

DOE/NV/10630-33
Volume II

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92180

U.S. DEPARTMENT OF ENERGY NEVADA FIELD OFFICE ANNUAL SITE ENVIRONMENTAL REPORT - 1991

Volume II

Editors: Stuart C. Black, Alan R. Latham and Yvonne E. Townsend

prepared by:

September 1992

Reynolds Electrical & Engineering Co., Inc.
Post Office Box 98521
Las Vegas, Nevada 89193-8521

Work Performed Under
Contract No. DE-AC08-89NV10630

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**U.S. DEPARTMENT OF ENERGY
NEVADA FIELD OFFICE
ANNUAL SITE ENVIRONMENTAL
REPORT - 1991**

Volume II - Appendices

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FOREWORD

These appendices contain 1991 NTS onsite and offsite milk environmental monitoring results. The onsite data presented are accompanied by summaries of statistical evaluations of the data. Other offsite data collected by the EPA are available from the U.S. Environmental Protection Agency, Environmental Monitoring Systems Laboratory, Las Vegas, Nevada.

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APPENDIX A ONSITE ^{238}Pu , $^{239+240}\text{Pu}$, GROSS BETA, AND GAMMA-EMITTING RADIONUCLIDES IN AIR

Lawrence E. Barker

Sampling locations, sampling dates (starting and ending), measured concentrations, and analytic standard deviations for ^{238}Pu , $^{239+240}\text{Pu}$, gross beta, and gamma-emitting radionuclides in air appear in Attachments A.1, A.2, A.3, and A.4. Statistical analyses of these data appear below.

PLUTONIUM-238

The arithmetic mean and standard deviation for the network were, respectively, 7.7×10^{-19} and 7.3×10^{-18} $\mu\text{Ci/mL}$ (2.8×10^{-8} and 2.7×10^{-7} Bq/m^3). Since subtraction of background caused approximately 54 percent of the observed concentrations to be negative, no geometric mean or standard deviation were calculated.

In Figure A.1, observed concentrations $\times 10^{18}$ ($\mu\text{Ci/mL}$) at Area 1 BJY are plotted versus normal scores. The straightness of the plot indicates that the distribution of concentrations at this location can be approximated by the normal distribution. As appearances of plots differ little among sampling locations, only one such plot is presented. It is worth noting that the lognormal distribution, usually used for environmental measurements, fits the data almost equally well. However, the normal distribution is chosen since statistical analysis can be conducted without

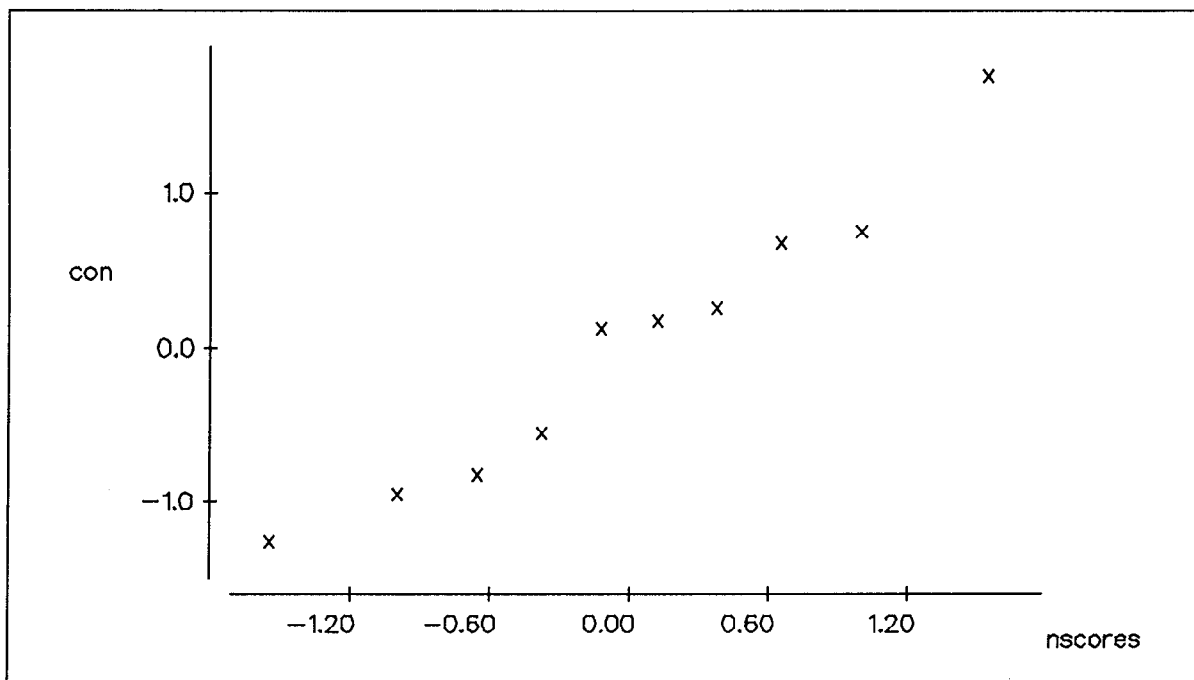


Figure A.1 Plot of Concentrations of ^{238}Pu at Area 1 BJY in 10^{-18} $\mu\text{Ci/mL}$ versus Normal Scores

this. The slight increase in ^{238}Pu concentrations seen in March, April and June are attributed to stratospheric-tropospheric mixing which occurs only in this time period and results in some fallout of ^{238}Pu was injected into the stratosphere in the early days of nuclear testing.

A sense of the accuracy of measured ^{238}Pu concentrations in air samples can be obtained from the empirical coefficients of variation, the analytic standard deviation divided by the measured concentration. Empirical coefficients of variation for all positive concentrations, omitting three outliers with coefficients of variation greater than 40.0, are illustrated in Figure A.2. Although a few coefficients of variation are quite large, most are small, indicating that measurement error in ^{238}Pu concentrations is usually small when compared to the concentration. The larger coefficients of variation are associated with mean values that are very close to zero rather than with unusually high standard deviations.

PLUTONIUM-239+240

The arithmetic mean and standard deviation of observed $^{239+240}\text{Pu}$ concentrations were, respectively, 3.0×10^{-17} and 7.3×10^{-17} $\mu\text{Ci/mL}$ (1.1×10^{-6} and 2.7×10^{-6} Bq/m^3). Subtraction of background caused approximately 6 percent of the observed concentrations to be negative. The geometric mean and standard deviations of the positive observed concentrations were, respectively, 7.4×10^{-18} $\mu\text{Ci/mL}$ (2.7×10^{-6} Bq/m^3) and 5.46. This geometric mean should be considered as an upper bound since the negative values were discarded before it was computed.

In Figure A.3, natural logarithms of observed concentrations at Area 15 EPA farm are plotted versus normal scores. The straightness of the plot indicates that the distribution of concentrations at this location can be approximated by the lognormal distribution. As appearances of plots differ little among sampling locations, only one such plot is presented. Hence, most of this analysis will be conducted using the natural logarithms of observed concentrations. To simultaneously compare differences in sampling stations and months in which sampling ended, a two-way analysis of variance (ANOVA) was conducted, and the results are shown in Table in A.3. This two-way ANOVA table shows that concentrations differ both over time and over sampling stations.

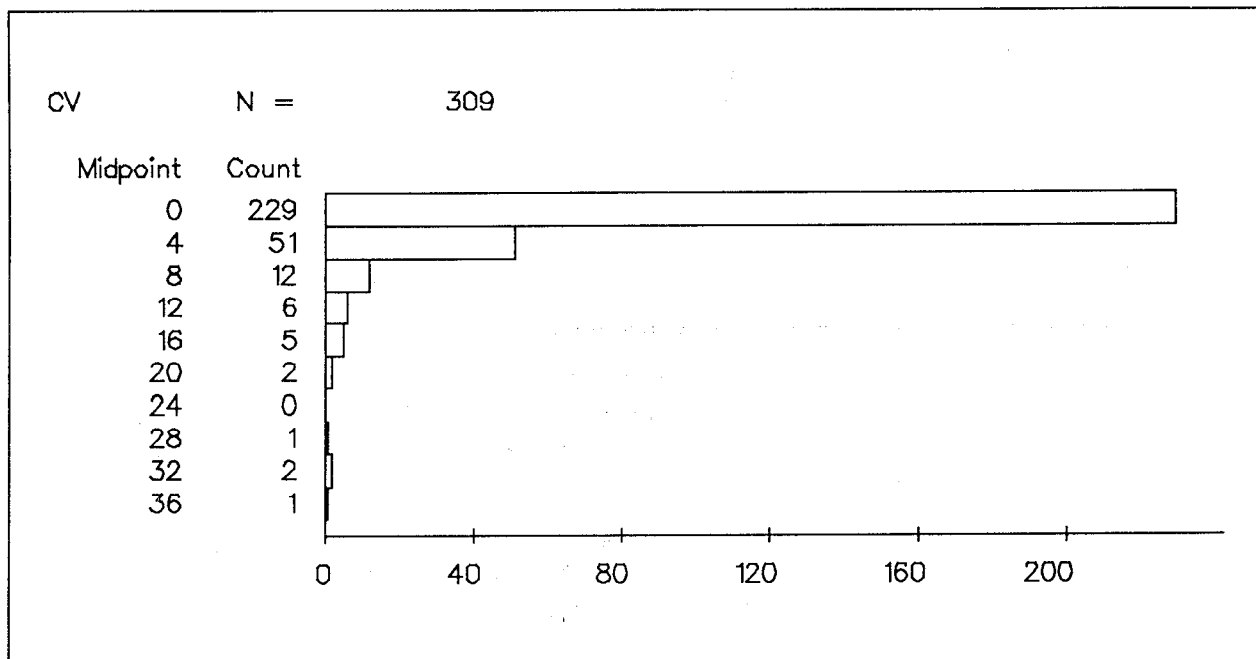


Figure A.2 Histogram of Empirical Coefficients of Variation for ^{238}Pu Concentrations Measured in Air Samples

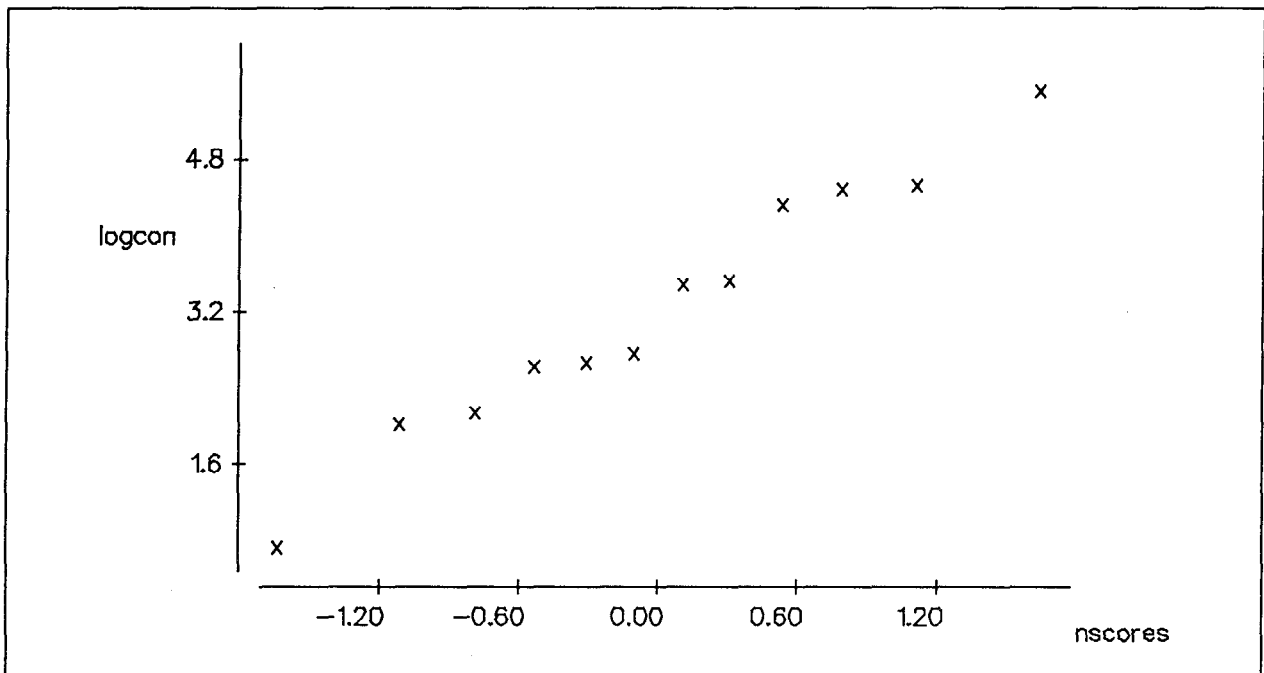


Figure A.3 Plot of Natural Logarithm of $^{239+240}\text{Pu}$ Concentrations at Area 15 EPA Farm versus Normal Scores

Table A.3 Two-Way Analysis of the Variance on the Natural Log of $^{239+240}\text{Pu}$ Concentrations between Sampling Stations and Month Sampling Ended

<u>Source</u>	<u>Degrees of Freedom</u>	<u>Sequential Sum of the Squares</u>	<u>Sum of Squares</u>	<u>Mean Square</u>	<u>F-Statistic</u>	<u>p Value</u>
Month	7	56.07	52.84	8.01	6.88	0.000
Sampling Station	33	977.80	977.80	29.63	25.46	0.000
Error	<u>534</u>	<u>621.56</u>	621.56	1.16		
Total	564	1655.43				

Fisher's multiple comparison method revealed a complex interrelationship among sampling stations, not easily described in a few words. Accordingly, differences among sampling stations were simplified by combining sampling stations according to NTS operational areas. The results of this analysis are displayed in Table A.4. This table indicates greater concentrations of $^{239+240}\text{Pu}$ in Areas 3 and 9 and lower concentrations in other areas. This is not surprising, as Area 3, Bunker 3-300 and Area 9, Bunker 9-300 have, historically, displayed greater concentrations of $^{239+240}\text{Pu}$ than most other sampling stations. Concentrations are compared among months by means of a one-way analysis of variance. The results of this analysis are reported in Table A.5. There we see that concentrations tended to be somewhat lesser during the first part of the year

Table A.4 One-Way Analysis of the Variance on the Natural Log of ²³⁹⁺²⁴⁰Pu Concentrations between NTS Areas

<u>Source</u>	<u>Degrees of Freedom</u>	<u>Sum of Squares</u>	<u>Mean Square</u>	<u>F-Statistic</u>	<u>p-Value</u>
NTS Operational Area	16	906.95	56.68	42.24	0.000
Error	<u>557</u>	<u>747.52</u>	1.34		
Total	573	1654.48			

<u>Area</u>	<u>Number</u>	<u>Mean</u>	<u>Standard Deviation</u>	Individual 95 Percent CIs for the Mean Based on Pooled Standard Deviation
16	11	-40.807	1.438	(---*---)
27	8	-40.629	0.993	(---*---)
25	22	-40.486	1.360	(--*--)
20	12	-40.488	1.438	(---*---)
23	42	-40.435	1.136	(-*--)
12	13	-40.329	1.480	(---*---)
19	18	-40.273	0.898	(--*--)
5	226	-40.139	1.168	(*)
11	11	-39.870	2.165	(---*---)
2	22	-39.636	0.848	(--*--)
10	12	-39.122	0.756	(---*---)
6	33	-39.015	1.096	(-*--)
1	22	-39.013	1.169	(--*--)
7	12	-38.985	0.850	(---*---)
15	15	-38.853	1.777	(---*---)
3	83	-36.908	0.900	(*-)
9	12	-36.421	0.651	(---*---)

-----+-----+-----+-----

Pooled Standard Deviation = 1.158

-----+-----+-----+-----
-40.0 -38.4 -36.8

than during the later part. However, this suggests a change occurring between April and June rather than an increase in concentrations.

A sense of the accuracy of measured ²³⁹⁺²⁴⁰Pu concentrations in air samples can be obtained from the empirical coefficients of variation, the analytic standard deviation divided by the measured

Table A.5 One-Way Analysis of the Variance on the Natural Log of ²³⁹⁺²⁴⁰Pu Concentrations among Months

<u>Source</u>	<u>Degrees of Freedom</u>	<u>Sum of Squares</u>	<u>Mean Square</u>	<u>F-Statistic</u>	<u>p-Value</u>
Month	7	56.07	8.01	2.84	0.006
Error	<u>567</u>	<u>1599.37</u>	2.82		
Total	574	1655.43			

<u>Month</u>	<u>Number</u>	<u>Mean</u>	<u>Standard Deviation</u>	Individual 95 Percent CIs for the Mean Based on Pooled Standard Deviation
February	41	-39.535	1.833	(-----*-----)
March	50	-39.956	1.481	(-----*-----)
April	97	-39.938	1.700	(-----*-----)
June	49	-39.253	1.797	(-----*-----)
July	96	-39.444	1.665	(-----*-----)
September	99	-39.222	1.700	(-----*-----)
November	52	-39.208	1.584	(-----*-----)
December	91	-39.123	1.668	(-----*-----)
Pooled Standard Deviation = 1.680				-----+-----+-----+-----
				-40.00 -39.50 -39.00

concentration. Empirical coefficients of variation for all positive concentrations, omitting five outliers with coefficients of variation greater than 50.0, are illustrated in Figure A.4.

Note that coefficients of variation have two distinct modes, one small and one around 15. A comparison of coefficients of variation with sampling location and month sampling ended revealed no obvious relationship between the coefficient of variation and these factors. A possible explanation for this is that counting time might have varied with demands on laboratory facilities.

GROSS BETA

All observed concentrations of gross beta were positive. The arithmetic mean and standard deviation of the concentrations were, respectively, 1.9×10^{-14} and 7.4×10^{-14} $\mu\text{Ci/mL}$ (7.0×10^{-4} and 2.7×10^{-3} Bq/m^3). The geometric mean and standard deviations were, respectively, 1.8×10^{-14} $\mu\text{Ci/mL}$ (6.7×10^{-4} Bq/m^3) and 1.4.

In Figure A.5, natural logarithms of gross beta concentrations recorded at Bunker 3-300, Area 3 are plotted versus normal scores. This is typical of plots for locations at which data were collected. Again, were the distribution of gross beta concentrations actually lognormally distributed, scatter around a straight line would result. Here, a straight line fits the data reasonably well. It is thought that the lognormal distribution provides an adequate approximation to the concentrations' true distribution.

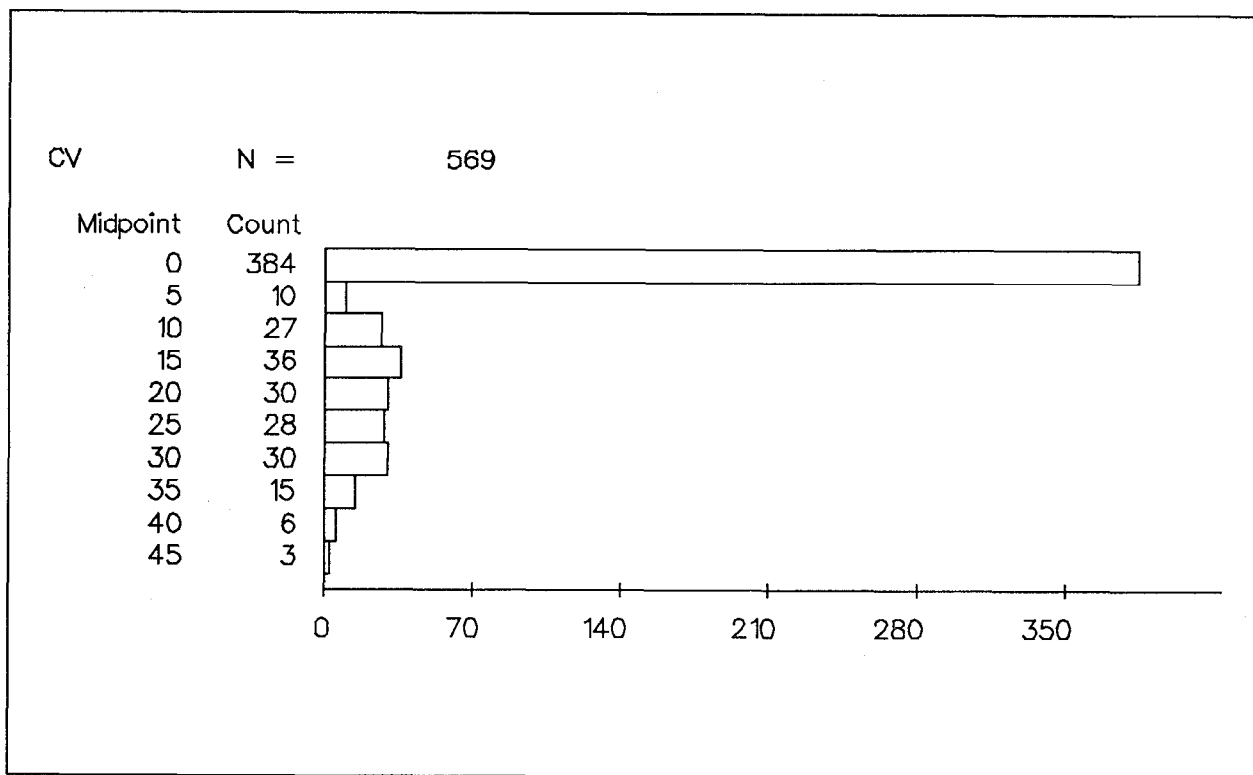


Figure A.4 Histogram of Empirical Coefficients of Variation of $^{239+240}\text{Pu}$ in Air

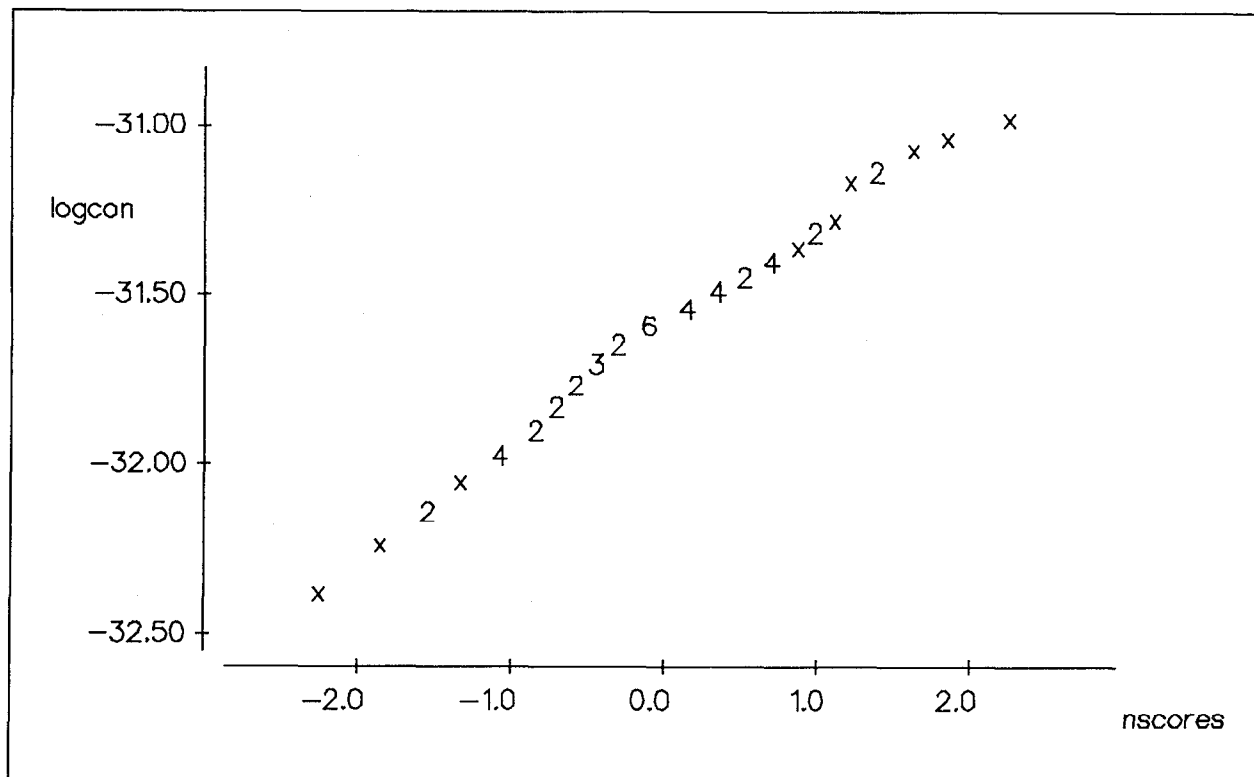


Figure A.5 Plot of Natural Logarithms of Gross β Concentrations in Air at Area 3, Bunker 3-300 versus Normal Scores

A sense of the accuracy of measured gross β in air concentration can be obtained from the empirical coefficients of variation, the analytic standard deviation divided by the measured concentration. Omitting two outliers with coefficients of variation greater than 2.0, these are illustrated in Figure A.6. In all but a relative handful of cases, the coefficient of variation is less than 0.10, indicating that the analytic standard deviation tends to be an order of magnitude smaller than the measured concentration. Exceptions are generally attributable to small samples or samples held for long periods of time prior to measurement of concentration. Each dot represents up to 38 data points.

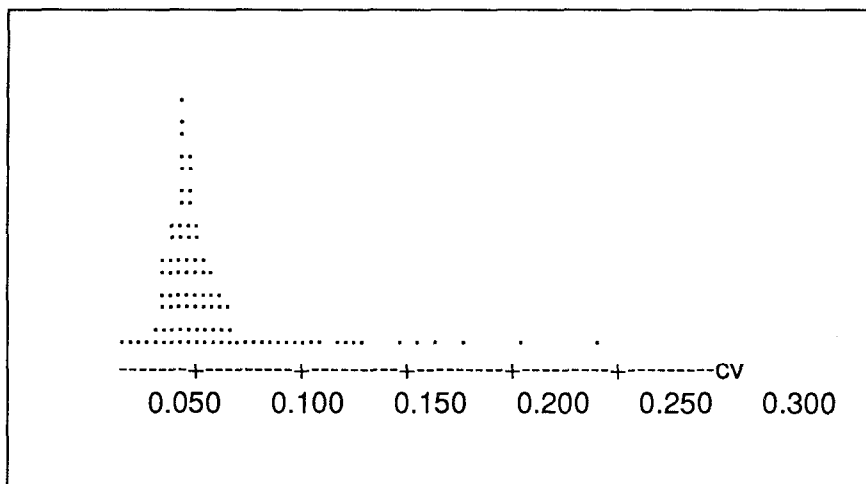


Figure A.6 Histogram of Coefficients of Variation for Gross β in Air

GAMMA-EMITTING RADIONUCLIDES

Only naturally occurring ^7Be , ^{214}Bi , ^{40}K , ^{214}Pb , ^{212}Pb , and ^{208}Tl were detected on more than one occasion. For these, arithmetic mean, standard deviation, geometric mean, and geometric standard deviation of observed concentrations appear in Table A.9. Complete data appears in Attachment A.4. An examination of the data in Attachment A.4 reveals no patterns that warrant additional statistical analysis.

Table A.9 Descriptive Statistics for Gamma-Emitting Radionuclides Detected in Air

Nuclide	Number of Samples Containing	Arithmetic Mean $\mu\text{Ci/mL (Bq/m}^3\text{)}$	Standard Deviation $\mu\text{Ci/mL (Bq/m}^3\text{)}$	Geometric Mean $\mu\text{Ci/mL (Bq/m}^3\text{)}$	Geometric Standard Deviation
^7Be	8	5.7×10^{-14} (2.1×10^{-3})	1.2×10^{-14} (4.4×10^{-4})	5.6×10^{-14} (2.1×10^{-3})	1.2
^{214}Bi	529	2.7×10^{-13} (1.0×10^{-2})	1.6×10^{-12} (5.9×10^{-2})	1.6×10^{-13} (5.9×10^{-3})	1.9
^{40}K	151	5.1×10^{-13} (1.9×10^{-2})	3.8×10^{-13} (1.4×10^{-2})	4.1×10^{-13} (1.5×10^{-2})	1.9
^{212}Pb	257	1.2×10^{-14} (4.4×10^{-4})	5.1×10^{-15} (1.9×10^{-4})	1.1×10^{-14} (4.1×10^{-4})	1.4
^{214}Pb	751	1.8×10^{-13} (6.7×10^{-3})	2.2×10^{-13} (8.1×10^{-3})	1.5×10^{-13} (5.6×10^{-3})	1.8
^{208}Tl	28	5.8×10^{-15} (2.1×10^{-4})	2.3×10^{-15} (8.5×10^{-5})	5.4×10^{-15} (2.0×10^{-4})	1.5

Attachment A.1 ²³⁸Pu in Air - 1991

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 1, BJY	02/04/91	03/04/91	1.7×10^{-18}	6.1×10^{-18}
Area 1, BJY	03/04/91	04/01/91	6.8×10^{-18}	5.0×10^{-18}
Area 1, BJY	04/01/91	04/29/91	1.8×10^{-17}	5.8×10^{-18}
Area 1, BJY	04/29/91	06/03/91	1.2×10^{-17}	7.4×10^{-18}
Area 1, BJY	07/01/91	07/29/91	-5.6×10^{-18}	7.9×10^{-18}
Area 1, BJY	07/29/91	09/03/91	-9.5×10^{-18}	4.3×10^{-18}
Area 1, BJY	09/03/91	09/30/91	7.5×10^{-18}	8.4×10^{-18}
Area 1, BJY	09/30/91	11/04/91	-1.3×10^{-17}	5.3×10^{-18}
Area 1, BJY	11/03/91	12/04/91	1.3×10^{-18}	8.4×10^{-18}
Area 1, BJY	12/02/91	12/30/91	-2.7×10^{-17}	1.3×10^{-17}
Area 1, Gravel Pit	12/31/90	02/04/91	1.6×10^{-18}	5.3×10^{-18}
Area 1, Gravel Pit	03/04/91	04/01/91	4.8×10^{-18}	4.6×10^{-18}
Area 1, Gravel Pit	04/01/91	04/29/91	-2.9×10^{-18}	4.2×10^{-18}
Area 1, Gravel Pit	04/29/91	06/03/91	9.0×10^{-18}	6.4×10^{-18}
Area 1, Gravel Pit	07/01/91	07/29/91	-7.4×10^{-19}	1.2×10^{-17}
Area 1, Gravel Pit	07/29/91	09/03/91	-4.6×10^{-18}	4.2×10^{-18}
Area 1, Gravel Pit	09/03/91	09/30/91	-1.4×10^{-17}	8.6×10^{-18}
Area 1, Gravel Pit	09/30/91	11/04/91	-5.7×10^{-18}	4.5×10^{-18}
Area 1, Gravel Pit	11/03/91	12/04/91	-5.5×10^{-18}	5.4×10^{-18}
Area 1, Gravel Pit	12/02/91	12/30/91	8.4×10^{-18}	2.0×10^{-17}
Area 2, 2-1 Substation	12/31/90	02/04/91	5.3×10^{-18}	4.1×10^{-18}
Area 2, 2-1 Substation	02/04/91	03/04/91	7.0×10^{-18}	5.1×10^{-18}
Area 2, 2-1 Substation	03/04/91	04/01/91	3.0×10^{-18}	3.9×10^{-18}
Area 2, 2-1 Substation	04/01/91	04/29/91	9.3×10^{-18}	5.0×10^{-18}
Area 2, 2-1 Substation	04/29/91	06/03/91	4.3×10^{-18}	4.4×10^{-18}
Area 2, 2-1 Substation	06/03/91	07/01/91	-1.9×10^{-17}	8.3×10^{-18}
Area 2, 2-1 Substation	07/01/91	07/29/91	-7.5×10^{-18}	6.1×10^{-18}
Area 2, 2-1 Substation	07/29/91	09/03/91	-2.9×10^{-18}	4.1×10^{-18}
Area 2, 2-1 Substation	09/03/91	09/30/91	5.7×10^{-19}	5.9×10^{-18}
Area 2, 2-1 Substation	09/30/91	11/04/91	3.7×10^{-18}	4.3×10^{-18}
Area 2, 2-1 Substation	11/03/91	12/04/91	-6.4×10^{-18}	4.7×10^{-18}
Area 2, 2-1 Substation	12/02/91	12/30/91	-7.1×10^{-18}	4.3×10^{-18}
Area 2, Complex	02/04/91	03/04/91	1.7×10^{-17}	6.0×10^{-18}
Area 2, Complex	03/04/91	04/01/91	6.4×10^{-18}	4.7×10^{-18}
Area 2, Complex	04/01/91	04/29/91	5.3×10^{-18}	6.3×10^{-18}
Area 2, Complex	04/29/91	06/03/91	5.1×10^{-18}	5.2×10^{-18}
Area 2, Complex	06/03/91	07/01/91	1.0×10^{-17}	4.4×10^{-18}
Area 2, Complex	07/01/91	07/29/91	-7.5×10^{-18}	4.8×10^{-18}
Area 2, Complex	07/29/91	09/03/91	2.8×10^{-19}	4.6×10^{-18}
Area 2, Complex	09/03/91	09/30/91	-7.0×10^{-18}	7.3×10^{-18}
Area 2, Complex	09/30/91	11/04/91	-4.7×10^{-19}	5.4×10^{-18}
Area 2, Complex	11/03/91	12/04/91	-6.8×10^{-18}	5.0×10^{-18}

Attachment A.1 (²³⁸Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		μCi/mL	
	Start	End	Concentration	Standard Deviation (s)
Area 2, Complex	12/02/91	12/30/91	-8.6 x 10 ⁻¹⁸	4.3 x 10 ⁻¹⁸
Area 3, 3-300 Bunker	12/31/90	02/04/91	3.4 x 10 ⁻¹⁸	5.7 x 10 ⁻¹⁸
Area 3, 3-300 Bunker	02/04/91	03/04/91	3.9 x 10 ⁻¹⁸	4.7 x 10 ⁻¹⁸
Area 3, 3-300 Bunker	03/04/91	04/01/91	-9.7 x 10 ⁻¹⁹	3.7 x 10 ⁻¹⁸
Area 3, 3-300 Bunker	04/01/91	04/29/91	1.4 x 10 ⁻¹⁷	5.9 x 10 ⁻¹⁸
Area 3, 3-300 Bunker	04/29/91	06/03/91	2.2 x 10 ⁻¹⁷	7.6 x 10 ⁻¹⁸
Area 3, 3-300 Bunker	06/03/91	07/01/91	-8.9 x 10 ⁻¹⁸	1.0 x 10 ⁻¹⁷
Area 3, 3-300 Bunker	07/01/91	07/29/91	-8.9 x 10 ⁻¹⁸	6.4 x 10 ⁻¹⁸
Area 3, 3-300 Bunker	07/29/91	09/03/91	-4.9 x 10 ⁻¹⁸	3.7 x 10 ⁻¹⁸
Area 3, 3-300 Bunker	09/03/91	09/30/91	-1.2 x 10 ⁻¹⁸	7.3 x 10 ⁻¹⁸
Area 3, 3-300 Bunker	09/30/91	11/04/91	-5.5 x 10 ⁻¹⁸	5.1 x 10 ⁻¹⁸
Area 3, 3-300 Bunker	11/03/91	12/04/91	-2.0 x 10 ⁻¹⁸	7.5 x 10 ⁻¹⁸
Area 3, 3-300 Bunker	12/02/91	12/30/91	2.6 x 10 ⁻¹⁸	6.7 x 10 ⁻¹⁸
Area 3, Complex	02/04/91	03/04/91	3.4 x 10 ⁻¹⁸	5.5 x 10 ⁻¹⁸
Area 3, Complex	03/04/91	04/01/91	-7.2 x 10 ⁻¹⁸	4.9 x 10 ⁻¹⁸
Area 3, Complex	04/01/91	04/29/91	1.3 x 10 ⁻¹⁷	9.7 x 10 ⁻¹⁸
Area 3, Complex	04/29/91	06/03/91	4.3 x 10 ⁻¹⁹	4.8 x 10 ⁻¹⁸
Area 3, Complex	06/03/91	07/01/91	3.4 x 10 ⁻¹⁹	5.6 x 10 ⁻¹⁸
Area 3, Complex	07/01/91	07/29/91	-9.0 x 10 ⁻¹⁸	4.9 x 10 ⁻¹⁸
Area 3, Complex	07/29/91	09/03/91	-9.6 x 10 ⁻¹⁹	5.3 x 10 ⁻¹⁸
Area 3, Complex	09/03/91	09/30/91	-1.2 x 10 ⁻¹⁸	6.1 x 10 ⁻¹⁸
Area 3, Complex	09/30/91	11/04/91	-4.5 x 10 ⁻¹⁸	4.8 x 10 ⁻¹⁸
Area 3, Complex	11/03/91	12/04/91	-8.4 x 10 ⁻¹⁸	4.8 x 10 ⁻¹⁸
Area 3, Complex	12/02/91	12/30/91	-1.3 x 10 ⁻¹⁷	6.3 x 10 ⁻¹⁸
Area 3, Complex No. 2	12/31/90	02/04/91	1.6 x 10 ⁻¹⁷	6.5 x 10 ⁻¹⁸
Area 3, Complex No. 2	02/04/91	03/04/91	-9.5 x 10 ⁻¹⁹	7.9 x 10 ⁻¹⁸
Area 3, Complex No. 2	03/04/91	04/01/91	-5.0 x 10 ⁻¹⁸	5.8 x 10 ⁻¹⁸
Area 3, Complex No. 2	04/01/91	04/29/91	1.6 x 10 ⁻¹⁷	6.3 x 10 ⁻¹⁸
Area 3, Complex No. 2	04/29/91	06/03/91	1.5 x 10 ⁻¹⁷	5.2 x 10 ⁻¹⁸
Area 3, Complex No. 2	06/03/91	07/01/91	1.8 x 10 ⁻¹⁸	1.0 x 10 ⁻¹⁷
Area 3, Complex No. 2	07/01/91	07/29/91	-6.4 x 10 ⁻¹⁸	5.8 x 10 ⁻¹⁸
Area 3, Complex No. 2	07/29/91	09/03/91	-8.4 x 10 ⁻¹⁸	5.8 x 10 ⁻¹⁸
Area 3, Complex No. 2	09/03/91	09/30/91	-1.7 x 10 ⁻¹⁷	7.9 x 10 ⁻¹⁸
Area 3, Complex No. 2	09/30/91	11/04/91	-6.9 x 10 ⁻¹⁹	4.3 x 10 ⁻¹⁸
Area 3, Complex No. 2	11/03/91	12/04/91	-1.9 x 10 ⁻¹⁹	7.4 x 10 ⁻¹⁸
Area 3, Complex No. 2	12/02/91	12/30/91	-7.2 x 10 ⁻¹⁸	5.8 x 10 ⁻¹⁸
Area 3, U3ah/at East	12/31/90	02/04/91	1.6 x 10 ⁻¹⁷	5.5 x 10 ⁻¹⁸
Area 3, U3ah/at East	02/04/91	03/04/91	-1.5 x 10 ⁻¹⁸	5.9 x 10 ⁻¹⁸
Area 3, U3ah/at East	03/04/91	04/01/91	6.9 x 10 ⁻¹⁸	4.8 x 10 ⁻¹⁸
Area 3, U3ah/at East	04/01/91	04/29/91	1.1 x 10 ⁻¹⁷	6.4 x 10 ⁻¹⁸
Area 3, U3ah/at East	04/29/91	06/03/91	4.1 x 10 ⁻¹⁸	5.3 x 10 ⁻¹⁸
Area 3, U3ah/at East	06/03/91	07/01/91	-6.0 x 10 ⁻¹⁸	5.3 x 10 ⁻¹⁸

Attachment A.1 (²³⁸Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		μCi/mL	
	Start	End	Concentration	Standard Deviation (s)
Area 3, U3ah/at East	07/01/91	07/29/91	9.1 x 10 ⁻¹⁸	8.4 x 10 ⁻¹⁸
Area 3, U3ah/at East	07/29/91	09/03/91	2.6 x 10 ⁻¹⁸	5.6 x 10 ⁻¹⁸
Area 3, U3ah/at East	09/03/91	09/30/91	5.8 x 10 ⁻¹⁸	6.2 x 10 ⁻¹⁸
Area 3, U3ah/at East	09/30/91	11/04/91	-4.7 x 10 ⁻¹⁹	3.8 x 10 ⁻¹⁸
Area 3, U3ah/at East	11/03/91	12/04/91	-9.0 x 10 ⁻¹⁸	4.7 x 10 ⁻¹⁸
Area 3, U3ah/at East	12/02/91	12/30/91	7.2 x 10 ⁻¹⁸	7.2 x 10 ⁻¹⁸
Area 3, U3ah/at North	12/31/90	02/04/91	-2.7 x 10 ⁻¹⁷	1.0 x 10 ⁻¹⁷
Area 3, U3ah/at North	02/04/91	03/04/91	-1.8 x 10 ⁻¹⁷	1.3 x 10 ⁻¹⁷
Area 3, U3ah/at North	03/04/91	04/01/91	4.9 x 10 ⁻¹⁸	4.7 x 10 ⁻¹⁸
Area 3, U3ah/at North	04/01/91	04/29/91	1.2 x 10 ⁻¹⁷	5.3 x 10 ⁻¹⁸
Area 3, U3ah/at North	04/29/91	06/03/91	1.3 x 10 ⁻¹⁷	6.1 x 10 ⁻¹⁸
Area 3, U3ah/at North	06/03/91	07/01/91	1.1 x 10 ⁻¹⁸	9.1 x 10 ⁻¹⁸
Area 3, U3ah/at North	07/01/91	07/29/91	-8.3 x 10 ⁻¹⁸	7.2 x 10 ⁻¹⁸
Area 3, U3ah/at North	07/29/91	09/03/91	3.5 x 10 ⁻¹⁸	6.6 x 10 ⁻¹⁸
Area 3, U3ah/at North	09/03/91	09/30/91	2.8 x 10 ⁻¹⁸	6.4 x 10 ⁻¹⁸
Area 3, U3ah/at North	11/03/91	12/04/91	7.9 x 10 ⁻¹⁸	6.2 x 10 ⁻¹⁸
Area 3, U3ah/at North	12/02/91	12/30/91	4.0 x 10 ⁻¹⁸	5.6 x 10 ⁻¹⁸
Area 3, U3ah/at South	12/31/90	02/04/91	-1.0 x 10 ⁻¹⁸	3.4 x 10 ⁻¹⁸
Area 3, U3ah/at South	02/04/91	03/04/91	-1.9 x 10 ⁻¹⁸	4.6 x 10 ⁻¹⁸
Area 3, U3ah/at South	03/04/91	04/01/91	-5.0 x 10 ⁻¹⁸	5.4 x 10 ⁻¹⁸
Area 3, U3ah/at South	04/01/91	04/29/91	6.4 x 10 ⁻¹⁸	4.3 x 10 ⁻¹⁸
Area 3, U3ah/at South	04/29/91	06/03/91	3.6 x 10 ⁻¹⁸	4.4 x 10 ⁻¹⁸
Area 3, U3ah/at South	06/03/91	07/01/91	-6.4 x 10 ⁻¹⁸	7.6 x 10 ⁻¹⁸
Area 3, U3ah/at South	07/01/91	07/29/91	-1.3 x 10 ⁻¹⁸	5.3 x 10 ⁻¹⁸
Area 3, U3ah/at South	07/29/91	09/03/91	-1.2 x 10 ⁻¹⁸	5.2 x 10 ⁻¹⁸
Area 3, U3ah/at South	09/03/91	09/30/91	2.4 x 10 ⁻¹⁸	6.1 x 10 ⁻¹⁸
Area 3, U3ah/at South	09/30/91	11/04/91	-2.2 x 10 ⁻¹⁸	4.0 x 10 ⁻¹⁸
Area 3, U3ah/at South	11/03/91	12/04/91	1.8 x 10 ⁻¹⁹	4.9 x 10 ⁻¹⁸
Area 3, U3ah/at South	12/02/91	12/30/91	-1.8 x 10 ⁻¹⁹	5.1 x 10 ⁻¹⁸
Area 3, U3ah/at West	12/31/90	02/04/91	1.9 x 10 ⁻¹⁸	5.5 x 10 ⁻¹⁸
Area 3, U3ah/at West	02/04/91	03/04/91	1.5 x 10 ⁻¹⁷	5.8 x 10 ⁻¹⁸
Area 3, U3ah/at West	03/04/91	04/01/91	1.6 x 10 ⁻¹⁷	5.8 x 10 ⁻¹⁸
Area 3, U3ah/at West	04/01/91	04/29/91	1.6 x 10 ⁻¹⁷	7.7 x 10 ⁻¹⁸
Area 3, U3ah/at West	04/29/91	06/03/91	2.0 x 10 ⁻¹⁷	6.0 x 10 ⁻¹⁸
Area 3, U3ah/at West	06/03/91	07/01/91	-6.9 x 10 ⁻¹⁸	7.3 x 10 ⁻¹⁸
Area 3, U3ah/at West	07/01/91	07/29/91	8.2 x 10 ⁻¹⁸	9.9 x 10 ⁻¹⁸
Area 3, U3ah/at West	07/29/91	09/03/91	-1.1 x 10 ⁻¹⁷	5.5 x 10 ⁻¹⁸
Area 3, U3ah/at West	09/03/91	09/30/91	-5.7 x 10 ⁻¹⁸	5.7 x 10 ⁻¹⁸
Area 3, U3ah/at West	09/30/91	11/04/91	-8.6 x 10 ⁻¹⁹	4.5 x 10 ⁻¹⁸
Area 3, U3ah/at West	11/03/91	12/04/91	1.8 x 10 ⁻¹⁸	7.2 x 10 ⁻¹⁸
Area 3, U3ah/at West	12/02/91	12/30/91	6.8 x 10 ⁻¹⁸	8.0 x 10 ⁻¹⁸
Area 5, DOD Yard	12/31/90	02/04/91	6.7 x 10 ⁻¹⁸	4.7 x 10 ⁻¹⁸

Attachment A.1 (²³⁸Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, DOD Yard	02/04/91	03/04/91	4.4×10^{-18}	5.0×10^{-18}
Area 5, DOD Yard	03/04/91	04/01/91	6.2×10^{-18}	4.8×10^{-18}
Area 5, DOD Yard	04/01/91	04/29/91	1.2×10^{-17}	4.8×10^{-18}
Area 5, DOD Yard	04/29/91	06/03/91	6.5×10^{-19}	5.4×10^{-18}
Area 5, DOD Yard	06/03/91	07/01/91	-3.1×10^{-18}	4.3×10^{-18}
Area 5, DOD Yard	07/01/91	07/29/91	-6.2×10^{-18}	7.7×10^{-18}
Area 5, DOD Yard	07/29/91	09/03/91	-6.2×10^{-19}	3.8×10^{-18}
Area 5, DOD Yard	09/03/91	09/30/91	1.1×10^{-17}	8.9×10^{-18}
Area 5, DOD Yard	09/30/91	11/04/91	-4.5×10^{-18}	5.4×10^{-18}
Area 5, DOD Yard	11/03/91	12/04/91	1.6×10^{-19}	5.7×10^{-18}
Area 5, DOD Yard	12/02/91	12/30/91	-5.4×10^{-19}	6.8×10^{-18}
Area 5, Gate 200	12/31/90	02/04/91	7.6×10^{-18}	5.4×10^{-18}
Area 5, Gate 200	02/04/91	03/04/91	9.8×10^{-18}	6.1×10^{-18}
Area 5, Gate 200	03/04/91	04/01/91	6.1×10^{-18}	5.5×10^{-18}
Area 5, Gate 200	04/01/91	04/29/91	5.8×10^{-18}	5.8×10^{-18}
Area 5, Gate 200	04/29/91	06/03/91	1.0×10^{-17}	6.0×10^{-18}
Area 5, Gate 200	06/03/91	07/01/91	-2.3×10^{-18}	7.0×10^{-18}
Area 5, Gate 200	07/01/91	07/29/91	5.7×10^{-20}	5.1×10^{-18}
Area 5, Gate 200	07/29/91	09/03/91	-4.1×10^{-18}	5.2×10^{-18}
Area 5, Gate 200	09/03/91	09/30/91	-9.3×10^{-18}	5.2×10^{-18}
Area 5, Gate 200	09/30/91	11/04/91	6.7×10^{-19}	4.5×10^{-18}
Area 5, Gate 200	11/03/91	12/04/91	5.0×10^{-18}	9.2×10^{-18}
Area 5, Gate 200	12/02/91	12/30/91	8.7×10^{-18}	8.1×10^{-18}
Area 5, RWMS No. 1	12/31/90	02/04/91	6.1×10^{-18}	4.7×10^{-18}
Area 5, RWMS No. 1	02/04/91	03/04/91	1.6×10^{-17}	5.8×10^{-18}
Area 5, RWMS No. 1	03/04/91	04/01/91	1.1×10^{-17}	5.8×10^{-18}
Area 5, RWMS No. 1	04/01/91	04/29/91	4.8×10^{-18}	4.1×10^{-18}
Area 5, RWMS No. 1	04/29/91	06/03/91	6.4×10^{-18}	5.2×10^{-18}
Area 5, RWMS No. 1	06/03/91	07/01/91	-4.6×10^{-18}	4.0×10^{-18}
Area 5, RWMS No. 1	07/01/91	07/29/91	9.9×10^{-18}	1.1×10^{-17}
Area 5, RWMS No. 1	07/29/91	09/03/91	3.6×10^{-18}	5.2×10^{-18}
Area 5, RWMS No. 1	09/03/91	09/30/91	-1.1×10^{-17}	6.0×10^{-18}
Area 5, RWMS No. 1	09/30/91	11/04/91	-7.3×10^{-18}	3.2×10^{-18}
Area 5, RWMS No. 1	11/03/91	12/04/91	-5.4×10^{-18}	4.6×10^{-18}
Area 5, RWMS No. 1	12/02/91	12/30/91	-1.1×10^{-18}	5.5×10^{-18}
Area 5, RWMS No. 2	12/31/90	02/04/91	-1.2×10^{-17}	5.2×10^{-18}
Area 5, RWMS No. 2	02/04/91	03/04/91	1.9×10^{-17}	8.2×10^{-18}
Area 5, RWMS No. 2	03/04/91	04/01/91	6.9×10^{-18}	5.0×10^{-18}
Area 5, RWMS No. 2	04/01/91	04/29/91	1.0×10^{-18}	4.1×10^{-18}
Area 5, RWMS No. 2	04/29/91	06/03/91	-1.6×10^{-18}	4.6×10^{-18}
Area 5, RWMS No. 2	06/03/91	07/01/91	-1.2×10^{-17}	6.3×10^{-18}

Attachment A.1 (^{238}Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS No. 2	07/01/91	07/29/91	-6.3×10^{-18}	8.3×10^{-18}
Area 5, RWMS No. 2	07/29/91	09/03/91	-9.3×10^{-19}	4.5×10^{-18}
Area 5, RWMS No. 2	09/30/91	11/04/91	-1.2×10^{-17}	6.3×10^{-18}
Area 5, RWMS No. 2	11/03/91	12/04/91	-5.8×10^{-18}	5.2×10^{-18}
Area 5, RWMS No. 2	12/02/91	12/30/91	5.8×10^{-18}	7.8×10^{-18}
Area 5, RWMS No. 3	12/31/90	02/04/91	1.8×10^{-18}	4.5×10^{-18}
Area 5, RWMS No. 3	02/04/91	03/04/91	8.6×10^{-18}	5.5×10^{-18}
Area 5, RWMS No. 3	03/04/91	04/01/91	2.6×10^{-18}	4.1×10^{-18}
Area 5, RWMS No. 3	04/01/91	04/29/91	6.9×10^{-18}	5.1×10^{-18}
Area 5, RWMS No. 3	04/29/91	06/03/91	7.5×10^{-18}	4.8×10^{-18}
Area 5, RWMS No. 3	06/03/91	07/01/91	-7.9×10^{-19}	7.1×10^{-18}
Area 5, RWMS No. 3	07/01/91	07/29/91	-6.5×10^{-19}	7.2×10^{-18}
Area 5, RWMS No. 3	07/29/91	09/03/91	-6.0×10^{-18}	3.6×10^{-18}
Area 5, RWMS No. 3	09/03/91	09/30/91	3.4×10^{-18}	5.7×10^{-18}
Area 5, RWMS No. 3	09/30/91	11/04/91	1.3×10^{-18}	5.8×10^{-18}
Area 5, RWMS No. 3	11/03/91	12/04/91	-2.1×10^{-18}	6.5×10^{-18}
Area 5, RWMS No. 3	12/02/91	12/30/91	4.5×10^{-18}	7.2×10^{-18}
Area 5, RWMS No. 4	12/31/90	02/04/91	-4.0×10^{-18}	3.2×10^{-18}
Area 5, RWMS No. 4	02/04/91	03/04/91	3.8×10^{-18}	5.6×10^{-18}
Area 5, RWMS No. 4	03/04/91	04/01/91	1.1×10^{-17}	5.9×10^{-18}
Area 5, RWMS No. 4	04/01/91	04/29/91	8.4×10^{-18}	4.7×10^{-18}
Area 5, RWMS No. 4	04/29/91	06/03/91	3.0×10^{-18}	3.5×10^{-18}
Area 5, RWMS No. 4	06/03/91	07/01/91	-4.5×10^{-18}	5.4×10^{-18}
Area 5, RWMS No. 4	07/01/91	07/29/91	-1.3×10^{-17}	5.6×10^{-18}
Area 5, RWMS No. 4	07/29/91	09/03/91	-8.5×10^{-18}	7.7×10^{-18}
Area 5, RWMS No. 4	09/03/91	09/30/91	1.9×10^{-18}	6.6×10^{-18}
Area 5, RWMS No. 4	09/30/91	11/04/91	1.8×10^{-17}	7.9×10^{-18}
Area 5, RWMS No. 4	11/03/91	12/04/91	7.6×10^{-18}	7.4×10^{-18}
Area 5, RWMS No. 4	12/02/91	12/30/91	4.2×10^{-18}	6.9×10^{-18}
Area 5, RWMS No. 5	12/31/90	02/04/91	-4.6×10^{-18}	3.6×10^{-18}
Area 5, RWMS No. 5	02/04/91	03/04/91	6.9×10^{-18}	4.9×10^{-18}
Area 5, RWMS No. 5	03/04/91	04/01/91	4.1×10^{-18}	4.8×10^{-18}
Area 5, RWMS No. 5	04/01/91	04/29/91	7.1×10^{-18}	4.6×10^{-18}
Area 5, RWMS No. 5	04/29/91	06/03/91	9.2×10^{-20}	3.0×10^{-18}
Area 5, RWMS No. 5	06/03/91	07/01/91	-6.4×10^{-18}	4.0×10^{-18}
Area 5, RWMS No. 5	07/01/91	07/29/91	-2.9×10^{-18}	5.2×10^{-18}
Area 5, RWMS No. 5	07/29/91	09/03/91	9.1×10^{-19}	5.9×10^{-18}
Area 5, RWMS No. 5	09/03/91	09/30/91	-1.4×10^{-17}	8.9×10^{-18}
Area 5, RWMS No. 5	09/30/91	11/04/91	-8.6×10^{-18}	6.5×10^{-18}
Area 5, RWMS No. 5	11/03/91	12/04/91	-4.0×10^{-18}	6.9×10^{-18}
Area 5, RWMS No. 5	12/02/91	12/30/91	-6.2×10^{-18}	1.0×10^{-17}
Area 5, RWMS No. 6	12/31/90	02/04/91	1.5×10^{-18}	4.0×10^{-18}

Attachment A.1 (^{238}Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS No. 6	02/04/91	03/04/91	-3.9×10^{-18}	4.1×10^{-18}
Area 5, RWMS No. 6	03/04/91	04/01/91	1.7×10^{-18}	4.5×10^{-18}
Area 5, RWMS No. 6	04/01/91	04/29/91	5.5×10^{-18}	4.5×10^{-18}
Area 5, RWMS No. 6	04/29/91	06/03/91	3.3×10^{-18}	3.3×10^{-18}
Area 5, RWMS No. 6	06/03/91	07/01/91	-3.0×10^{-18}	4.2×10^{-18}
Area 5, RWMS No. 6	07/01/91	07/29/91	7.8×10^{-18}	8.3×10^{-18}
Area 5, RWMS No. 6	07/29/91	09/03/91	-2.4×10^{-20}	5.7×10^{-18}
Area 5, RWMS No. 6	09/03/91	09/30/91	-1.1×10^{-17}	6.4×10^{-18}
Area 5, RWMS No. 6	09/30/91	11/04/91	-5.8×10^{-18}	4.8×10^{-18}
Area 5, RWMS No. 6	11/03/91	12/04/91	1.8×10^{-18}	6.1×10^{-18}
Area 5, RWMS No. 6	12/02/91	12/30/91	-1.2×10^{-17}	5.6×10^{-18}
Area 5, RWMS No. 7	12/31/90	02/04/91	-3.1×10^{-18}	4.3×10^{-18}
Area 5, RWMS No. 7	02/04/91	03/04/91	6.7×10^{-18}	5.2×10^{-18}
Area 5, RWMS No. 7	03/04/91	04/01/91	1.4×10^{-17}	6.5×10^{-18}
Area 5, RWMS No. 7	04/01/91	04/29/91	3.4×10^{-18}	3.8×10^{-18}
Area 5, RWMS No. 7	04/29/91	06/03/91	2.1×10^{-18}	3.8×10^{-18}
Area 5, RWMS No. 7	06/03/91	07/01/91	3.2×10^{-19}	4.4×10^{-18}
Area 5, RWMS No. 7	07/01/91	07/29/91	-5.6×10^{-19}	7.1×10^{-18}
Area 5, RWMS No. 7	07/29/91	09/03/91	-8.7×10^{-18}	3.7×10^{-18}
Area 5, RWMS No. 7	09/03/91	09/30/91	-9.9×10^{-18}	7.4×10^{-18}
Area 5, RWMS No. 7	09/30/91	11/04/91	-4.0×10^{-18}	4.7×10^{-18}
Area 5, RWMS No. 7	11/03/91	12/04/91	3.8×10^{-18}	6.8×10^{-18}
Area 5, RWMS No. 7	12/02/91	12/30/91	3.1×10^{-18}	9.4×10^{-18}
Area 5, RWMS No. 8	12/31/90	02/04/91	-2.4×10^{-18}	4.6×10^{-18}
Area 5, RWMS No. 8	02/04/91	03/04/91	-6.8×10^{-18}	6.1×10^{-18}
Area 5, RWMS No. 8	03/04/91	04/01/91	8.1×10^{-18}	5.8×10^{-18}
Area 5, RWMS No. 8	04/01/91	04/29/91	8.1×10^{-18}	4.5×10^{-18}
Area 5, RWMS No. 8	04/29/91	06/03/91	-3.5×10^{-18}	4.4×10^{-18}
Area 5, RWMS No. 8	06/03/91	07/01/91	-3.3×10^{-19}	4.1×10^{-18}
Area 5, RWMS No. 8	07/01/91	07/29/91	-4.0×10^{-18}	4.7×10^{-18}
Area 5, RWMS No. 8	07/29/91	09/03/91	1.2×10^{-17}	5.7×10^{-18}
Area 5, RWMS No. 8	09/30/91	11/04/91	4.6×10^{-18}	5.5×10^{-18}
Area 5, RWMS No. 8	11/03/91	12/04/91	-9.4×10^{-19}	7.0×10^{-18}
Area 5, RWMS No. 8	12/02/91	12/30/91	1.0×10^{-17}	1.2×10^{-17}
Area 5, RWMS No. 9	12/31/90	02/04/91	3.1×10^{-19}	3.9×10^{-18}
Area 5, RWMS No. 9	02/04/91	03/04/91	-1.2×10^{-18}	4.0×10^{-18}
Area 5, RWMS No. 9	03/04/91	04/01/91	4.8×10^{-18}	4.8×10^{-18}
Area 5, RWMS No. 9	04/01/91	04/29/91	2.5×10^{-18}	4.1×10^{-18}
Area 5, RWMS No. 9	04/29/91	06/03/91	3.1×10^{-19}	3.2×10^{-18}
Area 5, RWMS No. 9	06/03/91	07/01/91	-2.3×10^{-18}	3.6×10^{-18}
Area 5, RWMS No. 9	07/01/91	07/29/91	-9.6×10^{-18}	5.2×10^{-18}
Area 5, RWMS No. 9	07/29/91	09/03/91	1.3×10^{-18}	5.0×10^{-18}

Attachment A.1 (^{238}Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS No. 9	09/03/91	09/30/91	-3.2×10^{-18}	7.1×10^{-18}
Area 5, RWMS No. 9	09/30/91	11/04/91	2.6×10^{-18}	5.7×10^{-18}
Area 5, RWMS No. 9	11/03/91	12/04/91	8.1×10^{-19}	6.5×10^{-18}
Area 5, RWMS No. 9	12/02/91	12/30/91	-5.1×10^{-18}	6.8×10^{-18}
Area 5, RWMS Pit 3	12/31/90	02/04/91	7.0×10^{-18}	5.1×10^{-18}
Area 5, RWMS Pit 3	02/04/91	03/04/91	1.1×10^{-17}	7.0×10^{-18}
Area 5, RWMS Pit 3	03/04/91	04/01/91	7.5×10^{-18}	5.4×10^{-18}
Area 5, RWMS Pit 3	04/01/91	04/29/91	1.4×10^{-17}	5.4×10^{-18}
Area 5, RWMS Pit 3	04/29/91	06/03/91	6.5×10^{-18}	5.4×10^{-18}
Area 5, RWMS Pit 3	06/03/91	07/01/91	-1.4×10^{-18}	5.2×10^{-18}
Area 5, RWMS Pit 3	07/01/91	07/29/91	-1.1×10^{-17}	8.2×10^{-18}
Area 5, RWMS Pit 3	07/29/91	09/03/91	2.2×10^{-18}	5.2×10^{-18}
Area 5, RWMS Pit 3	09/03/91	09/30/91	-1.4×10^{-17}	5.6×10^{-18}
Area 5, RWMS Pit 3	09/30/91	11/04/91	-1.9×10^{-18}	4.2×10^{-18}
Area 5, RWMS Pit 3	11/03/91	12/04/91	-7.3×10^{-19}	8.6×10^{-18}
Area 5, RWMS Pit 3	12/02/91	12/30/91	-7.7×10^{-18}	4.9×10^{-18}
Area 5, RWMS Pit 4	12/31/90	02/04/91	-2.0×10^{-17}	7.9×10^{-18}
Area 5, RWMS Pit 4	02/04/91	03/04/91	-2.9×10^{-18}	9.6×10^{-18}
Area 5, RWMS Pit 4	03/04/91	04/01/91	1.0×10^{-17}	4.4×10^{-18}
Area 5, RWMS Pit 4	04/01/91	04/29/91	1.6×10^{-18}	4.8×10^{-18}
Area 5, RWMS Pit 4	04/29/91	06/03/91	1.1×10^{-17}	4.3×10^{-18}
Area 5, RWMS Pit 4	06/03/91	07/01/91	6.6×10^{-18}	7.2×10^{-18}
Area 5, RWMS Pit 4	07/01/91	07/29/91	1.1×10^{-18}	5.4×10^{-18}
Area 5, RWMS Pit 4	07/29/91	09/03/91	-5.6×10^{-18}	4.0×10^{-18}
Area 5, RWMS Pit 4	09/03/91	09/30/91	3.8×10^{-18}	5.9×10^{-18}
Area 5, RWMS Pit 4	09/30/91	11/04/91	-1.4×10^{-18}	4.1×10^{-18}
Area 5, RWMS Pit 4	11/03/91	12/04/91	2.2×10^{-19}	6.9×10^{-18}
Area 5, RWMS Pit 4	12/02/91	12/30/91	1.0×10^{-17}	8.7×10^{-18}
Area 5, RWMS TP North	12/31/90	02/04/91	-4.9×10^{-18}	4.6×10^{-18}
Area 5, RWMS TP North	02/04/91	03/04/91	2.7×10^{-18}	4.1×10^{-18}
Area 5, RWMS TP North	03/04/91	04/01/91	3.0×10^{-18}	3.0×10^{-18}
Area 5, RWMS TP North	04/01/91	04/29/91	5.2×10^{-18}	5.0×10^{-18}
Area 5, RWMS TP North	04/29/91	06/03/91	3.7×10^{-18}	3.4×10^{-18}
Area 5, RWMS TP North	06/03/91	07/01/91	-3.3×10^{-18}	6.3×10^{-18}
Area 5, RWMS TP North	07/01/91	07/29/91	-1.1×10^{-18}	5.3×10^{-18}
Area 5, RWMS TP North	07/29/91	09/03/91	-1.1×10^{-18}	4.8×10^{-18}
Area 5, RWMS TP North	09/03/91	09/30/91	7.7×10^{-19}	5.8×10^{-18}
Area 5, RWMS TP North	09/30/91	11/04/91	-5.0×10^{-19}	4.3×10^{-18}
Area 5, RWMS TP North	11/03/91	12/04/91	-3.9×10^{-19}	5.7×10^{-18}
Area 5, RWMS TP North	12/02/91	12/30/91	1.3×10^{-17}	8.7×10^{-18}
Area 5, RWMS TP NE	12/31/90	02/04/91	-9.0×10^{-18}	5.0×10^{-18}
Area 5, RWMS TP NE	02/04/91	03/04/91	6.7×10^{-18}	3.5×10^{-18}

Attachment A.1 (^{238}Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS TP NE	03/04/91	04/01/91	3.8×10^{-18}	4.0×10^{-18}
Area 5, RWMS TP NE	04/01/91	04/29/91	3.8×10^{-18}	4.6×10^{-18}
Area 5, RWMS TP NE	04/29/91	06/03/91	9.5×10^{-19}	4.4×10^{-18}
Area 5, RWMS TP NE	06/03/91	07/01/91	-1.0×10^{-17}	7.1×10^{-18}
Area 5, RWMS TP NE	07/01/91	07/29/91	-2.2×10^{-18}	5.8×10^{-18}
Area 5, RWMS TP NE	09/03/91	09/30/91	-2.4×10^{-18}	5.3×10^{-18}
Area 5, RWMS TP NE	09/30/91	11/04/91	-6.6×10^{-18}	4.3×10^{-18}
Area 5, RWMS TP NE	11/03/91	12/04/91	5.6×10^{-18}	6.1×10^{-18}
Area 5, RWMS TP NE	12/02/91	12/30/91	8.8×10^{-19}	5.9×10^{-18}
Area 5, RWMS TP NE	12/31/90	02/04/91	7.7×10^{-18}	5.3×10^{-18}
Area 5, RWMS TP NW	02/04/91	03/04/91	6.0×10^{-18}	3.0×10^{-18}
Area 5, RWMS TP NW	03/04/91	04/01/91	8.0×10^{-18}	4.3×10^{-18}
Area 5, RWMS TP NW	04/01/91	04/29/91	8.0×10^{-18}	4.9×10^{-18}
Area 5, RWMS TP NW	04/29/91	06/03/91	1.1×10^{-17}	4.6×10^{-18}
Area 5, RWMS TP NW	06/03/91	07/01/91	-2.5×10^{-18}	6.5×10^{-18}
Area 5, RWMS TP NW	07/01/91	07/29/91	1.2×10^{-17}	9.4×10^{-18}
Area 5, RWMS TP NW	07/29/91	09/03/91	-2.4×10^{-19}	4.7×10^{-18}
Area 5, RWMS TP NW	09/03/91	09/30/91	-2.0×10^{-18}	5.8×10^{-18}
Area 5, RWMS TP NW	09/30/91	11/04/91	-1.1×10^{-18}	4.2×10^{-18}
Area 5, RWMS TP NW	11/03/91	12/04/91	7.2×10^{-19}	5.4×10^{-18}
Area 5, RWMS TP NW	12/02/91	12/30/91	-7.9×10^{-18}	6.3×10^{-18}
Area 5, RWMS TP S	12/31/90	02/04/91	-6.2×10^{-18}	4.8×10^{-18}
Area 5, RWMS TP S	02/04/91	03/04/91	-1.1×10^{-17}	6.0×10^{-18}
Area 5, RWMS TP S	03/04/91	04/01/91	6.4×10^{-18}	4.8×10^{-18}
Area 5, RWMS TP S	04/01/91	04/29/91	9.2×10^{-18}	5.1×10^{-18}
Area 5, RWMS TP S	04/29/91	06/03/91	7.5×10^{-18}	3.7×10^{-18}
Area 5, RWMS TP S	06/03/91	07/01/91	-4.3×10^{-18}	6.7×10^{-18}
Area 5, RWMS TP S	07/01/91	07/29/91	-5.6×10^{-18}	6.0×10^{-18}
Area 5, RWMS TP S	07/29/91	09/03/91	-7.7×10^{-18}	5.1×10^{-18}
Area 5, RWMS TP S	09/03/91	09/30/91	-2.8×10^{-19}	5.9×10^{-18}
Area 5, RWMS TP S	09/30/91	11/04/91	1.0×10^{-18}	4.2×10^{-18}
Area 5, RWMS TP S	11/03/91	12/04/91	-2.7×10^{-19}	4.9×10^{-18}
Area 5, RWMS TP S	12/02/91	12/30/91	-5.9×10^{-18}	6.8×10^{-18}
Area 5, RWMS TP SE	12/31/90	02/04/91	-6.5×10^{-18}	4.9×10^{-18}
Area 5, RWMS TP SE	02/04/91	03/04/91	7.2×10^{-18}	4.8×10^{-18}
Area 5, RWMS TP SE	03/04/91	04/01/91	3.8×10^{-18}	4.5×10^{-18}
Area 5, RWMS TP SE	04/01/91	04/29/91	2.2×10^{-18}	5.1×10^{-18}
Area 5, RWMS TP SE	04/29/91	06/03/91	-9.5×10^{-19}	3.1×10^{-18}
Area 5, RWMS TP SE	06/03/91	07/01/91	-2.0×10^{-18}	9.4×10^{-18}
Area 5, RWMS TP SE	07/01/91	07/29/91	5.7×10^{-18}	8.3×10^{-18}
Area 5, RWMS TP SE	07/29/91	09/03/91	-3.3×10^{-18}	5.1×10^{-18}
Area 5, RWMS TP SE	09/03/91	09/30/91	-2.6×10^{-18}	7.1×10^{-18}

Attachment A.1 (^{238}Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS TP SE	09/30/91	11/04/91	4.3×10^{-18}	4.6×10^{-18}
Area 5, RWMS TP SE	11/03/91	12/04/91	-1.3×10^{-17}	7.0×10^{-18}
Area 5, RWMS TP SE	12/02/91	12/30/91	7.4×10^{-19}	5.6×10^{-18}
Area 5, RWMS TP SW	12/31/90	02/04/91	1.1×10^{-17}	6.1×10^{-18}
Area 5, RWMS TP SW	02/04/91	03/04/91	4.3×10^{-18}	3.2×10^{-18}
Area 5, RWMS TP SW	03/04/91	04/01/91	1.2×10^{-17}	4.8×10^{-18}
Area 5, RWMS TP SW	04/01/91	04/29/91	-2.9×10^{-18}	3.8×10^{-18}
Area 5, RWMS TP SW	04/29/91	06/03/91	-4.3×10^{-19}	3.2×10^{-18}
Area 5, RWMS TP SW	06/03/91	07/01/91	-4.8×10^{-18}	6.6×10^{-18}
Area 5, RWMS TP SW	07/01/91	07/29/91	-5.2×10^{-18}	7.7×10^{-18}
Area 5, RWMS TP SW	07/29/91	09/03/91	-7.9×10^{-18}	4.5×10^{-18}
Area 5, RWMS TP SW	09/03/91	09/30/91	-4.9×10^{-18}	4.8×10^{-18}
Area 5, RWMS TP SW	09/30/91	11/04/91	-2.9×10^{-20}	4.2×10^{-18}
Area 5, RWMS TP SW	11/03/91	12/04/91	2.2×10^{-18}	5.2×10^{-18}
Area 5, RWMS TP SW	12/02/91	12/30/91	1.3×10^{-18}	6.2×10^{-18}
Area 5, Well 5B	12/31/90	02/04/91	-4.6×10^{-18}	7.8×10^{-18}
Area 5, Well 5B	02/04/91	03/04/91	2.7×10^{-18}	9.5×10^{-18}
Area 5, Well 5B	03/04/91	04/01/91	9.2×10^{-18}	5.0×10^{-18}
Area 5, Well 5B	04/01/91	04/29/91	4.3×10^{-18}	4.2×10^{-18}
Area 5, Well 5B	04/29/91	06/03/91	1.8×10^{-18}	3.6×10^{-18}
Area 5, Well 5B	06/03/91	07/01/91	1.0×10^{-17}	5.8×10^{-18}
Area 5, Well 5B	07/01/91	07/29/91	7.1×10^{-18}	9.9×10^{-18}
Area 5, Well 5B	07/29/91	09/03/91	2.4×10^{-18}	4.4×10^{-18}
Area 5, Well 5B	09/30/91	11/04/91	1.5×10^{-18}	4.5×10^{-18}
Area 5, Well 5B	11/03/91	12/04/91	-5.9×10^{-18}	4.4×10^{-18}
Area 5, Well 5B	12/02/91	12/30/91	-8.4×10^{-18}	4.1×10^{-18}
Area 6, CP-6	12/31/90	02/04/91	-2.8×10^{-18}	3.3×10^{-18}
Area 6, CP-6	03/04/91	04/01/91	4.7×10^{-18}	5.1×10^{-18}
Area 6, CP-6	04/01/91	04/29/91	5.3×10^{-18}	5.4×10^{-18}
Area 6, CP-6	04/29/91	06/03/91	4.7×10^{-18}	5.9×10^{-18}
Area 6, CP-6	07/01/91	07/29/91	-4.6×10^{-18}	1.1×10^{-17}
Area 6, CP-6	07/29/91	09/03/91	5.9×10^{-18}	5.0×10^{-18}
Area 6, CP-6	09/03/91	09/30/91	4.2×10^{-18}	7.0×10^{-18}
Area 6, CP-6	09/30/91	11/04/91	-1.4×10^{-18}	5.0×10^{-18}
Area 6, CP-6	11/03/91	12/04/91	-1.8×10^{-18}	5.4×10^{-18}
Area 6, CP-6	12/02/91	12/30/91	-1.1×10^{-17}	5.8×10^{-18}
Area 6, Well 3 Complex	02/04/91	03/04/91	1.3×10^{-17}	6.4×10^{-18}
Area 6, Well 3 Complex	03/04/91	04/01/91	-3.4×10^{-18}	3.4×10^{-18}
Area 6, Well 3 Complex	04/01/91	04/29/91	4.8×10^{-18}	5.4×10^{-18}
Area 6, Well 3 Complex	04/29/91	06/03/91	7.9×10^{-18}	4.4×10^{-18}
Area 6, Well 3 Complex	06/03/91	07/01/91	-9.1×10^{-18}	5.4×10^{-18}
Area 6, Well 3 Complex	07/01/91	07/29/91	-8.8×10^{-18}	4.8×10^{-18}

Attachment A.1 (^{238}Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 6, Well 3 Complex	07/29/91	09/03/91	-7.7×10^{-19}	5.0×10^{-18}
Area 6, Well 3 Complex	09/03/91	09/30/91	3.7×10^{-18}	6.3×10^{-18}
Area 6, Well 3 Complex	11/03/91	12/04/91	-4.1×10^{-18}	1.8×10^{-17}
Area 6, Well 3 Complex	12/02/91	12/30/91	2.3×10^{-18}	6.0×10^{-18}
Area 6, Yucca Complex	12/31/90	02/04/91	-7.2×10^{-18}	4.2×10^{-18}
Area 6, Yucca Complex	02/04/91	03/04/91	-1.7×10^{-18}	3.7×10^{-18}
Area 6, Yucca Complex	03/04/91	04/01/91	4.7×10^{-18}	4.9×10^{-18}
Area 6, Yucca Complex	04/01/91	04/29/91	1.4×10^{-18}	4.0×10^{-18}
Area 6, Yucca Complex	04/29/91	06/03/91	-1.2×10^{-18}	4.3×10^{-18}
Area 6, Yucca Complex	06/03/91	07/01/91	-4.9×10^{-18}	3.6×10^{-18}
Area 6, Yucca Complex	07/01/91	07/29/91	-1.2×10^{-17}	5.7×10^{-18}
Area 6, Yucca Complex	07/29/91	09/03/91	-4.1×10^{-18}	3.6×10^{-18}
Area 6, Yucca Complex	09/30/91	11/04/91	-3.8×10^{-18}	4.0×10^{-18}
Area 6, Yucca Complex	11/03/91	12/04/91	6.7×10^{-19}	5.7×10^{-18}
Area 6, Yucca Complex	12/02/91	12/30/91	4.5×10^{-19}	6.6×10^{-18}
Area 7, Ue7ns	12/31/90	02/04/91	-1.4×10^{-17}	6.5×10^{-18}
Area 7, Ue7ns	02/04/91	03/04/91	5.4×10^{-18}	4.9×10^{-18}
Area 7, Ue7ns	03/04/91	04/01/91	2.4×10^{-18}	4.5×10^{-18}
Area 7, Ue7ns	04/01/91	04/29/91	1.5×10^{-17}	5.2×10^{-18}
Area 7, Ue7ns	04/29/91	06/03/91	2.9×10^{-18}	4.5×10^{-18}
Area 7, Ue7ns	06/03/91	07/01/91	8.1×10^{-18}	4.6×10^{-18}
Area 7, Ue7ns	07/01/91	07/29/91	-4.8×10^{-18}	5.8×10^{-18}
Area 7, Ue7ns	07/29/91	09/03/91	-2.8×10^{-18}	6.8×10^{-18}
Area 7, Ue7ns	09/03/91	09/30/91	-5.6×10^{-18}	5.9×10^{-18}
Area 7, Ue7ns	09/30/91	11/04/91	-1.1×10^{-18}	4.5×10^{-18}
Area 7, Ue7ns	11/03/91	12/04/91	-4.6×10^{-18}	4.9×10^{-18}
Area 7, Ue7ns	12/02/91	12/30/91	-2.0×10^{-18}	5.2×10^{-18}
Area 9, 9-300 Bunker	02/04/91	03/04/91	7.0×10^{-18}	3.3×10^{-18}
Area 9, 9-300 Bunker	03/04/91	04/01/91	2.0×10^{-18}	3.9×10^{-18}
Area 9, 9-300 Bunker	04/01/91	04/29/91	2.4×10^{-17}	1.0×10^{-17}
Area 9, 9-300 Bunker	04/29/91	06/03/91	1.4×10^{-17}	6.0×10^{-18}
Area 9, 9-300 Bunker	06/03/91	07/01/91	-2.6×10^{-18}	7.2×10^{-18}
Area 9, 9-300 Bunker	07/01/91	07/29/91	-1.6×10^{-18}	6.5×10^{-18}
Area 9, 9-300 Bunker	07/29/91	09/03/91	4.7×10^{-18}	5.3×10^{-18}
Area 9, 9-300 Bunker	09/03/91	09/30/91	4.8×10^{-18}	8.2×10^{-18}
Area 9, 9-300 Bunker	09/30/91	11/04/91	9.8×10^{-18}	6.8×10^{-18}
Area 9, 9-300 Bunker	11/03/91	12/04/91	-1.5×10^{-18}	6.1×10^{-18}
Area 9, 9-300 Bunker	12/02/91	12/30/91	-3.6×10^{-18}	7.5×10^{-18}
Area 10, Gate 700 South	02/04/91	03/04/91	2.9×10^{-18}	3.6×10^{-18}
Area 10, Gate 700 South	03/04/91	04/01/91	6.2×10^{-18}	3.2×10^{-18}
Area 10, Gate 700 South	04/29/91	06/03/91	1.5×10^{-17}	5.2×10^{-18}
Area 10, Gate 700 South	06/03/91	07/01/91	7.6×10^{-18}	5.9×10^{-18}

Attachment A.1 (^{238}Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 10, Gate 700 South	07/01/91	07/29/91	-2.8×10^{-18}	8.2×10^{-18}
Area 10, Gate 700 South	07/29/91	09/03/91	-2.5×10^{-18}	4.0×10^{-18}
Area 10, Gate 700 South	09/03/91	09/30/91	1.3×10^{-17}	9.2×10^{-18}
Area 10, Gate 700 South	09/30/91	11/04/91	-3.0×10^{-18}	5.2×10^{-18}
Area 10, Gate 700 South	11/03/91	12/04/91	5.7×10^{-18}	9.4×10^{-18}
Area 10, Gate 700 South	12/02/91	12/30/91	8.9×10^{-19}	7.1×10^{-18}
Area 11, Gate 293	02/04/91	03/04/91	5.3×10^{-18}	4.4×10^{-18}
Area 11, Gate 293	03/04/91	04/01/91	6.2×10^{-18}	3.5×10^{-18}
Area 11, Gate 293	04/01/91	04/29/91	1.4×10^{-17}	6.1×10^{-18}
Area 11, Gate 293	04/29/91	06/03/91	5.4×10^{-18}	5.7×10^{-18}
Area 11, Gate 293	06/03/91	07/01/91	-5.3×10^{-18}	5.5×10^{-18}
Area 11, Gate 293	07/01/91	07/29/91	-8.5×10^{-18}	4.6×10^{-18}
Area 11, Gate 293	07/29/91	09/03/91	9.1×10^{-18}	5.8×10^{-18}
Area 11, Gate 293	09/03/91	09/30/91	-8.0×10^{-18}	5.9×10^{-18}
Area 11, Gate 293	09/30/91	11/04/91	-8.5×10^{-18}	5.7×10^{-18}
Area 11, Gate 293	11/03/91	12/04/91	2.1×10^{-18}	6.4×10^{-18}
Area 11, Gate 293	12/02/91	12/30/91	-1.9×10^{-18}	4.9×10^{-18}
Area 12, Complex	02/04/91	03/04/91	8.2×10^{-19}	4.3×10^{-18}
Area 12, Complex	03/04/91	04/01/91	4.5×10^{-18}	3.1×10^{-18}
Area 12, Complex	04/01/91	04/29/91	-2.7×10^{-19}	5.4×10^{-18}
Area 12, Complex	04/29/91	06/03/91	3.3×10^{-18}	5.0×10^{-18}
Area 12, Complex	07/01/91	07/29/91	-7.2×10^{-18}	4.6×10^{-18}
Area 12, Complex	07/29/91	09/03/91	-8.1×10^{-18}	5.1×10^{-18}
Area 12, Complex	09/03/91	09/30/91	3.7×10^{-18}	5.8×10^{-18}
Area 12, Complex	09/30/91	11/04/91	-4.5×10^{-18}	5.1×10^{-18}
Area 12, Complex	11/03/91	12/04/91	2.0×10^{-20}	5.2×10^{-18}
Area 12, Complex	12/02/91	12/30/91	1.7×10^{-18}	5.2×10^{-18}
Area 12, P Tunnel Portal	09/30/91	11/04/91	4.3×10^{-19}	7.2×10^{-18}
Area 12, P Tunnel Portal	11/03/91	12/04/91	-4.7×10^{-18}	8.7×10^{-18}
Area 12, P Tunnel Portal	12/02/91	12/30/91	-5.9×10^{-18}	1.5×10^{-17}
Area 15, EPA Farm	12/31/90	02/04/91	7.2×10^{-18}	3.9×10^{-18}
Area 15, EPA Farm	02/04/91	03/04/91	1.8×10^{-18}	7.1×10^{-18}
Area 15, EPA Farm	03/04/91	04/01/91	5.6×10^{-18}	6.6×10^{-18}
Area 15, EPA Farm	04/01/91	04/29/91	1.0×10^{-17}	5.1×10^{-18}
Area 15, EPA Farm	04/29/91	06/03/91	6.9×10^{-19}	3.0×10^{-18}
Area 15, EPA Farm	06/03/91	07/01/91	-2.9×10^{-18}	3.7×10^{-18}
Area 15, EPA Farm	07/01/91	07/29/91	-6.5×10^{-18}	5.0×10^{-18}
Area 15, EPA Farm	07/29/91	09/03/91	1.5×10^{-18}	4.8×10^{-18}
Area 15, EPA Farm	09/30/91	11/04/91	2.6×10^{-18}	6.2×10^{-18}
Area 15, EPA Farm	11/03/91	12/04/91	-6.0×10^{-18}	6.3×10^{-18}
Area 15, EPA Farm	12/02/91	12/30/91	2.6×10^{-18}	5.5×10^{-18}
Area 15, PILEDRIVER	12/31/90	02/04/91	1.1×10^{-17}	4.6×10^{-18}

Attachment A.1 (²³⁸Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		μCi/mL	
	Start	End	Concentration	Standard Deviation (s)
Area 15, PILED RIVER	02/04/91	03/04/91	1.1 x 10 ⁻¹⁷	6.1 x 10 ⁻¹⁸
Area 15, PILED RIVER	03/04/91	04/01/91	8.5 x 10 ⁻¹⁸	7.3 x 10 ⁻¹⁸
Area 16, 3545 Substation	02/04/91	03/04/91	1.1 x 10 ⁻¹⁷	5.6 x 10 ⁻¹⁸
Area 16, 3545 Substation	03/04/91	04/01/91	2.8 x 10 ⁻¹⁸	3.3 x 10 ⁻¹⁸
Area 16, 3545 Substation	04/01/91	04/29/91	1.2 x 10 ⁻¹⁷	7.0 x 10 ⁻¹⁸
Area 16, 3545 Substation	04/29/91	06/03/91	-3.9 x 10 ⁻¹⁹	3.2 x 10 ⁻¹⁸
Area 16, 3545 Substation	06/03/91	07/01/91	5.2 x 10 ⁻¹⁸	7.3 x 10 ⁻¹⁸
Area 16, 3545 Substation	07/01/91	07/29/91	-7.7 x 10 ⁻¹⁸	4.9 x 10 ⁻¹⁸
Area 16, 3545 Substation	07/29/91	09/03/91	-6.6 x 10 ⁻¹⁸	4.3 x 10 ⁻¹⁸
Area 16, 3545 Substation	09/03/91	09/30/91	3.1 x 10 ⁻¹⁹	5.5 x 10 ⁻¹⁸
Area 16, 3545 Substation	09/30/91	11/04/91	-9.9 x 10 ⁻¹⁸	4.7 x 10 ⁻¹⁸
Area 16, 3545 Substation	11/03/91	12/04/91	-3.0 x 10 ⁻¹⁸	5.6 x 10 ⁻¹⁸
Area 16, 3545 Substation	12/02/91	12/30/91	-1.1 x 10 ⁻¹⁷	6.7 x 10 ⁻¹⁸
Area 19, Echo Peak	02/04/91	03/04/91	-2.2 x 10 ⁻¹⁸	4.3 x 10 ⁻¹⁸
Area 19, Echo Peak	03/04/91	04/01/91	4.3 x 10 ⁻¹⁸	4.7 x 10 ⁻¹⁸
Area 19, Echo Peak	04/01/91	04/29/91	9.0 x 10 ⁻¹⁸	5.3 x 10 ⁻¹⁸
Area 19, Echo Peak	04/29/91	06/03/91	2.0 x 10 ⁻¹⁷	6.8 x 10 ⁻¹⁸
Area 19, Echo Peak	07/01/91	07/29/91	-8.6 x 10 ⁻¹⁸	4.6 x 10 ⁻¹⁸
Area 19, Echo Peak	07/29/91	09/03/91	3.4 x 10 ⁻¹⁸	5.2 x 10 ⁻¹⁸
Area 19, Echo Peak	09/03/91	09/30/91	-9.4 x 10 ⁻¹⁹	5.4 x 10 ⁻¹⁸
Area 19, Echo Peak	11/03/91	12/04/91	2.3 x 10 ⁻¹⁹	4.9 x 10 ⁻¹⁸
Area 19, Echo Peak	12/02/91	12/30/91	-6.0 x 10 ⁻¹⁸	7.1 x 10 ⁻¹⁸
Area 19, Pahute Substation	02/04/91	03/04/91	-3.8 x 10 ⁻¹⁹	7.0 x 10 ⁻¹⁸
Area 19, Pahute Substation	03/04/91	04/01/91	4.3 x 10 ⁻¹⁸	2.9 x 10 ⁻¹⁸
Area 19, Pahute Substation	04/01/91	04/29/91	6.5 x 10 ⁻¹⁸	5.6 x 10 ⁻¹⁸
Area 19, Pahute Substation	04/29/91	06/03/91	7.7 x 10 ⁻¹⁸	4.5 x 10 ⁻¹⁸
Area 19, Pahute Substation	06/03/91	07/01/91	-1.1 x 10 ⁻¹⁷	6.0 x 10 ⁻¹⁸
Area 19, Pahute Substation	07/01/91	07/29/91	-7.3 x 10 ⁻¹⁸	4.7 x 10 ⁻¹⁸
Area 19, Pahute Substation	09/03/91	09/30/91	-2.0 x 10 ⁻¹⁸	9.4 x 10 ⁻¹⁸
Area 19, Pahute Substation	09/30/91	11/04/91	1.1 x 10 ⁻¹⁸	6.3 x 10 ⁻¹⁸
Area 19, Pahute Substation	11/03/91	12/04/91	1.6 x 10 ⁻¹⁷	9.8 x 10 ⁻¹⁸
Area 19, Pahute Substation	12/02/91	12/30/91	1.6 x 10 ⁻¹⁸	6.9 x 10 ⁻¹⁸
Area 20, Dispensary	12/31/90	02/04/91	7.6 x 10 ⁻¹⁸	4.0 x 10 ⁻¹⁸
Area 20, Dispensary	02/04/91	03/04/91	1.5 x 10 ⁻¹⁸	4.1 x 10 ⁻¹⁸
Area 20, Dispensary	03/04/91	04/01/91	1.4 x 10 ⁻¹⁷	5.6 x 10 ⁻¹⁸
Area 20, Dispensary	04/01/91	04/29/91	8.3 x 10 ⁻¹⁸	5.1 x 10 ⁻¹⁸
Area 20, Dispensary	04/29/91	06/03/91	1.1 x 10 ⁻¹⁷	5.9 x 10 ⁻¹⁸
Area 20, Dispensary	06/03/91	07/01/91	-1.4 x 10 ⁻¹⁸	6.9 x 10 ⁻¹⁸
Area 20, Dispensary	07/01/91	07/29/91	7.0 x 10 ⁻¹⁸	7.6 x 10 ⁻¹⁸
Area 20, Dispensary	07/29/91	09/03/91	-5.1 x 10 ⁻¹⁸	5.1 x 10 ⁻¹⁸
Area 20, Dispensary	09/03/91	09/30/91	-1.2 x 10 ⁻¹⁷	9.3 x 10 ⁻¹⁸
Area 20, Dispensary	09/30/91	11/04/91	-6.5 x 10 ⁻¹⁸	3.5 x 10 ⁻¹⁸

Attachment A.1 (^{238}Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 20, Dispensary	11/03/91	12/04/91	-2.6×10^{-18}	5.8×10^{-18}
Area 20, Dispensary	12/02/91	12/30/91	-4.7×10^{-18}	8.2×10^{-18}
Area 23, Building 790	12/31/90	02/04/91	-6.7×10^{-18}	4.6×10^{-18}
Area 23, Building 790	02/04/91	03/04/91	7.1×10^{-18}	5.1×10^{-18}
Area 23, Building 790	03/04/91	04/01/91	5.0×10^{-18}	4.9×10^{-18}
Area 23, Building 790	04/01/91	04/29/91	1.1×10^{-19}	4.5×10^{-18}
Area 23, Building 790	04/29/91	06/03/91	1.1×10^{-17}	6.1×10^{-18}
Area 23, Building 790	06/03/91	07/01/91	-1.0×10^{-17}	6.4×10^{-18}
Area 23, Building 790	07/01/91	07/29/91	-8.5×10^{-18}	4.6×10^{-18}
Area 23, Building 790	07/29/91	09/03/91	2.3×10^{-18}	4.8×10^{-18}
Area 23, Building 790	09/03/91	09/30/91	1.0×10^{-17}	7.9×10^{-18}
Area 23, Building 790	09/30/91	11/04/91	-3.2×10^{-18}	4.4×10^{-18}
Area 23, Building 790	11/03/91	12/04/91	-1.1×10^{-18}	5.3×10^{-18}
Area 23, Building 790	12/02/91	12/30/91	-2.7×10^{-18}	4.4×10^{-18}
Area 23, Building 790	02/04/91	03/04/91	8.3×10^{-18}	4.9×10^{-18}
Area 23, Building 790	03/04/91	04/01/91	1.4×10^{-17}	6.3×10^{-18}
Area 23, Building 790	04/01/91	04/29/91	5.1×10^{-18}	5.3×10^{-18}
Area 23, Building 790	04/29/91	06/03/91	-5.2×10^{-19}	3.6×10^{-18}
Area 23, Building 790	07/01/91	07/29/91	-8.4×10^{-18}	5.4×10^{-18}
Area 23, Building 790	07/29/91	09/03/91	-4.6×10^{-18}	4.6×10^{-18}
Area 23, Building 790	09/30/91	11/04/91	-1.4×10^{-18}	5.7×10^{-18}
Area 23, Building 790	11/03/91	12/04/91	-9.5×10^{-18}	6.4×10^{-18}
Area 23, Building 790	12/02/91	12/30/91	3.5×10^{-18}	7.1×10^{-18}
Area 23, East Bound	12/31/90	02/04/91	-2.3×10^{-18}	4.3×10^{-18}
Area 23, East Bound	02/04/91	03/04/91	5.3×10^{-18}	4.6×10^{-18}
Area 23, East Bound	03/04/91	04/01/91	2.3×10^{-19}	4.8×10^{-18}
Area 23, East Bound	04/01/91	04/29/91	1.4×10^{-17}	5.8×10^{-18}
Area 23, East Bound	04/29/91	06/03/91	6.9×10^{-18}	4.1×10^{-18}
Area 23, East Bound	06/03/91	07/01/91	-5.4×10^{-18}	6.4×10^{-18}
Area 23, East Bound	07/01/91	07/29/91	-4.1×10^{-18}	5.7×10^{-18}
Area 23, East Bound	07/29/91	09/03/91	-5.6×10^{-18}	3.4×10^{-18}
Area 23, East Bound	09/03/91	09/30/91	-1.2×10^{-17}	6.8×10^{-18}
Area 23, East Bound	09/30/91	11/04/91	2.3×10^{-18}	5.5×10^{-18}
Area 23, East Bound	11/03/91	12/04/91	2.0×10^{-18}	6.9×10^{-18}
Area 23, East Bound	12/02/91	12/30/91	-2.6×10^{-19}	8.3×10^{-18}
Area 23, H&S Building	02/04/91	03/04/91	5.3×10^{-18}	4.6×10^{-18}
Area 23, H&S Building	03/04/91	04/01/91	1.5×10^{-18}	2.6×10^{-18}
Area 23, H&S Building	04/01/91	04/29/91	-4.8×10^{-18}	4.5×10^{-18}
Area 23, H&S Building	04/29/91	06/03/91	7.0×10^{-18}	3.6×10^{-18}
Area 23, H&S Building	06/03/91	07/01/91	-1.7×10^{-17}	7.1×10^{-18}
Area 23, H&S Building	07/01/91	07/29/91	-8.4×10^{-18}	4.5×10^{-18}
Area 23, H&S Building	07/29/91	09/03/91	4.4×10^{-19}	5.5×10^{-18}

Attachment A.1 (²³⁸Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 23, H&S Building	09/03/91	09/30/91	-7.1×10^{-18}	6.0×10^{-18}
Area 23, H&S Building	09/30/91	11/04/91	5.6×10^{-18}	6.5×10^{-18}
Area 23, H&S Building	11/03/91	12/04/91	-6.9×10^{-18}	7.2×10^{-18}
Area 23, H&S Building	12/02/91	12/30/91	1.2×10^{-17}	8.8×10^{-18}
Area 25, E-MAD North	12/31/90	02/04/91	-8.7×10^{-18}	4.6×10^{-18}
Area 25, E-MAD North	02/04/91	03/04/91	6.6×10^{-18}	3.5×10^{-18}
Area 25, E-MAD North	03/04/91	04/01/91	1.1×10^{-17}	6.1×10^{-18}
Area 25, E-MAD North	04/01/91	04/29/91	1.5×10^{-17}	6.1×10^{-18}
Area 25, E-MAD North	04/29/91	06/03/91	1.6×10^{-18}	3.6×10^{-18}
Area 25, E-MAD North	06/03/91	07/01/91	-5.4×10^{-18}	7.1×10^{-18}
Area 25, E-MAD North	07/01/91	07/29/91	-8.2×10^{-18}	1.7×10^{-17}
Area 25, E-MAD North	07/29/91	09/03/91	2.3×10^{-18}	8.4×10^{-18}
Area 25, E-MAD North	09/03/91	09/30/91	-9.1×10^{-19}	4.9×10^{-18}
Area 25, E-MAD North	09/30/91	11/04/91	9.2×10^{-19}	4.8×10^{-18}
Area 25, E-MAD North	11/03/91	12/04/91	-6.3×10^{-19}	7.7×10^{-18}
Area 25, E-MAD North	12/02/91	12/30/91	4.1×10^{-18}	6.3×10^{-18}
Area 25, NRDS Warehouse	12/31/90	02/04/91	5.7×10^{-18}	3.7×10^{-18}
Area 25, NRDS Warehouse	02/04/91	03/04/91	6.7×10^{-18}	4.4×10^{-18}
Area 25, NRDS Warehouse	03/04/91	04/01/91	6.1×10^{-18}	4.1×10^{-18}
Area 25, NRDS Warehouse	04/01/91	04/29/91	3.8×10^{-18}	4.9×10^{-18}
Area 25, NRDS Warehouse	04/29/91	06/03/91	2.3×10^{-18}	4.3×10^{-18}
Area 25, NRDS Warehouse	06/03/91	07/01/91	-7.2×10^{-18}	3.8×10^{-18}
Area 25, NRDS Warehouse	07/01/91	07/29/91	1.4×10^{-17}	1.1×10^{-17}
Area 25, NRDS Warehouse	07/29/91	09/03/91	-2.5×10^{-18}	4.3×10^{-18}
Area 25, NRDS Warehouse	09/03/91	09/30/91	-7.4×10^{-18}	6.6×10^{-18}
Area 25, NRDS Warehouse	09/30/91	11/04/91	-5.3×10^{-18}	3.4×10^{-18}
Area 25, NRDS Warehouse	12/02/91	12/30/91	2.4×10^{-20}	5.8×10^{-18}
Area 27, Cafeteria	02/04/91	03/04/91	3.7×10^{-18}	5.7×10^{-18}
Area 27, Cafeteria	03/04/91	04/01/91	8.0×10^{-18}	5.3×10^{-18}
Area 27, Cafeteria	04/01/91	04/29/91	8.0×10^{-18}	7.0×10^{-18}
Area 27, Cafeteria	04/29/91	06/03/91	5.2×10^{-18}	4.7×10^{-18}
Area 27, Cafeteria	06/03/91	07/01/91	-5.5×10^{-18}	1.0×10^{-17}
Area 27, Cafeteria	07/01/91	07/29/91	-8.4×10^{-18}	4.6×10^{-18}
Area 27, Cafeteria	07/29/91	09/03/91	4.5×10^{-18}	5.3×10^{-18}
Area 27, Cafeteria	09/03/91	09/30/91	1.7×10^{-18}	5.8×10^{-18}
Area 27, Cafeteria	09/30/91	11/04/91	-2.4×10^{-18}	4.9×10^{-18}
Area 27, Cafeteria	12/02/91	12/30/91	4.3×10^{-18}	9.6×10^{-18}

Attachment A.2 ²³⁹⁺²⁴⁰Pu in Air - 1991

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 1, BJY	12/31/90	02/04/91	2.0×10^{-17}	4.9×10^{-18}
Area 1, BJY	02/04/91	03/04/91	1.4×10^{-17}	4.9×10^{-18}
Area 1, BJY	03/04/91	04/01/91	1.0×10^{-17}	3.5×10^{-18}
Area 1, BJY	04/01/91	04/29/91	2.6×10^{-17}	5.5×10^{-18}
Area 1, BJY	04/29/91	06/03/91	3.5×10^{-17}	9.2×10^{-18}
Area 1, BJY	06/03/91	07/01/91	3.2×10^{-17}	2.6×10^{-17}
Area 1, BJY	07/01/91	07/29/91	2.4×10^{-17}	8.4×10^{-18}
Area 1, BJY	07/29/91	09/03/91	2.3×10^{-17}	5.0×10^{-18}
Area 1, BJY	09/03/91	09/30/91	2.4×10^{-17}	6.8×10^{-18}
Area 1, BJY	09/30/91	11/04/91	2.5×10^{-18}	2.3×10^{-18}
Area 1, BJY	11/03/91	12/04/91	1.1×10^{-16}	2.0×10^{-17}
Area 1, BJY	12/02/91	12/30/91	1.0×10^{-16}	1.9×10^{-17}
Area 1, Gravel Pit	12/31/90	02/04/91	1.5×10^{-18}	1.4×10^{-18}
Area 1, Gravel Pit	02/04/91	03/04/91	1.3×10^{-17}	9.6×10^{-18}
Area 1, Gravel Pit	03/04/91	04/01/91	3.0×10^{-18}	1.8×10^{-18}
Area 1, Gravel Pit	04/01/91	04/29/91	9.7×10^{-18}	3.3×10^{-18}
Area 1, Gravel Pit	04/29/91	06/03/91	3.1×10^{-18}	2.5×10^{-18}
Area 1, Gravel Pit	06/03/91	07/01/91	-8.4×10^{-19}	1.6×10^{-18}
Area 1, Gravel Pit	07/01/91	07/29/91	4.3×10^{-18}	4.1×10^{-18}
Area 1, Gravel Pit	07/29/91	09/03/91	3.9×10^{-18}	2.1×10^{-18}
Area 1, Gravel Pit	09/03/91	09/30/91	9.5×10^{-18}	4.1×10^{-18}
Area 1, Gravel Pit	09/30/91	11/04/91	6.8×10^{-18}	2.9×10^{-18}
Area 1, Gravel Pit	11/03/91	12/04/91	3.5×10^{-18}	2.2×10^{-18}
Area 1, Gravel Pit	12/02/91	12/30/91	1.6×10^{-17}	8.6×10^{-18}
Area 2, 2-1 Substation	12/31/90	02/04/91	4.2×10^{-18}	1.8×10^{-18}
Area 2, 2-1 Substation	02/04/91	03/04/91	2.6×10^{-18}	1.8×10^{-18}
Area 2, 2-1 Substation	03/04/91	04/01/91	-4.3×10^{-19}	3.3×10^{-19}
Area 2, 2-1 Substation	04/01/91	04/29/91	3.4×10^{-18}	1.9×10^{-18}
Area 2, 2-1 Substation	04/29/91	06/03/91	4.4×10^{-18}	2.2×10^{-18}
Area 2, 2-1 Substation	06/03/91	07/01/91	2.5×10^{-17}	6.4×10^{-18}
Area 2, 2-1 Substation	07/01/91	07/29/91	1.1×10^{-17}	4.1×10^{-18}
Area 2, 2-1 Substation	07/29/91	09/03/91	6.0×10^{-18}	2.4×10^{-18}
Area 2, 2-1 Substation	09/03/91	09/30/91	1.2×10^{-17}	3.8×10^{-18}
Area 2, 2-1 Substation	09/30/91	11/04/91	1.1×10^{-17}	3.1×10^{-18}
Area 2, 2-1 Substation	11/03/91	12/04/91	9.5×10^{-18}	3.2×10^{-18}
Area 2, 2-1 Substation	12/02/91	12/30/91	2.7×10^{-17}	5.7×10^{-18}
Area 2, Complex	12/31/90	02/04/91	-5.0×10^{-19}	2.0×10^{-18}
Area 2, Complex	02/04/91	03/04/91	1.5×10^{-18}	1.5×10^{-18}
Area 2, Complex	03/04/91	04/01/91	2.0×10^{-17}	3.7×10^{-18}
Area 2, Complex	04/01/91	04/29/91	2.7×10^{-18}	2.3×10^{-18}
Area 2, Complex	04/29/91	06/03/91	3.7×10^{-18}	2.4×10^{-18}
Area 2, Complex	06/03/91	07/01/91	5.8×10^{-18}	2.4×10^{-18}

Attachment A.2 (²³⁹⁺²⁴⁰Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		μCi/mL	
	Start	End	Concentration	Standard Deviation (s)
Area 2, Complex	07/01/91	07/29/91	3.0 x 10 ⁻¹⁸	2.2 x 10 ⁻¹⁸
Area 2, Complex	07/29/91	09/03/91	1.5 x 10 ⁻¹⁷	4.3 x 10 ⁻¹⁸
Area 2, Complex	09/03/91	09/30/91	2.5 x 10 ⁻¹⁸	2.4 x 10 ⁻¹⁸
Area 2, Complex	09/30/91	11/04/91	9.9 x 10 ⁻¹⁸	3.7 x 10 ⁻¹⁸
Area 2, Complex	11/03/91	12/04/91	1.9 x 10 ⁻¹⁸	1.9 x 10 ⁻¹⁸
Area 2, Complex	12/02/91	12/30/91	6.1 x 10 ⁻¹⁸	2.5 x 10 ⁻¹⁸
Area 3, 3-300 Bunker	12/31/90	02/04/91	2.5 x 10 ⁻¹⁶	2.8 x 10 ⁻¹⁷
Area 3, 3-300 Bunker	02/04/91	03/04/91	6.0 x 10 ⁻¹⁷	8.5 x 10 ⁻¹⁸
Area 3, 3-300 Bunker	03/04/91	04/01/91	2.4 x 10 ⁻¹⁷	4.5 x 10 ⁻¹⁸
Area 3, 3-300 Bunker	04/01/91	04/29/91	4.6 x 10 ⁻¹⁷	8.1 x 10 ⁻¹⁸
Area 3, 3-300 Bunker	04/29/91	06/03/91	3.0 x 10 ⁻¹⁶	4.0 x 10 ⁻¹⁷
Area 3, 3-300 Bunker	06/03/91	07/01/91	7.0 x 10 ⁻¹⁷	1.6 x 10 ⁻¹⁷
Area 3, 3-300 Bunker	07/01/91	07/29/91	8.0 x 10 ⁻¹⁷	1.5 x 10 ⁻¹⁷
Area 3, 3-300 Bunker	07/29/91	09/03/91	9.1 x 10 ⁻¹⁷	1.1 x 10 ⁻¹⁷
Area 3, 3-300 Bunker	09/03/91	09/30/91	1.7 x 10 ⁻¹⁶	2.5 x 10 ⁻¹⁷
Area 3, 3-300 Bunker	09/30/91	11/04/91	8.6 x 10 ⁻¹⁷	1.4 x 10 ⁻¹⁷
Area 3, 3-300 Bunker	11/03/91	12/04/91	1.6 x 10 ⁻¹⁶	2.7 x 10 ⁻¹⁷
Area 3, 3-300 Bunker	12/02/91	12/30/91	1.4 x 10 ⁻¹⁶	1.9 x 10 ⁻¹⁷
Area 3, Complex	12/31/90	02/04/91	0	0
Area 3, Complex	02/04/91	03/04/91	2.2 x 10 ⁻¹⁷	5.8 x 10 ⁻¹⁸
Area 3, Complex	03/04/91	04/01/91	3.1 x 10 ⁻¹⁷	4.1 x 10 ⁻¹⁸
Area 3, Complex	04/01/91	04/29/91	2.1 x 10 ⁻¹⁶	3.0 x 10 ⁻¹⁷
Area 3, Complex	04/29/91	06/03/91	6.7 x 10 ⁻¹⁷	9.8 x 10 ⁻¹⁸
Area 3, Complex	06/03/91	07/01/91	1.8 x 10 ⁻¹⁷	4.7 x 10 ⁻¹⁸
Area 3, Complex	07/01/91	07/29/91	8.1 x 10 ⁻¹⁸	3.5 x 10 ⁻¹⁸
Area 3, Complex	07/29/91	09/03/91	1.4 x 10 ⁻¹⁶	1.6 x 10 ⁻¹⁷
Area 3, Complex	09/03/91	09/30/91	2.4 x 10 ⁻¹⁷	5.5 x 10 ⁻¹⁸
Area 3, Complex	09/30/91	11/04/91	3.5 x 10 ⁻¹⁷	6.9 x 10 ⁻¹⁸
Area 3, Complex	11/03/91	12/04/91	1.1 x 10 ⁻¹⁶	1.5 x 10 ⁻¹⁷
Area 3, Complex	12/02/91	12/30/91	6.9 x 10 ⁻¹⁷	1.4 x 10 ⁻¹⁷
Area 3, Complex No. 2	12/31/90	02/04/91	4.0 x 10 ⁻¹⁶	3.6 x 10 ⁻¹⁷
Area 3, Complex No. 2	02/04/91	03/04/91	5.5 x 10 ⁻¹⁷	1.3 x 10 ⁻¹⁷
Area 3, Complex No. 2	03/04/91	04/01/91	3.9 x 10 ⁻¹⁷	8.5 x 10 ⁻¹⁸
Area 3, Complex No. 2	04/01/91	04/29/91	7.9 x 10 ⁻¹⁷	1.2 x 10 ⁻¹⁷
Area 3, Complex No. 2	04/29/91	06/03/91	2.8 x 10 ⁻¹⁶	2.6 x 10 ⁻¹⁷
Area 3, Complex No. 2	06/03/91	07/01/91	4.1 x 10 ⁻¹⁷	1.1 x 10 ⁻¹⁷
Area 3, Complex No. 2	07/01/91	07/29/91	3.7 x 10 ⁻¹⁷	8.3 x 10 ⁻¹⁸
Area 3, Complex No. 2	07/29/91	09/03/91	4.2 x 10 ⁻¹⁷	1.0 x 10 ⁻¹⁷
Area 3, Complex No. 2	09/03/91	09/30/91	5.3 x 10 ⁻¹⁷	1.0 x 10 ⁻¹⁷
Area 3, Complex No. 2	09/30/91	11/04/91	6.7 x 10 ⁻¹⁷	9.6 x 10 ⁻¹⁸
Area 3, Complex No. 2	11/03/91	12/04/91	5.0 x 10 ⁻¹⁷	1.2 x 10 ⁻¹⁷
Area 3, Complex No. 2	12/02/91	12/30/91	7.7 x 10 ⁻¹⁷	1.4 x 10 ⁻¹⁷

Attachment A.2 ($^{239+240}\text{Pu}$ in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 3, U3ah/at East	12/31/90	02/04/91	6.7×10^{-17}	9.1×10^{-18}
Area 3, U3ah/at East	02/04/91	03/04/91	1.6×10^{-17}	5.7×10^{-18}
Area 3, U3ah/at East	03/04/91	04/01/91	2.7×10^{-17}	5.6×10^{-18}
Area 3, U3ah/at East	04/01/91	04/29/91	3.0×10^{-17}	6.7×10^{-18}
Area 3, U3ah/at East	04/29/91	06/03/91	2.1×10^{-16}	2.8×10^{-17}
Area 3, U3ah/at East	06/03/91	07/01/91	3.8×10^{-17}	6.9×10^{-18}
Area 3, U3ah/at East	07/01/91	07/29/91	7.7×10^{-17}	1.6×10^{-17}
Area 3, U3ah/at East	07/29/91	09/03/91	6.2×10^{-17}	1.0×10^{-17}
Area 3, U3ah/at East	09/03/91	09/30/91	1.8×10^{-16}	2.1×10^{-17}
Area 3, U3ah/at East	09/30/91	11/04/91	1.1×10^{-16}	1.3×10^{-17}
Area 3, U3ah/at East	11/03/91	12/04/91	6.6×10^{-17}	1.1×10^{-17}
Area 3, U3ah/at East	12/02/91	12/30/91	8.6×10^{-17}	1.5×10^{-17}
Area 3, U3ah/at North	12/31/90	02/04/91	1.2×10^{-16}	1.9×10^{-17}
Area 3, U3ah/at North	02/04/91	03/04/91	3.9×10^{-17}	1.5×10^{-17}
Area 3, U3ah/at North	03/04/91	04/01/91	6.7×10^{-17}	9.4×10^{-18}
Area 3, U3ah/at North	04/01/91	04/29/91	2.3×10^{-16}	2.4×10^{-17}
Area 3, U3ah/at North	04/29/91	06/03/91	7.3×10^{-16}	7.4×10^{-17}
Area 3, U3ah/at North	06/03/91	07/01/91	1.2×10^{-16}	2.4×10^{-17}
Area 3, U3ah/at North	07/01/91	07/29/91	2.9×10^{-16}	4.5×10^{-17}
Area 3, U3ah/at North	07/29/91	09/03/91	1.5×10^{-16}	2.2×10^{-17}
Area 3, U3ah/at North	09/03/91	09/30/91	3.8×10^{-16}	4.1×10^{-17}
Area 3, U3ah/at North	09/30/91	11/04/91	4.8×10^{-17}	7.2×10^{-18}
Area 3, U3ah/at North	11/03/91	12/04/91	1.0×10^{-16}	1.4×10^{-17}
Area 3, U3ah/at North	12/02/91	12/30/91	4.8×10^{-16}	4.9×10^{-17}
Area 3, U3ah/at South	12/31/90	02/04/91	5.6×10^{-17}	7.3×10^{-18}
Area 3, U3ah/at South	02/04/91	03/04/91	1.1×10^{-16}	1.5×10^{-17}
Area 3, U3ah/at South	03/04/91	04/01/91	3.0×10^{-16}	3.7×10^{-17}
Area 3, U3ah/at South	04/01/91	04/29/91	5.0×10^{-17}	7.2×10^{-18}
Area 3, U3ah/at South	04/29/91	06/03/91	3.2×10^{-16}	3.3×10^{-17}
Area 3, U3ah/at South	06/03/91	07/01/91	8.8×10^{-17}	2.0×10^{-17}
Area 3, U3ah/at South	07/01/91	07/29/91	4.1×10^{-17}	7.8×10^{-18}
Area 3, U3ah/at South	07/29/91	09/03/91	4.4×10^{-17}	8.0×10^{-18}
Area 3, U3ah/at South	09/03/91	09/30/91	9.8×10^{-17}	1.5×10^{-17}
Area 3, U3ah/at South	09/30/91	11/04/91	8.4×10^{-17}	1.0×10^{-17}
Area 3, U3ah/at South	11/03/91	12/04/91	2.2×10^{-16}	2.4×10^{-17}
Area 3, U3ah/at South	12/02/91	12/30/91	2.2×10^{-16}	2.5×10^{-17}
Area 3, U3ah/at West	12/31/90	02/04/91	7.5×10^{-17}	1.1×10^{-17}
Area 3, U3ah/at West	02/04/91	03/04/91	3.9×10^{-16}	3.8×10^{-17}
Area 3, U3ah/at West	03/04/91	04/01/91	9.4×10^{-17}	1.2×10^{-17}
Area 3, U3ah/at West	04/01/91	04/29/91	5.1×10^{-16}	4.8×10^{-17}
Area 3, U3ah/at West	04/29/91	06/03/91	5.2×10^{-16}	5.0×10^{-17}
Area 3, U3ah/at West	06/03/91	07/01/91	1.3×10^{-16}	2.3×10^{-17}

Attachment A.2 (²³⁹⁺²⁴⁰Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 3, U3ah/at West	07/01/91	07/29/91	1.9×10^{-16}	3.6×10^{-17}
Area 3, U3ah/at West	07/29/91	09/03/91	1.1×10^{-16}	1.5×10^{-17}
Area 3, U3ah/at West	09/03/91	09/30/91	1.7×10^{-16}	2.1×10^{-17}
Area 3, U3ah/at West	09/30/91	11/04/91	1.6×10^{-16}	1.8×10^{-17}
Area 3, U3ah/at West	11/03/91	12/04/91	1.6×10^{-16}	2.3×10^{-17}
Area 3, U3ah/at West	12/02/91	12/30/91	1.8×10^{-16}	2.7×10^{-17}
Area 5, DOD Yard	12/31/90	02/04/91	2.0×10^{-18}	1.4×10^{-18}
Area 5, DOD Yard	02/04/91	03/04/91	3.9×10^{-18}	2.0×10^{-18}
Area 5, DOD Yard	03/04/91	04/01/91	3.4×10^{-19}	8.6×10^{-19}
Area 5, DOD Yard	04/01/91	04/29/91	3.3×10^{-18}	1.7×10^{-18}
Area 5, DOD Yard	04/29/91	06/03/91	1.7×10^{-18}	1.6×10^{-18}
Area 5, DOD Yard	06/03/91	07/01/91	8.5×10^{-19}	9.8×10^{-19}
Area 5, DOD Yard	07/01/91	07/29/91	3.8×10^{-18}	3.3×10^{-18}
Area 5, DOD Yard	07/29/91	09/03/91	1.6×10^{-17}	3.6×10^{-18}
Area 5, DOD Yard	09/03/91	09/30/91	5.0×10^{-18}	3.5×10^{-18}
Area 5, DOD Yard	09/30/91	11/04/91	1.4×10^{-16}	1.6×10^{-17}
Area 5, DOD Yard	11/03/91	12/04/91	1.1×10^{-17}	3.8×10^{-18}
Area 5, DOD Yard	12/02/91	12/30/91	1.9×10^{-18}	2.1×10^{-18}
Area 5, Gate 200	12/31/90	02/04/91	1.3×10^{-18}	1.4×10^{-18}
Area 5, Gate 200	02/04/91	03/04/91	4.1×10^{-19}	1.1×10^{-18}
Area 5, Gate 200	03/04/91	04/01/91	6.1×10^{-19}	1.1×10^{-18}
Area 5, Gate 200	04/01/91	04/29/91	-3.9×10^{-19}	3.9×10^{-19}
Area 5, Gate 200	04/29/91	06/03/91	2.7×10^{-18}	2.2×10^{-18}
Area 5, Gate 200	06/03/91	07/01/91	8.3×10^{-18}	3.8×10^{-18}
Area 5, Gate 200	07/01/91	07/29/91	2.2×10^{-19}	1.0×10^{-18}
Area 5, Gate 200	07/29/91	09/03/91	2.0×10^{-18}	1.9×10^{-18}
Area 5, Gate 200	09/03/91	09/30/91	2.5×10^{-17}	5.3×10^{-18}
Area 5, Gate 200	09/30/91	11/04/91	2.9×10^{-19}	9.5×10^{-19}
Area 5, Gate 200	11/03/91	12/04/91	2.0×10^{-18}	2.8×10^{-18}
Area 5, Gate 200	12/02/91	12/30/91	-7.4×10^{-19}	6.6×10^{-19}
Area 5, RWMS No. 1	12/31/90	02/04/91	2.1×10^{-18}	1.5×10^{-18}
Area 5, RWMS No. 1	02/04/91	03/04/91	3.8×10^{-18}	2.0×10^{-18}
Area 5, RWMS No. 1	03/04/91	04/01/91	1.6×10^{-18}	1.5×10^{-18}
Area 5, RWMS No. 1	04/01/91	04/29/91	2.4×10^{-18}	1.5×10^{-18}
Area 5, RWMS No. 1	04/29/91	06/03/91	6.4×10^{-18}	3.1×10^{-18}
Area 5, RWMS No. 1	06/03/91	07/01/91	5.9×10^{-18}	1.9×10^{-18}
Area 5, RWMS No. 1	07/01/91	07/29/91	8.8×10^{-18}	5.7×10^{-18}
Area 5, RWMS No. 1	07/29/91	09/03/91	3.4×10^{-19}	1.1×10^{-18}
Area 5, RWMS No. 1	09/03/91	09/30/91	9.6×10^{-18}	3.2×10^{-18}
Area 5, RWMS No. 1	09/30/91	11/04/91	7.8×10^{-18}	2.5×10^{-18}
Area 5, RWMS No. 1	11/03/91	12/04/91	1.6×10^{-17}	4.1×10^{-18}
Area 5, RWMS No. 1	12/02/91	12/30/91	5.3×10^{-19}	1.3×10^{-18}

Attachment A.2 (²³⁹⁺²⁴⁰Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		μCi/mL	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS No. 2	12/31/90	02/04/91	1.5 x 10 ⁻¹⁸	1.5 x 10 ⁻¹⁸
Area 5, RWMS No. 2	02/04/91	03/04/91	4.7 x 10 ⁻¹⁸	2.7 x 10 ⁻¹⁸
Area 5, RWMS No. 2	03/04/91	04/01/91	5.0 x 10 ⁻¹⁹	1.1 x 10 ⁻¹⁸
Area 5, RWMS No. 2	04/01/91	04/29/91	1.4 x 10 ⁻¹⁸	1.3 x 10 ⁻¹⁸
Area 5, RWMS No. 2	04/29/91	06/03/91	5.3 x 10 ⁻¹⁸	2.6 x 10 ⁻¹⁸
Area 5, RWMS No. 2	06/03/91	07/01/91	1.2 x 10 ⁻¹⁸	2.1 x 10 ⁻¹⁸
Area 5, RWMS No. 2	07/01/91	07/29/91	1.9 x 10 ⁻¹⁸	2.7 x 10 ⁻¹⁸
Area 5, RWMS No. 2	07/29/91	09/03/91	1.8 x 10 ⁻¹⁷	4.5 x 10 ⁻¹⁸
Area 5, RWMS No. 2	09/03/91	09/30/91	1.8 x 10 ⁻¹⁸	1.6 x 10 ⁻¹⁸
Area 5, RWMS No. 2	09/30/91	11/04/91	1.3 x 10 ⁻¹⁷	4.1 x 10 ⁻¹⁸
Area 5, RWMS No. 2	11/03/91	12/04/91	1.4 x 10 ⁻¹⁷	4.5 x 10 ⁻¹⁸
Area 5, RWMS No. 2	12/02/91	12/30/91	9.5 x 10 ⁻¹⁹	1.9 x 10 ⁻¹⁸
Area 5, RWMS No. 3	12/31/90	02/04/91	1.3 x 10 ⁻¹⁷	3.3 x 10 ⁻¹⁸
Area 5, RWMS No. 3	02/04/91	03/04/91	4.5 x 10 ⁻¹⁸	2.3 x 10 ⁻¹⁸
Area 5, RWMS No. 3	03/04/91	04/01/91	3.6 x 10 ⁻¹⁹	9.1 x 10 ⁻¹⁹
Area 5, RWMS No. 3	04/01/91	04/29/91	2.6 x 10 ⁻¹⁸	1.8 x 10 ⁻¹⁸
Area 5, RWMS No. 3	04/29/91	06/03/91	6.2 x 10 ⁻¹⁸	2.8 x 10 ⁻¹⁸
Area 5, RWMS No. 3	06/03/91	07/01/91	1.1 x 10 ⁻¹⁸	1.9 x 10 ⁻¹⁸
Area 5, RWMS No. 3	07/01/91	07/29/91	1.2 x 10 ⁻¹⁷	5.0 x 10 ⁻¹⁸
Area 5, RWMS No. 3	07/29/91	09/03/91	9.9 x 10 ⁻¹⁸	3.2 x 10 ⁻¹⁸
Area 5, RWMS No. 3	09/03/91	09/30/91	3.1 x 10 ⁻¹⁸	2.0 x 10 ⁻¹⁸
Area 5, RWMS No. 3	09/30/91	11/04/91	3.0 x 10 ⁻¹⁸	2.1 x 10 ⁻¹⁸
Area 5, RWMS No. 3	11/03/91	12/04/91	5.9 x 10 ⁻¹⁸	3.4 x 10 ⁻¹⁸
Area 5, RWMS No. 3	12/02/91	12/30/91	7.8 x 10 ⁻¹⁷	1.3 x 10 ⁻¹⁷
Area 5, RWMS No. 4	12/31/90	02/04/91	2.8 x 10 ⁻¹⁸	1.5 x 10 ⁻¹⁸
Area 5, RWMS No. 4	02/04/91	03/04/91	2.7 x 10 ⁻¹⁸	1.9 x 10 ⁻¹⁸
Area 5, RWMS No. 4	03/04/91	04/01/91	1.9 x 10 ⁻¹⁸	1.8 x 10 ⁻¹⁸
Area 5, RWMS No. 4	04/01/91	04/29/91	3.2 x 10 ⁻¹⁸	1.9 x 10 ⁻¹⁸
Area 5, RWMS No. 4	04/29/91	06/03/91	1.8 x 10 ⁻¹⁷	3.8 x 10 ⁻¹⁸
Area 5, RWMS No. 4	06/03/91	07/01/91	2.2 x 10 ⁻¹⁸	1.6 x 10 ⁻¹⁸
Area 5, RWMS No. 4	07/01/91	07/29/91	4.7 x 10 ⁻¹⁸	2.9 x 10 ⁻¹⁸
Area 5, RWMS No. 4	07/29/91	09/03/91	9.6 x 10 ⁻¹⁸	4.9 x 10 ⁻¹⁸
Area 5, RWMS No. 4	09/03/91	09/30/91	1.9 x 10 ⁻¹⁸	2.0 x 10 ⁻¹⁸
Area 5, RWMS No. 4	09/30/91	11/04/91	9.0 x 10 ⁻¹⁹	1.6 x 10 ⁻¹⁸
Area 5, RWMS No. 4	11/03/91	12/04/91	7.3 x 10 ⁻¹⁸	3.8 x 10 ⁻¹⁸
Area 5, RWMS No. 4	12/02/91	12/30/91	2.2 x 10 ⁻¹⁸	2.2 x 10 ⁻¹⁸
Area 5, RWMS No. 5	12/31/90	02/04/91	2.5 x 10 ⁻¹⁹	7.1 x 10 ⁻¹⁹
Area 5, RWMS No. 5	02/04/91	03/04/91	5.3 x 10 ⁻¹⁹	1.1 x 10 ⁻¹⁸
Area 5, RWMS No. 5	03/04/91	04/01/91	3.6 x 10 ⁻¹⁸	2.1 x 10 ⁻¹⁸
Area 5, RWMS No. 5	04/01/91	04/29/91	3.1 x 10 ⁻¹⁸	1.8 x 10 ⁻¹⁸
Area 5, RWMS No. 5	04/29/91	06/03/91	4.0 x 10 ⁻¹⁸	1.7 x 10 ⁻¹⁸
Area 5, RWMS No. 5	06/03/91	07/01/91	6.1 x 10 ⁻¹⁹	9.9 x 10 ⁻¹⁹

Attachment A.2 ($^{239+240}\text{Pu}$ in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS No. 5	07/01/91	07/29/91	9.7×10^{-18}	3.3×10^{-18}
Area 5, RWMS No. 5	07/29/91	09/03/91	1.4×10^{-16}	2.0×10^{-17}
Area 5, RWMS No. 5	09/03/91	09/30/91	1.2×10^{-17}	5.0×10^{-18}
Area 5, RWMS No. 5	09/30/91	11/04/91	1.8×10^{-18}	2.6×10^{-18}
Area 5, RWMS No. 5	11/03/91	12/04/91	6.9×10^{-18}	3.6×10^{-18}
Area 5, RWMS No. 5	12/02/91	12/30/91	2.5×10^{-18}	3.6×10^{-18}
Area 5, RWMS No. 6	12/31/90	02/04/91	1.3×10^{-18}	1.3×10^{-18}
Area 5, RWMS No. 6	02/04/91	03/04/91	2.0×10^{-18}	1.4×10^{-18}
Area 5, RWMS No. 6	03/04/91	04/01/91	2.2×10^{-18}	1.6×10^{-18}
Area 5, RWMS No. 6	04/01/91	04/29/91	4.7×10^{-19}	9.2×10^{-19}
Area 5, RWMS No. 6	04/29/91	06/03/91	2.2×10^{-18}	1.3×10^{-18}
Area 5, RWMS No. 6	06/03/91	07/01/91	2.7×10^{-18}	1.5×10^{-18}
Area 5, RWMS No. 6	07/01/91	07/29/91	1.1×10^{-18}	1.9×10^{-18}
Area 5, RWMS No. 6	07/29/91	09/03/91	8.1×10^{-19}	1.5×10^{-18}
Area 5, RWMS No. 6	09/03/91	09/30/91	6.4×10^{-18}	3.3×10^{-18}
Area 5, RWMS No. 6	09/30/91	11/04/91	3.8×10^{-18}	2.6×10^{-18}
Area 5, RWMS No. 6	11/03/91	12/04/91	3.9×10^{-18}	2.4×10^{-18}
Area 5, RWMS No. 6	12/02/91	12/30/91	-7.9×10^{-19}	6.2×10^{-19}
Area 5, RWMS No. 7	12/31/90	02/04/91	2.7×10^{-18}	1.6×10^{-18}
Area 5, RWMS No. 7	02/04/91	03/04/91	5.1×10^{-18}	2.3×10^{-18}
Area 5, RWMS No. 7	03/04/91	04/01/91	9.0×10^{-19}	1.4×10^{-18}
Area 5, RWMS No. 7	04/01/91	04/29/91	2.1×10^{-18}	1.5×10^{-18}
Area 5, RWMS No. 7	04/29/91	06/03/91	2.9×10^{-18}	1.7×10^{-18}
Area 5, RWMS No. 7	06/03/91	07/01/91	4.8×10^{-19}	9.4×10^{-19}
Area 5, RWMS No. 7	07/01/91	07/29/91	1.2×10^{-17}	5.1×10^{-18}
Area 5, RWMS No. 7	07/29/91	09/03/91	4.1×10^{-18}	2.0×10^{-18}
Area 5, RWMS No. 7	09/03/91	09/30/91	2.0×10^{-17}	6.3×10^{-18}
Area 5, RWMS No. 7	09/30/91	11/04/91	1.5×10^{-17}	4.8×10^{-18}
Area 5, RWMS No. 7	11/03/91	12/04/91	6.4×10^{-18}	3.3×10^{-18}
Area 5, RWMS No. 7	12/02/91	12/30/91	6.3×10^{-18}	4.3×10^{-18}
Area 5, RWMS No. 8	12/31/90	02/04/91	5.0×10^{-18}	2.3×10^{-18}
Area 5, RWMS No. 8	02/04/91	03/04/91	6.2×10^{-18}	2.8×10^{-18}
Area 5, RWMS No. 8	03/04/91	04/01/91	6.8×10^{-19}	1.2×10^{-18}
Area 5, RWMS No. 8	04/01/91	04/29/91	1.1×10^{-18}	1.1×10^{-18}
Area 5, RWMS No. 8	04/29/91	06/03/91	7.4×10^{-18}	3.0×10^{-18}
Area 5, RWMS No. 8	06/03/91	07/01/91	5.1×10^{-18}	1.8×10^{-18}
Area 5, RWMS No. 8	07/01/91	07/29/91	7.4×10^{-18}	3.0×10^{-18}
Area 5, RWMS No. 8	07/29/91	09/03/91	1.3×10^{-18}	1.4×10^{-18}
Area 5, RWMS No. 8	09/03/91	09/30/91	3.4×10^{-17}	9.6×10^{-18}
Area 5, RWMS No. 8	09/30/91	11/04/91	5.4×10^{-18}	2.8×10^{-18}
Area 5, RWMS No. 8	11/03/91	12/04/91	5.3×10^{-18}	3.6×10^{-18}
Area 5, RWMS No. 8	12/02/91	12/30/91	-7.2×10^{-19}	9.7×10^{-19}

Attachment A.2 (²³⁹⁺²⁴⁰Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS No. 9	12/31/90	02/04/91	3.7×10^{-18}	1.9×10^{-18}
Area 5, RWMS No. 9	02/04/91	03/04/91	1.9×10^{-18}	1.5×10^{-18}
Area 5, RWMS No. 9	03/04/91	04/01/91	2.9×10^{-18}	2.0×10^{-18}
Area 5, RWMS No. 9	04/01/91	04/29/91	3.1×10^{-18}	1.8×10^{-18}
Area 5, RWMS No. 9	04/29/91	06/03/91	4.8×10^{-18}	1.9×10^{-18}
Area 5, RWMS No. 9	06/03/91	07/01/91	2.9×10^{-18}	1.4×10^{-18}
Area 5, RWMS No. 9	07/01/91	07/29/91	7.4×10^{-18}	3.4×10^{-18}
Area 5, RWMS No. 9	07/29/91	09/03/91	3.7×10^{-18}	2.2×10^{-18}
Area 5, RWMS No. 9	09/03/91	09/30/91	2.8×10^{-17}	8.0×10^{-18}
Area 5, RWMS No. 9	09/30/91	11/04/91	7.5×10^{-18}	3.4×10^{-18}
Area 5, RWMS No. 9	11/03/91	12/04/91	6.1×10^{-18}	3.2×10^{-18}
Area 5, RWMS No. 9	12/02/91	12/30/91	3.0×10^{-18}	2.8×10^{-18}
Area 5, RWMS Pit No. 3	12/31/90	02/04/91	1.2×10^{-18}	1.3×10^{-18}
Area 5, RWMS Pit No. 3	02/04/91	03/04/91	4.4×10^{-18}	2.9×10^{-18}
Area 5, RWMS Pit No. 3	03/04/91	04/01/91	-4.9×10^{-19}	4.3×10^{-19}
Area 5, RWMS Pit No. 3	04/01/91	04/29/91	9.2×10^{-18}	3.2×10^{-18}
Area 5, RWMS Pit No. 3	04/29/91	06/03/91	7.0×10^{-18}	3.4×10^{-18}
Area 5, RWMS Pit No. 3	06/03/91	07/01/91	1.9×10^{-19}	9.9×10^{-19}
Area 5, RWMS Pit No. 3	07/01/91	07/29/91	-6.9×10^{-19}	9.9×10^{-19}
Area 5, RWMS Pit No. 3	07/29/91	09/03/91	1.8×10^{-19}	1.0×10^{-18}
Area 5, RWMS Pit No. 3	09/03/91	09/30/91	1.0×10^{-17}	3.4×10^{-18}
Area 5, RWMS Pit No. 3	09/30/91	11/04/91	6.4×10^{-18}	2.3×10^{-18}
Area 5, RWMS Pit No. 3	11/03/91	12/04/91	1.0×10^{-17}	4.7×10^{-18}
Area 5, RWMS Pit No. 3	12/02/91	12/30/91	-7.4×10^{-19}	5.1×10^{-19}
Area 5, RWMS Pit No. 4	12/31/90	02/04/91	10.0×10^{-18}	4.1×10^{-18}
Area 5, RWMS Pit No. 4	02/04/91	03/04/91	3.6×10^{-18}	4.2×10^{-18}
Area 5, RWMS Pit No. 4	03/04/91	04/01/91	3.8×10^{-18}	1.8×10^{-18}
Area 5, RWMS Pit No. 4	04/01/91	04/29/91	1.4×10^{-18}	1.3×10^{-18}
Area 5, RWMS Pit No. 4	04/29/91	06/03/91	5.0×10^{-18}	2.1×10^{-18}
Area 5, RWMS Pit No. 4	06/03/91	07/01/91	1.4×10^{-17}	4.4×10^{-18}
Area 5, RWMS Pit No. 4	07/01/91	07/29/91	3.1×10^{-18}	2.0×10^{-18}
Area 5, RWMS Pit No. 4	07/29/91	09/03/91	2.9×10^{-18}	1.8×10^{-18}
Area 5, RWMS Pit No. 4	09/03/91	09/30/91	2.6×10^{-18}	2.0×10^{-18}
Area 5, RWMS Pit No. 4	09/30/91	11/04/91	2.4×10^{-17}	5.0×10^{-18}
Area 5, RWMS Pit No. 4	11/03/91	12/04/91	4.7×10^{-18}	3.2×10^{-18}
Area 5, RWMS Pit No. 4	12/02/91	12/30/91	1.1×10^{-17}	4.8×10^{-18}
Area 5, RWMS TP North	12/31/90	02/04/91	1.0×10^{-17}	3.6×10^{-18}
Area 5, RWMS TP North	02/04/91	03/04/91	1.0×10^{-18}	1.1×10^{-18}
Area 5, RWMS TP North	03/04/91	04/01/91	-3.9×10^{-20}	4.7×10^{-19}
Area 5, RWMS TP North	04/01/91	04/29/91	5.7×10^{-18}	2.4×10^{-18}
Area 5, RWMS TP North	04/29/91	06/03/91	5.7×10^{-18}	2.1×10^{-18}
Area 5, RWMS TP North	06/03/91	07/01/91	7.1×10^{-18}	3.3×10^{-18}

Attachment A.2 (²³⁹⁺²⁴⁰Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		μCi/mL	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS TP North	07/01/91	07/29/91	-4.8 x 10 ⁻¹⁹	4.8 x 10 ⁻¹⁹
Area 5, RWMS TP North	07/29/91	09/03/91	7.2 x 10 ⁻¹⁸	3.1 x 10 ⁻¹⁸
Area 5, RWMS TP North	09/03/91	09/30/91	5.1 x 10 ⁻¹⁹	1.3 x 10 ⁻¹⁸
Area 5, RWMS TP North	09/30/91	11/04/91	2.1 x 10 ⁻¹⁸	1.6 x 10 ⁻¹⁸
Area 5, RWMS TP North	11/03/91	12/04/91	1.4 x 10 ⁻¹⁷	4.5 x 10 ⁻¹⁸
Area 5, RWMS TP North	12/02/91	12/30/91	-7.5 x 10 ⁻¹⁹	6.8 x 10 ⁻¹⁹
Area 5, RWMS TP Northeast	12/31/90	02/04/91	1.1 x 10 ⁻¹⁷	3.3 x 10 ⁻¹⁸
Area 5, RWMS TP Northeast	02/04/91	03/04/91	8.6 x 10 ⁻¹⁸	1.7 x 10 ⁻¹⁸
Area 5, RWMS TP Northeast	03/04/91	04/01/91	3.0 x 10 ⁻¹⁹	8.2 x 10 ⁻¹⁹
Area 5, RWMS TP Northeast	04/01/91	04/29/91	1.4 x 10 ⁻¹⁸	1.4 x 10 ⁻¹⁸
Area 5, RWMS TP Northeast	04/29/91	06/03/91	5.2 x 10 ⁻¹⁸	2.3 x 10 ⁻¹⁸
Area 5, RWMS TP Northeast	06/03/91	07/01/91	2.0 x 10 ⁻¹⁷	6.1 x 10 ⁻¹⁸
Area 5, RWMS TP Northeast	07/01/91	07/29/91	5.9 x 10 ⁻¹⁸	3.1 x 10 ⁻¹⁸
Area 5, RWMS TP Northeast	07/29/91	09/03/91	1.9 x 10 ⁻¹⁷	4.7 x 10 ⁻¹⁸
Area 5, RWMS TP Northeast	09/03/91	09/30/91	4.4 x 10 ⁻¹⁸	2.4 x 10 ⁻¹⁸
Area 5, RWMS TP Northeast	09/30/91	11/04/91	2.2 x 10 ⁻¹⁸	1.7 x 10 ⁻¹⁸
Area 5, RWMS TP Northeast	11/03/91	12/04/91	1.0 x 10 ⁻¹⁷	3.5 x 10 ⁻¹⁸
Area 5, RWMS TP Northeast	12/02/91	12/30/91	-7.6 x 10 ⁻¹⁹	5.5 x 10 ⁻¹⁹
Area 5, RWMS TP Northwest	12/31/90	02/04/91	4.4 x 10 ⁻¹⁸	2.5 x 10 ⁻¹⁸
Area 5, RWMS TP Northwest	02/04/91	03/04/91	1.9 x 10 ⁻¹⁸	1.0 x 10 ⁻¹⁸
Area 5, RWMS TP Northwest	03/04/91	04/01/91	3.2 x 10 ⁻¹⁸	1.6 x 10 ⁻¹⁸
Area 5, RWMS TP Northwest	04/01/91	04/29/91	4.7 x 10 ⁻¹⁸	2.1 x 10 ⁻¹⁸
Area 5, RWMS TP Northwest	04/29/91	06/03/91	1.4 x 10 ⁻¹⁸	1.2 x 10 ⁻¹⁸
Area 5, RWMS TP Northwest	06/03/91	07/01/91	1.2 x 10 ⁻¹⁷	4.5 x 10 ⁻¹⁸
Area 5, RWMS TP Northwest	07/01/91	07/29/91	6.0 x 10 ⁻¹⁸	4.0 x 10 ⁻¹⁸
Area 5, RWMS TP Northwest	07/29/91	09/03/91	4.4 x 10 ⁻¹⁹	1.0 x 10 ⁻¹⁸
Area 5, RWMS TP Northwest	09/03/91	09/30/91	6.7 x 10 ⁻¹⁹	1.5 x 10 ⁻¹⁸
Area 5, RWMS TP Northwest	09/30/91	11/04/91	1.1 x 10 ⁻¹⁷	3.3 x 10 ⁻¹⁸
Area 5, RWMS TP Northwest	11/03/91	12/04/91	7.3 x 10 ⁻¹⁸	3.0 x 10 ⁻¹⁸
Area 5, RWMS TP Northwest	12/02/91	12/30/91	7.3 x 10 ⁻¹⁹	1.7 x 10 ⁻¹⁸
Area 5, RWMS TP South	12/31/90	02/04/91	6.9 x 10 ⁻¹⁸	2.5 x 10 ⁻¹⁸
Area 5, RWMS TP South	02/04/91	03/04/91	1.5 x 10 ⁻¹⁷	4.1 x 10 ⁻¹⁸
Area 5, RWMS TP South	03/04/91	04/01/91	4.4 x 10 ⁻¹⁹	9.7 x 10 ⁻¹⁹
Area 5, RWMS TP South	04/01/91	04/29/91	6.1 x 10 ⁻¹⁸	2.5 x 10 ⁻¹⁸
Area 5, RWMS TP South	04/29/91	06/03/91	8.9 x 10 ⁻¹⁸	2.6 x 10 ⁻¹⁸
Area 5, RWMS TP South	06/03/91	07/01/91	6.5 x 10 ⁻¹⁸	3.7 x 10 ⁻¹⁸
Area 5, RWMS TP South	07/01/91	07/29/91	-6.9 x 10 ⁻¹⁹	6.4 x 10 ⁻¹⁹
Area 5, RWMS TP South	07/29/91	09/03/91	6.1 x 10 ⁻¹⁸	2.7 x 10 ⁻¹⁸
Area 5, RWMS TP South	09/03/91	09/30/91	1.8 x 10 ⁻¹⁸	1.9 x 10 ⁻¹⁸
Area 5, RWMS TP South	09/30/91	11/04/91	4.5 x 10 ⁻¹⁸	1.9 x 10 ⁻¹⁸
Area 5, RWMS TP South	11/03/91	12/04/91	4.0 x 10 ⁻¹⁸	2.2 x 10 ⁻¹⁸
Area 5, RWMS TP South	12/02/91	12/30/91	-7.5 x 10 ⁻¹⁹	6.7 x 10 ⁻¹⁹

Attachment A.2 (²³⁹⁺²⁴⁰Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS TP Southeast	12/31/90	02/04/91	7.3×10^{-18}	3.0×10^{-18}
Area 5, RWMS TP Southeast	02/04/91	03/04/91	3.3×10^{-18}	1.9×10^{-18}
Area 5, RWMS TP Southeast	03/04/91	04/01/91	3.2×10^{-18}	1.8×10^{-18}
Area 5, RWMS TP Southeast	04/01/91	04/29/91	2.4×10^{-18}	1.6×10^{-18}
Area 5, RWMS TP Southeast	04/29/91	06/03/91	3.5×10^{-18}	1.5×10^{-18}
Area 5, RWMS TP Southeast	06/03/91	07/01/91	9.8×10^{-18}	4.9×10^{-18}
Area 5, RWMS TP Southeast	07/01/91	07/29/91	3.5×10^{-18}	3.0×10^{-18}
Area 5, RWMS TP Southeast	07/29/91	09/03/91	2.6×10^{-17}	6.0×10^{-18}
Area 5, RWMS TP Southeast	09/03/91	09/30/91	2.5×10^{-17}	6.5×10^{-18}
Area 5, RWMS TP Southeast	09/30/91	11/04/91	3.7×10^{-18}	2.0×10^{-18}
Area 5, RWMS TP Southeast	11/03/91	12/04/91	1.1×10^{-17}	5.1×10^{-18}
Area 5, RWMS TP Southeast	12/02/91	12/30/91	5.4×10^{-17}	9.6×10^{-18}
Area 5, RWMS TP Southwest	12/31/90	02/04/91	3.1×10^{-18}	2.1×10^{-18}
Area 5, RWMS TP Southwest	02/04/91	03/04/91	1.1×10^{-18}	9.3×10^{-19}
Area 5, RWMS TP Southwest	03/04/91	04/01/91	6.8×10^{-18}	2.5×10^{-18}
Area 5, RWMS TP Southwest	04/01/91	04/29/91	4.7×10^{-19}	9.2×10^{-19}
Area 5, RWMS TP Southwest	04/29/91	06/03/91	3.1×10^{-18}	1.6×10^{-18}
Area 5, RWMS TP Southwest	06/03/91	07/01/91	9.0×10^{-18}	4.6×10^{-18}
Area 5, RWMS TP Southwest	07/01/91	07/29/91	6.5×10^{-18}	3.7×10^{-18}
Area 5, RWMS TP Southwest	07/29/91	09/03/91	3.0×10^{-18}	1.9×10^{-18}
Area 5, RWMS TP Southwest	09/03/91	09/30/91	4.9×10^{-18}	2.4×10^{-18}
Area 5, RWMS TP Southwest	09/30/91	11/04/91	1.1×10^{-18}	1.2×10^{-18}
Area 5, RWMS TP Southwest	11/03/91	12/04/91	3.8×10^{-18}	2.1×10^{-18}
Area 5, RWMS TP Southwest	12/02/91	12/30/91	5.1×10^{-18}	2.7×10^{-18}
Area 5, Well 5B	12/31/90	02/04/91	2.3×10^{-17}	6.1×10^{-18}
Area 5, Well 5B	02/04/91	03/04/91	7.8×10^{-19}	1.9×10^{-18}
Area 5, Well 5B	03/04/91	04/01/91	2.5×10^{-18}	1.7×10^{-18}
Area 5, Well 5B	04/01/91	04/29/91	1.2×10^{-17}	3.2×10^{-18}
Area 5, Well 5B	04/29/91	06/03/91	2.4×10^{-18}	1.6×10^{-18}
Area 5, Well 5B	06/03/91	07/01/91	1.1×10^{-17}	3.4×10^{-18}
Area 5, Well 5B	07/01/91	07/29/91	5.2×10^{-18}	4.3×10^{-18}
Area 5, Well 5B	07/29/91	09/03/91	1.8×10^{-18}	1.4×10^{-18}
Area 5, Well 5B	09/03/91	09/30/91	1.1×10^{-17}	4.2×10^{-18}
Area 5, Well 5B	09/30/91	11/04/91	5.8×10^{-18}	2.3×10^{-18}
Area 5, Well 5B	11/03/91	12/04/91	7.0×10^{-18}	2.8×10^{-18}
Area 5, Well 5B	12/02/91	12/30/91	-7.4×10^{-19}	4.6×10^{-19}
Area 6, CP-6	12/31/90	02/04/91	1.1×10^{-17}	2.6×10^{-18}
Area 6, CP-6	02/04/91	03/04/91	4.4×10^{-18}	5.0×10^{-18}
Area 6, CP-6	03/04/91	04/01/91	1.6×10^{-18}	1.5×10^{-18}
Area 6, CP-6	04/01/91	04/29/91	1.0×10^{-17}	3.4×10^{-18}
Area 6, CP-6	04/29/91	06/03/91	4.4×10^{-18}	2.8×10^{-18}
Area 6, CP-6	06/03/91	07/01/91	2.4×10^{-18}	1.4×10^{-18}

Attachment A.2 (²³⁹⁺²⁴⁰Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		μCi/mL	
	Start	End	Concentration	Standard Deviation (s)
Area 6, CP-6	07/01/91	07/29/91	2.6 x 10 ⁻¹⁷	1.1 x 10 ⁻¹⁷
Area 6, CP-6	07/29/91	09/03/91	4.5 x 10 ⁻¹⁸	2.2 x 10 ⁻¹⁸
Area 6, CP-6	09/03/91	09/30/91	-8.0 x 10 ⁻¹⁹	5.9 x 10 ⁻¹⁹
Area 6, CP-6	09/30/91	11/04/91	2.0 x 10 ⁻¹⁷	5.1 x 10 ⁻¹⁸
Area 6, CP-6	11/03/91	12/04/91	1.8 x 10 ⁻¹⁷	4.6 x 10 ⁻¹⁸
Area 6, CP-6	12/02/91	12/30/91	9.2 x 10 ⁻¹⁸	4.3 x 10 ⁻¹⁸
Area 6, Well 3 Complex	12/31/90	02/04/91	-3.6 x 10 ⁻¹⁹	9.3 x 10 ⁻¹⁹
Area 6, Well 3 Complex	02/04/91	03/04/91	4.9 x 10 ⁻¹⁸	2.7 x 10 ⁻¹⁸
Area 6, Well 3 Complex	03/04/91	04/01/91	2.9 x 10 ⁻¹⁸	1.2 x 10 ⁻¹⁸
Area 6, Well 3 Complex	04/01/91	04/29/91	1.7 x 10 ⁻¹⁷	5.0 x 10 ⁻¹⁸
Area 6, Well 3 Complex	04/29/91	06/03/91	1.1 x 10 ⁻¹⁷	3.3 x 10 ⁻¹⁸
Area 6, Well 3 Complex	06/03/91	07/01/91	1.4 x 10 ⁻¹⁶	1.7 x 10 ⁻¹⁷
Area 6, Well 3 Complex	07/01/91	07/29/91	5.3 x 10 ⁻¹⁹	1.4 x 10 ⁻¹⁸
Area 6, Well 3 Complex	07/29/91	09/03/91	1.3 x 10 ⁻¹⁷	3.8 x 10 ⁻¹⁸
Area 6, Well 3 Complex	09/03/91	09/30/91	7.0 x 10 ⁻¹⁸	3.3 x 10 ⁻¹⁸
Area 6, Well 3 Complex	09/30/91	11/04/91	3.8 x 10 ⁻¹⁷	6.6 x 10 ⁻¹⁸
Area 6, Well 3 Complex	11/03/91	12/04/91	3.7 x 10 ⁻¹⁷	1.2 x 10 ⁻¹⁷
Area 6, Well 3 Complex	12/02/91	12/30/91	6.8 x 10 ⁻¹⁸	3.0 x 10 ⁻¹⁸
Area 6, Yucca Complex	12/31/90	02/04/91	2.8 x 10 ⁻¹⁷	5.4 x 10 ⁻¹⁸
Area 6, Yucca Complex	02/04/91	03/04/91	8.0 x 10 ⁻¹⁸	2.5 x 10 ⁻¹⁸
Area 6, Yucca Complex	03/04/91	04/01/91	9.8 x 10 ⁻¹⁸	3.4 x 10 ⁻¹⁸
Area 6, Yucca Complex	04/01/91	04/29/91	1.3 x 10 ⁻¹⁷	3.4 x 10 ⁻¹⁸
Area 6, Yucca Complex	04/29/91	06/03/91	2.8 x 10 ⁻¹⁷	6.7 x 10 ⁻¹⁸
Area 6, Yucca Complex	06/03/91	07/01/91	-1.2 x 10 ⁻¹⁹	6.8 x 10 ⁻¹⁹
Area 6, Yucca Complex	07/01/91	07/29/91	9.7 x 10 ⁻¹⁸	4.4 x 10 ⁻¹⁸
Area 6, Yucca Complex	07/29/91	09/03/91	1.8 x 10 ⁻¹⁷	4.2 x 10 ⁻¹⁸
Area 6, Yucca Complex	09/03/91	09/30/91	5.6 x 10 ⁻¹⁷	1.3 x 10 ⁻¹⁷
Area 6, Yucca Complex	09/30/91	11/04/91	2.6 x 10 ⁻¹⁷	5.2 x 10 ⁻¹⁸
Area 6, Yucca Complex	11/03/91	12/04/91	3.2 x 10 ⁻¹⁷	7.0 x 10 ⁻¹⁸
Area 6, Yucca Complex	12/02/91	12/30/91	2.1 x 10 ⁻¹⁷	5.9 x 10 ⁻¹⁸
Area 7, Ue7ns	12/31/90	02/04/91	1.5 x 10 ⁻¹⁷	4.6 x 10 ⁻¹⁸
Area 7, Ue7ns	02/04/91	03/04/91	5.1 x 10 ⁻¹⁸	2.5 x 10 ⁻¹⁸
Area 7, Ue7ns	03/04/91	04/01/91	2.5 x 10 ⁻¹⁷	5.8 x 10 ⁻¹⁸
Area 7, Ue7ns	04/01/91	04/29/91	7.5 x 10 ⁻¹⁸	2.7 x 10 ⁻¹⁸
Area 7, Ue7ns	04/29/91	06/03/91	1.7 x 10 ⁻¹⁷	5.1 x 10 ⁻¹⁸
Area 7, Ue7ns	06/03/91	07/01/91	1.1 x 10 ⁻¹⁷	2.7 x 10 ⁻¹⁸
Area 7, Ue7ns	07/01/91	07/29/91	2.3 x 10 ⁻¹⁷	5.9 x 10 ⁻¹⁸
Area 7, Ue7ns	07/29/91	09/03/91	1.9 x 10 ⁻¹⁷	5.5 x 10 ⁻¹⁸
Area 7, Ue7ns	09/03/91	09/30/91	3.2 x 10 ⁻¹⁷	7.0 x 10 ⁻¹⁸
Area 7, Ue7ns	09/30/91	11/04/91	1.3 x 10 ⁻¹⁷	3.6 x 10 ⁻¹⁸
Area 7, Ue7ns	11/03/91	12/04/91	9.1 x 10 ⁻¹⁸	3.4 x 10 ⁻¹⁸
Area 7, Ue7ns	12/02/91	12/30/91	1.4 x 10 ⁻¹⁸	1.6 x 10 ⁻¹⁸

Attachment A.2 (²³⁹⁺²⁴⁰Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		μCi/mL	
	Start	End	Concentration	Standard Deviation (s)
Area 9, 9-300 Bunker	12/31/90	02/04/91	2.3 x 10 ⁻¹⁶	5.8 x 10 ⁻¹⁷
Area 9, 9-300 Bunker	02/04/91	03/04/91	4.3 x 10 ⁻¹⁷	4.0 x 10 ⁻¹⁸
Area 9, 9-300 Bunker	03/04/91	04/01/91	5.2 x 10 ⁻¹⁷	5.2 x 10 ⁻¹⁸
Area 9, 9-300 Bunker	04/01/91	04/29/91	1.5 x 10 ⁻¹⁶	2.1 x 10 ⁻¹⁷
Area 9, 9-300 Bunker	04/29/91	06/03/91	3.5 x 10 ⁻¹⁶	3.7 x 10 ⁻¹⁷
Area 9, 9-300 Bunker	06/03/91	07/01/91	1.4 x 10 ⁻¹⁶	1.8 x 10 ⁻¹⁷
Area 9, 9-300 Bunker	07/01/91	07/29/91	2.7 x 10 ⁻¹⁶	3.3 x 10 ⁻¹⁷
Area 9, 9-300 Bunker	07/29/91	09/03/91	2.5 x 10 ⁻¹⁶	2.7 x 10 ⁻¹⁷
Area 9, 9-300 Bunker	09/03/91	09/30/91	1.1 x 10 ⁻¹⁶	1.8 x 10 ⁻¹⁷
Area 9, 9-300 Bunker	09/30/91	11/04/91	1.8 x 10 ⁻¹⁶	2.4 x 10 ⁻¹⁷
Area 9, 9-300 Bunker	11/03/91	12/04/91	1.2 x 10 ⁻¹⁶	1.6 x 10 ⁻¹⁷
Area 9, 9-300 Bunker	12/02/91	12/30/91	2.5 x 10 ⁻¹⁶	3.4 x 10 ⁻¹⁷
Area 10, Gate 700 South	12/31/90	02/04/91	1.4 x 10 ⁻¹⁷	1.5 x 10 ⁻¹⁷
Area 10, Gate 700 South	02/04/91	03/04/91	7.2 x 10 ⁻¹⁸	1.6 x 10 ⁻¹⁸
Area 10, Gate 700 South	03/04/91	04/01/91	2.6 x 10 ⁻¹⁸	1.1 x 10 ⁻¹⁸
Area 10, Gate 700 South	04/01/91	04/29/91	5.4 x 10 ⁻¹⁷	2.0 x 10 ⁻¹⁷
Area 10, Gate 700 South	04/29/91	06/03/91	2.3 x 10 ⁻¹⁷	5.0 x 10 ⁻¹⁸
Area 10, Gate 700 South	06/03/91	07/01/91	1.5 x 10 ⁻¹⁷	4.1 x 10 ⁻¹⁸
Area 10, Gate 700 South	07/01/91	07/29/91	8.6 x 10 ⁻¹⁸	4.9 x 10 ⁻¹⁸
Area 10, Gate 700 South	07/29/91	09/03/91	4.8 x 10 ⁻¹⁸	2.1 x 10 ⁻¹⁸
Area 10, Gate 700 South	09/03/91	09/30/91	9.3 x 10 ⁻¹⁸	4.7 x 10 ⁻¹⁸
Area 10, Gate 700 South	09/30/91	11/04/91	9.0 x 10 ⁻¹⁸	3.3 x 10 ⁻¹⁸
Area 10, Gate 700 South	11/03/91	12/04/91	8.4 x 10 ⁻¹⁸	4.8 x 10 ⁻¹⁸
Area 10, Gate 700 South	12/02/91	12/30/91	8.9 x 10 ⁻¹⁸	4.1 x 10 ⁻¹⁸
Area 11, Gate 293	12/31/90	02/04/91	-3.5 x 10 ⁻¹⁹	8.5 x 10 ⁻¹⁹
Area 11, Gate 293	02/04/91	03/04/91	4.4 x 10 ⁻¹⁹	9.5 x 10 ⁻¹⁹
Area 11, Gate 293	03/04/91	04/01/91	9.5 x 10 ⁻¹⁹	9.2 x 10 ⁻¹⁹
Area 11, Gate 293	04/01/91	04/29/91	7.7 x 10 ⁻¹⁹	1.3 x 10 ⁻¹⁸
Area 11, Gate 293	04/29/91	06/03/91	1.5 x 10 ⁻¹⁸	1.9 x 10 ⁻¹⁸
Area 11, Gate 293	06/03/91	07/01/91	7.8 x 10 ⁻¹⁸	3.1 x 10 ⁻¹⁸
Area 11, Gate 293	07/01/91	07/29/91	7.6 x 10 ⁻¹⁸	3.3 x 10 ⁻¹⁸
Area 11, Gate 293	07/29/91	09/03/91	2.2 x 10 ⁻¹⁶	2.7 x 10 ⁻¹⁷
Area 11, Gate 293	09/03/91	09/30/91	1.6 x 10 ⁻¹⁷	4.9 x 10 ⁻¹⁸
Area 11, Gate 293	09/30/91	11/04/91	2.4 x 10 ⁻¹⁷	5.7 x 10 ⁻¹⁸
Area 11, Gate 293	11/03/91	12/04/91	5.5 x 10 ⁻¹⁷	1.0 x 10 ⁻¹⁷
Area 11, Gate 293	12/02/91	12/30/91	2.5 x 10 ⁻¹⁹	1.0 x 10 ⁻¹⁸
Area 12, Complex	12/31/90	02/04/91	0	0
Area 12, Complex	02/04/91	03/04/91	4.8 x 10 ⁻¹⁹	1.0 x 10 ⁻¹⁸
Area 12, Complex	03/04/91	04/01/91	2.9 x 10 ⁻¹⁸	1.1 x 10 ⁻¹⁸
Area 12, Complex	04/01/91	04/29/91	1.1 x 10 ⁻¹⁸	1.6 x 10 ⁻¹⁸
Area 12, Complex	04/29/91	06/03/91	1.0 x 10 ⁻¹⁸	1.4 x 10 ⁻¹⁸
Area 12, Complex	06/03/91	07/01/91	1.1 x 10 ⁻¹⁷	4.7 x 10 ⁻¹⁸

Attachment A.2 (²³⁹⁺²⁴⁰Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 12, Complex	07/01/91	07/29/91	5.0×10^{-19}	1.3×10^{-18}
Area 12, Complex	07/29/91	09/03/91	4.6×10^{-18}	2.4×10^{-18}
Area 12, Complex	09/03/91	09/30/91	3.7×10^{-19}	1.2×10^{-18}
Area 12, Complex	09/30/91	11/04/91	1.0×10^{-17}	3.5×10^{-18}
Area 12, Complex	11/03/91	12/04/91	1.4×10^{-17}	4.1×10^{-18}
Area 12, Complex	12/02/91	12/30/91	-7.2×10^{-19}	4.8×10^{-19}
Area 12, P Tunnel Portal	09/30/91	11/04/91	4.2×10^{-17}	9.0×10^{-18}
Area 12, P Tunnel Portal	11/03/91	12/04/91	4.3×10^{-18}	3.2×10^{-18}
Area 12, P Tunnel Portal	12/02/91	12/30/91	5.3×10^{-18}	5.3×10^{-18}
Area 15, EPA Farm	12/31/90	02/04/91	2.1×10^{-18}	1.3×10^{-18}
Area 15, EPA Farm	02/04/91	03/04/91	8.5×10^{-18}	3.5×10^{-18}
Area 15, EPA Farm	03/04/91	04/01/91	7.6×10^{-18}	3.4×10^{-18}
Area 15, EPA Farm	04/01/91	04/29/91	1.6×10^{-17}	4.2×10^{-18}
Area 15, EPA Farm	04/29/91	06/03/91	3.2×10^{-17}	4.6×10^{-18}
Area 15, EPA Farm	06/03/91	07/01/91	3.3×10^{-17}	4.8×10^{-18}
Area 15, EPA Farm	07/01/91	07/29/91	2.5×10^{-16}	2.9×10^{-17}
Area 15, EPA Farm	07/29/91	09/03/91	7.5×10^{-17}	9.9×10^{-18}
Area 15, EPA Farm	09/03/91	09/30/91	9.2×10^{-17}	1.6×10^{-17}
Area 15, EPA Farm	09/30/91	11/04/91	8.9×10^{-17}	1.6×10^{-17}
Area 15, EPA Farm	11/03/91	12/04/91	1.4×10^{-17}	5.4×10^{-18}
Area 15, EPA Farm	12/02/91	12/30/91	1.4×10^{-17}	4.1×10^{-18}
Area 15, PILED RIVER	12/31/90	02/04/91	1.1×10^{-18}	1.1×10^{-18}
Area 15, PILED RIVER	02/04/91	03/04/91	1.5×10^{-18}	1.5×10^{-18}
Area 15, PILED RIVER	03/04/91	04/01/91	6.6×10^{-19}	1.4×10^{-18}
Area 16, 3545 Substation	12/31/90	02/04/91	2.9×10^{-17}	2.3×10^{-17}
Area 16, 3545 Substation	02/04/91	03/04/91	-4.7×10^{-19}	4.1×10^{-19}
Area 16, 3545 Substation	03/04/91	04/01/91	2.0×10^{-19}	7.4×10^{-19}
Area 16, 3545 Substation	04/01/91	04/29/91	1.3×10^{-18}	1.8×10^{-18}
Area 16, 3545 Substation	04/29/91	06/03/91	3.0×10^{-18}	1.7×10^{-18}
Area 16, 3545 Substation	06/03/91	07/01/91	4.9×10^{-18}	2.9×10^{-18}
Area 16, 3545 Substation	07/01/91	07/29/91	5.3×10^{-19}	1.4×10^{-18}
Area 16, 3545 Substation	07/29/91	09/03/91	2.7×10^{-18}	2.0×10^{-18}
Area 16, 3545 Substation	09/03/91	09/30/91	5.2×10^{-18}	2.5×10^{-18}
Area 16, 3545 Substation	09/30/91	11/04/91	8.3×10^{-19}	1.5×10^{-18}
Area 16, 3545 Substation	11/03/91	12/04/91	3.6×10^{-19}	1.2×10^{-18}
Area 16, 3545 Substation	12/02/91	12/30/91	4.6×10^{-18}	2.9×10^{-18}
Area 19, Echo Peak	02/04/91	03/04/91	2.6×10^{-18}	1.8×10^{-18}
Area 19, Echo Peak	03/04/91	04/01/91	4.6×10^{-18}	1.7×10^{-18}
Area 19, Echo Peak	04/01/91	04/29/91	1.5×10^{-18}	1.5×10^{-18}
Area 19, Echo Peak	04/29/91	06/03/91	-5.1×10^{-19}	4.4×10^{-19}
Area 19, Echo Peak	06/03/91	07/01/91	1.5×10^{-17}	4.5×10^{-18}
Area 19, Echo Peak	07/01/91	07/29/91	1.7×10^{-18}	1.8×10^{-18}

Attachment A.2 ($^{239+240}\text{Pu}$ in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 19, Echo Peak	07/29/91	09/03/91	-5.4×10^{-19}	4.2×10^{-19}
Area 19, Echo Peak	09/03/91	09/30/91	-7.2×10^{-19}	5.0×10^{-19}
Area 19, Echo Peak	09/30/91	11/04/91	2.2×10^{-17}	4.6×10^{-18}
Area 19, Echo Peak	11/03/91	12/04/91	1.2×10^{-18}	1.4×10^{-18}
Area 19, Echo Peak	12/02/91	12/30/91	5.2×10^{-18}	3.2×10^{-18}
Area 19, Pahute Substation	02/04/91	03/04/91	5.6×10^{-18}	4.4×10^{-18}
Area 19, Pahute Substation	03/04/91	04/01/91	1.1×10^{-18}	8.1×10^{-19}
Area 19, Pahute Substation	04/01/91	04/29/91	3.3×10^{-18}	2.2×10^{-18}
Area 19, Pahute Substation	04/29/91	06/03/91	1.7×10^{-18}	1.5×10^{-18}
Area 19, Pahute Substation	06/03/91	07/01/91	7.9×10^{-19}	1.6×10^{-18}
Area 19, Pahute Substation	07/01/91	07/29/91	1.7×10^{-18}	1.8×10^{-18}
Area 19, Pahute Substation	07/29/91	09/03/91	8.8×10^{-18}	9.8×10^{-18}
Area 19, Pahute Substation	09/03/91	09/30/91	4.1×10^{-18}	3.6×10^{-18}
Area 19, Pahute Substation	09/30/91	11/04/91	3.1×10^{-18}	2.7×10^{-18}
Area 19, Pahute Substation	11/03/91	12/04/91	-6.9×10^{-19}	7.2×10^{-19}
Area 19, Pahute Substation	12/02/91	12/30/91	4.3×10^{-18}	2.7×10^{-18}
Area 20, Dispensary	12/31/90	02/04/91	2.2×10^{-19}	6.3×10^{-19}
Area 20, Dispensary	02/04/91	03/04/91	3.4×10^{-19}	8.6×10^{-19}
Area 20, Dispensary	03/04/91	04/01/91	2.6×10^{-18}	1.8×10^{-18}
Area 20, Dispensary	04/01/91	04/29/91	2.6×10^{-18}	1.8×10^{-18}
Area 20, Dispensary	04/29/91	06/03/91	3.2×10^{-18}	2.2×10^{-18}
Area 20, Dispensary	06/03/91	07/01/91	9.5×10^{-18}	4.3×10^{-18}
Area 20, Dispensary	07/01/91	07/29/91	5.3×10^{-17}	1.1×10^{-17}
Area 20, Dispensary	07/29/91	09/03/91	1.8×10^{-18}	1.8×10^{-18}
Area 20, Dispensary	09/03/91	09/30/91	5.3×10^{-18}	3.4×10^{-18}
Area 20, Dispensary	09/30/91	11/04/91	1.0×10^{-18}	1.2×10^{-18}
Area 20, Dispensary	11/03/91	12/04/91	3.5×10^{-18}	2.5×10^{-18}
Area 20, Dispensary	12/02/91	12/30/91	3.4×10^{-18}	3.2×10^{-18}
Area 23, Building 790	12/31/90	02/04/91	-3.5×10^{-19}	6.1×10^{-19}
Area 23, Building 790	02/04/91	03/04/91	1.5×10^{-18}	1.5×10^{-18}
Area 23, Building 790	03/04/91	04/01/91	1.4×10^{-18}	1.4×10^{-18}
Area 23, Building 790	04/01/91	04/29/91	4.8×10^{-18}	2.7×10^{-18}
Area 23, Building 790	04/29/91	06/03/91	6.5×10^{-18}	3.2×10^{-18}
Area 23, Building 790	06/03/91	07/01/91	2.5×10^{-18}	2.4×10^{-18}
Area 23, Building 790	07/01/91	07/29/91	5.1×10^{-19}	1.3×10^{-18}
Area 23, Building 790	07/29/91	09/03/91	4.1×10^{-18}	2.2×10^{-18}
Area 23, Building 790	09/03/91	09/30/91	1.8×10^{-18}	1.8×10^{-18}
Area 23, Building 790	09/30/91	11/04/91	4.8×10^{-18}	2.5×10^{-18}
Area 23, Building 790	11/03/91	12/04/91	6.4×10^{-18}	3.0×10^{-18}
Area 23, Building 790	12/02/91	12/30/91	6.7×10^{-18}	2.5×10^{-18}
Area 23, Building 790 #2	12/31/90	02/04/91	-3.9×10^{-19}	1.1×10^{-18}
Area 23, Building 790 #2	02/04/91	03/04/91	-4.8×10^{-19}	3.8×10^{-19}

Attachment A.2 (²³⁹⁺²⁴⁰Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		μCi/mL	
	Start	End	Concentration	Standard Deviation (s)
Area 23, Building 790 #2	03/04/91	04/01/91	1.9 x 10 ⁻¹⁸	1.7 x 10 ⁻¹⁸
Area 23, Building 790 #2	04/01/91	04/29/91	1.7 x 10 ⁻¹⁸	1.6 x 10 ⁻¹⁸
Area 23, Building 790 #2	04/29/91	06/03/91	4.6 x 10 ⁻¹⁸	2.1 x 10 ⁻¹⁸
Area 23, Building 790 #2	06/03/91	07/01/91	6.7 x 10 ⁻¹⁸	7.7 x 10 ⁻¹⁸
Area 23, Building 790 #2	07/01/91	07/29/91	-7.8 x 10 ⁻¹⁹	6.0 x 10 ⁻¹⁹
Area 23, Building 790 #2	07/29/91	09/03/91	1.4 x 10 ⁻¹⁷	3.9 x 10 ⁻¹⁸
Area 23, Building 790 #2	09/03/91	09/30/91	1.2 x 10 ⁻¹⁷	4.8 x 10 ⁻¹⁸
Area 23, Building 790 #2	09/30/91	11/04/91	6.7 x 10 ⁻¹⁹	1.4 x 10 ⁻¹⁸
Area 23, Building 790 #2	11/03/91	12/04/91	5.4 x 10 ⁻¹⁸	3.2 x 10 ⁻¹⁸
Area 23, Building 790 #2	12/02/91	12/30/91	5.9 x 10 ⁻¹⁹	1.6 x 10 ⁻¹⁸
Area 23, East Boundary	12/31/90	02/04/91	2.8 x 10 ⁻¹⁸	1.7 x 10 ⁻¹⁸
Area 23, East Boundary	02/04/91	03/04/91	2.1 x 10 ⁻¹⁸	1.5 x 10 ⁻¹⁸
Area 23, East Boundary	03/04/91	04/01/91	2.2 x 10 ⁻¹⁸	1.9 x 10 ⁻¹⁸
Area 23, East Boundary	04/01/91	04/29/91	2.8 x 10 ⁻¹⁷	6.0 x 10 ⁻¹⁸
Area 23, East Boundary	04/29/91	06/03/91	2.8 x 10 ⁻¹⁸	1.6 x 10 ⁻¹⁸
Area 23, East Boundary	06/03/91	07/01/91	1.3 x 10 ⁻¹⁸	2.1 x 10 ⁻¹⁸
Area 23, East Boundary	07/01/91	07/29/91	4.4 x 10 ⁻¹⁹	1.2 x 10 ⁻¹⁸
Area 23, East Boundary	07/29/91	09/03/91	2.2 x 10 ⁻¹⁸	1.5 x 10 ⁻¹⁸
Area 23, East Boundary	09/03/91	09/30/91	1.5 x 10 ⁻¹⁷	5.6 x 10 ⁻¹⁸
Area 23, East Boundary	09/30/91	11/04/91	7.3 x 10 ⁻¹⁷	1.3 x 10 ⁻¹⁷
Area 23, East Boundary	11/03/91	12/04/91	1.1 x 10 ⁻¹⁸	1.9 x 10 ⁻¹⁸
Area 23, East Boundary	12/02/91	12/30/91	-7.3 x 10 ⁻¹⁹	7.9 x 10 ⁻¹⁹
Area 23, H&S Building	12/31/90	02/04/91	-3.5 x 10 ⁻¹⁹	1.2 x 10 ⁻¹⁸
Area 23, H&S Building	02/04/91	03/04/91	2.8 x 10 ⁻¹⁸	1.7 x 10 ⁻¹⁸
Area 23, H&S Building	03/04/91	04/01/91	1.3 x 10 ⁻¹⁸	8.2 x 10 ⁻¹⁹
Area 23, H&S Building	04/01/91	04/29/91	4.1 x 10 ⁻¹⁸	2.7 x 10 ⁻¹⁸
Area 23, H&S Building	04/29/91	06/03/91	3.5 x 10 ⁻¹⁹	7.2 x 10 ⁻¹⁹
Area 23, H&S Building	06/03/91	07/01/91	9.0 x 10 ⁻¹⁸	4.5 x 10 ⁻¹⁸
Area 23, H&S Building	07/01/91	07/29/91	5.0 x 10 ⁻¹⁹	1.3 x 10 ⁻¹⁸
Area 23, H&S Building	07/29/91	09/03/91	2.1 x 10 ⁻¹⁸	2.0 x 10 ⁻¹⁸
Area 23, H&S Building	09/03/91	09/30/91	2.1 x 10 ⁻¹⁸	2.1 x 10 ⁻¹⁸
Area 23, H&S Building	09/30/91	11/04/91	1.1 x 10 ⁻¹⁸	1.7 x 10 ⁻¹⁸
Area 23, H&S Building	11/03/91	12/04/91	2.7 x 10 ⁻¹⁸	2.5 x 10 ⁻¹⁸
Area 23, H&S Building	12/02/91	12/30/91	1.3 x 10 ⁻¹⁸	2.1 x 10 ⁻¹⁸
Area 25, E-MAD North	12/31/90	02/04/91	1.5 x 10 ⁻¹⁸	1.5 x 10 ⁻¹⁸
Area 25, E-MAD North	02/04/91	03/04/91	5.4 x 10 ⁻¹⁸	1.5 x 10 ⁻¹⁸
Area 25, E-MAD North	03/04/91	04/01/91	2.7 x 10 ⁻¹⁸	1.9 x 10 ⁻¹⁸
Area 25, E-MAD North	04/01/91	04/29/91	-4.1 x 10 ⁻¹⁹	3.8 x 10 ⁻¹⁹
Area 25, E-MAD North	04/29/91	06/03/91	2.4 x 10 ⁻¹⁸	1.4 x 10 ⁻¹⁸
Area 25, E-MAD North	06/03/91	07/01/91	9.2 x 10 ⁻¹⁸	4.6 x 10 ⁻¹⁸
Area 25, E-MAD North	07/01/91	07/29/91	4.7 x 10 ⁻¹⁸	6.2 x 10 ⁻¹⁸
Area 25, E-MAD North	07/29/91	09/03/91	4.8 x 10 ⁻¹⁸	3.4 x 10 ⁻¹⁸

Attachment A.2 (²³⁹⁺²⁴⁰Pu in Air - 1991, cont.)

Sampling Location	Sampling Dates		μCi/mL	
	Start	End	Concentration	Standard Deviation (s)
Area 25, E-MAD North	09/03/91	09/30/91	1.3 x 10 ⁻¹⁹	1.0 x 10 ⁻¹⁸
Area 25, E-MAD North	09/30/91	11/04/91	3.5 x 10 ⁻¹⁸	2.1 x 10 ⁻¹⁸
Area 25, E-MAD North	11/03/91	12/04/91	4.8 x 10 ⁻¹⁹	1.6 x 10 ⁻¹⁸
Area 25, E-MAD North	12/02/91	12/30/91	4.0 x 10 ⁻¹⁸	2.5 x 10 ⁻¹⁸
Area 25, NRDS Warehouse	12/31/90	02/04/91	2.9 x 10 ⁻¹⁹	7.2 x 10 ⁻¹⁹
Area 25, NRDS Warehouse	02/04/91	03/04/91	5.2 x 10 ⁻¹⁸	2.2 x 10 ⁻¹⁸
Area 25, NRDS Warehouse	03/04/91	04/01/91	3.0 x 10 ⁻¹⁹	8.1 x 10 ⁻¹⁹
Area 25, NRDS Warehouse	04/01/91	04/29/91	4.1 x 10 ⁻¹⁸	2.3 x 10 ⁻¹⁸
Area 25, NRDS Warehouse	04/29/91	06/03/91	3.3 x 10 ⁻¹⁸	2.1 x 10 ⁻¹⁸
Area 25, NRDS Warehouse	06/03/91	07/01/91	1.0 x 10 ⁻¹⁸	1.1 x 10 ⁻¹⁸
Area 25, NRDS Warehouse	07/01/91	07/29/91	8.5 x 10 ⁻¹⁸	5.5 x 10 ⁻¹⁸
Area 25, NRDS Warehouse	07/29/91	09/03/91	1.1 x 10 ⁻¹⁸	1.2 x 10 ⁻¹⁸
Area 25, NRDS Warehouse	09/03/91	09/30/91	1.0 x 10 ⁻¹⁷	3.7 x 10 ⁻¹⁸
Area 25, NRDS Warehouse	09/30/91	11/04/91	6.1 x 10 ⁻¹⁸	2.1 x 10 ⁻¹⁸
Area 25, NRDS Warehouse	11/03/91	12/04/91	4.2 x 10 ⁻¹⁷	2.9 x 10 ⁻¹⁷
Area 25, NRDS Warehouse	12/02/91	12/30/91	-7.6 x 10 ⁻¹⁹	5.3 x 10 ⁻¹⁹
Area 27, Cafeteria	12/31/90	02/04/91	-4.3 x 10 ⁻¹⁹	1.5 x 10 ⁻¹⁸
Area 27, Cafeteria	02/04/91	03/04/91	7.4 x 10 ⁻¹⁹	1.4 x 10 ⁻¹⁸
Area 27, Cafeteria	03/04/91	04/01/91	4.8 x 10 ⁻¹⁹	1.0 x 10 ⁻¹⁸
Area 27, Cafeteria	04/01/91	04/29/91	-4.3 x 10 ⁻¹⁹	5.4 x 10 ⁻¹⁹
Area 27, Cafeteria	04/29/91	06/03/91	-3.4 x 10 ⁻¹⁹	3.5 x 10 ⁻¹⁹
Area 27, Cafeteria	06/03/91	07/01/91	6.1 x 10 ⁻¹⁸	5.0 x 10 ⁻¹⁸
Area 27, Cafeteria	07/01/91	07/29/91	1.7 x 10 ⁻¹⁸	1.8 x 10 ⁻¹⁸
Area 27, Cafeteria	07/29/91	09/03/91	1.7 x 10 ⁻¹⁸	1.7 x 10 ⁻¹⁸
Area 27, Cafeteria	09/03/91	09/30/91	4.5 x 10 ⁻¹⁸	2.5 x 10 ⁻¹⁸
Area 27, Cafeteria	09/30/91	11/04/91	3.2 x 10 ⁻¹⁸	2.2 x 10 ⁻¹⁸
Area 27, Cafeteria	11/03/91	12/04/91	0	0
Area 27, Cafeteria	12/02/91	12/30/91	7.7 x 10 ⁻¹⁸	5.1 x 10 ⁻¹⁸

Attachment A.3 Gross β in Air - 1991

<u>Sampling Location</u>	<u>Sampling Dates</u>		<u>$\mu\text{Ci/mL}$</u>	
	<u>Start</u>	<u>End</u>	<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 1, BJY	12/31/90	01/07/91	1.6×10^{-14}	1.0×10^{-15}
Area 1, BJY	01/07/91	01/14/91	2.3×10^{-14}	1.1×10^{-15}
Area 1, BJY	01/14/91	01/22/91	1.3×10^{-14}	8.9×10^{-16}
Area 1, BJY	01/22/91	01/28/91	2.3×10^{-14}	1.2×10^{-15}
Area 1, BJY	01/28/91	02/04/91	1.8×10^{-14}	1.1×10^{-15}
Area 1, BJY	02/04/91	02/11/91	2.2×10^{-14}	1.0×10^{-15}
Area 1, BJY	02/19/91	02/25/91	1.7×10^{-14}	1.0×10^{-15}
Area 1, BJY	02/25/91	03/04/91	1.1×10^{-14}	7.9×10^{-16}
Area 1, BJY	03/04/91	03/11/91	1.1×10^{-14}	7.9×10^{-16}
Area 1, BJY	03/11/91	03/18/91	8.5×10^{-15}	7.2×10^{-16}
Area 1, BJY	03/18/91	03/25/91	9.4×10^{-15}	7.6×10^{-16}
Area 1, BJY	03/25/91	04/01/91	1.1×10^{-14}	7.9×10^{-16}
Area 1, BJY	04/01/91	04/08/91	1.6×10^{-14}	8.8×10^{-16}
Area 1, BJY	04/08/91	04/15/91	1.3×10^{-14}	8.1×10^{-16}
Area 1, BJY	04/22/91	04/29/91	1.2×10^{-14}	8.0×10^{-16}
Area 1, BJY	05/06/91	05/14/91	1.2×10^{-14}	7.3×10^{-16}
Area 1, BJY	05/14/91	05/20/91	1.1×10^{-14}	8.7×10^{-16}
Area 1, BJY	05/20/91	05/28/91	1.6×10^{-14}	8.0×10^{-16}
Area 1, BJY	05/28/91	06/03/91	1.3×10^{-14}	9.2×10^{-16}
Area 1, BJY	06/03/91	06/10/91	1.8×10^{-14}	9.9×10^{-16}
Area 1, BJY	06/10/91	06/17/91	1.7×10^{-14}	1.1×10^{-15}
Area 1, BJY	06/17/91	06/24/91	1.3×10^{-14}	1.0×10^{-15}
Area 1, BJY	06/24/91	07/01/91	1.2×10^{-14}	9.8×10^{-16}
Area 1, BJY	07/01/91	07/08/91	1.2×10^{-14}	1.3×10^{-15}
Area 1, BJY	07/08/91	07/15/91	1.9×10^{-14}	9.1×10^{-16}
Area 1, BJY	07/15/91	07/22/91	1.8×10^{-14}	8.8×10^{-16}
Area 1, BJY	07/22/91	07/29/91	2.1×10^{-14}	9.4×10^{-16}
Area 1, BJY	07/29/91	08/05/91	1.8×10^{-14}	9.0×10^{-16}
Area 1, BJY	08/05/91	08/12/91	1.8×10^{-14}	8.8×10^{-16}
Area 1, BJY	08/12/91	08/19/91	9.8×10^{-15}	7.7×10^{-16}
Area 1, BJY	08/19/91	08/26/91	2.2×10^{-14}	1.0×10^{-15}
Area 1, BJY	08/26/91	09/03/91	2.2×10^{-14}	8.8×10^{-16}
Area 1, BJY	09/03/91	09/09/91	1.9×10^{-14}	1.0×10^{-15}
Area 1, BJY	09/09/91	09/16/91	2.2×10^{-14}	9.8×10^{-16}
Area 1, BJY	09/16/91	09/23/91	2.4×10^{-14}	3.8×10^{-15}
Area 1, BJY	09/23/91	09/30/91	1.6×10^{-14}	9.6×10^{-16}
Area 1, BJY	09/30/91	10/07/91	3.0×10^{-14}	1.1×10^{-15}
Area 1, BJY	10/07/91	10/14/91	3.4×10^{-14}	1.1×10^{-15}
Area 1, BJY	10/14/91	10/21/91	2.0×10^{-14}	1.3×10^{-15}
Area 1, BJY	10/21/91	10/28/91	2.1×10^{-14}	9.2×10^{-16}
Area 1, BJY	10/28/91	11/04/91	2.2×10^{-14}	9.9×10^{-16}
Area 1, BJY	11/04/91	11/12/91	1.5×10^{-14}	7.6×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 1, BJY	11/12/91	11/18/91	1.8×10^{-14}	1.0×10^{-15}
Area 1, BJY	11/18/91	11/25/91	1.2×10^{-14}	8.5×10^{-16}
Area 1, BJY	11/25/91	12/02/91	1.2×10^{-14}	9.3×10^{-16}
Area 1, BJY	12/02/91	12/09/91	2.1×10^{-14}	9.7×10^{-16}
Area 1, BJY	12/09/91	12/16/91	2.5×10^{-14}	1.0×10^{-15}
Area 1, BJY	12/16/91	12/23/91	2.3×10^{-14}	1.0×10^{-15}
Area 1, BJY	12/23/91	12/30/91	2.4×10^{-14}	1.0×10^{-15}
Area 1, Gravel Pit	12/31/90	01/07/91	1.1×10^{-14}	8.2×10^{-16}
Area 1, Gravel Pit	01/07/91	01/14/91	2.8×10^{-14}	1.0×10^{-15}
Area 1, Gravel Pit	01/14/91	01/22/91	1.4×10^{-14}	1.0×10^{-15}
Area 1, Gravel Pit	01/22/91	01/28/91	2.6×10^{-14}	1.4×10^{-15}
Area 1, Gravel Pit	01/28/91	02/04/91	2.4×10^{-14}	1.2×10^{-15}
Area 1, Gravel Pit	02/04/91	02/11/91	3.0×10^{-14}	1.3×10^{-15}
Area 1, Gravel Pit	02/11/91	02/19/91	1.9×10^{-14}	1.0×10^{-15}
Area 1, Gravel Pit	02/19/91	02/25/91	2.0×10^{-14}	1.0×10^{-15}
Area 1, Gravel Pit	02/25/91	03/04/91	1.1×10^{-14}	8.4×10^{-16}
Area 1, Gravel Pit	03/04/91	03/11/91	1.3×10^{-14}	8.7×10^{-16}
Area 1, Gravel Pit	03/11/91	03/18/91	9.1×10^{-15}	7.7×10^{-16}
Area 1, Gravel Pit	03/18/91	03/25/91	1.1×10^{-14}	8.4×10^{-16}
Area 1, Gravel Pit	03/25/91	04/01/91	1.0×10^{-14}	8.1×10^{-16}
Area 1, Gravel Pit	04/01/91	04/08/91	1.8×10^{-14}	9.4×10^{-16}
Area 1, Gravel Pit	04/08/91	04/15/91	1.5×10^{-14}	8.8×10^{-16}
Area 1, Gravel Pit	04/15/91	04/22/91	1.8×10^{-14}	9.3×10^{-16}
Area 1, Gravel Pit	04/22/91	04/29/91	1.6×10^{-14}	8.9×10^{-16}
Area 1, Gravel Pit	05/09/91	05/13/91	1.5×10^{-14}	9.4×10^{-16}
Area 1, Gravel Pit	05/13/91	05/20/91	1.3×10^{-14}	8.3×10^{-16}
Area 1, Gravel Pit	05/20/91	05/28/91	1.7×10^{-14}	8.4×10^{-16}
Area 1, Gravel Pit	05/28/91	06/03/91	1.3×10^{-14}	9.6×10^{-16}
Area 1, Gravel Pit	06/03/91	06/10/91	2.0×10^{-14}	9.8×10^{-16}
Area 1, Gravel Pit	06/10/91	06/17/91	1.1×10^{-14}	8.2×10^{-16}
Area 1, Gravel Pit	06/17/91	06/24/91	1.5×10^{-14}	1.1×10^{-15}
Area 1, Gravel Pit	06/24/91	07/01/91	9.9×10^{-15}	7.8×10^{-16}
Area 1, Gravel Pit	07/01/91	07/08/91	1.9×10^{-14}	1.4×10^{-15}
Area 1, Gravel Pit	07/15/91	07/22/91	1.9×10^{-14}	1.1×10^{-15}
Area 1, Gravel Pit	07/22/91	07/29/91	2.0×10^{-14}	9.5×10^{-16}
Area 1, Gravel Pit	07/29/91	08/05/91	2.0×10^{-14}	9.4×10^{-16}
Area 1, Gravel Pit	08/05/91	08/12/91	1.8×10^{-14}	9.1×10^{-16}
Area 1, Gravel Pit	08/12/91	08/19/91	1.4×10^{-14}	8.5×10^{-16}
Area 1, Gravel Pit	08/19/91	08/26/91	2.0×10^{-14}	1.0×10^{-15}
Area 1, Gravel Pit	08/26/91	09/03/91	1.9×10^{-14}	8.6×10^{-16}
Area 1, Gravel Pit	09/03/91	09/09/91	1.8×10^{-14}	1.0×10^{-15}
Area 1, Gravel Pit	09/09/91	09/16/91	2.1×10^{-14}	1.0×10^{-15}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 1, Gravel Pit	09/16/91	09/23/91	1.5×10^{-14}	2.2×10^{-15}
Area 1, Gravel Pit	09/23/91	09/30/91	1.9×10^{-14}	1.2×10^{-15}
Area 1, Gravel Pit	09/30/91	10/07/91	2.9×10^{-14}	1.1×10^{-15}
Area 1, Gravel Pit	10/07/91	10/14/91	3.4×10^{-14}	1.1×10^{-15}
Area 1, Gravel Pit	10/14/91	10/21/91	1.7×10^{-14}	9.6×10^{-16}
Area 1, Gravel Pit	10/21/91	10/28/91	2.0×10^{-14}	9.3×10^{-16}
Area 1, Gravel Pit	10/28/91	11/04/91	2.2×10^{-14}	1.0×10^{-15}
Area 1, Gravel Pit	11/04/91	11/12/91	1.4×10^{-14}	8.0×10^{-16}
Area 1, Gravel Pit	11/12/91	11/18/91	2.0×10^{-14}	1.0×10^{-15}
Area 1, Gravel Pit	11/18/91	11/25/91	1.0×10^{-14}	9.0×10^{-16}
Area 1, Gravel Pit	11/25/91	12/02/91	1.4×10^{-14}	8.0×10^{-16}
Area 1, Gravel Pit	12/02/91	12/09/91	1.7×10^{-14}	9.6×10^{-16}
Area 1, Gravel Pit	12/09/91	12/16/91	2.6×10^{-14}	2.6×10^{-15}
Area 2, 2-1 Substation	12/31/90	01/07/91	1.6×10^{-14}	9.1×10^{-16}
Area 2, 2-1 Substation	01/07/91	01/14/91	2.8×10^{-14}	1.0×10^{-15}
Area 2, 2-1 Substation	01/14/91	01/22/91	1.3×10^{-14}	7.6×10^{-16}
Area 2, 2-1 Substation	01/22/91	01/28/91	2.7×10^{-14}	1.1×10^{-15}
Area 2, 2-1 Substation	01/28/91	02/04/91	2.2×10^{-14}	9.9×10^{-16}
Area 2, 2-1 Substation	02/04/91	02/11/91	3.0×10^{-14}	1.0×10^{-15}
Area 2, 2-1 Substation	02/11/91	02/19/91	1.8×10^{-14}	8.7×10^{-16}
Area 2, 2-1 Substation	02/19/91	02/25/91	2.2×10^{-14}	1.1×10^{-15}
Area 2, 2-1 Substation	02/25/91	03/04/91	1.1×10^{-14}	8.2×10^{-16}
Area 2, 2-1 Substation	03/04/91	03/11/91	1.3×10^{-14}	8.4×10^{-16}
Area 2, 2-1 Substation	03/11/91	03/18/91	9.0×10^{-15}	7.0×10^{-16}
Area 2, 2-1 Substation	03/18/91	03/25/91	1.3×10^{-14}	7.9×10^{-16}
Area 2, 2-1 Substation	03/25/91	04/01/91	1.3×10^{-14}	7.8×10^{-16}
Area 2, 2-1 Substation	04/01/91	04/08/91	1.9×10^{-14}	8.9×10^{-16}
Area 2, 2-1 Substation	04/08/91	04/15/91	1.3×10^{-14}	7.9×10^{-16}
Area 2, 2-1 Substation	04/22/91	04/29/91	1.2×10^{-14}	7.7×10^{-16}
Area 2, 2-1 Substation	05/06/91	05/14/91	1.3×10^{-14}	7.1×10^{-16}
Area 2, 2-1 Substation	05/14/91	05/20/91	1.2×10^{-14}	8.6×10^{-16}
Area 2, 2-1 Substation	05/20/91	05/28/91	1.6×10^{-14}	7.6×10^{-16}
Area 2, 2-1 Substation	05/28/91	06/03/91	1.4×10^{-14}	9.0×10^{-16}
Area 2, 2-1 Substation	06/03/91	06/10/91	2.0×10^{-14}	9.1×10^{-16}
Area 2, 2-1 Substation	06/10/91	06/17/91	2.1×10^{-14}	9.2×10^{-16}
Area 2, 2-1 Substation	06/17/91	06/24/91	1.5×10^{-14}	8.2×10^{-16}
Area 2, 2-1 Substation	06/24/91	07/01/91	1.2×10^{-14}	7.7×10^{-16}
Area 2, 2-1 Substation	07/01/91	07/08/91	1.8×10^{-14}	8.5×10^{-16}
Area 2, 2-1 Substation	07/08/91	07/15/91	1.8×10^{-14}	8.6×10^{-16}
Area 2, 2-1 Substation	07/15/91	07/22/91	1.6×10^{-14}	8.2×10^{-16}
Area 2, 2-1 Substation	07/22/91	07/29/91	2.1×10^{-14}	9.1×10^{-16}
Area 2, 2-1 Substation	07/29/91	08/05/91	2.0×10^{-14}	9.1×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 2, 2-1 Substation	08/05/91	08/12/91	1.6×10^{-14}	8.3×10^{-16}
Area 2, 2-1 Substation	08/12/91	08/19/91	1.6×10^{-14}	8.4×10^{-16}
Area 2, 2-1 Substation	08/19/91	08/26/91	1.8×10^{-14}	8.6×10^{-16}
Area 2, 2-1 Substation	08/26/91	09/03/91	1.9×10^{-14}	8.2×10^{-16}
Area 2, 2-1 Substation	09/03/91	09/09/91	1.4×10^{-14}	8.8×10^{-16}
Area 2, 2-1 Substation	09/09/91	09/16/91	2.0×10^{-14}	9.3×10^{-16}
Area 2, 2-1 Substation	09/16/91	09/23/91	2.3×10^{-14}	9.7×10^{-16}
Area 2, 2-1 Substation	09/23/91	09/30/91	1.7×10^{-14}	8.7×10^{-16}
Area 2, 2-1 Substation	09/30/91	10/07/91	2.8×10^{-14}	1.0×10^{-15}
Area 2, 2-1 Substation	10/07/91	10/14/91	3.5×10^{-14}	1.1×10^{-15}
Area 2, 2-1 Substation	10/14/91	10/21/91	1.6×10^{-14}	8.9×10^{-16}
Area 2, 2-1 Substation	10/21/91	10/28/91	2.4×10^{-14}	9.6×10^{-16}
Area 2, 2-1 Substation	10/28/91	11/04/91	2.1×10^{-14}	9.5×10^{-16}
Area 2, 2-1 Substation	11/04/91	11/12/91	1.2×10^{-13}	1.7×10^{-15}
Area 2, 2-1 Substation	11/12/91	11/18/91	1.8×10^{-14}	9.5×10^{-16}
Area 2, 2-1 Substation	11/18/91	11/25/91	8.3×10^{-15}	7.3×10^{-16}
Area 2, 2-1 Substation	11/25/91	12/02/91	1.4×10^{-14}	8.1×10^{-16}
Area 2, 2-1 Substation	12/02/91	12/09/91	1.8×10^{-14}	8.8×10^{-16}
Area 2, 2-1 Substation	12/09/91	12/16/91	2.5×10^{-14}	9.5×10^{-16}
Area 2, 2-1 Substation	12/16/91	12/23/91	2.4×10^{-14}	1.0×10^{-15}
Area 2, 2-1 Substation	12/23/91	12/30/91	2.0×10^{-14}	8.9×10^{-16}
Area 2, Complex	12/31/90	01/07/91	1.8×10^{-14}	9.5×10^{-16}
Area 2, Complex	01/07/91	01/14/91	2.5×10^{-14}	1.0×10^{-15}
Area 2, Complex	01/22/91	01/28/91	2.1×10^{-14}	1.0×10^{-15}
Area 2, Complex	01/28/91	02/04/91	2.4×10^{-14}	1.0×10^{-15}
Area 2, Complex	02/04/91	02/11/91	3.4×10^{-14}	1.1×10^{-15}
Area 2, Complex	02/11/91	02/19/91	1.6×10^{-14}	8.2×10^{-16}
Area 2, Complex	02/19/91	02/25/91	2.0×10^{-14}	1.0×10^{-15}
Area 2, Complex	02/25/91	03/04/91	1.1×10^{-14}	8.3×10^{-16}
Area 2, Complex	03/04/91	03/11/91	1.4×10^{-14}	8.7×10^{-16}
Area 2, Complex	03/11/91	03/18/91	1.1×10^{-14}	8.0×10^{-16}
Area 2, Complex	03/18/91	03/25/91	1.3×10^{-14}	8.6×10^{-16}
Area 2, Complex	03/25/91	04/01/91	1.3×10^{-14}	8.7×10^{-16}
Area 2, Complex	04/01/91	04/08/91	1.9×10^{-14}	9.7×10^{-16}
Area 2, Complex	04/08/91	04/15/91	1.5×10^{-14}	9.0×10^{-16}
Area 2, Complex	04/22/91	04/29/91	1.2×10^{-14}	7.8×10^{-16}
Area 2, Complex	05/06/91	05/14/91	1.4×10^{-14}	7.3×10^{-16}
Area 2, Complex	05/14/91	05/20/91	1.1×10^{-14}	8.4×10^{-16}
Area 2, Complex	05/20/91	05/28/91	1.6×10^{-14}	7.7×10^{-16}
Area 2, Complex	05/28/91	06/03/91	1.5×10^{-14}	9.2×10^{-16}
Area 2, Complex	06/03/91	06/10/91	2.2×10^{-14}	9.3×10^{-16}
Area 2, Complex	06/10/91	06/17/91	2.1×10^{-14}	9.0×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 2, Complex	06/17/91	06/24/91	1.6×10^{-14}	8.4×10^{-16}
Area 2, Complex	06/24/91	07/01/91	1.3×10^{-14}	7.9×10^{-16}
Area 2, Complex	07/01/91	07/08/91	1.9×10^{-14}	8.8×10^{-16}
Area 2, Complex	07/08/91	07/15/91	2.0×10^{-14}	9.0×10^{-16}
Area 2, Complex	07/15/91	07/22/91	1.4×10^{-14}	8.6×10^{-16}
Area 2, Complex	07/22/91	07/29/91	2.1×10^{-14}	9.1×10^{-16}
Area 2, Complex	07/29/91	08/05/91	2.1×10^{-14}	9.9×10^{-16}
Area 2, Complex	08/05/91	08/12/91	1.6×10^{-14}	8.5×10^{-16}
Area 2, Complex	08/12/91	08/19/91	2.2×10^{-14}	9.3×10^{-16}
Area 2, Complex	08/19/91	08/26/91	1.8×10^{-14}	8.7×10^{-16}
Area 2, Complex	08/26/91	09/03/91	1.8×10^{-14}	8.2×10^{-16}
Area 2, Complex	09/03/91	09/09/91	1.8×10^{-14}	9.9×10^{-16}
Area 2, Complex	09/09/91	09/16/91	2.0×10^{-14}	9.3×10^{-16}
Area 2, Complex	09/16/91	09/23/91	2.5×10^{-14}	1.0×10^{-15}
Area 2, Complex	09/23/91	09/30/91	1.9×10^{-14}	9.0×10^{-16}
Area 2, Complex	09/30/91	10/07/91	2.7×10^{-14}	1.0×10^{-15}
Area 2, Complex	10/07/91	10/14/91	3.3×10^{-14}	1.1×10^{-15}
Area 2, Complex	10/14/91	10/21/91	1.7×10^{-14}	9.0×10^{-16}
Area 2, Complex	10/21/91	10/28/91	2.1×10^{-14}	9.0×10^{-16}
Area 2, Complex	10/28/91	11/04/91	2.1×10^{-14}	9.4×10^{-16}
Area 2, Complex	11/04/91	11/12/91	1.5×10^{-14}	7.8×10^{-16}
Area 2, Complex	11/12/91	11/18/91	1.6×10^{-14}	9.2×10^{-16}
Area 2, Complex	11/18/91	11/25/91	1.1×10^{-14}	7.8×10^{-16}
Area 2, Complex	11/25/91	12/02/91	1.5×10^{-14}	8.3×10^{-16}
Area 2, Complex	12/02/91	12/09/91	1.8×10^{-14}	8.8×10^{-16}
Area 2, Complex	12/09/91	12/16/91	2.3×10^{-14}	9.4×10^{-16}
Area 2, Complex	12/16/91	12/23/91	2.1×10^{-14}	9.6×10^{-16}
Area 2, Complex	12/23/91	12/30/91	2.6×10^{-14}	9.8×10^{-16}
Area 3, 3-300 Bunker	12/31/90	01/07/91	1.7×10^{-14}	8.9×10^{-16}
Area 3, 3-300 Bunker	01/07/91	01/14/91	2.9×10^{-14}	1.0×10^{-15}
Area 3, 3-300 Bunker	01/14/91	01/22/91	1.3×10^{-14}	7.3×10^{-16}
Area 3, 3-300 Bunker	01/22/91	01/28/91	2.6×10^{-14}	1.1×10^{-15}
Area 3, 3-300 Bunker	01/28/91	02/04/91	2.3×10^{-14}	9.7×10^{-16}
Area 3, 3-300 Bunker	02/04/91	02/11/91	3.2×10^{-14}	1.0×10^{-15}
Area 3, 3-300 Bunker	02/19/91	02/25/91	2.0×10^{-14}	1.0×10^{-15}
Area 3, 3-300 Bunker	02/25/91	03/04/91	1.1×10^{-14}	7.7×10^{-16}
Area 3, 3-300 Bunker	03/04/91	03/11/91	1.3×10^{-14}	8.1×10^{-16}
Area 3, 3-300 Bunker	03/11/91	03/18/91	8.6×10^{-15}	7.3×10^{-16}
Area 3, 3-300 Bunker	03/18/91	03/25/91	1.7×10^{-14}	8.9×10^{-16}
Area 3, 3-300 Bunker	03/25/91	04/01/91	1.3×10^{-14}	8.4×10^{-16}
Area 3, 3-300 Bunker	04/01/91	04/08/91	2.1×10^{-14}	9.6×10^{-16}
Area 3, 3-300 Bunker	04/08/91	04/15/91	1.4×10^{-14}	8.4×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 3, 3-300 Bunker	04/22/91	04/29/91	1.4×10^{-14}	8.4×10^{-16}
Area 3, 3-300 Bunker	04/29/91	05/06/91	1.9×10^{-14}	9.6×10^{-16}
Area 3, 3-300 Bunker	05/06/91	05/14/91	1.3×10^{-14}	7.6×10^{-16}
Area 3, 3-300 Bunker	05/14/91	05/20/91	1.2×10^{-14}	9.1×10^{-16}
Area 3, 3-300 Bunker	05/20/91	05/28/91	1.9×10^{-14}	8.5×10^{-16}
Area 3, 3-300 Bunker	05/28/91	06/03/91	1.6×10^{-14}	9.9×10^{-16}
Area 3, 3-300 Bunker	06/03/91	06/10/91	2.1×10^{-14}	1.0×10^{-15}
Area 3, 3-300 Bunker	06/10/91	06/17/91	2.4×10^{-14}	1.0×10^{-15}
Area 3, 3-300 Bunker	06/17/91	06/24/91	1.6×10^{-14}	8.7×10^{-16}
Area 3, 3-300 Bunker	06/24/91	07/01/91	9.9×10^{-15}	7.6×10^{-16}
Area 3, 3-300 Bunker	07/01/91	07/08/91	1.9×10^{-14}	9.1×10^{-16}
Area 3, 3-300 Bunker	07/08/91	07/15/91	2.0×10^{-14}	9.4×10^{-16}
Area 3, 3-300 Bunker	07/15/91	07/22/91	1.8×10^{-14}	9.1×10^{-16}
Area 3, 3-300 Bunker	07/22/91	07/29/91	2.3×10^{-14}	9.8×10^{-16}
Area 3, 3-300 Bunker	07/29/91	08/05/91	1.9×10^{-14}	9.2×10^{-16}
Area 3, 3-300 Bunker	08/05/91	08/12/91	1.9×10^{-14}	9.2×10^{-16}
Area 3, 3-300 Bunker	08/12/91	08/19/91	1.5×10^{-14}	8.7×10^{-16}
Area 3, 3-300 Bunker	08/19/91	08/26/91	2.1×10^{-14}	9.6×10^{-16}
Area 3, 3-300 Bunker	08/26/91	09/03/91	2.2×10^{-14}	9.0×10^{-16}
Area 3, 3-300 Bunker	09/03/91	09/09/91	2.1×10^{-14}	1.0×10^{-15}
Area 3, 3-300 Bunker	09/09/91	09/16/91	2.3×10^{-14}	1.0×10^{-15}
Area 3, 3-300 Bunker	09/16/91	09/23/91	2.5×10^{-14}	1.0×10^{-15}
Area 3, 3-300 Bunker	09/23/91	09/30/91	2.0×10^{-14}	9.9×10^{-16}
Area 3, 3-300 Bunker	09/30/91	10/07/91	3.3×10^{-14}	1.1×10^{-15}
Area 3, 3-300 Bunker	10/07/91	10/14/91	3.5×10^{-14}	1.2×10^{-15}
Area 3, 3-300 Bunker	10/14/91	10/21/91	1.9×10^{-14}	9.9×10^{-16}
Area 3, 3-300 Bunker	10/21/91	10/28/91	2.5×10^{-14}	1.0×10^{-15}
Area 3, 3-300 Bunker	10/28/91	11/04/91	2.0×10^{-14}	9.8×10^{-16}
Area 3, 3-300 Bunker	11/04/91	11/12/91	1.5×10^{-14}	7.9×10^{-16}
Area 3, 3-300 Bunker	11/12/91	11/18/91	1.7×10^{-14}	1.0×10^{-15}
Area 3, 3-300 Bunker	11/18/91	11/25/91	1.1×10^{-14}	8.1×10^{-16}
Area 3, 3-300 Bunker	11/25/91	12/02/91	1.8×10^{-14}	9.1×10^{-16}
Area 3, 3-300 Bunker	12/02/91	12/09/91	2.3×10^{-14}	1.0×10^{-15}
Area 3, 3-300 Bunker	12/09/91	12/16/91	3.0×10^{-14}	1.1×10^{-15}
Area 3, 3-300 Bunker	12/16/91	12/23/91	3.0×10^{-14}	1.1×10^{-15}
Area 3, 3-300 Bunker	12/23/91	12/30/91	2.2×10^{-14}	9.9×10^{-16}
Area 3, Complex No. 2	01/07/91	01/14/91	2.8×10^{-14}	1.0×10^{-15}
Area 3, Complex No. 2	01/14/91	01/22/91	1.3×10^{-14}	7.5×10^{-16}
Area 3, Complex No. 2	01/22/91	01/28/91	2.6×10^{-14}	1.1×10^{-15}
Area 3, Complex No. 2	01/28/91	02/04/91	2.1×10^{-14}	9.5×10^{-16}
Area 3, Complex No. 2	02/04/91	02/11/91	3.2×10^{-14}	1.1×10^{-15}
Area 3, Complex No. 2	02/19/91	02/25/91	2.3×10^{-14}	1.0×10^{-15}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 3, Complex No. 2	02/25/91	03/04/91	1.7×10^{-14}	8.9×10^{-16}
Area 3, Complex No. 2	03/04/91	03/11/91	1.2×10^{-14}	7.8×10^{-16}
Area 3, Complex No. 2	03/11/91	03/18/91	1.0×10^{-14}	7.5×10^{-16}
Area 3, Complex No. 2	03/18/91	03/25/91	9.6×10^{-15}	7.5×10^{-16}
Area 3, Complex No. 2	03/25/91	04/01/91	1.1×10^{-14}	7.9×10^{-16}
Area 3, Complex No. 2	04/01/91	04/08/91	2.1×10^{-14}	9.4×10^{-16}
Area 3, Complex No. 2	04/08/91	04/15/91	1.5×10^{-14}	8.5×10^{-16}
Area 3, Complex No. 2	04/15/91	04/22/91	2.1×10^{-14}	1.0×10^{-15}
Area 3, Complex No. 2	04/22/91	04/29/91	1.1×10^{-14}	7.0×10^{-16}
Area 3, Complex No. 2	04/29/91	05/06/91	2.1×10^{-14}	9.9×10^{-16}
Area 3, Complex No. 2	05/06/91	05/14/91	1.5×10^{-14}	7.7×10^{-16}
Area 3, Complex No. 2	05/20/91	05/28/91	1.8×10^{-14}	8.2×10^{-16}
Area 3, Complex No. 2	05/28/91	06/03/91	1.6×10^{-14}	9.6×10^{-16}
Area 3, Complex No. 2	06/10/91	06/17/91	2.2×10^{-14}	9.6×10^{-16}
Area 3, Complex No. 2	06/17/91	06/24/91	1.5×10^{-14}	8.4×10^{-16}
Area 3, Complex No. 2	06/24/91	07/01/91	1.1×10^{-14}	7.7×10^{-16}
Area 3, Complex No. 2	07/01/91	07/08/91	1.7×10^{-14}	8.9×10^{-16}
Area 3, Complex No. 2	07/08/91	07/15/91	2.0×10^{-14}	9.1×10^{-16}
Area 3, Complex No. 2	07/15/91	07/22/91	1.8×10^{-14}	8.8×10^{-16}
Area 3, Complex No. 2	07/22/91	07/29/91	2.0×10^{-14}	9.1×10^{-16}
Area 3, Complex No. 2	07/29/91	08/05/91	2.1×10^{-14}	9.4×10^{-16}
Area 3, Complex No. 2	08/05/91	08/12/91	1.7×10^{-14}	1.2×10^{-15}
Area 3, Complex No. 2	08/12/91	08/19/91	1.3×10^{-14}	7.7×10^{-16}
Area 3, Complex No. 2	08/19/91	08/26/91	2.0×10^{-14}	9.0×10^{-16}
Area 3, Complex No. 2	08/26/91	09/03/91	2.2×10^{-14}	8.7×10^{-16}
Area 3, Complex No. 2	09/03/91	09/09/91	2.3×10^{-14}	1.0×10^{-15}
Area 3, Complex No. 2	09/09/91	09/16/91	2.2×10^{-14}	9.8×10^{-16}
Area 3, Complex No. 2	09/16/91	09/23/91	2.4×10^{-14}	9.8×10^{-16}
Area 3, Complex No. 2	09/23/91	09/30/91	1.9×10^{-14}	9.4×10^{-16}
Area 3, Complex No. 2	09/30/91	10/07/91	3.0×10^{-14}	1.1×10^{-15}
Area 3, Complex No. 2	10/07/91	10/14/91	3.5×10^{-14}	1.1×10^{-15}
Area 3, Complex No. 2	10/14/91	10/21/91	2.0×10^{-14}	9.1×10^{-16}
Area 3, Complex No. 2	10/21/91	10/28/91	2.0×10^{-14}	9.4×10^{-16}
Area 3, Complex No. 2	10/28/91	11/04/91	2.3×10^{-14}	9.6×10^{-16}
Area 3, Complex No. 2	11/04/91	11/12/91	1.7×10^{-14}	7.9×10^{-16}
Area 3, Complex No. 2	11/12/91	11/18/91	1.8×10^{-14}	9.8×10^{-16}
Area 3, Complex No. 2	11/18/91	11/25/91	1.1×10^{-14}	7.8×10^{-16}
Area 3, Complex No. 2	11/25/91	12/02/91	1.6×10^{-14}	8.7×10^{-16}
Area 3, Complex No. 2	12/02/91	12/09/91	2.4×10^{-14}	9.8×10^{-16}
Area 3, Complex No. 2	12/09/91	12/16/91	2.5×10^{-14}	9.9×10^{-16}
Area 3, Complex No. 2	12/16/91	12/23/91	2.5×10^{-14}	1.0×10^{-15}
Area 3, Complex No. 2	12/23/91	12/30/91	2.7×10^{-14}	1.0×10^{-15}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 3, Complex	12/31/90	01/07/91	1.7×10^{-14}	9.0×10^{-16}
Area 3, Complex	01/07/91	01/14/91	3.0×10^{-14}	1.0×10^{-15}
Area 3, Complex	01/14/91	01/22/91	1.2×10^{-14}	7.3×10^{-16}
Area 3, Complex	01/22/91	01/28/91	2.7×10^{-14}	1.1×10^{-15}
Area 3, Complex	01/28/91	02/04/91	2.5×10^{-14}	1.0×10^{-15}
Area 3, Complex	02/04/91	02/11/91	3.2×10^{-14}	1.1×10^{-15}
Area 3, Complex	02/19/91	02/25/91	2.1×10^{-14}	1.0×10^{-15}
Area 3, Complex	02/25/91	03/04/91	1.0×10^{-14}	7.8×10^{-16}
Area 3, Complex	03/04/91	03/11/91	1.4×10^{-14}	8.4×10^{-16}
Area 3, Complex	03/11/91	03/18/91	9.2×10^{-15}	7.5×10^{-16}
Area 3, Complex	03/18/91	03/25/91	1.1×10^{-14}	8.1×10^{-16}
Area 3, Complex	03/25/91	04/01/91	1.0×10^{-15}	2.1×10^{-15}
Area 3, Complex	04/08/91	04/15/91	1.4×10^{-14}	8.8×10^{-16}
Area 3, Complex	04/15/91	04/22/91	1.9×10^{-14}	9.3×10^{-16}
Area 3, Complex	04/22/91	04/29/91	1.3×10^{-14}	8.4×10^{-16}
Area 3, Complex	04/29/91	05/06/91	1.8×10^{-14}	9.3×10^{-16}
Area 3, Complex	05/06/91	05/14/91	1.5×10^{-14}	8.0×10^{-16}
Area 3, Complex	05/14/91	05/20/91	7.8×10^{-15}	9.8×10^{-16}
Area 3, Complex	05/20/91	05/28/91	1.9×10^{-14}	8.5×10^{-16}
Area 3, Complex	05/28/91	06/03/91	1.7×10^{-14}	9.8×10^{-16}
Area 3, Complex	06/03/91	06/10/91	2.5×10^{-14}	1.1×10^{-15}
Area 3, Complex	06/10/91	06/17/91	2.4×10^{-14}	9.9×10^{-16}
Area 3, Complex	06/17/91	06/24/91	1.8×10^{-14}	9.1×10^{-16}
Area 3, Complex	06/24/91	07/01/91	1.1×10^{-14}	7.8×10^{-16}
Area 3, Complex	07/01/91	07/08/91	1.6×10^{-14}	8.7×10^{-16}
Area 3, Complex	07/08/91	07/15/91	2.1×10^{-14}	9.4×10^{-16}
Area 3, Complex	07/15/91	07/22/91	1.7×10^{-14}	8.8×10^{-16}
Area 3, Complex	07/22/91	07/29/91	2.4×10^{-14}	9.9×10^{-16}
Area 3, Complex	07/29/91	08/05/91	1.9×10^{-14}	9.3×10^{-16}
Area 3, Complex	08/05/91	08/12/91	2.0×10^{-14}	9.4×10^{-16}
Area 3, Complex	08/12/91	08/19/91	1.4×10^{-14}	8.6×10^{-16}
Area 3, Complex	08/19/91	08/26/91	2.1×10^{-14}	9.5×10^{-16}
Area 3, Complex	08/26/91	09/03/91	2.3×10^{-14}	9.2×10^{-16}
Area 3, Complex	09/03/91	09/09/91	2.2×10^{-14}	1.1×10^{-15}
Area 3, Complex	09/09/91	09/16/91	2.3×10^{-14}	1.0×10^{-15}
Area 3, Complex	09/16/91	09/23/91	2.6×10^{-14}	1.0×10^{-15}
Area 3, Complex	09/23/91	09/30/91	2.1×10^{-14}	1.0×10^{-15}
Area 3, Complex	09/30/91	10/07/91	3.2×10^{-14}	1.1×10^{-15}
Area 3, Complex	10/07/91	10/14/91	3.7×10^{-14}	1.2×10^{-15}
Area 3, Complex	10/14/91	10/21/91	1.9×10^{-14}	9.4×10^{-16}
Area 3, Complex	10/21/91	10/28/91	2.5×10^{-14}	1.0×10^{-15}
Area 3, Complex	10/28/91	11/04/91	2.6×10^{-14}	1.0×10^{-15}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 3, Complex	11/04/91	11/12/91	1.8×10^{-14}	8.5×10^{-16}
Area 3, Complex	11/12/91	11/18/91	1.9×10^{-14}	1.0×10^{-15}
Area 3, Complex	11/18/91	11/25/91	1.1×10^{-14}	8.1×10^{-16}
Area 3, Complex	11/25/91	12/02/91	1.6×10^{-14}	9.1×10^{-16}
Area 3, Complex	12/02/91	12/09/91	2.4×10^{-14}	1.0×10^{-15}
Area 3, Complex	12/09/91	12/16/91	2.8×10^{-14}	1.0×10^{-15}
Area 3, Complex	12/16/91	12/23/91	2.8×10^{-14}	1.0×10^{-15}
Area 3, Complex	12/23/91	12/30/91	3.1×10^{-14}	1.1×10^{-15}
Area 3, U3ah/at East	12/31/90	01/07/91	1.8×10^{-14}	9.1×10^{-16}
Area 3, U3ah/at East	01/07/91	01/14/91	2.8×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at East	01/14/91	01/22/91	1.3×10^{-14}	7.4×10^{-16}
Area 3, U3ah/at East	01/22/91	01/28/91	2.7×10^{-14}	1.1×10^{-15}
Area 3, U3ah/at East	01/28/91	02/04/91	2.3×10^{-14}	9.8×10^{-16}
Area 3, U3ah/at East	02/04/91	02/11/91	3.2×10^{-14}	1.1×10^{-15}
Area 3, U3ah/at East	02/19/91	02/25/91	2.2×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at East	02/25/91	03/04/91	1.4×10^{-14}	9.0×10^{-16}
Area 3, U3ah/at East	03/04/91	03/11/91	1.4×10^{-14}	8.3×10^{-16}
Area 3, U3ah/at East	03/11/91	03/18/91	9.8×10^{-15}	7.3×10^{-16}
Area 3, U3ah/at East	03/18/91	03/25/91	8.5×10^{-15}	7.6×10^{-16}
Area 3, U3ah/at East	03/25/91	04/01/91	1.4×10^{-14}	8.6×10^{-16}
Area 3, U3ah/at East	04/01/91	04/08/91	1.8×10^{-14}	9.1×10^{-16}
Area 3, U3ah/at East	04/22/91	04/29/91	1.2×10^{-14}	8.0×10^{-16}
Area 3, U3ah/at East	04/29/91	05/06/91	1.9×10^{-14}	9.4×10^{-16}
Area 3, U3ah/at East	05/06/91	05/14/91	1.4×10^{-14}	7.4×10^{-16}
Area 3, U3ah/at East	05/14/91	05/20/91	1.1×10^{-14}	8.2×10^{-16}
Area 3, U3ah/at East	05/20/91	05/28/91	1.7×10^{-14}	7.7×10^{-16}
Area 3, U3ah/at East	05/28/91	06/03/91	1.5×10^{-14}	1.2×10^{-15}
Area 3, U3ah/at East	06/03/91	06/10/91	2.1×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at East	06/10/91	06/17/91	2.2×10^{-14}	9.2×10^{-16}
Area 3, U3ah/at East	06/17/91	06/24/91	1.6×10^{-14}	8.3×10^{-16}
Area 3, U3ah/at East	06/24/91	07/01/91	1.3×10^{-14}	7.7×10^{-16}
Area 3, U3ah/at East	07/01/91	07/08/91	1.8×10^{-14}	8.4×10^{-16}
Area 3, U3ah/at East	07/08/91	07/15/91	1.9×10^{-14}	8.7×10^{-16}
Area 3, U3ah/at East	07/15/91	07/22/91	1.7×10^{-14}	8.4×10^{-16}
Area 3, U3ah/at East	07/22/91	07/29/91	1.9×10^{-14}	8.7×10^{-16}
Area 3, U3ah/at East	07/29/91	08/05/91	1.9×10^{-14}	8.7×10^{-16}
Area 3, U3ah/at East	08/05/91	08/12/91	1.7×10^{-14}	8.3×10^{-16}
Area 3, U3ah/at East	08/12/91	08/19/91	6.9×10^{-15}	6.7×10^{-16}
Area 3, U3ah/at East	08/19/91	08/26/91	1.9×10^{-14}	8.8×10^{-16}
Area 3, U3ah/at East	08/26/91	09/03/91	2.1×10^{-14}	8.4×10^{-16}
Area 3, U3ah/at East	09/03/91	09/09/91	2.0×10^{-14}	9.9×10^{-16}
Area 3, U3ah/at East	09/09/91	09/16/91	2.1×10^{-14}	9.4×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 3, U3ah/at East	09/16/91	09/23/91	2.3×10^{-14}	9.5×10^{-16}
Area 3, U3ah/at East	09/23/91	09/30/91	1.6×10^{-14}	8.8×10^{-16}
Area 3, U3ah/at East	09/30/91	10/07/91	3.1×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at East	10/07/91	10/14/91	3.1×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at East	10/14/91	10/21/91	1.6×10^{-14}	8.6×10^{-16}
Area 3, U3ah/at East	10/21/91	10/28/91	1.9×10^{-14}	8.7×10^{-16}
Area 3, U3ah/at East	10/28/91	11/04/91	2.1×10^{-14}	9.4×10^{-16}
Area 3, U3ah/at East	11/04/91	11/12/91	1.4×10^{-14}	7.2×10^{-16}
Area 3, U3ah/at East	11/12/91	11/18/91	1.7×10^{-14}	9.6×10^{-16}
Area 3, U3ah/at East	11/18/91	11/25/91	1.1×10^{-14}	7.6×10^{-16}
Area 3, U3ah/at East	11/25/91	12/02/91	1.1×10^{-14}	7.8×10^{-16}
Area 3, U3ah/at East	12/02/91	12/09/91	2.4×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at East	12/09/91	12/16/91	2.4×10^{-14}	9.8×10^{-16}
Area 3, U3ah/at East	12/16/91	12/23/91	2.2×10^{-14}	9.6×10^{-16}
Area 3, U3ah/at East	12/23/91	12/30/91	2.7×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at North	12/31/90	01/07/91	1.6×10^{-14}	9.0×10^{-16}
Area 3, U3ah/at North	01/07/91	01/14/91	2.0×10^{-14}	9.6×10^{-16}
Area 3, U3ah/at North	01/14/91	01/22/91	1.3×10^{-14}	7.5×10^{-16}
Area 3, U3ah/at North	01/22/91	01/28/91	2.8×10^{-14}	1.1×10^{-15}
Area 3, U3ah/at North	01/28/91	02/04/91	2.4×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at North	02/04/91	02/11/91	3.5×10^{-14}	1.1×10^{-15}
Area 3, U3ah/at North	02/19/91	02/25/91	1.9×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at North	02/25/91	03/04/91	1.3×10^{-14}	8.6×10^{-16}
Area 3, U3ah/at North	03/04/91	03/11/91	1.4×10^{-14}	8.3×10^{-16}
Area 3, U3ah/at North	03/11/91	03/18/91	9.0×10^{-15}	7.2×10^{-16}
Area 3, U3ah/at North	03/18/91	03/25/91	1.1×10^{-14}	7.8×10^{-16}
Area 3, U3ah/at North	03/25/91	04/01/91	6.0×10^{-15}	1.1×10^{-15}
Area 3, U3ah/at North	04/01/91	04/08/91	1.8×10^{-14}	9.9×10^{-16}
Area 3, U3ah/at North	04/08/91	04/15/91	1.3×10^{-14}	8.2×10^{-16}
Area 3, U3ah/at North	04/22/91	04/29/91	1.2×10^{-14}	8.1×10^{-16}
Area 3, U3ah/at North	04/29/91	05/06/91	1.2×10^{-14}	8.1×10^{-16}
Area 3, U3ah/at North	05/06/91	05/14/91	1.5×10^{-14}	7.8×10^{-16}
Area 3, U3ah/at North	05/14/91	05/20/91	1.1×10^{-14}	8.9×10^{-16}
Area 3, U3ah/at North	05/20/91	05/28/91	1.7×10^{-14}	8.1×10^{-16}
Area 3, U3ah/at North	05/28/91	06/03/91	1.2×10^{-14}	1.2×10^{-15}
Area 3, U3ah/at North	06/03/91	06/10/91	1.9×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at North	06/10/91	06/17/91	2.0×10^{-14}	9.4×10^{-16}
Area 3, U3ah/at North	06/17/91	06/24/91	1.6×10^{-14}	8.6×10^{-16}
Area 3, U3ah/at North	06/24/91	07/01/91	1.3×10^{-14}	8.0×10^{-16}
Area 3, U3ah/at North	07/01/91	07/08/91	1.8×10^{-14}	8.9×10^{-16}
Area 3, U3ah/at North	07/08/91	07/15/91	2.3×10^{-14}	9.8×10^{-16}
Area 3, U3ah/at North	07/15/91	07/22/91	1.8×10^{-14}	9.2×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 3, U3ah/at North	07/22/91	07/29/91	1.9×10^{-14}	9.2×10^{-16}
Area 3, U3ah/at North	07/29/91	08/05/91	1.9×10^{-14}	9.1×10^{-16}
Area 3, U3ah/at North	08/05/91	08/12/91	1.9×10^{-14}	9.0×10^{-16}
Area 3, U3ah/at North	08/12/91	08/19/91	1.7×10^{-14}	8.9×10^{-16}
Area 3, U3ah/at North	08/19/91	08/26/91	2.0×10^{-14}	8.4×10^{-16}
Area 3, U3ah/at North	08/26/91	09/03/91	2.5×10^{-14}	9.8×10^{-16}
Area 3, U3ah/at North	09/03/91	09/09/91	1.9×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at North	09/09/91	09/16/91	2.1×10^{-14}	9.9×10^{-16}
Area 3, U3ah/at North	09/16/91	09/23/91	2.4×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at North	09/23/91	09/30/91	1.9×10^{-14}	9.6×10^{-16}
Area 3, U3ah/at North	09/30/91	10/07/91	2.8×10^{-14}	1.1×10^{-15}
Area 3, U3ah/at North	10/07/91	10/14/91	3.4×10^{-14}	1.1×10^{-15}
Area 3, U3ah/at North	10/14/91	10/21/91	1.8×10^{-14}	9.2×10^{-16}
Area 3, U3ah/at North	10/21/91	10/28/91	2.2×10^{-14}	9.2×10^{-16}
Area 3, U3ah/at North	10/28/91	11/04/91	2.2×10^{-14}	9.7×10^{-16}
Area 3, U3ah/at North	11/04/91	11/12/91	1.6×10^{-14}	7.7×10^{-16}
Area 3, U3ah/at North	11/12/91	11/18/91	1.8×10^{-14}	9.7×10^{-16}
Area 3, U3ah/at North	11/18/91	11/25/91	8.3×10^{-15}	7.4×10^{-16}
Area 3, U3ah/at North	11/25/91	12/02/91	1.8×10^{-14}	8.7×10^{-16}
Area 3, U3ah/at North	12/02/91	12/09/91	2.3×10^{-14}	9.6×10^{-16}
Area 3, U3ah/at North	12/09/91	12/16/91	2.3×10^{-14}	9.4×10^{-16}
Area 3, U3ah/at North	12/16/91	12/23/91	2.3×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at North	12/23/91	12/30/91	2.6×10^{-14}	9.9×10^{-16}
Area 3, U3ah/at South	12/31/90	01/07/91	1.8×10^{-14}	8.9×10^{-16}
Area 3, U3ah/at South	01/07/91	01/14/91	2.7×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at South	01/14/91	01/22/91	1.2×10^{-14}	7.1×10^{-16}
Area 3, U3ah/at South	01/22/91	01/28/91	2.6×10^{-14}	1.1×10^{-15}
Area 3, U3ah/at South	01/28/91	02/04/91	2.3×10^{-14}	9.6×10^{-16}
Area 3, U3ah/at South	02/04/91	02/11/91	3.0×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at South	02/19/91	02/25/91	1.9×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at South	02/25/91	03/04/91	1.3×10^{-14}	8.0×10^{-16}
Area 3, U3ah/at South	03/04/91	03/11/91	1.4×10^{-14}	8.0×10^{-16}
Area 3, U3ah/at South	03/11/91	03/18/91	9.0×10^{-15}	7.0×10^{-16}
Area 3, U3ah/at South	03/18/91	03/25/91	9.6×10^{-15}	7.3×10^{-16}
Area 3, U3ah/at South	03/25/91	04/01/91	1.1×10^{-14}	7.6×10^{-16}
Area 3, U3ah/at South	04/01/91	04/08/91	1.7×10^{-14}	8.6×10^{-16}
Area 3, U3ah/at South	04/08/91	04/15/91	1.4×10^{-14}	8.0×10^{-16}
Area 3, U3ah/at South	04/22/91	04/29/91	1.4×10^{-14}	8.0×10^{-16}
Area 3, U3ah/at South	04/29/91	05/06/91	2.3×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at South	05/06/91	05/14/91	1.4×10^{-14}	7.3×10^{-16}
Area 3, U3ah/at South	05/14/91	05/20/91	1.2×10^{-14}	8.7×10^{-16}
Area 3, U3ah/at South	05/20/91	05/28/91	1.6×10^{-14}	7.7×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 3, U3ah/at South	05/28/91	06/03/91	2.0×10^{-14}	9.6×10^{-16}
Area 3, U3ah/at South	06/03/91	06/10/91	2.0×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at South	06/10/91	06/17/91	2.1×10^{-14}	9.3×10^{-16}
Area 3, U3ah/at South	06/17/91	06/24/91	1.5×10^{-14}	8.3×10^{-16}
Area 3, U3ah/at South	06/24/91	07/01/91	1.1×10^{-14}	7.5×10^{-16}
Area 3, U3ah/at South	07/01/91	07/08/91	1.7×10^{-14}	8.5×10^{-16}
Area 3, U3ah/at South	07/08/91	07/15/91	1.9×10^{-14}	8.9×10^{-16}
Area 3, U3ah/at South	07/15/91	07/22/91	1.7×10^{-14}	8.5×10^{-16}
Area 3, U3ah/at South	07/22/91	07/29/91	1.9×10^{-14}	8.7×10^{-16}
Area 3, U3ah/at South	07/29/91	08/05/91	1.8×10^{-14}	8.8×10^{-16}
Area 3, U3ah/at South	08/05/91	08/12/91	1.7×10^{-14}	8.4×10^{-16}
Area 3, U3ah/at South	08/12/91	08/19/91	1.5×10^{-14}	8.3×10^{-16}
Area 3, U3ah/at South	08/19/91	08/26/91	2.1×10^{-14}	9.1×10^{-16}
Area 3, U3ah/at South	08/26/91	09/03/91	2.1×10^{-14}	8.3×10^{-16}
Area 3, U3ah/at South	09/03/91	09/09/91	1.9×10^{-14}	9.7×10^{-16}
Area 3, U3ah/at South	09/09/91	09/16/91	2.2×10^{-14}	9.5×10^{-16}
Area 3, U3ah/at South	09/16/91	09/23/91	2.6×10^{-14}	9.8×10^{-16}
Area 3, U3ah/at South	09/23/91	09/30/91	1.5×10^{-14}	8.4×10^{-16}
Area 3, U3ah/at South	09/30/91	10/07/91	2.8×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at South	10/07/91	10/14/91	3.3×10^{-14}	1.1×10^{-15}
Area 3, U3ah/at South	10/14/91	10/21/91	1.8×10^{-14}	9.0×10^{-16}
Area 3, U3ah/at South	10/21/91	10/28/91	2.0×10^{-14}	9.1×10^{-16}
Area 3, U3ah/at South	10/28/91	11/04/91	2.0×10^{-14}	9.2×10^{-16}
Area 3, U3ah/at South	11/04/91	11/12/91	1.7×10^{-14}	7.6×10^{-16}
Area 3, U3ah/at South	11/12/91	11/18/91	1.8×10^{-14}	9.4×10^{-16}
Area 3, U3ah/at South	11/18/91	11/25/91	1.1×10^{-14}	7.6×10^{-16}
Area 3, U3ah/at South	11/25/91	12/02/91	1.6×10^{-14}	8.4×10^{-16}
Area 3, U3ah/at South	12/02/91	12/09/91	2.0×10^{-14}	8.8×10^{-16}
Area 3, U3ah/at South	12/09/91	12/16/91	2.3×10^{-14}	9.2×10^{-16}
Area 3, U3ah/at South	12/16/91	12/23/91	3.1×10^{-14}	1.2×10^{-15}
Area 3, U3ah/at South	12/23/91	12/30/91	1.1×10^{-14}	6.6×10^{-16}
Area 3, U3ah/at West	12/31/90	01/07/91	1.2×10^{-14}	8.2×10^{-16}
Area 3, U3ah/at West	01/07/91	01/14/91	3.1×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at West	01/14/91	01/22/91	1.3×10^{-14}	7.5×10^{-16}
Area 3, U3ah/at West	01/22/91	01/28/91	2.8×10^{-14}	1.1×10^{-15}
Area 3, U3ah/at West	01/28/91	02/04/91	2.4×10^{-14}	9.9×10^{-16}
Area 3, U3ah/at West	02/04/91	02/11/91	3.2×10^{-14}	1.1×10^{-15}
Area 3, U3ah/at West	02/19/91	02/25/91	2.1×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at West	02/24/91	03/04/91	1.1×10^{-14}	7.8×10^{-16}
Area 3, U3ah/at West	03/04/91	03/11/91	1.4×10^{-14}	8.3×10^{-16}
Area 3, U3ah/at West	03/11/91	03/18/91	8.7×10^{-15}	7.3×10^{-16}
Area 3, U3ah/at West	03/18/91	03/25/91	9.5×10^{-15}	7.6×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 3, U3ah/at West	03/25/91	04/01/91	1.2×10^{-14}	8.2×10^{-16}
Area 3, U3ah/at West	04/01/91	04/08/91	2.0×10^{-14}	9.6×10^{-16}
Area 3, U3ah/at West	04/08/91	04/15/91	1.7×10^{-14}	2.1×10^{-15}
Area 3, U3ah/at West	04/22/91	04/29/91	1.3×10^{-14}	8.2×10^{-16}
Area 3, U3ah/at West	04/29/91	05/06/91	1.8×10^{-14}	9.5×10^{-16}
Area 3, U3ah/at West	05/06/91	05/14/91	1.5×10^{-14}	7.7×10^{-16}
Area 3, U3ah/at West	05/14/91	05/20/91	1.1×10^{-14}	8.7×10^{-16}
Area 3, U3ah/at West	05/20/91	05/28/91	1.7×10^{-14}	8.0×10^{-16}
Area 3, U3ah/at West	05/28/91	06/03/91	1.7×10^{-14}	9.9×10^{-16}
Area 3, U3ah/at West	06/03/91	06/10/91	2.2×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at West	06/10/91	06/17/91	2.3×10^{-14}	9.7×10^{-16}
Area 3, U3ah/at West	06/17/91	06/24/91	1.5×10^{-14}	8.2×10^{-16}
Area 3, U3ah/at West	06/24/91	07/01/91	1.3×10^{-14}	7.9×10^{-16}
Area 3, U3ah/at West	07/01/91	07/08/91	1.8×10^{-14}	8.8×10^{-16}
Area 3, U3ah/at West	07/08/91	07/15/91	2.0×10^{-14}	9.1×10^{-16}
Area 3, U3ah/at West	07/15/91	07/22/91	1.8×10^{-14}	8.8×10^{-16}
Area 3, U3ah/at West	07/22/91	07/29/91	2.2×10^{-14}	9.4×10^{-16}
Area 3, U3ah/at West	07/29/91	08/05/91	1.7×10^{-14}	8.7×10^{-16}
Area 3, U3ah/at West	08/05/91	08/12/91	1.7×10^{-14}	9.7×10^{-16}
Area 3, U3ah/at West	08/12/91	08/19/91	1.4×10^{-14}	8.4×10^{-16}
Area 3, U3ah/at West	08/19/91	08/26/91	2.0×10^{-14}	9.3×10^{-16}
Area 3, U3ah/at West	08/26/91	09/03/91	2.1×10^{-14}	8.7×10^{-16}
Area 3, U3ah/at West	09/03/91	09/09/91	2.2×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at West	09/09/91	09/16/91	2.2×10^{-14}	9.8×10^{-16}
Area 3, U3ah/at West	09/16/91	09/23/91	2.5×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at West	09/23/91	09/30/91	1.6×10^{-14}	9.1×10^{-16}
Area 3, U3ah/at West	09/30/91	10/07/91	3.0×10^{-14}	1.1×10^{-15}
Area 3, U3ah/at West	10/07/91	10/14/91	3.4×10^{-14}	1.1×10^{-15}
Area 3, U3ah/at West	10/14/91	10/21/91	1.6×10^{-14}	9.1×10^{-16}
Area 3, U3ah/at West	10/21/91	10/28/91	2.2×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at West	10/28/91	11/04/91	1.9×10^{-14}	9.1×10^{-16}
Area 3, U3ah/at West	11/04/91	11/12/91	1.4×10^{-14}	7.6×10^{-16}
Area 3, U3ah/at West	11/12/91	11/18/91	1.8×10^{-14}	9.8×10^{-16}
Area 3, U3ah/at West	11/18/91	11/25/91	6.2×10^{-15}	1.5×10^{-15}
Area 3, U3ah/at West	11/25/91	12/02/91	1.4×10^{-14}	8.6×10^{-16}
Area 3, U3ah/at West	12/02/91	12/09/91	2.7×10^{-14}	1.1×10^{-15}
Area 3, U3ah/at West	12/09/91	12/16/91	2.7×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at West	12/16/91	12/23/91	2.5×10^{-14}	1.0×10^{-15}
Area 3, U3ah/at West	12/23/91	12/30/91	2.9×10^{-14}	1.0×10^{-15}
Area 5, DOD Yard	01/02/91	01/07/91	1.7×10^{-14}	1.1×10^{-15}
Area 5, DOD Yard	01/07/91	01/14/91	3.4×10^{-14}	1.1×10^{-15}
Area 5, DOD Yard	01/14/91	01/22/91	1.6×10^{-14}	8.6×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, DOD Yard	01/22/91	01/28/91	2.7×10^{-14}	1.0×10^{-15}
Area 5, DOD Yard	01/28/91	02/04/91	2.7×10^{-14}	1.0×10^{-15}
Area 5, DOD Yard	02/04/91	02/11/91	3.8×10^{-14}	1.2×10^{-15}
Area 5, DOD Yard	02/11/91	02/19/91	2.1×10^{-14}	8.6×10^{-16}
Area 5, DOD Yard	02/19/91	02/25/91	2.3×10^{-14}	1.1×10^{-15}
Area 5, DOD Yard	02/25/91	03/04/91	1.2×10^{-14}	8.0×10^{-16}
Area 5, DOD Yard	03/04/91	03/11/91	1.2×10^{-14}	8.0×10^{-16}
Area 5, DOD Yard	03/11/91	03/18/91	8.8×10^{-15}	7.4×10^{-16}
Area 5, DOD Yard	03/18/91	03/25/91	9.8×10^{-15}	7.8×10^{-16}
Area 5, DOD Yard	03/25/91	04/01/91	1.2×10^{-14}	8.2×10^{-16}
Area 5, DOD Yard	04/01/91	04/08/91	2.0×10^{-14}	9.4×10^{-16}
Area 5, DOD Yard	04/08/91	04/15/91	1.5×10^{-14}	8.6×10^{-16}
Area 5, DOD Yard	04/15/91	04/22/91	1.7×10^{-14}	8.9×10^{-16}
Area 5, DOD Yard	04/22/91	04/29/91	1.4×10^{-14}	8.6×10^{-16}
Area 5, DOD Yard	04/29/91	05/06/91	1.8×10^{-14}	9.0×10^{-16}
Area 5, DOD Yard	05/06/91	05/13/91	1.5×10^{-14}	8.6×10^{-16}
Area 5, DOD Yard	05/13/91	05/20/91	1.4×10^{-14}	8.4×10^{-16}
Area 5, DOD Yard	05/20/91	05/28/91	2.0×10^{-14}	8.6×10^{-16}
Area 5, DOD Yard	06/03/91	06/10/91	2.0×10^{-14}	9.5×10^{-16}
Area 5, DOD Yard	06/10/91	06/17/91	1.9×10^{-14}	9.2×10^{-16}
Area 5, DOD Yard	06/17/91	06/25/91	9.1×10^{-15}	6.9×10^{-16}
Area 5, DOD Yard	06/25/91	07/01/91	5.4×10^{-15}	7.7×10^{-16}
Area 5, DOD Yard	07/01/91	07/08/91	1.2×10^{-14}	8.1×10^{-16}
Area 5, DOD Yard	07/08/91	07/15/91	1.2×10^{-14}	8.1×10^{-16}
Area 5, DOD Yard	07/15/91	07/22/91	1.4×10^{-14}	8.4×10^{-16}
Area 5, DOD Yard	07/22/91	07/29/91	1.6×10^{-14}	8.8×10^{-16}
Area 5, DOD Yard	07/29/91	08/05/91	1.2×10^{-14}	8.1×10^{-16}
Area 5, DOD Yard	08/05/91	08/12/91	1.2×10^{-14}	8.1×10^{-16}
Area 5, DOD Yard	08/12/91	08/19/91	1.2×10^{-14}	8.2×10^{-16}
Area 5, DOD Yard	08/19/91	08/26/91	1.3×10^{-14}	8.2×10^{-16}
Area 5, DOD Yard	08/26/91	09/03/91	1.3×10^{-14}	7.7×10^{-16}
Area 5, DOD Yard	09/03/91	09/09/91	7.2×10^{-15}	8.3×10^{-16}
Area 5, DOD Yard	09/09/91	09/16/91	1.6×10^{-14}	9.3×10^{-16}
Area 5, DOD Yard	09/16/91	09/23/91	1.4×10^{-14}	9.0×10^{-16}
Area 5, DOD Yard	09/23/91	09/30/91	1.2×10^{-14}	8.5×10^{-16}
Area 5, DOD Yard	09/30/91	10/07/91	2.3×10^{-14}	1.0×10^{-15}
Area 5, DOD Yard	10/07/91	10/14/91	2.2×10^{-14}	1.0×10^{-15}
Area 5, DOD Yard	10/14/91	10/21/91	1.6×10^{-14}	4.5×10^{-15}
Area 5, DOD Yard	10/21/91	10/28/91	6.4×10^{-15}	7.8×10^{-16}
Area 5, DOD Yard	11/04/91	11/12/91	1.9×10^{-14}	9.0×10^{-16}
Area 5, DOD Yard	11/12/91	11/18/91	2.2×10^{-14}	1.1×10^{-15}
Area 5, DOD Yard	11/18/91	11/25/91	1.1×10^{-14}	8.4×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, DOD Yard	11/25/91	12/03/91	1.9×10^{-14}	8.9×10^{-16}
Area 5, DOD Yard	12/03/91	12/09/91	2.4×10^{-14}	1.2×10^{-15}
Area 5, DOD Yard	12/09/91	12/16/91	3.0×10^{-14}	1.3×10^{-15}
Area 5, DOD Yard	12/16/91	12/23/91	2.9×10^{-14}	1.1×10^{-15}
Area 5, DOD Yard	12/23/91	12/30/91	1.0×10^{-14}	8.5×10^{-16}
Area 5, Gate 200	01/02/91	01/07/91	2.1×10^{-14}	9.5×10^{-16}
Area 5, Gate 200	01/07/91	01/14/91	3.0×10^{-14}	1.0×10^{-15}
Area 5, Gate 200	01/14/91	01/22/91	3.6×10^{-14}	1.4×10^{-15}
Area 5, Gate 200	01/22/91	01/28/91	4.0×10^{-14}	1.7×10^{-15}
Area 5, Gate 200	02/11/91	02/19/91	2.9×10^{-14}	9.6×10^{-16}
Area 5, Gate 200	02/19/91	02/25/91	7.9×10^{-14}	1.7×10^{-15}
Area 5, Gate 200	02/25/91	03/04/91	3.6×10^{-14}	1.1×10^{-15}
Area 5, Gate 200	03/04/91	03/11/91	1.2×10^{-14}	7.7×10^{-16}
Area 5, Gate 200	03/11/91	03/18/91	4.9×10^{-14}	1.3×10^{-15}
Area 5, Gate 200	03/18/91	03/25/91	1.5×10^{-14}	8.3×10^{-16}
Area 5, Gate 200	03/25/91	04/01/91	1.0×10^{-14}	7.4×10^{-16}
Area 5, Gate 200	04/01/91	04/08/91	2.0×10^{-14}	9.1×10^{-16}
Area 5, Gate 200	04/08/91	04/15/91	2.0×10^{-14}	8.9×10^{-16}
Area 5, Gate 200	04/15/91	04/22/91	3.5×10^{-14}	1.1×10^{-15}
Area 5, Gate 200	04/22/91	04/29/91	9.1×10^{-14}	1.6×10^{-15}
Area 5, Gate 200	04/29/91	05/06/91	2.3×10^{-14}	9.5×10^{-16}
Area 5, Gate 200	05/06/91	05/13/91	1.3×10^{-14}	8.0×10^{-16}
Area 5, Gate 200	05/13/91	05/20/91	1.7×10^{-14}	8.5×10^{-16}
Area 5, Gate 200	05/20/91	05/28/91	5.4×10^{-14}	1.2×10^{-15}
Area 5, Gate 200	05/28/91	06/03/91	1.5×10^{-14}	9.3×10^{-16}
Area 5, Gate 200	06/03/91	06/10/91	1.9×10^{-14}	8.9×10^{-16}
Area 5, Gate 200	06/10/91	06/17/91	4.8×10^{-14}	1.2×10^{-15}
Area 5, Gate 200	06/17/91	06/25/91	2.4×10^{-14}	8.9×10^{-16}
Area 5, Gate 200	06/25/91	07/01/91	1.3×10^{-14}	8.9×10^{-16}
Area 5, Gate 200	07/01/91	07/08/91	1.8×10^{-14}	8.7×10^{-16}
Area 5, Gate 200	07/08/91	07/15/91	1.9×10^{-14}	8.9×10^{-16}
Area 5, Gate 200	07/15/91	07/22/91	2.4×10^{-14}	9.7×10^{-16}
Area 5, Gate 200	07/22/91	07/29/91	2.8×10^{-14}	1.0×10^{-15}
Area 5, Gate 200	07/29/91	08/05/91	2.7×10^{-14}	1.0×10^{-15}
Area 5, Gate 200	08/05/91	08/12/91	1.8×10^{-14}	8.7×10^{-16}
Area 5, Gate 200	08/12/91	08/19/91	2.9×10^{-14}	1.0×10^{-15}
Area 5, Gate 200	08/19/91	08/26/91	1.8×10^{-14}	8.9×10^{-16}
Area 5, Gate 200	08/26/91	09/03/91	2.7×10^{-14}	9.3×10^{-16}
Area 5, Gate 200	09/03/91	09/09/91	2.2×10^{-14}	1.0×10^{-15}
Area 5, Gate 200	09/09/91	09/16/91	2.1×10^{-14}	9.6×10^{-16}
Area 5, Gate 200	09/16/91	09/23/91	2.8×10^{-14}	1.0×10^{-15}
Area 5, Gate 200	09/23/91	09/30/91	1.9×10^{-14}	9.0×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, Gate 200	09/30/91	10/07/91	2.9×10^{-14}	1.1×10^{-15}
Area 5, Gate 200	10/07/91	10/14/91	6.7×10^{-14}	1.5×10^{-15}
Area 5, Gate 200	10/14/91	10/21/91	6.5×10^{-14}	1.5×10^{-15}
Area 5, Gate 200	10/21/91	10/28/91	1.6×10^{-14}	8.7×10^{-16}
Area 5, Gate 200	10/28/91	11/04/91	2.1×10^{-14}	9.2×10^{-16}
Area 5, Gate 200	11/04/91	11/12/91	1.4×10^{-14}	7.7×10^{-16}
Area 5, Gate 200	11/12/91	11/18/91	2.4×10^{-14}	1.1×10^{-15}
Area 5, Gate 200	11/18/91	11/25/91	8.4×10^{-15}	7.2×10^{-16}
Area 5, Gate 200	11/25/91	12/03/91	2.0×10^{-14}	8.3×10^{-16}
Area 5, Gate 200	12/03/91	12/09/91	2.0×10^{-14}	1.0×10^{-15}
Area 5, Gate 200	12/09/91	12/16/91	2.3×10^{-14}	1.0×10^{-15}
Area 5, Gate 200	12/16/91	12/23/91	2.5×10^{-14}	9.9×10^{-16}
Area 5, Gate 200	12/23/91	12/30/91	2.4×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 1	01/02/91	01/07/91	2.5×10^{-14}	1.2×10^{-15}
Area 5, RWMS No. 1	01/07/91	01/14/91	3.4×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 1	01/14/91	01/22/91	1.5×10^{-14}	9.9×10^{-16}
Area 5, RWMS No. 1	01/22/91	01/28/91	3.1×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 1	01/28/91	02/04/91	2.8×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 1	02/04/91	02/11/91	4.0×10^{-14}	1.2×10^{-15}
Area 5, RWMS No. 1	02/11/91	02/19/91	2.1×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 1	02/19/91	02/25/91	2.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 1	02/25/91	03/04/91	1.7×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 1	03/04/91	03/11/91	1.3×10^{-14}	8.3×10^{-16}
Area 5, RWMS No. 1	03/11/91	03/18/91	9.7×10^{-15}	8.0×10^{-16}
Area 5, RWMS No. 1	03/18/91	03/25/91	1.2×10^{-14}	8.4×10^{-16}
Area 5, RWMS No. 1	03/25/91	04/01/91	1.3×10^{-14}	8.6×10^{-16}
Area 5, RWMS No. 1	04/01/91	04/08/91	1.9×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 1	04/08/91	04/15/91	1.4×10^{-14}	8.4×10^{-16}
Area 5, RWMS No. 1	04/15/91	04/22/91	1.7×10^{-14}	8.6×10^{-16}
Area 5, RWMS No. 1	04/22/91	04/29/91	1.5×10^{-14}	8.8×10^{-16}
Area 5, RWMS No. 1	04/29/91	05/06/91	1.6×10^{-14}	8.5×10^{-16}
Area 5, RWMS No. 1	05/06/91	05/13/91	1.5×10^{-14}	8.6×10^{-16}
Area 5, RWMS No. 1	05/13/91	05/20/91	1.1×10^{-14}	7.7×10^{-16}
Area 5, RWMS No. 1	05/20/91	05/28/91	1.9×10^{-14}	8.7×10^{-16}
Area 5, RWMS No. 1	05/28/91	06/03/91	1.5×10^{-14}	9.8×10^{-16}
Area 5, RWMS No. 1	06/03/91	06/10/91	2.3×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 1	06/10/91	06/17/91	2.3×10^{-14}	9.8×10^{-16}
Area 5, RWMS No. 1	06/17/91	06/25/91	1.4×10^{-14}	7.9×10^{-16}
Area 5, RWMS No. 1	06/25/91	07/01/91	1.4×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 1	07/01/91	07/08/91	1.7×10^{-14}	9.2×10^{-16}
Area 5, RWMS No. 1	07/08/91	07/15/91	2.0×10^{-14}	9.8×10^{-16}
Area 5, RWMS No. 1	07/15/91	07/22/91	1.9×10^{-14}	9.6×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS No. 1	07/22/91	07/29/91	2.2×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 1	07/29/91	08/05/91	2.1×10^{-14}	9.9×10^{-16}
Area 5, RWMS No. 1	08/05/91	08/12/91	1.7×10^{-14}	9.5×10^{-16}
Area 5, RWMS No. 1	08/12/91	08/19/91	1.5×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 1	08/19/91	08/26/91	2.1×10^{-14}	9.4×10^{-16}
Area 5, RWMS No. 1	08/26/91	09/03/91	2.2×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 1	09/03/91	09/09/91	2.6×10^{-14}	1.3×10^{-15}
Area 5, RWMS No. 1	09/09/91	09/16/91	2.3×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 1	09/16/91	09/23/91	2.5×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 1	09/23/91	09/30/91	1.8×10^{-14}	8.9×10^{-16}
Area 5, RWMS No. 1	09/30/91	10/07/91	3.2×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 1	10/07/91	10/14/91	3.8×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 1	10/14/91	10/21/91	1.9×10^{-14}	8.6×10^{-16}
Area 5, RWMS No. 1	10/21/91	10/28/91	2.0×10^{-14}	9.2×10^{-16}
Area 5, RWMS No. 1	10/28/91	11/04/91	2.4×10^{-14}	9.4×10^{-16}
Area 5, RWMS No. 1	11/04/91	11/12/91	1.5×10^{-14}	7.3×10^{-16}
Area 5, RWMS No. 1	11/12/91	11/18/91	1.9×10^{-14}	9.8×10^{-16}
Area 5, RWMS No. 1	11/18/91	11/25/91	1.0×10^{-14}	8.1×10^{-16}
Area 5, RWMS No. 1	11/25/91	12/03/91	1.9×10^{-14}	8.3×10^{-16}
Area 5, RWMS No. 1	12/03/91	12/09/91	2.3×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 1	12/09/91	12/16/91	3.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 1	12/16/91	12/23/91	2.9×10^{-14}	9.8×10^{-16}
Area 5, RWMS No. 1	12/23/91	12/30/91	3.2×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 2	01/02/91	01/07/91	1.6×10^{-14}	8.6×10^{-16}
Area 5, RWMS No. 2	01/07/91	01/14/91	3.6×10^{-14}	1.2×10^{-15}
Area 5, RWMS No. 2	01/14/91	01/22/91	1.1×10^{-14}	8.1×10^{-16}
Area 5, RWMS No. 2	01/22/91	01/28/91	3.0×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 2	02/11/91	02/19/91	2.2×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 2	02/19/91	02/25/91	1.9×10^{-14}	9.4×10^{-16}
Area 5, RWMS No. 2	02/25/91	03/04/91	1.5×10^{-14}	8.8×10^{-16}
Area 5, RWMS No. 2	03/04/91	03/11/91	1.2×10^{-14}	9.6×10^{-16}
Area 5, RWMS No. 2	03/11/91	03/18/91	1.0×10^{-14}	8.1×10^{-16}
Area 5, RWMS No. 2	03/18/91	03/25/91	9.9×10^{-15}	7.8×10^{-16}
Area 5, RWMS No. 2	03/25/91	04/01/91	1.1×10^{-14}	8.2×10^{-16}
Area 5, RWMS No. 2	04/01/91	04/08/91	2.0×10^{-14}	9.5×10^{-16}
Area 5, RWMS No. 2	04/08/91	04/15/91	1.5×10^{-14}	8.8×10^{-16}
Area 5, RWMS No. 2	04/15/91	04/22/91	2.0×10^{-14}	9.4×10^{-16}
Area 5, RWMS No. 2	04/22/91	04/29/91	1.4×10^{-14}	8.6×10^{-16}
Area 5, RWMS No. 2	04/29/91	05/06/91	1.7×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 2	05/06/91	05/13/91	1.4×10^{-14}	8.7×10^{-16}
Area 5, RWMS No. 2	05/13/91	05/20/91	1.2×10^{-14}	8.2×10^{-16}
Area 5, RWMS No. 2	05/20/91	05/28/91	1.8×10^{-14}	8.3×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concen- tration	Standard Deviation (s)
Area 5, RWMS No. 2	05/28/91	06/03/91	2.0×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 2	06/03/91	06/10/91	2.2×10^{-14}	9.6×10^{-16}
Area 5, RWMS No. 2	06/10/91	06/17/91	2.5×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 2	06/17/91	06/25/91	1.5×10^{-14}	7.8×10^{-16}
Area 5, RWMS No. 2	06/25/91	07/01/91	1.3×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 2	07/01/91	07/08/91	1.8×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 2	07/08/91	07/15/91	2.2×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 2	07/15/91	07/22/91	2.0×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 2	07/22/91	07/29/91	2.3×10^{-14}	9.8×10^{-16}
Area 5, RWMS No. 2	07/29/91	08/05/91	2.0×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 2	08/05/91	08/12/91	1.9×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 2	08/12/91	08/19/91	1.6×10^{-14}	8.8×10^{-16}
Area 5, RWMS No. 2	08/19/91	08/26/91	2.0×10^{-14}	9.5×10^{-16}
Area 5, RWMS No. 2	08/26/91	09/03/91	2.2×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 2	09/03/91	09/09/91	1.8×10^{-14}	9.8×10^{-16}
Area 5, RWMS No. 2	09/09/91	09/16/91	2.5×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 2	09/16/91	09/23/91	2.5×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 2	09/23/91	09/30/91	1.9×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 2	09/30/91	10/07/91	3.1×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 2	10/07/91	10/14/91	4.0×10^{-14}	1.2×10^{-15}
Area 5, RWMS No. 2	10/14/91	10/21/91	2.0×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 2	10/21/91	10/28/91	2.5×10^{-14}	5.0×10^{-16}
Area 5, RWMS No. 2	10/28/91	11/04/91	2.3×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 2	11/04/91	11/12/91	1.9×10^{-14}	4.1×10^{-16}
Area 5, RWMS No. 2	11/12/91	11/18/91	1.9×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 2	11/18/91	11/25/91	1.2×10^{-14}	8.1×10^{-16}
Area 5, RWMS No. 2	11/25/91	12/03/91	1.7×10^{-14}	8.5×10^{-16}
Area 5, RWMS No. 2	12/03/91	12/09/91	2.7×10^{-14}	1.2×10^{-15}
Area 5, RWMS No. 2	12/09/91	12/16/91	3.0×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 2	12/16/91	12/23/91	3.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 2	12/23/91	12/30/91	1.6×10^{-14}	9.2×10^{-16}
Area 5, RWMS No. 3	01/02/91	01/07/91	2.0×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 3	01/07/91	01/14/91	3.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 3	01/14/91	01/22/91	1.3×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 3	01/22/91	01/28/91	3.3×10^{-14}	1.2×10^{-15}
Area 5, RWMS No. 3	01/28/91	02/04/91	2.5×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 3	02/04/91	02/11/91	3.6×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 3	02/11/91	02/19/91	2.0×10^{-14}	8.9×10^{-16}
Area 5, RWMS No. 3	02/19/91	02/25/91	2.2×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 3	02/25/91	03/04/91	1.1×10^{-14}	8.1×10^{-16}
Area 5, RWMS No. 3	03/04/91	03/11/91	1.5×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 3	03/11/91	03/18/91	9.4×10^{-15}	7.9×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS No. 3	03/18/91	03/25/91	8.6×10^{-15}	7.5×10^{-16}
Area 5, RWMS No. 3	03/25/91	04/01/91	1.3×10^{-14}	8.4×10^{-16}
Area 5, RWMS No. 3	04/01/91	04/08/91	1.8×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 3	04/08/91	04/15/91	1.5×10^{-14}	8.9×10^{-16}
Area 5, RWMS No. 3	04/15/91	04/22/91	1.7×10^{-14}	8.8×10^{-16}
Area 5, RWMS No. 3	04/22/91	04/29/91	1.4×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 3	04/29/91	05/06/91	1.8×10^{-14}	9.2×10^{-16}
Area 5, RWMS No. 3	05/06/91	05/13/91	1.5×10^{-14}	8.9×10^{-16}
Area 5, RWMS No. 3	05/13/91	05/20/91	1.3×10^{-14}	8.3×10^{-16}
Area 5, RWMS No. 3	05/20/91	05/28/91	1.8×10^{-14}	8.0×10^{-16}
Area 5, RWMS No. 3	05/28/91	06/03/91	1.7×10^{-14}	9.4×10^{-16}
Area 5, RWMS No. 3	06/03/91	06/10/91	2.0×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 3	06/10/91	06/17/91	2.3×10^{-14}	9.4×10^{-16}
Area 5, RWMS No. 3	06/17/91	06/25/91	1.5×10^{-14}	7.6×10^{-16}
Area 5, RWMS No. 3	06/25/91	07/01/91	1.3×10^{-14}	8.9×10^{-16}
Area 5, RWMS No. 3	07/01/91	07/08/91	1.4×10^{-14}	8.0×10^{-16}
Area 5, RWMS No. 3	07/08/91	07/15/91	2.1×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 3	07/15/91	07/22/91	1.9×10^{-14}	8.8×10^{-16}
Area 5, RWMS No. 3	07/22/91	07/29/91	2.3×10^{-14}	9.5×10^{-16}
Area 5, RWMS No. 3	07/29/91	08/05/91	2.1×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 3	08/05/91	08/12/91	1.9×10^{-14}	8.9×10^{-16}
Area 5, RWMS No. 3	08/12/91	08/19/91	1.5×10^{-14}	8.3×10^{-16}
Area 5, RWMS No. 3	08/19/91	08/26/91	2.3×10^{-14}	9.5×10^{-16}
Area 5, RWMS No. 3	08/26/91	09/03/91	2.4×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 3	09/03/91	09/09/91	2.1×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 3	09/09/91	09/16/91	2.2×10^{-14}	9.9×10^{-16}
Area 5, RWMS No. 3	09/16/91	09/23/91	2.6×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 3	09/23/91	09/30/91	2.0×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 3	09/30/91	10/07/91	5.0×10^{-14}	1.3×10^{-15}
Area 5, RWMS No. 3	10/07/91	10/14/91	3.5×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 3	10/14/91	10/21/91	2.0×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 3	10/21/91	10/28/91	2.3×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 3	10/28/91	11/04/91	2.5×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 3	11/04/91	11/12/91	2.2×10^{-14}	5.0×10^{-16}
Area 5, RWMS No. 3	11/12/91	11/18/91	1.7×10^{-14}	8.9×10^{-16}
Area 5, RWMS No. 3	11/18/91	11/25/91	1.1×10^{-14}	7.9×10^{-16}
Area 5, RWMS No. 3	11/25/91	12/02/91	1.7×10^{-14}	8.6×10^{-16}
Area 5, RWMS No. 3	12/03/91	12/09/91	2.3×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 3	12/09/91	12/16/91	3.0×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 3	12/16/91	12/23/91	3.1×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 3	12/23/91	12/30/91	2.3×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 4	01/02/91	01/07/91	2.1×10^{-14}	9.9×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS No. 4	01/07/91	01/14/91	3.0×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 4	01/14/91	01/22/91	1.4×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 4	01/22/91	01/28/91	3.2×10^{-14}	1.2×10^{-15}
Area 5, RWMS No. 4	01/28/91	02/04/91	3.0×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 4	02/04/91	02/11/91	3.7×10^{-14}	1.2×10^{-15}
Area 5, RWMS No. 4	02/11/91	02/19/91	2.0×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 4	02/19/91	02/25/91	2.2×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 4	02/25/91	03/04/91	1.2×10^{-14}	8.4×10^{-16}
Area 5, RWMS No. 4	03/04/91	03/11/91	1.5×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 4	03/11/91	03/18/91	9.7×10^{-15}	8.2×10^{-16}
Area 5, RWMS No. 4	03/18/91	03/25/91	1.0×10^{-14}	7.5×10^{-16}
Area 5, RWMS No. 4	03/25/91	04/01/91	1.2×10^{-14}	7.9×10^{-16}
Area 5, RWMS No. 4	04/01/91	04/08/91	2.0×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 4	04/08/91	04/15/91	1.3×10^{-14}	8.1×10^{-16}
Area 5, RWMS No. 4	04/15/91	04/22/91	1.8×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 4	04/22/91	04/29/91	1.4×10^{-14}	8.5×10^{-16}
Area 5, RWMS No. 4	04/29/91	05/06/91	2.6×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 4	05/06/91	05/13/91	1.1×10^{-14}	8.3×10^{-16}
Area 5, RWMS No. 4	05/13/91	05/20/91	1.3×10^{-14}	8.1×10^{-16}
Area 5, RWMS No. 4	05/20/91	05/28/91	1.7×10^{-14}	8.0×10^{-16}
Area 5, RWMS No. 4	05/28/91	06/03/91	1.9×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 4	06/03/91	06/10/91	2.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 4	06/10/91	06/17/91	2.3×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 4	06/17/91	06/25/91	1.5×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 4	06/25/91	07/01/91	1.4×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 4	07/01/91	07/08/91	2.2×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 4	07/08/91	07/15/91	2.3×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 4	07/15/91	07/22/91	2.0×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 4	07/22/91	07/29/91	2.2×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 4	07/29/91	08/05/91	2.2×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 4	08/05/91	08/12/91	1.8×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 4	08/12/91	08/19/91	1.4×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 4	08/19/91	08/26/91	1.9×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 4	08/26/91	09/03/91	2.2×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 4	09/03/91	09/09/91	1.7×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 4	09/09/91	09/16/91	2.3×10^{-14}	9.9×10^{-16}
Area 5, RWMS No. 4	09/16/91	09/23/91	2.3×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 4	09/23/91	09/30/91	1.7×10^{-14}	9.2×10^{-16}
Area 5, RWMS No. 4	09/30/91	10/07/91	3.2×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 4	10/07/91	10/14/91	3.7×10^{-14}	1.2×10^{-15}
Area 5, RWMS No. 4	10/14/91	10/21/91	2.8×10^{-14}	1.3×10^{-15}
Area 5, RWMS No. 4	10/21/91	10/28/91	1.9×10^{-14}	7.7×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS No. 4	10/28/91	11/04/91	2.3×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 4	11/04/91	11/12/91	1.8×10^{-14}	4.2×10^{-16}
Area 5, RWMS No. 4	11/12/91	11/18/91	2.0×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 4	11/18/91	11/25/91	1.0×10^{-14}	7.6×10^{-16}
Area 5, RWMS No. 4	11/25/91	12/03/91	1.5×10^{-14}	8.1×10^{-16}
Area 5, RWMS No. 4	12/03/91	12/09/91	2.3×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 4	12/09/91	12/16/91	2.6×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 4	12/16/91	12/23/91	3.0×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 4	12/23/91	12/30/91	2.8×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 5	01/02/91	01/07/91	2.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 5	01/07/91	01/14/91	3.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 5	01/14/91	01/22/91	1.2×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 5	01/22/91	01/28/91	3.0×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 5	01/28/91	02/04/91	2.6×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 5	02/04/91	02/11/91	3.6×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 5	02/11/91	02/19/91	2.0×10^{-14}	8.8×10^{-16}
Area 5, RWMS No. 5	02/19/91	02/25/91	2.3×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 5	02/25/91	03/04/91	1.2×10^{-14}	7.9×10^{-16}
Area 5, RWMS No. 5	03/04/91	03/11/91	1.4×10^{-14}	8.7×10^{-16}
Area 5, RWMS No. 5	03/11/91	03/18/91	1.0×10^{-14}	7.9×10^{-16}
Area 5, RWMS No. 5	03/18/91	03/25/91	9.9×10^{-15}	7.5×10^{-16}
Area 5, RWMS No. 5	03/25/91	04/01/91	1.1×10^{-14}	7.7×10^{-16}
Area 5, RWMS No. 5	04/01/91	04/08/91	1.8×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 5	04/08/91	04/15/91	1.5×10^{-14}	8.5×10^{-16}
Area 5, RWMS No. 5	04/15/91	04/22/91	1.7×10^{-14}	8.8×10^{-16}
Area 5, RWMS No. 5	04/22/91	04/29/91	1.3×10^{-14}	8.3×10^{-16}
Area 5, RWMS No. 5	04/29/91	05/06/91	1.9×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 5	05/06/91	05/13/91	1.4×10^{-14}	8.4×10^{-16}
Area 5, RWMS No. 5	05/13/91	05/20/91	1.1×10^{-14}	7.8×10^{-16}
Area 5, RWMS No. 5	05/20/91	05/28/91	1.6×10^{-14}	7.7×10^{-16}
Area 5, RWMS No. 5	05/28/91	06/03/91	1.2×10^{-14}	8.6×10^{-16}
Area 5, RWMS No. 5	06/03/91	06/10/91	1.9×10^{-14}	8.8×10^{-16}
Area 5, RWMS No. 5	06/10/91	06/17/91	2.2×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 5	06/17/91	06/25/91	1.5×10^{-14}	7.4×10^{-16}
Area 5, RWMS No. 5	06/25/91	07/01/91	1.2×10^{-14}	8.6×10^{-16}
Area 5, RWMS No. 5	07/01/91	07/08/91	1.5×10^{-14}	8.3×10^{-16}
Area 5, RWMS No. 5	07/08/91	07/15/91	2.0×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 5	07/15/91	07/22/91	1.7×10^{-14}	8.5×10^{-16}
Area 5, RWMS No. 5	07/22/91	07/29/91	2.3×10^{-14}	9.5×10^{-16}
Area 5, RWMS No. 5	07/29/91	08/05/91	2.0×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 5	08/05/91	08/12/91	2.0×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 5	08/12/91	08/19/91	1.6×10^{-14}	8.5×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS No. 5	08/19/91	08/26/91	2.0×10^{-14}	9.4×10^{-16}
Area 5, RWMS No. 5	08/26/91	09/03/91	2.2×10^{-14}	9.9×10^{-16}
Area 5, RWMS No. 5	09/03/91	09/09/91	2.5×10^{-14}	1.2×10^{-15}
Area 5, RWMS No. 5	09/09/91	09/16/91	2.3×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 5	09/16/91	09/23/91	2.4×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 5	09/23/91	09/30/91	2.0×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 5	09/30/91	10/07/91	3.4×10^{-14}	1.2×10^{-15}
Area 5, RWMS No. 5	10/07/91	10/14/91	3.6×10^{-14}	1.3×10^{-15}
Area 5, RWMS No. 5	10/14/91	10/21/91	1.8×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 5	10/21/91	10/28/91	2.2×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 5	10/28/91	11/04/91	2.6×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 5	11/04/91	11/12/91	1.8×10^{-14}	4.7×10^{-16}
Area 5, RWMS No. 5	11/12/91	11/18/91	1.8×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 5	11/18/91	11/25/91	1.1×10^{-14}	8.9×10^{-16}
Area 5, RWMS No. 5	11/25/91	12/03/91	1.6×10^{-14}	9.4×10^{-16}
Area 5, RWMS No. 5	12/03/91	12/09/91	2.5×10^{-14}	1.3×10^{-15}
Area 5, RWMS No. 5	12/09/91	12/16/91	2.6×10^{-14}	1.2×10^{-15}
Area 5, RWMS No. 5	12/16/91	12/23/91	3.1×10^{-14}	1.2×10^{-15}
Area 5, RWMS No. 5	12/23/91	12/30/91	3.9×10^{-15}	8.3×10^{-16}
Area 5, RWMS No. 6	01/02/91	01/07/91	1.9×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 6	01/07/91	01/14/91	3.2×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 6	01/14/91	01/22/91	1.1×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 6	01/22/91	01/28/91	3.3×10^{-14}	1.2×10^{-15}
Area 5, RWMS No. 6	01/28/91	02/04/91	2.7×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 6	02/04/91	02/11/91	3.4×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 6	02/11/91	02/19/91	2.0×10^{-14}	8.4×10^{-16}
Area 5, RWMS No. 6	02/19/91	02/25/91	2.1×10^{-14}	9.9×10^{-16}
Area 5, RWMS No. 6	02/25/91	03/04/91	1.2×10^{-14}	7.6×10^{-16}
Area 5, RWMS No. 6	03/ 4/91	03/11/91	1.5×10^{-14}	8.4×10^{-16}
Area 5, RWMS No. 6	03/11/91	03/18/91	9.7×10^{-15}	7.2×10^{-16}
Area 5, RWMS No. 6	03/18/91	03/25/91	9.0×10^{-15}	7.0×10^{-16}
Area 5, RWMS No. 6	03/25/91	04/01/91	9.6×10^{-15}	7.2×10^{-16}
Area 5, RWMS No. 6	04/01/91	04/08/91	1.7×10^{-14}	8.4×10^{-16}
Area 5, RWMS No. 6	04/08/91	04/15/91	1.5×10^{-14}	8.1×10^{-16}
Area 5, RWMS No. 6	04/15/91	04/22/91	1.9×10^{-14}	8.6×10^{-16}
Area 5, RWMS No. 6	04/22/91	04/29/91	1.4×10^{-14}	8.0×10^{-16}
Area 5, RWMS No. 6	04/29/91	05/06/91	1.8×10^{-14}	8.4×10^{-16}
Area 5, RWMS No. 6	05/06/91	05/13/91	1.4×10^{-14}	8.1×10^{-16}
Area 5, RWMS No. 6	05/13/91	05/20/91	1.2×10^{-14}	7.5×10^{-16}
Area 5, RWMS No. 6	05/20/91	05/28/91	1.6×10^{-14}	8.0×10^{-16}
Area 5, RWMS No. 6	05/28/91	06/03/91	1.4×10^{-14}	9.2×10^{-16}
Area 5, RWMS No. 6	06/03/91	06/10/91	2.0×10^{-14}	9.2×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS No. 6	06/10/91	06/17/91	2.4×10^{-14}	9.8×10^{-16}
Area 5, RWMS No. 6	06/17/91	06/25/91	1.5×10^{-14}	7.8×10^{-16}
Area 5, RWMS No. 6	06/25/91	07/01/91	1.3×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 6	07/01/91	07/08/91	1.7×10^{-14}	8.7×10^{-16}
Area 5, RWMS No. 6	07/08/91	07/15/91	2.2×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 6	07/15/91	07/22/91	1.9×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 6	07/22/91	07/29/91	2.2×10^{-14}	9.6×10^{-16}
Area 5, RWMS No. 6	07/29/91	08/05/91	2.2×10^{-14}	9.5×10^{-16}
Area 5, RWMS No. 6	08/05/91	08/12/91	2.0×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 6	08/12/91	08/19/91	2.2×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 6	08/19/91	08/26/91	2.0×10^{-14}	9.2×10^{-16}
Area 5, RWMS No. 6	08/26/91	09/03/91	2.4×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 6	09/03/91	09/09/91	1.7×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 6	09/09/91	09/16/91	2.4×10^{-14}	9.9×10^{-16}
Area 5, RWMS No. 6	09/16/91	09/23/91	2.5×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 6	09/23/91	09/30/91	1.9×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 6	09/30/91	10/07/91	3.4×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 6	10/07/91	10/14/91	3.4×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 6	10/14/91	10/21/91	1.8×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 6	10/21/91	10/28/91	2.5×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 6	10/28/91	11/04/91	2.4×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 6	11/04/91	11/12/91	1.8×10^{-14}	4.1×10^{-16}
Area 5, RWMS No. 6	11/12/91	11/18/91	2.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 6	11/18/91	11/25/91	1.0×10^{-14}	7.8×10^{-16}
Area 5, RWMS No. 6	11/25/91	12/03/91	1.8×10^{-14}	8.8×10^{-16}
Area 5, RWMS No. 6	12/03/91	12/09/91	2.4×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 6	12/09/91	12/16/91	2.7×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 6	12/16/91	12/23/91	2.9×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 6	12/23/91	12/30/91	1.7×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 7	01/02/91	01/07/91	2.0×10^{-14}	8.9×10^{-16}
Area 5, RWMS No. 7	01/07/91	01/14/91	3.0×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 7	01/14/91	01/22/91	1.4×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 7	01/22/91	01/28/91	3.2×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 7	01/28/91	02/04/91	2.7×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 7	02/04/91	02/11/91	4.6×10^{-14}	1.4×10^{-15}
Area 5, RWMS No. 7	02/11/91	02/19/91	1.5×10^{-14}	6.9×10^{-16}
Area 5, RWMS No. 7	02/19/91	02/25/91	2.2×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 7	02/25/91	03/04/91	1.4×10^{-14}	7.9×10^{-16}
Area 5, RWMS No. 7	03/04/91	03/11/91	1.4×10^{-14}	8.3×10^{-16}
Area 5, RWMS No. 7	03/11/91	03/18/91	1.1×10^{-14}	8.7×10^{-16}
Area 5, RWMS No. 7	03/18/91	03/25/91	8.6×10^{-15}	6.2×10^{-16}
Area 5, RWMS No. 7	03/25/91	04/01/91	1.1×10^{-14}	7.5×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS No. 7	04/01/91	04/ 8/91	1.8×10^{-14}	8.5×10^{-16}
Area 5, RWMS No. 7	04/08/91	04/15/91	1.3×10^{-14}	7.6×10^{-16}
Area 5, RWMS No. 7	04/15/91	04/22/91	1.7×10^{-14}	8.3×10^{-16}
Area 5, RWMS No. 7	04/22/91	04/29/91	1.1×10^{-14}	7.5×10^{-16}
Area 5, RWMS No. 7	04/29/91	05/06/91	1.7×10^{-14}	8.1×10^{-16}
Area 5, RWMS No. 7	05/06/91	05/13/91	1.3×10^{-14}	7.8×10^{-16}
Area 5, RWMS No. 7	05/13/91	05/20/91	1.2×10^{-14}	7.3×10^{-16}
Area 5, RWMS No. 7	05/20/91	05/28/91	1.7×10^{-14}	8.3×10^{-16}
Area 5, RWMS No. 7	05/28/91	06/03/91	1.7×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 7	06/03/91	06/10/91	2.2×10^{-14}	9.8×10^{-16}
Area 5, RWMS No. 7	06/10/91	06/17/91	2.6×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 7	06/17/91	06/25/91	1.5×10^{-14}	8.0×10^{-16}
Area 5, RWMS No. 7	06/25/91	07/01/91	1.2×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 7	07/01/91	07/08/91	1.7×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 7	07/08/91	07/15/91	2.1×10^{-14}	9.6×10^{-16}
Area 5, RWMS No. 7	07/15/91	07/22/91	1.8×10^{-14}	8.5×10^{-16}
Area 5, RWMS No. 7	07/22/91	07/29/91	2.4×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 7	07/29/91	08/ 5/91	2.0×10^{-14}	9.5×10^{-16}
Area 5, RWMS No. 7	08/05/91	08/12/91	1.9×10^{-14}	9.4×10^{-16}
Area 5, RWMS No. 7	08/12/91	08/19/91	1.8×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 7	08/19/91	08/26/91	2.2×10^{-14}	9.4×10^{-16}
Area 5, RWMS No. 7	08/26/91	09/03/91	2.4×10^{-14}	8.9×10^{-16}
Area 5, RWMS No. 7	09/03/91	09/09/91	1.6×10^{-14}	9.4×10^{-16}
Area 5, RWMS No. 7	09/09/91	09/16/91	2.2×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 7	09/16/91	09/23/91	2.6×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 7	09/23/91	09/30/91	1.9×10^{-14}	9.2×10^{-16}
Area 5, RWMS No. 7	09/30/91	10/07/91	3.2×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 7	10/07/91	10/14/91	3.7×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 7	10/14/91	10/21/91	1.9×10^{-14}	8.8×10^{-16}
Area 5, RWMS No. 7	10/21/91	10/28/91	2.4×10^{-14}	9.9×10^{-16}
Area 5, RWMS No. 7	10/28/91	11/04/91	2.4×10^{-14}	9.5×10^{-16}
Area 5, RWMS No. 7	11/04/91	11/12/91	1.9×10^{-14}	8.1×10^{-16}
Area 5, RWMS No. 7	11/12/91	11/18/91	2.2×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 7	11/18/91	11/25/91	1.1×10^{-14}	8.0×10^{-16}
Area 5, RWMS No. 7	11/25/91	12/03/91	1.6×10^{-14}	8.0×10^{-16}
Area 5, RWMS No. 7	12/03/91	12/09/91	2.3×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 7	12/09/91	12/16/91	2.6×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 7	12/16/91	12/23/91	2.9×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 7	12/23/91	12/30/91	1.6×10^{-14}	8.9×10^{-16}
Area 5, RWMS No. 8	01/02/91	01/07/91	2.3×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 8	01/07/91	01/14/91	3.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 8	01/14/91	01/22/91	1.3×10^{-14}	9.4×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>		<u>$\mu\text{Ci/mL}$</u>	
	<u>Start</u>	<u>End</u>	<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 5, RWMS No. 8	01/22/91	01/28/91	3.5×10^{-14}	1.2×10^{-15}
Area 5, RWMS No. 8	01/28/91	02/04/91	2.8×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 8	02/04/91	02/11/91	3.7×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 8	02/11/91	02/19/91	2.1×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 8	02/19/91	02/25/91	2.4×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 8	02/25/91	03/04/91	1.5×10^{-14}	8.9×10^{-16}
Area 5, RWMS No. 8	03/04/91	03/11/91	1.5×10^{-14}	9.2×10^{-16}
Area 5, RWMS No. 8	03/11/91	03/18/91	9.9×10^{-15}	8.0×10^{-16}
Area 5, RWMS No. 8	03/18/91	03/25/91	1.1×10^{-14}	8.1×10^{-16}
Area 5, RWMS No. 8	03/25/91	04/01/91	1.2×10^{-14}	8.3×10^{-16}
Area 5, RWMS No. 8	04/01/91	04/08/91	1.9×10^{-14}	9.2×10^{-16}
Area 5, RWMS No. 8	04/08/91	04/15/91	1.4×10^{-14}	8.5×10^{-16}
Area 5, RWMS No. 8	04/15/91	04/22/91	1.7×10^{-14}	8.8×10^{-16}
Area 5, RWMS No. 8	04/22/91	04/29/91	1.3×10^{-14}	8.3×10^{-16}
Area 5, RWMS No. 8	04/29/91	05/06/91	1.6×10^{-14}	8.4×10^{-16}
Area 5, RWMS No. 8	05/06/91	05/13/91	1.3×10^{-14}	8.3×10^{-16}
Area 5, RWMS No. 8	05/13/91	05/20/91	1.3×10^{-14}	8.0×10^{-16}
Area 5, RWMS No. 8	05/28/91	06/03/91	1.3×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 8	06/03/91	06/10/91	2.2×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 8	06/10/91	06/17/91	2.2×10^{-14}	9.2×10^{-16}
Area 5, RWMS No. 8	06/17/91	06/25/91	1.5×10^{-14}	7.5×10^{-16}
Area 5, RWMS No. 8	06/25/91	07/01/91	1.4×10^{-14}	8.9×10^{-16}
Area 5, RWMS No. 8	07/01/91	07/08/91	1.6×10^{-14}	8.3×10^{-16}
Area 5, RWMS No. 8	07/08/91	07/15/91	1.9×10^{-14}	8.7×10^{-16}
Area 5, RWMS No. 8	07/15/91	07/22/91	1.8×10^{-14}	8.5×10^{-16}
Area 5, RWMS No. 8	07/22/91	07/29/91	2.1×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 8	07/29/91	08/05/91	1.9×10^{-14}	8.6×10^{-16}
Area 5, RWMS No. 8	08/05/91	08/12/91	1.9×10^{-14}	8.8×10^{-16}
Area 5, RWMS No. 8	08/12/91	08/19/91	1.3×10^{-14}	7.9×10^{-16}
Area 5, RWMS No. 8	08/19/91	08/26/91	2.3×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 8	08/26/91	09/03/91	1.9×10^{-14}	7.5×10^{-16}
Area 5, RWMS No. 8	09/03/91	09/09/91	1.8×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 8	09/09/91	09/16/91	2.3×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 8	09/16/91	09/23/91	2.4×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 8	09/23/91	09/30/91	2.0×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 8	09/30/91	10/07/91	2.9×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 8	10/07/91	10/14/91	3.7×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 8	10/14/91	10/21/91	2.0×10^{-14}	8.9×10^{-16}
Area 5, RWMS No. 8	10/21/91	10/28/91	2.0×10^{-14}	9.4×10^{-16}
Area 5, RWMS No. 8	10/28/91	11/04/91	2.4×10^{-14}	9.5×10^{-16}
Area 5, RWMS No. 8	11/04/91	11/12/91	1.7×10^{-14}	7.8×10^{-16}
Area 5, RWMS No. 8	11/12/91	11/18/91	2.2×10^{-14}	1.0×10^{-15}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS No. 8	11/18/91	11/25/91	1.2×10^{-14}	7.7×10^{-16}
Area 5, RWMS No. 8	11/25/91	12/03/91	1.8×10^{-14}	7.9×10^{-16}
Area 5, RWMS No. 8	12/03/91	12/09/91	2.4×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 8	12/09/91	12/16/91	2.8×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 8	12/16/91	12/23/91	3.0×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 8	12/23/91	12/30/91	3.3×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 9	01/02/91	01/07/91	1.8×10^{-14}	7.8×10^{-16}
Area 5, RWMS No. 9	01/07/91	01/14/91	3.1×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 9	01/14/91	01/22/91	1.4×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 9	01/22/91	01/28/91	3.2×10^{-14}	1.2×10^{-15}
Area 5, RWMS No. 9	01/28/91	02/04/91	2.7×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 9	02/04/91	02/11/91	3.5×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 9	02/11/91	02/19/91	1.9×10^{-14}	8.7×10^{-16}
Area 5, RWMS No. 9	02/19/91	02/25/91	2.2×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 9	02/25/91	03/04/91	1.2×10^{-14}	8.8×10^{-16}
Area 5, RWMS No. 9	03/04/91	03/11/91	1.2×10^{-14}	7.3×10^{-16}
Area 5, RWMS No. 9	03/11/91	03/18/91	1.0×10^{-14}	7.8×10^{-16}
Area 5, RWMS No. 9	03/18/91	03/25/91	1.1×10^{-14}	7.4×10^{-16}
Area 5, RWMS No. 9	03/25/91	04/01/91	1.1×10^{-14}	7.8×10^{-16}
Area 5, RWMS No. 9	04/01/91	04/08/91	1.9×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 9	04/08/91	04/15/91	1.4×10^{-14}	8.1×10^{-16}
Area 5, RWMS No. 9	04/15/91	04/22/91	1.8×10^{-14}	8.7×10^{-16}
Area 5, RWMS No. 9	04/22/91	04/29/91	1.4×10^{-14}	8.2×10^{-16}
Area 5, RWMS No. 9	04/29/91	05/06/91	1.6×10^{-14}	8.2×10^{-16}
Area 5, RWMS No. 9	05/06/91	05/13/91	1.5×10^{-14}	8.4×10^{-16}
Area 5, RWMS No. 9	05/13/91	05/20/91	1.2×10^{-14}	7.6×10^{-16}
Area 5, RWMS No. 9	05/20/91	05/28/91	1.7×10^{-14}	8.1×10^{-16}
Area 5, RWMS No. 9	05/28/91	06/03/91	1.7×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 9	06/03/91	06/10/91	2.1×10^{-14}	9.2×10^{-16}
Area 5, RWMS No. 9	06/10/91	06/17/91	2.1×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 9	06/17/91	06/25/91	1.6×10^{-14}	7.8×10^{-16}
Area 5, RWMS No. 9	06/25/91	07/01/91	1.2×10^{-14}	8.8×10^{-16}
Area 5, RWMS No. 9	07/01/91	07/08/91	1.4×10^{-14}	8.2×10^{-16}
Area 5, RWMS No. 9	07/08/91	07/15/91	2.0×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 9	07/15/91	07/22/91	1.8×10^{-14}	8.7×10^{-16}
Area 5, RWMS No. 9	07/22/91	07/29/91	1.9×10^{-14}	9.1×10^{-16}
Area 5, RWMS No. 9	07/29/91	08/05/91	2.0×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 9	08/05/91	08/12/91	1.8×10^{-14}	8.7×10^{-16}
Area 5, RWMS No. 9	08/12/91	08/19/91	1.6×10^{-14}	8.5×10^{-16}
Area 5, RWMS No. 9	08/19/91	08/26/91	2.0×10^{-14}	9.0×10^{-16}
Area 5, RWMS No. 9	08/26/91	09/03/91	2.3×10^{-14}	8.8×10^{-16}
Area 5, RWMS No. 9	09/03/91	09/09/91	1.9×10^{-14}	1.0×10^{-15}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS No. 9	09/09/91	09/16/91	2.2×10^{-14}	9.6×10^{-16}
Area 5, RWMS No. 9	09/16/91	09/23/91	2.3×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 9	09/23/91	09/30/91	1.9×10^{-14}	9.3×10^{-16}
Area 5, RWMS No. 9	09/30/91	10/07/91	3.3×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 9	10/07/91	10/14/91	3.7×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 9	10/14/91	10/21/91	1.8×10^{-14}	8.7×10^{-16}
Area 5, RWMS No. 9	10/21/91	10/28/91	1.9×10^{-14}	9.7×10^{-16}
Area 5, RWMS No. 9	10/28/91	11/04/91	2.4×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 9	11/04/91	11/12/91	2.0×10^{-14}	8.6×10^{-16}
Area 5, RWMS No. 9	11/12/91	11/18/91	2.0×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 9	11/18/91	11/25/91	1.1×10^{-14}	8.0×10^{-16}
Area 5, RWMS No. 9	11/25/91	12/03/91	1.8×10^{-14}	8.4×10^{-16}
Area 5, RWMS No. 9	12/03/91	12/09/91	2.5×10^{-14}	1.1×10^{-15}
Area 5, RWMS No. 9	12/09/91	12/16/91	2.9×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 9	12/16/91	12/23/91	3.0×10^{-14}	1.0×10^{-15}
Area 5, RWMS No. 9	12/23/91	12/30/91	1.3×10^{-14}	8.5×10^{-16}
Area 5, RWMS Pit No. 3	01/02/91	01/07/91	1.7×10^{-14}	1.1×10^{-15}
Area 5, RWMS Pit No. 3	01/07/91	01/14/91	3.2×10^{-14}	1.1×10^{-15}
Area 5, RWMS Pit No. 3	01/22/91	01/28/91	3.4×10^{-14}	1.2×10^{-15}
Area 5, RWMS Pit No. 3	01/28/91	02/04/91	2.9×10^{-14}	1.0×10^{-15}
Area 5, RWMS Pit No. 3	02/04/91	02/11/91	3.6×10^{-14}	1.1×10^{-15}
Area 5, RWMS Pit No. 3	02/11/91	02/19/91	2.1×10^{-14}	8.7×10^{-16}
Area 5, RWMS Pit No. 3	02/19/91	02/25/91	2.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS Pit No. 3	02/25/91	03/04/91	1.4×10^{-14}	1.0×10^{-15}
Area 5, RWMS Pit No. 3	03/04/91	03/11/91	1.3×10^{-14}	8.3×10^{-16}
Area 5, RWMS Pit No. 3	03/11/91	03/18/91	1.0×10^{-14}	1.1×10^{-15}
Area 5, RWMS Pit No. 3	03/18/91	03/25/91	9.5×10^{-15}	7.4×10^{-16}
Area 5, RWMS Pit No. 3	03/25/91	04/01/91	1.1×10^{-14}	7.8×10^{-16}
Area 5, RWMS Pit No. 3	04/01/91	04/08/91	1.9×10^{-14}	9.0×10^{-16}
Area 5, RWMS Pit No. 3	04/08/91	04/15/91	1.6×10^{-14}	8.6×10^{-16}
Area 5, RWMS Pit No. 3	04/15/91	04/22/91	1.6×10^{-14}	8.7×10^{-16}
Area 5, RWMS Pit No. 3	04/22/91	04/29/91	1.3×10^{-14}	8.2×10^{-16}
Area 5, RWMS Pit No. 3	04/29/91	05/06/91	1.8×10^{-14}	9.1×10^{-16}
Area 5, RWMS Pit No. 3	05/06/91	05/13/91	1.5×10^{-14}	8.6×10^{-16}
Area 5, RWMS Pit No. 3	05/13/91	05/20/91	1.2×10^{-14}	7.8×10^{-16}
Area 5, RWMS Pit No. 3	05/20/91	05/28/91	2.0×10^{-14}	8.5×10^{-16}
Area 5, RWMS Pit No. 3	05/28/91	06/03/91	1.6×10^{-14}	9.6×10^{-16}
Area 5, RWMS Pit No. 3	06/03/91	06/10/91	2.0×10^{-14}	9.0×10^{-16}
Area 5, RWMS Pit No. 3	06/10/91	06/17/91	2.3×10^{-14}	9.6×10^{-16}
Area 5, RWMS Pit No. 3	06/17/91	06/25/91	1.6×10^{-14}	7.7×10^{-16}
Area 5, RWMS Pit No. 3	06/25/91	07/01/91	1.1×10^{-14}	8.5×10^{-16}
Area 5, RWMS Pit No. 3	07/01/91	07/08/91	1.9×10^{-14}	8.8×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS Pit No. 3	07/08/91	07/15/91	2.2×10^{-14}	9.4×10^{-16}
Area 5, RWMS Pit No. 3	07/15/91	07/22/91	1.7×10^{-14}	8.5×10^{-16}
Area 5, RWMS Pit No. 3	07/22/91	07/29/91	2.1×10^{-14}	9.2×10^{-16}
Area 5, RWMS Pit No. 3	07/29/91	08/05/91	2.1×10^{-14}	9.8×10^{-16}
Area 5, RWMS Pit No. 3	08/12/91	08/19/91	1.4×10^{-14}	1.0×10^{-15}
Area 5, RWMS Pit No. 3	08/19/91	08/26/91	1.8×10^{-14}	8.6×10^{-16}
Area 5, RWMS Pit No. 3	08/26/91	09/03/91	2.2×10^{-14}	8.6×10^{-16}
Area 5, RWMS Pit No. 3	09/03/91	09/09/91	1.7×10^{-14}	9.8×10^{-16}
Area 5, RWMS Pit No. 3	09/09/91	09/16/91	2.3×10^{-14}	9.7×10^{-16}
Area 5, RWMS Pit No. 3	09/16/91	09/23/91	2.4×10^{-14}	9.9×10^{-16}
Area 5, RWMS Pit No. 3	09/23/91	09/30/91	1.8×10^{-14}	9.0×10^{-16}
Area 5, RWMS Pit No. 3	09/30/91	10/07/91	3.0×10^{-14}	1.0×10^{-15}
Area 5, RWMS Pit No. 3	10/07/91	10/14/91	3.4×10^{-14}	1.1×10^{-15}
Area 5, RWMS Pit No. 3	10/14/91	10/21/91	1.9×10^{-14}	9.1×10^{-16}
Area 5, RWMS Pit No. 3	10/21/91	10/28/91	2.2×10^{-14}	9.1×10^{-16}
Area 5, RWMS Pit No. 3	10/28/91	11/04/91	2.4×10^{-14}	9.9×10^{-16}
Area 5, RWMS Pit No. 3	11/04/91	11/12/91	1.7×10^{-14}	4.0×10^{-16}
Area 5, RWMS Pit No. 3	11/18/91	11/25/91	8.6×10^{-15}	1.1×10^{-15}
Area 5, RWMS Pit No. 3	11/25/91	12/03/91	1.7×10^{-14}	7.9×10^{-16}
Area 5, RWMS Pit No. 3	12/03/91	12/09/91	2.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS Pit No. 3	12/09/91	12/16/91	2.7×10^{-14}	1.0×10^{-15}
Area 5, RWMS Pit No. 3	12/16/91	12/23/91	3.0×10^{-14}	1.0×10^{-15}
Area 5, RWMS Pit No. 3	12/23/91	12/30/91	2.4×10^{-14}	1.0×10^{-15}
Area 5, RWMS Pit No. 4	01/02/91	01/07/91	1.6×10^{-14}	1.0×10^{-15}
Area 5, RWMS Pit No. 4	01/07/91	01/14/91	3.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS Pit No. 4	01/14/91	01/22/91	1.3×10^{-14}	7.3×10^{-16}
Area 5, RWMS Pit No. 4	01/22/91	01/28/91	3.3×10^{-14}	1.2×10^{-15}
Area 5, RWMS Pit No. 4	01/28/91	02/04/91	2.7×10^{-14}	1.0×10^{-15}
Area 5, RWMS Pit No. 4	02/04/91	02/11/91	3.6×10^{-14}	1.1×10^{-15}
Area 5, RWMS Pit No. 4	02/11/91	02/19/91	2.1×10^{-14}	9.1×10^{-16}
Area 5, RWMS Pit No. 4	02/19/91	02/25/91	2.2×10^{-14}	1.1×10^{-15}
Area 5, RWMS Pit No. 4	02/25/91	03/04/91	1.0×10^{-14}	7.3×10^{-16}
Area 5, RWMS Pit No. 4	03/04/91	03/11/91	1.5×10^{-14}	8.1×10^{-16}
Area 5, RWMS Pit No. 4	03/11/91	03/18/91	1.1×10^{-14}	7.4×10^{-16}
Area 5, RWMS Pit No. 4	03/18/91	03/25/91	9.4×10^{-15}	7.1×10^{-16}
Area 5, RWMS Pit No. 4	03/25/91	04/01/91	1.2×10^{-14}	8.0×10^{-16}
Area 5, RWMS Pit No. 4	04/01/91	04/08/91	1.6×10^{-14}	8.3×10^{-16}
Area 5, RWMS Pit No. 4	04/08/91	04/15/91	1.5×10^{-14}	9.1×10^{-16}
Area 5, RWMS Pit No. 4	04/15/91	04/22/91	1.7×10^{-14}	8.6×10^{-16}
Area 5, RWMS Pit No. 4	04/22/91	04/29/91	1.3×10^{-14}	8.1×10^{-16}
Area 5, RWMS Pit No. 4	04/29/91	05/06/91	1.7×10^{-14}	8.5×10^{-16}
Area 5, RWMS Pit No. 4	05/06/91	05/13/91	1.4×10^{-14}	8.2×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS Pit No. 4	05/13/91	05/20/91	1.3×10^{-14}	7.8×10^{-16}
Area 5, RWMS Pit No. 4	05/20/91	05/28/91	1.6×10^{-14}	7.7×10^{-16}
Area 5, RWMS Pit No. 4	05/28/91	06/03/91	1.5×10^{-14}	9.2×10^{-16}
Area 5, RWMS Pit No. 4	06/03/91	06/10/91	2.0×10^{-14}	9.1×10^{-16}
Area 5, RWMS Pit No. 4	06/10/91	06/17/91	2.2×10^{-14}	9.4×10^{-16}
Area 5, RWMS Pit No. 4	06/17/91	06/25/91	1.5×10^{-14}	7.6×10^{-16}
Area 5, RWMS Pit No. 4	06/25/91	07/01/91	1.2×10^{-14}	8.7×10^{-16}
Area 5, RWMS Pit No. 4	07/01/91	07/08/91	1.7×10^{-14}	8.7×10^{-16}
Area 5, RWMS Pit No. 4	07/08/91	07/15/91	2.1×10^{-14}	9.2×10^{-16}
Area 5, RWMS Pit No. 4	07/15/91	07/22/91	1.8×10^{-14}	8.7×10^{-16}
Area 5, RWMS Pit No. 4	07/22/91	07/29/91	2.2×10^{-14}	9.5×10^{-16}
Area 5, RWMS Pit No. 4	07/29/91	08/05/91	1.8×10^{-14}	8.9×10^{-16}
Area 5, RWMS Pit No. 4	08/05/91	08/12/91	1.4×10^{-14}	8.2×10^{-16}
Area 5, RWMS Pit No. 4	08/12/91	08/19/91	1.5×10^{-14}	8.0×10^{-16}
Area 5, RWMS Pit No. 4	08/19/91	08/26/91	1.8×10^{-14}	8.3×10^{-16}
Area 5, RWMS Pit No. 4	08/26/91	09/06/91	2.2×10^{-14}	8.7×10^{-16}
Area 5, RWMS Pit No. 4	09/03/91	09/09/91	1.9×10^{-14}	1.0×10^{-15}
Area 5, RWMS Pit No. 4	09/09/91	09/16/91	2.8×10^{-14}	1.2×10^{-15}
Area 5, RWMS Pit No. 4	09/16/91	09/23/91	2.1×10^{-14}	8.9×10^{-16}
Area 5, RWMS Pit No. 4	09/23/91	09/30/91	1.7×10^{-14}	9.0×10^{-16}
Area 5, RWMS Pit No. 4	09/30/91	10/07/91	3.2×10^{-14}	1.1×10^{-15}
Area 5, RWMS Pit No. 4	10/07/91	10/14/91	3.3×10^{-14}	1.1×10^{-15}
Area 5, RWMS Pit No. 4	10/14/91	10/21/91	1.9×10^{-14}	9.4×10^{-16}
Area 5, RWMS Pit No. 4	10/21/91	10/28/91	2.5×10^{-14}	1.0×10^{-15}
Area 5, RWMS Pit No. 4	10/28/91	11/04/91	2.3×10^{-14}	1.0×10^{-15}
Area 5, RWMS Pit No. 4	11/04/91	11/12/91	1.7×10^{-14}	4.1×10^{-16}
Area 5, RWMS Pit No. 4	11/12/91	11/18/91	1.8×10^{-14}	1.0×10^{-15}
Area 5, RWMS Pit No. 4	11/18/91	11/25/91	1.0×10^{-14}	7.7×10^{-16}
Area 5, RWMS Pit No. 4	11/25/91	12/03/91	1.6×10^{-14}	7.9×10^{-16}
Area 5, RWMS Pit No. 4	12/03/91	12/09/91	2.9×10^{-14}	1.2×10^{-15}
Area 5, RWMS Pit No. 4	12/09/91	12/16/91	2.9×10^{-14}	1.1×10^{-15}
Area 5, RWMS Pit No. 4	12/16/91	12/23/91	3.0×10^{-14}	1.0×10^{-15}
Area 5, RWMS Pit No. 4	12/23/91	12/30/91	3.0×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP North	01/02/91	01/07/91	1.8×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP North	01/07/91	01/14/91	3.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP North	01/14/91	01/22/91	1.2×10^{-14}	8.9×10^{-16}
Area 5, RWMS TP North	01/22/91	01/28/91	3.2×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP North	01/28/91	02/04/91	2.6×10^{-14}	9.7×10^{-16}
Area 5, RWMS TP North	02/04/91	02/11/91	3.9×10^{-14}	1.2×10^{-15}
Area 5, RWMS TP North	02/11/91	02/19/91	2.1×10^{-14}	8.8×10^{-16}
Area 5, RWMS TP North	02/19/91	02/25/91	2.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP North	02/25/91	03/04/91	1.2×10^{-14}	8.0×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS TP North	03/04/91	03/11/91	1.3×10^{-14}	8.2×10^{-16}
Area 5, RWMS TP North	03/11/91	03/18/91	8.3×10^{-15}	6.3×10^{-16}
Area 5, RWMS TP North	03/18/91	03/25/91	1.3×10^{-14}	9.7×10^{-16}
Area 5, RWMS TP North	03/25/91	04/01/91	8.9×10^{-15}	7.2×10^{-16}
Area 5, RWMS TP North	04/01/91	04/08/91	1.9×10^{-14}	9.2×10^{-16}
Area 5, RWMS TP North	04/08/91	04/15/91	1.6×10^{-14}	9.2×10^{-16}
Area 5, RWMS TP North	04/15/91	04/22/91	1.6×10^{-14}	8.4×10^{-16}
Area 5, RWMS TP North	04/22/91	04/29/91	1.2×10^{-14}	7.9×10^{-16}
Area 5, RWMS TP North	04/29/91	05/06/91	2.0×10^{-14}	8.9×10^{-16}
Area 5, RWMS TP North	05/06/91	05/13/91	1.4×10^{-14}	8.1×10^{-16}
Area 5, RWMS TP North	05/13/91	05/20/91	1.2×10^{-14}	7.6×10^{-16}
Area 5, RWMS TP North	05/20/91	05/28/91	1.8×10^{-14}	8.1×10^{-16}
Area 5, RWMS TP North	05/28/91	06/03/91	2.0×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP North	06/03/91	06/10/91	1.9×10^{-14}	8.8×10^{-16}
Area 5, RWMS TP North	06/10/91	06/17/91	2.2×10^{-14}	9.4×10^{-16}
Area 5, RWMS TP North	06/17/91	06/25/91	1.8×10^{-14}	8.1×10^{-16}
Area 5, RWMS TP North	06/25/91	07/01/91	1.5×10^{-14}	9.2×10^{-16}
Area 5, RWMS TP North	07/01/91	07/08/91	3.4×10^{-14}	1.8×10^{-15}
Area 5, RWMS TP North	07/08/91	07/15/91	1.4×10^{-14}	5.9×10^{-16}
Area 5, RWMS TP North	07/15/91	07/22/91	1.7×10^{-14}	8.5×10^{-16}
Area 5, RWMS TP North	07/22/91	07/29/91	2.1×10^{-14}	9.3×10^{-16}
Area 5, RWMS TP North	07/29/91	08/05/91	2.0×10^{-14}	8.9×10^{-16}
Area 5, RWMS TP North	08/05/91	08/12/91	1.8×10^{-14}	8.6×10^{-16}
Area 5, RWMS TP North	08/12/91	08/19/91	1.4×10^{-14}	8.0×10^{-16}
Area 5, RWMS TP North	08/19/91	08/26/91	1.2×10^{-14}	7.4×10^{-16}
Area 5, RWMS TP North	08/26/91	09/03/91	2.4×10^{-14}	8.8×10^{-16}
Area 5, RWMS TP North	09/03/91	09/09/91	1.8×10^{-14}	9.6×10^{-16}
Area 5, RWMS TP North	09/09/91	09/16/91	2.5×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP North	09/16/91	09/23/91	2.3×10^{-14}	9.2×10^{-16}
Area 5, RWMS TP North	09/23/91	09/30/91	1.8×10^{-14}	8.9×10^{-16}
Area 5, RWMS TP North	09/30/91	10/07/91	3.1×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP North	10/07/91	10/14/91	3.9×10^{-14}	1.3×10^{-15}
Area 5, RWMS TP North	10/14/91	10/21/91	2.1×10^{-14}	9.0×10^{-16}
Area 5, RWMS TP North	10/21/91	10/28/91	2.2×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP North	10/28/91	11/04/91	2.1×10^{-14}	9.8×10^{-16}
Area 5, RWMS TP North	11/04/91	11/12/91	1.8×10^{-14}	4.1×10^{-16}
Area 5, RWMS TP North	11/12/91	11/18/91	1.9×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP North	11/18/91	11/25/91	1.1×10^{-14}	7.7×10^{-16}
Area 5, RWMS TP North	11/25/91	12/03/91	1.9×10^{-14}	9.0×10^{-16}
Area 5, RWMS TP North	12/03/91	12/09/91	2.4×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP North	12/09/91	12/16/91	2.6×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP North	12/16/91	12/23/91	3.0×10^{-14}	1.0×10^{-15}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS TP North	12/23/91	12/30/91	9.7×10^{-15}	7.6×10^{-16}
Area 5, RWMS TP Northeast	01/02/91	01/07/91	2.0×10^{-14}	1.2×10^{-15}
Area 5, RWMS TP Northeast	01/07/91	01/14/91	3.1×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Northeast	01/14/91	01/22/91	1.4×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Northeast	01/22/91	01/28/91	3.4×10^{-14}	1.2×10^{-15}
Area 5, RWMS TP Northeast	01/28/91	02/04/91	2.8×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Northeast	02/04/91	02/11/91	3.9×10^{-14}	1.2×10^{-15}
Area 5, RWMS TP Northeast	02/11/91	02/19/91	2.2×10^{-14}	9.1×10^{-16}
Area 5, RWMS TP Northeast	02/19/91	02/25/91	2.3×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Northeast	02/25/91	03/04/91	1.0×10^{-14}	8.4×10^{-16}
Area 5, RWMS TP Northeast	03/04/91	03/11/91	1.4×10^{-14}	8.4×10^{-16}
Area 5, RWMS TP Northeast	03/11/91	03/18/91	1.2×10^{-14}	8.1×10^{-16}
Area 5, RWMS TP Northeast	03/18/91	03/25/91	1.1×10^{-14}	7.9×10^{-16}
Area 5, RWMS TP Northeast	03/25/91	04/01/91	1.3×10^{-14}	8.2×10^{-16}
Area 5, RWMS TP Northeast	04/01/91	04/08/91	2.0×10^{-14}	9.5×10^{-16}
Area 5, RWMS TP Northeast	04/08/91	04/15/91	1.6×10^{-14}	8.7×10^{-16}
Area 5, RWMS TP Northeast	04/15/91	04/22/91	1.9×10^{-14}	9.4×10^{-16}
Area 5, RWMS TP Northeast	04/22/91	04/29/91	1.5×10^{-14}	8.7×10^{-16}
Area 5, RWMS TP Northeast	04/29/91	05/06/91	1.9×10^{-14}	9.2×10^{-16}
Area 5, RWMS TP Northeast	05/06/91	05/13/91	1.7×10^{-14}	9.0×10^{-16}
Area 5, RWMS TP Northeast	05/13/91	05/20/91	1.3×10^{-14}	8.2×10^{-16}
Area 5, RWMS TP Northeast	05/20/91	05/28/91	1.8×10^{-14}	9.3×10^{-16}
Area 5, RWMS TP Northeast	05/28/91	06/03/91	1.5×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Northeast	06/03/91	06/10/91	2.3×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Northeast	06/10/91	06/17/91	2.5×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Northeast	06/17/91	06/25/91	1.6×10^{-14}	9.6×10^{-16}
Area 5, RWMS TP Northeast	06/25/91	07/01/91	1.5×10^{-14}	9.6×10^{-16}
Area 5, RWMS TP Northeast	07/01/91	07/08/91	1.7×10^{-14}	8.9×10^{-16}
Area 5, RWMS TP Northeast	07/08/91	07/15/91	2.2×10^{-14}	9.7×10^{-16}
Area 5, RWMS TP Northeast	07/15/91	07/22/91	2.0×10^{-14}	9.3×10^{-16}
Area 5, RWMS TP Northeast	07/22/91	07/29/91	2.3×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Northeast	07/29/91	08/05/91	2.1×10^{-14}	9.6×10^{-16}
Area 5, RWMS TP Northeast	08/05/91	08/12/91	1.9×10^{-14}	9.0×10^{-16}
Area 5, RWMS TP Northeast	08/12/91	08/19/91	1.4×10^{-14}	8.2×10^{-16}
Area 5, RWMS TP Northeast	08/19/91	08/26/91	3.4×10^{-14}	1.5×10^{-15}
Area 5, RWMS TP Northeast	08/26/91	09/03/91	2.5×10^{-14}	9.0×10^{-16}
Area 5, RWMS TP Northeast	09/03/91	09/09/91	1.8×10^{-14}	9.5×10^{-16}
Area 5, RWMS TP Northeast	09/09/91	09/16/91	2.3×10^{-14}	9.7×10^{-16}
Area 5, RWMS TP Northeast	09/16/91	09/23/91	2.8×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Northeast	09/23/91	09/30/91	1.9×10^{-14}	9.5×10^{-16}
Area 5, RWMS TP Northeast	09/30/91	10/07/91	3.2×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Northeast	10/07/91	10/14/91	3.6×10^{-14}	1.3×10^{-15}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS TP Northeast	10/14/91	10/21/91	1.9×10^{-14}	9.4×10^{-16}
Area 5, RWMS TP Northeast	10/21/91	10/28/91	2.3×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Northeast	10/28/91	11/04/91	2.2×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Northeast	11/04/91	11/12/91	1.8×10^{-14}	4.2×10^{-16}
Area 5, RWMS TP Northeast	11/12/91	11/18/91	1.9×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Northeast	11/18/91	11/25/91	1.2×10^{-14}	7.9×10^{-16}
Area 5, RWMS TP Northeast	11/25/91	12/03/91	1.8×10^{-14}	8.1×10^{-16}
Area 5, RWMS TP Northeast	12/03/91	12/09/91	2.6×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Northeast	12/09/91	12/16/91	2.9×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Northeast	12/16/91	12/23/91	3.2×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Northeast	12/23/91	12/30/91	3.5×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Northwest	01/02/91	01/07/91	1.8×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Northwest	01/07/91	01/14/91	3.0×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Northwest	01/14/91	01/22/91	1.3×10^{-14}	9.3×10^{-16}
Area 5, RWMS TP Northwest	01/22/91	01/28/91	3.3×10^{-14}	1.2×10^{-15}
Area 5, RWMS TP Northwest	01/28/91	02/04/91	2.7×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Northwest	02/04/91	02/11/91	3.6×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Northwest	02/11/91	02/19/91	2.0×10^{-14}	8.4×10^{-16}
Area 5, RWMS TP Northwest	02/19/91	02/25/91	2.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Northwest	02/25/91	03/04/91	1.5×10^{-14}	8.3×10^{-16}
Area 5, RWMS TP Northwest	03/04/91	03/11/91	1.1×10^{-14}	7.5×10^{-16}
Area 5, RWMS TP Northwest	03/11/91	03/18/91	1.1×10^{-14}	7.5×10^{-16}
Area 5, RWMS TP Northwest	03/18/91	03/25/91	9.7×10^{-15}	7.2×10^{-16}
Area 5, RWMS TP Northwest	03/25/91	04/01/91	1.1×10^{-14}	7.5×10^{-16}
Area 5, RWMS TP Northwest	04/01/91	04/08/91	1.7×10^{-14}	8.4×10^{-16}
Area 5, RWMS TP Northwest	04/08/91	04/15/91	1.6×10^{-14}	8.3×10^{-16}
Area 5, RWMS TP Northwest	04/15/91	04/22/91	1.8×10^{-14}	8.8×10^{-16}
Area 5, RWMS TP Northwest	04/22/91	04/29/91	1.3×10^{-14}	8.1×10^{-16}
Area 5, RWMS TP Northwest	04/29/91	05/06/91	1.6×10^{-14}	8.3×10^{-16}
Area 5, RWMS TP Northwest	05/06/91	05/13/91	1.5×10^{-14}	8.4×10^{-16}
Area 5, RWMS TP Northwest	05/13/91	05/20/91	1.3×10^{-14}	7.8×10^{-16}
Area 5, RWMS TP Northwest	05/20/91	05/28/91	1.7×10^{-14}	7.9×10^{-16}
Area 5, RWMS TP Northwest	05/28/91	06/03/91	1.5×10^{-14}	9.1×10^{-16}
Area 5, RWMS TP Northwest	06/03/91	06/10/91	2.2×10^{-14}	9.3×10^{-16}
Area 5, RWMS TP Northwest	06/10/91	06/17/91	2.3×10^{-14}	9.6×10^{-16}
Area 5, RWMS TP Northwest	06/17/91	06/25/91	1.5×10^{-14}	7.6×10^{-16}
Area 5, RWMS TP Northwest	06/25/91	07/01/91	1.3×10^{-14}	9.1×10^{-16}
Area 5, RWMS TP Northwest	07/ 1/91	07/08/91	1.9×10^{-14}	9.4×10^{-16}
Area 5, RWMS TP Northwest	07/ 8/91	07/15/91	2.0×10^{-14}	9.1×10^{-16}
Area 5, RWMS TP Northwest	07/15/91	07/22/91	1.7×10^{-14}	8.5×10^{-16}
Area 5, RWMS TP Northwest	07/22/91	07/29/91	2.1×10^{-14}	9.2×10^{-16}
Area 5, RWMS TP Northwest	07/29/91	08/05/91	1.9×10^{-14}	8.7×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS TP Northwest	08/ 5/91	08/12/91	1.9×10^{-14}	8.7×10^{-16}
Area 5, RWMS TP Northwest	08/12/91	08/19/91	1.5×10^{-14}	8.1×10^{-16}
Area 5, RWMS TP Northwest	08/19/91	08/26/91	2.1×10^{-14}	8.9×10^{-16}
Area 5, RWMS TP Northwest	08/26/91	09/03/91	2.1×10^{-14}	8.3×10^{-16}
Area 5, RWMS TP Northwest	09/03/91	09/09/91	1.7×10^{-14}	9.4×10^{-16}
Area 5, RWMS TP Northwest	09/09/91	09/16/91	2.2×10^{-14}	9.4×10^{-16}
Area 5, RWMS TP Northwest	09/16/91	09/23/91	2.4×10^{-14}	9.8×10^{-16}
Area 5, RWMS TP Northwest	09/23/91	09/30/91	1.7×10^{-14}	8.8×10^{-16}
Area 5, RWMS TP Northwest	09/30/91	10/07/91	3.4×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Northwest	10/07/91	10/14/91	3.7×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Northwest	10/14/91	10/21/91	2.0×10^{-14}	8.9×10^{-16}
Area 5, RWMS TP Northwest	10/21/91	10/28/91	1.9×10^{-14}	9.6×10^{-16}
Area 5, RWMS TP Northwest	10/28/91	11/04/91	2.4×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Northwest	11/04/91	11/12/91	1.5×10^{-14}	4.0×10^{-16}
Area 5, RWMS TP Northwest	11/12/91	11/18/91	2.3×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Northwest	11/18/91	11/25/91	1.3×10^{-14}	9.8×10^{-16}
Area 5, RWMS TP Northwest	11/25/91	12/03/91	1.8×10^{-14}	8.5×10^{-16}
Area 5, RWMS TP Northwest	12/03/91	12/09/91	2.3×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Northwest	12/09/91	12/16/91	2.9×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Northwest	12/16/91	12/23/91	3.0×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Northwest	12/23/91	12/30/91	3.3×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP South	01/02/91	01/07/91	1.8×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP South	01/07/91	01/14/91	3.2×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP South	01/14/91	01/22/91	1.3×10^{-14}	8.9×10^{-16}
Area 5, RWMS TP South	01/22/91	01/28/91	3.0×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP South	01/28/91	02/04/91	2.7×10^{-14}	9.8×10^{-16}
Area 5, RWMS TP South	02/04/91	02/11/91	3.5×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP South	02/11/91	02/19/91	2.0×10^{-14}	8.7×10^{-16}
Area 5, RWMS TP South	02/19/91	02/25/91	2.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP South	02/25/91	03/04/91	1.1×10^{-14}	7.7×10^{-16}
Area 5, RWMS TP South	03/04/91	03/11/91	1.3×10^{-14}	8.2×10^{-16}
Area 5, RWMS TP South	03/11/91	03/18/91	9.3×10^{-15}	7.9×10^{-16}
Area 5, RWMS TP South	03/18/91	03/25/91	1.0×10^{-14}	7.6×10^{-16}
Area 5, RWMS TP South	03/25/91	04/01/91	1.0×10^{-14}	7.7×10^{-16}
Area 5, RWMS TP South	04/01/91	04/08/91	2.1×10^{-14}	9.6×10^{-16}
Area 5, RWMS TP South	04/08/91	04/15/91	1.5×10^{-14}	8.6×10^{-16}
Area 5, RWMS TP South	04/15/91	04/22/91	1.9×10^{-14}	9.3×10^{-16}
Area 5, RWMS TP South	04/22/91	04/29/91	1.3×10^{-14}	8.4×10^{-16}
Area 5, RWMS TP South	04/29/91	05/06/91	1.8×10^{-14}	9.0×10^{-16}
Area 5, RWMS TP South	05/06/91	05/13/91	1.6×10^{-14}	8.8×10^{-16}
Area 5, RWMS TP South	05/13/91	05/20/91	1.1×10^{-14}	7.8×10^{-16}
Area 5, RWMS TP South	05/20/91	05/28/91	1.8×10^{-14}	8.1×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS TP South	05/28/91	06/03/91	1.6×10^{-14}	9.4×10^{-16}
Area 5, RWMS TP South	06/03/91	06/10/91	2.2×10^{-14}	9.3×10^{-16}
Area 5, RWMS TP South	06/10/91	06/17/91	2.2×10^{-14}	9.3×10^{-16}
Area 5, RWMS TP South	06/17/91	06/25/91	1.7×10^{-14}	7.9×10^{-16}
Area 5, RWMS TP South	06/25/91	07/01/91	1.4×10^{-14}	9.2×10^{-16}
Area 5, RWMS TP South	07/01/91	07/08/91	1.5×10^{-14}	8.3×10^{-16}
Area 5, RWMS TP South	07/08/91	07/15/91	2.1×10^{-14}	9.2×10^{-16}
Area 5, RWMS TP South	07/15/91	07/22/91	2.0×10^{-14}	9.0×10^{-16}
Area 5, RWMS TP South	07/22/91	07/29/91	2.1×10^{-14}	9.3×10^{-16}
Area 5, RWMS TP South	07/29/91	08/05/91	2.2×10^{-14}	9.3×10^{-16}
Area 5, RWMS TP South	08/12/91	08/19/91	1.6×10^{-14}	8.7×10^{-16}
Area 5, RWMS TP South	08/19/91	08/26/91	2.1×10^{-14}	9.3×10^{-16}
Area 5, RWMS TP South	08/26/91	09/03/91	5.8×10^{-15}	6.0×10^{-16}
Area 5, RWMS TP South	09/03/91	09/09/91	1.8×10^{-14}	9.7×10^{-16}
Area 5, RWMS TP South	09/09/91	09/16/91	2.3×10^{-14}	9.9×10^{-16}
Area 5, RWMS TP South	09/16/91	09/23/91	2.7×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP South	09/23/91	09/30/91	2.0×10^{-14}	9.4×10^{-16}
Area 5, RWMS TP South	09/30/91	10/07/91	3.2×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP South	10/07/91	10/14/91	3.8×10^{-14}	1.2×10^{-15}
Area 5, RWMS TP South	10/14/91	10/21/91	2.0×10^{-14}	9.1×10^{-16}
Area 5, RWMS TP South	10/21/91	10/28/91	2.2×10^{-14}	9.9×10^{-16}
Area 5, RWMS TP South	10/28/91	11/04/91	2.6×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP South	11/04/91	11/12/91	1.8×10^{-14}	4.2×10^{-16}
Area 5, RWMS TP South	11/12/91	11/18/91	2.2×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP South	11/18/91	11/25/91	1.0×10^{-14}	7.7×10^{-16}
Area 5, RWMS TP South	11/25/91	12/03/91	1.8×10^{-14}	8.2×10^{-16}
Area 5, RWMS TP South	12/03/91	12/09/91	2.7×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP South	12/09/91	12/16/91	2.7×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP South	12/16/91	12/23/91	3.3×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP South	12/23/91	12/30/91	1.2×10^{-14}	8.0×10^{-16}
Area 5, RWMS TP Southeast	01/02/91	01/07/91	1.8×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Southeast	01/07/91	01/14/91	3.0×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Southeast	01/14/91	01/22/91	1.2×10^{-14}	8.7×10^{-16}
Area 5, RWMS TP Southeast	01/22/91	01/28/91	3.2×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Southeast	01/28/91	02/04/91	2.7×10^{-14}	9.6×10^{-16}
Area 5, RWMS TP Southeast	02/04/91	02/11/91	5.0×10^{-14}	1.5×10^{-15}
Area 5, RWMS TP Southeast	02/11/91	02/19/91	1.6×10^{-14}	7.0×10^{-16}
Area 5, RWMS TP Southeast	02/19/91	02/25/91	1.8×10^{-14}	9.5×10^{-16}
Area 5, RWMS TP Southeast	02/25/91	03/04/91	1.2×10^{-14}	7.4×10^{-16}
Area 5, RWMS TP Southeast	03/04/91	03/11/91	1.1×10^{-14}	7.5×10^{-16}
Area 5, RWMS TP Southeast	03/11/91	03/18/91	9.4×10^{-15}	7.1×10^{-16}
Area 5, RWMS TP Southeast	03/18/91	03/25/91	9.3×10^{-15}	7.0×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS TP Southeast	03/25/91	04/01/91	1.0×10^{-14}	7.2×10^{-16}
Area 5, RWMS TP Southeast	04/01/91	04/08/91	1.9×10^{-14}	8.6×10^{-16}
Area 5, RWMS TP Southeast	04/08/91	04/15/91	1.4×10^{-14}	7.8×10^{-16}
Area 5, RWMS TP Southeast	04/15/91	04/22/91	2.1×10^{-14}	9.6×10^{-16}
Area 5, RWMS TP Southeast	04/22/91	04/29/91	1.2×10^{-14}	7.2×10^{-16}
Area 5, RWMS TP Southeast	04/29/91	05/06/91	1.7×10^{-14}	8.2×10^{-16}
Area 5, RWMS TP Southeast	05/06/91	05/13/91	1.4×10^{-14}	8.0×10^{-16}
Area 5, RWMS TP Southeast	05/13/91	05/20/91	1.1×10^{-14}	7.2×10^{-16}
Area 5, RWMS TP Southeast	05/20/91	05/28/91	1.7×10^{-14}	8.4×10^{-16}
Area 5, RWMS TP Southeast	05/28/91	06/03/91	1.2×10^{-14}	8.0×10^{-16}
Area 5, RWMS TP Southeast	06/03/91	06/10/91	2.0×10^{-14}	8.3×10^{-16}
Area 5, RWMS TP Southeast	06/10/91	06/17/91	2.0×10^{-14}	8.6×10^{-16}
Area 5, RWMS TP Southeast	06/17/91	06/25/91	1.7×10^{-14}	7.4×10^{-16}
Area 5, RWMS TP Southeast	06/25/91	07/01/91	1.2×10^{-14}	8.2×10^{-16}
Area 5, RWMS TP Southeast	07/01/91	07/08/91	1.5×10^{-14}	7.8×10^{-16}
Area 5, RWMS TP Southeast	07/08/91	07/15/91	2.0×10^{-14}	8.5×10^{-16}
Area 5, RWMS TP Southeast	07/15/91	07/22/91	1.8×10^{-14}	8.2×10^{-16}
Area 5, RWMS TP Southeast	07/22/91	07/29/91	2.0×10^{-14}	8.6×10^{-16}
Area 5, RWMS TP Southeast	07/29/91	08/05/91	2.0×10^{-14}	9.5×10^{-16}
Area 5, RWMS TP Southeast	08/05/91	08/12/91	2.0×10^{-14}	8.6×10^{-16}
Area 5, RWMS TP Southeast	08/12/91	08/19/91	1.5×10^{-14}	7.9×10^{-16}
Area 5, RWMS TP Southeast	08/19/91	08/26/91	2.1×10^{-14}	1.3×10^{-15}
Area 5, RWMS TP Southeast	09/03/91	09/09/91	1.7×10^{-14}	9.3×10^{-16}
Area 5, RWMS TP Southeast	09/09/91	09/16/91	2.1×10^{-14}	9.2×10^{-16}
Area 5, RWMS TP Southeast	09/16/91	09/23/91	2.3×10^{-14}	9.8×10^{-16}
Area 5, RWMS TP Southeast	09/23/91	09/30/91	1.9×10^{-14}	9.0×10^{-16}
Area 5, RWMS TP Southeast	09/30/91	10/07/91	3.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Southeast	10/07/91	10/14/91	3.3×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Southeast	10/14/91	10/21/91	2.1×10^{-14}	8.9×10^{-16}
Area 5, RWMS TP Southeast	10/21/91	10/28/91	2.1×10^{-14}	9.3×10^{-16}
Area 5, RWMS TP Southeast	10/28/91	11/04/91	2.4×10^{-14}	9.8×10^{-16}
Area 5, RWMS TP Southeast	11/04/91	11/12/91	1.7×10^{-14}	3.9×10^{-16}
Area 5, RWMS TP Southeast	11/12/91	11/18/91	2.1×10^{-14}	9.9×10^{-16}
Area 5, RWMS TP Southeast	11/18/91	11/25/91	9.8×10^{-15}	7.2×10^{-16}
Area 5, RWMS TP Southeast	11/25/91	12/03/91	1.6×10^{-14}	7.4×10^{-16}
Area 5, RWMS TP Southeast	12/03/91	12/09/91	2.5×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Southeast	12/09/91	12/16/91	2.5×10^{-14}	9.8×10^{-16}
Area 5, RWMS TP Southeast	12/16/91	12/23/91	2.6×10^{-14}	9.4×10^{-16}
Area 5, RWMS TP Southeast	12/23/91	12/30/91	2.0×10^{-14}	8.8×10^{-16}
Area 5, RWMS TP Southwest	01/02/91	01/07/91	1.7×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Southwest	01/07/91	01/14/91	3.2×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Southwest	01/14/91	01/22/91	1.3×10^{-14}	1.0×10^{-15}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS TP Southwest	01/22/91	01/28/91	3.4×10^{-14}	1.2×10^{-15}
Area 5, RWMS TP Southwest	01/28/91	02/04/91	2.8×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Southwest	02/04/91	02/11/91	3.6×10^{-14}	1.2×10^{-15}
Area 5, RWMS TP Southwest	02/11/91	02/19/91	2.0×10^{-14}	8.4×10^{-16}
Area 5, RWMS TP Southwest	02/19/91	02/25/91	2.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Southwest	02/25/91	03/04/91	1.2×10^{-14}	7.6×10^{-16}
Area 5, RWMS TP Southwest	03/04/91	03/11/91	1.3×10^{-14}	7.9×10^{-16}
Area 5, RWMS TP Southwest	03/11/91	03/18/91	9.8×10^{-15}	7.4×10^{-16}
Area 5, RWMS TP Southwest	03/18/91	03/25/91	8.8×10^{-15}	7.1×10^{-16}
Area 5, RWMS TP Southwest	03/25/91	04/01/91	1.2×10^{-14}	7.6×10^{-16}
Area 5, RWMS TP Southwest	04/01/91	04/08/91	2.0×10^{-14}	9.1×10^{-16}
Area 5, RWMS TP Southwest	04/08/91	04/15/91	1.5×10^{-14}	8.1×10^{-16}
Area 5, RWMS TP Southwest	04/15/91	04/22/91	1.8×10^{-14}	8.7×10^{-16}
Area 5, RWMS TP Southwest	04/22/91	04/29/91	1.3×10^{-14}	8.0×10^{-16}
Area 5, RWMS TP Southwest	04/29/91	05/06/91	1.6×10^{-14}	8.2×10^{-16}
Area 5, RWMS TP Southwest	05/06/91	05/13/91	1.4×10^{-14}	8.1×10^{-16}
Area 5, RWMS TP Southwest	05/13/91	05/20/91	1.2×10^{-14}	7.6×10^{-16}
Area 5, RWMS TP Southwest	05/20/91	05/28/91	1.9×10^{-14}	8.6×10^{-16}
Area 5, RWMS TP Southwest	05/28/91	06/03/91	1.4×10^{-14}	9.4×10^{-16}
Area 5, RWMS TP Southwest	06/03/91	06/10/91	2.2×10^{-14}	9.5×10^{-16}
Area 5, RWMS TP Southwest	06/10/91	06/17/91	2.3×10^{-14}	9.9×10^{-16}
Area 5, RWMS TP Southwest	06/17/91	06/25/91	1.5×10^{-14}	7.9×10^{-16}
Area 5, RWMS TP Southwest	06/25/91	07/01/91	1.6×10^{-14}	9.8×10^{-16}
Area 5, RWMS TP Southwest	07/01/91	07/08/91	1.6×10^{-14}	8.7×10^{-16}
Area 5, RWMS TP Southwest	07/08/91	07/15/91	2.1×10^{-14}	9.4×10^{-16}
Area 5, RWMS TP Southwest	07/15/91	07/22/91	1.9×10^{-14}	9.1×10^{-16}
Area 5, RWMS TP Southwest	07/22/91	07/29/91	2.2×10^{-14}	9.6×10^{-16}
Area 5, RWMS TP Southwest	07/29/91	08/05/91	1.8×10^{-14}	8.4×10^{-16}
Area 5, RWMS TP Southwest	08/05/91	08/12/91	1.9×10^{-14}	9.0×10^{-16}
Area 5, RWMS TP Southwest	08/12/91	08/19/91	1.9×10^{-14}	9.3×10^{-16}
Area 5, RWMS TP Southwest	08/19/91	08/26/91	1.7×10^{-14}	1.7×10^{-15}
Area 5, RWMS TP Southwest	08/26/91	09/03/91	2.3×10^{-14}	8.8×10^{-16}
Area 5, RWMS TP Southwest	09/03/91	09/09/91	1.7×10^{-14}	9.5×10^{-16}
Area 5, RWMS TP Southwest	09/09/91	09/16/91	2.4×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Southwest	09/16/91	09/23/91	2.5×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Southwest	09/23/91	09/30/91	1.9×10^{-14}	9.2×10^{-16}
Area 5, RWMS TP Southwest	09/30/91	10/07/91	3.1×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Southwest	10/07/91	10/14/91	3.7×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Southwest	10/14/91	10/21/91	2.0×10^{-14}	9.0×10^{-16}
Area 5, RWMS TP Southwest	10/21/91	10/28/91	2.5×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Southwest	10/28/91	11/04/91	2.3×10^{-14}	9.5×10^{-16}
Area 5, RWMS TP Southwest	11/04/91	11/12/91	1.7×10^{-14}	7.8×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, RWMS TP Southwest	11/12/91	11/18/91	2.0×10^{-14}	9.9×10^{-16}
Area 5, RWMS TP Southwest	11/18/91	11/25/91	1.1×10^{-14}	7.9×10^{-16}
Area 5, RWMS TP Southwest	11/25/91	12/03/91	2.0×10^{-14}	8.7×10^{-16}
Area 5, RWMS TP Southwest	12/03/91	12/09/91	2.4×10^{-14}	1.1×10^{-15}
Area 5, RWMS TP Southwest	12/09/91	12/16/91	3.0×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Southwest	12/16/91	12/23/91	3.1×10^{-14}	1.0×10^{-15}
Area 5, RWMS TP Southwest	12/23/91	12/30/91	2.2×10^{-14}	9.8×10^{-16}
Area 5, Well 5B	01/02/91	01/07/91	2.6×10^{-14}	1.5×10^{-15}
Area 5, Well 5B	01/07/91	01/14/91	3.5×10^{-14}	1.1×10^{-15}
Area 5, Well 5B	01/22/91	01/28/91	3.7×10^{-14}	1.3×10^{-15}
Area 5, Well 5B	02/19/91	02/25/91	2.2×10^{-14}	1.0×10^{-15}
Area 5, Well 5B	02/25/91	03/04/91	1.3×10^{-14}	7.8×10^{-16}
Area 5, Well 5B	03/04/91	03/11/91	1.4×10^{-14}	8.2×10^{-16}
Area 5, Well 5B	03/11/91	03/18/91	1.1×10^{-14}	7.6×10^{-16}
Area 5, Well 5B	03/18/91	03/25/91	1.0×10^{-14}	7.4×10^{-16}
Area 5, Well 5B	03/25/91	04/01/91	1.2×10^{-14}	7.7×10^{-16}
Area 5, Well 5B	04/01/91	04/08/91	2.0×10^{-14}	9.0×10^{-16}
Area 5, Well 5B	04/08/91	04/15/91	1.4×10^{-14}	8.1×10^{-16}
Area 5, Well 5B	04/15/91	04/22/91	1.8×10^{-14}	8.6×10^{-16}
Area 5, Well 5B	04/22/91	04/29/91	1.9×10^{-14}	9.1×10^{-16}
Area 5, Well 5B	04/29/91	05/06/91	1.5×10^{-14}	8.1×10^{-16}
Area 5, Well 5B	05/06/91	05/13/91	1.6×10^{-14}	8.3×10^{-16}
Area 5, Well 5B	05/13/91	05/20/91	1.2×10^{-14}	7.7×10^{-16}
Area 5, Well 5B	05/20/91	05/28/91	1.7×10^{-14}	7.9×10^{-16}
Area 5, Well 5B	05/28/91	06/03/91	1.3×10^{-14}	8.8×10^{-16}
Area 5, Well 5B	06/03/91	06/10/91	2.1×10^{-14}	9.1×10^{-16}
Area 5, Well 5B	06/10/91	06/17/91	2.2×10^{-14}	9.6×10^{-16}
Area 5, Well 5B	06/17/91	06/25/91	1.5×10^{-14}	7.4×10^{-16}
Area 5, Well 5B	06/25/91	07/01/91	1.3×10^{-14}	8.8×10^{-16}
Area 5, Well 5B	07/01/91	07/08/91	1.8×10^{-14}	8.7×10^{-16}
Area 5, Well 5B	07/08/91	07/15/91	2.1×10^{-14}	9.2×10^{-16}
Area 5, Well 5B	07/15/91	07/22/91	2.0×10^{-14}	9.0×10^{-16}
Area 5, Well 5B	07/22/91	07/29/91	2.1×10^{-14}	9.0×10^{-16}
Area 5, Well 5B	07/29/91	08/05/91	2.1×10^{-14}	9.1×10^{-16}
Area 5, Well 5B	08/05/91	08/12/91	1.9×10^{-14}	8.8×10^{-16}
Area 5, Well 5B	08/12/91	08/19/91	1.5×10^{-14}	8.3×10^{-16}
Area 5, Well 5B	08/19/91	08/26/91	2.0×10^{-14}	8.9×10^{-16}
Area 5, Well 5B	08/26/91	09/03/91	2.2×10^{-14}	8.6×10^{-16}
Area 5, Well 5B	09/03/91	09/09/91	1.3×10^{-14}	9.3×10^{-16}
Area 5, Well 5B	09/09/91	09/16/91	2.2×10^{-14}	9.7×10^{-16}
Area 5, Well 5B	09/16/91	09/23/91	2.6×10^{-14}	1.0×10^{-15}
Area 5, Well 5B	09/23/91	09/30/91	1.9×10^{-14}	9.3×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 5, Well 5B	09/30/91	10/07/91	3.2×10^{-14}	1.1×10^{-15}
Area 5, Well 5B	10/07/91	10/14/91	3.7×10^{-14}	1.1×10^{-15}
Area 5, Well 5B	10/14/91	10/21/91	2.1×10^{-14}	9.6×10^{-16}
Area 5, Well 5B	10/21/91	10/28/91	2.2×10^{-14}	4.6×10^{-16}
Area 5, Well 5B	10/28/91	11/04/91	2.2×10^{-14}	9.9×10^{-16}
Area 5, Well 5B	11/04/91	11/12/91	1.8×10^{-14}	4.0×10^{-16}
Area 5, Well 5B	11/12/91	11/18/91	2.0×10^{-14}	1.1×10^{-15}
Area 5, Well 5B	11/18/91	11/25/91	1.1×10^{-14}	7.0×10^{-16}
Area 5, Well 5B	11/25/91	12/03/91	1.6×10^{-14}	8.1×10^{-16}
Area 5, Well 5B	12/03/91	12/09/91	2.6×10^{-14}	1.1×10^{-15}
Area 5, Well 5B	12/09/91	12/16/91	2.6×10^{-14}	1.0×10^{-15}
Area 5, Well 5B	12/16/91	12/23/91	3.1×10^{-14}	1.0×10^{-15}
Area 5, Well 5B	12/23/91	12/30/91	9.1×10^{-15}	7.7×10^{-16}
Area 6, CP-6	12/31/90	01/07/91	2.1×10^{-14}	9.8×10^{-16}
Area 6, CP-6	01/07/91	01/14/91	2.9×10^{-14}	1.0×10^{-15}
Area 6, CP-6	01/14/91	01/22/91	1.3×10^{-14}	7.4×10^{-16}
Area 6, CP-6	01/22/91	01/28/91	2.7×10^{-14}	1.1×10^{-15}
Area 6, CP-6	01/28/91	02/04/91	2.5×10^{-14}	1.0×10^{-15}
Area 6, CP-6	02/04/91	02/11/91	3.0×10^{-14}	1.0×10^{-15}
Area 6, CP-6	02/11/91	02/19/91	1.9×10^{-14}	8.5×10^{-16}
Area 6, CP-6	02/19/91	02/25/91	2.1×10^{-14}	1.0×10^{-15}
Area 6, CP-6	02/25/91	03/04/91	1.1×10^{-14}	7.9×10^{-16}
Area 6, CP-6	03/04/91	03/11/91	1.3×10^{-14}	8.5×10^{-16}
Area 6, CP-6	03/11/91	03/18/91	9.8×10^{-15}	7.9×10^{-16}
Area 6, CP-6	03/18/91	03/25/91	1.2×10^{-14}	8.5×10^{-16}
Area 6, CP-6	03/25/91	04/01/91	1.0×10^{-14}	8.2×10^{-16}
Area 6, CP-6	03/01/91	04/08/91	2.0×10^{-14}	9.7×10^{-16}
Area 6, CP-6	04/08/91	04/15/91	1.3×10^{-14}	8.7×10^{-16}
Area 6, CP-6	04/15/91	04/22/91	1.9×10^{-14}	9.5×10^{-16}
Area 6, CP-6	04/22/91	04/29/91	1.5×10^{-14}	9.0×10^{-16}
Area 6, CP-6	04/29/91	05/06/91	1.7×10^{-14}	9.2×10^{-16}
Area 6, CP-6	05/06/91	05/14/91	1.6×10^{-14}	8.3×10^{-16}
Area 6, CP-6	05/14/91	05/20/91	1.4×10^{-14}	9.9×10^{-16}
Area 6, CP-6	05/20/91	05/28/91	1.9×10^{-14}	8.8×10^{-16}
Area 6, CP-6	05/28/91	06/03/91	1.9×10^{-14}	1.0×10^{-15}
Area 6, CP-6	06/03/91	06/10/91	2.2×10^{-14}	1.0×10^{-15}
Area 6, CP-6	06/10/91	06/17/91	2.5×10^{-14}	1.0×10^{-15}
Area 6, CP-6	06/17/91	06/24/91	1.9×10^{-14}	9.5×10^{-16}
Area 6, CP-6	06/24/91	07/01/91	1.2×10^{-14}	8.5×10^{-16}
Area 6, CP-6	07/01/91	07/08/91	1.8×10^{-14}	9.3×10^{-16}
Area 6, CP-6	07/08/91	07/15/91	2.4×10^{-14}	1.0×10^{-15}
Area 6, CP-6	07/15/91	07/22/91	1.9×10^{-14}	9.6×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 6, CP-6	07/22/91	07/29/91	2.4×10^{-14}	1.0×10^{-15}
Area 6, CP-6	07/29/91	08/05/91	2.2×10^{-14}	1.0×10^{-15}
Area 6, CP-6	08/05/91	08/12/91	1.9×10^{-14}	8.8×10^{-16}
Area 6, CP-6	08/12/91	08/19/91	2.0×10^{-14}	1.0×10^{-15}
Area 6, CP-6	08/19/91	08/26/91	2.2×10^{-14}	1.0×10^{-15}
Area 6, CP-6	08/26/91	09/03/91	2.0×10^{-14}	9.0×10^{-16}
Area 6, CP-6	09/03/91	09/09/91	2.0×10^{-14}	1.0×10^{-15}
Area 6, CP-6	09/09/91	09/16/91	2.4×10^{-14}	1.0×10^{-15}
Area 6, CP-6	09/16/91	09/23/91	2.5×10^{-14}	1.0×10^{-15}
Area 6, CP-6	09/23/91	09/30/91	1.9×10^{-14}	1.0×10^{-15}
Area 6, CP-6	09/30/91	10/07/91	3.3×10^{-14}	1.2×10^{-15}
Area 6, CP-6	10/07/91	10/14/91	3.6×10^{-14}	1.2×10^{-15}
Area 6, CP-6	10/14/91	10/21/91	1.9×10^{-14}	9.6×10^{-16}
Area 6, CP-6	10/21/91	10/28/91	2.5×10^{-14}	1.0×10^{-15}
Area 6, CP-6	10/28/91	11/04/91	2.4×10^{-14}	1.0×10^{-15}
Area 6, CP-6	11/04/91	11/12/91	1.7×10^{-14}	8.5×10^{-16}
Area 6, CP-6	11/12/91	11/18/91	2.0×10^{-14}	1.1×10^{-15}
Area 6, CP-6	11/18/91	11/25/91	1.2×10^{-14}	8.4×10^{-16}
Area 6, CP-6	11/25/91	12/02/91	1.7×10^{-14}	9.2×10^{-16}
Area 6, CP-6	12/02/91	12/09/91	2.6×10^{-14}	1.2×10^{-15}
Area 6, CP-6	12/09/91	12/16/91	2.8×10^{-14}	1.0×10^{-15}
Area 6, CP-6	12/16/91	12/23/91	2.7×10^{-14}	1.0×10^{-15}
Area 6, CP-6	12/23/91	12/30/91	3.0×10^{-14}	1.1×10^{-15}
Area 6, Well 3 Complex	12/31/90	01/07/91	1.9×10^{-14}	9.2×10^{-16}
Area 6, Well 3 Complex	01/07/91	01/14/91	2.9×10^{-14}	1.0×10^{-15}
Area 6, Well 3 Complex	01/14/91	01/22/91	1.1×10^{-14}	7.1×10^{-16}
Area 6, Well 3 Complex	01/22/91	01/28/91	2.6×10^{-14}	1.1×10^{-15}
Area 6, Well 3 Complex	01/28/91	02/04/91	2.4×10^{-14}	9.8×10^{-16}
Area 6, Well 3 Complex	02/04/91	02/11/91	3.1×10^{-14}	1.0×10^{-15}
Area 6, Well 3 Complex	02/11/91	02/19/91	1.8×10^{-14}	8.2×10^{-16}
Area 6, Well 3 Complex	02/19/91	02/25/91	2.1×10^{-14}	1.0×10^{-15}
Area 6, Well 3 Complex	02/25/91	03/04/91	1.1×10^{-14}	7.8×10^{-16}
Area 6, Well 3 Complex	03/04/91	03/11/91	1.2×10^{-14}	7.8×10^{-16}
Area 6, Well 3 Complex	03/11/91	03/18/91	9.6×10^{-15}	7.3×10^{-16}
Area 6, Well 3 Complex	03/18/91	03/25/91	9.2×10^{-15}	7.4×10^{-16}
Area 6, Well 3 Complex	03/25/91	04/01/91	1.2×10^{-14}	8.0×10^{-16}
Area 6, Well 3 Complex	04/01/91	04/08/91	1.8×10^{-14}	9.0×10^{-16}
Area 6, Well 3 Complex	04/08/91	04/15/91	1.3×10^{-14}	8.1×10^{-16}
Area 6, Well 3 Complex	04/15/91	04/22/91	1.6×10^{-14}	8.6×10^{-16}
Area 6, Well 3 Complex	04/22/91	04/29/91	1.3×10^{-14}	8.1×10^{-16}
Area 6, Well 3 Complex	04/29/91	05/06/91	1.7×10^{-14}	8.8×10^{-16}
Area 6, Well 3 Complex	05/06/91	05/14/91	1.3×10^{-14}	7.4×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concen- tration	Standard Deviation (s)
Area 6, Well 3 Complex	05/14/91	05/20/91	1.2×10^{-14}	9.0×10^{-16}
Area 6, Well 3 Complex	05/20/91	05/28/91	1.8×10^{-14}	8.2×10^{-16}
Area 6, Well 3 Complex	05/28/91	06/03/91	1.7×10^{-14}	9.7×10^{-16}
Area 6, Well 3 Complex	06/03/91	06/10/91	1.8×10^{-14}	9.0×10^{-16}
Area 6, Well 3 Complex	06/10/91	06/17/91	2.4×10^{-14}	9.9×10^{-16}
Area 6, Well 3 Complex	06/17/91	06/24/91	1.6×10^{-14}	8.7×10^{-16}
Area 6, Well 3 Complex	06/24/91	07/01/91	1.2×10^{-14}	7.9×10^{-16}
Area 6, Well 3 Complex	07/01/91	07/08/91	1.9×10^{-14}	9.0×10^{-16}
Area 6, Well 3 Complex	07/08/91	07/15/91	2.1×10^{-14}	9.4×10^{-16}
Area 6, Well 3 Complex	07/15/91	07/22/91	1.7×10^{-14}	8.8×10^{-16}
Area 6, Well 3 Complex	07/22/91	07/29/91	2.1×10^{-14}	9.4×10^{-16}
Area 6, Well 3 Complex	07/29/91	08/05/91	2.1×10^{-14}	9.3×10^{-16}
Area 6, Well 3 Complex	08/05/91	08/12/91	1.9×10^{-14}	9.0×10^{-16}
Area 6, Well 3 Complex	08/12/91	08/19/91	1.4×10^{-14}	8.3×10^{-16}
Area 6, Well 3 Complex	08/19/91	08/26/91	2.0×10^{-14}	9.2×10^{-16}
Area 6, Well 3 Complex	08/26/91	09/03/91	2.2×10^{-14}	8.8×10^{-16}
Area 6, Well 3 Complex	09/03/91	09/09/91	2.1×10^{-14}	1.0×10^{-15}
Area 6, Well 3 Complex	09/09/91	09/16/91	2.0×10^{-14}	9.6×10^{-16}
Area 6, Well 3 Complex	09/16/91	09/23/91	2.3×10^{-14}	9.8×10^{-16}
Area 6, Well 3 Complex	09/23/91	09/30/91	1.3×10^{-14}	8.3×10^{-16}
Area 6, Well 3 Complex	09/30/91	10/07/91	3.2×10^{-14}	1.1×10^{-15}
Area 6, Well 3 Complex	10/07/91	10/14/91	3.6×10^{-14}	1.1×10^{-15}
Area 6, Well 3 Complex	10/14/91	10/21/91	2.0×10^{-14}	9.1×10^{-16}
Area 6, Well 3 Complex	10/21/91	10/28/91	2.0×10^{-14}	9.5×10^{-16}
Area 6, Well 3 Complex	10/28/91	11/04/91	2.2×10^{-14}	9.4×10^{-16}
Area 6, Well 3 Complex	11/04/91	11/12/91	1.9×10^{-14}	1.7×10^{-15}
Area 6, Well 3 Complex	11/25/91	12/02/91	1.2×10^{-14}	1.0×10^{-15}
Area 6, Well 3 Complex	12/02/91	12/09/91	2.1×10^{-14}	9.9×10^{-16}
Area 6, Well 3 Complex	12/09/91	12/16/91	2.4×10^{-14}	9.7×10^{-16}
Area 6, Well 3 Complex	12/16/91	12/23/91	2.4×10^{-14}	9.7×10^{-16}
Area 6, Well 3 Complex	12/23/91	12/30/91	5.5×10^{-15}	6.6×10^{-16}
Area 6, Yucca Complex	12/31/90	01/07/91	2.0×10^{-14}	9.4×10^{-16}
Area 6, Yucca Complex	01/07/91	01/14/91	2.7×10^{-14}	1.0×10^{-15}
Area 6, Yucca Complex	01/14/91	01/22/91	1.4×10^{-14}	7.5×10^{-16}
Area 6, Yucca Complex	01/22/91	01/28/91	3.1×10^{-14}	1.2×10^{-15}
Area 6, Yucca Complex	01/28/91	02/04/91	2.4×10^{-14}	1.0×10^{-15}
Area 6, Yucca Complex	02/04/91	02/11/91	3.3×10^{-14}	1.1×10^{-15}
Area 6, Yucca Complex	02/11/91	02/19/91	2.0×10^{-14}	8.4×10^{-16}
Area 6, Yucca Complex	02/19/91	02/25/91	2.1×10^{-14}	1.0×10^{-15}
Area 6, Yucca Complex	02/25/91	03/04/91	1.5×10^{-14}	8.6×10^{-16}
Area 6, Yucca Complex	03/04/91	03/11/91	1.3×10^{-14}	8.0×10^{-16}
Area 6, Yucca Complex	03/11/91	03/18/91	9.5×10^{-15}	7.2×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 6, Yucca Complex	03/18/91	03/25/91	1.2×10^{-14}	7.9×10^{-16}
Area 6, Yucca Complex	03/25/91	04/01/91	1.2×10^{-14}	7.9×10^{-16}
Area 6, Yucca Complex	04/01/91	04/08/91	1.7×10^{-14}	8.8×10^{-16}
Area 6, Yucca Complex	04/08/91	04/15/91	1.4×10^{-14}	8.1×10^{-16}
Area 6, Yucca Complex	04/15/91	04/22/91	1.9×10^{-14}	9.1×10^{-16}
Area 6, Yucca Complex	04/22/91	04/29/91	1.2×10^{-14}	7.4×10^{-16}
Area 6, Yucca Complex	04/29/91	05/06/91	2.3×10^{-14}	1.0×10^{-15}
Area 6, Yucca Complex	05/06/91	05/14/91	1.5×10^{-14}	7.3×10^{-16}
Area 6, Yucca Complex	05/14/91	05/20/91	1.4×10^{-14}	9.1×10^{-16}
Area 6, Yucca Complex	05/20/91	05/28/91	2.0×10^{-14}	8.4×10^{-16}
Area 6, Yucca Complex	05/28/91	06/03/91	1.9×10^{-14}	1.0×10^{-15}
Area 6, Yucca Complex	06/03/91	06/10/91	2.2×10^{-14}	9.4×10^{-16}
Area 6, Yucca Complex	06/10/91	06/17/91	2.3×10^{-14}	9.6×10^{-16}
Area 6, Yucca Complex	06/17/91	06/24/91	1.7×10^{-14}	8.7×10^{-16}
Area 6, Yucca Complex	06/24/91	07/01/91	1.1×10^{-14}	7.6×10^{-16}
Area 6, Yucca Complex	07/01/91	07/08/91	1.9×10^{-14}	8.9×10^{-16}
Area 6, Yucca Complex	07/08/91	07/15/91	2.0×10^{-14}	9.1×10^{-16}
Area 6, Yucca Complex	07/15/91	07/22/91	1.9×10^{-14}	8.9×10^{-16}
Area 6, Yucca Complex	07/22/91	07/29/91	2.2×10^{-14}	9.4×10^{-16}
Area 6, Yucca Complex	07/29/91	08/05/91	2.0×10^{-14}	9.1×10^{-16}
Area 6, Yucca Complex	08/05/91	08/12/91	1.9×10^{-14}	8.9×10^{-16}
Area 6, Yucca Complex	08/12/91	08/19/91	1.7×10^{-14}	8.6×10^{-16}
Area 6, Yucca Complex	08/19/91	08/26/91	2.0×10^{-14}	9.0×10^{-16}
Area 6, Yucca Complex	08/26/91	09/03/91	2.3×10^{-14}	8.8×10^{-16}
Area 6, Yucca Complex	09/03/91	09/09/91	2.0×10^{-14}	1.0×10^{-15}
Area 6, Yucca Complex	09/09/91	09/16/91	2.3×10^{-14}	9.8×10^{-16}
Area 6, Yucca Complex	09/16/91	09/23/91	2.6×10^{-14}	1.0×10^{-15}
Area 6, Yucca Complex	09/23/91	09/30/91	1.9×10^{-14}	9.3×10^{-16}
Area 6, Yucca Complex	09/30/91	10/07/91	3.3×10^{-14}	1.1×10^{-15}
Area 6, Yucca Complex	10/07/91	10/14/91	3.1×10^{-14}	1.1×10^{-15}
Area 6, Yucca Complex	10/14/91	10/21/91	2.1×10^{-14}	9.2×10^{-16}
Area 6, Yucca Complex	10/21/91	10/28/91	2.5×10^{-14}	1.0×10^{-15}
Area 6, Yucca Complex	10/28/91	11/04/91	2.2×10^{-14}	9.4×10^{-16}
Area 6, Yucca Complex	11/04/91	11/12/91	1.8×10^{-14}	7.9×10^{-16}
Area 6, Yucca Complex	11/12/91	11/18/91	2.2×10^{-14}	1.0×10^{-15}
Area 6, Yucca Complex	11/18/91	11/25/91	1.2×10^{-14}	7.9×10^{-16}
Area 6, Yucca Complex	11/25/91	12/02/91	1.9×10^{-14}	8.8×10^{-16}
Area 6, Yucca Complex	12/02/91	12/09/91	2.1×10^{-14}	9.7×10^{-16}
Area 6, Yucca Complex	12/09/91	12/16/91	2.3×10^{-14}	9.1×10^{-16}
Area 6, Yucca Complex	12/16/91	12/23/91	2.8×10^{-14}	1.0×10^{-15}
Area 6, Yucca Complex	12/23/91	12/30/91	3.0×10^{-14}	1.0×10^{-15}
Area 7, Ue7ns	12/31/90	01/07/91	1.9×10^{-14}	1.1×10^{-15}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 7, Ue7ns	01/07/91	01/14/91	2.8×10^{-14}	1.3×10^{-15}
Area 7, Ue7ns	01/14/91	01/22/91	1.5×10^{-14}	1.0×10^{-15}
Area 7, Ue7ns	01/22/91	01/28/91	2.5×10^{-14}	1.4×10^{-15}
Area 7, Ue7ns	01/28/91	02/04/91	2.2×10^{-14}	9.5×10^{-16}
Area 7, Ue7ns	02/04/91	02/11/91	3.0×10^{-14}	1.0×10^{-15}
Area 7, Ue7ns	02/19/91	02/25/91	2.0×10^{-14}	1.0×10^{-15}
Area 7, Ue7ns	02/25/91	03/04/91	1.0×10^{-14}	7.5×10^{-16}
Area 7, Ue7ns	03/04/91	03/11/91	1.3×10^{-14}	8.1×10^{-16}
Area 7, Ue7ns	03/11/91	03/18/91	7.7×10^{-15}	6.9×10^{-16}
Area 7, Ue7ns	03/18/91	03/25/91	1.1×10^{-14}	7.8×10^{-16}
Area 7, Ue7ns	03/25/91	04/01/91	1.2×10^{-14}	7.7×10^{-16}
Area 7, Ue7ns	04/01/91	04/08/91	1.8×10^{-14}	9.0×10^{-16}
Area 7, Ue7ns	04/08/91	04/15/91	1.2×10^{-14}	8.0×10^{-16}
Area 7, Ue7ns	04/22/91	04/29/91	1.1×10^{-14}	6.9×10^{-16}
Area 7, Ue7ns	05/06/91	05/14/91	1.3×10^{-14}	7.4×10^{-16}
Area 7, Ue7ns	05/14/91	05/20/91	1.3×10^{-14}	9.0×10^{-16}
Area 7, Ue7ns	05/20/91	05/28/91	1.7×10^{-14}	7.9×10^{-16}
Area 7, Ue7ns	05/28/91	06/03/91	1.5×10^{-14}	9.3×10^{-16}
Area 7, Ue7ns	06/03/91	06/10/91	2.0×10^{-14}	9.1×10^{-16}
Area 7, Ue7ns	06/10/91	06/17/91	2.3×10^{-14}	9.6×10^{-16}
Area 7, Ue7ns	06/17/91	06/24/91	1.4×10^{-14}	8.2×10^{-16}
Area 7, Ue7ns	06/24/91	07/01/91	1.2×10^{-14}	7.7×10^{-16}
Area 7, Ue7ns	07/01/91	07/08/91	1.8×10^{-14}	8.8×10^{-16}
Area 7, Ue7ns	07/08/91	07/15/91	1.7×10^{-14}	8.6×10^{-16}
Area 7, Ue7ns	07/15/91	07/22/91	1.6×10^{-14}	8.5×10^{-16}
Area 7, Ue7ns	07/22/91	07/29/91	2.0×10^{-14}	9.0×10^{-16}
Area 7, Ue7ns	08/05/91	08/12/91	1.6×10^{-14}	8.4×10^{-16}
Area 7, Ue7ns	08/19/91	08/26/91	1.8×10^{-14}	8.8×10^{-16}
Area 7, Ue7ns	08/26/91	09/03/91	2.2×10^{-14}	9.4×10^{-16}
Area 7, Ue7ns	09/03/91	09/09/91	1.7×10^{-14}	1.8×10^{-15}
Area 7, Ue7ns	09/09/91	09/16/91	2.1×10^{-14}	9.6×10^{-16}
Area 7, Ue7ns	09/16/91	09/23/91	2.2×10^{-14}	9.6×10^{-16}
Area 7, Ue7ns	09/23/91	09/30/91	1.8×10^{-14}	9.2×10^{-16}
Area 7, Ue7ns	09/30/91	10/07/91	2.8×10^{-14}	1.0×10^{-15}
Area 7, Ue7ns	10/07/91	10/14/91	3.4×10^{-14}	1.1×10^{-15}
Area 7, Ue7ns	10/14/91	10/21/91	1.7×10^{-14}	9.2×10^{-16}
Area 7, Ue7ns	10/21/91	10/28/91	1.8×10^{-14}	8.9×10^{-16}
Area 7, Ue7ns	10/28/91	11/04/91	2.0×10^{-14}	9.3×10^{-16}
Area 7, Ue7ns	11/04/91	11/12/91	1.5×10^{-14}	7.5×10^{-16}
Area 7, Ue7ns	11/12/91	11/18/91	1.6×10^{-14}	9.4×10^{-16}
Area 7, Ue7ns	11/18/91	11/25/91	8.6×10^{-15}	7.5×10^{-16}
Area 7, Ue7ns	11/25/91	12/02/91	1.5×10^{-14}	8.2×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 7, Ue7ns	12/02/91	12/09/91	1.9×10^{-14}	9.0×10^{-16}
Area 7, Ue7ns	12/09/91	12/16/91	2.4×10^{-14}	9.6×10^{-16}
Area 7, Ue7ns	12/16/91	12/23/91	2.1×10^{-14}	9.8×10^{-16}
Area 7, Ue7ns	12/23/91	12/30/91	2.0×10^{-14}	9.1×10^{-16}
Area 9, 9-300 Bunker	12/31/90	01/07/91	1.6×10^{-14}	8.9×10^{-16}
Area 9, 9-300 Bunker	01/07/91	01/14/91	2.6×10^{-14}	1.0×10^{-15}
Area 9, 9-300 Bunker	01/14/91	01/22/91	1.3×10^{-14}	7.5×10^{-16}
Area 9, 9-300 Bunker	01/22/91	01/28/91	2.8×10^{-14}	1.2×10^{-15}
Area 9, 9-300 Bunker	01/28/91	02/04/91	2.5×10^{-14}	1.0×10^{-15}
Area 9, 9-300 Bunker	02/04/91	02/11/91	3.1×10^{-14}	1.1×10^{-15}
Area 9, 9-300 Bunker	02/11/91	02/19/91	1.6×10^{-14}	8.0×10^{-16}
Area 9, 9-300 Bunker	02/25/91	03/04/91	1.1×10^{-14}	8.0×10^{-16}
Area 9, 9-300 Bunker	03/04/91	03/11/91	1.2×10^{-14}	8.4×10^{-16}
Area 9, 9-300 Bunker	03/11/91	03/18/91	8.2×10^{-15}	7.4×10^{-16}
Area 9, 9-300 Bunker	03/18/91	03/25/91	8.9×10^{-15}	7.7×10^{-16}
Area 9, 9-300 Bunker	03/25/91	04/01/91	1.1×10^{-14}	8.0×10^{-16}
Area 9, 9-300 Bunker	04/01/91	04/08/91	1.9×10^{-14}	9.6×10^{-16}
Area 9, 9-300 Bunker	04/08/91	04/15/91	1.6×10^{-14}	9.6×10^{-16}
Area 9, 9-300 Bunker	05/06/91	05/14/91	1.7×10^{-14}	8.8×10^{-16}
Area 9, 9-300 Bunker	05/14/91	05/20/91	1.4×10^{-14}	1.0×10^{-15}
Area 9, 9-300 Bunker	05/20/91	05/28/91	2.2×10^{-14}	1.1×10^{-15}
Area 9, 9-300 Bunker	05/28/91	06/03/91	1.8×10^{-14}	1.1×10^{-15}
Area 9, 9-300 Bunker	06/03/91	06/10/91	2.5×10^{-14}	1.1×10^{-15}
Area 9, 9-300 Bunker	06/10/91	06/17/91	2.7×10^{-14}	1.1×10^{-15}
Area 9, 9-300 Bunker	06/17/91	06/24/91	1.7×10^{-14}	9.7×10^{-16}
Area 9, 9-300 Bunker	06/24/91	07/01/91	1.5×10^{-14}	9.3×10^{-16}
Area 9, 9-300 Bunker	07/01/91	07/08/91	2.2×10^{-14}	1.0×10^{-15}
Area 9, 9-300 Bunker	07/08/91	07/15/91	2.5×10^{-14}	1.1×10^{-15}
Area 9, 9-300 Bunker	07/15/91	07/22/91	1.8×10^{-14}	9.8×10^{-16}
Area 9, 9-300 Bunker	07/22/91	07/29/91	2.6×10^{-14}	1.1×10^{-15}
Area 9, 9-300 Bunker	07/29/91	08/05/91	2.4×10^{-14}	1.1×10^{-15}
Area 9, 9-300 Bunker	08/05/91	08/12/91	2.2×10^{-14}	1.0×10^{-15}
Area 9, 9-300 Bunker	08/12/91	08/19/91	1.6×10^{-14}	9.8×10^{-16}
Area 9, 9-300 Bunker	08/19/91	08/26/91	2.2×10^{-14}	1.0×10^{-15}
Area 9, 9-300 Bunker	08/26/91	09/03/91	2.6×10^{-14}	1.0×10^{-15}
Area 9, 9-300 Bunker	09/03/91	09/09/91	2.2×10^{-14}	1.1×10^{-15}
Area 9, 9-300 Bunker	09/09/91	09/16/91	2.6×10^{-14}	1.1×10^{-15}
Area 9, 9-300 Bunker	09/16/91	09/23/91	3.0×10^{-14}	1.2×10^{-15}
Area 9, 9-300 Bunker	09/23/91	09/30/91	2.1×10^{-14}	1.0×10^{-15}
Area 9, 9-300 Bunker	09/30/91	10/07/91	3.3×10^{-14}	1.2×10^{-15}
Area 9, 9-300 Bunker	10/07/91	10/14/91	4.0×10^{-14}	1.3×10^{-15}
Area 9, 9-300 Bunker	10/14/91	10/21/91	2.0×10^{-14}	1.0×10^{-15}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 9, 9-300 Bunker	10/21/91	10/28/91	2.4×10^{-14}	1.0×10^{-15}
Area 9, 9-300 Bunker	10/28/91	11/04/91	2.7×10^{-14}	1.1×10^{-15}
Area 9, 9-300 Bunker	11/04/91	11/12/91	1.7×10^{-14}	9.2×10^{-16}
Area 9, 9-300 Bunker	11/12/91	11/18/91	1.9×10^{-14}	1.0×10^{-15}
Area 9, 9-300 Bunker	11/18/91	11/25/91	1.2×10^{-14}	9.9×10^{-16}
Area 9, 9-300 Bunker	11/25/91	12/02/91	1.8×10^{-14}	9.9×10^{-16}
Area 9, 9-300 Bunker	12/02/91	12/09/91	2.5×10^{-14}	1.1×10^{-15}
Area 9, 9-300 Bunker	12/09/91	12/16/91	2.9×10^{-14}	1.1×10^{-15}
Area 9, 9-300 Bunker	12/16/91	12/23/91	2.9×10^{-14}	1.2×10^{-15}
Area 9, 9-300 Bunker	12/23/91	12/30/91	3.3×10^{-14}	1.2×10^{-15}
Area 10, Gate 700 South	12/31/90	01/07/91	1.6×10^{-14}	9.1×10^{-16}
Area 10, Gate 700 South	01/07/91	01/14/91	2.8×10^{-14}	1.0×10^{-15}
Area 10, Gate 700 South	01/14/91	01/22/91	1.2×10^{-14}	7.4×10^{-16}
Area 10, Gate 700 South	01/22/91	01/28/91	2.6×10^{-14}	1.1×10^{-15}
Area 10, Gate 700 South	01/28/91	02/04/91	2.1×10^{-14}	9.5×10^{-16}
Area 10, Gate 700 South	02/04/91	02/11/91	3.1×10^{-14}	1.1×10^{-15}
Area 10, Gate 700 South	02/11/91	02/19/91	1.6×10^{-14}	8.0×10^{-16}
Area 10, Gate 700 South	02/19/91	02/25/91	1.7×10^{-14}	9.9×10^{-16}
Area 10, Gate 700 South	02/25/91	03/04/91	1.1×10^{-14}	7.9×10^{-16}
Area 10, Gate 700 South	03/04/91	03/11/91	1.3×10^{-14}	8.3×10^{-16}
Area 10, Gate 700 South	03/11/91	03/18/91	8.7×10^{-15}	7.4×10^{-16}
Area 10, Gate 700 South	03/18/91	03/25/91	9.6×10^{-15}	7.7×10^{-16}
Area 10, Gate 700 South	03/25/91	04/01/91	1.1×10^{-14}	8.0×10^{-16}
Area 10, Gate 700 South	04/01/91	04/08/91	1.9×10^{-14}	9.4×10^{-16}
Area 10, Gate 700 South	04/08/91	04/15/91	1.4×10^{-14}	8.4×10^{-16}
Area 10, Gate 700 South	04/22/91	04/29/91	2.2×10^{-14}	1.3×10^{-15}
Area 10, Gate 700 South	05/06/91	05/14/91	1.2×10^{-14}	7.3×10^{-16}
Area 10, Gate 700 South	05/14/91	05/20/91	1.2×10^{-14}	9.1×10^{-16}
Area 10, Gate 700 South	05/20/91	05/28/91	1.7×10^{-14}	8.2×10^{-16}
Area 10, Gate 700 South	05/28/91	06/03/91	1.7×10^{-14}	9.9×10^{-16}
Area 10, Gate 700 South	06/03/91	06/10/91	2.1×10^{-14}	9.5×10^{-16}
Area 10, Gate 700 South	06/10/91	06/17/91	2.2×10^{-14}	9.5×10^{-16}
Area 10, Gate 700 South	06/17/91	06/24/91	1.7×10^{-14}	8.8×10^{-16}
Area 10, Gate 700 South	06/24/91	07/01/91	1.2×10^{-14}	8.0×10^{-16}
Area 10, Gate 700 South	07/01/91	07/08/91	1.9×10^{-14}	9.1×10^{-16}
Area 10, Gate 700 South	07/08/91	07/15/91	2.0×10^{-14}	9.4×10^{-16}
Area 10, Gate 700 South	07/15/91	07/22/91	1.8×10^{-14}	8.9×10^{-16}
Area 10, Gate 700 South	07/22/91	07/29/91	2.1×10^{-14}	9.4×10^{-16}
Area 10, Gate 700 South	07/29/91	08/05/91	1.7×10^{-14}	9.0×10^{-16}
Area 10, Gate 700 South	08/05/91	08/12/91	1.7×10^{-14}	8.7×10^{-16}
Area 10, Gate 700 South	08/12/91	08/19/91	1.4×10^{-14}	8.5×10^{-16}
Area 10, Gate 700 South	08/19/91	08/26/91	1.8×10^{-14}	9.0×10^{-16}

Attachment A.3 (Gross B in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 10, Gate 700 South	08/26/91	09/03/91	2.0×10^{-14}	8.7×10^{-16}
Area 10, Gate 700 South	09/03/91	09/09/91	2.0×10^{-14}	1.0×10^{-15}
Area 10, Gate 700 South	09/09/91	09/16/91	2.0×10^{-14}	9.7×10^{-16}
Area 10, Gate 700 South	09/16/91	09/23/91	2.4×10^{-14}	1.0×10^{-15}
Area 10, Gate 700 South	09/23/91	09/30/91	1.6×10^{-14}	9.0×10^{-16}
Area 10, Gate 700 South	09/30/91	10/07/91	3.0×10^{-14}	1.1×10^{-15}
Area 10, Gate 700 South	10/07/91	10/14/91	3.3×10^{-14}	1.1×10^{-15}
Area 10, Gate 700 South	10/14/91	10/21/91	1.8×10^{-14}	9.5×10^{-16}
Area 10, Gate 700 South	10/21/91	10/28/91	2.1×10^{-14}	9.3×10^{-16}
Area 10, Gate 700 South	10/28/91	11/04/91	2.0×10^{-14}	9.7×10^{-16}
Area 10, Gate 700 South	11/04/91	11/12/91	1.4×10^{-14}	7.8×10^{-16}
Area 10, Gate 700 South	11/12/91	11/18/91	1.8×10^{-14}	1.0×10^{-15}
Area 10, Gate 700 South	11/18/91	11/25/91	9.6×10^{-15}	7.9×10^{-16}
Area 10, Gate 700 South	11/25/91	12/02/91	1.5×10^{-14}	8.6×10^{-16}
Area 10, Gate 700 South	12/02/91	12/09/91	1.9×10^{-14}	9.2×10^{-16}
Area 10, Gate 700 South	12/09/91	12/16/91	2.6×10^{-14}	1.0×10^{-15}
Area 10, Gate 700 South	12/16/91	12/23/91	2.3×10^{-14}	1.0×10^{-15}
Area 10, Gate 700 South	12/23/91	12/30/91	1.9×10^{-14}	9.2×10^{-16}
Area 11, Gate 293	12/31/90	01/07/91	1.9×10^{-14}	9.0×10^{-16}
Area 11, Gate 293	01/07/91	01/14/91	3.0×10^{-14}	1.0×10^{-15}
Area 11, Gate 293	01/14/91	01/22/91	1.1×10^{-14}	6.9×10^{-16}
Area 11, Gate 293	01/22/91	01/28/91	2.9×10^{-14}	1.1×10^{-15}
Area 11, Gate 293	01/28/91	02/04/91	2.4×10^{-14}	9.6×10^{-16}
Area 11, Gate 293	02/04/91	02/11/91	3.1×10^{-14}	1.0×10^{-15}
Area 11, Gate 293	02/11/91	02/19/91	1.8×10^{-14}	7.9×10^{-16}
Area 11, Gate 293	02/19/91	02/25/91	1.4×10^{-14}	8.9×10^{-16}
Area 11, Gate 293	02/25/91	03/04/91	1.1×10^{-14}	7.5×10^{-16}
Area 11, Gate 293	03/04/91	03/11/91	1.1×10^{-14}	7.5×10^{-16}
Area 11, Gate 293	03/11/91	03/18/91	8.9×10^{-15}	7.0×10^{-16}
Area 11, Gate 293	03/18/91	03/25/91	9.6×10^{-15}	7.3×10^{-16}
Area 11, Gate 293	03/25/91	04/01/91	1.1×10^{-14}	8.0×10^{-16}
Area 11, Gate 293	04/01/91	04/08/91	1.8×10^{-14}	8.7×10^{-16}
Area 11, Gate 293	04/08/91	04/15/91	1.2×10^{-14}	7.7×10^{-16}
Area 11, Gate 293	04/15/91	04/22/91	1.7×10^{-14}	8.6×10^{-16}
Area 11, Gate 293	04/22/91	04/29/91	1.3×10^{-14}	7.8×10^{-16}
Area 11, Gate 293	04/29/91	05/06/91	1.7×10^{-14}	8.5×10^{-16}
Area 11, Gate 293	05/06/91	05/14/91	1.3×10^{-14}	7.2×10^{-16}
Area 11, Gate 293	05/14/91	05/20/91	1.2×10^{-14}	8.6×10^{-16}
Area 11, Gate 293	05/20/91	05/28/91	1.8×10^{-14}	7.9×10^{-16}
Area 11, Gate 293	05/28/91	06/03/91	1.4×10^{-14}	9.1×10^{-16}
Area 11, Gate 293	06/03/91	06/10/91	2.1×10^{-14}	9.1×10^{-16}
Area 11, Gate 293	06/10/91	06/17/91	2.5×10^{-14}	9.7×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 11, Gate 293	06/17/91	06/24/91	1.5×10^{-14}	8.2×10^{-16}
Area 11, Gate 293	06/24/91	07/01/91	1.3×10^{-14}	7.7×10^{-16}
Area 11, Gate 293	07/01/91	07/08/91	1.7×10^{-14}	8.5×10^{-16}
Area 11, Gate 293	07/08/91	07/15/91	2.0×10^{-14}	8.9×10^{-16}
Area 11, Gate 293	07/15/91	07/22/91	1.8×10^{-14}	8.6×10^{-16}
Area 11, Gate 293	07/22/91	07/29/91	2.3×10^{-14}	9.3×10^{-16}
Area 11, Gate 293	07/29/91	08/05/91	2.1×10^{-14}	9.1×10^{-16}
Area 11, Gate 293	08/05/91	08/12/91	1.8×10^{-14}	8.6×10^{-16}
Area 11, Gate 293	08/12/91	08/19/91	1.5×10^{-14}	8.2×10^{-16}
Area 11, Gate 293	08/19/91	08/26/91	2.0×10^{-14}	8.9×10^{-16}
Area 11, Gate 293	08/26/91	09/03/91	2.3×10^{-14}	8.7×10^{-16}
Area 11, Gate 293	09/03/91	09/09/91	2.1×10^{-14}	1.0×10^{-15}
Area 11, Gate 293	09/09/91	09/16/91	2.2×10^{-14}	9.7×10^{-16}
Area 11, Gate 293	09/16/91	09/23/91	2.6×10^{-14}	1.0×10^{-15}
Area 11, Gate 293	09/23/91	09/30/91	1.6×10^{-14}	8.8×10^{-16}
Area 11, Gate 293	09/30/91	10/07/91	2.8×10^{-14}	1.2×10^{-15}
Area 11, Gate 293	10/07/91	10/14/91	3.2×10^{-14}	1.1×10^{-15}
Area 11, Gate 293	10/14/91	10/21/91	1.8×10^{-14}	8.6×10^{-16}
Area 11, Gate 293	10/21/91	10/28/91	2.1×10^{-14}	9.4×10^{-16}
Area 11, Gate 293	10/28/91	11/04/91	2.3×10^{-14}	9.3×10^{-16}
Area 11, Gate 293	11/04/91	11/12/91	1.6×10^{-14}	7.5×10^{-16}
Area 11, Gate 293	11/12/91	11/18/91	2.0×10^{-14}	9.9×10^{-16}
Area 11, Gate 293	11/18/91	11/25/91	1.1×10^{-14}	8.2×10^{-16}
Area 11, Gate 293	11/25/91	12/02/91	1.8×10^{-14}	1.1×10^{-15}
Area 11, Gate 293	12/02/91	12/09/91	2.1×10^{-14}	9.4×10^{-16}
Area 11, Gate 293	12/09/91	12/16/91	2.7×10^{-14}	9.9×10^{-16}
Area 11, Gate 293	12/16/91	12/23/91	2.5×10^{-14}	9.9×10^{-16}
Area 11, Gate 293	12/23/91	12/30/91	2.6×10^{-14}	9.5×10^{-16}
Area 12, Complex	12/31/90	01/07/91	1.2×10^{-14}	7.8×10^{-16}
Area 12, Complex	01/07/91	01/14/91	2.2×10^{-14}	9.9×10^{-16}
Area 12, Complex	01/14/91	01/22/91	1.2×10^{-14}	7.3×10^{-16}
Area 12, Complex	01/22/91	01/28/91	2.3×10^{-14}	1.0×10^{-15}
Area 12, Complex	01/28/91	02/04/91	1.9×10^{-14}	9.1×10^{-16}
Area 12, Complex	02/04/91	02/11/91	3.0×10^{-14}	1.0×10^{-15}
Area 12, Complex	02/11/91	02/19/91	1.5×10^{-14}	7.8×10^{-16}
Area 12, Complex	02/19/91	02/25/91	1.9×10^{-14}	1.0×10^{-15}
Area 12, Complex	02/25/91	03/04/91	1.4×10^{-14}	8.3×10^{-16}
Area 12, Complex	03/04/91	03/11/91	9.1×10^{-15}	7.3×10^{-16}
Area 12, Complex	03/11/91	03/18/91	7.7×10^{-15}	6.9×10^{-16}
Area 12, Complex	03/18/91	03/25/91	8.5×10^{-15}	7.3×10^{-16}
Area 12, Complex	03/25/91	04/01/91	1.0×10^{-14}	7.5×10^{-16}
Area 12, Complex	04/01/91	04/08/91	1.7×10^{-14}	8.6×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 12, Complex	04/08/91	04/15/91	1.2×10^{-14}	7.7×10^{-16}
Area 12, Complex	04/22/91	04/29/91	1.2×10^{-14}	7.9×10^{-16}
Area 12, Complex	05/09/91	05/13/91	1.3×10^{-14}	8.1×10^{-16}
Area 12, Complex	05/13/91	05/20/91	9.9×10^{-15}	7.5×10^{-16}
Area 12, Complex	05/20/91	05/28/91	2.0×10^{-14}	8.5×10^{-16}
Area 12, Complex	05/28/91	06/03/91	1.8×10^{-14}	9.9×10^{-16}
Area 12, Complex	06/03/91	06/10/91	1.9×10^{-14}	9.2×10^{-16}
Area 12, Complex	06/09/91	06/17/91	4.5×10^{-14}	2.0×10^{-15}
Area 12, Complex	06/17/91	06/24/91	4.3×10^{-15}	5.8×10^{-16}
Area 12, Complex	07/01/91	07/08/91	1.5×10^{-14}	7.6×10^{-16}
Area 12, Complex	07/08/91	07/15/91	2.0×10^{-14}	8.9×10^{-16}
Area 12, Complex	07/15/91	07/22/91	1.6×10^{-14}	8.3×10^{-16}
Area 12, Complex	07/22/91	07/29/91	1.8×10^{-14}	8.6×10^{-16}
Area 12, Complex	07/29/91	08/05/91	1.8×10^{-14}	8.8×10^{-16}
Area 12, Complex	08/05/91	08/12/91	1.6×10^{-14}	8.4×10^{-16}
Area 12, Complex	08/12/91	08/19/91	1.2×10^{-14}	7.8×10^{-16}
Area 12, Complex	08/19/91	08/26/91	1.8×10^{-14}	8.8×10^{-16}
Area 12, Complex	08/26/91	09/03/91	2.1×10^{-14}	8.5×10^{-16}
Area 12, Complex	09/03/91	09/09/91	1.8×10^{-14}	1.0×10^{-15}
Area 12, Complex	09/09/91	09/16/91	2.0×10^{-14}	9.5×10^{-16}
Area 12, Complex	09/16/91	09/23/91	2.6×10^{-14}	1.0×10^{-15}
Area 12, Complex	09/23/91	09/30/91	1.5×10^{-14}	8.6×10^{-16}
Area 12, Complex	09/30/91	10/07/91	2.9×10^{-14}	1.0×10^{-15}
Area 12, Complex	10/07/91	10/14/91	3.4×10^{-14}	1.1×10^{-15}
Area 12, Complex	10/14/91	10/21/91	1.5×10^{-14}	8.4×10^{-16}
Area 12, Complex	10/21/91	10/28/91	2.1×10^{-14}	9.9×10^{-16}
Area 12, Complex	10/28/91	11/04/91	3.2×10^{-15}	5.8×10^{-16}
Area 12, Complex	10/28/91	11/04/91	3.9×10^{-15}	5.7×10^{-16}
Area 12, Complex	11/04/91	11/12/91	1.4×10^{-14}	7.7×10^{-16}
Area 12, Complex	11/12/91	11/18/91	2.0×10^{-14}	1.2×10^{-15}
Area 12, Complex	11/18/91	11/25/91	7.6×10^{-15}	6.4×10^{-16}
Area 12, Complex	11/25/91	12/02/91	1.4×10^{-14}	8.1×10^{-16}
Area 12, Complex	12/02/91	12/09/91	1.7×10^{-14}	9.0×10^{-16}
Area 12, Complex	12/09/91	12/16/91	2.2×10^{-14}	9.4×10^{-16}
Area 12, Complex	12/16/91	12/23/91	1.9×10^{-14}	9.4×10^{-16}
Area 12, P Tunnel Portal	09/03/91	09/09/91	1.9×10^{-14}	1.7×10^{-15}
Area 12, P Tunnel Portal	09/09/91	09/16/91	2.3×10^{-14}	1.3×10^{-15}
Area 12, P Tunnel Portal	09/16/91	09/17/91	3.2×10^{-14}	4.8×10^{-15}
Area 12, P Tunnel Portal	09/17/91	09/20/91	2.7×10^{-14}	3.1×10^{-15}
Area 12, P Tunnel Portal	09/20/91	09/23/91	9.7×10^{-14}	4.0×10^{-15}
Area 12, P Tunnel Portal	09/23/91	09/24/91	6.4×10^{-14}	5.3×10^{-15}
Area 15, EPA Farm	12/31/90	01/07/91	1.8×10^{-14}	9.7×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 15, EPA Farm	01/07/91	01/14/91	2.5×10^{-14}	1.1×10^{-15}
Area 15, EPA Farm	01/14/91	01/22/91	1.3×10^{-14}	8.0×10^{-16}
Area 15, EPA Farm	01/22/91	01/28/91	2.9×10^{-14}	1.2×10^{-15}
Area 15, EPA Farm	01/28/91	02/04/91	2.4×10^{-14}	1.0×10^{-15}
Area 15, EPA Farm	02/04/91	02/11/91	3.4×10^{-14}	1.2×10^{-15}
Area 15, EPA Farm	02/11/91	02/19/91	1.9×10^{-14}	9.0×10^{-16}
Area 15, EPA Farm	02/19/91	02/25/91	2.5×10^{-14}	1.2×10^{-15}
Area 15, EPA Farm	02/25/91	03/04/91	8.5×10^{-15}	8.2×10^{-16}
Area 15, EPA Farm	03/04/91	03/11/91	1.7×10^{-14}	9.5×10^{-16}
Area 15, EPA Farm	03/11/91	03/18/91	9.2×10^{-15}	8.0×10^{-16}
Area 15, EPA Farm	03/18/91	03/25/91	1.1×10^{-14}	8.6×10^{-16}
Area 15, EPA Farm	03/25/91	04/01/91	1.3×10^{-14}	8.8×10^{-16}
Area 15, EPA Farm	04/01/91	04/08/91	1.7×10^{-14}	9.8×10^{-16}
Area 15, EPA Farm	04/08/91	04/15/91	1.5×10^{-14}	8.5×10^{-16}
Area 15, EPA Farm	04/22/91	04/29/91	1.2×10^{-14}	8.1×10^{-16}
Area 15, EPA Farm	05/06/91	05/14/91	1.2×10^{-14}	7.3×10^{-16}
Area 15, EPA Farm	05/14/91	05/20/91	1.3×10^{-14}	9.1×10^{-16}
Area 15, EPA Farm	05/20/91	05/28/91	1.5×10^{-14}	7.7×10^{-16}
Area 15, EPA Farm	05/28/91	06/03/91	1.2×10^{-14}	8.9×10^{-16}
Area 15, EPA Farm	06/03/91	06/10/91	2.3×10^{-14}	9.7×10^{-16}
Area 15, EPA Farm	06/10/91	06/17/91	2.2×10^{-14}	9.4×10^{-16}
Area 15, EPA Farm	06/17/91	06/24/91	1.5×10^{-14}	8.5×10^{-16}
Area 15, EPA Farm	06/24/91	07/01/91	1.2×10^{-14}	7.9×10^{-16}
Area 15, EPA Farm	07/01/91	07/08/91	1.8×10^{-14}	8.8×10^{-16}
Area 15, EPA Farm	07/08/91	07/15/91	2.0×10^{-14}	9.3×10^{-16}
Area 15, EPA Farm	07/15/91	07/22/91	1.6×10^{-14}	8.5×10^{-16}
Area 15, EPA Farm	07/22/91	07/29/91	2.2×10^{-14}	9.5×10^{-16}
Area 15, EPA Farm	07/29/91	08/05/91	2.1×10^{-14}	1.0×10^{-15}
Area 15, EPA Farm	08/05/91	08/12/91	1.5×10^{-14}	1.1×10^{-15}
Area 15, EPA Farm	08/12/91	08/19/91	1.5×10^{-14}	9.3×10^{-16}
Area 15, EPA Farm	08/19/91	08/26/91	1.9×10^{-14}	9.1×10^{-16}
Area 15, EPA Farm	08/26/91	09/03/91	2.1×10^{-14}	8.7×10^{-16}
Area 15, EPA Farm	09/03/91	09/09/91	1.7×10^{-14}	9.7×10^{-16}
Area 15, EPA Farm	09/09/91	09/16/91	2.0×10^{-14}	9.5×10^{-16}
Area 15, EPA Farm	09/16/91	09/23/91	2.4×10^{-14}	1.0×10^{-15}
Area 15, EPA Farm	09/23/91	09/30/91	1.7×10^{-14}	9.1×10^{-16}
Area 15, EPA Farm	09/30/91	10/07/91	2.9×10^{-14}	1.1×10^{-15}
Area 15, EPA Farm	10/07/91	10/14/91	3.2×10^{-14}	1.1×10^{-15}
Area 15, EPA Farm	10/14/91	10/21/91	1.6×10^{-14}	9.0×10^{-16}
Area 15, EPA Farm	10/21/91	10/28/91	2.3×10^{-14}	9.7×10^{-16}
Area 15, EPA Farm	10/28/91	11/04/91	2.0×10^{-14}	9.7×10^{-16}
Area 15, EPA Farm	11/04/91	11/12/91	1.6×10^{-14}	8.3×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 15, EPA Farm	11/12/91	11/18/91	1.7×10^{-14}	9.8×10^{-16}
Area 15, EPA Farm	11/18/91	11/25/91	9.9×10^{-15}	7.9×10^{-16}
Area 15, EPA Farm	11/25/91	12/02/91	1.5×10^{-14}	8.5×10^{-16}
Area 15, EPA Farm	12/02/91	12/09/91	1.8×10^{-14}	9.1×10^{-16}
Area 15, EPA Farm	12/09/91	12/16/91	2.3×10^{-14}	9.7×10^{-16}
Area 15, EPA Farm	12/16/91	12/23/91	2.1×10^{-14}	9.9×10^{-16}
Area 15, EPA Farm	12/23/91	12/30/91	2.4×10^{-14}	9.9×10^{-16}
Area 15, PILEDRIVER	12/31/90	01/07/91	1.2×10^{-14}	8.8×10^{-16}
Area 15, PILEDRIVER	01/07/91	01/14/91	2.1×10^{-14}	1.0×10^{-15}
Area 15, PILEDRIVER	01/14/91	01/22/91	1.2×10^{-14}	7.7×10^{-16}
Area 15, PILEDRIVER	01/22/91	01/28/91	2.3×10^{-14}	1.1×10^{-15}
Area 15, PILEDRIVER	01/28/91	02/04/91	2.1×10^{-14}	9.9×10^{-16}
Area 15, PILEDRIVER	02/04/91	02/11/91	3.0×10^{-14}	1.1×10^{-15}
Area 15, PILEDRIVER	02/11/91	02/19/91	1.6×10^{-14}	8.3×10^{-16}
Area 15, PILEDRIVER	02/19/91	02/25/91	2.0×10^{-14}	1.1×10^{-15}
Area 15, PILEDRIVER	02/25/91	03/04/91	1.2×10^{-14}	8.5×10^{-16}
Area 15, PILEDRIVER	03/04/91	03/11/91	9.7×10^{-15}	7.1×10^{-16}
Area 15, PILEDRIVER	03/11/91	03/18/91	9.6×10^{-15}	9.4×10^{-16}
Area 15, PILEDRIVER	03/18/91	03/25/91	1.4×10^{-14}	8.9×10^{-16}
Area 16, 3545 Substation	12/31/90	01/07/91	1.4×10^{-14}	1.0×10^{-15}
Area 16, 3545 Substation	01/07/91	01/14/91	2.4×10^{-14}	9.8×10^{-16}
Area 16, 3545 Substation	01/14/91	01/22/91	1.2×10^{-14}	7.4×10^{-16}
Area 16, 3545 Substation	01/22/91	01/28/91	2.4×10^{-14}	1.1×10^{-15}
Area 16, 3545 Substation	01/28/91	02/04/91	2.0×10^{-14}	9.2×10^{-16}
Area 16, 3545 Substation	02/04/91	02/11/91	2.9×10^{-14}	1.0×10^{-15}
Area 16, 3545 Substation	02/11/91	02/19/91	1.6×10^{-14}	7.9×10^{-16}
Area 16, 3545 Substation	02/19/91	02/25/91	2.0×10^{-14}	1.0×10^{-15}
Area 16, 3545 Substation	02/25/91	03/04/91	1.1×10^{-14}	8.8×10^{-16}
Area 16, 3545 Substation	03/04/91	03/11/91	1.1×10^{-14}	7.9×10^{-16}
Area 16, 3545 Substation	03/11/91	03/18/91	7.6×10^{-15}	7.0×10^{-16}
Area 16, 3545 Substation	03/18/91	03/25/91	8.8×10^{-15}	7.5×10^{-16}
Area 16, 3545 Substation	03/25/91	04/01/91	1.2×10^{-14}	8.0×10^{-16}
Area 16, 3545 Substation	04/01/91	04/08/91	1.8×10^{-14}	9.1×10^{-16}
Area 16, 3545 Substation	04/08/91	04/22/91	1.5×10^{-14}	5.4×10^{-16}
Area 16, 3545 Substation	04/22/91	04/29/91	1.1×10^{-14}	7.6×10^{-16}
Area 16, 3545 Substation	05/09/91	05/13/91	1.3×10^{-14}	8.0×10^{-16}
Area 16, 3545 Substation	05/13/91	05/20/91	1.3×10^{-14}	8.2×10^{-16}
Area 16, 3545 Substation	05/20/91	05/28/91	1.7×10^{-14}	8.1×10^{-16}
Area 16, 3545 Substation	05/28/91	06/03/91	1.2×10^{-14}	8.9×10^{-16}
Area 16, 3545 Substation	06/03/91	06/10/91	2.1×10^{-14}	9.4×10^{-16}
Area 16, 3545 Substation	06/10/91	06/17/91	1.9×10^{-14}	8.9×10^{-16}
Area 16, 3545 Substation	06/17/91	06/24/91	1.4×10^{-14}	8.4×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 16, 3545 Substation	06/24/91	07/01/91	1.2×10^{-14}	7.8×10^{-16}
Area 16, 3545 Substation	07/01/91	07/08/91	1.8×10^{-14}	8.7×10^{-16}
Area 16, 3545 Substation	07/08/91	07/15/91	2.1×10^{-14}	9.4×10^{-16}
Area 16, 3545 Substation	07/15/91	07/22/91	1.5×10^{-14}	8.5×10^{-16}
Area 16, 3545 Substation	07/22/91	07/29/91	1.9×10^{-14}	9.1×10^{-16}
Area 16, 3545 Substation	07/29/91	08/05/91	1.9×10^{-14}	9.1×10^{-16}
Area 16, 3545 Substation	08/05/91	08/12/91	1.8×10^{-14}	8.9×10^{-16}
Area 16, 3545 Substation	08/12/91	08/19/91	1.3×10^{-14}	8.2×10^{-16}
Area 16, 3545 Substation	08/19/91	08/26/91	2.0×10^{-14}	9.3×10^{-16}
Area 16, 3545 Substation	08/26/91	09/03/91	2.0×10^{-14}	8.6×10^{-16}
Area 16, 3545 Substation	09/03/91	09/09/91	1.7×10^{-14}	1.0×10^{-15}
Area 16, 3545 Substation	09/09/91	09/16/91	2.1×10^{-14}	9.7×10^{-16}
Area 16, 3545 Substation	09/16/91	09/23/91	2.4×10^{-14}	1.0×10^{-15}
Area 16, 3545 Substation	09/23/91	09/30/91	1.7×10^{-14}	9.0×10^{-16}
Area 16, 3545 Substation	09/30/91	10/07/91	2.6×10^{-14}	1.0×10^{-15}
Area 16, 3545 Substation	10/07/91	10/14/91	3.2×10^{-14}	1.1×10^{-15}
Area 16, 3545 Substation	10/14/91	10/21/91	1.6×10^{-14}	8.9×10^{-16}
Area 16, 3545 Substation	10/21/91	10/28/91	1.7×10^{-14}	8.8×10^{-16}
Area 16, 3545 Substation	10/28/91	11/04/91	1.8×10^{-14}	9.4×10^{-16}
Area 16, 3545 Substation	11/04/91	11/12/91	1.4×10^{-14}	7.9×10^{-16}
Area 16, 3545 Substation	11/12/91	11/18/91	1.6×10^{-14}	9.6×10^{-16}
Area 16, 3545 Substation	11/18/91	12/02/91	1.1×10^{-14}	4.7×10^{-16}
Area 16, 3545 Substation	12/02/91	12/09/91	1.6×10^{-14}	9.0×10^{-16}
Area 16, 3545 Substation	12/09/91	12/16/91	2.2×10^{-14}	1.0×10^{-15}
Area 16, 3545 Substation	12/16/91	12/23/91	2.0×10^{-14}	9.2×10^{-16}
Area 19, Echo Peak	12/31/90	01/07/91	8.6×10^{-15}	7.1×10^{-16}
Area 19, Echo Peak	01/07/91	01/14/91	1.6×10^{-14}	8.5×10^{-16}
Area 19, Echo Peak	01/14/91	01/22/91	1.2×10^{-14}	7.1×10^{-16}
Area 19, Echo Peak	01/22/91	01/28/91	1.9×10^{-14}	1.0×10^{-15}
Area 19, Echo Peak	01/28/91	02/04/91	1.7×10^{-14}	8.6×10^{-16}
Area 19, Echo Peak	02/04/91	02/11/91	2.6×10^{-14}	9.9×10^{-16}
Area 19, Echo Peak	02/11/91	02/19/91	1.5×10^{-14}	7.7×10^{-16}
Area 19, Echo Peak	02/19/91	02/25/91	1.9×10^{-14}	1.0×10^{-15}
Area 19, Echo Peak	02/25/91	03/04/91	8.5×10^{-15}	7.2×10^{-16}
Area 19, Echo Peak	03/04/91	03/11/91	1.1×10^{-14}	7.7×10^{-16}
Area 19, Echo Peak	03/11/91	03/18/91	8.9×10^{-15}	7.2×10^{-16}
Area 19, Echo Peak	04/01/91	04/08/91	1.6×10^{-14}	9.5×10^{-16}
Area 19, Echo Peak	04/08/91	04/15/91	1.4×10^{-14}	9.0×10^{-16}
Area 19, Echo Peak	04/22/91	04/29/91	5.6×10^{-15}	6.5×10^{-16}
Area 19, Echo Peak	05/13/91	05/20/91	1.2×10^{-14}	8.9×10^{-16}
Area 19, Echo Peak	05/20/91	05/28/91	1.5×10^{-14}	7.7×10^{-16}
Area 19, Echo Peak	05/28/91	06/03/91	1.2×10^{-14}	8.7×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 19, Echo Peak	06/03/91	06/10/91	1.9×10^{-14}	9.0×10^{-16}
Area 19, Echo Peak	06/10/91	06/17/91	1.8×10^{-14}	8.6×10^{-16}
Area 19, Echo Peak	06/17/91	06/24/91	1.3×10^{-14}	7.8×10^{-16}
Area 19, Echo Peak	06/24/91	07/01/91	1.2×10^{-14}	7.7×10^{-16}
Area 19, Echo Peak	07/01/91	07/08/91	1.7×10^{-14}	8.5×10^{-16}
Area 19, Echo Peak	07/08/91	07/15/91	1.7×10^{-14}	8.6×10^{-16}
Area 19, Echo Peak	07/15/91	07/22/91	1.4×10^{-14}	8.0×10^{-16}
Area 19, Echo Peak	07/22/91	07/29/91	1.8×10^{-14}	8.7×10^{-16}
Area 19, Echo Peak	07/29/91	08/05/91	1.7×10^{-14}	8.8×10^{-16}
Area 19, Echo Peak	08/05/91	08/12/91	1.4×10^{-14}	8.1×10^{-16}
Area 19, Echo Peak	08/12/91	08/19/91	1.5×10^{-14}	8.3×10^{-16}
Area 19, Echo Peak	08/19/91	08/26/91	1.8×10^{-14}	8.7×10^{-16}
Area 19, Echo Peak	08/26/91	09/03/91	2.0×10^{-14}	8.4×10^{-16}
Area 19, Echo Peak	09/03/91	09/09/91	1.5×10^{-14}	9.5×10^{-16}
Area 19, Echo Peak	09/09/91	09/16/91	2.0×10^{-14}	9.4×10^{-16}
Area 19, Echo Peak	09/16/91	09/23/91	2.6×10^{-14}	1.0×10^{-15}
Area 19, Echo Peak	09/23/91	09/30/91	1.6×10^{-14}	8.7×10^{-16}
Area 19, Echo Peak	09/30/91	10/07/91	2.6×10^{-14}	1.0×10^{-15}
Area 19, Echo Peak	10/07/91	10/14/91	3.0×10^{-14}	1.1×10^{-15}
Area 19, Echo Peak	10/14/91	10/21/91	1.6×10^{-14}	9.0×10^{-16}
Area 19, Echo Peak	10/21/91	10/28/91	1.6×10^{-14}	8.4×10^{-16}
Area 19, Echo Peak	10/28/91	11/04/91	2.4×10^{-14}	1.1×10^{-15}
Area 19, Echo Peak	11/04/91	11/12/91	8.7×10^{-15}	6.1×10^{-16}
Area 19, Echo Peak	11/12/91	11/18/91	1.7×10^{-14}	9.5×10^{-16}
Area 19, Echo Peak	11/18/91	11/25/91	1.1×10^{-14}	9.5×10^{-16}
Area 19, Echo Peak	11/25/91	12/02/91	1.1×10^{-14}	6.7×10^{-16}
Area 19, Echo Peak	12/02/91	12/09/91	1.1×10^{-14}	8.0×10^{-16}
Area 19, Echo Peak	12/09/91	12/16/91	1.9×10^{-14}	9.1×10^{-16}
Area 19, Echo Peak	12/16/91	12/23/91	1.8×10^{-14}	9.1×10^{-16}
Area 19, Pahute Substation	12/31/90	01/07/91	1.1×10^{-14}	8.0×10^{-16}
Area 19, Pahute Substation	01/07/91	01/14/91	1.8×10^{-14}	9.1×10^{-16}
Area 19, Pahute Substation	01/14/91	01/22/91	1.4×10^{-14}	7.8×10^{-16}
Area 19, Pahute Substation	01/22/91	01/28/91	2.2×10^{-14}	1.1×10^{-15}
Area 19, Pahute Substation	01/28/91	02/04/91	1.8×10^{-14}	9.1×10^{-16}
Area 19, Pahute Substation	02/04/91	02/11/91	2.8×10^{-14}	1.0×10^{-15}
Area 19, Pahute Substation	02/11/91	02/19/91	1.6×10^{-14}	7.7×10^{-16}
Area 19, Pahute Substation	02/19/91	02/25/91	1.8×10^{-14}	9.8×10^{-16}
Area 19, Pahute Substation	02/25/91	03/04/91	9.1×10^{-15}	7.3×10^{-16}
Area 19, Pahute Substation	03/04/91	03/11/91	1.1×10^{-14}	7.6×10^{-16}
Area 19, Pahute Substation	03/11/91	03/18/91	8.8×10^{-15}	7.0×10^{-16}
Area 19, Pahute Substation	03/18/91	03/25/91	8.3×10^{-15}	7.1×10^{-16}
Area 19, Pahute Substation	03/25/91	04/01/91	1.1×10^{-14}	7.5×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 19, Pahute Substation	04/01/91	04/08/91	1.7×10^{-14}	8.5×10^{-16}
Area 19, Pahute Substation	04/08/91	04/15/91	1.1×10^{-14}	7.6×10^{-16}
Area 19, Pahute Substation	04/22/91	04/29/91	1.3×10^{-14}	7.9×10^{-16}
Area 19, Pahute Substation	05/09/91	05/13/91	1.4×10^{-14}	8.5×10^{-16}
Area 19, Pahute Substation	05/13/91	05/20/91	9.2×10^{-15}	7.5×10^{-16}
Area 19, Pahute Substation	05/20/91	05/28/91	1.5×10^{-14}	7.2×10^{-16}
Area 19, Pahute Substation	05/28/91	06/03/91	1.4×10^{-14}	8.9×10^{-16}
Area 19, Pahute Substation	06/03/91	06/10/91	1.8×10^{-14}	8.8×10^{-16}
Area 19, Pahute Substation	06/10/91	06/17/91	1.8×10^{-14}	8.6×10^{-16}
Area 19, Pahute Substation	06/17/91	06/24/91	1.4×10^{-14}	7.8×10^{-16}
Area 19, Pahute Substation	06/24/91	07/01/91	1.2×10^{-14}	7.8×10^{-16}
Area 19, Pahute Substation	07/01/91	07/08/91	1.7×10^{-14}	8.4×10^{-16}
Area 19, Pahute Substation	07/08/91	07/15/91	1.7×10^{-14}	8.4×10^{-16}
Area 19, Pahute Substation	07/15/91	07/22/91	1.6×10^{-14}	8.6×10^{-16}
Area 19, Pahute Substation	07/22/91	07/29/91	1.9×10^{-14}	8.7×10^{-16}
Area 19, Pahute Substation	07/29/91	08/05/91	1.9×10^{-14}	9.0×10^{-16}
Area 19, Pahute Substation	08/05/91	08/12/91	1.6×10^{-14}	8.3×10^{-16}
Area 19, Pahute Substation	08/12/91	08/19/91	1.5×10^{-14}	8.2×10^{-16}
Area 19, Pahute Substation	08/19/91	08/26/91	1.8×10^{-14}	8.6×10^{-16}
Area 19, Pahute Substation	08/26/91	09/03/91	1.8×10^{-14}	8.1×10^{-16}
Area 19, Pahute Substation	09/03/91	09/09/91	1.6×10^{-14}	9.6×10^{-16}
Area 19, Pahute Substation	09/09/91	09/16/91	2.0×10^{-14}	9.2×10^{-16}
Area 19, Pahute Substation	09/16/91	09/23/91	2.2×10^{-14}	9.7×10^{-16}
Area 19, Pahute Substation	09/23/91	09/30/91	1.8×10^{-14}	1.1×10^{-15}
Area 19, Pahute Substation	09/30/91	10/07/91	3.1×10^{-14}	1.2×10^{-15}
Area 19, Pahute Substation	10/07/91	10/14/91	2.9×10^{-14}	9.8×10^{-16}
Area 19, Pahute Substation	10/14/91	10/21/91	1.5×10^{-14}	8.5×10^{-16}
Area 19, Pahute Substation	10/21/91	10/28/91	1.8×10^{-14}	8.5×10^{-16}
Area 19, Pahute Substation	10/28/91	11/04/91	1.8×10^{-14}	9.1×10^{-16}
Area 19, Pahute Substation	11/04/91	11/12/91	1.2×10^{-14}	7.3×10^{-16}
Area 19, Pahute Substation	11/12/91	11/18/91	1.7×10^{-14}	9.3×10^{-16}
Area 19, Pahute Substation	11/18/91	11/25/91	8.1×10^{-15}	7.2×10^{-16}
Area 19, Pahute Substation	11/25/91	12/02/91	1.3×10^{-14}	7.9×10^{-16}
Area 19, Pahute Substation	12/02/91	12/09/91	1.4×10^{-14}	8.3×10^{-16}
Area 19, Pahute Substation	12/09/91	12/16/91	2.0×10^{-14}	8.9×10^{-16}
Area 19, Pahute Substation	12/16/91	12/23/91	1.7×10^{-14}	8.8×10^{-16}
Area 20, Dispensary	12/31/90	01/07/91	1.6×10^{-14}	8.5×10^{-16}
Area 20, Dispensary	01/07/91	01/14/91	1.9×10^{-14}	8.8×10^{-16}
Area 20, Dispensary	01/14/91	01/22/91	1.2×10^{-14}	7.1×10^{-16}
Area 20, Dispensary	01/22/91	01/28/91	2.2×10^{-14}	1.0×10^{-15}
Area 20, Dispensary	01/28/91	02/04/91	2.0×10^{-14}	9.0×10^{-16}
Area 20, Dispensary	02/04/91	02/11/91	2.6×10^{-14}	9.9×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 20, Dispensary	02/11/91	02/19/91	1.4×10^{-14}	7.3×10^{-16}
Area 20, Dispensary	02/19/91	02/25/91	2.2×10^{-14}	1.0×10^{-15}
Area 20, Dispensary	02/25/91	03/04/91	1.3×10^{-14}	9.5×10^{-16}
Area 20, Dispensary	03/04/91	03/11/91	1.2×10^{-14}	7.8×10^{-16}
Area 20, Dispensary	03/11/91	03/18/91	8.6×10^{-15}	7.0×10^{-16}
Area 20, Dispensary	03/18/91	03/25/91	8.2×10^{-15}	7.1×10^{-16}
Area 20, Dispensary	03/25/91	04/01/91	1.1×10^{-14}	7.5×10^{-16}
Area 20, Dispensary	04/01/91	04/08/91	1.8×10^{-14}	8.7×10^{-16}
Area 20, Dispensary	04/08/91	04/15/91	1.3×10^{-14}	8.0×10^{-16}
Area 20, Dispensary	04/15/91	04/22/91	1.6×10^{-14}	9.2×10^{-16}
Area 20, Dispensary	04/22/91	04/29/91	1.3×10^{-14}	7.8×10^{-16}
Area 20, Dispensary	05/09/91	05/13/91	1.5×10^{-14}	8.4×10^{-16}
Area 20, Dispensary	05/13/91	05/20/91	1.5×10^{-14}	1.9×10^{-15}
Area 20, Dispensary	05/20/91	05/28/91	1.8×10^{-14}	8.7×10^{-16}
Area 20, Dispensary	05/28/91	06/03/91	1.4×10^{-14}	1.1×10^{-15}
Area 20, Dispensary	06/03/91	06/10/91	2.0×10^{-14}	9.1×10^{-16}
Area 20, Dispensary	06/10/91	06/17/91	1.9×10^{-14}	8.7×10^{-16}
Area 20, Dispensary	06/17/91	06/24/91	1.2×10^{-14}	7.7×10^{-16}
Area 20, Dispensary	06/24/91	07/01/91	1.2×10^{-14}	8.7×10^{-16}
Area 20, Dispensary	07/01/91	08/08/91	1.9×10^{-14}	8.7×10^{-16}
Area 20, Dispensary	07/08/91	07/15/91	1.9×10^{-14}	8.8×10^{-16}
Area 20, Dispensary	07/15/91	07/22/91	1.6×10^{-14}	8.3×10^{-16}
Area 20, Dispensary	07/29/91	08/05/91	2.7×10^{-14}	3.4×10^{-15}
Area 20, Dispensary	08/05/91	08/12/91	1.6×10^{-14}	8.3×10^{-16}
Area 20, Dispensary	08/12/91	08/19/91	1.7×10^{-14}	8.4×10^{-16}
Area 20, Dispensary	08/19/91	08/26/91	1.7×10^{-14}	8.5×10^{-16}
Area 20, Dispensary	08/26/91	09/03/91	2.0×10^{-14}	8.3×10^{-16}
Area 20, Dispensary	09/03/91	09/09/91	1.5×10^{-14}	1.6×10^{-15}
Area 20, Dispensary	09/09/91	09/16/91	1.7×10^{-14}	3.2×10^{-15}
Area 20, Dispensary	09/16/91	09/23/91	2.1×10^{-14}	9.6×10^{-16}
Area 20, Dispensary	09/23/91	09/30/91	2.1×10^{-14}	1.3×10^{-15}
Area 20, Dispensary	09/30/91	10/07/91	2.6×10^{-14}	1.0×10^{-15}
Area 20, Dispensary	10/07/91	10/14/91	3.2×10^{-14}	1.1×10^{-15}
Area 20, Dispensary	10/14/91	10/21/91	1.5×10^{-14}	8.5×10^{-16}
Area 20, Dispensary	10/21/91	10/28/91	1.9×10^{-14}	8.7×10^{-16}
Area 20, Dispensary	10/28/91	11/04/91	2.1×10^{-14}	9.7×10^{-16}
Area 20, Dispensary	11/04/91	11/12/91	1.3×10^{-14}	7.4×10^{-16}
Area 20, Dispensary	11/12/91	11/18/91	1.5×10^{-14}	9.2×10^{-16}
Area 20, Dispensary	11/18/91	11/25/91	8.7×10^{-15}	7.4×10^{-16}
Area 20, Dispensary	11/25/91	12/02/91	1.3×10^{-14}	7.8×10^{-16}
Area 20, Dispensary	12/02/91	12/09/91	1.7×10^{-14}	9.0×10^{-16}
Area 20, Dispensary	12/09/91	12/16/91	2.1×10^{-14}	9.2×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 20, Dispensary	12/16/91	12/23/91	1.7×10^{-14}	9.0×10^{-16}
Area 23, Building 790	01/02/91	01/ 7/91	2.4×10^{-14}	1.0×10^{-15}
Area 23, Building 790	01/07/91	01/14/91	3.3×10^{-14}	1.1×10^{-15}
Area 23, Building 790	01/14/91	01/22/91	1.4×10^{-14}	7.8×10^{-16}
Area 23, Building 790	01/22/91	01/28/91	3.3×10^{-14}	1.3×10^{-15}
Area 23, Building 790	01/28/91	02/04/91	2.9×10^{-14}	1.1×10^{-15}
Area 23, Building 790	02/04/91	02/11/91	3.7×10^{-14}	1.2×10^{-15}
Area 23, Building 790	02/11/91	02/19/91	2.2×10^{-14}	9.1×10^{-16}
Area 23, Building 790	02/19/91	02/25/91	2.1×10^{-14}	1.0×10^{-15}
Area 23, Building 790	02/25/91	03/04/91	1.0×10^{-14}	7.9×10^{-16}
Area 23, Building 790	03/04/91	03/11/91	1.4×10^{-14}	8.7×10^{-16}
Area 23, Building 790	03/11/91	03/18/91	8.3×10^{-15}	7.6×10^{-16}
Area 23, Building 790	03/18/91	03/25/91	1.1×10^{-14}	8.2×10^{-16}
Area 23, Building 790	03/25/91	04/01/91	1.4×10^{-14}	8.7×10^{-16}
Area 23, Building 790	04/01/91	04/08/91	1.8×10^{-14}	9.5×10^{-16}
Area 23, Building 790	04/08/91	04/15/91	1.4×10^{-14}	8.6×10^{-16}
Area 23, Building 790	04/15/91	04/22/91	1.9×10^{-14}	9.5×10^{-16}
Area 23, Building 790	04/22/91	04/29/91	1.4×10^{-14}	8.5×10^{-16}
Area 23, Building 790	04/29/91	05/06/91	1.7×10^{-14}	9.1×10^{-16}
Area 23, Building 790	05/06/91	05/13/91	1.6×10^{-14}	8.9×10^{-16}
Area 23, Building 790	05/13/91	05/20/91	1.3×10^{-14}	8.5×10^{-16}
Area 23, Building 790	05/20/91	05/28/91	2.1×10^{-14}	1.1×10^{-15}
Area 23, Building 790	05/28/91	06/03/91	1.8×10^{-14}	1.0×10^{-15}
Area 23, Building 790	06/03/91	06/10/91	2.1×10^{-14}	9.9×10^{-16}
Area 23, Building 790	06/10/91	06/17/91	2.5×10^{-14}	1.0×10^{-15}
Area 23, Building 790	06/17/91	06/25/91	1.5×10^{-14}	8.2×10^{-16}
Area 23, Building 790	06/25/91	07/01/91	1.5×10^{-14}	1.0×10^{-15}
Area 23, Building 790	07/01/91	07/08/91	1.8×10^{-14}	9.5×10^{-16}
Area 23, Building 790	07/08/91	07/15/91	2.2×10^{-14}	1.0×10^{-15}
Area 23, Building 790	07/15/91	07/22/91	1.8×10^{-14}	9.6×10^{-16}
Area 23, Building 790	07/22/91	07/29/91	2.2×10^{-14}	1.0×10^{-15}
Area 23, Building 790	07/29/91	08/05/91	1.8×10^{-14}	9.5×10^{-16}
Area 23, Building 790	08/05/91	08/12/91	1.9×10^{-14}	9.7×10^{-16}
Area 23, Building 790	08/12/91	08/19/91	1.5×10^{-14}	8.9×10^{-16}
Area 23, Building 790	08/19/91	08/26/91	2.4×10^{-14}	1.0×10^{-15}
Area 23, Building 790	08/26/91	09/03/91	2.4×10^{-14}	9.6×10^{-16}
Area 23, Building 790	09/03/91	09/09/91	2.3×10^{-14}	1.2×10^{-15}
Area 23, Building 790	09/09/91	09/16/91	2.6×10^{-14}	1.1×10^{-15}
Area 23, Building 790	09/16/91	09/23/91	2.4×10^{-14}	1.1×10^{-15}
Area 23, Building 790	09/23/91	09/30/91	2.2×10^{-14}	1.0×10^{-15}
Area 23, Building 790	09/30/91	10/07/91	2.9×10^{-14}	1.0×10^{-15}
Area 23, Building 790	10/07/91	10/14/91	3.9×10^{-14}	1.3×10^{-15}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 23, Building 790	10/14/91	10/21/91	2.1×10^{-14}	1.0×10^{-15}
Area 23, Building 790	10/21/91	10/28/91	2.2×10^{-14}	5.0×10^{-16}
Area 23, Building 790	10/28/91	11/04/91	2.3×10^{-14}	1.0×10^{-15}
Area 23, Building 790	11/04/91	11/12/91	1.8×10^{-14}	4.4×10^{-16}
Area 23, Building 790	11/12/91	11/18/91	1.8×10^{-14}	1.1×10^{-15}
Area 23, Building 790	11/18/91	11/25/91	9.8×10^{-15}	8.2×10^{-16}
Area 23, Building 790	11/25/91	12/03/91	1.7×10^{-14}	9.0×10^{-16}
Area 23, Building 790	12/03/91	12/09/91	2.2×10^{-14}	1.2×10^{-15}
Area 23, Building 790	12/09/91	12/16/91	3.0×10^{-14}	1.4×10^{-15}
Area 23, Building 790	12/16/91	12/23/91	2.2×10^{-14}	1.0×10^{-15}
Area 23, Building 790	12/23/91	12/30/91	2.7×10^{-14}	1.0×10^{-15}
Area 23, Building 790 No. 2	01/02/91	01/07/91	1.7×10^{-14}	8.6×10^{-16}
Area 23, Building 790 No. 2	01/07/91	01/14/91	2.8×10^{-14}	1.0×10^{-15}
Area 23, Building 790 No. 2	01/14/91	01/22/91	1.2×10^{-14}	6.9×10^{-16}
Area 23, Building 790 No. 2	01/22/91	01/28/91	3.2×10^{-14}	1.1×10^{-15}
Area 23, Building 790 No. 2	01/28/91	02/04/91	2.6×10^{-14}	1.0×10^{-15}
Area 23, Building 790 No. 2	02/04/91	02/11/91	3.5×10^{-14}	1.1×10^{-15}
Area 23, Building 790 No. 2	02/11/91	02/19/91	2.0×10^{-14}	8.3×10^{-16}
Area 23, Building 790 No. 2	02/19/91	02/25/91	2.3×10^{-14}	1.0×10^{-15}
Area 23, Building 790 No. 2	02/25/91	03/04/91	9.6×10^{-15}	7.3×10^{-16}
Area 23, Building 790 No. 2	03/04/91	03/11/91	1.2×10^{-14}	7.6×10^{-16}
Area 23, Building 790 No. 2	03/11/91	03/18/91	1.3×10^{-14}	8.0×10^{-16}
Area 23, Building 790 No. 2	03/18/91	03/25/91	8.7×10^{-15}	7.1×10^{-16}
Area 23, Building 790 No. 2	03/25/91	04/01/91	9.4×10^{-15}	7.2×10^{-16}
Area 23, Building 790 No. 2	04/01/91	04/08/91	1.7×10^{-14}	8.6×10^{-16}
Area 23, Building 790 No. 2	04/08/91	04/15/91	1.4×10^{-14}	7.9×10^{-16}
Area 23, Building 790 No. 2	04/15/91	04/22/91	1.7×10^{-14}	8.5×10^{-16}
Area 23, Building 790 No. 2	04/22/91	04/29/91	1.2×10^{-14}	7.6×10^{-16}
Area 23, Building 790 No. 2	04/29/91	05/06/91	1.6×10^{-14}	8.3×10^{-16}
Area 23, Building 790 No. 2	05/06/91	05/13/91	1.4×10^{-14}	8.0×10^{-16}
Area 23, Building 790 No. 2	05/13/91	05/20/91	1.1×10^{-14}	7.4×10^{-16}
Area 23, Building 790 No. 2	05/20/91	05/28/91	1.8×10^{-14}	7.9×10^{-16}
Area 23, Building 790 No. 2	05/28/91	06/03/91	1.7×10^{-14}	9.4×10^{-16}
Area 23, Building 790 No. 2	06/03/91	06/10/91	2.0×10^{-14}	8.8×10^{-16}
Area 23, Building 790 No. 2	06/10/91	06/17/91	2.0×10^{-14}	9.0×10^{-16}
Area 23, Building 790 No. 2	06/17/91	06/25/91	1.3×10^{-14}	7.2×10^{-16}
Area 23, Building 790 No. 2	06/25/91	07/01/91	1.2×10^{-14}	8.5×10^{-16}
Area 23, Building 790 No. 2	07/01/91	07/08/91	1.5×10^{-14}	8.2×10^{-16}
Area 23, Building 790 No. 2	07/08/91	07/15/91	1.9×10^{-14}	8.8×10^{-16}
Area 23, Building 790 No. 2	07/15/91	07/22/91	1.7×10^{-14}	8.5×10^{-16}
Area 23, Building 790 No. 2	07/22/91	07/29/91	2.0×10^{-14}	8.9×10^{-16}
Area 23, Building 790 No. 2	07/29/91	08/05/91	2.0×10^{-14}	8.8×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 23, Building 790 No. 2	08/05/91	08/12/91	1.9×10^{-14}	9.0×10^{-16}
Area 23, Building 790 No. 2	08/12/91	08/19/91	1.4×10^{-14}	7.9×10^{-16}
Area 23, Building 790 No. 2	08/19/91	08/26/91	1.9×10^{-14}	8.8×10^{-16}
Area 23, Building 790 No. 2	08/26/91	09/03/91	2.2×10^{-14}	8.4×10^{-16}
Area 23, Building 790 No. 2	09/03/91	09/09/91	1.4×10^{-14}	9.3×10^{-16}
Area 23, Building 790 No. 2	09/09/91	09/16/91	1.9×10^{-14}	9.1×10^{-16}
Area 23, Building 790 No. 2	09/16/91	09/23/91	2.3×10^{-14}	9.9×10^{-16}
Area 23, Building 790 No. 2	09/23/91	09/30/91	1.6×10^{-14}	8.6×10^{-16}
Area 23, Building 790 No. 2	09/30/91	10/07/91	3.6×10^{-14}	1.3×10^{-15}
Area 23, Building 790 No. 2	10/07/91	10/14/91	3.3×10^{-14}	1.1×10^{-15}
Area 23, Building 790 No. 2	10/14/91	10/21/91	1.7×10^{-14}	8.8×10^{-16}
Area 23, Building 790 No. 2	10/21/91	10/28/91	1.9×10^{-14}	4.3×10^{-16}
Area 23, Building 790 No. 2	10/28/91	11/04/91	2.1×10^{-14}	9.5×10^{-16}
Area 23, Building 790 No. 2	11/04/91	11/12/91	1.6×10^{-14}	3.7×10^{-16}
Area 23, Building 790 No. 2	11/12/91	11/18/91	1.8×10^{-14}	1.0×10^{-15}
Area 23, Building 790 No. 2	11/18/91	11/25/91	8.5×10^{-15}	7.0×10^{-16}
Area 23, Building 790 No. 2	11/25/91	12/03/91	1.5×10^{-14}	7.8×10^{-16}
Area 23, Building 790 No. 2	12/03/91	12/09/91	2.1×10^{-14}	1.0×10^{-15}
Area 23, Building 790 No. 2	12/09/91	12/16/91	2.3×10^{-14}	9.8×10^{-16}
Area 23, Building 790 No. 2	12/16/91	12/23/91	2.7×10^{-14}	9.9×10^{-16}
Area 23, Building 790 No. 2	12/23/91	12/30/91	2.7×10^{-14}	1.0×10^{-15}
Area 23, East Boundary	01/02/91	01/07/91	2.0×10^{-14}	9.5×10^{-16}
Area 23, East Boundary	01/07/91	01/14/91	3.2×10^{-14}	1.1×10^{-15}
Area 23, East Boundary	01/14/91	01/22/91	1.3×10^{-14}	7.5×10^{-16}
Area 23, East Boundary	01/22/91	01/28/91	3.2×10^{-14}	1.2×10^{-15}
Area 23, East Boundary	01/28/91	02/04/91	2.5×10^{-14}	1.0×10^{-15}
Area 23, East Boundary	02/04/91	02/11/91	3.6×10^{-14}	1.1×10^{-15}
Area 23, East Boundary	02/11/91	02/19/91	2.1×10^{-14}	8.9×10^{-16}
Area 23, East Boundary	02/19/91	02/25/91	2.1×10^{-14}	1.0×10^{-15}
Area 23, East Boundary	02/25/91	03/04/91	1.1×10^{-14}	7.8×10^{-16}
Area 23, East Boundary	03/04/91	03/11/91	1.1×10^{-14}	7.7×10^{-16}
Area 23, East Boundary	03/11/91	03/18/91	9.9×10^{-15}	7.9×10^{-16}
Area 23, East Boundary	03/18/91	03/25/91	1.5×10^{-14}	8.6×10^{-16}
Area 23, East Boundary	03/25/91	04/01/91	9.6×10^{-15}	7.7×10^{-16}
Area 23, East Boundary	04/01/91	04/08/91	1.6×10^{-14}	8.7×10^{-16}
Area 23, East Boundary	04/08/91	04/15/91	1.2×10^{-14}	7.6×10^{-16}
Area 23, East Boundary	04/15/91	04/22/91	1.7×10^{-14}	8.5×10^{-16}
Area 23, East Boundary	04/22/91	04/29/91	1.2×10^{-14}	7.7×10^{-16}
Area 23, East Boundary	04/29/91	05/06/91	1.4×10^{-14}	7.9×10^{-16}
Area 23, East Boundary	05/06/91	05/13/91	1.3×10^{-14}	7.9×10^{-16}
Area 23, East Boundary	05/13/91	05/20/91	1.3×10^{-14}	7.8×10^{-16}
Area 23, East Boundary	05/20/91	05/28/91	1.7×10^{-14}	7.8×10^{-16}

Attachment A.3 (Gross B in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 23, East Boundary	05/28/91	06/03/91	1.4×10^{-14}	8.9×10^{-16}
Area 23, East Boundary	06/03/91	06/10/91	2.0×10^{-14}	8.9×10^{-16}
Area 23, East Boundary	06/10/91	06/17/91	2.4×10^{-14}	9.6×10^{-16}
Area 23, East Boundary	06/17/91	06/25/91	1.6×10^{-14}	7.6×10^{-16}
Area 23, East Boundary	06/25/91	07/01/91	1.3×10^{-14}	8.7×10^{-16}
Area 23, East Boundary	07/01/91	07/08/91	1.7×10^{-14}	8.5×10^{-16}
Area 23, East Boundary	07/08/91	07/15/91	2.0×10^{-14}	9.0×10^{-16}
Area 23, East Boundary	07/15/91	07/22/91	1.5×10^{-14}	8.3×10^{-16}
Area 23, East Boundary	07/22/91	07/29/91	2.1×10^{-14}	9.0×10^{-16}
Area 23, East Boundary	07/29/91	08/05/91	2.3×10^{-14}	9.4×10^{-16}
Area 23, East Boundary	08/05/91	08/12/91	1.9×10^{-14}	8.9×10^{-16}
Area 23, East Boundary	08/12/91	08/19/91	1.4×10^{-14}	9.1×10^{-16}
Area 23, East Boundary	08/19/91	08/26/91	1.8×10^{-14}	8.8×10^{-16}
Area 23, East Boundary	08/26/91	09/03/91	2.1×10^{-14}	8.4×10^{-16}
Area 23, East Boundary	09/03/91	09/09/91	1.8×10^{-14}	9.9×10^{-16}
Area 23, East Boundary	09/09/91	09/16/91	2.1×10^{-14}	9.5×10^{-16}
Area 23, East Boundary	09/16/91	09/23/91	2.2×10^{-14}	9.8×10^{-16}
Area 23, East Boundary	09/23/91	09/30/91	1.7×10^{-14}	8.9×10^{-16}
Area 23, East Boundary	09/30/91	10/07/91	2.8×10^{-14}	1.0×10^{-15}
Area 23, East Boundary	10/07/91	10/14/91	3.3×10^{-14}	1.1×10^{-15}
Area 23, East Boundary	10/14/91	10/21/91	1.9×10^{-14}	9.1×10^{-16}
Area 23, East Boundary	10/21/91	10/28/91	2.0×10^{-14}	4.4×10^{-16}
Area 23, East Boundary	10/28/91	11/04/91	2.2×10^{-14}	9.7×10^{-16}
Area 23, East Boundary	11/04/91	11/12/91	1.6×10^{-14}	3.8×10^{-16}
Area 23, East Boundary	11/12/91	11/18/91	1.6×10^{-14}	9.8×10^{-16}
Area 23, East Boundary	11/18/91	11/25/91	1.1×10^{-14}	7.5×10^{-16}
Area 23, East Boundary	11/25/91	12/03/91	1.3×10^{-14}	7.6×10^{-16}
Area 23, East Boundary	12/03/91	12/09/91	6.3×10^{-14}	1.6×10^{-15}
Area 23, East Boundary	12/09/91	12/16/91	2.3×10^{-14}	1.0×10^{-15}
Area 23, East Boundary	12/16/91	12/23/91	2.7×10^{-14}	9.9×10^{-16}
Area 23, East Boundary	12/23/91	12/30/91	4.3×10^{-15}	6.5×10^{-16}
Area 23, H&S Building	01/02/91	01/07/91	1.8×10^{-14}	8.6×10^{-16}
Area 23, H&S Building	01/07/91	01/14/91	2.7×10^{-14}	1.0×10^{-15}
Area 23, H&S Building	01/14/91	01/22/91	1.1×10^{-14}	6.8×10^{-16}
Area 23, H&S Building	01/22/91	01/28/91	2.8×10^{-14}	1.1×10^{-15}
Area 23, H&S Building	01/28/91	02/04/91	2.6×10^{-14}	9.9×10^{-16}
Area 23, H&S Building	02/04/91	02/11/91	3.6×10^{-14}	1.1×10^{-15}
Area 23, H&S Building	02/11/91	02/19/91	2.1×10^{-14}	8.3×10^{-16}
Area 23, H&S Building	02/19/91	02/25/91	2.2×10^{-14}	1.0×10^{-15}
Area 23, H&S Building	02/25/91	03/04/91	1.2×10^{-14}	7.7×10^{-16}
Area 23, H&S Building	03/04/91	03/11/91	1.2×10^{-14}	7.3×10^{-16}
Area 23, H&S Building	03/11/91	03/18/91	7.7×10^{-15}	7.0×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 23, H&S Building	03/18/91	03/25/91	9.4×10^{-15}	7.1×10^{-16}
Area 23, H&S Building	03/05/91	04/01/91	1.1×10^{-14}	7.4×10^{-16}
Area 23, H&S Building	04/01/91	04/08/91	1.6×10^{-14}	8.4×10^{-16}
Area 23, H&S Building	04/08/91	04/15/91	1.3×10^{-14}	7.8×10^{-16}
Area 23, H&S Building	04/15/91	04/22/91	1.6×10^{-14}	8.3×10^{-16}
Area 23, H&S Building	04/22/91	04/29/91	1.2×10^{-14}	7.5×10^{-16}
Area 23, H&S Building	04/29/91	05/06/91	1.4×10^{-14}	7.9×10^{-16}
Area 23, H&S Building	05/06/91	05/13/91	1.4×10^{-14}	8.0×10^{-16}
Area 23, H&S Building	05/13/91	05/20/91	1.2×10^{-14}	7.5×10^{-16}
Area 23, H&S Building	05/20/91	05/28/91	1.7×10^{-14}	7.8×10^{-16}
Area 23, H&S Building	05/28/91	06/03/91	1.4×10^{-14}	8.8×10^{-16}
Area 23, H&S Building	06/03/91	06/10/91	1.9×10^{-14}	8.6×10^{-16}
Area 23, H&S Building	06/10/91	06/17/91	2.2×10^{-14}	9.3×10^{-16}
Area 23, H&S Building	06/17/91	06/25/91	1.5×10^{-14}	7.7×10^{-16}
Area 23, H&S Building	06/25/91	07/01/91	9.8×10^{-15}	7.6×10^{-16}
Area 23, H&S Building	07/01/91	07/08/91	1.5×10^{-14}	8.2×10^{-16}
Area 23, H&S Building	07/08/91	07/15/91	2.0×10^{-14}	8.8×10^{-16}
Area 23, H&S Building	07/15/91	07/22/91	1.6×10^{-14}	8.3×10^{-16}
Area 23, H&S Building	07/22/91	07/29/91	2.0×10^{-14}	8.8×10^{-16}
Area 23, H&S Building	07/29/91	08/05/91	2.1×10^{-14}	9.0×10^{-16}
Area 23, H&S Building	08/05/91	08/12/91	1.8×10^{-14}	8.6×10^{-16}
Area 23, H&S Building	08/12/91	08/19/91	1.7×10^{-14}	8.7×10^{-16}
Area 23, H&S Building	08/19/91	08/26/91	1.8×10^{-14}	8.3×10^{-16}
Area 23, H&S Building	08/06/91	09/03/91	2.0×10^{-14}	8.2×10^{-16}
Area 23, H&S Building	09/03/91	09/09/91	1.7×10^{-14}	9.8×10^{-16}
Area 23, H&S Building	09/09/91	09/16/91	2.1×10^{-14}	9.4×10^{-16}
Area 23, H&S Building	09/16/91	09/23/91	2.2×10^{-14}	9.7×10^{-16}
Area 23, H&S Building	09/23/91	09/30/91	1.7×10^{-14}	8.8×10^{-16}
Area 23, H&S Building	09/30/91	10/07/91	3.1×10^{-14}	1.0×10^{-15}
Area 23, H&S Building	10/07/91	10/14/91	3.2×10^{-14}	1.1×10^{-15}
Area 23, H&S Building	10/14/91	10/21/91	1.8×10^{-14}	8.9×10^{-16}
Area 23, H&S Building	10/21/91	10/28/91	2.7×10^{-14}	4.7×10^{-16}
Area 23, H&S Building	10/28/91	11/04/91	2.1×10^{-14}	9.5×10^{-16}
Area 23, H&S Building	11/04/91	11/12/91	1.6×10^{-14}	3.7×10^{-16}
Area 23, H&S Building	11/12/91	11/18/91	1.8×10^{-14}	1.0×10^{-15}
Area 23, H&S Building	11/18/91	11/25/91	9.8×10^{-15}	7.2×10^{-16}
Area 23, H&S Building	11/25/91	12/03/91	1.5×10^{-14}	7.6×10^{-16}
Area 23, H&S Building	12/03/91	12/09/91	1.9×10^{-14}	1.0×10^{-15}
Area 23, H&S Building	12/09/91	12/16/91	2.3×10^{-14}	9.8×10^{-16}
Area 23, H&S Building	12/16/91	12/23/91	2.6×10^{-14}	9.7×10^{-16}
Area 23, H&S Building	12/23/91	12/30/91	3.1×10^{-16}	5.2×10^{-16}
Area 25, E-MAD North	01/02/91	01/07/91	1.5×10^{-14}	1.4×10^{-15}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 25, E-MAD North	01/07/91	01/14/91	2.8×10^{-14}	1.0×10^{-15}
Area 25, E-MAD North	01/14/91	01/22/91	1.4×10^{-14}	7.5×10^{-16}
Area 25, E-MAD North	01/22/91	01/28/91	3.3×10^{-14}	1.3×10^{-15}
Area 25, E-MAD North	01/28/91	02/04/91	2.3×10^{-14}	9.8×10^{-16}
Area 25, E-MAD North	02/04/91	02/11/91	3.6×10^{-14}	1.1×10^{-15}
Area 25, E-MAD North	02/11/91	02/19/91	1.9×10^{-14}	8.4×10^{-16}
Area 25, E-MAD North	02/19/91	02/25/91	2.1×10^{-14}	1.0×10^{-15}
Area 25, E-MAD North	02/25/91	03/04/91	1.2×10^{-14}	1.3×10^{-15}
Area 25, E-MAD North	03/04/91	03/11/91	1.4×10^{-14}	9.6×10^{-16}
Area 25, E-MAD North	03/11/91	03/18/91	1.0×10^{-14}	7.8×10^{-16}
Area 25, E-MAD North	03/18/91	03/25/91	9.3×10^{-15}	7.4×10^{-16}
Area 25, E-MAD North	03/25/91	04/01/91	1.2×10^{-14}	9.3×10^{-16}
Area 25, E-MAD North	04/01/91	04/08/91	1.8×10^{-14}	9.2×10^{-16}
Area 25, E-MAD North	04/08/91	04/15/91	1.3×10^{-14}	8.0×10^{-16}
Area 25, E-MAD North	04/15/91	04/22/91	1.7×10^{-14}	8.9×10^{-16}
Area 25, E-MAD North	04/22/91	04/29/91	1.3×10^{-14}	8.1×10^{-16}
Area 25, E-MAD North	04/29/91	05/06/91	1.6×10^{-14}	8.5×10^{-16}
Area 25, E-MAD North	05/06/91	05/13/91	1.4×10^{-14}	8.6×10^{-16}
Area 25, E-MAD North	05/13/91	05/20/91	1.3×10^{-14}	8.2×10^{-16}
Area 25, E-MAD North	05/20/91	05/28/91	1.6×10^{-14}	7.8×10^{-16}
Area 25, E-MAD North	05/28/91	06/03/91	1.4×10^{-14}	9.1×10^{-16}
Area 25, E-MAD North	06/03/91	06/10/91	1.9×10^{-14}	9.1×10^{-16}
Area 25, E-MAD North	06/10/91	06/17/91	2.3×10^{-14}	9.8×10^{-16}
Area 25, E-MAD North	06/17/91	06/25/91	1.4×10^{-14}	7.6×10^{-16}
Area 25, E-MAD North	06/25/91	07/01/91	1.2×10^{-14}	8.9×10^{-16}
Area 25, E-MAD North	07/08/91	07/15/91	4.0×10^{-14}	2.0×10^{-15}
Area 25, E-MAD North	07/15/91	07/22/91	1.7×10^{-14}	9.8×10^{-16}
Area 25, E-MAD North	07/22/91	07/29/91	2.0×10^{-14}	9.2×10^{-16}
Area 25, E-MAD North	07/29/91	08/05/91	2.1×10^{-14}	9.5×10^{-16}
Area 25, E-MAD North	08/05/91	08/12/91	1.9×10^{-14}	1.6×10^{-15}
Area 25, E-MAD North	08/19/91	08/26/91	2.3×10^{-14}	1.5×10^{-15}
Area 25, E-MAD North	08/26/91	09/03/91	2.3×10^{-14}	9.0×10^{-16}
Area 25, E-MAD North	09/03/91	09/09/91	1.7×10^{-14}	1.0×10^{-15}
Area 25, E-MAD North	09/09/91	09/16/91	2.2×10^{-14}	9.9×10^{-16}
Area 25, E-MAD North	09/16/91	09/23/91	2.5×10^{-14}	1.0×10^{-15}
Area 25, E-MAD North	09/23/91	09/30/91	1.9×10^{-14}	9.6×10^{-16}
Area 25, E-MAD North	09/30/91	10/07/91	3.1×10^{-14}	1.1×10^{-15}
Area 25, E-MAD North	10/07/91	10/14/91	3.5×10^{-14}	1.1×10^{-15}
Area 25, E-MAD North	10/14/91	10/21/91	1.9×10^{-14}	9.5×10^{-16}
Area 25, E-MAD North	10/21/91	10/28/91	1.7×10^{-14}	4.4×10^{-16}
Area 25, E-MAD North	10/28/91	11/ 4/91	2.2×10^{-14}	1.0×10^{-15}
Area 25, E-MAD North	11/04/91	11/12/91	1.7×10^{-14}	4.0×10^{-16}

Attachment A.3 (Gross B in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 25, E-MAD North	11/12/91	11/18/91	1.8×10^{-14}	1.0×10^{-15}
Area 25, E-MAD North	11/18/91	11/25/91	9.8×10^{-15}	7.8×10^{-16}
Area 25, E-MAD North	12/03/91	12/09/91	2.0×10^{-14}	1.1×10^{-15}
Area 25, E-MAD North	12/09/91	12/16/91	2.4×10^{-14}	1.0×10^{-15}
Area 25, E-MAD North	12/16/91	12/23/91	2.3×10^{-14}	9.9×10^{-16}
Area 25, E-MAD North	12/23/91	12/30/91	1.4×10^{-14}	8.9×10^{-16}
Area 25, NRDS Warehouse	01/02/91	01/07/91	2.1×10^{-14}	9.4×10^{-16}
Area 25, NRDS Warehouse	01/07/91	01/14/91	3.0×10^{-14}	1.0×10^{-15}
Area 25, NRDS Warehouse	01/14/91	01/22/91	1.4×10^{-14}	8.0×10^{-16}
Area 25, NRDS Warehouse	01/22/91	01/28/91	2.6×10^{-14}	1.0×10^{-15}
Area 25, NRDS Warehouse	01/28/91	02/04/91	2.5×10^{-14}	1.0×10^{-15}
Area 25, NRDS Warehouse	02/04/91	02/11/91	2.6×10^{-14}	1.0×10^{-15}
Area 25, NRDS Warehouse	02/11/91	02/19/91	1.9×10^{-14}	8.3×10^{-16}
Area 25, NRDS Warehouse	02/19/91	02/25/91	1.9×10^{-14}	1.0×10^{-15}
Area 25, NRDS Warehouse	02/25/91	03/04/91	1.1×10^{-14}	7.8×10^{-16}
Area 25, NRDS Warehouse	03/04/91	03/11/91	1.3×10^{-14}	8.0×10^{-16}
Area 25, NRDS Warehouse	03/11/91	03/18/91	8.7×10^{-15}	7.5×10^{-16}
Area 25, NRDS Warehouse	03/25/91	04/01/91	1.1×10^{-14}	7.7×10^{-16}
Area 25, NRDS Warehouse	04/01/91	04/08/91	1.7×10^{-14}	8.8×10^{-16}
Area 25, NRDS Warehouse	04/08/91	04/15/91	1.4×10^{-14}	8.2×10^{-16}
Area 25, NRDS Warehouse	04/15/91	04/22/91	1.7×10^{-14}	8.9×10^{-16}
Area 25, NRDS Warehouse	04/22/91	04/29/91	1.4×10^{-14}	8.0×10^{-16}
Area 25, NRDS Warehouse	04/29/91	05/06/91	1.7×10^{-14}	8.8×10^{-16}
Area 25, NRDS Warehouse	05/06/91	05/13/91	1.2×10^{-14}	8.0×10^{-16}
Area 25, NRDS Warehouse	05/13/91	05/20/91	1.2×10^{-14}	7.9×10^{-16}
Area 25, NRDS Warehouse	05/20/91	05/28/91	1.6×10^{-14}	7.8×10^{-16}
Area 25, NRDS Warehouse	05/28/91	06/03/91	1.3×10^{-14}	9.0×10^{-16}
Area 25, NRDS Warehouse	06/03/91	06/10/91	2.0×10^{-14}	9.3×10^{-16}
Area 25, NRDS Warehouse	06/10/91	06/17/91	2.2×10^{-14}	9.6×10^{-16}
Area 25, NRDS Warehouse	06/17/91	06/25/91	1.4×10^{-14}	7.5×10^{-16}
Area 25, NRDS Warehouse	06/25/91	07/01/91	1.3×10^{-14}	9.1×10^{-16}
Area 25, NRDS Warehouse	07/01/91	07/08/91	1.7×10^{-14}	8.8×10^{-16}
Area 25, NRDS Warehouse	07/08/91	07/15/91	2.0×10^{-14}	9.2×10^{-16}
Area 25, NRDS Warehouse	07/15/91	07/22/91	1.8×10^{-14}	9.0×10^{-16}
Area 25, NRDS Warehouse	07/22/91	07/29/91	2.1×10^{-14}	9.3×10^{-16}
Area 25, NRDS Warehouse	07/29/91	08/05/91	2.3×10^{-14}	9.7×10^{-16}
Area 25, NRDS Warehouse	08/05/91	08/12/91	1.8×10^{-14}	8.8×10^{-16}
Area 25, NRDS Warehouse	08/12/91	08/19/91	1.5×10^{-14}	8.5×10^{-16}
Area 25, NRDS Warehouse	08/19/91	08/26/91	2.5×10^{-14}	1.1×10^{-15}
Area 25, NRDS Warehouse	08/26/91	09/03/91	2.0×10^{-14}	7.7×10^{-16}
Area 25, NRDS Warehouse	09/03/91	09/09/91	1.8×10^{-14}	1.0×10^{-15}
Area 25, NRDS Warehouse	09/09/91	09/16/91	2.2×10^{-14}	9.8×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$	
	Start	End	Concentration	Standard Deviation (s)
Area 25, NRDS Warehouse	09/16/91	09/23/91	2.5×10^{-14}	1.0×10^{-15}
Area 25, NRDS Warehouse	09/23/91	09/30/91	1.8×10^{-14}	9.2×10^{-16}
Area 25, NRDS Warehouse	09/30/91	10/07/91	2.7×10^{-14}	1.0×10^{-15}
Area 25, NRDS Warehouse	10/07/91	10/14/91	3.5×10^{-14}	1.1×10^{-15}
Area 25, NRDS Warehouse	10/14/91	10/21/91	1.7×10^{-14}	9.0×10^{-16}
Area 25, NRDS Warehouse	10/21/91	10/28/91	1.9×10^{-14}	4.4×10^{-16}
Area 25, NRDS Warehouse	10/28/91	11/04/91	2.0×10^{-14}	8.8×10^{-16}
Area 25, NRDS Warehouse	11/04/91	11/12/91	1.9×10^{-14}	4.4×10^{-16}
Area 25, NRDS Warehouse	11/12/91	11/18/91	1.7×10^{-14}	1.0×10^{-15}
Area 25, NRDS Warehouse	11/18/91	11/25/91	1.1×10^{-14}	7.6×10^{-16}
Area 25, NRDS Warehouse	11/25/91	12/03/91	1.4×10^{-14}	7.8×10^{-16}
Area 25, NRDS Warehouse	12/03/91	12/09/91	1.9×10^{-14}	1.0×10^{-15}
Area 25, NRDS Warehouse	12/09/91	12/16/91	2.3×10^{-14}	1.0×10^{-15}
Area 25, NRDS Warehouse	12/16/91	12/23/91	2.3×10^{-14}	9.6×10^{-16}
Area 25, NRDS Warehouse	12/23/91	12/30/91	3.0×10^{-14}	1.2×10^{-15}
Area 27, Cafeteria	01/02/91	01/07/91	1.8×10^{-14}	1.1×10^{-15}
Area 27, Cafeteria	01/07/91	01/14/91	3.2×10^{-14}	1.2×10^{-15}
Area 27, Cafeteria	01/14/91	01/22/91	1.4×10^{-14}	8.2×10^{-16}
Area 27, Cafeteria	01/22/91	01/28/91	3.5×10^{-14}	1.3×10^{-15}
Area 27, Cafeteria	01/28/91	02/04/91	2.7×10^{-14}	1.1×10^{-15}
Area 27, Cafeteria	02/04/91	02/11/91	3.7×10^{-14}	1.2×10^{-15}
Area 27, Cafeteria	02/11/91	02/19/91	2.3×10^{-14}	1.0×10^{-15}
Area 27, Cafeteria	02/19/91	02/25/91	2.5×10^{-14}	1.2×10^{-15}
Area 27, Cafeteria	02/25/91	03/04/91	1.2×10^{-14}	8.7×10^{-16}
Area 27, Cafeteria	03/04/91	03/11/91	1.4×10^{-14}	8.9×10^{-16}
Area 27, Cafeteria	03/11/91	03/18/91	9.2×10^{-15}	8.7×10^{-16}
Area 27, Cafeteria	03/18/91	03/25/91	1.2×10^{-14}	8.7×10^{-16}
Area 27, Cafeteria	03/25/91	04/01/91	1.1×10^{-14}	7.8×10^{-16}
Area 27, Cafeteria	04/01/91	04/08/91	1.7×10^{-14}	8.6×10^{-16}
Area 27, Cafeteria	04/08/91	04/15/91	1.4×10^{-14}	8.2×10^{-16}
Area 27, Cafeteria	04/15/91	04/22/91	1.7×10^{-14}	8.3×10^{-16}
Area 27, Cafeteria	04/22/91	04/29/91	1.4×10^{-14}	8.8×10^{-16}
Area 27, Cafeteria	04/29/91	05/06/91	1.9×10^{-14}	8.8×10^{-16}
Area 27, Cafeteria	05/06/91	05/13/91	1.5×10^{-14}	8.6×10^{-16}
Area 27, Cafeteria	05/13/91	05/20/91	1.2×10^{-14}	7.9×10^{-16}
Area 27, Cafeteria	05/20/91	05/28/91	1.7×10^{-14}	8.0×10^{-16}
Area 27, Cafeteria	05/28/91	06/03/91	1.5×10^{-14}	9.2×10^{-16}
Area 27, Cafeteria	06/03/91	06/10/91	2.0×10^{-14}	9.1×10^{-16}
Area 27, Cafeteria	06/10/91	06/17/91	2.2×10^{-14}	9.6×10^{-16}
Area 27, Cafeteria	06/17/91	06/25/91	1.5×10^{-14}	7.6×10^{-16}
Area 27, Cafeteria	06/25/91	07/01/91	1.7×10^{-14}	1.1×10^{-15}
Area 27, Cafeteria	07/01/91	07/08/91	1.5×10^{-14}	8.0×10^{-16}

Attachment A.3 (Gross β in Air - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>		<u>$\mu\text{Ci/mL}$</u>	
	<u>Start</u>	<u>End</u>	<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 27, Cafeteria	07/08/91	07/15/91	1.8×10^{-14}	8.3×10^{-16}
Area 27, Cafeteria	07/15/91	07/22/91	1.8×10^{-14}	8.9×10^{-16}
Area 27, Cafeteria	07/22/91	07/29/91	2.2×10^{-14}	9.3×10^{-16}
Area 27, Cafeteria	07/29/91	08/05/91	2.0×10^{-14}	9.2×10^{-16}
Area 27, Cafeteria	08/05/91	08/12/91	1.8×10^{-14}	8.9×10^{-16}
Area 27, Cafeteria	08/12/91	08/19/91	1.4×10^{-14}	8.2×10^{-16}
Area 27, Cafeteria	08/19/91	08/26/91	2.1×10^{-14}	9.4×10^{-16}
Area 27, Cafeteria	08/26/91	09/03/91	2.1×10^{-14}	8.7×10^{-16}
Area 27, Cafeteria	09/03/91	09/09/91	1.6×10^{-14}	9.9×10^{-16}
Area 27, Cafeteria	09/09/91	09/16/91	2.4×10^{-14}	1.0×10^{-15}
Area 27, Cafeteria	09/16/91	09/23/91	2.4×10^{-14}	1.0×10^{-15}
Area 27, Cafeteria	09/23/91	09/30/91	1.7×10^{-14}	9.2×10^{-16}
Area 27, Cafeteria	09/30/91	10/07/91	2.9×10^{-14}	1.0×10^{-15}
Area 27, Cafeteria	10/07/91	10/14/91	3.4×10^{-14}	1.1×10^{-15}
Area 27, Cafeteria	10/14/91	10/21/91	1.8×10^{-14}	9.3×10^{-16}
Area 27, Cafeteria	10/21/91	10/28/91	2.0×10^{-14}	4.5×10^{-16}
Area 27, Cafeteria	10/28/91	11/04/91	2.4×10^{-14}	1.0×10^{-15}
Area 27, Cafeteria	11/04/91	11/12/91	1.6×10^{-14}	3.9×10^{-16}
Area 27, Cafeteria	11/12/91	11/18/91	1.6×10^{-14}	1.0×10^{-15}
Area 27, Cafeteria	11/18/91	11/25/91	1.1×10^{-14}	7.7×10^{-16}
Area 27, Cafeteria	11/25/91	12/03/91	1.6×10^{-14}	8.1×10^{-16}
Area 27, Cafeteria	12/03/91	12/09/91	2.0×10^{-14}	1.0×10^{-15}
Area 27, Cafeteria	12/09/91	12/16/91	1.6×10^{-14}	9.0×10^{-16}
Area 27, Cafeteria	12/16/91	12/23/91	2.6×10^{-14}	1.0×10^{-15}

Attachment A.4 Gamma-Emitting Radionuclides in Air - 1991

Sampling Location	Sampling Dates		μCi/mL		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 1, BJJ	01/14/91	01/22/91	1.5×10^{-13}	5.8×10^{-14}	²¹⁴ Bi
Area 1, BJJ	01/14/91	01/22/91	1.8×10^{-13}	4.9×10^{-14}	²¹⁴ Pb
Area 1, BJJ	01/22/91	01/28/91	3.0×10^{-13}	8.0×10^{-14}	²¹⁴ Pb
Area 1, BJJ	01/22/91	01/28/91	1.8×10^{-13}	6.9×10^{-14}	²¹⁴ Bi
Area 1, BJJ	02/04/91	02/11/91	2.0×10^{-13}	1.0×10^{-13}	⁴⁰ K
Area 1, BJJ	04/22/91	04/29/91	1.0×10^{-14}	4.9×10^{-15}	²¹² Pb
Area 1, BJJ	05/20/91	05/28/91	1.5×10^{-13}	5.8×10^{-14}	²¹⁴ Pb
Area 1, BJJ	06/17/91	06/24/91	3.5×10^{-13}	1.4×10^{-13}	⁴⁰ K
Area 1, BJJ	07/01/91	07/08/91	2.9×10^{-14}	8.4×10^{-15}	²¹² Pb
Area 1, BJJ	07/22/91	07/29/91	6.7×10^{-13}	2.2×10^{-13}	⁴⁰ K
Area 1, BJJ	07/29/91	08/05/91	1.3×10^{-12}	2.5×10^{-13}	⁴⁰ K
Area 1, BJJ	08/05/91	08/12/91	4.6×10^{-13}	9.4×10^{-14}	⁴⁰ K
Area 1, BJJ	08/12/91	08/19/91	6.7×10^{-14}	3.1×10^{-14}	⁷ Be
Area 1, BJJ	08/26/91	09/03/91	9.4×10^{-14}	4.7×10^{-14}	²¹⁴ Pb
Area 1, BJJ	09/03/91	09/09/91	1.0×10^{-13}	5.9×10^{-14}	²¹⁴ Pb
Area 1, BJJ	09/09/91	09/16/91	1.1×10^{-13}	5.1×10^{-14}	²¹⁴ Bi
Area 1, BJJ	09/09/91	09/16/91	1.3×10^{-14}	4.0×10^{-15}	²¹² Pb
Area 1, BJJ	09/09/91	09/16/91	1.0×10^{-13}	5.2×10^{-14}	²¹⁴ Pb
Area 1, BJJ	09/16/91	09/23/91	8.5×10^{-13}	2.8×10^{-13}	²¹⁴ Pb
Area 1, BJJ	09/23/91	09/30/91	1.2×10^{-13}	5.6×10^{-14}	²¹⁴ Pb
Area 1, BJJ	09/30/91	10/07/91	1.3×10^{-13}	4.9×10^{-14}	²¹⁴ Pb
Area 1, BJJ	10/07/91	10/14/91	1.1×10^{-13}	5.3×10^{-14}	²¹⁴ Pb
Area 1, BJJ	10/14/91	10/21/91	3.8×10^{-13}	1.6×10^{-13}	²¹⁴ Bi
Area 1, BJJ	10/14/91	10/21/91	5.4×10^{-13}	1.3×10^{-13}	²¹⁴ Pb
Area 1, BJJ	10/28/91	11/04/91	2.1×10^{-13}	1.1×10^{-13}	²¹⁴ Bi
Area 1, BJJ	11/04/91	11/12/91	7.8×10^{-14}	3.6×10^{-14}	²¹⁴ Pb
Area 1, BJJ	11/04/91	11/12/91	1.0×10^{-13}	4.3×10^{-14}	²¹⁴ Bi
Area 1, BJJ	11/12/91	11/18/91	3.6×10^{-13}	1.6×10^{-13}	⁴⁰ K
Area 1, BJJ	11/18/91	11/25/91	4.1×10^{-13}	1.5×10^{-13}	⁴⁰ K
Area 1, BJJ	11/25/91	12/02/91	1.3×10^{-13}	7.4×10^{-14}	²¹⁴ Pb
Area 1, BJJ	12/02/91	12/09/91	1.8×10^{-13}	6.4×10^{-14}	²¹⁴ Pb
Area 1, BJJ	12/02/91	12/09/91	3.0×10^{-13}	8.5×10^{-14}	²¹⁴ Bi
Area 1, BJJ	12/09/91	12/16/91	1.4×10^{-13}	5.7×10^{-14}	²¹⁴ Bi
Area 1, BJJ	12/16/91	12/23/91	2.9×10^{-13}	1.1×10^{-13}	²¹⁴ Pb
Area 1, Gravel Pit	01/07/91	01/14/91	1.1×10^{-13}	5.2×10^{-14}	²¹⁴ Pb
Area 1, Gravel Pit	01/22/91	01/28/91	3.3×10^{-13}	1.3×10^{-13}	²¹⁴ Bi
Area 1, Gravel Pit	01/28/91	02/04/91	2.0×10^{-13}	7.1×10^{-14}	²¹⁴ Pb
Area 1, Gravel Pit	02/19/91	02/25/91	1.9×10^{-13}	6.6×10^{-14}	²¹⁴ Pb
Area 1, Gravel Pit	03/25/91	04/01/91	1.1×10^{-13}	5.5×10^{-14}	²¹⁴ Pb
Area 1, Gravel Pit	04/01/91	04/08/91	1.1×10^{-13}	5.8×10^{-14}	²¹⁴ Bi
Area 1, Gravel Pit	04/15/91	04/22/91	1.7×10^{-13}	6.9×10^{-14}	²¹⁴ Pb
Area 1, Gravel Pit	05/28/91	06/03/91	2.1×10^{-14}	6.0×10^{-15}	²¹² Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 1, Gravel Pit	06/03/91	06/10/91	2.0×10^{-13}	1.0×10^{-13}	^{40}K
Area 1, Gravel Pit	07/15/91	07/22/91	3.5×10^{-13}	1.2×10^{-13}	^{40}K
Area 1, Gravel Pit	07/22/91	07/29/91	1.3×10^{-13}	8.7×10^{-14}	^{214}Bi
Area 1, Gravel Pit	08/19/91	08/26/91	1.2×10^{-13}	9.0×10^{-14}	^{214}Bi
Area 1, Gravel Pit	08/19/91	08/26/91	4.7×10^{-13}	1.4×10^{-13}	^{40}K
Area 1, Gravel Pit	09/09/91	09/16/91	1.3×10^{-13}	5.9×10^{-14}	^{214}Bi
Area 1, Gravel Pit	09/09/91	09/16/91	1.1×10^{-13}	5.1×10^{-14}	^{214}Pb
Area 1, Gravel Pit	09/23/91	09/30/91	4.0×10^{-13}	1.3×10^{-13}	^{214}Pb
Area 1, Gravel Pit	09/30/91	10/07/91	1.2×10^{-14}	4.3×10^{-15}	^{212}Pb
Area 1, Gravel Pit	09/30/91	10/07/91	2.8×10^{-13}	8.8×10^{-14}	^{214}Bi
Area 1, Gravel Pit	10/14/91	10/21/91	6.2×10^{-15}	3.7×10^{-15}	^{208}Tl
Area 1, Gravel Pit	10/14/91	10/21/91	2.5×10^{-13}	7.7×10^{-14}	^{214}Bi
Area 1, Gravel Pit	10/28/91	11/04/91	3.3×10^{-13}	1.5×10^{-13}	^{40}K
Area 1, Gravel Pit	11/04/91	11/12/91	1.1×10^{-13}	5.0×10^{-14}	^{214}Bi
Area 1, Gravel Pit	11/04/91	11/12/91	7.3×10^{-14}	3.2×10^{-14}	^{214}Pb
Area 1, Gravel Pit	11/25/91	12/02/91	3.3×10^{-13}	9.2×10^{-14}	^{214}Bi
Area 1, Gravel Pit	11/25/91	12/02/91	8.4×10^{-15}	3.9×10^{-15}	^{212}Pb
Area 1, Gravel Pit	11/25/91	12/02/91	1.8×10^{-13}	6.8×10^{-14}	^{214}Pb
Area 1, Gravel Pit	12/02/91	12/09/91	5.2×10^{-13}	2.5×10^{-13}	^{214}Pb
Area 2, 2-1 Substation	01/07/91	01/14/91	7.7×10^{-14}	3.5×10^{-14}	^{214}Pb
Area 2, 2-1 Substation	01/14/91	01/22/91	1.3×10^{-13}	4.4×10^{-14}	^{214}Bi
Area 2, 2-1 Substation	01/14/91	01/22/91	8.0×10^{-15}	3.6×10^{-15}	^{212}Pb
Area 2, 2-1 Substation	01/22/91	01/28/91	2.0×10^{-13}	4.9×10^{-14}	^{214}Pb
Area 2, 2-1 Substation	01/22/91	01/28/91	1.8×10^{-13}	6.0×10^{-14}	^{214}Bi
Area 2, 2-1 Substation	02/04/91	02/11/91	1.3×10^{-13}	5.7×10^{-14}	^{214}Bi
Area 2, 2-1 Substation	02/11/91	02/19/91	6.8×10^{-14}	3.5×10^{-14}	^{214}Bi
Area 2, 2-1 Substation	02/25/91	03/04/91	5.0×10^{-15}	2.9×10^{-15}	^{208}Tl
Area 2, 2-1 Substation	03/11/91	03/18/91	6.5×10^{-14}	2.8×10^{-14}	^{214}Pb
Area 2, 2-1 Substation	04/08/91	04/15/91	9.9×10^{-14}	4.3×10^{-14}	^{214}Bi
Area 2, 2-1 Substation	06/03/91	06/10/91	1.1×10^{-14}	3.5×10^{-15}	^{212}Pb
Area 2, 2-1 Substation	06/03/91	06/10/91	7.5×10^{-14}	4.7×10^{-14}	^{214}Bi
Area 2, 2-1 Substation	06/17/91	06/24/91	8.3×10^{-15}	3.0×10^{-15}	^{212}Pb
Area 2, 2-1 Substation	06/17/91	06/24/91	1.4×10^{-13}	6.3×10^{-14}	^{40}K
Area 2, 2-1 Substation	07/22/91	07/29/91	1.9×10^{-13}	9.0×10^{-14}	^{214}Pb
Area 2, 2-1 Substation	07/29/91	08/05/91	1.0×10^{-12}	2.3×10^{-13}	^{40}K
Area 2, 2-1 Substation	08/05/91	08/12/91	5.1×10^{-13}	9.6×10^{-14}	^{40}K
Area 2, 2-1 Substation	09/03/91	09/09/91	1.3×10^{-13}	5.9×10^{-14}	^{214}Pb
Area 2, 2-1 Substation	09/09/91	09/16/91	9.2×10^{-15}	4.0×10^{-15}	^{212}Pb
Area 2, 2-1 Substation	09/23/91	09/30/91	1.1×10^{-14}	3.3×10^{-15}	^{212}Pb
Area 2, 2-1 Substation	09/30/91	10/07/91	4.2×10^{-15}	3.1×10^{-15}	^{208}Tl
Area 2, 2-1 Substation	10/07/91	10/14/91	1.3×10^{-13}	6.1×10^{-14}	^{214}Bi
Area 2, 2-1 Substation	10/14/91	10/21/91	1.2×10^{-13}	5.8×10^{-14}	^{214}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 2, 2-1 Substation	10/21/91	10/28/91	1.8×10^{-13}	8.1×10^{-14}	^{214}Pb
Area 2, 2-1 Substation	11/12/91	11/18/91	3.1×10^{-13}	1.4×10^{-13}	^{40}K
Area 2, 2-1 Substation	11/12/91	11/18/91	1.2×10^{-14}	5.1×10^{-15}	^{212}Pb
Area 2, 2-1 Substation	11/18/91	11/25/91	2.7×10^{-13}	1.2×10^{-13}	^{40}K
Area 2, 2-1 Substation	11/18/91	11/25/91	1.3×10^{-14}	5.7×10^{-15}	^{212}Pb
Area 2, 2-1 Substation	11/25/91	12/02/91	1.5×10^{-13}	5.8×10^{-14}	^{214}Pb
Area 2, 2-1 Substation	11/25/91	12/02/91	2.2×10^{-13}	9.5×10^{-14}	^{214}Bi
Area 2, 2-1 Substation	12/02/91	12/09/91	1.1×10^{-13}	5.6×10^{-14}	^{214}Bi
Area 2, 2-1 Substation	12/09/91	12/16/91	1.2×10^{-13}	5.0×10^{-14}	^{214}Bi
Area 2, 2-1 Substation	12/16/91	12/23/91	2.8×10^{-13}	9.6×10^{-14}	^{214}Pb
Area 2, 2-1 Substation	12/23/91	12/30/91	2.0×10^{-13}	1.1×10^{-13}	^{40}K
Area 2, Complex	01/14/91	01/22/91	1.3×10^{-13}	3.9×10^{-14}	^{214}Pb
Area 2, Complex	01/14/91	01/22/91	9.1×10^{-15}	3.2×10^{-15}	^{212}Pb
Area 2, Complex	01/22/91	01/28/91	1.3×10^{-13}	5.1×10^{-14}	^{214}Bi
Area 2, Complex	01/28/91	02/04/91	1.1×10^{-13}	4.1×10^{-14}	^{214}Pb
Area 2, Complex	02/11/91	02/19/91	6.7×10^{-14}	3.2×10^{-14}	^{214}Bi
Area 2, Complex	02/11/91	02/19/91	6.0×10^{-14}	2.1×10^{-14}	^{214}Pb
Area 2, Complex	02/19/91	02/25/91	6.9×10^{-14}	2.9×10^{-14}	^{214}Pb
Area 2, Complex	02/19/91	02/25/91	1.4×10^{-13}	5.9×10^{-14}	^{214}Pb
Area 2, Complex	03/04/91	03/11/91	5.4×10^{-15}	3.3×10^{-15}	^{212}Pb
Area 2, Complex	03/11/91	03/18/91	7.2×10^{-14}	3.6×10^{-14}	^{214}Pb
Area 2, Complex	03/18/91	03/25/91	9.0×10^{-15}	3.9×10^{-15}	^{212}Pb
Area 2, Complex	03/25/91	04/01/91	1.0×10^{-13}	6.0×10^{-14}	^{214}Bi
Area 2, Complex	04/01/91	04/08/91	1.4×10^{-13}	5.1×10^{-14}	^{214}Pb
Area 2, Complex	04/01/91	04/08/91	1.0×10^{-13}	4.0×10^{-14}	^{214}Pb
Area 2, Complex	04/08/91	04/15/91	8.8×10^{-14}	3.7×10^{-14}	^{214}Pb
Area 2, Complex	04/08/91	04/15/91	8.6×10^{-14}	3.7×10^{-14}	^{214}Pb
Area 2, Complex	04/15/91	04/22/91	1.8×10^{-13}	7.5×10^{-14}	^{214}Bi
Area 2, Complex	04/15/91	04/22/91	1.1×10^{-13}	6.3×10^{-14}	^{214}Pb
Area 2, Complex	05/14/91	05/20/91	1.2×10^{-14}	5.9×10^{-15}	^{212}Pb
Area 2, Complex	05/20/91	05/28/91	1.6×10^{-14}	4.4×10^{-15}	^{212}Pb
Area 2, Complex	06/03/91	06/10/91	2.0×10^{-13}	9.6×10^{-14}	^{40}K
Area 2, Complex	06/03/91	06/10/91	9.4×10^{-14}	5.4×10^{-14}	^{214}Bi
Area 2, Complex	06/17/91	06/24/91	8.4×10^{-15}	4.2×10^{-15}	^{212}Pb
Area 2, Complex	06/24/91	07/01/91	9.5×10^{-15}	5.0×10^{-15}	^{212}Pb
Area 2, Complex	07/01/91	07/08/91	1.5×10^{-14}	5.3×10^{-15}	^{212}Pb
Area 2, Complex	07/15/91	07/22/91	2.2×10^{-13}	1.1×10^{-13}	^{40}K
Area 2, Complex	08/05/91	08/12/91	5.2×10^{-13}	9.8×10^{-14}	^{40}K
Area 2, Complex	08/19/91	08/26/91	3.7×10^{-13}	1.1×10^{-13}	^{40}K
Area 2, Complex	08/26/91	09/03/91	3.8×10^{-15}	2.3×10^{-15}	^{208}Tl
Area 2, Complex	09/09/91	09/16/91	1.4×10^{-13}	5.8×10^{-14}	^{214}Pb
Area 2, Complex	09/09/91	09/16/91	5.5×10^{-15}	2.8×10^{-15}	^{208}Tl

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 2, Complex	09/09/91	09/16/91	5.3×10^{-14}	1.5×10^{-14}	^{212}Pb
Area 2, Complex	09/16/91	09/23/91	1.4×10^{-13}	4.7×10^{-14}	^{214}Pb
Area 2, Complex	09/16/91	09/23/91	1.0×10^{-13}	5.3×10^{-14}	^{214}Bi
Area 2, Complex	09/16/91	09/23/91	4.6×10^{-15}	2.7×10^{-15}	^{208}Tl
Area 2, Complex	09/16/91	09/23/91	1.6×10^{-13}	8.2×10^{-14}	^{40}K
Area 2, Complex	09/16/91	09/23/91	1.7×10^{-13}	6.4×10^{-14}	^{214}Bi
Area 2, Complex	09/16/91	09/23/91	1.6×10^{-13}	5.1×10^{-14}	^{214}Pb
Area 2, Complex	10/14/91	10/21/91	1.1×10^{-13}	5.7×10^{-14}	^{214}Bi
Area 2, Complex	10/21/91	10/28/91	2.2×10^{-13}	1.2×10^{-13}	^{40}K
Area 2, Complex	10/28/91	11/04/91	1.2×10^{-13}	8.1×10^{-14}	^{214}Bi
Area 2, Complex	11/04/91	11/12/91	1.0×10^{-13}	3.6×10^{-14}	^{214}Pb
Area 2, Complex	11/04/91	11/12/91	8.6×10^{-14}	4.4×10^{-14}	^{214}Bi
Area 2, Complex	11/12/91	11/18/91	3.5×10^{-13}	1.4×10^{-13}	^{40}K
Area 2, Complex	11/12/91	11/18/91	1.0×10^{-14}	5.4×10^{-15}	^{212}Pb
Area 2, Complex	11/18/91	11/25/91	1.4×10^{-13}	6.9×10^{-14}	^{214}Pb
Area 2, Complex	11/25/91	12/02/91	2.6×10^{-13}	1.3×10^{-13}	^{40}K
Area 2, Complex	11/25/91	12/02/91	2.1×10^{-13}	6.8×10^{-14}	^{214}Bi
Area 2, Complex	12/02/91	12/09/91	4.8×10^{-13}	2.6×10^{-13}	^{214}Pb
Area 2, Complex	12/09/91	12/16/91	1.6×10^{-14}	4.5×10^{-15}	^{212}Pb
Area 2, Complex	12/16/91	12/23/91	2.0×10^{-13}	9.9×10^{-14}	^{214}Bi
Area 3, 3-300 Bunker	01/22/91	01/28/91	2.3×10^{-13}	5.4×10^{-14}	^{214}Pb
Area 3, 3-300 Bunker	01/22/91	01/28/91	2.5×10^{-13}	6.8×10^{-14}	^{214}Bi
Area 3, 3-300 Bunker	01/28/91	02/04/91	1.4×10^{-14}	6.3×10^{-15}	^{212}Pb
Area 3, 3-300 Bunker	02/19/91	02/25/91	9.5×10^{-14}	4.4×10^{-14}	^{214}Bi
Area 3, 3-300 Bunker	02/19/91	02/25/91	9.4×10^{-14}	3.2×10^{-14}	^{214}Pb
Area 3, 3-300 Bunker	03/25/91	04/01/91	1.3×10^{-13}	4.8×10^{-14}	^{214}Pb
Area 3, 3-300 Bunker	04/01/91	04/08/91	1.0×10^{-14}	4.3×10^{-15}	^{212}Pb
Area 3, 3-300 Bunker	04/01/91	04/08/91	1.1×10^{-13}	4.0×10^{-14}	^{214}Pb
Area 3, 3-300 Bunker	04/08/91	04/15/91	1.0×10^{-13}	3.9×10^{-14}	^{214}Pb
Area 3, 3-300 Bunker	06/10/91	06/17/91	2.1×10^{-13}	1.0×10^{-13}	^{40}K
Area 3, 3-300 Bunker	07/22/91	07/29/91	2.0×10^{-13}	1.2×10^{-13}	^{214}Pb
Area 3, 3-300 Bunker	07/22/91	07/29/91	2.8×10^{-14}	8.3×10^{-15}	^{212}Pb
Area 3, 3-300 Bunker	07/29/91	08/05/91	1.3×10^{-12}	2.5×10^{-13}	^{40}K
Area 3, 3-300 Bunker	08/19/91	08/26/91	1.5×10^{-13}	5.7×10^{-14}	^{214}Bi
Area 3, 3-300 Bunker	08/19/91	08/26/91	1.4×10^{-13}	5.9×10^{-14}	^{214}Pb
Area 3, 3-300 Bunker	08/26/91	09/03/91	4.5×10^{-15}	2.6×10^{-15}	^{208}Tl
Area 3, 3-300 Bunker	08/26/91	09/03/91	1.8×10^{-13}	5.5×10^{-14}	^{214}Pb
Area 3, 3-300 Bunker	09/03/91	09/09/91	1.2×10^{-13}	7.0×10^{-14}	^{214}Pb
Area 3, 3-300 Bunker	09/23/91	09/30/91	8.1×10^{-14}	5.1×10^{-14}	^{214}Pb
Area 3, 3-300 Bunker	10/07/91	10/14/91	1.1×10^{-13}	4.7×10^{-14}	^{214}Pb
Area 3, 3-300 Bunker	10/14/91	10/21/91	2.1×10^{-13}	7.4×10^{-14}	^{214}Bi
Area 3, 3-300 Bunker	10/14/91	10/21/91	1.7×10^{-13}	7.5×10^{-14}	^{214}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 3, 3-300 Bunker	10/21/91	10/28/91	2.7×10^{-13}	1.0×10^{-13}	^{214}Bi
Area 3, 3-300 Bunker	10/21/91	10/28/91	2.7×10^{-13}	8.4×10^{-14}	^{214}Pb
Area 3, 3-300 Bunker	11/04/91	11/12/91	1.3×10^{-13}	3.7×10^{-14}	^{214}Pb
Area 3, 3-300 Bunker	11/04/91	11/12/91	1.2×10^{-13}	4.2×10^{-14}	^{214}Bi
Area 3, 3-300 Bunker	11/12/91	11/18/91	3.3×10^{-13}	1.4×10^{-13}	^{40}K
Area 3, 3-300 Bunker	11/12/91	11/18/91	1.5×10^{-13}	8.8×10^{-14}	^{214}Bi
Area 3, 3-300 Bunker	11/18/91	11/25/91	2.2×10^{-13}	8.1×10^{-14}	^{214}Pb
Area 3, 3-300 Bunker	11/18/91	11/25/91	2.4×10^{-13}	8.1×10^{-14}	^{214}Bi
Area 3, 3-300 Bunker	11/25/91	12/02/91	1.6×10^{-13}	7.2×10^{-14}	^{214}Pb
Area 3, 3-300 Bunker	11/25/91	12/02/91	1.8×10^{-13}	8.7×10^{-14}	^{214}Bi
Area 3, 3-300 Bunker	12/02/91	12/09/91	1.7×10^{-13}	7.3×10^{-14}	^{214}Pb
Area 3, 3-300 Bunker	12/02/91	12/09/91	2.2×10^{-13}	7.7×10^{-14}	^{214}Bi
Area 3, 3-300 Bunker	12/09/91	12/16/91	1.6×10^{-13}	5.3×10^{-14}	^{214}Bi
Area 3, Complex	12/31/90	01/07/91	3.9×10^{-12}	1.4×10^{-12}	^{214}Bi
Area 3, Complex	12/31/90	01/07/91	3.1×10^{-12}	9.8×10^{-13}	^{214}Pb
Area 3, Complex	01/07/91	01/14/91	1.8×10^{-13}	8.4×10^{-14}	^{214}Pb
Area 3, Complex	01/14/91	01/22/91	1.0×10^{-13}	5.2×10^{-14}	^{214}Bi
Area 3, Complex	01/14/91	01/22/91	1.0×10^{-13}	5.2×10^{-14}	^{214}Bi
Area 3, Complex	01/22/91	01/28/91	4.9×10^{-13}	1.2×10^{-13}	^{214}Pb
Area 3, Complex	01/22/91	01/28/91	6.0×10^{-13}	1.3×10^{-13}	^{214}Bi
Area 3, Complex	01/22/91	01/28/91	3.3×10^{-14}	8.6×10^{-15}	^{212}Pb
Area 3, Complex	01/22/91	01/28/91	4.5×10^{-13}	1.2×10^{-13}	^{214}Bi
Area 3, Complex	01/22/91	01/28/91	5.4×10^{-13}	1.3×10^{-13}	^{214}Pb
Area 3, Complex	02/04/91	02/11/91	1.2×10^{-13}	4.7×10^{-14}	^{214}Pb
Area 3, Complex	02/04/91	02/11/91	1.5×10^{-13}	4.5×10^{-14}	^{214}Pb
Area 3, Complex	02/19/91	02/25/91	1.2×10^{-13}	5.5×10^{-14}	^{214}Pb
Area 3, Complex	04/01/91	04/08/91	8.1×10^{-14}	5.0×10^{-14}	^{214}Bi
Area 3, Complex	04/01/91	04/08/91	1.3×10^{-13}	4.5×10^{-14}	^{214}Pb
Area 3, Complex	05/14/91	05/20/91	1.8×10^{-13}	1.0×10^{-13}	^{214}Bi
Area 3, Complex	05/20/91	05/28/91	1.4×10^{-13}	6.1×10^{-14}	^{214}Pb
Area 3, Complex	05/28/91	06/03/91	1.0×10^{-14}	4.3×10^{-15}	^{212}Pb
Area 3, Complex	06/03/91	06/10/91	9.0×10^{-14}	5.2×10^{-14}	^{214}Bi
Area 3, Complex	06/10/91	06/17/91	6.0×10^{-15}	3.5×10^{-15}	^{214}Pb
Area 3, Complex	07/08/91	07/15/91	1.1×10^{-13}	5.6×10^{-14}	^{214}Pb
Area 3, Complex	07/22/91	07/29/91	3.9×10^{-13}	1.7×10^{-13}	^{214}Bi
Area 3, Complex	07/22/91	07/29/91	7.6×10^{-13}	2.3×10^{-13}	^{40}K
Area 3, Complex	07/22/91	07/29/91	1.5×10^{-14}	6.4×10^{-15}	^{212}Pb
Area 3, Complex	07/22/91	07/29/91	2.5×10^{-14}	7.8×10^{-15}	^{212}Pb
Area 3, Complex	07/22/91	07/29/91	4.2×10^{-13}	1.9×10^{-13}	^{40}K
Area 3, Complex	07/22/91	07/29/91	2.5×10^{-13}	9.1×10^{-14}	^{214}Pb
Area 3, Complex	07/29/91	08/05/91	1.2×10^{-12}	2.5×10^{-13}	^{40}K
Area 3, Complex	07/29/91	08/05/91	1.3×10^{-12}	2.5×10^{-13}	^{40}K

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 3, Complex	08/05/91	08/12/91	1.5×10^{-13}	6.3×10^{-14}	^{214}Pb
Area 3, Complex	08/05/91	08/12/91	1.8×10^{-13}	9.0×10^{-14}	^{214}Pb
Area 3, Complex	08/12/91	08/19/91	9.6×10^{-14}	5.6×10^{-14}	^{214}Pb
Area 3, Complex	08/19/91	08/26/91	2.3×10^{-13}	8.0×10^{-14}	^{214}Bi
Area 3, Complex	08/26/91	09/03/91	1.5×10^{-13}	5.5×10^{-14}	^{214}Pb
Area 3, Complex	09/03/91	09/09/91	1.3×10^{-13}	6.9×10^{-14}	^{214}Pb
Area 3, Complex	09/03/91	09/09/91	2.2×10^{-13}	8.8×10^{-14}	^{40}K
Area 3, Complex	09/09/91	09/16/91	1.1×10^{-14}	3.7×10^{-15}	^{212}Pb
Area 3, Complex	09/16/91	09/23/91	6.3×10^{-15}	3.2×10^{-15}	^{208}Tl
Area 3, Complex	09/16/91	09/23/91	1.3×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 3, Complex	09/16/91	09/23/91	7.4×10^{-14}	3.9×10^{-14}	^{214}Bi
Area 3, Complex	09/30/91	10/07/91	8.3×10^{-14}	4.4×10^{-14}	^{214}Pb
Area 3, Complex	10/14/91	10/21/91	2.1×10^{-13}	8.0×10^{-14}	^{214}Bi
Area 3, Complex	10/14/91	10/21/91	2.4×10^{-13}	6.3×10^{-14}	^{214}Pb
Area 3, Complex	10/14/91	10/21/91	1.9×10^{-13}	8.6×10^{-14}	^{214}Pb
Area 3, Complex	10/14/91	10/21/91	2.3×10^{-13}	9.9×10^{-14}	^{214}Bi
Area 3, Complex	11/04/91	11/12/91	1.7×10^{-13}	5.6×10^{-14}	^{214}Bi
Area 3, Complex	11/04/91	11/12/91	1.6×10^{-13}	4.6×10^{-14}	^{214}Pb
Area 3, Complex	11/04/91	11/12/91	8.4×10^{-14}	3.1×10^{-14}	^{214}Pb
Area 3, Complex	11/12/91	11/18/91	2.7×10^{-13}	1.4×10^{-13}	^{40}K
Area 3, Complex	11/18/91	11/25/91	1.3×10^{-13}	7.1×10^{-14}	^{214}Pb
Area 3, Complex	11/18/91	11/25/91	2.3×10^{-13}	9.6×10^{-14}	^{214}Bi
Area 3, Complex	11/18/91	11/25/91	1.2×10^{-13}	7.6×10^{-14}	^{214}Pb
Area 3, Complex	11/18/91	11/25/91	1.8×10^{-13}	7.9×10^{-14}	^{214}Bi
Area 3, Complex	11/25/91	12/02/91	1.6×10^{-13}	7.9×10^{-14}	^{214}Bi
Area 3, Complex	11/25/91	12/02/91	1.8×10^{-13}	8.0×10^{-14}	^{214}Pb
Area 3, Complex	12/02/91	12/09/91	1.9×10^{-13}	8.3×10^{-14}	^{214}Pb
Area 3, Complex	12/02/91	12/09/91	1.4×10^{-13}	5.8×10^{-14}	^{214}Bi
Area 3, Complex	12/09/91	12/16/91	1.2×10^{-14}	4.7×10^{-15}	^{212}Pb
Area 3, Complex	12/09/91	12/16/91	1.4×10^{-13}	4.9×10^{-14}	^{214}Bi
Area 3, Complex	12/09/91	12/16/91	1.2×10^{-14}	4.9×10^{-15}	^{212}Pb
Area 3, Complex	12/09/91	12/16/91	1.5×10^{-13}	5.0×10^{-14}	^{214}Bi
Area 3, Complex	12/16/91	12/23/91	1.1×10^{-14}	4.8×10^{-15}	^{212}Pb
Area 3, U3ah/at East	12/31/90	01/07/91	9.8×10^{-15}	3.5×10^{-15}	^{212}Pb
Area 3, U3ah/at East	01/07/91	01/14/91	6.3×10^{-14}	3.2×10^{-14}	^{214}Pb
Area 3, U3ah/at East	01/22/91	01/28/91	3.3×10^{-13}	7.3×10^{-14}	^{214}Bi
Area 3, U3ah/at East	01/22/91	01/28/91	4.1×10^{-13}	7.0×10^{-14}	^{214}Pb
Area 3, U3ah/at East	02/04/91	02/11/91	1.1×10^{-13}	5.4×10^{-14}	^{214}Bi
Area 3, U3ah/at East	02/19/91	02/25/91	8.2×10^{-14}	3.3×10^{-14}	^{214}Pb
Area 3, U3ah/at East	02/25/91	03/04/91	6.7×10^{-15}	3.9×10^{-15}	^{212}Pb
Area 3, U3ah/at East	02/25/91	03/04/91	5.0×10^{-14}	2.4×10^{-14}	^7Be
Area 3, U3ah/at East	03/04/91	03/11/91	2.7×10^{-13}	9.4×10^{-14}	^{214}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 3, U3ah/at East	03/11/91	03/18/91	6.6×10^{-15}	3.5×10^{-15}	^{212}Pb
Area 3, U3ah/at East	03/18/91	03/25/91	8.0×10^{-14}	4.5×10^{-14}	^{214}Bi
Area 3, U3ah/at East	04/08/91	04/15/91	3.9×10^{-13}	1.5×10^{-13}	^{214}Pb
Area 3, U3ah/at East	06/17/91	06/24/91	1.6×10^{-13}	7.2×10^{-14}	^{214}Bi
Area 3, U3ah/at East	07/01/91	07/08/91	8.6×10^{-15}	3.8×10^{-15}	^{212}Pb
Area 3, U3ah/at East	07/22/91	07/29/91	3.0×10^{-13}	1.2×10^{-13}	^{214}Pb
Area 3, U3ah/at East	07/29/91	08/05/91	2.2×10^{-13}	8.4×10^{-14}	^{214}Pb
Area 3, U3ah/at East	08/12/91	08/19/91	1.6×10^{-13}	5.7×10^{-14}	^{214}Bi
Area 3, U3ah/at East	08/19/91	08/26/91	1.4×10^{-13}	6.2×10^{-14}	^{214}Bi
Area 3, U3ah/at East	08/26/91	09/03/91	1.2×10^{-13}	4.3×10^{-14}	^{214}Pb
Area 3, U3ah/at East	09/03/91	09/09/91	2.3×10^{-13}	8.6×10^{-14}	^{40}K
Area 3, U3ah/at East	09/03/91	09/09/91	1.4×10^{-13}	6.0×10^{-14}	^{214}Pb
Area 3, U3ah/at East	09/16/91	09/23/91	7.9×10^{-14}	5.4×10^{-14}	^{214}Bi
Area 3, U3ah/at East	09/23/91	09/30/91	8.9×10^{-15}	4.0×10^{-15}	^{212}Pb
Area 3, U3ah/at East	10/14/91	10/21/91	1.9×10^{-13}	7.8×10^{-14}	^{214}Bi
Area 3, U3ah/at East	10/14/91	10/21/91	1.6×10^{-13}	5.5×10^{-14}	^{214}Pb
Area 3, U3ah/at East	10/28/91	11/04/91	2.1×10^{-13}	7.7×10^{-14}	^{214}Pb
Area 3, U3ah/at East	11/04/91	11/12/91	8.3×10^{-14}	3.9×10^{-14}	^{214}Bi
Area 3, U3ah/at East	11/04/91	11/12/91	8.2×10^{-14}	3.3×10^{-14}	^{214}Pb
Area 3, U3ah/at East	11/12/91	11/18/91	1.7×10^{-13}	8.0×10^{-14}	^{214}Pb
Area 3, U3ah/at East	11/18/91	11/25/91	3.8×10^{-13}	1.4×10^{-13}	^{40}K
Area 3, U3ah/at East	11/18/91	11/25/91	1.4×10^{-13}	7.3×10^{-14}	^{214}Pb
Area 3, U3ah/at East	11/25/91	12/02/91	1.4×10^{-13}	6.3×10^{-14}	^{214}Pb
Area 3, U3ah/at East	12/02/91	12/09/91	1.6×10^{-13}	5.4×10^{-14}	^{214}Pb
Area 3, U3ah/at East	12/02/91	12/09/91	1.7×10^{-13}	8.7×10^{-14}	^{214}Bi
Area 3, U3ah/at East	12/09/91	12/16/91	7.4×10^{-14}	4.7×10^{-14}	^{214}Bi
Area 3, U3ah/at North	01/14/91	01/22/91	9.3×10^{-14}	3.7×10^{-14}	^{214}Pb
Area 3, U3ah/at North	01/22/91	01/28/91	3.5×10^{-13}	6.5×10^{-14}	^{214}Pb
Area 3, U3ah/at North	01/22/91	01/28/91	1.5×10^{-14}	4.4×10^{-15}	^{212}Pb
Area 3, U3ah/at North	01/22/91	01/28/91	2.6×10^{-13}	6.8×10^{-14}	^{214}Bi
Area 3, U3ah/at North	02/04/91	02/11/91	1.1×10^{-13}	5.0×10^{-14}	^{214}Bi
Area 3, U3ah/at North	02/04/91	02/11/91	9.1×10^{-14}	3.9×10^{-14}	^{214}Pb
Area 3, U3ah/at North	02/19/91	02/25/91	1.1×10^{-13}	3.3×10^{-14}	^{214}Pb
Area 3, U3ah/at North	03/11/91	03/18/91	2.0×10^{-13}	1.0×10^{-13}	^{40}K
Area 3, U3ah/at North	03/25/91	04/01/91	1.9×10^{-13}	8.1×10^{-14}	^{214}Pb
Area 3, U3ah/at North	04/01/91	04/08/91	1.3×10^{-13}	5.0×10^{-14}	^{214}Pb
Area 3, U3ah/at North	04/22/91	04/29/91	9.2×10^{-14}	4.9×10^{-14}	^{214}Pb
Area 3, U3ah/at North	04/29/91	05/06/91	1.3×10^{-13}	6.6×10^{-14}	^{214}Pb
Area 3, U3ah/at North	06/03/91	06/10/91	1.1×10^{-13}	5.5×10^{-14}	^{214}Bi
Area 3, U3ah/at North	06/10/91	06/17/91	8.6×10^{-14}	5.2×10^{-14}	^{214}Bi
Area 3, U3ah/at North	06/10/91	06/17/91	1.2×10^{-14}	4.7×10^{-15}	^{212}Pb
Area 3, U3ah/at North	06/17/91	06/24/91	1.5×10^{-13}	5.8×10^{-14}	^{214}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 3, U3ah/at North	07/29/91	08/05/91	1.2×10^{-12}	2.3×10^{-13}	^{40}K
Area 3, U3ah/at North	08/12/91	08/19/91	2.3×10^{-13}	8.5×10^{-14}	^{214}Bi
Area 3, U3ah/at North	08/19/91	08/26/91	1.4×10^{-13}	7.6×10^{-14}	^{214}Bi
Area 3, U3ah/at North	08/19/91	08/26/91	6.5×10^{-15}	2.5×10^{-15}	^{212}Pb
Area 3, U3ah/at North	08/26/91	09/03/91	1.5×10^{-13}	5.6×10^{-14}	^{214}Pb
Area 3, U3ah/at North	08/26/91	09/03/91	5.3×10^{-15}	2.4×10^{-15}	^{212}Pb
Area 3, U3ah/at North	09/09/91	09/16/91	1.1×10^{-14}	4.3×10^{-15}	^{212}Pb
Area 3, U3ah/at North	09/16/91	09/23/91	1.1×10^{-13}	4.8×10^{-14}	^{214}Bi
Area 3, U3ah/at North	09/16/91	09/23/91	2.1×10^{-13}	5.4×10^{-14}	^{214}Pb
Area 3, U3ah/at North	09/23/91	09/30/91	1.1×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 3, U3ah/at North	09/23/91	09/30/91	1.1×10^{-14}	4.8×10^{-15}	^{212}Pb
Area 3, U3ah/at North	10/14/91	10/21/91	1.6×10^{-13}	5.6×10^{-14}	^{214}Pb
Area 3, U3ah/at North	10/14/91	10/21/91	2.3×10^{-13}	7.3×10^{-14}	^{214}Bi
Area 3, U3ah/at North	10/21/91	10/28/91	7.2×10^{-13}	3.4×10^{-13}	^{214}Pb
Area 3, U3ah/at North	11/04/91	11/12/91	9.6×10^{-14}	4.1×10^{-14}	^{214}Bi
Area 3, U3ah/at North	11/12/91	11/18/91	1.3×10^{-13}	6.8×10^{-14}	^{214}Pb
Area 3, U3ah/at North	11/12/91	11/18/91	3.1×10^{-13}	1.4×10^{-13}	^{40}K
Area 3, U3ah/at North	11/18/91	11/25/91	2.7×10^{-13}	1.3×10^{-13}	^{40}K
Area 3, U3ah/at North	12/02/91	12/09/91	1.7×10^{-13}	6.3×10^{-14}	^{214}Bi
Area 3, U3ah/at North	12/02/91	12/09/91	2.5×10^{-13}	6.9×10^{-14}	^{214}Pb
Area 3, U3ah/at North	12/09/91	12/16/91	1.4×10^{-13}	6.2×10^{-14}	^{214}Bi
Area 3, U3ah/at North	12/09/91	12/16/91	1.2×10^{-14}	4.4×10^{-15}	^{212}Pb
Area 3, U3ah/at South	01/07/91	01/14/91	8.5×10^{-14}	3.1×10^{-14}	^{214}Pb
Area 3, U3ah/at South	01/14/91	01/22/91	1.0×10^{-13}	3.6×10^{-14}	^{214}Pb
Area 3, U3ah/at South	01/22/91	01/28/91	3.2×10^{-13}	7.1×10^{-14}	^{214}Bi
Area 3, U3ah/at South	01/22/91	01/28/91	3.4×10^{-13}	6.0×10^{-14}	^{214}Pb
Area 3, U3ah/at South	02/04/91	02/11/91	1.0×10^{-13}	3.9×10^{-14}	^{214}Pb
Area 3, U3ah/at South	02/04/91	02/11/91	1.5×10^{-13}	5.5×10^{-14}	^{214}Bi
Area 3, U3ah/at South	02/19/91	02/25/91	6.2×10^{-14}	3.2×10^{-14}	^{214}Bi
Area 3, U3ah/at South	02/25/91	03/04/91	7.0×10^{-15}	3.0×10^{-15}	^{212}Pb
Area 3, U3ah/at South	03/18/91	03/25/91	6.1×10^{-15}	2.9×10^{-15}	^{212}Pb
Area 3, U3ah/at South	04/08/91	04/15/91	1.0×10^{-13}	4.8×10^{-14}	^{214}Bi
Area 3, U3ah/at South	04/08/91	04/15/91	1.1×10^{-13}	4.1×10^{-14}	^{214}Pb
Area 3, U3ah/at South	05/06/91	05/14/91	1.3×10^{-13}	6.7×10^{-14}	^{214}Bi
Area 3, U3ah/at South	05/14/91	05/20/91	1.3×10^{-13}	7.8×10^{-14}	^{214}Bi
Area 3, U3ah/at South	05/28/91	06/03/91	1.0×10^{-14}	3.8×10^{-15}	^{212}Pb
Area 3, U3ah/at South	06/03/91	06/10/91	1.1×10^{-14}	5.2×10^{-15}	^{212}Pb
Area 3, U3ah/at South	06/10/91	06/17/91	9.4×10^{-14}	5.2×10^{-14}	^{214}Bi
Area 3, U3ah/at South	06/17/91	06/24/91	1.2×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 3, U3ah/at South	07/01/91	07/08/91	1.1×10^{-14}	3.9×10^{-15}	^{212}Pb
Area 3, U3ah/at South	07/15/91	07/22/91	1.1×10^{-13}	6.1×10^{-14}	^{214}Pb
Area 3, U3ah/at South	07/22/91	07/29/91	1.8×10^{-13}	7.4×10^{-14}	^{40}K

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 3, U3ah/at South	07/29/91	08/05/91	2.9×10^{-13}	9.3×10^{-14}	^{214}Pb
Area 3, U3ah/at South	07/29/91	08/05/91	1.3×10^{-12}	2.5×10^{-13}	^{40}K
Area 3, U3ah/at South	08/19/91	08/26/91	1.6×10^{-13}	6.4×10^{-14}	^{214}Bi
Area 3, U3ah/at South	08/26/91	09/03/91	1.0×10^{-13}	4.6×10^{-14}	^{214}Pb
Area 3, U3ah/at South	08/26/91	09/03/91	1.1×10^{-13}	5.0×10^{-14}	^{214}Bi
Area 3, U3ah/at South	09/16/91	09/23/91	6.7×10^{-14}	3.1×10^{-14}	^{214}Pb
Area 3, U3ah/at South	09/30/91	10/07/91	7.8×10^{-15}	4.1×10^{-15}	^{212}Pb
Area 3, U3ah/at South	10/07/91	10/14/91	9.5×10^{-15}	3.7×10^{-15}	^{212}Pb
Area 3, U3ah/at South	10/14/91	10/21/91	1.6×10^{-13}	6.7×10^{-14}	^{214}Bi
Area 3, U3ah/at South	10/14/91	10/21/91	1.3×10^{-13}	4.8×10^{-14}	^{214}Pb
Area 3, U3ah/at South	10/21/91	10/28/91	8.7×10^{-13}	4.1×10^{-13}	^{214}Bi
Area 3, U3ah/at South	11/04/91	11/12/91	1.0×10^{-13}	4.5×10^{-14}	^{214}Pb
Area 3, U3ah/at South	11/04/91	11/12/91	7.4×10^{-15}	3.8×10^{-15}	^{212}Pb
Area 3, U3ah/at South	11/04/91	11/12/91	9.3×10^{-14}	5.9×10^{-14}	^{214}Bi
Area 3, U3ah/at South	11/12/91	11/18/91	2.9×10^{-13}	1.4×10^{-13}	^{40}K
Area 3, U3ah/at South	11/12/91	11/18/91	1.9×10^{-13}	8.5×10^{-14}	^{214}Bi
Area 3, U3ah/at South	11/25/91	12/02/91	2.1×10^{-13}	8.6×10^{-14}	^{214}Bi
Area 3, U3ah/at South	12/02/91	12/09/91	1.1×10^{-13}	6.2×10^{-14}	^{214}Pb
Area 3, U3ah/at South	12/09/91	12/16/91	1.7×10^{-13}	5.1×10^{-14}	^{214}Bi
Area 3, U3ah/at West	01/07/91	01/14/91	1.2×10^{-13}	3.9×10^{-14}	^{214}Pb
Area 3, U3ah/at West	01/07/91	01/14/91	1.1×10^{-13}	4.9×10^{-14}	^{214}Bi
Area 3, U3ah/at West	01/14/91	01/22/91	6.9×10^{-14}	2.8×10^{-14}	^{214}Pb
Area 3, U3ah/at West	01/22/91	01/28/91	2.9×10^{-13}	6.9×10^{-14}	^{214}Pb
Area 3, U3ah/at West	01/22/91	01/28/91	2.7×10^{-13}	7.1×10^{-14}	^{214}Bi
Area 3, U3ah/at West	02/04/91	02/11/91	1.4×10^{-13}	4.2×10^{-14}	^{214}Pb
Area 3, U3ah/at West	02/19/91	02/25/91	7.4×10^{-14}	3.1×10^{-14}	^{214}Pb
Area 3, U3ah/at West	03/25/91	04/01/91	1.1×10^{-13}	4.4×10^{-14}	^{214}Pb
Area 3, U3ah/at West	04/01/91	04/08/91	8.9×10^{-14}	5.5×10^{-14}	^{214}Pb
Area 3, U3ah/at West	04/08/91	04/15/91	8.4×10^{-13}	2.2×10^{-13}	^{214}Bi
Area 3, U3ah/at West	04/08/91	04/15/91	4.1×10^{-13}	1.5×10^{-13}	^{214}Pb
Area 3, U3ah/at West	05/14/91	05/20/91	1.0×10^{-13}	5.6×10^{-14}	^{214}Pb
Area 3, U3ah/at West	05/28/91	06/03/91	1.0×10^{-14}	4.6×10^{-15}	^{212}Pb
Area 3, U3ah/at West	06/03/91	06/10/91	9.8×10^{-15}	3.9×10^{-15}	^{212}Pb
Area 3, U3ah/at West	06/17/91	06/24/91	1.2×10^{-13}	7.1×10^{-14}	^{214}Bi
Area 3, U3ah/at West	07/15/91	07/22/91	1.7×10^{-13}	9.6×10^{-14}	^{214}Bi
Area 3, U3ah/at West	07/29/91	08/05/91	9.9×10^{-13}	2.4×10^{-13}	^{40}K
Area 3, U3ah/at West	08/05/91	08/12/91	5.5×10^{-13}	1.1×10^{-13}	^{40}K
Area 3, U3ah/at West	09/09/91	09/16/91	1.4×10^{-13}	5.1×10^{-14}	^{214}Pb
Area 3, U3ah/at West	09/16/91	09/23/91	9.1×10^{-14}	4.6×10^{-14}	^{214}Bi
Area 3, U3ah/at West	10/14/91	10/21/91	2.0×10^{-13}	6.1×10^{-14}	^{214}Pb
Area 3, U3ah/at West	10/14/91	10/21/91	1.5×10^{-13}	6.1×10^{-14}	^{214}Bi
Area 3, U3ah/at West	10/21/91	10/28/91	2.8×10^{-13}	9.0×10^{-14}	^{214}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		μCi/mL		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 3, U3ah/at West	11/04/91	11/12/91	1.1 x 10 ⁻¹³	4.9 x 10 ⁻¹⁴	²¹⁴ Bi
Area 3, U3ah/at West	11/18/91	11/25/91	6.8 x 10 ⁻¹³	3.2 x 10 ⁻¹³	⁴⁰ K
Area 3, U3ah/at West	12/02/91	12/09/91	2.2 x 10 ⁻¹³	8.1 x 10 ⁻¹⁴	²¹⁴ Bi
Area 3, U3ah/at West	12/02/91	12/09/91	2.8 x 10 ⁻¹³	8.7 x 10 ⁻¹⁴	²¹⁴ Pb
Area 3, U3ah/at West	12/16/91	12/23/91	2.9 x 10 ⁻¹³	1.1 x 10 ⁻¹³	²¹⁴ Pb
Area 5, DOD Yard	01/02/91	01/07/91	9.2 x 10 ⁻¹⁴	4.2 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, DOD Yard	01/14/91	01/22/91	1.9 x 10 ⁻¹³	7.9 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, DOD Yard	02/04/91	02/11/91	3.6 x 10 ⁻¹¹	1.0 x 10 ⁻¹¹	²¹⁴ Bi
Area 5, DOD Yard	02/11/91	02/19/91	9.8 x 10 ⁻¹⁴	5.1 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, DOD Yard	02/19/91	02/25/91	1.6 x 10 ⁻¹³	6.9 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, DOD Yard	02/19/91	02/25/91	1.9 x 10 ⁻¹³	6.8 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, DOD Yard	03/11/91	03/18/91	1.0 x 10 ⁻¹⁴	3.1 x 10 ⁻¹⁵	²¹² Pb
Area 5, DOD Yard	04/08/91	04/15/91	9.5 x 10 ⁻¹⁵	4.6 x 10 ⁻¹⁵	²¹² Pb
Area 5, DOD Yard	04/22/91	04/29/91	1.2 x 10 ⁻¹³	6.3 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, DOD Yard	04/22/91	04/29/91	1.3 x 10 ⁻¹³	6.8 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, DOD Yard	05/06/91	05/13/91	1.7 x 10 ⁻¹³	9.8 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, DOD Yard	07/08/91	07/15/91	4.9 x 10 ⁻¹⁵	2.3 x 10 ⁻¹⁵	²¹² Pb
Area 5, DOD Yard	07/15/91	07/22/91	2.5 x 10 ⁻¹³	9.1 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, DOD Yard	07/22/91	07/29/91	1.9 x 10 ⁻¹³	7.9 x 10 ⁻¹⁴	⁴⁰ K
Area 5, DOD Yard	08/12/91	08/19/91	1.2 x 10 ⁻¹⁴	4.6 x 10 ⁻¹⁵	²¹² Pb
Area 5, DOD Yard	08/26/91	09/03/91	1.2 x 10 ⁻¹⁴	5.5 x 10 ⁻¹⁵	²¹² Pb
Area 5, DOD Yard	09/03/91	09/09/91	2.0 x 10 ⁻¹³	7.3 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, DOD Yard	09/03/91	09/09/91	1.8 x 10 ⁻¹³	7.1 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, DOD Yard	09/16/91	09/23/91	1.3 x 10 ⁻¹³	5.0 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, DOD Yard	09/30/91	10/07/91	2.8 x 10 ⁻¹³	7.5 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, DOD Yard	10/07/91	10/14/91	1.7 x 10 ⁻¹³	6.9 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, DOD Yard	10/07/91	10/14/91	2.3 x 10 ⁻¹³	6.5 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, DOD Yard	10/14/91	10/21/91	8.1 x 10 ⁻¹³	4.0 x 10 ⁻¹³	²¹⁴ Bi
Area 5, DOD Yard	10/28/91	11/04/91	2.1 x 10 ⁻¹³	1.1 x 10 ⁻¹³	²¹⁴ Pb
Area 5, DOD Yard	11/04/91	11/12/91	2.1 x 10 ⁻¹³	6.1 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, DOD Yard	11/12/91	11/18/91	1.6 x 10 ⁻¹³	6.5 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, DOD Yard	11/18/91	11/25/91	5.7 x 10 ⁻¹³	1.2 x 10 ⁻¹³	²¹⁴ Bi
Area 5, DOD Yard	11/18/91	11/25/91	4.2 x 10 ⁻¹³	1.1 x 10 ⁻¹³	²¹⁴ Pb
Area 5, DOD Yard	11/25/91	12/03/91	1.4 x 10 ⁻¹³	5.9 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, DOD Yard	12/03/91	12/09/91	2.6 x 10 ⁻¹³	7.7 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, DOD Yard	12/09/91	12/16/91	1.9 x 10 ⁻¹³	7.1 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, DOD Yard	12/09/91	12/16/91	1.9 x 10 ⁻¹³	9.0 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, DOD Yard	12/23/91	12/30/91	1.3 x 10 ⁻¹³	8.2 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, Gate 200	01/14/91	01/22/91	1.3 x 10 ⁻¹³	3.5 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, Gate 200	01/14/91	01/22/91	1.2 x 10 ⁻¹³	2.7 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, Gate 200	01/22/91	01/28/91	1.6 x 10 ⁻¹³	3.6 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, Gate 200	01/22/91	01/28/91	1.7 x 10 ⁻¹³	4.4 x 10 ⁻¹⁴	²¹⁴ Bi

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 5, Gate 200	01/28/91	02/04/91	1.4×10^{-13}	4.3×10^{-14}	^{214}Bi
Area 5, Gate 200	01/28/91	02/04/91	1.4×10^{-13}	3.0×10^{-14}	^{214}Pb
Area 5, Gate 200	02/11/91	02/19/91	4.4×10^{-14}	2.0×10^{-14}	^{214}Bi
Area 5, Gate 200	02/11/91	02/19/91	5.3×10^{-14}	1.5×10^{-14}	^{214}Pb
Area 5, Gate 200	02/19/91	02/25/91	4.9×10^{-14}	2.4×10^{-14}	^{214}Bi
Area 5, Gate 200	02/19/91	02/25/91	8.1×10^{-14}	2.6×10^{-14}	^{214}Pb
Area 5, Gate 200	02/25/91	03/04/91	1.6×10^{-14}	6.5×10^{-15}	^{212}Pb
Area 5, Gate 200	03/11/91	03/18/91	6.5×10^{-14}	3.0×10^{-14}	^{214}Pb
Area 5, Gate 200	03/18/91	03/25/91	7.1×10^{-15}	2.5×10^{-15}	^{212}Pb
Area 5, Gate 200	03/25/91	04/01/91	5.4×10^{-14}	2.4×10^{-14}	^{214}Bi
Area 5, Gate 200	04/01/91	04/08/91	8.8×10^{-14}	2.4×10^{-14}	^{214}Pb
Area 5, Gate 200	04/08/91	04/15/91	5.0×10^{-14}	1.8×10^{-14}	^{214}Pb
Area 5, Gate 200	04/08/91	04/15/91	2.9×10^{-14}	1.8×10^{-14}	^{214}Bi
Area 5, Gate 200	04/15/91	04/22/91	7.3×10^{-14}	2.7×10^{-14}	^{214}Bi
Area 5, Gate 200	04/22/91	04/29/91	6.2×10^{-14}	2.3×10^{-14}	^{214}Pb
Area 5, Gate 200	04/22/91	04/29/91	6.2×10^{-14}	2.7×10^{-14}	^{214}Bi
Area 5, Gate 200	04/29/91	05/06/91	8.0×10^{-14}	3.0×10^{-14}	^{214}Bi
Area 5, Gate 200	05/06/91	05/13/91	1.0×10^{-13}	2.6×10^{-14}	^{214}Pb
Area 5, Gate 200	05/13/91	05/20/91	7.6×10^{-14}	2.4×10^{-14}	^{214}Pb
Area 5, Gate 200	05/13/91	05/20/91	6.7×10^{-14}	3.3×10^{-14}	^{214}Bi
Area 5, Gate 200	05/20/91	05/28/91	3.9×10^{-14}	2.4×10^{-14}	^{214}Pb
Area 5, Gate 200	05/20/91	05/28/91	5.9×10^{-14}	3.7×10^{-14}	^{214}Bi
Area 5, Gate 200	05/28/91	06/03/91	4.8×10^{-14}	2.0×10^{-14}	^{214}Pb
Area 5, Gate 200	06/10/91	06/17/91	4.1×10^{-14}	2.3×10^{-14}	^{214}Bi
Area 5, Gate 200	07/08/91	07/15/91	5.9×10^{-14}	4.4×10^{-14}	^{214}Bi
Area 5, Gate 200	07/08/91	07/15/91	8.5×10^{-14}	3.4×10^{-14}	^{214}Pb
Area 5, Gate 200	07/15/91	07/22/91	3.3×10^{-14}	1.7×10^{-14}	^{214}Bi
Area 5, Gate 200	07/15/91	07/22/91	2.6×10^{-14}	1.2×10^{-14}	^{214}Pb
Area 5, Gate 200	07/29/91	08/05/91	4.0×10^{-14}	1.9×10^{-14}	^{214}Pb
Area 5, Gate 200	08/05/91	08/12/91	1.3×10^{-12}	2.5×10^{-13}	^{40}K
Area 5, Gate 200	08/05/91	08/12/91	5.7×10^{-14}	2.4×10^{-14}	^{214}Pb
Area 5, Gate 200	08/12/91	08/19/91	4.8×10^{-13}	9.8×10^{-14}	^{40}K
Area 5, Gate 200	08/12/91	08/19/91	5.1×10^{-15}	2.7×10^{-15}	^{208}Tl
Area 5, Gate 200	08/19/91	08/26/91	4.0×10^{-14}	2.2×10^{-14}	^{214}Pb
Area 5, Gate 200	08/26/91	09/03/91	3.5×10^{-14}	1.9×10^{-14}	^{214}Pb
Area 5, Gate 200	08/26/91	09/03/91	1.1×10^{-14}	3.8×10^{-15}	^{212}Pb
Area 5, Gate 200	09/03/91	09/09/91	4.8×10^{-14}	2.3×10^{-14}	^{214}Pb
Area 5, Gate 200	09/09/91	09/16/91	6.6×10^{-14}	2.1×10^{-14}	^{214}Pb
Area 5, Gate 200	09/09/91	09/16/91	5.1×10^{-14}	1.6×10^{-14}	^{214}Bi
Area 5, Gate 200	09/16/91	09/23/91	4.5×10^{-14}	1.7×10^{-14}	^{214}Bi
Area 5, Gate 200	09/16/91	09/23/91	5.3×10^{-14}	1.8×10^{-14}	^{214}Pb
Area 5, Gate 200	09/30/91	10/07/91	7.9×10^{-14}	2.4×10^{-14}	^{214}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen- tration	Standard Deviation (s)	
Area 5, Gate 200	09/30/91	10/07/91	8.8×10^{-14}	3.1×10^{-14}	^{214}Bi
Area 5, Gate 200	10/07/91	10/14/91	1.1×10^{-14}	5.4×10^{-15}	^{212}Pb
Area 5, Gate 200	10/14/91	10/21/91	8.3×10^{-14}	1.9×10^{-14}	^{214}Pb
Area 5, Gate 200	10/14/91	10/21/91	1.1×10^{-13}	2.4×10^{-14}	^{214}Bi
Area 5, Gate 200	10/21/91	10/28/91	4.3×10^{-14}	2.8×10^{-14}	^{214}Bi
Area 5, Gate 200	10/28/91	11/04/91	1.2×10^{-13}	2.7×10^{-14}	^{214}Pb
Area 5, Gate 200	11/04/91	11/12/91	1.3×10^{-14}	9.9×10^{-15}	^{228}Ac
Area 5, Gate 200	11/04/91	11/12/91	7.3×10^{-14}	2.6×10^{-14}	^{214}Bi
Area 5, Gate 200	11/04/91	11/12/91	8.8×10^{-14}	2.7×10^{-14}	^{214}Pb
Area 5, Gate 200	11/18/91	11/25/91	1.3×10^{-13}	4.2×10^{-14}	^{214}Pb
Area 5, Gate 200	11/18/91	11/25/91	1.9×10^{-13}	5.9×10^{-14}	^{214}Bi
Area 5, Gate 200	11/25/91	12/03/91	6.0×10^{-14}	1.8×10^{-14}	^{214}Bi
Area 5, Gate 200	11/25/91	12/03/91	5.7×10^{-14}	2.0×10^{-14}	^{214}Pb
Area 5, Gate 200	12/09/91	12/16/91	1.1×10^{-13}	2.9×10^{-14}	^{214}Pb
Area 5, Gate 200	12/09/91	12/16/91	7.6×10^{-14}	2.8×10^{-14}	^{214}Bi
Area 5, Gate 200	12/16/91	12/23/91	5.9×10^{-14}	2.5×10^{-14}	^{214}Bi
Area 5, RWMS No. 1	01/02/91	01/07/91	2.8×10^{-13}	1.3×10^{-13}	^{40}K
Area 5, RWMS No. 1	01/02/91	01/07/91	6.7×10^{-14}	3.0×10^{-14}	^7Be
Area 5, RWMS No. 1	01/14/91	01/22/91	3.4×10^{-13}	1.0×10^{-13}	^{214}Bi
Area 5, RWMS No. 1	01/14/91	01/22/91	2.2×10^{-14}	9.5×10^{-15}	^{212}Pb
Area 5, RWMS No. 1	01/22/91	01/28/91	2.1×10^{-13}	8.7×10^{-14}	^{214}Pb
Area 5, RWMS No. 1	01/28/91	02/04/91	1.3×10^{-13}	5.7×10^{-14}	^{214}Bi
Area 5, RWMS No. 1	02/04/91	02/11/91	8.3×10^{-14}	3.0×10^{-14}	^{214}Pb
Area 5, RWMS No. 1	02/11/91	02/19/91	1.4×10^{-13}	5.6×10^{-14}	^{214}Pb
Area 5, RWMS No. 1	02/19/91	02/25/91	1.6×10^{-13}	6.0×10^{-14}	^{214}Pb
Area 5, RWMS No. 1	02/25/91	03/04/91	1.6×10^{-14}	7.7×10^{-15}	^{212}Pb
Area 5, RWMS No. 1	04/22/91	04/29/91	2.0×10^{-13}	7.1×10^{-14}	^{214}Bi
Area 5, RWMS No. 1	05/13/91	05/20/91	8.1×10^{-15}	3.7×10^{-15}	^{212}Pb
Area 5, RWMS No. 1	06/03/91	06/10/91	1.3×10^{-14}	4.6×10^{-15}	^{212}Pb
Area 5, RWMS No. 1	06/17/91	06/25/91	1.7×10^{-13}	5.1×10^{-14}	^{214}Pb
Area 5, RWMS No. 1	06/17/91	06/25/91	1.1×10^{-14}	3.7×10^{-15}	^{212}Pb
Area 5, RWMS No. 1	07/01/91	07/08/91	2.3×10^{-13}	8.9×10^{-14}	^{40}K
Area 5, RWMS No. 1	07/22/91	07/29/91	1.2×10^{-14}	4.6×10^{-15}	^{212}Pb
Area 5, RWMS No. 1	08/12/91	08/19/91	1.2×10^{-14}	6.3×10^{-15}	^{212}Pb
Area 5, RWMS No. 1	08/26/91	09/03/91	8.4×10^{-14}	4.9×10^{-14}	^{214}Pb
Area 5, RWMS No. 1	08/26/91	09/03/91	9.8×10^{-15}	3.9×10^{-15}	^{212}Pb
Area 5, RWMS No. 1	09/03/91	09/09/91	2.6×10^{-13}	1.1×10^{-13}	^{214}Bi
Area 5, RWMS No. 1	09/03/91	09/09/91	2.6×10^{-13}	7.9×10^{-14}	^{214}Pb
Area 5, RWMS No. 1	09/09/91	09/16/91	3.2×10^{-13}	1.2×10^{-13}	^{40}K
Area 5, RWMS No. 1	09/23/91	09/30/91	8.9×10^{-14}	3.7×10^{-14}	^{214}Pb
Area 5, RWMS No. 1	09/23/91	09/30/91	1.3×10^{-14}	3.9×10^{-15}	^{212}Pb
Area 5, RWMS No. 1	09/30/91	10/07/91	9.2×10^{-14}	5.2×10^{-14}	^{214}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 5, RWMS No. 1	10/07/91	10/14/91	1.7×10^{-13}	6.8×10^{-14}	^{214}Bi
Area 5, RWMS No. 1	10/07/91	10/14/91	2.4×10^{-13}	5.7×10^{-14}	^{214}Pb
Area 5, RWMS No. 1	10/14/91	10/21/91	1.7×10^{-13}	7.9×10^{-14}	^{214}Pb
Area 5, RWMS No. 1	10/14/91	10/21/91	2.2×10^{-13}	7.5×10^{-14}	^{214}Bi
Area 5, RWMS No. 1	10/28/91	11/04/91	2.0×10^{-13}	9.6×10^{-14}	^{214}Pb
Area 5, RWMS No. 1	11/04/91	11/12/91	1.4×10^{-13}	4.3×10^{-14}	^{214}Pb
Area 5, RWMS No. 1	11/04/91	11/12/91	1.4×10^{-13}	3.8×10^{-14}	^{214}Bi
Area 5, RWMS No. 1	11/18/91	11/25/91	5.6×10^{-13}	1.1×10^{-13}	^{214}Bi
Area 5, RWMS No. 1	11/18/91	11/25/91	5.6×10^{-13}	1.0×10^{-13}	^{214}Pb
Area 5, RWMS No. 1	11/25/91	12/03/91	1.2×10^{-13}	5.1×10^{-14}	^{214}Pb
Area 5, RWMS No. 1	12/03/91	12/09/91	1.2×10^{-13}	6.6×10^{-14}	^{214}Pb
Area 5, RWMS No. 1	12/09/91	12/16/91	7.1×10^{-14}	4.4×10^{-14}	^{214}Bi
Area 5, RWMS No. 2	01/14/91	01/22/91	1.6×10^{-13}	5.1×10^{-14}	^{214}Bi
Area 5, RWMS No. 2	01/14/91	01/22/91	1.4×10^{-13}	4.4×10^{-14}	^{214}Pb
Area 5, RWMS No. 2	01/22/91	01/28/91	2.5×10^{-13}	5.2×10^{-14}	^{214}Pb
Area 5, RWMS No. 2	01/22/91	01/28/91	2.3×10^{-13}	7.1×10^{-14}	^{214}Bi
Area 5, RWMS No. 2	02/11/91	02/19/91	9.1×10^{-14}	4.7×10^{-14}	^{214}Bi
Area 5, RWMS No. 2	03/18/91	03/25/91	9.3×10^{-15}	3.7×10^{-15}	^{212}Pb
Area 5, RWMS No. 2	03/25/91	04/01/91	5.4×10^{-14}	3.0×10^{-14}	^{214}Pb
Area 5, RWMS No. 2	04/01/91	04/08/91	1.3×10^{-14}	4.6×10^{-15}	^{212}Pb
Area 5, RWMS No. 2	04/08/91	04/15/91	9.9×10^{-14}	3.9×10^{-14}	^{214}Pb
Area 5, RWMS No. 2	04/22/91	04/29/91	1.2×10^{-13}	4.7×10^{-14}	^{214}Pb
Area 5, RWMS No. 2	04/22/91	04/29/91	1.9×10^{-13}	6.4×10^{-14}	^{214}Bi
Area 5, RWMS No. 2	06/03/91	06/10/91	8.6×10^{-14}	3.7×10^{-14}	^{214}Pb
Area 5, RWMS No. 2	07/01/91	07/08/91	1.0×10^{-13}	4.8×10^{-14}	^{214}Pb
Area 5, RWMS No. 2	07/29/91	08/05/91	1.2×10^{-12}	2.5×10^{-13}	^{40}K
Area 5, RWMS No. 2	08/05/91	08/12/91	5.6×10^{-13}	1.0×10^{-13}	^{40}K
Area 5, RWMS No. 2	08/12/91	08/19/91	2.3×10^{-13}	7.2×10^{-14}	^{214}Pb
Area 5, RWMS No. 2	08/12/91	08/19/91	1.1×10^{-13}	7.0×10^{-14}	^{214}Bi
Area 5, RWMS No. 2	08/19/91	08/26/91	4.1×10^{-13}	1.2×10^{-13}	^{40}K
Area 5, RWMS No. 2	08/19/91	08/26/91	8.5×10^{-15}	4.6×10^{-15}	^{212}Pb
Area 5, RWMS No. 2	09/03/91	09/09/91	1.1×10^{-14}	3.8×10^{-15}	^{212}Pb
Area 5, RWMS No. 2	09/16/91	09/23/91	1.0×10^{-13}	5.9×10^{-14}	^{214}Pb
Area 5, RWMS No. 2	09/23/91	09/30/91	1.4×10^{-13}	5.8×10^{-14}	^{214}Bi
Area 5, RWMS No. 2	09/30/91	10/07/91	1.7×10^{-13}	6.2×10^{-14}	^{214}Bi
Area 5, RWMS No. 2	10/07/91	10/14/91	1.6×10^{-13}	6.4×10^{-14}	^{214}Pb
Area 5, RWMS No. 2	10/14/91	10/21/91	2.4×10^{-13}	1.1×10^{-13}	^{214}Pb
Area 5, RWMS No. 2	10/28/91	11/04/91	1.8×10^{-13}	9.5×10^{-14}	^{214}Pb
Area 5, RWMS No. 2	11/04/91	11/12/91	1.1×10^{-13}	3.4×10^{-14}	^{214}Pb
Area 5, RWMS No. 2	11/12/91	11/18/91	1.1×10^{-14}	4.8×10^{-15}	^{212}Pb
Area 5, RWMS No. 2	11/18/91	11/25/91	3.7×10^{-13}	9.8×10^{-14}	^{214}Bi
Area 5, RWMS No. 2	11/18/91	11/25/91	5.5×10^{-13}	9.7×10^{-14}	^{214}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 5, RWMS No. 2	11/25/91	12/03/91	1.8×10^{-13}	5.1×10^{-14}	^{214}Pb
Area 5, RWMS No. 2	12/09/91	12/16/91	1.1×10^{-13}	5.8×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	01/14/91	01/22/91	1.7×10^{-13}	5.0×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	01/14/91	01/22/91	1.7×10^{-13}	5.7×10^{-14}	^{214}Bi
Area 5, RWMS No. 3	01/22/91	01/28/91	1.9×10^{-13}	4.9×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	01/22/91	01/28/91	1.6×10^{-13}	5.4×10^{-14}	^{214}Bi
Area 5, RWMS No. 3	01/28/91	02/04/91	9.2×10^{-14}	4.1×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	02/04/91	02/11/91	9.6×10^{-14}	3.5×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	02/11/91	02/19/91	6.5×10^{-15}	3.1×10^{-15}	^{212}Pb
Area 5, RWMS No. 3	03/11/91	03/18/91	9.4×10^{-14}	3.9×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	03/25/91	04/01/91	8.7×10^{-14}	4.3×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	04/15/91	04/22/91	1.0×10^{-13}	3.8×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	04/22/91	04/29/91	2.0×10^{-13}	6.3×10^{-14}	^{214}Bi
Area 5, RWMS No. 3	04/22/91	04/29/91	1.8×10^{-13}	4.9×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	04/29/91	05/06/91	8.5×10^{-14}	3.9×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	05/06/91	05/13/91	1.0×10^{-14}	4.1×10^{-15}	^{212}Pb
Area 5, RWMS No. 3	05/13/91	05/20/91	1.3×10^{-14}	6.0×10^{-15}	^{212}Pb
Area 5, RWMS No. 3	06/03/91	06/10/91	9.3×10^{-15}	3.5×10^{-15}	^{212}Pb
Area 5, RWMS No. 3	06/17/91	06/25/91	5.9×10^{-15}	2.9×10^{-15}	^{212}Pb
Area 5, RWMS No. 3	07/22/91	07/29/91	1.1×10^{-14}	4.2×10^{-15}	^{212}Pb
Area 5, RWMS No. 3	07/29/91	08/05/91	1.2×10^{-12}	2.4×10^{-13}	^{40}K
Area 5, RWMS No. 3	08/05/91	08/12/91	6.2×10^{-13}	1.1×10^{-13}	^{40}K
Area 5, RWMS No. 3	08/05/91	08/12/91	1.2×10^{-13}	5.3×10^{-14}	^{214}Bi
Area 5, RWMS No. 3	08/12/91	08/19/91	1.7×10^{-13}	5.8×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	08/12/91	08/19/91	1.5×10^{-13}	7.2×10^{-14}	^{214}Bi
Area 5, RWMS No. 3	09/09/91	09/16/91	1.3×10^{-13}	6.4×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	09/23/91	09/30/91	1.3×10^{-13}	5.8×10^{-14}	^{214}Bi
Area 5, RWMS No. 3	09/23/91	09/30/91	9.9×10^{-14}	5.9×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	09/30/91	10/07/91	1.9×10^{-13}	7.6×10^{-14}	^{214}Bi
Area 5, RWMS No. 3	10/07/91	10/14/91	1.5×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	10/14/91	10/21/91	1.5×10^{-13}	7.7×10^{-14}	^{214}Bi
Area 5, RWMS No. 3	10/14/91	10/21/91	3.4×10^{-13}	9.5×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	10/28/91	11/04/91	2.8×10^{-13}	8.8×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	11/04/91	11/12/91	1.5×10^{-14}	4.8×10^{-15}	^{212}Pb
Area 5, RWMS No. 3	11/04/91	11/12/91	1.3×10^{-13}	4.6×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	11/18/91	11/25/91	5.7×10^{-13}	1.0×10^{-13}	^{214}Pb
Area 5, RWMS No. 3	11/18/91	11/25/91	4.0×10^{-13}	1.1×10^{-13}	^{214}Bi
Area 5, RWMS No. 3	11/25/91	12/03/91	1.3×10^{-13}	4.3×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	11/25/91	12/03/91	7.8×10^{-14}	4.8×10^{-14}	^{214}Bi
Area 5, RWMS No. 3	12/03/91	12/09/91	7.8×10^{-14}	4.5×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	12/09/91	12/16/91	1.3×10^{-13}	5.2×10^{-14}	^{214}Pb
Area 5, RWMS No. 3	12/16/91	12/23/91	2.7×10^{-13}	1.2×10^{-13}	^{214}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 5, RWMS No. 4	01/14/91	01/22/91	2.0×10^{-13}	6.4×10^{-14}	^{214}Bi
Area 5, RWMS No. 4	01/14/91	01/22/91	1.9×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 5, RWMS No. 4	01/22/91	01/28/91	2.6×10^{-13}	6.7×10^{-14}	^{214}Bi
Area 5, RWMS No. 4	01/22/91	01/28/91	2.7×10^{-13}	5.5×10^{-14}	^{214}Pb
Area 5, RWMS No. 4	02/04/91	02/11/91	6.1×10^{-14}	3.0×10^{-14}	^{214}Pb
Area 5, RWMS No. 4	03/25/91	04/01/91	7.5×10^{-15}	3.8×10^{-15}	^{212}Pb
Area 5, RWMS No. 4	03/25/91	04/01/91	1.1×10^{-13}	3.6×10^{-14}	^{214}Pb
Area 5, RWMS No. 4	04/22/91	04/29/91	1.6×10^{-13}	4.5×10^{-14}	^{214}Pb
Area 5, RWMS No. 4	05/06/91	05/13/91	1.0×10^{-13}	5.5×10^{-14}	^{214}Pb
Area 5, RWMS No. 4	07/29/91	08/05/91	2.0×10^{-12}	3.7×10^{-13}	^{40}K
Area 5, RWMS No. 4	07/29/91	08/05/91	3.1×10^{-13}	1.3×10^{-13}	^{214}Pb
Area 5, RWMS No. 4	08/05/91	08/12/91	6.1×10^{-13}	1.3×10^{-13}	^{40}K
Area 5, RWMS No. 4	08/12/91	08/19/91	4.7×10^{-15}	4.3×10^{-15}	^{208}Tl
Area 5, RWMS No. 4	08/19/91	08/26/91	4.8×10^{-13}	1.5×10^{-13}	^{40}K
Area 5, RWMS No. 4	09/16/91	09/23/91	9.8×10^{-14}	6.0×10^{-14}	^{214}Pb
Area 5, RWMS No. 4	09/23/91	09/30/91	1.0×10^{-13}	7.2×10^{-14}	^{214}Bi
Area 5, RWMS No. 4	09/23/91	09/30/91	1.1×10^{-13}	5.1×10^{-14}	^{214}Pb
Area 5, RWMS No. 4	09/30/91	10/07/91	2.7×10^{-13}	7.0×10^{-14}	^{214}Bi
Area 5, RWMS No. 4	10/07/91	10/14/91	2.7×10^{-13}	1.4×10^{-13}	^{40}K
Area 5, RWMS No. 4	10/14/91	10/21/91	4.7×10^{-13}	1.2×10^{-13}	^{214}Pb
Area 5, RWMS No. 4	10/14/91	10/21/91	5.0×10^{-13}	1.7×10^{-13}	^{214}Bi
Area 5, RWMS No. 4	10/21/91	10/28/91	1.1×10^{-13}	5.4×10^{-14}	^{214}Bi
Area 5, RWMS No. 4	10/28/91	11/04/91	2.3×10^{-13}	1.0×10^{-13}	^{214}Pb
Area 5, RWMS No. 4	11/04/91	11/12/91	9.0×10^{-14}	3.4×10^{-14}	^{214}Bi
Area 5, RWMS No. 4	11/04/91	11/12/91	1.2×10^{-13}	3.5×10^{-14}	^{214}Pb
Area 5, RWMS No. 4	11/18/91	11/25/91	3.7×10^{-13}	9.2×10^{-14}	^{214}Bi
Area 5, RWMS No. 4	11/18/91	11/25/91	3.1×10^{-13}	8.4×10^{-14}	^{214}Pb
Area 5, RWMS No. 4	11/25/91	12/03/91	1.4×10^{-13}	5.2×10^{-14}	^{214}Pb
Area 5, RWMS No. 4	12/03/91	12/09/91	9.4×10^{-14}	4.1×10^{-14}	^{214}Pb
Area 5, RWMS No. 4	12/09/91	12/16/91	9.0×10^{-14}	4.1×10^{-14}	^{214}Pb
Area 5, RWMS No. 4	12/23/91	12/30/91	1.8×10^{-13}	9.4×10^{-14}	^{214}Bi
Area 5, RWMS No. 5	01/14/91	01/22/91	1.5×10^{-13}	5.1×10^{-14}	^{214}Bi
Area 5, RWMS No. 5	01/14/91	01/22/91	1.6×10^{-13}	5.5×10^{-14}	^{214}Pb
Area 5, RWMS No. 5	01/22/91	01/28/91	2.4×10^{-13}	6.5×10^{-14}	^{214}Bi
Area 5, RWMS No. 5	01/22/91	01/28/91	2.0×10^{-13}	4.6×10^{-14}	^{214}Pb
Area 5, RWMS No. 5	01/28/91	02/04/91	9.1×10^{-14}	4.6×10^{-14}	^{214}Bi
Area 5, RWMS No. 5	02/04/91	02/11/91	8.0×10^{-14}	3.7×10^{-14}	^{214}Pb
Area 5, RWMS No. 5	02/19/91	02/25/91	1.0×10^{-13}	5.1×10^{-14}	^{214}Bi
Area 5, RWMS No. 5	03/04/91	03/11/91	1.5×10^{-13}	6.1×10^{-14}	^{183}Ta
Area 5, RWMS No. 5	04/01/91	04/08/91	9.7×10^{-14}	4.4×10^{-14}	^{214}Pb
Area 5, RWMS No. 5	04/22/91	04/29/91	2.4×10^{-13}	5.5×10^{-14}	^{214}Pb
Area 5, RWMS No. 5	04/29/91	05/06/91	1.1×10^{-13}	4.0×10^{-14}	^{214}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 5, RWMS No. 5	07/08/91	07/15/91	7.6×10^{-14}	3.6×10^{-14}	^{214}Pb
Area 5, RWMS No. 5	07/22/91	07/29/91	1.6×10^{-14}	4.7×10^{-15}	^{212}Pb
Area 5, RWMS No. 5	07/29/91	08/05/91	5.8×10^{-15}	6.7×10^{-15}	^{208}Tl
Area 5, RWMS No. 5	08/05/91	08/12/91	4.5×10^{-13}	9.6×10^{-14}	^{40}K
Area 5, RWMS No. 5	08/12/91	08/19/91	1.1×10^{-13}	5.0×10^{-14}	^{214}Pb
Area 5, RWMS No. 5	08/19/91	08/26/91	2.3×10^{-13}	9.3×10^{-14}	^{40}K
Area 5, RWMS No. 5	08/26/91	09/03/91	6.3×10^{-14}	5.2×10^{-14}	^{214}Pb
Area 5, RWMS No. 5	09/09/91	09/16/91	1.6×10^{-13}	8.7×10^{-14}	^{214}Bi
Area 5, RWMS No. 5	09/09/91	09/16/91	1.7×10^{-13}	6.4×10^{-14}	^{214}Pb
Area 5, RWMS No. 5	09/23/91	09/30/91	2.1×10^{-13}	7.4×10^{-14}	^{214}Bi
Area 5, RWMS No. 5	09/23/91	09/30/91	1.0×10^{-13}	6.1×10^{-14}	^{214}Pb
Area 5, RWMS No. 5	09/30/91	10/07/91	2.1×10^{-13}	8.6×10^{-14}	^{214}Bi
Area 5, RWMS No. 5	10/07/91	10/14/91	1.9×10^{-13}	7.3×10^{-14}	^{214}Pb
Area 5, RWMS No. 5	10/14/91	10/21/91	4.7×10^{-13}	1.1×10^{-13}	^{214}Pb
Area 5, RWMS No. 5	10/14/91	10/21/91	4.0×10^{-13}	1.4×10^{-13}	^{214}Bi
Area 5, RWMS No. 5	10/28/91	11/04/91	2.5×10^{-13}	8.7×10^{-14}	^{214}Pb
Area 5, RWMS No. 5	10/28/91	11/04/91	2.1×10^{-13}	9.1×10^{-14}	^{214}Bi
Area 5, RWMS No. 5	11/04/91	11/12/91	1.1×10^{-13}	3.8×10^{-14}	^{214}Pb
Area 5, RWMS No. 5	11/04/91	11/12/91	1.0×10^{-14}	3.9×10^{-15}	^{212}Pb
Area 5, RWMS No. 5	11/12/91	11/18/91	2.8×10^{-13}	9.8×10^{-14}	^{214}Pb
Area 5, RWMS No. 5	11/12/91	11/18/91	4.7×10^{-13}	1.1×10^{-13}	^{214}Bi
Area 5, RWMS No. 5	11/18/91	11/25/91	5.9×10^{-13}	1.3×10^{-13}	^{214}Bi
Area 5, RWMS No. 5	11/18/91	11/25/91	5.5×10^{-13}	1.1×10^{-13}	^{214}Pb
Area 5, RWMS No. 5	11/25/91	12/03/91	1.9×10^{-13}	7.2×10^{-14}	^{214}Bi
Area 5, RWMS No. 5	12/23/91	12/30/91	1.3×10^{-14}	4.7×10^{-15}	^{208}Tl
Area 5, RWMS No. 6	01/14/91	01/22/91	1.2×10^{-13}	4.7×10^{-14}	^{214}Bi
Area 5, RWMS No. 6	01/14/91	01/22/91	1.5×10^{-13}	4.7×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	01/22/91	01/28/91	1.4×10^{-13}	4.8×10^{-14}	^{214}Bi
Area 5, RWMS No. 6	01/22/91	01/28/91	1.9×10^{-13}	4.8×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	01/28/91	02/04/91	9.1×10^{-14}	4.0×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	02/04/91	02/11/91	7.1×10^{-14}	3.6×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	02/04/91	02/11/91	1.8×10^{-13}	8.7×10^{-14}	^{40}K
Area 5, RWMS No. 6	04/08/91	04/15/91	8.5×10^{-14}	4.0×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	04/22/91	04/29/91	1.3×10^{-13}	5.1×10^{-14}	^{214}Bi
Area 5, RWMS No. 6	04/22/91	04/29/91	1.7×10^{-13}	4.4×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	05/06/91	05/13/91	1.1×10^{-13}	4.6×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	05/28/91	06/03/91	1.4×10^{-13}	6.6×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	06/03/91	06/10/91	9.6×10^{-15}	3.4×10^{-15}	^{212}Pb
Area 5, RWMS No. 6	06/03/91	06/10/91	7.9×10^{-14}	3.6×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	06/17/91	06/25/91	7.4×10^{-15}	3.5×10^{-15}	^{212}Pb
Area 5, RWMS No. 6	07/01/91	07/08/91	1.8×10^{-14}	6.6×10^{-15}	^{212}Pb
Area 5, RWMS No. 6	07/15/91	07/22/91	7.8×10^{-14}	4.4×10^{-14}	^{214}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 5, RWMS No. 6	08/05/91	08/12/91	6.0×10^{-13}	1.0×10^{-13}	^{40}K
Area 5, RWMS No. 6	08/12/91	08/19/91	9.7×10^{-14}	6.3×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	08/19/91	08/26/91	2.6×10^{-13}	9.6×10^{-14}	^{40}K
Area 5, RWMS No. 6	09/03/91	09/09/91	1.4×10^{-13}	6.1×10^{-14}	^{214}Bi
Area 5, RWMS No. 6	09/09/91	09/16/91	1.7×10^{-14}	4.8×10^{-15}	^{212}Pb
Area 5, RWMS No. 6	09/16/91	09/23/91	1.3×10^{-13}	5.4×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	09/23/91	09/30/91	1.1×10^{-13}	4.1×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	09/30/91	10/07/91	1.3×10^{-13}	5.2×10^{-14}	^{214}Bi
Area 5, RWMS No. 6	10/07/91	10/14/91	1.4×10^{-13}	6.2×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	10/14/91	10/21/91	2.4×10^{-13}	7.6×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	10/14/91	10/21/91	2.9×10^{-13}	1.3×10^{-13}	^{214}Bi
Area 5, RWMS No. 6	10/28/91	11/04/91	2.3×10^{-13}	8.6×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	10/28/91	11/04/91	2.8×10^{-13}	9.4×10^{-14}	^{214}Bi
Area 5, RWMS No. 6	11/04/91	11/12/91	7.7×10^{-14}	3.9×10^{-14}	^{214}Bi
Area 5, RWMS No. 6	11/04/91	11/12/91	1.0×10^{-13}	3.7×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	11/12/91	11/18/91	1.1×10^{-13}	5.4×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	11/18/91	11/25/91	4.4×10^{-13}	8.8×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	11/18/91	11/25/91	3.2×10^{-13}	1.0×10^{-13}	^{214}Bi
Area 5, RWMS No. 6	11/25/91	12/03/91	1.3×10^{-13}	5.2×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	12/09/91	12/16/91	1.1×10^{-13}	6.3×10^{-14}	^{214}Bi
Area 5, RWMS No. 6	12/09/91	12/16/91	1.2×10^{-13}	5.4×10^{-14}	^{214}Pb
Area 5, RWMS No. 6	12/23/91	12/30/91	1.3×10^{-14}	4.7×10^{-15}	^{212}Pb
Area 5, RWMS No. 7	01/07/91	01/14/91	1.4×10^{-13}	6.3×10^{-14}	^{214}Pb
Area 5, RWMS No. 7	01/14/91	01/22/91	3.1×10^{-13}	9.6×10^{-14}	^{214}Bi
Area 5, RWMS No. 7	01/14/91	01/22/91	2.4×10^{-13}	9.5×10^{-14}	^{214}Pb
Area 5, RWMS No. 7	01/22/91	01/28/91	2.7×10^{-13}	9.5×10^{-14}	^{214}Bi
Area 5, RWMS No. 7	01/28/91	02/04/91	1.1×10^{-13}	5.4×10^{-14}	^{214}Bi
Area 5, RWMS No. 7	02/11/91	02/19/91	1.1×10^{-13}	4.4×10^{-14}	^{214}Pb
Area 5, RWMS No. 7	03/04/91	03/11/91	1.6×10^{-13}	7.8×10^{-14}	^{214}Bi
Area 5, RWMS No. 7	03/04/91	03/11/91	1.9×10^{-13}	7.6×10^{-14}	^{214}Pb
Area 5, RWMS No. 7	03/18/91	03/25/91	6.0×10^{-14}	2.5×10^{-14}	^{214}Pb
Area 5, RWMS No. 7	03/18/91	03/25/91	8.7×10^{-15}	3.1×10^{-15}	^{212}Pb
Area 5, RWMS No. 7	04/08/91	04/15/91	9.1×10^{-14}	5.2×10^{-14}	^{214}Bi
Area 5, RWMS No. 7	04/08/91	04/15/91	7.2×10^{-14}	3.9×10^{-14}	^{214}Pb
Area 5, RWMS No. 7	04/22/91	04/29/91	1.8×10^{-13}	5.6×10^{-14}	^{214}Pb
Area 5, RWMS No. 7	04/22/91	04/29/91	1.2×10^{-13}	5.1×10^{-14}	^{214}Bi
Area 5, RWMS No. 7	05/06/91	05/13/91	1.3×10^{-13}	6.1×10^{-14}	^{214}Pb
Area 5, RWMS No. 7	06/03/91	06/10/91	1.7×10^{-14}	5.3×10^{-15}	^{212}Pb
Area 5, RWMS No. 7	06/03/91	06/10/91	1.0×10^{-13}	4.5×10^{-14}	^{214}Pb
Area 5, RWMS No. 7	06/10/91	06/17/91	2.3×10^{-13}	1.0×10^{-13}	^{40}K
Area 5, RWMS No. 7	08/05/91	08/12/91	9.7×10^{-14}	4.8×10^{-14}	^{214}Pb
Area 5, RWMS No. 7	08/12/91	08/19/91	9.4×10^{-14}	6.2×10^{-14}	^{214}Bi

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		μCi/mL		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 5, RWMS No. 7	09/16/91	09/23/91	1.1 x 10 ⁻¹³	5.8 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, RWMS No. 7	09/30/91	10/07/91	1.6 x 10 ⁻¹³	5.1 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 7	10/07/91	10/14/91	1.3 x 10 ⁻¹³	5.2 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 7	10/14/91	10/21/91	1.8 x 10 ⁻¹³	8.3 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, RWMS No. 7	11/04/91	11/12/91	1.3 x 10 ⁻¹³	3.7 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 7	11/04/91	11/12/91	1.9 x 10 ⁻¹³	4.8 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, RWMS No. 7	11/12/91	11/18/91	1.5 x 10 ⁻¹³	6.6 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, RWMS No. 7	11/12/91	11/18/91	1.0 x 10 ⁻¹⁴	5.8 x 10 ⁻¹⁵	²¹² Pb
Area 5, RWMS No. 7	11/18/91	11/25/91	4.6 x 10 ⁻¹³	8.9 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 7	11/18/91	11/25/91	4.4 x 10 ⁻¹³	9.7 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, RWMS No. 7	11/25/91	12/03/91	1.8 x 10 ⁻¹³	6.6 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, RWMS No. 7	12/03/91	12/09/91	2.0 x 10 ⁻¹³	7.3 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 7	12/09/91	12/16/91	9.5 x 10 ⁻¹⁴	5.1 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, RWMS No. 8	01/07/91	01/14/91	1.6 x 10 ⁻¹³	6.0 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 8	01/14/91	01/22/91	2.4 x 10 ⁻¹³	8.6 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, RWMS No. 8	01/22/91	01/28/91	3.1 x 10 ⁻¹³	1.0 x 10 ⁻¹³	²¹⁴ Bi
Area 5, RWMS No. 8	01/22/91	01/28/91	1.9 x 10 ⁻¹³	9.7 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 8	01/28/91	02/04/91	1.3 x 10 ⁻¹³	5.8 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, RWMS No. 8	01/28/91	02/04/91	1.5 x 10 ⁻¹³	4.7 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 8	02/19/91	02/25/91	3.8 x 10 ⁻¹³	1.9 x 10 ⁻¹³	⁴⁰ K
Area 5, RWMS No. 8	04/22/91	04/29/91	2.0 x 10 ⁻¹³	7.2 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 8	05/13/91	05/20/91	9.6 x 10 ⁻¹⁵	3.8 x 10 ⁻¹⁵	²¹² Pb
Area 5, RWMS No. 8	05/28/91	06/03/91	1.3 x 10 ⁻¹⁴	4.1 x 10 ⁻¹⁵	²¹² Pb
Area 5, RWMS No. 8	06/10/91	06/17/91	1.0 x 10 ⁻¹⁴	3.8 x 10 ⁻¹⁵	²¹² Pb
Area 5, RWMS No. 8	06/10/91	06/17/91	7.3 x 10 ⁻¹⁴	4.3 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 8	07/22/91	07/29/91	1.6 x 10 ⁻¹⁴	4.9 x 10 ⁻¹⁵	²¹² Pb
Area 5, RWMS No. 8	08/26/91	09/03/91	9.5 x 10 ⁻¹⁴	4.2 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 8	09/03/91	09/09/91	1.3 x 10 ⁻¹³	5.2 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 8	09/23/91	09/30/91	1.4 x 10 ⁻¹⁴	4.5 x 10 ⁻¹⁵	²¹² Pb
Area 5, RWMS No. 8	09/30/91	10/07/91	1.2 x 10 ⁻¹³	5.9 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 8	10/07/91	10/14/91	1.2 x 10 ⁻¹³	4.3 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 8	10/14/91	10/21/91	3.0 x 10 ⁻¹³	8.6 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, RWMS No. 8	10/28/91	11/04/91	1.7 x 10 ⁻¹³	8.8 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 8	11/04/91	11/12/91	3.0 x 10 ⁻¹³	1.2 x 10 ⁻¹³	²¹⁴ Bi
Area 5, RWMS No. 8	11/04/91	11/12/91	2.0 x 10 ⁻¹³	7.3 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 8	11/12/91	11/18/91	1.5 x 10 ⁻¹³	6.8 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 8	11/12/91	11/18/91	1.5 x 10 ⁻¹³	8.2 x 10 ⁻¹⁴	²¹⁴ Bi
Area 5, RWMS No. 8	11/18/91	11/25/91	5.1 x 10 ⁻¹³	9.3 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 8	11/18/91	11/25/91	5.0 x 10 ⁻¹³	1.0 x 10 ⁻¹³	²¹⁴ Bi
Area 5, RWMS No. 8	11/25/91	12/03/91	9.8 x 10 ⁻¹⁴	5.2 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 8	12/03/91	12/09/91	1.4 x 10 ⁻¹³	6.3 x 10 ⁻¹⁴	²¹⁴ Pb
Area 5, RWMS No. 8	12/16/91	12/23/91	8.7 x 10 ⁻¹³	1.8 x 10 ⁻¹³	²¹⁴ Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 5, RWMS No. 9	01/14/91	01/22/91	2.5×10^{-13}	1.0×10^{-13}	^{214}Bi
Area 5, RWMS No. 9	01/14/91	01/22/91	1.6×10^{-14}	6.8×10^{-15}	^{212}Pb
Area 5, RWMS No. 9	01/22/91	01/28/91	1.5×10^{-14}	7.2×10^{-15}	^{212}Pb
Area 5, RWMS No. 9	01/22/91	01/28/91	2.2×10^{-13}	8.2×10^{-14}	^{214}Bi
Area 5, RWMS No. 9	02/11/91	02/19/91	1.1×10^{-13}	4.7×10^{-14}	^{214}Pb
Area 5, RWMS No. 9	02/19/91	02/25/91	3.6×10^{-13}	1.8×10^{-13}	^{40}K
Area 5, RWMS No. 9	04/22/91	04/29/91	1.5×10^{-13}	5.5×10^{-14}	^{214}Pb
Area 5, RWMS No. 9	04/22/91	04/29/91	1.1×10^{-13}	5.7×10^{-14}	^{214}Bi
Area 5, RWMS No. 9	05/28/91	06/03/91	1.2×10^{-14}	5.0×10^{-15}	^{212}Pb
Area 5, RWMS No. 9	06/10/91	06/17/91	1.3×10^{-14}	3.9×10^{-15}	^{212}Pb
Area 5, RWMS No. 9	06/17/91	06/25/91	9.6×10^{-15}	4.5×10^{-15}	^{212}Pb
Area 5, RWMS No. 9	07/01/91	07/08/91	8.9×10^{-14}	4.6×10^{-14}	^{214}Pb
Area 5, RWMS No. 9	07/01/91	07/08/91	9.7×10^{-15}	4.0×10^{-15}	^{212}Pb
Area 5, RWMS No. 9	07/22/91	07/29/91	1.2×10^{-14}	5.4×10^{-15}	^{212}Pb
Area 5, RWMS No. 9	08/26/91	09/03/91	9.7×10^{-14}	4.9×10^{-14}	^{214}Pb
Area 5, RWMS No. 9	09/03/91	09/09/91	1.6×10^{-13}	5.7×10^{-14}	^{214}Pb
Area 5, RWMS No. 9	09/23/91	09/30/91	1.4×10^{-13}	6.3×10^{-14}	^{214}Pb
Area 5, RWMS No. 9	09/30/91	10/07/91	1.7×10^{-13}	4.8×10^{-14}	^{214}Pb
Area 5, RWMS No. 9	10/07/91	10/14/91	1.3×10^{-13}	6.5×10^{-14}	^{214}Bi
Area 5, RWMS No. 9	10/07/91	10/14/91	9.5×10^{-14}	4.6×10^{-14}	^{214}Pb
Area 5, RWMS No. 9	10/14/91	10/21/91	2.9×10^{-13}	7.8×10^{-14}	^{214}Bi
Area 5, RWMS No. 9	10/28/91	11/04/91	2.0×10^{-13}	1.2×10^{-13}	^{214}Bi
Area 5, RWMS No. 9	11/04/91	11/12/91	1.3×10^{-13}	4.6×10^{-14}	^{214}Bi
Area 5, RWMS No. 9	11/04/91	11/12/91	1.3×10^{-13}	3.4×10^{-14}	^{214}Pb
Area 5, RWMS No. 9	11/18/91	11/25/91	5.4×10^{-13}	1.1×10^{-13}	^{214}Pb
Area 5, RWMS No. 9	11/18/91	11/25/91	5.5×10^{-13}	1.3×10^{-13}	^{214}Bi
Area 5, RWMS No. 9	11/25/91	12/03/91	1.2×10^{-13}	4.8×10^{-14}	^{214}Pb
Area 5, RWMS No. 9	12/03/91	12/09/91	1.4×10^{-13}	6.1×10^{-14}	^{214}Pb
Area 5, RWMS No. 9	12/09/91	12/16/91	1.2×10^{-13}	5.4×10^{-14}	^{214}Bi
Area 5, RWMS No. 9	12/23/91	12/30/91	1.1×10^{-14}	5.0×10^{-15}	^{212}Pb
Area 5, RWMS Pit No. 3	01/07/91	01/14/91	9.9×10^{-15}	3.2×10^{-15}	^{212}Pb
Area 5, RWMS Pit No. 3	01/22/91	01/28/91	2.3×10^{-13}	5.0×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 3	01/22/91	01/28/91	1.7×10^{-13}	5.3×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 3	01/28/91	02/04/91	1.5×10^{-13}	5.9×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 3	02/04/91	02/11/91	2.7×10^{-13}	5.8×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 3	02/04/91	02/11/91	2.2×10^{-13}	6.3×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 3	03/04/91	03/11/91	2.4×10^{-13}	1.3×10^{-13}	^{214}Bi
Area 5, RWMS Pit No. 3	03/25/91	04/01/91	7.9×10^{-14}	4.6×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 3	03/25/91	04/01/91	5.7×10^{-14}	3.0×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 3	04/22/91	04/29/91	1.2×10^{-13}	4.1×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 3	04/22/91	04/29/91	1.6×10^{-13}	6.0×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 3	05/06/91	05/13/91	1.6×10^{-13}	6.8×10^{-14}	^{214}Bi

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 5, RWMS Pit No. 3	05/06/91	05/13/91	1.0×10^{-13}	4.8×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 3	06/03/91	06/10/91	9.2×10^{-14}	3.6×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 3	06/03/91	06/10/91	2.2×10^{-13}	9.9×10^{-14}	^{40}K
Area 5, RWMS Pit No. 3	06/25/91	07/01/91	2.0×10^{-14}	6.1×10^{-15}	^{212}Pb
Area 5, RWMS Pit No. 3	07/22/91	07/29/91	1.1×10^{-13}	6.8×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 3	07/29/91	08/05/91	1.3×10^{-13}	8.0×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 3	07/29/91	08/05/91	1.3×10^{-12}	2.5×10^{-13}	^{40}K
Area 5, RWMS Pit No. 3	08/12/91	08/19/91	1.7×10^{-13}	7.7×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 3	08/12/91	08/19/91	1.6×10^{-13}	7.1×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 3	08/26/91	09/03/91	1.1×10^{-13}	4.1×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 3	09/23/91	09/30/91	1.0×10^{-13}	3.9×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 3	09/30/91	10/07/91	2.2×10^{-13}	6.0×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 3	10/07/91	10/14/91	9.9×10^{-14}	4.5×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 3	10/07/91	10/14/91	2.3×10^{-13}	8.5×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 3	10/07/91	10/14/91	7.9×10^{-15}	4.2×10^{-15}	^{212}Pb
Area 5, RWMS Pit No. 3	10/14/91	10/21/91	2.9×10^{-13}	1.0×10^{-13}	^{214}Pb
Area 5, RWMS Pit No. 3	10/14/91	10/21/91	1.7×10^{-13}	7.7×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 3	10/28/91	11/04/91	2.2×10^{-13}	1.0×10^{-13}	^{214}Pb
Area 5, RWMS Pit No. 3	10/28/91	11/04/91	2.8×10^{-13}	1.0×10^{-13}	^{214}Bi
Area 5, RWMS Pit No. 3	11/04/91	11/12/91	5.8×10^{-14}	3.9×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 3	11/04/91	11/12/91	1.2×10^{-13}	3.4×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 3	11/18/91	11/25/91	8.1×10^{-13}	2.0×10^{-13}	^{214}Bi
Area 5, RWMS Pit No. 3	11/18/91	11/25/91	6.7×10^{-13}	1.6×10^{-13}	^{214}Pb
Area 5, RWMS Pit No. 3	12/23/91	12/30/91	1.0×10^{-14}	3.8×10^{-15}	^{212}Pb
Area 5, RWMS Pit No. 4	01/07/91	01/14/91	1.1×10^{-13}	3.6×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 4	01/14/91	01/22/91	8.9×10^{-14}	4.1×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 4	01/14/91	01/22/91	1.0×10^{-13}	3.3×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 4	01/22/91	01/28/91	2.2×10^{-13}	4.8×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 4	01/22/91	01/28/91	1.3×10^{-13}	5.0×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 4	02/04/91	02/11/91	2.1×10^{-13}	5.7×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 4	02/04/91	02/11/91	2.8×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 4	02/25/91	03/04/91	6.4×10^{-14}	2.8×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 4	03/11/91	03/18/91	8.3×10^{-15}	4.3×10^{-15}	^{212}Pb
Area 5, RWMS Pit No. 4	03/18/91	03/25/91	8.0×10^{-15}	2.8×10^{-15}	^{212}Pb
Area 5, RWMS Pit No. 4	03/25/91	04/01/91	8.6×10^{-14}	3.7×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 4	04/01/91	04/08/91	1.5×10^{-14}	4.5×10^{-15}	^{212}Pb
Area 5, RWMS Pit No. 4	04/01/91	04/08/91	1.1×10^{-13}	5.4×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 4	04/15/91	04/22/91	1.0×10^{-13}	3.5×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 4	04/15/91	04/22/91	7.9×10^{-14}	4.1×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 4	04/22/91	04/29/91	1.5×10^{-13}	5.1×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 4	04/22/91	04/29/91	1.3×10^{-13}	4.5×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 4	07/08/91	07/15/91	1.4×10^{-13}	6.0×10^{-14}	^{214}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 5, RWMS Pit No. 4	08/05/91	08/12/91	5.0×10^{-13}	9.8×10^{-14}	^{40}K
Area 5, RWMS Pit No. 4	08/12/91	08/19/91	4.5×10^{-15}	3.0×10^{-15}	^{208}Tl
Area 5, RWMS Pit No. 4	08/19/91	08/26/91	2.2×10^{-13}	8.8×10^{-14}	^{40}K
Area 5, RWMS Pit No. 4	08/26/91	09/03/91	1.1×10^{-13}	5.7×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 4	09/09/91	09/16/91	3.0×10^{-13}	1.4×10^{-13}	^{40}K
Area 5, RWMS Pit No. 4	09/23/91	09/30/91	2.0×10^{-13}	6.2×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 4	09/30/91	10/07/91	2.0×10^{-13}	8.2×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 4	10/07/91	10/14/91	1.6×10^{-13}	6.9×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 4	10/14/91	10/21/91	2.1×10^{-13}	6.8×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 4	10/14/91	10/21/91	3.4×10^{-13}	1.1×10^{-13}	^{214}Bi
Area 5, RWMS Pit No. 4	10/28/91	11/04/91	2.0×10^{-13}	8.7×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 4	11/04/91	11/12/91	1.2×10^{-13}	3.5×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 4	11/04/91	11/12/91	1.2×10^{-14}	4.3×10^{-15}	^{212}Pb
Area 5, RWMS Pit No. 4	11/12/91	11/18/91	2.0×10^{-13}	7.2×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 4	11/12/91	11/18/91	1.4×10^{-13}	8.8×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 4	11/18/91	11/25/91	3.7×10^{-13}	9.1×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 4	11/18/91	11/25/91	3.7×10^{-13}	9.9×10^{-14}	^{214}Bi
Area 5, RWMS Pit No. 4	11/25/91	12/03/91	1.4×10^{-13}	4.7×10^{-14}	^{214}Pb
Area 5, RWMS Pit No. 4	11/25/91	12/03/91	1.3×10^{-13}	6.3×10^{-14}	^{214}Bi
Area 5, RWMS TP North	01/14/91	01/22/91	1.3×10^{-13}	5.2×10^{-14}	^{214}Bi
Area 5, RWMS TP North	01/14/91	01/22/91	1.7×10^{-13}	4.4×10^{-14}	^{214}Pb
Area 5, RWMS TP North	01/22/91	01/28/91	1.6×10^{-13}	6.9×10^{-14}	^{214}Bi
Area 5, RWMS TP North	02/04/91	02/11/91	1.7×10^{-13}	4.4×10^{-14}	^{214}Pb
Area 5, RWMS TP North	02/11/91	02/19/91	7.3×10^{-15}	3.0×10^{-15}	^{212}Pb
Area 5, RWMS TP North	02/19/91	02/25/91	1.3×10^{-13}	5.2×10^{-14}	^{214}Pb
Area 5, RWMS TP North	03/04/91	03/11/91	1.5×10^{-13}	9.5×10^{-14}	^{214}Bi
Area 5, RWMS TP North	03/25/91	04/01/91	1.3×10^{-13}	4.6×10^{-14}	^{214}Pb
Area 5, RWMS TP North	04/01/91	04/08/91	1.4×10^{-13}	5.6×10^{-14}	^{214}Pb
Area 5, RWMS TP North	04/22/91	04/29/91	9.4×10^{-14}	4.3×10^{-14}	^{214}Pb
Area 5, RWMS TP North	04/29/91	05/06/91	6.3×10^{-14}	3.5×10^{-14}	^{214}Pb
Area 5, RWMS TP North	06/17/91	06/25/91	1.1×10^{-13}	5.8×10^{-14}	^{214}Bi
Area 5, RWMS TP North	06/17/91	06/25/91	8.1×10^{-15}	3.2×10^{-15}	^{212}Pb
Area 5, RWMS TP North	07/22/91	07/29/91	2.5×10^{-13}	8.3×10^{-14}	^{40}K
Area 5, RWMS TP North	08/05/91	08/12/91	4.9×10^{-13}	9.2×10^{-14}	^{40}K
Area 5, RWMS TP North	08/05/91	08/12/91	1.2×10^{-13}	5.8×10^{-14}	^{214}Bi
Area 5, RWMS TP North	08/05/91	08/12/91	6.5×10^{-14}	3.5×10^{-14}	^{214}Pb
Area 5, RWMS TP North	08/12/91	08/19/91	8.3×10^{-14}	6.2×10^{-14}	^{214}Bi
Area 5, RWMS TP North	09/30/91	10/07/91	1.3×10^{-13}	4.8×10^{-14}	^{214}Pb
Area 5, RWMS TP North	10/07/91	10/14/91	2.0×10^{-13}	6.3×10^{-14}	^{214}Bi
Area 5, RWMS TP North	10/07/91	10/14/91	1.5×10^{-13}	5.9×10^{-14}	^{214}Pb
Area 5, RWMS TP North	10/14/91	10/21/91	1.9×10^{-13}	6.2×10^{-14}	^{214}Bi
Area 5, RWMS TP North	10/14/91	10/21/91	2.1×10^{-13}	9.1×10^{-14}	^{214}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 5, RWMS TP North	11/04/91	11/12/91	1.3×10^{-13}	3.8×10^{-14}	^{214}Pb
Area 5, RWMS TP North	11/12/91	11/18/91	1.4×10^{-13}	5.7×10^{-14}	^{214}Pb
Area 5, RWMS TP North	11/18/91	11/25/91	5.1×10^{-14}	2.8×10^{-14}	^7Be
Area 5, RWMS TP North	11/18/91	11/25/91	5.8×10^{-13}	9.4×10^{-14}	^{214}Pb
Area 5, RWMS TP North	11/18/91	11/25/91	3.0×10^{-13}	1.0×10^{-13}	^{214}Bi
Area 5, RWMS TP North	12/09/91	12/16/91	1.2×10^{-13}	4.6×10^{-14}	^{214}Bi
Area 5, RWMS TP Northeast	01/07/91	01/14/91	1.5×10^{-13}	7.0×10^{-14}	^{214}Bi
Area 5, RWMS TP Northeast	01/14/91	01/22/91	1.4×10^{-13}	5.0×10^{-14}	^{214}Pb
Area 5, RWMS TP Northeast	01/14/91	01/22/91	2.2×10^{-13}	7.8×10^{-14}	^{214}Bi
Area 5, RWMS TP Northeast	01/22/91	01/28/91	1.8×10^{-13}	5.9×10^{-14}	^{214}Bi
Area 5, RWMS TP Northeast	01/22/91	01/28/91	2.7×10^{-13}	5.8×10^{-14}	^{214}Pb
Area 5, RWMS TP Northeast	02/04/91	02/11/91	1.3×10^{-13}	4.1×10^{-14}	^{214}Pb
Area 5, RWMS TP Northeast	02/04/91	02/11/91	2.1×10^{-13}	6.4×10^{-14}	^{214}Bi
Area 5, RWMS TP Northeast	02/11/91	02/19/91	7.5×10^{-14}	3.8×10^{-14}	^{214}Bi
Area 5, RWMS TP Northeast	04/01/91	04/08/91	1.0×10^{-13}	5.1×10^{-14}	^{214}Pb
Area 5, RWMS TP Northeast	04/22/91	04/29/91	1.3×10^{-13}	5.5×10^{-14}	^{214}Bi
Area 5, RWMS TP Northeast	04/22/91	04/29/91	2.0×10^{-13}	4.8×10^{-14}	^{214}Pb
Area 5, RWMS TP Northeast	07/22/91	07/29/91	9.8×10^{-14}	6.6×10^{-14}	^{214}Bi
Area 5, RWMS TP Northeast	07/22/91	07/29/91	1.6×10^{-13}	6.4×10^{-14}	^{214}Pb
Area 5, RWMS TP Northeast	07/22/91	07/29/91	6.7×10^{-15}	4.4×10^{-15}	^{212}Pb
Area 5, RWMS TP Northeast	08/05/91	08/12/91	4.2×10^{-13}	9.1×10^{-14}	^{40}K
Area 5, RWMS TP Northeast	08/26/91	09/03/91	7.9×10^{-14}	3.9×10^{-14}	^{214}Pb
Area 5, RWMS TP Northeast	08/26/91	09/03/91	4.7×10^{-14}	3.5×10^{-14}	^{212}Bi
Area 5, RWMS TP Northeast	09/03/91	09/09/91	1.1×10^{-13}	4.4×10^{-14}	^{214}Pb
Area 5, RWMS TP Northeast	09/23/91	09/30/91	1.4×10^{-13}	4.5×10^{-14}	^{214}Pb
Area 5, RWMS TP Northeast	09/30/91	10/07/91	1.5×10^{-13}	5.1×10^{-14}	^{214}Bi
Area 5, RWMS TP Northeast	10/07/91	10/14/91	1.4×10^{-13}	6.3×10^{-14}	^{214}Pb
Area 5, RWMS TP Northeast	10/14/91	10/21/91	2.7×10^{-13}	1.1×10^{-13}	^{214}Pb
Area 5, RWMS TP Northeast	10/14/91	10/21/91	5.8×10^{-13}	1.2×10^{-13}	^{214}Bi
Area 5, RWMS TP Northeast	11/04/91	11/12/91	1.4×10^{-13}	3.8×10^{-14}	^{214}Pb
Area 5, RWMS TP Northeast	11/04/91	11/12/91	1.3×10^{-13}	4.8×10^{-14}	^{214}Bi
Area 5, RWMS TP Northeast	11/12/91	11/18/91	1.4×10^{-13}	6.8×10^{-14}	^{214}Bi
Area 5, RWMS TP Northeast	11/12/91	11/18/91	1.1×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 5, RWMS TP Northeast	11/12/91	11/18/91	6.2×10^{-15}	3.3×10^{-15}	^{208}Tl
Area 5, RWMS TP Northeast	11/18/91	11/25/91	3.6×10^{-13}	8.4×10^{-14}	^{214}Pb
Area 5, RWMS TP Northeast	11/18/91	11/25/91	2.8×10^{-13}	8.9×10^{-14}	^{214}Bi
Area 5, RWMS TP Northeast	12/03/91	12/09/91	1.7×10^{-13}	7.7×10^{-14}	^{214}Bi
Area 5, RWMS TP Northwest	01/02/91	01/07/91	1.2×10^{-13}	5.3×10^{-14}	^{214}Bi
Area 5, RWMS TP Northwest	01/14/91	01/22/91	2.4×10^{-13}	9.6×10^{-14}	^{214}Bi
Area 5, RWMS TP Northwest	01/22/91	01/28/91	2.1×10^{-13}	8.1×10^{-14}	^{214}Bi
Area 5, RWMS TP Northwest	01/22/91	01/28/91	2.2×10^{-13}	9.0×10^{-14}	^{214}Pb
Area 5, RWMS TP Northwest	02/04/91	02/11/91	9.8×10^{-14}	4.8×10^{-14}	^{214}Bi

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 5, RWMS TP Northwest	02/04/91	02/11/91	1.1×10^{-13}	3.7×10^{-14}	^{214}Pb
Area 5, RWMS TP Northwest	02/11/91	02/19/91	8.3×10^{-14}	3.8×10^{-14}	^{214}Pb
Area 5, RWMS TP Northwest	03/04/91	03/11/91	1.6×10^{-14}	7.2×10^{-15}	^{212}Pb
Area 5, RWMS TP Northwest	04/22/91	04/29/91	1.4×10^{-13}	5.5×10^{-14}	^{214}Pb
Area 5, RWMS TP Northwest	04/29/91	05/06/91	1.1×10^{-14}	4.1×10^{-15}	^{212}Pb
Area 5, RWMS TP Northwest	05/06/91	05/13/91	2.3×10^{-13}	7.3×10^{-14}	^{214}Pb
Area 5, RWMS TP Northwest	06/03/91	06/10/91	9.6×10^{-15}	4.0×10^{-15}	^{212}Pb
Area 5, RWMS TP Northwest	08/19/91	08/26/91	1.8×10^{-13}	9.2×10^{-14}	^{40}K
Area 5, RWMS TP Northwest	09/03/91	09/09/91	1.4×10^{-13}	5.9×10^{-14}	^{214}Bi
Area 5, RWMS TP Northwest	09/16/91	09/23/91	9.7×10^{-15}	3.9×10^{-15}	^{212}Pb
Area 5, RWMS TP Northwest	09/16/91	09/23/91	9.5×10^{-14}	5.4×10^{-14}	^{214}Bi
Area 5, RWMS TP Northwest	09/23/91	09/30/91	1.6×10^{-13}	7.5×10^{-14}	^{214}Pb
Area 5, RWMS TP Northwest	09/30/91	10/07/91	1.5×10^{-13}	4.7×10^{-14}	^{214}Pb
Area 5, RWMS TP Northwest	10/07/91	10/14/91	1.3×10^{-13}	5.4×10^{-14}	^{214}Pb
Area 5, RWMS TP Northwest	10/14/91	10/21/91	1.6×10^{-13}	5.9×10^{-14}	^{214}Bi
Area 5, RWMS TP Northwest	10/21/91	10/28/91	2.1×10^{-13}	6.9×10^{-14}	^{214}Pb
Area 5, RWMS TP Northwest	10/21/91	10/28/91	1.0×10^{-13}	6.6×10^{-14}	^{214}Bi
Area 5, RWMS TP Northwest	11/04/91	11/12/91	1.8×10^{-13}	4.3×10^{-14}	^{214}Pb
Area 5, RWMS TP Northwest	11/04/91	11/12/91	1.5×10^{-13}	4.3×10^{-14}	^{214}Bi
Area 5, RWMS TP Northwest	11/12/91	11/18/91	2.6×10^{-13}	9.5×10^{-14}	^{214}Bi
Area 5, RWMS TP Northwest	11/18/91	11/25/91	7.1×10^{-13}	1.6×10^{-13}	^{214}Bi
Area 5, RWMS TP Northwest	11/18/91	11/25/91	6.7×10^{-13}	1.3×10^{-13}	^{214}Pb
Area 5, RWMS TP Northwest	11/25/91	12/03/91	1.6×10^{-13}	5.5×10^{-14}	^{214}Pb
Area 5, RWMS TP Northwest	12/03/91	12/09/91	1.7×10^{-13}	8.0×10^{-14}	^{214}Bi
Area 5, RWMS TP Northwest	12/03/91	12/09/91	1.8×10^{-13}	7.0×10^{-14}	^{214}Pb
Area 5, RWMS TP Northwest	12/09/91	12/16/91	1.4×10^{-13}	5.6×10^{-14}	^{214}Bi
Area 5, RWMS TP Northwest	12/16/91	12/23/91	1.1×10^{-14}	4.5×10^{-15}	^{212}Pb
Area 5, RWMS TP South	01/14/91	01/22/91	2.4×10^{-13}	9.5×10^{-14}	^{214}Pb
Area 5, RWMS TP South	01/14/91	01/22/91	1.6×10^{-13}	7.1×10^{-14}	^{214}Bi
Area 5, RWMS TP South	01/22/91	01/28/91	2.7×10^{-13}	9.2×10^{-14}	^{214}Bi
Area 5, RWMS TP South	01/22/91	01/28/91	2.6×10^{-13}	8.9×10^{-14}	^{214}Pb
Area 5, RWMS TP South	02/04/91	02/11/91	1.3×10^{-13}	4.4×10^{-14}	^{214}Pb
Area 5, RWMS TP South	02/04/91	02/11/91	6.9×10^{-15}	3.5×10^{-15}	^{212}Pb
Area 5, RWMS TP South	02/11/91	02/19/91	8.8×10^{-14}	4.4×10^{-14}	^{214}Pb
Area 5, RWMS TP South	02/19/91	02/25/91	1.4×10^{-13}	6.0×10^{-14}	^{214}Pb
Area 5, RWMS TP South	03/25/91	04/01/91	1.5×10^{-14}	5.2×10^{-15}	^{212}Pb
Area 5, RWMS TP South	04/22/91	04/29/91	1.1×10^{-13}	3.9×10^{-14}	^{214}Pb
Area 5, RWMS TP South	04/22/91	04/29/91	1.9×10^{-13}	7.4×10^{-14}	^{214}Bi
Area 5, RWMS TP South	05/13/91	05/20/91	6.9×10^{-15}	2.9×10^{-15}	^{212}Pb
Area 5, RWMS TP South	05/20/91	05/28/91	1.1×10^{-13}	4.4×10^{-14}	^{214}Pb
Area 5, RWMS TP South	06/17/91	06/25/91	1.0×10^{-14}	4.0×10^{-15}	^{212}Pb
Area 5, RWMS TP South	06/25/91	07/01/91	2.6×10^{-13}	1.2×10^{-13}	^{40}K

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 5, RWMS TP South	08/12/91	08/19/91	8.8×10^{-14}	4.6×10^{-14}	^{214}Pb
Area 5, RWMS TP South	08/19/91	08/26/91	9.8×10^{-14}	5.7×10^{-14}	^{214}Pb
Area 5, RWMS TP South	09/03/91	09/09/91	7.3×10^{-14}	3.3×10^{-14}	^7Be
Area 5, RWMS TP South	09/03/91	09/09/91	1.3×10^{-13}	5.4×10^{-14}	^{214}Pb
Area 5, RWMS TP South	09/16/91	09/23/91	1.0×10^{-13}	4.4×10^{-14}	^{214}Pb
Area 5, RWMS TP South	09/23/91	09/30/91	1.0×10^{-13}	6.4×10^{-14}	^{214}Pb
Area 5, RWMS TP South	09/30/91	10/07/91	1.3×10^{-13}	5.1×10^{-14}	^{214}Pb
Area 5, RWMS TP South	10/07/91	10/14/91	1.2×10^{-13}	5.8×10^{-14}	^{214}Pb
Area 5, RWMS TP South	10/07/91	10/14/91	1.4×10^{-13}	5.6×10^{-14}	^{214}Bi
Area 5, RWMS TP South	10/14/91	10/21/91	1.8×10^{-13}	7.7×10^{-14}	^{214}Bi
Area 5, RWMS TP South	11/04/91	11/12/91	1.2×10^{-13}	3.8×10^{-14}	^{214}Bi
Area 5, RWMS TP South	11/04/91	11/12/91	1.3×10^{-13}	4.9×10^{-14}	^{214}Pb
Area 5, RWMS TP South	11/18/91	11/25/91	4.0×10^{-13}	8.3×10^{-14}	^{214}Pb
Area 5, RWMS TP South	11/18/91	11/25/91	1.9×10^{-13}	9.8×10^{-14}	^{40}K
Area 5, RWMS TP South	11/18/91	11/25/91	3.5×10^{-13}	9.4×10^{-14}	^{214}Bi
Area 5, RWMS TP South	11/25/91	12/03/91	2.0×10^{-13}	5.4×10^{-14}	^{214}Pb
Area 5, RWMS TP South	12/03/91	12/09/91	1.9×10^{-13}	8.6×10^{-14}	^{214}Bi
Area 5, RWMS TP Southeast	01/02/91	01/07/91	3.0×10^{-13}	1.2×10^{-13}	^{40}K
Area 5, RWMS TP Southeast	01/14/91	01/22/91	2.1×10^{-13}	7.6×10^{-14}	^{214}Bi
Area 5, RWMS TP Southeast	01/22/91	01/28/91	2.4×10^{-13}	8.2×10^{-14}	^{214}Bi
Area 5, RWMS TP Southeast	01/22/91	01/28/91	1.8×10^{-13}	7.8×10^{-14}	^{214}Pb
Area 5, RWMS TP Southeast	02/04/91	02/11/91	1.7×10^{-13}	5.2×10^{-14}	^{214}Pb
Area 5, RWMS TP Southeast	02/04/91	02/11/91	1.4×10^{-13}	6.2×10^{-14}	^{214}Bi
Area 5, RWMS TP Southeast	02/11/91	02/19/91	1.2×10^{-14}	4.3×10^{-15}	^{212}Pb
Area 5, RWMS TP Southeast	02/19/91	02/25/91	2.1×10^{-13}	1.0×10^{-13}	^{214}Pb
Area 5, RWMS TP Southeast	03/04/91	03/11/91	2.0×10^{-13}	7.0×10^{-14}	^{214}Pb
Area 5, RWMS TP Southeast	03/11/91	03/18/91	1.7×10^{-13}	8.6×10^{-14}	^{40}K
Area 5, RWMS TP Southeast	04/01/91	04/08/91	1.8×10^{-14}	6.0×10^{-15}	^{212}Pb
Area 5, RWMS TP Southeast	04/08/91	04/15/91	1.3×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 5, RWMS TP Southeast	04/22/91	04/29/91	8.9×10^{-14}	4.3×10^{-14}	^{214}Pb
Area 5, RWMS TP Southeast	04/22/91	04/29/91	1.1×10^{-13}	5.6×10^{-14}	^{214}Bi
Area 5, RWMS TP Southeast	06/10/91	06/17/91	7.5×10^{-14}	4.3×10^{-14}	^{214}Bi
Area 5, RWMS TP Southeast	06/10/91	06/17/91	6.9×10^{-15}	3.2×10^{-15}	^{212}Pb
Area 5, RWMS TP Southeast	07/22/91	07/29/91	1.0×10^{-14}	4.1×10^{-15}	^{212}Pb
Area 5, RWMS TP Southeast	07/29/91	08/05/91	9.7×10^{-14}	4.7×10^{-14}	^{214}Pb
Area 5, RWMS TP Southeast	08/05/91	08/12/91	9.6×10^{-14}	5.4×10^{-14}	^{214}Bi
Area 5, RWMS TP Southeast	09/03/91	09/09/91	1.9×10^{-13}	6.8×10^{-14}	^{214}Bi
Area 5, RWMS TP Southeast	09/03/91	09/09/91	1.1×10^{-13}	5.8×10^{-14}	^{214}Pb
Area 5, RWMS TP Southeast	09/09/91	09/16/91	1.1×10^{-13}	6.6×10^{-14}	^{214}Bi
Area 5, RWMS TP Southeast	09/30/91	10/07/91	2.1×10^{-13}	5.0×10^{-14}	^{214}Pb
Area 5, RWMS TP Southeast	10/07/91	10/14/91	1.5×10^{-13}	5.1×10^{-14}	^{214}Pb
Area 5, RWMS TP Southeast	10/14/91	10/21/91	1.5×10^{-13}	7.7×10^{-14}	^{214}Bi

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 5, RWMS TP Southeast	10/21/91	10/28/91	1.4×10^{-13}	5.8×10^{-14}	^{214}Pb
Area 5, RWMS TP Southeast	10/28/91	11/04/91	2.0×10^{-13}	1.1×10^{-13}	^{214}Pb
Area 5, RWMS TP Southeast	10/28/91	11/04/91	3.7×10^{-13}	1.5×10^{-13}	^{214}Bi
Area 5, RWMS TP Southeast	11/04/91	11/12/91	1.4×10^{-13}	4.0×10^{-14}	^{214}Bi
Area 5, RWMS TP Southeast	11/04/91	11/12/91	8.0×10^{-14}	4.2×10^{-14}	^{214}Pb
Area 5, RWMS TP Southeast	11/12/91	11/18/91	1.7×10^{-13}	5.6×10^{-14}	^{214}Pb
Area 5, RWMS TP Southeast	11/18/91	11/25/91	4.1×10^{-13}	1.0×10^{-13}	^{214}Bi
Area 5, RWMS TP Southeast	11/18/91	11/25/91	4.4×10^{-13}	9.4×10^{-14}	^{214}Pb
Area 5, RWMS TP Southeast	11/25/91	12/03/91	1.1×10^{-13}	5.7×10^{-14}	^{214}Bi
Area 5, RWMS TP Southeast	11/25/91	12/03/91	1.3×10^{-13}	4.7×10^{-14}	^{214}Pb
Area 5, RWMS TP Southeast	12/09/91	12/16/91	6.0×10^{-15}	3.1×10^{-15}	^{212}Pb
Area 5, RWMS TP Southwest	01/02/91	01/07/91	1.2×10^{-13}	6.0×10^{-14}	^{214}Bi
Area 5, RWMS TP Southwest	01/14/91	01/22/91	2.3×10^{-13}	8.8×10^{-14}	^{214}Bi
Area 5, RWMS TP Southwest	01/22/91	01/28/91	3.6×10^{-13}	1.1×10^{-13}	^{214}Bi
Area 5, RWMS TP Southwest	01/28/91	02/04/91	3.0×10^{-13}	7.9×10^{-14}	^{214}Bi
Area 5, RWMS TP Southwest	01/28/91	02/04/91	2.3×10^{-13}	7.1×10^{-14}	^{214}Pb
Area 5, RWMS TP Southwest	02/04/91	02/11/91	1.7×10^{-13}	5.7×10^{-14}	^{214}Bi
Area 5, RWMS TP Southwest	02/04/91	02/11/91	1.5×10^{-13}	4.7×10^{-14}	^{214}Pb
Area 5, RWMS TP Southwest	02/11/91	02/19/91	1.0×10^{-13}	4.4×10^{-14}	^{214}Pb
Area 5, RWMS TP Southwest	02/11/91	02/19/91	2.7×10^{-13}	1.3×10^{-13}	^{40}K
Area 5, RWMS TP Southwest	03/18/91	03/25/91	6.7×10^{-14}	2.9×10^{-14}	^{214}Pb
Area 5, RWMS TP Southwest	04/22/91	04/29/91	8.1×10^{-15}	4.9×10^{-15}	^{212}Pb
Area 5, RWMS TP Southwest	04/22/91	04/29/91	1.3×10^{-13}	5.4×10^{-14}	^{214}Bi
Area 5, RWMS TP Southwest	05/06/91	05/13/91	1.0×10^{-13}	5.4×10^{-14}	^{214}Pb
Area 5, RWMS TP Southwest	07/01/91	07/08/91	1.5×10^{-13}	6.8×10^{-14}	^{214}Pb
Area 5, RWMS TP Southwest	09/03/91	09/09/91	8.8×10^{-14}	4.2×10^{-14}	^{214}Pb
Area 5, RWMS TP Southwest	09/16/91	09/23/91	1.0×10^{-13}	4.4×10^{-14}	^{214}Pb
Area 5, RWMS TP Southwest	09/30/91	10/07/91	1.5×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 5, RWMS TP Southwest	10/07/91	10/14/91	1.5×10^{-13}	5.7×10^{-14}	^{214}Bi
Area 5, RWMS TP Southwest	10/07/91	10/14/91	1.3×10^{-13}	4.8×10^{-14}	^{214}Pb
Area 5, RWMS TP Southwest	10/14/91	10/21/91	2.3×10^{-13}	8.6×10^{-14}	^{214}Bi
Area 5, RWMS TP Southwest	10/14/91	10/21/91	2.4×10^{-13}	1.2×10^{-13}	^{40}K
Area 5, RWMS TP Southwest	10/21/91	10/28/91	1.0×10^{-13}	5.5×10^{-14}	^{214}Pb
Area 5, RWMS TP Southwest	10/28/91	11/04/91	3.0×10^{-13}	1.1×10^{-13}	^{214}Pb
Area 5, RWMS TP Southwest	11/04/91	11/12/91	1.3×10^{-13}	3.4×10^{-14}	^{214}Pb
Area 5, RWMS TP Southwest	11/04/91	11/12/91	1.4×10^{-13}	5.3×10^{-14}	^{214}Bi
Area 5, RWMS TP Southwest	11/12/91	11/18/91	1.9×10^{-13}	7.4×10^{-14}	^{214}Bi
Area 5, RWMS TP Southwest	11/12/91	11/18/91	2.2×10^{-13}	6.6×10^{-14}	^{214}Pb
Area 5, RWMS TP Southwest	11/18/91	11/25/91	3.9×10^{-13}	9.6×10^{-14}	^{214}Pb
Area 5, RWMS TP Southwest	11/18/91	11/25/91	3.1×10^{-13}	1.1×10^{-13}	^{214}Bi
Area 5, RWMS TP Southwest	11/25/91	12/03/91	2.0×10^{-13}	5.6×10^{-14}	^{214}Pb
Area 5, RWMS TP Southwest	12/09/91	12/16/91	9.4×10^{-14}	5.0×10^{-14}	^{214}Bi

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 5, RWMS TP Southwest	12/23/91	12/30/91	1.5×10^{-14}	4.8×10^{-15}	^{212}Pb
Area 5, Well 5B	01/22/91	01/28/91	2.9×10^{-13}	6.1×10^{-14}	^{214}Pb
Area 5, Well 5B	01/22/91	01/28/91	3.1×10^{-13}	7.2×10^{-14}	^{214}Bi
Area 5, Well 5B	04/01/91	04/08/91	1.1×10^{-13}	5.6×10^{-14}	^{214}Bi
Area 5, Well 5B	04/22/91	04/29/91	3.8×10^{-13}	6.4×10^{-14}	^{214}Pb
Area 5, Well 5B	04/22/91	04/29/91	3.1×10^{-13}	7.0×10^{-14}	^{214}Bi
Area 5, Well 5B	05/28/91	06/03/91	1.1×10^{-13}	6.0×10^{-14}	^{214}Pb
Area 5, Well 5B	06/10/91	06/17/91	8.8×10^{-15}	5.0×10^{-15}	^{212}Pb
Area 5, Well 5B	07/22/91	07/29/91	6.7×10^{-15}	4.1×10^{-15}	^{212}Pb
Area 5, Well 5B	07/29/91	08/05/91	1.4×10^{-12}	2.6×10^{-13}	^{40}K
Area 5, Well 5B	08/05/91	08/12/91	4.7×10^{-13}	9.7×10^{-14}	^{40}K
Area 5, Well 5B	08/12/91	08/19/91	1.5×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 5, Well 5B	08/19/91	08/26/91	3.4×10^{-13}	1.1×10^{-13}	^{40}K
Area 5, Well 5B	08/26/91	09/03/91	6.7×10^{-15}	2.6×10^{-15}	^{212}Pb
Area 5, Well 5B	08/26/91	09/03/91	1.0×10^{-13}	5.1×10^{-14}	^{214}Pb
Area 5, Well 5B	09/03/91	09/09/91	5.8×10^{-14}	3.1×10^{-14}	^7Be
Area 5, Well 5B	09/16/91	09/23/91	8.1×10^{-15}	4.2×10^{-15}	^{212}Pb
Area 5, Well 5B	09/16/91	09/23/91	1.7×10^{-13}	7.4×10^{-14}	^{214}Bi
Area 5, Well 5B	09/23/91	09/30/91	8.8×10^{-14}	5.1×10^{-14}	^{214}Pb
Area 5, Well 5B	09/30/91	10/07/91	1.8×10^{-13}	8.0×10^{-14}	^{214}Pb
Area 5, Well 5B	09/30/91	10/07/91	3.7×10^{-13}	8.4×10^{-14}	^{214}Bi
Area 5, Well 5B	10/07/91	10/14/91	5.1×10^{-13}	1.2×10^{-13}	^{214}Bi
Area 5, Well 5B	10/07/91	10/14/91	3.8×10^{-13}	8.2×10^{-14}	^{214}Pb
Area 5, Well 5B	10/14/91	10/21/91	5.2×10^{-13}	1.1×10^{-13}	^{214}Pb
Area 5, Well 5B	10/14/91	10/21/91	3.6×10^{-13}	1.1×10^{-13}	^{214}Bi
Area 5, Well 5B	11/04/91	11/12/91	2.5×10^{-13}	4.9×10^{-14}	^{214}Pb
Area 5, Well 5B	11/18/91	11/25/91	6.0×10^{-13}	1.1×10^{-13}	^{214}Bi
Area 5, Well 5B	11/18/91	11/25/91	6.2×10^{-13}	1.1×10^{-13}	^{214}Pb
Area 5, Well 5B	11/25/91	12/03/91	1.7×10^{-13}	6.0×10^{-14}	^{214}Bi
Area 5, Well 5B	11/25/91	12/03/91	2.4×10^{-13}	5.5×10^{-14}	^{214}Pb
Area 5, Well 5B	12/09/91	12/16/91	7.4×10^{-14}	5.5×10^{-14}	^{214}Bi
Area 6, CP-6	01/07/91	01/14/91	1.7×10^{-13}	8.7×10^{-14}	^{214}Bi
Area 6, CP-6	01/14/91	01/22/91	1.3×10^{-13}	6.7×10^{-14}	^{214}Pb
Area 6, CP-6	01/22/91	01/28/91	4.3×10^{-13}	1.1×10^{-13}	^{214}Pb
Area 6, CP-6	01/22/91	01/28/91	3.5×10^{-13}	1.0×10^{-13}	^{214}Bi
Area 6, CP-6	01/28/91	02/04/91	3.0×10^{-13}	1.3×10^{-13}	^{214}Bi
Area 6, CP-6	01/28/91	02/04/91	3.0×10^{-13}	1.1×10^{-13}	^{214}Pb
Area 6, CP-6	02/04/91	02/11/91	2.0×10^{-13}	6.2×10^{-14}	^{214}Bi
Area 6, CP-6	02/04/91	02/11/91	2.3×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 6, CP-6	02/19/91	02/25/91	1.8×10^{-13}	7.0×10^{-14}	^{214}Pb
Area 6, CP-6	03/11/91	03/18/91	1.8×10^{-13}	7.5×10^{-14}	^{214}Pb
Area 6, CP-6	03/18/91	03/25/91	8.2×10^{-15}	3.5×10^{-15}	^{212}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 6, CP-6	03/25/91	04/01/91	2.0×10^{-13}	5.5×10^{-14}	^{214}Pb
Area 6, CP-6	03/25/91	04/01/91	1.0×10^{-14}	5.2×10^{-15}	^{212}Pb
Area 6, CP-6	04/15/91	04/22/91	1.6×10^{-13}	6.0×10^{-14}	^{214}Pb
Area 6, CP-6	04/22/91	04/29/91	1.5×10^{-13}	5.6×10^{-14}	^{214}Pb
Area 6, CP-6	04/29/91	05/06/91	1.7×10^{-13}	8.0×10^{-14}	^{214}Bi
Area 6, CP-6	04/29/91	05/06/91	3.6×10^{-13}	7.5×10^{-14}	^{214}Pb
Area 6, CP-6	05/14/91	05/20/91	1.3×10^{-13}	7.0×10^{-14}	^{214}Bi
Area 6, CP-6	05/20/91	05/28/91	9.7×10^{-14}	4.6×10^{-14}	^{214}Pb
Area 6, CP-6	07/22/91	07/29/91	4.6×10^{-13}	2.1×10^{-13}	^{40}K
Area 6, CP-6	07/29/91	08/05/91	1.9×10^{-13}	8.2×10^{-14}	^{214}Pb
Area 6, CP-6	07/29/91	08/05/91	1.2×10^{-12}	2.6×10^{-13}	^{40}K
Area 6, CP-6	08/05/91	08/12/91	1.3×10^{-13}	6.7×10^{-14}	^{214}Bi
Area 6, CP-6	08/12/91	08/19/91	1.3×10^{-13}	6.6×10^{-14}	^{214}Pb
Area 6, CP-6	08/26/91	09/03/91	1.7×10^{-13}	5.6×10^{-14}	^{214}Pb
Area 6, CP-6	09/03/91	09/09/91	3.8×10^{-13}	1.0×10^{-13}	^{214}Bi
Area 6, CP-6	09/03/91	09/09/91	2.9×10^{-13}	7.7×10^{-14}	^{214}Pb
Area 6, CP-6	09/16/91	09/23/91	1.3×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 6, CP-6	09/30/91	10/07/91	2.0×10^{-13}	5.9×10^{-14}	^{214}Pb
Area 6, CP-6	10/14/91	10/21/91	2.7×10^{-13}	8.3×10^{-14}	^{214}Bi
Area 6, CP-6	10/21/91	10/28/91	1.5×10^{-13}	6.1×10^{-14}	^{214}Pb
Area 6, CP-6	11/04/91	11/12/91	5.4×10^{-14}	4.0×10^{-14}	^{214}Pb
Area 6, CP-6	11/04/91	11/12/91	5.5×10^{-15}	3.0×10^{-15}	^{208}Tl
Area 6, CP-6	11/12/91	11/18/91	1.9×10^{-13}	7.1×10^{-14}	^{214}Pb
Area 6, CP-6	11/18/91	11/25/91	2.9×10^{-13}	9.5×10^{-14}	^{214}Bi
Area 6, CP-6	11/18/91	11/25/91	3.5×10^{-13}	8.4×10^{-14}	^{214}Pb
Area 6, CP-6	11/25/91	12/02/91	1.7×10^{-13}	8.7×10^{-14}	^{214}Bi
Area 6, CP-6	11/25/91	12/02/91	3.3×10^{-13}	8.5×10^{-14}	^{214}Pb
Area 6, CP-6	12/02/91	12/09/91	5.5×10^{-13}	1.1×10^{-13}	^{214}Pb
Area 6, CP-6	12/02/91	12/09/91	7.7×10^{-13}	1.5×10^{-13}	^{214}Bi
Area 6, CP-6	12/02/91	12/09/91	1.8×10^{-14}	9.0×10^{-15}	^{212}Pb
Area 6, CP-6	12/09/91	12/16/91	2.8×10^{-13}	6.3×10^{-14}	^{214}Bi
Area 6, CP-6	12/09/91	12/16/91	1.4×10^{-13}	7.4×10^{-14}	^{214}Pb
Area 6, CP-6	12/16/91	12/23/91	1.1×10^{-14}	5.4×10^{-15}	^{212}Pb
Area 6, CP-6	12/16/91	12/23/91	2.0×10^{-13}	9.1×10^{-14}	^{214}Pb
Area 6, Well 3 Complex	01/14/91	01/22/91	1.3×10^{-13}	6.1×10^{-14}	^{214}Bi
Area 6, Well 3 Complex	01/22/91	01/28/91	3.4×10^{-13}	1.0×10^{-13}	^{214}Pb
Area 6, Well 3 Complex	01/22/91	01/28/91	4.9×10^{-13}	1.3×10^{-13}	^{214}Bi
Area 6, Well 3 Complex	02/04/91	02/11/91	9.4×10^{-14}	4.6×10^{-14}	^{214}Bi
Area 6, Well 3 Complex	02/04/91	02/11/91	1.3×10^{-13}	4.2×10^{-14}	^{214}Pb
Area 6, Well 3 Complex	02/11/91	02/19/91	1.0×10^{-13}	4.5×10^{-14}	^{214}Pb
Area 6, Well 3 Complex	02/19/91	02/25/91	2.4×10^{-14}	7.9×10^{-15}	^{212}Pb
Area 6, Well 3 Complex	03/18/91	03/25/91	9.9×10^{-15}	3.7×10^{-15}	^{212}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 6, Well 3 Complex	03/25/91	04/01/91	1.2×10^{-14}	4.8×10^{-15}	^{212}Pb
Area 6, Well 3 Complex	04/15/91	04/22/91	1.8×10^{-13}	5.9×10^{-14}	^{214}Pb
Area 6, Well 3 Complex	04/29/91	05/06/91	1.2×10^{-13}	6.5×10^{-14}	^{214}Pb
Area 6, Well 3 Complex	06/03/91	06/10/91	8.2×10^{-15}	3.3×10^{-15}	^{212}Pb
Area 6, Well 3 Complex	06/10/91	06/17/91	8.7×10^{-15}	3.7×10^{-15}	^{212}Pb
Area 6, Well 3 Complex	06/17/91	06/24/91	2.0×10^{-13}	9.8×10^{-14}	^{40}K
Area 6, Well 3 Complex	06/24/91	07/01/91	1.3×10^{-13}	5.4×10^{-14}	^{214}Pb
Area 6, Well 3 Complex	07/22/91	07/29/91	2.5×10^{-13}	1.1×10^{-13}	^{214}Pb
Area 6, Well 3 Complex	07/22/91	07/29/91	3.6×10^{-13}	1.9×10^{-13}	^{40}K
Area 6, Well 3 Complex	07/22/91	07/29/91	2.5×10^{-14}	1.1×10^{-14}	^{212}Pb
Area 6, Well 3 Complex	07/29/91	08/05/91	1.1×10^{-12}	2.4×10^{-13}	^{40}K
Area 6, Well 3 Complex	07/29/91	08/05/91	2.1×10^{-13}	1.3×10^{-13}	^{214}Bi
Area 6, Well 3 Complex	08/12/91	08/19/91	3.0×10^{-13}	1.5×10^{-13}	^{40}K
Area 6, Well 3 Complex	08/26/91	09/03/91	8.8×10^{-14}	5.0×10^{-14}	^{214}Pb
Area 6, Well 3 Complex	09/09/91	09/16/91	1.1×10^{-13}	4.0×10^{-14}	^{214}Pb
Area 6, Well 3 Complex	09/09/91	09/16/91	6.9×10^{-15}	3.5×10^{-15}	^{212}Pb
Area 6, Well 3 Complex	10/07/91	10/14/91	7.2×10^{-14}	3.8×10^{-14}	^{214}Pb
Area 6, Well 3 Complex	10/14/91	10/21/91	4.1×10^{-13}	9.6×10^{-14}	^{214}Bi
Area 6, Well 3 Complex	10/14/91	10/21/91	3.2×10^{-13}	8.6×10^{-14}	^{214}Pb
Area 6, Well 3 Complex	10/21/91	10/28/91	9.8×10^{-14}	5.6×10^{-14}	^{214}Pb
Area 6, Well 3 Complex	11/25/91	12/02/91	2.6×10^{-13}	1.0×10^{-13}	^{214}Pb
Area 6, Well 3 Complex	12/02/91	12/09/91	4.1×10^{-15}	2.8×10^{-15}	^{208}Tl
Area 6, Well 3 Complex	12/02/91	12/09/91	9.7×10^{-14}	5.8×10^{-14}	^{214}Pb
Area 6, Well 3 Complex	12/09/91	12/16/91	2.0×10^{-13}	5.2×10^{-14}	^{214}Bi
Area 6, Well 3 Complex	12/16/91	12/23/91	1.2×10^{-14}	4.4×10^{-15}	^{212}Pb
Area 6, Well 3 Complex	12/16/91	12/23/91	4.0×10^{-13}	1.6×10^{-13}	^{214}Pb
Area 6, Yucca Complex	12/31/90	01/07/91	5.4×10^{-15}	2.3×10^{-15}	^{212}Pb
Area 6, Yucca Complex	01/14/91	01/22/91	2.3×10^{-13}	7.6×10^{-14}	^{214}Bi
Area 6, Yucca Complex	01/14/91	01/22/91	1.4×10^{-13}	6.9×10^{-14}	^{214}Pb
Area 6, Yucca Complex	01/22/91	01/28/91	9.5×10^{-13}	1.6×10^{-13}	^{214}Bi
Area 6, Yucca Complex	01/22/91	01/28/91	8.9×10^{-13}	1.5×10^{-13}	^{214}Pb
Area 6, Yucca Complex	02/04/91	02/11/91	2.6×10^{-13}	6.8×10^{-14}	^{214}Bi
Area 6, Yucca Complex	02/04/91	02/11/91	2.8×10^{-13}	6.1×10^{-14}	^{214}Pb
Area 6, Yucca Complex	02/11/91	02/19/91	9.8×10^{-14}	4.1×10^{-14}	^{214}Pb
Area 6, Yucca Complex	03/18/91	03/25/91	6.7×10^{-15}	3.1×10^{-15}	^{212}Pb
Area 6, Yucca Complex	03/25/91	04/01/91	1.2×10^{-13}	6.3×10^{-14}	^{214}Pb
Area 6, Yucca Complex	04/01/91	04/08/91	1.1×10^{-13}	4.5×10^{-14}	^{214}Pb
Area 6, Yucca Complex	04/08/91	04/15/91	1.3×10^{-13}	5.9×10^{-14}	^{214}Bi
Area 6, Yucca Complex	04/08/91	04/15/91	1.3×10^{-13}	4.8×10^{-14}	^{214}Pb
Area 6, Yucca Complex	04/15/91	04/22/91	1.6×10^{-13}	6.0×10^{-14}	^{214}Pb
Area 6, Yucca Complex	04/15/91	04/22/91	2.0×10^{-13}	7.2×10^{-14}	^{214}Bi
Area 6, Yucca Complex	04/22/91	04/29/91	1.5×10^{-14}	5.4×10^{-15}	^{212}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 6, Yucca Complex	04/29/91	05/06/91	3.2×10^{-13}	9.0×10^{-14}	^{214}Pb
Area 6, Yucca Complex	04/29/91	05/06/91	2.3×10^{-13}	9.4×10^{-14}	^{214}Bi
Area 6, Yucca Complex	06/03/91	06/10/91	1.5×10^{-13}	4.3×10^{-14}	^{214}Pb
Area 6, Yucca Complex	06/24/91	07/01/91	1.1×10^{-14}	3.3×10^{-15}	^{212}Pb
Area 6, Yucca Complex	07/22/91	07/29/91	2.4×10^{-13}	1.2×10^{-13}	^{214}Pb
Area 6, Yucca Complex	07/29/91	08/05/91	1.2×10^{-12}	2.5×10^{-13}	^{40}K
Area 6, Yucca Complex	08/05/91	08/12/91	1.2×10^{-13}	6.7×10^{-14}	^{214}Bi
Area 6, Yucca Complex	08/26/91	09/03/91	1.4×10^{-13}	6.1×10^{-14}	^{214}Bi
Area 6, Yucca Complex	08/26/91	09/03/91	1.4×10^{-13}	4.9×10^{-14}	^{214}Pb
Area 6, Yucca Complex	09/03/91	09/09/91	6.6×10^{-15}	3.6×10^{-15}	^{208}Tl
Area 6, Yucca Complex	09/03/91	09/09/91	1.4×10^{-13}	6.0×10^{-14}	^{214}Pb
Area 6, Yucca Complex	09/03/91	09/09/91	2.3×10^{-13}	7.7×10^{-14}	^{214}Bi
Area 6, Yucca Complex	09/09/91	09/16/91	1.1×10^{-13}	5.8×10^{-14}	^{214}Bi
Area 6, Yucca Complex	09/23/91	09/30/91	1.1×10^{-13}	5.7×10^{-14}	^{214}Bi
Area 6, Yucca Complex	09/23/91	09/30/91	8.6×10^{-15}	3.3×10^{-15}	^{212}Pb
Area 6, Yucca Complex	09/23/91	09/30/91	5.4×10^{-15}	3.3×10^{-15}	^{208}Tl
Area 6, Yucca Complex	09/30/91	10/07/91	1.1×10^{-13}	4.5×10^{-14}	^{214}Pb
Area 6, Yucca Complex	10/14/91	10/21/91	3.8×10^{-13}	1.2×10^{-13}	^{214}Pb
Area 6, Yucca Complex	10/14/91	10/21/91	3.6×10^{-13}	9.8×10^{-14}	^{214}Bi
Area 6, Yucca Complex	10/21/91	10/28/91	1.1×10^{-15}	3.1×10^{-15}	^{208}Tl
Area 6, Yucca Complex	11/04/91	11/12/91	1.1×10^{-13}	3.4×10^{-14}	^{214}Pb
Area 6, Yucca Complex	11/04/91	11/12/91	5.3×10^{-15}	3.0×10^{-15}	^{208}Tl
Area 6, Yucca Complex	11/12/91	11/18/91	4.6×10^{-15}	4.7×10^{-15}	^{208}Tl
Area 6, Yucca Complex	11/18/91	11/25/91	2.8×10^{-13}	9.5×10^{-14}	^{214}Bi
Area 6, Yucca Complex	11/18/91	11/25/91	3.6×10^{-13}	8.7×10^{-14}	^{214}Pb
Area 6, Yucca Complex	11/25/91	12/02/91	2.0×10^{-13}	8.4×10^{-14}	^{214}Bi
Area 6, Yucca Complex	12/02/91	12/09/91	3.5×10^{-13}	9.7×10^{-14}	^{214}Bi
Area 6, Yucca Complex	12/09/91	12/16/91	1.3×10^{-13}	4.5×10^{-14}	^{214}Bi
Area 7, Ue7ns	01/14/91	01/22/91	1.4×10^{-13}	6.2×10^{-14}	^{214}Bi
Area 7, Ue7ns	01/14/91	01/22/91	1.8×10^{-13}	5.2×10^{-14}	^{214}Pb
Area 7, Ue7ns	01/22/91	01/28/91	1.4×10^{-13}	5.8×10^{-14}	^{214}Pb
Area 7, Ue7ns	01/22/91	01/28/91	1.9×10^{-13}	8.4×10^{-14}	^{214}Bi
Area 7, Ue7ns	02/04/91	02/11/91	1.0×10^{-14}	3.3×10^{-15}	^{212}Pb
Area 7, Ue7ns	02/19/91	02/25/91	6.6×10^{-14}	2.9×10^{-14}	^{214}Pb
Area 7, Ue7ns	03/04/91	03/11/91	4.4×10^{-15}	2.2×10^{-15}	^{212}Pb
Area 7, Ue7ns	03/18/91	03/25/91	8.1×10^{-14}	3.7×10^{-14}	^{214}Pb
Area 7, Ue7ns	04/08/91	04/15/91	8.0×10^{-14}	4.6×10^{-14}	^{214}Bi
Area 7, Ue7ns	04/08/91	04/15/91	1.2×10^{-13}	4.3×10^{-14}	^{214}Pb
Area 7, Ue7ns	04/22/91	04/29/91	1.0×10^{-14}	4.5×10^{-15}	^{212}Pb
Area 7, Ue7ns	05/14/91	05/20/91	1.2×10^{-13}	5.8×10^{-14}	^{214}Pb
Area 7, Ue7ns	05/28/91	06/03/91	9.4×10^{-15}	4.1×10^{-15}	^{212}Pb
Area 7, Ue7ns	06/10/91	06/17/91	8.6×10^{-15}	4.8×10^{-15}	^{212}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen- tration	Standard Deviation (s)	
Area 7, Ue7ns	07/22/91	07/29/91	4.1×10^{-13}	1.6×10^{-13}	^{214}Bi
Area 7, Ue7ns	07/22/91	07/29/91	5.7×10^{-13}	2.0×10^{-13}	^{40}K
Area 7, Ue7ns	08/05/91	08/12/91	4.1×10^{-13}	8.9×10^{-14}	^{40}K
Area 7, Ue7ns	08/26/91	09/03/91	7.4×10^{-15}	2.8×10^{-15}	^{208}Tl
Area 7, Ue7ns	08/26/91	09/03/91	7.4×10^{-14}	4.9×10^{-14}	^{214}Pb
Area 7, Ue7ns	09/16/91	09/23/91	1.2×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 7, Ue7ns	09/16/91	09/23/91	1.2×10^{-13}	5.6×10^{-14}	^{214}Bi
Area 7, Ue7ns	09/23/91	09/30/91	5.8×10^{-14}	3.5×10^{-14}	^{214}Pb
Area 7, Ue7ns	10/14/91	10/21/91	1.1×10^{-13}	5.8×10^{-14}	^{214}Pb
Area 7, Ue7ns	11/04/91	11/12/91	1.1×10^{-13}	4.4×10^{-14}	^{214}Bi
Area 7, Ue7ns	11/12/91	11/18/91	3.0×10^{-13}	1.5×10^{-13}	^{40}K
Area 7, Ue7ns	11/18/91	11/25/91	3.2×10^{-13}	1.4×10^{-13}	^{40}K
Area 7, Ue7ns	11/25/91	12/02/91	2.0×10^{-13}	9.2×10^{-14}	^{214}Bi
Area 7, Ue7ns	12/02/91	12/09/91	2.1×10^{-13}	7.4×10^{-14}	^{214}Pb
Area 7, Ue7ns	12/02/91	12/09/91	2.9×10^{-13}	7.7×10^{-14}	^{214}Bi
Area 7, Ue7ns	12/09/91	12/16/91	1.9×10^{-13}	6.4×10^{-14}	^{214}Bi
Area 9, 9-300 Bunker	01/14/91	01/22/91	1.3×10^{-13}	5.1×10^{-14}	^{214}Bi
Area 9, 9-300 Bunker	01/14/91	01/22/91	1.2×10^{-13}	3.6×10^{-14}	^{214}Pb
Area 9, 9-300 Bunker	01/22/91	01/28/91	1.5×10^{-13}	5.3×10^{-14}	^{214}Bi
Area 9, 9-300 Bunker	01/22/91	01/28/91	1.4×10^{-13}	4.7×10^{-14}	^{214}Pb
Area 9, 9-300 Bunker	01/28/91	02/04/91	7.6×10^{-15}	3.4×10^{-15}	^{212}Pb
Area 9, 9-300 Bunker	02/11/91	02/19/91	4.3×10^{-14}	2.0×10^{-14}	^{214}Pb
Area 9, 9-300 Bunker	02/11/91	02/19/91	7.5×10^{-15}	2.6×10^{-15}	^{212}Pb
Area 9, 9-300 Bunker	03/11/91	03/18/91	2.0×10^{-13}	9.8×10^{-14}	^{40}K
Area 9, 9-300 Bunker	03/25/91	04/01/91	9.1×10^{-14}	4.3×10^{-14}	^{214}Pb
Area 9, 9-300 Bunker	05/06/91	05/14/91	7.9×10^{-15}	3.5×10^{-15}	^{212}Pb
Area 9, 9-300 Bunker	06/03/91	06/10/91	1.2×10^{-14}	4.7×10^{-15}	^{212}Pb
Area 9, 9-300 Bunker	07/01/91	07/08/91	1.4×10^{-14}	4.2×10^{-15}	^{212}Pb
Area 9, 9-300 Bunker	07/22/91	07/29/91	5.6×10^{-13}	2.3×10^{-13}	^{40}K
Area 9, 9-300 Bunker	07/22/91	07/29/91	5.1×10^{-13}	1.6×10^{-13}	^{214}Pb
Area 9, 9-300 Bunker	07/29/91	08/05/91	1.2×10^{-12}	2.8×10^{-13}	^{40}K
Area 9, 9-300 Bunker	07/29/91	08/05/91	2.6×10^{-13}	1.1×10^{-13}	^{214}Bi
Area 9, 9-300 Bunker	08/05/91	08/12/91	1.7×10^{-13}	5.8×10^{-14}	^{214}Pb
Area 9, 9-300 Bunker	09/16/91	09/23/91	1.4×10^{-13}	7.8×10^{-14}	^{214}Bi
Area 9, 9-300 Bunker	09/30/91	10/07/91	9.7×10^{-15}	3.3×10^{-15}	^{212}Pb
Area 9, 9-300 Bunker	10/14/91	10/21/91	1.3×10^{-13}	6.1×10^{-14}	^{214}Pb
Area 9, 9-300 Bunker	11/04/91	11/12/91	6.7×10^{-14}	4.6×10^{-14}	^{214}Pb
Area 9, 9-300 Bunker	11/04/91	11/12/91	1.3×10^{-13}	6.3×10^{-14}	^{214}Bi
Area 9, 9-300 Bunker	11/12/91	11/18/91	2.6×10^{-13}	1.0×10^{-13}	^{214}Bi
Area 9, 9-300 Bunker	11/18/91	11/25/91	1.7×10^{-13}	7.2×10^{-14}	^{214}Pb
Area 9, 9-300 Bunker	11/25/91	12/02/91	2.1×10^{-13}	7.2×10^{-14}	^{214}Pb
Area 9, 9-300 Bunker	12/02/91	12/09/91	2.6×10^{-13}	1.2×10^{-13}	^{214}Bi

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		μCi/mL		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 9, 9-300 Bunker	12/02/91	12/09/91	1.7 x 10 ⁻¹³	9.5 x 10 ⁻¹⁴	²¹⁴ Pb
Area 9, 9-300 Bunker	12/09/91	12/16/91	5.5 x 10 ⁻¹³	1.2 x 10 ⁻¹³	²¹⁴ Bi
Area 9, 9-300 Bunker	12/09/91	12/16/91	3.5 x 10 ⁻¹³	1.0 x 10 ⁻¹³	²¹⁴ Pb
Area 10, Gate 700 South	01/14/91	01/22/91	1.4 x 10 ⁻¹³	4.8 x 10 ⁻¹⁴	²¹⁴ Bi
Area 10, Gate 700 South	01/14/91	01/22/91	9.4 x 10 ⁻¹⁴	4.0 x 10 ⁻¹⁴	²¹⁴ Pb
Area 10, Gate 700 South	01/22/91	01/28/91	8.6 x 10 ⁻¹⁵	3.1 x 10 ⁻¹⁵	²¹² Pb
Area 10, Gate 700 South	01/22/91	01/28/91	1.3 x 10 ⁻¹³	4.2 x 10 ⁻¹⁴	²¹⁴ Pb
Area 10, Gate 700 South	01/28/91	02/04/91	1.1 x 10 ⁻¹⁴	3.6 x 10 ⁻¹⁵	²¹² Pb
Area 10, Gate 700 South	02/04/91	02/11/91	1.5 x 10 ⁻¹³	4.7 x 10 ⁻¹⁴	²¹⁴ Pb
Area 10, Gate 700 South	02/19/91	02/25/91	9.2 x 10 ⁻¹⁴	4.1 x 10 ⁻¹⁴	²¹⁴ Bi
Area 10, Gate 700 South	03/18/91	03/25/91	7.3 x 10 ⁻¹⁴	3.4 x 10 ⁻¹⁴	²¹⁴ Pb
Area 10, Gate 700 South	03/18/91	03/25/91	8.1 x 10 ⁻¹⁴	5.1 x 10 ⁻¹⁴	²¹⁴ Bi
Area 10, Gate 700 South	04/08/91	04/15/91	1.1 x 10 ⁻¹³	5.6 x 10 ⁻¹⁴	²¹⁴ Bi
Area 10, Gate 700 South	05/06/91	05/14/91	7.0 x 10 ⁻¹⁴	3.6 x 10 ⁻¹⁴	²¹⁴ Pb
Area 10, Gate 700 South	06/03/91	06/10/91	9.7 x 10 ⁻¹⁴	5.6 x 10 ⁻¹⁴	²¹⁴ Bi
Area 10, Gate 700 South	06/24/91	07/01/91	1.1 x 10 ⁻¹⁴	4.9 x 10 ⁻¹⁵	²¹² Pb
Area 10, Gate 700 South	07/01/91	07/08/91	8.4 x 10 ⁻¹⁵	4.1 x 10 ⁻¹⁵	²¹² Pb
Area 10, Gate 700 South	07/08/91	07/15/91	4.8 x 10 ⁻¹⁵	2.5 x 10 ⁻¹⁵	²¹² Pb
Area 10, Gate 700 South	07/22/91	07/29/91	1.7 x 10 ⁻¹⁴	6.1 x 10 ⁻¹⁵	²¹² Pb
Area 10, Gate 700 South	07/22/91	07/29/91	1.9 x 10 ⁻¹³	7.8 x 10 ⁻¹⁴	²¹⁴ Pb
Area 10, Gate 700 South	07/29/91	08/05/91	1.8 x 10 ⁻¹³	8.1 x 10 ⁻¹⁴	²¹⁴ Pb
Area 10, Gate 700 South	07/29/91	08/05/91	1.3 x 10 ⁻¹²	2.6 x 10 ⁻¹³	⁴⁰ K
Area 10, Gate 700 South	08/05/91	08/12/91	1.1 x 10 ⁻¹³	5.6 x 10 ⁻¹⁴	²¹⁴ Pb
Area 10, Gate 700 South	08/05/91	08/12/91	5.5 x 10 ⁻¹³	1.0 x 10 ⁻¹³	⁴⁰ K
Area 10, Gate 700 South	08/26/91	09/03/91	1.4 x 10 ⁻¹³	5.3 x 10 ⁻¹⁴	²¹⁴ Pb
Area 10, Gate 700 South	08/26/91	09/03/91	1.3 x 10 ⁻¹³	5.5 x 10 ⁻¹⁴	²¹⁴ Bi
Area 10, Gate 700 South	09/09/91	09/16/91	7.7 x 10 ⁻¹⁴	3.6 x 10 ⁻¹⁴	²¹⁴ Pb
Area 10, Gate 700 South	10/14/91	10/21/91	1.2 x 10 ⁻¹³	7.1 x 10 ⁻¹⁴	²¹⁴ Bi
Area 10, Gate 700 South	10/28/91	11/04/91	2.0 x 10 ⁻¹³	8.7 x 10 ⁻¹⁴	²¹⁴ Pb
Area 10, Gate 700 South	10/28/91	11/04/91	2.7 x 10 ⁻¹³	1.4 x 10 ⁻¹³	⁴⁰ K
Area 10, Gate 700 South	11/04/91	11/12/91	8.5 x 10 ⁻¹⁴	5.2 x 10 ⁻¹⁴	²¹⁴ Bi
Area 10, Gate 700 South	11/25/91	12/02/91	2.3 x 10 ⁻¹³	7.8 x 10 ⁻¹⁴	²¹⁴ Bi
Area 10, Gate 700 South	11/25/91	12/02/91	1.3 x 10 ⁻¹³	5.4 x 10 ⁻¹⁴	²¹⁴ Pb
Area 10, Gate 700 South	12/02/91	12/09/91	1.8 x 10 ⁻¹³	7.6 x 10 ⁻¹⁴	²¹⁴ Pb
Area 11, Gate 293	12/31/90	01/07/91	9.9 x 10 ⁻¹⁴	4.4 x 10 ⁻¹⁴	²¹⁴ Pb
Area 11, Gate 293	12/31/90	01/07/91	6.6 x 10 ⁻¹⁵	2.7 x 10 ⁻¹⁵	²¹² Pb
Area 11, Gate 293	01/22/91	01/28/91	2.2 x 10 ⁻¹³	1.0 x 10 ⁻¹³	²¹⁴ Pb
Area 11, Gate 293	01/22/91	01/28/91	4.1 x 10 ⁻¹³	1.1 x 10 ⁻¹³	²¹⁴ Bi
Area 11, Gate 293	02/04/91	02/11/91	1.7 x 10 ⁻¹³	6.1 x 10 ⁻¹⁴	²¹⁴ Bi
Area 11, Gate 293	02/04/91	02/11/91	1.9 x 10 ⁻¹³	9.6 x 10 ⁻¹⁴	⁴⁰ K
Area 11, Gate 293	02/04/91	02/11/91	2.2 x 10 ⁻¹³	5.1 x 10 ⁻¹⁴	²¹⁴ Pb
Area 11, Gate 293	02/11/91	02/19/91	1.4 x 10 ⁻¹⁴	6.3 x 10 ⁻¹⁵	²¹² Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 11, Gate 293	02/25/91	03/04/91	1.3×10^{-14}	5.9×10^{-15}	^{212}Pb
Area 11, Gate 293	03/11/91	03/18/91	7.2×10^{-14}	2.8×10^{-14}	^{214}Pb
Area 11, Gate 293	03/25/91	04/01/91	8.7×10^{-14}	5.0×10^{-14}	^{214}Pb
Area 11, Gate 293	04/15/91	04/22/91	1.7×10^{-13}	5.5×10^{-14}	^{214}Pb
Area 11, Gate 293	04/15/91	04/22/91	2.0×10^{-14}	5.3×10^{-15}	^{212}Pb
Area 11, Gate 293	05/06/91	05/14/91	1.2×10^{-13}	7.2×10^{-14}	^{214}Bi
Area 11, Gate 293	05/14/91	05/20/91	1.3×10^{-14}	3.8×10^{-15}	^{212}Pb
Area 11, Gate 293	05/20/91	05/28/91	1.0×10^{-13}	5.5×10^{-14}	^{214}Bi
Area 11, Gate 293	05/28/91	06/03/91	1.1×10^{-13}	5.6×10^{-14}	^{214}Bi
Area 11, Gate 293	06/10/91	06/17/91	1.1×10^{-13}	5.1×10^{-14}	^{214}Bi
Area 11, Gate 293	06/17/91	06/24/91	1.3×10^{-14}	4.0×10^{-15}	^{212}Pb
Area 11, Gate 293	06/17/91	06/24/91	1.4×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 11, Gate 293	07/15/91	07/22/91	1.4×10^{-13}	6.8×10^{-14}	^{214}Pb
Area 11, Gate 293	07/22/91	07/29/91	5.5×10^{-13}	2.0×10^{-13}	^{40}K
Area 11, Gate 293	07/29/91	08/05/91	2.4×10^{-13}	1.2×10^{-13}	^{214}Pb
Area 11, Gate 293	07/29/91	08/05/91	1.1×10^{-12}	2.3×10^{-13}	^{40}K
Area 11, Gate 293	08/26/91	09/03/91	1.1×10^{-13}	5.2×10^{-14}	^{214}Bi
Area 11, Gate 293	09/23/91	09/30/91	1.3×10^{-13}	5.0×10^{-14}	^{214}Pb
Area 11, Gate 293	09/30/91	10/07/91	3.2×10^{-13}	7.3×10^{-14}	^{214}Pb
Area 11, Gate 293	10/07/91	10/14/91	1.0×10^{-13}	4.0×10^{-14}	^{214}Pb
Area 11, Gate 293	10/14/91	10/21/91	1.9×10^{-13}	8.3×10^{-14}	^{214}Bi
Area 11, Gate 293	10/21/91	10/28/91	1.5×10^{-13}	6.1×10^{-14}	^{214}Pb
Area 11, Gate 293	10/21/91	10/28/91	1.4×10^{-13}	7.7×10^{-14}	^{214}Bi
Area 11, Gate 293	10/28/91	11/04/91	2.4×10^{-13}	1.0×10^{-13}	^{214}Pb
Area 11, Gate 293	11/04/91	11/12/91	8.3×10^{-14}	3.5×10^{-14}	^{214}Bi
Area 11, Gate 293	11/04/91	11/12/91	1.2×10^{-14}	4.3×10^{-15}	^{212}Pb
Area 11, Gate 293	11/04/91	11/12/91	9.4×10^{-14}	3.4×10^{-14}	^{214}Pb
Area 11, Gate 293	11/12/91	11/18/91	1.9×10^{-13}	8.9×10^{-14}	^{214}Pb
Area 11, Gate 293	11/12/91	11/18/91	2.6×10^{-13}	9.3×10^{-14}	^{214}Bi
Area 11, Gate 293	11/12/91	11/18/91	3.2×10^{-13}	1.4×10^{-13}	^{40}K
Area 11, Gate 293	11/18/91	11/25/91	2.6×10^{-13}	8.3×10^{-14}	^{214}Bi
Area 11, Gate 293	11/25/91	12/02/91	2.5×10^{-13}	1.0×10^{-13}	^{214}Pb
Area 11, Gate 293	12/02/91	12/09/91	1.5×10^{-13}	6.3×10^{-14}	^{214}Bi
Area 11, Gate 293	12/02/91	12/09/91	1.4×10^{-13}	7.1×10^{-14}	^{214}Pb
Area 11, Gate 293	12/09/91	12/16/91	1.5×10^{-13}	4.6×10^{-14}	^{214}Bi
Area 11, Gate 293	12/09/91	12/16/91	1.5×10^{-13}	6.0×10^{-14}	^{214}Pb
Area 12, Complex	01/14/91	01/22/91	6.2×10^{-14}	3.0×10^{-14}	^{214}Pb
Area 12, Complex	01/14/91	01/22/91	1.1×10^{-13}	4.1×10^{-14}	^{214}Bi
Area 12, Complex	01/22/91	01/28/91	1.1×10^{-13}	5.1×10^{-14}	^{214}Bi
Area 12, Complex	01/22/91	01/28/91	9.6×10^{-14}	4.2×10^{-14}	^{214}Pb
Area 12, Complex	05/13/91	05/20/91	1.1×10^{-13}	6.2×10^{-14}	^{214}Pb
Area 12, Complex	06/03/91	06/10/91	2.3×10^{-13}	1.0×10^{-13}	^{40}K

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		μCi/mL		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 12, Complex	07/15/91	07/22/91	1.2×10^{-13}	6.9×10^{-14}	²¹⁴ Pb
Area 12, Complex	09/03/91	09/09/91	1.6×10^{-13}	8.3×10^{-14}	²¹⁴ Bi
Area 12, Complex	09/03/91	09/09/91	9.5×10^{-15}	4.2×10^{-15}	²⁰⁸ Tl
Area 12, Complex	09/09/91	09/16/91	1.2×10^{-13}	5.2×10^{-14}	²¹⁴ Pb
Area 12, Complex	09/09/91	09/16/91	1.4×10^{-13}	6.2×10^{-14}	²¹⁴ Bi
Area 12, Complex	09/16/91	09/23/91	2.1×10^{-13}	8.5×10^{-14}	²¹⁴ Bi
Area 12, Complex	09/16/91	09/23/91	1.6×10^{-13}	5.4×10^{-14}	²¹⁴ Pb
Area 12, Complex	10/07/91	10/14/91	1.3×10^{-13}	8.8×10^{-14}	²¹⁴ Bi
Area 12, Complex	10/14/91	10/21/91	1.1×10^{-13}	6.6×10^{-14}	²¹⁴ Bi
Area 12, Complex	10/21/91	10/28/91	2.3×10^{-13}	9.1×10^{-14}	²¹⁴ Pb
Area 12, Complex	10/28/91	11/04/91	2.9×10^{-13}	1.3×10^{-13}	⁴⁰ K
Area 12, Complex	11/04/91	11/12/91	1.4×10^{-13}	3.9×10^{-14}	²¹⁴ Pb
Area 12, Complex	11/12/91	11/18/91	3.3×10^{-13}	1.4×10^{-13}	²¹⁴ Bi
Area 12, Complex	11/12/91	11/18/91	3.8×10^{-13}	2.0×10^{-13}	⁴⁰ K
Area 12, Complex	11/25/91	12/02/91	1.1×10^{-13}	5.9×10^{-14}	²¹⁴ Bi
Area 12, Complex	11/25/91	12/02/91	9.9×10^{-16}	7.1×10^{-15}	⁹⁵ Zr
Area 12, Complex	12/02/91	12/09/91	7.5×10^{-13}	2.4×10^{-13}	²¹⁴ Pb
Area 12, P Tunnel Portal	09/03/91	09/09/91	6.8×10^{-13}	1.7×10^{-13}	²¹⁴ Pb
Area 12, P Tunnel Portal	09/03/91	09/09/91	7.4×10^{-13}	2.1×10^{-13}	²¹⁴ Bi
Area 12, P Tunnel Portal	09/16/91	09/17/91	6.3×10^{-13}	2.5×10^{-13}	²¹⁴ Bi
Area 12, P Tunnel Portal	09/16/91	09/17/91	1.0×10^{-12}	2.5×10^{-13}	²¹⁴ Pb
Area 12, P Tunnel Portal	09/17/91	09/20/91	1.3×10^{-12}	2.5×10^{-13}	²¹⁴ Pb
Area 12, P Tunnel Portal	09/17/91	09/20/91	1.6×10^{-12}	3.2×10^{-13}	²¹⁴ Bi
Area 12, P Tunnel Portal	09/20/91	09/23/91	2.6×10^{-13}	1.2×10^{-13}	²¹⁴ Bi
Area 12, P Tunnel Portal	09/23/91	09/24/91	3.7×10^{-13}	1.4×10^{-13}	²¹⁴ Bi
Area 12, P Tunnel Portal	10/07/91	10/08/91	3.3×10^{-12}	1.0×10^{-12}	²¹⁴ Pb
Area 12, P Tunnel Portal	10/07/91	10/08/91	2.9×10^{-12}	1.3×10^{-12}	²¹⁴ Bi
Area 12, P Tunnel Portal	10/08/91	10/14/91	1.5×10^{-13}	6.3×10^{-14}	²¹⁴ Pb
Area 12, P Tunnel Portal	10/14/91	10/21/91	3.3×10^{-13}	1.3×10^{-13}	²¹⁴ Pb
Area 12, P Tunnel Portal	10/21/91	10/28/91	5.0×10^{-13}	1.4×10^{-13}	²¹⁴ Bi
Area 12, P Tunnel Portal	10/21/91	10/28/91	3.0×10^{-13}	1.1×10^{-13}	²¹⁴ Pb
Area 12, P Tunnel Portal	10/28/91	11/04/91	5.2×10^{-13}	1.7×10^{-13}	²¹⁴ Pb
Area 12, P Tunnel Portal	10/28/91	11/04/91	3.7×10^{-13}	2.0×10^{-13}	²¹⁴ Bi
Area 12, P Tunnel Portal	11/04/91	11/12/91	1.2×10^{-13}	5.6×10^{-14}	²¹⁴ Pb
Area 12, P Tunnel Portal	11/04/91	11/12/91	1.6×10^{-13}	7.7×10^{-14}	²¹⁴ Bi
Area 12, P Tunnel Portal	11/18/91	11/25/91	2.3×10^{-13}	1.1×10^{-13}	²¹⁴ Pb
Area 12, P Tunnel Portal	11/18/91	11/25/91	3.2×10^{-13}	1.3×10^{-13}	²¹⁴ Bi
Area 12, P Tunnel Portal	12/03/91	12/09/91	3.0×10^{-13}	1.8×10^{-13}	²¹⁴ Bi
Area 12, P Tunnel Portal	12/09/91	12/16/91	2.7×10^{-13}	8.9×10^{-14}	²¹⁴ Bi
Area 12, P Tunnel Portal	12/09/91	12/16/91	2.0×10^{-13}	9.0×10^{-14}	²¹⁴ Pb
Area 12, P Tunnel Portal	12/17/91	12/20/91	2.1×10^{-12}	1.1×10^{-12}	²¹⁴ Bi
Area 12, P Tunnel Portal	12/17/91	12/20/91	1.9×10^{-12}	7.9×10^{-13}	²¹⁴ Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 15, EPA Farm	01/14/91	01/22/91	9.8×10^{-14}	4.7×10^{-14}	^{214}Bi
Area 15, EPA Farm	01/14/91	01/22/91	8.3×10^{-14}	3.4×10^{-14}	^{214}Pb
Area 15, EPA Farm	01/22/91	01/28/91	8.9×10^{-14}	3.4×10^{-14}	^{214}Pb
Area 15, EPA Farm	02/11/91	02/19/91	8.3×10^{-14}	3.0×10^{-14}	^{214}Pb
Area 15, EPA Farm	02/11/91	02/19/91	1.3×10^{-14}	3.3×10^{-15}	^{212}Pb
Area 15, EPA Farm	02/19/91	02/25/91	1.3×10^{-13}	5.3×10^{-14}	^{214}Bi
Area 15, EPA Farm	02/25/91	03/04/91	7.3×10^{-15}	4.0×10^{-15}	^{212}Pb
Area 15, EPA Farm	03/11/91	03/18/91	8.4×10^{-14}	4.8×10^{-14}	^{214}Pb
Area 15, EPA Farm	03/11/91	03/18/91	9.9×10^{-15}	4.1×10^{-15}	^{212}Pb
Area 15, EPA Farm	03/11/91	03/18/91	1.2×10^{-13}	6.1×10^{-14}	^{214}Bi
Area 15, EPA Farm	03/25/91	04/01/91	1.5×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 15, EPA Farm	03/25/91	04/01/91	1.1×10^{-13}	5.7×10^{-14}	^{214}Bi
Area 15, EPA Farm	04/01/91	04/08/91	1.7×10^{-14}	4.9×10^{-15}	^{212}Pb
Area 15, EPA Farm	04/08/91	04/15/91	1.2×10^{-13}	5.2×10^{-14}	^{214}Bi
Area 15, EPA Farm	04/08/91	04/15/91	9.8×10^{-14}	3.9×10^{-14}	^{214}Pb
Area 15, EPA Farm	05/06/91	05/14/91	7.3×10^{-15}	3.2×10^{-15}	^{212}Pb
Area 15, EPA Farm	06/03/91	06/10/91	1.1×10^{-14}	3.3×10^{-15}	^{212}Pb
Area 15, EPA Farm	06/17/91	06/24/91	1.5×10^{-14}	4.6×10^{-15}	^{212}Pb
Area 15, EPA Farm	06/24/91	07/01/91	2.4×10^{-13}	8.5×10^{-14}	^{40}K
Area 15, EPA Farm	07/29/91	08/05/91	1.3×10^{-12}	2.8×10^{-13}	^{40}K
Area 15, EPA Farm	08/05/91	08/12/91	5.5×10^{-13}	1.3×10^{-13}	^{40}K
Area 15, EPA Farm	08/26/91	09/03/91	1.6×10^{-13}	5.9×10^{-14}	^{214}Pb
Area 15, EPA Farm	09/09/91	09/16/91	1.6×10^{-13}	5.8×10^{-14}	^{214}Pb
Area 15, EPA Farm	09/16/91	09/23/91	1.6×10^{-13}	4.7×10^{-14}	^{214}Pb
Area 15, EPA Farm	09/16/91	09/23/91	2.1×10^{-13}	6.7×10^{-14}	^{214}Bi
Area 15, EPA Farm	09/23/91	09/30/91	1.2×10^{-14}	4.1×10^{-15}	^{212}Pb
Area 15, EPA Farm	10/14/91	10/21/91	1.8×10^{-13}	6.0×10^{-14}	^{214}Pb
Area 15, EPA Farm	11/04/91	11/12/91	8.0×10^{-14}	3.5×10^{-14}	^{214}Pb
Area 15, EPA Farm	11/12/91	11/18/91	4.3×10^{-13}	1.5×10^{-13}	^{40}K
Area 15, EPA Farm	11/12/91	11/18/91	1.3×10^{-14}	5.6×10^{-15}	^{212}Pb
Area 15, EPA Farm	11/18/91	11/25/91	1.2×10^{-14}	3.7×10^{-15}	^{212}Pb
Area 15, EPA Farm	11/25/91	12/02/91	1.6×10^{-13}	5.7×10^{-14}	^{214}Pb
Area 15, EPA Farm	12/02/91	12/09/91	3.0×10^{-13}	8.8×10^{-14}	^{214}Pb
Area 15, PILEDRIVER	12/31/90	01/07/91	2.2×10^{-14}	7.4×10^{-15}	^{212}Pb
Area 15, PILEDRIVER	01/07/91	01/14/91	2.2×10^{-14}	6.7×10^{-15}	^{212}Pb
Area 15, PILEDRIVER	01/14/91	01/22/91	1.3×10^{-13}	4.2×10^{-14}	^{214}Pb
Area 15, PILEDRIVER	02/11/91	02/19/91	1.4×10^{-12}	5.1×10^{-13}	^{214}Pb
Area 15, PILEDRIVER	02/19/91	02/25/91	6.6×10^{-14}	2.9×10^{-14}	^{214}Pb
Area 16, 3545 Substation	01/14/91	01/22/91	1.1×10^{-13}	3.9×10^{-14}	^{214}Pb
Area 16, 3545 Substation	02/19/91	02/25/91	2.4×10^{-13}	9.8×10^{-14}	^{214}Bi
Area 16, 3545 Substation	02/19/91	02/25/91	1.8×10^{-13}	7.2×10^{-14}	^{214}Pb
Area 16, 3545 Substation	03/04/91	03/11/91	1.3×10^{-14}	4.1×10^{-15}	^{212}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 16, 3545 Substation	03/11/91	03/18/91	9.7×10^{-14}	3.7×10^{-14}	^{214}Pb
Area 16, 3545 Substation	03/25/91	04/01/91	7.3×10^{-15}	3.5×10^{-15}	^{212}Pb
Area 16, 3545 Substation	05/09/91	05/13/91	7.7×10^{-14}	3.7×10^{-14}	^{214}Pb
Area 16, 3545 Substation	05/20/91	05/28/91	8.8×10^{-15}	2.8×10^{-15}	^{212}Pb
Area 16, 3545 Substation	05/28/91	06/03/91	2.0×10^{-13}	7.1×10^{-14}	^{214}Pb
Area 16, 3545 Substation	06/24/91	07/01/91	1.2×10^{-14}	4.3×10^{-15}	^{212}Pb
Area 16, 3545 Substation	07/08/91	07/15/91	8.1×10^{-14}	3.9×10^{-14}	^{214}Pb
Area 16, 3545 Substation	07/15/91	07/22/91	1.7×10^{-13}	7.4×10^{-14}	^{214}Pb
Area 16, 3545 Substation	07/15/91	07/22/91	1.7×10^{-13}	7.9×10^{-14}	^{40}K
Area 16, 3545 Substation	08/26/91	09/03/91	7.9×10^{-15}	3.3×10^{-15}	^{212}Pb
Area 16, 3545 Substation	08/26/91	09/03/91	1.6×10^{-13}	7.4×10^{-14}	^{214}Bi
Area 16, 3545 Substation	08/26/91	09/03/91	1.1×10^{-13}	4.8×10^{-14}	^{214}Pb
Area 16, 3545 Substation	09/03/91	09/09/91	1.2×10^{-13}	5.1×10^{-14}	^{214}Pb
Area 16, 3545 Substation	09/16/91	09/23/91	1.7×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 16, 3545 Substation	09/16/91	09/23/91	1.8×10^{-13}	8.2×10^{-14}	^{214}Bi
Area 16, 3545 Substation	09/23/91	09/30/91	1.9×10^{-13}	9.2×10^{-14}	^{214}Bi
Area 16, 3545 Substation	09/23/91	09/30/91	2.0×10^{-13}	7.9×10^{-14}	^{214}Pb
Area 16, 3545 Substation	09/23/91	09/30/91	1.0×10^{-14}	3.8×10^{-15}	^{212}Pb
Area 16, 3545 Substation	09/23/91	09/30/91	3.1×10^{-13}	1.6×10^{-13}	^{40}K
Area 16, 3545 Substation	10/07/91	10/14/91	1.2×10^{-14}	4.9×10^{-15}	^{212}Pb
Area 16, 3545 Substation	10/21/91	10/28/91	1.8×10^{-13}	7.5×10^{-14}	^{214}Pb
Area 16, 3545 Substation	11/04/91	11/12/91	9.1×10^{-14}	4.2×10^{-14}	^{214}Bi
Area 16, 3545 Substation	11/12/91	11/18/91	1.5×10^{-13}	9.9×10^{-14}	^{214}Bi
Area 16, 3545 Substation	11/18/91	12/02/91	6.3×10^{-15}	2.5×10^{-15}	^{212}Pb
Area 19, Echo Peak	01/14/91	01/22/91	9.6×10^{-14}	3.7×10^{-14}	^{214}Pb
Area 19, Echo Peak	01/22/91	01/28/91	1.0×10^{-13}	5.4×10^{-14}	^{214}Bi
Area 19, Echo Peak	02/19/91	02/25/91	1.4×10^{-13}	4.2×10^{-14}	^{214}Bi
Area 19, Echo Peak	02/25/91	03/04/91	1.0×10^{-14}	3.0×10^{-15}	^{212}Pb
Area 19, Echo Peak	05/09/91	05/13/91	5.0×10^{-14}	2.9×10^{-14}	^7Be
Area 19, Echo Peak	05/13/91	05/20/91	1.6×10^{-14}	5.9×10^{-15}	^{212}Pb
Area 19, Echo Peak	05/28/91	06/03/91	1.5×10^{-14}	6.6×10^{-15}	^{212}Pb
Area 19, Echo Peak	06/03/91	06/10/91	8.5×10^{-14}	4.8×10^{-14}	^{214}Bi
Area 19, Echo Peak	06/10/91	06/17/91	1.1×10^{-14}	4.0×10^{-15}	^{212}Pb
Area 19, Echo Peak	06/17/91	06/24/91	1.1×10^{-14}	3.5×10^{-15}	^{212}Pb
Area 19, Echo Peak	06/24/91	07/01/91	1.0×10^{-14}	3.8×10^{-15}	^{212}Pb
Area 19, Echo Peak	07/22/91	07/29/91	8.4×10^{-15}	4.3×10^{-15}	^{212}Pb
Area 19, Echo Peak	09/03/91	09/09/91	4.7×10^{-15}	1.8×10^{-15}	^{212}Pb
Area 19, Echo Peak	09/09/91	09/16/91	2.1×10^{-13}	8.8×10^{-14}	^{40}K
Area 19, Echo Peak	09/16/91	09/23/91	1.5×10^{-13}	6.4×10^{-14}	^{214}Pb
Area 19, Echo Peak	09/23/91	09/30/91	9.7×10^{-15}	4.5×10^{-15}	^{212}Pb
Area 19, Echo Peak	09/23/91	09/30/91	1.3×10^{-13}	6.4×10^{-14}	^{214}Bi
Area 19, Echo Peak	10/07/91	10/14/91	1.4×10^{-13}	6.2×10^{-14}	^{214}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 19, Echo Peak	11/18/91	11/25/91	1.7×10^{-13}	7.9×10^{-14}	^{214}Pb
Area 19, Echo Peak	11/25/91	12/02/91	1.5×10^{-13}	5.6×10^{-14}	^{214}Pb
Area 19, Echo Peak	12/02/91	12/09/91	6.7×10^{-13}	2.7×10^{-13}	^{214}Pb
Area 19, Pahute Substation	01/07/91	01/14/91	2.5×10^{-13}	8.6×10^{-14}	^{214}Pb
Area 19, Pahute Substation	01/14/91	01/22/91	1.0×10^{-13}	4.1×10^{-14}	^{214}Pb
Area 19, Pahute Substation	01/22/91	01/28/91	1.2×10^{-13}	4.1×10^{-14}	^{214}Pb
Area 19, Pahute Substation	02/19/91	02/25/91	7.6×10^{-14}	3.5×10^{-14}	^{214}Bi
Area 19, Pahute Substation	02/25/91	03/04/91	8.0×10^{-15}	3.8×10^{-15}	^{212}Pb
Area 19, Pahute Substation	03/04/91	03/11/91	4.1×10^{-15}	1.5×10^{-15}	^{57}Co
Area 19, Pahute Substation	04/01/91	04/08/91	1.1×10^{-13}	4.1×10^{-14}	^{214}Pb
Area 19, Pahute Substation	04/22/91	04/29/91	1.3×10^{-14}	5.7×10^{-15}	^{212}Pb
Area 19, Pahute Substation	06/24/91	07/01/91	2.3×10^{-13}	8.6×10^{-14}	^{40}K
Area 19, Pahute Substation	08/05/91	08/12/91	8.8×10^{-15}	3.7×10^{-15}	^{212}Pb
Area 19, Pahute Substation	08/19/91	08/26/91	1.6×10^{-13}	7.1×10^{-14}	^{214}Bi
Area 19, Pahute Substation	08/26/91	09/03/91	1.2×10^{-13}	5.9×10^{-14}	^{214}Bi
Area 19, Pahute Substation	09/09/91	09/16/91	1.2×10^{-13}	5.7×10^{-14}	^{214}Pb
Area 19, Pahute Substation	09/16/91	09/23/91	4.8×10^{-15}	2.7×10^{-15}	^{208}Tl
Area 19, Pahute Substation	09/16/91	09/23/91	1.3×10^{-13}	5.6×10^{-14}	^{214}Pb
Area 19, Pahute Substation	10/14/91	10/21/91	1.2×10^{-13}	5.7×10^{-14}	^{214}Pb
Area 19, Pahute Substation	11/04/91	11/12/91	1.1×10^{-13}	4.4×10^{-14}	^{214}Pb
Area 19, Pahute Substation	11/25/91	12/02/91	1.4×10^{-13}	6.4×10^{-14}	^{214}Bi
Area 19, Pahute Substation	11/25/91	12/02/91	1.3×10^{-13}	4.7×10^{-14}	^{214}Pb
Area 23, Building 790	01/14/91	01/22/91	8.3×10^{-14}	2.7×10^{-14}	^{214}Pb
Area 23, Building 790	01/22/91	01/28/91	1.7×10^{-13}	4.7×10^{-14}	^{214}Pb
Area 23, Building 790	01/22/91	01/28/91	2.4×10^{-13}	1.2×10^{-13}	^{40}K
Area 23, Building 790	03/25/91	04/01/91	7.0×10^{-14}	4.4×10^{-14}	^{214}Bi
Area 23, Building 790	04/08/91	04/15/91	1.1×10^{-13}	4.7×10^{-14}	^{214}Bi
Area 23, Building 790	04/22/91	04/29/91	1.6×10^{-13}	4.2×10^{-14}	^{214}Pb
Area 23, Building 790	05/06/91	05/13/91	2.1×10^{-13}	7.6×10^{-14}	^{214}Bi
Area 23, Building 790	05/20/91	05/28/91	1.5×10^{-13}	5.0×10^{-14}	^{214}Pb
Area 23, Building 790	06/10/91	06/17/91	7.5×10^{-15}	3.4×10^{-15}	^{212}Pb
Area 23, Building 790	06/17/91	06/25/91	9.3×10^{-15}	3.6×10^{-15}	^{212}Pb
Area 23, Building 790	06/25/91	07/01/91	2.1×10^{-13}	9.4×10^{-14}	^{40}K
Area 23, Building 790	06/25/91	07/01/91	5.8×10^{-14}	3.5×10^{-14}	^{214}Pb
Area 23, Building 790	07/08/91	07/15/91	8.1×10^{-14}	4.2×10^{-14}	^{214}Bi
Area 23, Building 790	07/29/91	08/05/91	1.4×10^{-12}	2.5×10^{-13}	^{40}K
Area 23, Building 790	08/05/91	08/12/91	4.3×10^{-13}	9.2×10^{-14}	^{40}K
Area 23, Building 790	08/19/91	08/26/91	3.2×10^{-13}	1.0×10^{-13}	^{40}K
Area 23, Building 790	09/03/91	09/09/91	4.9×10^{-15}	3.6×10^{-15}	^{208}Tl
Area 23, Building 790	09/09/91	09/16/91	1.3×10^{-13}	4.8×10^{-14}	^{214}Pb
Area 23, Building 790	09/23/91	09/30/91	1.4×10^{-13}	5.1×10^{-14}	^{214}Pb
Area 23, Building 790	09/23/91	09/30/91	1.6×10^{-13}	8.2×10^{-14}	^{40}K

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 23, Building 790	09/30/91	10/07/91	1.8×10^{-14}	5.3×10^{-15}	^{212}Pb
Area 23, Building 790	10/07/91	10/14/91	1.1×10^{-13}	4.9×10^{-14}	^{214}Pb
Area 23, Building 790	10/07/91	10/14/91	1.0×10^{-14}	4.0×10^{-15}	^{212}Pb
Area 23, Building 790	10/14/91	10/21/91	2.1×10^{-13}	7.4×10^{-14}	^{214}Pb
Area 23, Building 790	10/21/91	10/28/91	1.9×10^{-13}	6.4×10^{-14}	^{214}Pb
Area 23, Building 790	11/04/91	11/12/91	7.0×10^{-15}	4.1×10^{-15}	^{212}Pb
Area 23, Building 790	11/18/91	11/25/91	1.2×10^{-13}	6.6×10^{-14}	^{214}Bi
Area 23, Building 790	11/25/91	12/03/91	9.7×10^{-14}	4.6×10^{-14}	^{214}Bi
Area 23, Building 790	12/09/91	12/16/91	1.5×10^{-13}	4.6×10^{-14}	^{214}Pb
Area 23, Building 790 No. 2	01/14/91	01/22/91	1.2×10^{-13}	4.4×10^{-14}	^{214}Bi
Area 23, Building 790 No. 2	01/14/91	01/22/91	8.4×10^{-14}	2.9×10^{-14}	^{214}Pb
Area 23, Building 790 No. 2	01/22/91	01/28/91	1.7×10^{-13}	5.7×10^{-14}	^{214}Bi
Area 23, Building 790 No. 2	01/22/91	01/28/91	1.0×10^{-13}	3.9×10^{-14}	^{214}Pb
Area 23, Building 790 No. 2	01/22/91	01/28/91	2.5×10^{-13}	1.3×10^{-13}	^{40}K
Area 23, Building 790 No. 2	02/19/91	02/25/91	9.4×10^{-14}	4.3×10^{-14}	^{214}Bi
Area 23, Building 790 No. 2	03/04/91	03/11/91	1.7×10^{-13}	7.1×10^{-14}	^{214}Pb
Area 23, Building 790 No. 2	03/18/91	03/25/91	7.5×10^{-14}	3.4×10^{-14}	^{214}Pb
Area 23, Building 790 No. 2	04/01/91	04/08/91	1.1×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 23, Building 790 No. 2	04/22/91	04/29/91	9.7×10^{-14}	4.9×10^{-14}	^{214}Bi
Area 23, Building 790 No. 2	04/29/91	05/06/91	1.1×10^{-13}	4.0×10^{-14}	^{214}Pb
Area 23, Building 790 No. 2	05/06/91	05/13/91	1.6×10^{-13}	7.6×10^{-14}	^{214}Bi
Area 23, Building 790 No. 2	05/20/91	05/28/91	1.3×10^{-13}	8.1×10^{-14}	^{214}Pb
Area 23, Building 790 No. 2	06/03/91	06/10/91	7.9×10^{-14}	3.5×10^{-14}	^{214}Pb
Area 23, Building 790 No. 2	07/22/91	07/29/91	1.7×10^{-13}	7.8×10^{-14}	^{40}K
Area 23, Building 790 No. 2	07/29/91	08/05/91	1.1×10^{-12}	2.6×10^{-13}	^{40}K
Area 23, Building 790 No. 2	08/05/91	08/12/91	6.0×10^{-13}	1.1×10^{-13}	^{40}K
Area 23, Building 790 No. 2	08/12/91	08/19/91	1.8×10^{-13}	6.1×10^{-14}	^{214}Pb
Area 23, Building 790 No. 2	08/12/91	08/19/91	1.6×10^{-13}	7.8×10^{-14}	^{214}Bi
Area 23, Building 790 No. 2	08/19/91	08/26/91	2.1×10^{-14}	5.7×10^{-15}	^{212}Pb
Area 23, Building 790 No. 2	08/19/91	08/26/91	5.6×10^{-13}	1.4×10^{-13}	^{40}K
Area 23, Building 790 No. 2	08/26/91	09/03/91	9.7×10^{-14}	4.4×10^{-14}	^{214}Bi
Area 23, Building 790 No. 2	08/26/91	09/03/91	5.3×10^{-15}	2.5×10^{-15}	^{212}Pb
Area 23, Building 790 No. 2	09/09/91	09/16/91	1.9×10^{-13}	6.9×10^{-14}	^{214}Pb
Area 23, Building 790 No. 2	09/09/91	09/16/91	7.0×10^{-15}	4.6×10^{-15}	^{208}Tl
Area 23, Building 790 No. 2	09/23/91	09/30/91	1.5×10^{-13}	5.7×10^{-14}	^{214}Pb
Area 23, Building 790 No. 2	09/30/91	10/07/91	1.4×10^{-13}	5.6×10^{-14}	^{214}Bi
Area 23, Building 790 No. 2	10/07/91	10/14/91	1.4×10^{-13}	8.7×10^{-14}	^{214}Bi
Area 23, Building 790 No. 2	10/14/91	10/21/91	2.0×10^{-13}	8.2×10^{-14}	^{214}Pb
Area 23, Building 790 No. 2	10/28/91	11/04/91	3.0×10^{-13}	1.1×10^{-13}	^{214}Pb
Area 23, Building 790 No. 2	11/04/91	11/12/91	1.0×10^{-14}	4.5×10^{-15}	^{212}Pb
Area 23, Building 790 No. 2	11/12/91	11/18/91	1.8×10^{-14}	5.6×10^{-15}	^{212}Pb
Area 23, Building 790 No. 2	11/18/91	11/25/91	1.7×10^{-13}	6.3×10^{-14}	^{214}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 23, Building 790 No. 2	11/18/91	11/25/91	1.3×10^{-13}	7.6×10^{-14}	^{214}Bi
Area 23, Building 790 No. 2	11/25/91	12/03/91	1.1×10^{-13}	4.2×10^{-14}	^{214}Pb
Area 23, Building 790 No. 2	12/03/91	12/09/91	1.5×10^{-13}	6.0×10^{-14}	^{214}Pb
Area 23, Building 790 No. 2	12/09/91	12/16/91	2.4×10^{-14}	8.3×10^{-15}	^{212}Pb
Area 23, Building 790 No. 2	12/16/91	12/23/91	8.6×10^{-15}	3.3×10^{-15}	^{212}Pb
Area 23, Building 790 No. 2	12/23/91	12/30/91	1.0×10^{-14}	4.3×10^{-15}	^{212}Pb
Area 23, East Boundary	01/02/91	01/07/91	1.8×10^{-13}	9.0×10^{-14}	^{214}Bi
Area 23, East Boundary	01/07/91	01/14/91	8.0×10^{-14}	3.7×10^{-14}	^{214}Pb
Area 23, East Boundary	01/14/91	01/22/91	1.5×10^{-14}	3.7×10^{-15}	^{212}Pb
Area 23, East Boundary	01/14/91	01/22/91	1.1×10^{-13}	4.0×10^{-14}	^{214}Bi
Area 23, East Boundary	01/14/91	01/22/91	1.1×10^{-13}	3.3×10^{-14}	^{214}Pb
Area 23, East Boundary	01/22/91	01/28/91	1.8×10^{-13}	5.7×10^{-14}	^{214}Bi
Area 23, East Boundary	01/22/91	01/28/91	1.4×10^{-13}	4.2×10^{-14}	^{214}Pb
Area 23, East Boundary	03/18/91	03/25/91	9.3×10^{-14}	3.7×10^{-14}	^{214}Pb
Area 23, East Boundary	04/15/91	04/22/91	6.9×10^{-14}	4.3×10^{-14}	^{214}Bi
Area 23, East Boundary	04/22/91	04/29/91	8.3×10^{-14}	3.4×10^{-14}	^{214}Pb
Area 23, East Boundary	04/29/91	05/06/91	9.9×10^{-14}	3.6×10^{-14}	^{214}Pb
Area 23, East Boundary	05/13/91	05/20/91	1.2×10^{-14}	5.0×10^{-15}	^{212}Pb
Area 23, East Boundary	05/13/91	05/20/91	1.2×10^{-13}	6.8×10^{-14}	^{214}Bi
Area 23, East Boundary	05/20/91	05/28/91	8.4×10^{-15}	5.0×10^{-15}	^{212}Pb
Area 23, East Boundary	06/03/91	06/10/91	7.3×10^{-14}	3.3×10^{-14}	^{214}Pb
Area 23, East Boundary	06/03/91	06/10/91	7.5×10^{-14}	3.9×10^{-14}	^{214}Bi
Area 23, East Boundary	06/17/91	06/25/91	8.9×10^{-15}	2.9×10^{-15}	^{212}Pb
Area 23, East Boundary	06/25/91	07/01/91	1.9×10^{-13}	8.5×10^{-14}	^{40}K
Area 23, East Boundary	07/15/91	07/22/91	8.1×10^{-14}	4.6×10^{-14}	^{214}Pb
Area 23, East Boundary	07/22/91	07/29/91	1.2×10^{-14}	4.8×10^{-15}	^{212}Pb
Area 23, East Boundary	07/29/91	08/05/91	9.9×10^{-13}	2.2×10^{-13}	^{40}K
Area 23, East Boundary	07/29/91	08/05/91	1.8×10^{-13}	7.4×10^{-14}	^{214}Pb
Area 23, East Boundary	08/05/91	08/12/91	1.3×10^{-13}	5.9×10^{-14}	^{214}Pb
Area 23, East Boundary	08/05/91	08/12/91	4.1×10^{-13}	8.9×10^{-14}	^{40}K
Area 23, East Boundary	08/19/91	08/26/91	3.9×10^{-13}	1.1×10^{-13}	^{40}K
Area 23, East Boundary	08/26/91	09/03/91	6.1×10^{-14}	4.0×10^{-14}	^{214}Bi
Area 23, East Boundary	08/26/91	09/03/91	1.0×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 23, East Boundary	09/03/91	09/09/91	1.1×10^{-13}	6.2×10^{-14}	^{214}Bi
Area 23, East Boundary	09/09/91	09/16/91	1.6×10^{-13}	6.0×10^{-14}	^{214}Bi
Area 23, East Boundary	09/09/91	09/16/91	1.3×10^{-13}	5.6×10^{-14}	^{214}Pb
Area 23, East Boundary	09/23/91	09/30/91	7.5×10^{-14}	3.9×10^{-14}	^{214}Bi
Area 23, East Boundary	09/23/91	09/30/91	9.1×10^{-14}	5.9×10^{-14}	^{214}Pb
Area 23, East Boundary	09/30/91	10/07/91	1.4×10^{-13}	5.6×10^{-14}	^{214}Bi
Area 23, East Boundary	10/07/91	10/14/91	1.4×10^{-13}	6.7×10^{-14}	^{214}Bi
Area 23, East Boundary	10/14/91	10/21/91	2.5×10^{-13}	7.3×10^{-14}	^{214}Pb
Area 23, East Boundary	11/04/91	11/12/91	7.2×10^{-14}	3.2×10^{-14}	^{214}Pb

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concentration	Standard Deviation (s)	
Area 23, East Boundary	11/18/91	11/25/91	1.3×10^{-13}	7.4×10^{-14}	^{214}Pb
Area 23, East Boundary	11/18/91	11/25/91	8.5×10^{-15}	4.7×10^{-15}	^{212}Pb
Area 23, East Boundary	11/25/91	12/03/91	1.1×10^{-13}	4.6×10^{-14}	^{214}Pb
Area 23, East Boundary	12/03/91	12/09/91	8.8×10^{-14}	4.7×10^{-14}	^{214}Pb
Area 23, East Boundary	12/09/91	12/16/91	1.4×10^{-13}	4.8×10^{-14}	^{214}Pb
Area 23, East Boundary	12/23/91	12/30/91	9.1×10^{-15}	5.0×10^{-15}	^{212}Pb
Area 23, East Boundary	12/23/91	12/30/91	3.8×10^{-14}	2.5×10^{-14}	^7Be
Area 23, H&S Building Roof	01/14/91	01/22/91	9.3×10^{-14}	2.8×10^{-14}	^{214}Pb
Area 23, H&S Building Roof	01/14/91	01/22/91	1.1×10^{-13}	3.5×10^{-14}	^{214}Bi
Area 23, H&S Building Roof	01/22/91	01/28/91	1.4×10^{-13}	3.9×10^{-14}	^{214}Pb
Area 23, H&S Building Roof	01/22/91	01/28/91	1.3×10^{-13}	4.8×10^{-14}	^{214}Bi
Area 23, H&S Building Roof	01/28/91	02/04/91	1.6×10^{-13}	4.2×10^{-14}	^{214}Pb
Area 23, H&S Building Roof	02/19/91	02/25/91	9.7×10^{-14}	4.4×10^{-14}	^{214}Bi
Area 23, H&S Building Roof	02/25/91	03/04/91	5.7×10^{-14}	2.6×10^{-14}	^{214}Pb
Area 23, H&S Building Roof	03/18/91	03/25/91	7.5×10^{-15}	4.5×10^{-15}	^{212}Pb
Area 23, H&S Building Roof	03/25/91	04/01/91	8.4×10^{-14}	3.4×10^{-14}	^{214}Pb
Area 23, H&S Building Roof	04/22/91	04/29/91	7.7×10^{-14}	3.7×10^{-14}	^{214}Pb
Area 23, H&S Building Roof	04/29/91	05/06/91	8.3×10^{-14}	4.4×10^{-14}	^{214}Bi
Area 23, H&S Building Roof	05/06/91	05/13/91	7.4×10^{-15}	3.4×10^{-15}	^{212}Pb
Area 23, H&S Building Roof	05/06/91	05/13/91	1.4×10^{-13}	6.1×10^{-14}	^{214}Bi
Area 23, H&S Building Roof	05/06/91	05/13/91	1.7×10^{-13}	5.6×10^{-14}	^{214}Pb
Area 23, H&S Building Roof	05/28/91	06/03/91	8.0×10^{-14}	4.3×10^{-14}	^{214}Pb
Area 23, H&S Building Roof	06/10/91	06/17/91	6.1×10^{-14}	3.8×10^{-14}	^{214}Pb
Area 23, H&S Building Roof	07/15/91	07/22/91	9.4×10^{-14}	6.1×10^{-14}	^{214}Pb
Area 23, H&S Building Roof	07/15/91	07/22/91	1.3×10^{-13}	7.2×10^{-14}	^{214}Bi
Area 23, H&S Building Roof	07/22/91	07/29/91	9.9×10^{-15}	4.2×10^{-15}	^{212}Pb
Area 23, H&S Building Roof	07/29/91	08/05/91	1.0×10^{-12}	2.2×10^{-13}	^{40}K
Area 23, H&S Building Roof	08/05/91	08/12/91	4.8×10^{-13}	9.4×10^{-14}	^{40}K
Area 23, H&S Building Roof	08/05/91	08/12/91	1.2×10^{-13}	4.7×10^{-14}	^{214}Bi
Area 23, H&S Building Roof	08/12/91	08/19/91	1.8×10^{-13}	6.7×10^{-14}	^{214}Bi
Area 23, H&S Building Roof	08/19/91	08/26/91	2.8×10^{-13}	9.7×10^{-14}	^{40}K
Area 23, H&S Building Roof	08/26/91	09/03/91	1.2×10^{-13}	4.3×10^{-14}	^{214}Pb
Area 23, H&S Building Roof	09/09/91	09/16/91	9.2×10^{-14}	6.2×10^{-14}	^{214}Pb
Area 23, H&S Building Roof	09/16/91	09/23/91	1.1×10^{-13}	6.6×10^{-14}	^{214}Bi
Area 23, H&S Building Roof	09/23/91	09/30/91	6.7×10^{-14}	4.5×10^{-14}	^{214}Bi
Area 23, H&S Building Roof	09/30/91	10/07/91	5.9×10^{-15}	2.8×10^{-15}	^{208}Tl
Area 23, H&S Building Roof	10/07/91	10/14/91	1.5×10^{-13}	7.3×10^{-14}	^{214}Bi
Area 23, H&S Building Roof	10/14/91	10/21/91	1.6×10^{-13}	6.3×10^{-14}	^{214}Pb
Area 23, H&S Building Roof	11/04/91	11/12/91	9.0×10^{-14}	3.0×10^{-14}	^{214}Pb
Area 23, H&S Building Roof	11/18/91	11/25/91	1.8×10^{-13}	5.7×10^{-14}	^{214}Pb
Area 23, H&S Building Roof	11/25/91	12/03/91	9.9×10^{-14}	3.9×10^{-14}	^{214}Pb
Area 23, H&S Building Roof	12/09/91	12/16/91	1.6×10^{-13}	7.5×10^{-14}	^{214}Bi

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 23, H&S Building Roof	12/09/91	12/16/91	1.4×10^{-13}	4.8×10^{-14}	^{214}Pb
Area 25, E-MAD North	01/07/91	01/14/91	5.7×10^{-14}	2.8×10^{-14}	^{214}Pb
Area 25, E-MAD North	01/14/91	01/22/91	8.9×10^{-14}	3.4×10^{-14}	^{214}Bi
Area 25, E-MAD North	01/14/91	01/22/91	1.0×10^{-13}	3.5×10^{-14}	^{214}Pb
Area 25, E-MAD North	01/14/91	01/22/91	9.0×10^{-15}	2.8×10^{-15}	^{212}Pb
Area 25, E-MAD North	01/22/91	01/28/91	1.8×10^{-13}	5.4×10^{-14}	^{214}Pb
Area 25, E-MAD North	01/22/91	01/28/91	1.4×10^{-13}	5.8×10^{-14}	^{214}Bi
Area 25, E-MAD North	02/11/91	02/19/91	6.7×10^{-15}	2.8×10^{-15}	^{212}Pb
Area 25, E-MAD North	03/04/91	03/11/91	2.3×10^{-14}	1.0×10^{-14}	^{212}Pb
Area 25, E-MAD North	03/04/91	03/11/91	2.5×10^{-13}	1.0×10^{-13}	^{214}Pb
Area 25, E-MAD North	03/11/91	03/18/91	1.0×10^{-14}	3.8×10^{-15}	^{212}Pb
Area 25, E-MAD North	03/11/91	03/18/91	8.9×10^{-14}	4.6×10^{-14}	^{214}Pb
Area 25, E-MAD North	04/29/91	05/06/91	5.9×10^{-15}	3.4×10^{-15}	^{212}Pb
Area 25, E-MAD North	06/10/91	06/17/91	7.4×10^{-15}	3.1×10^{-15}	^{212}Pb
Area 25, E-MAD North	06/25/91	07/01/91	1.8×10^{-14}	6.5×10^{-15}	^{212}Pb
Area 25, E-MAD North	07/15/91	07/22/91	2.3×10^{-13}	1.2×10^{-13}	^{40}K
Area 25, E-MAD North	07/22/91	07/29/91	1.2×10^{-14}	5.8×10^{-15}	^{212}Pb
Area 25, E-MAD North	07/29/91	08/05/91	1.2×10^{-12}	2.5×10^{-13}	^{40}K
Area 25, E-MAD North	08/05/91	08/12/91	1.1×10^{-14}	6.2×10^{-15}	^{208}Tl
Area 25, E-MAD North	08/19/91	08/26/91	5.0×10^{-13}	2.4×10^{-13}	^{40}K
Area 25, E-MAD North	08/26/91	09/03/91	9.6×10^{-14}	5.0×10^{-14}	^{214}Bi
Area 25, E-MAD North	09/09/91	09/16/91	5.3×10^{-15}	2.3×10^{-15}	^{212}Pb
Area 25, E-MAD North	09/09/91	09/16/91	8.3×10^{-14}	4.4×10^{-14}	^{214}Pb
Area 25, E-MAD North	09/09/91	09/16/91	1.4×10^{-13}	5.8×10^{-14}	^{214}Bi
Area 25, E-MAD North	09/23/91	09/30/91	1.3×10^{-13}	4.3×10^{-14}	^{214}Pb
Area 25, E-MAD North	09/23/91	09/30/91	2.3×10^{-13}	6.9×10^{-14}	^{214}Bi
Area 25, E-MAD North	09/30/91	10/07/91	1.6×10^{-14}	5.4×10^{-15}	^{212}Pb
Area 25, E-MAD North	09/30/91	10/07/91	1.2×10^{-13}	6.8×10^{-14}	^{214}Bi
Area 25, E-MAD North	10/14/91	10/21/91	1.4×10^{-13}	7.3×10^{-14}	^{214}Pb
Area 25, E-MAD North	10/14/91	10/21/91	2.0×10^{-13}	9.8×10^{-14}	^{214}Bi
Area 25, E-MAD North	10/28/91	11/04/91	2.3×10^{-13}	7.7×10^{-14}	^{214}Pb
Area 25, E-MAD North	10/28/91	11/04/91	2.2×10^{-13}	8.9×10^{-14}	^{214}Bi
Area 25, E-MAD North	11/04/91	11/12/91	6.9×10^{-14}	3.0×10^{-14}	^{214}Pb
Area 25, E-MAD North	11/12/91	11/18/91	9.0×10^{-14}	6.0×10^{-14}	^{214}Bi
Area 25, E-MAD North	11/18/91	11/25/91	1.7×10^{-13}	7.8×10^{-14}	^{214}Bi
Area 25, E-MAD North	11/18/91	11/25/91	1.5×10^{-13}	5.8×10^{-14}	^{214}Pb
Area 25, E-MAD North	12/03/91	12/09/91	4.4×10^{-13}	1.6×10^{-13}	^{40}K
Area 25, E-MAD North	12/09/91	12/16/91	1.1×10^{-13}	4.4×10^{-14}	^{214}Pb
Area 25, NRDS Warehouse	01/07/91	01/14/91	5.6×10^{-14}	2.7×10^{-14}	^{214}Pb
Area 25, NRDS Warehouse	01/14/91	01/22/91	6.4×10^{-14}	2.7×10^{-14}	^{214}Pb
Area 25, NRDS Warehouse	01/14/91	01/22/91	9.7×10^{-14}	4.8×10^{-14}	^{214}Bi
Area 25, NRDS Warehouse	01/22/91	01/28/91	1.3×10^{-13}	5.2×10^{-14}	^{214}Bi

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

Sampling Location	Sampling Dates		$\mu\text{Ci/mL}$		Radio-nuclide
	Start	End	Concen-tration	Standard Deviation (s)	
Area 25, NRDS Warehouse	01/22/91	01/28/91	1.1×10^{-13}	3.5×10^{-14}	^{214}Pb
Area 25, NRDS Warehouse	02/04/91	02/11/91	1.6×10^{-14}	7.0×10^{-15}	^{212}Pb
Area 25, NRDS Warehouse	02/19/91	02/25/91	8.4×10^{-15}	3.3×10^{-15}	^{212}Pb
Area 25, NRDS Warehouse	05/06/91	05/13/91	8.6×10^{-15}	3.4×10^{-15}	^{212}Pb
Area 25, NRDS Warehouse	05/20/91	05/28/91	8.4×10^{-14}	4.0×10^{-14}	^{214}Pb
Area 25, NRDS Warehouse	06/17/91	06/25/91	1.1×10^{-13}	3.9×10^{-14}	^{214}Pb
Area 25, NRDS Warehouse	06/17/91	06/25/91	1.1×10^{-14}	4.0×10^{-15}	^{212}Pb
Area 25, NRDS Warehouse	07/01/91	07/08/91	1.1×10^{-14}	3.9×10^{-15}	^{212}Pb
Area 25, NRDS Warehouse	07/22/91	07/29/91	1.5×10^{-14}	4.6×10^{-15}	^{212}Pb
Area 25, NRDS Warehouse	07/29/91	08/05/91	1.5×10^{-12}	2.8×10^{-13}	^{40}K
Area 25, NRDS Warehouse	07/29/91	08/05/91	2.5×10^{-13}	8.8×10^{-14}	^{214}Pb
Area 25, NRDS Warehouse	08/05/91	08/12/91	5.1×10^{-13}	9.8×10^{-14}	^{40}K
Area 25, NRDS Warehouse	08/12/91	08/19/91	1.4×10^{-13}	5.4×10^{-14}	^{214}Bi
Area 25, NRDS Warehouse	08/19/91	08/26/91	3.3×10^{-13}	1.2×10^{-13}	^{40}K
Area 25, NRDS Warehouse	09/16/91	09/23/91	1.1×10^{-13}	7.7×10^{-14}	^{214}Bi
Area 25, NRDS Warehouse	09/16/91	09/23/91	1.5×10^{-14}	5.0×10^{-15}	^{212}Pb
Area 25, NRDS Warehouse	09/23/91	09/30/91	1.5×10^{-13}	5.8×10^{-14}	^{214}Pb
Area 25, NRDS Warehouse	09/30/91	10/07/91	9.9×10^{-14}	5.1×10^{-14}	^{214}Bi
Area 25, NRDS Warehouse	10/14/91	10/21/91	1.5×10^{-13}	7.5×10^{-14}	^{214}Bi
Area 25, NRDS Warehouse	10/28/91	11/04/91	1.3×10^{-13}	7.9×10^{-14}	^{214}Pb
Area 25, NRDS Warehouse	11/12/91	11/18/91	1.2×10^{-13}	5.3×10^{-14}	^{214}Pb
Area 25, NRDS Warehouse	11/18/91	11/25/91	1.5×10^{-13}	5.1×10^{-14}	^{214}Pb
Area 25, NRDS Warehouse	12/03/91	12/09/91	3.1×10^{-13}	1.3×10^{-13}	^{40}K
Area 25, NRDS Warehouse	12/09/91	12/16/91	1.4×10^{-13}	6.2×10^{-14}	^{214}Bi
Area 27, Cafeteria	01/14/91	01/22/91	7.4×10^{-14}	2.9×10^{-14}	^{214}Pb
Area 27, Cafeteria	01/14/91	01/22/91	9.5×10^{-14}	4.1×10^{-14}	^{214}Bi
Area 27, Cafeteria	01/22/91	01/28/91	1.7×10^{-13}	6.6×10^{-14}	^{214}Bi
Area 27, Cafeteria	01/22/91	01/28/91	1.5×10^{-13}	4.6×10^{-14}	^{214}Pb
Area 27, Cafeteria	01/28/91	02/04/91	1.9×10^{-13}	7.1×10^{-14}	^{214}Pb
Area 27, Cafeteria	02/04/91	02/11/91	5.4×10^{-13}	1.9×10^{-13}	^{40}K
Area 27, Cafeteria	02/19/91	02/25/91	1.0×10^{-13}	5.3×10^{-14}	^{214}Bi
Area 27, Cafeteria	03/25/91	04/01/91	9.1×10^{-14}	3.5×10^{-14}	^{214}Pb
Area 27, Cafeteria	03/25/91	04/01/91	1.1×10^{-14}	3.8×10^{-15}	^{212}Pb
Area 27, Cafeteria	04/08/91	04/15/91	9.7×10^{-14}	3.7×10^{-14}	^{214}Pb
Area 27, Cafeteria	04/22/91	04/29/91	6.2×10^{-14}	3.6×10^{-14}	^{214}Pb
Area 27, Cafeteria	04/29/91	05/06/91	1.1×10^{-13}	4.2×10^{-14}	^{214}Pb
Area 27, Cafeteria	06/17/91	06/25/91	2.2×10^{-13}	8.9×10^{-14}	^{40}K
Area 27, Cafeteria	06/17/91	06/25/91	8.9×10^{-14}	4.1×10^{-14}	^{214}Pb
Area 27, Cafeteria	07/01/91	07/08/91	9.7×10^{-15}	4.3×10^{-15}	^{212}Pb
Area 27, Cafeteria	07/29/91	08/05/91	1.2×10^{-12}	2.5×10^{-13}	^{40}K
Area 27, Cafeteria	08/05/91	08/12/91	5.5×10^{-13}	1.0×10^{-13}	^{40}K
Area 27, Cafeteria	08/19/91	08/26/91	2.9×10^{-13}	1.0×10^{-13}	^{40}K

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>		<u>μCi/mL</u>		<u>Radio-nuclide</u>
	<u>Start</u>	<u>End</u>	<u>Concen-tration</u>	<u>Standard Deviation (s)</u>	
Area 27, Cafeteria	09/09/91	09/16/91	1.2×10^{-13}	5.1×10^{-14}	^{214}Bi
Area 27, Cafeteria	09/16/91	09/23/91	1.3×10^{-14}	4.5×10^{-15}	^{212}Pb
Area 27, Cafeteria	10/28/91	11/04/91	3.2×10^{-13}	8.9×10^{-14}	^{214}Pb
Area 27, Cafeteria	11/18/91	11/25/91	1.2×10^{-13}	7.6×10^{-14}	^{214}Bi
Area 27, Cafeteria	12/03/91	12/09/91	2.5×10^{-13}	1.3×10^{-13}	^{40}K
Area 27, Cafeteria	12/09/91	12/16/91	1.4×10^{-13}	5.4×10^{-14}	^{214}Pb
Area 27, Cafeteria	12/09/91	12/26/91	8.5×10^{-11}	5.1×10^{-14}	^{214}Bi

APPENDIX B ONSITE TRITIUM IN AIR

Robert R. Kinnison

Seventeen samplers for airborne tritiated water vapor were placed at locations on the NTS as described in Volume I, Section 5. Table B.1 displays the sampling locations, dates of sampling, observed concentration in picocuries per milliliter, analytic standard deviation, and detection limit for the 405 analyses performed in 1991. In this table the start and end dates cover the period over which the air sample was collected. The simple descriptive statistics for all the data combined are:

Number of data values = 405
 Arithmetic mean = 5.06×10^{-6} pCi/mL
 Median = 3.39×10^{-6}
 Standard deviation = 6.60×10^{-6}
 Minimum value = -3.16×10^{-6}
 Maximum value = 51.85×10^{-6}

The first quartile of the data is 0.78×10^{-6} pCi/mL and the third quartile is 6.25×10^{-6} pCi/mL, half the data values are between these statistics.

Table B.1 Tritiated Water Vapor in Air Sampling Results - 1991

Sampling Location	Sampling Dates		pCi/mL		Detection Limit
	Start	End	Concentration	Standard Deviation (1s)	
Area 1, BJY	01/23/91	02/05/91	2.2×10^{-6}	7.0×10^{-7}	1.4×10^{-7}
Area 1, BJY	02/05/91	02/20/91	1.7×10^{-6}	3.7×10^{-7}	7.2×10^{-7}
Area 1, BJY	02/20/91	03/05/91	3.4×10^{-7}	5.7×10^{-7}	1.2×10^{-6}
Area 1, BJY	03/05/91	03/20/91	3.1×10^{-7}	3.1×10^{-7}	6.4×10^{-7}
Area 1, BJY	03/20/91	04/03/91	1.1×10^{-6}	4.5×10^{-7}	9.0×10^{-7}
Area 1, BJY	04/03/91	04/16/91	1.5×10^{-6}	2.9×10^{-7}	5.7×10^{-7}
Area 1, BJY	04/16/91	05/01/91	4.8×10^{-7}	2.9×10^{-7}	5.9×10^{-7}
Area 1, BJY	05/01/91	05/15/91	8.4×10^{-7}	3.8×10^{-7}	7.6×10^{-7}
Area 1, BJY	05/15/91	05/29/91	2.7×10^{-7}	2.6×10^{-7}	5.2×10^{-7}
Area 1, BJY	05/29/91	06/12/91	1.1×10^{-6}	2.5×10^{-7}	4.8×10^{-7}
Area 1, BJY	06/12/91	06/26/91	1.2×10^{-6}	1.9×10^{-7}	3.5×10^{-7}
Area 1, BJY	06/26/91	07/11/91	5.4×10^{-7}	3.3×10^{-7}	6.6×10^{-7}
Area 1, BJY	07/11/91	07/25/91	1.8×10^{-6}	1.8×10^{-7}	3.2×10^{-7}
Area 1, BJY	07/25/91	08/08/91	3.5×10^{-6}	2.9×10^{-7}	5.1×10^{-7}
Area 1, BJY	08/08/91	08/22/91	3.5×10^{-6}	3.1×10^{-7}	5.6×10^{-7}
Area 1, BJY	08/22/91	09/12/91	3.6×10^{-6}	4.0×10^{-7}	7.4×10^{-7}
Area 1, BJY	09/12/91	09/19/91	9.1×10^{-6}	4.6×10^{-7}	7.4×10^{-7}
Area 1, BJY	09/19/91	10/03/91	2.3×10^{-6}	2.7×10^{-7}	5.0×10^{-7}

Table B.1 (Tritiated Water Vapor in Air Sampling Results - 1991, cont.)

Sampling Location	Sampling Dates		pCi/mL		Detection Limit
	Start	End	Concentration	Standard Deviation (1s)	
Area 1, BJY	10/03/91	10/17/91	1.7×10^{-7}	8.0×10^{-8}	1.6×10^{-7}
Area 1, BJY	10/17/91	10/31/91	3.0×10^{-6}	5.4×10^{-7}	1.0×10^{-6}
Area 1, BJY	10/31/91	11/14/91	6.9×10^{-8}	7.6×10^{-8}	1.5×10^{-7}
Area 1, BJY	11/27/91	12/11/91	7.7×10^{-7}	3.6×10^{-7}	7.2×10^{-7}
Area 1, BJY	12/11/91	12/23/91	8.8×10^{-7}	4.1×10^{-7}	8.1×10^{-7}
Area 5, RWMS No. 1	01/11/91	01/25/91	2.0×10^{-5}	7.0×10^{-7}	9.5×10^{-7}
Area 5, RWMS No. 1	01/25/91	02/06/91	7.4×10^{-7}	9.3×10^{-8}	1.7×10^{-7}
Area 5, RWMS No. 1	02/06/91	02/21/91	6.3×10^{-6}	3.3×10^{-7}	5.4×10^{-7}
Area 5, RWMS No. 1	02/21/91	03/07/91	3.2×10^{-6}	4.3×10^{-7}	7.9×10^{-7}
Area 5, RWMS No. 1	03/07/91	03/20/91	5.1×10^{-7}	3.1×10^{-7}	6.2×10^{-7}
Area 5, RWMS No. 1	03/20/91	04/02/91	1.3×10^{-6}	1.6×10^{-7}	2.9×10^{-7}
Area 5, RWMS No. 1	04/02/91	04/18/91	2.4×10^{-6}	2.4×10^{-7}	4.4×10^{-7}
Area 5, RWMS No. 1	04/18/91	05/01/91	3.8×10^{-6}	3.3×10^{-7}	5.8×10^{-7}
Area 5, RWMS No. 1	05/01/91	05/15/91	3.6×10^{-6}	3.4×10^{-7}	6.0×10^{-7}
Area 5, RWMS No. 1	05/15/91	05/29/91	3.7×10^{-6}	3.6×10^{-7}	6.4×10^{-7}
Area 5, RWMS No. 1	05/29/91	06/12/91	3.8×10^{-6}	5.1×10^{-7}	9.4×10^{-7}
Area 5, RWMS No. 1	06/12/91	06/26/91	3.3×10^{-6}	3.3×10^{-7}	6.0×10^{-7}
Area 5, RWMS No. 1	06/26/91	07/11/91	2.8×10^{-6}	3.4×10^{-7}	6.4×10^{-7}
Area 5, RWMS No. 1	07/11/91	07/25/91	3.6×10^{-6}	2.4×10^{-7}	4.1×10^{-7}
Area 5, RWMS No. 1	07/25/91	08/08/91	1.1×10^{-5}	5.4×10^{-7}	8.5×10^{-7}
Area 5, RWMS No. 1	08/08/91	08/22/91	3.2×10^{-6}	2.3×10^{-7}	4.1×10^{-7}
Area 5, RWMS No. 1	08/22/91	09/12/91	1.3×10^{-5}	4.6×10^{-7}	6.8×10^{-7}
Area 5, RWMS No. 1	09/12/91	09/19/91	1.2×10^{-5}	4.8×10^{-7}	7.2×10^{-7}
Area 5, RWMS No. 1	09/19/91	10/03/91	9.1×10^{-6}	4.9×10^{-7}	8.1×10^{-7}
Area 5, RWMS No. 1	10/03/91	10/17/91	4.1×10^{-6}	1.9×10^{-7}	3.0×10^{-7}
Area 5, RWMS No. 1	10/17/91	10/31/91	8.0×10^{-6}	4.5×10^{-7}	7.5×10^{-7}
Area 5, RWMS No. 1	10/31/91	11/14/91	8.7×10^{-6}	3.9×10^{-7}	6.1×10^{-7}
Area 5, RWMS No. 1	11/14/91	11/27/91	5.5×10^{-6}	3.4×10^{-7}	5.6×10^{-7}
Area 5, RWMS No. 1	11/27/91	12/12/91	9.8×10^{-6}	4.5×10^{-7}	7.1×10^{-7}
Area 5, RWMS No. 1	12/12/91	12/23/91	9.6×10^{-6}	5.5×10^{-7}	9.0×10^{-7}
Area 5, RWMS No. 2	01/11/91	01/25/91	-3.2×10^{-6}	1.4×10^{-7}	4.0×10^{-7}
Area 5, RWMS No. 2	02/06/91	02/21/91	1.1×10^{-5}	4.9×10^{-7}	7.6×10^{-7}
Area 5, RWMS No. 2	02/21/91	03/07/91	-3.8×10^{-7}	3.8×10^{-7}	7.8×10^{-7}
Area 5, RWMS No. 2	03/07/91	03/20/91	7.9×10^{-6}	8.1×10^{-7}	1.5×10^{-6}
Area 5, RWMS No. 2	03/20/91	04/02/91	3.2×10^{-6}	4.4×10^{-7}	8.3×10^{-7}
Area 5, RWMS No. 2	04/02/91	04/18/91	9.0×10^{-8}	2.3×10^{-7}	4.7×10^{-7}
Area 5, RWMS No. 2	04/18/91	05/01/91	3.8×10^{-6}	3.3×10^{-7}	5.8×10^{-7}
Area 5, RWMS No. 2	05/01/91	05/15/91	3.5×10^{-6}	3.9×10^{-7}	7.1×10^{-7}
Area 5, RWMS No. 2	05/15/91	05/29/91	2.7×10^{-6}	2.9×10^{-7}	5.2×10^{-7}
Area 5, RWMS No. 2	05/29/91	06/12/91	4.0×10^{-6}	2.9×10^{-7}	4.8×10^{-7}
Area 5, RWMS No. 2	06/12/91	06/26/91	3.3×10^{-6}	2.3×10^{-7}	4.0×10^{-7}
Area 5, RWMS No. 2	06/26/91	07/11/91	5.1×10^{-6}	4.1×10^{-7}	7.1×10^{-7}

Table B.1 (Tritiated Water Vapor in Air Sampling Results - 1991, cont.)

Sampling Location	Sampling Dates		pCi/mL		Detection Limit
	Start	End	Concentration	Standard Deviation (1s)	
Area 5, RWMS No. 2	07/11/91	07/25/91	4.7×10^{-6}	2.6×10^{-7}	4.2×10^{-7}
Area 5, RWMS No. 2	07/25/91	08/08/91	3.6×10^{-6}	2.1×10^{-7}	3.5×10^{-7}
Area 5, RWMS No. 2	08/08/91	08/22/91	4.8×10^{-6}	2.7×10^{-7}	4.5×10^{-7}
Area 5, RWMS No. 2	08/22/91	09/12/91	1.1×10^{-6}	3.2×10^{-7}	6.3×10^{-7}
Area 5, RWMS No. 2	09/12/91	09/19/91	9.2×10^{-6}	4.0×10^{-7}	6.2×10^{-7}
Area 5, RWMS No. 2	09/19/91	10/03/91	9.5×10^{-6}	4.5×10^{-7}	7.1×10^{-7}
Area 5, RWMS No. 2	10/03/91	10/17/91	8.6×10^{-6}	2.5×10^{-7}	3.4×10^{-7}
Area 5, RWMS No. 2	10/17/91	10/31/91	6.8×10^{-6}	5.0×10^{-7}	8.6×10^{-7}
Area 5, RWMS No. 2	10/31/91	11/14/91	9.0×10^{-6}	5.7×10^{-7}	9.6×10^{-7}
Area 5, RWMS No. 2	11/14/91	11/27/91	4.4×10^{-6}	3.6×10^{-7}	6.3×10^{-7}
Area 5, RWMS No. 2	11/27/91	12/12/91	5.2×10^{-6}	4.3×10^{-7}	7.7×10^{-7}
Area 5, RWMS No. 2	12/12/91	12/23/91	8.1×10^{-6}	5.5×10^{-7}	9.3×10^{-7}
Area 5, RWMS No. 3	01/11/91	01/25/91	1.3×10^{-5}	1.3×10^{-6}	2.3×10^{-6}
Area 5, RWMS No. 3	01/25/91	02/06/91	6.6×10^{-6}	2.7×10^{-7}	4.0×10^{-7}
Area 5, RWMS No. 3	02/06/91	02/21/91	6.1×10^{-6}	3.6×10^{-7}	5.9×10^{-7}
Area 5, RWMS No. 3	02/21/91	03/07/91	4.7×10^{-7}	4.3×10^{-7}	8.7×10^{-7}
Area 5, RWMS No. 3	03/07/91	03/20/91	1.8×10^{-6}	3.1×10^{-7}	6.0×10^{-7}
Area 5, RWMS No. 3	03/20/91	04/02/91	2.7×10^{-6}	5.7×10^{-7}	1.1×10^{-6}
Area 5, RWMS No. 3	04/02/91	04/18/91	3.6×10^{-6}	3.1×10^{-7}	5.6×10^{-7}
Area 5, RWMS No. 3	04/18/91	05/01/91	3.4×10^{-6}	3.9×10^{-7}	7.2×10^{-7}
Area 5, RWMS No. 3	05/01/91	05/15/91	2.6×10^{-6}	4.3×10^{-7}	8.2×10^{-7}
Area 5, RWMS No. 3	05/15/91	05/29/91	2.6×10^{-6}	3.8×10^{-7}	7.1×10^{-7}
Area 5, RWMS No. 3	05/29/91	06/12/91	1.7×10^{-6}	6.1×10^{-7}	1.2×10^{-6}
Area 5, RWMS No. 3	06/12/91	06/26/91	3.4×10^{-6}	3.5×10^{-7}	6.3×10^{-7}
Area 5, RWMS No. 3	06/26/91	07/11/91	3.4×10^{-6}	5.6×10^{-7}	1.1×10^{-6}
Area 5, RWMS No. 3	07/11/91	07/25/91	2.7×10^{-6}	2.7×10^{-7}	4.9×10^{-7}
Area 5, RWMS No. 3	07/25/91	08/08/91	3.6×10^{-6}	3.8×10^{-7}	7.0×10^{-7}
Area 5, RWMS No. 3	08/08/91	08/22/91	2.7×10^{-6}	2.9×10^{-7}	5.2×10^{-7}
Area 5, RWMS No. 3	08/22/91	09/12/91	6.7×10^{-6}	3.3×10^{-7}	5.4×10^{-7}
Area 5, RWMS No. 3	09/12/91	09/19/91	4.8×10^{-6}	2.5×10^{-7}	4.1×10^{-7}
Area 5, RWMS No. 3	09/19/91	10/03/91	6.2×10^{-6}	4.0×10^{-7}	6.8×10^{-7}
Area 5, RWMS No. 3	10/03/91	10/17/91	4.0×10^{-6}	2.6×10^{-7}	4.5×10^{-7}
Area 5, RWMS No. 3	10/17/91	10/31/91	2.4×10^{-6}	3.9×10^{-7}	7.3×10^{-7}
Area 5, RWMS No. 3	10/31/91	11/14/91	3.0×10^{-7}	1.1×10^{-7}	2.2×10^{-7}
Area 5, RWMS No. 3	11/14/91	11/27/91	3.6×10^{-6}	3.5×10^{-7}	6.4×10^{-7}
Area 5, RWMS No. 3	11/27/91	12/12/91	6.5×10^{-6}	4.6×10^{-7}	8.1×10^{-7}
Area 5, RWMS No. 3	12/12/91	12/23/91	6.1×10^{-6}	5.1×10^{-7}	8.9×10^{-7}
Area 5, RWMS No. 4	01/11/91	01/25/91	6.3×10^{-6}	5.4×10^{-7}	9.3×10^{-7}
Area 5, RWMS No. 4	01/25/91	02/06/91	3.4×10^{-8}	2.0×10^{-9}	3.2×10^{-9}
Area 5, RWMS No. 4	02/06/91	02/21/91	1.4×10^{-5}	9.7×10^{-7}	1.7×10^{-6}
Area 5, RWMS No. 4	02/21/91	03/07/91	3.0×10^{-6}	6.1×10^{-7}	1.2×10^{-6}
Area 5, RWMS No. 4	03/07/91	03/20/91	3.2×10^{-8}	1.8×10^{-7}	3.7×10^{-7}

Table B.1 (Tritiated Water Vapor in Air Sampling Results - 1991, cont.)

Sampling Location	Sampling Dates		pCi/mL		Detection Limit
	Start	End	Concentration	Standard Deviation (1s)	
Area 5, RWMS No. 4	03/20/91	04/02/91	2.4×10^{-6}	5.3×10^{-7}	1.0×10^{-6}
Area 5, RWMS No. 4	04/02/91	04/18/91	2.4×10^{-6}	3.1×10^{-7}	5.8×10^{-7}
Area 5, RWMS No. 4	04/18/91	05/01/91	3.2×10^{-6}	3.8×10^{-7}	7.1×10^{-7}
Area 5, RWMS No. 4	05/01/91	05/15/91	2.6×10^{-6}	4.3×10^{-7}	8.2×10^{-7}
Area 5, RWMS No. 4	05/15/91	05/29/91	3.2×10^{-6}	2.9×10^{-7}	5.1×10^{-7}
Area 5, RWMS No. 4	05/29/91	06/12/91	4.0×10^{-6}	3.6×10^{-7}	6.2×10^{-7}
Area 5, RWMS No. 4	06/12/91	06/26/91	5.1×10^{-6}	2.8×10^{-7}	4.6×10^{-7}
Area 5, RWMS No. 4	06/26/91	07/11/91	3.9×10^{-6}	4.5×10^{-7}	8.2×10^{-7}
Area 5, RWMS No. 4	07/11/91	07/25/91	5.2×10^{-6}	2.7×10^{-7}	4.3×10^{-7}
Area 5, RWMS No. 4	07/25/91	08/08/91	5.2×10^{-6}	3.1×10^{-7}	5.2×10^{-7}
Area 5, RWMS No. 4	08/08/91	08/22/91	4.5×10^{-6}	2.9×10^{-7}	4.9×10^{-7}
Area 5, RWMS No. 4	08/22/91	09/12/91	3.8×10^{-6}	4.0×10^{-7}	7.4×10^{-7}
Area 5, RWMS No. 4	09/12/91	09/19/91	1.7×10^{-5}	5.5×10^{-7}	7.8×10^{-7}
Area 5, RWMS No. 4	09/19/91	10/03/91	5.6×10^{-6}	4.6×10^{-7}	8.2×10^{-7}
Area 5, RWMS No. 4	10/03/91	10/17/91	5.2×10^{-6}	3.1×10^{-7}	5.2×10^{-7}
Area 5, RWMS No. 4	10/17/91	10/31/91	1.1×10^{-5}	6.2×10^{-7}	1.0×10^{-6}
Area 5, RWMS No. 4	10/31/91	11/14/91	6.4×10^{-6}	6.1×10^{-7}	1.1×10^{-6}
Area 5, RWMS No. 4	11/14/91	11/27/91	4.8×10^{-6}	3.9×10^{-7}	6.8×10^{-7}
Area 5, RWMS No. 4	11/27/91	12/12/91	4.9×10^{-6}	5.7×10^{-7}	1.1×10^{-6}
Area 5, RWMS No. 4	12/12/91	12/23/91	4.9×10^{-6}	5.1×10^{-7}	9.3×10^{-7}
Area 5, RWMS No. 5	01/11/91	01/25/91	1.1×10^{-5}	5.3×10^{-7}	8.1×10^{-7}
Area 5, RWMS No. 5	01/25/91	02/06/91	6.9×10^{-6}	2.4×10^{-7}	3.5×10^{-7}
Area 5, RWMS No. 5	02/06/91	02/21/91	4.2×10^{-6}	3.0×10^{-7}	5.3×10^{-7}
Area 5, RWMS No. 5	02/21/91	03/07/91	4.9×10^{-6}	6.1×10^{-7}	1.1×10^{-6}
Area 5, RWMS No. 5	03/20/91	04/02/91	3.9×10^{-6}	4.5×10^{-7}	8.3×10^{-7}
Area 5, RWMS No. 5	04/02/91	04/18/91	3.7×10^{-6}	2.5×10^{-7}	4.4×10^{-7}
Area 5, RWMS No. 5	04/18/91	05/01/91	1.1×10^{-5}	3.9×10^{-7}	5.5×10^{-7}
Area 5, RWMS No. 5	05/01/91	05/15/91	3.6×10^{-6}	3.6×10^{-7}	6.5×10^{-7}
Area 5, RWMS No. 5	05/15/91	05/29/91	3.2×10^{-6}	2.4×10^{-7}	4.2×10^{-7}
Area 5, RWMS No. 5	05/29/91	06/12/91	4.7×10^{-6}	2.7×10^{-7}	4.3×10^{-7}
Area 5, RWMS No. 5	06/12/91	06/26/91	4.1×10^{-6}	2.1×10^{-7}	3.4×10^{-7}
Area 5, RWMS No. 5	06/26/91	07/11/91	4.9×10^{-6}	3.8×10^{-7}	6.6×10^{-7}
Area 5, RWMS No. 5	07/11/91	07/25/91	3.9×10^{-6}	2.0×10^{-7}	3.3×10^{-7}
Area 5, RWMS No. 5	07/25/91	08/08/91	5.2×10^{-6}	2.8×10^{-7}	4.7×10^{-7}
Area 5, RWMS No. 5	08/08/91	08/22/91	4.4×10^{-6}	2.3×10^{-7}	3.8×10^{-7}
Area 5, RWMS No. 5	08/22/91	09/12/91	4.3×10^{-6}	3.3×10^{-7}	5.7×10^{-7}
Area 5, RWMS No. 5	09/12/91	09/19/91	7.3×10^{-6}	3.1×10^{-7}	4.7×10^{-7}
Area 5, RWMS No. 5	09/19/91	10/03/91	4.5×10^{-6}	2.6×10^{-7}	4.3×10^{-7}
Area 5, RWMS No. 5	10/03/91	10/17/91	2.9×10^{-6}	1.5×10^{-7}	2.4×10^{-7}
Area 5, RWMS No. 5	10/17/91	10/31/91	3.9×10^{-6}	3.9×10^{-7}	7.2×10^{-7}
Area 5, RWMS No. 5	10/31/91	11/14/91	3.6×10^{-6}	3.2×10^{-7}	5.7×10^{-7}
Area 5, RWMS No. 5	11/14/91	11/27/91	3.3×10^{-6}	2.8×10^{-7}	5.0×10^{-7}

Table B.1 (Tritiated Water Vapor in Air Sampling Results - 1991, cont.)

Sampling Location	Sampling Dates		pCi/mL		Detection Limit
	Start	End	Concentration	Standard Deviation (1s)	
Area 5, RWMS No. 5	11/27/91	12/12/91	5.2 x 10 ⁻⁶	3.7 x 10 ⁻⁷	6.4 x 10 ⁻⁷
Area 5, RWMS No. 6	01/25/91	02/06/91	5.8 x 10 ⁻⁶	2.1 x 10 ⁻⁷	3.1 x 10 ⁻⁷
Area 5, RWMS No. 6	02/06/91	02/21/91	9.9 x 10 ⁻⁶	4.1 x 10 ⁻⁷	6.3 x 10 ⁻⁷
Area 5, RWMS No. 6	02/21/91	03/07/91	4.6 x 10 ⁻⁶	4.4 x 10 ⁻⁷	8.2 x 10 ⁻⁷
Area 5, RWMS No. 6	03/07/91	03/20/91	8.2 x 10 ⁻⁶	4.6 x 10 ⁻⁷	7.6 x 10 ⁻⁷
Area 5, RWMS No. 6	03/20/91	04/02/91	3.8 x 10 ⁻⁶	7.2 x 10 ⁻⁷	1.4 x 10 ⁻⁶
Area 5, RWMS No. 6	04/02/91	04/18/91	3.7 x 10 ⁻⁶	2.6 x 10 ⁻⁷	4.5 x 10 ⁻⁷
Area 5, RWMS No. 6	04/18/91	05/01/91	2.6 x 10 ⁻⁶	3.2 x 10 ⁻⁷	5.9 x 10 ⁻⁷
Area 5, RWMS No. 6	05/01/91	05/15/91	3.2 x 10 ⁻⁶	4.4 x 10 ⁻⁷	8.2 x 10 ⁻⁷
Area 5, RWMS No. 6	05/15/91	05/29/91	2.1 x 10 ⁻⁶	2.0 x 10 ⁻⁷	3.6 x 10 ⁻⁷
Area 5, RWMS No. 6	05/29/91	06/12/91	4.3 x 10 ⁻⁵	5.8 x 10 ⁻⁷	4.5 x 10 ⁻⁷
Area 5, RWMS No. 6	06/12/91	06/26/91	1.6 x 10 ⁻⁶	1.7 x 10 ⁻⁷	3.1 x 10 ⁻⁷
Area 5, RWMS No. 6	06/26/91	07/11/91	3.3 x 10 ⁻⁶	2.9 x 10 ⁻⁷	5.2 x 10 ⁻⁷
Area 5, RWMS No. 6	07/11/91	07/25/91	1.8 x 10 ⁻⁶	1.4 x 10 ⁻⁷	2.4 x 10 ⁻⁷
Area 5, RWMS No. 6	07/25/91	08/08/91	3.4 x 10 ⁻⁶	2.0 x 10 ⁻⁷	3.4 x 10 ⁻⁷
Area 5, RWMS No. 6	08/08/91	08/22/91	5.0 x 10 ⁻⁶	3.1 x 10 ⁻⁷	5.2 x 10 ⁻⁷
Area 5, RWMS No. 6	08/22/91	09/12/91	1.8 x 10 ⁻⁶	1.7 x 10 ⁻⁷	3.0 x 10 ⁻⁷
Area 5, RWMS No. 6	09/12/91	09/19/91	5.9 x 10 ⁻⁶	2.5 x 10 ⁻⁷	3.9 x 10 ⁻⁷
Area 5, RWMS No. 6	09/19/91	10/03/91	3.8 x 10 ⁻⁶	2.1 x 10 ⁻⁷	3.4 x 10 ⁻⁷
Area 5, RWMS No. 6	10/03/91	10/17/91	3.9 x 10 ⁻⁶	1.8 x 10 ⁻⁷	2.9 x 10 ⁻⁷
Area 5, RWMS No. 6	10/17/91	10/31/91	2.7 x 10 ⁻⁶	3.1 x 10 ⁻⁷	5.7 x 10 ⁻⁷
Area 5, RWMS No. 6	10/31/91	11/14/91	3.4 x 10 ⁻⁷	8.3 x 10 ⁻⁸	1.6 x 10 ⁻⁷
Area 5, RWMS No. 6	11/14/91	11/27/91	8.7 x 10 ⁻⁷	1.0 x 10 ⁻⁷	1.9 x 10 ⁻⁷
Area 5, RWMS No. 6	11/27/91	12/12/91	1.9 x 10 ⁻⁶	2.1 x 10 ⁻⁷	3.8 x 10 ⁻⁷
Area 5, RWMS No. 6	12/12/91	12/23/91	7.7 x 10 ⁻⁶	2.2 x 10 ⁻⁷	3.0 x 10 ⁻⁷
Area 5, RWMS No. 7	01/11/91	01/25/91	4.4 x 10 ⁻⁵	7.9 x 10 ⁻⁷	7.5 x 10 ⁻⁷
Area 5, RWMS No. 7	01/25/91	02/06/91	2.0 x 10 ⁻⁵	3.7 x 10 ⁻⁷	4.0 x 10 ⁻⁷
Area 5, RWMS No. 7	02/06/91	02/21/91	2.2 x 10 ⁻⁵	5.8 x 10 ⁻⁷	7.5 x 10 ⁻⁷
Area 5, RWMS No. 7	02/21/91	03/07/91	2.1 x 10 ⁻⁵	8.4 x 10 ⁻⁷	1.4 x 10 ⁻⁶
Area 5, RWMS No. 7	03/07/91	03/20/91	1.5 x 10 ⁻⁵	6.5 x 10 ⁻⁷	1.0 x 10 ⁻⁶
Area 5, RWMS No. 7	03/20/91	04/02/91	6.6 x 10 ⁻⁶	5.8 x 10 ⁻⁷	1.0 x 10 ⁻⁶
Area 5, RWMS No. 7	04/02/91	04/18/91	7.4 x 10 ⁻⁶	4.0 x 10 ⁻⁷	6.5 x 10 ⁻⁷
Area 5, RWMS No. 7	04/18/91	05/01/91	5.6 x 10 ⁻⁶	4.1 x 10 ⁻⁷	7.0 x 10 ⁻⁷
Area 5, RWMS No. 7	05/01/91	05/15/91	5.8 x 10 ⁻⁶	4.8 x 10 ⁻⁷	8.5 x 10 ⁻⁷
Area 5, RWMS No. 7	05/15/91	05/29/91	6.3 x 10 ⁻⁶	4.5 x 10 ⁻⁷	7.7 x 10 ⁻⁷
Area 5, RWMS No. 7	05/29/91	06/12/91	6.3 x 10 ⁻⁶	5.1 x 10 ⁻⁷	8.7 x 10 ⁻⁷
Area 5, RWMS No. 7	06/12/91	06/26/91	6.0 x 10 ⁻⁶	3.3 x 10 ⁻⁷	5.4 x 10 ⁻⁷
Area 5, RWMS No. 7	06/26/91	07/11/91	9.3 x 10 ⁻⁶	6.2 x 10 ⁻⁷	1.0 x 10 ⁻⁶
Area 5, RWMS No. 7	07/11/91	07/25/91	1.3 x 10 ⁻⁵	4.4 x 10 ⁻⁷	6.3 x 10 ⁻⁷
Area 5, RWMS No. 7	07/25/91	08/08/91	1.6 x 10 ⁻⁵	5.7 x 10 ⁻⁷	8.4 x 10 ⁻⁷
Area 5, RWMS No. 7	08/08/91	08/22/91	1.3 x 10 ⁻⁵	5.0 x 10 ⁻⁷	7.5 x 10 ⁻⁷
Area 5, RWMS No. 7	08/22/91	09/12/91	1.1 x 10 ⁻⁵	5.5 x 10 ⁻⁷	8.8 x 10 ⁻⁷

Table B.1 (Tritiated Water Vapor in Air Sampling Results - 1991, cont.)

Sampling Location	Sampling Dates		pCi/mL		Detection Limit
	Start	End	Concentration	Standard Deviation (1s)	
Area 5, RWMS No. 7	09/12/91	09/19/91	2.3×10^{-5}	6.9×10^{-7}	9.6×10^{-7}
Area 5, RWMS No. 7	09/19/91	10/03/91	1.6×10^{-5}	6.3×10^{-7}	9.6×10^{-7}
Area 5, RWMS No. 7	10/03/91	10/17/91	1.8×10^{-5}	4.4×10^{-7}	5.5×10^{-7}
Area 5, RWMS No. 7	10/17/91	10/31/91	7.8×10^{-6}	5.7×10^{-7}	9.8×10^{-7}
Area 5, RWMS No. 7	10/31/91	11/14/91	1.5×10^{-5}	6.7×10^{-7}	1.1×10^{-6}
Area 5, RWMS No. 7	11/14/91	11/27/91	6.2×10^{-6}	4.2×10^{-7}	7.1×10^{-7}
Area 5, RWMS No. 7	11/27/91	12/12/91	1.4×10^{-5}	5.5×10^{-7}	8.3×10^{-7}
Area 5, RWMS No. 7	12/12/91	12/23/91	2.4×10^{-5}	7.0×10^{-7}	9.5×10^{-7}
Area 5, RWMS No. 8	01/11/91	01/25/91	4.1×10^{-6}	3.7×10^{-7}	6.5×10^{-7}
Area 5, RWMS No. 8	01/25/91	02/06/91	1.9×10^{-5}	5.7×10^{-7}	7.6×10^{-7}
Area 5, RWMS No. 8	02/06/91	02/21/91	5.9×10^{-6}	2.7×10^{-7}	4.2×10^{-7}
Area 5, RWMS No. 8	02/21/91	03/07/91	8.7×10^{-6}	7.2×10^{-7}	1.3×10^{-6}
Area 5, RWMS No. 8	03/20/91	04/02/91	6.8×10^{-6}	5.6×10^{-7}	9.8×10^{-7}
Area 5, RWMS No. 8	04/02/91	04/18/91	1.6×10^{-5}	3.3×10^{-7}	4.0×10^{-7}
Area 5, RWMS No. 8	04/18/91	05/01/91	4.1×10^{-6}	3.3×10^{-7}	5.7×10^{-7}
Area 5, RWMS No. 8	05/01/91	05/15/91	2.8×10^{-6}	3.4×10^{-7}	6.2×10^{-7}
Area 5, RWMS No. 8	05/15/91	05/29/91	2.2×10^{-6}	3.8×10^{-7}	7.3×10^{-7}
Area 5, RWMS No. 8	05/29/91	06/12/91	4.3×10^{-5}	5.1×10^{-7}	3.6×10^{-7}
Area 5, RWMS No. 8	06/12/91	06/26/91	1.9×10^{-6}	1.7×10^{-7}	3.1×10^{-7}
Area 5, RWMS No. 8	06/26/91	07/11/91	2.3×10^{-6}	3.0×10^{-7}	5.5×10^{-7}
Area 5, RWMS No. 8	07/11/91	07/25/91	2.9×10^{-6}	1.5×10^{-7}	2.5×10^{-7}
Area 5, RWMS No. 8	07/25/91	08/08/91	2.6×10^{-6}	1.7×10^{-7}	2.9×10^{-7}
Area 5, RWMS No. 8	08/08/91	08/22/91	5.4×10^{-6}	2.0×10^{-7}	3.0×10^{-7}
Area 5, RWMS No. 8	08/22/91	09/12/91	3.2×10^{-6}	3.1×10^{-7}	5.6×10^{-7}
Area 5, RWMS No. 8	09/12/91	09/19/91	9.0×10^{-6}	3.6×10^{-7}	5.4×10^{-7}
Area 5, RWMS No. 8	09/19/91	10/03/91	4.6×10^{-6}	3.0×10^{-7}	5.0×10^{-7}
Area 5, RWMS No. 8	10/03/91	10/17/91	3.3×10^{-6}	2.0×10^{-7}	3.4×10^{-7}
Area 5, RWMS No. 8	10/17/91	10/31/91	1.4×10^{-5}	4.1×10^{-7}	5.6×10^{-7}
Area 5, RWMS No. 8	10/31/91	11/14/91	1.3×10^{-5}	6.0×10^{-7}	9.4×10^{-7}
Area 5, RWMS No. 8	11/14/91	11/27/91	6.0×10^{-6}	3.6×10^{-7}	6.0×10^{-7}
Area 5, RWMS No. 8	11/27/91	12/12/91	8.2×10^{-6}	4.7×10^{-7}	7.8×10^{-7}
Area 5, RWMS No. 8	12/12/91	12/23/91	2.6×10^{-5}	3.9×10^{-7}	3.7×10^{-7}
Area 5, RWMS No. 9	01/11/91	01/25/91	2.6×10^{-5}	6.2×10^{-7}	7.0×10^{-7}
Area 5, RWMS No. 9	01/25/91	02/06/91	2.3×10^{-5}	3.7×10^{-7}	3.6×10^{-7}
Area 5, RWMS No. 9	02/06/91	02/21/91	3.3×10^{-5}	6.4×10^{-7}	7.2×10^{-7}
Area 5, RWMS No. 9	03/07/91	03/20/91	9.5×10^{-6}	4.5×10^{-7}	7.1×10^{-7}
Area 5, RWMS No. 9	03/20/91	04/02/91	6.5×10^{-6}	5.5×10^{-7}	9.8×10^{-7}
Area 5, RWMS No. 9	04/02/91	04/18/91	6.3×10^{-6}	3.7×10^{-7}	6.2×10^{-7}
Area 5, RWMS No. 9	04/18/91	05/01/91	4.7×10^{-6}	3.9×10^{-7}	7.0×10^{-7}
Area 5, RWMS No. 9	05/01/91	05/15/91	2.7×10^{-6}	2.8×10^{-7}	5.1×10^{-7}
Area 5, RWMS No. 9	05/15/91	05/29/91	6.3×10^{-6}	3.8×10^{-7}	6.2×10^{-7}
Area 5, RWMS No. 9	05/29/91	06/12/91	5.2×10^{-5}	3.2×10^{-6}	5.2×10^{-6}

Table B.1 (Tritiated Water Vapor in Air Sampling Results - 1991, cont.)

Sampling Location	Sampling Dates		pCi/mL		Detection Limit
	Start	End	Concentration	Standard Deviation (1s)	
Area 5, RWMS No. 9	06/12/91	06/26/91	4.2×10^{-6}	4.9×10^{-7}	9.1×10^{-7}
Area 5, RWMS No. 9	06/26/91	07/11/91	8.0×10^{-6}	6.6×10^{-7}	1.2×10^{-6}
Area 5, RWMS No. 9	07/11/91	07/25/91	6.3×10^{-6}	3.4×10^{-7}	5.6×10^{-7}
Area 5, RWMS No. 9	07/25/91	08/08/91	4.3×10^{-6}	2.7×10^{-7}	4.6×10^{-7}
Area 5, RWMS No. 9	08/08/91	08/22/91	1.8×10^{-5}	3.5×10^{-7}	4.1×10^{-7}
Area 5, RWMS No. 9	08/22/91	09/12/91	4.3×10^{-6}	2.8×10^{-7}	4.8×10^{-7}
Area 5, RWMS No. 9	09/12/91	09/19/91	1.5×10^{-5}	4.4×10^{-7}	6.1×10^{-7}
Area 5, RWMS No. 9	09/19/91	10/03/91	1.6×10^{-5}	6.2×10^{-7}	9.4×10^{-7}
Area 5, RWMS No. 9	10/03/91	10/17/91	1.3×10^{-5}	3.4×10^{-7}	4.5×10^{-7}
Area 5, RWMS No. 9	10/17/91	10/31/91	1.0×10^{-5}	5.8×10^{-7}	9.6×10^{-7}
Area 5, RWMS No. 9	10/31/91	11/14/91	2.2×10^{-5}	7.5×10^{-7}	1.1×10^{-6}
Area 5, RWMS No. 9	11/14/91	11/27/91	1.6×10^{-5}	4.9×10^{-7}	6.7×10^{-7}
Area 5, RWMS No. 9	11/27/91	12/12/91	1.6×10^{-5}	5.5×10^{-7}	8.0×10^{-7}
Area 5, RWMS No. 9	12/12/91	12/23/91	1.3×10^{-5}	4.3×10^{-7}	5.9×10^{-7}
Area 10, Gate 700 South	01/08/91	01/23/91	4.5×10^{-6}	2.5×10^{-7}	4.0×10^{-7}
Area 10, Gate 700 South	01/23/91	02/05/91	6.3×10^{-6}	9.3×10^{-7}	1.8×10^{-6}
Area 10, Gate 700 South	02/05/91	02/20/91	2.7×10^{-7}	3.1×10^{-7}	6.4×10^{-7}
Area 10, Gate 700 South	03/05/91	03/20/91	6.1×10^{-6}	3.5×10^{-7}	5.9×10^{-7}
Area 10, Gate 700 South	03/20/91	04/03/91	4.5×10^{-7}	4.1×10^{-7}	8.4×10^{-7}
Area 10, Gate 700 South	04/03/91	04/16/91	-6.6×10^{-8}	2.7×10^{-7}	5.5×10^{-7}
Area 10, Gate 700 South	04/16/91	05/01/91	4.1×10^{-7}	2.2×10^{-7}	4.3×10^{-7}
Area 10, Gate 700 South	05/01/91	05/15/91	2.7×10^{-7}	8.5×10^{-8}	1.7×10^{-7}
Area 10, Gate 700 South	05/15/91	05/29/91	2.3×10^{-7}	2.2×10^{-7}	4.4×10^{-7}
Area 10, Gate 700 South	05/29/91	06/12/91	4.3×10^{-7}	1.8×10^{-7}	3.5×10^{-7}
Area 10, Gate 700 South	06/12/91	06/26/91	4.8×10^{-7}	1.3×10^{-7}	2.6×10^{-7}
Area 10, Gate 700 South	06/26/91	07/11/91	2.9×10^{-7}	2.8×10^{-7}	5.6×10^{-7}
Area 10, Gate 700 South	07/11/91	07/25/91	8.6×10^{-8}	6.3×10^{-8}	1.3×10^{-7}
Area 10, Gate 700 South	07/25/91	08/08/91	2.9×10^{-6}	2.1×10^{-7}	3.7×10^{-7}
Area 10, Gate 700 South	08/08/91	08/22/91	1.4×10^{-6}	1.9×10^{-7}	3.5×10^{-7}
Area 10, Gate 700 South	08/22/91	09/12/91	1.2×10^{-6}	2.3×10^{-7}	4.4×10^{-7}
Area 10, Gate 700 South	09/12/91	09/19/91	4.5×10^{-7}	1.5×10^{-7}	3.0×10^{-7}
Area 10, Gate 700 South	09/19/91	10/03/91	3.0×10^{-6}	3.9×10^{-7}	7.2×10^{-7}
Area 10, Gate 700 South	10/03/91	10/17/91	6.8×10^{-7}	9.6×10^{-8}	1.8×10^{-7}
Area 10, Gate 700 South	10/17/91	10/31/91	1.0×10^{-6}	4.1×10^{-7}	8.1×10^{-7}
Area 10, Gate 700 South	10/31/91	11/14/91	2.7×10^{-6}	1.0×10^{-7}	1.5×10^{-7}
Area 10, Gate 700 South	11/27/91	12/11/91	8.0×10^{-8}	3.3×10^{-7}	6.8×10^{-7}
Area 10, Gate 700 South	12/11/91	12/23/91	5.3×10^{-7}	3.5×10^{-7}	7.0×10^{-7}
Area 12, Complex	01/08/91	01/23/91	3.6×10^{-7}	3.8×10^{-7}	7.8×10^{-7}
Area 12, Complex	01/23/91	02/05/91	4.5×10^{-7}	1.8×10^{-7}	3.5×10^{-7}
Area 12, Complex	02/05/91	02/20/91	3.6×10^{-7}	2.9×10^{-7}	5.9×10^{-7}
Area 12, Complex	02/20/91	03/05/91	-1.1×10^{-7}	2.5×10^{-7}	5.2×10^{-7}
Area 12, Complex	03/05/91	03/20/91	1.7×10^{-6}	3.1×10^{-7}	5.9×10^{-7}

Table B.1 (Tritiated Water Vapor in Air Sampling Results - 1991, cont.)

Sampling Location	Sampling Dates		pCi/mL		Detection Limit
	Start	End	Concentration	Standard Deviation (1s)	
Area 12, Complex	03/20/91	04/03/91	3.3×10^{-7}	3.6×10^{-7}	7.2×10^{-7}
Area 12, Complex	04/03/91	04/16/91	-5.3×10^{-8}	2.4×10^{-7}	4.9×10^{-7}
Area 12, Complex	04/16/91	05/01/91	2.9×10^{-7}	2.1×10^{-7}	4.2×10^{-7}
Area 12, Complex	05/01/91	05/15/91	5.2×10^{-7}	2.5×10^{-7}	5.0×10^{-7}
Area 12, Complex	05/15/91	05/29/91	-2.0×10^{-7}	1.3×10^{-7}	2.8×10^{-7}
Area 12, Complex	05/29/91	06/12/91	3.9×10^{-7}	1.4×10^{-7}	2.8×10^{-7}
Area 12, Complex	06/12/91	06/26/91	9.9×10^{-7}	2.8×10^{-7}	5.6×10^{-7}
Area 12, Complex	06/26/91	07/11/91	7.1×10^{-8}	6.2×10^{-8}	1.3×10^{-7}
Area 12, Complex	07/11/91	07/25/91	3.2×10^{-7}	1.7×10^{-7}	3.4×10^{-7}
Area 12, Complex	07/25/91	08/08/91	1.6×10^{-6}	2.6×10^{-7}	5.0×10^{-7}
Area 12, Complex	08/08/91	08/22/91	1.6×10^{-6}	2.0×10^{-7}	3.8×10^{-7}
Area 12, Complex	08/22/91	09/12/91	1.8×10^{-6}	3.0×10^{-7}	5.7×10^{-7}
Area 12, Complex	09/12/91	09/19/91	3.2×10^{-6}	2.5×10^{-7}	4.4×10^{-7}
Area 12, Complex	09/19/91	10/03/91	2.6×10^{-6}	2.1×10^{-7}	3.8×10^{-7}
Area 12, Complex	10/03/91	10/17/91	1.9×10^{-6}	1.3×10^{-7}	2.1×10^{-7}
Area 12, Complex	10/17/91	10/31/91	8.4×10^{-6}	4.3×10^{-7}	7.0×10^{-7}
Area 12, Complex	10/31/91	11/14/91	2.6×10^{-6}	4.1×10^{-7}	7.8×10^{-7}
Area 12, Complex	11/27/91	12/11/91	7.2×10^{-7}	3.2×10^{-7}	6.4×10^{-7}
Area 12, Complex	12/11/91	12/23/91	6.7×10^{-7}	3.2×10^{-7}	6.4×10^{-7}
Area 15, EPA Farm	01/23/91	02/05/91	7.9×10^{-6}	3.1×10^{-7}	5.0×10^{-7}
Area 15, EPA Farm	02/05/91	02/20/91	1.2×10^{-5}	5.1×10^{-7}	7.8×10^{-7}
Area 15, EPA Farm	03/05/91	03/20/91	1.2×10^{-5}	4.6×10^{-7}	6.9×10^{-7}
Area 15, EPA Farm	03/20/91	04/03/91	7.8×10^{-6}	7.5×10^{-7}	1.3×10^{-6}
Area 15, EPA Farm	04/03/91	04/16/91	6.3×10^{-6}	3.8×10^{-7}	6.3×10^{-7}
Area 15, EPA Farm	04/16/91	05/01/91	5.7×10^{-6}	4.0×10^{-7}	6.8×10^{-7}
Area 15, EPA Farm	05/15/91	05/29/91	1.7×10^{-6}	1.1×10^{-7}	1.9×10^{-7}
Area 15, EPA Farm	05/29/91	06/12/91	4.5×10^{-6}	1.6×10^{-7}	2.3×10^{-7}
Area 15, EPA Farm	06/12/91	06/26/91	1.4×10^{-6}	1.0×10^{-7}	1.8×10^{-7}
Area 15, EPA Farm	06/26/91	07/11/91	1.8×10^{-6}	1.4×10^{-7}	2.4×10^{-7}
Area 15, EPA Farm	07/11/91	07/25/91	3.7×10^{-6}	9.7×10^{-8}	1.3×10^{-7}
Area 15, EPA Farm	07/25/91	08/08/91	3.2×10^{-6}	1.2×10^{-7}	1.7×10^{-7}
Area 15, EPA Farm	08/08/91	08/22/91	5.3×10^{-6}	1.8×10^{-7}	2.6×10^{-7}
Area 15, EPA Farm	08/22/91	09/12/91	2.6×10^{-6}	1.5×10^{-7}	2.5×10^{-7}
Area 15, EPA Farm	09/12/91	09/19/91	5.5×10^{-6}	1.9×10^{-7}	2.8×10^{-7}
Area 15, EPA Farm	09/19/91	10/03/91	3.6×10^{-6}	1.4×10^{-7}	2.1×10^{-7}
Area 15, EPA Farm	10/03/91	10/17/91	5.5×10^{-6}	3.0×10^{-7}	4.9×10^{-7}
Area 15, EPA Farm	10/17/91	10/31/91	6.2×10^{-6}	5.7×10^{-7}	1.0×10^{-6}
Area 15, EPA Farm	10/31/91	11/14/91	9.4×10^{-6}	7.0×10^{-7}	1.2×10^{-6}
Area 15, EPA Farm	11/27/91	12/11/91	9.3×10^{-6}	4.4×10^{-7}	6.9×10^{-7}
Area 15, EPA Farm	12/11/91	12/23/91	1.7×10^{-5}	5.2×10^{-7}	7.1×10^{-7}
Area 23, Building 790 No. 2	01/08/91	01/23/91	4.0×10^{-8}	1.6×10^{-7}	3.4×10^{-7}
Area 23, Building 790 No. 2	01/23/91	02/05/91	4.5×10^{-7}	1.0×10^{-7}	1.9×10^{-7}

Table B.1 (Tritiated Water Vapor in Air Sampling Results - 1991, cont.)

Sampling Location	Sampling Dates		pCi/mL		Detection Limit
	Start	End	Concentration	Standard Deviation (1s)	
Area 23, Building 790 No. 2	02/05/91	02/20/91	6.2×10^{-7}	1.3×10^{-7}	2.6×10^{-7}
Area 23, Building 790 No. 2	02/20/91	03/05/91	2.7×10^{-7}	5.9×10^{-8}	1.1×10^{-7}
Area 23, Building 790 No. 2	03/05/91	03/20/91	2.8×10^{-7}	1.7×10^{-7}	3.5×10^{-7}
Area 23, Building 790 No. 2	03/20/91	04/03/91	-9.2×10^{-8}	1.6×10^{-7}	3.4×10^{-7}
Area 23, Building 790 No. 2	04/03/91	04/16/91	8.2×10^{-8}	1.4×10^{-7}	2.8×10^{-7}
Area 23, Building 790 No. 2	04/16/91	05/01/91	5.0×10^{-7}	3.1×10^{-7}	6.3×10^{-7}
Area 23, Building 790 No. 2	05/01/91	05/15/91	3.3×10^{-7}	3.5×10^{-7}	7.1×10^{-7}
Area 23, Building 790 No. 2	05/15/91	05/29/91	9.3×10^{-7}	5.3×10^{-7}	1.1×10^{-6}
Area 23, Building 790 No. 2	06/12/91	06/26/91	3.7×10^{-7}	1.1×10^{-7}	2.2×10^{-7}
Area 23, Building 790 No. 2	06/26/91	07/11/91	-1.3×10^{-7}	1.9×10^{-7}	3.9×10^{-7}
Area 23, Building 790 No. 2	07/11/91	07/25/91	3.3×10^{-7}	8.6×10^{-8}	1.7×10^{-7}
Area 23, Building 790 No. 2	07/25/91	08/08/91	1.3×10^{-6}	1.0×10^{-7}	1.8×10^{-7}
Area 23, Building 790 No. 2	08/08/91	08/22/91	2.2×10^{-7}	9.6×10^{-8}	1.9×10^{-7}
Area 23, Building 790 No. 2	08/22/91	09/12/91	1.0×10^{-6}	1.3×10^{-7}	2.4×10^{-7}
Area 23, Building 790 No. 2	09/12/91	09/19/91	4.5×10^{-7}	1.4×10^{-7}	2.8×10^{-7}
Area 23, Building 790 No. 2	09/19/91	10/03/91	5.7×10^{-7}	9.8×10^{-8}	1.9×10^{-7}
Area 23, Building 790 No. 2	10/03/91	10/17/91	4.8×10^{-6}	1.4×10^{-7}	2.0×10^{-7}
Area 23, Building 790 No. 2	10/17/91	10/31/91	-1.1×10^{-7}	2.7×10^{-7}	5.6×10^{-7}
Area 23, Building 790 No. 2	10/31/91	11/14/91	3.7×10^{-7}	2.5×10^{-7}	5.1×10^{-7}
Area 23, Building 790 No. 2	11/27/91	12/11/91	-5.9×10^{-8}	3.0×10^{-7}	6.2×10^{-7}
Area 23, Building 790 No. 2	12/11/91	12/23/91	-6.8×10^{-8}	3.4×10^{-7}	7.0×10^{-7}
Area 23, East Boundary	01/08/91	01/23/91	6.7×10^{-7}	4.5×10^{-7}	9.2×10^{-7}
Area 23, East Boundary	01/23/91	02/05/91	1.1×10^{-6}	2.8×10^{-7}	5.6×10^{-7}
Area 23, East Boundary	02/05/91	02/20/91	4.5×10^{-7}	3.6×10^{-7}	7.3×10^{-7}
Area 23, East Boundary	02/20/91	03/05/91	-2.2×10^{-7}	4.8×10^{-7}	9.9×10^{-7}
Area 23, East Boundary	03/05/91	03/20/91	5.3×10^{-7}	3.6×10^{-7}	7.3×10^{-7}
Area 23, East Boundary	03/20/91	04/03/91	5.3×10^{-7}	5.0×10^{-7}	1.0×10^{-6}
Area 23, East Boundary	04/03/91	04/16/91	-8.4×10^{-8}	1.9×10^{-7}	3.9×10^{-7}
Area 23, East Boundary	04/16/91	05/01/91	2.6×10^{-7}	1.6×10^{-7}	3.3×10^{-7}
Area 23, East Boundary	05/01/91	05/15/91	2.4×10^{-7}	2.2×10^{-7}	4.4×10^{-7}
Area 23, East Boundary	05/15/91	05/29/91	4.1×10^{-7}	1.5×10^{-7}	2.9×10^{-7}
Area 23, East Boundary	05/29/91	06/12/91	1.9×10^{-7}	1.2×10^{-7}	2.5×10^{-7}
Area 23, East Boundary	06/12/91	06/26/91	3.9×10^{-7}	1.4×10^{-7}	2.7×10^{-7}
Area 23, East Boundary	06/26/91	07/11/91	-3.6×10^{-7}	2.8×10^{-7}	5.8×10^{-7}
Area 23, East Boundary	07/11/91	07/25/91	2.5×10^{-7}	1.2×10^{-7}	2.4×10^{-7}
Area 23, East Boundary	07/25/91	08/08/91	1.5×10^{-6}	1.3×10^{-7}	2.4×10^{-7}
Area 23, East Boundary	08/08/91	08/22/91	1.1×10^{-6}	1.3×10^{-7}	2.5×10^{-7}
Area 23, East Boundary	08/22/91	09/12/91	1.3×10^{-6}	1.6×10^{-7}	2.9×10^{-7}
Area 23, East Boundary	09/12/91	09/19/91	1.7×10^{-6}	2.0×10^{-7}	3.7×10^{-7}
Area 23, East Boundary	09/19/91	10/03/91	1.7×10^{-6}	1.8×10^{-7}	3.2×10^{-7}
Area 23, East Boundary	10/03/91	10/17/91	4.4×10^{-6}	1.6×10^{-7}	2.4×10^{-7}
Area 23, East Boundary	10/17/91	10/31/91	-7.8×10^{-7}	4.8×10^{-7}	1.0×10^{-6}

Table B.1 (Tritiated Water Vapor in Air Sampling Results - 1991, cont.)

Sampling Location	Sampling Dates		pCi/mL		Detection Limit
	Start	End	Concentration	Standard Deviation (1s)	
Area 23, East Boundary	10/31/91	11/14/91	3.6×10^{-6}	4.9×10^{-7}	9.1×10^{-7}
Area 23, East Boundary	11/27/91	12/11/91	2.1×10^{-7}	4.1×10^{-7}	8.3×10^{-7}
Area 23, East Boundary	12/11/91	12/23/91	-3.5×10^{-7}	4.0×10^{-7}	8.3×10^{-7}
Area 23, H & S Roof	01/08/91	01/23/91	8.7×10^{-7}	3.5×10^{-7}	6.9×10^{-7}
Area 23, H & S Roof	01/23/91	02/05/91	8.7×10^{-7}	2.6×10^{-7}	5.1×10^{-7}
Area 23, H & S Roof	02/05/91	02/20/91	6.4×10^{-7}	2.8×10^{-7}	5.6×10^{-7}
Area 23, H & S Roof	03/05/91	03/20/91	5.7×10^{-7}	3.2×10^{-7}	6.4×10^{-7}
Area 23, H & S Roof	03/20/91	04/03/91	2.5×10^{-7}	3.4×10^{-7}	6.9×10^{-7}
Area 23, H & S Roof	04/03/91	04/16/91	1.7×10^{-7}	2.0×10^{-7}	4.1×10^{-7}
Area 23, H & S Roof	04/16/91	05/01/91	2.5×10^{-7}	1.4×10^{-7}	2.8×10^{-7}
Area 23, H & S Roof	05/01/91	05/15/91	-1.7×10^{-8}	1.6×10^{-7}	3.4×10^{-7}
Area 23, H & S Roof	05/15/91	05/29/91	2.3×10^{-7}	1.0×10^{-7}	2.0×10^{-7}
Area 23, H & S Roof	05/29/91	06/12/91	3.4×10^{-6}	1.6×10^{-7}	2.4×10^{-7}
Area 23, H & S Roof	06/12/91	06/26/91	4.3×10^{-7}	1.3×10^{-7}	2.6×10^{-7}
Area 23, H & S Roof	06/26/91	07/11/91	9.2×10^{-7}	2.0×10^{-7}	3.9×10^{-7}
Area 23, H & S Roof	07/11/91	07/25/91	8.5×10^{-8}	9.3×10^{-8}	1.9×10^{-7}
Area 23, H & S Roof	07/25/91	08/08/91	1.2×10^{-6}	1.2×10^{-7}	2.1×10^{-7}
Area 23, H & S Roof	08/08/91	08/22/91	1.8×10^{-6}	1.3×10^{-7}	2.2×10^{-7}
Area 23, H & S Roof	08/22/91	09/12/91	2.8×10^{-6}	1.4×10^{-7}	2.3×10^{-7}
Area 23, H & S Roof	09/12/91	09/19/91	7.9×10^{-7}	1.7×10^{-7}	3.2×10^{-7}
Area 23, H & S Roof	09/19/91	10/03/91	1.5×10^{-6}	2.0×10^{-7}	3.7×10^{-7}
Area 23, H & S Roof	10/03/91	10/17/91	1.6×10^{-7}	1.2×10^{-7}	2.4×10^{-7}
Area 23, H & S Roof	10/17/91	10/31/91	-2.2×10^{-7}	3.3×10^{-7}	6.9×10^{-7}
Area 23, H & S Roof	10/31/91	11/14/91	3.9×10^{-6}	3.0×10^{-7}	5.2×10^{-7}
Area 23, H & S Roof	11/27/91	12/11/91	1.3×10^{-7}	4.0×10^{-7}	8.1×10^{-7}
Area 23, H & S Roof	12/11/91	12/23/91	9.5×10^{-8}	3.5×10^{-7}	7.1×10^{-7}
Area 25, E-MAD North	01/11/91	01/25/91	6.2×10^{-6}	5.2×10^{-7}	9.0×10^{-7}
Area 25, E-MAD North	01/25/91	02/06/91	2.9×10^{-6}	2.1×10^{-7}	3.6×10^{-7}
Area 25, E-MAD North	02/06/91	02/21/91	1.8×10^{-6}	2.9×10^{-7}	5.4×10^{-7}
Area 25, E-MAD North	02/21/91	03/07/91	3.8×10^{-6}	4.4×10^{-7}	8.3×10^{-7}
Area 25, E-MAD North	03/07/91	03/20/91	2.3×10^{-7}	1.6×10^{-7}	3.3×10^{-7}
Area 25, E-MAD North	03/20/91	04/02/91	4.9×10^{-6}	5.0×10^{-7}	9.1×10^{-7}
Area 25, E-MAD North	04/02/91	04/18/91	4.9×10^{-6}	2.6×10^{-7}	4.3×10^{-7}
Area 25, E-MAD North	04/18/91	05/01/91	1.5×10^{-5}	3.4×10^{-7}	4.1×10^{-7}
Area 25, E-MAD North	05/01/91	05/15/91	2.7×10^{-7}	2.4×10^{-7}	4.9×10^{-7}
Area 25, E-MAD North	05/15/91	05/29/91	5.5×10^{-6}	1.9×10^{-7}	2.7×10^{-7}
Area 25, E-MAD North	05/29/91	06/12/91	1.5×10^{-7}	1.5×10^{-7}	2.9×10^{-7}
Area 25, E-MAD North	06/12/91	06/26/91	3.5×10^{-6}	1.9×10^{-7}	3.1×10^{-7}
Area 25, E-MAD North	06/26/91	07/11/91	5.6×10^{-7}	2.2×10^{-7}	4.3×10^{-7}
Area 25, E-MAD North	07/11/91	07/25/91	1.1×10^{-5}	2.2×10^{-7}	2.6×10^{-7}
Area 25, E-MAD North	07/25/91	08/08/91	4.1×10^{-7}	1.1×10^{-7}	2.2×10^{-7}
Area 25, E-MAD North	08/08/91	08/22/91	2.1×10^{-5}	3.3×10^{-7}	3.5×10^{-7}

Table B.1 (Tritiated Water Vapor in Air Sampling Results - 1991, cont.)

Sampling Location	Sampling Dates		pCi/mL		Detection Limit
	Start	End	Concentration	Standard Deviation (1s)	
Area 25, E-MAD North	08/08/91	09/12/91	2.1×10^{-6}	1.6×10^{-7}	2.7×10^{-7}
Area 25, E-MAD North	09/12/91	09/19/91	7.1×10^{-6}	3.8×10^{-7}	6.2×10^{-7}
Area 25, E-MAD North	09/19/91	10/03/91	1.5×10^{-6}	1.6×10^{-7}	3.0×10^{-7}
Area 25, E-MAD North	10/03/91	10/17/91	3.1×10^{-6}	1.2×10^{-7}	1.8×10^{-7}
Area 25, E-MAD North	10/17/91	10/31/91	4.4×10^{-6}	3.0×10^{-7}	5.1×10^{-7}
Area 25, E-MAD North	10/31/91	11/14/91	8.2×10^{-6}	3.2×10^{-7}	4.8×10^{-7}
Area 25, E-MAD North	11/14/91	11/27/91	4.7×10^{-7}	1.5×10^{-7}	3.0×10^{-7}
Area 25, E-MAD North	11/27/91	12/12/91	3.6×10^{-6}	3.4×10^{-7}	6.1×10^{-7}
Area 25, E-MAD North	12/12/91	12/23/91	2.2×10^{-7}	3.8×10^{-7}	7.7×10^{-7}

Figures B.1 through B.17 are time series plots of the data in Table B.1, one figure for each sampling location. The data values are represented by an "x," the solid line shows the detection limit, and the dotted lines give the approximate upper and lower 95 percent confidence intervals for the data (calculated as the data value plus or minus twice the analytical standard deviation). The abscissa gives the time that sampling stopped in terms of month of the year and fraction of the month. The fraction of the month was approximated as the day of the month divided by 32. Note that the values for the ordinate range from zero to fifty for some of the radiological waste management (RWMS) sampling stations while most of the plots have a range of zero to twenty. Figure B.18 shows all the data combined in one plot; this plot does not contain any confidence intervals or detection limits, and a few of the highest values have been deleted. A number represents a plotting position with two or more data points at the same location. These plots seem to show occasional values that are higher than most values. The statistical analysis of these data, described following the figures, indicates that the data are lognormally distributed and a logarithmic transformation will cause those occasional high values to appear less remarkable.

DATA ANALYSIS

An examination of the figures shows two items of note. First, there are a few values around 50×10^{-6} picocuries per milliliter found in the data for the radiological waste management site (RWMS). These are probably related to activities at this site. Second, an examination of Figure B.18 shows a pattern of most of the data values near zero with the number of data values decreasing as concentration values increase. This pattern is suggestive of a lognormal data distribution. Since statistical tests are dependent on the data distribution, the distribution will be discussed first.

The data distribution for each sampling location was tested for consistency to a normal and a lognormal density function using probability plotting and the correlation coefficient goodness-of-fit test, which is asymptotically equivalent to the Shapiro-Wilk test. Figure B.19 is a typical probability plot of the tritium in air data, a time series plot of the same data was shown in Figure B.14. Figure B.19 shows a curvature increasing towards the right, which suggests that the logarithm of the data should be used. The correlation test indicates that these data are

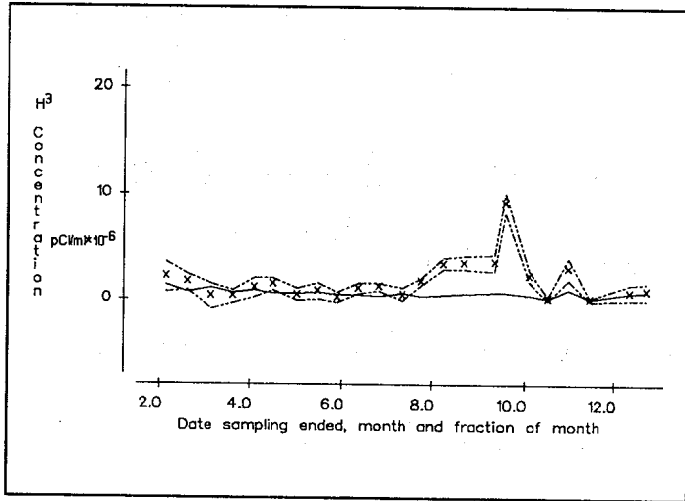


Figure B.1 Time Series Plot of BJJ Tritium Results

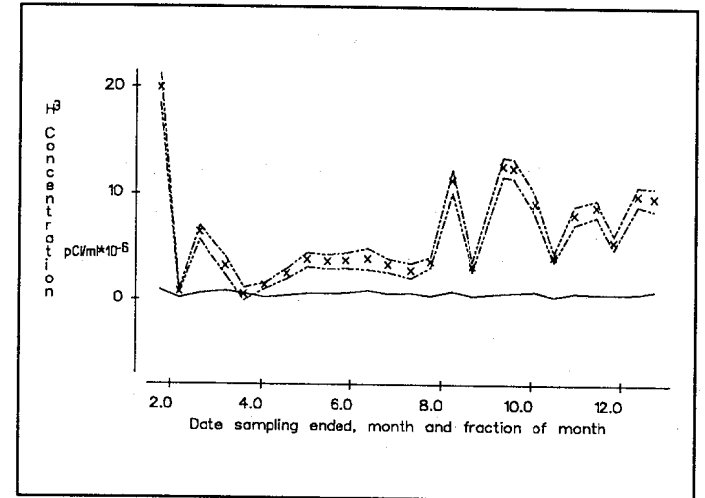


Figure B.2 Time Series Plot of RWMS No. 1 Tritium

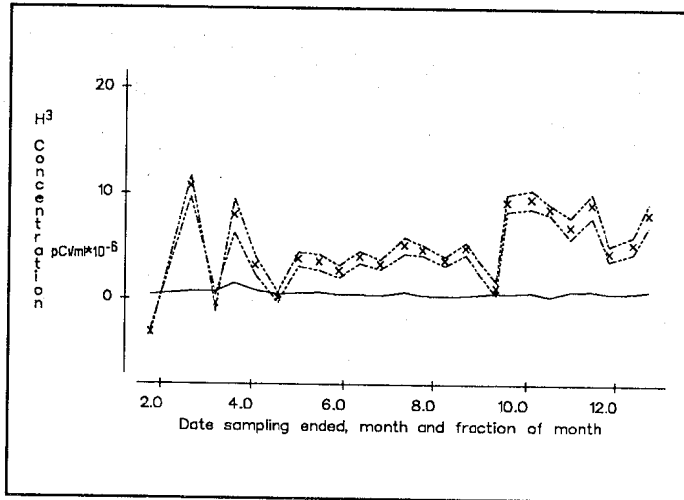


Figure B.3 Time Series Plot of RWMS No. 2 Tritium

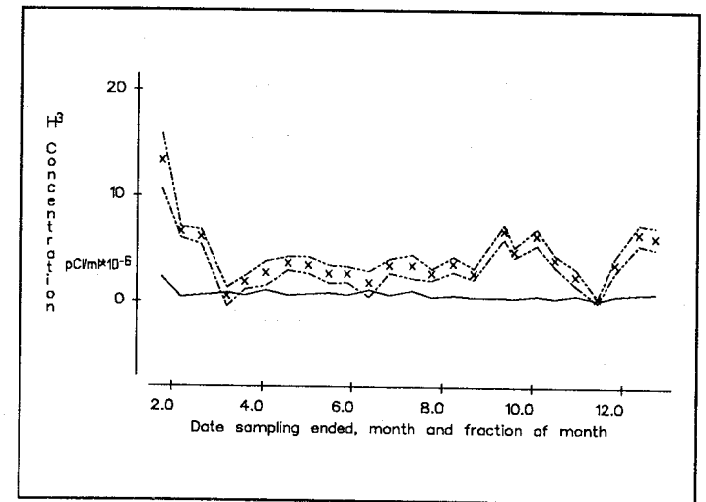


Figure B.4 Time Series Plot of RWMS No. 3 Tritium

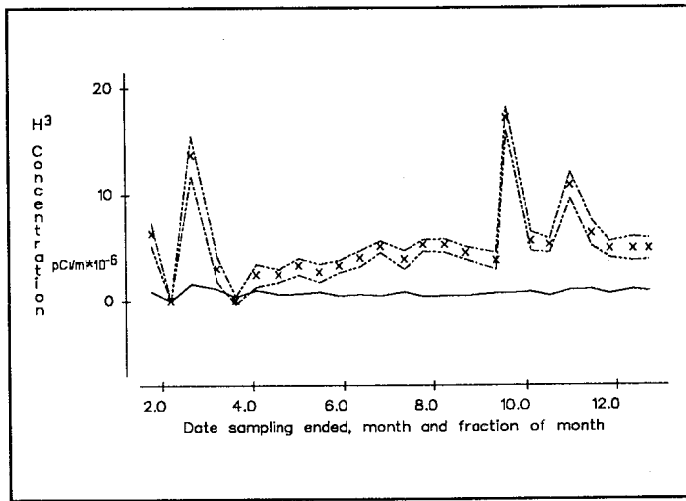


Figure B.5 Time Series Plot of RWMS No. 4 Tritium

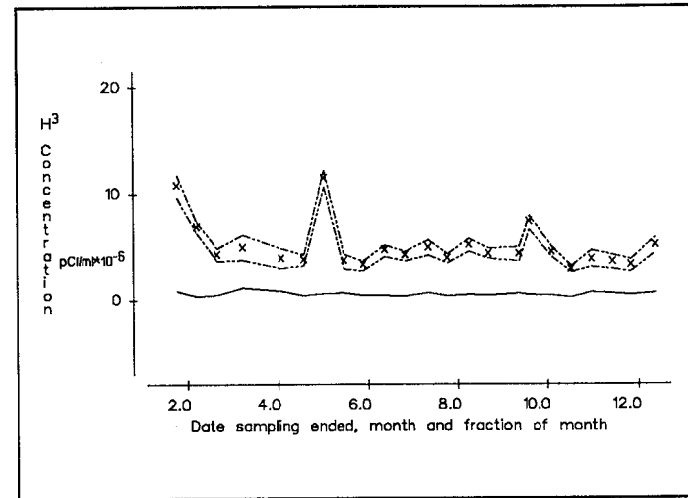


Figure B.6 Time Series Plot of RWMS No. 5 Tritium

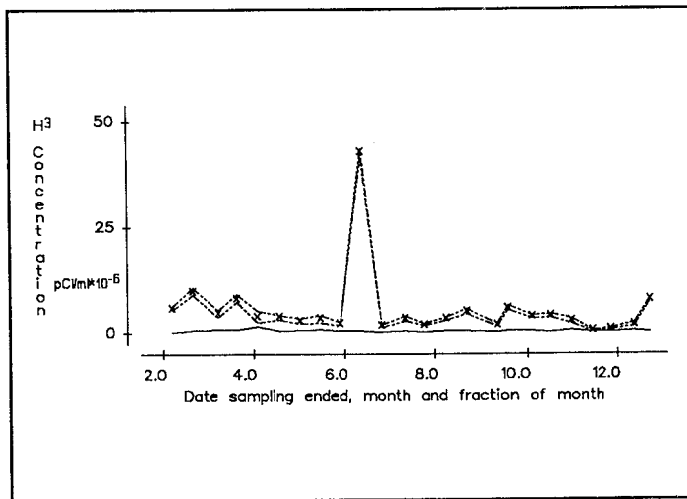


Figure B.7 Time Series Plot of RWMS No. 6 Tritium

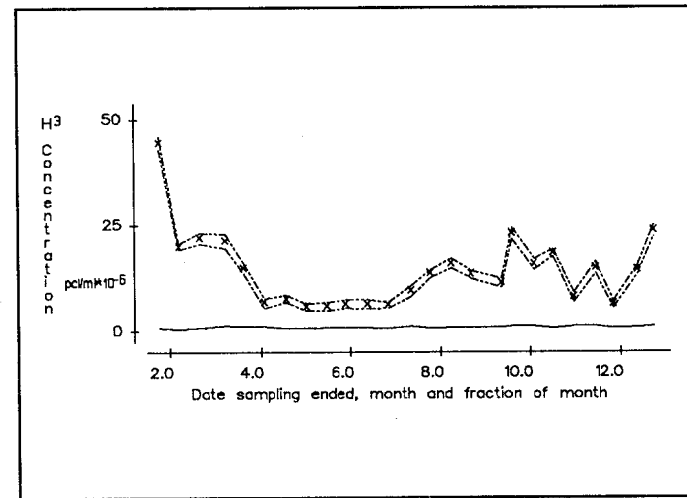


Figure B.8 Time Series Plot of RWMS No. 7 Tritium

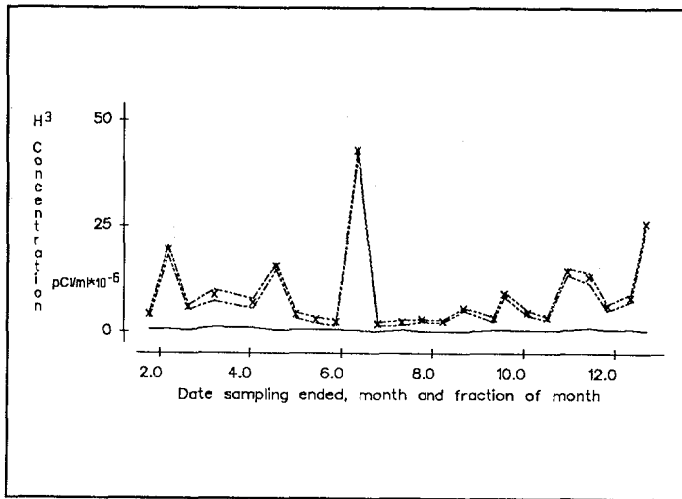


Figure B.9 Time Series Plot of RWMS No. 8 Tritium

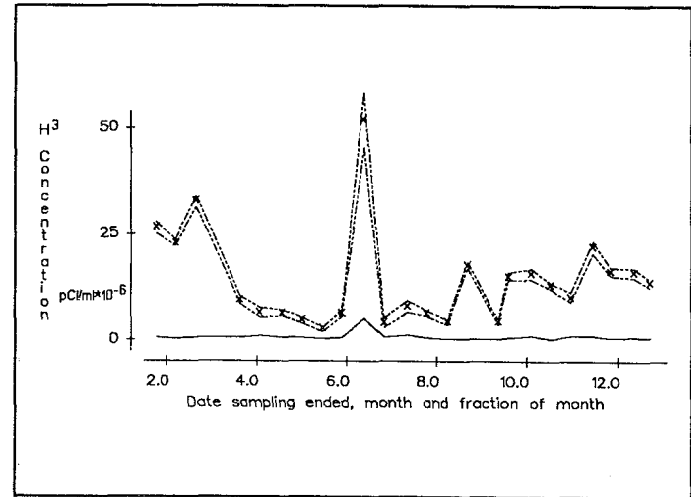


Figure B.10 Time Series Plot, RWMS No. 9 Tritium

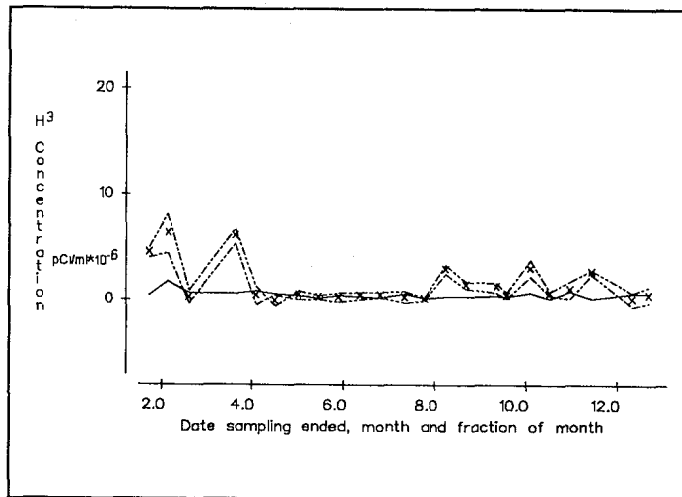


Figure B.11 Time Series Plot of Gate 700 Tritium

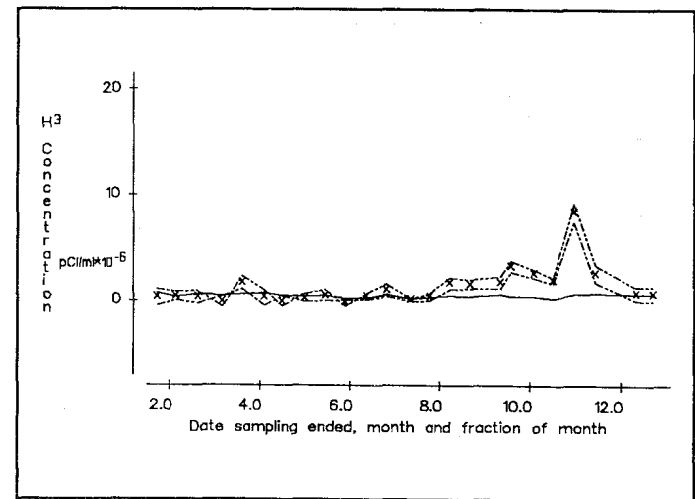


Figure B.12 Time Series Plot of Area 12 Tritium

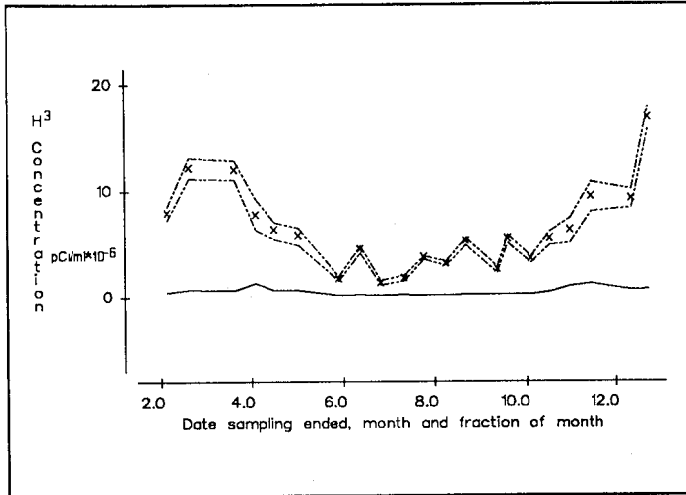


Figure B.13 Time Series Plot of EPA Farm Tritium

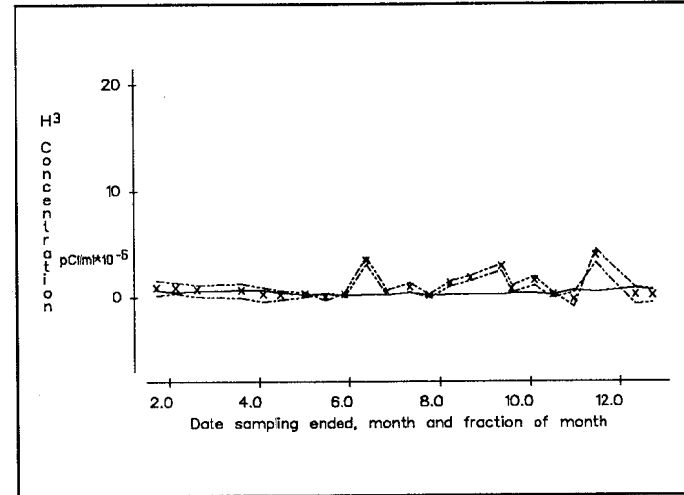


Figure B.14 Time Series Plot, H&S Bldg. Roof Tritium

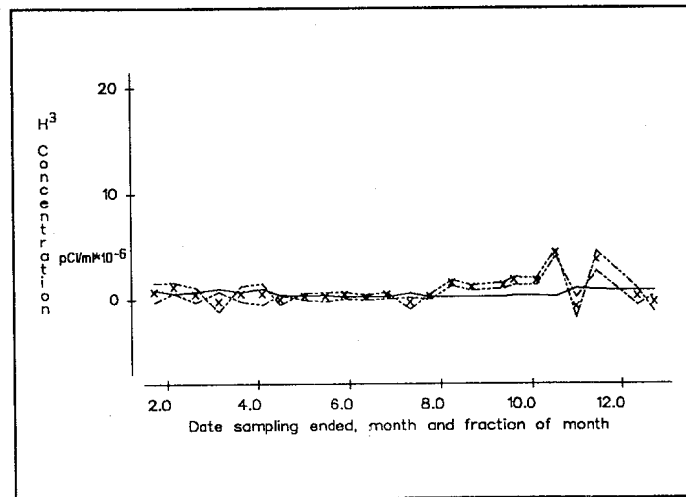


Figure B.15 Time Series Plot, East Boundary Tritium

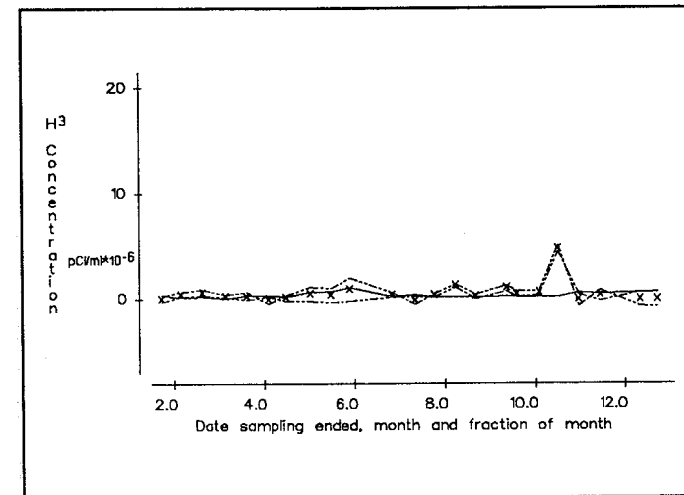


Figure B.16 Time Series Plot, Bldg. 790 No.2 Tritium

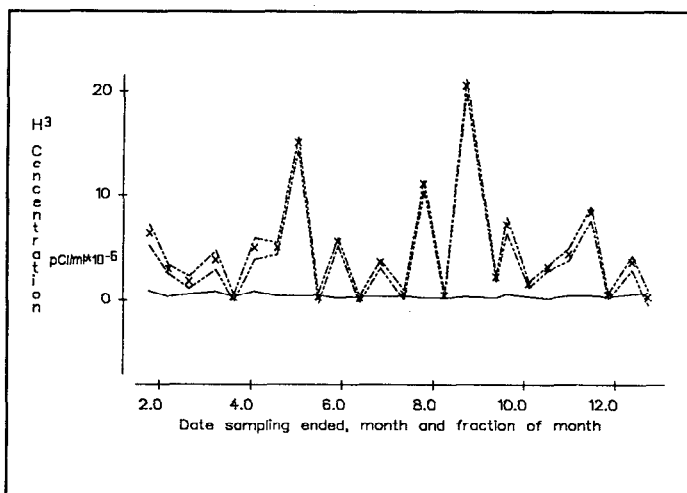


Figure B.17 Time Series Plot of EMAD Tritium

each sampling location. Most of the data sets are not fit by a normal distribution; only the data for RWMS No. 2 and the EPA Farm can be fit with a normal distribution. If an occasional low outlier is removed, all the data sets are fit by a lognormal distribution, thus this was chosen as the distribution for statistical testing of the data. The lognormal distribution was also found to be appropriate in last years annual report. In the logarithmic scale a low outlier is produced by a data value numerically close to zero, thus removing these data has insignificant effect on the group statistics. All negative values are necessarily removed when logarithms of the data are used. The distinctly high values indicated for some of the radiological waste management stations (RWMS) are not remarkable when working with logarithms of the data, and thus do not seem to be high outliers. Simple descriptive statistics can be used to summarize the data for each sampling station. Outliers were not removed for these statistics since they were defined only for the logarithms of the data as data values close to zero. Table B.2 gives these statistics. The first and third quartiles of the data are defined so that one quarter of the data have values lower than the first quartile and one quarter of the data have values higher than the third quartile. Note that the medians are smaller than the means, and the medians are closer to the first quartile than to the third quartile. This is typical of lognormally distributed data. A comparison of Table B.2 with the corresponding table in last years annual environmental report shows that concentrations are slightly lower this year, although the difference is not statistically significant.

An examination of Figures B.1 to B.18 indicates no reason to suspect any time trends within the tritium data, thus no time series analyses were performed.

not distributed normally, which is the expected result because of the clearly defined curvature of the data shown in Figure B.19. The same procedure was repeated using the natural logarithms of the data and the resulting plot is shown in Figure B.20. This figure now shows the data approximately falling on a straight line.

The correlation coefficient test for goodness of fit indicates a very good fit to a normal distribution. Thus, the conclusion of these tests is that this data set has a lognormal data distribution. This goodness-of-fit process was repeated for the data from

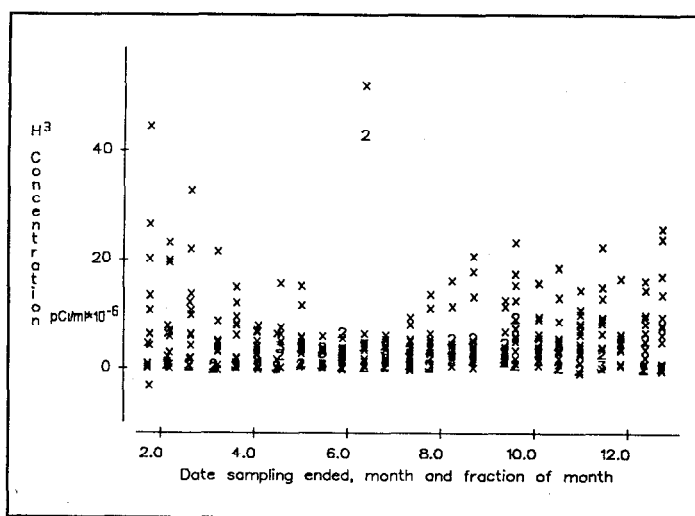


Figure B.18 Time Series Plot of All Tritium Data

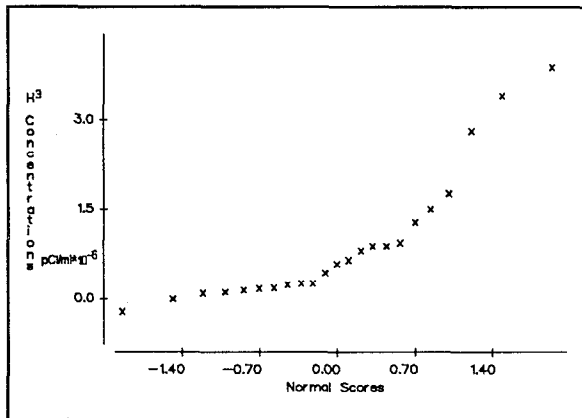


Figure B.19 Normal Probability Plot of H&S Building Roof Station Tritium Results

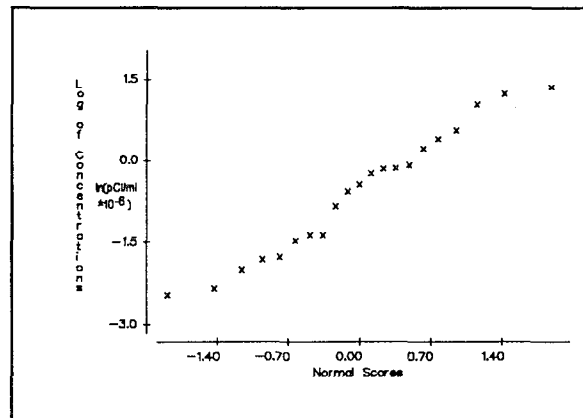


Figure B.20 Lognormal Probability Plot of H&S Building Roof Station Tritium Results

The final statistical test on these data was a one-way analysis of variance to test for differences between group means. The data were scaled by multiplying by 10^{12} , then logarithmically transformed before this test because the distribution is lognormally distributed. Also, the negative values were removed. The output of this procedure is given in Table B.3. Note that the mean values and confidence intervals are of the natural logarithms of the data, thus exponential transform action gives the data median and the confidence interval of the median. The analysis of variance table shows strong evidence of differences between group means, and the plot of confidence intervals suggests how the means are grouped. The analysis of variance "groupings" denotes the mean data values that are statistically similar; any geographical meaning to these groupings is secondary and interpretive. Tukey's multiple comparison procedure was used to simultaneously compare all means for equality. This process identified five overlapping groupings of the location means, indicated by the vertical lines added to the right of the standard deviation column. The list of "stations" has been rearranged by increasing magnitude of the means to facilitate the comparison of the grouped means.

The lowest six means form a group which overlaps with the next group. This lowest group includes all the Area 23 stations, those located in the Mercury base camp. The RWMS stations appear to fall into a high and a low group with the EPA Farm in the middle. The EPA Farm was used about 15 years ago to experimentally determine the biological transport of tritium in animals, but tritium residuals should be low after a few years. The Engine Maintenance Assembly and Disassembly (EMAD) building, originally used to assemble and disassemble nuclear rocket engines, is also a known source of radioactivity, but does not appear to be a source of tritium in 1991. A logical explanation of this grouping pattern of tritium concentrations is to assume three groups. First, a group of background concentrations including the stations from Building 790 through the BJY station. Then the stations with some reason for being a tritium source fall into a higher and a lower group with the EPA Farm being in the middle.

In Table B.3, the "p" value gives the probability associated with the F-statistic, and is the probability that there are no significant differences between the station means. Since the p value is very small (1.1×10^{-47}) essentially 0, the statistical conclusion is that there are differences between the station means, as was discussed in the previous paragraph and as indicated by the vertical bars in the table.

Table B.2 Descriptive Statistics by Sampling Station

<u>Station</u>	<u>Number</u>	<u>10⁻⁶ pCi/mL</u>				
		<u>Mean</u>	<u>Standard Deviation</u>	<u>Median</u>	<u>1st Quartile</u>	<u>3rd Quart</u>
BJY	23	1.75	1.95	1.14	0.48	2.33
RWMS No. 1	25	6.13	4.62	3.83	3.18	9.32
RWMS No. 2	24	4.82	3.45	4.55	3.21	8.03
RWMS No. 3	25	4.05	2.66	3.45	2.60	6.12
RWMS No. 4	25	5.14	3.78	4.84	3.13	5.41
RWMS No. 5	23	4.99	2.19	4.34	3.73	5.15
RWMS No. 6	24	5.45	8.27	3.55	1.97	5.61
RWMS No. 7	25	14.13	8.72	13.47	6.48	19.09
RWMS No. 8	24	8.93	9.40	5.66	2.95	11.90
RWMS No. 9	24	14.01	11.25	11.49	6.32	17.37
Gate 700	23	1.47	1.90	0.48	0.27	2.65
Area 12 Complex	24	1.27	1.78	0.59	0.32	1.76
EPA Farm	21	6.30	3.94	5.53	3.38	8.57
H&S Building Roof	23	0.90	1.10	0.57	0.16	1.25
East Boundary	24	0.78	1.19	0.43	0.19	1.24
Building 790	23	0.54	0.99	0.33	0.04	0.57
EMAD	<u>25</u>	<u>4.49</u>	<u>4.93</u>	<u>3.47</u>	<u>0.52</u>	<u>5.87</u>
All	405	5.06	6.60	3.39	0.78	6.25

Table B.3 Analysis of Variance on the Natural Log of Tritium in Air Concentrations

<u>Source</u>	<u>Degrees of Freedom</u>	<u>Sum of the Squares</u>	<u>Mean Square</u>	<u>F-Statistic</u>	<u>p Value</u>
Area	16	383.44	23.97	23.97	0.000
Error	369.95	1.00			
Total	386	753.39			

Table B.3 (Analysis of Variance on the Natural Log of Tritium in Air Concentrations, cont.)

Station	N	Log of Median	Standard Deviation	Individual 95 Percent Confidence Intervals CIs for Ln Median Based on Pooled Standard Deviation
Bldg. 790	18	-0.8706	1.0257	(---*---)
H&S Roof	21	-0.5853	1.1628	(--*---)
East Bnd	19	-0.3693	0.9538	(---*---)
Gate 700	22	-0.2946	1.2703	(---*---)
Area 12	21	-0.1651	1.0952	(---*---)
BJY	23	0.0326	1.1334	(--*---)
EMAD	25	0.7899	1.4189	(---*---)
RWMS #3	25	1.1635	0.8003	(---*---)
RWMS #4	25	1.1813	1.4625	(--*---)
RWMS #6	24	1.2334	0.9106	(---*---)
RWMS #2	22	1.4297	1.0078	(---*---)
RWMS #1	25	1.5054	0.8764	(---*---)
RWMS #5	23	1.5397	0.3497	(---*---)
EPA Farm	21	1.6426	0.6744	(---*---)
RWMS #8	24	1.8147	0.8391	(--*---)
RWMS #9	24	2.3714	0.7501	(---*---)
RWMS #7	25	2.4907	0.5670	(---*---)

Pooled Standard Deviation = 0.9999

-1.2 0.0 1.2 2.4

APPENDIX C

ONSITE ^{238}Pu , $^{239+240}\text{Pu}$, ^{90}Sr , GROSS ALPHA AND BETA, GAMMA- EMITTING RADIONUCLIDES, AND TRITIUM IN WATER

Lawrence E. Barker

Sampling locations, sampling dates, measured concentrations, and analytic standard deviations for ^{90}Sr , gross alpha, ^{238}Pu , $^{239+240}\text{Pu}$, gross beta, gamma emitting radionuclides, and tritium in water appear in Attachments C.1 through C.7, following this text. Statistical analyses of these data are presented below.

STRONTIUM-90

The arithmetic mean and standard deviation are for the network, respectively, 6.2×10^{-10} and 1.3×10^{-9} $\mu\text{Ci/mL}$ (2.3×10^{-2} and 4.8×10^{-2} Bq/L). Omitting a single dubious result, a sediment contaminated sample collected at Gold Meadows on July 9, these fall to 5.6×10^{-10} and 1.1×10^{-9} $\mu\text{Ci/mL}$ (2.1×10^{-2} and 4.1×10^{-2} Bq/L). Since more than 28 percent of the concentrations were negative, the geometric mean and standard deviation were not calculated.

Water sources sampled were divided into categories of potable water, natural springs, sewage lagoons, supply wells, open reservoirs, and containment ponds. Analyses are performed omitting the suspect observation described above. Concentrations in these sources are compared both by a one-way analysis of variance (ANOVA), which assumes concentrations are normally distributed, and a similar procedure, based on ranks of observed concentrations, which does not.

No probability distribution was found that fit the ^{90}Sr concentrations particularly well. This is illustrated in Figure C.1. There, natural logarithms of positive concentrations from sources other than containment ponds (historically, containment ponds have greater concentrations of ^{90}Sr than other water sources) are plotted versus normal scores. Were the distribution of ^{90}Sr concentrations lognormally distributed, a straight line would result. This does not happen. Similar analyses with other distributions failed to find a reasonable fit. Hence, both the rank-based and the classical ANOVA should be carried out.

In Table C.1, the table resulting from an ANOVA performed on logarithms of positive observed concentrations appears. Fisher's multiple comparison procedure was used to show that the average concentration in containment ponds is greater than that in other sources, and that differences among other sources are small enough to be explained by sampling error.

As the lognormal distribution does not fit the data very well, the preceding ANOVA should be viewed as an approximation. An alternative procedure, called the Kruskal-Wallis test, consists of replacing each observation with its rank among the combined sample (smallest observation is replaced with '1', second smallest is replaced with '2', etc.) and performing an ANOVA on

Table C.1 One-Way Analysis of the Variance on the Natural Log of ⁹⁰Sr Concentrations between Types of Water Samples

<u>Source</u>	<u>Degrees of Freedom</u>	<u>Sum of the Squares</u>	<u>Mean Square</u>	<u>F-Statistic</u>	<u>p Value</u>
Category	5	49.1	9.83	5.53	0.001
Error	<u>36</u>	<u>63.97</u>	1.78		
Total	41	113.11			

<u>Level</u>	<u>Number</u>	<u>Mean</u>	<u>Standard Deviation</u>	Individual 95 Percent CIs for Mean Based on Pooled Standard Deviation
1	6	-23.457	0.806	(---*---)
2	4	-23.036	1.503	(-----*-----)
3	3	-23.010	2.125	(-----*-----)
4	6	-22.571	1.246	(-----*-----)
5	11	-22.164	0.973	(---*---)
6	12	-20.497	1.587	(-----*-----)

Pooled Standard Deviation = 1.333

-24.0 -22.0 -20.0

KEY

<u>Level</u>	<u>Category</u>
1	Potable Water
2	Natural Spring
3	Sewage Lagoons
4	Supply Wells
5	Open Reservoirs
6	Containment Ponds

the ranks. This procedure, which compares medians rather than means, is valid under a wide variety of distributional assumptions at the price of lower power (less ability to detect differences between categories when they exist) than classical ANOVA.

The results of this analysis appear in Table C.2. There a statistic is calculated for each category which, if all categories have the same median, has a standard normal distribution. This appears under the heading 'Z-value'. These Z-values for each row of a table indicate, on the scale of a standardized normal variable, how much the mean rank for that row deviates from the overall mean rank. If all categories have the same median, the Kruskal-Wallis statistic has a chi-square distribution with degrees of freedom one less than the number of categories. The Kruskal-Wallis statistic and the associated p-value appear in Table C.2.

Tables C.1 and C.2 show that without making parametric assumptions, we cannot show that observed ⁹⁰Sr concentrations differ among categories of water samples. Similarly, the Tables

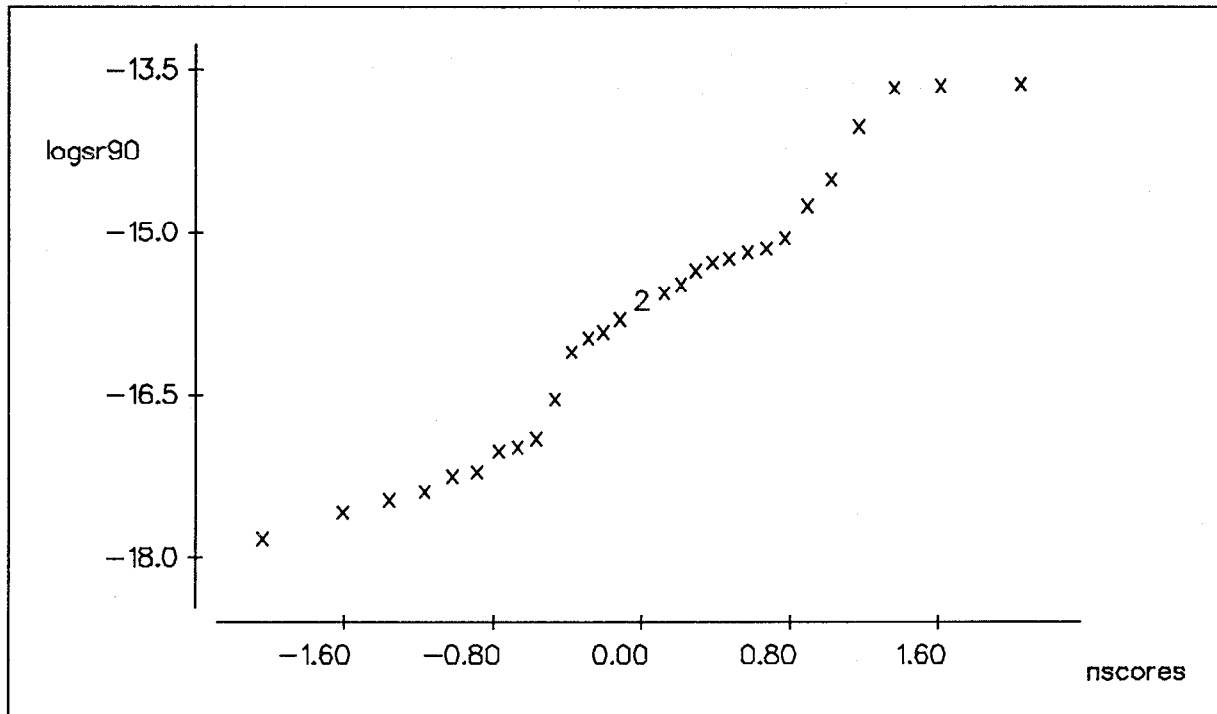


Figure C.1 Plot of Natural Logarithm of ⁹⁰Sr Concentrations in Water versus Normal Scores

show that the ordering of the categories of water samples with respect to concentration depends strongly on whether the mean (Table C.1) or the median (Table C.2) concentration is meant. In both Tables, concentrations were greatest in containment ponds. This is not surprising, as water from tunnels in Ranier Mesa, where much experimental activity occurs, drains into the containment ponds.

A similar analysis, not reported here in detail, failed to find a statistically significant difference among concentrations by month of sampling.

Table C.2 Results of Kruskal-Wallis Test for Equality of Median ⁹⁰Sr Concentrations among Categories of Water Samples (μCi/mL)

<u>Category</u>	<u>Number</u>	<u>Median</u>	<u>Average Rank</u>	<u>Z-Value</u>
Supply Wells	11	1.8×10^{-11}	21.9	-1.73
Sewage Lagoons	4	3.0×10^{-11}	24.2	-0.67
Natural Springs	5	3.3×10^{-11}	26.8	-0.44
Potable Water	8	4.1×10^{-11}	24.1	-1.04
Open Reservoirs	14	1.9×10^{-10}	34.0	0.95
Containment Ponds	18	1.1×10^{-9}	36.8	2.02

Kruskal-Wallis Statistic: 7.55 Degrees of Freedom: 5 p-Value: 0.184

Measurement error for ^{90}Sr concentrations is not negligible. To quantify this, the coefficient of variation (analytic standard deviation divided by observed concentration) was calculated for each positive observation. This appears as a histogram in Figure C.2. The frequency of relatively great coefficients of variation can be attributed to the short count time allowed for samples analyzed for ^{90}Sr . Increased count times would result in smaller coefficients of variation.

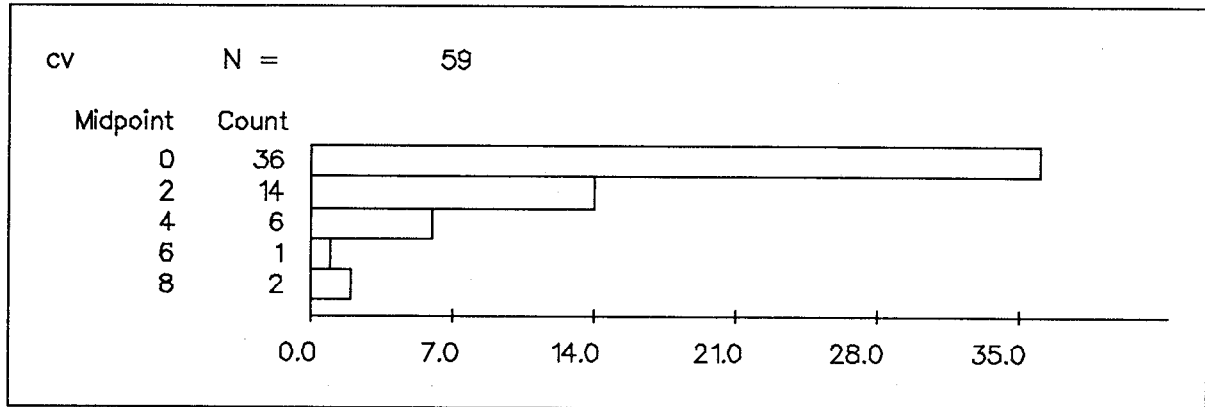


Figure C2. Histogram of Coefficient of Variation for Each Positive Observed Concentration of ^{90}Sr

GROSS ALPHA

Gross α concentrations were measured in potable water and samples from water wells, but not in other water sources. The arithmetic mean of all observed concentrations was 7.2×10^{-9} $\mu\text{Ci}/\text{mL}$ (2.7×10^{-1} Bq/L) and the standard deviation was 7.3×10^{-9} $\mu\text{Ci}/\text{mL}$ (2.7×10^{-1} Bq/L).

Due to subtraction of background, approximately 4 percent of the observed gross α concentrations in water were negative. Ignoring these values and calculating the geometric mean and standard deviation with the remaining data, the geometric mean and standard deviation were, respectively, 4.3×10^{-9} $\mu\text{Ci}/\text{mL}$ (1.6×10^{-1} Bq/L) and 5.3.

Neither the normal nor lognormal distribution fit the data, either combined or broken down into smaller subsets. This is illustrated in Figure C.3, where concentrations ($\times 10^9$) were plotted versus normal scores. As a straight line indicates normality, the normal distribution does not fit the data. The lognormal distribution's fit was similarly poor. Hence, rather than a classical ANOVA, the Kruskal-Wallis test, discussed in the preceding section, was used. For ^{90}Sr an analysis of variance between sample types was done. For gross alpha there is only one sample type, potable water, so an analysis of variance between sample types is not possible.

In Table C.3, potable water and water from water wells are compared. Although the differences are not statistically significant at the 0.05 level, they are almost so. This suggests that gross α concentrations in potable water might be slightly less than that in water wells.

In Table C.4, samples are compared among NTS operational areas. Here, differences among areas are highly statistically significant. Concentrations tended to be greater in Areas 1 and 5 (respectively, samples from Building 101 and Well 5C) and lesser in Areas 2, 12, 18, and 25

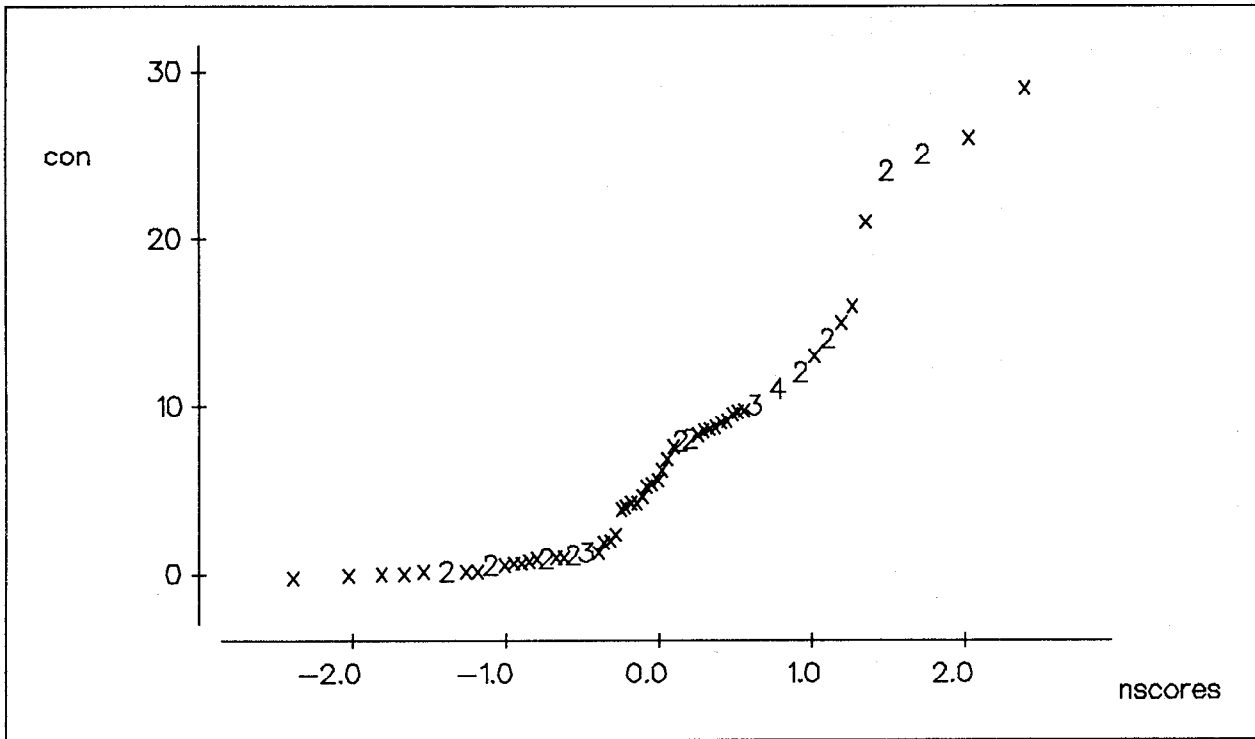


Figure C.3 Plot of Concentrations of Gross α in Water ($\times 10^9$) versus Normal Scores

Table C.3 Results of Kruskal-Wallis Test for Equality of Median Gross α Concentrations among Types of Water Samples ($\mu\text{Ci/mL}$)

Source	Number	Median	Average Rank	Z-Value
Potable Water	36	5.1×10^{-9}	32.5	-1.94
Water Wells	38	6.5×10^{-9}	42.2	1.94
Overall	74		37.5	

Kruskal-Wallis statistic = 3.75 Degrees of Freedom = 1 p-Value = 0.053

Table C.4 Results of Kruskal-Wallis Test for Equality of Median Gross α Concentrations among NTS Areas ($\mu\text{Ci/mL}$)

Area	Number	Median	Average Rank	Z-Value
2	4	3.2×10^{-10}	12.1	-2.43
12	4	5.3×10^{-10}	12.5	-2.39
18	4	7.6×10^{-10}	15.1	-2.14
25	12	1.0×10^{-9}	19.4	-3.18
23	4	5.1×10^{-9}	36.1	-0.13

Table C.4 (Results of Kruskal-Wallis Test for Equality of Median Gross α Concentrations among NTS Areas ($\mu\text{Ci/mL}$), cont.)

<u>Area</u>	<u>Number</u>	<u>Median</u>	<u>Average Rank</u>	<u>Z-Value</u>
22	4	6.8×10^{-9}	39.5	0.19
20	2	7.2×10^{-9}	44.0	0.43
6	20	8.3×10^{-9}	44.1	1.61
27	4	9.0×10^{-9}	50.0	1.20
3	4	9.6×10^{-9}	53.0	1.48
1	4	1.2×10^{-8}	58.9	2.04
5	4	1.2×10^{-8}	59.5	2.10
16	4	1.7×10^{-8}	56.1	1.78
Overall	74		37.5	

Kruskal-Wallis statistic = 40.49 Degrees of Freedom = 12 p-Value = 0.000

Table C.5 Results of Kruskal-Wallis Test for Equality of Median Gross α Concentrations among Months ($\mu\text{Ci/mL}$)

<u>Month</u>	<u>Number</u>	<u>Median</u>	<u>Average Rank</u>	<u>Z-Value</u>
January	17	5.4×10^{-9}	37.4	-0.03
April	19	7.9×10^{-9}	37.5	0.00
July	18	5.8×10^{-9}	36.1	-0.33
October	18	7.4×10^{-9}	39.9	0.54
December	2	4.8×10^{-9}	30.2	-0.48
Overall	74		37.5	

Kruskal-Wallis statistic = 0.53 Degrees of Freedom = 4 p-Value = 0.971

(respectively, samples from Area 2 restroom, Area 12 Cafeteria, Area 18 Well 8, and Area 25 Building 4221). Since all but a few Areas only had one sampling location, an analysis comparing concentrations by sampling location is not carried out.

In Table C.5, concentrations are compared by month of sampling. No statistically significant differences are found. To assess measurement error in measured gross α concentrations, we consider empirical coefficients of variation. A histogram of the empirical coefficient of variation for those measured concentrations that exceed 0.00 appears in Figure C.4. In general, coefficients of variation for gross α tend to be small. In particular, note the absence of the large coefficients of variation that occur for many other contaminants.

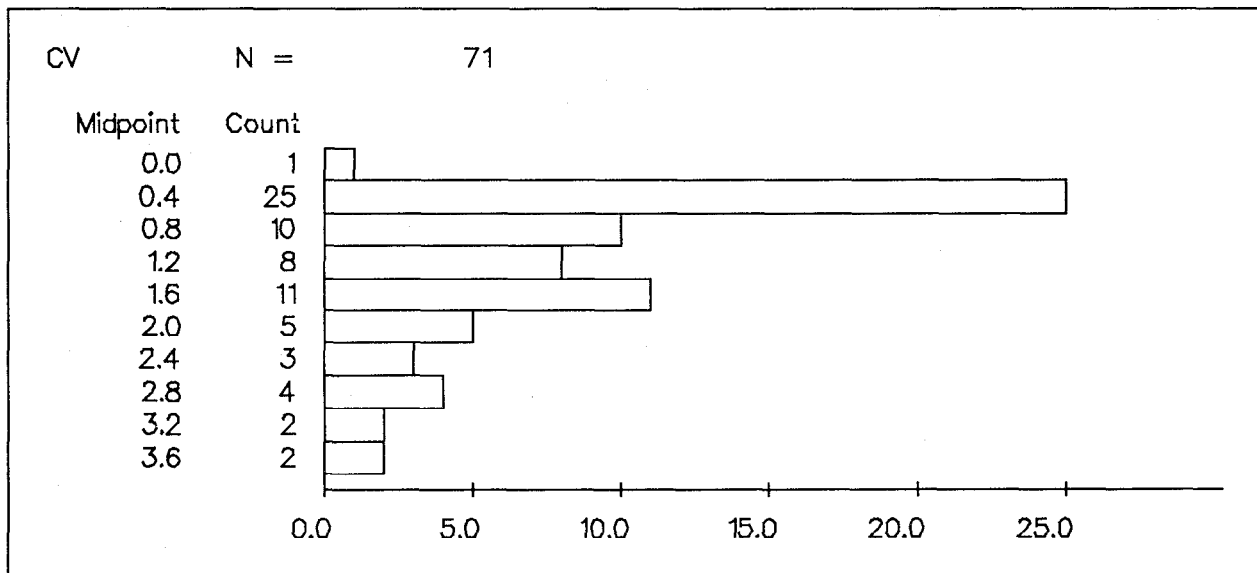


Figure C.4 Histogram of Empirical Coefficients of Variation of Measured Gross α Concentrations in Water

PLUTONIUM-238

The arithmetic mean and standard deviation of the ^{238}Pu concentrations of all water samples were, respectively, $3.5 \times 10^{-11} \mu\text{Ci/mL}$ ($1.3 \times 10^{-3} \text{ Bq/L}$) and $1.4 \times 10^{-10} \mu\text{Ci/mL}$ ($5.2 \times 10^{-3} \text{ Bq/L}$). As approximately 40 percent of the measured concentrations were negative, due to subtraction of background, no geometric mean or standard deviation is calculated.

An exploratory data analysis revealed that the normal distribution fitted the data reasonably well. This is illustrated in Figure C.5, where all concentrations except those from containment ponds, multiplied by 10^{11} and with a single dubious observation omitted, are plotted versus normal scores. A straight line indicates a normal distribution. Although the points in Figure C.5 do not perfectly follow a straight line, it is thought that the normal distribution is an adequate approximation.

Water sources sampled were divided into categories of potable water, natural springs, sewage lagoons, supply wells, open reservoirs, and containment ponds.

Analyses are performed omitting the suspect observation described above. Concentrations in these sources are compared, both across categories and month of sample collection, by a two-way ANOVA. The ANOVA, presented in Table C.6, shows concentrations differ by both categories and months of sampling.

Concentrations are compared among categories in Table C.7. Fisher's multiple comparison procedure indicates that concentrations in containment ponds are greater than in other categories, and that differences among other categories are small enough to plausibly attribute to sampling variation. Concentrations are compared among months in Table C.8. Fisher's multiple comparison procedure confirms the visual impression that concentrations are generally decreasing over time. (The number of observations collected in December is too small to be meaningful.)

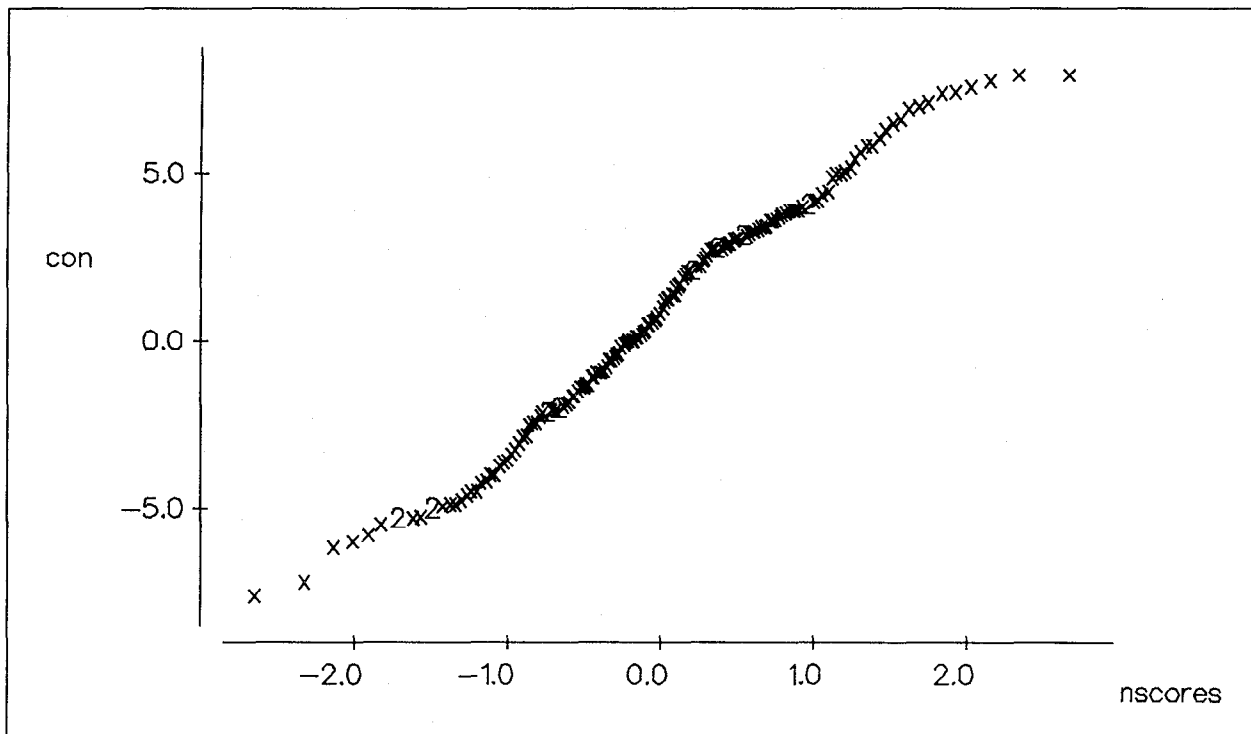


Figure C.5 Plot of ^{238}Pu Concentration $\times 10^{11}$ ($\mu\text{Ci}/\text{mL}$) from All Sources Other than Containment Ponds versus Normal Scores

Table C.6 Two-Way Analysis of Variance on ^{238}Pu Concentrations $\times 10^{11}$ ($\mu\text{Ci}/\text{mL}$)

<u>Source</u>	<u>Degrees of Freedom</u>	<u>Sequential Sum of Squares</u>	<u>Sum of Squares</u>	<u>Mean Square</u>	<u>F-Statistic</u>	<u>p-Value</u>
Category	5	5062.1	5100.3	1020.1	7.06	0.000
Month	4	2416.0	2416.0	604.0	4.18	0.003
Error	<u>185</u>	<u>26718.8</u>	26718.8	144.4		
Total	194	34196.8				

Table C.7 One-Way Analysis of Variance on ^{238}Pu Concentrations $\times 10^{11}$ ($\mu\text{Ci}/\text{mL}$) Comparing Concentrations among Categories

<u>Source</u>	<u>Degrees of Freedom</u>	<u>Sum of Squares</u>	<u>Mean Square</u>	<u>F-Statistic</u>	<u>p-Value</u>
Category	5	5062	1012	6.57	0.000
Error	<u>189</u>	<u>29135</u>	154		
Total	194	34197			

Table C.7 (One-way Analysis of Variance on ²³⁸Pu Concentrations x 10¹¹ (μCi/mL), Comparing Concentrations among Categories, cont.)

<u>Level</u>	<u>Number</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>Individual 95 Percent CIs for the Mean Based on Pooled Standard Deviation</u>
1	20	0.22	3.79	(---*---)
2	11	0.38	5.13	(-----*-----)
3	55	0.69	4.30	(---*---)
4	35	1.05	3.07	(---*---)
5	43	1.51	4.01	(---*---)
6	31	14.79	29.78	(-----*-----)

Pooled Standard Deviation = 12.42

0.0 8.0 16.0

KEY

<u>Level</u>	<u>Category</u>
1	Natural Springs
2	Sewage Lagoons
3	Open Reservoirs
4	Potable Water
5	Supply Wells
6	Containment Ponds

Table C.8 One-Way Analysis of Variance on Pu Concentrations x 10¹¹ (μCi/mL) Comparing Concentrations among Months of Sampling

<u>Source</u>	<u>Degrees of Freedom</u>	<u>Sum of Squares</u>	<u>Mean Square</u>	<u>F-Statistic</u>	<u>p-Value</u>
Month	4	2378	594	3.55	0.008
Error	<u>190</u>	<u>31819</u>	167		
Total	194	34197			

<u>Month</u>	<u>Number</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>Individual 95 Percent CIs for the Mean Based on Pooled Standard Deviation</u>
January	51	8.06	20.10	(-----*-----)
April	55	4.12	8.32	(---*---)
July	34	0.04	9.80	(---*---)
October	53	-0.63	9.52	(-----*-----)
December	2	0.65	0.24	(*)

Pooled Standard = 12.94

-10 0 10

To assess measurement error in measured ^{238}Pu concentrations, we consider empirical coefficients of variation (analytical error). A histogram of the empirical coefficient of variation for positive measured concentrations appears in Figure C.6. Four coefficients of variation that exceed 16.0 are omitted to facilitate interpretation of the histogram. The histogram indicates that, in an appreciable proportion of the cases, analytical error is not negligible in ^{238}Pu concentrations.

PLUTONIUM-239+240

The arithmetic mean and standard deviation of the measured $^{239+240}\text{Pu}$ concentrations were, respectively, $2.7 \times 10^{-10} \mu\text{Ci/mL}$ ($1.0 \times 10^{-2} \text{Bq/L}$) and $1.2 \times 10^{-9} \mu\text{Ci/mL}$ ($4.4 \times 10^{-2} \text{Bq/L}$). As subtraction of background caused 31 percent of the measured concentrations to be negative, no geometric mean or standard deviation is calculated.

No probability distribution was found that fit the data particularly well. This is illustrated in Figure C.7, where concentrations from containment ponds ($\times 10^{10}$) are plotted versus normal scores. As distributions from other sources are similar in appearance, these plots are not presented. The non-linearity of the plot indicates the non-normality of the data. Similar analyses indicated that the log-normal distribution did not fit the data either. Hence, data analysis proceeded by means of the Kruskal-Wallis test rather than classical ANOVA.

Water sources are divided into categories of potable water, supply wells, open reservoirs, sewage lagoons, natural springs, and containment ponds. These are compared by a Kruskal-Wallis test. Results appear in Table C.9. It is not surprising that concentrations are greatest in containment ponds, since water from tunnels in Ranier Mesa, where much experimental activity occurs, drains into the containment ponds.

Concentrations are compared by month of sample collection in Table C.10. Greater concentrations are indicated mid-year than at the year's beginning and end. The mid-year increase is probably due to the slight annual fallout described on page A-3.

To assess measurement error in measured $^{239+240}\text{Pu}$ concentrations, we consider empirical coefficients of variation. A histogram of the empirical coefficient of variation for positive

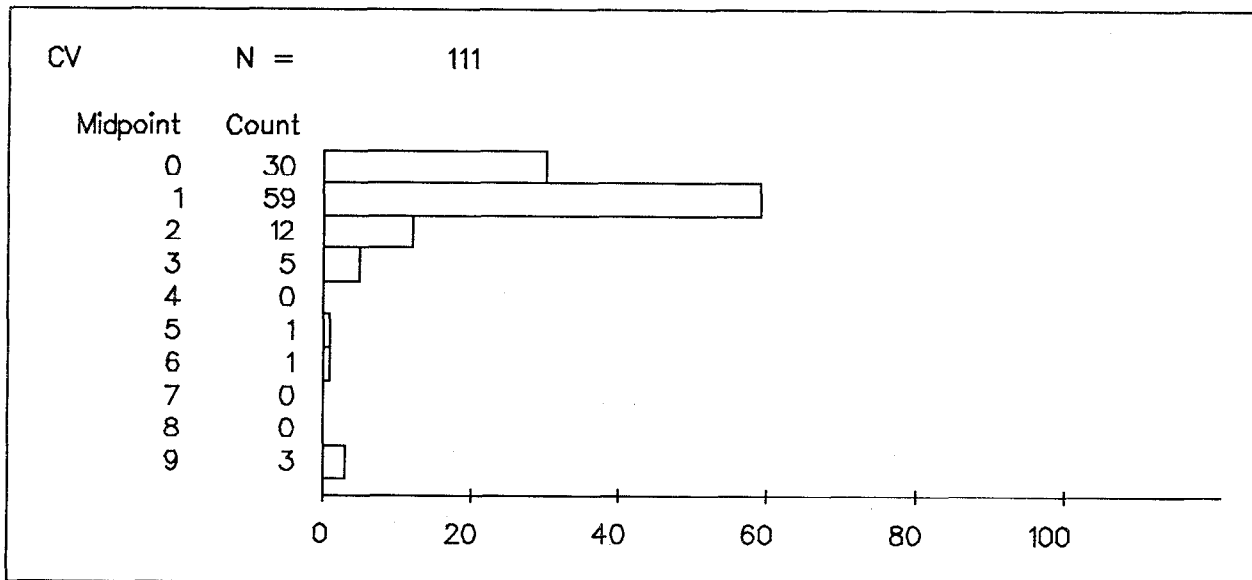


Figure C.6 Histogram of Empirical Coefficients of Variation for ^{238}Pu Concentrations in Water

Table C.9 Results of Kruskal-Wallis Test for Equality of Median ²³⁹⁺²⁴⁰Pu Concentrations among Types of Water Samples (μCi/mL)

<u>Level</u>	<u>Number</u>	<u>Median</u>	<u>Average Rank</u>	<u>Z-Value</u>
1	36	4.8 x 10 ⁻¹³	77.8	-3.08
2	48	6.1 x 10 ⁻¹³	84.8	-2.78
3	57	3.0 x 10 ⁻¹²	96.4	-1.45
4	12	3.7 x 10 ⁻¹²	97.2	-0.54
5	25	1.5 x 10 ⁻¹¹	129.9	2.03
6	34	1.4 x 10 ⁻¹⁰	170.5	6.64
Overall	212		106.5	

Kruskal-Wallis statistic = 56.31 Degrees of Freedom = 5 p-Value = 0.000

KEY

<u>Level</u>	<u>Category</u>
1	Potable Water
2	Supply Wells
3	Open Reservoirs
4	Sewage Lagoons
5	Natural Springs
6	Containment Ponds

Table C.10 Results of Kruskal-Wallis Test for Equality of Median ²³⁹⁺²⁴⁰Pu Concentrations among Months of Sample Collection (μCi/mL)

<u>Month</u>	<u>Number</u>	<u>Median</u>	<u>Average Rank</u>	<u>Z-Value</u>
January	51	1.1 x 10 ⁻¹²	86.2	-2.71
April	56	3.0 x 10 ⁻¹²	98.1	-1.20
July	50	3.0 x 10 ⁻¹¹	157.3	6.70
November	53	1.2 x 10 ⁻¹²	86.6	-2.73
December	2	8.5 x 10 ⁻¹²	116.7	0.24
Overall	212		106.5	

Kruskal-Wallis statistic = 46.60 Degrees of Freedom = 4 p-Value = 0.000

measured concentrations appears in Figure C.8. Four coefficients of variation that exceed 17.0 are omitted to facilitate interpretation of the histogram. The histogram suggests coefficients of variation might be bimodal. This phenomenon was also noted for ²³⁹⁺²⁴⁰Pu concentrations in air. As with samples in air, no pattern with source or month of sample collection was noted. A possible explanation is that counting time might have varied with demands on laboratory facilities.

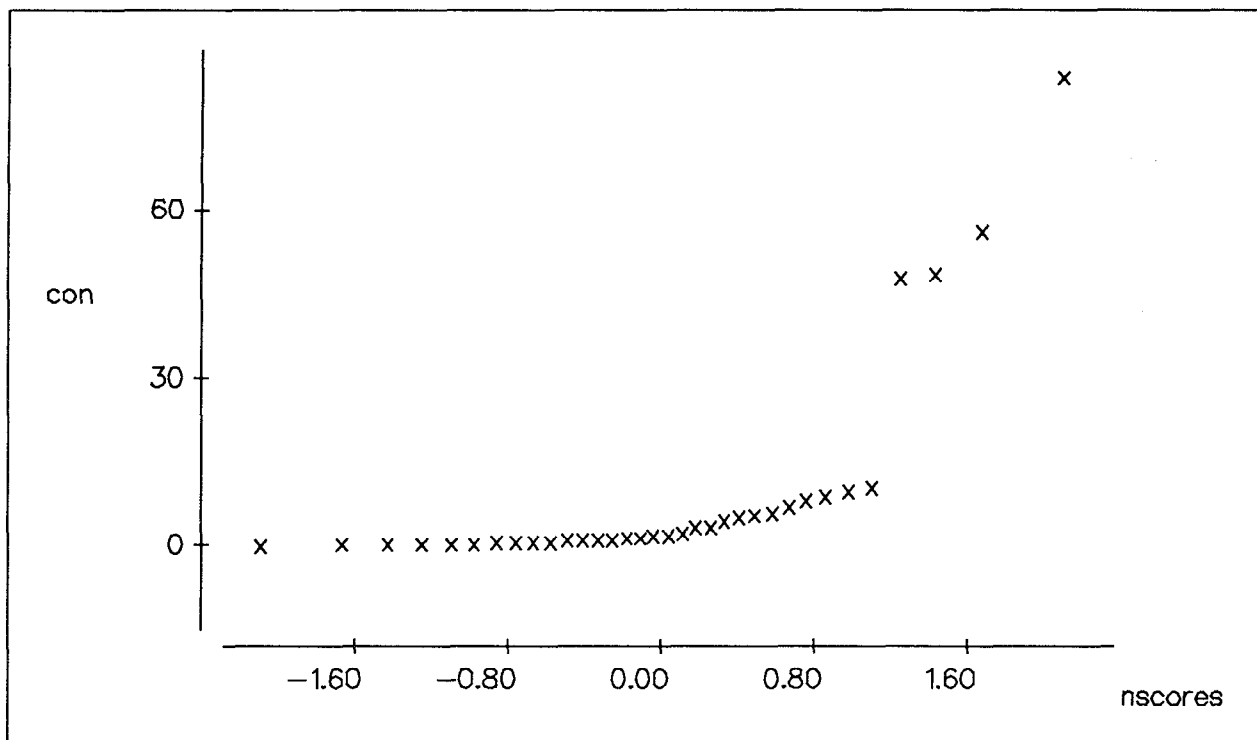


Figure C.7 Plot of Concentrations of $^{239+240}\text{Pu}$ from Containment Ponds ($\times 10^{10}$) versus Normal Scores

GROSS BETA

The arithmetic mean of observed gross β concentrations was $1.9 \times 10^{-8} \mu\text{Ci/mL}$ ($7.0 \times 10^{-1} \text{Bq/L}$), with a standard deviation of $6.2 \times 10^{-8} \mu\text{Ci/mL}$ ($2.3 \times 10^0 \text{B/mL}$). More than 96 percent of the observed concentrations were positive. The geometric mean and standard deviation of the positive measurements were, respectively, $7.7 \times 10^{-9} \mu\text{Ci/mL}$ ($2.8 \times 10^{-1} \text{Bq/L}$) and 3.2.

Water sources sampled were divided into categories of potable water, natural springs, sewage lagoons, supply wells, open reservoirs, and containment ponds. Analyses are performed omitting the suspect observation described above. Concentrations in these sources are compared both by a one-way analysis of variance (ANOVA), which assumes concentrations are lognormally distributed, and a similar procedure, based on ranks of observed concentrations, which does not.

No probability distribution was found that fit the gross β concentrations particularly well. This is illustrated in Figure C.9. There, natural logarithms of positive concentrations from natural springs (the category for which the lognormal distribution worked best) is plotted versus normal scores. Were the distribution of gross β concentrations lognormally distributed, a straight line would result. Instead, a curve reasonably straight in the middle with nonlinearity at the ends occurs. Other categories (potable water, sewage lagoons, etc.) displayed similar characteristics. Similar analyses with other distributions failed to find a reasonable fit. Hence, both the Kruskal-Wallis test and classical ANOVA procedures were carried out. While the Kruskal-Wallis test is statistically more appropriate than the analysis of variance, only the analysis of variance has an associated multiple comparison procedure that gives an analysis of clustering among categories.

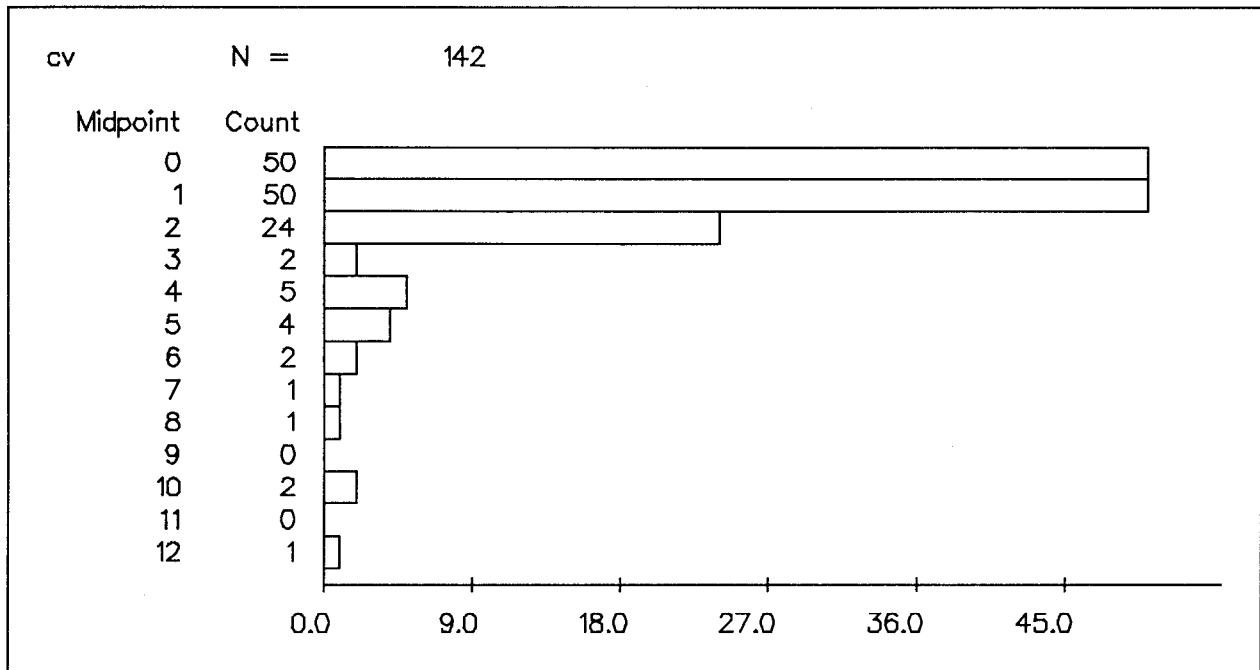


Figure C.8 Histogram of Empirical Coefficients of Variation for ²³⁹⁺²⁴⁰Pu Samples in Water

Table C.11 Analysis of Variance on Natural Logarithms of Gross β in Water

Source	Degrees of Freedom	Sum of Squares	Mean Square	F-Statistic	p-Value
Category	5	454.78	90.95	102.77	0.000
Error	907	802.77	0.88		
Total	912	1257.54			

Level	N	Mean	Standard Deviation	Individual 95 Percent CIs for Mean Based on Pooled Standard Deviation
1	415	-19.115	0.811 (*)	
2	137	-18.907	0.888 (-*-)	
3	173	-18.804	0.669 (-*-)	
4	73	-18.134	1.127 (--*--)	
5	12	-18.023	2.196 (-----*-----)	
6	103	-16.864	1.407 (--*--)	

Pooled Standard Deviation = 0.941 -18.90 -18.20 -17.50 -16.80

Table C.11 (Analysis of Variance on Natural Logarithms of Gross β in Water, cont.)

KEY

<u>Level</u>	<u>Category</u>
1	Potable Water
2	Supply Wells
3	Open Reservoirs
4	Natural Springs
5	Sewage Lagoons
6	Containment Ponds

In Table C.11, the table resulting from an ANOVA performed on logarithms of positive observed concentrations appears, indicating a difference among categories.

Fisher's multiple comparison procedure was used to group categories of water sources into four clusters, consisting of the following, in increasing order of degree of contamination: (cluster one) potable water, (cluster two) supply wells and open reservoirs, (cluster three) natural springs and sewage lagoons, and (cluster four) containment ponds. Note that, under the assumption of lognormality, water sources within the same cluster differ in gross β contamination by an amount that is plausibly attributable to sampling variation. However, differences among clusters are statistically significant at the 0.05 level.

As the assumption of lognormality can be called into question, the preceding ANOVA should be viewed as an approximation. An alternative procedure, called the Kruskal-Wallis test, consists of replacing each observation with its rank among the combined sample (smallest observation is replaced with '1', second smallest is replaced with '2', etc.) and performing an ANOVA on the ranks. This procedure, which compares medians rather than means, is valid under a wide variety of distributional assumptions at the price of lower power (less ability to detect differences between categories when they exist) than classical ANOVA.

Table C.12 Results of Kruskal-Wallis Test for Equality of Median Gross β Concentrations among Categories of Water Samples ($\mu\text{Ci/mL}$)

<u>Category</u>	<u>Number</u>	<u>Median</u>	<u>Average Rank</u>	<u>Z-Value</u>
Potable Water	448	4.8×10^{-9}	370.4	-11.22
Supply Wells	138	7.0×10^{-9}	459.8	-0.77
Open Reservoirs	173	7.0×10^{-9}	499.3	1.21
Natural Springs	73	9.3×10^{-9}	631.4	5.01
Sewage Lagoons	12	2.5×10^{-8}	457.8	3.57
Containment Ponds	108	6.2×10^{-8}	765.4	11.60
Overall	952		476.5	

Kruskal-Wallis Statistic: 223.32 Degrees of Freedom: 5 p-Value: 0.000

The results of this analysis appear in Table C.12. Despite the apparent lack of lognormality, the results of the Kruskal-Wallis Test agree with the ANOVA presented earlier.

Measurement error for gross β concentrations is generally negligible. To quantify this, the coefficient of variation was calculated for each positive observation. This appears as a histogram in Figure C.10. Coefficients of variation greater than 2.0 (less than 2 percent of the total) were omitted to enhance readability.

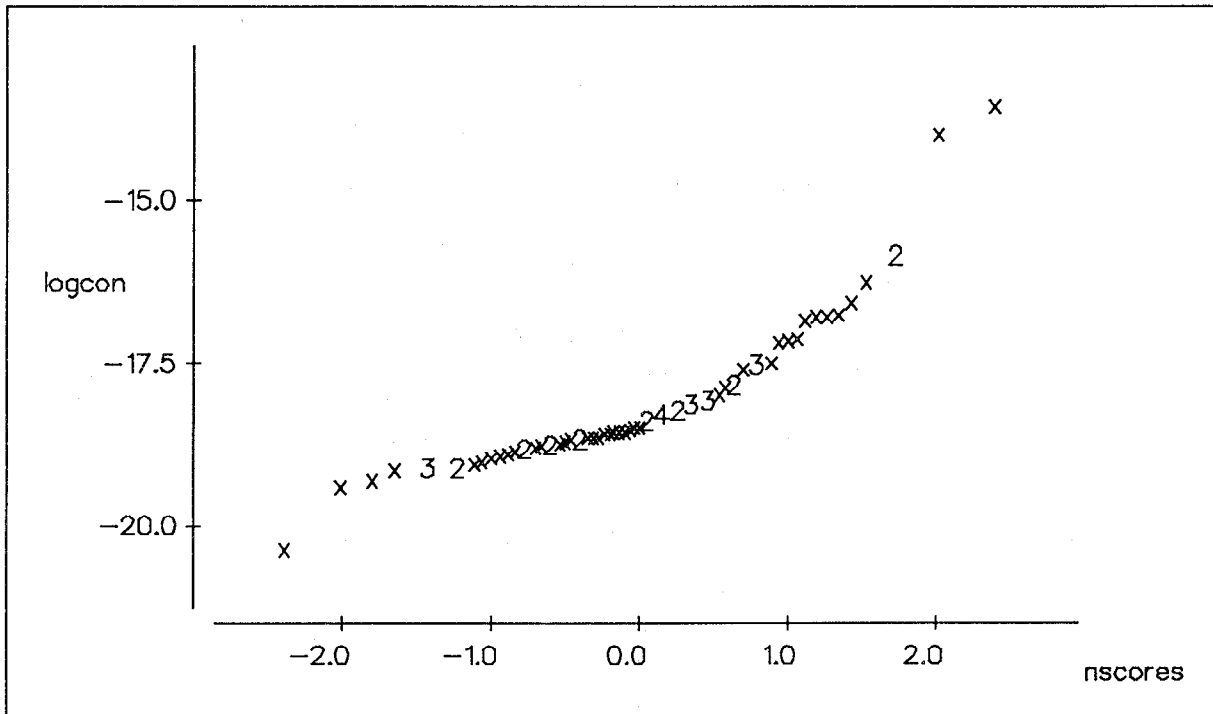


Figure C.9 Plot of Natural Logarithms of Gross β in Natural Springs versus Normal Scores

GAMMA EMITTING RADIONUCLIDES

The only gamma-emitting radionuclides found in more than one water sample were the following: ^{214}Bi , ^{137}Cs , ^{40}K , ^{212}Pb , ^{214}Pb , ^{208}Tl , ^{235}U . Of these, all but ^{137}Cs and ^{235}U are naturally occurring. The number of samples containing each of these radionuclides, as well as the arithmetic mean, standard deviation, geometric mean, and geometric standard deviation appear in Table C.13.

TRITIUM

Exploratory data analysis indicated tritium levels in containment ponds were different populations than tritium levels in other water sources, so they were analyzed separately.

Water from Sources Other than Containment Ponds

The arithmetic mean and standard deviation of the observed concentrations were, respectively, 2.4×10^{-8} and 2.3×10^{-7} $\mu\text{Ci/mL}$ (8.9×10^{-1} and 8.5×10^0 Bq/L). Since approximately 49 percent of the concentrations were negative, due to subtraction of background, no geometric mean or standard deviation was calculated.

Table C.13 Summary of Concentrations of Gamma-Emitting Radionuclides in Water

Radio-nuclide	Number of Samples	Arithmetic Mean $\mu\text{Ci/mL (Bq/L)}$	Standard Deviation $\mu\text{Ci/mL (Bq/L)}$	Geometric Mean $\mu\text{Ci/mL (Bq/L)}$	Geometric Standard Deviation
^{214}Bi	47	3.3×10^{-6} (1.2×10^2)	1.0×10^{-5} (3.7×10^2)	1.0×10^{-6} (3.7×10^1)	3.3
^{137}Cs	8	9.8×10^{-8} (3.6×10^0)	3.5×10^{-8} (1.3×10^0)	9.1×10^{-8} (3.4×10^0)	1.6
^{40}K	7	5.5×10^{-6} (2.0×10^2)	1.6×10^{-7} (5.9×10^0)	5.3×10^{-7} (2.0×10^1)	1.3
^{212}Pb	65	1.3×10^{-7} (4.8×10^0)	3.9×10^{-8} (1.4×10^0)	1.2×10^{-7} (4.4×10^0)	1.4
^{214}Pb	79	3.2×10^{-6} (1.2×10^2)	7.4×10^{-6} (2.7×10^2)	1.0×10^{-6} (3.7×10^1)	3.7
^{208}Tl	8	5.6×10^{-8} (2.1×10^0)	2.0×10^{-8} (7.4×10^{-1})	5.3×10^{-8} (2.0×10^0)	1.4
^{235}U	3	1.3×10^{-7} (4.8×10^0)	3.4×10^{-8} (1.3×10^0)	1.2×10^{-7} (4.4×10^0)	1.3

An exploratory data analysis revealed that the normal distribution fitted the data reasonably well. This is illustrated in Figure C.11, where concentrations from supply wells are plotted versus normal scores. As concentrations from other sources are similar, they are not plotted. Points falling on a straight line indicates a normal distribution. Although the points in Figure C.11 do not perfectly follow a straight line, it is thought that the normal distribution is an adequate approximation.

Water sources sampled were divided into categories of potable water, supply wells, open reservoirs, sewage lagoons, and natural springs. Concentrations, $\times 10^7$, in these sources are compared, both across categories and month of sample collection, by a two-way ANOVA. The ANOVA, presented in Table C.14, shows concentrations differ by both categories and months of sampling.

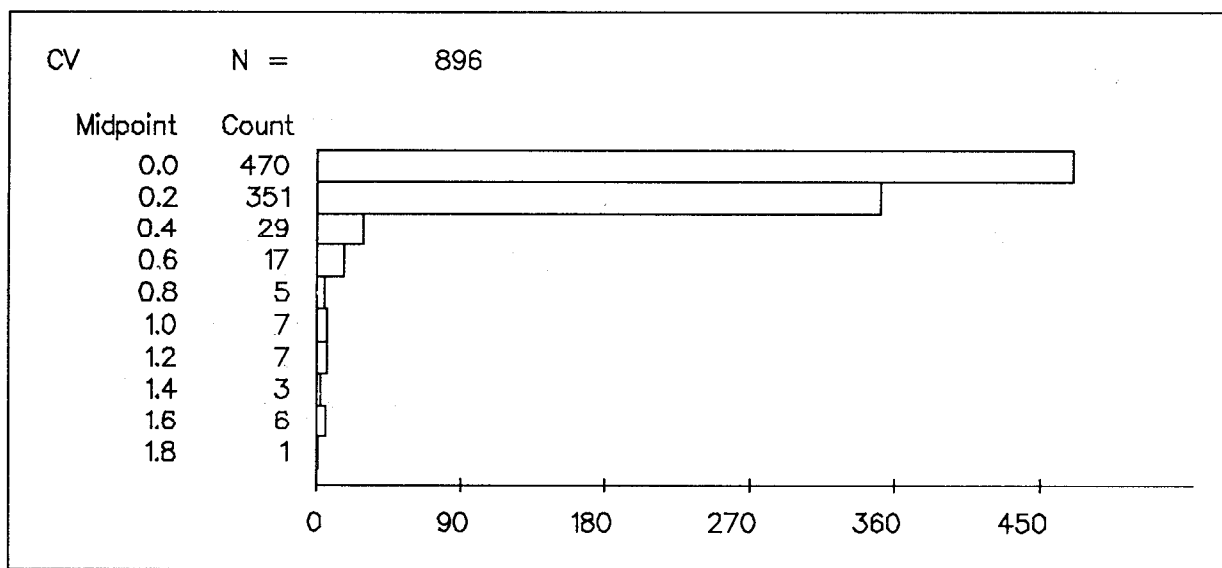


Figure C.10 Histogram of Empirical Coefficients of Variation of Measured Gross β Concentrations in Water

Table C.14 Two-Way Analysis of Variance on ^3H Concentrations $\times 10^7$ ($\mu\text{Ci/ml}$) on Water Samples from Sources Other than Containment Ponds

<u>SOURCE</u>	<u>Degrees of Freedom</u>	<u>Sequential Sum of Squares</u>	<u>Sum of Squares</u>	<u>Mean Square</u>	<u>F-Statistic</u>	<u>p-Value</u>
Month	11	191.59	193.99	17.64	3.57	0.000
Category	4	289.58	289.58	72.39	14.64	0.000
Error	<u>847</u>	<u>4188.32</u>	4188.32	4.94		
Total	862	4669.48				

Table C.15 Analysis of Variance on Concentrations $\times 10^7$ ($\mu\text{Ci/mL}$) of ^3H in Water Samples other than Containment Ponds

<u>Source</u>	<u>Degrees of Freedom</u>	<u>Sum of Squares</u>	<u>Mean Square</u>	<u>F-Statistic</u>	<u>p-Value</u>
Category	4	287.18	71.80	14.06	0.000
Error	<u>858</u>	<u>4382.30</u>	5.11		
Total	862	4669.48			

<u>Level</u>	<u>Number</u>	<u>Mean</u>	<u>Standard Deviation</u>	Individual 95 Percent CIs for Mean Based on Pooled Standard Deviation
1	464	-0.166	1.823	(- * - - - -)
2	140	0.110	1.325	(- - * - -)
3	173	0.735	2.016	(- * - -)
4	12	1.545	2.932	(- - - - * - - - -)
5	74	1.642	4.975	(- - * - -)

Pooled Standard Deviation = 2.260

0.0 1.0 2.0 3.0

KEY

<u>Level</u>	<u>Category</u>
1	Potable Water
2	Supply Wells
3	Open Reservoirs
4	Sewage Lagoons
5	Natural Springs

Concentrations are compared among categories in Table C.15. Fisher's multiple comparison procedure indicates that concentrations differ among all categories except possibly in sewage

Table C.16 Analysis of Variance on Concentrations x 10⁷ μCi/mL of ³H in Water Samples Other than Containment Ponds

<u>Source</u>	<u>Degrees of Freedom</u>	<u>Sum of Squares</u>	<u>Mean Square</u>	<u>F-Statistic</u>	<u>p-Value</u>
Month	11	191.59	17.42	3.31	0.000
Error	<u>851</u>	<u>4477.89</u>	5.26		
Total	862	4669.48			

<u>Month</u>	<u>Number</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>Individual 95 Percent CIs for Mean Based on Pooled Standard Deviation</u>
January	76	0.029	1.758	(---*---)
February	59	0.703	1.456	(---*---)
March	77	0.035	1.475	(---*---)
April	83	0.182	1.368	(---*---)
May	68	0.090	1.146	(---*---)
June	69	-0.602	1.750	(---*---)
July	80	0.367	4.766	(---*---)
August	67	1.298	2.902	(---*---)
September	68	0.463	2.250	(---*---)
October	80	0.313	2.161	(---*---)
November	67	-0.477	1.118	(---*---)
December	69	0.559	2.325	(---*---)

-----+-----+-----+-----+-----
 Pooled Standard Deviation = 2.294
 -1.0 0.0 1.0 2.0

lagoons. As the number of observations in sewage lagoons is small, it is not possible to say if this category could be subsumed by another or should stand alone.

Concentrations are compared among months in Table C.16. There it can be seen that concentrations differ among months. Examination of the data reveals lower concentrations in June and November, with greater concentrations in August and perhaps February. Concentrations differed little by month throughout the remainder of the year.

To assess measurement error in ³H concentrations, we consider empirical coefficients of variation. A histogram of the empirical coefficient of variation for those measured concentrations that exceed 0.00, excluding three outliers greater than 5.0, appears in Figure C.12. Compared to other contaminants, coefficients of variation for ³H concentrations are quite small.

Water from Containment Ponds

The arithmetic mean and standard deviation of ³H concentrations in samples from containment ponds are, respectively, 2.9 x 10⁻³ and 4.0 x 10⁻³ μCi/mL (1.1 x 10⁵ and 1.5 x 10⁵ Bq/L). All observed concentrations were positive. The geometric mean was 6.2 x 10⁻⁴ μCi/mL (2.3 x 10⁴

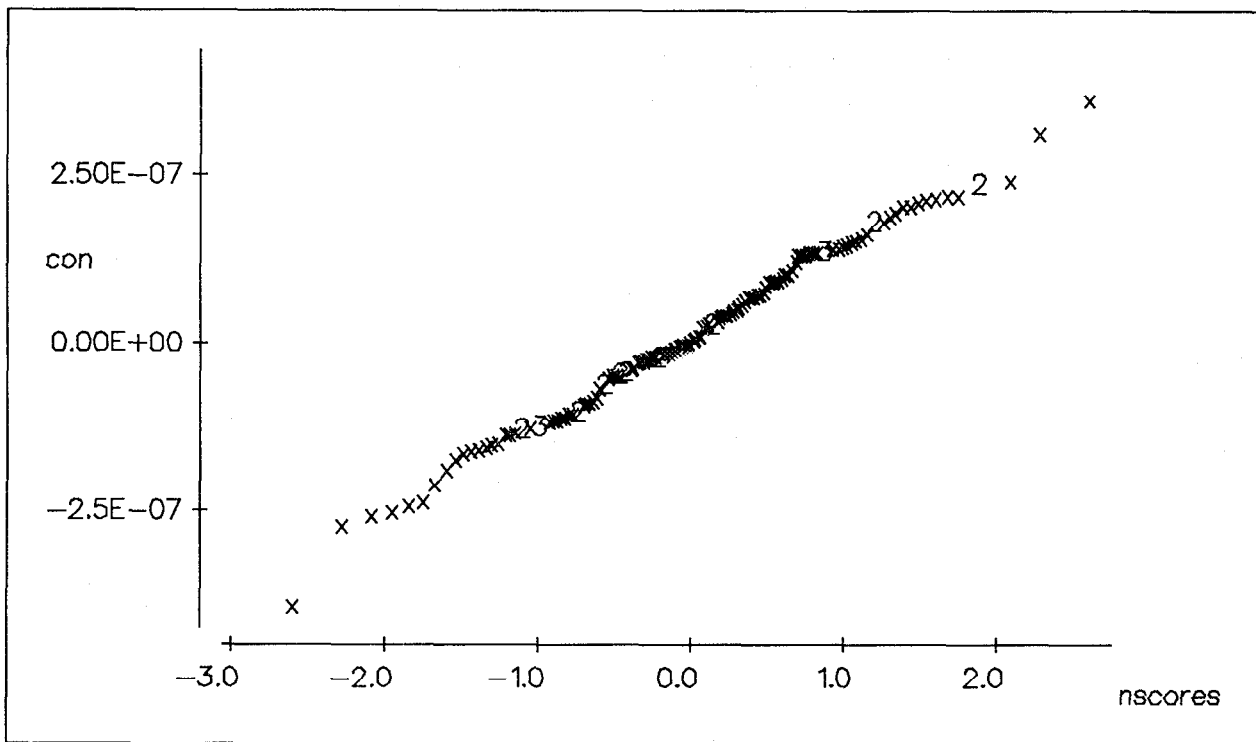


Figure C.11 Plot of Tritium Concentrations ($\mu\text{Ci/mL}$) in Samples from Supply Wells versus Normal Scores

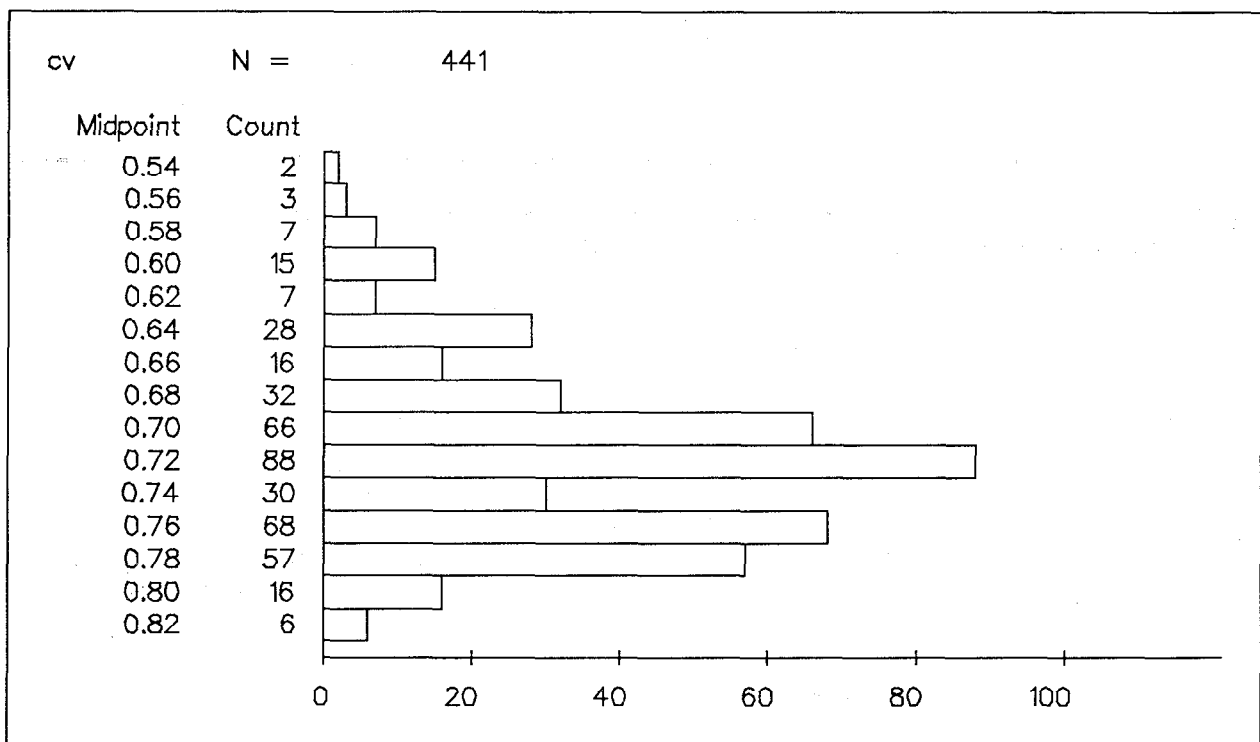


Figure C.12 Histogram of Empirical Coefficients of Variation for ^3H in Water Samples from Sources Other than Containment Ponds.

Table C.17 Results of Kruskal-Wallis Test for Equality of Median ³H Concentrations in Containment Ponds among Sampling Locations (μCi/mL)

<u>Sampling Location</u>	<u>Number</u>	<u>Median</u>	<u>Average Rank</u>	<u>Z-Value</u>
N-Tunnel Pond #2	12	3.1 x 10 ⁻⁴	26.50	-2.99
N-Tunnel Effluent	12	3.1 x 10 ⁻⁴	26.79	-2.95
N-Tunnel Pond #1	12	3.1 x 10 ⁻⁴	27.04	-2.92
N-Tunnel Pond #3	12	3.3 x 10 ⁻⁴	28.83	-2.69
E-Tunnel Effluent	12	2.2 x 10 ⁻³	57.50	1.04
T-Tunnel Pond #2	12	7.0 x 10 ⁻³	72.00	2.93
T-Tunnel Pond #1	13	7.2 x 10 ⁻³	74.85	3.45
T-Tunnel Effluent	13	7.2 x 10 ⁻³	78.00	3.80
Overall	98		49.50	

Kruskal-Wallis Statistic: 60.34 Degrees of Freedom: 7 p-Value: 0.000

Table C.18 Results of Kruskal-Wallis Test for Equality of Median ³H Concentrations in Containment Ponds among Months of Sample Collection (μCi/mL)

<u>Month</u>	<u>Number</u>	<u>Median</u>	<u>Average Rank</u>	<u>Z-Value</u>
January	7	4.6 x 10 ⁻⁴	57.71	0.79
February	8	1.1 x 10 ⁻³	42.19	-0.76
March	8	1.3 x 10 ⁻³	46.44	-0.32
April	8	1.3 x 10 ⁻³	59.62	1.05
May	8	1.3 x 10 ⁻³	54.50	0.52
June	11	3.0 x 10 ⁻⁴	36.14	-1.65
July	8	1.3 x 10 ⁻³	50.87	0.14
August	8	1.2 x 10 ⁻³	45.00	-0.47
September	8	1.2 x 10 ⁻³	41.25	-0.86
October	8	1.3 x 10 ⁻³	55.56	0.63
November	8	1.3 x 10 ⁻³	44.87	-0.48
December	8	1.4 x 10 ⁻³	65.87	1.70
Overall	98		49.50	

Kruskal-Wallis Statistic: 9.02 Degrees of Freedom: 11 p-Value: 0.620

Bq/L), and the geometric standard deviation was 9.9. No distribution was found which fit the data well. This is illustrated in Figure C.13, where the natural logarithm of measured concentrations from T Tunnel Pond #2 are plotted versus normal scores. Of all sampling locations, these data come closest to fitting either a normal or lognormal distribution. Hence, the nonparametric Kruskal-Wallis test was used for comparisons among sampling locations and months of sampling.

The results of the Kruskal-Wallis test, comparing sampling locations, appears in Table C.17. It can readily be seen that concentrations in water samples associated with N Tunnel are smallest, samples associated with T Tunnel have the greatest concentration, and samples associated with E Tunnel have intermediate concentrations.

Results are compared among months of sample collection in Table C.18. No evidence of a difference among months is found. To assess measurement error in ^3H concentrations, we consider empirical coefficients of variation. A histogram of the empirical coefficients of variation, excluding one outlier greater than 0.021, appears in Figure C.13. Coefficients of variation for ^3H concentrations are quite small.

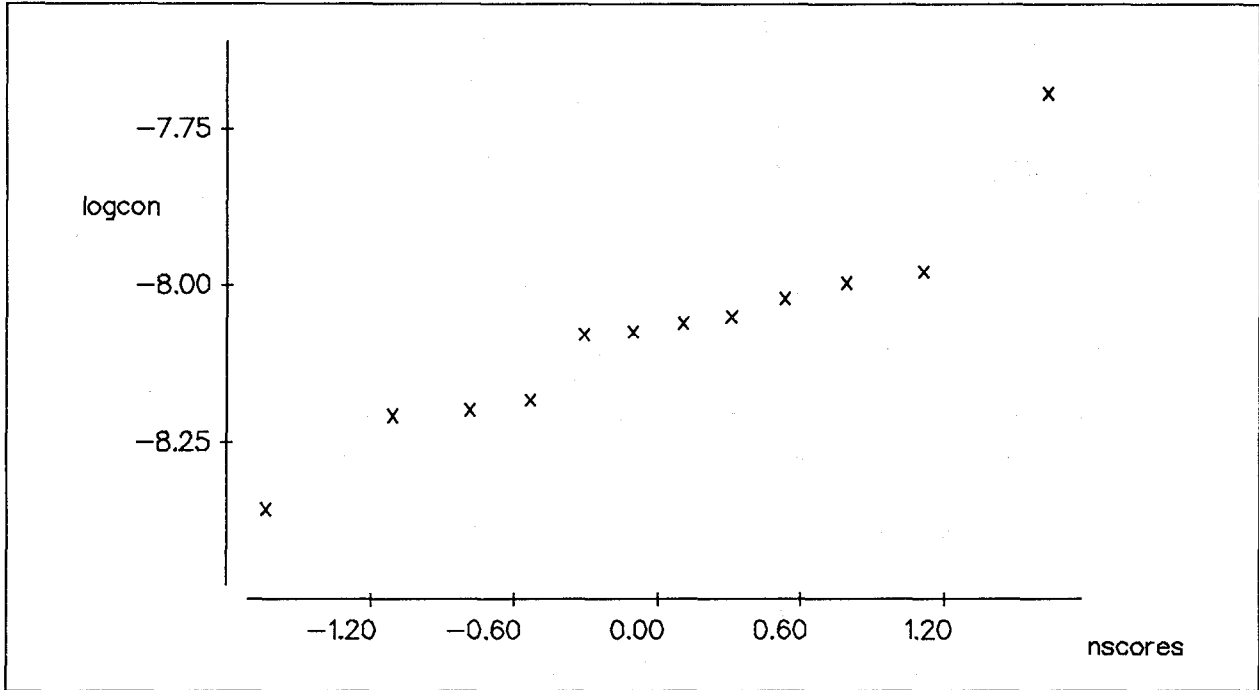


Figure C.13 Natural Logarithms of Concentrations of ^3H in Water Samples from T Tunnel Pond #2 versus Normal Scores

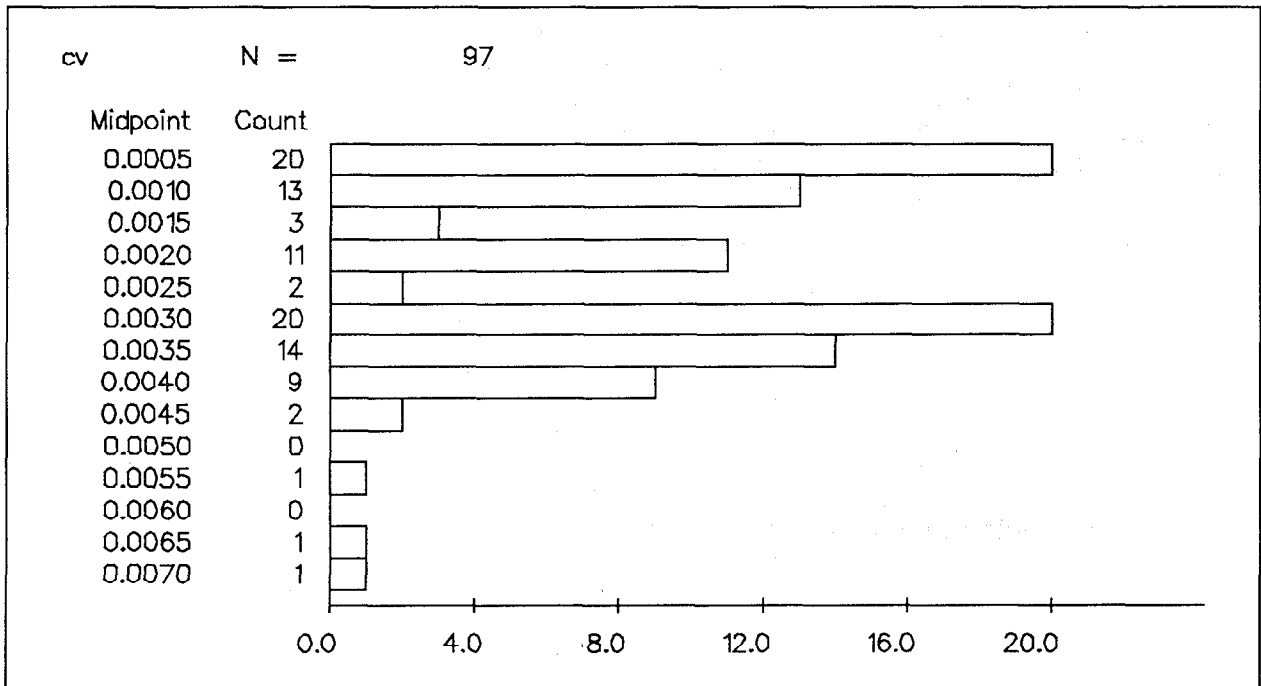


Figure C.14 Histogram of Empirical Coefficients of Variation for ^3H Concentrations in Water Samples from Containment Ponds

Attachment C.1 ⁹⁰Sr in Water - 1991

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 2, Mud Pit Reservoir	07/03/91	1.9 x 10 ⁻¹⁰	1.2 x 10 ⁻¹⁰
Area 2, Restroom	07/01/91	-5.5 x 10 ⁻¹¹	6.1 x 10 ⁻¹¹
Area 2, Well 2 Reservoir	07/03/91	-6.3 x 10 ⁻¹¹	8.6 x 10 ⁻¹¹
Area 3, Cafeteria	07/01/91	1.2 x 10 ⁻¹⁰	1.0 x 10 ⁻¹⁰
Area 3, Mud Pit Reservoir	07/03/91	-2.5 x 10 ⁻¹¹	9.4 x 10 ⁻¹¹
Area 3, Well A Reservoir	07/03/91	4.5 x 10 ⁻¹¹	8.0 x 10 ⁻¹¹
Area 5, Cane Springs	07/09/91	-2.2 x 10 ⁻¹⁰	8.3 x 10 ⁻¹¹
Area 5, Ue5c Reservoir	07/03/91	1.2 x 10 ⁻¹⁰	1.4 x 10 ⁻¹⁰
Area 5, Well 5-B Reservoir	07/03/91	1.1 x 10 ⁻⁹	3.6 x 10 ⁻¹⁰
Area 5, Well 5-C	07/11/91	1.8 x 10 ⁻¹⁰	1.2 x 10 ⁻¹⁰
Area 5, Well Ue5c	07/11/91	1.6 x 10 ⁻¹⁰	1.9 x 10 ⁻¹⁰
Area 6, Bottled Water	07/01/91	6.6 x 10 ⁻¹¹	1.3 x 10 ⁻¹⁰
Area 6, Cafeteria	07/01/91	-3.9 x 10 ⁻¹¹	6.9 x 10 ⁻¹¹
Area 6, Decontamination Facility	07/02/91	3.2 x 10 ⁻¹⁰	2.7 x 10 ⁻¹¹
Area 6, Decontamination Facility	07/03/91	3.4 x 10 ⁻⁹	2.9 x 10 ⁻¹⁰
Area 6, Sewage	07/09/91	1.2 x 10 ⁻⁹	4.7 x 10 ⁻¹⁰
Area 6, Well 3 Reservoir	07/03/91	1.8 x 10 ⁻¹⁰	1.0 x 10 ⁻¹⁰
Area 6, Well 4	07/11/91	2.9 x 10 ⁻¹⁰	2.1 x 10 ⁻¹⁰
Area 6, Well C	07/11/91	-1.2 x 10 ⁻¹⁰	7.5 x 10 ⁻¹⁰
Area 6, Well C-1	07/11/91	1.6 x 10 ⁻¹⁰	7.8 x 10 ⁻¹¹
Area 6, Well C-1 Reservoir	07/03/91	1.0 x 10 ⁻¹⁰	9.9 x 10 ⁻¹¹
Area 7, Reitman Seep	07/09/91	5.0 x 10 ⁻¹⁰	1.7 x 10 ⁻¹⁰
Area 12, Cafeteria	07/01/91	4.2 x 10 ⁻¹¹	6.6 x 10 ⁻¹¹
Area 12, Captian Jack Spring	07/11/91	3.3 x 10 ⁻¹¹	7.5 x 10 ⁻¹¹
Area 12, E Tunnel Effluent	07/02/91	4.9 x 10 ⁻⁹	3.7 x 10 ⁻¹⁰
Area 12, E Tunnel Effluent	07/02/91	5.1 x 10 ⁻⁹	3.6 x 10 ⁻¹⁰
Area 12, Gold Meadows	07/09/91	4.5 x 10 ⁻⁹	2.7 x 10 ⁻¹⁰
Area 12, N Tunnel Effluent	07/02/91	1.9 x 10 ⁻¹¹	1.5 x 10 ⁻¹⁰
Area 12, N Tunnel Effluent	07/02/91	-2.5 x 10 ⁻¹¹	1.7 x 10 ⁻¹⁰
Area 12, N Tunnel No. 1	07/02/91	-1.7 x 10 ⁻¹⁰	1.5 x 10 ⁻¹⁰
Area 12, N Tunnel No. 1	07/02/91	3.5 x 10 ⁻¹⁰	1.6 x 10 ⁻¹⁰
Area 12, N Tunnel No. 2	07/02/91	-1.2 x 10 ⁻¹⁰	1.3 x 10 ⁻¹⁰
Area 12, N Tunnel No. 2	07/02/91	-3.9 x 10 ⁻¹¹	1.1 x 10 ⁻¹⁰
Area 12, N Tunnel No. 3	07/02/91	-1.8 x 10 ⁻¹¹	1.6 x 10 ⁻¹⁰
Area 12, N Tunnel No. 3	07/03/91	-2.5 x 10 ⁻¹⁰	1.4 x 10 ⁻¹⁰
Area 12, Sewage	07/15/91	-2.4 x 10 ⁻¹⁰	1.0 x 10 ⁻¹⁰
Area 12, T Tunnel Effluent	07/02/91	2.3 x 10 ⁻⁹	2.7 x 10 ⁻¹⁰
Area 12, T Tunnel Effluent	07/02/91	2.5 x 10 ⁻⁹	2.8 x 10 ⁻¹⁰
Area 12, T Tunnel No. 1	07/02/91	1.8 x 10 ⁻⁹	2.4 x 10 ⁻¹⁰
Area 12, T Tunnel No. 1	07/02/91	1.9 x 10 ⁻⁹	2.5 x 10 ⁻¹⁰
Area 12, T Tunnel No. 2	07/02/91	2.1 x 10 ⁻⁹	2.3 x 10 ⁻¹⁰

Attachment C.1 (⁹⁰Sr in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 12, T Tunnel No. 2	07/02/91	1.9 x 10 ⁻⁹	2.3 x 10 ⁻¹⁰
Area 12, White Rock Spring	07/03/91	2.5 x 10 ⁻¹⁰	1.8 x 10 ⁻¹⁰
Area 15, Sewage	07/03/91	2.8 x 10 ⁻¹¹	1.1 x 10 ⁻¹⁰
Area 16, Tippipah Spring	07/09/91	2.3 x 10 ⁻¹¹	7.1 x 10 ⁻¹¹
Area 16, Well 16-d	07/11/91	1.8 x 10 ⁻¹¹	5.6 x 10 ⁻¹¹
Area 18, Camp 17 Reservoir	07/03/91	2.1 x 10 ⁻¹⁰	1.2 x 10 ⁻¹⁰
Area 18, Well 8	07/11/91	-5.6 x 10 ⁻¹¹	8.6 x 10 ⁻¹¹
Area 19, Well U19c Reservoir	07/02/91	8.1 x 10 ⁻¹⁰	3.4 x 10 ⁻¹⁰
Area 19, Well Ue19e Reservoir	07/11/91	2.4 x 10 ⁻¹⁰	2.0 x 10 ⁻¹⁰
Area 22, Well 20A Reservoir	07/02/91	1.2 x 10 ⁻⁹	3.8 x 10 ⁻¹⁰
Area 23, Army Well No. 1	07/11/91	-4.5 x 10 ⁻¹¹	9.3 x 10 ⁻¹¹
Area 23, Mercury	07/01/91	2.6 x 10 ⁻¹¹	9.6 x 10 ⁻¹¹
Area 23, Sewage	07/09/91	3.2 x 10 ⁻¹¹	1.2 x 10 ⁻¹⁰
Area 25, Building 4221	07/01/91	2.3 x 10 ⁻¹⁰	1.0 x 10 ⁻¹⁰
Area 25, Well J-11 Reservoir	07/02/91	2.7 x 10 ⁻¹⁰	2.7 x 10 ⁻¹⁰
Area 25, Well J-12	07/11/91	-4.1 x 10 ⁻¹⁰	3.0 x 10 ⁻¹⁰
Area 25, Well J-12 Reservoir	07/02/91	3.9 x 10 ⁻¹⁰	2.0 x 10 ⁻¹⁰
Area 25, Well J-13	07/11/91	-1.8 x 10 ⁻¹⁰	6.4 x 10 ⁻¹¹
Area 27, Cafeteria	07/01/91	4.0 x 10 ⁻¹¹	9.7 x 10 ⁻¹¹

Attachment C.2 Gross Alpha in Water - 1991

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 1, Building 101	12/31/90	9.1 x 10 ⁻⁰⁹	1.3 x 10 ⁻⁰⁹
Area 1, Building 101	04/01/91	1.0 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁹
Area 1, Building 101	07/01/91	1.4 x 10 ⁻⁰⁸	2.1 x 10 ⁻⁰⁹
Area 1, Building 101	10/01/91	1.5 x 10 ⁻⁰⁸	1.8 x 10 ⁻⁰⁹
Area 2, Rest Room	01/02/91	5.2 x 10 ⁻¹⁰	3.0 x 10 ⁻¹⁰
Area 2, Rest Room	04/01/91	5.8 x 10 ⁻¹²	2.4 x 10 ⁻¹⁰
Area 2, Rest Room	07/01/91	1.2 x 10 ⁻¹⁰	3.6 x 10 ⁻¹⁰
Area 2, Rest Room	10/01/91	1.3 x 10 ⁻⁰⁹	4.3 x 10 ⁻¹⁰
Area 3, Cafeteria	01/07/91	2.1 x 10 ⁻⁰⁸	2.8 x 10 ⁻⁰⁹
Area 3, Cafeteria	04/01/91	9.5 x 10 ⁻⁰⁹	1.6 x 10 ⁻⁰⁹
Area 3, Cafeteria	07/01/91	7.6 x 10 ⁻⁰⁹	1.5 x 10 ⁻⁰⁹
Area 3, Cafeteria	10/01/91	9.7 x 10 ⁻⁰⁹	1.7 x 10 ⁻⁰⁹
Area 5, Well 5C	01/07/91	1.3 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁹
Area 5, Well 5C	04/11/91	1.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁹
Area 5, Well 5C	07/11/91	1.1 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁹
Area 5, Well 5C	10/08/91	1.0 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁹
Area 6, Bottled Water	01/02/91	-3.7 x 10 ⁻¹¹	1.5 x 10 ⁻¹⁰
Area 6, Bottled Water	04/01/91	1.4 x 10 ⁻¹⁰	1.4 x 10 ⁻¹⁰
Area 6, Bottled Water	07/01/91	-1.4 x 10 ⁻¹⁰	1.8 x 10 ⁻¹⁰
Area 6, Bottled Water	10/01/91	-2.9 x 10 ⁻¹⁰	2.4 x 10 ⁻¹⁰
Area 6, Cafeteria	01/02/91	8.0 x 10 ⁻⁰⁹	1.5 x 10 ⁻⁰⁹
Area 6, Cafeteria	04/01/91	7.9 x 10 ⁻⁰⁹	1.6 x 10 ⁻⁰⁹
Area 6, Cafeteria	07/01/91	1.6 x 10 ⁻⁰⁸	3.5 x 10 ⁻⁰⁹
Area 6, Cafeteria	10/01/91	1.1 x 10 ⁻⁰⁸	1.8 x 10 ⁻⁰⁹
Area 6, Well 4	01/07/91	5.4 x 10 ⁻⁰⁹	7.6 x 10 ⁻¹⁰
Area 6, Well 4	04/11/91	8.6 x 10 ⁻⁰⁹	9.8 x 10 ⁻¹⁰
Area 6, Well 4	07/11/91	6.2 x 10 ⁻⁰⁹	8.5 x 10 ⁻¹⁰
Area 6, Well 4	10/08/91	6.9 x 10 ⁻⁰⁹	9.1 x 10 ⁻¹⁰
Area 6, Well C	01/07/91	2.5 x 10 ⁻⁰⁸	2.7 x 10 ⁻⁰⁹
Area 6, Well C	04/11/91	1.4 x 10 ⁻⁰⁸	2.4 x 10 ⁻⁰⁹
Area 6, Well C	07/11/91	2.4 x 10 ⁻⁰⁸	3.2 x 10 ⁻⁰⁹
Area 6, Well C	10/08/91	1.2 x 10 ⁻⁰⁸	2.2 x 10 ⁻⁰⁹
Area 6, Well C1	01/07/91	2.9 x 10 ⁻⁰⁸	2.9 x 10 ⁻⁰⁹
Area 6, Well C1	04/11/91	2.4 x 10 ⁻⁰⁹	4.3 x 10 ⁻¹⁰
Area 6, Well C1	07/11/91	2.4 x 10 ⁻⁰⁸	3.3 x 10 ⁻⁰⁹
Area 6, Well C1	10/08/91	1.1 x 10 ⁻⁰⁸	2.2 x 10 ⁻⁰⁹
Area 12, Cafeteria	12/31/90	4.8 x 10 ⁻¹⁰	3.7 x 10 ⁻¹⁰
Area 12, Cafeteria	04/01/91	1.2 x 10 ⁻¹⁰	2.6 x 10 ⁻¹⁰
Area 12, Cafeteria	07/01/91	5.8 x 10 ⁻¹⁰	3.8 x 10 ⁻¹⁰
Area 12, Cafeteria	10/01/91	9.9 x 10 ⁻¹⁰	4.1 x 10 ⁻¹⁰
Area 16, Well 16d	01/07/91	9.0 x 10 ⁻⁰⁹	1.3 x 10 ⁻⁰⁹
Area 16, Well 16d	04/11/91	2.5 x 10 ⁻⁰⁸	2.8 x 10 ⁻⁰⁹

Attachment C.2 (Gross Alpha in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 16, Well 16d	07/11/91	4.0 x 10 ⁻⁰⁹	6.8 x 10 ⁻¹⁰
Area 16, Well 16d	10/08/91	2.6 x 10 ⁻⁰⁸	3.5 x 10 ⁻⁰⁹
Area 18, Well 8	01/07/91	1.8 x 10 ⁻¹⁰	2.8 x 10 ⁻¹⁰
Area 18, Well 8	04/11/91	1.1 x 10 ⁻⁰⁹	4.1 x 10 ⁻¹⁰
Area 18, Well 8	07/11/91	6.3 x 10 ⁻¹⁰	3.1 x 10 ⁻¹⁰
Area 18, Well 8	10/08/91	9.0 x 10 ⁻¹⁰	4.1 x 10 ⁻¹⁰
Area 20, Water Well	01/07/91	4.3 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 20, Water Well	04/11/91	1.0 x 10 ⁻⁰⁸	1.0 x 10 ⁻⁰⁹
Area 22, Army Well 1	01/07/91	3.9 x 10 ⁻⁰⁹	7.6 x 10 ⁻¹⁰
Area 22, Army Well 1	04/11/91	8.7 x 10 ⁻⁰⁹	1.2 x 10 ⁻⁰⁹
Area 22, Army Well 1	07/11/91	5.3 x 10 ⁻⁰⁹	9.4 x 10 ⁻¹⁰
Area 22, Army Well 1	10/08/91	8.2 x 10 ⁻⁰⁹	1.2 x 10 ⁻⁰⁹
Area 23, Cafeteria	01/02/91	5.6 x 10 ⁻⁰⁹	1.0 x 10 ⁻⁰⁹
Area 23, Cafeteria	04/01/91	4.6 x 10 ⁻⁰⁹	8.3 x 10 ⁻¹⁰
Area 23, Cafeteria	07/01/91	7.9 x 10 ⁻⁰⁹	1.2 x 10 ⁻⁰⁹
Area 23, Cafeteria	10/01/91	4.2 x 10 ⁻⁰⁹	9.2 x 10 ⁻¹⁰
Area 25, Building 4221	01/02/91	9.8 x 10 ⁻¹⁰	4.7 x 10 ⁻¹⁰
Area 25, Building 4221	04/01/91	4.8 x 10 ⁻¹⁰	3.4 x 10 ⁻¹⁰
Area 25, Building 4221	07/01/91	7.4 x 10 ⁻¹¹	4.3 x 10 ⁻¹⁰
Area 25, Building 4221	10/01/91	1.1 x 10 ⁻⁰⁹	4.7 x 10 ⁻¹⁰
Area 25, Well J-12	01/07/91	1.2 x 10 ⁻⁰⁹	4.2 x 10 ⁻¹⁰
Area 25, Well J-12	04/11/91	2.0 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 25, Well J-12	07/11/91	7.4 x 10 ⁻¹⁰	3.2 x 10 ⁻¹⁰
Area 25, Well J-12	10/08/91	1.2 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 25, Well J-13	01/07/91	9.3 x 10 ⁻¹⁰	4.0 x 10 ⁻¹⁰
Area 25, Well J-13	04/11/91	9.3 x 10 ⁻¹⁰	4.0 x 10 ⁻¹⁰
Area 25, Well J-13	07/11/91	1.9 x 10 ⁻⁰⁹	4.7 x 10 ⁻¹⁰
Area 25, Well J-13	10/08/91	1.2 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 27, Cafeteria	01/02/91	8.5 x 10 ⁻⁰⁹	1.7 x 10 ⁻⁰⁹
Area 27, Cafeteria	04/01/91	1.1 x 10 ⁻⁰⁸	1.8 x 10 ⁻⁰⁹
Area 27, Cafeteria	07/01/91	9.6 x 10 ⁻⁰⁹	1.7 x 10 ⁻⁰⁹
Area 27, Cafeteria	10/01/91	8.0 x 10 ⁻⁰⁹	2.0 x 10 ⁻⁰⁹

Attachment C.3 ²³⁸Pu in Water - 1991

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 1, Building 101	04/01/91	2.1 x 10 ⁻¹¹	2.2 x 10 ⁻¹¹
Area 1, Building 101	07/01/91	2.8 x 10 ⁻¹²	2.4 x 10 ⁻¹¹
Area 1, Building 101	10/01/91	1.3 x 10 ⁻¹¹	3.0 x 10 ⁻¹¹
Area 1, Building 101	12/31/90	8.2 x 10 ⁻¹²	2.6 x 10 ⁻¹¹
Area 2, Mud Plant Reservoir	01/11/91	3.4 x 10 ⁻¹¹	2.4 x 10 ⁻¹¹
Area 2, Mud Plant Reservoir	04/02/91	6.6 x 10 ⁻¹¹	3.0 x 10 ⁻¹¹
Area 2, Mud Plant Reservoir	10/08/91	-4.0 x 10 ⁻¹¹	2.8 x 10 ⁻¹¹
Area 2, Rest Room	01/02/91	2.9 x 10 ⁻¹¹	2.2 x 10 ⁻¹¹
Area 2, Rest Room	04/01/91	1.8 x 10 ⁻¹¹	2.3 x 10 ⁻¹¹
Area 2, Rest Room	07/01/91	-4.5 x 10 ⁻¹¹	3.7 x 10 ⁻¹¹
Area 2, Rest Room	10/01/91	-2.4 x 10 ⁻¹¹	3.2 x 10 ⁻¹¹
Area 2, Well 2 Reservoir	01/11/91	3.6 x 10 ⁻¹¹	2.7 x 10 ⁻¹¹
Area 2, Well 2 Reservoir	04/02/91	3.4 x 10 ⁻¹¹	2.2 x 10 ⁻¹¹
Area 2, Well 2 Reservoir	10/08/91	3.9 x 10 ⁻¹¹	2.9 x 10 ⁻¹¹
Area 3, Cafeteria	01/07/91	2.8 x 10 ⁻¹¹	2.5 x 10 ⁻¹¹
Area 3, Cafeteria	04/01/91	3.8 x 10 ⁻¹¹	2.3 x 10 ⁻¹¹
Area 3, Cafeteria	07/01/91	3.0 x 10 ⁻¹¹	4.6 x 10 ⁻¹¹
Area 3, Cafeteria	10/01/91	-4.3 x 10 ⁻¹¹	2.9 x 10 ⁻¹¹
Area 3, Mud Plant Reservoir	01/10/91	5.4 x 10 ⁻¹¹	2.5 x 10 ⁻¹¹
Area 3, Mud Plant Reservoir	04/03/91	6.3 x 10 ⁻¹¹	2.5 x 10 ⁻¹¹
Area 3, Mud Plant Reservoir	10/07/91	-5.2 x 10 ⁻¹¹	2.6 x 10 ⁻¹¹
Area 3, Well A Reservoir	01/10/91	5.1 x 10 ⁻¹¹	2.7 x 10 ⁻¹¹
Area 3, Well A Reservoir	04/03/91	3.0 x 10 ⁻¹¹	2.2 x 10 ⁻¹¹
Area 3, Well A Reservoir	07/03/91	1.7 x 10 ⁻¹²	5.0 x 10 ⁻¹¹
Area 3, Well A Reservoir	10/08/91	-2.0 x 10 ⁻¹¹	3.4 x 10 ⁻¹¹
Area 5, Cane Spring	01/25/91	7.0 x 10 ⁻¹¹	2.5 x 10 ⁻¹¹
Area 5, Cane Spring	04/17/91	-1.9 x 10 ⁻¹¹	2.6 x 10 ⁻¹¹
Area 5, Cane Spring	10/16/91	-1.9 x 10 ⁻¹¹	2.9 x 10 ⁻¹¹
Area 5, Ue5c Reservoir	01/07/91	5.0 x 10 ⁻¹¹	2.6 x 10 ⁻¹¹
Area 5, Ue5c Reservoir	04/01/91	4.1 x 10 ⁻¹¹	2.3 x 10 ⁻¹¹
Area 5, Ue5c Reservoir	07/03/91	-5.3 x 10 ⁻¹¹	4.2 x 10 ⁻¹¹
Area 5, Ue5c Reservoir	10/07/91	-3.1 x 10 ⁻¹¹	2.9 x 10 ⁻¹¹
Area 5, Well 5B Reservoir	01/07/91	4.0 x 10 ⁻¹¹	2.7 x 10 ⁻¹¹
Area 5, Well 5B Reservoir	04/01/91	1.0 x 10 ⁻¹⁰	3.0 x 10 ⁻¹¹
Area 5, Well 5B Reservoir	07/03/91	-6.2 x 10 ⁻¹¹	3.3 x 10 ⁻¹¹
Area 5, Well 5B Reservoir	10/07/91	-5.3 x 10 ⁻¹¹	2.8 x 10 ⁻¹¹
Area 5, Well 5C	01/07/91	7.1 x 10 ⁻¹¹	2.7 x 10 ⁻¹¹
Area 5, Well 5C	04/11/91	2.2 x 10 ⁻¹¹	3.5 x 10 ⁻¹¹
Area 5, Well 5C	10/08/91	-2.1 x 10 ⁻¹¹	2.7 x 10 ⁻¹¹
Area 5, Well Ue5c	01/07/91	7.7 x 10 ⁻¹¹	2.8 x 10 ⁻¹¹
Area 5, Well Ue5c	04/11/91	3.8 x 10 ⁻¹¹	2.6 x 10 ⁻¹¹
Area 5, Well Ue5c	07/11/91	2.0 x 10 ⁻¹¹	5.1 x 10 ⁻¹¹

Attachment C.3 (^{238}Pu in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>$\mu\text{Ci/mL}$</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 5, Well Ue5c	10/08/91	-2.4×10^{-11}	3.2×10^{-11}
Area 6, Bottled Water	01/02/91	6.1×10^{-11}	3.1×10^{-11}
Area 6, Bottled Water	04/01/91	3.7×10^{-11}	2.6×10^{-11}
Area 6, Bottled Water	10/01/91	4.9×10^{-12}	2.6×10^{-11}
Area 6, Cafeteria	01/02/91	3.1×10^{-11}	2.1×10^{-11}
Area 6, Cafeteria	04/01/91	2.1×10^{-11}	2.3×10^{-11}
Area 6, Cafeteria	07/01/91	3.8×10^{-11}	3.3×10^{-11}
Area 6, Cafeteria	10/01/91	-9.5×10^{-12}	2.5×10^{-11}
Area 6, Decontamination Facility	01/11/91	6.8×10^{-11}	3.4×10^{-11}
Area 6, Decontamination Facility	04/10/91	1.6×10^{-10}	4.8×10^{-11}
Area 6, Decontamination Facility	07/03/91	8.0×10^{-11}	6.5×10^{-11}
Area 6, Decontamination Facility	10/08/91	4.5×10^{-11}	5.7×10^{-11}
Area 6, Sewage	01/28/91	6.5×10^{-11}	2.8×10^{-11}
Area 6, Sewage	04/10/91	1.0×10^{-12}	2.3×10^{-11}
Area 6, Sewage	10/15/91	-1.0×10^{-11}	3.7×10^{-11}
Area 6, Well 3 Reservoir	01/09/91	-2.3×10^{-13}	2.2×10^{-11}
Area 6, Well 3 Reservoir	04/03/91	4.4×10^{-11}	2.5×10^{-11}
Area 6, Well 3 Reservoir	10/07/91	-5.4×10^{-12}	3.1×10^{-11}
Area 6, Well 4	01/07/91	-7.6×10^{-12}	2.8×10^{-11}
Area 6, Well 4	04/11/91	5.8×10^{-11}	2.3×10^{-11}
Area 6, Well 4	07/11/91	-4.0×10^{-11}	3.7×10^{-11}
Area 6, Well 4	10/08/91	-2.1×10^{-11}	3.2×10^{-11}
Area 6, Well C	01/07/91	2.6×10^{-11}	2.4×10^{-11}
Area 6, Well C	04/11/91	1.7×10^{-11}	2.3×10^{-11}
Area 6, Well C	10/08/91	-4.2×10^{-11}	3.3×10^{-11}
Area 6, Well C1	01/07/91	2.8×10^{-11}	2.4×10^{-11}
Area 6, Well C1	04/11/91	4.8×10^{-11}	2.6×10^{-11}
Area 6, Well C1	07/11/91	1.8×10^{-10}	4.2×10^{-11}
Area 6, Well C1	10/08/91	-1.5×10^{-12}	2.9×10^{-11}
Area 6, Well C1 Reservoir	01/09/91	6.9×10^{-12}	2.3×10^{-11}
Area 6, Well C1 Reservoir	04/02/91	1.2×10^{-11}	2.4×10^{-11}
Area 6, Well C1 Reservoir	07/03/91	-4.5×10^{-11}	3.0×10^{-11}
Area 6, Well C1 Reservoir	10/10/91	2.8×10^{-13}	3.6×10^{-11}
Area 7, Reitmann Seep	01/02/91	2.8×10^{-11}	2.4×10^{-11}
Area 7, Reitmann Seep	04/02/91	1.5×10^{-12}	2.9×10^{-11}
Area 7, Reitmann Seep	07/09/91	-7.2×10^{-11}	8.3×10^{-11}
Area 7, Reitmann Seep	10/10/91	-1.7×10^{-11}	3.0×10^{-11}
Area 12, Cafeteria	04/01/91	3.1×10^{-11}	2.1×10^{-11}
Area 12, Cafeteria	07/01/91	-3.6×10^{-11}	3.8×10^{-11}
Area 12, Cafeteria	10/01/91	-5.3×10^{-11}	3.1×10^{-11}
Area 12, Cafeteria	12/31/90	4.8×10^{-12}	4.4×10^{-11}
Area 12, Captain Jack Spring	01/29/91	5.3×10^{-12}	3.3×10^{-11}

Attachment C.3 (^{238}Pu in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>$\mu\text{Ci/mL}$</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 12, Captain Jack Spring	04/17/91	8.6×10^{-10}	7.0×10^{-11}
Area 12, Captain Jack Spring	10/16/91	-5.0×10^{-11}	2.8×10^{-11}
Area 12, E Tunnel Effluent	01/09/91	1.3×10^{-09}	1.0×10^{-10}
Area 12, E Tunnel Effluent	04/09/91	5.1×10^{-10}	8.6×10^{-11}
Area 12, E Tunnel Effluent	07/02/91	4.7×10^{-10}	1.4×10^{-10}
Area 12, E Tunnel Effluent	10/08/91	6.5×10^{-10}	1.0×10^{-10}
Area 12, Gold Meadows	04/17/91	3.9×10^{-11}	2.4×10^{-11}
Area 12, Gold Meadows	10/17/91	-2.1×10^{-11}	2.7×10^{-11}
Area 12, N Tunnel Effluent	01/09/91	8.2×10^{-11}	4.0×10^{-11}
Area 12, N Tunnel Effluent	04/09/91	2.7×10^{-11}	5.2×10^{-11}
Area 12, N Tunnel Effluent	10/08/91	-2.4×10^{-11}	5.3×10^{-11}
Area 12, N Tunnel Pond No. 1	01/10/91	2.9×10^{-10}	5.1×10^{-11}
Area 12, N Tunnel Pond No. 1	04/09/91	-1.7×10^{-10}	5.1×10^{-11}
Area 12, N Tunnel Pond No. 1	07/02/91	-4.4×10^{-11}	8.6×10^{-11}
Area 12, N Tunnel Pond No. 1	10/08/91	-3.7×10^{-11}	5.3×10^{-11}
Area 12, N Tunnel Pond No. 2	01/10/91	3.8×10^{-10}	6.5×10^{-11}
Area 12, N Tunnel Pond No. 2	04/09/91	6.8×10^{-11}	4.1×10^{-11}
Area 12, N Tunnel Pond No. 2	07/02/91	-3.3×10^{-11}	7.4×10^{-11}
Area 12, N Tunnel Pond No. 2	10/08/91	-6.1×10^{-12}	5.4×10^{-11}
Area 12, N Tunnel Pond No. 3	01/10/91	5.5×10^{-10}	7.6×10^{-11}
Area 12, N Tunnel Pond No. 3	04/09/91	-2.1×10^{-10}	6.4×10^{-11}
Area 12, N Tunnel Pond No. 3	10/08/91	-4.1×10^{-11}	5.2×10^{-11}
Area 12, Sewage	01/30/91	-1.3×10^{-11}	2.2×10^{-11}
Area 12, Sewage	04/11/91	7.4×10^{-11}	3.0×10^{-11}
Area 12, Sewage	07/15/91	-4.6×10^{-11}	5.5×10^{-11}
Area 12, Sewage	10/09/91	-3.4×10^{-11}	3.5×10^{-11}
Area 12, T Tunnel Effluent	01/09/91	1.3×10^{-10}	4.3×10^{-11}
Area 12, T Tunnel Effluent	04/10/91	6.4×10^{-11}	3.7×10^{-11}
Area 12, T Tunnel Effluent	10/08/91	-6.4×10^{-11}	5.3×10^{-11}
Area 12, T Tunnel Pond No. 1	01/09/91	6.4×10^{-11}	3.9×10^{-11}
Area 12, T Tunnel Pond No. 1	04/10/91	1.1×10^{-10}	4.0×10^{-11}
Area 12, T Tunnel Pond No. 1	07/02/91	-1.5×10^{-11}	6.0×10^{-11}
Area 12, T Tunnel Pond No. 1	10/08/91	5.3×10^{-11}	8.1×10^{-11}
Area 12, T Tunnel Pond No. 2	04/10/91	1.2×10^{-10}	4.0×10^{-11}
Area 12, T Tunnel Pond No. 2	10/08/91	4.1×10^{-12}	6.6×10^{-11}
Area 12, White Rock Spring	01/11/91	-1.8×10^{-11}	2.8×10^{-11}
Area 12, White Rock Spring	04/09/91	7.9×10^{-11}	2.6×10^{-11}
Area 12, White Rock Spring	07/03/91	-2.0×10^{-11}	3.9×10^{-11}
Area 12, White Rock Spring	10/07/91	-2.1×10^{-11}	2.8×10^{-11}
Area 15, Well Ue15d	04/11/91	2.4×10^{-11}	2.2×10^{-11}
Area 16, Tippipah Spring	01/07/91	5.0×10^{-11}	2.7×10^{-11}
Area 16, Tippipah Spring	04/17/91	3.1×10^{-11}	2.8×10^{-11}

Attachment C.3 (²³⁸Pu in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 16, Tippipah Spring	10/09/91	-9.3 x 10 ⁻¹²	3.1 x 10 ⁻¹¹
Area 16, Well 16d	01/07/91	-8.7 x 10 ⁻¹²	2.2 x 10 ⁻¹¹
Area 16, Well 16d	04/11/91	2.9 x 10 ⁻¹¹	2.4 x 10 ⁻¹¹
Area 16, Well 16d	07/11/91	2.2 x 10 ⁻¹¹	3.9 x 10 ⁻¹¹
Area 16, Well 16d	10/08/91	-5.6 x 10 ⁻¹²	3.1 x 10 ⁻¹¹
Area 18, Camp 17 Reservoir	01/09/91	5.8 x 10 ⁻¹¹	2.5 x 10 ⁻¹¹
Area 18, Camp 17 Reservoir	04/09/91	3.6 x 10 ⁻¹¹	2.0 x 10 ⁻¹¹
Area 18, Camp 17 Reservoir	07/03/91	-3.6 x 10 ⁻¹¹	3.3 x 10 ⁻¹¹
Area 18, Camp 17 Reservoir	10/09/91	-2.2 x 10 ⁻¹¹	2.7 x 10 ⁻¹¹
Area 18, Well 8	01/07/91	2.7 x 10 ⁻¹¹	2.8 x 10 ⁻¹¹
Area 18, Well 8	04/11/91	1.6 x 10 ⁻¹¹	2.2 x 10 ⁻¹¹
Area 18, Well 8	07/11/91	-5.0 x 10 ⁻¹¹	4.2 x 10 ⁻¹¹
Area 18, Well 8	10/08/91	1.6 x 10 ⁻¹¹	2.9 x 10 ⁻¹¹
Area 18, Well 8 Reservoir	01/09/91	-3.6 x 10 ⁻¹²	2.5 x 10 ⁻¹¹
Area 18, Well 8 Reservoir	04/09/91	4.2 x 10 ⁻¹¹	2.6 x 10 ⁻¹¹
Area 18, Well 8 Reservoir	10/09/91	-3.8 x 10 ⁻¹¹	2.8 x 10 ⁻¹¹
Area 19, Well U19c	01/07/91	2.7 x 10 ⁻¹¹	2.4 x 10 ⁻¹¹
Area 19, Well U19c	04/11/91	4.1 x 10 ⁻¹¹	2.3 x 10 ⁻¹¹
Area 19, Well U19c	10/08/91	-2.9 x 10 ⁻¹¹	2.9 x 10 ⁻¹¹
Area 19, Well U19c Reservoir	01/09/91	-1.8 x 10 ⁻¹²	2.6 x 10 ⁻¹¹
Area 19, Well U19c Reservoir	04/09/91	2.8 x 10 ⁻¹¹	2.2 x 10 ⁻¹¹
Area 19, Well U19c Reservoir	07/02/91	-9.4 x 10 ⁻¹²	4.0 x 10 ⁻¹¹
Area 19, Well U19c Reservoir	10/09/91	-1.6 x 10 ⁻¹¹	2.9 x 10 ⁻¹¹
Area 20, Water Well	01/07/91	2.2 x 10 ⁻¹²	2.1 x 10 ⁻¹¹
Area 20, Water Well	04/11/91	3.2 x 10 ⁻¹¹	2.2 x 10 ⁻¹¹
Area 20, Well 20A Reservoir	01/09/91	3.2 x 10 ⁻¹¹	2.8 x 10 ⁻¹¹
Area 20, Well 20A Reservoir	04/09/91	3.1 x 10 ⁻¹¹	2.3 x 10 ⁻¹¹
Area 20, Well 20A Reservoir	07/02/91	-5.0 x 10 ⁻¹¹	3.8 x 10 ⁻¹¹
Area 20, Well 20A Reservoir	10/09/91	-5.8 x 10 ⁻¹¹	3.5 x 10 ⁻¹¹
Area 22, Army Well No. 1	01/07/91	5.6 x 10 ⁻¹¹	2.3 x 10 ⁻¹¹
Area 22, Army Well No. 1	04/11/91	4.1 x 10 ⁻¹¹	2.9 x 10 ⁻¹¹
Area 22, Army Well No. 1	07/11/91	-2.8 x 10 ⁻¹¹	3.0 x 10 ⁻¹¹
Area 22, Army Well No. 1	10/08/91	-1.4 x 10 ⁻¹¹	2.8 x 10 ⁻¹¹
Area 23, Cafeteria	01/02/91	-4.7 x 10 ⁻¹²	2.1 x 10 ⁻¹¹
Area 23, Cafeteria	04/01/91	5.2 x 10 ⁻¹¹	2.5 x 10 ⁻¹¹
Area 23, Cafeteria	07/01/91	7.6 x 10 ⁻¹¹	4.8 x 10 ⁻¹¹
Area 23, Cafeteria	10/01/91	-4.9 x 10 ⁻¹¹	2.9 x 10 ⁻¹¹
Area 23, Sewage	01/18/91	7.9 x 10 ⁻¹¹	2.7 x 10 ⁻¹¹
Area 23, Sewage	04/04/91	3.3 x 10 ⁻¹¹	2.3 x 10 ⁻¹¹
Area 23, Sewage	07/09/91	-6.0 x 10 ⁻¹¹	4.2 x 10 ⁻¹¹
Area 23, Sewage	10/09/91	-4.7 x 10 ⁻¹¹	2.5 x 10 ⁻¹¹
Area 23, Swimming Pool	01/10/91	4.4 x 10 ⁻¹¹	2.3 x 10 ⁻¹¹

Attachment C.3 (^{238}Pu in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>$\mu\text{Ci/mL}$</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 23, Swimming Pool	04/04/91	3.6×10^{-11}	2.2×10^{-11}
Area 23, Swimming Pool	07/03/91	-7.6×10^{-11}	3.5×10^{-11}
Area 23, Swimming Pool	10/09/91	-2.1×10^{-11}	2.8×10^{-11}
Area 25, Building 4221	01/02/91	3.3×10^{-11}	2.5×10^{-11}
Area 25, Building 4221	04/01/91	1.4×10^{-11}	2.4×10^{-11}
Area 25, Building 4221	07/01/91	9.7×10^{-12}	2.8×10^{-11}
Area 25, Building 4221	10/01/91	-1.3×10^{-11}	2.8×10^{-11}
Area 25, Well J-11 Reservoir	01/09/91	7.4×10^{-11}	2.9×10^{-11}
Area 25, Well J-11 Reservoir	04/03/91	3.9×10^{-11}	2.6×10^{-11}
Area 25, Well J-11 Reservoir	07/02/91	-4.9×10^{-11}	3.2×10^{-11}
Area 25, Well J-11 Reservoir	10/07/91	-2.5×10^{-11}	3.8×10^{-11}
Area 25, Well J-12	01/07/91	1.4×10^{-11}	2.0×10^{-11}
Area 25, Well J-12	04/11/91	2.7×10^{-11}	2.8×10^{-11}
Area 25, Well J-12	07/11/91	-1.5×10^{-11}	2.7×10^{-11}
Area 25, Well J-12	10/08/91	-8.4×10^{-14}	4.4×10^{-11}
Area 25, Well J-12 Reservoir	01/09/91	2.1×10^{-11}	2.4×10^{-11}
Area 25, Well J-12 Reservoir	04/03/91	6.9×10^{-11}	2.4×10^{-11}
Area 25, Well J-12 Reservoir	07/02/91	-5.5×10^{-11}	2.7×10^{-11}
Area 25, Well J-12 Reservoir	10/07/91	-1.4×10^{-11}	3.1×10^{-11}
Area 25, Well J-13	01/07/91	-4.1×10^{-12}	2.4×10^{-11}
Area 25, Well J-13	04/11/91	3.5×10^{-11}	3.3×10^{-11}
Area 25, Well J-13	10/08/91	-3.3×10^{-11}	2.7×10^{-11}
Area 27, Cafeteria	01/02/91	-1.1×10^{-11}	2.4×10^{-11}
Area 27, Cafeteria	04/01/91	1.2×10^{-11}	2.1×10^{-11}
Area 27, Cafeteria	07/01/91	2.4×10^{-11}	4.3×10^{-11}
Area 27, Cafeteria	10/01/91	2.1×10^{-11}	3.6×10^{-11}
Area 29, Topopah Spring	01/24/91	4.8×10^{-13}	3.0×10^{-11}
Area 29, Topopah Spring	04/17/91	6.2×10^{-12}	2.1×10^{-11}

Attachment C.4 ²³⁹⁺²⁴⁰Pu in Water - 1991

Sampling Location	Sampling Dates	$\mu\text{Ci/mL}$	
		Concentration	Standard Deviation (s)
Area 1, Building 101	12/31/90	2.9×10^{-12}	7.2×10^{-12}
Area 1, Building 101	04/01/91	-5.3×10^{-12}	3.4×10^{-12}
Area 1, Building 101	07/01/91	-4.5×10^{-13}	5.0×10^{-12}
Area 1, Building 101	10/01/91	-8.1×10^{-12}	4.9×10^{-12}
Area 2, Rest Room	01/02/91	-1.2×10^{-12}	4.5×10^{-12}
Area 2, Rest Room	04/01/91	-9.6×10^{-13}	4.6×10^{-12}
Area 2, Rest Room	07/01/91	9.5×10^{-12}	1.3×10^{-11}
Area 2, Rest Room	10/01/91	-5.2×10^{-12}	6.0×10^{-12}
Area 2, Mud Plant Reservoir	01/11/91	7.7×10^{-12}	6.5×10^{-12}
Area 2, Mud Plant Reservoir	04/02/91	-3.3×10^{-12}	5.3×10^{-12}
Area 2, Mud Plant Reservoir	10/08/91	-2.3×10^{-12}	6.2×10^{-12}
Area 2, Well 2 Reservoir	01/11/91	1.6×10^{-11}	8.4×10^{-12}
Area 2, Well 2 Reservoir	04/02/91	1.7×10^{-10}	2.0×10^{-11}
Area 2, Well 2 Reservoir	10/08/91	-2.6×10^{-12}	5.5×10^{-12}
Area 3, Cafeteria	01/07/91	5.8×10^{-12}	6.4×10^{-12}
Area 3, Cafeteria	04/01/91	2.8×10^{-12}	5.1×10^{-12}
Area 3, Cafeteria	07/01/91	1.5×10^{-11}	1.9×10^{-11}
Area 3, Cafeteria	10/01/91	6.2×10^{-12}	8.1×10^{-12}
Area 3, Mud Plant Reservoir	01/10/91	-1.3×10^{-12}	4.6×10^{-12}
Area 3, Mud Plant Reservoir	04/03/91	2.9×10^{-11}	9.3×10^{-12}
Area 3, Mud Plant Reservoir	07/03/91	5.2×10^{-11}	5.9×10^{-11}
Area 3, Mud Plant Reservoir	10/07/91	1.3×10^{-11}	8.7×10^{-12}
Area 3, Well A Reservoir	01/10/91	-1.1×10^{-12}	5.2×10^{-12}
Area 3, Well A Reservoir	04/03/91	-5.2×10^{-12}	3.3×10^{-12}
Area 3, Well A Reservoir	07/03/91	9.8×10^{-12}	1.6×10^{-11}
Area 3, Well A Reservoir	10/08/91	1.6×10^{-12}	7.9×10^{-12}
Area 5, Cane Spring	01/25/91	-5.6×10^{-12}	3.6×10^{-12}
Area 5, Cane Spring	04/17/91	1.5×10^{-11}	7.7×10^{-12}
Area 5, Cane Spring	07/09/91	3.4×10^{-11}	3.1×10^{-11}
Area 5, Cane Spring	10/16/91	6.1×10^{-12}	7.9×10^{-12}
Area 5, Well 5C	01/07/91	-3.4×10^{-12}	4.4×10^{-12}
Area 5, Well 5C	04/11/91	5.2×10^{-12}	9.2×10^{-12}
Area 5, Well 5C	07/11/91	5.5×10^{-11}	4.6×10^{-11}
Area 5, Well 5C	10/08/91	-2.6×10^{-12}	5.6×10^{-12}
Area 5, Well Ue5c	01/07/91	-6.0×10^{-12}	3.8×10^{-12}
Area 5, Well Ue5c	04/11/91	-4.4×10^{-13}	5.6×10^{-12}
Area 5, Well Ue5c	07/11/91	2.7×10^{-11}	1.8×10^{-11}
Area 5, Well Ue5c	10/08/91	1.7×10^{-12}	7.9×10^{-12}
Area 5, Ue5c Reservoir	01/07/91	2.5×10^{-11}	9.4×10^{-12}
Area 5, Ue5c Reservoir	04/01/91	8.2×10^{-13}	5.0×10^{-12}
Area 5, Ue5c Reservoir	07/03/91	7.1×10^{-11}	2.1×10^{-11}
Area 5, Ue5c Reservoir	10/07/91	5.9×10^{-12}	7.8×10^{-12}

Attachment C.4 ($^{239+240}\text{Pu}$ in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>$\mu\text{Ci/mL}$</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 5, Well 5B Reservoir	01/07/91	-6.3×10^{-12}	4.2×10^{-12}
Area 5, Well 5B Reservoir	04/01/91	-3.6×10^{-12}	4.4×10^{-12}
Area 5, Well 5B Reservoir	07/03/91	2.2×10^{-11}	1.2×10^{-11}
Area 5, Well 5B Reservoir	10/07/91	-8.2×10^{-12}	5.1×10^{-12}
Area 6, Bottled Water	01/02/91	-7.2×10^{-12}	4.8×10^{-12}
Area 6, Bottled Water	04/01/91	-3.4×10^{-13}	5.8×10^{-12}
Area 6, Bottled Water	07/01/91	1.5×10^{-10}	8.6×10^{-11}
Area 6, Bottled Water	10/01/91	1.2×10^{-12}	5.8×10^{-12}
Area 6, Cafeteria	01/02/91	6.8×10^{-13}	4.5×10^{-12}
Area 6, Cafeteria	04/01/91	1.4×10^{-12}	5.3×10^{-12}
Area 6, Cafeteria	07/01/91	2.4×10^{-11}	1.1×10^{-11}
Area 6, Cafeteria	10/01/91	-2.9×10^{-12}	5.0×10^{-12}
Area 6, Decontamination Facility	01/11/91	4.5×10^{-11}	1.4×10^{-11}
Area 6, Decontamination Facility	04/10/91	4.2×10^{-11}	1.7×10^{-11}
Area 6, Decontamination Facility	07/03/91	3.0×10^{-10}	4.8×10^{-11}
Area 6, Decontamination Facility	10/08/91	8.0×10^{-12}	1.4×10^{-11}
Area 6, Sewage	01/28/91	-6.1×10^{-12}	4.2×10^{-12}
Area 6, Sewage	04/10/91	4.5×10^{-12}	6.3×10^{-12}
Area 6, Sewage	07/09/91	3.8×10^{-09}	8.4×10^{-10}
Area 6, Sewage	10/15/91	-9.6×10^{-12}	6.4×10^{-12}
Area 6, Well 3 Reservoir	01/09/91	2.6×10^{-12}	5.3×10^{-12}
Area 6, Well 3 Reservoir	04/03/91	4.6×10^{-12}	6.6×10^{-12}
Area 6, Well 3 Reservoir	07/03/91	9.0×10^{-11}	9.8×10^{-11}
Area 6, Well 3 Reservoir	10/07/91	5.6×10^{-11}	1.5×10^{-11}
Area 6, Well 4	01/07/91	2.9×10^{-12}	7.3×10^{-12}
Area 6, Well 4	04/11/91	-5.2×10^{-12}	3.2×10^{-12}
Area 6, Well 4	07/11/91	2.6×10^{-11}	1.4×10^{-11}
Area 6, Well 4	10/08/91	-8.1×10^{-12}	5.0×10^{-12}
Area 6, Well C	01/07/91	-1.3×10^{-12}	4.8×10^{-12}
Area 6, Well C	04/11/91	-3.1×10^{-12}	4.2×10^{-12}
Area 6, Well C	07/11/91	4.2×10^{-09}	6.7×10^{-10}
Area 6, Well C	10/08/91	2.1×10^{-12}	8.5×10^{-12}
Area 6, Well C1	01/07/91	1.2×10^{-12}	5.6×10^{-12}
Area 6, Well C1	04/11/91	4.6×10^{-12}	6.5×10^{-12}
Area 6, Well C1	07/11/91	1.0×10^{-08}	6.6×10^{-10}
Area 6, Well C1	10/08/91	9.4×10^{-12}	8.5×10^{-12}
Area 6, Well C1 Reservoir	01/09/91	4.6×10^{-13}	5.1×10^{-12}
Area 6, Well C1 Reservoir	04/02/91	2.9×10^{-12}	5.7×10^{-12}
Area 6, Well C1 Reservoir	10/70/91	2.6×10^{-11}	1.0×10^{-11}
Area 6, Well C1 Reservoir	10/10/91	-9.6×10^{-12}	6.4×10^{-12}
Area 7, Reitmann Seep	01/02/91	4.6×10^{-11}	1.2×10^{-11}
Area 7, Reitmann Seep	04/02/91	1.9×10^{-10}	2.9×10^{-11}

Attachment C.4 ($^{239+240}\text{Pu}$ in Water, cont.)

Sampling Location	Sampling Dates	$\mu\text{Ci/mL}$	
		Concentration	Standard Deviation (s)
Area 7, Reitmann Seep	07/09/91	6.4×10^{-10}	1.1×10^{-10}
Area 7, Reitmann Seep	10/10/91	4.8×10^{-10}	4.7×10^{-11}
Area 12, Cafeteria	12/31/90	1.4×10^{-11}	1.4×10^{-11}
Area 12, Cafeteria	04/01/91	-1.4×10^{-12}	3.9×10^{-12}
Area 12, Cafeteria	07/01/91	-3.0×10^{-13}	9.7×10^{-12}
Area 12, Cafeteria	10/01/91	-2.3×10^{-12}	6.6×10^{-12}
Area 12, Captain Jack Spring	01/29/91	-8.7×10^{-12}	6.8×10^{-12}
Area 12, Captain Jack Spring	04/17/91	2.9×10^{-09}	1.7×10^{-10}
Area 12, Captain Jack Spring	07/17/91	7.2×10^{-11}	5.0×10^{-11}
Area 12, Captain Jack Spring	10/16/91	5.5×10^{-12}	7.4×10^{-12}
Area 12, E Tunnel Effluent	01/09/91	8.4×10^{-09}	4.0×10^{-10}
Area 12, E Tunnel Effluent	04/09/91	4.8×10^{-09}	3.2×10^{-10}
Area 12, E Tunnel Effluent	07/02/91	4.8×10^{-09}	5.6×10^{-10}
Area 12, E Tunnel Effluent	10/08/91	5.6×10^{-09}	4.2×10^{-10}
Area 12, Gold Meadows	04/17/91	5.9×10^{-12}	6.2×10^{-12}
Area 12, Gold Meadows	07/09/91	4.6×10^{-10}	9.7×10^{-11}
Area 12, Gold Meadows	10/17/91	7.1×10^{-12}	7.3×10^{-12}
Area 12, N Tunnel Effluent	01/09/91	1.5×10^{-11}	1.1×10^{-11}
Area 12, N Tunnel Effluent	04/09/91	6.2×10^{-11}	2.4×10^{-11}
Area 12, N Tunnel Effluent	10/08/91	-9.4×10^{-12}	1.0×10^{-11}
Area 12, N Tunnel Pond No. 1	01/10/91	1.1×10^{-10}	2.1×10^{-11}
Area 12, N Tunnel Pond No. 1	04/09/91	6.1×10^{-11}	2.0×10^{-11}
Area 12, N Tunnel Pond No. 1	07/02/91	2.8×10^{-10}	7.1×10^{-11}
Area 12, N Tunnel Pond No. 1	10/08/91	2.5×10^{-11}	1.7×10^{-11}
Area 12, N Tunnel Pond No. 2	01/10/91	8.4×10^{-11}	2.2×10^{-11}
Area 12, N Tunnel Pond No. 2	04/09/91	2.0×10^{-11}	1.3×10^{-11}
Area 12, N Tunnel Pond No. 2	07/02/91	7.7×10^{-11}	3.6×10^{-11}
Area 12, N Tunnel Pond No. 2	10/08/91	1.1×10^{-11}	1.4×10^{-11}
Area 12, N Tunnel Pond No. 3	01/10/91	1.3×10^{-10}	2.7×10^{-11}
Area 12, N Tunnel Pond No. 3	04/09/91	6.5×10^{-12}	1.3×10^{-11}
Area 12, N Tunnel Pond No. 3	07/02/91	1.7×10^{-10}	1.0×10^{-10}
Area 12, N Tunnel Pond No. 3	10/08/91	-4.1×10^{-10}	5.2×10^{-11}
Area 12, Sewage	01/30/91	1.5×10^{-12}	5.5×10^{-12}
Area 12, Sewage	04/11/91	-6.4×10^{-12}	4.3×10^{-12}
Area 12, Sewage	07/15/91	5.6×10^{-12}	1.4×10^{-11}
Area 12, Sewage	10/09/91	5.1×10^{-11}	1.6×10^{-11}
Area 12, T Tunnel Effluent	01/09/91	5.6×10^{-10}	5.2×10^{-11}
Area 12, T Tunnel Effluent	04/10/91	4.9×10^{-10}	4.7×10^{-11}
Area 12, T Tunnel Effluent	07/02/91	8.8×10^{-10}	2.1×10^{-10}
Area 12, T Tunnel Effluent	10/08/91	9.3×10^{-10}	9.0×10^{-11}
Area 12, T Tunnel Pond No. 1	01/09/91	4.1×10^{-10}	4.2×10^{-11}
Area 12, T Tunnel Pond No. 1	04/10/91	1.4×10^{-10}	2.5×10^{-11}

Attachment C.4 (²³⁹⁺²⁴⁰Pu in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 12, T Tunnel Pond No. 1	07/02/91	5.4 x 10 ⁻¹⁰	7.4 x 10 ⁻¹¹
Area 12, T Tunnel Pond No. 1	10/08/91	1.0 x 10 ⁻⁰⁹	1.3 x 10 ⁻¹⁰
Area 12, T Tunnel Pond No. 2	04/10/91	1.4 x 10 ⁻¹⁰	2.3 x 10 ⁻¹¹
Area 12, T Tunnel Pond No. 2	07/02/91	6.6 x 10 ⁻¹⁰	1.7 x 10 ⁻¹⁰
Area 12, T Tunnel Pond No. 2	10/08/91	7.8 x 10 ⁻¹⁰	9.2 x 10 ⁻¹¹
Area 12, White Rock Spring	01/11/91	2.2 x 10 ⁻¹¹	9.4 x 10 ⁻¹²
Area 12, White Rock Spring	04/09/91	2.3 x 10 ⁻¹¹	8.8 x 10 ⁻¹²
Area 12, White Rock Spring	07/03/91	1.7 x 10 ⁻¹¹	1.3 x 10 ⁻¹¹
Area 12, White Rock Spring	10/07/91	-2.5 x 10 ⁻¹²	5.5 x 10 ⁻¹²
Area 15, Well Ue15d	04/11/91	-9.8 x 10 ⁻¹³	4.4 x 10 ⁻¹²
Area 15, Well Ue15d	07/11/91	-5.1 x 10 ⁻¹²	4.3 x 10 ⁻¹¹
Area 16, Tippipah Spring	01/07/91	-9.6 x 10 ⁻¹³	5.3 x 10 ⁻¹²
Area 16, Tippipah Spring	04/17/91	1.0 x 10 ⁻¹¹	8.8 x 10 ⁻¹²
Area 16, Tippipah Spring	07/09/91	2.6 x 10 ⁻¹⁰	7.7 x 10 ⁻¹¹
Area 16, Tippipah Spring	10/09/91	-5.2 x 10 ⁻¹²	5.5 x 10 ⁻¹²
Area 16, Well 16d	01/07/91	1.1 x 10 ⁻¹³	4.6 x 10 ⁻¹²
Area 16, Well 16d	04/11/91	3.7 x 10 ⁻¹²	5.7 x 10 ⁻¹²
Area 16, Well 16d	07/11/91	1.4 x 10 ⁻¹¹	1.2 x 10 ⁻¹¹
Area 16, Well 16d	10/08/91	7.4 x 10 ⁻¹³	7.2 x 10 ⁻¹²
Area 18, Camp 17 Reservoir	01/09/91	2.9 x 10 ⁻¹²	5.4 x 10 ⁻¹²
Area 18, Camp 17 Reservoir	04/09/91	2.0 x 10 ⁻¹²	4.6 x 10 ⁻¹²
Area 18, Camp 17 Reservoir	07/03/91	1.9 x 10 ⁻¹²	8.1 x 10 ⁻¹²
Area 18, Camp 17 Reservoir	10/09/91	2.5 x 10 ⁻¹¹	1.0 x 10 ⁻¹¹
Area 18, Well 8	01/07/91	-3.6 x 10 ⁻¹³	6.5 x 10 ⁻¹²
Area 18, Well 8	04/11/91	-1.1 x 10 ⁻¹²	4.2 x 10 ⁻¹²
Area 18, Well 8	07/11/91	9.3 x 10 ⁻¹²	1.5 x 10 ⁻¹¹
Area 18, Well 8	10/08/91	-5.3 x 10 ⁻¹²	5.0 x 10 ⁻¹²
Area 18, Well 8 Reservoir	01/09/91	-3.2 x 10 ⁻¹²	4.2 x 10 ⁻¹²
Area 18, Well 8 Reservoir	04/09/91	4.3 x 10 ⁻¹²	6.4 x 10 ⁻¹²
Area 18, Well 8 Reservoir	10/09/91	-2.5 x 10 ⁻¹²	5.9 x 10 ⁻¹²
Area 19, Well U19c	01/07/91	3.1 x 10 ⁻¹²	5.7 x 10 ⁻¹²
Area 19, Well U19c	04/11/91	3.0 x 10 ⁻¹²	5.2 x 10 ⁻¹²
Area 19, Well U19c	07/11/91	1.7 x 10 ⁻¹⁰	1.1 x 10 ⁻¹⁰
Area 19, Well U19c	10/08/91	-2.6 x 10 ⁻¹²	5.7 x 10 ⁻¹²
Area 19, Well U19c Reservoir	01/09/91	5.5 x 10 ⁻¹²	6.4 x 10 ⁻¹²
Area 19, Well U19c Reservoir	04/09/91	-9.5 x 10 ⁻¹³	4.7 x 10 ⁻¹²
Area 19, Well U19c Reservoir	07/02/91	1.7 x 10 ⁻¹¹	1.4 x 10 ⁻¹¹
Area 19, Well U19c Reservoir	10/09/91	4.0 x 10 ⁻¹³	6.8 x 10 ⁻¹²
Area 20, Water Well	01/07/91	-5.3 x 10 ⁻¹²	3.2 x 10 ⁻¹²
Area 20, Water Well	04/11/91	-1.2 x 10 ⁻¹²	4.3 x 10 ⁻¹²
Area 20, Well 20A Reservoir	01/09/91	1.1 x 10 ⁻¹²	5.8 x 10 ⁻¹²
Area 20, Well 20A Reservoir	04/09/91	3.1 x 10 ⁻¹²	5.6 x 10 ⁻¹²

Attachment C.4 (²³⁹⁺²⁴⁰Pu in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 20, Well 20A Reservoir	07/02/91	7.2 x 10 ⁻¹²	1.0 x 10 ⁻¹¹
Area 20, Well 20A Reservoir	10/09/91	2.4 x 10 ⁻¹¹	1.3 x 10 ⁻¹¹
Area 22, Army Well No. 1	01/07/91	4.7 x 10 ⁻¹³	4.8 x 10 ⁻¹²
Area 22, Army Well No. 1	04/11/91	3.6 x 10 ⁻¹²	7.6 x 10 ⁻¹²
Area 22, Army Well No. 1	07/11/91	9.2 x 10 ⁻¹¹	2.0 x 10 ⁻¹¹
Area 22, Army Well No. 1	10/08/91	3.6 x 10 ⁻¹³	6.5 x 10 ⁻¹²
Area 23, Cafeteria	01/02/91	-3.3 x 10 ⁻¹²	3.8 x 10 ⁻¹²
Area 23, Cafeteria	04/01/91	-3.3 x 10 ⁻¹²	4.0 x 10 ⁻¹²
Area 23, Cafeteria	07/01/91	1.4 x 10 ⁻¹¹	1.8 x 10 ⁻¹¹
Area 23, Cafeteria	10/01/91	4.1 x 10 ⁻¹²	8.0 x 10 ⁻¹²
Area 23, Sewage	01/18/91	1.4 x 10 ⁻¹²	5.7 x 10 ⁻¹²
Area 23, Sewage	04/04/91	2.8 x 10 ⁻¹²	5.2 x 10 ⁻¹²
Area 23, Sewage	07/09/91	5.3 x 10 ⁻¹¹	2.0 x 10 ⁻¹¹
Area 23, Sewage	10/09/91	7.0 x 10 ⁻¹²	7.3 x 10 ⁻¹²
Area 23, Swimming Pool	01/10/91	3.0 x 10 ⁻¹²	5.5 x 10 ⁻¹²
Area 23, Swimming Pool	04/04/91	-1.2 x 10 ⁻¹²	4.4 x 10 ⁻¹²
Area 23, Swimming Pool	07/03/91	1.8 x 10 ⁻¹¹	1.2 x 10 ⁻¹¹
Area 23, Swimming Pool	10/09/91	5.6 x 10 ⁻¹³	6.6 x 10 ⁻¹²
Area 25, Building 4221	01/02/91	2.8 x 10 ⁻¹²	5.5 x 10 ⁻¹²
Area 25, Building 4221	04/01/91	-9.0 x 10 ⁻¹³	4.9 x 10 ⁻¹²
Area 25, Building 4221	07/01/91	1.6 x 10 ⁻¹¹	1.0 x 10 ⁻¹¹
Area 25, Building 4221	10/01/91	3.4 x 10 ⁻¹³	6.3 x 10 ⁻¹²
Area 25, Well J-11 Reservoir	01/09/91	-3.5 x 10 ⁻¹²	5.0 x 10 ⁻¹²
Area 25, Well J-11 Reservoir	04/03/91	-3.3 x 10 ⁻¹²	4.7 x 10 ⁻¹²
Area 25, Well J-11 Reservoir	07/02/91	2.3 x 10 ⁻¹¹	1.1 x 10 ⁻¹¹
Area 25, Well J-11 Reservoir	10/07/91	-5.1 x 10 ⁻¹²	8.3 x 10 ⁻¹²
Area 25, Well J-12	01/07/91	-1.6 x 10 ⁻¹²	4.1 x 10 ⁻¹²
Area 25, Well J-12	04/11/91	-3.5 x 10 ⁻¹⁴	6.4 x 10 ⁻¹²
Area 25, Well J-12	07/11/91	3.6 x 10 ⁻¹²	6.9 x 10 ⁻¹²
Area 25, Well J-12	10/08/91	5.8 x 10 ⁻¹²	1.2 x 10 ⁻¹¹
Area 25, Well J-12 Reservoir	01/09/91	2.8 x 10 ⁻¹²	5.5 x 10 ⁻¹²
Area 25, Well J-12 Reservoir	04/03/91	9.8 x 10 ⁻¹²	6.6 x 10 ⁻¹²
Area 25, Well J-12 Reservoir	07/02/91	5.1 x 10 ⁻¹¹	1.4 x 10 ⁻¹¹
Area 25, Well J-12 Reservoir	10/07/91	3.5 x 10 ⁻¹²	7.4 x 10 ⁻¹²
Area 25, Well J-13	01/07/91	-5.9 x 10 ⁻¹²	3.8 x 10 ⁻¹²
Area 25, Well J-13	04/11/91	-3.1 x 10 ⁻¹²	6.6 x 10 ⁻¹²
Area 25, Well J-13	07/11/91	2.0 x 10 ⁻¹¹	2.6 x 10 ⁻¹¹
Area 25, Well J-13	10/08/91	-5.6 x 10 ⁻¹³	5.8 x 10 ⁻¹²
Area 27, Cafeteria	01/02/91	-3.4 x 10 ⁻¹²	4.6 x 10 ⁻¹²
Area 27, Cafeteria	04/01/91	6.1 x 10 ⁻¹³	4.6 x 10 ⁻¹²
Area 27, Cafeteria	07/01/91	1.3 x 10 ⁻¹¹	1.7 x 10 ⁻¹¹
Area 27, Cafeteria	10/01/91	-5.0 x 10 ⁻¹²	7.1 x 10 ⁻¹²

Attachment C.4 (²³⁹⁺²⁴⁰Pu in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concen- tration</u>	<u>Standard Deviation (s)</u>
Area 29, Topopah Spring	01/24/91	6.7 x 10 ⁻¹²	8.3 x 10 ⁻¹²
Area 29, Topopah Spring	04/17/91	5.8 x 10 ⁻¹²	6.0 x 10 ⁻¹²

Attachment C.5 Gross Beta in Water - 1991

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 1, Building 101	01/07/91	8.9 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 1, Building 101	01/14/91	9.6 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 1, Building 101	01/22/91	8.7 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 1, Building 101	01/28/91	8.3 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 1, Building 101	02/04/91	9.7 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 1, Building 101	02/11/91	6.4 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 1, Building 101	02/19/91	7.9 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 1, Building 101	03/04/91	6.9 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 1, Building 101	03/18/91	8.8 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 1, Building 101	03/25/91	8.9 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 1, Building 101	04/01/91	7.8 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 1, Building 101	04/08/91	7.1 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 1, Building 101	04/15/91	8.9 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 1, Building 101	04/22/91	9.3 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 1, Building 101	04/29/91	8.6 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 1, Building 101	05/06/91	1.0 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰
Area 1, Building 101	05/13/91	7.5 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 1, Building 101	05/20/91	3.1 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 1, Building 101	06/03/91	8.4 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰
Area 1, Building 101	06/10/91	6.0 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 1, Building 101	06/17/91	7.0 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰
Area 1, Building 101	06/24/91	9.3 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 1, Building 101	07/01/91	1.0 x 10 ⁻⁰⁸	1.8 x 10 ⁻⁰⁹
Area 1, Building 101	07/08/91	8.3 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 1, Building 101	07/15/91	6.6 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 1, Building 101	07/22/91	8.0 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 1, Building 101	07/29/91	5.7 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 1, Building 101	08/05/91	6.9 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 1, Building 101	08/12/91	8.0 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰
Area 1, Building 101	08/19/91	9.2 x 10 ⁻⁰⁹	9.0 x 10 ⁻¹⁰
Area 1, Building 101	08/26/91	4.8 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 1, Building 101	09/03/91	8.5 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 1, Building 101	09/09/91	8.5 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 1, Building 101	09/16/91	9.9 x 10 ⁻⁰⁹	6.3 x 10 ⁻¹⁰
Area 1, Building 101	09/23/91	8.4 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 1, Building 101	10/01/91	7.5 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 1, Building 101	10/07/91	6.9 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 1, Building 101	10/14/91	9.1 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 1, Building 101	10/21/91	7.0 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 1, Building 101	10/28/91	8.4 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰
Area 1, Building 101	11/04/91	8.1 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 1, Building 101	11/12/91	8.8 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 1, Building 101	11/18/91	9.7 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰
Area 1, Building 101	11/25/91	3.3 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 1, Building 101	12/02/91	7.6 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 1, Building 101	12/09/91	6.3 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 1, Building 101	12/16/91	1.2 x 10 ⁻⁰⁸	9.8 x 10 ⁻¹⁰
Area 2, Mud Plant Reservoir	01/11/91	8.8 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 2, Mud Plant Reservoir	02/04/91	3.8 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 2, Mud Plant Reservoir	03/06/91	4.7 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 2, Mud Plant Reservoir	04/02/91	3.6 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 2, Mud Plant Reservoir	05/08/91	7.7 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 2, Mud Plant Reservoir	06/05/91	3.6 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 2, Mud Plant Reservoir	07/03/91	2.8 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 2, Mud Plant Reservoir	08/06/91	4.9 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 2, Mud Plant Reservoir	09/05/91	8.6 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 2, Mud Plant Reservoir	10/08/91	4.8 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 2, Mud Plant Reservoir	11/06/91	4.3 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 2, Mud Plant Reservoir	12/09/91	5.1 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 2, Rest Room	01/02/91	3.8 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 2, Rest Room	01/07/91	3.9 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 2, Rest Room	01/14/91	3.6 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 2, Rest Room	01/22/91	3.0 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 2, Rest Room	01/28/91	3.7 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 2, Rest Room	02/04/91	2.7 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 2, Rest Room	02/11/91	2.6 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 2, Rest Room	02/19/91	3.1 x 10 ⁻⁰⁹	4.6 x 10 ⁻¹⁰
Area 2, Rest Room	03/04/91	2.9 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 2, Rest Room	03/11/91	2.5 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 2, Rest Room	03/18/91	3.6 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 2, Rest Room	03/25/91	3.5 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 2, Rest Room	04/01/91	2.9 x 10 ⁻⁰⁹	4.7 x 10 ⁻¹⁰
Area 2, Rest Room	04/08/91	2.9 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 2, Rest Room	04/15/91	4.0 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 2, Rest Room	04/22/91	3.1 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 2, Rest Room	04/29/91	4.1 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 2, Rest Room	05/06/91	3.7 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 2, Rest Room	05/14/91	4.0 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 2, Rest Room	05/20/91	3.2 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 2, Rest Room	05/28/91	2.6 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 2, Rest Room	06/03/91	2.6 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 2, Rest Room	06/10/91	2.8 x 10 ⁻⁰⁹	4.7 x 10 ⁻¹⁰
Area 2, Rest Room	06/17/91	2.7 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 2, Rest Room	06/24/91	3.1 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 2, Rest Room	07/01/91	3.9 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 2, Rest Room	07/08/91	3.1 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 2, Rest Room	07/15/91	3.4 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 2, Rest Room	07/22/91	3.1 x 10 ⁻⁰⁹	4.7 x 10 ⁻¹⁰
Area 2, Rest Room	07/29/91	3.1 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 2, Rest Room	08/05/91	3.7 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 2, Rest Room	08/12/91	3.8 x 10 ⁻¹⁰	4.0 x 10 ⁻¹⁰
Area 2, Rest Room	08/19/91	4.1 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 2, Rest Room	08/26/91	3.9 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 2, Rest Room	09/03/91	4.7 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 2, Rest Room	09/09/91	3.8 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 2, Rest Room	09/16/91	3.2 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 2, Rest Room	09/23/91	2.8 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 2, Rest Room	10/01/91	4.1 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 2, Rest Room	10/07/91	2.6 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 2, Rest Room	10/14/91	4.0 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 2, Rest Room	10/21/91	2.5 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 2, Rest Room	10/28/91	4.4 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 2, Rest Room	11/04/91	2.9 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 2, Rest Room	11/12/91	3.9 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 2, Rest Room	11/18/91	3.7 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 2, Rest Room	11/25/91	2.3 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 2, Rest Room	12/02/91	4.9 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 2, Rest Room	12/09/91	2.7 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 2, Rest Room	12/16/91	5.2 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 2, Rest Room	12/23/91	2.9 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 2, Well 2 Reservoir	01/11/91	1.4 x 10 ⁻⁰⁸	6.7 x 10 ⁻¹⁰
Area 2, Well 2 Reservoir	02/04/91	8.4 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 2, Well 2 Reservoir	03/04/91	1.1 x 10 ⁻⁰⁸	6.2 x 10 ⁻¹⁰
Area 2, Well 2 Reservoir	04/02/91	1.5 x 10 ⁻⁰⁸	6.6 x 10 ⁻¹⁰
Area 2, Well 2 Reservoir	05/08/91	8.1 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 2, Well 2 Reservoir	06/05/91	8.7 x 10 ⁻⁰⁹	6.4 x 10 ⁻¹⁰
Area 2, Well 2 Reservoir	07/03/91	1.0 x 10 ⁻⁰⁸	5.9 x 10 ⁻¹⁰
Area 2, Well 2 Reservoir	08/06/91	9.2 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 2, Well 2 Reservoir	09/05/91	1.1 x 10 ⁻⁰⁸	6.4 x 10 ⁻¹⁰
Area 2, Well 2 Reservoir	10/08/91	1.2 x 10 ⁻⁰⁸	6.4 x 10 ⁻¹⁰
Area 2, Well 2 Reservoir	11/06/91	8.3 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 2, Well 2 Reservoir	12/09/91	1.0 x 10 ⁻⁰⁸	6.7 x 10 ⁻¹⁰
Area 3, Cafeteria	01/14/91	1.1 x 10 ⁻⁰⁸	6.6 x 10 ⁻¹⁰
Area 3, Cafeteria	01/22/91	1.1 x 10 ⁻⁰⁸	6.5 x 10 ⁻¹⁰
Area 3, Cafeteria	01/28/91	8.4 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 3, Cafeteria	02/04/91	8.1 x 10 ⁻⁰⁹	6.4 x 10 ⁻¹⁰

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 3, Cafeteria	02/11/91	8.6 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰
Area 3, Cafeteria	02/19/91	7.7 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 3, Cafeteria	03/04/91	4.1 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 3, Cafeteria	03/11/91	5.1 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 3, Cafeteria	03/18/91	8.2 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 3, Cafeteria	03/25/91	9.6 x 10 ⁻⁰⁹	6.3 x 10 ⁻¹⁰
Area 3, Cafeteria	04/01/91	5.9 x 10 ⁻⁰⁹	1.1 x 10 ⁻⁰⁹
Area 3, Cafeteria	04/08/91	9.5 x 10 ⁻⁰⁹	6.4 x 10 ⁻¹⁰
Area 3, Cafeteria	04/15/91	9.3 x 10 ⁻⁰⁹	6.4 x 10 ⁻¹⁰
Area 3, Cafeteria	04/22/91	1.2 x 10 ⁻⁰⁸	6.5 x 10 ⁻¹⁰
Area 3, Cafeteria	04/29/91	1.0 x 10 ⁻⁰⁸	6.6 x 10 ⁻¹⁰
Area 3, Cafeteria	05/06/91	7.6 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰
Area 3, Cafeteria	05/14/91	7.8 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 3, Cafeteria	05/20/91	7.6 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 3, Cafeteria	05/28/91	8.9 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 3, Cafeteria	06/03/91	9.7 x 10 ⁻⁰⁹	6.6 x 10 ⁻¹⁰
Area 3, Cafeteria	06/10/91	6.7 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 3, Cafeteria	06/17/91	9.6 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰
Area 3, Cafeteria	06/24/91	8.6 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰
Area 3, Cafeteria	07/01/91	7.0 x 10 ⁻⁰⁹	1.1 x 10 ⁻⁰⁹
Area 3, Cafeteria	07/08/91	7.6 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 3, Cafeteria	07/15/91	9.3 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 3, Cafeteria	07/22/91	1.3 x 10 ⁻⁰⁸	6.5 x 10 ⁻¹⁰
Area 3, Cafeteria	08/12/91	8.1 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 3, Cafeteria	08/19/91	1.3 x 10 ⁻⁰⁸	6.8 x 10 ⁻¹⁰
Area 3, Cafeteria	08/26/91	1.4 x 10 ⁻⁰⁸	7.2 x 10 ⁻¹⁰
Area 3, Cafeteria	09/03/91	1.4 x 10 ⁻⁰⁸	6.9 x 10 ⁻¹⁰
Area 3, Cafeteria	09/09/91	1.0 x 10 ⁻⁰⁸	6.5 x 10 ⁻¹⁰
Area 3, Cafeteria	09/16/91	1.2 x 10 ⁻⁰⁸	6.6 x 10 ⁻¹⁰
Area 3, Cafeteria	09/23/91	1.2 x 10 ⁻⁰⁸	6.2 x 10 ⁻¹⁰
Area 3, Cafeteria	10/01/91	1.2 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁹
Area 3, Cafeteria	10/07/91	1.4 x 10 ⁻⁰⁸	6.6 x 10 ⁻¹⁰
Area 3, Cafeteria	10/14/91	1.5 x 10 ⁻⁰⁸	7.2 x 10 ⁻¹⁰
Area 3, Cafeteria	10/21/91	1.6 x 10 ⁻⁰⁸	7.0 x 10 ⁻¹⁰
Area 3, Cafeteria	10/28/91	1.5 x 10 ⁻⁰⁸	7.5 x 10 ⁻¹⁰
Area 3, Cafeteria	11/04/91	1.1 x 10 ⁻⁰⁸	6.5 x 10 ⁻¹⁰
Area 3, Cafeteria	11/12/91	1.1 x 10 ⁻⁰⁸	6.8 x 10 ⁻¹⁰
Area 3, Cafeteria	11/18/91	1.4 x 10 ⁻⁰⁸	7.2 x 10 ⁻¹⁰
Area 3, Cafeteria	11/25/91	1.4 x 10 ⁻⁰⁸	6.9 x 10 ⁻¹⁰
Area 3, Cafeteria	12/02/91	1.2 x 10 ⁻⁰⁸	6.9 x 10 ⁻¹⁰
Area 3, Cafeteria	12/09/91	1.2 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰
Area 3, Cafeteria	12/16/91	1.2 x 10 ⁻⁰⁸	6.7 x 10 ⁻¹⁰

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 3, Cafeteria	12/23/91	7.9 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 3, Mud Plant Reservoir	01/10/91	1.1 x 10 ⁻⁰⁸	6.1 x 10 ⁻¹⁰
Area 3, Mud Plant Reservoir	02/08/91	1.0 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰
Area 3, Mud Plant Reservoir	03/06/91	9.0 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 3, Mud Plant Reservoir	04/03/91	1.1 x 10 ⁻⁰⁸	6.4 x 10 ⁻¹⁰
Area 3, Mud Plant Reservoir	05/08/91	1.4 x 10 ⁻⁰⁸	6.6 x 10 ⁻¹⁰
Area 3, Mud Plant Reservoir	06/05/91	1.3 x 10 ⁻⁰⁸	6.6 x 10 ⁻¹⁰
Area 3, Mud Plant Reservoir	07/03/91	1.0 x 10 ⁻⁰⁸	6.2 x 10 ⁻¹⁰
Area 3, Mud Plant Reservoir	08/06/91	1.1 x 10 ⁻⁰⁸	6.1 x 10 ⁻¹⁰
Area 3, Mud Plant Reservoir	09/12/91	1.3 x 10 ⁻⁰⁸	6.0 x 10 ⁻¹⁰
Area 3, Mud Plant Reservoir	10/07/91	1.2 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰
Area 3, Mud Plant Reservoir	11/05/91	1.2 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰
Area 3, Mud Plant Reservoir	12/10/91	1.1 x 10 ⁻⁰⁸	6.0 x 10 ⁻¹⁰
Area 3, Well 3 Reservoir	01/09/91	1.3 x 10 ⁻⁰⁸	6.5 x 10 ⁻¹⁰
Area 3, Well 3 Reservoir	02/08/91	1.1 x 10 ⁻⁰⁸	6.1 x 10 ⁻¹⁰
Area 3, Well 3 Reservoir	03/06/91	1.7 x 10 ⁻⁰⁸	6.6 x 10 ⁻¹⁰
Area 3, Well 3 Reservoir	04/03/91	1.1 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰
Area 3, Well 3 Reservoir	05/08/91	1.4 x 10 ⁻⁰⁸	6.5 x 10 ⁻¹⁰
Area 3, Well 3 Reservoir	06/06/91	1.3 x 10 ⁻⁰⁸	6.4 x 10 ⁻¹⁰
Area 3, Well 3 Reservoir	07/03/91	1.3 x 10 ⁻⁰⁸	6.0 x 10 ⁻¹⁰
Area 3, Well 3 Reservoir	08/06/91	1.2 x 10 ⁻⁰⁸	6.1 x 10 ⁻¹⁰
Area 3, Well 3 Reservoir	09/12/91	1.3 x 10 ⁻⁰⁸	6.6 x 10 ⁻¹⁰
Area 3, Well 3 Reservoir	10/07/91	1.3 x 10 ⁻⁰⁸	6.6 x 10 ⁻¹⁰
Area 3, Well 3 Reservoir	11/05/91	1.3 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰
Area 3, Well 3 Reservoir	12/10/91	1.2 x 10 ⁻⁰⁸	6.1 x 10 ⁻¹⁰
Area 3, Well A Reservoir	01/10/91	1.2 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰
Area 3, Well A Reservoir	02/08/91	1.1 x 10 ⁻⁰⁸	6.2 x 10 ⁻¹⁰
Area 3, Well A Reservoir	03/06/91	9.3 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 3, Well A Reservoir	04/03/91	9.1 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 3, Well A Reservoir	05/08/91	1.3 x 10 ⁻⁰⁸	6.4 x 10 ⁻¹⁰
Area 3, Well A Reservoir	06/06/91	1.2 x 10 ⁻⁰⁸	5.9 x 10 ⁻¹⁰
Area 3, Well A Reservoir	07/03/91	6.6 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 3, Well A Reservoir	08/06/91	1.1 x 10 ⁻⁰⁸	5.9 x 10 ⁻¹⁰
Area 3, Well A Reservoir	09/12/91	1.2 x 10 ⁻⁰⁸	5.8 x 10 ⁻¹⁰
Area 3, Well A Reservoir	10/08/91	1.2 x 10 ⁻⁰⁸	6.6 x 10 ⁻¹⁰
Area 3, Well A Reservoir	11/05/91	1.3 x 10 ⁻⁰⁸	6.5 x 10 ⁻¹⁰
Area 3, Well A Reservoir	12/10/91	9.8 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 5, Cane Spring	01/25/91	7.5 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 5, Cane Spring	02/12/91	6.0 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 5, Cane Spring	03/13/91	5.8 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 5, Cane Spring	04/17/91	6.7 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 5, Cane Spring	05/08/91	7.2 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 5, Cane Spring	06/06/91	8.8 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 5, Cane Spring	07/09/91	4.9 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 5, Cane Spring	08/08/91	1.3 x 10 ⁻⁰⁸	6.9 x 10 ⁻¹⁰
Area 5, Cane Spring	09/26/91	7.9 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 5, Cane Spring	10/16/91	7.6 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 5, Cane Spring	11/08/91	7.7 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 5, Cane Spring	12/19/91	7.0 x 10 ⁻⁰⁹	6.3 x 10 ⁻¹⁰
Area 5, Ue5c Reservoir	01/07/91	9.2 x 10 ⁻⁰⁹	6.3 x 10 ⁻¹⁰
Area 5, Ue5c Reservoir	02/08/91	8.5 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 5, Ue5c Reservoir	03/06/91	7.2 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 5, Ue5c Reservoir	04/01/91	7.5 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 5, Ue5c Reservoir	05/02/91	7.8 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 5, Ue5c Reservoir	06/13/91	8.7 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 5, Ue5c Reservoir	07/03/91	8.0 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 5, Ue5c Reservoir	08/06/91	7.6 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 5, Ue5c Reservoir	09/12/91	9.3 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 5, Ue5c Reservoir	10/07/91	8.3 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 5, Ue5c Reservoir	11/05/91	8.1 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 5, Ue5c Reservoir	12/09/91	9.0 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 5, Well 5B Reservoir	01/07/91	9.8 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰
Area 5, Well 5B Reservoir	02/08/91	9.7 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 5, Well 5B Reservoir	03/04/91	8.5 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 5, Well 5B Reservoir	04/01/91	1.1 x 10 ⁻⁰⁸	6.6 x 10 ⁻¹⁰
Area 5, Well 5B Reservoir	05/02/91	9.8 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 5, Well 5B Reservoir	06/13/91	1.2 x 10 ⁻⁰⁸	6.2 x 10 ⁻¹⁰
Area 5, Well 5B Reservoir	07/03/91	1.0 x 10 ⁻⁰⁸	5.9 x 10 ⁻¹⁰
Area 5, Well 5B Reservoir	08/06/91	1.0 x 10 ⁻⁰⁸	5.8 x 10 ⁻¹⁰
Area 5, Well 5B Reservoir	09/12/91	1.1 x 10 ⁻⁰⁸	5.9 x 10 ⁻¹⁰
Area 5, Well 5B Reservoir	10/07/91	1.1 x 10 ⁻⁰⁸	6.4 x 10 ⁻¹⁰
Area 5, Well 5B Reservoir	11/05/91	1.1 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰
Area 5, Well 5B Reservoir	12/09/91	8.8 x 10 ⁻⁰⁹	6.3 x 10 ⁻¹⁰
Area 5, Well 5c	01/07/91	9.0 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 5, Well 5c	02/08/91	7.5 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰
Area 5, Well 5c	03/11/91	7.6 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 5, Well 5c	04/11/91	7.4 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 5, Well 5c	05/09/91	6.8 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 5, Well 5c	06/04/91	8.4 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 5, Well 5c	07/11/91	9.8 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 5, Well 5c	08/07/91	8.6 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 5, Well 5c	09/07/91	9.4 x 10 ⁻⁰⁹	6.3 x 10 ⁻¹⁰
Area 5, Well 5c	10/08/91	8.4 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 5, Well 5c	11/13/91	1.7 x 10 ⁻⁰⁸	6.8 x 10 ⁻¹⁰

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 5, Well 5c	12/09/91	7.9 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 5, Well Ue5c	01/07/91	7.7 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 5, Well Ue5c	03/11/91	8.1 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 5, Well Ue5c	04/11/91	-2.5 x 10 ⁻¹⁰	4.2 x 10 ⁻¹⁰
Area 5, Well Ue5c	05/09/91	7.5 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 5, Well Ue5c	06/04/91	1.9 x 10 ⁻⁰⁸	6.8 x 10 ⁻¹⁰
Area 5, Well Ue5c	07/11/91	7.4 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 5, Well Ue5c	08/07/91	7.5 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 5, Well Ue5c	09/07/91	2.8 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 5, Well Ue5c	10/08/91	7.2 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 5, Well Ue5c	11/13/91	7.4 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 5, Well Ue5c	12/09/91	7.0 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 6, Bottled Water	01/02/91	5.2 x 10 ⁻¹⁰	4.7 x 10 ⁻¹⁰
Area 6, Bottled Water	01/07/91	7.9 x 10 ⁻¹⁰	4.1 x 10 ⁻¹⁰
Area 6, Bottled Water	01/14/91	-1.1 x 10 ⁻¹⁰	4.0 x 10 ⁻¹⁰
Area 6, Bottled Water	01/22/91	-5.1 x 10 ⁻¹⁰	4.3 x 10 ⁻¹⁰
Area 6, Bottled Water	01/28/91	-1.8 x 10 ⁻¹⁰	4.1 x 10 ⁻¹⁰
Area 6, Bottled Water	02/04/91	-2.4 x 10 ⁻¹⁰	4.1 x 10 ⁻¹⁰
Area 6, Bottled Water	02/11/91	-5.5 x 10 ⁻¹⁰	4.2 x 10 ⁻¹⁰
Area 6, Bottled Water	02/19/91	-4.6 x 10 ⁻¹⁰	3.7 x 10 ⁻¹⁰
Area 6, Bottled Water	03/04/91	-2.0 x 10 ⁻¹⁰	4.1 x 10 ⁻¹⁰
Area 6, Bottled Water	03/11/91	-3.3 x 10 ⁻¹⁰	4.0 x 10 ⁻¹⁰
Area 6, Bottled Water	03/18/91	3.8 x 10 ⁻¹⁰	3.8 x 10 ⁻¹⁰
Area 6, Bottled Water	03/25/91	-3.8 x 10 ⁻¹⁰	4.1 x 10 ⁻¹⁰
Area 6, Bottled Water	04/01/91	-3.1 x 10 ⁻¹⁰	3.7 x 10 ⁻¹⁰
Area 6, Bottled Water	04/08/91	-5.4 x 10 ⁻¹⁰	3.8 x 10 ⁻¹⁰
Area 6, Bottled Water	04/15/91	-4.2 x 10 ⁻¹⁰	3.8 x 10 ⁻¹⁰
Area 6, Bottled Water	04/22/91	-4.0 x 10 ⁻¹⁰	4.0 x 10 ⁻¹⁰
Area 6, Bottled Water	04/29/91	2.6 x 10 ⁻¹⁰	4.2 x 10 ⁻¹⁰
Area 6, Bottled Water	05/06/91	-5.9 x 10 ⁻¹¹	4.2 x 10 ⁻¹¹
Area 6, Bottled Water	05/14/91	-1.5 x 10 ⁻¹⁰	4.0 x 10 ⁻¹⁰
Area 6, Bottled Water	05/20/91	-7.1 x 10 ⁻¹⁰	4.1 x 10 ⁻¹⁰
Area 6, Bottled Water	05/28/91	-6.7 x 10 ⁻¹⁰	4.0 x 10 ⁻¹⁰
Area 6, Bottled Water	06/03/91	-6.9 x 10 ⁻¹⁰	3.9 x 10 ⁻¹⁰
Area 6, Bottled Water	06/10/91	-9.1 x 10 ⁻¹⁰	3.9 x 10 ⁻¹⁰
Area 6, Bottled Water	06/17/91	-2.3 x 10 ⁻¹¹	4.0 x 10 ⁻¹⁰
Area 6, Bottled Water	06/24/91	-4.1 x 10 ⁻¹⁰	4.0 x 10 ⁻¹⁰
Area 6, Bottled Water	07/01/91	7.6 x 10 ⁻¹¹	4.1 x 10 ⁻¹⁰
Area 6, Bottled Water	07/08/91	-3.0 x 10 ⁻¹¹	3.8 x 10 ⁻¹⁰
Area 6, Bottled Water	07/15/91	9.1 x 10 ⁻¹¹	3.8 x 10 ⁻¹⁰
Area 6, Bottled Water	07/22/91	-1.9 x 10 ⁻¹⁰	3.8 x 10 ⁻¹⁰
Area 6, Bottled Water	07/29/91	1.4 x 10 ⁻¹⁰	3.9 x 10 ⁻¹⁰

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 6, Bottled Water	08/05/91	-5.1 x 10 ⁻¹⁰	3.9 x 10 ⁻¹⁰
Area 6, Bottled Water	08/12/91	2.1 x 10 ⁻¹⁰	4.2 x 10 ⁻¹⁰
Area 6, Bottled Water	08/19/91	-3.8 x 10 ⁻¹⁰	6.1 x 10 ⁻¹⁰
Area 6, Bottled Water	08/26/91	9.6 x 10 ⁻¹¹	4.1 x 10 ⁻¹⁰
Area 6, Bottled Water	09/03/91	7.5 x 10 ⁻¹⁰	4.2 x 10 ⁻¹⁰
Area 6, Bottled Water	09/09/91	-2.3 x 10 ⁻¹¹	4.0 x 10 ⁻¹⁰
Area 6, Bottled Water	09/16/91	5.6 x 10 ⁻¹⁰	4.1 x 10 ⁻¹⁰
Area 6, Bottled Water	09/23/91	-6.6 x 10 ⁻¹⁰	4.7 x 10 ⁻¹⁰
Area 6, Bottled Water	10/01/91	4.4 x 10 ⁻¹⁰	6.3 x 10 ⁻¹⁰
Area 6, Bottled Water	10/07/91	-5.2 x 10 ⁻¹⁰	4.1 x 10 ⁻¹⁰
Area 6, Bottled Water	10/14/91	7.9 x 10 ⁻¹⁰	4.5 x 10 ⁻¹⁰
Area 6, Bottled Water	10/21/91	-3.6 x 10 ⁻¹⁰	4.2 x 10 ⁻¹⁰
Area 6, Bottled Water	10/28/91	6.1 x 10 ⁻¹⁰	4.5 x 10 ⁻¹⁰
Area 6, Bottled Water	11/04/91	-4.5 x 10 ⁻¹⁰	3.9 x 10 ⁻¹⁰
Area 6, Bottled Water	11/12/91	6.1 x 10 ⁻¹⁰	4.1 x 10 ⁻¹⁰
Area 6, Bottled Water	11/18/91	7.4 x 10 ⁻¹⁰	4.5 x 10 ⁻¹⁰
Area 6, Bottled Water	11/25/91	-1.1 x 10 ⁻¹⁰	3.8 x 10 ⁻¹⁰
Area 6, Bottled Water	12/02/91	3.5 x 10 ⁻¹⁰	3.9 x 10 ⁻¹⁰
Area 6, Bottled Water	12/09/91	-7.5 x 10 ⁻¹⁰	4.1 x 10 ⁻¹⁰
Area 6, Bottled Water	12/16/91	6.1 x 10 ⁻¹⁰	4.0 x 10 ⁻¹⁰
Area 6, Bottled Water	12/23/91	-4.6 x 10 ⁻¹⁰	4.0 x 10 ⁻¹⁰
Area 6, Cafeteria	01/07/91	1.0 x 10 ⁻⁰⁸	6.1 x 10 ⁻¹⁰
Area 6, Cafeteria	01/14/91	9.8 x 10 ⁻⁰⁹	6.3 x 10 ⁻¹⁰
Area 6, Cafeteria	01/22/91	8.5 x 10 ⁻⁰⁹	6.3 x 10 ⁻¹⁰
Area 6, Cafeteria	01/28/91	7.2 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰
Area 6, Cafeteria	02/04/91	6.4 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 6, Cafeteria	02/11/91	7.7 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 6, Cafeteria	02/19/91	7.3 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 6, Cafeteria	03/04/91	8.7 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 6, Cafeteria	03/11/91	8.8 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 6, Cafeteria	03/18/91	1.1 x 10 ⁻⁰⁸	6.5 x 10 ⁻¹⁰
Area 6, Cafeteria	03/25/91	9.5 x 10 ⁻⁰⁹	6.7 x 10 ⁻¹⁰
Area 6, Cafeteria	04/01/91	3.2 x 10 ⁻⁰⁹	9.7 x 10 ⁻¹⁰
Area 6, Cafeteria	04/08/91	9.1 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰
Area 6, Cafeteria	04/15/91	9.2 x 10 ⁻⁰⁹	6.4 x 10 ⁻¹⁰
Area 6, Cafeteria	04/22/91	8.2 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 6, Cafeteria	04/29/91	7.0 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 6, Cafeteria	05/06/91	9.0 x 10 ⁻⁰⁹	6.5 x 10 ⁻¹⁰
Area 6, Cafeteria	05/14/91	5.4 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 6, Cafeteria	05/20/91	7.3 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 6, Cafeteria	05/28/91	6.0 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 6, Cafeteria	06/03/91	8.5 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 6, Cafeteria	06/10/91	8.8 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 6, Cafeteria	06/17/91	6.2 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 6, Cafeteria	06/24/91	6.5 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 6, Cafeteria	07/01/91	9.5 x 10 ⁻⁰⁹	3.6 x 10 ⁻⁰⁹
Area 6, Cafeteria	07/08/91	9.8 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 6, Cafeteria	07/15/91	1.2 x 10 ⁻⁰⁸	6.4 x 10 ⁻¹⁰
Area 6, Cafeteria	07/22/91	1.3 x 10 ⁻⁰⁸	6.5 x 10 ⁻¹⁰
Area 6, Cafeteria	07/29/91	1.1 x 10 ⁻⁰⁸	6.2 x 10 ⁻¹⁰
Area 6, Cafeteria	08/05/91	1.5 x 10 ⁻⁰⁸	6.5 x 10 ⁻¹⁰
Area 6, Cafeteria	08/12/91	1.3 x 10 ⁻⁰⁸	6.8 x 10 ⁻¹⁰
Area 6, Cafeteria	08/19/91	1.4 x 10 ⁻⁰⁸	9.9 x 10 ⁻¹⁰
Area 6, Cafeteria	08/26/91	1.4 x 10 ⁻⁰⁸	7.1 x 10 ⁻¹⁰
Area 6, Cafeteria	09/03/91	1.2 x 10 ⁻⁰⁸	6.7 x 10 ⁻¹⁰
Area 6, Cafeteria	09/09/91	1.0 x 10 ⁻⁰⁸	6.7 x 10 ⁻¹⁰
Area 6, Cafeteria	09/16/91	1.0 x 10 ⁻⁰⁸	6.4 x 10 ⁻¹⁰
Area 6, Cafeteria	09/23/91	1.4 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰
Area 6, Cafeteria	10/01/91	1.2 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁹
Area 6, Cafeteria	10/07/91	1.3 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰
Area 6, Cafeteria	10/14/91	1.4 x 10 ⁻⁰⁸	6.9 x 10 ⁻¹⁰
Area 6, Cafeteria	10/21/91	1.1 x 10 ⁻⁰⁸	6.8 x 10 ⁻¹⁰
Area 6, Cafeteria	10/28/91	1.3 x 10 ⁻⁰⁸	7.1 x 10 ⁻¹⁰
Area 6, Cafeteria	11/04/91	8.5 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 6, Cafeteria	11/12/91	1.4 x 10 ⁻⁰⁸	6.6 x 10 ⁻¹⁰
Area 6, Cafeteria	11/18/91	1.3 x 10 ⁻⁰⁸	6.8 x 10 ⁻¹⁰
Area 6, Cafeteria	11/25/91	5.2 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 6, Cafeteria	12/02/91	1.1 x 10 ⁻⁰⁸	6.4 x 10 ⁻¹⁰
Area 6, Cafeteria	12/09/91	9.1 x 10 ⁻⁰⁹	6.4 x 10 ⁻¹⁰
Area 6, Cafeteria	12/16/91	1.3 x 10 ⁻⁰⁸	6.7 x 10 ⁻¹⁰
Area 6, Cafeteria	12/23/91	8.4 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 6, Decontamination Facility	01/11/91	2.3 x 10 ⁻⁰⁸	2.2 x 10 ⁻⁰⁸
Area 6, Decontamination Facility	02/08/91	3.4 x 10 ⁻⁰⁹	1.5 x 10 ⁻⁰⁹
Area 6, Decontamination Facility	03/04/91	1.4 x 10 ⁻⁰⁷	2.7 x 10 ⁻⁰⁸
Area 6, Decontamination Facility	03/05/91	8.2 x 10 ⁻⁰⁸	2.5 x 10 ⁻⁰⁸
Area 6, Decontamination Facility	04/10/91	7.1 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁸
Area 6, Decontamination Facility	05/07/91	1.3 x 10 ⁻⁰⁷	2.8 x 10 ⁻⁰⁸
Area 6, Decontamination Facility	06/05/91	1.1 x 10 ⁻⁰⁷	2.7 x 10 ⁻⁰⁸
Area 6, Decontamination Facility	07/03/91	1.6 x 10 ⁻⁰⁷	2.8 x 10 ⁻⁰⁸
Area 6, Decontamination Facility	08/07/91	6.3 x 10 ⁻⁰⁸	2.6 x 10 ⁻⁰⁸
Area 6, Decontamination Facility	09/10/91	7.3 x 10 ⁻⁰⁸	2.5 x 10 ⁻⁰⁸
Area 6, Decontamination Facility	10/08/91	7.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁸
Area 6, Decontamination Facility	11/06/91	1.2 x 10 ⁻⁰⁷	2.8 x 10 ⁻⁰⁸
Area 6, Decontamination Facility	12/05/91	6.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁸

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 6, Sewage	01/28/91	3.3×10^{-08}	1.2×10^{-09}
Area 6, Sewage	04/10/91	3.7×10^{-08}	1.2×10^{-09}
Area 6, Sewage	07/09/91	1.7×10^{-07}	4.6×10^{-09}
Area 6, Sewage	10/15/91	1.1×10^{-08}	6.5×10^{-10}
Area 6, Well 4	01/07/91	8.3×10^{-09}	6.0×10^{-10}
Area 6, Well 4	02/08/91	7.6×10^{-09}	5.8×10^{-10}
Area 6, Well 4	03/11/91	5.7×10^{-09}	5.4×10^{-10}
Area 6, Well 4	04/11/91	5.6×10^{-09}	5.7×10^{-10}
Area 6, Well 4	05/09/91	7.4×10^{-09}	6.0×10^{-10}
Area 6, Well 4	06/04/91	7.3×10^{-09}	5.6×10^{-10}
Area 6, Well 4	07/11/91	7.2×10^{-09}	5.8×10^{-10}
Area 6, Well 4	08/07/91	7.2×10^{-09}	5.4×10^{-10}
Area 6, Well 4	09/07/91	8.9×10^{-09}	6.2×10^{-10}
Area 6, Well 4	10/08/91	7.3×10^{-09}	5.6×10^{-10}
Area 6, Well 4	11/13/91	8.2×10^{-09}	5.6×10^{-10}
Area 6, Well 4	12/09/91	7.7×10^{-09}	5.5×10^{-10}
Area 6, Well C	01/07/91	1.9×10^{-08}	9.9×10^{-10}
Area 6, Well C	02/08/91	1.6×10^{-08}	6.8×10^{-10}
Area 6, Well C	03/11/91	1.7×10^{-08}	7.0×10^{-10}
Area 6, Well C	04/11/91	1.6×10^{-08}	1.9×10^{-09}
Area 6, Well C	05/09/91	1.7×10^{-08}	7.1×10^{-10}
Area 6, Well C	06/04/91	1.7×10^{-08}	6.9×10^{-10}
Area 6, Well C	07/11/91	2.0×10^{-08}	2.8×10^{-09}
Area 6, Well C	08/07/91	1.6×10^{-08}	6.7×10^{-10}
Area 6, Well C	09/07/91	1.9×10^{-08}	7.6×10^{-10}
Area 6, Well C	10/08/91	2.0×10^{-08}	1.9×10^{-09}
Area 6, Well C	11/13/91	1.7×10^{-08}	6.8×10^{-10}
Area 6, Well C	12/09/91	1.7×10^{-08}	7.3×10^{-10}
Area 6, Well C-1	01/07/91	1.6×10^{-08}	1.9×10^{-09}
Area 6, Well C-1	02/08/91	1.5×10^{-08}	6.6×10^{-10}
Area 6, Well C-1	03/11/91	1.7×10^{-08}	7.0×10^{-10}
Area 6, Well C-1	04/11/91	1.3×10^{-09}	4.3×10^{-10}
Area 6, Well C-1	05/09/91	1.8×10^{-08}	7.3×10^{-10}
Area 6, Well C-1	06/04/91	1.8×10^{-08}	7.1×10^{-10}
Area 6, Well C-1	07/11/91	2.8×10^{-08}	3.1×10^{-09}
Area 6, Well C-1	08/07/91	1.3×10^{-08}	6.3×10^{-10}
Area 6, Well C-1	09/07/91	1.8×10^{-08}	7.7×10^{-10}
Area 6, Well C-1	10/08/91	1.9×10^{-08}	2.1×10^{-09}
Area 6, Well C-1	11/13/91	8.6×10^{-09}	5.7×10^{-10}
Area 6, Well C-1	12/09/91	1.6×10^{-08}	6.9×10^{-10}
Area 6, Well C1 Reservoir	01/09/91	1.2×10^{-08}	6.7×10^{-10}
Area 6, Well C1 Reservoir	02/08/91	7.9×10^{-09}	6.0×10^{-10}

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 6, Well C1 Reservoir	03/06/91	1.4 x 10 ⁻⁰⁸	7.0 x 10 ⁻¹⁰
Area 6, Well C1 Reservoir	04/02/91	1.2 x 10 ⁻⁰⁸	6.9 x 10 ⁻¹⁰
Area 6, Well C1 Reservoir	05/02/91	1.6 x 10 ⁻⁰⁸	6.9 x 10 ⁻¹⁰
Area 6, Well C1 Reservoir	06/13/91	2.0 x 10 ⁻⁰⁸	7.6 x 10 ⁻¹⁰
Area 6, Well C1 Reservoir	07/03/91	1.3 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰
Area 6, Well C1 Reservoir	08/08/91	1.7 x 10 ⁻⁰⁸	7.3 x 10 ⁻¹⁰
Area 6, Well C1 Reservoir	09/12/91	1.2 x 10 ⁻⁰⁸	6.4 x 10 ⁻¹⁰
Area 6, Well C1 Reservoir	10/10/91	1.4 x 10 ⁻⁰⁸	7.0 x 10 ⁻¹⁰
Area 6, Well C1 Reservoir	11/06/91	1.7 x 10 ⁻⁰⁸	6.7 x 10 ⁻¹⁰
Area 6, Well C1 Reservoir	12/10/91	1.1 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰
Area 7, Reitmann Seep	01/02/91	1.3 x 10 ⁻⁰⁷	2.4 x 10 ⁻⁰⁹
Area 7, Reitmann Seep	02/07/91	5.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁹
Area 7, Reitmann Seep	03/07/91	5.1 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁹
Area 7, Reitmann Seep	04/02/91	6.4 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁹
Area 7, Reitmann Seep	05/08/91	1.5 x 10 ⁻⁰⁸	9.8 x 10 ⁻¹⁰
Area 7, Reitmann Seep	06/11/91	1.3 x 10 ⁻⁰⁶	2.7 x 10 ⁻⁰⁸
Area 7, Reitmann Seep	07/09/91	8.9 x 10 ⁻⁰⁸	2.3 x 10 ⁻⁰⁹
Area 7, Reitmann Seep	08/07/91	1.3 x 10 ⁻⁰⁷	2.2 x 10 ⁻⁰⁹
Area 7, Reitmann Seep	09/12/91	8.2 x 10 ⁻⁰⁷	2.3 x 10 ⁻⁰⁸
Area 7, Reitmann Seep	10/10/91	1.4 x 10 ⁻⁰⁸	5.9 x 10 ⁻¹⁰
Area 7, Reitmann Seep	11/06/91	5.3 x 10 ⁻⁰⁸	1.6 x 10 ⁻⁰⁹
Area 7, Reitmann Seep	12/16/91	3.4 x 10 ⁻⁰⁸	9.1 x 10 ⁻¹⁰
Area 12, Cafeteria	12/31/91	3.7 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 12, Cafeteria	01/07/91	4.2 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 12, Cafeteria	01/14/91	3.7 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 12, Cafeteria	01/22/91	4.0 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 12, Cafeteria	01/28/91	2.7 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 12, Cafeteria	02/04/91	3.4 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 12, Cafeteria	02/11/91	3.4 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 12, Cafeteria	02/19/91	3.6 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 12, Cafeteria	03/04/91	3.3 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 12, Cafeteria	03/11/91	4.7 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 12, Cafeteria	03/18/91	3.4 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 12, Cafeteria	03/25/91	3.3 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 12, Cafeteria	04/01/91	2.9 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 12, Cafeteria	04/08/91	4.0 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 12, Cafeteria	04/15/91	3.2 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 12, Cafeteria	04/22/91	3.6 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 12, Cafeteria	04/29/91	4.0 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 12, Cafeteria	05/06/91	2.9 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 12, Cafeteria	05/13/91	3.4 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 12, Cafeteria	05/20/91	3.6 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 12, Cafeteria	05/28/91	2.2 x 10 ⁻⁰⁹	4.7 x 10 ⁻¹⁰
Area 12, Cafeteria	06/03/91	3.1 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 12, Cafeteria	06/10/91	3.2 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 12, Cafeteria	06/17/91	2.1 x 10 ⁻⁰⁹	4.5 x 10 ⁻¹⁰
Area 12, Cafeteria	06/24/91	3.9 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 12, Cafeteria	07/01/91	2.9 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 12, Cafeteria	07/08/91	4.0 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 12, Cafeteria	07/15/91	3.2 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 12, Cafeteria	07/22/91	3.0 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 12, Cafeteria	07/29/91	2.6 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 12, Cafeteria	08/05/91	2.6 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 12, Cafeteria	08/12/91	4.6 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 12, Cafeteria	08/19/91	4.1 x 10 ⁻⁰⁹	7.5 x 10 ⁻¹⁰
Area 12, Cafeteria	08/26/91	4.0 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 12, Cafeteria	09/03/91	4.4 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 12, Cafeteria	09/09/91	3.7 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 12, Cafeteria	09/16/91	4.7 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 12, Cafeteria	09/23/91	2.5 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 12, Cafeteria	10/01/91	3.0 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 12, Cafeteria	10/07/91	2.8 x 10 ⁻⁰⁹	4.7 x 10 ⁻¹⁰
Area 12, Cafeteria	10/14/91	2.3 x 10 ⁻⁰⁹	4.7 x 10 ⁻¹⁰
Area 12, Cafeteria	10/21/91	3.1 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 12, Cafeteria	10/28/91	4.5 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 12, Cafeteria	11/04/91	3.0 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 12, Cafeteria	11/12/91	3.5 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 12, Cafeteria	11/18/91	3.8 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 12, Cafeteria	11/25/91	2.8 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 12, Cafeteria	12/02/91	4.7 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 12, Cafeteria	12/09/91	2.7 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 12, Cafeteria	12/16/91	3.9 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 12, Cafeteria	12/23/91	2.4 x 10 ⁻⁰⁹	4.7 x 10 ⁻¹⁰
Area 12, Captain Jack Spring	01/29/91	8.7 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 12, Captain Jack Spring	02/12/91	8.4 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 12, Captain Jack Spring	03/22/91	1.1 x 10 ⁻⁰⁸	6.2 x 10 ⁻¹⁰
Area 12, Captain Jack Spring	04/17/91	6.6 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 12, Captain Jack Spring	05/08/91	9.1 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 12, Captain Jack Spring	06/05/91	1.4 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰
Area 12, Captain Jack Spring	07/17/91	6.9 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 12, Captain Jack Spring	08/15/91	7.8 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 12, Captain Jack Spring	09/26/91	6.6 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 12, Captain Jack Spring	10/16/91	8.9 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 12, Captain Jack Spring	11/08/91	1.1 x 10 ⁻⁰⁸	5.9 x 10 ⁻¹⁰

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 12, E Tunnel Effluent	01/09/91	1.3 x 10 ⁻⁰⁷	2.5 x 10 ⁻⁰⁸
Area 12, E Tunnel Effluent	02/06/91	7.4 x 10 ⁻⁰⁸	2.2 x 10 ⁻⁰⁸
Area 12, E Tunnel Effluent	03/05/91	1.1 x 10 ⁻⁰⁷	2.3 x 10 ⁻⁰⁸
Area 12, E Tunnel Effluent	04/09/91	5.8 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁸
Area 12, E Tunnel Effluent	05/07/91	8.2 x 10 ⁻⁰⁸	2.2 x 10 ⁻⁰⁸
Area 12, E Tunnel Effluent	06/05/91	4.2 x 10 ⁻⁰⁸	2.1 x 10 ⁻⁰⁸
Area 12, E Tunnel Effluent	07/02/91	4.7 x 10 ⁻⁰⁸	2.0 x 10 ⁻⁰⁸
Area 12, E Tunnel Effluent	08/07/91	9.0 x 10 ⁻⁰⁸	2.3 x 10 ⁻⁰⁸
Area 12, E Tunnel Effluent	09/10/91	7.9 x 10 ⁻⁰⁸	2.1 x 10 ⁻⁰⁸
Area 12, E Tunnel Effluent	10/08/91	6.9 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁸
Area 12, E Tunnel Effluent	11/06/91	1.1 x 10 ⁻⁰⁷	2.3 x 10 ⁻⁰⁸
Area 12, E Tunnel Effluent	12/05/91	8.4 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁸
Area 12, Gold Meadows	04/17/91	1.7 x 10 ⁻⁰⁸	6.5 x 10 ⁻¹⁰
Area 12, Gold Meadows	05/08/91	2.3 x 10 ⁻⁰⁸	7.1 x 10 ⁻¹⁰
Area 12, Gold Meadows	06/06/91	2.4 x 10 ⁻⁰⁸	7.6 x 10 ⁻¹⁰
Area 12, Gold Meadows	07/09/91	4.8 x 10 ⁻⁰⁸	9.9 x 10 ⁻¹⁰
Area 12, Gold Meadows	08/01/91	3.5 x 10 ⁻⁰⁸	8.0 x 10 ⁻¹⁰
Area 12, Gold Meadows	09/12/91	2.4 x 10 ⁻⁰⁸	7.2 x 10 ⁻¹⁰
Area 12, Gold Meadows	10/17/91	3.6 x 10 ⁻⁰⁸	8.6 x 10 ⁻¹⁰
Area 12, Gold Meadows	11/07/91	2.5 x 10 ⁻⁰⁸	7.8 x 10 ⁻¹⁰
Area 12, N Tunnel Effluent	01/09/91	5.3 x 10 ⁻⁰⁸	2.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Effluent	02/06/91	5.5 x 10 ⁻⁰⁸	2.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Effluent	03/05/91	4.1 x 10 ⁻⁰⁸	2.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Effluent	04/09/91	1.0 x 10 ⁻⁰⁸	1.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Effluent	05/07/91	1.2 x 10 ⁻⁰⁸	2.0 x 10 ⁻⁰⁸
Area 12, N Tunnel Effluent	06/05/91	-1.5 x 10 ⁻⁰⁸	1.8 x 10 ⁻⁰⁸
Area 12, N Tunnel Effluent	07/02/91	1.8 x 10 ⁻⁰⁸	1.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Effluent	08/13/91	3.1 x 10 ⁻⁰⁸	2.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Effluent	09/10/91	5.6 x 10 ⁻¹⁰	1.9 x 10 ⁻⁰⁸
Area 12, N Tunnel Effluent	10/08/91	6.9 x 10 ⁻⁰⁹	1.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Effluent	11/06/91	2.4 x 10 ⁻⁰⁸	2.0 x 10 ⁻⁰⁸
Area 12, N Tunnel Effluent	12/05/91	6.8 x 10 ⁻⁰⁹	1.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 1	01/10/91	5.0 x 10 ⁻⁰⁸	2.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 1	02/06/91	3.2 x 10 ⁻⁰⁸	2.0 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 1	03/05/91	3.1 x 10 ⁻⁰⁸	2.0 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 1	04/09/91	7.0 x 10 ⁻⁰⁹	1.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 1	05/07/91	2.2 x 10 ⁻⁰⁸	2.0 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 1	06/05/91	1.4 x 10 ⁻⁰⁹	1.9 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 1	07/02/91	5.8 x 10 ⁻⁰⁸	2.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 1	08/13/91	1.2 x 10 ⁻⁰⁸	2.0 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 1	09/10/91	-3.7 x 10 ⁻⁰⁹	1.9 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 1	10/08/91	5.0 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁸

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 12, N Tunnel Pond No. 1	11/06/91	1.7 x 10 ⁻⁰⁸	2.0 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 1	12/05/91	1.9 x 10 ⁻⁰⁸	1.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 2	01/10/91	5.6 x 10 ⁻⁰⁸	2.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 2	02/06/91	5.1 x 10 ⁻⁰⁸	2.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 2	03/05/91	-9.3 x 10 ⁻⁰⁹	1.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 2	04/09/91	9.9 x 10 ⁻⁰⁹	1.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 2	05/07/91	4.8 x 10 ⁻⁰⁸	2.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 2	06/05/91	7.0 x 10 ⁻⁰⁹	1.9 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 2	07/02/91	2.0 x 10 ⁻⁰⁸	1.9 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 2	08/13/91	5.1 x 10 ⁻⁰⁹	1.9 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 2	09/10/91	1.5 x 10 ⁻⁰⁸	2.0 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 2	10/08/91	2.8 x 10 ⁻⁰⁹	1.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 2	11/06/91	6.7 x 10 ⁻⁰⁹	2.0 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 2	12/05/91	1.5 x 10 ⁻⁰⁸	1.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 3	01/10/91	9.0 x 10 ⁻⁰⁹	2.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 3	02/06/91	1.1 x 10 ⁻⁰⁸	1.9 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 3	03/05/91	-8.5 x 10 ⁻¹⁰	1.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 3	04/09/91	1.7 x 10 ⁻⁰⁹	1.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 3	05/07/91	3.0 x 10 ⁻⁰⁸	2.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 3	06/05/91	2.1 x 10 ⁻⁰⁸	2.0 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 3	07/02/91	1.6 x 10 ⁻⁰⁸	1.9 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 3	08/13/91	1.9 x 10 ⁻⁰⁹	1.9 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 3	09/10/91	1.9 x 10 ⁻⁰⁹	1.9 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 3	10/08/91	-8.3 x 10 ⁻¹⁰	1.1 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 3	11/06/91	1.6 x 10 ⁻⁰⁸	2.0 x 10 ⁻⁰⁸
Area 12, N Tunnel Pond No. 3	12/05/91	7.1 x 10 ⁻⁰⁹	1.1 x 10 ⁻⁰⁸
Area 12, Sewage	01/30/91	2.8 x 10 ⁻⁰⁸	8.0 x 10 ⁻¹⁰
Area 12, Sewage	04/11/91	2.3 x 10 ⁻⁰⁸	8.1 x 10 ⁻¹⁰
Area 12, Sewage	07/15/91	3.1 x 10 ⁻⁰⁸	9.9 x 10 ⁻¹⁰
Area 12, Sewage	10/09/91	5.5 x 10 ⁻⁰⁸	2.0 x 10 ⁻⁰⁹
Area 12, T Tunnel Effluent	01/09/91	2.4 x 10 ⁻⁰⁷	2.8 x 10 ⁻⁰⁸
Area 12, T Tunnel Effluent	02/06/91	1.9 x 10 ⁻⁰⁷	2.5 x 10 ⁻⁰⁸
Area 12, T Tunnel Effluent	03/05/91	2.1 x 10 ⁻⁰⁷	2.5 x 10 ⁻⁰⁸
Area 12, T Tunnel Effluent	04/10/91	1.6 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁸
Area 12, T Tunnel Effluent	05/07/91	1.9 x 10 ⁻⁰⁷	2.6 x 10 ⁻⁰⁸
Area 12, T Tunnel Effluent	06/05/91	1.5 x 10 ⁻⁰⁷	2.4 x 10 ⁻⁰⁸
Area 12, T Tunnel Effluent	07/02/91	2.4 x 10 ⁻⁰⁷	2.6 x 10 ⁻⁰⁸
Area 12, T Tunnel Effluent	08/13/91	1.4 x 10 ⁻⁰⁷	2.4 x 10 ⁻⁰⁸
Area 12, T Tunnel Effluent	09/10/91	1.5 x 10 ⁻⁰⁷	2.4 x 10 ⁻⁰⁸
Area 12, T Tunnel Effluent	10/08/91	1.9 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁸
Area 12, T Tunnel Effluent	11/06/91	1.5 x 10 ⁻⁰⁷	2.5 x 10 ⁻⁰⁸
Area 12, T Tunnel Effluent	12/05/91	4.6 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁸

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 12, T Tunnel Pond No. 1	01/09/91	1.7 x 10 ⁻⁰⁷	2.6 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 1	02/06/91	1.7 x 10 ⁻⁰⁷	2.4 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 1	03/05/91	1.8 x 10 ⁻⁰⁷	2.4 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 1	04/10/91	1.6 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 1	05/07/91	1.6 x 10 ⁻⁰⁷	2.5 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 1	06/05/91	1.2 x 10 ⁻⁰⁷	2.3 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 1	07/02/91	1.6 x 10 ⁻⁰⁷	2.4 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 1	08/13/91	1.9 x 10 ⁻⁰⁷	2.6 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 1	09/10/91	9.2 x 10 ⁻⁰⁸	2.2 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 1	10/08/91	2.1 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 1	11/06/91	1.8 x 10 ⁻⁰⁷	2.6 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 1	12/05/91	1.2 x 10 ⁻⁰⁷	1.2 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 2	02/06/91	1.7 x 10 ⁻⁰⁷	2.4 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 2	03/05/91	2.3 x 10 ⁻⁰⁷	2.6 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 2	04/10/91	1.7 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 2	05/07/91	1.7 x 10 ⁻⁰⁷	2.5 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 2	06/05/91	1.5 x 10 ⁻⁰⁷	2.4 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 2	07/02/91	1.8 x 10 ⁻⁰⁷	2.4 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 2	08/13/91	2.1 x 10 ⁻⁰⁷	2.7 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 2	09/10/91	1.0 x 10 ⁻⁰⁷	2.2 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 2	10/08/91	1.4 x 10 ⁻⁰⁷	1.2 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 2	11/06/91	1.8 x 10 ⁻⁰⁷	2.5 x 10 ⁻⁰⁸
Area 12, T Tunnel Pond No. 2	12/05/91	1.5 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁸
Area 12, White Rock Spring	01/11/91	2.4 x 10 ⁻⁰⁸	7.9 x 10 ⁻¹⁰
Area 12, White Rock Spring	02/06/91	1.1 x 10 ⁻⁰⁸	6.6 x 10 ⁻¹⁰
Area 12, White Rock Spring	03/06/91	1.4 x 10 ⁻⁰⁸	6.9 x 10 ⁻¹⁰
Area 12, White Rock Spring	04/09/91	1.3 x 10 ⁻⁰⁸	6.8 x 10 ⁻¹⁰
Area 12, White Rock Spring	05/01/91	1.2 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰
Area 12, White Rock Spring	06/11/91	1.3 x 10 ⁻⁰⁸	6.4 x 10 ⁻¹⁰
Area 12, White Rock Spring	07/03/91	1.8 x 10 ⁻⁰⁸	6.6 x 10 ⁻¹⁰
Area 12, White Rock Spring	08/06/91	1.0 x 10 ⁻⁰⁸	5.7 x 10 ⁻¹⁰
Area 12, White Rock Spring	09/10/91	1.2 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰
Area 12, White Rock Spring	10/07/91	1.0 x 10 ⁻⁰⁸	6.0 x 10 ⁻¹⁰
Area 12, White Rock Spring	11/05/91	1.8 x 10 ⁻⁰⁸	7.1 x 10 ⁻¹⁰
Area 12, White Rock Spring	12/10/91	9.3 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 15, Well Ue15d	02/08/91	2.1 x 10 ⁻⁰⁸	7.2 x 10 ⁻¹⁰
Area 15, Well Ue15d	03/11/91	1.9 x 10 ⁻⁰⁸	7.0 x 10 ⁻¹⁰
Area 15, Well Ue15d	04/11/91	2.0 x 10 ⁻⁰⁸	7.0 x 10 ⁻¹⁰
Area 15, Well Ue15d	05/09/91	2.2 x 10 ⁻⁰⁸	7.3 x 10 ⁻¹⁰
Area 15, Well Ue15d	06/04/91	2.2 x 10 ⁻⁰⁸	7.3 x 10 ⁻¹⁰
Area 15, Well Ue15d	07/11/91	1.8 x 10 ⁻⁰⁸	6.8 x 10 ⁻¹⁰
Area 16, Tippiah Spring	01/07/91	6.2 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 16, Tippipah Spring	02/12/91	5.0×10^{-09}	5.5×10^{-10}
Area 16, Tippipah Spring	03/12/91	4.1×10^{-09}	5.7×10^{-10}
Area 16, Tippipah Spring	04/17/91	5.2×10^{-09}	5.4×10^{-10}
Area 16, Tippipah Spring	05/08/91	3.7×10^{-09}	5.4×10^{-10}
Area 16, Tippipah Spring	06/11/91	5.4×10^{-09}	5.2×10^{-10}
Area 16, Tippipah Spring	07/09/91	4.9×10^{-09}	5.1×10^{-10}
Area 16, Tippipah Spring	08/07/91	4.8×10^{-09}	5.2×10^{-10}
Area 16, Tippipah Spring	09/12/91	5.0×10^{-09}	4.9×10^{-10}
Area 16, Tippipah Spring	10/09/91	4.9×10^{-09}	5.5×10^{-10}
Area 16, Tippipah Spring	11/14/91	7.0×10^{-09}	5.4×10^{-10}
Area 16, Tippipah Spring	12/19/91	1.4×10^{-09}	4.8×10^{-10}
Area 16, Well 16d	01/07/91	8.7×10^{-09}	9.1×10^{-10}
Area 16, Well 16d	02/08/91	7.7×10^{-09}	5.9×10^{-10}
Area 16, Well 16d	03/11/91	7.0×10^{-09}	5.6×10^{-10}
Area 16, Well 16d	04/11/91	1.1×10^{-08}	2.2×10^{-09}
Area 16, Well 16d	05/09/91	7.4×10^{-09}	6.2×10^{-10}
Area 16, Well 16d	06/04/91	7.6×10^{-09}	5.5×10^{-10}
Area 16, Well 16d	07/11/91	2.9×10^{-09}	5.0×10^{-10}
Area 16, Well 16d	08/07/91	7.7×10^{-09}	5.8×10^{-10}
Area 16, Well 16d	09/07/91	8.1×10^{-09}	6.0×10^{-10}
Area 16, Well 16d	10/08/91	6.0×10^{-09}	2.8×10^{-09}
Area 16, Well 16d	11/13/91	7.7×10^{-09}	5.6×10^{-10}
Area 16, Well 16d	12/11/91	7.4×10^{-09}	5.7×10^{-10}
Area 18, Camp 17 Reservoir	01/09/91	4.3×10^{-09}	5.0×10^{-10}
Area 18, Camp 17 Reservoir	02/05/91	3.9×10^{-09}	5.2×10^{-10}
Area 18, Camp 17 Reservoir	03/04/91	3.5×10^{-09}	5.5×10^{-10}
Area 18, Camp 17 Reservoir	04/09/91	3.3×10^{-09}	5.1×10^{-10}
Area 18, Camp 17 Reservoir	05/08/91	3.9×10^{-09}	5.0×10^{-10}
Area 18, Camp 17 Reservoir	06/05/91	3.5×10^{-09}	5.2×10^{-10}
Area 18, Camp 17 Reservoir	07/03/91	3.3×10^{-09}	4.9×10^{-10}
Area 18, Camp 17 Reservoir	08/06/91	2.0×10^{-09}	4.8×10^{-10}
Area 18, Camp 17 Reservoir	09/05/91	5.3×10^{-09}	5.4×10^{-10}
Area 18, Camp 17 Reservoir	10/09/91	3.9×10^{-09}	5.2×10^{-10}
Area 18, Camp 17 Reservoir	11/07/91	5.2×10^{-09}	5.9×10^{-10}
Area 18, Well 8	01/07/91	4.1×10^{-09}	5.2×10^{-10}
Area 18, Well 8	02/08/91	4.2×10^{-09}	5.1×10^{-10}
Area 18, Well 8	03/11/91	3.1×10^{-09}	5.1×10^{-10}
Area 18, Well 8	04/11/91	3.4×10^{-09}	5.0×10^{-10}
Area 18, Well 8	05/09/91	2.5×10^{-09}	5.1×10^{-10}
Area 18, Well 8	06/04/91	3.8×10^{-09}	5.1×10^{-10}
Area 18, Well 8	07/11/91	3.5×10^{-09}	4.7×10^{-10}
Area 18, Well 8	08/07/91	2.4×10^{-09}	5.0×10^{-10}

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 18, Well 8	09/07/91	4.0 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 18, Well 8	10/08/91	2.7 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 18, Well 8	11/13/91	3.0 x 10 ⁻⁰⁹	4.7 x 10 ⁻¹⁰
Area 18, Well 8	12/09/91	3.1 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 18, Well 8 Reservoir	01/09/91	3.7 x 10 ⁻⁰⁹	4.7 x 10 ⁻¹⁰
Area 18, Well 8 Reservoir	02/05/91	5.8 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 18, Well 8 Reservoir	03/06/91	6.3 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 18, Well 8 Reservoir	04/09/91	5.5 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 18, Well 8 Reservoir	05/08/91	5.6 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 18, Well 8 Reservoir	08/20/91	6.2 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 18, Well 8 Reservoir	09/05/91	7.8 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 18, Well 8 Reservoir	10/09/91	6.3 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 19, Well U19c	01/07/91	1.7 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 19, Well U19c	02/08/91	1.1 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 19, Well U19c	03/11/91	3.9 x 10 ⁻¹⁰	4.8 x 10 ⁻¹⁰
Area 19, Well U19c	04/11/91	4.2 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 19, Well U19c	05/09/91	3.7 x 10 ⁻¹¹	4.8 x 10 ⁻¹⁰
Area 19, Well U19c	06/04/91	1.0 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 19, Well U19c	07/11/91	2.4 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 19, Well U19c	08/07/91	6.1 x 10 ⁻¹⁰	4.5 x 10 ⁻¹⁰
Area 19, Well U19c	09/07/91	2.5 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 19, Well U19c	10/08/91	1.3 x 10 ⁻⁰⁹	4.6 x 10 ⁻¹⁰
Area 19, Well U19c	11/13/91	1.3 x 10 ⁻⁰⁹	4.7 x 10 ⁻¹⁰
Area 19, Well U19c	12/09/91	1.2 x 10 ⁻⁰⁹	4.4 x 10 ⁻¹⁰
Area 19, Well U19c Reservoir	01/09/91	2.3 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 19, Well U19c Reservoir	02/05/91	1.8 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 19, Well U19c Reservoir	03/04/91	1.1 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 19, Well U19c Reservoir	04/09/91	9.6 x 10 ⁻¹⁰	4.7 x 10 ⁻¹⁰
Area 19, Well U19c Reservoir	05/08/91	6.7 x 10 ⁻¹⁰	4.7 x 10 ⁻¹⁰
Area 19, Well U19c Reservoir	06/05/91	7.3 x 10 ⁻¹⁰	4.9 x 10 ⁻¹⁰
Area 19, Well U19c Reservoir	07/02/91	1.7 x 10 ⁻⁰⁹	4.6 x 10 ⁻¹⁰
Area 19, Well U19c Reservoir	08/01/91	7.9 x 10 ⁻¹⁰	4.3 x 10 ⁻¹⁰
Area 19, Well U19c Reservoir	09/10/91	1.6 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 19, Well U19c Reservoir	10/09/91	1.7 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 19, Well U19c Reservoir	11/07/91	2.0 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 20, Water Well	01/07/91	3.9 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 20, Water Well	02/08/91	1.1 x 10 ⁻⁰⁸	6.1 x 10 ⁻¹⁰
Area 20, Well 20A Reservoir	01/09/91	3.5 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 20, Well 20A Reservoir	02/05/91	3.6 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 20, Well 20A Reservoir	03/06/91	2.6 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 20, Well 20A Reservoir	04/09/91	7.3 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 20, Well 20A Reservoir	05/08/91	1.3 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 20, Well 20A Reservoir	06/05/91	1.9 x 10 ⁻⁰⁸	7.1 x 10 ⁻¹⁰
Area 20, Well 20A Reservoir	07/02/91	3.6 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 20, Well 20A Reservoir	08/01/91	9.6 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 20, Well 20A Reservoir	09/10/91	2.4 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 20, Well 20A Reservoir	10/09/91	2.9 x 10 ⁻⁰⁸	8.1 x 10 ⁻¹⁰
Area 20, Well 20A Reservoir	11/07/91	3.5 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 22, Army Well No. 1	01/07/91	6.9 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 22, Army Well No. 1	02/08/91	5.6 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 22, Army Well No. 1	03/11/91	5.7 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 22, Army Well No. 1	04/11/91	5.8 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 22, Army Well No. 1	05/09/91	5.5 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 22, Army Well No. 1	06/04/91	6.2 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 22, Army Well No. 1	07/11/91	9.3 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 22, Army Well No. 1	08/07/91	5.8 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 22, Army Well No. 1	09/07/91	8.2 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 22, Army Well No. 1	10/08/91	6.7 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 22, Army Well No. 1	11/13/91	6.5 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 22, Army Well No. 1	12/09/91	6.3 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 23, Cafeteria	01/02/91	4.6 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 23, Cafeteria	01/07/91	4.6 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 23, Cafeteria	01/14/91	4.7 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 23, Cafeteria	01/22/91	5.1 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 23, Cafeteria	01/28/91	4.4 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 23, Cafeteria	02/04/91	6.4 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 23, Cafeteria	02/11/91	3.7 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 23, Cafeteria	02/19/91	5.3 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 23, Cafeteria	03/04/91	5.8 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 23, Cafeteria	03/11/91	2.8 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 23, Cafeteria	03/18/91	3.6 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 23, Cafeteria	03/25/91	4.1 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 23, Cafeteria	04/01/91	2.4 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 23, Cafeteria	04/08/91	2.5 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 23, Cafeteria	04/15/91	2.5 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 23, Cafeteria	04/22/91	1.7 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 23, Cafeteria	04/29/91	2.8 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 23, Cafeteria	05/06/91	6.6 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 23, Cafeteria	05/13/91	1.7 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 23, Cafeteria	05/20/91	5.8 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 23, Cafeteria	05/28/91	1.7 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 23, Cafeteria	06/03/91	1.3 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 23, Cafeteria	06/10/91	3.0 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 23, Cafeteria	06/17/91	4.0 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 23, Cafeteria	06/24/91	2.0×10^{-09}	5.4×10^{-10}
Area 23, Cafeteria	07/01/91	3.4×10^{-09}	5.2×10^{-10}
Area 23, Cafeteria	07/08/91	2.2×10^{-09}	4.9×10^{-10}
Area 23, Cafeteria	07/15/91	5.0×10^{-09}	5.6×10^{-10}
Area 23, Cafeteria	07/22/91	2.4×10^{-09}	5.0×10^{-10}
Area 23, Cafeteria	07/29/91	2.6×10^{-09}	4.9×10^{-10}
Area 23, Cafeteria	08/05/91	2.4×10^{-09}	4.9×10^{-10}
Area 23, Cafeteria	08/12/91	3.6×10^{-09}	5.4×10^{-10}
Area 23, Cafeteria	08/19/91	3.5×10^{-09}	5.8×10^{-10}
Area 23, Cafeteria	08/26/91	3.4×10^{-09}	5.5×10^{-10}
Area 23, Cafeteria	09/03/91	3.9×10^{-09}	5.4×10^{-10}
Area 23, Cafeteria	09/09/91	4.1×10^{-09}	5.9×10^{-10}
Area 23, Cafeteria	09/16/91	3.0×10^{-09}	5.3×10^{-10}
Area 23, Cafeteria	09/23/91	2.7×10^{-09}	4.9×10^{-10}
Area 23, Cafeteria	10/01/91	1.6×10^{-09}	5.0×10^{-10}
Area 23, Cafeteria	10/07/91	3.8×10^{-09}	5.2×10^{-10}
Area 23, Cafeteria	10/07/91	3.0×10^{-09}	5.3×10^{-10}
Area 23, Cafeteria	10/21/91	1.7×10^{-09}	4.9×10^{-10}
Area 23, Cafeteria	10/28/91	2.9×10^{-09}	5.8×10^{-10}
Area 23, Cafeteria	11/04/91	2.1×10^{-09}	5.1×10^{-10}
Area 23, Cafeteria	11/12/91	3.1×10^{-09}	5.3×10^{-10}
Area 23, Cafeteria	11/18/91	4.8×10^{-09}	5.6×10^{-10}
Area 23, Cafeteria	11/25/91	2.5×10^{-09}	5.1×10^{-10}
Area 23, Cafeteria	12/03/91	2.7×10^{-09}	5.2×10^{-10}
Area 23, Cafeteria	12/09/91	7.1×10^{-09}	5.5×10^{-10}
Area 23, Cafeteria	12/16/91	4.3×10^{-09}	5.4×10^{-10}
Area 23, Cafeteria	12/23/91	3.9×10^{-09}	5.7×10^{-10}
Area 23, Sewage	01/18/91	1.4×10^{-08}	5.1×10^{-10}
Area 23, Sewage	04/04/91	1.7×10^{-08}	6.8×10^{-10}
Area 23, Sewage	07/09/91	2.2×10^{-11}	4.2×10^{-10}
Area 23, Sewage	10/09/91	9.0×10^{-09}	5.8×10^{-10}
Area 23, Swimming Pool	01/10/91	4.3×10^{-09}	5.3×10^{-10}
Area 23, Swimming Pool	02/12/91	5.2×10^{-09}	5.7×10^{-10}
Area 23, Swimming Pool	03/06/91	4.5×10^{-09}	5.4×10^{-10}
Area 23, Swimming Pool	04/04/91	4.8×10^{-09}	5.7×10^{-10}
Area 23, Swimming Pool	05/14/91	2.9×10^{-09}	5.2×10^{-10}
Area 23, Swimming Pool	06/20/91	4.5×10^{-09}	5.2×10^{-10}
Area 23, Swimming Pool	07/03/91	3.6×10^{-09}	5.1×10^{-10}
Area 23, Swimming Pool	08/06/91	4.1×10^{-09}	5.3×10^{-10}
Area 23, Swimming Pool	09/12/91	3.8×10^{-09}	5.1×10^{-10}
Area 23, Swimming Pool	10/09/91	5.2×10^{-09}	5.5×10^{-10}
Area 23, Swimming Pool	11/05/91	4.2×10^{-09}	5.5×10^{-10}

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 23, Swimming Pool	12/09/91	6.0 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 25, Building 4221	01/02/91	4.8 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 25, Building 4221	01/07/91	5.2 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 25, Building 4221	01/14/91	5.3 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 25, Building 4221	01/22/91	4.1 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 25, Building 4221	01/28/91	4.8 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 25, Building 4221	02/04/91	5.0 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 25, Building 4221	02/11/91	4.7 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 25, Building 4221	02/19/91	5.0 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 25, Building 4221	03/04/91	5.8 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 25, Building 4221	03/11/91	4.2 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 25, Building 4221	03/18/91	4.5 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 25, Building 4221	03/25/91	4.1 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 25, Building 4221	04/01/91	4.7 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 25, Building 4221	04/08/91	4.8 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 25, Building 4221	04/15/91	4.4 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 25, Building 4221	04/22/91	5.1 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 25, Building 4221	04/29/91	6.1 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 25, Building 4221	05/06/91	5.0 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 25, Building 4221	05/13/91	4.6 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 25, Building 4221	05/20/91	4.6 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 25, Building 4221	05/28/91	3.1 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 25, Building 4221	06/03/91	3.5 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 25, Building 4221	06/10/91	5.5 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 25, Building 4221	06/17/91	5.1 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 25, Building 4221	06/24/91	4.9 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 25, Building 4221	07/01/91	4.4 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 25, Building 4221	07/08/91	5.5 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 25, Building 4221	07/15/91	4.3 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 25, Building 4221	07/22/91	4.8 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 25, Building 4221	07/29/91	4.5 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 25, Building 4221	08/05/91	4.8 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 25, Building 4221	08/12/91	5.8 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 25, Building 4221	08/19/91	5.1 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 25, Building 4221	08/26/91	6.4 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 25, Building 4221	09/03/91	1.9 x 10 ⁻⁰⁹	4.8 x 10 ⁻¹⁰
Area 25, Building 4221	09/09/91	6.8 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 25, Building 4221	09/16/91	5.9 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 25, Building 4221	09/23/91	5.5 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 25, Building 4221	10/01/91	4.5 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 25, Building 4221	10/07/91	5.5 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 25, Building 4221	10/07/91	5.4 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 25, Building 4221	10/21/91	4.6 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 25, Building 4221	10/28/91	4.8 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 25, Building 4221	11/04/91	3.8 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 25, Building 4221	11/12/91	4.7 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 25, Building 4221	11/18/91	6.3 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 25, Building 4221	11/25/91	2.4 x 10 ⁻⁰⁹	4.7 x 10 ⁻¹⁰
Area 25, Building 4221	12/03/91	6.0 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 25, Building 4221	12/09/91	5.2 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 25, Building 4221	12/16/91	6.2 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 25, Building 4221	12/23/91	2.7 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 25, J-12 Reservoir	01/09/91	1.2 x 10 ⁻⁰⁸	6.5 x 10 ⁻¹⁰
Area 25, J-12 Reservoir	02/04/91	4.8 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 25, J-12 Reservoir	03/04/91	5.3 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 25, J-12 Reservoir	04/03/91	5.0 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 25, J-12 Reservoir	05/02/91	2.3 x 10 ⁻⁰⁸	7.7 x 10 ⁻¹⁰
Area 25, J-12 Reservoir	06/13/91	5.4 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 25, J-12 Reservoir	07/02/91	6.7 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 25, J-12 Reservoir	08/05/91	5.0 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 25, J-12 Reservoir	09/03/91	6.5 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 25, J-12 Reservoir	10/07/91	6.4 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 25, J-12 Reservoir	11/05/91	6.6 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 25, J-12 Reservoir	12/12/91	7.8 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 25, Well J-11 Reservoir	01/09/91	6.3 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 25, Well J-11 Reservoir	02/04/91	5.5 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 25, Well J-11 Reservoir	03/04/91	6.5 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 25, Well J-11 Reservoir	04/03/91	5.3 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 25, Well J-11 Reservoir	05/02/91	5.6 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 25, Well J-11 Reservoir	06/13/91	5.2 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 25, Well J-11 Reservoir	07/02/91	5.5 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 25, Well J-11 Reservoir	08/05/91	2.6 x 10 ⁻⁰⁹	4.9 x 10 ⁻¹⁰
Area 25, Well J-11 Reservoir	09/03/91	4.5 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 25, Well J-11 Reservoir	10/07/91	5.5 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 25, Well J-11 Reservoir	11/05/91	5.9 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 25, Well J-11 Reservoir	12/09/91	7.4 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 25, Well J-12	01/07/91	5.5 x 10 ⁻⁰⁹	5.3 x 10 ⁻¹⁰
Area 25, Well J-12	02/08/91	5.2 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 25, Well J-12	03/11/91	4.7 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 25, Well J-12	04/11/91	4.2 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 25, Well J-12	05/09/91	2.9 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 25, Well J-12	06/04/91	3.7 x 10 ⁻⁰⁹	5.1 x 10 ⁻¹⁰
Area 25, Well J-12	07/11/91	5.2 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 25, Well J-12	08/07/91	5.0 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 25, Well J-12	09/07/91	5.6 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 25, Well J-12	10/08/91	5.6 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 25, Well J-12	11/13/91	5.1 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 25, Well J-12	12/09/91	5.9 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 25, Well J-13	01/07/91	5.7 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 25, Well J-13	02/08/91	5.7 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 25, Well J-13	03/11/91	3.1 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 25, Well J-13	04/11/91	3.7 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 25, Well J-13	06/04/91	3.1 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 25, Well J-13	07/11/91	4.9 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 25, Well J-13	08/07/91	4.3 x 10 ⁻⁰⁹	5.0 x 10 ⁻¹⁰
Area 25, Well J-13	09/07/91	5.7 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 25, Well J-13	10/08/91	5.1 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 25, Well J-13	11/13/91	4.1 x 10 ⁻⁰⁹	5.2 x 10 ⁻¹⁰
Area 25, Well J-13	12/09/91	5.1 x 10 ⁻⁰⁹	5.4 x 10 ⁻¹⁰
Area 27, Cafeteria	01/02/91	9.1 x 10 ⁻⁰⁹	1.0 x 10 ⁻⁰⁹
Area 27, Cafeteria	01/14/91	1.1 x 10 ⁻⁰⁸	6.4 x 10 ⁻¹⁰
Area 27, Cafeteria	01/22/91	1.0 x 10 ⁻⁰⁸	6.3 x 10 ⁻¹⁰
Area 27, Cafeteria	01/28/91	9.9 x 10 ⁻⁰⁹	6.4 x 10 ⁻¹⁰
Area 27, Cafeteria	02/04/91	8.5 x 10 ⁻⁰⁹	6.3 x 10 ⁻¹⁰
Area 27, Cafeteria	02/11/91	8.1 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 27, Cafeteria	03/04/91	9.2 x 10 ⁻⁰⁹	6.3 x 10 ⁻¹⁰
Area 27, Cafeteria	03/11/91	5.7 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 27, Cafeteria	03/18/91	7.1 x 10 ⁻⁰⁹	5.7 x 10 ⁻¹⁰
Area 27, Cafeteria	03/25/91	9.0 x 10 ⁻⁰⁹	6.7 x 10 ⁻¹⁰
Area 27, Cafeteria	04/01/91	4.7 x 10 ⁻⁰⁹	7.9 x 10 ⁻¹⁰
Area 27, Cafeteria	04/08/91	9.4 x 10 ⁻⁰⁹	6.6 x 10 ⁻¹⁰
Area 27, Cafeteria	04/15/91	8.4 x 10 ⁻⁰⁹	6.3 x 10 ⁻¹⁰
Area 27, Cafeteria	04/22/91	7.3 x 10 ⁻⁰⁹	6.0 x 10 ⁻¹⁰
Area 27, Cafeteria	04/29/91	8.0 x 10 ⁻⁰⁹	6.1 x 10 ⁻¹⁰
Area 27, Cafeteria	05/06/91	8.2 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰
Area 27, Cafeteria	05/13/91	6.5 x 10 ⁻⁰⁹	6.4 x 10 ⁻¹⁰
Area 27, Cafeteria	05/20/91	7.1 x 10 ⁻⁰⁹	5.9 x 10 ⁻¹⁰
Area 27, Cafeteria	05/28/91	6.6 x 10 ⁻⁰⁹	5.8 x 10 ⁻¹⁰
Area 27, Cafeteria	06/03/91	7.7 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰
Area 27, Cafeteria	06/10/91	9.3 x 10 ⁻⁰⁹	6.3 x 10 ⁻¹⁰
Area 27, Cafeteria	06/17/91	7.8 x 10 ⁻⁰⁹	7.0 x 10 ⁻¹⁰
Area 27, Cafeteria	06/24/91	5.6 x 10 ⁻⁰⁹	5.6 x 10 ⁻¹⁰
Area 27, Cafeteria	07/01/91	8.1 x 10 ⁻⁰⁹	1.2 x 10 ⁻⁰⁹
Area 27, Cafeteria	07/08/91	6.6 x 10 ⁻⁰⁹	5.5 x 10 ⁻¹⁰
Area 27, Cafeteria	07/15/91	9.4 x 10 ⁻⁰⁹	6.2 x 10 ⁻¹⁰
Area 27, Cafeteria	07/22/91	1.0 x 10 ⁻⁰⁸	6.2 x 10 ⁻¹⁰

Attachment C.5 (Gross Beta in Water - 1991, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 27, Cafeteria	07/29/91	8.7×10^{-09}	5.8×10^{-10}
Area 27, Cafeteria	08/05/91	9.5×10^{-09}	6.0×10^{-10}
Area 27, Cafeteria	08/12/91	1.5×10^{-08}	7.1×10^{-10}
Area 27, Cafeteria	08/19/91	1.3×10^{-08}	6.7×10^{-10}
Area 27, Cafeteria	08/26/91	1.4×10^{-08}	6.8×10^{-10}
Area 27, Cafeteria	09/03/91	1.4×10^{-08}	6.9×10^{-10}
Area 27, Cafeteria	09/09/91	1.1×10^{-08}	6.5×10^{-10}
Area 27, Cafeteria	09/16/91	1.4×10^{-08}	6.9×10^{-10}
Area 27, Cafeteria	09/23/91	1.1×10^{-08}	5.9×10^{-10}
Area 27, Cafeteria	10/01/91	1.0×10^{-08}	1.9×10^{-09}
Area 27, Cafeteria	10/07/91	1.4×10^{-08}	6.4×10^{-10}
Area 27, Cafeteria	10/07/91	1.4×10^{-08}	7.0×10^{-10}
Area 27, Cafeteria	10/21/91	1.3×10^{-08}	6.6×10^{-10}
Area 27, Cafeteria	10/28/91	1.4×10^{-08}	6.7×10^{-10}
Area 27, Cafeteria	11/04/91	1.2×10^{-08}	6.4×10^{-10}
Area 27, Cafeteria	11/12/91	1.3×10^{-08}	6.7×10^{-10}
Area 27, Cafeteria	11/18/91	1.4×10^{-08}	6.9×10^{-10}
Area 27, Cafeteria	11/25/91	1.2×10^{-08}	6.4×10^{-10}
Area 27, Cafeteria	12/03/91	1.2×10^{-08}	6.5×10^{-10}
Area 27, Cafeteria	12/09/91	1.1×10^{-08}	6.3×10^{-10}
Area 27, Cafeteria	12/16/91	1.2×10^{-08}	6.7×10^{-10}
Area 27, Cafeteria	12/23/91	9.8×10^{-09}	6.4×10^{-10}
Area 29, Topopah Spring	01/24/91	8.5×10^{-09}	5.8×10^{-10}
Area 29, Topopah Spring	02/07/91	8.0×10^{-09}	5.5×10^{-10}
Area 29, Topopah Spring	03/13/91	7.7×10^{-09}	6.2×10^{-10}
Area 29, Topopah Spring	04/17/91	8.6×10^{-09}	5.5×10^{-10}
Area 29, Topopah Spring	05/08/91	6.4×10^{-09}	5.3×10^{-10}
Area 29, Topopah Spring	06/06/91	1.1×10^{-08}	6.3×10^{-10}

Attachment C.6 Gamma-Emitting Radionuclides in Water - 1991

Sampling Location	Sampling Date	$\mu\text{Ci/mL}$		Radio-nuclide
		Concen-tration	Standard Deviation (s)	
Area 1, Building 101	01/14/91	1.1×10^{-07}	5.5×10^{-08}	^{212}Pb
Area 1, Building 101	04/29/91	1.1×10^{-07}	4.6×10^{-08}	^{212}Pb
Area 1, Building 101	07/15/91	3.8×10^{-06}	1.4×10^{-06}	^{214}Pb
Area 1, Building 101	07/15/91	5.8×10^{-07}	2.5×10^{-07}	^{40}K
Area 1, Building 101	10/14/91	7.9×10^{-08}	4.4×10^{-08}	^{208}Tl
Area 1, Building 101	11/12/91	1.3×10^{-07}	4.9×10^{-08}	^{212}Pb
Area 1, Building 101	11/25/91	1.2×10^{-07}	5.9×10^{-08}	^{212}Pb
Area 1, Building 101	12/02/91	2.5×10^{-06}	1.2×10^{-06}	^{214}Pb
Area 1, Building 101	12/09/91	8.1×10^{-08}	5.5×10^{-08}	^{208}Tl
Area 1, Building 101	12/09/91	1.1×10^{-07}	6.3×10^{-08}	^{212}Pb
Area 2, Rest Room	01/14/91	3.5×10^{-07}	1.2×10^{-07}	^{214}Pb
Area 2, Rest Room	01/22/91	2.9×10^{-07}	1.4×10^{-07}	^{214}Bi
Area 2, Rest Room	01/22/91	1.6×10^{-07}	6.5×10^{-08}	^{212}Pb
Area 2, Rest Room	01/28/91	2.8×10^{-07}	1.4×10^{-07}	^{214}Bi
Area 2, Rest Room	06/17/91	3.1×10^{-07}	1.7×10^{-07}	^{214}Pb
Area 2, Rest Room	09/03/91	2.1×10^{-07}	5.6×10^{-08}	^{212}Pb
Area 2, Rest Room	10/01/91	8.0×10^{-07}	4.6×10^{-07}	^{214}Bi
Area 2, Rest Room	10/07/91	4.3×10^{-07}	1.7×10^{-07}	^{214}Pb
Area 2, Rest Room	10/07/91	1.3×10^{-07}	6.2×10^{-08}	^{212}Pb
Area 2, Rest Room	10/21/91	2.8×10^{-07}	1.4×10^{-07}	^{214}Pb
Area 2, Rest Room	11/25/91	7.2×10^{-07}	3.1×10^{-07}	^{214}Pb
Area 2, Rest Room	12/02/91	4.1×10^{-06}	1.5×10^{-06}	^{214}Pb
Area 2, Rest Room	12/02/91	5.8×10^{-06}	2.0×10^{-06}	^{214}Bi
Area 2, Well 2 Reservoir	12/09/91	8.7×10^{-08}	5.9×10^{-08}	^{212}Pb
Area 3, Cafeteria	02/11/91	1.9×10^{-07}	5.5×10^{-08}	^{212}Pb
Area 3, Cafeteria	10/01/91	5.6×10^{-08}	3.2×10^{-08}	^{208}Tl
Area 3, Cafeteria	10/01/91	8.0×10^{-07}	5.0×10^{-07}	^{40}K
Area 3, Cafeteria	10/07/91	3.8×10^{-07}	1.8×10^{-07}	^{214}Bi
Area 3, Cafeteria	12/02/91	3.6×10^{-06}	1.5×10^{-06}	^{214}Bi
Area 3, Cafeteria	12/02/91	5.2×10^{-06}	1.7×10^{-06}	^{214}Pb
Area 3, Cafeteria	12/09/91	1.1×10^{-07}	6.2×10^{-08}	^{212}Pb
Area 3, Cafeteria	12/16/91	3.3×10^{-07}	1.8×10^{-07}	^{214}Pb
Area 3, Mud Plant Reservoir	03/06/91	1.9×10^{-07}	5.5×10^{-08}	^{212}Pb
Area 3, Mud Plant Reservoir	11/05/91	4.2×10^{-06}	2.1×10^{-06}	^{214}Pb
Area 3, Mud Plant Reservoir	11/05/91	1.4×10^{-07}	6.1×10^{-08}	^{212}Pb
Area 3, Well A Reservoir	03/06/91	1.2×10^{-07}	5.0×10^{-08}	^{212}Pb
Area 3, Well A Reservoir	06/06/91	4.3×10^{-06}	2.2×10^{-06}	^{214}Bi
Area 3, Well A Reservoir	08/06/91	1.1×10^{-07}	5.2×10^{-08}	^{212}Pb
Area 5, Ue5c Reservoir	04/01/91	1.5×10^{-07}	5.2×10^{-08}	^{212}Pb
Area 5, Ue5c Reservoir	07/03/91	5.0×10^{-07}	3.1×10^{-07}	^{214}Pb
Area 5, Well 5B Reservoir	03/04/91	2.6×10^{-07}	1.3×10^{-07}	^{214}Pb
Area 5, Well 5B Reservoir	08/06/91	9.9×10^{-08}	5.6×10^{-08}	^{212}Pb

Attachment C.6 Gamma-Emitting Radionuclides in Water - 1991

Sampling Location	Sampling Date	$\mu\text{Ci/mL}$		Radio-nuclide
		Concen-tration	Standard Deviation (s)	
Area 5, Well 5B Reservoir	10/07/91	1.0×10^{-06}	3.8×10^{-07}	^{214}Pb
Area 5, Well 5B Reservoir	10/07/91	8.0×10^{-07}	3.3×10^{-07}	^{214}Bi
Area 5, Well Ue5c	06/04/91	5.3×10^{-07}	2.3×10^{-07}	^{214}Bi
Area 5, Well Ue5c	06/04/91	4.0×10^{-07}	1.7×10^{-07}	^{214}Pb
Area 5, Well Ue5c	07/11/91	1.0×10^{-06}	3.7×10^{-07}	^{214}Pb
Area 6, Bottled Water	02/11/91	1.1×10^{-07}	3.9×10^{-08}	^{212}Pb
Area 6, Bottled Water	07/15/91	1.8×10^{-06}	1.2×10^{-06}	^{214}Pb
Area 6, Bottled Water	08/19/91	2.0×10^{-07}	1.2×10^{-07}	^{214}Pb
Area 6, Bottled Water	12/02/91	4.3×10^{-06}	1.9×10^{-06}	^{214}Bi
Area 6, Bottled Water	12/02/91	3.6×10^{-06}	1.5×10^{-06}	^{214}Pb
Area 6, Cafeteria	01/22/91	1.7×10^{-07}	6.3×10^{-08}	^{212}Pb
Area 6, Cafeteria	04/01/91	1.6×10^{-07}	7.6×10^{-08}	^{212}Pb
Area 6, Cafeteria	07/15/91	2.0×10^{-06}	1.3×10^{-06}	^{214}Pb
Area 6, Cafeteria	12/02/91	4.7×10^{-06}	1.6×10^{-06}	^{214}Pb
Area 6, Cafeteria	12/09/91	1.2×10^{-07}	7.4×10^{-08}	^{212}Pb
Area 6, Decontamination Facility	11/01/91	9.8×10^{-08}	4.2×10^{-08}	^{212}Pb
Area 6, Decontamination Facility	01/11/91	5.2×10^{-07}	1.9×10^{-07}	^{214}Pb
Area 6, Decontamination Facility	01/11/91	5.7×10^{-07}	2.3×10^{-07}	^{214}Bi
Area 6, Decontamination Facility	01/11/91	7.3×10^{-07}	2.5×10^{-07}	^{40}K
Area 6, Decontamination Facility	10/08/91	2.6×10^{-06}	1.1×10^{-06}	^{214}Bi
Area 6, Well 3 Reservoir	05/08/91	2.1×10^{-07}	5.7×10^{-08}	^{212}Pb
Area 6, Well 3 Reservoir	06/06/91	3.7×10^{-06}	1.5×10^{-06}	^{214}Bi
Area 12, Cafeteria	03/11/91	1.2×10^{-07}	5.1×10^{-08}	^{212}Pb
Area 12, Cafeteria	03/25/91	3.0×10^{-07}	1.7×10^{-07}	^{214}Pb
Area 12, Cafeteria	05/20/91	3.7×10^{-07}	1.8×10^{-07}	^{214}Pb
Area 12, Cafeteria	06/24/91	4.4×10^{-07}	2.1×10^{-07}	^{214}Pb
Area 12, Cafeteria	07/08/91	1.2×10^{-07}	5.9×10^{-08}	^{212}Pb
Area 12, Cafeteria	09/03/91	1.3×10^{-07}	5.7×10^{-08}	^{212}Pb
Area 12, Cafeteria	09/09/91	1.1×10^{-07}	5.2×10^{-08}	^{212}Pb
Area 12, Cafeteria	10/14/91	2.7×10^{-07}	1.2×10^{-07}	^{214}Pb
Area 12, Cafeteria	11/18/91	8.4×10^{-07}	3.2×10^{-07}	^{214}Pb
Area 12, Cafeteria	12/02/91	4.6×10^{-06}	1.6×10^{-06}	^{214}Pb
Area 12, Cafeteria	12/16/91	3.4×10^{-07}	1.8×10^{-07}	^{214}Pb
Area 12, Captain Jack Spring	01/29/91	3.5×10^{-07}	1.1×10^{-07}	^{214}Pb
Area 12, Captain Jack Spring	02/12/91	7.6×10^{-07}	2.3×10^{-07}	^{214}Bi
Area 12, Captain Jack Spring	02/12/91	6.5×10^{-07}	1.8×10^{-07}	^{214}Pb
Area 12, Captain Jack Spring	04/17/91	9.4×10^{-07}	5.4×10^{-07}	^{214}Bi
Area 12, Captain Jack Spring	06/05/91	6.6×10^{-07}	1.7×10^{-07}	^{214}Pb
Area 12, Captain Jack Spring	06/05/91	6.1×10^{-07}	2.2×10^{-07}	^{214}Bi
Area 12, Captain Jack Spring	08/15/91	4.7×10^{-07}	1.2×10^{-07}	^{214}Pb
Area 12, Captain Jack Spring	08/15/91	5.0×10^{-07}	1.4×10^{-07}	^{214}Bi
Area 12, Captain Jack Spring	09/26/91	7.8×10^{-07}	3.2×10^{-07}	^{214}Bi

Attachment C.6 Gamma-Emitting Radionuclides in Water - 1991

Sampling Location	Sampling Date	$\mu\text{Ci/mL}$		Radio-nuclide
		Concen-tration	Standard Deviation (s)	
Area 12, Captain Jack Spring	10/16/91	2.3×10^{-07}	7.6×10^{-08}	^{212}Pb
Area 12, E Tunnel Effluent	01/09/91	4.5×10^{-07}	1.9×10^{-07}	^{214}Pb
Area 12, E Tunnel Effluent	01/09/91	1.5×10^{-07}	2.5×10^{-08}	^{137}Cs
Area 12, E Tunnel Effluent	01/09/91	3.8×10^{-08}	1.1×10^{-08}	^{208}Tl
Area 12, E Tunnel Effluent	02/06/91	1.2×10^{-07}	2.1×10^{-08}	^{137}Cs
Area 12, E Tunnel Effluent	03/05/91	1.0×10^{-07}	2.7×10^{-08}	^{137}Cs
Area 12, E Tunnel Effluent	03/05/91	6.6×10^{-07}	3.0×10^{-07}	^{214}Pb
Area 12, E Tunnel Effluent	04/09/91	1.1×10^{-07}	2.2×10^{-08}	^{137}Cs
Area 12, E Tunnel Effluent	04/09/91	5.2×10^{-08}	2.2×10^{-08}	^{212}Pb
Area 12, E Tunnel Effluent	05/07/91	1.0×10^{-07}	5.3×10^{-08}	^{137}Cs
Area 12, E Tunnel Effluent	08/07/91	1.4×10^{-07}	4.6×10^{-08}	^{212}Pb
Area 12, E Tunnel Effluent	09/10/91	3.8×10^{-05}	1.4×10^{-05}	^{214}Bi
Area 12, E Tunnel Effluent	09/10/91	2.4×10^{-05}	1.2×10^{-05}	^{214}Pb
Area 12, E Tunnel Effluent	09/10/91	9.2×10^{-08}	6.8×10^{-08}	^{212}Pb
Area 12, E Tunnel Effluent	10/08/91	1.4×10^{-07}	6.8×10^{-08}	^{212}Pb
Area 12, Gold Meadows	08/01/91	1.8×10^{-07}	7.2×10^{-08}	^{212}Pb
Area 12, Gold Meadows	11/07/91	2.6×10^{-06}	1.7×10^{-06}	^{214}Bi
Area 12, N Tunnel Effluent	02/06/91	1.0×10^{-07}	3.6×10^{-08}	^{212}Pb
Area 12, N Tunnel Effluent	02/06/91	5.1×10^{-07}	2.3×10^{-07}	^{214}Bi
Area 12, N Tunnel Effluent	02/06/91	6.9×10^{-07}	2.9×10^{-07}	^{214}Pb
Area 12, N Tunnel Effluent	03/05/91	7.2×10^{-08}	2.6×10^{-08}	^{212}Pb
Area 12, N Tunnel Effluent	03/05/91	6.8×10^{-07}	3.1×10^{-07}	^{214}Bi
Area 12, N Tunnel Effluent	04/09/91	4.5×10^{-07}	1.7×10^{-07}	^{40}K
Area 12, N Tunnel Effluent	08/13/91	4.5×10^{-07}	2.2×10^{-07}	^{214}Pb
Area 12, N Tunnel Effluent	09/10/91	2.4×10^{-05}	9.7×10^{-06}	^{214}Pb
Area 12, N Tunnel Effluent	09/10/91	1.5×10^{-07}	6.5×10^{-08}	^{212}Pb
Area 12, N Tunnel Effluent	11/06/91	1.2×10^{-07}	6.3×10^{-08}	^{212}Pb
Area 12, N Tunnel Pond No. 1	01/10/91	6.6×10^{-07}	2.3×10^{-07}	^{214}Bi
Area 12, N Tunnel Pond No. 1	01/10/91	6.6×10^{-07}	2.3×10^{-07}	^{214}Bi
Area 12, N Tunnel Pond No. 1	02/06/91	1.0×10^{-06}	2.9×10^{-07}	^{214}Pb
Area 12, N Tunnel Pond No. 1	02/06/91	1.6×10^{-07}	3.4×10^{-08}	^{235}U
Area 12, N Tunnel Pond No. 1	02/06/91	8.1×10^{-08}	3.8×10^{-08}	^{212}Pb
Area 12, N Tunnel Pond No. 1	03/05/91	5.1×10^{-07}	2.4×10^{-07}	^{40}K
Area 12, N Tunnel Pond No. 1	04/09/91	2.9×10^{-08}	1.2×10^{-08}	^{208}Tl
Area 12, N Tunnel Pond No. 1	04/09/91	1.6×10^{-06}	7.7×10^{-07}	^{214}Pb
Area 12, N Tunnel Pond No. 1	08/13/91	1.3×10^{-07}	4.8×10^{-08}	^{212}Pb
Area 12, N Tunnel Pond No. 2	01/10/91	1.1×10^{-07}	4.1×10^{-08}	^{212}Pb
Area 12, N Tunnel Pond No. 2	03/05/91	1.0×10^{-07}	3.7×10^{-08}	^{212}Pb
Area 12, N Tunnel Pond No. 2	04/09/91	4.8×10^{-08}	2.5×10^{-08}	^{212}Pb
Area 12, N Tunnel Pond No. 2	09/10/91	3.4×10^{-05}	1.2×10^{-05}	^{214}Pb
Area 12, N Tunnel Pond No. 3	01/10/91	1.4×10^{-07}	6.1×10^{-08}	^{228}Ac
Area 12, N Tunnel Pond No. 3	02/06/91	9.1×10^{-08}	2.4×10^{-08}	^{235}U

Attachment C.6 Gamma-Emitting Radionuclides in Water - 1991

Sampling Location	Sampling Date	$\mu\text{Ci/mL}$		Radio-nuclide
		Concentration	Standard Deviation (s)	
Area 12, N Tunnel Pond No. 3	03/05/91	3.9×10^{-08}	1.6×10^{-08}	^{134}Cs
Area 12, N Tunnel Pond No. 3	04/09/91	3.6×10^{-07}	1.7×10^{-07}	^{40}K
Area 12, N Tunnel Pond No. 3	04/09/91	5.8×10^{-08}	2.4×10^{-08}	^{212}Pb
Area 12, N Tunnel Pond No. 3	09/10/91	2.2×10^{-05}	1.1×10^{-05}	^{214}Pb
Area 12, N Tunnel Pond No. 3	10/08/91	9.8×10^{-08}	6.4×10^{-08}	^{212}Pb
Area 12, Sewage	10/09/91	6.1×10^{-07}	2.2×10^{-07}	^{214}Pb
Area 12, T Tunnel Effluent	01/09/91	5.6×10^{-08}	1.7×10^{-08}	^{137}Cs
Area 12, T Tunnel Effluent	01/09/91	5.1×10^{-07}	1.7×10^{-07}	^{214}Bi
Area 12, T Tunnel Effluent	02/06/91	4.5×10^{-08}	1.6×10^{-08}	^{208}Tl
Area 12, T Tunnel Effluent	02/06/91	2.6×10^{-07}	1.3×10^{-07}	^{214}Pb
Area 12, T Tunnel Effluent	02/06/91	4.3×10^{-07}	1.6×10^{-07}	^{40}K
Area 12, T Tunnel Effluent	03/05/91	3.3×10^{-07}	1.2×10^{-07}	^{214}Bi
Area 12, T Tunnel Effluent	03/05/91	2.5×10^{-07}	8.2×10^{-08}	^{214}Pb
Area 12, T Tunnel Effluent	07/02/91	2.2×10^{-06}	1.0×10^{-06}	^{214}Bi
Area 12, T Tunnel Effluent	09/10/91	1.5×10^{-05}	7.8×10^{-06}	^{214}Pb
Area 12, T Tunnel Effluent	10/08/91	1.9×10^{-07}	5.9×10^{-08}	^{212}Pb
Area 12, T Tunnel Effluent	12/05/91	7.2×10^{-07}	4.6×10^{-07}	^{214}Bi
Area 12, T Tunnel Pond No. 1	01/09/91	7.2×10^{-08}	2.9×10^{-08}	^{212}Pb
Area 12, T Tunnel Pond No. 1	02/06/91	7.5×10^{-08}	3.0×10^{-08}	^{212}Pb
Area 12, T Tunnel Pond No. 1	11/06/91	1.5×10^{-07}	6.1×10^{-08}	^{212}Pb
Area 12, T Tunnel Pond No. 2	02/06/91	3.6×10^{-08}	1.4×10^{-08}	^{137}Cs
Area 12, T Tunnel Pond No. 2	10/08/91	2.8×10^{-06}	1.0×10^{-06}	^{214}Pb
Area 12, T Tunnel Pond No. 2	11/06/91	1.2×10^{-07}	5.1×10^{-08}	^{137}Cs
Area 12, White Rock Spring	02/06/91	1.3×10^{-07}	4.0×10^{-08}	^{235}U
Area 12, White Rock Spring	02/06/91	2.1×10^{-07}	1.2×10^{-07}	^{214}Pb
Area 12, White Rock Spring	04/09/91	2.9×10^{-07}	1.4×10^{-07}	^{214}Pb
Area 12, White Rock Spring	04/09/91	3.8×10^{-07}	2.1×10^{-07}	^{214}Bi
Area 12, White Rock Spring	06/11/91	9.8×10^{-07}	4.6×10^{-07}	^{214}Bi
Area 12, White Rock Spring	07/03/91	8.8×10^{-07}	3.9×10^{-07}	^{214}Pb
Area 12, White Rock Spring	08/06/91	9.1×10^{-07}	1.9×10^{-07}	^{214}Pb
Area 12, White Rock Spring	08/06/91	8.6×10^{-07}	2.2×10^{-07}	^{214}Bi
Area 12, White Rock Spring	10/07/91	8.8×10^{-07}	3.3×10^{-07}	^{214}Bi
Area 12, White Rock Spring	10/07/91	1.5×10^{-06}	3.8×10^{-07}	^{214}Pb
Area 15, Well Ue15d	03/11/91	5.4×10^{-07}	2.0×10^{-07}	^{214}Bi
Area 16, Tippipah Spring	08/07/91	1.4×10^{-07}	4.6×10^{-08}	^{212}Pb
Area 16, Tippipah Spring	08/07/91	1.3×10^{-07}	8.5×10^{-08}	^{214}Pb
Area 18, Camp 17 Reservoir	09/05/91	1.7×10^{-07}	5.3×10^{-08}	^{212}Pb
Area 18, Camp 17 Reservoir	11/07/91	1.7×10^{-07}	5.9×10^{-08}	^{212}Pb
Area 18, Well 8 Reservoir	01/09/91	6.3×10^{-07}	1.8×10^{-07}	^{214}Bi
Area 18, Well 8 Reservoir	01/09/91	7.3×10^{-07}	2.3×10^{-07}	^{214}Pb
Area 18, Well 8 Reservoir	02/05/91	2.8×10^{-07}	1.0×10^{-07}	^{214}Pb
Area 18, Well 8 Reservoir	03/06/91	6.9×10^{-07}	3.0×10^{-07}	^{214}Pb

Attachment C.6 Gamma-Emitting Radionuclides in Water - 1991

<u>Sampling Location</u>	<u>Sampling Date</u>	<u>μCi/mL</u>		<u>Radio-nuclide</u>
		<u>Concen-tration</u>	<u>Standard Deviation (s)</u>	
Area 18, Well 8 Reservoir	09/05/91	1.4 x 10 ⁻⁰⁷	5.0 x 10 ⁻⁰⁸	212Pb
Area 18, Well 8 Reservoir	10/09/91	3.6 x 10 ⁻⁰⁷	1.9 x 10 ⁻⁰⁷	214Pb
Area 18, Well 8 Reservoir	10/09/91	3.9 x 10 ⁻⁰⁷	2.1 x 10 ⁻⁰⁷	214Bi
Area 19, Well U19c	01/07/91	7.6 x 10 ⁻⁰⁷	2.2 x 10 ⁻⁰⁷	214Pb
Area 19, Well U19c	01/07/91	5.9 x 10 ⁻⁰⁷	2.5 x 10 ⁻⁰⁷	214Bi
Area 19, Well U19c	02/08/91	1.0 x 10 ⁻⁰⁶	2.8 x 10 ⁻⁰⁷	214Bi
Area 19, Well U19c	02/08/91	8.9 x 10 ⁻⁰⁷	2.3 x 10 ⁻⁰⁷	214Pb
Area 19, Well U19c	03/11/91	8.0 x 10 ⁻⁰⁷	2.6 x 10 ⁻⁰⁷	214Bi
Area 19, Well U19c	03/11/91	1.2 x 10 ⁻⁰⁶	2.6 x 10 ⁻⁰⁷	214Pb
Area 19, Well U19c	05/09/91	1.0 x 10 ⁻⁰⁶	3.7 x 10 ⁻⁰⁷	214Pb
Area 19, Well U19c	06/04/91	2.8 x 10 ⁻⁰⁶	1.3 x 10 ⁻⁰⁶	214Pb
Area 19, Well U19c	07/11/91	7.7 x 10 ⁻⁰⁷	3.5 x 10 ⁻⁰⁷	214Pb
Area 19, Well U19c	08/07/91	1.2 x 10 ⁻⁰⁶	5.2 x 10 ⁻⁰⁷	214Bi
Area 19, Well U19c	08/07/91	1.7 x 10 ⁻⁰⁶	4.8 x 10 ⁻⁰⁷	214Pb
Area 19, Well U19c	09/07/91	9.9 x 10 ⁻⁰⁷	5.3 x 10 ⁻⁰⁷	214Pb
Area 19, Well U19c	10/08/91	4.3 x 10 ⁻⁰⁵	1.9 x 10 ⁻⁰⁵	214Pb
Area 19, Well U19c	10/08/91	6.0 x 10 ⁻⁰⁵	2.7 x 10 ⁻⁰⁵	214Bi
Area 19, Well U19c	11/13/91	1.4 x 10 ⁻⁰⁷	6.2 x 10 ⁻⁰⁸	212Pb
Area 19, Well U19c	12/09/91	1.5 x 10 ⁻⁰⁶	7.6 x 10 ⁻⁰⁷	214Bi
Area 19, Well U19c	12/09/91	1.8 x 10 ⁻⁰⁶	7.3 x 10 ⁻⁰⁷	214Pb
Area 19, Well U19c Reservoir	07/02/91	8.8 x 10 ⁻⁰⁷	4.0 x 10 ⁻⁰⁷	214Pb
Area 19, Well U19c Reservoir	11/07/91	7.2 x 10 ⁻⁰⁸	5.4 x 10 ⁻⁰⁸	208Tl
Area 19, Well U19c Reservoir	06/05/91	3.2 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷	214Bi
Area 20, Well 20A Reservoir	04/09/91	1.5 x 10 ⁻⁰⁷	5.8 x 10 ⁻⁰⁸	212Pb
Area 23, Cafeteria	05/06/91	2.3 x 10 ⁻⁰⁷	1.1 x 10 ⁻⁰⁷	214Pb
Area 23, Cafeteria	06/24/91	1.8 x 10 ⁻⁰⁷	7.6 x 10 ⁻⁰⁸	212Pb
Area 23, Cafeteria	10/07/91	4.2 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷	214Pb
Area 23, Cafeteria	10/07/91	9.7 x 10 ⁻⁰⁷	4.8 x 10 ⁻⁰⁷	214Pb
Area 23, Cafeteria	10/21/91	1.1 x 10 ⁻⁰⁷	5.7 x 10 ⁻⁰⁸	212Pb
Area 23, Cafeteria	10/28/91	1.5 x 10 ⁻⁰⁷	6.9 x 10 ⁻⁰⁸	212Pb
Area 23, Cafeteria	12/03/91	4.2 x 10 ⁻⁰⁶	1.8 x 10 ⁻⁰⁶	214Bi
Area 23, Cafeteria	12/03/91	4.8 x 10 ⁻⁰⁶	1.4 x 10 ⁻⁰⁶	214Pb
Area 23, Sewage	07/09/91	1.1 x 10 ⁻⁰⁷	5.6 x 10 ⁻⁰⁸	212Pb
Area 23, Sewage	10/09/91	2.0 x 10 ⁻⁰⁷	7.2 x 10 ⁻⁰⁸	212Pb
Area 23, Swimming Pool	01/10/91	1.1 x 10 ⁻⁰⁷	5.0 x 10 ⁻⁰⁸	212Pb
Area 25, Building 4221	02/19/91	1.5 x 10 ⁻⁰⁷	6.1 x 10 ⁻⁰⁸	212Pb
Area 25, Building 4221	04/29/91	1.1 x 10 ⁻⁰⁷	4.3 x 10 ⁻⁰⁸	212Pb
Area 25, Building 4221	08/05/91	1.3 x 10 ⁻⁰⁷	5.9 x 10 ⁻⁰⁸	212Pb
Area 25, Building 4221	11/18/91	5.4 x 10 ⁻⁰⁷	2.8 x 10 ⁻⁰⁷	214Pb
Area 25, Well J-11 Reservoir	10/07/91	5.1 x 10 ⁻⁰⁷	3.4 x 10 ⁻⁰⁷	214Pb
Area 25, Well J-11 Reservoir	10/07/91	4.5 x 10 ⁻⁰⁸	4.1 x 10 ⁻⁰⁸	208Tl
Area 25, Well J-12 Reservoir	11/05/91	1.8 x 10 ⁻⁰⁷	5.7 x 10 ⁻⁰⁸	212Pb

Attachment C.6 Gamma-Emitting Radionuclides in Water - 1991

<u>Sampling Location</u>	<u>Sampling Date</u>	<u>μCi/mL</u>		<u>Radio-nuclide</u>
		<u>Concen-tration</u>	<u>Standard Deviation (s)</u>	
Area 27, Cafeteria	03/18/91	2.4×10^{-07}	1.3×10^{-07}	²¹⁴ Bi
Area 27, Cafeteria	08/12/91	1.0×10^{-07}	5.4×10^{-08}	²¹² Pb
Area 27, Cafeteria	10/07/91	6.6×10^{-07}	3.3×10^{-07}	²¹⁴ Bi
Area 27, Cafeteria	10/07/91	1.1×10^{-06}	4.5×10^{-07}	²¹⁴ Pb
Area 27, Cafeteria	10/07/91	3.3×10^{-07}	1.4×10^{-07}	²¹⁴ Pb
Area 27, Cafeteria	10/07/91	2.3×10^{-07}	1.5×10^{-07}	²¹⁴ Bi
Area 27, Cafeteria	10/21/91	3.0×10^{-07}	1.5×10^{-07}	²¹⁴ Pb
Area 27, Cafeteria	12/03/91	4.0×10^{-06}	1.3×10^{-06}	²¹⁴ Pb
Area 27, Cafeteria	12/03/91	3.4×10^{-06}	1.3×10^{-06}	²¹⁴ Bi

Attachment C.7 Tritium in Water - 1991

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 1, Building 101	12/31/90	1.4 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 1, Building 101	01/07/91	1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	01/14/91	5.0 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	01/22/91	-1.9 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 1, Building 101	01/28/91	-8.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	02/04/91	7.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	02/11/91	2.6 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	02/19/91	3.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	03/04/91	-2.2 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 1, Building 101	03/18/91	-8.3 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	03/25/91	-3.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	03/25/91	-2.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	04/01/91	-2.8 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 1, Building 101	04/08/91	2.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	04/15/91	-4.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	04/22/91	5.6 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	04/29/91	-2.9 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	05/06/91	-3.4 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	05/13/91	4.0 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 1, Building 101	05/20/91	7.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 1, Building 101	06/03/91	-2.7 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 1, Building 101	06/10/91	-5.6 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 1, Building 101	06/17/91	3.8 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 1, Building 101	06/24/91	-1.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	07/01/91	-4.5 x 10 ⁻⁰⁸	1.7 x 10 ⁻⁰⁷
Area 1, Building 101	07/08/91	6.6 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 1, Building 101	07/15/91	-1.3 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	07/22/91	-3.2 x 10 ⁻⁰⁷	1.2 x 10 ⁻⁰⁷
Area 1, Building 101	07/29/91	7.4 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁷
Area 1, Building 101	08/05/91	-2.1 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁷
Area 1, Building 101	08/12/91	3.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	08/19/91	4.1 x 10 ⁻⁰⁸	1.7 x 10 ⁻⁰⁷
Area 1, Building 101	08/26/91	2.4 x 10 ⁻⁰⁷	1.7 x 10 ⁻⁰⁷
Area 1, Building 101	09/03/91	-1.0 x 10 ⁻⁰⁷	1.2 x 10 ⁻⁰⁷
Area 1, Building 101	09/09/91	-1.8 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 1, Building 101	09/16/91	-2.5 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 1, Building 101	09/23/91	-2.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	10/01/91	-2.6 x 10 ⁻⁰⁸	1.9 x 10 ⁻⁰⁷
Area 1, Building 101	10/07/91	-7.9 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 1, Building 101	10/14/91	2.5 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 1, Building 101	10/21/91	7.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	10/28/91	-1.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 1, Building 101	11/04/91	-1.5 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	11/12/91	6.0 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	11/18/91	-1.8 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁸
Area 1, Building 101	11/25/91	1.3 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 1, Building 101	12/02/91	-3.2 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 1, Building 101	12/09/91	-5.3 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 1, Building 101	12/16/91	-7.2 x 10 ⁻⁰⁸	1.7 x 10 ⁻⁰⁷
Area 2, Mud Plant Reservoir	01/11/91	3.7 x 10 ⁻⁰⁹	1.5 x 10 ⁻⁰⁷
Area 2, Mud Plant Reservoir	02/04/91	-7.2 x 10 ⁻⁰⁹	1.4 x 10 ⁻⁰⁷
Area 2, Mud Plant Reservoir	03/06/91	1.8 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 2, Mud Plant Reservoir	04/02/91	9.0 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 2, Mud Plant Reservoir	05/08/91	1.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Mud Plant Reservoir	06/05/91	-1.6 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 2, Mud Plant Reservoir	07/03/91	1.7 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Mud Plant Reservoir	08/06/91	5.6 x 10 ⁻⁰⁷	1.2 x 10 ⁻⁰⁷
Area 2, Mud Plant Reservoir	09/05/91	9.6 x 10 ⁻⁰⁹	1.3 x 10 ⁻⁰⁷
Area 2, Mud Plant Reservoir	10/08/91	2.8 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 2, Mud Plant Reservoir	11/06/91	1.5 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Mud Plant Reservoir	12/09/91	-1.5 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	01/02/91	4.3 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	01/07/91	1.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	01/14/91	1.6 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 2, Rest Room	01/22/91	-4.7 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 2, Rest Room	01/28/91	-7.4 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	02/04/91	5.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	02/11/91	-1.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	02/19/91	-8.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	03/04/91	-1.9 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 2, Rest Room	03/11/91	-1.7 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	03/18/91	1.7 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	03/25/91	2.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	03/25/91	-2.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	04/01/91	-2.4 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	04/08/91	3.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	04/15/91	-6.4 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	04/22/91	-1.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	04/29/91	-1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	05/06/91	3.4 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	05/14/91	5.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 2, Rest Room	05/20/91	2.6 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 2, Rest Room	05/28/91	-9.0 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	06/03/91	-3.1 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 2, Rest Room	06/10/91	4.6 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 2, Rest Room	06/17/91	3.2 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 2, Rest Room	06/24/91	2.4 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 2, Rest Room	07/01/91	3.1 x 10 ⁻⁰⁷	1.8 x 10 ⁻⁰⁷
Area 2, Rest Room	07/08/91	3.6 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 2, Rest Room	07/15/91	-8.6 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	07/22/91	-7.5 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 2, Rest Room	07/29/91	2.1 x 10 ⁻¹⁰	1.2 x 10 ⁻⁰⁷
Area 2, Rest Room	08/05/91	-1.8 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁷
Area 2, Rest Room	08/12/91	-1.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	08/19/91	7.3 x 10 ⁻⁰⁸	1.7 x 10 ⁻⁰⁷
Area 2, Rest Room	08/26/91	6.7 x 10 ⁻⁰⁸	1.6 x 10 ⁻⁰⁷
Area 2, Rest Room	09/03/91	-1.5 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 2, Rest Room	09/09/91	-1.6 x 10 ⁻⁰⁷	1.2 x 10 ⁻⁰⁷
Area 2, Rest Room	09/16/91	-1.6 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 2, Rest Room	09/23/91	-1.6 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	10/01/91	7.0 x 10 ⁻⁰⁸	1.9 x 10 ⁻⁰⁷
Area 2, Rest Room	10/07/91	-5.1 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 2, Rest Room	10/14/91	2.5 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 2, Rest Room	10/21/91	-1.9 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	10/28/91	4.1 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	11/04/91	-1.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	11/12/91	6.7 x 10 ⁻⁰⁹	1.4 x 10 ⁻⁰⁷
Area 2, Rest Room	11/18/91	3.2 x 10 ⁻⁰⁹	1.3 x 10 ⁻⁰⁸
Area 2, Rest Room	11/25/91	-1.8 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 2, Rest Room	12/02/91	-1.0 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 2, Rest Room	12/09/91	-5.0 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 2, Rest Room	12/16/91	-2.5 x 10 ⁻⁰⁷	1.7 x 10 ⁻⁰⁷
Area 2, Rest Room	12/23/91	-6.2 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 2, Rest Room	12/23/91	4.6 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 2, Well 2 Reservoir	01/11/91	1.7 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 2, Well 2 Reservoir	02/04/91	8.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 2, Well 2 Reservoir	03/04/91	3.0 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 2, Well 2 Reservoir	04/02/91	1.9 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 2, Well 2 Reservoir	05/08/91	1.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Well 2 Reservoir	06/05/91	-1.1 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 2, Well 2 Reservoir	07/03/91	2.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Well 2 Reservoir	08/06/91	8.4 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 2, Well 2 Reservoir	09/05/91	4.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 2, Well 2 Reservoir	10/08/91	5.7 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 2, Well 2 Reservoir	11/06/91	-1.6 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁸
Area 2, Well 2 Reservoir	12/09/91	3.5 x 10 ⁻⁰⁹	1.4 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 3, Cafeteria	01/07/91	8.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	01/14/91	3.7 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 3, Cafeteria	01/22/91	-4.6 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 3, Cafeteria	01/28/91	-1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	02/04/91	-1.3 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	02/11/91	1.6 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	02/19/91	1.4 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	03/04/91	-1.4 x 10 ⁻⁰⁷	1.2 x 10 ⁻⁰⁷
Area 3, Cafeteria	03/11/91	-1.5 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	03/18/91	1.5 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	03/25/91	-1.9 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	03/25/91	2.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	04/01/91	2.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	04/08/91	1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	04/15/91	6.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	04/22/91	4.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	04/29/91	-8.3 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	05/06/91	-4.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	05/14/91	-1.1 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 3, Cafeteria	05/20/91	2.7 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 3, Cafeteria	05/28/91	9.7 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	06/03/91	-4.3 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 3, Cafeteria	06/10/91	-2.3 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 3, Cafeteria	06/17/91	1.3 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 3, Cafeteria	06/24/91	-3.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	07/01/91	1.8 x 10 ⁻⁰⁷	1.7 x 10 ⁻⁰⁷
Area 3, Cafeteria	07/08/91	-1.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 3, Cafeteria	07/15/91	-6.1 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	07/22/91	1.8 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 3, Cafeteria	08/12/91	-4.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	08/19/91	-6.1 x 10 ⁻⁰⁸	1.7 x 10 ⁻⁰⁷
Area 3, Cafeteria	08/26/91	3.0 x 10 ⁻⁰⁷	1.7 x 10 ⁻⁰⁷
Area 3, Cafeteria	09/03/91	-2.1 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 3, Cafeteria	09/09/91	-1.5 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 3, Cafeteria	09/16/91	1.4 x 10 ⁻⁰⁶	1.5 x 10 ⁻⁰⁷
Area 3, Cafeteria	09/23/91	-2.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	10/01/91	-1.5 x 10 ⁻⁰⁷	1.8 x 10 ⁻⁰⁷
Area 3, Cafeteria	10/07/91	3.4 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 3, Cafeteria	10/14/91	2.4 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 3, Cafeteria	10/21/91	-3.4 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	10/28/91	4.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	11/04/91	-1.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 3, Cafeteria	11/12/91	-1.5 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Cafeteria	11/18/91	-2.6 x 10 ⁻⁰⁹	1.3 x 10 ⁻⁰⁸
Area 3, Cafeteria	11/25/91	-1.4 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 3, Cafeteria	12/02/91	-2.1 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 3, Cafeteria	12/09/91	5.7 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 3, Cafeteria	12/16/91	2.2 x 10 ⁻⁰⁷	1.8 x 10 ⁻⁰⁷
Area 3, Cafeteria	12/23/91	2.5 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 3, Cafeteria	12/23/91	1.0 x 10 ⁻⁰⁶	1.5 x 10 ⁻⁰⁷
Area 3, Mud Plant Reservoir	1/10/91	1.5 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 3, Mud Plant Reservoir	02/08/91	1.9 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Mud Plant Reservoir	03/06/91	3.2 x 10 ⁻⁰⁹	1.3 x 10 ⁻⁰⁷
Area 3, Mud Plant Reservoir	04/03/91	1.6 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Mud Plant Reservoir	05/08/91	3.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 3, Mud Plant Reservoir	06/05/91	3.9 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 3, Mud Plant Reservoir	07/03/91	1.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Mud Plant Reservoir	08/06/91	5.2 x 10 ⁻⁰⁷	1.2 x 10 ⁻⁰⁷
Area 3, Mud Plant Reservoir	09/12/91	3.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Mud Plant Reservoir	10/07/91	-2.2 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 3, Mud Plant Reservoir	11/05/91	2.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Mud Plant Reservoir	12/10/91	7.4 x 10 ⁻⁰⁹	1.6 x 10 ⁻⁰⁷
Area 3, Well A Reservoir	01/10/91	1.6 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 3, Well A Reservoir	02/08/91	3.3 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Well A Reservoir	03/06/91	1.2 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 3, Well A Reservoir	04/03/91	-1.9 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Well A Reservoir	05/08/91	-2.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 3, Well A Reservoir	06/06/91	-5.8 x 10 ⁻⁰⁸	1.6 x 10 ⁻⁰⁷
Area 3, Well A Reservoir	07/03/91	5.3 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 3, Well A Reservoir	08/06/91	5.2 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 3, Well A Reservoir	09/12/91	9.4 x 10 ⁻⁰⁹	1.3 x 10 ⁻⁰⁷
Area 3, Well A Reservoir	10/08/91	6.4 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 3, Well A Reservoir	11/05/91	-1.7 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 3, Well A Reservoir	12/10/91	1.0 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 5, Cane Spring	01/25/91	-4.0 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 5, Cane Spring	02/12/91	1.9 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 5, Cane Spring	03/13/91	2.2 x 10 ⁻¹⁰	1.3 x 10 ⁻⁰⁷
Area 5, Cane Spring	04/17/91	4.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 5, Cane Spring	05/08/91	1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 5, Cane Spring	06/06/91	5.4 x 10 ⁻⁰⁸	1.6 x 10 ⁻⁰⁷
Area 5, Cane Spring	07/09/91	4.1 x 10 ⁻⁰⁶	1.8 x 10 ⁻⁰⁷
Area 5, Cane Spring	07/31/91	1.8 x 10 ⁻⁰⁷	1.2 x 10 ⁻⁰⁷
Area 5, Cane Spring	08/08/91	-2.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 5, Cane Spring	09/26/91	3.3 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 5, Cane Spring	10/16/91	2.6 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 5, Cane Spring	11/08/91	-9.8 x 10 ⁻⁰⁹	1.4 x 10 ⁻⁰⁷
Area 5, Cane Spring	12/19/91	5.0 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 5, Ue5c Reservoir	01/07/91	-6.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 5, Ue5c Reservoir	02/08/91	1.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 5, Ue5c Reservoir	03/06/91	1.1 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 5, Ue5c Reservoir	04/01/91	1.6 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 5, Ue5c Reservoir	05/02/91	-4.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 5, Ue5c Reservoir	06/13/91	1.3 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 5, Ue5c Reservoir	07/03/91	-3.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 5, Ue5c Reservoir	08/06/91	4.8 x 10 ⁻⁰⁷	1.2 x 10 ⁻⁰⁷
Area 5, Ue5c Reservoir	09/12/91	2.2 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 5, Ue5c Reservoir	10/07/91	-5.2 x 10 ⁻⁰⁸	5.4 x 10 ⁻⁰⁷
Area 5, Ue5c Reservoir	11/05/91	7.3 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 5, Ue5c Reservoir	12/09/91	-1.0 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 5, Well 5B Reservoir	01/07/91	1.2 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 5, Well 5B Reservoir	02/08/91	2.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 5, Well 5B Reservoir	03/04/91	-3.2 x 10 ⁻⁰⁹	1.3 x 10 ⁻⁰⁷
Area 5, Well 5B Reservoir	04/01/91	-7.4 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁷
Area 5, Well 5B Reservoir	05/02/91	1.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 5, Well 5B Reservoir	06/13/91	-1.4 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 5, Well 5B Reservoir	07/03/91	7.0 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 5, Well 5B Reservoir	08/06/91	6.2 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 5, Well 5B Reservoir	09/12/91	9.4 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 5, Well 5B Reservoir	10/07/91	2.8 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 5, Well 5B Reservoir	11/05/91	-7.0 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 5, Well 5B Reservoir	12/09/91	2.4 x 10 ⁻¹⁰	1.4 x 10 ⁻⁰⁷
Area 5, Well 5C	01/07/91	1.4 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 5, Well 5C	02/08/91	4.6 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 5, Well 5C	03/11/91	2.2 x 10 ⁻¹⁰	1.3 x 10 ⁻⁰⁷
Area 5, Well 5C	04/11/91	-2.1 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 5, Well 5C	05/09/91	-1.5 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 5, Well 5C	06/04/91	-9.5 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 5, Well 5C	07/11/91	-2.6 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 5, Well 5C	08/07/91	-1.6 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 5, Well 5C	09/07/91	-2.9 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 5, Well 5C	10/08/91	-9.0 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 5, Well 5C	11/13/91	-6.4 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 5, Well 5C	12/09/91	7.3 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 5, Well Ue5c	01/07/91	-2.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 5, Well Ue5c	03/11/91	-2.9 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 5, Well Ue5c	04/11/91	-2.1 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 5, Well Ue5c	05/09/91	-1.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 5, Well Ue5c	06/04/91	1.5 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 5, Well Ue5c	07/11/91	-2.5 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 5, Well Ue5c	08/07/91	1.3 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 5, Well Ue5c	09/07/91	7.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 5, Well Ue5c	10/08/91	3.6 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 5, Well Ue5c	11/13/91	2.0 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 5, Well Ue5c	12/09/91	-1.0 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	01/02/91	1.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	01/07/91	2.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	01/14/91	7.5 x 10 ⁻⁰⁹	1.5 x 10 ⁻⁰⁷
Area 6, Bottled Water	01/22/91	-4.0 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 6, Bottled Water	01/28/91	-9.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	02/04/91	1.9 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	02/11/91	-1.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	02/19/91	1.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	03/04/91	-1.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Bottled Water	03/11/91	-3.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	03/18/91	-6.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	03/25/91	2.3 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	03/25/91	-2.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	04/01/91	-1.4 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Bottled Water	04/08/91	1.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	04/15/91	-8.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	04/22/91	-3.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	04/29/91	-4.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	05/06/91	2.1 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	05/14/91	1.3 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Bottled Water	05/20/91	-1.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Bottled Water	05/28/91	-1.3 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	06/03/91	-3.6 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Bottled Water	06/10/91	-2.2 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 6, Bottled Water	06/17/91	2.7 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 6, Bottled Water	06/24/91	-8.0 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	07/01/91	8.3 x 10 ⁻⁰⁸	1.7 x 10 ⁻⁰⁷
Area 6, Bottled Water	07/08/91	-5.9 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Bottled Water	07/15/91	-1.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	07/22/91	4.2 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Bottled Water	07/29/91	-6.8 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁷
Area 6, Bottled Water	08/05/91	1.8 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Bottled Water	08/12/91	-1.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	08/19/91	3.8 x 10 ⁻⁰⁷	1.7 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 6, Bottled Water	08/26/91	1.2 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 6, Bottled Water	09/03/91	1.5 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Bottled Water	09/09/91	-1.0 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Bottled Water	09/16/91	-2.2 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Bottled Water	09/23/91	-1.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	10/01/91	-1.9 x 10 ⁻⁰⁷	1.8 x 10 ⁻⁰⁷
Area 6, Bottled Water	10/07/91	-5.8 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Bottled Water	10/14/91	1.5 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Bottled Water	10/21/91	1.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	10/28/91	3.4 x 10 ⁻⁰⁹	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	11/04/91	-1.9 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	11/12/91	-1.3 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	11/18/91	-2.9 x 10 ⁻⁰⁹	1.3 x 10 ⁻⁰⁸
Area 6, Bottled Water	11/25/91	-7.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Bottled Water	12/02/91	-1.7 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Bottled Water	12/09/91	1.4 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 6, Bottled Water	12/16/91	-2.4 x 10 ⁻⁰⁸	1.7 x 10 ⁻⁰⁷
Area 6, Bottled Water	12/23/91	7.3 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 6, Bottled Water	12/23/91	-1.9 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Cafeteria	01/02/91	1.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	01/07/91	3.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	01/14/91	4.5 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 6, Cafeteria	01/22/91	-3.3 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 6, Cafeteria	01/28/91	7.1 x 10 ⁻⁰⁹	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	02/04/91	3.5 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	02/11/91	2.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	02/19/91	3.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	03/04/91	5.4 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Cafeteria	03/11/91	-5.4 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	03/18/91	-1.0 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	03/25/91	-1.4 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	03/25/91	-1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	04/01/91	-8.6 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	04/08/91	2.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	04/15/91	-6.4 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	04/22/91	-8.7 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	04/29/91	-1.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	05/06/91	7.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	05/14/91	1.6 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Cafeteria	05/20/91	1.7 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Cafeteria	05/28/91	-2.5 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	06/03/91	-3.7 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 6, Cafeteria	06/10/91	7.9 x 10 ⁻⁰⁸	1.6 x 10 ⁻⁰⁷
Area 6, Cafeteria	06/17/91	4.1 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 6, Cafeteria	06/24/91	-1.9 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	07/01/91	-2.8 x 10 ⁻⁰⁸	1.7 x 10 ⁻⁰⁷
Area 6, Cafeteria	07/08/91	8.8 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Cafeteria	07/15/91	-5.1 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	07/22/91	-2.7 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Cafeteria	07/29/91	8.5 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁷
Area 6, Cafeteria	08/05/91	1.2 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Cafeteria	08/12/91	-4.5 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	08/19/91	1.2 x 10 ⁻⁰⁷	1.7 x 10 ⁻⁰⁷
Area 6, Cafeteria	08/26/91	1.8 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 6, Cafeteria	09/03/91	-9.9 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁷
Area 6, Cafeteria	09/09/91	-4.8 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Cafeteria	09/16/91	-3.0 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Cafeteria	09/23/91	-7.6 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	10/01/91	-4.3 x 10 ⁻⁰⁸	1.8 x 10 ⁻⁰⁷
Area 6, Cafeteria	10/07/91	6.1 x 10 ⁻⁰⁹	1.3 x 10 ⁻⁰⁷
Area 6, Cafeteria	10/14/91	9.1 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Cafeteria	10/21/91	-9.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	10/28/91	-4.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	11/04/91	-1.7 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	11/12/91	-1.6 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	11/18/91	-2.2 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁸
Area 6, Cafeteria	11/25/91	-3.3 x 10 ⁻⁰⁹	1.4 x 10 ⁻⁰⁷
Area 6, Cafeteria	12/02/91	-2.1 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Cafeteria	12/09/91	-1.5 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 6, Cafeteria	12/16/91	-2.2 x 10 ⁻⁰⁷	1.7 x 10 ⁻⁰⁷
Area 6, Cafeteria	12/23/91	-7.4 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Cafeteria	12/23/91	3.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Decontamination Facility	01/11/91	3.8 x 10 ⁻⁰⁶	1.9 x 10 ⁻⁰⁷
Area 6, Decontamination Facility	02/08/91	3.3 x 10 ⁻⁰⁶	1.7 x 10 ⁻⁰⁷
Area 6, Decontamination Facility	03/04/91	2.9 x 10 ⁻⁰⁶	1.7 x 10 ⁻⁰⁷
Area 6, Decontamination Facility	03/05/91	2.9 x 10 ⁻⁰⁶	1.7 x 10 ⁻⁰⁷
Area 6, Decontamination Facility	04/10/91	1.3 x 10 ⁻⁰⁵	2.5 x 10 ⁻⁰⁷
Area 6, Decontamination Facility	05/07/91	1.3 x 10 ⁻⁰⁵	2.5 x 10 ⁻⁰⁷
Area 6, Decontamination Facility	06/05/91	1.1 x 10 ⁻⁰⁵	2.3 x 10 ⁻⁰⁷
Area 6, Decontamination Facility	07/03/91	1.0 x 10 ⁻⁰⁵	2.3 x 10 ⁻⁰⁷
Area 6, Decontamination Facility	08/07/91	9.2 x 10 ⁻⁰⁶	2.2 x 10 ⁻⁰⁷
Area 6, Decontamination Facility	09/10/91	6.6 x 10 ⁻⁰⁶	1.9 x 10 ⁻⁰⁷
Area 6, Decontamination Facility	10/08/91	5.7 x 10 ⁻⁰⁶	2.2 x 10 ⁻⁰⁷
Area 6, Decontamination Facility	11/06/91	5.5 x 10 ⁻⁰⁶	1.9 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 6, Decontamination Facility	12/05/91	4.2 x 10 ⁻⁰⁶	1.8 x 10 ⁻⁰⁷
Area 6, Sewage	01/28/91	8.9 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Sewage	04/10/91	-1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Sewage	07/09/91	6.4 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Sewage	10/15/91	5.9 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 6, Well 3 Reservoir	01/09/91	-1.2 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 6, Well 3 Reservoir	02/08/91	2.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Well 3 Reservoir	03/06/91	1.8 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well 3 Reservoir	04/03/91	5.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Well 3 Reservoir	05/08/91	1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Well 3 Reservoir	06/06/91	-7.8 x 10 ⁻⁰⁸	1.6 x 10 ⁻⁰⁷
Area 6, Well 3 Reservoir	07/03/91	7.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Well 3 Reservoir	08/06/91	7.6 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well 3 Reservoir	09/12/91	1.3 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well 3 Reservoir	10/07/91	-1.4 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well 3 Reservoir	11/05/91	2.3 x 10 ⁻¹⁰	1.4 x 10 ⁻⁰⁷
Area 6, Well 3 Reservoir	12/10/91	1.2 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 6, Well 4	01/07/91	1.3 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well 4	02/08/91	-1.3 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well 4	03/11/91	-3.2 x 10 ⁻⁰⁹	1.3 x 10 ⁻⁰⁷
Area 6, Well 4	04/11/91	1.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Well 4	05/09/91	-1.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Well 4	06/04/91	9.2 x 10 ⁻⁰⁸	1.6 x 10 ⁻⁰⁷
Area 6, Well 4	07/11/91	-1.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Well 4	08/07/91	-1.1 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well 4	09/07/91	1.9 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well 4	10/08/91	-1.5 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well 4	11/13/91	-2.5 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well 4	12/09/91	7.4 x 10 ⁻⁰⁸	1.6 x 10 ⁻⁰⁷
Area 6, Well C	01/07/91	1.4 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well C	02/08/91	1.0 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 6, Well C	03/11/91	-1.6 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well C	04/11/91	3.5 x 10 ⁻⁰⁹	1.4 x 10 ⁻⁰⁷
Area 6, Well C	05/09/91	-3.5 x 10 ⁻⁰⁹	1.4 x 10 ⁻⁰⁷
Area 6, Well C	06/04/91	8.5 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Well C	07/11/91	-1.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Well C	08/07/91	-1.7 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well C	09/07/91	2.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Well C	10/08/91	-1.6 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well C	11/13/91	-2.2 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Well C	12/09/91	-1.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Well C-1	01/07/91	1.0 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 6, Well C-1	02/08/91	1.8 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 6, Well C-1	03/11/91	2.2 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well C-1	04/11/91	1.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Well C-1	05/09/91	-1.7 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Well C-1	06/04/91	5.2 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Well C-1	07/11/91	-1.9 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Well C-1	08/07/91	-1.4 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well C-1	09/07/91	1.3 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well C-1	10/08/91	-4.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Well C-1	11/13/91	-5.1 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Well C-1	12/09/91	-1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Well C1 Reservoir	2/10/91	2.2 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 6, Well C1 Reservoir	01/09/91	2.5 x 10 ⁻¹⁰	1.4 x 10 ⁻⁰⁷
Area 6, Well C1 Reservoir	02/08/91	1.9 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Well C1 Reservoir	03/06/91	2.0 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well C1 Reservoir	04/02/91	6.1 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Well C1 Reservoir	05/02/91	1.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 6, Well C1 Reservoir	06/13/91	1.1 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 6, Well C1 Reservoir	07/03/91	-1.0 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 6, Well C1 Reservoir	08/08/91	-6.1 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 6, Well C1 Reservoir	09/12/91	5.0 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 6, Well C1 Reservoir	10/10/91	4.0 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 6, Well C1 Reservoir	11/06/91	1.5 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 7 Reitmann Seep	01/02/91	2.3 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 7 Reitmann Seep	02/07/91	2.1 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 7 Reitmann Seep	03/07/91	-8.1 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 7 Reitmann Seep	04/02/91	1.1 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 7 Reitmann Seep	05/08/91	-3.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 7 Reitmann Seep	06/11/91	4.9 x 10 ⁻⁰⁸	1.6 x 10 ⁻⁰⁷
Area 7 Reitmann Seep	07/09/91	9.3 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 7 Reitmann Seep	08/07/91	6.9 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 7 Reitmann Seep	09/12/91	6.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 7 Reitmann Seep	10/10/91	4.6 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 7 Reitmann Seep	11/06/91	-8.1 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 7 Reitmann Seep	12/16/91	1.8 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 12, Cafeteria	12/31/90	1.4 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 12, Cafeteria	01/07/91	6.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	01/14/91	2.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	01/22/91	-2.3 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 12, Cafeteria	01/28/91	7.1 x 10 ⁻⁰⁹	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	02/04/91	2.9 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	02/11/91	-1.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 12, Cafeteria	02/19/91	1.3 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	03/04/91	-8.9 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁷
Area 12, Cafeteria	03/11/91	-1.7 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	03/18/91	1.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	03/25/91	-2.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	03/25/91	4.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	04/01/91	-1.6 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	04/08/91	2.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	04/15/91	-7.0 x 10 ⁻⁰⁹	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	04/22/91	2.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	04/29/91	5.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	05/06/91	-4.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	05/13/91	1.9 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 12, Cafeteria	05/20/91	4.6 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 12, Cafeteria	05/28/91	-4.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	06/03/91	-3.1 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 12, Cafeteria	06/10/91	-8.3 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 12, Cafeteria	06/17/91	3.1 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 12, Cafeteria	06/24/91	-5.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	07/01/91	9.0 x 10 ⁻⁰⁸	1.7 x 10 ⁻⁰⁷
Area 12, Cafeteria	07/08/91	3.6 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 12, Cafeteria	07/15/91	-2.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	07/22/91	-1.8 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 12, Cafeteria	07/29/91	5.0 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁷
Area 12, Cafeteria	08/05/91	3.9 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 12, Cafeteria	08/12/91	1.5 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	08/19/91	-7.6 x 10 ⁻⁰⁸	1.7 x 10 ⁻⁰⁷
Area 12, Cafeteria	08/26/91	1.9 x 10 ⁻⁰⁷	1.7 x 10 ⁻⁰⁷
Area 12, Cafeteria	09/03/91	8.7 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 12, Cafeteria	09/09/91	-2.1 x 10 ⁻⁰⁷	1.2 x 10 ⁻⁰⁷
Area 12, Cafeteria	09/16/91	-1.6 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 12, Cafeteria	09/23/91	9.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	10/01/91	-2.5 x 10 ⁻⁰⁷	1.8 x 10 ⁻⁰⁷
Area 12, Cafeteria	10/07/91	-3.0 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 12, Cafeteria	10/14/91	2.2 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 12, Cafeteria	10/21/91	-1.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	10/28/91	6.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	11/04/91	-2.5 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	11/12/91	-2.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Cafeteria	11/18/91	-1.9 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁸
Area 12, Cafeteria	11/25/91	-1.0 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 12, Cafeteria	12/02/91	-2.6 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 12, Cafeteria	12/09/91	-1.8 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 12, Cafeteria	12/16/91	-6.0 x 10 ⁻⁰⁸	1.7 x 10 ⁻⁰⁷
Area 12, Cafeteria	12/23/91	3.3 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Captain Jack Spring	01/29/91	-1.8 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 12, Captain Jack Spring	02/12/91	6.7 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 12, Captain Jack Spring	03/22/91	6.8 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 12, Captain Jack Spring	04/17/91	-5.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 12, Captain Jack Spring	05/08/91	1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Captain Jack Spring	06/05/91	-9.8 x 10 ⁻⁰⁹	1.3 x 10 ⁻⁰⁷
Area 12, Captain Jack Spring	07/17/91	-1.6 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Captain Jack Spring	08/15/91	1.7 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Captain Jack Spring	09/26/91	4.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 12, Captain Jack Spring	10/16/91	2.8 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 12, Captain Jack Spring	11/08/91	7.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 12, E Tunnel Effluent	01/09/91	2.1 x 10 ⁻⁰³	2.8 x 10 ⁻⁰⁶
Area 12, E Tunnel Effluent	02/06/91	2.0 x 10 ⁻⁰³	2.7 x 10 ⁻⁰⁶
Area 12, E Tunnel Effluent	03/05/91	2.2 x 10 ⁻⁰³	2.8 x 10 ⁻⁰⁶
Area 12, E Tunnel Effluent	04/09/91	2.2 x 10 ⁻⁰³	2.7 x 10 ⁻⁰⁶
Area 12, E Tunnel Effluent	05/07/91	2.2 x 10 ⁻⁰³	2.8 x 10 ⁻⁰⁶
Area 12, E Tunnel Effluent	06/05/91	2.2 x 10 ⁻⁰³	2.7 x 10 ⁻⁰⁶
Area 12, E Tunnel Effluent	07/02/91	2.3 x 10 ⁻⁰³	2.8 x 10 ⁻⁰⁶
Area 12, E Tunnel Effluent	08/07/91	2.2 x 10 ⁻⁰³	2.6 x 10 ⁻⁰⁶
Area 12, E Tunnel Effluent	09/10/91	2.0 x 10 ⁻⁰³	2.5 x 10 ⁻⁰⁶
Area 12, E Tunnel Effluent	10/08/91	2.2 x 10 ⁻⁰³	2.6 x 10 ⁻⁰⁶
Area 12, E Tunnel Effluent	11/06/91	2.2 x 10 ⁻⁰³	2.7 x 10 ⁻⁰⁶
Area 12, E Tunnel Effluent	12/05/91	2.3 x 10 ⁻⁰³	2.8 x 10 ⁻⁰⁶
Area 12, Gold Meadows	04/17/91	3.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 12, Gold Meadows	05/08/91	1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Gold Meadows	06/06/91	2.5 x 10 ⁻⁰⁷	1.7 x 10 ⁻⁰⁷
Area 12, Gold Meadows	07/09/91	1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Gold Meadows	08/01/91	-5.7 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁷
Area 12, Gold Meadows	09/12/91	-3.5 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 12, Gold Meadows	10/17/91	6.6 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 12, Gold Meadows	11/07/91	2.5 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, N Tunnel Effluent	01/09/91	3.2 x 10 ⁻⁰⁴	1.1 x 10 ⁻⁰⁶
Area 12, N Tunnel Effluent	02/06/91	3.0 x 10 ⁻⁰⁴	1.0 x 10 ⁻⁰⁶
Area 12, N Tunnel Effluent	03/05/91	1.1 x 10 ⁻⁰⁴	6.4 x 10 ⁻⁰⁷
Area 12, N Tunnel Effluent	04/09/91	4.0 x 10 ⁻⁰⁴	1.1 x 10 ⁻⁰⁶
Area 12, N Tunnel Effluent	05/07/91	2.8 x 10 ⁻⁰⁴	1.0 x 10 ⁻⁰⁶
Area 12, N Tunnel Effluent	06/05/91	3.7 x 10 ⁻⁰⁴	1.1 x 10 ⁻⁰⁶
Area 12, N Tunnel Effluent	07/02/91	2.4 x 10 ⁻⁰⁴	9.1 x 10 ⁻⁰⁷
Area 12, N Tunnel Effluent	08/13/91	3.2 x 10 ⁻⁰⁴	1.0 x 10 ⁻⁰⁶

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 12, N Tunnel Effluent	09/10/91	1.4 x 10 ⁻⁰⁴	6.6 x 10 ⁻⁰⁷
Area 12, N Tunnel Effluent	10/08/91	3.5 x 10 ⁻⁰⁴	1.1 x 10 ⁻⁰⁶
Area 12, N Tunnel Effluent	11/06/91	2.1 x 10 ⁻⁰⁴	8.4 x 10 ⁻⁰⁷
Area 12, N Tunnel Effluent	12/05/91	4.9 x 10 ⁻⁰⁴	1.3 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 1	01/10/91	3.7 x 10 ⁻⁰⁴	1.2 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 1	02/06/91	2.3 x 10 ⁻⁰⁴	9.2 x 10 ⁻⁰⁷
Area 12, N Tunnel Pond No. 1	03/05/91	9.1 x 10 ⁻⁰⁵	5.8 x 10 ⁻⁰⁷
Area 12, N Tunnel Pond No. 1	04/09/91	3.5 x 10 ⁻⁰⁴	1.1 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 1	05/07/91	3.7 x 10 ⁻⁰⁴	1.1 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 1	06/05/91	3.1 x 10 ⁻⁰⁴	1.0 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 1	07/02/91	2.2 x 10 ⁻⁰⁴	8.8 x 10 ⁻⁰⁷
Area 12, N Tunnel Pond No. 1	08/13/91	2.0 x 10 ⁻⁰⁴	8.2 x 10 ⁻⁰⁷
Area 12, N Tunnel Pond No. 1	09/10/91	2.6 x 10 ⁻⁰⁴	8.8 x 10 ⁻⁰⁷
Area 12, N Tunnel Pond No. 1	10/08/91	4.1 x 10 ⁻⁰⁴	1.2 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 1	11/06/91	3.1 x 10 ⁻⁰⁴	1.0 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 1	12/05/91	4.8 x 10 ⁻⁰⁴	1.3 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 2	01/10/91	3.7 x 10 ⁻⁰⁴	1.2 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 2	02/06/91	2.5 x 10 ⁻⁰⁴	9.5 x 10 ⁻⁰⁷
Area 12, N Tunnel Pond No. 2	03/05/91	7.4 x 10 ⁻⁰⁵	5.2 x 10 ⁻⁰⁷
Area 12, N Tunnel Pond No. 2	04/09/91	3.4 x 10 ⁻⁰⁴	1.1 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 2	05/07/91	3.7 x 10 ⁻⁰⁴	1.1 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 2	06/05/91	3.1 x 10 ⁻⁰⁴	1.0 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 2	07/02/91	3.1 x 10 ⁻⁰⁴	1.0 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 2	08/13/91	2.5 x 10 ⁻⁰⁴	9.1 x 10 ⁻⁰⁷
Area 12, N Tunnel Pond No. 2	09/10/91	2.9 x 10 ⁻⁰⁴	9.4 x 10 ⁻⁰⁷
Area 12, N Tunnel Pond No. 2	10/08/91	3.2 x 10 ⁻⁰⁴	1.0 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 2	11/06/91	2.2 x 10 ⁻⁰⁴	8.7 x 10 ⁻⁰⁷
Area 12, N Tunnel Pond No. 2	12/05/91	3.9 x 10 ⁻⁰⁴	1.2 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 3	01/10/91	4.6 x 10 ⁻⁰⁴	1.3 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 3	02/06/91	3.1 x 10 ⁻⁰⁴	1.1 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 3	03/05/91	3.2 x 10 ⁻⁰⁴	1.1 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 3	04/09/91	3.4 x 10 ⁻⁰⁴	1.1 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 3	05/07/91	3.4 x 10 ⁻⁰⁴	1.1 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 3	06/05/91	3.1 x 10 ⁻⁰⁴	1.0 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 3	07/02/91	3.2 x 10 ⁻⁰⁴	1.0 x 10 ⁻⁰⁶
Area 12, N Tunnel Pond No. 3	08/13/91	2.8 x 10 ⁻⁰⁴	9.5 x 10 ⁻⁰⁷
Area 12, N Tunnel Pond No. 3	09/10/91	2.8 x 10 ⁻⁰⁴	9.1 x 10 ⁻⁰⁷
Area 12, N Tunnel Pond No. 3	10/08/91	2.4 x 10 ⁻⁰⁴	8.8 x 10 ⁻⁰⁷
Area 12, N Tunnel Pond No. 3	11/06/91	2.7 x 10 ⁻⁰⁴	9.5 x 10 ⁻⁰⁷
Area 12, N Tunnel Pond No. 3	12/05/91	3.3 x 10 ⁻⁰⁴	1.0 x 10 ⁻⁰⁶
Area 12, Sewage	01/30/91	4.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, Sewage	04/11/91	5.7 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 12, Sewage	07/15/91	-2.3 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 12, Sewage	10/09/91	4.6 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, T Tunnel Effluent	01/09/91	8.8 x 10 ⁻⁰³	5.7 x 10 ⁻⁰⁶
Area 12, T Tunnel Effluent	02/06/91	7.0 x 10 ⁻⁰³	5.0 x 10 ⁻⁰⁶
Area 12, T Tunnel Effluent	03/05/91	9.1 x 10 ⁻⁰³	5.6 x 10 ⁻⁰⁶
Area 12, T Tunnel Effluent	04/10/91	7.1 x 10 ⁻⁰³	5.0 x 10 ⁻⁰⁶
Area 12, T Tunnel Effluent	05/07/91	7.1 x 10 ⁻⁰³	5.0 x 10 ⁻⁰⁶
Area 12, T Tunnel Effluent	06/05/91	1.7 x 10 ⁻⁰⁴	7.5 x 10 ⁻⁰⁷
Area 12, T Tunnel Effluent	06/05/91	6.7 x 10 ⁻⁰³	5.8 x 10 ⁻⁰⁶
Area 12, T Tunnel Effluent	07/02/91	1.2 x 10 ⁻⁰²	6.4 x 10 ⁻⁰⁶
Area 12, T Tunnel Effluent	08/13/91	7.5 x 10 ⁻⁰³	4.9 x 10 ⁻⁰⁶
Area 12, T Tunnel Effluent	09/10/91	6.9 x 10 ⁻⁰³	1.4 x 10 ⁻⁰⁵
Area 12, T Tunnel Effluent	10/08/91	7.4 x 10 ⁻⁰³	1.5 x 10 ⁻⁰⁵
Area 12, T Tunnel Effluent	11/06/91	7.2 x 10 ⁻⁰³	1.5 x 10 ⁻⁰⁵
Area 12, T Tunnel Effluent	12/05/91	2.6 x 10 ⁻⁰²	3.0 x 10 ⁻⁰⁵
Area 12, T Tunnel Pond No. 1	01/09/91	7.4 x 10 ⁻⁰³	5.2 x 10 ⁻⁰⁶
Area 12, T Tunnel Pond No. 1	02/06/91	6.8 x 10 ⁻⁰³	4.9 x 10 ⁻⁰⁶
Area 12, T Tunnel Pond No. 1	03/05/91	7.4 x 10 ⁻⁰³	5.0 x 10 ⁻⁰⁶
Area 12, T Tunnel Pond No. 1	04/10/91	7.4 x 10 ⁻⁰³	5.1 x 10 ⁻⁰⁶
Area 12, T Tunnel Pond No. 1	05/07/91	7.2 x 10 ⁻⁰³	5.0 x 10 ⁻⁰⁶
Area 12, T Tunnel Pond No. 1	06/05/91	6.4 x 10 ⁻⁰³	5.6 x 10 ⁻⁰⁶
Area 12, T Tunnel Pond No. 1	06/05/91	2.2 x 10 ⁻⁰⁴	8.5 x 10 ⁻⁰⁷
Area 12, T Tunnel Pond No. 1	07/02/91	7.3 x 10 ⁻⁰³	5.0 x 10 ⁻⁰⁶
Area 12, T Tunnel Pond No. 1	08/13/91	6.9 x 10 ⁻⁰³	4.7 x 10 ⁻⁰⁶
Area 12, T Tunnel Pond No. 1	09/10/91	7.0 x 10 ⁻⁰³	1.4 x 10 ⁻⁰⁵
Area 12, T Tunnel Pond No. 1	10/08/91	9.1 x 10 ⁻⁰³	1.7 x 10 ⁻⁰⁵
Area 12, T Tunnel Pond No. 1	11/06/91	7.1 x 10 ⁻⁰³	1.5 x 10 ⁻⁰⁵
Area 12, T Tunnel Pond No. 1	12/05/91	8.4 x 10 ⁻⁰³	1.7 x 10 ⁻⁰⁵
Area 12, T Tunnel Pond No. 2	02/06/91	6.8 x 10 ⁻⁰³	4.9 x 10 ⁻⁰⁶
Area 12, T Tunnel Pond No. 2	03/05/91	7.5 x 10 ⁻⁰³	5.0 x 10 ⁻⁰⁶
Area 12, T Tunnel Pond No. 2	04/10/91	7.4 x 10 ⁻⁰³	5.1 x 10 ⁻⁰⁶
Area 12, T Tunnel Pond No. 2	05/07/91	7.2 x 10 ⁻⁰³	5.0 x 10 ⁻⁰⁶
Area 12, T Tunnel Pond No. 2	06/05/91	1.1 x 10 ⁻⁰⁵	2.3 x 10 ⁻⁰⁷
Area 12, T Tunnel Pond No. 2	06/05/91	6.9 x 10 ⁻⁰³	5.9 x 10 ⁻⁰⁶
Area 12, T Tunnel Pond No. 2	07/02/91	7.3 x 10 ⁻⁰³	5.0 x 10 ⁻⁰⁶
Area 12, T Tunnel Pond No. 2	08/13/91	6.8 x 10 ⁻⁰³	4.7 x 10 ⁻⁰⁶
Area 12, T Tunnel Pond No. 2	09/10/91	6.9 x 10 ⁻⁰³	1.4 x 10 ⁻⁰⁵
Area 12, T Tunnel Pond No. 2	10/08/91	7.0 x 10 ⁻⁰³	1.5 x 10 ⁻⁰⁵
Area 12, T Tunnel Pond No. 2	11/06/91	7.0 x 10 ⁻⁰³	1.5 x 10 ⁻⁰⁵
Area 12, T Tunnel Pond No. 2	12/05/91	8.4 x 10 ⁻⁰³	1.7 x 10 ⁻⁰⁵
Area 12, White Rock Spring	01/11/91	-2.2 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 12, White Rock Spring	02/06/91	-3.4 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 12, White Rock Spring	03/06/91	1.8 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 12, White Rock Spring	04/09/91	2.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, White Rock Spring	05/01/91	2.3 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, White Rock Spring	06/11/91	2.4 x 10 ⁻¹⁰	1.6 x 10 ⁻⁰⁷
Area 12, White Rock Spring	07/03/91	2.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 12, White Rock Spring	08/06/91	6.9 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 12, White Rock Spring	09/10/91	3.1 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 12, White Rock Spring	10/07/91	-7.4 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 12, White Rock Spring	11/10/91	7.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 12, White Rock Spring	12/10/91	2.1 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 15, Well Ue15d	02/08/91	1.2 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 15, Well Ue15d	03/11/91	1.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 15, Well Ue15d	04/11/91	1.0 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 15, Well Ue15d	05/09/91	-1.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 15, Well Ue15d	06/04/91	-8.3 x 10 ⁻⁰⁸	1.6 x 10 ⁻⁰⁷
Area 15, Well Ue15d	07/11/91	1.5 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 16, Tippipah Spring	01/07/91	1.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 16, Tippipah Spring	02/12/91	4.6 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 16, Tippipah Spring	03/12/91	-4.2 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 16, Tippipah Spring	04/17/91	2.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 16, Tippipah Spring	05/08/91	-1.4 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 16, Tippipah Spring	06/11/91	-1.3 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 16, Tippipah Spring	07/09/91	2.1 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 16, Tippipah Spring	08/07/91	6.4 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 16, Tippipah Spring	09/12/91	1.6 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 16, Tippipah Spring	10/09/91	-1.8 x 10 ⁻⁰⁷	1.2 x 10 ⁻⁰⁷
Area 16, Tippipah Spring	11/14/91	1.3 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 16, Tippipah Spring	12/19/91	3.5 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 16, Well 16d	01/07/91	9.0 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 16, Well 16d	02/08/91	-1.6 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 16, Well 16d	03/11/91	2.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 16, Well 16d	04/11/91	2.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 16, Well 16d	05/09/91	-1.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 16, Well 16d	06/04/91	4.9 x 10 ⁻⁰⁸	1.6 x 10 ⁻⁰⁷
Area 16, Well 16d	07/11/91	-3.8 x 10 ⁻⁰⁹	1.5 x 10 ⁻⁰⁷
Area 16, Well 16d	08/07/91	-9.0 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 16, Well 16d	09/07/91	9.5 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 16, Well 16d	10/08/91	-2.8 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 16, Well 16d	11/13/91	-4.2 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 16, Well 16d	12/11/91	1.5 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 18, Camp 17 Reservoir	01/09/91	7.1 x 10 ⁻⁰⁹	1.4 x 10 ⁻⁰⁷
Area 18, Camp 17 Reservoir	02/05/91	-2.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 18, Camp 17 Reservoir	03/04/91	2.2 x 10 ⁻¹⁰	1.3 x 10 ⁻⁰⁷
Area 18, Camp 17 Reservoir	04/09/91	4.8 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 18, Camp 17 Reservoir	05/08/91	-1.1 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 18, Camp 17 Reservoir	06/05/91	4.6 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 18, Camp 17 Reservoir	07/03/91	-3.8 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 18, Camp 17 Reservoir	08/06/91	8.3 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 18, Camp 17 Reservoir	09/05/91	1.2 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 18, Camp 17 Reservoir	10/09/91	-5.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 18, Camp 17 Reservoir	11/07/91	-1.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 18, Well 8	01/07/91	-1.2 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 18, Well 8	02/08/91	2.0 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 18, Well 8	03/11/91	1.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 18, Well 8	04/11/91	1.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 18, Well 8	05/09/91	-3.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 18, Well 8	06/04/91	2.4 x 10 ⁻⁰⁸	1.6 x 10 ⁻⁰⁷
Area 18, Well 8	07/11/91	-1.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 18, Well 8	08/07/91	-1.3 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 18, Well 8	09/07/91	1.9 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 18, Well 8	10/08/91	-3.9 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 18, Well 8	11/13/91	-4.8 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 18, Well 8	12/09/91	2.1 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 18, Well 8 Reservoir	01/09/91	1.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 18, Well 8 Reservoir	02/05/91	2.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 18, Well 8 Reservoir	03/06/91	8.9 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 18, Well 8 Reservoir	04/09/91	1.9 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 18, Well 8 Reservoir	05/08/91	7.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 18, Well 8 Reservoir	08/20/91	2.2 x 10 ⁻⁰⁷	1.7 x 10 ⁻⁰⁷
Area 18, Well 8 Reservoir	09/05/91	1.8 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 18, Well 8 Reservoir	10/09/91	-2.2 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 19, Well U19c	01/07/91	9.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 19, Well U19c	02/08/91	2.7 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 19, Well U19c	03/11/91	1.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 19, Well U19c	04/11/91	4.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 19, Well U19c	05/09/91	-4.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 19, Well U19c	06/04/91	-1.2 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 19, Well U19c	07/11/91	1.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 19, Well U19c	08/07/91	-9.6 x 10 ⁻⁰⁹	1.4 x 10 ⁻⁰⁷
Area 19, Well U19c	09/07/91	2.2 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 19, Well U19c	10/08/91	6.4 x 10 ⁻⁰⁹	1.4 x 10 ⁻⁰⁷
Area 19, Well U19c	11/13/91	2.2 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 19, Well U19c	12/09/91	3.1 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 19, Well U19c Reservoir	01/09/91	8.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 19, Well U19c Reservoir	02/05/91	8.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 19, Well U19c Reservoir	03/04/91	8.0 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 19, Well U19c Reservoir	04/09/91	-4.8 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 19, Well U19c Reservoir	05/08/91	-1.1 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 19, Well U19c Reservoir	06/05/91	-2.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 19, Well U19c Reservoir	07/02/91	7.0 x 10 ⁻⁰⁹	1.4 x 10 ⁻⁰⁷
Area 19, Well U19c Reservoir	08/01/91	8.6 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 19, Well U19c Reservoir	09/10/91	2.1 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 19, Well U19c Reservoir	10/09/91	-2.4 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 19, Well U19c Reservoir	11/07/91	-8.1 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 20, Water Well	01/07/91	3.6 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 20, Water Well	02/08/91	-1.7 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 20, Water Well	03/11/91	1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 20, Water Well	04/11/91	2.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 20, Well 20A Reservoir	01/09/91	-1.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 20, Well 20A Reservoir	02/05/91	4.3 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 20, Well 20A Reservoir	03/06/91	2.9 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 20, Well 20A Reservoir	04/09/91	-4.8 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 20, Well 20A Reservoir	05/08/91	-1.6 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 20, Well 20A Reservoir	06/05/91	-5.6 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 20, Well 20A Reservoir	07/02/91	-1.4 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 20, Well 20A Reservoir	08/01/91	-6.6 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁷
Area 20, Well 20A Reservoir	09/10/91	1.8 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 20, Well 20A Reservoir	10/09/91	-9.0 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 20, Well 20A Reservoir	11/07/91	-8.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 22, Army Well No. 1	01/07/91	4.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 22, Army Well No. 1	02/08/91	1.3 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 22, Army Well No. 1	03/11/91	-1.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 22, Army Well No. 1	04/11/91	1.6 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 22, Army Well No. 1	05/09/91	-3.1 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 22, Army Well No. 1	06/04/91	-4.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 22, Army Well No. 1	07/11/91	-2.6 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 22, Army Well No. 1	08/07/91	-1.3 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 22, Army Well No. 1	09/07/91	2.4 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 22, Army Well No. 1	10/08/91	1.6 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 22, Army Well No. 1	11/13/91	-6.4 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 22, Army Well No. 1	12/09/91	-5.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	01/07/91	-3.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	01/14/91	1.6 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 23, Cafeteria	01/22/91	-3.9 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 23, Cafeteria	01/28/91	-6.4 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	02/04/91	-1.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 23, Cafeteria	02/11/91	-3.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	02/19/91	-1.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	03/04/91	5.4 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 23, Cafeteria	03/11/91	8.7 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 23, Cafeteria	03/18/91	8.3 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	03/25/91	-2.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	03/25/91	-8.6 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	04/01/91	-1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	04/08/91	2.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	04/15/91	-1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	04/22/91	-2.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	04/29/91	-3.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	05/06/91	1.3 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	05/13/91	2.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 23, Cafeteria	05/20/91	1.0 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 23, Cafeteria	05/28/91	-2.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	06/03/91	-2.4 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 23, Cafeteria	06/10/91	2.8 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 23, Cafeteria	06/17/91	-1.3 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 23, Cafeteria	06/24/91	-3.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	07/01/91	-1.3 x 10 ⁻⁰⁷	1.7 x 10 ⁻⁰⁷
Area 23, Cafeteria	07/08/91	2.6 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 23, Cafeteria	07/15/91	-3.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	07/22/91	-1.0 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 23, Cafeteria	07/29/91	9.7 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁷
Area 23, Cafeteria	08/05/91	1.0 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 23, Cafeteria	08/12/91	-2.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	08/19/91	-1.6 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 23, Cafeteria	08/26/91	1.1 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 23, Cafeteria	09/03/91	1.7 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 23, Cafeteria	09/09/91	-3.9 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 23, Cafeteria	09/16/91	3.6 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 23, Cafeteria	09/23/91	2.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	10/01/91	-2.2 x 10 ⁻⁰⁷	1.8 x 10 ⁻⁰⁷
Area 23, Cafeteria	10/07/91	4.1 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 23, Cafeteria	10/07/91	-4.6 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 23, Cafeteria	10/21/91	-9.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	10/28/91	1.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	11/04/91	-9.7 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	11/12/91	-2.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 23, Cafeteria	11/18/91	2.3 x 10 ⁻¹¹	1.3 x 10 ⁻⁰⁸
Area 23, Cafeteria	11/25/91	8.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 23, Cafeteria	12/03/91	-2.0 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 23, Cafeteria	12/09/91	-1.6 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 23, Cafeteria	12/16/91	-2.2 x 10 ⁻⁰⁷	1.7 x 10 ⁻⁰⁷
Area 23, Cafeteria	12/23/91	1.6 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 23, Sewage	01/18/91	-3.6 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 23, Sewage	04/04/91	-6.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 23, Sewage	07/09/91	1.3 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 23, Sewage	10/09/91	1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 23, Swimming Pool	01/10/91	1.5 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 23, Swimming Pool	02/12/91	-9.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 23, Swimming Pool	03/06/91	2.3 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 23, Swimming Pool	04/04/91	-2.4 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 23, Swimming Pool	05/14/91	-1.3 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 23, Swimming Pool	06/20/91	-3.5 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 23, Swimming Pool	07/03/91	-3.5 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 23, Swimming Pool	08/06/91	6.9 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 23, Swimming Pool	09/12/91	6.0 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 23, Swimming Pool	10/09/91	-2.7 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 23, Swimming Pool	11/05/91	-2.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 23, Swimming Pool	12/09/91	-6.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	01/02/91	2.4 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 25, Building 4221	01/07/91	2.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	01/14/91	9.4 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 25, Building 4221	01/22/91	-3.1 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 25, Building 4221	01/28/91	8.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	02/04/91	-1.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	02/11/91	1.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	02/19/91	-2.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	03/04/91	-3.2 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁷
Area 25, Building 4221	03/11/91	1.0 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 25, Building 4221	03/18/91	-3.4 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	03/25/91	-1.1 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	04/01/91	1.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	04/08/91	3.1 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	04/15/91	-2.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	04/22/91	-1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	04/29/91	1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	05/06/91	-1.0 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	05/13/91	2.0 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 25, Building 4221	05/20/91	-2.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 25, Building 4221	05/28/91	-1.0 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	06/03/91	-4.0 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 25, Building 4221	06/10/91	-1.3 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 25, Building 4221	06/17/91	2.1 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 25, Building 4221	06/24/91	-2.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	07/01/91	9.7 x 10 ⁻⁰⁸	1.7 x 10 ⁻⁰⁷
Area 25, Building 4221	07/08/91	-1.1 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 25, Building 4221	07/15/91	-7.0 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	07/22/91	-2.0 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 25, Building 4221	07/29/91	1.8 x 10 ⁻⁰⁷	1.2 x 10 ⁻⁰⁷
Area 25, Building 4221	08/05/91	-4.2 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁷
Area 25, Building 4221	08/12/91	-1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	08/19/91	3.5 x 10 ⁻⁰⁷	1.7 x 10 ⁻⁰⁷
Area 25, Building 4221	08/26/91	1.1 x 10 ⁻⁰⁷	1.6 x 10 ⁻⁰⁷
Area 25, Building 4221	09/03/91	7.2 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 25, Building 4221	09/09/91	-9.5 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 25, Building 4221	09/16/91	-3.9 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 25, Building 4221	09/23/91	-4.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	10/01/91	-2.3 x 10 ⁻⁰⁷	1.8 x 10 ⁻⁰⁷
Area 25, Building 4221	10/07/91	-9.1 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 25, Building 4221	10/07/91	1.8 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 25, Building 4221	10/21/91	-6.1 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	10/28/91	-3.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	11/04/91	-8.4 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	11/12/91	-1.6 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	11/18/91	3.6 x 10 ⁻⁰⁹	1.3 x 10 ⁻⁰⁸
Area 25, Building 4221	11/25/91	4.9 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Building 4221	12/03/91	-1.8 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 25, Building 4221	12/09/91	-1.1 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 25, Building 4221	12/16/91	-8.0 x 10 ⁻⁰⁸	1.7 x 10 ⁻⁰⁷
Area 25, Building 4221	12/23/91	-1.6 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 25, Building 4221	12/23/91	3.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Well J-11 Reservoir	01/09/91	-3.6 x 10 ⁻⁰⁹	1.5 x 10 ⁻⁰⁷
Area 25, Well J-11 Reservoir	02/04/91	-3.6 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Well J-11 Reservoir	03/04/91	2.0 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Well J-11 Reservoir	04/03/91	1.6 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Well J-11 Reservoir	05/02/91	1.3 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Well J-11 Reservoir	06/13/91	3.6 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 25, Well J-11 Reservoir	07/02/91	1.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Well J-11 Reservoir	08/05/91	1.8 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 25, Well J-11 Reservoir	09/03/91	8.4 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 25, Well J-11 Reservoir	10/07/91	-6.2 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 25, Well J-11 Reservoir	11/05/91	-1.2 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Well J-11 Reservoir	12/09/91	-2.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 25, Well J-12	01/07/91	9.9 x 10 ⁻⁰⁹	1.3 x 10 ⁻⁰⁷
Area 25, Well J-12	02/08/91	1.3 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 25, Well J-12	03/11/91	2.2 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 25, Well J-12	04/11/91	-7.0 x 10 ⁻⁰⁹	1.4 x 10 ⁻⁰⁷
Area 25, Well J-12	05/09/91	-2.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Well J-12	06/04/91	-1.7 x 10 ⁻⁰⁷	1.2 x 10 ⁻⁰⁷
Area 25, Well J-12	07/11/91	-8.7 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 25, Well J-12	08/07/91	-2.1 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 25, Well J-12	09/07/91	5.7 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 25, Well J-12	10/08/91	-6.7 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 25, Well J-12	11/13/91	-1.0 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 25, Well J-12	12/09/91	9.0 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Well J-12 Reservoir	01/09/91	-2.2 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 25, Well J-12 Reservoir	02/04/91	1.9 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Well J-12 Reservoir	03/04/91	-1.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Well J-12 Reservoir	04/03/91	4.5 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Well J-12 Reservoir	05/02/91	1.8 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Well J-12 Reservoir	06/13/91	1.0 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 25, Well J-12 Reservoir	07/02/91	7.3 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Well J-12 Reservoir	08/05/91	-6.3 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁷
Area 25, Well J-12 Reservoir	09/03/91	-3.6 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁷
Area 25, Well J-12 Reservoir	10/07/91	-2.9 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 25, Well J-12 Reservoir	11/05/91	-1.7 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Well J-12 Reservoir	12/12/91	5.2 x 10 ⁻⁰⁸	1.6 x 10 ⁻⁰⁷
Area 25, Well J-13	01/07/91	6.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 25, Well J-13	02/08/91	7.0 x 10 ⁻⁰⁸	1.5 x 10 ⁻⁰⁷
Area 25, Well J-13	03/11/91	6.8 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 25, Well J-13	04/11/91	3.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Well J-13	06/04/91	-4.3 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 25, Well J-13	07/11/91	-2.4 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Well J-13	08/07/91	-1.1 x 10 ⁻⁰⁷	1.4 x 10 ⁻⁰⁷
Area 25, Well J-13	09/07/91	2.4 x 10 ⁻⁰⁷	1.3 x 10 ⁻⁰⁷
Area 25, Well J-13	10/08/91	6.7 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 25, Well J-13	11/13/91	4.2 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 25, Well J-13	12/09/91	4.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 27, Cafeteria	01/02/91	8.5 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 27, Cafeteria	01/14/91	-6.7 x 10 ⁻⁰⁸	1.3 x 10 ⁻⁰⁷
Area 27, Cafeteria	01/22/91	-4.0 x 10 ⁻⁰⁷	1.5 x 10 ⁻⁰⁷
Area 27, Cafeteria	01/28/91	-9.2 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 27, Cafeteria	02/04/91	-1.8 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 27, Cafeteria	02/11/91	5.3 x 10 ⁻⁰⁸	1.4 x 10 ⁻⁰⁷
Area 27, Cafeteria	03/04/91	-3.5 x 10 ⁻⁰⁸	1.2 x 10 ⁻⁰⁷

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concentration</u>	<u>Standard Deviation (s)</u>
Area 27, Cafeteria	03/11/91	2.8×10^{-07}	1.3×10^{-07}
Area 27, Cafeteria	03/18/91	-1.0×10^{-08}	1.4×10^{-07}
Area 27, Cafeteria	03/25/91	-2.0×10^{-07}	1.4×10^{-07}
Area 27, Cafeteria	03/25/91	-1.7×10^{-07}	1.4×10^{-07}
Area 27, Cafeteria	04/01/91	6.9×10^{-09}	1.4×10^{-07}
Area 27, Cafeteria	04/08/91	1.1×10^{-07}	1.4×10^{-07}
Area 27, Cafeteria	04/15/91	-9.6×10^{-08}	1.4×10^{-07}
Area 27, Cafeteria	04/22/91	-2.4×10^{-08}	1.4×10^{-07}
Area 27, Cafeteria	04/29/91	-1.7×10^{-08}	1.4×10^{-07}
Area 27, Cafeteria	05/06/91	-2.2×10^{-07}	1.4×10^{-07}
Area 27, Cafeteria	05/13/91	1.0×10^{-07}	1.3×10^{-07}
Area 27, Cafeteria	05/20/91	-8.0×10^{-08}	1.3×10^{-07}
Area 27, Cafeteria	05/28/91	1.9×10^{-08}	1.4×10^{-07}
Area 27, Cafeteria	06/03/91	-3.3×10^{-07}	1.3×10^{-07}
Area 27, Cafeteria	06/10/91	3.2×10^{-08}	1.5×10^{-07}
Area 27, Cafeteria	06/17/91	1.4×10^{-07}	1.5×10^{-07}
Area 27, Cafeteria	06/24/91	-2.7×10^{-07}	1.4×10^{-07}
Area 27, Cafeteria	07/01/91	1.0×10^{-08}	1.7×10^{-07}
Area 27, Cafeteria	07/08/91	-1.2×10^{-07}	1.2×10^{-07}
Area 27, Cafeteria	07/15/91	-2.3×10^{-07}	1.4×10^{-07}
Area 27, Cafeteria	07/22/91	-2.0×10^{-07}	1.3×10^{-07}
Area 27, Cafeteria	07/29/91	9.1×10^{-08}	1.2×10^{-07}
Area 27, Cafeteria	08/05/91	-1.1×10^{-07}	1.2×10^{-07}
Area 27, Cafeteria	08/12/91	-2.7×10^{-07}	1.4×10^{-07}
Area 27, Cafeteria	08/19/91	3.5×10^{-08}	1.7×10^{-07}
Area 27, Cafeteria	08/26/91	3.2×10^{-07}	1.7×10^{-07}
Area 27, Cafeteria	09/03/91	4.2×10^{-08}	1.3×10^{-07}
Area 27, Cafeteria	09/09/91	3.6×10^{-08}	1.3×10^{-07}
Area 27, Cafeteria	09/16/91	-1.5×10^{-07}	1.3×10^{-07}
Area 27, Cafeteria	09/23/91	9.6×10^{-09}	1.4×10^{-07}
Area 27, Cafeteria	10/01/91	4.0×10^{-08}	1.9×10^{-07}
Area 27, Cafeteria	10/07/91	-1.8×10^{-08}	1.3×10^{-07}
Area 27, Cafeteria	10/07/91	1.6×10^{-07}	1.3×10^{-07}
Area 27, Cafeteria	10/21/91	-1.0×10^{-08}	1.4×10^{-07}
Area 27, Cafeteria	10/28/91	6.2×10^{-08}	1.4×10^{-07}
Area 27, Cafeteria	11/04/91	-6.4×10^{-08}	1.4×10^{-07}
Area 27, Cafeteria	11/12/91	2.3×10^{-08}	1.4×10^{-07}
Area 27, Cafeteria	11/18/91	3.9×10^{-09}	1.3×10^{-08}
Area 27, Cafeteria	11/25/91	-8.5×10^{-08}	1.3×10^{-07}
Area 27, Cafeteria	12/03/91	8.6×10^{-08}	1.3×10^{-07}
Area 27, Cafeteria	12/09/91	-2.1×10^{-08}	1.5×10^{-07}
Area 27, Cafeteria	12/16/91	-1.1×10^{-07}	1.7×10^{-07}

Attachment C.7 (Tritium in Water, cont.)

<u>Sampling Location</u>	<u>Sampling Dates</u>	<u>μCi/mL</u>	
		<u>Concen- tration</u>	<u>Standard Deviation (s)</u>
Area 27, Cafeteria	12/23/91	1.7×10^{-07}	1.3×10^{-07}
Area 27, Cafeteria	12/23/91	4.5×10^{-07}	1.5×10^{-07}
Area 29, Topopah Spring	01/24/91	3.3×10^{-09}	1.3×10^{-07}
Area 29, Topopah Spring	02/07/91	8.4×10^{-08}	1.6×10^{-07}
Area 29, Topopah Spring	03/13/91	-1.9×10^{-08}	1.3×10^{-07}
Area 29, Topopah Spring	04/17/91	3.5×10^{-09}	1.4×10^{-07}
Area 29, Topopah Spring	05/08/91	2.1×10^{-08}	1.4×10^{-07}
Area 29, Topopah Spring	06/06/91	8.3×10^{-08}	1.6×10^{-07}

APPENDIX D

SUMMARY OF 1991 RESULTS OF OFFSITE RADIOLOGICAL MONITORING

Statistical treatment of these data will appear in the 1991 EPA Offsite Environmental Monitoring Report.

Table D.1 Milk Surveillance Network Results - 1991

Sampling Location	Collection Date in 1991	Concentration \pm 1s (MDC) ^(a)		
		³ H $\times 10^{-9}$ μ Ci/mL ^(b)	⁸⁹ Sr $\times 10^{-9}$ μ Ci/mL ^(b)	⁹⁰ Sr $\times 10^{-9}$ μ Ci/mL ^(b)
Benton, CA Irene Brown Ranch	01/03	188 \pm 116 (379)	N/A	2.4 \pm 0.94 (2.6)
	04/24	44 \pm 90 (297)	N/A	0.59 \pm 0.35 (1.4)
	07/10	180 \pm 95 (308)	0.050 \pm 0.85(1.2)	0.16 \pm 0.34 (1.4)
	10/24	88 \pm 111 (363)	N/A	0.25 \pm 0.33 (1.4)
Hinkley, CA Bill Nelson Dairy Desert View Dairy	01/03	170 \pm 114 (372)	N/A	0.76 \pm 0.49 (1.6)
	04/24	86 \pm 92 (301)	N/A	0.39 \pm 0.33 (1.4)
	07/10	0 \pm 93 (306)	N/A	-0.62 \pm 0.32 (1.4)
	10/23	178 \pm 110 (358)	N/A	0.11 \pm 0.32 (1.4)
Inyokern, CA Cedarsage Farm	01/03	81 \pm 113 (370)	N/A	0.32 \pm 0.42 (1.5)
	04/24	197 \pm 94 (304)	N/A	0.19 \pm 0.33 (1.4)
	07/10	207 \pm 94 (303)	N/A	0.081 \pm 0.34 (1.4)
	10/23	173 \pm 114 (372)	N/A	-0.080 \pm 0.32 (1.4)
Alamo, NV Cortney Dahl Ranch	02/06	183 \pm 116 (379)	N/A	-0.57 \pm 0.35 (1.4)
	08/06	152 \pm 119 (389)	N/A	-0.14 \pm 0.52 (1.9)
	11/01	352 \pm 116 (372)	N/A	0.29 \pm 0.34 (1.5)
Amargosa Valley, NV Bar-B-Q Ranch	08/05	190 \pm 117 (383)	N/A	0.067 \pm 0.39 (1.6)
	11/15	213 \pm 111 (360)	-0.78 \pm 0.95(1.5)	0.37 \pm 0.39 (1.6)
Austin, NV Young's Ranch	06/05	8.5 \pm 90 (298)	N/A	0.61 \pm 0.32 (1.3)
	09/17	113 \pm 108 (352)	N/A	0.16 \pm 0.32 (1.3)
	12/10	230 \pm 84 (270)	0.066 \pm 0.60(0.9)	0.63 \pm 0.34 (1.4)
Blue Jay, NV Blue Jay Springs Jim Bias Ranch	05/15	153 \pm 94 (306)	N/A	0.18 \pm 0.34 (1.4)
	06/05	177 \pm 93 (300)	N/A	0.58 \pm 0.35 (1.4)
	09/04	-20 \pm 111 (367)	N/A	0.64 \pm 0.32 (1.3)
Caliente, NV June Cox Ranch	02/07	217 \pm 120 (390)	N/A	0.27 \pm 0.36 (1.5)
	05/01	100 \pm 93 (306)	N/A	-0.77 \pm 0.96 (3.2)
	08/07	208 \pm 121 (392)	N/A	0.42 \pm 0.31 (1.3)
	11/01	409 \pm 115 (368) ^(c)	N/A	0.22 \pm 0.40 (1.6)

(a) Minimum Detectable Concentration.

(b) Multiply the results by 3.7×10^7 to obtain Bq/L.

(c) Concentration is greater than the MDC.

N/A Not analyzed.

Table D.1 (Milk Surveillance Network Results - 1991, cont.)

Sampling Location	Collection Date in 1991	Concentration $\pm 1s$ (MDC) ^(a)		
		³ H $\times 10^{-9}$ μ Ci/mL ^(b)	⁸⁹ Sr $\times 10^{-9}$ μ Ci/mL ^(b)	⁹⁰ Sr $\times 10^{-9}$ μ Ci/mL ^(b)
Currant, NV Blue Eagle Ranch	06/05	113 \pm 94 (306)	N/A	0.51 \pm 0.39 (1.4)
	09/18	-31 \pm 108 (355)	N/A	0.78 \pm 0.31 (1.3)
Currant, NV Manzonie Ranch	06/12	154 \pm 87 (282)	0.92 \pm 0.86(1.2)	0.86 \pm 0.36 (1.3)
	09/09	103 \pm 112 (366)	N/A	1.2 \pm 0.36 (1.3)
	12/10	143 \pm 83 (270)	N/A	1.1 \pm 0.36 (1.3)
Duckwater, NV Bradshaw's Ranch	11/20	114 \pm 109 (355)	0.13 \pm 0.84(1.1)	0.66 \pm 0.38 (1.4)
Dyer, NV Ozel Lemon	03/13	21 \pm 113 (371)	0.66 \pm 1.00(1.4)	0.55 \pm 0.38 (1.4)
	06/04	219 \pm 97 (314)	N/A	0.52 \pm 0.31 (1.3)
	09/10	201 \pm 110 (356)	N/A	0.19 \pm 0.34 (1.4)
Lathrop Wells, NV John Deer Ranch	03/06	236 \pm 113 (367)	0.15 \pm 2.50(3.3)	0.77 \pm 0.72 (2.4)
	06/13	-40 \pm 90 (299)	N/A	0.88 \pm 0.42 (1.6)
	09/12	120 \pm 111 (364)	N/A	0.26 \pm 0.30 (1.3)
Logandale, NV Leonard Marshall	02/04	241 \pm 112 (363)	N/A	0.07 \pm 0.51 (1.8)
	05/01	-88 \pm 89 (295)	N/A	-0.31 \pm 0.42 (1.6)
	08/01	192 \pm 92 (299)	N/A	0.09 \pm 0.37 (1.5)
	11/01	301 \pm 113 (365)	N/A	0.54 \pm 0.35 (1.4)
Lund, NV Ronald Horsley Ranch	02/06	205 \pm 115 (372)	N/A	0.29 \pm 0.43 (1.5)
	05/07	179 \pm 94 (306)	N/A	0.05 \pm 0.60 (2.2)
	08/06	-6 \pm 95 (314)	N/A	0.37 \pm 0.33 (1.3)
	11/01	233 \pm 112 (363)	N/A	0.65 \pm 0.37 (1.5)
Mesquite, NV Hafen Dairy	01/04	62 \pm 115 (376)	N/A	1.2 \pm 0.56 (1.9)
	04/05	120 \pm 115 (377)	-0.05 \pm 0.60 (0.98)	0.23 \pm 0.32 (1.4)
	07/01	256 \pm 94 (302)	-0.04 \pm 0.87(1.3)	0.30 \pm 0.32 (1.4)
	10/01	80 \pm 114 (374)	N/A	0.66 \pm 0.37 (1.4)
Moapa, NV Rockview Dairies, Inc	01/04	323 \pm 119 (384)	N/A	1.3 \pm 0.99 (3)
	04/05	-37 \pm 113 (374)	-0.33 \pm 0.77(1.2)	0.87 \pm 0.40 (1.5)
	07/01	-28 \pm 92 (303)	0.21 \pm 0.89(1.3)	0.46 \pm 0.33 (1.4)
	10/01	153 \pm 111 (362)	N/A	0.11 \pm 0.34 (1.5)
Nyala, NV Sharp's Ranch	03/05	103 \pm 116 (379)	0.85 \pm 1.20(1.6)	0.74 \pm 0.41 (1.5)
	06/04	-4.3 \pm 91 (301)	N/A	1.1 \pm 0.38 (1.4)
	09/10	294 \pm 115 (371)	N/A	0.38 \pm 0.34 (1.4)
	12/03	199 \pm 85 (275)	-0.14 \pm 0.68 (0.97)	0.79 \pm 0.34 (1.3)
Pahrump, NV Pahrump Dairy	01/02	182 \pm 114 (371)	N/A	0.71 \pm 0.39 (1.4)
	04/23	70 \pm 91 (299)	N/A	0.31 \pm 0.41 (1.5)
	07/09	36 \pm 89 (293)	N/A	0.44 \pm 0.31 (1.4)
	10/21	93 \pm 106 (347)	N/A	0.59 \pm 0.37 (1.5)

(a) Minimum Detectable Concentration.

(b) Multiply the results by 3.7×10^7 to obtain Bq/L.

(c) Concentration is greater than the MDC.

N/A Not analyzed.

Table D.1 (Milk Surveillance Network Results - 1991, cont.)

Sampling Location	Collection Date in 1991	Concentration \pm 1s (MDC) ^(a)		
		³ H x 10 ⁻⁹ μ Ci/mL ^(b)	⁸⁹ Sr x 10 ⁻⁹ μ Ci/mL ^(b)	⁹⁰ Sr x 10 ⁻⁹ μ Ci/mL ^(b)
Shoshone, NV Harbecke Ranch	02/06	246 \pm 117 (379)	N/A	1.1 \pm 0.55 (1.6)
	05/01	77 \pm 94 (308)	N/A	1.2 \pm 0.51 (1.6)
	08/06	297 \pm 95 (305)	N/A	2.6 \pm 0.43 (1.3) ^(c)
	11/01	475 \pm 112 (358) ^(c)	N/A	2.0 \pm 0.48 (1.5) ^(c)
Tonopah, NV Karen Harper Ranch	10/24	340 \pm 126 (406)	N/A	2.5 \pm 0.43 (1.3) ^(c)
	12/10	241 \pm 86 (277)	0.62 \pm 0.71 (0.85)	1.6 \pm 0.40 (1.3) ^(c)
Cedar City, UT Brent Jones Dairy	01/03	144 \pm 117 (381)	N/A	1.0 \pm 0.47 (1.7)
	04/05	97 \pm 112 (367)	0.19 \pm 0.73 (1.0)	0.72 \pm 0.37 (1.4)
	07/01	46 \pm 93 (305)	N/A	0.71 \pm 0.35 (1.4)
	10/02	165 \pm 114 (372)	N/A	0.56 \pm 0.32 (1.3)
Ivins, UT David Hafen Ranch	01/03	237 \pm 112 (364)	N/A	0.24 \pm 0.48 (1.6)
	04/05	344 \pm 131 (422)	0.69 \pm 0.63 (0.97)	0.20 \pm 0.33 (1.4)
	07/01	-40 \pm 91 (299)	2.0 \pm 1.0 (1.4) ^(c)	-0.23 \pm 0.36 (1.4)
	10/02	239 \pm 113 (366)	N/A	-0.06 \pm 0.31 (1.4)

(a) Minimum Detectable Concentration.

(b) Multiply the results by 3.7×10^7 to obtain Bq/L.

(c) Concentration is greater than the MDC.

N/A Not analyzed.

Table D.2 Standby Milk Surveillance Network Results - 1991

Sampling Location	Collection Date in 1991	Concentration \pm 1s (MDC) ^(a)		
		³ H x 10 ⁻⁹ μ Ci/mL ^(b)	⁸⁹ Sr x 10 ⁻⁹ μ Ci/mL ^(b)	⁹⁰ Sr x 10 ⁻⁹ μ Ci/mL ^(b)
Taylor, AZ Sunrise Dairy	07/17	228 \pm 114 (369)	0.69 \pm 0.81 (1.2)	0.049 \pm 0.37 (1.5)
Tucson, AZ Univ Of Arizona	07/25	232 \pm 115 (375)	-0.42 \pm 0.68 (1.1)	0.33 \pm 0.30 (1.3)
Little Rock, AR Borden's	06/04	62 \pm 92 (302)	N/A	2.3 \pm 0.42 (1.4) ^(c)
Russellville, AR Arkansas Tech Univ	06/25	72 \pm 91 (299)	N/A	2.0 \pm 0.43 (1.3) ^(c)

(a) Minimum Detectable Concentration.

(b) Multiply the results by 3.7×10^7 to obtain Bq/L.

(c) Concentration is greater than the MDC.

N/A Not analyzed.

Table D.2 (Standby Milk Surveillance Network Results - 1991, cont.)

Sampling Location	Collection Date in 1991	Concentration \pm 1s (MDC) ^(a)		
		³ H x 10 ⁻⁹ μ Ci/mL ^(b)	⁸⁹ Sr x 10 ⁻⁹ μ Ci/mL ^(b)	⁹⁰ Sr x 10 ⁻⁹ μ Ci/mL ^(b)
Bakersfield, CA Favorite Foods, Inc	07/15	179 \pm 89 (289)	0.21 \pm 0.69 (1.2)	-0.21 \pm 0.31 (1.4)
Orland, CA Meadow Glen Cheese	08/21	124 \pm 115 (377)	N/A	-0.011 \pm 0.31 (1.3)
Redding, CA McColl's Dairy Prod	08/12	67 \pm 113 (371)	N/A	0.53 \pm 0.33 (1.3)
Willows, CA Glenn Milk Producers	08/21	227 \pm 113 (367)	N/A	1.1 \pm 0.33 (1.3)
Delta, CO Meadow Gold Dairy	08/07	131 \pm 119 (389)	N/A	0.089 \pm 0.34 (1.4)
Denver, CO Safeway Dairy Plant	05/20	293 \pm 96 (307)	N/A	0.22 \pm 0.38 (1.4)
Quincy, IL Prairie Farms Dairy	06/05	94 \pm 96 (316)	0.42 \pm 1.0 (1.3)	1.4 \pm 0.39 (1.3) ^(c)
Boise, ID Meadow Gold Dairies	08/05	134 \pm 116 (377)	0.08 \pm 0.79 (1.1)	0.78 \pm 0.38 (1.4)
Idaho Falls, ID Reed's Dairy	08/29	130 \pm 109 (357)	N/A	1.1 \pm 0.34 (1.3)
Dubuque, IA Swiss Valley Farms	06/05	19 \pm 92 (303)	2.7 \pm 1.2 (1.3) ^(c)	1.3 \pm 0.43 (1.3) ^(c)
Ellis, KS Mid-America Dairymen	06/05	2.8 \pm 92 (303)	0.06 \pm 1.1 (1.3)	1.3 \pm 0.38 (1.3)
Sabetha, KS Mid-America Dairymen	06/11	228 \pm 94 (306)	N/A	1.8 \pm 0.41 (1.4) ^(c)
Baton Rouge, LA Borden's	08/19	209 \pm 114 (371)	N/A	3.1 \pm 0.48 (1.3) ^(c)
Monroe, LA Borden's Dairy	09/17	101 \pm 109 (357)	N/A	1.7 \pm 0.42 (1.5) ^(c)
New Orleans, LA Brown's Velvet Dry	12/11	190 \pm 86 (277)	N/A	1.3 \pm 0.40 (1.4)
Fosston, MN Land O' Lakes Inc	06/19	234 \pm 97 (313)	N/A	2.7 \pm 0.51 (1.3) ^(c)

(a) Minimum Detectable Concentration.

(b) Multiply the results by 3.7×10^7 to obtain Bq/L.

(c) Concentration is greater than the MDC.

N/A Not analyzed.

Table D.2 (Standby Milk Surveillance Network Results - 1991, cont.)

Sampling Location	Collection Date in 1991	Concentration \pm 1s (MDC) ^(a)		
		³ H x 10 ⁻⁹ μ Ci/mL ^(b)	⁸⁹ Sr x 10 ⁻⁹ μ Ci/mL ^(b)	⁹⁰ Sr x 10 ⁻⁹ μ Ci/mL ^(b)
Rochester, MN Assoc Milk Prod Inc	06/06	174 \pm 94 (306)	0.56 \pm 1.1 (1.3)	1.1 \pm 0.38 (1.3)
Aurora, MO Mid-America Dairy Inc	07/31	200 \pm 117 (381)	1.1 \pm 0.97 (1.1) ^(c)	2.3 \pm 0.46 (1.4) ^(c)
Chillicothe, MO Mid-America Dairymen	06/20	113 \pm 95 (310)	N/A	2.4 \pm 0.44 (1.3) ^(c)
Billings, MT Meadow Gold Dairy	11/15	404 \pm 114 (366) ^(c)	-1.6 \pm 0.95 (1.1)	2.6 \pm 0.39 (1.3) ^(c)
Great Falls, MT Meadow Gold Dairy	08/26	149 \pm 110 (357)	N/A	1.1 \pm 0.37 (1.3)
Norfolk, NE Gillette Dairy	06/17	60 \pm 92 (302)	N/A	1.5 \pm 0.43 (1.4) ^(c)
North Platte, NE Mid-America Dairymen	06/27	147 \pm 95 (308)	N/A	0.94 \pm 0.42 (1.3)
Albuquerque, NM Borden's Valley Gold	08/08	211 \pm 112 (365)	0.35 \pm 0.74 (0.97)	0.64 \pm 0.37 (1.4)
La Plata, NM River Edge Dairy	08/16	345 \pm 116 (372)	N/A	0.55 \pm 0.33 (1.4)
Bismarck, ND Bridgeman Creamery	07/31	42 \pm 111 (364)	0.13 \pm 0.95 (1.1)	2.3 \pm 0.44 (1.4) ^(c)
Grand Forks, ND Minnesota Dairy	08/14	89 \pm 112 (367)	N/A	0.33 \pm 0.37 (1.4)
Enid, OK AMPI Goldspot Div	06/12	167 \pm 96 (314)	N/A	2.0 \pm 0.43 (1.4) ^(c)
McAlester, OK Jackie Brannon Corp	06/20	151 \pm 97 (317)	N/A	1.5 \pm 0.43 (1.3) ^(c)
Medford, OR Dairygold Farms	08/07	165 \pm 111 (361)	0.36 \pm 0.73 (1.0)	0.36 \pm 0.36 (1.4)
Salem, OR Curly's Dairy	08/20	204 \pm 118 (384)	N/A	0.95 \pm 0.33 (1.3)
Tillamook, OR Tillamook Creamery	08/19	165 \pm 111 (361)	N/A	1.1 \pm 0.36 (1.3)

(a) Minimum Detectable Concentration.

(b) Multiply the results by 3.7 x 10⁷ to obtain Bq/L.

(c) Concentration is greater than the MDC.

N/A Not analyzed.

Table D.2 (Standby Milk Surveillance Network Results - 1991, cont.)

Sampling Location	Collection Date in 1991	Concentration \pm 1s (MDC) ^(a)		
		³ H $\times 10^{-9}$ μ Ci/mL ^(b)	⁸⁹ Sr $\times 10^{-9}$ μ Ci/mL ^(b)	⁹⁰ Sr $\times 10^{-9}$ μ Ci/mL ^(b)
Rapid City, SD Gillette Dairy	08/08	269 \pm 115 (371)	N/A	1.3 \pm 0.39 (1.4)
Sioux Falls, SD Lakeside Dairy	12/31	116 \pm 88 (288)	N/A	0.92 \pm 0.39 (1.4)
Glen Rose, TX Daffan Family Dairy	06/13	-4.5 \pm 92 (304)	N/A	1.0 \pm 0.36 (1.4)
Sulphur Springs, TX Tommy Potts Dairy	08/05	109 \pm 113 (370)	1.2 \pm 1.0 (1.0) ^(c)	2.8 \pm 0.51 (1.4) ^(c)
Windthorst, TX Lloyd Wolf Dairy	06/07	23 \pm 90 (296)	N/A	0.91 \pm 0.33 (1.3)
Beaver, UT Cache Valley Dairy	05/22	96 \pm 96 (314)	N/A	1.2 \pm 0.36 (1.4)
Provo, UT BYU Dairy Products	05/20	144 \pm 94 (306)	N/A	0.80 \pm 0.35 (1.3)
Seattle, WA Darigold Inc	09/16	60 \pm 109 (356)	N/A	0.24 \pm 0.35 (1.4)
Spokane, WA Darigold Inc	11/12	223 \pm 112 (363)	N/A	1.7 \pm 0.39 (1.3) ^(c)
Cheyenne, WY Dairy Gold Foods	06/11	110 \pm 91 (297)	N/A	1.4 \pm 0.38 (1.4) ^(c)
Sheridan, WY Mydland Dairy	05/10	292 \pm 97 (313)	N/A	1.2 \pm 0.35 (1.3)

Samples from the following locations were analyzed by gamma spectroscopy only: in all cases only naturally occurring radionuclides were detected.

Sampling Location	Collection Date	Sampling Location	Collection Date
Duncan, AZ Lunt Dairy	07/24	Hills Valley Foods Fayetteville, AR	06/25
Tempe, AZ United Dairymen Of AZ	07/24	University Of Arkansas Helendale, CA	06/20
Batesville, AR		Osterkamp Dairy No. 2	07/16

- (a) Minimum Detectable Concentration.
 (b) Multiply the results by 3.7×10^7 to obtain Bq/L.
 (c) Concentration is greater than the MDC.
 N/A Not analyzed.

Table D.2 (Standby Milk Surveillance Network Results - 1991, cont.)

(Samples from the following locations were analyzed by gamma spectroscopy only: in all cases only naturally occurring radionuclides were detected, cont.)

<u>Sampling Location</u>	<u>Collection Date</u>	<u>Sampling Location</u>	<u>Collection Date</u>
Chino, CA		Dairymens Creamery	08/08
CA Inst. for Men	07/23	Assn Pocatello, ID	
Ruston, LA		Rowland's Meadowgold	08/19
LA Tech Univ Dairy	09/19	Dry Twin Falls, ID	
Shreveport, LA		Triangle Young's Dairy	08/30
Foremost Dairy	12/18	Kimballton, IA	
Fergus Falls, MN		Assoc. Milk Pro.Inc(AMPI)	06/05
Mid-America Dairymen	06/25	Lake Mills, IA	
Browerville, MN		Lake Mills Coop Crmy	06/24
Land O' Lakes, Inc.	06/17	Lemars, IA	
Nicollet, MN		Wells Dairy	06/12
Doug Schultz Farm	06/27	Manhattan, KS	
Jackson, MO		Kansas State University	06/17
Mid-America Dairymen Inc	06/06	Lafayette, LA	
Fernbridge, CA		Borden's	08/20
Humboldt Creamery Assn	07/19	New Orleans, LA	
Fresno, CA		Walker Roemer Dairy	12/11
CA State Univ Creamery	07/15	Riverton, WY	
Holtville, CA		Western Dairymen's Co-op	05/10
Schaffner & Son Dairy	07/23	Thayne, WY	
Manteca, CA		Western Dairymen's Co-op	05/13
A & J Foods, Inc	07/23	Jefferson City, MO	
Modesto, CA		Central Dairy, Co	06/11
Foster Farms, Jersey Dairy	07/22	Bozeman, MT	
Petaluma, CA		Country Classic-DBA-Darig	09/11
Point Reyes Seashore Dairy	07/17	Kalispell, MT	
San Jose, CA		Equity Supply Co	09/11
Marquez Bros Mexican Cheese	07/17	Omaha, NE	
San Luis Obispo, CA		Roberts Dairy	06/19
Cal Poly Univ Dairy	07/19	Marshall Green	07/31
Saugus, CA		Chappell, NE	
Wayside Honor Ranch	07/26	Leprino Foods	11/20
Crescent City, CA		Superior, NE	
Rumiano Cheese Co	07/17	Mid-America Dairymen	06/11
Soledad, CA		Logandale, NV	
Correction Training Nds.	07/12	Nevada Dairy	09/17
Tracy, CA		Reno, NV	
Deuel Voc Inst	07/10	Model Dairy	07/10
Manchester, CA		Yerington, NV	
Point Arema Daires	07/17	Valley Dairy	07/24
Colorado Springs, CO		Fargo, ND	
Sinton Dairy CO	05/13	Cass Clay Creamery	07/30
Greeley, CO		Minot, ND	
Meadow Gold Dairy	05/28	Bridgemen Creamery	08/15
Ft Collins, CO		Claremore, OK	
Poudre Valley Creamery	05/22	Swan Bros Dairy	07/10
Caldwell, ID		Stillwater, OK	

Table D.2 (Standby Milk Surveillance Network Results - 1991, cont.)

(Samples from the following locations were analyzed by gamma spectroscopy only: in all cases only naturally occurring radionuclides were detected, cont.)

<u>Sampling Location</u>	<u>Collection Date</u>	<u>Sampling Location</u>	<u>Collection Date</u>
OK State Univ Dairy Grants Pass, OR	06/05	Ethan Dairy Products Volga, SD	11/04
Valley Of Rouge Dairy Junction City, OR	12/03	Land O'Lakes Inc Canyon, TX	08/08
Lockmead Farms Inc Klamath Falls, OR	09/16	West Texas State Dairy Corpus Christi, TX	06/17
Klamath Dairy Product North Powder, OR	08/08	Peoples Baptist Church Fabens, TX	06/05
Elmer Hill Dairy Myrtle Point, OR	08/05	Island Dairy-El Paso Ct Richfield, UT	06/07
Safeway Stores Inc Portland, OR	08/05	Ideal Dairy Smithfield, UT	05/22
Darigold Farms Redmond, OR	12/24	Cache Valley Dairy Moses Lake, WA	05/28
Eberhard's Creamery Inc Ethan, SD	08/27	Safeway Stores Inc	11/12

Table D.3 Tritium in Urine, Offsite Internal Dosimetry Network - 1991

<u>Sampling Location</u>	<u>Collection Date in 1991</u>	<u>Concentration ± 1s (MDC)</u>
		<u>x 10⁻⁹ μCi/mL^(a)</u>
Alamo, NV	12/11/90	111 ± 64 (209)
	12/11/90	99 ± 64 (208)
	12/16/90	82 ± 63 (206)
	12/16/90	8 ± 63 (206)
	12/16/90	24 ± 62 (205)
	12/16/90	88 ± 63 (206)
	12/16/90	103 ± 63 (204)
Beatty, NV	02/07/91	225 ± 96 (311)
	02/07/91	246 ± 96 (311)
	03/15/91	-56 ± 90 (298)
	03/15/91	175 ± 91 (295)
	03/19/91	77 ± 92 (302)
	03/19/91	-50 ± 90 (298)
	03/28/91	218 ± 91 (294)

(a) Multiply the results by 3.7 x 10⁷ to obtain Bq/L.

(b) Concentration is greater than the MDC.

Table D.3 (Tritium in Urine, Offsite Internal Dosimetry Network - 1991, cont.)

Sampling Location	Collection Date in 1991	Concentration \pm 1s (MDC)
		$\times 10^{-9}$ $\mu\text{Ci/mL}^{(a)}$
<i>Beatty, NV (cont.)</i>	03/28/91	144 \pm 92 (299)
	03/28/91	111 \pm 91 (296)
	03/29/91	28 \pm 89 (294)
	03/29/91	115 \pm 91 (297)
	03/29/91	208 \pm 93 (302)
	03/29/91	168 \pm 92 (298)
	08/13/91	69 \pm 76 (249)
	08/13/91	26 \pm 75 (247)
	08/13/91	-90 \pm 75 (248)
	12/17/91	60 \pm 63 (206)
	12/17/91	24 \pm 62 (204)
	12/23/91	39 \pm 62 (204)
	12/23/91	23 \pm 62 (205)
	12/23/91	26 \pm 62 (202)
	12/23/91	48 \pm 62 (204)
	12/23/91	20 \pm 63 (207)
12/23/91	23 \pm 62 (205)	
Currant, NV Blue Eagle Ranch	02/15/91	153 \pm 96 (313)
	02/15/91	-23 \pm 94 (311)
Ely, NV	06/05/91	136 \pm 88 (287)
	06/05/91	47 \pm 88 (289)
	12/12/91	131 \pm 64 (206)
	12/12/91	144 \pm 64 (206)
Goldfield, NV	04/10/91	95 \pm 90 (295)
	04/10/91	-69 \pm 88 (291)
	04/10/91	88 \pm 88 (288)
Henderson, NV	03/13/91	127 \pm 97 (315)
	03/13/91	77 \pm 96 (316)
Indian Springs, NV	06/25/91	-14 \pm 90 (297)
	06/25/91	74 \pm 97 (319)
	08/28/91	-19 \pm 75 (248)
	08/28/91	-57 \pm 74 (245)
	08/28/91	19 \pm 76 (250)

(a) Multiply the results by 3.7×10^7 to obtain Bq/L.

(b) Concentration is greater than the MDC.

Table D.3 (Tritium in Urine, Offsite Internal Dosimetry Network - 1991, cont.)

Sampling Location	Collection Date in 1991	Concentration \pm 1s (MDC)	
		$\times 10^{-9}$ $\mu\text{Ci/mL}^{(a)}$	
Amargosa Farm Area, NV Nyala, NV	07/23/91	-14 \pm	91 (301)
	01/11/91	126 \pm	103 (337)
	01/11/91	-30 \pm	103 (339)
	01/18/91	55 \pm	88 (290)
	07/18/91	105 \pm	95 (310)
	07/18/91	-36 \pm	92 (305)
	07/18/91	42 \pm	92 (302)
Overton, NV	01/04/91	161 \pm	104 (340)
	01/04/91	83 \pm	102 (333)
	01/04/91	166 \pm	103 (335)
	01/04/91	187 \pm	102 (330)
	01/04/91	81 \pm	102 (335)
	01/04/91	232 \pm	102 (332)
	05/08/91	86 \pm	88 (286)
	05/08/91	375 \pm	97 (311) ^(b)
	05/08/91	134 \pm	88 (287)
	05/08/91	28 \pm	88 (289)
	05/08/91	152 \pm	90 (293)
	12/18/91	56 \pm	63 (207)
	12/18/91	-78 \pm	62 (205)
	12/18/91	10 \pm	62 (205)
12/18/91	114 \pm	63 (206)	
12/18/91	32 \pm	62 (205)	
Pahrump, NV	03/13/91	166 \pm	97 (315)
	08/02/91	-88 \pm	90 (297)
	08/02/91	-93 \pm	90 (300)
	08/02/91	-66 \pm	91 (301)
	08/02/91	79 \pm	92 (300)
Pioche, NV	04/05/91	81 \pm	91 (289)
	04/05/91	4 \pm	88 (289)
	04/05/91	12 \pm	89 (294)
	04/05/91	-45 \pm	87 (289)
	05/04/91	112 \pm	90 (293)
	09/26/91	109 \pm	85 (279)
	09/26/91	21 \pm	84 (278)
09/26/91	181 \pm	87 (282)	

(a) Multiply the results by 3.7×10^7 to obtain Bq/L.

(b) Concentration is greater than the MDC.

Table D.3 (Tritium in Urine, Offsite Internal Dosimetry Network - 1991, cont.)

Sampling Location	Collection Date in 1991	Concentration \pm 1s (MDC)
		$\times 10^{-9}$ $\mu\text{Ci}/\text{mL}^{(a)}$
<i>Pioche, NV (cont.)</i>	09/26/91	121 \pm 86 (218)
	09/26/91	116 \pm 85 (278)
	10/15/91	58 \pm 87 (284)
	10/15/91	164 \pm 92 (300)
Rachel, NV	04/22/91	78 \pm 88 (288)
	04/22/91	357 \pm 91 (293) ^(b)
	04/22/91	201 \pm 88 (285)
	04/22/91	289 \pm 90 (289)
	04/22/91	260 \pm 89 (285)
	09/10/91	11 \pm 76 (249)
Cedar City, UT	12/13/91	108 \pm 63 (204)
	12/13/91	148 \pm 64 (206)
	12/13/91	79 \pm 68 (222)
	12/13/91	92 \pm 64 (208)
	12/13/91	93 \pm 63 (206)

(a) Multiply the results by 3.7×10^7 to obtain Bq/L.

(b) Concentration is greater than the MDC.

Table D.4 Long-Term Hydrological Monitoring Program Analytical Results for NTS Locations Sampled Monthly - 1991

Sampling Location	Collection Date in 1991	Concentration \pm 1s of Tritium (pCi/L)	Percent of Concentration Guide ^(a)
Well 1 Army	01/03	0.4 \pm 3.3	NA
	02/05	0.8 \pm 2.6	NA
	03/13	-2.2 \pm 3.6	NA
	04/08	-1.9 \pm 3.3	NA
	05/08	1.4 \pm 2.9	NA
	06/03	4.3 \pm 3.4	NA
	07/09	-2.6 \pm 1.9	NA
	08/06	-2.9 \pm 1.7	NA
	09/04	-0.2 \pm 2.3	NA

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

NS Not sampled.

Table D.4 (Long-Term Hydrological Monitoring Program Analytical Results for NTS Locations Sampled Monthly - 1991, cont.)

Sampling Location	Collection Date in 1991	Concentration \pm 1s of Tritium (pCi/L)	Percent of Concentration Guide ^(a)
Well 1 Army, (cont.)	10/07	-2.9 \pm 1.6	NA
	11/13	-2.1 \pm 1.8	NA
	12/09	0.9 \pm 1.6	NA
Well 2	Well Shut Down Throughout 1991		
Well 3	01/22	1.7 \pm 2.7	NA
	02/13	3.8 \pm 3	NA
	03/08	-2.6 \pm 3.9	NA
	04/03	2.5 \pm 3	NA
	05/02	7.6 \pm 2.7	NA
	06/05	-2.1 \pm 3	NA
	07/08	-0.4 \pm 1.7	NA
	08/14	0 \pm 1.8	NA
	09/10	3.3 \pm 2.6	NA
	10/17	1 \pm 1.7	NA
	11/21	1.5 \pm 1.3	NA
	12/12	2.2 \pm 1.9	NA
Well 4	01/22	5.8 \pm 3.3	NA
	02/13	4.8 \pm 2.9	NA
	03/08	-2.1 \pm 2.9	NA
	04/03	-2.5 \pm 2.9	NA
	05/02	3.4 \pm 2.6	NA
	06/05	-0.4 \pm 3.2	NA
	07/08	NS - Well Down	
	08/14	-3.8 \pm 1.7	NA
	09/10	0 \pm 2.4	NA
	10/17	1 \pm 2.4	NA
	11/21	-2.1 \pm 1.8	NA
	12/12	2.5 \pm 2.1	NA
Well 4 CP-1	01/03	-1.4 \pm 2.8	NA
	02/05	4.9 \pm 2.4	NA
	03/13	-3.9 \pm 3.1	NA
	04/08	3 \pm 2.4	NA
	05/08	1.4 \pm 2.5	NA
	06/03	-3.6 \pm 2.3	NA
	07/09	0.6 \pm 1.7	NA
	08/06	-4.6 \pm 1.6	NA

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

NS Not sampled.

Table D.4 (Long-Term Hydrological Monitoring Program Analytical Results for NTS Locations Sampled Monthly - 1991, cont.)

<u>Sampling Location</u>	<u>Collection Date in 1991</u>	<u>Concentration \pm 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
<i>Well 4 CP-1, (cont.)</i>	09/04	-0.9 \pm 2.3	NA
	10/07	-2.5 \pm 2.1	NA
	11/13	-2 \pm 1.7	NA
	12/09	-1.1 \pm 1.9	NA
Well 5	01/22	-5.6 \pm 2.9	NA
	02/13	1 \pm 3	NA
	03/08	-1.3 \pm 3.1	NA
	04/03	-1.8 \pm 3.1	NA
	05/02	4.2 \pm 2.9	NA
	06/05	2.9 \pm 2.9	NA
	07/08	-0.9 \pm 1.7	NA
	08/14	-1.6 \pm 1.4	NA
	09/10	0.8 \pm 2.6	NA
	10/18	4 \pm 2.7	NA
	11/21	2.2 \pm 1.8	NA
	12/12	1.8 \pm 1.5	NA
Well 5C	01/03	2.1 \pm 3	NA
	02/05	2.6 \pm 2.3	NA
	03/13	2 \pm 2	NA
	04/08	3.7 \pm 2.9	NA
	05/08	3.4 \pm 2	NA
	06/03	-2.1 \pm 2.3	NA
	07/09	0.6 \pm 1.7	NA
	08/06	0 \pm 1.6	NA
	09/04	-1.2 \pm 2	NA
	10/07	-0.9 \pm 1.6	NA
	11/13	-2.7 \pm 1.5	NA
	12/09	0 \pm 1.9	NA
Well 6 ^(b)	09/10	-1.9 \pm 1.7	NA
	10/17	-0.7 \pm 2.7	NA
	11/21	1.9 \pm 1.6	NA
	12/12	-2.2 \pm 1.8	NA
Well 8	01/03	-0.6 \pm 2.5	NA
	02/05	3.5 \pm 2.6	NA
	03/13	-8.7 \pm 3.5	NA
	04/08	-2.2 \pm 3.3	NA

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

(b) New sampling location.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

Table D.4 (Long-Term Hydrological Monitoring Program Analytical Results for NTS Locations Sampled Monthly - 1991, cont.)

<u>Sampling Location</u>	<u>Collection Date in 1991</u>	<u>Concentration \pm 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
Well 8, (cont.)	05/08	-0.7 \pm 1.9	NA
	06/03	3.1 \pm 2.3	NA
	07/09	2.8 \pm 1.8	NA
	08/06	-2.3 \pm 1.4	NA
	09/03	1.1 \pm 2	NA
	10/07	0 \pm 1.5	NA
	11/13	-0.4 \pm 2.5	NA
	12/09	1.4 \pm 4	NA
Well 20	01/03	-0.7 \pm 2.3	NA
	02/05	0.9 \pm 1.9	NA
	03/13	1.5 \pm 2.6	NA
	04/08	2.3 \pm 2.9	NA
Well Shut Down Remainder of 1991			
Well A	Well Shut Down Throughout 1991		
Well B Test	01/02	130 \pm 4	0.14
	02/06	110 \pm 3	0.12
	03/13	NS - Pump Locked	
	04/08	120 \pm 3	0.13
	05/09	120 \pm 3	0.13
	06/04	99 \pm 3	0.11
	07/10	110 \pm 3	0.12
	08/07	120 \pm 3	0.13
	09/17	120 \pm 3	0.13
	10/08	NS - Road Closed	
	11/12	120 \pm 2	0.13
	12/10	110 \pm 3	0.12
	Well C	01/03	11 \pm 2.8
02/05		20 \pm 2.5	0.022
03/13		34 \pm 3.6	0.038
04/08		62 \pm 2.8	0.069
05/08		47 \pm 2.8	0.052
06/03		15 \pm 2.8	0.017
07/09		17 \pm 2.5	0.019
08/06		15 \pm 2.1	0.017
09/03		12 \pm 2.1	0.013
10/07		8.7 \pm 1.9	0.010
11/13		16 \pm 1.9	0.018

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

NS Not sampled.

Table D.4 (Long-Term Hydrological Monitoring Program Analytical Results for NTS Locations Sampled Monthly - 1991, cont.)

<u>Sampling Location</u>	<u>Collection Date in 1991</u>	<u>Concentration \pm 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
Well C, (cont.)	12/09	19 \pm 2.1	0.021
Well J-12	01/03	0.2 \pm 3	NA
	02/05	-0.08 \pm 2.4	NA
	03/13	-3.1 \pm 3.3	NA
	04/08	2.4 \pm 2.8	NA
	05/08	3.9 \pm 3.5	NA
	06/03	-4.3 \pm 3.4	NA
	07/09	1.9 \pm 2.2	NA
	08/06	0 \pm 1.7	NA
	09/04	-1 \pm 1.8	NA
	10/07	-2 \pm 1.6	NA
	11/13	0 \pm 1.5	NA
	12/09	1.3 \pm 2.2	NA
Well J-13	01/03	-3.4 \pm 3	NA
	02/05	2.1 \pm 3.3	NA
	03/13	-1.9 \pm 3.1	NA
	04/08	2.3 \pm 3.1	NA
	05/08	NS - Pump Down	
	06/03	-2.1 \pm 3	NA
	07/09	-0.4 \pm 1.7	NA
	08/06	-3.5 \pm 1.6	NA
	09/04	1.2 \pm 2.9	NA
	10/07	3.4 \pm 2.5	NA
	11/13	0 \pm 1.4	NA
	12/09	0 \pm 1.7	NA
Well UE19C	01/03	3.5 \pm 2.6	NA
	02/05	2.9 \pm 2.8	NA
	03/13	0.4 \pm 2.7	NA
	04/08	2.8 \pm 3.5	NA
	05/08	-1 \pm 2.9	NA
	06/03	-1.8 \pm 2.8	NA
	07/09	-1.7 \pm 1.6	NA
	08/06	0 \pm 1.5	NA
	09/03	-0.3 \pm 2.2	NA
	10/07	1.7 \pm 2.7	NA
	11/13	1.1 \pm 1.9	NA
	12/09	0 \pm 1.5	NA

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

NS Not sampled.

Table D.5 Long-Term Hydrological Monitoring Program Analytical Results for NTS Locations Sampled Semiannually - 1991

<u>Sampling Location</u>	<u>Collection Date in 1991</u>	<u>Concentration \pm 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
Well 5B		Well Shut Down	
Well 6A Army	04/09 07/11	NS - Generator Down 1.8 \pm 1.7	NA
Well 7 Test	01/02 07/11	NS - Road Blocked -110 \pm 125	NA
Well C-1	04/08 10/07	22 \pm 3.5 110 \pm 94	0.024 NA
Well D Test	01/02 07/10	7.6 \pm 2.3 0 \pm 126	NA NA
Well HTH-1	06/04 12/16	0.9 \pm 2 35 \pm 2	NA NA
Well U3CN-5		Well Shut Down Throughout 1991	
Well UE1C	01/02 07/10	0.9 \pm 2.3 150 \pm 126	NA NA
Well UE-4T	02/13 09/17	NS - Road Closed 420 \pm 132	NA
Well UE5C	03/13 09/04 10/07	6.7 \pm 3 260 \pm 132 -98 \pm 93	NA NA NA
Well UE-6D	03/13 09/10	NS - Instruments in Hole NS - Insufficient Water	
Well UE6E	03/13 09/17	NS - No Access 300 \pm 132	NA
Well UE7NS		Well Shut Down Throughout 1991 Last Sampled September 1987	

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

NS Not sampled.

Table D.5 (Long-Term Hydrological Monitoring Program Analytical Results for NTS Locations Sampled Semiannually - 1991, cont.)

<u>Sampling Location</u>	<u>Collection Date in 1991</u>	<u>Concentration \pm 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
Well UE15D	04/08 10/07	76 \pm 3.3 NS - Pump Down	0.084
Well UE16D	05/08 11/13	31 \pm 2.8 0 \pm 1.6	0.034 NA
Well UE-16F	05/09 11/14	11 \pm 2.7 9.9 \pm 1.7	0.012 0.011
Well UE-17A	05/09 11/14	-4.3 \pm 2.7 2.8 \pm 1.6	NA NA
Well UE18R	06/04 12/16	-3.2 \pm 2.6 -1.2 \pm 2.1	NA NA
Well UE-18T	09/17 12/16	160 \pm 3 NS - Road Blocked	0.18

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

NS Not sampled.

Table D.6 Long-Term Hydrological Monitoring Program Analytical Results for Locations in the NTS Vicinity - 1991

<u>Sampling Location</u>	<u>Collection Date in 1991</u>	<u>Concentration \pm 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
Amargosa Valley, NV Well Mary Nickell's	02/04 06/11 08/12	0.7 \pm 2.4 1 \pm 2.4 210 \pm 131	NA NA NA
Shoshone, CA Shoshone Spring	02/05 08/05	33 \pm 2.9 310 \pm 132	0.037 NA
Adaven, NV Adaven Spring	01/03 07/02 08/06	27 \pm 4 0 \pm 126 340 \pm 132	0.030 NA NA

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

Table D.6 (Long-Term Hydrological Monitoring Program Analytical Results for Locations in the NTS Vicinity - 1991, cont.)

<u>Sampling Location</u>	<u>Collection Date in 1991</u>	<u>Concentration \pm 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
Alamo, NV Well 4 City	01/28	5 \pm 2.4	NA
	07/03	110 \pm 126	NA
Ash Meadows, NV Crystal Pool	05/10	-2.8 \pm 2.8	NA
	11/19	80 \pm 73	NA
Fairbanks Springs	05/10	0.4 \pm 2.8	NA
	11/14	0 \pm 73	NA
Spring-17S-50E-14CAC	06/11	-0.9 \pm 2.3	NA
	12/02	220 \pm 126	NA
Well 18S-51E-7DB	05/10	2.9 \pm 2.9	NA
	11/19	40 \pm 73	NA
Beatty, NV Specie Springs	01/10	-440 \pm 145	NA
	07/12	1.8 \pm 1.7	NA
Tolicha Peak	03/05	0 \pm 137	NA
	08/07	0.9 \pm 1.6	NA
Well 11S-48-1DD Coffers	01/10	-140 \pm 147	NA
	07/11	0.9 \pm 1.8	NA
Well 12S-47E-7DBD City	07/02	1 \pm 1.8	NA
Well Road D Spicers	02/19	7.7 \pm 3.2	NA
	08/07	0 \pm 1.7	NA
Younghans Ranch (House Well)	06/12	4.2 \pm 2.6	NA
	12/04	150 \pm 126	NA
Boulder City, NV Lake Mead Intake	03/11	39 \pm 137	NA
	09/05	69 \pm 3.5	0.077
	10/08	65 \pm 2.5	0.072
Clark Station, NV Well 6 TTR	02/12	47 \pm 138	NA
	08/08	0 \pm 1.6	NA

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

Table D.6 (Long-Term Hydrological Monitoring Program Analytical Results for Locations in the NTS Vicinity - 1991, cont.)

<u>Sampling Location</u>	<u>Collection Date in 1991</u>	<u>Concentration \pm 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
Hiko, NV			
Crystal Springs	07/01	36 \pm 126	NA
	08/07	270 \pm 132	NA
Indian Springs, NV			
Well 1 Sewer Company	03/04	165 \pm 138	NA
	09/03	-2.5 \pm 3	NA
Well 2 US Air Force	03/04	12 \pm 137	NA
	09/03	-3.3 \pm 2.9	NA
Johnnie, NV			
Well Johnnie Mine	03/19	-66 \pm 137	NA
	09/03	1.7 \pm 1.5	NA
Las Vegas, NV			
Well 28 Water District	03/11	39 \pm 137	NA
	09/06	0.9 \pm 1.6	NA
Lathrop Wells, NV			
City 15S-50E-18CDC	04/05	2.6 \pm 3	NA
	10/01	130 \pm 94	NA
Nyala, NV			
Sharp's Ranch	02/05	-230 \pm 137	NA
	08/08	2.7 \pm 1.6	NA
Oasis Valley, NV			
Goss Springs	08/07	0.8 \pm 1.6	NA
Pahrump, NV			
Calvada Well	08/05	270 \pm 132	NA
Rachel, NV			
Wells 7 & 8 Penoyer	05/07	-130 \pm 132	NA
	10/02	0.6 \pm 2.5	NA
Well 13 Penoyer	04/23	85 \pm 135	NA
	05/07	85 \pm 133	NA
Well Penoyer Culinary	04/01	-72 \pm 134	NA
	10/02	-3.8 \pm 2.1	NA
	10/02	1 \pm 2.8	NA
Tempiute, NV			
Union Carbide Well	02/06	20 \pm 138	NA
	09/11	0.9 \pm 6	NA
Tonopah, NV			
City Well	03/05	-90 \pm 137	NA
	09/04	-0.9 \pm 3.2	NA
Warm Springs, NV			
Twin Springs Ranch	04/03	NS	
	10/01	-5 \pm 2*	NA

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

NS Not sampled.

Table D.7 Long-Term Hydrological Monitoring Program Analytical Results for Project Faultless - 1991

<u>Sampling Location</u>	<u>Collection Date in 1991</u>	<u>Concentration \pm 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide</u>
Blue Jay, NV			
Hot Creek Ranch Spring	03/19	5 \pm 3	NA
Maintenance Station	03/19	-2.4 \pm 3	NA
Well Bias	03/19	0.8 \pm 2.6	NA
Well HTH-1	03/19	-6.2 \pm 3.4	NA
Well HTH-2	03/19	-6.7 \pm 3.3	NA
Well Six Mile	03/19	-6.1 \pm 3.5	NA

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

Table D.8 Long-Term Hydrological Monitoring Program Analytical Results for Project Shoal - 1991

<u>Sampling Location</u>	<u>Collection Date in 1991</u>	<u>Concentration \pm 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
Frenchmen Station, NV			
Hunt's Station	02/12	-2.3 \pm 2.7	NA
Smith/James Springs	02/13	67 \pm 3.4	0.074
Spring Windmill	02/12	0 \pm 3.3	NA
Well Flowing	02/12	-1.7 \pm 3	NA
Well H-3	02/13	NS - Pump Inoperative	
Well HS-1	02/13	-1.4 \pm 2.5	NA

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

NS Not sampled.

Table D.9 Long-Term Hydrological Monitoring Program Analytical Results for Project Rulison - 1991

<u>Sampling Location</u>	<u>Collection Date in 1991</u>	<u>Concentration \pm 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
Rulison, CO			
Lee Hayward Ranch	06/11	190 \pm 4	0.21
Potter Ranch	06/11	120 \pm 4	0.14
Robert Searcy RN	06/11	63 \pm 4	0.074
Felix Sefcovic Ranch	06/11	133 \pm 4	0.14
Grand Valley, CO			
Battlement Creek	06/11	56 \pm 3.1	0.062
City Springs	06/11	0.8 \pm 3.1	NA
Albert Gardner Ranch	06/11	110 \pm 4	0.12
Spring 300 Yrd N Of GZ	06/11	57 \pm 2.5	0.063
Well CER Test	06/11	57 \pm 2.1	0.063

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

Table D.10 Long-Term Hydrological Monitoring Program Analytical Results for Rio Blanco - 1991

<u>Collection Sampling Location</u>	<u>Collection Date in 1991</u>	<u>Concentration \pm 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
Rio Blanco, CO			
B-1 Equity Camp	06/13	60 \pm 2.9	0.067
Brennan Windmill	06/12	Not Sampled - Windmill Inoperative	
Cer No.1 Black Sulfur	06/13	60 \pm 2.9	0.067
Cer No.4 Black Sulfur	06/13	62 \pm 3.2	0.069
Fawn Creek 1	06/12	27 \pm 2.1	0.030
Fawn Creek 3	06/12	30 \pm 3	0.033
Fawn Creek 500Ft Upstream	06/12	29 \pm 2.1	0.032
Fawn Creek 6800Ft Upstream	06/12	34 \pm 2.3	0.038
Fawn Creek 500Ft Downstream	06/12	34 \pm 2.2	0.038
Fawn Creek 8400Ft Downstream	06/12	30 \pm 2.4	0.033
Well Johnson Artesian	06/12	-0.9 \pm 2.1	NA
Well RB-D-01	06/13	-0.3 \pm 3	NA
Well RB-D-03	06/13	0.9 \pm 3.1	NA
Well RB-S-03	06/13	2.9 \pm 2.8	0.003

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

Table D.11 Long-Term Hydrological Monitoring Program Analytical Results for Project Gnome - 1991

<u>Sampling Location</u>	<u>Collection Date in 1991</u>	<u>Concentration \pm 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
Malaga, NM			
Well 1 Pecos Pumping Station	06/24	NS - No Access	
Well DD-1	06/25	$8.8 \times 10^7 \pm 36000$	10^5 ⁽¹⁾
Well LRL-7	06/25	9300 ± 160	10 ⁽²⁾
Well PHS 6	06/22	41 ± 3.6	0.046
Well PHS 8	06/22	13 ± 3	0.014
		Sample from Stock Tank	
Well PHS 9	06/22	-1.1 ± 2.9	NA
		Sample from Stock Tank	
Well PHS 10	06/22	2 ± 3.5	NA
Well USGS 1	06/25	-1.3 ± 3.5	NA
Well USGS 4	06/25	148000 ± 440	160 ⁽³⁾
Well USGS 8	06/25	98600 ± 370	110 ⁽⁴⁾
Carlsbad, NM			
Well 7 City	06/24	3.1 ± 3.6	NA
Loving, NM			
Well 2 City	06/22	4.8 ± 3.2	NA

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

NS Not sampled.

<u>Analysis</u>	<u>Result</u>	<u>1 Standard Deviation</u>	<u>MDC</u>	<u>Units</u>
(1) Cs-137	778,000	6050	NA	pCi/L
Sr-90	15300	1260	2720	pCi/L
(2) Cs-137	243	9	NA	pCi/L
Sr-90	5.9	4.3	1.3	pCi/L
(3) Cs-137	15	3	NA	pCi/L
Sr-90	6080	49	13	pCi/L
(4) Cs-137	52	5	NA	pCi/L
Sr-90	4470	43	13	pCi/L

Table D.12 Long-Term Hydrological Monitoring Program Analytical Results for Project Gasbuggy - 1991

<u>Sampling Location</u>	<u>Collection Date in 1991</u>	<u>Concentration ± 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
Gobernador, NM			
Arnold Ranch	06/18	7.1 ± 1.7	0.079
Bixler Ranch	06/18	13 ± 2.1	0.014
Sample From House			
Bubbling Springs	06/18	48 ± 2.4	0.053
Cave Springs	06/16	56 ± 1.9	0.062
Cedar Springs	06/16	71 ± 5	0.079
La Jara Creek	06/19	40 ± 2.1	0.044
Lower Burro Canyon	06/19	42 ± 1.8	0.047
Well Old School House	06/17	4.9 ± 1.9	NA
New Sampling Location			
Pond N Well			
30.3.32.343	06/18	46 ± 2.2	0.051
Well EPNG 10-36	06/16	480 ± 4	NA
Well Jicarilla 1	06/19	25 ± 1.7	0.028
Sample From Stock Tank			
Well 28.3.33.233 (South)	06/19	50 ± 2.1	0.056
Well 30.3.32.343 (North)	06/18		
Windmill 2	06/19	Well Removed 0.9 ± 1.8	NA

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

Table D.13 Long-Term Hydrological Monitoring Program Analytical Results for Project Dribble - 1991

<u>Sampling Location</u>	<u>Collection Date in 1991(b)</u>	<u>Concentration ± 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
Onsite Sampling Locations			
Baxterville, MS			
Half Moon Creek	04/21	19 ± 2.6	0.021
	04/22	31 ± 3.3	0.034
Half Moon Creek Overflow	04/21	110 ± 3.3	0.12
	04/22	280 ± 4.1	0.31
Pond West Of GZ	04/21	8.9 ± 2.9	NA
	04/22	9.9 ± 3.8	NA
REECO Pit Drainage-A	04/24	20 ± 3.1	0.022

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

(b) If two dates shown, first date is for first sample, second date is for second sample or for sample after well was pumped.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

Table D.13 (Long-Term Hydrological Monitoring Program Analytical Results for Project Dribble - 1991, cont.)

<u>Sampling Location</u>	<u>Collection Date in 1991^(b)</u>	<u>Concentration ± 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
Onsite Sampling Locations			
REECO Pit Drainage-B	04/24	240 ± 5.5	0.27
REECO Pit Drainage-C	04/24	288 ± 4.2	0.32
Well E-7	04/23	8.5 ± 3	NA
Well HM-1	04/22	1.9 ± 2.7	NA
	04/22	0 ± 2.5	NA
Well HM-2A	04/22	-2.9 ± 2.6	NA
	04/22	-0.6 ± 3.3	NA
Well HM-2B	04/22	-1.2 ± 2.5	NA
	04/22	-0.5 ± 3	NA
Well HM-3	04/22	-4.1 ± 2.7	NA
	04/22	-2.5 ± 3.5	NA
Well HM-L	04/22	1300 ± 140	1.4
	04/22	850 ± 6.7	0.94
Well HM-L2	04/22	0.9 ± 2.9	NA
	04/22	-3.4 ± 3.6	NA
Well HM-S	04/21	7500 ± 170	8.3
	04/23	7600 ± 170	8.4
Well HMH-1	04/21	5000 ± 160	5.6
	04/22	14000 ± 190	15
Well HMH-2	04/21	7300 ± 170	8.1
	04/22	14000 ± 200	16
Well HMH-3	04/21	41 ± 3.5	0.045
	04/22	44 ± 2.7	0.049
Well HMH-4	04/21	14 ± 2.8	0.016
	04/21	18 ± 3.2	0.021
Well HMH-5	04/21	2200 ± 140	2.4
	04/22	2700 ± 150	3.0
Well HMH-6	04/21	210 ± 3.9	0.23
	04/22	170 ± 3.4	0.19
Well HMH-7	04/21	NS - Well Under Water	
Well HMH-8	04/21	16 ± 3.2	0.018
	04/22	22 ± 2.6	0.024
Well HMH-9	04/21	130 ± 3.8	0.154
	04/22	150 ± 3.5	0.17
Well HMH-10	04/21	91 ± 3.8	0.10
	04/22	35 ± 3.3	0.039
Well HMH-11	04/21	22 ± 2.4	0.024
	04/22	21 ± 3.3	0.023
Well HMH-12	04/21	16 ± 3.2	0.018
	04/22	17 ± 2.6	0.019
Well HMH-13	04/21	18 ± 3.2	0.020
	04/22	19 ± 3.4	0.021
Well HMH-14	04/21	16 ± 2.8	0.018
	04/22	11 ± 3.1	0.012

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

(b) If two dates shown, first date is for first sample, second date is for second sample or for sample after well was pumped.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

NS Not sampled.

Table D.13 (Long-Term Hydrological Monitoring Program Analytical Results for Project Dribble - 1991, cont.)

<u>Sampling Location</u>	<u>Collection Date in 1991(b)</u>	<u>Concentration ± 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
Onsite Sampling Locations			
Well HMH-15	04/21	18 ± 3.2	0.021
	04/22	8.9 ± 2.5	0.010
Well HMH-16	04/21	31 ± 2.8	0.034
	04/22	38 ± 2.8	0.042
Well HT-2C	04/23	18 ± 3.6	0.020
Well HT-4	04/23	7.6 ± 3	NA
Well HT-5	04/23	4.2 ± 3.3	NA
Offsite Sampling Locations			
Baxterville, MS			
Little Creek #1	04/23	21 ± 3.7	0.023
Lower Little Creek #2	04/23	20 ± 3.1	0.022
Salt Dome Hunting Club	04/24	33 ± 4	0.037
Salt Dome Timber Co. Anderson Pond	04/22	26 ± 3	0.029
	04/22	13 ± 3	0.014
Anderson, Billy Ray	04/22	19 ± 2.4	0.021
Anderson, Regina	04/22	18 ± 3.2	0.020
Anderson, Robert Harvey	04/22	16 ± 2.3	0.018
Anderson, Robert Lowell	04/22	14 ± 2.3	0.016
	04/22	26 ± 3.1	0.029
Burge, Joe	04/22	18 ± 3.5	0.020
Chambliss, B.	04/23	-4 ± 2.7	NA
Daniels, Ray	04/22	27 ± 2.5	0.030
Daniels, Webster Jr.	04/22	14 ± 3.1	0.016
Daniels Well #2 Fish Pond	04/22	24 ± 2.3	0.027
Kelly Gertrude	04/22	-3.6 ± 2.2	NA
King, Rhonda	04/22	20 ± 3.2	0.022
Lee, P. T.	04/22	44 ± 3	0.049
Lowe, M.	04/23	NS - On Public Supply	
Mills, A. C.	04/22	0.5 ± 2.3	NA
Mills, Roy	04/22	20 ± 2.3	0.022
Nobles Pond	04/22	21 ± 3.3	0.023
Noble's Quail House	04/23	48 ± 3.9	0.053
Noble, W. H., Jr.	04/22	36 ± 3.5	0.040
Ready, R C	04/22	37 ± 2.4	0.041
Saucier, Dennis	04/22	40 ± 3.2	0.044
Saucier, Talmadge S.	04/23	28 ± 2.9	0.031
Saucier, Wilma/Yancy	04/23	1.1 ± 3.3	NA
Smith, Rita	04/22	NS - Moved, Well Down	
Well Ascot 2	04/23	NS - Well in Water	

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

(b) If two dates shown, first date is for first sample, second date is for second sample or for sample after well was pumped.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

NS Not sampled.

Table D.13 (Long-Term Hydrological Monitoring Program Analytical Results for Project Dribble - 1991, cont.)

<u>Sampling Location</u>	<u>Collection Date in 1991^(b)</u>	<u>Concentration ± 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
Offsite Sampling Locations			
Well City	04/23	33 ± 3.1	0.037
Columbia, MS			
Dennis, Buddy	04/23	14 ± 2.1	0.016
Dennis, Marvin	04/23	26 ± 2.8	0.029 ⁽¹⁾
Well 64B City	04/23	17 ± 3.2	0.019
Lumberton, MS			
Anderson, G W	04/22	27 ± 2.6	0.030
Anderson, Lee L	04/22	26 ± 3.4	0.029
Bond, Bradley K	04/22	28 ± 3	0.029
Cox, Eddie	04/24	36 ± 3.4	0.040 ⁽²⁾
Gil Ray's Crawfish Pond	04/23	13 ± 2.7	0.014
Gipson, Herman	04/22	21 ± 2.3	0.023
Graham, Sylvester	04/23	-2.6 ± 3.3	NA
Moree, Rita-House Well	04/23	4.8 ± 2.3	NA
Beach, Donald	04/22	NS - Moved, Well Down	
Powers, Sharon	04/22	18 ± 3	0.020
Rushing, Debra	04/24	34 ± 3.3	0.038
Saul, Lee L	04/23	-1.3 ± 3.3	NA
Smith, Howard	04/23	0.1 ± 2.3	NA
Smith, Howard-Pond	04/23	18 ± 2.4	0.020 ⁽³⁾
Well 2 City	04/23	4.7 ± 2.9	NA
Purvis, MS			
Burge Willie Ray and Grace	04/22	15 ± 2.4	0.018
City Supply	04/22	6.4 ± 2.9	NA
Gil, Ray-House Well	04/22	2.6 ± 3.1	NA

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

(b) If two dates shown, first date is for first sample, second date is for second sample or for sample after well was pumped.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

NS Not sampled.

<u>Analysis</u>	<u>Result</u>	<u>1 Standard Deviation</u>	<u>MDC</u>	<u>Units</u>
(1) U-238	0.035	0.019	0.033	μCi/L
(2) U-238	0.022	0.011	0.017	μCi/L
(3) U-234	0.054	0.019	0.044	μCi/L
U-238	0.071	0.016	0.016	μCi/L

Table D.14 Long-Term Hydrological Monitoring Program Analytical Results for Amchitka Island, Alaska - 1991

<u>Sampling Location</u>	<u>Collection Date in 1991</u>	<u>Concentration \pm 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
<u>Background Sites</u>			
Clevenger Lake	09/21	25 \pm 2.7	0.028
Constantine Spring	09/21	42 \pm 2.8 ⁽¹⁾	0.047
Constantine Sprg-Pump House	09/21	39 \pm 1.9 ⁽²⁾	0.043
RX-Site Pump House	09/24	18 \pm 1.7 ⁽³⁾	0.020
TX-Site Springs	09/24	24 \pm 2 ⁽⁴⁾	0.027
TX-Site Water Tank House	09/24	23 \pm 1.9 ⁽⁵⁾	0.026
Duck Cove Creek	09/23	19 \pm 2.6	0.021
Jones Lake	09/21	18 \pm 2.1	0.020
Site D Hydro Explore Hole	09/23	NS - Hole Plugged	
Site E Hydro Explore Hole	09/23	NS - Oil in Hole	
Well 1 Army	09/21	28 \pm 2	0.031
Well 2 Army	09/23	16 \pm 1.7	0.018
Well 3 Army	09/22	NS - Hole Plugged	
Well 4 Army	09/23	35 \pm 2	0.039
<u>Project Cannikin</u>			
Cannikin Lake (North End)	09/21	20 \pm 2	0.022
Cannikin Lake (South End)	09/21	24 \pm 2.1	0.027
DK-45 Lake	09/23	23 \pm 3	0.026

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

NS Not sampled.

<u>Analysis</u>	<u>Result</u>	<u>1 Standard Deviation</u>	<u>MDC</u>	<u>Units</u>
(1) Beta	7.0	0.74	1.9	μ Ci/L
(2) Alpha	2.9	0.70	1.5	μ Ci/L
Beta	7.3	0.75	1.9	μ Ci/L
(3) Alpha	1.3	0.34	0.8	μ Ci/L
Beta	2.6	0.36	1.0	μ Ci/L
(4) Alpha	1.7	0.37	0.7	μ Ci/L
Beta	3	0.34	0.8	μ Ci/L
(5) Alpha	1.4	0.36	0.8	μ Ci/L
Beta	7.2	0.45	0.9	μ Ci/L

Table D.14 (Long-Term Hydrological Monitoring Program Analytical Results for Amchitka Island, Alaska - 1991, cont.)

<u>Sampling Location</u>	<u>Collection Date in 1991</u>	<u>Concentration \pm 1s of Tritium (pCi/L)</u>	<u>Percent of Concentration Guide^(a)</u>
Ice Box Lake	09/21	22 \pm 2.1	0.024
Pit South Of Cannikin GZ	09/21	19 \pm 1.9	0.021
Well HTH-3	09/21	28 \pm 1.8	0.031
White Alice Creek	09/21	18 \pm 2.4	0.020
<u>Project Long Shot</u>			
Long Shot Pond 1	09/22	14 \pm 2.8	0.016
Long Shot Pond 2	09/22	21 \pm 2.9	0.023
Long Shot Pond 3	09/22	27 \pm 2.9	0.030
Mud Pit No.1	09/22	190 \pm 3	NA
Mud Pit No.2	09/22	240 \pm 3	NA
Mud Pit No.3	09/22	280 \pm 3	NA
Reed Pond	09/22	23 \pm 2	0.026
Stream East-Longshot	09/23	190 \pm 3	0.21
Well EPA-1	09/22	17 \pm 2.8	0.019
Well GZ No.1	09/23	1130 \pm 99	1.2
Well GZ No.2	09/23	65 \pm 2.3	0.074
Well WL-1	09/22	17 \pm 1.8	0.018
Well WL-2	09/22	78 \pm 2.2	0.090
<u>Project Milrow</u>			
Clevenger Creek	09/22	22 \pm 2.3	0.024
Heart Lake	09/22	15 \pm 2	0.017
Well W-2	09/22	18 \pm 2.2	0.020
Well W-3	09/22	16 \pm 2.8	0.018
Well W-4	09/22	NS - Well Dry	
Well W-5	09/22	15 \pm 2.2	0.017
Well W-6	09/22	17 \pm 2.4	0.019
Well W-7	09/22	19 \pm 3	0.021
Well W-8	09/22	20 \pm 2	0.022
Well W-9	09/22	NS - Well In Water	
Well W-10	09/22	22 \pm 1.9	0.024
Well W-11	09/22	44 \pm 2.9	0.049
Well W-12	09/22	NS - Well In Water	
Well W-13	09/22	29 \pm 2.1	0.032
Well W-14	09/22	19 \pm 2.1	0.021
Well W-15	09/22	18 \pm 1.8	0.020
Well W-16	09/22	NS - Well In Water	
Well W-17	09/22	NS - Well In Water	
Well W-18	09/22	27 \pm 2.1	0.030
Well W-19	09/22	NS - Well in Water	

(a) Guide for 4 mrem is 90,000 pCi/L using ICRP-30 ALI. Values are calculated only for results >MDC.

NA Percent of concentration guide is not applicable either because the tritium result is less than the MDC or because the water is known to be nonpotable.

NS Not sampled.

APPENDIX E

RADIOACTIVE NOBLE GASES IN AIR ON SITE

Robert R. Kinnison

The 1991 data consist of krypton and xenon concentrations from seven permanent stations collected over the entire year, and several portable stations used for short periods of time to monitor test events. After the first quarter of the year the Area 15 station was moved approximately one and one-half miles southeast from the Piledriver vicinity to the EPA Farm. The U19ac station is resampling at the location of the TIERRA event which occurred in 1984. The U19ba station is at the location of the BEXAR event. The U20bf station is at the location of the MONTELLO event. The U20be station is at the location of the HOYA event. These event locations are not considered environmental monitoring and thus will be included in the summary statistics tables but not in the statistical hypothesis testing. The event monitoring is discussed in detail in Section 5.1.1 of Volume I of this annual report. The information is comprised of (1) an alphabetic station description, (2) the dates sample collection started and ended, (3) the krypton and xenon concentrations in 10^{-12} $\mu\text{Ci/mL}$ with one analytic standard deviation (1s), and the analytic detection limit for xenon only. The units of 10^{-12} microcuries per milliliter are equivalent to picocuries per m^3 . Table E.1 contains these data. An asterisk denotes a missing value. There are a number of the xenon data values that are negative; this occurs when the background count is higher than the sample count, since the tabled value is the sample minus the background. Many of the rows in Table E.1 are averages of replicate samples. While negative concentrations have no physical meaning, they are essential for calculating unbiased summary statistics.

Table E.1 Sample Results for ^{133}Xe and ^{85}Kr - 1991

Sampling Location	Sampling Dates		Kr $\mu\text{Ci/m}^3$	Kr 1s	Xe $\mu\text{Ci/m}^3$	Xe 1s	Xe Detection Limit
	Start	End					
Area 1, BJY	01/08/91	01/15/91	22.5	0.7	39.5	14.70	*
Area 1, BJY	01/15/91	01/22/91	27.0	1.0	5.0	2.50	*
Area 1, BJY	01/22/91	01/28/91	27.0	1.0	32.0	9.35	*
Area 1, BJY	01/28/91	02/05/91	26.0	1.0	23.0	9.00	*
Area 1, BJY	02/05/91	02/11/91	28.0	0.9	18.3	7.60	*
Area 1, BJY	02/11/91	02/19/91	22.0	1.1	-10.7	7.00	*
Area 1, BJY	02/19/91	02/25/91	24.0	1.0	9.6	4.55	*
Area 1, BJY	02/25/91	03/06/91	25.0	1.0	36.3	4.95	*
Area 1, BJY	03/06/91	03/12/91	24.0	1.0	8.1	3.10	*
Area 1, BJY	03/12/91	03/19/91	20.5	1.3	7.0	4.20	*
Area 1, BJY	03/19/91	03/27/91	29.7	0.9	55.2	6.55	*
Area 1, BJY	03/27/91	04/02/91	23.9	1.2	26.2	19.50	*
Area 1, BJY	04/02/91	04/09/91	21.6	0.8	-16.0	7.20	*
Area 1, BJY	04/09/91	04/15/91	25.4	1.3	-7.5	8.85	*
Area 1, BJY	04/15/91	04/22/91	24.7	1.2	2.7	3.35	*

* Missing data value

Table E.1 (Sample Results for ¹³³Xe and ⁸⁵Kr, cont.)

Sampling Location	Sampling Dates		Kr pCi/m ³	Kr 1s	Xe pCi/m ³	Xe 1s	Xe Detection Limit
	Start	End					
Area 1, BJY	04/22/91	04/29/91	20.2	0.8	25.5	9.50	*
Area 1, BJY	04/29/91	05/07/91	14.2	0.9	5.0	3.75	*
Area 1, BJY	05/07/91	05/14/91	18.8	1.2	26.3	9.00	*
Area 1, BJY	05/14/91	05/21/91	18.2	1.1	-3.0	21.55	*
Area 1, BJY	05/21/91	05/28/91	18.9	0.8	-42.4	13.45	*
Area 1, BJY	05/28/91	06/03/91	19.1	0.8	56.1	22.25	*
Area 1, BJY	06/03/91	06/11/91	31.2	0.6	45.6	3.65	*
Area 1, BJY	06/11/91	06/17/91	23.6	0.6	51.9	13.20	*
Area 1, BJY	06/17/91	06/24/91	*	*	-4.2	3.75	25.4
Area 1, BJY	06/24/91	07/01/91	22.6	0.6	28.7	4.45	23.4
Area 1, BJY	07/01/91	07/07/91	23.9	0.7	-4.4	10.50	25.0
Area 1, BJY	07/09/91	07/15/91	26.3	0.9	3.6	7.30	25.2
Area 1, BJY	07/15/91	07/23/91	22.5	0.9	-2.8	38.00	25.0
Area 1, BJY	07/23/91	07/29/91	21.3	0.8	-7.5	5.20	26.3
Area 1, BJY	07/29/91	08/06/91	20.7	0.9	4.6	5.65	24.6
Area 1, BJY	08/06/91	08/12/91	29.5	0.9	10.7	5.85	24.3
Area 1, BJY	08/12/91	08/19/91	*	*	51.5	9.70	24.0
Area 1, BJY	08/19/91	08/26/91	25.7	1.2	54.5	12.65	24.7
Area 1, BJY	08/26/91	09/03/91	*	*	32.0	7.45	24.4
Area 1, BJY	09/03/91	09/09/91	23.7	0.8	43.2	11.25	24.1
Area 1, BJY	09/09/91	09/16/91	*	*	28.5	8.70	23.7
Area 1, BJY	09/16/91	09/24/91	24.8	0.9	8.6	6.35	24.7
Area 1, BJY	09/24/91	10/01/91	*	*	17.2	7.25	24.2
Area 1, BJY	10/01/91	10/08/91	27.0	0.9	11.8	5.75	23.7
Area 1, BJY	10/08/91	10/15/91	21.1	0.8	3.8	3.65	25.3
Area 1, BJY	10/15/91	10/22/91	24.3	1.1	19.8	19.25	24.7
Area 1, BJY	10/22/91	10/31/91	27.4	0.8	72.0	16.95	23.5
Area 1, BJY	10/31/91	11/04/91	23.1	1.2	3.5	3.55	25.0
Area 1, BJY	11/04/91	11/12/91	20.6	1.7	-6.8	10.75	24.3
Area 1, BJY	11/12/91	11/18/91	25.1	0.6	12.3	3.20	24.1
Area 1, BJY	11/18/91	11/25/91	26.1	0.9	9.0	5.65	22.7
Area 1, BJY	11/25/91	12/03/91	34.1	1.3	39.7	6.40	23.5
Area 1, BJY	12/03/91	12/09/91	24.4	1.1	3.1	2.60	23.4
Area 1, BJY	12/09/91	12/16/91	25.2	1.4	21.1	16.90	31.2
Area 1, BJY	12/16/91	12/23/91	23.0	0.6	31.2	25.30	23.3
Area 1, BJY	12/23/91	12/30/91	24.5	0.6	5.5	2.05	23.5
Area 1, Gravel Pit	01/02/91	01/09/91	17.0	1.0	-1.8	6.10	*
Area 1, Gravel Pit	01/09/91	01/15/91	*	*	12.2	5.20	*
Area 1, Gravel Pit	01/15/91	01/23/91	20.0	1.0	-78.6	100.	*
Area 1, Gravel Pit	01/23/91	01/29/91	*	*	-43.2	10.35	*
Area 1, Gravel Pit	01/29/91	02/05/91	28.0	1.5	-24.7	12.75	*
Area 1, Gravel Pit	02/05/91	02/12/91	22.0	1.1	-12.6	8.45	*
Area 1, Gravel Pit	02/12/91	02/19/91	22.0	1.5	-1.7	6.75	*
Area 1, Gravel Pit	02/19/91	02/25/91	27.0	1.0	2.0	8.00	*

* Missing data value

Table E.1 (Sample Results for ^{133}Xe and ^{85}Kr , cont.)

Sampling Location	Sampling Dates		Kr pCi/m ³	Kr 1s	Xe pCi/m ³	Xe 1s	Xe Detection Limit
	Start	End					
Area 1, Gravel Pit	02/25/91	03/06/91	*	*	*	*	*
Area 1, Gravel Pit	03/07/91	03/12/91	19.0	0.9	18.8	10.70	*
Area 1, Gravel Pit	03/12/91	03/19/91	24.0	1.2	8.0	3.00	*
Area 1, Gravel Pit	03/19/91	03/27/91	30.8	0.8	37.1	4.35	*
Area 1, Gravel Pit	03/27/91	04/02/91	20.5	0.6	79.2	2.50	*
Area 1, Gravel Pit	04/02/91	04/08/91	26.0	1.4	4.2	7.95	*
Area 1, Gravel Pit	04/08/91	04/15/91	23.2	0.6	11.5	3.55	*
Area 1, Gravel Pit	04/15/91	04/23/91	22.9	1.2	15.8	23.45	*
Area 1, Gravel Pit	04/23/91	04/30/91	17.7	0.8	244.9	100.	*
Area 1, Gravel Pit	04/30/91	05/07/91	26.0	0.8	3.4	3.45	*
Area 1, Gravel Pit	05/07/91	05/13/91	*	*	13.7	4.60	*
Area 1, Gravel Pit	05/13/91	05/21/91	24.7	1.4	101.0	22.50	25.6
Area 1, Gravel Pit	05/21/91	05/28/91	22.0	0.9	-16.7	13.80	*
Area 1, Gravel Pit	05/28/91	06/05/91	23.8	0.6	25.7	10.15	*
Area 1, Gravel Pit	06/05/91	06/10/91	20.9	0.9	64.8	15.15	*
Area 1, Gravel Pit	06/10/91	06/17/91	21.9	0.8	-26.3	17.35	*
Area 1, Gravel Pit	06/17/91	06/24/91	17.5	0.6	4.2	2.70	24.0
Area 1, Gravel Pit	06/24/91	07/02/91	17.7	1.1	26.9	19.10	24.9
Area 1, Gravel Pit	07/02/91	07/09/91	18.9	0.6	-9.3	8.05	24.9
Area 1, Gravel Pit	07/09/91	07/18/91	*	*	*	*	*
Area 1, Gravel Pit	07/18/91	07/23/91	22.9	0.9	9.5	7.15	24.5
Area 1, Gravel Pit	07/23/91	07/31/91	*	*	10.0	13.05	25.2
Area 1, Gravel Pit	07/31/91	08/06/91	21.7	0.8	8.3	6.45	24.6
Area 1, Gravel Pit	08/06/91	08/12/91	33.4	1.1	-4.2	4.70	25.0
Area 1, Gravel Pit	08/12/91	08/19/91	27.4	0.9	21.7	10.90	21.3
Area 1, Gravel Pit	08/19/91	08/26/91	29.5	1.1	27.7	11.40	24.6
Area 1, Gravel Pit	08/26/91	09/03/91	33.8	0.9	40.1	4.95	23.8
Area 1, Gravel Pit	09/03/91	09/09/91	25.8	0.9	40.6	6.95	23.4
Area 1, Gravel Pit	09/09/91	09/17/91	*	*	-58.1	19.90	36.8
Area 1, Gravel Pit	09/17/91	09/23/91	28.2	0.9	4.3	7.65	14.5
Area 1, Gravel Pit	09/23/91	10/02/91	20.0	0.8	215.0	100.	23.7
Area 1, Gravel Pit	10/02/91	10/07/91	*	*	-34.2	11.10	26.0
Area 1, Gravel Pit	10/07/91	10/15/91	*	*	-131.0	44.50	24.9
Area 1, Gravel Pit	10/15/91	10/21/91	21.6	0.8	16.7	2.85	23.3
Area 1, Gravel Pit	10/21/91	10/28/91	19.6	1.7	-18.6	11.50	23.9
Area 1, Gravel Pit	10/28/91	11/05/91	22.6	0.8	-12.2	3.45	26.2
Area 1, Gravel Pit	11/05/91	11/12/91	20.2	0.9	5.4	7.20	23.4
Area 1, Gravel Pit	11/18/91	11/25/91	22.2	1.4	15.2	10.75	22.8
Area 1, Gravel Pit	11/25/91	12/02/91	*	*	*	*	*
Area 1, Gravel Pit	12/02/91	12/09/91	33.4	0.9	13.6	6.20	25.4
Area 1, Gravel Pit	12/09/91	12/16/91	38.0	1.1	58.3	4.60	23.0
Area 1, Gravel Pit	12/16/91	01/07/92	24.4	1.4	*	*	*
Area 5, Gate 200	01/03/91	01/09/91	*	*	-8.7	21.10	*
Area 5, Gate 200	01/09/91	01/15/91	23.0	2.1	37.7	15.20	*

* Missing data value

Table E.1 (Sample Results for ¹³³Xe and ⁸⁵Kr, cont.)

Sampling Location	Sampling Dates		Kr pCi/m ³	Kr 1s	Xe pCi/m ³	Xe 1s	Xe Detection Limit
	Start	End					
Area 5, Gate 200	01/15/91	01/24/91	28.0	1.5	80.3	16.95	*
Area 5, Gate 200	01/24/91	01/29/91	*	*	24.2	4.60	*
Area 5, Gate 200	01/29/91	02/06/91	28.0	1.5	33.2	17.50	*
Area 5, Gate 200	02/06/91	02/11/91	*	*	*	*	*
Area 5, Gate 200	02/11/91	02/19/91	20.0	1.5	-19.1	14.65	*
Area 5, Gate 200	02/19/91	02/26/91	23.2	0.9	9.7	5.55	*
Area 5, Gate 200	02/26/91	03/05/91	23.5	1.3	17.9	4.00	*
Area 5, Gate 200	03/05/91	03/12/91	22.0	1.2	11.3	6.35	*
Area 5, Gate 200	03/12/91	03/20/91	20.0	0.6	16.3	3.95	*
Area 5, Gate 200	03/20/91	03/25/91	18.0	1.3	35.0	48.30	*
Area 5, Gate 200	03/25/91	04/02/91	*	*	-39.1	16.25	*
Area 5, Gate 200	04/02/91	04/09/91	20.1	0.9	20.0	5.30	*
Area 5, Gate 200	04/09/91	04/15/91	17.5	1.0	25.5	4.35	*
Area 5, Gate 200	04/15/91	04/23/91	21.6	1.0	13.7	6.20	*
Area 5, Gate 200	04/23/91	04/30/91	*	*	*	*	*
Area 5, Gate 200	04/30/91	05/07/91	14.9	1.2	4.3	3.85	*
Area 5, Gate 200	05/07/91	05/13/91	18.0	0.8	-10.9	33.60	*
Area 5, Gate 200	05/13/91	05/21/91	22.6	0.6	-5.3	9.10	*
Area 5, Gate 200	05/21/91	05/28/91	22.2	0.8	5.3	6.70	*
Area 5, Gate 200	05/28/91	06/05/91	22.7	0.9	73.3	15.75	*
Area 5, Gate 200	06/05/91	06/11/91	26.0	1.0	16.1	2.80	*
Area 5, Gate 200	06/11/91	06/17/91	22.7	0.7	27.2	9.10	*
Area 5, Gate 200	06/17/91	06/25/91	25.1	0.6	-1.0	7.50	14.4
Area 5, Gate 200	06/25/91	07/01/91	*	*	10.4	4.65	23.5
Area 5, Gate 200	07/01/91	07/08/91	*	*	4.3	4.50	23.8
Area 5, Gate 200	07/08/91	07/15/91	15.5	0.8	10.9	6.50	24.8
Area 5, Gate 200	07/15/91	07/23/91	*	*	-11.0	27.85	26.1
Area 5, Gate 200	07/23/91	07/29/91	24.6	1.0	17.0	8.55	24.4
Area 5, Gate 200	07/29/91	08/05/91	23.5	0.9	-2.7	3.45	25.2
Area 5, Gate 200	08/05/91	08/12/91	21.7	0.7	9.7	3.75	24.8
Area 5, Gate 200	08/12/91	08/19/91	26.4	0.9	-17.3	26.50	26.0
Area 5, Gate 200	08/19/91	08/29/91	25.4	0.9	28.0	13.15	24.4
Area 5, Gate 200	08/29/91	09/03/91	26.9	0.6	14.3	3.65	25.6
Area 5, Gate 200	09/03/91	09/09/91	26.9	0.9	20.6	3.95	23.3
Area 5, Gate 200	09/09/91	09/16/91	*	*	16.7	16.20	32.0
Area 5, Gate 200	09/16/91	09/23/91	25.1	0.7	6.6	7.30	14.2
Area 5, Gate 200	10/03/91	10/08/91	24.3	0.8	4.6	4.35	*
Area 5, Gate 200	10/08/91	10/14/91	23.5	1.0	2.2	4.50	24.8
Area 5, Gate 200	10/14/91	10/22/91	20.8	1.2	15.2	16.55	24.7
Area 5, Gate 200	10/22/91	10/29/91	21.3	1.4	-3.7	5.70	24.8
Area 5, Gate 200	10/29/91	11/04/91	13.9	1.1	1.7	4.30	25.5
Area 5, Gate 200	11/04/91	11/12/91	24.6	0.9	13.8	5.00	23.0
Area 5, Gate 200	11/12/91	11/18/91	20.3	1.4	4.5	3.70	24.0
Area 5, Gate 200	11/18/91	11/25/91	23.5	0.9	35.2	11.30	22.7

* Missing data value

Table E.1 (Sample Results for ¹³³Xe and ⁸⁵Kr, cont.)

Sampling Location	Sampling Dates		Kr pCi/m ³	Kr 1s	Xe pCi/m ³	Xe 1s	Xe Detection Limit
	Start	End					
Area 5, Gate 200	11/25/91	12/03/91	19.0	0.9	2.7	4.15	23.7
Area 5, Gate 200	12/03/91	12/09/91	24.0	0.8	3.7	5.20	25.0
Area 5, Gate 200	12/09/91	12/16/91	*	*	12.1	3.40	23.1
Area 5, Gate 200	12/16/91	12/23/91	25.4	1.4	18.6	4.70	23.0
Area 5, Gate 200	12/23/91	12/30/91	22.9	0.9	8.5	3.85	24.5
Area 5, Gate 200	12/30/91	01/06/92	25.7	1.3	39.6	6.05	22.9
Area 12, Camp	01/08/91	01/15/91	25.7	0.6	145.0	33.00	*
Area 12, Camp	01/15/91	01/23/91	19.0	0.5	5.8	2.15	*
Area 12, Camp	01/23/91	01/28/91	27.0	1.0	16.6	5.40	*
Area 12, Camp	01/28/91	02/05/91	27.0	1.0	-4.0	3.05	*
Area 12, Camp	02/05/91	02/11/91	20.0	1.0	2.2	4.40	*
Area 12, Camp	02/11/91	02/19/91	20.0	1.0	-3.4	6.35	*
Area 12, Camp	02/19/91	02/25/91	20.0	1.5	6.0	6.10	*
Area 12, Camp	02/25/91	03/06/91	21.0	0.6	18.3	4.50	*
Area 12, Camp	03/06/91	03/12/91	21.6	0.9	*	*	*
Area 12, Camp	03/12/91	03/19/91	*	*	-2.7	3.40	*
Area 12, Camp	03/19/91	03/27/91	39.7	1.6	4.7	8.30	*
Area 12, Camp	03/27/91	04/02/91	18.1	0.9	*	*	*
Area 12, Camp	04/02/91	04/09/91	21.7	0.8	39.7	21.85	*
Area 12, Camp	04/09/91	04/15/91	26.3	1.0	-12.7	8.10	*
Area 12, Camp	04/15/91	04/23/91	32.3	2.0	107.0	8.00	*
Area 12, Camp	04/23/91	04/29/91	22.1	1.0	26.2	11.20	*
Area 12, Camp	04/29/91	05/07/91	22.5	0.8	43.6	27.25	*
Area 12, Camp	05/07/91	05/14/91	*	*	-3.7	9.25	*
Area 12, Camp	05/14/91	05/21/91	29.5	1.0	14.4	11.00	*
Area 12, Camp	05/21/91	05/28/91	24.4	0.9	-12.0	10.25	*
Area 12, Camp	05/28/91	06/03/91	*	*	0.9	9.90	*
Area 12, Camp	06/03/91	06/10/91	17.4	0.9	33.1	10.30	*
Area 12, Camp	06/10/91	06/17/91	22.3	0.8	47.0	15.00	*
Area 12, Camp	06/17/91	06/24/91	22.5	0.8	-0.4	5.25	25.4
Area 12, Camp	06/24/91	07/02/91	22.4	0.7	42.3	7.10	23.7
Area 12, Camp	07/02/91	07/09/91	*	*	18.8	5.75	23.6
Area 12, Camp	07/09/91	07/18/91	26.2	0.9	*	*	*
Area 12, Camp	07/18/91	07/22/91	*	*	6.2	3.20	24.2
Area 12, Camp	07/22/91	07/30/91	21.1	1.1	17.9	7.60	24.9
Area 12, Camp	07/30/91	08/06/91	21.0	0.9	25.0	8.40	24.2
Area 12, Camp	08/06/91	08/12/91	26.6	1.2	30.0	6.75	23.2
Area 12, Camp	08/12/91	08/19/91	23.6	0.9	0.4	11.05	24.6
Area 12, Camp	08/19/91	08/26/91	26.5	0.7	11.7	8.00	23.6
Area 12, Camp	08/26/91	09/03/91	21.1	0.9	9.7	5.15	25.4
Area 12, Camp	09/03/91	09/09/91	24.3	1.3	96.4	22.75	24.0
Area 12, Camp	09/09/91	09/16/91	18.7	0.9	13.1	7.85	24.6
Area 12, Camp	09/16/91	09/23/91	*	*	37.2	12.85	24.6
Area 12, Camp	09/23/91	10/02/91	*	*	257.0	200.	24.3

* Missing data value

Table E.1 (Sample Results for ¹³³Xe and ⁸⁵Kr, cont.)

Sampling Location	Sampling Dates		Kr pCi/m ³	Kr 1s	Xe pCi/m ³	Xe 1s	Xe Detection Limit
	Start	End					
Area 12, Camp	10/08/91	10/14/91	*	*	47.5	65.50	24.2
Area 12, Camp	10/14/91	10/22/91	20.6	1.3	31.5	21.75	23.9
Area 12, Camp	10/22/91	10/28/91	26.5	1.2	-9.5	13.00	24.8
Area 12, Camp	10/28/91	11/05/91	27.6	0.9	11.2	3.75	24.5
Area 12, Camp	11/05/91	11/12/91	21.7	1.2	-6.1	6.25	24.7
Area 12, Camp	11/12/91	11/18/91	29.4	0.8	-5.6	3.35	25.5
Area 12, Camp	11/25/91	12/02/91	22.2	0.8	1.4	4.00	24.5
Area 12, Camp	12/02/91	12/09/91	22.7	1.1	-3.8	3.40	24.4
Area 12, Camp	12/09/91	12/16/91	19.7	0.7	19.8	5.95	22.7
Area 12, Camp	12/16/91	12/23/91	24.9	0.6	4.1	4.40	24.4
Area 12, Camp	12/23/91	12/30/91	21.1	0.6	4.6	1.45	22.9
Area 12, Camp	12/30/91	01/06/92	23.3	0.8	23.4	3.95	22.8
Area 15, EPA Farm	03/19/91	03/27/91	21.0	0.8	-2.8	3.20	*
Area 15, EPA Farm	03/27/91	04/02/91	22.2	0.8	4.8	15.50	32.0
Area 15, EPA Farm	04/02/91	04/09/91	21.0	1.0	-1.4	2.10	*
Area 15, EPA Farm	04/09/91	04/15/91	23.0	1.2	-7.1	8.15	*
Area 15, EPA Farm	04/15/91	04/22/91	21.3	1.1	8.7	3.50	*
Area 15, EPA Farm	04/22/91	04/29/91	23.2	0.8	23.4	6.95	*
Area 15, EPA Farm	04/29/91	05/06/91	26.4	0.9	19.1	9.80	*
Area 15, EPA Farm	05/06/91	05/14/91	24.1	0.8	29.5	8.50	*
Area 15, EPA Farm	05/14/91	05/21/91	20.7	0.6	18.6	18.25	*
Area 15, EPA Farm	05/21/91	05/28/91	28.5	0.9	-3.9	9.50	*
Area 15, EPA Farm	05/28/91	06/03/91	21.5	0.8	39.0	14.10	*
Area 15, EPA Farm	06/03/91	06/11/91	28.0	0.9	13.7	4.15	*
Area 15, EPA Farm	06/11/91	06/17/91	18.9	0.8	6.0	11.25	*
Area 15, EPA Farm	06/17/91	06/24/91	20.0	0.8	-3.8	5.20	*
Area 15, EPA Farm	06/24/91	07/01/91	18.4	0.6	13.5	4.25	23.2
Area 15, EPA Farm	07/01/91	07/09/91	18.5	1.1	11.1	7.10	25.6
Area 15, EPA Farm	07/09/91	07/15/91	19.5	0.8	17.0	15.00	24.0
Area 15, EPA Farm	07/15/91	07/23/91	*	*	38.0	12.50	24.8
Area 15, EPA Farm	07/23/91	07/29/91	22.7	0.8	11.8	6.35	25.2
Area 15, EPA Farm	07/29/91	08/06/91	*	1.3	17.6	12.20	22.1
Area 15, EPA Farm	08/06/91	08/12/91	33.0	1.1	21.2	8.05	23.3
Area 15, EPA Farm	08/12/91	08/19/91	*	*	15.3	3.50	23.6
Area 15, EPA Farm	08/19/91	08/26/91	*	*	21.5	11.65	24.6
Area 15, EPA Farm	08/26/91	09/03/91	25.0	0.9	26.0	4.25	24.4
Area 15, EPA Farm	09/03/91	09/09/91	28.1	0.8	71.3	20.60	24.7
Area 15, EPA Farm	09/09/91	09/16/91	18.5	0.9	-9.8	20.90	24.2
Area 15, EPA Farm	09/16/91	09/24/91	20.8	0.9	27.6	6.90	24.6
Area 15, EPA Farm	09/24/91	10/02/91	31.2	0.9	38.3	6.10	23.7
Area 15, EPA Farm	10/02/91	10/08/91	*	*	*	*	*
Area 15, EPA Farm	10/08/91	10/14/91	*	*	-1.0	7.45	25.3
Area 15, EPA Farm	10/14/91	10/22/91	*	*	*	*	*
Area 15, EPA Farm	10/22/91	10/29/91	*	*	5.7	8.05	25.1

* Missing data value

Table E.1 (Sample Results for ^{133}Xe and ^{85}Kr , cont.)

Sampling Location	Sampling Dates		Kr pCi/m ³	Kr 1s	Xe pCi/m ³	Xe 1s	Xe Detection Limit
	Start	End					
Area 15, EPA Farm	10/29/91	11/04/91	20.2	0.9	2.4	4.50	24.8
Area 15, EPA Farm	11/04/91	11/12/91	22.5	0.8	2.3	6.55	24.1
Area 15, EPA Farm	11/12/91	11/18/91	22.0	0.9	3.6	3.80	23.8
Area 15, EPA Farm	11/18/91	11/25/91	29.1	1.5	16.7	9.50	23.8
Area 15, EPA Farm	11/25/91	12/02/91	20.8	1.0	2.9	3.65	24.3
Area 15, EPA Farm	12/02/91	12/09/91	21.1	0.9	*	*	*
Area 15, EPA Farm	12/09/91	12/16/91	28.2	0.9	7.3	8.85	24.1
Area 15, EPA Farm	12/16/91	12/23/91	*	*	15.1	3.70	23.3
Area 15, EPA Farm	12/23/91	12/30/91	23.4	0.9	9.9	2.75	22.5
Area 15, EPA Farm	12/30/91	01/05/92	26.1	0.9	9.3	2.50	23.7
Area 15, PILEDRIVER	01/07/91	01/15/91	18.0	0.5	-34.0	20.80	*
Area 15, PILEDRIVER	01/15/91	01/23/91	33.1	2.0	11.9	7.90	*
Area 15, PILEDRIVER	01/23/91	01/28/91	26.0	1.0	-1.1	6.75	*
Area 15, PILEDRIVER	01/28/91	02/05/91	25.0	1.5	13.4	13.60	*
Area 15, PILEDRIVER	02/05/91	02/11/91	*	*	*	*	*
Area 15, PILEDRIVER	02/11/91	02/19/91	19.0	0.5	0.5	6.70	*
Area 15, PILEDRIVER	02/19/91	02/25/91	22.0	1.1	6.9	6.30	*
Area 15, PILEDRIVER	02/25/91	03/05/91	21.5	1.2	20.7	3.70	*
Area 15, PILEDRIVER	03/05/91	03/12/91	28.0	1.0	45.0	9.85	*
Area 15, PILEDRIVER	03/12/91	03/19/91	21.5	1.1	-1.3	3.40	*
Area 20, Camp	01/03/91	01/09/91	38.0	1.0	-7.5	5.70	*
Area 20, Camp	01/09/91	01/14/91	26.0	0.5	13.5	4.65	*
Area 20, Camp	01/14/91	01/22/91	28.0	0.6	4.3	2.00	*
Area 20, Camp	01/22/91	01/28/91	50.0	1.5	-13.5	11.50	*
Area 20, Camp	01/28/91	02/05/91	39.0	1.0	34.3	13.95	*
Area 20, Camp	02/05/91	02/12/91	36.0	1.0	-64.1	32.55	*
Area 20, Camp	02/12/91	02/19/91	31.0	1.2	-5.9	8.40	*
Area 20, Camp	02/19/91	02/25/91	33.5	1.3	-0.1	7.95	*
Area 20, Camp	02/25/91	03/05/91	73.0	0.9	23.3	3.65	*
Area 20, Camp	03/05/91	03/11/91	27.0	0.8	20.5	3.50	*
Area 20, Camp	03/11/91	03/18/91	40.5	1.4	30.9	6.75	*
Area 20, Camp	03/18/91	03/25/91	59.7	1.3	17.7	4.25	*
Area 20, Camp	03/25/91	04/02/91	38.4	1.3	-45.2	16.45	*
Area 20, Camp	04/02/91	04/08/91	28.3	0.8	48.6	13.20	*
Area 20, Camp	04/08/91	04/15/91	35.9	0.8	12.6	4.20	*
Area 20, Camp	04/15/91	04/23/91	25.0	0.8	3.6	3.40	*
Area 20, Camp	04/23/91	04/30/91	22.3	0.6	14.5	5.95	*
Area 20, Camp	04/30/91	05/08/91	21.9	0.8	14.8	5.95	*
Area 20, Camp	05/08/91	05/13/91	21.5	0.7	0.0	4.35	*
Area 20, Camp	05/13/91	05/21/91	24.3	0.7	701.0	300	*
Area 20, Camp	05/21/91	05/30/91	*	*	-11.6	12.05	*
Area 20, Camp	05/30/91	06/04/91	22.0	1.0	69.8	21.20	*
Area 20, Camp	06/04/91	06/10/91	16.7	1.1	20.1	6.50	*
Area 20, Camp	06/10/91	06/17/91	25.8	0.8	14.4	11.40	*

* Missing data value

Table E.1 (Sample Results for ^{133}Xe and ^{85}Kr , cont.)

Sampling Location	Sampling Dates		Kr pCi/m ³	Kr 1s	Xe pCi/m ³	Xe 1s	Xe Detection Limit
	Start	End					
Area 20, Camp	06/24/91	07/02/91	21.8	0.8	2.4	14.65	25.1
Area 20, Camp	07/02/91	07/10/91	17.7	1.2	-22.9	12.65	24.9
Area 20, Camp	07/10/91	07/15/91	35.0	1.2	43.6	14.05	23.6
Area 20, Camp	07/15/91	07/22/91	26.0	1.5	-16.8	21.90	25.2
Area 20, Camp	07/22/91	07/30/91	32.9	1.1	4.2	30.40	25.7
Area 20, Camp	07/30/91	08/05/91	*	*	-51.4	14.55	26.2
Area 20, Camp	08/05/91	08/12/91	25.1	0.9	32.0	7.90	24.0
Area 20, Camp	08/12/91	08/19/91	*	*	5.5	8.10	24.4
Area 20, Camp	08/19/91	08/26/91	34.0	0.9	46.4	10.65	24.0
Area 20, Camp	08/26/91	09/03/91	22.4	0.7	-3.9	7.45	25.5
Area 20, Camp	09/03/91	09/09/91	29.4	0.9	6.9	2.95	23.8
Area 20, Camp	09/09/91	09/17/91	*	*	32.3	8.80	17.9
Area 20, Camp	09/24/91	10/02/91	20.5	1.3	333.0	100	23.6
Area 20, Camp	10/02/91	10/06/91	27.6	0.9	3.6	7.15	24.6
Area 20, Camp	10/06/91	10/14/91	27.9	0.9	12.7	4.40	25.8
Area 20, Camp	10/14/91	10/21/91	21.9	1.1	*	*	*
Area 20, Camp	10/21/91	10/28/91	48.6	1.3	-17.4	12.60	25.1
Area 20, Camp	10/28/91	11/05/91	19.9	0.8	-2.7	3.25	25.3
Area 20, Camp	11/05/91	11/12/91	20.6	0.8	8.8	4.40	23.0
Area 20, Camp	11/12/91	11/18/91	46.6	0.9	9.8	5.45	24.9
Area 20, Camp	11/18/91	11/25/91	36.7	3.4	14.2	18.05	23.1
Area 20, Camp	11/25/91	12/02/91	33.5	1.3	9.4	3.95	24.1
Area 20, Camp	12/02/91	12/09/91	*	*	*	*	*
Area 20, Camp	12/09/91	12/16/91	*	*	*	*	*
Area 20, Camp	12/16/91	12/23/91	45.8	1.1	94.6	6.50	22.4
Area 20, Camp	12/23/91	01/06/92	36.4	0.9	15.3	4.35	24.3
Area 25, EMAD	01/09/91	01/15/91	27.0	0.5	*	*	*
Area 25, EMAD	01/15/91	01/24/91	25.0	0.9	15.1	11.65	*
Area 25, EMAD	01/24/91	01/28/91	25.0	1.0	8.8	6.25	*
Area 25, EMAD	02/11/91	02/14/91	23.0	1.3	-25.2	13.95	*
Area 25, EMAD	02/14/91	02/19/91	23.5	1.7	2.3	6.20	*
Area 25, EMAD	02/19/91	02/25/91	20.9	0.8	6.9	4.80	*
Area 25, EMAD	02/25/91	03/05/91	26.3	0.9	-3.6	7.80	*
Area 25, EMAD	03/05/91	03/12/91	23.0	0.8	-4.0	5.90	*
Area 25, EMAD	03/12/91	03/20/91	20.1	1.0	11.3	4.30	*
Area 25, EMAD	03/20/91	03/25/91	22.3	1.0	34.3	9.35	*
Area 25, EMAD	03/25/91	04/02/91	28.2	1.1	172.5	20.85	*
Area 25, EMAD	04/02/91	04/09/91	19.8	1.1	169.1	32.35	*
Area 25, EMAD	04/09/91	04/15/91	23.9	0.9	4.2	5.60	*
Area 25, EMAD	04/15/91	04/23/91	24.8	0.6	24.1	7.75	*
Area 25, EMAD	04/23/91	04/30/91	25.2	1.0	-13.4	11.65	*
Area 25, EMAD	04/30/91	05/07/91	19.1	0.9	-1.4	4.15	*
Area 25, EMAD	05/07/91	05/13/91	21.5	0.8	2.0	4.55	*
Area 25, EMAD	05/13/91	05/21/91	23.2	0.6	8.9	15.65	*
Area 25, EMAD	05/21/91	05/28/91	20.8	0.8	-11.1	9.40	*

* Missing data value

Table E.1 (Sample Results for ¹³³Xe and ⁸⁵Kr, cont.)

Sampling Location	Sampling Dates		Kr pCi/m ³	Kr 1s	Xe pCi/m ³	Xe 1s	Xe Detection Limit
	Start	End					
Area 25, EMAD	05/28/91	06/05/91	25.0	0.7	-15.2	11.75	*
Area 25, EMAD	06/05/91	06/11/91	*	*	-10.2	3.00	*
Area 25, EMAD	06/11/91	06/17/91	26.3	0.9	19.7	10.25	*
Area 25, EMAD	06/17/91	06/25/91	28.9	0.7	30.3	7.45	14.9
Area 25, EMAD	06/25/91	07/01/91	27.6	0.8	7.7	2.90	*
Area 25, EMAD	07/01/91	07/08/91	*	*	27.1	6.55	23.3
Area 25, EMAD	07/08/91	07/15/91	*	*	11.2	6.80	25.5
Area 25, EMAD	07/15/91	07/23/91	*	*	13.3	7.55	25.1
Area 25, EMAD	07/29/91	08/05/91	19.9	0.8	16.9	4.65	24.7
Area 25, EMAD	08/05/91	08/12/91	19.8	1.0	5.7	7.60	26.1
Area 25, EMAD	08/12/91	08/19/91	*	*	80.2	7.25	24.2
Area 25, EMAD	08/19/91	08/29/91	25.3	1.2	-65.6	25.30	25.7
Area 25, EMAD	08/29/91	09/03/91	21.9	0.8	15.8	6.80	25.0
Area 25, EMAD	09/12/91	09/16/91	23.2	1.1	-7.8	9.50	24.0
Area 25, EMAD	09/16/91	09/23/91	*	*	4.1	5.80	26.1
Area 25, EMAD	09/23/91	10/02/91	27.7	0.7	25.5	7.30	24.3
Area 25, EMAD	10/02/91	10/07/91	22.7	1.1	70.2	38.75	24.3
Area 25, EMAD	10/07/91	10/14/91	19.5	2.3	-3.4	3.80	25.7
Area 25, EMAD	10/14/91	10/21/91	25.3	0.7	13.0	3.10	23.9
Area 25, EMAD	10/21/91	10/29/91	25.6	0.7	3.2	6.50	24.7
Area 25, EMAD	10/29/91	11/04/91	24.4	0.8	5.9	3.45	24.8
Area 25, EMAD	11/04/91	11/12/91	20.8	0.9	13.6	6.05	23.0
Area 25, EMAD	11/12/91	11/18/91	23.2	0.7	2.7	3.55	23.5
Area 25, EMAD	11/18/91	11/25/91	30.4	1.1	8.9	7.70	23.1
Area 25, EMAD	11/25/91	12/03/91	25.5	0.7	1.1	2.80	25.3
Area 25, EMAD	12/03/91	12/09/91	25.9	1.1	-5.7	2.75	24.9
Area 25, EMAD	12/09/91	12/16/91	*	*	-8.5	8.10	24.1
Area 25, EMAD	12/16/91	12/23/91	21.1	0.8	8.2	4.05	24.1
Area 25, EMAD	12/23/91	12/30/91	28.7	0.7	9.6	3.45	23.8
Area 25, EMAD	12/30/91	01/06/92	21.8	1.0	33.8	10.35	22.9
U19ac	01/08/91	01/15/91	28.0	1.0	3.6	3.00	*
U19ac	01/15/91	01/23/91	40.0	1.5	294.0	62.50	*
U19ac	01/23/91	01/29/91	83.0	1.4	24.9	4.90	*
U19ac	01/29/91	02/05/91	30.0	1.0	36.9	4.25	*
U19ac	02/05/91	02/12/91	33.0	1.0	*	*	*
U19ac	02/12/91	02/19/91	33.0	2.0	10.7	8.85	*
U19ba RAM #4	04/04/91	04/08/91	37.7	2.2	0.9	4.75	*
U19ba RAM #4	04/08/91	04/15/91	33.0	0.9	104.2	2.65	*
U19ba RAM #4	04/15/91	04/23/91	69.7	1.4	710.0	3.50	*
U19ba RAM #4	04/23/91	04/30/91	65.1	0.8	65.8	3.30	*
U19ba RAM #4	04/30/91	05/08/91	54.0	1.5	55.5	9.25	*
U19ba RAM #4	05/08/91	05/13/91	71.5	0.9	*	*	*
U19ba RAM #4	05/13/91	05/21/91	38.0	1.7	15.7	3.65	*
U19ba RAM #4	05/21/91	05/30/91	42.3	0.9	15.7	4.05	*
U19ba RAM #4	05/30/91	06/04/91	*	*	*	*	*

* Missing data value

Table E.1 (Sample Results for ¹³³Xe and ⁸⁵Kr, cont.)

Sampling Location	Sampling Dates		Kr pCi/m ³	Kr 1s	Xe pCi/m ³	Xe 1s	Xe Detection Limit
	Start	End					
U19ba RAM #10	04/04/91	04/08/91	21.4	1.9	-13.0	7.40	*
U19ba RAM #10	04/08/91	04/15/91	21.6	0.6	-0.9	4.50	*
U19ba RAM #10	04/15/91	04/23/91	19.4	1.0	13.8	9.50	*
U19ba RAM #10	04/23/91	04/30/91	30.5	0.9	97.1	18.20	*
U19ba RAM #10	04/30/91	05/08/91	28.3	0.8	8.1	7.65	*
U19ba RAM #10	05/08/91	05/13/91	21.3	0.9	40.7	6.70	*
U19ba RAM #10	05/13/91	05/21/91	22.2	0.8	10.4	2.55	*
U19ba RAM #10	05/21/91	05/30/91	24.6	0.8	3.0	5.70	*
U19ba RAM #10	05/30/91	06/04/91	*	*	*	*	*
U20be RAM #2	09/30/91	10/07/91	19.7	3.0	-2.5	26.05	24.0
U20be RAM #2	10/07/91	10/14/91	26.1	1.1	-15.2	7.75	26.3
U20be RAM #8	09/30/91	10/07/91	19.1	0.9	-15.4	8.30	25.5
U20be RAM #8	10/07/91	10/14/91	27.1	0.8	492.2	200	23.5
U20be RAM #10	09/30/91	10/07/91	20.8	0.9	11.1	6.50	24.9
U20be RAM #10	10/07/91	10/14/91	23.6	1.2	10.5	6.50	24.2
U20bf RAM #3/4	04/15/91	04/23/91	27.3	0.9	33.7	20.55	*
U20bf RAM #3/4	04/23/91	04/30/91	26.4	1.4	26.8	9.45	*
U20bf RAM #3/4	04/30/91	05/08/91	25.6	0.9	32.2	8.05	*
U20bf RAM #3/4	05/08/91	05/13/91	*	*	42.2	10.05	*
U20bf RAM #3/4	05/13/91	05/21/91	20.4	0.9	29.0	2.90	*
U20bf RAM #3/4	05/21/91	05/30/91	29.0	0.9	-13.0	10.05	*
U20bf RAM #3/4	05/30/91	06/04/91	10.5	0.7	24.3	10.90	*
U20bf RAM #7	04/16/91	04/23/91	22.9	1.0	0.8	4.80	*
U20bf RAM #7	04/30/91	05/08/91	*	*	*	*	*
U20bf RAM #7	05/08/91	05/13/91	16.3	0.6	11.5	3.20	*
U20bf RAM #7	05/13/91	05/21/91	*	*	2.2	2.40	*
U20bf RAM #7	05/21/91	05/29/91	22.0	0.8	-18.7	8.10	*
U20bf RAM #7	05/29/91	06/04/91	27.8	1.0	-9.1	19.25	*

* Missing data value

XENON DATA

Figure E.1 shows the data from all the environmental stations combined. Data from the temporary stations used to monitor events are not included in this figure. The highest value in Figure E.1 is a concentration of 701 pCi/m³ which was from the Area 20 sampling which ended May 21, 1991. Since the standard deviation associated with this value is 293 the value is subject to question. Figures E.2 through E.8 are time series plots of the xenon data in Table E.1 with one plot for each of the environmental stations. The solid line in these plots gives the detection limit. Missing values in the detection limit data have been plotted as values of 24 which is the average of all the detection limit data (in these plots the numbers represent plotting locations where more than one data point is located). Note that the ordinate scale for the Area 20 plot is different from the other plots. All of the ordinate values are in units of picocuries per cubic meter, the same units as used in Table E.1. The time used for the abscissa is the month and day that sampling ended converted into month and fraction of the month by dividing the day of the month by 32 and adding this fraction to the month index.

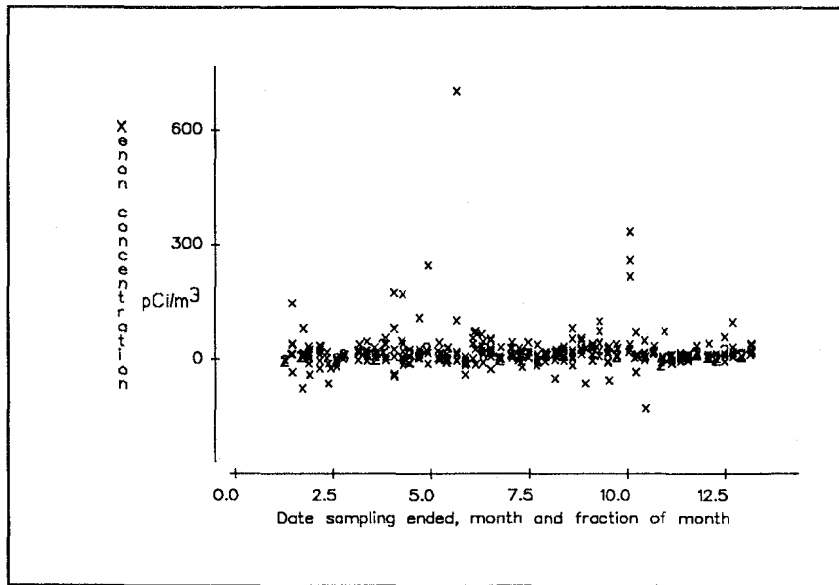


Figure E.1 Time Series Plot of All Xe Results

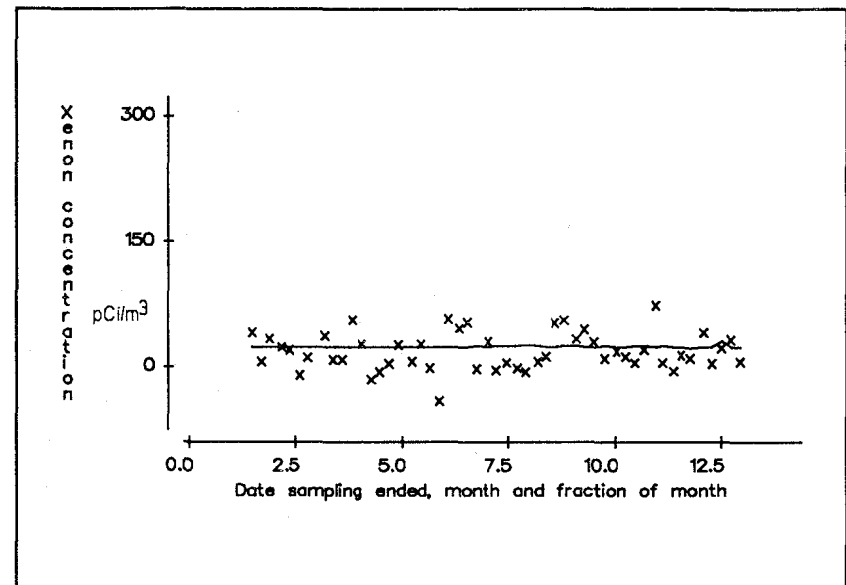


Figure E.2 Time Series Plot of BJY Xe Results

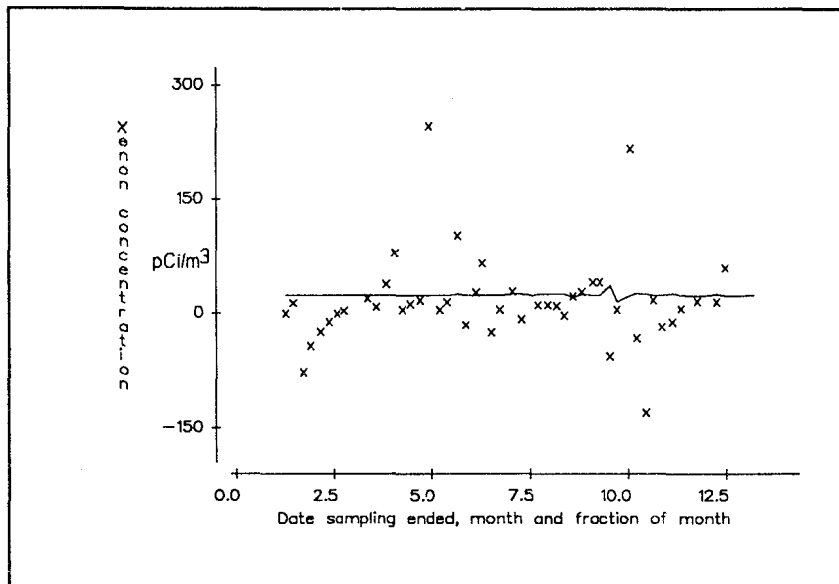


Figure E.3 Time Series Plot of Gravel Pit Xe Results

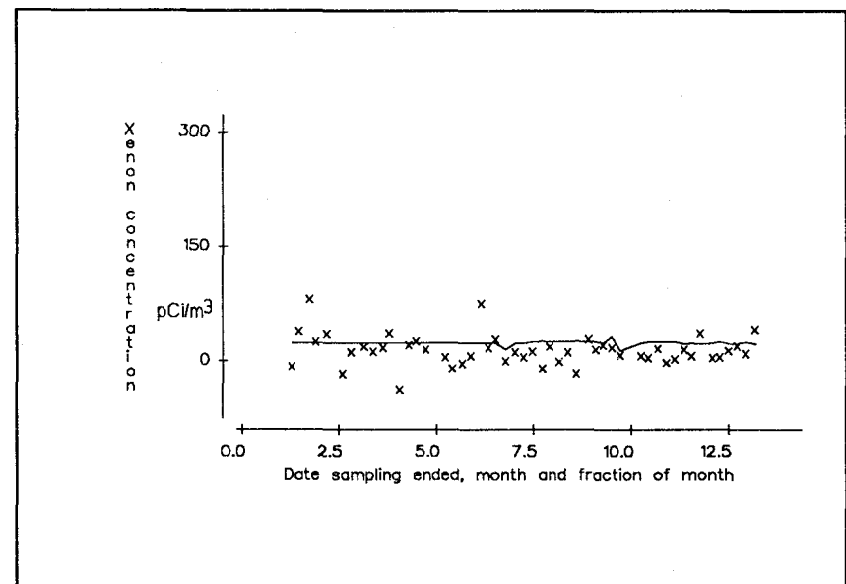


Figure E.4 Time Series Plot of Gate 200 S Xe Results

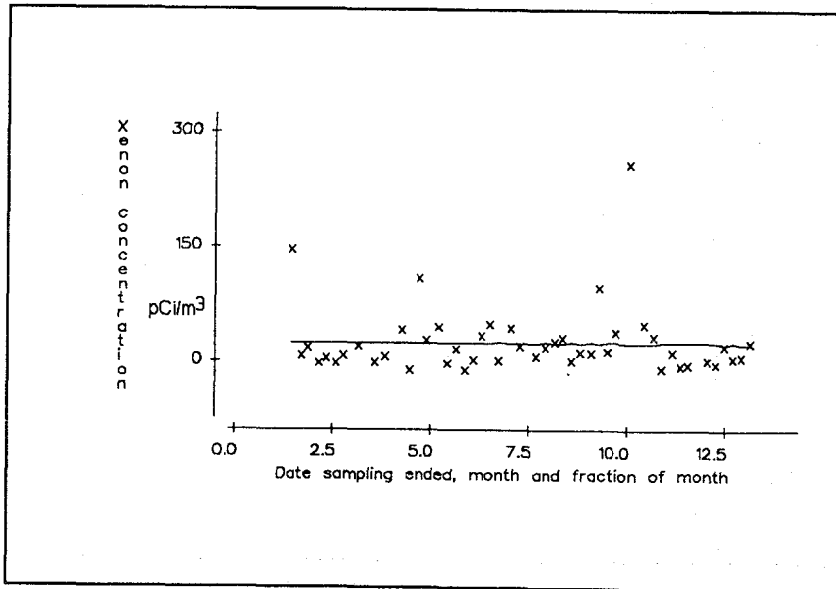


Figure E.5 Time Series Plot of Area 12 Camp Xe Results

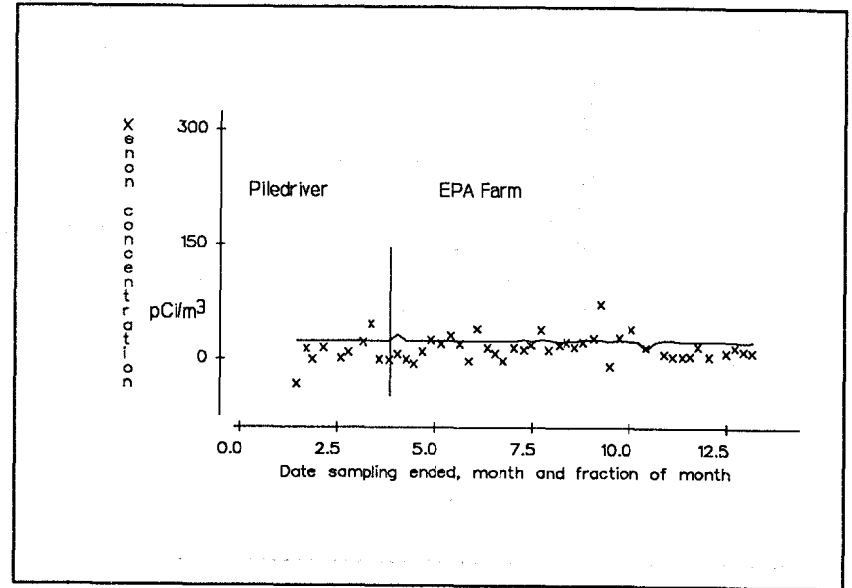


Figure E.6 Time Series Plot of Area 15 Xe results

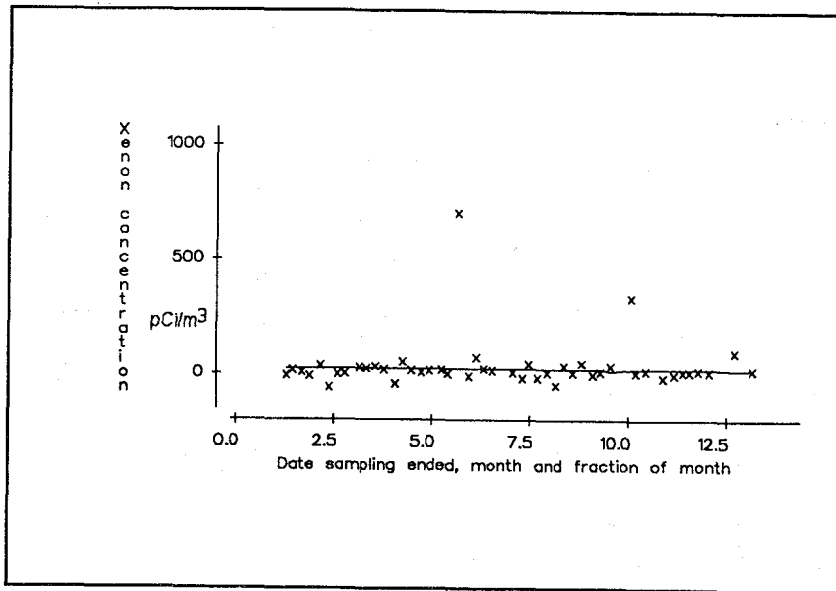


Figure E.7 Time Series Plot of Area 20 Camp Xe Results

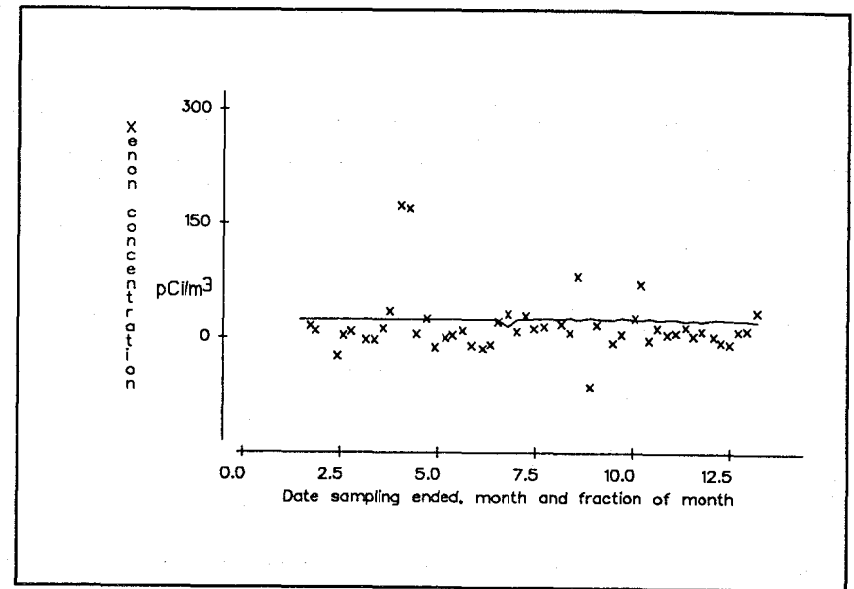
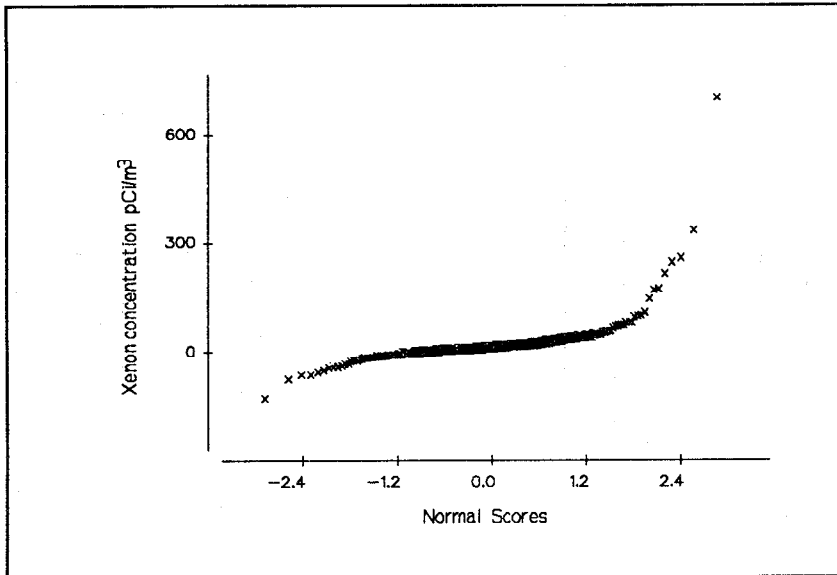


Figure E.8 Time Series Plot of EMAD Xe Results



The vertical line in Figure E.6 indicates when the Area 15 station was moved from the Piledriver location to the EPA Farm.

These eight figures give a graphical overview of the xenon data. The general pattern is one of a few high values with most of the data values being close to the detection limit. The occasional high values seem to occur randomly throughout the year, and no specific causes can be associated with them. Of

Figure E.9 Normal Probability Plot of Xe Data

the 337 xenon data values shown in these figures, 74 percent are below the detection limit and 24 percent are below zero.

Figure E.9 is a normal probability plot of the data in Figure E.1 and Figure E.10 is a lognormal probability plot of this data. These plots show the data values or natural logarithm of the data values on the ordinate and the expected quantiles or normal scores associated with each data value on the abscissa. In a probability plot an approximately straight line indicates that the data have a distribution determined by the type of plot. These data form approximately a straight line in the logarithmic plot suggesting that the data are lognormally distributed. This suggestion is statistically tested using the correlation coefficient "goodness of fit" test. The results of this test suggest that there is around a 50 percent chance that these data are lognormally distributed including the one obviously low value at the lower left corner of Figure E.10. This is a strong acceptance criterion. For the lognormal probability plot all concentration values at zero and less were deleted because logarithms of negative values are imaginary numbers.

Analyses similar to that discussed with Figures E.9 and E.10 were performed on the data from each of the environmental sampling stations. These analyses established that only a few of the data groups had a normal distribution, but almost all had a lognormal distribution if a few outliers were removed. Thus the statistical comparison for equality of groups was done using the logarithms of the data. When using

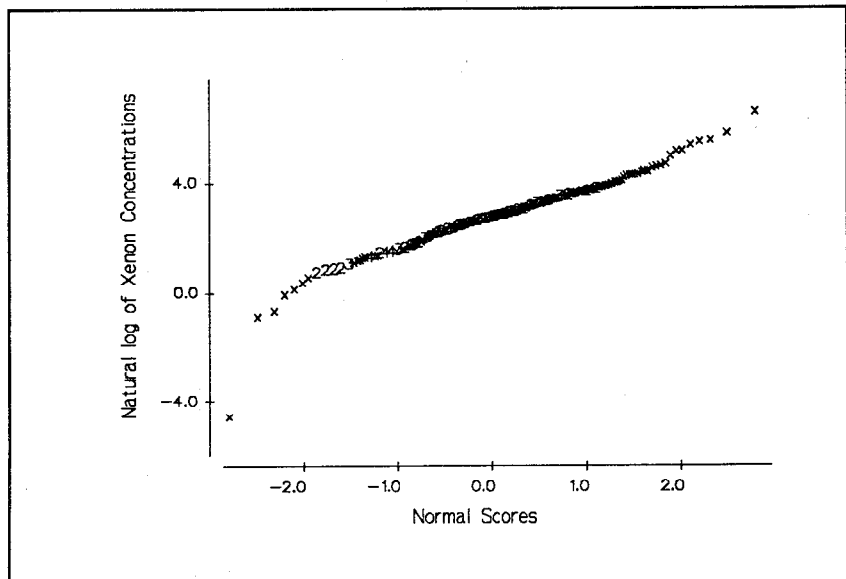


Figure E.10 Lognormal Probability Plot of Xe Data

logarithms, zero and negative data values become missing values and thus are excluded from the analysis.

Table E.2 gives the simple descriptive statistics for the xenon measurements by sampling location. The standard deviations given in this table are the "between data values" measurement of variability, they do not consider the "fuzziness" of the data measures by the analytical standard deviations. This table is divided into two parts; the first gives the statistics for the permanent environmental monitoring stations and the second gives the statistics for the special monitoring of the event locations.

In Table E.2 the first quartile of the data is the point at which 25 percent of the data values are lower and 75 percent higher. Likewise, in the third quartile, 75 percent of the data values are lower and 25 percent higher. A comparison of the quartiles and medians shows that the medians are closer to the first quartile than to the third quartile, which indicates the data are skewed, a property of lognormal distributions. The values in this table are noticeably lower than the corresponding values in the 1990 report.

The final statistical analysis tested for differences between sampling stations. The logarithms of the data were used in order to approximate a normal distribution for the analysis of

Table E.2 Descriptive Statistics of Xe Data for 1991^(a)

<u>Environmental Stations</u>	<u>N</u>	<u>Mean</u>	<u>Median</u>	<u>Standard Deviation</u>	<u>1st Quartile</u>	<u>3rd Quartile</u>	<u>Maximum</u>
BJY	51	17.3	11.8	22.3	3.5	32.0	72
Gravel Pit	46	14.9	8.9	59.9	-10.0	26.0	245
Gate 200	50	12.7	11.1	20.2	2.6	20.2	80
Area 12 Camp	47	24.6	11.7	46.3	0.4	31.5	257
Area 15	48	12.8	11.9	16.6	2.5	21.2	71
Area 20 Camp	46	16.4	9.6	55.2	-3.0	23.3	333
EMAD	<u>48</u>	<u>14.8</u>	<u>8.0</u>	<u>39.3</u>	<u>-2.9</u>	<u>16.6</u>	<u>172</u>
All	336	16.2	10.0	39.9	0.6	24.2	333
<u>Event-Related Stations</u>							
U19ac	5	74.0	24.9	124	7.1	165	294
U19ba RAM 4	7	138	55.5	255	15.7	104	710
U19ba RAM 10	8	19.9	9.2	34.8	0.1	34.0	97
U20bf RAM 7	5	-2.7	0.8	11.6	-13.9	6.9	11.5
U20bf RAM 3/4	7	25.0	29.0	17.7	24.3	33.7	42.2
U20be RAM 2	2	-8.9	-8.9	9.0	*	*	-2.5
U20be RAM 8	2	238	238	359	*	*	492
U20be RAM 10	2	10.8	10.8	0.4	*	*	11

(a) Values in the table are in units of pCi/m³.

* Missing data value

variance (ANOVA) procedures. A side issue must first be investigated: Should the analytical standard deviations be considered? This is equivalent to asking if the "fuzziness" in the data should be considered, where the fuzziness is measured by the analytic standard deviations reported in Table E.1. Statistically this is resolved by calculating the pooled, within-station mean square error of the data (the ANOVA replicate measurements error) and comparing this to the between-measurements mean square error. Since the natural logarithms of the data are to be used for this ANOVA, a corresponding transformation must be applied to the analytical standard deviations in Table E.1. Propagation of error theory shows that the coefficient of variation is the standard deviation of the logarithm of a data value. The square of this value is used because the ANOVA uses variances rather than standard deviations.

First the ANOVA was run on the logarithms of the data from the seven permanent stations with all negative values removed. Note that this ANOVA ignores the within-replicates error discussed in the previous paragraph. The changes in sample sizes in Table E.3 are due to the deleted data values. The standard deviations given in Table E.3 are the standard deviations calculated from the logarithms of the data for each station and thus should not be compared to those in Table E.2. The standard deviation of the logarithms of data estimates the coefficient of variation of the data. The statistical term "median" has been added to Table E.3 because exponentiation (finding the anti-logarithm) of the mean of the logarithms of the data gives the median of the original data. The p-value of 0.757 says that there is no statistical probability that the stations are not equal, and the graphic showing great overlapping of the group confidence intervals supports this conclusion.

Table E.3 One-Way Analysis of the Variance on Xe Concentrations between Stations [ln (pCi/m³)]

<u>Source</u>		<u>Degrees of Freedom</u>	<u>Sum of the Squares</u>	<u>Mean Square</u>	<u>F-Statistic</u>	<u>p Value</u>
Between Stations		6	4.95	0.82	0.57	0.757
Error		<u>249</u>	<u>362.40</u>	1.46		
Total		255	367.35			

<u>Station</u>	<u>N</u>	<u>Log of Median</u>	<u>Standard Deviation</u>	<u>Individual 95 Percent CI's for Log Median Based on Pooled Standard Deviation</u>
BJY	41	2.804	0.966	(-----*-----)
Gravel Pit	31	2.907	1.175	(-----*-----)
Gate 200	40	2.570	0.908	(-----*-----)
Area 12 Camp	36	2.754	1.388	(-----*-----)
Area 15	39	2.514	0.959	(-----*-----)
Area 20 Camp	34	2.699	1.768	(-----*-----)
EMAD	35	2.515	1.163	(-----*-----)
Pooled Standard Deviation = 1.206				-----+-----+-----+-----
				2.45 2.80 3.15

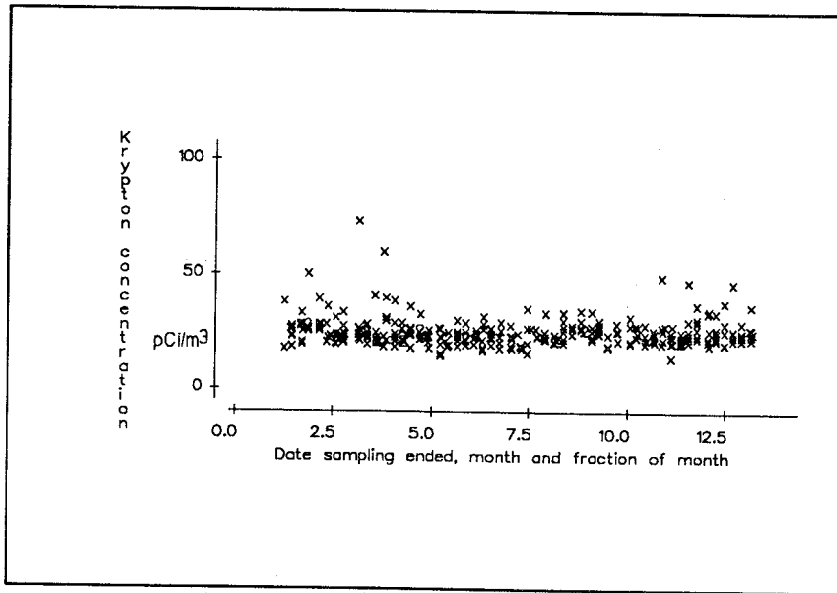


Figure E.11 Time Series Plot of All Kr Results

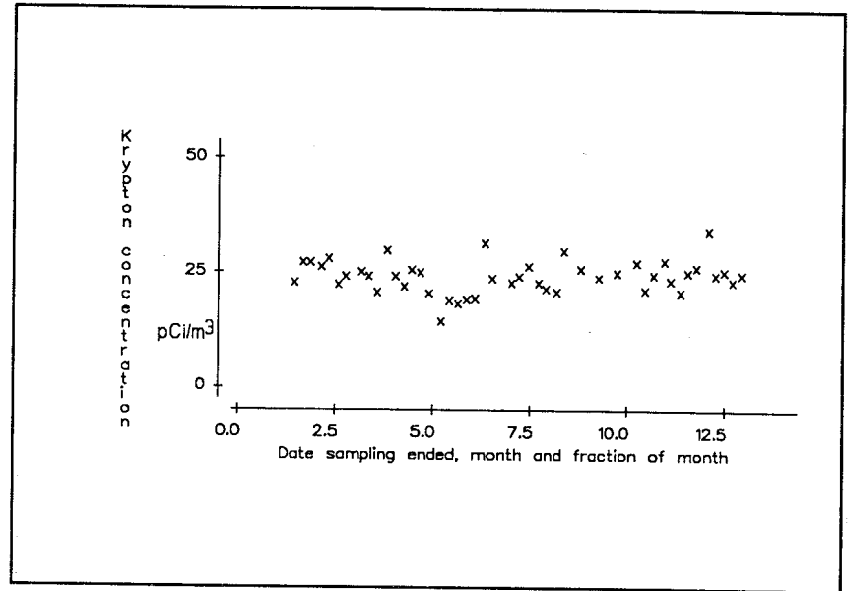


Figure E.12 Time Series Plot of BJJ Kr Results

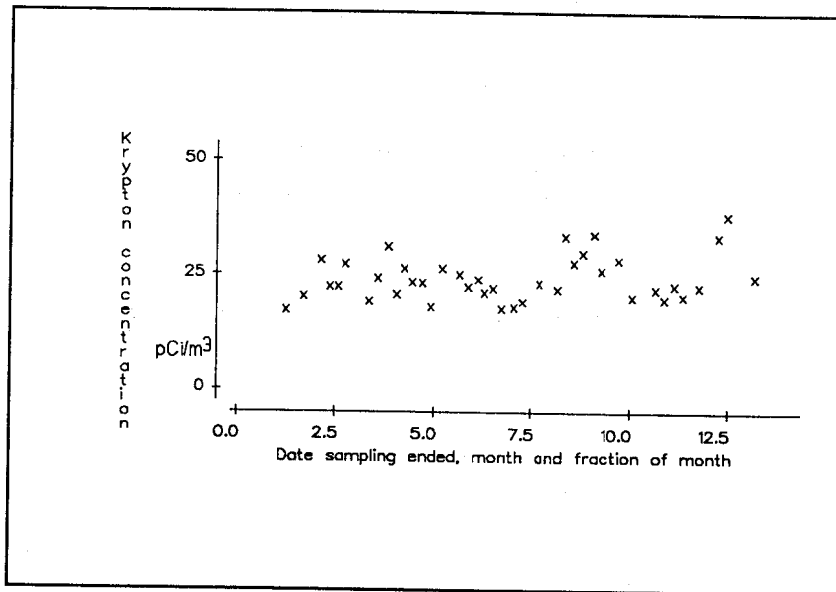


Figure E.13 Time Series Plot of Gravel Pit Kr Results

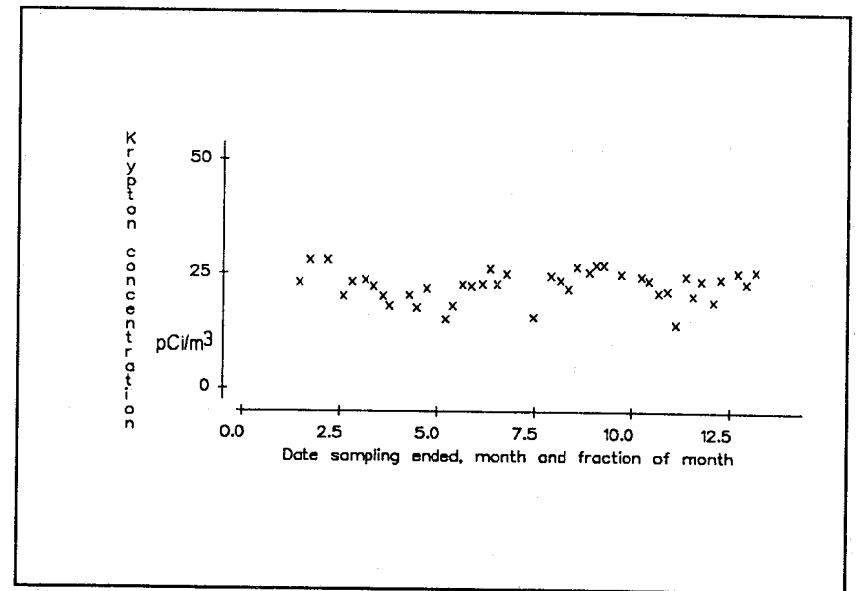


Figure E.14 Time Series Plot of Gate 200 S Kr Results

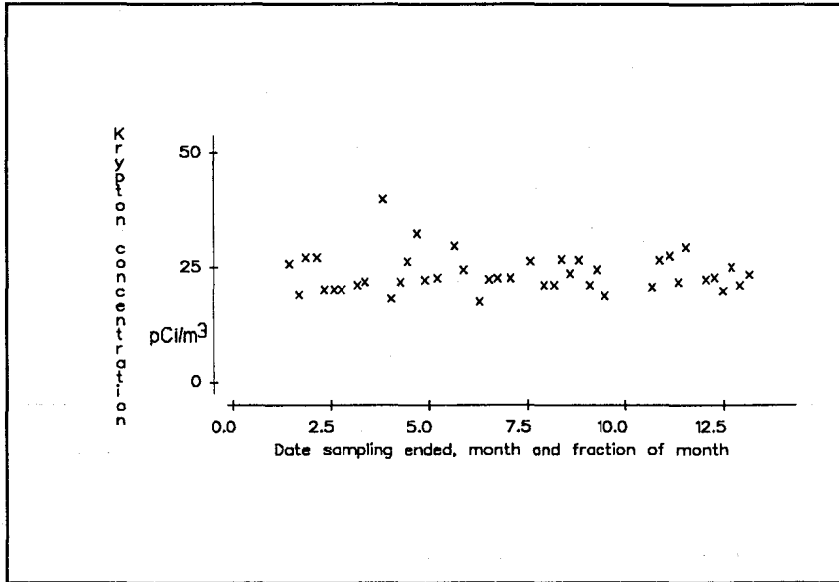


Figure E.15 Time Series Plot of Area 12 Camp Kr Results

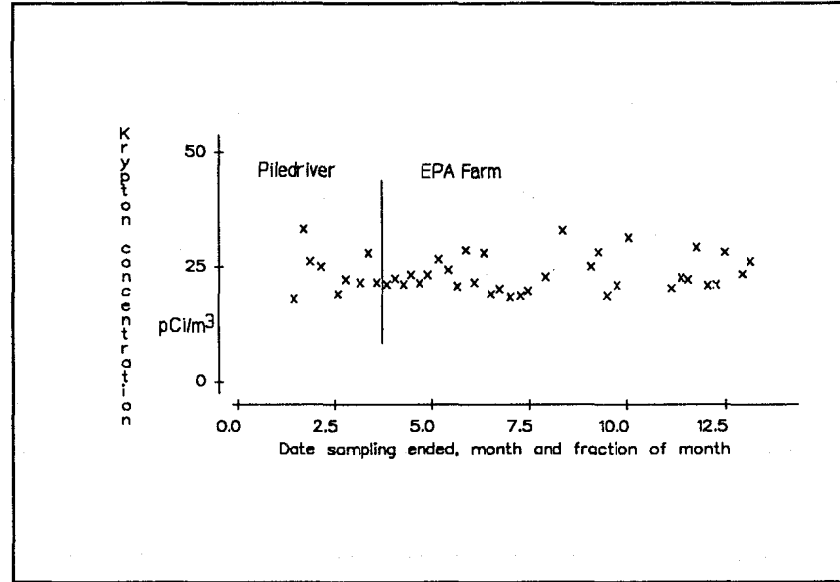


Figure E.16 Time Series Plot of Area 15 Kr Results

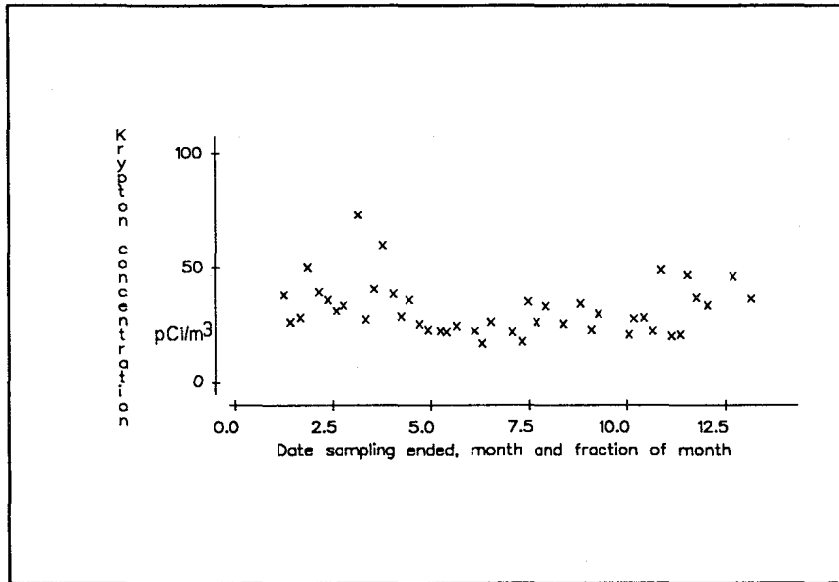


Figure E.17 Time Series Plot of Area 20 Camp Kr Results

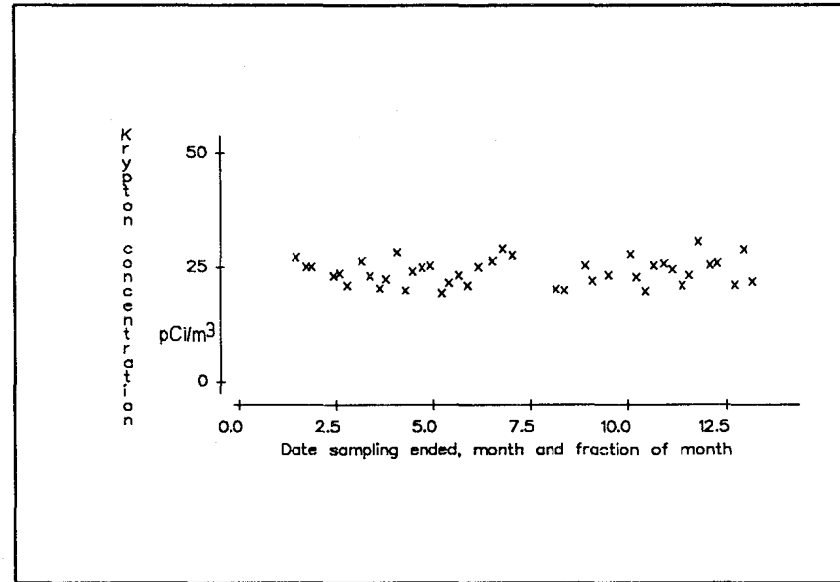


Figure E.18 Time Series Plot of EMAD Kr Results

If replicate analyses of the samples were available, there would be an additional line in the ANOVA table between the "error" and "total" lines. The error line measures the variability between different samples from the same station. The new line would measure variability between different analyses of each sample. Such replicate analyses are not available, but the analytic standard deviations in Table E.1 are measurements of the same source of errors. The transformed standard deviations from Table E.1 cannot be used in an analysis of variance because they have no degrees of freedom or equivalent, but their effect can be approximated. The sum of the analytical variances (after transformation) is an approximation of what would be the within-replicates sum of the squares if it were available, and the mean of these values approximates the corresponding mean square error. The 390 remaining transformed analytical variances have a sum of 197773. This sum was highly influenced by two data cases with mean values very close to zero which made the corresponding coefficients of variation -79.5 and 435.0. When squared these account for 99 percent of the variance sum. Deleting these two values gives 388 cases with a sum of 2228 and a mean of 5.7. Comparing this 5.7 to the error mean square of 1.46 in Table E.3 shows that the fuzziness in the data would account for most of the total error if it were included in the analysis. Since the only effect of including this fuzziness factor would be to reduce the significance and there are no significant differences before it is included, this additional step was not done.

KRYPTON DATA

The krypton data are reported in Table E.1 in the same way as the xenon data except that detection limits are not reported for krypton. Figures E.11 through E.18 are the krypton counterparts of Figures E.1 through E.8. As for xenon, no plots are given for the event related sampling stations. These data are in the last rows of Table E.1.

In general these plots show most of the values around environmental background levels. Figure E.17, the Area 20 Camp sampling location, shows values that are somewhat higher than the other locations. Note that the ordinate scale in figures E.11 and E.17 differ from the remaining figures on these pages.

An exploratory data analysis was performed on the krypton data for each of the sites using the same probability plot and goodness of fit test methods as used above on the xenon data. All but one of the groups fit lognormal distributions and only three also fit normal distributions. The lognormal distribution was chosen for further statistical analyses to satisfy the underlying assumptions of the ANOVA methods. Table E.4 gives the basic descriptive statistics of the stations where annual krypton data were collected. The overall mean given in this table is typical of environmental conditions at NTS.

As for xenon, an important consideration is whether or not the counting errors should be included in any formal statistics. This was investigated using the same methods described above in the discussion of the xenon analysis. The within-replicates mean square error, approximated from the analytical standard deviations and propagated in accordance to a logarithmic data transformation, was 0.00185 for 298 data values from the seven permanent environmental sampling stations. The between-replicates mean square error from the ANOVA was 0.0380. The within-replicates error would inflate the ANOVA mean squared error by less than five percent if included in the statistics. Since a variance inflation of five percent is small, the counting errors were not used in the formal statistical analyses.

Table E.4 Descriptive Statistics of 1991 Kr Data (pCi/m³)

<u>Environmental Stations</u>	<u>N</u>	<u>Mean</u>	<u>Median</u>	<u>Standard Deviation</u>	<u>1st Quartile</u>	<u>3rd Quartile</u>	<u>Maximum</u>
BJY	46	23.96	24.00	3.61	21.53	26.03	34.10
Gravel Pit	40	23.95	22.73	4.95	20.28	26.75	38.00
Gate 200	42	22.49	22.95	3.40	20.26	25.10	28.00
Area 12 Camp	42	23.60	22.45	4.19	21.00	26.35	39.70
Area 15	42	23.41	22.10	4.01	20.78	26.18	33.10
Area 20 Camp	44	31.68	28.15	11.46	22.32	36.59	73.00
EMAD	<u>42</u>	<u>23.88</u>	<u>23.70</u>	<u>2.89</u>	<u>21.40</u>	<u>25.68</u>	<u>30.40</u>
All	298	24.8	23.5	6.34	21.1	26.5	73.0
<u>Event-Related Stations</u>							
U19ac	6	41.2	33.0	20.89	29.5	50.8	83.0
U19ba #4	8	51.4	48.1	15.70	37.7	68.6	71.5
U19ba #10	8	23.7	21.9	3.86	21.3	27.4	30.5
U20bf #7	4	22.3	22.5	4.71	17.7	26.6	27.8
U20bf #3/4	6	23.2	26.0	6.86	17.9	27.7	29.0
U20be #2	2	22.9	22.9	4.5	*	*	26.1
U20be #8	2	23.1	23.1	5.7	*	*	27.1
U20be #10	2	22.2	22.2	2.0	*	*	23.6

* Missing data value

A one-way ANOVA was used to compare seven areas for equality of krypton data means using the natural logarithms of the data. The ANOVA output is shown in Table E.5. The mean of the logarithms of data is the logarithm of the median of the original data. The standard deviation of the logarithms of data is the coefficient of variation of the original data.

Table E.5 One-Way Analysis of Variance on Natural Logarithm of Kr Concentrations for Differences between Stations [ln(pCi/m³)]

<u>Source</u>	<u>Degrees of Freedom</u>	<u>Sum of the Squares</u>	<u>Mean Squares</u>	<u>F-Statistic</u>	<u>p Value</u>
Between Station	6	2.5582	0.4264	11.21	0.000
Error	<u>291</u>	<u>11.0654</u>	0.0380		
Total	297	13.6236			

Table E.5 (One-Way Analysis of Variance on Natural Logarithm of Kr Concentrations for Differences between Stations [ln(pCi/m³)], cont.)

Station	N	Log Median	Standard Deviation	Individual 95 Percent CI's for Log Median Based on Pooled Standard Deviation			
				-----+-----+-----+-----			
BJY	46	3.1651	0.1549	(-----*-----)			
Gravel Pit	40	3.1568	0.196	(-----*-----)			
Gate 200	42	3.1005	0.1636	(-----*-----)			
Area 12	42	3.1476	0.1638	(-----*-----)			
Area 15	42	3.1394	0.1643	(-----*-----)			
Area 20	44	3.4007	0.3265			(-----*-----)	
E-MAD	42	3.1661	0.1209	(-----*-----)			
Pooled Standard Deviation = 0.1950				-----+-----+-----+-----	3.12	3.24	3.36

In an ANOVA table the degrees of freedom, sum of squares, mean squares, and the computed value of the F-statistic are shown; the "p Value" is the probability associated with the F-statistic. This is the probability that no significant differences between the stations were found. Since this probability is small, the conclusion is that there are significant differences. The analysis resulted in the highly significant finding that the means were not equal. A

Tukey's multiple comparison procedure was then used to determine the pattern of equality among the means. This procedure resulted in the finding that the Area 20 Camp mean value was significantly higher than the other means at the five percent significance level. This is the same pattern as was seen in the 1990 report. The assumed cause of the higher levels in Area 20 is atmospheric pumping from past underground events in Areas 19 and 20.

APPENDIX F ONSITE THERMOLUMINESCENT DOSIMETER DATA

Robert R. Kinnison

Thermoluminescent dosimeters (TLDs) were placed at 187 environmental monitoring stations at the NTS. The dosimeters were exchanged quarterly and read at the Reynolds Electrical & Engineering Co., Inc., Radiological Laboratory in Mercury. Tables F.1 and F.2 show the individual and control data, respectively. "Area" refers to the NTS area within which the sampling point is located, and "Location" identifies the sampling station within each area. An asterisk in this table denotes a missing data value.

The 1991 data include 4 more sample locations than were present in 1990. The new locations include 2 in Area 7 and 2 in Area 9. These were added to get better coverage of these areas. In 1990 each of these areas had only one environmental monitoring station. The station located at the storage shed in Area 15 was removed in 1991. The nine control locations are summarized in Table F.2 as well as being listed by area in Table F.1. The control dosimeters are located in places thought to be at background exposure levels. The area given in Table F.1 for the boundary stations gives the Area that is adjacent to the sampling station, these stations are close to or just outside of the NTS boundary.

Several station names were changed in 1991. Area 1 Stake TH-28 in the 1990 Annual Report should have been called Stake TH-27, and the name is correct in this report. Several stakes were also renamed to be consistent with the naming protocol, The renamed stakes are all in Area 19. Stake P-88 was P-87, Stake P-98 was P-88, Stake R-18 was R-20, Stake R-29 was R-31, and Stake R-8 was R-7.

Table F.1 TLD Network Gamma Exposure Rates - 1991

<u>Area/Location</u>	<u>1st Quarter (mR/day)</u>	<u>2nd Quarter (mR/day)</u>	<u>3rd Quarter (mR/day)</u>	<u>4th Quarter (mR/day)</u>	<u>Average Exposure (mR/day)</u>	<u>Yearly Exposure (mR/yr)</u>
1 BJY	*	0.26	0.30	0.36	0.31	112.
1 Sandbag Storage Hut	0.39	0.37	0.33	0.39	0.37	135.
1 Stake TH-27	0.33	0.32	0.33	0.39	0.34	125.
1 Stake TH-38	*	0.36	0.36	0.42	0.38	139.
2 Cable Yard	0.46	0.39	0.46	0.53	0.46	167.
2 Stake L-9	0.64	0.59	0.60	0.69	0.63	230.
2 Stake M-140	0.40	0.37	0.40	0.47	0.41	150.
2 Stake M-150	0.42	0.36	0.40	0.49	0.42	153.
2 Stake N-8	2.70	3.06	3.07	3.55	3.10	1130.
2 Stake TH-58	0.31	0.29	0.29	0.35	0.31	114.
3 Ah/at East	*	0.42	0.38	*	0.40	145.

* Missing data value

Table F.1 (TLD Network Gamma Exposure Rates - 1991, cont.)

<u>Area/Location</u>	<u>1st Quarter (mR/day)</u>	<u>2nd Quarter (mR/day)</u>	<u>3rd Quarter (mR/day)</u>	<u>4th Quarter (mR/day)</u>	<u>Average Exposure (mR/day)</u>	<u>Yearly Exposure (mR/yr)</u>
3 Ah/at North	0.44	0.41	0.39	0.51	0.43	158.
3 Ah/at South	0.64	0.60	0.58	0.71	0.63	231.
3 Ah/at South Gate	0.46	0.47	0.44	0.51	0.47	172.
3 Ah/at West	0.41	0.44	0.40	0.48	0.43	158.
3 Boundary TLD Station 358	0.27	0.17	0.22	*	0.22	79.
3 LANL Trailers	0.40	0.39	0.37	0.46	0.40	147.
3 Stake A-6.5	0.56	0.51	0.48	0.59	0.53	195.
3 Stake OB-20	0.27	0.28	0.27	0.33	0.29	106.
3 U3ax/bl Northeast	0.90	0.88	0.81	0.94	0.88	321.
3 U3ax/bl Northwest	0.58	0.55	0.51	0.65	0.57	210.
3 U3ax/bl South	0.48	0.48	0.47	0.55	0.49	181.
3 U3ax/bl Southeast	0.54	0.54	0.51	0.59	0.54	198.
3 U3by North	0.85	0.84	0.80	0.91	0.85	311.
3 U3by South	0.53	0.50	0.48	0.58	0.52	190.
3 U3bz North	0.66	0.64	0.59	0.48	0.59	217.
3 U3bz South	0.44	0.44	0.41	0.53	0.45	165.
3 U3cj North	0.43	0.44	0.41	0.52	0.45	165.
3 U3co North	2.06	3.03	1.73	2.25	2.27	827.
3 U3co South	1.93	1.94	1.80	2.09	1.94	708.
3 U3du North	0.50	0.50	0.50	0.58	0.52	190.
3 U3du South	0.55	0.55	0.48	0.62	0.55	202.
3 U3ey South	0.46	0.42	0.41	0.52	0.45	164.
4 Stake A-9	2.37	3.54	2.20	4.11	3.05	1115.
4 Stake M-130	0.38	*	0.36	0.45	0.40	145.
4 Stake TH-48	0.39	0.41	0.35	0.45	0.40	146.
5 RWMS East 1000'	0.40	0.39	0.40	0.30	0.38	137.
5 RWMS East 1500'	0.37	0.38	0.37	0.47	0.40	145.
5 RWMS East 500'	0.37	0.43	0.35	0.48	0.41	148.
5 RWMS East Gate	0.41	0.75	0.83	1.00	0.75	273.
5 RWMS MSM-1 East	3.38	3.19	2.93	3.61	3.28	1196.
5 RWMS MSM-1 North-Northeast	9.33	5.74	4.85	6.45	6.59	2406.
5 RWMS MSM-1 North-Northwest	2.96	2.80	2.71	2.03	2.62	958.
5 RWMS MSM-1 Northeast	1.98	1.80	1.63	2.15	1.89	689.
5 RWMS MSM-1 Northwest	2.94	2.71	2.59	3.17	2.85	1041.
5 RWMS MSM-1 South-Southeast	4.83	4.65	4.25	3.24	4.24	1549.
5 RWMS MSM-1 South-Southwest	3.10	2.97	2.65	3.23	2.99	1090.
5 RWMS MSM-1 Southeast	1.80	1.54	1.51	1.82	1.67	609.
5 RWMS MSM-1 Southwest	3.21	2.89	2.74	3.34	3.04	1111.
5 RWMS MSM-1 West	7.52	4.66	4.08	7.81	6.02	2196.
5 RWMS MSM-2 East	12.62	11.43	7.11	11.39	10.64	3883.
5 RWMS MSM-2 North	5.81	7.30	6.54	5.47	6.28	2292.
5 RWMS MSM-2 Northeast	4.59	4.27	3.78	4.70	4.34	1583.
5 RWMS MSM-2 Northwest	4.91	4.40	3.82	4.92	4.51	1647.
5 RWMS MSM-2 South	6.02	5.53	4.84	6.21	5.65	2062.

* Missing data value

Table F.1 (TLD Network Gamma Exposure Rates - 1991, cont.)

<u>Area/Location</u>	<u>1st Quarter (mR/day)</u>	<u>2nd Quarter (mR/day)</u>	<u>3rd Quarter (mR/day)</u>	<u>4th Quarter (mR/day)</u>	<u>Average Exposure (mR/day)</u>	<u>Yearly Exposure (mR/yr)</u>
5 RWMS MSM-2 Southeast	3.61	3.46	2.98	2.70	3.19	1163.
5 RWMS MSM-2 Southwest	3.75	3.51	3.12	3.80	3.54	1294.
5 RWMS MSM-2 West	8.32	7.46	5.29	7.48	7.14	2605.
5 RWMS North 1000'	0.40	0.37	0.41	0.48	0.42	152.
5 RWMS North 1500'	0.40	0.35	0.38	0.47	0.40	146.
5 RWMS North 500'	0.43	0.38	0.42	0.50	0.43	158.
5 RWMS Northeast Corner	0.37	0.23	0.39	0.45	0.36	132.
5 RWMS Northwest Corner	0.40	0.38	0.39	0.48	0.41	151.
5 RWMS Office	0.31	0.36	0.39	0.48	0.38	140.
5 RWMS Pit 3 North Side	0.44	*	0.43	0.51	0.46	168.
5 RWMS Pit 3 South Side	0.40	0.38	0.42	0.44	0.41	149.
5 RWMS Pit 4 North Side	0.43	0.39	0.43	0.52	0.44	161.
5 RWMS Pit 4 South Side	0.44	0.40	0.41	0.51	0.44	161.
5 RWMS South 500'	0.40	0.36	0.41	0.47	0.41	150.
5 RWMS South Gate	0.33	0.34	0.42	0.51	0.40	146.
5 RWMS Southwest Corner	0.37	0.35	0.37	0.48	0.39	143.
5 RWMS TRU Pad North	2.00	1.02	0.81	*	1.28	466.
5 RWMS TRU Pad Northeast	0.53	0.72	0.88	1.00	0.78	286.
5 RWMS TRU Pad Northwest	0.41	0.74	0.65	0.67	0.62	225.
5 RWMS TRU Pad South	0.53	2.44	1.40	1.78	1.54	562.
5 RWMS TRU Pad Southeast	0.38	1.05	0.94	1.19	0.89	325.
5 RWMS TRU Pad Southwest	0.38	1.07	0.99	1.12	0.89	325.
5 RWMS West 1000'	0.44	0.38	0.43	0.51	0.44	160.
5 RWMS West 1500'	0.41	0.39	0.42	0.47	0.42	154.
5 RWMS West 500'	0.39	0.37	0.40	0.50	0.41	151.
5 Well 5b	0.35	0.32	0.35	0.44	0.37	133.
6 CP-2 Logistic Desk	0.23	0.21	0.24	0.29	0.24	88.
6 CP-50 Calibration Bench	0.22	0.21	0.23	0.31	0.24	88.
6 CP-50 Calibration Door	0.50	0.39	0.52	0.64	0.51	186.
6 CP-6	0.22	0.21	0.23	0.29	0.24	86.
6 Decon Pad Back Room	0.30	0.28	0.28	0.31	0.29	106.
6 Decon Pad Office	0.30	0.36	0.32	0.37	0.34	123.
6 Stake OB-11.5	0.39	0.40	0.38	0.45	0.41	148.
6 Stake TH-1	*	0.23	0.24	0.28	0.25	91.
6 Stake TH-18	*	0.29	0.30	0.33	0.31	112.
6 Stake TH-9	*	0.33	0.34	0.38	0.35	127.
6 Well 3	0.34	0.32	0.33	0.41	0.35	128.
6 Yucca Oil Storage Area	0.32	0.31	0.32	0.37	0.33	120.
7 7-300 Bunker	1.03	0.94	0.99	1.15	1.03	376.
7 Reitmann Seep	*	0.36	0.37	*	0.37	134.
7 Ue7ns	*	0.31	0.35	0.41	0.36	130.
8 Boundary TLD Station 356	0.52	0.41	0.46	*	0.46	170.
8 Stake K-25	0.33	0.30	0.34	0.39	0.34	124.
9 9-300 Bunker	0.40	0.34	0.40	0.47	0.40	147.

* Missing data value

Table F.1 (TLD Network Gamma Exposure Rates - 1991, cont.)

<u>Area/Location</u>	<u>1st Quarter (mR/day)</u>	<u>2nd Quarter (mR/day)</u>	<u>3rd Quarter (mR/day)</u>	<u>4th Quarter (mR/day)</u>	<u>Average Exposure (mR/day)</u>	<u>Yearly Exposure (mR/yr)</u>
9 U9cw South	*	0.27	0.35	0.37	0.33	121.
9 V & G Road Junction	*	0.33	0.32	0.41	0.35	128.
10 Boundary TLD Station 357	0.29	0.24	0.23	*	0.26	94.
10 Circle & L Road	0.40	0.35	0.40	0.45	0.40	147.
10 Sedan East Visitor Box	0.48	0.46	0.44	0.53	0.48	175.
10 Sedan West	1.34	1.14	1.16	1.39	1.26	459.
10 Stake A-24	0.57	0.52	0.53	0.43	0.51	186.
10 Stake CA-14	0.40	0.38	0.38	0.47	0.41	148.
11 Boundary TLD Station 359	0.51	0.39	0.45	*	0.45	165.
11 Boundary TLD Station 360	0.25	0.16	0.20	*	0.20	74.
11 Gate 293	0.41	0.40	0.38	0.46	0.41	151.
12 Boundary TLD Station 355	0.37	0.29	*	*	0.33	119.
12 Building 12-10	0.39	0.39	0.35	0.47	0.40	147.
12 Stake M-168	*	0.40	0.37	0.48	0.42	153.
12 Stake M-170	*	0.37	0.35	0.43	0.38	139.
12 Stake M-175	0.40	0.41	0.37	0.46	0.41	149.
12 Stake TH-68.5	*	0.32	0.31	0.37	0.33	122.
12 T-Tunnel #2 Pond	*	1.36	1.33	1.64	1.44	527.
12 Upper Haines Lake	*	0.33	0.32	0.41	0.36	130.
12 Upper N Pond	*	0.41	0.38	0.49	0.43	156.
15 EPA Complex	0.36	0.31	0.33	0.41	0.35	129.
15 Lamp Shack	0.40	0.36	0.38	0.47	0.40	147.
15 Office	0.32	0.31	0.35	0.39	0.34	125.
15 Substation U15e	0.30	0.28	0.30	0.35	0.31	111.
17 Stake M-185	0.42	0.42	0.37	0.47	0.42	153.
17 Stake M-190	*	0.46	0.45	0.55	0.49	177.
18 Stake J-16	0.49	0.43	0.43	*	0.45	165.
18 Stake M-196	*	0.47	0.46	0.52	0.48	177.
18 Stake P-35	*	0.47	0.43	0.54	0.48	176.
18 Stake P-39	0.45	0.45	0.42	0.55	0.47	171.
19 Boundary TLD Station 352	0.32	0.23	0.28	*	0.28	101.
19 Boundary TLD Station 353	0.54	0.41	0.45	*	0.47	171.
19 Boundary TLD Station 354	0.49	0.40	0.45	*	0.45	163.
19 Stake C-16	*	0.46	0.41	0.53	0.47	170.
19 Stake C-25	0.46	0.48	0.42	0.56	0.48	175.
19 Stake C-27	*	0.49	0.46	0.57	0.51	185.
19 Stake C-31	0.46	0.48	0.45	0.57	0.49	178.
19 Stake P-41	*	0.50	0.49	0.39	0.46	169.
19 Stake P-46	*	0.43	0.42	0.52	0.46	166.
19 Stake P-54	*	0.42	0.39	0.50	0.44	160.
19 Stake P-59	*	0.51	0.51	0.58	0.53	194.
19 Stake P-66	*	0.50	0.48	0.59	0.52	191.
19 Stake P-71	0.47	0.49	0.46	0.58	0.50	182.
19 Stake P-77	0.54	0.46	0.50	0.54	0.51	185.

* Missing data value

Table F.1 (TLD Network Gamma Exposure Rates - 1991, cont.)

<u>Area/Location</u>	<u>1st Quarter (mR/day)</u>	<u>2nd Quarter (mR/day)</u>	<u>3rd Quarter (mR/day)</u>	<u>4th Quarter (mR/day)</u>	<u>Average Exposure (mR/day)</u>	<u>Yearly Exposure (mR/yr)</u>
19 Stake P-88	0.57	0.49	0.50	0.58	0.54	196.
19 Stake P-91	0.57	0.50	0.50	0.55	0.53	193.
19 Stake P-98	0.51	0.43	0.45	0.51	0.47	173.
19 Stake R-3	0.55	*	0.49	*	0.52	190.
19 Stake R-8	0.55	0.48	0.48	*	0.50	184.
19 Stake R-18	0.48	0.44	0.43	*	0.45	165.
19 Stake R-26	0.52	0.44	0.45	*	0.47	172.
19 Stake R-29	0.50	0.43	0.45	*	0.46	167.
19 Upper Well U19c Reservoir	0.54	0.46	0.42	0.54	0.49	179.
20 Boundary TLD Station 350	0.59	0.47	0.52	*	0.53	193.
20 Boundary TLD Station 351	0.52	0.42	0.45	*	0.46	169.
20 P & K Road Junction	0.49	0.48	0.43	0.47	0.47	170.
20 Stake A-106	0.54	0.51	0.47	0.52	0.51	186.
20 Stake J-24	0.51	0.42	0.41	0.50	0.46	168.
20 Stake J-31	1.08	0.91	0.97	*	0.99	360.
20 Stake J-6	0.52	0.52	0.47	*	0.50	184.
20 Stake P-116.5	0.50	0.43	0.44	0.49	0.46	170.
20 Stake P-120.5	0.49	0.41	0.43	*	0.44	162.
20 Stake P-124	0.51	0.29	0.44	0.49	0.43	157.
20 Stake P-129.5	0.53	0.46	0.46	0.52	0.49	180.
20 Stake P-134.5	0.50	0.41	0.45	0.47	0.46	166.
22 Boundary TLD Station 346	0.25	0.16	0.20	*	0.20	74.
22 Desert Rock Control Tower	0.21	0.22	0.22	0.30	0.24	87.
23 Building 180 Scaler Room	0.28	0.29	0.30	0.52	0.35	127.
23 Building 190 Bench Drawer	0.25	0.26	0.24	0.32	0.27	97.
23 Building 610 Bay	2.30	2.37	1.44	4.06	2.54	928.
23 Building 610 Gate	0.18	0.19	0.18	0.23	0.20	71.
23 Building 650 Dosimetry	0.18	0.18	0.17	0.22	0.19	69.
23 Building 650 Roof	0.18	0.19	0.17	0.21	0.19	69.
23 Building 650 Storage Room	0.24	0.35	0.29	0.33	0.30	110.
23 Gate 100	0.19	0.19	0.18	0.22	0.20	71.
23 Post Office	0.22	0.23	0.23	0.27	0.24	86.
25 25-4P Gate	0.40	0.41	0.39	0.45	0.41	151.
25 25-7P Gate	0.59	0.38	0.36	0.43	0.44	161.
25 E-MAD East	0.38	0.37	0.36	0.43	0.39	141.
25 E-MAD North	0.34	0.35	0.32	0.39	0.35	128.
25 E-MAD South	0.38	0.38	0.36	0.42	0.38	140.
25 E-MAD West	0.36	0.37	0.34	0.40	0.37	134.
25 Henre	0.39	0.40	0.38	0.45	0.40	147.
25 NRDS Warehouse	0.39	0.39	0.36	0.43	0.39	144.
27 Area 27 Cafeteria	0.41	0.41	0.42	0.45	0.42	154.
28 Boundary TLD Station 347	0.35	0.25	0.30	*	0.30	110.
30 Boundary TLD Station 349	*	0.42	0.42	*	0.42	155.
31 Boundary TLD Station 348	0.47	0.37	0.29	*	0.38	137.

* Missing data value

Table F.2 Summary of Control TLD Data for 1991

<u>Location</u>	<u>1st Quarter (mR/day)</u>	<u>2nd Quarter (mR/day)</u>	<u>3rd Quarter (mR/day)</u>	<u>4th Quarter (mR/day)</u>	<u>Average Exposure (mR/day)</u>	<u>Yearly Exposure (mR/yr)</u>
5 Well 5b	0.35	0.32	0.35	0.44	0.37	133.
6 CP-6	0.22	0.21	0.23	0.29	0.24	86.
6 Yucca Oil Storage Area	0.32	0.31	0.32	0.37	0.33	120.
23 Building 650 Dosimetry	0.18	0.18	0.17	0.22	0.19	69.
23 Building 650 Roof	0.18	0.19	0.17	0.21	0.19	69.
23 Post Office	0.22	0.23	0.23	0.27	0.24	86.
25 Henre	0.39	0.40	0.38	0.45	0.40	147.
25 NRDS Warehouse	0.39	0.39	0.36	0.43	0.39	144.
27 Area 27 Cafeteria	0.41	0.41	0.42	0.45	0.42	154.

DATA ANALYSIS

The data analysis was performed in two phases. The first phase used exploratory data analysis methods to determine the distribution of the data and to identify atypical values. The second phase used analysis of variance to test for significant differences between groups of data values.

Exploratory data analysis primarily consisted of probability plots of the data and logarithms of the data grouped by quarter and area. Figure F.1 is a typical probability plot. In some

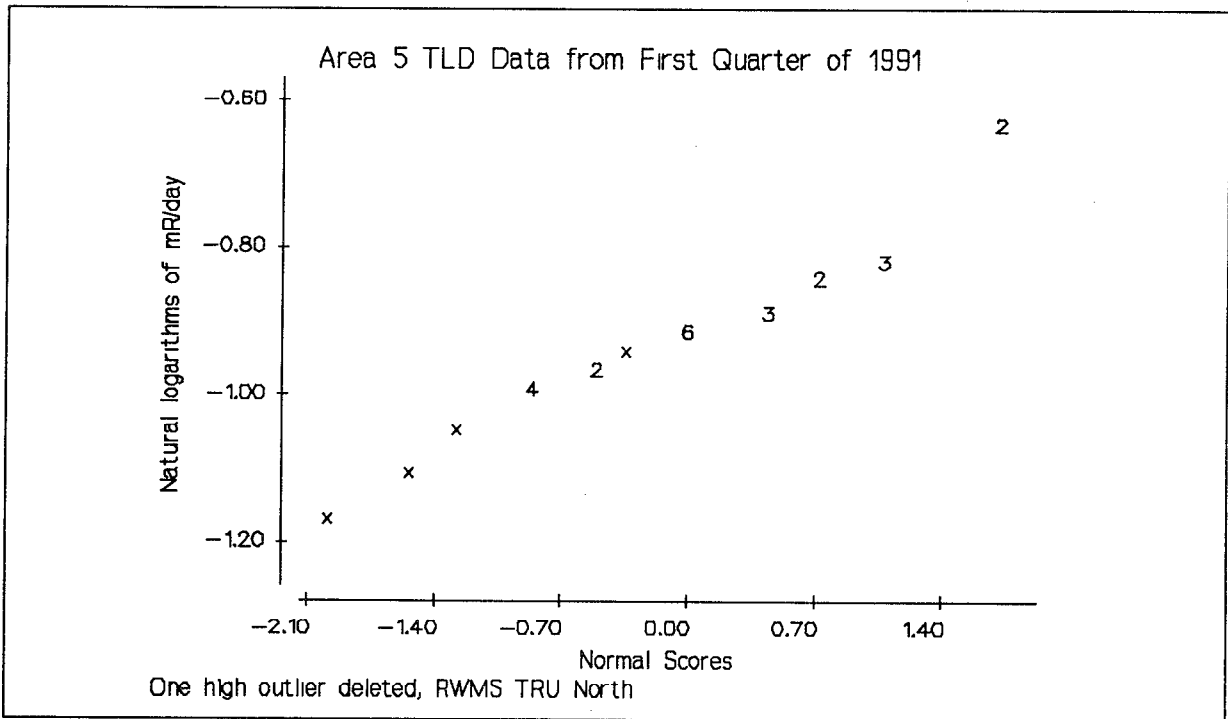


Figure F.1 Typical Lognormal Probability Plot

statistics text this type of plot is called a Q-Q (or quantile-quantile) plot because the data quantile is plotted on the ordinate and the corresponding expected value of the quantile, assuming a Gaussian distribution, is plotted on the abscissa. The numbers in Figure F.1 indicate where several identical data values occurs, in the data subset used for the figure there were six values of 0.40 millirem per day, and so on. "Goodness of fit" was tested using the correlation coefficient goodness of fit test, which is asymptotically equivalent to the Shapiro-Wilk test. This test is performed by calculating the product moment correlation coefficient between the data values and the corresponding expected quantiles, which is a measure of the linearity of the line plotted in Figure F.1. Tables published in the statistics literature are then used to find the probability of a good fit from the calculated correlation coefficient. Figure F.1 shows a good fit to a Gaussian distribution, the correlation is 0.969 with a sample size of 26. From the tables the probability of a Gaussian distribution is between 0.10 and 0.25. Since Figure F.1 uses the logarithms of the data values, this figure shows a reasonable fit to a lognormal statistical distribution.

When a probability plot showed data points that were grossly higher or lower than most, they were removed and the goodness of fit test repeated. If the remaining data fit a normal or lognormal distribution the high or low data points were assigned to Table F.3 which lists all atypical values. With very few exceptions, after atypical values were removed, the data fit lognormal distribution and many data subsets fit both a normal and a lognormal distribution. Because of these findings, it was decided to do the statistical comparisons, using the Analyses of Variance, on the natural logarithms of the data. In the 1990 Annual Report the data seemed to fit both a normal and a lognormal distribution and the normal was chosen for analysis to facilitate interpretation of the statistical results. Typically, when lognormal data have a narrow range of values they will also statistically fit a normal distribution. It is generally accepted that most environmental data are lognormally distributed.

In the 1990 annual report it was found that the data collected in Area 5 adjacent to the Mound Strategic Material (MSM) storage site, monitoring station names including MSM-1 or MSM-2, were substantially higher than the environmental monitoring stations. This was to be expected because this storage site contains a substantial inventory of radioisotopes and thus the data from these TLDs cannot be considered as environmental monitoring. This condition continued into 1991 and thus the data from the MSM monitoring stations were not used for the evaluation of environmental exposures again in 1991. The MSM data are included in Table F.1.

One way that the special case of the MSM data was recognized was by a segmented shape of its probability plot. A second situation of this type was identified in 1991. Figure F.2 is the probability plot for the second quarter data from Area 5. A line has been drawn in at about an exposure level of 0.5 millirem per day. This line divides the data into two approximately straight line segments. This shape should be compared to Figure F.1 which gives the data from the same monitoring stations for the first quarter of the year and which shows no segmentation. The corresponding plots for the third and fourth quarters also showed two segments. An examination of the Area 5 data, excluding the MSM data, shows that the second segment data, those values above 0.50 millirem per day, are from the monitoring stations surrounding the transuranic storage pad (TRU pad). When the TRU pad data were removed from the probability plot, the remaining data plotted as approximately a straight line and fit both a normal and lognormal distribution.

There was a change in activities at the transuranic storage pad beginning in April of 1991 that can account for the data pattern shown in Figure F.2. Prior to this change the materials were

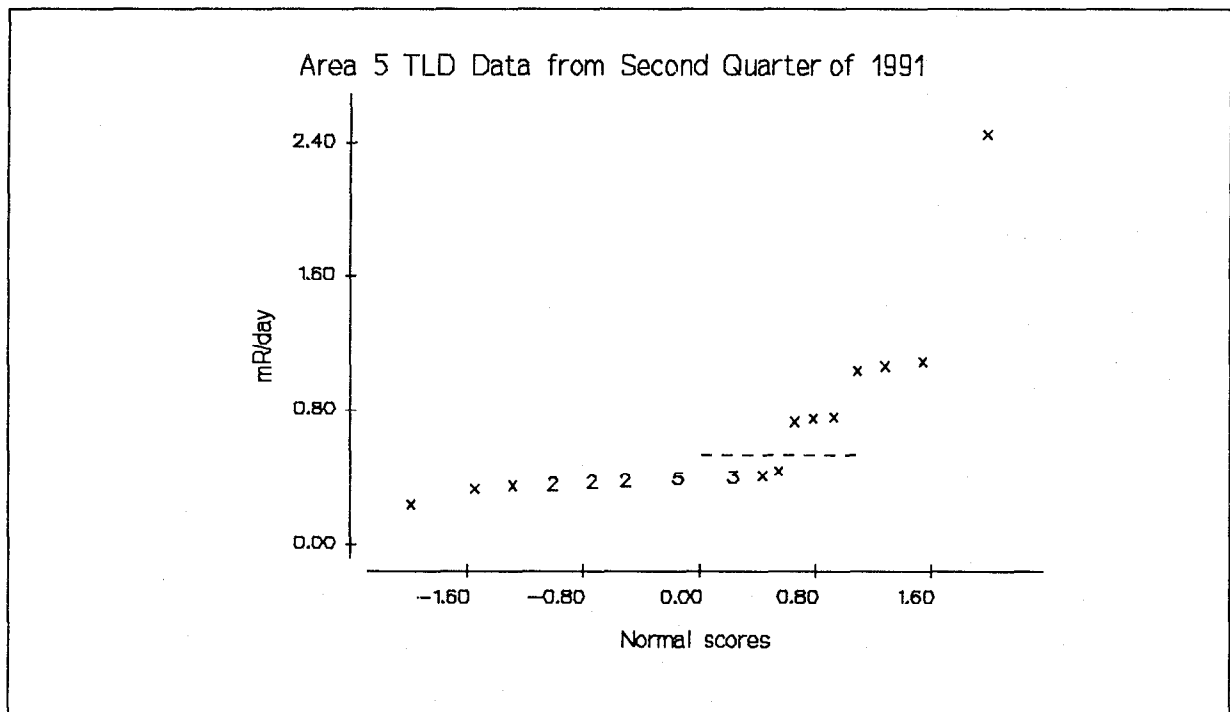


Figure F.2 Typical Mixed Distribution Probability Plot

stored in drums which were in turn stored in large transportation containers. The state of Nevada ordered that for RCRA compliance the drums be spread out over the pad so that they could be individually inspected periodically. This reconfiguration was accomplished in April of 1991 and is the apparent cause of the increased TLD exposures registered in the monitoring stations adjacent to this storage pad. Because these increased exposures are from a known radiation source they are not environmental exposures and, like the MSM data, were deleted from the data used for environmental assessment.

Table F.3 lists those data values that were found to be atypical and gives the arithmetic mean of the data for the operational area with the atypical values removed. For comparison, the arithmetic mean of all sampling stations with all data from atypical and RWMS MSM sampling stations removed was 0.42 mR/day. The examination for atypical values could not be done on several of the data subsets because of small sample size; data from Areas 4, 7, 8, 9, 11, 15, 17, 18, 22, 27, 28, 30 and 31 had sample sizes of four or smaller for each quarter. Table F.3 does not include the high data values associated with the MSM-1 and MSM-2 areas within Area 5 for two reasons. These areas are posted as high radiation areas used for temporary storage of radioactive waste from other DOE facilities. The mean of these data is about 10 times higher than the mean of other NTS areas. The atypically high values caused by the reconfiguration of the Area 5 Transuranic pad are also not included in Table 3.

Table F.3 is almost identical to the corresponding tables in the 1989 and 1990 annual reports. The Area 10 atypical values are caused by the dosimeter being located close to the SEDAN crater. In Area 12 the tunnel ponds are known to contain fission products. The bay in Building 610 is used to store radiological calibration sources. The atypically high value in Area 25 at Gate 7P for the first quarter is new in 1991 and has no known cause. The datum for Area 12 T-Tunnel #2 pond is missing for the first quarter. The pattern from previous years and the remaining quarters suggests that the first quarter value was also atypically high.

Table F.3 Atypical Data Values (mR/day) - 1991 TLD Data

<u>Area Location</u>	<u>Quarter</u>	<u>Atypical Data</u>	<u>Group Mean</u>
Area 2, Stake 2N-8	1	2.70	0.45
Area 2, Stake 2N-8	2	3.06	0.40
Area 2, Stake 2N-8	3	3.07	0.43
Area 2, Stake 2N-8	4	3.55	0.51
Area 3, U3co North	1	2.06	0.51
Area 3, U3co North	2	3.03	0.49
Area 3, U3co North	3	1.73	0.47
Area 3, U3co North	4	2.25	0.58
Area 3, U3co South	1	1.93	0.51
Area 3, U3co South	2	1.94	0.49
Area 3, U3co South	3	1.80	0.47
Area 3, U3co South	4	2.09	0.58
Area 4, Stake 4A-9	1	2.37	0.38
Area 4, Stake 4A-9	2	3.54	0.41
Area 4, Stake 4A-9	3	2.20	0.36
Area 4, Stake 4A-9	4	4.11	0.45
Area 7, 7-300 Bunker	1	1.03	-
Area 7, 7-300 Bunker	2	0.94	-
Area 7, 7-300 Bunker	3	0.99	-
Area 7, 7-300 Bunker	4	1.15	-
Area 10, Sedan West	1	1.34	0.43
Area 10, Sedan West	2	1.14	0.39
Area 10, Sedan West	3	1.16	0.40
Area 10, Sedan West	4	1.39	0.47
Area 12, T Tunnel #2 Pond	2	1.36	0.37
Area 12, T Tunnel #2 Pond	3	1.33	0.35
Area 12, T Tunnel #2 Pond	4	1.64	0.44
Area 20, Stake J-31	1	1.08	0.52
Area 20, Stake J-31	2	0.91	0.44
Area 20, Stake J-31	3	0.97	0.45
Area 20, Stake J-31	4	*	0.49
Area 23 Bldg. 610 Bay	1	2.30	0.22
Area 23 Bldg. 610 Bay	2	2.37	0.24
Area 23 Bldg. 610 Bay	3	1.44	0.22
Area 23 Bldg. 610 Bay	4	4.06	0.29
Area 25 Gate 7P	1	0.59	0.38

* Missing data value

All but one of the remaining atypical values are from sampling stations located in Yucca Flat or in areas known to be contaminated from early atmospheric testing. The one remaining atypical value is from the sampling station at Stake J-31, in the far northwest corner of the NTS, about one mile north of the PALANQUIN and CABRIOLET test sites. These two cratering tests occurred in the mid 1960s, and the plumes from them travelled northward. There is no group mean given for Area 7 because the atypical value is from the only station

within that area, and this value was judged to be atypical using data from surrounding areas. The annual arithmetic average mR/day at Stake 2N-8 may be decreasing. This average for the years 1989, 1990 and 1991 were 4.33, 3.96 and 3.10 respectively.

Table F.4 summarizes the data with the atypical values removed and gives the number of remaining data values and the mean with the data grouped by area and quarter. The column

Table F.4 Average mR/day Data with Atypical Values Removed

Area	Quarter					Area	Quarter				
	1	2	3	4	All		1	2	3	4	All
1	2 0.33	4 0.33	4 0.33	4 0.39	14 0.35	15	4 0.35	4 0.32	4 0.34	4 0.41	16 0.35
2	5 0.45	5 0.40	5 0.43	5 0.51	20 0.44	17	1 0.42	2 0.44	2 0.41	2 0.51	7 0.45
3	21 0.51	22 0.49	22 0.47	20 0.58	85 0.51	18	1 0.45	3 0.46	3 0.44	3 0.54	10 0.48
4	2 0.39	1 0.41	2 0.36	2 0.45	7 0.40	19	16 0.50	22 0.45	23 0.45	15 0.54	76 0.48
5	20 0.39	19 0.37	20 0.40	20 0.47	79 0.41	20	12 0.52	12 0.44	12 0.45	7 0.49	43 0.47
5.1 ^(a)	18 5.04	18 4.46	18 3.75	18 4.64	72 4.47	22	2 0.23	2 0.19	2 0.21	1 0.30	7 0.22
5.2 ^(b)	5 0.45	5 1.20	5 0.97	5 1.15	20 0.94	23	8 0.22	8 0.24	8 0.22	8 0.29	32 0.24
6	7 0.28	10 0.28	10 0.28	10 0.33	37 0.29	25	7 0.38	7 0.38	7 0.36	7 0.42	28 0.39
7	0 --	2 0.34	2 0.36	1 0.41	5 0.36	27	1 0.41	1 0.41	1 0.42	1 0.45	4 0.42
8	2 0.43	2 0.36	2 0.40	1 0.39	7 0.39	28	1 0.35	1 0.25	1 0.30	0 --	3 0.30
9	1 0.40	3 0.31	3 0.36	3 0.42	10 0.37	30	0 --	1 0.42	1 0.42	0 --	2 0.42
10	5 0.43	5 0.39	5 0.40	4 0.47	19 0.42	31	1 0.47	1 0.37	1 0.29	0 --	3 0.38
11	3 0.39	3 0.32	3 0.34	1 0.46	10 0.36	Column Means All Data	148 0.98	171 0.84	173 0.76	149 0.99	641 0.89
12	3 0.39	8 0.37	7 0.35	7 0.44	25 0.39	Column Means Excluding (a),(b)	125 0.42	148 0.39	150 0.39	126 0.47	549 0.41

(a) The area coded as 5.1 refers to only the MSM-1 and MSM-2 locations.

(b) The area coded as 5.2 refers to only the transuranic pad locations.

marked "All" gives the total number of samples for each row and the row mean, which averages over the quarters for each area. The bottom row, marked "Total," gives the total number of samples for each column and the column mean, which averages over the areas for each quarter. In this table note that the row totals have sample sizes that range from 2 to 85, while the column totals have sample sizes from 148 to 173. This is statistically a very important characteristic because it strongly influences the way patterns of significant differences can be elucidated.

The first step in the formal statistical analysis of these data was to perform a two-way Analysis of Variance (ANOVA) to simultaneously test for differences between areas and differences between quarters. Most applicable ANOVA programs require equal sample sizes within the cells of data and thus cannot be used with this data set. It was necessary to use a "Generalized Linear Model" program in order to calculate this ANOVA with variable sample sizes within the cells. The generalized linear model assumes that the ANOVA effects are fixed and fully crossed; these are reasonable assumptions for the TLD data. Since the data have a lognormal statistical distribution, the analyses of variance were calculated using the natural logarithms of the data values. An analysis was performed using all the data; that is, without removing the atypical values and the data from known areas of high radiation. This showed differences between areas and differences between quarters. Examination of Table F.4 column means suggest that the fourth quarter mean might be higher than the means of the other quarters. When the fourth quarter data were removed and the analysis repeated, no significant differences between quarters was found. The analysis with the atypical values, MSM-1 data, MSM-2 and the transuranic pad data removed also showed differences between areas and quarters. Again, removing the fourth quarter data resulted in no significant differences among the first three quarters. In order to test for interactions between areas and quarters it was necessary to remove the data for Areas 7, 28, 30 and 31 since these rows of data had empty cells. The ANOVA table for the data without atypical values and radiation areas, and without areas with empty cells is shown in Table F.5.

Table F.5 Analysis of Variance on Edited Data

<u>Source</u>	<u>Degrees of Freedom</u>	<u>Sum of the Squares</u>	<u>Mean Square</u>	<u>F-Statistic</u>	<u>p Value</u>
Area	19	23.91990	1.25894	35.26	0.000
Quarter	3	1.52984	0.50995	14.28	0.000
Area X Quarter	57	0.77483	0.01359	0.38	1.000
Error	460	16.42629	0.03571		

This table shows the same pattern of differences between quarters and areas as the analyses with all the data and as the analyses with atypical values removed. When the fourth quarter data was removed from the analysis the F-value for differences between quarters decreased to 2.25 with a corresponding probability of 0.107, which corresponds to no significant differences between the first three quarters of the year. Thus the significant differences between all quarters is due to an increased mean value for the fourth quarter. In addition, Table F.5 shows no interaction between quarters and areas. Interaction could not be included in the analyses using all the data because it cannot be computed if empty cells are in the data. However the very low F-value for interaction in Table F.5 suggests that there would be no interaction in all the data if it could be computed.

Tukey's multiple comparison procedure was used to elucidate the significance of differences between areas. Because of the vastly differing number of data values for the areas (the "All" columns in Table F.4), no consistent or interpretable patterns could be found. The reason for the vastly different number of data values for the areas is that the number of sampling stations is a reflection of the amount of activity in the area. Areas that are now being used for testing, such as Yucca Valley which contains Areas 1, 2, 3, 4, 7, and 9, contain numerous sampling stations while Area 29 contains none because it is a rugged mountainous area that has never been used for testing.

Statistically it would be desirable to aggregate the sampling locations into groups of more equal size, however the grouping must be upon *a priori* considerations of sampling station characteristics. The current grouping, with the very unequal number of data per group, is based on *a priori* considerations. The NTS areas were originally established as areas for a particular testing program, but current usage is usually different from the original usage. The areas also have defined geological characteristics, many of the areas are totally contained in valley floors while others are mountainous or contain only high plateaus. This is a good way to separate groups since the localized meteorology and geomorphology are consistent within areas. Since the areas associated with a small number of sampling stations have obviously different localized meteorology and geomorphology, their data should not be combined into larger groupings. The alternate approach would be to break up the groups containing many sampling stations into subgroups more equal in number of sampling stations to the currently defined groups containing few sampling stations, even though such would reduce the statistical power of the ANOVA test.

With the NTS data such an alternative is statistically a poor choice. The sampling stations are close together in areas of high testing activity by choice for the purpose of localized detection of small releases. In areas where there is no potential sources of effluent, there is no reason to have sampling stations. There is little *a priori* information available to establish subsets of the areas with many sampling stations. The localized meteorology and geomorphology is similar for all sampling stations within these areas. In fact, it seems reasonable to combine the areas of Yucca Valley into one group, even though these areas already have the highest density of sampling stations, because of the almost identical meteorology and geomorphology. Each NTS area in Yucca Valley is used by a different testing organization and thus there may be a different potential for environmental contamination between the areas.

The general conclusion from the analyses of variance for 1991 is that there are differences between NTS areas in levels of environmental exposure but a pattern of differences cannot be elucidated because of vastly different numbers of samples from the many areas. In addition, the exposure levels during the fourth quarter are higher than during the first three quarters.

In previous annual reports this appendix ended with a comparison of data from the last several years. For this annual report this comparison has been expanded and moved to Appendix G.

APPENDIX G

HISTORICAL TRENDS IN ONSITE THERMOLUMINESCENT DOSIMETER DATA

Robert R. Kinnison

Thermoluminescent dosimeters (TLD's) have been used for ambient gamma monitoring within the NTS for a number of years. This monitoring started in 1977 with 10 stations chosen to be close to workers. By 1981 this network had expanded to 163 stations covering most areas of the NTS. Since 1981 only a few stations have been added or removed. From 1977 to 1987 TLD's used were manufactured by the Harshaw Chemical Co. In 1987 a changeover was made to TLD's manufactured by Panasonic. Because of this changeover, a comparison of the early years to current years is not totally appropriate. The designated background stations are most comparable between the two types of TLD's because of the calibration procedures. In late 1988 a calibration problem was discovered that may have caused inaccurate results in the 1988 data.

BACKGROUND DATA

Table G.1 displays the annual average millirem per day data from the nine designated background stations for the years in which the monitoring network has been relatively unchanged, 1981 to the present.

Table G.1 Average Annual Millirem per Day for Background TLD Stations

Location	YEAR										
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Bldg. 650 Dosimetry	.21	.19	.21	.15	.13	.31	.14	.26	.20	.20	.19
Bldg. 650 Roof	.18	.18	.18	.14	.12	.13	.17	.24	.19	.19	.19
Area 27 Cafeteria	.41	.37	.39	.32	.29	.27	.38	.49	.40	.40	.42
CP-6	.25	.20	.25	.18	.17	.13	.21	.36	.12	.12	.24
HENRE Site	.39	.37	.36	.30	.28	.27	.34	.47	.39	.39	.40
NRDS Warehouse	.40	.38	.36	.32	.28	.28	.39	.45	.39	.39	.39
Post Office	.20	.18	.18	.14	.13	.16	.24	.29	.23	.23	.24
Well 5B	.38	.33	.33	.27	.26	.22	.33	.43	.34	.34	.37
Yucca Oil Storage	.30	.28	.28	.23	.21	.22	.31	.29	.32	.32	.33

The nine data points per year are too few for a statistical review of distributional properties. The review of the statistical properties of all the TLD data (this report, Appendix F, and previous years annual reports) concludes that TLD data is lognormally distributed. Thus the natural logarithms of the data in Table G.1 were used for statistical analysis of trends. A one-way analysis of variance was chosen for the initial analysis to determine if there is any significant differences between years. This statistical test will determine if there are any significant differences between years caused by any type of trend. If significance is found, then an evaluation of the type of trend can be done. Table G.2 gives the analysis of variance results produced by the MINITAB Statistical Software System.

Table G.2 One-Way Analysis of Variance for Differences Between Years

<u>Source</u>	<u>Degrees of Freedom</u>	<u>Sum of the Squares</u>	<u>Mean Square</u>	<u>F-Statistic</u>	<u>p Value</u>
Year	10	2.518	0.252	2.05	0.037
Error	88	10.799	0.123		
Total	98	13.317			

<u>Year</u>	<u>N</u>	<u>Log Mean</u>	<u>Standard Deviation</u>	<u>Median</u>	Individual 95 Percent Confidence Intervals Standard for the Log of the Median Based on a Pooled Standard Deviation
81	9	-1.2436	0.3310	0.2883	(-----*-----)
82	9	-1.3375	0.3339	0.2625	(-----*-----)
83	9	-1.3048	0.3041	0.2712	(-----*-----)
84	9	-1.5340	0.3558	0.2157	(-----*-----)
85	9	-1.6294	0.3692	0.1960	(-----*-----)
86	9	-1.5560	0.3352	0.2110	(-----*-----)
87	9	-1.3341	0.3681	0.2634	(-----*-----)
88	9	-1.0442	0.2786	0.3520	(-----*-----)
89	9	-1.3195	0.4147	0.2672	(-----*-----)
90	9	-1.3195	0.4147	0.2673	(-----*-----)
91	9	-1.2227	0.3224	0.2944	(-----*-----)

Pooled Standard Deviation = 0.3503

-----+-----+-----+-----+-----
-1.80 -1.50 -1.20 -0.90

This table has been edited to include the median in millirem per day for each year so that there are values for comparison that are in the same units as the data in Table G.1. The median for comparison, the U.S. average exposure is generally assumed to be 100 millirem per year. The median is the antilogarithm of the mean of the logarithms of the data.

Table G.2 indicates that there are some differences between the years, a probability or p-value of less than 0.05 indicates that the hypothesis of no differences can be rejected with 95 percent confidence. The next step is to determine what the significant differences are since a probability of 0.037 is only slightly smaller than 0.05 so one would expect that there are few significant differences between the years. An examination of the means and confidence intervals plot part of Table G.2 suggest that perhaps the means for 1985 and 1986 are significantly smaller than the mean for 1988. An examination of the data in Table G.1 and histograms of that data (the histograms of the data are not included in this report) indicate that the data for all years do not contain outliers, rather the data for 1985 and 1986 seem to be all shifted towards lower values and the data from 1988 are all shifted high. The statistical significance of these possible differences between years were tested using "Tukey contrast." Contrast is a way of simultaneously testing all possible differences between years while maintaining an overall nominal error rate. When a nominal error rate of 0.05 was specified the Tukey contrast (using MINITAB) showed that there was only one significant difference between years, 1985 is different from 1988. Furthermore, 1985 is not significantly different from any years other than 1988, and 1988 is not significantly different from any years other

than 1985. The higher values in 1988 are likely due to the calibration problem discussed at the end of the first paragraph of this chapter. If this is the case, and the 1988 values could be adjusted to be similar to the values for 1987 and 1989, then there would be no significant difference between any of the years.

The analysis of variance is not sensitive to gradual trends that could be well within the confidence interval of the data. Table G.2 shows that such a trend could have occurred from 1981 to 1985. However after 1985 this trend is broken and the pattern over all years shows a relatively constant background gamma level with possibly an insignificant lowering from 1984 to 1986. Because of the lack of a pattern of mean values over all years and the lack of significant differences found by the analysis of variance, no further investigation of historical trends in background data was attempted.

ENVIRONMENTAL SAMPLING STATIONS

For the data collected using the Panasonic TLD's, from 1987 to the present, it is reasonable to use all the data for examination for possible trends. The background station data analyzed in the previous section are included in this data set and are listed in the operational area of the NTS in which they are located. These data are presented in Table G.3; an asterisk in this table denotes a missing value and the pattern of missing values shows how monitoring stations have been added and removed over the years. Data from TLD's monitoring the Mound Strategic Material storage site were deleted from this analysis because these locations are known to be in a posted and controlled high radiation area. The data coded as being in Area 99, at the end of Table G.3, are actually "boundary" stations, which are monitoring stations that are somewhat evenly spaced around the perimeter of the NTS and typically are just outside the boundary. These boundary stations are identified by their location given in Nevada Grid Coordinates (U.S. Geodetic Survey State Plane Coordinates), and by two identification numbers in parentheses. The first of the identification numbers was assigned to each boundary station when they were established and the second is a new identification number assigned in 1991 to be consistent with other TLD identification numbers. The Nevada Grid Coordinate values given in Table G.3 differ slightly from the values given in previous annual reports. In 1991 these locations were surveyed using satellite global positioning

Table G. 3 Average Annual millirem per Year for NTS Environmental Monitoring TLD's

Station Name	YEAR				
	1987	1988	1989	1990	1991
Area 1, BJY	144	172	141	139	112
Area 1, Sandbag Storage Hut	149	135	130	132	135
Area 1, Stake TH-27	*	*	158	125	125
Area 1, Stake TH-38	146	157	129	139	139
Area 2, Cable Yard	*	164	314	167	167
Area 2, Stake M-140	159	168	154	150	150
Area 2, Stake M-150	176	181	163	152	153
Area 2, Stake 2L-9	324	339	251	236	230

* Missing data value

Table G.3 (Average Annual millirem per Year for NTS Environmental Monitoring TLD's, cont.)

Station Name	YEAR				
	1987	1988	1989	1990	1991
Area 2, Stake TH-58	116	151	108	112	114
Area 2, Stake 2N-8	2046	1905	1581	1445	1130
Area 3, LANL Trailers	*	139	147	141	147
Area 3, Stake OB-11.5	*	230	225	145	148
Area 3, Stake 3A-6.5	*	*	149	186	*
Area 3, D & OB Rd Jct	*	102	108	104	*
Area 3, A-Hat North	*	*	*	151	158
Area 3, A-Hat West	*	*	*	150	158
Area 3, A-Hat South Gate	*	*	*	152	172
Area 3, A-Hat South	*	*	*	227	231
Area 3, A-Hat East	*	*	*	148	145
Area 3, U3ax/bl NE	408	374	340	319	321
Area 3, U3ax/bl NW	209	*	213	208	210
Area 3, U3ax/bl SE	223	217	202	196	198
Area 3, U3ax/bl So	193	193	179	173	181
Area 3, U3by No	623	388	326	310	311
Area 3, U3by So	186	206	187	181	190
Area 3, U3bz No	234	281	239	230	217
Area 3, U3bz So	170	183	170	164	165
Area 3, U3cj So	*	164	160	196	*
Area 3, U3co No	1134	1110	1218	1147	827
Area 3, U3co So	758	770	752	710	708
Area 3, U3du No	206	186	192	186	190
Area 3, U3du So	195	241	223	203	202
Area 3, U3ey So	*	347	167	159	164
Area 4, Stake M-130	183	161	139	135	145
Area 4, Stake 4A-9	1641	1484	1497	1408	1115
Area 4, Stake TH-48	144	166	148	148	146
Area 5, RWMS East 1000	149	184	148	144	137
Area 5, RWMS East 1500	146	175	139	139	145
Area 5, RWMS East 500	349	177	140	139	148
Area 5, RWMS East Gate	170	162	139	136	273
Area 5, RWMS North 1000	150	175	148	141	152
Area 5, RWMS North 1500	168	172	149	139	146
Area 5, RWMS North 500	146	228	154	152	158
Area 5, RWMS Northeast Corner	168	183	144	139	132
Area 5, RWMS Northwest Corner	162	186	153	145	151
Area 5, RWMS Office	101	128	121	110	140
Area 5, RWMS South 500	113	183	146	142	150
Area 5, RWMS South Gate	278	558	142	119	146
Area 5, RWMS Southwest Corner	135	168	142	136	143

* Missing data value

Table G. 3 (Average Annual millirem per Year for NTS Environmental Monitoring TLD's, cont.)

Station Name	YEAR				
	1987	1988	1989	1990	1991
Area 5, RWMS West 1000	148	190	156	153	160
Area 5, RWMS West 1500	145	204	152	149	154
Area 5, RWMS West 500	152	179	148	142	151
Area 5, RWMS Pit 3 No Side	*	*	*	140	168
Area 5, RWMS Pit 3 So Side	*	*	*	132	149
Area 5, RWMS Pit 4 No Side	*	*	*	148	161
Area 5, RWMS Pit 4 So Side	*	*	*	176	161
Area 5, RWMS Tru Northeast	*	*	*	177	286
Area 5, RWMS Tru North	*	*	*	829	466
Area 5, RWMS Tru Northwest	*	*	*	140	225
Area 5, RWMS Tru Southwest	*	*	*	124	325
Area 5, RWMS Tru South	*	*	*	180	562
Area 5, RWMS Tru Southeast	*	*	*	125	325
Area 5, Well 5B	119	157	129	125	133
Area 6, CP-2 Logistic Desk	81	80	83	88	88
Area 6, CP-50 Calib. Bench	127	120	91	111	88
Area 6, CP-50 Inst. Calib. Door	136	126	148	162	186
Area 6, CP-6	76	131	100	90	86
Area 6, Decon Pad Back Room	92	117	108	111	106
Area 6, Decon Pad Office	105	117	82	120	123
Area 6, Stake TH-1	110	100	90	91	91
Area 6, Stake TH-9	146	146	121	126	127
Area 6, Stake TH-18	131	128	105	110	112
Area 6, Well 3	*	135	130	123	128
Area 6, Yucca Oil Storage Area	112	106	115	116	120
Area 7, 7-300 Bunker	461	485	385	375	376
Area 8, Stake 8K-25	120	150	126	122	124
Area 9, 9-300 Bunker	149	179	151	148	147
Area 10, Stake 10A-24	240	263	225	210	186
Area 10, Circle & L Road	155	175	146	142	147
Area 10, Sedan East Visitor Box	188	210	174	174	175
Area 10, Sedan West	611	626	520	482	459
Area 10, Stake CA-14	*	204	172	153	148
Area 11, Gate 293	133	158	153	132	151
Area 12, Bldg. 12-10	132	139	116	146	147
Area 12, Stake M-168	146	124	112	143	153
Area 12, Stake M-170	168	319	108	138	139
Area 12, Stake M-175	141	131	119	147	149
Area 12, Stake TH-68.5	123	131	92	119	122
Area 12, T-Tunnel #2 Pond	349	358	340	295	527
Area 12, Upper Haines Lake	138	157	102	131	130

* Missing data value

Table G. 3 (Average Annual millirem per Year for NTS Environmental Monitoring TLD's, cont.)

Station Name	YEAR				
	1987	1988	1989	1990	1991
Area 12, Upper N Pond	148	195	124	155	156
Area 15, EPA Farm	134	155	134	124	129
Area 15, Lamp Shack	144	170	145	143	147
Area 15, Office	*	*	112	109	125
Area 15, Storage Shed U15e	151	173	147	77	*
Area 15, Sub Station U15e	129	137	254	109	111
Area 17, Stake M-185	149	142	153	154	153
Area 17, Stake M-190	153	201	166	174	177
Area 18, Stake M-196	163	219	165	171	177
Area 18, Stake P-35	175	204	172	179	176
Area 18, Stake P-39	175	131	167	128	171
Area 19, Stake C-16	163	203	164	168	170
Area 19, Stake C-25	151	199	166	172	175
Area 19, Stake C-27	182	192	174	178	185
Area 19, Stake C-31	689	262	164	174	178
Area 19, Stake P-41	185	214	186	183	169
Area 19, Stake P-46	152	179	156	162	166
Area 19, Stake P-54	158	181	156	154	160
Area 19, Stake P-59	185	214	185	190	194
Area 19, Stake P-66	176	270	193	187	191
Area 19, Stake P-71	185	199	172	174	182
Area 19, Stake P-77	173	199	190	192	185
Area 19, Stake P-88	207	307	182	200	196
Area 19, Stake P-91	178	188	189	188	193
Area 19, Stake P-98	*	*	*	177	173
Area 19, Stake R-3	191	208	191	195	190
Area 19, Stake R-8	*	*	*	197	184
Area 19, Stake R-18	*	*	*	170	165
Area 19, Stake R-26	*	186	177	178	172
Area 19, Stake R-29	*	*	*	172	167
Area 19, Upper Well U19C Res	*	192	163	172	179
Area 20, Stake A-106	*	292	120	177	186
Area 20, P & K Rd Jct	*	184	164	169	170
Area 20, Stake P-116.5	172	186	202	170	170
Area 20, Stake P-120.5	193	175	165	166	162
Area 20, Stake P-124	175	197	171	174	157
Area 20, Stake P-129.5	180	186	179	183	180
Area 20, Stake P-134.5	172	186	118	174	166
Area 20, Stake J-6	*	175	181	188	184
Area 20, Stake J-16	181	188	167	131	165
Area 20, Stake J-24	167	190	222	168	168

* Missing data value

Table G.3 (Average Annual millirem per Year for NTS Environmental Monitoring TLD's, cont.)

Station Name	YEAR				
	1987	1988	1989	1990	1991
Area 23, Bldg. 610 Bay	952	801	382	674	928
Area 23, Bldg. 650 Dosimetry	51	95	69	73	69
Area 23, Bldg. 650 Roof	62	86	64	69	69
Area 23, Bldg. 650 Storage Room	140	126	76	87	110
Area 23, Gate 100	62	91	69	71	71
Area 23, Post Office	89	106	83	83	86
Area 23, Bldg. 180 Scaler Room	95	139	110	113	127
Area 25, 25-4P Gate	134	173	146	145	151
Area 25, 25-7P Gate	130	179	137	159	161
Area 25, E-MAD East	134	173	135	135	141
Area 25, E-MAD North	109	148	121	125	128
Area 25, E-MAD South	133	161	134	134	140
Area 25, E-MAD West	124	153	219	128	134
Area 25, Henre	123	170	138	143	147
Area 25, NRDS Warehouse	144	166	139	142	144
Area 27, Area 27 Cafe	139	179	118	146	154
99 N843,555 E704,945 (13, 358)	60	84	88	88	79
99 N712,618 E713,111 (15, 360)	30	82	80	81	74
99 N875,015 E690,664 (12, 357)	82	93	91	95	147
99 N789,449 E709,501 (14, 359)	116	175	172	175	165
99 N904,470 E635,530 (10, 355)	115	135	135	114	119
99 N907,578 E684,659 (11, 356)	144	178	179	180	170
99 N833,950 E557,892 (4, 349)	201	184	179	174	155
99 N933,423 E637,495 (9, 354)	146	252	204	165	163
99 N954,202 E611,581 (8, 353)	214	181	212	157	171
99 N886,398 E556,098 (5, 350)	172	201	208	207	193
99 N944,597 E558,448 (7, 352)	134	60	208	113	101
99 N948,293 E527,925 (6, 351)	202	193	106	173	169
99 N674,614 E671,355 (1, 346)	158	84	77	83	74
99 N732,411 E638,710 (2, 347)	145	117	99	119	110
99 N759,934 E556,412 (3, 348)	*	146	164	165	137

* Missing data value

system survey instruments. Before 1991 the locations of the TLD stations were estimated from maps.

The statistical procedures used to analyze all the data are essentially the same as the procedures used to analyze the background station data. Because substantially more data were available than just the background station data, some additional analyses were performed.

Histograms of the data for each year were examined for data distribution characteristics, and were found to be skewed with a long tail of data in the direction of higher values. This shape is characteristic of lognormally distributed data and it is generally accepted that TLD data has a lognormal statistical distribution. Thus all the statistical analyses of these data was performed on the natural logarithms of the data. Table G.4 presents the histograms of the logarithms of the data for each year.

The histograms in Table G.4 were produced with the same abscissa values so that comparisons can be made between the histograms. The abscissa values, as natural logarithms of the data, are given at the bottom of the table. These histograms show a few values suggesting an upper tail of the distribution might still be present. No further editing of the data was done since the number of high values is small and should not significantly influence the statistical results. There are known high outliers in the data. See appendix F of this annual report and of previous years' annual reports for a discussion of these outliers.

The Analysis of Variance was again used to test for trend by testing the statistical hypothesis that the data show no significant differences between years. This hypothesis was used because it tests for any type of trend. If the analysis of variance rejects this hypothesis then one can conclude that there are differences between the years and these differences may be caused by some type of trend. If the hypothesis is accepted, there can be no significant differences between years and thus no trend of any kind is present in the data. Table G.5 presents the analysis of variance results.

Table G.5 is structured in the same way as Table G.2. The hypothesis of no differences between years must be accepted at the 95% confidence level since the tabled probability of 0.062 is larger than the critical value of 0.05. The plot of the means and confidence intervals suggests that this probability is close to the critical value only because of the 1988 data. This is the same pattern shown in Table G.2 which analyzed the background data. As was discussed at the beginning of this chapter, the calibration problems identified in 1988 make the 1988 data less reliable than the data from the other years.

A two-way analysis of variance was also performed to analyze for differences between years and operational areas. Both the years factor and the area factor were specified as analysis of variance fixed effects for this analysis. This analysis showed a significant difference between areas, a much less significant difference between years ($p=0.25$) than in the one-way analysis, and no interaction between areas and years. The lack of interactions leads to the conclusion that any pattern of responses over the years does not differ among the areas. Thus, annual averages over all areas are a reasonable way of summarizing the data. The significant differences between areas means that the average gamma exposure over all years differs from operational area to operational area. The much less significance of differences between years in the two-way analysis than in the one-way analysis is to be expected since the two-way analysis compensates for the differences between areas, in statistical terminology the areas become "blocking" factors.

CONCLUSIONS

Two types of TLD data were analyzed to see if any significant historical trends might be detected. The analysis of the data from the nine designated background stations for the years 1981 through 1991 showed that the 1988 mean was significantly higher than the 1985 mean, and there were no other significant differences between the annual means. The pattern of means over the years shows that a decrease occurred around 1985 and that 1988 was

Table G.4 Histograms of the Logarithms of the Data in Table G.3

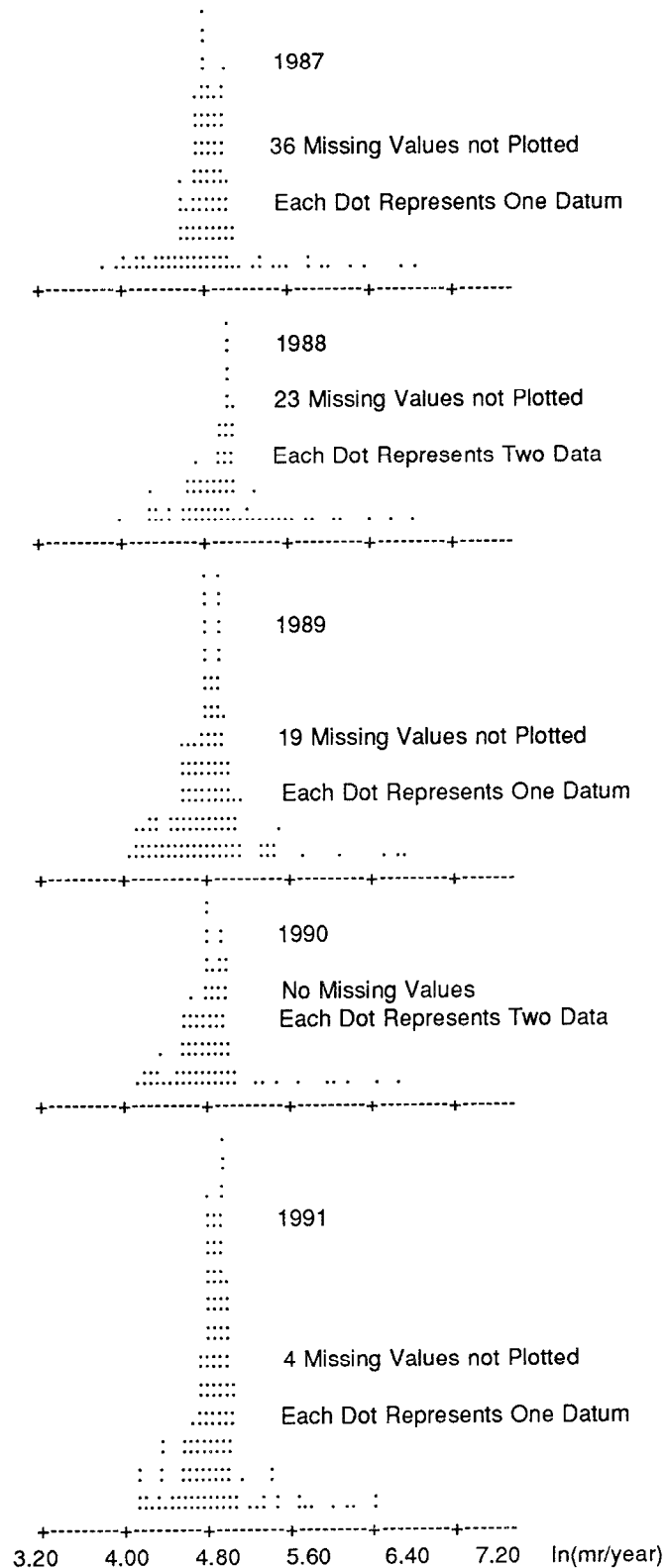


Table G.5 One-Way Analysis of Variance for Differences between Years

<u>Source</u>	<u>Degrees of Freedom</u>	<u>Sum of the Squares</u>	<u>Mean Square</u>	<u>F-Statistic</u>	<u>p Value</u>
Year	4	2.315	0.579	2.25	0.062
Error	<u>743</u>	<u>190.727</u>	0.257		
Total	<u>747</u>	<u>193.043</u>			

<u>Year</u>	<u>N</u>	<u>Log Mean</u>	<u>Standard Deviation</u>	<u>Median</u>	Individual 95 Percent Confidence Intervals for the Log of the Median Based on a Pooled Standard Deviation
87	130	5.1162	0.5973	166.7	(-----*-----)
88	143	5.2218	0.5139	185.3	(-----*-----)
89	147	5.0689	0.4971	159.0	(-----*-----)
90	166	5.0680	0.4672	158.9	(-----*-----)
91	162	5.1098	0.4670	165.6	(-----*-----)
Pooled Standard Deviation = 0.5067					4.60 5.10 5.60 6.10

uniquely high. Since there was a calibration problem discovered in 1988, the data for this year are less reliable than for other years. There were no other significant differences between years, thus no long term historical pattern was detected during the period studied. The second type of data consisted of all the data from the NTS starting with the introduction of Panasonic TLD's in 1987 and continuing through the present. These data also showed no significant differences between years and thus no historical trend is evident.