-2. 2009 Thermoluminescent Dosimeter Results. (Sheet 5 of 13)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 East	T259	3rd Quarter '09	0.009	0.22	28.7	80	132
Area	T260		0.009	0.21	18.4	76	89
(cont'd)	T261		0.009	0.22	19.6	79	91
	T262		0.009	0.22	19.6	79	91
	T263		0.009	0.22	19.9	80	91
	T264		0.011	0.27	24.3	99	90
	T265		0.012	0.30	26.8	109	90
	T266		0.009	0.21	18.5	76	89
	T267		0.010	0.23	20.7	84	90
	T268		0.012	0.28	25.1	101	91
	T269		0.010	0.24	22.2	89	91
	T270		0.013	0.32	28.7	118	89
	T271		0.011	0.26	22.9	94	89
	T272		0.012	0.28	25.5	102	91
	T273		0.009	0.21	19.1	78	89
	T274		0.009	0.21	18.3	75	89
	T275		0.009	0.22	19.4	79	89
	T276		0.008	0.19	17.2	71	89
	T277		0.011	0.25	22.6	92	90
	T278		0.009	0.22	20.0	80	91
	T279		0.009	0.22	19.7	79	91
	T280		0.009	0.21	18.9	77	89
	T281		0.009	0.22	19.8	79	91
	T282		0.009	0.22	20.2	82	90
	T283		0.009	0.21	18.9	76	91
	T284		0.012	0.30	27.1	109	91
	T285		0.013	0.31	27.5	111	90
	T286		0.016	0.37	33.9	136	91
	T287		0.014	0.33	29.5	120	90
	T288		0.023	0.54	49.2	197	91
	T289		0.018	0.42	38.3	154	91
	T290		0.011	0.27	24.3	97	91
	T291		0.014	0.33	30.1	121	91
	T292		0.035	0.85	77.2	310	91
	T293		0.012	0.29	26.3	107	90
	T294		0.017	0.40	36.8	148	91
	T295		0.009	0.22	19.6	79	91
	T296		0.011	0.26	23.5	95	90
	T297		0.009	0.22	20.2	82	90
	T298		0.009	0.22	19.7	81	89
	T299		0.009	0.23	20.1	82	89
	T300		0.010	0.24	21.3	87	89

Table 5-2. 2009 Thermoluminescent Dosimeter Results. (Sheet 6 of 13)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 East	T259	4th Quarter '09	0.011	0.25	12.6	92	50
Area	T260		0.010	0.23	21.6	85	93
(cont'd)	T261		0.010	0.23	21.4	84	93
	T262		0.009	0.22	20.8	81	93
	T263		0.010	0.24	22.0	86	93
	T264		0.013	0.30	28.6	111	94
	T265		0.013	0.31	29.1	113	94
	T266		0.010	0.25	23.0	90	93
	T267		0.010	0.25	23.3	90	94
	T268		0.014	0.32	30.1	118	93
	T269		0.011	0.25	23.5	92	93
	T270		0.014	0.33	31.1	121	94
	T271		0.010	0.24	22.3	87	94
	T272		0.012	0.28	26.2	103	93
	T273		0.009	0.22	21.8	81	98
	T274		0.010	0.23	22.0	85	94
	T275		0.010	0.24	22.5	87	94
	T276		0.008	0.20	18.8	73	94
	T277		0.011	0.25	23.8	92	94
	T278		0.010	0.24	22.3	87	93
	T279		0.010	0.23	21.3	84	93
	T280		0.009	0.22	21.1	82	94
	T281		0.010	0.23	22.0	83	97
	T282		0.010	0.23	21.7	85	93
	T283		0.010	0.24	22.3	88	93
	T284		0.014	0.33	30.2	119	93
	T285		0.013	0.31	28.9	112	94
	T286		0.015	0.37	34.4	135	93
	T287		0.014	0.34	31.6	123	94
	T288		0.026	0.63	60.8	229	97
	T289		0.019	0.45	41.9	165	93
	T290		0.012	0.29	27.0	106	93
	T291		0.014	0.34	31.3	123	93
	T292		0.035	0.84	78.0	306	93
	T293		0.013	0.31	29.0	113	94
	T294		0.015	0.35	32.8	129	93
	T295		0.010	0.25	23.0	90	93
	T296		0.012	0.28	26.2	103	93
	T297		0.010	0.25	22.9	90	93
	T298		0.010	0.25	23.0	90	93
	T299		0.010	0.25	23.2	91	93
	T300		0.011	0.26	24.4	95	94

Table 5-2. 2009 Thermoluminescent Dosimeter Results. (Sheet 7 of 13)

Location			mrem/hr	mrem/day	mrem/qtr	mrem/year
200 East	T259	Annual Averages	0.009 ± 0.001	0.22 ± 0.03	20.5 ± 3.1	82 ± 12
Area	T260	± 2 Standard Deviations	0.009 ± 0.001	0.22 ± 0.02	19.7 ± 2.1	79 ± 8
(cont'd)	T261		0.009 ± 0.001	0.22 ± 0.02	19.8 ± 1.7	79 ± 7
	T262		0.009 ± 0.001	0.21 ± 0.02	19.4 ± 1.7	77 ± 7
	T263		0.009 ± 0.001	0.22 ± 0.03	20.1 ± 2.9	81 ± 12
	T264		0.011 ± 0.002	0.27 ± 0.04	25.1 ± 3.7	100 ± 15
	T265		0.013 ± 0.001	0.30 ± 0.01	27.4 ± 1.3	109 ± 5
	T266		0.010 ± 0.001	0.23 ± 0.03	20.9 ± 3.2	84 ± 13
	T267		0.010 ± 0.001	0.24 ± 0.02	21.7 ± 2.1	87 ± 8
	T268		0.013 ± 0.002	0.30 ± 0.05	27.4 ± 4.8	110 ± 19
	T269		0.010 ± 0.000	0.25 ± 0.01	22.4 ± 1.0	90 ± 4
	T270		0.014 ± 0.001	0.33 ± 0.02	29.9 ± 1.6	120 ± 6
	T271		0.010 ± 0.002	0.24 ± 0.04	21.6 ± 3.3	86 ± 13
	T272		0.011 ± 0.001	0.28 ± 0.01	25.1 ± 1.2	100 ± 5
	T273		0.009 ± 0.001	0.21 ± 0.01	19.6 ± 1.2	78 ± 5
	T274		0.009 ± 0.001	0.22 ± 0.03	20.0 ± 2.6	80 ± 10
	T275		0.010 ± 0.001	0.23 ± 0.02	20.9 ± 1.6	83 ± 6
	T276		0.009 ± 0.001	0.21 ± 0.03	18.9 ± 2.4	75 ± 10
	T277		0.010 ± 0.001	0.25 ± 0.01	22.5 ± 1.3	90 ± 5
	T278		0.009 ± 0.001	0.22 ± 0.03	20.3 ± 2.6	81 ± 10
	T279		0.009 ± 0.001	0.22 ± 0.01	20.0 ± 1.3	80 ± 5
	T280		0.009 ± 0.001	0.22 ± 0.02	19.7 ± 1.6	79 ± 6
	T281		0.009 ± 0.001	0.22 ± 0.02	19.7 ± 1.7	79 ± 7
	T282		0.009 ± 0.001	0.22 ± 0.03	19.8 ± 2.6	79 ± 10
	T283		0.009 ± 0.001	0.22 ± 0.03	20.5 ± 3.0	82 ± 12
	T284		0.013 ± 0.001	0.31 ± 0.03	28.1 ± 2.4	113 ± 9
	T285		0.012 ± 0.001	0.30 ± 0.02	27.2 ± 1.8	109 ± 7
	T286		0.015 ± 0.001	0.36 ± 0.02	33.1 ± 1.8	132 ± 7
	T287		0.014 ± 0.001	0.33 ± 0.02	30.1 ± 2.2	120 ± 9
	T288		0.024 ± 0.004	0.57 ± 0.09	52.3 ± 8.2	209 ± 33
	T289		0.018 ± 0.002	0.44 ± 0.05	40.5 ± 4.9	162 ± 20
	T290		0.012 ± 0.001	0.28 ± 0.02	25.2 ± 2.1	101 ± 8
	T291		0.014 ± 0.001	0.32 ± 0.02	29.6 ± 1.9	119 ± 8
	T292		0.032 ± 0.006	0.78 ± 0.15	71.2 ± 13.7	285 ± 55
	T293		0.012 ± 0.001	0.30 ± 0.02	27.0 ± 1.6	108 ± 6
	T294		0.017 ± 0.004	0.41 ± 0.10	37.8 ± 8.9	151 ± 36
	T295		0.010 ± 0.001	0.23 ± 0.03	20.8 ± 2.9	83 ± 12
	T296		0.011 ± 0.002	0.26 ± 0.04	24.0 ± 3.7	96 ± 15
	T297		0.010 ± 0.001	0.23 ± 0.02	21.1 ± 2.1	84 ± 8
	T298		0.009 ± 0.001	0.22 ± 0.03	20.4 ± 3.1	81 ± 12
	T299		0.010 ± 0.001	0.23 ± 0.03	21.2 ± 2.4	85 ± 10
	T300		0.010 ± 0.001	0.25 ± 0.02	22.4 ± 1.7	90 ± 7

Table 5-2. 2009 Thermoluminescent Dosimeter Results. (Sheet 8 of 13)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 West Area	T302	1st Quarter '09	0.010	0.23	21.1	85	91
	T303		0.012	0.30	26.9	108	91
	T304		0.013	0.31	28.4	114	91
	T305		0.009	0.22	19.9	81	90
	T306		0.011	0.27	24.9	00	91
	T307		0.011	0.26	23.2	94	90
	T308		0.011	0.26	23.8	97	90
	T309		0.010	0.23	20.9	85	90
	T310		0.011	0.25	22.7	92	90
	T311		0.009	0.21	18.7	76	90
	T312		0.012	0.28	25.5	104	90
	T313		0.017	0.41	36.6	149	90
	T314		0.009	0.21	19.5	78	91
	T315		0.009	0.23	20.6	83	91
	T316		0.012	0.29	25.7	104	90
	T317		0.010	0.24	22.1	89	91
	T318		0.009	0.22	18.6	79	86
	T319		0.009	0.22	18.9	80	86
	T320		0.012	0.30	27.2	109	91
	T321		0.011	0.26	23.3	94	91
	T322		0.009	0.22	19.2	81	86
	T323		0.012	0.28	25.6	103	91
	T324		0.020	0.49	44.6	179	91
	T325		0.013	0.32	29.3	118	91
	T302	2nd Quarter '09	0.010	0.23	22.1	85	95
	T303		0.010	0.24	22.5	86	95
	T304		0.014	0.33	31.5	121	95
	T305		0.009	0.23	21.5	83	95
	T306		0.011	0.27	26.0	100	95
	T307		0.012	0.28	26.3	101	95
	T308		0.011	0.26	24.4	94	95
	T309		0.009	0.22	20.9	80	95
	T310		0.010	0.24	22.8	88	95
	T311		0.009	0.22	21.0	81	95
	T312		0.012	0.29	27.4	105	95
	T313		0.016	0.39	37.3	143	95
	T314		0.009	0.21	19.8	76	95
	T315		0.010	0.24	22.8	88	95
	T316		0.011	0.25	24.0	92	95
	T317		0.010	0.24	22.9	88	95
	T318		0.009	0.21	21.2	78	99
	T319		0.009	0.21	20.9	77	99
	T320		0.011	0.26	24.4	94	95
	T321		0.010	0.25	23.4	90	95
	T322		0.008	0.20	19.5	72	99
	T323		0.010	0.23	22.2	85	95
	T324		0.021	0.49	47.0	181	95
	T325		0.014	0.34	32.3	124	95

Table 5-2. 2009 Thermoluminescent Dosimeter Results. (Sheet 9 of 13)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 West	T302	3rd Quarter '09	0.010	0.23	19.1	83	84
Area	T303		0.010	0.24	20.4	88	84
(cont'd)	T304		0.014	0.33	27.5	119	84
	T305		0.009	0.22	19.7	82	88
	T306		0.012	0.28	23.2	101	84
	T307		0.010	0.24	21.2	89	87
	T308		0.010	0.24	21.1	89	87
	T309		0.008	0.20	17.4	73	87
	T310		0.011	0.26	22.8	96	87
	T311		0.009	0.23	19.7	83	87
	T312		0.012	0.29	24.8	104	87
	T313		0.016	0.38	33.3	140	87
	T314		0.009	0.21	18.0	78	84
	T315		0.010	0.23	20.5	85	88
	T316		0.010	0.25	20.7	90	84
	T317		0.009	0.23	19.0	83	84
	T318		0.009	0.21	18.6	78	87
	T319		0.009	0.21	18.2	76	87
	T320		0.012	0.28	23.8	103	84
	T321		0.011	0.26	22.1	96	84
	T322		0.008	0.20	17.4	73	87
	T323		0.010	0.24	20.1	87	84
	T324		0.023	0.54	47.3	199	87
	T325		0.014	0.33	28.5	119	87
	T302	4th Quarter '09	0.010	0.25	23.9	91	96
	T303		0.010	0.25	23.4	90	95
	T304		0.014	0.33	31.6	120	96
	T305		0.010	0.24	22.3	89	92
	T306		0.012	0.30	28.4	108	96
	T307		0.011	0.27	24.9	98	93
	T308		0.011	0.27	24.9	98	93
	T309		0.009	0.23	21.0	82	93
	T310		0.012	0.28	26.2	103	93
	T311		0.010	0.23	21.6	85	93
	T312		0.013	0.31	28.9	114	93
	T313		0.017	0.42	38.8	152	93
	T314		0.010	0.23	22.3	85	96
	T315		0.011	0.26	23.7	94	92
	T316		0.010	0.25	23.8	91	96
	T317		0.011	0.26	24.9	95	96
	T318		0.010	0.24	22.5	88	93
	T319		0.010	0.24	22.0	86	93
	T320		0.013	0.30	29.1	109	97
	T321		0.012	0.28	26.8	102	96
	T322		0.009	0.22	20.6	81	93
	T323		0.010	0.24	23.5	89	96
	T324		0.023	0.54	50.3	197	93
	T325		0.016	0.37	34.7	136	93

Table 5-2. 2009 Thermoluminescent Dosimeter Results. (Sheet 10 of 13)

Location			mrem/hr	mrem/day	mrem/qtr	mrem/year
200 West	T302	Annual Averages	0.010 ± 0.001	0.24 ± 0.02	21.5 ± 1.7	86 ± 7
Area	T303	± 2 Standard Deviations	0.011 ± 0.002	0.26 ± 0.06	23.3 ± 5.0	93 ± 20
(cont'd)	T304		0.014 ± 0.001	0.33 ± 0.02	29.7 ± 1.5	119 ± 6
	T305		0.010 ± 0.001	0.23 ± 0.02	20.9 ± 1.7	83 ± 7
	T306		0.012 ± 0.001	0.28 ± 0.02	25.5 ± 1.9	102 ± 8
	T307		0.011 ± 0.001	0.26 ± 0.03	23.9 ± 2.6	96 ± 10
	T308		0.011 ± 0.001	0.26 ± 0.02	23.6 ± 2.0	94 ± 8
	T309		0.009 ± 0.001	0.22 ± 0.03	20.0 ± 2.5	80 ± 10
	T310		0.011 ± 0.001	0.26 ± 0.04	23.6 ± 3.2	94 ± 13
	T311		0.009 ± 0.001	0.22 ± 0.02	20.3 ± 1.9	81 ± 8
	T312		0.012 ± 0.001	0.29 ± 0.03	26.7 ± 2.3	107 ± 9
	T313		0.017 ± 0.001	0.40 ± 0.03	36.5 ± 2.8	146 ± 11
	T314		0.009 ± 0.001	0.22 ± 0.02	19.8 ± 1.8	79 ± 7
	T315		0.010 ± 0.001	0.24 ± 0.03	21.8 ± 2.5	87 ± 10
	T316		0.011 ± 0.002	0.26 ± 0.04	23.6 ± 3.3	94 ± 13
	T317		0.010 ± 0.001	0.24 ± 0.03	22.2 ± 2.5	89 ± 10
	T318		0.009 ± 0.001	0.22 ± 0.03	20.3 ± 2.5	81 ± 10
	T319		0.009 ± 0.001	0.22 ± 0.02	20.0 ± 2.3	80 ± 9
	T320		0.012 ± 0.002	0.28 ± 0.04	26.0 ± 3.6	104 ± 15
	T321		0.011 ± 0.001	0.26 ± 0.03	23.8 ± 2.5	95 ± 10
	T322		0.009 ± 0.001	0.21 ± 0.03	19.2 ± 2.5	77 ± 10
	T323		0.010 ± 0.002	0.25 ± 0.04	22.8 ± 4.0	91 ± 16
	T324		0.022 ± 0.002	0.52 ± 0.06	47.2 ± 5.3	189 ± 21
	T325		0.014 ± 0.002	0.34 ± 0.05	31.1 ± 4.2	124 ± 17

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
212-R	T301	1st Quarter '09	0.177	4.25	365	1,550	86
(200 North	T301	2nd Quarter '09	0.152	3.65	361	1,331	99
Area)	T301	3rd Quarter '09	0.188	4.50	396	1,643	88
	T301	4th Quarter '09	0.194	4.65	451	1,697	97
	T301	Annual Averages ± 2 Standard Deviations	0.177 ± 0.037	4.25 ± 0.89	388 ± 81	1,552 ± 323	

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
300 Area	T332	1st Quarter '09	0.009	0.22	22.9	82	102
	T333		0.009	0.22	22.0	79	102
	T334		0.009	0.21	21.9	78	102
	T335		0.009	0.21	21.6	77	102
	T336		0.009	0.21	21.6	77	102
	T337		0.008	0.19	19.6	70	102
	T338		0.012	0.29	29.1	104	102
	T339		0.009	0.22	22.2	80	102
	T332	2nd Quarter '09	0.009	0.21	19.2	77	91
	T333		0.010	0.23	20.9	84	91
	T334		0.008	0.19	17.4	70	91
	T335		0.009	0.21	19.5	78	91
	T336		0.009	0.22	19.7	79	91
	T337		TLD not recovered				
	T338		0.011	0.27	24.6	99	91
	T339		0.009	0.22	19.6	79	91

Table 5-2. 2009 Thermoluminescent Dosimeter Results. (Sheet 11 of 13)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
300 Area	T332	3rd Quarter '09	0.008	0.20	18.9	74	93
(cont'd)	T333		0.009	0.23	21.0	82	93
	T334		0.008	0.20	18.8	74	93
	T335		0.009	0.22	20.6	82	92
	T336		0.009	0.22	20.4	80	93
	T337		0.008	0.20	18.4	73	92
	T338		0.011	0.26	24.4	97	92
	T339		0.010	0.24	22.0	87	92
	T332	4th Quarter '09	0.010	0.23	19.4	83	85
	T333		0.010	0.24	20.4	88	85
	T334		0.010	0.23	19.8	85	85
	T335		0.009	0.23	19.5	83	86
	T336		0.009	0.21	18.2	78	85
	T337		0.009	0.21	18.5	78	86
	T338		0.012	0.29	25.1	107	86
	T339		0.012	0.28	24.2	103	86
	T332	Annual Averages	0.009 ± 0.001	0.22 ± 0.02	19.8 ± 2.1	79 ± 8	
	T333	± 2 Standard Deviations	0.009 ± 0.001	0.23 ± 0.02	20.7 ± 1.8	83 ± 7	
	T334		0.009 ± 0.001	0.21 ± 0.04	19.2 ± 3.3	77 ± 13	
	T335		0.009 ± 0.001	0.22 ± 0.01	20.0 ± 1.4	80 ± 5	
	T336		0.009 ± 0.000	0.22 ± 0.01	19.6 ± 0.6	78 ± 2	
	T337		0.008 ± 0.001	0.20 ± 0.02	18.4 ± 2.1	74 ± 8	
	T338		0.012 ± 0.001	0.28 ± 0.03	25.4 ± 2.3	101 ± 9	
	T339		0.010 ± 0.003	0.24 ± 0.06	21.7 ± 5.6	87 ± 22	

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
300 TEDF	T326	1st Quarter '09	0.009	0.21	21.0	78	98
	T327		0.009	0.23	22.1	83	98
	T328		0.010	0.24	23.3	87	98
	T329		0.009	0.23	22.1	82	98
	T330		0.009	0.22	21.8	81	98
	T331		0.009	0.22	21.7	81	98
	T326	2nd Quarter '09	0.008	0.20	18.8	72	95
	T327		0.009	0.21	20.0	77	95
	T328		0.009	0.21	19.5	75	95
	T329		0.009	0.21	19.7	76	95
	T330		0.009	0.22	20.5	79	95
	T331		0.009	0.22	20.8	80	95
	T326	3rd Quarter '09	0.009	0.22	20.7	81	93
	T327		0.009	0.21	19.7	77	93
	T328		0.010	0.24	22.4	88	93
	T329		0.009	0.22	20.1	79	93
	T330		0.009	0.22	20.1	80	92
	T331		0.009	0.21	19.9	78	93
	T326	4th Quarter '09	0.009	0.21	18.3	78	85
	T327		0.009	0.22	19.0	81	85
	T328		0.010	0.24	20.5	88	85
	T329		0.009	0.22	19.0	82	85
	T330		0.009	0.22	18.5	79	86
	T331		0.010	0.23	19.7	85	85

Table 5-2. 2009 Thermoluminescent Dosimeter Results. (Sheet 12 of 13)

Location			mrem/hr	mrem/day	mrem/qtr	mrem/year
300 TEDF	T326	Annual Averages	0.009 ± 0.001	0.21 ± 0.02	19.4 ± 1.9	77 ± 8
(cont'd)	T327	± 2 Standard Deviations	0.009 ± 0.001	0.22 ± 0.02	19.9 ± 1.4	79 ± 6
	T328		0.010 ± 0.001	0.23 ± 0.04	21.1 ± 3.2	84 ± 13
	T329		0.009 ± 0.001	0.22 ± 0.02	19.9 ± 1.5	79 ± 6
	T330		0.009 ± 0.000	0.22 ± 0.01	19.9 ± 0.6	80 ± 2
	T331		0.009 ± 0.001	0.22 ± 0.01	20.2 ± 1.4	81 ± 5

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
300-FF-2	T369	1st Quarter '09	0.009	0.22	19.7	79	54
(300 Area)	T370	(annual averages	0.009	0.21	19.5	78	54
	T371	cannot be	0.009	0.22	19.7	79	54
	T372	calculated)	0.009	0.22	20.1	81	54

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
CVDF	T347	1st Quarter '09	0.034	0.80	79.5	293	99
(100-K	T348		0.012	0.29	28.9	106	99
Area)	T349		0.009	0.22	22.1	82	99
	T350		0.011	0.26	25.5	94	99
	T347	2nd Quarter '09	0.049	1.17	113.8	428	97
	T348		0.032	0.76	73.4	276	97
	T349		0.011	0.26	24.9	94	97
	T350		0.012	0.29	28.0	105	97
	T347	3rd Quarter '09	0.017	0.40	36.0	144	91
	T348		0.011	0.26	23.3	94	91
	T349		0.008	0.20	18.0	72	91
	T350		0.009	0.22	20.3	82	91
	T347	4th Quarter '09	0.009	0.20	16.9	74	83
	T348		0.009	0.21	17.1	75	83
	T349		0.008	0.20	16.3	72	83
	T350		0.009	0.20	16.9	74	83
	T347	Annual Averages	0.028 ± 0.036	0.67 ± 0.86	60.7 ± 78.9	243 ± 316	
	T348	± 2 Standard Deviations	0.016 ± 0.021	0.39 ± 0.51	35.2 ± 46.6	141 ± 186	
	T349		0.009 ± 0.002	0.22 ± 0.06	20.1 ± 5.2	80 ± 21	
	T350		0.010 ± 0.003	0.25 ± 0.07	22.4 ± 6.8	89 ± 27	

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
400 Area	T340	1st Quarter '09	0.009	0.22	22.2	80	102
	T341		0.011	0.25	25.9	93	102
	T342		0.010	0.23	23.3	83	102
	T343		0.008	0.20	20.0	72	102
	T344		0.008	0.20	20.6	74	102
	T345		0.009	0.21	21.6	78	102
	T346		0.008	0.20	20.6	74	102
	T340	2nd Quarter '09	0.009	0.22	20.4	82	91
	T341		0.010	0.24	21.8	87	91
	T342		0.009	0.21	18.7	75	91
	T343		0.011	0.25	23.0	92	91
	T344		0.008	0.19	17.7	71	91
	T345		0.009	0.21	19.1	77	91
	T346		0.008	0.19	17.4	70	91

Table 5-2. 2009 Thermoluminescent Dosimeter Results. (Sheet 13 of 13)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
400 Area	T340	3rd Quarter '09	0.009	0.20	18.9	74	93
(cont'd)	T341		0.011	0.27	24.4	97	92
	T342		0.008	0.20	18.6	74	92
	T343		0.009	0.22	20.6	82	92
	T344		0.009	0.21	19.2	76	92
	T345		0.009	0.21	19.6	78	92
	T346		0.009	0.20	18.8	75	92
	T340	4th Quarter '09	0.009	0.22	18.4	79	85
	T341		0.011	0.25	21.8	92	86
	T342		0.009	0.22	19.0	81	86
	T343		0.009	0.22	19.1	81	86
	T344		0.009	0.21	18.1	77	86
	T345		0.009	0.23	19.4	82	86
	T346		0.009	0.20	17.5	74	86
	T340	Annual Averages	0.009 ± 0.001	0.22 ± 0.02	19.7 ± 1.6	79 ± 6	
	T341	± 2 Standard Deviations	0.011 ± 0.001	0.25 ± 0.02	23.1 ± 1.9	92 ± 8	
	T342		0.009 ± 0.001	0.21 ± 0.02	19.6 ± 2.3	78 ± 9	
	T343		0.009 ± 0.002	0.22 ± 0.05	20.3 ± 4.2	81 ± 17	
	T344		0.008 ± 0.001	0.20 ± 0.01	18.6 ± 1.3	74 ± 5	
	T345		0.009 ± 0.001	0.22 ± 0.01	19.6 ± 1.3	78 ± 5	
	T346		0.008 ± 0.001	0.20 ± 0.01	18.3 ± 1.1	73 ± 4	

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
ERDF	T351	1st Quarter '09	0.009	0.21	18.4	75	90
(200 West	T352		0.010	0.23	20.6	84	90
Area)	T353		0.009	0.22	20.1	82	90
	T351	2nd Quarter '09	0.008	0.20	19.2	74	95
	T352		0.009	0.22	20.8	80	95
	T353		0.009	0.22	21.2	82	95
	T351	3rd Quarter '09	0.010	0.24	21.1	87	88
	T352		0.012	0.28	24.5	102	88
	T353		0.009	0.21	18.8	78	88
	T351	4th Quarter '09	0.011	0.25	24.7	92	98
	T352		0.012	0.28	26.7	100	97
	T353		0.009	0.22	21.9	82	98
	T351	Annual Averages	0.009 ± 0.002	0.22 ± 0.05	20.5 ± 4.5	82 ± 18	
	T352	± 2 Standard Deviations	0.010 ± 0.003	0.25 ± 0.06	22.8 ± 5.6	91 ± 23	
	T353		0.009 ± 0.000	0.22 ± 0.01	20.2 ± 0.9	81 ± 4	

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
IDF	T375	1st Quarter '09	0.010	0.24	21.5	87	90
(200 East	T375	2nd Quarter '09	0.010	0.24	22.0	88	91
Area)	T375	3rd Quarter '09	0.010	0.23	21.2	85	91
	T375	4th Quarter '09	0.011	0.26	23.8	93	93
	T375	Annual Averages ± 2 Standard Deviations	0.010 ± 0.001	0.24 ± 0.02	22.1 ± 1.7	88 ± 7	

6.0 RADIOLOGICAL SURVEYS

In 2009, there were approximately 3,581 hectares (8,849 acres) of posted outdoor contamination areas and 578 hectares (1,429 acres) of posted underground radioactive materials areas at the Hanford Site. During 2009, several waste sites in the 100 Areas (4 hectares [10 acres]) and two waste sites in the 600 Area (4 hectares [10 acres]) were remediated and released from posting. A listing of these waste sites is provided in Table 6-1.

Posted contamination areas continually vary in number and size from year to year because of ongoing efforts to clean, stabilize, and remediate areas of known contamination. In conjunction, new areas of contamination are also being identified throughout the year. Survey locations, typically associated with cribs, trenches, burial grounds, tank farms, and covered ponds and ditches, are illustrated in Figures 6-1 through 6-10.

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 2009.

Table 6-1. Waste Sites Remediated and Released From Posting During 2009.

Area	Waste Site	Area	Waste Site
100-D/DR	100-D-61	100-N	116-N-1
	120-D-2		
	126-DR-1	600	618-7
			618-13
100-F	128-F-2		

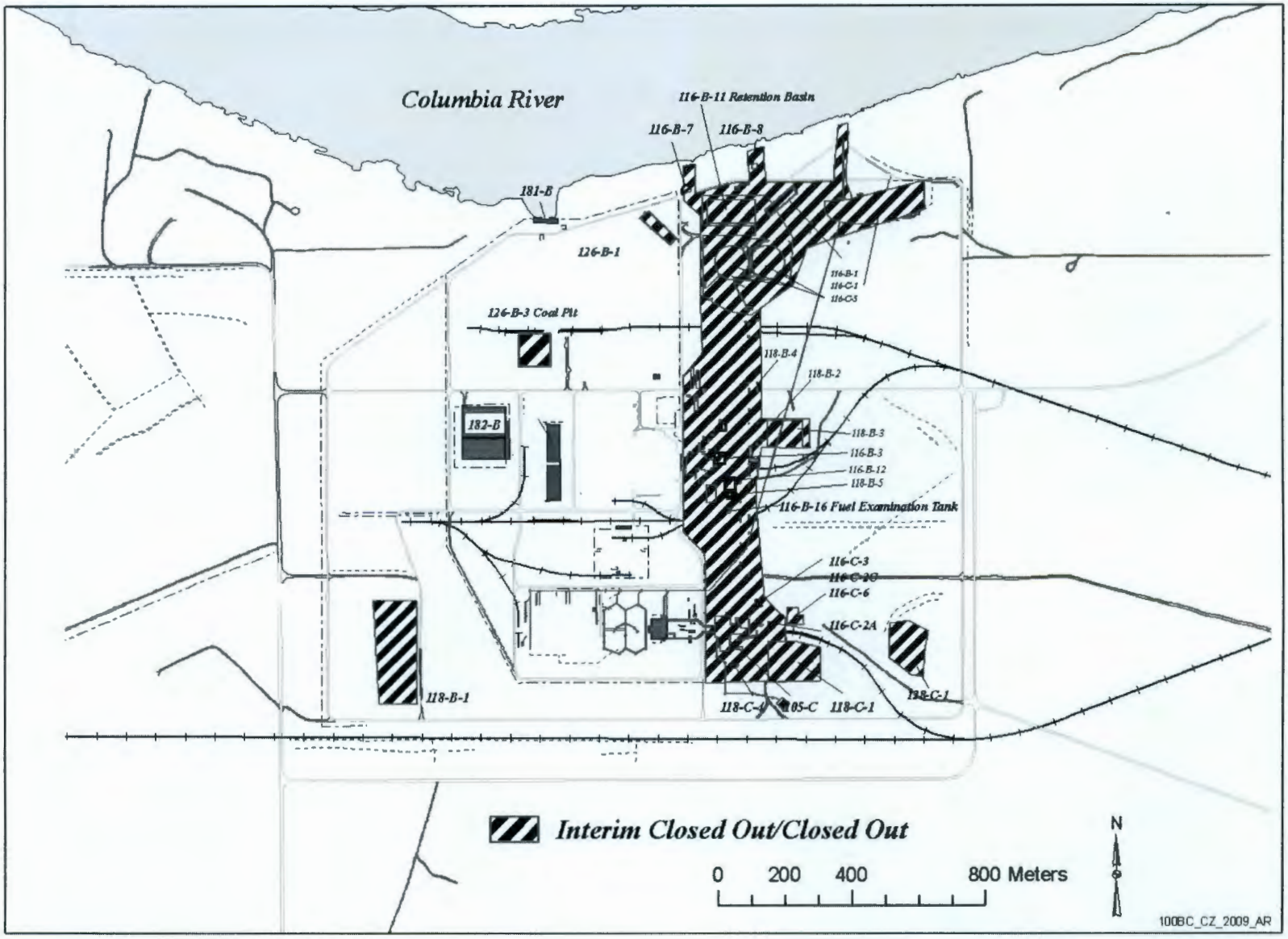


Figure 6-1. 2009 Radiological Survey Locations, 100-B/C Area.

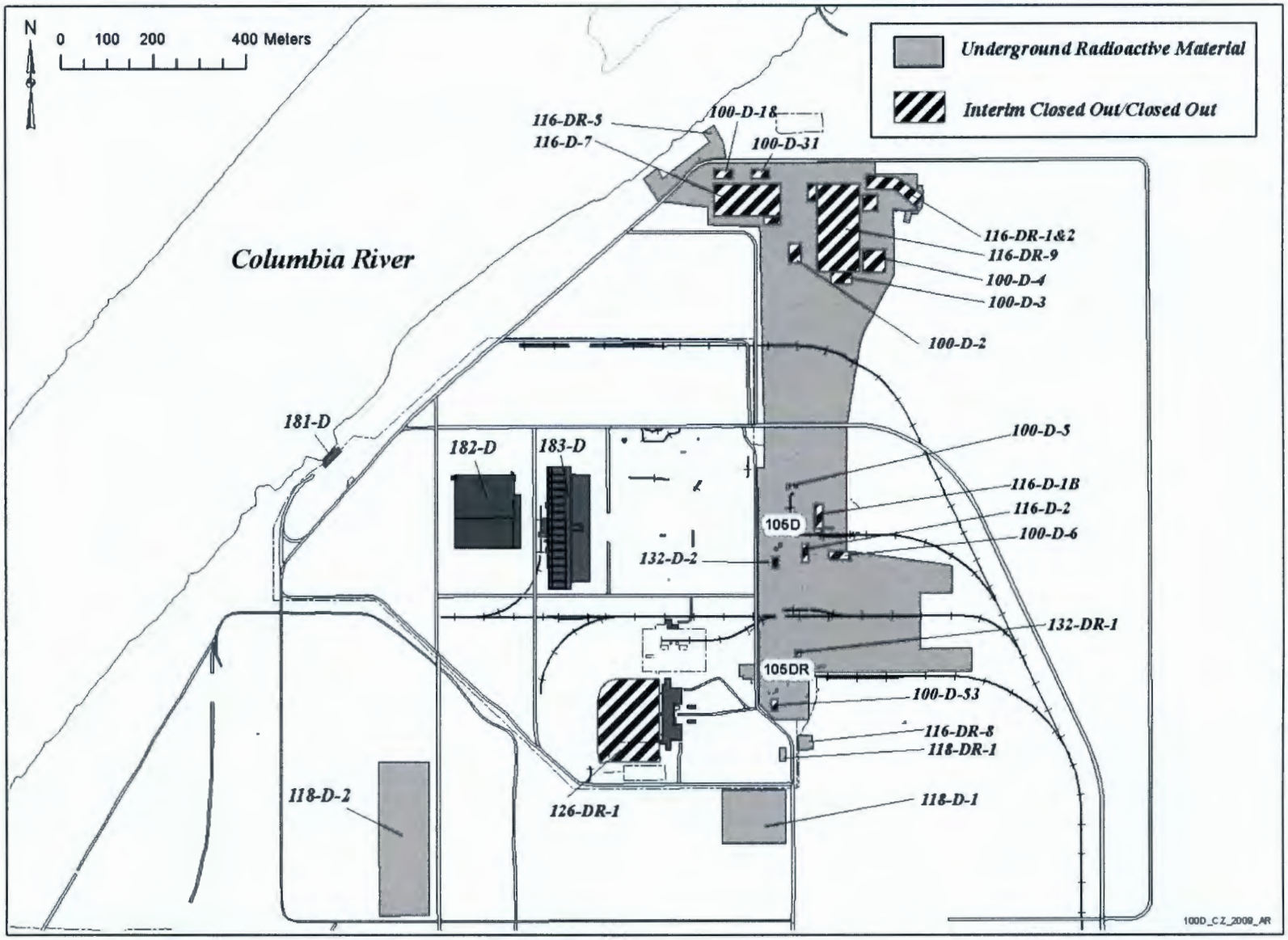


Figure 6-2. 2009 Radiological Survey Locations, 100-D/DR Area.

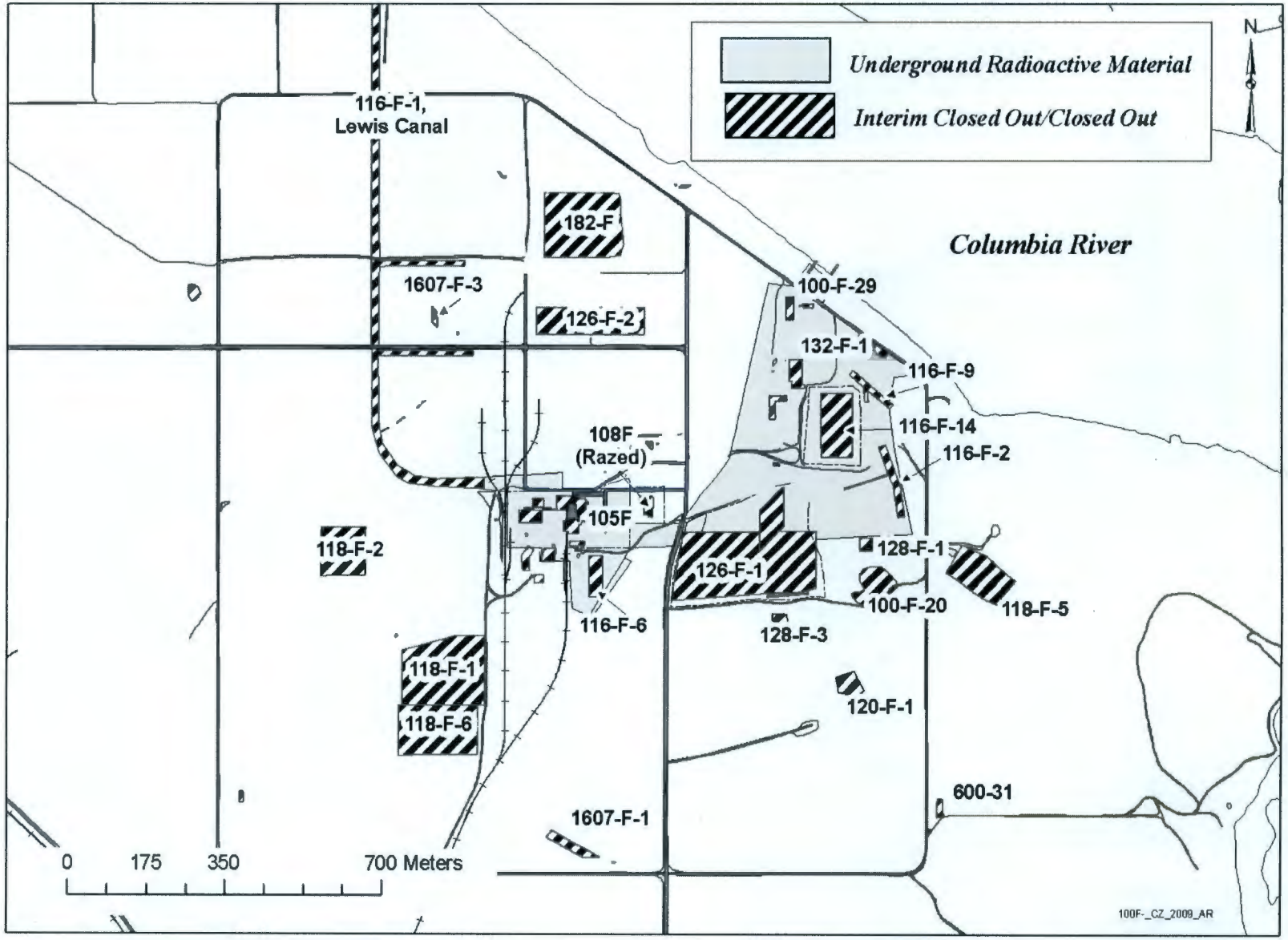


Figure 6-3. 2009 Radiological Survey Locations, 100-F Area.

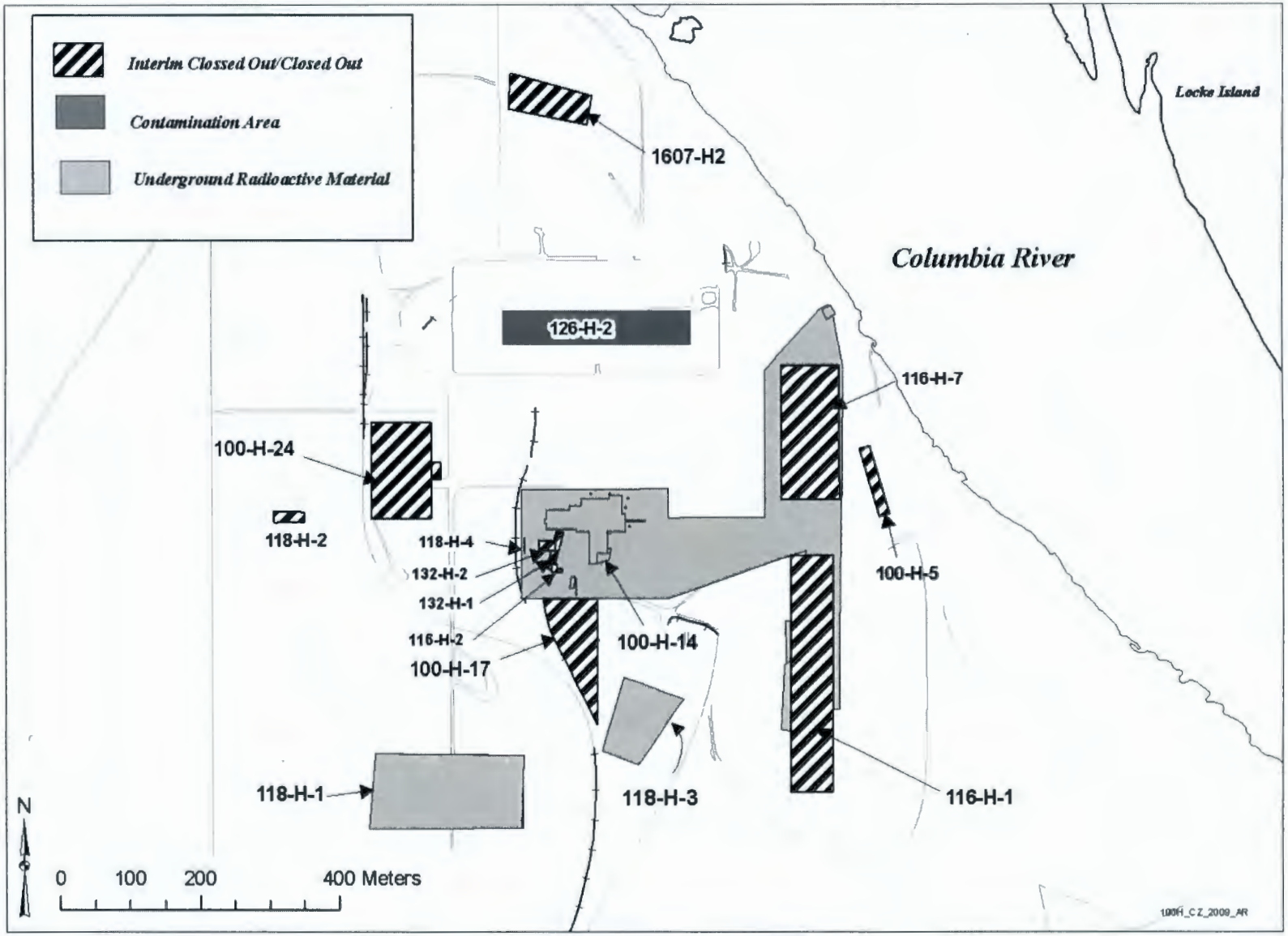


Figure 6-4. 2009 Radiological Survey Locations, 100-H Area.

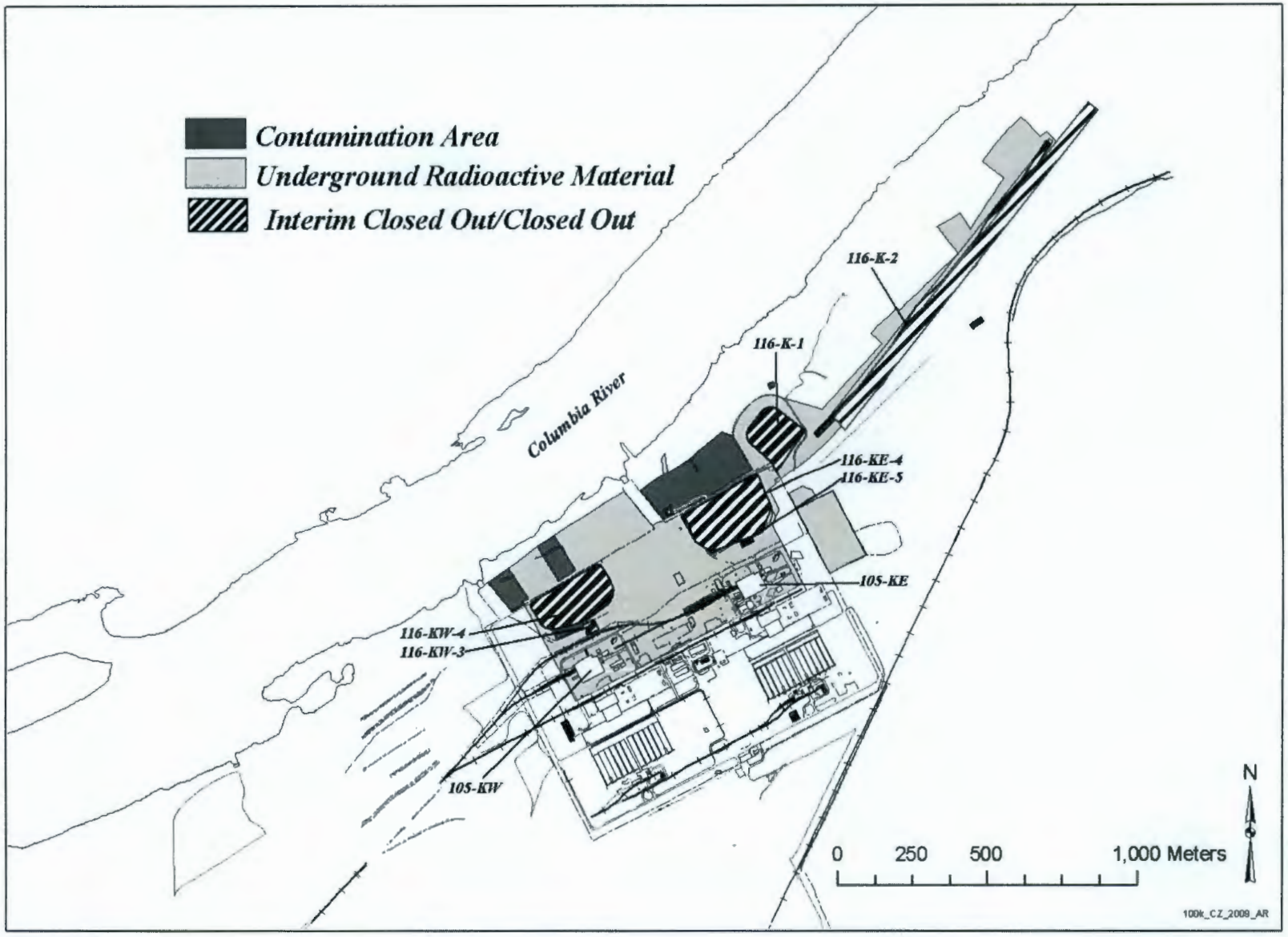


Figure 6-5. 2009 Radiological Survey Locations, 100-K Area.

Figure 6-6. 2009 Radiological Survey Locations, 100-N Area.

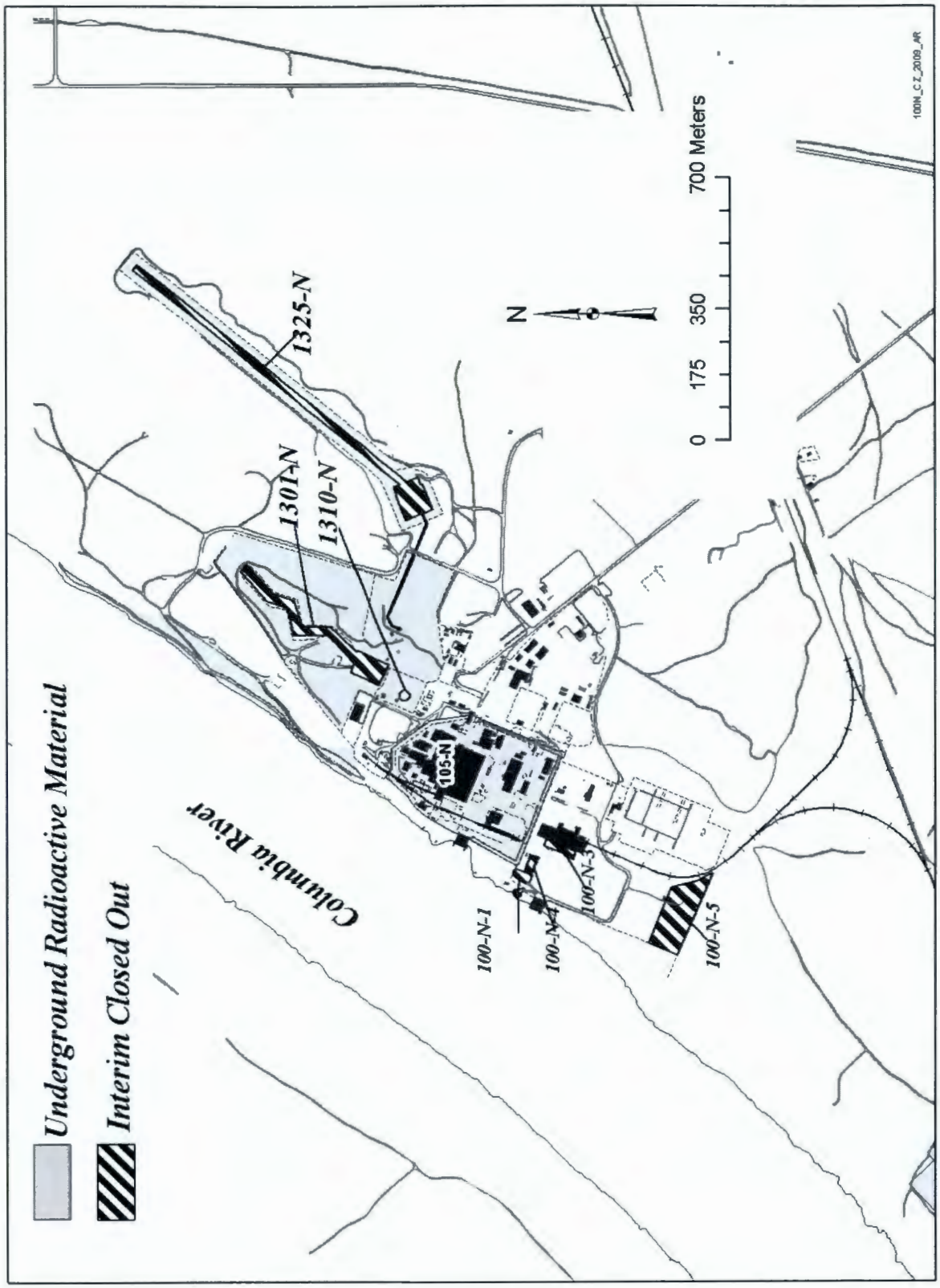


Figure 6-7. 2009 Radiological Survey Locations, 200 East Area.

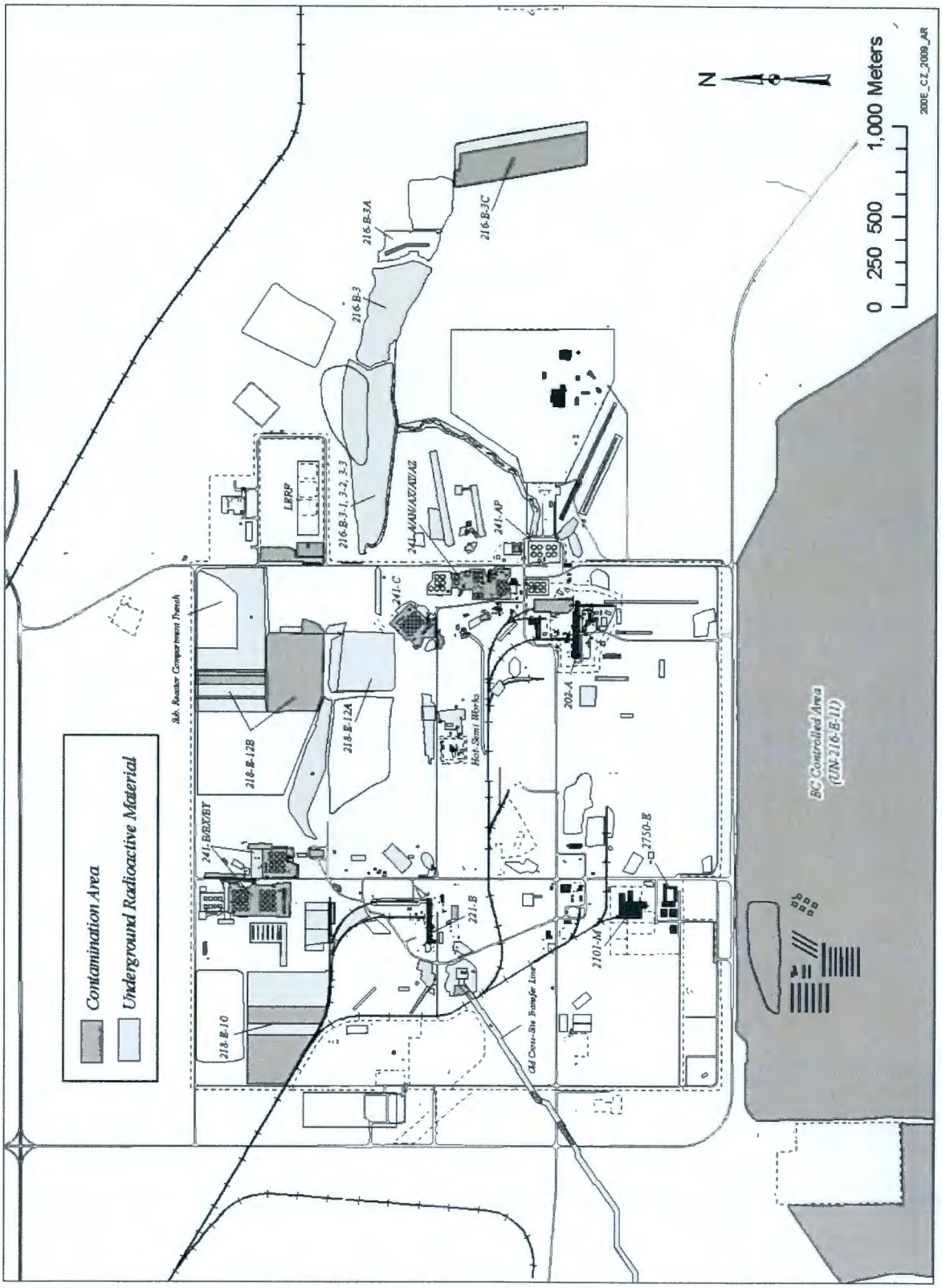


Figure 6-8. 2009 Radiological Survey Locations, 200 West Area.

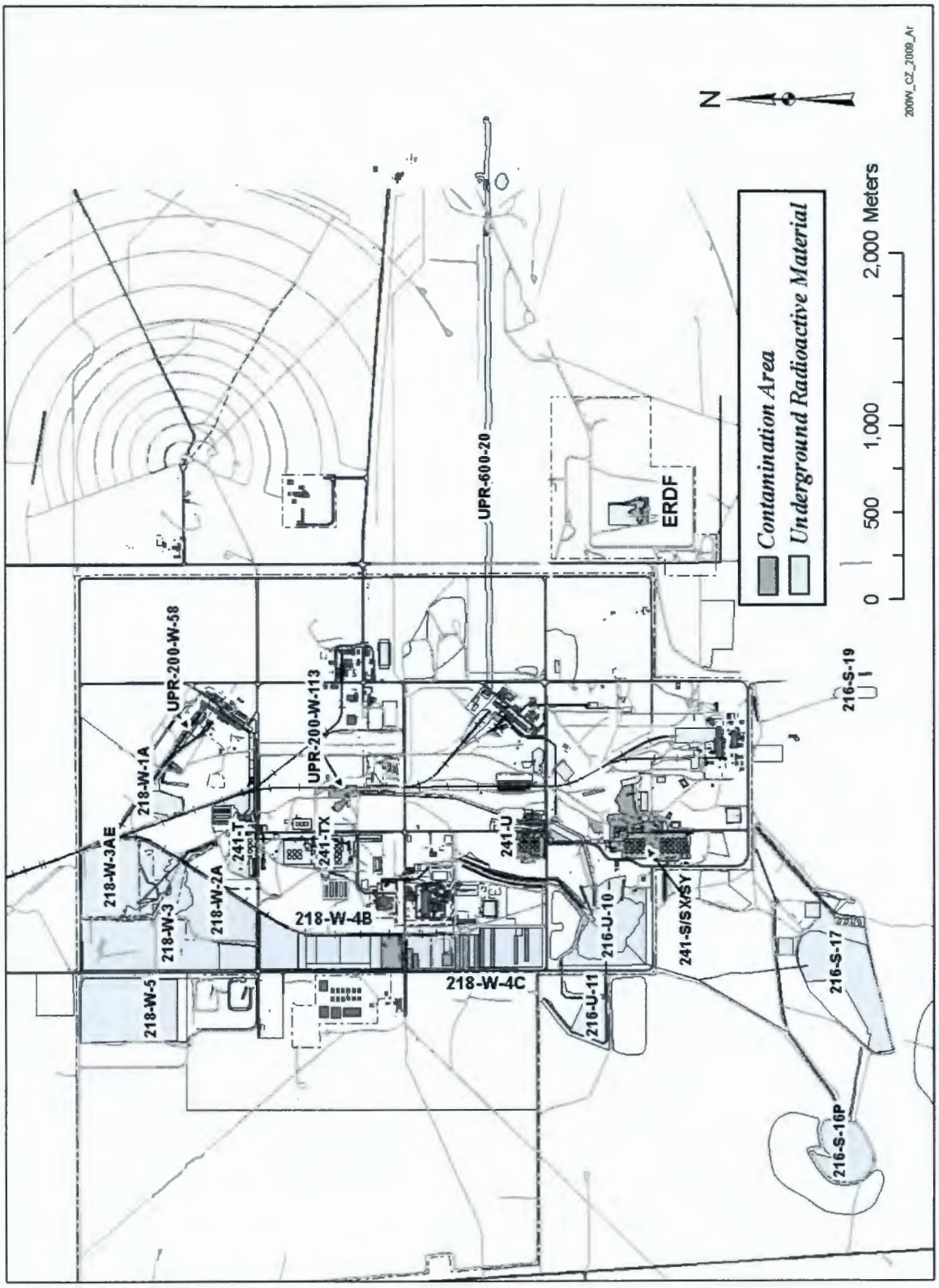
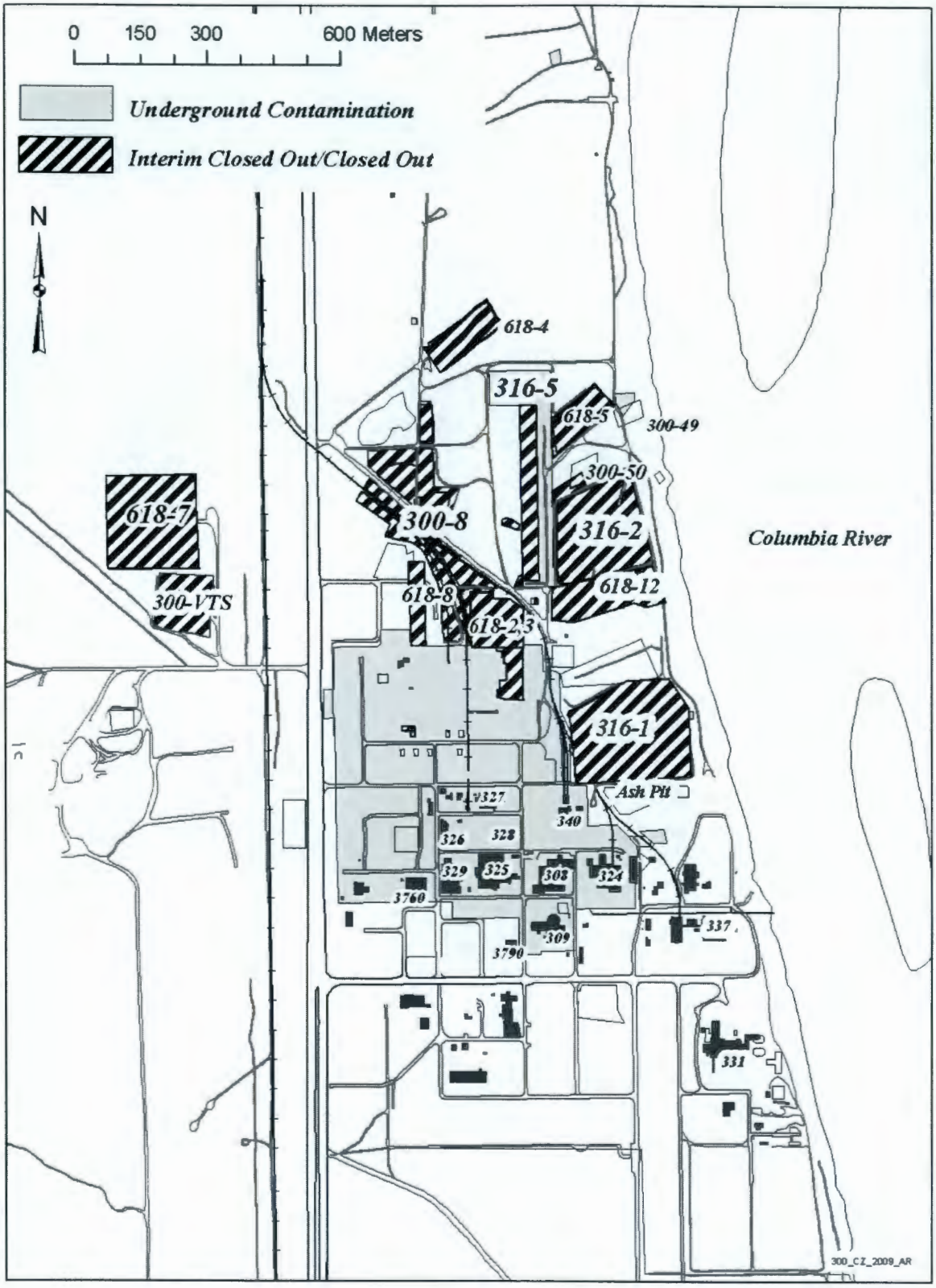


Figure 6-9. 2009 Radiological Survey Locations, 300 Area.



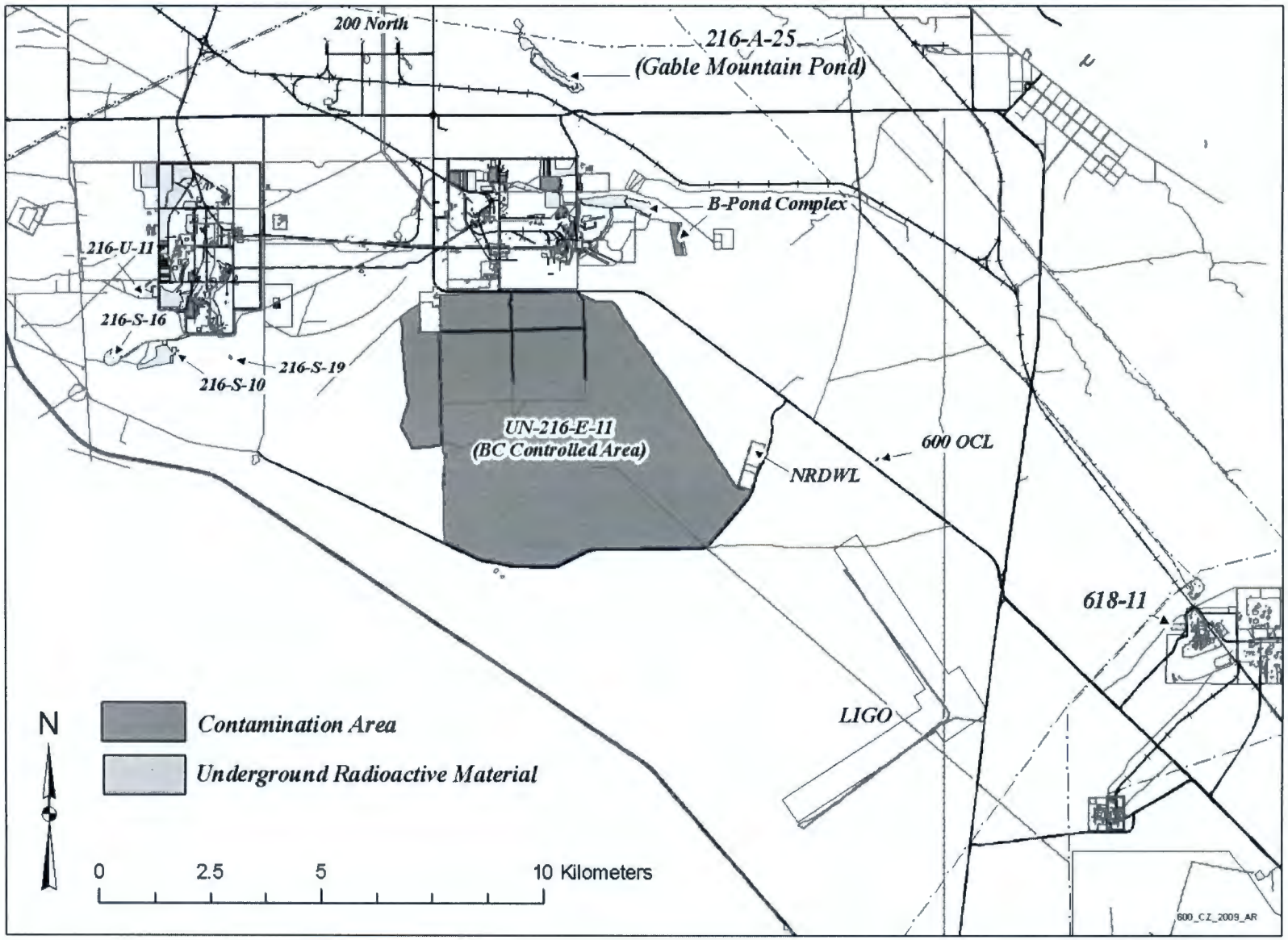


Figure 6-10. 2009 Radiological Survey Locations, 600 Area.

This page intentionally left blank.

7.0 INVESTIGATIVE SAMPLING

Investigative samples were typically collected where known or suspected radioactive contamination was present, or to verify radiological conditions at project sites. Though several soil, vegetation, and animal samples were collected during 2009, none of these were submitted to the laboratory for analysis. The numbers of soil, vegetation, and animal radiological contamination instances during 2009 are listed chronologically in Table 7-1 and historic instances of each since 1994 are represented in graph form in Figure 7-1.

Table 7-1. Contamination Instances, 2009. (Sheet 1 of 4)

SAMPLE MATRIX	LOCATION	FIELD READING Beta/Gamma	DATE
Tumbleweeds (~70)	200-E Perimeter Fence North of 218-E-12B	>1,000,000 dpm/100cm^2	01/07/09
Tumbleweed Fragment 2" Long	Perimeter of 207-A Retention Basin	150,000 dpm/100cm^2	01/13/09
Tumbleweeds (25)	North Perimeter 218-E-12B LLBG	>1,000,000 dpm/100cm^2	01/16/09
Tumbleweeds (3)	West Perimeter Fence 241-B Tank Farm	120,000 dpm/100cm^2	01/16/09
Tumbleweed	Perimeter Fence 200-W across from 241-S	24,000 dpm/100cm^2	01/21/09
Tumbleweeds (4)	Tumbleweeds attached on top of 216-A-30 Crib	30,000 dpm/100cm^2	01/26/09
Tumbleweeds (20)	Outside 200-W Fence @ 16th & Dayton	30,000 dpm/100cm^2	01/27/09
Tumbleweed Fragments	North Perimeter fence across from 218-E-12B LLBG	2,100,000 dpm/100cm^2	01/28/09
Tumbleweeds & Fragments (40)	North Perimeter fence across from 218-E-12B LLBG	>1,000,000 dpm/100cm^2	01/29/09
Rabbit Feces	North of 241-SY Tank Farm	140,000 dpm/100cm^2	02/03/09
Tumbleweed & Fragments	Inside the 200-E Burn Pit	300,000 dpm/100cm^2	02/04/09
Tumbleweed Fragment	Outside West Perimeter Fence 241-B Tank Farm	40,000 dpm/100cm^2	02/05/09
Tumbleweed	Outside 200-E Fenceline Along Akron Ave	24,000 dpm/100cm^2	02/09/09
Rabbit Feces	North of 241-SY Around UPR-200-W-54	400,000 dpm/100cm^2	02/10/09
Tumbleweed Fragments	Southeast Perimeter of 241-SX Tank Farm	70,000 dpm/100cm^2	02/11/09
Tumbleweed Fragments	On Compressor 13-4068 Inside 2711-E High Bay	12,000 dpm/100cm^2	02/11/09
Tumbleweed Fragment	Along West Perimeter 241-B Tank Farm	59,000 dpm/100cm^2	02/12/09
Soil	600-269 North of 241-AN Tank Farm	42,000 dpm/100cm^2	02/13/09
Soil Spots (5)	Outside HCA @241-S Tank Farm	25mrad/hr (open window)	02/17/09
Tumbleweed Fragments	Perimeter of 241-C	120,000 dpm/100cm^2	02/19/09
Rabbit Fecal Pellet	North of 241-SY Tank Farm and 6' North of 241-S Change Trailer	300,000 dpm/100cm^2	02/23/09
Tumbleweed Fragments	North of 12th St & 218-E-12B Inside the perimeter Fence	>1,000,000 dpm/100cm^2	02/23/09
Tumbleweed	North of 12th St & 218-E-12B Inside the perimeter Fence	120,000 dpm/100cm^2	02/26/09
Tumbleweeds (7)	West Perimeter Fence 241-B Tank Farm	42,000 dpm/100cm^2	02/26/09
Tumbleweed	Along 241-S Tank Farm Fence	18,000 dpm/100cm^2	02/27/09
Tumbleweed	Along 241-U Tank Farm Fence	12,000 dpm/100cm^2	02/27/09
Tumbleweeds (6)	along fence between 218-E-12B and Trench 94	70,000 dpm/100cm^2	02/27/09
Rabbit Fecal Pellets (15)	Outside 200-W-54 Perimeter North of 241-SY	250,000 dpm/100cm^2	03/03/09
Rabbit Fecal Pellets (10)	Outside the 272-S Paint Shop	>1,000,000 dpm/100cm^2	03/04/09
Tumbleweed Fragments (11)	Outside Gate 810 Northeast of 218-E-12B	600,000 dpm/100cm^2	03/04/09
Tumbleweeds (8)	Between 218-E-10 LLBG and 241-BX/BY Tank Farm	1,800,000 dpm/100cm^2	03/09/09
Tumbleweed	West Perimeter Fence 241-S Tank Farm	12,000 dpm/100cm^2	03/11/09
Tumbleweeds (6)	West Perimeter Fence 241-U Tank Farm	18,000 dpm/100cm^2	03/11/09
Tumbleweed	West Perimeter Fence 241-TX Tank Farm	410,000 dpm/100cm^2	03/12/09
Tumbleweed	Southeast of 221-T Plant	150,000 dpm/100cm^2	03/13/09
Tumbleweed Fragments	West Perimeter Fence 241-B Tank Farm	>1,000,000 dpm/100cm^2	03/17/09
Rabbit Feces (2)	Along west Perimeter fence of 241-S Tank Farm	300,000 dpm/100cm^2	03/20/09
Tumbleweed	Along Canister Storage Building Perimeter Fence	2,500 dpm/100cm^2	03/20/09
Tumbleweed	Along west Perimeter fence of 241-U Tank Farm	60,000 dpm/100cm^2	03/21/09
Tumbleweed	Along west Perimeter fence of 241-TX Tank Farm	30,000 dpm/100cm^2	03/21/09
Rabbit Fecal Speck	North of 241-SY near 200-W-54	200,000 dpm/100cm^2	03/24/09
Tumbleweed Fragment	North of 241-SY near 200-W-54	200,000 dpm/100cm^2	03/24/09
Tumbleweeds (3)	200-W Perimeter Fence West of Dayton & 216-U-10 Pond	24,000 dpm/100cm^2	03/26/09
Tumbleweed Fragments	West side of 241-B Tank Farm	200,000 dpm/100cm^2	04/01/09

Table 7-1. Contamination Instances, 2009. (Sheet 2 of 4)

SAMPLE MATRIX	LOCATION	FIELD READING Beta/Gamma	DATE
Tumbleweeds (2)	West side of 241-C Tank Farm	200,000 dpm/100cm^2	04/01/09
Tumbleweed	241-C Tank Farm Fenceline	18,000 dpm/100cm^2	04/03/09
Tumbleweed Fragments	North Perimeter 218-E-12A Burial Ground	45,000 dpm/100cm^2	04/07/09
Rabbit Fecal Pellet	West of 241-S Tank Farm	>1,000,000 dpm/100cm^2	04/09/09
Rabbit Fecal Pellets (4)	South of 272-S Paint Shop	55,000 dpm/100cm^2	04/09/09
Speck	Along transfer line berm between 241-AP and 241-AN	200,000 dpm/100cm^2	04/09/09
Rabbit Feces (3) and Urine spot	South Side of 241-SY Change Trailer	20,000 dpm/100cm^2	04/14/09
Mouse Feces (5)	Outside the 241-ER-151 Diversion Box	100,000 dpm/100cm^2	04/15/09
Tumbleweed Fragment	Outside the 241-B Tank Farm	350,000 dpm/100cm^2	04/15/09
Specks	Around the 241-C-154 Diversion Box	90,000 dpm/100cm^2	04/24/09
Bunchgrass (4) (coyote urine?)	Bunchgrass found on top of 218-E-12A suspect coyote urine	>400,000 dpm/100cm^2	04/28/09
Tumbleweed	241-AW Tank Farm Fenceline	30,000 dpm/100cm^2	04/28/09
Tumbleweed Fragments (19)	Along North Perimeter of the 218-E-12B Solid Waste Burial	500,000 dpm/100cm^2	04/29/09
Tumbleweed Fragments (15)	Along North Perimeter of the 218-E-12B Solid Waste Burial	800,000 dpm/100cm^2	04/30/09
Tumbleweed Fragments	Along the 241-ER-151 Diversion Box Perimeter	36,000 dpm/100cm^2	05/07/09
Soil Specks (2)	Along the 241-U Tank Farm Perimeter	70,000 dpm/100cm^2	05/08/09
Mouse Feces	Inside the 100-N Reactor Equipment Yard	500,000 dpm/100cm^2	05/09/09
Tumbleweed Fragment	Along West Perimeter Fenceline 241-T Tank Farm	200,000 dpm/100cm^2	05/09/09
Tumbleweed Fragments	Along the 241-AP Tank Farm Perimeter	10,000 dpm/100cm^2	05/13/09
Tumbleweed Fragments (3)	Along 200-E-127 Pipeline Northeast of 218-E-12B	59,000 dpm/100cm^2	05/18/09
Soil Speck	Along the 241-S Tank Farm Fenceline	25,000 dpm/100cm^2	05/20/09
Rabbit Fecal Pellets (4)	South Perimeter Fenceline 241-SX Tank Farm	100,000 dpm/100cm^2	05/21/09
Soil and Specks (1sq. Ft.)	Outside Perimeter of 241-B Tank Farm (1 sq. ft.)	>1,000,000 dpm/100cm^2	05/28/09
Tumbleweed	Northeast Perimeter of 241-B Tank Farm	>1,000,000 dpm/100cm^2	05/28/09
Tumbleweed Fragment	Along the 241-AN Tank Farm Perimeter Fenceline	28,000 dpm/100cm^2	05/30/09
Soil and Rock	Along the 241-S Tank Farm Perimeter Fenceline	45,000 dpm/100cm^2	06/01/09
Old Rabbit Feces (11)	Outside North Perimeter of 241-SY Tank Farm	350,000 dpm/100cm^2	06/03/09
Rabbit Feces and Specks	East perimeter of 241-S Tank Farm	350,000 dpm/100cm^2	06/03/09
Tumbleweeds (~75)	Inside Trench 94 @ 218-E-12B	>1,000,000 dpm/100cm^2	06/03/09
Rabbit Feces (6) & Tumbleweed Fragments	241-C Tank Farm Fenceline	>1,000,000 dpm/100cm^2	06/04/09
Tumbleweeds (7)	Inside Trench 94 @ 218-E-12B	120,000 dpm/100cm^2	06/04/09
Tumbleweeds (~100)	Inside Trench 94 @ 218-E-12B	>1,000,000 dpm/100cm^2	06/08/09
Fresh Rabbit Feces (9)	North of the 241-SY Tank Farm Perimeter	500,000 dpm/100cm^2	06/09/09
Tumbleweeds (~100)	Inside Trench 94 @ 218-E-12B	>1,000,000 dpm/100cm^2	06/09/09
Old Rabbit Feces	North side of 241-SY Tank Farm	460,000 dpm/100cm^2	06/10/09
Tumbleweed Fragments (13)	East perimeter of 241-AX Tank Farm	450,000 dpm/100cm^2	06/18/09
Mouse Fece	Inside posted URMA UPR-200-E-64	200,000 dpm/100cm^2	06/23/09
Specks/Tumbleweed Fragments (6)	Outside 241-C Tank Farm Perimeter	99,000 dpm/100cm^2	06/24/09
Tumbleweeds (2)	Perimeter of Trenches 1-36 @ 218-E-12B LLBG	100,000 dpm/100cm^2	06/29/09
Tumbleweed	Along 202-A PUREX Security Fenceline	24,000 dpm/100cm^2	07/01/09
Speck	Outside Perimeter of 241-SX Tank Farm	>1,000,000 dpm/100cm^2	07/06/09
Specks	Outside Perimeter of 241-SY Tank Farm	250,000 dpm/100cm^2	07/13/09
Rabbit Feces (3) and Urine spot	Along 200-E-237 Underground Pipe Line	8,000 dpm/100cm^2	07/20/09
Tumbleweeds (8)	Demo Bulk Vitrification System Fenceline	24,000 dpm/100cm^2	07/20/09
Specks (2)	Outside Perimeter of 241-B Tank Farm Southwest Corner	>1,000,000 dpm/100cm^2	07/21/09
Tumbleweed Fragment	On Top of UPR-200-E-11 Rail Road Track South of 218-E-10 LLBG	200,000 dpm/100cm^2	07/21/09
Tumbleweed Fragments	Between 241-A Tank Farm and Transfer Line Berm	480,000 dpm/100cm^2	07/22/09
Tumbleweed Fragments	Along UPR-200-E-112 Rail Road Track South of 218-E-10	26,000 dpm/100cm^2	07/24/09
Tumbleweed Fragments (5)	On top of the 216-A-1 Crib	50,000 dpm/100cm^2	07/28/09
Tumbleweed Fragment	On Top of the 200-E-126-PL Transferline	84,000 dpm/100cm^2	07/31/09
Tumbleweed Fragments	On south and west fence line of 241-B Tank Farm	20,000 dpm/100cm^2	08/03/09
Old Rabbit Feces	Northwest of 272-S Paint Shop	>1,000,000 dpm/100cm^2	08/04/09
Tumbleweed Fragment	Outside perimeter 241-B Tank Farm	200,000 dpm/100cm^2	08/04/09
Speck	North Perimeter of 241-C Tank Farm	150,000 dpm/100cm^2	08/11/09
Specks (2)	Southeast Corner of 241-C Tank Farm	30,000 dpm/100cm^2	08/11/09
Tumbleweed Fragment	Southwest Perimeter 241-B Tank Farm	400,000 dpm/100cm^2	08/14/09
Bags of Tumbleweeds (4)	Down Wind of 218-E-12B LLBG	>1,000,000 dpm/100cm^2	08/17/09
Mouse Feces/Tumbleweed Fragments	West Perimeter 241-BX/BY Tank Farm	100,000 dpm/100cm^2	08/17/09

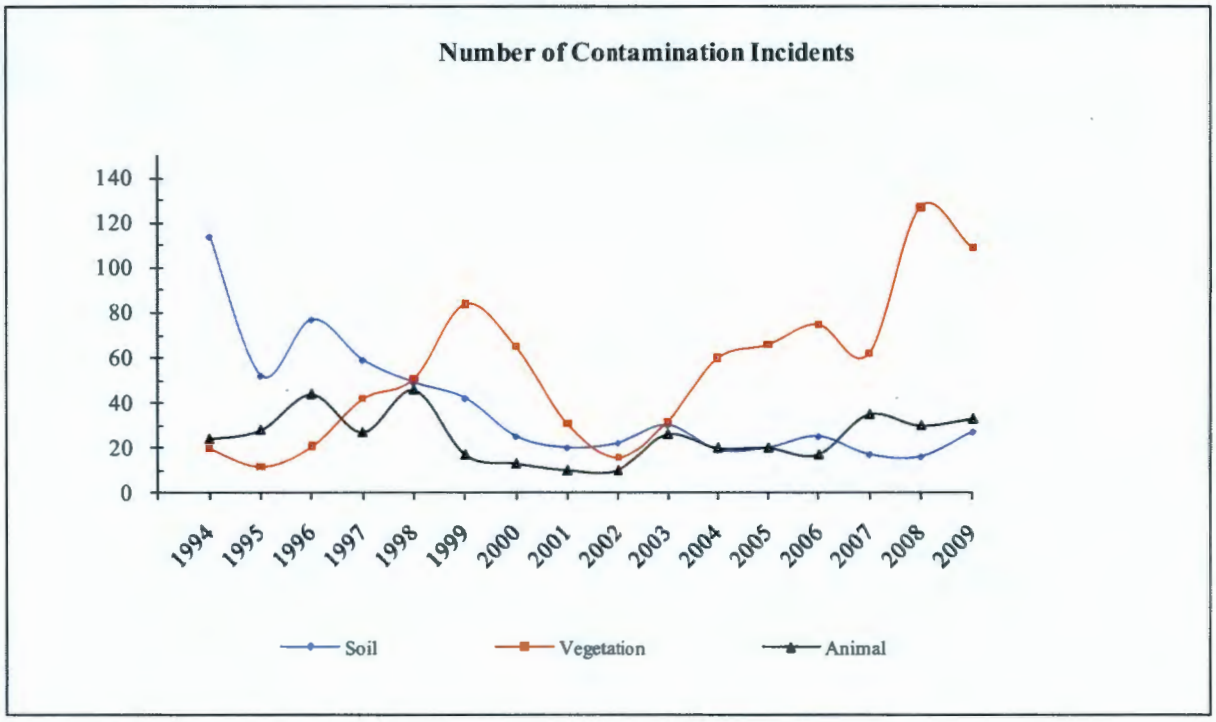
Table 7-1. Contamination Instances, 2009. (Sheet 3 of 4)

SAMPLE MATRIX	LOCATION	FIELD READING Beta/Gamma	DATE
Speck	Southwest Perimeter 241-B Tank Farm	150,000 dpm/100cm^2	08/17/09
Rabbit Feces	241-BX/BY Tank Farm Perimeter	10,000 dpm/100cm^2	08/18/09
Tumbleweed Fragments	241-BX/BY Tank Farm Perimeter	20,000 dpm/100cm^2	08/18/09
Bags of Tumbleweeds (2)	Down Wind of 218-E-12B LLBG	120,000 dpm/100cm^2	08/19/09
Rabbit Feces (23)	North Fence line 241-SY Tank Farm & at MO-027 & MO-633	950,000 dpm/100cm^2	08/19/09
Tumbleweeds (6-Growing)	Next to 216-T-2 Riser	49,000 dpm/100cm^2	08/24/09
Bags of Tumbleweeds (3)	Along fence and road Down Wind of 218-E-12B LLBG	900,000 dpm/100cm^2	08/25/09
Bags of Tumbleweeds	Along fence and road Down Wind of 218-E-12B LLBG	1,200,000 dpm/100cm^2	08/26/09
Tumbleweeds (6)	On top of 200-W-105PL South of 241-TX-155	600,000 dpm/100cm^2	08/27/09
Tumbleweeds and Fragments	LERF Fenceline Downwind of 218-E-12B	1,500,000 dpm/100cm^2	08/31/09
Tumbleweeds and Fragments	LERF Fenceline Downwind of 218-E-12B	2,700,000 dpm/100cm^2	09/01/09
Tumbleweeds and Fragments	Southeast Perimeter of 218-E-12B LLBG	100,000 dpm/100cm^2	09/02/09
Tumbleweeds and Fragments	Westside of 218-W-4 LLBG	8,000 dpm/100cm^2	09/09/09
Rabbit Feces	On Top of the 216-U-14 Covered Ditch	150,000 dpm/100cm^2	09/10/09
Tumbleweeds and Fragments	LERF Fenceline Downwind of 218-E-12B	480,000 dpm/100cm^2	09/14/09
Tumbleweeds and Fragments	Along Canton Ave on the LERF Fence down wind of 218-E-12B	1,800,000 dpm/100cm^2	09/15/09
Speck	West Perimeter Fence 241-A Tank Farm	300,000 dpm/100cm^2	09/16/09
Tumbleweeds and Fragments	Along Canton Ave on the LERF Fence down wind of 218-E-12B	>6,000,000 dpm/100cm^2	09/16/09
Tumbleweed Fragments	Along Canton Ave Downwind of 218-E-12B LLBG	600,000 dpm/100cm^2	09/21/09
Tumbleweed Fragments	Along Canton Ave Downwind of 218-E-12B LLBG	1,000,000 dpm/100cm^2	09/22/09
Speck	Southwest Perimeter Fence 241SX Tank Farm	349,000 dpm/100cm^2	09/23/09
Tumbleweeds (2)	South Perimeter of the 218-E-12B LLBG	900,000 dpm/100cm^2	09/24/09
Tumbleweeds	Area 100'X30' New Growth Tumbleweeds on 216-B-2-1 Ditch	600,000 dpm/100cm^2	09/25/09
Tumbleweeds (4)	South Perimeter of the 218-E-12B LLBG	420,000 dpm/100cm^2	09/25/09
Ant Mound	Ant Mound on 216-B-2-1 Ditch	36,000 dpm/100cm^2	09/29/09
Soil	At 118-K-1 Load Out Queue	200,000 dpm/100cm^2	09/29/09
Tumbleweeds (30)	Growing Tumbleweeds on 216-B-2-1 Ditch	210,000 dpm/100cm^2	09/29/09
Tumbleweeds (25)	Tumbleweeds blown into the 200-E-BP Burn Pit	>1,000,000 dpm/100cm^2	09/30/09
Tumbleweed Fragments	Inside the 218-E-12A LLBG	800,000 dpm/100cm^2	10/07/09
Specks	Outside North Fenceline 241-SY Tank Farm	>1,000,000 dpm/100cm^2	10/08/09
Tumbleweed Fragments (60-80) & Soil	Along Gravel Rd outside Gate 810 leading to Purge Water Storage	>1,000,000 dpm/100cm^2	10/08/09
Tumbleweed	218-E-12B inside Trench 94	120,000 dpm/100cm^2	10/12/09
Tumbleweed Fragments	Inside the 200-E-Burn Pit	30,000 dpm/100cm^2	10/12/09
Old Tumbleweeds and Fragments	218-E-12A Along berm between 218-E-12A and 12B LLBG	180,000 dpm/100cm^2	10/15/09
Rodent Bait Station	241-T Tank Farm	750,000 dpm/100cm^2	10/20/09
Tumbleweeds (4)/Fragments/Rock	On top of the 218-W-4A LLBG	800,000 dpm/100cm^2	10/20/09
Tumbleweeds/Fragments	On top of the 218-W-4A LLBG	>1,000,000 dpm/100cm^2	10/21/09
Tumbleweeds/Fragments	Wind Blown Tumbleweeds on Berm between 218-E-12B & 12A	300,000 dpm/100cm^2	10/21/09
Tumbleweeds/Fragments	Wind Blown Tumbleweeds between 218-E-12B & 12A	360,000 dpm/100cm^2	10/22/09
Rabbit Brush	On top of the 200-W-139PL	15,000 dpm/100cm^2	10/26/09
Coyote Feces	On top of the 200-W-98PL	100,000 dpm/100cm^2	10/26/09
Coyote Feces	On top of the 200-W-189PL	3,000 dpm/100cm^2	10/27/09
Tumbleweeds	On top of the 218-W-4A LLBG	>1,000,000 dpm/100cm^2	10/27/09
Tumbleweed	Along Southern Barrier Wall of 234-5 Plant	30,000 dpm/100cm^2	11/03/09
Speck	Outside East Perimeter Fence of 241-TX/TY Tank Farm	50,000 dpm/100cm^2	11/04/09
Tumbleweed	Along Southern Barrier Wall of 234-5 Plant	30,000 dpm/100cm^2	11/04/09
Tumbleweeds	On top of the 218-W-11 LLBG	30,000 dpm/100cm^2	11/04/09
Rabbit Fecal Pellet & Specks	Outside 200-W-54 Perimeter North of 241-SX/SY	150,000 dpm/100cm^2	11/10/09
Rabbit Fecal Pellet	Outside Northwest Corner of Perimeter Fence of 241-SX/SY	200,000 dpm/100cm^2	11/11/09
Tumbleweeds and Specks	At the Intersection of Canton and 12th Street	1,800,000 dpm/100cm^2	11/11/09
Speck	West Perimeter of 241-ER-151 Diversion Box	5mrad/hr	11/14/09
Soil Spots	East perimeter of 241-AX Tank Farm	50,000 dpm/100cm^2	11/15/09
Specks	On top of the 200-E-114 Pipe Line	>1,000,000 dpm/100cm^2	11/15/09
Soil and Specks	Along West Fence at 241-C Tank Farm behind MO512	40,000 dpm/100cm^2	11/16/09
Speck	Northwest Side 241-SY Tank Farm	3,000 dpm/100cm^2	11/16/09
Small Fixed Tumbleweeds	Outside Perimeter Fence of 241-ER-151 Diversion Box	60,000 dpm/100cm^2	11/18/09
Tumbleweed Fragments	Along East Fence of 241-BX/BY Tank Farm	48,000 dpm/100cm^2	11/18/09
Rabbit Feces (4) & Small Paint Chip	Outside East Perimeter Fence of 241-C Tank Farm	250,000 dpm/100cm^2	11/19/09

Table 7-1. Contamination Instances, 2009. (Sheet 4 of 4)

SAMPLE MATRIX	LOCATION	FIELD READING Beta/Gamma	DATE
Tumbleweed	Outside East Perimeter Fence of 241-BX/BY Tank Farm	>1,000,000 dpm/100cm^2	11/19/09
Specks (80) & 4 Soil Spots	Outside South & East Perimeter Fences of 241-B & 241-BBL	>1,000,000 dpm/100cm^2	11/20/09
Soil	Contaminated soil found East of 241-TY	50,000 dpm/100cm^2	11/23/09
Tumbleweed	Along the North Fence of 200-E along 12 Street	48,000 dpm/100cm^2	11/30/09
Tumbleweed Fragments	Across from the North Perimeter of the 218-E-12B LLBG	600,000 dpm/100cm^2	11/30/09
Tumbleweed	Along West Perimeter Fence of 241-BX/BY Tank Farm	90,000 dpm/100cm^2	12/02/09
Specks (50)	Outside South & East Perimeter Fences of 241-B & 241-BBL	900,000 dpm/100cm^2	12/03/09
Tumbleweed	Along Perimeter Fence of 241-TX/TY Tank Farm	42,000 dpm/100cm^2	12/03/09
Speck	North Side of 202-S Plant	>1,000,000 dpm/100cm^2	12/09/09

Figure 7-1. Contamination Instances and Types Since 1994.



7.1 SOIL

In 2009, there were 27 instances of radiological contamination in which soil was identified as the carrier. Of these, 19 were identified 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 approximately 3,000 disintegrations per minute (dpm)/100 cm^2 to more than 6,000,000 dpm/100 cm^2. Contaminated areas were radiologically posted or cleaned up. The number of contamination

incidents and the range of radiation levels observed in 2009 were generally within historical ranges.

7.2 VEGETATION

In 2009, there were 109 instances in which vegetation was identified as the carrier of radiological contamination. Twenty two instances of contaminated vegetation had field readings in excess of 1,000,000 dpm/100 cm^2. The radioactivity levels were all within historical ranges.

Though the number of contaminated vegetation incidents in 2009 decreased compared to the number of incidents in 2008, it was the second highest number reported to date. Nearly all of the incidents in both years involved tumbleweeds, whose continued presence can be attributed to favorable growing conditions (moisture), resistance to the herbicide that had been used to control tumbleweed populations, and inconsistent vegetation control and clean up. Discussion of Vegetation Control activities taken in 2009 can be found in Section 8.10.4 of PNNL-19455 (PNNL 2010a).

7.3 ANIMALS

In 2009, 33 instances of contaminated animals or animal-related contamination were identified. Three animal-related samples collected in the 200 Areas exhibited field readings in excess of 1,000,000 dpm/100 cm^2.

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 2009, the number of animals found to be contaminated with radioactivity and the range of radionuclide concentrations were within historical ranges.

7.4 SPECIAL CHARACTERIZATION SAMPLING

As a follow-up to the 100-K Area preoperational sampling conducted in 1999, seven soil and five vegetation special characterization samples were collected at the same locations (see Figure 7-2) in 2009 and were analyzed at the Waste Sampling and Characterization Facility (WSCF). A comparison of the analytical results for selected radionuclides from both of these sampling events is provided in Table 7-2 and 7-3.

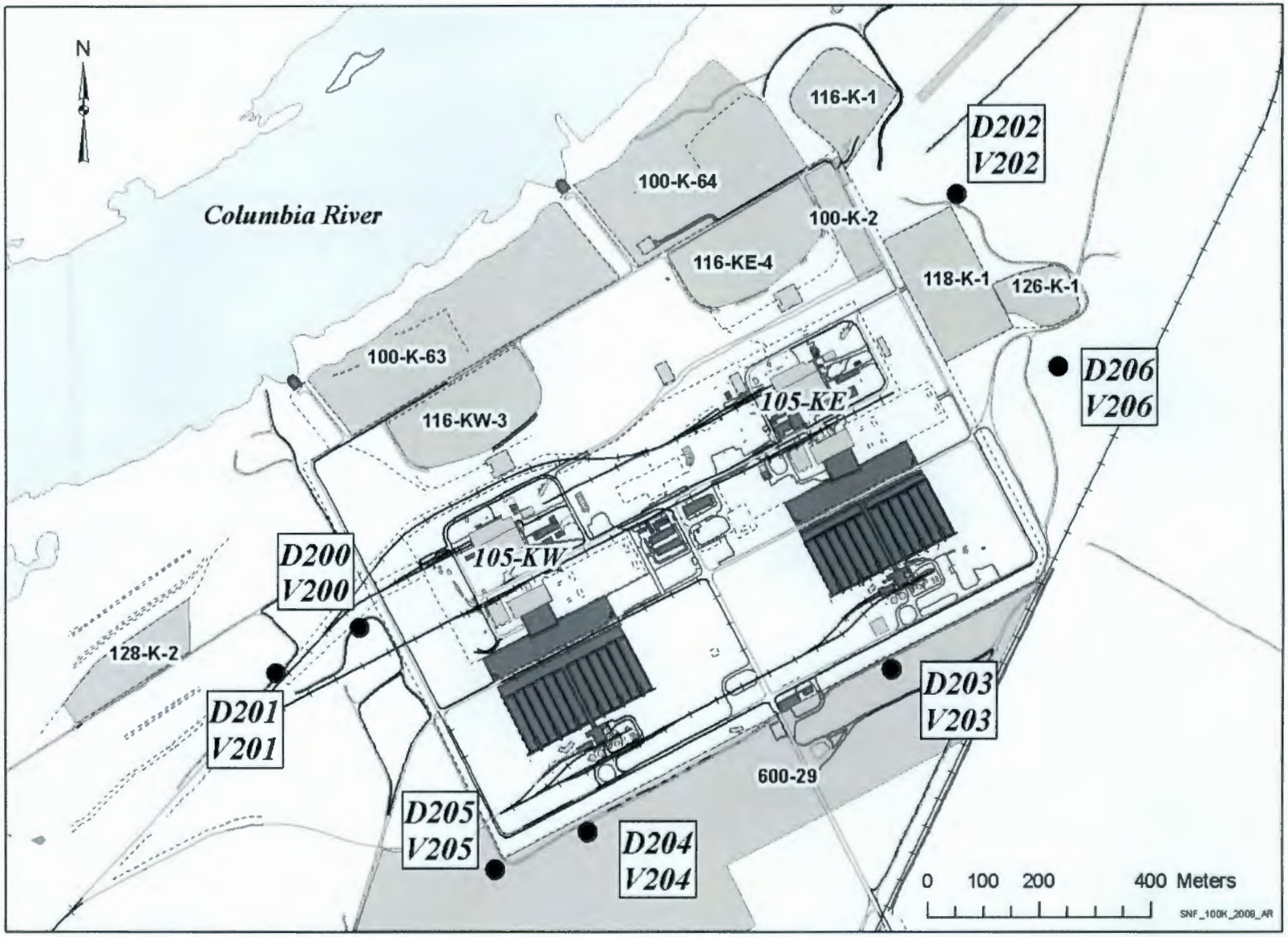


Figure 7-2. 100-K Sampling Areas.

Table 7-2. Soil Samples.

01/01/2009 to 12/31/2009

Isotope	Hanford Area	Number of		Average[1] (pCi/gm)	Maximum[2] (pCi/gm)	Location of Max.	Date
		Samples	Detects				
^{234}U	100	7	7	1.4E-01 ± 5.2E-02	1.8E-01 ± 5.9E-02	D200	6/25/2009
^{238}U	100	7	7	1.5E-01 ± 4.4E-02	1.7E-01 ± 5.6E-02	D200	6/25/2009
$^{239/240}Pu$	100	7	2	2.0E-02 ± 4.2E-02	6.7E-02 ± 2.9E-02	D201	6/25/2009
^{235}U	100	7	4	1.5E-02 ± 9.3E-03	2.0E-02 ± 1.6E-02	D203	6/25/2009
^{137}Cs	100	7	7	2.5E-01 ± 3.3E-01	5.0E-01 ± 8.8E-02	D204	6/24/2009

01/01/1999 to 12/31/1999

Isotope	Hanford Area	Number of		Average[1] (pCi/gm)	Maximum[2] (pCi/gm)	Location of Max.	Date
		Samples	Detects				
^{234}U	100	8	8	1.4E-01 ± 1.3E-02	1.7E-01 ± 6.5E-02	D200	5/18/1999
^{238}U	100	8	8	1.5E-01 ± 1.3E-02	1.7E-01 ± 6.5E-02	D200	5/18/1999
$^{239/240}Pu$	100	8	3	2.4E-02 ± 1.8E-02	6.2E-02 ± 3.7E-02	D204	5/19/1999
^{235}U	100	8	6	2.9E-02 ± 2.1E-02	2.8E-02 ± 1.8E-02	D204	5/19/1999
^{137}Cs	100	8	8	4.1E-01 ± 3.5E-01	1.1E+00 ± 1.4E-01	D204	5/19/1999

Notes: [1] Average ± two standard deviations
[2] Maximum ± analytical uncertainty

Table 7-3. Vegetation Samples.

01/01/09 to 12/31/09

Isotope	Hanford Area	Number of		Average[1] (pCi/gm)	Maximum[2] (pCi/gm)	Location Max.	Date
		Samples	Detects				
$^{239/240}Pu$	100	5	1	7.6E-03 ± 2.0E-02	2.7E-02 ± 1.0E-02	V206	6/25/2009
^{234}U	100	5	5	1.3E-02 ± 7.4E-03	1.9E-02 ± 1.0E-02	V202	6/25/2009
^{235}U	100	5	1	2.1E-03 ± 5.4E-03	4.7E-03 ± 4.4E-03	V200	6/25/2009
^{238}U	100	5	2	7.0E-03 ± 4.1E-03	1.0E-02 ± 6.3E-03	V204	6/24/2009

01/01/1999 to 12/31/1999

Isotope	Hanford Area	Number of		Average[1] (pCi/gm)	Maximum[2] (pCi/gm)	Location Max.	Date
		Samples	Detects				
$^{239/240}Pu$	100	5	1	8.3E-03 ± 5.5E-03	1.9E-02 ± 1.5E-02	V204	11/4/1999
^{234}U	100	5	5	7.5E-02 ± 6.2E-02	1.6E-01 ± 5.4E-02	V204	11/4/1999
^{235}U	100	5	3	2.6E-02 ± 3.7E-02	1.0E-01 ± 3.8E-02	V200	5/18/1999
^{238}U	100	5	4	5.2E-02 ± 5.7E-02	1.6E-01 ± 5.4E-02	V204	11/4/1999

Notes: [1] Average ± two standard deviations
[2] Maximum ± analytical uncertainty

This page intentionally left blank.

8.0 QUALITY ASSURANCE

Quality assurance may be defined as the actions necessary to provide confidence that an item, process, or program meets or exceeds the 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. The near-facility environmental monitoring QA program and its objectives are documented in MSC-23333, *Environmental Quality Assurance Program Plan* (MSA 2010).

Written operating procedures are an integral part of near-facility environmental monitoring QA. Procedures for field operations are provided in MSC-PRO-46517 (MSA 2010). This section briefly describes the essential components of the near-facility environmental monitoring QA program.

8.1 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.

8.2 SAMPLE REPLICATION

The quality of sample collection methods and strategies is assessed by replicating the original samples and the statistical evaluation of them. Field replicates were collected during 2009 for ambient air, soil, and vegetation samples. Air sample replicate results were 97%, soil replicate results 95%, and vegetation replicate results 100%, the same as the original results (see Table 8-1).

Table 8-1. Summary of Field Replicate Results for 2009.

Medium	Radionuclide	Number of Results: Compared	Number of Results: In Agreement	% Agreement
Air	^{60}Co	2	2	100
	^{90}Sr	2	2	100
	^{106}Ru	2	2	100
	^{125}Sb	2	2	100
	^{134}Cs	2	2	100
	^{137}Cs	2	2	100
	^{152}Eu	2	2	100
	^{154}Eu	2	2	100
	^{155}Eu	2	2	100
	^{234}U	2	2	100
	^{235}U	2	2	100
	^{238}U	2	2	100
	^{238}Pu	2	2	100
	$^{239/240}Pu$	2	2	100
	gross α	26	25	96
	gross β	26	25	96
	Totals:	94	92	97%
Soil	^{60}Co	8	8	100
	^{65}Zn	8	7	87
	^{90}Sr	8	8	100
	^{103}Ru	8	8	100
	^{106}Ru	8	8	100
	^{113}Sn	8	8	100
	^{125}Sb	8	8	100
	^{134}Cs	8	7	87
	^{137}Cs	8	6	75
	^{144}Ce	8	8	100
	^{152}Eu	8	7	87
	^{154}Eu	8	8	100
	^{155}Eu	8	6	75
	^{234}U	8	8	100
	^{235}U	8	8	100
	^{238}U	8	8	100
	^{238}Pu	8	8	100
	$^{239/240}Pu$	8	8	100
	Totals:	144	137	95%
Vegetation	^{60}Co	6	6	100
	^{65}Zn	6	6	100
	^{90}Sr	6	6	100
	^{103}Ru	6	6	100
	^{106}Ru	6	6	100
	^{113}Sn	6	6	100
	^{125}Sb	6	6	100
	^{134}Cs	6	6	100
	^{137}Cs	6	6	100
	^{144}Ce	6	6	100
	^{152}Eu	6	6	100
	^{154}Eu	6	6	100
	^{155}Eu	6	6	100
	^{234}U	6	6	100
	^{235}U	6	6	100
	^{238}U	6	6	100
	^{238}Pu	6	6	100
	$^{239/240}Pu$	6	6	100
	Totals:	108	108	100%

Sampling methods and strategies were considered acceptable if, for a given sample medium, the overall agreement of all isotopic comparisons made between "original" and "replicate" samples were:

- Equal to or greater than 75% for air samples
- Equal to or greater than 50% for soil and vegetation samples.

The concentrations of a sample and its replicate were considered to be "in close agreement" (meaning the concentrations are, for all practical purposes, identical) if either of the following applies:

- Each concentration falls within the error range of the other; or
- Both the concentration of the sample and its replicate are "essentially zero."

The concentrations of a sample and its replicate were considered to be "in agreement" (meaning the concentrations are close to the same value) if one of the following applies:

- On a plot, the uncertainty error bars of the sample and its replicate overlap; or
- The lower uncertainty values of both the sample and its replicate extend below the (contractual) minimum detectable concentration; or
- The relative percent difference was <30% or the percent significant difference was <15%.

8.3 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 hardcopy printouts.

8.4 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. Site Effluent & Near-Facility Monitoring 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.

8.5 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 and vegetation are collected annually.

8.6 ANALYTICAL PROCEDURES

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

8.6.1 Pacific Northwest National Laboratory Radiation Standards and Engineering

8.6.1.1 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.

8.6.2 Waste Sampling and Characterization Facility and 222-S Analytical Laboratory

The WSCF and 222-S laboratories provide analytical support to near-facility environmental monitoring. Formal, written laboratory procedures are used in analyzing samples. The WSCF is used for the samples containing typical environmental levels of radioactivity. The WSCF also participates in a QA Task Force intercomparison program coordinated by the Radiation Protection Division of the WDOH. The 222-S laboratory is typically used for preparation of selected samples and/or analyses of samples containing higher-than-normal levels of radioactivity. Additional discussion regarding the WSCF QA program can be found in Section 8.17 of PNNL-19455 (PNNL 2010a).

9.0 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.

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.

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. 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. Expressed in units of rem (or sievert).

Composite Sample: A number of samples initially collected from a sample medium 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 of MSC-5173, *MSC Radiological Control Manual* (MSA 2010) 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 man.

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).

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: State of Washington, Department of Ecology.

Effective Dose Equivalent (EDE): 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.

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.

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 perimeters.

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.

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.

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.

Interim Closed: Areas designated as "Interim Closed" are released from the posting requirements when the remedial actions meet the operable unit's record of decision cleanup requirements.

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*.

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.

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 (>2 hectares [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.

Operable Unit: A discrete area for which an incremental step can be taken toward comprehensively addressing site problems. The cleanup of a site can be divided into a number of operable units, depending on the complexity of the problems associated with the site.

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.

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: A sample that can be expected to exhibit the average properties of the sample source.

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 (<2 hectares [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 (0.06 in.) in volume, or areal contamination less than 15 cm^2 (2.3 $in.^2$) 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 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.

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.

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 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.

Table 9-1. 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

This page intentionally left blank.

10.0 STANDARDS

Table 10-1. 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.

DCG = derived concentration guides

Table 10-2. 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 10-3. Inaccessible Soil Concentrations (pCi/g).

Radionuclide	100 B,D,K,N	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, *Soil Concentration Limits for Accessible and Inaccessible Areas.*

Table 10-4. Accessible Soil Concentrations (pCi/g).

Radionuclide	100 B,D,K,N	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, *Soil Concentration Limits for Accessible and Inaccessible Areas.*

11.0 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 two-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.

12.0 REFERENCES

10 CFR 835, "Occupational Radiation Protection," *Code of Federal Regulations*, U.S. Department of Energy.

40 CFR 61, Subpart H, "National Emission Standards for Emissions of Radionuclides Other Than Radon From Department of Energy Facilities," *Code of Federal Regulations*, U.S. Environmental Protection Agency.

40 CFR 61, Subpart I, "National Emission Standards for Radionuclide Emissions from Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H," *Code of Federal Regulations*, U.S. Environmental Protection Agency.

40 CFR 61, Appendix E, Table 2, "Compliance Procedures Methods for Determining Compliance with Subpart I; Concentration Levels for Environmental Compliance," *Code of Federal Regulations*, U.S. Environmental Protection Agency.

40 CFR 264, "Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities," *Code of Federal Regulations*, U.S. Environmental Protection Agency.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Public Law 96-510, as amended, 42 USC 9601 et seq.

DOE, 2008, *Environmental Protection Program*, DOE Order 450.1A, Cancels 450.1, U.S. Department of Energy, Washington, D.C., June 4, 2008.

DOE, 2007, *Environment, Safety, and Health Reporting Manual*, DOE Manual 231.1-1A, Chg 2, U.S. Department of Energy, June 12, 2008.

DOE, 2001, *Radioactive Waste Management*, DOE Order 435.1, Chg 1, U.S. Department of Energy, Washington, D.C.

DOE, 1993, *Radiation Protection of the Public and the Environment*, DOE Order 5400.5, Chg 2, U.S. Department of Energy, Washington, D.C.

MSA, 2010, *MSC Radiological Control Manual*, MSC-5173, Rev. 1, Mission Support Alliance, LLC, Richland, Washington.

MSA, 2010, *Near-Facility Environmental Monitoring*, MSC-PRO-46517, Mission Support Alliance, LLC, Richland, Washington.

MSA, 2010, *Environmental Quality Assurance Program Plan*, MSC-23333, Mission Support Alliance, LLC, Richland, Washington.

PNNL, 2010a, *Hanford Site Environmental Report for Calendar Year 2009*, PNNL-19455, Pacific Northwest National Laboratory, Richland, Washington.

PNNL, 2010b, *Hanford Site Environmental Report for Calendar Year 2009*, PNNL-19455, APP. 1, Pacific Northwest National Laboratory, Richland, Washington.

Resource Conservation and Recovery Act of 1976. 1976. Public Law 94-580, as amended, 90 Stat. 2795, 42 USC 6901 et seq.

Rittman, P. D., 1992, *Soil Concentration Limits for Accessible and Inaccessible Areas*, WHC-SD-EN-TI-070, Rev. 0, Westinghouse Hanford Company, Richland, Washington.

WAC 173-303-017, "Dangerous Waste Regulations; Recycling Processes Involving Solid Waste," *Washington Administrative Code*, Olympia, Washington.

WAC 173-303-040, "Dangerous Waste Regulations; Definitions," *Washington Administrative Code*, Olympia, Washington.

WAC 173-401-710, "Operating Permit Regulations; Permit Renewal, Revocation, and Expiration," *Washington Administrative Code*, Olympia, Washington.

WAC 246-247, "Radiation Protection—Air Emissions," *Washington Administrative Code*, Olympia, Washington.

DISTRIBUTION

No. of Copies	
OFFSITE	
P	Kurt R. Campbell U.S. Fish and Wildlife Service Moses Lake Field Office Moses Lake, WA 98837
P	Stuart Harris Confederated Tribes of the Umatilla Indian Reservation P.O. Box 638 Pendleton, OR 97801
P	Greg Hughes Hanford Reach National Monument 64 Maple Drive Burbank, WA 99323
P	R. Jim Yakama Nation Environmental Restoration/Waste Management Program P.O. Box 151 Toppenish, WA 98948
P	J. E. McDonald Energy Northwest P.O. Box 968 MD 1020 Richland, WA 99352
P	A. Palmer U.S. Ecology, Inc. P.O. Box 638 Richland, WA 99352

No. of Copies	
5CD	Washington State Department of Health Office of Radiation Protection Radioactive Air Emissions Program 309 Bradley Blvd., Suite 201 Richland, WA 99352 ATTN: R. S. Acselrod J. C. Berkey P. J. Martell, Manager M. Priddy J. W. Schmidt
CD	Washington State Department of Health Office of Radiation Protection Radioactive Air Emissions Program P.O. Box 47827 Olympia, WA 98504-7827 ATTN: K. Attebery
4CD	Washington State Department of Health Office of Radiation Protection Environmental Monitoring and Assessment P.O. Box 47825 Olympia, WA 98504-7825 ATTN: L. Albin A. W. Conklin J. L. Erickson D. McBaugh
2P	U.S. Environmental Protection Agency, Region 10 1200 Sixth Avenue Seattle, WA 98101 ATTN: J. M. Leitch OAQ-107 R. W. Poeton OAQ-107

No. of Copies	
2P	Walla Walla University Library Technical Services 104 S. College Avenue College Place, WA 99324-1159 ATTN: Mark Copsey

ONSITE

E. J. Antonio (CD)	K3-54
J.A. Bates (CD)	H8-45
T.G. Beam (CD)	H7-28
L. E. Borneman (CD)	T6-03
O. L. Bostic (CD)	H4-02
E. M. Bowers (P, CD)	A2-15
M. W. Bowman (CD)	S5-31
R. C. Brunke (CD)	H8-15
M. E. Burandt (CD)	H6-60
S. T. Burnum (CD)	A2-15
D. H. Chapin (CD)	A5-11
G.M. Crummel (CD)	R1-51
B. L. Curn (CD)	H4-02
E. B. Dagan (CD)	A3-04
A. K. Dasgupta (CD)	S3-28
J. W. Demers (P, CD)	A5-17
R. L. Dirkes (P)	K6-75
J. N. Diven (CD)	G3-28
B. J. Dixon (CD)	H8-45
J. J. Dorian (P, CD)	H7-28
M. C. Dorsey (P)	H7-28
J.P. Duncan (CD)	K6-85
R. E. Elder (CD)	X4-02
R. H. Engelmann (CD)	H8-45
B. G. Erlandson (CD)	H4-02
J. D. Fancher (CD)	L6-06
T. W. Ferns (P, CD)	A5-15
J. Flack (P, CD)	A5-17
D.L. Flyckt (CD)	T4-10
J. R. Franco (CD)	A3-04
B. G. Fritz (CD)	K6-75
L.L. Fritz (CD)	H7-26

No. of Copies	
W. M. Glines (CD)	A5-17
L. M. Hay (P)	G2-02
W. M. Hayward (P)	N3-10
R. D. Hildebrand (CD)	A6-38
J. S. Hill (CD)	H4-02
N. A. Homan (CD)	H8-45
D. E. Jackson (CD)	A4-52
M. F. Jarvis (CD)	A5-15
S.K. Johansen (CD)	T4-04
A. L. Johnson (CD)	H4-26
A. R. Johnson (5P)	R3-12
W.F. Johnson (CD)	H4-22
R. D. Julian (P)	S3-25
C. J. Kemp (CD)	H6-60
R. J. Landon (CD)	H4-21
S. P. Luttrell (CD)	R3-50
S. M. McKinney (P)	H7-28
D. L. Norman (CD)	T1-41
R.W. Oldham (P)	R3-60
B. M. Pangborn (CD)	A5-17
G. W. Patton (CD)	K6-75
M.G. Peloquin (CD)	T2-03
L.L. Penn (CD)	R1-51
C. J. Perkins (15P, 15CD)	H7-28
J. K. Perry (CD)	H7-28
L.C. Petersen (CD)	T4-04
K. A. Peterson (5P, 5CD)	H7-28
D. J. Phipps (3P, 3CD)	S2-42
T. M. Poston (CD)	K6-75
R.A. Pressentin (CD)	A2-15
J. R. Prilucik (CD)	T6-02
M. L. Proctor (CD)	H4-22
D. J. Rokkan (P, CD)	H7-28
R. C. Roos (CD)	R3-12
W. E. Ross (CD)	S7-83
R. W. Russell (CD)	H6-60
D. G. Saueressig (CD)	N3-30
J. O. Skolrud (CD)	H7-28
H. T. Tilden (CD)	K3-75
L.E. Tuott (CD)	T4-52
D.R. Turlington (CD)	T1-41

No of Copies	
D. C. Ward (CD)	A5-15
N.W. Ware (CD)	T4-04
D. J. Watson (CD)	X4-01
S.R. Weil (CD)	A5-15
D. J. Wilcox (CD)	A4-52
J. W. Wilde (P)	H7-28
J. G. Woolard (P)	H4-21
D. M. Yasek (CD)	H4-22
DOE Public Reading Room (4P)	H2-53
Hanford Site Administrative Record (P)	H6-08
Hanford Technical Library (2P)	P8-55
LMSI Central Files (P)	B1-07