# ANNUAL SITE ENVIRONMENTAL REPORT - 1992

# VOLUME II

# U.S. DEPARTMENT OF ENERGY NEVADA OPERATIONS OFFICE ANNUAL SITE ENVIRONMENTAL REPORT - 1992

## Volume II - Appendices

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# FOREWORD

These appendices contain 1992 NTS onsite and offsite 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, $^{239+240}$PU, GROSS BETA, AND GAMMA-EMITTING RADIONUCLIDES IN AIR

## Lawrence E. Barker

Sampling locations, sampling dates, measured concentrations, and analytic standard deviations for $^{238}$Pu, $^{239+240}$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, -8.0 x 10$^{-18}$ and 2.4 x 10$^{-16}$ µCi/mL (-3.0 x 10$^{-7}$ and 8.9 x 10$^{-6}$ Bq/m$^3$). Since subtraction of background caused approximately 60 percent of the observed concentrations to be non-positive, geometric mean or standard deviation were not calculated.

At the end of March, the tracer used in the analytical procedure was changed; it is thought this change yields more accurate results. Accordingly, sample means and standard deviations are calculated for data collected before and after the change of procedure. The arithmetic mean and standard deviation for network results collected before the change in procedure were, respectively, -2.7 x 10$^{-18}$ and 7.9 x 10$^{-18}$ µCi/mL (-1.0 x 10$^{-7}$ and 2.9 x 10$^{-7}$ Bq/L). Approximately 37 percent of these results were positive. The arithmetic mean and standard deviation for network results collected after the change of procedure were, respectively, -9.0 x 10$^{-18}$ and 2.6 x 10$^{-16}$ µCi/mL (-3.3 x 10$^{-7}$ and 9.6 x 10$^{-6}$ Bq/L). Approximately 40 percent of these results were positive. As almost all results were well below the limits of detection, these results do not indicate the change of procedure was ineffective. Rather, they merely indicate that results below the limit of detection are so noisy conclusions are difficult to reach.

In Figure A.1, observed concentrations x 10$^{18}$ (µCi/mL) at Area 9 9-300 Bunker, collected after the change in analytical procedures are plotted versus normal scores. The curvature of the plot indicates the normal distribution is a poor fit. As Area 9 9-300 Bunker was the sampling location for which the plot is straightest, it indicates normality is a poor distributional assumption. As so many of the observations are negative, the lognormal distribution is not considered.

Usually, when neither normal nor lognormal distributions fit the data, the rank-based Kruskal-Wallis test is used to compare results among groups. However, the large number of observed zeros, and therefore ties in ranks, would cause the Kruskal-Wallis test to have very little power. Accordingly, differences among sampling stations and among months are assessed by means of Analysis of Variance (ANOVA), recognizing that the results obtained are only approximate in the absence of normality.

In Table A.1, concentrations are compared, by means of a two-way ANOVA table, by both sampling stations and month of sampling. As sampling can extend over more than one month, samples are identified with the month corresponding to the mid-point of their sampling interval.

con

12.0

8.0

4.0

−1.20    −0.60    0.00    0.60    1.20
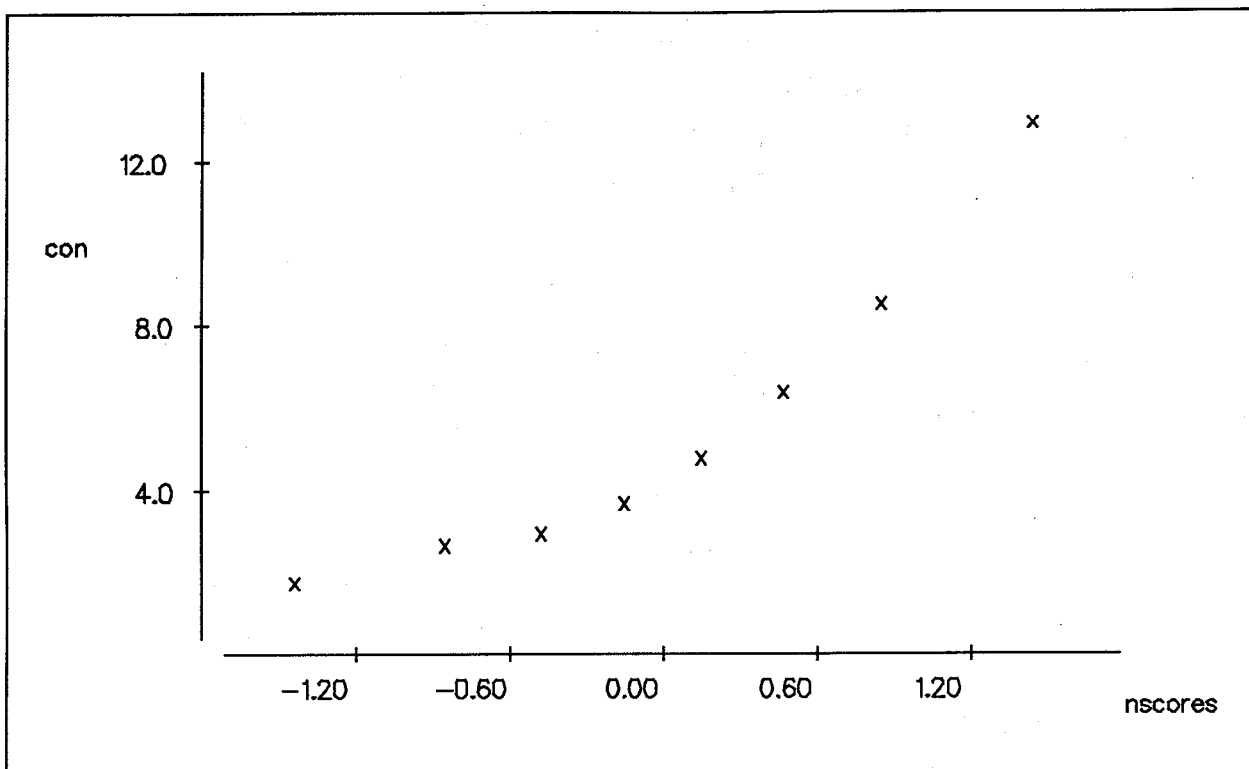
nscores

Figure A.1   Plot of Concentrations of $^{238}$Pu at Area 9 9-300 Bunker, in units of $10^{-18}$ µCi/mL, versus Normal Scores

Table A.1   Two-Way Analysis of the Variance on $^{238}$Pu Concentrations x $10^{17}$ among Sampling Stations and Months Sampling Began

| Source | Degrees of Freedom | Sequential Sum of the Squares | Adjusted Sum of the Squares | Mean Square | F-Statistic | p Value |
|---|---|---|---|---|---|---|
| Month | 11 | 7284.3 | 7284.3 | 662.2 | 1.17 | 0.304 |
| Sampling Station | 52 | 32899.2 | 32772.7 | 630.2 | 1.11 | 0.277 |
| Error | 524 | 296326.8 | 296326.8 | 565.5 | | |
| Total | 587 | 336510.3 | | | | |

The two-way ANOVA table (µCi/mL), x $10^{17}$, indicates no differences, either among sampling stations or over time.

An exploratory data analysis suggested that results in December were lower than in other months. This is displayed in Table A.2, where an ANOVA compares concentrations (µCi/mL), x $10^{17}$, among months of sample collection. A decline in concentrations during the last months of the year has been observed and commented on in previous Annual Site Environmental Reports. The usually observed springtime rise in observed $^{238}$Pu concentrations, attributed to stratospheric-tropospheric mixing which injected some $^{238}$Pu

**Table A.2  One-Way Analysis of the Variance on $^{238}$Pu Concentrations x $10^{17}$ among Months Sampling**

| Source | Degrees of Freedom | Sum of Squares | Mean Square | F-Statistic | p-Value |
|---|---|---|---|---|---|
| Month | 11 | 7411 | 674 | 1.18 | 0.298 |
| Error | 576 | 329099 | 571 | | |
| Total | 587 | 336510 | | | |

| Month | Number | Mean | Standard Deviation | Individual 95 Percent Confidence Intervals (CIs) for the Means Based on a Pooled Standard Deviation |
|---|---|---|---|---|
| | | | | ----+---------+---------+---------+-- |
| January | 43 | -0.23 | 0.63 | (--------*--------) |
| February | 43 | -0.30 | 0.93 | (--------*--------) |
| March | 49 | 0.07 | 0.12 | (-------*-------) |
| April | 50 | 0.06 | 0.11 | (--------*--------) |
| May | 51 | 0.23 | 0.52 | (-------*--------) |
| June | 51 | 0.43 | 0.87 | (--------*--------) |
| July | 52 | 0.33 | 1.11 | (-------*---------) |
| August | 51 | 0.42 | 1.28 | (--------*--------) |
| September | 51 | 0.46 | 1.43 | (--------*--------) |
| October | 52 | 0.30 | 1.04 | (-------*--------) |
| November | 52 | 0.15 | 0.80 | (-------*------) |
| December | 43 | -13.42 | 88.46 | (--------*--------) |
| | | | | ----+---------+---------+---------+-- |

Pooled Standard Deviation = 23.90      -16.0      -8.0      0.0      8.0

fallout into the stratosphere in the early days of nuclear testing, was not observed. The reason is unclear.

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 absolute value of the measured concentration. Empirical coefficients of variation for all non-zero concentrations, omitting ten outliers with coefficients of variation greater than 5.0, are illustrated in Figure A.2. The majority of the coefficients of variation are quite large, indicating that most observed concentrations of $^{238}$Pu were well below the limit of detection.

## PLUTONIUM-239+240

The arithmetic mean and standard deviation of observed $^{239+240}$Pu concentrations were, respectively, 1.2 x $10^{-16}$ and 2.3 x $10^{-15}$ μCi/mL (4.4 x $10^{-6}$ and 8.5 x $10^{-5}$ Bq/L). Subtraction of background caused approximately 13 percent of the observed concentrations to be non-positive. Accordingly, no geometric mean or standard deviation were calculated.

At the end of March, the tracer used in the analytical procedure was changed; it is thought this change yields more accurate results. Accordingly, sample means and standard deviations are calculated for data collected before and after the change of procedure. The arithmetic mean and standard deviation for network results collected before the change in procedure were, respectively, 1.8 x $10^{-17}$ and 6.7 x $10^{-17}$ μCi/mL (6.7 x $10^{-7}$ and 2.5 x $10^{-6}$ Bq/L).

```
CV          N =        280

 Midpoint    Count
    0.0        16
    0.5        97
    1.0       140
    1.5        11
    2.0         5
    2.5         4
    3.0         1
    3.5         4
    4.0         0
    4.5         1
    5.0         1

         0    30    60    90    120   150
```
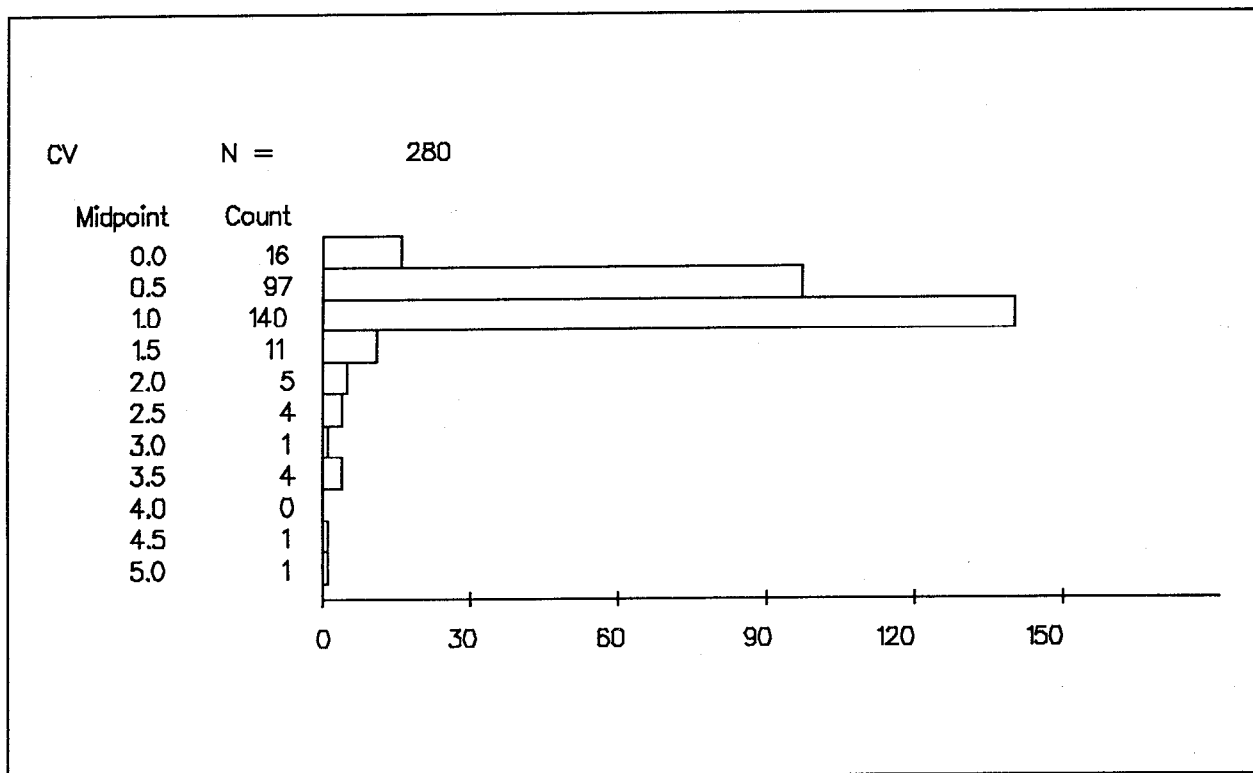
Figure A.2  Histogram of Empirical Coefficients of Variation for $^{238}$Pu Concentrations Measured in Air Samples

Approximately 17 percent of the concentrations were non-positive. The standard deviations for network results collected after the change of procedure were, respectively, $1.5 \times 10^{-16}$ and $6.9 \times 10^{-16}$ μCi/mL ($5.5 \times 10^{-6}$ and $2.5 \times 10^{-5}$ Bq/L). As almost all results were well below the limits of detection, these results do not indicate the change of procedure was ineffective. Rather, they merely indicate that results below the limit of detection are so noisy conclusions are difficult to reach.

In Figure A.3, natural logarithms of observed concentrations at Area 9 9-300 Bunker are plotted versus normal scores. The curvature of the plot indicates the normal distribution is a poor fit. As Area 9 9-300 Bunker was the sampling location for which the plot is straightest, it indicates normality is a poor distributional assumption. As so many of the observations are negative, the lognormal distribution is not considered.

Usually, when neither normal nor lognormal distributions fit the data, the rank-based Kruskal-Wallis test is used to compare results among groups. However, the large number of observed zeros, and therefore of tied ranks, would the Kruskal-Wallis test to be of low power. Accordingly, differences among sampling stations and among months are assessed by means of classical ANOVA, recognizing that the results obtained are only approximate.

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 A.3. This two-way ANOVA table shows that concentrations differ both over sampling stations and between months.
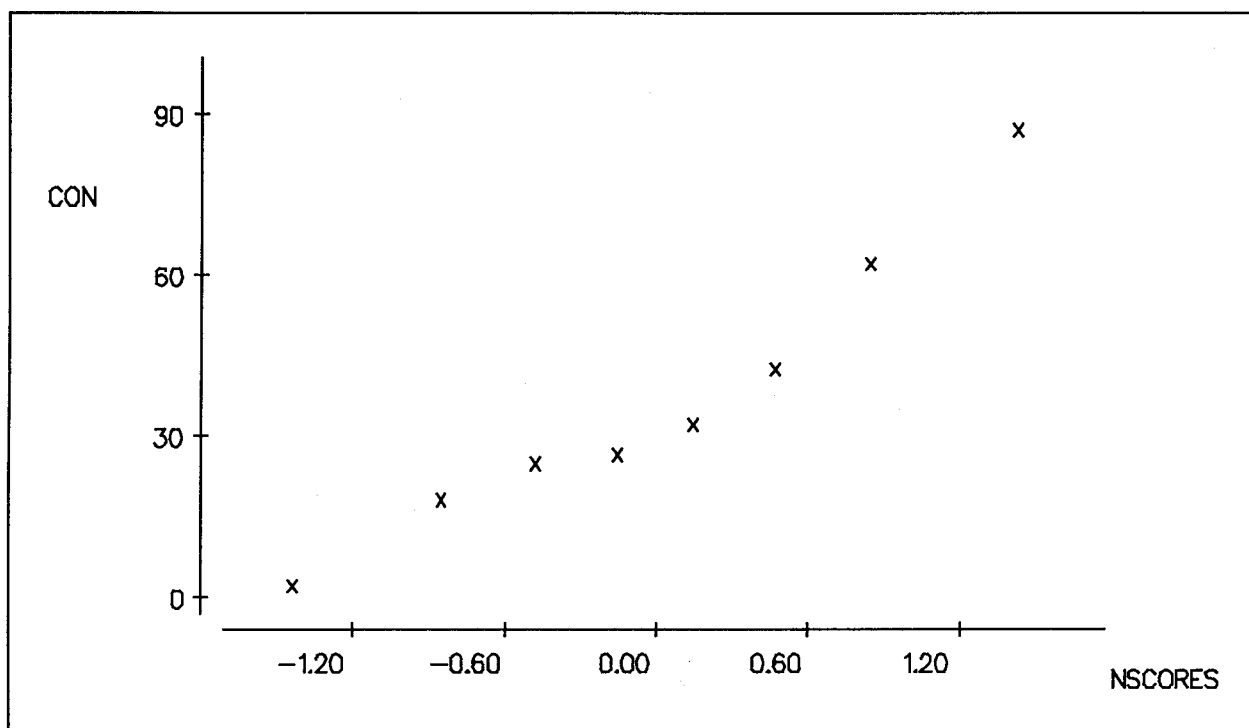
Figure A.3  Plot of $^{239+240}$Pu Concentrations at Area 9 9-300 Bunker, in units of $10^{-17}$ µCi/mL, versus Normal Scores

Table A.3  Two-Way Analysis of the Variance on $^{239+240}$Pu Concentrations x $10^{17}$ between Sampling Stations and Month Sampling

| Source | Degrees of Freedom | Sequential Sum of the Squares | Adjusted Sum of Squares | Mean Square | F-Statistic | p Value |
|---|---|---|---|---|---|---|
| Month Sampling | 11 | 57693 | 57693 | 5245 | 2.06 | 0.021 |
| Station | 52 | 982245 | 979949 | 18845 | 7.41 | 0.000 |
| Error | 548 | 1393683 | 1393683 | 2543 | | |
| Total | 611 | 2433621 | | | | |

Turkey'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 $^{239+240}$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 $^{239+240}$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.

**Table A.4  One-Way Analysis of the Variance on $^{239+240}$Pu Concentrations x $10^{17}$ between NTS Areas**

| Source | Degrees of Freedom | Sum of Squares | Mean Square | F- Statistic | p- Value |
|---|---|---|---|---|---|
| NTS Operational Area | 16 | 419900 | 26244 | 7.75 | 0.000 |
| Error | 595 | 2013721 | 3384 | | |
| Total | 611 | 2433621 | | | |

| Area | Number | Mean | Standard Deviation | Individual 95 Percent CIs for the Means Based on a Pooled Standard Deviation |
|---|---|---|---|---|
| | | | | ----------+---------+---------+------ |
| 19 | 22 | 0.25 | 0.30 | (------*------) |
| 23 | 47 | 0.32 | 0.44 | (----*----) |
| 20 | 11 | 0.38 | 0.53 | (---------*---------) |
| 16 | 11 | 0.55 | 0.54 | (---------*---------) |
| 12 | 12 | 0.59 | 1.03 | (-------*----------) |
| 5 | 242 | 1.08 | 6.09 | (-*-) |
| 27 | 12 | 1.78 | 4.50 | (----------*--------) |
| 25 | 24 | 1.80 | 7.10 | (------*-----) |
| 2 | 24 | 2.00 | 2.98 | (------*-----) |
| 6 | 39 | 2.12 | 3.35 | (-----*----) |
| 11 | 12 | 2.79 | 3.32 | (-----------*---------) |
| 1 | 25 | 3.61 | 6.21 | (------*------) |
| 10 | 12 | 4.38 | 8.21 | (---------*---------) |
| 7 | 12 | 6.28 | 10.88 | (----------*--------) |
| 15 | 12 | 13.02 | 30.75 | (---------*--------) |
| 9 | 12 | 34.47 | 25.18 | (----------*--------) |
| 3 | 83 | 77.63 | 155.48 | (--*---) |
| | | | | ----------+---------+---------+------ |
| Pooled Standard Deviation = 58.18 | | | | 0          35          70 |

**Table A.5  One-Way Analysis of the Variance on $^{239+240}$Pu Concentrations x $10^{17}$ among Months**

| Source | Degrees of Freedom | Sum of Squares | Mean Square | F- Statistic | p- Value |
|---|---|---|---|---|---|
| Month | 11 | 59989 | 5454 | 1.38 | 0.179 |
| Error | 600 | 2373632 | 3956 | | |
| Total | 611 | 2433621 | | | |

Table A.5 (One-Way Analysis of the Variance on $^{239+240}$Pu Concentrations x $10^{17}$ among Months, cont.)

| Month | Number | Mean | Standard Deviation | Individual 95 Percent CIs for the Means Based on a Pooled Standard Deviation |
|---|---|---|---|---|
| | | | | -+---------+---------+---------+----- |
| January | 51 | 1.13 | 2.31 | (---------*---------) |
| February | 52 | 2.40 | 9.17 | (---------*---------) |
| March | 50 | 1.70 | 4.13 | (---------*---------) |
| April | 50 | 2.57 | 6.20 | (---------*---------) |
| May | 53 | 10.41 | 45.13 | (---------*--------) |
| June | 52 | 23.83 | 68.65 | (----------*---------) |
| July | 52 | 20.35 | 74.54 | (----------*---------) |
| August | 53 | 25.95 | 100.66 | (--------*-----------) |
| September | 52 | 25.44 | 100.83 | (---------*-----------) |
| October | 50 | 18.54 | 83.92 | (----------*----------) |
| November | 52 | 1.82 | 4.71 | (----------*---------) |
| December | 45 | 17.66 | 88.57 | (----------*-----------) |
| | | | | -+---------+---------+---------+----- |
| Pooled Standard Deviation = 62.90 | | | | -16        0        16       32 |

The data suggest concentrations might have been greater in August than during other months. In view of the relatively large p-value, it is plausible to attribute this to sampling variation.

A sense of the accuracy of measured $^{239+240}$Pu concentrations in air samples can be obtained from the empirical coefficients of variation, the analytic standard deviation divided by the absolute value of the measured concentration. Empirical coefficients of variation for all non-zero concentrations, omitting ten outliers with coefficients of variation greater than 7.0, are illustrated in Figure A.4. Note that coefficients of variation have two distinct modes. 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. Alternately, the phenomena might be attributable to a change in laboratory techniques, such as the change of tracer for Pu instituted in late March.

## GROSS BETA

All observed concentrations of gross beta were positive. The arithmetic mean and standard deviation of the concentrations were, respectively, 2.0 x $10^{-14}$ and 8.8 x $10^{-15}$ μCi/mL (7.4 x $10^{-4}$ and 3.2 x $10^{-4}$ Bq/m$^3$). The geometric mean and standard deviations were, respectively, 1.8 x $10^{-14}$ μCi/mL (6.7 x $10^{-4}$ Bq/m$^3$) and 1.6.

In Figure A.5, natural logarithms of gross beta concentrations recorded at Area 5 Pit 4 are plotted versus normal scores. This is typical of plots for locations at which data were collected. Were the distribution of gross beta concentrations actually lognormally distributed, scatter around a straight line would result. Ignoring one or two outliers per plot, usually among the smallest observed concentrations, a straight line fits the data reasonably well. It is thought that the lognormal distribution provides an adequate approximation to the concentrations' true distribution. Table A.6 presents the results of a two-way analysis of variance, in which concentrations are compared both across sampling locations and across the 12 months of sample collection.
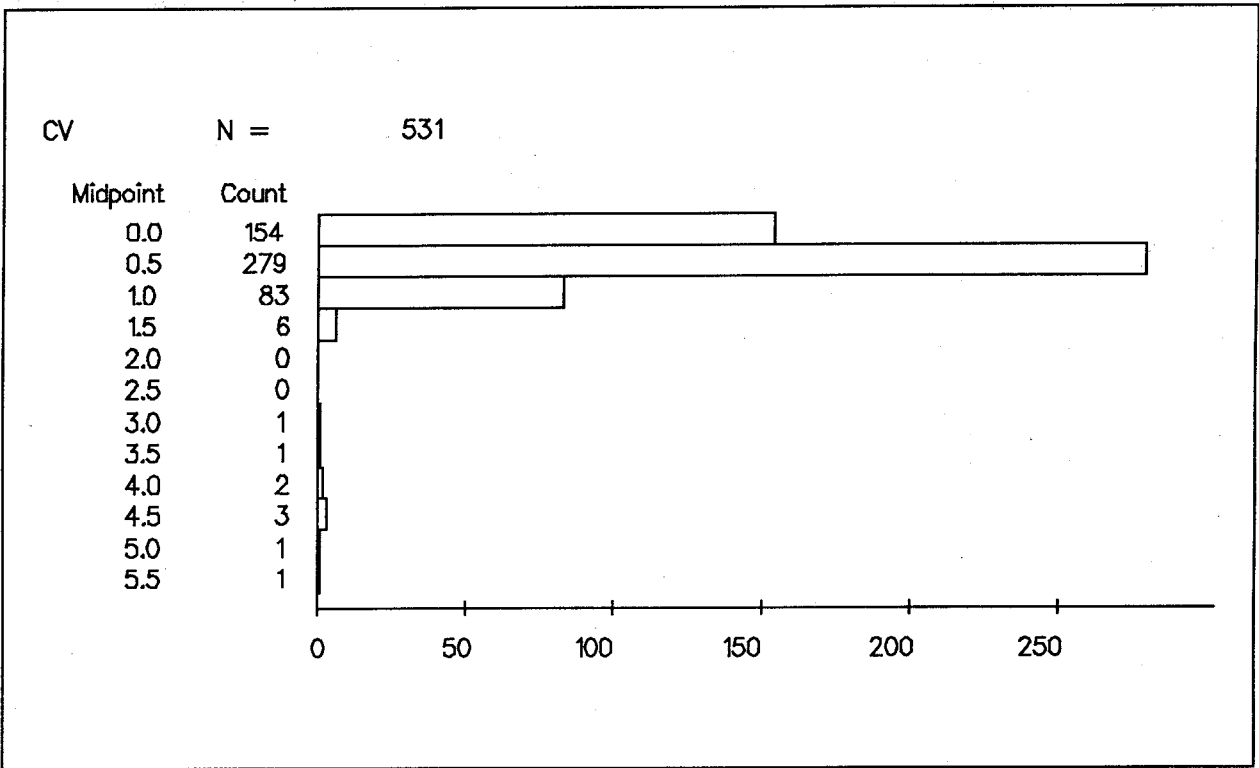
Figure A.4  Histogram of Empirical Coefficients of Variation of $^{239+240}$Pu in Air
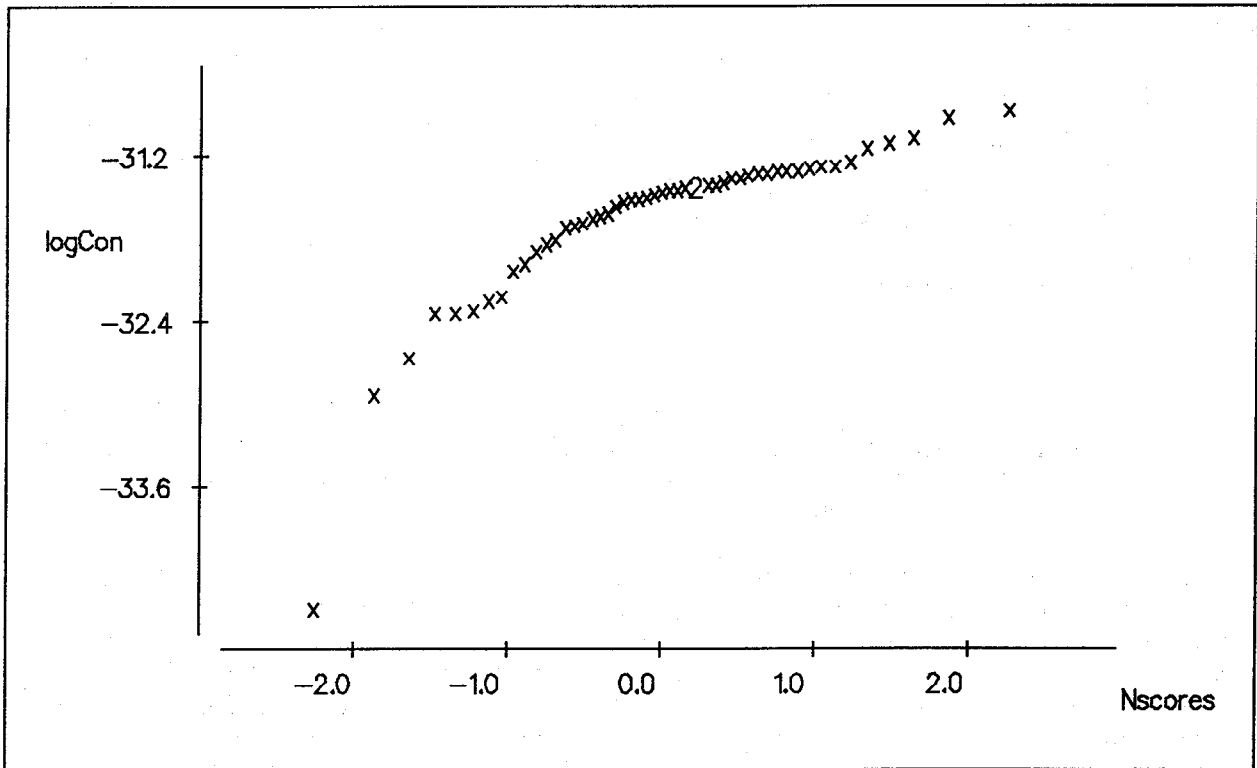


Figure A.5  Plot of Natural Logarithms of Gross ß Concentrations in Air at Area 5, Pit 4
versus Normal Scores

Table A.6 shows that concentrations of gross beta in air differ among both sampling locations and month of sample collection.

Table A.7 compares among months arithmetic means of logarithms of concentrations. Tukey's multiple comparison test allows the months to be divided into three categories, those of lesser, medium, and greater concentrations. The smallest concentrations occurred in February, March, and December. As the exclusion of January from this group is attributable to a few atypically large observations that occurred during the month of January, it suggests concentrations were smallest during the winter months. Intermediate values occurred in April, May, June, and July; the consecutiveness of these months suggests seasonal or meteorological factors. Greater concentrations, although still quite small, occurred in January, August, September, October, and November. As previously noted, the inclusion of January in this group is attributable to a small number of observations, possibly collected in error.

As samples to detect gross beta in air are collected weekly, concentrations were compared across weeks. In Figure A.6, the mean of the logarithms (over all sampling stations) is plotted versus calendar week sampling began (first seven days of 1992 = week 1, second seven days = week 2, etc.). An ANOVA indicated several statistically significant differences, such as the gradual decline toward the end of the year. The marked decrease in variability following the twelfth week is attributable to the adoption by the laboratories of a new more efficient counter.

The complicated pattern of differences detected among sampling locations by Tukey's multiple comparison procedure is difficult to describe. Only Area 5's Gate 200, where samples are analyzed without waiting for radon daughter products to decay, and Area 12's P Tunnel Portal
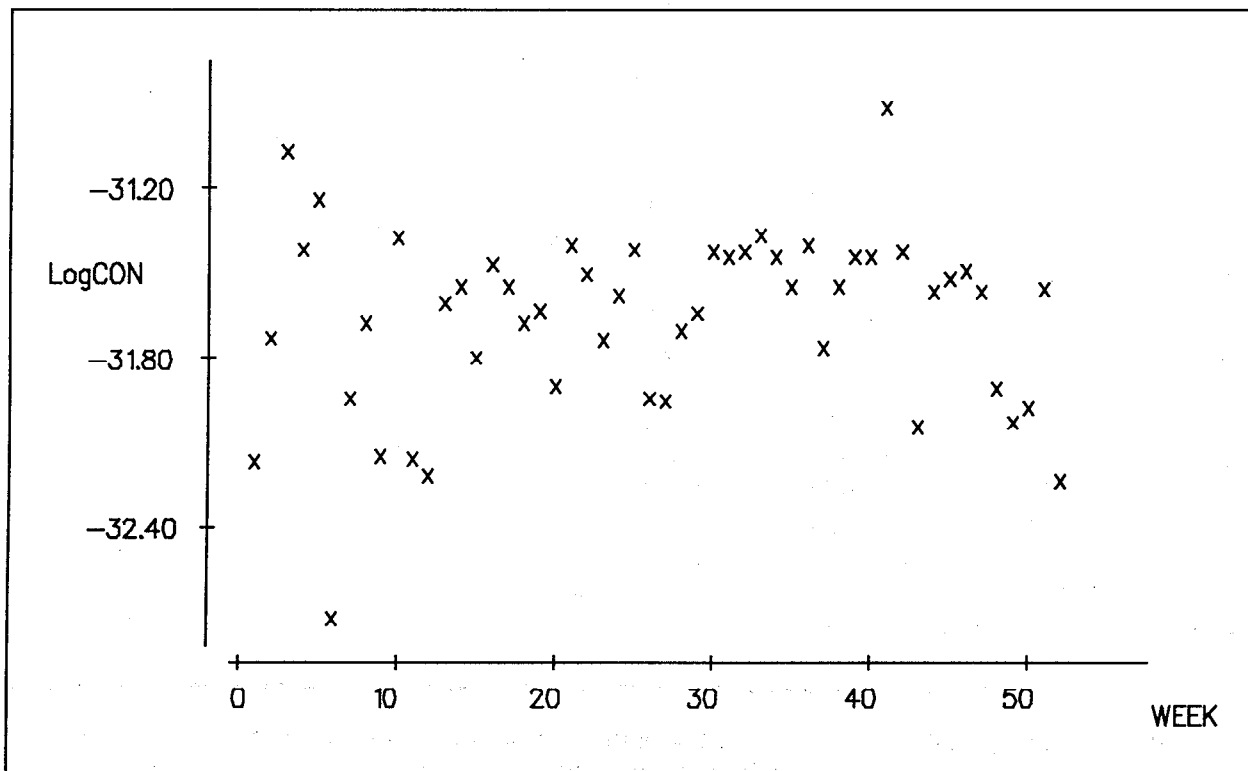


Figure A.6  Average of Natural Logarithms of Gross β Concentrations, over all Sampling Locations, Plotted versus Week Sampling Began

**Table A.6 Two-Way Analysis of the Variance on the Natural Log of Gross Beta Concentrations between Sampling Stations and Months**

| Source | Degrees of Freedom | Sequential Sum of the Squares | Adjusted Sum of Squares | Adjusted Mean Square | F- Statistic | p Value |
|---|---|---|---|---|---|---|
| Month | 11 | 68.94 | 68.94 | 6.27 | 32.94 | 0.000 |
| Sampling Station | 52 | 18.22 | 17.50 | 0.34 | 1.77 | 0.001 |
| Error | 2507 | 477.16 | 477.16 | 0.19 | | |
| Total | 2550 | 564.32 | | | | |

**Table A.7 One-Way Analysis of the Variance on the Natural Log of Gross Beta Concentrations among Months**

| Source | Degrees of Freedom | Sum of Squares | Mean Square | F- Statistic | p- Value |
|---|---|---|---|---|---|
| Month | 11 | 71.667 | 6.515 | 43.30 | 0.000 |
| Error | 2559 | 385.081 | 0.150 | | |
| Total | 2570 | 456.748 | | | |

| Month | Number | Mean | Standard Deviation | Individual 95 Percent CIs for the Means Based on a Pooled Standard Deviation |
|---|---|---|---|---|
| | | | | ----------+---------+---------+------ |
| January | 182 | -31.494 | 0.433 | (--*--) |
| February | 195 | -31.892 | 0.676 | (-*--) |
| March | 253 | -31.895 | 0.420 | (-*--) |
| April | 202 | -31.562 | 0.265 | (--*--) |
| May | 200 | -31.631 | 0.315 | (-*--) |
| June | 253 | -31.634 | 0.326 | (-*--) |
| July | 199 | -31.675 | 0.240 | (-*--) |
| August | 251 | -31.439 | 0.241 | (-*-) |
| September | 206 | -31.537 | 0.335 | (--*--) |
| October | 205 | -31.453 | 0.431 | (-*--) |
| November | 243 | -31.564 | 0.349 | (--*-) |
| December | 182 | -31.942 | 0.477 | (--*--) |
| | | | | ----------+---------+---------+------ |
| | | | | -31.80   -31.60   -31.40 |

Pooled Standard Deviation = 0.388

were unambiguously statistically significantly different from other sampling locations at the 0.05 level. A sense of the difference is given in Table A.8, where concentrations are compared among Areas. This shows that Areas 3, 5, and 15 tend to have the greatest concentrations of gross beta.

Table A.8 One-Way Analysis of the Variance on the Natural Log of Gross Beta Concentrations among NTS Operational Areas

| Source | Degrees of Freedom | Sum of Squares | Mean Square | F-Statistic | p-Value |
|---|---|---|---|---|---|
| NTS Operational Area | 16 | 11.428 | 0.714 | 4.10 | 0.000 |
| Error | 2554 | 445.320 | 0.714 | | |
| Total | 2570 | 456.748 | | | |

| Area | Number | Mean | Standard Deviation | Individual 95 Percent CIs for the Means Based on a Pooled Standard Deviation |
|---|---|---|---|---|
| | | | | --------+---------+---------+--------- |
| 12 | 51 | -31.784 | 0.670 | (-------*-------) |
| 10 | 52 | -31.775 | 0.641 | (-------*------) |
| 19 | 90 | -31.758 | 0.305 | (-----*-----) |
| 16 | 45 | -31.748 | 0.350 | (-------*--------) |
| 25 | 102 | -31.729 | 0.403 | (-----*----) |
| 1 | 101 | -31.728 | 0.480 | (-----*----) |
| 7 | 51 | -31.714 | 0.354 | (--------*-------) |
| 23 | 199 | -31.700 | 0.395 | (---*---) |
| 27 | 49 | -31.692 | 0.369 | (-------*-------) |
| 2 | 103 | -31.687 | 0.429 | (-----*----) |
| 6 | 165 | -31.685 | 0.434 | (----*---) |
| 20 | 47 | -31.664 | 0.341 | (-------*-------) |
| 9 | 48 | -31.621 | 0.407 | (-------*-------) |
| 11 | 52 | -31.615 | 0.333 | (------*-------) |
| 3 | 352 | -31.590 | 0.362 | (--*--) |
| 5 | 1013 | -31.589 | 0.422 | (-*-) |
| 15 | 51 | -31.514 | 0.458 | (-------*-------) |
| | | | | --------+---------+---------+--------- |

Pooled Standard Deviation = 0.418        -31.80      -31.65      -31.50

The greater concentrations in Areas 3 and 5 can be accounted for by the movement of dust and earth at the low-level radioactive waste disposal sites located there.

A sense of the accuracy of measured gross beta in air concentration can be obtained from the empirical coefficients of variation, the analytic standard deviation divided by the measured concentration. Omitting 15 values with coefficients of variation in excess of 0.4, these are illustrated in Figure A.7. In all but a relative handful of cases, the coefficient of variation is less than 0.13, indicating that the analytic standard deviation tends to be at least 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. Analytic standard deviations, as presented in Attachment A.3, are determined solely by counting variability. Other sources of variability, such as differences in sample preparation, are not accounted for. To better assess non-counting variability, some samples were subject to duplicate measurements. Original measurements and duplicates appear in Attachment A.5. The part of the variance attributable to measurement error is estimated as one half the average squared difference between original measurements and duplicates. Standard

CV        N =        2561

| Midpoint | Count |
|----------|-------|
| 0.03 | 87 |
| 0.05 | 1734 |
| 0.08 | 523 |
| 0.10 | 136 |
| 0.13 | 47 |
| 0.15 | 15 |
| 0.17 | 8 |
| 0.20 | 2 |
| 0.23 | 3 |
| 0.25 | 2 |
| 0.28 | 1 |
| 0.30 | 1 |
| 0.33 | 1 |
| 0.35 | 0 |
| 0.38 | 1 |

0    300    600    900    1200    1500
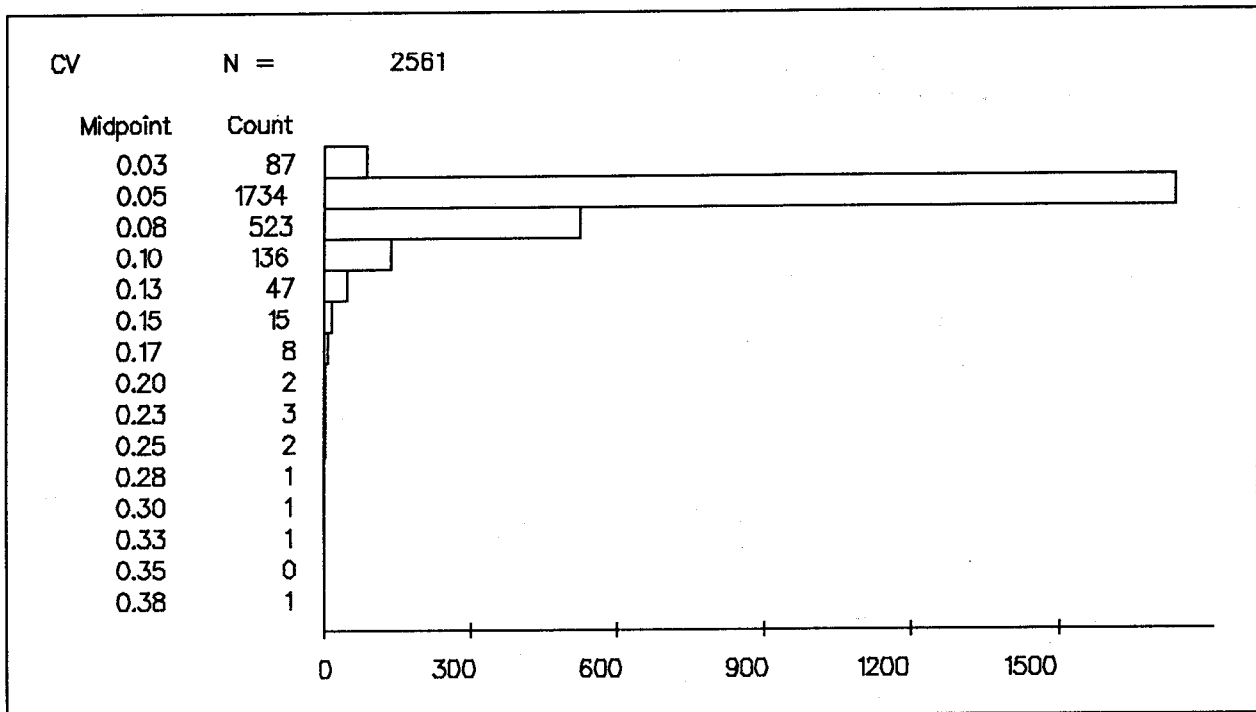
Figure A.7  Histogram of Coefficients of Variation for Gross ß in Air

deviation attributable to measurement error is the square root of this variance. For gross beta in air, the standard deviation attributable to measurement error is $3.1 \times 10^{-15}$ µCi/mL ($1.1 \times 10^{-4}$ Bq/m$^3$). Hence, measurement error accounts for a relatively small part of the total variation.

## GAMMA-EMITTING RADIONUCLIDES

The only radionuclides observed on more than four occasions were the naturally occurring radionuclides $^{7}$Be, $^{214}$Bi, $^{40}$K, $^{214}$Pb, $^{212}$Pb, and $^{208}$Tl. For these, arithmetic mean, standard deviation, geometric mean, and geometric standard deviation of observed concentrations appear in Table A.9. As samples from Area 5 Gate 200 are analyzed immediately, rather than waiting for radon daughter products to decay, samples from Gate 200 displayed a markedly different profile than those from other sampling locations. Hence, samples from Gate 200 were omitted in the calculations of 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 µCi/mL (Bq/m$^3$) | Standard Deviation µCi/mL (Bq/m$^3$) | Geometric Mean µCi/mL (Bq/m$^3$) | Geometric Standard Deviation |
|---------|------------------------------|-----------------------------------|--------------------------------------|----------------------------------|------------------------------|
| $^{7}$Be | 2455 | $2.0 \times 10^{-13}$ ($7.4 \times 10^{-3}$) | $1.2 \times 10^{-13}$ ($4.4 \times 10^{-3}$) | $1.8 \times 10^{-13}$ ($6.7 \times 10^{-3}$) | 1.5 |
| $^{214}$Bi | 32 | $3.2 \times 10^{-13}$ ($1.4 \times 10^{-2}$) | $1.9 \times 10^{-12}$ ($7.0 \times 10^{-2}$) | $2.7 \times 10^{-13}$ ($1.0 \times 10^{-2}$) | 1.9 |
| $^{40}$K | 7 | $1.0 \times 10^{-13}$ ($3.7 \times 10^{-3}$) | $4.0 \times 10^{-14}$ ($1.5 \times 10^{-3}$) | $9.8 \times 10^{-14}$ ($3.6 \times 10^{-3}$) | 1.4 |
| $^{212}$Pb | 153 | $1.9 \times 10^{-14}$ ($7.0 \times 10^{-4}$) | $5.0 \times 10^{-14}$ ($1.8 \times 10^{-3}$) | $2.1 \times 10^{-13}$ ($7.8 \times 10^{-3}$) | 3.4 |
| $^{214}$Pb | 64 | $2.5 \times 10^{-12}$ ($9.2 \times 10^{-2}$) | $1.8 \times 10^{-11}$ ($6.7 \times 10^{-1}$) | $1.1 \times 10^{-14}$ ($4.1 \times 10^{-4}$) | 1.9 |
| $^{208}$Tl | 10 | $3.8 \times 10^{-14}$ ($1.4 \times 10^{-3}$) | $5.5 \times 10^{-14}$ ($2.0 \times 10^{-3}$) | $1.1 \times 10^{-14}$ ($4.0 \times 10^{-4}$) | 6.2 |

Attachment A.1  $^{238}$Pu in Air - 1992

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 1, BJY | 12/30/91 | $1.6 \times 10^{-18}$ | $4.2 \times 10^{-18}$ |
| Area 1, BJY | 02/03/92 | $-1.8 \times 10^{-18}$ | $6.3 \times 10^{-18}$ |
| Area 1, BJY | 03/02/92 | $3.5 \times 10^{-18}$ | $3.6 \times 10^{-18}$ |
| Area 1, BJY | 03/30/92 | $5.2 \times 10^{-18}$ | $2.6 \times 10^{-18}$ |
| Area 1, BJY | 04/28/92 | $3.0 \times 10^{-18}$ | $2.2 \times 10^{-18}$ |
| Area 1, BJY | 05/26/92 | $2.3 \times 10^{-17}$ | $2.4 \times 10^{-17}$ |
| Area 1, BJY | 06/29/92 | 0.0 | 0.0 |
| Area 1, BJY | 08/03/92 | $3.4 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 1, BJY | 08/31/92 | $5.0 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 1, BJY | 09/28/92 | $7.2 \times 10^{-18}$ | $3.7 \times 10^{-18}$ |
| Area 1, BJY | 10/26/92 | $7.6 \times 10^{-19}$ | $7.6 \times 10^{-19}$ |
| Area 1, BJY | 11/30/92 | $1.0 \times 10^{-18}$ | $1.0 \times 10^{-18}$ |
| Area 1, Gravel Pit | 12/30/91 | $-9.9 \times 10^{-18}$ | $4.4 \times 10^{-18}$ |
| Area 1, Gravel Pit | 02/03/92 | $-2.9 \times 10^{-18}$ | $4.8 \times 10^{-18}$ |
| Area 1, Gravel Pit | 03/02/92 | 0.0 | 0.0 |
| Area 1, Gravel Pit | 03/30/92 | $1.5 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 1, Gravel Pit | 04/28/92 | 0.0 | 0.0 |
| Area 1, Gravel Pit | 05/26/92 | 0.0 | 0.0 |
| Area 1, Gravel Pit | 06/29/92 | 0.0 | 0.0 |
| Area 1, Gravel Pit | 08/03/92 | 0.0 | 0.0 |
| Area 1, Gravel Pit | 08/31/92 | 0.0 | 0.0 |
| Area 1, Gravel Pit | 09/28/92 | $1.2 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 1, Gravel Pit | 10/26/92 | 0.0 | 0.0 |
| Area 1, Gravel Pit | 11/30/92 | 0.0 | 0.0 |
| Area 2, 2-1 Substation | 12/30/91 | $-4.2 \times 10^{-18}$ | $3.1 \times 10^{-18}$ |
| Area 2, 2-1 Substation | 03/02/92 | $1.0 \times 10^{-18}$ | $1.0 \times 10^{-18}$ |
| Area 2, 2-1 Substation | 03/30/92 | 0.0 | 0.0 |
| Area 2, 2-1 Substation | 04/28/92 | 0.0 | 0.0 |
| Area 2, 2-1 Substation | 05/26/92 | $1.6 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 2, 2-1 Substation | 06/29/92 | 0.0 | 0.0 |
| Area 2, 2-1 Substation | 08/03/92 | $1.6 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 2, 2-1 Substation | 08/31/92 | $1.0 \times 10^{-18}$ | $1.0 \times 10^{-18}$ |
| Area 2, 2-1 Substation | 09/28/92 | 0.0 | 0.0 |
| Area 2, 2-1 Substation | 10/26/92 | 0.0 | 0.0 |
| Area 2, 2-1 Substation | 11/30/92 | 0.0 | 0.0 |
| Area 2, Complex | 12/30/91 | $-3.3 \times 10^{-18}$ | $4.2 \times 10^{-18}$ |
| Area 2, Complex | 02/03/92 | $-4.4 \times 10^{-18}$ | $4.8 \times 10^{-18}$ |
| Area 2, Complex | 03/02/92 | $1.1 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 2, Complex | 03/30/92 | $1.2 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 2, Complex | 04/28/92 | $6.3 \times 10^{-18}$ | $3.2 \times 10^{-18}$ |

Mean MDC: $1.5 \times 10^{-17}$ μCi/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17}$ μCi/mL

Attachment A.1  ($^{238}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 2, Complex | 05/26/92 | $7.4 \times 10^{-19}$ | $7.4 \times 10^{-19}$ |
| Area 2, Complex | 06/29/92 | $9.8 \times 10^{-19}$ | $9.8 \times 10^{-19}$ |
| Area 2, Complex | 08/03/92 | $1.5 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 2, Complex | 08/31/92 | $3.0 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 2, Complex | 09/28/92 | $2.5 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 2, Complex | 10/26/92 | 0.0 | 0.0 |
| Area 2, Complex | 11/30/92 | $9.2 \times 10^{-19}$ | $9.2 \times 10^{-19}$ |
| Area 3, 3-300 Bunker | 12/30/91 | $3.7 \times 10^{-18}$ | $5.4 \times 10^{-18}$ |
| Area 3, Complex | 12/30/91 | $-1.9 \times 10^{-18}$ | $5.4 \times 10^{-18}$ |
| Area 3, Complex | 02/03/92 | $-4.2 \times 10^{-18}$ | $6.2 \times 10^{-18}$ |
| Area 3, Complex | 03/02/92 | $1.0 \times 10^{-18}$ | $1.0 \times 10^{-18}$ |
| Area 3, Complex | 03/30/92 | 0.0 | 0.0 |
| Area 3, Complex | 04/28/92 | $1.8 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 3, Complex | 05/26/92 | $5.3 \times 10^{-18}$ | $2.7 \times 10^{-18}$ |
| Area 3, Complex | 06/29/92 | $1.5 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 3, Complex | 08/03/92 | $2.8 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 3, Complex | 08/31/92 | $1.3 \times 10^{-17}$ | $5.8 \times 10^{-18}$ |
| Area 3, Complex | 09/28/92 | $8.6 \times 10^{-19}$ | $8.6 \times 10^{-19}$ |
| Area 3, Complex | 10/26/92 | $7.7 \times 10^{-19}$ | $7.8 \times 10^{-19}$ |
| Area 3, Complex | 11/30/92 | 0.0 | 0.0 |
| Area 3, Complex | 02/03/92 | $1.6 \times 10^{-17}$ | $1.3 \times 10^{-17}$ |
| Area 3, Complex No. 2 | 12/30/91 | $6.4 \times 10^{-18}$ | $5.5 \times 10^{-18}$ |
| Area 3, Complex No. 2 | 02/03/92 | $1.6 \times 10^{-17}$ | $1.3 \times 10^{-17}$ |
| Area 3, Complex No. 2 | 03/02/92 | 0.0 | 0.0 |
| Area 3, Complex No. 2 | 03/30/92 | $1.5 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 3, Complex No. 2 | 04/28/92 | $3.1 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 3, Complex No. 2 | 05/26/92 | 0.0 | 0.0 |
| Area 3, Complex No. 2 | 06/29/92 | $2.3 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 3, Complex No. 2 | 08/03/92 | $3.5 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 3, Complex No. 2 | 08/31/92 | $1.4 \times 10^{-17}$ | $7.0 \times 10^{-18}$ |
| Area 3, Complex No. 2 | 09/28/92 | 0.0 | 0.0 |
| Area 3, Complex No. 2 | 10/26/92 | 0.0 | 0.0 |
| Area 3, Complex No. 2 | 11/30/92 | $3.1 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 3, Mud Plant | 02/03/92 | $-3.3 \times 10^{-17}$ | $2.0 \times 10^{-17}$ |
| Area 3, Mud Plant | 03/02/92 | 0.0 | 0.0 |
| Area 3, Mud Plant | 03/30/92 | $9.4 \times 10^{-19}$ | $6.7 \times 10^{-19}$ |
| Area 3, Mud Plant | 04/28/92 | $3.2 \times 10^{-17}$ | $7.5 \times 10^{-18}$ |
| Area 3, Mud Plant | 05/26/92 | $4.2 \times 10^{-17}$ | $3.8 \times 10^{-18}$ |
| Area 3, Mud Plant | 06/29/92 | $4.2 \times 10^{-17}$ | $8.0 \times 10^{-18}$ |
| Area 3, Mud Plant | 08/03/92 | $7.8 \times 10^{-17}$ | $1.4 \times 10^{-17}$ |

Mean MDC: $1.5 \times 10^{-17} \mu$Ci/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17} \mu$Ci/mL

Attachment A.1 ($^{238}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 3, Mud Plant | 08/31/92 | $5.9 \times 10^{-17}$ | $1.1 \times 10^{-17}$ |
| Area 3, Mud Plant | 09/28/92 | 0.0 | 0.0 |
| Area 3, Mud Plant | 10/26/92 | $7.9 \times 10^{-19}$ | $8.0 \times 10^{-19}$ |
| Area 3, Mud Plant | 11/30/92 | 0.0 | 0.0 |
| Area 3, U-3ah/at E | 12/30/91 | $-3.5 \times 10^{-18}$ | $3.9 \times 10^{-18}$ |
| Area 3, U-3ah/at E | 02/03/92 | $-4.3 \times 10^{-18}$ | $4.6 \times 10^{-18}$ |
| Area 3, U-3ah/at E | 03/02/92 | 0.0 | 0.0 |
| Area 3, U-3ah/at E | 03/30/92 | 0.0 | 0.0 |
| Area 3, U-3ah/at E | 04/28/92 | $8.9 \times 10^{-19}$ | $9.0 \times 10^{-19}$ |
| Area 3, U-3ah/at E | 05/26/92 | $5.0 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 3, U-3ah/at E | 06/29/92 | $7.6 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 3, U-3ah/at E | 08/03/92 | $3.1 \times 10^{-18}$ | $1.8 \times 10^{-18}$ |
| Area 3, U-3ah/at E | 08/31/92 | $5.7 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 3, U-3ah/at E | 09/28/92 | $7.9 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 3, U-3ah/at E | 10/26/92 | $1.8 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 3, U-3ah/at E | 11/30/92 | $-5.9 \times 10^{-16}$ | $6.8 \times 10^{-17}$ |
| Area 3, U-3ah/at N | 12/30/91 | $1.3 \times 10^{-17}$ | $7.1 \times 10^{-18}$ |
| Area 3, U-3ah/at N | 03/02/92 | 0.0 | 0.0 |
| Area 3, U-3ah/at N | 03/30/92 | $1.5 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 3, U-3ah/at N | 04/28/92 | $9.8 \times 10^{-18}$ | $2.2 \times 10^{-18}$ |
| Area 3, U-3ah/at N | 05/26/92 | $3.1 \times 10^{-17}$ | $1.5 \times 10^{-17}$ |
| Area 3, U-3ah/at N | 06/29/92 | $6.9 \times 10^{-17}$ | $9.0 \times 10^{-18}$ |
| Area 3, U-3ah/at N | 08/03/92 | $5.0 \times 10^{-17}$ | $1.3 \times 10^{-17}$ |
| Area 3, U-3ah/at N | 08/31/92 | $8.5 \times 10^{-17}$ | $1.3 \times 10^{-17}$ |
| Area 3, U-3ah/at N | 09/28/92 | $7.1 \times 10^{-17}$ | $1.4 \times 10^{-17}$ |
| Area 3, U-3ah/at N | 10/26/92 | $9.3 \times 10^{-19}$ | $9.3 \times 10^{-19}$ |
| Area 3, U-3ah/at N | 11/30/92 | $-1.4 \times 10^{-15}$ | $2.0 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 12/30/91 | $1.2 \times 10^{-18}$ | $4.3 \times 10^{-18}$ |
| Area 3, U-3ah/at S | 02/03/92 | $-7.7 \times 10^{-18}$ | $5.6 \times 10^{-18}$ |
| Area 3, U-3ah/at S | 03/02/92 | $1.7 \times 10^{-18}$ | $1.7 \times 10^{-18}$ |
| Area 3, U-3ah/at S | 03/30/92 | $4.1 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 3, U-3ah/at S | 04/28/92 | $5.7 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 3, U-3ah/at S | 05/26/92 | $7.7 \times 10^{-18}$ | $7.8 \times 10^{-18}$ |
| Area 3, U-3ah/at S | 06/29/92 | $3.1 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 3, U-3ah/at S | 08/03/92 | $1.1 \times 10^{-17}$ | $4.7 \times 10^{-18}$ |
| Area 3, U-3ah/at S | 08/31/92 | $5.2 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 3, U-3ah/at S | 09/28/92 | $4.9 \times 10^{-18}$ | $2.9 \times 10^{-18}$ |
| Area 3, U-3ah/at S | 10/26/92 | $5.2 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 3, U-3ah/at S | 11/30/92 | $-5.8 \times 10^{-15}$ | $1.4 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 12/30/91 | $-1.8 \times 10^{-17}$ | $8.6 \times 10^{-18}$ |

Mean MDC: $1.5 \times 10^{-17}$ μCi/mL        Standard Deviation of Mean MDC: $6.5 \times 10^{-17}$ μCi/mL

Attachment A.1  ($^{238}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 3, U-3ah/at W | 02/03/92 | $2.3 \times 10^{-19}$ | $4.5 \times 10^{-18}$ |
| Area 3, U-3ah/at W | 03/02/92 | $1.1 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 3, U-3ah/at W | 03/30/92 | 0.0 | 0.0 |
| Area 3, U-3ah/at W | 04/28/92 | $1.5 \times 10^{-17}$ | $6.4 \times 10^{-18}$ |
| Area 3, U-3ah/at W | 05/26/92 | $5.8 \times 10^{-18}$ | $4.1 \times 10^{-18}$ |
| Area 3, U-3ah/at W | 06/29/92 | $1.3 \times 10^{-17}$ | $6.2 \times 10^{-18}$ |
| Area 3, U-3ah/at W | 08/03/92 | $2.0 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 3, U-3ah/at W | 08/31/92 | $3.1 \times 10^{-18}$ | $1.8 \times 10^{-18}$ |
| Area 3, U-3ah/at W | 09/28/92 | 0.0 | 0.0 |
| Area 3, U-3ah/at W | 10/26/92 | $9.2 \times 10^{-19}$ | $9.2 \times 10^{-19}$ |
| Area 3, U-3ah/at W | 02/03/92 | $2.3 \times 10^{-19}$ | $4.5 \times 10^{-18}$ |
| Area 5, DOD Yard | 12/30/91 | $7.6 \times 10^{-18}$ | $5.7 \times 10^{-18}$ |
| Area 5, DOD Yard | 02/03/92 | $5.1 \times 10^{-18}$ | $1.3 \times 10^{-17}$ |
| Area 5, DOD Yard | 03/02/92 | 0.0 | 0.0 |
| Area 5, DOD Yard | 03/30/92 | $1.6 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 5, DOD Yard | 04/28/92 | 0.0 | 0.0 |
| Area 5, DOD Yard | 05/26/92 | 0.0 | 0.0 |
| Area 5, DOD Yard | 06/29/92 | 0.0 | 0.0 |
| Area 5, DOD Yard | 08/03/92 | 0.0 | 0.0 |
| Area 5, DOD Yard | 08/31/92 | 0.0 | 0.0 |
| Area 5, DOD Yard | 09/28/92 | $3.9 \times 10^{-18}$ | $2.8 \times 10^{-18}$ |
| Area 5, DOD Yard | 10/26/92 | 0.0 | 0.0 |
| Area 5, DOD Yard | 11/30/92 | 0.0 | 0.0 |
| Area 5, Gate 200 | 02/03/92 | $-5.5 \times 10^{-18}$ | $4.8 \times 10^{-18}$ |
| Area 5, Gate 200 | 03/02/92 | 0.0 | 0.0 |
| Area 5, Gate 200 | 03/30/92 | 0.0 | 0.0 |
| Area 5, Gate 200 | 04/28/92 | $7.7 \times 10^{-20}$ | $7.7 \times 10^{-20}$ |
| Area 5, Gate 200 | 05/26/92 | 0.0 | 0.0 |
| Area 5, Gate 200 | 06/29/92 | $8.8 \times 10^{-19}$ | $8.9 \times 10^{-19}$ |
| Area 5, Gate 200 | 08/03/92 | 0.0 | 0.0 |
| Area 5, Gate 200 | 08/31/92 | $2.1 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 5, Gate 200 | 09/28/92 | $4.0 \times 10^{-18}$ | $2.8 \times 10^{-18}$ |
| Area 5, Gate 200 | 09/28/92 | 0.0 | 0.0 |
| Area 5, Gate 200 | 10/26/92 | 0.0 | 0.0 |
| Area 5, Gate 200 | 11/30/92 | $4.8 \times 10^{-18}$ | $2.8 \times 10^{-18}$ |
| Area 5, RWMS No. 1 | 12/30/91 | $1.7 \times 10^{-18}$ | $4.6 \times 10^{-18}$ |
| Area 5, RWMS No. 1 | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 1 | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 1 | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 1 | 05/26/92 | $2.7 \times 10^{-18}$ | $2.7 \times 10^{-18}$ |

Mean MDC: $1.5 \times 10^{-17} \mu$Ci/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17} \mu$Ci/mL

Attachment A.1  ($^{238}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS No. 1 | 06/29/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 1 | 08/03/92 | $1.5 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 5, RWMS No. 1 | 08/31/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 1 | 09/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 1 | 10/26/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 1 | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 2 | 12/30/91 | $1.4 \times 10^{-17}$ | $7.6 \times 10^{-18}$ |
| Area 5, RWMS No. 2 | 02/03/92 | $4.9 \times 10^{-18}$ | $7.5 \times 10^{-18}$ |
| Area 5, RWMS No. 2 | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 2 | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 2 | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 2 | 05/26/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 2 | 06/29/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 2 | 08/03/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 2 | 08/31/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 2 | 09/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 2 | 10/26/92 | $1.1 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 5, RWMS No. 2 | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 3 | 12/30/91 | $5.1 \times 10^{-19}$ | $5.6 \times 10^{-18}$ |
| Area 5, RWMS No. 3 | 02/03/92 | $-1.5 \times 10^{-17}$ | $1.0 \times 10^{-17}$ |
| Area 5, RWMS No. 3 | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 3 | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 3 | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 3 | 05/26/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 3 | 06/29/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 3 | 08/03/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 3 | 08/31/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 3 | 09/28/92 | $7.0 \times 10^{-18}$ | $4.1 \times 10^{-18}$ |
| Area 5, RWMS No. 3 | 10/26/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 3 | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 4 | 12/30/91 | $-9.3 \times 10^{-18}$ | $5.2 \times 10^{-18}$ |
| Area 5, RWMS No. 4 | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 4 | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 4 | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 4 | 05/26/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 4 | 06/29/92 | $8.6 \times 10^{-19}$ | $8.6 \times 10^{-19}$ |
| Area 5, RWMS No. 4 | 08/03/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 4 | 08/31/92 | $2.7 \times 10^{-18}$ | $2.8 \times 10^{-18}$ |
| Area 5, RWMS No. 4 | 09/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 4 | 10/26/92 | 0.0 | 0.0 |

Mean MDC: $1.5 \times 10^{-17} \mu$Ci/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17} \mu$Ci/mL

Attachment A.1  ($^{238}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS No. 4 | 11/30/92 | $4.0 \times 10^{-19}$ | $4.0 \times 10^{-19}$ |
| Area 5, RWMS No. 5 | 12/30/91 | $-7.3 \times 10^{-18}$ | $5.3 \times 10^{-18}$ |
| Area 5, RWMS No. 5 | 02/03/92 | $-6.9 \times 10^{-18}$ | $9.3 \times 10^{-18}$ |
| Area 5, RWMS No. 5 | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 5 | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 5 | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 5 | 05/26/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 5 | 06/29/92 | $1.2 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 5, RWMS No. 5 | 08/03/92 | $1.3 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 5, RWMS No. 5 | 08/31/92 | $1.4 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 5, RWMS No. 5 | 09/28/92 | $2.3 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 5, RWMS No. 5 | 10/26/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 5 | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 6 | 12/30/91 | $-1.0 \times 10^{-17}$ | $4.2 \times 10^{-18}$ |
| Area 5, RWMS No. 6 | 02/03/92 | $1.6 \times 10^{-17}$ | $1.1 \times 10^{-17}$ |
| Area 5, RWMS No. 6 | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 6 | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 6 | 04/28/92 | $1.0 \times 10^{-18}$ | $1.0 \times 10^{-18}$ |
| Area 5, RWMS No. 6 | 05/26/92 | $2.0 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 5, RWMS No. 6 | 06/29/92 | $9.3 \times 10^{-19}$ | $9.3 \times 10^{-19}$ |
| Area 5, RWMS No. 6 | 08/03/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 6 | 08/31/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 6 | 09/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 6 | 10/26/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 6 | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 7 | 12/30/91 | $-5.1 \times 10^{-18}$ | $6.3 \times 10^{-18}$ |
| Area 5, RMWS No. 7 | 02/03/92 | $6.6 \times 10^{-18}$ | $7.6 \times 10^{-18}$ |
| Area 5, RWMS No. 7 | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 7 | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 7 | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 7 | 05/26/92 | $2.2 \times 10^{-17}$ | $1.6 \times 10^{-17}$ |
| Area 5, RWMS No. 7 | 06/29/92 | $4.3 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 5, RWMS No. 7 | 08/03/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 7 | 08/31/92 | $2.0 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 5, RWMS No. 7 | 09/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 7 | 10/26/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 7 | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 8 | 12/30/91 | $-3.1 \times 10^{-18}$ | $6.3 \times 10^{-18}$ |
| Area 5, RWMS No. 8 | 02/03/92 | $-1.1 \times 10^{-17}$ | $6.0 \times 10^{-18}$ |
| Area 5, RWMS No. 8 | 03/02/92 | 0.0 | 0.0 |

Mean MDC: $1.5 \times 10^{-17}$ μCi/mL    Standard Deviation of Mean MDC: $6.5 \times 10^{-17}$ μCi/mL

Attachment A.1  ($^{238}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS No. 8 | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 8 | 04/28/92 | $6.1 \times 10^{-19}$ | $6.1 \times 10^{-19}$ |
| Area 5, RWMS No. 8 | 05/26/92 | $1.5 \times 10^{-17}$ | $1.5 \times 10^{-17}$ |
| Area 5, RWMS No. 8 | 06/29/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 8 | 08/03/92 | $1.6 \times 10^{-18}$ | $1.7 \times 10^{-18}$ |
| Area 5, RWMS No. 8 | 08/31/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 8 | 09/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 8 | 10/26/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 8 | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 9 | 12/30/91 | $4.1 \times 10^{-18}$ | $6.4 \times 10^{-18}$ |
| Area 5, RWMS No. 9 | 02/03/92 | $-8.6 \times 10^{-18}$ | $7.0 \times 10^{-18}$ |
| Area 5, RWMS No. 9 | 03/02/92 | $3.5 \times 10^{-18}$ | $3.5 \times 10^{-18}$ |
| Area 5, RWMS No. 9 | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 9 | 04/28/92 | $5.2 \times 10^{-19}$ | $5.2 \times 10^{-19}$ |
| Area 5, RWMS No. 9 | 05/26/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 9 | 06/29/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 9 | 08/03/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 9 | 08/31/92 | $1.3 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 5, RWMS No. 9 | 09/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 9 | 10/26/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 9 | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS Pit No. 3 | 02/03/92 | $-1.4 \times 10^{-17}$ | $8.7 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 3 | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS Pit No. 3 | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS Pit No. 3 | 04/28/92 | $2.3 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 3 | 05/26/92 | 0.0 | 0.0 |
| Area 5, RWMS Pit No. 3 | 06/29/92 | $8.6 \times 10^{-19}$ | $8.6 \times 10^{-19}$ |
| Area 5, RWMS Pit No. 3 | 08/03/92 | 0.0 | 0.0 |
| Area 5, RWMS Pit No. 3 | 08/31/92 | 0.0 | 0.0 |
| Area 5, RWMS Pit No. 3 | 09/28/92 | 0.0 | 0.0 |
| Area 5, RWMS Pit No. 3 | 10/26/92 | $1.7 \times 10^{-18}$ | $1.7 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 3 | 11/30/92 | $1.4 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 4 | 12/30/91 | $2.7 \times 10^{-18}$ | $3.8 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 4 | 02/03/92 | $-8.3 \times 10^{-19}$ | $6.7 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 4 | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS Pit No. 4 | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS Pit No. 4 | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS Pit No. 4 | 05/26/92 | $3.6 \times 10^{-19}$ | $3.6 \times 10^{-19}$ |
| Area 5, RWMS Pit No. 4 | 06/29/92 | 0.0 | 0.0 |
| Area 5, RWMS Pit No. 4 | 08/03/92 | 0.0 | 0.0 |

Mean MDC: $1.5 \times 10^{-17} \mu Ci/mL$          Standard Deviation of Mean MDC: $6.5 \times 10^{-17} \mu Ci/mL$

Attachment A.1  ($^{238}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS Pit No. 4 | 08/31/92 | 0.0 | 0.0 |
| Area 5, RWMS Pit No. 4 | 09/28/92 | 0.0 | 0.0 |
| Area 5, RWMS Pit No. 4 | 10/26/92 | 0.0 | 0.0 |
| Area 5, RWMS Pit No. 4 | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS TP N | 02/03/92 | $-1.3 \times 10^{-17}$ | $7.5 \times 10^{-18}$ |
| Area 5, RWMS TP N | 03/02/92 | $1.3 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 5, RWMS TP N | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS TP N | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS TP N | 05/26/92 | 0.0 | 0.0 |
| Area 5, RWMS TP N | 06/29/92 | $1.4 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 5, RWMS TP N | 08/03/92 | $2.3 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 5, RWMS TP N | 08/31/92 | 0.0 | 0.0 |
| Area 5, RWMS TP N | 09/28/92 | 0.0 | 0.0 |
| Area 5, RWMS TP N | 10/26/92 | 0.0 | 0.0 |
| Area 5, RWMS TP N | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NE | 12/30/91 | $-5.7 \times 10^{-18}$ | $3.2 \times 10^{-18}$ |
| Area 5, RWMS TP NE | 02/03/92 | $8.9 \times 10^{-18}$ | $9.0 \times 10^{-18}$ |
| Area 5, RWMS TP NE | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NE | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NE | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NE | 05/26/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NE | 06/29/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NE | 08/03/92 | $1.2 \times 10^{-17}$ | $7.0 \times 10^{-18}$ |
| Area 5, RWMS TP NE | 08/31/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NE | 09/28/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NE | 10/26/92 | $1.2 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 5, RWMS TP NE | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NW | 12/30/91 | $-3.3 \times 10^{-18}$ | $3.2 \times 10^{-18}$ |
| Area 5, RWMS TP NW | 02/03/92 | $4.7 \times 10^{-18}$ | $6.5 \times 10^{-18}$ |
| Area 5, RWMS TP NW | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NW | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NW | 04/28/92 | $1.2 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 5, RWMS TP NW | 05/26/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NW | 06/29/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NW | 08/03/92 | $2.3 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 5, RWMS TP NW | 08/31/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NW | 09/28/92 | $2.5 \times 10^{-17}$ | $7.7 \times 10^{-18}$ |
| Area 5, RWMS TP NW | 10/26/92 | $5.8 \times 10^{-17}$ | $9.2 \times 10^{-18}$ |
| Area 5, RWMS TP NW | 10/26/92 | $2.3 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 5, RWMS TP NW | 11/30/92 | 0.0 | 0.0 |

Mean MDC: $1.5 \times 10^{-17}$ μCi/mL        Standard Deviation of Mean MDC: $6.5 \times 10^{-17}$ μCi/mL

Attachment A.1  ($^{238}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS TP S | 02/03/92 | $9.5 \times 10^{-18}$ | $8.3 \times 10^{-18}$ |
| Area 5, RWMS TP S | 03/02/92 | $1.4 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 5, RWMS TP S | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS TP S | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS TP S | 05/26/92 | 0.0 | 0.0 |
| Area 5, RWMS TP S | 06/29/92 | 0.0 | 0.0 |
| Area 5, RWMS TP S | 08/03/92 | $2.6 \times 10^{-18}$ | $2.6 \times 10^{-18}$ |
| Area 5, RWMS TP S | 08/31/92 | 0.0 | 0.0 |
| Area 5, RWMS TP S | 09/28/92 | 0.0 | 0.0 |
| Area 5, RWMS TP S | 10/26/92 | 0.0 | 0.0 |
| Area 5, RWMS TP S | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SE | 12/30/91 | $1.0 \times 10^{-18}$ | $3.6 \times 10^{-18}$ |
| Area 5, RWMS TP SE | 02/03/92 | $5.8 \times 10^{-18}$ | $7.7 \times 10^{-18}$ |
| Area 5, RWMS TP SE | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SE | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SE | 04/28/92 | $1.1 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 5, RWMS TP SE | 05/26/92 | $3.7 \times 10^{-19}$ | $3.6 \times 10^{-19}$ |
| Area 5, RWMS TP SE | 06/29/92 | $9.0 \times 10^{-19}$ | $9.1 \times 10^{-19}$ |
| Area 5, RWMS TP SE | 08/03/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SE | 08/31/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SE | 09/28/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SE | 10/26/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SE | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SW | 12/30/91 | $-6.6 \times 10^{-18}$ | $3.3 \times 10^{-18}$ |
| Area 5, RWMS TP SW | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SW | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SW | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SW | 05/26/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SW | 06/29/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SW | 08/03/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SW | 08/31/92 | $1.4 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 5, RWMS TP SW | 09/28/92 | $1.7 \times 10^{-18}$ | $1.7 \times 10^{-18}$ |
| Area 5, RWMS TP SW | 10/26/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SW | 11/30/92 | 0.0 | 0.0 |
| Area 5, Well 5B | 12/30/91 | $-8.9 \times 10^{-19}$ | $3.9 \times 10^{-18}$ |
| Area 5, Well 5B | 02/03/92 | $-1.2 \times 10^{-17}$ | $5.9 \times 10^{-18}$ |
| Area 5, Well 5B | 03/02/92 | 0.0 | 0.0 |
| Area 5, Well 5B | 03/30/92 | 0.0 | 0.0 |
| Area 5, Well 5B | 04/28/92 | $3.2 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 5, Well 5B | 05/26/92 | $1.1 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |

Mean MDC: $1.5 \times 10^{-17}$ μCi/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17}$ μCi/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, Well 5B | 06/29/92 | $7.5 \times 10^{-19}$ | $7.5 \times 10^{-19}$ |
| Area 5, Well 5B | 08/03/92 | 0.0 | 0.0 |
| Area 5, Well 5B | 08/31/92 | 0.0 | 0.0 |
| Area 5, Well 5B | 09/28/92 | $1.8 \times 10^{-18}$ | $1.8 \times 10^{-18}$ |
| Area 5, Well 5B | 10/26/92 | 0.0 | 0.0 |
| Area 6, Building 6-900 | 10/26/92 | $9.6 \times 10^{-19}$ | $9.7 \times 10^{-19}$ |
| Area 6, Building 6-900 | 11/30/92 | 0.0 | 0.0 |
| Area 6, CP-6 | 12/30/91 | $-3.5 \times 10^{-19}$ | $2.4 \times 10^{-18}$ |
| Area 6, CP-6 | 02/03/92 | $4.3 \times 10^{-19}$ | $8.6 \times 10^{-18}$ |
| Area 6, CP-6 | 03/02/92 | $1.1 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 6, CP-6 | 03/30/92 | 0.0 | 0.0 |
| Area 6, CP-6 | 04/28/92 | 0.0 | 0.0 |
| Area 6, CP-6 | 05/26/92 | 0.0 | 0.0 |
| Area 6, CP-6 | 06/29/92 | 0.0 | 0.0 |
| Area 6, CP-6 | 08/03/92 | $2.8 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 6, CP-6 | 08/31/92 | $4.3 \times 10^{-18}$ | $4.3 \times 10^{-18}$ |
| Area 6, CP-6 | 09/28/92 | 0.0 | 0.0 |
| Area 6, CP-6 | 10/26/92 | 0.0 | 0.0 |
| Area 6, CP-6 | 11/30/92 | 0.0 | 0.0 |
| Area 6, Well 3 Complex | 12/30/91 | $-5.2 \times 10^{-18}$ | $4.2 \times 10^{-18}$ |
| Area 6, Well 3 Complex | 02/03/92 | $-1.2 \times 10^{-17}$ | $6.1 \times 10^{-18}$ |
| Area 6, Well 3 Complex | 03/02/92 | 0.0 | 0.0 |
| Area 6, Well 3 Complex | 03/30/92 | 0.0 | 0.0 |
| Area 6, Well 3 Complex | 04/28/92 | 0.0 | 0.0 |
| Area 6, Well 3 Complex | 05/26/92 | $1.4 \times 10^{-17}$ | $1.5 \times 10^{-17}$ |
| Area 6, Well 3 Complex | 06/29/92 | 0.0 | 0.0 |
| Area 6, Well 3 Complex | 08/03/92 | $2.7 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 6, Well 3 Complex | 08/31/92 | 0.0 | 0.0 |
| Area 6, Well 3 Complex | 09/28/92 | $1.6 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 6, Well 3 Complex | 10/26/92 | 0.0 | 0.0 |
| Area 6, Well 3 Complex | 11/30/92 | 0.0 | 0.0 |
| Area 6, Yucca Complex | 12/30/91 | $4.1 \times 10^{-19}$ | $4.9 \times 10^{-18}$ |
| Area 6, Yucca Complex | 03/02/92 | 0.0 | 0.0 |
| Area 6, Yucca Complex | 03/30/92 | 0.0 | 0.0 |
| Area 6, Yucca Complex | 04/28/92 | 0.0 | 0.0 |
| Area 6, Yucca Complex | 05/26/92 | 0.0 | 0.0 |
| Area 6, Yucca Complex | 06/29/92 | $6.8 \times 10^{-19}$ | $6.8 \times 10^{-19}$ |
| Area 6, Yucca Complex | 08/03/92 | 0.0 | 0.0 |
| Area 6, Yucca Complex | 08/31/92 | $4.8 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 6, Yucca Complex | 09/28/92 | 0.0 | 0.0 |

Mean MDC: $1.5 \times 10^{-17} \mu$Ci/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17} \mu$Ci/mL

**Attachment A.1** ($^{238}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 6, Yucca Complex | 10/26/92 | $5.8 \times 10^{-19}$ | $5.8 \times 10^{-19}$ |
| Area 6, Yucca Complex | 11/30/92 | 0.0 | 0.0 |
| Area 7, UE-7ns | 12/30/91 | $1.1 \times 10^{-19}$ | $4.0 \times 10^{-18}$ |
| Area 7, UE-7ns | 02/03/92 | $-1.3 \times 10^{-17}$ | $5.8 \times 10^{-18}$ |
| Area 7, UE-7ns | 03/02/92 | 0.0 | 0.0 |
| Area 7, UE-7ns | 03/30/92 | $2.9 \times 10^{-18}$ | $1.7 \times 10^{-18}$ |
| Area 7, UE-7ns | 04/28/92 | $2.9 \times 10^{-19}$ | $2.9 \times 10^{-19}$ |
| Area 7, UE-7ns | 05/26/92 | 0.0 | 0.0 |
| Area 7, UE-7ns | 06/29/92 | $1.1 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 7, UE-7ns | 08/03/92 | $1.5 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 7, UE-7ns | 08/31/92 | $3.5 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 7, UE-7ns | 09/28/92 | 0.0 | 0.0 |
| Area 7, UE-7ns | 10/26/92 | 0.0 | 0.0 |
| Area 7, UE-7ns | 11/30/92 | 0.0 | 0.0 |
| Area 9, 9-300 Bunker | 12/30/91 | $4.9 \times 10^{-18}$ | $3.7 \times 10^{-18}$ |
| Area 9, 9-300 Bunker | 02/03/92 | $-1.5 \times 10^{-17}$ | $6.4 \times 10^{-18}$ |
| Area 9, 9-300 Bunker | 03/02/92 | $5.4 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 9, 9-300 Bunker | 03/30/92 | $1.3 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 9, 9-300 Bunker | 04/28/92 | $6.4 \times 10^{-18}$ | $3.8 \times 10^{-18}$ |
| Area 9, 9-300 Bunker | 05/26/92 | $1.3 \times 10^{-17}$ | $4.2 \times 10^{-18}$ |
| Area 9, 9-300 Bunker | 06/29/92 | $8.6 \times 10^{-18}$ | $3.9 \times 10^{-18}$ |
| Area 9, 9-300 Bunker | 08/03/92 | $4.8 \times 10^{-18}$ | $2.2 \times 10^{-18}$ |
| Area 9, 9-300 Bunker | 08/31/92 | $2.7 \times 10^{-18}$ | $2.7 \times 10^{-18}$ |
| Area 9, 9-300 Bunker | 09/28/92 | $3.0 \times 10^{-18}$ | $1.7 \times 10^{-18}$ |
| Area 9, 9-300 Bunker | 10/26/92 | $3.7 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |
| Area 9, 9-300 Bunker | 11/30/92 | $1.8 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 10, Gate 700 S | 12/30/91 | $-2.5 \times 10^{-19}$ | $3.2 \times 10^{-18}$ |
| Area 10, Gate 700 S | 02/03/92 | $1.8 \times 10^{-18}$ | $6.1 \times 10^{-18}$ |
| Area 10, Gate 700 S | 03/02/92 | 0.0 | 0.0 |
| Area 10, Gate 700 S | 03/30/92 | $1.2 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 10, Gate 700 S | 04/28/92 | 0.0 | 0.0 |
| Area 10, Gate 700 S | 05/26/92 | $3.7 \times 10^{-18}$ | $9.1 \times 10^{-19}$ |
| Area 10, Gate 700 S | 06/29/92 | $9.0 \times 10^{-19}$ | $9.0 \times 10^{-19}$ |
| Area 10, Gate 700 S | 08/03/92 | $4.4 \times 10^{-18}$ | $4.5 \times 10^{-18}$ |
| Area 10, Gate 700 S | 08/31/92 | $5.0 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 10, Gate 700 S | 09/28/92 | $2.3 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 10, Gate 700 S | 10/26/92 | $8.6 \times 10^{-19}$ | $8.6 \times 10^{-19}$ |
| Area 10, Gate 700 S | 11/30/92 | 0.0 | 0.0 |
| Area 11, Gate 293 | 12/30/91 | $-5.3 \times 10^{-18}$ | $4.3 \times 10^{-18}$ |
| Area 11, Gate 293 | 02/03/92 | $9.3 \times 10^{-19}$ | $5.8 \times 10^{-18}$ |

Mean MDC: $1.5 \times 10^{-17}$μCi/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17}$μCi/mL

Attachment A.1  ($^{238}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 11, Gate 293 | 03/02/92 | $1.4 \times 10^{-18}$ | $9.6 \times 10^{-19}$ |
| Area 11, Gate 293 | 03/30/92 | $2.2 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 11, Gate 293 | 04/28/92 | $3.2 \times 10^{-18}$ | $3.2 \times 10^{-18}$ |
| Area 11, Gate 293 | 05/26/92 | $1.1 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 11, Gate 293 | 06/29/92 | $1.5 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 11, Gate 293 | 08/03/92 | $1.7 \times 10^{-18}$ | $1.7 \times 10^{-18}$ |
| Area 11, Gate 293 | 08/31/92 | 0.0 | 0.0 |
| Area 11, Gate 293 | 09/28/92 | $5.6 \times 10^{-18}$ | $4.0 \times 10^{-18}$ |
| Area 11, Gate 293 | 10/26/92 | 0.0 | 0.0 |
| Area 11, Gate 293 | 11/30/92 | 0.0 | 0.0 |
| Area 12, Complex | 02/03/92 | $-5.7 \times 10^{-18}$ | $6.9 \times 10^{-18}$ |
| Area 12, Complex | 03/02/92 | $1.7 \times 10^{-18}$ | $1.7 \times 10^{-18}$ |
| Area 12, Complex | 03/30/92 | 0.0 | 0.0 |
| Area 12, Complex | 04/28/92 | 0.0 | 0.0 |
| Area 12, Complex | 05/26/92 | 0.0 | 0.0 |
| Area 12, Complex | 06/29/92 | 0.0 | 0.0 |
| Area 12, Complex | 08/03/92 | $8.9 \times 10^{-19}$ | $8.9 \times 10^{-19}$ |
| Area 12, Complex | 08/31/92 | 0.0 | 0.0 |
| Area 12, Complex | 09/28/92 | 0.0 | 0.0 |
| Area 12, Complex | 10/26/92 | 0.0 | 0.0 |
| Area 12, Complex | 11/30/92 | $1.4 \times 10^{-17}$ | $1.4 \times 10^{-17}$ |
| Area 15, EPA Farm | 12/30/91 | $-4.5 \times 10^{-18}$ | $4.0 \times 10^{-18}$ |
| Area 15, EPA Farm | 02/03/92 | $-1.1 \times 10^{-17}$ | $6.9 \times 10^{-18}$ |
| Area 15, EPA Farm | 03/02/92 | $1.9 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |
| Area 15, EPA Farm | 03/30/92 | $2.1 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 15, EPA Farm | 04/28/92 | $2.3 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 15, EPA Farm | 05/26/92 | $1.5 \times 10^{-17}$ | $4.3 \times 10^{-18}$ |
| Area 15, EPA Farm | 06/29/92 | $2.9 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 15, EPA Farm | 08/03/92 | $9.9 \times 10^{-18}$ | $5.1 \times 10^{-18}$ |
| Area 15, EPA Farm | 08/31/92 | $3.1 \times 10^{-18}$ | $1.8 \times 10^{-18}$ |
| Area 15, EPA Farm | 09/28/92 | 0.0 | 0.0 |
| Area 15, EPA Farm | 10/26/92 | 0.0 | 0.0 |
| Area 15, EPA Farm | 11/30/92 | $1.2 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 16, 3545 Substation | 12/30/91 | $-3.0 \times 10^{-18}$ | $3.2 \times 10^{-18}$ |
| Area 16, 3545 Substation | 02/03/92 | $-2.0 \times 10^{-18}$ | $4.7 \times 10^{-18}$ |
| Area 16, 3545 Substation | 04/28/92 | 0.0 | 0.0 |
| Area 16, 3545 Substation | 05/26/92 | 0.0 | 0.0 |
| Area 16, 3545 Substation | 06/29/92 | 0.0 | 0.0 |
| Area 16, 3545 Substation | 08/03/92 | 0.0 | 0.0 |
| Area 16, 3545 Substation | 08/31/92 | 0.0 | 0.0 |

Mean MDC: $1.5 \times 10^{-17}$ μCi/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17}$ μCi/mL

Attachment A.1  ($^{238}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 16, 3545 Substation | 09/28/92 | 0.0 | 0.0 |
| Area 16, 3545 Substation | 10/26/92 | 0.0 | 0.0 |
| Area 19, Echo Peak | 12/30/91 | $-1.4 \times 10^{-17}$ | $5.7 \times 10^{-18}$ |
| Area 19, Echo Peak | 02/03/92 | $-2.5 \times 10^{-18}$ | $4.9 \times 10^{-18}$ |
| Area 19, Echo Peak | 03/02/92 | 0.0 | 0.0 |
| Area 19, Echo Peak | 03/30/92 | 0.0 | 0.0 |
| Area 19, Echo Peak | 04/28/92 | 0.0 | 0.0 |
| Area 19, Echo Peak | 05/26/92 | 0.0 | 0.0 |
| Area 19, Echo Peak | 06/29/92 | 0.0 | 0.0 |
| Area 19, Echo Peak | 08/03/92 | 0.0 | 0.0 |
| Area 19, Echo Peak | 08/31/92 | 0.0 | 0.0 |
| Area 19, Echo Peak | 09/28/92 | 0.0 | 0.0 |
| Area 19, Echo Peak | 10/26/92 | 0.0 | 0.0 |
| Area 19, Pahute Substation | 02/03/92 | $2.5 \times 10^{-18}$ | $5.4 \times 10^{-18}$ |
| Area 19, Pahute Substation | 03/02/92 | 0.0 | 0.0 |
| Area 19, Pahute Substation | 03/30/92 | $1.9 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 19, Pahute Substation | 04/28/92 | $2.4 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 19, Pahute Substation | 05/26/92 | 0.0 | 0.0 |
| Area 19, Pahute Substation | 06/29/92 | 0.0 | 0.0 |
| Area 19, Pahute Substation | 08/03/92 | $3.8 \times 10^{-18}$ | $2.8 \times 10^{-18}$ |
| Area 19, Pahute Substation | 08/31/92 | $1.4 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 19, Pahute Substation | 09/28/92 | $1.3 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 19, Pahute Substation | 10/26/92 | 0.0 | 0.0 |
| Area 20, Dispensary | 12/30/91 | $-1.0 \times 10^{-17}$ | $5.7 \times 10^{-18}$ |
| Area 20, Dispensary | 02/03/92 | $6.8 \times 10^{-18}$ | $7.6 \times 10^{-18}$ |
| Area 20, Dispensary | 03/02/92 | 0.0 | 0.0 |
| Area 20, Dispensary | 03/30/92 | 0.0 | 0.0 |
| Area 20, Dispensary | 04/28/92 | 0.0 | 0.0 |
| Area 20, Dispensary | 05/26/92 | $3.1 \times 10^{-18}$ | $2.2 \times 10^{-18}$ |
| Area 20, Dispensary | 06/29/92 | $4.6 \times 10^{-18}$ | $2.7 \times 10^{-18}$ |
| Area 20, Dispensary | 08/03/92 | 0.0 | 0.0 |
| Area 20, Dispensary | 08/31/92 | $2.8 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 20, Dispensary | 09/28/92 | 0.0 | 0.0 |
| Area 20, Dispensary | 10/26/92 | 0.0 | 0.0 |
| Area 20, Dispensary | 02/03/92 | $-1.4 \times 10^{-17}$ | $7.4 \times 10^{-18}$ |
| Area 23, Building 790 | 03/02/92 | 0.0 | 0.0 |
| Area 23, Building 790 | 03/30/92 | 0.0 | 0.0 |
| Area 23, Building 790 | 04/28/92 | 0.0 | 0.0 |
| Area 23, Building 790 | 05/26/92 | 0.0 | 0.0 |
| Area 23, Building 790 | 06/29/92 | 0.0 | 0.0 |

Mean MDC: $1.5 \times 10^{-17}$ µCi/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17}$ µCi/mL

Attachment A.1  ($^{238}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 23, Building 790 | 08/03/92 | 0.0 | 0.0 |
| Area 23, Building 790 | 08/31/92 | 0.0 | 0.0 |
| Area 23, Building 790 | 09/28/92 | 0.0 | 0.0 |
| Area 23, Building 790 | 10/26/92 | 0.0 | 0.0 |
| Area 23, Building 790 | 11/30/92 | $8.9 \times 10^{-19}$ | $8.9 \times 10^{-19}$ |
| Area 23, Building 790 No. 2 | 12/30/91 | $-4.5 \times 10^{-18}$ | $3.5 \times 10^{-18}$ |
| Area 23, Building 790 No. 2 | 02/03/92 | $-5.6 \times 10^{-18}$ | $4.8 \times 10^{-18}$ |
| Area 23, Building 790 No. 2 | 03/02/92 | 0.0 | 0.0 |
| Area 23, Building 790 No. 2 | 03/30/92 | 0.0 | 0.0 |
| Area 23, Building 790 No. 2 | 04/28/92 | $2.0 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 23, Building 790 No. 2 | 05/26/92 | 0.0 | 0.0 |
| Area 23, Building 790 No. 2 | 06/29/92 | 0.0 | 0.0 |
| Area 23, Building 790 No. 2 | 08/03/92 | 0.0 | 0.0 |
| Area 23, Building 790 No. 2 | 08/31/92 | 0.0 | 0.0 |
| Area 23, Building 790 No. 2 | 09/28/92 | 0.0 | 0.0 |
| Area 23, Building 790 No. 2 | 10/26/92 | 0.0 | 0.0 |
| Area 23, Building 790 No. 2 | 11/30/92 | 0.0 | 0.0 |
| Area 23, E. Boundary | 12/30/91 | $-4.8 \times 10^{-18}$ | $3.7 \times 10^{-18}$ |
| Area 23, E. Boundary | 03/02/92 | 0.0 | 0.0 |
| Area 23, E. Boundary | 03/30/92 | 0.0 | 0.0 |
| Area 23, E. Boundary | 04/28/92 | $1.0 \times 10^{-18}$ | $7.4 \times 10^{-19}$ |
| Area 23, E. Boundary | 05/26/92 | 0.0 | 0.0 |
| Area 23, E. Boundary | 06/29/92 | 0.0 | 0.0 |
| Area 23, E. Boundary | 08/03/92 | 0.0 | 0.0 |
| Area 23, E. Boundary | 08/31/92 | $1.1 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 23, E. Boundary | 09/28/92 | 0.0 | 0.0 |
| Area 23, E. Boundary | 10/26/92 | $1.5 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 23, H&S Building | 12/30/91 | $-7.4 \times 10^{-18}$ | $5.8 \times 10^{-18}$ |
| Area 23, H&S Building | 03/02/92 | 0.0 | 0.0 |
| Area 23, H&S Building | 03/30/92 | 0.0 | 0.0 |
| Area 23, H&S Building | 04/28/92 | 0.0 | 0.0 |
| Area 23, H&S Building | 05/26/92 | 0.0 | 0.0 |
| Area 23, H&S Building | 06/29/92 | 0.0 | 0.0 |
| Area 23, H&S Building | 08/03/92 | 0.0 | 0.0 |
| Area 23, H&S Building | 08/31/92 | 0.0 | 0.0 |
| Area 23, H&S Building | 09/28/92 | 0.0 | 0.0 |
| Area 23, H&S Building | 10/26/92 | 0.0 | 0.0 |
| Area 23, H&S Building | 11/30/92 | 0.0 | 0.0 |
| Area 25, E-MAD N | 12/30/91 | $-8.3 \times 10^{-18}$ | $5.0 \times 10^{-18}$ |
| Area 25, E-MAD N | 02/03/92 | $2.9 \times 10^{-18}$ | $6.0 \times 10^{-18}$ |

Mean MDC: $1.5 \times 10^{-17}$ μCi/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17}$ μCi/mL

Attachment A.1 ($^{238}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 25, E-MAD N | 03/02/92 | $2.1 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 25, E-MAD N | 03/30/92 | 0.0 | 0.0 |
| Area 25, E-MAD N | 04/28/92 | 0.0 | 0.0 |
| Area 25, E-MAD N | 05/26/92 | 0.0 | 0.0 |
| Area 25, E-MAD N | 06/29/92 | 0.0 | 0.0 |
| Area 25, E-MAD N | 08/03/92 | 0.0 | 0.0 |
| Area 25, E-MAD N | 08/31/92 | 0.0 | 0.0 |
| Area 25, E-MAD N | 09/28/92 | 0.0 | 0.0 |
| Area 25, E-MAD N | 10/26/92 | 0.0 | 0.0 |
| Area 25, E-MAD N | 11/30/92 | 0.0 | 0.0 |
| Area 25, NRDS Warehouse | 12/30/91 | $-1.9 \times 10^{-18}$ | $4.2 \times 10^{-18}$ |
| Area 25, NRDS Warehouse | 02/03/92 | $-9.8 \times 10^{-19}$ | $4.9 \times 10^{-18}$ |
| Area 25, NRDS Warehouse | 03/02/92 | 0.0 | 0.0 |
| Area 25, NRDS Warehouse | 03/30/92 | 0.0 | 0.0 |
| Area 25, NRDS Warehouse | 04/28/92 | 0.0 | 0.0 |
| Area 25, NRDS Warehouse | 05/26/92 | $3.0 \times 10^{-18}$ | $3.0 \times 10^{-18}$ |
| Area 25, NRDS Warehouse | 06/29/92 | 0.0 | 0.0 |
| Area 25, NRDS Warehouse | 08/03/92 | 0.0 | 0.0 |
| Area 25, NRDS Warehouse | 08/31/92 | $1.4 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 25, NRDS Warehouse | 09/28/92 | $1.2 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 25, NRDS Warehouse | 10/26/92 | 0.0 | 0.0 |
| Area 25, NRDS Warehouse | 11/30/92 | 0.0 | 0.0 |
| Area 27, Cafeteria | 02/03/92 | $1.0 \times 10^{-18}$ | $4.6 \times 10^{-18}$ |
| Area 27, Cafeteria | 03/02/92 | $3.2 \times 10^{-18}$ | $3.2 \times 10^{-18}$ |
| Area 27, Cafeteria | 03/30/92 | 0.0 | 0.0 |
| Area 27, Cafeteria | 04/28/92 | $9.6 \times 10^{-18}$ | $7.0 \times 10^{-18}$ |
| Area 27, Cafeteria | 05/26/92 | $1.3 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 27, Cafeteria | 06/29/92 | 0.0 | 0.0 |
| Area 27, Cafeteria | 08/03/92 | 0.0 | 0.0 |
| Area 27, Cafeteria | 08/31/92 | $1.5 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 27, Cafeteria | 09/28/92 | $1.6 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 27, Cafeteria | 10/26/92 | 0.0 | 0.0 |
| Area 27, Cafeteria | 11/30/92 | 0.0 | 0.0 |

Mean MDC: $1.5 \times 10^{-17} \mu$Ci/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17} \mu$Ci/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL | |
| | | Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 1, BJY | 12/30/91 | $1.5 \times 10^{-17}$ | $3.6 \times 10^{-18}$ |
| Area 1, BJY | 02/03/92 | $9.6 \times 10^{-18}$ | $4.1 \times 10^{-18}$ |
| Area 1, BJY | 03/02/92 | $1.1 \times 10^{-17}$ | $6.5 \times 10^{-18}$ |
| Area 1, BJY | 03/30/92 | $6.8 \times 10^{-17}$ | $1.1 \times 10^{-17}$ |
| Area 1, BJY | 04/28/92 | $6.6 \times 10^{-17}$ | $1.2 \times 10^{-17}$ |
| Area 1, BJY | 05/26/92 | $2.7 \times 10^{-16}$ | $1.2 \times 10^{-16}$ |
| Area 1, BJY | 06/29/92 | $4.0 \times 10^{-17}$ | $2.0 \times 10^{-17}$ |
| Area 1, BJY | 08/03/92 | $1.6 \times 10^{-16}$ | $1.8 \times 10^{-17}$ |
| Area 1, BJY | 08/31/92 | $8.1 \times 10^{-17}$ | $1.2 \times 10^{-17}$ |
| Area 1, BJY | 09/28/92 | $8.5 \times 10^{-17}$ | $1.5 \times 10^{-17}$ |
| Area 1, BJY | 10/26/92 | $1.8 \times 10^{-17}$ | $3.9 \times 10^{-18}$ |
| Area 1, BJY | 11/30/92 | $2.5 \times 10^{-17}$ | $5.3 \times 10^{-18}$ |
| Area 1, Gravel Pit | 12/30/91 | $7.9 \times 10^{-18}$ | $3.0 \times 10^{-18}$ |
| Area 1, Gravel Pit | 02/03/92 | $1.1 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 1, Gravel Pit | 03/02/92 | 0.0 | 0.0 |
| Area 1, Gravel Pit | 03/30/92 | $4.6 \times 10^{-18}$ | $2.7 \times 10^{-18}$ |
| Area 1, Gravel Pit | 04/28/92 | $3.6 \times 10^{-18}$ | $2.6 \times 10^{-18}$ |
| Area 1, Gravel Pit | 05/26/92 | 0.0 | 0.0 |
| Area 1, Gravel Pit | 05/26/92 | 0.0 | 0.0 |
| Area 1, Gravel Pit | 06/29/92 | $2.4 \times 10^{-18}$ | $1.7 \times 10^{-18}$ |
| Area 1, Gravel Pit | 08/03/92 | $2.1 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 1, Gravel Pit | 08/31/92 | $2.9 \times 10^{-17}$ | $6.7 \times 10^{-18}$ |
| Area 1, Gravel Pit | 09/28/92 | $9.6 \times 10^{-18}$ | $3.5 \times 10^{-18}$ |
| Area 1, Gravel Pit | 10/26/92 | $1.3 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 1, Gravel Pit | 11/30/92 | $1.7 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 2, 2-1 Substation | 12/30/91 | $6.3 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 2, 2-1 Substation | 02/03/92 | 0.0 | 0.0 |
| Area 2, 2-1 Substation | 03/02/92 | $1.0 \times 10^{-18}$ | $1.0 \times 10^{-18}$ |
| Area 2, 2-1 Substation | 03/30/92 | $9.4 \times 10^{-18}$ | $3.2 \times 10^{-18}$ |
| Area 2, 2-1 Substation | 04/28/92 | $1.1 \times 10^{-17}$ | $5.7 \times 10^{-18}$ |
| Area 2, 2-1 Substation | 05/26/92 | $1.5 \times 10^{-17}$ | $3.6 \times 10^{-18}$ |
| Area 2, 2-1 Substation | 06/29/92 | $1.2 \times 10^{-17}$ | $3.6 \times 10^{-18}$ |
| Area 2, 2-1 Substation | 08/03/92 | $2.4 \times 10^{-17}$ | $6.6 \times 10^{-18}$ |
| Area 2, 2-1 Substation | 08/31/92 | $4.0 \times 10^{-17}$ | $7.2 \times 10^{-18}$ |
| Area 2, 2-1 Substation | 09/28/92 | $3.7 \times 10^{-17}$ | $7.2 \times 10^{-18}$ |
| Area 2, 2-1 Substation | 10/26/92 | $7.2 \times 10^{-18}$ | $3.6 \times 10^{-18}$ |
| Area 2, 2-1 Substation | 11/30/92 | $1.1 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 2, Complex | 12/30/91 | $5.0 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 2, Complex | 02/03/92 | $5.1 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 2, Complex | 03/02/92 | $7.7 \times 10^{-18}$ | $3.0 \times 10^{-18}$ |

Mean MDC: $1.3 \times 10^{-17} \mu$Ci/mL        Standard Deviation of Mean MDC: $6.5 \times 10^{-17} \mu$Ci/mL

Attachment A.2  ($^{239+240}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 2, Complex | 03/30/92 | $4.7 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 2, Complex | 04/28/92 | $1.1 \times 10^{-16}$ | $1.7 \times 10^{-17}$ |
| Area 2, Complex | 05/26/92 | $1.2 \times 10^{-17}$ | $3.1 \times 10^{-18}$ |
| Area 2, Complex | 06/29/92 | $1.1 \times 10^{-16}$ | $1.4 \times 10^{-17}$ |
| Area 2, Complex | 08/03/92 | $3.1 \times 10^{-17}$ | $7.4 \times 10^{-18}$ |
| Area 2, Complex | 08/31/92 | $1.3 \times 10^{-17}$ | $4.5 \times 10^{-18}$ |
| Area 2, Complex | 09/28/92 | $1.3 \times 10^{-17}$ | $3.4 \times 10^{-18}$ |
| Area 2, Complex | 10/26/92 | $2.8 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 2, Complex | 11/30/92 | $1.8 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 3, 3-300 Bunker | 12/30/91 | $6.8 \times 10^{-17}$ | $1.1 \times 10^{-17}$ |
| Area 3, Complex | 12/30/91 | $4.4 \times 10^{-17}$ | $7.2 \times 10^{-18}$ |
| Area 3, Complex | 02/03/92 | $7.0 \times 10^{-18}$ | $3.1 \times 10^{-18}$ |
| Area 3, Complex | 03/02/92 | $1.1 \times 10^{-17}$ | $3.4 \times 10^{-18}$ |
| Area 3, Complex | 03/30/92 | $1.7 \times 10^{-17}$ | $4.2 \times 10^{-18}$ |
| Area 3, Complex | 04/28/92 | $2.6 \times 10^{-17}$ | $5.1 \times 10^{-18}$ |
| Area 3, Complex | 05/26/92 | $6.5 \times 10^{-17}$ | $1.1 \times 10^{-17}$ |
| Area 3, Complex | 06/29/92 | $3.5 \times 10^{-17}$ | $5.8 \times 10^{-18}$ |
| Area 3, Complex | 08/03/92 | $6.7 \times 10^{-17}$ | $1.1 \times 10^{-17}$ |
| Area 3, Complex | 08/31/92 | $5.8 \times 10^{-16}$ | $7.9 \times 10^{-17}$ |
| Area 3, Complex | 09/28/92 | $1.1 \times 10^{-16}$ | $1.2 \times 10^{-17}$ |
| Area 3, Complex | 10/26/92 | $2.6 \times 10^{-17}$ | $4.9 \times 10^{-18}$ |
| Area 3, Complex | 11/30/92 | $1.6 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 3, Complex No. 2 | 12/30/91 | $3.9 \times 10^{-17}$ | $7.6 \times 10^{-18}$ |
| Area 3, Complex No. 2 | 02/03/92 | $1.5 \times 10^{-16}$ | $3.6 \times 10^{-17}$ |
| Area 3, Complex No. 2 | 03/02/92 | $7.3 \times 10^{-17}$ | $2.1 \times 10^{-17}$ |
| Area 3, Complex No. 2 | 03/30/92 | $5.9 \times 10^{-17}$ | $1.1 \times 10^{-17}$ |
| Area 3, Complex No. 2 | 04/28/92 | $6.0 \times 10^{-17}$ | $5.9 \times 10^{-18}$ |
| Area 3, Complex No. 2 | 05/26/92 | $1.6 \times 10^{-16}$ | $1.9 \times 10^{-17}$ |
| Area 3, Complex No. 2 | 06/29/92 | $9.4 \times 10^{-17}$ | $1.3 \times 10^{-17}$ |
| Area 3, Complex No. 2 | 08/03/92 | $1.7 \times 10^{-16}$ | $2.2 \times 10^{-17}$ |
| Area 3, Complex No. 2 | 08/31/92 | $8.6 \times 10^{-16}$ | $1.3 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 09/28/92 | $1.5 \times 10^{-16}$ | $2.3 \times 10^{-17}$ |
| Area 3, Complex No. 2 | 10/26/92 | $4.3 \times 10^{-17}$ | $6.7 \times 10^{-18}$ |
| Area 3, Complex No. 2 | 11/30/92 | $1.4 \times 10^{-17}$ | $3.4 \times 10^{-18}$ |
| Area 3, Mud Plant | 02/03/92 | $1.0 \times 10^{-16}$ | $2.1 \times 10^{-17}$ |
| Area 3, Mud Plant | 03/02/92 | $9.0 \times 10^{-17}$ | $1.3 \times 10^{-17}$ |
| Area 3, Mud Plant | 03/30/92 | $6.8 \times 10^{-17}$ | $6.5 \times 10^{-18}$ |
| Area 3, Mud Plant | 04/28/92 | $3.2 \times 10^{-15}$ | $2.9 \times 10^{-16}$ |
| Area 3, Mud Plant | 05/26/92 | $3.0 \times 10^{-15}$ | $1.3 \times 10^{-16}$ |
| Area 3, Mud Plant | 06/29/92 | $3.6 \times 10^{-15}$ | $3.2 \times 10^{-16}$ |

Mean MDC: $1.3 \times 10^{-17}$ μCi/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17}$ μCi/mL

| Sampling Location | Collection Dates | µCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 3, Mud Plant | 08/03/92 | $4.9 \times 10^{-15}$ | $4.7 \times 10^{-16}$ |
| Area 3, Mud Plant | 08/31/92 | $3.2 \times 10^{-15}$ | $3.0 \times 10^{-16}$ |
| Area 3, Mud Plant | 09/28/92 | 0.0 | 0.0 |
| Area 3, Mud Plant | 10/26/92 | $2.3 \times 10^{-17}$ | $4.6 \times 10^{-18}$ |
| Area 3, Mud Plant | 11/30/92 | $8.1 \times 10^{-18}$ | $2.9 \times 10^{-18}$ |
| Area 3, U-3ah/at E | 12/30/91 | $1.5 \times 10^{-17}$ | $3.7 \times 10^{-18}$ |
| Area 3, U-3ah/at E | 02/03/92 | $1.7 \times 10^{-17}$ | $4.0 \times 10^{-18}$ |
| Area 3, U-3ah/at E | 03/02/92 | $3.2 \times 10^{-17}$ | $1.0 \times 10^{-17}$ |
| Area 3, U-3ah/at E | 03/30/92 | $3.1 \times 10^{-17}$ | $9.3 \times 10^{-18}$ |
| Area 3, U-3ah/at E | 04/28/92 | $6.3 \times 10^{-17}$ | $8.7 \times 10^{-18}$ |
| Area 3, U-3ah/at E | 05/26/92 | $4.1 \times 10^{-16}$ | $3.9 \times 10^{-17}$ |
| Area 3, U-3ah/at E | 06/29/92 | $3.4 \times 10^{-16}$ | $2.8 \times 10^{-17}$ |
| Area 3, U-3ah/at E | 08/03/92 | $1.9 \times 10^{-16}$ | $2.1 \times 10^{-17}$ |
| Area 3, U-3ah/at E | 08/31/92 | $2.2 \times 10^{-16}$ | $2.2 \times 10^{-17}$ |
| Area 3, U-3ah/at E | 09/28/92 | $4.0 \times 10^{-16}$ | $4.1 \times 10^{-17}$ |
| Area 3, U-3ah/at E | 10/26/92 | $5.8 \times 10^{-17}$ | $8.5 \times 10^{-18}$ |
| Area 3, U-3ah/at E | 11/30/92 | $-5.6 \times 10^{-16}$ | $6.6 \times 10^{-17}$ |
| Area 3, U-3ah/at N | 12/30/91 | $9.1 \times 10^{-17}$ | $1.5 \times 10^{-17}$ |
| Area 3, U-3ah/at N | 02/03/92 | $9.6 \times 10^{-17}$ | $1.3 \times 10^{-17}$ |
| Area 3, U-3ah/at N | 03/02/92 | $7.6 \times 10^{-17}$ | $1.7 \times 10^{-17}$ |
| Area 3, U-3ah/at N | 03/30/92 | $6.1 \times 10^{-17}$ | $1.1 \times 10^{-17}$ |
| Area 3, U-3ah/at N | 04/28/92 | $7.8 \times 10^{-16}$ | $4.4 \times 10^{-17}$ |
| Area 3, U-3ah/at N | 05/26/92 | $3.7 \times 10^{-15}$ | $7.3 \times 10^{-16}$ |
| Area 3, U-3ah/at N | 06/29/92 | $4.0 \times 10^{-15}$ | $2.9 \times 10^{-16}$ |
| Area 3, U-3ah/at N | 08/03/92 | $5.5 \times 10^{-15}$ | $6.1 \times 10^{-16}$ |
| Area 3, U-3ah/at N | 08/31/92 | $6.6 \times 10^{-15}$ | $5.6 \times 10^{-16}$ |
| Area 3, U-3ah/at N | 09/28/92 | $5.9 \times 10^{-15}$ | $6.1 \times 10^{-16}$ |
| Area 3, U-3ah/at N | 10/26/92 | $8.0 \times 10^{-17}$ | $1.0 \times 10^{-17}$ |
| Area 3, U-3ah/at N | 11/30/92 | $-1.4 \times 10^{-15}$ | $2.0 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 12/30/91 | $2.4 \times 10^{-17}$ | $4.9 \times 10^{-18}$ |
| Area 3, U-3ah/at S | 02/03/92 | $5.0 \times 10^{-17}$ | $8.4 \times 10^{-18}$ |
| Area 3, U-3ah/at S | 03/02/92 | $1.4 \times 10^{-16}$ | $2.1 \times 10^{-17}$ |
| Area 3, U-3ah/at S | 03/30/92 | $9.7 \times 10^{-17}$ | $1.2 \times 10^{-17}$ |
| Area 3, U-3ah/at S | 04/28/92 | $2.8 \times 10^{-16}$ | $2.2 \times 10^{-17}$ |
| Area 3, U-3ah/at S | 05/26/92 | $1.3 \times 10^{-15}$ | $3.0 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 06/29/92 | $1.4 \times 10^{-16}$ | $1.4 \times 10^{-17}$ |
| Area 3, U-3ah/at S | 08/03/92 | $1.1 \times 10^{-15}$ | $1.2 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 08/31/92 | $1.6 \times 10^{-16}$ | $1.8 \times 10^{-17}$ |
| Area 3, U-3ah/at S | 09/28/92 | $4.3 \times 10^{-16}$ | $4.9 \times 10^{-17}$ |
| Area 3, U-3ah/at S | 10/26/92 | $8.7 \times 10^{-17}$ | $1.2 \times 10^{-17}$ |

Mean MDC: $1.3 \times 10^{-17} \mu\text{Ci/mL}$          Standard Deviation of Mean MDC: $6.5 \times 10^{-17} \mu\text{Ci/mL}$

Attachment A.2 ($^{239+240}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 3, U-3ah/at S | 11/30/92 | $-5.8 \times 10^{-15}$ | $1.4 \times 10^{-17}$ |
| Area 3, U-3ah/at W | 12/30/91 | $6.8 \times 10^{-17}$ | $1.1 \times 10^{-17}$ |
| Area 3, U-3ah/at W | 02/03/92 | $1.3 \times 10^{-16}$ | $1.4 \times 10^{-17}$ |
| Area 3, U-3ah/at W | 03/02/92 | $5.6 \times 10^{-17}$ | $9.0 \times 10^{-18}$ |
| Area 3, U-3ah/at W | 03/30/92 | $4.8 \times 10^{-17}$ | $9.0 \times 10^{-18}$ |
| Area 3, U-3ah/at W | 04/28/92 | $9.6 \times 10^{-17}$ | $1.9 \times 10^{-17}$ |
| Area 3, U-3ah/at W | 05/26/92 | $4.4 \times 10^{-16}$ | $5.8 \times 10^{-17}$ |
| Area 3, U-3ah/at W | 06/29/92 | $9.7 \times 10^{-16}$ | $1.3 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 08/03/92 | $7.8 \times 10^{-16}$ | $6.7 \times 10^{-17}$ |
| Area 3, U-3ah/at W | 08/31/92 | $2.9 \times 10^{-16}$ | $2.9 \times 10^{-17}$ |
| Area 3, U-3ah/at W | 09/28/92 | $1.6 \times 10^{-16}$ | $2.4 \times 10^{-17}$ |
| Area 3, U-3ah/at W | 10/26/92 | $4.8 \times 10^{-17}$ | $7.8 \times 10^{-18}$ |
| Area 5, DOD Yard | 12/30/91 | $1.3 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 5, DOD Yard | 02/03/92 | $-1.6 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 5, DOD Yard | 03/02/92 | 0.0 | 0.0 |
| Area 5, DOD Yard | 03/30/92 | 0.0 | 0.0 |
| Area 5, DOD Yard | 04/28/92 | 0.0 | 0.0 |
| Area 5, DOD Yard | 05/26/92 | $2.6 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |
| Area 5, DOD Yard | 06/29/92 | 0.0 | 0.0 |
| Area 5, DOD Yard | 08/03/92 | $2.8 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 5, DOD Yard | 08/31/92 | $4.5 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 5, DOD Yard | 09/28/92 | $7.8 \times 10^{-18}$ | $4.0 \times 10^{-18}$ |
| Area 5, DOD Yard | 10/26/92 | 0.0 | 0.0 |
| Area 5, DOD Yard | 11/30/92 | $3.6 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 5, Gate 200 | 12/30/91 | 0.0 | 0.0 |
| Area 5, Gate 200 | 02/03/92 | $1.4 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 5, Gate 200 | 03/02/92 | 0.0 | 0.0 |
| Area 5, Gate 200 | 03/30/92 | 0.0 | 0.0 |
| Area 5, Gate 200 | 04/28/92 | $1.3 \times 10^{-18}$ | $3.2 \times 10^{-19}$ |
| Area 5, Gate 200 | 05/26/92 | $6.1 \times 10^{-18}$ | $2.8 \times 10^{-18}$ |
| Area 5, Gate 200 | 06/29/92 | $2.2 \times 10^{-17}$ | $4.7 \times 10^{-18}$ |
| Area 5, Gate 200 | 08/03/92 | $2.8 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 5, Gate 200 | 08/31/92 | $4.1 \times 10^{-18}$ | $2.9 \times 10^{-18}$ |
| Area 5, Gate 200 | 09/28/92 | $4.0 \times 10^{-18}$ | $2.9 \times 10^{-18}$ |
| Area 5, Gate 200 | 10/26/92 | $7.1 \times 10^{-19}$ | $7.1 \times 10^{-19}$ |
| Area 5, Gate 200 | 11/30/92 | $1.6 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 5, RWMS No. 1 | 12/30/91 | $1.8 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 5, RWMS No. 1 | 02/03/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 1 | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 1 | 03/30/92 | $1.9 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |

Mean MDC: $1.3 \times 10^{-17}$ μCi/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17}$ μCi/mL

Attachment A.2  ($^{239+240}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS No. 1 | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 1 | 05/26/92 | $1.1 \times 10^{-17}$ | $5.7 \times 10^{-18}$ |
| Area 5, RWMS No. 1 | 06/29/92 | $3.4 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 5, RWMS No. 1 | 08/03/92 | $4.5 \times 10^{-18}$ | $2.6 \times 10^{-18}$ |
| Area 5, RWMS No. 1 | 08/31/92 | $4.9 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 5, RWMS No. 1 | 09/28/92 | $9.5 \times 10^{-18}$ | $3.2 \times 10^{-18}$ |
| Area 5, RWMS No. 1 | 10/26/92 | $7.4 \times 10^{-18}$ | $3.4 \times 10^{-18}$ |
| Area 5, RWMS No. 1 | 11/30/92 | $4.4 \times 10^{-18}$ | $3.1 \times 10^{-18}$ |
| Area 5, RWMS No. 2 | 12/30/91 | $-7.0 \times 10^{-19}$ | $5.4 \times 10^{-19}$ |
| Area 5, RWMS No. 2 | 02/03/92 | $2.7 \times 10^{-18}$ | $2.2 \times 10^{-18}$ |
| Area 5, RWMS No. 2 | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 2 | 03/30/92 | $7.6 \times 10^{-18}$ | $3.5 \times 10^{-18}$ |
| Area 5, RWMS No. 2 | 04/28/92 | $1.9 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |
| Area 5, RWMS No. 2 | 05/26/92 | $2.2 \times 10^{-17}$ | $2.3 \times 10^{-17}$ |
| Area 5, RWMS No. 2 | 06/29/92 | $3.3 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |
| Area 5, RWMS No. 2 | 08/03/92 | $2.1 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 5, RWMS No. 2 | 08/31/92 | $1.3 \times 10^{-17}$ | $4.7 \times 10^{-18}$ |
| Area 5, RWMS No. 2 | 09/28/92 | $6.4 \times 10^{-18}$ | $3.2 \times 10^{-18}$ |
| Area 5, RWMS No. 2 | 10/26/92 | $1.3 \times 10^{-17}$ | $3.9 \times 10^{-18}$ |
| Area 5, RWMS No. 2 | 11/30/92 | $3.0 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 5, RWMS No. 3 | 12/30/91 | $2.9 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 5, RWMS No. 3 | 02/03/92 | $1.1 \times 10^{-17}$ | $5.6 \times 10^{-18}$ |
| Area 5, RWMS No. 3 | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 3 | 03/30/92 | $1.2 \times 10^{-17}$ | $3.9 \times 10^{-18}$ |
| Area 5, RWMS No. 3 | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 3 | 05/26/92 | $1.8 \times 10^{-17}$ | $4.9 \times 10^{-18}$ |
| Area 5, RWMS No. 3 | 06/29/92 | $4.1 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 5, RWMS No. 3 | 08/03/92 | $2.4 \times 10^{-17}$ | $8.9 \times 10^{-18}$ |
| Area 5, RWMS No. 3 | 08/31/92 | $8.6 \times 10^{-18}$ | $4.4 \times 10^{-18}$ |
| Area 5, RWMS No. 3 | 09/28/92 | $5.9 \times 10^{-17}$ | $1.3 \times 10^{-17}$ |
| Area 5, RWMS No. 3 | 10/26/92 | $2.1 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 5, RWMS No. 3 | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 4 | 12/30/91 | $3.1 \times 10^{-19}$ | $1.1 \times 10^{-18}$ |
| Area 5, RWMS No. 4 | 02/03/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 4 | 03/02/92 | $1.2 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 5, RWMS No. 4 | 03/30/92 | $2.2 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 5, RWMS No. 4 | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 4 | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 4 | 05/26/92 | $1.5 \times 10^{-17}$ | $2.8 \times 10^{-18}$ |
| Area 5, RWMS No. 4 | 06/29/92 | $1.7 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |

Mean MDC: $1.3 \times 10^{-17} \mu$Ci/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17} \mu$Ci/mL

Attachment A.2 ($^{239+240}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS No. 4 | 08/03/92 | $7.0 \times 10^{-18}$ | $3.5 \times 10^{-18}$ |
| Area 5, RWMS No. 4 | 08/31/92 | $1.6 \times 10^{-17}$ | $6.7 \times 10^{-18}$ |
| Area 5, RWMS No. 4 | 09/28/92 | $7.7 \times 10^{-18}$ | $3.2 \times 10^{-18}$ |
| Area 5, RWMS No. 4 | 10/26/92 | $4.7 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 5, RWMS No. 4 | 11/30/92 | $1.6 \times 10^{-18}$ | $8.1 \times 10^{-19}$ |
| Area 5, RWMS No. 5 | 12/30/91 | $3.7 \times 10^{-19}$ | $1.2 \times 10^{-18}$ |
| Area 5, RWMS No. 5 | 02/03/92 | $2.0 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 5, RWMS No. 5 | 03/02/92 | $6.0 \times 10^{-18}$ | $4.3 \times 10^{-18}$ |
| Area 5, RWMS No. 5 | 03/30/92 | $2.8 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 5, RWMS No. 5 | 04/28/92 | $1.0 \times 10^{-17}$ | $2.3 \times 10^{-18}$ |
| Area 5, RWMS No. 5 | 05/26/92 | $1.3 \times 10^{-17}$ | $3.7 \times 10^{-18}$ |
| Area 5, RWMS No. 5 | 06/29/92 | $4.3 \times 10^{-17}$ | $8.1 \times 10^{-18}$ |
| Area 5, RWMS No. 5 | 08/03/92 | $3.0 \times 10^{-17}$ | $6.8 \times 10^{-18}$ |
| Area 5, RWMS No. 5 | 08/31/92 | $5.8 \times 10^{-18}$ | $2.9 \times 10^{-18}$ |
| Area 5, RWMS No. 5 | 09/28/92 | $1.6 \times 10^{-17}$ | $6.3 \times 10^{-18}$ |
| Area 5, RWMS No. 5 | 10/26/92 | $3.1 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 5, RWMS No. 5 | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 6 | 12/30/91 | $1.8 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 5, RWMS No. 6 | 02/03/92 | $-1.3 \times 10^{-18}$ | $9.3 \times 10^{-19}$ |
| Area 5, RWMS No. 6 | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 6 | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 6 | 04/28/92 | $3.2 \times 10^{-17}$ | $6.1 \times 10^{-18}$ |
| Area 5, RWMS No. 6 | 05/26/92 | $2.9 \times 10^{-17}$ | $8.0 \times 10^{-18}$ |
| Area 5, RWMS No. 6 | 06/29/92 | $1.2 \times 10^{-17}$ | $3.4 \times 10^{-18}$ |
| Area 5, RWMS No. 6 | 08/03/92 | $1.9 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |
| Area 5, RWMS No. 6 | 08/31/92 | $2.1 \times 10^{-17}$ | $1.3 \times 10^{-17}$ |
| Area 5, RWMS No. 6 | 09/28/92 | $5.7 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 5, RWMS No. 6 | 10/26/92 | $7.8 \times 10^{-18}$ | $2.7 \times 10^{-18}$ |
| Area 5, RWMS No. 6 | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 7 | 12/30/91 | $1.7 \times 10^{-18}$ | $1.8 \times 10^{-18}$ |
| Area 5, RMWS No. 7 | 02/03/92 | $-9.6 \times 10^{-19}$ | $6.6 \times 10^{-19}$ |
| Area 5, RWMS No. 7 | 03/02/92 | $5.0 \times 10^{-18}$ | $3.6 \times 10^{-18}$ |
| Area 5, RWMS No. 7 | 03/30/92 | $3.2 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |
| Area 5, RWMS No. 7 | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 7 | 05/26/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 7 | 06/29/92 | $1.4 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 5, RWMS No. 7 | 08/03/92 | $8.7 \times 10^{-18}$ | $3.3 \times 10^{-18}$ |
| Area 5, RWMS No. 7 | 08/31/92 | $8.2 \times 10^{-18}$ | $4.2 \times 10^{-18}$ |
| Area 5, RWMS No. 7 | 09/28/92 | $2.1 \times 10^{-17}$ | $7.3 \times 10^{-18}$ |
| Area 5, RWMS No. 7 | 10/26/92 | $2.2 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |

Mean MDC: $1.3 \times 10^{-17}$ µCi/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17}$ µCi/mL

Attachment A.2  ($^{239+240}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS No. 7 | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 8 | 12/30/91 | $-6.5 \times 10^{-19}$ | $5.1 \times 10^{-19}$ |
| Area 5, RWMS No. 8 | 02/03/92 | $2.2 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |
| Area 5, RWMS No. 8 | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 8 | 03/30/92 | $2.0 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 5, RWMS No. 8 | 04/28/92 | $7.3 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 5, RWMS No. 8 | 05/26/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 8 | 06/29/92 | $2.0 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 5, RWMS No. 8 | 08/03/92 | $3.3 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 5, RWMS No. 8 | 08/31/92 | $6.5 \times 10^{-18}$ | $3.3 \times 10^{-18}$ |
| Area 5, RWMS No. 8 | 09/28/92 | $2.5 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 5, RWMS No. 8 | 10/26/92 | $5.0 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 5, RWMS No. 8 | 11/30/92 | $4.3 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 5, RWMS No. 9 | 12/30/91 | $2.1 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 5, RWMS No. 9 | 02/03/92 | $2.6 \times 10^{-18}$ | $2.6 \times 10^{-18}$ |
| Area 5, RWMS No. 9 | 03/02/92 | $3.5 \times 10^{-18}$ | $3.5 \times 10^{-18}$ |
| Area 5, RWMS No. 9 | 03/30/92 | $4.9 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 5, RWMS No. 9 | 04/28/92 | $1.0 \times 10^{-17}$ | $2.3 \times 10^{-18}$ |
| Area 5, RWMS No. 9 | 05/26/92 | $6.2 \times 10^{-18}$ | $6.3 \times 10^{-18}$ |
| Area 5, RWMS No. 9 | 06/29/92 | $7.0 \times 10^{-18}$ | $2.9 \times 10^{-18}$ |
| Area 5, RWMS No. 9 | 08/03/92 | 0.0 | 0.0 |
| Area 5, RWMS No. 9 | 08/31/92 | $9.1 \times 10^{-18}$ | $3.5 \times 10^{-18}$ |
| Area 5, RWMS No. 9 | 09/28/92 | $4.2 \times 10^{-18}$ | $3.0 \times 10^{-18}$ |
| Area 5, RWMS No. 9 | 10/26/92 | $1.5 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 5, RWMS No. 9 | 11/30/92 | $1.7 \times 10^{-18}$ | $1.7 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 3 | 12/30/91 | 0.0 | 0.0 |
| Area 5, RWMS Pit No. 3 | 02/03/92 | $-1.3 \times 10^{-18}$ | $8.7 \times 10^{-19}$ |
| Area 5, RWMS Pit No. 3 | 03/02/92 | $1.0 \times 10^{-17}$ | $4.5 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 3 | 03/30/92 | $5.0 \times 10^{-18}$ | $2.9 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 3 | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS Pit No. 3 | 05/26/92 | $1.3 \times 10^{-17}$ | $9.5 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 3 | 06/29/92 | $7.8 \times 10^{-18}$ | $2.7 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 3 | 08/03/92 | $1.1 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 3 | 08/31/92 | $1.6 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 3 | 09/28/92 | $1.1 \times 10^{-17}$ | $4.6 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 3 | 10/26/92 | $3.5 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 3 | 11/30/92 | $1.4 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 4 | 12/30/91 | $9.5 \times 10^{-19}$ | $9.7 \times 10^{-19}$ |
| Area 5, RWMS Pit No. 4 | 02/03/92 | $3.4 \times 10^{-19}$ | $1.4 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 4 | 03/02/92 | 0.0 | 0.0 |

Mean MDC: $1.3 \times 10^{-17}$ μCi/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17}$ μCi/mL

Attachment A.2 ($^{239+240}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS Pit No. 4 | 03/30/92 | $3.5 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 4 | 04/28/92 | $4.3 \times 10^{-18}$ | $3.1 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 4 | 05/26/92 | $1.4 \times 10^{-17}$ | $2.3 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 4 | 06/29/92 | $8.1 \times 10^{-18}$ | $3.4 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 4 | 08/03/92 | $7.0 \times 10^{-18}$ | $5.0 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 4 | 08/31/92 | $5.5 \times 10^{-18}$ | $2.8 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 4 | 09/28/92 | $2.4 \times 10^{-18}$ | $1.7 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 4 | 10/26/92 | $3.6 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 5, RWMS Pit No. 4 | 11/30/92 | $4.3 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 5, RWMS TP N | 12/30/91 | 0.0 | 0.0 |
| Area 5, RWMS TP N | 02/03/92 | $-9.4 \times 10^{-19}$ | $6.6 \times 10^{-19}$ |
| Area 5, RWMS TP N | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS TP N | 03/30/92 | $1.3 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 5, RWMS TP N | 04/28/92 | $1.7 \times 10^{-17}$ | $4.3 \times 10^{-18}$ |
| Area 5, RWMS TP N | 05/26/92 | $6.8 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 5, RWMS TP N | 06/29/92 | $1.4 \times 10^{-17}$ | $4.6 \times 10^{-18}$ |
| Area 5, RWMS TP N | 08/03/92 | $2.3 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 5, RWMS TP N | 08/31/92 | $5.1 \times 10^{-18}$ | $3.0 \times 10^{-18}$ |
| Area 5, RWMS TP N | 09/28/92 | $9.9 \times 10^{-18}$ | $4.2 \times 10^{-18}$ |
| Area 5, RWMS TP N | 10/26/92 | $2.3 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 5, RWMS TP N | 11/30/92 | $1.7 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 5, RWMS TP NE | 12/30/91 | $7.8 \times 10^{-19}$ | $8.7 \times 10^{-19}$ |
| Area 5, RWMS TP NE | 02/03/92 | $-9.8 \times 10^{-19}$ | $6.8 \times 10^{-19}$ |
| Area 5, RWMS TP NE | 02/02/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NE | 03/30/92 | $1.9 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |
| Area 5, RWMS TP NE | 04/28/92 | $3.9 \times 10^{-18}$ | $2.8 \times 10^{-18}$ |
| Area 5, RWMS TP NE | 05/26/92 | $1.5 \times 10^{-17}$ | $2.7 \times 10^{-18}$ |
| Area 5, RWMS TP NE | 06/29/92 | $3.8 \times 10^{-18}$ | $2.7 \times 10^{-18}$ |
| Area 5, RWMS TP NE | 08/03/92 | $1.9 \times 10^{-17}$ | $9.0 \times 10^{-18}$ |
| Area 5, RWMS TP NE | 08/31/92 | $8.6 \times 10^{-18}$ | $6.2 \times 10^{-18}$ |
| Area 5, RWMS TP NE | 09/28/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NE | 10/26/92 | $4.7 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 5, RWMS TP NE | 11/30/92 | $1.7 \times 10^{-18}$ | $1.7 \times 10^{-18}$ |
| Area 5, RWMS TP NW | 12/30/91 | $3.1 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 5, RWMS TP NW | 02/03/92 | $2.6 \times 10^{-19}$ | $1.3 \times 10^{-18}$ |
| Area 5, RWMS TP NW | 03/02/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NW | 03/30/92 | 0.0 | 0.0 |
| Area 5, RWMS TP NW | 04/28/92 | $2.3 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 5, RWMS TP NW | 05/26/92 | $6.7 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |
| Area 5, RWMS TP NW | 06/29/92 | $1.1 \times 10^{-17}$ | $3.8 \times 10^{-18}$ |

Mean MDC: $1.3 \times 10^{-17} \mu Ci/mL$      Standard Deviation of Mean MDC: $6.5 \times 10^{-17} \mu Ci/mL$

Attachment A.2  ($^{239+240}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS TP NW | 08/03/92 | $1.4 \times 10^{-17}$ | $6.0 \times 10^{-18}$ |
| Area 5, RWMS TP NW | 08/31/92 | $6.6 \times 10^{-18}$ | $3.0 \times 10^{-18}$ |
| Area 5, RWMS TP NW | 09/28/92 | $9.3 \times 10^{-16}$ | $1.1 \times 10^{-16}$ |
| Area 5, RWMS TP NW | 10/26/92 | $5.8 \times 10^{-17}$ | $9.3 \times 10^{-18}$ |
| Area 5, RWMS TP NW | 11/30/92 | $1.6 \times 10^{-17}$ | $1.7 \times 10^{-17}$ |
| Area 5, RWMS TP S | 12/30/91 | 0.0 | 0.0 |
| Area 5, RWMS TP S | 02/03/92 | $3.2 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 5, RWMS TP S | 03/02/92 | $4.3 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 5, RWMS TP S | 03/30/92 | $6.2 \times 10^{-18}$ | $3.1 \times 10^{-18}$ |
| Area 5, RWMS TP S | 04/28/92 | $8.5 \times 10^{-18}$ | $5.0 \times 10^{-18}$ |
| Area 5, RWMS TP S | 05/26/92 | $7.0 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 5, RWMS TP S | 06/29/92 | $3.3 \times 10^{-18}$ | $3.3 \times 10^{-18}$ |
| Area 5, RWMS TP S | 08/03/92 | $3.7 \times 10^{-17}$ | $1.1 \times 10^{-17}$ |
| Area 5, RWMS TP S | 08/31/92 | $7.4 \times 10^{-18}$ | $3.4 \times 10^{-18}$ |
| Area 5, RWMS TP S | 09/28/92 | $5.3 \times 10^{-18}$ | $3.1 \times 10^{-18}$ |
| Area 5, RWMS TP S | 10/26/92 | $1.3 \times 10^{-17}$ | $3.7 \times 10^{-18}$ |
| Area 5, RWMS TP S | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SE | 12/30/91 | $1.3 \times 10^{-18}$ | $1.0 \times 10^{-18}$ |
| Area 5, RWMS TP SE | 02/03/92 | $-9.2 \times 10^{-19}$ | $6.3 \times 10^{-19}$ |
| Area 5, RWMS TP SE | 03/02/92 | $1.3 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 5, RWMS TP SE | 03/30/92 | $4.1 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 5, RWMS TP SE | 04/28/92 | $6.5 \times 10^{-18}$ | $2.7 \times 10^{-18}$ |
| Area 5, RWMS TP SE | 05/26/92 | $3.4 \times 10^{-17}$ | $3.8 \times 10^{-18}$ |
| Area 5, RWMS TP SE | 06/29/92 | $6.1 \times 10^{-17}$ | $8.7 \times 10^{-18}$ |
| Area 5, RWMS TP SE | 08/03/92 | $1.6 \times 10^{-16}$ | $3.2 \times 10^{-17}$ |
| Area 5, RWMS TP SE | 08/31/92 | $9.8 \times 10^{-18}$ | $3.2 \times 10^{-18}$ |
| Area 5, RWMS TP SE | 09/28/92 | $2.4 \times 10^{-17}$ | $6.6 \times 10^{-18}$ |
| Area 5, RWMS TP SE | 10/26/92 | $1.1 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 5, RWMS TP SE | 11/30/92 | $3.8 \times 10^{-18}$ | $2.7 \times 10^{-18}$ |
| Area 5, RWMS TP SW | 12/30/91 | $6.7 \times 10^{-19}$ | $9.4 \times 10^{-19}$ |
| Area 5, RWMS TP SW | 03/02/92 | $2.6 \times 10^{-18}$ | $1.8 \times 10^{-18}$ |
| Area 5, RWMS TP SW | 03/30/92 | $3.2 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 5, RWMS TP SW | 04/28/92 | $6.5 \times 10^{-18}$ | $3.3 \times 10^{-18}$ |
| Area 5, RWMS TP SW | 04/28/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SW | 05/26/92 | $4.4 \times 10^{-17}$ | $4.1 \times 10^{-18}$ |
| Area 5, RWMS TP SW | 06/29/92 | $1.1 \times 10^{-17}$ | $4.3 \times 10^{-18}$ |
| Area 5, RWMS TP SW | 08/03/92 | $7.2 \times 10^{-18}$ | $3.7 \times 10^{-18}$ |
| Area 5, RWMS TP SW | 08/31/92 | $1.4 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 5, RWMS TP SW | 08/31/92 | $5.8 \times 10^{-18}$ | $2.9 \times 10^{-18}$ |
| Area 5, RWMS TP SW | 09/28/92 | $2.1 \times 10^{-17}$ | $6.3 \times 10^{-18}$ |

Mean MDC: $1.3 \times 10^{-17} \mu$Ci/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17} \mu$Ci/mL

Attachment A.2  ($^{239+240}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS TP SW | 10/26/92 | $5.2 \times 10^{-18}$ | $2.2 \times 10^{-18}$ |
| Area 5, RWMS TP SW | 11/30/92 | 0.0 | 0.0 |
| Area 5, RWMS TP SW | 02/03/92 | $1.3 \times 10^{-18}$ | $1.7 \times 10^{-18}$ |
| Area 5, Well 5B | 12/30/91 | $2.4 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 5, Well 5B | 02/03/92 | $2.5 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |
| Area 5, Well 5B | 03/02/92 | $3.9 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 5, Well 5B | 03/30/92 | $1.7 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 5, Well 5B | 04/28/92 | 0.0 | 0.0 |
| Area 5, Well 5B | 05/26/92 | $1.8 \times 10^{-17}$ | $4.7 \times 10^{-18}$ |
| Area 5, Well 5B | 06/29/92 | $9.7 \times 10^{-18}$ | $2.8 \times 10^{-18}$ |
| Area 5, Well 5B | 08/03/92 | $8.9 \times 10^{-18}$ | $3.7 \times 10^{-18}$ |
| Area 5, Well 5B | 08/31/92 | $5.2 \times 10^{-18}$ | $2.6 \times 10^{-18}$ |
| Area 5, Well 5B | 09/28/92 | $5.4 \times 10^{-18}$ | $3.2 \times 10^{-18}$ |
| Area 5, Well 5B | 10/26/92 | $3.0 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 6, Building 6-900 | 10/26/92 | $9.6 \times 10^{-18}$ | $3.1 \times 10^{-18}$ |
| Area 6, Building 6-900 | 11/30/92 | $3.9 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 6, CP-6 | 12/30/91 | $2.1 \times 10^{-18}$ | $1.0 \times 10^{-18}$ |
| Area 6, CP-6 | 02/03/92 | $1.7 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 6, CP-6 | 03/02/92 | $5.4 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 6, CP-6 | 03/30/92 | $4.9 \times 10^{-18}$ | $2.9 \times 10^{-18}$ |
| Area 6, CP-6 | 04/28/92 | $6.6 \times 10^{-18}$ | $3.0 \times 10^{-18}$ |
| Area 6, CP-6 | 05/26/92 | $1.3 \times 10^{-17}$ | $3.9 \times 10^{-18}$ |
| Area 6, CP-6 | 06/29/92 | $1.1 \times 10^{-17}$ | $2.9 \times 10^{-18}$ |
| Area 6, CP-6 | 08/03/92 | $2.6 \times 10^{-17}$ | $6.4 \times 10^{-18}$ |
| Area 6, CP-6 | 08/31/92 | $1.7 \times 10^{-17}$ | $8.7 \times 10^{-18}$ |
| Area 6, CP-6 | 09/28/92 | $1.4 \times 10^{-17}$ | $4.4 \times 10^{-18}$ |
| Area 6, CP-6 | 10/26/92 | $6.8 \times 10^{-18}$ | $2.6 \times 10^{-18}$ |
| Area 6, CP-6 | 11/30/92 | $1.0 \times 10^{-18}$ | $1.0 \times 10^{-18}$ |
| Area 6, Well 3 Complex | 12/30/91 | $3.2 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 6, Well 3 Complex | 02/03/92 | $1.7 \times 10^{-18}$ | $1.8 \times 10^{-18}$ |
| Area 6, Well 3 Complex | 03/02/92 | $2.1 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 6, Well 3 Complex | 03/30/92 | $3.5 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 6, Well 3 Complex | 04/28/92 | $2.4 \times 10^{-17}$ | $6.6 \times 10^{-18}$ |
| Area 6, Well 3 Complex | 05/26/92 | $4.2 \times 10^{-17}$ | $2.8 \times 10^{-17}$ |
| Area 6, Well 3 Complex | 06/29/92 | $2.6 \times 10^{-17}$ | $4.6 \times 10^{-18}$ |
| Area 6, Well 3 Complex | 08/03/92 | $1.2 \times 10^{-17}$ | $4.1 \times 10^{-18}$ |
| Area 6, Well 3 Complex | 08/31/92 | $2.8 \times 10^{-17}$ | $6.6 \times 10^{-18}$ |
| Area 6, Well 3 Complex | 09/28/92 | $2.8 \times 10^{-17}$ | $7.3 \times 10^{-18}$ |
| Area 6, Well 3 Complex | 10/26/92 | $9.8 \times 10^{-18}$ | $3.2 \times 10^{-18}$ |
| Area 6, Well 3 Complex | 11/30/92 | $3.4 \times 10^{-18}$ | $1.7 \times 10^{-18}$ |

Mean MDC: $1.3 \times 10^{-17}$ μCi/mL            Standard Deviation of Mean MDC: $6.5 \times 10^{-17}$ μCi/mL

| Sampling Location | Collection Dates | µCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 6, Yucca Complex | 12/30/91 | $2.5 \times 10^{-17}$ | $5.6 \times 10^{-18}$ |
| Area 6, Yucca Complex | 02/03/92 | 0.0 | 0.0 |
| Area 6, Yucca Complex | 03/02/92 | $5.4 \times 10^{-18}$ | $2.2 \times 10^{-18}$ |
| Area 6, Yucca Complex | 03/30/92 | $2.9 \times 10^{-17}$ | $6.3 \times 10^{-18}$ |
| Area 6, Yucca Complex | 04/28/92 | $9.2 \times 10^{-17}$ | $2.1 \times 10^{-17}$ |
| Area 6, Yucca Complex | 05/26/92 | $2.7 \times 10^{-17}$ | $6.1 \times 10^{-18}$ |
| Area 6, Yucca Complex | 06/29/92 | $6.8 \times 10^{-19}$ | $6.8 \times 10^{-19}$ |
| Area 6, Yucca Complex | 06/29/92 | $1.6 \times 10^{-17}$ | $3.5 \times 10^{-18}$ |
| Area 6, Yucca Complex | 08/03/92 | $1.9 \times 10^{-17}$ | $5.3 \times 10^{-18}$ |
| Area 6, Yucca Complex | 08/31/92 | $1.4 \times 10^{-16}$ | $1.7 \times 10^{-17}$ |
| Area 6, Yucca Complex | 09/28/92 | $1.5 \times 10^{-16}$ | $2.7 \times 10^{-17}$ |
| Area 6, Yucca Complex | 10/26/92 | $1.1 \times 10^{-17}$ | $2.7 \times 10^{-18}$ |
| Area 6, Yucca Complex | 11/30/92 | $5.1 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 7, UE-7ns | 12/30/91 | $2.5 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 7, UE-7ns | 02/03/92 | $-4.0 \times 10^{-20}$ | $1.0 \times 10^{-18}$ |
| Area 7, UE-7ns | 03/02/92 | 0.0 | 0.0 |
| Area 7, UE-7ns | 03/30/92 | $3.9 \times 10^{-16}$ | $3.5 \times 10^{-17}$ |
| Area 7, UE-7ns | 04/28/92 | $2.2 \times 10^{-17}$ | $2.7 \times 10^{-18}$ |
| Area 7, UE-7ns | 05/26/92 | $4.8 \times 10^{-17}$ | $6.5 \times 10^{-18}$ |
| Area 7, UE-7ns | 06/29/92 | $5.8 \times 10^{-17}$ | $9.7 \times 10^{-18}$ |
| Area 7, UE-7ns | 08/03/92 | $9.5 \times 10^{-17}$ | $1.5 \times 10^{-17}$ |
| Area 7, UE-7ns | 08/31/92 | $9.5 \times 10^{-17}$ | $1.3 \times 10^{-17}$ |
| Area 7, UE-7ns | 09/28/92 | $3.5 \times 10^{-17}$ | $1.2 \times 10^{-17}$ |
| Area 7, UE-7ns | 10/26/92 | $5.2 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 7, UE-7ns | 11/30/92 | $2.5 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 9, 9-300 Bunker | 12/30/91 | $1.0 \times 10^{-16}$ | $1.1 \times 10^{-17}$ |
| Area 9, 9-300 Bunker | 02/03/92 | $6.3 \times 10^{-16}$ | $5.5 \times 10^{-17}$ |
| Area 9, 9-300 Bunker | 03/02/92 | $2.3 \times 10^{-16}$ | $2.3 \times 10^{-17}$ |
| Area 9, 9-300 Bunker | 03/30/92 | $1.7 \times 10^{-16}$ | $1.9 \times 10^{-17}$ |
| Area 9, 9-300 Bunker | 04/28/92 | $4.3 \times 10^{-16}$ | $5.6 \times 10^{-17}$ |
| Area 9, 9-300 Bunker | 05/26/92 | $8.8 \times 10^{-16}$ | $7.6 \times 10^{-17}$ |
| Area 9, 9-300 Bunker | 06/29/92 | $6.3 \times 10^{-16}$ | $6.2 \times 10^{-17}$ |
| Area 9, 9-300 Bunker | 08/03/92 | $2.0 \times 10^{-16}$ | $2.1 \times 10^{-17}$ |
| Area 9, 9-300 Bunker | 08/31/92 | $2.5 \times 10^{-16}$ | $3.7 \times 10^{-17}$ |
| Area 9, 9-300 Bunker | 09/28/92 | $2.7 \times 10^{-16}$ | $2.6 \times 10^{-17}$ |
| Area 9, 9-300 Bunker | 10/26/92 | $3.2 \times 10^{-16}$ | $3.1 \times 10^{-17}$ |
| Area 9, 9-300 Bunker | 11/30/92 | $2.7 \times 10^{-17}$ | $5.3 \times 10^{-18}$ |
| Area 10, Gate 700 | 12/30/91 | $2.1 \times 10^{-17}$ | $2.5 \times 10^{-18}$ |
| Area 10, Gate 700 | 02/03/92 | $3.4 \times 10^{-18}$ | $2.2 \times 10^{-18}$ |
| Area 10, Gate 700 | 03/02/92 | $4.7 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |

Mean MDC: $1.3 \times 10^{-17} \mu$Ci/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17} \mu$Ci/mL

## Attachment A.2 ($^{239+240}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 10, Gate 700 | 03/30/92 | $4.7 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 10, Gate 700 | 04/28/92 | $1.1 \times 10^{-17}$ | $4.0 \times 10^{-18}$ |
| Area 10, Gate 700 | 05/26/92 | $1.5 \times 10^{-16}$ | $8.3 \times 10^{-18}$ |
| Area 10, Gate 700 | 06/29/92 | $2.2 \times 10^{-17}$ | $4.8 \times 10^{-18}$ |
| Area 10, Gate 700 | 08/03/92 | $1.8 \times 10^{-17}$ | $9.4 \times 10^{-18}$ |
| Area 10, Gate 700 | 08/31/92 | $2.7 \times 10^{-16}$ | $3.0 \times 10^{-17}$ |
| Area 10, Gate 700 | 09/28/92 | $1.8 \times 10^{-17}$ | $6.7 \times 10^{-18}$ |
| Area 10, Gate 700 | 10/26/92 | $2.6 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 10, Gate 700 | 11/30/92 | 0.0 | 0.0 |
| Area 11, Gate 293 | 12/30/91 | $5.9 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 11, Gate 293 | 02/03/92 | $2.4 \times 10^{-19}$ | $1.1 \times 10^{-18}$ |
| Area 11, Gate 293 | 03/02/92 | $6.8 \times 10^{-19}$ | $6.8 \times 10^{-19}$ |
| Area 11, Gate 293 | 03/30/92 | $8.4 \times 10^{-17}$ | $1.2 \times 10^{-17}$ |
| Area 11, Gate 293 | 04/28/92 | $6.4 \times 10^{-18}$ | $4.6 \times 10^{-18}$ |
| Area 11, Gate 293 | 05/26/92 | $2.9 \times 10^{-17}$ | $6.4 \times 10^{-18}$ |
| Area 11, Gate 293 | 06/29/92 | $8.8 \times 10^{-17}$ | $1.5 \times 10^{-17}$ |
| Area 11, Gate 293 | 08/03/92 | $1.7 \times 10^{-17}$ | $5.6 \times 10^{-18}$ |
| Area 11, Gate 293 | 08/31/92 | $3.0 \times 10^{-17}$ | $7.4 \times 10^{-18}$ |
| Area 11, Gate 293 | 09/28/92 | $6.7 \times 10^{-17}$ | $1.6 \times 10^{-17}$ |
| Area 11, Gate 293 | 10/26/92 | 0.0 | 0.0 |
| Area 11, Gate 293 | 11/30/92 | $6.3 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 12, Complex | 12/30/91 | 0.0 | 0.0 |
| Area 12, Complex | 02/03/92 | $-9.1 \times 10^{-19}$ | $6.3 \times 10^{-19}$ |
| Area 12, Complex | 03/02/92 | $3.8 \times 10^{-17}$ | $8.5 \times 10^{-18}$ |
| Area 12, Complex | 03/30/92 | $3.1 \times 10^{-18}$ | $2.2 \times 10^{-18}$ |
| Area 12, Complex | 04/28/92 | $4.2 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 12, Complex | 05/26/92 | $6.8 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 12, Complex | 06/29/92 | $5.6 \times 10^{-18}$ | $2.8 \times 10^{-18}$ |
| Area 12, Complex | 08/03/92 | $1.8 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 12, Complex | 08/31/92 | $4.4 \times 10^{-18}$ | $4.5 \times 10^{-18}$ |
| Area 12, Complex | 09/28/92 | $1.5 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 12, Complex | 10/26/92 | $4.1 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 12, Complex | 11/30/92 | 0.0 | 0.0 |
| Area 15, EPA Farm | 12/30/91 | $7.7 \times 10^{-19}$ | $1.1 \times 10^{-18}$ |
| Area 15, EPA Farm | 02/03/92 | $3.2 \times 10^{-19}$ | $1.4 \times 10^{-18}$ |
| Area 15, EPA Farm | 03/02/92 | $1.7 \times 10^{-17}$ | $5.9 \times 10^{-18}$ |
| Area 15, EPA Farm | 03/30/92 | $5.1 \times 10^{-17}$ | $1.2 \times 10^{-17}$ |
| Area 15, EPA Farm | 04/28/92 | $8.6 \times 10^{-17}$ | $8.7 \times 10^{-18}$ |
| Area 15, EPA Farm | 05/26/92 | $1.1 \times 10^{-15}$ | $1.0 \times 10^{-16}$ |
| Area 15, EPA Farm | 06/29/92 | $1.1 \times 10^{-16}$ | $1.7 \times 10^{-17}$ |

Mean MDC: $1.3 \times 10^{-17} \mu$Ci/mL        Standard Deviation of Mean MDC: $6.5 \times 10^{-17} \mu$Ci/mL

Attachment A.2  ($^{239+240}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 15, EPA Farm | 08/03/92 | $4.0 \times 10^{-17}$ | $1.1 \times 10^{-17}$ |
| Area 15, EPA Farm | 08/31/92 | $8.8 \times 10^{-17}$ | $1.1 \times 10^{-17}$ |
| Area 15, EPA Farm | 09/28/92 | $3.6 \times 10^{-17}$ | $7.7 \times 10^{-17}$ |
| Area 15, EPA Farm | 10/26/92 | $1.2 \times 10^{-17}$ | $3.6 \times 10^{-17}$ |
| Area 15, EPA Farm | 11/30/92 | $2.1 \times 10^{-17}$ | $5.4 \times 10^{-17}$ |
| Area 16, 3545 Substation | 12/30/91 | $3.3 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 16, 3545 Substation | 02/03/92 | $2.3 \times 10^{-19}$ | $1.0 \times 10^{-18}$ |
| Area 16, 3545 Substation | 03/02/92 | $2.2 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 16, 3545 Substation | 03/30/92 | $3.1 \times 10^{-18}$ | $1.8 \times 10^{-18}$ |
| Area 16, 3545 Substation | 04/28/92 | $5.8 \times 10^{-18}$ | $3.4 \times 10^{-18}$ |
| Area 16, 3545 Substation | 05/26/92 | $2.5 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 16, 3545 Substation | 06/29/92 | $1.1 \times 10^{-17}$ | $3.1 \times 10^{-18}$ |
| Area 16, 3545 Substation | 08/03/92 | $7.5 \times 10^{-18}$ | $2.9 \times 10^{-18}$ |
| Area 16, 3545 Substation | 08/31/92 | $1.9 \times 10^{-17}$ | $7.1 \times 10^{-18}$ |
| Area 16, 3545 Substation | 09/28/92 | $2.3 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 16, 3545 Substation | 10/26/92 | $3.2 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |
| Area 19, Echo Peak | 12/30/91 | $1.4 \times 10^{-18}$ | $1.8 \times 10^{-18}$ |
| Area 19, Echo Peak | 02/03/92 | $3.1 \times 10^{-19}$ | $1.1 \times 10^{-18}$ |
| Area 19, Echo Peak | 03/02/92 | $1.8 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 19, Echo Peak | 03/30/92 | 0.0 | 0.0 |
| Area 19, Echo Peak | 04/28/92 | $2.5 \times 10^{-18}$ | $1.8 \times 10^{-18}$ |
| Area 19, Echo Peak | 05/26/92 | $1.2 \times 10^{-17}$ | $4.4 \times 10^{-18}$ |
| Area 19, Echo Peak | 06/29/92 | 0.0 | 0.0 |
| Area 19, Echo Peak | 08/03/92 | $1.2 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 19, Echo Peak | 08/31/92 | $5.0 \times 10^{-18}$ | $2.3 \times 10^{-18}$ |
| Area 19, Echo Peak | 09/28/92 | $1.3 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 19, Echo Peak | 10/26/92 | $1.6 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 19, Pahute Substation | 12/30/91 | 0.0 | 0.0 |
| Area 19, Pahute Substation | 02/03/92 | $1.0 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 19, Pahute Substation | 03/02/92 | $2.1 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 19, Pahute Substation | 03/30/92 | $3.0 \times 10^{-18}$ | $1.7 \times 10^{-18}$ |
| Area 19, Pahute Substation | 04/28/92 | $4.9 \times 10^{-18}$ | $3.5 \times 10^{-18}$ |
| Area 19, Pahute Substation | 05/26/92 | 0.0 | 0.0 |
| Area 19, Pahute Substation | 06/29/92 | $8.9 \times 10^{-18}$ | $3.2 \times 10^{-18}$ |
| Area 19, Pahute Substation | 08/03/92 | $1.9 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |
| Area 19, Pahute Substation | 08/31/92 | $1.4 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 19, Pahute Substation | 09/28/92 | $2.7 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |
| Area 19, Pahute Substation | 10/26/92 | $9.4 \times 10^{-19}$ | $9.4 \times 10^{-19}$ |
| Area 20, Dispensary | 12/30/91 | $4.1 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 20, Dispensary | 02/03/92 | $5.0 \times 10^{-19}$ | $1.6 \times 10^{-18}$ |

Mean MDC: $1.3 \times 10^{-17} \mu Ci/mL$          Standard Deviation of Mean MDC: $6.5 \times 10^{-17} \mu Ci/mL$

Attachment A.2  ($^{239+240}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 20, Dispensary | 02/03/92 | $5.0 \times 10^{-19}$ | $1.6 \times 10^{-18}$ |
| Area 20, Dispensary | 03/02/92 | 0.0 | 0.0 |
| Area 20, Dispensary | 03/30/92 | $1.6 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 20, Dispensary | 04/28/92 | $4.3 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |
| Area 20, Dispensary | 05/26/92 | $1.5 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 20, Dispensary | 06/29/92 | $3.0 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 20, Dispensary | 08/03/92 | $3.1 \times 10^{-18}$ | $2.2 \times 10^{-18}$ |
| Area 20, Dispensary | 08/31/92 | $4.2 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 20, Dispensary | 09/28/92 | $1.9 \times 10^{-17}$ | $6.0 \times 10^{-17}$ |
| Area 20, Dispensary | 10/26/92 | $9.0 \times 10^{-19}$ | $9.0 \times 10^{-19}$ |
| Area 23, Building 790 | 12/30/91 | 0.0 | 0.0 |
| Area 23, Building 790 | 02/03/92 | $2.8 \times 10^{-18}$ | $2.6 \times 10^{-18}$ |
| Area 23, Building 790 | 03/02/92 | 0.0 | 0.0 |
| Area 23, Building 790 | 03/30/92 | $9.0 \times 10^{-19}$ | $9.0 \times 10^{-19}$ |
| Area 23, Building 790 | 04/28/92 | $2.9 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 23, Building 790 | 05/26/92 | 0.0 | 0.0 |
| Area 23, Building 790 | 06/29/92 | $6.7 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 23, Building 790 | 08/03/92 | $5.9 \times 10^{-18}$ | $3.0 \times 10^{-18}$ |
| Area 23, Building 790 | 08/31/92 | $6.6 \times 10^{-18}$ | $3.0 \times 10^{-18}$ |
| Area 23, Building 790 | 09/28/92 | $3.0 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 23, Building 790 | 10/26/92 | 0.0 | 0.0 |
| Area 23, Building 790 | 11/30/92 | $8.9 \times 10^{-19}$ | $8.9 \times 10^{-19}$ |
| Area 23, Building 790 No. 2 | 12/30/91 | $1.5 \times 10^{-19}$ | $8.1 \times 10^{-19}$ |
| Area 23, Building 790 No. 2 | 02/03/92 | $3.0 \times 10^{-18}$ | $1.9 \times 10^{-18}$ |
| Area 23, Building 790 No. 2 | 03/02/92 | $2.3 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 23, Building 790 No. 2 | 03/30/92 | 0.0 | 0.0 |
| Area 23, Building 790 No. 2 | 04/28/92 | $6.0 \times 10^{-18}$ | $3.5 \times 10^{-18}$ |
| Area 23, Building 790 No. 2 | 05/26/92 | $8.8 \times 10^{-18}$ | $2.9 \times 10^{-18}$ |
| Area 23, Building 790 No. 2 | 06/29/92 | $7.1 \times 10^{-18}$ | $2.6 \times 10^{-18}$ |
| Area 23, Building 790 No. 2 | 08/03/92 | $2.5 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 23, Building 790 No. 2 | 08/31/92 | $2.3 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 23, Building 790 No. 2 | 09/28/92 | $9.7 \times 10^{-19}$ | $9.7 \times 10^{-19}$ |
| Area 23, Building 790 No. 2 | 10/26/92 | $1.7 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 23, Building 790 No. 2 | 11/30/92 | $1.5 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 23, E  Boundary | 12/30/91 | $9.7 \times 10^{-20}$ | $7.5 \times 10^{-19}$ |
| Area 23, E  Boundary | 02/03/92 | $5.6 \times 10^{-20}$ | $2.2 \times 10^{-19}$ |
| Area 23, E  Boundary | 03/02/92 | 0.0 | 0.0 |
| Area 23, E  Boundary | 03/30/92 | $7.9 \times 10^{-19}$ | $7.9 \times 10^{-19}$ |
| Area 23, E  Boundary | 04/28/92 | $3.7 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 23, E  Boundary | 05/26/92 | 0.0 | 0.0 |

Mean MDC: $1.3 \times 10^{-17} \mu$Ci/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17} \mu$Ci/mL

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 23, E  Boundary | 08/03/92 | $7.8 \times 10^{-18}$ | $5.6 \times 10^{-18}$ |
| Area 23, E  Boundary | 08/31/92 | $1.1 \times 10^{-17}$ | $3.6 \times 10^{-18}$ |
| Area 23, E  Boundary | 09/28/92 | $2.8 \times 10^{-18}$ | $2.0 \times 10^{-18}$ |
| Area 23, E  Boundary | 10/26/92 | $3.1 \times 10^{-18}$ | $2.2 \times 10^{-18}$ |
| Area 23, H&S Building | 12/30/91 | $3.7 \times 10^{-18}$ | $2.5 \times 10^{-18}$ |
| Area 23, H&S Building | 02/03/92 | $-6.9 \times 10^{-19}$ | $1.2 \times 10^{-18}$ |
| Area 23, H&S Building | 03/02/92 | $2.6 \times 10^{-18}$ | $1.5 \times 10^{-18}$ |
| Area 23, H&S Building | 03/30/92 | $8.0 \times 10^{-19}$ | $8.0 \times 10^{-19}$ |
| Area 23, H&S Building | 04/28/92 | $1.2 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 23, H&S Building | 05/26/92 | $2.5 \times 10^{-17}$ | $1.9 \times 10^{-17}$ |
| Area 23, H&S Building | 06/29/92 | 0.0 | 0.0 |
| Area 23, H&S Building | 08/03/92 | $4.1 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 23, H&S Building | 08/31/92 | $1.2 \times 10^{-17}$ | $6.2 \times 10^{-18}$ |
| Area 23, H&S Building | 09/28/92 | $1.2 \times 10^{-18}$ | $1.2 \times 10^{-18}$ |
| Area 23, H&S Building | 10/26/92 | 0.0 | 0.0 |
| Area 23, H&S Building | 11/30/92 | $1.3 \times 10^{-18}$ | $1.3 \times 10^{-18}$ |
| Area 25, E-MAD N | 12/30/91 | $1.2 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 25, E-MAD N | 02/03/92 | $1.1 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 25, E-MAD N | 03/02/92 | 0.0 | 0.0 |
| Area 25, E-MAD N | 03/30/92 | $1.5 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 25, E-MAD N | 04/28/92 | 0.0 | 0.0 |
| Area 25, E-MAD N | 05/26/92 | $3.0 \times 10^{-17}$ | $5.4 \times 10^{-18}$ |
| Area 25, E-MAD N | 06/29/92 | $8.0 \times 10^{-19}$ | $8.0 \times 10^{-19}$ |
| Area 25, E-MAD N | 08/03/92 | $2.6 \times 10^{-18}$ | $1.8 \times 10^{-18}$ |
| Area 25, E-MAD N | 08/31/92 | $3.7 \times 10^{-18}$ | $3.7 \times 10^{-18}$ |
| Area 25, E-MAD N | 09/28/92 | $7.8 \times 10^{-18}$ | $4.6 \times 10^{-18}$ |
| Area 25, E-MAD N | 10/26/92 | 0.0 | 0.0 |
| Area 25, E-MAD N | 11/30/92 | $8.9 \times 10^{-19}$ | $8.9 \times 10^{-19}$ |
| Area 25, NRDS Warehouse | 12/30/91 | $8.0 \times 10^{-19}$ | $1.0 \times 10^{-18}$ |
| Area 25, NRDS Warehouse | 02/03/92 | $1.1 \times 10^{-19}$ | $9.6 \times 10^{-19}$ |
| Area 25, NRDS Warehouse | 03/02/92 | $9.5 \times 10^{-19}$ | $9.5 \times 10^{-19}$ |
| Area 25, NRDS Warehouse | 03/30/92 | $2.7 \times 10^{-18}$ | $1.6 \times 10^{-18}$ |
| Area 25, NRDS Warehouse | 04/28/92 | 0.0 | 0.0 |
| Area 25, NRDS Warehouse | 05/26/92 | $3.5 \times 10^{-16}$ | $6.0 \times 10^{-17}$ |
| Area 25, NRDS Warehouse | 06/29/92 | $4.0 \times 10^{-18}$ | $1.8 \times 10^{-18}$ |
| Area 25, NRDS Warehouse | 08/03/92 | $3.5 \times 10^{-18}$ | $3.5 \times 10^{-18}$ |
| Area 25, NRDS Warehouse | 08/31/92 | $1.4 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 25, NRDS Warehouse | 09/28/92 | $3.6 \times 10^{-18}$ | $2.1 \times 10^{-18}$ |
| Area 25, NRDS Warehouse | 10/26/92 | $1.5 \times 10^{-17}$ | $6.4 \times 10^{-18}$ |
| Area 25, NRDS Warehouse | 11/30/92 | 0.0 | 0.0 |

Mean MDC: $1.3 \times 10^{-17}$ μCi/mL          Standard Deviation of Mean MDC: $6.5 \times 10^{-17}$ μCi/mL

Attachment A.2 ($^{239+240}$Pu in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 27, Cafeteria | 12/30/91 | 0.0 | 0.0 |
| Area 27, Cafeteria | 02/03/92 | $1.3 \times 10^{-18}$ | $1.4 \times 10^{-18}$ |
| Area 27, Cafeteria | 03/02/92 | $9.6 \times 10^{-18}$ | $5.7 \times 10^{-18}$ |
| Area 27, Cafeteria | 03/30/92 | 0.0 | 0.0 |
| Area 27, Cafeteria | 04/28/92 | 0.0 | 0.0 |
| Area 27, Cafeteria | 05/26/92 | $7.7 \times 10^{-18}$ | $3.2 \times 10^{-18}$ |
| Area 27, Cafeteria | 06/29/92 | $1.6 \times 10^{-18}$ | $1.1 \times 10^{-18}$ |
| Area 27, Cafeteria | 08/03/92 | $5.8 \times 10^{-18}$ | $2.6 \times 10^{-18}$ |
| Area 27, Cafeteria | 08/31/92 | $1.5 \times 10^{-17}$ | $4.9 \times 10^{-18}$ |
| Area 27, Cafeteria | 09/28/92 | $1.6 \times 10^{-16}$ | $2.2 \times 10^{-17}$ |
| Area 27, Cafeteria | 10/26/92 | $3.3 \times 10^{-18}$ | $2.4 \times 10^{-18}$ |
| Area 27, Cafeteria | 11/30/92 | $8.9 \times 10^{-18}$ | $3.2 \times 10^{-18}$ |

Mean MDC: $1.3 \times 10^{-17} \mu$Ci/mL        Standard Deviation of Mean MDC: $6.5 \times 10^{-17} \mu$Ci/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 1, BJY | 01/06/92 | $9.6 \times 10^{-15}$ | $7.3 \times 10^{-16}$ |
| Area 1, BJY | 01/13/92 | $1.3 \times 10^{-14}$ | $7.1 \times 10^{-16}$ |
| Area 1, BJY | 01/21/92 | $4.1 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 1, BJY | 01/27/92 | $2.6 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, BJY | 02/03/92 | $2.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 1, BJY | 02/10/92 | $4.3 \times 10^{-15}$ | $5.9 \times 10^{-16}$ |
| Area 1, BJY | 02/18/92 | $1.5 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 1, BJY | 02/24/92 | $2.0 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 1, BJY | 03/02/92 | $9.9 \times 10^{-15}$ | $7.8 \times 10^{-16}$ |
| Area 1, BJY | 03/09/92 | $2.0 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 1, BJY | 03/17/92 | $9.0 \times 10^{-15}$ | $8.4 \times 10^{-16}$ |
| Area 1, BJY | 03/23/92 | $8.6 \times 10^{-15}$ | $8.1 \times 10^{-16}$ |
| Area 1, BJY | 03/30/92 | $1.8 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 1, BJY | 04/06/92 | $2.1 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 1, BJY | 04/13/92 | $1.4 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 1, BJY | 04/20/92 | $2.1 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 1, BJY | 04/27/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, BJY | 05/11/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, BJY | 05/18/92 | $1.4 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 1, BJY | 05/26/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 1, BJY | 06/01/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 1, BJY | 06/08/92 | $1.9 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 1, BJY | 06/15/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, BJY | 06/22/92 | $2.7 \times 10^{-14}$ | $3.5 \times 10^{-15}$ |
| Area 1, BJY | 06/29/92 | $1.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 1, BJY | 07/06/92 | $8.1 \times 10^{-15}$ | $7.5 \times 10^{-16}$ |
| Area 1, BJY | 07/13/92 | $4.4 \times 10^{-14}$ | $3.5 \times 10^{-15}$ |
| Area 1, BJY | 07/20/92 | $1.4 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 1, BJY | 07/27/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 1, BJY | 08/03/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 1, BJY | 08/10/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 1, BJY | 08/17/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 1, BJY | 08/24/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, BJY | 08/31/92 | $1.1 \times 10^{-15}$ | $6.1 \times 10^{-16}$ |
| Area 1, BJY | 09/08/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 1, BJY | 09/14/92 | $1.6 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 1, BJY | 09/21/92 | $1.4 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 1, BJY | 09/28/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, BJY | 10/05/92 | $2.0 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 1, BJY | 10/13/92 | $3.7 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 1, BJY | 10/19/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 1, BJY | 10/26/92 | $1.1 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

Attachment A.3 (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 1, BJY | 11/03/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 1, BJY | 11/09/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, BJY | 11/16/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, BJY | 11/23/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, BJY | 11/30/92 | $1.3 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 1, BJY | 12/07/92 | $1.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, BJY | 12/14/92 | $1.4 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 1, BJY | 12/21/92 | $2.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, BJY | 12/29/92 | $9.7 \times 10^{-15}$ | $1.0 \times 10^{-15}$ |
| Area 1, Gravel Pit | 01/06/92 | $9.0 \times 10^{-15}$ | $1.1 \times 10^{-15}$ |
| Area 1, Gravel Pit | 01/13/92 | $1.5 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 1, Gravel Pit | 01/21/92 | $2.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 1, Gravel Pit | 01/27/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, Gravel Pit | 02/03/92 | $2.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, Gravel Pit | 02/10/92 | $4.3 \times 10^{-15}$ | $5.9 \times 10^{-16}$ |
| Area 1, Gravel Pit | 02/18/92 | $1.6 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 1, Gravel Pit | 02/24/92 | $1.8 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 1, Gravel Pit | 03/02/92 | $1.0 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 1, Gravel Pit | 03/09/92 | $2.2 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 1, Gravel Pit | 03/17/92 | $1.5 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 1, Gravel Pit | 03/23/92 | $8.0 \times 10^{-15}$ | $7.5 \times 10^{-16}$ |
| Area 1, Gravel Pit | 03/30/92 | $1.7 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 1, Gravel Pit | 04/06/92 | $2.2 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 1, Gravel Pit | 04/13/92 | $1.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 1, Gravel Pit | 04/20/92 | $1.7 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 1, Gravel Pit | 04/27/92 | $2.0 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 1, Gravel Pit | 05/04/92 | $2.1 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 1, Gravel Pit | 05/11/92 | $1.8 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 1, Gravel Pit | 05/18/92 | $1.4 \times 10^{-14}$ | $7.8 \times 10^{-16}$ |
| Area 1, Gravel Pit | 05/26/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, Gravel Pit | 06/01/92 | $2.1 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 1, Gravel Pit | 06/09/92 | $1.5 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 1, Gravel Pit | 06/15/92 | $1.8 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 1, Gravel Pit | 06/22/92 | $2.1 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 1, Gravel Pit | 06/29/92 | $1.2 \times 10^{-14}$ | $7.7 \times 10^{-16}$ |
| Area 1, Gravel Pit | 07/06/92 | $1.3 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 1, Gravel Pit | 07/20/92 | $1.8 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 1, Gravel Pit | 07/27/92 | $2.0 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 1, Gravel Pit | 08/03/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, Gravel Pit | 08/10/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, Gravel Pit | 08/17/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, Gravel Pit | 08/24/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 1, Gravel Pit | 08/31/92 | $2.1 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 1, Gravel Pit | 09/08/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 1, Gravel Pit | 09/14/92 | $1.6 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 1, Gravel Pit | 09/21/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, Gravel Pit | 09/28/92 | $1.8 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 1, Gravel Pit | 10/05/92 | $1.9 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 1, Gravel Pit | 10/12/92 | $3.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 1, Gravel Pit | 10/19/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 1, Gravel Pit | 10/26/92 | $1.3 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 1, Gravel Pit | 11/09/92 | $1.8 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 1, Gravel Pit | 11/16/92 | $1.7 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 1, Gravel Pit | 11/23/92 | $1.8 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 1, Gravel Pit | 11/30/92 | $2.0 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 1, Gravel Pit | 12/08/92 | $8.5 \times 10^{-15}$ | $8.6 \times 10^{-16}$ |
| Area 1, Gravel Pit | 12/15/92 | $1.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 1, Gravel Pit | 12/21/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 1, Gravel Pit | 12/28/92 | $1.1 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 01/06/92 | $1.1 \times 10^{-14}$ | $7.8 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 01/13/92 | $1.7 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 01/21/92 | $3.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 01/27/92 | $2.5 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 02/03/92 | $2.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 02/10/92 | $4.1 \times 10^{-15}$ | $5.9 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 02/18/92 | $1.4 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 02/24/92 | $1.9 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 03/02/92 | $8.1 \times 10^{-15}$ | $6.7 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 03/09/92 | $2.2 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 03/17/92 | $1.6 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 03/23/92 | $5.3 \times 10^{-15}$ | $7.2 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 03/30/92 | $1.8 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 04/06/92 | $2.0 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 04/13/92 | $1.5 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 04/20/92 | $1.9 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 04/27/92 | $2.3 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 05/04/92 | $1.8 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 05/11/92 | $1.5 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 05/18/92 | $1.5 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 05/26/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 06/01/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 06/08/92 | $1.6 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 06/15/92 | $2.0 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 06/22/92 | $2.0 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu\text{Ci/mL}$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu\text{Ci/mL}$

Attachment A.3  (Gross β in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 2, 2-1 Substation | 06/29/92 | $1.4 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 07/06/92 | $1.3 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 07/13/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 07/20/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 07/27/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 08/03/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 08/10/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 08/17/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 08/24/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 08/31/92 | $2.0 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 09/08/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 09/14/92 | $1.6 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 09/21/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 09/28/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 10/05/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 10/13/92 | $4.1 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 10/19/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 10/26/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 11/09/92 | $1.7 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 11/16/92 | $1.2 \times 10^{-13}$ | $6.6 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 11/23/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 11/30/92 | $2.3 \times 10^{-14}$ | $4.0 \times 10^{-15}$ |
| Area 2, 2-1 Substation | 12/07/92 | $7.5 \times 10^{-15}$ | $9.6 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 12/14/92 | $1.3 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 12/21/92 | $2.1 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 2, 2-1 Substation | 12/29/92 | $9.4 \times 10^{-15}$ | $9.6 \times 10^{-16}$ |
| Area 2, Complex | 01/06/92 | $1.1 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 2, Complex | 01/13/92 | $1.8 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 2, Complex | 01/21/92 | $1.9 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 2, Complex | 01/27/92 | $2.3 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 2, Complex | 02/03/92 | $2.3 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 2, Complex | 02/10/92 | $3.0 \times 10^{-15}$ | $5.5 \times 10^{-16}$ |
| Area 2, Complex | 02/18/92 | $1.3 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 2, Complex | 02/24/92 | $1.6 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 2, Complex | 03/02/92 | $8.6 \times 10^{-15}$ | $7.2 \times 10^{-16}$ |
| Area 2, Complex | 03/09/92 | $2.0 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 2, Complex | 03/17/92 | $1.4 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 2, Complex | 03/23/92 | $9.4 \times 10^{-15}$ | $7.7 \times 10^{-16}$ |
| Area 2, Complex | 03/30/92 | $1.7 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 2, Complex | 04/06/92 | $2.2 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 2, Complex | 04/13/92 | $1.3 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 2, Complex | 04/20/92 | $2.0 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu\text{Ci/mL}$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu\text{Ci/mL}$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 2, Complex | 04/27/92 | $2.2 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 2, Complex | 05/04/92 | $1.8 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 2, Complex | 05/11/92 | $1.9 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 2, Complex | 05/18/92 | $1.4 \times 10^{-14}$ | $7.7 \times 10^{-16}$ |
| Area 2, Complex | 05/26/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 2, Complex | 06/01/92 | $2.4 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 2, Complex | 06/08/92 | $1.6 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 2, Complex | 06/15/92 | $1.8 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 2, Complex | 06/22/92 | $2.1 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 2, Complex | 06/29/92 | $1.3 \times 10^{-14}$ | $7.7 \times 10^{-16}$ |
| Area 2, Complex | 07/06/92 | $1.3 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 2, Complex | 07/13/92 | $1.7 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 2, Complex | 07/20/92 | $1.8 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 2, Complex | 07/27/92 | $1.8 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 2, Complex | 08/03/92 | $1.9 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 2, Complex | 08/10/92 | $2.0 \times 10^{-14}$ | $3.1 \times 10^{-15}$ |
| Area 2, Complex | 08/17/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 2, Complex | 08/24/92 | $2.0 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 2, Complex | 08/31/92 | $2.1 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 2, Complex | 09/08/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 2, Complex | 09/14/92 | $1.6 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 2, Complex | 09/21/92 | $1.8 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 2, Complex | 09/28/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 2, Complex | 10/05/92 | $2.0 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 2, Complex | 10/13/92 | $3.6 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 2, Complex | 10/19/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 2, Complex | 10/26/92 | $1.1 \times 10^{-14}$ | $7.8 \times 10^{-16}$ |
| Area 2, Complex | 11/03/92 | $1.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 2, Complex | 11/09/92 | $1.8 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 2, Complex | 11/16/92 | $1.7 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 2, Complex | 11/23/92 | $1.9 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 2, Complex | 11/30/92 | $1.8 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 2, Complex | 12/07/92 | $1.5 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 2, Complex | 12/14/92 | $1.2 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 2, Complex | 12/21/92 | $2.1 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 2, Complex | 12/29/92 | $9.0 \times 10^{-15}$ | $9.4 \times 10^{-16}$ |
| Area 3, 3-300 Bunker | 01/06/92 | $1.1 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 3, 3-300 Bunker | 01/13/92 | $1.8 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 3, 3-300 Bunker | 01/21/92 | $3.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, 3-300 Bunker | 01/27/92 | $3.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, Complex | 01/06/92 | $1.3 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 3, Complex | 01/13/92 | $1.7 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15}$ µCi/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16}$ µCi/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 3, Complex | 01/21/92 | $3.9 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 3, Complex | 02/03/92 | $2.3 \times 10^{-14}$ | $1.9 \times 10^{-15}$ |
| Area 3, Complex | 02/10/92 | $5.5 \times 10^{-15}$ | $8.4 \times 10^{-16}$ |
| Area 3, Complex | 02/18/92 | $1.2 \times 10^{-14}$ | $7.7 \times 10^{-16}$ |
| Area 3, Complex | 02/24/92 | $2.0 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 3, Complex | 03/02/92 | $9.7 \times 10^{-15}$ | $7.5 \times 10^{-16}$ |
| Area 3, Complex | 03/09/92 | $2.2 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 3, Complex | 03/17/92 | $8.1 \times 10^{-15}$ | $7.5 \times 10^{-16}$ |
| Area 3, Complex | 03/23/92 | $7.6 \times 10^{-15}$ | $7.7 \times 10^{-16}$ |
| Area 3, Complex | 03/30/92 | $1.8 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 3, Complex | 04/06/92 | $2.3 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 3, Complex | 04/13/92 | $1.5 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 3, Complex | 04/20/92 | $2.0 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 3, Complex | 04/27/92 | $2.2 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 3, Complex | 05/04/92 | $1.6 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 3, Complex | 05/11/92 | $1.8 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 3, Complex | 05/18/92 | $1.4 \times 10^{-14}$ | $8.0 \times 10^{-16}$ |
| Area 3, Complex | 05/26/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex | 06/01/92 | $2.1 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 3, Complex | 06/08/92 | $1.8 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 3, Complex | 06/15/92 | $1.8 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 3, Complex | 06/22/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex | 06/29/92 | $1.4 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 3, Complex | 07/06/92 | $1.3 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 3, Complex | 07/13/92 | $1.7 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 3, Complex | 07/20/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex | 07/27/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex | 08/03/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex | 08/10/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex | 08/17/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex | 08/24/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex | 08/31/92 | $2.2 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 3, Complex | 09/08/92 | $2.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, Complex | 09/14/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex | 09/21/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex | 09/28/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex | 10/05/92 | $2.0 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 3, Complex | 10/13/92 | $4.2 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 3, Complex | 10/19/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex | 10/26/92 | $1.4 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 3, Complex | 11/03/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, Complex | 11/09/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 3, Complex | 11/16/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex | 11/23/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex | 11/30/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex | 12/07/92 | $7.1 \times 10^{-15}$ | $8.6 \times 10^{-16}$ |
| Area 3, Complex | 12/14/92 | $1.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex | 12/21/92 | $2.2 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 3, Complex | 12/29/92 | $8.2 \times 10^{-15}$ | $9.5 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 01/06/92 | $9.5 \times 10^{-15}$ | $6.3 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 01/13/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 01/21/92 | $3.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 01/27/92 | $2.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 02/03/92 | $3.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 02/10/92 | $6.8 \times 10^{-15}$ | $6.5 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 02/18/92 | $1.4 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 02/24/92 | $2.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 03/02/92 | $1.3 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 03/09/92 | $2.2 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 03/17/92 | $1.4 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 03/23/92 | $9.4 \times 10^{-15}$ | $8.5 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 03/30/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 04/06/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 04/13/92 | $1.9 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 04/20/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 04/27/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 05/04/92 | $2.0 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 05/11/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 05/18/92 | $1.7 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 05/26/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 06/01/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 06/08/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 06/15/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 06/22/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 06/29/92 | $1.4 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 07/06/92 | $1.3 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 07/13/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 07/20/92 | $1.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 07/27/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 08/03/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 08/10/92 | $1.7 \times 10^{-14}$ | $4.0 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 08/17/92 | $2.5 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 08/24/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 08/31/92 | $2.2 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 3, Complex No. 2 | 09/08/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 09/14/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 09/21/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 09/28/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 10/05/92 | $2.1 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 10/13/92 | $4.0 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 10/19/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 10/26/92 | $2.0 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 11/03/92 | $1.3 \times 10^{-14}$ | $7.1 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 11/09/92 | $5.1 \times 10^{-14}$ | $2.6 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 11/16/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 11/23/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 11/30/92 | $4.9 \times 10^{-15}$ | $8.1 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 12/07/92 | $8.6 \times 10^{-15}$ | $9.1 \times 10^{-16}$ |
| Area 3, Complex No. 2 | 12/14/92 | $1.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 12/21/92 | $2.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Complex No. 2 | 12/29/92 | $1.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, Mud Plant | 02/24/92 | $1.5 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 3, Mud Plant | 03/02/92 | $2.2 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 3, Mud Plant | 03/09/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Mud Plant | 03/17/92 | $1.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Mud Plant | 03/23/92 | $1.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Mud Plant | 03/30/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, Mud Plant | 04/06/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Mud Plant | 04/13/92 | $1.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Mud Plant | 04/20/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, Mud Plant | 04/27/92 | $5.0 \times 10^{-15}$ | $7.7 \times 10^{-16}$ |
| Area 3, Mud Plant | 05/04/92 | $4.5 \times 10^{-16}$ | $5.3 \times 10^{-16}$ |
| Area 3, Mud Plant | 05/11/92 | $2.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, Mud Plant | 05/18/92 | $1.6 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 3, Mud Plant | 05/26/92 | $3.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, Mud Plant | 06/01/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Mud Plant | 06/08/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Mud Plant | 06/15/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Mud Plant | 06/22/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Mud Plant | 06/29/92 | $1.6 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 3, Mud Plant | 07/06/92 | $1.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Mud Plant | 07/13/92 | $1.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Mud Plant | 07/20/92 | $1.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Mud Plant | 07/27/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, Mud Plant | 08/03/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Mud Plant | 08/10/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 3, Mud Plant | 08/17/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, Mud Plant | 08/24/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Mud Plant | 08/31/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Mud Plant | 09/08/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, Mud Plant | 09/14/92 | $1.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Mud Plant | 09/21/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Mud Plant | 09/28/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, Mud Plant | 10/05/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Mud Plant | 10/13/92 | $4.0 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 3, Mud Plant | 10/19/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, Mud Plant | 10/26/92 | $1.1 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 3, Mud Plant | 11/03/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, Mud Plant | 11/09/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Mud Plant | 11/16/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Mud Plant | 11/23/92 | $1.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Mud Plant | 11/30/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, Mud Plant | 12/07/92 | $1.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Mud Plant | 12/14/92 | $1.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, Mud Plant | 12/21/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, Mud Plant | 12/29/92 | $9.2 \times 10^{-15}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 01/06/92 | $9.3 \times 10^{-15}$ | $7.0 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 01/13/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 01/21/92 | $2.8 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 01/27/92 | $2.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 02/03/92 | $2.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 02/10/92 | $8.5 \times 10^{-15}$ | $6.8 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 02/18/92 | $1.4 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 02/24/92 | $1.8 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 03/02/92 | $1.5 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 03/09/92 | $2.3 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 03/17/92 | $1.6 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 03/23/92 | $1.0 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 03/30/92 | $1.7 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 04/06/92 | $2.1 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 04/13/92 | $1.5 \times 10^{-14}$ | $8.0 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 04/20/92 | $2.2 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 04/27/92 | $2.2 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 05/04/92 | $1.9 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 05/11/92 | $1.8 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 05/18/92 | $1.6 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 05/26/92 | $2.0 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 06/01/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu\text{Ci/mL}$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu\text{Ci/mL}$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 3, U-3ah/at E | 06/08/92 | $1.8 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 06/15/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 06/22/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 06/29/92 | $1.1 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 07/06/92 | $1.4 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 07/13/92 | $1.8 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 07/20/92 | $1.1 \times 10^{-14}$ | $5.9 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 07/27/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 08/03/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 08/10/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 08/17/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 08/24/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 08/31/92 | $2.2 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 09/08/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 09/14/92 | $1.5 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 09/21/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 09/28/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 10/05/92 | $2.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 10/13/92 | $4.0 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 10/19/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 10/26/92 | $1.5 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 11/03/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 11/09/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 11/16/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 11/23/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 11/30/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at E | 12/07/92 | $1.5 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 12/14/92 | $1.5 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 3, U-3ah/at E | 12/22/92 | $1.7 \times 10^{-14}$ | $6.4 \times 10^{-16}$ |
| Area 3, U-3ah/at N | 01/06/92 | $1.1 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 3, U-3ah/at N | 01/13/92 | $1.5 \times 10^{-14}$ | $8.0 \times 10^{-16}$ |
| Area 3, U-3ah/at N | 01/21/92 | $3.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 01/27/92 | $2.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 02/03/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 02/10/92 | $1.1 \times 10^{-14}$ | $7.7 \times 10^{-16}$ |
| Area 3, U-3ah/at N | 02/18/92 | $1.4 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 3, U-3ah/at N | 02/24/92 | $2.1 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 3, U-3ah/at N | 03/02/92 | $1.0 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 3, U-3ah/at N | 03/09/92 | $2.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 03/17/92 | $9.7 \times 10^{-15}$ | $8.7 \times 10^{-16}$ |
| Area 3, U-3ah/at N | 03/23/92 | $1.0 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 3, U-3ah/at N | 03/30/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 3, U-3ah/at N | 04/06/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 04/13/92 | $1.5 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 3, U-3ah/at N | 04/20/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 04/27/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 05/04/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 05/11/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 05/18/92 | $1.3 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 3, U-3ah/at N | 05/26/92 | $2.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 06/01/92 | $3.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 06/08/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 06/15/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 06/22/92 | $8.3 \times 10^{-14}$ | $1.9 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 06/29/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 07/06/92 | $1.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 07/13/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 07/20/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 07/27/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 08/03/92 | $2.7 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 08/10/92 | $2.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 08/17/92 | $2.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 08/24/92 | $6.5 \times 10^{-14}$ | $3.2 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 08/31/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 09/08/92 | $2.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 09/14/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 09/21/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 09/28/92 | $4.6 \times 10^{-14}$ | $2.1 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 10/05/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 10/13/92 | $2.5 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 3, U-3ah/at N | 10/19/92 | $2.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 10/26/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 11/03/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 11/09/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 11/16/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 11/23/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 11/30/92 | $1.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 12/07/92 | $1.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 12/14/92 | $1.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at N | 12/22/92 | $2.5 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 01/06/92 | $1.1 \times 10^{-14}$ | $7.7 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 01/13/92 | $1.4 \times 10^{-14}$ | $7.5 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 01/21/92 | $3.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 01/27/92 | $2.2 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15}$ µCi/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16}$ µCi/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 3, U-3ah/at S | 02/03/92 | $3.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 02/10/92 | $1.1 \times 10^{-14}$ | $7.3 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 02/18/92 | $1.4 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 02/24/92 | $1.9 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 03/02/92 | $1.1 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 03/09/92 | $2.1 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 03/17/92 | $1.6 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 03/23/92 | $8.7 \times 10^{-15}$ | $8.2 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 03/30/92 | $1.5 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 04/06/92 | $2.1 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 04/13/92 | $1.6 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 04/20/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 04/27/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 05/04/92 | $1.9 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 05/11/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 05/18/92 | $1.6 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 05/26/92 | $3.5 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 06/01/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 06/08/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 06/15/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 06/22/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 06/29/92 | $1.5 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 07/06/92 | $1.4 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 07/13/92 | $1.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 07/20/92 | $1.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 07/27/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 08/03/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 08/10/92 | $2.6 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 08/17/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 08/24/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 08/31/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 09/08/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 09/14/92 | $1.6 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 09/21/92 | $1.7 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 09/28/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 10/05/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 10/13/92 | $4.3 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 10/19/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 10/26/92 | $1.5 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 11/03/92 | $2.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 11/09/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 11/16/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15}$ μCi/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16}$ μCi/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 3, U-3ah/at S | 11/23/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 11/30/92 | $5.2 \times 10^{-15}$ | $7.4 \times 10^{-16}$ |
| Area 3, U-3ah/at S | 12/14/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at S | 12/22/92 | $1.8 \times 10^{-14}$ | $6.9 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 01/06/92 | $1.4 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 01/13/92 | $1.7 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 01/21/92 | $3.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 01/27/92 | $2.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 02/03/92 | $3.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 02/10/92 | $1.1 \times 10^{-14}$ | $7.4 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 02/18/92 | $1.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 02/24/92 | $2.2 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 03/02/92 | $1.2 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 03/09/92 | $2.4 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 03/17/92 | $1.5 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 03/23/92 | $6.8 \times 10^{-15}$ | $8.0 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 03/30/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 04/06/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 04/13/92 | $1.8 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 04/20/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 04/27/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 05/04/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 05/11/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 05/18/92 | $3.1 \times 10^{-14}$ | $1.8 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 06/01/92 | $2.4 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 06/08/92 | $1.7 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 06/15/92 | $2.1 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 06/22/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 06/29/92 | $1.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 07/06/92 | $1.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 07/13/92 | $1.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 07/20/92 | $1.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 07/27/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 08/03/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 08/10/92 | $2.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 08/17/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 08/24/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 08/31/92 | $2.2 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 09/08/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 09/14/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 09/21/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 09/28/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

## Attachment A.3 (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 3, U-3ah/at W | 10/05/92 | $1.9 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 10/13/92 | $3.8 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 10/19/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 10/26/92 | $1.5 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 11/03/92 | $1.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 11/09/92 | $2.0 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 11/16/92 | $1.9 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 11/23/92 | $1.9 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 11/30/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 3, U-3ah/at W | 12/07/92 | $1.3 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 3, U-3ah/at W | 12/14/92 | $1.2 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 5, DOD Yard | 01/06/92 | $1.3 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 5, DOD Yard | 01/13/92 | $1.9 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 5, DOD Yard | 01/21/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, DOD Yard | 01/27/92 | $2.9 \times 10^{-17}$ | $7.1 \times 10^{-16}$ |
| Area 5, DOD Yard | 02/18/92 | $6.2 \times 10^{-15}$ | $8.0 \times 10^{-16}$ |
| Area 5, DOD Yard | 02/24/92 | $2.1 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, DOD Yard | 03/02/92 | $1.2 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 5, DOD Yard | 03/09/92 | $2.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, DOD Yard | 03/16/92 | $1.0 \times 10^{-14}$ | $7.4 \times 10^{-16}$ |
| Area 5, DOD Yard | 03/24/92 | $1.0 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 5, DOD Yard | 03/30/92 | $1.4 \times 10^{-14}$ | $8.0 \times 10^{-16}$ |
| Area 5, DOD Yard | 04/07/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, DOD Yard | 04/14/92 | $7.6 \times 10^{-15}$ | $8.0 \times 10^{-16}$ |
| Area 5, DOD Yard | 04/20/92 | $2.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, DOD Yard | 04/28/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, DOD Yard | 05/05/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, DOD Yard | 05/11/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, DOD Yard | 05/18/92 | $1.7 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 5, DOD Yard | 05/26/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, DOD Yard | 06/01/92 | $2.0 \times 10^{-14}$ | $8.0 \times 10^{-16}$ |
| Area 5, DOD Yard | 06/09/92 | $1.5 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 5, DOD Yard | 06/15/92 | $1.9 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 5, DOD Yard | 06/22/92 | $2.3 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, DOD Yard | 06/29/92 | $1.3 \times 10^{-14}$ | $7.8 \times 10^{-16}$ |
| Area 5, DOD Yard | 07/06/92 | $1.4 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 5, DOD Yard | 07/13/92 | $1.6 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 5, DOD Yard | 07/20/92 | $1.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, DOD Yard | 07/27/92 | $2.5 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, DOD Yard | 08/03/92 | $2.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, DOD Yard | 08/11/92 | $2.1 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, DOD Yard | 08/17/92 | $2.6 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15}$ μCi/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16}$ μCi/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 5, DOD Yard | 08/24/92 | $2.2 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, DOD Yard | 08/31/92 | $2.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, DOD Yard | 09/08/92 | $2.3 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, DOD Yard | 09/14/92 | $1.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, DOD Yard | 09/21/92 | $2.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, DOD Yard | 09/28/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, DOD Yard | 10/05/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, DOD Yard | 10/12/92 | $3.9 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, DOD Yard | 10/19/92 | $1.9 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, DOD Yard | 10/26/92 | $1.1 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 5, DOD Yard | 11/02/92 | $1.9 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, DOD Yard | 11/09/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, DOD Yard | 11/16/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, DOD Yard | 11/23/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, DOD Yard | 12/07/92 | $1.3 \times 10^{-14}$ | $8.2 \times 10^{-16}$ |
| Area 5, DOD Yard | 12/15/92 | $1.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, DOD Yard | 12/21/92 | $2.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, DOD Yard | 12/28/92 | $1.0 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 5, Gate 200 | 01/13/92 | $2.4 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 5, Gate 200 | 01/21/92 | $7.3 \times 10^{-14}$ | $1.7 \times 10^{-15}$ |
| Area 5, Gate 200 | 01/27/92 | $3.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Gate 200 | 02/03/92 | $2.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, Gate 200 | 02/10/92 | $1.2 \times 10^{-15}$ | $5.0 \times 10^{-16}$ |
| Area 5, Gate 200 | 02/18/92 | $1.3 \times 10^{-15}$ | $6.7 \times 10^{-16}$ |
| Area 5, Gate 200 | 02/24/92 | $2.0 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 5, Gate 200 | 03/02/92 | $1.5 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 5, Gate 200 | 03/09/92 | $6.1 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, Gate 200 | 03/16/92 | $1.8 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 5, Gate 200 | 03/24/92 | $2.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Gate 200 | 03/30/92 | $1.9 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 5, Gate 200 | 04/07/92 | $5.4 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, Gate 200 | 04/14/92 | $1.6 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 5, Gate 200 | 04/20/92 | $4.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Gate 200 | 04/28/92 | $7.7 \times 10^{-14}$ | $1.7 \times 10^{-15}$ |
| Area 5, Gate 200 | 05/05/92 | $3.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, Gate 200 | 05/11/92 | $1.9 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 5, Gate 200 | 05/18/92 | $9.8 \times 10^{-16}$ | $5.2 \times 10^{-17}$ |
| Area 5, Gate 200 | 05/26/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Gate 200 | 06/01/92 | $2.2 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 5, Gate 200 | 06/09/92 | $1.6 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, Gate 200 | 06/15/92 | $1.9 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 5, Gate 200 | 06/22/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, Gate 200 | 06/29/92 | $1.2 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 5, Gate 200 | 07/06/92 | $1.4 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 5, Gate 200 | 07/13/92 | $4.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, Gate 200 | 07/20/92 | $1.7 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, Gate 200 | 07/27/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Gate 200 | 08/03/92 | $5.9 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, Gate 200 | 08/11/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, Gate 200 | 08/17/92 | $2.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Gate 200 | 08/24/92 | $2.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Gate 200 | 08/31/92 | $2.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, Gate 200 | 09/08/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, Gate 200 | 09/14/92 | $1.8 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 5, Gate 200 | 09/21/92 | $1.9 \times 10^{-14}$ | $3.2 \times 10^{-15}$ |
| Area 5, Gate 200 | 09/28/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Gate 200 | 10/05/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, Gate 200 | 10/12/92 | $4.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, Gate 200 | 10/19/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Gate 200 | 10/26/92 | $1.5 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, Gate 200 | 11/02/92 | $6.9 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, Gate 200 | 11/09/92 | $2.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Gate 200 | 11/16/92 | $2.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Gate 200 | 11/23/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, Gate 200 | 11/30/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Gate 200 | 12/07/92 | $1.7 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 5, Gate 200 | 12/15/92 | $3.0 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, Gate 200 | 12/21/92 | $3.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Gate 200 | 12/28/92 | $2.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 01/06/92 | $1.3 \times 10^{-14}$ | $7.7 \times 10^{-16}$ |
| Area 5, RWMS No. 1 | 01/13/92 | $1.7 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 5, RWMS No. 1 | 01/21/92 | $3.7 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 01/27/92 | $2.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 02/03/92 | $3.1 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 02/10/92 | $2.2 \times 10^{-14}$ | $2.3 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 02/18/92 | $1.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 02/24/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 03/02/92 | $1.0 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 5, RWMS No. 1 | 03/09/92 | $2.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 03/16/92 | $1.0 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 5, RWMS No. 1 | 03/24/92 | $1.6 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 03/30/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 04/07/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 04/14/92 | $3.4 \times 10^{-14}$ | $1.9 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3 (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS No. 1 | 04/20/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 04/28/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 05/05/92 | $2.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 05/11/92 | $1.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 05/18/92 | $1.6 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS No. 1 | 05/26/92 | $2.6 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 06/01/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 06/09/92 | $1.7 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 06/15/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 06/22/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 06/29/92 | $1.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 07/06/92 | $1.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 07/13/92 | $1.6 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 07/20/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 07/27/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 08/03/92 | $2.0 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 5, RWMS No. 1 | 08/11/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 08/17/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 08/24/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 08/31/92 | $2.4 \times 10^{-14}$ | $2.0 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 09/08/92 | $2.3 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 09/14/92 | $1.7 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS No. 1 | 09/21/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 09/28/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 10/05/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 10/12/92 | $4.1 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 10/19/92 | $3.0 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 10/26/92 | $1.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 11/02/92 | $2.0 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 11/09/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 11/16/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 11/23/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 11/30/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 12/07/92 | $9.7 \times 10^{-15}$ | $9.6 \times 10^{-16}$ |
| Area 5, RWMS No. 1 | 12/15/92 | $1.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 12/21/92 | $2.6 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 1 | 12/28/92 | $9.9 \times 10^{-15}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 01/13/92 | $1.8 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 5, RWMS No. 2 | 01/21/92 | $3.9 \times 10^{-14}$ | $1.7 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 01/27/92 | $3.1 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 02/03/92 | $3.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 02/10/92 | $4.3 \times 10^{-15}$ | $7.5 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$        Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS No. 2 | 02/18/92 | $1.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 02/24/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 03/02/92 | $1.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 03/09/92 | $2.6 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 03/16/92 | $9.1 \times 10^{-15}$ | $8.6 \times 10^{-16}$ |
| Area 5, RWMS No. 2 | 03/24/92 | $3.0 \times 10^{-14}$ | $1.5 \times 10^{-14}$ |
| Area 5, RWMS No. 2 | 03/30/92 | $2.1 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 04/07/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 04/14/92 | $1.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 04/20/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 04/28/92 | $2.6 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 05/05/92 | $1.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 05/11/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 05/18/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 05/26/92 | $3.7 \times 10^{-14}$ | $1.9 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 06/01/92 | $2.0 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 5, RWMS No. 2 | 06/09/92 | $2.1 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 06/15/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 06/22/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 06/29/92 | $1.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 07/06/92 | $1.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 07/13/92 | $1.6 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 07/20/92 | $2.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 07/27/92 | $2.8 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 08/03/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 08/11/92 | $2.7 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 08/17/92 | $2.7 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 08/24/92 | $2.4 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 08/31/92 | $2.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 09/08/92 | $2.7 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 09/14/92 | $1.9 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 09/21/92 | $2.1 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 09/28/92 | $2.5 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 10/05/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 10/12/92 | $4.2 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 10/19/92 | $1.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 10/26/92 | $1.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 11/02/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 11/09/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 11/16/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 11/23/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 11/30/92 | $7.0 \times 10^{-15}$ | $8.9 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu\text{Ci/mL}$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu\text{Ci/mL}$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 5, RWMS No. 2 | 12/07/92 | $1.2 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 5, RWMS No. 2 | 12/15/92 | $1.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 12/21/92 | $2.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 12/28/92 | $1.0 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS No. 3 | 01/13/92 | $1.7 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 5, RWMS No. 3 | 01/21/92 | $3.6 \times 10^{-14}$ | $1.7 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 01/27/92 | $3.2 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 02/03/92 | $2.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 02/10/92 | $3.4 \times 10^{-15}$ | $7.6 \times 10^{-16}$ |
| Area 5, RWMS No. 3 | 02/18/92 | $1.7 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 02/24/92 | $1.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 03/02/92 | $1.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 03/09/92 | $2.7 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 03/16/92 | $1.3 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS No. 3 | 03/24/92 | $1.9 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 03/30/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 04/07/92 | $2.1 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 5, RWMS No. 3 | 04/14/92 | $1.3 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 5, RWMS No. 3 | 04/20/92 | $3.1 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 04/28/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 05/05/92 | $1.9 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 05/11/92 | $2.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 05/18/92 | $1.3 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 5, RWMS No. 3 | 05/26/92 | $3.8 \times 10^{-14}$ | $2.1 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 06/01/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 06/09/92 | $1.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 06/15/92 | $1.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 06/22/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 06/29/92 | $1.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 07/06/92 | $1.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 07/13/92 | $1.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 07/20/92 | $1.9 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 07/27/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 08/03/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 08/11/92 | $2.4 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 08/17/92 | $2.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 08/24/92 | $2.4 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 08/31/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 09/08/92 | $2.6 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 09/14/92 | $1.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 09/21/92 | $1.9 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 09/28/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 5, RWMS No. 3 | 10/05/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 10/12/92 | $4.1 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 10/19/92 | $2.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 10/26/92 | $1.1 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 5, RWMS No. 3 | 11/02/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 11/09/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 11/16/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 11/23/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 11/30/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 12/07/92 | $1.2 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 5, RWMS No. 3 | 12/15/92 | $1.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 12/21/92 | $3.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 3 | 12/28/92 | $1.0 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 5, RWMS No. 4 | 01/13/92 | $1.9 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS No. 4 | 01/21/92 | $3.8 \times 10^{-14}$ | $1.7 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 01/27/92 | $3.2 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 02/03/92 | $3.1 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 02/10/92 | $1.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 02/18/92 | $1.7 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 02/24/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 03/02/92 | $9.1 \times 10^{-15}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS No. 4 | 03/09/92 | $2.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 03/16/92 | $1.0 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 5, RWMS No. 4 | 03/24/92 | $9.1 \times 10^{-15}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 03/30/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 04/07/92 | $2.0 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS No. 4 | 04/14/92 | $1.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 04/20/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 04/28/92 | $2.6 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 05/05/92 | $2.2 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 05/11/92 | $1.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 05/18/92 | $1.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 05/26/92 | $2.0 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 06/01/92 | $1.0 \times 10^{-15}$ | $7.3 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 06/09/92 | $6.6 \times 10^{-15}$ | $7.2 \times 10^{-16}$ |
| Area 5, RWMS No. 4 | 06/15/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 06/22/92 | $2.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 06/29/92 | $1.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 07/06/92 | $1.5 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 5, RWMS No. 4 | 07/13/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 07/20/92 | $2.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 07/27/92 | $2.5 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

Attachment A.3 (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 5, RWMS No. 4 | 08/03/92 | $2.6 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 08/11/92 | $2.3 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 08/17/92 | $2.6 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 08/24/92 | $2.2 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 08/31/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 09/08/92 | $3.0 \times 10^{-14}$ | $1.7 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 09/14/92 | $2.5 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 09/21/92 | $2.3 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 09/28/92 | $2.7 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 10/05/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 10/12/92 | $4.0 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 10/19/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 10/26/92 | $1.3 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 5, RWMS No. 4 | 11/02/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 11/09/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 11/16/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 11/23/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 11/30/92 | $5.0 \times 10^{-15}$ | $8.1 \times 10^{-16}$ |
| Area 5, RWMS No. 4 | 12/07/92 | $9.3 \times 10^{-15}$ | $7.4 \times 10^{-16}$ |
| Area 5, RWMS No. 4 | 12/15/92 | $1.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 12/21/92 | $2.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 4 | 12/28/92 | $9.9 \times 10^{-15}$ | $8.5 \times 10^{-16}$ |
| Area 5, RWMS No. 5 | 01/13/92 | $1.7 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 5, RWMS No. 5 | 01/21/92 | $3.6 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 01/27/92 | $2.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 02/03/92 | $2.9 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 02/10/92 | $7.0 \times 10^{-15}$ | $8.0 \times 10^{-16}$ |
| Area 5, RWMS No. 5 | 02/18/92 | $1.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 02/24/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 03/02/92 | $9.3 \times 10^{-15}$ | $8.5 \times 10^{-16}$ |
| Area 5, RWMS No. 5 | 03/09/92 | $2.6 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 03/16/92 | $9.2 \times 10^{-15}$ | $8.5 \times 10^{-16}$ |
| Area 5, RWMS No. 5 | 03/24/92 | $9.1 \times 10^{-15}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 03/30/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 04/07/92 | $2.0 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 5, RWMS No. 5 | 04/14/92 | $1.6 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 04/20/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 04/28/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 05/05/92 | $1.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 05/11/92 | $1.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 05/18/92 | $1.6 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 5, RWMS No. 5 | 05/26/92 | $1.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

**Attachment A.3  (Gross ß in Air - 1992, cont.)**

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS No. 5 | 06/01/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 06/09/92 | $1.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 06/15/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 06/22/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 06/29/92 | $1.3 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS No. 5 | 07/06/92 | $1.1 \times 10^{-14}$ | $8.2 \times 10^{-16}$ |
| Area 5, RWMS No. 5 | 07/13/92 | $1.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 07/20/92 | $1.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 07/27/92 | $2.7 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 08/03/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 08/11/92 | $2.5 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 08/17/92 | $2.6 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 08/24/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 08/31/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 09/08/92 | $2.3 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 09/14/92 | $2.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 09/21/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 09/28/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 10/05/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 10/12/92 | $4.1 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 10/19/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 10/26/92 | $1.2 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 5, RWMS No. 5 | 11/02/92 | $1.7 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS No. 5 | 11/09/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 11/16/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 11/23/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 11/30/92 | $2.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 12/07/92 | $1.7 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 5, RWMS No. 5 | 12/15/92 | $1.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 12/21/92 | $2.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 5 | 12/28/92 | $1.1 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 5, RWMS No. 6 | 01/13/92 | $1.7 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 5, RWMS No. 6 | 01/21/92 | $3.5 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 01/27/92 | $2.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 02/03/92 | $3.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 02/10/92 | $1.5 \times 10^{-15}$ | $8.9 \times 10^{-16}$ |
| Area 5, RWMS No. 6 | 02/18/92 | $1.1 \times 10^{-14}$ | $1.7 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 02/24/92 | $2.4 \times 10^{-14}$ | $1.7 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 03/02/92 | $1.3 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 03/09/92 | $1.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 03/16/92 | $2.1 \times 10^{-14}$ | $3.3 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 03/24/92 | $1.2 \times 10^{-14}$ | $1.7 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 5, RWMS No. 6 | 03/30/92 | $2.1 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 04/07/92 | $1.9 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 5, RWMS No. 6 | 04/14/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 04/20/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 04/28/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 05/05/92 | $2.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 05/11/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 05/18/92 | $1.6 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS No. 6 | 05/26/92 | $2.9 \times 10^{-14}$ | $1.7 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 06/01/92 | $2.6 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 06/09/92 | $1.9 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 06/15/92 | $2.3 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 06/22/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 06/29/92 | $1.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 07/06/92 | $1.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 07/13/92 | $1.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 07/20/92 | $1.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 07/27/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 08/03/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 08/11/92 | $2.4 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 08/17/92 | $2.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 08/24/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 08/31/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 09/08/92 | $2.3 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 09/14/92 | $1.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 09/21/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 09/28/92 | $2.1 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS No. 6 | 10/05/92 | $2.2 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS No. 6 | 10/12/92 | $3.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 10/19/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 10/26/92 | $1.3 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 5, RWMS No. 6 | 11/02/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 11/09/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 11/16/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 11/23/92 | $1.9 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS No. 6 | 11/30/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 12/07/92 | $1.4 \times 10^{-14}$ | $8.2 \times 10^{-16}$ |
| Area 5, RWMS No. 6 | 12/15/92 | $1.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 12/21/92 | $2.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 6 | 12/28/92 | $1.2 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 5, RWMS No. 7 | 01/06/92 | $1.2 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 5, RWMS No. 7 | 01/13/92 | $1.7 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross β in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 5, RWMS No. 7 | 01/21/92 | $3.5 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 01/27/92 | $2.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 02/03/92 | $3.1 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 02/10/92 | $9.0 \times 10^{-15}$ | $8.3 \times 10^{-16}$ |
| Area 5, RWMS No. 7 | 02/18/92 | $1.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 02/24/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 03/02/92 | $1.1 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS No. 7 | 03/09/92 | $2.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 03/16/92 | $1.4 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS No. 7 | 03/24/92 | $1.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 03/30/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 04/07/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 04/14/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 04/20/92 | $2.3 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS No. 7 | 04/28/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 05/05/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 05/11/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 05/18/92 | $1.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 05/26/92 | $2.9 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 06/01/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 06/09/92 | $2.0 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 06/15/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 06/22/92 | $2.5 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 06/29/92 | $1.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 07/06/92 | $1.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 07/13/92 | $2.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 07/20/92 | $2.0 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 07/27/92 | $2.4 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 08/03/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 08/11/92 | $2.4 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 08/17/92 | $2.6 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 08/24/92 | $2.5 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 08/31/92 | $2.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 09/08/92 | $2.5 \times 10^{-14}$ | $1.7 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 09/14/92 | $2.0 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 09/21/92 | $2.1 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 09/28/92 | $2.4 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 10/05/92 | $2.5 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 10/12/92 | $4.2 \times 10^{-14}$ | $1.7 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 10/19/92 | $2.6 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 10/26/92 | $1.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 11/02/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3 (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS No. 7 | 11/09/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 11/16/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 11/23/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 11/30/92 | $3.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 12/07/92 | $1.5 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 5, RWMS No. 7 | 12/15/92 | $1.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 12/21/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 7 | 12/28/92 | $1.1 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS No. 8 | 01/06/92 | $1.2 \times 10^{-14}$ | $7.7 \times 10^{-16}$ |
| Area 5, RWMS No. 8 | 01/13/92 | $1.6 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 5, RWMS No. 8 | 01/21/92 | $3.4 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 01/27/92 | $2.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 02/03/92 | $3.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 02/10/92 | $1.4 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 5, RWMS No. 8 | 02/18/92 | $3.6 \times 10^{-14}$ | $2.8 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 02/24/92 | $1.5 \times 10^{-14}$ | $7.6 \times 10^{-16}$ |
| Area 5, RWMS No. 8 | 03/02/92 | $1.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 03/09/92 | $2.6 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 03/16/92 | $1.0 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 5, RWMS No. 8 | 03/24/92 | $8.8 \times 10^{-15}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 03/30/92 | $1.7 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 5, RWMS No. 8 | 04/07/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 04/14/92 | $1.8 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS No. 8 | 04/20/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 04/28/92 | $1.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 05/05/92 | $1.3 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 5, RWMS No. 8 | 05/11/92 | $2.3 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 05/18/92 | $1.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 05/26/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 06/01/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 06/09/92 | $8.8 \times 10^{-15}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 06/15/92 | $2.3 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 06/22/92 | $2.3 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 06/29/92 | $1.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 07/06/92 | $1.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 07/13/92 | $1.8 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 07/20/92 | $1.9 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 07/27/92 | $2.1 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 08/03/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 08/11/92 | $2.5 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 08/17/92 | $2.7 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 08/24/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3 (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS No. 8 | 08/31/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 09/08/92 | $2.5 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 09/14/92 | $1.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 09/21/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 09/28/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 10/05/92 | $2.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 10/12/92 | $3.9 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 10/19/92 | $2.1 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 10/26/92 | $1.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 11/02/92 | $1.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 11/09/92 | $2.1 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 11/16/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 11/23/92 | $1.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 11/30/92 | $1.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 12/07/92 | $1.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 12/15/92 | $1.1 \times 10^{-14}$ | $1.7 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 12/21/92 | $1.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 8 | 12/28/92 | $9.4 \times 10^{-15}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 01/06/92 | $1.2 \times 10^{-14}$ | $8.2 \times 10^{-16}$ |
| Area 5, RWMS No. 9 | 01/13/92 | $1.6 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 5, RWMS No. 9 | 01/21/92 | $3.3 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 01/27/92 | $2.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 02/03/92 | $3.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 02/10/92 | $3.9 \times 10^{-15}$ | $7.3 \times 10^{-16}$ |
| Area 5, RWMS No. 9 | 02/18/92 | $1.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 02/24/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 03/02/92 | $1.6 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 03/09/92 | $2.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 03/16/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 03/24/92 | $1.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 03/30/92 | $1.7 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS No. 9 | 04/07/92 | $2.0 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 5, RWMS No. 9 | 04/14/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 04/20/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 04/28/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 05/05/92 | $2.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 05/11/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 05/18/92 | $1.4 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 5, RWMS No. 9 | 05/26/92 | $2.5 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 06/01/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 06/09/92 | $1.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 06/15/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 5, RWMS No. 9 | 06/22/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 06/29/92 | $1.3 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS No. 9 | 07/06/92 | $1.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 07/13/92 | $1.6 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 07/20/92 | $2.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 07/27/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 08/03/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 08/11/92 | $2.3 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 08/17/92 | $2.6 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 08/24/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 08/31/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 09/08/92 | $2.5 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 09/14/92 | $2.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 09/21/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 09/28/92 | $2.5 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 10/05/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 10/12/92 | $4.0 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 10/19/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 10/26/92 | $1.2 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 5, RWMS No. 9 | 11/02/92 | $1.8 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS No. 9 | 11/09/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 11/16/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 11/23/92 | $1.8 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS No. 9 | 12/07/92 | $1.3 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 5, RWMS No. 9 | 12/15/92 | $1.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 12/21/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS No. 9 | 12/28/92 | $1.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 01/13/92 | $1.5 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 3 | 01/21/92 | $4.1 \times 10^{-14}$ | $1.7 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 01/27/92 | $2.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 02/03/92 | $2.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 02/10/92 | $5.1 \times 10^{-15}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 02/18/92 | $1.5 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 02/24/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 03/02/92 | $1.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 03/09/92 | $2.6 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 03/16/92 | $1.1 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 3 | 03/23/92 | $1.4 \times 10^{-14}$ | $6.5 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 3 | 04/07/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 04/14/92 | $1.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 04/20/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 04/28/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15}$ µCi/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16}$ µCi/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS Pit No. 3 | 05/05/92 | $2.0 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 05/11/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 05/18/92 | $1.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 05/26/92 | $2.7 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 06/01/92 | $2.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 06/09/92 | $1.2 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 3 | 06/15/92 | $3.8 \times 10^{-14}$ | $2.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 06/22/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 06/29/92 | $1.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 07/06/92 | $1.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 07/13/92 | $1.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 07/20/92 | $2.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 07/27/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 08/03/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 08/11/92 | $2.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 08/17/92 | $2.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 08/24/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 08/31/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 09/08/92 | $2.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 09/14/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 09/21/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 09/28/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 10/05/92 | $2.6 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 10/12/92 | $4.1 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 10/19/92 | $1.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 10/26/92 | $1.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 11/02/92 | $2.1 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 11/09/92 | $1.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 11/16/92 | $2.9 \times 10^{-14}$ | $1.9 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 11/23/92 | $2.2 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 11/30/92 | $2.8 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 12/07/92 | $1.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 12/15/92 | $1.5 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 12/21/92 | $2.5 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 3 | 12/28/92 | $1.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 01/13/92 | $1.7 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 4 | 01/21/92 | $3.7 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 01/27/92 | $3.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 02/03/92 | $2.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 02/10/92 | $5.8 \times 10^{-15}$ | $7.3 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 4 | 02/18/92 | $1.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 02/24/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS Pit No. 4 | 03/02/92 | $1.2 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 4 | 03/09/92 | $2.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 03/16/92 | $1.0 \times 10^{-14}$ | $7.8 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 4 | 03/24/92 | $1.0 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 4 | 03/30/92 | $1.9 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 4 | 04/07/92 | $1.9 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 4 | 04/14/92 | $1.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 04/20/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 04/28/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 05/05/92 | $1.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 05/11/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 05/18/92 | $1.6 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 4 | 05/26/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 06/01/92 | $2.1 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 4 | 06/09/92 | $1.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 06/15/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 06/22/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 06/29/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 07/06/92 | $1.4 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 4 | 07/13/92 | $1.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 07/20/92 | $1.7 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 4 | 07/27/92 | $2.1 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 4 | 08/03/92 | $2.0 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 4 | 08/11/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 08/17/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 08/24/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 08/31/92 | $2.1 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 4 | 09/08/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 09/14/92 | $1.7 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 4 | 09/21/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 09/28/92 | $2.1 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 4 | 10/05/92 | $2.0 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS Pit No. 4 | 10/12/92 | $3.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 10/19/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 10/26/92 | $1.6 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 11/02/92 | $2.1 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 11/09/92 | $1.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 11/16/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 11/23/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 11/30/92 | $3.1 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 12/07/92 | $1.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 12/15/92 | $1.1 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

|  |  | $\mu$Ci/mL | |
| Sampling Location | Collection Dates | Concentration | Standard Deviation (s) |
| --- | --- | --- | --- |
| Area 5, RWMS Pit No. 4 | 12/21/92 | $2.4 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS Pit No. 4 | 12/28/92 | $9.5 \times 10^{-15}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS TP N | 01/13/92 | $1.9 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 5, RWMS TP N | 01/21/92 | $3.7 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS TP N | 01/27/92 | $2.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP N | 02/03/92 | $3.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP N | 02/10/92 | $6.5 \times 10^{-15}$ | $7.7 \times 10^{-16}$ |
| Area 5, RWMS TP N | 02/18/92 | $1.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP N | 02/24/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP N | 03/02/92 | $1.1 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 5, RWMS TP N | 03/09/92 | $2.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP N | 03/16/92 | $9.1 \times 10^{-15}$ | $8.2 \times 10^{-16}$ |
| Area 5, RWMS TP N | 03/24/92 | $1.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP N | 03/30/92 | $1.9 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS TP N | 04/07/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP N | 04/14/92 | $1.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP N | 04/20/92 | $2.1 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS TP N | 04/28/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP N | 05/05/92 | $1.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP N | 05/11/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP N | 05/18/92 | $1.7 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 5, RWMS TP N | 05/26/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP N | 06/01/92 | $2.0 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 5, RWMS TP N | 06/09/92 | $1.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP N | 06/15/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP N | 06/22/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP N | 06/29/92 | $1.5 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 5, RWMS TP N | 07/06/92 | $1.2 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 5, RWMS TP N | 07/13/92 | $1.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP N | 07/20/92 | $1.8 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 5, RWMS TP N | 07/27/92 | $2.3 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS TP N | 08/03/92 | $2.1 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 5, RWMS TP N | 08/11/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP N | 08/17/92 | $2.2 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS TP N | 08/24/92 | $2.2 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS TP N | 08/31/92 | $2.0 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 5, RWMS TP N | 09/08/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP N | 09/14/92 | $1.6 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 5, RWMS TP N | 09/21/92 | $1.9 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 5, RWMS TP N | 09/28/92 | $2.1 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS TP N | 10/05/92 | $2.2 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS TP N | 10/12/92 | $3.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS TP N | 10/19/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP N | 10/26/92 | $1.2 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 5, RWMS TP N | 11/02/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP N | 11/09/92 | $2.0 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS TP N | 11/16/92 | $2.2 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS TP N | 11/23/92 | $2.0 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS TP N | 11/30/92 | $2.6 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP N | 12/07/92 | $1.5 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 5, RWMS TP N | 12/15/92 | $1.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP N | 12/21/92 | $2.5 \times 10^{-15}$ | $7.2 \times 10^{-16}$ |
| Area 5, RWMS TP N | 12/28/92 | $1.1 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 5, RWMS TP NE | 01/13/92 | $1.7 \times 10^{-14}$ | $8.2 \times 10^{-16}$ |
| Area 5, RWMS TP NE | 01/21/92 | $3.9 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 01/27/92 | $3.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 02/03/92 | $2.9 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 02/10/92 | $3.3 \times 10^{-15}$ | $7.5 \times 10^{-16}$ |
| Area 5, RWMS TP NE | 02/18/92 | $1.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 02/24/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 03/02/92 | $9.6 \times 10^{-15}$ | $9.5 \times 10^{-16}$ |
| Area 5, RWMS TP NE | 03/09/92 | $2.9 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 03/16/92 | $9.5 \times 10^{-15}$ | $8.6 \times 10^{-16}$ |
| Area 5, RWMS TP NE | 03/24/92 | $1.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 03/30/92 | $2.5 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 04/07/92 | $1.8 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 5, RWMS TP NE | 04/14/92 | $1.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 04/20/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 04/28/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 05/05/92 | $2.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 05/11/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 05/18/92 | $1.5 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 5, RWMS TP NE | 05/26/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 06/01/92 | $2.1 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS TP NE | 06/09/92 | $1.6 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 06/15/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 06/22/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 06/29/92 | $1.5 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS TP NE | 07/06/92 | $1.5 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS TP NE | 07/13/92 | $1.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 07/20/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 07/27/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 08/03/92 | $2.1 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 5, RWMS TP NE | 08/11/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS TP NE | 08/17/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 08/24/92 | $1.4 \times 10^{-14}$ | $6.7 \times 10^{-16}$ |
| Area 5, RWMS TP NE | 08/31/92 | $2.2 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 5, RWMS TP NE | 09/08/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 09/14/92 | $1.7 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 5, RWMS TP NE | 09/21/92 | $2.0 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS TP NE | 09/28/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 10/05/92 | $2.0 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS TP NE | 10/12/92 | $3.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 10/19/92 | $2.6 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 10/26/92 | $1.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 11/02/92 | $1.9 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 11/09/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 11/16/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 11/23/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 11/30/92 | $2.4 \times 10^{-14}$ | $1.8 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 12/07/92 | $1.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 12/15/92 | $1.3 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 12/21/92 | $3.0 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS TP NE | 12/28/92 | $1.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 01/13/92 | $1.6 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 5, RWMS TP NW | 01/21/92 | $3.7 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 01/27/92 | $2.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 02/03/92 | $2.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 02/10/92 | $8.6 \times 10^{-15}$ | $7.7 \times 10^{-16}$ |
| Area 5, RWMS TP NW | 02/18/92 | $1.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 02/24/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 03/02/92 | $9.9 \times 10^{-15}$ | $8.7 \times 10^{-16}$ |
| Area 5, RWMS TP NW | 03/09/92 | $2.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 03/16/92 | $9.9 \times 10^{-15}$ | $8.0 \times 10^{-16}$ |
| Area 5, RWMS TP NW | 03/24/92 | $1.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 03/30/92 | $1.9 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS TP NW | 04/07/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 04/14/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 04/20/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 04/28/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 05/05/92 | $1.7 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 05/11/92 | $2.4 \times 10^{-14}$ | $1.9 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 05/18/92 | $1.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 05/26/92 | $2.4 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 06/01/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 06/09/92 | $2.1 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$       Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS TP NW | 06/15/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 06/22/92 | $2.5 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 06/29/92 | $1.5 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS TP NW | 07/06/92 | $1.6 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 07/13/92 | $1.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 07/20/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 07/27/92 | $2.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 08/03/92 | $2.2 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS TP NW | 08/11/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 08/17/92 | $2.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 08/24/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 08/31/92 | $2.2 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 5, RWMS TP NW | 09/08/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 09/14/92 | $1.7 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 5, RWMS TP NW | 09/21/92 | $1.9 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS TP NW | 09/28/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 10/05/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 10/12/92 | $4.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 10/19/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 10/26/92 | $1.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 11/02/92 | $1.9 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 11/09/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 11/16/92 | $2.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 11/23/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 12/07/92 | $1.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 12/15/92 | $1.5 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 12/21/92 | $5.3 \times 10^{-15}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP NW | 12/28/92 | $1.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP S | 01/06/92 | $1.4 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 5, RWMS TP S | 01/13/92 | $2.0 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 5, RWMS TP S | 01/21/92 | $3.3 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS TP S | 01/27/92 | $3.1 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP S | 02/03/92 | $2.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP S | 02/10/92 | $1.0 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 5, RWMS TP S | 02/18/92 | $1.6 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP S | 02/24/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP S | 03/02/92 | $1.1 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS TP S | 03/09/92 | $2.7 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP S | 03/16/92 | $1.2 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 5, RWMS TP S | 03/24/92 | $9.7 \times 10^{-15}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP S | 03/30/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP S | 04/07/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS TP S | 04/14/92 | $1.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP S | 04/20/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP S | 04/28/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP S | 05/05/92 | $2.0 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS TP S | 05/11/92 | $2.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP S | 05/18/92 | $1.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP S | 05/26/92 | $2.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP S | 06/01/92 | $2.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP S | 06/09/92 | $1.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP S | 06/15/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP S | 06/22/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP S | 06/29/92 | $1.6 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP S | 07/06/92 | $1.3 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS TP S | 07/13/92 | $1.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP S | 07/20/92 | $1.7 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS TP S | 07/27/92 | $2.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP S | 08/03/92 | $1.8 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 5, RWMS TP S | 08/11/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP S | 08/17/92 | $2.1 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS TP S | 08/24/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP S | 08/31/92 | $1.9 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 5, RWMS TP S | 09/08/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP S | 09/14/92 | $1.7 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 5, RWMS TP S | 09/21/92 | $1.9 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS TP S | 09/28/92 | $2.0 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS TP S | 10/05/92 | $2.0 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS TP S | 10/12/92 | $3.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP S | 10/19/92 | $1.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP S | 10/26/92 | $1.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP S | 11/02/92 | $1.9 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP S | 11/09/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP S | 11/16/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP S | 11/23/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP S | 11/30/92 | $1.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP S | 12/07/92 | $1.1 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, RWMS TP S | 12/15/92 | $1.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP S | 12/21/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP S | 12/28/92 | $1.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 01/06/92 | $1.1 \times 10^{-14}$ | $7.5 \times 10^{-16}$ |
| Area 5, RWMS TP SE | 01/13/92 | $1.8 \times 10^{-14}$ | $7.6 \times 10^{-16}$ |
| Area 5, RWMS TP SE | 01/21/92 | $3.6 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 01/27/92 | $2.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

Attachment A.3  (Gross β in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 5, RWMS TP SE | 02/03/92 | $3.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 02/10/92 | $6.1 \times 10^{-15}$ | $7.5 \times 10^{-16}$ |
| Area 5, RWMS TP SE | 02/18/92 | $1.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 02/24/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 03/02/92 | $1.1 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 5, RWMS TP SE | 03/09/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 03/16/92 | $1.0 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 5, RWMS TP SE | 03/24/92 | $9.9 \times 10^{-15}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 03/30/92 | $1.7 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 5, RWMS TP SE | 04/07/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 04/14/92 | $1.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 04/20/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 04/28/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 05/05/92 | $1.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 05/11/92 | $2.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 05/18/92 | $1.5 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS TP SE | 05/26/92 | $1.9 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 06/01/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 06/09/92 | $2.8 \times 10^{-14}$ | $2.0 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 06/15/92 | $1.7 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 5, RWMS TP SE | 06/22/92 | $2.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 06/29/92 | $1.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 07/06/92 | $1.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 07/13/92 | $1.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 07/20/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 07/27/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 08/03/92 | $2.1 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 5, RWMS TP SE | 08/17/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 08/24/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 08/31/92 | $2.1 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 5, RWMS TP SE | 09/08/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 09/14/92 | $1.7 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, RWMS TP SE | 09/21/92 | $1.9 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS TP SE | 09/28/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 10/05/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 10/12/92 | $3.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 10/19/92 | $2.6 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 10/26/92 | $1.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 11/02/92 | $2.0 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 11/09/92 | $2.8 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 11/16/92 | $2.2 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 11/23/92 | $2.2 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15}$ μCi/mL        Standard Deviation of Mean MDC: $3.3 \times 10^{-16}$ μCi/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS TP SE | 11/30/92 | $3.4 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 12/07/92 | $1.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 12/15/92 | $1.2 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 12/21/92 | $9.4 \times 10^{-15}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SE | 12/28/92 | $9.8 \times 10^{-15}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 01/06/92 | $1.3 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 5, RWMS TP SW | 01/13/92 | $1.8 \times 10^{-14}$ | $8.2 \times 10^{-16}$ |
| Area 5, RWMS TP SW | 01/21/92 | $3.6 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 01/27/92 | $2.9 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 02/03/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 02/10/92 | $4.7 \times 10^{-15}$ | $7.5 \times 10^{-16}$ |
| Area 5, RWMS TP SW | 02/18/92 | $1.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 02/24/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 03/02/92 | $9.1 \times 10^{-15}$ | $9.3 \times 10^{-16}$ |
| Area 5, RWMS TP SW | 03/09/92 | $2.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 03/16/92 | $1.6 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 5, RWMS TP SW | 03/24/92 | $7.7 \times 10^{-15}$ | $8.9 \times 10^{-16}$ |
| Area 5, RWMS TP SW | 03/30/92 | $1.8 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, RWMS TP SW | 04/07/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 04/14/92 | $1.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 04/20/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 04/28/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 05/05/92 | $1.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 05/11/92 | $1.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 05/18/92 | $1.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 05/26/92 | $2.5 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 06/01/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 06/09/92 | $2.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 06/15/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 06/22/92 | $2.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 06/29/92 | $1.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 07/06/92 | $1.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 07/13/92 | $1.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 07/20/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 07/27/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 08/03/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 08/11/92 | $2.5 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 08/17/92 | $2.5 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 08/24/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 08/31/92 | $2.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 09/08/92 | $2.3 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 09/14/92 | $2.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15}$ µCi/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16}$ µCi/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS TP SW | 09/21/92 | $2.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 09/28/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 10/05/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 10/12/92 | $4.0 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 10/19/92 | $2.4 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 10/26/92 | $1.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 11/02/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 11/09/92 | $1.5 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 5, RWMS TP SW | 11/16/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 11/23/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 11/30/92 | $9.9 \times 10^{-15}$ | $8.4 \times 10^{-16}$ |
| Area 5, RWMS TP SW | 12/07/92 | $1.1 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 5, RWMS TP SW | 12/15/92 | $1.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, RWMS TP SW | 12/21/92 | $1.1 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 5, RWMS TP SW | 12/28/92 | $8.9 \times 10^{-15}$ | $8.9 \times 10^{-16}$ |
| Area 5, Well 5B | 01/13/92 | $1.7 \times 10^{-14}$ | $8.0 \times 10^{-16}$ |
| Area 5, Well 5B | 01/21/92 | $3.6 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, Well 5B | 01/27/92 | $3.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, Well 5B | 02/03/92 | $3.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Well 5B | 02/10/92 | $9.4 \times 10^{-15}$ | $7.6 \times 10^{-16}$ |
| Area 5, Well 5B | 02/18/92 | $1.3 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 5, Well 5B | 02/24/92 | $2.1 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 5, Well 5B | 03/02/92 | $1.1 \times 10^{-14}$ | $7.8 \times 10^{-16}$ |
| Area 5, Well 5B | 03/09/92 | $2.3 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, Well 5B | 03/16/92 | $9.7 \times 10^{-15}$ | $6.9 \times 10^{-16}$ |
| Area 5, Well 5B | 03/24/92 | $9.5 \times 10^{-15}$ | $8.4 \times 10^{-16}$ |
| Area 5, Well 5B | 03/30/92 | $2.0 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 5, Well 5B | 04/07/92 | $2.0 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 5, Well 5B | 04/14/92 | $1.6 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, Well 5B | 04/20/92 | $2.2 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 5, Well 5B | 04/28/92 | $2.2 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, Well 5B | 05/05/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, Well 5B | 05/11/92 | $1.8 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 5, Well 5B | 05/18/92 | $1.5 \times 10^{-14}$ | $8.0 \times 10^{-16}$ |
| Area 5, Well 5B | 05/26/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Well 5B | 06/01/92 | $2.3 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 5, Well 5B | 06/09/92 | $1.6 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 5, Well 5B | 06/15/92 | $2.0 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 5, Well 5B | 06/22/92 | $2.3 \times 10^{-14}$ | $1.7 \times 10^{-15}$ |
| Area 5, Well 5B | 06/29/92 | $1.6 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 5, Well 5B | 07/06/92 | $1.3 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 5, Well 5B | 07/13/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, Well 5B | 07/20/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Well 5B | 07/27/92 | $2.2 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, Well 5B | 08/03/92 | $2.1 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 5, Well 5B | 08/11/92 | $2.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 5, Well 5B | 08/17/92 | $2.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Well 5B | 08/24/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Well 5B | 08/31/92 | $2.2 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 5, Well 5B | 09/08/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, Well 5B | 09/14/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 5, Well 5B | 09/21/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Well 5B | 09/28/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Well 5B | 10/05/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, Well 5B | 10/12/92 | $4.3 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 5, Well 5B | 10/19/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Well 5B | 10/26/92 | $1.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 5, Well 5B | 11/02/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 5, Well 5B | 11/09/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 6, Building 6-900 | 10/26/92 | $1.3 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 6, Building 6-900 | 11/03/92 | $2.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 6, Building 6-900 | 11/09/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, Building 6-900 | 11/16/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, Building 6-900 | 11/23/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, Building 6-900 | 11/30/92 | $3.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 6, Building 6-900 | 12/07/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, Building 6-900 | 12/14/92 | $1.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Building 6-900 | 12/21/92 | $2.0 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 6, Building 6-900 | 12/29/92 | $9.6 \times 10^{-15}$ | $1.0 \times 10^{-15}$ |
| Area 6, CP-6 | 01/06/92 | $1.2 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 6, CP-6 | 01/13/92 | $1.7 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 6, CP-6 | 01/21/92 | $3.4 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 6, CP-6 | 01/27/92 | $2.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, CP-6 | 02/10/92 | $5.2 \times 10^{-15}$ | $6.6 \times 10^{-16}$ |
| Area 6, CP-6 | 02/18/92 | $1.4 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 6, CP-6 | 02/24/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, CP-6 | 03/02/92 | $8.1 \times 10^{-15}$ | $6.2 \times 10^{-16}$ |
| Area 6, CP-6 | 03/09/92 | $2.3 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 6, CP-6 | 03/17/92 | $1.0 \times 10^{-14}$ | $7.8 \times 10^{-16}$ |
| Area 6, CP-6 | 03/23/92 | $1.0 \times 10^{-14}$ | $7.8 \times 10^{-16}$ |
| Area 6, CP-6 | 03/30/92 | $1.7 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 6, CP-6 | 04/06/92 | $2.0 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 6, CP-6 | 04/13/92 | $1.6 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 6, CP-6 | 04/20/92 | $2.0 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 6, CP-6 | 04/27/92 | $2.2 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 6, CP-6 | 05/04/92 | $1.9 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 6, CP-6 | 05/11/92 | $1.7 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 6, CP-6 | 05/18/92 | $1.5 \times 10^{-14}$ | $7.8 \times 10^{-16}$ |
| Area 6, CP-6 | 05/26/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, CP-6 | 06/01/92 | $1.9 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 6, CP-6 | 06/08/92 | $1.5 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 6, CP-6 | 06/15/92 | $1.7 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 6, CP-6 | 06/22/92 | $2.3 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 6, CP-6 | 06/29/92 | $1.3 \times 10^{-14}$ | $7.8 \times 10^{-16}$ |
| Area 6, CP-6 | 07/06/92 | $1.3 \times 10^{-14}$ | $8.2 \times 10^{-16}$ |
| Area 6, CP-6 | 07/13/92 | $1.6 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 6, CP-6 | 07/20/92 | $1.9 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 6, CP-6 | 07/27/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, CP-6 | 08/03/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, CP-6 | 08/10/92 | $1.0 \times 10^{-14}$ | $1.6 \times 10^{-14}$ |
| Area 6, CP-6 | 08/17/92 | $2.4 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 6, CP-6 | 08/24/92 | $2.4 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 6, CP-6 | 08/31/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 6, CP-6 | 09/08/92 | $2.3 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 6, CP-6 | 09/14/92 | $6.6 \times 10^{-16}$ | $5.0 \times 10^{-15}$ |
| Area 6, CP-6 | 09/21/92 | $2.2 \times 10^{-14}$ | $1.7 \times 10^{-15}$ |
| Area 6, CP-6 | 09/28/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 6, CP-6 | 10/05/92 | $2.1 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 6, CP-6 | 10/13/92 | $4.1 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 6, CP-6 | 10/19/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, CP-6 | 10/26/92 | $1.2 \times 10^{-14}$ | $8.2 \times 10^{-16}$ |
| Area 6, CP-6 | 11/03/92 | $2.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 6, CP-6 | 11/09/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, CP-6 | 11/16/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, CP-6 | 11/23/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, CP-6 | 11/30/92 | $9.8 \times 10^{-15}$ | $8.8 \times 10^{-16}$ |
| Area 6, CP-6 | 12/07/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, CP-6 | 12/14/92 | $1.3 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 6, CP-6 | 12/21/92 | $2.0 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 6, CP-6 | 12/29/92 | $8.1 \times 10^{-15}$ | $1.0 \times 10^{-15}$ |
| Area 6, Well 3 Complex | 01/06/92 | $1.2 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 01/13/92 | $1.5 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 01/21/92 | $3.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 6, Well 3 Complex | 01/27/92 | $2.3 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 02/03/92 | $2.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Well 3 Complex | 02/10/92 | $8.1 \times 10^{-15}$ | $5.9 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross β in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 6, Well 3 Complex | 02/18/92 | $1.6 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 02/24/92 | $1.8 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 03/02/92 | $1.3 \times 10^{-14}$ | $8.0 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 03/09/92 | $2.1 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 03/17/92 | $9.4 \times 10^{-15}$ | $8.1 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 03/23/92 | $1.1 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 03/30/92 | $1.7 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 04/06/92 | $1.9 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 04/13/92 | $1.5 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 04/20/92 | $1.5 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 04/27/92 | $2.3 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 05/04/92 | $2.0 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 05/11/92 | $1.7 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 05/18/92 | $1.4 \times 10^{-14}$ | $7.7 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 05/26/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, Well 3 Complex | 06/01/92 | $1.9 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 06/08/92 | $1.7 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 06/15/92 | $1.7 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 06/22/92 | $2.3 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 06/29/92 | $1.5 \times 10^{-14}$ | $8.2 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 07/06/92 | $1.1 \times 10^{-14}$ | $8.0 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 07/13/92 | $1.7 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 07/20/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Well 3 Complex | 07/27/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Well 3 Complex | 08/03/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Well 3 Complex | 08/10/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Well 3 Complex | 08/17/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, Well 3 Complex | 08/24/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Well 3 Complex | 08/31/92 | $2.3 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 09/08/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 6, Well 3 Complex | 09/14/92 | $1.6 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 09/21/92 | $1.9 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 09/28/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Well 3 Complex | 10/05/92 | $2.3 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 10/13/92 | $3.8 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 6, Well 3 Complex | 10/19/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Well 3 Complex | 10/26/92 | $1.1 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 11/03/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, Well 3 Complex | 11/09/92 | $1.8 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 11/16/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Well 3 Complex | 11/23/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Well 3 Complex | 11/30/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 6, Well 3 Complex | 12/07/92 | $1.3 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 12/14/92 | $1.1 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 12/21/92 | $2.3 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 6, Well 3 Complex | 12/29/92 | $8.1 \times 10^{-15}$ | $9.6 \times 10^{-16}$ |
| Area 6, Yucca Complex | 01/06/92 | $1.3 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 6, Yucca Complex | 01/13/92 | $1.6 \times 10^{-14}$ | $8.2 \times 10^{-16}$ |
| Area 6, Yucca Complex | 01/21/92 | $3.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 6, Yucca Complex | 01/27/92 | $2.6 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Yucca Complex | 02/03/92 | $2.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Yucca Complex | 02/10/92 | $5.6 \times 10^{-15}$ | $6.0 \times 10^{-16}$ |
| Area 6, Yucca Complex | 02/18/92 | $1.4 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 6, Yucca Complex | 02/24/92 | $1.9 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 6, Yucca Complex | 03/02/92 | $1.0 \times 10^{-14}$ | $7.4 \times 10^{-16}$ |
| Area 6, Yucca Complex | 03/09/92 | $2.3 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 6, Yucca Complex | 03/17/92 | $1.1 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 6, Yucca Complex | 03/23/92 | $1.1 \times 10^{-14}$ | $8.0 \times 10^{-16}$ |
| Area 6, Yucca Complex | 03/30/92 | $1.8 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 6, Yucca Complex | 04/06/92 | $1.9 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 6, Yucca Complex | 04/13/92 | $1.6 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 6, Yucca Complex | 04/20/92 | $2.0 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 6, Yucca Complex | 04/27/92 | $2.0 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 6, Yucca Complex | 05/04/92 | $1.7 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 6, Yucca Complex | 05/11/92 | $1.7 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 6, Yucca Complex | 05/18/92 | $1.4 \times 10^{-14}$ | $7.8 \times 10^{-16}$ |
| Area 6, Yucca Complex | 05/26/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, Yucca Complex | 06/01/92 | $2.0 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 6, Yucca Complex | 06/08/92 | $1.7 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 6, Yucca Complex | 06/15/92 | $2.1 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 6, Yucca Complex | 06/22/92 | $2.1 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 6, Yucca Complex | 06/29/92 | $1.3 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 6, Yucca Complex | 07/06/92 | $1.3 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 6, Yucca Complex | 07/13/92 | $1.7 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 6, Yucca Complex | 07/20/92 | $1.8 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 6, Yucca Complex | 07/27/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Yucca Complex | 08/03/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, Yucca Complex | 08/10/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Yucca Complex | 08/17/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, Yucca Complex | 08/24/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, Yucca Complex | 08/31/92 | $2.1 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 6, Yucca Complex | 09/08/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 6, Yucca Complex | 09/14/92 | $1.8 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 6, Yucca Complex | 09/21/92 | $1.9 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 6, Yucca Complex | 09/28/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Yucca Complex | 10/05/92 | $1.8 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 6, Yucca Complex | 10/13/92 | $3.8 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 6, Yucca Complex | 10/19/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, Yucca Complex | 10/26/92 | $1.2 \times 10^{-14}$ | $8.0 \times 10^{-16}$ |
| Area 6, Yucca Complex | 11/03/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, Yucca Complex | 11/09/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Yucca Complex | 11/16/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, Yucca Complex | 11/23/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 6, Yucca Complex | 11/30/92 | $2.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 6, Yucca Complex | 12/07/92 | $9.4 \times 10^{-15}$ | $8.9 \times 10^{-16}$ |
| Area 6, Yucca Complex | 12/14/92 | $9.3 \times 10^{-15}$ | $6.5 \times 10^{-16}$ |
| Area 6, Yucca Complex | 12/21/92 | $3.1 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 6, Yucca Complex | 12/29/92 | $9.0 \times 10^{-15}$ | $9.9 \times 10^{-16}$ |
| Area 7, UE-7ns | 01/06/92 | $8.6 \times 10^{-15}$ | $7.6 \times 10^{-16}$ |
| Area 7, UE-7ns | 01/13/92 | $1.5 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 7, UE-7ns | 01/21/92 | $3.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 7, UE-7ns | 01/27/92 | $2.5 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 7, UE-7ns | 02/10/92 | $5.0 \times 10^{-15}$ | $6.0 \times 10^{-16}$ |
| Area 7, UE-7ns | 02/18/92 | $1.2 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 7, UE-7ns | 02/24/92 | $1.5 \times 10^{-14}$ | $7.5 \times 10^{-16}$ |
| Area 7, UE-7ns | 03/02/92 | $1.1 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 7, UE-7ns | 03/09/92 | $1.9 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 7, UE-7ns | 03/17/92 | $8.9 \times 10^{-15}$ | $8.3 \times 10^{-16}$ |
| Area 7, UE-7ns | 03/23/92 | $9.4 \times 10^{-15}$ | $8.0 \times 10^{-16}$ |
| Area 7, UE-7ns | 03/30/92 | $1.6 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 7, UE-7ns | 04/06/92 | $1.9 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 7, UE-7ns | 04/13/92 | $1.4 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 7, UE-7ns | 04/20/92 | $2.3 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 7, UE-7ns | 04/27/92 | $2.2 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 7, UE-7ns | 05/04/92 | $1.8 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 7, UE-7ns | 05/11/92 | $1.7 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 7, UE-7ns | 05/18/92 | $1.4 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 7, UE-7ns | 05/26/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 7, UE-7ns | 06/01/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 7, UE-7ns | 06/08/92 | $1.5 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 7, UE-7ns | 06/15/92 | $1.9 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 7, UE-7ns | 06/22/92 | $1.9 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 7, UE-7ns | 06/29/92 | $1.2 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 7, UE-7ns | 07/06/92 | $1.2 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 7, UE-7ns | 07/13/92 | $1.6 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 7, UE-7ns | 07/20/92 | $1.7 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 7, UE-7ns | 07/27/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 7, UE-7ns | 08/03/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 7, UE-7ns | 08/10/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 7, UE-7ns | 08/17/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 7, UE-7ns | 08/24/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 7, UE-7ns | 08/31/92 | $2.1 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 7, UE-7ns | 09/08/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 7, UE-7ns | 09/14/92 | $1.6 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 7, UE-7ns | 09/21/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 7, UE-7ns | 09/28/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 7, UE-7ns | 10/05/92 | $2.2 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 7, UE-7ns | 10/13/92 | $4.0 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 7, UE-7ns | 10/19/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 7, UE-7ns | 10/26/92 | $1.2 \times 10^{-14}$ | $8.2 \times 10^{-16}$ |
| Area 7, UE-7ns | 11/03/92 | $1.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 7, UE-7ns | 11/09/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 7, UE-7ns | 11/16/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 7, UE-7ns | 11/23/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 7, UE-7ns | 11/30/92 | $1.6 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 7, UE-7ns | 12/07/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 7, UE-7ns | 12/14/92 | $1.2 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 7, UE-7ns | 12/21/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 7, UE-7ns | 12/29/92 | $9.6 \times 10^{-15}$ | $1.0 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 01/06/92 | $8.6 \times 10^{-15}$ | $7.4 \times 10^{-16}$ |
| Area 9, 9-300 Bunker | 01/13/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 01/21/92 | $3.9 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 01/27/92 | $8.9 \times 10^{-15}$ | $3.6 \times 10^{-16}$ |
| Area 9, 9-300 Bunker | 02/03/92 | $3.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 02/10/92 | $6.1 \times 10^{-15}$ | $7.3 \times 10^{-16}$ |
| Area 9, 9-300 Bunker | 02/18/92 | $1.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 02/24/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 03/02/92 | $1.6 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 9, 9-300 Bunker | 03/09/92 | $2.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 03/17/92 | $1.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 03/23/92 | $9.1 \times 10^{-15}$ | $9.1 \times 10^{-16}$ |
| Area 9, 9-300 Bunker | 03/30/92 | $4.6 \times 10^{-14}$ | $3.6 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 04/06/92 | $1.6 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 9, 9-300 Bunker | 04/13/92 | $1.5 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 9, 9-300 Bunker | 04/20/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 04/27/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 05/04/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 05/11/92 | $2.0 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 9, 9-300 Bunker | 05/18/92 | $1.6 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 9, 9-300 Bunker | 05/26/92 | $3.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 06/01/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 06/08/92 | $1.6 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 9, 9-300 Bunker | 06/15/92 | $1.4 \times 10^{-14}$ | $1.7 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 06/29/92 | $1.4 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 9, 9-300 Bunker | 07/20/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 07/27/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 08/03/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 08/10/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 08/17/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 08/24/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 08/31/92 | $2.2 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 9, 9-300 Bunker | 09/08/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 09/21/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 09/28/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 10/05/92 | $2.0 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 9, 9-300 Bunker | 10/13/92 | $3.9 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 10/19/92 | $1.6 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 10/26/92 | $1.4 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 9, 9-300 Bunker | 11/03/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 11/09/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 11/16/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 11/23/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 11/30/92 | $2.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 12/07/92 | $9.6 \times 10^{-15}$ | $8.7 \times 10^{-16}$ |
| Area 9, 9-300 Bunker | 12/14/92 | $1.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 12/21/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 9, 9-300 Bunker | 12/29/92 | $1.0 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 10, Gate 700 | 01/06/92 | $1.3 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 10, Gate 700 | 01/13/92 | $1.8 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 10, Gate 700 | 01/21/92 | $3.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 10, Gate 700 | 01/27/92 | $2.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 10, Gate 700 | 02/03/92 | $2.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 10, Gate 700 | 02/10/92 | $6.8 \times 10^{-15}$ | $1.5 \times 10^{-15}$ |
| Area 10, Gate 700 | 02/18/92 | $1.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 10, Gate 700 | 02/24/92 | $1.9 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 10, Gate 700 | 03/02/92 | $1.5 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 10, Gate 700 | 03/09/92 | $1.9 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 10, Gate 700 | 03/17/92 | $8.3 \times 10^{-15}$ | $7.7 \times 10^{-16}$ |
| Area 10, Gate 700 | 03/23/92 | $8.6 \times 10^{-15}$ | $7.3 \times 10^{-16}$ |
| Area 10, Gate 700 | 03/30/92 | $1.7 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

Attachment A.3  (Gross β in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 10, Gate 700 | 04/06/92 | $2.7 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 10, Gate 700 | 04/13/92 | $1.5 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 10, Gate 700 | 04/20/92 | $2.0 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 10, Gate 700 | 04/27/92 | $2.3 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 10, Gate 700 | 05/04/92 | $1.9 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 10, Gate 700 | 05/11/92 | $1.8 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 10, Gate 700 | 05/18/92 | $1.5 \times 10^{-14}$ | $7.8 \times 10^{-16}$ |
| Area 10, Gate 700 | 05/26/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 10, Gate 700 | 06/01/92 | $2.2 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 10, Gate 700 | 06/08/92 | $1.5 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 10, Gate 700 | 06/15/92 | $1.7 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 10, Gate 700 | 06/22/92 | $2.1 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 10, Gate 700 | 06/29/92 | $1.4 \times 10^{-14}$ | $8.0 \times 10^{-16}$ |
| Area 10, Gate 700 | 07/06/92 | $1.3 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 10, Gate 700 | 07/13/92 | $1.5 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 10, Gate 700 | 07/20/92 | $1.5 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 10, Gate 700 | 07/27/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 10, Gate 700 | 08/03/92 | $2.1 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 10, Gate 700 | 08/10/92 | $2.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 10, Gate 700 | 08/17/92 | $2.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 10, Gate 700 | 08/24/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 10, Gate 700 | 08/31/92 | $2.0 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 10, Gate 700 | 09/08/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 10, Gate 700 | 09/14/92 | $1.8 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 10, Gate 700 | 09/21/92 | $1.8 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 10, Gate 700 | 09/28/92 | $2.0 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 10, Gate 700 | 10/05/92 | $2.2 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 10, Gate 700 | 10/13/92 | $3.8 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 10, Gate 700 | 10/19/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 10, Gate 700 | 10/26/92 | $9.7 \times 10^{-15}$ | $7.7 \times 10^{-16}$ |
| Area 10, Gate 700 | 11/03/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 10, Gate 700 | 11/09/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 10, Gate 700 | 11/16/92 | $1.9 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 10, Gate 700 | 11/23/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 10, Gate 700 | 11/30/92 | $1.1 \times 10^{-15}$ | $5.5 \times 10^{-17}$ |
| Area 10, Gate 700 | 12/07/92 | $1.3 \times 10^{-15}$ | $3.3 \times 10^{-16}$ |
| Area 10, Gate 700 | 12/14/92 | $1.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 10, Gate 700 | 12/21/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 10, Gate 700 | 12/29/92 | $5.4 \times 10^{-15}$ | $2.0 \times 10^{-15}$ |
| Area 11, Gate 293 | 01/06/92 | $9.3 \times 10^{-15}$ | $7.2 \times 10^{-16}$ |
| Area 11, Gate 293 | 01/13/92 | $1.5 \times 10^{-14}$ | $7.8 \times 10^{-16}$ |
| Area 11, Gate 293 | 01/21/92 | $3.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross β in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 11, Gate 293 | 01/27/92 | $2.6 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 11, Gate 293 | 02/03/92 | $2.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 11, Gate 293 | 02/10/92 | $9.8 \times 10^{-15}$ | $6.7 \times 10^{-16}$ |
| Area 11, Gate 293 | 02/18/92 | $1.4 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 11, Gate 293 | 02/24/92 | $2.0 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 11, Gate 293 | 03/02/92 | $1.0 \times 10^{-14}$ | $7.4 \times 10^{-16}$ |
| Area 11, Gate 293 | 03/09/92 | $2.1 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 11, Gate 293 | 03/17/92 | $9.1 \times 10^{-15}$ | $7.8 \times 10^{-16}$ |
| Area 11, Gate 293 | 03/23/92 | $9.9 \times 10^{-15}$ | $7.9 \times 10^{-16}$ |
| Area 11, Gate 293 | 03/30/92 | $1.9 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 11, Gate 293 | 04/06/92 | $2.1 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 11, Gate 293 | 04/13/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 11, Gate 293 | 04/20/92 | $2.0 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 11, Gate 293 | 04/27/92 | $2.3 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 11, Gate 293 | 05/04/92 | $3.0 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 11, Gate 293 | 05/11/92 | $1.4 \times 10^{-14}$ | $7.1 \times 10^{-16}$ |
| Area 11, Gate 293 | 05/18/92 | $1.4 \times 10^{-14}$ | $7.8 \times 10^{-16}$ |
| Area 11, Gate 293 | 05/26/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 11, Gate 293 | 06/01/92 | $2.1 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 11, Gate 293 | 06/08/92 | $1.8 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 11, Gate 293 | 06/15/92 | $1.9 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 11, Gate 293 | 06/22/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 11, Gate 293 | 06/29/92 | $1.3 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 11, Gate 293 | 07/06/92 | $1.3 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 11, Gate 293 | 07/13/92 | $1.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 11, Gate 293 | 07/20/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 11, Gate 293 | 07/27/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 11, Gate 293 | 08/03/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 11, Gate 293 | 08/10/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 11, Gate 293 | 08/17/92 | $2.6 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 11, Gate 293 | 08/24/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 11, Gate 293 | 08/31/92 | $2.1 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 11, Gate 293 | 09/08/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 11, Gate 293 | 09/14/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 11, Gate 293 | 09/21/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 11, Gate 293 | 09/28/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 11, Gate 293 | 10/05/92 | $2.3 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 11, Gate 293 | 10/13/92 | $3.8 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 11, Gate 293 | 10/19/92 | $2.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 11, Gate 293 | 10/26/92 | $1.1 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 11, Gate 293 | 11/03/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 11, Gate 293 | 11/09/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$                Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 11, Gate 293 | 11/16/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 11, Gate 293 | 11/23/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 11, Gate 293 | 11/30/92 | $2.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 11, Gate 293 | 12/07/92 | $1.4 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 11, Gate 293 | 12/14/92 | $1.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 11, Gate 293 | 12/21/92 | $2.0 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 11, Gate 293 | 12/29/92 | $1.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 12, Complex | 01/06/92 | $8.7 \times 10^{-15}$ | $7.7 \times 10^{-16}$ |
| Area 12, Complex | 01/13/92 | $1.4 \times 10^{-14}$ | $7.6 \times 10^{-16}$ |
| Area 12, Complex | 01/21/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 12, Complex | 01/27/92 | $2.1 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 12, Complex | 02/03/92 | $2.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 12, Complex | 02/10/92 | $2.6 \times 10^{-15}$ | $6.8 \times 10^{-16}$ |
| Area 12, Complex | 02/18/92 | $1.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 12, Complex | 02/24/92 | $1.8 \times 10^{-15}$ | $7.7 \times 10^{-16}$ |
| Area 12, Complex | 03/02/92 | $1.1 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 12, Complex | 03/09/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 12, Complex | 03/17/92 | $6.7 \times 10^{-15}$ | $1.1 \times 10^{-15}$ |
| Area 12, Complex | 03/23/92 | $8.4 \times 10^{-15}$ | $1.0 \times 10^{-15}$ |
| Area 12, Complex | 03/30/92 | $1.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 12, Complex | 04/06/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 12, Complex | 04/13/92 | $1.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 12, Complex | 04/20/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 12, Complex | 04/27/92 | $2.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 12, Complex | 05/04/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 12, Complex | 05/11/92 | $1.7 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 12, Complex | 05/18/92 | $1.3 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 12, Complex | 05/26/92 | $2.8 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 12, Complex | 06/01/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 12, Complex | 06/09/92 | $1.6 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 12, Complex | 06/15/92 | $1.6 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 12, Complex | 06/22/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 12, Complex | 06/29/92 | $1.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 12, Complex | 07/06/92 | $1.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 12, Complex | 07/20/92 | $1.6 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 12, Complex | 07/27/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 12, Complex | 08/03/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 12, Complex | 08/10/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 12, Complex | 08/17/92 | $2.0 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 12, Complex | 08/24/92 | $2.2 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 12, Complex | 09/01/92 | $1.0 \times 10^{-14}$ | $5.2 \times 10^{-16}$ |
| Area 12, Complex | 09/08/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu\text{Ci/mL}$        Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu\text{Ci/mL}$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 12, Complex | 09/14/92 | $1.3 \times 10^{-14}$ | $7.7 \times 10^{-16}$ |
| Area 12, Complex | 09/21/92 | $2.2 \times 10^{-13}$ | $1.3 \times 10^{-16}$ |
| Area 12, Complex | 09/28/92 | $2.1 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 12, Complex | 10/05/92 | $5.0 \times 10^{-14}$ | $2.2 \times 10^{-15}$ |
| Area 12, Complex | 10/13/92 | $3.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 12, Complex | 10/19/92 | $1.7 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 12, Complex | 10/26/92 | $9.3 \times 10^{-15}$ | $8.3 \times 10^{-16}$ |
| Area 12, Complex | 11/02/92 | $1.6 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 12, Complex | 11/09/92 | $1.8 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 12, Complex | 11/16/92 | $1.4 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 12, Complex | 11/23/92 | $1.6 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 12, Complex | 11/30/92 | $1.8 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 12, Complex | 12/08/92 | $7.5 \times 10^{-15}$ | $8.3 \times 10^{-16}$ |
| Area 12, Complex | 12/15/92 | $9.4 \times 10^{-15}$ | $1.9 \times 10^{-15}$ |
| Area 12, Complex | 12/21/92 | $9.3 \times 10^{-15}$ | $8.5 \times 10^{-16}$ |
| Area 12, Complex | 12/28/92 | $1.1 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 15, EPA Farm | 01/06/92 | $9.1 \times 10^{-15}$ | $6.9 \times 10^{-16}$ |
| Area 15, EPA Farm | 01/13/92 | $1.4 \times 10^{-14}$ | $7.7 \times 10^{-16}$ |
| Area 15, EPA Farm | 01/21/92 | $2.5 \times 10^{-14}$ | $1.9 \times 10^{-15}$ |
| Area 15, EPA Farm | 01/27/92 | $2.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 15, EPA Farm | 02/03/92 | $3.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 15, EPA Farm | 02/10/92 | $5.8 \times 10^{-15}$ | $1.0 \times 10^{-15}$ |
| Area 15, EPA Farm | 02/18/92 | $1.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 15, EPA Farm | 02/24/92 | $1.9 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 15, EPA Farm | 03/02/92 | $1.0 \times 10^{-14}$ | $8.2 \times 10^{-16}$ |
| Area 15, EPA Farm | 03/09/92 | $2.1 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 15, EPA Farm | 03/17/92 | $1.2 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 15, EPA Farm | 03/23/92 | $1.0 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 15, EPA Farm | 03/30/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 15, EPA Farm | 04/06/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 15, EPA Farm | 04/13/92 | $1.7 \times 10^{-14}$ | $1.8 \times 10^{-15}$ |
| Area 15, EPA Farm | 04/20/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 15, EPA Farm | 04/27/92 | $1.9 \times 10^{-16}$ | $4.3 \times 10^{-16}$ |
| Area 15, EPA Farm | 05/04/92 | $4.1 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 15, EPA Farm | 05/11/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 15, EPA Farm | 05/18/92 | $1.6 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 15, EPA Farm | 05/26/92 | $2.6 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 15, EPA Farm | 06/01/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 15, EPA Farm | 06/08/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 15, EPA Farm | 06/15/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 15, EPA Farm | 06/22/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 15, EPA Farm | 06/29/92 | $1.5 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 15, EPA Farm | 07/06/92 | $1.6 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 15, EPA Farm | 07/13/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 15, EPA Farm | 07/20/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 15, EPA Farm | 07/27/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 15, EPA Farm | 08/03/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 15, EPA Farm | 08/10/92 | $2.8 \times 10^{-14}$ | $1.5 \times 10^{-15}$ |
| Area 15, EPA Farm | 08/17/92 | $2.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 15, EPA Farm | 08/24/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 15, EPA Farm | 08/31/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 15, EPA Farm | 09/08/92 | $2.6 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 15, EPA Farm | 09/14/92 | $1.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 15, EPA Farm | 09/21/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 15, EPA Farm | 09/28/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 15, EPA Farm | 10/05/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 15, EPA Farm | 10/13/92 | $4.4 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 15, EPA Farm | 10/19/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 15, EPA Farm | 10/26/92 | $1.2 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 15, EPA Farm | 11/03/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 15, EPA Farm | 11/09/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 15, EPA Farm | 11/16/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 15, EPA Farm | 11/23/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 15, EPA Farm | 11/30/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 15, EPA Farm | 12/07/92 | $1.5 \times 10^{-13}$ | $1.1 \times 10^{-16}$ |
| Area 15, EPA Farm | 12/14/92 | $1.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 15, EPA Farm | 12/21/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 15, EPA Farm | 12/29/92 | $1.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 16, 3545 Substation | 01/06/92 | $8.1 \times 10^{-15}$ | $7.4 \times 10^{-16}$ |
| Area 16, 3545 Substation | 01/13/92 | $1.5 \times 10^{-14}$ | $7.4 \times 10^{-16}$ |
| Area 16, 3545 Substation | 01/21/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 16, 3545 Substation | 01/27/92 | $2.3 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 16, 3545 Substation | 02/03/92 | $2.6 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 16, 3545 Substation | 02/10/92 | $6.1 \times 10^{-15}$ | $5.9 \times 10^{-16}$ |
| Area 16, 3545 Substation | 02/18/92 | $1.3 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 16, 3545 Substation | 02/24/92 | $1.6 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 16, 3545 Substation | 03/02/92 | $9.1 \times 10^{-15}$ | $7.1 \times 10^{-16}$ |
| Area 16, 3545 Substation | 03/09/92 | $2.0 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 16, 3545 Substation | 03/17/92 | $6.8 \times 10^{-15}$ | $7.6 \times 10^{-16}$ |
| Area 16, 3545 Substation | 03/23/92 | $1.0 \times 10^{-14}$ | $7.8 \times 10^{-16}$ |
| Area 16, 3545 Substation | 03/30/92 | $1.5 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 16, 3545 Substation | 04/06/92 | $1.4 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 16, 3545 Substation | 04/13/92 | $1.4 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 16, 3545 Substation | 04/20/92 | $1.9 \times 10^{-14}$ | $5.6 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15}$ μCi/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16}$ μCi/mL

Attachment A.3 (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 16, 3545 Substation | 05/04/92 | $1.6 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 16, 3545 Substation | 05/11/92 | $1.5 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 16, 3545 Substation | 05/18/92 | $1.4 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 16, 3545 Substation | 05/26/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 16, 3545 Substation | 06/01/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 16, 3545 Substation | 06/09/92 | $1.7 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 16, 3545 Substation | 06/15/92 | $1.9 \times 10^{-14}$ | $5.9 \times 10^{-16}$ |
| Area 16, 3545 Substation | 06/29/92 | $1.4 \times 10^{-14}$ | $8.0 \times 10^{-16}$ |
| Area 16, 3545 Substation | 07/06/92 | $1.3 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 16, 3545 Substation | 07/13/92 | $1.5 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 16, 3545 Substation | 07/20/92 | $1.8 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 16, 3545 Substation | 07/27/92 | $2.0 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 16, 3545 Substation | 08/03/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 16, 3545 Substation | 08/10/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 16, 3545 Substation | 08/17/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 16, 3545 Substation | 08/24/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 16, 3545 Substation | 08/31/92 | $2.0 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 16, 3545 Substation | 09/08/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 16, 3545 Substation | 09/14/92 | $1.6 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 16, 3545 Substation | 09/21/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 16, 3545 Substation | 09/28/92 | $2.0 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 16, 3545 Substation | 10/05/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 16, 3545 Substation | 10/12/92 | $3.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 16, 3545 Substation | 10/19/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 16, 3545 Substation | 10/26/92 | $9.5 \times 10^{-15}$ | $8.4 \times 10^{-16}$ |
| Area 16, 3545 Substation | 11/02/92 | $1.8 \times 10^{-14}$ | $6.0 \times 10^{-16}$ |
| Area 16, 3545 Substation | 11/16/92 | $1.6 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 16, 3545 Substation | 11/23/92 | $1.7 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 16, 3545 Substation | 11/30/92 | $1.3 \times 10^{-14}$ | $3.0 \times 10^{-16}$ |
| Area 19, ECHO Peak | 01/13/92 | $1.5 \times 10^{-14}$ | $8.2 \times 10^{-16}$ |
| Area 19, ECHO Peak | 01/21/92 | $1.9 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 19, ECHO Peak | 01/27/92 | $2.1 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 19, ECHO Peak | 02/03/92 | $9.9 \times 10^{-15}$ | $3.5 \times 10^{-16}$ |
| Area 19, ECHO Peak | 02/24/92 | $1.3 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 19, ECHO Peak | 03/02/92 | $6.8 \times 10^{-15}$ | $6.7 \times 10^{-16}$ |
| Area 19, ECHO Peak | 03/09/92 | $1.9 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 19, ECHO Peak | 03/17/92 | $7.6 \times 10^{-15}$ | $4.4 \times 10^{-16}$ |
| Area 19, ECHO Peak | 03/30/92 | $1.7 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 19, ECHO Peak | 04/06/92 | $1.9 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 19, ECHO Peak | 04/13/92 | $1.2 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 19, ECHO Peak | 04/20/92 | $2.1 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 19, ECHO Peak | 04/27/92 | $2.0 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

Attachment A.3 (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 19, ECHO Peak | 05/04/92 | $1.7 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 19, ECHO Peak | 05/11/92 | $1.7 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 19, ECHO Peak | 05/18/92 | $1.5 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 19, ECHO Peak | 05/26/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 19, ECHO Peak | 06/01/92 | $2.0 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 19, ECHO Peak | 06/09/92 | $1.6 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 19, ECHO Peak | 06/15/92 | $1.8 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 19, ECHO Peak | 06/22/92 | $1.7 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 19, ECHO Peak | 06/29/92 | $1.1 \times 10^{-14}$ | $7.6 \times 10^{-16}$ |
| Area 19, ECHO Peak | 07/06/92 | $1.1 \times 10^{-14}$ | $7.5 \times 10^{-16}$ |
| Area 19, ECHO Peak | 07/13/92 | $1.4 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 19, ECHO Peak | 07/20/92 | $1.5 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 19, ECHO Peak | 07/27/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 19, ECHO Peak | 08/03/92 | $1.5 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 19, ECHO Peak | 08/10/92 | $2.0 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 19, ECHO Peak | 08/17/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 19, ECHO Peak | 08/24/92 | $2.1 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 19, ECHO Peak | 08/31/92 | $1.9 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 19, ECHO Peak | 09/08/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 19, ECHO Peak | 09/14/92 | $1.4 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 19, ECHO Peak | 09/21/92 | $1.6 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 19, ECHO Peak | 09/28/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 19, ECHO Peak | 10/05/92 | $2.1 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 19, ECHO Peak | 10/13/92 | $3.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 19, ECHO Peak | 10/19/92 | $1.8 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 19, ECHO Peak | 10/26/92 | $9.4 \times 10^{-15}$ | $8.6 \times 10^{-16}$ |
| Area 19, ECHO Peak | 11/02/92 | $1.4 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 19, ECHO Peak | 11/09/92 | $1.5 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 19, ECHO Peak | 11/16/92 | $1.2 \times 10^{-14}$ | $8.0 \times 10^{-16}$ |
| Area 19, ECHO Peak | 11/24/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 19, Pahute Substation | 01/06/92 | $8.7 \times 10^{-15}$ | $7.4 \times 10^{-16}$ |
| Area 19, Pahute Substation | 01/13/92 | $1.6 \times 10^{-14}$ | $7.6 \times 10^{-16}$ |
| Area 19, Pahute Substation | 01/21/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 19, Pahute Substation | 01/27/92 | $2.0 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 19, Pahute Substation | 02/03/92 | $2.3 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 19, Pahute Substation | 02/10/92 | $4.7 \times 10^{-15}$ | $6.0 \times 10^{-16}$ |
| Area 19, Pahute Substation | 02/18/92 | $1.3 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 19, Pahute Substation | 02/24/92 | $1.2 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 19, Pahute Substation | 03/02/92 | $1.2 \times 10^{-14}$ | $8.2 \times 10^{-16}$ |
| Area 19, Pahute Substation | 03/09/92 | $1.7 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 19, Pahute Substation | 03/17/92 | $1.5 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 19, Pahute Substation | 03/23/92 | $1.1 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 19, Pahute Substation | 03/30/92 | $1.7 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 19, Pahute Substation | 04/06/92 | $1.7 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 19, Pahute Substation | 04/13/92 | $1.5 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 19, Pahute Substation | 04/20/92 | $2.1 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 19, Pahute Substation | 04/27/92 | $1.9 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 19, Pahute Substation | 05/04/92 | $1.6 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 19, Pahute Substation | 05/11/92 | $1.6 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 19, Pahute Substation | 05/18/92 | $1.4 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 19, Pahute Substation | 05/26/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 19, Pahute Substation | 06/01/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 19, Pahute Substation | 06/09/92 | $1.5 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 19, Pahute Substation | 06/15/92 | $1.7 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 19, Pahute Substation | 06/22/92 | $1.9 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 19, Pahute Substation | 06/29/92 | $1.2 \times 10^{-14}$ | $8.2 \times 10^{-16}$ |
| Area 19, Pahute Substation | 07/06/92 | $1.4 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 19, Pahute Substation | 07/13/92 | $1.6 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 19, Pahute Substation | 07/20/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 19, Pahute Substation | 07/27/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 19, Pahute Substation | 08/03/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 19, Pahute Substation | 08/10/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 19, Pahute Substation | 08/17/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 19, Pahute Substation | 08/24/92 | $2.0 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 19, Pahute Substation | 09/01/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 19, Pahute Substation | 09/08/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 19, Pahute Substation | 09/14/92 | $1.5 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 19, Pahute Substation | 09/21/92 | $1.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 19, Pahute Substation | 09/28/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 19, Pahute Substation | 10/05/92 | $2.1 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 19, Pahute Substation | 10/13/92 | $3.3 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 19, Pahute Substation | 10/19/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 19, Pahute Substation | 10/26/92 | $8.4 \times 10^{-15}$ | $9.1 \times 10^{-16}$ |
| Area 19, Pahute Substation | 11/02/92 | $1.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 19, Pahute Substation | 11/09/92 | $1.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 19, Pahute Substation | 11/16/92 | $1.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 19, Pahute Substation | 11/24/92 | $2.0 \times 10^{-14}$ | $1.8 \times 10^{-15}$ |
| Area 20, Dispensary | 01/06/92 | $1.0 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 20, Dispensary | 01/13/92 | $1.6 \times 10^{-14}$ | $7.8 \times 10^{-16}$ |
| Area 20, Dispensary | 01/21/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 20, Dispensary | 01/27/92 | $2.3 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 20, Dispensary | 02/03/92 | $3.2 \times 10^{-14}$ | $1.6 \times 10^{-15}$ |
| Area 20, Dispensary | 02/10/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 20, Dispensary | 02/18/92 | $1.5 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 20, Dispensary | 02/24/92 | $4.7 \times 10^{-15}$ | $7.0 \times 10^{-16}$ |
| Area 20, Dispensary | 03/02/92 | $8.5 \times 10^{-15}$ | $7.8 \times 10^{-16}$ |
| Area 20, Dispensary | 03/09/92 | $2.2 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 20, Dispensary | 03/17/92 | $1.1 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 20, Dispensary | 03/23/92 | $1.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 20, Dispensary | 03/30/92 | $1.8 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 20, Dispensary | 04/06/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 20, Dispensary | 04/13/92 | $1.4 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 20, Dispensary | 04/20/92 | $2.1 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 20, Dispensary | 04/27/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 20, Dispensary | 05/04/92 | $1.7 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 20, Dispensary | 05/11/92 | $1.8 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 20, Dispensary | 05/18/92 | $1.7 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 20, Dispensary | 05/26/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 20, Dispensary | 06/01/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 20, Dispensary | 06/09/92 | $1.8 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 20, Dispensary | 06/15/92 | $1.8 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 20, Dispensary | 06/22/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 20, Dispensary | 06/29/92 | $1.5 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 20, Dispensary | 07/06/92 | $1.5 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 20, Dispensary | 07/13/92 | $1.4 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 20, Dispensary | 07/20/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 20, Dispensary | 07/27/92 | $2.8 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 20, Dispensary | 08/03/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 20, Dispensary | 08/10/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 20, Dispensary | 08/17/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 20, Dispensary | 08/24/92 | $2.0 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 20, Dispensary | 09/01/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 20, Dispensary | 09/08/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 20, Dispensary | 09/14/92 | $1.6 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 20, Dispensary | 09/21/92 | $1.6 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 20, Dispensary | 09/28/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 20, Dispensary | 10/05/92 | $2.2 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 20, Dispensary | 10/13/92 | $3.6 \times 10^{-14}$ | $1.4 \times 10^{-15}$ |
| Area 20, Dispensary | 10/19/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 20, Dispensary | 10/26/92 | $1.1 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 20, Dispensary | 11/02/92 | $1.3 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 20, Dispensary | 11/09/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 20, Dispensary | 11/16/92 | $1.6 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 20, Dispensary | 11/24/92 | $2.2 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 23, Building 790 | 01/13/92 | $1.4 \times 10^{-14}$ | $7.0 \times 10^{-16}$ |
| Area 23, Building 790 | 01/21/92 | $3.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 23, Building 790 | 01/27/92 | $2.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, Building 790 | 02/03/92 | $2.7 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 23, Building 790 | 02/10/92 | $1.1 \times 10^{-14}$ | $6.9 \times 10^{-16}$ |
| Area 23, Building 790 | 02/18/92 | $1.3 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 23, Building 790 | 02/24/92 | $1.8 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 23, Building 790 | 03/02/92 | $9.6 \times 10^{-15}$ | $7.2 \times 10^{-16}$ |
| Area 23, Building 790 | 03/09/92 | $2.4 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 23, Building 790 | 03/16/92 | $9.6 \times 10^{-15}$ | $6.6 \times 10^{-16}$ |
| Area 23, Building 790 | 03/24/92 | $9.6 \times 10^{-15}$ | $8.2 \times 10^{-16}$ |
| Area 23, Building 790 | 03/30/92 | $1.8 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 23, Building 790 | 04/07/92 | $1.9 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 23, Building 790 | 04/14/92 | $1.4 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 23, Building 790 | 04/20/92 | $2.0 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 23, Building 790 | 04/28/92 | $2.1 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 23, Building 790 | 05/05/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, Building 790 | 05/11/92 | $1.7 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 23, Building 790 | 05/18/92 | $5.6 \times 10^{-15}$ | $3.0 \times 10^{-16}$ |
| Area 23, Building 790 | 05/26/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, Building 790 | 06/01/92 | $2.1 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 23, Building 790 | 06/09/92 | $1.5 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 23, Building 790 | 06/15/92 | $1.9 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 23, Building 790 | 06/22/92 | $2.0 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 23, Building 790 | 06/29/92 | $1.3 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 23, Building 790 | 07/06/92 | $1.2 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 23, Building 790 | 07/13/92 | $1.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, Building 790 | 07/20/92 | $1.8 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 23, Building 790 | 07/27/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, Building 790 | 08/03/92 | $2.0 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 23, Building 790 | 08/11/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 23, Building 790 | 08/17/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, Building 790 | 08/24/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, Building 790 | 08/31/92 | $1.8 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 23, Building 790 | 09/08/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, Building 790 | 09/14/92 | $1.4 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 23, Building 790 | 09/21/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, Building 790 | 09/28/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, Building 790 | 10/05/92 | $1.9 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 23, Building 790 | 10/12/92 | $2.8 \times 10^{-14}$ | $4.1 \times 10^{-15}$ |
| Area 23, Building 790 | 10/19/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, Building 790 | 10/26/92 | $8.4 \times 10^{-15}$ | $8.4 \times 10^{-16}$ |
| Area 23, Building 790 | 11/02/92 | $1.6 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 23, Building 790 | 11/09/92 | $1.9 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 23, Building 790 | 11/16/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, Building 790 | 11/23/92 | $1.9 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 23, Building 790 | 11/30/92 | $2.4 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, Building 790 | 12/07/92 | $9.8 \times 10^{-15}$ | $7.5 \times 10^{-16}$ |
| Area 23, Building 790 | 12/15/92 | $1.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, Building 790 | 12/21/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, Building 790 | 12/28/92 | $7.1 \times 10^{-15}$ | $8.2 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 01/13/92 | $1.7 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 01/21/92 | $3.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 23, Building 790 No. 2 | 01/27/92 | $2.3 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 02/03/92 | $2.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, Building 790 No. 2 | 02/10/92 | $8.4 \times 10^{-15}$ | $6.5 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 02/18/92 | $1.3 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 02/24/92 | $1.8 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 03/02/92 | $8.8 \times 10^{-15}$ | $7.2 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 03/09/92 | $2.3 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 03/16/92 | $7.4 \times 10^{-15}$ | $6.4 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 03/24/92 | $9.3 \times 10^{-15}$ | $8.3 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 03/30/92 | $1.6 \times 10^{-14}$ | $7.7 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 04/07/92 | $1.7 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 04/14/92 | $1.4 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 04/20/92 | $1.9 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 04/28/92 | $2.0 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 05/05/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, Building 790 No. 2 | 05/11/92 | $1.8 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 05/18/92 | $1.6 \times 10^{-14}$ | $8.0 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 05/26/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, Building 790 No. 2 | 06/01/92 | $2.2 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 06/09/92 | $1.5 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 06/15/92 | $1.9 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 06/22/92 | $2.1 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 06/29/92 | $1.3 \times 10^{-14}$ | $8.0 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 07/06/92 | $1.1 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 07/13/92 | $1.4 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 07/20/92 | $1.9 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 07/27/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, Building 790 No. 2 | 08/03/92 | $2.2 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 08/11/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 23, Building 790 No. 2 | 08/17/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, Building 790 No. 2 | 08/24/92 | $1.6 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 08/31/92 | $1.9 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 09/08/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$        Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 23, Building 790 No. 2 | 09/14/92 | $1.7 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 09/21/92 | $1.7 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 09/28/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, Building 790 No. 2 | 10/05/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, Building 790 No. 2 | 10/12/92 | $3.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 23, Building 790 No. 2 | 10/19/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, Building 790 No. 2 | 10/26/92 | $1.2 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 11/02/92 | $1.7 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 11/09/92 | $1.8 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 11/23/92 | $2.0 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 11/30/92 | $4.3 \times 10^{-16}$ | $6.7 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 12/07/92 | $1.1 \times 10^{-14}$ | $7.8 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 12/15/92 | $1.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, Building 790 No. 2 | 12/21/92 | $5.9 \times 10^{-15}$ | $7.9 \times 10^{-16}$ |
| Area 23, Building 790 No. 2 | 12/28/92 | $8.3 \times 10^{-15}$ | $8.4 \times 10^{-16}$ |
| Area 23, E Boundary | 01/13/92 | $1.7 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 23, E Boundary | 01/21/92 | $3.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 23, E Boundary | 01/27/92 | $2.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, E Boundary | 02/03/92 | $2.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, E Boundary | 02/10/92 | $6.1 \times 10^{-15}$ | $7.6 \times 10^{-15}$ |
| Area 23, E Boundary | 02/18/92 | $1.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, E Boundary | 02/24/92 | $1.9 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 23, E Boundary | 03/02/92 | $8.1 \times 10^{-15}$ | $6.7 \times 10^{-16}$ |
| Area 23, E Boundary | 03/09/92 | $2.4 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 23, E Boundary | 03/16/92 | $8.3 \times 10^{-15}$ | $6.4 \times 10^{-16}$ |
| Area 23, E Boundary | 03/24/92 | $8.7 \times 10^{-15}$ | $8.1 \times 10^{-16}$ |
| Area 23, E Boundary | 03/30/92 | $1.8 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 23, E Boundary | 04/07/92 | $1.9 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 23, E Boundary | 04/14/92 | $1.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, E Boundary | 04/20/92 | $2.0 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 23, E Boundary | 04/28/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, E Boundary | 05/05/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, E Boundary | 05/11/92 | $1.9 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 23, E Boundary | 05/18/92 | $1.5 \times 10^{-14}$ | $8.2 \times 10^{-16}$ |
| Area 23, E Boundary | 05/26/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, E Boundary | 06/01/92 | $2.3 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 23, E Boundary | 06/09/92 | $1.6 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 23, E Boundary | 06/15/92 | $1.9 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 23, E Boundary | 06/22/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, E Boundary | 06/29/92 | $1.3 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 23, E Boundary | 07/06/92 | $1.4 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 23, E Boundary | 07/13/92 | $1.5 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15}$ μCi/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16}$ μCi/mL

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 23, E Boundary | 07/20/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, E Boundary | 08/03/92 | $2.3 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 23, E Boundary | 08/11/92 | $2.5 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 23, E Boundary | 08/17/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, E Boundary | 08/24/92 | $2.5 \times 10^{-14}$ | $2.1 \times 10^{-15}$ |
| Area 23, E Boundary | 08/31/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 23, E Boundary | 09/08/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 23, E Boundary | 09/14/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, E Boundary | 09/21/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, E Boundary | 09/28/92 | $2.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, E Boundary | 10/05/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, E Boundary | 10/12/92 | $4.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 23, E Boundary | 10/19/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 23, E Boundary | 10/26/92 | $1.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, E Boundary | 11/02/92 | $1.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, E Boundary | 11/09/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, E Boundary | 11/16/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, E Boundary | 12/07/92 | $1.1 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 23, E Boundary | 12/15/92 | $1.3 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, E Boundary | 12/21/92 | $2.6 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 23, E Boundary | 12/28/92 | $1.2 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 23, H&S Building | 01/13/92 | $1.6 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 23, H&S Building | 01/21/92 | $3.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, H&S Building | 01/27/92 | $2.7 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 23, H&S Building | 02/03/92 | $2.6 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 23, H&S Building | 02/10/92 | $7.0 \times 10^{-15}$ | $6.2 \times 10^{-16}$ |
| Area 23, H&S Building | 02/18/92 | $1.4 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 23, H&S Building | 02/24/92 | $1.6 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 23, H&S Building | 03/02/92 | $1.1 \times 10^{-14}$ | $7.5 \times 10^{-16}$ |
| Area 23, H&S Building | 03/09/92 | $2.2 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 23, H&S Building | 03/16/92 | $8.7 \times 10^{-15}$ | $6.4 \times 10^{-16}$ |
| Area 23, H&S Building | 03/24/92 | $7.5 \times 10^{-15}$ | $7.9 \times 10^{-16}$ |
| Area 23, H&S Building | 03/30/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, H&S Building | 04/07/92 | $1.2 \times 10^{-14}$ | $6.3 \times 10^{-16}$ |
| Area 23, H&S Building | 04/14/92 | $1.2 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 23, H&S Building | 04/20/92 | $1.8 \times 10^{-14}$ | $8.0 \times 10^{-16}$ |
| Area 23, H&S Building | 04/28/92 | $2.1 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 23, H&S Building | 05/05/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, H&S Building | 05/11/92 | $2.0 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 23, H&S Building | 05/18/92 | $1.5 \times 10^{-14}$ | $7.6 \times 10^{-16}$ |
| Area 23, H&S Building | 05/26/92 | $2.7 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 23, H&S Building | 06/01/92 | $1.9 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
| | | Concentration | Standard Deviation (s) |
| --- | --- | --- | --- |
| Area 23, H&S Building | 06/09/92 | $1.5 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 23, H&S Building | 06/15/92 | $1.9 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 23, H&S Building | 06/22/92 | $2.0 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 23, H&S Building | 06/29/92 | $2.6 \times 10^{-15}$ | $7.1 \times 10^{-15}$ |
| Area 23, H&S Building | 07/06/92 | $1.2 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 23, H&S Building | 07/13/92 | $1.5 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 23, H&S Building | 07/20/92 | $2.0 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 23, H&S Building | 07/27/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, H&S Building | 08/03/92 | $2.1 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 23, H&S Building | 08/11/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 23, H&S Building | 08/17/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, H&S Building | 08/24/92 | $2.0 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 23, H&S Building | 08/31/92 | $2.0 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 23, H&S Building | 09/08/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, H&S Building | 09/14/92 | $1.5 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 23, H&S Building | 09/21/92 | $1.8 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 23, H&S Building | 09/28/92 | $2.1 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 23, H&S Building | 10/05/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, H&S Building | 10/12/92 | $3.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 23, H&S Building | 10/19/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, H&S Building | 10/26/92 | $1.1 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 23, H&S Building | 11/02/92 | $1.8 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 23, H&S Building | 11/09/92 | $2.0 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 23, H&S Building | 11/16/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, H&S Building | 11/23/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, H&S Building | 11/30/92 | $9.0 \times 10^{-15}$ | $8.3 \times 10^{-16}$ |
| Area 23, H&S Building | 12/07/92 | $1.6 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 23, H&S Building | 12/15/92 | $1.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 23, H&S Building | 12/21/92 | $2.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 23, H&S Building | 12/28/92 | $7.5 \times 10^{-15}$ | $8.3 \times 10^{-16}$ |
| Area 25, E-MAD N | 01/13/92 | $1.4 \times 10^{-14}$ | $7.7 \times 10^{-16}$ |
| Area 25, E-MAD N | 01/21/92 | $2.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 25, E-MAD N | 01/27/92 | $2.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, E-MAD N | 02/03/92 | $2.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 25, E-MAD N | 02/10/92 | $5.1 \times 10^{-15}$ | $6.1 \times 10^{-16}$ |
| Area 25, E-MAD N | 02/18/92 | $1.2 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 25, E-MAD N | 02/24/92 | $1.9 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 25, E-MAD N | 03/02/92 | $9.0 \times 10^{-15}$ | $7.6 \times 10^{-16}$ |
| Area 25, E-MAD N | 03/09/92 | $2.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, E-MAD N | 03/16/92 | $7.8 \times 10^{-15}$ | $6.4 \times 10^{-16}$ |
| Area 25, E-MAD N | 03/24/92 | $1.0 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 25, E-MAD N | 03/30/92 | $2.7 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 25, E-MAD N | 04/07/92 | $6.6 \times 10^{-15}$ | $3.1 \times 10^{-16}$ |
| Area 25, E-MAD N | 04/14/92 | $1.4 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 25, E-MAD N | 04/20/92 | $1.9 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 25, E-MAD N | 04/28/92 | $2.0 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 25, E-MAD N | 05/05/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, E-MAD N | 05/11/92 | $8.3 \times 10^{-15}$ | $8.1 \times 10^{-16}$ |
| Area 25, E-MAD N | 05/18/92 | $1.3 \times 10^{-14}$ | $7.5 \times 10^{-16}$ |
| Area 25, E-MAD N | 05/26/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, E-MAD N | 06/01/92 | $2.2 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 25, E-MAD N | 06/09/92 | $1.6 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 25, E-MAD N | 06/15/92 | $1.7 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 25, E-MAD N | 06/22/92 | $2.3 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 25, E-MAD N | 06/29/92 | $1.3 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 25, E-MAD N | 07/06/92 | $1.2 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 25, E-MAD N | 07/13/92 | $1.5 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 25, E-MAD N | 07/20/92 | $1.7 \times 10^{-14}$ | $9.4 \times 10^{-16}$ |
| Area 25, E-MAD N | 07/27/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, E-MAD N | 08/03/92 | $2.1 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 25, E-MAD N | 08/11/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 25, E-MAD N | 08/17/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, E-MAD N | 08/24/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, E-MAD N | 08/31/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, E-MAD N | 09/08/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 25, E-MAD N | 09/14/92 | $1.7 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 25, E-MAD N | 09/21/92 | $1.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 25, E-MAD N | 09/28/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, E-MAD N | 10/05/92 | $2.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, E-MAD N | 10/12/92 | $3.0 \times 10^{-14}$ | $3.8 \times 10^{-15}$ |
| Area 25, E-MAD N | 10/19/92 | $3.8 \times 10^{-14}$ | $7.5 \times 10^{-16}$ |
| Area 25, E-MAD N | 10/26/92 | $1.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 25, E-MAD N | 11/02/92 | $1.7 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 25, E-MAD N | 11/09/92 | $1.9 \times 10^{-14}$ | $9.8 \times 10^{-16}$ |
| Area 25, E-MAD N | 11/16/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, E-MAD N | 11/23/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, E-MAD N | 11/30/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 25, E-MAD N | 12/07/92 | $1.1 \times 10^{-14}$ | $8.1 \times 10^{-16}$ |
| Area 25, E-MAD N | 12/15/92 | $1.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, E-MAD N | 12/21/92 | $1.6 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 25, E-MAD N | 12/28/92 | $7.6 \times 10^{-15}$ | $8.6 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 01/13/92 | $1.4 \times 10^{-14}$ | $7.5 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 01/21/92 | $2.5 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 01/27/92 | $2.3 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15} \mu Ci/mL$          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu Ci/mL$

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 25, NRDS Warehouse | 02/03/92 | $2.9 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 02/10/92 | $5.3 \times 10^{-15}$ | $6.0 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 02/18/92 | $1.5 \times 10^{-14}$ | $9.3 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 02/24/92 | $1.8 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 03/02/92 | $1.0 \times 10^{-14}$ | $7.4 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 03/09/92 | $2.4 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 03/16/92 | $8.8 \times 10^{-15}$ | $6.6 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 03/24/92 | $9.0 \times 10^{-15}$ | $8.4 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 03/30/92 | $9.4 \times 10^{-15}$ | $6.7 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 04/07/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 04/14/92 | $1.2 \times 10^{-14}$ | $9.2 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 04/20/92 | $2.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 04/28/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 05/05/92 | $1.7 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 05/11/92 | $1.5 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 05/18/92 | $1.6 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 05/26/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 06/01/92 | $2.1 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 06/09/92 | $1.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 06/15/92 | $1.7 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 06/22/92 | $2.0 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 06/29/92 | $1.4 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 07/06/92 | $1.3 \times 10^{-14}$ | $8.5 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 07/13/92 | $1.4 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 07/20/92 | $1.8 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 07/27/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 08/03/92 | $2.1 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 08/11/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 08/17/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 08/24/92 | $2.1 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 08/31/92 | $2.0 \times 10^{-14}$ | $9.1 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 09/08/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 09/14/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 09/21/92 | $1.8 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 09/28/92 | $2.1 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 10/05/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 10/12/92 | $4.0 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 10/19/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 10/26/92 | $1.0 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 11/02/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 11/09/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 11/16/92 | $1.9 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 25, NRDS Warehouse | 11/23/92 | $1.8 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 11/30/92 | $7.2 \times 10^{-15}$ | $8.2 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 12/07/92 | $8.7 \times 10^{-15}$ | $7.6 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 12/15/92 | $1.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 25, NRDS Warehouse | 12/21/92 | $1.4 \times 10^{-14}$ | $9.5 \times 10^{-16}$ |
| Area 25, NRDS Warehouse | 12/28/92 | $9.0 \times 10^{-15}$ | $8.8 \times 10^{-16}$ |
| Area 27, Cafeteria | 01/13/92 | $1.6 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 27, Cafeteria | 01/21/92 | $3.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 27, Cafeteria | 01/27/92 | $2.5 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 27, Cafeteria | 02/03/92 | $1.1 \times 10^{-14}$ | $4.6 \times 10^{-16}$ |
| Area 27, Cafeteria | 02/10/92 | $5.1 \times 10^{-15}$ | $6.0 \times 10^{-16}$ |
| Area 27, Cafeteria | 02/18/92 | $1.1 \times 10^{-14}$ | $8.8 \times 10^{-16}$ |
| Area 27, Cafeteria | 02/24/92 | $1.4 \times 10^{-14}$ | $8.3 \times 10^{-16}$ |
| Area 27, Cafeteria | 03/02/92 | $1.4 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 27, Cafeteria | 03/09/92 | $2.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 27, Cafeteria | 03/16/92 | $1.0 \times 10^{-14}$ | $6.9 \times 10^{-16}$ |
| Area 27, Cafeteria | 03/24/92 | $8.6 \times 10^{-15}$ | $8.3 \times 10^{-16}$ |
| Area 27, Cafeteria | 03/30/92 | $1.7 \times 10^{-14}$ | $7.9 \times 10^{-16}$ |
| Area 27, Cafeteria | 04/07/92 | $1.8 \times 10^{-14}$ | $8.9 \times 10^{-16}$ |
| Area 27, Cafeteria | 04/14/92 | $1.5 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 27, Cafeteria | 04/20/92 | $1.9 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 27, Cafeteria | 04/28/92 | $2.1 \times 10^{-14}$ | $9.6 \times 10^{-16}$ |
| Area 27, Cafeteria | 05/05/92 | $1.8 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 27, Cafeteria | 05/11/92 | $1.7 \times 10^{-14}$ | $9.0 \times 10^{-16}$ |
| Area 27, Cafeteria | 05/18/92 | $1.3 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 27, Cafeteria | 06/01/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 27, Cafeteria | 06/09/92 | $1.6 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 27, Cafeteria | 06/15/92 | $1.9 \times 10^{-14}$ | $9.7 \times 10^{-16}$ |
| Area 27, Cafeteria | 06/22/92 | $2.2 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 27, Cafeteria | 06/29/92 | $1.3 \times 10^{-14}$ | $8.4 \times 10^{-16}$ |
| Area 27, Cafeteria | 07/06/92 | $1.3 \times 10^{-14}$ | $8.7 \times 10^{-16}$ |
| Area 27, Cafeteria | 07/13/92 | $1.5 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 27, Cafeteria | 07/20/92 | $2.0 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 27, Cafeteria | 07/27/92 | $2.2 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 27, Cafeteria | 08/03/92 | $2.1 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 27, Cafeteria | 08/11/92 | $2.3 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 27, Cafeteria | 08/17/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 27, Cafeteria | 08/24/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 27, Cafeteria | 08/31/92 | $2.1 \times 10^{-14}$ | $9.9 \times 10^{-16}$ |
| Area 27, Cafeteria | 09/08/92 | $2.4 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 27, Cafeteria | 09/14/92 | $1.7 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |
| Area 27, Cafeteria | 09/21/92 | $1.8 \times 10^{-14}$ | $1.0 \times 10^{-15}$ |

Mean MDC: $1.5 \times 10^{-15} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16} \mu$Ci/mL

Attachment A.3  (Gross ß in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 27, Cafeteria | 09/28/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 27, Cafeteria | 10/05/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-15}$ |
| Area 27, Cafeteria | 10/12/92 | $3.8 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 27, Cafeteria | 10/19/92 | $2.5 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 27, Cafeteria | 10/26/92 | $9.8 \times 10^{-15}$ | $1.1 \times 10^{-15}$ |
| Area 27, Cafeteria | 11/02/92 | $1.9 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 27, Cafeteria | 11/09/92 | $2.0 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 27, Cafeteria | 11/16/92 | $1.6 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 27, Cafeteria | 11/23/92 | $2.2 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 27, Cafeteria | 11/30/92 | $2.7 \times 10^{-16}$ | $9.3 \times 10^{-16}$ |
| Area 27, Cafeteria | 12/07/92 | $1.3 \times 10^{-14}$ | $8.6 \times 10^{-16}$ |
| Area 27, Cafeteria | 12/15/92 | $1.1 \times 10^{-14}$ | $1.2 \times 10^{-15}$ |
| Area 27, Cafeteria | 12/21/92 | $2.3 \times 10^{-14}$ | $1.3 \times 10^{-15}$ |
| Area 27, Cafeteria | 12/28/92 | $8.8 \times 10^{-15}$ | $9.4 \times 10^{-16}$ |

Mean MDC: $1.5 \times 10^{-15}$ µCi/mL          Standard Deviation of Mean MDC: $3.3 \times 10^{-16}$ µCi/mL

## Attachment A.4  Gamma-Emitting Radionuclides in Air - 1992

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
| | | Concentration | Standard Deviation (s) | |
|---|---|---|---|---|
| Area 1, BJY | 01/06/92 | $1.3 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 01/13/92 | $1.9 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 01/21/92 | $2.6 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 01/27/92 | $1.7 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 02/03/92 | $7.9 \times 10^{-14}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 02/10/92 | $4.3 \times 10^{-14}$ | $2.4 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 02/18/92 | $1.8 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 02/24/92 | $2.6 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 03/02/92 | $4.6 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 03/09/92 | $2.2 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 03/23/92 | $1.3 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 03/30/92 | $2.3 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 04/06/92 | $1.4 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 04/13/92 | $2.4 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 04/20/94 | $1.5 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 04/28/92 | $1.7 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 05/04/92 | $2.6 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 05/11/92 | $2.3 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 05/18/92 | $2.2 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 05/26/92 | $2.1 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 06/01/92 | $2.4 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 06/08/92 | $2.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 06/15/92 | $2.2 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 06/29/92 | $2.4 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 07/06/92 | $7.1 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 07/13/92 | $4.6 \times 10^{-13}$ | $1.3 \times 10^{-13}$ | $^7$Be |
| Area 1, BJY | 07/20/92 | $1.4 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 07/27/92 | $2.3 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 08/03/92 | $2.3 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 08/10/92 | $1.9 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 08/17/92 | $3.4 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 08/24/92 | $2.9 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 08/31/92 | $1.4 \times 10^{-13}$ | $3.0 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 09/08/92 | $2.7 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 09/14/92 | $1.4 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 09/21/92 | $1.9 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 09/28/92 | $2.3 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 10/05/92 | $2.0 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 10/13/92 | $2.0 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 10/26/92 | $8.0 \times 10^{-14}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 11/03/92 | $1.9 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 11/09/92 | $1.7 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

## Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 1, BJY | 11/16/92 | $1.8 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 11/23/92 | $9.9 \times 10^{-14}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 11/30/92 | $2.0 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 12/07/92 | $7.2 \times 10^{-14}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 12/14/92 | $2.2 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 12/21/92 | $2.0 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 1, BJY | 12/29/92 | $1.4 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 01/13/92 | $2.2 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 01/21/92 | $1.8 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 01/27/92 | $1.8 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 02/03/92 | $1.4 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 02/10/92 | $6.0 \times 10^{-14}$ | $2.4 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 02/18/92 | $1.0 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 02/24/92 | $1.3 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 03/02/92 | $7.3 \times 10^{-14}$ | $2.9 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 03/09/92 | $2.0 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 03/17/92 | $9.0 \times 10^{-14}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 03/23/92 | $1.0 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 03/30/92 | $1.8 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 04/06/92 | $2.1 \times 10^{-13}$ | $6.8 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 04/13/92 | $2.7 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 04/20/92 | $1.9 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 04/27/92 | $3.5 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 05/04/92 | $2.4 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 05/11/92 | $2.8 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 05/18/92 | $1.8 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 05/26/92 | $1.8 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 06/01/92 | $2.1 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 06/09/92 | $2.2 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 06/15/92 | $2.4 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 06/22/92 | $2.4 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 06/29/92 | $1.5 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 07/06/92 | $1.1 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 07/20/92 | $2.2 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 07/27/92 | $1.6 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 08/03/92 | $1.4 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 08/10/92 | $2.2 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 08/17/92 | $2.3 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 08/24/92 | $2.9 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 08/31/92 | $2.2 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 09/08/92 | $2.3 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 09/14/92 | $1.9 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
| | | Concentration | Standard Deviation (s) | |
| --- | --- | --- | --- | --- |
| Area 1, Gravel Pit | 09/21/92 | $2.3 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 09/28/92 | $2.2 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 10/05/92 | $2.1 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 10/12/92 | $1.8 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 10/19/92 | $2.3 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 10/26/92 | $1.2 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 11/09/92 | $1.9 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 11/16/92 | $1.1 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 11/30/92 | $1.1 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 12/08/92 | $6.1 \times 10^{-14}$ | $2.4 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 12/15/92 | $1.6 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 12/21/92 | $1.7 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 1, Gravel Pit | 12/28/92 | $1.7 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 01/06/92 | $1.0 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 01/13/92 | $1.7 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 01/21/92 | $2.7 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 01/27/92 | $1.6 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 02/03/92 | $1.2 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 02/18/92 | $1.4 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 02/24/92 | $2.3 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 03/02/92 | $8.6 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 03/09/92 | $2.3 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 03/17/92 | $1.4 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 03/23/92 | $9.6 \times 10^{-14}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 03/30/92 | $1.1 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 04/06/92 | $2.2 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 04/13/92 | $2.5 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 04/20/92 | $2.1 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 05/04/92 | $2.2 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 05/11/92 | $1.7 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 05/18/92 | $2.1 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 05/26/92 | $1.8 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 06/01/92 | $1.9 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 06/08/92 | $1.4 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 06/15/92 | $1.7 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 06/22/92 | $1.6 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 06/29/92 | $1.7 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 07/06/92 | $8.3 \times 10^{-14}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 07/13/92 | $2.3 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 07/20/92 | $1.7 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 07/27/92 | $1.6 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 08/03/92 | $2.5 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

## Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 2, 2-1 Substation | 08/10/92 | $2.3 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 08/17/92 | $2.5 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 08/24/92 | $2.4 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 08/31/92 | $3.3 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 09/08/92 | $2.9 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 09/14/92 | $1.8 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 09/21/92 | $2.6 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 09/28/92 | $2.7 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 10/05/92 | $1.7 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 10/13/92 | $3.5 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 10/19/92 | $1.7 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 10/26/92 | $1.8 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 11/09/92 | $1.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 11/16/92 | $1.0 \times 10^{-12}$ | $2.6 \times 10^{-13}$ | $^7$Be |
| Area 2, 2-1 Substation | 11/23/92 | $7.7 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 12/07/92 | $7.1 \times 10^{-14}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 12/14/92 | $2.3 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 12/21/92 | $2.1 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 2, 2-1 Substation | 12/29/92 | $1.7 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 01/06/92 | $1.2 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 01/13/92 | $1.9 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 01/21/92 | $2.2 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 01/27/92 | $1.7 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 02/03/92 | $1.3 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 02/18/92 | $1.1 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 02/24/92 | $1.5 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 03/02/92 | $1.1 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 03/09/92 | $2.3 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 03/09/92 | $4.7 \times 10^{-15}$ | $3.2 \times 10^{-15}$ | $^{208}$Tl |
| Area 2, Complex | 03/17/92 | $1.0 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 03/23/92 | $6.6 \times 10^{-14}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 03/30/92 | $1.7 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 04/06/92 | $1.9 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 04/13/92 | $2.3 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 04/20/92 | $1.5 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 04/27/92 | $3.4 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 05/04/92 | $3.1 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 05/11/92 | $2.6 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 05/18/92 | $2.5 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 05/26/92 | $3.0 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 06/01/92 | $1.6 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 06/08/92 | $2.1 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL | | Radio-nuclide |
| | | Concentration | Standard Deviation (s) | |
|---|---|---|---|---|
| Area 2, Complex | 06/15/92 | $1.8 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 06/22/92 | $1.9 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 06/29/92 | $2.1 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 07/06/92 | $1.2 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 07/13/92 | $1.6 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 07/20/92 | $2.1 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 07/27/92 | $1.9 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 08/03/92 | $2.4 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 08/10/92 | $2.9 \times 10^{-13}$ | $1.4 \times 10^{-13}$ | $^7$Be |
| Area 2, Complex | 08/17/92 | $2.5 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 08/24/92 | $2.0 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 08/31/92 | $2.3 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 09/08/92 | $2.4 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 09/14/92 | $1.8 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 09/21/92 | $2.0 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 09/28/92 | $2.5 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 10/05/92 | $1.9 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 10/13/92 | $2.4 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 10/19/92 | $2.4 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 10/26/92 | $8.5 \times 10^{-14}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 11/03/92 | $2.0 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 11/09/92 | $2.5 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 11/16/92 | $2.0 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 11/23/92 | $5.7 \times 10^{-14}$ | $2.6 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 11/30/92 | $1.4 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 12/07/92 | $6.9 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 12/14/92 | $1.2 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 12/21/92 | $2.1 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 2, Complex | 12/29/92 | $2.0 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 3, 3-300 Bunker | 01/06/92 | $1.7 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 3, 3-300 Bunker | 01/13/92 | $1.9 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 3, 3-300 Bunker | 01/21/92 | $2.2 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, 3-300 Bunker | 01/27/92 | $2.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 01/06/92 | $1.3 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 01/13/92 | $1.4 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 01/21/92 | $2.5 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 02/10/92 | $9.7 \times 10^{-14}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 02/18/92 | $8.5 \times 10^{-14}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 02/24/92 | $2.0 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 03/09/92 | $2.4 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 03/17/92 | $1.1 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 03/23/92 | $9.2 \times 10^{-14}$ | $3.3 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

## Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 3, Complex | 03/30/92 | $1.5 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 04/06/92 | $2.4 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 04/13/92 | $2.0 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 04/20/92 | $2.8 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 05/04/92 | $2.5 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 05/11/92 | $2.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 05/18/92 | $1.6 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 05/26/92 | $2.7 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 06/01/92 | $2.5 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 06/08/92 | $2.0 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 06/15/92 | $2.0 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 06/22/92 | $2.1 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 06/29/92 | $2.4 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 07/06/92 | $1.5 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 07/13/92 | $1.7 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 07/20/92 | $2.2 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 07/27/92 | $1.7 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 08/03/92 | $2.2 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 08/10/92 | $1.4 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 08/17/92 | $2.3 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 08/24/92 | $2.5 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 08/31/92 | $3.1 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 09/08/92 | $2.0 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 09/14/92 | $2.0 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 09/21/92 | $2.5 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 09/28/92 | $2.2 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 10/05/92 | $1.8 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 10/13/92 | $2.5 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 10/19/92 | $2.0 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 10/26/92 | $1.4 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 11/03/92 | $2.0 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 11/09/92 | $2.1 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 11/16/92 | $2.5 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 11/23/92 | $1.1 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 11/30/92 | $1.8 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 12/07/92 | $7.0 \times 10^{-14}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 12/14/92 | $1.9 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 12/21/92 | $2.4 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex | 12/29/92 | $1.4 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 01/06/92 | $6.9 \times 10^{-14}$ | $2.5 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 01/13/92 | $2.0 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 01/21/92 | $1.7 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

## Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
| | | Concentration | Standard Deviation (s) | |
| --- | --- | --- | --- | --- |
| Area 3, Complex No. 2 | 01/27/92 | $2.1 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 02/03/92 | $1.2 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 02/24/92 | $2.7 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 03/02/92 | $1.1 \times 10^{-13}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 03/09/92 | $1.9 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 03/17/92 | $1.3 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 03/23/92 | $1.2 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 03/30/92 | $1.6 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 04/06/92 | $2.8 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 04/13/92 | $2.3 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 04/20/92 | $2.3 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 05/04/92 | $3.7 \times 10^{-13}$ | $6.9 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 05/11/92 | $2.2 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 05/18/92 | $1.8 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 05/26/92 | $2.6 \times 10^{-13}$ | $6.7 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 06/01/92 | $1.9 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 06/08/92 | $1.5 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 06/15/92 | $2.4 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 06/22/92 | $2.7 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 06/29/92 | $2.3 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 07/06/92 | $1.2 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 07/13/92 | $2.4 \times 10^{-13}$ | $6.7 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 07/20/92 | $3.1 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 07/27/92 | $2.0 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 08/03/92 | $2.2 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 08/17/92 | $3.6 \times 10^{-13}$ | $6.6 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 08/24/92 | $2.9 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 08/31/92 | $2.2 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 09/08/92 | $1.7 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 09/14/92 | $2.8 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 09/21/92 | $2.9 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 09/28/92 | $2.0 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 10/05/92 | $1.8 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 10/13/92 | $2.9 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 10/19/92 | $2.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 10/26/92 | $1.5 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 11/03/92 | $1.1 \times 10^{-13}$ | $2.6 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 11/09/92 | $4.4 \times 10^{-13}$ | $1.1 \times 10^{-13}$ | $^7$Be |
| Area 3, Complex No. 2 | 11/16/92 | $1.1 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 11/23/92 | $1.3 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 11/30/92 | $1.0 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 12/14/92 | $1.3 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

## Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 3, Complex No. 2 | 12/21/92 | $2.6 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 3, Complex No. 2 | 12/29/92 | $1.9 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 02/24/92 | $2.0 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 03/09/92 | $2.7 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 03/17/92 | $1.1 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 03/23/92 | $1.3 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 03/30/92 | $1.1 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 04/06/92 | $2.1 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 04/13/92 | $2.2 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 04/20/92 | $3.4 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 05/11/92 | $1.6 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 05/18/92 | $1.8 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 05/26/92 | $2.0 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 06/01/92 | $2.4 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 06/08/92 | $1.9 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 06/15/92 | $2.0 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 06/22/92 | $2.3 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 06/29/92 | $2.6 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 07/06/92 | $1.5 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 07/13/92 | $2.0 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 07/20/92 | $2.4 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 07/27/92 | $1.8 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 08/03/92 | $1.7 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 08/10/92 | $1.2 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 08/17/92 | $2.5 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 08/24/92 | $2.4 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 08/31/92 | $2.0 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 09/08/92 | $1.8 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 09/14/92 | $2.1 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 09/21/92 | $2.0 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 09/28/92 | $2.6 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 10/05/92 | $2.3 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 10/13/92 | $2.8 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 10/19/92 | $2.6 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 10/26/92 | $1.3 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 11/03/92 | $2.2 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 11/09/92 | $2.0 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 11/16/92 | $1.3 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 11/23/92 | $1.3 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 11/30/92 | $2.5 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 12/14/92 | $1.9 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 3, Mud Plant | 12/21/92 | $2.4 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 3, Mud Plant | 12/29/92 | $1.6 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 01/06/92 | $9.7 \times 10^{-14}$ | $2.9 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 01/13/92 | $1.6 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 01/21/92 | $1.9 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 01/27/92 | $2.4 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 02/03/92 | $1.1 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 02/10/92 | $6.8 \times 10^{-14}$ | $2.6 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 02/18/92 | $1.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 02/24/92 | $2.0 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 03/02/92 | $9.2 \times 10^{-14}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 03/09/92 | $2.1 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 03/23/92 | $1.2 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 03/30/92 | $1.1 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 04/06/92 | $2.4 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 04/13/92 | $2.6 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 04/20/92 | $1.5 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 05/04/92 | $2.7 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 05/11/92 | $2.6 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 05/18/92 | $2.1 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 05/26/92 | $2.3 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 06/01/92 | $2.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 06/08/92 | $1.9 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 06/15/92 | $2.5 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 06/22/92 | $2.3 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 06/29/92 | $1.5 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 07/06/92 | $1.3 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 07/13/92 | $2.0 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 07/20/92 | $1.4 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 07/27/92 | $2.7 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 08/03/92 | $1.8 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 08/10/92 | $1.5 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 08/17/92 | $2.8 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 08/24/92 | $3.0 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 08/31/92 | $2.0 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 09/08/92 | $2.7 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 09/14/92 | $2.5 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 09/21/92 | $2.5 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 09/28/92 | $3.0 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 10/05/92 | $2.1 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 10/13/92 | $2.8 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 10/19/92 | $2.3 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 10/26/92 | $1.2 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL | | Radio-nuclide |
| --- | --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) | |
| Area 3, U-3ah/at E | 11/03/92 | $1.6 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 11/09/92 | $1.9 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 11/16/92 | $1.6 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 11/23/92 | $8.7 \times 10^{-14}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 11/30/92 | $1.9 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 12/07/92 | $4.7 \times 10^{-14}$ | $2.5 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 12/14/92 | $1.6 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at E | 12/22/92 | $1.8 \times 10^{-13}$ | $2.9 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 01/06/92 | $1.3 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 01/13/92 | $1.8 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 01/21/92 | $2.3 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 01/27/92 | $2.0 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 02/03/92 | $7.2 \times 10^{-14}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 02/18/92 | $1.3 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 02/24/92 | $2.7 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 03/02/92 | $6.6 \times 10^{-14}$ | $2.7 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 03/09/92 | $1.8 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 03/17/92 | $1.0 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 03/23/92 | $1.5 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 03/30/92 | $1.9 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 04/06/92 | $2.5 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 04/13/92 | $2.1 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 04/20/92 | $1.4 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 05/04/92 | $3.0 \times 10^{-13}$ | $6.9 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 05/11/92 | $2.3 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 05/18/92 | $2.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 05/26/92 | $3.3 \times 10^{-13}$ | $7.4 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 06/01/92 | $2.7 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 06/08/92 | $2.2 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 06/15/92 | $2.9 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 06/22/92 | $3.4 \times 10^{-13}$ | $6.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 06/29/92 | $3.5 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 07/06/92 | $1.2 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 07/13/92 | $2.2 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 07/13/92 | $5.4 \times 10^{-15}$ | $2.1 \times 10^{-15}$ | $^{57}$Co |
| Area 3, U-3ah/at N | 07/20/92 | $2.6 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 07/27/92 | $2.6 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 08/10/92 | $1.5 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 08/17/92 | $2.8 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 08/24/92 | $7.6 \times 10^{-13}$ | $1.4 \times 10^{-13}$ | $^7$Be |
| Area 3, U-3ah/at N | 08/31/92 | $2.4 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 09/08/92 | $2.7 \times 10^{-13}$ | $6.6 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 3, U-3ah/at N | 09/14/92 | $2.3 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 09/21/92 | $3.3 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 09/28/92 | $3.6 \times 10^{-13}$ | $9.5 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 10/05/92 | $2.8 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 10/13/92 | $1.3 \times 10^{-13}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 10/19/92 | $2.9 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 10/26/92 | $1.5 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 11/03/92 | $2.7 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 11/09/92 | $2.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 11/16/92 | $2.4 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 11/23/92 | $1.6 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 11/30/92 | $2.7 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 12/07/92 | $7.6 \times 10^{-14}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 12/14/92 | $1.3 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at N | 12/22/92 | $2.8 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 01/06/92 | $1.3 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 01/13/92 | $9.4 \times 10^{-14}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 01/21/92 | $1.9 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 01/27/92 | $1.6 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 02/03/92 | $1.1 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 02/10/92 | $8.0 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 02/18/92 | $9.2 \times 10^{-14}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 02/24/92 | $2.4 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 03/02/92 | $1.0 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 03/09/92 | $2.3 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 03/17/92 | $7.5 \times 10^{-14}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 03/23/92 | $1.2 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 03/30/92 | $9.5 \times 10^{-14}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 04/06/92 | $2.0 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 04/13/92 | $1.9 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 04/20/92 | $1.5 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 05/04/92 | $2.4 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 05/11/92 | $2.6 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 05/18/92 | $1.4 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 05/26/92 | $2.0 \times 10^{-13}$ | $7.3 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 06/01/92 | $3.5 \times 10^{-13}$ | $6.6 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 06/08/92 | $1.8 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 06/15/92 | $2.7 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 06/22/92 | $1.5 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 06/29/92 | $2.2 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 07/06/92 | $9.6 \times 10^{-14}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at S | 07/13/92 | $1.7 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL | | Radio-nuclide |
| | | Concentration | Standard Deviation (s) | |
|---|---|---|---|---|
| Area 3, U-3ah/at S | 07/20/92 | $2.4 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 07/27/92 | $1.7 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 08/03/92 | $3.1 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 08/10/92 | $1.6 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 08/17/92 | $2.5 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 08/24/92 | $2.9 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 08/31/92 | $2.8 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 09/08/92 | $2.3 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 09/14/92 | $2.5 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 09/21/92 | $2.4 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 09/28/92 | $2.1 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 10/05/92 | $2.3 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 10/13/92 | $3.3 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 10/19/92 | $2.3 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 10/26/92 | $8.8 \times 10^{-14}$ | $3.1 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 11/03/92 | $2.5 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 11/09/92 | $2.3 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 11/16/92 | $1.6 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 11/23/92 | $1.1 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 11/30/92 | $4.1 \times 10^{-14}$ | $2.3 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 12/14/92 | $2.2 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at S | 12/22/92 | $2.3 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 01/06/92 | $1.3 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 01/13/92 | $1.5 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 01/21/92 | $1.7 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 01/27/92 | $1.9 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 02/03/92 | $1.4 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 02/18/92 | $1.1 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 02/24/92 | $2.7 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 02/24/92 | $7.9 \times 10^{-14}$ | $6.0 \times 10^{-14}$ | $^{99}$Tc |
| Area 3, U-3ah/at W | 03/02/92 | $7.7 \times 10^{-14}$ | $3.0 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 03/09/92 | $2.4 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 03/17/92 | $1.9 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 03/23/92 | $1.2 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 03/30/92 | $1.6 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 04/06/92 | $3.0 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 04/13/92 | $2.1 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 04/20/92 | $2.0 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 05/04/92 | $3.3 \times 10^{-13}$ | $7.1 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 05/11/92 | $1.8 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 05/18/92 | $3.2 \times 10^{-13}$ | $8.1 \times 10^{-14}$ | $^{7}$Be |
| Area 3, U-3ah/at W | 06/01/92 | $2.0 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^{7}$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
| | | Concentration | Standard Deviation (s) | |
|---|---|---|---|---|
| Area 3, U-3ah/at W | 06/08/92 | $2.2 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 06/15/92 | $3.0 \times 10^{-13}$ | $6.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 06/22/92 | $2.4 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 06/29/92 | $1.9 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 07/06/92 | $8.2 \times 10^{-14}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 07/13/92 | $1.6 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 07/20/92 | $2.2 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 07/27/92 | $1.9 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 08/03/92 | $2.3 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 08/10/92 | $1.5 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 08/17/92 | $2.3 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 08/24/92 | $3.2 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 08/31/92 | $2.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 09/08/92 | $2.1 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 09/14/92 | $1.9 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 09/21/92 | $3.0 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 09/28/92 | $2.4 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 10/05/92 | $1.9 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 10/13/92 | $2.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 10/19/92 | $2.1 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 10/26/92 | $1.1 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 11/03/92 | $1.7 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 11/09/92 | $2.1 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 11/16/92 | $1.8 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 11/23/92 | $8.8 \times 10^{-14}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 11/30/92 | $2.2 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 12/07/92 | $5.1 \times 10^{-14}$ | $2.1 \times 10^{-14}$ | $^7$Be |
| Area 3, U-3ah/at W | 12/14/92 | $1.3 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 01/06/92 | $1.8 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 01/13/92 | $2.1 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 01/21/92 | $1.1 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 02/18/92 | $1.1 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 02/24/92 | $2.2 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 03/02/92 | $1.3 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 03/09/92 | $2.5 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 03/16/92 | $1.6 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 03/24/92 | $1.2 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 03/30/92 | $9.6 \times 10^{-14}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 04/07/92 | $2.5 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 04/14/92 | $1.6 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 04/20/92 | $2.7 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 05/05/92 | $2.5 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

## Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
| | | Concentration | Standard Deviation (s) | |
|---|---|---|---|---|
| Area 5, DOD Yard | 05/11/92 | $1.9 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 05/18/92 | $1.5 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 05/26/92 | $1.9 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 06/01/92 | $2.0 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 06/09/92 | $2.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 06/15/92 | $3.3 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 06/22/92 | $2.2 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 06/29/92 | $2.2 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 07/06/92 | $1.0 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 07/13/92 | $2.1 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 07/20/92 | $2.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 07/27/92 | $2.6 \times 10^{-13}$ | $7.4 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 08/03/92 | $2.0 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 08/11/92 | $1.8 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 08/17/92 | $2.6 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 08/24/92 | $3.0 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 08/31/92 | $2.3 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 09/08/92 | $2.4 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 09/14/92 | $3.0 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 09/21/92 | $2.7 \times 10^{-13}$ | $6.9 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 09/28/92 | $2.7 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 10/05/92 | $2.8 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 10/12/92 | $2.8 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 10/19/92 | $2.3 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 10/26/92 | $8.2 \times 10^{-14}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 11/02/92 | $1.7 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 11/09/92 | $2.1 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 11/16/92 | $9.4 \times 10^{-14}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 11/23/92 | $1.2 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 11/30/92 | $1.4 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 12/15/92 | $1.3 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 12/21/92 | $2.1 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, DOD Yard | 12/28/92 | $9.0 \times 10^{-14}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 01/13/92 | $1.4 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 01/21/92 | $1.7 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 01/27/92 | $1.5 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 02/24/92 | $2.1 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 03/02/92 | $4.7 \times 10^{-14}$ | $2.4 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 03/09/92 | $1.7 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 03/16/92 | $1.4 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 03/24/92 | $9.0 \times 10^{-14}$ | $2.9 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 03/30/92 | $1.4 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 5, Gate 200 S | 04/07/92 | $1.3 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 04/14/92 | $2.3 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 04/20/92 | $2.3 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 04/20/92 | $6.6 \times 10^{-15}$ | $2.8 \times 10^{-15}$ | $^{208}$Tl |
| Area 5, Gate 200 S | 04/28/92 | $2.8 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 05/05/92 | $2.5 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 05/11/92 | $2.1 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 05/18/92 | $1.7 \times 10^{-14}$ | $3.0 \times 10^{-15}$ | $^7$Be |
| Area 5, Gate 200 S | 05/26/92 | $2.9 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 06/01/92 | $2.1 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 06/09/92 | $2.3 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 06/15/92 | $2.8 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 06/22/92 | $1.6 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 06/29/92 | $2.4 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 07/06/92 | $1.5 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 07/13/92 | $1.8 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 07/20/92 | $1.9 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 07/27/92 | $2.0 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 08/03/92 | $1.9 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 08/11/92 | $1.3 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 08/17/92 | $2.3 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 08/24/92 | $2.1 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 08/31/92 | $2.9 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 09/08/92 | $2.5 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 09/14/92 | $2.3 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 09/21/92 | $2.8 \times 10^{-13}$ | $1.3 \times 10^{-13}$ | $^7$Be |
| Area 5, Gate 200 S | 09/28/92 | $1.7 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 10/05/92 | $2.5 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 10/12/92 | $2.1 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 10/19/92 | $1.7 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 10/26/92 | $1.3 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 11/02/92 | $1.9 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 11/09/92 | $1.1 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 11/16/92 | $1.3 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 11/23/92 | $8.2 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 11/30/92 | $2.4 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 12/07/92 | $4.3 \times 10^{-14}$ | $2.0 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 12/15/92 | $1.8 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 12/21/92 | $2.3 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, Gate 200 S | 12/28/92 | $1.8 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 01/06/92 | $1.3 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 01/13/92 | $2.4 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08}\mu$Ci/mL    Standard Deviation of Mean MDC: $3.5 \times 10^{-07}\mu$Ci/mL

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 5, RWMS No. 1 | 01/21/92 | $1.5 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 01/27/92 | $2.3 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 02/03/92 | $1.4 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 02/18/92 | $1.8 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 02/24/92 | $3.0 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 03/09/92 | $2.5 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 03/16/92 | $7.1 \times 10^{-14}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 03/24/92 | $9.9 \times 10^{-14}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 03/30/92 | $1.6 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 04/07/92 | $2.4 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 04/14/92 | $5.5 \times 10^{-13}$ | $1.2 \times 10^{-13}$ | $^7$Be |
| Area 5, RWMS No. 1 | 04/20/92 | $2.6 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 05/05/92 | $3.5 \times 10^{-13}$ | $7.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 05/11/92 | $1.7 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 05/18/92 | $1.8 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 05/26/92 | $2.8 \times 10^{-13}$ | $6.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 06/01/92 | $2.4 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 06/09/92 | $2.4 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 06/15/92 | $2.3 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 06/22/92 | $2.0 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 06/29/92 | $2.6 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 07/13/92 | $1.6 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 07/20/92 | $1.6 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 07/27/92 | $1.7 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 08/03/92 | $1.4 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 08/11/92 | $1.4 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 08/17/92 | $3.1 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 08/24/92 | $3.0 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 08/31/92 | $2.5 \times 10^{-13}$ | $9.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 09/08/92 | $2.0 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 09/14/92 | $2.7 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 09/21/92 | $3.1 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 09/28/92 | $2.6 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 10/05/92 | $2.6 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 10/12/92 | $2.9 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 10/19/92 | $2.5 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 11/02/92 | $2.0 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 11/09/92 | $1.2 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 11/16/92 | $1.4 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 11/23/92 | $7.6 \times 10^{-14}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 11/30/92 | $1.3 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 1 | 12/07/92 | $9.9 \times 10^{-14}$ | $4.2 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 5, RWMS No. 1 | 12/15/92 | $2.2 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 1 | 12/21/92 | $2.6 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 1 | 12/28/92 | $1.3 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 01/13/92 | $1.7 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 01/21/92 | $2.4 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 01/27/92 | $2.5 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 02/03/92 | $1.5 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 02/10/92 | $6.4 \times 10^{-14}$ | $2.6 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 02/18/92 | $1.3 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 02/24/92 | $2.6 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 03/02/92 | $1.2 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 03/09/92 | $2.2 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 03/16/92 | $8.9 \times 10^{-14}$ | $3.4 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 03/30/92 | $1.4 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 04/07/92 | $2.3 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 04/14/92 | $2.4 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 04/20/92 | $2.5 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 04/28/92 | $2.3 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 05/05/92 | $2.8 \times 10^{-13}$ | $6.6 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 05/11/92 | $2.5 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 05/18/92 | $2.6 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 05/26/92 | $3.3 \times 10^{-13}$ | $7.8 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 06/01/92 | $1.9 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 06/09/92 | $2.8 \times 10^{-13}$ | $9.3 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 06/15/92 | $2.4 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 06/22/92 | $2.2 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 06/29/92 | $2.0 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 07/06/92 | $1.5 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 07/13/92 | $1.9 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 07/20/92 | $1.7 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 07/27/92 | $1.3 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 08/11/92 | $1.6 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 08/17/92 | $2.3 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 08/24/92 | $3.3 \times 10^{-13}$ | $7.1 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 08/31/92 | $2.5 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 09/08/92 | $1.9 \times 10^{-13}$ | $7.0 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 09/14/92 | $2.9 \times 10^{-13}$ | $6.6 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 09/21/92 | $1.4 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 09/28/92 | $2.1 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 10/05/92 | $2.9 \times 10^{-13}$ | $6.8 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 10/12/92 | $2.6 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS No. 2 | 10/19/92 | $2.6 \times 10^{-13}$ | $8.3 \times 10^{-14}$ | $^{7}$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 5, RWMS No. 2 | 10/26/92 | $1.5 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 2 | 11/02/92 | $2.2 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 2 | 11/09/92 | $1.5 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 2 | 11/16/92 | $1.2 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 2 | 11/23/92 | $8.7 \times 10^{-14}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 2 | 11/30/92 | $2.1 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 2 | 12/07/92 | $4.1 \times 10^{-14}$ | $2.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 2 | 12/15/92 | $1.8 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 2 | 12/21/92 | $1.5 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 2 | 12/28/92 | $1.6 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 01/13/92 | $1.3 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 01/21/92 | $1.7 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 01/21/92 | $1.1 \times 10^{-13}$ | $8.1 \times 10^{-14}$ | $^{40}$K |
| Area 5, RWMS No. 3 | 01/27/92 | $1.8 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 02/03/92 | $1.1 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 02/10/92 | $7.1 \times 10^{-14}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 02/18/92 | $1.1 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 02/24/92 | $2.5 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 03/02/92 | $9.7 \times 10^{-14}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 03/09/92 | $1.5 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 03/30/92 | $1.5 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 04/07/92 | $1.6 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 04/14/92 | $1.8 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 04/20/92 | $2.7 \times 10^{-13}$ | $6.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 04/28/92 | $2.3 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 05/05/92 | $2.4 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 05/11/92 | $2.5 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 05/18/92 | $2.1 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 06/01/92 | $2.0 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 06/09/92 | $2.6 \times 10^{-13}$ | $7.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 06/15/92 | $2.1 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 06/22/92 | $2.2 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 06/29/92 | $1.6 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 07/06/92 | $9.2 \times 10^{-14}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 07/13/92 | $2.2 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 07/20/92 | $2.0 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 07/27/92 | $2.1 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 08/03/92 | $2.1 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 08/11/92 | $1.8 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 08/17/92 | $2.4 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 08/24/92 | $3.8 \times 10^{-13}$ | $7.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 08/31/92 | $2.0 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 5, RWMS No. 3 | 09/08/92 | $1.7 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 09/14/92 | $2.8 \times 10^{-13}$ | $6.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 09/21/92 | $2.4 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 09/28/92 | $1.7 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 10/05/92 | $2.1 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 10/12/92 | $1.8 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 10/19/92 | $1.9 \times 10^{-13}$ | $8.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 10/26/92 | $1.8 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 11/02/92 | $2.0 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 11/09/92 | $1.0 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 11/16/92 | $1.4 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 11/23/92 | $1.2 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 11/30/92 | $1.8 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 12/07/92 | $8.6 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 12/15/92 | $1.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 12/21/92 | $2.4 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 3 | 12/28/92 | $1.5 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 01/13/92 | $1.4 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 01/21/92 | $2.8 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 01/27/92 | $2.0 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 02/03/92 | $1.3 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 02/03/92 | $1.0 \times 10^{-13}$ | $2.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 02/10/92 | $6.7 \times 10^{-14}$ | $2.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 02/18/92 | $1.8 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 02/24/92 | $1.9 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 03/02/92 | $1.1 \times 10^{-13}$ | $2.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 03/09/92 | $2.5 \times 10^{-13}$ | $6.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 03/16/92 | $8.3 \times 10^{-14}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 03/30/92 | $1.5 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 03/30/92 | $1.5 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 04/07/92 | $1.8 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 04/14/92 | $2.1 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 04/20/92 | $1.9 \times 10^{-13}$ | $6.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 04/28/92 | $1.3 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 04/28/92 | $3.2 \times 10^{-13}$ | $7.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 05/05/92 | $3.2 \times 10^{-13}$ | $7.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 05/11/92 | $1.7 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 05/18/92 | $3.4 \times 10^{-13}$ | $7.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 05/26/92 | $2.6 \times 10^{-14}$ | $5.7 \times 10^{-15}$ | $^7$Be |
| Area 5, RWMS No. 4 | 05/26/92 | $2.3 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 06/01/92 | $9.2 \times 10^{-15}$ | $2.9 \times 10^{-15}$ | $^7$Be |
| Area 5, RWMS No. 4 | 06/09/92 | $7.7 \times 10^{-14}$ | $3.9 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08}$ μCi/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07}$ μCi/mL

## Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 5, RWMS No. 4 | 06/15/92 | $2.6 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 06/22/92 | $2.3 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 06/29/92 | $1.9 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 06/29/92 | $1.3 \times 10^{-13}$ | $2.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 07/06/92 | $1.3 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 07/13/92 | $1.9 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 07/20/92 | $2.3 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 07/27/92 | $2.3 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 08/03/92 | $2.9 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 08/11/92 | $1.7 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 08/17/92 | $2.2 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 08/24/92 | $2.9 \times 10^{-13}$ | $6.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 08/31/92 | $3.0 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 08/31/92 | $1.6 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 09/08/92 | $2.3 \times 10^{-13}$ | $7.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 09/14/92 | $1.4 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 09/21/92 | $2.7 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 09/28/92 | $2.0 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 10/05/92 | $2.7 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 10/12/92 | $2.9 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 10/19/92 | $2.1 \times 10^{-13}$ | $8.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 10/26/92 | $1.1 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 11/02/92 | $2.3 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 11/09/92 | $1.0 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 11/16/92 | $1.2 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 11/23/92 | $7.8 \times 10^{-14}$ | $2.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 11/30/92 | $2.5 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 12/07/92 | $5.5 \times 10^{-14}$ | $2.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 12/15/92 | $1.2 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 12/21/92 | $1.9 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 4 | 12/28/92 | $1.5 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 01/13/92 | $1.9 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 01/21/92 | $2.5 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 01/27/92 | $2.1 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 02/03/92 | $1.3 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 02/10/92 | $8.9 \times 10^{-14}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 02/18/92 | $1.1 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 02/24/92 | $2.1 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 03/09/92 | $1.5 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 03/16/92 | $9.2 \times 10^{-14}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 03/30/92 | $1.2 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 04/07/92 | $1.2 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 5, RWMS No. 5 | 04/14/92 | $2.8 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 04/20/92 | $2.7 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 04/28/92 | $1.6 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 05/05/92 | $3.4 \times 10^{-13}$ | $6.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 05/11/92 | $2.3 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 05/18/92 | $2.0 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 05/26/92 | $2.0 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 06/01/92 | $2.3 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 06/09/92 | $2.9 \times 10^{-13}$ | $7.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 06/15/92 | $2.3 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 06/22/92 | $1.9 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 06/29/92 | $1.4 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 07/06/92 | $8.2 \times 10^{-14}$ | $2.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 07/13/92 | $1.7 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 07/20/92 | $1.7 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 07/27/92 | $2.1 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 08/03/92 | $2.2 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 08/11/92 | $1.9 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 08/17/92 | $2.2 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 08/24/92 | $3.0 \times 10^{-13}$ | $7.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 08/31/92 | $3.0 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 09/08/92 | $3.1 \times 10^{-13}$ | $7.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 09/14/92 | $1.1 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 09/21/92 | $2.0 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 09/28/92 | $1.5 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 10/05/92 | $2.3 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 10/12/92 | $2.1 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 10/19/92 | $2.1 \times 10^{-13}$ | $8.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 10/26/92 | $1.2 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 11/02/92 | $1.8 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 11/09/92 | $1.5 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 11/16/92 | $1.4 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 11/23/92 | $7.7 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 11/30/92 | $1.5 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 12/07/92 | $4.0 \times 10^{-14}$ | $2.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 12/15/92 | $1.4 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 12/21/92 | $2.0 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 5 | 12/28/92 | $1.5 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 01/13/92 | $1.5 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 01/21/92 | $1.5 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 01/27/92 | $1.9 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 02/03/92 | $1.1 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 5, RWMS No. 6 | 02/18/92 | $1.2 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 02/24/92 | $2.1 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 03/02/92 | $1.4 \times 10^{-13}$ | $7.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 03/09/92 | $1.3 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 03/30/92 | $7.8 \times 10^{-14}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 04/07/92 | $1.3 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 04/14/92 | $2.4 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 04/20/92 | $1.6 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 04/28/92 | $2.6 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 05/05/92 | $2.7 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 05/11/92 | $2.7 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 05/18/92 | $2.0 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 05/26/92 | $2.9 \times 10^{-13}$ | $7.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 06/01/92 | $2.4 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 06/09/92 | $3.5 \times 10^{-13}$ | $9.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 06/15/92 | $2.5 \times 10^{-13}$ | $6.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 06/22/92 | $2.3 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 06/29/92 | $1.8 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 07/06/92 | $9.5 \times 10^{-14}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 07/13/92 | $2.2 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 07/20/92 | $2.4 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 07/27/92 | $1.6 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 08/03/92 | $1.6 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 08/11/92 | $1.3 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 08/17/92 | $1.6 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 08/24/92 | $3.0 \times 10^{-13}$ | $6.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 08/31/92 | $2.2 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 09/08/92 | $3.3 \times 10^{-13}$ | $7.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 09/14/92 | $1.8 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 09/21/92 | $2.3 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 09/28/92 | $2.7 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 10/05/92 | $1.8 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 10/12/92 | $1.8 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 10/19/92 | $2.3 \times 10^{-13}$ | $7.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 10/26/92 | $1.3 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 11/02/92 | $1.6 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 11/09/92 | $1.8 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 11/16/92 | $1.1 \times 10^{-13}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 11/23/92 | $8.1 \times 10^{-14}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 11/30/92 | $1.7 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 12/07/92 | $5.6 \times 10^{-14}$ | $2.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 12/15/92 | $1.9 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 5, RWMS No. 6 | 12/21/92 | $2.4 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 6 | 12/28/92 | $1.3 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 01/06/92 | $1.2 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 01/13/92 | $1.1 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 01/21/92 | $1.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 01/27/92 | $2.1 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 02/03/92 | $1.0 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 02/18/92 | $1.7 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 02/24/92 | $2.2 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 03/02/92 | $8.9 \times 10^{-14}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 03/09/92 | $1.9 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 03/16/92 | $1.1 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 03/24/92 | $9.9 \times 10^{-14}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 03/30/92 | $9.1 \times 10^{-14}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 04/07/92 | $1.9 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 04/14/92 | $2.8 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 04/20/92 | $2.4 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 05/05/92 | $3.3 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 05/11/92 | $2.3 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 05/18/92 | $1.9 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 05/26/92 | $2.3 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 06/01/92 | $2.7 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 06/09/92 | $2.7 \times 10^{-13}$ | $7.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 06/15/92 | $4.2 \times 10^{-13}$ | $7.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 06/22/92 | $1.9 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 06/29/92 | $2.6 \times 10^{-13}$ | $7.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 07/06/92 | $1.8 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 07/13/92 | $2.3 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 07/20/92 | $1.9 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 07/27/92 | $1.7 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 08/03/92 | $1.6 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 08/11/92 | $1.4 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 08/17/92 | $3.7 \times 10^{-13}$ | $6.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 08/24/92 | $3.0 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 08/31/92 | $3.0 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 09/08/92 | $2.3 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 09/14/92 | $2.4 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 09/21/92 | $2.7 \times 10^{-13}$ | $6.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 09/28/92 | $3.2 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 10/05/92 | $2.4 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 10/12/92 | $2.8 \times 10^{-13}$ | $7.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 10/26/92 | $2.0 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

## Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 5, RWMS No. 7 | 11/02/92 | $2.1 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 11/09/92 | $1.9 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 11/16/92 | $1.7 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 11/23/92 | $1.2 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 11/30/92 | $1.5 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 12/15/92 | $1.7 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 12/21/92 | $2.1 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 7 | 12/28/92 | $2.5 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 01/06/92 | $1.3 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 01/13/92 | $1.4 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 01/21/92 | $1.6 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 01/27/92 | $2.8 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 02/03/92 | $9.2 \times 10^{-14}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 02/18/92 | $2.1 \times 10^{-13}$ | $7.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 02/24/92 | $1.5 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 03/02/92 | $6.8 \times 10^{-14}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 03/09/92 | $2.0 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 03/16/92 | $1.2 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 03/24/92 | $1.6 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 03/30/92 | $7.9 \times 10^{-14}$ | $3.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 04/07/92 | $2.1 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 04/14/92 | $1.7 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 04/20/92 | $2.3 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 05/05/92 | $2.2 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 05/11/92 | $2.6 \times 10^{-13}$ | $7.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 05/18/92 | $1.6 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 05/26/92 | $2.5 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 06/01/92 | $2.0 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 06/09/92 | $1.1 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 06/15/92 | $3.9 \times 10^{-13}$ | $8.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 06/22/92 | $2.2 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 06/29/92 | $2.2 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 07/06/92 | $1.6 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 07/13/92 | $1.8 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 07/20/92 | $1.8 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 07/27/92 | $3.1 \times 10^{-13}$ | $6.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 08/03/92 | $2.1 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 08/11/92 | $2.0 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 08/17/92 | $2.4 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 08/24/92 | $2.6 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 08/31/92 | $2.8 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 09/08/92 | $2.3 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL | | Radio-nuclide |
| --- | --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) | |
| Area 5, RWMS No. 8 | 09/14/92 | $2.4 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 09/21/92 | $2.3 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 09/28/92 | $2.6 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 10/05/92 | $2.8 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 10/12/92 | $3.2 \times 10^{-13}$ | $7.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 10/19/92 | $2.4 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 10/26/92 | $1.5 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 11/02/92 | $2.2 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 11/09/92 | $1.7 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 11/16/92 | $1.8 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 11/23/92 | $1.2 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 11/30/92 | $9.5 \times 10^{-14}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 12/15/92 | $1.6 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 12/21/92 | $2.0 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 8 | 12/28/92 | $1.7 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 01/06/92 | $1.2 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 01/13/92 | $1.8 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 01/21/92 | $1.0 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 01/27/92 | $2.0 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 02/03/92 | $9.1 \times 10^{-14}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 02/18/92 | $7.6 \times 10^{-14}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 02/24/92 | $1.0 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 03/02/92 | $7.3 \times 10^{-14}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 03/09/92 | $2.2 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 03/16/92 | $1.6 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 03/24/92 | $1.3 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 03/30/92 | $1.6 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 04/07/92 | $2.0 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 04/14/92 | $1.7 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 04/20/92 | $2.9 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 05/05/92 | $2.4 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 05/11/92 | $2.8 \times 10^{-13}$ | $6.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 05/18/92 | $1.4 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 05/26/92 | $2.4 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 06/01/92 | $2.0 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 06/09/92 | $2.0 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 06/15/92 | $2.9 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 06/22/92 | $1.8 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 06/29/92 | $1.6 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 07/13/92 | $2.3 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 07/20/92 | $1.4 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 07/27/92 | $2.1 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

## Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 5, RWMS No. 9 | 08/03/92 | $1.5 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 08/11/92 | $8.9 \times 10^{-14}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 08/17/92 | $2.9 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 08/24/92 | $2.9 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 08/31/92 | $3.0 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 09/08/92 | $3.0 \times 10^{-13}$ | $6.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 09/14/92 | $2.8 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 09/21/92 | $2.5 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 09/28/92 | $2.6 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 10/05/92 | $2.4 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 10/12/92 | $2.3 \times 10^{-13}$ | $6.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 10/19/92 | $2.6 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 10/26/92 | $1.7 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 11/02/92 | $1.9 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 11/09/92 | $1.6 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 11/16/92 | $9.9 \times 10^{-14}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 11/23/92 | $8.9 \times 10^{-14}$ | $3.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 11/30/92 | $1.4 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 12/07/92 | $8.1 \times 10^{-14}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 12/15/92 | $1.3 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 12/21/92 | $2.8 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS No. 9 | 12/28/92 | $1.7 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 01/13/92 | $1.2 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 01/21/92 | $2.2 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 01/27/92 | $1.8 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 02/03/92 | $1.1 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 02/18/92 | $2.6 \times 10^{-13}$ | $6.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 02/24/92 | $2.2 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 03/09/92 | $2.1 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 03/16/92 | $1.6 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 03/23/92 | $1.1 \times 10^{-13}$ | $2.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 04/07/92 | $1.8 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 04/14/92 | $1.9 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 04/20/92 | $2.3 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 04/28/92 | $3.2 \times 10^{-13}$ | $6.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 05/05/92 | $3.2 \times 10^{-13}$ | $6.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 05/11/92 | $2.6 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 05/18/92 | $2.6 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 05/26/92 | $2.5 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 06/01/92 | $2.2 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 06/09/92 | $2.8 \times 10^{-13}$ | $6.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 3 | 06/15/92 | $5.0 \times 10^{-13}$ | $1.0 \times 10^{-13}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
| | | Concentration | Standard Deviation (s) | |
|---|---|---|---|---|
| Area 5, RWMS Pit No. 3 | 06/22/92 | $1.9 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 06/29/92 | $1.8 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 07/06/92 | $1.2 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 07/13/92 | $1.9 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 07/20/92 | $2.3 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 07/27/92 | $2.2 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 08/03/92 | $2.5 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 08/11/92 | $1.3 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 08/17/92 | $2.2 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 08/24/92 | $3.0 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 08/31/92 | $3.4 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 09/08/92 | $2.9 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 09/14/92 | $1.5 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 09/21/92 | $2.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 09/28/92 | $2.5 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 10/05/92 | $2.7 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 10/12/92 | $2.1 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 10/19/92 | $1.3 \times 10^{-13}$ | $9.7 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 10/26/92 | $1.3 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 11/02/92 | $2.5 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 11/09/92 | $1.5 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 11/16/92 | $1.9 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 11/23/92 | $1.1 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 11/30/92 | $2.0 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 12/15/92 | $1.4 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 12/21/92 | $2.6 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 3 | 12/28/92 | $2.0 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 4 | 01/13/92 | $1.5 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 4 | 01/21/92 | $3.0 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 4 | 01/27/92 | $1.9 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 4 | 02/03/92 | $1.2 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 4 | 02/18/92 | $1.4 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 4 | 02/24/92 | $1.8 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 4 | 03/09/92 | $1.5 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 4 | 03/16/92 | $1.3 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 4 | 03/24/92 | $1.3 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 4 | 03/30/92 | $1.0 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 4 | 04/07/92 | $2.1 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 4 | 04/14/92 | $1.4 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 4 | 04/20/92 | $2.9 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 4 | 05/05/92 | $2.4 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS Pit No. 4 | 05/11/92 | $2.1 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^{7}$Be |

Mean MDC: $1.2 \times 10^{-08}$ μCi/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07}$ μCi/mL

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 5, RWMS Pit No. 4 | 05/18/92 | $1.9 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 05/26/92 | $1.4 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 06/01/92 | $3.1 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 06/09/92 | $1.5 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 06/15/92 | $2.5 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 06/22/92 | $1.3 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 06/29/92 | $2.0 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 07/06/92 | $1.9 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 07/13/92 | $2.3 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 07/20/92 | $1.7 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 07/27/92 | $1.8 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 08/03/92 | $1.7 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 08/11/92 | $1.6 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 08/17/92 | $2.3 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 08/24/92 | $2.5 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 08/31/92 | $3.0 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 09/08/92 | $2.5 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 09/14/92 | $1.7 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 09/21/92 | $1.9 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 09/28/92 | $1.4 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 10/05/92 | $2.7 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 10/12/92 | $1.6 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 10/19/92 | $2.2 \times 10^{-13}$ | $8.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 10/26/92 | $1.5 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 11/02/92 | $1.3 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 11/09/92 | $1.7 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 11/16/92 | $1.8 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 11/30/92 | $2.4 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 12/15/92 | $1.2 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 12/21/92 | $1.4 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS Pit No. 4 | 12/28/92 | $1.5 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 01/13/92 | $2.2 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 01/21/92 | $2.2 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 01/27/92 | $2.1 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 02/03/92 | $7.4 \times 10^{-14}$ | $3.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 02/10/92 | $6.2 \times 10^{-14}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 02/18/92 | $1.4 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 02/24/92 | $2.0 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 03/02/92 | $7.6 \times 10^{-14}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 03/09/92 | $1.9 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 03/16/92 | $1.3 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 03/24/92 | $1.1 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 5, RWMS TP N | 03/30/92 | $1.5 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 04/07/92 | $2.5 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 04/14/92 | $1.5 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 04/20/92 | $1.9 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 05/05/92 | $2.1 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 05/11/92 | $1.9 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 05/18/92 | $1.9 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 05/26/92 | $1.9 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 06/01/92 | $2.2 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 06/09/92 | $1.8 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 06/15/92 | $2.5 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 06/22/92 | $2.0 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 06/29/92 | $1.4 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 07/06/92 | $1.8 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 07/13/92 | $2.6 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 07/20/92 | $1.6 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 07/27/92 | $2.3 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 08/03/92 | $1.4 \times 10^{-13}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 08/11/92 | $1.2 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 08/17/92 | $2.6 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 08/24/92 | $2.5 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 08/31/92 | $2.7 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 09/08/92 | $2.8 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 09/14/92 | $2.6 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 09/21/92 | $2.0 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 09/28/92 | $2.3 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 10/05/92 | $2.4 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 10/12/92 | $2.5 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 10/19/92 | $1.4 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 10/26/92 | $1.2 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 11/02/92 | $2.3 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 11/09/92 | $2.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 11/16/92 | $1.9 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 11/23/92 | $1.3 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 11/30/92 | $1.8 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 12/07/92 | $5.8 \times 10^{-14}$ | $2.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 12/15/92 | $2.0 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 12/21/92 | $7.6 \times 10^{-14}$ | $2.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP N | 12/28/92 | $1.3 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 01/13/92 | $1.4 \times 10^{-13}$ | $3.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 01/21/92 | $2.4 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 01/27/92 | $2.0 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 5, RWMS TP NE | 02/03/92 | $1.0 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 02/18/92 | $1.7 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 02/24/92 | $1.6 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 03/02/92 | $9.0 \times 10^{-14}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 03/09/92 | $1.7 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 03/16/92 | $1.7 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 03/24/92 | $1.6 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 03/30/92 | $1.7 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 04/07/92 | $1.7 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 04/14/92 | $2.1 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 04/20/92 | $2.4 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 05/05/92 | $2.2 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 05/11/92 | $2.7 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 05/18/92 | $1.9 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 05/26/92 | $2.4 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 06/01/92 | $2.4 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 06/09/92 | $2.4 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 06/15/92 | $3.1 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 06/22/92 | $2.2 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 06/29/92 | $2.1 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 07/06/92 | $1.3 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 07/13/92 | $2.1 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 07/20/92 | $1.9 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 07/27/92 | $2.9 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 08/03/92 | $1.4 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 08/11/92 | $1.4 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 08/17/92 | $2.2 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 08/24/92 | $1.5 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 08/31/92 | $2.7 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 09/08/92 | $1.9 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 09/14/92 | $2.3 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 09/21/92 | $3.1 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 09/28/92 | $2.0 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 10/05/92 | $1.9 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 10/12/92 | $2.8 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 10/19/92 | $1.7 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 10/26/92 | $1.5 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 11/02/92 | $2.5 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 11/09/92 | $2.7 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 11/16/92 | $9.2 \times 10^{-14}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 11/30/92 | $1.0 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 12/07/92 | $7.6 \times 10^{-14}$ | $3.2 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08}$ μCi/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07}$ μCi/mL

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 5, RWMS TP NE | 12/15/92 | $2.1 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 12/21/92 | $2.5 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NE | 12/28/92 | $1.5 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 01/13/92 | $2.5 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 01/21/92 | $1.7 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 01/27/92 | $2.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 02/03/92 | $8.6 \times 10^{-14}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 02/10/92 | $8.9 \times 10^{-14}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 02/18/92 | $1.2 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 02/18/92 | $7.7 \times 10^{-14}$ | $5.7 \times 10^{-14}$ | $^{40}$K |
| Area 5, RWMS TP NW | 02/24/92 | $2.4 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 03/09/92 | $2.1 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 03/16/92 | $1.1 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 03/24/92 | $1.3 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 03/30/92 | $1.1 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 04/07/92 | $2.6 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 04/14/92 | $2.7 \times 10^{-13}$ | $6.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 04/20/92 | $2.8 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 05/05/92 | $2.5 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 05/11/92 | $3.4 \times 10^{-13}$ | $1.1 \times 10^{-13}$ | $^7$Be |
| Area 5, RWMS TP NW | 05/18/92 | $1.9 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 05/26/92 | $2.2 \times 10^{-13}$ | $6.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 06/01/92 | $2.5 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 06/09/92 | $2.3 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 06/15/92 | $2.6 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 06/22/92 | $2.4 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 06/29/92 | $1.4 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 07/13/92 | $2.4 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 07/20/92 | $2.1 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 07/27/92 | $2.0 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 08/03/92 | $2.0 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 08/11/92 | $1.7 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 08/17/92 | $2.5 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 08/24/92 | $2.1 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 08/31/92 | $3.0 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 09/08/92 | $2.3 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 09/14/92 | $2.6 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 09/21/92 | $2.3 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 09/28/92 | $2.1 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 10/05/92 | $1.5 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 10/12/92 | $2.8 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP NW | 10/19/92 | $3.1 \times 10^{-13}$ | $6.9 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL        Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 5, RWMS TP NW | 10/26/92 | $1.3 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP NW | 11/02/92 | $2.2 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP NW | 11/09/92 | $1.8 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP NW | 11/16/92 | $1.7 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP NW | 11/30/92 | $1.4 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP NW | 12/15/92 | $2.2 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP NW | 12/21/92 | $1.5 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP NW | 12/28/92 | $1.3 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 01/06/92 | $1.5 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 01/13/92 | $1.8 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 01/21/92 | $2.4 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 01/27/92 | $2.5 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 02/03/92 | $1.4 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 02/10/92 | $9.2 \times 10^{-14}$ | $4.4 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 02/18/92 | $5.7 \times 10^{-15}$ | $4.2 \times 10^{-15}$ | $^{208}$Tl |
| Area 5, RWMS TP S | 02/18/92 | $1.6 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 02/24/92 | $3.0 \times 10^{-13}$ | $6.9 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 03/02/92 | $8.6 \times 10^{-14}$ | $3.7 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 03/09/92 | $2.0 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 03/16/92 | $1.5 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 03/30/92 | $1.4 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 04/07/92 | $2.5 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 04/14/92 | $2.6 \times 10^{-13}$ | $7.2 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 04/20/92 | $2.1 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 05/05/92 | $3.3 \times 10^{-13}$ | $7.0 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 05/05/92 | $7.3 \times 10^{-15}$ | $4.4 \times 10^{-15}$ | $^{208}$Tl |
| Area 5, RWMS TP S | 05/11/92 | $2.0 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 05/18/92 | $1.7 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 05/26/92 | $2.4 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 06/01/92 | $2.5 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 06/09/92 | $2.2 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 06/15/92 | $3.1 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 06/22/92 | $1.2 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 06/29/92 | $1.7 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 07/06/92 | $1.3 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 07/13/92 | $1.8 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 07/20/92 | $2.0 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 07/27/92 | $1.6 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 08/03/92 | $1.8 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 08/11/92 | $1.1 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 08/17/92 | $2.8 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |
| Area 5, RWMS TP S | 08/24/92 | $2.4 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^{7}$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| | | μCi/mL | | |
| Area 5, RWMS TP S | 08/31/92 | $2.7 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP S | 09/08/92 | $2.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP S | 09/14/92 | $2.4 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP S | 09/21/92 | $2.4 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP S | 09/28/92 | $2.4 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP S | 10/05/92 | $2.1 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP S | 10/12/92 | $2.5 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP S | 10/19/92 | $1.5 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP S | 10/26/92 | $1.3 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP S | 11/02/92 | $1.8 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP S | 11/09/92 | $1.4 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP S | 11/16/92 | $1.3 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP S | 11/23/92 | $1.3 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP S | 11/30/92 | $1.9 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP S | 12/15/92 | $2.0 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP S | 12/21/92 | $2.0 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP S | 12/28/92 | $1.5 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 01/06/92 | $1.2 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 01/13/92 | $2.0 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 01/21/92 | $2.4 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 01/27/92 | $2.5 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 02/03/92 | $7.7 \times 10^{-14}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 02/18/92 | $1.2 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 02/24/92 | $2.3 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 03/02/92 | $8.0 \times 10^{-14}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 03/09/92 | $2.3 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 03/16/92 | $1.3 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 03/30/92 | $1.8 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 04/07/92 | $2.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 04/14/92 | $2.0 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 04/20/92 | $2.2 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 05/05/92 | $2.9 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 05/11/92 | $2.3 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 05/18/92 | $1.5 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 05/26/92 | $2.5 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 06/01/92 | $1.8 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 06/09/92 | $3.4 \times 10^{-13}$ | $9.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 06/15/92 | $2.5 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 06/22/92 | $2.3 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 06/29/92 | $2.6 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 07/06/92 | $1.7 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 07/13/92 | $2.6 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
| | | Concentration | Standard Deviation (s) | |
|---|---|---|---|---|
| Area 5, RWMS TP SE | 07/20/92 | $1.0 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 07/27/92 | $2.0 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 08/03/92 | $1.7 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 08/17/92 | $2.9 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 08/24/92 | $2.9 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 08/31/92 | $2.6 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 09/08/92 | $2.2 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 09/14/92 | $2.1 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 09/21/92 | $3.2 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 09/28/92 | $2.5 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 10/05/92 | $1.7 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 10/12/92 | $2.8 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 10/19/92 | $3.0 \times 10^{-13}$ | $7.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 10/26/92 | $1.2 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 11/02/92 | $2.6 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 11/09/92 | $3.3 \times 10^{-13}$ | $7.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 11/16/92 | $2.0 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 11/23/92 | $1.2 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 11/30/92 | $2.5 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 12/15/92 | $1.2 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 12/21/92 | $1.9 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SE | 12/28/92 | $1.5 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 01/06/92 | $9.1 \times 10^{-14}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 01/13/92 | $1.4 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 01/21/92 | $1.8 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 01/27/92 | $2.4 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 02/03/92 | $1.4 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 02/18/92 | $1.6 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 02/24/92 | $2.1 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 03/09/92 | $1.6 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 03/16/92 | $1.3 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 03/24/92 | $1.2 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 03/30/92 | $1.3 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 04/07/92 | $1.4 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 04/14/92 | $2.5 \times 10^{-13}$ | $7.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 04/20/92 | $3.0 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 05/05/92 | $2.9 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 05/11/92 | $1.4 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 05/18/92 | $2.5 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 05/26/92 | $2.0 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 06/01/92 | $2.6 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 06/09/92 | $2.1 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

| Sampling Location | Collection Dates | Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| | | $\mu$Ci/mL | | |
| Area 5, RWMS TP SW | 06/15/92 | $3.3 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 06/22/92 | $2.4 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 06/29/92 | $2.4 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 07/13/92 | $1.7 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 07/20/92 | $1.8 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 07/27/92 | $2.6 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 08/03/92 | $1.8 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 08/11/92 | $2.0 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 08/17/92 | $2.8 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 08/24/92 | $2.3 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 08/31/92 | $2.6 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 09/08/92 | $2.9 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 09/14/92 | $2.8 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 09/21/92 | $2.6 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 09/28/92 | $2.0 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 10/05/92 | $1.2 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 10/12/92 | $2.8 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 10/19/92 | $2.6 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 10/26/92 | $1.0 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 11/02/92 | $2.3 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 11/09/92 | $1.5 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 11/16/92 | $1.6 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 11/23/92 | $9.1 \times 10^{-14}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 11/30/92 | $1.4 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 12/07/92 | $8.2 \times 10^{-14}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 12/15/92 | $1.7 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 12/21/92 | $2.1 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, RWMS TP SW | 12/28/92 | $1.1 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 01/13/92 | $1.6 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 01/21/92 | $2.4 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 01/27/92 | $2.0 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 02/03/92 | $1.3 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 02/10/92 | $6.8 \times 10^{-14}$ | $2.7 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 02/18/92 | $1.1 \times 10^{-13}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 02/24/92 | $2.4 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 03/02/92 | $1.6 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 03/09/92 | $1.6 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 03/16/92 | $5.2 \times 10^{-14}$ | $2.3 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 03/24/92 | $1.4 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 03/30/92 | $1.3 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 04/07/92 | $1.7 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 04/14/92 | $2.1 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
| | | Concentration | Standard Deviation (s) | |
| --- | --- | --- | --- | --- |
| Area 5, Well 5B | 04/20/92 | $2.0 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 04/28/92 | $2.0 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 05/05/92 | $2.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 05/11/92 | $2.1 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 05/18/92 | $2.6 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 05/26/92 | $1.9 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 06/01/92 | $2.1 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 06/09/92 | $2.3 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 06/15/92 | $2.2 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 06/22/92 | $2.3 \times 10^{-13}$ | $6.9 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 06/29/92 | $2.3 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 07/06/92 | $1.1 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 07/13/92 | $1.8 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 07/20/92 | $2.0 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 07/27/92 | $2.0 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 08/03/92 | $2.5 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 08/11/92 | $1.7 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 08/17/92 | $2.5 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 08/24/92 | $2.8 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 08/31/92 | $2.0 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 09/08/92 | $2.5 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 09/14/92 | $2.3 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 09/21/92 | $2.0 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 09/28/92 | $1.5 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 10/05/92 | $2.3 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 10/12/92 | $1.9 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 10/19/92 | $2.6 \times 10^{-13}$ | $8.0 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 10/26/92 | $1.5 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 11/02/92 | $2.4 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 5, Well 5B | 11/09/92 | $1.4 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 6, Building 6-900 | 10/26/92 | $1.1 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 6, Building 6-900 | 11/03/92 | $2.5 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 6, Building 6-900 | 11/09/92 | $1.7 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 6, Building 6-900 | 11/16/92 | $1.5 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 6, Building 6-900 | 11/23/92 | $1.1 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 6, Building 6-900 | 11/30/92 | $2.0 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 6, Building 6-900 | 12/07/92 | $8.3 \times 10^{-14}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 6, Building 6-900 | 12/14/92 | $1.8 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 6, Building 6-900 | 12/21/92 | $2.3 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 6, Building 6-900 | 12/29/92 | $1.7 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 01/06/92 | $1.5 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 01/13/92 | $1.7 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08}$μCi/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07}$μCi/mL

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
| | | Concentration | Standard Deviation (s) | |
|---|---|---|---|---|
| Area 6, CP-6 | 01/27/92 | $1.8 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 02/10/92 | $5.4 \times 10^{-14}$ | $2.4 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 02/18/92 | $1.2 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 02/24/92 | $2.9 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 03/09/92 | $2.2 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 03/17/92 | $5.7 \times 10^{-14}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 03/23/92 | $1.2 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 03/30/92 | $1.3 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 04/06/92 | $1.8 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 04/13/92 | $2.0 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 04/20/92 | $2.2 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 05/04/92 | $2.8 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 05/11/92 | $2.0 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 05/18/92 | $1.7 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 05/26/92 | $2.9 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 06/01/92 | $2.2 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 06/08/92 | $1.9 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 06/15/92 | $1.9 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 06/22/92 | $2.0 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 06/29/92 | $1.7 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 07/06/92 | $8.7 \times 10^{-14}$ | $2.9 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 07/13/92 | $2.5 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 07/20/92 | $2.4 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 07/27/92 | $2.2 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 08/03/92 | $2.6 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 08/17/92 | $2.4 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 08/24/92 | $2.2 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 08/31/92 | $2.7 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 09/08/92 | $3.4 \times 10^{-13}$ | $6.7 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 09/14/92 | $7.2 \times 10^{-15}$ | $1.9 \times 10^{-15}$ | $^7$Be |
| Area 6, CP-6 | 09/21/92 | $3.5 \times 10^{-13}$ | $9.1 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 09/28/92 | $3.0 \times 10^{-13}$ | $6.9 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 10/05/92 | $2.5 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 10/13/92 | $3.0 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 10/19/92 | $2.4 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 10/26/92 | $1.2 \times 10^{-13}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 11/03/92 | $1.6 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 11/09/92 | $2.2 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 11/16/92 | $1.6 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 11/23/92 | $1.0 \times 10^{-13}$ | $3.0 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 11/30/92 | $1.5 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 12/07/92 | $7.1 \times 10^{-14}$ | $3.4 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 6, CP-6 | 12/14/92 | $1.4 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 12/21/92 | $2.0 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 6, CP-6 | 12/29/92 | $9.4 \times 10^{-14}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 01/06/92 | $1.6 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 01/13/92 | $1.3 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 01/21/92 | $2.4 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 01/27/92 | $1.6 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 02/03/92 | $1.6 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 02/18/92 | $1.7 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 02/24/92 | $1.9 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 03/02/92 | $8.3 \times 10^{-14}$ | $2.9 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 03/09/92 | $2.0 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 03/17/92 | $1.5 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 03/23/92 | $7.1 \times 10^{-14}$ | $2.9 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 03/30/92 | $5.6 \times 10^{-14}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 04/06/92 | $2.0 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 04/13/92 | $2.2 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 04/20/92 | $1.0 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 05/04/92 | $2.9 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 05/11/92 | $2.5 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 05/18/92 | $1.7 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 05/26/92 | $1.3 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 06/01/92 | $2.0 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 06/08/92 | $2.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 06/15/92 | $2.2 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 06/22/92 | $2.6 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 06/29/92 | $2.1 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 07/06/92 | $1.2 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 07/13/92 | $1.6 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 07/20/92 | $2.3 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 07/27/92 | $2.1 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 08/03/92 | $2.5 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 08/10/92 | $1.9 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 08/17/92 | $2.5 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 08/24/92 | $2.3 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 08/31/92 | $3.2 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 09/08/92 | $1.9 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 09/14/92 | $2.3 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 09/21/92 | $2.4 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 09/28/92 | $2.9 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 10/05/92 | $2.3 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 10/13/92 | $2.5 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL | | Radio-nuclide |
| --- | --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) | |
| Area 6, Well 3 Complex | 10/19/92 | $1.7 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 10/26/92 | $1.1 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 11/03/92 | $1.4 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 11/09/92 | $1.9 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 11/16/92 | $1.2 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 11/23/92 | $1.2 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 11/30/92 | $2.2 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 12/07/92 | $6.9 \times 10^{-14}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 12/14/92 | $2.2 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 12/21/92 | $2.0 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 6, Well 3 Complex | 12/29/92 | $2.0 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 01/06/92 | $8.2 \times 10^{-14}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 01/13/92 | $1.5 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 01/21/92 | $1.7 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 01/27/92 | $1.8 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 02/03/92 | $7.5 \times 10^{-14}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 02/10/92 | $4.4 \times 10^{-14}$ | $2.0 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 02/18/92 | $1.5 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 02/24/92 | $2.2 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 03/02/92 | $6.5 \times 10^{-14}$ | $2.7 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 03/09/92 | $1.5 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 03/17/92 | $9.8 \times 10^{-14}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 03/23/92 | $6.6 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 03/30/92 | $1.1 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 04/06/92 | $1.8 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 04/13/92 | $1.8 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 04/20/92 | $1.8 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 05/04/92 | $2.4 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 05/11/92 | $2.0 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 05/18/92 | $1.5 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 05/26/92 | $3.5 \times 10^{-13}$ | $7.1 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 06/01/92 | $2.5 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 06/08/92 | $1.5 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 06/15/92 | $2.2 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 06/22/92 | $2.8 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 06/29/92 | $1.7 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 07/06/92 | $8.5 \times 10^{-14}$ | $2.9 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 07/13/92 | $2.0 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 07/20/92 | $2.2 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 07/27/92 | $2.6 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 08/03/92 | $1.8 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 08/10/92 | $1.0 \times 10^{-13}$ | $3.0 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

## Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 6, Yucca Complex | 08/17/92 | $2.9 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 08/24/92 | $2.6 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 08/31/92 | $2.5 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 09/08/92 | $3.0 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 09/14/92 | $1.9 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 09/21/92 | $2.3 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 09/28/92 | $1.9 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 10/05/92 | $1.7 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 10/13/92 | $2.7 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 10/19/92 | $2.2 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 10/26/92 | $1.2 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 11/03/92 | $2.4 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 11/09/92 | $1.7 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 11/16/92 | $1.5 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 11/23/92 | $8.5 \times 10^{-14}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 11/30/92 | $1.7 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 12/07/92 | $4.9 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 12/14/92 | $1.4 \times 10^{-13}$ | $2.9 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 12/21/92 | $4.3 \times 10^{-13}$ | $7.6 \times 10^{-14}$ | $^7$Be |
| Area 6, Yucca Complex | 12/29/92 | $1.6 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 01/06/92 | $9.9 \times 10^{-14}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 01/13/92 | $1.6 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 01/21/92 | $1.9 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 01/27/92 | $1.8 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 02/10/92 | $5.2 \times 10^{-14}$ | $2.4 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 02/18/92 | $9.9 \times 10^{-14}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 02/24/92 | $1.3 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 03/02/92 | $1.4 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 03/09/92 | $1.8 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 03/23/92 | $7.8 \times 10^{-14}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 03/30/92 | $1.6 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 04/06/92 | $2.3 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 04/13/92 | $2.1 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 04/20/92 | $1.5 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 05/04/92 | $2.7 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 05/11/92 | $2.2 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 05/18/92 | $1.9 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 05/26/92 | $1.7 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 06/01/92 | $2.1 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 06/08/92 | $1.9 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 06/15/92 | $1.9 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 7, UE-7ns | 06/22/92 | $1.7 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08}$ μCi/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07}$ μCi/mL

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 7, UE-7ns | 06/29/92 | $2.4 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 07/06/92 | $1.3 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 07/13/92 | $2.0 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 07/20/92 | $2.3 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 07/27/92 | $2.0 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 08/03/92 | $1.7 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 08/10/92 | $2.2 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 08/17/92 | $2.7 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 08/24/92 | $2.9 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 08/31/92 | $2.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 09/08/92 | $1.9 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 09/14/92 | $2.6 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 09/21/92 | $3.7 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 09/28/92 | $2.6 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 10/05/92 | $2.1 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 10/13/92 | $2.6 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 10/19/92 | $1.9 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 10/26/92 | $1.2 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 11/03/92 | $2.0 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 11/09/92 | $2.2 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 11/16/92 | $1.3 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 11/23/92 | $1.1 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 11/30/92 | $1.2 \times 10^{-13}$ | $3.1 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 12/14/92 | $1.8 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 12/21/92 | $2.1 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^{7}$Be |
| Area 7, UE-7ns | 12/29/92 | $1.9 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^{7}$Be |
| Area 9, 9-300 Bunker | 01/06/92 | $9.1 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^{7}$Be |
| Area 9, 9-300 Bunker | 01/13/92 | $2.8 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^{7}$Be |
| Area 9, 9-300 Bunker | 01/21/92 | $3.1 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^{7}$Be |
| Area 9, 9-300 Bunker | 01/27/92 | $4.7 \times 10^{-14}$ | $1.5 \times 10^{-14}$ | $^{7}$Be |
| Area 9, 9-300 Bunker | 02/03/92 | $1.2 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^{7}$Be |
| Area 9, 9-300 Bunker | 02/10/92 | $4.9 \times 10^{-14}$ | $2.5 \times 10^{-14}$ | $^{7}$Be |
| Area 9, 9-300 Bunker | 02/18/92 | $1.9 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^{7}$Be |
| Area 9, 9-300 Bunker | 02/24/92 | $1.4 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^{7}$Be |
| Area 9, 9-300 Bunker | 03/02/92 | $1.2 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^{7}$Be |
| Area 9, 9-300 Bunker | 03/09/92 | $1.9 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^{7}$Be |
| Area 9, 9-300 Bunker | 03/17/92 | $8.8 \times 10^{-14}$ | $4.0 \times 10^{-14}$ | $^{7}$Be |
| Area 9, 9-300 Bunker | 03/23/92 | $8.3 \times 10^{-14}$ | $4.0 \times 10^{-14}$ | $^{7}$Be |
| Area 9, 9-300 Bunker | 03/30/92 | $4.4 \times 10^{-13}$ | $1.7 \times 10^{-13}$ | $^{7}$Be |
| Area 9, 9-300 Bunker | 04/06/92 | $1.5 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |
| Area 9, 9-300 Bunker | 04/13/92 | $2.5 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}$Be |
| Area 9, 9-300 Bunker | 04/20/92 | $1.9 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

## Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 9, 9-300 Bunker | 04/27/92 | $4.4 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 05/04/92 | $2.8 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 05/11/92 | $1.9 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 05/18/92 | $2.2 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 05/26/92 | $2.5 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 06/01/92 | $1.2 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 06/08/92 | $2.2 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 06/29/92 | $2.3 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 07/20/92 | $1.8 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 07/27/92 | $2.4 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 08/03/92 | $2.4 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 08/10/92 | $1.7 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 08/17/92 | $2.5 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 08/24/92 | $3.2 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 08/31/92 | $2.0 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 09/08/92 | $2.8 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 09/21/92 | $2.8 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 09/28/92 | $2.4 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 10/05/92 | $2.0 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 10/13/92 | $2.2 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 10/19/92 | $1.9 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 10/26/92 | $7.5 \times 10^{-14}$ | $3.0 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 11/03/92 | $2.0 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 11/09/92 | $2.2 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 11/16/92 | $1.2 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 11/23/92 | $1.1 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 11/30/92 | $1.8 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 12/14/92 | $1.9 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 12/21/92 | $2.2 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^{7}Be$ |
| Area 9, 9-300 Bunker | 12/29/92 | $1.5 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^{7}Be$ |
| Area 10, Gate 700 | 01/06/92 | $1.1 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^{7}Be$ |
| Area 10, Gate 700 | 01/13/92 | $1.5 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^{7}Be$ |
| Area 10, Gate 700 | 01/21/92 | $1.5 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^{7}Be$ |
| Area 10, Gate 700 | 01/27/92 | $2.0 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^{7}Be$ |
| Area 10, Gate 700 | 02/03/92 | $6.7 \times 10^{-14}$ | $3.2 \times 10^{-14}$ | $^{7}Be$ |
| Area 10, Gate 700 | 02/18/92 | $1.9 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^{7}Be$ |
| Area 10, Gate 700 | 02/24/92 | $1.5 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^{7}Be$ |
| Area 10, Gate 700 | 03/02/92 | $1.1 \times 10^{-13}$ | $3.1 \times 10^{-14}$ | $^{7}Be$ |
| Area 10, Gate 700 | 03/09/92 | $2.1 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^{7}Be$ |
| Area 10, Gate 700 | 03/17/92 | $9.8 \times 10^{-14}$ | $3.0 \times 10^{-14}$ | $^{7}Be$ |
| Area 10, Gate 700 | 03/23/92 | $9.9 \times 10^{-14}$ | $3.1 \times 10^{-14}$ | $^{7}Be$ |
| Area 10, Gate 700 | 03/30/92 | $1.3 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^{7}Be$ |

Mean MDC: $1.2 \times 10^{-08} \mu Ci/mL$                Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu Ci/mL$

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 10, Gate 700 | 04/06/92 | $1.5 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 04/13/92 | $2.1 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 04/20/92 | $1.6 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 04/27/92 | $2.4 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 05/04/92 | $2.3 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 05/11/92 | $1.5 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 05/18/92 | $2.2 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 05/26/92 | $2.1 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 06/01/92 | $2.1 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 06/08/92 | $2.3 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 06/15/92 | $2.6 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 06/22/92 | $2.1 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 06/29/92 | $2.2 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 07/06/92 | $1.9 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 07/13/92 | $1.5 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 07/20/92 | $2.3 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 07/27/92 | $2.0 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 08/03/92 | $1.7 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 08/10/92 | $2.2 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 08/17/92 | $2.8 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 08/24/92 | $2.4 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 08/31/92 | $2.4 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 09/08/92 | $2.0 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 09/14/92 | $2.3 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 09/21/92 | $2.8 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 09/28/92 | $2.1 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 10/05/92 | $1.6 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 10/13/92 | $2.2 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 10/19/92 | $1.4 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 10/26/92 | $1.2 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 11/03/92 | $1.3 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 11/09/92 | $2.5 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 11/16/92 | $1.9 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 11/23/92 | $9.0 \times 10^{-14}$ | $3.0 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 11/30/92 | $6.7 \times 10^{-15}$ | $1.8 \times 10^{-15}$ | $^7$Be |
| Area 10, Gate 700 | 12/14/92 | $2.3 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 12/21/92 | $2.8 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 10, Gate 700 | 12/29/92 | $2.0 \times 10^{-13}$ | $9.0 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 01/06/92 | $1.3 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 01/13/92 | $1.5 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 01/21/92 | $2.5 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 01/27/92 | $2.0 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
| | | Concentration | Standard Deviation (s) | |
|---|---|---|---|---|
| Area 11, Gate 293 | 02/03/92 | $1.1 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 02/10/92 | $3.3 \times 10^{-14}$ | $1.9 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 02/18/92 | $9.4 \times 10^{-14}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 02/24/92 | $2.5 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 03/02/92 | $6.5 \times 10^{-14}$ | $2.5 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 03/09/92 | $1.6 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 03/17/92 | $1.1 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 03/23/92 | $1.1 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 03/30/92 | $1.9 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 04/06/92 | $2.1 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 04/13/92 | $2.2 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 04/20/92 | $2.4 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 05/04/92 | $4.9 \times 10^{-13}$ | $9.6 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 05/11/92 | $1.5 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 05/18/92 | $1.6 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 05/26/92 | $2.3 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 06/01/92 | $2.0 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 06/08/92 | $1.7 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 06/15/92 | $2.5 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 06/22/92 | $2.3 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 06/29/92 | $2.2 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 07/06/92 | $1.3 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 07/13/92 | $1.5 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 07/20/92 | $2.2 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 07/27/92 | $1.8 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 08/03/92 | $2.2 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 08/10/92 | $1.9 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 08/17/92 | $3.2 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 08/24/92 | $2.2 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 08/31/92 | $2.3 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 09/08/92 | $1.6 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 09/14/92 | $2.7 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 09/21/92 | $2.3 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 09/28/92 | $2.7 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 10/05/92 | $2.0 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 10/13/92 | $2.3 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 10/19/92 | $1.8 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 10/26/92 | $1.6 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 11/03/92 | $2.5 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 11/09/92 | $1.2 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 11/16/92 | $1.2 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 11/23/92 | $7.2 \times 10^{-14}$ | $2.6 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL | | Radio-nuclide |
| | | Concentration | Standard Deviation (s) | |
|---|---|---|---|---|
| Area 11, Gate 293 | 11/30/92 | $1.8 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 12/07/92 | $5.6 \times 10^{-14}$ | $2.9 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 12/14/92 | $1.9 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 12/21/92 | $2.3 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 11, Gate 293 | 12/29/92 | $1.7 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 01/06/92 | $7.5 \times 10^{-14}$ | $3.0 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 01/13/92 | $1.3 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 01/21/92 | $1.1 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 01/27/92 | $1.8 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 02/03/92 | $1.1 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 02/10/92 | $6.2 \times 10^{-14}$ | $4.6 \times 10^{-14}$ | $^{40}$K |
| Area 12, Complex | 02/18/92 | $2.4 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 02/24/92 | $6.8 \times 10^{-14}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 03/02/92 | $1.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 03/09/92 | $1.9 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 03/23/92 | $8.9 \times 10^{-14}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 03/30/92 | $1.3 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 04/06/92 | $1.5 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 04/13/92 | $1.8 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 04/20/92 | $2.4 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 04/27/92 | $2.9 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 05/04/92 | $2.5 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 05/11/92 | $2.1 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 05/18/92 | $2.4 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 05/26/92 | $2.8 \times 10^{-13}$ | $6.5 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 06/01/92 | $1.4 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 06/09/92 | $2.4 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 06/15/92 | $2.6 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 06/22/92 | $2.7 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 06/29/92 | $2.4 \times 10^{-13}$ | $6.8 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 07/06/92 | $1.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 07/20/92 | $2.1 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 07/27/92 | $1.6 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 08/03/92 | $1.8 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 08/10/92 | $2.2 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 08/17/92 | $2.6 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 08/24/92 | $3.0 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 09/01/92 | $9.4 \times 10^{-14}$ | $2.2 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 09/08/92 | $3.6 \times 10^{-13}$ | $7.2 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 09/14/92 | $2.0 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 12, Complex | 09/21/92 | $3.2 \times 10^{-12}$ | $5.8 \times 10^{-13}$ | $^7$Be |
| Area 12, Complex | 09/28/92 | $2.1 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 12, Complex | 10/05/92 | $4.2 \times 10^{-13}$ | $9.6 \times 10^{-14}$ | $^{7}$Be |
| Area 12, Complex | 10/13/92 | $2.2 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^{7}$Be |
| Area 12, Complex | 10/19/92 | $1.6 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^{7}$Be |
| Area 12, Complex | 10/26/92 | $9.5 \times 10^{-14}$ | $3.0 \times 10^{-14}$ | $^{7}$Be |
| Area 12, Complex | 11/02/92 | $1.4 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^{7}$Be |
| Area 12, Complex | 11/09/92 | $1.6 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^{7}$Be |
| Area 12, Complex | 11/16/92 | $1.4 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^{7}$Be |
| Area 12, Complex | 11/23/92 | $6.8 \times 10^{-14}$ | $3.3 \times 10^{-14}$ | $^{7}$Be |
| Area 12, Complex | 11/30/92 | $1.3 \times 10^{-13}$ | $3.1 \times 10^{-14}$ | $^{7}$Be |
| Area 12, Complex | 12/08/92 | $5.2 \times 10^{-14}$ | $2.5 \times 10^{-14}$ | $^{7}$Be |
| Area 12, Complex | 12/15/92 | $2.3 \times 10^{-13}$ | $7.3 \times 10^{-14}$ | $^{7}$Be |
| Area 12, Complex | 12/21/92 | $2.6 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}$Be |
| Area 12, Complex | 12/28/92 | $1.4 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 01/21/92 | $1.4 \times 10^{-13}$ | $6.4 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 02/19/92 | $3.5 \times 10^{-14}$ | $7.7 \times 10^{-15}$ | $^{208}$Tl |
| Area 12, P Tunnel Portal | 02/24/92 | $7.5 \times 10^{-14}$ | $3.8 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 03/09/92 | $1.1 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 03/09/92 | $4.8 \times 10^{-14}$ | $8.4 \times 10^{-15}$ | $^{208}$Tl |
| Area 12, P Tunnel Portal | 03/16/92 | $9.5 \times 10^{-14}$ | $3.4 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 03/24/92 | $1.8 \times 10^{-13}$ | $7.9 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 04/01/92 | $1.8 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 04/06/92 | $1.8 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 04/13/92 | $1.9 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 04/21/92 | $1.6 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 04/27/92 | $1.9 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 04/27/92 | $1.9 \times 10^{-13}$ | $1.4 \times 10^{-13}$ | $^{40}$K |
| Area 12, P Tunnel Portal | 04/27/92 | $9.5 \times 10^{-12}$ | $6.3 \times 10^{-13}$ | $^{133}$Xe |
| Area 12, P Tunnel Portal | 04/27/92 | $5.5 \times 10^{-12}$ | $3.1 \times 10^{-13}$ | $^{131}$I |
| Area 12, P Tunnel Portal | 05/05/92 | $2.3 \times 10^{-12}$ | $1.6 \times 10^{-13}$ | $^{131}$I |
| Area 12, P Tunnel Portal | 05/11/92 | $2.6 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^{131}$I |
| Area 12, P Tunnel Portal | 05/11/92 | $1.4 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 05/11/92 | $1.0 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^{40}$K |
| Area 12, P Tunnel Portal | 05/20/92 | $1.4 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 05/20/92 | $1.0 \times 10^{-13}$ | $3.1 \times 10^{-14}$ | $^{131}$I |
| Area 12, P Tunnel Portal | 06/03/92 | $1.6 \times 10^{-13}$ | $7.4 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 06/10/92 | $2.3 \times 10^{-13}$ | $7.2 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 06/17/92 | $2.8 \times 10^{-13}$ | $1.0 \times 10^{-13}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 06/24/92 | $1.3 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 07/02/92 | $2.2 \times 10^{-13}$ | $6.8 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 07/14/92 | $2.1 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 07/22/92 | $1.7 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 07/28/92 | $1.7 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^{7}$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 12, P Tunnel Portal | 08/04/92 | $3.8 \times 10^{-14}$ | $1.1 \times 10^{-14}$ | $^{95}$Nb |
| Area 12, P Tunnel Portal | 08/04/92 | $7.6 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^{141}$Ce |
| Area 12, P Tunnel Portal | 08/04/92 | $9.8 \times 10^{-14}$ | $2.5 \times 10^{-14}$ | $^{140}$La |
| Area 12, P Tunnel Portal | 08/04/92 | $2.1 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 08/04/92 | $7.6 \times 10^{-14}$ | $1.3 \times 10^{-14}$ | $^{103}$Ru |
| Area 12, P Tunnel Portal | 08/11/92 | $1.1 \times 10^{-13}$ | $2.4 \times 10^{-14}$ | $^{95}$Zr |
| Area 12, P Tunnel Portal | 08/11/92 | $2.2 \times 10^{-14}$ | $9.2 \times 10^{-15}$ | $^{137}$Cs |
| Area 12, P Tunnel Portal | 08/11/92 | $2.6 \times 10^{-13}$ | $2.8 \times 10^{-14}$ | $^{103}$Ru |
| Area 12, P Tunnel Portal | 08/11/92 | $2.2 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{140}$La |
| Area 12, P Tunnel Portal | 08/11/92 | $2.7 \times 10^{-13}$ | $7.9 \times 10^{-14}$ | $^{140}$Ba |
| Area 12, P Tunnel Portal | 08/11/92 | $2.3 \times 10^{-12}$ | $1.3 \times 10^{-13}$ | $^{141}$Ce |
| Area 12, P Tunnel Portal | 08/11/92 | $1.3 \times 10^{-13}$ | $2.3 \times 10^{-14}$ | $^{95}$Nb |
| Area 12, P Tunnel Portal | 08/18/92 | $6.1 \times 10^{-14}$ | $1.3 \times 10^{-14}$ | $^{141}$Ce |
| Area 12, P Tunnel Portal | 08/18/92 | $2.0 \times 10^{-13}$ | $7.0 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 08/18/92 | $2.9 \times 10^{-14}$ | $1.1 \times 10^{-14}$ | $^{131}$I |
| Area 12, P Tunnel Portal | 08/25/92 | $1.4 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 09/01/92 | $2.5 \times 10^{-13}$ | $9.8 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 09/01/92 | $7.1 \times 10^{-14}$ | $1.6 \times 10^{-14}$ | $^{141}$Ce |
| Area 12, P Tunnel Portal | 09/09/92 | $2.3 \times 10^{-13}$ | $8.9 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 09/15/92 | $1.3 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 09/22/92 | $1.1 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 09/29/92 | $7.8 \times 10^{-14}$ | $2.9 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 10/06/92 | $2.4 \times 10^{-13}$ | $9.4 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 10/20/92 | $1.5 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 10/27/92 | $9.5 \times 10^{-14}$ | $4.1 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 11/04/92 | $2.0 \times 10^{-13}$ | $6.8 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 11/17/92 | $1.2 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^{7}$Be |
| Area 12, P Tunnel Portal | 11/25/92 | $1.4 \times 10^{-13}$ | $2.7 \times 10^{-14}$ | $^{208}$Tl |
| Area 12, P Tunnel Portal | 12/01/92 | $1.3 \times 10^{-13}$ | $1.8 \times 10^{-14}$ | $^{208}$Tl |
| Area 15, EPA Farm | 01/06/92 | $6.4 \times 10^{-14}$ | $2.3 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 01/13/92 | $1.6 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 01/21/92 | $2.8 \times 10^{-13}$ | $8.1 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 01/27/92 | $2.1 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 02/03/92 | $1.2 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 02/10/92 | $7.1 \times 10^{-14}$ | $4.0 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 02/18/92 | $1.6 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 02/24/92 | $1.5 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 03/02/92 | $1.3 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 03/09/92 | $2.8 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 03/17/92 | $1.0 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 03/23/92 | $4.7 \times 10^{-14}$ | $3.1 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 03/30/92 | $1.5 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^{7}$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL     Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
| | | Concentration | Standard Deviation (s) | |
| --- | --- | --- | --- | --- |
| Area 15, EPA Farm | 04/06/92 | $2.4 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 04/13/92 | $1.2 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 04/20/92 | $1.1 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 05/04/92 | $6.1 \times 10^{-13}$ | $8.1 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 05/11/92 | $2.5 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 05/18/92 | $2.6 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 05/26/92 | $2.7 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 06/01/92 | $2.0 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 06/08/92 | $3.5 \times 10^{-13}$ | $7.2 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 06/15/92 | $3.4 \times 10^{-13}$ | $6.9 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 06/22/92 | $2.8 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 06/29/92 | $2.2 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 07/06/92 | $1.6 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 07/13/92 | $1.6 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 07/20/92 | $2.5 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 07/27/92 | $2.7 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 08/03/92 | $2.4 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 08/10/92 | $2.6 \times 10^{-13}$ | $7.7 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 08/17/92 | $3.4 \times 10^{-13}$ | $7.5 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 08/24/92 | $3.1 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 08/31/92 | $2.4 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 09/08/92 | $3.3 \times 10^{-13}$ | $7.0 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 09/14/92 | $2.1 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 09/21/92 | $3.3 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 09/28/92 | $2.8 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 10/05/92 | $2.8 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 10/13/92 | $2.0 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 10/19/92 | $1.5 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 10/26/92 | $1.4 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 11/03/92 | $2.2 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 11/09/92 | $1.8 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 11/16/92 | $1.7 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 11/23/92 | $7.2 \times 10^{-14}$ | $3.1 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 11/30/92 | $2.1 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 12/07/92 | $8.2 \times 10^{-13}$ | $3.2 \times 10^{-13}$ | $^{7}$Be |
| Area 15, EPA Farm | 12/14/92 | $2.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 12/21/92 | $1.9 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^{7}$Be |
| Area 15, EPA Farm | 12/29/92 | $2.8 \times 10^{-13}$ | $6.7 \times 10^{-14}$ | $^{7}$Be |
| Area 16, 3545 Substation | 01/06/92 | $1.4 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^{7}$Be |
| Area 16, 3545 Substation | 01/13/92 | $1.5 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^{7}$Be |
| Area 16, 3545 Substation | 01/21/92 | $1.6 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^{7}$Be |
| Area 16, 3545 Substation | 01/27/92 | $1.9 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^{7}$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 16, 3545 Substation | 02/03/92 | $1.1 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 02/10/92 | $7.3 \times 10^{-14}$ | $2.5 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 02/18/92 | $1.3 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 02/24/92 | $1.4 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 03/02/92 | $7.8 \times 10^{-14}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 03/09/92 | $2.2 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 03/17/92 | $9.2 \times 10^{-14}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 03/23/92 | $9.0 \times 10^{-14}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 03/30/92 | $1.6 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 04/06/92 | $1.7 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 04/13/92 | $2.3 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 04/20/92 | $1.7 \times 10^{-13}$ | $2.9 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 05/04/92 | $2.4 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 05/11/92 | $2.2 \times 10^{-13}$ | $6.7 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 05/18/92 | $2.3 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 05/26/92 | $1.7 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 06/01/92 | $2.6 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 06/09/92 | $2.1 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 06/15/92 | $2.5 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 06/29/92 | $2.0 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 07/06/92 | $1.6 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 07/13/92 | $1.9 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 07/20/92 | $3.1 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 07/27/92 | $1.7 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 08/03/92 | $1.7 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 08/10/92 | $1.5 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 08/17/92 | $3.1 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 08/24/92 | $2.5 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 08/31/92 | $1.8 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 09/08/92 | $2.3 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 09/14/92 | $9.2 \times 10^{-14}$ | $6.8 \times 10^{-14}$ | $^{40}$K |
| Area 16, 3545 Substation | 09/14/92 | $2.6 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 09/21/92 | $2.1 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 09/28/92 | $1.8 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 10/05/92 | $1.9 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 10/12/92 | $2.5 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 10/19/92 | $2.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 10/26/92 | $1.0 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 11/02/92 | $2.4 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 11/16/92 | $1.4 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 11/23/92 | $7.6 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 16, 3545 Substation | 11/30/92 | $1.9 \times 10^{-13}$ | $2.0 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08}$ μCi/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07}$ μCi/mL

## Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 19, Echo Peak | 01/13/92 | $2.2 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 01/21/92 | $1.3 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 01/27/92 | $1.2 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 02/03/92 | $6.7 \times 10^{-14}$ | $1.4 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 02/24/92 | $1.0 \times 10^{-13}$ | $3.0 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 03/02/92 | $1.0 \times 10^{-13}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 03/09/92 | $1.9 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 03/17/92 | $9.4 \times 10^{-14}$ | $2.5 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 03/30/92 | $1.8 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 04/06/92 | $1.7 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 04/13/92 | $1.9 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 04/20/92 | $2.2 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 04/27/92 | $2.9 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 05/04/92 | $2.7 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 05/11/92 | $1.9 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 05/18/92 | $2.1 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 05/26/92 | $2.3 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 06/01/92 | $1.8 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 06/09/92 | $3.0 \times 10^{-13}$ | $6.6 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 06/15/92 | $2.1 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 06/22/92 | $2.4 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 06/29/92 | $1.5 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 07/06/92 | $1.4 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 07/13/92 | $1.4 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 07/20/92 | $2.1 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 07/27/92 | $1.6 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 08/03/92 | $1.7 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 08/10/92 | $1.7 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 08/17/92 | $2.1 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 08/24/92 | $2.6 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 08/31/92 | $2.3 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 09/08/92 | $1.9 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 09/14/92 | $2.0 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 09/21/92 | $2.4 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 09/28/92 | $2.0 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 10/05/92 | $2.0 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 10/13/92 | $1.7 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 10/19/92 | $2.0 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 10/26/92 | $1.4 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 11/02/92 | $1.6 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 11/09/92 | $2.1 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 19, Echo Peak | 11/16/92 | $1.1 \times 10^{-13}$ | $2.9 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
| | | Concentration | Standard Deviation (s) | |
| --- | --- | --- | --- | --- |
| Area 19, Echo Peak | 11/24/92 | $1.0 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 01/06/92 | $1.3 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 01/13/92 | $1.4 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 01/21/92 | $1.4 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 01/27/92 | $1.2 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 02/03/92 | $1.3 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 02/10/92 | $8.1 \times 10^{-14}$ | $2.5 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 02/18/92 | $1.6 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 02/24/92 | $1.3 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 03/02/92 | $7.4 \times 10^{-14}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 03/09/92 | $1.7 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 03/17/92 | $1.3 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 03/23/92 | $1.1 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 03/30/92 | $1.8 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 04/06/92 | $2.0 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 04/13/92 | $1.8 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 04/20/92 | $2.0 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 04/27/92 | $2.7 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 05/04/92 | $1.8 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 05/11/92 | $2.3 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 05/18/92 | $1.2 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 05/26/92 | $1.9 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 06/01/92 | $2.1 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 06/09/92 | $1.9 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 06/15/92 | $2.2 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 06/22/92 | $2.3 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 06/29/92 | $1.5 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 07/06/92 | $1.1 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 07/13/92 | $1.7 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 07/20/92 | $2.3 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 07/27/92 | $1.7 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 08/03/92 | $2.7 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 08/10/92 | $1.7 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 08/17/92 | $2.7 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 08/24/92 | $2.0 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 09/01/92 | $2.5 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 09/08/92 | $2.3 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 09/14/92 | $2.1 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 09/21/92 | $3.1 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 09/28/92 | $1.8 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 10/05/92 | $1.7 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 10/13/92 | $2.2 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 19, Pahute Substation | 10/19/92 | $1.7 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 10/26/92 | $1.2 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 11/02/92 | $1.7 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 11/09/92 | $2.5 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 19, Pahute Substation | 11/16/92 | $1.4 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 01/06/92 | $1.2 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 01/13/92 | $2.2 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 01/21/92 | $1.6 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 01/27/92 | $1.8 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 02/18/92 | $1.5 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 02/24/92 | $1.0 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 03/02/92 | $1.2 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 03/09/92 | $2.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 03/17/92 | $1.1 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 03/23/92 | $1.1 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 03/30/92 | $1.8 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 04/06/92 | $1.5 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 04/13/92 | $2.2 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 04/20/92 | $2.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 04/27/92 | $2.8 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 05/04/92 | $2.3 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 05/11/92 | $2.2 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 05/18/92 | $2.3 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 05/26/92 | $2.6 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 06/01/92 | $1.9 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 06/09/92 | $2.6 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 06/15/92 | $2.0 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 06/22/92 | $2.5 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 06/29/92 | $1.6 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 07/13/92 | $2.1 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 07/20/92 | $2.3 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 07/27/92 | $2.1 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 08/03/92 | $1.9 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 08/10/92 | $1.9 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 08/17/92 | $2.5 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 08/24/92 | $2.7 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 09/01/92 | $2.5 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 09/08/92 | $2.5 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 09/14/92 | $1.7 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 09/21/92 | $2.5 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 09/28/92 | $2.3 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 20, Dispensary | 10/05/92 | $1.9 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 20, Dispensary | 10/13/92 | $2.9 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7Be$ |
| Area 20, Dispensary | 10/19/92 | $1.6 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7Be$ |
| Area 20, Dispensary | 10/26/92 | $1.3 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7Be$ |
| Area 20, Dispensary | 11/02/92 | $1.7 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7Be$ |
| Area 20, Dispensary | 11/09/92 | $2.6 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7Be$ |
| Area 20, Dispensary | 11/16/92 | $1.7 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7Be$ |
| Area 20, Dispensary | 11/24/92 | $1.2 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 01/13/92 | $1.1 \times 10^{-13}$ | $2.8 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 01/21/92 | $1.8 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 01/27/92 | $1.7 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 02/03/92 | $1.1 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 02/10/92 | $5.4 \times 10^{-14}$ | $2.3 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 02/18/92 | $9.6 \times 10^{-14}$ | $3.7 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 02/24/92 | $2.2 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 03/02/92 | $1.3 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 03/09/92 | $1.5 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 03/16/92 | $6.8 \times 10^{-14}$ | $2.4 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 03/24/92 | $1.0 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 03/30/92 | $1.3 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 04/07/92 | $1.2 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 04/14/92 | $2.5 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 04/20/92 | $2.7 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 04/28/92 | $2.1 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 05/05/92 | $2.8 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 05/11/92 | $1.7 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 05/18/92 | $8.4 \times 10^{-14}$ | $1.6 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 05/26/92 | $2.2 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 06/01/92 | $2.5 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 06/09/92 | $2.2 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 06/15/92 | $2.2 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 06/22/92 | $2.3 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 06/29/92 | $1.9 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 07/06/92 | $1.2 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 07/13/92 | $2.2 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 07/20/92 | $1.8 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 07/27/92 | $1.5 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 08/03/92 | $2.0 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 08/11/92 | $1.7 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 08/17/92 | $1.8 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 08/24/92 | $2.7 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 08/31/92 | $1.9 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7Be$ |
| Area 23, Building 790 | 09/08/92 | $2.0 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7Be$ |

Mean MDC: $1.2 \times 10^{-08} \mu Ci/mL$      Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu Ci/mL$

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 23, Building 790 | 09/14/92 | $2.3 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 | 09/21/92 | $1.9 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 | 09/28/92 | $1.6 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 | 10/05/92 | $2.2 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 | 10/19/92 | $2.7 \times 10^{-13}$ | $7.4 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 | 10/26/92 | $1.0 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 | 11/02/92 | $2.0 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 | 11/09/92 | $9.5 \times 10^{-14}$ | $3.0 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 | 11/16/92 | $1.5 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 | 11/23/92 | $7.3 \times 10^{-14}$ | $2.6 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 | 11/30/92 | $2.0 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 | 12/07/92 | $1.1 \times 10^{-13}$ | $3.0 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 | 12/15/92 | $1.4 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 | 12/21/92 | $2.4 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 | 12/28/92 | $1.6 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 01/13/92 | $1.4 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 01/21/92 | $2.5 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 01/27/92 | $1.8 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 02/03/92 | $3.1 \times 10^{-15}$ | $2.3 \times 10^{-15}$ | $^{208}$Tl |
| Area 23, Building 790 No. 2 | 02/03/92 | $8.3 \times 10^{-14}$ | $2.7 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 02/10/92 | $6.3 \times 10^{-14}$ | $2.0 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 02/18/92 | $1.5 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 02/24/92 | $2.0 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 03/02/92 | $9.1 \times 10^{-14}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 03/09/92 | $1.6 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 03/16/92 | $7.7 \times 10^{-14}$ | $2.6 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 03/24/92 | $7.7 \times 10^{-14}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 03/30/92 | $1.0 \times 10^{-13}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 04/07/92 | $1.3 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 04/14/92 | $2.0 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 04/20/92 | $2.3 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 04/28/92 | $2.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 05/05/92 | $3.3 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 05/11/92 | $1.7 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 05/18/92 | $2.1 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 05/26/92 | $2.2 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 06/01/92 | $2.3 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 06/09/92 | $2.6 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 06/15/92 | $2.1 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 06/22/92 | $2.0 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 06/29/92 | $1.8 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 07/06/92 | $1.1 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08}$µCi/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07}$µCi/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 23, Building 790 No. 2 | 07/13/92 | $1.8 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 07/20/92 | $1.7 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 07/27/92 | $1.3 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 08/03/92 | $1.9 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 08/11/92 | $1.5 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 08/17/92 | $2.0 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 08/24/92 | $2.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 08/31/92 | $1.6 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 09/08/92 | $2.5 \times 10^{-13}$ | $5.7 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 09/14/92 | $2.6 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 09/21/92 | $1.8 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 09/28/92 | $2.0 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 10/05/92 | $1.5 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 10/12/92 | $1.7 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 10/19/92 | $2.1 \times 10^{-13}$ | $6.9 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 10/26/92 | $1.2 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 11/02/92 | $1.7 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 11/09/92 | $1.2 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 11/23/92 | $6.2 \times 10^{-14}$ | $2.5 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 12/07/92 | $8.5 \times 10^{-14}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 12/15/92 | $1.5 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 12/21/92 | $1.5 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 23, Building 790 No. 2 | 12/28/92 | $1.2 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 01/13/92 | $1.1 \times 10^{-13}$ | $3.0 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 01/21/92 | $1.8 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 01/21/92 | $1.0 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^{40}$K |
| Area 23, E Boundary | 01/27/92 | $1.8 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 02/18/92 | $1.3 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 02/24/92 | $2.1 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 03/02/92 | $5.8 \times 10^{-14}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 03/09/92 | $2.3 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 03/16/92 | $8.8 \times 10^{-14}$ | $2.6 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 03/24/92 | $9.3 \times 10^{-14}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 03/30/92 | $1.2 \times 10^{-13}$ | $3.1 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 04/07/92 | $1.2 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 04/14/92 | $2.3 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 04/20/92 | $2.7 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 04/28/92 | $1.8 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 05/05/92 | $2.5 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 05/11/92 | $1.9 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 05/18/92 | $2.3 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 05/26/92 | $1.6 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 23, E Boundary | 06/01/92 | $2.3 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 06/09/92 | $2.6 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 06/15/92 | $2.2 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 06/22/92 | $2.7 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 06/29/92 | $1.5 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 07/06/92 | $1.2 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 07/13/92 | $1.9 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 07/20/92 | $2.3 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 08/03/92 | $2.2 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 08/11/92 | $2.2 \times 10^{-13}$ | $6.1 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 08/17/92 | $2.2 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 08/24/92 | $3.7 \times 10^{-13}$ | $1.1 \times 10^{-13}$ | $^7$Be |
| Area 23, E Boundary | 08/31/92 | $2.3 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 09/08/92 | $2.6 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 09/14/92 | $2.1 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 09/21/92 | $2.0 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 09/28/92 | $2.1 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 10/05/92 | $2.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 10/12/92 | $2.0 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 10/19/92 | $2.3 \times 10^{-13}$ | $7.7 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 10/26/92 | $1.9 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 11/02/92 | $2.7 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 11/09/92 | $1.3 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 11/16/92 | $1.5 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 11/30/92 | $2.7 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 12/07/92 | $8.9 \times 10^{-14}$ | $3.0 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 12/15/92 | $1.7 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 12/21/92 | $2.8 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 23, E Boundary | 12/28/92 | $1.8 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 01/13/92 | $1.1 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 01/21/92 | $1.7 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 01/27/92 | $1.9 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 02/03/92 | $7.5 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 02/10/92 | $5.6 \times 10^{-14}$ | $2.4 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 02/18/92 | $1.2 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 02/24/92 | $2.3 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 03/02/92 | $1.1 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 03/09/92 | $1.6 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 03/16/92 | $3.9 \times 10^{-14}$ | $1.9 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 03/24/92 | $1.4 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 03/30/92 | $1.2 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 04/07/92 | $1.1 \times 10^{-13}$ | $2.6 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

## Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 23, H&S Building | 04/14/92 | $1.9 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 04/20/92 | $2.1 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 04/28/92 | $3.1 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 05/05/92 | $2.8 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 05/11/92 | $1.8 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 05/18/92 | $2.5 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 05/26/92 | $1.9 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 06/01/92 | $2.5 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 06/09/92 | $2.0 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 06/15/92 | $1.9 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 06/22/92 | $2.7 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 07/06/92 | $1.2 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 07/13/92 | $2.0 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 07/20/92 | $2.0 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 07/27/92 | $1.5 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 08/03/92 | $2.0 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 08/11/92 | $1.6 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 08/17/92 | $1.8 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 08/24/92 | $2.3 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 08/31/92 | $1.7 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 09/08/92 | $2.6 \times 10^{-13}$ | $6.3 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 09/14/92 | $2.5 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 09/21/92 | $2.1 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 09/28/92 | $1.9 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 10/05/92 | $2.0 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 10/12/92 | $1.9 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 10/19/92 | $2.4 \times 10^{-13}$ | $7.0 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 10/26/92 | $1.0 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 11/02/92 | $1.8 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 11/09/92 | $1.9 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 11/16/92 | $1.2 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 11/30/92 | $2.7 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 12/07/92 | $1.1 \times 10^{-13}$ | $3.0 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 12/15/92 | $2.3 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 12/21/92 | $1.6 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 23, H&S Building | 12/28/92 | $1.5 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 01/13/92 | $1.3 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 01/21/92 | $2.2 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 01/27/92 | $2.0 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 02/03/92 | $1.3 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 02/03/92 | $7.7 \times 10^{-14}$ | $2.0 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 02/10/92 | $4.1 \times 10^{-14}$ | $2.2 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

## Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 25, E-MAD N | 02/18/92 | $1.3 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 02/24/92 | $1.9 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 03/02/92 | $6.1 \times 10^{-14}$ | $1.2 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 03/02/92 | $7.6 \times 10^{-14}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 03/09/92 | $1.9 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 03/16/92 | $7.9 \times 10^{-14}$ | $2.6 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 03/24/92 | $9.5 \times 10^{-14}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 03/30/92 | $1.5 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 03/30/92 | $9.9 \times 10^{-14}$ | $2.0 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 04/07/92 | $5.3 \times 10^{-14}$ | $1.3 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 04/14/92 | $2.3 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 04/20/92 | $2.3 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 04/28/92 | $2.2 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 04/28/92 | $1.3 \times 10^{-13}$ | $3.0 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 05/05/92 | $2.9 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 05/11/92 | $9.6 \times 10^{-14}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 05/18/92 | $2.5 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 05/26/92 | $2.3 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 05/26/92 | $1.5 \times 10^{-13}$ | $2.3 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 06/01/92 | $2.1 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 06/09/92 | $2.4 \times 10^{-13}$ | $6.2 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 06/15/92 | $2.2 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 06/22/92 | $1.6 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 06/29/92 | $1.1 \times 10^{-13}$ | $1.9 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 06/29/92 | $2.1 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 07/06/92 | $1.2 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 07/13/92 | $1.7 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 07/20/92 | $1.7 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 07/27/92 | $1.7 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 08/03/92 | $1.7 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 08/11/92 | $1.2 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 08/17/92 | $1.8 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 08/24/92 | $2.5 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 08/31/92 | $1.8 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 08/31/92 | $2.2 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 09/08/92 | $2.5 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 09/14/92 | $1.5 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 09/21/92 | $2.0 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 09/28/92 | $1.8 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 10/05/92 | $2.2 \times 10^{-13}$ | $5.0 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 10/19/92 | $2.9 \times 10^{-11}$ | $2.7 \times 10^{-11}$ | $^{214}$Pb |
| Area 25, E-MAD N | 10/26/92 | $1.6 \times 10^{-13}$ | $5.6 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4 (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 25, E-MAD N | 11/02/92 | $2.2 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 11/09/92 | $2.0 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 11/16/92 | $9.9 \times 10^{-14}$ | $3.0 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 11/23/92 | $9.0 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 11/30/92 | $2.4 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 12/07/92 | $7.2 \times 10^{-14}$ | $2.5 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 12/15/92 | $1.4 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 12/21/92 | $2.7 \times 10^{-13}$ | $6.8 \times 10^{-14}$ | $^7$Be |
| Area 25, E-MAD N | 12/28/92 | $1.4 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 01/13/92 | $1.1 \times 10^{-13}$ | $3.0 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 01/21/92 | $1.6 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 01/27/92 | $1.4 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 02/03/92 | $8.0 \times 10^{-14}$ | $2.7 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 02/10/92 | $4.2 \times 10^{-14}$ | $1.9 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 02/18/92 | $1.0 \times 10^{-13}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 02/24/92 | $2.2 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 03/09/92 | $1.5 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 03/16/92 | $4.0 \times 10^{-14}$ | $1.9 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 03/30/92 | $5.8 \times 10^{-14}$ | $2.4 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 04/07/92 | $2.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 04/14/92 | $1.6 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 04/20/92 | $3.3 \times 10^{-13}$ | $6.9 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 04/28/92 | $2.5 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 05/05/92 | $2.3 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 05/11/92 | $2.1 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 05/18/92 | $2.5 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 05/26/92 | $2.5 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 06/01/92 | $1.3 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 06/09/92 | $3.0 \times 10^{-13}$ | $7.2 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 06/15/92 | $2.5 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 06/22/92 | $2.0 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 06/29/92 | $2.0 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 07/06/92 | $9.4 \times 10^{-14}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 07/13/92 | $1.8 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 07/20/92 | $2.0 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 07/27/92 | $1.8 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 08/03/92 | $2.3 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 08/11/92 | $1.3 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 08/17/92 | $2.1 \times 10^{-13}$ | $4.2 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 08/24/92 | $3.3 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 08/31/92 | $1.8 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 09/08/92 | $1.8 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 25, NRDS Warehouse | 09/14/92 | $2.2 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 09/21/92 | $1.9 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 09/28/92 | $1.6 \times 10^{-13}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 10/05/92 | $2.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 10/12/92 | $2.0 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 10/19/92 | $2.5 \times 10^{-13}$ | $8.1 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 10/26/92 | $1.3 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 11/02/92 | $2.1 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 11/09/92 | $1.9 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 11/16/92 | $1.3 \times 10^{-13}$ | $3.5 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 11/23/92 | $9.1 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 11/30/92 | $1.7 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 12/07/92 | $7.4 \times 10^{-14}$ | $2.6 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 12/15/92 | $1.4 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 12/21/92 | $2.5 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 25, NRDS Warehouse | 12/28/92 | $1.7 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 01/13/92 | $1.4 \times 10^{-13}$ | $3.2 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 01/21/92 | $2.4 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 01/27/92 | $1.7 \times 10^{-13}$ | $3.9 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 02/03/92 | $5.3 \times 10^{-14}$ | $1.5 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 02/10/92 | $3.9 \times 10^{-14}$ | $1.9 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 02/18/92 | $1.2 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 02/24/92 | $2.6 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 03/02/92 | $8.4 \times 10^{-14}$ | $3.7 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 03/09/92 | $2.0 \times 10^{-13}$ | $4.9 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 03/16/92 | $7.4 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 03/24/92 | $1.2 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 03/30/92 | $9.7 \times 10^{-14}$ | $2.8 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 04/07/92 | $1.3 \times 10^{-13}$ | $3.4 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 04/14/92 | $2.1 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 04/20/92 | $2.5 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 04/28/92 | $2.8 \times 10^{-13}$ | $5.3 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 05/05/92 | $2.0 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 05/11/92 | $2.6 \times 10^{-13}$ | $4.7 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 05/18/92 | $2.7 \times 10^{-13}$ | $6.0 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 06/01/92 | $1.8 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 06/09/92 | $2.8 \times 10^{-13}$ | $6.6 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 06/15/92 | $1.9 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 06/22/92 | $2.4 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 06/29/92 | $1.7 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 07/06/92 | $1.1 \times 10^{-13}$ | $3.3 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 07/13/92 | $1.6 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu\text{Ci/mL}$          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu\text{Ci/mL}$

Attachment A.4  (Gamma-Emitting Radionuclides in Air - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | | Radio-nuclide |
|---|---|---|---|---|
| | | Concentration | Standard Deviation (s) | |
| Area 27, Cafeteria | 07/20/92 | $2.1 \times 10^{-13}$ | $4.3 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 07/27/92 | $1.5 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 08/03/92 | $2.7 \times 10^{-13}$ | $4.6 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 08/11/92 | $1.1 \times 10^{-13}$ | $5.2 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 08/17/92 | $2.2 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 08/24/92 | $3.0 \times 10^{-13}$ | $5.8 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 08/31/92 | $1.7 \times 10^{-13}$ | $3.8 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 09/08/92 | $2.2 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 09/14/92 | $2.3 \times 10^{-13}$ | $5.4 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 09/21/92 | $2.1 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 09/28/92 | $1.8 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 10/05/92 | $2.4 \times 10^{-13}$ | $5.5 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 10/12/92 | $1.7 \times 10^{-13}$ | $4.0 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 10/19/92 | $1.7 \times 10^{-13}$ | $7.8 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 10/26/92 | $1.5 \times 10^{-13}$ | $4.8 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 11/02/92 | $1.5 \times 10^{-13}$ | $5.1 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 11/09/92 | $1.7 \times 10^{-13}$ | $4.4 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 11/16/92 | $9.5 \times 10^{-14}$ | $3.6 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 12/07/92 | $7.2 \times 10^{-14}$ | $2.5 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 12/15/92 | $1.0 \times 10^{-13}$ | $4.1 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 12/21/92 | $2.2 \times 10^{-13}$ | $5.9 \times 10^{-14}$ | $^7$Be |
| Area 27, Cafeteria | 12/28/92 | $1.6 \times 10^{-13}$ | $4.5 \times 10^{-14}$ | $^7$Be |

Mean MDC: $1.2 \times 10^{-08} \mu$Ci/mL          Standard Deviation of Mean MDC: $3.5 \times 10^{-07} \mu$Ci/mL

## Attachment A.5 Duplicates Gross Beta in Air - 1992

| Sampling Location | Collection Dates | Original ($\mu$Ci/mL) | Duplicate ($\mu$Ci/mL) |
|---|---|---|---|
| Area 1, Gravel Pit | 01/06/92 | $9.0 \times 10^{-15}$ | $6.2 \times 10^{-15}$ |
| Area 1, Gravel Pit | 06/15/92 | $1.8 \times 10^{-14}$ | $1.8 \times 10^{-14}$ |
| Area 2, 2-1 Substation | 12/21/92 | $2.1 \times 10^{-14}$ | $2.2 \times 10^{-14}$ |
| Area 3, Complex | 11/09/92 | $1.9 \times 10^{-14}$ | $1.9 \times 10^{-14}$ |
| Area 3, Complex No. 2 | 10/26/92 | $2.0 \times 10^{-14}$ | $1.1 \times 10^{-14}$ |
| Area 3, Mud Plant | 11/16/92 | $2.1 \times 10^{-14}$ | $2.0 \times 10^{-14}$ |
| Area 3, U-3ah/at N | 11/23/92 | $2.4 \times 10^{-14}$ | $1.8 \times 10^{-14}$ |
| Area 3, U-3ah/at W | 11/09/92 | $2.0 \times 10^{-14}$ | $5.7 \times 10^{-14}$ |
| Area 3, U-3ah/at W | 11/16/92 | $1.9 \times 10^{-14}$ | $9.6 \times 10^{-12}$ |
| Area 3, U-3ah/at W | 11/23/92 | $1.9 \times 10^{-14}$ | $9.7 \times 10^{-12}$ |
| Area 3, U-3ah/at W | 11/30/92 | $2.4 \times 10^{-14}$ | $1.1 \times 10^{-13}$ |
| Area 3, U-3ah/at W | 12/07/92 | $1.3 \times 10^{-14}$ | $8.5 \times 10^{-12}$ |
| Area 3, U-3ah/at W | 12/14/92 | $1.2 \times 10^{-14}$ | $9.1 \times 10^{-12}$ |
| Area 5, DOD Yard | 07/13/92 | $1.6 \times 10^{-14}$ | $1.5 \times 10^{-14}$ |
| Area 5, Gate 200 | 01/27/92 | $3.6 \times 10^{-14}$ | $3.2 \times 10^{-14}$ |
| Area 5, RWMS No. 1 | 03/16/92 | $1.0 \times 10^{-14}$ | $9.4 \times 10^{-15}$ |
| Area 5, RWMS No. 2 | 07/20/92 | $2.0 \times 10^{-14}$ | $1.7 \times 10^{-14}$ |
| Area 5, RWMS No. 3 | 04/07/92 | $2.1 \times 10^{-14}$ | $1.8 \times 10^{-14}$ |
| Area 5, RWMS No. 4 | 08/03/92 | $2.6 \times 10^{-14}$ | $2.1 \times 10^{-14}$ |
| Area 5, RWMS No. 5 | 08/11/92 | $2.5 \times 10^{-14}$ | $2.2 \times 10^{-14}$ |
| Area 5, RWMS No. 6 | 08/17/92 | $2.5 \times 10^{-14}$ | $2.2 \times 10^{-14}$ |
| Area 5, RWMS No. 7 | 08/24/92 | $2.5 \times 10^{-14}$ | $2.3 \times 10^{-14}$ |
| Area 5, RWMS No. 8 | 08/31/92 | $2.2 \times 10^{-14}$ | $2.0 \times 10^{-14}$ |
| Area 5, RWMS No. 9 | 09/08/92 | $2.5 \times 10^{-14}$ | $2.4 \times 10^{-14}$ |
| Area 6, CP-6 | 09/21/92 | $2.2 \times 10^{-14}$ | $1.9 \times 10^{-14}$ |
| Area 6, Well 3 Complex | 09/21/92 | $1.9 \times 10^{-14}$ | $2.0 \times 10^{-14}$ |
| Area 6, Yucca Complex | 09/28/92 | $2.2 \times 10^{-14}$ | $2.1 \times 10^{-14}$ |
| Area 11, Gate 293 | 10/05/92 | $2.3 \times 10^{-14}$ | $2.2 \times 10^{-14}$ |
| Area 12, Complex | 06/09/92 | $1.6 \times 10^{-14}$ | $1.6 \times 10^{-14}$ |
| Area 16, 3545 Substation | 01/13/92 | $1.5 \times 10^{-14}$ | $1.4 \times 10^{-14}$ |
| Area 16, 3545 Substation | 05/04/92 | $1.6 \times 10^{-14}$ | $1.7 \times 10^{-14}$ |
| Area 19, Pahute Substation | 05/26/92 | $1.7 \times 10^{-14}$ | $1.7 \times 10^{-14}$ |
| Area 20, Dispensary | 05/18/92 | $1.7 \times 10^{-14}$ | $1.3 \times 10^{-14}$ |
| Area 23, Building 790 | 02/03/92 | $2.7 \times 10^{-14}$ | $2.4 \times 10^{-14}$ |
| Area 23, Building 790 No .2 | 02/10/92 | $8.4 \times 10^{-15}$ | $4.2 \times 10^{-15}$ |
| Area 23, Building 790 No .2 | 02/18/92 | $1.3 \times 10^{-14}$ | $8.9 \times 10^{-12}$ |
| Area 23, Building 790 No .2 | 06/22/92 | $2.1 \times 10^{-14}$ | $2.1 \times 10^{-14}$ |
| Area 23, E Boundary | 01/21/92 | $3.5 \times 10^{-14}$ | $3.2 \times 10^{-14}$ |
| Area 23, E Boundary | 06/29/92 | $1.3 \times 10^{-14}$ | $1.2 \times 10^{-14}$ |
| Area 25, E-MAD N | 03/02/92 | $9.0 \times 10^{-15}$ | $2.2 \times 10^{-14}$ |
| Area 25, NRDS Warehouse | 02/24/92 | $1.8 \times 10^{-14}$ | $1.8 \times 10^{-14}$ |
| Area 27, Cafeteria | 02/18/92 | $1.1 \times 10^{-14}$ | $1.3 \times 10^{-14}$ |
| Area 27, Cafeteria | 09/14/92 | $1.6 \times 10^{-14}$ | $1.0 \times 10^{-14}$ |

# 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, and analytic standard deviation for the 360 analyses performed in 1992. The analytic standard deviation and detection limits are in the same units of measurement as the concentration. The simple descriptive statistics for all the data combined are:

$$
\begin{aligned}
\text{Number of data values} &= 360 \\
\text{Arithmetic mean} &= 4.62 \times 10^{-6} \text{ pCi/mL} \\
\text{Median} &= 2.02 \times 10^{-6} \\
\text{Standard deviation} &= 10.32 \times 10^{-6} \\
\text{Minimum value} &= -1.06 \times 10^{-6} \\
\text{Maximum value} &= 113.00 \times 10^{-6}
\end{aligned}
$$

The first quartile of the data is $0.40 \times 10^{-6}$ pCi/mL and the third quartile is $5.22 \times 10^{-6}$ pCi/mL, half the data values are between these statistics. These simple statistics are greatly influenced by the large value of $113 \times 10^{-6}$ at RWMS #9 for sampling starting January 23.

Table B.1  Tritiated Water Vapor in Air Sampling Results - 1992

| Sampling Location | Collection Dates | pCi/mL Concentration | pCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 1, BJY | 01/09/92 | $9.2 \times 10^{-7}$ | $3.2 \times 10^{-7}$ |
| Area 1, BJY | 01/22/92 | $1.0 \times 10^{-5}$ | $4.9 \times 10^{-7}$ |
| Area 1, BJY | 02/05/92 | $-1.1 \times 10^{-6}$ | $8.0 \times 10^{-7}$ |
| Area 1, BJY | 02/20/92 | $2.0 \times 10^{-7}$ | $4.8 \times 10^{-8}$ |
| Area 1, BJY | 03/05/92 | $1.2 \times 10^{-6}$ | $4.9 \times 10^{-7}$ |
| Area 1, BJY | 03/19/92 | $1.6 \times 10^{-7}$ | $6.3 \times 10^{-7}$ |
| Area 1, BJY | 04/01/92 | $1.9 \times 10^{-7}$ | $2.9 \times 10^{-7}$ |
| Area 1, BJY | 04/16/92 | $2.0 \times 10^{-6}$ | $4.2 \times 10^{-7}$ |
| Area 1, BJY | 04/29/92 | $5.4 \times 10^{-8}$ | $3.1 \times 10^{-8}$ |
| Area 1, BJY | 05/13/92 | $7.0 \times 10^{-7}$ | $9.9 \times 10^{-8}$ |
| Area 1, BJY | 05/28/92 | $1.2 \times 10^{-7}$ | $3.5 \times 10^{-8}$ |
| Area 1, BJY | 06/11/92 | $2.0 \times 10^{-6}$ | $2.0 \times 10^{-7}$ |
| Area 1, BJY | 06/25/92 | $6.3 \times 10^{-7}$ | $1.8 \times 10^{-7}$ |
| Area 1, BJY | 07/08/92 | $9.0 \times 10^{-7}$ | $1.4 \times 10^{-7}$ |
| Area 1, BJY | 07/22/92 | $1.5 \times 10^{-6}$ | $2.3 \times 10^{-7}$ |

Mean MDC: $1.2 \times 10^{-06}$ pCi/mL          Standard Deviation of Mean MDC: $4.5 \times 10^{-06}$ pCi/mL

Table B.1  (Tritiated Water Vapor in Air Sampling Results - 1992, cont.)

| Sampling Location | Collection Dates | pCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 1, BJY | 08/06/92 | $2.6 \times 10^{-6}$ | $2.4 \times 10^{-7}$ |
| Area 1, BJY | 08/20/92 | $2.3 \times 10^{-6}$ | $2.6 \times 10^{-7}$ |
| Area 1, BJY | 09/03/92 | $2.6 \times 10^{-6}$ | $3.2 \times 10^{-7}$ |
| Area 1, BJY | 09/16/92 | $1.5 \times 10^{-6}$ | $3.8 \times 10^{-7}$ |
| Area 1, BJY | 10/28/92 | $3.0 \times 10^{-7}$ | $3.9 \times 10^{-7}$ |
| Area 1, BJY | 11/18/92 | $6.7 \times 10^{-7}$ | $2.8 \times 10^{-7}$ |
| Area 1, BJY | 12/08/92 | $1.4 \times 10^{-6}$ | $3.9 \times 10^{-7}$ |
| Area 1, BJY | 12/22/92 | $5.5 \times 10^{-7}$ | $4.2 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 01/09/92 | $4.7 \times 10^{-6}$ | $3.1 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 01/23/92 | $1.2 \times 10^{-5}$ | $3.7 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 02/05/92 | $3.2 \times 10^{-6}$ | $8.8 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 02/20/92 | $4.0 \times 10^{-7}$ | $5.4 \times 10^{-8}$ |
| Area 5, RWMS No. 1 | 03/03/92 | $5.6 \times 10^{-6}$ | $7.8 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 03/18/92 | $3.2 \times 10^{-6}$ | $7.3 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 04/01/92 | $1.8 \times 10^{-6}$ | $5.5 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 04/16/92 | $3.3 \times 10^{-6}$ | $4.2 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 04/29/92 | $4.5 \times 10^{-6}$ | $5.3 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 05/13/92 | $1.8 \times 10^{-5}$ | $3.9 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 06/24/92 | $4.3 \times 10^{-7}$ | $8.7 \times 10^{-8}$ |
| Area 5, RWMS No. 1 | 07/23/92 | $4.8 \times 10^{-6}$ | $6.7 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 08/05/92 | $4.1 \times 10^{-6}$ | $5.0 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 08/20/92 | $2.0 \times 10^{-6}$ | $3.4 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 09/03/92 | $2.2 \times 10^{-6}$ | $4.1 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 10/08/92 | $4.2 \times 10^{-6}$ | $4.0 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 10/28/92 | $3.2 \times 10^{-6}$ | $3.7 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 11/17/92 | $3.5 \times 10^{-6}$ | $3.2 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 12/08/92 | $2.0 \times 10^{-6}$ | $4.4 \times 10^{-7}$ |
| Area 5, RWMS No. 1 | 12/22/92 | $1.4 \times 10^{-6}$ | $4.9 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 01/09/92 | $3.3 \times 10^{-6}$ | $3.1 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 01/23/92 | $6.6 \times 10^{-5}$ | $7.1 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 02/05/92 | $2.3 \times 10^{-6}$ | $7.9 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 02/20/92 | $3.4 \times 10^{-7}$ | $5.1 \times 10^{-8}$ |
| Area 5, RWMS No. 2 | 03/03/92 | $4.3 \times 10^{-6}$ | $5.9 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 03/18/92 | $1.5 \times 10^{-6}$ | $7.3 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 04/01/92 | $2.9 \times 10^{-6}$ | $4.6 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 04/16/92 | $4.8 \times 10^{-6}$ | $3.1 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 04/29/92 | $6.5 \times 10^{-6}$ | $4.3 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 05/13/92 | $5.9 \times 10^{-6}$ | $4.0 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 05/28/92 | $2.4 \times 10^{-6}$ | $3.0 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 06/24/92 | $1.9 \times 10^{-6}$ | $1.2 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 07/08/92 | $2.8 \times 10^{-6}$ | $2.4 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 07/23/92 | $7.0 \times 10^{-6}$ | $4.3 \times 10^{-7}$ |

Mean MDC: $1.2 \times 10^{-06}$ pCi/mL          Standard Deviation of Mean MDC: $4.5 \times 10^{-06}$ pCi/mL

## Table B.1 (Tritiated Water Vapor in Air Sampling Results - 1992, cont.)

| Sampling Location | Collection Dates | pCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS No. 2 | 08/05/92 | $4.9 \times 10^{-6}$ | $2.6 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 08/20/92 | $6.5 \times 10^{-6}$ | $3.5 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 09/03/92 | $6.0 \times 10^{-6}$ | $3.5 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 10/08/92 | $5.5 \times 10^{-6}$ | $4.7 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 10/28/92 | $6.1 \times 10^{-6}$ | $4.5 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 11/17/92 | $2.7 \times 10^{-6}$ | $2.5 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 12/08/92 | $2.9 \times 10^{-6}$ | $4.3 \times 10^{-7}$ |
| Area 5, RWMS No. 2 | 12/22/92 | $1.1 \times 10^{-6}$ | $5.6 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 01/09/92 | $3.8 \times 10^{-6}$ | $3.5 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 01/23/92 | $3.0 \times 10^{-5}$ | $6.2 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 02/05/92 | $2.2 \times 10^{-6}$ | $1.0 \times 10^{-6}$ |
| Area 5, RWMS No. 3 | 02/20/92 | $3.1 \times 10^{-7}$ | $6.1 \times 10^{-8}$ |
| Area 5, RWMS No. 3 | 03/03/92 | $3.3 \times 10^{-6}$ | $6.8 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 03/18/92 | $3.3 \times 10^{-6}$ | $8.8 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 04/01/92 | $3.5 \times 10^{-6}$ | $6.4 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 04/29/92 | $2.8 \times 10^{-6}$ | $4.9 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 05/13/92 | $1.2 \times 10^{-6}$ | $1.4 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 05/28/92 | $1.2 \times 10^{-6}$ | $1.6 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 06/11/92 | $5.4 \times 10^{-6}$ | $3.8 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 06/24/92 | $3.9 \times 10^{-6}$ | $2.9 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 07/08/92 | $1.7 \times 10^{-6}$ | $3.0 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 07/23/92 | $6.0 \times 10^{-6}$ | $4.5 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 08/05/92 | $1.7 \times 10^{-6}$ | $3.0 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 08/20/92 | $3.2 \times 10^{-6}$ | $3.4 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 09/03/92 | $3.9 \times 10^{-6}$ | $3.9 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 10/08/92 | $3.8 \times 10^{-7}$ | $9.2 \times 10^{-8}$ |
| Area 5, RWMS No. 3 | 10/28/92 | $5.4 \times 10^{-6}$ | $5.9 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 11/17/92 | $2.3 \times 10^{-6}$ | $2.6 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 12/08/92 | $3.7 \times 10^{-6}$ | $4.2 \times 10^{-7}$ |
| Area 5, RWMS No. 3 | 12/22/92 | $2.1 \times 10^{-6}$ | $6.0 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 01/09/92 | $2.9 \times 10^{-6}$ | $3.4 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 01/23/92 | $4.8 \times 10^{-6}$ | $3.8 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 02/05/92 | $2.9 \times 10^{-6}$ | $1.0 \times 10^{-6}$ |
| Area 5, RWMS No. 4 | 02/20/92 | $2.7 \times 10^{-7}$ | $5.9 \times 10^{-8}$ |
| Area 5, RWMS No. 4 | 03/03/92 | $5.2 \times 10^{-6}$ | $7.6 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 03/18/92 | $4.6 \times 10^{-6}$ | $9.0 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 04/01/92 | $2.6 \times 10^{-6}$ | $7.0 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 04/16/92 | $3.0 \times 10^{-6}$ | $4.8 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 04/29/92 | $5.0 \times 10^{-6}$ | $6.2 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 05/13/92 | $8.3 \times 10^{-6}$ | $4.9 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 06/24/92 | $1.1 \times 10^{-5}$ | $3.8 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 07/08/92 | $1.2 \times 10^{-6}$ | $1.1 \times 10^{-7}$ |

Mean MDC: $1.2 \times 10^{-06}$ pCi/mL          Standard Deviation of Mean MDC: $4.5 \times 10^{-06}$ pCi/mL

## Table B.1 (Tritiated Water Vapor in Air Sampling Results - 1992, cont.)

| Sampling Location | Collection Dates | pCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS No. 4 | 07/23/92 | $5.8 \times 10^{-6}$ | $2.6 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 08/05/92 | $1.7 \times 10^{-5}$ | $4.6 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 08/20/92 | $1.2 \times 10^{-5}$ | $3.4 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 09/03/92 | $1.4 \times 10^{-5}$ | $4.3 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 10/08/92 | $1.7 \times 10^{-5}$ | $4.8 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 10/28/92 | $9.2 \times 10^{-6}$ | $3.8 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 11/17/92 | $4.2 \times 10^{-6}$ | $2.7 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 12/08/92 | $3.5 \times 10^{-6}$ | $6.3 \times 10^{-7}$ |
| Area 5, RWMS No. 4 | 12/22/92 | $9.3 \times 10^{-7}$ | $2.9 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 01/09/92 | $3.7 \times 10^{-6}$ | $3.5 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 01/23/92 | $6.6 \times 10^{-6}$ | $4.0 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 02/05/92 | $1.5 \times 10^{-6}$ | $6.1 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 02/20/92 | $3.6 \times 10^{-7}$ | $4.4 \times 10^{-8}$ |
| Area 5, RWMS No. 5 | 03/03/92 | $5.0 \times 10^{-6}$ | $5.3 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 03/18/92 | $1.2 \times 10^{-6}$ | $6.1 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 04/01/92 | $1.0 \times 10^{-6}$ | $3.4 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 04/16/92 | $1.3 \times 10^{-6}$ | $3.3 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 04/29/92 | $1.9 \times 10^{-7}$ | $5.4 \times 10^{-8}$ |
| Area 5, RWMS No. 5 | 05/13/92 | $2.7 \times 10^{-6}$ | $2.0 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 05/28/92 | $3.4 \times 10^{-6}$ | $2.0 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 07/08/92 | $4.4 \times 10^{-6}$ | $1.6 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 08/05/92 | $1.2 \times 10^{-5}$ | $9.0 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 08/20/92 | $5.6 \times 10^{-6}$ | $4.8 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 09/03/92 | $7.4 \times 10^{-6}$ | $5.2 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 10/08/92 | $7.5 \times 10^{-6}$ | $6.5 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 10/28/92 | $2.8 \times 10^{-6}$ | $3.3 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 11/17/92 | $5.3 \times 10^{-6}$ | $4.0 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 12/08/92 | $6.1 \times 10^{-6}$ | $9.2 \times 10^{-7}$ |
| Area 5, RWMS No. 5 | 12/22/92 | $1.4 \times 10^{-6}$ | $4.4 \times 10^{-7}$ |
| Area 5, RWMS No. 6 | 01/09/92 | $3.2 \times 10^{-6}$ | $2.1 \times 10^{-7}$ |
| Area 5, RWMS No. 6 | 01/23/92 | $6.2 \times 10^{-6}$ | $3.9 \times 10^{-7}$ |
| Area 5, RWMS No. 6 | 02/05/92 | $4.7 \times 10^{-6}$ | $8.7 \times 10^{-7}$ |
| Area 5, RWMS No. 6 | 02/20/92 | $3.9 \times 10^{-7}$ | $5.4 \times 10^{-8}$ |
| Area 5, RWMS No. 6 | 03/03/92 | $6.1 \times 10^{-6}$ | $6.9 \times 10^{-7}$ |
| Area 5, RWMS No. 6 | 03/18/92 | $2.5 \times 10^{-6}$ | $8.1 \times 10^{-7}$ |
| Area 5, RWMS No. 6 | 04/01/92 | $3.6 \times 10^{-6}$ | $6.2 \times 10^{-7}$ |
| Area 5, RWMS No. 6 | 04/16/92 | $9.9 \times 10^{-7}$ | $4.3 \times 10^{-7}$ |
| Area 5, RWMS No. 6 | 04/29/92 | $4.3 \times 10^{-6}$ | $6.5 \times 10^{-7}$ |
| Area 5, RWMS No. 6 | 05/13/92 | $2.3 \times 10^{-6}$ | $4.8 \times 10^{-7}$ |
| Area 5, RWMS No. 6 | 06/24/92 | $5.2 \times 10^{-6}$ | $2.2 \times 10^{-7}$ |
| Area 5, RWMS No. 6 | 07/08/92 | $3.8 \times 10^{-7}$ | $4.8 \times 10^{-8}$ |
| Area 5, RWMS No. 6 | 07/23/92 | $6.9 \times 10^{-6}$ | $6.4 \times 10^{-7}$ |

Mean MDC: $1.2 \times 10^{-06}$ pCi/mL          Standard Deviation of Mean MDC: $4.5 \times 10^{-06}$ pCi/mL

## Table B.1  (Tritiated Water Vapor in Air Sampling Results - 1992, cont.)

| Sampling Location | Collection Dates | pCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 5, RWMS No. 6 | 08/05/92 | $4.2 \times 10^{-6}$ | $5.6 \times 10^{-7}$ |
| Area 5, RWMS No. 6 | 08/20/92 | $3.1 \times 10^{-6}$ | $4.4 \times 10^{-7}$ |
| Area 5, RWMS No. 6 | 09/03/92 | $1.1 \times 10^{-6}$ | $3.4 \times 10^{-7}$ |
| Area 5, RWMS No. 6 | 10/08/92 | $7.7 \times 10^{-6}$ | $5.5 \times 10^{-7}$ |
| Area 5, RWMS No. 6 | 10/28/92 | $5.7 \times 10^{-6}$ | $5.6 \times 10^{-7}$ |
| Area 5, RWMS No. 6 | 11/17/92 | $8.5 \times 10^{-6}$ | $8.3 \times 10^{-7}$ |
| Area 5, RWMS No. 6 | 12/22/92 | $2.8 \times 10^{-6}$ | $4.5 \times 10^{-7}$ |
| Area 5, RWMS No. 7 | 01/09/92 | $9.4 \times 10^{-6}$ | $4.1 \times 10^{-7}$ |
| Area 5, RWMS No. 7 | 01/23/92 | $7.3 \times 10^{-6}$ | $4.2 \times 10^{-7}$ |
| Area 5, RWMS No. 7 | 02/05/92 | $5.7 \times 10^{-6}$ | $7.5 \times 10^{-7}$ |
| Area 5, RWMS No. 7 | 02/20/92 | $6.1 \times 10^{-7}$ | $6.2 \times 10^{-8}$ |
| Area 5, RWMS No. 7 | 03/03/92 | $7.7 \times 10^{-6}$ | $8.6 \times 10^{-7}$ |
| Area 5, RWMS No. 7 | 03/18/92 | $6.5 \times 10^{-6}$ | $2.0 \times 10^{-6}$ |
| Area 5, RWMS No. 7 | 04/01/92 | $7.2 \times 10^{-6}$ | $6.0 \times 10^{-7}$ |
| Area 5, RWMS No. 7 | 04/16/92 | $2.6 \times 10^{-6}$ | $9.9 \times 10^{-7}$ |
| Area 5, RWMS No. 7 | 04/29/92 | $4.7 \times 10^{-6}$ | $4.0 \times 10^{-7}$ |
| Area 5, RWMS No. 7 | 05/13/92 | $6.7 \times 10^{-6}$ | $4.6 \times 10^{-7}$ |
| Area 5, RWMS No. 7 | 06/24/92 | $3.7 \times 10^{-7}$ | $1.0 \times 10^{-7}$ |
| Area 5, RWMS No. 7 | 07/23/92 | $4.9 \times 10^{-5}$ | $1.4 \times 10^{-6}$ |
| Area 5, RWMS No. 7 | 08/05/92 | $6.1 \times 10^{-6}$ | $4.0 \times 10^{-7}$ |
| Area 5, RWMS No. 7 | 08/20/92 | $6.5 \times 10^{-6}$ | $6.4 \times 10^{-7}$ |
| Area 5, RWMS No. 7 | 09/03/92 | $6.0 \times 10^{-6}$ | $5.8 \times 10^{-7}$ |
| Area 5, RWMS No. 7 | 10/08/92 | $1.5 \times 10^{-5}$ | $9.0 \times 10^{-7}$ |
| Area 5, RWMS No. 7 | 10/28/92 | $2.4 \times 10^{-5}$ | $8.4 \times 10^{-7}$ |
| Area 5, RWMS No. 7 | 11/17/92 | $2.7 \times 10^{-5}$ | $6.7 \times 10^{-7}$ |
| Area 5, RWMS No. 7 | 12/08/92 | $4.7 \times 10^{-6}$ | $6.1 \times 10^{-7}$ |
| Area 5, RWMS No. 7 | 12/22/92 | $3.7 \times 10^{-5}$ | $1.2 \times 10^{-6}$ |
| Area 5, RWMS No. 8 | 01/09/92 | $9.2 \times 10^{-6}$ | $4.0 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 01/23/92 | $2.3 \times 10^{-5}$ | $5.2 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 02/05/92 | $4.6 \times 10^{-6}$ | $8.7 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 02/20/92 | $6.0 \times 10^{-7}$ | $6.0 \times 10^{-8}$ |
| Area 5, RWMS No. 8 | 03/03/92 | $3.4 \times 10^{-6}$ | $6.5 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 03/18/92 | $5.9 \times 10^{-6}$ | $1.7 \times 10^{-6}$ |
| Area 5, RWMS No. 8 | 04/01/92 | $2.5 \times 10^{-6}$ | $5.3 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 04/16/92 | $4.7 \times 10^{-6}$ | $5.1 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 04/29/92 | $3.6 \times 10^{-6}$ | $6.9 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 05/13/92 | $6.8 \times 10^{-6}$ | $2.8 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 05/28/92 | $6.0 \times 10^{-7}$ | $5.6 \times 10^{-8}$ |
| Area 5, RWMS No. 8 | 06/11/92 | $6.0 \times 10^{-7}$ | $1.3 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 06/24/92 | $1.2 \times 10^{-6}$ | $3.3 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 07/08/92 | $3.7 \times 10^{-6}$ | $2.9 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 07/23/92 | $5.2 \times 10^{-6}$ | $4.5 \times 10^{-7}$ |

Mean MDC: $1.2 \times 10^{-06}$ pCi/mL          Standard Deviation of Mean MDC: $4.5 \times 10^{-06}$ pCi/mL

Table B.1  (Tritiated Water Vapor in Air Sampling Results - 1992, cont.)

| Sampling Location | Collection Dates | pCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 5, RWMS No. 8 | 08/05/92 | $3.3 \times 10^{-6}$ | $2.9 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 08/20/92 | $2.5 \times 10^{-6}$ | $3.1 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 09/03/92 | $1.9 \times 10^{-6}$ | $3.8 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 10/08/92 | $5.3 \times 10^{-6}$ | $6.1 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 10/28/92 | $7.8 \times 10^{-6}$ | $5.6 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 11/17/92 | $6.2 \times 10^{-6}$ | $4.1 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 12/08/92 | $6.4 \times 10^{-6}$ | $5.8 \times 10^{-7}$ |
| Area 5, RWMS No. 8 | 12/22/92 | $5.1 \times 10^{-6}$ | $6.5 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 01/09/92 | $1.3 \times 10^{-5}$ | $4.6 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 01/23/92 | $1.1 \times 10^{-4}$ | $1.0 \times 10^{-6}$ |
| Area 5, RWMS No. 9 | 02/05/92 | $5.8 \times 10^{-6}$ | $9.8 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 02/20/92 | $2.9 \times 10^{-7}$ | $2.4 \times 10^{-8}$ |
| Area 5, RWMS No. 9 | 03/03/92 | $1.1 \times 10^{-5}$ | $8.6 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 03/18/92 | $5.7 \times 10^{-6}$ | $8.9 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 04/16/92 | $5.2 \times 10^{-6}$ | $5.6 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 04/29/92 | $8.5 \times 10^{-6}$ | $7.4 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 05/13/92 | $1.3 \times 10^{-6}$ | $2.4 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 05/28/92 | $4.5 \times 10^{-6}$ | $5.7 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 06/11/92 | $6.1 \times 10^{-7}$ | $1.5 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 06/24/92 | $3.1 \times 10^{-5}$ | $8.9 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 07/08/92 | $6.9 \times 10^{-7}$ | $1.2 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 07/23/92 | $8.8 \times 10^{-6}$ | $6.7 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 08/05/92 | $8.1 \times 10^{-6}$ | $6.0 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 08/20/92 | $4.3 \times 10^{-6}$ | $4.6 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 09/03/92 | $4.0 \times 10^{-6}$ | $4.1 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 10/08/92 | $5.3 \times 10^{-6}$ | $4.2 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 10/28/92 | $9.9 \times 10^{-6}$ | $5.7 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 11/17/92 | $7.3 \times 10^{-6}$ | $3.7 \times 10^{-7}$ |
| Area 5, RWMS No. 9 | 12/08/92 | $1.2 \times 10^{-5}$ | $1.0 \times 10^{-6}$ |
| Area 5, RWMS No. 9 | 12/22/92 | $4.7 \times 10^{-6}$ | $6.9 \times 10^{-7}$ |
| Area 10, Gate 700 S | 01/09/92 | $7.9 \times 10^{-7}$ | $2.9 \times 10^{-7}$ |
| Area 10, Gate 700 S | 01/22/92 | $4.9 \times 10^{-7}$ | $3.4 \times 10^{-7}$ |
| Area 10, Gate 700 S | 02/05/92 | $-3.0 \times 10^{-7}$ | $6.1 \times 10^{-7}$ |
| Area 10, Gate 700 S | 02/20/92 | $6.1 \times 10^{-8}$ | $3.1 \times 10^{-8}$ |
| Area 10, Gate 700 S | 03/05/92 | $5.5 \times 10^{-7}$ | $3.7 \times 10^{-7}$ |
| Area 10, Gate 700 S | 03/19/92 | $8.1 \times 10^{-7}$ | $6.4 \times 10^{-7}$ |
| Area 10, Gate 700 S | 04/01/92 | $-4.0 \times 10^{-8}$ | $2.7 \times 10^{-7}$ |
| Area 10, Gate 700 S | 04/16/92 | $2.4 \times 10^{-7}$ | $3.9 \times 10^{-7}$ |
| Area 10, Gate 700 S | 04/29/92 | $2.5 \times 10^{-7}$ | $1.5 \times 10^{-7}$ |
| Area 10, Gate 700 S | 05/13/92 | $2.6 \times 10^{-7}$ | $1.7 \times 10^{-7}$ |
| Area 10, Gate 700 S | 05/28/92 | $4.7 \times 10^{-7}$ | $1.1 \times 10^{-7}$ |
| Area 10, Gate 700 S | 06/11/92 | $6.7 \times 10^{-8}$ | $7.9 \times 10^{-8}$ |

Mean MDC: $1.2 \times 10^{-06}$ pCi/mL          Standard Deviation of Mean MDC: $4.5 \times 10^{-06}$ pCi/mL

Table B.1  (Tritiated Water Vapor in Air Sampling Results - 1992, cont.)

| Sampling Location | Collection Dates | pCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 10, Gate 700 S | 06/25/92 | $-1.3 \times 10^{-8}$ | $4.4 \times 10^{-8}$ |
| Area 10, Gate 700 S | 07/08/92 | $1.7 \times 10^{-7}$ | $1.3 \times 10^{-7}$ |
| Area 10, Gate 700 S | 07/22/92 | $3.1 \times 10^{-7}$ | $8.6 \times 10^{-8}$ |
| Area 10, Gate 700 S | 08/06/92 | $4.7 \times 10^{-7}$ | $3.2 \times 10^{-7}$ |
| Area 10, Gate 700 S | 08/20/92 | $8.2 \times 10^{-7}$ | $2.8 \times 10^{-7}$ |
| Area 10, Gate 700 S | 09/03/92 | $2.5 \times 10^{-6}$ | $1.0 \times 10^{-6}$ |
| Area 10, Gate 700 S | 10/08/92 | $8.8 \times 10^{-9}$ | $3.4 \times 10^{-7}$ |
| Area 10, Gate 700 S | 10/28/92 | $3.3 \times 10^{-6}$ | $3.7 \times 10^{-7}$ |
| Area 10, Gate 700 S | 11/18/92 | $7.2 \times 10^{-7}$ | $2.9 \times 10^{-7}$ |
| Area 10, Gate 700 S | 12/08/92 | $2.3 \times 10^{-6}$ | $4.0 \times 10^{-7}$ |
| Area 10, Gate 700 S | 12/22/92 | $3.5 \times 10^{-7}$ | $5.1 \times 10^{-7}$ |
| Area 12, Base Camp | 01/09/92 | $3.3 \times 10^{-6}$ | $3.0 \times 10^{-7}$ |
| Area 12, Base Camp | 02/05/92 | $-6.9 \times 10^{-7}$ | $7.4 \times 10^{-7}$ |
| Area 12, Base Camp | 02/20/92 | $1.1 \times 10^{-7}$ | $3.4 \times 10^{-8}$ |
| Area 12, Base Camp | 03/05/92 | $5.3 \times 10^{-7}$ | $3.4 \times 10^{-7}$ |
| Area 12, Base Camp | 03/19/92 | $3.6 \times 10^{-7}$ | $5.7 \times 10^{-7}$ |
| Area 12, Base Camp | 04/01/92 | $-6.1 \times 10^{-9}$ | $2.5 \times 10^{-7}$ |
| Area 12, Base Camp | 04/16/92 | $1.1 \times 10^{-6}$ | $3.8 \times 10^{-7}$ |
| Area 12, Base Camp | 05/13/92 | $3.1 \times 10^{-7}$ | $2.8 \times 10^{-7}$ |
| Area 12, Base Camp | 05/28/92 | $5.9 \times 10^{-7}$ | $2.1 \times 10^{-7}$ |
| Area 12, Base Camp | 06/11/92 | $3.1 \times 10^{-7}$ | $1.7 \times 10^{-7}$ |
| Area 12, Base Camp | 06/25/92 | $-5.1 \times 10^{-8}$ | $1.8 \times 10^{-7}$ |
| Area 12, Base Camp | 07/08/92 | $4.2 \times 10^{-7}$ | $1.8 \times 10^{-7}$ |
| Area 12, Base Camp | 07/22/92 | $1.6 \times 10^{-7}$ | $7.7 \times 10^{-8}$ |
| Area 12, Base Camp | 10/08/92 | $3.1 \times 10^{-7}$ | $3.3 \times 10^{-7}$ |
| Area 12, Base Camp | 10/28/92 | $1.5 \times 10^{-6}$ | $4.2 \times 10^{-7}$ |
| Area 12, Base Camp | 11/18/92 | $8.5 \times 10^{-7}$ | $2.9 \times 10^{-7}$ |
| Area 12, Base Camp | 12/08/92 | $7.1 \times 10^{-7}$ | $2.9 \times 10^{-7}$ |
| Area 12, Base Camp | 12/22/92 | $-8.9 \times 10^{-8}$ | $5.3 \times 10^{-7}$ |
| Area 15, EPA Farm | 01/09/92 | $6.2 \times 10^{-5}$ | $1.3 \times 10^{-6}$ |
| Area 15, EPA Farm | 02/05/92 | $8.4 \times 10^{-6}$ | $9.8 \times 10^{-7}$ |
| Area 15, EPA Farm | 02/20/92 | $6.4 \times 10^{-7}$ | $5.9 \times 10^{-8}$ |
| Area 15, EPA Farm | 03/05/92 | $9.1 \times 10^{-6}$ | $5.9 \times 10^{-7}$ |
| Area 15, EPA Farm | 03/19/92 | $4.5 \times 10^{-6}$ | $4.9 \times 10^{-7}$ |
| Area 15, EPA Farm | 04/01/92 | $1.0 \times 10^{-5}$ | $5.3 \times 10^{-7}$ |
| Area 15, EPA Farm | 04/16/92 | $1.1 \times 10^{-5}$ | $5.2 \times 10^{-7}$ |
| Area 15, EPA Farm | 04/29/92 | $7.2 \times 10^{-7}$ | $9.8 \times 10^{-8}$ |
| Area 15, EPA Farm | 05/13/92 | $9.5 \times 10^{-6}$ | $5.7 \times 10^{-7}$ |
| Area 15, EPA Farm | 05/28/92 | $3.2 \times 10^{-6}$ | $2.1 \times 10^{-7}$ |
| Area 15, EPA Farm | 06/11/92 | $8.2 \times 10^{-6}$ | $3.3 \times 10^{-7}$ |
| Area 15, EPA Farm | 06/25/92 | $5.1 \times 10^{-6}$ | $4.4 \times 10^{-7}$ |
| Area 15, EPA Farm | 10/28/92 | $6.0 \times 10^{-7}$ | $1.3 \times 10^{-7}$ |

Mean MDC: $1.2 \times 10^{-06}$pCi/mL          Standard Deviation of Mean MDC: $4.5 \times 10^{-06}$pCi/mL

Table B.1 (Tritiated Water Vapor in Air Sampling Results - 1992, cont.)

| Sampling Location | Collection Dates | pCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 15, EPA Farm | 11/18/92 | $8.9 \times 10^{-6}$ | $4.1 \times 10^{-7}$ |
| Area 15, EPA Farm | 12/08/92 | $1.3 \times 10^{-5}$ | $5.6 \times 10^{-7}$ |
| Area 15, EPA Farm | 12/22/92 | $7.7 \times 10^{-6}$ | $6.9 \times 10^{-7}$ |
| Area 23, H&S Building | 01/09/92 | $-1.2 \times 10^{-7}$ | $3.0 \times 10^{-7}$ |
| Area 23, H&S Building | 01/22/92 | $8.3 \times 10^{-7}$ | $3.2 \times 10^{-7}$ |
| Area 23, H&S Building | 02/05/92 | $-1.4 \times 10^{-7}$ | $5.0 \times 10^{-7}$ |
| Area 23, H&S Building | 02/20/92 | $3.2 \times 10^{-8}$ | $2.7 \times 10^{-8}$ |
| Area 23, H&S Building | 03/05/92 | $4.9 \times 10^{-7}$ | $3.9 \times 10^{-7}$ |
| Area 23, H&S Building | 03/19/92 | $3.8 \times 10^{-7}$ | $3.8 \times 10^{-7}$ |
| Area 23, H&S Building | 04/01/92 | $-1.7 \times 10^{-7}$ | $2.3 \times 10^{-7}$ |
| Area 23, H&S Building | 04/16/92 | $1.1 \times 10^{-7}$ | $3.4 \times 10^{-7}$ |
| Area 23, H&S Building | 04/29/92 | $2.5 \times 10^{-9}$ | $3.2 \times 10^{-8}$ |
| Area 23, H&S Building | 05/13/92 | $1.9 \times 10^{-7}$ | $1.1 \times 10^{-7}$ |
| Area 23, H&S Building | 05/28/92 | $2.0 \times 10^{-7}$ | $1.6 \times 10^{-7}$ |
| Area 23, H&S Building | 06/11/92 | $2.1 \times 10^{-7}$ | $1.1 \times 10^{-7}$ |
| Area 23, H&S Building | 06/25/92 | $4.4 \times 10^{-6}$ | $2.6 \times 10^{-7}$ |
| Area 23, H&S Building | 07/08/92 | $4.9 \times 10^{-7}$ | $1.7 \times 10^{-7}$ |
| Area 23, H&S Building | 07/22/92 | $7.0 \times 10^{-8}$ | $2.1 \times 10^{-7}$ |
| Area 23, H&S Building | 08/06/92 | $5.0 \times 10^{-7}$ | $1.4 \times 10^{-7}$ |
| Area 23, H&S Building | 08/20/92 | $-3.2 \times 10^{-7}$ | $3.1 \times 10^{-7}$ |
| Area 23, H&S Building | 09/03/92 | $-7.2 \times 10^{-8}$ | $3.5 \times 10^{-7}$ |
| Area 23, H&S Building | 09/16/92 | $-1.3 \times 10^{-7}$ | $2.3 \times 10^{-7}$ |
| Area 23, H&S Building | 10/28/92 | $2.0 \times 10^{-6}$ | $2.2 \times 10^{-7}$ |
| Area 23, H&S Building | 11/18/92 | $1.7 \times 10^{-7}$ | $2.7 \times 10^{-7}$ |
| Area 23, H&S Building | 12/08/92 | $2.3 \times 10^{-6}$ | $4.6 \times 10^{-7}$ |
| Area 23, H&S Building | 12/22/92 | $6.9 \times 10^{-7}$ | $3.1 \times 10^{-7}$ |
| Area 23, E Boundary | 01/09/92 | $4.2 \times 10^{-7}$ | $3.2 \times 10^{-7}$ |
| Area 23, E Boundary | 01/22/92 | $2.0 \times 10^{-6}$ | $3.5 \times 10^{-7}$ |
| Area 23, E Boundary | 02/05/92 | $-8.0 \times 10^{-7}$ | $8.2 \times 10^{-7}$ |
| Area 23, E Boundary | 02/20/92 | $1.6 \times 10^{-8}$ | $3.7 \times 10^{-8}$ |
| Area 23, E Boundary | 03/05/92 | $7.3 \times 10^{-7}$ | $4.9 \times 10^{-7}$ |
| Area 23, E Boundary | 04/01/92 | $-4.8 \times 10^{-7}$ | $2.8 \times 10^{-7}$ |
| Area 23, E Boundary | 04/16/92 | $7.8 \times 10^{-9}$ | $3.2 \times 10^{-7}$ |
| Area 23, E Boundary | 04/29/92 | $3.3 \times 10^{-7}$ | $4.4 \times 10^{-7}$ |
| Area 23, E Boundary | 05/13/92 | $4.3 \times 10^{-7}$ | $3.0 \times 10^{-7}$ |
| Area 23, E Boundary | 05/28/92 | $1.6 \times 10^{-7}$ | $1.5 \times 10^{-7}$ |
| Area 23, E Boundary | 06/11/92 | $1.7 \times 10^{-6}$ | $3.7 \times 10^{-7}$ |
| Area 23, E Boundary | 06/25/92 | $-2.4 \times 10^{-8}$ | $5.1 \times 10^{-7}$ |
| Area 23, E Boundary | 07/08/92 | $4.1 \times 10^{-7}$ | $1.4 \times 10^{-7}$ |
| Area 23, E Boundary | 07/22/92 | $2.2 \times 10^{-8}$ | $2.3 \times 10^{-7}$ |
| Area 23, E Boundary | 08/06/92 | $3.8 \times 10^{-7}$ | $1.3 \times 10^{-7}$ |
| Area 23, E Boundary | 08/20/92 | $2.0 \times 10^{-7}$ | $2.7 \times 10^{-7}$ |

Mean MDC: $1.2 \times 10^{-06}$ pCi/mL        Standard Deviation of Mean MDC: $4.5 \times 10^{-06}$ pCi/mL

## Table B.1  (Tritiated Water Vapor in Air Sampling Results - 1992, cont.)

| Sampling Location | Collection Dates | pCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 23, E Boundary | 09/03/92 | $2.8 \times 10^{-8}$ | $1.8 \times 10^{-7}$ |
| Area 23, E Boundary | 09/16/92 | $-2.2 \times 10^{-7}$ | $3.2 \times 10^{-7}$ |
| Area 23, E Boundary | 10/28/92 | $1.9 \times 10^{-7}$ | $2.8 \times 10^{-7}$ |
| Area 23, E Boundary | 11/18/92 | $6.6 \times 10^{-7}$ | $2.2 \times 10^{-7}$ |
| Area 23, E Boundary | 12/08/92 | $1.1 \times 10^{-6}$ | $2.7 \times 10^{-7}$ |
| Area 23, E Boundary | 12/22/92 | $4.9 \times 10^{-7}$ | $3.1 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 01/09/92 | $5.3 \times 10^{-7}$ | $3.3 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 01/22/92 | $1.2 \times 10^{-6}$ | $2.3 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 02/05/92 | $-1.5 \times 10^{-7}$ | $5.3 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 02/20/92 | $3.1 \times 10^{-8}$ | $3.6 \times 10^{-8}$ |
| Area 23, Building 790 No. 2 | 03/05/92 | $1.4 \times 10^{-7}$ | $7.6 \times 10^{-8}$ |
| Area 23, Building 790 No. 2 | 03/19/92 | $1.5 \times 10^{-7}$ | $4.9 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 04/01/92 | $-3.3 \times 10^{-7}$ | $3.2 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 04/16/92 | $-1.3 \times 10^{-7}$ | $2.7 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 04/29/92 | $2.4 \times 10^{-7}$ | $1.9 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 05/13/92 | $3.9 \times 10^{-7}$ | $2.9 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 05/28/92 | $1.5 \times 10^{-7}$ | $1.3 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 06/11/92 | $-1.1 \times 10^{-8}$ | $1.2 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 06/25/92 | $3.2 \times 10^{-8}$ | $1.3 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 07/08/92 | $4.0 \times 10^{-7}$ | $1.1 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 07/22/92 | $-9.9 \times 10^{-8}$ | $1.8 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 08/06/92 | $7.4 \times 10^{-7}$ | $1.9 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 08/20/92 | $1.5 \times 10^{-7}$ | $2.3 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 09/03/92 | $1.6 \times 10^{-7}$ | $2.9 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 09/16/92 | $4.1 \times 10^{-7}$ | $7.6 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 10/28/92 | $-1.2 \times 10^{-7}$ | $4.2 \times 10^{-7}$ |
| Area 23, Building 790 No. 2 | 12/08/92 | $9.0 \times 10^{-7}$ | $1.4 \times 10^{-6}$ |
| Area 23, Building 790 No. 2 | 12/22/92 | $1.2 \times 10^{-5}$ | $3.9 \times 10^{-6}$ |
| Area 25, E-MAD N | 01/09/92 | $4.6 \times 10^{-7}$ | $3.1 \times 10^{-7}$ |
| Area 25, E-MAD N | 01/23/92 | $8.3 \times 10^{-6}$ | $3.9 \times 10^{-7}$ |
| Area 25, E-MAD N | 02/05/92 | $-2.4 \times 10^{-7}$ | $6.3 \times 10^{-7}$ |
| Area 25, E-MAD N | 02/20/92 | $9.7 \times 10^{-7}$ | $5.3 \times 10^{-8}$ |
| Area 25, E-MAD N | 03/03/92 | $4.6 \times 10^{-7}$ | $3.3 \times 10^{-7}$ |
| Area 25, E-MAD N | 03/18/92 | $8.8 \times 10^{-5}$ | $1.2 \times 10^{-6}$ |
| Area 25, E-MAD N | 04/01/92 | $-2.1 \times 10^{-7}$ | $2.4 \times 10^{-7}$ |
| Area 25, E-MAD N | 04/16/92 | $1.3 \times 10^{-5}$ | $5.0 \times 10^{-7}$ |
| Area 25, E-MAD N | 04/29/92 | $1.9 \times 10^{-7}$ | $2.0 \times 10^{-7}$ |
| Area 25, E-MAD N | 05/13/92 | $4.4 \times 10^{-6}$ | $3.6 \times 10^{-7}$ |
| Area 25, E-MAD N | 05/28/92 | $2.1 \times 10^{-7}$ | $1.2 \times 10^{-7}$ |
| Area 25, E-MAD N | 06/11/92 | $1.0 \times 10^{-6}$ | $1.2 \times 10^{-7}$ |
| Area 25, E-MAD N | 06/24/92 | $8.2 \times 10^{-8}$ | $2.4 \times 10^{-8}$ |
| Area 25, E-MAD N | 07/08/92 | $1.3 \times 10^{-6}$ | $9.1 \times 10^{-8}$ |

Mean MDC: $1.2 \times 10^{-06}$ pCi/mL          Standard Deviation of Mean MDC: $4.5 \times 10^{-06}$ pCi/mL

Table B.1 (Tritiated Water Vapor in Air Sampling Results - 1992, cont.)

| Sampling Location | Collection Dates | pCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 25, E-MAD N | 07/23/92 | $1.3 \times 10^{-6}$ | $7.7 \times 10^{-8}$ |
| Area 25, E-MAD N | 08/05/92 | $2.9 \times 10^{-6}$ | $6.5 \times 10^{-7}$ |
| Area 25, E-MAD N | 08/20/92 | $2.7 \times 10^{-7}$ | $3.5 \times 10^{-7}$ |
| Area 25, E-MAD N | 09/03/92 | $3.4 \times 10^{-7}$ | $3.3 \times 10^{-7}$ |
| Area 25, E-MAD N | 10/08/92 | $9.5 \times 10^{-7}$ | $5.6 \times 10^{-7}$ |
| Area 25, E-MAD N | 10/28/92 | $9.3 \times 10^{-7}$ | $4.9 \times 10^{-7}$ |
| Area 25, E-MAD N | 11/17/92 | $9.2 \times 10^{-7}$ | $6.4 \times 10^{-7}$ |
| Area 25, E-MAD N | 12/08/92 | $4.8 \times 10^{-5}$ | $1.3 \times 10^{-5}$ |
| Area 25, E-MAD N | 12/22/92 | $1.6 \times 10^{-6}$ | $4.9 \times 10^{-7}$ |

Mean MDC: $1.2 \times 10^{-06}$ pCi/mL     Standard Deviation of Mean MDC: $4.5 \times 10^{-06}$ pCi/mL

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 started 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 one hundred for some of the radiological waste management (RWMS) sampling stations while most of the plots have a range of zero to twenty. Values over one hundred have been deleted from the plots, but are indicated by arrows at the top of some plots. Figure B.18 shows all the data combined in one plot; this plot does not contain any confidence intervals or detection limits, and the highest value has 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

Examination of the figures shows two items of note. First, a few values above $50 \times 10^{-6}$ pCi/mL are found mostly in the data for the radiological waste management site (RWMS). These are probably related to activities at this site. Second, 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 and all locations combined 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 asymptomatically equivalent to the Shapiro-Wilk test.
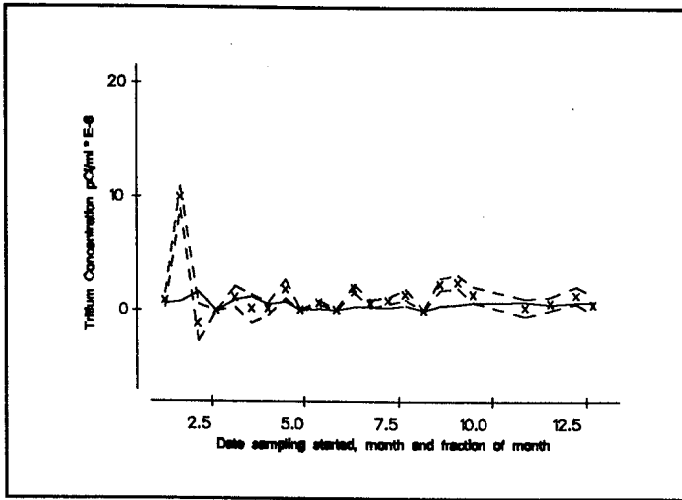
Figure B.1 Time Series Plot of BJY Tritium Results
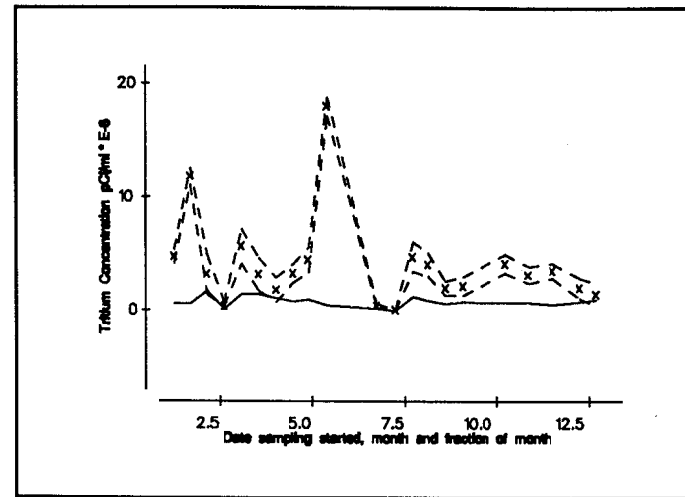


Figure B.2 Time Series Plot of RWMS No. 1 Tritium
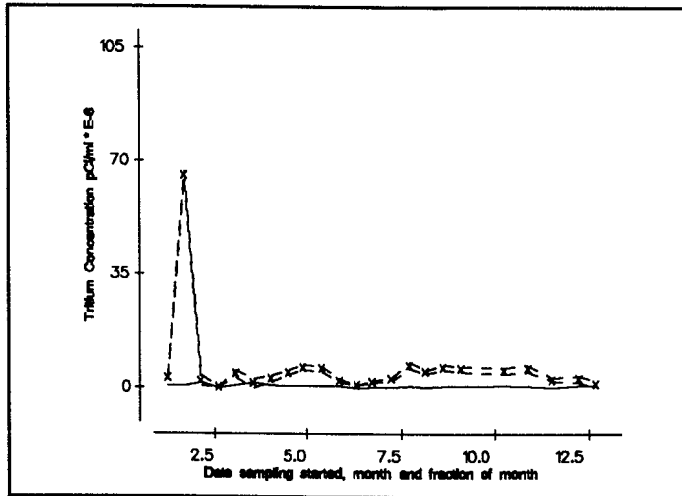


Figure B.3 Time Series Plot of RWMS No. 2 Tritium
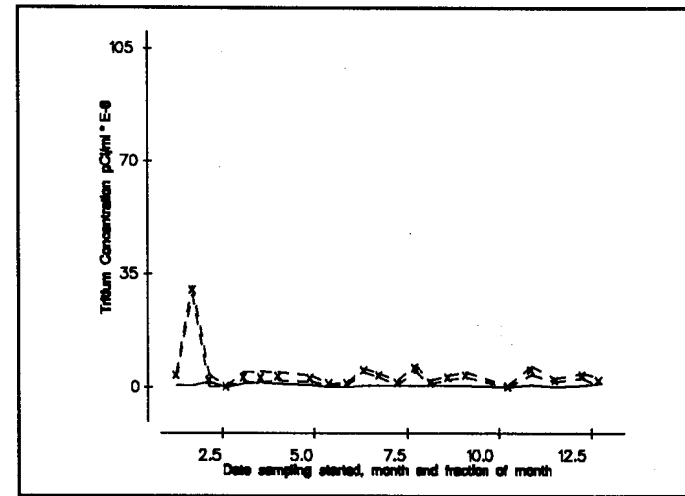


Figure B.4 Time Series Plot of RWMS No. 3 Tritium
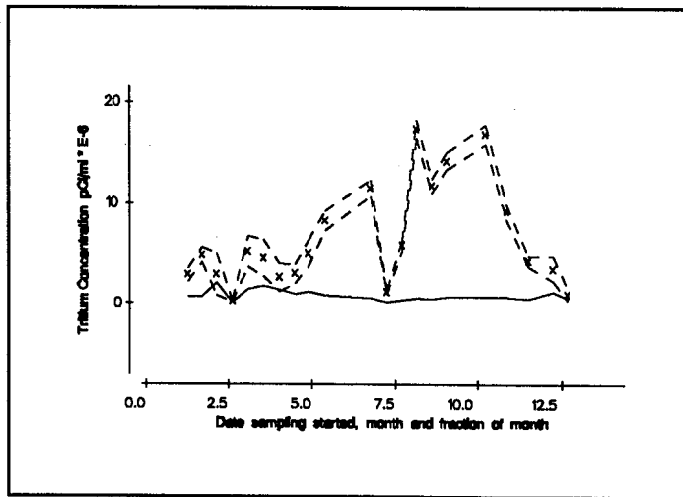
Figure B.5 Time Series Plot of RWMS No. 4 Tritium
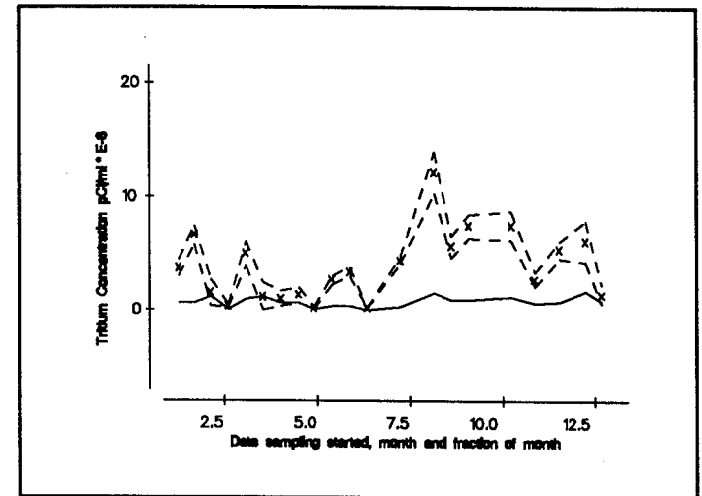


Figure B.6 Time Series Plot of RWMS No. 5 Tritium
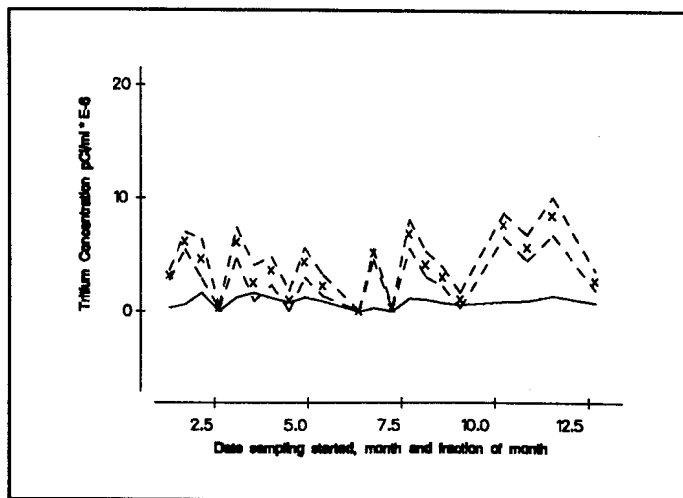


Figure B.7 Time Series Plot of RWMS No. 6 Tritium
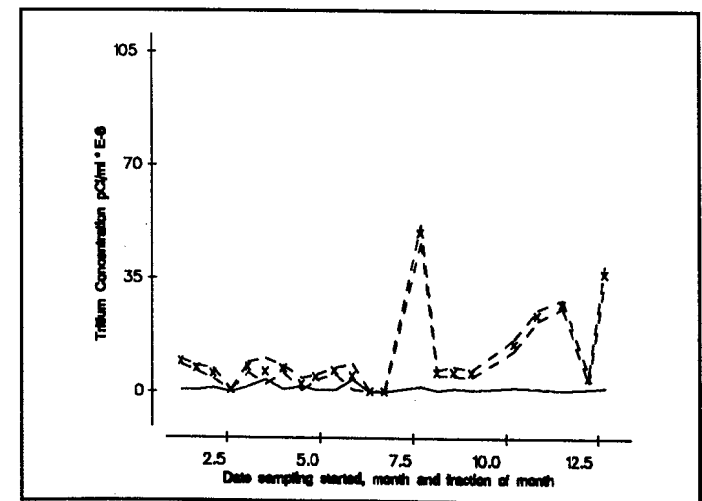


Figure B.8 Time Series Plot of RWMS No. 7 Tritium
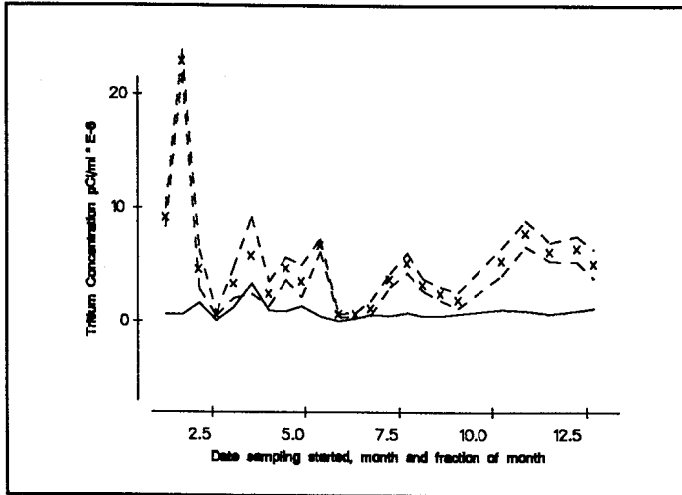
Figure B.9 Time Series Plot of RWMS No. 8 Tritium
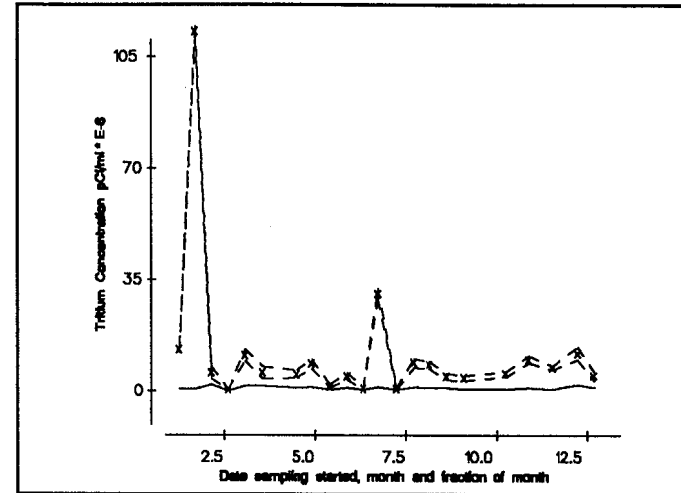


Figure B.10  Time Series Plot, RWMS No. 9 Tritium
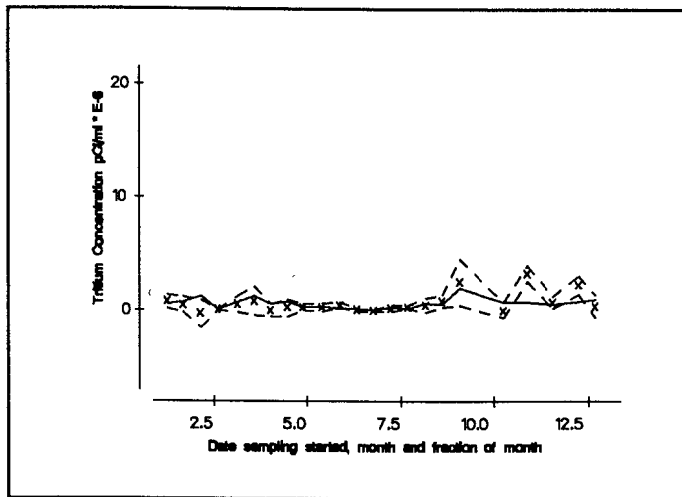


Figure B.11  Time Series Plot of Gate 700 Tritium
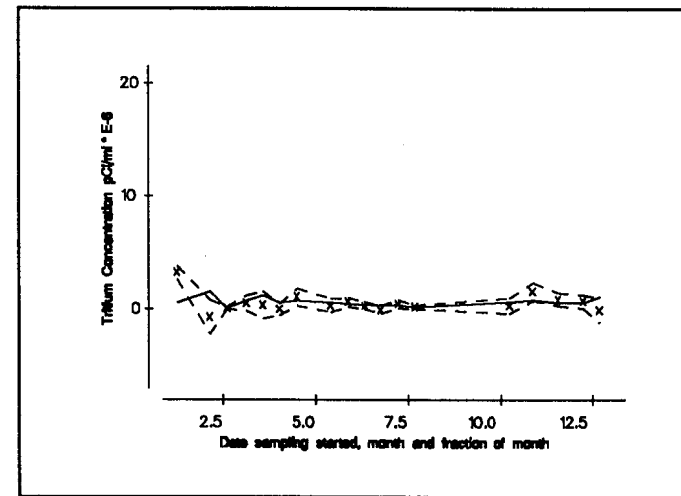


Figure B.12  Time Series Plot of Area 12 Tritium
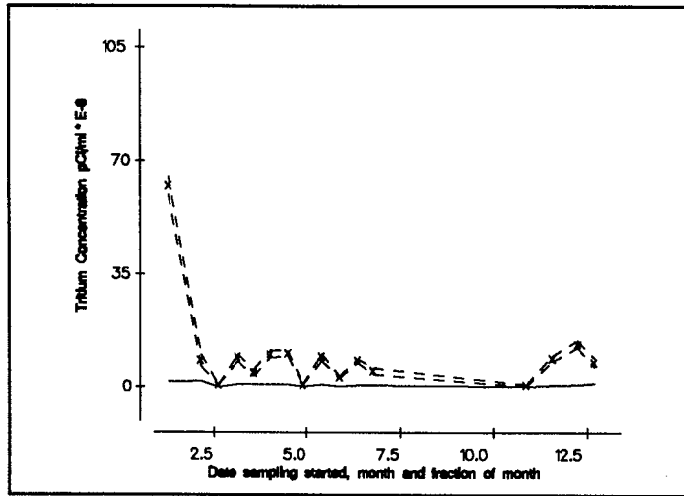
Figure B.13  Time Series Plot of EPA Farm Tritium
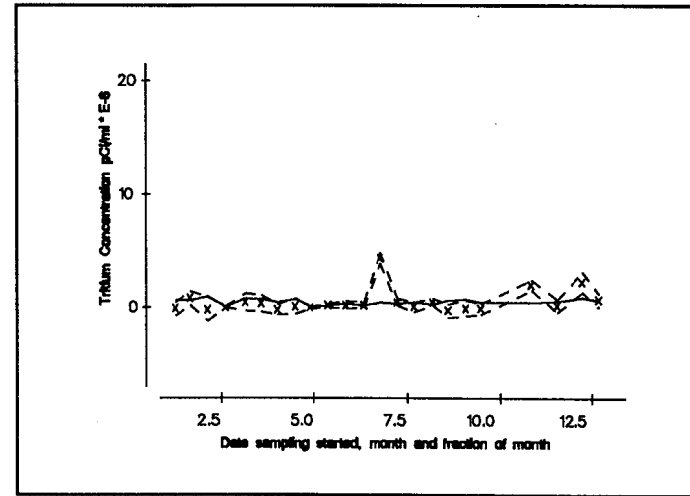
Figure B.14  Time Series Plot, H&S Building Roof Tritium
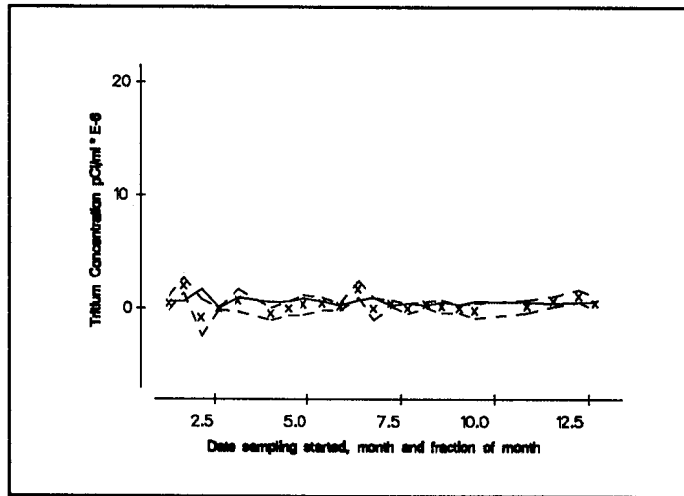
Figure B.15  Time Series Plot, East Boundary Tritium
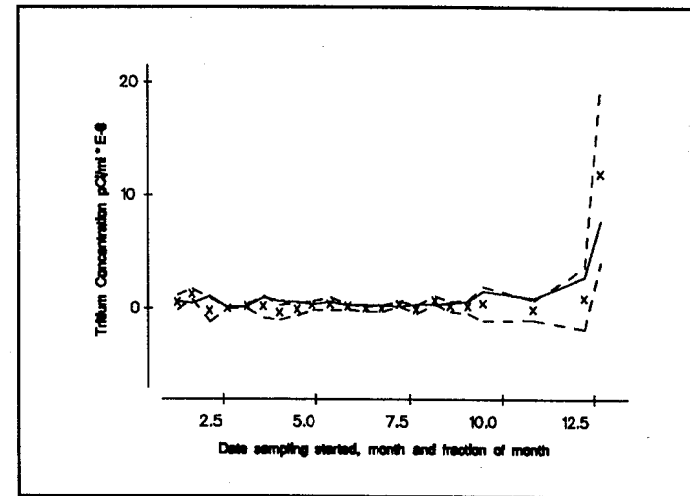
Figure B.16  Time Series Plot, Building 790 No. 2 Tritium
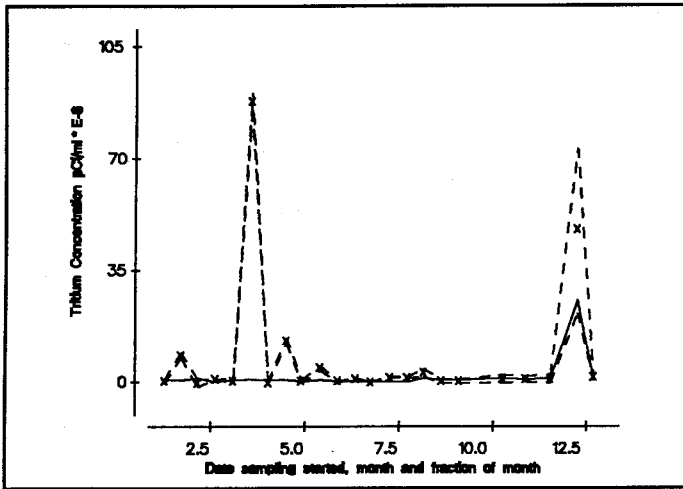
Figure B.17 Time Series Plot of E-MAD Tritium

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.18. 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 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 fit to a normal distribution if values over 50 and the two lowest values are removed. 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 each sampling location. Most of the data sets are not fit by 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 data value over 100 was removed before the table was calculated. 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
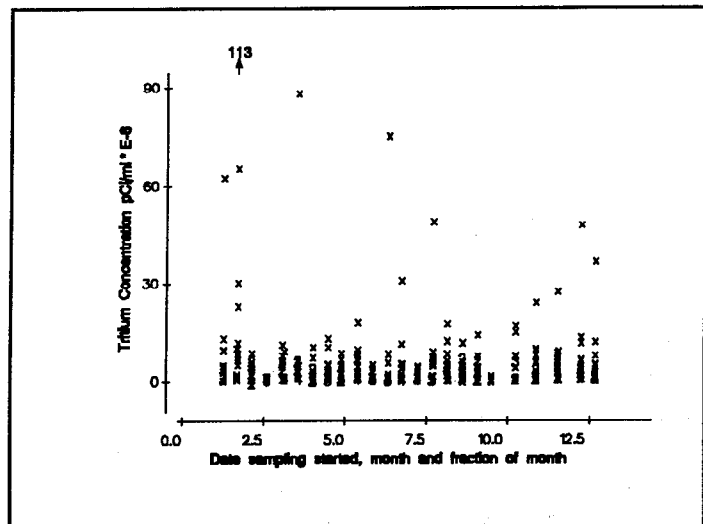


Figure B.18 Time Series Plot of All Tritium Data
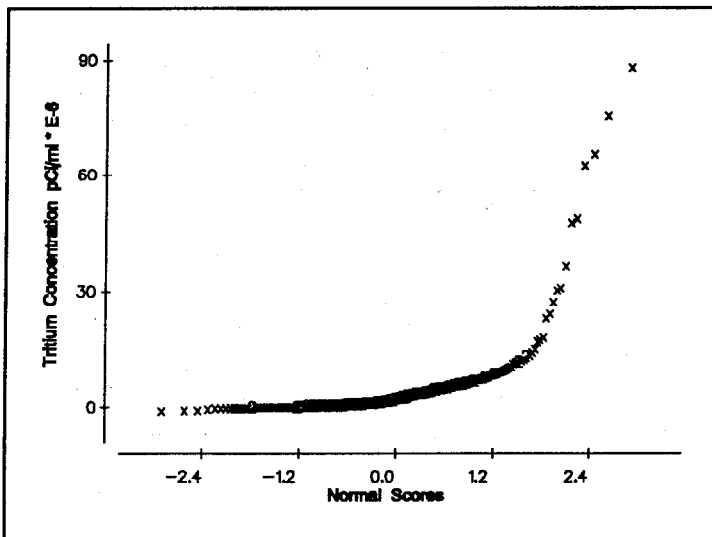
Figure B.19 Normal Probability Plot of All
Tritium Results

that, except for the EPA Farm and E-MAD, concentrations are slightly lower or about the same 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. The final statistical test on these data was a one-way analysis of variance to test for differences between group medians. The data were scaled by multiplying by $10^{16}$, then logarithmically transformed before this test because the data are lognormally distributed. Also, the negative values and the value over 100 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 median 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 medians for equality. This process identified two groupings of stations: those with negative logarithms of the median and E-MAD, and the remaining stations with positive logarithms of their medians. This corresponds to those stations listed in Table B.2 with medians less than 1.0 in the first group, and the remaining stations in the second group. The analysis of variance also identified a third significant group which forms a transition between the groups described above. This consists of stations BJY, E-MAD and RWMS No. 3. The list of "stations" has been rearranged by increasing magnitude of the means to facilitate the comparison of the grouped medians in Table B.3.

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 among the station means. Since the p value is essentially 0 ($1.0 \times 10^{-33}$), the statistical conclusion is that there are differences between the station means, as was discussed in the previous paragraph.
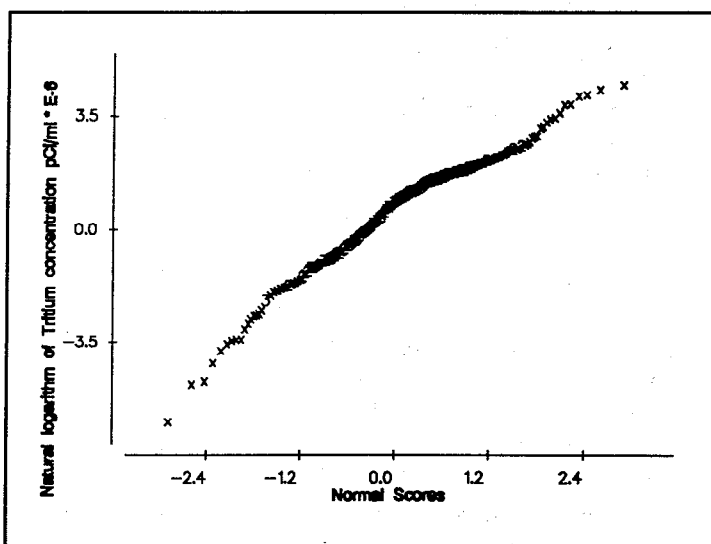


Figure B.20 Lognormal Probability Plot of
All Tritium Results

B-16

**Table B.2  1992 Descriptive Statistics by Sampling Station**

| Station | Number | Mean | Standard Deviation | Median | 1st Quartile | 3rd Quartile |
|---|---|---|---|---|---|---|
| | | | $10^{-6}$ pCi/mL | | | |
| BJY | 23 | 1.37 | 2.09 | 0.90 | 0.20 | 1.95 |
| RWMS No. 1 | 20 | 4.21 | 4.05 | 3.23 | 1.99 | 4.66 |
| RWMS No. 2 | 22 | 6.68 | 13.28 | 3.78 | 2.35 | 5.98 |
| RWMS No. 3 | 22 | 4.16 | 6.04 | 3.24 | 1.72 | 3.90 |
| RWMS No. 4 | 21 | 6.47 | 5.12 | 4.80 | 2.91 | 10.36 |
| RWMS No. 5 | 20 | 3.99 | 3.04 | 3.55 | 1.36 | 5.97 |
| RWMS No. 6 | 20 | 3.99 | 2.39 | 3.90 | 2.36 | 6.00 |
| RWMS No. 7 | 20 | 11.69 | 12.73 | 6.61 | 4.98 | 13.53 |
| RWMS No. 8 | 23 | 4.95 | 4.56 | 4.64 | 2.45 | 6.18 |
| RWMS No. 9 | 22 | 12.04 | 23.43 | 5.76 | 4.27 | 10.24 |
| Gate 700 | 23 | 0.63 | 0.88 | 0.35 | 0.07 | 0.79 |
| Area 12 Complex | 18 | 0.54 | 0.83 | 0.34 | 0.08 | 0.74 |
| EPA Farm | 16 | 10.21 | 14.48 | 8.29 | 3.56 | 10.10 |
| H&S Building Roof | 23 | 0.53 | 1.06 | 0.19 | -0.07 | 0.50 |
| East Boundary | 22 | 0.36 | 0.64 | 0.27 | 0.01 | 0.53 |
| Building 790 | 22 | 0.76 | 2.52 | 0.15 | -0.03 | 0.44 |
| E-MAD | 23 | 7.61 | 20.22 | 0.95 | 0.27 | 2.86 |
| All | 360 | 4.62 | 10.32 | 2.02 | 0.40 | 5.22 |

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

| Source | Degrees of Freedom | Sum of the Squares | Mean Square | F-Statistic | p Value |
|---|---|---|---|---|---|
| Area | 16 | 401.59 | 25.10 | 16.90 | 0.000 |
| Error | 316 | 469.33 | 1.49 | | |
| Total | 332 | 870.92 | | | |

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

| Station | N | Ln of Median | Standard Deviation | Individual 95 Percent Confidence Intervals CIs for Ln Median Based on Pooled Standard Deviation |
|---|---|---|---|---|
| | | | | ----+---------+---------+---------+-- |
| E Boundary | 18 | -1.458 | 1.616 | (--*---) |
| H&S Building | 17 | -1.268 | 1.756 | (---*--) |
| 790 Building | 16 | -1.188 | 1.434 | (---*---) |
| Gate 700 | 20 | -0.962 | 1.367 | (---*--) |
| Area 12 | 14 | -0.676 | 0.885 | (---*----) |
| BJY | 22 | -0.253 | 1.228 | (--*---) |
| E-MAD | 21 | 0.319 | 1.778 | (--*---) |
| RWMS No. 3 | 22 | 0.971 | 0.941 | (--*---) |
| RWMS No. 5 | 20 | 0.993 | 1.061 | (---*--) |
| RWMS No. 1 | 20 | 1.091 | 0.897 | (--*---) |
| RWMS No. 6 | 20 | 1.103 | 0.913 | (--*---) |
| RWMS No. 8 | 23 | 1.256 | 0.912 | (--*---) |
| RWMS No. 2 | 22 | 1.303 | 0.962 | (---*--) |
| RWMS No. 4 | 21 | 1.492 | 1.019 | (---*--) |
| RWMS No. 9 | 21 | 1.547 | 1.124 | (--*---) |
| EPA Farm | 16 | 1.711 | 1.231 | (---*---) |
| RWMS No. 7 | 20 | 1.923 | 1.183 | (---*--) |
| | | | | ----+---------+---------+---------+-- |
| | | | | -1.5      0.0       1.5       3.0 |

Pooled Standard Deviation = 1.219

B-18

# APPENDIX C
# ONSITE $^{238}$Pu, $^{239+240}$Pu, $^{90}$Sr, GROSS ALPHA AND BETA, GAMMA-EMITTING RADIONUCLIDES, $^{226}$Ra, $^{228}$Ra, AND TRITIUM IN WATER

## Lawrence E. Barker

Sampling locations, sampling dates, measured concentrations, and analytic standard deviations for $^{90}$Sr, gross alpha, $^{238}$Pu, $^{239+240}$Pu, gross beta, gamma emitting radionuclides, tritium, $^{226}$Ra, and $^{228}$Ra in water appear in Attachments C.1 through C.9 following this text. Statistical analyses of these data are presented below.

### STRONTIUM-90

The arithmetic mean and standard deviation are for the network, respectively, $1.8 \times 10^{-9}$ and $3.9 \times 10^{-9}$ μCi/mL ($6.7 \times 10^{-2}$ and $1.4 \times 10^{-1}$ Bq/L). Almost 95 percent of the measured concentrations were positive. Of the positive concentrations, a geometric mean of $4.9 \times 10^{-10}$ μCi/mL ($1.8 \times 10^{-2}$ Bq/L) and a geometric standard deviation of 4.6 was observed.

No probability distribution was found that fit the $^{90}$Sr concentrations particularly well. In Figure C.1, natural logarithms of concentrations from Area 12 are plotted versus normal scores. Were the distribution of $^{90}$Sr concentrations lognormally distributed, a straight line would result. This does not happen. This plot is typical of $^{90}$Sr concentrations. Similar analyses with other distributions failed to find a reasonable fit. Hence, concentrations are compared among NTS operational areas by means of the rank-based Kruskal-Wallis test. 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 when they exist) than classical ANOVA.

The results of this analysis appear in Table C.1. There a statistic is calculated for each NTS operational area which, if concentrations in all NTS operational areas had the same median, would have 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.

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

The Kruskal-Wallis test failed to find statistically significant differences among NTS operational areas in $^{90}$Sr concentrations. Although the overall test statistic was not statistically significant, the Z-value associated with data from Area 12 was large. Similarly, the largest median

C-1
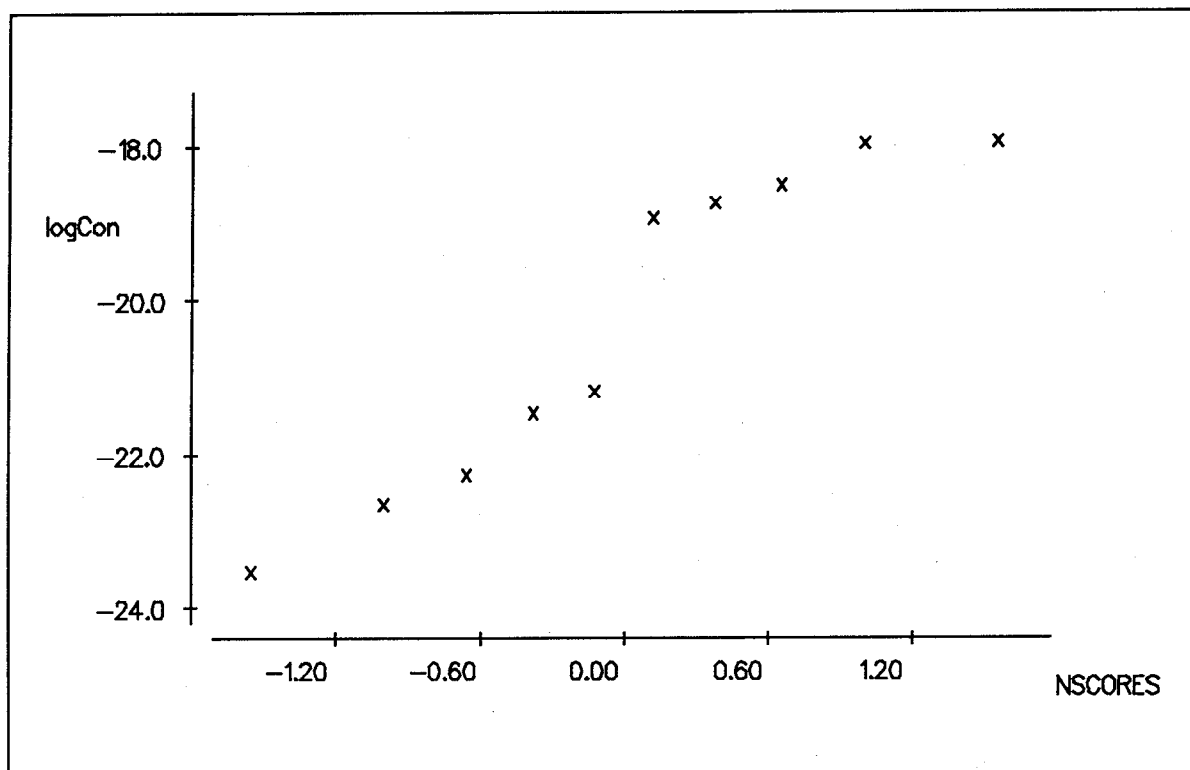
Figure C.1  Plot of Natural Logarithm of $^{90}$Sr Concentrations in Water from Area 12 ($\mu$Ci/mL) versus Normal Scores

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Table C.1  Results of Kruskal-Wallis Test for Equality of Median $^{90}$Sr Concentrations x $10^{10}$ among NTS Operational Areas of Water Samples ($\mu$Ci/mL)

| NTS Operational Area | Number | Median | Average Rank | Z-Value |
|---|---|---|---|---|
| 19 | 2 | 1.45 | 10.0 | -1.33 |
| 5 | 4 | 2.42 | 16.5 | -0.79 |
| 20 | 2 | 1.61 | 10.5 | -1.27 |
| 23 | 4 | 3.70 | 23.3 | 0.40 |
| 6 | 7 | 3.83 | 19.1 | -0.45 |
| 16 | 2 | 4.02 | 20.0 | -0.12 |
| 25 | 3 | 4.44 | 21.3 | 0.05 |
| 2 | 2 | 4.48 | 22.5 | 0.18 |
| 18 | 3 | 6.47 | 20.3 | -0.10 |
| 3 | 2 | 6.89 | 20.0 | -0.12 |
| 12 | 10 | 33.78 | 27.7 | 2.03 |
| Overall | 41 | | 21.0 | |

Kruskal-Wallis Statistic = 7.30  Degrees of Freedom = 10  p-Value = 0.697

Table C.2 Results of Kruskal-Wallis Test for Equality of Median Gross Alpha Concentrations x $10^9$ among NTS Operational Areas ($\mu$Ci/mL)

| NTS Operational Area | Number | Median | Average Rank | Z- Value |
|---|---|---|---|---|
| 18 | 4 | 0.48 | 10.2 | -2.66 |
| 2 | 5 | 0.73 | 11.1 | -2.89 |
| 25 | 11 | 1.40 | 21.0 | -2.97 |
| 3 | 1 | 3.20 | 29.0 | -0.48 |
| 12 | 4 | 3.21 | 37.5 | -0.22 |
| 23 | 10 | 6.08 | 44.4 | 0.65 |
| 20 | 3 | 6.53 | 51.0 | 0.85 |
| 5 | 5 | 7.00 | 53.3 | 1.34 |
| 6 | 24 | 7.43 | 47.7 | 1.97 |
| 27 | 4 | 8.62 | 49.6 | 1.21 |
| 1 | 4 | 8.62 | 49.6 | 0.86 |
| 16 | 4 | 9.55 | 58.0 | 1.61 |
| Overall | 79 | | 40.0 | |

Kruskal-Wallis Statistic = 32.29  Degrees of Freedom = 11  p-Value = 0.001

concentration was that of Area 12. This is not surprising, as water from tunnels in Rainier Mesa, where much experimental activity occurs, drains into the containment ponds in Area 12. The overall lack of significance, even with the large Z-value associated with results from Area 12, can be attributed to most NTS Operational Areas having average ranks close to the overall mean rank, and therefore having Z-values near zero.

As all but a handful of samples analyzed for ^{90}Sr were collected during the month of July, it is not possible to determine if temporal trends existed.

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. Figure C.2 shows that approximately one quarter of the data were below the limit of detection. Longer count times would result in smaller coefficients of variation, and hence in fewer observations being below the limit of detection.

Analytic standard deviation only accounts for counting variability. To account for other sources of variability, some samples were split and each sample was counted. Original data and duplicates appear in Attachment C.10. The part of the variance attributable to sampling error is estimated by one half the squared average difference between sample splits; the equivalent standard deviation is the square root of this variance. For ^{90}Sr, the observed standard deviation arising from duplicates was $8.8 \times 10^{-10}$ $\mu$Ci/mL ($3.2 \times 10^{-2}$ Bq/L). This is a very small portion of the overall standard deviation, $3.9 \times 10^{-9}$ $\mu$Ci/mL ($1.4 \times 10^{-1}$ Bq/L). As all duplicates come from containment ponds, generalizing this number to the entire data set might not be valid.

```
CV            N  =           41

  Midpoint    Count
     0.0         8
     0.5        23
     1.0         6
     1.5         2
     2.0         0
     2.5         0
     3.0         1
     3.5         1

         0.0     4.0     8.0     12.0     16.0     20.0
```
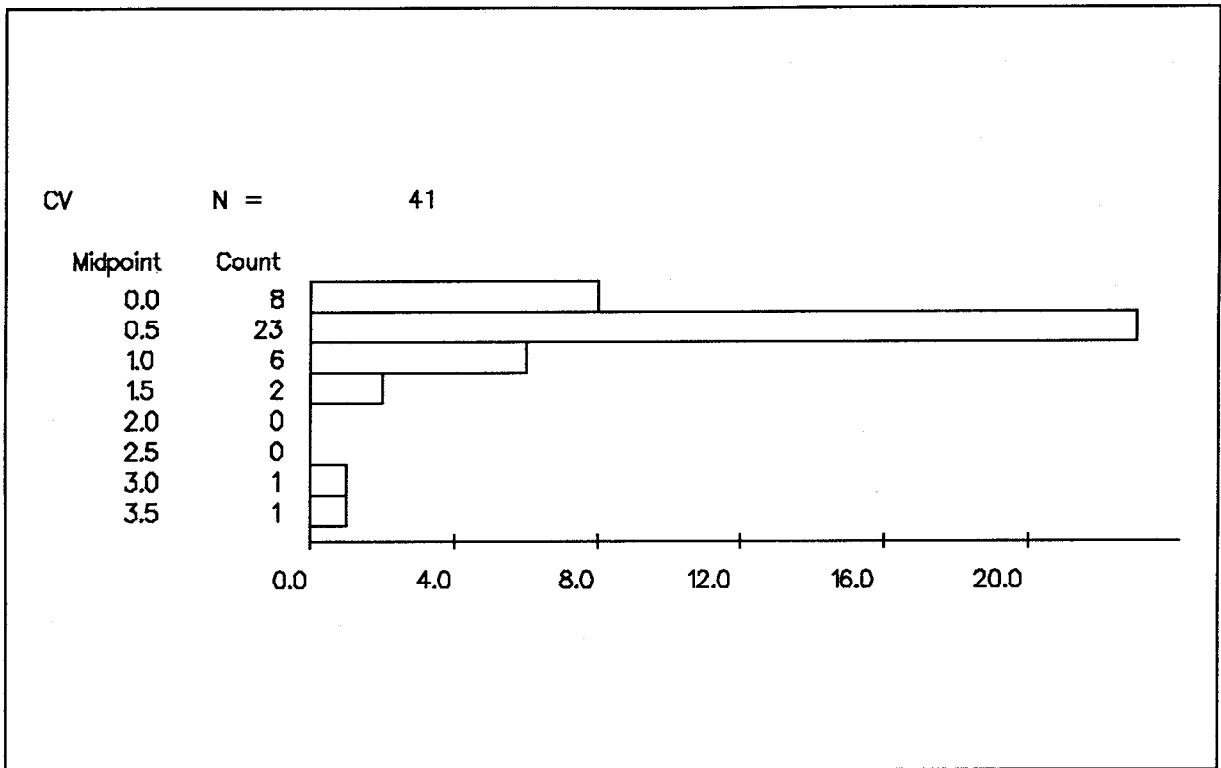
Figure C.2  Histogram of Coefficient of Variation of Observed Concentrations of $^{90}$Sr

## GROSS ALPHA

The arithmetic mean of all observed concentrations of gross alpha in water was $6.6 \times 10^{-9}$ $\mu$Ci/mL ($2.4 \times 10^{-1}$ Bq/L) and the standard deviation was $9.0 \times 10^{-9}$ $\mu$Ci/mL ($3.3 \times 10^{-1}$ Bq/L. Due to subtraction of background, approximately 4 percent of the observed gross alpha 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, $3.5 \times 10^{-9}$ $\mu$Ci/mL ($1.3 \times 10^{-1}$ Bq/L) and 3.5.

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. Concentrations are compared among NTS operational areas and among months of sampling.

In Table C.2, samples are compared among NTS operational areas. Here, differences among areas are highly statistically significant. Statistical significance is primarily attributable to smaller concentrations in Areas 18, 2, and 25. Medians for each NTS operational area should not be taken too seriously; for areas other than Area 6, they are based on very small numbers of measurements.

In Table C.3, concentrations are compared by month of sampling. No statistically significant differences are found. To assess measurement error in measured gross $\alpha$ concentrations, we consider empirical coefficients of variation. A histogram of the empirical coefficient of variation for all measured concentrations, omitting two observations for which the coefficient of variation
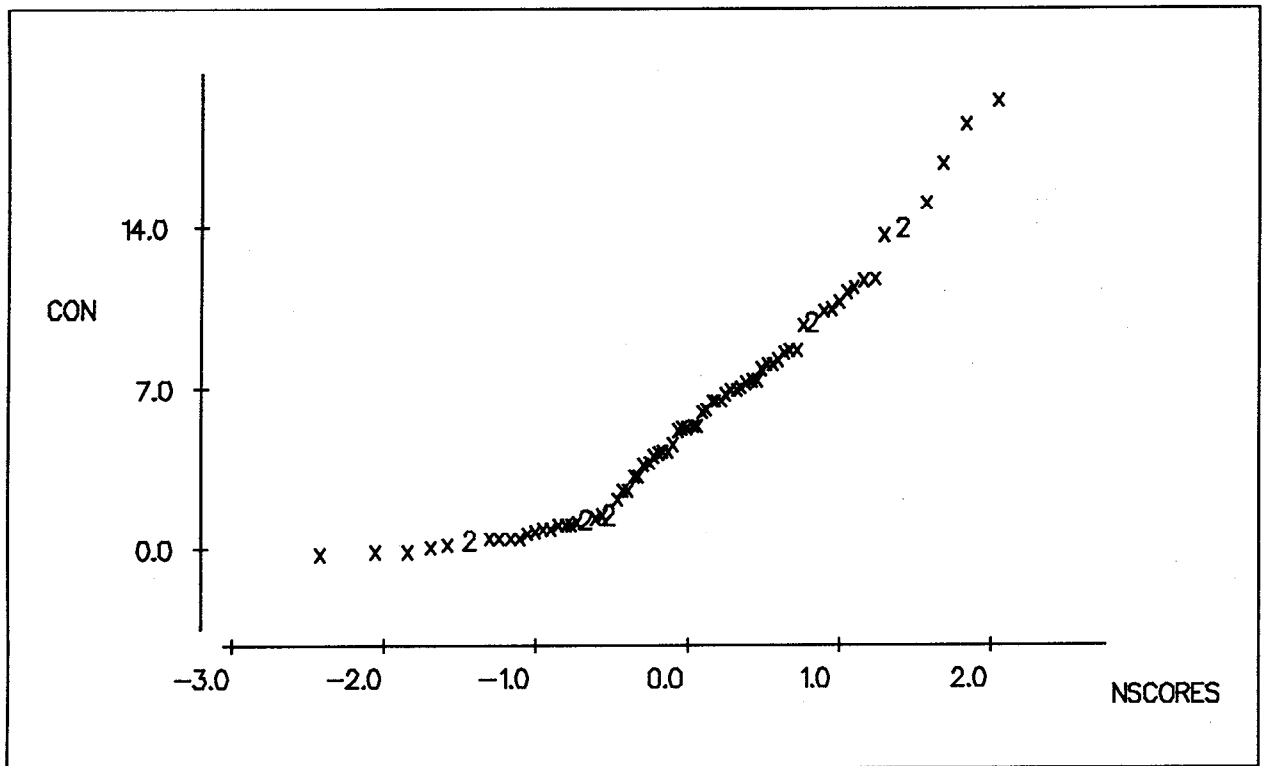
Figure C.3  Plot of Concentrations of Gross $\alpha$ in Water x $10^9$ ($\mu$Ci/mL) versus Normal Scores

Table C.3   Results of Kruskal-Wallis Test for Equality of Median Gross Alpha Concentrations x $10^9$ among Months ($\mu$Ci/mL)

| Month | Number | Median | Average Rank | Z-Value |
|---|---|---|---|---|
| January | 16 | 7.86 | 49.3 | 1.81 |
| March | 8 | 4.68 | 35.9 | -0.54 |
| April | 9 | 6.99 | 45.4 | 0.76 |
| May | 1 | 1.52 | 24.5 | -0.68 |
| June | 9 | 6.04 | 35.6 | -0.61 |
| July | 10 | 7.82 | 47.1 | 1.05 |
| September | 9 | 4.32 | 29.8 | -1.42 |
| November | 11 | 4.12 | 33.0 | -1.08 |
| December | 6 | 3.42 | 38.0 | -0.22 |
| | | | | |
| Overall | 79 | | 40.0 | |

Kruskal-Wallis Statistic = 7.97   Degrees of Freedom = 8   p-Value = 0.438

```
CV          N =          76

Midpoint    Count
   0.1        34
   0.2        15
   0.3         9
   0.4        10
   0.5         0
   0.6         4
   0.7         1
   0.8         3

        0.0    6.0    12.0   18.0   24.0   30.0
```
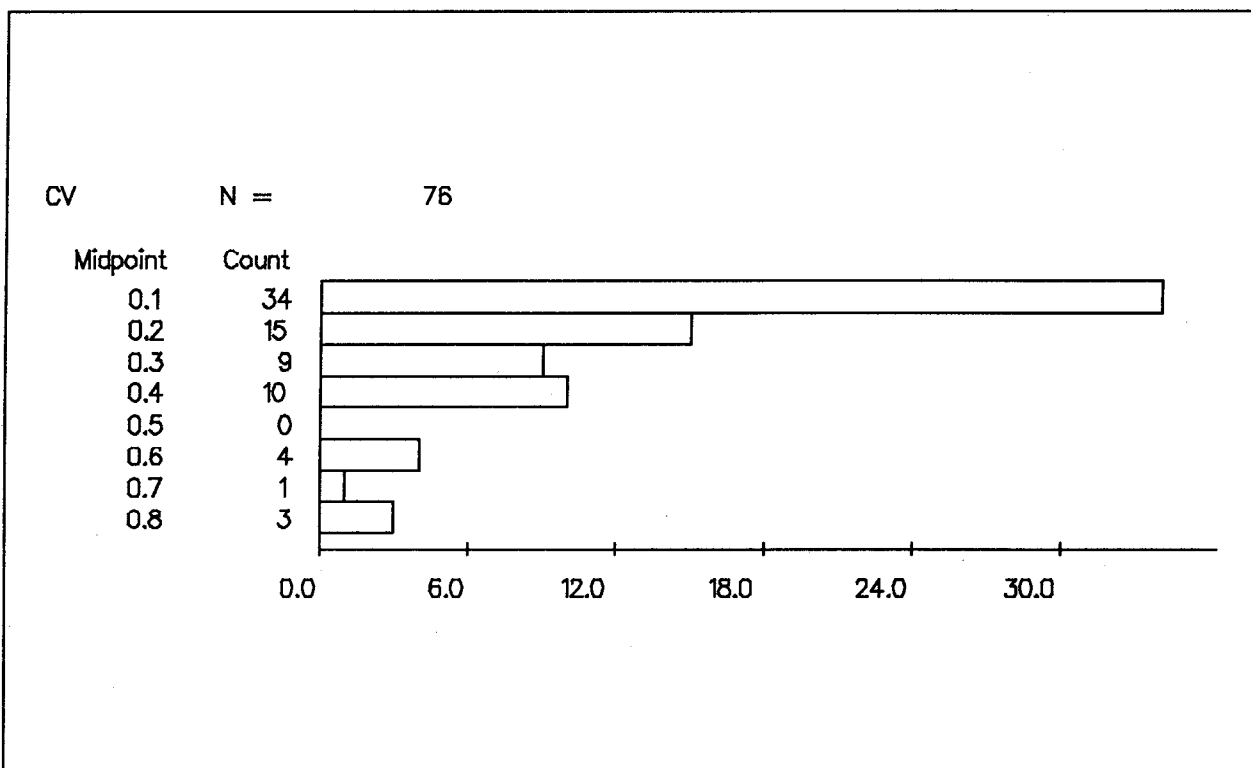
Figure C.4  Histogram of Empirical Coefficients of Variation of Measured Gross $\alpha$ Concentrations in Water

was greater than 1.0, appears in Figure C.4.  In general, coefficients of variation for gross alpha tend to be small.  In particular, note the absence of the large coefficients of variation that occur for many other contaminants.

Analytic standard deviation only accounts for counting variability.  To account for other sources of variability, some samples were split and each sample was counted.  Original data and duplicates appear in Attachment C.11.  The part of the variance attributable to sampling error is estimated by one half the squared average difference between sample splits;  the equivalent standard deviation is the square root of this variance.  For gross alpha, the observed standard deviation arising from duplicates was $5.0 \times 10^{-9}$ $\mu$Ci/mL ($1.9 \times 10^{-1}$ Bq/L). Hence, sampling standard deviation accounts for an appreciable portion of the overall standard deviation of gross alpha in water, $9.0 \times 10^{-9}$ $\mu$Ci/mL ($3.3 \times 10^{-1}$ Bq/L).

## PLUTONIUM-238

The arithmetic mean and standard deviation of the $^{238}$Pu concentrations of all water samples were, respectively, $1.4 \times 10^{-11}$ $\mu$Ci/mL ($5.2 \times 10^{-4}$ Bq/L) and $1.1 \times 10^{-10}$ $\mu$Ci/mL ($4.1 \times 10^{-3}$ Bq/L).  As approximately 30 percent of the concentrations were negative, due to subtraction of background, and 38 percent were actual zeros, no geometric mean or standard deviation is calculated.

An exploratory data analysis revealed that no probability distribution fitted the data particularly well.  This is illustrated in Figure C.5, where observed concentrations from Area 12, multiplied by $10^{11}$, are plotted versus normal scores.  A straight line indicates a normal distribution. Clearly, a normal distribution is not an adequate fit; the large number of non-positive
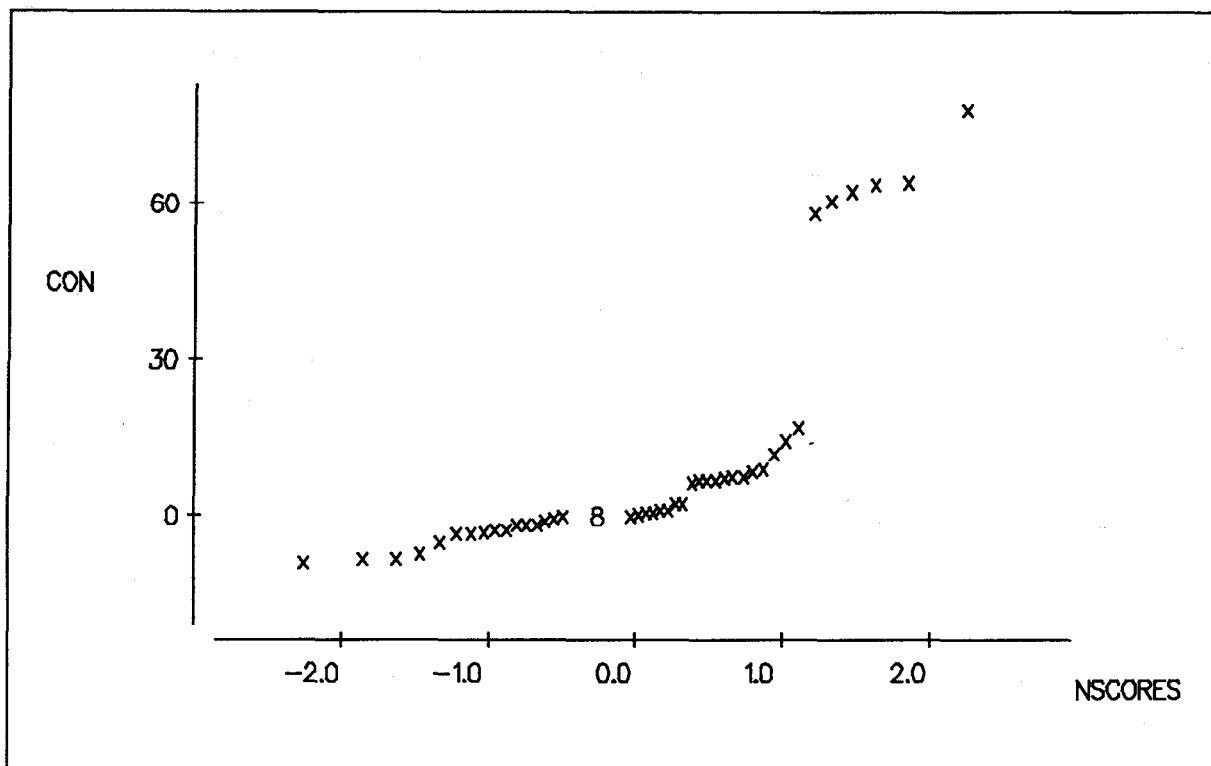
Figure C.5  Plot of $^{238}$Pu Concentration x $10^{11}$ ($\mu$Ci/mL) from Area 12 versus Normal Scores

observations indicates the lognormal distribution is not an adequate fit. Usually, the rank-based Kruskal-Wallis test would be used if neither normality nor lognormality seemed adequate. However, the large number of zeros (ties among ranked observations) would cause the Kruskal-Wallis test to be of low power. Hence, concentrations are compared by means of classical ANOVA, and the results are viewed as approximations.

Concentrations are compared, both across NTS operational area and month of sample collection, by a two-way ANOVA. The ANOVA, presented in Table C.4, shows concentrations differ among NTS operational areas, but not among months of sample collection.

Concentrations are compared among NTS operational areas in Table C.5. Tukey's multiple comparison test indicates that concentrations in Area 12 can be distinguished from those in Area 6. The relatively small number of measurements in other Areas makes comparisons difficult. As no patterns were evident, comparison of concentrations over month of sample collections is not reported here.

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 non-zero measured concentrations appears in Figure C.6. Five coefficients of variation that exceed 13.0 are omitted to facilitate interpretation of the histogram. The histogram indicates that empirical coefficients of variation for $^{238}$Pu in water might have more than one mode. An exploratory data analysis revealed no relationship between coefficients of variation and NTS operational area, sampling station, or date of sampling. Although the reason for this phenomenon is unknown, it is thought to not result from sampling variation, as it was observed in the 1991 data. The large number of large values of empirical coefficient of

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Table C.4 Two-Way Analysis of Variance on $^{238}$Pu Concentrations x $10^{11}$ ($\mu$Ci/mL)

| Source | Degrees of Freedom | Sequential Sum of Squares | Sum of Squares | Mean Square | F-Statistic | p-Value |
|---|---|---|---|---|---|---|
| NTS Operational Area | 14 | 3861.8 | 3734.4 | 266.7 | 2.14 | 0.011 |
| Month | 10 | 853.0 | 853.0 | 85.3 | 0.69 | 0.737 |
| Error | 187 | 23277.8 | 23277.8 | 124.5 | | |
| Total | 211 | 27992.6 | | | | |

Table C.5 One-Way Analysis of Variance on $^{238}$Pu Concentrations x $10^{11}$ ($\mu$Ci/mL) Comparing Concentrations among NTS Operational Areas

| Source | Degrees of Freedom | Sum of Squares | Mean Square | F-Statistic | p-Value |
|---|---|---|---|---|---|
| NTS Operational Area | 14 | 3862 | 276 | 2.25 | 0.007 |
| Error | 197 | 24131 | 122 | | |
| Total | 211 | 27993 | | | |

| NTS Operational Area | Number | Mean | Standard Deviation | Individual 95 Percent CIs for the Mean Based on Pooled Standard Deviation |
|---|---|---|---|---|
| | | | | ----------+---------+---------+------- |
| 3 | 8 | -3.17 | 8.25 | (--------*--------) |
| 7 | 3 | -2.82 | 8.35 | (------------*-------------) |
| 2 | 16 | -1.83 | 2.54 | (-----*-----) |
| 20 | 7 | -1.69 | 3.36 | (--------*-------) |
| 23 | 17 | -0.78 | 2.23 | (-----*----) |
| 5 | 21 | -0.75 | 2.30 | (-----*----) |
| 6 | 37 | -0.71 | 2.02 | (---*---) |
| 19 | 8 | -0.71 | 1.22 | (-------*-------) |
| 18 | 12 | -0.67 | 2.19 | (------*------) |
| 25 | 17 | -0.65 | 2.05 | (-----*-----) |
| 29 | 2 | -0.63 | 1.44 | (-----------------*---------------) |
| 27 | 3 | 0.12 | 0.21 | (----------------*------------) |
| 16 | 8 | 0.37 | 3.41 | (-------*-------) |
| 1 | 3 | 2.15 | 3.73 | (------------*-------------) |
| 12 | 50 | 8.99 | 21.56 | (--*--) |
| | | | | ----------+---------+---------+------- |
| | | | | -10 0 10 |

Pooled Standard Deviation = 11.07

```
CV          N =          127

Midpoint    Count
     0         16
     1         76
     2         16
     3          5
     4          4
     5          2
     6          0
     7          2
     8          2
     9          1
    10          0
    11          2
    12          1

            0    20    40    60    80    100
```
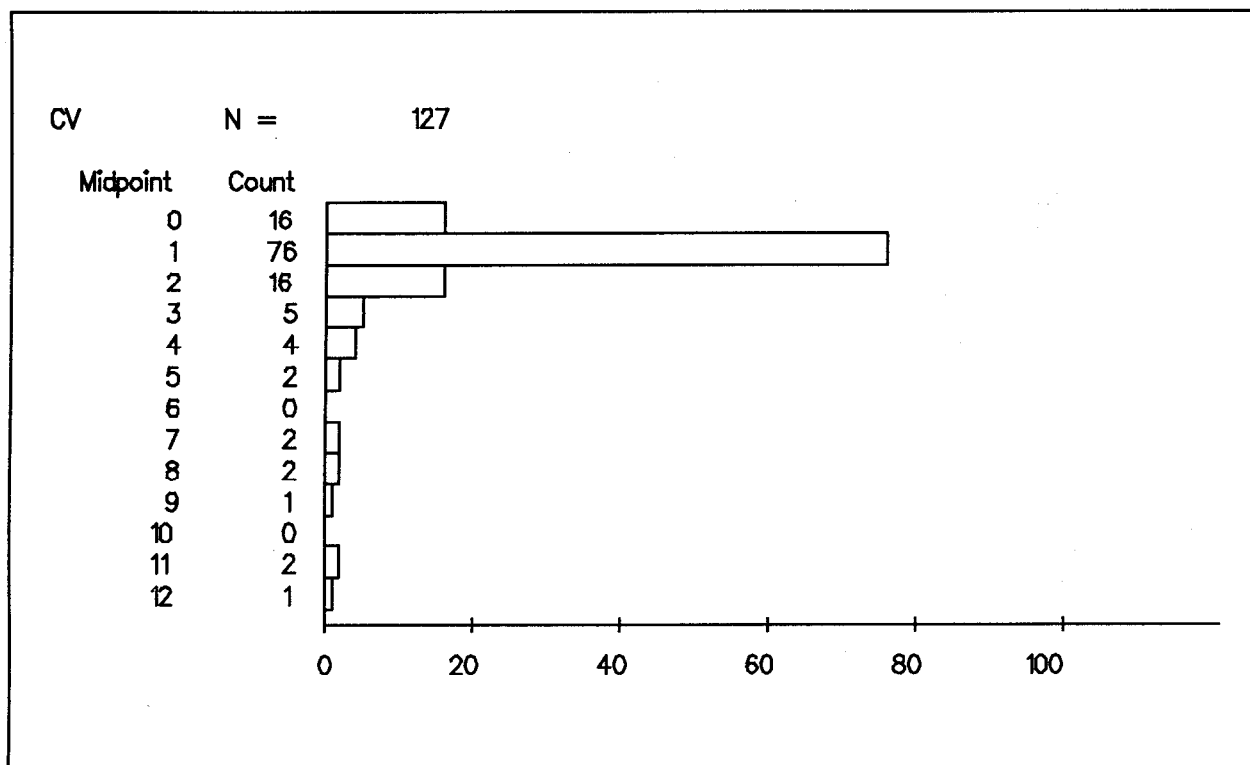
Figure C.6  Histogram of Empirical Coefficients of Variation for $^{238}$Pu Concentrations in Water

variation indicates that observed concentrations of $^{238}$Pu are often well below the limit of detection. Although longer counting times would lower the limit of detection, the observed concentrations are already so small this is not thought worthwhile.

Analytic standard deviation only accounts for counting variability. To account for other sources of variability, some samples were split and each sample was counted. Original data and duplicates appear in Attachment C.12. The part of the variance attributable to sampling error is estimated by one half the squared average difference between sample splits; the equivalent standard deviation is the square root of this variance. For $^{238}$Pu in water, the observed standard deviation arising from duplicates was $6.1 \times 10^{-11}$ µCi/mL ($2.2 \times 10^{-3}$ Bq/L). Hence, sampling standard deviation is an appreciable portion of the overall standard deviation of $^{238}$Pu in water, $1.1 \times 10^{-10}$ µCi/mL ($4.1 \times 10^{-3}$ Bq/L). As all samples chosen for duplicate analysis came from tunnel effluents, tunnel containment ponds, or Yucca Waste Pond, it is not known if this result can be generalized to the remainder of the data.

### PLUTONIUM-239+240

The arithmetic mean and standard deviation of the measured $^{239+240}$Pu concentrations were, respectively, $3.3 \times 10^{-10}$ µCi/mL ($1.2 \times 10^{-2}$ Bq/L) and $1.1 \times 10^{-9}$ µCi/mL ($4.1 \times 10^{-2}$ Bq/L). As subtraction of background caused 23 percent of the measured concentrations to be negative, no geometric mean or standard deviation is calculated. Additionally, 24 percent of the observations were true zeros.

No probability distribution was found that fit the data particularly well. This is illustrated in Figure C.7, where concentrations from samples collected in Area 12 ($x\ 10^{10}$) are plotted versus normal scores. As distributions from other NTS operational areas are similar in
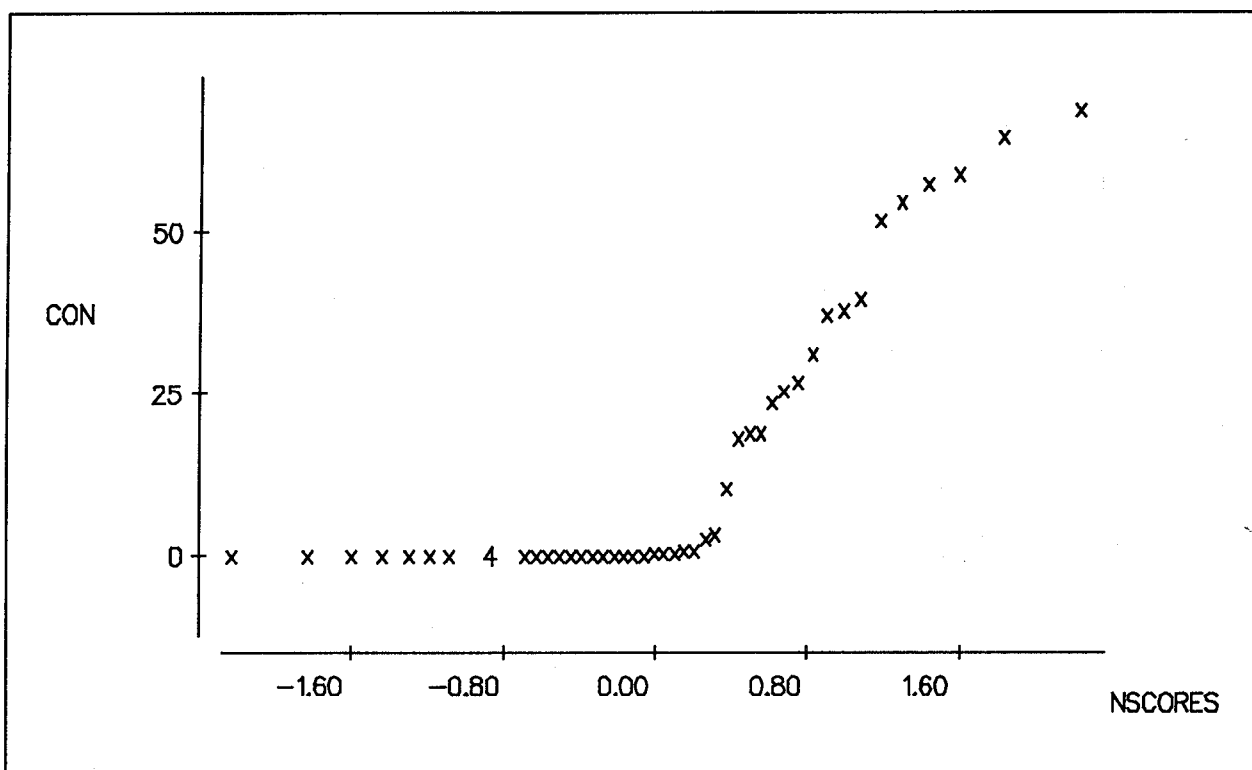
Figure C.7  Plot of Concentrations of $^{239+240}$Pu x $10^{10}$ ($\mu$Ci/mL) from samples collected in Area 12 (x $10^{10}$) versus Normal Scores

appearance, these plots are not presented.  The non-linearity of the plot indicates the non-normality of the data.  Due to the large number of non-positive observations, the lognormal distribution did not fit the data either.  Due to the large number of zeroes, the rank-based Kruskal-Wallis test would have low power.  Hence, classical ANOVA is used and the results should be viewed as an approximation.

A comparison of $^{239+240}$Pu concentrations x $10^{10}$ ($\mu$Ci/mL) among NTS operational areas and month of sampling appears in Table C.6.  Differences among operational areas is highly statistically significant, while differences among months is not.  A one-way ANOVA, comparing concentrations among NTS operational areas, appears in Table C.7.  As variances are not even approximately constant among NTS operational areas, the calculated confidence intervals are, at best, approximations.  Tukey's multiple comparison test distinguishes samples collected in Area 12 from those collected elsewhere. This is not surprising, as water from Rainier Mesa, where considerable experimental activity occurs, drains into containment ponds in Area 12.

An exploratory data analysis showed no difference in concentrations over time, and is not reported in detail here.  This supports the conclusion reached from the two-way ANOVA table that appears in Table C.6.

To assess measurement error in measured $^{239+240}$Pu concentrations, we consider empirical coefficients of variation.  A histogram of the empirical coefficient of variation for all measured concentrations appears in Figure C.8. Six coefficients of variation that exceed 7.0 are omitted to facilitate interpretation of the histogram.  As many of the empirical coefficients of variation are large, many of the observed concentrations are well below the limit of detection.  Although

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## Table C.6  Two-Way Analysis of Variance on $^{239+240}$Pu Concentrations x $10^{10}$ (µCi/ml) on Water Samples

| Source | Degrees of Freedom | Sequential Sum of Squares | Sum of Squares | Mean Square | F- Statistic | p- Value |
|---|---|---|---|---|---|---|
| NTS Operational | | | | | | |
| Area | 14 | 6850.9 | 736.9 | 409.8 | 3.69 | 0.000 |
| Month | 10 | 562.0 | 562.0 | 56.2 | 0.51 | 0.885 |
| Error | 184 | 20440.6 | 20440.6 | 111.1 | | |
| Total | 208 | 27853.5 | | | | |

## Table C.7  One-Way Analysis of Variance on $^{239+240}$Pu Concentrations x $10^{10}$ (µCi/mL) Comparing Concentrations among NTS Operational Areas

| Source | Degrees of Freedom | Sum of Squares | Mean Square | F- Statistic | p- Value |
|---|---|---|---|---|---|
| NTS Operational | | | | | |
| Area | 14 | 6851 | 489 | 4.52 | 0.000 |
| Error | 194 | 21003 | 108 | | |
| Total | 208 | 27853 | | | |

| NTS Operational Area | Number | Mean | Standard Deviation | Individual 95 Percent CIs for Mean Based on Pooled Standard Deviation |
|---|---|---|---|---|
| | | | | -----+---------+---------+---------+- |
| 27 | 3 | -0.02 | 0.03 | (------------*-----------) |
| 1 | 3 | -0.01 | 0.04 | (------------*-----------) |
| 29 | 2 | 0.00 | 0.00 | (--------------*--------------) |
| 2 | 12 | 0.01 | 0.04 | (-----*-----) |
| 5 | 21 | 0.02 | 0.08 | (---*---) |
| 16 | 8 | 0.03 | 0.13 | (------*------) |
| 19 | 8 | 0.03 | 0.12 | (------*------) |
| 18 | 12 | 0.06 | 0.13 | (-----*-----) |
| 25 | 19 | 0.09 | 0.28 | (----*----) |
| 6 | 39 | 0.10 | 0.33 | (--*--) |
| 20 | 7 | 0.15 | 0.30 | (-------*-------) |
| 3 | 8 | 0.74 | 1.82 | (-------*------) |
| 23 | 17 | 0.78 | 3.23 | (----*----) |
| 7 | 3 | 3.72 | 2.24 | (-----------*-----------) |
| 12 | 47 | 13.90 | 21.26 | (--*--) |
| | | | | -----+---------+---------+---------+- |
| Pooled Standard Deviation = 10.40 | | | | -10      0      10      20 |

```
CV          N =        153

  Midpoint   Count
     0.0       29
     0.5       48
     1.0       44
     1.5        5
     2.0        5
     2.5        4
     3.0        3
     3.5        3
     4.0        3
     4.5        2
     5.0        0
     5.5        3
     6.0        3
     6.5        1

          0.0     9.0     18.0    27.0    36.0    45.0
```
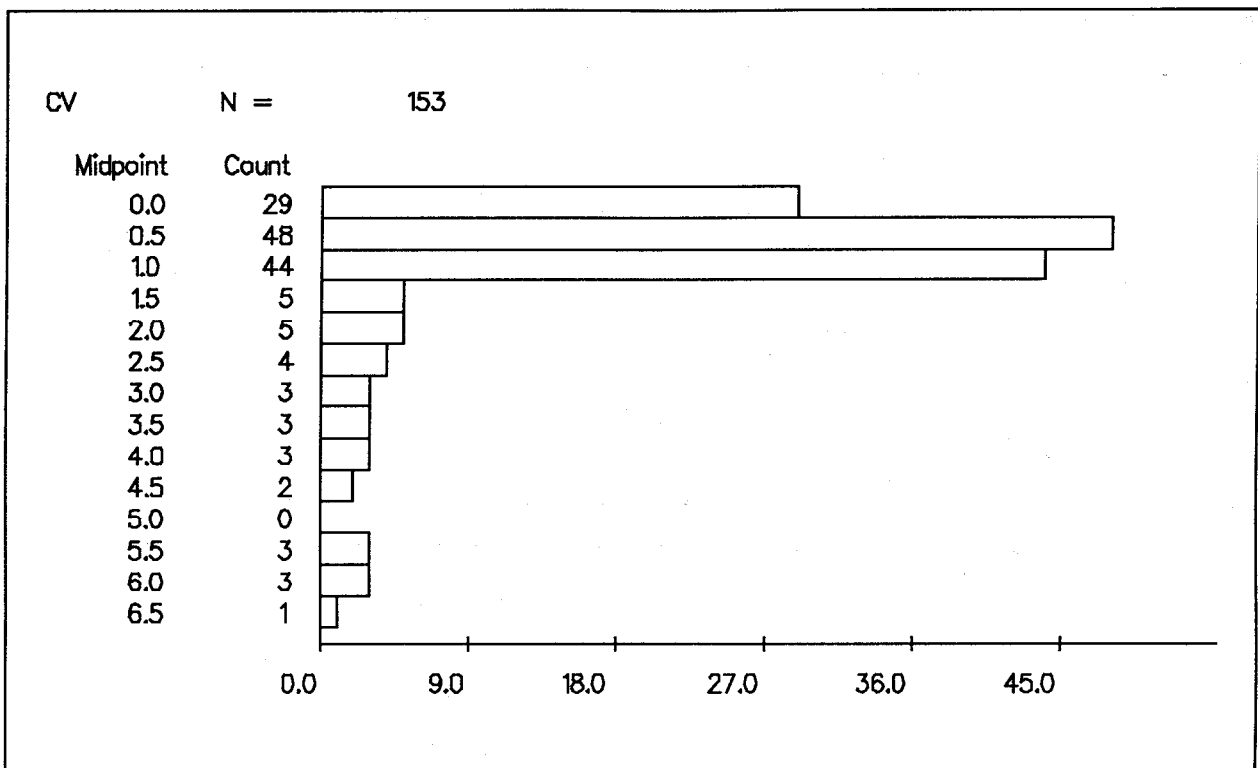
Figure C.8  Histogram of Empirical Coefficients of Variation for $^{239+240}$Pu Samples in Water

longer counting times would lower the limit of detection, the observed concentrations are already so small this is not thought worthwhile.

Analytic standard deviation only accounts for counting variability. To account for other sources of variability, some samples were split and each sample was counted. Original data and duplicates appear in Attachment C.13. The part of the variance attributable to sampling error is estimated by one half the squared average difference between sample splits; the equivalent standard deviation is the square root of this variance. For $^{239+240}$Pu in water, the observed standard deviation arising from duplicates was 4.1 x $10^{-10}$ μCi/mL (1.5 x $10^{-2}$ Bq/L). Hence, sampling standard deviation is a small portion of the overall standard deviation of $^{239+240}$Pu in water, 1.1 x $10^{-9}$ μCi/mL (4.1 x $10^{-2}$ Bq/L). As all samples chosen for duplicate analysis came from tunnel effluents, tunnel containment ponds, or Yucca Waste Pond, it is not known if this result can be generalized to the remainder of the data.

## GROSS BETA

The arithmetic mean of observed gross beta concentrations was 3.0 x $10^{-8}$ μCi/mL (1.1 Bq/L), with a standard deviation of 1.2 x $10^{-7}$ μCi/mL (4.4 Bq/L). More than 96 percent of the observed concentrations were positive. The geometric mean and standard deviation of the positive measurements were, respectively, 7.1 x $10^{-8}$ μCi/mL (2.6 Bq/L) and 3.4.

In Figure C.9, natural logarithms of gross beta in water concentrations collected from the Mercury sampling station are plotted against normal scores. The straightness of the plot indicates the lognormal distribution is a reasonable approximation to the probability distribution of the concentration there. Plots generated with the positive observations from other sampling
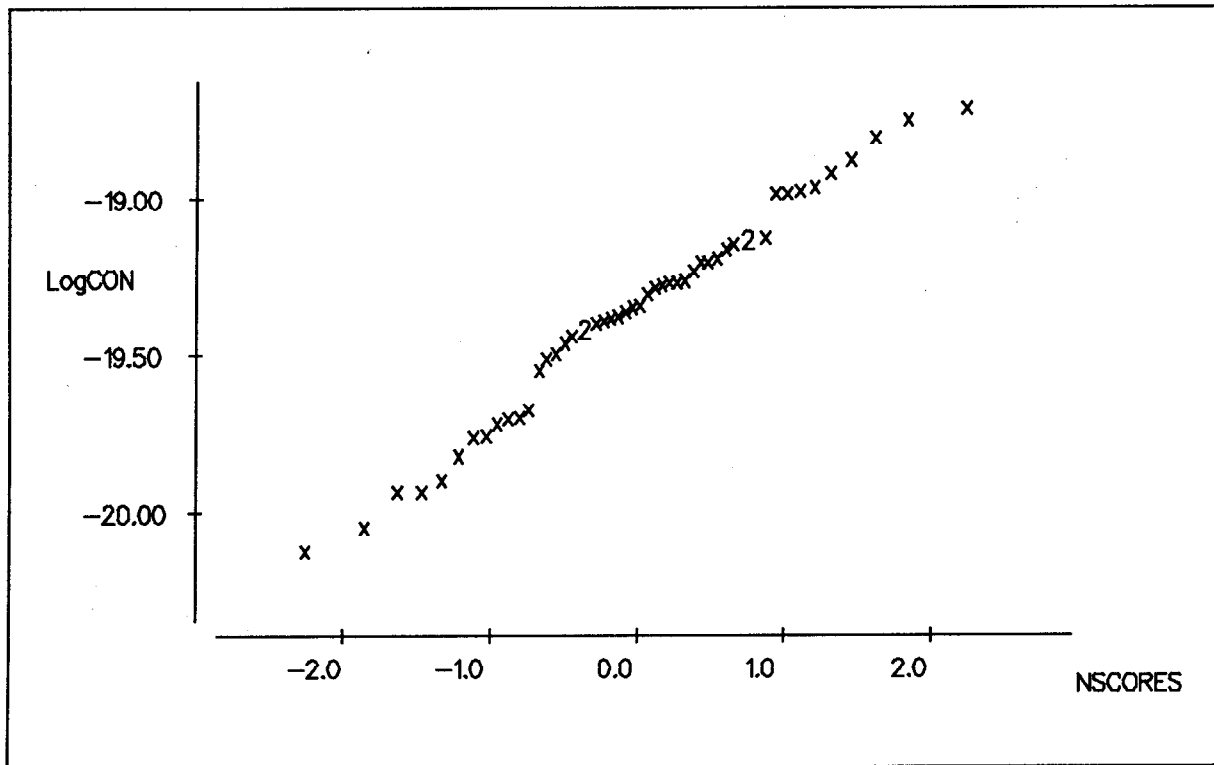
Figure C.9  Plot of Natural Logarithms of Gross ß in Water collected at the Mercury Sampling Station versus Normal Scores

stations, not reproduced here, were generally similar. Hence, the few non-positive measurements will be ignored and the positive ones will be treated as lognormally distributed.

Prior to comparing concentrations among sampling stations and months of collection, three atypical observations (those having both large influence on the ANOVA table and very large standardized residuals) are screened from the data. Two of these, from Area 6 Bottled Water on November 3 and from Area 12 N Tunnel Pond 3 on May 12, are orders of magnitude smaller than the limit of detection. The third, Area 7 Reitman Seep, collected on November 17, is atypically large. Samples from Reitman Seep are often muddy and muddiness of water samples often causes inflated beta readings. This might explain the anomalous observation.

In Table C.8, the table resulting from an ANOVA performed on logarithms of positive observed concentrations appears, indicating concentrations differ by both sampling station and month of collection. One-way ANOVAs were conducted for comparing concentrations among sampling stations and month of sample collection.

Comparisons among sampling stations revealed a complex pattern, difficult to describe. A sense of it can be obtained from Table C.9, where concentrations are compared among NTS operational areas, distinguishing samples from containment ponds and tunnel effluents in Area 12 from other samples from Area 12. Tukey's multiple comparison test allows the operational areas to be divided into groups having similar concentrations. One group is composed of samples from Area 12 containment ponds and tunnel effluents and samples from Area 7. The other group consists of all other samples. This is not surprising. Water from Rainier Mesa,

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Table C.8 Analysis of Variance on Natural Logarithms of Gross Beta in Water

| Source | Degrees of Freedom | Sequential Sum of Squares | Sum of Squares | Mean Square | F-Statistic | p-Value |
|---|---|---|---|---|---|---|
| Sampling Station | 59 | 1134.145 | 1131.962 | 19.186 | 112.64 | 0.000 |
| Month | 11 | 5.413 | 5.413 | 0.492 | 2.89 | 0.001 |
| Error | 785 | 133.712 | 133.712 | 0.170 | | |
| Total | 855 | 1273.270 | | | | |

Table C.9 One-Way Analysis of Variance on Natural Logarithms of gross Beta (µCi/mL) Comparing Concentrations among NTS Operational Areas

| Source | Degrees of Freedom | Sum of Squares | Mean Square | F-Statistic | p-Value |
|---|---|---|---|---|---|
| NTS Operational Area | 15 | 585.212 | 39.014 | 47.63 | 0.000 |
| Error | 840 | 688.058 | 0.819 | | |
| Total | 855 | 1273.270 | | | |

| NTS Operational Area | Number | Mean | Standard Deviation | Individual 95 Percent CIs for Mean Based on Pooled Standard Deviation |
|---|---|---|---|---|
| | | | | ---------+---------+---------+------- |
| 19 | 22 | -19.865 | 0.490 | (--*--) |
| 20 | 20 | -19.437 | 0.609 | (--*--) |
| 2 | 74 | -19.425 | 0.336 | (-*-) |
| 18 | 31 | -19.403 | 0.327 | (-*--) |
| 23 | 78 | -19.234 | 0.445 | (-*) |
| 25 | 92 | -19.147 | 0.268 | (*-) |
| 12B | 81 | -19.083 | 0.723 | (-*) |
| 16 | 23 | -18.973 | 0.295 | (--*--) |
| 27 | 40 | -18.824 | 0.342 | (-*-) |
| 1 | 48 | -18.780 | 0.203 | (--*-) |
| 6 | 169 | -18.766 | 1.311 | (*) |
| 5 | 58 | -18.692 | 0.194 | (-*-) |
| 29 | 5 | -18.617 | 0.202 | (-----*-----) |
| 3 | 28 | -18.386 | 0.186 | (--*-) |
| 7 | 7 | -17.140 | 0.144 | (----*-----) |
| 12A | 80 | -16.415 | 1.950 | (-*-) |
| | | | | ---------+---------+---------+------- |
| | | | | -19.2   -18.0   -16.8 |

Pooled Standard Deviation = 0.905

Key: Area 12A = Containment ponds and Tunnel Effluent in Area 12
     Area 12B = All other sampling stations in Area 12

where experimental activity occurs, drains into containment ponds in Area 12, and hence beta concentrations are greater than in other areas. The only sampling station in Area 7 is Reitman Seep, which often produces muddy samples. Muddy samples are known to yield inflated beta readings. Concentrations in samples from the remainder of NTS are uniformly small.

A one-way ANOVA of natural logarithms of gross beta concentrations, compared by month of sampling, appears in Table C.10. Although the one-way ANOVA fails to distinguish among months, a pattern, in which concentrations are greatest at the first and last of the year and dip at mid-year, is apparent to the eye. This pattern is confirmed by applying Von Nuemann's test for trend to the monthly means, yielding a p-value of 0.009. The temporal patterns during the first nine months of 1992 can be attributed to the decrease in the rate of experimental activity. Accounting for the increase during the final three months is difficult. Given the small size of the increase, as compared to sample standard deviations, simple sampling variability cannot be ruled out as an explanation.

Measurement error for gross beta concentrations is generally small. Hence, all but a relative handful of measured gross beta in water concentrations are above the limit of detection. To quantify this, the coefficient of variation was calculated for each observation. This appears as a histogram in Figure C.10. Ten coefficients of variation greater than 6.5 were omitted to enhance readability.

Analytic standard deviation only accounts for counting variability. To account for other sources of variability, some samples were split and each sample was counted. Original data and duplicates appear in Attachment C.14. The part of the variance attributable to sampling error is estimated by one half the squared average difference between sample splits; the equivalent standard deviation is the square root of this variance. For gross beta in water, the observed standard deviation arising from duplicates was $5.8 \times 10^{-8}$ μCi/mL ($2.1 \times 10^0$ Bq/L). Hence, sampling standard deviation is a small portion of the overall standard deviation of gross beta in water, $1.2 \times 10^{-7}$ μCi/mL ($4.4 \times 10^0$ Bq/L). As all samples chosen for duplicate analysis came from tunnel effluents, tunnel containment ponds, or Yucca Waste Pond, it is not known if this result can be generalized to the remainder of the data.

## GAMMA-EMITTING RADIONUCLIDES

The only gamma-emitting radionuclides found in more than two water sample were the following: [214]Bi, ^{137}Cs, [212]Pb, [214]Pb. Of these, all but ^{137}Cs are naturally occurring, and [137]Cs

Table C.10   One-Way Analysis of Variance on Natural Logarithms of gross Beta (μCi/mL) Comparing Concentrations among Month Samples Were Collected

| Source | Degrees of Freedom | Sum of Squares | Mean Square | F- Statistic | p- Value |
|--------|--------------------|-----------------|--------------|---------------|-----------|
| Month | 11 | 7.60 | 0.69 | 0.46 | 0.927 |
| Error | 844 | 1265.67 | 1.50 | | |
| Total | 855 | 1273.27 | | | |

Table C.10  (One-Way Analysis of Variance on Natural Logarithms of gross Beta (µCi/mL)
Comparing Concentrations among Month Samples Were Collected, cont.)

| Month | Number | Mean | Standard Deviation | Individual 95 Percent CIs for Mean Based on Pooled Standard Deviation |
|---|---|---|---|---|
| | | | | –+–––––––––+–––––––––+–––––––––+––––––– |
| January | 56 | -18.545 | 1.028 | (––––––––*–––––––––) |
| February | 70 | -18.674 | 1.402 | (–––––––*––––––) |
| March | 63 | -18.692 | 1.378 | (–––––––*–––––––) |
| April | 72 | -18.740 | 1.279 | (–––––––*––––––––) |
| May | 70 | -18.734 | 1.133 | (–––––––*––––––––) |
| June | 79 | -18.793 | 1.192 | (–––––––*–––––––) |
| July | 77 | -18.802 | 1.201 | (––––––*––––––––) |
| August | 81 | -18.921 | 1.016 (––––––––*–––––––) |
| September | 79 | -18.907 | 1.338 (–––––––*–––––––) |
| October | 76 | -18.747 | 1.203 | (––––––––*–––––––––) |
| November | 74 | -18.751 | 1.144 | (––––––––*–––––––––) |
| December | 59 | -18.724 | 1.331 | (–––––––––*–––––––––) |
| | | | | –+–––––––––+–––––––––+–––––––––+––––––– |

Pooled Standard Deviation = 1.225                -19.2        -18.9        -18.6        -18.3

was only found in water samples directly associated with experimental activity, such as the containment ponds in Area 12.  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.11.

## 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, $5.9 \times 10^{-8}$ and $3.2 \times 10^{-7}$ µCi/mL ($2.2 \times 10^{0}$ and $1.1 \times 10^{1}$ Bq/L).  Since approximately 45 percent of the concentrations were either negative, from subtraction of background, or true zero, no geometric mean or standard deviation was calculated.

Table C.11  Summary of Concentrations of Gamma-Emitting Radionuclides in Water

| Radionuclide | Number of Samples | Arithmetic Mean µCi/mL (Bq/L) | | Standard Deviation µCi/mL (Bq/L) | | Geometric Mean µCi/mL (Bq/L) | | Geometric Standard Deviation |
|---|---|---|---|---|---|---|---|---|
| $^{214}Bi$ | 11 | $9.3 \times 10^{-7}$ | $(3.4 \times 10^{1})$ | $7.3 \times 10^{-7}$ | $(2.7 \times 10^{1})$ | $7.4 \times 10^{-7}$ | $(2.7 \times 10^{1})$ | 2.0 |
| $^{137}Cs$ | 34 | $2.4 \times 10^{-7}$ | $(8.9 \times 10^{0})$ | $2.0 \times 10^{-7}$ | $(7.4 \times 10^{0})$ | $2.0 \times 10^{-7}$ | $(7.4 \times 10^{0})$ | 1.7 |
| $^{212}Pb$ | 48 | $1.4 \times 10^{-7}$ | $(5.2 \times 10^{0})$ | $8.4 \times 10^{-8}$ | $(3.1 \times 10^{0})$ | $1.3 \times 10^{-7}$ | $(4.8 \times 10^{0})$ | 1.4 |
| $^{214}Pb$ | 37 | $2.1 \times 10^{-6}$ | $(7.8 \times 10^{1})$ | $4.0 \times 10^{-6}$ | $(1.5 \times 10^{2})$ | $1.0 \times 10^{-6}$ | $(3.7 \times 10^{1})$ | 3.0 |

```
CV          N =         885

  Midpoint    Count
     0.0       780
     0.5        46
     1.0        15
     1.5        14
     2.0         7
     2.5         6
     3.0         4
     3.5         3
     4.0         1
     4.5         1
     5.0         5
     5.5         1
     6.0         1
     6.5         1

        0    200    400    600    800   1000
```
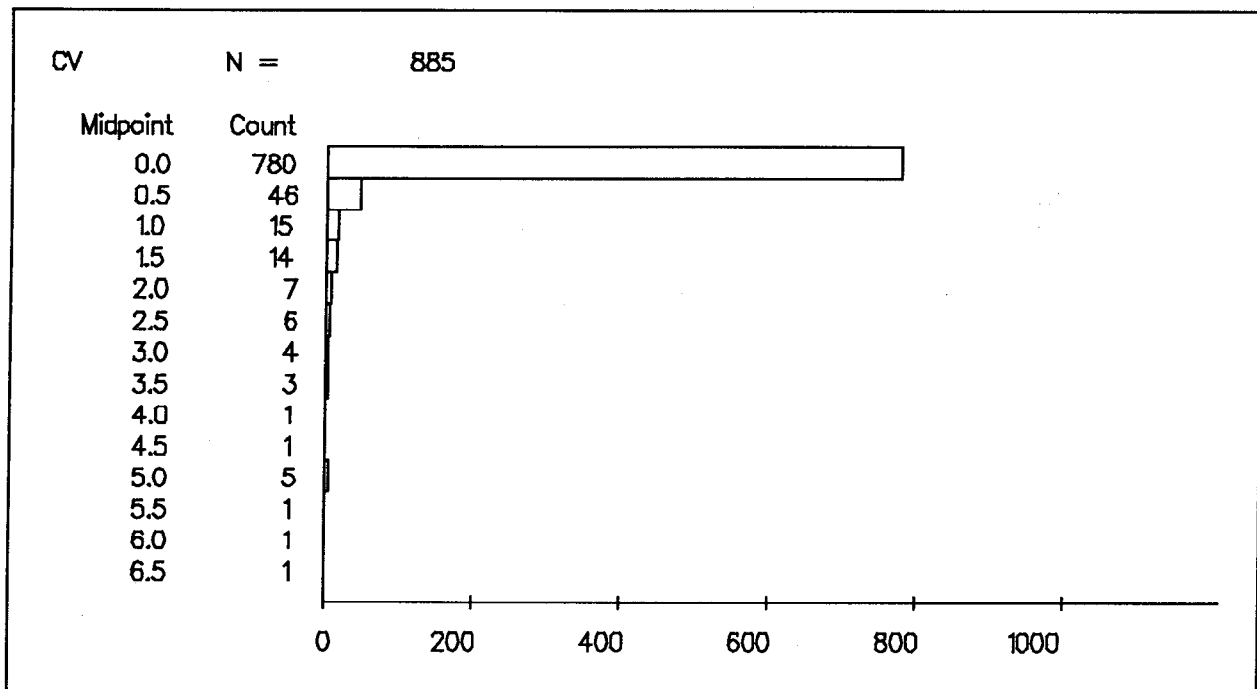
Figure C.10  Histogram of Empirical Coefficients of Variation of Measured Gross
β Concentrations in Water

An exploratory data analysis revealed that the normal distribution fitted the data reasonably well. This is illustrated in Figure C.11, where concentrations from Area 6 Cafeteria (μCi/mL) x $10^7$, are plotted versus normal scores. As concentrations from other sampling stations 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.

Concentrations (μCi/mL), x $10^7$, are compared, both across sampling stations and month of sample collection, by a two-way ANOVA. The ANOVA, presented in Table C.12, shows concentrations differ by both categories. Table C.12 shows that concentrations differ among months of sample collection, but not among sampling stations.The lack of difference among sampling stations is not surprising; all sampling stations, other than containment ponds and Yucca Pond, show uniformly low concentrations of $^3$H. Samples from Area 6 Yucca Pond are omitted, for reasons discussed later.

Table C.12  Two-Way Analysis of Variance on $^3$H Concentrations x $10^7$ (μCi/ml) on Water
          Samples from Sources Other than Containment Ponds

| Source | Degrees of Freedom | Sequential Sum of Squares | Sum of Squares | Mean Square | F-Statistic | p-Value |
|---|---|---|---|---|---|---|
| Sampling Station | 48 | 101.19 | 85.682 | 1.785 | 0.89 | 0.688 |
| Month | 11 | 205.93 | 205.929 | 18.721 | 9.32 | 0.000 |
| Error | 770 | 1547.49 | 1547.492 | 2.010 | | |
| Total | 829 | 1854.61 | | | | |
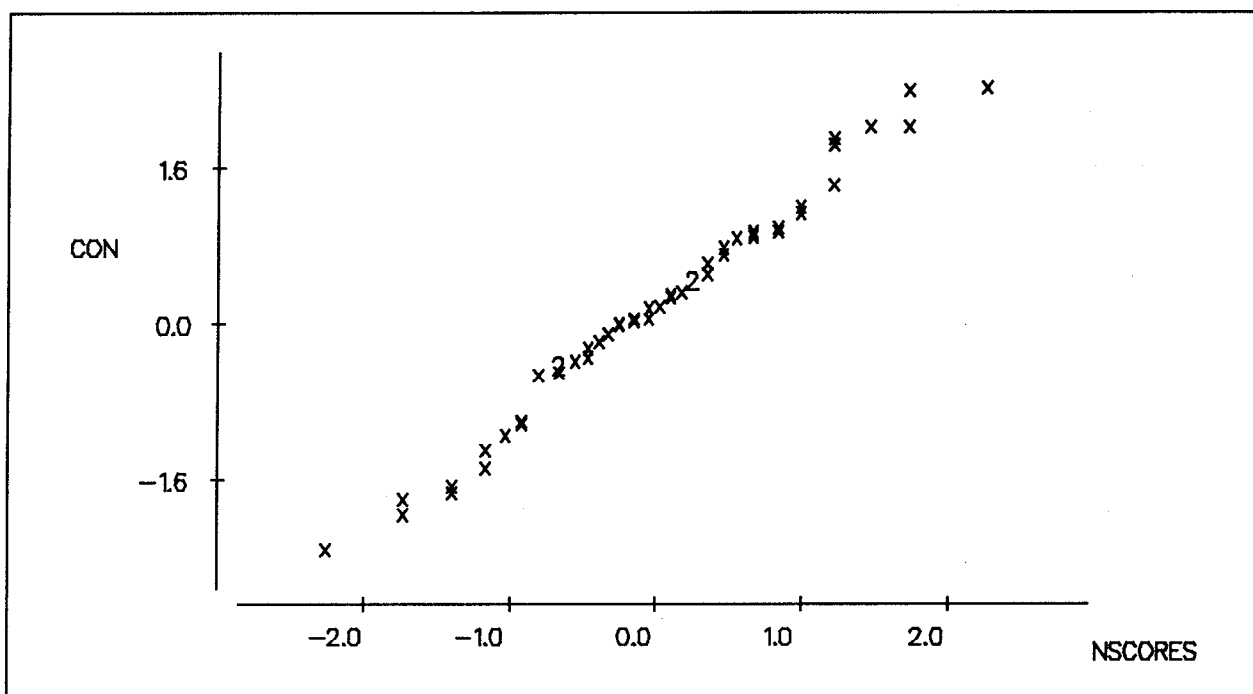
Figure C.11   Plot of Tritium Concentrations x $10^7$ ($\mu$Ci/mL) in Samples from Area 6 Cafeteria versus Normal Scores

Concentrations are compared among months in Table C.13. The ANOVA table shows that results differ strongly among months. However, Tukey's multiple comparison test identifies a complicated pattern of significance which is hard to describe in words. The most prominent feature is the generally decreasing trend of $^3$H concentrations. As these $^3$H concentrations are almost all below the limit of detection, interpretation is difficult.

Area 6 Yucca Pond was omitted from the calculations that went into Table C.13. An exploratory data analysis suggested $^3$H concentrations from Yucca Pond belonged to a different population than those from other sampling stations, both in terms of mean concentration and in behavior over time. In view of the use of Yucca Pond in decontamination activities, it is not surprising that the average $^3$H concentration there was greater than at other sampling locations. The behavior of samples from Area 6 Yucca Pond over time is depicted in Figure C.12, where concentrations of $^3$H, x $10^7$, are plotted versus month of sample collection (1 = January, 2 = February, etc.). The steady decline can be attributed partially to reduced need for decontamination, due to the decrease in experimental activity. Additionally, dilution, caused by the washing of trucks used in the Groundwater Characterization Program, accounts for some of the decreased concentration.To assess measurement error in $^3$H concentrations, we consider empirical coefficients of variation. A histogram of the empirical coefficients of variation, excluding 41 outliers greater than 14., appears in Figure C.13. A substantial number of the coefficients of variation are large. This indicates that a large number of samples in this category (springs, wells, potable end-points, etc.) were below the limit of detection, as expected.

## Water from Containment Ponds

The arithmetic mean and standard deviation of $^3$H concentrations in samples from containment ponds are, respectively, 1.9 x $10^{-2}$ and 2.5 x $10^{-2}$ $\mu$Ci/mL (7.0 x $10^5$ and 9.2 x $10^5$ Bq/L). All observed concentrations were positive. The geometric mean was 3.3 x $10^{-3}$ $\mu$Ci/mL (1.2 x
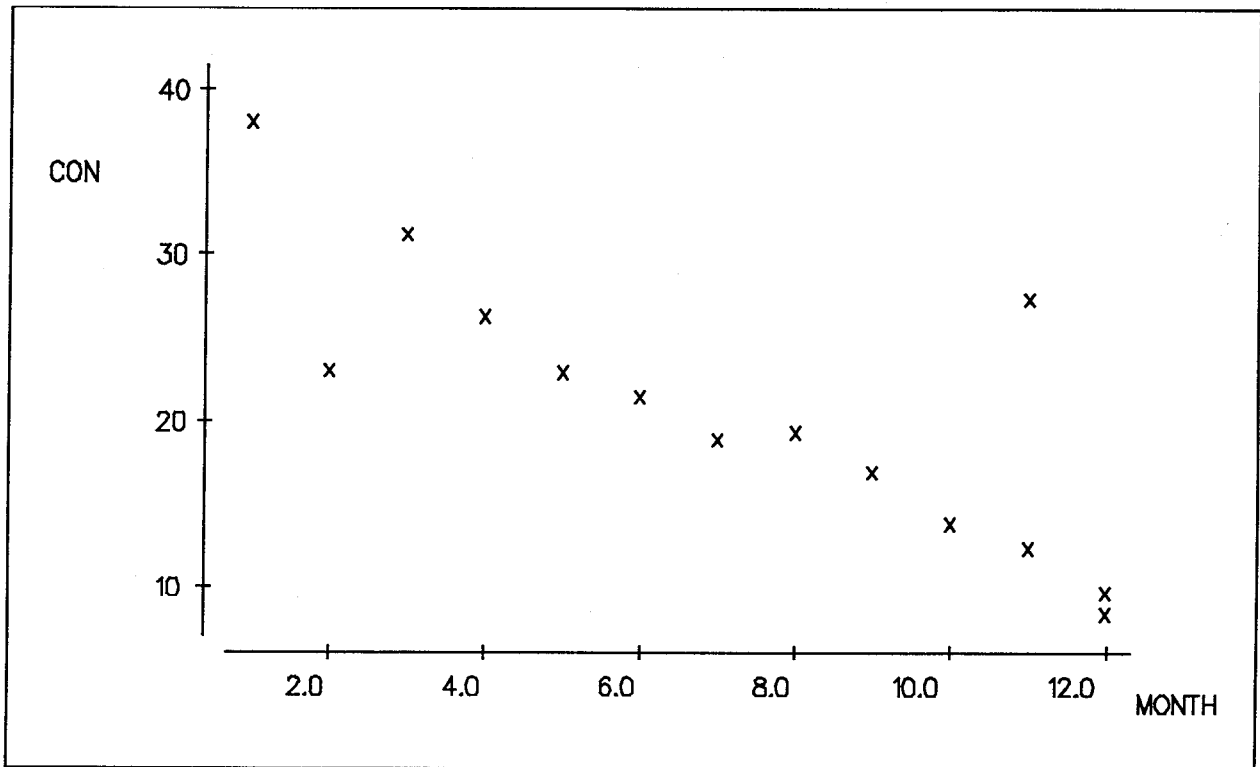
Figure C.12 Plot of $^3$H Concentrations, x $10^7$, (µCi/mL), at Area 6 Yucca Pond versus Month of Sample Collection
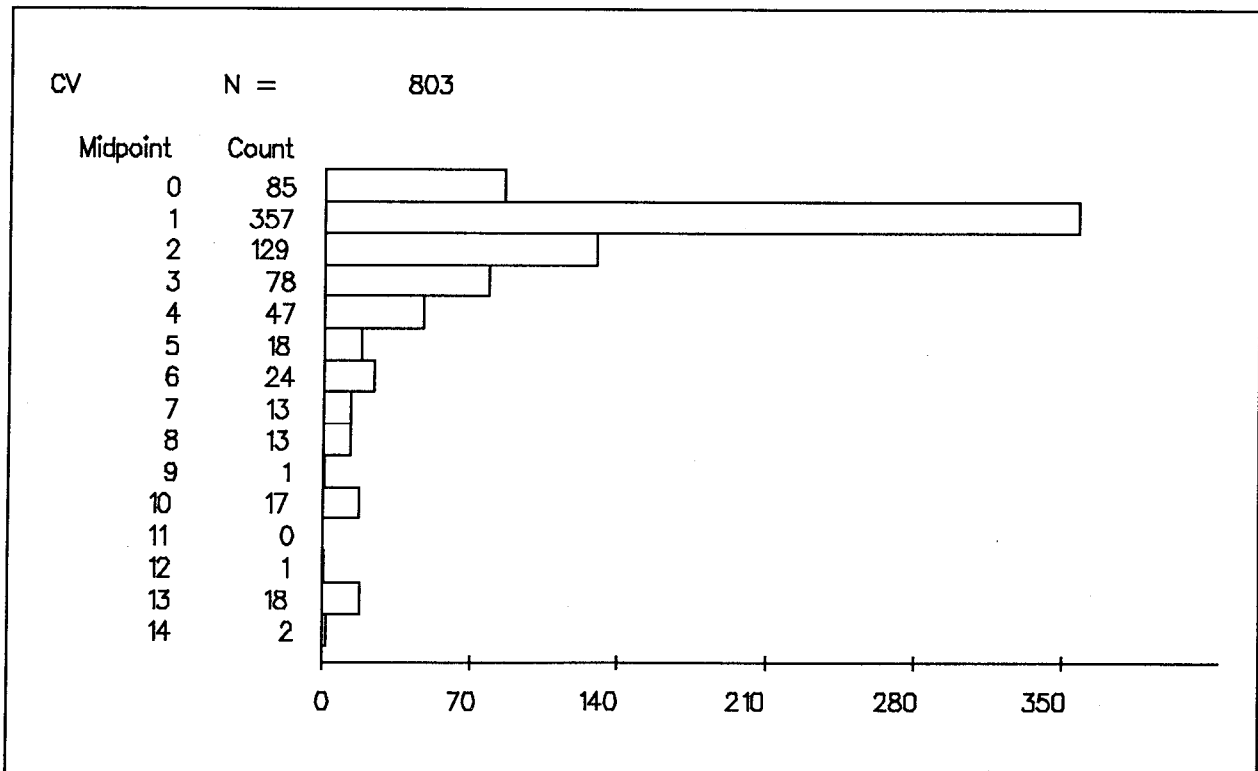


Figure C.13 Histogram of Empirical Coefficients of Variation for $^3$H in Water Samples from Sources Other than Containment Ponds

Table C.13   Analysis of Variance on Concentrations x $10^7$ ($\mu$Ci/mL) of $^3$H in Water Samples other than Containment Ponds

| Source | Degrees of Freedom | Sum of Squares | Mean Square | F-Statistic | p-Value |
|---|---|---|---|---|---|
| Month | 11 | 221.44 | 20.13 | 0.08 | 0.000 |
| Error | 818 | 1633.17 | 2.00 | | |
| Total | 829 | 1854.61 | | | |

| Month | Number | Mean | Standard Deviation | Individual 95 Percent CIs for Mean Based on Pooled Standard Deviation |
|---|---|---|---|---|
| | | | | -+----------+----------+----------+------- |
| January | 52 | 1.306 | 1.546 | (---*----) |
| February | 72 | 0.682 | 1.149 | (-----*---) |
| March | 54 | 0.203 | 1.253 | (----*---) |
| April | 75 | 0.517 | 1.548 | (---*---) |
| May | 67 | 0.558 | 1.268 | (---*---) |
| June | 75 | -0.222 | 0.983 | (---*---) |
| July | 80 | -0.056 | 1.049 | (---*---) |
| August | 76 | 0.788 | 2.117 | (---*---) |
| September | 71 | 0.279 | 1.147 | (---*----) |
| October | 81 | -0.715 | 1.389 | (---*----) |
| November | 71 | 0.256 | 1.592 | (---*---) |
| December | 56 | -0.292 | 1.549 | (---*----) |
| | | | | -+----------+----------+----------+------- |

Pooled Standard Deviation = 1.413       -0.80     -0.00     0.80     1.60

$10^5$ Bq/L) and the geometric standard deviation was 9.3. No distribution was found which fit the data well. This is illustrated in Figure C.14, where measured concentrations from T Tunnel Effluent, ($\mu$Ci/mL) x $10^7$, are plotted versus normal scores. Of all sampling locations, these data come closest to fitting either a normal or lognormal distribution. Because the data are neither normal nor lognormal, the rank-based 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.14. 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.

The p-value of the Kruskal-Wallis test comparing concentrations over months was 0.944. As no statistically significant or visually suggestive temporal pattern was found, these results are not reported in detail.

To assess measurement error in $^3$H concentrations, we consider empirical coefficients of variation. A histogram of the empirical coefficients of variation appears in Figure C.15. Coefficients of variation for $^3$H concentrations are quite small. This is attributable to the relatively greater concentrations of $^3$H in water from containment ponds.

Analytic standard deviation only accounts for counting variability. To account for other sources of variability, some samples were split and each sample was counted. Original data and duplicates appear in Attachment C.15. The part of the variance attributable to sampling error is estimated by one half the squared average difference between sample splits; the
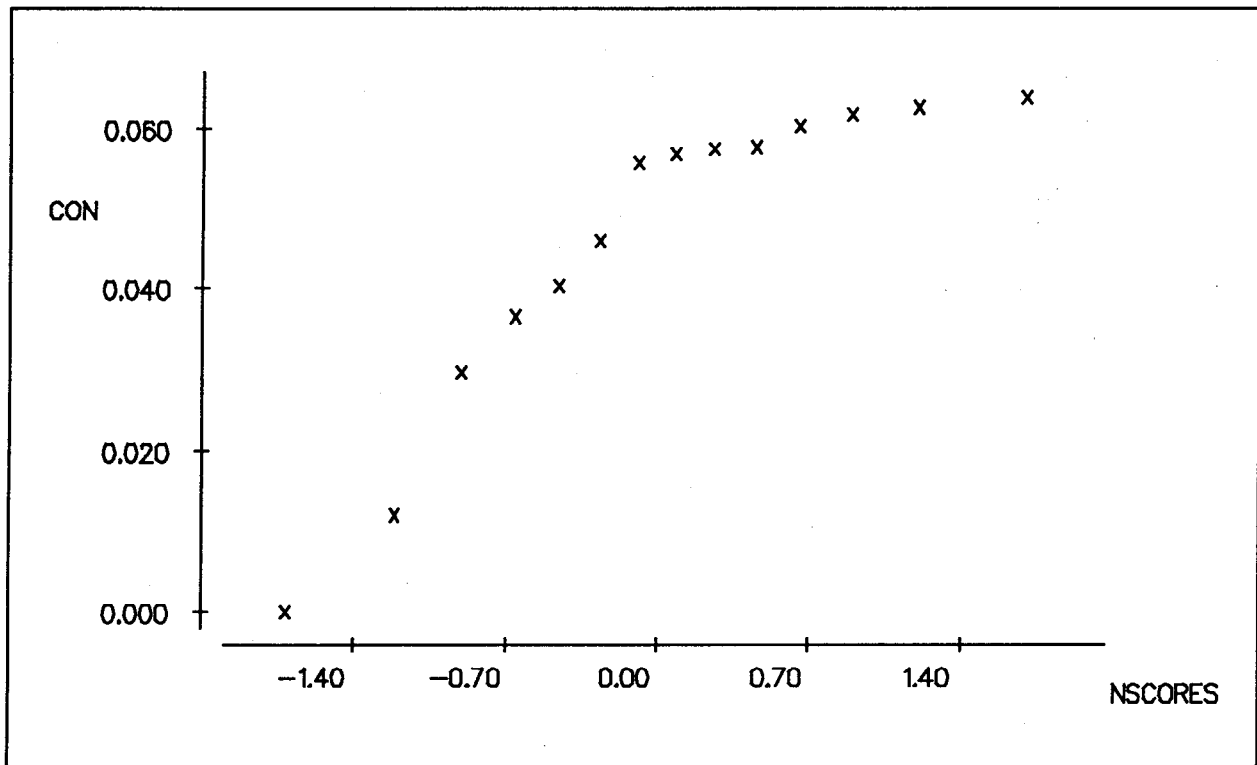
Figure C.14  Concentrations of $^3$H in Water Samples x $10^7$ ($\mu$Ci/mL) from T Tunnel Effluent versus Normal Scores
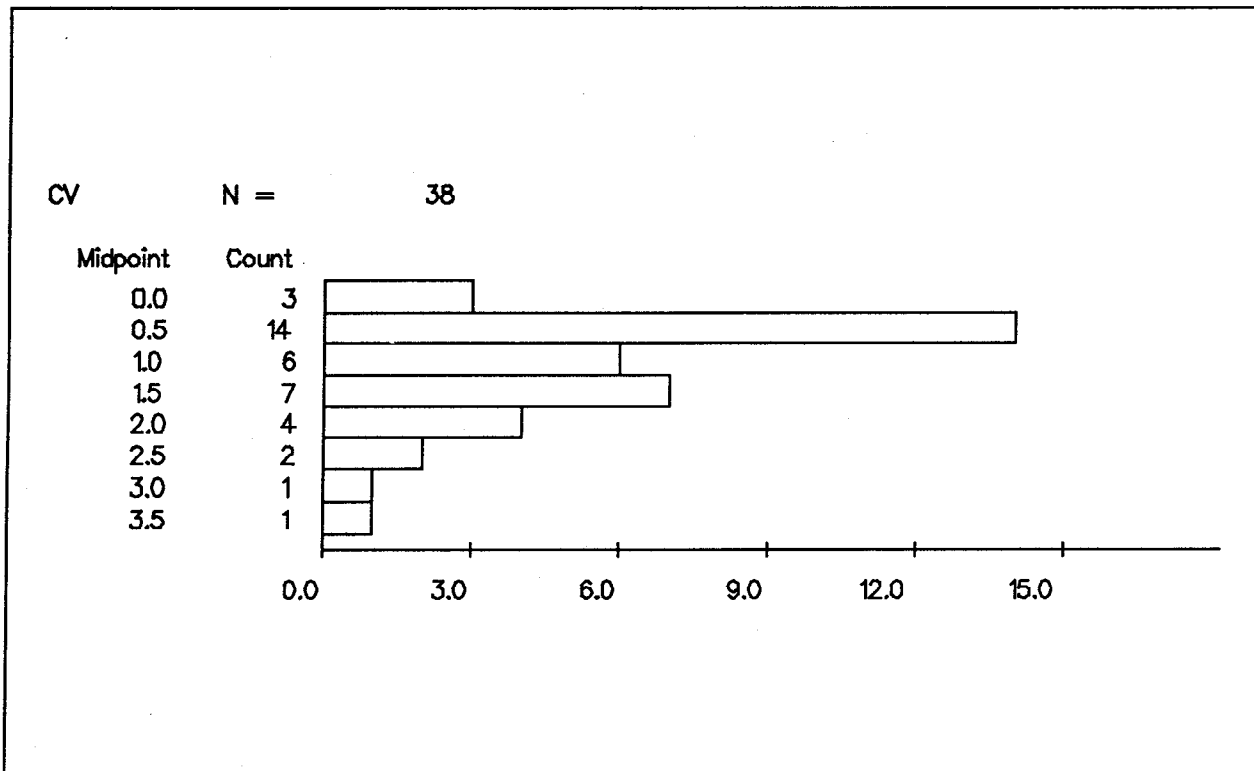


Figure C.15  Histogram of Empirical Coefficients of Variation of $^3$H Concentrations in Water

Table C.14   Results of Kruskal-Wallis Test for Equality of Median $^3$H Concentrations in
Containment Ponds among Sampling Locations ($\mu$Ci/mL)

| Sampling Location | Number | Median | Average Rank | Z-Value |
|---|---|---|---|---|
| N Tunnel Effluent | 15 | 3.58 x 10$^{-04}$ | 22.1 | -3.97 |
| N Tunnel Pond No. 1 | 4 | 3.83 x 10$^{-04}$ | 20.1 | -2.07 |
| N Tunnel Pond No. 2 | 12 | 4.31 x 10$^{-04}$ | 24.4 | -3.18 |
| N Tunnel Pond No. 3 | 10 | 4.37 x 10$^{-04}$ | 27.9 | -2.44 |
| E Tunnel Pond No. 1 | 5 | 1.98 x 10$^{-03}$ | 46.0 | -0.17 |
| E Tunnel Effluent | 13 | 2.03 x 10$^{-03}$ | 49.8 | 0.25 |
| T Tunnel Pond No. 3 | 6 | 3.33 x 10$^{-02}$ | 69.7 | 1.99 |
| T Tunnel Pond No. 2 | 11 | 5.57 x 10$^{-02}$ | 76.2 | 3.61 |
| T Tunnel Effluent | 14 | 5.66 x 10$^{-02}$ | 73.7 | 3.78 |
| T Tunnel Pond No. 1 | 5 | 5.71 x 10$^{-02}$ | 82.2 | 2.85 |
| Overall | 95 | | 48.0 | |

Kruskal-Wallis Statistic = 66.65   Degrees of Freedom = 9   p-Value = 0.000

equivalent standard deviation is the square root of this variance. For $^3$H in water from containment ponds, the observed standard deviation arising from duplicates was 8.2 x 10$^{-3}$ $\mu$Ci/mL (3.0 x 10$^{+5}$ Bq/L). Hence, sampling standard deviation is a small, but not necessarily negligible, portion of the total standard deviation of $^3$H in water from containment ponds, 2.5 x 10$^{-2}$ $\mu$/mL (9.2 x 10$^{+5}$ Bq/L).

## $^{226}$Ra and $^{228}$Ra

The arithmetic mean of all observed $^{226}$Ra concentrations was 1.2 x 10$^{-9}$ $\mu$Ci/mL (4.4 x 10$^{-2}$ Bq/L) and the standard deviation was 1.4 x 10$^{-9}$ $\mu$Ci/mL (5.2 x 10$^{-2}$ Bq/L. Due to subtraction of background, approximately 15 percent of the observed concentrations 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, 8.7 x 10$^{-10}$ $\mu$Ci/mL (3.2 x 10$^{-2}$ Bq/L) and 3.4.

An exploratory data analysis revealed that the normal distribution fitted the data reasonably well. This is illustrated in Figure C.16, where observed concentrations ($\mu$Ci/mL) from Area 6, multiplied by 10$^{10}$, are plotted versus normal scores. A straight line indicates a normal distribution. Although the points in Figure C.16 do not perfectly follow a straight line, it is thought that the normal distribution is an adequate approximation.

Analyses are performed omitting a single unusual observation (Area 20 Water Well, collected on 04/06/92). Concentrations are compared, both across NTS operational areas and month of sample collection, by a two-way ANOVA. The ANOVA, presented in Table C.15, shows concentrations differ among neither NTS operational areas nor among months of sample collection by a greater amount than sampling variation could plausibly account for.

Measurement error for $^{226}$Ra concentrations is generally small. To quantify this, the coefficient of variation was calculated for each non-zero observation. This appears as a histogram in Figure C.17. One coefficient of variation greater than 5.0 was omitted to enhance readability. As Figure C.17 suggests, many $^{226}$Ra concentrations were below the limit of detection.
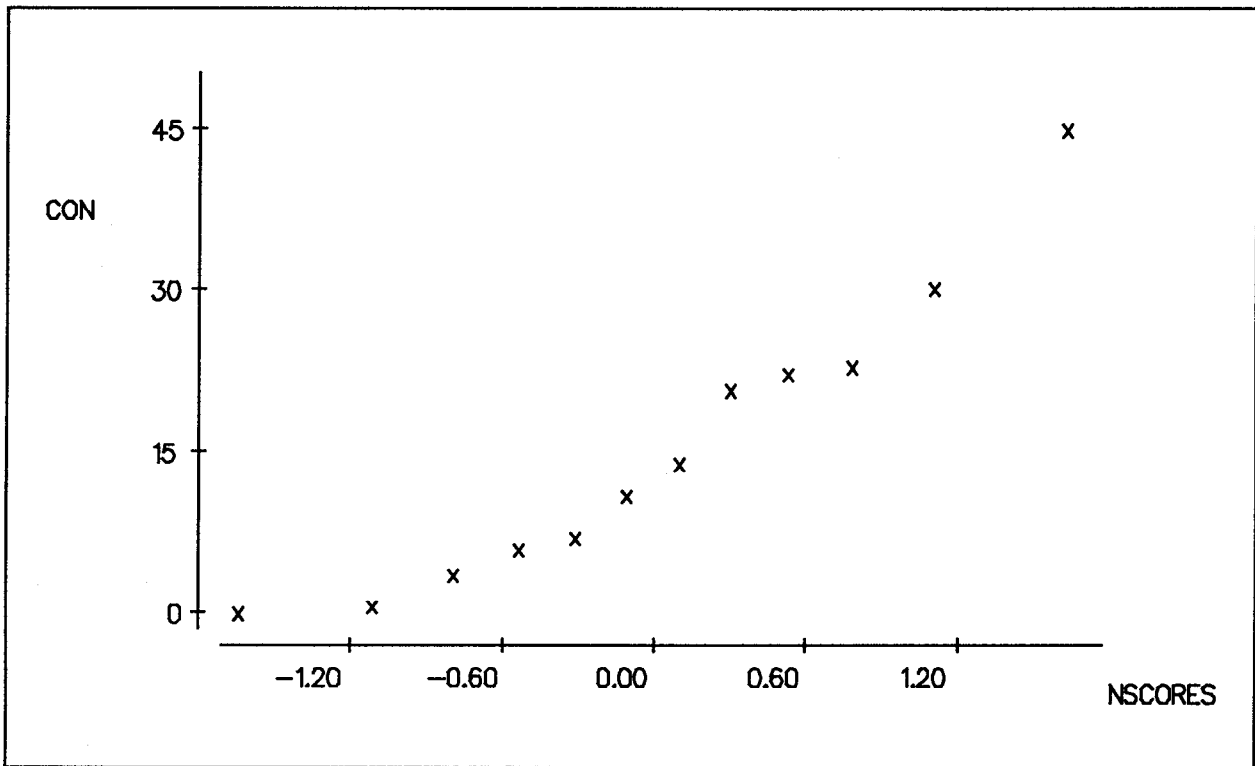
Figure C.16  Plot of $^{226}$Ra Concentrations x $10^{10}$ ($\mu$Ci/mL) from Area 6 versus Normal Scores
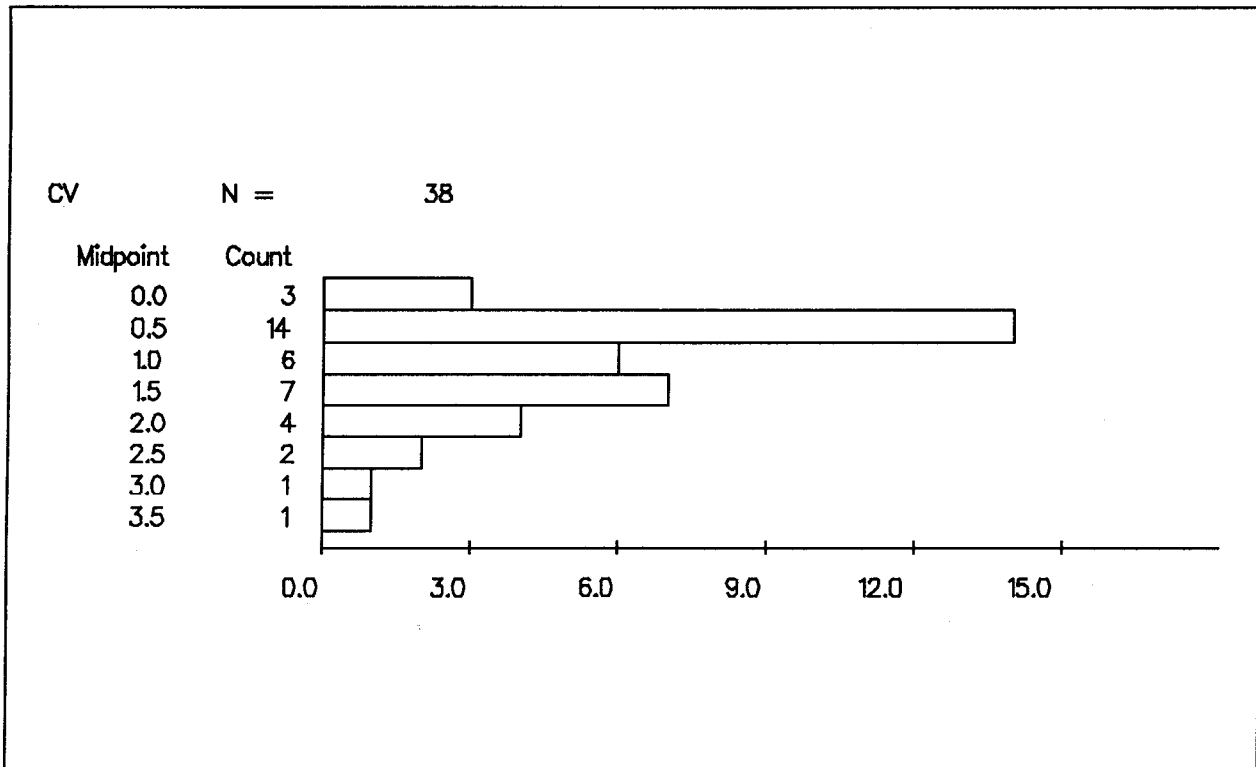


Figure C.17 Histogram of Empirical Coefficients of Variation of $^{226}$Ra Concentrations in Water

Table C.15  Analysis of Variance on Concentrations x 10$^{10}$ ($\mu$Ci/mL) of $^{226}$Ra in Water Samples

| Source | Degrees of Freedom | Sequential Sum of Squares | Sum of Squares | Mean Square | F-Statistic | p-Value |
|---|---|---|---|---|---|---|
| NTS Operational | | | | | | |
| Area | 7 | 1573.9 | 1379.9 | 197.1 | 1.76 | 0.136 |
| Month | 4 | 935.0 | 935.0 | 233.7 | 2.09 | 0.109 |
| Error | 28 | 3163.9 | 3136.9 | 112.0 | | |
| Total | 39 | 5672.8 | | | | |

The arithmetic mean of all observed $^{228}$Ra concentrations was 1.9 x 10$^{-10}$ $\mu$Ci/mL (7.0 x 10$^{-3}$ Bq/L) and the standard deviation was 6.1 x 10$^{-10}$ $\mu$Ci/mL (2.2 x 10$^{-2}$ Bq/L). Due to subtraction of background, approximately 44 percent of the observed concentrations were negative. Therefore, no geometric mean or standard deviation were calculated.

An exploratory data analysis revealed that the normal distribution fitted the data reasonably well. This is illustrated in Figure C.18, where observed concentrations from Area 6, multiplied by 10$^{10}$ are plotted versus normal scores. A straight line indicates a normal distribution. Although the points in Figure C.18 follow a straight line in, at best, a crude manner, it is thought that the normal distribution is an adequate approximation.
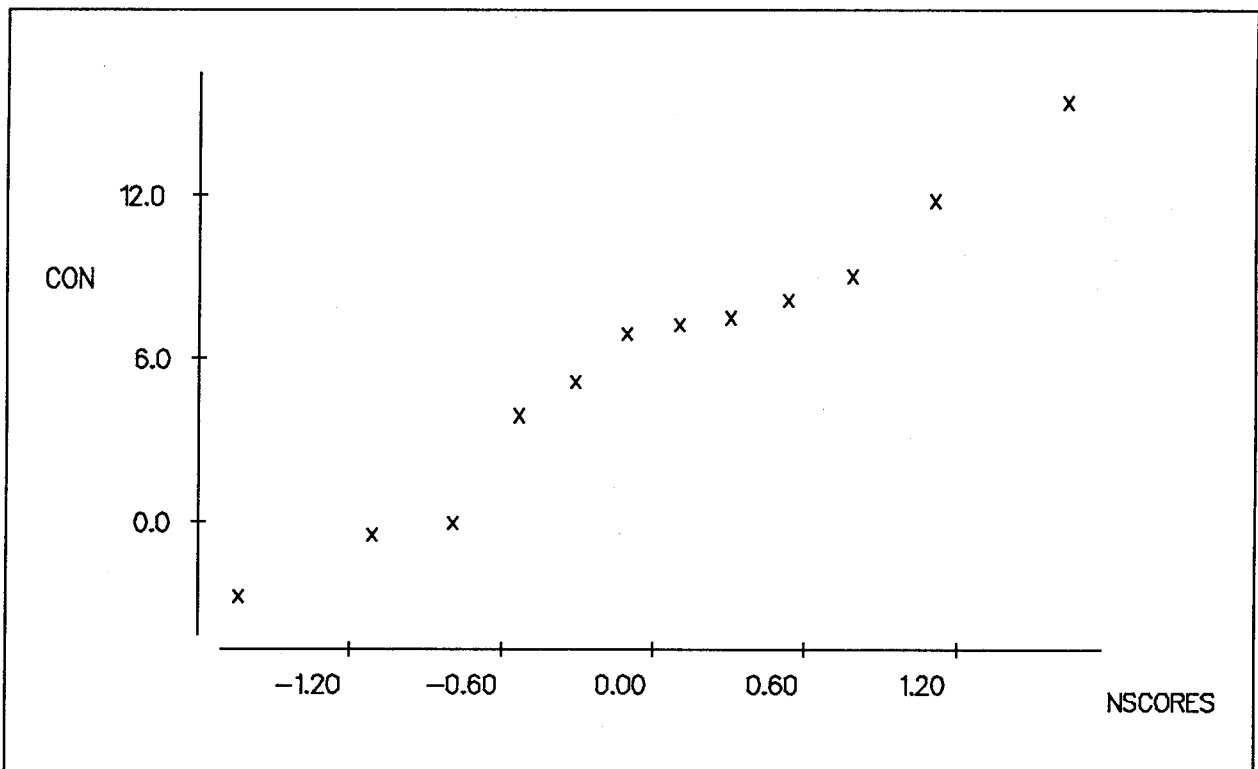


Figure C.18 Plot of $^{228}$Ra Concentrations, Times 10$^{10}$, from Area 6 versus Normal Scores

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Concentrations are compared, both across NTS operational areas and month of sample collection, by a two-way ANOVA. The ANOVA, presented in Table C.16, shows concentrations differ among neither NTS operational areas nor among months of sample collection by a greater amount than sampling variation could plausibly account for.

Measurement error for $^{228}$Ra concentrations is generally small. To quantify this, the coefficient of variation was calculated for each non-zero observation. This appears as a histogram in Figure C.19. Two coefficients of variation greater than 5.0 were omitted to enhance readability. As Figure C.19 suggests, many $^{228}$Ra concentrations were below the limit of detection.

Table C.16   Analysis of Variance on Concentrations x 10 $^{10}$ ($\mu$Ci/mL) of $^{228}$Ra in Water Samples

| Source | Degrees of Freedom | Sequential Sum of Squares | Sum of Squares | Mean Square | F-Statistic | p-Value |
|---|---|---|---|---|---|---|
| NTS Operational Area | 7 | 474.00 | 461.23 | 65.89 | 1.92 | 0.102 |
| Month | 4 | 40.01 | 40.01 | 10.00 | 0.29 | 0.881 |
| Error | 29 | 994.88 | 994.88 | 34.31 | | |
| Total | 40 | 1508.89 | | | | |

CV          N =          36

| Midpoint | Count |
|---|---|
| 0.5 | 9 |
| 1.0 | 11 |
| 1.5 | 6 |
| 2.0 | 4 |
| 2.5 | 2 |
| 3.0 | 3 |
| 3.5 | 1 |
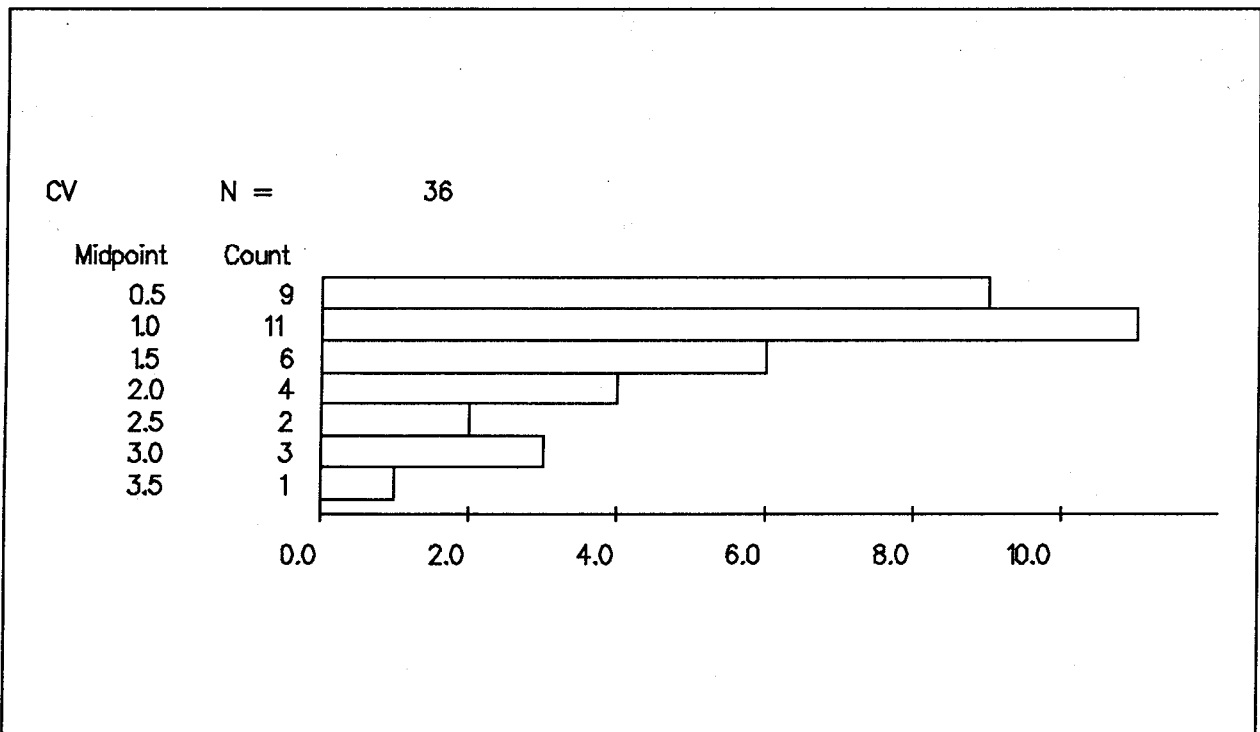
Figure C.19  Histogram of Empirical Coefficients of Variation of $^{228}$Ra Concentrations in Water

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 2, Mud Plant | 07/03/92 | $7.0 \times 10^{-10}$ | $2.1 \times 10^{-10}$ |
| Area 2, Well 2 Reservoir | 07/03/92 | $2.0 \times 10^{-10}$ | $9.2 \times 10^{-11}$ |
| Area 3, Mud Plant | 07/08/92 | $1.3 \times 10^{-09}$ | $5.3 \times 10^{-11}$ |
| Area 3, Well A Reservoir | 07/08/92 | $1.2 \times 10^{-10}$ | $4.0 \times 10^{-10}$ |
| Area 5, Cane Spring | 07/16/92 | $1.5 \times 10^{-10}$ | $1.7 \times 10^{-10}$ |
| Area 5, Well 5-B Reservoir | 07/08/92 | $3.3 \times 10^{-10}$ | $9.3 \times 10^{-11}$ |
| Area 5, Well 5-C | 07/13/92 | $5.9 \times 10^{-10}$ | $1.4 \times 10^{-10}$ |
| Area 5, Well UE-5c | 07/13/92 | $1.4 \times 10^{-10}$ | $1.4 \times 10^{-10}$ |
| Area 6, Sewage | 07/14/92 | $3.8 \times 10^{-10}$ | $1.6 \times 10^{-10}$ |
| Area 6, Well 3 Reservoir | 07/03/92 | $1.3 \times 10^{-09}$ | $2.5 \times 10^{-10}$ |
| Area 6, Well 4 | 07/13/92 | $8.6 \times 10^{-11}$ | $4.8 \times 10^{-11}$ |
| Area 6, Well C | 07/13/92 | $1.1 \times 10^{-10}$ | $3.4 \times 10^{-10}$ |
| Area 6, Well C-1 | 07/13/92 | $7.1 \times 10^{-10}$ | $2.0 \times 10^{-10}$ |
| Area 6, Well C-1 Reservoir | 07/09/92 | $-4.0 \times 10^{-11}$ | $1.3 \times 10^{-11}$ |
| Area 6, Yucca Pond | 07/09/92 | $1.4 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 12, Captain Jack Spring | 07/15/92 | $6.3 \times 10^{-10}$ | $2.7 \times 10^{-10}$ |
| Area 12, E Tunnel Effluent | 07/21/92 | $7.4 \times 10^{-09}$ | $6.1 \times 10^{-10}$ |
| Area 12, E Tunnel Pond No. 1 | 07/21/92 | $6.1 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 12, N Tunnel Effluent | 07/21/92 | $6.1 \times 10^{-11}$ | $4.9 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 2 | 07/21/92 | $1.5 \times 10^{-10}$ | $2.0 \times 10^{-10}$ |
| Area 12, Sewage | 07/21/92 | $2.1 \times 10^{-10}$ | $1.6 \times 10^{-10}$ |
| Area 12, T Tunnel Effluent | 07/21/92 | $9.5 \times 10^{-09}$ | $5.1 \times 10^{-10}$ |
| Area 12, T Tunnel Pond No. 2 | 07/21/92 | $1.7 \times 10^{-08}$ | $6.8 \times 10^{-10}$ |
| Area 12, T Tunnel Pond No. 3 | 07/21/92 | $1.6 \times 10^{-08}$ | $6.5 \times 10^{-10}$ |
| Area 12, White Rock Spring | 07/13/92 | $4.8 \times 10^{-10}$ | $1.8 \times 10^{-10}$ |
| Area 16, Tippipah Spring | 07/15/92 | $6.2 \times 10^{-10}$ | $2.0 \times 10^{-10}$ |
| Area 16, Well UE-16d | 07/13/92 | $1.9 \times 10^{-10}$ | $1.2 \times 10^{-10}$ |
| Area 18, Camp 17 Reservoir | 07/07/92 | $6.5 \times 10^{-10}$ | $2.1 \times 10^{-10}$ |
| Area 18, Well 8 | 07/13/92 | $-1.5 \times 10^{-11}$ | $1.2 \times 10^{-11}$ |
| Area 18, Well 8 Reservoir | 07/07/92 | $6.6 \times 10^{-10}$ | $3.3 \times 10^{-10}$ |
| Area 19, Well UE-19c | 07/13/92 | $1.3 \times 10^{-10}$ | $1.4 \times 10^{-10}$ |
| Area 19, Well UE-19c Reservoir | 07/09/92 | $1.6 \times 10^{-10}$ | $1.2 \times 10^{-10}$ |
| Area 20, Water Well | 07/13/92 | $3.0 \times 10^{-10}$ | $1.1 \times 10^{-10}$ |
| Area 20, Well 20 | 07/09/92 | $2.0 \times 10^{-11}$ | $2.7 \times 10^{-11}$ |
| Area 23, Army Well No. 1 | 07/13/92 | $4.1 \times 10^{-10}$ | $1.3 \times 10^{-10}$ |
| Area 23, H&S Sump | 07/22/92 | $4.4 \times 10^{-09}$ | $1.0 \times 10^{-09}$ |
| Area 23, Sewage | 07/14/92 | $2.2 \times 10^{-10}$ | $1.4 \times 10^{-10}$ |
| Area 23, Swimming Pool | 07/09/92 | $3.3 \times 10^{-10}$ | $1.7 \times 10^{-10}$ |
| Area 25, Well J-11 Reservoir | 07/08/92 | $2.6 \times 10^{-10}$ | $1.5 \times 10^{-10}$ |
| Area 25, Well J-12 | 07/13/92 | $4.6 \times 10^{-10}$ | $1.6 \times 10^{-10}$ |
| Area 25, Well J-13 | 07/13/92 | $4.4 \times 10^{-10}$ | $1.6 \times 10^{-10}$ |

Mean MDC: $1.9 \times 10^{-10}$ μCi/mL          Standard Deviation of Mean MDC: $1.2 \times 10^{-10}$ μCi/mL

## Attachment C.2  Gross Alpha in Water [potable wells and end points] - 1992

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 1, Building 101 | 01/13/92 | $1.4 \times 10^{-08}$ | $1.5 \times 10^{-09}$ |
| Area 1, Building 101 | 03/30/92 | $9.8 \times 10^{-09}$ | $1.3 \times 10^{-09}$ |
| Area 1, Building 101 | 06/29/92 | $7.4 \times 10^{-09}$ | $8.6 \times 10^{-10}$ |
| Area 1, Building 101 | 09/28/92 | $4.7 \times 10^{-10}$ | $2.7 \times 10^{-10}$ |
| Area 2, Rest Room | 01/13/92 | $4.7 \times 10^{-10}$ | $3.0 \times 10^{-10}$ |
| Area 2, Rest Room | 03/30/92 | $4.3 \times 10^{-10}$ | $3.4 \times 10^{-10}$ |
| Area 2, Rest Room | 06/29/92 | $8.4 \times 10^{-10}$ | $3.1 \times 10^{-10}$ |
| Area 2, Rest Room | 09/28/92 | $1.1 \times 10^{-09}$ | $3.4 \times 10^{-10}$ |
| Area 2, Rest Room | 12/29/92 | $7.3 \times 10^{-10}$ | $2.8 \times 10^{-10}$ |
| Area 3, Cafeteria | 01/13/92 | $3.2 \times 10^{-09}$ | $9.9 \times 10^{-10}$ |
| Area 5, Well 5C | 01/22/92 | $7.0 \times 10^{-09}$ | $8.9 \times 10^{-10}$ |
| Area 5, Well 5C | 04/06/92 | $1.4 \times 10^{-08}$ | $1.5 \times 10^{-09}$ |
| Area 5, Well 5C | 07/13/92 | $1.1 \times 10^{-08}$ | $1.0 \times 10^{-09}$ |
| Area 5, Well 5C | 10/05/92 | $6.1 \times 10^{-09}$ | $7.8 \times 10^{-10}$ |
| Area 6, Bottled Water | 01/13/92 | $1.7 \times 10^{-10}$ | $1.7 \times 10^{-10}$ |
| Area 6, Bottled Water | 03/30/92 | $-1.3 \times 10^{-10}$ | $1.7 \times 10^{-10}$ |
| Area 6, Bottled Water | 06/29/92 | $1.9 \times 10^{-10}$ | $1.3 \times 10^{-10}$ |
| Area 6, Bottled Water | 09/28/92 | $-1.7 \times 10^{-10}$ | $9.9 \times 10^{-11}$ |
| Area 6, Bottled Water | 12/29/92 | $-1.2 \times 10^{-10}$ | $1.0 \times 10^{-10}$ |
| Area 6, Building 6-900 | 06/29/92 | $6.0 \times 10^{-09}$ | $7.8 \times 10^{-10}$ |
| Area 6, Building 6-900 | 09/28/92 | $4.3 \times 10^{-09}$ | $1.1 \times 10^{-09}$ |
| Area 6, Building 6-900 | 12/29/92 | $2.0 \times 10^{-08}$ | $1.8 \times 10^{-09}$ |
| Area 6, Cafeteria | 01/13/92 | $1.2 \times 10^{-08}$ | $2.0 \times 10^{-09}$ |
| Area 6, Cafeteria | 03/30/92 | $1.1 \times 10^{-08}$ | $1.8 \times 10^{-09}$ |
| Area 6, Cafeteria | 06/29/92 | $9.9 \times 10^{-09}$ | $9.8 \times 10^{-10}$ |
| Area 6, Cafeteria | 09/28/92 | $7.9 \times 10^{-09}$ | $1.3 \times 10^{-09}$ |
| Area 6, Cafeteria | 12/29/92 | $1.4 \times 10^{-08}$ | $1.1 \times 10^{-09}$ |
| Area 6, Well C | 01/27/92 | $1.9 \times 10^{-08}$ | $2.6 \times 10^{-09}$ |
| Area 6, Well C | 04/06/92 | $9.9 \times 10^{-09}$ | $1.3 \times 10^{-09}$ |
| Area 6, Well C | 07/13/92 | $1.2 \times 10^{-08}$ | $1.1 \times 10^{-09}$ |
| Area 6, Well C | 10/05/92 | $5.3 \times 10^{-09}$ | $7.3 \times 10^{-10}$ |
| Area 6, Well C-1 | 01/27/92 | $1.7 \times 10^{-08}$ | $3.4 \times 10^{-09}$ |
| Area 6, Well C-1 | 04/06/92 | $8.4 \times 10^{-09}$ | $1.2 \times 10^{-09}$ |
| Area 6, Well C-1 | 07/13/92 | $5.4 \times 10^{-09}$ | $8.0 \times 10^{-10}$ |
| Area 6, Well C-1 | 10/05/92 | $6.5 \times 10^{-09}$ | $8.3 \times 10^{-10}$ |
| Area 6, Well 4 | 01/27/92 | $4.6 \times 10^{-09}$ | $7.3 \times 10^{-10}$ |
| Area 6, Well 4 | 04/06/92 | $7.0 \times 10^{-09}$ | $9.6 \times 10^{-10}$ |
| Area 6, Well 4 | 07/13/92 | $8.6 \times 10^{-09}$ | $9.1 \times 10^{-10}$ |
| Area 6, Well 4 | 10/05/92 | $4.1 \times 10^{-09}$ | $6.2 \times 10^{-10}$ |
| Area 12, Cafeteria | 01/13/92 | $7.3 \times 10^{-10}$ | $3.1 \times 10^{-10}$ |

Mean MDC: $1.1 \times 10^{-09}$ μCi/mL          Standard Deviation of Mean MDC: $7.1 \times 10^{-10}$ μCi/mL

Attachment C.2 (Gross Alpha in Water [potable wells and end points] - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 12, Cafeteria | 03/30/92 | $1.0 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 12, Cafeteria | 06/29/92 | $8.8 \times 10^{-10}$ | $3.2 \times 10^{-10}$ |
| Area 12, Cafeteria | 09/28/92 | $5.4 \times 10^{-09}$ | $7.8 \times 10^{-10}$ |
| Area 16, Well UE-16d | 01/27/92 | $8.7 \times 10^{-09}$ | $1.2 \times 10^{-09}$ |
| Area 16, Well UE-16d | 04/06/92 | $1.5 \times 10^{-08}$ | $1.6 \times 10^{-09}$ |
| Area 16, Well UE-16d | 07/13/92 | $1.0 \times 10^{-08}$ | $1.1 \times 10^{-09}$ |
| Area 16, Well UE-16d | 10/05/92 | $3.7 \times 10^{-09}$ | $6.6 \times 10^{-10}$ |
| Area 18, Well 8 | 01/27/92 | $1.3 \times 10^{-09}$ | $3.7 \times 10^{-10}$ |
| Area 18, Well 8 | 04/06/92 | $6.8 \times 10^{-11}$ | $3.9 \times 10^{-10}$ |
| Area 18, Well 8 | 07/13/92 | $5.3 \times 10^{-10}$ | $3.1 \times 10^{-10}$ |
| Area 18, Well 8 | 10/05/92 | $4.3 \times 10^{-10}$ | $1.7 \times 10^{-10}$ |
| Area 20, Water Well | 04/06/92 | $6.5 \times 10^{-09}$ | $7.7 \times 10^{-10}$ |
| Area 20, Water Well | 07/13/92 | $8.7 \times 10^{-09}$ | $8.9 \times 10^{-10}$ |
| Area 20, Water Well | 10/05/92 | $6.5 \times 10^{-09}$ | $6.7 \times 10^{-10}$ |
| Area 23, H&S Sump | 10/22/92 | $4.3 \times 10^{-09}$ | $1.0 \times 10^{-09}$ |
| Area 23, Army Well No. 1 | 01/22/92 | $4.2 \times 10^{-09}$ | $8.7 \times 10^{-10}$ |
| Area 23, Army Well No. 1 | 04/06/92 | $2.6 \times 10^{-09}$ | $9.3 \times 10^{-10}$ |
| Area 23, Army Well No. 1 | 07/13/92 | $7.1 \times 10^{-09}$ | $8.7 \times 10^{-10}$ |
| Area 23, Army Well No. 1 | 10/05/92 | $3.8 \times 10^{-09}$ | $6.4 \times 10^{-10}$ |
| Area 23, Mercury | 01/13/92 | $1.1 \times 10^{-08}$ | $1.2 \times 10^{-09}$ |
| Area 23, Mercury | 03/30/92 | $8.1 \times 10^{-09}$ | $1.8 \times 10^{-09}$ |
| Area 23, Mercury | 06/29/92 | $6.8 \times 10^{-09}$ | $8.3 \times 10^{-10}$ |
| Area 23, Mercury | 09/28/92 | $7.3 \times 10^{-09}$ | $8.3 \times 10^{-10}$ |
| Area 23, Mercury | 12/28/92 | $5.3 \times 10^{-09}$ | $7.2 \times 10^{-10}$ |
| Area 25, Building 4221 | 01/13/92 | $8.8 \times 10^{-10}$ | $3.8 \times 10^{-10}$ |
| Area 25, Building 4221 | 03/30/92 | $1.3 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 25, Building 4221 | 06/29/92 | $2.5 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 25, Building 4221 | 09/28/92 | $1.2 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 25, Building 4221 | 12/28/92 | $1.5 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 25, Well J-12 | 05/12/92 | $1.5 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 25, Well J-12 | 07/13/92 | $2.2 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 25, Well J-12 | 10/05/92 | $1.4 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 25, Well J-13 | 01/22/92 | $1.5 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 25, Well J-13 | 04/06/92 | $5.4 \times 10^{-10}$ | $4.3 \times 10^{-10}$ |
| Area 25, Well J-13 | 07/13/92 | $1.1 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 25, Well J-13 | 10/05/92 | $1.6 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 27, Cafeteria | 01/13/92 | $1.1 \times 10^{-08}$ | $1.8 \times 10^{-09}$ |
| Area 27, Cafeteria | 03/30/92 | $8.1 \times 10^{-09}$ | $8.9 \times 10^{-10}$ |
| Area 27, Cafeteria | 06/29/92 | $7.4 \times 10^{-09}$ | $8.5 \times 10^{-10}$ |
| Area 27, Cafeteria | 09/28/92 | $5.2 \times 10^{-09}$ | $1.1 \times 10^{-09}$ |

Mean MDC: $1.1 \times 10^{-09}$ µCi/mL          Standard Deviation of Mean MDC: $7.1 \times 10^{-10}$ µCi/mL

## Attachment C.3  $^{238}$Pu in Water - 1992

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 1, Building 101 | 03/30/92 | $6.5 \times 10^{-11}$ | $5.4 \times 10^{-11}$ |
| Area 1, Building 101 | 06/29/92 | 0.0 | 0.0 |
| Area 1, Building 101 | 09/28/92 | 0.0 | 0.0 |
| Area 2, Mud Plant | 01/08/92 | $-5.1 \times 10^{-11}$ | $3.7 \times 10^{-11}$ |
| Area 2, Mud Plant | 04/23/92 | $-3.9 \times 10^{-11}$ | $3.1 \times 10^{-11}$ |
| Area 2, Mud Plant | 07/03/92 | $3.4 \times 10^{-12}$ | $3.4 \times 10^{-12}$ |
| Area 2, Mud Plant | 10/14/92 | 0.0 | 0.0 |
| Area 2, Rest Room | 03/30/92 | $-5.2 \times 10^{-11}$ | $2.7 \times 10^{-11}$ |
| Area 2, Rest Room | 06/29/92 | 0.0 | 0.0 |
| Area 2, Rest Room | 09/28/92 | 0.0 | 0.0 |
| Area 2, Rest Room | 12/29/92 | 0.0 | 0.0 |
| Area 2, Well 2 Reservoir | 01/08/92 | $-4.0 \times 10^{-11}$ | $2.7 \times 10^{-11}$ |
| Area 2, Well 2 Reservoir | 04/08/92 | $-6.3 \times 10^{-11}$ | $3.3 \times 10^{-11}$ |
| Area 2, Well 2 Reservoir | 07/03/92 | 0.0 | 0.0 |
| Area 2, Well 2 Reservoir | 10/14/92 | 0.0 | 0.0 |
| Area 3, Mud Plant | 01/08/92 | $3.3 \times 10^{-12}$ | $3.1 \times 10^{-11}$ |
| Area 3, Mud Plant | 04/08/92 | $-2.3 \times 10^{-10}$ | $1.1 \times 10^{-10}$ |
| Area 3, Mud Plant | 07/08/92 | 0.0 | 0.0 |
| Area 3, Mud Plant | 10/21/92 | $4.5 \times 10^{-12}$ | $3.2 \times 10^{-12}$ |
| Area 3, Well A Reservoir | 01/08/92 | $-6.6 \times 10^{-12}$ | $3.4 \times 10^{-11}$ |
| Area 3, Well A Reservoir | 04/08/92 | $-2.0 \times 10^{-11}$ | $3.3 \times 10^{-11}$ |
| Area 3, Well A Reservoir | 07/08/92 | 0.0 | 0.0 |
| Area 3, Well A Reservoir | 10/15/92 | 0.0 | 0.0 |
| Area 5, Cane Spring | 01/08/92 | $2.8 \times 10^{-12}$ | $3.1 \times 10^{-11}$ |
| Area 5, Cane Spring | 04/08/92 | $3.6 \times 10^{-11}$ | $4.5 \times 10^{-11}$ |
| Area 5, Cane Spring | 07/16/92 | $3.6 \times 10^{-12}$ | $3.6 \times 10^{-12}$ |
| Area 5, Cane Spring | 10/21/92 | 0.0 | 0.0 |
| Area 5, Well UE-5c Reservoir | 01/06/92 | $-6.2 \times 10^{-11}$ | $2.7 \times 10^{-11}$ |
| Area 5, Well UE-5c Reservoir | 04/08/92 | $-3.6 \times 10^{-11}$ | $4.8 \times 10^{-11}$ |
| Area 5, Well UE-5c Reservoir | 07/08/92 | 0.0 | 0.0 |
| Area 5, Well UE-5c Reservoir | 10/06/92 | 0.0 | 0.0 |
| Area 5, Well 5B | 10/05/92 | 0.0 | 0.0 |
| Area 5, Well 5B Reservoir | 01/06/92 | $7.2 \times 10^{-12}$ | $3.2 \times 10^{-11}$ |
| Area 5, Well 5B Reservoir | 04/08/92 | $1.5 \times 10^{-11}$ | $2.9 \times 10^{-11}$ |
| Area 5, Well 5B Reservoir | 07/08/92 | $5.9 \times 10^{-12}$ | $4.2 \times 10^{-12}$ |
| Area 5, Well 5B Reservoir | 10/06/92 | 0.0 | 0.0 |
| Area 5, Well 5C | 01/22/92 | $-2.3 \times 10^{-11}$ | $3.5 \times 10^{-11}$ |
| Area 5, Well 5C | 04/06/92 | $-2.0 \times 10^{-11}$ | $2.5 \times 10^{-11}$ |
| Area 5, Well 5C | 07/13/92 | $3.6 \times 10^{-12}$ | $3.6 \times 10^{-12}$ |
| Area 5, Well 5C | 10/05/92 | 0.0 | 0.0 |

Mean MDC: $5.0 \times 10^{-11}$ μCi/mL          Standard Deviation of Mean MDC: $9.6 \times 10^{-11}$ μCi/mL

Attachment C.3 ($^{238}$Pu in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 5, Well UE-5c | 01/22/92 | $-4.5 \times 10^{-11}$ | $3.8 \times 10^{-11}$ |
| Area 5, Well UE-5c | 05/12/92 | $-4.5 \times 10^{-11}$ | $4.3 \times 10^{-11}$ |
| Area 5, Well UE-5c | 07/13/92 | 0.0 | 0.0 |
| Area 5, Well UE-5c | 11/09/92 | 0.0 | 0.0 |
| Area 6, Bottled Water | 03/30/92 | $-2.9 \times 10^{-11}$ | $3.1 \times 10^{-11}$ |
| Area 6, Bottled Water | 06/29/92 | 0.0 | 0.0 |
| Area 6, Bottled Water | 09/28/92 | 0.0 | 0.0 |
| Area 6, Bottled Water | 12/29/92 | 0.0 | 0.0 |
| Area 6, Building 6-900 | 06/29/92 | 0.0 | 0.0 |
| Area 6, Building 6-900 | 09/28/92 | 0.0 | 0.0 |
| Area 6, Building 6-900 | 12/29/92 | $2.1 \times 10^{-12}$ | $2.1 \times 10^{-12}$ |
| Area 6, Cafeteria | 03/30/92 | $-1.1 \times 10^{-11}$ | $3.1 \times 10^{-11}$ |
| Area 6, Cafeteria | 06/29/92 | 0.0 | 0.0 |
| Area 6, Cafeteria | 09/28/92 | $2.2 \times 10^{-12}$ | $2.2 \times 10^{-12}$ |
| Area 6, Cafeteria | 12/29/92 | 0.0 | 0.0 |
| Area 6, Sewage | 07/14/92 | 0.0 | 0.0 |
| Area 6, Sewage | 10/15/92 | 0.0 | 0.0 |
| Area 6, Well C | 01/27/92 | $-2.2 \times 10^{-11}$ | $2.9 \times 10^{-11}$ |
| Area 6, Well C | 04/06/92 | $4.5 \times 10^{-12}$ | $3.3 \times 10^{-11}$ |
| Area 6, Well C | 07/13/92 | 0.0 | 0.0 |
| Area 6, Well C | 10/05/92 | 0.0 | 0.0 |
| Area 6, Well C-1 | 01/27/92 | $-5.4 \times 10^{-11}$ | $2.8 \times 10^{-11}$ |
| Area 6, Well C-1 | 04/06/92 | $2.8 \times 10^{-12}$ | $3.5 \times 10^{-11}$ |
| Area 6, Well C-1 | 07/13/92 | 0.0 | 0.0 |
| Area 6, Well C-1 | 10/05/92 | 0.0 | 0.0 |
| Area 6, Well C-1 Reservoir | 01/07/92 | $-2.7 \times 10^{-11}$ | $2.8 \times 10^{-11}$ |
| Area 6, Well C-1 Reservoir | 04/08/92 | $8.1 \times 10^{-12}$ | $3.1 \times 10^{-11}$ |
| Area 6, Well C-1 Reservoir | 07/09/92 | 0.0 | 0.0 |
| Area 6, Well C-1 Reservoir | 10/06/92 | $5.5 \times 10^{-12}$ | $5.5 \times 10^{-12}$ |
| Area 6, Well 3 Reservoir | 01/08/92 | $-2.0 \times 10^{-11}$ | $2.7 \times 10^{-11}$ |
| Area 6, Well 3 Reservoir | 04/08/92 | $-2.4 \times 10^{-11}$ | $2.7 \times 10^{-11}$ |
| Area 6, Well 3 Reservoir | 07/03/92 | 0.0 | 0.0 |
| Area 6, Well 3 Reservoir | 10/15/92 | $4.5 \times 10^{-12}$ | $3.2 \times 10^{-12}$ |
| Area 6, Well 4 | 01/27/92 | $-5.6 \times 10^{-11}$ | $2.9 \times 10^{-11}$ |
| Area 6, Well 4 | 04/06/92 | $-3.6 \times 10^{-11}$ | $4.4 \times 10^{-11}$ |
| Area 6, Well 4 | 07/13/92 | 0.0 | 0.0 |
| Area 6, Well 4 | 10/05/92 | 0.0 | 0.0 |
| Area 6, Yucca Pond | 01/15/92 | $2.6 \times 10^{-12}$ | $5.1 \times 10^{-11}$ |
| Area 6, Yucca Pond | 04/27/92 | $-6.4 \times 10^{-11}$ | $9.4 \times 10^{-11}$ |
| Area 6, Yucca Pond | 07/09/92 | $5.1 \times 10^{-12}$ | $5.1 \times 10^{-12}$ |

Mean MDC: $5.0 \times 10^{-11}$ μCi/mL          Standard Deviation of Mean MDC: $9.6 \times 10^{-11}$ μCi/mL

Attachment C.3 ($^{238}$Pu in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 6, Yucca Pond | 10/06/92 | $4.2 \times 10^{-11}$ | $4.3 \times 10^{-11}$ |
| Area 7, Reitman Seep | 01/15/92 | $-1.2 \times 10^{-10}$ | $5.7 \times 10^{-11}$ |
| Area 7, Reitman Seep | 04/08/92 | $3.5 \times 10^{-11}$ | $5.3 \times 10^{-11}$ |
| Area 7, Reitman Seep | 11/17/92 | $3.6 \times 10^{-12}$ | $3.6 \times 10^{-12}$ |
| Area 12, Cafeteria | 03/30/92 | $-1.8 \times 10^{-11}$ | $3.4 \times 10^{-11}$ |
| Area 12, Cafeteria | 06/29/92 | $2.7 \times 10^{-12}$ | $2.7 \times 10^{-12}$ |
| Area 12, Cafeteria | 09/28/92 | 0.0 | 0.0 |
| Area 12, Captain Jack Spring | 01/15/92 | $-2.5 \times 10^{-11}$ | $3.5 \times 10^{-11}$ |
| Area 12, Captain Jack Spring | 04/23/92 | $-1.9 \times 10^{-11}$ | $3.3 \times 10^{-11}$ |
| Area 12, Captain Jack Spring | 07/15/92 | 0.0 | 0.0 |
| Area 12, Captain Jack Spring | 10/21/92 | $1.9 \times 10^{-12}$ | $1.9 \times 10^{-12}$ |
| Area 12, E Tunnel Effluent | 01/15/92 | $7.8 \times 10^{-10}$ | $9.4 \times 10^{-11}$ |
| Area 12, E Tunnel Effluent | 04/09/92 | $6.4 \times 10^{-10}$ | $1.0 \times 10^{-10}$ |
| Area 12, E Tunnel Effluent | 07/21/92 | $6.4 \times 10^{-10}$ | $1.3 \times 10^{-10}$ |
| Area 12, E Tunnel Effluent | 10/20/92 | $5.8 \times 10^{-10}$ | $7.0 \times 10^{-11}$ |
| Area 12, E Tunnel Pond No. 1 | 07/21/92 | $6.1 \times 10^{-10}$ | $8.2 \times 10^{-11}$ |
| Area 12, E Tunnel Pond No. 1 | 10/20/92 | $6.2 \times 10^{-10}$ | $6.3 \times 10^{-11}$ |
| Area 12, Gold Meadows Spring | 04/08/92 | $-4.8 \times 10^{-13}$ | $3.3 \times 10^{-11}$ |
| Area 12, N Tunnel Effluent | 01/15/92 | $-3.0 \times 10^{-11}$ | $4.1 \times 10^{-11}$ |
| Area 12, N Tunnel Effluent | 04/09/92 | $-9.1 \times 10^{-11}$ | $6.8 \times 10^{-11}$ |
| Area 12, N Tunnel Effluent | 07/21/92 | $7.2 \times 10^{-12}$ | $7.2 \times 10^{-12}$ |
| Area 12, N Tunnel Effluent | 10/20/92 | $6.7 \times 10^{-12}$ | $6.7 \times 10^{-12}$ |
| Area 12, N Tunnel Pond No. 1 | 01/15/92 | $-2.5 \times 10^{-11}$ | $4.6 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 1 | 04/09/92 | $-7.3 \times 10^{-11}$ | $5.4 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 2 | 02/12/92 | $-1.6 \times 10^{-11}$ | $4.6 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 2 | 04/09/92 | $-8.4 \times 10^{-11}$ | $4.6 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 2 | 07/21/92 | $2.7 \times 10^{-11}$ | $1.9 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 2 | 10/20/92 | 0.0 | 0.0 |
| Area 12, N Tunnel Pond No. 3 | 02/12/92 | $8.6 \times 10^{-11}$ | $4.0 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 3 | 04/09/92 | $-7.9 \times 10^{-11}$ | $6.4 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 3 | 07/21/92 | $1.4 \times 10^{-11}$ | $7.9 \times 10^{-12}$ |
| Area 12, N Tunnel Pond No. 3 | 10/20/92 | 0.0 | 0.0 |
| Area 12, Sewage | 01/15/92 | $-3.3 \times 10^{-11}$ | $3.4 \times 10^{-11}$ |
| Area 12, Sewage | 04/23/92 | $1.3 \times 10^{-11}$ | $3.4 \times 10^{-11}$ |
| Area 12, Sewage Pond | 01/08/92 | $-3.4 \times 10^{-11}$ | $3.8 \times 10^{-11}$ |
| Area 12, Sewage Pond | 04/22/92 | $-2.8 \times 10^{-12}$ | $2.9 \times 10^{-11}$ |
| Area 12, Sewage Pond | 07/21/92 | 0.0 | 0.0 |
| Area 12, Sewage Pond | 10/27/92 | 0.0 | 0.0 |
| Area 12, T Tunnel Effluent | 01/15/92 | $2.5 \times 10^{-11}$ | $4.5 \times 10^{-11}$ |
| Area 12, T Tunnel Effluent | 04/09/92 | $7.1 \times 10^{-11}$ | $5.2 \times 10^{-11}$ |

Mean MDC: $5.0 \times 10^{-11}$ μCi/mL          Standard Deviation of Mean MDC: $9.6 \times 10^{-11}$ μCi/mL

Attachment C.3 ($^{238}$Pu in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 12, T Tunnel Effluent | 07/21/92 | $7.8 \times 10^{-11}$ | $5.6 \times 10^{-11}$ |
| Area 12, T Tunnel Effluent | 10/20/92 | $6.4 \times 10^{-11}$ | $3.2 \times 10^{-11}$ |
| Area 12, T Tunnel Pond No. 1 | 02/12/92 | $6.8 \times 10^{-11}$ | $1.0 \times 10^{-10}$ |
| Area 12, T Tunnel Pond No. 1 | 04/09/92 | $7.7 \times 10^{-11}$ | $5.3 \times 10^{-11}$ |
| Area 12, T Tunnel Pond No. 2 | 02/12/92 | $6.9 \times 10^{-11}$ | $5.7 \times 10^{-11}$ |
| Area 12, T Tunnel Pond No. 2 | 04/09/92 | $9.1 \times 10^{-11}$ | $6.7 \times 10^{-11}$ |
| Area 12, T Tunnel Pond No. 2 | 07/21/92 | $1.2 \times 10^{-10}$ | $3.4 \times 10^{-11}$ |
| Area 12, T Tunnel Pond No. 2 | 10/20/92 | $1.5 \times 10^{-10}$ | $2.7 \times 10^{-11}$ |
| Area 12, T Tunnel Pond No. 3 | 07/21/92 | $7.1 \times 10^{-11}$ | $2.5 \times 10^{-11}$ |
| Area 12, T Tunnel Pond No. 3 | 10/20/92 | $1.7 \times 10^{-10}$ | $4.4 \times 10^{-11}$ |
| Area 12, White Rock Spring | 01/15/92 | $-5.3 \times 10^{-11}$ | $2.9 \times 10^{-11}$ |
| Area 12, White Rock Spring | 04/08/92 | $-7.3 \times 10^{-12}$ | $3.9 \times 10^{-11}$ |
| Area 12, White Rock Spring | 07/13/92 | 0.0 | 0.0 |
| Area 12, White Rock Spring | 10/05/92 | 0.0 | 0.0 |
| Area 16, Tippipah Spring | 01/08/92 | $-4.3 \times 10^{-11}$ | $2.9 \times 10^{-11}$ |
| Area 16, Tippipah Spring | 04/22/92 | $-3.1 \times 10^{-11}$ | $5.1 \times 10^{-11}$ |
| Area 16, Tippipah Spring | 07/15/92 | 0.0 | 0.0 |
| Area 16, Tippipah Spring | 10/14/92 | 0.0 | 0.0 |
| Area 16, Well UE-16d | 01/27/92 | $5.1 \times 10^{-11}$ | $3.3 \times 10^{-11}$ |
| Area 16, Well UE-16d | 04/06/92 | $5.3 \times 10^{-11}$ | $4.0 \times 10^{-11}$ |
| Area 16, Well UE-16d | 07/13/92 | 0.0 | 0.0 |
| Area 16, Well UE-16d | 10/05/92 | 0.0 | 0.0 |
| Area 18, Camp 17 Reservoir | 01/08/92 | $-1.8 \times 10^{-11}$ | $3.9 \times 10^{-11}$ |
| Area 18, Camp 17 Reservoir | 04/08/92 | $3.7 \times 10^{-11}$ | $3.7 \times 10^{-11}$ |
| Area 18, Camp 17 Reservoir | 07/07/92 | $3.9 \times 10^{-12}$ | $3.9 \times 10^{-12}$ |
| Area 18, Camp 17 Reservoir | 10/07/92 | 0.0 | 0.0 |
| Area 18, Well 8 | 01/27/92 | $-1.5 \times 10^{-11}$ | $2.9 \times 10^{-11}$ |
| Area 18, Well 8 | 04/06/92 | $-3.3 \times 10^{-11}$ | $3.0 \times 10^{-11}$ |
| Area 18, Well 8 | 07/13/92 | 0.0 | 0.0 |
| Area 18, Well 8 | 10/05/92 | 0.0 | 0.0 |
| Area 18, Well 8 Reservoir | 01/14/92 | $-5.2 \times 10^{-11}$ | $3.3 \times 10^{-11}$ |
| Area 18, Well 8 Reservoir | 04/08/92 | $-8.7 \times 10^{-12}$ | $3.2 \times 10^{-11}$ |
| Area 18, Well 8 Reservoir | 07/07/92 | $5.1 \times 10^{-12}$ | $3.6 \times 10^{-12}$ |
| Area 18, Well 8 Reservoir | 10/07/92 | 0.0 | 0.0 |
| Area 19, Well UE-19c | 01/27/92 | $-1.1 \times 10^{-11}$ | $3.0 \times 10^{-11}$ |
| Area 19, Well UE-19c | 04/06/92 | $-1.3 \times 10^{-11}$ | $3.0 \times 10^{-11}$ |
| Area 19, Well UE-19c | 07/13/92 | $2.9 \times 10^{-12}$ | $2.9 \times 10^{-12}$ |
| Area 19, Well UE-19c | 10/05/92 | 0.0 | 0.0 |
| Area 19, Well UE-19c Reservoir | 01/14/92 | $-1.5 \times 10^{-12}$ | $3.1 \times 10^{-11}$ |
| Area 19, Well UE-19c Reservoir | 04/07/92 | $-3.4 \times 10^{-11}$ | $2.9 \times 10^{-11}$ |

Mean MDC: $5.0 \times 10^{-11}$ μCi/mL          Standard Deviation of Mean MDC: $9.6 \times 10^{-11}$ μCi/mL

Attachment C.3 ($^{238}$Pu in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 19, Well UE-19c Reservoir | 07/09/92 | 0.0 | 0.0 |
| Area 19, Well UE-19c Reservoir | 10/07/92 | 0.0 | 0.0 |
| Area 20, Well 20 | 01/15/92 | $-7.3 \times 10^{-11}$ | $3.1 \times 10^{-11}$ |
| Area 20, Well 20 | 04/07/92 | $7.3 \times 10^{-12}$ | $3.0 \times 10^{-11}$ |
| Area 20, Well 20 | 07/09/92 | 0.0 | 0.0 |
| Area 20, Well 20 | 10/07/92 | $5.2 \times 10^{-12}$ | $5.2 \times 10^{-12}$ |
| Area 20, Water Well | 04/06/92 | $-5.8 \times 10^{-11}$ | $3.5 \times 10^{-11}$ |
| Area 20, Water Well | 07/13/92 | 0.0 | 0.0 |
| Area 20, Water Well | 10/05/92 | 0.0 | 0.0 |
| Area 23, Army Well No. 1 | 01/22/92 | $-6.2 \times 10^{-11}$ | $3.5 \times 10^{-11}$ |
| Area 23, Army Well No. 1 | 04/06/92 | $1.2 \times 10^{-12}$ | $3.5 \times 10^{-11}$ |
| Area 23, Army Well No. 1 | 07/13/92 | 0.0 | 0.0 |
| Area 23, Army Well No. 1 | 10/05/92 | 0.0 | 0.0 |
| Area 23, H&S Sump | 10/22/92 | $1.4 \times 10^{-11}$ | $1.4 \times 10^{-11}$ |
| Area 23, Mercury | 03/30/92 | $2.0 \times 10^{-11}$ | $3.0 \times 10^{-11}$ |
| Area 23, Mercury | 06/29/92 | 0.0 | 0.0 |
| Area 23, Mercury | 09/28/92 | 0.0 | 0.0 |
| Area 23, Mercury | 12/28/92 | 0.0 | 0.0 |
| Area 23, Swimming Pool | 01/16/92 | $-3.9 \times 10^{-11}$ | $1.9 \times 10^{-11}$ |
| Area 23, Swimming Pool | 04/21/92 | $-2.0 \times 10^{-11}$ | $2.9 \times 10^{-11}$ |
| Area 23, Swimming Pool | 07/09/92 | 0.0 | 0.0 |
| Area 23, Swimming Pool | 10/06/92 | 0.0 | 0.0 |
| Area 23, Sewage | 01/16/92 | $5.3 \times 10^{-12}$ | $4.0 \times 10^{-11}$ |
| Area 23, Sewage | 04/21/92 | $-5.1 \times 10^{-11}$ | $3.5 \times 10^{-11}$ |
| Area 23, Sewage | 07/14/92 | 0.0 | 0.0 |
| Area 23, Sewage | 10/14/92 | 0.0 | 0.0 |
| Area 25, Building 4221 | 03/30/92 | $8.8 \times 10^{-12}$ | $3.0 \times 10^{-11}$ |
| Area 25, Building 4221 | 06/29/92 | 0.0 | 0.0 |
| Area 25, Building 4221 | 09/28/92 | 0.0 | 0.0 |
| Area 25, Building 4221 | 12/28/92 | 0.0 | 0.0 |
| Area 25, Well J-11 Reservoir | 01/08/92 | $-5.6 \times 10^{-11}$ | $3.6 \times 10^{-11}$ |
| Area 25, Well J-11 Reservoir | 04/08/92 | $2.1 \times 10^{-11}$ | $3.5 \times 10^{-11}$ |
| Area 25, Well J-11 Reservoir | 07/08/92 | 0.0 | 0.0 |
| Area 25, Well J-11 Reservoir | 10/06/92 | 0.0 | 0.0 |
| Area 25, Well J-12 | 05/12/92 | $-4.6 \times 10^{-12}$ | $3.0 \times 10^{-11}$ |
| Area 25, Well J-12 | 07/13/92 | 0.0 | 0.0 |
| Area 25, Well J-12 | 10/05/92 | 0.0 | 0.0 |
| Area 25, Well J-12 Reservoir | 01/08/92 | $-4.5 \times 10^{-11}$ | $2.7 \times 10^{-11}$ |
| Area 25, Well J-12 Reservoir | 04/08/92 | $-1.5 \times 10^{-11}$ | $3.5 \times 10^{-11}$ |
| Area 25, Well J-13 | 01/22/92 | $-3.6 \times 10^{-11}$ | $3.5 \times 10^{-11}$ |

Mean MDC: $5.0 \times 10^{-11}$ μCi/mL          Standard Deviation of Mean MDC: $9.6 \times 10^{-11}$ μCi/mL

Attachment C.3 ($^{238}$Pu in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 25, Well J-13 | 04/06/92 | $1.4 \times 10^{-11}$ | $2.9 \times 10^{-11}$ |
| Area 25, Well J-13 | 07/13/92 | 0.0 | 0.0 |
| Area 25, Well J-13 | 10/05/92 | $2.2 \times 10^{-12}$ | $2.2 \times 10^{-12}$ |
| Area 27, Cafeteria | 03/30/92 | $3.6 \times 10^{-12}$ | $2.9 \times 10^{-11}$ |
| Area 27, Cafeteria | 06/29/92 | 0.0 | 0.0 |
| Area 27, Cafeteria | 09/28/92 | 0.0 | 0.0 |
| Area 29, Topopah Spring | 01/14/92 | $-1.6 \times 10^{-11}$ | $3.0 \times 10^{-11}$ |
| Area 29, Topopah Spring | 04/23/92 | $3.9 \times 10^{-12}$ | $4.1 \times 10^{-11}$ |

Mean MDC: $5.0 \times 10^{-11}$ μCi/mL          Standard Deviation of Mean MDC: $9.6 \times 10^{-11}$ μCi/mL

Attachment C.4 $^{239+240}$Pu in Water - 1992

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 1, Building 101 | 03/30/92 | $-5.1 \times 10^{-12}$ | $1.3 \times 10^{-11}$ |
| Area 1, Building 101 | 06/29/92 | 0.0 | 0.0 |
| Area 1, Building 101 | 09/28/92 | $2.0 \times 10^{-12}$ | $2.0 \times 10^{-12}$ |
| Area 2, Mud Plant | 01/08/92 | $2.9 \times 10^{-12}$ | $9.5 \times 10^{-12}$ |
| Area 2, Mud Plant | 04/23/92 | $-5.1 \times 10^{-12}$ | $6.2 \times 10^{-12}$ |
| Area 2, Mud Plant | 07/03/92 | $1.0 \times 10^{-11}$ | $5.9 \times 10^{-12}$ |
| Area 2, Mud Plant | 10/14/92 | 0.0 | 0.0 |
| Area 2, Rest Room | 03/30/92 | $2.0 \times 10^{-13}$ | $6.5 \times 10^{-12}$ |
| Area 2, Rest Room | 06/29/92 | 0.0 | 0.0 |
| Area 2, Rest Room | 09/28/92 | 0.0 | 0.0 |
| Area 2, Rest Room | 12/29/92 | 0.0 | 0.0 |
| Area 2, Well 2 Reservoir | 01/08/92 | $-2.5 \times 10^{-12}$ | $5.5 \times 10^{-12}$ |
| Area 2, Well 2 Reservoir | 04/08/92 | $2.4 \times 10^{-12}$ | $8.8 \times 10^{-12}$ |
| Area 2, Well 2 Reservoir | 07/03/92 | 0.0 | 0.0 |
| Area 2, Well 2 Reservoir | 10/14/92 | 0.0 | 0.0 |
| Area 3, Mud Plant | 01/08/92 | $2.5 \times 10^{-11}$ | $1.1 \times 10^{-11}$ |
| Area 3, Mud Plant | 04/08/92 | $-5.1 \times 10^{-12}$ | $3.2 \times 10^{-11}$ |
| Area 3, Mud Plant | 07/08/92 | $3.4 \times 10^{-11}$ | $1.2 \times 10^{-11}$ |
| Area 3, Mud Plant | 10/21/92 | $5.2 \times 10^{-10}$ | $4.1 \times 10^{-11}$ |
| Area 3, Well A Reservoir | 01/08/92 | $1.3 \times 10^{-12}$ | $8.1 \times 10^{-12}$ |
| Area 3, Well A Reservoir | 04/08/92 | $1.9 \times 10^{-12}$ | $8.5 \times 10^{-12}$ |
| Area 3, Well A Reservoir | 07/08/92 | $8.3 \times 10^{-12}$ | $4.1 \times 10^{-12}$ |
| Area 3, Well A Reservoir | 10/15/92 | $3.8 \times 10^{-12}$ | $2.7 \times 10^{-12}$ |
| Area 5, Cane Spring | 01/08/92 | $-5.1 \times 10^{-12}$ | $6.1 \times 10^{-12}$ |
| Area 5, Cane Spring | 04/08/92 | $-1.1 \times 10^{-11}$ | $8.2 \times 10^{-12}$ |
| Area 5, Cane Spring | 07/16/92 | $3.6 \times 10^{-12}$ | $3.6 \times 10^{-12}$ |
| Area 5, Cane Spring | 10/21/92 | 0.0 | 0.0 |
| Area 5, Well 5B | 10/05/92 | $7.0 \times 10^{-12}$ | $4.9 \times 10^{-12}$ |
| Area 5, Well 5B Reservoir | 01/06/92 | $1.3 \times 10^{-11}$ | $9.4 \times 10^{-12}$ |
| Area 5, Well 5B Reservoir | 04/08/92 | $2.7 \times 10^{-12}$ | $6.8 \times 10^{-12}$ |
| Area 5, Well 5B Reservoir | 07/08/92 | $2.4 \times 10^{-11}$ | $8.4 \times 10^{-12}$ |
| Area 5, Well 5B Reservoir | 10/06/92 | $5.5 \times 10^{-12}$ | $5.5 \times 10^{-12}$ |
| Area 5, Well 5C | 01/22/92 | $-1.5 \times 10^{-12}$ | $8.1 \times 10^{-12}$ |
| Area 5, Well 5C | 04/06/92 | $-7.2 \times 10^{-12}$ | $3.9 \times 10^{-12}$ |
| Area 5, Well 5C | 07/13/92 | $3.6 \times 10^{-12}$ | $3.6 \times 10^{-12}$ |
| Area 5, Well 5C | 10/05/92 | $5.1 \times 10^{-12}$ | $3.6 \times 10^{-12}$ |
| Area 5, Well UE-5c | 01/22/92 | $-9.6 \times 10^{-12}$ | $6.4 \times 10^{-12}$ |
| Area 5, Well UE-5c | 05/12/92 | $-5.0 \times 10^{-12}$ | $1.0 \times 10^{-11}$ |
| Area 5, Well UE-5c | 07/13/92 | $1.2 \times 10^{-11}$ | $5.4 \times 10^{-12}$ |
| Area 5, Well UE-5c | 11/09/92 | 0.0 | 0.0 |
| Area 5, Well UE-5c Reservoir | 01/06/92 | $-2.7 \times 10^{-12}$ | $5.3 \times 10^{-12}$ |
| Area 5, Well UE-5c Reservoir | 04/08/92 | $-5.3 \times 10^{-12}$ | $1.2 \times 10^{-11}$ |

Mean MDC: $2.4 \times 10^{-11} \mu$Ci/mL          Standard Deviation of Mean MDC: $2.2 \times 10^{-11} \mu$Ci/mL

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 5, Well UE-5c Reservoir | 07/08/92 | $6.4 \times 10^{-12}$ | $4.6 \times 10^{-12}$ |
| Area 5, Well UE-5c Reservoir | 10/06/92 | 0.0 | 0.0 |
| Area 6, Bottled Water | 03/30/92 | $-5.2 \times 10^{-12}$ | $5.6 \times 10^{-12}$ |
| Area 6, Bottled Water | 06/29/92 | 0.0 | 0.0 |
| Area 6, Bottled Water | 09/28/92 | 0.0 | 0.0 |
| Area 6, Bottled Water | 12/29/92 | 0.0 | 0.0 |
| Area 6, Building 6-900 | 06/29/92 | $5.1 \times 10^{-12}$ | $5.1 \times 10^{-12}$ |
| Area 6, Building 6-900 | 09/28/92 | 0.0 | 0.0 |
| Area 6, Building 6-900 | 12/29/92 | 0.0 | 0.0 |
| Area 6, Cafeteria | 03/30/92 | $-5.2 \times 10^{-12}$ | $6.1 \times 10^{-12}$ |
| Area 6, Cafeteria | 06/29/92 | 0.0 | 0.0 |
| Area 6, Cafeteria | 09/28/92 | 0.0 | 0.0 |
| Area 6, Cafeteria | 12/29/92 | $1.8 \times 10^{-12}$ | $1.8 \times 10^{-12}$ |
| Area 6, Sewage | 01/15/92 | $1.2 \times 10^{-11}$ | $1.0 \times 10^{-11}$ |
| Area 6, Sewage | 04/23/92 | $-8.9 \times 10^{-12}$ | $5.8 \times 10^{-12}$ |
| Area 6, Sewage | 07/14/92 | $1.3 \times 10^{-11}$ | $7.4 \times 10^{-12}$ |
| Area 6, Sewage | 10/15/92 | $6.3 \times 10^{-11}$ | $1.2 \times 10^{-11}$ |
| Area 6, Well C | 01/27/92 | $-1.8 \times 10^{-13}$ | $6.4 \times 10^{-12}$ |
| Area 6, Well C | 04/06/92 | $-5.2 \times 10^{-12}$ | $6.0 \times 10^{-12}$ |
| Area 6, Well C | 07/13/92 | 0.0 | 0.0 |
| Area 6, Well C | 10/05/92 | 0.0 | 0.0 |
| Area 6, Well C-1 | 01/27/92 | $-9.9 \times 10^{-13}$ | $5.9 \times 10^{-12}$ |
| Area 6, Well C-1 | 04/06/92 | $-5.2 \times 10^{-12}$ | $5.9 \times 10^{-12}$ |
| Area 6, Well C-1 | 07/13/92 | 0.0 | 0.0 |
| Area 6, Well C-1 | 10/05/92 | $3.1 \times 10^{-12}$ | $3.1 \times 10^{-12}$ |
| Area 6, Well C-1 Reservoir | 01/07/92 | $7.2 \times 10^{-12}$ | $7.6 \times 10^{-12}$ |
| Area 6, Well C-1 Reservoir | 04/08/92 | $-5.4 \times 10^{-12}$ | $6.0 \times 10^{-12}$ |
| Area 6, Well C-1 Reservoir | 07/09/92 | 0.0 | 0.0 |
| Area 6, Well C-1 Reservoir | 10/06/92 | $2.2 \times 10^{-11}$ | $1.1 \times 10^{-11}$ |
| Area 6, Well 3 Reservoir | 01/08/92 | $-5.4 \times 10^{-12}$ | $4.6 \times 10^{-12}$ |
| Area 6, Well 3 Reservoir | 04/08/92 | $-5.1 \times 10^{-12}$ | $5.1 \times 10^{-12}$ |
| Area 6, Well 3 Reservoir | 07/03/92 | $5.1 \times 10^{-12}$ | $3.6 \times 10^{-12}$ |
| Area 6, Well 3 Reservoir | 10/15/92 | 0.0 | 0.0 |
| Area 6, Well 4 | 01/27/92 | $-5.2 \times 10^{-12}$ | $5.2 \times 10^{-12}$ |
| Area 6, Well 4 | 04/06/92 | $6.2 \times 10^{-12}$ | $1.3 \times 10^{-11}$ |
| Area 6, Well 4 | 07/13/92 | $3.5 \times 10^{-12}$ | $3.5 \times 10^{-12}$ |
| Area 6, Well 4 | 10/05/92 | 0.0 | 0.0 |
| Area 6, Yucca Pond | 01/15/92 | $3.0 \times 10^{-11}$ | $1.8 \times 10^{-11}$ |
| Area 6, Yucca Pond | 04/27/92 | $2.8 \times 10^{-11}$ | $2.9 \times 10^{-11}$ |
| Area 6, Yucca Pond | 07/09/92 | $1.8 \times 10^{-10}$ | $3.1 \times 10^{-11}$ |
| Area 6, Yucca Pond | 10/06/92 | $8.5 \times 10^{-11}$ | $6.1 \times 10^{-11}$ |
| Area 7, Reitman Seep | 01/15/92 | $6.3 \times 10^{-10}$ | $8.4 \times 10^{-11}$ |

Mean MDC: $2.4 \times 10^{-11} \mu$Ci/mL        Standard Deviation of Mean MDC: $2.2 \times 10^{-11} \mu$Ci/mL

Attachment C.4 ($^{239+240}$Pu in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 7, Reitman Seep | 04/08/92 | $2.7 \times 10^{-10}$ | $5.5 \times 10^{-11}$ |
| Area 7, Reitman Seep | 11/17/92 | $2.2 \times 10^{-10}$ | $2.9 \times 10^{-11}$ |
| Area 12, Cafeteria | 03/30/92 | $-1.4 \times 10^{-12}$ | $8.1 \times 10^{-12}$ |
| Area 12, Cafeteria | 06/29/92 | 0.0 | 0.0 |
| Area 12, Cafeteria | 09/28/92 | 0.0 | 0.0 |
| Area 12, Captain Jack Spring | 01/15/92 | $2.1 \times 10^{-12}$ | $8.7 \times 10^{-12}$ |
| Area 12, Captain Jack Spring | 04/23/92 | $-2.4 \times 10^{-12}$ | $6.8 \times 10^{-12}$ |
| Area 12, Captain Jack Spring | 07/15/92 | $2.0 \times 10^{-11}$ | $8.8 \times 10^{-12}$ |
| Area 12, Captain Jack Spring | 10/21/92 | $3.8 \times 10^{-12}$ | $2.7 \times 10^{-12}$ |
| Area 12, E Tunnel Effluent | 01/15/92 | $6.9 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 12, E Tunnel Effluent | 04/09/92 | $5.9 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 12, E Tunnel Effluent | 07/21/92 | $5.8 \times 10^{-09}$ | $6.3 \times 10^{-10}$ |
| Area 12, E Tunnel Effluent | 10/20/92 | $6.5 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 12, E Tunnel Pond No. 1 | 07/21/92 | $5.5 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 12, E Tunnel Pond No. 1 | 10/20/92 | $5.2 \times 10^{-09}$ | $3.0 \times 10^{-10}$ |
| Area 12, Gold Meadows Spring | 04/08/92 | $-1.4 \times 10^{-12}$ | $7.7 \times 10^{-12}$ |
| Area 12, N Tunnel Effluent | 01/15/92 | $-4.6 \times 10^{-12}$ | $8.5 \times 10^{-12}$ |
| Area 12, N Tunnel Effluent | 04/09/92 | $1.6 \times 10^{-11}$ | $1.7 \times 10^{-11}$ |
| Area 12, N Tunnel Effluent | 07/21/92 | $4.3 \times 10^{-11}$ | $1.8 \times 10^{-11}$ |
| Area 12, N Tunnel Effluent | 10/20/92 | $1.3 \times 10^{-11}$ | $9.5 \times 10^{-12}$ |
| Area 12, N Tunnel Pond No. 1 | 01/15/92 | $1.4 \times 10^{-11}$ | $1.3 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 1 | 04/09/92 | $-3.8 \times 10^{-12}$ | $1.1 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 2 | 02/12/92 | $1.7 \times 10^{-11}$ | $1.3 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 2 | 04/09/92 | $1.7 \times 10^{-11}$ | $1.5 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 2 | 07/21/92 | $8.2 \times 10^{-11}$ | $3.4 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 2 | 10/20/92 | $6.4 \times 10^{-12}$ | $6.4 \times 10^{-12}$ |
| Area 12, N Tunnel Pond No. 3 | 02/12/92 | $1.0 \times 10^{-09}$ | $6.5 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 3 | 04/09/92 | $2.3 \times 10^{-11}$ | $2.1 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 3 | 07/21/92 | $7.7 \times 10^{-11}$ | $1.9 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 3 | 10/20/92 | $1.8 \times 10^{-11}$ | $1.0 \times 10^{-11}$ |
| Area 12, Sewage Pond | 01/08/92 | $-9.9 \times 10^{-12}$ | $6.9 \times 10^{-12}$ |
| Area 12, Sewage Pond | 04/22/92 | $-5.2 \times 10^{-12}$ | $5.4 \times 10^{-12}$ |
| Area 12, Sewage Pond | 07/21/92 | $7.0 \times 10^{-12}$ | $7.1 \times 10^{-12}$ |
| Area 12, Sewage Pond | 10/27/92 | 0.0 | 0.0 |
| Area 12, T Tunnel Effluent | 01/15/92 | $2.4 \times 10^{-10}$ | $3.4 \times 10^{-11}$ |
| Area 12, T Tunnel Effluent | 04/09/92 | $3.1 \times 10^{-10}$ | $4.2 \times 10^{-11}$ |
| Area 12, T Tunnel Effluent | 07/21/92 | $1.9 \times 10^{-09}$ | $3.7 \times 10^{-10}$ |
| Area 12, T Tunnel Effluent | 10/20/92 | $3.8 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 12, T Tunnel Pond No. 1 | 02/12/92 | $2.3 \times 10^{-09}$ | $3.0 \times 10^{-10}$ |
| Area 12, T Tunnel Pond No. 1 | 04/09/92 | $1.9 \times 10^{-09}$ | $1.4 \times 10^{-10}$ |
| Area 12, T Tunnel Pond No. 2 | 02/12/92 | $4.0 \times 10^{-09}$ | $2.5 \times 10^{-10}$ |
| Area 12, T Tunnel Pond No. 2 | 04/09/92 | $1.8 \times 10^{-09}$ | $1.8 \times 10^{-10}$ |
| Area 12, T Tunnel Pond No. 2 | 07/21/92 | $2.5 \times 10^{-09}$ | $2.3 \times 10^{-10}$ |

Mean MDC: $2.4 \times 10^{-11}$ μCi/mL          Standard Deviation of Mean MDC: $2.2 \times 10^{-11}$ μCi/mL

Attachment C.4 ($^{239+240}$Pu in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 12, T Tunnel Pond No. 2 | 10/20/92 | $3.7 \times 10^{-09}$ | $2.2 \times 10^{-10}$ |
| Area 12, T Tunnel Pond No. 3 | 07/21/92 | $3.1 \times 10^{-09}$ | $2.6 \times 10^{-10}$ |
| Area 12, T Tunnel Pond No. 3 | 10/20/92 | $2.7 \times 10^{-09}$ | $2.5 \times 10^{-10}$ |
| Area 12, White Rock | 01/15/92 | $8.6 \times 10^{-12}$ | $7.4 \times 10^{-12}$ |
| Area 12, White Rock | 04/08/92 | $8.5 \times 10^{-12}$ | $1.1 \times 10^{-11}$ |
| Area 12, White Rock | 07/13/92 | $7.3 \times 10^{-12}$ | $4.2 \times 10^{-12}$ |
| Area 12, White Rock | 10/05/92 | 0.0 | 0.0 |
| Area 16, Tippipah Spring | 01/08/92 | $6.9 \times 10^{-12}$ | $8.4 \times 10^{-12}$ |
| Area 16, Tippipah Spring | 04/22/92 | $-1.4 \times 10^{-11}$ | $1.2 \times 10^{-11}$ |
| Area 16, Tippipah Spring | 07/15/92 | 0.0 | 0.0 |
| Area 16, Tippipah Spring | 10/14/92 | $3.1 \times 10^{-12}$ | $3.1 \times 10^{-12}$ |
| Area 16, Well UE-16d | 01/27/92 | $3.1 \times 10^{-11}$ | $1.2 \times 10^{-11}$ |
| Area 16, Well UE-16d | 04/06/92 | $-5.3 \times 10^{-12}$ | $7.4 \times 10^{-12}$ |
| Area 16, Well UE-16d | 07/13/92 | 0.0 | 0.0 |
| Area 16, Well UE-16d | 10/05/92 | $2.7 \times 10^{-12}$ | $2.7 \times 10^{-12}$ |
| Area 18, Camp 17 Reservoir | 01/08/92 | $-1.1 \times 10^{-11}$ | $7.7 \times 10^{-12}$ |
| Area 18, Camp 17 Reservoir | 04/08/92 | $2.9 \times 10^{-12}$ | $9.1 \times 10^{-12}$ |
| Area 18, Camp 17 Reservoir | 07/07/92 | 0.0 | 0.0 |
| Area 18, Camp 17 Reservoir | 10/07/92 | $2.4 \times 10^{-11}$ | $2.4 \times 10^{-11}$ |
| Area 18, Well 8 | 01/27/92 | $3.1 \times 10^{-11}$ | $1.1 \times 10^{-11}$ |
| Area 18, Well 8 | 04/06/92 | $-8.6 \times 10^{-12}$ | $5.5 \times 10^{-12}$ |
| Area 18, Well 8 | 07/13/92 | $6.2 \times 10^{-12}$ | $6.2 \times 10^{-12}$ |
| Area 18, Well 8 | 10/05/92 | 0.0 | 0.0 |
| Area 18, Well 8 Reservoir | 01/14/92 | $4.9 \times 10^{-12}$ | $8.5 \times 10^{-12}$ |
| Area 18, Well 8 Reservoir | 04/08/92 | $-2.0 \times 10^{-12}$ | $6.6 \times 10^{-12}$ |
| Area 18, Well 8 Reservoir | 07/07/92 | $2.5 \times 10^{-11}$ | $8.1 \times 10^{-12}$ |
| Area 18, Well 8 Reservoir | 10/07/92 | 0.0 | 0.0 |
| Area 19, Well UE-19c | 01/27/92 | $-8.1 \times 10^{-12}$ | $4.7 \times 10^{-12}$ |
| Area 19, Well UE-19c | 04/06/92 | $3.0 \times 10^{-12}$ | $7.2 \times 10^{-12}$ |
| Area 19, Well UE-19c | 07/13/92 | $2.6 \times 10^{-11}$ | $8.7 \times 10^{-12}$ |
| Area 19, Well UE-19c | 10/05/92 | $5.5 \times 10^{-12}$ | $3.2 \times 10^{-12}$ |
| Area 19, Well UE-19c Reservoir | 01/14/92 | $-5.2 \times 10^{-12}$ | $5.7 \times 10^{-12}$ |
| Area 19, Well UE-19c Reservoir | 04/07/92 | $-8.3 \times 10^{-12}$ | $5.3 \times 10^{-12}$ |
| Area 19, Well UE-19c Reservoir | 07/09/92 | 0.0 | 0.0 |
| Area 19, Well UE-19c Reservoir | 10/07/92 | $1.2 \times 10^{-11}$ | $8.4 \times 10^{-12}$ |
| Area 20, Water Well | 04/06/92 | $1.8 \times 10^{-12}$ | $8.1 \times 10^{-12}$ |
| Area 20, Water Well | 07/13/92 | 0.0 | 0.0 |
| Area 20, Water Well | 10/05/92 | 0.0 | 0.0 |
| Area 20, Well 20 | 01/15/92 | $8.1 \times 10^{-11}$ | $1.7 \times 10^{-11}$ |
| Area 20, Well 20 | 04/07/92 | $6.3 \times 10^{-13}$ | $6.8 \times 10^{-12}$ |
| Area 20, Well 20 | 07/09/92 | $8.4 \times 10^{-12}$ | $5.9 \times 10^{-12}$ |
| Area 20, Well 20 | 10/07/92 | $1.0 \times 10^{-11}$ | $7.4 \times 10^{-12}$ |

Mean MDC: $2.4 \times 10^{-11}$ μCi/mL          Standard Deviation of Mean MDC: $2.2 \times 10^{-11}$ μCi/mL

Attachment C.4 ($^{239+240}$Pu in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 23, Army Well No. 1 | 01/22/92 | $-9.6 \times 10^{-12}$ | $6.2 \times 10^{-12}$ |
| Area 23, Army Well No. 1 | 04/06/92 | $2.0 \times 10^{-12}$ | $8.4 \times 10^{-12}$ |
| Area 23, Army Well No. 1 | 07/13/92 | 0.0 | 0.0 |
| Area 23, Army Well No. 1 | 10/05/92 | 0.0 | 0.0 |
| Area 23, H&S Sump | 10/22/92 | $1.3 \times 10^{-09}$ | $2.0 \times 10^{-10}$ |
| Area 23, Mercury | 03/30/92 | $2.3 \times 10^{-13}$ | $6.8 \times 10^{-12}$ |
| Area 23, Mercury | 06/29/92 | 0.0 | 0.0 |
| Area 23, Mercury | 09/28/92 | 0.0 | 0.0 |
| Area 23, Mercury | 12/28/92 | 0.0 | 0.0 |
| Area 23, Sewage | 01/16/92 | $8.5 \times 10^{-12}$ | $1.1 \times 10^{-11}$ |
| Area 23, Sewage | 04/21/92 | $-1.5 \times 10^{-12}$ | $8.1 \times 10^{-12}$ |
| Area 23, Sewage | 07/14/92 | 0.0 | 0.0 |
| Area 23, Sewage | 10/14/92 | 0.0 | 0.0 |
| Area 23, Swimming Pool | 01/16/92 | $5.9 \times 10^{-12}$ | $4.8 \times 10^{-12}$ |
| Area 23, Swimming Pool | 04/21/92 | $-5.1 \times 10^{-12}$ | $5.5 \times 10^{-12}$ |
| Area 23, Swimming Pool | 07/09/92 | 0.0 | 0.0 |
| Area 23, Swimming Pool | 10/06/92 | $3.6 \times 10^{-12}$ | $3.6 \times 10^{-12}$ |
| Area 25, Building 4221 | 03/30/92 | $1.7 \times 10^{-11}$ | $9.6 \times 10^{-12}$ |
| Area 25, Building 4221 | 06/29/92 | 0.0 | 0.0 |
| Area 25, Building 4221 | 09/28/92 | 0.0 | 0.0 |
| Area 25, Building 4221 | 12/28/92 | 0.0 | 0.0 |
| Area 25, Well J-11 Reservoir | 01/08/92 | $-4.9 \times 10^{-12}$ | $8.2 \times 10^{-12}$ |
| Area 25, Well J-11 Reservoir | 04/08/92 | $-8.5 \times 10^{-12}$ | $5.4 \times 10^{-12}$ |
| Area 25, Well J-11 Reservoir | 07/08/92 | $1.1 \times 10^{-10}$ | $2.0 \times 10^{-11}$ |
| Area 25, Well J-11 Reservoir | 10/06/92 | $4.3 \times 10^{-12}$ | $4.3 \times 10^{-12}$ |
| Area 25, Well J-12 | 05/12/92 | $-8.0 \times 10^{-12}$ | $4.9 \times 10^{-12}$ |
| Area 25, Well J-12 | 07/13/92 | $9.4 \times 10^{-12}$ | $9.4 \times 10^{-12}$ |
| Area 25, Well J-12 | 10/05/92 | $4.2 \times 10^{-12}$ | $4.1 \times 10^{-12}$ |
| Area 25, Well J-12 Reservoir | 01/08/92 | $-7.8 \times 10^{-12}$ | $4.6 \times 10^{-12}$ |
| Area 25, Well J-12 Reservoir | 04/08/92 | $-8.8 \times 10^{-12}$ | $5.6 \times 10^{-12}$ |
| Area 25, Well J-12 Reservoir | 07/08/92 | $9.1 \times 10^{-12}$ | $4.6 \times 10^{-12}$ |
| Area 25, Well J-12 Reservoir | 10/06/92 | $4.1 \times 10^{-12}$ | $4.1 \times 10^{-12}$ |
| Area 25, Well J-13 | 01/22/92 | $2.3 \times 10^{-12}$ | $9.0 \times 10^{-12}$ |
| Area 25, Well J-13 | 04/06/92 | $5.0 \times 10^{-11}$ | $1.4 \times 10^{-11}$ |
| Area 25, Well J-13 | 07/13/92 | 0.0 | 0.0 |
| Area 25, Well J-13 | 10/05/92 | 0.0 | 0.0 |
| Area 27, Cafeteria | 03/30/92 | $-5.2 \times 10^{-12}$ | $5.3 \times 10^{-12}$ |
| Area 27, Cafeteria | 06/29/92 | 0.0 | 0.0 |
| Area 27, Cafeteria | 09/28/92 | 0.0 | 0.0 |
| Area 29, Topopah Spring | 01/14/92 | $1.6 \times 10^{-13}$ | $6.5 \times 10^{-12}$ |
| Area 29, Topopah Spring | 04/23/92 | $3.7 \times 10^{-13}$ | $1.1 \times 10^{-11}$ |

Mean MDC: $2.4 \times 10^{-11}$ μCi/mL          Standard Deviation of Mean MDC: $2.2 \times 10^{-11}$ μCi/mL

| Sampling Location | Collection Dates | $\mu Ci/mL$ Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 1, Building 101 | 01/21/92 | $8.9 \times 10^{-09}$ | $6.1 \times 10^{-10}$ |
| Area 1, Building 101 | 01/27/92 | $8.2 \times 10^{-09}$ | $5.7 \times 10^{-10}$ |
| Area 1, Building 101 | 02/03/92 | $6.9 \times 10^{-09}$ | $5.8 \times 10^{-10}$ |
| Area 1, Building 101 | 02/10/92 | $7.6 \times 10^{-09}$ | $5.8 \times 10^{-10}$ |
| Area 1, Building 101 | 02/18/92 | $8.8 \times 10^{-09}$ | $5.9 \times 10^{-10}$ |
| Area 1, Building 101 | 02/24/92 | $8.5 \times 10^{-09}$ | $5.9 \times 10^{-10}$ |
| Area 1, Building 101 | 03/02/92 | $8.8 \times 10^{-09}$ | $5.8 \times 10^{-10}$ |
| Area 1, Building 101 | 03/09/92 | $7.6 \times 10^{-09}$ | $5.8 \times 10^{-10}$ |
| Area 1, Building 101 | 03/17/92 | $7.7 \times 10^{-09}$ | $5.8 \times 10^{-10}$ |
| Area 1, Building 101 | 03/23/92 | $3.4 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 1, Building 101 | 03/30/92 | $7.9 \times 10^{-09}$ | $6.2 \times 10^{-10}$ |
| Area 1, Building 101 | 04/06/92 | $8.2 \times 10^{-09}$ | $6.2 \times 10^{-10}$ |
| Area 1, Building 101 | 04/13/92 | $6.4 \times 10^{-09}$ | $5.7 \times 10^{-10}$ |
| Area 1, Building 101 | 04/20/92 | $8.8 \times 10^{-09}$ | $6.0 \times 10^{-10}$ |
| Area 1, Building 101 | 04/27/92 | $7.1 \times 10^{-09}$ | $6.1 \times 10^{-10}$ |
| Area 1, Building 101 | 05/04/92 | $8.5 \times 10^{-09}$ | $6.4 \times 10^{-10}$ |
| Area 1, Building 101 | 05/11/92 | $8.4 \times 10^{-09}$ | $6.1 \times 10^{-10}$ |
| Area 1, Building 101 | 05/18/92 | $7.2 \times 10^{-09}$ | $6.5 \times 10^{-10}$ |
| Area 1, Building 101 | 05/26/92 | $6.5 \times 10^{-09}$ | $6.3 \times 10^{-10}$ |
| Area 1, Building 101 | 06/01/92 | $8.4 \times 10^{-09}$ | $5.7 \times 10^{-10}$ |
| Area 1, Building 101 | 06/08/92 | $6.4 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 1, Building 101 | 06/15/92 | $7.3 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 1, Building 101 | 06/22/92 | $7.0 \times 10^{-09}$ | $5.9 \times 10^{-10}$ |
| Area 1, Building 101 | 06/29/92 | $6.4 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 1, Building 101 | 07/06/92 | $7.4 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 1, Building 101 | 07/13/92 | $6.4 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 1, Building 101 | 07/20/92 | $6.1 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 1, Building 101 | 07/27/92 | $5.8 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 1, Building 101 | 08/03/92 | $7.4 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 1, Building 101 | 08/10/92 | $6.2 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 1, Building 101 | 08/17/92 | $7.3 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 1, Building 101 | 08/24/92 | $6.7 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 1, Building 101 | 09/01/92 | $5.0 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 1, Building 101 | 09/08/92 | $7.7 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 1, Building 101 | 09/14/92 | $7.3 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 1, Building 101 | 09/21/92 | $6.9 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 1, Building 101 | 09/28/92 | $3.1 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 1, Building 101 | 10/05/92 | $6.4 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 1, Building 101 | 10/12/92 | $7.8 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 1, Building 101 | 10/19/92 | $6.1 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 1, Building 101 | 10/26/92 | $7.3 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 1, Building 101 | 11/02/92 | $7.5 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu Ci/mL$      Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu Ci/mL$

Attachment C.5  (Gross Beta in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 1, Building 101 | 11/09/92 | $7.1 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 1, Building 101 | 11/16/92 | $7.8 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 1, Building 101 | 11/23/92 | $7.0 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 1, Building 101 | 11/30/92 | $6.8 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 1, Building 101 | 12/08/92 | $6.1 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 1, Building 101 | 12/15/92 | $7.0 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 2, Mud Plant | 01/08/92 | $4.1 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 2, Mud Plant | 02/12/92 | $3.9 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 2, Mud Plant | 03/11/92 | $3.5 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 2, Mud Plant | 04/23/92 | $4.1 \times 10^{-09}$ | $5.1 \times 10^{-10}$ |
| Area 2, Mud Plant | 05/07/92 | $3.9 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 2, Mud Plant | 06/09/92 | $3.6 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 2, Mud Plant | 07/03/92 | $3.5 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 2, Mud Plant | 08/17/92 | $3.6 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 2, Mud Plant | 09/02/92 | $4.0 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 2, Mud Plant | 10/14/92 | $6.8 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 2, Mud Plant | 11/05/92 | $3.1 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 2, Mud Plant | 12/03/92 | $3.6 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 2, Rest Room | 01/21/92 | $4.6 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 2, Rest Room | 01/27/92 | $3.2 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 2, Rest Room | 02/03/92 | $3.4 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 2, Rest Room | 02/10/92 | $3.0 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 2, Rest Room | 02/18/92 | $2.9 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 2, Rest Room | 02/24/92 | $3.1 \times 10^{-09}$ | $5.1 \times 10^{-10}$ |
| Area 2, Rest Room | 03/02/92 | $3.6 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 2, Rest Room | 03/09/92 | $3.1 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 2, Rest Room | 03/17/92 | $3.3 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 2, Rest Room | 03/23/92 | $4.2 \times 10^{-09}$ | $8.6 \times 10^{-10}$ |
| Area 2, Rest Room | 03/30/92 | $2.7 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 2, Rest Room | 04/06/92 | $3.5 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 2, Rest Room | 04/13/92 | $4.2 \times 10^{-09}$ | $5.1 \times 10^{-10}$ |
| Area 2, Rest Room | 04/20/92 | $4.6 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 2, Rest Room | 04/27/92 | $3.8 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 2, Rest Room | 05/04/92 | $3.8 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 2, Rest Room | 05/11/92 | $3.4 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 2, Rest Room | 05/18/92 | $2.6 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 2, Rest Room | 05/26/92 | $2.3 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 2, Rest Room | 06/01/92 | $3.2 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 2, Rest Room | 06/08/92 | $2.9 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 2, Rest Room | 06/15/92 | $2.9 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 2, Rest Room | 06/22/92 | $3.0 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 2, Rest Room | 06/29/92 | $3.5 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu Ci/mL$          Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu Ci/mL$

Attachment C.5  (Gross Beta in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 2, Rest Room | 07/06/92 | $3.2 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 2, Rest Room | 07/13/92 | $3.2 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 2, Rest Room | 07/20/92 | $2.5 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 2, Rest Room | 07/27/92 | $3.1 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 2, Rest Room | 08/03/92 | $3.3 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 2, Rest Room | 08/10/92 | $3.8 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 2, Rest Room | 08/17/92 | $3.7 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 2, Rest Room | 08/24/92 | $2.6 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 2, Rest Room | 08/31/92 | $3.0 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 2, Rest Room | 09/08/92 | $3.0 \times 10^{-09}$ | $3.8 \times 10^{-10}$ |
| Area 2, Rest Room | 09/14/92 | $3.0 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 2, Rest Room | 09/21/92 | $3.0 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 2, Rest Room | 09/28/92 | $3.7 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 2, Rest Room | 10/05/92 | $2.8 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 2, Rest Room | 10/13/92 | $2.4 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 2, Rest Room | 10/19/92 | $2.8 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 2, Rest Room | 10/26/92 | $2.5 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 2, Rest Room | 11/03/92 | $3.4 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 2, Rest Room | 11/09/92 | $2.5 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 2, Rest Room | 11/16/92 | $2.9 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 2, Rest Room | 11/23/92 | $2.6 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 2, Rest Room | 11/30/92 | $2.7 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 2, Rest Room | 12/07/92 | $2.9 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 2, Rest Room | 12/14/92 | $2.8 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 2, Rest Room | 12/22/92 | $2.4 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 2, Rest Room | 12/29/92 | $3.4 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 2, Well 2 Reservoir | 01/08/92 | $7.8 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 2, Well 2 Reservoir | 02/12/92 | $6.2 \times 10^{-09}$ | $5.8 \times 10^{-10}$ |
| Area 2, Well 2 Reservoir | 03/11/92 | $5.2 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 2, Well 2 Reservoir | 04/08/92 | $7.4 \times 10^{-09}$ | $6.3 \times 10^{-10}$ |
| Area 2, Well 2 Reservoir | 05/07/92 | $7.4 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 2, Well 2 Reservoir | 06/09/92 | $1.0 \times 10^{-08}$ | $6.0 \times 10^{-10}$ |
| Area 2, Well 2 Reservoir | 07/03/92 | $9.5 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 2, Well 2 Reservoir | 08/17/92 | $7.0 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 2, Well 2 Reservoir | 09/02/92 | $6.3 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 2, Well 2 Reservoir | 10/14/92 | $4.3 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 2, Well 2 Reservoir | 11/05/92 | $5.2 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 2, Well 2 Reservoir | 12/03/92 | $7.0 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 3, Cafeteria | 01/21/92 | $1.3 \times 10^{-08}$ | $6.7 \times 10^{-10}$ |
| Area 3, Cafeteria | 01/27/92 | $1.0 \times 10^{-08}$ | $6.3 \times 10^{-10}$ |
| Area 3, Cafeteria | 02/03/92 | $1.0 \times 10^{-08}$ | $6.6 \times 10^{-10}$ |
| Area 3, Cafeteria | 02/10/92 | $1.2 \times 10^{-08}$ | $6.5 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu Ci/mL$          Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu Ci/mL$

Attachment C.5  (Gross Beta in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 3, Mud Plant | 01/08/92 | $1.7 \times 10^{-08}$ | $6.8 \times 10^{-10}$ |
| Area 3, Mud Plant | 02/05/92 | $1.1 \times 10^{-08}$ | $6.1 \times 10^{-10}$ |
| Area 3, Mud Plant | 03/04/92 | $1.1 \times 10^{-08}$ | $6.0 \times 10^{-10}$ |
| Area 3, Mud Plant | 04/08/92 | $1.0 \times 10^{-08}$ | $6.0 \times 10^{-10}$ |
| Area 3, Mud Plant | 05/07/92 | $1.3 \times 10^{-08}$ | $6.4 \times 10^{-10}$ |
| Area 3, Mud Plant | 06/03/92 | $1.1 \times 10^{-08}$ | $6.0 \times 10^{-10}$ |
| Area 3, Mud Plant | 07/08/92 | $7.7 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 3, Mud Plant | 08/12/92 | $8.6 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 3, Mud Plant | 09/01/92 | $8.2 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 3, Mud Plant | 10/21/92 | $9.9 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 3, Mud Plant | 11/05/92 | $9.8 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 3, Mud Plant | 12/02/92 | $8.3 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 3, Well A Reservoir | 01/08/92 | $1.2 \times 10^{-08}$ | $6.6 \times 10^{-10}$ |
| Area 3, Well A Reservoir | 02/05/92 | $1.0 \times 10^{-08}$ | $6.0 \times 10^{-10}$ |
| Area 3, Well A Reservoir | 03/18/92 | $1.3 \times 10^{-08}$ | $6.7 \times 10^{-10}$ |
| Area 3, Well A Reservoir | 04/08/92 | $1.3 \times 10^{-08}$ | $6.7 \times 10^{-10}$ |
| Area 3, Well A Reservoir | 05/07/92 | $1.1 \times 10^{-08}$ | $6.0 \times 10^{-10}$ |
| Area 3, Well A Reservoir | 06/03/92 | $9.8 \times 10^{-09}$ | $6.1 \times 10^{-10}$ |
| Area 3, Well A Reservoir | 07/08/92 | $8.9 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 3, Well A Reservoir | 08/12/92 | $8.8 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 3, Well A Reservoir | 09/01/92 | $8.4 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 3, Well A Reservoir | 10/15/92 | $9.0 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 3, Well A Reservoir | 11/10/92 | $1.1 \times 10^{-08}$ | $5.2 \times 10^{-10}$ |
| Area 3, Well A Reservoir | 12/02/92 | $8.1 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 5, Cane Spring | 01/08/92 | $7.7 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 5, Cane Spring | 02/19/92 | $7.2 \times 10^{-09}$ | $5.7 \times 10^{-10}$ |
| Area 5, Cane Spring | 03/17/92 | $6.3 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 5, Cane Spring | 04/08/92 | $7.7 \times 10^{-09}$ | $6.2 \times 10^{-10}$ |
| Area 5, Cane Spring | 05/19/92 | $6.7 \times 10^{-09}$ | $5.9 \times 10^{-10}$ |
| Area 5, Cane Spring | 06/04/92 | $7.6 \times 10^{-09}$ | $6.1 \times 10^{-10}$ |
| Area 5, Cane Spring | 07/16/92 | $7.8 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 5, Cane Spring | 08/19/92 | $6.4 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 5, Cane Spring | 09/10/92 | $6.4 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 5, Cane Spring | 10/21/92 | $6.2 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 5, Cane Spring | 11/24/92 | $6.8 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 5, Cane Spring | 12/22/92 | $5.5 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 5, Well UE-5c | 01/22/92 | $7.5 \times 10^{-09}$ | $6.1 \times 10^{-10}$ |
| Area 5, Well UE-5c | 02/24/92 | $8.4 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 5, Well UE-5c | 05/12/92 | $8.2 \times 10^{-09}$ | $6.2 \times 10^{-10}$ |
| Area 5, Well UE-5c | 06/02/92 | $1.4 \times 10^{-08}$ | $6.3 \times 10^{-10}$ |
| Area 5, Well UE-5c | 07/13/92 | $6.8 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 5, Well UE-5c | 08/04/92 | $6.1 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu$Ci/mL          Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu$Ci/mL

| Sampling Location | Collection Dates | $\mu Ci/mL$ Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 5, Well UE-5c | 09/01/92 | $5.7 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 5, Well UE-5c | 11/09/92 | $1.4 \times 10^{-08}$ | $5.5 \times 10^{-10}$ |
| Area 5, Well UE-5c | 12/02/92 | $5.9 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 5, Well UE-5c Reservoir | 01/06/92 | $7.2 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 5, Well UE-5c Reservoir | 02/06/92 | $7.8 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 5, Well UE-5c Reservoir | 03/04/92 | $8.7 \times 10^{-09}$ | $6.1 \times 10^{-10}$ |
| Area 5, Well UE-5c Reservoir | 04/08/92 | $8.6 \times 10^{-09}$ | $6.5 \times 10^{-10}$ |
| Area 5, Well UE-5c Reservoir | 05/06/92 | $8.7 \times 10^{-09}$ | $6.4 \times 10^{-10}$ |
| Area 5, Well UE-5c Reservoir | 06/03/92 | $7.4 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 5, Well UE-5c Reservoir | 07/08/92 | $7.6 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 5, Well UE-5c Reservoir | 08/12/92 | $7.4 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 5, Well UE-5c Reservoir | 09/01/92 | $7.3 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 5, Well UE-5c Reservoir | 10/06/92 | $7.8 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 5, Well UE-5c Reservoir | 11/18/92 | $6.6 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 5, Well UE-5c Reservoir | 12/03/92 | $6.7 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 5, Well 5B | 08/04/92 | $4.6 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 5, Well 5B | 10/05/92 | $6.3 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 5, Well 5B Reservoir | 01/06/92 | $8.5 \times 10^{-09}$ | $5.7 \times 10^{-10}$ |
| Area 5, Well 5B Reservoir | 02/10/92 | $7.8 \times 10^{-09}$ | $5.8 \times 10^{-10}$ |
| Area 5, Well 5B Reservoir | 03/04/92 | $9.9 \times 10^{-09}$ | $6.0 \times 10^{-10}$ |
| Area 5, Well 5B Reservoir | 04/08/92 | $8.4 \times 10^{-09}$ | $6.2 \times 10^{-10}$ |
| Area 5, Well 5B Reservoir | 05/06/92 | $9.3 \times 10^{-09}$ | $6.5 \times 10^{-10}$ |
| Area 5, Well 5B Reservoir | 06/03/92 | $9.0 \times 10^{-09}$ | $5.8 \times 10^{-10}$ |
| Area 5, Well 5B Reservoir | 07/08/92 | $8.1 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 5, Well 5B Reservoir | 08/12/92 | $7.2 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 5, Well 5B Reservoir | 09/01/92 | $6.8 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 5, Well 5B Reservoir | 10/06/92 | $8.0 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 5, Well 5B Reservoir | 11/18/92 | $8.4 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 5, Well 5B Reservoir | 12/03/92 | $8.6 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 5, Well 5C | 01/22/92 | $8.7 \times 10^{-09}$ | $6.3 \times 10^{-10}$ |
| Area 5, Well 5C | 02/24/92 | $8.3 \times 10^{-09}$ | $5.8 \times 10^{-10}$ |
| Area 5, Well 5C | 04/06/92 | $9.4 \times 10^{-09}$ | $6.5 \times 10^{-10}$ |
| Area 5, Well 5C | 05/12/92 | $1.1 \times 10^{-08}$ | $6.1 \times 10^{-10}$ |
| Area 5, Well 5C | 06/02/92 | $7.2 \times 10^{-09}$ | $5.7 \times 10^{-10}$ |
| Area 5, Well 5C | 07/13/92 | $8.7 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 5, Well 5C | 08/04/92 | $6.4 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 5, Well 5C | 09/01/92 | $6.8 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 5, Well 5C | 10/05/92 | $7.2 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 5, Well 5C | 11/09/92 | $7.6 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 5, Well 5C | 12/02/92 | $7.7 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 6, Bottled Water | 01/21/92 | $1.0 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 6, Bottled Water | 01/27/92 | $-9.9 \times 10^{-12}$ | $3.8 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu Ci/mL$             Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu Ci/mL$

Attachment C.5  (Gross Beta in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 6, Bottled Water | 02/03/92 | $2.3 \times 10^{-10}$ | $4.1 \times 10^{-10}$ |
| Area 6, Bottled Water | 02/10/92 | $-1.7 \times 10^{-10}$ | $4.0 \times 10^{-10}$ |
| Area 6, Bottled Water | 02/18/92 | $2.5 \times 10^{-10}$ | $4.0 \times 10^{-10}$ |
| Area 6, Bottled Water | 02/24/92 | $-2.1 \times 10^{-11}$ | $4.0 \times 10^{-10}$ |
| Area 6, Bottled Water | 03/02/92 | $1.3 \times 10^{-10}$ | $3.8 \times 10^{-10}$ |
| Area 6, Bottled Water | 03/09/92 | $-1.0 \times 10^{-11}$ | $4.1 \times 10^{-10}$ |
| Area 6, Bottled Water | 03/17/92 | $-1.1 \times 10^{-10}$ | $4.0 \times 10^{-10}$ |
| Area 6, Bottled Water | 03/23/92 | $-5.6 \times 10^{-10}$ | $7.0 \times 10^{-10}$ |
| Area 6, Bottled Water | 03/30/92 | $-1.8 \times 10^{-10}$ | $4.2 \times 10^{-10}$ |
| Area 6, Bottled Water | 04/06/92 | $-5.8 \times 10^{-11}$ | $4.2 \times 10^{-10}$ |
| Area 6, Bottled Water | 04/13/92 | $-3.1 \times 10^{-10}$ | $3.9 \times 10^{-10}$ |
| Area 6, Bottled Water | 04/20/92 | $1.4 \times 10^{-10}$ | $3.8 \times 10^{-10}$ |
| Area 6, Bottled Water | 04/27/92 | $2.1 \times 10^{-10}$ | $4.2 \times 10^{-10}$ |
| Area 6, Bottled Water | 05/04/92 | $3.4 \times 10^{-10}$ | $4.3 \times 10^{-10}$ |
| Area 6, Bottled Water | 05/11/92 | $-4.2 \times 10^{-10}$ | $3.9 \times 10^{-10}$ |
| Area 6, Bottled Water | 05/18/92 | $-6.7 \times 10^{-10}$ | $4.4 \times 10^{-10}$ |
| Area 6, Bottled Water | 05/26/92 | $-7.9 \times 10^{-10}$ | $4.4 \times 10^{-10}$ |
| Area 6, Bottled Water | 06/01/92 | $-6.0 \times 10^{-10}$ | $3.9 \times 10^{-10}$ |
| Area 6, Bottled Water | 06/08/92 | $-8.6 \times 10^{-10}$ | $3.7 \times 10^{-10}$ |
| Area 6, Bottled Water | 06/15/92 | $-2.8 \times 10^{-10}$ | $3.7 \times 10^{-10}$ |
| Area 6, Bottled Water | 06/22/92 | $-7.1 \times 10^{-10}$ | $3.8 \times 10^{-10}$ |
| Area 6, Bottled Water | 06/29/92 | $1.2 \times 10^{-10}$ | $3.3 \times 10^{-10}$ |
| Area 6, Bottled Water | 07/06/92 | $5.0 \times 10^{-10}$ | $3.3 \times 10^{-10}$ |
| Area 6, Bottled Water | 07/13/92 | $-3.1 \times 10^{-11}$ | $3.4 \times 10^{-10}$ |
| Area 6, Bottled Water | 07/20/92 | $2.2 \times 10^{-10}$ | $3.5 \times 10^{-10}$ |
| Area 6, Bottled Water | 07/27/92 | $-5.8 \times 10^{-11}$ | $3.4 \times 10^{-10}$ |
| Area 6, Bottled Water | 08/03/92 | $-4.0 \times 10^{-11}$ | $3.5 \times 10^{-10}$ |
| Area 6, Bottled Water | 08/10/92 | $6.6 \times 10^{-10}$ | $3.4 \times 10^{-10}$ |
| Area 6, Bottled Water | 08/17/92 | $-7.5 \times 10^{-11}$ | $3.6 \times 10^{-10}$ |
| Area 6, Bottled Water | 08/24/92 | $2.0 \times 10^{-10}$ | $3.3 \times 10^{-10}$ |
| Area 6, Bottled Water | 08/31/92 | $5.9 \times 10^{-10}$ | $3.6 \times 10^{-10}$ |
| Area 6, Bottled Water | 09/08/92 | $-2.7 \times 10^{-10}$ | $3.3 \times 10^{-10}$ |
| Area 6, Bottled Water | 09/14/92 | $5.8 \times 10^{-11}$ | $3.3 \times 10^{-10}$ |
| Area 6, Bottled Water | 09/21/92 | $3.0 \times 10^{-10}$ | $3.3 \times 10^{-10}$ |
| Area 6, Bottled Water | 09/28/92 | $7.9 \times 10^{-11}$ | $3.3 \times 10^{-10}$ |
| Area 6, Bottled Water | 10/05/92 | $9.6 \times 10^{-10}$ | $3.4 \times 10^{-10}$ |
| Area 6, Bottled Water | 10/13/92 | $-1.3 \times 10^{-09}$ | $3.4 \times 10^{-09}$ |
| Area 6, Bottled Water | 10/19/92 | $-2.6 \times 10^{-10}$ | $3.4 \times 10^{-10}$ |
| Area 6, Bottled Water | 10/26/92 | $-2.7 \times 10^{-10}$ | $3.7 \times 10^{-10}$ |
| Area 6, Bottled Water | 11/03/92 | $9.4 \times 10^{-13}$ | $3.2 \times 10^{-10}$ |
| Area 6, Bottled Water | 11/09/92 | $-9.8 \times 10^{-11}$ | $3.4 \times 10^{-10}$ |
| Area 6, Bottled Water | 11/16/92 | $-2.1 \times 10^{-10}$ | $3.3 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu Ci/mL$          Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu Ci/mL$

Attachment C.5  (Gross Beta in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 6, Bottled Water | 11/23/92 | $9.3 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 6, Bottled Water | 11/30/92 | $-3.8 \times 10^{-10}$ | $3.4 \times 10^{-10}$ |
| Area 6, Bottled Water | 12/07/92 | $8.8 \times 10^{-11}$ | $3.0 \times 10^{-10}$ |
| Area 6, Bottled Water | 12/14/92 | $-2.4 \times 10^{-10}$ | $3.2 \times 10^{-10}$ |
| Area 6, Bottled Water | 12/22/92 | $-1.7 \times 10^{-10}$ | $3.8 \times 10^{-10}$ |
| Area 6, Bottled Water | 12/29/92 | $-3.8 \times 10^{-10}$ | $3.2 \times 10^{-10}$ |
| Area 6, Cafeteria | 01/21/92 | $1.1 \times 10^{-08}$ | $6.8 \times 10^{-10}$ |
| Area 6, Cafeteria | 01/27/92 | $9.6 \times 10^{-09}$ | $6.3 \times 10^{-10}$ |
| Area 6, Cafeteria | 02/03/92 | $1.1 \times 10^{-08}$ | $6.5 \times 10^{-10}$ |
| Area 6, Cafeteria | 02/10/92 | $9.9 \times 10^{-09}$ | $6.2 \times 10^{-10}$ |
| Area 6, Cafeteria | 02/18/92 | $9.1 \times 10^{-09}$ | $6.2 \times 10^{-10}$ |
| Area 6, Cafeteria | 02/24/92 | $1.0 \times 10^{-08}$ | $6.2 \times 10^{-10}$ |
| Area 6, Cafeteria | 03/02/92 | $9.6 \times 10^{-09}$ | $6.4 \times 10^{-10}$ |
| Area 6, Cafeteria | 03/09/92 | $9.7 \times 10^{-09}$ | $6.2 \times 10^{-10}$ |
| Area 6, Cafeteria | 03/17/92 | $9.6 \times 10^{-09}$ | $6.1 \times 10^{-10}$ |
| Area 6, Cafeteria | 03/23/92 | $1.0 \times 10^{-08}$ | $6.6 \times 10^{-10}$ |
| Area 6, Cafeteria | 03/30/92 | $9.9 \times 10^{-09}$ | $1.3 \times 10^{-09}$ |
| Area 6, Cafeteria | 04/06/92 | $3.4 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 6, Cafeteria | 04/13/92 | $4.8 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 6, Cafeteria | 04/20/92 | $1.4 \times 10^{-08}$ | $6.5 \times 10^{-10}$ |
| Area 6, Cafeteria | 04/27/92 | $1.1 \times 10^{-08}$ | $6.8 \times 10^{-10}$ |
| Area 6, Cafeteria | 05/04/92 | $8.6 \times 10^{-09}$ | $6.5 \times 10^{-10}$ |
| Area 6, Cafeteria | 05/11/92 | $9.4 \times 10^{-09}$ | $6.1 \times 10^{-10}$ |
| Area 6, Cafeteria | 05/18/92 | $6.4 \times 10^{-09}$ | $6.3 \times 10^{-10}$ |
| Area 6, Cafeteria | 05/26/92 | $7.1 \times 10^{-09}$ | $6.6 \times 10^{-10}$ |
| Area 6, Cafeteria | 06/01/92 | $8.1 \times 10^{-09}$ | $5.9 \times 10^{-10}$ |
| Area 6, Cafeteria | 06/08/92 | $8.7 \times 10^{-09}$ | $6.0 \times 10^{-10}$ |
| Area 6, Cafeteria | 06/15/92 | $7.6 \times 10^{-09}$ | $5.9 \times 10^{-10}$ |
| Area 6, Cafeteria | 06/22/92 | $9.0 \times 10^{-09}$ | $6.1 \times 10^{-10}$ |
| Area 6, Cafeteria | 06/29/92 | $6.4 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 6, Cafeteria | 07/06/92 | $8.4 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 6, Cafeteria | 07/13/92 | $8.6 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 6, Cafeteria | 07/20/92 | $8.0 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 6, Cafeteria | 07/27/92 | $9.3 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 6, Cafeteria | 08/03/92 | $7.4 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 6, Cafeteria | 08/10/92 | $8.9 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 6, Cafeteria | 08/17/92 | $7.9 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 6, Cafeteria | 08/24/92 | $8.8 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 6, Cafeteria | 08/31/92 | $9.5 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 6, Cafeteria | 09/08/92 | $8.2 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 6, Cafeteria | 09/14/92 | $8.4 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 6, Cafeteria | 09/21/92 | $8.3 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu$Ci/mL          Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu$Ci/mL

Attachment C.5  (Gross Beta in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 6, Cafeteria | 09/28/92 | $1.0 \times 10^{-08}$ | $8.2 \times 10^{-10}$ |
| Area 6, Cafeteria | 10/05/92 | $1.0 \times 10^{-08}$ | $4.9 \times 10^{-10}$ |
| Area 6, Cafeteria | 10/13/92 | $9.0 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 6, Cafeteria | 10/19/92 | $9.8 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 6, Cafeteria | 10/26/92 | $7.6 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 6, Cafeteria | 11/03/92 | $9.9 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 6, Cafeteria | 11/09/92 | $9.0 \times 10^{-09}$ | $5.1 \times 10^{-10}$ |
| Area 6, Cafeteria | 11/16/92 | $7.8 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 6, Cafeteria | 11/23/92 | $8.5 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 6, Cafeteria | 11/30/92 | $7.2 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 6, Cafeteria | 12/07/92 | $1.1 \times 10^{-08}$ | $5.1 \times 10^{-10}$ |
| Area 6, Cafeteria | 12/14/92 | $7.5 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 6, Cafeteria | 12/22/92 | $7.8 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 6, Cafeteria | 12/29/92 | $7.6 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 6, Building 6-900 | 06/29/92 | $4.1 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 6, Building 6-900 | 07/06/92 | $7.6 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 6, Building 6-900 | 07/13/92 | $7.2 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 6, Building 6-900 | 07/20/92 | $8.2 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 6, Building 6-900 | 07/27/92 | $7.4 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 6, Building 6-900 | 08/03/92 | $7.8 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 6, Building 6-900 | 08/10/92 | $7.7 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 6, Building 6-900 | 08/17/92 | $7.4 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 6, Building 6-900 | 08/24/92 | $7.5 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 6, Building 6-900 | 08/31/92 | $8.3 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 6, Building 6-900 | 09/08/92 | $8.6 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 6, Building 6-900 | 09/14/92 | $8.1 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 6, Building 6-900 | 09/21/92 | $8.9 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 6, Building 6-900 | 09/28/92 | $7.7 \times 10^{-09}$ | $7.7 \times 10^{-10}$ |
| Area 6, Building 6-900 | 10/05/92 | $3.1 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 6, Building 6-900 | 10/13/92 | $8.5 \times 10^{-09}$ | $5.1 \times 10^{-10}$ |
| Area 6, Building 6-900 | 10/19/92 | $7.4 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 6, Building 6-900 | 10/26/92 | $9.0 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 6, Building 6-900 | 11/03/92 | $8.3 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 6, Building 6-900 | 11/09/92 | $1.0 \times 10^{-08}$ | $5.2 \times 10^{-10}$ |
| Area 6, Building 6-900 | 11/16/92 | $8.3 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 6, Building 6-900 | 11/23/92 | $7.2 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 6, Building 6-900 | 11/30/92 | $8.0 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 6, Building 6-900 | 12/07/92 | $9.0 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 6, Building 6-900 | 12/14/92 | $7.7 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 6, Building 6-900 | 12/22/92 | $7.7 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 6, Building 6-900 | 12/29/92 | $1.2 \times 10^{-08}$ | $7.8 \times 10^{-10}$ |
| Area 6, Sewage | 01/15/92 | $4.1 \times 10^{-08}$ | $1.1 \times 10^{-09}$ |

Mean MDC: $3.6 \times 10^{-09} \mu$Ci/mL          Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu$Ci/mL

Attachment C.5  (Gross Beta in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 6, Sewage | 04/23/92 | $2.5 \times 10^{-08}$ | $9.6 \times 10^{-10}$ |
| Area 6, Sewage | 07/14/92 | $2.1 \times 10^{-08}$ | $6.3 \times 10^{-10}$ |
| Area 6, Sewage | 10/15/92 | $7.5 \times 10^{-08}$ | $2.1 \times 10^{-09}$ |
| Area 6, Well C | 01/27/92 | $9.3 \times 10^{-09}$ | $2.4 \times 10^{-09}$ |
| Area 6, Well C | 02/24/92 | $1.6 \times 10^{-08}$ | $6.7 \times 10^{-10}$ |
| Area 6, Well C | 04/06/92 | $9.5 \times 10^{-09}$ | $6.5 \times 10^{-10}$ |
| Area 6, Well C | 05/12/92 | $1.7 \times 10^{-08}$ | $6.9 \times 10^{-10}$ |
| Area 6, Well C | 06/02/92 | $1.9 \times 10^{-08}$ | $6.9 \times 10^{-10}$ |
| Area 6, Well C | 07/13/92 | $1.3 \times 10^{-08}$ | $5.8 \times 10^{-10}$ |
| Area 6, Well C | 08/04/92 | $1.4 \times 10^{-08}$ | $5.4 \times 10^{-10}$ |
| Area 6, Well C | 09/01/92 | $1.4 \times 10^{-08}$ | $5.3 \times 10^{-10}$ |
| Area 6, Well C | 10/05/92 | $8.6 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 6, Well C | 11/09/92 | $1.5 \times 10^{-08}$ | $5.5 \times 10^{-10}$ |
| Area 6, Well C | 12/02/92 | $1.5 \times 10^{-08}$ | $5.3 \times 10^{-10}$ |
| Area 6, Well C-1 | 01/27/92 | $2.3 \times 10^{-08}$ | $4.3 \times 10^{-09}$ |
| Area 6, Well C-1 | 02/24/92 | $1.5 \times 10^{-08}$ | $6.6 \times 10^{-10}$ |
| Area 6, Well C-1 | 04/06/92 | $7.6 \times 10^{-09}$ | $6.3 \times 10^{-10}$ |
| Area 6, Well C-1 | 05/12/92 | $1.9 \times 10^{-08}$ | $7.0 \times 10^{-10}$ |
| Area 6, Well C-1 | 06/02/92 | $1.5 \times 10^{-08}$ | $6.7 \times 10^{-10}$ |
| Area 6, Well C-1 | 07/13/92 | $7.1 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 6, Well C-1 | 08/04/92 | $1.1 \times 10^{-08}$ | $5.1 \times 10^{-10}$ |
| Area 6, Well C-1 | 09/01/92 | $1.6 \times 10^{-08}$ | $5.6 \times 10^{-10}$ |
| Area 6, Well C-1 | 10/05/92 | $1.1 \times 10^{-08}$ | $4.8 \times 10^{-10}$ |
| Area 6, Well C-1 | 11/09/92 | $1.5 \times 10^{-08}$ | $5.7 \times 10^{-10}$ |
| Area 6, Well C-1 | 12/02/92 | $1.5 \times 10^{-08}$ | $5.3 \times 10^{-10}$ |
| Area 6, Well C-1 Reservoir | 01/07/92 | $1.2 \times 10^{-08}$ | $6.4 \times 10^{-10}$ |
| Area 6, Well C-1 Reservoir | 02/06/92 | $1.2 \times 10^{-08}$ | $6.8 \times 10^{-10}$ |
| Area 6, Well C-1 Reservoir | 03/04/92 | $6.9 \times 10^{-09}$ | $5.7 \times 10^{-10}$ |
| Area 6, Well C-1 Reservoir | 04/08/92 | $1.5 \times 10^{-08}$ | $6.9 \times 10^{-10}$ |
| Area 6, Well C-1 Reservoir | 05/06/92 | $1.1 \times 10^{-08}$ | $6.9 \times 10^{-10}$ |
| Area 6, Well C-1 Reservoir | 06/03/92 | $9.0 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 6, Well C-1 Reservoir | 07/09/92 | $1.0 \times 10^{-08}$ | $5.1 \times 10^{-10}$ |
| Area 6, Well C-1 Reservoir | 08/12/92 | $1.1 \times 10^{-08}$ | $4.8 \times 10^{-10}$ |
| Area 6, Well C-1 Reservoir | 09/01/92 | $1.0 \times 10^{-08}$ | $4.8 \times 10^{-10}$ |
| Area 6, Well C-1 Reservoir | 10/06/92 | $1.1 \times 10^{-08}$ | $4.9 \times 10^{-10}$ |
| Area 6, Well C-1 Reservoir | 11/19/92 | $1.3 \times 10^{-08}$ | $5.1 \times 10^{-10}$ |
| Area 6, Well C-1 Reservoir | 12/22/92 | $1.1 \times 10^{-08}$ | $5.5 \times 10^{-10}$ |
| Area 6, Well 3 Reservoir | 01/08/92 | $1.2 \times 10^{-08}$ | $6.4 \times 10^{-10}$ |
| Area 6, Well 3 Reservoir | 02/05/92 | $1.1 \times 10^{-08}$ | $5.9 \times 10^{-10}$ |
| Area 6, Well 3 Reservoir | 03/04/92 | $1.2 \times 10^{-08}$ | $6.1 \times 10^{-10}$ |
| Area 6, Well 3 Reservoir | 04/08/92 | $1.3 \times 10^{-08}$ | $6.3 \times 10^{-10}$ |
| Area 6, Well 3 Reservoir | 05/06/92 | $1.9 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu$Ci/mL          Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu$Ci/mL

## Attachment C.5 (Gross Beta in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 6, Well 3 Reservoir | 06/03/92 | $1.1 \times 10^{-08}$ | $6.4 \times 10^{-10}$ |
| Area 6, Well 3 Reservoir | 07/03/92 | $9.3 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 6, Well 3 Reservoir | 08/12/92 | $9.6 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 6, Well 3 Reservoir | 09/01/92 | $7.6 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 6, Well 3 Reservoir | 10/15/92 | $1.0 \times 10^{-08}$ | $5.1 \times 10^{-10}$ |
| Area 6, Well 3 Reservoir | 11/05/92 | $1.2 \times 10^{-08}$ | $5.3 \times 10^{-10}$ |
| Area 6, Well 3 Reservoir | 12/03/92 | $8.5 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 6, Well 4 | 01/27/92 | $7.4 \times 10^{-09}$ | $6.0 \times 10^{-10}$ |
| Area 6, Well 4 | 02/24/92 | $7.3 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 6, Well 4 | 04/06/92 | $7.3 \times 10^{-09}$ | $6.3 \times 10^{-10}$ |
| Area 6, Well 4 | 05/12/92 | $7.8 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 6, Well 4 | 06/02/92 | $8.0 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 6, Well 4 | 07/13/92 | $7.9 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 6, Well 4 | 08/04/92 | $6.2 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 6, Well 4 | 09/01/92 | $6.9 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 6, Well 4 | 10/05/92 | $5.9 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 6, Well 4 | 11/09/92 | $6.4 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 6, Well 4 | 12/02/92 | $5.6 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 6, Yucca Pond | 01/15/92 | $6.2 \times 10^{-08}$ | $5.0 \times 10^{-09}$ |
| Area 6, Yucca Pond | 02/12/92 | $5.4 \times 10^{-08}$ | $1.7 \times 10^{-08}$ |
| Area 6, Yucca Pond | 03/11/92 | $4.8 \times 10^{-08}$ | $1.5 \times 10^{-08}$ |
| Area 6, Yucca Pond | 04/27/92 | $2.1 \times 10^{-08}$ | $1.8 \times 10^{-08}$ |
| Area 6, Yucca Pond | 05/14/92 | $6.1 \times 10^{-08}$ | $2.0 \times 10^{-08}$ |
| Area 6, Yucca Pond | 06/03/92 | $4.7 \times 10^{-08}$ | $1.6 \times 10^{-08}$ |
| Area 6, Yucca Pond | 07/09/92 | $6.2 \times 10^{-08}$ | $1.1 \times 10^{-08}$ |
| Area 6, Yucca Pond | 08/20/92 | $2.1 \times 10^{-08}$ | $1.6 \times 10^{-08}$ |
| Area 6, Yucca Pond | 09/02/92 | $1.2 \times 10^{-08}$ | $1.2 \times 10^{-08}$ |
| Area 6, Yucca Pond | 10/06/92 | $4.6 \times 10^{-08}$ | $1.3 \times 10^{-08}$ |
| Area 6, Yucca Pond | 11/19/92 | $3.9 \times 10^{-08}$ | $1.3 \times 10^{-08}$ |
| Area 6, Yucca Pond | 12/03/92 | $4.2 \times 10^{-08}$ | $1.1 \times 10^{-08}$ |
| Area 7, Reitman Seep | 01/15/92 | $3.2 \times 10^{-08}$ | $9.2 \times 10^{-10}$ |
| Area 7, Reitman Seep | 02/12/92 | $4.0 \times 10^{-08}$ | $1.8 \times 10^{-09}$ |
| Area 7, Reitman Seep | 04/08/92 | $3.3 \times 10^{-08}$ | $1.3 \times 10^{-09}$ |
| Area 7, Reitman Seep | 05/07/92 | $3.1 \times 10^{-08}$ | $1.1 \times 10^{-09}$ |
| Area 7, Reitman Seep | 06/17/92 | $4.4 \times 10^{-08}$ | $1.0 \times 10^{-09}$ |
| Area 7, Reitman Seep | 09/09/92 | $3.4 \times 10^{-08}$ | $7.8 \times 10^{-10}$ |
| Area 7, Reitman Seep | 11/17/92 | $1.5 \times 10^{-07}$ | $2.5 \times 10^{-08}$ |
| Area 7, Reitman Seep | 12/02/92 | $4.1 \times 10^{-08}$ | $9.8 \times 10^{-10}$ |
| Area 12, Cafeteria | 01/21/92 | $4.1 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 12, Cafeteria | 01/27/92 | $4.9 \times 10^{-09}$ | $7.9 \times 10^{-10}$ |
| Area 12, Cafeteria | 02/03/92 | $3.4 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 12, Cafeteria | 02/10/92 | $3.7 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu Ci/mL$      Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu Ci/mL$

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 12, Cafeteria | 02/18/92 | $3.8 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 12, Cafeteria | 02/24/92 | $3.3 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 12, Cafeteria | 03/02/92 | $3.4 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 12, Cafeteria | 03/09/92 | $3.7 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 12, Cafeteria | 03/17/92 | $3.2 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 12, Cafeteria | 03/23/92 | $7.4 \times 10^{-09}$ | $6.1 \times 10^{-10}$ |
| Area 12, Cafeteria | 03/30/92 | $3.5 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 12, Cafeteria | 04/06/92 | $2.4 \times 10^{-09}$ | $5.1 \times 10^{-10}$ |
| Area 12, Cafeteria | 04/13/92 | $3.5 \times 10^{-09}$ | $5.1 \times 10^{-10}$ |
| Area 12, Cafeteria | 04/20/92 | $4.8 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 12, Cafeteria | 04/27/92 | $3.9 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 12, Cafeteria | 05/04/92 | $3.5 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 12, Cafeteria | 05/11/92 | $3.8 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 12, Cafeteria | 05/18/92 | $1.5 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 12, Cafeteria | 05/26/92 | $2.3 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 12, Cafeteria | 06/01/92 | $3.3 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 12, Cafeteria | 06/08/92 | $2.3 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 12, Cafeteria | 06/15/92 | $3.2 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 12, Cafeteria | 06/22/92 | $3.2 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 12, Cafeteria | 06/29/92 | $3.3 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 12, Cafeteria | 07/06/92 | $2.9 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 12, Cafeteria | 07/13/92 | $3.5 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 12, Cafeteria | 07/20/92 | $2.2 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 12, Cafeteria | 07/27/92 | $2.9 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 12, Cafeteria | 08/03/92 | $1.4 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 12, Cafeteria | 08/10/92 | $3.7 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 12, Cafeteria | 08/17/92 | $4.1 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 12, Cafeteria | 08/24/92 | $2.8 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 12, Cafeteria | 09/01/92 | $3.5 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 12, Cafeteria | 09/08/92 | $3.1 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 12, Cafeteria | 09/14/92 | $3.7 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 12, Cafeteria | 09/21/92 | $3.0 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 12, Cafeteria | 09/28/92 | $6.8 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 12, Cafeteria | 10/05/92 | $8.5 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 12, Cafeteria | 10/12/92 | $2.2 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 12, Cafeteria | 10/19/92 | $2.6 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 12, Cafeteria | 10/26/92 | $2.9 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 12, Cafeteria | 11/02/92 | $2.9 \times 10^{-09}$ | $3.8 \times 10^{-10}$ |
| Area 12, Cafeteria | 11/09/92 | $2.0 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 12, Cafeteria | 11/16/92 | $3.7 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 12, Cafeteria | 11/23/92 | $3.0 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 12, Cafeteria | 11/30/92 | $3.4 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu Ci/mL$          Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu Ci/mL$

Attachment C.5  (Gross Beta in Water - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 12, Cafeteria | 12/08/92 | $3.2 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 12, Cafeteria | 12/15/92 | $2.3 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 12, Cafeteria | 12/22/92 | $2.4 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 12, Captain Jack Spring | 01/15/92 | $9.0 \times 10^{-09}$ | $5.8 \times 10^{-10}$ |
| Area 12, Captain Jack Spring | 02/27/92 | $6.9 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 12, Captain Jack Spring | 03/18/92 | $5.8 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 12, Captain Jack Spring | 04/23/92 | $2.1 \times 10^{-09}$ | $1.0 \times 10^{-09}$ |
| Area 12, Captain Jack Spring | 05/21/92 | $9.0 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 12, Captain Jack Spring | 06/11/92 | $7.6 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 12, Captain Jack Spring | 07/15/92 | $6.1 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 12, Captain Jack Spring | 08/12/92 | $7.9 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 12, Captain Jack Spring | 09/09/92 | $7.5 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 12, Captain Jack Spring | 10/21/92 | $6.3 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 12, Captain Jack Spring | 11/24/92 | $6.1 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 12, E Tunnel Effluent | 01/15/92 | $7.6 \times 10^{-08}$ | $3.2 \times 10^{-09}$ |
| Area 12, E Tunnel Effluent | 02/12/92 | $4.7 \times 10^{-08}$ | $1.1 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 03/11/92 | $9.3 \times 10^{-08}$ | $1.3 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 04/09/92 | $7.7 \times 10^{-08}$ | $1.6 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 05/12/92 | $5.0 \times 10^{-08}$ | $1.7 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 06/09/92 | $6.4 \times 10^{-08}$ | $1.4 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 07/21/92 | $4.1 \times 10^{-08}$ | $1.0 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 08/27/92 | $5.5 \times 10^{-08}$ | $1.2 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 09/03/92 | $4.9 \times 10^{-08}$ | $1.2 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 10/20/92 | $6.4 \times 10^{-08}$ | $1.1 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 11/18/92 | $7.8 \times 10^{-08}$ | $1.2 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 12/02/92 | $6.6 \times 10^{-08}$ | $1.1 \times 10^{-08}$ |
| Area 12, E Tunnel Pond No. 1 | 07/21/92 | $5.1 \times 10^{-08}$ | $1.1 \times 10^{-08}$ |
| Area 12, E Tunnel Pond No. 1 | 08/18/92 | $7.9 \times 10^{-09}$ | $1.9 \times 10^{-08}$ |
| Area 12, E Tunnel Pond No. 1 | 09/03/92 | $1.5 \times 10^{-09}$ | $1.0 \times 10^{-08}$ |
| Area 12, E Tunnel Pond No. 1 | 10/20/92 | $5.9 \times 10^{-08}$ | $1.2 \times 10^{-08}$ |
| Area 12, E Tunnel Pond No. 1 | 11/18/92 | $7.8 \times 10^{-08}$ | $1.2 \times 10^{-08}$ |
| Area 12, Gold Meadows Spring | 04/08/92 | $7.9 \times 10^{-09}$ | $5.8 \times 10^{-10}$ |
| Area 12, Gold Meadows Spring | 05/21/92 | $1.2 \times 10^{-08}$ | $6.4 \times 10^{-10}$ |
| Area 12, Gold Meadows Spring | 06/03/92 | $9.7 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 12, Gold Meadows Spring | 08/19/92 | $2.8 \times 10^{-08}$ | $6.4 \times 10^{-10}$ |
| Area 12, Gold Meadows Spring | 09/02/92 | $2.5 \times 10^{-08}$ | $6.2 \times 10^{-10}$ |
| Area 12, N Tunnel Efffluent | 01/15/92 | $5.9 \times 10^{-09}$ | $2.3 \times 10^{-09}$ |
| Area 12, N Tunnel Efffluent | 02/12/92 | $-2.1 \times 10^{-09}$ | $1.1 \times 10^{-08}$ |
| Area 12, N Tunnel Efffluent | 03/11/92 | $3.2 \times 10^{-09}$ | $1.4 \times 10^{-08}$ |
| Area 12, N Tunnel Efffluent | 04/09/92 | $1.1 \times 10^{-08}$ | $1.5 \times 10^{-08}$ |
| Area 12, N Tunnel Efffluent | 05/12/92 | $-5.3 \times 10^{-09}$ | $1.5 \times 10^{-08}$ |
| Area 12, N Tunnel Efffluent | 06/16/92 | $1.4 \times 10^{-08}$ | $1.5 \times 10^{-08}$ |

Mean MDC: $3.6 \times 10^{-09} \mu$Ci/mL        Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu$Ci/mL

Attachment C.5 (Gross Beta in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 12, N Tunnel Efffluent | 07/21/92 | $4.3 \times 10^{-09}$ | $9.5 \times 10^{-09}$ |
| Area 12, N Tunnel Effluent | 08/18/92 | $2.8 \times 10^{-09}$ | $1.4 \times 10^{-08}$ |
| Area 12, N Tunnel Effluent | 09/03/92 | $2.0 \times 10^{-08}$ | $1.0 \times 10^{-08}$ |
| Area 12, N Tunnel Effluent | 10/20/92 | $6.0 \times 10^{-09}$ | $1.1 \times 10^{-08}$ |
| Area 12, N Tunnel Effluent | 11/18/92 | $8.4 \times 10^{-09}$ | $1.1 \times 10^{-08}$ |
| Area 12, N Tunnel Effluent | 12/02/92 | $9.5 \times 10^{-09}$ | $1.0 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 1 | 01/15/92 | $3.2 \times 10^{-09}$ | $2.3 \times 10^{-09}$ |
| Area 12, N Tunnel Pond No. 1 | 04/09/92 | $1.2 \times 10^{-08}$ | $1.5 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 1 | 05/12/92 | $8.6 \times 10^{-09}$ | $1.6 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 1 | 06/16/92 | $-3.7 \times 10^{-10}$ | $1.3 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 2 | 02/12/92 | $8.4 \times 10^{-08}$ | $1.3 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 2 | 03/11/92 | $7.5 \times 10^{-09}$ | $1.2 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 2 | 04/09/92 | $1.8 \times 10^{-08}$ | $1.5 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 2 | 05/12/92 | $7.5 \times 10^{-09}$ | $1.6 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 2 | 06/16/92 | $1.3 \times 10^{-08}$ | $1.5 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 2 | 07/21/92 | $1.0 \times 10^{-08}$ | $9.8 \times 10^{-09}$ |
| Area 12, N Tunnel Pond No. 2 | 08/18/92 | $-5.1 \times 10^{-09}$ | $1.3 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 2 | 09/03/92 | $1.5 \times 10^{-08}$ | $1.1 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 2 | 10/20/92 | $2.0 \times 10^{-09}$ | $9.9 \times 10^{-09}$ |
| Area 12, N Tunnel Pond No. 2 | 11/18/92 | $1.2 \times 10^{-08}$ | $1.1 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 2 | 12/02/92 | $-1.8 \times 10^{-08}$ | $1.0 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 3 | 02/12/92 | $1.1 \times 10^{-07}$ | $1.4 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 3 | 03/11/92 | $2.9 \times 10^{-08}$ | $1.2 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 3 | 04/09/92 | $-3.1 \times 10^{-09}$ | $1.5 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 3 | 05/12/92 | $-3.7 \times 10^{-09}$ | $1.5 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 3 | 06/16/92 | $1.4 \times 10^{-09}$ | $1.2 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 3 | 07/21/92 | $1.3 \times 10^{-08}$ | $9.6 \times 10^{-09}$ |
| Area 12, N Tunnel Pond No. 3 | 08/18/92 | $2.8 \times 10^{-08}$ | $1.6 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 3 | 09/03/92 | $1.9 \times 10^{-08}$ | $1.0 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 3 | 10/20/92 | $2.1 \times 10^{-08}$ | $9.9 \times 10^{-09}$ |
| Area 12, N Tunnel Pond No. 3 | 11/18/92 | $5.1 \times 10^{-07}$ | $1.7 \times 10^{-08}$ |
| Area 12, Sewage Pond | 01/08/92 | $1.9 \times 10^{-08}$ | $6.9 \times 10^{-10}$ |
| Area 12, Sewage Pond | 04/22/92 | $1.0 \times 10^{-08}$ | $6.1 \times 10^{-10}$ |
| Area 12, Sewage Pond | 07/21/92 | $2.7 \times 10^{-08}$ | $7.0 \times 10^{-10}$ |
| Area 12, Sewage Pond | 10/27/92 | $2.7 \times 10^{-08}$ | $9.4 \times 10^{-10}$ |
| Area 12, T Tunnel Effluent | 01/15/92 | $1.3 \times 10^{-06}$ | $8.9 \times 10^{-09}$ |
| Area 12, T Tunnel Effluent | 02/12/92 | $9.3 \times 10^{-07}$ | $2.2 \times 10^{-08}$ |
| Area 12, T Tunnel Effluent | 03/11/92 | $1.0 \times 10^{-06}$ | $2.1 \times 10^{-08}$ |
| Area 12, T Tunnel Effluent | 04/09/92 | $6.9 \times 10^{-07}$ | $2.2 \times 10^{-08}$ |
| Area 12, T Tunnel Effluent | 05/14/92 | $7.1 \times 10^{-07}$ | $2.3 \times 10^{-08}$ |
| Area 12, T Tunnel Effluent | 06/09/92 | $7.6 \times 10^{-07}$ | $2.3 \times 10^{-08}$ |
| Area 12, T Tunnel Effluent | 07/21/92 | $4.6 \times 10^{-07}$ | $1.5 \times 10^{-08}$ |

Mean MDC: $3.6 \times 10^{-09} \mu$Ci/mL          Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu$Ci/mL

Attachment C.5  (Gross Beta in Water - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 12, T Tunnel Effluent | 08/18/92 | $2.4 \times 10^{-07}$ | $1.8 \times 10^{-08}$ |
| Area 12, T Tunnel Effluent | 09/03/92 | $4.2 \times 10^{-07}$ | $1.5 \times 10^{-08}$ |
| Area 12, T Tunnel Effluent | 10/20/92 | $4.9 \times 10^{-07}$ | $1.6 \times 10^{-08}$ |
| Area 12, T Tunnel Effluent | 11/18/92 | $4.9 \times 10^{-07}$ | $1.8 \times 10^{-08}$ |
| Area 12, T Tunnel Effluent | 12/02/92 | $7.1 \times 10^{-07}$ | $1.8 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 1 | 02/12/92 | $8.6 \times 10^{-07}$ | $1.8 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 1 | 03/11/92 | $8.9 \times 10^{-07}$ | $2.0 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 1 | 04/09/92 | $4.9 \times 10^{-07}$ | $2.1 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 1 | 05/14/92 | $5.6 \times 10^{-07}$ | $2.2 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 1 | 06/09/92 | $4.9 \times 10^{-07}$ | $1.7 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 2 | 02/12/92 | $5.6 \times 10^{-07}$ | $1.6 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 2 | 03/11/92 | $9.3 \times 10^{-07}$ | $2.0 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 2 | 04/09/92 | $4.8 \times 10^{-07}$ | $2.0 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 2 | 05/14/92 | $1.2 \times 10^{-07}$ | $1.7 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 2 | 06/09/92 | $5.1 \times 10^{-07}$ | $1.8 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 2 | 07/21/92 | $5.4 \times 10^{-07}$ | $1.6 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 2 | 08/18/92 | $1.8 \times 10^{-07}$ | $1.8 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 2 | 09/03/92 | $3.3 \times 10^{-07}$ | $1.5 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 2 | 10/20/92 | $6.3 \times 10^{-07}$ | $1.9 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 2 | 11/18/92 | $6.0 \times 10^{-07}$ | $1.8 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 2 | 12/02/92 | $4.3 \times 10^{-07}$ | $1.6 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 3 | 07/21/92 | $4.8 \times 10^{-07}$ | $1.5 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 3 | 08/18/92 | $8.4 \times 10^{-08}$ | $1.4 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 3 | 09/03/92 | $1.1 \times 10^{-06}$ | $2.3 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 3 | 10/20/92 | $5.8 \times 10^{-07}$ | $1.7 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 3 | 11/18/92 | $-4.3 \times 10^{-09}$ | $1.1 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 3 | 12/02/92 | $5.3 \times 10^{-07}$ | $1.6 \times 10^{-08}$ |
| Area 12, White Rock Spring | 01/15/92 | $1.0 \times 10^{-08}$ | $6.0 \times 10^{-10}$ |
| Area 12, White Rock Spring | 02/12/92 | $8.5 \times 10^{-09}$ | $8.4 \times 10^{-10}$ |
| Area 12, White Rock Spring | 03/05/92 | $1.6 \times 10^{-08}$ | $7.1 \times 10^{-10}$ |
| Area 12, White Rock Spring | 04/08/92 | $1.4 \times 10^{-08}$ | $7.1 \times 10^{-10}$ |
| Area 12, White Rock Spring | 05/07/92 | $1.5 \times 10^{-08}$ | $8.3 \times 10^{-10}$ |
| Area 12, White Rock Spring | 06/04/92 | $1.5 \times 10^{-08}$ | $6.5 \times 10^{-10}$ |
| Area 12, White Rock Spring | 07/13/92 | $1.0 \times 10^{-08}$ | $4.7 \times 10^{-10}$ |
| Area 12, White Rock Spring | 08/11/92 | $2.0 \times 10^{-08}$ | $6.5 \times 10^{-10}$ |
| Area 12, White Rock Spring | 09/09/92 | $1.0 \times 10^{-08}$ | $5.0 \times 10^{-10}$ |
| Area 12, White Rock Spring | 10/05/92 | $9.5 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 12, White Rock Spring | 11/17/92 | $9.2 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 12, White Rock Spring | 12/01/92 | $1.2 \times 10^{-08}$ | $5.1 \times 10^{-10}$ |
| Area 16, Tippipah Spring | 01/08/92 | $6.7 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 16, Tippipah Spring | 02/04/92 | $6.1 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 16, Tippipah Spring | 03/04/92 | $5.9 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09}$ µCi/mL          Standard Deviation of Mean MDC: $7.8 \times 10^{-09}$ µCi/mL

Attachment C.5  (Gross Beta in Water - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 16, Tippipah Spring | 04/22/92 | $4.3 \times 10^{-09}$ | $5.1 \times 10^{-10}$ |
| Area 16, Tippipah Spring | 05/18/92 | $4.0 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 16, Tippipah Spring | 06/04/92 | $4.2 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 16, Tippipah Spring | 07/15/92 | $4.3 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 16, Tippipah Spring | 08/18/92 | $4.2 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 16, Tippipah Spring | 09/30/92 | $3.6 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 16, Tippipah Spring | 10/14/92 | $4.3 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 16, Tippipah Spring | 11/18/92 | $4.3 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 16, Tippipah Spring | 12/03/92 | $4.2 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 16, Well UE-16d | 01/27/92 | $9.8 \times 10^{-09}$ | $1.0 \times 10^{-09}$ |
| Area 16, Well UE-16d | 02/24/92 | $6.9 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 16, Well UE-16d | 04/06/92 | $6.5 \times 10^{-09}$ | $6.3 \times 10^{-10}$ |
| Area 16, Well UE-16d | 05/12/92 | $8.9 \times 10^{-09}$ | $5.8 \times 10^{-10}$ |
| Area 16, Well UE-16d | 06/02/92 | $6.8 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 16, Well UE-16d | 07/13/92 | $8.9 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 16, Well UE-16d | 08/04/92 | $7.0 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 16, Well UE-16d | 09/01/92 | $7.2 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 16, Well UE-16d | 10/05/92 | $6.5 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 16, Well UE-16d | 11/09/92 | $6.5 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 16, Well UE-16d | 12/02/92 | $7.0 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 18, Camp 17 Reservoir | 01/08/92 | $4.9 \times 10^{-09}$ | $5.1 \times 10^{-10}$ |
| Area 18, Camp 17 Reservoir | 02/04/92 | $3.4 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 18, Camp 17 Reservoir | 03/04/92 | $3.7 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 18, Camp 17 Reservoir | 04/08/92 | $2.8 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 18, Camp 17 Reservoir | 05/18/92 | $3.9 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 18, Camp 17 Reservoir | 06/03/92 | $3.0 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 18, Camp 17 Reservoir | 07/07/92 | $2.3 \times 10^{-09}$ | $3.8 \times 10^{-10}$ |
| Area 18, Camp 17 Reservoir | 08/12/92 | $4.5 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 18, Camp 17 Reservoir | 09/10/92 | $3.1 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 18, Camp 17 Reservoir | 10/07/92 | $3.6 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 18, Camp 17 Reservoir | 11/04/92 | $3.1 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 18, Well 8 | 01/27/92 | $4.2 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 18, Well 8 | 02/24/92 | $3.5 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 18, Well 8 | 04/06/92 | $3.9 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 18, Well 8 | 05/12/92 | $3.7 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 18, Well 8 | 06/02/92 | $4.3 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 18, Well 8 | 07/13/92 | $4.5 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 18, Well 8 | 08/04/92 | $2.9 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 18, Well 8 | 09/01/92 | $3.4 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 18, Well 8 | 10/05/92 | $1.6 \times 10^{-09}$ | $3.7 \times 10^{-10}$ |
| Area 18, Well 8 | 11/09/92 | $3.7 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 18, Well 8 | 12/02/92 | $3.4 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu$Ci/mL          Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu$Ci/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 18, Well 8 Reservoir | 01/14/92 | $8.4 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 18, Well 8 Reservoir | 02/04/92 | $7.0 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 18, Well 8 Reservoir | 03/04/92 | $4.5 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 18, Well 8 Reservoir | 04/08/92 | $4.7 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 18, Well 8 Reservoir | 05/18/92 | $6.6 \times 10^{-09}$ | $5.9 \times 10^{-10}$ |
| Area 18, Well 8 Reservoir | 06/03/92 | $3.2 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 18, Well 8 Reservoir | 07/07/92 | $4.0 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 18, Well 8 Reservoir | 09/10/92 | $4.3 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 18, Well 8 Reservoir | 10/07/92 | $2.2 \times 10^{-09}$ | $3.8 \times 10^{-10}$ |
| Area 19, Well UE-19c | 01/27/92 | $3.5 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 19, Well UE-19c | 02/24/92 | $1.2 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 19, Well UE-19c | 04/06/92 | $7.8 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 19, Well UE-19c | 05/12/92 | $1.9 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 19, Well UE-19c | 06/02/92 | $2.2 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 19, Well UE-19c | 07/13/92 | $3.3 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 19, Well UE-19c | 08/04/92 | $1.2 \times 10^{-09}$ | $3.6 \times 10^{-10}$ |
| Area 19, Well UE-19c | 09/01/92 | $2.0 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 19, Well UE-19c | 09/10/92 | $3.1 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 19, Well UE-19c | 10/05/92 | $1.2 \times 10^{-09}$ | $3.8 \times 10^{-10}$ |
| Area 19, Well UE-19c | 11/24/92 | $1.9 \times 10^{-09}$ | $3.8 \times 10^{-10}$ |
| Area 19, Well UE-19c | 12/02/92 | $3.8 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 19, Well UE-19c Reservoir | 01/14/92 | $1.3 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 19, Well UE-19c Reservoir | 02/04/92 | $1.7 \times 10^{-09}$ | $5.1 \times 10^{-10}$ |
| Area 19, Well UE-19c Reservoir | 03/05/92 | $1.6 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 19, Well UE-19c Reservoir | 04/07/92 | $1.6 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 19, Well UE-19c Reservoir | 05/18/92 | $2.8 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 19, Well UE-19c Reservoir | 06/02/92 | $2.3 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 19, Well UE-19c Reservoir | 07/09/92 | $2.8 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 19, Well UE-19c Reservoir | 08/12/92 | $3.8 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 19, Well UE-19c Reservoir | 10/07/92 | $4.4 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 19, Well UE-19c Reservoir | 11/04/92 | $3.1 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 20, Water Well | 04/06/92 | $4.3 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 20, Water Well | 05/12/92 | $7.1 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 20, Water Well | 06/02/92 | $5.3 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 20, Water Well | 07/13/92 | $6.1 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 20, Water Well | 08/04/92 | $2.0 \times 10^{-09}$ | $3.8 \times 10^{-10}$ |
| Area 20, Water Well | 09/01/92 | $4.1 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 20, Water Well | 10/05/92 | $4.6 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 20, Water Well | 11/24/92 | $7.9 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 20, Water Well | 12/02/92 | $8.9 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 20, Well 20 | 01/15/92 | $1.2 \times 10^{-08}$ | $6.1 \times 10^{-10}$ |
| Area 20, Well 20 | 02/04/92 | $1.3 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu$Ci/mL          Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu$Ci/mL

Attachment C.5  (Gross Beta in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 20, Well 20 | 03/05/92 | $1.9 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 20, Well 20 | 04/07/92 | $2.2 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 20, Well 20 | 05/05/92 | $3.6 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 20, Well 20 | 06/02/92 | $2.3 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 20, Well 20 | 07/09/92 | $2.2 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 20, Well 20 | 08/12/92 | $2.9 \times 10^{-09}$ | $3.8 \times 10^{-10}$ |
| Area 20, Well 20 | 09/10/92 | $2.3 \times 10^{-09}$ | $3.8 \times 10^{-10}$ |
| Area 20, Well 20 | 10/07/92 | $3.4 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 20, Well 20 | 11/04/92 | $2.1 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 23, Army Well No. 1 | 01/22/92 | $7.9 \times 10^{-09}$ | $6.5 \times 10^{-10}$ |
| Area 23, Army Well No. 1 | 02/24/92 | $7.4 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 23, Army Well No. 1 | 04/06/92 | $7.0 \times 10^{-09}$ | $6.2 \times 10^{-10}$ |
| Area 23, Army Well No. 1 | 05/12/92 | $6.1 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 23, Army Well No. 1 | 06/02/92 | $6.3 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 23, Army Well No. 1 | 07/13/92 | $7.1 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 23, Army Well No. 1 | 08/04/92 | $6.1 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 23, Army Well No. 1 | 09/01/92 | $6.2 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 23, Army Well No. 1 | 10/05/92 | $5.3 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 23, Army Well No. 1 | 11/09/92 | $6.2 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 23, Army Well No. 1 | 12/02/92 | $5.9 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 23, H&S Sump | 10/22/92 | $4.9 \times 10^{-09}$ | $1.8 \times 10^{-09}$ |
| Area 23, Mercury | 01/21/92 | $3.4 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 23, Mercury | 01/27/92 | $3.6 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 23, Mercury | 02/03/92 | $2.2 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 23, Mercury | 02/10/92 | $2.8 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 23, Mercury | 02/18/92 | $3.8 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 23, Mercury | 02/24/92 | $3.4 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 23, Mercury | 03/02/92 | $3.3 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 23, Mercury | 03/09/92 | $2.3 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 23, Mercury | 03/16/92 | $6.9 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 23, Mercury | 03/24/92 | $7.5 \times 10^{-09}$ | $9.5 \times 10^{-10}$ |
| Area 23, Mercury | 03/30/92 | $4.8 \times 10^{-09}$ | $1.6 \times 10^{-09}$ |
| Area 23, Mercury | 04/07/92 | $2.8 \times 10^{-09}$ | $5.8 \times 10^{-10}$ |
| Area 23, Mercury | 04/14/92 | $6.1 \times 10^{-09}$ | $5.7 \times 10^{-10}$ |
| Area 23, Mercury | 04/20/92 | $5.0 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 23, Mercury | 04/28/92 | $4.3 \times 10^{-09}$ | $5.7 \times 10^{-10}$ |
| Area 23, Mercury | 05/05/92 | $4.6 \times 10^{-09}$ | $5.7 \times 10^{-10}$ |
| Area 23, Mercury | 05/11/92 | $4.9 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 23, Mercury | 05/18/92 | $6.4 \times 10^{-09}$ | $6.3 \times 10^{-10}$ |
| Area 23, Mercury | 05/26/92 | $3.9 \times 10^{-09}$ | $6.0 \times 10^{-10}$ |
| Area 23, Mercury | 06/01/92 | $4.5 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 23, Mercury | 06/09/92 | $3.9 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu$Ci/mL          Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu$Ci/mL

Attachment C.5  (Gross Beta in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 23, Mercury | 06/15/92 | $3.8 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 23, Mercury | 06/22/92 | $5.8 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 23, Mercury | 06/29/92 | $4.3 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 23, Mercury | 07/06/92 | $2.0 \times 10^{-09}$ | $3.7 \times 10^{-10}$ |
| Area 23, Mercury | 07/13/92 | $3.7 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 23, Mercury | 07/20/92 | $4.0 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 23, Mercury | 07/27/92 | $4.2 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 23, Mercury | 08/03/92 | $4.6 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 23, Mercury | 08/11/92 | $7.2 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 23, Mercury | 08/17/92 | $5.8 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 23, Mercury | 08/24/92 | $4.9 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 23, Mercury | 08/31/92 | $5.7 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 23, Mercury | 09/08/92 | $4.3 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 23, Mercury | 09/14/92 | $2.5 \times 10^{-09}$ | $3.8 \times 10^{-10}$ |
| Area 23, Mercury | 09/21/92 | $4.3 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 23, Mercury | 09/28/92 | $5.7 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 23, Mercury | 10/05/92 | $4.6 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 23, Mercury | 10/12/92 | $4.9 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 23, Mercury | 10/19/92 | $3.7 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 23, Mercury | 10/26/92 | $2.2 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 23, Mercury | 11/02/92 | $3.8 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 23, Mercury | 11/09/92 | $2.8 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 23, Mercury | 11/16/92 | $2.6 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 23, Mercury | 11/23/92 | $4.3 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 23, Mercury | 11/30/92 | $1.8 \times 10^{-09}$ | $3.7 \times 10^{-10}$ |
| Area 23, Mercury | 12/07/92 | $2.9 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 23, Mercury | 12/15/92 | $3.5 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 23, Mercury | 12/22/92 | $4.0 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 23, Mercury | 12/28/92 | $2.6 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 23, Sewage | 01/16/92 | $1.3 \times 10^{-08}$ | $6.5 \times 10^{-10}$ |
| Area 23, Sewage | 04/21/92 | $8.4 \times 10^{-09}$ | $6.1 \times 10^{-10}$ |
| Area 23, Sewage | 07/14/92 | $1.7 \times 10^{-08}$ | $5.9 \times 10^{-10}$ |
| Area 23, Sewage | 10/14/92 | $1.5 \times 10^{-08}$ | $5.8 \times 10^{-10}$ |
| Area 23, Swimming Pool | 01/16/92 | $3.5 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 23, Swimming Pool | 02/27/92 | $3.2 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 23, Swimming Pool | 03/18/92 | $3.6 \times 10^{-09}$ | $5.7 \times 10^{-10}$ |
| Area 23, Swimming Pool | 04/21/92 | $1.5 \times 10^{-09}$ | $5.1 \times 10^{-10}$ |
| Area 23, Swimming Pool | 05/12/92 | $4.3 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 23, Swimming Pool | 06/04/92 | $4.0 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 23, Swimming Pool | 07/09/92 | $3.1 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 23, Swimming Pool | 08/12/92 | $4.6 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 23, Swimming Pool | 09/02/92 | $3.7 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu\text{Ci/mL}$        Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu\text{Ci/mL}$

Attachment C.5 (Gross Beta in Water - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 23, Swimming Pool | 10/06/92 | $8.8 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 23, Swimming Pool | 11/19/92 | $3.0 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 23, Swimming Pool | 12/03/92 | $3.7 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 25, Building 4221 | 01/21/92 | $6.1 \times 10^{-09}$ | $5.8 \times 10^{-10}$ |
| Area 25, Building 4221 | 01/27/92 | $4.5 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 25, Building 4221 | 02/03/92 | $4.6 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 25, Building 4221 | 02/10/92 | $4.3 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 25, Building 4221 | 02/18/92 | $4.9 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 25, Building 4221 | 02/24/92 | $4.1 \times 10^{-09}$ | $5.1 \times 10^{-10}$ |
| Area 25, Building 4221 | 03/02/92 | $4.5 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 25, Building 4221 | 03/09/92 | $4.9 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 25, Building 4221 | 03/16/92 | $4.8 \times 10^{-09}$ | $5.1 \times 10^{-10}$ |
| Area 25, Building 4221 | 03/24/92 | $5.1 \times 10^{-09}$ | $5.9 \times 10^{-10}$ |
| Area 25, Building 4221 | 03/30/92 | $4.8 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 25, Building 4221 | 04/07/92 | $4.8 \times 10^{-09}$ | $6.0 \times 10^{-10}$ |
| Area 25, Building 4221 | 04/14/92 | $5.6 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 25, Building 4221 | 04/20/92 | $6.0 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 25, Building 4221 | 04/28/92 | $5.6 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 25, Building 4221 | 05/05/92 | $5.9 \times 10^{-09}$ | $5.7 \times 10^{-10}$ |
| Area 25, Building 4221 | 05/11/92 | $5.1 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 25, Building 4221 | 05/18/92 | $4.2 \times 10^{-09}$ | $5.8 \times 10^{-10}$ |
| Area 25, Building 4221 | 05/26/92 | $3.8 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 25, Building 4221 | 06/01/92 | $5.8 \times 10^{-09}$ | $6.0 \times 10^{-10}$ |
| Area 25, Building 4221 | 06/09/92 | $4.1 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 25, Building 4221 | 06/15/92 | $4.5 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 25, Building 4221 | 06/22/92 | $5.0 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 25, Building 4221 | 06/29/92 | $5.0 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 25, Building 4221 | 07/06/92 | $5.1 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 25, Building 4221 | 07/13/92 | $8.4 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 25, Building 4221 | 07/20/92 | $4.2 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 25, Building 4221 | 07/27/92 | $1.8 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 25, Building 4221 | 08/03/92 | $4.1 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 25, Building 4221 | 08/11/92 | $3.6 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 25, Building 4221 | 08/17/92 | $5.0 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 25, Building 4221 | 08/24/92 | $3.9 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 25, Building 4221 | 08/31/92 | $4.5 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 25, Building 4221 | 09/08/92 | $4.2 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 25, Building 4221 | 09/14/92 | $4.1 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 25, Building 4221 | 09/21/92 | $4.5 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 25, Building 4221 | 09/28/92 | $4.3 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 25, Building 4221 | 10/05/92 | $2.8 \times 10^{-09}$ | $3.9 \times 10^{-10}$ |
| Area 25, Building 4221 | 10/12/92 | $4.6 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu$Ci/mL          Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu$Ci/mL

Attachment C.5  (Gross Beta in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 25, Building 4221 | 10/19/92 | $3.1 \times 10^{-09}$ | $3.8 \times 10^{-10}$ |
| Area 25, Building 4221 | 10/26/92 | $3.4 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 25, Building 4221 | 11/02/92 | $4.7 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 25, Building 4221 | 11/09/92 | $3.9 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 25, Building 4221 | 11/16/92 | $3.7 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 25, Building 4221 | 11/23/92 | $4.2 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 25, Building 4221 | 11/30/92 | $3.6 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 25, Building 4221 | 12/07/92 | $4.2 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 25, Building 4221 | 12/15/92 | $4.4 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 25, Building 4221 | 12/22/92 | $4.0 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 25, Building 4221 | 12/28/92 | $3.1 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 25, Well J-11 Reservoir | 01/08/92 | $6.2 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 25, Well J-11 Reservoir | 02/11/92 | $5.2 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 25, Well J-11 Reservoir | 03/10/92 | $5.5 \times 10^{-09}$ | $5.8 \times 10^{-10}$ |
| Area 25, Well J-11 Reservoir | 05/06/92 | $7.0 \times 10^{-09}$ | $6.1 \times 10^{-10}$ |
| Area 25, Well J-11 Reservoir | 06/04/92 | $5.8 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 25, Well J-11 Reservoir | 07/08/92 | $4.7 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 25, Well J-11 Reservoir | 08/12/92 | $6.8 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 25, Well J-11 Reservoir | 09/02/92 | $4.3 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 25, Well J-11 Reservoir | 10/06/92 | $4.0 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 25, Well J-11 Reservoir | 11/18/92 | $6.0 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 25, Well J-11 Reservoir | 12/01/92 | $6.6 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 25, Well J-12 | 05/12/92 | $5.0 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 25, Well J-12 | 06/02/92 | $4.7 \times 10^{-09}$ | $5.2 \times 10^{-10}$ |
| Area 25, Well J-12 | 07/13/92 | $5.0 \times 10^{-09}$ | $4.8 \times 10^{-10}$ |
| Area 25, Well J-12 | 08/04/92 | $4.0 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 25, Well J-12 | 09/01/92 | $4.5 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 25, Well J-12 | 10/05/92 | $4.6 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 25, Well J-12 | 11/09/92 | $4.1 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 25, Well J-12 | 12/02/92 | $4.9 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 25, Well J-12 Reservoir | 01/08/92 | $8.4 \times 10^{-09}$ | $5.7 \times 10^{-10}$ |
| Area 25, Well J-12 Reservoir | 02/11/92 | $7.9 \times 10^{-09}$ | $5.9 \times 10^{-10}$ |
| Area 25, Well J-12 Reservoir | 03/10/92 | $6.4 \times 10^{-09}$ | $5.7 \times 10^{-10}$ |
| Area 25, Well J-12 Reservoir | 04/08/92 | $1.1 \times 10^{-08}$ | $6.6 \times 10^{-10}$ |
| Area 25, Well J-12 Reservoir | 05/06/92 | $8.0 \times 10^{-09}$ | $6.5 \times 10^{-10}$ |
| Area 25, Well J-12 Reservoir | 06/04/92 | $7.7 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 25, Well J-12 Reservoir | 07/08/92 | $6.9 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 25, Well J-12 Reservoir | 08/12/92 | $7.2 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 25, Well J-12 Reservoir | 09/02/92 | $7.5 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 25, Well J-12 Reservoir | 10/06/92 | $5.6 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 25, Well J-12 Reservoir | 11/18/92 | $5.4 \times 10^{-09}$ | $4.4 \times 10^{-10}$ |
| Area 25, Well J-12 Reservoir | 12/01/92 | $7.2 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu$Ci/mL          Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu$Ci/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 25, Well J-13 | 01/22/92 | $4.8 \times 10^{-09}$ | $5.7 \times 10^{-10}$ |
| Area 25, Well J-13 | 02/24/92 | $4.4 \times 10^{-09}$ | $5.1 \times 10^{-10}$ |
| Area 25, Well J-13 | 04/06/92 | $4.5 \times 10^{-09}$ | $5.7 \times 10^{-10}$ |
| Area 25, Well J-13 | 05/12/92 | $3.5 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 25, Well J-13 | 06/02/92 | $4.7 \times 10^{-09}$ | $5.1 \times 10^{-10}$ |
| Area 25, Well J-13 | 07/13/92 | $5.9 \times 10^{-09}$ | $5.0 \times 10^{-10}$ |
| Area 25, Well J-13 | 08/04/92 | $3.1 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 25, Well J-13 | 09/01/92 | $4.6 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 25, Well J-13 | 10/05/92 | $3.8 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 25, Well J-13 | 11/09/92 | $4.0 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 25, Well J-13 | 12/02/92 | $4.9 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 27, Cafeteria | 01/21/92 | $1.2 \times 10^{-08}$ | $6.9 \times 10^{-10}$ |
| Area 27, Cafeteria | 01/27/92 | $1.0 \times 10^{-08}$ | $6.1 \times 10^{-10}$ |
| Area 27, Cafeteria | 02/03/92 | $1.1 \times 10^{-08}$ | $6.2 \times 10^{-10}$ |
| Area 27, Cafeteria | 02/10/92 | $9.1 \times 10^{-09}$ | $6.0 \times 10^{-10}$ |
| Area 27, Cafeteria | 02/18/92 | $1.1 \times 10^{-08}$ | $6.7 \times 10^{-10}$ |
| Area 27, Cafeteria | 02/24/92 | $9.5 \times 10^{-09}$ | $6.2 \times 10^{-10}$ |
| Area 27, Cafeteria | 03/02/92 | $1.2 \times 10^{-08}$ | $6.5 \times 10^{-10}$ |
| Area 27, Cafeteria | 03/09/92 | $9.2 \times 10^{-09}$ | $6.3 \times 10^{-10}$ |
| Area 27, Cafeteria | 03/16/92 | $9.9 \times 10^{-09}$ | $6.0 \times 10^{-10}$ |
| Area 27, Cafeteria | 03/24/92 | $1.0 \times 10^{-08}$ | $6.6 \times 10^{-10}$ |
| Area 27, Cafeteria | 03/30/92 | $1.1 \times 10^{-08}$ | $6.5 \times 10^{-10}$ |
| Area 27, Cafeteria | 04/07/92 | $6.2 \times 10^{-09}$ | $6.2 \times 10^{-10}$ |
| Area 27, Cafeteria | 04/14/92 | $9.3 \times 10^{-09}$ | $6.1 \times 10^{-10}$ |
| Area 27, Cafeteria | 04/20/92 | $8.9 \times 10^{-09}$ | $6.5 \times 10^{-10}$ |
| Area 27, Cafeteria | 04/28/92 | $4.9 \times 10^{-09}$ | $5.7 \times 10^{-10}$ |
| Area 27, Cafeteria | 05/05/92 | $6.6 \times 10^{-09}$ | $6.2 \times 10^{-10}$ |
| Area 27, Cafeteria | 05/11/92 | $6.9 \times 10^{-09}$ | $5.6 \times 10^{-10}$ |
| Area 27, Cafeteria | 05/18/92 | $6.7 \times 10^{-09}$ | $6.3 \times 10^{-10}$ |
| Area 27, Cafeteria | 05/26/92 | $5.9 \times 10^{-09}$ | $6.0 \times 10^{-10}$ |
| Area 27, Cafeteria | 06/01/92 | $6.0 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 27, Cafeteria | 06/09/92 | $5.0 \times 10^{-09}$ | $5.4 \times 10^{-10}$ |
| Area 27, Cafeteria | 06/15/92 | $4.2 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 27, Cafeteria | 06/22/92 | $5.5 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 27, Cafeteria | 06/29/92 | $5.2 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 27, Cafeteria | 07/06/92 | $4.6 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 27, Cafeteria | 07/13/92 | $4.3 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 27, Cafeteria | 07/20/92 | $3.6 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 27, Cafeteria | 07/27/92 | $4.0 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 27, Cafeteria | 08/03/92 | $5.4 \times 10^{-09}$ | $4.5 \times 10^{-10}$ |
| Area 27, Cafeteria | 08/11/92 | $4.7 \times 10^{-09}$ | $4.0 \times 10^{-10}$ |
| Area 27, Cafeteria | 08/17/92 | $5.4 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu$Ci/mL          Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu$Ci/mL

Attachment C.5  (Gross Beta in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 27, Cafeteria | 08/24/92 | $4.7 \times 10^{-09}$ | $4.2 \times 10^{-10}$ |
| Area 27, Cafeteria | 08/31/92 | $5.6 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 27, Cafeteria | 09/08/92 | $5.3 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 27, Cafeteria | 09/14/92 | $4.6 \times 10^{-09}$ | $4.1 \times 10^{-10}$ |
| Area 27, Cafeteria | 09/21/92 | $5.9 \times 10^{-09}$ | $4.3 \times 10^{-10}$ |
| Area 27, Cafeteria | 09/28/92 | $7.0 \times 10^{-09}$ | $8.6 \times 10^{-10}$ |
| Area 27, Cafeteria | 10/05/92 | $7.1 \times 10^{-09}$ | $4.7 \times 10^{-10}$ |
| Area 27, Cafeteria | 10/12/92 | $8.4 \times 10^{-09}$ | $4.9 \times 10^{-10}$ |
| Area 27, Cafeteria | 10/19/92 | $6.6 \times 10^{-09}$ | $4.6 \times 10^{-10}$ |
| Area 29, Topopah Spring | 01/14/92 | $1.1 \times 10^{-08}$ | $5.9 \times 10^{-10}$ |
| Area 29, Topopah Spring | 02/19/92 | $7.4 \times 10^{-09}$ | $5.9 \times 10^{-10}$ |
| Area 29, Topopah Spring | 04/23/92 | $6.7 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 29, Topopah Spring | 05/21/92 | $7.4 \times 10^{-09}$ | $5.5 \times 10^{-10}$ |
| Area 29, Topopah Spring | 06/04/92 | $9.5 \times 10^{-09}$ | $5.9 \times 10^{-10}$ |

Mean MDC: $3.6 \times 10^{-09} \mu Ci/mL$          Standard Deviation of Mean MDC: $7.8 \times 10^{-09} \mu Ci/mL$

## Attachment C.6 Gamma-Emitting Radionuclides in Water - 1992

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 1, Building 101 | 01/21/92 | $8.2 \times 10^{-07}$ | $2.8 \times 10^{-07}$ | $^{214}$Pb |
| Area 1, Building 101 | 01/27/92 | $3.5 \times 10^{-07}$ | $1.9 \times 10^{-07}$ | $^{214}$Bi |
| Area 1, Building 101 | 06/08/92 | $7.6 \times 10^{-07}$ | $5.6 \times 10^{-07}$ | $^{214}$Pb |
| Area 1, Building 101 | 06/15/92 | $7.8 \times 10^{-07}$ | $3.4 \times 10^{-07}$ | $^{214}$Pb |
| Area 1, Building 101 | 07/13/92 | $1.4 \times 10^{-07}$ | $6.1 \times 10^{-08}$ | $^{212}$Pb |
| Area 2, Mud Plant | 11/05/92 | $1.1 \times 10^{-07}$ | $4.7 \times 10^{-08}$ | $^{212}$Pb |
| Area 2, Well 2 Reservoir | 05/07/92 | $2.0 \times 10^{-07}$ | $6.7 \times 10^{-08}$ | $^{212}$Pb |
| Area 2, Well 2 Reservoir | 06/09/92 | $9.3 \times 10^{-08}$ | $4.2 \times 10^{-08}$ | $^{212}$Pb |
| Area 3, Well A Reservoir | 02/05/92 | $1.5 \times 10^{-07}$ | $5.7 \times 10^{-08}$ | $^{212}$Pb |
| Area 3, Well A Reservoir | 06/03/92 | $1.1 \times 10^{-07}$ | $5.1 \times 10^{-08}$ | $^{212}$Pb |
| Area 5, Cane Spring | 07/16/92 | $1.3 \times 10^{-07}$ | $5.8 \times 10^{-08}$ | $^{212}$Pb |
| Area 5, Cane Spring | 10/21/92 | $5.7 \times 10^{-06}$ | $2.2 \times 10^{-06}$ | $^{214}$Pb |
| Area 5, Well 5B Reservoir | 01/06/92 | $5.8 \times 10^{-07}$ | $3.2 \times 10^{-07}$ | $^{214}$Pb |
| Area 5, Well 5C | 02/24/92 | $1.1 \times 10^{-06}$ | $4.5 \times 10^{-07}$ | $^{214}$Pb |
| Area 5, Well UE-5c | 01/22/92 | $1.2 \times 10^{-06}$ | $6.1 \times 10^{-07}$ | $^{214}$Bi |
| Area 5, Well UE-5c | 01/22/92 | $9.3 \times 10^{-07}$ | $4.7 \times 10^{-07}$ | $^{214}$Pb |
| Area 5, Well UE-5c Reservoir | 08/12/92 | $1.6 \times 10^{-07}$ | $5.1 \times 10^{-08}$ | $^{212}$Pb |
| Area 5, Well UE-5c Reservoir | 09/01/92 | $2.6 \times 10^{-07}$ | $9.9 \times 10^{-08}$ | $^{214}$Pb |
| Area 6, Bottled Water | 04/27/92 | $1.3 \times 10^{-07}$ | $6.6 \times 10^{-08}$ | $^{212}$Pb |
| Area 6, Bottled Water | 06/01/92 | $1.3 \times 10^{-07}$ | $4.9 \times 10^{-08}$ | $^{212}$Pb |
| Area 6, Bottled Water | 07/06/92 | $1.7 \times 10^{-07}$ | $6.3 \times 10^{-08}$ | $^{212}$Pb |
| Area 6, Bottled Water | 08/31/92 | $1.7 \times 10^{-07}$ | $6.2 \times 10^{-08}$ | $^{212}$Pb |
| Area 6, Bottled Water | 09/21/92 | $1.2 \times 10^{-07}$ | $6.8 \times 10^{-08}$ | $^{212}$Pb |
| Area 6, Bottled Water | 11/16/92 | $1.1 \times 10^{-07}$ | $4.6 \times 10^{-08}$ | $^{212}$Pb |
| Area 6, Building 6-900 | 08/31/92 | $1.2 \times 10^{-07}$ | $5.3 \times 10^{-08}$ | $^{212}$Pb |
| Area 6, Cafeteria | 01/27/92 | $1.4 \times 10^{-07}$ | $6.8 \times 10^{-08}$ | $^{212}$Pb |
| Area 6, Cafeteria | 01/27/92 | $4.4 \times 10^{-07}$ | $1.7 \times 10^{-07}$ | $^{214}$Bi |
| Area 6, Cafeteria | 05/26/92 | $1.1 \times 10^{-07}$ | $4.3 \times 10^{-08}$ | $^{212}$Pb |
| Area 6, Cafeteria | 06/29/92 | $1.0 \times 10^{-07}$ | $4.5 \times 10^{-08}$ | $^{212}$Pb |
| Area 6, Cafeteria | 08/03/92 | $9.8 \times 10^{-08}$ | $4.2 \times 10^{-08}$ | $^{212}$Pb |
| Area 6, Well C | 01/27/92 | $4.1 \times 10^{-07}$ | $1.8 \times 10^{-07}$ | $^{214}$Pb |
| Area 6, Well C | 05/12/92 | $1.3 \times 10^{-07}$ | $7.0 \times 10^{-08}$ | $^{212}$Pb |
| Area 6, Well C | 06/02/92 | $2.8 \times 10^{-07}$ | $6.8 \times 10^{-08}$ | $^{212}$Pb |
| Area 6, Well C-1 | 01/27/92 | $4.7 \times 10^{-07}$ | $2.0 \times 10^{-07}$ | $^{214}$Pb |
| Area 6, Well C-1 Reservoir | 02/06/92 | $9.4 \times 10^{-08}$ | $5.1 \times 10^{-08}$ | $^{212}$Pb |
| Area 6, Well 4 | 01/27/92 | $6.0 \times 10^{-07}$ | $2.6 \times 10^{-07}$ | $^{214}$Bi |
| Area 6, Well 4 | 01/27/92 | $4.4 \times 10^{-07}$ | $1.8 \times 10^{-07}$ | $^{214}$Pb |
| Area 6, Well 4 | 04/06/92 | $5.5 \times 10^{-06}$ | $2.5 \times 10^{-06}$ | $^{214}$Pb |
| Area 6, Well 4 | 08/04/92 | $1.0 \times 10^{-07}$ | $5.0 \times 10^{-08}$ | $^{212}$Pb |

Mean MDC: $1.2 \times 10^{-06}$ μCi/mL          Standard Deviation of Mean MDC: $1.8 \times 10^{-06}$ μCi/mL

Attachment C.6 (Gamma-Emitting Radionuclides in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
| | | Concentration | Standard Deviation (s) | |
| --- | --- | --- | --- | --- |
| Area 6, Sewage | 10/15/92 | $1.5 \times 10^{-07}$ | $7.1 \times 10^{-08}$ | $^{212}$Pb |
| Area 6, Yucca Pond | 02/12/92 | $9.3 \times 10^{-08}$ | $4.1 \times 10^{-08}$ | $^{212}$Pb |
| Area 7, Reitman Seep | 05/07/92 | $2.2 \times 10^{-05}$ | $1.2 \times 10^{-05}$ | $^{214}$Pb |
| Area 7, Reitman Seep | 06/17/92 | $1.6 \times 10^{-07}$ | $5.6 \times 10^{-08}$ | $^{212}$Pb |
| Area 12, Cafeteria | 02/10/92 | $1.6 \times 10^{-07}$ | $9.2 \times 10^{-08}$ | $^{214}$Pb |
| Area 12, Cafeteria | 02/24/92 | $2.5 \times 10^{-07}$ | $1.4 \times 10^{-07}$ | $^{214}$Pb |
| Area 12, Cafeteria | 02/24/92 | $1.6 \times 10^{-07}$ | $5.6 \times 10^{-08}$ | $^{212}$Pb |
| Area 12, Cafeteria | 02/24/92 | $2.1 \times 10^{-07}$ | $9.9 \times 10^{-08}$ | $^{214}$Bi |
| Area 12, Cafeteria | 03/30/92 | $9.4 \times 10^{-08}$ | $5.1 \times 10^{-08}$ | $^{212}$Pb |
| Area 12, Cafeteria | 06/01/92 | $1.0 \times 10^{-06}$ | $4.9 \times 10^{-07}$ | $^{214}$Pb |
| Area 12, Cafeteria | 08/24/92 | $2.5 \times 10^{-07}$ | $1.1 \times 10^{-07}$ | $^{214}$Pb |
| Area 12, Cafeteria | 09/14/92 | $1.6 \times 10^{-07}$ | $5.7 \times 10^{-08}$ | $^{212}$Pb |
| Area 12, Captain Jack Spring | 01/15/92 | $2.9 \times 10^{-06}$ | $1.7 \times 10^{-06}$ | $^{214}$Bi |
| Area 12, Captain Jack Spring | 02/27/92 | $1.2 \times 10^{-06}$ | $5.2 \times 10^{-07}$ | $^{214}$Bi |
| Area 12, Captain Jack Spring | 02/27/92 | $1.3 \times 10^{-06}$ | $4.4 \times 10^{-07}$ | $^{214}$Pb |
| Area 12, Captain Jack Spring | 03/18/92 | $8.9 \times 10^{-08}$ | $5.4 \times 10^{-08}$ | $^{212}$Pb |
| Area 12, Captain Jack Spring | 05/21/92 | $1.6 \times 10^{-07}$ | $5.2 \times 10^{-08}$ | $^{212}$Pb |
| Area 12, E Tunnel Effluent | 04/09/92 | $6.3 \times 10^{-08}$ | $4.2 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, E Tunnel Pond No. 1 | 07/21/92 | $1.7 \times 10^{-07}$ | $6.8 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, E Tunnel Pond No. 1 | 08/18/92 | $1.5 \times 10^{-07}$ | $6.5 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, E Tunnel Pond No. 1 | 11/18/92 | $7.8 \times 10^{-08}$ | $4.8 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, N Tunnel Effluent | 07/21/92 | $1.3 \times 10^{-06}$ | $5.1 \times 10^{-07}$ | $^{214}$Pb |
| Area 12, N Tunnel Pond No. 2 | 02/12/92 | $1.3 \times 10^{-07}$ | $5.6 \times 10^{-08}$ | $^{212}$Pb |
| Area 12, N Tunnel Pond No. 2 | 02/12/92 | $1.1 \times 10^{-06}$ | $6.3 \times 10^{-07}$ | $^{40}$K |
| Area 12, N Tunnel Pond No. 3 | 11/18/92 | $2.7 \times 10^{-07}$ | $7.3 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Effluent | 01/15/92 | $3.2 \times 10^{-07}$ | $7.5 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Effluent | 02/12/92 | $2.6 \times 10^{-07}$ | $7.0 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Effluent | 03/11/92 | $2.4 \times 10^{-07}$ | $8.4 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Effluent | 04/09/92 | $4.1 \times 10^{-07}$ | $8.3 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Effluent | 05/14/92 | $2.6 \times 10^{-07}$ | $8.3 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Effluent | 06/09/92 | $2.9 \times 10^{-07}$ | $7.2 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Effluent | 07/21/92 | $2.9 \times 10^{-07}$ | $9.0 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Effluent | 07/21/92 | $1.9 \times 10^{-07}$ | $8.8 \times 10^{-08}$ | $^{212}$Pb |
| Area 12, T Tunnel Effluent | 08/18/92 | $3.0 \times 10^{-07}$ | $8.6 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Effluent | 09/03/92 | $2.5 \times 10^{-07}$ | $7.7 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Effluent | 10/20/92 | $2.2 \times 10^{-07}$ | $7.3 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Effluent | 11/18/92 | $1.9 \times 10^{-07}$ | $6.1 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Effluent | 12/02/92 | $2.5 \times 10^{-07}$ | $6.7 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 1 | 02/12/92 | $5.4 \times 10^{-07}$ | $8.8 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 1 | 02/12/92 | $3.0 \times 10^{-07}$ | $9.8 \times 10^{-08}$ | $^{125}$Sb |

Mean MDC: $1.2 \times 10^{-06}$ μCi/mL          Standard Deviation of Mean MDC: $1.8 \times 10^{-06}$ μCi/mL

Attachment C.6  (Gamma-Emitting Radionuclides in Water - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL Concentration | Standard Deviation (s) | Radio-nuclide |
|---|---|---|---|---|
| Area 12, T Tunnel Pond No. 1 | 02/12/92 | $1.5 \times 10^{-06}$ | $4.2 \times 10^{-07}$ | $^{106}$Ru |
| Area 12, T Tunnel Pond No. 1 | 04/09/92 | $1.0 \times 10^{-07}$ | $4.7 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 1 | 05/14/92 | $6.4 \times 10^{-06}$ | $2.6 \times 10^{-06}$ | $^{214}$Pb |
| Area 12, T Tunnel Pond No. 1 | 06/09/92 | $2.2 \times 10^{-07}$ | $6.8 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 2 | 02/12/92 | $1.6 \times 10^{-07}$ | $5.5 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 2 | 03/11/92 | $1.8 \times 10^{-07}$ | $7.5 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 2 | 04/09/92 | $1.7 \times 10^{-07}$ | $5.9 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 2 | 06/09/92 | $1.3 \times 10^{-07}$ | $5.5 \times 10^{-08}$ | $^{212}$Pb |
| Area 12, T Tunnel Pond No. 2 | 06/09/92 | $2.0 \times 10^{-07}$ | $6.3 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 2 | 07/21/92 | $2.6 \times 10^{-07}$ | $7.8 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 2 | 08/18/92 | $1.3 \times 10^{-07}$ | $6.8 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 2 | 09/03/92 | $1.5 \times 10^{-07}$ | $7.1 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 2 | 10/20/92 | $3.1 \times 10^{-07}$ | $1.4 \times 10^{-07}$ | $^{125}$Sb |
| Area 12, T Tunnel Pond No. 2 | 10/20/92 | $1.9 \times 10^{-07}$ | $7.6 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 2 | 11/18/92 | $1.5 \times 10^{-07}$ | $6.1 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 2 | 12/02/92 | $1.1 \times 10^{-07}$ | $4.8 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 3 | 07/21/92 | $9.6 \times 10^{-08}$ | $6.5 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 3 | 08/18/92 | $1.0 \times 10^{-07}$ | $6.6 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 3 | 09/03/92 | $1.1 \times 10^{-06}$ | $5.2 \times 10^{-07}$ | $^{106}$Ru |
| Area 12, T Tunnel Pond No. 3 | 09/03/92 | $1.2 \times 10^{-06}$ | $1.7 \times 10^{-07}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 3 | 10/20/92 | $1.7 \times 10^{-07}$ | $7.9 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, T Tunnel Pond No. 3 | 12/02/92 | $2.2 \times 10^{-07}$ | $6.4 \times 10^{-08}$ | $^{137}$Cs |
| Area 12, White Rock Spring | 01/15/92 | $1.0 \times 10^{-07}$ | $4.2 \times 10^{-08}$ | $^{212}$Pb |
| Area 12, White Rock Spring | 03/05/92 | $2.0 \times 10^{-06}$ | $8.5 \times 10^{-07}$ | $^{214}$Pb |
| Area 12, White Rock Spring | 07/13/92 | $9.6 \times 10^{-07}$ | $3.9 \times 10^{-07}$ | $^{214}$Pb |
| Area 12, White Rock Spring | 09/09/92 | $8.8 \times 10^{-07}$ | $3.4 \times 10^{-07}$ | $^{214}$Bi |
| Area 12, White Rock Spring | 09/09/92 | $7.1 \times 10^{-07}$ | $2.9 \times 10^{-07}$ | $^{214}$Pb |
| Area 16, Tippipah Spring | 04/22/92 | $1.7 \times 10^{-07}$ | $7.6 \times 10^{-08}$ | $^{212}$Pb |
| Area 16, Tippipah Spring | 06/04/92 | $7.7 \times 10^{-07}$ | $3.9 \times 10^{-07}$ | $^{214}$Pb |
| Area 16, Well UE-16d | 01/27/92 | $9.9 \times 10^{-07}$ | $3.6 \times 10^{-07}$ | $^{214}$Bi |
| Area 16, Well UE-16d | 01/27/92 | $8.3 \times 10^{-07}$ | $2.4 \times 10^{-07}$ | $^{214}$Pb |
| Area 16, Well UE-16d | 09/01/92 | $2.3 \times 10^{-06}$ | $9.5 \times 10^{-07}$ | $^{214}$Pb |
| Area 18, Well 8 | 01/27/92 | $5.7 \times 10^{-07}$ | $2.6 \times 10^{-07}$ | $^{214}$Bi |
| Area 18, Well 8 | 01/27/92 | $3.5 \times 10^{-07}$ | $2.1 \times 10^{-07}$ | $^{214}$Pb |
| Area 18, Well 8 | 02/24/92 | $9.8 \times 10^{-07}$ | $6.4 \times 10^{-07}$ | $^{214}$Pb |
| Area 19, Well UE-19c | 02/24/92 | $1.7 \times 10^{-06}$ | $6.2 \times 10^{-07}$ | $^{214}$Pb |
| Area 19, Well UE-19c | 08/04/92 | $2.0 \times 10^{-06}$ | $7.3 \times 10^{-07}$ | $^{214}$Pb |
| Area 19, Well UE-19c Reservoir | 06/02/92 | $9.9 \times 10^{-08}$ | $4.1 \times 10^{-08}$ | $^{212}$Pb |
| Area 20, Well 20 | 06/02/92 | $1.3 \times 10^{-07}$ | $4.9 \times 10^{-08}$ | $^{212}$Pb |
| Area 23, Mercury | 01/21/92 | $8.8 \times 10^{-07}$ | $3.0 \times 10^{-07}$ | $^{214}$Pb |

Mean MDC: $1.2 \times 10^{-06} \mu$Ci/mL          Standard Deviation of Mean MDC: $1.8 \times 10^{-06} \mu$Ci/mL

## Attachment C.6  (Gamma-Emitting Radionuclides in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | | Radio-nuclide |
| | | Concentration | Standard Deviation (s) | |
| --- | --- | --- | --- | --- |
| Area 23, Mercury | 05/11/92 | $1.2 \times 10^{-05}$ | $5.2 \times 10^{-06}$ | $^{214}$Pb |
| Area 23, Mercury | 06/09/92 | $1.3 \times 10^{-07}$ | $4.6 \times 10^{-08}$ | $^{212}$Pb |
| Area 23, Mercury | 06/22/92 | $1.1 \times 10^{-06}$ | $4.7 \times 10^{-07}$ | $^{214}$Pb |
| Area 23, Sewage | 10/14/92 | $1.6 \times 10^{-07}$ | $5.8 \times 10^{-08}$ | $^{212}$Pb |
| Area 25, Building 4221 | 02/24/92 | $1.2 \times 10^{-07}$ | $7.4 \times 10^{-08}$ | $^{212}$Pb |
| Area 25, Building 4221 | 03/16/92 | $3.1 \times 10^{-07}$ | $1.4 \times 10^{-07}$ | $^{214}$Pb |
| Area 25, Building 4221 | 09/21/92 | $1.5 \times 10^{-07}$ | $5.6 \times 10^{-08}$ | $^{212}$Pb |
| Area 25, Well J-12 Reservoir | 08/12/92 | $8.6 \times 10^{-08}$ | $4.8 \times 10^{-08}$ | $^{212}$Pb |
| Area 25, Well J-13 | 02/24/92 | $6.5 \times 10^{-07}$ | $2.8 \times 10^{-07}$ | $^{212}$Pb |
| Area 27, Cafeteria | 01/21/92 | $1.6 \times 10^{-07}$ | $5.6 \times 10^{-08}$ | $^{212}$Pb |
| Area 27, Cafeteria | 02/24/92 | $2.0 \times 10^{-07}$ | $1.2 \times 10^{-07}$ | $^{214}$Pb |
| Area 27, Cafeteria | 03/16/92 | $1.8 \times 10^{-07}$ | $8.6 \times 10^{-08}$ | $^{212}$Pb |
| Area 27, Cafeteria | 06/29/92 | $8.6 \times 10^{-08}$ | $3.9 \times 10^{-08}$ | $^{212}$Pb |
| Area 29, Topopah Spring | 01/14/92 | $1.1 \times 10^{-07}$ | $5.0 \times 10^{-08}$ | $^{212}$Pb |

Mean MDC: $1.2 \times 10^{-06} \mu$Ci/mL          Standard Deviation of Mean MDC: $1.8 \times 10^{-06} \mu$Ci/mL

Attachment C.7 Tritium in Water - 1992

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 1, Building 101 | 01/21/92 | $2.1 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 1, Building 101 | 01/27/92 | $2.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 02/03/92 | $1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 02/10/92 | $2.5 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 1, Building 101 | 02/18/92 | $-1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 02/24/92 | $1.5 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 1, Building 101 | 03/02/92 | $-2.2 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 1, Building 101 | 03/09/92 | $-1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 03/17/92 | $7.1 \times 10^{-08}$ | $1.2 \times 10^{-07}$ |
| Area 1, Building 101 | 03/23/92 | $-1.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 03/30/92 | $-3.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 04/06/92 | $1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 04/13/92 | $9.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 04/20/92 | $1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 04/27/92 | $-1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 05/04/92 | $-2.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 05/11/92 | $1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 05/18/92 | $-9.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 05/26/92 | $2.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 06/01/92 | $4.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 06/08/92 | $-8.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 06/15/92 | $-4.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 06/22/92 | $-1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 06/29/92 | $1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 07/06/92 | $-1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 07/13/92 | $4.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 07/20/92 | $-4.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 07/27/92 | $-2.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 08/03/92 | $-1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 08/10/92 | $-8.1 \times 10^{-08}$ | $2.6 \times 10^{-07}$ |
| Area 1, Building 101 | 08/17/92 | $3.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 08/24/92 | $-3.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 09/01/92 | $-6.5 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 09/08/92 | $-1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 09/14/92 | $1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 09/21/92 | $7.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 09/28/92 | $6.6 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 10/05/92 | $-2.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 10/12/92 | $3.7 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 10/19/92 | $-1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 10/26/92 | $-5.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu$Ci/mL        Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu$Ci/mL

Attachment C.7  (Tritium in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 1, Building 101 | 11/02/92 | $4.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 11/09/92 | $-2.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 11/16/92 | $2.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 11/23/92 | $3.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 11/30/92 | $1.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 1, Building 101 | 12/08/92 | $3.2 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 1, Building 101 | 12/15/92 | $-2.3 \times 10^{-07}$ | $1.6 \times 10^{-07}$ |
| Area 2, Mud Plant | 01/08/92 | $-1.4 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 2, Mud Plant | 02/12/92 | $1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Mud Plant | 03/11/92 | $1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Mud Plant | 04/23/92 | $2.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Mud Plant | 05/07/92 | $1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Mud Plant | 06/09/92 | $-5.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Mud Plant | 07/03/92 | $-5.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Mud Plant | 08/17/92 | $3.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Mud Plant | 09/02/92 | $-3.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Mud Plant | 10/14/92 | $4.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Mud Plant | 11/05/92 | $-2.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Mud Plant | 12/03/92 | $5.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 01/21/92 | $1.3 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 2, Rest Room | 01/27/92 | $6.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 02/03/92 | $1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 02/10/92 | $1.2 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 2, Rest Room | 02/18/92 | $-3.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 02/24/92 | $-2.2 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 2, Rest Room | 03/02/92 | $3.3 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 2, Rest Room | 03/09/92 | $3.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 03/17/92 | $1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 03/23/92 | $-1.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 03/30/92 | $-1.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 04/06/92 | $-2.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 04/13/92 | $4.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 04/20/92 | $5.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 04/27/92 | $-2.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 05/04/92 | $-2.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 05/11/92 | $9.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 05/18/92 | $1.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 05/26/92 | $1.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 06/01/92 | $6.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 06/08/92 | $-4.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 06/15/92 | $7.3 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu Ci/mL$          Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu Ci/mL$

Attachment C.7  (Tritium in Water - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL | |
| | | Concentration | Standard Deviation (s) |
| --- | --- | --- | --- |
| Area 2, Rest Room | 06/22/92 | $2.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 06/29/92 | $2.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 07/06/92 | $-6.7 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 07/13/92 | $5.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 07/20/92 | $3.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 07/27/92 | $-1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 08/03/92 | $1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 08/10/92 | $5.0 \times 10^{-08}$ | $2.6 \times 10^{-07}$ |
| Area 2, Rest Room | 08/17/92 | $2.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 08/24/92 | $4.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 08/31/92 | $-9.8 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 09/08/92 | $1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 09/14/92 | $5.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 09/21/92 | $2.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 09/28/92 | $-2.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 10/05/92 | $-1.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 10/13/92 | $6.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 10/19/92 | $-2.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 10/26/92 | $6.4 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 2, Rest Room | 11/03/92 | $-6.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 11/09/92 | $-7.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 11/16/92 | $-1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 11/23/92 | $-9.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 11/30/92 | $1.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 12/07/92 | $-3.3 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 2, Rest Room | 12/14/92 | $-4.1 \times 10^{-07}$ | $1.6 \times 10^{-07}$ |
| Area 2, Rest Room | 12/22/92 | $-1.2 \times 10^{-07}$ | $1.8 \times 10^{-07}$ |
| Area 2, Rest Room | 12/29/92 | $-2.0 \times 10^{-08}$ | $1.9 \times 10^{-07}$ |
| Area 2, Well 2 Reservoir | 01/08/92 | $-2.4 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 2, Well 2 Reservoir | 02/12/92 | $-1.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Well 2 Reservoir | 03/11/92 | $2.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Well 2 Reservoir | 04/08/92 | $-6.9 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 2, Well 2 Reservoir | 05/07/92 | $1.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Well 2 Reservoir | 06/09/92 | $2.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Well 2 Reservoir | 07/03/92 | $3.5 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 2, Well 2 Reservoir | 08/17/92 | $2.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Well 2 Reservoir | 09/02/92 | $2.7 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Well 2 Reservoir | 10/14/92 | $-8.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 2, Well 2 Reservoir | 11/05/92 | $-1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 2, Well 2 Reservoir | 12/03/92 | $4.7 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 3, Cafeteria | 01/21/92 | $1.9 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu$Ci/mL          Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu$Ci/mL

Attachment C.7  (Tritium in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 3, Cafeteria | 01/27/92 | $1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 3, Cafeteria | 02/03/92 | $2.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 3, Cafeteria | 02/10/92 | $2.4 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 3, Mud Plant | 01/08/92 | $-2.1 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 3, Mud Plant | 02/05/92 | $2.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 3, Mud Plant | 03/04/92 | $2.3 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 3, Mud Plant | 04/08/92 | $3.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 3, Mud Plant | 05/07/92 | $1.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 3, Mud Plant | 06/03/92 | $-9.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 3, Mud Plant | 07/08/92 | $-2.1 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 3, Mud Plant | 08/12/92 | $2.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 3, Mud Plant | 09/01/92 | $1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 3, Mud Plant | 10/21/92 | $3.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 3, Mud Plant | 11/05/92 | $5.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 3, Mud Plant | 12/02/92 | $-1.9 \times 10^{-07}$ | $1.6 \times 10^{-07}$ |
| Area 3, Well A Reservoir | 01/08/92 | $-4.6 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 3, Well A Reservoir | 02/05/92 | $2.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 3, Well A Reservoir | 03/18/92 | $3.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 3, Well A Reservoir | 04/08/92 | $2.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 3, Well A Reservoir | 05/07/92 | $1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 3, Well A Reservoir | 06/03/92 | $-9.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 3, Well A Reservoir | 07/08/92 | $-8.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 3, Well A Reservoir | 08/12/92 | $9.7 \times 10^{-09}$ | $1.2 \times 10^{-07}$ |
| Area 3, Well A Reservoir | 09/01/92 | $-1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 3, Well A Reservoir | 10/15/92 | $-1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 3, Well A Reservoir | 11/10/92 | $-7.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 3, Well A Reservoir | 12/02/92 | $-1.9 \times 10^{-07}$ | $1.6 \times 10^{-07}$ |
| Area 5, Cane Spring | 01/08/92 | $-2.5 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 5, Cane Spring | 02/19/92 | $5.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Cane Spring | 03/17/92 | $-9.7 \times 10^{-09}$ | $1.2 \times 10^{-07}$ |
| Area 5, Cane Spring | 04/08/92 | $-2.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Cane Spring | 05/19/92 | $2.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Cane Spring | 06/04/92 | $-1.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Cane Spring | 07/16/92 | $2.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Cane Spring | 08/19/92 | $-1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Cane Spring | 09/10/92 | $1.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Cane Spring | 10/21/92 | $-1.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Cane Spring | 11/24/92 | $4.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Cane Spring | 12/22/92 | $3.4 \times 10^{-08}$ | $1.9 \times 10^{-07}$ |
| Area 5, Well UE-5c | 01/22/92 | $2.3 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 5, Well UE-5c | 02/24/92 | $-1.0 \times 10^{-09}$ | $4.3 \times 10^{-09}$ |

Mean MDC: $5.4 \times 10^{-07} \mu$Ci/mL          Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu$Ci/mL

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 5, Well UE-5c | 02/24/92 | $4.8 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 5, Well UE-5c | 05/12/92 | $-1.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well UE-5c | 06/02/92 | $-2.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well UE-5c | 07/13/92 | $-1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well UE-5c | 08/04/92 | $3.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well UE-5c | 09/01/92 | $-4.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well UE-5c | 11/09/92 | $-5.7 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well UE-5c | 12/02/92 | $2.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well UE-5c Reservoir | 01/06/92 | $-2.1 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 5, Well UE-5c Reservoir | 02/06/92 | $2.1 \times 10^{-07}$ | $1.2 \times 10^{-07}$ |
| Area 5, Well UE-5c Reservoir | 03/04/92 | $-1.2 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 5, Well UE-5c Reservoir | 04/08/92 | $-4.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well UE-5c Reservoir | 05/06/92 | $1.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well UE-5c Reservoir | 06/03/92 | $-2.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well UE-5c Reservoir | 07/08/92 | $-1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well UE-5c Reservoir | 08/12/92 | $1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well UE-5c Reservoir | 09/01/92 | $4.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well UE-5c Reservoir | 10/06/92 | $-1.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well UE-5c Reservoir | 11/18/92 | $1.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well UE-5c Reservoir | 12/03/92 | $-2.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well 5B | 08/04/92 | $1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well 5B | 10/05/92 | $-2.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well 5B | 10/05/92 | $3.9 \times 10^{-09}$ | $6.6 \times 10^{-09}$ |
| Area 5, Well 5B Reservoir | 01/06/92 | $-1.9 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 5, Well 5B Reservoir | 02/10/92 | $1.4 \times 10^{-07}$ | $1.2 \times 10^{-07}$ |
| Area 5, Well 5B Reservoir | 03/04/92 | $1.8 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 5, Well 5B Reservoir | 04/08/92 | $-2.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well 5B Reservoir | 05/06/92 | $-2.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well 5B Reservoir | 06/03/92 | $-2.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well 5B Reservoir | 07/08/92 | $-1.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well 5B Reservoir | 08/12/92 | $7.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well 5B Reservoir | 09/01/92 | $-1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well 5B Reservoir | 10/06/92 | $-9.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well 5B Reservoir | 11/18/92 | $-9.6 \times 10^{-08}$ | $1.2 \times 10^{-07}$ |
| Area 5, Well 5B Reservoir | 12/03/92 | $2.3 \times 10^{-10}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well 5C | 01/22/92 | $2.0 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 5, Well 5C | 02/24/92 | $-4.1 \times 10^{-09}$ | $4.2 \times 10^{-09}$ |
| Area 5, Well 5C | 02/24/92 | $1.4 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 5, Well 5C | 04/06/92 | $-1.4 \times 10^{-07}$ | $1.2 \times 10^{-07}$ |
| Area 5, Well 5C | 04/06/92 | $-3.0 \times 10^{-10}$ | $4.2 \times 10^{-09}$ |
| Area 5, Well 5C | 05/12/92 | $-8.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu Ci/mL$        Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu Ci/mL$

Attachment C.7  (Tritium in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 5, Well 5C | 06/02/92 | $4.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well 5C | 07/13/92 | $-1.8 \times 10^{-09}$ | $4.1 \times 10^{-09}$ |
| Area 5, Well 5C | 07/13/92 | $1.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well 5C | 08/04/92 | $2.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well 5C | 09/01/92 | $8.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well 5C | 10/05/92 | $-2.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well 5C | 10/05/92 | $-2.4 \times 10^{-08}$ | $6.6 \times 10^{-09}$ |
| Area 5, Well 5C | 11/09/92 | $7.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 5, Well 5C | 12/02/92 | $4.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 01/21/92 | $1.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 01/27/92 | $7.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 02/03/92 | $3.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 02/10/92 | $1.6 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 6, Bottled Water | 02/18/92 | $-5.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 02/24/92 | $-9.0 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 6, Bottled Water | 03/02/92 | $7.8 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 6, Bottled Water | 03/09/92 | $-1.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 03/17/92 | $3.6 \times 10^{-08}$ | $1.2 \times 10^{-07}$ |
| Area 6, Bottled Water | 03/23/92 | $-3.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 03/30/92 | $-2.4 \times 10^{-07}$ | $1.2 \times 10^{-07}$ |
| Area 6, Bottled Water | 04/06/92 | $1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 04/13/92 | $5.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 04/20/92 | $3.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 04/27/92 | $-2.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 05/04/92 | $-1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 05/11/92 | $2.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 05/18/92 | $-1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 05/26/92 | $1.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 06/01/92 | $-3.5 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 06/08/92 | $-9.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 06/15/92 | $-5.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 06/22/92 | $-7.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 06/29/92 | $5.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 07/06/92 | $-1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 07/13/92 | $8.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 07/20/92 | $4.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 07/27/92 | $-1.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 08/03/92 | $2.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 08/10/92 | $-1.4 \times 10^{-07}$ | $2.6 \times 10^{-07}$ |
| Area 6, Bottled Water | 08/17/92 | $2.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 08/24/92 | $5.2 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu$Ci/mL          Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu$Ci/mL

Attachment C.7  (Tritium in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 6, Bottled Water | 08/31/92 | $3.3 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 09/08/92 | $-6.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 09/14/92 | $-7.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 09/21/92 | $2.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 09/28/92 | $-4.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 10/05/92 | $-1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 10/13/92 | $-1.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 10/19/92 | $-7.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 10/26/92 | $-4.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 11/03/92 | $-2.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 11/09/92 | $-3.0 \times 10^{-07}$ | $1.6 \times 10^{-07}$ |
| Area 6, Bottled Water | 11/16/92 | $4.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 11/23/92 | $1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 11/30/92 | $6.6 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 6, Bottled Water | 12/07/92 | $2.8 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 6, Bottled Water | 12/14/92 | $1.0 \times 10^{-07}$ | $1.7 \times 10^{-07}$ |
| Area 6, Bottled Water | 12/22/92 | $-2.4 \times 10^{-07}$ | $1.8 \times 10^{-07}$ |
| Area 6, Bottled Water | 12/29/92 | $-2.5 \times 10^{-07}$ | $1.9 \times 10^{-07}$ |
| Area 6, Building 6-900 | 06/29/92 | $-6.5 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 07/06/92 | $6.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 07/13/92 | $-1.4 \times 10^{-07}$ | $1.2 \times 10^{-07}$ |
| Area 6, Building 6-900 | 07/20/92 | $-3.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 07/27/92 | $-3.1 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 08/03/92 | $1.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 08/10/92 | $9.3 \times 10^{-08}$ | $2.6 \times 10^{-07}$ |
| Area 6, Building 6-900 | 08/17/92 | $2.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 08/24/92 | $-1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 08/31/92 | $9.8 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 09/08/92 | $-1.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 09/14/92 | $-1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 09/21/92 | $7.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 09/28/92 | $-1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 10/05/92 | $-2.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 10/13/92 | $-4.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 10/19/92 | $-3.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 10/26/92 | $-1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 11/03/92 | $2.4 \times 10^{-10}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 11/09/92 | $-2.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 11/16/92 | $-5.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 11/23/92 | $1.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 11/30/92 | $9.9 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu\text{Ci/mL}$          Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu\text{Ci/mL}$

Attachment C.7 (Tritium in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 6, Building 6-900 | 12/07/92 | $-3.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Building 6-900 | 12/14/92 | $6.2 \times 10^{-08}$ | $1.7 \times 10^{-07}$ |
| Area 6, Building 6-900 | 12/22/92 | $-1.6 \times 10^{-07}$ | $1.8 \times 10^{-07}$ |
| Area 6, Building 6-900 | 12/29/92 | $-2.0 \times 10^{-08}$ | $1.9 \times 10^{-07}$ |
| Area 6, Cafeteria | 01/21/92 | $1.2 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 6, Cafeteria | 01/27/92 | $9.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 02/03/92 | $-9.4 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 02/10/92 | $2.4 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 6, Cafeteria | 02/18/92 | $-1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 02/24/92 | $3.8 \times 10^{-09}$ | $1.4 \times 10^{-07}$ |
| Area 6, Cafeteria | 03/02/92 | $9.6 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 6, Cafeteria | 03/09/92 | $7.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 03/17/92 | $9.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 03/23/92 | $-2.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 03/30/92 | $-1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 04/06/92 | $1.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 04/13/92 | $2.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 04/20/92 | $2.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 04/27/92 | $-4.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 05/04/92 | $-1.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 05/11/92 | $6.2 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 05/18/92 | $1.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 05/26/92 | $1.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 06/01/92 | $2.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 06/08/92 | $-4.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 06/15/92 | $1.5 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 6, Cafeteria | 06/22/92 | $6.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 06/29/92 | $2.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 07/06/92 | $6.7 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 07/13/92 | $8.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 07/20/92 | $-1.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 07/27/92 | $9.4 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 08/03/92 | $4.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 08/10/92 | $-3.1 \times 10^{-08}$ | $2.6 \times 10^{-07}$ |
| Area 6, Cafeteria | 08/17/92 | $1.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 08/24/92 | $-1.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 08/31/92 | $5.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 09/08/92 | $-3.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 09/14/92 | $1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 09/21/92 | $3.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 09/28/92 | $9.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu Ci/mL$          Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu Ci/mL$

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 6, Cafeteria | 10/05/92 | $-1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 10/13/92 | $3.3 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 10/19/92 | $3.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 10/26/92 | $-4.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 11/03/92 | $-9.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 11/09/92 | $9.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 11/16/92 | $-1.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 11/23/92 | $4.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 11/30/92 | $-2.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 12/07/92 | $3.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Cafeteria | 12/14/92 | $-2.3 \times 10^{-07}$ | $1.6 \times 10^{-07}$ |
| Area 6, Cafeteria | 12/22/92 | $-1.6 \times 10^{-07}$ | $1.8 \times 10^{-07}$ |
| Area 6, Cafeteria | 12/29/92 | $-4.0 \times 10^{-08}$ | $1.9 \times 10^{-07}$ |
| Area 6, Sewage | 01/15/92 | $2.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Sewage | 04/23/92 | $-1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Sewage | 07/14/92 | $-5.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Sewage | 10/15/92 | $-1.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C | 01/27/92 | $3.0 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 6, Well C | 02/24/92 | $5.3 \times 10^{-09}$ | $4.5 \times 10^{-09}$ |
| Area 6, Well C | 02/24/92 | $1.5 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 6, Well C | 04/06/92 | $7.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C | 04/06/92 | $2.3 \times 10^{-08}$ | $4.5 \times 10^{-09}$ |
| Area 6, Well C | 05/12/92 | $2.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C | 06/02/92 | $-4.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C | 07/13/92 | $1.5 \times 10^{-08}$ | $4.4 \times 10^{-09}$ |
| Area 6, Well C | 07/13/92 | $1.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C | 08/04/92 | $3.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C | 09/01/92 | $2.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C | 10/05/92 | $-9.1 \times 10^{-09}$ | $6.8 \times 10^{-09}$ |
| Area 6, Well C | 10/05/92 | $-1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C | 11/09/92 | $2.8 \times 10^{-08}$ | $1.2 \times 10^{-07}$ |
| Area 6, Well C | 12/02/92 | $1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C-1 | 01/27/92 | $2.0 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 6, Well C-1 | 02/24/92 | $1.2 \times 10^{-09}$ | $4.5 \times 10^{-09}$ |
| Area 6, Well C-1 | 02/24/92 | $1.3 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 6, Well C-1 | 04/06/92 | $4.3 \times 10^{-09}$ | $4.2 \times 10^{-09}$ |
| Area 6, Well C-1 | 04/06/92 | $3.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C-1 | 05/12/92 | $2.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C-1 | 06/02/92 | $-4.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C-1 | 07/13/92 | $5.2 \times 10^{-09}$ | $4.2 \times 10^{-09}$ |
| Area 6, Well C-1 | 07/13/92 | $1.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu$Ci/mL          Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu$Ci/mL

Attachment C.7  (Tritium in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 6, Well C-1 | 08/04/92 | $1.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C-1 | 09/01/92 | $7.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C-1 | 10/05/92 | $-7.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C-1 | 10/05/92 | $-1.7 \times 10^{-08}$ | $6.7 \times 10^{-09}$ |
| Area 6, Well C-1 | 11/09/92 | $1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C-1 | 12/02/92 | $-1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C-1 Reservoir | 01/07/92 | $-7.8 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 6, Well C-1 Reservoir | 02/06/92 | $2.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C-1 Reservoir | 03/04/92 | $-4.1 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 6, Well C-1 Reservoir | 04/08/92 | $1.7 \times 10^{-07}$ | $1.2 \times 10^{-07}$ |
| Area 6, Well C-1 Reservoir | 05/06/92 | $4.7 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C-1 Reservoir | 06/03/92 | $-1.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C-1 Reservoir | 07/09/92 | $7.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C-1 Reservoir | 08/12/92 | $1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C-1 Reservoir | 09/01/92 | $2.3 \times 10^{-10}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C-1 Reservoir | 10/06/92 | $-6.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C-1 Reservoir | 11/19/92 | $-6.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well C-1 Reservoir | 12/22/92 | $-2.6 \times 10^{-07}$ | $1.8 \times 10^{-07}$ |
| Area 6, Well 3 Reservoir | 01/08/92 | $2.5 \times 10^{-10}$ | $1.4 \times 10^{-07}$ |
| Area 6, Well 3 Reservoir | 02/05/92 | $2.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well 3 Reservoir | 03/04/92 | $8.1 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 6, Well 3 Reservoir | 04/08/92 | $1.5 \times 10^{-07}$ | $1.2 \times 10^{-07}$ |
| Area 6, Well 3 Reservoir | 05/06/92 | $-6.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well 3 Reservoir | 06/03/92 | $-2.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well 3 Reservoir | 07/03/92 | $-1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well 3 Reservoir | 08/12/92 | $9.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well 3 Reservoir | 09/01/92 | $-1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well 3 Reservoir | 10/15/92 | $-1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well 3 Reservoir | 11/05/92 | $-2.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well 3 Reservoir | 12/03/92 | $-4.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well 4 | 01/27/92 | $2.0 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 6, Well 4 | 02/24/92 | $-1.2 \times 10^{-09}$ | $4.3 \times 10^{-09}$ |
| Area 6, Well 4 | 02/24/92 | $1.2 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 6, Well 4 | 04/06/92 | $4.4 \times 10^{-10}$ | $4.2 \times 10^{-09}$ |
| Area 6, Well 4 | 04/06/92 | $6.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well 4 | 05/12/92 | $-1.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well 4 | 06/02/92 | $-8.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well 4 | 07/13/92 | $-1.9 \times 10^{-09}$ | $4.2 \times 10^{-09}$ |
| Area 6, Well 4 | 07/13/92 | $1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well 4 | 08/04/92 | $1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well 4 | 09/01/92 | $1.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu$Ci/mL          Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu$Ci/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 6, Well 4 | 10/05/92 | $-6.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well 4 | 10/05/92 | $-2.3 \times 10^{-08}$ | $6.6 \times 10^{-09}$ |
| Area 6, Well 4 | 11/09/92 | $1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Well 4 | 12/02/92 | $-1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 6, Yucca Pond | 01/15/92 | $3.8 \times 10^{-06}$ | $1.8 \times 10^{-07}$ |
| Area 6, Yucca Pond | 02/12/92 | $2.3 \times 10^{-06}$ | $1.6 \times 10^{-07}$ |
| Area 6, Yucca Pond | 03/11/92 | $3.1 \times 10^{-06}$ | $1.6 \times 10^{-07}$ |
| Area 6, Yucca Pond | 04/27/92 | $2.7 \times 10^{-06}$ | $1.6 \times 10^{-07}$ |
| Area 6, Yucca Pond | 05/14/92 | $2.3 \times 10^{-06}$ | $1.5 \times 10^{-07}$ |
| Area 6, Yucca Pond | 06/03/92 | $2.2 \times 10^{-06}$ | $1.6 \times 10^{-07}$ |
| Area 6, Yucca Pond | 07/09/92 | $1.9 \times 10^{-06}$ | $1.5 \times 10^{-07}$ |
| Area 6, Yucca Pond | 08/20/92 | $1.9 \times 10^{-06}$ | $1.5 \times 10^{-07}$ |
| Area 6, Yucca Pond | 09/02/92 | $1.7 \times 10^{-06}$ | $1.5 \times 10^{-07}$ |
| Area 6, Yucca Pond | 10/06/92 | $1.4 \times 10^{-06}$ | $1.4 \times 10^{-07}$ |
| Area 6, Yucca Pond | 11/19/92 | $1.2 \times 10^{-06}$ | $1.7 \times 10^{-07}$ |
| Area 6, Yucca Pond | 11/19/92 | $2.7 \times 10^{-06}$ | $1.6 \times 10^{-07}$ |
| Area 6, Yucca Pond | 12/03/92 | $8.4 \times 10^{-07}$ | $3.7 \times 10^{-07}$ |
| Area 6, Yucca Pond | 12/03/92 | $9.8 \times 10^{-07}$ | $1.7 \times 10^{-07}$ |
| Area 7, Reitman Seep | 01/15/92 | $5.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 7, Reitman Seep | 02/12/92 | $-2.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 7, Reitman Seep | 04/08/92 | $-9.7 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 7, Reitman Seep | 05/07/92 | $1.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 7, Reitman Seep | 06/17/92 | $6.9 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 7, Reitman Seep | 09/09/92 | $1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 7, Reitman Seep | 11/17/92 | $8.8 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 7, Reitman Seep | 12/02/92 | $-3.4 \times 10^{-07}$ | $1.6 \times 10^{-07}$ |
| Area 12, Cafeteria | 01/21/92 | $4.2 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 12, Cafeteria | 01/27/92 | $2.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 02/03/92 | $1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 02/10/92 | $1.0 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 12, Cafeteria | 02/18/92 | $-1.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 02/24/92 | $-3.4 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 12, Cafeteria | 03/02/92 | $1.9 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 12, Cafeteria | 03/09/92 | $-2.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 03/17/92 | $-2.9 \times 10^{-08}$ | $1.2 \times 10^{-07}$ |
| Area 12, Cafeteria | 03/23/92 | $-6.7 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 03/30/92 | $-1.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 04/06/92 | $-5.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 04/13/92 | $2.7 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 04/20/92 | $1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 04/27/92 | $-5.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu$Ci/mL          Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu$Ci/mL

Attachment C.7  (Tritium in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 12, Cafeteria | 05/04/92 | $-1.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 05/11/92 | $2.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 05/18/92 | $4.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 05/26/92 | $1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 06/01/92 | $6.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 06/08/92 | $-3.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 06/15/92 | $-1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 06/22/92 | $-5.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 06/29/92 | $1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 07/06/92 | $3.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 07/13/92 | $-1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 07/20/92 | $1.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 07/27/92 | $7.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 08/03/92 | $6.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 08/10/92 | $-5.0 \times 10^{-07}$ | $2.5 \times 10^{-07}$ |
| Area 12, Cafeteria | 08/17/92 | $2.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 08/24/92 | $-1.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 09/01/92 | $2.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 09/08/92 | $2.3 \times 10^{-10}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 09/14/92 | $8.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 09/21/92 | $1.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 09/28/92 | $-3.3 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 10/05/92 | $-5.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 10/12/92 | $3.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 10/19/92 | $2.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 10/26/92 | $5.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 11/02/92 | $-1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 11/09/92 | $-6.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 11/16/92 | $-9.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 11/23/92 | $2.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 11/30/92 | $-1.6 \times 10^{-07}$ | $1.2 \times 10^{-07}$ |
| Area 12, Cafeteria | 12/08/92 | $7.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Cafeteria | 12/15/92 | $-1.7 \times 10^{-07}$ | $1.6 \times 10^{-07}$ |
| Area 12, Cafeteria | 12/22/92 | $-6.8 \times 10^{-08}$ | $1.8 \times 10^{-07}$ |
| Area 12, Captain Jack Spring | 01/15/92 | $3.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Captain Jack Spring | 02/27/92 | $-1.7 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Captain Jack Spring | 03/18/92 | $7.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Captain Jack Spring | 04/23/92 | $1.3 \times 10^{-07}$ | $1.2 \times 10^{-07}$ |
| Area 12, Captain Jack Spring | 05/21/92 | $1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Captain Jack Spring | 06/11/92 | $-5.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Captain Jack Spring | 07/15/92 | $-7.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu$Ci/mL        Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu$Ci/mL

| Sampling Location | Collection Dates | Concentration | Standard Deviation (s) |
|---|---|---|---|
| | | $\mu$Ci/mL | |
| Area 12, Captain Jack Spring | 08/12/92 | $1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Captain Jack Spring | 09/09/92 | $-9.8 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 12, Captain Jack Spring | 10/21/92 | $-1.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Captain Jack Spring | 11/24/92 | $1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, E Tunnel Effluent | 01/15/92 | $2.2 \times 10^{-03}$ | $2.8 \times 10^{-06}$ |
| Area 12, E Tunnel Effluent | 02/12/92 | $1.7 \times 10^{-03}$ | $2.4 \times 10^{-06}$ |
| Area 12, E Tunnel Effluent | 03/11/92 | $2.2 \times 10^{-03}$ | $2.7 \times 10^{-06}$ |
| Area 12, E Tunnel Effluent | 04/09/92 | $2.1 \times 10^{-03}$ | $2.7 \times 10^{-06}$ |
| Area 12, E Tunnel Effluent | 05/12/92 | $2.0 \times 10^{-03}$ | $2.5 \times 10^{-06}$ |
| Area 12, E Tunnel Effluent | 06/09/92 | $2.1 \times 10^{-03}$ | $2.7 \times 10^{-06}$ |
| Area 12, E Tunnel Effluent | 07/21/92 | $2.1 \times 10^{-03}$ | $2.5 \times 10^{-06}$ |
| Area 12, E Tunnel Effluent | 08/27/92 | $2.0 \times 10^{-03}$ | $2.6 \times 10^{-06}$ |
| Area 12, E Tunnel Effluent | 09/03/92 | $2.0 \times 10^{-03}$ | $2.6 \times 10^{-06}$ |
| Area 12, E Tunnel Effluent | 10/20/92 | $2.0 \times 10^{-03}$ | $2.5 \times 10^{-06}$ |
| Area 12, E Tunnel Effluent | 11/18/92 | $1.6 \times 10^{-03}$ | $2.6 \times 10^{-06}$ |
| Area 12, E Tunnel Effluent | 11/18/92 | $2.0 \times 10^{-03}$ | $2.6 \times 10^{-06}$ |
| Area 12, E Tunnel Effluent | 12/02/92 | $2.0 \times 10^{-03}$ | $6.9 \times 10^{-06}$ |
| Area 12, E Tunnel Pond No. 1 | 07/21/92 | $2.0 \times 10^{-03}$ | $2.5 \times 10^{-06}$ |
| Area 12, E Tunnel Pond No. 1 | 08/18/92 | $1.9 \times 10^{-03}$ | $2.4 \times 10^{-06}$ |
| Area 12, E Tunnel Pond No. 1 | 09/03/92 | $2.0 \times 10^{-03}$ | $2.6 \times 10^{-06}$ |
| Area 12, E Tunnel Pond No. 1 | 10/20/92 | $1.9 \times 10^{-03}$ | $2.5 \times 10^{-06}$ |
| Area 12, E Tunnel Pond No. 1 | 11/18/92 | $2.0 \times 10^{-03}$ | $2.6 \times 10^{-06}$ |
| Area 12, Gold Meadows Spring | 04/08/92 | $2.4 \times 10^{-10}$ | $1.3 \times 10^{-07}$ |
| Area 12, Gold Meadows Spring | 05/21/92 | $-6.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Gold Meadows Spring | 06/03/92 | $1.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, Gold Meadows Spring | 08/19/92 | $1.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Gold Meadows Spring | 09/02/92 | $3.7 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, N Tunnel Effluent | 01/15/92 | $2.9 \times 10^{-04}$ | $1.0 \times 10^{-06}$ |
| Area 12, N Tunnel Effluent | 02/12/92 | $2.5 \times 10^{-04}$ | $9.3 \times 10^{-07}$ |
| Area 12, N Tunnel Effluent | 03/11/92 | $3.6 \times 10^{-02}$ | $1.1 \times 10^{-06}$ |
| Area 12, N Tunnel Effluent | 04/09/92 | $3.6 \times 10^{-04}$ | $1.1 \times 10^{-06}$ |
| Area 12, N Tunnel Effluent | 05/12/92 | $3.3 \times 10^{-04}$ | $1.0 \times 10^{-06}$ |
| Area 12, N Tunnel Effluent | 06/16/92 | $8.6 \times 10^{-04}$ | $1.7 \times 10^{-06}$ |
| Area 12, N Tunnel Effluent | 06/16/92 | $8.8 \times 10^{-04}$ | $1.7 \times 10^{-06}$ |
| Area 12, N Tunnel Effluent | 07/21/92 | $4.3 \times 10^{-04}$ | $1.2 \times 10^{-06}$ |
| Area 12, N Tunnel Effluent | 08/18/92 | $5.2 \times 10^{-04}$ | $1.3 \times 10^{-06}$ |
| Area 12, N Tunnel Effluent | 09/03/92 | $4.3 \times 10^{-05}$ | $4.0 \times 10^{-07}$ |
| Area 12, N Tunnel Effluent | 10/20/92 | $1.5 \times 10^{-04}$ | $6.9 \times 10^{-07}$ |
| Area 12, N Tunnel Effluent | 11/18/92 | $1.4 \times 10^{-03}$ | $2.2 \times 10^{-06}$ |
| Area 12, N Tunnel Effluent | 11/18/92 | $1.1 \times 10^{-03}$ | $2.1 \times 10^{-06}$ |
| Area 12, N Tunnel Effluent | 12/02/92 | $1.5 \times 10^{-04}$ | $8.2 \times 10^{-06}$ |

Mean MDC: $5.4 \times 10^{-07} \mu$Ci/mL          Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu$Ci/mL

Attachment C.7  (Tritium in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 12, N Tunnel Effluent | 12/02/92 | $2.0 \times 10^{-04}$ | $2.2 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 1 | 01/15/92 | $3.5 \times 10^{-04}$ | $1.1 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 1 | 04/09/92 | $4.9 \times 10^{-04}$ | $1.3 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 1 | 05/12/92 | $3.3 \times 10^{-04}$ | $1.0 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 1 | 06/16/92 | $4.1 \times 10^{-04}$ | $1.2 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 2 | 02/12/92 | $8.5 \times 10^{-05}$ | $5.5 \times 10^{-07}$ |
| Area 12, N Tunnel Pond No. 2 | 03/11/92 | $2.6 \times 10^{-04}$ | $9.3 \times 10^{-07}$ |
| Area 12, N Tunnel Pond No. 2 | 04/09/92 | $4.0 \times 10^{-04}$ | $1.2 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 2 | 05/12/92 | $4.7 \times 10^{-04}$ | $1.2 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 2 | 06/16/92 | $4.2 \times 10^{-04}$ | $1.2 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 2 | 07/21/92 | $3.5 \times 10^{-04}$ | $1.1 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 2 | 08/18/92 | $5.1 \times 10^{-04}$ | $1.3 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 2 | 09/03/92 | $4.4 \times 10^{-04}$ | $1.2 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 2 | 10/20/92 | $2.1 \times 10^{-03}$ | $2.5 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 2 | 11/18/92 | $1.5 \times 10^{-03}$ | $2.2 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 2 | 11/18/92 | $1.1 \times 10^{-03}$ | $2.2 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 2 | 12/02/92 | $2.8 \times 10^{-04}$ | $2.6 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 3 | 02/12/92 | $9.9 \times 10^{-05}$ | $6.0 \times 10^{-07}$ |
| Area 12, N Tunnel Pond No. 3 | 03/11/92 | $2.7 \times 10^{-04}$ | $9.5 \times 10^{-07}$ |
| Area 12, N Tunnel Pond No. 3 | 04/09/92 | $4.8 \times 10^{-04}$ | $1.3 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 3 | 05/12/92 | $4.3 \times 10^{-04}$ | $1.2 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 3 | 06/16/92 | $2.7 \times 10^{-04}$ | $9.7 \times 10^{-07}$ |
| Area 12, N Tunnel Pond No. 3 | 07/21/92 | $3.6 \times 10^{-04}$ | $1.1 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 3 | 08/18/92 | $5.1 \times 10^{-04}$ | $1.3 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 3 | 09/03/92 | $4.4 \times 10^{-04}$ | $1.2 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 3 | 10/20/92 | $2.3 \times 10^{-03}$ | $2.7 \times 10^{-06}$ |
| Area 12, N Tunnel Pond No. 3 | 11/18/92 | $5.2 \times 10^{-02}$ | $8.2 \times 10^{-05}$ |
| Area 12, Sewage Pond | 01/08/92 | $-8.5 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 12, Sewage Pond | 04/22/92 | $4.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Sewage Pond | 07/21/92 | $1.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, Sewage Pond | 10/27/92 | $9.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, T Tunnel Effluent | 01/15/92 | $1.8 \times 10^{-04}$ | $1.3 \times 10^{-06}$ |
| Area 12, T Tunnel Effluent | 02/12/92 | $6.3 \times 10^{-02}$ | $1.5 \times 10^{-04}$ |
| Area 12, T Tunnel Effluent | 03/11/92 | $5.7 \times 10^{-02}$ | $1.1 \times 10^{-04}$ |
| Area 12, T Tunnel Effluent | 04/09/92 | $6.4 \times 10^{-02}$ | $1.0 \times 10^{-04}$ |
| Area 12, T Tunnel Effluent | 05/14/92 | $5.8 \times 10^{-02}$ | $9.2 \times 10^{-05}$ |
| Area 12, T Tunnel Effluent | 06/09/92 | $5.6 \times 10^{-02}$ | $8.9 \times 10^{-05}$ |
| Area 12, T Tunnel Effluent | 07/21/92 | $3.0 \times 10^{-02}$ | $4.7 \times 10^{-05}$ |
| Area 12, T Tunnel Effluent | 08/18/92 | $6.2 \times 10^{-02}$ | $9.8 \times 10^{-05}$ |
| Area 12, T Tunnel Effluent | 09/03/92 | $5.8 \times 10^{-02}$ | $9.1 \times 10^{-05}$ |
| Area 12, T Tunnel Effluent | 10/20/92 | $3.7 \times 10^{-02}$ | $5.8 \times 10^{-05}$ |

Mean MDC: $5.4 \times 10^{-07} \mu Ci/mL$         Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu Ci/mL$

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 12, T Tunnel Effluent | 10/20/92 | $1.2 \times 10^{-02}$ | $2.0 \times 10^{-05}$ |
| Area 12, T Tunnel Effluent | 11/18/92 | $4.1 \times 10^{-02}$ | $6.4 \times 10^{-05}$ |
| Area 12, T Tunnel Effluent | 11/18/92 | $4.6 \times 10^{-02}$ | $7.3 \times 10^{-05}$ |
| Area 12, T Tunnel Effluent | 12/02/92 | $6.1 \times 10^{-02}$ | $1.2 \times 10^{-04}$ |
| Area 12, T Tunnel Pond No. 1 | 02/12/92 | $6.1 \times 10^{-02}$ | $1.4 \times 10^{-04}$ |
| Area 12, T Tunnel Pond No. 1 | 03/11/92 | $5.7 \times 10^{-02}$ | $1.1 \times 10^{-04}$ |
| Area 12, T Tunnel Pond No. 1 | 04/09/92 | $5.7 \times 10^{-02}$ | $8.9 \times 10^{-05}$ |
| Area 12, T Tunnel Pond No. 1 | 05/14/92 | $5.8 \times 10^{-02}$ | $9.2 \times 10^{-05}$ |
| Area 12, T Tunnel Pond No. 1 | 06/09/92 | $5.3 \times 10^{-02}$ | $8.4 \times 10^{-05}$ |
| Area 12, T Tunnel Pond No. 2 | 02/12/92 | $4.9 \times 10^{-02}$ | $1.3 \times 10^{-04}$ |
| Area 12, T Tunnel Pond No. 2 | 03/11/92 | $5.7 \times 10^{-02}$ | $1.1 \times 10^{-04}$ |
| Area 12, T Tunnel Pond No. 2 | 04/09/92 | $5.7 \times 10^{-02}$ | $8.9 \times 10^{-05}$ |
| Area 12, T Tunnel Pond No. 2 | 05/14/92 | $5.8 \times 10^{-02}$ | $9.2 \times 10^{-05}$ |
| Area 12, T Tunnel Pond No. 2 | 06/09/92 | $5.0 \times 10^{-02}$ | $7.9 \times 10^{-05}$ |
| Area 12, T Tunnel Pond No. 2 | 07/21/92 | $5.8 \times 10^{-02}$ | $9.1 \times 10^{-05}$ |
| Area 12, T Tunnel Pond No. 2 | 08/18/92 | $5.4 \times 10^{-02}$ | $8.6 \times 10^{-05}$ |
| Area 12, T Tunnel Pond No. 2 | 09/03/92 | $5.8 \times 10^{-02}$ | $9.1 \times 10^{-05}$ |
| Area 12, T Tunnel Pond No. 2 | 10/20/92 | $1.2 \times 10^{-02}$ | $2.0 \times 10^{-05}$ |
| Area 12, T Tunnel Pond No. 2 | 11/18/92 | $5.2 \times 10^{-02}$ | $8.2 \times 10^{-05}$ |
| Area 12, T Tunnel Pond No. 2 | 12/02/92 | $5.6 \times 10^{-02}$ | $1.2 \times 10^{-04}$ |
| Area 12, T Tunnel Pond No. 3 | 07/21/92 | $5.4 \times 10^{-02}$ | $8.6 \times 10^{-05}$ |
| Area 12, T Tunnel Pond No. 3 | 08/18/92 | $5.8 \times 10^{-02}$ | $9.1 \times 10^{-05}$ |
| Area 12, T Tunnel Pond No. 3 | 09/03/92 | $1.2 \times 10^{-02}$ | $2.0 \times 10^{-05}$ |
| Area 12, T Tunnel Pond No. 3 | 10/20/92 | $1.2 \times 10^{-02}$ | $2.0 \times 10^{-05}$ |
| Area 12, T Tunnel Pond No. 3 | 11/18/92 | $1.7 \times 10^{-03}$ | $2.4 \times 10^{-06}$ |
| Area 12, T Tunnel Pond No. 3 | 12/02/92 | $6.5 \times 10^{-02}$ | $1.3 \times 10^{-04}$ |
| Area 12, White Rock Spring | 01/15/92 | $3.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, White Rock Spring | 02/12/92 | $-2.7 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, White Rock Spring | 03/05/92 | $2.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, White Rock Spring | 04/08/92 | $6.9 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 12, White Rock Spring | 05/07/92 | $1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, White Rock Spring | 06/04/92 | $-1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, White Rock Spring | 07/13/92 | $-3.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, White Rock Spring | 08/11/92 | $1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, White Rock Spring | 08/11/92 | $9.3 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 12, White Rock Spring | 09/09/92 | $-3.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, White Rock Spring | 10/05/92 | $3.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 12, White Rock Spring | 11/17/92 | $1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 12, White Rock Spring | 12/01/92 | $2.1 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 16, Tippipah Spring | 01/08/92 | $-7.1 \times 10^{-09}$ | $1.4 \times 10^{-07}$ |
| Area 16, Tippipah Spring | 02/04/92 | $2.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07}$ μCi/mL          Standard Deviation of Mean MDC: $1.9 \times 10^{-06}$ μCi/mL

Attachment C.7  (Tritium in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 16, Tippipah Spring | 03/04/92 | $2.2 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 16, Tippipah Spring | 04/22/92 | $1.9 \times 10^{-07}$ | $1.2 \times 10^{-07}$ |
| Area 16, Tippipah Spring | 05/18/92 | $1.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 16, Tippipah Spring | 06/04/92 | $-1.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 16, Tippipah Spring | 07/15/92 | $2.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 16, Tippipah Spring | 08/18/92 | $1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 16, Tippipah Spring | 09/30/92 | $-5.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 16, Tippipah Spring | 10/14/92 | $-2.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 16, Tippipah Spring | 11/18/92 | $4.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 16, Tippipah Spring | 12/03/92 | $4.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 16, Well UE-16d | 01/27/92 | $2.8 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 16, Well UE-16d | 02/24/92 | $-3.5 \times 10^{-09}$ | $4.2 \times 10^{-09}$ |
| Area 16, Well UE-16d | 02/24/92 | $5.2 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 16, Well UE-16d | 04/06/92 | $-7.4 \times 10^{-10}$ | $4.2 \times 10^{-09}$ |
| Area 16, Well UE-16d | 04/06/92 | $3.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 16, Well UE-16d | 05/12/92 | $-8.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 16, Well UE-16d | 06/02/92 | $-3.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 16, Well UE-16d | 07/13/92 | $-2.1 \times 10^{-09}$ | $4.1 \times 10^{-09}$ |
| Area 16, Well UE-16d | 07/13/92 | $2.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 16, Well UE-16d | 08/04/92 | $-9.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 16, Well UE-16d | 09/01/92 | $5.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 16, Well UE-16d | 10/05/92 | $-2.6 \times 10^{-08}$ | $6.5 \times 10^{-09}$ |
| Area 16, Well UE-16d | 10/05/92 | $-2.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 16, Well UE-16d | 11/09/92 | $4.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 16, Well UE-16d | 12/02/92 | $9.7 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 18, Camp 17 Reservoir | 01/08/92 | $-3.2 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 18, Camp 17 Reservoir | 02/04/92 | $1.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 18, Camp 17 Reservoir | 03/04/92 | $-9.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 18, Camp 17 Reservoir | 04/08/92 | $-8.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 18, Camp 17 Reservoir | 05/18/92 | $1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 18, Camp 17 Reservoir | 06/03/92 | $-1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 18, Camp 17 Reservoir | 07/07/92 | $-2.4 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 18, Camp 17 Reservoir | 08/12/92 | $-2.8 \times 10^{-07}$ | $1.2 \times 10^{-07}$ |
| Area 18, Camp 17 Reservoir | 09/10/92 | $8.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 18, Camp 17 Reservoir | 10/07/92 | $1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 18, Camp 17 Reservoir | 11/04/92 | $-6.5 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 18, Well 8 | 01/27/92 | $9.8 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 18, Well 8 | 02/24/92 | $-7.4 \times 10^{-09}$ | $1.4 \times 10^{-07}$ |
| Area 18, Well 8 | 02/24/92 | $-3.3 \times 10^{-09}$ | $4.5 \times 10^{-09}$ |
| Area 18, Well 8 | 04/06/92 | $7.3 \times 10^{-10}$ | $4.2 \times 10^{-09}$ |
| Area 18, Well 8 | 04/06/92 | $9.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu$Ci/mL          Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu$Ci/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 18, Well 8 | 05/12/92 | $2.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 18, Well 8 | 06/02/92 | $-3.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 18, Well 8 | 07/13/92 | $-2.3 \times 10^{-09}$ | $4.0 \times 10^{-09}$ |
| Area 18, Well 8 | 07/13/92 | $1.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 18, Well 8 | 08/04/92 | $-1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 18, Well 8 | 09/01/92 | $-5.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 18, Well 8 | 10/05/92 | $-5.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 18, Well 8 | 10/05/92 | $-3.0 \times 10^{-08}$ | $6.6 \times 10^{-09}$ |
| Area 18, Well 8 | 11/09/92 | $-3.1 \times 10^{-09}$ | $1.2 \times 10^{-07}$ |
| Area 18, Well 8 | 12/02/92 | $-3.1 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 18, Well 8 Reservoir | 01/14/92 | $1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 18, Well 8 Reservoir | 02/04/92 | $2.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 18, Well 8 Reservoir | 03/04/92 | $-1.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 18, Well 8 Reservoir | 04/08/92 | $-6.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 18, Well 8 Reservoir | 05/18/92 | $2.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 18, Well 8 Reservoir | 06/03/92 | $3.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 18, Well 8 Reservoir | 07/07/92 | $-2.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 18, Well 8 Reservoir | 09/10/92 | $5.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 18, Well 8 Reservoir | 10/07/92 | $-2.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c | 01/27/92 | $3.6 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 19, Well UE-19c | 02/24/92 | $6.0 \times 10^{-10}$ | $4.4 \times 10^{-09}$ |
| Area 19, Well UE-19c | 02/24/92 | $3.3 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 19, Well UE-19c | 04/06/92 | $2.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c | 05/12/92 | $-1.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c | 06/02/92 | $3.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c | 07/13/92 | $-1.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c | 08/04/92 | $-9.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c | 09/01/92 | $5.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c | 09/10/92 | $5.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c | 10/05/92 | $-1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c | 11/24/92 | $1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c | 12/02/92 | $-2.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c Reservoir | 01/14/92 | $3.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c Reservoir | 02/04/92 | $2.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c Reservoir | 03/05/92 | $-4.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c Reservoir | 04/07/92 | $2.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c Reservoir | 05/18/92 | $1.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c Reservoir | 06/02/92 | $-4.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c Reservoir | 07/09/92 | $7.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c Reservoir | 08/12/92 | $-1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 19, Well UE-19c Reservoir | 10/07/92 | $6.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu$Ci/mL          Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu$Ci/mL

Attachment C.7 (Tritium in Water - 1992, cont.)

| Sampling Location | Collection Dates | µCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 19, Well UE-19c Reservoir | 11/04/92 | $1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 20, Water Well | 04/06/92 | $-1.6 \times 10^{-07}$ | $1.2 \times 10^{-07}$ |
| Area 20, Water Well | 04/06/92 | $4.6 \times 10^{-10}$ | $4.4 \times 10^{-09}$ |
| Area 20, Water Well | 05/12/92 | $-6.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 20, Water Well | 06/02/92 | $2.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 20, Water Well | 07/13/92 | $1.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 20, Water Well | 07/13/92 | $4.3 \times 10^{-10}$ | $4.2 \times 10^{-09}$ |
| Area 20, Water Well | 08/04/92 | $6.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 20, Water Well | 09/01/92 | $-7.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 20, Water Well | 10/05/92 | $-2.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 20, Water Well | 10/05/92 | $-1.1 \times 10^{-09}$ | $7.0 \times 10^{-09}$ |
| Area 20, Water Well | 11/24/92 | $4.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 20, Water Well | 12/02/92 | $9.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 20, Well 20 | 01/15/92 | $1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 20, Well 20 | 02/04/92 | $3.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 20, Well 20 | 03/05/92 | $-5.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 20, Well 20 | 04/07/92 | $1.5 \times 10^{-07}$ | $1.2 \times 10^{-07}$ |
| Area 20, Well 20 | 05/05/92 | $1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 20, Well 20 | 06/02/92 | $-1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 20, Well 20 | 07/09/92 | $6.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 20, Well 20 | 08/12/92 | $-2.3 \times 10^{-07}$ | $1.2 \times 10^{-07}$ |
| Area 20, Well 20 | 09/10/92 | $8.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 20, Well 20 | 10/07/92 | $-3.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 20, Well 20 | 11/04/92 | $3.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Army Well No. 1 | 01/22/92 | $4.5 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 23, Army Well No. 1 | 02/24/92 | $2.6 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 23, Army Well No. 1 | 02/24/92 | $3.9 \times 10^{-09}$ | $4.4 \times 10^{-09}$ |
| Area 23, Army Well No. 1 | 04/06/92 | $-7.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Army Well No. 1 | 04/06/92 | $1.5 \times 10^{-09}$ | $4.6 \times 10^{-09}$ |
| Area 23, Army Well No. 1 | 05/12/92 | $1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Army Well No. 1 | 06/02/92 | $-9.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Army Well No. 1 | 07/13/92 | $-2.1 \times 10^{-09}$ | $4.2 \times 10^{-09}$ |
| Area 23, Army Well No. 1 | 07/13/92 | $4.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Army Well No. 1 | 08/04/92 | $4.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Army Well No. 1 | 09/01/92 | $-3.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Army Well No. 1 | 10/05/92 | $-2.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Army Well No. 1 | 10/05/92 | $-2.5 \times 10^{-08}$ | $6.5 \times 10^{-09}$ |
| Area 23, Army Well No. 1 | 11/09/92 | $1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Army Well No. 1 | 12/02/92 | $-1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, H&S Sump | 10/22/92 | $1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 01/21/92 | $3.5 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu Ci/mL$          Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu Ci/mL$

Attachment C.7  (Tritium in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 23, Mercury | 01/27/92 | $-3.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 02/03/92 | $4.7 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 02/10/92 | $2.7 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 23, Mercury | 02/18/92 | $3.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 02/24/92 | $3.8 \times 10^{-09}$ | $1.4 \times 10^{-07}$ |
| Area 23, Mercury | 03/02/92 | $1.7 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 23, Mercury | 03/09/92 | $7.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 03/16/92 | $3.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 03/24/92 | $-1.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 03/30/92 | $-8.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 04/07/92 | $-8.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 04/14/92 | $1.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 04/20/92 | $-3.8 \times 10^{-08}$ | $1.2 \times 10^{-07}$ |
| Area 23, Mercury | 04/28/92 | $3.3 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 05/05/92 | $-2.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 05/11/92 | $3.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 05/18/92 | $2.2 \times 10^{-10}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 05/26/92 | $1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 06/01/92 | $2.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 06/09/92 | $-1.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 06/15/92 | $4.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 06/22/92 | $-8.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 06/29/92 | $-1.6 \times 10^{-07}$ | $1.2 \times 10^{-07}$ |
| Area 23, Mercury | 07/06/92 | $1.7 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 07/13/92 | $-9.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 07/20/92 | $3.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 07/27/92 | $-1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 08/03/92 | $6.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 08/11/92 | $-9.9 \times 10^{-08}$ | $2.5 \times 10^{-07}$ |
| Area 23, Mercury | 08/17/92 | $2.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 08/24/92 | $-3.3 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 08/31/92 | $2.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 09/08/92 | $6.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 09/14/92 | $4.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 09/21/92 | $1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 09/28/92 | $-2.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 10/05/92 | $-3.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 10/12/92 | $-2.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 10/19/92 | $-8.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 10/26/92 | $-1.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu Ci/mL$          Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu Ci/mL$

Attachment C.7  (Tritium in Water - 1992, cont.)

| Sampling Location | Collection Dates | $\mu$Ci/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 23, Mercury | 11/02/92 | $-1.7 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 11/09/92 | $6.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 11/16/92 | $2.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 11/23/92 | $-1.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 11/30/92 | $2.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 12/07/92 | $5.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Mercury | 12/15/92 | $-1.4 \times 10^{-07}$ | $1.6 \times 10^{-07}$ |
| Area 23, Mercury | 12/22/92 | $-6.3 \times 10^{-08}$ | $1.8 \times 10^{-07}$ |
| Area 23, Mercury | 12/28/92 | $2.4 \times 10^{-07}$ | $2.0 \times 10^{-07}$ |
| Area 23, Sewage | 01/16/92 | $1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Sewage | 04/21/92 | $3.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23  Sewage | 07/14/92 | $6.6 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 23, Sewage | 10/14/92 | $-9.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Swimming Pool | 01/16/92 | $6.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Swimming Pool | 02/27/92 | $-1.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Swimming Pool | 03/18/92 | $-1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Swimming Pool | 04/21/92 | $3.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Swimming Pool | 05/12/92 | $-5.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Swimming Pool | 06/04/92 | $3.1 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 23, Swimming Pool | 07/09/92 | $-5.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Swimming Pool | 08/12/92 | $8.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Swimming Pool | 09/02/92 | $2.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Swimming Pool | 10/06/92 | $-9.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 23, Swimming Pool | 11/19/92 | $1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 23, Swimming Pool | 12/03/92 | $2.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 01/21/92 | $6.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 01/27/92 | $2.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 02/03/92 | $-1.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 02/10/92 | $1.4 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 25, Building 4221 | 02/18/92 | $7.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 02/24/92 | $1.2 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 25, Building 4221 | 03/02/92 | $2.3 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 25, Building 4221 | 03/09/92 | $-1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 03/16/92 | $6.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 03/24/92 | $-2.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 03/30/92 | $-4.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 04/07/92 | $5.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 04/14/92 | $2.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 04/20/92 | $-3.1 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 04/28/92 | $-1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu$Ci/mL          Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu$Ci/mL

| Sampling Location | Collection Dates | Concentration | Standard Deviation (s) |
|---|---|---|---|
| | | $\mu$Ci/mL | |
| Area 25, Building 4221 | 05/05/92 | $2.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 05/11/92 | $2.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 05/18/92 | $9.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 05/26/92 | $6.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 06/01/92 | $-6.9 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 06/09/92 | $-1.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 06/15/92 | $-1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 06/22/92 | $-8.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 06/29/92 | $9.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 07/06/92 | $4.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 07/13/92 | $-4.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 07/20/92 | $9.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 07/27/92 | $-1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 08/03/92 | $1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 08/11/92 | $8.7 \times 10^{-08}$ | $2.6 \times 10^{-07}$ |
| Area 25, Building 4221 | 08/17/92 | $3.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 08/24/92 | $-1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 08/31/92 | $5.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 09/08/92 | $6.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 09/14/92 | $1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 09/21/92 | $1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 09/28/92 | $-1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 10/05/92 | $-6.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 10/12/92 | $3.2 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 25, Building 4221 | 10/19/92 | $-2.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 10/26/92 | $-2.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 11/02/92 | $-8.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 11/09/92 | $-6.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 11/16/92 | $-5.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 11/23/92 | $3.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 11/30/92 | $1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 12/07/92 | $-9.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Building 4221 | 12/15/92 | $-9.9 \times 10^{-08}$ | $1.6 \times 10^{-07}$ |
| Area 25, Building 4221 | 12/22/92 | $-2.4 \times 10^{-07}$ | $1.8 \times 10^{-07}$ |
| Area 25, Building 4221 | 12/28/92 | $1.6 \times 10^{-07}$ | $2.0 \times 10^{-07}$ |
| Area 25, Well J-11 Reservoir | 01/08/92 | $4.2 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 25, Well J-11 Reservoir | 02/11/92 | $6.3 \times 10^{-09}$ | $1.2 \times 10^{-07}$ |
| Area 25, Well J-11 Reservoir | 03/10/92 | $2.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-11 Reservoir | 05/06/92 | $-6.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-11 Reservoir | 06/04/92 | $3.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu$Ci/mL          Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu$Ci/mL

Attachment C.7  (Tritium in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 25, Well J-11 Reservoir | 07/08/92 | $-1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-11 Reservoir | 08/12/92 | $2.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-11 Reservoir | 09/02/92 | $8.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-11 Reservoir | 10/06/92 | $-4.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-11 Reservoir | 11/18/92 | $1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-11 Reservoir | 12/01/92 | $9.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 | 05/12/92 | $-7.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 | 05/12/92 | $-2.4 \times 10^{-09}$ | $3.9 \times 10^{-09}$ |
| Area 25, Well J-12 | 06/02/92 | $2.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 | 07/13/92 | $-2.4 \times 10^{-09}$ | $4.2 \times 10^{-09}$ |
| Area 25, Well J-12 | 07/13/92 | $2.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 | 08/04/92 | $6.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 | 09/01/92 | $-1.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 | 10/05/92 | $-1.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 | 10/05/92 | $-3.0 \times 10^{-08}$ | $6.6 \times 10^{-09}$ |
| Area 25, Well J-12 | 11/09/92 | $1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 | 12/02/92 | $8.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 Reservoir | 01/08/92 | $1.8 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 25, Well J-12 Reservoir | 02/11/92 | $1.0 \times 10^{-07}$ | $1.2 \times 10^{-07}$ |
| Area 25, Well J-12 Reservoir | 03/10/92 | $1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 Reservoir | 04/08/92 | $-3.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 Reservoir | 05/06/92 | $7.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 Reservoir | 06/04/92 | $2.2 \times 10^{-10}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 Reservoir | 07/08/92 | $-2.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 Reservoir | 08/12/92 | $5.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 Reservoir | 09/02/92 | $-1.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 Reservoir | 10/06/92 | $-1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 Reservoir | 11/18/92 | $1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-12 Reservoir | 12/01/92 | $-2.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-13 | 01/22/92 | $3.3 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 25, Well J-13 | 02/24/92 | $1.5 \times 10^{-10}$ | $4.3 \times 10^{-09}$ |
| Area 25, Well J-13 | 02/24/92 | $1.3 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 25, Well J-13 | 04/06/92 | $1.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-13 | 04/06/92 | $2.3 \times 10^{-09}$ | $4.2 \times 10^{-09}$ |
| Area 25, Well J-13 | 05/12/92 | $-2.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-13 | 06/02/92 | $-7.9 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-13 | 07/13/92 | $-2.6 \times 10^{-09}$ | $4.2 \times 10^{-09}$ |
| Area 25, Well J-13 | 07/13/92 | $2.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-13 | 08/04/92 | $3.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-13 | 09/01/92 | $1.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-13 | 10/05/92 | $-2.6 \times 10^{-08}$ | $6.5 \times 10^{-09}$ |

Mean MDC: $5.4 \times 10^{-07} \mu Ci/mL$          Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu Ci/mL$

Attachment C.7  (Tritium in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL Concentration | μCi/mL Standard Deviation (s) |
|---|---|---|---|
| Area 25, Well J-13 | 10/05/92 | $-2.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-13 | 11/09/92 | $1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 25, Well J-13 | 12/02/92 | $9.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 01/21/92 | $8.2 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 01/27/92 | $1.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 02/03/92 | $-1.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 02/10/92 | $1.1 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 27, Cafeteria | 02/18/92 | $-1.7 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 02/24/92 | $-1.1 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 27, Cafeteria | 03/02/92 | $3.0 \times 10^{-08}$ | $1.4 \times 10^{-07}$ |
| Area 27, Cafeteria | 03/09/92 | $1.0 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 03/16/92 | $9.7 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 03/24/92 | $-1.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 03/30/92 | $-1.3 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 04/07/92 | $-5.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 04/14/92 | $8.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 04/20/92 | $1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 04/28/92 | $-1.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 05/05/92 | $-3.1 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 05/11/92 | $1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 05/18/92 | $1.3 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 05/26/92 | $1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 06/01/92 | $1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 06/09/92 | $-2.6 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 06/15/92 | $-1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 06/22/92 | $1.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 06/29/92 | $1.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 07/06/92 | $7.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 07/13/92 | $-9.5 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 07/20/92 | $-2.4 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 07/27/92 | $-1.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 08/03/92 | $1.7 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 08/11/92 | $8.1 \times 10^{-08}$ | $2.6 \times 10^{-07}$ |
| Area 27, Cafeteria | 08/17/92 | $3.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 08/24/92 | $-2.1 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 08/31/92 | $3.6 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 09/08/92 | $-1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 09/14/92 | $9.4 \times 10^{-09}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 09/21/92 | $3.1 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 09/28/92 | $-2.2 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 10/05/92 | $-1.5 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu$Ci/mL        Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu$Ci/mL

Attachment C.7  (Tritium in Water - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Concentration | Standard Deviation (s) |
| Area 27, Cafeteria | 10/12/92 | $-1.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 27, Cafeteria | 10/19/92 | $-1.9 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 29, Topopah Spring | 01/14/92 | $3.0 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 29, Topopah Spring | 02/19/92 | $6.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |
| Area 29, Topopah Spring | 04/23/92 | $2.8 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 29, Topopah Spring | 05/21/92 | $1.4 \times 10^{-07}$ | $1.3 \times 10^{-07}$ |
| Area 29, Topopah Spring | 06/04/92 | $-3.8 \times 10^{-08}$ | $1.3 \times 10^{-07}$ |

Mean MDC: $5.4 \times 10^{-07} \mu Ci/mL$        Standard Deviation of Mean MDC: $1.9 \times 10^{-06} \mu Ci/mL$

| Sampling Location | Collection Dates | µCi/mL Concentration | Standard Deviation (s) |
|---|---|---|---|
| Area 5, Well 5B | 10/05/92 | $-9.0 \times 10^{-11}$ | $5.2 \times 10^{-10}$ |
| Area 5, Well 5C | 02/24/92 | $6.1 \times 10^{-10}$ | $5.8 \times 10^{-10}$ |
| Area 5, Well 5C | 04/06/92 | $5.0 \times 10^{-10}$ | $9.2 \times 10^{-10}$ |
| Area 5, Well 5C | 07/13/92 | $2.5 \times 10^{-09}$ | $1.2 \times 10^{-09}$ |
| Area 5, Well 5C | 10/05/92 | $1.7 \times 10^{-11}$ | $2.5 \times 10^{-11}$ |
| Area 5, Well UE-5c | 02/24/92 | $-2.5 \times 10^{-10}$ | $6.0 \times 10^{-10}$ |
| Area 6, Well 4 | 02/24/92 | $6.0 \times 10^{-11}$ | $3.0 \times 10^{-10}$ |
| Area 6, Well 4 | 04/06/92 | $1.4 \times 10^{-09}$ | $9.1 \times 10^{-10}$ |
| Area 6, Well 4 | 07/13/92 | 0.0 | 0.0 |
| Area 6, Well 4 | 10/05/92 | $5.9 \times 10^{-10}$ | $7.4 \times 10^{-10}$ |
| Area 6, Well C | 02/24/92 | $3.7 \times 10^{-10}$ | $4.8 \times 10^{-10}$ |
| Area 6, Well C | 04/06/92 | $3.0 \times 10^{-09}$ | $6.9 \times 10^{-10}$ |
| Area 6, Well C | 07/13/92 | $2.1 \times 10^{-09}$ | $1.0 \times 10^{-09}$ |
| Area 6, Well C | 10/05/92 | $4.5 \times 10^{-09}$ | $9.3 \times 10^{-10}$ |
| Area 6, Well C-1 | 02/24/92 | $2.3 \times 10^{-09}$ | $6.5 \times 10^{-10}$ |
| Area 6, Well C-1 | 04/06/92 | $2.2 \times 10^{-09}$ | $9.1 \times 10^{-10}$ |
| Area 6, Well C-1 | 07/13/92 | $7.1 \times 10^{-10}$ | $1.2 \times 10^{-09}$ |
| Area 6, Well C-1 | 10/05/92 | $1.1 \times 10^{-09}$ | $7.6 \times 10^{-10}$ |
| Area 16, Well UE-16d | 02/24/92 | $3.2 \times 10^{-10}$ | $5.5 \times 10^{-10}$ |
| Area 16, Well UE-16d | 04/06/92 | $2.9 \times 10^{-09}$ | $7.6 \times 10^{-10}$ |
| Area 16, Well UE-16d | 07/13/92 | $2.5 \times 10^{-09}$ | $8.5 \times 10^{-10}$ |
| Area 16, Well UE-16d | 10/05/92 | $3.5 \times 10^{-09}$ | $8.2 \times 10^{-10}$ |
| Area 18, Well 8 | 02/24/92 | $-6.0 \times 10^{-10}$ | $5.7 \times 10^{-10}$ |
| Area 18, Well 8 | 04/06/92 | $1.2 \times 10^{-09}$ | $1.0 \times 10^{-09}$ |
| Area 18, Well 8 | 07/13/92 | $5.0 \times 10^{-10}$ | $4.4 \times 10^{-10}$ |
| Area 18, Well 8 | 10/05/92 | $-1.2 \times 10^{-10}$ | $3.4 \times 10^{-10}$ |
| Area 19, Well UE-19c | 02/24/92 | $2.8 \times 10^{-10}$ | $7.1 \times 10^{-10}$ |
| Area 20, Water Well | 04/06/92 | $6.5 \times 10^{-09}$ | $6.2 \times 10^{-09}$ |
| Area 20, Water Well | 07/13/92 | $1.1 \times 10^{-09}$ | $5.3 \times 10^{-10}$ |
| Area 20, Water Well | 10/05/92 | $1.5 \times 10^{-09}$ | $5.9 \times 10^{-10}$ |
| Area 23, Army Well | 02/24/92 | $4.4 \times 10^{-10}$ | $5.8 \times 10^{-10}$ |
| Area 23, Army Well | 04/06/92 | $1.6 \times 10^{-09}$ | $9.3 \times 10^{-10}$ |
| Area 23, Army Well | 07/13/92 | $2.8 \times 10^{-09}$ | $1.0 \times 10^{-09}$ |
| Area 23, Army Well | 10/05/92 | $1.1 \times 10^{-09}$ | $7.3 \times 10^{-10}$ |
| Area 25, Well J-12 | 07/13/92 | $3.2 \times 10^{-10}$ | $6.6 \times 10^{-10}$ |
| Area 25, Well J-12 | 10/05/92 | $3.0 \times 10^{-10}$ | $3.1 \times 10^{-10}$ |
| Area 25, Well J-13 | 02/24/92 | $3.2 \times 10^{-10}$ | $8.2 \times 10^{-10}$ |
| Area 25, Well J-13 | 04/06/92 | $2.7 \times 10^{-09}$ | $8.7 \times 10^{-10}$ |
| Area 25, Well J-13 | 05/12/92 | $5.1 \times 10^{-10}$ | $6.8 \times 10^{-10}$ |
| Area 25, Well J-13 | 07/13/92 | $0.0 \times 10^{+00}$ | $0.0 \times 10^{+00}$ |
| Area 25, Well J-13 | 10/05/92 | $2.5 \times 10^{-10}$ | $5.1 \times 10^{-10}$ |

Mean MDC: $2.5 \times 10^{-09}$µCi/mL          Standard Deviation of Mean MDC: $6.7 \times 10^{-10}$µCi/mL

Attachment C.9 $^{228}$Ra in Water - 1992

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Concentration | Standard Deviation (s) |
| Area 5, Well 5B | 10/05/92 | $-7.8 \times 10^{-10}$ | $3.1 \times 10^{-10}$ |
| Area 5, Well 5C | 02/24/92 | $-1.8 \times 10^{-10}$ | $2.4 \times 10^{-10}$ |
| Area 5, Well 5C | 04/06/92 | 0.0 | 0.0 |
| Area 5, Well 5C | 07/13/92 | $-1.3 \times 10^{-09}$ | $8.0 \times 10^{-10}$ |
| Area 5, Well 5C | 10/05/92 | $-1.8 \times 10^{-10}$ | $1.8 \times 10^{-10}$ |
| Area 5, Well UE-5c | 02/24/92 | $6.6 \times 10^{-10}$ | $3.4 \times 10^{-10}$ |
| Area 6, Well C | 02/24/92 | $6.9 \times 10^{-10}$ | $2.7 \times 10^{-10}$ |
| Area 6, Well C | 04/06/92 | $7.6 \times 10^{-10}$ | $4.6 \times 10^{-10}$ |
| Area 6, Well C | 07/13/92 | $7.3 \times 10^{-10}$ | $7.8 \times 10^{-10}$ |
| Area 6, Well C | 10/05/92 | $9.1 \times 10^{-10}$ | $7.3 \times 10^{-10}$ |
| Area 6, Well C-1 | 02/24/92 | $-4.5 \times 10^{-11}$ | $2.5 \times 10^{-10}$ |
| Area 6, Well C-1 | 04/06/92 | $1.6 \times 10^{-09}$ | $6.9 \times 10^{-10}$ |
| Area 6, Well C-1 | 07/13/92 | $-2.7 \times 10^{-10}$ | $9.4 \times 10^{-10}$ |
| Area 6, Well C-1 | 10/05/92 | $1.2 \times 10^{-09}$ | $6.2 \times 10^{-10}$ |
| Area 6, Well 4 | 02/24/92 | $4.0 \times 10^{-10}$ | $3.1 \times 10^{-10}$ |
| Area 6, Well 4 | 04/06/92 | 0.0 | 0.0 |
| Area 6, Well 4 | 07/13/92 | $8.2 \times 10^{-10}$ | $7.0 \times 10^{-10}$ |
| Area 6, Well 4 | 10/05/92 | $5.1 \times 10^{-10}$ | $6.0 \times 10^{-10}$ |
| Area 16, Well UE-16d | 02/24/92 | $-1.3 \times 10^{-10}$ | $2.4 \times 10^{-10}$ |
| Area 16, Well UE-16d | 04/06/92 | $-6.0 \times 10^{-10}$ | $3.8 \times 10^{-10}$ |
| Area 16, Well UE-16d | 07/13/92 | $1.8 \times 10^{-09}$ | $7.3 \times 10^{-10}$ |
| Area 16, Well UE-16d | 10/05/92 | $3.1 \times 10^{-10}$ | $2.4 \times 10^{-10}$ |
| Area 18, Well 8 | 02/24/92 | $1.5 \times 10^{-10}$ | $2.9 \times 10^{-10}$ |
| Area 18, Well 8 | 04/06/92 | $2.3 \times 10^{-10}$ | $7.0 \times 10^{-10}$ |
| Area 18, Well 8 | 07/13/92 | 0.0 | 0.0 |
| Area 18, Well 8 | 10/05/92 | $-7.9 \times 10^{-10}$ | $4.6 \times 10^{-10}$ |
| Area 19, Well UE-19c | 02/24/92 | $-1.7 \times 10^{-10}$ | $3.1 \times 10^{-10}$ |
| Area 20, Water Well | 04/06/92 | $-2.1 \times 10^{-10}$ | $5.9 \times 10^{-10}$ |
| Area 20, Water Well | 07/13/92 | $-2.7 \times 10^{-10}$ | $3.6 \times 10^{-10}$ |
| Area 20, Water Well | 10/05/92 | $-3.5 \times 10^{-10}$ | $3.2 \times 10^{-10}$ |
| Area 23, Army Well | 02/24/92 | $4.6 \times 10^{-11}$ | $1.3 \times 10^{-10}$ |
| Area 23, Army Well | 04/06/92 | $6.0 \times 10^{-10}$ | $6.4 \times 10^{-10}$ |
| Area 23, Army Well | 07/13/92 | $1.8 \times 10^{-10}$ | $6.5 \times 10^{-10}$ |
| Area 23, Army Well | 10/05/92 | $3.6 \times 10^{-10}$ | $6.6 \times 10^{-10}$ |
| Area 25, Well J-12 | 07/13/92 | $2.2 \times 10^{-10}$ | $5.3 \times 10^{-10}$ |
| Area 25, Well J-12 | 10/05/92 | $-4.4 \times 10^{-10}$ | $4.1 \times 10^{-10}$ |
| Area 25, Well J-13 | 02/24/92 | $1.3 \times 10^{-10}$ | $3.4 \times 10^{-10}$ |
| Area 25, Well J-13 | 04/06/92 | $3.5 \times 10^{-10}$ | $5.4 \times 10^{-10}$ |
| Area 25, Well J-13 | 05/12/92 | $-3.2 \times 10^{-10}$ | $4.4 \times 10^{-10}$ |
| Area 25, Well J-13 | 07/13/92 | $7.2 \times 10^{-10}$ | $1.1 \times 10^{-09}$ |
| Area 25, Well J-13 | 10/05/92 | $3.6 \times 10^{-10}$ | $4.2 \times 10^{-10}$ |

Mean MDC: $1.9 \times 10^{-09}$ μCi/mL          Standard Deviation of Mean MDC: $7.0 \times 10^{-10}$ μCi/mL

Attachment C.10 Duplicates: $^{90}$Sr in Water [containment ponds] - 1992

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Original | Duplicate |
| Area 12, E Tunnel Effluent | 07/21/92 | $7.4 \times 10^{-09}$ | $4.9 \times 10^{-09}$ |
| Area 12, E Tunnel Pond No. 1 | 07/21/92 | $6.1 \times 10^{-09}$ | $7.2 \times 10^{-09}$ |
| Area 12, N Tunnel Effluent | 07/21/92 | $6.1 \times 10^{-11}$ | $5.9 \times 10^{-10}$ |
| Area 12, N Tunnel Pond No. 2 | 07/21/92 | $1.5 \times 10^{-10}$ | $5.1 \times 10^{-10}$ |
| Area 12, T Tunnel Effluent | 07/21/92 | $9.5 \times 10^{-09}$ | $1.0 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 2 | 07/21/92 | $1.7 \times 10^{-08}$ | $1.8 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 3 | 07/21/92 | $1.6 \times 10^{-08}$ | $1.7 \times 10^{-08}$ |

Typical Limit of Detection: $1.0 \times 10^{-9}$ μCi/mL

Attachment C.11  Duplicates: Gross Alpha in Water [potable water and end points] - 1992

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Original | Duplicate |
| Area 1, Building 101 | 01/13/92 | $1.4 \times 10^{-08}$ | $8.4 \times 10^{-09}$ |
| Area 1, Building 101 | 03/30/92 | $9.8 \times 10^{-09}$ | $7.8 \times 10^{-09}$ |
| Area 1, Building 101 | 06/29/92 | $7.4 \times 10^{-09}$ | $1.5 \times 10^{-08}$ |
| Area 1, Building 101 | 09/28/92 | $4.7 \times 10^{-10}$ | $7.1 \times 10^{-09}$ |
| Area 2, Rest Room | 01/13/92 | $4.7 \times 10^{-10}$ | $5.7 \times 10^{-10}$ |
| Area 2, Rest Room | 03/30/92 | $4.3 \times 10^{-10}$ | $2.3 \times 10^{-10}$ |
| Area 2, Rest Room | 06/29/92 | $8.4 \times 10^{-10}$ | $3.3 \times 10^{-10}$ |
| Area 2, Rest Room | 09/28/92 | $1.1 \times 10^{-09}$ | $6.4 \times 10^{-10}$ |
| Area 2, Rest Room | 12/29/92 | $7.3 \times 10^{-10}$ | $6.4 \times 10^{-10}$ |
| Area 3, Cafeteria | 01/13/92 | $3.2 \times 10^{-09}$ | $8.4 \times 10^{-09}$ |
| Area 6, Bottled Water | 01/13/92 | $1.7 \times 10^{-10}$ | $6.5 \times 10^{-11}$ |
| Area 6, Bottled Water | 03/30/92 | $-1.3 \times 10^{-10}$ | $-1.3 \times 10^{-10}$ |
| Area 6, Bottled Water | 06/29/92 | $1.9 \times 10^{-10}$ | $1.3 \times 10^{-10}$ |
| Area 6, Bottled Water | 09/28/92 | $-1.7 \times 10^{-10}$ | $-6.7 \times 10^{-11}$ |
| Area 6, Bottled Water | 12/29/92 | $-1.2 \times 10^{-10}$ | $9.6 \times 10^{-11}$ |
| Area 6, Building 6-900 | 06/29/92 | $6.0 \times 10^{-09}$ | $3.8 \times 10^{-08}$ |
| Area 6, Building 6-900 | 09/28/92 | $4.3 \times 10^{-09}$ | $9.4 \times 10^{-09}$ |
| Area 6, Building 6-900 | 12/29/92 | $2.0 \times 10^{-08}$ | $1.5 \times 10^{-08}$ |
| Area 6, Cafeteria | 01/13/92 | $1.2 \times 10^{-08}$ | $6.9 \times 10^{-09}$ |
| Area 6, Cafeteria | 03/30/92 | $1.1 \times 10^{-08}$ | $4.7 \times 10^{-09}$ |
| Area 6, Cafeteria | 06/29/92 | $9.9 \times 10^{-09}$ | $3.3 \times 10^{-08}$ |
| Area 6, Cafeteria | 09/28/92 | $7.9 \times 10^{-09}$ | $1.1 \times 10^{-08}$ |
| Area 6, Cafeteria | 12/29/92 | $1.4 \times 10^{-08}$ | $1.2 \times 10^{-08}$ |
| Area 12, Cafeteria | 01/13/92 | $7.3 \times 10^{-10}$ | $4.1 \times 10^{-10}$ |
| Area 12, Cafeteria | 06/29/92 | $8.8 \times 10^{-10}$ | $4.8 \times 10^{-10}$ |
| Area 12, Cafeteria | 09/28/92 | $5.4 \times 10^{-09}$ | $7.7 \times 10^{-10}$ |
| Area 23, Mercury | 01/13/92 | $1.1 \times 10^{-08}$ | $7.9 \times 10^{-09}$ |
| Area 23, Mercury | 03/30/92 | $8.1 \times 10^{-09}$ | $7.1 \times 10^{-09}$ |
| Area 23, Mercury | 06/29/92 | $6.9 \times 10^{-09}$ | $3.5 \times 10^{-09}$ |
| Area 23, Mercury | 09/28/92 | $7.3 \times 10^{-09}$ | $6.7 \times 10^{-09}$ |
| Area 23, Mercury | 12/28/92 | $5.3 \times 10^{-09}$ | $5.6 \times 10^{-09}$ |
| Area 25, Building 4221 | 01/13/92 | $8.8 \times 10^{-10}$ | $1.3 \times 10^{-09}$ |
| Area 25, Building 4221 | 03/30/92 | $1.3 \times 10^{-09}$ | $9.9 \times 10^{-10}$ |
| Area 25, Building 4221 | 06/29/92 | $2.5 \times 10^{-09}$ | $9.5 \times 10^{-10}$ |
| Area 25, Building 4221 | 09/28/92 | $1.2 \times 10^{-09}$ | $2.0 \times 10^{-09}$ |
| Area 25, Building 4221 | 12/28/92 | $1.5 \times 10^{-09}$ | $1.4 \times 10^{-09}$ |
| Area 27, Cafeteria | 01/13/92 | $1.1 \times 10^{-08}$ | $1.2 \times 10^{-08}$ |
| Area 27, Cafeteria | 03/30/92 | $8.1 \times 10^{-09}$ | $1.9 \times 10^{-08}$ |
| Area 27, Cafeteria | 06/29/92 | $7.4 \times 10^{-09}$ | $1.3 \times 10^{-08}$ |
| Area 27, Cafeteria | 09/28/92 | $5.6 \times 10^{-09}$ | $5.2 \times 10^{-09}$ |

Typical limit of detection: $2.0 \times 10^{-9}$ μCi/mL

## Attachment C.12 Duplicates: $^{238}$Pu in Water [containment and sewage ponds] - 1992

| Sampling Location | Collection Dates | μCi/mL Original | μCi/mL Duplicate |
|---|---|---|---|
| Area 6, Yucca Pond | 01/15/92 | $2.6 \times 10^{-12}$ | $-3.9 \times 10^{-11}$ |
| Area 6, Yucca Pond | 04/27/92 | $-6.4 \times 10^{-11}$ | $-7.38 \times 1^{0-1}1$ |
| Area 6, Yucca Pond | 07/09/92 | $5.1 \times 10^{-12}$ | 0.0 |
| Area 6, Yucca Pond | 10/06/92 | $4.2 \times 10^{-11}$ | $5.7 \times 10^{-12}$ |
| Area 12, E Tunnel Effluent | 01/15/92 | $7.8 \times 10^{-10}$ | $8.0 \times 10^{-10}$ |
| Area 12, E Tunnel Effluent | 04/09/92 | $6.4 \times 10^{-10}$ | $8.2 \times 10^{-10}$ |
| Area 12, E Tunnel Effluent | 07/21/92 | $6.4 \times 10^{-10}$ | $3.7 \times 10^{-10}$ |
| Area 12, E Tunnel Effluent | 10/20/92 | $5.8 \times 10^{-10}$ | $6.7 \times 10^{-09}$ |
| Area 12, E Tunnel Pond No. 1 | 07/21/92 | $6.1 \times 10^{-10}$ | $5.6 \times 10^{-10}$ |
| Area 12, E Tunnel Pond No. 1 | 10/20/92 | $6.2 \times 10^{-10}$ | $6.2 \times 10^{-10}$ |
| Area 12, N Tunnel Effluent | 01/15/92 | $-3.0 \times 10^{-11}$ | $-3.2 \times 10^{-11}$ |
| Area 12, N Tunnel Effluent | 04/09/92 | $-9.1 \times 10^{-11}$ | $1.5 \times 10^{-10}$ |
| Area 12, N Tunnel Effluent | 07/21/92 | $7.2 \times 10^{-12}$ | $7.2 \times 10^{-12}$ |
| Area 12, N Tunnel Effluent | 10/20/92 | $6.7 \times 10^{-12}$ | $6.7 \times 10^{-12}$ |
| Area 12, N Tunnel Pond No. 1 | 01/15/92 | $-2.5 \times 10^{-11}$ | $4.6 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 1 | 04/09/92 | $-7.3 \times 10^{-11}$ | $5.4 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 2 | 02/12/92 | $-1.6 \times 10^{-11}$ | $4.6 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 2 | 04/09/92 | $-8.4 \times 10^{-11}$ | $4.6 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 2 | 07/21/92 | $2.7 \times 10^{-11}$ | $1.9 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 2 | 10/20/92 | 0.0 | 0.0 |
| Area 12, N Tunnel Pond No. 3 | 02/12/92 | $8.6 \times 10^{-11}$ | $4.0 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 3 | 04/09/92 | $-7.9 \times 10^{-11}$ | $6.4 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 3 | 07/21/92 | $1.4 \times 10^{-11}$ | $7.9 \times 10^{-10}$ |
| Area 12, N Tunnel Pond No. 3 | 10/20/92 | 0.0 | 0.0 |
| Area 12, Sewage | 01/15/92 | $-3.3 \times 10^{-11}$ | $3.4 \times 10^{-11}$ |
| Area 12, Sewage | 04/23/92 | $1.3 \times 10^{-11}$ | $3.4 \times 10^{-11}$ |
| Area 12, Sewage Pond | 01/08/92 | $-3.4 \times 10^{-11}$ | $3.8 \times 10^{-11}$ |
| Area 12, Sewage Pond | 04/22/92 | $-2.8 \times 10^{-12}$ | $2.9 \times 10^{-13}$ |
| Area 12, Sewage Pond | 07/21/92 | 0.0 | 0.0 |
| Area 12, Sewage Pond | 10/27/92 | 0.0 | 0.0 |
| Area 12, T Tunnel Effluent | 01/15/92 | $2.5 \times 10^{-11}$ | $2.3 \times 10^{-11}$ |
| Area 12, T Tunnel Effluent | 04/09/92 | $7.1 \times 10^{-11}$ | $1.6 \times 10^{-10}$ |
| Area 12, T Tunnel Effluent | 07/21/92 | $7.8 \times 10^{-11}$ | $7.4 \times 10^{-11}$ |
| Area 12, T Tunnel Effluent | 10/20/92 | $6.4 \times 10^{-11}$ | $1.7 \times 10^{-10}$ |
| Area 12, T Tunnel Pond No. 1 | 02/12/92 | $6.8 \times 10^{-11}$ | $2.1 \times 10^{-10}$ |
| Area 12, T Tunnel Pond No. 1 | 04/09/92 | $7.7 \times 10^{-11}$ | $1.5 \times 10^{-11}$ |
| Area 12, T Tunnel Pond No. 2 | 02/12/92 | $6.9 \times 10^{-11}$ | $5.5 \times 10^{-11}$ |
| Area 12, T Tunnel Pond No. 2 | 04/09/92 | $9.1 \times 10^{-11}$ | $1.4 \times 10^{-10}$ |
| Area 12, T Tunnel Pond No. 2 | 07/21/92 | $1.2 \times 10^{-10}$ | $1.7 \times 10^{-10}$ |
| Area 12, T Tunnel Pond No. 2 | 10/20/92 | $1.5 \times 10^{-10}$ | $1.0 \times 10^{-10}$ |
| Area 12, T Tunnel Pond No. 3 | 07/21/92 | $7.1 \times 10^{-11}$ | $1.1 \times 10^{-10}$ |
| Area 12, T Tunnel Pond No. 3 | 10/20/92 | $1.7 \times 10^{-10}$ | $8.4 \times 10^{-11}$ |

Typical Limit of Detection: $1.0 \times 10^{-10}$ μCi/mL

Attachment C.13 Duplicates: $^{239+240}$Pu in Water [containment ponds] - 1992

| Sampling Location | Collection Dates | $\mu$Ci/mL Original | Duplicate |
|---|---|---|---|
| Area 6, Yucca Pond | 01/15/92 | $3.0 \times 10^{-11}$ | $4.8 \times 10^{-11}$ |
| Area 6, Yucca Pond | 04/27/92 | $2.8 \times 10^{-11}$ | $2.9 \times 10^{-11}$ |
| Area 12, E Tunnel Effluent | 01/15/92 | $6.9 \times 10^{-09}$ | $6.6 \times 10^{-09}$ |
| Area 12, E Tunnel Effluent | 04/09/92 | $5.9 \times 10^{-09}$ | $5.0 \times 10^{-09}$ |
| Area 12, E Tunnel Effluent | 07/21/92 | $5.8 \times 10^{-09}$ | $5.5 \times 10^{-09}$ |
| Area 12, E Tunnel Effluent | 10/20/92 | $6.5 \times 10^{-09}$ | $5.5 \times 10^{-09}$ |
| Area 12, E Tunnel Pond No. 1 | 07/21/92 | $5.5 \times 10^{-09}$ | $5.1 \times 10^{-09}$ |
| Area 12, E Tunnel Pond No. 1 | 10/20/92 | $5.2 \times 10^{-09}$ | $5.3 \times 10^{-09}$ |
| Area 12, N Tunnel Effluent | 01/15/92 | $-4.6 \times 10^{-12}$ | $-1.7 \times 10^{-11}$ |
| Area 12, N Tunnel Effluent | 04/09/92 | $1.6 \times 10^{-11}$ | $-8.8 \times 10^{-12}$ |
| Area 12, N Tunnel Effluent | 07/21/92 | $1.9 \times 10^{-09}$ | $1.0 \times 10^{-10}$ |
| Area 12, N Tunnel Effluent | 10/20/92 | $1.3 \times 10^{-11}$ | $2.6 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 1 | 01/15/92 | $1.4 \times 10^{-11}$ | $-3.1 \times 10^{-12}$ |
| Area 12, N Tunnel Pond No. 1 | 04/09/92 | $-3.8 \times 10^{-12}$ | $1.2 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 2 | 02/12/92 | $1.7 \times 10^{-11}$ | $-1.3 \times 10^{-12}$ |
| Area 12, N Tunnel Pond No. 2 | 04/09/92 | $1.7 \times 10^{-11}$ | $7.1 \times 10^{-12}$ |
| Area 12, N Tunnel Pond No. 2 | 07/21/92 | $8.2 \times 10^{-11}$ | $3.3 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 2 | 10/20/92 | $6.4 \times 10^{-12}$ | $3.4 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 3 | 02/12/92 | $1.0 \times 10^{-09}$ | $2.8 \times 10^{-11}$ |
| Area 12, N Tunnel Pond No. 3 | 04/09/92 | $2.3 \times 10^{-11}$ | $-8.6 \times 10^{-12}$ |
| Area 12, N Tunnel Pond No. 3 | 07/21/92 | $7.7 \times 10^{-11}$ | $1.5 \times 10^{-10}$ |
| Area 12, N Tunnel Pond No. 3 | 10/20/92 | $1.8 \times 10^{-11}$ | $2.9 \times 10^{-11}$ |
| Area 12, T Tunnel Effluent | 01/15/92 | $2.4 \times 10^{-10}$ | $3.1 \times 10^{-10}$ |
| Area 12, T Tunnel Effluent | 04/09/92 | $3.1 \times 10^{-10}$ | $2.8 \times 10^{-10}$ |
| Area 12, T Tunnel Effluent | 07/21/92 | $1.9 \times 10^{-09}$ | $2.2 \times 10^{-09}$ |
| Area 12, T Tunnel Effluent | 10/20/92 | $3.8 \times 10^{-09}$ | $3.6 \times 10^{-09}$ |
| Area 12, T Tunnel Pond No. 1 | 02/12/92 | $2.3 \times 10^{-09}$ | $1.6 \times 10^{-09}$ |
| Area 12, T Tunnel Pond No. 1 | 04/09/92 | $1.9 \times 10^{-09}$ | $1.5 \times 10^{-11}$ |
| Area 12, T Tunnel Pond No. 2 | 02/12/92 | $4.0 \times 10^{-09}$ | $3.4 \times 10^{-09}$ |
| Area 12, T Tunnel Pond No. 2 | 04/09/92 | $1.8 \times 10^{-09}$ | $1.6 \times 10^{-09}$ |
| Area 12, T Tunnel Pond No. 2 | 07/21/92 | $2.5 \times 10^{-09}$ | $3.2 \times 10^{-09}$ |
| Area 12, T Tunnel Pond No. 2 | 10/20/92 | $3.7 \times 10^{-09}$ | $4.0 \times 10^{-09}$ |
| Area 12, T Tunnel Pond No. 3 | 07/21/92 | $3.1 \times 10^{-09}$ | $2.9 \times 10^{-09}$ |
| Area 12, T Tunnel Pond No. 3 | 10/20/92 | $2.7 \times 10^{-09}$ | $2.5 \times 10^{-09}$ |

Typical Limit of Detection: $5.0 \times 10^{-11}$ $\mu$Ci/mL

**Attachment C.14  Duplicates: Gross Beta in Water [containment ponds] - 1992**

| Sampling Location | Collection Dates | μCi/mL Original | μCi/mL Duplicate |
|---|---|---|---|
| Area 6, Yucca Pond | 01/15/92 | $6.2 \times 10^{-08}$ | $6.1 \times 10^{-08}$ |
| Area 6, Yucca Pond | 02/12/92 | $5.4 \times 10^{-08}$ | $3.6 \times 10^{-08}$ |
| Area 6, Yucca Pond | 03/11/92 | $4.8 \times 10^{-08}$ | $4.6 \times 10^{-08}$ |
| Area 6, Yucca Pond | 04/27/92 | $2.1 \times 10^{-08}$ | $1.3 \times 10^{-08}$ |
| Area 6, Yucca Pond | 05/14/92 | $6.1 \times 10^{-08}$ | $1.3 \times 10^{-08}$ |
| Area 6, Yucca Pond | 06/03/92 | $4.7 \times 10^{-08}$ | $5.6 \times 10^{-08}$ |
| Area 6, Yucca Pond | 07/09/92 | $6.2 \times 10^{-08}$ | $3.9 \times 10^{-08}$ |
| Area 6, Yucca Pond | 08/20/92 | $2.1 \times 10^{-08}$ | $2.4 \times 10^{-08}$ |
| Area 6, Yucca Pond | 09/02/92 | $1.2 \times 10^{-08}$ | $5.6 \times 10^{-07}$ |
| Area 6, Yucca Pond | 10/06/92 | $4.6 \times 10^{-08}$ | $3.4 \times 10^{-08}$ |
| Area 6, Yucca Pond | 11/19/92 | $3.9 \times 10^{-08}$ | $4.3 \times 10^{-08}$ |
| Area 6, Yucca Pond | 12/03/92 | $4.2 \times 10^{-08}$ | $4.3 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 01/15/92 | $7.6 \times 10^{-08}$ | $7.5 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 02/12/92 | $4.7 \times 10^{-08}$ | $6.9 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 03/11/92 | $9.3 \times 10^{-08}$ | $5.7 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 04/09/92 | $7.7 \times 10^{-08}$ | $2.8 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 05/12/92 | $5.0 \times 10^{-08}$ | $4.8 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 06/09/92 | $6.4 \times 10^{-08}$ | $7.0 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 07/21/92 | $4.1 \times 10^{-08}$ | $7.2 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 08/27/92 | $5.5 \times 10^{-08}$ | $5.5 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 09/03/92 | $4.9 \times 10^{-08}$ | $5.7 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 10/20/92 | $6.4 \times 10^{-08}$ | $5.3 \times 10^{-08}$ |
| Area 12, E Tunnel Effluent | 12/02/92 | $6.6 \times 10^{-08}$ | $6.8 \times 10^{-08}$ |
| Area 12, E Tunnel Pond No. 1 | 07/21/92 | $5.1 \times 10^{-08}$ | $5.7 \times 10^{-08}$ |
| Area 12, E Tunnel Pond No. 1 | 08/18/92 | $7.9 \times 10^{-09}$ | $2.6 \times 10^{-10}$ |
| Area 12, E Tunnel Pond No. 1 | 09/03/92 | $1.5 \times 10^{-09}$ | $2.3 \times 10^{-10}$ |
| Area 12, E Tunnel Pond No. 1 | 10/20/92 | $5.9 \times 10^{-08}$ | $3.8 \times 10^{-08}$ |
| Area 12, N Tunnel Effluent | 01/15/92 | $5.9 \times 10^{-09}$ | $7.8 \times 10^{-09}$ |
| Area 12, N Tunnel Effluent | 02/12/92 | $-2.1 \times 10^{-09}$ | $-1.3 \times 10^{-09}$ |
| Area 12, N Tunnel Effluent | 03/11/92 | $3.2 \times 10^{-09}$ | $3.5 \times 10^{-09}$ |
| Area 12, N Tunnel Effluent | 04/09/92 | $1.1 \times 10^{-08}$ | $3.8 \times 10^{-09}$ |
| Area 12, N Tunnel Effluent | 05/12/92 | $-5.3 \times 10^{-09}$ | $1.6 \times 10^{-08}$ |
| Area 12, N Tunnel Effluent | 06/16/92 | $1.4 \times 10^{-08}$ | $3.8 \times 10^{-11}$ |
| Area 12, N Tunnel Effluent | 07/21/92 | $4.3 \times 10^{-09}$ | $-7.6 \times 10^{-09}$ |
| Area 12, N Tunnel Effluent | 08/18/92 | $2.8 \times 10^{-09}$ | $-1.1 \times 10^{-08}$ |
| Area 12, N Tunnel Effluent | 09/03/92 | $2.0 \times 10^{-08}$ | $1.1 \times 10^{-08}$ |
| Area 12, N Tunnel Effluent | 10/20/92 | $6.0 \times 10^{-09}$ | $-1.4 \times 10^{-09}$ |
| Area 12, N Tunnel Effluent | 12/02/92 | $9.5 \times 10^{-09}$ | $-5.0 \times 10^{-09}$ |
| Area 12, N Tunnel Pond No. 1 | 01/15/92 | $3.2 \times 10^{-09}$ | $4.1 \times 10^{-09}$ |

Typical limit of detection: $3.0 \times 10^{-9}$ μCi/mL

Attachment C.14 (Duplicates: Gross Beta in Water [containment Ponds] - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
|---|---|---|---|
| | | Original | Duplicate |
| Area 12, N Tunnel Pond No. 1 | 04/09/92 | $1.2 \times 10^{-08}$ | $2.3 \times 10^{-09}$ |
| Area 12, N Tunnel Pond No. 1 | 05/12/92 | $8.6 \times 10^{-09}$ | $-8.1 \times 10^{-09}$ |
| Area 12, N Tunnel Pond No. 1 | 06/16/92 | $-3.7 \times 10^{-10}$ | $1.8 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 2 | 02/12/92 | $8.4 \times 10^{-08}$ | $8.9 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 2 | 03/11/92 | $7.5 \times 10^{-09}$ | $1.7 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 2 | 04/09/92 | $1.8 \times 10^{-08}$ | $6.9 \times 10^{-09}$ |
| Area 12, N Tunnel Pond No. 2 | 05/12/92 | $7.5 \times 10^{-09}$ | $2.5 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 2 | 06/16/92 | $1.3 \times 10^{-08}$ | $1.5 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 2 | 07/21/92 | $1.0 \times 10^{-08}$ | $6.9 \times 10^{-09}$ |
| Area 12, N Tunnel Pond No. 2 | 08/18/92 | $-5.1 \times 10^{-09}$ | $-1.2 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 2 | 09/03/92 | $1.5 \times 10^{-08}$ | $1.7 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 2 | 10/20/92 | $2.0 \times 10^{-09}$ | $3.0 \times 10^{-09}$ |
| Area 12, N Tunnel Pond No. 2 | 12/02/92 | $-1.8 \times 10^{-08}$ | $-2.7 \times 10^{-10}$ |
| Area 12, N Tunnel Pond No. 3 | 02/12/92 | $1.1 \times 10^{-07}$ | $7.3 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 3 | 03/11/92 | $2.9 \times 10^{-08}$ | $1.3 \times 10^{-08}$ |
| Area 12, N Tunnel Pond No. 3 | 04/09/92 | $-3.1 \times 10^{-09}$ | $4.6 \times 10^{-09}$ |
| Area 12, N Tunnel Pond No. 3 | 05/12/92 | $4.1 \times 10^{-11}$ | $7.6 \times 10^{-09}$ |
| Area 12, N Tunnel Pond No. 3 | 06/16/92 | $1.4 \times 10^{-09}$ | $1.2 \times 10^{-09}$ |
| Area 12, N Tunnel Pond No. 3 | 07/21/92 | $1.3 \times 10^{-08}$ | $-5.1 \times 10^{-09}$ |
| Area 12, N Tunnel Pond No. 3 | 08/18/92 | $2.8 \times 10^{-08}$ | $1.1 \times 10^{-09}$ |
| Area 12, N Tunnel Pond No. 3 | 09/03/92 | $1.9 \times 10^{-08}$ | $7.0 \times 10^{-09}$ |
| Area 12, N Tunnel Pond No. 3 | 10/20/92 | $2.1 \times 10^{-08}$ | $-8.7 \times 10^{-09}$ |
| Area 12, T Tunnel Effluent | 01/15/92 | $1.3 \times 10^{-06}$ | $1.7 \times 10^{-06}$ |
| Area 12, T Tunnel Effluent | 02/12/92 | $9.3 \times 10^{-07}$ | $9.9 \times 10^{-07}$ |
| Area 12, T Tunnel Effluent | 03/11/92 | $1.0 \times 10^{-06}$ | $1.1 \times 10^{-06}$ |
| Area 12, T Tunnel Effluent | 04/09/92 | $6.9 \times 10^{-07}$ | $6.4 \times 10^{-07}$ |
| Area 12, T Tunnel Effluent | 05/14/92 | $7.1 \times 10^{-07}$ | $7.8 \times 10^{-07}$ |
| Area 12, T Tunnel Effluent | 06/09/92 | $7.6 \times 10^{-07}$ | $6.9 \times 10^{-07}$ |
| Area 12, T Tunnel Effluent | 07/21/92 | $4.6 \times 10^{-07}$ | $5.0 \times 10^{-07}$ |
| Area 12, T Tunnel Effluent | 08/18/92 | $2.4 \times 10^{-07}$ | $3.0 \times 10^{-07}$ |
| Area 12, T Tunnel Effluent | 09/03/92 | $4.2 \times 10^{-07}$ | $4.5 \times 10^{-07}$ |
| Area 12, T Tunnel Effluent | 10/20/92 | $4.9 \times 10^{-07}$ | $4.6 \times 10^{-07}$ |
| Area 12, T Tunnel Effluent | 12/02/92 | $7.1 \times 10^{-07}$ | $6.5 \times 10^{-07}$ |
| Area 12, T Tunnel Pond No. 1 | 02/12/92 | $8.6 \times 10^{-07}$ | $1.0 \times 10^{-06}$ |
| Area 12, T Tunnel Pond No. 1 | 03/11/92 | $8.9 \times 10^{-07}$ | $9.1 \times 10^{-07}$ |
| Area 12, T Tunnel Pond No. 1 | 04/09/92 | $4.9 \times 10^{-07}$ | $4.7 \times 10^{-07}$ |
| Area 12, T Tunnel Pond No. 1 | 05/14/92 | $5.6 \times 10^{-07}$ | $5.9 \times 10^{-07}$ |
| Area 12, T Tunnel Pond No. 1 | 06/09/92 | $4.9 \times 10^{-07}$ | $5.3 \times 10^{-07}$ |
| Area 12, T Tunnel Pond No. 2 | 02/12/92 | $5.6 \times 10^{-07}$ | $6.0 \times 10^{-07}$ |

Typical limit of detection: $3.0 \times 10^{-9}$ μCi/mL

Attachment C.14 (Duplicates: Gross Beta in Water [containment Ponds] - 1992, cont.)

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Original | Duplicate |
| Area 12, T Tunnel Pond No. 2 | 03/11/92 | $9.3 \times 10^{-07}$ | $8.9 \times 10^{-07}$ |
| Area 12, T Tunnel Pond No. 2 | 04/09/92 | $4.8 \times 10^{-07}$ | $5.3 \times 10^{-07}$ |
| Area 12, T Tunnel Pond No. 2 | 05/14/92 | $1.2 \times 10^{-07}$ | $5.1 \times 10^{-07}$ |
| Area 12, T Tunnel Pond No. 2 | 06/09/92 | $5.1 \times 10^{-07}$ | $5.7 \times 10^{-06}$ |
| Area 12, T Tunnel Pond No. 2 | 07/21/92 | $5.4 \times 10^{-07}$ | $5.8 \times 10^{-06}$ |
| Area 12, T Tunnel Pond No. 2 | 08/18/92 | $1.8 \times 10^{-07}$ | $1.2 \times 10^{-07}$ |
| Area 12, T Tunnel Pond No. 2 | 09/03/92 | $3.3 \times 10^{-07}$ | $4.4 \times 10^{-07}$ |
| Area 12, T Tunnel Pond No. 2 | 10/20/92 | $6.3 \times 10^{-07}$ | $6.5 \times 10^{-07}$ |
| Area 12, T Tunnel Pond No. 2 | 12/02/92 | $4.3 \times 10^{-07}$ | $5.4 \times 10^{-07}$ |
| Area 12, T Tunnel Pond No. 3 | 07/21/92 | $4.8 \times 10^{-07}$ | $6.1 \times 10^{-07}$ |
| Area 12, T Tunnel Pond No. 3 | 08/18/92 | $8.4 \times 10^{-08}$ | $3.5 \times 10^{-08}$ |
| Area 12, T Tunnel Pond No. 3 | 09/03/92 | $1.1 \times 10^{-06}$ | $1.2 \times 10^{-06}$ |
| Area 12, T Tunnel Pond No. 3 | 10/20/92 | $5.8 \times 10^{-07}$ | $4.4 \times 10^{-06}$ |
| Area 12, T Tunnel Pond No. 3 | 12/02/92 | $5.3 \times 10^{-07}$ | $5.0 \times 10^{-07}$ |

Typical limit of detection: $3.0 \times 10^{-9}$ μCi/mL

## Attachment C.15 Duplicates: Tritium in Water [containment ponds] - 1992

| Sampling Location | Collection Dates | μCi/mL | |
| --- | --- | --- | --- |
| | | Original | Duplicate |
| Area 6, Yucca Pond | 01/15/92 | $3.8 \times 10^{-06}$ | $3.8 \times 10^{-06}$ |
| Area 6, Yucca Pond | 02/12/92 | $2.3 \times 10^{-06}$ | $3.2 \times 10^{-06}$ |
| Area 6, Yucca Pond | 03/11/92 | $3.1 \times 10^{-06}$ | $3.2 \times 10^{-06}$ |
| Area 6, Yucca Pond | 04/27/92 | $2.7 \times 10^{-06}$ | $2.6 \times 10^{-06}$ |
| Area 6, Yucca Pond | 05/14/92 | $2.3 \times 10^{-06}$ | $2.6 \times 10^{-06}$ |
| Area 6, Yucca Pond | 06/03/92 | $2.2 \times 10^{-06}$ | $2.5 \times 10^{-06}$ |
| Area 6, Yucca Pond | 07/09/92 | $1.9 \times 10^{-06}$ | $2.2 \times 10^{-06}$ |
| Area 6, Yucca Pond | 08/20/92 | $1.9 \times 10^{-06}$ | $2.2 \times 10^{-06}$ |
| Area 6, Yucca Pond | 09/02/92 | $1.7 \times 10^{-06}$ | $1.7 \times 10^{-06}$ |
| Area 6, Yucca Pond | 10/06/92 | $1.4 \times 10^{-06}$ | $1.4 \times 10^{-06}$ |
| Area 6, Yucca Pond | 11/19/92 | $1.2 \times 10^{-06}$ | $1.2 \times 10^{-06}$ |
| Area 6, Yucca Pond | 11/19/92 | $2.7 \times 10^{-06}$ | $1.6 \times 10^{-06}$ |
| Area 6, Yucca Pond | 12/03/92 | $8.4 \times 10^{-07}$ | $1.2 \times 10^{-06}$ |
| Area 6, Yucca Pond | 12/03/92 | $9.8 \times 10^{-07}$ | $1.4 \times 10^{-07}$ |
| Area 12, E Tunnel Effluent | 01/15/92 | $2.2 \times 10^{-03}$ | $2.2 \times 10^{-03}$ |
| Area 12, E Tunnel Effluent | 02/12/92 | $1.7 \times 10^{-03}$ | $2.2 \times 10^{-03}$ |
| Area 12, E Tunnel Effluent | 03/11/92 | $2.2 \times 10^{-03}$ | $2.2 \times 10^{-03}$ |
| Area 12, E Tunnel Effluent | 04/09/92 | $2.1 \times 10^{-03}$ | $2.2 \times 10^{-03}$ |
| Area 12, E Tunnel Effluent | 05/12/92 | $2.0 \times 10^{-03}$ | $2.1 \times 10^{-03}$ |
| Area 12, E Tunnel Effluent | 06/09/92 | $2.1 \times 10^{-03}$ | $2.2 \times 10^{-03}$ |
| Area 12, E Tunnel Effluent | 07/21/92 | $2.1 \times 10^{-03}$ | $2.1 \times 10^{-03}$ |
| Area 12, E Tunnel Effluent | 08/27/92 | $2.0 \times 10^{-03}$ | $2.0 \times 10^{-03}$ |
| Area 12, E Tunnel Effluent | 09/03/92 | $2.0 \times 10^{-03}$ | $2.0 \times 10^{-03}$ |
| Area 12, E Tunnel Effluent | 10/20/92 | $2.0 \times 10^{-03}$ | $2.0 \times 10^{-03}$ |
| Area 12, E Tunnel Effluent | 12/02/92 | $2.0 \times 10^{-03}$ | $2.0 \times 10^{-03}$ |
| Area 12, E Tunnel Pond No. 1 | 07/21/92 | $2.0 \times 10^{-03}$ | $2.0 \times 10^{-03}$ |
| Area 12, E Tunnel Pond No. 1 | 08/18/92 | $1.9 \times 10^{-03}$ | $1.8 \times 10^{-03}$ |
| Area 12, E Tunnel Pond No. 1 | 09/03/92 | $2.0 \times 10^{-03}$ | $2.0 \times 10^{-03}$ |
| Area 12, E Tunnel Pond No. 1 | 10/20/92 | $1.9 \times 10^{-03}$ | $1.9 \times 10^{-03}$ |
| Area 12, N Tunnel Effluent | 01/15/92 | $2.9 \times 10^{-04}$ | $2.9 \times 10^{-04}$ |
| Area 12, N Tunnel Effluent | 02/12/92 | $2.5 \times 10^{-04}$ | $3.8 \times 10^{-04}$ |
| Area 12, N Tunnel Effluent | 03/11/92 | $3.6 \times 10^{-02}$ | $3.4 \times 10^{-04}$ |
| Area 12, N Tunnel Effluent | 04/09/92 | $3.6 \times 10^{-04}$ | $3.6 \times 10^{-04}$ |
| Area 12, N Tunnel Effluent | 05/12/92 | $3.3 \times 10^{-04}$ | $3.5 \times 10^{-04}$ |
| Area 12, N Tunnel Effluent | 06/16/92 | $8.6 \times 10^{-04}$ | $8.4 \times 10^{-04}$ |
| Area 12, N Tunnel Effluent | 07/21/92 | $4.3 \times 10^{-04}$ | $4.5 \times 10^{-04}$ |
| Area 12, N Tunnel Effluent | 08/18/92 | $5.2 \times 10^{-04}$ | $4.1 \times 10^{-04}$ |
| Area 12, N Tunnel Effluent | 09/03/92 | $4.3 \times 10^{-05}$ | $4.5 \times 10^{-04}$ |
| Area 12, N Tunnel Effluent | 10/20/92 | $1.5 \times 10^{-04}$ | $1.5 \times 10^{-04}$ |

Typical Limit of Detection: $3.0 \times 10^{-7}$ μCi/mL

| Sampling Location | Collection Dates | $\mu$Ci/mL | |
|---|---|---|---|
| | | Original | Duplicate |
| Area 12, N Tunnel Effluent | 12/02/92 | $1.5 \times 10^{-04}$ | $1.5 \times 10^{-04}$ |
| Area 12, N Tunnel Effluent | 12/02/92 | $2.0 \times 10^{-04}$ | $1.9 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 1 | 01/15/92 | $3.5 \times 10^{-04}$ | $3.4 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 1 | 04/09/92 | $4.9 \times 10^{-04}$ | $4.6 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 1 | 05/12/92 | $3.3 \times 10^{-04}$ | $3.3 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 1 | 06/16/92 | $4.1 \times 10^{-04}$ | $4.1 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 2 | 02/12/92 | $8.5 \times 10^{-05}$ | $8.5 \times 10^{-05}$ |
| Area 12, N Tunnel Pond No. 2 | 03/11/92 | $2.6 \times 10^{-04}$ | $2.6 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 2 | 04/09/92 | $4.0 \times 10^{-04}$ | $3.9 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 2 | 05/12/92 | $4.7 \times 10^{-04}$ | $4.7 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 2 | 06/16/92 | $4.2 \times 10^{-04}$ | $4.3 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 2 | 07/21/92 | $3.5 \times 10^{-04}$ | $3.5 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 2 | 08/18/92 | $5.1 \times 10^{-04}$ | $4.2 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 2 | 09/03/92 | $4.4 \times 10^{-04}$ | $4.4 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 2 | 10/20/92 | $2.1 \times 10^{-03}$ | $2.1 \times 10^{-03}$ |
| Area 12, N Tunnel Pond No. 2 | 12/02/92 | $2.8 \times 10^{-04}$ | $2.9 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 3 | 02/12/92 | $9.9 \times 10^{-05}$ | $7.8 \times 10^{-05}$ |
| Area 12, N Tunnel Pond No. 3 | 03/11/92 | $2.7 \times 10^{-04}$ | $2.8 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 3 | 04/09/92 | $4.8 \times 10^{-04}$ | $4.6 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 3 | 05/12/92 | $4.3 \times 10^{-04}$ | $4.4 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 3 | 06/16/92 | $2.7 \times 10^{-04}$ | $2.7 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 3 | 07/21/92 | $3.6 \times 10^{-04}$ | $3.6 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 3 | 08/18/92 | $5.1 \times 10^{-04}$ | $5.0 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 3 | 09/03/92 | $4.4 \times 10^{-04}$ | $4.5 \times 10^{-04}$ |
| Area 12, N Tunnel Pond No. 3 | 10/20/92 | $2.3 \times 10^{-03}$ | $2.3 \times 10^{-03}$ |
| Area 12, T Tunnel Effluent | 01/15/92 | $1.8 \times 10^{-04}$ | $3.7 \times 10^{-05}$ |
| Area 12, T Tunnel Effluent | 02/12/92 | $6.3 \times 10^{-02}$ | $6.4 \times 10^{-02}$ |
| Area 12, T Tunnel Effluent | 03/11/92 | $5.7 \times 10^{-02}$ | $6.3 \times 10^{-02}$ |
| Area 12, T Tunnel Effluent | 04/09/92 | $6.4 \times 10^{-02}$ | $6.4 \times 10^{-02}$ |
| Area 12, T Tunnel Effluent | 05/14/92 | $5.8 \times 10^{-02}$ | $5.8 \times 10^{-02}$ |
| Area 12, T Tunnel Effluent | 06/09/92 | $5.6 \times 10^{-02}$ | $1.4 \times 10^{-02}$ |
| Area 12, T Tunnel Effluent | 07/21/92 | $3.0 \times 10^{-02}$ | $3.1 \times 10^{-02}$ |
| Area 12, T Tunnel Effluent | 08/18/92 | $6.2 \times 10^{-02}$ | $5.8 \times 10^{-02}$ |
| Area 12, T Tunnel Effluent | 09/03/92 | $5.8 \times 10^{-02}$ | $5.8 \times 10^{-02}$ |
| Area 12, T Tunnel Effluent | 10/20/92 | $3.7 \times 10^{-02}$ | $3.7 \times 10^{-02}$ |
| Area 12, T Tunnel Effluent | 10/20/92 | $1.2 \times 10^{-02}$ | $4.4 \times 10^{-02}$ |
| Area 12, T Tunnel Effluent | 12/02/92 | $6.1 \times 10^{-02}$ | $6.1 \times 10^{-02}$ |
| Area 12, T Tunnel Pond No. 1 | 02/12/92 | $6.1 \times 10^{-02}$ | $6.0 \times 10^{-02}$ |
| Area 12, T Tunnel Pond No. 1 | 03/11/92 | $5.7 \times 10^{-02}$ | $5.7 \times 10^{-02}$ |

Typical Limit of Detection: $3.0 \times 10^{-7}$ $\mu$Ci/mL

## Attachment C.15  (Duplicates: Tritium in Water [containment ponds] -1992, cont.)

| Sampling<br>Location | Collection<br>Dates | μCi/mL | |
|---|---|---|---|
| | | Original | Duplicate |
| Area 12, T Tunnel Pond No. 1 | 04/09/92 | $5.7 \times 10^{-02}$ | $5.6 \times 10^{-02}$ |
| Area 12, T Tunnel Pond No. 1 | 05/14/92 | $5.8 \times 10^{-02}$ | $5.8 \times 10^{-02}$ |
| Area 12, T Tunnel Pond No. 1 | 06/09/92 | $5.3 \times 10^{-02}$ | $1.4 \times 10^{-02}$ |
| Area 12, T Tunnel Pond No. 2 | 02/12/92 | $4.9 \times 10^{-02}$ | $4.8 \times 10^{-02}$ |
| Area 12, T Tunnel Pond No. 2 | 03/11/92 | $5.7 \times 10^{-02}$ | $5.7 \times 10^{-02}$ |
| Area 12, T Tunnel Pond No. 2 | 04/09/92 | $5.7 \times 10^{-02}$ | $5.6 \times 10^{-02}$ |
| Area 12, T Tunnel Pond No. 2 | 05/14/92 | $5.8 \times 10^{-02}$ | $5.8 \times 10^{-02}$ |
| Area 12, T Tunnel Pond No. 2 | 06/09/92 | $5.0 \times 10^{-02}$ | $1.4 \times 10^{-02}$ |
| Area 12, T Tunnel Pond No. 2 | 08/18/92 | $5.4 \times 10^{-02}$ | $5.4 \times 10^{-02}$ |
| Area 12, T Tunnel Pond No. 2 | 09/03/92 | $5.8 \times 10^{-02}$ | $5.4 \times 10^{-02}$ |
| Area 12, T Tunnel Pond No. 2 | 10/20/92 | $1.2 \times 10^{-02}$ | $5.5 \times 10^{-02}$ |
| Area 12, T Tunnel Pond No. 2 | 12/02/92 | $5.6 \times 10^{-02}$ | $5.6 \times 10^{-02}$ |
| Area 12, T Tunnel Pond No. 3 | 07/21/92 | $5.4 \times 10^{-02}$ | $5.8 \times 10^{-02}$ |
| Area 12, T Tunnel Pond No. 3 | 10/20/92 | $1.2 \times 10^{-02}$ | $5.4 \times 10^{-02}$ |
| Area 12, T Tunnel Pond No. 3 | 12/02/92 | $6.5 \times 10^{-02}$ | $5.6 \times 10^{-02}$ |

Typical Limit of Detection: $3. \times 10^{-7}$ μCi/mL

# APPENDIX D
# SUMMARY OF 1992 RESULTS OF
# OFFSITE RADIOLOGICAL MONITORING

Statistical treatment of these data will appear in the 1992 EPA Offsite Environmental Monitoring Report.

Table D.1  Gross Beta Results for the Offsite Standby Air Surveillance Network - 1992

Gross Beta Concentration ($10^{-14}$ µCi/mL)

| Sampling Location | Number | Maximum | Minimum | Arithmetic Mean | Standard Deviation |
|---|---|---|---|---|---|
| Little Rock, AR | 4 | 2.75 | 1.40 | 2.04 | 0.63 |
| Globe, AZ | 4 | 2.77 | 1.06 | 1.75 | 0.76 |
| Kingman, AZ | 3 | 2.44 | 0.59 | 1.45 | 0.93 |
| Tuscon, AZ | 4 | 2.26 | 0.84 | 1.79 | 0.65 |
| Winslow, AZ | 4 | 5.51 | 1.45 | 3.14 | 1.79 |
| Yuma, AZ | 3 | 2.49 | 1.37 | 1.97 | 0.56 |
| Alturas, CA | 4 | 1.76 | 0.06 | 0.91 | 0.81 |
| Baker, CA | 3 | 2.34 | 1.74 | 1.99 | 0.31 |
| Bishop, CA | 5 | 3.00 | 1.21 | 1.89 | 0.69 |
| Chico, CA | 3 | 3.12 | 1.44 | 2.07 | 0.91 |
| Indio, CA | 4 | 4.08 | 1.81 | 2.73 | 0.96 |
| Lone Pine, CA | 3 | 2.59 | 1.24 | 1.75 | 0.73 |
| Needles, CA | 2 | 2.37 | 1.18 | 1.77 | 0.84 |
| Ridgecrest, CA | 2 | 0.15 | 0.08 | 0.11 | 0.05 |
| Santa Rosa, CA | 3 | 2.52 | 0.20 | 1.40 | 1.16 |
| Cortez, CO | 3 | 2.95 | 2.50 | 2.72 | 0.22 |
| Denver, CO | 3 | 2.12 | 1.67 | 1.93 | 0.23 |
| Grand Junction, CO | 3 | 2.52 | 1.63 | 2.00 | 0.46 |
| Mountain Home, ID | 3 | 3.35 | 0.51 | 1.66 | 1.50 |
| Nampa, ID | 4 | 2.35 | 0.76 | 1.66 | 0.75 |
| Pocatello, ID | 2 | 1.58 | 1.08 | 1.33 | 0.35 |
| Fort Dodge, IA | 3 | 2.22 | 1.30 | 1.71 | 0.47 |
| Iowa City, IA | 2 | 2.37 | 1.96 | 2.16 | 0.29 |
| Dodge City, KS | 4 | 2.21 | 1.67 | 1.98 | 0.26 |
| Monroe, LA | 3 | 2.59 | 1.29 | 1.87 | 0.66 |
| Minneapolis, MN | 4 | 2.38 | 0.91 | 1.58 | 0.73 |
| Clayton, MO | 4 | 3.11 | 1.52 | 2.06 | 0.74 |

Mean MDC: 2.50 x $10^{-15}$ µCi/mL          Standard Deviation of Mean MDC: 3.07 x $10^{-16}$ µCi/mL

MDC  =  Minimum Detectable Concentration

Table D.1 (Gross Beta Results for the Offsite Standby Air Surveillance Network - 1992, cont.)

<u>Gross Beta Concentration ($10^{-14}$ µCi/mL)</u>

| <u>Sampling Location</u> | <u>Number</u> | <u>Maximum</u> | <u>Minimum</u> | Arithmetic <u>Mean</u> | Standard <u>Deviation</u> |
|---|---|---|---|---|---|
| Joplin, MO | 4 | 3.17 | 0.90 | 2.01 | 1.04 |
| St. Joseph, MO | 3 | 2.11 | -0.06 | 0.71 | 1.21 |
| Great Falls, MT | 4 | 1.59 | 0.98 | 1.22 | 0.26 |
| Kalispell, MT | 2 | 1.90 | 1.40 | 1.65 | 0.35 |
| Miles City, MT | 4 | 2.30 | 1.26 | 1.77 | 0.52 |
| North Platte, NE | 3 | 2.69 | 1.51 | 2.09 | 0.59 |
| Adaven-Uhalde Ranch, NV | 8 | 2.83 | 0.52 | 1.64 | 0.80 |
| Battle Mountain, NV | 5 | 2.19 | 1.53 | 1.89 | 0.24 |
| Blue Jay, NV | 4 | 2.49 | 1.05 | 1.46 | 0.69 |
| Clark Station, NV | 4 | 2.70 | 1.18 | 1.73 | 0.69 |
| Currant-Angle Worm Ranch, NV | 4 | 2.10 | 1.39 | 1.60 | 0.34 |
| Currie Maint. Station, NV | 4 | 1.78 | 0.76 | 1.16 | 0.44 |
| Duckwater, NV | 4 | 1.42 | 1.07 | 1.26 | 0.15 |
| Elko, NV | 3 | 1.28 | 0.04 | 0.67 | 0.62 |
| Eureka, NV | 4 | 1.56 | 0.83 | 1.18 | 0.31 |
| Fallon, NV | 3 | 3.56 | 1.65 | 2.73 | 0.98 |
| Geyser Ranch, NV | 4 | 3.23 | 1.28 | 2.19 | 0.81 |
| Lida, NV | 2 | 1.77 | 1.37 | 1.57 | 0.28 |
| Lovelock, NV | 4 | 2.11 | 1.28 | 1.64 | 0.39 |
| Lund, NV | 4 | 1.43 | 0.33 | 1.03 | 0.50 |
| Mesquite, NV | 2 | 4.27 | 3.40 | 3.83 | 0.62 |
| Reno, NV | 4 | 1.73 | 1.04 | 1.34 | 0.30 |
| Round Mountain, NV | 3 | 1.64 | 1.06 | 1.30 | 0.30 |
| Wells, NV | 5 | 1.78 | 0.86 | 1.34 | 0.38 |
| Winnemucca, NV | 4 | 1.55 | 0.89 | 1.21 | 0.37 |
| Albuquerque, NM | 4 | 2.52 | 1.08 | 1.69 | 0.67 |
| Carlsbad, NM | 4 | 2.59 | 0.93 | 1.52 | 0.79 |
| Shiprock, NM | 3 | 1.84 | 1.35 | 1.59 | 0.24 |
| Bismarck, ND | 4 | 2.18 | 0.94 | 1.57 | 0.56 |
| Fargo, ND | 4 | 3.35 | 1.32 | 2.00 | 0.92 |
| Williston, ND | 4 | 5.93 | 1.19 | 2.53 | 2.27 |
| Muskogee, OK | - | Quarterly sampling not performed | | | |
| Burns, OR | 1 | 1.07 | 1.07 | 1.07 | -- |
| Medford, OR | 4 | 2.36 | 0.39 | 1.26 | 1.00 |
| Rapid City, SD | - | Quarterly sampling not performed | | | |
| Amarillo, TX | 4 | 3.18 | 1.59 | 2.08 | 0.74 |
| Austin, TX | 3 | 1.54 | 1.06 | 1.28 | 0.24 |

Mean MDC: 2.50 x $10^{-15}$ µCi/mL          Standard Deviation of Mean MDC: 3.07 x $10^{-16}$ µCi/mL

MDC  Minimum Detectable Concentration

Table D.1 (Gross Beta Results for the Offsite Standby Air Surveillance Network - 1992, cont.)

Gross Beta Concentration ($10^{-14}$ µCi/mL)

| Sampling Location | Number | Maximum | Minimum | Arithmetic Mean | Standard Deviation |
|---|---|---|---|---|---|
| Midland, TX | 2 | 1.59 | 0.66 | 1.12 | 0.66 |
| Tyler, TX | 2 | 1.60 | 1.25 | 1.43 | 0.25 |
| Bryce Canyon, UT | 4 | 1.96 | 1.59 | 1.79 | 0.17 |
| Enterprise, UT | 6 | 2.25 | 1.61 | 1.94 | 0.25 |
| Garrison, UT | 2 | 1.41 | 1.02 | 1.21 | 0.28 |
| Logan, UT | 4 | 3.13 | 1.93 | 2.33 | 0.55 |
| Parowan, UT | 4 | 1.59 | 0.99 | 1.39 | 0.27 |
| Vernal, UT | 4 | 2.39 | 0.57 | 1.52 | 0.86 |
| Wendover, UT | 4 | 1.94 | 1.23 | 1.58 | 0.37 |
| Seattle, WA | 4 | 1.37 | 0.57 | 0.91 | 0.34 |
| Spokane, WA | 4 | 3.01 | 1.29 | 2.25 | 0.73 |
| Rock Springs, WY | 4 | 3.40 | 1.56 | 2.09 | 0.88 |
| Worland, WY | 4 | 1.97 | 1.40 | 1.63 | 0.27 |

Mean MDC: 2.50 x $10^{-15}$ µCi/mL          Standard Deviation of Mean MDC: 3.07 x $10^{-16}$ µCi/mL

MDC  Minimum Detectable Concentration

Table D.2  Gross Alpha Results for the Offsite Standby Air Surveillance Network - 1992

Gross Alpha Concentration ($10^{-15}$ µCi/mL)

| Sampling Location | Number | Maximum | Minimum | Arithmetic Mean | Standard Deviation |
|---|---|---|---|---|---|
| Little Rock, AR | 4 | 2.1 | 0.6 | 1.3 | 0.72 |
| Globe, AZ | 4 | 2.1 | 1.4 | 1.8 | 0.40 |
| Kingman, AZ | 3 | 2.2 | 0.2 | 1.2 | 1.0 |
| Tuscon, AZ | 4 | 1.4 | 0.4 | 0.97 | 0.43 |
| Winslow, AZ | 4 | 2.8 | 0.8 | 1.5 | 0.92 |
| Yuma, AZ | 3 | 1.7 | 0.5 | 1.2 | 0.62 |
| Alturas, CA | 4 | 1.6 | 0.0 | 0.62 | 0.69 |
| Baker, CA | 3 | 2.7 | 2.0 | 2.4 | 0.35 |
| Bishop, CA | 5 | 2.3 | 1.4 | 2.0 | 0.37 |
| Chico, CA | 3 | 1.7 | 0.2 | 0.83 | 0.78 |

Mean MDC: 7.70 x $10^{-16}$ µCi/mL          Standard Deviation of Mean MDC: 2.49 x $10^{-16}$ µCi/mL

MDC  Minimum Detectable Concentration

Table D.2 (Gross Alpha Results for the Offsite Standby Air Surveillance Network - 1992, cont.)

Gross Alpha Concentration ($10^{-15}$ µCi/mL)

| Sampling Location | Number | Maximum | Minimum | Arithmetic Mean | Standard Deviation |
|---|---|---|---|---|---|
| Indio, CA | 4 | 1.5 | 1.1 | 1.3 | 0.17 |
| Lone Pine, CA | 3 | 1.1 | 1.0 | 1.0 | 0.06 |
| Needles, CA | 2 | 1.5 | 1.0 | 1.2 | 0.35 |
| Ridgecrest, CA | 2 | 0.6 | 0.0 | 0.30 | 0.42 |
| Santa Rosa, CA | 3 | 2.1 | 0.6 | 1.2 | 0.78 |
| Cortez, CO | 3 | 2.1 | 0.6 | 1.5 | 0.81 |
| Denver, CO | 3 | 0.8 | 0.5 | 0.63 | 0.15 |
| Grand Junction, CO | 3 | 1.9 | 1.1 | 1.6 | 0.44 |
| Mountain Home, ID | 3 | 2.6 | 0.2 | 1.2 | 1.2 |
| Nampa, ID | 4 | 1.5 | 0.4 | 0.90 | 0.53 |
| Pocatello, ID | 2 | 1.2 | 0.7 | 0.95 | 0.35 |
| Fort Dodge, IA | 3 | 2.0 | 1.3 | 1.6 | 0.36 |
| Iowa City, IA | 2 | 0.7 | 0.6 | 0.65 | 0.07 |
| Dodge City, KS | 4 | 0.9 | 0.3 | 0.70 | 0.27 |
| Monroe, LA | 3 | 1.4 | 0.4 | 0.77 | 0.55 |
| Minneapolis, MN | 4 | 1.7 | -0.1 | 0.80 | 0.77 |
| Clayton, MO | 4 | 1.0 | 0.5 | 0.82 | 0.24 |
| Joplin, MO | 4 | 2.3 | 0.5 | 1.1 | 0.82 |
| St. Joseph, MO | 3 | 1.8 | -0.1 | 0.70 | 0.98 |
| Great Falls, MT | 4 | 2.7 | 0.4 | 1.6 | 1.2 |
| Kalispell, MT | 2 | 0.9 | 0.5 | 0.70 | 0.28 |
| Miles City, MT | 4 | 3.1 | 2.2 | 2.8 | 0.39 |
| North Platte, NE | 3 | 1.3 | 0.7 | 0.93 | 0.32 |
| Adaven-Uhalde Ranch, NV | 8 | 2.2 | 0.1 | 1.0 | 0.83 |
| Battle Mountain, NV | 5 | 1.7 | 0.0 | 0.88 | 0.71 |
| Blue Jay, NV | 4 | 2.2 | 0.6 | 1.2 | 0.71 |
| Clark Station, NV | 4 | 1.3 | 0.1 | 0.60 | 0.50 |
| Currant-Angle Worm Ranch, NV | 4 | 1.1 | 0.5 | 0.82 | 0.25 |
| Currie Maint. Station, NV | 4 | 1.8 | 0.0 | 0.95 | 0.84 |
| Duckwater, NV | 4 | 1.2 | 0.9 | 1.0 | 0.14 |
| Elko, NV | 3 | 1.6 | 0.1 | 0.87 | 0.75 |
| Eureka, NV | 4 | 1.2 | 0.2 | 0.72 | 0.43 |
| Fallon, NV | 3 | 3.0 | 1.1 | 1.7 | 1.1 |

Mean MDC: 7.70 x $10^{-16}$ µCi/mL          Standard Deviation of Mean MDC: 2.49 x $10^{-16}$ µCi/mL

MDC Minimum Detectable Concentration

## Table D.2 (Gross Alpha Results for the Offsite Standby Air Surveillance Network - 1992, cont.)

### Gross Alpha Concentration ($10^{-15}$ μCi/mL)

| Sampling Location | Number | Maximum | Minimum | Arithmetic Mean | Standard Deviation |
|---|---|---|---|---|---|
| Geyser Ranch, NV | 4 | 2.3 | 0.4 | 1.6 | 0.90 |
| Lida, NV | 2 | 0.7 | 0.4 | 0.55 | 0.21 |
| Lovelock, NV | 4 | 1.1 | 0.3 | 0.75 | 0.34 |
| Lund, NV | 4 | 3.1 | 0.2 | 1.3 | 1.3 |
| Mesquite, NV | 2 | 3.9 | 1.7 | 2.8 | 1.6 |
| Reno, NV | 4 | 1.3 | 0.1 | 0.60 | 0.56 |
| Round Mountain, NV | 3 | 1.6 | 0.4 | 0.87 | 0.64 |
| Wells, NV | 5 | 1.6 | 0.2 | 1.0 | 0.54 |
| Winnemucca, NV | 4 | 0.6 | 0.1 | 0.32 | 0.26 |
| Albuquerque, NM | 4 | 1.6 | 0.4 | 1.1 | 0.51 |
| Carlsbad, NM | 4 | 1.6 | 0.1 | 0.70 | 0.67 |
| Shiprock, NM | 3 | 1.5 | 0.0 | 0.87 | 0.78 |
| Bismarck, ND | 4 | 1.3 | 0.0 | 0.75 | 0.54 |
| Fargo, ND | 4 | 3.8 | 0.4 | 1.3 | 1.6 |
| Williston, ND | 4 | 7.4 | 0.8 | 2.6 | 3.2 |
| Muskogee, OK | - | Quarterly sampling not performed | | | |
| Burns, OR | 1 | 1.1 | 1.1 | 1.1 | -- |
| Medford, OR | 4 | 2.1 | 0.1 | 0.82 | 0.88 |
| Rapid City, SD | - | Quarterly sampling not performed | | | |
| Amarillo, TX | 4 | 3.6 | 0.7 | 2.0 | 1.3 |
| Austin, TX | 3 | 0.8 | 0.4 | 0.67 | 0.23 |
| Midland, TX | 2 | 0.5 | 0.5 | 0.50 | 0.00 |
| Tyler, TX | 2 | 1.0 | 0.4 | 0.70 | 0.42 |
| Bryce Canyon, UT | 4 | 1.4 | 0.9 | 1.0 | 0.24 |
| Enterprise, UT | 6 | 2.3 | 0.6 | 1.2 | 0.63 |
| Garrison, UT | 2 | 1.3 | 0.5 | 0.90 | 0.57 |
| Logan, UT | 4 | 1.2 | 0.5 | 0.80 | 0.32 |
| Parowan, UT | 4 | 1.8 | 0.9 | 1.3 | 0.39 |
| Vernal, UT | 4 | 2.6 | 0.0 | 1.2 | 1.2 |
| Wendover, UT | 4 | 1.5 | 0.4 | 1.0 | 0.46 |
| Seattle, WA | 4 | 1.8 | -0.3 | 0.65 | 0.89 |
| Spokane, WA | 4 | 1.0 | 0.3 | 0.65 | 0.31 |
| Rock Springs, WY | 4 | 1.5 | 0.2 | 0.85 | 0.53 |
| Worland, WY | 4 | 2.1 | -0.1 | 1.1 | 0.91 |

Mean MDC: 7.70 x $10^{-16}$ μCi/mL          Standard Deviation of Mean MDC: 2.49 x $10^{-16}$ μCi/mL

MDC  Minimum Detectable Concentration

Table D.3  Offsite Atmospheric Plutonium Results for Standby Samplers - 1992

### $^{238}$Pu Concentration $(10^{-18}$ µCi/mL)

| Sampling Location | Number | Maximum | Minimum | Arithmetic Mean | Standard Deviation | Mean as %DCG |
|---|---|---|---|---|---|---|
| AZ (Winslow & Tucson) | 6 | 24.9 | -18.4 | -0.133 | 14.2 | NA |
| CA (Bishop & Ridgecrest) | 4 | 6.64 | -8.48 | -0.712 | 8.15 | NA |
| CO (Denver & Cortez) | 6 | 22.5 | -11.9 | 0.325 | 13.7 | <0.01 |
| ID (Nampa & Mountain Home) | 6 | 14.2 | -18.5 | -2.47 | 11.1 | NA |
| MO (Clayton & Joplin) | 6 | 16.5 | -11.9 | -0.155 | 9.86 | NA |
| MT (Great Falls & Miles City) | 6 | 12.1 | -6.60 | 0.132 | 8.08 | <0.01 |
| NM (Albuquerque & Carlsbad) | 6 | 85.7 | -6.69 | 11.9 | 36.3 | 0.04 |
| ND (Bismarck & Fargo) | 6 | <0.001 | -18.5 | -6.20 | 8.42 | NA |
| OR (Burns & Medford) | 6 | 33.3 | -49.9 | -10.5 | 29.3 | NA |
| TX (Austin & Amarillo) | 6 | <0.001 | -38.9 | -17.6 | 15.5 | NA |
| UT (Logan & Vernal) | 6 | <0.001 | -21.8 | -8.72 | 9.21 | NA |
| WA (Seattle & Spokane) | 6 | <0.001 | -4.44 | -1.48 | 2.29 | NA |
| WY (Worland & Rock Springs) | 6 | 22.2 | -8.97 | 2.14 | 12.5 | 0.01 |

Mean MDC: 3.86 x $10^{-17}$ µCi/mL          Standard Deviation of Mean MDC: 2.43 x $10^{-17}$ µCi/mL

DCG  Derived Concentration Guide; Established by DOE Order as 3 x $10^{-15}$ µCi/mL

### $^{239+240}$Pu Concentration $(10^{-18}$ µCi/mL)

| Sampling Location | Number | Maximum | Minimum | Arithmetic Mean | Standard Deviation | Mean as %DCG |
|---|---|---|---|---|---|---|
| AZ (Winslow & Tucson) | 6 | 14.6 | -9.21 | 1.51 | 9.39 | 0.01 |
| CA (Bishop & Ridgecrest) | 4 | 10.5 | -8.48 | 0.505 | 7.77 | <0.01 |
| CO (Denver & Cortez) | 6 | 9.16 | -7.49 | 0.912 | 5.47 | <0.01 |
| ID (Nampa & Mountain Home) | 6 | 7.11 | -10.5 | -2.75 | 6.37 | NA |
| MO (Clayton & Joplin) | 6 | 13.1 | -16.5 | -2.38 | 9.79 | NA |
| MT (Great Falls & Miles City) | 6 | 13.2 | <0.001 | 5.82 | 4.00 | 0.03 |
| NM (Albuquerque & Carlsbad) | 6 | 120. | -3.76 | 19.4 | 49.5 | 0.10 |
| ND (Bismarch & Fargo) | 6 | 3.04 | -9.26 | -3.95 | 4.76 | NA |
| OR (Burns & Medford) | 6 | 11.1 | -24.9 | -3.98 | 12.2 | NA |
| TX (Austin & Amarillo) | 6 | 16.9 | -7.79 | 0.193 | 9.04 | <0.01 |
| UT (Logan & Vernal) | 6 | 4.82 | -6.89 | -0.715 | 3.81 | NA |
| WA (Seattle & Spokane) | 6 | 12.1 | -5.94 | 3.07 | 6.56 | 0.02 |
| WY (Worland & Rock Springs) | 6 | 3.70 | -8.97 | -3.21 | 5.21 | NA |

Mean MDC: 2.97 x $10^{-17}$ µCi/mL          Standard Deviation of Mean MDC: 1.84 x $10^{-17}$ µCi/mL

DCG  Derived Concentration Guide; Established by DOE Order as 2 x $10^{-15}$ µCi/mL
MDC  Minimum Detectable Concentration
NA   Not applicable, result is less than MDC

Table D.4  Offsite Atmospheric Tritium Results for Standby Samplers - 1992

HTO Concentration ($10^{-7}$ pCi/mL)

| Sampling Location | Number | Maximum | Minimum | Arithmetic Mean | Standard Deviation | Mean as %DCG |
|---|---|---|---|---|---|---|
| Shoshone, CA | 4 | 25.8 | 4.47 | 14.2 | 9.03 | 0.01 |
| Austin, NV | 2 | 4.90 | -5.22 | -0.157 | 7.15 | NA |
| Caliente, NV | 1 | -11.6 | -11.6 | -11.6 | -- | NA |
| Ely, NV | 1 | -5.53 | -5.53 | -5.53 | -- | NA |
| Cedar City, UT | 3 | 8.78 | -13.8 | -3.18 | 11.3 | NA |
| Delta, UT | 1 | -3.99 | -3.99 | -3.99 | -- | NA |
| Milford, UT | 1 | 15.9 | 15.9 | 15.9 | -- | 0.02 |

Mean MDC:  $4.89 \times 10^{-6}$ pCi/mL        Standard Deviation of Mean MDC: $2.40 \times 10^{-6}$ pCi/mL

DCG  Derived Concentration Guide; Established by DOE Order as $1 \times 10^{-2}$ pCi/mL
MDC  Minimum Detectable Concentration
NA    Not applicable, result is less than MDC


Table D.5  Offsite Noble Gas Results for Standby Samplers - 1992

$^{85}$Kr Concentration ($10^{-11}$ μCi/mL)

| Sampling Location | Number | Maximum | Minimum | Arithmetic Mean | Standard Deviation | Mean as %DCG |
|---|---|---|---|---|---|---|
| Shoshone, CA | 2 | 2.86 | 2.65 | 2.75 | 0.14 | 0.01 |
| Austin, NV | 2 | 2.55 | 2.44 | 2.50 | 0.08 | 0.01 |
| Caliente, NV | 2 | 2.76 | 2.34 | 2.55 | 0.30 | 0.01 |
| Ely, NV | 1 | 2.35 | 2.35 | 2.35 | -- | 0.01 |
| Cedar City, UT | 4 | 2.82 | 2.11 | 2.55 | 0.33 | 0.01 |
| Delta, UT | 1 | 2.80 | 2.80 | 2.80 | -- | 0.01 |
| Milford, UT | - | Quarterly sampling was not performed | | | | |
| Salt Lake City, UT | - | Quarterly sampling was not performed | | | | |

Mean MDC:  $5.82 \times 10^{-12}$ μCi/mL        Standard Deviation of Mean MDC: $1.40 \times 10^{-12}$ μCi/mL

DCG  Derived Concentration Guide; Established by DOE Order as $3 \times 10^{-7}$ μCi/mL
MDC  Minimum Detectable Concentration

Table D.5  (Offsite Noble Gas Results for Standby Samplers - 1992, cont.)

$^{133}$Xe Concentration (10$^{-12}$ µCi/mL)

| Sampling Location | Number | Maximum | Minimum | Arithmetic Mean | Standard Deviation | Mean as %DCG |
|---|---|---|---|---|---|---|
| Shoshone, CA | 2 | 0.880 | 0.285 | 0.582 | 0.421 | 0.01 |
| Austin, NV | 2 | 0.000 | -12.1 | -6.07 | 8.59 | NA |
| Caliente, NV | 2 | 0.328 | -0.438 | -0.055 | 0.542 | NA |
| Ely, NV | 1 | -3.21 | -3.21 | -3.21 | -- | NA |
| Cedar City, UT | 4 | 1.73 | -16.8 | -4.63 | 8.34 | NA |
| Delta, UT | 1 | 0.000 | 0.000 | 0.000 | -- | NA |
| Milford, UT | - | Quarterly sampling was not performed | | | | |
| Salt Lake City, UT | - | Quarterly sampling was not performed | | | | |

Mean MDC:  1.68 x 10$^{-11}$ µCi/mL          Standard Deviation of Mean MDC: 6.96 x 10$^{-12}$ µCi/mL

DCG  Derived Concentration Guide; Established by DOE Order as 5 x 10$^{-8}$ µCi/mL
MDC  Minimum Detectable Concentration
NA   Not applicable, result is less than MDC

Table D.6  Standby Milk Surveillance Network Radiochemical Analyses Results - 1992

| Sampling Location | Collection Date in 1992 | Concentration ± 1s (MDC)[a] | | |
|---|---|---|---|---|
| | | $^{3}$H x 10$^{-9}$ µCi/mL[b] | $^{89}$Sr x 10$^{-9}$ µCi/mL[b] | $^{90}$Sr x 10$^{-9}$ µCi/mL[b] |
| Little Rock, AR Borden's | 06/18 | 206 ± 84 (270) | 0.59 ± 1.1 (1.1) | 2.6 ± 0.48 (1.4)[c] |
| Russellville, AR Arkansas Tech Univ | 06/18 | 153 ± 83 (271) | 0.087 ± 0.85 (1.1) | 0.86 ± 0.37 (1.4) |
| Taylor, AZ Sunrise Dairy | 10/18 | 385 ± 124 (400) | N/A | -0.29 ± 0.40 (1.5) |
| Tucson, AZ University of Arizona | 10/20 | 296 ± 130 (421) | N/A | -0.40 ± 0.32 (1.4) |
| Bakersfield, CA Favorite Foods, Inc | 10/05 | 368 ± 128 (413) | -0.47 ± 1.1 (1.5) | 0.63 ± 0.40 (1.5) |

(a)  Minimum Detectable Concentration (MDC)
(b)  Multiply the results by 3.7 x 10$^{-7}$ to obtain Bq/L
(c)  Result is greater than the MDC of analysis
N/A  Not Analyzed

Table D.6  (Standby Milk Surveillance Radiochemical Network Analyses Results - 1992, cont.)

| Sampling Location | Collection Date in 1992 | Concentration ± 1s (MDC)[a] | | |
| --- | --- | --- | --- | --- |
| | | $^3$H x 10$^{-9}$ µCi/mL[b] | $^{89}$Sr x 10$^{-9}$ µCi/mL[b] | $^{90}$Sr x 10$^{-9}$ µCi/mL[b] |
| Orland, CA Meadow Glen/Jerseyland | 10/21 | 213 ± 119 (386) | N/A | -0.20 ± 0.35 (1.4) |
| Redding, CA McColl's Dairy Prod | 11/04 | 47 ± 123 (403) | 0.021 ± 1.8 (2.8) | 0.65 ± 0.40 (1.6) |
| Willows, CA Glenn Milk Producers Assn | 10/19 | 468 ± 121 (387)[c] | N/A | -0.075 ± 0.41 (1.5) |
| Delta, CO Meadow Gold Dairy | 05/20 | 210 ± 75 (240) | 0.96 ± 0.68 (0.99) | -0.025 ± 0.32 (1.3) |
| Denver, CO Safeway Dairy Plant | 05/11 | 90 ± 75 (240) | 1.8 ± 0.85 (1.2)[c] | 0.052 ± 0.35 (1.3) |
| Quincy, IL Prairie Farms Dairy | 06/19 | 260 ± 86 (280) | -0.34 ± 0.90 (1.1) | 1.7 ± 0.41 (1.4)[c] |
| Boise, ID Meadow Gold Dairies | 08/31 | 69 ± 120 (400) | N/A | 0.41 ± 0.34 (1.4) |
| Idaho Falls, ID Reed's Dairy | 08/07 | 55 ± 77 (250) | N/A | 1.1 ± 0.41 (1.5) |
| Dubuque, IA Swiss Valley Farms | 08/03 | -6.9 ± 75 (250) | N/A | 1.3 ± 0.36 (1.3) |
| Ellis, KS Mid-America Dairymen | 06/03 | 54 ± 71 (230) | 0.30 ± 0.87 (1.2) | 0.65 ± 0.37 (1.4) |
| Sabetha, KS Mid-America Dairymen | 06/15 | 180 ± 73 (240) | -0.26 ± 0.99 (1.3) | 1.6 ± 0.42 (1.5)[c] |
| Baton Rouge, LA Borden's Dairy | 04/14 | 96 ± 69 (230) | 0.46 ± 0.94 (1.1) | 1.8 ± 0.42 (1.4)[c] |
| Monroe, LA Borden's Dairy | 04/30 | 86 ± 72 (230) | 0.96 ± 1 (1.3) | 1.5 ± 0.39 (1.3)[c] |
| New Orleans, LA Brown's Velvet Dry. | 04/09 | 79 ± 70 (230) | 0.54 ± 0.85 (0.99) | 1.4 ± 0.44 (1.4) |

(a)   Minimum Detectable Concentration (MDC)
(b)   Multiply the results by 3.7 x 10$^{-7}$ to obtain Bq/L
(c)   Result is greater than the MDC of analysis
N/A   Not Analyzed

Table D.6 (Standby Milk Surveillance Radiochemical Network Analyses Results - 1992, cont.)

| Sampling Location | Collection Date in 1992 | Concentration ± 1s (MDC)[a] | | |
| --- | --- | --- | --- | --- |
| | | $^3$H x 10$^{-9}$ µCi/mL[b] | $^{89}$Sr x 10$^{-9}$ µCi/mL[b] | $^{90}$Sr x 10$^{-9}$ µCi/mL[b] |
| Fosston, MN Land O' Lakes Inc | 04/28 | 94 ± 72 (230) | 1.6 ± 1.1 (1.3) | 1.7 ± 0.41 (1.3)[c] |
| Rochester, MN Assoc Milk Prod Inc | 05/26 | 53 ± 71 (230) | 0.22 ± 1.1 (1.4) | 1.4 ± 0.42 (1.4) |
| Monett, MO Mid-America Dairy Inc | 07/27 | -68 ± 76 (250) | N/A | 1.8 ± 0.42 (1.4)[c] |
| Chillicothe, MO Mid-America Dairymen | 09/03 | 410 ± 130 (410)[c] | N/A | 1.6 ± 0.34 (1.3)[c] |
| Billings, MT Meadow Gold Dairy | 07/17 | 320 ± 86 (270)[c] | 0.82 ± 0.77 (0.86) | 1.7 ± 0.42 (1.3)[c] |
| Great Falls, MT Meadow Gold Dairy | 07/16 | 300 ± 85 (270)[c] | N/A | 1.4 ± 0.43 (1.5) |
| Norfolk, NE Gillette Dairy | 07/14 | 170 ± 83 (270) | 2 ± 0.80 (0.93)[c] | 1 ± 0.42 (1.3) |
| North Platte, NE Mid-America Dairymen | 07/27 | 46 ± 78 (260) | N/A | 1.5 ± 0.40 (1.4)[c] |
| Albuquerque, NM Borden's Valley Gold | 09/08 | 290 ± 122 (390) | N/A | 0.53 ± 0.42 (1.5) |
| La Plata, NM River Edge Dairy | 07/11 | 300 ± 90 (290)[c] | -0.60 ± 0.65 (0.93) | 1.3 ± 0.34 (1.3) |
| Bismarck, ND Bridgeman Creamery | 04/14 | -70 ± 68 (230) | 0.063 ± 0.82 (1) | 2 ± 0.38 (1.3)[c] |
| Grand Forks, ND Minnesota Dairy | 04/22 | 82 ± 71 (230) | -0.74 ± 0.77 (1) | 1.6 ± 0.38 (1.4)[c] |
| Enid, OK AMPI Goldspot Div | 06/08 | 130 ± 71 (230) | 0.94 ± 1.1 (1.3) | 1 ± 0.43 (1.5) |
| McAlester, OK Jackie Brannon Corp | 07/16 | 240 ± 87 (280) | 0.21 ± 0.70 (0.91) | 1 ± 0.37 (1.3) |

(a)   Minimum Detectable Concentration (MDC)
(b)   Multiply the results by 3.7 x 10$^{-7}$ to obtain Bq/L
(c)   Result is greater than the MDC of analysis
N/A   Not Analyzed

## Table D.6  (Standby Milk Surveillance Radiochemical Network Analyses Results - 1992, cont.)

| Sampling Location | Collection Date in 1992 | Concentration ± 1s (MDC)[a] | | |
|---|---|---|---|---|
| | | $^3$H x $10^{-9}$ μCi/mL[b] | $^{89}$Sr x $10^{-9}$ μCi/mL[b] | $^{90}$Sr x $10^{-9}$ μCi/mL[b] |
| Medford, OR Dairygold Farms | 07/13 | 170 ± 83 (270) | -0.22 ± 0.59 (0.89) | 0.86 ± 0.32 (1.3) |
| Salem, OR Curly's Dairy | 07/06 | 100 ± 84 (280) | 0.047 ± 0.68 (0.99) | 1.2 ± 0.34 (1.3) |
| Tillamook, OR Tillamook Creamery | 08/17 | -6.4 ± 78 (260) | N/A | 0.81 ± 0.36 (1.4) |
| Rapid City, SD Gillette Dairy | 04/06 | 67 ± 69 (230) | 1 ± 0.82 (1.1) | -0.065 ± 0.39 (1.5) |
| Sioux Falls, SD Lakeside Dairy | 04/02 | 25 ± 70 (230) | 0.66 ± 0.93 (1.2) | 0.84 ± 0.43 (1.5) |
| Sulphur Springs, TX Tommy Rue Potts Dairy | 11/13 | 108 ± 91 (296) | 0.24 ± 1 (1.2) | 1.7 ± 0.45 (1.4)[c] |
| Windthorst, TX Lloyd Wolf Dairy | 11/13 | 153 ± 118 (387) | -3.3 ± 0.90 (1.2) | 1.2 ± 0.39 (1.4) |
| Beaver, UT Cache Valley Dairy | 05/26 | 130 ± 74 (240) | 0.80 ± 0.65 (0.91) | 0.22 ± 0.33 (1.3) |
| Provo, UT BYU Dairy Products | 06/15 | 92 ± 73 (240) | 0.39 ± 0.80 (1.2) | 0.38 ± 0.35 (1.4) |
| Cheyenne, WY Dairy Gold Foods | 07/15 | 210 ± 87 (280) | 0.62 ± 0.70 (0.86) | 1.3 ± 0.38 (1.3) |
| Sheridan, WY Mydland Dairy | 05/19 | 41 ± 76 (250) | 1.3 ± 0.85 (1)[c] | 0.99 ± 0.40 (1.3) |

(a)   Minimum Detectable Concentration (MDC)
(b)   Muliply the results by 3.7 x $10^{-7}$ to obtain Bq/L
(c)   Result is greater than the MDC of analysis
N/A   Not Analyzed

## Table D.7  Standby Milk Surveillance Network Gamma Spectrometry Results - 1992

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

| Sampling Location | Collection Date | Sampling Location | Collection Date |
|---|---|---|---|
| Duncan, AZ | | Cal Poly University Dairy | 10/27 |
| Lunt Dairy | 09/23 | Soledad, CA | |
| Tempe, AZ | | Correction Training Industry | 10/20 |
| United Dairymen of Arizona | 10/07 | Tracy, CA | |
| Batesville, AR | | Deuel Vocational Institute | 10/20 |
| Hills Valley Foods | 06/24 | Colorado Springs, CO | |
| Fayetteville, AR | | Sinton Dairy | 07/10 |
| University Of Arkansas | 06/10 | Greeley, CO | |
| Chino, CA | | Meadow Gold Dairy | 07/08 |
| CA Institute for Men | 10/27 | Ft Collins, CO | |
| Cresent City, CA | | Poudre Valley Creamery | 06/08 |
| Rumiano Cheese Company | 10/16 | Caldwell, ID | |
| Fernbridge, CA | | Darigold Inc. | 08/31 |
| Humboldt Creamery Assn | 10/16 | Pocatello, ID | |
| Fresno, CA | | Rowland's Meadowgold Dairy | 08/06 |
| CA State University Creamery | 10/19 | Twin Falls, ID | |
| Helendale, CA | | Triangle Young's Dairy | 08/03 |
| Osterkamp Dairy No. 2 | 10/07 | Kimballton, IA | |
| Holtville, CA | | Assoc. Milk Pro.Inc(AMPI) | 06/10 |
| Schaffner & Son Dairy | 10/05 | Lake Mills, IA | |
| Lompoc, CA | | Lake Mills Coop Creamery | 06/01 |
| Federal Penitentiary Camp | 10/27 | Lemars, IA | |
| Long Beach, CA | | Wells Dairy | 06/10 |
| Paul's Dairy | 10/26 | Manhattan, KS | |
| Manchester, CA | | Kansas State University | 06/11 |
| Point Arena Dairies | 10/14 | Lafayette, LA | |
| Manteca, CA | | Borden's | 04/28 |
| Supremo Foods | 11/20 | New Orleans, LA | |
| Modesto, CA | | Walker Roemer Dairy | 04/09 |
| Foster Farms - Jersey Dairy | 12/03 | Shreveport, LA | |
| Petaluma, CA | | Foremost Dairy | 05/11 |
| Point Reyes Seashore Dairy | 10/14 | Fergus Falls, MN | |
| San Jose, CA | | Mid-America Dairymen | 04/08 |
| Marquez Bros Mexican Cheese | 10/07 | Browerville, MN | |
| San Luis Obispo, CA | | Land O' Lakes, Inc. | 04/28 |

Table D.7 (Standby Milk Surveillance Network Gamma Spectrometry Results - 1992, cont.)

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

| Sampling Location | Collection Date | Sampling Location | Collection Date |
|---|---|---|---|
| Nicollet, MN | | Klamath Falls, OR | |
| Doug Schultz Farm | 05/09 | Klamath Dairy Products | 07/22 |
| Jackson, MO | | Myrtle Point, OR | |
| Mid-America Dairymen Inc | 06/23 | Safeway Stores Inc | 08/03 |
| Jefferson City, MO | | Ontario, OR | |
| Central Dairy Company | 07/23 | Eastway Dairy | 09/01 |
| Bozeman, MT | | Portland, OR | |
| Country Classic-DBA-Darigold | 07/28 | Darigold Farms | 07/27 |
| Kalispell, MT | | Redmond, OR | |
| Equity Supply Co | 07/20 | Eberhard's Creamery Inc | 07/14 |
| Omaha, NE | | Ethan, SD | |
| Roberts Dairy, Marshall Green | 07/28 | Ethan Dairy Products | 04/07 |
| Chappell, NE | | Volga, SD | |
| Leprino Foods | 07/06 | Land O'Lakes Inc | 07/09 |
| Superior, NE | | Canyon, TX | |
| Mid-America Dairymen | 09/08 | West Texas State Dairy | 11/06 |
| Fargo, ND | | Corpus Christi, TX | |
| Cass Clay Creamery | 04/24 | Hygeia Milk Plant | 11/16 |
| Minot, ND | | Fabens, TX | |
| Bridgemen Creamery | 04/13 | Island Dairy - El Paso County | 12/01 |
| Las Vegas, NV | | Glen Rose TX | |
| Anderson Dairy | 10/07 | Dewayne Hankins Dairy | 11/09 |
| Reno, NV | | Richfield, UT | |
| Model Dairy | 10/19 | Ideal Dairy | 05/18 |
| Yerington, NV | | Smithfield, UT | |
| Valley Dairy | 10/26 | Cache Valley Dairy | 05/27 |
| Coalgate, OK | | Moses Lake, WA | |
| Larry Krebs Dairy | 06/15 | Safeway Stores, Inc | 10/05 |
| Claremore, OK | | Riverton, WY | |
| Swan Brothers Dairy | 06/17 | Western Dairymen's Co-op | 07/07 |
| Stillwater, OK | | Thayne, WY | |
| OK State University Dairy | 06/17 | Western Dairymen's Co-op | 06/08 |
| Grants Pass, OR | | | |
| Valley Of Rouge Dairy | 07/07 | | |
| Junction City, OR | | | |
| Lockmead Farms Inc | 07/20 | | |

## Table D.8 Long-Term Hydrological Monitoring Program Analytical Results for Locations in the NTS Vicinity - 1992

| Sampling Location | Collection Date in 1992 | Concentration ± 1s of Tritium $10^{-9}\mu Ci/mL$ | | Percent of Concentration Guide[a] |
|---|---|---|---|---|
| Amargosa Valley, NV | | | | |
| Well Mary Nickell's | 02/06 | 1.3 | ± 2.2 | NA |
| | 08/04 | 46 | ± 140 | NA |
| Shoshone, CA | | | | |
| Shoshone Spring | 02/04 | 0.0 | ± 1.8 | NA |
| | 08/05 | 82 | ± 140 | NA |
| Adaven, NV | | | | |
| Adaven Spring | 01/14 | 32 | ± 2 | 0.04 |
| | 07/01 | −110 | ± 110 | NA |
| Alamo, NV | | | | |
| Well 4 City | 01/16 | 0.0 | ± 1.7 | NA |
| | 07/02 | −45 | ± 110 | NA |
| Ash Meadows, NV | | | | |
| Crystal Pool | 05/07 | 4.6 | ± 3.7 | NA |
| | 11/02 | 140 | ± 140 | NA |
| Fairbanks Springs | 05/07 | −2.3 | ± 4.6 | NA |
| | 11/02 | −410 | ± 140 | NA |
| Spring-17S-50E-14cac | 06/08 | −4.1 | ± 1.7 | NA |
| | 12/14 | 370 | ± 140 | NA |
| Well 18S-51E-7db | 05/07 | 1.9 | ± 3.8 | NA |
| | 11/02 | 52 | ± 140 | NA |
| Beatty, NV | | | | |
| U.S. Ecology | 06/08 | 1.9 | ± 2.0 | NA |
| | 12/08 | 320 | ± 140 | NA |
| Specie Springs | 03/04 | −82 | ± 130 | NA |
| | 07/09 | 4.6 | ± 1.6 | NA |
| Tolicha Peak | 02/05 | −32 | ± 130 | NA |
| | 08/05 | 0.21 | ± 1.7 | NA |
| Well 11S-48-1dd Coffers | 01/08 | 110 | ± 130 | NA |
| | 07/09 | 2.7 | ± 1.5 | NA |
| Well 12S-47E-7dbd City | 01/07 | 240 | ± 130 | NA |
| | 07/09 | 3.0 | ± 1.5 | NA |
| Well Road D Spicers | 02/05 | 85 | ± 130 | NA |
| | 08/05 | −1.9 | ± 1.7 | NA |
| Younghans Ranch | 06/11 | −1.3 | ± 1.9 | NA |
| (House Well) | 12/09 | −81 | ± 140 | NA |
| Boulder City, NV | | | | |
| Lake Mead Intake | 03/06 | −32 | ± 130 | NA |
| | 05/07 | 58 | ± 2 | 0.06 |
| | 09/03 | 62 | ± 2 | 0.07 |
| Clark Station, NV | | | | |
| Well 6 TTR | 02/04 | −21 | ± 130 | NA |
| | 08/05 | 1.8 | ± 1.6 | NA |

(a) Derived from the $^3$H ALI in ICRP-30 as 90,000 pCi/L tritium
NA Not Applicable: tritium result is <MDC or water is nonpotable

Table D.8 (Long-Term Hydrological Monitoring Program Analytical Results for Locations in the NTS Vicinity - 1992, cont.)

| Sampling Location | Collection Date in 1992 | Concentration ± 1s of Tritium $10^{-9} \mu Ci/mL$ | | Percent of Concentration Guide[a] |
|---|---|---|---|---|
| Hiko, NV | | | | |
| Crystal Springs | 01/16 | -2.9 | ± 1.6 | NA |
| | 07/02 | 33 | ± 120 | NA |
| Indian Springs, NV | | | | |
| Well 1 Sewer Company | 03/03 | 25 | ± 130 | NA |
| | 09/10 | 1.1 | ± 2.6 | NA |
| Well 2 US Air Force | 03/03 | -120 | ± 130 | NA |
| | 09/03 | 1.5 | ± 1.3 | NA |
| Johnnie, NV | | | | |
| Well Johnnie Mine | 03/03 | 96 | ± 130 | NA |
| | 09/10 | 6.0 | ± 1.7 | 0.01 |
| Las Vegas, NV | | | | |
| Well 28 Water District | 09/03 | -0.50 | ± 1.3 | NA |
| | 10/08 | -1.3 | ± 1.7 | NA |
| Lathrop Wells, NV | | | | |
| City 15S-50E-18cdc | 04/06 | 1.5 | ± 2.2 | NA |
| | 10/16 | -14 | ± 140 | NA |
| Nyala, NV | | | | |
| Sharp's Ranch | 02/04 | -92 | ± 130 | NA |
| | 08/03 | 0.81 | ± 1.6 | NA |
| Oasis Valley, NV | | | | |
| Goss Springs | 02/05 | -11 | ± 130 | NA |
| | 08/05 | 0.0 | ± 1.9 | NA |
| Pahrump, NV | | | | |
| Calvada Well | 02/04 | 0.0 | ± 1.5 | NA |
| | 08/05 | 110 | ± 140 | NA |
| Rachel, NV | | | | |
| Wells 7 & 8 Penoyer | 06/03 | 44 | ± 100 | NA |
| | 09/21 | 0.63 | ± 1.4 | NA |
| Well 13 Penoyer | 06/03 | -160 | ± 110 | NA |
| | 09/09 | -0.89 | ± 1.8 | NA |
| Well Penoyer Culinary | 04/01 | 39 | ± 130 | NA |
| | 10/06 | -0.21 | ± 1.6 | NA |
| Tempiute, NV | | | | |
| Union Carbide Well | 02/12 | -150 | ± 130 | NA |
| | 08/06 | -2.0 | ± 1.9 | NA |
| Tonopah, NV | | | | |
| City Well | 03/03 | 120 | ± 130 | NA |
| | 09/08 | 4.2 | ± 1.4 | NA |
| Warm Springs, NV | | | | |
| Twin Springs Ranch | 04/01 | -290 | ± 130 | NA |
| | 10/01 | -0.47 | ± 1.2 | NA |

(a) Derived from the $^3H$ ALI in ICRP-30 as 90,000 pCi/L tritium
NA Not Applicable: tritium result is <MDC or water is nonpotable

Table D.9 Long-Term Hydrological Monitoring Program Analytical Results for Project Faultless - 1992

| Sampling Location | Collection Date in 1992 | Concentration ± 1s of Tritium $10^{-9}\mu Ci/mL$ | Percent of Concentration Guide[a] |
|---|---|---|---|
| Blue Jay, NV | | | |
| Hot Creek Ranch Spring | 02/24 | Not Sampled - Spring and well dry | |
| Maintenance Station | 02/24 | 0.0 ± 1.4 | NA |
| Well Bias | 02/25 | 4.2 ± 1.8 | NA |
| Well HTH-1 | 02/25 | 0.73 ± 1.2 | NA |
| Well HTH-2 | 02/25 | 1.4 ± 1.2 | NA |
| Well Six Mile | 02/25 | 0.9 ± 1.5 | NA |

(a) Derived from the $^3$H ALI in ICRP-30 as 90,000 pCi/L tritium
NA Not applicable: the tritium result is <MDC or water is known to be nonpotable

Table D.10 Long-Term Hydrological Monitoring Program Analytical Results for Project Shoal - 1992

| Sampling Location | Collection Date in 1992 | Concentration ± 1s of Tritium $10^{-9}\mu Ci/mL$ | Percent of Concentration Guide[a] |
|---|---|---|---|
| Frenchmen Station, NV | | | |
| Hunt's Station | 03/11 | 0.88 ± 1.5 | NA |
| Smith/James Springs | 03/11 | 56 ± 2 | 0.06 |
| Spring Windmill | 03/11 | Not Sampled - Well dry | |
| Well Flowing | 03/11 | −1.1 ± 1.8 | NA |
| Well H-3 | 10/21 | −0.38 ± 1.6 | NA* |
| Well HS-1 | 03/11 | 0.86 ± 1.5 | NA |

(a) Derived from the $^3$H ALI in ICRP-30 as 90,000 pCi/L tritium
NA Not applicable: the tritium result is <MDC or water is known to be nonpotable

Additional analyses greater than MDC

| Analysis | Result | 1 sigma | MDC | Units |
|---|---|---|---|---|
| U-234 | 0.14 | 0.02 | 0.03 | $10^{-9}\mu Ci/mL$ |
| U-238 | 0.042 | 0.011 | 0.02 | $10^{-9}\mu Ci/mL$ |

## Table D.11 Long-Term Hydrological Monitoring Program Analytical Results for Project Rulison - 1992

| Sampling Location | Collection Date in 1992 | Concentration ± 1s of Tritium $10^{-9} \mu Ci/mL$ | Percent of Concentration Guide[a] |
|---|---|---|---|
| Rulison, CO | | | |
| Lee Hayward Ranch | 06/09 | 160 ± 3 | 0.18 |
| Potter Ranch | 06/09 | 67 ± 2 | 0.07 |
| Robert Searcy Ranch | 06/09 | 78 ± 2 | 0.09 |
| Felix Sefcovic Ranch | 06/09 | 57 ± 2 | 0.06 |
| | | | |
| Grand Valley, CO | | | |
| Battlement Creek | 06/09 | 63 ± 2 | 0.07 |
| City Springs | 06/09 | 0.43 ± 1.5 | NA |
| Albert Gardner Ranch | 06/09 | 98 ± 3 | 0.11 |
| Spring 300 Yd. N of GZ | 06/09 | 63 ± 2 | 0.07 |
| Well CER Test | 06/09 | 48 ± 2 | 0.05 |

(a) Derived from the $^3$H ALI in ICRP-30 as 90,000 pCi/L tritium
NA Not applicable: the tritium result is <MDC or water is known to be nonpotable

## Table D.12 Long-Term Hydrological Monitoring Program Analytical Results for Rio Blanco - 1992

| Sampling Location | Collection Date in 1992 | Concentration ± 1s of Tritium $10^{-9} \mu Ci/mL$ | Percent of Concentration Guide[a] |
|---|---|---|---|
| Rio Blanco, CO | | | |
| B-1 Equity Camp (spring) | 06/10 | 49 ± 2 | 0.05 |
| CER No.1 Black Sulfur (spring) | 06/10 | 57 ± 3 | 0.06 |
| CER No.4 Black Sulfur (spring) | 06/10 | 50 ± 2 | 0.06 |
| Fawn Creek 1 | 06/10 | 21 ± 2 | 0.02 |
| Fawn Creek 3 | 06/10 | 26 ± 2 | 0.03 |
| Fawn Creek 500 Ft Upstream | 06/10 | 26 ± 2 | 0.03 |
| Fawn Creek 500 Ft Downstream | 06/10 | 26 ± 2 | 0.03 |
| Fawn Creek 6800 Ft Upstream | 06/10 | 26 ± 2 | 0.03 |
| Fawn Creek 8400 Ft Downstream | 06/10 | 29 ± 2 | 0.03 |
| Johnson Artesian Well | 06/10 | -1.8 ± 2.3 | NA |
| Brennan Windmill (well) | 06/10 | 3.7 ± 1.6 | NA |
| Well RB-D-01 | 06/11 | -2.1 ± 1.3 | NA |
| Well RB-D-03 | 06/11 | 0.75 ± 1.4 | NA |
| Well RB-S-03 | 06/11 | 1.7 ± 1.5 | NA |

(a) Derived from the $^3$H ALI in ICRP-30 as 90,000 pCi/L tritium
NA Not applicable: the tritium result is <MDC or water is known to be nonpotable

## Table D.13 Long-Term Hydrological Monitoring Program Analytical Results for Project Gnome - 1992

| Sampling Location | Collection Date in 1992 | Concentration ± 1s of Tritium $10^{-9}\mu Ci/mL$ | Percent of Concentration Guide[a] |
|---|---|---|---|
| **Malaga, NM** | | | |
| Well 1 Pecos Pumping Station | 06/17 | −2.6 ± 1.5 | NA |
| Well DD-1 | 06/16 | $6.5 \times 10^{+07} \pm 3.2 \times 10^{+05}$ | NA[b] |
| Well LRL-7 | 06/16 | 12,000 ± 170 | NA[c] |
| Well PHS 6 | 06/15 | 37 ± 2 | 0.04 |
| Well PHS 8 | 06/15 | 15 ± 2 | 0.02 |
| Well PHS 9 | 06/15 | 0.14 ± 2.4 | NA |
| Well PHS 10 | 06/15 | −2.0 ± 1.9 | NA |
| Well USGS 1 | 06/15 | −0.40 ± 1.1 | NA |
| Well USGS 4 | 06/16 | 120,000 ± 420 | NA[d] |
| Well USGS 8 | 06/16 | 91,000 ± 370 | NA[e] |
| **Carlsbad, NM** | | | |
| Well 7 City | 06/18 | −0.98 ± 1.0 | NA |
| **Loving, NM** | | | |
| Well 2 City | 06/17 | 8.2 ± 1.6 | <0.01 |

(a)    Derived from the $^3$H ALI in ICRP-30 as 90,000 pCi/L tritium
(b,c,d,e)  Additional analyses greater than MDC
NA      Not applicable:  the tritium result is <MDC or water is not potable

### Additional analyses greater than MDC

| | Analysis | Result | 1 sigma | MDC | Units |
|---|---|---|---|---|---|
| (b) | Cs-137 | 550,000 | 26,000 | NA | $10^{-9}\mu Ci/mL$ |
| | Sr-90 | 13,000 | 1200 | 2900 | $10^{-9}\mu Ci/mL$ |
| (c) | Cs-137 | 200 | 11 | NA | $10^{-9}\mu Ci/mL$ |
| (d) | Sr-90 | 6200 | 18 | 59 | $10^{-9}\mu Ci/mL$ |
| (e) | Cs-137 | 69 | 1 | NA | $10^{-9}\mu Ci/mL$ |
| | Sr-90 | 5100 | 16 | 53 | $10^{-9}\mu Ci/mL$ |

## Table D.14 Long-Term Hydrological Monitoring Program Analytical Results for Project Gasbuggy - 1992

| Sampling Location | Collection Date in 1992 | Concentration ± 1s of Tritium $10^{-9}\mu Ci/mL$ | Percent of Concentration Guide[a] |
|---|---|---|---|
| **Gobernador, NM** | | | |
| Arnold Ranch | 04/14 | Not Sampled - Road washed out | |
| Bixler Ranch | 04/16 | 13 ± 2 | 0.01 |
| Bubbling Springs | 04/14 | 42 ± 2 | 0.05 |
| Cave Springs | 04/14 | 75 ± 3 | 0.08 |
| Cedar Springs | 04/14 | 55 ± 3 | 0.06 |
| La Jara Creek | 04/15 | 70 ± 3 | 0.08 |
| Lower Burro Canyon | 04/15 | 0.0 ± 1.8 | NA |
| Pond N of Well | | | |
| 30.3.32.343 | 04/15 | 34 ± 3 | 0.04[b] |
| | | | |
| Well EPNG 10-36 | 04/16 | 33 ± 2 | 0.04[c] |
| | 09/16 | 364 ± 4 | 0.40[d] |
| Well Jicarilla 1 | 04/15 | 19 ± 2 | 0.02[e] |
| Well 28.3.33.233 (South) | 04/16 | Windmill inoperative | |
| Windmill 2 | 04/15 | −1.3 ± 2.2 | NA |

(a) Derived from the $^3$H ALI in ICRP-30 as 90,000 pCi/L tritium

(b) Sample estimated to be 90 percent rainwater

(c) pH and conductivity indicate sample predominantly rainwater

(d) Resampled, additional analysis greater than MDC shown below

(e) Sample from stock tank

NA  Not applicable:  the tritium result is <MDC or water is known to be nonpotable

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### Additional analyses greater than MDC

| | Analysis | Result | 1 sigma | MDC | Units |
|---|---|---|---|---|---|
| (d) | Cs-137 | 6.0 | 0.85 | 0.83 | $10^{-9}\mu Ci/mL$ |

## Table D.15 Long-Term Hydrological Monitoring Program Analytical Results for Project Dribble - 1992

| Sampling Location | Collection Date in 1992 | Concentration ± 1s of Tritium $10^{-9}\mu Ci/mL$ | Percent of Concentration Guide[a] |
|---|---|---|---|
| **Onsite Sampling Locations** | | | |
| **Baxterville, MS** | | | |
| Half Moon Creek | 04/26 | 15 ± 1 | 0.02 |
| | 04/27 | 27 ± 2 | 0.03 |
| Half Moon Creek Overflow | 04/26 | 690 ± 5 | 0.8 |
| | 04/27 | 590 ± 4 | 0.7 |
| Pond West Of GZ | 04/26 | 16 ± 2 | 0.02 |
| | 04/27 | 14 ± 2 | 0.02 |
| REECo Pit Drainage-A | 04/26 | 31 ± 2 | 0.03 |
| REECO Pit Drainage-B | 04/26 | 1300 ± 110 | 1.5 |
| REECO Pit Drainage-C | 04/26 | 560 ± 4 | 0.6 |
| Well E-7 | 04/28 | 6.0 ± 1.8 | 0.01 |
| Well HM-1 | 04/27 | 1.8 ± 1.6 | NA |
| | 04/27 | 0.0 ± 1.6 | NA |
| Well HM-2A | 04/27 | −2.3 ± 2.0 | NA |
| | 04/27 | −1.6 ± 1.5 | NA |
| Well HM-2B | 04/27 | 2.1 ± 1.9 | NA |
| | 04/27 | −4.5 ± 1.3 | NA |
| Well HM-3 | 04/27 | 3.3 ± 2.0 | NA |
| | 04/27 | −0.88 ± 1.6 | NA |
| Well HM-L | 04/27 | 1300 ± 110 | 1.5 |
| | 04/27 | 610 ± 4 | 0.7 |
| Well HM-L2 | 04/27 | 2.4 ± 2.1 | NA |
| | 04/27 | −3.0 ± 1.8 | NA |
| Well HM-S | 04/26 | 7100 ± 140 | 7.9 |
| | 04/27 | 6700 ± 140 | 7.5 |

(a)    Derived from the $^3H$ ALI in ICRP-30 as 90,000 pCi/L tritium
(b)    Formerly the residence of Talmadge S. Saucier
(c)    New sampling location
(d,e,f)  Additional analyses that are greater than MDC
(g)    Additional analyses greater than MDC
NA    Not applicable: tritium results <MDC or water is known to be nonpotable

### Additional analysis greater than MDC

| | Analysis | Result | 1 sigma | MDC | Units |
|---|---|---|---|---|---|
| (d) | U-234 | 0.038 | 0.012 | 0.026 | $10^{-9}\mu Ci/mL$ |
| | U-238 | 0.021 | 0.007 | 0.01 | $10^{-9}\mu Ci/mL$ |
| (e) | U-238 | 0.018 | 0.009 | 0.014 | $10^{-9}\mu Ci/mL$ |
| (f) | U-234 | 0.099 | 0.018 | 0.036 | $10^{-9}\mu Ci/mL$ |
| | U-238 | 0.057 | 0.011 | 0.009 | $10^{-9}\mu Ci/mL$ |
| (g) | U-234 | 0.14 | 0.02 | 0.01 | pCi/L |
| | U-238 | 0.12 | 0.02 | 0.01 | pCi/L |

## Table D.15 (Long-Term Hydrological Monitoring Program Analytical Results for Project Dribble - 1992, cont.)

| Sampling Location | Collection Date in 1992 | Concentration ± 1s of Tritium (pCi/L) | Percent of Concentration Guide[a] |
|---|---|---|---|
| **Onsite Sampling Locations** | | | |
| Well HMH-1 | 04/26 | 5800 ± 140 | 6.5 |
| | 04/27 | 14,000 ± 170 | 16 |
| Well HMH-2 | 04/26 | 5100 ± 130 | 5.7 |
| | 04/27 | 13,000 ± 170 | 14 |
| Well HMH-3 | 04/26 | 11 ± 1 | 0.01 |
| | 04/27 | 27 ± 2 | 0.03 |
| Well HMH-4 | 04/26 | 13 ± 2 | 0.01 |
| | 04/27 | 15 ± 1 | 0.02 |
| Well HMH-5 | 04/26 | 1900 ± 120 | 2.1 |
| | 04/27 | 2100 ± 120 | 2.3 |
| Well HMH-6 | 04/26 | 72 ± 2 | 0.08 |
| | 04/27 | 57 ± 3 | 0.06 |
| Well HMH-7 | 04/26 | Not Sampled - Well under water | |
| | 04/27 | Not Sampled - Well under water | |
| Well HMH-8 | 04/26 | 13 ± 2 | 0.01 |
| | 04/27 | 20 ± 2 | 0.02 |
| Well HMH-9 | 04/26 | 87 ± 2 | 0.1 |
| | 04/27 | 91 ± 3 | 0.1 |
| Well HMH-10 | 04/26 | 300 ± 3 | 0.3 |
| | 04/27 | 260 ± 4 | 0.3 |
| Well HMH-11 | 04/26 | 23 ± 2 | 0.03 |
| | 04/27 | 28 ± 2 | 0.03 |
| Well HMH-12 | 04/26 | 12 ± 2 | 0.01 |
| | 04/27 | 12 ± 3 | 0.01 |
| Well HMH-13 | 04/26 | 11 ± 2 | 0.01 |
| | 04/27 | 7.6 ± 1.9 | 0.01 |

(a)  Derived from the $^3H$ ALI in ICRP-30 as 90,000 pCi/L tritium
(b)  Formerly the residence of Talmadge S. Saucier
(c)  New sampling location
(d,e,f)  Additional analyses that are greater than MDC
(g)  Additional analyses greater than MDC
NA  Not applicable: tritium results <MDC or water is known to be nonpotable

### Additional analysis greater than MDC

| | Analysis | Result | 1 sigma | MDC | Units |
|---|---|---|---|---|---|
| (d) | U-234 | 0.038 | 0.012 | 0.026 | $10^{-9}\mu Ci/mL$ |
| | U-238 | 0.021 | 0.007 | 0.01 | $10^{-9}\mu Ci/mL$ |
| (e) | U-238 | 0.018 | 0.009 | 0.014 | $10^{-9}\mu Ci/mL$ |
| (f) | U-234 | 0.099 | 0.018 | 0.036 | $10^{-9}\mu Ci/mL$ |
| | U-238 | 0.057 | 0.011 | 0.009 | $10^{-9}\mu Ci/mL$ |
| (g) | U-234 | 0.14 | 0.02 | 0.01 | pCi/L |
| | U-238 | 0.12 | 0.02 | 0.01 | pCi/L |

## Table D.15 (Long-Term Hydrological Monitoring Program Analytical Results for Project Dribble - 1992, cont.)

| Sampling Location | Collection Date in 1992 | Concentration ± 1s of Tritium (pCi/L) | Percent of Concentration Guide[a] |
|---|---|---|---|
| **Onsite Sampling Locations** | | | |
| Well HMH-14 | 04/26 | Not Sampled - Well dry | |
| | 04/27 | Not Sampled - Well dry | |
| Well HMH-15 | 04/26 | 12 ± 2 | 0.01 |
| | 04/27 | 9.1 ± 2.3 | 0.01 |
| Well HMH-16 | 04/26 | 75 ± 2 | 0.08 |
| | 04/27 | 120 ± 3 | 0.1 |
| Well HT-2C | 04/28 | 9.0 ± 1.5 | 0.01 |
| Well HT-4 | 04/28 | 6.1 ± 2.5 | NA |
| Well HT-5 | 04/28 | 0.99 ± 1.69 | NA |
| **Offsite Sampling Locations** | | | |
| Baxterville, MS | | | |
| Little Creek #1 | 04/28 | 20 ± 2 | 0.02 |
| Lower Little Creek #2 | 04/28 | 18 ± 1 | 0.02 |
| Salt Dome Hunting Club | 04/29 | 24 ± 2 | 0.03 |
| Salt Dome Timber Co. | 04/27 | 27 ± 2 | 0.03 |
| Anderson Pond | 04/27 | 8.5 ± 1.3 | 0.01 |
| Anderson, Billy Ray | 04/27 | 16 ± 2 | 0.02 |
| Anderson, Regina | 04/27 | Not Sampled - No one home | |
| Anderson, Robert Harvey | 04/27 | 17 ± 2 | 0.02 |
| Anderson, Robert Lowell, Sr. | 04/27 | 20 ± 2 | 0.02 |
| Anderson, Robert Lowell, Jr. | 04/27 | 17 ± 1 | 0.02 |

(a)     Derived from the $^3$H ALI in ICRP-30 as 90,000 pCi/L tritium
(b)     Formerly the residence of Talmadge S. Saucier
(c)     New sampling location
(d,e,f)  Additional analyses that are greater than MDC
(g)     Additional analyses greater than MDC
NA      Not applicable: tritium results <MDC or water is known to be nonpotable

### Additional analysis greater than MDC

| | Analysis | Result | 1 sigma | MDC | Units |
|---|---|---|---|---|---|
| (d) | U-234 | 0.038 | 0.012 | 0.026 | $10^{-9}\mu$Ci/mL |
| | U-238 | 0.021 | 0.007 | 0.01 | $10^{-9}\mu$Ci/mL |
| (e) | U-238 | 0.018 | 0.009 | 0.014 | $10^{-9}\mu$Ci/mL |
| (f) | U-234 | 0.099 | 0.018 | 0.036 | $10^{-9}\mu$Ci/mL |
| | U-238 | 0.057 | 0.011 | 0.009 | $10^{-9}\mu$Ci/mL |
| (g) | U-234 | 0.14 | 0.02 | 0.01 | pCi/L |
| | U-238 | 0.12 | 0.02 | 0.01 | pCi/L |

## Table D.15 (Long-Term Hydrological Monitoring Program Analytical Results for Project Dribble - 1992, cont.)

| Sampling Location | Collection Date in 1992 | Concentration ± 1s of Tritium (pCi/L) | Percent of Concentration Guide[a] |
|---|---|---|---|
| Bilbo, Timothy | 04/28 | 24 ± 2 | 0.03[b] |
| Burge, Joe | 04/27 | 18 ± 2 | 0.02 |
| Offsite Sampling Locations | | | |
| Chambliss, B. | 04/28 | −0.85 ± 1.43 | NA |
| Daniels, Ray | 04/29 | 15 ± 2 | 0.02 |
| Daniels, Webster Jr. | 04/29 | 18 ± 2 | 0.02 |
| Daniels Fish Pond Well #2 | 04/29 | 19 ± 2 | 0.02 |
| Kelly Gertrude | 04/27 | −0.87 ± 1.54 | NA |
| King, Rhonda | 04/27 | 20 ± 2 | 0.02 |
| Lee, P. T. | 04/27 | 45 ± 2 | 0.05 |
| Mills, A. C. | 04/27 | −0.90 ± 1.59 | NA |
| Mills, Roy | 04/29 | 18 ± 2 | 0.02 |
| Nobles Pond | 04/27 | 18 ± 2 | 0.02 |
| Noble's Quail House | 04/27 | 59 ± 5 | 0.07 |
| Noble, W. H., Jr. | 04/27 | 37 ± 2 | 0.04 |
| Ready, R. C. | 04/29 | Not Sampled - on City Water | |
| Saucier, Dennis | 04/28 | 41 ± 3 | 0.05 |
| Saucier, Wilma/Yancy | 04/28 | 3.1 ± 1.7 | NA |
| Smith, Rita | 04/27 | Not Sampled - Moved, Well Down | |
| Well Ascot 2 | 04/28 | Not Sampled - Well In Water | |
| City Well | 04/29 | 26 ± 2 | 0.03 |
| Columbia, MS | | | |
| Dennis, Buddy | 04/28 | 21 ± 3 | 0.02 |
| Dennis, Marvin | 04/28 | 14 ± 3 | 0.02 |
| City Well 64B | 04/28 | 6.8 ± 2.1 | 0.01 |

(a)     Derived from the $^3$H ALI in ICRP-30 as 90,000 pCi/L tritium
(b)     Formerly the residence of Talmadge S. Saucier
(c)     New sampling location
(d,e,f)  Additional analyses that are greater than MDC
(g)     Additional analyses greater than MDC
NA      Not applicable: tritium results <MDC or water is known to be nonpotable

### Additional analysis greater than MDC

|  | Analysis | Result | 1 sigma | MDC | Units |
|---|---|---|---|---|---|
| (d) | U-234 | 0.038 | 0.012 | 0.026 | $10^{-9}\mu$Ci/mL |
|  | U-238 | 0.021 | 0.007 | 0.01 | $10^{-9}\mu$Ci/mL |
| (e) | U-238 | 0.018 | 0.009 | 0.014 | $10^{-9}\mu$Ci/mL |
| (f) | U-234 | 0.099 | 0.018 | 0.036 | $10^{-9}\mu$Ci/mL |
|  | U-238 | 0.057 | 0.011 | 0.009 | $10^{-9}\mu$Ci/mL |
| (g) | U-234 | 0.14 | 0.02 | 0.01 | pCi/L |
|  | U-238 | 0.12 | 0.02 | 0.01 | pCi/L |

## Table D.15 (Long-Term Hydrological Monitoring Program Analytical Results for Project Dribble - 1992, cont.)

| Sampling Location | Collection Date in 1992 | Concentration ± 1s of Tritium (pCi/L) | Percent of Concentration Guide[a] |
|---|---|---|---|
| **Lumberton, MS** | | | |
| Anderson, G. W. | 04/27 | 19 ± 3 | 0.02 |
| Anderson, Lee L. | 04/29 | 20 ± 1 | 0.02 |
| **Offsite Sampling Locations** | | | |
| Bond, Bradley K. | 04/29 | 16 ± 3 | 0.02 |
| Cox, Eddie | 04/27 | 28 ± 2 | 0.03 |
| Gil Ray's Crawfish Pond | 04/27 | 7.0 ± 1.6 | 0.01 |
| Gipson, Herman | 04/28 | −1.8 ± 1.5 | NA |
| Gipson, Hewie | 04/27 | 23 ± 3 | 0.03[c][d] |
| Gipson, Phillip | 04/27 | 21 ± 4 | 0.02[c][e] |
| Graham, Sylvester | 04/28 | −2.0 ± 1.8 | NA |
| Hartfield, Ray | 04/28 | −2.8 ± 3.8 | NA[c][f] |
| Moree, Rita-House Well | 04/28 | Not Sampled - Moved, Well Down | |
| Beach, Donald | 04/27 | Not Sampled - Moved, Well Down | |
| Powers, Sharon | 04/29 | 13 ± 2 | 0.01 |
| Rushing, Debra | 04/28 | 27 ± 2 | 0.03 |
| Saul, Lee L. | 04/28 | 0.0 ± 1.7 | NA |
| Smith, E. J. | 04/28 | 18 ± 4 | 0.02 |
| Smith, Howard | 04/28 | 1.5 ± 2.2 | NA |
| Smith, Howard-Pond | 04/29 | 12 ± 3 | 0.01 |
| Thompson, Roswell | 04/28 | 28 ± 5 | 0.03[c][g] |
| Well 2 City | 04/29 | 2.2 ± 2.0 | NA |
| **Purvis, MS** | | | |
| Burge Willie Ray and Grace | 04/27 | 15 ± 3 | 0.02 |
| City Supply | 04/27 | 2.9 ± 1.8 | NA |
| Gil, Ray House Well | 04/27 | −2.9 ± 1.6 | NA |

(a)  Derived from the $^3$H ALI in ICRP-30 as 90,000 pCi/L tritium
(b)  Formerly the residence of Talmadge S. Saucier
(c)  New sampling location
(d,e,f)  Additional analyses that are greater than MDC
(g)  Additional analyses greater than MDC
NA  Not applicable: tritium results <MDC or water is known to be nonpotable

### Additional analysis greater than MDC

| | Analysis | Result | 1 sigma | MDC | Units |
|---|---|---|---|---|---|
| (d) | U-234 | 0.038 | 0.012 | 0.026 | $10^{-9}\mu$Ci/mL |
| | U-238 | 0.021 | 0.007 | 0.01 | $10^{-9}\mu$Ci/mL |
| (e) | U-238 | 0.018 | 0.009 | 0.014 | $10^{-9}\mu$Ci/mL |
| (f) | U-234 | 0.099 | 0.018 | 0.036 | $10^{-9}\mu$Ci/mL |
| | U-238 | 0.057 | 0.011 | 0.009 | $10^{-9}\mu$Ci/mL |
| (g) | U-234 | 0.14 | 0.02 | 0.01 | pCi/L |
| | U-238 | 0.12 | 0.02 | 0.01 | pCi/L |

# APPENDIX E
# RADIOACTIVE NOBLE GASES IN AIR ONSITE

## Robert R. Kinnison

The 1992 data consist of krypton and xenon concentrations from ten permanent stations collected over the entire year, and several portable stations used for short periods of time to monitor test events. There are a few changes in station locations from the 1991 report. Three permanent stations have been added: The Pahute Substation in Area 19, the Gate 400 station in Area 18, and the DDZ77 station in Area 20. Also, portable stations were used at locations different from the 1991 sampling locations. 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 of sample collection, (3) the krypton and xenon concentrations in $\mu$Ci/mL with one analytic standard deviation (1s), and the analytic Minimum Detectable Concentrations (MDC). 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. While negative concentrations have no physical meaning, they are essential for calculating unbiased summary statistics. Note that all of the krypton concentrations are above the MDC of approximately $8 \times 10^{-12}$ $\mu$Ci/mL and 77 percent of the xenon data are below its detection limit of about $24 \times 10^{-12}$ $\mu$Ci/mL. Some of the rows of Table E.1 show all data values are missing, this indicates that a sample was collected on the given dates but, for some reason, no results were obtained.

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Table E.1  Sample Results for $^{133}$Xe and $^{85}$Kr - 1992

| Sampling Location | Collection Dates | Krypton $10^{-12}\mu$Ci/mL $\pm$ 1s | Xenon $10^{-12}\mu$Ci/mL $\pm$ 1(s) |
|---|---|---|---|
| Area 1, BJY | 01/06/92 | 22.7 ± 0.65 | 15.5 ± 4.20 |
| Area 1, BJY | 01/13/92 | 20.8 ± 0.75 | 8.9 ± 4.50 |
| Area 1, BJY | 01/21/92 | 25.1 ± 0.85 | 15.2± 3.85 |
| Area 1, BJY | 01/27/92 | 23.5 ± 1.45 | -6.5 ± 7.50 |
| Area 1, BJY | 02/03/92 | 24.0 ± 1.00 | * * |
| Area 1, BJY | 02/10/92 | 25.3 ± 1.10 | 12.3 ± 5.00 |
| Area 1, BJY | 02/18/92 | * * | 8.7 ± 7.80 |
| Area 1, BJY | 02/24/92 | 21.4 ± 1.00 | 18.6 ± 8.10 |
| Area 1, BJY | 03/02/92 | * * | * * |
| Area 1, BJY | 03/11/92 | 30.0 ± 1.90 | 41 ±.314.80 |

Mean Xe MDC: 23.9 x $10^{-12}\mu$Ci/mL  Standard Deviation of Mean MDC: 1.1 x $10^{-12}\mu$Ci/mL
Mean Kr MDC:  8.0 x $10^{-12}\mu$Ci/mL  Approximate Value

(a)  Probably invalid because of cross-contamination
*    Missing data value

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Table E.1  (Sample Results for $^{133}$Xe and $^{85}$Kr - 1992, cont.)

| Sampling Location | Collection Dates | Krypton $10^{-12}\mu$Ci/mL $\pm$ 1s | Xenon $10^{-12}\mu$Ci/mL $\pm$ 1(s) |
|---|---|---|---|
| Area 1, BJY | 03/17/92 | 20.6 ± 1.05 | -37.9 ± 10.65 |
| Area 1, BJY | 03/24/92 | 27.4 ± 0.95 | 66.8 ± 10.50 |
| Area 1, BJY | 03/30/92 | 24.4 ± 0.85 | 30.3 ± 8.05 |
| Area 1, BJY | 04/06/92 | 22.7 ± 1.10 | 32.2 ± 23.15 |
| Area 1, BJY | 04/13/92 | * * | -70.2 ± 41.30 |
| Area 1, BJY | 04/20/92 | 21.4 ± 1.20 | -20.6 ± 18.85 |
| Area 1, BJY | 04/27/92 | 28.8 ± 1.25 | -10.1 ± 8.55 |
| Area 1, BJY | 05/04/92 | 31.5 ± 1.20 | 17.8 ± 11.05 |
| Area 1, BJY | 05/12/92 | 29.5 ± 0.80 | 5.4 ± 10.40 |
| Area 1, BJY | 05/18/92 | * * | 91.0 ± 10.40 |
| Area 1, BJY | 05/26/92 | * * | 10.8 ± 7.30 |
| Area 1, BJY | 06/02/92 | 31.6 ± 1.20 | 9.3 ± 5.35 |
| Area 1, BJY | 06/08/92 | 28.8 ± 0.70 | 11.2 ± 3.60 |
| Area 1, BJY | 06/15/92 | 26.0 ± 0.80 | 20.9 ± 6.15 |
| Area 1, BJY | 06/22/92 | 34.5 ± 1.00 | 27.2 ± 4.10 |
| Area 1, BJY | 06/29/92 | 25.3 ± 0.60 | 28.0 ± 31.45 |
| Area 1, BJY | 07/07/92 | 18.1 ± 0.70 | 61.5 ± 37.40 |
| Area 1, BJY | 07/14/92 | 26.4 ± 0.80 | -15.0 ± 4.00 |
| Area 1, BJY | 07/22/92 | 17.4 ± 0.85 | -13.9 ± 4.55 |
| Area 1, BJY | 07/27/92 | * * | 29.3 ± 3.35 |
| Area 1, BJY | 08/03/92 | 28.4 ± 0.70 | 5.3 ± 5.40 |
| Area 1, BJY | 08/10/92 | 29.8 ± 1.00 | -1.2 ± 7.05 |
| Area 1, BJY | 08/18/92 | 26.3 ± 0.75 | 15.2 ± 5.35 |
| Area 1, BJY | 08/24/92 | 23.7 ± 0.70 | 4.3 ± 3.65 |
| Area 1, BJY | 08/31/92 | 32.6 ± 0.90 | 3.2 ± 3.15 |
| Area 1, BJY | 09/08/92 | 36.8 ± 1.40 | 64.1 ± 22.55 |
| Area 1, BJY | 09/14/92 | 20.2 ± 0.85 | -10.6 ± 5.95 |
| Area 1, BJY | 09/22/92 | 21.8 ± 0.90 | 24.9 ± 20.25 |
| Area 1, BJY | 09/29/92 | 32.5 ± 0.75 | 109.9 ± 13.45 |
| Area 1, BJY | 10/05/92 | 24.9 ± 0.85 | -0.4 ± 7.05 |
| Area 1, BJY | 10/14/92 | 23.1 ± 0.85 | -21.5 ± 9.05 |
| Area 1, BJY | 10/20/92 | 24.4 ± 0.65 | -4.8 ± 3.95 |
| Area 1, BJY | 10/26/92 | 13.0 ± 1.75 | 3.6 ± 3.50 |
| Area 1, BJY | 11/03/92 | 25.1 ± 0.55 | -13.7 ± 3.60 |
| Area 1, BJY | 11/10/92 | 21.6 ± 0.60 | -7.1 ± 2.00 |
| Area 1, BJY | 11/16/92 | 30.2 ± 0.60 | 7.5 ± 1.95 |
| Area 1, BJY | 11/23/92 | 30.2 ± 0.75 | 4.7 ± 3.45 |

Mean Xe MDC: 23.9 x $10^{-12}\mu$Ci/mL    Standard Deviation of Mean MDC: 1.1 x $10^{-12}\mu$Ci/mL
Mean Kr MDC:  8.0 x $10^{-12}\mu$Ci/mL    Approximate Value

(a)  Probably invalid because of cross-contamination
*    Missing data value

Table E.1 (Sample Results for $^{133}$Xe and $^{85}$Kr - 1992, cont.)

| Sampling Location | Collection Dates | Krypton 10$^{-12}$μCi/mL ± 1s | Xenon 10$^{-12}$μCi/mL ± 1(s) |
|---|---|---|---|
| Area 1, BJY | 11/30/92 | 24.3 ± 0.60 | -3.6 ± 2.00 |
| Area 1, BJY | 12/07/92 | 36.6 ± 0.95 | 29 ±.53.15 |
| Area 1, BJY | 12/14/92 | 29.9 ± 0.80 | 16.2 ± 2.95 |
| Area 1, BJY | 12/21/92 | * * * | * |
| Area 1, BJY | 12/30/92 | 19.0 ± 0.75 | -5.2 ± 2.20 |
| Area 1, Gravel Pit | 01/07/92 | * * | 12.5 ± 4.35 |
| Area 1, Gravel Pit | 01/13/92 | 22.9 ± 0.65 | 69.1 ± 10.90 |
| Area 1, Gravel Pit | 01/21/92 | 24.6 ± 1.15 | 10.2 ± 4.15 |
| Area 1, Gravel Pit | 01/27/92 | 22.1 ± 0.70 | 18.8 ± 5.95 |
| Area 1, Gravel Pit | 02/03/92 | 27.0 ± 0.95 | -13.8 ± 8.05 |
| Area 1, Gravel Pit | 02/10/92 | 35.0 ± 1.20 | * * |
| Area 1, Gravel Pit | 02/18/92 | 22.8 ± 1.35 | 14.7 ± 9.05 |
| Area 1, Gravel Pit | 02/24/92 | 23.8 ± 0.75 | 6.1 ± 8.40 |
| Area 1, Gravel Pit | 03/02/92 | 23.8 ± 0.75 | 4.7 ± 7.55 |
| Area 1, Gravel Pit | 03/09/92 | 37.8 ± 0.80 | 16.4 ± 2.85 |
| Area 1, Gravel Pit | 03/17/92 | 20.1 ± 1.00 | 22.2 ± 9.55 |
| Area 1, Gravel Pit | 03/24/92 | 19.2 ± 0.85 | 52.8 ± 9.90 |
| Area 1, Gravel Pit | 03/30/92 | 24.4 ± 0.90 | 19.8 ± 7.20 |
| Area 1, Gravel Pit | 04/07/92 | 20.7 ± 1.00 | 31.2 ± 22.40 |
| Area 1, Gravel Pit | 04/13/92 | 23.4 ± 1.55 | 10.5 ± 55.50 |
| Area 1, Gravel Pit | 04/20/92 | [a]473.0 ± 2.50 | [a]10137.0 ± 13.00 |
| Area 1, Gravel Pit | 04/30/92 | 37.9 ± 0.80 | 111.0 ± 2.55 |
| Area 1, Gravel Pit | 05/04/92 | 24.7 ± 0.80 | 65.8 ± 32.80 |
| Area 1, Gravel Pit | 05/13/92 | 10.4 ± 0.90 | -20.1 ± 19.85 |
| Area 1, Gravel Pit | 05/19/92 | [a]450.4 ± 2.25 | [a]821.8 ± 7.70 |
| Area 1, Gravel Pit | 05/26/92 | 5.8 ± 1.25 | 12.2 ± 3.65 |
| Area 1, Gravel Pit | 06/02/92 | 28.2 ± 1.00 | 17.0 ± 8.30 |
| Area 1, Gravel Pit | 06/09/92 | 63.5 ± 1.15 | 56.2 ± 15.00 |
| Area 1, Gravel Pit | 06/15/92 | 24.1 ± 0.85 | -33.7 ± 17.00 |
| Area 1, Gravel Pit | 06/23/92 | 26.3 ± 1.05 | -3.7 ± 4.40 |
| Area 1, Gravel Pit | 06/29/92 | 29.0 ± 0.90 | 173.7 ± 63.85 |
| Area 1, Gravel Pit | 07/06/92 | 22.6 ± 1.05 | -14.6 ± 6.60 |
| Area 1, Gravel Pit | 07/13/92 | 11.9 ± 0.90 | -10.1 ± 7.45 |
| Area 1, Gravel Pit | 07/20/92 | 25.0 ± 1.20 | -59.1 ± 16.80 |
| Area 1, Gravel Pit | 07/27/92 | 33.5 ± 1.15 | * * |
| Area 1, Gravel Pit | 08/03/92 | * * | 94.68 ± 47.20 |
| Area 1, Gravel Pit | 08/10/92 | 25.3 ± 0.90 | -19.47 ± 17.80 |

Mean Xe MDC: 23.9 x 10$^{-12}$μCi/mL     Standard Deviation of Mean MDC: 1.1 x 10$^{-12}$μCi/mL
Mean Kr MDC: 8.0 x 10$^{-12}$μCi/mL     Approximate Value

(a) Probably invalid because of cross-contamination
* Missing data value

Table E.1  (Sample Results for $^{133}$Xe and $^{85}$Kr - 1992, cont.)

| Sampling Location | Collection Dates | Krypton $10^{-12}\mu$Ci/mL $\pm$ 1s | Xenon $10^{-12}\mu$Ci/mL $\pm$ 1(s) |
|---|---|---|---|
| Area 1, Gravel Pit | 08/17/92 | 19.0 ± 1.00 | -1.9 ± 5.10 |
| Area 1, Gravel Pit | 08/24/92 | 24.7 ± 0.80 | 1.8 ± 2.60 |
| Area 1, Gravel Pit | 08/31/92 | 26.1 ± 0.60 | 4.6 ± 5.20 |
| Area 1, Gravel Pit | 09/08/92 | 22.4 ± 0.65 | 40.7 ± 0.85 |
| Area 1, Gravel Pit | 09/14/92 | 25.7 ± 0.70 | -29.0 ± 9.75 |
| Area 1, Gravel Pit | 09/21/92 | 22.1 ± 0.70 | 8.2 ± 3.60 |
| Area 1, Gravel Pit | 09/28/92 | 77.1 ± 1.30 | 61.0 ± 7.90 |
| Area 1, Gravel Pit | 10/05/92 | 27.5 ± 0.65 | -14.9 ± 6.35 |
| Area 1, Gravel Pit | 10/12/92 | 24.0 ± 0.70 | -10.4 ± 5.35 |
| Area 1, Gravel Pit | 10/19/92 | 27.1 ± 0.65 | -14.1 ± 2.60 |
| Area 1, Gravel Pit | 10/26/92 | 27.6 ± 1.55 | 3.3 ± 4.95 |
| Area 1, Gravel Pit | 11/02/92 | 22.3 ± 0.70 | -32.3 ± 8.40 |
| Area 1, Gravel Pit | 11/09/92 | 31.4 ± 1.00 | 35.0 ± 8.05 |
| Area 1, Gravel Pit | 11/16/92 | 28.9 ± 0.60 | 0.8 ± 1.90 |
| Area 1, Gravel Pit | 11/23/92 | 25.1 ± 0.75 | -16.6 ± 6.80 |
| Area 1, Gravel Pit | 11/30/92 | 23.8 ± 0.60 | 10.3 ± 5.40 |
| Area 1, Gravel Pit | 12/08/92 | 23.8 ± 0.65 | -1.2 ± 2.25 |
| Area 1, Gravel Pit | 12/15/92 | 24.2 ± 0.55 | 3.3 ± 1.95 |
| Area 1, Gravel Pit | 12/21/92 | 32.9 ± 0.95 | -5.5 ± 1.50 |
| Area 1, Gravel Pit | 12/28/92 | 26.9 ± 0.80 | 17.4 ± 1.75 |
| Area 5, Gate 200 S | 01/06/92 | 21.3 ± 0.75 | 3.1 ± 2.75 |
| Area 5, Gate 200 S | 01/21/92 | 25.8 ± 0.60 | 2.7 ± 2.35 |
| Area 5, Gate 200 S | 01/29/92 | 26.6 ± 0.90 | 14.5 ± 8.75 |
| Area 5, Gate 200 S | 02/03/92 | 14.1 ± 1.10 | 3.7 ± 4.50 |
| Area 5, Gate 200 S | 02/11/92 | 22.6 ± 0.90 | 28.3 ± 9.95 |
| Area 5, Gate 200 S | 02/18/92 | 19.1 ± 1.35 | 10.4 ± 7.45 |
| Area 5, Gate 200 S | 02/24/92 | 23.4 ± 0.80 | 1.2 ± 2.75 |
| Area 5, Gate 200 S | 03/02/92 | 25.6 ± 1.15 | 28.1 ± 18.15 |
| Area 5, Gate 200 S | 03/09/92 | 38.9 ± 1.00 | 6.5 ± 8.55 |
| Area 5, Gate 200 S | 03/16/92 | 25.8 ± 0.70 | -1.8 ± 3.75 |
| Area 5, Gate 200 S | 03/24/92 | 31.7 ± 0.85 | 39.3 ± 7.05 |
| Area 5, Gate 200 S | 03/30/92 | [a]6619.9 ± 9.45 | [a]1785.5 ± 4.25 |
| Area 5, Gate 200 S | 04/07/92 | 23.6 ± 0.80 | 143.7 ± 31.10 |
| Area 5, Gate 200 S | 04/13/92 | 19.0 ± 1.10 | -2.7 ± 22.75 |
| Area 5, Gate 200 S | 04/20/92 | 48.5 ± 1.20 | 255.0 ± 6.80 |
| Area 5, Gate 200 S | 04/29/92 | 45.2 ± 1.00 | 129.0 ± 2.85 |
| Area 5, Gate 200 S | 05/05/92 | * * | * * |

Mean Xe MDC: 23.9 x $10^{-12}\mu$Ci/mL      Standard Deviation of Mean MDC: 1.1 x $10^{-12}\mu$Ci/mL
Mean Kr MDC: 8.0 x $10^{-12}\mu$Ci/mL      Approximate Value

(a)  Probably invalid because of cross-contamination
*  Missing data value

Table E.1 (Sample Results for $^{133}$Xe and $^{85}$Kr - 1992, cont.)

| Sampling Location | Collection Dates | Krypton 10$^{-12}$µCi/mL ± 1s | Xenon 10$^{-12}$µCi/mL ± 1(s) |
|---|---|---|---|
| Area 5, Gate 200 S | 05/13/92 | * * | * * |
| Area 5, Gate 200 S | 05/18/92 | 23.5 ± 0.65 | 8.5 ± 8.80 |
| Area 5, Gate 200 S | 05/26/92 | 24.8 ± 0.70 | 19.0 ± 5.00 |
| Area 5, Gate 200 S | 06/01/92 | 30.4 ± 0.90 | -12.3 ± 5.05 |
| Area 5, Gate 200 S | 06/09/92 | 28.2 ± 1.00 | -10.3 ± 25.65 |
| Area 5, Gate 200 S | 06/15/92 | 23.1 ± 0.80 | 22.7 ± 5.95 |
| Area 5, Gate 200 S | 06/22/92 | 25.2 ± 0.70 | -4.1 ± 5.75 |
| Area 5, Gate 200 S | 06/29/92 | 25.2 ± 0.70 | -4.1 ± 5.75 |
| Area 5, Gate 200 S | 07/06/92 | 23.1 ± 0.70 | -0.2 ± 5.00 |
| Area 5, Gate 200 S | 07/14/92 | 25.2 ± 0.70 | 4.1 ± 4.70 |
| Area 5, Gate 200 S | 07/20/92 | 28.9 ± 0.85 | -22.8 ± 9.10 |
| Area 5, Gate 200 S | 07/27/92 | 35.2 ± 0.75 | 47.1 ± 6.65 |
| Area 5, Gate 200 S | 08/03/92 | 23.8 ± 0.85 | -30.4 ± 11.00 |
| Area 5, Gate 200 S | 08/10/92 | 25.8 ± 0.90 | -7.6 ± 5.70 |
| Area 5, Gate 200 S | 08/17/92 | 23.7 ± 0.90 | 61.7 ± 15.50 |
| Area 5, Gate 200 S | 08/24/92 | 23.9 ± 0.65 | 3.8 ± 2.25 |
| Area 5, Gate 200 S | 08/31/92 | 25.0 ± 0.70 | 105.0 ± 1.50 |
| Area 5, Gate 200 S | 09/08/92 | 27.9 ± 0.55 | * * |
| Area 5, Gate 200 S | 09/14/92 | 24.2 ± 0.85 | -16.1 ± 12.75 |
| Area 5, Gate 200 S | 09/21/92 | * * | 36.5 ± 12.30 |
| Area 5, Gate 200 S | 09/29/92 | 29.8 ± 1.60 | -3.5 ± 2.40 |
| Area 5, Gate 200 S | 10/05/92 | 38.8 ± 0.80 | 28.3 ± 4.40 |
| Area 5, Gate 200 S | 10/12/92 | 23.1 ± 0.70 | 3.8 ± 3.75 |
| Area 5, Gate 200 S | 10/20/92 | 27.1 ± 0.85 | -2.8 ± 3.45 |
| Area 5, Gate 200 S | 10/26/92 | 24.4 ± 0.60 | -10.6 ± 11.65 |
| Area 5, Gate 200 S | 11/02/92 | * * | -6.3 ± 1.80 |
| Area 5, Gate 200 S | 11/09/92 | * * | * * |
| Area 5, Gate 200 S | 11/19/92 | 24.4 ± 0.95 | 7.4 ± 6.65 |
| Area 5, Gate 200 S | 11/30/92 | 27.3 ± 1.00 | -4.2 ± 2.05 |
| Area 5, Gate 200 S | 12/03/92 | 20.4 ± 0.80 | -9.7 ± 2.75 |
| Area 5, Gate 200 S | 12/08/92 | 24.3 ± 0.75 | -5.6 ± 2.90 |
| Area 5, Gate 200 S | 12/15/92 | 21.4 ± 0.65 | 5.8 ± 2.25 |
| Area 5, Gate 200 S | 12/21/92 | 21.5 ± 0.75 | 2.4 ± 1.95 |
| Area 5, Gate 200 S | 12/28/92 | 34.2 ± 0.70 | 20.6 ± 2.55 |
| Area 12, Camp | 01/07/92 | 24.8 ± 0.90 | 14.9 ± 4.60 |
| Area 12, Camp | 01/13/92 | 21.8 ± 0.70 | 34.7 ± 5.70 |
| Area 12, Camp | 01/21/92 | 26.2 ± 0.70 | 8.1 ± 2.60 |

Mean Xe MDC: 23.9 x 10$^{-12}$µCi/mL  
Mean Kr MDC: 8.0 x 10$^{-12}$µCi/mL

Standard Deviation of Mean MDC: 1.1 x 10$^{-12}$µCi/mL  
Approximate Value

(a) Probably invalid because of cross-contamination
* Missing data value

Table E.1 (Sample Results for $^{133}$Xe and $^{85}$Kr - 1992, cont.)

| Sampling Location | Collection Dates | Krypton $10^{-12}\mu Ci/mL \pm 1s$ | Xenon $10^{-12}\mu Ci/mL \pm 1(s)$ |
|---|---|---|---|
| Area 12, Camp | 01/27/92 | 19.8 ± 0.75 | 81.9 ± 2.20 |
| Area 12, Camp | 02/03/92 | 27.5 ± 0.70 | * * |
| Area 12, Camp | 02/10/92 | 20.6 ± 1.20 | * * |
| Area 12, Camp | 02/18/92 | 24.4 ± 0.90 | -3 ±.36.35 |
| Area 12, Camp | 02/24/92 | 25.3 ± 0.70 | 6 ±.13.40 |
| Area 12, Camp | 03/02/92 | 23.6 ± 0.60 | * ± 2.85 |
| Area 12, Camp | 03/09/92 | 32.3 ± 0.60 | 13 ±.42.25 |
| Area 12, Camp | 03/17/92 | 27.6 ± 0.75 | -4 ±.24.00 |
| Area 12, Camp | 03/23/92 | * * | 1.4 ± 9.20 |
| Area 12, Camp | 03/30/92 | 22.4 ± 0.75 | 19.0 ± 6.10 |
| Area 12, Camp | 04/08/92 | 16.1 ± 0.85 | 6.0 ± 4.30 |
| Area 12, Camp | 04/15/92 | 32.0 ± 0.95 | 50.5 ± 13.45 |
| Area 12, Camp | 04/20/92 | 25.9 ± 0.65 | 120.0 ± 21.00 |
| Area 12, Camp | 04/27/92 | 37.1 ± 0.60 | 63.0 ± 3.65 |
| Area 12, Camp | 05/04/92 | 26.3 ± 0.95 | * * |
| Area 12, Camp | 05/12/92 | 17.6 ± 0.65 | -31.6 ± 23.30 |
| Area 12, Camp | 05/19/92 | 20.6 ± 0.70 | -20.5 ± 10.25 |
| Area 12, Camp | 05/27/92 | 30.8 ± 0.90 | 32.4 ± 23.55 |
| Area 12, Camp | 06/02/92 | 31.0 ± 0.85 | 11.7 ± 8.10 |
| Area 12, Camp | 06/08/92 | 25.8 ± 0.75 | 16.6 ± 6.05 |
| Area 12, Camp | 06/15/92 | 30.0 ± 0.80 | 25.6 ± 5.90 |
| Area 12, Camp | 06/22/92 | 18.7 ± 1.05 | 1.0 ± 4.10 |
| Area 12, Camp | 06/29/92 | 28.9 ± 1.15 | 84.7 ± 20.50 |
| Area 12, Camp | 07/06/92 | 22.9 ± 0.95 | -204.6 ± 11.90 |
| Area 12, Camp | 07/13/92 | 28.3 ± 0.65 | -18.0 ± 9.55 |
| Area 12, Camp | 07/20/92 | 19.8 ± 0.90 | * * |
| Area 12, Camp | 07/27/92 | * * | * * |
| Area 12, Camp | 08/03/92 | 24.6 ± 0.75 | -22.5 ± 26.05 |
| Area 12, Camp | 08/10/92 | 26.3 ± 0.75 | 7.5 ± 8.15 |
| Area 12, Camp | 08/17/92 | 68.8 ± 1.05 | -8.1 ± 4.65 |
| Area 12, Camp | 08/24/92 | 24.6 ± 1.55 | 10.4 ± 3.25 |
| Area 12, Camp | 09/01/92 | 23.8 ± 0.80 | 16.3 ± 5.20 |
| Area 12, Camp | 09/08/92 | 22.5 ± 0.95 | 1.6 ± 2.50 |
| Area 12, Camp | 09/14/92 | 23.9 ± 0.70 | -7.3 ± 5.30 |
| Area 12, Camp | 09/21/92 | 26.7 ± 1.10 | 7.2 ± 10.90 |
| Area 12, Camp | 09/28/92 | 22.0 ± 2.10 | -77.1 ± 26.70 |

Mean Xe MDC: 23.9 x $10^{-12}\mu Ci/mL$     Standard Deviation of Mean MDC: 1.1 x $10^{-12}\mu Ci/mL$
Mean Kr MDC:  8.0 x $10^{-12}\mu Ci/mL$     Approximate Value

(a) Probably invalid because of cross-contamination
* Missing data value

Table E.1  (Sample Results for $^{133}$Xe and $^{85}$Kr - 1992, cont.)

| Sampling Location | Collection Dates | Krypton $10^{-12}\mu Ci/mL \pm 1s$ | Xenon $10^{-12}\mu Ci/mL \pm 1(s)$ |
|---|---|---|---|
| Area 12, Camp | 10/05/92 | 20.2 ± 0.65 | 60.3 ± 53.90 |
| Area 12, Camp | 10/13/92 | 23.0 ± 0.90 | -7.1 ± 5.00 |
| Area 12, Camp | 10/19/92 | 25.2 ± 0.75 | -4.9 ± 2.75 |
| Area 12, Camp | 10/26/92 | 21.2 ± 0.75 | 4.1 ± 4.10 |
| Area 12, Camp | 11/02/92 | 27.1 ± 0.75 | -11.5 ± 7.65 |
| Area 12, Camp | 11/09/92 | 36.2 ± 0.60 | 0.1 ± 3.85 |
| Area 12, Camp | 11/16/92 | * * | 2.0 ± 2.30 |
| Area 12, Camp | 11/30/92 | 23.8 ± 0.75 | 11.4 ± 6.10 |
| Area 12, Camp | 11/30/92 | 21.5 ± 0.70 | -16.5 ± 4.15 |
| Area 12, Camp | 12/08/92 | 25.3 ± 0.70 | -5.6 ± 2.25 |
| Area 12, Camp | 12/15/92 | 21.0 ± 1.25 | -7.1 ± 5.10 |
| Area 12, Camp | 12/21/92 | * * | -6.0 ± 2.55 |
| Area 12, Camp | 12/28/92 | * * | * * |
| Area 15, EPA Farm | 01/05/92 | 20.8 ± 1.20 | 12.0 ± 6.50 |
| Area 15, EPA Farm | 01/13/92 | * * | 16.1 ± 2.15 |
| Area 15, EPA Farm | 01/21/92 | * * | * * |
| Area 15, EPA Farm | 01/27/92 | 22.6 ± 1.00 | 34.9 ± 5.25 |
| Area 15, EPA Farm | 02/03/92 | 21.2 ± 0.95 | 18.1 ± 4.05 |
| Area 15, EPA Farm | 02/10/92 | * * | * * |
| Area 15, EPA Farm | 02/18/92 | * * | -8.4 ± 8.05 |
| Area 15, EPA Farm | 02/24/92 | * * | * * |
| Area 15, EPA Farm | 03/02/92 | [a]4140.0 ± 5.00 | [a]1074.0 ± 2.00 |
| Area 15, EPA Farm | 03/09/92 | * * | * * |
| Area 15, EPA Farm | 03/17/92 | 22.3 ± 0.60 | 11.0 ± 3.70 |
| Area 15, EPA Farm | 03/24/92 | * * | 51.8 ± 12.15 |
| Area 15, EPA Farm | 03/30/92 | 15.8 ± 1.85 | 44.6 ± 20.90 |
| Area 15, EPA Farm | 04/07/92 | * * | * * |
| Area 15, EPA Farm | 04/13/92 | 23.1 ± 1.05 | -129.0 ± 59.50 |
| Area 15, EPA Farm | 04/20/92 | * * | -22.0 ± 13.40 |
| Area 15, EPA Farm | 04/27/92 | 44.2 ± 2.10 | 147.0 ± 3.50 |
| Area 15, EPA Farm | 05/04/92 | 29.0 ± 0.90 | 5.1 ± 9.60 |
| Area 15, EPA Farm | 05/12/92 | 26.5 ± 0.70 | 56.3 ± 15.00 |
| Area 15, EPA Farm | 05/18/92 | 22.8 ± 0.80 | -31.4 ± 11.70 |
| Area 15, EPA Farm | 05/26/92 | * * | * * |
| Area 15, EPA Farm | 06/02/92 | * * | * * |
| Area 15, EPA Farm | 06/08/92 | 29.0 ± 0.70 | 186.0 ± 51.00 |

Mean Xe MDC: 23.9 x $10^{-12}\mu Ci/mL$     Standard Deviation of Mean MDC: 1.1 x $10^{-12}\mu Ci/mL$
Mean Kr MDC: 8.0 x $10^{-12}\mu Ci/mL$     Approximate Value

(a)  Probably invalid because of cross-contamination
*    Missing data value

Table E.1  (Sample Results for $^{133}$Xe and $^{85}$Kr - 1992, cont.)

| Sampling Location | Collection Dates | Krypton $10^{-12}\mu Ci/mL \pm 1s$ | Xenon $10^{-12}\mu Ci/mL \pm 1(s)$ |
|---|---|---|---|
| Area 15, EPA Farm | 06/15/92 | 30.1 ± 11.30 | 18.5 ± 4.05 |
| Area 15, EPA Farm | 06/22/92 | 53.9 ± 0.80 | -0.2 ± 3.30 |
| Area 15, EPA Farm | 06/29/92 | 28.5 ± 0.90 | 41.1 ± 15.50 |
| Area 15, EPA Farm | 07/06/92 | 26.7 ± 0.65 | * ± 9.65 |
| Area 15, EPA Farm | 07/13/92 | 21.7 ± 0.60 | -7.6 ± 3.45 |
| Area 15, EPA Farm | 07/20/92 | 29.3 ± 6.25 | -9.2 ± 5.90 |
| Area 15, EPA Farm | 07/27/92 | 26.2 ± 0.85 | 9.0 ± 5.85 |
| Area 15, EPA Farm | 08/03/92 | 26.0 ± 1.00 | 7.1 ± 9.40 |
| Area 15, EPA Farm | 08/10/92 | 27.9 ± 1.10 | 9.2 ± 23.45 |
| Area 15, EPA Farm | 08/17/92 | 20.7 ± 0.60 | 37.5 ± 7.85 |
| Area 15, EPA Farm | 08/24/92 | 25.3 ± 0.70 | -0.6 ± 2.25 |
| Area 15, EPA Farm | 08/31/92 | 22.7 ± 0.80 | 13.5 ± 3.20 |
| Area 15, EPA Farm | 09/14/92 | 21.6 ± 0.95 | 8.9 ± 7.05 |
| Area 15, EPA Farm | 09/29/92 | * * | 61.3 ± 10.50 |
| Area 15, EPA Farm | 10/05/92 | * * | * * |
| Area 15, EPA Farm | 10/14/92 | 20.1 ± 0.60 | -9.3 ± 4.75 |
| Area 15, EPA Farm | 10/19/92 | 19.8 ± 0.75 | -16.0 ± 2.20 |
| Area 15, EPA Farm | 10/26/92 | 24.5 ± 0.60 | -2.1 ± 3.80 |
| Area 15, EPA Farm | 11/03/92 | 23.2 ± 1.25 | -13.9 ± 4.45 |
| Area 15, EPA Farm | 11/09/92 | 25.7 ± 0.60 | -8.6 ± 2.10 |
| Area 15, EPA Farm | 11/16/92 | 25.7 ± 1.45 | 8.0 ± 2.10 |
| Area 15, EPA Farm | 11/23/92 | 41.6 ± 0.60 | 8.4 ± 8.25 |
| Area 15, EPA Farm | 11/30/92 | 23.2 ± 0.60 | -3.5 ± 2.85 |
| Area 15, EPA Farm | 12/07/92 | 34.8 ± 0.95 | 45.7 ± 5.35 |
| Area 15, EPA Farm | 12/14/92 | 20.6 ± 0.50 | 0.7 ± 2.40 |
| Area 15, EPA Farm | 12/21/92 | 24.9 ± 0.85 | 3.0 ± 2.60 |
| Area 15, EPA Farm | 12/29/92 | 23.6 ± 0.75 | 4.0 ± 2.80 |
| Area 18, Gate 400 | 04/07/92 | 26.4 ± 0.75 | 99.2 ± 23.15 |
| Area 18, Gate 400 | 04/13/92 | 47.4 ± 0.85 | [a]679.0 ± 19.00 |
| Area 18, Gate 400 | 04/21/92 | 26.0 ± 0.75 | 21.9 ± 15.40 |
| Area 18, Gate 400 | 04/27/92 | 37.0 ± 0.75 | 107.0 ± 2.60 |
| Area 18, Gate 400 | 05/04/92 | 29.8 ± 0.80 | 28.3 ± 8.25 |
| Area 18, Gate 400 | 05/11/92 | 26.6 ± 0.70 | 30.2 ± 8.60 |
| Area 18, Gate 400 | 05/18/92 | 24.2 ± 0.65 | 29.8 ± 16.20 |
| Area 18, Gate 400 | 05/28/92 | 43.1 ± 0.80 | 128.2 ± 2.55 |
| Area 18, Gate 400 | 06/01/92 | 25.8 ± 1.00 | 20.5 ± 12.25 |

Mean Xe MDC: 23.9 x $10^{-12}\mu Ci/mL$     Standard Deviation of Mean MDC: 1.1 x $10^{-12}\mu Ci/mL$
Mean Kr MDC:  8.0 x $10^{-12}\mu Ci/mL$     Approximate Value

(a)  Probably invalid because of cross-contamination
*    Missing data value

Table E.1 (Sample Results for $^{133}$Xe and $^{85}$Kr - 1992, cont.)

| Sampling Location | Collection Dates | Krypton $10^{-12}\mu$Ci/mL $\pm$ 1s | Xenon $10^{-12}\mu$Ci/mL $\pm$ 1(s) |
|---|---|---|---|
| Area 18, Gate 400 | 06/08/92 | 26.6 ± 1.90 | 54.0 ± 28.75 |
| Area 18, Gate 400 | 06/15/92 | 27.3 ± 1.15 | 7.7 ± 6.65 |
| Area 18, Gate 400 | 06/22/92 | 25.9 ± 0.85 | -1.1 ± 5.55 |
| Area 18, Gate 400 | 06/29/92 | 9.4 ± 0.80 | -21.6 ± 28.20 |
| Area 18, Gate 400 | 07/06/92 | 6.2 ± 0.95 | 31.4 ± 9.25 |
| Area 18, Gate 400 | 07/13/92 | -4.9 ± 1.05 | 0.3 ± 7.55 |
| Area 18, Gate 400 | 07/20/92 | 21.1 ± 1.20 | -62.1 ± 11.50 |
| Area 18, Gate 400 | 07/27/92 | * * | -23.6 ± 8.90 |
| Area 18, Gate 400 | 08/04/92 | 24.8 ± 0.75 | -7.1 ± 4.45 |
| Area 18, Gate 400 | 08/10/92 | 38.8 ± 0.80 | 52.9 ± 15.80 |
| Area 18, Gate 400 | 08/17/92 | 20.4 ± 0.60 | 1.6 ± 2.35 |
| Area 18, Gate 400 | 08/24/92 | 23.1 ± 0.60 | -7.6 ± 2.35 |
| Area 18, Gate 400 | 08/31/92 | 21.0 ± 0.60 | 16.0 ± 4.80 |
| Area 18, Gate 400 | 09/08/92 | 22.5 ± 0.75 | 0.7 ± 3.30 |
| Area 18, Gate 400 | 09/14/92 | 21.6 ± 0.60 | -5.4 ± 4.45 |
| Area 18, Gate 400 | 09/21/92 | 22.8 ± 0.70 | 13.2 ± 6.00 |
| Area 18, Gate 400 | 09/28/92 | 24.1 ± 1.00 | * * |
| Area 18, Gate 400 | 10/05/92 | 22.0 ± 0.60 | 1.3 ± 6.85 |
| Area 18, Gate 400 | 10/19/92 | 20.1 ± 0.65 | -7.4 ± 2.10 |
| Area 18, Gate 400 | 10/26/92 | 25.5 ± 0.60 | 1.6 ± 2.95 |
| Area 18, Gate 400 | 11/02/92 | 23.5 ± 0.65 | -31.5 ± 5.75 |
| Area 18, Gate 400 | 11/09/92 | 26.5 ± 0.70 | -11.4 ± 5.30 |
| Area 18, Gate 400 | 11/16/92 | 24.8 ± 0.60 | -13.1 ± 7.50 |
| Area 18, Gate 400 | 11/23/92 | 23.3 ± 0.55 | 4.9 ± 4.75 |
| Area 18, Gate 400 | 12/30/92 | 26.3 ± 0.85 | 5.8 ± 2.00 |
| Area 19, Pahute Sbst. | 03/31/92 | 27.4 ± 0.55 | 2.8 ± 1.80 |
| Area 19, Pahute Sbst. | 04/07/92 | 23.3 ± 0.95 | 23.0 ± 7.65 |
| Area 19, Pahute Sbst. | 04/15/92 | 7.4 ± 1.00 | -11.7 ± 10.20 |
| Area 19, Pahute Sbst. | 04/21/92 | 22.0 ± 1.90 | 1.1 ± 17.70 |
| Area 19, Pahute Sbst. | 04/27/92 | 25.9 ± 0.90 | 22.7 ± 5.95 |
| Area 19, Pahute Sbst. | 05/04/92 | 30.0 ± 0.95 | 78.5 ± 11.45 |
| Area 19, Pahute Sbst. | 05/11/92 | 29.9 ± 1.10 | 17.0 ± 18.50 |
| Area 19, Pahute Sbst. | 05/18/92 | 20.3 ± 0.70 | 7.5 ± 8.70 |
| Area 19, Pahute Sbst. | 05/28/92 | 27.7 ± 0.80 | 40.7 ± 7.30 |
| Area 19, Pahute Sbst. | 06/01/92 | 28.0 ± 0.90 | 5.8 ± 12.70 |
| Area 19, Pahute Sbst. | 06/16/92 | * * | 15.5 ± 4.70 |

Mean Xe MDC: 23.9 x $10^{-12}\mu$Ci/mL     Standard Deviation of Mean MDC: 1.1 x $10^{-12}\mu$Ci/mL
Mean Kr MDC: 8.0 x $10^{-12}\mu$Ci/mL     Approximate Value

(a) Probably invalid because of cross-contamination
* Missing data value

Table E.1 (Sample Results for $^{133}$Xe and $^{85}$Kr - 1992, cont.)

| Sampling Location | Collection Dates | Krypton $10^{-12}\mu$Ci/mL ± 1s | Xenon $10^{-12}\mu$Ci/mL ± 1(s) |
|---|---|---|---|
| Area 19, Pahute Sbst. | 06/22/92 | * * | * * |
| Area 19, Pahute Sbst. | 06/29/92 | * * | * * |
| Area 19, Pahute Sbst. | 07/06/92 | 24.4 ± 1.35 | 2.2 ± 10.05 |
| Area 19, Pahute Sbst. | 07/14/92 | 23.3 ± 0.75 | -71.5 ± 17.85 |
| Area 19, Pahute Sbst. | 07/20/92 | 25.1 ± 0.85 | -2.8 ± 3.45 |
| Area 19, Pahute Sbst. | 07/27/92 | 23.8 ± 0.85 | 5.2 ± 7.80 |
| Area 19, Pahute Sbst. | 08/10/92 | 28.1 ± 0.85 | 9.4 ± 16.40 |
| Area 19, Pahute Sbst. | 08/17/92 | 20.7 ± 0.75 | -6.0 ± 3.40 |
| Area 19, Pahute Sbst. | 08/24/92 | 25.1 ± 1.00 | 1.4 ± 8.60 |
| Area 19, Pahute Sbst. | 09/01/92 | 25.3 ± 0.85 | 43.5 ± 8.70 |
| Area 19, Pahute Sbst. | 09/08/92 | 20.6 ± 0.85 | 2.0 ± 3.05 |
| Area 19, Pahute Sbst. | 09/14/92 | 21.4 ± 0.60 | -2.2 ± 2.65 |
| Area 19, Pahute Sbst. | 09/21/92 | 23.5 ± 0.80 | -5.6 ± 4.05 |
| Area 19, Pahute Sbst. | 09/28/92 | 14.9 ± 1.70 | -37.4 ± 7.95 |
| Area 19, Pahute Sbst. | 10/05/92 | 26.3 ± 0.80 | 47.3 ± 56.55 |
| Area 19, Pahute Sbst. | 10/13/92 | 25.9 ± 1.00 | -24.5 ± 6.70 |
| Area 19, Pahute Sbst. | 10/19/92 | 33.3 ± 0.85 | -17.0 ± 3.50 |
| Area 19, Pahute Sbst. | 10/26/92 | 39.9 ± 1.45 | 7.8 ± 12.25 |
| Area 19, Pahute Sbst. | 11/02/92 | 19.4 ± 0.90 | -41.5 ± 11.05 |
| Area 19, Pahute Sbst. | 11/09/92 | 21.0 ± 0.75 | -25.4 ± 10.05 |
| Area 19, Pahute Sbst. | 11/16/92 | 23.7 ± 0.75 | -8.5 ± 6.55 |
| Area 19, Pahute Sbst. | 11/23/92 | 23.9 ± 0.90 | -32.6 ± 8.20 |
| Area 19, U-19bg RAM #2 | 03/27/92 | 21.1 ± 0.90 | 13.1 ± 6.65 |
| Area 19, U-19bg RAM #2 | 04/02/92 | 21.9 ± 0.60 | 5.7 ± 2.10 |
| Area 19, U-19bg RAM #2 | 04/07/92 | 19.4 ± 0.85 | 10.5 ± 6.70 |
| Area 19, U-19bg RAM #2 | 04/13/92 | 19.1 ± 0.55 | 2.1 ± 6.45 |
| Area 19, U-19bg RAM #8 | 03/27/92 | 30.0 ± 0.70 | -2.5 ± 3.95 |
| Area 19, U-19bg RAM #8 | 04/07/92 | 17.8 ± 1.00 | -7.5 ± 11.90 |
| Area 19, U-19bg RAM #8 | 04/13/92 | 25.6 ± 0.70 | 18.7 ± 6.60 |
| Area 19, U-19bg RAM #8 | 04/20/92 | 26.0 ± 1.30 | 42.3 ± 13.60 |
| Area 20, Camp | 01/07/92 | 49.5 ± 0.85 | 34.8 ± 3.95 |
| Area 20, Camp | 01/13/92 | 24.8 ± 0.70 | 31.3 ± 28.10 |
| Area 20, Camp | 01/21/92 | 30.7 ± 0.90 | 10.4 ± 2.95 |
| Area 20, Camp | 01/27/92 | 38.0 ± 0.85 | 14.7 ± 3.75 |
| Area 20, Camp | 02/03/92 | 48.1 ± 1.05 | 37.4 ± 5.00 |
| Area 20, Camp | 02/10/92 | 31.1 ± 1.70 | 53.2 ± 6.35 |

Mean Xe MDC: 23.9 x $10^{-12}\mu$Ci/mL      Standard Deviation of Mean MDC: 1.1 x $10^{-12}\mu$Ci/mL
Mean Kr MDC: 8.0 x $10^{-12}\mu$Ci/mL      Approximate Value

(a) Probably invalid because of cross-contamination
* Missing data value

Table E.1  (Sample Results for $^{133}$Xe and $^{85}$Kr - 1992, cont.)

| Sampling Location | Collection Dates | Krypton 10$^{-12}$µCi/mL ± 1s | Xenon 10$^{-12}$µCi/mL ± 1(s) |
|---|---|---|---|
| Area 20, Camp | 02/18/92 | 24.6 ± 1.25 | 13.3 ± 8.40 |
| Area 20, Camp | 02/24/92 | 29.6 ± 0.85 | 13.3 ± 5.45 |
| Area 20, Camp | 03/02/92 | 34.4 ± 0.70 | 1.8 ± 1.20 |
| Area 20, Camp | 03/09/92 | 34.2 ± 1.10 | 7.8 ± 2.25 |
| Area 20, Camp | 03/17/92 | 21.4 ± 2.10 | 3.8 ± 2.35 |
| Area 20, Camp | 03/23/92 | 41.9 ± 0.65 | 48.0 ± 7.95 |
| Area 20, Camp | 03/30/92 | 19.1 ± 0.85 | -24.3 ± 10.10 |
| Area 20, Camp | 04/06/92 | 29.8 ± 0.85 | 121.8 ± 17.60 |
| Area 20, Camp | 04/13/92 | * * | -19.9 ± 25.25 |
| Area 20, Camp | 04/20/92 | 30.1 ± 0.95 | * * |
| Area 20, Camp | 04/27/92 | 31.6 ± 0.75 | * * |
| Area 20, Camp | 05/04/92 | 32.2 ± 0.70 | 27.5 ± 20.65 |
| Area 20, Camp | 05/11/92 | 29.3 ± 0.80 | -59.3 ± 13.20 |
| Area 20, Camp | 05/18/92 | 30.6 ± 1.05 | 55.0 ± 9.50 |
| Area 20, Camp | 05/26/92 | 28.6 ± 1.00 | 19.2 ± 11.85 |
| Area 20, Camp | 06/01/92 | 30.0 ± 0.75 | * * |
| Area 20, Camp | 06/08/92 | 31.3 ± 1.00 | -28.0 ± 11.25 |
| Area 20, Camp | 06/15/92 | 27.9 ± 0.75 | 26.2 ± 5.60 |
| Area 20, Camp | 06/22/92 | * * | * * |
| Area 20, Camp | 06/29/92 | 31.5 ± 1.55 | 66.1 ± 17.75 |
| Area 20, Camp | 07/06/92 | 25.5 ± 0.95 | 8.2 ± 11.45 |
| Area 20, Camp | 07/13/92 | 19.9 ± 2.60 | -14.5 ± 5.65 |
| Area 20, Camp | 07/27/92 | 20.4 ± 2.40 | 2.2 ± 5.40 |
| Area 20, Camp | 08/10/92 | 30.3 ± 0.95 | 9.9 ± 176.00 |
| Area 20, Camp | 08/24/92 | 30.1 ± 0.70 | 4.8 ± 3.50 |
| Area 20, Camp | 09/01/92 | 24.1 ± 0.75 | -0.9 ± 5.40 |
| Area 20, Camp | 09/14/92 | 26.0 ± 0.85 | -11.5 ± 4.60 |
| Area 20, Camp | 09/21/92 | 27.4 ± 1.20 | 15.8 ± 5.50 |
| Area 20, Camp | 09/28/92 | -5.0 ± 1.45 | -6.4 ± 5.15 |
| Area 20, Camp | 09/28/92 | 29.6 ± 0.70 | * * |
| Area 20, Camp | 10/05/92 | 32.3 ± 0.70 | * * |
| Area 20, Camp | 10/13/92 | 38.3 ± 0.80 | -9.5 ± 4.10 |
| Area 20, Camp | 10/19/92 | 21.2 ± 0.85 | 1.3 ± 2.20 |
| Area 20, Camp | 10/26/92 | 39.6 ± 2.15 | -5.4 ± 7.55 |
| Area 20, Camp | 11/02/92 | 24.4 ± 0.80 | -9.6 ± 6.35 |
| Area 20, Camp | 11/09/92 | 30.0 ± 0.80 | -11.3 ± 6.95 |

Mean Xe MDC: 23.9 x 10$^{-12}$µCi/mL        Standard Deviation of Mean MDC: 1.1 x 10$^{-12}$µCi/mL
Mean Kr MDC:  8.0 x 10$^{-12}$µCi/mL        Approximate Value

(a)  Probably invalid because of cross-contamination
*    Missing data value

Table E.1 (Sample Results for $^{133}$Xe and $^{85}$Kr - 1992, cont.)

| Sampling Location | Collection Dates | Krypton $10^{-12}\mu$Ci/mL ± 1s | Xenon $10^{-12}\mu$Ci/mL ± 1(s) |
|---|---|---|---|
| Area 20, Camp | 11/16/92 | 39.9 ± 0.90 | 21.4 ± 5.75 |
| Area 20, Camp | 11/23/92 | 24.6 ± 0.75 | -3.9 ± 6.30 |
| Area 20, DDZ77 Trans. | 07/06/92 | 22.3 ± 0.75 | -8.5 ± 9.05 |
| Area 20, DDZ77 Trans. | 07/14/92 | 23.7 ± 0.65 | -2.0 ± 3.10 |
| Area 20, DDZ77 Trans. | 07/27/92 | 27.0 ± 0.65 | 0.9 ± 5.80 |
| Area 20, DDZ77 Trans. | 08/03/92 | 25.0 ± 0.75 | -7.9 ± 6.40 |
| Area 20, DDZ77 Trans. | 08/10/92 | 30.6 ± 0.95 | -0.4 ± 12.30 |
| Area 20, DDZ77 Trans. | 08/17/92 | 26.5 ± 1.00 | -6.6 ± 2.65 |
| Area 20, DDZ77 Trans. | 08/24/92 | * * | -4.1 ± 29.70 |
| Area 20, DDZ77 Trans. | 09/01/92 | 22.9 ± 0.70 | -1.4 ± 4.65 |
| Area 20, DDZ77 Trans. | 09/08/92 | 24.4 ± 0.70 | 6.2 ± 2.55 |
| Area 20, DDZ77 Trans. | 09/14/92 | 23.3 ± 0.75 | -34.8 ± 13.45 |
| Area 20, DDZ77 Trans. | 09/21/92 | 21.9 ± 0.70 | 2.2 ± 5.85 |
| Area 20, DDZ77 Trans. | 09/28/92 | 22.0 ± 1.45 | -1.3 ± 8.55 |
| Area 20, DDZ77 Trans. | 10/05/92 | 21.9 ± 0.65 | -3.4 ± 15.00 |
| Area 20, DDZ77 Trans. | 10/13/92 | 25.9 ± 0.60 | 4.0 ± 4.35 |
| Area 20, DDZ77 Trans. | 10/19/92 | 23.2 ± 0.70 | -11.7 ± 3.65 |
| Area 20, DDZ77 Trans. | 10/26/92 | 30.6 ± 0.70 | -2.3 ± 3.80 |
| Area 20, DDZ77 Trans. | 11/02/92 | 19.7 ± 0.70 | -12.7 ± 7.30 |
| Area 20, DDZ77 Trans. | 11/09/92 | 20.9 ± 0.60 | 1.4 ± 4.95 |
| Area 20, DDZ77 Trans. | 11/16/92 | 26.1 ± 0.65 | -12.2 ± 4.65 |
| Area 20, DDZ77 Trans. | 11/23/92 | 24.2 ± 0.95 | 8.8 ± 5.65 |
| Area 25, E-MAD N | 01/06/92 | * * | -43.6 ± 11.75 |
| Area 25, E-MAD N | 01/13/92 | 24.1 ± 0.75 | 5.5 ± 3.30 |
| Area 25, E-MAD N | 01/21/92 | 26.9 ± 0.85 | 60.4 ± 6.60 |
| Area 25, E-MAD N | 02/03/92 | 24.1 ± 0.85 | 8.9 ± 2.85 |
| Area 25, E-MAD N | 02/18/92 | 20.8 ± 0.70 | 5.3 ± 6.45 |
| Area 25, E-MAD N | 02/24/92 | 30.3 ± 0.80 | 18.2 ± 5.40 |
| Area 25, E-MAD N | 03/02/92 | 28.0 ± 0.60 | 5.0 ± 2.15 |
| Area 25, E-MAD N | 03/09/92 | 22.8 ± 1.00 | 6.4 ± 3.70 |
| Area 25, E-MAD N | 03/16/92 | 25.7 ± 0.55 | -8.7 ± 4.50 |
| Area 25, E-MAD N | 03/24/92 | 9.7 ± 0.70 | 4.9 ± 6.35 |
| Area 25, E-MAD N | 03/30/92 | 24.7 ± 1.10 | -7.5 ± 8.35 |
| Area 25, E-MAD N | 04/07/92 | 24.0 ± 0.70 | -207.8 ± 35.00 |
| Area 25, E-MAD N | 04/14/92 | 141.0 ± 1.00 | -11.8 ± 29.70 |
| Area 25, E-MAD N | 04/20/92 | 36.0 ± 0.60 | 182.0 ± 10.95 |

Mean Xe MDC: 23.9 x $10^{-12}\mu$Ci/mL          Standard Deviation of Mean MDC: 1.1 x $10^{-12}\mu$Ci/mL
Mean Kr MDC:  8.0 x $10^{-12}\mu$Ci/mL          Approximate Value

(a)  Probably invalid because of cross-contamination
\*    Missing data value

## Table E.1 (Sample Results for $^{133}$Xe and $^{85}$Kr - 1992, cont.)

| Sampling Location | Collection Dates | Krypton $10^{-12}\mu$Ci/mL ± 1s | Xenon $10^{-12}\mu$Ci/mL ± 1(s) |
|---|---|---|---|
| Area 25, E-MAD N | 04/29/92 | 61.8 ± 0.85 | 201.0 ± 4.70 |
| Area 25, E-MAD N | 05/05/92 | 30.2 ± 0.80 | 7.7 ± 16.25 |
| Area 25, E-MAD N | 05/11/92 | 24.5 ± 1.10 | 39.6 ± 29.10 |
| Area 25, E-MAD N | 05/18/92 | 22.4 ± 0.65 | -30.4 ± 2.50 |
| Area 25, E-MAD N | 05/26/92 | 15.2 ± 0.90 | 28.7 ± 8.25 |
| Area 25, E-MAD N | 06/01/92 | 28.6 ± 0.75 | -3.3 ± 5.00 |
| Area 25, E-MAD N | 06/09/92 | 28.2 ± 0.90 | -46.2 ± 17.25 |
| Area 25, E-MAD N | 06/15/92 | 27.0 ± 0.70 | 13.4 ± 4.90 |
| Area 25, E-MAD N | 06/22/92 | 26.0 ± 1.30 | 28.1 ± 4.60 |
| Area 25, E-MAD N | 06/29/92 | 10.3 ± 2.60 | 7.8 ± 11.90 |
| Area 25, E-MAD N | 07/06/92 | 26.3 ± 0.80 | 4.6 ± 9.65 |
| Area 25, E-MAD N | 07/14/92 | 18.9 ± 3.00 | 12.8 ± 6.25 |
| Area 25, E-MAD N | 07/20/92 | 26.1 ± 0.75 | -10.5 ± 6.85 |
| Area 25, E-MAD N | 07/27/92 | 29.3 ± 0.85 | 118.9 ± 24.20 |
| Area 25, E-MAD N | 08/03/92 | 23.7 ± 1.90 | 31.3 ± 16.15 |
| Area 25, E-MAD N | 08/11/92 | 22.3 ± 0.75 | -0.3 ± 2.50 |
| Area 25, E-MAD N | 08/17/92 | 22.2 ± 1.80 | -15.0 ± 9.15 |
| Area 25, E-MAD N | 08/24/92 | 27.2 ± 0.95 | 1.2 ± 4.65 |
| Area 25, E-MAD N | 08/31/92 | * * | -3.2 ± 2.65 |
| Area 25, E-MAD N | 09/08/92 | 34.6 ± 0.70 | 16.5 ± 5.50 |
| Area 25, E-MAD N | 09/14/92 | 24.2 ± 1.30 | -5.6 ± 13.00 |
| Area 25, E-MAD N | 09/21/92 | 14.8 ± 2.20 | -31.5 ± 8.60 |
| Area 25, E-MAD N | 09/29/92 | 20.0 ± 3.10 | -1.7 ± 13.35 |
| Area 25, E-MAD N | 10/05/92 | 20.2 ± 1.85 | -31.6 ± 18.20 |
| Area 25, E-MAD N | 10/14/92 | 23.5 ± 1.15 | -28.8 ± 5.30 |
| Area 25, E-MAD N | 10/20/92 | 22.2 ± 0.70 | -5.8 ± 2.40 |
| Area 25, E-MAD N | 10/26/92 | 26.4 ± 0.75 | -5.4 ± 2.55 |
| Area 25, E-MAD N | 11/04/92 | 19.1 ± 1.50 | -21.8 ± 8.45 |
| Area 25, E-MAD N | 11/10/92 | * * | * * |
| Area 25, E-MAD N | 11/17/92 | 25.8 ± 0.90 | 0.1 ± 7.85 |
| Area 25, E-MAD N | 11/23/92 | 27.2 ± 1.30 | -2.0 ± 4.65 |
| Area 25, E-MAD N | 11/30/92 | 25.2 ± 0.60 | -20.5 ± 9.30 |
| Area 25, E-MAD N | 12/08/92 | 22.8 ± 0.75 | -3.1 ± 2.10 |
| Area 25, E-MAD N | 12/15/92 | * * | * * |
| Area 25, E-MAD N | 12/21/92 | * * | * * |
| Area 25, E-MAD N | 12/28/92 | 30.4 ± 0.75 | 33.3 ± 4.05 |

Mean Xe MDC: 23.9 x $10^{-12}\mu$Ci/mL    Standard Deviation of Mean MDC: 1.1 x $10^{-12}\mu$Ci/mL
Mean Kr MDC: 8.0 x $10^{-12}\mu$Ci/mL    Approximate Value

(a) Probably invalid because of cross-contamination
* Missing data value

## XENON DATA

Figure E.1 shows the data from all the environmental stations combined. Several very high values have been removed from the data before these plots were made. These values are considered to be invalid by the health physicist in charge of the data collection, and the analytical laboratory notes for these samples note problems such as contamination or no decay observed for the xenon. These data values are marked with [a] in Table E.1. The removed xenon data values are 10137.0 for Gravel pit sampling beginning on 4/20, 821.6 for gravel pit sampling beginning 5/19, 1785.5 for gate 200 sampling beginning 3/30, 1074.0 for EPA Farm sampling beginning 3/2, and 679.0 for Gate 400 sampling beginning 4/13. Note that all these high xenon values are associated with corresponding high krypton values, except for the Gate 400 data. Figures E.2 through E.11 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 minimum detectable concentration. Missing values in the detection limit data have been plotted as the average of adjacent values (in these plots the numbers represent plotting locations where more than one data point is located). Note that the ordinate scale for the all data 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.
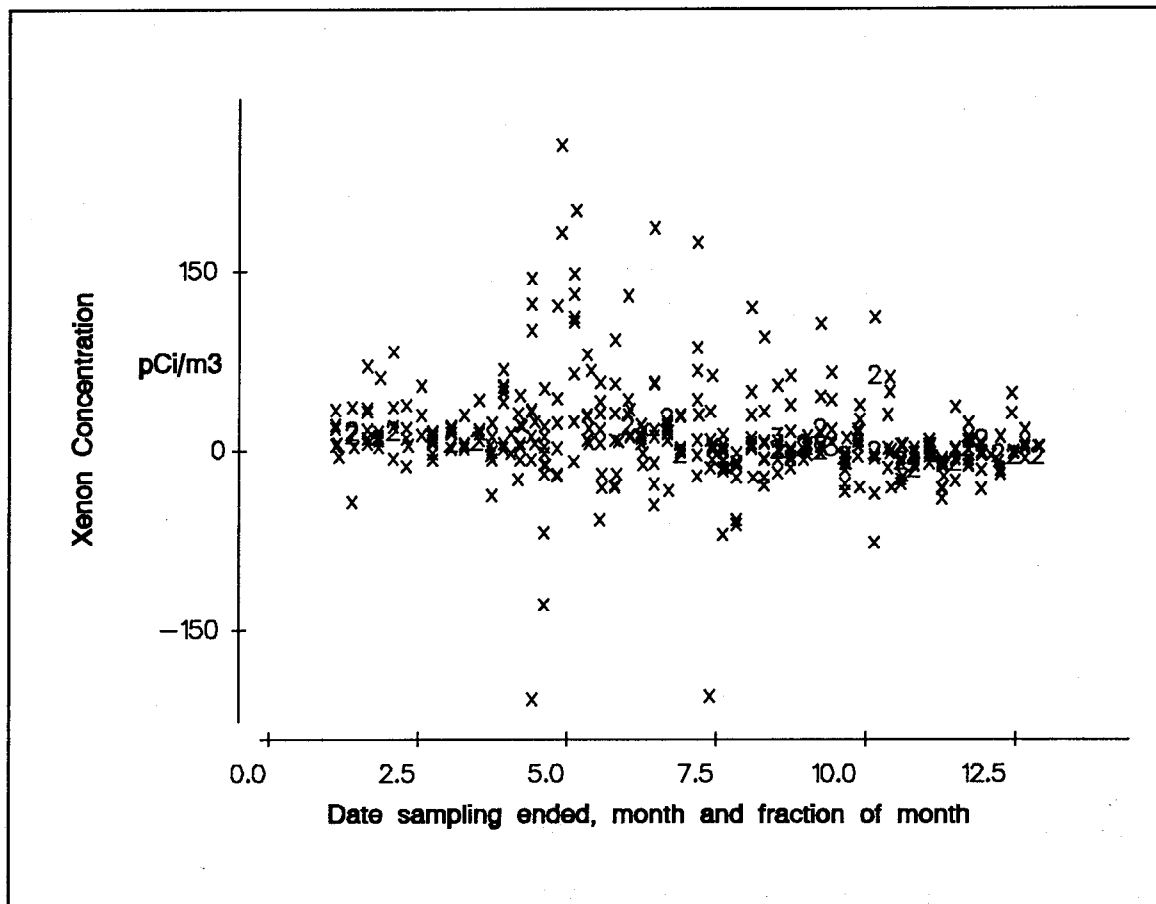


Figure E.1 Time Series Plot of All 1992 Xe Results
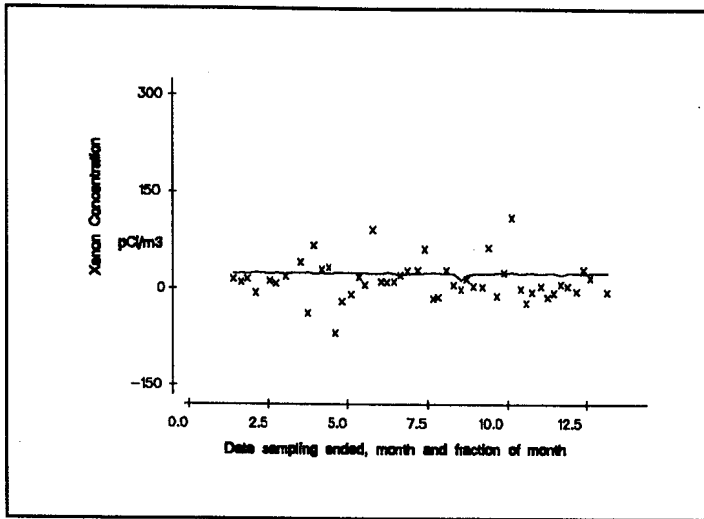
Figure E.2  Time Series Plot of 1992 BJY Xe Results
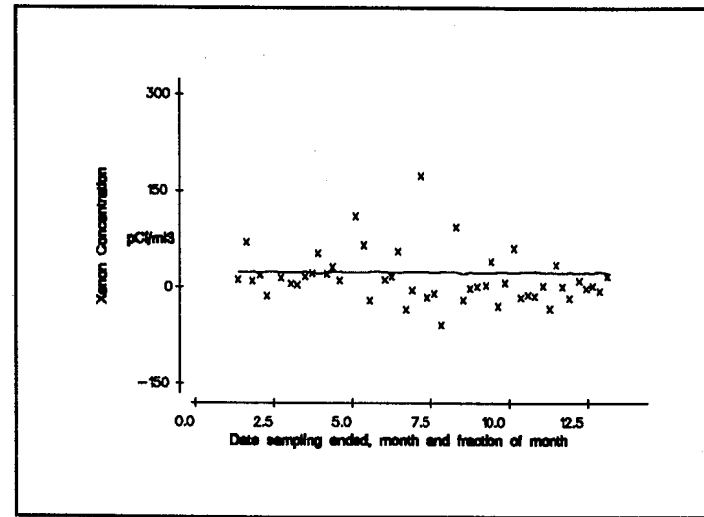


Figure E.3  Time Series Plot of 1992 Gravel Pit Xe Results
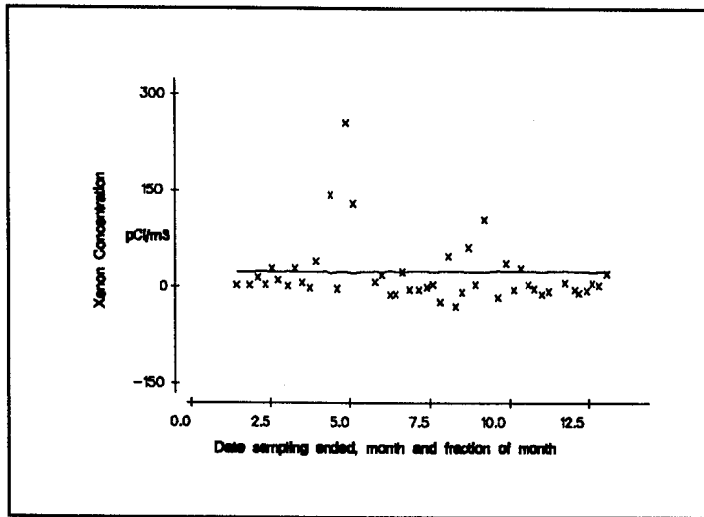


Figure E.4  Time Series Plot of 1992 Gate 200 South Xe Results
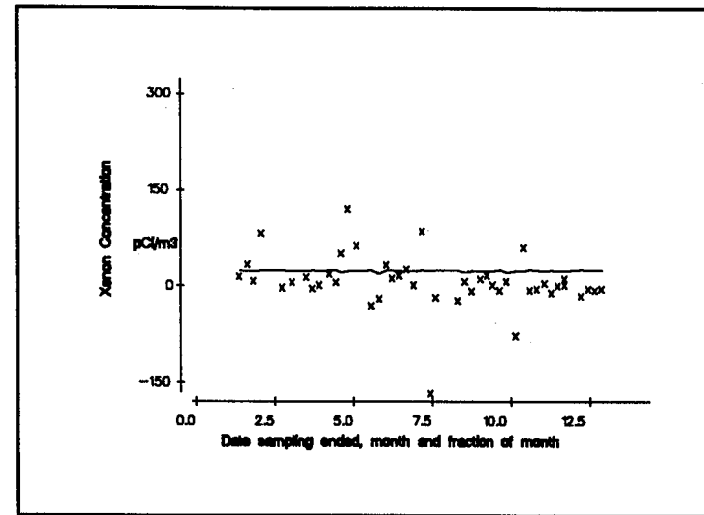


Figure E.5  Time Series Plot of 1992 Area 12 Camp Xe Results
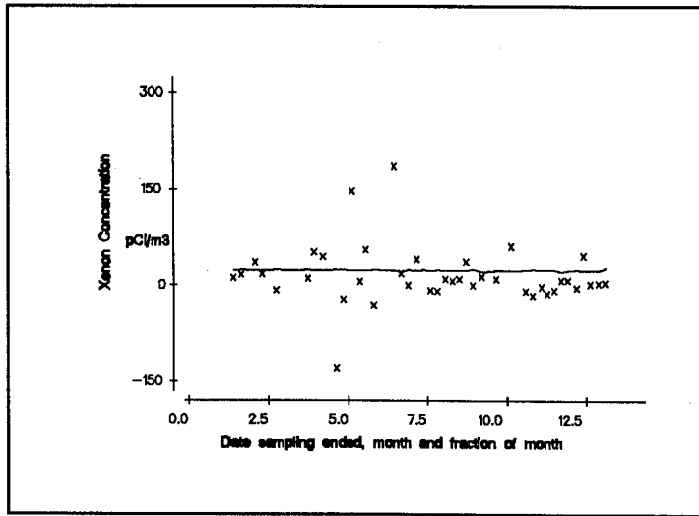
Figure E.6  Time Series Plot of 1992 EPA Farm
Xe Results
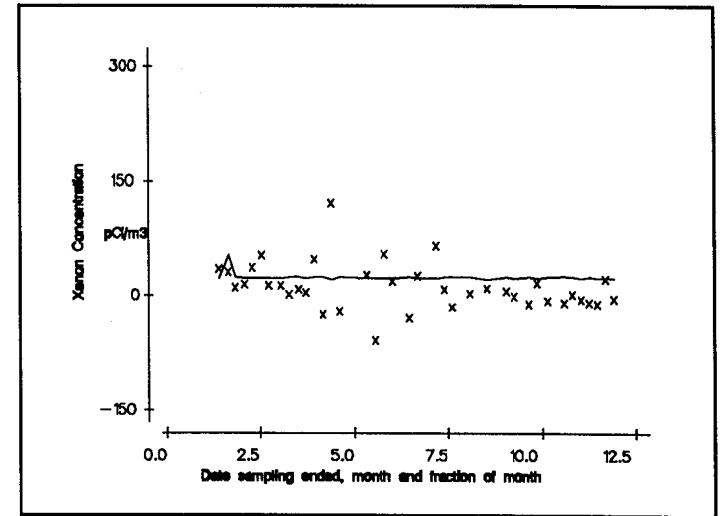


Figure E.7  Time Series Plot of 1992 Area 20 Camp
Xe Results
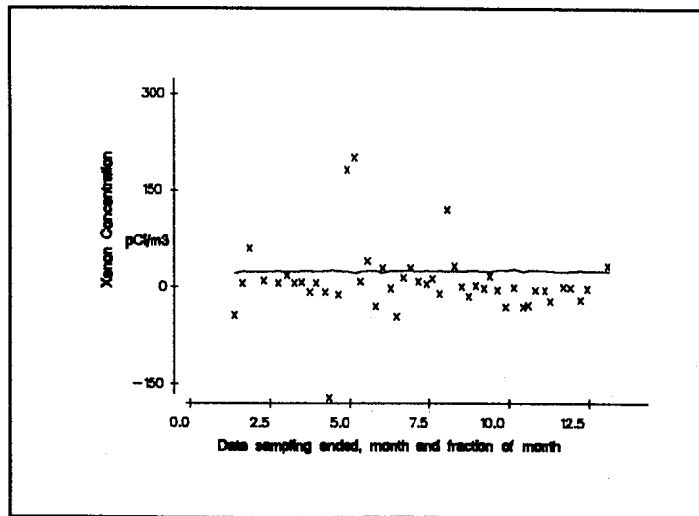


Figure E.8  Time Series Plot of 1992 E-MAD Xe Results
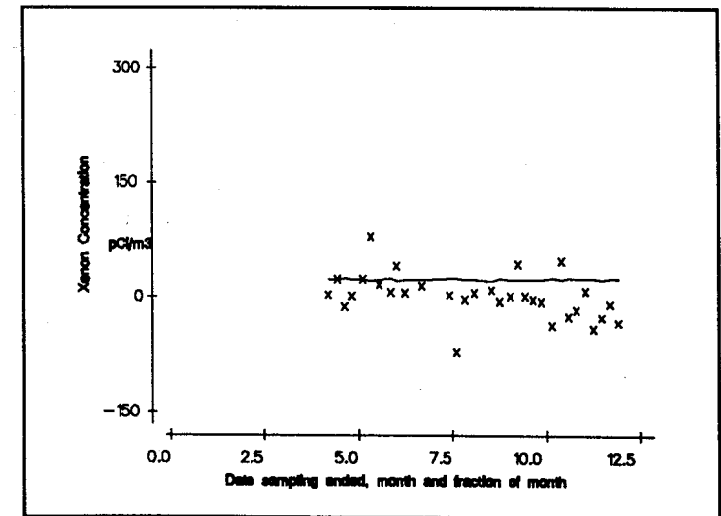


Figure E.9 Time Series Plot of 1992 Pahute Substation Xe
Results
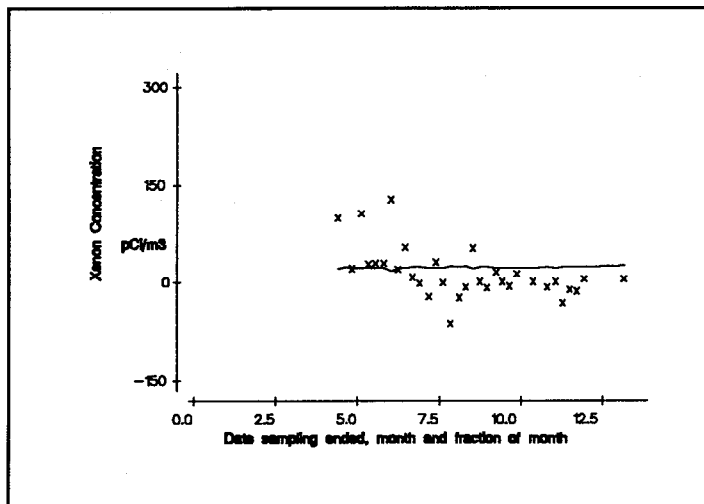
Figure E.10  Time Series Plot, 1992 Gate 400 Xe Results

These eleven 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 below the detection limit. The occasional high values seem to occur mostly in the late spring with most occurring during the months of March through September when six nuclear events were conducted (see Table 5.2). Of the 409 xenon data values shown in these figures, 77 percent are below the detection limit and 37 percent are below zero.

Figure E.12 is a normal probability plot of the data in Table E.1 with only the highest data value deleted, and Figure E.13 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 quartiles 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 75 percent chance that these data are lognormally distributed if the two lowest and one highest values in Figure E.13 are deleted. 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.12 and E.13 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 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
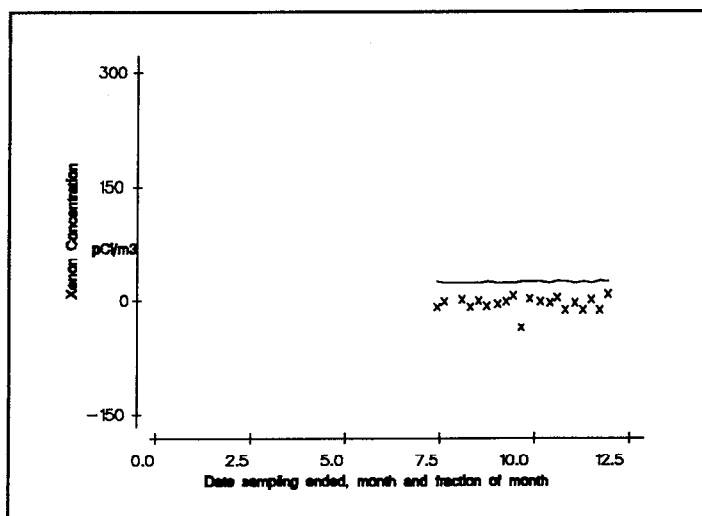


Figure E.11  Time Series Plot of 1992 DDZ77 Trans. Pit Xe Results

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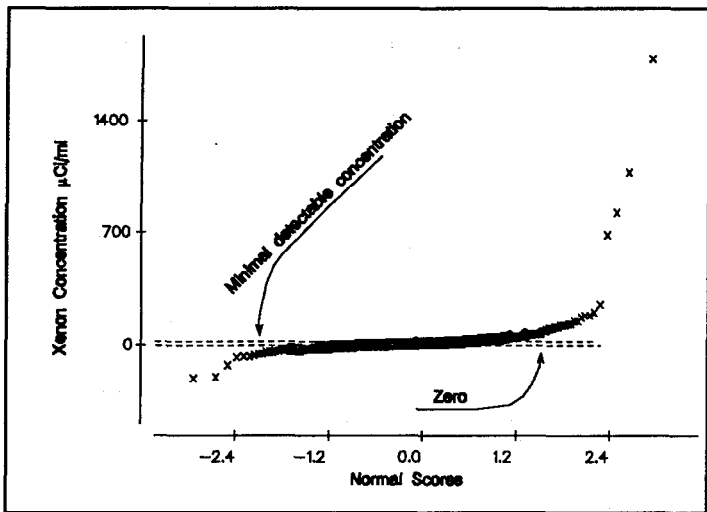
Figure E.12  Normal Probability Plot of Xe Data

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 1991 report.

The final statistical analysis tested for differences between sampling stations. The data from the DDZ77 Transformer station was left out of this analysis because all the data values from that station are less than the Minimum Detectable Concentration, and are thus unreliable. This station is located in the northwest corner of Area 20 away from any locations that were used for nuclear testing, thus it is expected that no xenon exist at this sampling station. The logarithms of the data were used in order to approximate a normal distribution for the analysis of 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 ten permanent stations with all negative values removed. Note that this ANOVA ignores the within-replicates



Figure E.13  Lognormal Probability Plot of Xe Data

E-18

Table E.2  Descriptive Statistics of Xe Data for 1992[a]

| Environmental Stations | N | Mean | Median | Standard Deviation | 1st Quartile | 3rd Quartile | Maximum |
|---|---|---|---|---|---|---|---|
| BJY | 49 | 12.4 | 8.9 | 30.2 | -5.0 | 26.1 | 109.9 |
| Gravel Pit[b] | 48 | 14.7 | 7.2 | 40.1 | -10.3 | 21.6 | 173.7 |
| Gate 200 S[b] | 46 | 19.3 | 3.8 | 49.9 | -4.1 | 24.1 | 255.0 |
| Area 12 Camp | 45 | 5.7 | 4.1 | 45.9 | -7.1 | 16.5 | 120.0 |
| EPA Farm[b] | 40 | 14.9 | 8.2 | 47.0 | -6.6 | 30.8 | 186.0 |
| Area 20 Camp | 38 | 11.7 | 8.0 | 30.9 | -7.2 | 26.5 | 121.8 |
| E-MAD | 47 | 6.3 | 0.1 | 56.8 | -10.5 | 13.4 | 201.0 |
| Pahute Sbst. | 31 | 1.5 | 2.0 | 28.8 | -11.7 | 15.5 | 78.5 |
| Gate 400[b] | 32 | 14.5 | 3.3 | 39.4 | -7.3 | 29.4 | 128.2 |
| DDZ77 Trans. | 20 | -4.3 | -2.2 | 9.3 | -8.4 | 1.3 | 8.8 |
| All | 396 | 10.6 | 4.1 | 41.6 | -7.1 | 19.0 | 255.0 |

| Environmental Stations | Number Missing Values | Number Less Than MDC | Number Less Than Zero |
|---|---|---|---|
| BJY | 3 | 36 | 16 |
| Gravel Pit | 4 | 37 | 17 |
| Gate 200 S | 5 | 34 | 18 |
| Area 12 Camp | 7 | 36 | 17 |
| EPA Farm | 10 | 30 | 14 |
| Area 20 Camp | 6 | 29 | 13 |
| E-MAD | 3 | 38 | 23 |
| Pahute Sbst. | 2 | 25 | 13 |
| Gate 400 | 2 | 23 | 11 |
| DDZ77 Trans. | 0 | 20 | 14 |
| All | 42 | 308 | 156 |

| Event-Related Stations | N | Mean | Median | Standard Deviation | 1st Quartile | 3rd Quartile | Maximum |
|---|---|---|---|---|---|---|---|
| U-19bg RAM 2 | 4 | 7.9 | 8.1 | 4.9 | 3.0 | 12.5 | 13.1 |
| U-19bg RAM 8 | 4 | 12.8 | 8.1 | 22.7 | -6.2 | 36.4 | 42.3 |

| Environmental Stations | Number Missing Values | Number Less Than MDC | Number Less Than Zero |
|---|---|---|---|
| U-19bg RAM 2 | 0 | 4 | 0 |
| U-19bg RAM 8 | 0 | 3 | 2 |

(a)  Values in the table are in units of pCi/m$^3$
(b)  Values above 500 deleted before calculations
*  Missing Data Value

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 0.796 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.

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 376 remaining

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

| Source | Degrees of Freedom | Sum of the Squares | Mean Square | F-Statistic | p Value |
|---|---|---|---|---|---|
| Area | 8 | 8.55 | 1.07 | 0.58 | 0.796 |
| Error | 225 | 416.55 | 1.85 | | |
| Total | 233 | 425.10 | | | |

| Station | N | Log of Median | Standard Deviation | Individual 95 Percent Confidence Intervals CIs for Ln Median Based on Pooled Standard Deviation |
|---|---|---|---|---|
| | | | | ---------+---------+---------+-------- |
| BJY | 33 | 2.831 | 0.939 | (----------*--------) |
| Gravel Pit | 31 | 2.826 | 1.258 | (----------*--------) |
| Gate 200 S | 28 | 2.705 | 1.404 | (---------*---------) |
| Area 12 Camp | 28 | 2.408 | 1.575 | (---------*---------) |
| EPA Farm | 26 | 2.824 | 1.244 | (---------*----------) |
| Area 20 Camp | 25 | 2.721 | 1.166 | (--------*----------) |
| E-MAD N | 24 | 2.570 | 1.629 | (---------*----------) |
| Pahute Sbst. | 18 | 2.233 | 1.298 | (------------*-----------) |
| Gate 400 | 21 | 2.484 | 1.727 | (-----------*----------) |
| | | | | ---------+---------+---------+-------- |

Pooled Standard Deviation = 1.361                                    2.00        2.50        3.00

transformed analytical variances have a sum of 10837. This sum was highly influenced by two data cases with mean values very close to zero which made the corresponding coefficients of variation -38.5 and 78.5. When squared these account for 71 percent of the variance sum. Deleting these two values gives 374 cases with a sum of 3193 and a mean of 8.5. Comparing this 8.5 to the error mean square of 1.85 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; the krypton MDC's are approximately $8 \times 10^{-12}$ $\mu$Ci/mL. Figures E.14 through E.24 are the krypton counterparts of Figures E.1 through E.11. As for xenon, no plots are given for the event related sampling stations. In all the krypton plots and statistical analyses that follow, four very high values have been deleted from the data; these data are marked with a check mark in Table E.1. These values are considered to be invalid by the health physicist responsible for the noble gas data. The probable cause of these high values is cross-contamination of the samples. These deleted values are: the value of 473.0 at the Gravel Pit for the starting sample date of 4/20, the value of 450.0 at the Gravel Pit for the starting sampling date of 5/26, the value of 6619.9 at the Gate 200 station for the starting sampling date of 3/30, and the value of 4140.0 at the EPA Farm for the starting sampling date of 3/17.

In general these plots show most of the values around environmental background levels. Figure E.20, the Area 20 Camp sampling location, shows values that are somewhat higher than the other locations. Note that the ordinate scale in figure E.14 differs from that of the other 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.
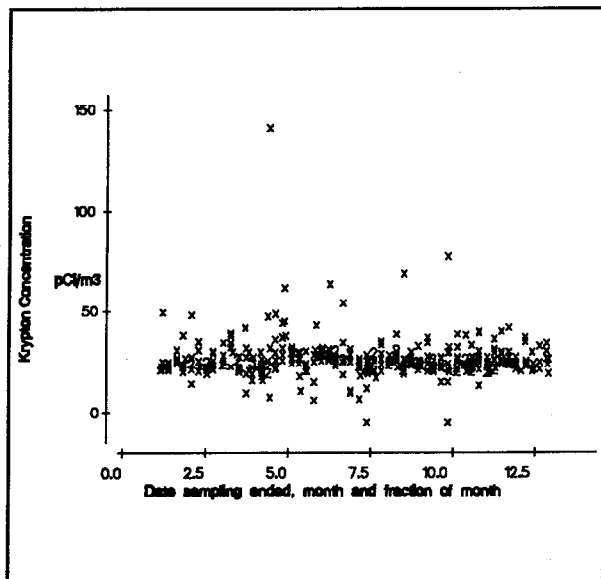


Figure E.14  Time Series Plot of All 1992Kr Results
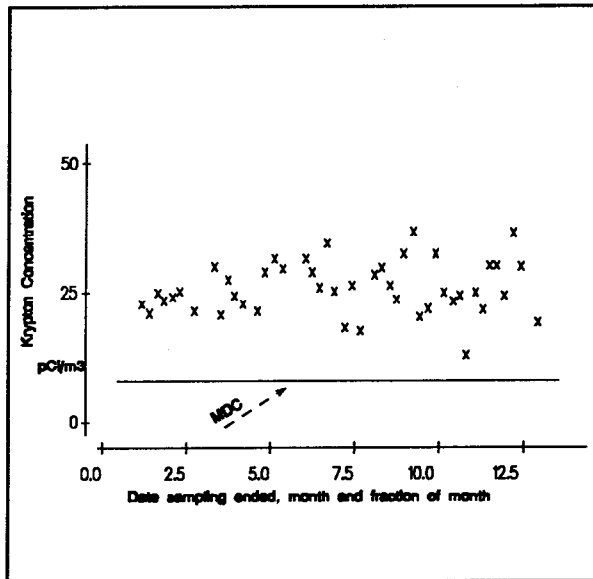
Figure E.15  Time Series Plot of 1992 BJY Kr Results
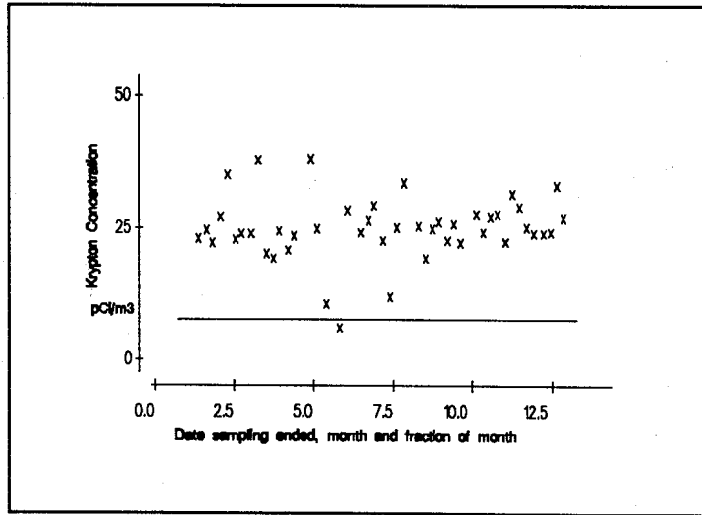
Figure E.16  Time Series Plot of 1992 Gravel Pit Kr
Results
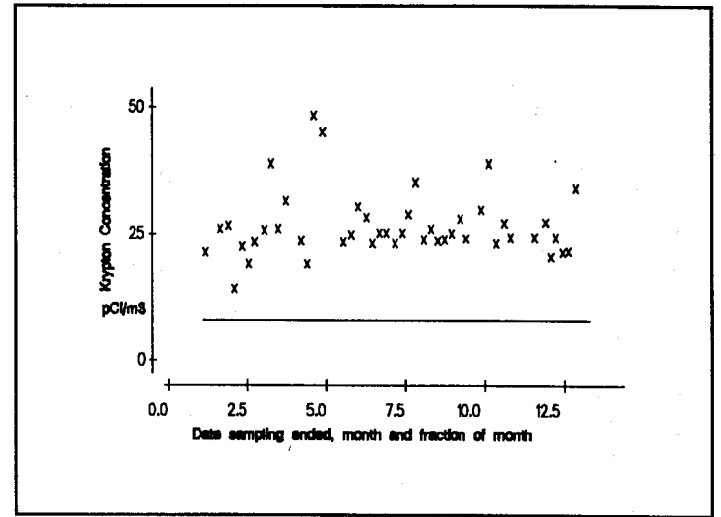


Figure E.17  Time Series Plot of 1992 Gate 200
South Kr Results
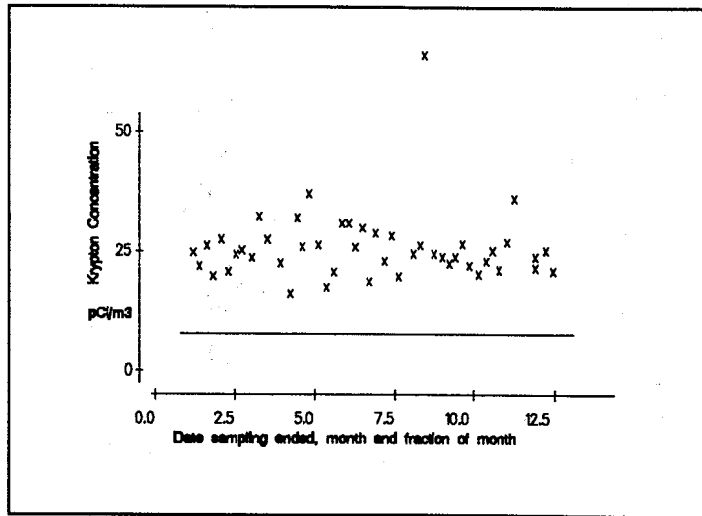


Figure E.18  Time Series Plot of 1992 Area 12 Camp Kr
Results
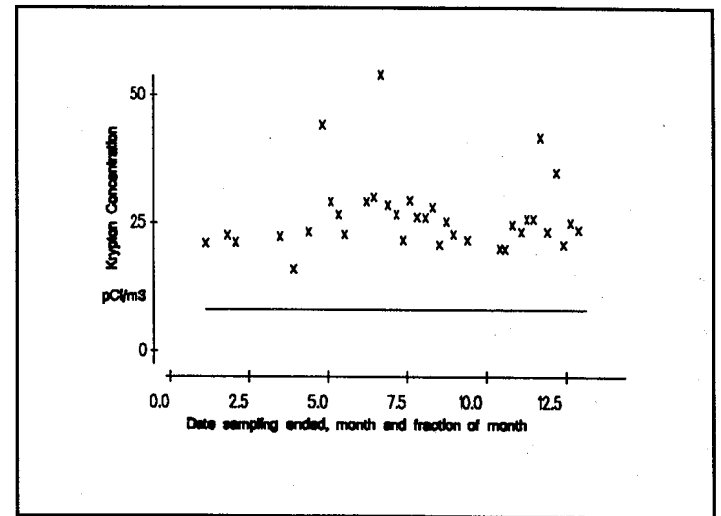


Figure E.19  Time Series Plot of 1992 EPA Farm Kr
Results
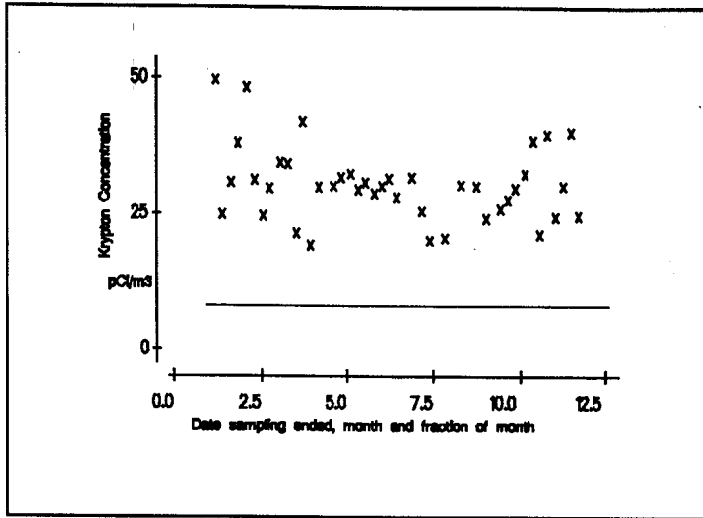
Figure E.20 Time Series Plot of 1992 Area 20 Camp Kr Results
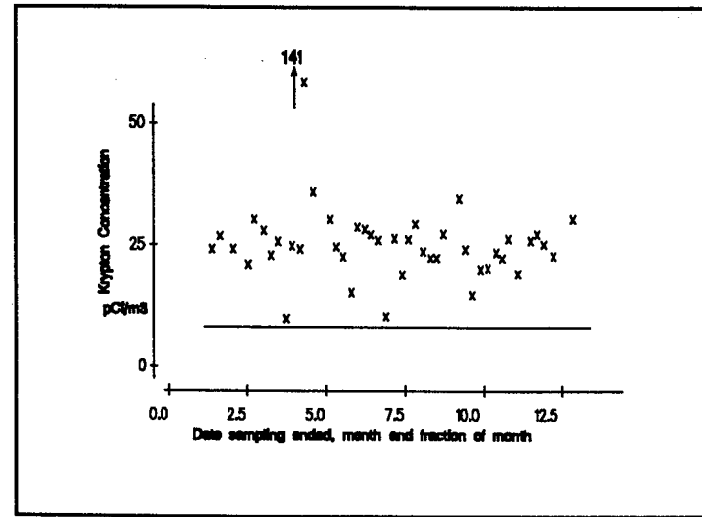


Figure E.21 Time Series Plot of 1992 E-MAD Kr Results
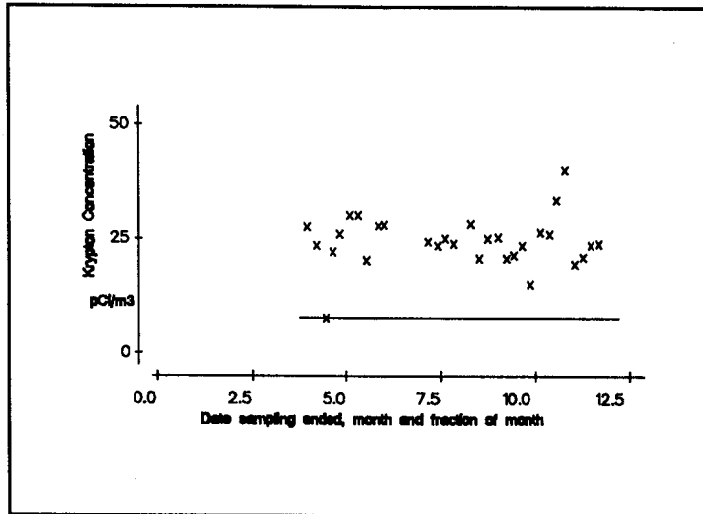


Figure E.22 Time Series Plot of 1992 Pahute Substation Kr Results
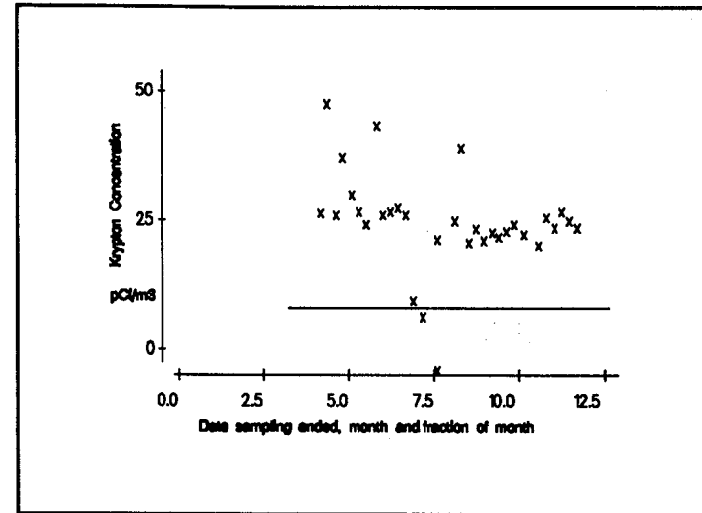


Figure E.23 Time Series Plot of 1992 Gate 400 Kr Results
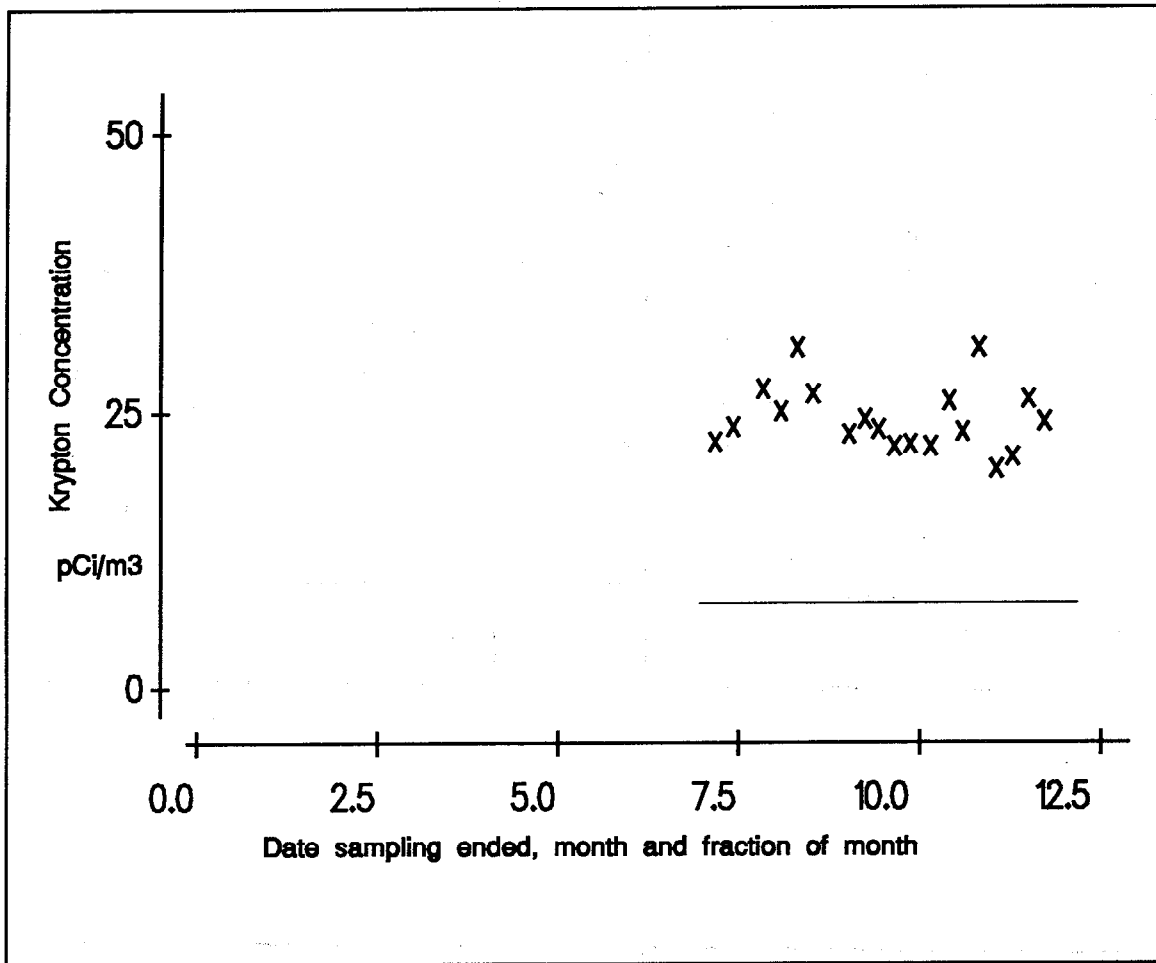
Figure E.24  Time Series Plot of 1992 DDZ77 Transformer Kr Results

All of the groups fit lognormal distributions if an occasional high or low outlier was removed from the data. Five of the ten environmental stations 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 0.00288 for 398 data values from the ten permanent environmental sampling stations. The between-replicates mean square error from the ANOVA was 0.0812. The within-replicates error would inflate the ANOVA mean squared error by less than four percent if included in the statistics. Since a variance inflation of four percent is small, the counting errors were not used in the formal statistical analyses.

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

Table E.4  Descriptive Statistics of 1992 Kr Data (pCi/m$^3$)

| Environmental Stations | N | Mean | Median | Standard Deviation | 1st Quartile | 3rd Quartile | Maximum |
|---|---|---|---|---|---|---|---|
| BJY | 45 | 25.81 | 25.10 | 5.10 | 22.25 | 29.85 | 36.80 |
| Gravel Pit | 48 | 26.63 | 24.65 | 10.98 | 22.65 | 27.58 | 77.10 |
| Gate 200 | 45 | 26.56 | 25.00 | 6.48 | 23.25 | 28.05 | 48.50 |
| Area 12 Camp | 47 | 25.85 | 24.60 | 7.78 | 21.80 | 27.50 | 68.80 |
| EPA Farm | 36 | 26.27 | 24.70 | 7.34 | 21.85 | 28.35 | 53.90 |
| Area 20 Camp | 42 | 29.50 | 30.00 | 8.71 | 24.75 | 32.22 | 49.50 |
| E-MAD | 45 | 27.66 | 24.70 | 18.89 | 22.25 | 27.60 | 141.00 |
| Pahute Sbst. | 30 | 24.38 | 24.15 | 5.62 | 21.30 | 27.48 | 39.90 |
| Gate 400 | 33 | 24.52 | 24.80 | 9.37 | 21.80 | 26.55 | 47.40 |
| DDZ77 Trans. | 19 | 24.32 | 23.70 | 2.94 | 22.00 | 26.10 | 30.60 |
| | | | | | | | |
| All | 390 | 26.37 | 25.00 | 9.73 | 22.50 | 28.65 | 141.00 |

| Environmental Stations | Number Missing Values | Number Less Than Zero |
|---|---|---|
| BJY | 7 | 0 |
| Gravel Pit | 4 | 0 |
| Gate 200 S | 6 | 0 |
| Area 12 Camp | 5 | 0 |
| EPA Farm | 14 | 0 |
| Area 20 Camp | 2 | 1 |
| E-MAD | 5 | 0 |
| Pahute Sbst. | 3 | 0 |
| Gate 400 | 1 | 1 |
| DDZ77 Trans. | 1 | 0 |
| | | |
| All | 48 | 2 |

| Event-Related Stations | N | Mean | Median | Standard Deviation | 1st Quartile | 3rd Quartile | Maximum |
|---|---|---|---|---|---|---|---|
| U-19bg RAM 2 | 4 | 20.38 | 20.25 | 1.35 | 19.18 | 21.70 | 21.90 |
| U-19bg RAM 8 | 4 | 24.85 | 25.80 | 5.10 | 19.75 | 29.00 | 30.00 |

| Environmental Stations | Number Missing Values | Number Less Than Zero |
|---|---|---|
| U-19bg RAM 2 | 0 | 0 |
| U-19bg RAM 8 | 0 | 0 |

Table E.5 One-Way Analysis of Variance on Natural Logarithm of Kr Concentrations for Differences between Stations (ln[pCi/m³])

| Source | Degrees of Freedom | Sum of the Squares | Mean Square | F-Statistic | p Value |
|---|---|---|---|---|---|
| Area | 9 | 1.3269 | 0.1474 | 1.82 | 0.064 |
| Error | 378 | 30.7017 | 0.0812 | | |
| Total | 387 | 32.0286 | | | |

| Station | N | Log of Median | Standard Deviation | Individual 95 Percent Confidence Intervals CIs for Ln Median Based on Pooled Standard Deviation |
|---|---|---|---|---|
| | | | | ------+---------+---------+---------+ |
| BJY | 45 | 3.2307 | 0.2070 | (------*------) |
| Gravel Pit | 48 | 3.2143 | 0.3773 | (------*------) |
| Gate 200 | 45 | 3.2538 | 0.2223 | (------*------) |
| Area 12 | 47 | 3.2229 | 0.2302 | (------*-----) |
| EPA Farm | 36 | 3.2382 | 0.2370 | (-------*-------) |
| Area 20 | 41 | 3.3886 | 0.2198 | (------*-------) |
| E-MAD | 45 | 3.2197 | 0.3942 | (------*------) |
| Pahute Sbst. | 30 | 3.1612 | 0.2841 | (-------*--------) |
| Gate 400 | 32 | 3.1810 | 0.3676 | (-------*-------) |
| DDZ77 | 19 | 3.1847 | 0.1174 | (---------*----------) |
| | | | | ------+---------+---------+---------+ |

Pooled Standard Deviation = 0.2850        3.12        3.24        3.36        3.48

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. 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 significant differences between the stations would be found if in fact the null hypothesis were true. Since this probability is small, but larger than the usual five percent critical value the conclusion is that there are no significant differences. Examination of the plots of the confidence intervals in Table E.5 suggest that the station at the Area 20 Camp might be higher than the remaining stations. The Area 20 mean value was found to be significantly higher than the remaining stations in 1990 and 1991 and the mean values are about the same for all these years. A close examination of the Analysis of Variance tables shows that in 1992 the Error Mean Square is about twice as large as in prior years, and this accounts for the loss of significance.

The assumed cause of the higher levels in Area 20 is atmospheric pumping from past underground events in Areas 19 and 20.

## DUPLICATE NOBLE GAS ANALYSIS

In previous annual reports it was noted that the analytical errors, reported in the data tables as one standard deviation, might not be representative of the total randomness associated with each result. The reported errors are the counting errors and these do not reflect randomness that may be derived from such things as sample collection and sample

preparation. In 1992 some of the samples were analyzed in duplicate to provide data that can be used to analyze the significance of some of the sources of error.

Because of analytical problems associated with very low activity samples, 93 percent of the xenon duplicate data was reported as missing values. The remaining data were insufficient for a statistical analysis. Most of the krypton duplicate data was successfully obtained, thus the duplicate analyses of this section will be for krypton only. The data are presented in Table E.6. The duplicates are listed as two successive lines in the table with the same location and same sampling dates. The Minimum Detectable Concentration (MDC) for all the krypton duplicate analyses was approximately $8 \times 10^{-12}$ µCi/mL (8 pCi/m$^3$).

Table E.6  Duplicate Results for $^{85}$Kr - 1992

| Identification Number | Location | Sampling Dates Start | End | Krypton $10^{-12}$ µCi/mL ± 1s |
|---|---|---|---|---|
| 201 | BJY | 01/21/92 | 01/27/92 | 25.1 ± 0.9 |
| 201 | BJY | 01/21/92 | 01/27/92 | 27.0 ± 2.1 |
| 201 | BJY | 05/12/92 | 05/18/92 | 29.5 ± 0.8 |
| 201 | BJY | 05/12/92 | 05/18/92 | 26.0 ± 1.0 |
| 201 | BJY | 06/15/92 | 06/22/92 | 26.0 ± 0.8 |
| 201 | BJY | 06/15/92 | 06/22/92 | 23.2 ± 0.9 |
| 201 | BJY | 07/07/92 | 07/14/92 | 6.8 ± 0.6 |
| 201 | BJY | 07/07/92 | 07/14/92 | 18.1 ± 0.7 |
| 201 | BJY | 08/10/92 | 08/18/92 | 29.8 ± 1.0 |
| 201 | BJY | 08/10/92 | 08/18/92 | 18.8 ± 0.9 |
| 201 | BJY | 11/16/92 | 11/23/92 | 30.2 ± 0.6 |
| 201 | BJY | 11/16/92 | 11/23/92 | 25.7 ± 0.6 |
| 201 | BJY | 11/23/92 | 11/30/92 | 30.2 ± 0.8 |
| 201 | BJY | 11/23/92 | 11/30/92 | 22.1 ± 0.5 |
| 201 | BJY | 11/30/92 | 12/07/92 | 24.3 ± 0.6 |
| 201 | BJY | 11/30/92 | 12/07/92 | 39.1 ± 0.8 |
| 202 | Gravel Pit | 01/21/92 | 01/27/92 | 24.6 ± 1.1 |
| 202 | Gravel Pit | 01/21/92 | 01/27/92 | 21.4 ± 1.0 |
| 202 | Gravel Pit | 02/03/92 | 02/10/92 | 4.7 ± 4.2 |
| 202 | Gravel Pit | 02/03/92 | 02/10/92 | 27.0 ± 0.9 |
| 202 | Gravel Pit | 02/24/92 | 03/02/92 | 23.8 ± 0.8 |
| 202 | Gravel Pit | 02/24/92 | 03/02/92 | 24.6 ± 0.9 |
| 202 | Gravel Pit | 03/17/92 | 03/24/92 | 20.1 ± 1.0 |
| 202 | Gravel Pit | 03/17/92 | 03/24/92 | 24.4 ± 0.9 |
| 202 | Gravel Pit | 06/15/92 | 06/23/92 | 131.0 ± 1.0 |
| 202 | Gravel Pit | 06/15/92 | 06/23/92 | 24.1 ± 0.9 |
| 202 | Gravel Pit | 07/06/92 | 07/13/92 | 22.6 ± 1.0 |
| 202 | Gravel Pit | 07/06/92 | 07/13/92 | 26.7 ± 1.4 |
| 202 | Gravel Pit | 07/13/92 | 07/20/92 | 11.9 ± 0.9 |
| 202 | Gravel Pit | 07/13/92 | 07/20/92 | 19.9 ± 1.0 |
| 202 | Gravel Pit | 08/17/92 | 08/24/92 | 19.0 ± 1.0 |

Table E.6 (Duplicate Results for $^{85}$Kr - 1992, cont.)

| Identification Number | Location | Sampling Dates Start | End | Krypton $10^{-12}$ µCi/mL ± 1s |
|---|---|---|---|---|
| 202 | Gravel Pit | 08/17/92 | 08/24/92 | 20.5 ± 0.7 |
| 202 | Gravel Pit | 11/02/92 | 11/09/92 | 22.3 ± 0.7 |
| 202 | Gravel Pit | 11/02/92 | 11/09/92 | 28.0 ± 0.7 |
| 202 | Gravel Pit | 12/08/92 | 12/15/92 | 23.8 ± 0.6 |
| 202 | Gravel Pit | 12/08/92 | 12/15/92 | 30.9 ± 0.6 |
| 203 | Gate 200 S | 01/21/92 | 01/27/92 | 25.8 ± 0.6 |
| 203 | Gate 200 S | 01/21/92 | 01/27/92 | 28.6 ± 0.9 |
| 203 | Gate 200 S | 02/03/92 | 02/11/92 | 14.1 ± 1.1 |
| 203 | Gate 200 S | 02/03/92 | 02/11/92 | 6.9 ± 0.8 |
| 203 | Gate 200 S | 02/18/92 | 02/24/92 | 19.1 ± 1.4 |
| 203 | Gate 200 S | 02/18/92 | 02/24/92 | 25.0 ± 0.9 |
| 203 | Gate 200 S | 02/24/92 | 03/02/92 | 23.4 ± 0.8 |
| 203 | Gate 200 S | 02/24/92 | 03/02/92 | 24.9 ± 0.9 |
| 203 | Gate 200 S | 03/24/92 | 03/30/92 | 31.7 ± 0.9 |
| 203 | Gate 200 S | 03/24/92 | 03/30/92 | 24.5 ± 0.7 |
| 203 | Gate 200 S | 08/17/92 | 08/24/92 | 23.7 ± 0.9 |
| 203 | Gate 200 S | 08/17/92 | 08/24/92 | 27.8 ± 1.0 |
| 203 | Gate 200 S | 09/08/92 | 09/14/92 | 27.9 ± 0.6 |
| 203 | Gate 200 S | 09/08/92 | 09/14/92 | 31.1 ± 0.6 |
| 203 | Gate 200 S | 10/05/92 | 10/12/92 | 38.8 ± 0.8 |
| 203 | Gate 200 S | 10/05/92 | 10/12/92 | 22.7 ± 0.8 |
| 204 | Area 12 Camp | 01/13/92 | 01/21/92 | 21.8 ± 0.7 |
| 204 | Area 12 Camp | 01/13/92 | 01/21/92 | 25.8 ± 0.9 |
| 204 | Area 12 Camp | 02/24/92 | 03/02/92 | 25.3 ± 0.7 |
| 204 | Area 12 Camp | 02/24/92 | 03/02/92 | 25.9 ± 0.8 |
| 204 | Area 12 Camp | 04/08/92 | 04/15/92 | 16.1 ± 0.9 |
| 204 | Area 12 Camp | 04/08/92 | 04/15/92 | 24.6 ± 0.6 |
| 204 | Area 12 Camp | 06/22/92 | 06/29/92 | 18.7 ± 1.0 |
| 204 | Area 12 Camp | 06/22/92 | 06/29/92 | 38.5 ± 0.8 |
| 204 | Area 12 Camp | 07/20/92 | 07/27/92 | 19.8 ± 0.9 |
| 204 | Area 12 Camp | 07/20/92 | 07/27/92 | 12.4 ± 0.8 |
| 204 | Area 12 Camp | 10/05/92 | 10/13/92 | 7.5 ± 1.7 |
| 204 | Area 12 Camp | 10/05/92 | 10/13/92 | 20.2 ± 0.6 |
| 204 | Area 12 Camp | 10/19/92 | 10/26/92 | -3.3 ± 0.6 |
| 204 | Area 12 Camp | 10/19/92 | 10/26/92 | 25.2 ± 0.8 |
| 204 | Area 12 Camp | 12/08/92 | 12/15/92 | 25.3 ± 0.7 |
| 204 | Area 12 Camp | 12/08/92 | 10/15/92 | 24.8 ± 0.6 |
| 205 | EPA Farm | 06/22/92 | 06/29/92 | 53.9 ± 0.8 |
| 205 | EPA Farm | 06/22/92 | 06/29/92 | 59.0 ± 0.9 |
| 205 | EPA Farm | 07/20/92 | 07/27/92 | 29.3 ± 6.2 |
| 205 | EPA Farm | 07/20/92 | 07/27/92 | 24.6 ± 0.6 |
| 205 | EPA Farm | 11/16/92 | 11/23/92 | 25.7 ± 1.5 |

Table E.6  (Duplicate Results for $^{85}$Kr - 1992, cont.)

| Identification Number | Location | Sampling Dates | | Krypton |
| | | Start | End | $10^{-12}$ µCi/mL ± 1s |
|---|---|---|---|---|
| 205 | EPA Farm | 11/16/92 | 11/23/92 | 28.6 ± 0.6 |
| 206 | Area 20 Camp | 01/07/92 | 01/13/92 | 49.5 ± 0.9 |
| 206 | Area 20 Camp | 01/07/92 | 01/13/92 | 46.7 ± 0.8 |
| 206 | Area 20 Camp | 03/02/92 | 03/09/92 | 34.4 ± 0.7 |
| 206 | Area 20 Camp | 03/02/92 | 03/09/92 | 41.6 ± 0.8 |
| 206 | Area 20 Camp | 03/09/92 | 03/17/92 | 34.2 ± 1.1 |
| 206 | Area 20 Camp | 03/09/92 | 03/17/92 | 25.6 ± 0.6 |
| 206 | Area 20 Camp | 03/23/92 | 03/30/92 | 41.9 ± 0.6 |
| 206 | Area 20 Camp | 03/23/92 | 03/30/92 | 36.3 ± 1.0 |
| 206 | Area 20 Camp | 03/30/92 | 04/06/92 | 19.1 ± 0.9 |
| 206 | Area 20 Camp | 03/30/92 | 04/06/92 | 19.0 ± 0.9 |
| 206 | Area 20 Camp | 05/04/92 | 05/11/92 | 32.2 ± 0.7 |
| 206 | Area 20 Camp | 05/04/92 | 05/11/92 | 36.0 ± 0.9 |
| 206 | Area 20 Camp | 09/14/92 | 09/21/92 | 26.0 ± 0.9 |
| 206 | Area 20 Camp | 09/14/92 | 09/21/92 | 30.0 ± 0.9 |
| 206 | Area 20 Camp | 11/09/92 | 11/16/92 | 30.0 ± 0.8 |
| 206 | Area 20 Camp | 11/09/92 | 11/16/92 | 25.1 ± 0.9 |
| 206 | Area 20 Camp | 11/16/92 | 11/24/92 | 39.9 ± 0.9 |
| 206 | Area 20 Camp | 11/16/92 | 11/24/92 | 38.3 ± 0.8 |
| 207 | E-MAD N | 01/13/92 | 01/21/92 | 24.1 ± 0.8 |
| 207 | E-MAD N | 01/13/92 | 01/21/92 | 23.9 ± 0.6 |
| 207 | E-MAD N | 01/21/92 | 01/28/92 | 26.9 ± 0.9 |
| 207 | E-MAD N | 01/21/92 | 01/28/92 | 24.5 ± 0.9 |
| 207 | E-MAD N | 02/03/92 | 02/10/92 | 24.1 ± 0.9 |
| 207 | E-MAD N | 02/03/92 | 02/10/92 | 19.4 ± 0.8 |
| 207 | E-MAD N | 03/24/92 | 03/30/92 | 9.7 ± 0.7 |
| 207 | E-MAD N | 03/24/92 | 03/30/92 | 18.2 ± 1.0 |
| 207 | E-MAD N | 05/05/92 | 05/11/92 | 30.2 ± 0.8 |
| 207 | E-MAD N | 05/05/92 | 05/11/92 | 27.1 ± 1.0 |
| 207 | E-MAD N | 06/15/92 | 06/22/92 | 27.0 ± 0.7 |
| 207 | E-MAD N | 06/15/92 | 06/22/92 | 24.6 ± 0.8 |
| 207 | E-MAD N | 07/14/92 | 07/20/92 | 18.9 ± 3.0 |
| 207 | E-MAD N | 07/14/92 | 07/20/92 | 28.6 ± 0.9 |
| 207 | E-MAD N | 10/26/92 | 11/04/92 | 26.4 ± 0.8 |
| 207 | E-MAD N | 10/26/92 | 11/04/92 | 31.6 ± 0.7 |
| 213 | U-19bg RAM #2 | 04/07/92 | 04/13/92 | 19.4 ± 0.9 |
| 213 | U-19bg RAM #2 | 04/07/92 | 04/13/92 | 19.6 ± 0.4 |
| 214 | U-19bg RAM #8 | 04/07/92 | 04/13/92 | 17.8 ± 1.0 |
| 214 | U-19bg RAM #8 | 04/07/92 | 04/13/92 | 20.4 ± 0.6 |
| 215 | Pahute Sbst. | 04/07/92 | 04/15/92 | 23.3 ± 0.9 |
| 215 | Pahute Sbst. | 04/07/92 | 04/15/92 | 27.1 ± 0.7 |
| 215 | Pahute Sbst. | 09/14/92 | 09/21/92 | 21.4 ± 0.6 |

Table E.6 (Duplicate Results for $^{85}$Kr - 1992, cont.)

| Identification Number | Location | Sampling Dates Start | End | Krypton $10^{-12}$ µCi/mL ± 1s |
|---|---|---|---|---|
| 215 | Pahute Sbst. | 09/14/92 | 09/21/92 | 22.1 ± 0.7 |
| 215 | Pahute Sbst. | 09/28/92 | 10/05/92 | 14.9 ± 1.7 |
| 215 | Pahute Sbst. | 09/28/92 | 10/05/92 | 14.9 ± 0.9 |
| 215 | Pahute Sbst. | 11/02/92 | 11/09/92 | 19.4 ± 0.9 |
| 215 | Pahute Sbst. | 11/02/92 | 11/09/92 | 25.3 ± 0.7 |
| 216 | Gate 400 | 05/18/92 | 05/26/92 | 24.2 ± 0.6 |
| 216 | Gate 400 | 05/18/92 | 05/26/92 | 21.5 ± 1.2 |
| 216 | Gate 400 | 06/29/92 | 07/06/92 | 9.4 ± 0.8 |
| 216 | Gate 400 | 06/29/92 | 07/06/92 | 0.4 ± 1.5 |
| 216 | Gate 400 | 07/06/92 | 07/13/92 | 6.2 ± 0.9 |
| 216 | Gate 400 | 07/06/92 | 07/13/92 | 2.3 ± 2.3 |
| 216 | Gate 400 | 09/14/92 | 09/21/92 | 21.6 ± 0.6 |
| 216 | Gate 400 | 09/14/92 | 09/21/92 | 20.5 ± 0.8 |
| 222 | DDZ77 Trans. | 07/27/92 | 08/03/92 | 27.0 ± 0.6 |
| 222 | DDZ77 Trans. | 07/27/92 | 08/03/92 | 26.2 ± 0.6 |
| 222 | DDZ77 Trans. | 08/17/92 | 08/24/92 | 26.5 ± 1.0 |
| 222 | DDZ77 Trans. | 08/17/92 | 08/24/92 | 25.0 ± 0.6 |
| 222 | DDZ77 Trans. | 09/01/92 | 09/08/92 | 22.9 ± 0.7 |
| 222 | DDZ77 Trans. | 09/01/92 | 09/08/92 | 23.7 ± 0.8 |
| 222 | DDZ77 Trans. | 09/21/92 | 09/28/92 | 21.9 ± 0.7 |
| 222 | DDZ77 Trans. | 09/21/92 | 09/28/92 | 17.0 ± 2.7 |
| 222 | DDZ77 Trans. | 10/26/92 | 11/02/92 | 30.6 ± 0.7 |
| 222 | DDZ77 Trans. | 10/26/92 | 11/02/92 | 23.7 ± 0.9 |
| 222 | DDZ77 Trans. | 11/02/92 | 11/09/92 | 19.7 ± 0.7 |
| 222 | DDZ77 Trans. | 11/02/92 | 11/09/92 | 25.5 ± 0.7 |
| 222 | DDZ77 Trans. | 11/09/92 | 11/16/92 | 20.9 ± 0.6 |
| 222 | DDZ77 Trans. | 11/09/92 | 11/16/92 | 26.1 ± 0.6 |

These data were screened for statistical distribution properties using the same procedures as were used for the regular xenon and krypton data. The duplicate data was found to follow a lognormal statistical distribution, which was expected since the regular data follows this distribution. The probability plots did indicate that the value of 131 pCi/m$^3$ which occurred at the Gravel Pit for the sample collected between 6/15 and 6/23 was a statistical outlier, thus it and the associated duplicate were removed from the data set before the statistical analyses. Since the data is lognormally distributed, the statistical analyses were preformed on the logarithms of the data values. Since logarithms of negative numbers are imaginary numbers, the value of -3.3 pCi/m$^3$ cannot be used. This value occurred at the Area 12 Camp for the sample collected from 10/19 to 10/26. This negative value and the associated duplicate were also removed from the data set before the statistical analyses.

Analysis of variance procedures are the appropriate statistical tool for investigating sources of error in the krypton data. The structure of the data indicates that a "nested" analysis of variance model should be used. For each of the twelve locations sampled with duplicate

analyses, the duplicates have no association with the duplicates of other sampling locations, duplicates are nested within sampling locations. Statistical analysis programs that use the methodology called the "General Linear Model" are used to analyze nested data. The krypton data has another characteristic that is important to the analysis of variance; it is statistically "unbalanced." A "balanced" data set is one in which the number of samples collected at each of the twelve locations is the same. Since the actual number of samples ranges from one at the two U-19bg stations to nine at the Gravel Pit and Area 20 locations, the data is unbalanced. Using unbalanced data in an analysis of variance results in probabilities for the several hypotheses test that are only close approximations of the true probabilities.

The results of the nested analysis of variance are given in Table E.7. This table shows that there was a significant difference (probability less than 0.05) between sampling locations and a significant difference between the samples taken within the locations. The significant difference between samples within locations can be interpreted as a difference over time since the samples were taken at different times of the year. The significant differences between locations was examined using a Duncan's Multiple Comparisons procedure. This is provided by the statistical program used for the analysis of variance. This procedure shows Gate 400 has a significantly lower krypton median than all other locations, and there are no significant differences between the remaining locations. This conclusion seems to be highly influenced by the low Gate 400 duplicate reading of 0.04 for the 6/29 to 7/6 sample. An examination of the data plots that follow shows that the range of the Gate 400 duplicates for this date is by

Table E.7  Analysis of Variance on Logarithms of Duplicate Krypton Data

| Source | Degrees of Freedom | Sum of the Squares | Mean Square | F-Statistic | p Value |
|---|---|---|---|---|---|
| Locations | 11 | 13.26968 | 1.206335 | 3.82 | .0004 |
| Samples within locations | 57 | 18.01558 | .3160628 | 2.15 | .0013 |
| Duplicates within samples | 69 | 10.13722 | .1469162 | | |
| Total | 137 | 41.42248 | | | |

| Location | Log Median | Median (pCi/m$^3$) |
|---|---|---|
| Gate 400 | 2.0411 | 7.7 |
| U-19bg RAM #8 | 2.9474 | 19.1 |
| U-19bg RAM #2 | 2.9704 | 19.5 |
| Area 12 Camp | 3.0245 | 20.6 |
| Pahute Sbst. | 3.0257 | 20.6 |
| Gravel Pit | 3.0305 | 20.7 |
| E-MAD N | 3.1496 | 23.3 |
| Gate 200 S | 3.1506 | 23.4 |
| BJY | 3.1699 | 23.8 |
| DDZ77 Trans. | 3.1701 | 23.8 |
| Area 20 Camp | 3.4821 | 32.5 |
| EPA Farm | 3.5408 | 34.5 |

far the largest in the data. This pattern is also notably different than that obtained from the regular krypton data in the previous section of this appendix, and also in previous years, which was a pattern of Area 20 data being somewhat higher than other locations. The significant difference between samples within locations indicates that there is some variability over time of year that the samples were taken. This significance does not imply that the same pattern over time is shown by all locations or that all locations show a pattern. The variability over time is best explored by examining the plots of the data provided in Figures E.25 through E.34. Plots for the two U-19bg stations are not given because there is only one sampling time for each of those stations. The values of the duplicates for the U-19bg stations are all close to 20, which has a natural logarithm of about 3. In these plots the abscissa gives the time that sampling started in 1992 as month and fraction of the month. The ordinate gives the krypton concentration as the logarithm of the concentration on a linear scale, which was the data used for the statistical analysis, and as µCi/mL on a logarithmic scale to indicate the concentrations as usually used for reporting. The dotted lines connect the two paired duplicated from each sample. Examination of Figures E.25 to E.34 shows that most of the data is within the range of natural logarithms of 2 to 4. The data from the unplotted U-19bg stations is also within this range. The most obvious difference is the low values and wide ranges of values in the middle of the year at the Gate 400 location. Deleting the Gate 400 data from the analysis of variance did not change the significance of the "samples within stations" part of the analysis so this station does not account for all the variability over time. The plots indicate that some of the other locations show an occasional wide range of data values in a variety of time patterns. Since the purpose of this statistical analysis is to examine sources of error rather than time series patterns, the causes of the samples within locations significance was not further pursued.

The final comparison to consider is the relation of the errors between duplicates to the analytical or counting errors. The statistical techniques for this comparison were detailed in previous sections of this appendix. The general procedure is to square the analytical standard deviations to get the corresponding variances then average the variances over all samples and duplicates to get a number that can be compared to the mean-square-error in the Analysis of Variance in Table E.7. The average analytical variance, transformed to correspond to the logarithms of the data, is 0.10996. This is close to the corresponding analysis of variance number measuring the variability between duplicates, 0.1469162 from the last line of the mean-square column in Table E.7. The statistical method for comparing two variances or mean-square-errors is to ratio them and derive the significance of the differences from a table of the F-distribution. Using such a table requires that the degrees of freedom associated with each variance be known. The degrees of freedom associated with analytical error are not defined because a statistical variance cannot be computed from one data point per analysis, however for purposes of this comparison a conservative "working degrees of freedom" can be assumed to be the total degrees of freedom in the analysis of variance of Table E.7. Using this value for analytical degrees of freedom yields a significance of 0.077 which is slightly greater than the customary critical value of 0.05, thus it is concluded that the between duplicates errors and the analytical errors are not significantly different for krypton in air in 1992.

The analysis of only the krypton duplicate data yielded three statistical conclusions. There are significant differences between the sampling locations. This conclusion was also obtained from the analysis of the non-duplicate krypton data, but the patterns of differences were not in agreement. The duplicate data showed a pattern of low values at the Gate 400 location. The non-duplicate data showed a pattern of high values in Area 20 that was significant in 1991 but

E-32
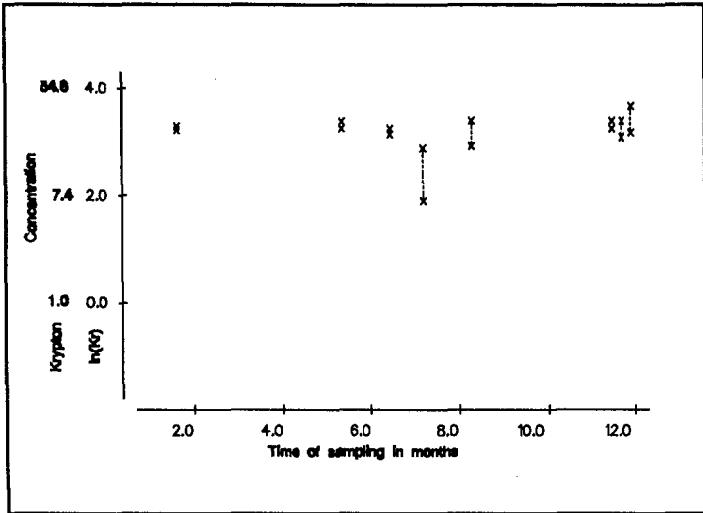
Figure E.25 Time Series Plot of BJY Duplicate Data
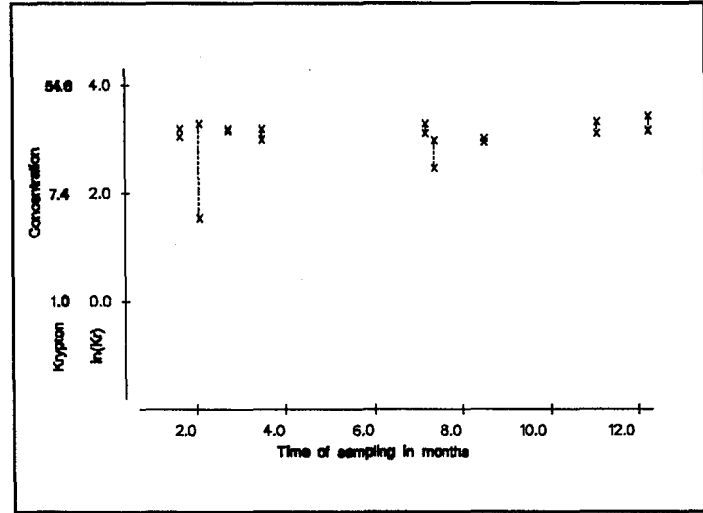


Figure E.26 Time Series Plot of Gravel Pit Data
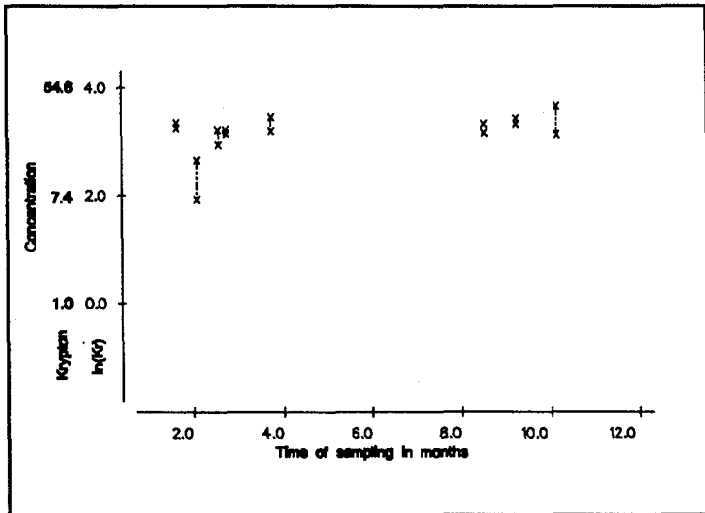


Figure E.27 Time Series Plot of Gate 200 Data
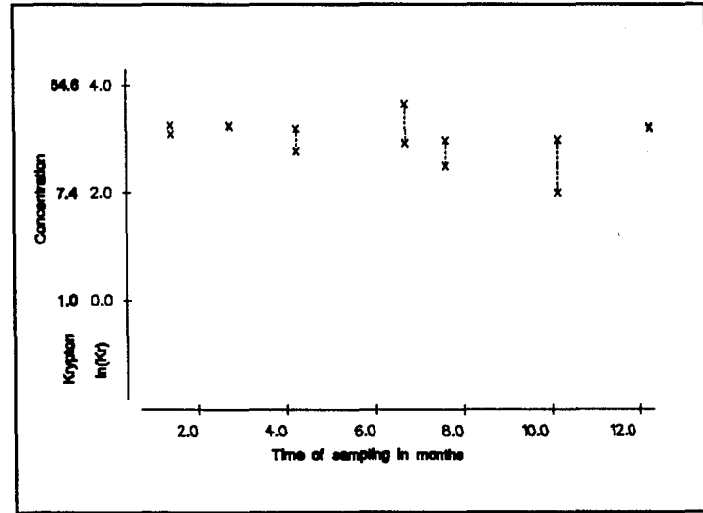


Figure E.28 Time Series Plot of Area 12 Camp Data
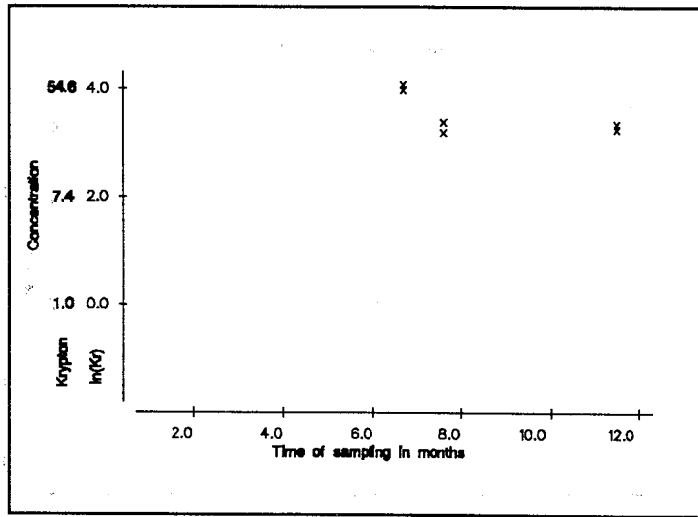
Figure E.29 Time Series Plot of EPA Farm Data
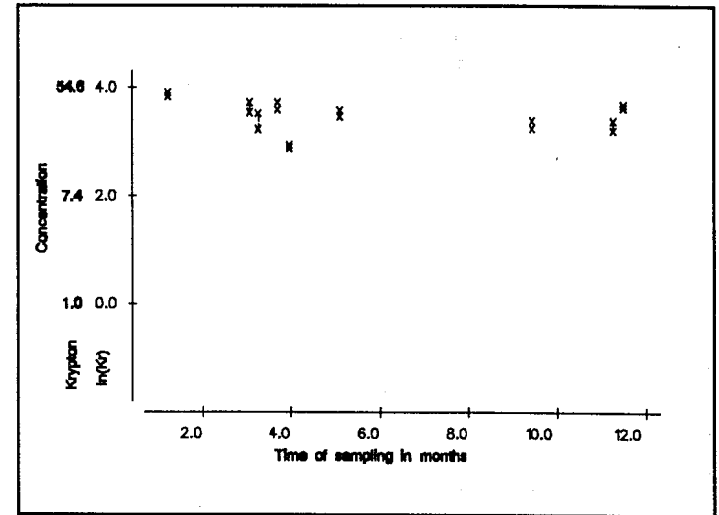


Figure E.30 Time Series Plot of Area 20 Camp Data
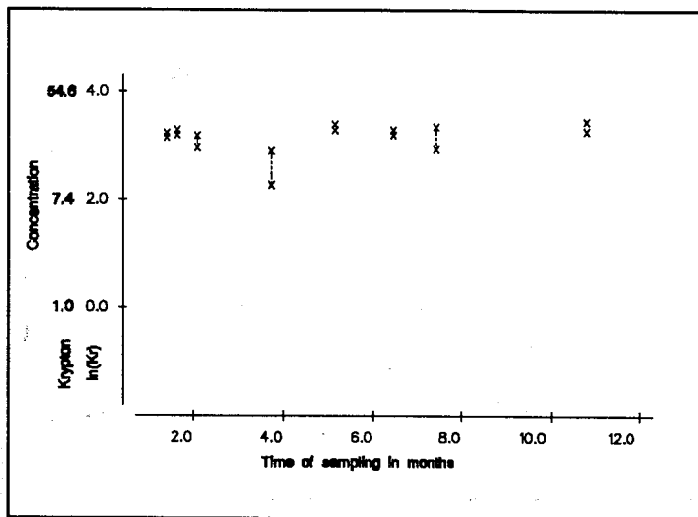


Figure E.31  Time Series Plot of E-MAD Duplicate Data
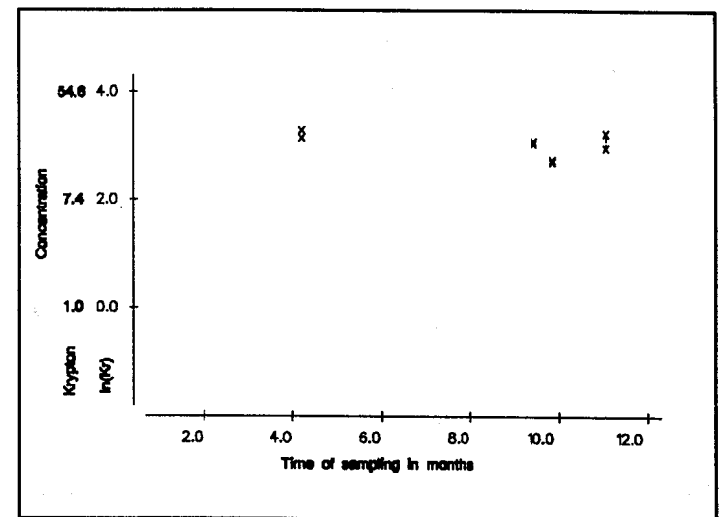


Figure E.32 Time Series Plot of Pahute Data
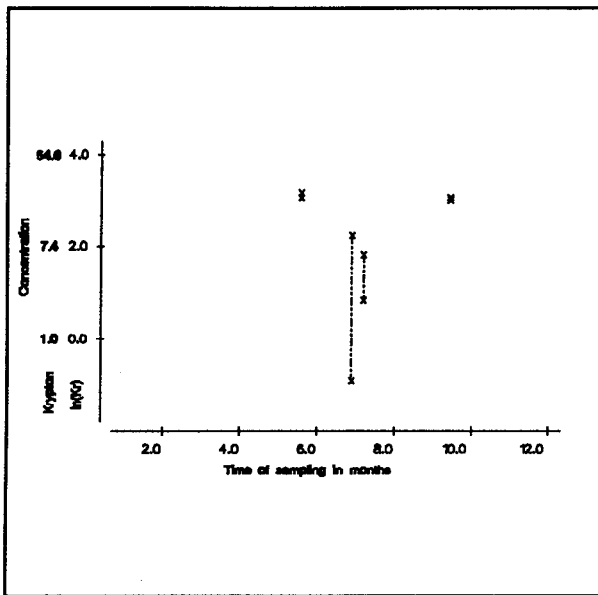
Figure E.33 Time Series Plot of Gate 400 Data
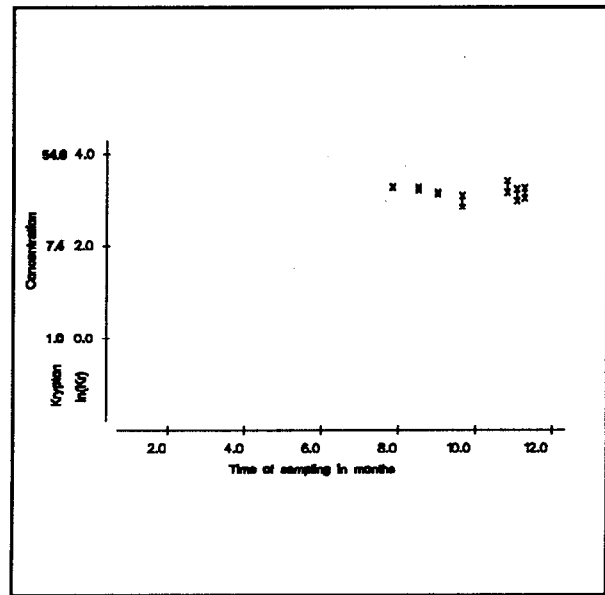


Figure E.34 Time Series Plot of DDZ77
Duplicate Data

not in 1992 because of increased variance. The second conclusion is that there are differences over time within one or more of the sampling locations. An examination of time series plots of the duplicate data showed no consistent patterns and a test for trends within the several locations was not done. Statistical testing for differences over time within each location cannot be done with the non-duplicate data. The comparison of the differences between duplicates to the analytical error was the basic reason for collecting and analyzing the duplicate data. This analysis showed no significant differences between the analytical error and the between duplicate error. This statistical test is an approximation since the analytical errors formally have no degrees of freedom. Examination of the data plots indicates that this final test is considerably influenced by a few large ranges of values between duplicate pairs.

# 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 24 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 and Table F.2 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. In previous Annual Reports the boundary stations were not included in the table of control data. Boundary stations were established in late 1989 and data was first reported in the 1990 annual report. These stations were positioned in locations expected to be at background exposure levels and the 1990, 1991 and 1992 data confirm that the exposures are indeed background. Thus, for 1992 the boundary data has been included with the control data.

Eight TLD Area locations have been changed from the 1991 report. Stake A-106 has been changed from Area 20 to Area 18. Stake OB-11.5 has been changed from Area 6 to Area 3. Stake J-16 has been changed from Area 18 to Area 20. Boundary Station 352 has been changed from Area 19 to Area 20. Boundary station 356 has been changed from Area 8 to Area 15. Boundary Station 360 has been changed from Area 11 to Area 5. These changes are all from one Area to an adjacent Area and were made because of more accurate survey information. During 1991 and 1992 the locations of all sampling stations were accurately surveyed using Global Positioning System equipment. Prior to this the locations were "eyeballed" from maps. This more accurate location information accounts for 6 of the 8 changes. Boundary Station 347 has been changed from Area 28 to Area 25 and Boundary Station 348 has been changed from Area 31 to Area 25. Areas 28 and 31 are outdated area designations that are now included within Area 25.

In 1992 DOE implemented a policy change to the effect that the high mesa areas are closed during the winter months. This was for the purpose of saving the expense of snow plowing the roads. This policy also resulted in closing the access to many of the TLD sampling stations in Areas 19 and 20 for the fourth quarter of 1992. These stations should be accessible by the end of the first quarter of 1993, and at that time a fourth quarter 1992 and first quarter 1993 combination exposure measurement will be obtained.

## Table F.1 TLD Network Gamma Exposure Rates - 1992

| Area/Location | | 1st Quarter (mR/day) | 2nd Quarter (mR/day) | 3rd Quarter (mR/day) | 4th Quarter (mR/day) | Annual Average (mR/day) | Annual Total (mR/yr) |
|---|---|---|---|---|---|---|---|
| 1 | BJY | 0.30 | 0.29 | 0.31 | 0.32 | 0.31 | 113 |
| 1 | Sandbag Storage Hut | 0.43 | 0.31 | * | * | 0.37 | 135 |
| 1 | Stake TH-27 | * | 0.29 | 0.31 | 0.33 | 0.31 | 113 |
| 1 | Stake TH-38 | 0.36 | 0.33 | 0.35 | 0.39 | 0.36 | 132 |
| 2 | Cable Yard | 0.42 | 0.44 | 0.46 | 0.68 | 0.50 | 183 |
| 2 | Stake L-9 | 0.57 | 0.58 | 0.61 | 0.63 | 0.60 | 220 |
| 2 | Stake M-140 | 0.40 | 0.41 | 0.44 | 0.43 | 0.42 | 154 |
| 2 | Stake M-150 | 0.43 | 0.41 | 0.43 | 0.47 | 0.44 | 161 |
| 2 | Stake N-8 | 3.34 | 2.89 | 2.85 | 3.11 | 3.05 | 1116 |
| 2 | Stake TH-58 | 0.32 | 0.26 | 0.30 | 0.32 | 0.30 | 110 |
| 3 | U-3ah/at E | 0.34 | 0.41 | 0.46 | 0.47 | 0.42 | 154 |
| 3 | U-3ah/at N | 0.36 | 0.43 | 0.43 | 0.43 | 0.41 | 150 |
| 3 | U-3ah/at S | 0.49 | 0.53 | 0.56 | 0.58 | 0.54 | 198 |
| 3 | U-3ah/at S Gate | 0.36 | 0.39 | 0.43 | 0.45 | 0.41 | 150 |
| 3 | U-3ah/at W | 0.35 | 0.38 | 0.41 | 0.42 | 0.39 | 143 |
| 3 | Boundary TLD Station 358 | 0.22 | 0.19 | 0.28 | 0.26 | 0.24 | 88 |
| 3 | LANL Trailers | 0.33 | 0.37 | 0.40 | 0.41 | 0.38 | 139 |
| 3 | Stake A-6.5 | 0.46 | 0.49 | 0.52 | 0.50 | 0.49 | 179 |
| 3 | Stake OB-11.5 | 0.34 | 0.36 | * | 0.41 | 0.37 | 135 |
| 3 | Stake OB-20 | 0.24 | * | 0.31 | 0.30 | 0.28 | 102 |
| 3 | U-3ax/bl NE | 0.72 | 0.78 | 0.80 | 0.76 | 0.77 | 282 |
| 3 | U-3ax/bl NW | 0.47 | 0.48 | 0.55 | 0.57 | 0.52 | 190 |
| 3 | U-3ax/bl S | 0.41 | 0.46 | 0.60 | 0.48 | 0.49 | 179 |
| 3 | U-3ax/bl SE | 0.48 | 0.51 | 0.57 | 0.51 | 0.52 | 190 |
| 3 | U-3by N | 0.75 | 0.75 | 0.80 | 0.86 | 0.79 | 289 |
| 3 | U-3by S | 0.44 | * | 0.50 | 0.49 | 0.48 | 176 |
| 3 | U-3bz N | 0.55 | 0.59 | 0.62 | 0.62 | 0.60 | 220 |
| 3 | U-3bz S | 0.37 | 0.39 | 0.50 | 0.48 | 0.44 | 161 |
| 3 | U-3cj N | 0.38 | * | 0.48 | 0.44 | 0.43 | 157 |
| 3 | U-3co N | 2.61 | 2.52 | 2.73 | 2.84 | 2.68 | 981 |
| 3 | U-3co S | 1.67 | 1.69 | 1.79 | 1.85 | 1.75 | 641 |
| 3 | U-3du N | 0.45 | 0.46 | 0.51 | * | 0.47 | 172 |
| 3 | U-3du S | 0.44 | 0.53 | 0.51 | 0.54 | 0.51 | 187 |
| 3 | U-3ey S | 0.36 | 0.41 | 0.45 | 0.45 | 0.42 | 154 |
| 4 | Stake A-9 | 3.76 | 3.27 | 3.42 | 3.45 | 3.48 | 1274 |
| 4 | Stake M-130 | 0.35 | 0.37 | 0.51 | 0.38 | 0.40 | 146 |
| 4 | Stake TH-48 | 0.38 | 0.34 | 0.38 | * | 0.37 | 135 |
| 5 | Boundary TLD Station 360 | 0.17 | 0.18 | 0.25 | 0.23 | 0.21 | 77 |
| 5 | RWMS E 1000' | 0.36 | 0.38 | 0.37 | 0.41 | 0.38 | 139 |
| 5 | RWMS E 1500' | 0.36 | 0.36 | 0.38 | 0.41 | 0.38 | 139 |
| 5 | RWMS E 500' | 0.36 | 0.34 | 0.36 | 0.40 | 0.37 | 135 |
| 5 | RWMS E Gate | 0.88 | 0.62 | 0.58 | 0.67 | 0.69 | 253 |
| 5 | RWMS MSM-1 E | 3.33 | 3.06 | 3.08 | 3.77 | 3.31 | 1211 |
| 5 | RWMS MSM-1 NNE | 7.86 | 8.06 | 7.71 | 9.73 | 8.34 | 3052 |
| 5 | RWMS MSM-1 NNW | * | 2.69 | 2.41 | 3.42 | 2.84 | 1039 |

* Missing data value

## Table F.1 (TLD Network Gamma Exposure Rates - 1992, cont.)

| Area/Location | 1st Quarter (mR/day) | 2nd Quarter (mR/day) | 3rd Quarter (mR/day) | 4th Quarter (mR/day) | Annual Average (mR/day) | Annual Total (mR/yr) |
|---|---|---|---|---|---|---|
| 5   RWMS MSM-1 NE | 1.95 | 1.63 | 1.47 | 2.13 | 1.80 | 659 |
| 5   RWMS MSM-1 NW | 3.14 | 2.66 | * | 3.21 | 3.00 | 1098 |
| 5   RWMS MSM-1 SSE | 2.98 | 4.45 | 3.80 | 5.08 | 4.08 | 1493 |
| 5   RWMS MSM-1 SSW | 2.88 | 2.68 | 2.50 | 3.45 | 2.88 | 1054 |
| 5   RWMS MSM-1 SE | 1.75 | 1.45 | 1.58 | 1.80 | 1.65 | 604 |
| 5   RWMS MSM-1 SW | 3.03 | 2.85 | 2.80 | 3.44 | 3.03 | 1109 |
| 5   RWMS MSM-1 W | 6.17 | 6.81 | * | 8.94 | 7.31 | 2196 |
| 5   RWMS MSM-2 E | 10.45 | 10.48 | 10.39 | 13.28 | 11.15 | 4081 |
| 5   RWMS MSM-2 N | 7.09 | 7.16 | 6.52 | 8.26 | 7.26 | 2657 |
| 5   RWMS MSM-2 NE | 4.42 | 0.33 | 3.69 | 4.77 | 3.30 | 1208 |
| 5   RWMS MSM-2 NW | 4.65 | 4.36 | 3.76 | 5.41 | 4.55 | 1665 |
| 5   RWMS MSM-2 S | 4.88 | 5.58 | * | 6.53 | 5.66 | 2072 |
| 5   RWMS MSM-2 SE | * | 3.31 | 3.19 | 3.95 | 3.48 | 1274 |
| 5   RWMS MSM-2 SW | 3.58 | 3.31 | 3.10 | 3.88 | 3.47 | 1270 |
| 5   RWMS MSM-2 W | 9.59 | 8.39 | 9.91 | 13.43 | 10.33 | 2605 |
| 5   RWMS N 1000' | 0.36 | 0.41 | 0.39 | 0.42 | 0.40 | 146 |
| 5   RWMS N 1500' | 0.35 | 0.37 | 0.37 | * | 0.36 | 132 |
| 5   RWMS N 500' | 0.35 | 0.35 | 0.38 | 0.45 | 0.38 | 139 |
| 5   RWMS NE Corner | 0.33 | 0.35 | 0.32 | 0.40 | 0.35 | 128 |
| 5   RWMS NW Corner | 0.36 | 0.38 | 0.40 | 0.43 | 0.39 | 143 |
| 5   RWMS Office | 0.36 | 0.33 | 0.31 | 0.38 | 0.35 | 128 |
| 5   RWMS Pit 3 N Side | 0.38 | 0.40 | 0.41 | * | 0.40 | 146 |
| 5   RWMS Pit 3 S Side | 0.36 | 0.37 | 0.41 | * | 0.38 | 139 |
| 5   RWMS Pit 4 N Side | 0.38 | 0.42 | 0.45 | * | 0.42 | 154 |
| 5   RWMS Pit 4 S Side | 0.39 | 0.40 | * | * | 0.40 | 146 |
| 5   RWMS S 500' | 0.36 | 0.39 | 0.39 | 0.45 | 0.40 | 146 |
| 5   RWMS S Gate | 0.36 | 0.33 | 0.33 | 0.40 | 0.36 | 132 |
| 5   RWMS SW Corner | 0.33 | 0.36 | 0.37 | 0.64 | 0.43 | 157 |
| 5   RWMS TRU Pad N | 1.44 | 1.32 | 1.62 | 2.85 | 1.81 | 466 |
| 5   RWMS TRU Pad NE | 0.90 | 1.51 | 0.91 | 1.33 | 1.16 | 286 |
| 5   RWMS TRU Pad NW | 0.65 | 0.83 | 0.46 | 0.59 | 0.63 | 231 |
| 5   RWMS TRU Pad S | 1.44 | 1.96 | 1.72 | 2.05 | 1.79 | 655 |
| 5   RWMS TRU Pad SE | 0.64 | 0.61 | 0.59 | 0.74 | 0.65 | 238 |
| 5   RWMS TRU Pad SW | 0.63 | 0.45 | 0.46 | 0.52 | 0.52 | 190 |
| 5   RWMS W 1000' | 0.38 | 0.37 | 0.39 | 0.44 | 0.40 | 146 |
| 5   RWMS W 1500' | 0.35 | 0.38 | 0.42 | 0.43 | 0.40 | 146 |
| 5   RWMS W 500' | 0.35 | 0.36 | 0.36 | 0.42 | 0.37 | 135 |
| 5   Well 5B | 0.30 | 0.32 | 0.32 | * | 0.31 | 113 |
| 6   CP-2 Logistic Desk | 0.21 | 0.20 | 0.24 | 0.26 | 0.23 | 84 |
| 6   CP-50 Calibration Bench | 0.27 | 0.22 | * | 0.27 | 0.25 | 91 |
| 6   CP-50 Calibration Door | 0.50 | 0.39 | 0.38 | 0.49 | 0.44 | 161 |
| 6   CP-6 | 0.19 | 0.21 | 0.24 | 0.26 | 0.23 | 84 |
| 6   Decon Pad Back Room | 0.23 | 0.24 | 0.25 | 0.26 | 0.25 | 91 |
| 6   Decon Pad Office | 0.26 | 0.26 | * | 0.25 | 0.26 | 95 |

* Missing data value

Table F.1  (TLD Network Gamma Exposure Rates - 1992, cont.)

| | Area/Location | 1st Quarter (mR/day) | 2nd Quarter (mR/day) | 3rd Quarter (mR/day) | 4th Quarter (mR/day) | Annual Average (mR/day) | Annual Total (mR/yr) |
|---|---|---|---|---|---|---|---|
| 6 | Stake TH-1 | * | 0.26 | 0.24 | 0.26 | 0.25 | 91 |
| 6 | Stake TH-18 | * | 0.26 | 0.31 | 0.34 | 0.30 | 110 |
| 6 | Stake TH-9 | 0.32 | 0.30 | 0.35 | 0.36 | 0.33 | 121 |
| 6 | Well 3 | 0.35 | * | 0.37 | 0.37 | 0.36 | 132 |
| 6 | Yucca Oil Storage Area | 0.28 | 0.28 | 0.33 | 0.34 | 0.31 | 113 |
| 7 | 7-300 Bunker | 1.07 | 1.05 | 0.93 | 1.04 | 1.02 | 373 |
| 7 | Reitmann Seep | 0.32 | 0.41 | 0.41 | 0.43 | 0.39 | 143 |
| 7 | UE-7ns | 0.35 | 0.38 | 0.51 | 0.37 | 0.40 | 146 |
| 8 | Stake K-25 | 0.35 | 0.34 | 0.32 | 0.37 | 0.35 | 128 |
| 9 | 9-300 Bunker | 0.40 | 0.42 | 0.41 | 0.43 | 0.42 | 154 |
| 9 | U-9cw S | 0.31 | 0.37 | 0.38 | 0.39 | 0.36 | 132 |
| 9 | V&G Road Junction | 0.33 | 0.32 | 0.32 | 0.34 | 0.33 | 121 |
| 10 | Boundary TLD Station 357 | 0.32 | 0.23 | 0.29 | 0.27 | 0.28 | |
| 10 | Circle & L Road | 0.38 | 0.42 | 0.48 | 0.41 | 0.42 | 154 |
| 10 | Sedan E Visitor Box | 0.43 | 0.47 | 0.45 | 0.49 | 0.46 | 168 |
| 10 | Sedan W | 1.19 | 1.16 | 1.17 | 1.23 | 1.19 | 436 |
| 10 | Stake A-24 | 0.52 | 0.55 | 0.53 | 0.56 | 0.54 | 198 |
| 10 | Stake CA-14 | 0.41 | 0.42 | 0.43 | * | 0.42 | 154 |
| 11 | Boundary TLD Station 359 | 0.41 | 0.45 | 0.52 | 0.51 | 0.47 | 172 |
| 11 | Gate 293 | 0.34 | 0.38 | 0.43 | 0.41 | 0.39 | 143 |
| 12 | Boundary TLD Station 355 | 0.30 | 0.33 | * | 0.34 | 0.32 | 117 |
| 12 | Building 12-10 | 0.41 | 0.37 | 0.37 | 0.45 | 0.40 | 146 |
| 12 | Stake M-168 | * | * | 0.39 | 0.38 | 0.39 | 143 |
| 12 | Stake M-170 | 0.38 | 0.32 | 0.36 | 0.35 | 0.35 | 128 |
| 12 | Stake M-175 | 0.38 | 0.34 | 0.37 | 0.37 | 0.37 | 135 |
| 12 | Stake TH-68.5 | 0.33 | 0.28 | 0.33 | 0.34 | 0.32 | 117 |
| 12 | T Tunnel No. 2 Pond | 1.34 | 1.34 | 1.41 | 1.20 | 1.32 | 483 |
| 12 | Upper Haines Lake | 0.33 | 0.32 | * | 0.31 | 0.32 | 117 |
| 12 | Upper N Pond | 0.41 | 0.37 | 0.39 | 0.41 | 0.40 | 146 |
| 15 | Boundary TLD Station 356 | 0.43 | 0.45 | 0.50 | 0.49 | 0.47 | 172 |
| 15 | EPA Complex | 0.36 | 0.36 | 0.34 | 0.35 | 0.35 | 128 |
| 15 | Lamp Shack | 0.43 | 0.42 | 0.42 | 0.43 | 0.43 | 157 |
| 15 | Office | 0.33 | 0.33 | 0.33 | 0.37 | 0.34 | 124 |
| 15 | Substation U-15e | 0.28 | 0.30 | 0.32 | 0.32 | 0.31 | 113 |
| 17 | Stake M-185 | 0.39 | 0.37 | 0.37 | 0.39 | 0.38 | 139 |
| 17 | Stake M-190 | 0.45 | 0.45 | 0.44 | 0.44 | 0.45 | 165 |
| 18 | Stake A-106 | 0.53 | 0.44 | * | * | 0.49 | 179 |
| 18 | Stake M-196 | 0.45 | 0.40 | 0.44 | 0.44 | 0.43 | 157 |
| 18 | Stake P-35 | 0.47 | 0.43 | * | 0.49 | 0.46 | 168 |
| 18 | Stake P-39 | 0.35 | 0.42 | 0.43 | 0.47 | 0.42 | 154 |
| 19 | Boundary TLD Station 353 | * | * | * | 0.41 | 0.41 | 150 |
| 19 | Boundary TLD Station 354 | 0.24 | 0.47 | 0.51 | 0.47 | 0.42 | 154 |
| 19 | Stake C-16 | 0.44 | 0.44 | 0.45 | 0.50 | 0.46 | 168 |
| 19 | Stake C-25 | 0.46 | 0.42 | 0.47 | 0.49 | 0.46 | 168 |

* Missing data value

## Table F.1 (TLD Network Gamma Exposure Rates - 1992, cont.)

| Area/Location | 1st Quarter (mR/day) | 2nd Quarter (mR/day) | 3rd Quarter (mR/day) | 4th Quarter (mR/day) | Annual Average (mR/day) | Annual Total (mR/yr) |
|---|---|---|---|---|---|---|
| 19  Stake C-27 | 0.46 | 0.43 | 0.48 | 0.51 | 0.47 | 172 |
| 19  Stake C-31 | 0.47 | 0.44 | 0.48 | 0.52 | 0.48 | 176 |
| 19  Stake P-41 | 0.50 | 0.43 | 0.48 | 0.51 | 0.48 | 176 |
| 19  Stake P-46 | 0.43 | 0.41 | 0.39 | 0.47 | 0.43 | 157 |
| 19  Stake P-54 | 0.44 | 0.41 | 0.41 | 0.45 | 0.43 | 157 |
| 19  Stake P-59 | 0.50 | 0.46 | 0.50 | 0.52 | 0.50 | 183 |
| 19  Stake P-66 | 0.47 | 0.44 | 0.49 | 0.51 | 0.48 | 176 |
| 19  Stake P-71 | 0.46 | 0.45 | 0.46 | 0.49 | 0.47 | 172 |
| 19  Stake P-77 | 0.51 | 0.46 | 0.57 | * | 0.51 | 187 |
| 19  Stake P-88 | 0.56 | 0.52 | 0.64 | * | 0.57 | 209 |
| 19  Stake P-91 | 0.56 | 0.50 | 0.57 | * | 0.54 | 198 |
| 19  Stake P-98 | 0.50 | 0.44 | 0.51 | * | 0.48 | 176 |
| 19  Stake R-18 | 0.90 | 0.43 | 0.52 | * | 0.62 | 227 |
| 19  Stake R-26 | 1.00 | 0.45 | 0.56 | * | 0.67 | 245 |
| 19  Stake R-29 | 0.98 | 0.46 | 0.54 | * | 0.66 | 242 |
| 19  Stake R-3 | 1.06 | 0.49 | 0.56 | * | 0.70 | 256 |
| 19  Stake R-8 | 1.06 | 0.48 | 0.57 | * | 0.70 | 256 |
| 19  Upper Well UE-19c Reservoir | 0.43 | 0.40 | * | * | 0.42 | 154 |
| 20  Boundary TLD Station 350 | 0.51 | * | 0.60 | 0.57 | 0.56 | 205 |
| 20  Boundary TLD Station 351 | 0.45 | 0.50 | 0.58 | 0.50 | 0.51 | 187 |
| 20  Boundary TLD Station 352 | 0.27 | * | 0.35 | 0.34 | 0.32 | 117 |
| 20  P&K Road Junction | 0.49 | 0.41 | 0.49 | * | 0.46 | 168 |
| 20  Stake J-16 | * | 0.41 | 0.51 | * | 0.46 | 168 |
| 20  Stake J-24 | 0.51 | 0.38 | 0.56 | * | 0.48 | 176 |
| 20  Stake J-31 | 2.03 | * | 1.03 | * | 1.53 | 360 |
| 20  Stake J-6 | * | 0.42 | 0.45 | * | 0.44 | 161 |
| 20  Stake P-116.5 | 0.49 | 0.40 | 0.51 | * | 0.47 | 172 |
| 20  Stake P-120.5 | 0.46 | 0.40 | 0.50 | * | 0.45 | 165 |
| 20  Stake P-124 | 0.50 | 0.41 | 0.52 | * | 0.48 | 176 |
| 20  Stake P-129.5 | 0.53 | 0.42 | 0.53 | * | 0.49 | 179 |
| 20  Stake P-134.5 | 0.49 | 0.40 | 0.52 | 0.46 | 0.47 | 172 |
| 22  Boundary TLD Station 346 | 0.21 | 0.19 | 0.24 | 0.23 | 0.22 | 81 |
| 22  Desert Rock Control Tower | 0.21 | 0.19 | 0.21 | 0.23 | 0.21 | 77 |
| 23  Building 180 Scaler Room | 0.46 | 0.33 | 0.33 | 0.30 | 0.36 | 132 |
| 23  Building 190 Bench Drawer | 0.27 | 0.24 | 0.28 | 0.30 | 0.27 | 99 |
| 23  Building 610 Bay | 1.78 | 4.79 | 2.39 | 3.64 | 3.15 | 1153 |
| 23  Building 610 Gate | 0.22 | 0.18 | 0.19 | * | 0.20 | 73 |
| 23  Building 650 Dosimetry | 0.15 | 0.17 | 0.19 | 0.20 | 0.18 | 66 |
| 23  Building 650 Roof | 0.15 | 0.16 | 0.19 | 0.20 | 0.18 | 66 |
| 23  Building 650 Storage Room | 0.27 | 0.26 | 0.24 | 0.25 | 0.26 | 95 |
| 23  Gate 100 | 0.17 | 0.17 | 0.19 | 0.20 | 0.18 | 66 |
| 23  Post Office | 0.22 | 0.20 | * | 0.26 | 0.23 | 84 |
| 25  Boundary TLD Station 347 | 0.32 | 0.29 | 0.34 | 0.34 | 0.32 | 117 |
| 25  Boundary TLD Station 348 | 0.49 | 0.39 | 0.53 | 0.46 | 0.47 | 172 |

\* Missing data value

Table F.1  (TLD Network Gamma Exposure Rates - 1992, cont.)

| Area/Location | 1st Quarter (mR/day) | 2nd Quarter (mR/day) | 3rd Quarter (mR/day) | 4th Quarter (mR/day) | Annual Average (mR/day) | Annual Total (mR/yr) |
|---|---|---|---|---|---|---|
| 25  25-4P Gate | 0.37 | 0.36 | 0.35 | 0.44 | 0.38 | 139 |
| 25  25-7P Gate | 0.35 | 0.32 | 0.35 | 0.41 | 0.36 | 132 |
| 25  E-MAD E | 0.35 | 0.32 | 0.34 | 0.40 | 0.35 | 128 |
| 25  E-MAD N | 0.30 | 0.29 | 0.33 | 0.37 | 0.32 | 117 |
| 25  E-MAD S | 0.33 | 0.32 | 0.33 | 0.38 | 0.34 | 124 |
| 25  E-MAD W | 0.30 | 0.31 | 0.32 | 0.37 | 0.33 | 121 |
| 25  Henre | 0.35 | 0.33 | 0.35 | 0.41 | 0.36 | 132 |
| 25  NRDS Warehouse | 0.35 | 0.36 | 0.35 | 0.41 | 0.37 | 135 |
| 27  Area 27 Cafeteria | 0.37 | 0.35 | 0.40 | 0.42 | 0.39 | 143 |
| 30  Boundary TLD Station 349 | 0.51 | 0.46 | 0.52 | 0.46 | 0.49 | 179 |

* Missing data value


Table F.2  Summary of Control TLD Data for 1992

| Area/Location | 1st Quarter (mR/day) | 2nd Quarter (mR/day) | 3rd Quarter (mR/day) | 4th Quarter (mR/day) | Annual Average (mR/day) | Annual Total (mR/yr) |
|---|---|---|---|---|---|---|
| 5   Well 5B | 0.30 | 0.32 | 0.32 | * | 0.31 | 113 |
| 6   CP-6 | 0.19 | 0.21 | 0.24 | 0.26 | 0.23 | 84 |
| 6   Yucca Oil Storage Area | 0.28 | 0.28 | 0.33 | 0.34 | 0.31 | 113 |
| 23  Building 650 Dosimetry | 0.15 | 0.17 | 0.19 | 0.20 | 0.18 | 66 |
| 23  Building 650 Roof | 0.15 | 0.16 | 0.19 | 0.20 | 0.18 | 66 |
| 23  Post Office | 0.22 | 0.20 | * | 0.26 | 0.23 | 84 |
| 25  HENRE | 0.35 | 0.33 | 0.35 | 0.41 | 0.36 | 132 |
| 25  NRDS Warehouse | 0.35 | 0.36 | 0.35 | 0.41 | 0.37 | 135 |
| 27  Area 27 Cafeteria | 0.37 | 0.35 | 0.40 | 0.42 | 0.39 | 143 |
| 22  Boundary TLD Station 346 | 0.21 | 0.19 | 0.24 | 0.23 | 0.22 | 81 |
| 25  Boundary TLD Station 347 | 0.32 | 0.29 | 0.34 | 0.34 | 0.32 | 117 |
| 25  Boundary TLD Station 348 | 0.49 | 0.39 | 0.53 | 0.46 | 0.47 | 172 |
| 30  Boundary TLD Station 349 | 0.51 | 0.46 | 0.52 | 0.46 | 0.49 | 179 |
| 20  Boundary TLD Station 350 | 0.51 | * | 0.60 | 0.57 | 0.56 | 205 |
| 20  Boundary TLD Station 351 | 0.45 | 0.50 | 0.58 | 0.50 | 0.51 | 187 |
| 20  Boundary TLD Station 352 | 0.27 | * | 0.35 | 0.34 | 0.32 | 117 |
| 19  Boundary TLD Station 353 | * | * | * | 0.41 | 0.41 | 150 |
| 19  Boundary TLD Station 354 | 0.24 | 0.47 | 0.51 | 0.47 | 0.42 | 154 |
| 12  Boundary TLD Station 355 | 0.30 | 0.33 | * | 0.34 | 0.32 | 117 |
| 15  Boundary TLD Station 356 | 0.43 | 0.45 | 0.50 | 0.49 | 0.47 | 172 |
| 10  Boundary TLD Station 357 | 0.32 | 0.23 | 0.29 | 0.27 | 0.28 | 102 |
| 3   Boundary TLD Station 358 | 0.22 | 0.19 | 0.28 | 0.26 | 0.24 | 88 |
| 11  Boundary TLD Station 359 | 0.41 | 0.45 | 0.52 | 0.51 | 0.47 | 172 |
| 5   Boundary TLD Station 360 | 0.17 | 0.18 | 0.25 | 0.23 | 0.21 | 77 |

* Missing data value

# 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 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 three values of 0.35 millirem per day which has a natural logarithm of -1.05, 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 data 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 0.980 with a sample size of 21. From the tables, the probability of a Gaussian distribution is approximately 0.50. 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 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. 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 and 1991 annual reports it was found that the data collected in Area 5 adjacent to the Mound Strategic Material (MSM) storage site, monitoring station names including
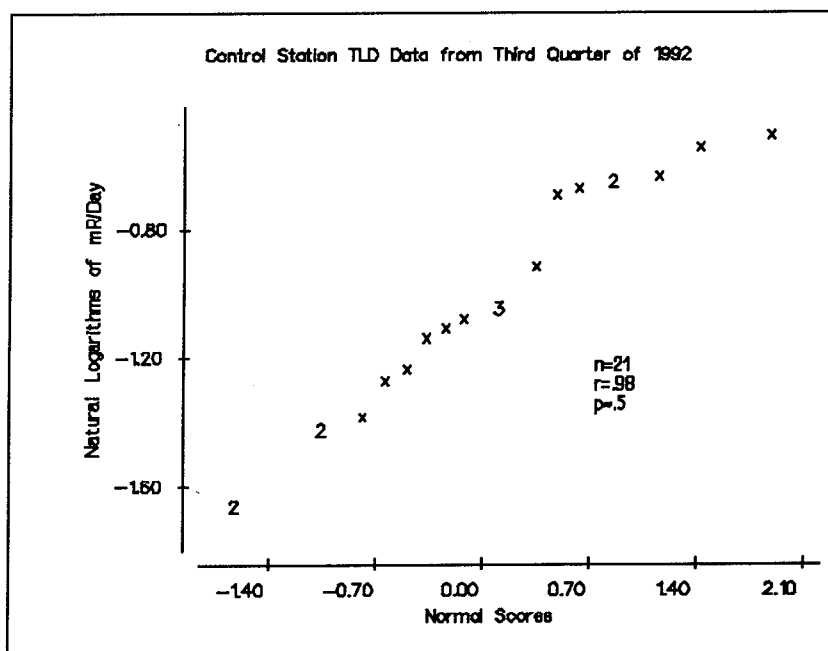


Figure F.1  Typical Lognormal Probability Plot

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 1992 and thus the data from the MSM monitoring stations were not used for the evaluation of environmental exposures again in 1992. 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 and 1992. 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 shows no segmentation. The corresponding plots for the first, 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. The TRU Pad is also a storage area for high levels of radioisotopes. During 1992 the TRU Pad was reconfigured, thus there was substantial activity there and reason for changes in exposure levels over the year. 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 0.40 mR/day (last year this mean 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, 17, 18, 22, 27 and 30 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 F.3.
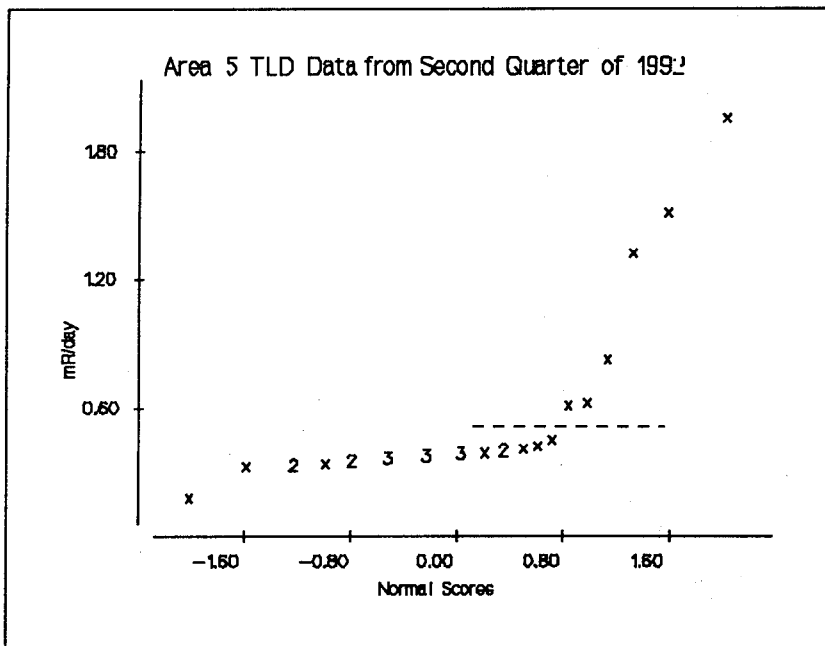


Figure F.2  Typical Mixed Distribution Probability Plot

Table F.3  Atypical Data Values [mR/day] - 1992 TLD Data

| Area Location | Quarter | Atypical Data | Group Mean |
|---|---|---|---|
| Area 2, Stake 2N-8 | 1 | 3.34 | 0.43 |
| Area 2, Stake 2N-8 | 2 | 2.89 | 0.42 |
| Area 2, Stake 2N-8 | 3 | 2.85 | 0.45 |
| Area 2, Stake 2N-8 | 4 | 3.11 | 0.51 |
| Area 3, U-3co N | 1 | 2.61 | 0.42 |
| Area 3, U-3co N | 2 | 2.52 | 0.47 |
| Area 3, U-3co N | 3 | 2.73 | 0.51 |
| Area 3, U-3co N | 4 | 2.84 | 0.50 |
| Area 3, U-3co S | 1 | 1.67 | 0.42 |
| Area 3, U-3co S | 2 | 1.69 | 0.47 |
| Area 3, U-3co S | 3 | 1.79 | 0.51 |
| Area 3, U-3co S | 4 | 1.85 | 0.50 |
| Area 4, Stake 4A-9 | 1 | 3.76 | 0.37 |
| Area 4, Stake 4A-9 | 2 | 3.27 | 0.36 |
| Area 4, Stake 4A-9 | 3 | 3.42 | 0.46 |
| Area 4, Stake 4A-9 | 4 | 3.45 | 0.38 |
| Area 7, 7-300 Bunker | 1 | 1.07 | 0.36 |
| Area 7, 7-300 Bunker | 2 | 1.05 | 0.40 |
| Area 7, 7-300 Bunker | 3 | 0.93 | 0.46 |
| Area 7, 7-300 Bunker | 4 | 1.04 | 0.40 |
| Area 10, Sedan W | 1 | 1.19 | 0.41 |
| Area 10, Sedan W | 2 | 1.16 | 0.42 |
| Area 10, Sedan W | 3 | 1.17 | 0.44 |
| Area 10, Sedan W | 4 | 1.23 | 0.43 |
| Area 12, T Tunnel No. 2 Pond | 1 | 1.34 | 0.36 |
| Area 12, T Tunnel No. 2 Pond | 2 | 1.34 | 0.33 |
| Area 12, T Tunnel No. 2 Pond | 3 | 1.41 | 0.37 |
| Area 12, T Tunnel No. 2 Pond | 4 | 1.20 | 0.37 |
| Area 19, Stake R-18 | 1 | 0.90 | 0.46 |
| Area 19, Stake R-26 | 1 | 1.00 | 0.46 |
| Area 19, Stake R-29 | 1 | 0.98 | 0.46 |
| Area 19, Stake R-3 | 1 | 1.06 | 0.46 |
| Area 19, Stake R-8 | 1 | 1.06 | 0.46 |
| Area 20, Stake J-31 | 1 | 2.03 | 0.47 |
| Area 20, Stake J-31 | 2 | * | 0.42 |
| Area 20, Stake J-31 | 3 | 1.03 | 0.51 |
| Area 20, Stake J-31 | 4 | * | 0.47 |
| Area 23 Building 610 Bay | 1 | 1.76 | 0.24 |
| Area 23 Building 610 Bay | 2 | 4.79 | 0.21 |
| Area 23 Building 610 Bay | 3 | 2.39 | 0.23 |
| Area 23 Building 610 Bay | 4 | 3.64 | 0.24 |

*  Missing data value

Table F.3 is almost identical to the corresponding tables in the 1990 and 1991 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 values in Area 19 for all R-stakes and for the first quarter is new in 1992 and have no known cause. The datum for Area 20 stake J-31 is missing for the second and fourth quarters, however these missing values were included in the table. The pattern for Stake J-31 from previous years and the remaining quarters suggests that the second and fourth quarter values were also atypically high.

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. The annual arithmetic average mR/day at Stake 2N-8 for 1992 is 3.05, and 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 marked "All" gives the total number of samples for each row and the row mean, which averages over the quarters for each area. The penultimate row, marked "Column Means, All Data," 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 4 to 83, while the column totals have sample sizes from 148 to 170. 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 no differences between quarters with no interactions. Examination of Table F.4 column means suggest that the fourth quarter mean might be higher than the means of the other quarters. However, with all the atypical and known high values included, many of the data sets for one area and one quarter have high variances and this tends to lower the significance of apparent differences. The analysis with the atypical values, MSM-1 data, MSM-2 and the transuranic pad data removed showed differences between areas and quarters with no interactions. Removing the fourth quarter data resulted in borderline (p=0.050) significant differences among the first three quarters and no interactions. Analyzing the data for only the first and second quarters, and only the third and fourth quarters, still showed highly significant differences between areas but very low significances for differences between quarters with no interactions. Thus, it appears that, with just the environmental data, the overall averages for the first and second quarters are slightly

## Table F.4  Average Data (mR/day) with Atypical Values Removed

| Area | 1 | 2 | 3 | 4 | All | Area | 1 | 2 | 3 | 4 | All |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Quarter | | | | | | Quarter | | |
| 1 | 3 | 4 | 3 | 3 | 13 | 12 | 7 | 7 | 6 | 8 | 28 |
| | 0.36 | 0.31 | 0.32 | 0.35 | 0.33 | | 0.36 | 0.33 | 0.37 | 0.37 | 0.36 |
| 2 | 5 | 5 | 5 | 5 | 20 | 15 | 5 | 5 | 5 | 5 | 20 |
| | 0.43 | 0.42 | 0.45 | 0.51 | 0.45 | | 0.37 | 0.37 | 0.38 | 0.39 | 0.38 |
| 3 | 22 | 19 | 21 | 21 | 83 | 17 | 2 | 2 | 2 | 2 | 8 |
| | 0.42 | 0.47 | 0.51 | 0.50 | 0.47 | | 0.42 | 0.41 | 0.41 | 0.42 | 0.41 |
| 4 | 2 | 2 | 2 | 1 | 7 | 18 | 4 | 4 | 2 | 3 | 13 |
| | 0.37 | 0.36 | 0.45 | 0.38 | 0.39 | | 0.45 | 0.42 | 0.44 | 0.47 | 0.44 |
| 5 | 22 | 22 | 21 | 16 | 81 | 19 | 16 | 21 | 20 | 12 | 69 |
| | 0.37 | 0.37 | 0.38 | 0.44 | 0.39 | | 0.46 | 0.45 | 0.51 | 0.49 | 0.48 |
| 5.1[a] | 16 | 18 | 15 | 18 | 67 | 20 | 10 | 10 | 12 | 4 | 36 |
| | 4.86 | 4.40 | 4.39 | 5.80 | 4.89 | | 0.47 | 0.42 | 0.51 | 0.47 | 0.47 |
| 5.2[b] | 6 | 6 | 6 | 6 | 24 | 22 | 2 | 2 | 2 | 2 | 8 |
| | 0.95 | 1.11 | 0.96 | 1.35 | 1.09 | | 0.21 | 0.19 | 0.23 | 0.23 | 0.21 |
| 6 | 9 | 10 | 9 | 11 | 39 | 23 | 8 | 8 | 7 | 7 | 30 |
| | 0.29 | 0.26 | 0.30 | 0.31 | 0.29 | | 0.24 | 0.21 | 0.23 | 0.24 | 0.23 |
| 7 | 2 | 2 | 2 | 2 | 8 | 25 | 10 | 10 | 10 | 10 | 40 |
| | 0.36 | 0.40 | 0.46 | 0.40 | 0.40 | | 0.35 | 0.33 | 0.40 | 0.40 | 0.36 |
| 8 | 1 | 1 | 1 | 1 | 4 | 27 | 1 | 1 | 1 | 1 | 4 |
| | 0.35 | 0.34 | 0.32 | 0.37 | 0.35 | | 0.37 | 0.35 | 0.40 | 0.42 | 0.39 |
| 9 | 3 | 3 | 3 | 3 | 12 | 30 | 1 | 1 | 1 | 1 | 4 |
| | 0.35 | 0.37 | 0.37 | 0.39 | 0.37 | | 0.51 | 0.46 | 0.52 | 0.46 | 0.49 |
| 10 | 5 | 5 | 5 | 4 | 19 | Column Means All Data | 164 | 170 | 163 | 148 | 645 |
| | 0.41 | 0.42 | 0.44 | 0.43 | 0.42 | | 0.84 | 0.83 | 0.81 | 1.11 | 0.89 |
| 11 | 2 | 2 | 2 | 2 | 8 | Column Means Excluding (a),(b) | 142 | 146 | 142 | 124 | 554 |
| | 0.38 | 0.42 | 0.48 | 0.46 | 0.43 | | 0.39 | 0.38 | 0.42 | 0.42 | 0.40 |

(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.

but significantly lower than the overall averages for the third and fourth quarters. The ANOVA table for the data without atypical values and radiation areas, for all areas and all quarters, is shown in Table F.5.

This table shows the same pattern of differences between quarters and areas as the analyses with all the data. In addition, Table F.5 shows no interaction between quarters and areas.

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### Table F.5 Analysis of Variance on Edited Data

| Source | Degrees of Freedom | Sum of the Squares | Mean Square | F-Statistic | p Value |
|--------|--------------------|--------------------|-------------|-------------|---------|
| Area | 21 | 23.11113 | 1.10053 | 26.65 | 0.000 |
| Quarter | 3 | 0.42830 | 0.14277 | 3.46 | 0.016 |
| Area X Quarter | 63 | 0.90404 | 0.01435 | 0.35 | 1.000 |
| Error | 466 | 19.24258 | 0.04129 | | |

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 are 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 1992 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 third and fourth quarters are higher than during the first and second quarters.

# APPENDIX G
# HISTORICAL TRENDS IN ONSITE
# THERMOLUMINESCENT DOSIMETER DATA

## Robert R. Kinnison

Thermoluminescent dosimeters (TLDs) 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 TLDs used were manufactured by the Harshaw Chemical Co. In 1987 a changeover was made to TLDs 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 TLDs 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.

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.1  Average Annual Millirem per Day for Background TLD Stations

|  |  |  |  |  |  |  | Year |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Location | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 |
| Bldg. 650 Dosimetry | .21 | .19 | .21 | .15 | .13 | .31 | .14 | .26 | .20 | .20 | .19 | .18 |
| Bldg. 650 Roof | .18 | .18 | .18 | .14 | .12 | .13 | .17 | .24 | .19 | .19 | .19 | .18 |
| Area 27 Cafeteria | .41 | .37 | .39 | .32 | .29 | .27 | .38 | .49 | .40 | .40 | .42 | .39 |
| CP-6 | .25 | .20 | .25 | .18 | .17 | .13 | .21 | .36 | .12 | .12 | .24 | .23 |
| HENRE Site | .39 | .37 | .36 | .30 | .28 | .27 | .34 | .47 | .39 | .39 | .40 | .36 |
| NRDS Warehouse | .40 | .38 | .36 | .32 | .28 | .28 | .39 | .45 | .39 | .39 | .39 | .37 |
| Post Office | .20 | .18 | .18 | .14 | .13 | .16 | .24 | .29 | .23 | .23 | .24 | .23 |
| Well 5B | .38 | .33 | .33 | .27 | .26 | .22 | .33 | .43 | .34 | .34 | .37 | .31 |
| Yucca Oil Storage | .30 | .28 | .28 | .23 | .21 | .22 | .31 | .29 | .32 | .32 | .33 | .31 |

## Table G.2 One-Way Analysis of Variance for Differences Among Years

| Source | Degrees of Freedom | Sum of the Squares | Mean Square | F-Statistic | p Value |
|--------|--------------------|--------------------|-------------|-------------|---------|
| Year | 11 | 2.541 | 0.231 | 1.92 | 0.046 |
| Error | 96 | 11.553 | 0.120 | | |
| Total | 107 | 14.074 | | | |

Individual 95 Percent Confidence Intervals Standard for the Log of the Median Based on a Pooled Standard Deviation

| Year | N | Log Mean | Standard Deviation | Median | |
|------|---|----------|--------------------|--------|---|
| | | | | | ---+---------+---------+--------+--- |
| 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 | (------*-------) |
| 92 | 9 | -1.2965 | 0.3029 | 0.2735 | (------*------) |
| | | | | | ---+---------+---------+--------+--- |

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 among the years since the 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 0.046 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 at the end of Table G.3, are "boundary" stations, which are monitoring stations that are somewhat evenly spaced around the perimeter of the NTS and typically are just outside the boundary.

Table G. 3   Average Annual Millirem per Year for NTS Environmental
            Monitoring TLDs

| Station Name | Year | | | | | |
|---|---|---|---|---|---|---|
| | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 |
| Area 1, BJY | 144 | 172 | 141 | 139 | 112 | 113 |
| Area 1, Sandbag Storage Hut | 149 | 135 | 130 | 132 | 135 | 135 |
| Area 1, Stake TH-27 | * | * | 158 | 125 | 125 | 113 |
| Area 1, Stake TH-38 | 146 | 157 | 129 | 139 | 139 | 132 |
| Area 2, Cable Yard | * | 164 | 314 | 167 | 167 | 183 |
| Area 2, Stake M-140 | 159 | 168 | 154 | 150 | 150 | 154 |
| Area 2, Stake M-150 | 176 | 181 | 163 | 152 | 153 | 161 |
| Area 2, Stake 2L-9 | 324 | 339 | 251 | 236 | 230 | 220 |
| Area 2, Stake TH-58 | 116 | 151 | 108 | 112 | 114 | 110 |
| Area 2, Stake 2N-8 | 2046 | 1905 | 1581 | 1445 | 1130 | 1116 |
| Area 3, LANL Trailers | * | 139 | 147 | 141 | 147 | 139 |
| Area 3, Stake OB-11.5 | * | 230 | 225 | 145 | 148 | 135 |
| Area 3, Stake 3A-6.5 | * | * | 149 | 186 | * | 179 |

* Missing data value

Table G. 3 (Average Annual Millirem per Year for NTS Environmental
Monitoring TLDs, cont.)

| Station Name | Year | | | | | |
|---|---|---|---|---|---|---|
| | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 |
| Area 3, D & OB Rd. Jct. | * | 102 | 108 | 104 | * | * |
| Area 3, U-3ah/at N | * | * | * | 151 | 158 | 150 |
| Area 3, U-3ah/at W | * | * | * | 150 | 158 | 143 |
| Area 3, U-3ah/at S Gate | * | * | * | 152 | 172 | 150 |
| Area 3, U-3ah/at S | * | * | * | 227 | 231 | 198 |
| Area 3, U-3ah/at E | * | * | * | 148 | 145 | 154 |
| Area 3, U-3ax/bl NE | 408 | 374 | 340 | 319 | 321 | 282 |
| Area 3, U-3ax/bl NW | 209 | * | 213 | 208 | 210 | 190 |
| Area 3, U-3ax/bl SE | 223 | 217 | 202 | 196 | 198 | 190 |
| Area 3, U-3ax/bl S | 193 | 193 | 179 | 173 | 181 | 179 |
| Area 3, U-3by N | 623 | 388 | 326 | 310 | 311 | 289 |
| Area 3, U-3by S | 186 | 206 | 187 | 181 | 190 | 176 |
| Area 3, U-3bz N | 234 | 281 | 239 | 230 | 217 | 220 |
| Area 3, U-3bz S | 170 | 183 | 170 | 164 | 165 | 161 |
| Area 3, U-3cj S/N | * | 164 | 160 | 196 | * | 157 |
| Area 3, U-3co N | 1134 | 1110 | 1218 | 1147 | 827 | 981 |
| Area 3, U-3co S | 758 | 770 | 752 | 710 | 708 | 641 |
| Area 3, U-3du N | 206 | 186 | 192 | 186 | 190 | 172 |
| Area 3, U-3du S | 195 | 241 | 223 | 203 | 202 | 187 |
| Area 3, U-3ey S | * | 347 | 167 | 159 | 164 | 154 |
| Area 4, Stake M-130 | 183 | 161 | 139 | 135 | 145 | 146 |
| Area 4, Stake 4A-9 | 1641 | 1484 | 1497 | 1408 | 1115 | 1274 |
| Area 4, Stake TH-48 | 144 | 166 | 148 | 148 | 146 | 135 |
| Area 5, RWMS E 1000 | 149 | 184 | 148 | 144 | 137 | 139 |
| Area 5, RWMS E 1500 | 146 | 175 | 139 | 139 | 145 | 139 |
| Area 5, RWMS E 500 | 349 | 177 | 140 | 139 | 148 | 135 |
| Area 5, RWMS E Gate | 170 | 162 | 139 | 136 | 273 | 253 |
| Area 5, RWMS N 1000 | 150 | 175 | 148 | 141 | 152 | 146 |
| Area 5, RWMS N 1500 | 168 | 172 | 149 | 139 | 146 | 132 |
| Area 5, RWMS N 500 | 146 | 228 | 154 | 152 | 158 | 139 |
| Area 5, RWMS NE Corner | 168 | 183 | 144 | 139 | 132 | 128 |
| Area 5, RWMS NW Corner | 162 | 186 | 153 | 145 | 151 | 143 |
| Area 5, RWMS Office | 101 | 128 | 121 | 110 | 140 | 128 |
| Area 5, RWMS S 500 | 113 | 183 | 146 | 142 | 150 | 146 |
| Area 5, RWMS S Gate | 278 | 558 | 142 | 119 | 146 | 132 |
| Area 5, RWMS SW Corner | 135 | 168 | 142 | 136 | 143 | 157 |
| Area 5, RWMS W 1000 | 148 | 190 | 156 | 153 | 160 | 146 |
| Area 5, RWMS W 1500 | 145 | 204 | 152 | 149 | 154 | 146 |
| Area 5, RWMS W 500 | 152 | 179 | 148 | 142 | 151 | 135 |
| Area 5, RWMS Pit 3 N Side | * | * | * | 140 | 168 | 146 |

* Missing data value

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Table G. 3 (Average Annual Millirem per Year for NTS Environmental
Monitoring TLDs, cont.)

| Station Name | | | Year | | | |
|---|---|---|---|---|---|---|
| | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 |
| Area 5, RWMS Pit 3 S Side | * | * | * | 132 | 149 | 139 |
| Area 5, RWMS Pit 4 N Side | * | * | * | 148 | 161 | 154 |
| Area 5, RWMS Pit 4 S Side | * | * | * | 176 | 161 | 146 |
| Area 5, RWMS TRU NE | * | * | * | 177 | 286 | 425 |
| Area 5, RWMS TRU N | * | * | * | 829 | 466 | 662 |
| Area 5, RWMS TRU NW | * | * | * | 140 | 225 | 231 |
| Area 5, RWMS TRU SW | * | * | * | 124 | 325 | 190 |
| Area 5, RWMS TRU S | * | * | * | 180 | 562 | 655 |
| Area 5, RWMS TRU SE | * | * | * | 125 | 325 | 238 |
| Area 5, Well 5B | 119 | 157 | 129 | 125 | 133 | 113 |
| Area 6, CP-2 Logistic Desk | 81 | 80 | 83 | 88 | 88 | 84 |
| Area 6, CP-50 Calib. Bench | 127 | 120 | 91 | 111 | 88 | 91 |
| Area 6, CP-50 Inst. Calib. Door | 136 | 126 | 148 | 162 | 186 | 161 |
| Area 6, CP-6 | 76 | 131 | 100 | 90 | 86 | 84 |
| Area 6, Decon Pad Back Room | 92 | 117 | 108 | 111 | 106 | 91 |
| Area 6, Decon Pad Office | 105 | 117 | 82 | 120 | 123 | 95 |
| Area 6, Stake TH-1 | 110 | 100 | 90 | 91 | 91 | 91 |
| Area 6, Stake TH-9 | 146 | 146 | 121 | 126 | 127 | 121 |
| Area 6, Stake TH-18 | 131 | 128 | 105 | 110 | 112 | 110 |
| Area 6, Well 3 | * | 135 | 130 | 123 | 128 | 132 |
| Area 6, Yucca Oil Storage Area | 112 | 106 | 115 | 116 | 120 | 113 |
| Area 7, 7-300 Bunker | 461 | 485 | 385 | 375 | 376 | 373 |
| Area 8, Stake 8K-25 | 120 | 150 | 126 | 122 | 124 | 128 |
| Area 9, 9-300 Bunker | 149 | 179 | 151 | 148 | 147 | 154 |
| Area 10, Stake 10A-24 | 240 | 263 | 225 | 210 | 186 | 198 |
| Area 10, Circle & L Road | 155 | 175 | 146 | 142 | 147 | 154 |
| Area 10, Sedan E Visitor Box | 188 | 210 | 174 | 174 | 175 | 168 |
| Area 10, Sedan W | 611 | 626 | 520 | 482 | 459 | 436 |
| Area 10, Stake CA-14 | * | 204 | 172 | 153 | 148 | 154 |
| Area 11, Gate 293 | 133 | 158 | 153 | 132 | 151 | 143 |
| Area 12, Building 12-10 | 132 | 139 | 116 | 146 | 147 | 146 |
| Area 12, Stake M-168 | 146 | 124 | 112 | 143 | 153 | 143 |
| Area 12, Stake M-170 | 168 | 319 | 108 | 138 | 139 | 128 |
| Area 12, Stake M-175 | 141 | 131 | 119 | 147 | 149 | 135 |
| Area 12, Stake TH-68.5 | 123 | 131 | 92 | 119 | 122 | 117 |
| Area 12, T-Tunnel No. 2 Pond | 349 | 358 | 340 | 295 | 527 | 483 |
| Area 12, Upper Haines Lake | 138 | 157 | 102 | 131 | 130 | 117 |
| Area 12, Upper N Pond | 148 | 195 | 124 | 155 | 156 | 146 |
| Area 15, EPA Farm | 134 | 155 | 134 | 124 | 129 | 128 |
| Area 15, Lamp Shack | 144 | 170 | 145 | 143 | 147 | 157 |
| Area 15, Office | * | * | 112 | 109 | 125 | 124 |
| Area 15, Storage Shed U-15e | 151 | 173 | 147 | 77 | * | * |
| Area 15, Sub Station U-15e | 129 | 137 | 254 | 109 | 111 | 113 |

* Missing data value

## Table G. 3 (Average Annual Millirem per Year for NTS Environmental Monitoring TLDs, cont.)

| Station Name | Year 1987 | 1988 | 1989 | 1990 | 1991 | 1992 |
|---|---|---|---|---|---|---|
| Area 17, Stake M-185 | 149 | 142 | 153 | 154 | 153 | 139 |
| Area 17, Stake M-190 | 153 | 201 | 166 | 174 | 177 | 165 |
| Area 18, Stake M-196 | 163 | 219 | 165 | 171 | 177 | 157 |
| Area 18, Stake P-35 | 175 | 204 | 172 | 179 | 176 | 168 |
| Area 18, Stake P-39 | 175 | 131 | 167 | 128 | 171 | 154 |
| Area 19, Stake C-16 | 163 | 203 | 164 | 168 | 170 | 168 |
| Area 19, Stake C-25 | 151 | 199 | 166 | 172 | 175 | 168 |
| Area 19, Stake C-27 | 182 | 192 | 174 | 178 | 185 | 172 |
| Area 19, Stake C-31 | 689 | 262 | 164 | 174 | 178 | 176 |
| Area 19, Stake P-41 | 185 | 214 | 186 | 183 | 169 | 176 |
| Area 19, Stake P-46 | 152 | 179 | 156 | 162 | 166 | 157 |
| Area 19, Stake P-54 | 158 | 181 | 156 | 154 | 160 | 157 |
| Area 19, Stake P-59 | 185 | 214 | 185 | 190 | 194 | 183 |
| Area 19, Stake P-66 | 176 | 270 | 193 | 187 | 191 | 176 |
| Area 19, Stake P-71 | 185 | 199 | 172 | 174 | 182 | 172 |
| Area 19, Stake P-77 | 173 | 199 | 190 | 192 | 185 | 187 |
| Area 19, Stake P-88 | 207 | 307 | 182 | 200 | 196 | 209 |
| Area 19, Stake P-91 | 178 | 188 | 189 | 188 | 193 | 198 |
| Area 19, Stake P-98 | * | * | * | 177 | 173 | 176 |
| Area 19, Stake R-3 | 191 | 208 | 191 | 195 | 190 | 256 |
| Area 19, Stake R-8 | * | * | * | 197 | 184 | 256 |
| Area 19, Stake R-18 | * | * | * | 170 | 165 | 227 |
| Area 19, Stake R-26 | * | 186 | 177 | 178 | 172 | 245 |
| Area 19, Stake R-29 | * | * | * | 172 | 167 | 242 |
| Area 19, Upper Well UE-19c Res. | * | 192 | 163 | 172 | 179 | 154 |
| Area 20, Stake A-106 (now Area 18) | * | 292 | 120 | 177 | 186 | 179 |
| Area 20, P & K Rd Jct | * | 184 | 164 | 169 | 170 | 168 |
| Area 20, Stake P-116.5 | 172 | 186 | 202 | 170 | 170 | 172 |
| Area 20, Stake P-120.5 | 193 | 175 | 165 | 166 | 162 | 165 |
| Area 20, Stake P-124 | 175 | 197 | 171 | 174 | 157 | 176 |
| Area 20, Stake P-129.5 | 180 | 186 | 179 | 183 | 180 | 179 |
| Area 20, Stake P-134.5 | 172 | 186 | 118 | 174 | 166 | 172 |
| Area 20, Stake J-6 | * | 175 | 181 | 188 | 184 | 161 |
| Area 20, Stake J-16 | 181 | 188 | 167 | 131 | 165 | 168 |
| Area 20, Stake J-24 | 167 | 190 | 222 | 168 | 168 | 176 |
| Area 20, Stake J-31 | 423 | 443 | 386 | 380 | 360 | 560 |
| Area 22, Desert Rock Control Tower | 68 | 84 | 78 | 83 | 87 | 77 |
| Area 23, Building 190 In Bench Drawer | 195 | 270 | 181 | 156 | 97 | 99 |
| Area 23, Building 610 Gate | 75 | 88 | 68 | 75 | 71 | 73 |
| Area 23, Building 610 Bay | 952 | 801 | 382 | 674 | 928 | 1153 |

* Missing data value

Table G. 3 (Average Annual Millirem per Year for NTS Environmental Monitoring TLDs, cont.)

| Station Name | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 |
|---|---|---|---|---|---|---|
| Area 23, Building 650 Dosimetry | 51 | 95 | 69 | 73 | 69 | 66 |
| Area 23, Building 650 Roof | 62 | 86 | 64 | 69 | 69 | 66 |
| Area 23, Building 650 Storage Room | 140 | 126 | 76 | 87 | 110 | 95 |
| Area 23, Gate 100 | 62 | 91 | 69 | 71 | 71 | 66 |
| Area 23, Post Office | 89 | 106 | 83 | 83 | 86 | 84 |
| Area 23, Building 180 Scaler Room | 95 | 139 | 110 | 113 | 127 | 132 |
| Area 25, 25-4P Gate | 134 | 173 | 146 | 145 | 151 | 139 |
| Area 25, 25-7P Gate | 130 | 179 | 137 | 159 | 161 | 132 |
| Area 25, E-MAD E | 134 | 173 | 135 | 135 | 141 | 128 |
| Area 25, E-MAD N | 109 | 148 | 121 | 125 | 128 | 117 |
| Area 25, E-MAD S | 133 | 161 | 134 | 134 | 140 | 124 |
| Area 25, E-MAD W | 124 | 153 | 219 | 128 | 134 | 121 |
| Area 25, Henre | 123 | 170 | 138 | 143 | 147 | 132 |
| Area 25, NRDS Warehouse | 144 | 166 | 139 | 142 | 144 | 135 |
| Area 27, Area 27 Cafe | 139 | 179 | 118 | 146 | 154 | 143 |
| Area 3, Boundary Station 358 | 60 | 84 | 88 | 88 | 79 | 88 |
| Area 5, Boundary Station 360 | 30 | 82 | 80 | 81 | 74 | 77 |
| Area 10, Boundary Station 357 | 82 | 93 | 91 | 95 | 147 | 102 |
| Area 11, Boundary Station 359 | 116 | 175 | 172 | 175 | 165 | 172 |
| Area 12, Boundary Station 355 | 115 | 135 | 135 | 114 | 119 | 117 |
| Area 15, Boundary station 356 | 144 | 178 | 179 | 180 | 170 | 172 |
| Area 30, Boundary Station 349 | 201 | 184 | 179 | 174 | 155 | 179 |
| Area 19, Boundary Station 354 | 146 | 252 | 204 | 165 | 163 | 154 |
| Area 19, Boundary Station 353 | 214 | 181 | 212 | 157 | 171 | 150 |
| Area 20, Boundary Station 350 | 172 | 201 | 208 | 207 | 193 | 205 |
| Area 20, Boundary Station 352 | 134 | 60 | 208 | 113 | 101 | 117 |
| Area 20, Boundary Station 351 | 202 | 193 | 106 | 173 | 169 | 187 |
| Area 22, Boundary Station 346 | 158 | 84 | 77 | 83 | 74 | 81 |
| Area 25, Boundary Station 347 | 145 | 117 | 99 | 119 | 110 | 117 |
| Area 25, Boundary Station 348 | * | 146 | 164 | 165 | 137 | 172 |

* Missing data value

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.

In the 1991 report, 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. The 1992 data have similar histograms. Thus all the statistical analyses of these data was performed on the natural logarithms of the data.

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.4 presents the analysis of variance results. Table G.4 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 0.097 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=0.86) 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.

Table G.4 One-Way Analysis of Variance for Differences between Years

| Source | Degrees of Freedom | Sum of the Squares | Mean Square | F-Statistic | p Value |
|---|---|---|---|---|---|
| Year | 5 | 2.385 | 0.477 | 1.87 | 0.097 |
| Error | 906 | 231.147 | 0.255 | | |
| Total | 911 | 233.532 | | | |

| Year | N | Log Mean | Standard Deviation | Median | 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 | (-------*-------) |
| 92 | 164 | 5.0922 | 0.4980 | 162.7 | (-------*-------) |
| | | | | | --+---------+---------+---------+---- |

Pooled Standard Deviation = 0.5051      5.00     5.10     5.20     5.30

## 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 1992 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 from 1981 to 1985 and that 1988 was 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 TLDs in 1987 and continuing through the present. These data also showed no significant differences between years and thus no historical trend is evident.