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# MONTHLY PROGRESS REPORT

## RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM (REMP) FOR THE DAVIS-BESSE NUCLEAR POWER STATION OAK HARBOR, OHIO

Reporting Period: January - December, 2005

PREPARED AND SUBMITTED
BY
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TABLE OF CONTENTS


| Section | | Page |
|---|---|---|
| | List of Tables | ii |
| 1.0 | INTRODUCTION | v |
| 2.0 | LISTING OF MISSED SAMPLES | vi |
| 3.0 | DATA TABULATIONS | viii |

Appendices

| | | |
|---|---|---|
| A | Interlaboratory Comparison Program Results | A-1 |
| B | Data Reporting Conventions | B-1 |
| C | Program Deviations | C-1 |

LIST OF TABLES


| No. | Title | Page |
|---|---|---|
| 1 | Airborne particulates and iodine collected at Location T-1, analyses for gross beta and iodine-131 | 1-1 |
| 2 | Airborne particulates and iodine collected at Location T-2, analyses for gross beta and iodine-131 | 2-1 |
| 3 | Airborne particulates and iodine collected at Location T-3, analyses for gross beta and iodine-131 | 3-1 |
| 4 | Airborne particulates and iodine collected at Location T-4, analyses for gross beta and iodine-131 | 4-1 |
| 5 | Airborne particulates and iodine collected at Location T-7, analyses for gross beta and iodine-131 | 5-1 |
| 6 | Airborne particulates and iodine collected at Location T-8, analyses for gross beta and iodine-131 | 6-1 |
| 7 | Airborne particulates and iodine collected at Location T-9, analyses for gross beta and iodine-131 | 7-1 |
| 8 | Airborne particulates and iodine collected at Location T-11, analyses for gross beta and iodine-131 | 8-1 |
| 9 | Airborne particulates and iodine collected at Location T-12, analyses for gross beta and iodine-131 | 9-1 |
| 10 | Airborne particulates and iodine collected at Location T-27, analyses for gross beta and iodine-131 | 10-1 |
| 11 | Airborne particulate data, gross beta analysis, monthly averages, minima and maxima | 11-1 |
| 12 | Airborne particulate samples, quarterly composites by location, analyses for strontium-89, strontium-90 and gamma-emitting isotopes | 12-1 |
| 13 | Area monitors (TLD), quarterly | 13-1 |
| 14 | Area monitors (TLD), annual | 14-1 |
| 15 | Milk, analyses for strontium-89, strontium-90, iodine-131, gamma-emitting isotopes, calcium, stable potassium, and ratios of strontium-90 (pCi) per gram of calcium and cesium-137 (pCi) per gram of potassium | 15-1 |

LIST OF TABLES (continued)


| No. | Title | Page |
|---|---|---|
| 16 | Ground water, analyses for gross beta, tritium, strontium-89 and strontium-90 and gamma-emitting isotopes, quarterly collections, | 16-1 |
| 17 | Domestic meat, analysis for gamma-emitting isotopes | 17-1 |
| 18 | Wild meat, analysis for gamma-emitting isotopes | 18-1 |
| 19 | Green leafy vegetable, analyses for strontium-89, strontium-90, iodine-131 and gamma-emitting isotopes | 19-1 |
| 20 | Fruit, analyses for strontium-89, strontium-90, iodine-131 and gamma-emitting isotopes | 20-1 |
| 21 | Animal-wildlife feed, analysis for gamma-emitting isotopes | 21-1 |
| 22 | Soil, analysis for gamma-emitting isotopes | 22-1 |
| 23 | Treated surface water, monthly composites of weekly grab samples, analysis for gross beta | 23-1 |
| 24 | Treated surface water, quarterly composites of weekly grab samples, analyses for tritium, strontium-89, strontium-90 and gamma-emitting isotopes | 24-1 |
| 25 | Untreated surface water, monthly composites of weekly grab samples, analyses for gross beta, tritium and gamma-emitting isotopes | 25-1 |
| 26 | Untreated surface water, quarterly composites of weekly grab samples, analyses for strontium-89 and strontium-90 | 26-1 |
| 27 | Untreated lakewater, monthly collection, analyses for gross beta, tritium and gamma-emitting isotopes | 27-1 |
| 28 | Fish, analyses for gross beta and gamma-emitting isotopes | 28-1 |
| 29 | Shoreline sediment, analysis for gamma-emitting isotopes | 29-1 |
| 30 | Eggs, analysis for gamma-emitting isotopes | 30-1 |

LIST OF TABLES (continued)

The following tables are in the Appendices:


Appendix A

Attachment A: Acceptance criteria for spiked samples ..... A-2

A-1 Interlaboratory Comparison Program Results ..... A1-1

A-2 Interlaboratory Comparison Program Results, thermoluminescent dosimeters (TLD's) ..... A2-1

A-3 Results of the analyses on in-house spiked samples ..... A3-1

A-4 Results of the analyses on in-house "blank" samples ..... A4-1

A-5 Results of the analyses on in-house "duplicate" samples ..... A5-1

A-6 Mixed Analyte Performance Evaluation Program (MAPEP) ..... A6-1

A-7 Environmental Measurement Laboratory Quality Assessment Program ..... A7-1

Appendix B

B-1 Data Reporting Conventions ..... B-2

Appendix C

C-1 Program Deviations ..... C-2

# 1.0 INTRODUCTION

The following constitutes the current 2005 Monthly Progress Report for the Radiological Environmental Monitoring Program conducted at the Davis-Besse Nuclear Power Station in Oak Harbor, Ohio. Results of completed analyses are presented in the attached tables. Missing entries indicate analyses that are not yet completed.

All activities, except gross alpha and gross beta, are decay corrected to the time of collection.

All samples were collected within the scheduled period unless noted otherwise in the Listing of Missed Samples.

## 2.0 LISTING OF MISSED SAMPLES

| Sample Type | Location | Expected Collection Date | Reason |
|---|---|---|---|
| WW | T-225 | 01-07-05 | Sample not available. |
| TLD | T-207 | 2nd Qtr. | TLD lost in the field. Returned in third quarter. |
| AP | T-01 | 07-26-05 | Sampler pump failure. |
| TLD | T-41 | 3rd Qtr. | TLD lost in the field. |
| TLD | T-83 | 3rd Qtr. | TLD lost in the field. |
| TLD | T-41 | Annual | TLD lost in the field. |
| TLD | T-81 | Annual | TLD lost in the field. |
| TLD | T-83 | Annual | TLD lost in the field. |

# 3.0 DATA TABULATIONS

Table 1. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-1
Units: pCi/m$^3$
Collection: Continuous, weekly exchange.

| Date Collected | Volume (m$^3$) | Gross Beta | Date Collected | Volume (m$^3$) | Gross Beta |
|---|---|---|---|---|---|
| Required LLD | | 0.010 | | | 0.010 |
| 01-04-05 | 314 | 0.027 ± 0.003 | 07-05-05 | 277 | 0.022 ± 0.004 |
| 01-11-05 | 313 | 0.019 ± 0.003 | 07-12-05 | 279 | 0.024 ± 0.004 |
| 01-18-05 | 313 | 0.021 ± 0.003 | 07-19-05 | 276 | 0.023 ± 0.004 |
| 01-25-05 | 313 | 0.021 ± 0.004 | 07-26-05 | | ND[b] |
| 02-01-05 | 318 | 0.027 ± 0.003 | 08-02-05 | 277 | 0.019 ± 0.004 |
| 02-08-05 | 313 | 0.033 ± 0.004 | 08-09-05 | 284 | 0.053 ± 0.005 |
| 02-15-05 | 313 | 0.020 ± 0.003 | 08-16-05 | 278 | 0.027 ± 0.004 |
| 02-22-05 | 277 | 0.028 ± 0.004 | 08-23-05 | 289 | 0.025 ± 0.004 |
| 03-01-05 | 278 | 0.023 ± 0.004 | 08-30-05 | 293 | 0.035 ± 0.004 |
| 03-08-05 | 279 | 0.021 ± 0.004 | 09-06-05 | 279 | 0.020 ± 0.004 |
| 03-15-05 | 275 | 0.017 ± 0.004 | 09-13-05 | 241 | 0.037 ± 0.005 |
| 03-22-05 | 278 | 0.017 ± 0.003 | 09-20-05 | 291 | 0.042 ± 0.005 |
| 03-29-05 | 277 | 0.017 ± 0.003 | 09-27-05 | 282 | 0.036 ± 0.004 |
| 1st Quarter Mean ± s.d. | | 0.022 ± 0.005 | 3rd Quarter Mean ± s.d. | | 0.030 ± 0.010 |
| 04-05-05 | 280 | 0.016 ± 0.004 | 10-04-05 | 79 | 0.018 ± 0.010 [c] |
| 04-12-05 | 282 | 0.020 ± 0.003 | 10-11-05 | 269 | 0.022 ± 0.004 |
| 04-19-05 | 277 | 0.027 ± 0.004 | 10-18-05 | 276 | 0.020 ± 0.004 |
| 04-26-05 | 276 | 0.017 ± 0.003 | 10-25-05 | 266 | 0.015 ± 0.003 |
| 05-03-05 | 280 | 0.018 ± 0.003 | 11-01-05 | 298 | 0.019 ± 0.004 |
| 05-10-05 | 262 | 0.031 ± 0.004 | 11-08-05 | 274 | 0.033 ± 0.004 |
| 05-17-05 | 264 | 0.014 ± 0.003 | 11-15-05 | 275 | 0.032 ± 0.004 |
| 05-24-05 | 273 | 0.021 ± 0.004 | 11-22-05 | 296 | 0.027 ± 0.004 |
| 05-31-05 | 279 | 0.015 ± 0.003 | 11-29-05 | 274 | 0.025 ± 0.004 |
| 06-07-05 | 269 | 0.019 ± 0.004 | 12-06-05 | 276 | 0.020 ± 0.004 |
| 06-14-05 | 264 | 0.023 ± 0.004 | 12-13-05 | 276 | 0.043 ± 0.005 |
| 06-21-05 | 282 | 0.008 ± 0.002 | 12-20-05 | 276 | 0.030 ± 0.004 |
| 06-28-05 | 282 | 0.030 ± 0.004 | 12-27-05 | 275 | 0.058 ± 0.005 |
| | | | 01-03-06 | 276 | 0.025 ± 0.004 |
| 2nd Quarter Mean ± s.d. | | 0.020 ± 0.007 | 4th Quarter Mean ± s.d. | | 0.028 ± 0.011 |
| | | | Cumulative Average | | 0.025 |
| | | | Previous Annual Average | | 0.022 |

[a] Iodine-131 concentrations are < 0.07 pCi/m$^3$ unless noted otherwise in Appendix C.
[b] ND = No data, air sampler pump failed.
[c] Low volume due to sampler pump failure, open fuse. Refer to Appendix C.

Table 2. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-2
Units: pCi/m$^3$
Collection: Continuous, weekly exchange.

| Date Collected | Volume (m$^3$) | Gross Beta | Date Collected | Volume (m$^3$) | Gross Beta |
|---|---|---|---|---|---|
| Required LLD | | 0.010 | | | 0.010 |
| 01-04-05 | 288 | 0.028 ± 0.004 | 07-05-05 | 283 | 0.018 ± 0.004 |
| 01-11-05 | 292 | 0.017 ± 0.003 | 07-12-05 | 284 | 0.025 ± 0.004 |
| 01-18-05 | 292 | 0.022 ± 0.004 | 07-19-05 | 281 | 0.025 ± 0.004 |
| 01-25-05 | 290 | 0.017 ± 0.003 | 07-26-05 | 284 | 0.028 ± 0.004 |
| 02-01-05 | 294 | 0.025 ± 0.003 | 08-02-05 | 277 | 0.020 ± 0.004 |
| 02-08-05 | 285 | 0.031 ± 0.004 | 08-09-05 | 284 | 0.037 ± 0.004 |
| 02-15-05 | 292 | 0.023 ± 0.003 | 08-16-05 | 282 | 0.027 ± 0.004 |
| 02-22-05 | 292 | 0.022 ± 0.004 | 08-23-05 | 284 | 0.025 ± 0.004 |
| 03-01-05 | 293 | 0.019 ± 0.004 | 08-30-05 | 282 | 0.027 ± 0.004 |
| 03-08-05 | 291 | 0.020 ± 0.004 | 09-06-05 | 284 | 0.027 ± 0.004 |
| 03-15-05 | 292 | 0.017 ± 0.004 | 09-13-05 | 283 | 0.040 ± 0.005 |
| 03-22-05 | 285 | 0.017 ± 0.003 | 09-20-05 | 284 | 0.035 ± 0.004 |
| 03-29-05 | 299 | 0.014 ± 0.003 | 09-27-05 | 282 | 0.036 ± 0.004 |
| 1st Quarter Mean ± s.d. | | 0.021 ± 0.005 | 3rd Quarter Mean ± s.d. | | 0.028 ± 0.007 |
| 04-05-05 | 291 | 0.015 ± 0.004 | 10-04-05 | 282 | 0.035 ± 0.004 |
| 04-12-05 | 292 | 0.019 ± 0.003 | 10-11-05 | 276 | 0.023 ± 0.004 |
| 04-19-05 | 292 | 0.024 ± 0.003 | 10-18-05 | 282 | 0.021 ± 0.004 |
| 04-26-05 | 288 | 0.013 ± 0.003 | 10-25-05 | 272 | 0.011 ± 0.003 |
| 05-03-05 | 291 | 0.014 ± 0.003 | 11-01-05 | 282 | 0.020 ± 0.004 |
| 05-10-05 | 288 | 0.030 ± 0.004 | 11-08-05 | 280 | 0.033 ± 0.004 |
| 05-17-05 | 291 | 0.017 ± 0.003 | 11-15-05 | 282 | 0.032 ± 0.004 |
| 05-24-05 | 291 | 0.018 ± 0.003 | 11-22-05 | 276 | 0.029 ± 0.004 |
| 05-31-05 | 279 | 0.016 ± 0.003 | 11-29-05 | 282 | 0.023 ± 0.004 |
| 06-07-05 | 276 | 0.016 ± 0.004 | 12-06-05 | 282 | 0.017 ± 0.004 |
| 06-14-05 | 281 | 0.021 ± 0.003 | 12-13-05 | 282 | 0.042 ± 0.005 |
| 06-21-05 | 282 | 0.008 ± 0.002 | 12-20-05 | 282 | 0.032 ± 0.004 |
| 06-28-05 | 282 | 0.030 ± 0.004 | 12-27-05 | 278 | 0.058 ± 0.005 |
| | | | 01-03-06 | 282 | 0.022 ± 0.004 |
| 2nd Quarter Mean ± s.d. | | 0.019 ± 0.006 | 4th Quarter Mean ± s.d. | | 0.028 ± 0.012 |
| | | | Cumulative Average | | 0.024 |
| | | | Previous Annual Average | | 0.022 |

[a] Iodine-131 concentrations are < 0.07 pCi/m$^3$ unless noted otherwise in Appendix C.

Table 3. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-3
Units: pCi/m$^3$
Collection: Continuous, weekly exchange.

| Date Collected | Volume (m$^3$) | Gross Beta | Date Collected | Volume (m$^3$) | Gross Beta |
|---|---|---|---|---|---|
| Required LLD | | 0.010 | | | 0.010 |
| 01-04-05 | 272 | 0.030 ± 0.004 | 07-05-05 | 281 | 0.021 ± 0.004 |
| 01-11-05 | 271 | 0.019 ± 0.003 | 07-12-05 | 286 | 0.029 ± 0.004 |
| 01-18-05 | 277 | 0.023 ± 0.004 | 07-19-05 | 282 | 0.021 ± 0.004 |
| 01-25-05 | 271 | 0.024 ± 0.004 | 07-26-05 | 286 | 0.030 ± 0.004 |
| 02-01-05 | 273 | 0.024 ± 0.003 | 08-02-05 | 278 | 0.021 ± 0.004 |
| 02-08-05 | 269 | 0.036 ± 0.004 | 08-09-05 | 285 | 0.039 ± 0.004 |
| 02-15-05 | 271 | 0.020 ± 0.003 | 08-16-05 | 284 | 0.031 ± 0.004 |
| 02-22-05 | 271 | 0.025 ± 0.004 | 08-23-05 | 286 | 0.022 ± 0.004 |
| 03-01-05 | 272 | 0.022 ± 0.004 | 08-30-05 | 284 | 0.027 ± 0.004 |
| 03-08-05 | 270 | 0.020 ± 0.004 | 09-06-05 | 285 | 0.014 ± 0.003 |
| 03-15-05 | 281 | 0.020 ± 0.004 | 09-13-05 | 285 | 0.040 ± 0.005 |
| 03-22-05 | 277 | 0.015 ± 0.003 | 09-20-05 | 286 | 0.030 ± 0.004 |
| 03-29-05 | 277 | 0.015 ± 0.003 | 09-27-05 | 284 | 0.038 ± 0.004 |
| 1st Quarter Mean ± s.d. | | 0.023 ± 0.006 | 3rd Quarter Mean ± s.d. | | 0.028 ± 0.008 |
| 04-05-05 | 277 | 0.017 ± 0.004 | 10-04-05 | 290 | 0.035 ± 0.004 |
| 04-12-05 | 277 | 0.017 ± 0.003 | 10-11-05 | 284 | 0.022 ± 0.004 |
| 04-19-05 | 276 | 0.028 ± 0.004 | 10-18-05 | 286 | 0.020 ± 0.004 |
| 04-26-05 | 276 | 0.015 ± 0.003 | 10-25-05 | 275 | 0.014 ± 0.004 |
| 05-03-05 | 276 | 0.017 ± 0.003 | 11-01-05 | 288 | 0.020 ± 0.004 |
| 05-10-05 | 273 | 0.032 ± 0.004 | 11-08-05 | 284 | 0.032 ± 0.004 |
| 05-17-05 | 276 | 0.013 ± 0.003 | 11-15-05 | 285 | 0.033 ± 0.004 |
| 05-24-05 | 275 | 0.021 ± 0.004 | 11-22-05 | 284 | 0.033 ± 0.004 |
| 05-31-05 | 286 | 0.016 ± 0.003 | 11-29-05 | 286 | 0.022 ± 0.004 |
| 06-07-05 | 282 | 0.019 ± 0.004 | 12-06-05 | 290 | 0.018 ± 0.004 |
| 06-14-05 | 283 | 0.023 ± 0.003 | 12-13-05 | 286 | 0.039 ± 0.005 |
| 06-21-05 | 287 | 0.010 ± 0.003 | 12-20-05 | 286 | 0.027 ± 0.004 |
| 06-28-05 | 283 | 0.036 ± 0.004 | 12-27-05 | 285 | 0.050 ± 0.005 |
| | | | 01-03-06 | 286 | 0.022 ± 0.004 |
| 2nd Quarter Mean ± s.d. | | 0.020 ± 0.008 | 4th Quarter Mean ± s.d. | | 0.028 ± 0.010 |
| | | | Cumulative Average | | 0.025 |
| | | | Previous Annual Average | | 0.022 |

[a] Iodine-131 concentrations are < 0.07 pCi/m$^3$ unless noted otherwise in Appendix C.

Table 4. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-4
Units: pCi/m$^3$
Collection: Continuous, weekly exchange.

| Date Collected | Volume (m$^3$) | Gross Beta | Date Collected | Volume (m$^3$) | Gross Beta |
|---|---|---|---|---|---|
| Required LLD | | 0.010 | | | 0.010 |
| 01-04-05 | 294 | 0.031 ± 0.004 | 07-05-05 | 281 | 0.022 ± 0.004 |
| 01-11-05 | 289 | 0.018 ± 0.003 | 07-12-05 | 279 | 0.027 ± 0.004 |
| 01-18-05 | 282 | 0.026 ± 0.004 | 07-19-05 | 279 | 0.024 ± 0.004 |
| 01-25-05 | 276 | 0.026 ± 0.004 | 07-26-05 | 281 | 0.030 ± 0.004 |
| 02-01-05 | 285 | 0.022 ± 0.003 | 08-02-05 | 285 | 0.021 ± 0.004 |
| 02-08-05 | 276 | 0.038 ± 0.004 | 08-09-05 | 280 | 0.036 ± 0.004 |
| 02-15-05 | 276 | 0.023 ± 0.003 | 08-16-05 | 280 | 0.031 ± 0.004 |
| 02-22-05 | 276 | 0.025 ± 0.004 | 08-23-05 | 281 | 0.023 ± 0.004 |
| 03-01-05 | 277 | 0.022 ± 0.004 | 08-30-05 | 280 | 0.024 ± 0.004 |
| 03-08-05 | 278 | 0.021 ± 0.004 | 09-06-05 | 281 | 0.023 ± 0.004 |
| 03-15-05 | 276 | 0.018 ± 0.004 | 09-13-05 | 279 | 0.037 ± 0.005 |
| 03-22-05 | 276 | 0.014 ± 0.003 | 09-20-05 | 281 | 0.031 ± 0.004 |
| 03-29-05 | 276 | 0.015 ± 0.003 | 09-27-05 | 280 | 0.038 ± 0.004 |
| 1st Quarter Mean ± s.d. | | 0.023 ± 0.007 | 3rd Quarter Mean ± s.d. | | 0.028 ± 0.006 |
| 04-05-05 | 275 | 0.014 ± 0.004 | 10-04-05 | 280 | 0.036 ± 0.004 |
| 04-12-05 | 276 | 0.017 ± 0.003 | 10-11-05 | 280 | 0.022 ± 0.004 |
| 04-19-05 | 275 | 0.023 ± 0.004 | 10-18-05 | 280 | 0.021 ± 0.004 |
| 04-26-05 | 276 | 0.013 ± 0.003 | 10-25-05 | 280 | 0.012 ± 0.003 |
| 05-03-05 | 277 | 0.019 ± 0.003 | 11-01-05 | 282 | 0.018 ± 0.004 |
| 05-10-05 | 276 | 0.029 ± 0.004 | 11-08-05 | 280 | 0.032 ± 0.004 |
| 05-17-05 | 277 | 0.018 ± 0.003 | 11-15-05 | 280 | 0.028 ± 0.004 |
| 05-24-05 | 275 | 0.019 ± 0.004 | 11-22-05 | 280 | 0.030 ± 0.004 |
| 05-31-05 | 280 | 0.015 ± 0.003 | 11-29-05 | 280 | 0.025 ± 0.004 |
| 06-07-05 | 281 | 0.020 ± 0.004 | 12-06-05 | 284 | 0.024 ± 0.004 |
| 06-14-05 | 280 | 0.023 ± 0.003 | 12-13-05 | 284 | 0.051 ± 0.005 |
| 06-21-05 | 276 | 0.008 ± 0.002 | 12-20-05 | 284 | 0.027 ± 0.004 |
| 06-28-05 | 280 | 0.034 ± 0.004 | 12-27-05 | 284 | 0.052 ± 0.005 |
| | | | 01-03-06 | 280 | 0.020 ± 0.004 |
| 2nd Quarter Mean ± s.d. | | 0.019 ± 0.007 | 4th Quarter Mean ± s.d. | | 0.028 ± 0.011 |
| | | | Cumulative Average | | 0.025 |
| | | | Previous Annual Average | | 0.023 |

[a] Iodine-131 concentrations are < 0.07 pCi/m$^3$ unless noted otherwise in Appendix C.

Table 5. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-7
Units: pCi/m$^3$
Collection: Continuous, weekly exchange.

| Date Collected | Volume (m$^3$) | Gross Beta | Date Collected | Volume (m$^3$) | Gross Beta |
|---|---|---|---|---|---|
| Required LLD | | 0.010 | | | 0.010 |
| 01-04-05 | 286 | 0.034 ± 0.004 | 07-05-05 | 287 | 0.017 ± 0.004 |
| 01-11-05 | 286 | 0.022 ± 0.003 | 07-12-05 | 288 | 0.025 ± 0.004 |
| 01-18-05 | 286 | 0.025 ± 0.004 | 07-19-05 | 286 | 0.025 ± 0.004 |
| 01-25-05 | 281 | 0.022 ± 0.004 | 07-26-05 | 287 | 0.025 ± 0.004 |
| 02-01-05 | 290 | 0.024 ± 0.003 | 08-02-05 | 287 | 0.021 ± 0.004 |
| 02-08-05 | 286 | 0.037 ± 0.004 | 08-09-05 | 282 | 0.042 ± 0.005 |
| 02-15-05 | 286 | 0.019 ± 0.003 | 08-16-05 | 282 | 0.027 ± 0.004 |
| 02-22-05 | 276 | 0.021 ± 0.004 | 08-23-05 | 279 | 0.030 ± 0.004 |
| 03-01-05 | 276 | 0.021 ± 0.004 | 08-30-05 | 277 | 0.031 ± 0.004 |
| 03-08-05 | 275 | 0.016 ± 0.004 | 09-06-05 | 282 | 0.022 ± 0.004 |
| 03-15-05 | 276 | 0.015 ± 0.004 | 09-13-05 | 281 | 0.040 ± 0.005 |
| 03-22-05 | 274 | 0.018 ± 0.003 | 09-20-05 | 282 | 0.037 ± 0.004 |
| 03-29-05 | 273 | 0.016 ± 0.003 | 09-27-05 | 282 | 0.037 ± 0.004 |
| 1st Quarter Mean ± s.d. | | 0.022 ± 0.007 | 3rd Quarter Mean ± s.d. | | 0.029 ± 0.008 |
| 04-05-05 | 274 | 0.015 ± 0.004 | 10-04-05 | 282 | 0.032 ± 0.004 |
| 04-12-05 | 274 | 0.015 ± 0.003 | 10-11-05 | 281 | 0.023 ± 0.004 |
| 04-19-05 | 275 | 0.024 ± 0.004 | 10-18-05 | 284 | 0.021 ± 0.004 |
| 04-26-05 | 276 | 0.016 ± 0.003 | 10-25-05 | 292 | 0.016 ± 0.003 |
| 05-03-05 | 276 | 0.013 ± 0.003 | 11-01-05 | 281 | 0.013 ± 0.003 |
| 05-10-05 | 281 | 0.027 ± 0.004 | 11-08-05 | 282 | 0.035 ± 0.004 |
| 05-17-05 | 276 | 0.014 ± 0.003 | 11-15-05 | 282 | 0.030 ± 0.004 |
| 05-24-05 | 275 | 0.019 ± 0.004 | 11-22-05 | 282 | 0.027 ± 0.004 |
| 05-31-05 | 278 | 0.016 ± 0.003 | 11-29-05 | 282 | 0.019 ± 0.004 |
| 06-07-05 | 287 | 0.024 ± 0.004 | 12-06-05 | 287 | 0.019 ± 0.004 |
| 06-14-05 | 287 | 0.022 ± 0.003 | 12-13-05 | 282 | 0.044 ± 0.005 |
| 06-21-05 | 292 | 0.009 ± 0.002 | 12-20-05 | 282 | 0.027 ± 0.004 |
| 06-28-05 | 287 | 0.032 ± 0.004 | 12-27-05 | 281 | 0.051 ± 0.005 |
| | | | 01-03-06 | 280 | 0.020 ± 0.004 |
| 2nd Quarter Mean ± s.d. | | 0.019 ± 0.006 | 4th Quarter Mean ± s.d. | | 0.027 ± 0.011 |
| | | | Cumulative Average | | 0.024 |
| | | | Previous Annual Average | | 0.023 |

[a] Iodine-131 concentrations are < 0.07 pCi/m$^3$ unless noted otherwise in Appendix C.

Table 6. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-8
Units: pCi/m$^3$
Collection: Continuous, weekly exchange.

| Date Collected | Volume (m$^3$) | Gross Beta | Date Collected | Volume (m$^3$) | Gross Beta |
|---|---|---|---|---|---|
| Required LLD | | 0.010 | | | 0.010 |
| 01-04-05 | 278 | 0.032 ± 0.004 | 07-05-05 | 276 | 0.023 ± 0.004 |
| 01-11-05 | 278 | 0.020 ± 0.003 | 07-12-05 | 280 | 0.026 ± 0.004 |
| 01-18-05 | 274 | 0.023 ± 0.004 | 07-19-05 | 279 | 0.023 ± 0.004 |
| 01-25-05 | 254 | 0.025 ± 0.004 | 07-26-05 | 280 | 0.030 ± 0.004 |
| 02-01-05 | 261 | 0.024 ± 0.003 | 08-02-05 | 279 | 0.019 ± 0.004 |
| 02-08-05 | 256 | 0.040 ± 0.004 | 08-09-05 | 281 | 0.038 ± 0.004 |
| 02-15-05 | 256 | 0.024 ± 0.004 | 08-16-05 | 281 | 0.033 ± 0.004 |
| 02-22-05 | 261 | 0.023 ± 0.004 | 08-23-05 | 280 | 0.028 ± 0.004 |
| 03-01-05 | 257 | 0.022 ± 0.004 | 08-30-05 | 279 | 0.031 ± 0.004 |
| 03-08-05 | 265 | 0.022 ± 0.004 | 09-06-05 | 281 | 0.020 ± 0.004 |
| 03-15-05 | 276 | 0.015 ± 0.004 | 09-13-05 | 283 | 0.046 ± 0.005 |
| 03-22-05 | 253 | 0.015 ± 0.003 | 09-20-05 | 280 | 0.035 ± 0.004 |
| 03-29-05 | 256 | 0.019 ± 0.003 | 09-27-05 | 280 | 0.036 ± 0.004 |
| 1st Quarter Mean ± s.d. | | 0.023 ± 0.007 | 3rd Quarter Mean ± s.d. | | 0.030 ± 0.008 |
| 04-05-05 | 255 | 0.015 ± 0.004 | 10-04-05 | 280 | 0.038 ± 0.004 |
| 04-12-05 | 256 | 0.019 ± 0.003 | 10-11-05 | 280 | 0.017 ± 0.004 |
| 04-19-05 | 251 | 0.025 ± 0.004 | 10-18-05 | 281 | 0.023 ± 0.004 |
| 04-26-05 | 256 | 0.019 ± 0.003 | 10-25-05 | 278 | 0.014 ± 0.003 |
| 05-03-05 | 260 | 0.016 ± 0.003 | 11-01-05 | 283 | 0.019 ± 0.004 |
| 05-10-05 | 257 | 0.030 ± 0.004 | 11-08-05 | 279 | 0.035 ± 0.004 |
| 05-17-05 | 257 | 0.018 ± 0.003 | 11-15-05 | 281 | 0.028 ± 0.004 |
| 05-24-05 | 256 | 0.017 ± 0.004 | 11-22-05 | 280 | 0.027 ± 0.004 |
| 05-31-05 | 276 | 0.016 ± 0.003 | 11-29-05 | 280 | 0.024 ± 0.004 |
| 06-07-05 | 275 | 0.021 ± 0.004 | 12-06-05 | 281 | 0.019 ± 0.004 |
| 06-14-05 | 281 | 0.023 ± 0.003 | 12-13-05 | 280 | 0.039 ± 0.005 |
| 06-21-05 | 279 | 0.009 ± 0.003 | 12-20-05 | 298 | 0.031 ± 0.004 |
| 06-28-05 | 276 | 0.037 ± 0.005 | 12-27-05 | 300 | 0.050 ± 0.005 |
| | | | 01-03-06 | 293 | 0.015 ± 0.003 |
| 2nd Quarter Mean ± s.d. | | 0.020 ± 0.007 | 4th Quarter Mean ± s.d. | | 0.027 ± 0.011 |
| | | | Cumulative Average | | 0.025 |
| | | | Previous Annual Average | | 0.024 |

[a] Iodine-131 concentrations are < 0.07 pCi/m$^3$ unless noted otherwise in Appendix C.

Table 7. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-9 (C)
Units: pCi/m$^3$
Collection: Continuous, weekly exchange.

| Date Collected | Volume (m$^3$) | Gross Beta | Date Collected | Volume (m$^3$) | Gross Beta |
|---|---|---|---|---|---|
| Required LLD | | 0.010 | | | 0.010 |
| 01-04-05 | 277 | 0.025 ± 0.004 | 07-05-05 | 292 | 0.023 ± 0.004 |
| 01-11-05 | 273 | 0.019 ± 0.003 | 07-12-05 | 291 | 0.032 ± 0.004 |
| 01-18-05 | 275 | 0.023 ± 0.004 | 07-19-05 | 291 | 0.027 ± 0.004 |
| 01-25-05 | 288 | 0.026 ± 0.004 | 07-26-05 | 290 | 0.031 ± 0.004 |
| 02-01-05 | 279 | 0.026 ± 0.003 | 08-02-05 | 290 | 0.025 ± 0.004 |
| 02-08-05 | 272 | 0.034 ± 0.004 | 08-09-05 | 291 | 0.042 ± 0.005 |
| 02-15-05 | 272 | 0.026 ± 0.004 | 08-16-05 | 291 | 0.027 ± 0.004 |
| 02-22-05 | 277 | 0.027 ± 0.004 | 08-23-05 | 287 | 0.028 ± 0.004 |
| 03-01-05 | 273 | 0.023 ± 0.004 | 08-30-05 | 281 | 0.025 ± 0.004 |
| 03-08-05 | 277 | 0.020 ± 0.004 | 09-06-05 | 284 | 0.023 ± 0.004 |
| 03-15-05 | 271 | 0.018 ± 0.004 | 09-13-05 | 284 | 0.044 ± 0.005 |
| 03-22-05 | 274 | 0.016 ± 0.003 | 09-20-05 | 285 | 0.035 ± 0.004 |
| 03-29-05 | 267 | 0.017 ± 0.003 | 09-27-05 | 283 | 0.036 ± 0.004 |
| 1st Quarter Mean ± s.d. | | 0.023 ± 0.005 | 3rd Quarter Mean ± s.d. | | 0.031 ± 0.007 |
| 04-05-05 | 272 | 0.016 ± 0.004 | 10-04-05 | 282 | 0.037 ± 0.004 |
| 04-12-05 | 273 | 0.019 ± 0.003 | 10-11-05 | 285 | 0.020 ± 0.004 |
| 04-19-05 | 272 | 0.026 ± 0.004 | 10-18-05 | 284 | 0.022 ± 0.004 |
| 04-26-05 | 272 | 0.015 ± 0.003 | 10-25-05 | 281 | 0.018 ± 0.004 |
| 05-03-05 | 273 | 0.019 ± 0.003 | 11-01-05 | 285 | 0.021 ± 0.004 |
| 05-10-05 | 286 | 0.029 ± 0.004 | 11-08-05 | 284 | 0.036 ± 0.004 |
| 05-17-05 | 274 | 0.016 ± 0.003 | 11-15-05 | 284 | 0.028 ± 0.004 |
| 05-24-05 | 272 | 0.022 ± 0.004 | 11-22-05 | 283 | 0.031 ± 0.004 |
| 05-31-05 | 286 | 0.012 ± 0.003 | 11-29-05 | 283 | 0.023 ± 0.004 |
| 06-07-05 | 291 | 0.017 ± 0.003 | 12-06-05 | 284 | 0.021 ± 0.004 |
| 06-14-05 | 291 | 0.022 ± 0.003 | 12-13-05 | 279 | 0.038 ± 0.005 |
| 06-21-05 | 278 | 0.011 ± 0.003 | 12-20-05 | 274 | 0.030 ± 0.004 |
| 06-28-05 | 291 | 0.037 ± 0.004 | 12-27-05 | 275 | 0.049 ± 0.005 |
| | | | 01-03-06 | 274 | 0.018 ± 0.004 |
| 2nd Quarter Mean ± s.d. | | 0.020 ± 0.007 | 4th Quarter Mean ± s.d. | | 0.028 ± 0.009 |
| | | | Cumulative Average | | 0.025 |
| | | | Previous Annual Average | | 0.022 |

[a] Iodine-131 concentrations are < 0.07 pCi/m$^3$ unless noted otherwise in Appendix C.

Table 8. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-11 (C)
Units: pCi/m$^3$
Collection: Continuous, weekly exchange.

| Date Collected | Volume (m$^3$) | Gross Beta | Date Collected | Volume (m$^3$) | Gross Beta |
|---|---|---|---|---|---|
| Required LLD | | 0.010 | | | 0.010 |
| 01-04-05 | 337 | 0.029 ± 0.003 | 07-05-05 | 284 | 0.022 ± 0.004 |
| 01-11-05 | 337 | 0.018 ± 0.003 | 07-12-05 | 285 | 0.026 ± 0.004 |
| 01-18-05 | 346 | 0.019 ± 0.003 | 07-19-05 | 283 | 0.024 ± 0.004 |
| 01-25-05 | 337 | 0.021 ± 0.003 | 07-26-05 | 284 | 0.028 ± 0.004 |
| 02-01-05 | 343 | 0.020 ± 0.003 | 08-02-05 | 284 | 0.024 ± 0.004 |
| 02-08-05 | 328 | 0.027 ± 0.003 | 08-09-05 | 284 | 0.042 ± 0.005 |
| 02-15-05 | 337 | 0.019 ± 0.003 | 08-16-05 | 284 | 0.029 ± 0.004 |
| 02-22-05 | 337 | 0.022 ± 0.003 | 08-23-05 | 288 | 0.028 ± 0.004 |
| 03-01-05 | 337 | 0.021 ± 0.003 | 08-30-05 | 289 | 0.029 ± 0.004 |
| 03-08-05 | 336 | 0.017 ± 0.003 | 09-06-05 | 280 | 0.021 ± 0.004 |
| 03-15-05 | 337 | 0.015 ± 0.003 | 09-13-05 | 277 | 0.040 ± 0.005 |
| 03-22-05 | 337 | 0.015 ± 0.003 | 09-20-05 | 284 | 0.034 ± 0.004 |
| 03-29-05 | 336 | 0.013 ± 0.002 | 09-27-05 | 284 | 0.034 ± 0.004 |
| 1st Quarter Mean ± s.d. | | 0.020 ± 0.005 | 3rd Quarter Mean ± s.d. | | 0.029 ± 0.007 |
| 04-05-05 | 335 | 0.012 ± 0.003 | 10-04-05 | 284 | 0.036 ± 0.004 |
| 04-12-05 | 337 | 0.013 ± 0.002 | 10-11-05 | 284 | 0.021 ± 0.004 |
| 04-19-05 | 334 | 0.021 ± 0.003 | 10-18-05 | 284 | 0.025 ± 0.004 |
| 04-26-05 | 337 | 0.013 ± 0.003 | 10-25-05 | 285 | 0.015 ± 0.003 |
| 05-03-05 | 337 | 0.013 ± 0.003 | 11-01-05 | 285 | 0.024 ± 0.004 |
| 05-10-05 | 337 | 0.021 ± 0.003 | 11-08-05 | 284 | 0.033 ± 0.004 |
| 05-17-05 | 337 | 0.012 ± 0.003 | 11-15-05 | 284 | 0.026 ± 0.004 |
| 05-24-05 | 334 | 0.014 ± 0.003 | 11-22-05 | 284 | 0.027 ± 0.004 |
| 05-31-05 | 283 | 0.015 ± 0.003 | 11-29-05 | 283 | 0.019 ± 0.004 |
| 06-07-05 | 284 | 0.022 ± 0.004 | 12-06-05 | 283 | 0.018 ± 0.004 |
| 06-14-05 | 284 | 0.021 ± 0.003 | 12-13-05 | 284 | 0.044 ± 0.005 |
| 06-21-05 | 284 | 0.007 ± 0.002 | 12-20-05 | 288 | 0.030 ± 0.004 |
| 06-28-05 | 284 | 0.034 ± 0.004 | 12-27-05 | 283 | 0.056 ± 0.005 |
| | | | 01-03-06 | 284 | 0.023 ± 0.004 |
| 2nd Quarter Mean ± s.d. | | 0.017 ± 0.007 | 4th Quarter Mean ± s.d. | | 0.028 ± 0.011 |
| | | | Cumulative Average | | 0.024 |
| | | | Previous Annual Average | | 0.021 |

[a] Iodine-131 concentrations are < 0.07 pCi/m$^3$ unless noted otherwise in Appendix C.

Table 9. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-12 (C)
Units: pCi/m$^3$
Collection: Continuous, weekly exchange.

| Date Collected | Volume (m$^3$) | Gross Beta | Date Collected | Volume (m$^3$) | Gross Beta |
|---|---|---|---|---|---|
| Required LLD | | 0.010 | | | 0.010 |
| 01-04-05 | 277 | 0.030 ± 0.004 | 07-05-05 | 287 | 0.022 ± 0.004 |
| 01-11-05 | 277 | 0.020 ± 0.003 | 07-12-05 | 288 | 0.025 ± 0.004 |
| 01-18-05 | 279 | 0.019 ± 0.004 | 07-19-05 | 286 | 0.023 ± 0.004 |
| 01-25-05 | 270 | 0.021 ± 0.004 | 07-26-05 | 288 | 0.029 ± 0.004 |
| 02-01-05 | 282 | 0.026 ± 0.003 | 08-02-05 | 291 | 0.021 ± 0.004 |
| 02-08-05 | 268 | 0.038 ± 0.004 | 08-09-05 | 283 | 0.037 ± 0.004 |
| 02-15-05 | 277 | 0.022 ± 0.003 | 08-16-05 | 287 | 0.027 ± 0.004 |
| 02-22-05 | 277 | 0.028 ± 0.004 | 08-23-05 | 284 | 0.027 ± 0.004 |
| 03-01-05 | 277 | 0.023 ± 0.004 | 08-30-05 | 286 | 0.027 ± 0.004 |
| 03-08-05 | 277 | 0.021 ± 0.004 | 09-06-05 | 288 | 0.020 ± 0.004 |
| 03-15-05 | 277 | 0.019 ± 0.004 | 09-13-05 | 289 | 0.039 ± 0.005 |
| 03-22-05 | 277 | 0.015 ± 0.003 | 09-20-05 | 288 | 0.032 ± 0.004 |
| 03-29-05 | 276 | 0.015 ± 0.003 | 09-27-05 | 286 | 0.034 ± 0.004 |
| 1st Quarter Mean ± s.d. | | 0.023 ± 0.006 | 3rd Quarter Mean ± s.d. | | 0.028 ± 0.006 |
| 04-05-05 | 278 | 0.013 ± 0.004 | 10-04-05 | 288 | 0.034 ± 0.004 |
| 04-12-05 | 277 | 0.018 ± 0.003 | 10-11-05 | 288 | 0.020 ± 0.004 |
| 04-19-05 | 272 | 0.022 ± 0.003 | 10-18-05 | 286 | 0.019 ± 0.004 |
| 04-26-05 | 276 | 0.014 ± 0.003 | 10-25-05 | 286 | 0.013 ± 0.003 |
| 05-03-05 | 277 | 0.014 ± 0.003 | 11-01-05 | 290 | 0.018 ± 0.004 |
| 05-10-05 | 277 | 0.030 ± 0.004 | 11-08-05 | 286 | 0.033 ± 0.004 |
| 05-17-05 | 278 | 0.013 ± 0.003 | 11-15-05 | 288 | 0.025 ± 0.004 |
| 05-24-05 | 277 | 0.017 ± 0.003 | 11-22-05 | 283 | 0.039 ± 0.005 |
| 05-31-05 | 284 | 0.012 ± 0.003 | 11-29-05 | 285 | 0.031 ± 0.004 |
| 06-07-05 | 287 | 0.016 ± 0.004 | 12-06-05 | 293 | 0.026 ± 0.004 |
| 06-14-05 | 288 | 0.021 ± 0.003 | 12-13-05 | 284 | 0.044 ± 0.005 |
| 06-21-05 | 288 | 0.009 ± 0.002 | 12-20-05 | 284 | 0.037 ± 0.004 |
| 06-28-05 | 287 | 0.029 ± 0.004 | 12-27-05 | 274 | 0.051 ± 0.005 |
| | | | 01-03-06 | 294 | 0.033 ± 0.004 |
| 2nd Quarter Mean ± s.d. | | 0.018 ± 0.006 | 4th Quarter Mean ± s.d. | | 0.030 ± 0.011 |
| | | | Cumulative Average | | 0.025 |
| | | | Previous Annual Average | | 0.021 |

[a] Iodine-131 concentrations are < 0.07 pCi/m$^3$ unless noted otherwise.

Table 10. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-27 (C)
Units: pCi/m$^3$
Collection: Continuous, weekly exchange.

| Date Collected | Volume (m$^3$) | Gross Beta | Date Collected | Volume (m$^3$) | Gross Beta |
|---|---|---|---|---|---|
| Required LLD | | 0.010 | | | 0.010 |
| 01-04-05 | 276 | 0.034 ± 0.004 | 07-05-05 | 293 | 0.017 ± 0.004 |
| 01-11-05 | 276 | 0.019 ± 0.003 | 07-12-05 | 283 | 0.028 ± 0.004 |
| 01-18-05 | 278 | 0.019 ± 0.004 | 07-19-05 | 278 | 0.029 ± 0.004 |
| 01-25-05 | 288 | 0.027 ± 0.004 | 07-26-05 | 284 | 0.030 ± 0.004 |
| 02-01-05 | 334 | 0.026 ± 0.003 | 08-02-05 | 283 | 0.021 ± 0.004 |
| 02-08-05 | 315 | 0.039 ± 0.004 | 08-09-05 | 283 | 0.045 ± 0.005 |
| 02-15-05 | 302 | 0.019 ± 0.003 | 08-16-05 | 284 | 0.029 ± 0.004 |
| 02-22-05 | 307 | 0.025 ± 0.004 | 08-23-05 | 287 | 0.029 ± 0.004 |
| 03-01-05 | 303 | 0.023 ± 0.004 | 08-30-05 | 282 | 0.027 ± 0.004 |
| 03-08-05 | 311 | 0.020 ± 0.003 | 09-06-05 | 284 | 0.020 ± 0.004 |
| 03-15-05 | 311 | 0.018 ± 0.003 | 09-13-05 | 282 | 0.042 ± 0.005 |
| 03-22-05 | 303 | 0.016 ± 0.003 | 09-20-05 | 283 | 0.036 ± 0.004 |
| 03-29-05 | 293 | 0.018 ± 0.003 | 09-27-05 | 283 | 0.044 ± 0.005 |
| 1st Quarter Mean ± s.d. | | 0.023 ± 0.007 | 3rd Quarter Mean ± s.d. | | 0.031 ± 0.009 |
| 04-05-05 | 319 | 0.017 ± 0.003 | 10-04-05 | 284 | 0.039 ± 0.005 |
| 04-12-05 | 307 | 0.021 ± 0.003 | 10-11-05 | 284 | 0.023 ± 0.004 |
| 04-19-05 | 309 | 0.023 ± 0.003 | 10-18-05 | 283 | 0.019 ± 0.004 |
| 04-26-05 | 309 | 0.017 ± 0.003 | 10-25-05 | 283 | 0.015 ± 0.003 |
| 05-03-05 | 307 | 0.015 ± 0.003 | 11-01-05 | 286 | 0.018 ± 0.004 |
| 05-10-05 | 307 | 0.029 ± 0.003 | 11-08-05 | 283 | 0.034 ± 0.004 |
| 05-17-05 | 312 | 0.013 ± 0.003 | 11-15-05 | 284 | 0.027 ± 0.004 |
| 05-24-05 | 307 | 0.017 ± 0.003 | 11-22-05 | 283 | 0.028 ± 0.004 |
| 05-31-05 | 315 | 0.014 ± 0.003 | 11-29-05 | 284 | 0.022 ± 0.004 |
| 06-07-05 | 293 | 0.022 ± 0.004 | 12-06-05 | 284 | 0.023 ± 0.004 |
| 06-14-05 | 293 | 0.024 ± 0.003 | 12-13-05 | 286 | 0.039 ± 0.005 |
| 06-21-05 | 293 | 0.009 ± 0.002 | 12-20-05 | 286 | 0.034 ± 0.004 |
| 06-28-05 | 293 | 0.042 ± 0.005 | 12-27-05 | 281 | 0.052 ± 0.005 |
| | | | 01-03-06 | 286 | 0.022 ± 0.004 |
| 2nd Quarter Mean ± s.d. | | 0.020 ± 0.008 | 4th Quarter Mean ± s.d. | | 0.028 ± 0.010 |
| | | | Cumulative Average | | 0.026 |
| | | | Previous Annual Average | | 0.024 |

[a] Iodine-131 concentrations are < 0.07 pCi/m$^3$ unless noted otherwise in Appendix C.

Table 11-1. Airborne particulate data,gross beta analyses, monthly averages, minima and maxima.

| January | | | |
|---|---|---|---|
| Location | Average | Minima | Maxima |
| T-9 | 0.024 | 0.019 | 0.026 |
| T-11 | 0.021 | 0.018 | 0.029 |
| T-12 | 0.023 | 0.019 | 0.030 |
| T-27 | 0.025 | 0.019 | 0.034 |
| Controls | 0.023 | 0.018 | 0.034 |
| T-1 | 0.023 | 0.019 | 0.027 |
| T-2 | 0.021 | 0.017 | 0.028 |
| T-3 | 0.024 | 0.019 | 0.030 |
| T-4 | 0.025 | 0.018 | 0.031 |
| T-7 | 0.025 | 0.022 | 0.034 |
| T-8 | 0.025 | 0.020 | 0.032 |
| Indicators | 0.024 | 0.017 | 0.034 |

| April | | | |
|---|---|---|---|
| Location | Average | Minima | Maxima |
| T-9 | 0.019 | 0.015 | 0.026 |
| T-11 | 0.014 | 0.012 | 0.021 |
| T-12 | 0.016 | 0.013 | 0.022 |
| T-27 | 0.019 | 0.015 | 0.023 |
| Controls | 0.017 | 0.012 | 0.026 |
| T-1 | 0.020 | 0.016 | 0.027 |
| T-2 | 0.017 | 0.013 | 0.024 |
| T-3 | 0.019 | 0.015 | 0.028 |
| T-4 | 0.017 | 0.013 | 0.023 |
| T-7 | 0.017 | 0.013 | 0.024 |
| T-8 | 0.019 | 0.015 | 0.025 |
| Indicators | 0.018 | 0.013 | 0.028 |

| February | | | |
|---|---|---|---|
| Location | Average | Minima | Maxima |
| T-9 | 0.028 | 0.023 | 0.034 |
| T-11 | 0.022 | 0.019 | 0.027 |
| T-12 | 0.028 | 0.022 | 0.038 |
| T-27 | 0.027 | 0.019 | 0.039 |
| Controls | 0.026 | 0.019 | 0.039 |
| T-1 | 0.026 | 0.020 | 0.033 |
| T-2 | 0.024 | 0.019 | 0.031 |
| T-3 | 0.026 | 0.020 | 0.036 |
| T-4 | 0.027 | 0.022 | 0.038 |
| T-7 | 0.025 | 0.019 | 0.037 |
| T-8 | 0.027 | 0.022 | 0.040 |
| Indicators | 0.026 | 0.019 | 0.040 |

| May | | | |
|---|---|---|---|
| Location | Average | Minima | Maxima |
| T-9 | 0.020 | 0.012 | 0.029 |
| T-11 | 0.016 | 0.012 | 0.021 |
| T-12 | 0.018 | 0.012 | 0.030 |
| T-27 | 0.018 | 0.013 | 0.029 |
| Controls | 0.018 | 0.012 | 0.030 |
| T-1 | 0.020 | 0.014 | 0.031 |
| T-2 | 0.020 | 0.016 | 0.030 |
| T-3 | 0.021 | 0.013 | 0.032 |
| T-4 | 0.020 | 0.015 | 0.029 |
| T-7 | 0.019 | 0.014 | 0.027 |
| T-8 | 0.020 | 0.016 | 0.030 |
| Indicators | 0.020 | 0.013 | 0.032 |

| March | | | |
|---|---|---|---|
| Location | Average | Minima | Maxima |
| T-9 | 0.018 | 0.016 | 0.020 |
| T-11 | 0.015 | 0.013 | 0.017 |
| T-12 | 0.018 | 0.015 | 0.021 |
| T-27 | 0.018 | 0.016 | 0.020 |
| Controls | 0.017 | 0.013 | 0.021 |
| T-1 | 0.018 | 0.017 | 0.021 |
| T-2 | 0.017 | 0.014 | 0.020 |
| T-3 | 0.018 | 0.015 | 0.020 |
| T-4 | 0.017 | 0.014 | 0.021 |
| T-7 | 0.016 | 0.015 | 0.018 |
| T-8 | 0.018 | 0.015 | 0.022 |
| Indicators | 0.017 | 0.014 | 0.022 |

| June | | | |
|---|---|---|---|
| Location | Average | Minima | Maxima |
| T-9 | 0.022 | 0.011 | 0.037 |
| T-11 | 0.021 | 0.007 | 0.034 |
| T-12 | 0.019 | 0.009 | 0.029 |
| T-27 | 0.024 | 0.009 | 0.042 |
| Controls | 0.021 | 0.007 | 0.042 |
| T-1 | 0.020 | 0.008 | 0.030 |
| T-2 | 0.019 | 0.008 | 0.030 |
| T-3 | 0.022 | 0.010 | 0.036 |
| T-4 | 0.021 | 0.008 | 0.034 |
| T-7 | 0.022 | 0.009 | 0.032 |
| T-8 | 0.023 | 0.009 | 0.037 |
| Indicators | 0.021 | 0.008 | 0.037 |

Note: Unless otherwise specified, samples collected on the first, second or third day of the month are grouped with data of the previous month.

Table 11-1. Airborne particulate data,gross beta analyses, monthly averages, minima and maxima.

| July | | | |
|---|---|---|---|
| Location | Average | Minima | Maxima |
| T-9 | 0.028 | 0.023 | 0.032 |
| T-11 | 0.025 | 0.022 | 0.028 |
| T-12 | 0.024 | 0.021 | 0.029 |
| T-27 | 0.025 | 0.017 | 0.030 |
| Controls | 0.025 | 0.017 | 0.032 |
| T-1 | 0.022 | 0.019 | 0.024 |
| T-2 | 0.023 | 0.018 | 0.028 |
| T-3 | 0.024 | 0.021 | 0.030 |
| T-4 | 0.025 | 0.021 | 0.030 |
| T-7 | 0.023 | 0.017 | 0.025 |
| T-8 | 0.024 | 0.019 | 0.030 |
| Indicators | 0.024 | 0.017 | 0.030 |

| October | | | |
|---|---|---|---|
| Location | Average | Minima | Maxima |
| T-9 | 0.024 | 0.018 | 0.037 |
| T-11 | 0.024 | 0.015 | 0.036 |
| T-12 | 0.021 | 0.013 | 0.034 |
| T-27 | 0.023 | 0.015 | 0.039 |
| Controls | 0.023 | 0.013 | 0.039 |
| T-1 | 0.019 | 0.015 | 0.022 |
| T-2 | 0.022 | 0.011 | 0.035 |
| T-3 | 0.022 | 0.014 | 0.035 |
| T-4 | 0.022 | 0.012 | 0.036 |
| T-7 | 0.021 | 0.013 | 0.032 |
| T-8 | 0.022 | 0.014 | 0.038 |
| Indicators | 0.021 | 0.011 | 0.038 |

| August | | | |
|---|---|---|---|
| Location | Average | Minima | Maxima |
| T-9 | 0.031 | 0.025 | 0.042 |
| T-11 | 0.032 | 0.028 | 0.042 |
| T-12 | 0.030 | 0.027 | 0.037 |
| T-27 | 0.033 | 0.027 | 0.045 |
| Controls | 0.031 | 0.025 | 0.045 |
| T-1 | 0.035 | 0.025 | 0.053 |
| T-2 | 0.029 | 0.025 | 0.037 |
| T-3 | 0.030 | 0.022 | 0.039 |
| T-4 | 0.029 | 0.023 | 0.036 |
| T-7 | 0.033 | 0.027 | 0.042 |
| T-8 | 0.033 | 0.028 | 0.038 |
| Indicators | 0.031 | 0.022 | 0.053 |

| November | | | |
|---|---|---|---|
| Location | Average | Minima | Maxima |
| T-9 | 0.030 | 0.023 | 0.036 |
| T-11 | 0.026 | 0.019 | 0.033 |
| T-12 | 0.032 | 0.025 | 0.039 |
| T-27 | 0.028 | 0.022 | 0.034 |
| Controls | 0.029 | 0.019 | 0.039 |
| T-1 | 0.029 | 0.025 | 0.033 |
| T-2 | 0.029 | 0.023 | 0.033 |
| T-3 | 0.030 | 0.022 | 0.033 |
| T-4 | 0.029 | 0.025 | 0.032 |
| T-7 | 0.028 | 0.019 | 0.035 |
| T-8 | 0.029 | 0.024 | 0.035 |
| Indicators | 0.029 | 0.019 | 0.035 |

| September | | | |
|---|---|---|---|
| Location | Average | Minima | Maxima |
| T-9 | 0.035 | 0.023 | 0.044 |
| T-11 | 0.032 | 0.021 | 0.040 |
| T-12 | 0.031 | 0.020 | 0.039 |
| T-27 | 0.036 | 0.020 | 0.044 |
| Controls | 0.033 | 0.020 | 0.044 |
| T-1 | 0.033 | 0.020 | 0.042 |
| T-2 | 0.035 | 0.027 | 0.040 |
| T-3 | 0.031 | 0.014 | 0.040 |
| T-4 | 0.032 | 0.023 | 0.038 |
| T-7 | 0.034 | 0.022 | 0.040 |
| T-8 | 0.034 | 0.020 | 0.046 |
| Indicators | 0.033 | 0.014 | 0.046 |

| December | | | |
|---|---|---|---|
| Location | Average | Minima | Maxima |
| T-9 | 0.031 | 0.018 | 0.049 |
| T-11 | 0.034 | 0.018 | 0.056 |
| T-12 | 0.038 | 0.026 | 0.051 |
| T-27 | 0.034 | 0.022 | 0.052 |
| Controls | 0.034 | 0.018 | 0.056 |
| T-1 | 0.035 | 0.020 | 0.058 |
| T-2 | 0.034 | 0.017 | 0.058 |
| T-3 | 0.031 | 0.018 | 0.050 |
| T-4 | 0.035 | 0.020 | 0.052 |
| T-7 | 0.032 | 0.019 | 0.051 |
| T-8 | 0.031 | 0.015 | 0.050 |
| Indicators | 0.033 | 0.015 | 0.058 |

Note: Unless otherwise specified, samples collected on the first, second or third day of the month are grouped with data of the previous month.

Table 12. Airborne particulates, analyses for strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly Composite
Units: pCi/m$^3$

| Location | T-1 | | | |
|---|---|---|---|---|
| Quarter | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
| Lab Code | TAP-1884 | TAP-3905 | TAP-5766 | TAP-7465 |
| Volume (m$^3$) | 3861 | 3570 | 3346 | 3686 |
| Sr-89 | < 0.0005 | < 0.0005 | < 0.0008 | < 0.0005 |
| Sr-90 | < 0.0004 | < 0.0005 | < 0.0005 | < 0.0005 |
| Be-7 | 0.069 ± 0.012 | 0.082 ± 0.017 | 0.087 ± 0.015 | 0.047 ± 0.014 |
| K-40 | < 0.023 | 0.023 ± 0.014 | < 0.027 | < 0.022 |
| Nb-95 | < 0.0005 | < 0.0006 | < 0.0007 | < 0.0007 |
| Zr-95 | < 0.0013 | < 0.0009 | < 0.0013 | < 0.0006 |
| Ru-103 | < 0.0006 | < 0.0012 | < 0.0010 | < 0.0006 |
| Ru-106 | < 0.0055 | < 0.0060 | < 0.0050 | < 0.0047 |
| Cs-134 | < 0.0009 | < 0.0006 | < 0.0006 | < 0.0009 |
| Cs-137 | < 0.0009 | < 0.0007 | < 0.0010 | < 0.0006 |
| Ce-141 | < 0.0011 | < 0.0009 | < 0.0015 | < 0.0015 |
| Ce-144 | < 0.0045 | < 0.0045 | < 0.0046 | < 0.0047 |

| Location | T-2 | | | |
|---|---|---|---|---|
| Quarter | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
| Lab Code | TAP-1885 | TAP-3906 | TAP-5767 | TAP-7466, 7 |
| Volume (m$^3$) | 3785 | 3724 | 3674 | 3920 |
| Sr-89 | < 0.0006 | < 0.0005 | < 0.0011 | < 0.0009 |
| Sr-90 | < 0.0004 | < 0.0004 | < 0.0006 | < 0.0008 |
| Be-7 | 0.065 ± 0.014 | 0.077 ± 0.015 | 0.078 ± 0.014 | 0.055 ± 0.009 |
| K-40 | < 0.023 | < 0.024 | < 0.024 | < 0.019 |
| Nb-95 | < 0.0007 | < 0.0007 | < 0.0009 | < 0.0004 |
| Zr-95 | < 0.0011 | < 0.0011 | < 0.0008 | < 0.0007 |
| Ru-103 | < 0.0009 | < 0.0012 | < 0.0008 | < 0.0008 |
| Ru-106 | < 0.0069 | < 0.0053 | < 0.0038 | < 0.0048 |
| Cs-134 | < 0.0009 | < 0.0007 | < 0.0007 | < 0.0006 |
| Cs-137 | < 0.0005 | < 0.0008 | < 0.0006 | < 0.0004 |
| Ce-141 | < 0.0012 | < 0.0015 | < 0.0009 | < 0.0008 |
| Ce-144 | < 0.0036 | < 0.0052 | < 0.0052 | < 0.0020 |

Table 12. Airborne particulates, analyses for strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly Composite
Units: pCi/m$^3$

| Location | T-3 | | | |
|---|---|---|---|---|
| Quarter | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
| Lab Code | TAP-1886 | TAP-3907 | TAP-5768 | TAP-7468 |
| Volume (m$^3$) | 3552 | 3627 | 3692 | 3995 |
| Sr-89 | < 0.0005 | < 0.0005 | < 0.0006 | < 0.0005 |
| Sr-90 | < 0.0004 | < 0.0004 | < 0.0004 | < 0.0004 |
| Be-7 | 0.077 ± 0.016 | 0.083 ± 0.015 | 0.077 ± 0.012 | 0.048 ± 0.010 |
| K-40 | < 0.026 | < 0.024 | < 0.024 | < 0.025 |
| Nb-95 | < 0.0005 | < 0.0006 | < 0.0007 | < 0.0003 |
| Zr-95 | < 0.0007 | < 0.0009 | < 0.0009 | < 0.0013 |
| Ru-103 | < 0.0009 | < 0.0008 | < 0.0005 | < 0.0009 |
| Ru-106 | < 0.0049 | < 0.0051 | < 0.0072 | < 0.0049 |
| Cs-134 | < 0.0009 | < 0.0009 | < 0.0006 | < 0.0007 |
| Cs-137 | < 0.0005 | < 0.0005 | < 0.0006 | < 0.0006 |
| Ce-141 | < 0.0017 | < 0.0013 | < 0.0008 | < 0.0015 |
| Ce-144 | < 0.0053 | < 0.0044 | < 0.0045 | < 0.0021 |

| Location | T-4 | | | |
|---|---|---|---|---|
| Quarter | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
| Lab Code | TAP-1887 | TAP-3908 | TAP-5769, 70 | TAP-7469 |
| Volume (m$^3$) | 3637 | 3604 | 3647 | 3938 |
| Sr-89 | < 0.0005 | < 0.0005 | < 0.0014 | < 0.0005 |
| Sr-90 | < 0.0004 | < 0.0004 | < 0.0007 | < 0.0004 |
| Be-7 | 0.056 ± 0.013 | 0.087 ± 0.020 | 0.081 ± 0.010 | 0.062 ± 0.013 |
| K-40 | < 0.024 | < 0.024 | < 0.025 | < 0.021 |
| Nb-95 | < 0.0007 | < 0.0008 | < 0.0006 | < 0.0007 |
| Zr-95 | < 0.0020 | < 0.0006 | < 0.0014 | < 0.0006 |
| Ru-103 | < 0.0008 | < 0.0009 | < 0.0009 | < 0.0006 |
| Ru-106 | < 0.0064 | < 0.0054 | < 0.0058 | < 0.0054 |
| Cs-134 | < 0.0009 | < 0.0005 | < 0.0007 | < 0.0007 |
| Cs-137 | < 0.0007 | < 0.0006 | < 0.0006 | < 0.0005 |
| Ce-141 | < 0.0016 | < 0.0008 | < 0.0008 | < 0.0009 |
| Ce-144 | < 0.0023 | < 0.0049 | < 0.0034 | < 0.0037 |

Table 12. Airborne particulates, analyses for strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly Composite
Units: pCi/m$^3$

| Location | T-7 | | | |
|---|---|---|---|---|
| Quarter | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
| Lab Code | TAP-1888 | TAP-3909 | TAP-5771 | TAP-7470 |
| Volume (m$^3$) | 3651 | 3638 | 3682 | 3960 |
| Sr-89 | < 0.0005 | < 0.0004 | < 0.0010 | < 0.0004 |
| Sr-90 | < 0.0003 | < 0.0004 | < 0.0005 | < 0.0004 |
| Be-7 | 0.065 ± 0.012 | 0.092 ± 0.017 | 0.080 ± 0.014 | 0.060 ± 0.014 |
| K-40 | < 0.024 | < 0.024 | < 0.024 | < 0.021 |
| Nb-95 | < 0.0005 | < 0.0008 | < 0.0007 | < 0.0004 |
| Zr-95 | < 0.0009 | < 0.0012 | < 0.0009 | < 0.0007 |
| Ru-103 | < 0.0008 | < 0.0009 | < 0.0006 | < 0.0009 |
| Ru-106 | < 0.0052 | < 0.0062 | < 0.0036 | < 0.0075 |
| Cs-134 | < 0.0009 | < 0.0008 | < 0.0006 | < 0.0009 |
| Cs-137 | < 0.0006 | < 0.0005 | < 0.0005 | < 0.0009 |
| Ce-141 | < 0.0019 | < 0.0013 | < 0.0016 | < 0.0014 |
| Ce-144 | < 0.0041 | < 0.0050 | < 0.0039 | < 0.0044 |

| Location | T-8 | | | |
|---|---|---|---|---|
| Quarter | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
| Lab Code | TAP-1889 | TAP-3910 | TAP-5772 | TAP-7471 |
| Volume (m$^3$) | 3425 | 3435 | 3639 | 3974 |
| Sr-89 | < 0.0005 | < 0.0006 | < 0.0008 | < 0.0005 |
| Sr-90 | < 0.0005 | < 0.0006 | < 0.0005 | < 0.0005 |
| Be-7 | 0.063 ± 0.013 | 0.094 ± 0.016 | 0.076 ± 0.014 | 0.046 ± 0.011 |
| K-40 | < 0.026 | < 0.025 | < 0.026 | < 0.021 |
| Nb-95 | < 0.0008 | < 0.0005 | < 0.0007 | < 0.0004 |
| Zr-95 | < 0.0012 | < 0.0017 | < 0.0012 | < 0.0009 |
| Ru-103 | < 0.0010 | < 0.0009 | < 0.0005 | < 0.0007 |
| Ru-106 | < 0.0088 | < 0.0056 | < 0.0038 | < 0.0054 |
| Cs-134 | < 0.0010 | < 0.0007 | < 0.0007 | < 0.0008 |
| Cs-137 | < 0.0006 | < 0.0003 | < 0.0006 | < 0.0006 |
| Ce-141 | < 0.0019 | < 0.0010 | < 0.0013 | < 0.0008 |
| Ce-144 | < 0.0051 | < 0.0059 | < 0.0056 | < 0.0038 |

Table 12. Airborne particulates, analyses for strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly Composite
Units: pCi/m$^3$

| Location | T-9 (C) | | | |
|---|---|---|---|---|
| Quarter | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
| Lab Code | TAP-1890,1 | TAP-3911 | TAP-5773 | TAP-7472 |
| Volume (m$^3$) | 3575 | 3631 | 3740 | 3937 |
| Sr-89 | < 0.0011 | < 0.0009 | < 0.0008 | < 0.0006 |
| Sr-90 | < 0.0008 | < 0.0007 | < 0.0004 | < 0.0005 |
| Be-7 | 0.065 ± 0.009 | 0.087 ± 0.014 | 0.039 ± 0.008 | 0.053 ± 0.015 |
| K-40 | < 0.025 | < 0.024 | < 0.025 | < 0.022 |
| Nb-95 | < 0.0006 | < 0.0004 | < 0.0006 | < 0.0007 |
| Zr-95 | < 0.0010 | < 0.0006 | < 0.0004 | < 0.0011 |
| Ru-103 | < 0.0007 | < 0.0006 | < 0.0003 | < 0.0008 |
| Ru-106 | < 0.0053 | < 0.0060 | < 0.0026 | < 0.0053 |
| Cs-134 | < 0.0009 | < 0.0007 | < 0.0008 | < 0.0009 |
| Cs-137 | < 0.0007 | < 0.0004 | < 0.0006 | < 0.0005 |
| Ce-141 | < 0.0018 | < 0.0014 | < 0.0009 | < 0.0006 |
| Ce-144 | < 0.0042 | < 0.0050 | < 0.0028 | < 0.0026 |

| Location | T-11 (C) | | | |
|---|---|---|---|---|
| Quarter | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
| Lab Code | TAP-1892 | TAP-3912 | TAP-5774 | TAP-7473 |
| Volume (m$^3$) | 4385 | 4107 | 3690 | 3979 |
| Sr-89 | < 0.0004 | < 0.0005 | < 0.0008 | < 0.0005 |
| Sr-90 | < 0.0003 | < 0.0005 | < 0.0004 | < 0.0005 |
| Be-7 | 0.045 ± 0.010 | 0.068 ± 0.016 | 0.092 ± 0.015 | 0.056 ± 0.015 |
| K-40 | < 0.020 | < 0.021 | < 0.024 | < 0.021 |
| Nb-95 | < 0.0008 | < 0.0006 | < 0.0008 | < 0.0007 |
| Zr-95 | < 0.0010 | < 0.0006 | < 0.0012 | < 0.0010 |
| Ru-103 | < 0.0010 | < 0.0006 | < 0.0004 | < 0.0006 |
| Ru-106 | < 0.0048 | < 0.0056 | < 0.0028 | < 0.0050 |
| Cs-134 | < 0.0010 | < 0.0005 | < 0.0008 | < 0.0008 |
| Cs-137 | < 0.0005 | < 0.0006 | < 0.0007 | < 0.0004 |
| Ce-141 | < 0.0012 | < 0.0016 | < 0.0015 | < 0.0007 |
| Ce-144 | < 0.0037 | < 0.0043 | < 0.0053 | < 0.0034 |

Table 12. Airborne particulates, analyses for strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly Composite
Units: pCi/m$^3$

| Location | T-12 (C) | | | |
|---|---|---|---|---|
| Quarter | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
| Lab Code | TAP-1893 | TAP-3913 | TAP-5775 | TAP-7474 |
| Volume (m$^3$) | 3591 | 3646 | 3731 | 4009 |
| Sr-89 | < 0.0005 | < 0.0005 | < 0.0006 | < 0.0005 |
| Sr-90 | < 0.0005 | < 0.0004 | < 0.0004 | < 0.0004 |
| Be-7 | 0.076 ± 0.017 | 0.083 ± 0.019 | 0.070 ± 0.014 | 0.070 ± 0.013 |
| K-40 | < 0.025 | < 0.024 | < 0.024 | < 0.022 |
| Nb-95 | < 0.0012 | < 0.0006 | < 0.0004 | < 0.0007 |
| Zr-95 | < 0.0010 | < 0.0011 | < 0.0013 | < 0.0007 |
| Ru-103 | < 0.0012 | < 0.0007 | < 0.0007 | < 0.0007 |
| Ru-106 | < 0.0079 | < 0.0061 | < 0.0061 | < 0.0053 |
| Cs-134 | < 0.0009 | < 0.0005 | < 0.0007 | < 0.0010 |
| Cs-137 | < 0.0005 | < 0.0008 | < 0.0009 | < 0.0005 |
| Ce-141 | < 0.0017 | < 0.0015 | < 0.0018 | < 0.0010 |
| Ce-144 | < 0.0034 | < 0.0064 | < 0.0044 | < 0.0031 |

| Location | T-27 (C) | | | |
|---|---|---|---|---|
| Quarter | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
| Lab Code | TAP-1894 | TAP-3914 | TAP-5776 | TAP-7475 |
| Volume (m$^3$) | 3897 | 3964 | 3689 | 3977 |
| Sr-89 | < 0.0005 | < 0.0006 | < 0.0007 | < 0.0004 |
| Sr-90 | < 0.0004 | < 0.0005 | < 0.0004 | < 0.0003 |
| Be-7 | 0.051 ± 0.011 | 0.061 ± 0.015 | 0.082 ± 0.014 | 0.048 ± 0.012 |
| K-40 | < 0.023 | < 0.022 | < 0.025 | < 0.021 |
| Nb-95 | < 0.0007 | < 0.0005 | < 0.0006 | < 0.0007 |
| Zr-95 | < 0.0012 | < 0.0010 | < 0.0018 | < 0.0006 |
| Ru-103 | < 0.0006 | < 0.0005 | < 0.0005 | < 0.0006 |
| Ru-106 | < 0.0055 | < 0.0073 | < 0.0041 | < 0.0049 |
| Cs-134 | < 0.0008 | < 0.0006 | < 0.0006 | < 0.0008 |
| Cs-137 | < 0.0005 | < 0.0008 | < 0.0008 | < 0.0005 |
| Ce-141 | < 0.0009 | < 0.0016 | < 0.0017 | < 0.0011 |
| Ce-144 | < 0.0045 | < 0.0026 | < 0.0050 | < 0.0037 |

Table 13. Area monitors (TLD), Quarterly.
Units: mR/91 days

| Indicator | 1st Qtr. | 2nd Qtr. | 3rd Qtr. | 4th Qtr. |
|---|---|---|---|---|
| T-1 | 10.2 ± 1.1 | 11.0 ± 1.2 | 10.9 ± 0.5 | 10.0 ± 0.5 |
| T-2 | 11.9 ± 1.0 | 12.8 ± 0.6 | 12.9 ± 0.3 | 11.9 ± 0.5 |
| T-3 | 12.1 ± 1.0 | 12.3 ± 0.6 | 13.1 ± 0.7 | 11.8 ± 0.7 |
| T-4 | 11.3 ± 0.9 | 11.3 ± 0.5 | 12.3 ± 0.4 | 10.9 ± 0.5 |
| T-5 | 13.1 ± 1.0 | 14.2 ± 1.2 | 14.2 ± 0.6 | 13.0 ± 0.7 |
| T-6 | 10.9 ± 1.0 | 11.3 ± 0.5 | 12.2 ± 0.6 | 11.0 ± 0.5 |
| T-7 | 15.8 ± 0.9 | 16.3 ± 0.5 | 18.1 ± 0.7 | 14.8 ± 0.6 |
| T-8 | 19.6 ± 1.4 | 19.0 ± 0.5 | 24.4 ± 1.2 | 18.2 ± 0.5 |
| T-10 | 13.6 ± 0.9 | 15.0 ± 0.5 | 15.5 ± 0.5 | 13.3 ± 0.5 |
| T-38 | 10.2 ± 0.9 | 12.1 ± 0.9 | 11.5 ± 0.4 | 12.0 ± 1.0 |
| T-39 | 10.9 ± 1.0 | 12.0 ± 0.4 | 12.3 ± 0.6 | 11.8 ± 0.5 |
| T-40 | 13.5 ± 0.9 | 14.7 ± 0.5 | 14.8 ± 0.3 | 14.6 ± 0.6 |
| T-41 | 12.7 ± 0.9 | 13.8 ± 0.9 | ND [a] | 12.9 ± 0.5 |
| T-42 | 11.3 ± 1.0 | 11.6 ± 0.8 | 12.6 ± 0.8 | 11.8 ± 0.9 |
| T-43 | 14.2 ± 1.0 | 15.5 ± 0.5 | 16.8 ± 0.5 | 14.9 ± 0.6 |
| T-44 | 16.2 ± 1.2 | 18.1 ± 0.6 | 19.1 ± 0.9 | 17.0 ± 0.8 |
| T-45 | 18.5 ± 0.9 | 21.4 ± 0.5 | 21.5 ± 0.4 | 19.9 ± 0.7 |
| T-46 | 11.9 ± 1.1 | 12.6 ± 0.6 | 13.3 ± 0.8 | 12.6 ± 0.9 |
| T-47 | 9.7 ± 1.1 | 8.3 ± 0.4 | 11.1 ± 0.7 | 8.8 ± 0.5 |
| T-48 | 10.9 ± 0.9 | 11.3 ± 0.5 | 12.6 ± 0.3 | 11.1 ± 0.5 |
| T-49 | 11.2 ± 1.0 | 11.6 ± 0.5 | 13.1 ± 0.4 | 11.4 ± 0.5 |
| T-50 | 11.4 ± 1.0 | 16.0 ± 1.0 | 13.2 ± 0.6 | 14.4 ± 1.0 |
| T-51 | 14.5 ± 1.2 | 17.7 ± 1.4 | 17.0 ± 0.9 | 15.7 ± 1.3 |
| T-52 | 15.2 ± 1.2 | 18.1 ± 0.7 | 18.2 ± 1.0 | 15.8 ± 0.8 |
| T-53 | 13.8 ± 0.9 | 18.1 ± 0.7 | 16.8 ± 0.3 | 16.1 ± 0.7 |
| T-54 | 15.3 ± 0.9 | 17.0 ± 0.8 | 19.8 ± 0.6 | 17.2 ± 0.9 |
| T-55 | 12.4 ± 1.1 | 14.2 ± 0.5 | 15.6 ± 0.8 | 14.5 ± 0.5 |
| T-60 | 10.6 ± 0.7 | 11.0 ± 1.2 | 10.1 ± 0.4 | 11.7 ± 1.2 |
| T-62 | 10.8 ± 0.3 | 11.0 ± 0.5 | 10.4 ± 0.7 | 11.2 ± 0.7 |
| T-65 | 16.4 ± 0.4 | 17.1 ± 0.5 | 15.2 ± 0.4 | 16.4 ± 0.7 |
| T-66 | 16.2 ± 0.4 | 16.9 ± 0.7 | 16.9 ± 0.9 | 18.5 ± 1.2 |
| T-67 | 17.8 ± 0.6 | 18.8 ± 0.6 | 19.5 ± 0.3 | 18.3 ± 0.7 |
| T-68 | 16.2 ± 0.3 | 17.5 ± 0.7 | 15.8 ± 0.2 | 18.0 ± 1.7 |
| T-69 | 15.7 ± 0.5 | 17.4 ± 0.4 | 15.2 ± 0.4 | 16.1 ± 0.7 |
| T-71 | 14.1 ± 0.4 | 15.8 ± 0.8 | 14.1 ± 0.2 | 15.7 ± 0.9 |
| T-73 | 13.4 ± 1.1 | 13.5 ± 0.8 | 12.8 ± 0.9 | 13.2 ± 0.9 |
| T-74 | 14.5 ± 0.4 | 15.2 ± 0.8 | 13.6 ± 0.3 | 15.0 ± 1.0 |
| T-75 | 14.2 ± 0.4 | 14.6 ± 0.5 | 13.7 ± 0.4 | 13.9 ± 0.6 |
| T-76 | 11.2 ± 0.3 | 11.1 ± 0.5 | 10.5 ± 0.3 | 10.6 ± 0.7 |
| T-91 | 17.0 ± 0.7 | 17.6 ± 0.9 | 17.6 ± 0.9 | 16.0 ± 0.8 |
| T-92 | 12.9 ± 0.5 | 12.9 ± 0.5 | 14.0 ± 0.4 | 13.0 ± 0.7 |

[a] TLD lost in the field.

Table 13. Area monitors (TLD), Quarterly.
Units: mR/91 days

| Indicator | 1st Qtr. | 2nd Qtr. | 3rd Qtr. | 4th Qtr. |
|---|---|---|---|---|
| T-93 | 13.9 ± 0.4 | 13.4 ± 0.6 | 15.2 ± 0.4 | 13.6 ± 0.7 |
| T-94 | 15.3 ± 0.7 | 14.9 ± 0.8 | 18.5 ± 0.7 | 15.4 ± 1.0 |
| T-112 | 13.4 ± 0.4 | 14.0 ± 0.8 | 13.6 ± 0.2 | 13.8 ± 0.9 |
| T-121 | 16.3 ± 0.9 | 16.8 ± 0.9 | 18.4 ± 1.1 | 16.9 ± 0.9 |
| T-122 | 13.9 ± 1.1 | 13.4 ± 0.6 | 15.0 ± 1.1 | 13.9 ± 0.8 |
| T-123 | 15.8 ± 0.7 | 16.0 ± 0.4 | 17.3 ± 0.9 | 16.4 ± 0.7 |
| T-125 | 15.7 ± 1.0 | 14.9 ± 0.4 | 16.9 ± 0.6 | 15.1 ± 0.8 |
| T-126 | 15.9 ± 0.5 | 15.8 ± 0.6 | 15.4 ± 0.4 | 14.7 ± 0.7 |
| T-127 | 18.3 ± 0.6 | 19.3 ± 0.7 | 18.1 ± 0.4 | 16.6 ± 1.0 |
| T-128 | 18.2 ± 1.4 | 18.2 ± 0.6 | 17.5 ± 1.3 | 16.9 ± 0.6 |
| T-142 | 11.8 ± 0.4 | 10.7 ± 0.5 | 11.6 ± 0.4 | 11.2 ± 0.6 |
| T-150 | 12.8 ± 0.9 | 12.1 ± 0.7 | 13.2 ± 0.8 | 12.5 ± 0.9 |
| T-151 | 15.9 ± 0.6 | 15.6 ± 0.5 | 17.9 ± 0.7 | 16.2 ± 0.7 |
| T-153 | 16.4 ± 0.5 | 15.1 ± 0.4 | 16.5 ± 0.4 | 13.5 ± 0.6 |
| T-154 | 13.8 ± 0.7 | 14.2 ± 0.6 | 14.3 ± 0.6 | 12.7 ± 0.6 |
| T-201 | 12.8 ± 0.7 | 12.6 ± 0.6 | 13.5 ± 0.6 | 12.6 ± 0.5 |
| T-202 | 12.8 ± 0.9 | 12.7 ± 0.6 | 13.4 ± 0.7 | 12.9 ± 0.7 |
| T-203 | 12.7 ± 0.7 | 13.6 ± 1.2 | 13.5 ± 0.6 | 13.6 ± 1.2 |
| T-204 | 11.5 ± 0.7 | 11.5 ± 0.5 | 12.3 ± 0.6 | 11.8 ± 0.7 |
| T-205 | 10.9 ± 0.7 | 10.7 ± 0.4 | 10.4 ± 0.6 | 9.8 ± 0.6 |
| T-206 | 9.2 ± 0.7 | 10.0 ± 0.4 | 9.7 ± 0.6 | 10.1 ± 0.5 |
| T-207 | 8.8 ± 0.8 | 8.2 ± 0.2 [a, b] | 9.3 ± 0.7 | 7.2 ± 0.5 |
| T-208 | 9.6 ± 1.1 | 10.0 ± 0.3 | 10.3 ± 1.1 | 9.9 ± 0.5 |
| T-211 | 10.1 ± 0.4 | 8.7 ± 0.4 | 10.9 ± 0.3 | 9.1 ± 0.4 |
| T-212 | 9.7 ± 0.4 | 10.2 ± 0.6 | 10.3 ± 0.3 | 10.5 ± 0.7 |
| T-213 | 15.9 ± 1.1 | 15.6 ± 0.5 | 16.8 ± 0.6 | 15.2 ± 0.4 |
| T-214 | 15.7 ± 1.2 | 16.1 ± 0.4 | 16.0 ± 0.5 | 14.9 ± 0.6 |
| T-215 | 15.8 ± 0.5 | 15.2 ± 0.4 | 17.4 ± 0.7 | 14.1 ± 0.7 |
| T-216 | 15.2 ± 0.8 | 15.6 ± 0.8 | 16.4 ± 0.6 | 15.1 ± 1.0 |
| T-217 | 16.6 ± 0.7 | 16.6 ± 1.1 | 19.0 ± 0.8 | 16.8 ± 1.3 |
| T-218 | 17.1 ± 0.7 | 16.5 ± 0.6 | 19.9 ± 0.9 | 16.9 ± 0.8 |
| T-219 | 13.8 ± 0.7 | 14.2 ± 1.0 | 15.7 ± 0.5 | 15.3 ± 0.5 |
| T-220 | 16.6 ± 0.9 | 17.1 ± 1.3 | 21.1 ± 1.0 | 16.4 ± 1.5 |
| T-222 | 10.4 ± 0.5 | 9.9 ± 0.4 | 12.0 ± 0.4 | 10.9 ± 0.5 |
| T-223 | 10.9 ± 0.4 | 13.1 ± 0.5 | 11.8 ± 0.3 | 12.5 ± 0.5 |
| T-224 | 14.9 ± 0.4 | 14.3 ± 0.4 | 15.4 ± 0.7 | 13.2 ± 0.5 |
| Mean ± s.d. | 13.7 ± 2.6 | 14.2 ± 2.9 | 14.8 ± 3.2 | 13.8 ± 2.6 |

[a] TLD lost in the field.

[b] TLD returned in third quarter, exposure for 210 days in the field.

Table 13. Area monitors (TLD), Quarterly.
Units: mR/91 days

| | 1st Qtr. | 2nd Qtr. | 3rd Qtr. | 4th Qtr. |
|---|---|---|---|---|
| Control | | | | |
| T-9 | 11.8 ± 0.9 | 12.0 ± 0.5 | 13.5 ± 0.5 | 11.9 ± 0.6 |
| T-11 | 11.8 ± 0.9 | 11.6 ± 0.5 | 13.0 ± 0.4 | 11.2 ± 0.5 |
| T-12 | 17.2 ± 1.1 | 17.5 ± 0.7 | 20.4 ± 0.9 | 16.9 ± 0.8 |
| T-24 | 15.8 ± 1.0 | 15.8 ± 0.4 | 19.3 ± 0.8 | 14.5 ± 0.5 |
| T-27 | 16.2 ± 1.1 | 17.6 ± 0.6 | 19.7 ± 0.9 | 16.8 ± 0.6 |
| Mean ± s.d. | 14.6 ± 2.6 | 14.9 ± 2.9 | 17.2 ± 3.6 | 14.3 ± 2.7 |
| T-95 | 15.4 ± 0.8 | 15.0 ± 0.4 | 18.6 ± 0.6 | 15.4 ± 0.6 |
| T-100 | 13.9 ± 1.1 | 15.8 ± 0.8 | 15.3 ± 1.0 | 14.1 ± 0.9 |
| T-111 | 14.0 ± 1.3 | 15.1 ± 0.5 | 17.1 ± 1.4 | 15.7 ± 0.7 |
| T-124 | 15.5 ± 0.7 | 14.0 ± 1.2 | 14.9 ± 0.7 | 13.2 ± 1.4 |
| T-155 | 12.4 ± 0.6 | 11.9 ± 0.6 | 12.8 ± 0.6 | 11.4 ± 0.8 |
| T-221 | 13.3 ± 0.6 | 15.0 ± 0.9 | 16.2 ± 0.7 | 14.7 ± 0.8 |
| Mean ± s.d. | 14.1 ± 1.2 | 14.5 ± 1.4 | 15.8 ± 2.0 | 14.1 ± 1.6 |
| QC | | | | |
| T-80 | 9.2 ± 0.5 | 9.4 ± 0.4 | 9.2 ± 0.4 | 9.2 ± 0.6 |
| T-81 | 13.9 ± 0.5 | 14.4 ± 0.4 | 12.0 ± 0.4 | 15.7 ± 0.7 |
| T-82 | 9.2 ± 0.4 | 9.5 ± 0.5 | 10.1 ± 0.8 | 9.3 ± 0.8 |
| T-83 | 10.4 ± 0.5 | 11.3 ± 0.8 | ND [a] | 10.5 ± 0.9 |
| T-84 | 10.1 ± 0.6 | 10.7 ± 0.4 | 10.9 ± 0.6 | 9.9 ± 0.7 |
| T-85 | 11.9 ± 0.6 | 12.9 ± 0.8 | 12.7 ± 0.6 | 12.9 ± 1.0 |
| T-86 | 18.0 ± 0.9 | 19.9 ± 0.8 | 19.7 ± 1.0 | 18.8 ± 0.8 |
| T-88 | 12.8 ± 0.6 | 16.5 ± 0.7 | 12.8 ± 0.5 | 15.1 ± 0.9 |
| T-89 | 14.6 ± 0.4 | 18.2 ± 0.7 | 15.6 ± 0.4 | 16.2 ± 0.8 |
| T-113 | 13.4 ± 0.4 | 14.9 ± 0.5 | 14.7 ± 0.3 | 13.9 ± 0.8 |
| T-114 | 12.8 ± 0.5 | 13.1 ± 0.6 | 13.4 ± 0.5 | 12.3 ± 0.7 |
| T-115 | 12.0 ± 0.5 | 14.2 ± 0.3 | 12.2 ± 0.6 | 14.1 ± 1.2 |
| T-116 | 13.1 ± 0.4 | 14.3 ± 0.4 | 15.7 ± 0.3 | 15.0 ± 0.8 |
| T-117 | 12.5 ± 1.0 | 11.7 ± 0.9 | 14.3 ± 1.0 | 13.9 ± 1.5 |
| T-118 | 14.2 ± 0.4 | 14.4 ± 0.7 | 16.7 ± 0.4 | 15.5 ± 1.0 |
| T-119 | 12.3 ± 0.6 | 11.1 ± 0.6 | 13.8 ± 0.6 | 12.0 ± 0.6 |
| T-120 | 12.1 ± 0.5 | 10.9 ± 0.5 | 11.5 ± 0.4 | 10.6 ± 0.7 |
| T-200 | 11.3 ± 0.7 | 12.2 ± 0.7 | 11.9 ± 0.6 | 12.5 ± 0.9 |
| Mean ± s.d. | 12.4 ± 2.1 | 13.3 ± 2.9 | 13.4 ± 2.6 | 13.2 ± 2.7 |
| Shield | | | | |
| T-87 | 6.7 ± 0.5 | 7.3 ± 0.5 | 6.9 ± 0.4 | 8.0 ± 1.1 |

[a] TLD lost in the field.

Table 14. Area monitors (TLD), Annual.
Units: mR/365 days

| Indicator | 2005 |
|---|---|
| T-1 | 34.0 ± 1.1 |
| T-2 | 43.4 ± 1.2 |
| T-3 | 42.5 ± 1.9 |
| T-4 | 36.8 ± 1.2 |
| T-5 | 46.9 ± 1.6 |
| T-6 | 39.0 ± 0.9 |
| T-7 | 56.3 ± 3.8 |
| T-8 | 76.4 ± 1.6 |
| T-10 | 54.8 ± 3.7 |
| T-38 | 42.2 ± 1.0 |
| T-39 | 41.5 ± 1.3 |
| T-40 | 56.1 ± 1.9 |
| T-41 | ND[a] |
| T-42 | 45.3 ± 3.2 |
| T-43 | 62.2 ± 2.9 |
| T-44 | 69.3 ± 3.1 |
| T-45 | 80.9 ± 4.0 |
| T-46 | 50.5 ± 3.8 |
| T-47 | 32.2 ± 1.0 |
| T-48 | 41.6 ± 1.7 |
| T-49 | 42.1 ± 1.2 |
| T-50 | 58.9 ± 2.2 |
| T-51 | 63.7 ± 2.3 |
| T-52 | 64.2 ± 2.4 |
| T-53 | 67.2 ± 2.2 |
| T-54 | 70.2 ± 2.2 |
| T-55 | 55.8 ± 4.6 |
| T-60 | 48.1 ± 3.2 |
| T-62 | 42.6 ± 3.0 |
| T-65 | 71.8 ± 5.1 |
| T-66 | 65.1 ± 2.5 |
| T-67 | 75.0 ± 1.9 |
| T-68 | 67.0 ± 1.3 |
| T-69 | 67.3 ± 1.8 |
| T-71 | 60.6 ± 1.2 |
| T-73 | 53.9 ± 1.2 |
| T-74 | 61.7 ± 2.1 |
| T-75 | 59.9 ± 3.2 |
| T-76 | 46.8 ± 1.9 |
| T-91 | 70.5 ± 1.4 |
| T-92 | 47.2 ± 1.7 |

[a] "ND" = No data; TLD missing in field.

Table 14. Area monitors (TLD), Annual.
Units: mR/365 days

| Indicator | 2005 |
|---|---|
| T-93 | 55.5 ± 1.2 |
| T-94 | 69.6 ± 2.0 |
| T-112 | 51.2 ± 1.8 |
| T-121 | 73.8 ± 2.6 |
| T-122 | 58.6 ± 2.1 |
| T-123 | 68.3 ± 2.4 |
| T-125 | 61.8 ± 1.8 |
| T-126 | 58.0 ± 1.3 |
| T-127 | 70.0 ± 2.6 |
| T-128 | 72.1 ± 6.1 |
| T-142 | 39.8 ± 1.3 |
| T-150 | 53.1 ± 4.1 |
| T-151 | 69.4 ± 1.7 |
| T-153 | 69.6 ± 2.5 |
| T-154 | 56.9 ± 1.7 |
| T-201 | 49.3 ± 2.7 |
| T-202 | 48.1 ± 2.8 |
| T-203 | 50.4 ± 2.8 |
| T-204 | 40.6 ± 2.8 |
| T-205 | 39.6 ± 2.8 |
| T-206 | 36.9 ± 2.7 |
| T-207 | 36.1 ± 2.8 |
| T-208 | 38.7 ± 2.8 |
| T-211 | 32.9 ± 1.9 |
| T-212 | 34.4 ± 1.2 |
| T-213 | 58.9 ± 2.3 |
| T-214 | 57.6 ± 1.9 |
| T-215 | 60.4 ± 1.8 |
| T-216 | 57.9 ± 2.5 |
| T-217 | 66.0 ± 1.9 |
| T-218 | 67.7 ± 1.8 |
| T-219 | 54.3 ± 2.1 |
| T-220 | 66.6 ± 2.1 |
| T-222 | 41.8 ± 1.4 |
| T-223 | 44.0 ± 1.4 |
| T-224 | 53.8 ± 2.1 |
| Mean ± s.d. | 54.9 ± 12.4 |

[a] "ND" = No data; TLD missing in field.

Table 14. Area monitors (TLD), Annual.

Units: mR/365 days

| Control | 2005 |
|---|---|
| T-9 | 44.1 ± 0.8 |
| T-11 | 38.2 ± 0.8 |
| T-12 | 66.8 ± 2.9 |
| T-24 | 62.3 ± 2.2 |
| T-27 | 74.1 ± 2.5 |
| Mean ± s.d. | 57.1 ± 15.3 |
| T-95 | 68.1 ± 2.2 |
| T-100 | 57.8 ± 1.9 |
| T-111 | 57.4 ± 1.9 |
| T-124 | 55.3 ± 3.8 |
| T-155 | 48.6 ± 2.4 |
| T-221 | 58.7 ± 1.9 |
| Mean ± s.d. | 57.7 ± 6.3 |
| QC | |
| T-80 | 42.3 ± 1.5 |
| T-81 | ND[a] |
| T-82 | 41.4 ± 1.2 |
| T-83 | ND[a] |
| T-84 | 47.5 ± 2.3 |
| T-85 | 51.3 ± 3.1 |
| T-86 | 77.4 ± 4.9 |
| T-88 | 61.5 ± 2.2 |
| T-89 | 39.9 ± 1.7 |
| T-113 | 56.0 ± 2.1 |
| T-114 | 50.3 ± 1.7 |
| T-115 | 58.2 ± 1.9 |
| T-116 | 61.2 ± 1.7 |
| T-117 | 55.1 ± 1.7 |
| T-118 | 66.0 ± 2.4 |
| T-119 | 50.9 ± 2.0 |
| T-120 | 45.2 ± 1.3 |
| T-200 | 43.4 ± 3.0 |
| Mean ± s.d. | 53.0 ± 10.2 |
| Shield | |
| T-87 | 25.2 ± 1.1 |

[a] "ND" = No data; TLD missing in field.

Table 15. Milk, analyses for strontium-89, strontium-90, iodine-131, gamma emitting isotopes, calcium and stable potassium.
Monthly collections, location T-24 Units: pCi/L

| Date Collected | 01-25-05 | 02-23-05 | 03-30-05 | 04-27-05 |
|---|---|---|---|---|
| Lab Code | TMI-405 | TMI-882 | TMI-1346, 7 | TMI-2134 |
| I-131 | < 0.3 | < 0.4 | < 0.3 | < 0.2 |
| Sr-89 | < 0.6 | < 0.6 | < 0.5 | < 0.6 |
| Sr-90 | 1.4 ± 0.4 | 0.8 ± 0.4 | < 0.6 | 0.7 ± 0.4 |
| K-40 | 1287 ± 110 | 1391 ± 129 | 1293 ± 80 | 1343 ± 120 |
| Cs-134 | < 4.4 | < 6.0 | < 4.1 | < 3.0 |
| Cs-137 | < 5.4 | < 3.6 | < 2.3 | < 3.6 |
| Ba-La-140 | < 3.2 | < 4.1 | < 1.8 | < 2.6 |
| Ca (g/L) | 1.04 | 0.96 | 0.99 | 1.03 |
| Sr-90/g Ca | 1.35 | 0.83 | < 0.61 | 0.68 |
| K (g/L) | 1.49 ± 0.13 | 1.61 ± 0.15 | 1.49 ± 0.09 | 1.55 ± 0.14 |
| Cs-137/g K | < 3.63 | < 2.24 | < 1.54 | < 2.32 |

| Date Collected | 06-01-05 | 06-29-05 | 07-27-05 | 08-31-05 |
|---|---|---|---|---|
| Lab Code | TMI-3009 | TMI-3490 | TMI-4297 | TMI-4945, 6 |
| I-131 | < 0.3 | < 0.3 | < 0.2 | < 0.4 |
| Sr-89 | < 0.6 | < 0.7 | < 0.6 | < 0.6 |
| Sr-90 | 0.9 ± 0.4 | 0.7 ± 0.3 | < 0.6 | 0.7 ± 0.3 |
| K-40 | 1245 ± 178 | 1191 ± 108 | 1330 ± 171 | 1348 ± 115 |
| Cs-134 | < 3.8 | < 5.6 | < 5.6 | < 5.8 |
| Cs-137 | < 3.5 | < 3.4 | < 6.3 | < 3.4 |
| Ba-La-140 | < 4.9 | < 3.3 | < 5.6 | < 5.1 |
| Ca (g/L) | 0.95 | 0.95 | 0.98 | 0.95 |
| Sr-90/g Ca | 0.95 | 0.74 | < 0.61 | 0.74 |
| K (g/L) | 1.44 ± 0.21 | 1.38 ± 0.12 | 1.54 ± 0.20 | 1.56 ± 0.13 |
| Cs-137/g K | < 2.43 | < 2.47 | < 4.10 | < 2.18 |

| Date Collected | 09-28-05 | 10-26-05 | 11-30-05 | 12-28-05 |
|---|---|---|---|---|
| Lab Code | TMI-5424 | TMI-6097 | TMI-6694 | TMI-7277 |
| I-131 | < 0.3 | < 0.2 | < 0.2 | < 0.4 |
| Sr-89 | < 0.6 | < 0.7 | < 0.5 | < 0.6 |
| Sr-90 | < 0.7 | 0.8 ± 0.3 | 0.8 ± 0.4 | 1.3 ± 0.4 |
| K-40 | 1295 ± 176 | 1202 ± 171 | 1215 ± 121 | 1296 ± 109 |
| Cs-134 | < 4.8 | < 4.6 | < 2.5 | < 1.7 |
| Cs-137 | < 4.5 | < 5.8 | < 3.2 | < 2.1 |
| Ba-La-140 | < 3.1 | < 2.9 | < 1.5 | < 1.9 |
| Ca (g/L) | 0.86 | 0.95 | 1.15 | 1.09 |
| Sr-90/g Ca | < 0.81 | 0.84 | 0.70 | 1.19 |
| K (g/L) | 1.50 ± 0.20 | 1.39 ± 0.20 | 1.40 ± 0.14 | 1.50 ± 0.13 |
| Cs-137/g K | < 3.01 | < 4.17 | < 2.28 | < 1.40 |

Table 16. Ground water samples, analyses for gross beta, tritium, strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly
Units: pCi/L

| Period | 1st Qtr. | 2nd Qtr. | 3rd Qtr. | 4th Qtr. | |
|---|---|---|---|---|---|
| Location | | | T-27 (C) | | |
| Lab Code | TWW-166 | TWW-1655 | TWW-3707 | TWW-5999 | Req. LLD |
| Date Collected | 01-07-05 | 04-07-05 | 06-27-05 | 10-17-05 | |
| Gross beta | < 3.5 | < 1.6 | < 1.0 | 4.5 ± 1.8 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Sr-89 | < 0.9 | < 0.6 | < 0.7 | < 0.6 | |
| Sr-90 | 1.2 ± 0.4 | 0.8 ± 0.3 | < 0.7 | < 0.5 | |
| Mn-54 | < 3.4 | < 3.7 | < 6.0 | < 5.4 | 15 |
| Fe-59 | < 7.6 | < 12.0 | < 7.8 | < 6.6 | 30 |
| Co-58 | < 2.5 | < 1.5 | < 4.5 | < 3.8 | 15 |
| Co-60 | < 2.7 | < 3.5 | < 3.1 | < 3.1 | 15 |
| Zn-65 | < 3.4 | < 3.5 | < 4.2 | < 5.9 | 30 |
| Zr-Nb-95 | < 4.7 | < 5.4 | < 8.3 | < 3.1 | 15 |
| Cs-134 | < 4.1 | < 7.3 | < 6.1 | < 4.9 | 15 |
| Cs-137 | < 3.7 | < 4.2 | < 2.9 | < 3.9 | 18 |
| Ba-La-140 | < 5.4 | < 5.3 | < 8.6 | < 3.5 | 15 |
| Location | | | T-225 (I) | | |
| Lab Code | NS[a] | TWW-1657[b] | TWW-3709 | TWW-6001 | Req. LLD |
| Date Collected | | 04-07-05 | 06-27-05 | 10-17-05 | |
| Gross beta | - | 5.5 ± 2.0 | < 0.8 | 5.6 ± 1.2 | 4.0 |
| H-3 | - | < 330 | < 330 | < 330 | 330 |
| Sr-89 | - | < 0.7 | < 0.6 | < 0.7 | |
| Sr-90 | - | < 0.7 | < 0.5 | 0.5 ± 0.3 | |
| Mn-54 | - | < 1.9 | < 4.5 | < 3.7 | 15 |
| Fe-59 | - | < 6.6 | < 10.2 | < 5.9 | 30 |
| Co-58 | - | < 3.8 | < 3.5 | < 2.1 | 15 |
| Co-60 | - | < 2.5 | < 3.5 | < 2.9 | 15 |
| Zn-65 | - | < 2.5 | < 3.9 | < 6.9 | 30 |
| Zr-Nb-95 | - | < 5.2 | < 2.8 | < 5.4 | 15 |
| Cs-134 | - | < 3.1 | < 4.3 | < 3.1 | 15 |
| Cs-137 | - | < 3.8 | < 3.8 | < 3.6 | 18 |
| Ba-La-140 | - | < 2.6 | < 8.8 | < 8.6 | 15 |

[a] "NS" = No sample; see Table 2.0, Listing of Missed Samples.
[b] Sample taken from alternate location, T-226.

Table 16. Ground water samples, analyses for gross beta, tritium, strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly
Units: pCi/L

| Period | 1st Qtr. | 2nd Qtr. | | | |
|---|---|---|---|---|---|
| Location | | | T-141 (QC) | | |
| Lab Code | TWW-167 | TWW-1656 | TWW-3708 | TWW-6000 | Req. LLD |
| Date Collected | 01-07-05 | 04-07-05 | 06-27-05 | 10-17-05 | |
| Gross beta | < 1.3 | < 2.8 | 1.0 ± 0.6 | 2.3 ± 1.5 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Sr-89 | < 0.6 | < 0.7 | < 0.6 | < 0.7 | |
| Sr-90 | < 0.6 | < 0.7 | < 0.6 | < 0.5 | |
| Mn-54 | < 3.0 | < 4.1 | < 4.5 | < 5.6 | 15 |
| Fe-59 | < 6.0 | < 8.4 | < 10.2 | < 13.3 | 30 |
| Co-58 | < 3.4 | < 2.3 | < 3.5 | < 2.9 | 15 |
| Co-60 | < 3.8 | < 3.4 | < 3.5 | < 2.5 | 15 |
| Zn-65 | < 4.8 | < 5.8 | < 3.9 | < 3.7 | 30 |
| Zr-Nb-95 | < 4.0 | < 6.6 | < 2.8 | < 4.4 | 15 |
| Cs-134 | < 3.9 | < 4.9 | < 4.3 | < 4.0 | 15 |
| Cs-137 | < 3.5 | < 4.2 | < 3.8 | < 5.5 | 18 |
| Ba-La-140 | < 6.2 | < 4.6 | < 8.8 | < 7.1 | 15 |

Table 17. Domestic meat, analyses for gamma-emitting isotopes.
Collection: Annually
Units: pCi/g wet

| Location | T-34 (C) | T-197 (I) |
|---|---|---|
| Lab Code | | |
| Date Collected | | |
| Sample Type | | |
| Be-7 | | |
| K-40 | | |
| Nb-95 | | |
| Zr-95 | | |
| Ru-103 | | |
| Ru-106 | | |
| Cs-134 | | |
| Cs-137 | | |
| Ce-141 | | |
| Ce-144 | | |

Table 18. Wild meat, analyses for gamma-emitting isotopes.
Collection: Annually
Units: pCi/g wet

| Location | T-31(I) | T-210 (C) |
|---|---|---|
| Lab Code | TWL-7278 | TWL-7279 |
| Date Collected | 11/1/2005 | 12/27/2005 |
| Sample Type | Muskrat | Muskrat |
| Be-7 | < 0.39 | < 0.10 |
| K-40 | 2.84 ± 0.35 | 2.34 ± 0.17 |
| Nb-95 | < 0.071 | < 0.013 |
| Zr-95 | < 0.070 | < 0.007 |
| Ru-103 | < 0.033 | < 0.007 |
| Ru-106 | < 0.11 | < 0.032 |
| Cs-134 | < 0.009 | < 0.006 |
| Cs-137 | < 0.010 | < 0.006 |
| Ce-141 | < 0.16 | < 0.026 |
| Ce-144 | < 0.12 | < 0.036 |

Table 19. Green leafy vegetables, analyses for strontium-89, strontium-90, iodine-131 and other gamma-emitting isotopes.
Collection: Monthly, in season Units: pCi/g wet

| Location | T-19 (I) | | | |
|---|---|---|---|---|
| Lab Code | TVE-3734 | TVE-4298 | TVE-4942 | TVE-5426 |
| Date Collected | 7/6/2005 | 7/26/2005 | 8/31/2005 | 9/27/2005 |
| Sample Type | Cabbage | Cabbage | Cabbage | Cabbage |
| Sr-89 | < 0.002 | < 0.002 | < 0.005 | < 0.002 |
| Sr-90 | 0.002 ± 0.001 | < 0.001 | 0.003 ± 0.001 | < 0.001 |
| I-131 | < 0.022 | < 0.021 | < 0.018 | < 0.019 |
| K-40 | 2.64 ± 0.45 | 1.95 ± 0.36 | 1.58 ± 0.23 | 1.76 ± 0.31 |
| Nb-95 | < 0.013 | < 0.012 | < 0.005 | < 0.009 |
| Zr-95 | < 0.024 | < 0.026 | < 0.010 | < 0.015 |
| Cs-134 | < 0.018 | < 0.016 | < 0.006 | < 0.010 |
| Cs-137 | < 0.015 | < 0.014 | < 0.007 | < 0.006 |
| Ce-141 | < 0.027 | < 0.021 | < 0.018 | < 0.022 |
| Ce-144 | < 0.12 | < 0.11 | < 0.078 | < 0.067 |

| Location | T-37 (C) | | | |
|---|---|---|---|---|
| Lab Code | TVE-3735 | TVE-4299 | TVE-4943 | TVE-5428 |
| Date Collected | 7/5/2005 | 7/26/2005 | 8/30/2005 | 9/27/2005 |
| Sample Type | Cabbage | Cabbage | Cabbage | Cabbage |
| Sr-89 | < 0.003 | < 0.002 | < 0.005 | < 0.002 |
| Sr-90 | 0.002 ± 0.001 | 0.001 ± 0.001 | < 0.001 | < 0.001 |
| I-131 | < 0.019 | < 0.010 | < 0.010 | < 0.019 |
| K-40 | 2.66 ± 0.37 | 1.64 ± 0.23 | 1.87 ± 0.21 | 1.44 ± 0.25 |
| Nb-95 | < 0.010 | < 0.008 | < 0.010 | < 0.013 |
| Zr-95 | < 0.026 | < 0.016 | < 0.019 | < 0.031 |
| Cs-134 | < 0.009 | < 0.007 | < 0.007 | < 0.006 |
| Cs-137 | < 0.008 | < 0.010 | < 0.007 | < 0.012 |
| Ce-141 | < 0.028 | < 0.014 | < 0.018 | < 0.020 |
| Ce-144 | < 0.095 | < 0.040 | < 0.097 | < 0.099 |

| Location | T-227 | | |
|---|---|---|---|
| Lab Code | TVE-3736 | TVE-4300 | TVE-4944 |
| Date Collected | 7/5/2005 | 7/27/2005 | 8/31/2005 |
| Sample Type | Lettuce, Cabbage | Lettuce, Cabbage | Cabbage |
| Sr-89 | < 0.005 | < 0.003 | < 0.005 |
| Sr-90 | < 0.003 | < 0.003 | < 0.001 |
| I-131 | < 0.023 | < 0.014 | < 0.012 |
| K-40 | 5.07 ± 0.55 | 2.56 ± 0.28 | 2.44 ± 0.24 |
| Nb-95 | < 0.012 | < 0.014 | < 0.008 |
| Zr-95 | < 0.031 | < 0.011 | < 0.018 |
| Cs-134 | < 0.009 | < 0.013 | < 0.009 |
| Cs-137 | < 0.012 | < 0.005 | < 0.008 |
| Ce-141 | < 0.013 | < 0.019 | < 0.015 |
| Ce-144 | < 0.077 | < 0.094 | < 0.066 |

Table 20. Fruit, analyses for strontium-89, strontium-90, iodine-131 and other gamma-emitting isotopes.
Collection: Monthly, in season
Units: pCi/g wet

| Location | T-8 (I) | T-25 (I) |
|---|---|---|
| Lab Code | TVE-5425 | TVE-5427 |
| Date Collected | 9/22/2005 | 9/22/2005 |
| Sample Type | Apples | Apples |
| Sr-89 | < 0.002 | < 0.003 |
| Sr-90 | < 0.001 | < 0.002 |
| I-131 | < 0.025 | < 0.019 |
| K-40 | 0.91 ± 0.18 | 1.01 ± 0.15 |
| Nb-95 | < 0.009 | < 0.010 |
| Zr-95 | < 0.013 | < 0.010 |
| Cs-134 | < 0.008 | < 0.010 |
| Cs-137 | < 0.008 | < 0.008 |
| Ce-141 | < 0.010 | < 0.014 |
| Ce-144 | < 0.041 | < 0.056 |

| Location | T-209 (C) |
|---|---|
| Lab Code | TVE-5429 |
| Date Collected | 9/22/2005 |
| Sample Type | Apples |
| Sr-89 | < 0.001 |
| Sr-90 | 0.001 ± 0.001 |
| I-131 | < 0.014 |
| K-40 | 0.88 ± 0.13 |
| Nb-95 | < 0.007 |
| Zr-95 | < 0.008 |
| Cs-134 | < 0.005 |
| Cs-137 | < 0.005 |
| Ce-141 | < 0.013 |
| Ce-144 | < 0.045 |

Table 21. Animal - wildlife feed, analyses for gamma-emitting isotopes.
Collection: Monthly, in season
Units: pCi/g wet

| | Indicators | |
|---|---|---|
| Location | T-31 | T-198 |
| Lab Code | TCF-5430 | TCF-5431 |
| Date Collected | 9/20/2005 | 9/19/2005 |
| Sample Type | Cattails | Cattails |
| Be-7 | 1.38 ± 0.42 | < 0.31 |
| K-40 | 2.77 ± 0.44 | 0.89 ± 0.29 |
| Nb-95 | < 0.027 | < 0.023 |
| Zr-95 | < 0.065 | < 0.057 |
| Ru-103 | < 0.027 | < 0.034 |
| Ru-106 | < 0.17 | < 0.21 |
| Cs-134 | < 0.023 | < 0.026 |
| Cs-137 | < 0.022 | < 0.014 |
| Ce-141 | < 0.057 | < 0.073 |
| Ce-144 | < 0.15 | < 0.14 |

| | Control |
|---|---|
| Location | T-32 |
| Lab Code | TCF-5432, 3 |
| Date Collected | 9/19/2005 |
| Sample Type | Cattails |
| Be-7 | 0.78 ± 0.25 |
| K-40 | 1.41 ± 0.27 |
| Nb-95 | < 0.028 |
| Zr-95 | < 0.037 |
| Ru-103 | < 0.026 |
| Ru-106 | < 0.18 |
| Cs-134 | < 0.017 |
| Cs-137 | < 0.016 |
| Ce-141 | < 0.066 |
| Ce-144 | < 0.12 |

Table 22. Soil samples, analyses for gamma-emitting isotopes.
Collection: Annual
Units: pCi/g dry

| Location | T-1 | T-2 | T-3 | T-4 |
|---|---|---|---|---|
| Lab Code | TSO-3047 | TSO-3048 | TSO-3049 | TSO-3050 |
| Date Collected | 5/19/2005 | 5/19/2005 | 5/19/2005 | 5/19/2005 |
| Be-7 | 0.59 ± 0.33 | < 0.37 | 0.80 ± 0.25 | 0.74 ± 0.21 |
| K-40 | 9.87 ± 0.61 | 6.33 ± 0.71 | 9.29 ± 0.60 | 5.41 ± 0.42 |
| Mn-54 | < 0.017 | < 0.028 | < 0.021 | < 0.013 |
| Nb-95 | < 0.029 | < 0.039 | < 0.032 | < 0.049 |
| Zr-95 | < 0.029 | < 0.054 | < 0.042 | < 0.050 |
| Ru-103 | < 0.027 | < 0.040 | < 0.040 | < 0.030 |
| Ru-106 | < 0.18 | < 0.20 | < 0.090 | < 0.13 |
| Cs-134 | < 0.013 | < 0.038 | < 0.029 | < 0.025 |
| Cs-137 | 0.042 ± 0.015 | 0.10 ± 0.043 | 0.049 ± 0.029 | < 0.019 |
| Ce-141 | < 0.051 | < 0.070 | < 0.078 | < 0.078 |
| Ce-144 | < 0.11 | < 0.080 | < 0.13 | < 0.12 |

| Location | T-7 | T-8 |
|---|---|---|
| Lab Code | TSO-3051 | TSO-3052 |
| Date Collected | 5/19/2005 | 5/19/2005 |
| Be-7 | 0.42 ± 0.23 | < 0.40 |
| K-40 | 10.22 ± 0.56 | 21.15 ± 1.04 |
| Mn-54 | < 0.013 | < 0.031 |
| Nb-95 | < 0.021 | < 0.044 |
| Zr-95 | < 0.028 | < 0.031 |
| Ru-103 | < 0.022 | < 0.047 |
| Ru-106 | < 0.14 | < 0.25 |
| Cs-134 | < 0.013 | < 0.023 |
| Cs-137 | < 0.017 | 0.32 ± 0.045 |
| Ce-141 | < 0.051 | < 0.12 |
| Ce-144 | < 0.10 | < 0.19 |

| Location | T-9 | T-11 | T-12 | T-27 |
|---|---|---|---|---|
| Lab Code | TSO-3053 | TSO-3054 | TSO-3055 | TSO-3056, 7 |
| Date Collected | 5/19/2005 | 5/19/2005 | 5/19/2005 | 5/19/2005 |
| Be-7 | < 0.64 | < 0.18 | 0.74 ± 0.40 | 0.30 ± 0.13 |
| K-40 | 23.97 ± 1.44 | 12.00 ± 0.60 | 10.10 ± 0.58 | 20.90 ± 0.58 |
| Mn-54 | < 0.051 | < 0.014 | < 0.018 | < 0.012 |
| Nb-95 | < 0.13 | < 0.037 | < 0.073 | < 0.034 |
| Zr-95 | < 0.13 | < 0.041 | < 0.070 | < 0.034 |
| Ru-103 | < 0.068 | < 0.026 | < 0.027 | < 0.019 |
| Ru-106 | < 0.40 | < 0.10 | < 0.24 | < 0.11 |
| Cs-134 | < 0.074 | < 0.014 | < 0.032 | < 0.017 |
| Cs-137 | 0.13 ± 0.053 | 0.11 ± 0.025 | 0.23 ± 0.055 | 0.18 ± 0.021 |
| Ce-141 | < 0.14 | < 0.046 | < 0.12 | < 0.049 |
| Ce-144 | < 0.25 | < 0.057 | < 0.23 | < 0.077 |

Table 23. Treated surface water samples, analyses for gross beta.
Collection: Monthly composites of weekly grab samples
Units: pCi/L

| Location | | T-11 (C) | | Mean± s.d. |
|---|---|---|---|---|
| Lab Code | TSWT-415 | TSWT-883 | TSWT-1513 | 1st Qtr. |
| Date Collected | 01-25-05 | 02-22-05 | 03-29-05 | |
| Gross beta | 3.2 ± 0.6 | 2.9 ± 0.7 | 2.1 ± 0.4 | 2.7 ± 0.6 |
| Lab Code | TSWT-2153 | TSWT-3084 | TSWT-3630 | 2nd Qtr. |
| Date Collected | 04-26-05 | 05-31-05 | 06-28-05 | |
| Gross beta | 2.2 ± 0.6 | 2.0 ± 0.4 | 2.3 ± 0.6 | 2.2 ± 0.2 |
| Lab Code | TSWT-4301 | TSWT-4947 | TSWT-5438 | 3rd Qtr. |
| Date Collected | 07-26-05 | 08-30-05 | 09-27-05 | |
| Gross beta | 1.3 ± 0.3 | 1.4 ± 0.4 | 1.2 ± 0.3 | 1.3 ± 0.1 |
| Lab Code | TSWT-6150 | TSWT-6718 | TSWT-7280 | 4th Qtr. |
| Date Collected | 10-25-05 | 11-29-05 | 12-27-05 | |
| Gross beta | 1.8 ± 0.4 | 1.0 ± 0.3 | 1.5 ± 0.4 | 1.4 ± 0.4 |

| Location | | T-12 (C) | | Mean± s.d. |
|---|---|---|---|---|
| Lab Code | TSWT-416 | TSWT-884 | TSWT-1514 | 1st Qtr. |
| Date Collected | 01-25-05 | 02-22-05 | 03-29-05 | |
| Gross beta | 2.4 ± 0.5 | 1.9 ± 0.6 | 1.5 ± 0.4 | 1.9 ± 0.5 |
| Lab Code | TSWT-2154 | TSWT-3085 | TSWT-3631, 2 | 2nd Qtr. |
| Date Collected | 04-26-05 | 05-31-05 | 06-28-05 | |
| Gross beta | 1.6 ± 0.5 | 1.4 ± 0.3 | 1.9 ± 0.4 | 1.6 ± 0.3 |
| Lab Code | TSWT-4302 | TSWT-4948 | TSWT-5438 | 3rd Qtr. |
| Date Collected | 07-26-05 | 08-30-05 | 09-27-05 | |
| Gross beta | 1.3 ± 0.3 | 0.9 ± 0.3 | 2.2 ± 0.4 | 1.5 ± 0.7 |
| Lab Code | TSWT-6151 | TSWT-6719 | TSWT-7281 | 4th Qtr. |
| Date Collected | 10-25-05 | 11-29-05 | 12-27-05 | |
| Gross beta | 1.2 ± 0.3 | 0.7 ± 0.3 | 1.2 ± 0.3 | 1.0 ± 0.3 |

Table 23. Treated surface water samples, analyses for gross beta.
Collection: Monthly composites of weekly grab samples
Units: pCi/L

| Location | | T-22 | | Mean± s.d. |
|---|---|---|---|---|
| Lab Code | TSWT-417 | TSWT-885 | TSWT-1515 | 1st Qtr. |
| Date Collected | 01-25-05 | 02-22-05 | 03-29-05 | |
| Gross beta | 2.8 ± 0.6 | 3.1 ± 0.6 | 2.9 ± 0.5 | 2.9 ± 0.2 |
| Lab Code | TSWT-2155 | TSWT-3086 | TSWT-3633 | 2nd Qtr. |
| Date Collected | 04-26-05 | 05-31-05 | 06-28-05 | |
| Gross beta | 1.7 ± 0.4 | 2.0 ± 0.4 | 3.0 ± 0.6 | 2.2 ± 0.7 |
| Lab Code | TSWT-4303 | TSWT-4949 | TSWT-5440 | 3rd Qtr. |
| Date Collected | 07-26-05 | 08-30-05 | 09-27-05 | |
| Gross beta | 1.4 ± 0.4 | 1.5 ± 0.5 | 1.8 ± 0.4 | 1.6 ± 0.2 |
| Lab Code | TSWT-6152 | TSWT-6720 | TSWT-7282, 3 | 4th Qtr. |
| Date Collected | 10-25-05 | 11-29-05 | 12-27-05 | |
| Gross beta | 2.4 ± 0.4 | 1.9 ± 0.6 | 1.7 ± 0.3 | 2.0 ± 0.4 |

| Location | | T-50 | | Mean± s.d. |
|---|---|---|---|---|
| Lab Code | TSWT-418 | TSWT-886 | TSWT-1516 | 1st Qtr. |
| Date Collected | 01-25-05 | 02-22-05 | 03-29-05 | |
| Gross beta | 2.8 ± 0.6 | 3.2 ± 0.7 | 2.0 ± 0.4 | 2.7 ± 0.6 |
| Lab Code | TSWT-2156 | TSWT-3087 | TSWT-3634 | 2nd Qtr. |
| Date Collected | 04-26-05 | 05-31-05 | 06-28-05 | |
| Gross beta | 2.5 ± 0.7 | 1.5 ± 0.4 | 2.2 ± 0.6 | 2.1 ± 0.5 |
| Lab Code | TSWT-4304 | TSWT-4950 | TSWT-5441 | 3rd Qtr. |
| Date Collected | 07-26-05 | 08-30-05 | 09-27-05 | |
| Gross beta | 1.3 ± 0.4 | 1.5 ± 0.6 | 1.9 ± 0.4 | 1.6 ± 0.3 |
| Lab Code | TSWT-6153 | TSWT-6721, 2 | TSWT-7284 | 4th Qtr. |
| Date Collected | 10-25-05 | 11-29-05 | 12-27-05 | |
| Gross beta | 1.3 ± 0.4 | 0.9 ± 0.2 | 1.4 ± 0.3 | 1.2 ± 0.3 |

Table 23. Treated surface water samples, analyses for gross beta.
Collection: Monthly composites of weekly grab samples
Units: pCi/L

| Location | | T-143 (QC) | | Mean± s.d. |
|---|---|---|---|---|
| Lab Code | TSWT-419 | TSWT-887 | TSWT-1517 | 1st Qtr. |
| Date Collected | 01-25-05 | 02-22-05 | 03-29-05 | |
| Gross beta | 2.6 ± 0.5 | 2.8 ± 0.6 | 3.1 ± 0.8 | 2.8 ± 0.3 |
| Lab Code | TSWT-2157 | TSWT-3088 | TSWT-3635 | 2nd Qtr. |
| Date Collected | 04-26-05 | 05-31-05 | 06-28-05 | |
| Gross beta | 1.7 ± 0.5 | 1.5 ± 0.4 | 1.8 ± 0.6 | 1.7 ± 0.2 |
| Lab Code | TSWT-4305 | TSWT-4951 | TSWT-5442 | 3rd Qtr. |
| Date Collected | 07-26-05 | 08-30-05 | 09-27-05 | |
| Gross beta | 1.8 ± 0.4 | 1.1 ± 0.3 | 1.5 ± 0.4 | 1.5 ± 0.4 |
| Lab Code | TSWT-6154 | TSWT-6723 | TSWT-7285 | 4th Qtr. |
| Date Collected | 10-25-05 | 11-29-05 | 12-27-05 | |
| Gross beta | 0.8 ± 0.3 | 1.1 ± 0.3 | 1.7 ± 0.4 | 1.2 ± 0.5 |

Table 24. Treated surface water samples, analyses for tritium, strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly composites of weekly grab samples
Units: pCi/L

| Location | T-11 (C) | | | | |
|---|---|---|---|---|---|
| Period<br>Lab Code | 1st Qtr.<br>TSWT-1608 | 2nd Qtr.<br>TSWT-3721 | 3rd Qtr.<br>TSWT-5496 | 4th Qtr.<br>TSWT-7444 | Req. LLD |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Sr-89 | < 0.7 | < 0.7 | < 0.8 | < 0.7 | |
| Sr-90 | < 0.6 | < 0.7 | < 0.7 | < 0.5 | |
| Mn-54 | < 2.2 | < 3.5 | < 1.8 | < 4.6 | 15 |
| Fe-59 | < 7.4 | < 8.3 | < 2.5 | < 9.0 | 30 |
| Co-58 | < 2.7 | < 3.1 | < 1.2 | < 6.0 | 15 |
| Co-60 | < 1.8 | < 2.4 | < 0.9 | < 3.0 | 15 |
| Zn-65 | < 5.3 | < 4.3 | < 3.7 | < 6.2 | 30 |
| Zr-Nb-95 | < 3.4 | < 3.5 | < 3.2 | < 6.6 | 15 |
| Cs-134 | < 3.9 | < 2.5 | < 1.7 | < 5.2 | 15 |
| Cs-137 | < 3.2 | < 4.8 | < 1.7 | < 4.3 | 18 |
| Ba-La-140 | < 2.9 | < 9.8 | < 11.1 | < 7.6 | 15 |

| Location | T-12 (C) | | | | |
|---|---|---|---|---|---|
| Period<br>Lab Code | 1st Qtr.<br>TSWT-1609 | 2nd Qtr.<br>TSWT-3722 | 3rd Qtr.<br>TSWT-5497 | 4th Qtr.<br>TSWT-7445, 6 | Req. LLD |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Sr-89 | < 0.7 | < 0.6 | < 0.9 | < 0.6 | |
| Sr-90 | < 0.6 | < 0.7 | < 0.6 | < 0.5 | |
| Mn-54 | < 1.7 | < 2.6 | < 0.9 | < 3.5 | 15 |
| Fe-59 | < 6.9 | < 4.9 | < 5.4 | < 7.6 | 30 |
| Co-58 | < 2.4 | < 2.8 | < 2.5 | < 4.1 | 15 |
| Co-60 | < 2.5 | < 2.8 | < 1.4 | < 2.8 | 15 |
| Zn-65 | < 2.2 | < 3.3 | < 4.0 | < 4.4 | 30 |
| Zr-Nb-95 | < 4.5 | < 2.7 | < 3.6 | < 5.9 | 15 |
| Cs-134 | < 3.4 | < 3.3 | < 2.0 | < 4.1 | 15 |
| Cs-137 | < 1.6 | < 3.2 | < 1.4 | < 4.6 | 18 |
| Ba-La-140 | < 2.1 | < 3.8 | < 12.7 | < 9.0 | 15 |

Table 24. Treated surface water samples, analyses for tritium, strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly composites of weekly grab samples.
Units: pCi/L

| Location | T-22 | | | | |
|---|---|---|---|---|---|
| Period<br>Lab Code | 1st Qtr.<br>TSWT-1610 | 2nd Qtr.<br>TSWT-3723 | 3rd Qtr.<br>TSWT-5498 | 4th Qtr.<br>TSWT-7447 | Req. LLD |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Sr-89 | < 0.7 | < 0.7 | < 1.1 | < 0.6 | |
| Sr-90 | < 0.6 | < 0.5 | < 0.8 | < 0.5 | |
| Mn-54 | < 2.5 | < 5.3 | < 2.4 | < 5.4 | 15 |
| Fe-59 | < 8.4 | < 7.5 | < 5.3 | < 9.7 | 30 |
| Co-58 | < 3.1 | < 4.7 | < 2.3 | < 4.8 | 15 |
| Co-60 | < 5.0 | < 2.7 | < 2.0 | < 2.6 | 15 |
| Zn-65 | < 7.3 | < 8.7 | < 4.2 | < 6.5 | 30 |
| Zr-Nb-95 | < 2.6 | < 8.0 | < 3.8 | < 8.2 | 15 |
| Cs-134 | < 1.8 | < 5.6 | < 2.1 | < 4.2 | 15 |
| Cs-137 | < 2.5 | < 4.8 | < 2.3 | < 5.6 | 18 |
| Ba-La-140 | < 5.1 | < 10.2 | < 13.9 | < 7.6 | 15 |

| Location | T-50 | | | | |
|---|---|---|---|---|---|
| Period<br>Lab Code | 1st Qtr.<br>TSWT-1611 | 2nd Qtr.<br>TSWT-3724 | 3rd Qtr.<br>TSWT-5499 | 4th Qtr.<br>TSWT-7448 | Req. LLD |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Sr-89 | < 0.9 | < 0.7 | < 1.1 | < 0.8 | |
| Sr-90 | < 0.6 | < 0.7 | < 0.7 | < 0.6 | |
| Mn-54 | < 2.3 | < 4.2 | < 1.3 | < 3.2 | 15 |
| Fe-59 | < 3.2 | < 7.4 | < 4.9 | < 10.1 | 30 |
| Co-58 | < 2.2 | < 3.2 | < 1.5 | < 3.2 | 15 |
| Co-60 | < 1.2 | < 1.8 | < 1.4 | < 3.4 | 15 |
| Zn-65 | < 2.6 | < 4.4 | < 2.7 | < 4.6 | 30 |
| Zr-Nb-95 | < 4.0 | < 3.7 | < 3.5 | < 5.4 | 15 |
| Cs-134 | < 3.8 | < 3.2 | < 1.5 | < 5.1 | 15 |
| Cs-137 | < 2.0 | < 2.9 | < 1.9 | < 4.0 | 18 |
| Ba-La-140 | < 6.1 | < 8.9 | < 10.8 | < 7.5 | 15 |

Table 25. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.
Location: T-3
Collection: Monthly composites of weekly grab samples
Units: pCi/L

| Lab Code | TSWU-420 | TSWU-888 | TSWU-1520 | TSWU-2158,9 | |
|---|---|---|---|---|---|
| Date Collected | 1/25/2005 | 2/22/2005 | 3/29/2005 | 4/26/2005 | Req. LLD |
| Gross beta | 6.1 ± 0.7 | 4.4 ± 1.1 | 2.4 ± 0.4 | 3.6 ± 0.5 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 5.2 | < 4.7 | < 2.5 | < 1.6 | 15 |
| Fe-59 | < 4.9 | < 3.8 | < 5.8 | < 2.0 | 30 |
| Co-58 | < 4.1 | < 4.1 | < 2.3 | < 2.3 | 15 |
| Co-60 | < 5.8 | < 4.8 | < 2.7 | < 1.7 | 15 |
| Zn-65 | < 7.1 | < 4.9 | < 3.3 | < 2.0 | 30 |
| Zr-Nb-95 | < 6.2 | < 4.4 | < 4.5 | < 3.4 | 15 |
| Cs-134 | < 7.0 | < 4.7 | < 2.6 | < 2.6 | 15 |
| Cs-137 | < 3.7 | < 4.5 | < 1.6 | < 2.3 | 18 |
| Ba-La-140 | < 3.4 | < 3.8 | < 3.4 | < 4.1 | 15 |

| Lab Code | TSWU-3091 | TSWU-3693 | TSWU-4306 | TSWU-4952 | |
|---|---|---|---|---|---|
| Date Collected | 5/31/2005 | 6/28/2005 | 7/26/2005 | 8/30/2005 | Req. LLD |
| Gross beta | 1.9 ± 0.4 | 2.5 ± 0.6 | 3.0 ± 0.6 | 1.7 ± 0.4 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 5.6 | < 4.0 | < 3.1 | < 4.4 | 15 |
| Fe-59 | < 6.6 | < 5.1 | < 4.0 | < 5.0 | 30 |
| Co-58 | < 7.1 | < 5.2 | < 3.3 | < 3.2 | 15 |
| Co-60 | < 4.1 | < 3.5 | < 2.6 | < 2.2 | 15 |
| Zn-65 | < 8.1 | < 6.4 | < 2.6 | < 4.1 | 30 |
| Zr-Nb-95 | < 3.2 | < 4.6 | < 4.7 | < 2.7 | 15 |
| Cs-134 | < 5.2 | < 3.6 | < 3.8 | < 3.3 | 15 |
| Cs-137 | < 5.3 | < 3.7 | < 3.5 | < 4.7 | 18 |
| Ba-La-140 | < 10.6 | < 5.6 | < 2.9 | < 5.1 | 15 |

| Lab Code | TSWU-5585 | TSWU-6155 | TSWU-6804 | TSWU-7286 | |
|---|---|---|---|---|---|
| Date Collected | 9/27/2005 | 10/25/2005 | 11/29/2005 | 12/27/2005 | Req. LLD |
| Gross beta | 4.1 ± 0.8 | 1.9 ± 0.4 | 2.8 ± 0.4 | 5.2 ± 0.8 | 4.0 |
| H-3 | < 330 | < 330 | 529 ± 125 [a] | < 330 | 330 |
| Mn-54 | < 3.0 | < 4.6 | < 4.5 | < 3.6 | 15 |
| Fe-59 | < 8.7 | < 8.2 | < 8.8 | < 4.2 | 30 |
| Co-58 | < 3.3 | < 3.3 | < 2.0 | < 3.9 | 15 |
| Co-60 | < 3.9 | < 4.5 | < 1.9 | < 2.8 | 15 |
| Zn-65 | < 5.3 | < 6.3 | < 8.1 | < 2.5 | 30 |
| Zr-Nb-95 | < 4.5 | < 3.9 | < 5.1 | < 4.5 | 15 |
| Cs-134 | < 3.6 | < 4.7 | < 4.0 | < 5.1 | 15 |
| Cs-137 | < 3.0 | < 5.4 | < 4.5 | < 3.0 | 18 |
| Ba-La-140 | < 4.3 | < 3.4 | < 3.9 | < 2.7 | 15 |

[a] Analysis was repeated, result of reanalysis : 505 ± 115 pCi/L.

Table 25. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.
Location: T-11 (C)
Collection: Monthly composites of weekly grab samples
Units: pCi/L

| Lab Code | TSWU-422 | TSWU-890 | TSWU-1523 | TSWU-2161 | |
|---|---|---|---|---|---|
| Date Collected | 1/25/2005 | 2/22/2005 | 3/29/2005 | 4/26/2005 | Req. LLD |
| Gross beta | 3.7 ± 0.6 | 3.2 ± 0.9 | 2.1 ± 0.4 | 2.4 ± 0.6 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 3.1 | < 3.4 | < 4.1 | < 1.8 | 15 |
| Fe-59 | < 3.2 | < 6.0 | < 12.2 | < 8.6 | 30 |
| Co-58 | < 2.1 | < 3.5 | < 4.0 | < 4.2 | 15 |
| Co-60 | < 3.2 | < 4.7 | < 4.4 | < 4.4 | 15 |
| Zn-65 | < 3.5 | < 7.1 | < 9.7 | < 5.9 | 30 |
| Zr-Nb-95 | < 2.7 | < 7.1 | < 7.3 | < 3.7 | 15 |
| Cs-134 | < 3.3 | < 5.5 | < 3.7 | < 4.4 | 15 |
| Cs-137 | < 3.8 | < 4.2 | < 3.3 | < 3.1 | 18 |
| Ba-La-140 | < 2.8 | < 7.9 | < 3.5 | < 5.4 | 15 |

| Lab Code | TSWU-3093 | TSWU-3695 | TSWU-4308 | TSWU-4954 | |
|---|---|---|---|---|---|
| Date Collected | 5/31/2005 | 6/28/2005 | 7/26/2005 | 8/30/2005 | Req. LLD |
| Gross beta | 1.5 ± 0.4 | 1.9 ± 0.5 | 1.3 ± 0.3 | 2.0 ± 0.4 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 2.4 | < 2.9 | < 3.2 | < 3.7 | 15 |
| Fe-59 | < 4.5 | < 7.5 | < 5.4 | < 8.9 | 30 |
| Co-58 | < 1.9 | < 3.8 | < 2.6 | < 4.8 | 15 |
| Co-60 | < 2.5 | < 1.3 | < 1.3 | < 3.1 | 15 |
| Zn-65 | < 4.2 | < 1.3 | < 1.6 | < 6.4 | 30 |
| Zr-Nb-95 | < 2.2 | < 4.4 | < 3.7 | < 5.9 | 15 |
| Cs-134 | < 2.4 | < 3.1 | < 4.9 | < 4.7 | 15 |
| Cs-137 | < 2.3 | < 1.8 | < 3.9 | < 5.2 | 18 |
| Ba-La-140 | < 6.4 | < 6.0 | < 3.3 | < 8.3 | 15 |

| Lab Code | TSWU-5587 | TSWU-6158 | TSWU-6806 | TSWU-7288 | |
|---|---|---|---|---|---|
| Date Collected | 9/27/2005 | 10/25/2005 | 11/29/2005 | 12/27/2005 | Req. LLD |
| Gross beta | 1.9 ± 0.2 | 1.8 ± 0.6 | 1.5 ± 0.4 | 3.1 ± 0.6 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 1.6 | < 1.7 | < 2.1 | < 3.0 | 15 |
| Fe-59 | < 5.0 | < 4.7 | < 5.6 | < 4.1 | 30 |
| Co-58 | < 2.1 | < 3.1 | < 2.9 | < 3.1 | 15 |
| Co-60 | < 2.8 | < 1.1 | < 2.8 | < 2.8 | 15 |
| Zn-65 | < 3.7 | < 4.1 | < 4.5 | < 5.4 | 30 |
| Zr-Nb-95 | < 3.3 | < 3.4 | < 3.9 | < 4.9 | 15 |
| Cs-134 | < 2.8 | < 4.5 | < 2.8 | < 4.6 | 15 |
| Cs-137 | < 2.9 | < 2.3 | < 3.3 | < 5.3 | 18 |
| Ba-La-140 | < 6.0 | < 4.3 | < 2.0 | < 4.6 | 15 |

Table 25. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.
Location: T-12 (C)
Collection: Monthly composites of weekly grab samples
Units: pCi/L

| Lab Code | TSWU-423 | TSWU-891 | TSWU-1524 | TSWU-2162 | |
|---|---|---|---|---|---|
| Date Collected | 1/25/2005 | 2/22/2005 | 3/29/2005 | 4/26/2005 | Req. LLD |
| Gross beta | 3.2 ± 0.6 | 4.0 ± 1.1 | 2.3 ± 0.4 | 2.4 ± 0.6 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 2.6 | < 2.7 | < 1.8 | < 3.6 | 15 |
| Fe-59 | < 6.1 | < 5.3 | < 5.3 | < 5.4 | 30 |
| Co-58 | < 2.8 | < 2.8 | < 3.0 | < 3.1 | 15 |
| Co-60 | < 1.4 | < 3.6 | < 2.5 | < 2.8 | 15 |
| Zn-65 | < 3.5 | < 4.9 | < 3.9 | < 6.8 | 30 |
| Zr-Nb-95 | < 4.7 | < 4.8 | < 3.6 | < 3.3 | 15 |
| Cs-134 | < 3.5 | < 3.2 | < 2.0 | < 3.1 | 15 |
| Cs-137 | < 3.0 | < 3.4 | < 4.0 | < 3.2 | 18 |
| Ba-La-140 | < 1.7 | < 3.9 | < 2.8 | < 1.8 | 15 |

| Lab Code | TSWU-3094 | TSWU-3696 | TSWU-4309 | TSWU-4955 | |
|---|---|---|---|---|---|
| Date Collected | 5/31/2005 | 6/28/2005 | 7/26/2005 | 8/30/2005 | Req. LLD |
| Gross beta | 1.4 ± 0.4 | 2.4 ± 0.6 | 1.9 ± 0.4 | 2.8 ± 0.6 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 3.2 | < 2.3 | < 2.3 | < 4.7 | 15 |
| Fe-59 | < 6.1 | < 3.7 | < 4.4 | < 12.6 | 30 |
| Co-58 | < 2.8 | < 1.9 | < 2.4 | < 3.6 | 15 |
| Co-60 | < 1.3 | < 1.1 | < 2.6 | < 4.5 | 15 |
| Zn-65 | < 5.1 | < 2.0 | < 5.8 | < 9.6 | 30 |
| Zr-Nb-95 | < 4.9 | < 3.2 | < 3.6 | < 5.0 | 15 |
| Cs-134 | < 3.8 | < 2.5 | < 3.5 | < 5.0 | 15 |
| Cs-137 | < 2.3 | < 2.4 | < 3.9 | < 4.4 | 18 |
| Ba-La-140 | < 3.9 | < 3.1 | < 2.8 | < 6.8 | 15 |

| Lab Code | TSWU-5588 | TSWU-6159 | TSWU-6807 | TSWU-7289 | |
|---|---|---|---|---|---|
| Date Collected | 9/27/2005 | 10/25/2005 | 11/29/2005 | 12/27/2005 | Req. LLD |
| Gross beta | 2.5 ± 0.4 | 3.2 ± 0.6 | 1.1 ± 0.3 | 2.5 ± 0.6 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 3.2 | < 1.6 | < 5.0 | < 3.3 | 15 |
| Fe-59 | < 8.3 | < 7.4 | < 8.4 | < 4.3 | 30 |
| Co-58 | < 2.6 | < 2.6 | < 3.4 | < 5.8 | 15 |
| Co-60 | < 3.0 | < 2.3 | < 2.7 | < 3.6 | 15 |
| Zn-65 | < 4.0 | < 4.8 | < 4.4 | < 6.1 | 30 |
| Zr-Nb-95 | < 3.0 | < 4.2 | < 3.9 | < 5.5 | 15 |
| Cs-134 | < 3.2 | < 3.8 | < 4.3 | < 4.9 | 15 |
| Cs-137 | < 3.3 | < 3.4 | < 4.9 | < 4.8 | 18 |
| Ba-La-140 | < 6.5 | < 4.8 | < 5.3 | < 4.7 | 15 |

Table 25. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.
Location: T-22
Collection: Monthly composites of weekly grab samples
Units: pCi/L

| Lab Code<br>Date Collected | TSWU-425<br>1/25/2005 | TSWU-893,4<br>2/22/2005 | TSWU-1526<br>3/29/2005 | TSWU-2164<br>4/26/2005 | Req. LLD |
|---|---|---|---|---|---|
| Gross beta | 3.3 ± 0.7 | 4.1 ± 0.6 | 2.0 ± 0.4 | 1.6 ± 0.4 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 2.4 | < 2.3 | < 4.0 | < 1.7 | 15 |
| Fe-59 | < 4.4 | < 3.4 | < 9.1 | < 5.4 | 30 |
| Co-58 | < 1.8 | < 1.9 | < 4.6 | < 3.7 | 15 |
| Co-60 | < 2.4 | < 2.8 | < 6.1 | < 2.0 | 15 |
| Zn-65 | < 3.2 | < 2.6 | < 3.8 | < 8.9 | 30 |
| Zr-Nb-95 | < 3.3 | < 3.7 | < 6.2 | < 3.6 | 15 |
| Cs-134 | < 3.1 | < 3.1 | < 4.3 | < 3.4 | 15 |
| Cs-137 | < 3.7 | < 3.1 | < 3.6 | < 4.0 | 18 |
| Ba-La-140 | < 2.9 | < 2.1 | < 5.5 | < 4.6 | 15 |

| Lab Code<br>Date Collected | TSWU-3096<br>5/31/2005 | TSWU-3699<br>6/28/2005 | TSWU-4311, 12<br>7/26/2005 | TSWU-4957<br>8/30/2005 | Req. LLD |
|---|---|---|---|---|---|
| Gross beta | 1.7 ± 0.4 | 2.0 ± 0.6 | 2.2 ± 0.4 | 1.4 ± 0.4 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 3.6 | < 1.4 | < 2.7 | < 3.9 | 15 |
| Fe-59 | < 5.7 | < 3.3 | < 6.1 | < 10.1 | 30 |
| Co-58 | < 2.1 | < 1.2 | < 4.6 | < 2.6 | 15 |
| Co-60 | < 2.7 | < 1.6 | < 2.6 | < 3.5 | 15 |
| Zn-65 | < 6.1 | < 3.5 | < 4.3 | < 5.9 | 30 |
| Zr-Nb-95 | < 4.5 | < 3.1 | < 3.9 | < 5.8 | 15 |
| Cs-134 | < 3.6 | < 1.3 | < 3.7 | < 2.3 | 15 |
| Cs-137 | < 3.0 | < 2.6 | < 4.6 | < 4.1 | 18 |
| Ba-La-140 | < 8.7 | < 2.7 | < 6.2 | < 5.2 | 15 |

| Lab Code<br>Date Collected | TSWU-5590<br>9/27/2005 | TSWU-6161<br>10/25/2005 | TSWU-6809<br>11/29/2005 | TSWU-7291<br>12/27/2005 | Req. LLD |
|---|---|---|---|---|---|
| Gross beta | 1.5 ± 0.4 | 3.3 ± 0.6 | 3.1 ± 0.7 | 1.6 ± 0.4 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 3.4 | < 3.0 | < 6.1 | < 4.4 | 15 |
| Fe-59 | < 8.0 | < 6.4 | < 6.8 | < 8.2 | 30 |
| Co-58 | < 5.6 | < 3.0 | < 5.4 | < 4.7 | 15 |
| Co-60 | < 4.2 | < 4.8 | < 4.8 | < 3.5 | 15 |
| Zn-65 | < 9.5 | < 8.0 | < 9.8 | < 6.0 | 30 |
| Zr-Nb-95 | < 5.3 | < 4.9 | < 5.5 | < 5.3 | 15 |
| Cs-134 | < 4.3 | < 4.3 | < 3.2 | < 4.8 | 15 |
| Cs-137 | < 4.4 | < 4.5 | < 3.8 | < 4.4 | 18 |
| Ba-La-140 | < 8.1 | < 3.8 | < 6.3 | < 3.9 | 15 |

Table 25. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.
Location: T-50
Collection: Monthly composites of weekly grab samples
Units: pCi/L

| Lab Code<br>Date Collected | TSWU-426<br>1/25/2005 | TSWU-895<br>2/22/2005 | TSWU-1527<br>3/29/2005 | TSWU-2165<br>4/26/2005 | Req. LLD |
|---|---|---|---|---|---|
| Gross beta | 3.3 ± 0.6 | 3.0 ± 0.6 | 2.2 ± 0.4 | 2.8 ± 0.7 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 6.0 | < 4.2 | < 5.6 | < 3.1 | 15 |
| Fe-59 | < 4.4 | < 4.7 | < 13.3 | < 7.8 | 30 |
| Co-58 | < 4.8 | < 4.2 | < 3.4 | < 3.4 | 15 |
| Co-60 | < 5.1 | < 5.1 | < 4.1 | < 2.4 | 15 |
| Zn-65 | < 3.8 | < 4.6 | < 8.5 | < 1.7 | 30 |
| Zr-Nb-95 | < 2.7 | < 4.3 | < 6.6 | < 3.7 | 15 |
| Cs-134 | < 4.9 | < 7.6 | < 4.5 | < 2.5 | 15 |
| Cs-137 | < 3.7 | < 4.7 | < 5.1 | < 3.2 | 18 |
| Ba-La-140 | < 3.6 | < 3.8 | < 4.3 | < 3.6 | 15 |

| Lab Code<br>Date Collected | TSWU-3097<br>5/31/2005 | TSWU-3700<br>6/28/2005 | TSWU-4313<br>7/26/2005 | TSWU-4958<br>8/30/2005 | Req. LLD |
|---|---|---|---|---|---|
| Gross beta | 1.8 ± 0.4 | 1.5 ± 0.4 | 1.4 ± 0.4 | 1.9 ± 0.5 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 1.7 | < 2.7 | < 5.4 | < 3.2 | 15 |
| Fe-59 | < 5.1 | < 7.4 | < 4.3 | < 7.1 | 30 |
| Co-58 | < 1.9 | < 2.6 | < 4.1 | < 2.7 | 15 |
| Co-60 | < 2.7 | < 2.7 | < 3.5 | < 1.5 | 15 |
| Zn-65 | < 4.8 | < 2.9 | < 4.5 | < 3.5 | 30 |
| Zr-Nb-95 | < 3.5 | < 4.8 | < 2.2 | < 4.7 | 15 |
| Cs-134 | < 2.7 | < 2.1 | < 3.5 | < 2.7 | 15 |
| Cs-137 | < 1.7 | < 2.8 | < 2.5 | < 3.0 | 18 |
| Ba-La-140 | < 2.5 | < 8.9 | < 4.8 | < 6.7 | 15 |

| Lab Code<br>Date Collected | TSWU-5591<br>9/27/2005 | TSWU-6162<br>10/25/2005 | TSWU-6810<br>11/29/2005 | TSWU-7292<br>12/27/2005 | Req. LLD |
|---|---|---|---|---|---|
| Gross beta | 1.1 ± 0.3 | 2.3 ± 0.6 | 2.5 ± 0.6 | 2.0 ± 0.4 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 2.3 | < 6.4 | < 3.0 | < 3.5 | 15 |
| Fe-59 | < 5.4 | < 10.1 | < 6.3 | < 8.8 | 30 |
| Co-58 | < 2.3 | < 3.8 | < 4.5 | < 2.5 | 15 |
| Co-60 | < 1.5 | < 4.1 | < 2.7 | < 3.0 | 15 |
| Zn-65 | < 2.8 | < 8.4 | < 4.0 | < 6.0 | 30 |
| Zr-Nb-95 | < 3.4 | < 5.5 | < 4.6 | < 5.0 | 15 |
| Cs-134 | < 3.5 | < 3.9 | < 4.2 | < 2.5 | 15 |
| Cs-137 | < 1.8 | < 4.7 | < 6.2 | < 5.8 | 18 |
| Ba-La-140 | < 4.0 | < 6.0 | < 4.8 | < 3.8 | 15 |

Table 25. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.
Location: T-145 (QC)
Collection: Monthly composites of weekly grab samples
Units: pCi/L

| Lab Code<br>Date Collected | TSWU-427<br>1/25/2005 | TSWU-896<br>2/22/2005 | TSWU-1528<br>3/29/2005 | TSWU-2166<br>4/26/2005 | Req. LLD |
|---|---|---|---|---|---|
| Gross beta | 3.3 ± 0.7 | 2.7 ± 0.6 | 2.4 ± 0.4 | 1.4 ± 0.4 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 2.0 | < 5.0 | < 4.7 | < 3.5 | 15 |
| Fe-59 | < 4.7 | < 4.1 | < 7.8 | < 7.0 | 30 |
| Co-58 | < 2.8 | < 2.8 | < 4.8 | < 3.0 | 15 |
| Co-60 | < 2.4 | < 5.1 | < 4.2 | < 5.3 | 15 |
| Zn-65 | < 4.2 | < 7.3 | < 6.0 | < 4.8 | 30 |
| Zr-Nb-95 | < 5.0 | < 6.3 | < 3.5 | < 5.2 | 15 |
| Cs-134 | < 3.4 | < 4.8 | < 3.3 | < 1.8 | 15 |
| Cs-137 | < 2.7 | < 5.5 | < 3.6 | < 3.5 | 18 |
| Ba-La-140 | < 4.3 | < 9.7 | < 7.7 | < 6.2 | 15 |

| Lab Code<br>Date Collected | TSWU-3098<br>5/31/2005 | TSWU-3701<br>6/28/2005 | TSWU-4314<br>7/26/2005 | TSWU-4959<br>8/30/2005 | Req. LLD |
|---|---|---|---|---|---|
| Gross beta | 2.4 ± 0.4 | 1.3 ± 0.3 | 1.6 ± 0.4 | 1.8 ± 0.6 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 3.1 | < 2.8 | < 3.1 | < 5.3 | 15 |
| Fe-59 | < 3.4 | < 9.8 | < 4.0 | < 5.5 | 30 |
| Co-58 | < 1.8 | < 4.5 | < 2.3 | < 3.9 | 15 |
| Co-60 | < 1.5 | < 4.5 | < 2.3 | < 1.9 | 15 |
| Zn-65 | < 2.4 | < 2.6 | < 5.5 | < 4.4 | 30 |
| Zr-Nb-95 | < 3.7 | < 3.3 | < 2.3 | < 5.1 | 15 |
| Cs-134 | < 3.3 | < 3.9 | < 3.5 | < 3.0 | 15 |
| Cs-137 | < 1.7 | < 5.7 | < 2.4 | < 3.2 | 18 |
| Ba-La-140 | < 4.8 | < 9.8 | < 3.9 | < 8.4 | 15 |

| Lab Code<br>Date Collected | TSWU-5592<br>9/27/2005 | TSWU-6163<br>10/25/2005 | TSWU-6811<br>11/29/2005 | TSWU-7293<br>12/27/2005 | Req. LLD |
|---|---|---|---|---|---|
| Gross beta | 3.0 ± 0.5 | 1.4 ± 0.3 | 1.9 ± 0.6 | 1.6 ± 0.4 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 5.0 | < 4.4 | < 2.9 | < 4.9 | 15 |
| Fe-59 | < 9.0 | < 5.8 | < 5.1 | < 4.0 | 30 |
| Co-58 | < 5.2 | < 2.0 | < 4.6 | < 1.9 | 15 |
| Co-60 | < 4.2 | < 3.9 | < 2.4 | < 2.9 | 15 |
| Zn-65 | < 4.5 | < 3.8 | < 3.1 | < 4.6 | 30 |
| Zr-Nb-95 | < 7.1 | < 4.3 | < 4.0 | < 4.8 | 15 |
| Cs-134 | < 5.3 | < 4.2 | < 3.1 | < 4.2 | 15 |
| Cs-137 | < 5.6 | < 4.8 | < 5.7 | < 2.4 | 18 |
| Ba-La-140 | < 4.8 | < 4.1 | < 4.7 | < 3.6 | 15 |

Table 26. Untreated surface water samples, analyses for strontium-89 and strontium-90.
Collection: Quarterly composites of weekly grab samples
Units: pCi/L

| Location | T-3 | | | |
|---|---|---|---|---|
| Period | 1st Qtr. | 2nd Qtr. | 3rd Qtr. | 4th Qtr. |
| Lab Code | TSWU-1753 | TSWU-4021 | TSWU-5930 | TSWU-7382, 3 |
| Sr-89 | < 0.7 | < 0.6 | < 0.8 | < 0.6 |
| Sr-90 | < 0.7 | < 0.6 | < 0.5 | < 0.6 |

| Location | T-11 (C) | | | |
|---|---|---|---|---|
| Period | 1st Qtr. | 2nd Qtr. | 3rd Qtr. | 4th Qtr. |
| Lab Code | TSWU-1754 | TSWU-4022 | TSWU-5931 | TSWU-7384 |
| Sr-89 | < 0.7 | < 0.7 | < 1.2 | < 0.6 |
| Sr-90 | < 0.6 | < 0.6 | < 0.9 | 0.6 ± 0.3 |

| Location | T-12 (C) | | | |
|---|---|---|---|---|
| Period | 1st Qtr. | 2nd Qtr. | 3rd Qtr. | 4th Qtr. |
| Lab Code | TSWU-1755 | TSWU-4023 | TSWU-5932 | TSWU-7385 |
| Sr-89 | < 0.6 | < 0.6 | < 0.9 | < 0.5 |
| Sr-90 | < 0.6 | < 0.6 | < 0.6 | < 0.5 |

| Location | T-22 | | | |
|---|---|---|---|---|
| Period | 1st Qtr. | 2nd Qtr. | 3rd Qtr. | 4th Qtr. |
| Lab Code | TSWU-1756 | TSWU-4024 | TSWU-5933 | TSWU-7386 |
| Sr-89 | < 0.6 | < 0.6 | < 0.7 | < 0.6 |
| Sr-90 | < 0.5 | < 0.5 | < 0.6 | 0.6 ± 0.3 |

| Location | T-50 | | | |
|---|---|---|---|---|
| Period | 1st Qtr. | 2nd Qtr. | 3rd Qtr. | 4th Qtr. |
| Lab Code | TSWU-1757 | TSWU-4025 | TSWU-5934 | TSWU-7387 |
| Sr-89 | < 0.6 | < 0.6 | < 0.8 | < 0.6 |
| Sr-90 | < 0.5 | 0.6 ± 0.3 | < 0.5 | < 0.6 |

Table 27. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.
Collection: Monthly collection
Units: pCi/L
Location: T-132 (I)

| Lab Code<br>Date Collected | TSWU-2167<br>4/21/2005 | TSWU-3099<br>5/19/2005 | TSWU-3702<br>6/15/2005 | TSWU-4315<br>7/20/2005 | Req. LLD |
|---|---|---|---|---|---|
| Gross Beta | 1.8 ± 0.4 | 3.2 ± 0.7 | 1.4 ± 0.3 | 1.8 ± 0.4 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 6.0 | < 4.3 | < 3.6 | < 3.9 | 15 |
| Fe-59 | < 11.5 | < 6.0 | < 6.0 | < 7.4 | 30 |
| Co-58 | < 6.8 | < 2.1 | < 2.8 | < 3.8 | 15 |
| Co-60 | < 3.7 | < 1.8 | < 3.2 | < 2.9 | 15 |
| Zn-65 | < 9.1 | < 3.8 | < 6.2 | < 7.6 | 30 |
| Zr-Nb-95 | < 4.0 | < 5.2 | < 4.1 | < 5.6 | 15 |
| Cs-134 | < 7.3 | < 3.6 | < 3.2 | < 3.3 | 15 |
| Cs-137 | < 3.8 | < 2.9 | < 2.8 | < 2.3 | 18 |
| Ba-La-140 | < 5.5 | < 4.9 | < 9.4 | < 4.6 | 15 |

| Lab Code<br>Date Collected | TSWU-4960<br>8/16/2005 | TSWU-5593<br>9/19/2005 | TSWU-6164<br>10/11/2005 | Req. LLD |
|---|---|---|---|---|
| Gross Beta | 1.4 ± 0.4 | 2.0 ± 0.6 | 1.0 ± 0.3 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 3.8 | < 1.7 | < 2.5 | 15 |
| Fe-59 | < 11.7 | < 2.8 | < 4.8 | 30 |
| Co-58 | < 2.6 | < 2.6 | < 3.0 | 15 |
| Co-60 | < 3.9 | < 1.9 | < 1.8 | 15 |
| Zn-65 | < 3.9 | < 4.1 | < 3.4 | 30 |
| Zr-Nb-95 | < 5.0 | < 3.4 | < 4.8 | 15 |
| Cs-134 | < 3.1 | < 2.4 | < 2.6 | 15 |
| Cs-137 | < 4.5 | < 2.6 | < 1.8 | 18 |
| Ba-La-140 | < 8.8 | < 5.8 | < 8.6 | 15 |

Table 27. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.
Collection: Monthly collection
Units: pCi/L
Location: T-134 (U)

| Lab Code<br>Date Collected | TSWU-2168<br>4/21/2005 | TSWU-3100<br>5/19/2005 | TSWU-3703<br>6/15/2005 | TSWU-4316<br>7/20/2005 | Req. LLD |
|---|---|---|---|---|---|
| Gross Beta | 1.6 ± 0.4 | 3.3 ± 0.7 | 1.5 ± 0.4 | 1.1 ± 0.3 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 2.9 | < 3.7 | < 1.3 | < 1.8 | 15 |
| Fe-59 | < 9.9 | < 6.9 | < 3.4 | < 3.9 | 30 |
| Co-58 | < 4.8 | < 4.2 | < 1.0 | < 2.9 | 15 |
| Co-60 | < 5.2 | < 2.5 | < 1.0 | < 2.5 | 15 |
| Zn-65 | < 4.1 | < 5.8 | < 2.4 | < 5.7 | 30 |
| Zr-Nb-95 | < 3.5 | < 3.1 | < 2.2 | < 4.3 | 15 |
| Cs-134 | < 1.8 | < 3.6 | < 1.4 | < 2.6 | 15 |
| Cs-137 | < 4.8 | < 3.8 | < 1.0 | < 2.2 | 18 |
| Ba-La-140 | < 5.0 | < 6.7 | < 5.7 | < 3.0 | 15 |

| Lab Code<br>Date Collected | TSWU-4961<br>8/16/2005 | TSWU-5594<br>9/19/2005 | TSWU-6165<br>10/11/2005 | Req. LLD |
|---|---|---|---|---|
| Gross Beta | 1.7 ± 0.4 | 1.8 ± 0.4 | 1.4 ± 0.4 | 4.0 |
| H-3 | 976 ± 119 [a] | < 330 | < 330 | 330 |
| Mn-54 | < 3.3 | < 3.7 | < 3.0 | 15 |
| Fe-59 | < 6.2 | < 8.3 | < 7.6 | 30 |
| Co-58 | < 1.9 | < 3.1 | < 4.8 | 15 |
| Co-60 | < 1.9 | < 1.8 | < 4.1 | 15 |
| Zn-65 | < 2.5 | < 6.3 | < 5.3 | 30 |
| Zr-Nb-95 | < 5.9 | < 5.9 | < 3.4 | 15 |
| Cs-134 | < 3.5 | < 3.4 | < 2.3 | 15 |
| Cs-137 | < 2.1 | < 4.6 | < 2.3 | 18 |
| Ba-La-140 | < 6.1 | < 7.8 | < 8.5 | 15 |

[a] Analysis was repeated; result of reanalysis: 888 ± 121 pCi/L.

Table 27. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.
Collection: Monthly collection
Units: pCi/L
Location: T-137 (C)

| Lab Code<br>Date Collected | TSWU-2169<br>4/21/2005 | TSWU-3101<br>5/19/2005 | TSWU-3704<br>6/15/2005 | TSWU-4317<br>7/20/2005 | Req. LLD |
|---|---|---|---|---|---|
| Gross Beta | 2.4 ± 0.4 | 1.5 ± 0.4 | 2.8 ± 0.4 | 1.5 ± 0.4 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 4.1 | < 2.3 | < 1.4 | < 4.0 | 15 |
| Fe-59 | < 10.5 | < 3.5 | < 3.5 | < 3.6 | 30 |
| Co-58 | < 6.1 | < 2.4 | < 0.8 | < 2.0 | 15 |
| Co-60 | < 4.4 | < 2.4 | < 0.7 | < 1.6 | 15 |
| Zn-65 | < 5.5 | < 3.4 | < 1.5 | < 3.5 | 30 |
| Zr-Nb-95 | < 1.9 | < 3.2 | < 2.2 | < 3.6 | 15 |
| Cs-134 | < 5.9 | < 2.3 | < 2.0 | < 3.4 | 15 |
| Cs-137 | < 4.4 | < 2.0 | < 1.3 | < 4.2 | 18 |
| Ba-La-140 | < 5.4 | < 3.6 | < 3.5 | < 3.9 | 15 |

| Lab Code<br>Date Collected | TSWU-4962<br>8/16/2005 | TSWU-5595<br>9/19/2005 | TSWU-6166<br>10/11/2005 | Req. LLD |
|---|---|---|---|---|
| Gross Beta | 4.0 ± 0.5 | 1.8 ± 0.4 | 1.7 ± 0.4 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 2.9 | < 1.9 | < 2.6 | 15 |
| Fe-59 | < 11.8 | < 5.7 | < 5.7 | 30 |
| Co-58 | < 3.6 | < 1.6 | < 2.1 | 15 |
| Co-60 | < 4.0 | < 1.6 | < 1.3 | 15 |
| Zn-65 | < 5.8 | < 2.1 | < 3.4 | 30 |
| Zr-Nb-95 | < 5.7 | < 3.7 | < 4.1 | 15 |
| Cs-134 | < 2.0 | < 3.2 | < 3.4 | 15 |
| Cs-137 | < 4.6 | < 2.7 | < 1.6 | 18 |
| Ba-La-140 | < 12.3 | < 7.2 | < 5.4 | 15 |

Table 27. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.
Collection: Monthly collection
Units: pCi/L
Location: T-158 (C)

| Lab Code<br>Date Collected | TSWU-2170<br>4/21/2005 | TSWU-3102<br>5/19/2005 | TSWU-3705<br>6/15/2005 | TSWU-4318<br>7/20/2005 | Req. LLD |
|---|---|---|---|---|---|
| Gross Beta | 1.6 ± 0.4 | 2.4 ± 0.6 | 1.4 ± 0.3 | 3.2 ± 0.5 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 2.5 | < 3.1 | < 1.1 | < 4.8 | 15 |
| Fe-59 | < 5.4 | < 6.5 | < 2.8 | < 9.1 | 30 |
| Co-58 | < 3.3 | < 4.2 | < 1.4 | < 4.6 | 15 |
| Co-60 | < 2.7 | < 3.9 | < 1.1 | < 5.7 | 15 |
| Zn-65 | < 1.8 | < 4.7 | < 1.9 | < 7.4 | 30 |
| Zr-Nb-95 | < 4.2 | < 2.3 | < 2.1 | < 3.7 | 15 |
| Cs-134 | < 3.7 | < 3.6 | < 0.8 | < 3.7 | 15 |
| Cs-137 | < 2.1 | < 2.2 | < 1.2 | < 6.3 | 18 |
| Ba-La-140 | < 4.6 | < 9.7 | < 2.2 | < 4.5 | 15 |

| Lab Code<br>Date Collected | TSWU-4963<br>8/16/2005 | TSWU-5596<br>9/19/2005 | TSWU-6167<br>10/11/2005 | Req. LLD |
|---|---|---|---|---|
| Gross Beta | 1.7 ± 0.4 | 2.4 ± 0.6 | 2.4 ± 0.4 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 2.4 | < 2.1 | < 3.6 | 15 |
| Fe-59 | < 3.7 | < 3.4 | < 6.4 | 30 |
| Co-58 | < 4.3 | < 3.6 | < 4.3 | 15 |
| Co-60 | < 2.3 | < 2.9 | < 3.1 | 15 |
| Zn-65 | < 2.4 | < 1.5 | < 3.7 | 30 |
| Zr-Nb-95 | < 2.8 | < 4.2 | < 3.6 | 15 |
| Cs-134 | < 2.9 | < 2.4 | < 2.9 | 15 |
| Cs-137 | < 3.0 | < 1.7 | < 4.4 | 18 |
| Ba-La-140 | < 8.3 | < 10.1 | < 4.4 | 15 |

Table 27. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.
Collection: Monthly collection
Units: pCi/L
Location: T-162 (C)

| Lab Code<br>Date Collected | TSWU-2171<br>4/21/2005 | TSWU-3103, 4<br>5/19/2005 | TSWU-3706<br>6/15/2005 | TSWU-4319<br>7/20/2005 | Req. LLD |
|---|---|---|---|---|---|
| Gross Beta | 2.5 ± 0.6 | 3.5 ± 0.4 | 1.4 ± 0.4 | 1.6 ± 0.4 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 4.1 | < 2.5 | < 3.0 | < 5.4 | 15 |
| Fe-59 | < 11.2 | < 5.0 | < 6.1 | < 7.0 | 30 |
| Co-58 | < 4.7 | < 1.5 | < 2.9 | < 4.0 | 15 |
| Co-60 | < 4.7 | < 1.5 | < 2.0 | < 2.2 | 15 |
| Zn-65 | < 3.1 | < 1.6 | < 3.6 | < 8.7 | 30 |
| Zr-Nb-95 | < 4.5 | < 2.9 | < 2.8 | < 2.5 | 15 |
| Cs-134 | < 5.5 | < 2.1 | < 1.3 | < 1.6 | 15 |
| Cs-137 | < 6.1 | < 2.1 | < 2.7 | < 3.9 | 18 |
| Ba-La-140 | < 3.9 | < 4.6 | < 8.5 | < 6.4 | 15 |

| Lab Code<br>Date Collected | TSWU-4964<br>8/16/2005 | TSWU-5597<br>9/19/2005 | TSWU-6168<br>10/11/2005 | Req. LLD |
|---|---|---|---|---|
| Gross Beta | 2.1 ± 0.4 | 2.5 ± 0.7 | 1.6 ± 0.4 | 4.0 |
| H-3 | < 330 | < 330 | < 330 | 330 |
| Mn-54 | < 3.1 | < 1.6 | < 2.7 | 15 |
| Fe-59 | < 6.7 | < 4.9 | < 12.1 | 30 |
| Co-58 | < 2.6 | < 2.1 | < 4.0 | 15 |
| Co-60 | < 1.7 | < 1.5 | < 2.4 | 15 |
| Zn-65 | < 2.3 | < 4.2 | < 9.0 | 30 |
| Zr-Nb-95 | < 5.5 | < 3.7 | < 2.8 | 15 |
| Cs-134 | < 3.8 | < 2.0 | < 3.6 | 15 |
| Cs-137 | < 2.5 | < 1.9 | < 3.3 | 18 |
| Ba-La-140 | < 12.9 | < 6.2 | < 11.5 | 15 |

Table 28. Fish samples, analyses for gross beta and gamma-emitting isotopes.
Collection: Semiannually
Units: pCi/g wet

| Location | T-33 (Lake Erie, 1.5 mi. NE of Station) | | |
|---|---|---|---|
| Lab Code | TF-3010 | TF-3011 | TF-3012 |
| Date Collected | 4/18/2005 | 4/18/2005 | 5/9/2005 |
| Sample Type | Carp | Walleye | White Bass / Perch |
| Gross Beta | 3.88 ± 0.12 | 5.55 ± 0.19 | 3.77 ± 0.14 |
| K-40 | 2.68 ± 0.41 | 2.83 ± 0.50 | 2.55 ± 0.47 |
| Mn-54 | < 0.011 | < 0.014 | < 0.021 |
| Fe-59 | < 0.085 | < 0.085 | < 0.051 |
| Co-58 | < 0.029 | < 0.016 | < 0.034 |
| Co-60 | < 0.012 | < 0.019 | < 0.016 |
| Zn-65 | < 0.036 | < 0.032 | < 0.036 |
| Cs-134 | < 0.013 | < 0.016 | < 0.024 |
| Cs-137 | < 0.012 | < 0.020 | < 0.025 |

| Location | T-35 | | |
|---|---|---|---|
| Lab Code | TF-3013 | TF-3014 | TF-3015 |
| Date Collected | 5/26/2005 | 5/6/2005 | 5/6/2005 |
| Sample Type | Carp | Walleye | Perch |
| Gross Beta | 3.53 ± 0.11 | 4.49 ± 0.11 | 4.17 ± 0.11 |
| K-40 | 2.55 ± 0.36 | 3.37 ± 0.59 | 2.22 ± 0.44 |
| Mn-54 | < 0.014 | < 0.016 | < 0.018 |
| Fe-59 | < 0.040 | < 0.094 | < 0.061 |
| Co-58 | < 0.017 | < 0.021 | < 0.026 |
| Co-60 | < 0.010 | < 0.012 | < 0.009 |
| Zn-65 | < 0.017 | < 0.064 | < 0.030 |
| Cs-134 | < 0.016 | < 0.019 | < 0.023 |
| Cs-137 | < 0.007 | < 0.026 | < 0.011 |

Table 29. Shoreline sediment samples, analyses for gamma-emitting isotopes.
Collection: Semiannually
Units: pCi/g dry

| Location | T-3 | T-4 | T-4P | T-27B | T-132 |
|---|---|---|---|---|---|
| Lab Code | TSS-3625 | TSS-3627 | TSS-3627 | TSS-3628 | TSS-3629 |
| Date Collected | 6/8/2005 | 6/8/2005 | 6/8/2005 | 6/8/2005 | 6/8/2005 |
| K-40 | 13.53 ± 0.61 | 16.80 ± 0.84 | 20.54 ± 0.89 | 11.40 ± 0.58 | 11.37 ± 0.55 |
| Mn-54 | < 0.008 | < 0.027 | < 0.030 | < 0.015 | < 0.008 |
| Co-58 | < 0.016 | < 0.021 | < 0.036 | < 0.017 | < 0.020 |
| Co-60 | < 0.010 | < 0.017 | < 0.019 | < 0.010 | < 0.008 |
| Cs-134 | < 0.012 | < 0.018 | < 0.023 | < 0.011 | < 0.010 |
| Cs-137 | < 0.012 | < 0.027 | < 0.025 | < 0.017 | < 0.015 |
| Lab Code | TSS-6812 | TSS-6813 | TSS-6814 | TSS-6815 | TSS-6816 |
| Date Collected | 11/9/2005 | 11/9/2005 | 11/9/2005 | 11/9/2005 | 11/9/2005 |
| K-40 | 13.62 ± 0.78 | 12.96 ± 0.68 | 19.93 ± 1.49 | 11.91 ± 0.83 | 10.29 ± 0.81 |
| Mn-54 | < 0.018 | < 0.017 | < 0.041 | < 0.015 | < 0.022 |
| Co-58 | < 0.022 | < 0.028 | < 0.059 | < 0.030 | < 0.039 |
| Co-60 | < 0.027 | < 0.018 | < 0.050 | < 0.027 | < 0.023 |
| Cs-134 | < 0.026 | < 0.035 | < 0.080 | < 0.018 | < 0.034 |
| Cs-137 | < 0.025 | < 0.018 | 0.083 ± 0.042 | < 0.022 | < 0.025 |

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# APPENDIX A

## INTERLABORATORY COMPARISON PROGRAM RESULTS

NOTE: Environmental Inc., Midwest Laboratory participates in intercomparison studies administered by Environmental Resources Associates, and serves as a replacement for studies conducted previously by the U.S. EPA Environmental Monitoring Systems Laboratory, Las Vegas, Nevada. Results are reported in Appendix A. TLD Intercomparison results, in-house spikes, blanks, duplicates and mixed analyte performance evaluation program results are also reported. Appendix A is updated four times a year; the complete Appendix is included in March, June, September and December monthly progress reports only.

January, 2005 through December, 2005

## Appendix A

## Interlaboratory Comparison Program Results

Environmental, Inc., Midwest Laboratory has participated in interlaboratory comparison (crosscheck) programs since the formulation of it's quality control program in December 1971. These programs are operated by agencies which supply environmental type samples containing concentrations of radionuclides known to the issuing agency but not to participant laboratories. The purpose of such a program is to provide an independent check on a laboratory's analytical procedures and to alert it of any possible problems.

Participant laboratories measure the concentration of specified radionuclides and report them to the issuing agency. Several months later, the agency reports the known values to the participant laboratories and specifies control limits. Results consistently higher or lower than the known values or outside the control limits indicate a need to check the instruments or procedures used.

Results in Table A-1 were obtained through participation in the environmental sample crosscheck program administered by Environmental Resources Associates, serving as a replacement for studies conducted previously by the U.S. EPA Environmental Monitoring Systems Laboratory, Las Vegas, Nevada.

The results in Table A-2 list results for thermoluminescent dosimeters (TLDs), via International Intercomparison of Environmental Dosimeters, when available, and internal laboratory testing.

Table A-3 lists results of the analyses on in-house "spiked" samples for the past twelve months. All samples are prepared using NIST traceable sources. Data for previous years available upon request.

Table A-4 lists results of the analyses on in-house "blank" samples for the past twelve months. Data for previous years available upon request.

Table A-5 list results of the in-house "duplicate" program for the past twelve months. Acceptance is based on the difference of the results being less than the sum of the errors. Data for previous years available upon request.

The results in Table A-6 were obtained through participation in the Mixed Analyte Performance Evaluation Program.

Attachment A lists acceptance criteria for "spiked" samples.

Out-of-limit results are explained directly below the result.

Attachment A

ACCEPTANCE CRITERIA FOR "SPIKED" SAMPLES

LABORATORY PRECISION: ONE STANDARD DEVIATION VALUES FOR VARIOUS ANALYSES[a]

| Analysis | Level | One standard deviation for single determination |
|---|---|---|
| Gamma Emitters | 5 to 100 pCi/liter or kg | 5.0 pCi/liter |
| | > 100 pCi/liter or kg | 5% of known value |
| Strontium-89[b] | 5 to 50 pCi/liter or kg | 5.0 pCi/liter |
| | > 50 pCi/liter or kg | 10% of known value |
| Strontium-90[b] | 2 to 30 pCi/liter or kg | 5.0 pCi/liter |
| | > 30 pCi/liter or kg | 10% of known value |
| Potassium-40 | ≥ 0.1 g/liter or kg | 5% of known value |
| Gross alpha | ≤ 20 pCi/liter | 5.0 pCi/liter |
| | > 20 pCi/liter | 25% of known value |
| Gross beta | ≤ 100 pCi/liter | 5.0 pCi/liter |
| | > 100 pCi/liter | 5% of known value |
| Tritium | ≤ 4,000 pCi/liter | $\pm 1\sigma$ = (pCi/liter) = $169.85 \times (\text{known})^{0.0933}$ |
| | > 4,000 pCi/liter | 10% of known value |
| Radium-226,-228 | ≥ 0.1 pCi/liter | 15% of known value |
| Plutonium | ≥ 0.1 pCi/liter, gram, or sample | 10% of known value |
| Iodine-131, Iodine-129[b] | ≤ 55 pCi/liter | 6.0 pCi/liter |
| | > 55 pCi/liter | 10% of known value |
| Uranium-238, Nickel-63[b] Technetium-99[b] | ≤ 35 pCi/liter | 6.0 pCi/liter |
| | > 35 pCi/liter | 15% of known value |
| Iron-55[b] | 50 to 100 pCi/liter | 10 pCi/liter |
| | > 100 pCi/liter | 10% of known value |
| Others[b] | — | 20% of known value |

[a] From EPA publication, "Environmental Radioactivity Laboratory Intercomparison Studies Program, Fiscal Year, 1981-1982, EPA-600/4-81-004.

[b] Laboratory limit.

TABLE A-1. Interlaboratory Comparison Crosscheck program, Environmental Resource Associates (ERA)[a].

| Lab Code | Date | Analysis | Concentration (pCi/L) Laboratory Result[b] | ERA Result[c] | Control Limits | Acceptance |
|---|---|---|---|---|---|---|
| STW-1051 | 02/15/05 | Sr-89 | 28.0 ± 1.2 | 29.4 | 20.7 - 38.1 | Pass |
| STW-1051 | 02/15/05 | Sr-90 | 25.1 ± 0.7 | 24.4 | 15.7 - 33.1 | Pass |
| STW-1052 | 02/15/05 | Ba-133 | 52.9 ± 2.8 | 53.4 | 44.2 - 62.6 | Pass |
| STW-1052 | 02/15/05 | Co-60 | 54.4 ± 0.4 | 56.6 | 47.9 - 65.3 | Pass |
| STW-1052 | 02/15/05 | Cs-134 | 67.7 ± 1.8 | 64.9 | 56.2 - 73.6 | Pass |
| STW-1052 | 02/15/05 | Cs-137 | 39.6 ± 1.8 | 40.2 | 31.5 - 48.9 | Pass |
| STW-1052 | 02/15/05 | Zn-65 | 159.7 ± 3.0 | 161.0 | 133.0 - 189.0 | Pass |
| STW-1053 | 02/15/05 | Gr. Alpha | 55.1 ± 1.8 | 67.9 | 38.5 - 97.3 | Pass |
| STW-1053 | 02/15/05 | Gr. Beta | 46.8 ± 1.3 | 51.1 | 38.5 - 97.3 | Pass |
| STW-1054 | 02/15/05 | Ra-226 | 13.7 ± 1.5 | 14.1 | 10.4 - 17.8 | Pass |
| STW-1054 | 02/15/05 | Ra-228 | 13.3 ± 0.6 | 13.7 | 7.8 - 19.6 | Pass |
| STW-1054 | 02/15/05 | Uranium | 5.1 ± 0.2 | 5.0 | 0.0 - 10.2 | Pass |
| STW-1055 | 05/17/05 | Sr-89 | 45.1 ± 4.1 | 41.3 | 32.6 - 50.0 | Pass |
| STW-1055 | 05/17/05 | Sr-90 | 7.5 ± 0.9 | 5.9 | 0.0 - 14.6 | Pass |
| STW-1056 | 05/17/05 | Ba-133 | 87.1 ± 2.0 | 88.4 | 73.1 - 104.0 | Pass |
| STW-1056 | 05/17/05 | Co-60 | 38.4 ± 0.8 | 37.0 | 28.3 - 45.7 | Pass |
| STW-1056 | 05/17/05 | Cs-134 | 75.3 ± 0.7 | 78.6 | 69.9 - 87.3 | Pass |
| STW-1056 | 05/17/05 | Cs-137 | 201.0 ± 8.4 | 194.0 | 184.0 - 218.0 | Pass |
| STW-1056 | 05/17/05 | Zn-65 | 130.0 ± 6.7 | 118.0 | 97.6 - 138.0 | Pass |
| STW-1057 | 05/17/05 | Gr. Alpha | 42.7 ± 2.9 | 37.0 | 21.0 - 53.0 | Pass |
| STW-1057 | 05/17/05 | Gr. Beta | 34.0 ± 0.4 | 34.2 | 25.5 - 42.9 | Pass |
| STW-1058 | 05/17/05 | I-131 | 14.7 ± 0.5 | 15.5 | 10.3 - 20.7 | Pass |
| STW-1059 | 05/17/05 | Ra-226 | 6.6 ± 0.1 | 7.6 | 5.6 - 9.5 | Pass |
| STW-1059 | 05/17/05 | Ra-228 | 19.3 ± 0.7 | 18.9 | 10.7 - 27.1 | Pass |
| STW-1059 | 05/17/05 | Uranium | 9.6 ± 0.1 | 10.1 | 4.9 - 15.3 | Pass |
| STW-1060 | 05/17/05 | H-3 | 24100.0 ± 109.0 | 24400.0 | 20200.0 - 28600.0 | Pass |
| STW-1067 | 08/16/05 | Sr-89 | 29.1 ± 3.0 | 28.0 | 19.3 - 36.7 | Pass |
| STW-1067 | 08/16/05 | Sr-90 | 36.0 ± 0.6 | 33.8 | 25.1 - 42.5 | Pass |
| STW-1068 | 08/16/05 | Ba-133 | 107.0 ± 1.7 | 106.0 | 87.7 - 124.0 | Pass |
| STW-1068 | 08/16/05 | Co-60 | 15.2 ± 0.2 | 13.5 | 4.8 - 22.2 | Pass |
| STW-1068 | 08/16/05 | Cs-134 | 89.1 ± 0.3 | 92.1 | 83.4 - 101.0 | Pass |
| STW-1068 | 08/16/05 | Cs-137 | 72.1 ± 1.0 | 72.7 | 64.0 - 81.4 | Pass |
| STW-1068 | 08/16/05 | Zn-65 | 67.4 ± 1.4 | 65.7 | 54.3 - 77.1 | Pass |
| STW-1069 | 08/16/05 | Gr. Alpha | 44.3 ± 1.5 | 55.7 | 31.6 - 79.8 | Pass |
| STW-1069 | 08/16/05 | Gr. Beta | 58.4 ± 2.1 | 61.3 | 44.0 - 78.6 | Pass |
| STW-1070 | 08/16/05 | Ra-226 | 16.6 ± 1.5 | 16.6 | 12.3 - 20.9 | Pass |
| STW-1070 | 08/16/05 | Ra-228 | 6.2 ± 0.3 | 6.2 | 3.5 - 8.9 | Pass |
| STW-1070 | 08/16/05 | Uranium | 4.5 ± 0.1 | 4.5 | 0.0 - 9.7 | Pass |

TABLE A-1. *Interlaboratory Comparison Crosscheck program, Environmental Resource Associates (ERA)*[a].

| Lab Code | Date | Analysis | Concentration (pCi/L) Laboratory Result[b] | ERA Result[c] | Control Limits | Acceptance |
|---|---|---|---|---|---|---|
| STW-1072 | 11/15/05 | Sr-89 | 20.6 ± 0.4 | 19.0 | 10.3 - 27.7 | Pass |
| STW-1072 | 11/15/05 | Sr-90 | 15.0 ± 0.3 | 16.0 | 7.3 - 24.7 | Pass |
| STW-1073 | 11/15/05 | Ba-133 | 31.8 ± 1.8 | 31.2 | 22.5 - 39.9 | Pass |
| STW-1073 | 11/15/05 | Co-60 | 85.0 ± 1.4 | 84.1 | 75.4 - 92.8 | Pass |
| STW-1073 | 11/15/05 | Cs-134 | 37.2 ± 2.1 | 33.9 | 25.2 - 42.6 | Pass |
| STW-1073 | 11/15/05 | Cs-137 | 27.8 ± 0.7 | 28.3 | 19.6 - 37.0 | Pass |
| STW-1073 | 11/15/05 | Zn-65 | 109.0 ± 1.0 | 105.0 | 86.8 - 123.0 | Pass |
| STW-1074 [d] | 11/15/05 | Gr. Alpha | 41.1 ± 1.2 | 23.3 | 13.2 - 33.4 | Fail |
| STW-1074 | 11/15/05 | Gr. Beta | 42.7 ± 0.5 | 39.1 | 30.4 - 47.8 | Pass |
| STW-1075 | 11/15/05 | I-131 | 20.5 ± 0.6 | 17.4 | 12.2 - 22.6 | Pass |
| STW-1076 | 11/15/05 | Ra-226 | 7.8 ± 0.6 | 8.3 | 6.2 - 10.5 | Pass |
| STW-1076 [e] | 11/15/05 | Ra-228 | 5.5 ± 0.6 | 3.5 | 2.0 - 5.0 | Fail |
| STW-1076 | 11/15/05 | Uranium | 15.5 ± 0.3 | 16.1 | 10.9 - 21.3 | Pass |
| STW-1077 | 11/15/05 | H-3 | 12500.0 ± 238.0 | 12200.0 | 10100.0 - 14300.0 | Pass |

[a] *Results obtained by Environmental, Inc., Midwest Laboratory as a participant in the crosscheck program for proficiency testing in drinking water conducted by Environmental Resources Associates (ERA).*

[b] Unless otherwise indicated, the laboratory result is given as the mean ± standard deviation for three determinations.

[c] Results are presented as the known values, expected laboratory precision (1 sigma, 1 determination) and control limits as provided by ERA.

[d] The original samples were calculated using an Am-241 efficiency. The samples were spiked with Th-232. Samples were recounted and calculated using the Th-232 efficiency. Results of the recount: 27.01 ± 2.35 pCi/L.

[e] Decay of short-lived radium daughters contributed to a higher counting rate. Delay of counting for 100 minutes provided better results. The reported result was the average of the first cycle of 100 minutes, the average of the second cycle counts was 4.01 pCi/L

TABLE A-2. Crosscheck program results; Thermoluminescent Dosimetry, (TLD, CaSO4: Dy Cards).

| Lab Code | Date | Description | Known Value (mR) | Lab Result ± 2 sigma (mR) | Control Limits | Acceptance |
|---|---|---|---|---|---|---|
| Environmental, Inc. | | | | | | |
| 2005-1 | 4/4/2005 | 30 cm | 55.01 | 64.02 ± 2.86 | 38.51 - 71.51 | Pass |
| 2005-1 | 4/4/2005 | 60 cm | 13.75 | 15.43 ± 1.02 | 9.63 - 17.88 | Pass |
| 2005-1 | 4/4/2005 | 60 cm | 13.75 | 14.98 ± 0.80 | 9.63 - 17.88 | Pass |
| 2005-1 | 4/4/2005 | 90 cm | 6.11 | 6.24 ± 0.16 | 4.28 - 7.94 | Pass |
| 2005-1 | 4/4/2005 | 90 cm | 6.11 | 5.45 ± 0.48 | 4.28 - 7.94 | Pass |
| 2005-1 | 4/4/2005 | 120 cm | 3.44 | 3.50 ± 0.35 | 2.41 - 4.47 | Pass |
| 2005-1 | 4/4/2005 | 120 cm | 3.44 | 3.15 ± 0.18 | 2.41 - 4.47 | Pass |
| 2005-1 | 4/4/2005 | 150 cm | 2.2 | 2.31 ± 0.25 | 1.54 - 2.86 | Pass |
| 2005-1 | 4/4/2005 | 180 cm | 1.53 | 1.65 ± 0.41 | 1.07 - 1.99 | Pass |
| Environmental, Inc. | | | | | | |
| 2005-2 | 9/12/2005 | 30 cm | 54.84 | 59.30 ± 2.66 | 38.39 - 71.29 | Pass |
| 2005-2 | 9/12/2005 | 60 cm | 13.71 | 17.55 ± 1.30 | 9.60 - 17.82 | Pass |
| 2005-2 | 9/12/2005 | 75 cm | 8.77 | 8.24 ± 0.38 | 6.14 - 11.40 | Pass |
| 2005-2 | 9/12/2005 | 90 cm | 6.09 | 5.94 ± 0.49 | 4.26 - 7.92 | Pass |
| 2005-2 | 9/12/2005 | 90 cm | 6.09 | 5.93 ± 0.37 | 4.26 - 7.92 | Pass |
| 2005-2 | 9/12/2005 | 120 cm | 3.43 | 3.42 ± 0.18 | 2.40 - 4.46 | Pass |
| 2005-2 | 9/12/2005 | 150 cm | 2.19 | 1.71 ± 0.14 | 1.53 - 2.85 | Pass |
| 2005-2 | 9/12/2005 | 150 cm | 2.19 | 1.87 ± 0.27 | 1.53 - 2.85 | Pass |
| 2005-2 | 9/12/2005 | 180 cm | 1.52 | 1.58 ± 0.99 | 1.06 - 1.98 | Pass |

TABLE A-3. In-House "Spike" Samples

| Lab Code [b] | Date | Analysis | Concentration (pCi/L)[a] Laboratory results 2s, n=1 [c] | Known Activity | Control Limits [d] | Acceptance |
|---|---|---|---|---|---|---|
| W-11105 | 1/11/2005 | Gr. Alpha | 24.05 ± 1.01 | 20.08 | 10.04 - 30.12 | Pass |
| W-11105 | 1/11/2005 | Gr. Beta | 61.59 ± 1.11 | 65.70 | 55.70 - 75.70 | Pass |
| SPW-764 | 2/18/2005 | H-3 | 77595.00 ± 764.00 | 80543.00 | 64434.40 - 96651.60 | Pass |
| SPAP-766 | 2/18/2005 | Gr. Beta | 416.08 ± 5.52 | 463.00 | 370.40 - 509.30 | Pass |
| STW-2887 | 2/28/2005 | Tc-99 | 32.91 ± 1.23 | 32.98 | 20.98 - 44.98 | Pass |
| W-30105 | 3/1/2005 | Gr. Alpha | 25.22 ± 0.45 | 20.08 | 10.04 - 30.12 | Pass |
| W-30105 | 3/1/2005 | Gr. Beta | 62.27 ± 0.48 | 65.73 | 55.73 - 75.73 | Pass |
| SPW-1836 | 4/15/2005 | I-131 | 109.79 ± 0.94 | 106.30 | 85.04 - 127.56 | Pass |
| SPW-1836 | 4/15/2005 | I-131(G) | 110.25 ± 9.68 | 106.30 | 95.67 - 116.93 | Pass |
| SPMI-1838 | 4/15/2005 | Cs-134 | 25.94 ± 1.28 | 26.60 | 16.60 - 36.60 | Pass |
| SPMI-1838 | 4/15/2005 | Cs-137 | 59.31 ± 3.66 | 60.90 | 50.90 - 70.90 | Pass |
| SPMI-1838 | 4/15/2005 | I-131 | 97.71 ± 0.81 | 106.30 | 85.04 - 127.56 | Pass |
| SPMI-1838 | 4/15/2005 | I-131(G) | 109.45 ± 3.06 | 106.30 | 95.67 - 116.93 | Pass |
| SPMI-1838 | 4/15/2005 | Sr-89 | 104.44 ± 2.89 | 108.20 | 86.56 - 129.84 | Pass |
| SPMI-1838 | 4/15/2005 | Sr-90 | 8.97 ± 0.79 | 7.53 | 0.00 - 17.53 | Pass |
| SPVE-1932 | 4/18/2005 | I-131(G) | 1.00 ± 0.04 | 0.73 | 0.44 - 1.02 | Pass |
| SPCH-1935 | 4/18/2005 | I-131 | 382.40 ± 14.95 | 328.64 | 262.91 - 394.37 | Pass |
| SPAP-1966 | 4/18/2005 | Cs-134 | 52.10 ± 7.27 | 53.35 | 43.35 - 63.35 | Pass |
| SPAP-1966 | 4/18/2005 | Cs-134 | 57.28 ± 13.47 | 53.35 | 43.35 - 63.35 | Pass |
| SPAP-1966 | 4/18/2005 | Cs-137 | 124.68 ± 18.41 | 121.77 | 109.59 - 133.95 | Pass |
| SPAP-1968 | 4/18/2005 | Cs-134 | 52.10 ± 7.27 | 53.35 | 43.35 - 63.35 | Pass |
| SPAP-1968 | 4/18/2005 | Cs-137 | 116.79 ± 14.00 | 121.77 | 109.59 - 133.95 | Pass |
| SPW-2098 | 4/26/2005 | Fe-55 | 2565.20 ± 63.66 | 3017.60 | 2414.08 - 3621.12 | Pass |
| SPW-2922 | 5/31/2005 | Cs-134 | 27.01 ± 1.09 | 25.54 | 15.54 - 35.54 | Pass |
| SPW-2922 | 5/31/2005 | Cs-134 | 65.38 ± 2.92 | 60.71 | 50.71 - 70.71 | Pass |
| SPW-2922 | 5/31/2005 | Sr-89 | 107.90 ± 3.60 | 113.90 | 91.12 - 136.68 | Pass |
| SPW-2922 | 5/31/2005 | Sr-90 | 11.11 ± 1.13 | 6.90 | 0.00 - 16.90 | Pass |
| SPAP-2892 | 6/1/2005 | Gr. Beta | 420.32 ± 5.55 | 448.00 | 358.40 - 492.80 | Pass |
| SPW-2895 | 6/1/2005 | H-3 | 75271.00 ± 724.00 | 78676.00 | 62940.80 - 94411.20 | Pass |
| w-60105 | 6/1/2005 | Gr. Alpha | 23.69 ± 0.52 | 20.08 | 10.04 - 30.12 | Pass |
| w-60105 | 6/1/2005 | Gr. Beta | 60.08 ± 0.57 | 65.73 | 55.73 - 75.73 | Pass |
| SPF-3089 | 6/7/2005 | Cs-134 | 1.08 ± 0.05 | 1.02 | 0.61 - 1.43 | Pass |
| SPF-3089 | 6/7/2005 | Cs-137 | 2.54 ± 0.10 | 2.43 | 1.46 - 3.40 | Pass |
| SPW- | 7/1/2005 | Ni-63 | 20.57 ± 1.10 | 16.75 | 10.05 - 23.45 | Pass |
| SPW-47731 | 8/24/2005 | C-14 | 2112.30 ± 9.13 | 2370.80 | 1422.48 - 3319.12 | Pass |
| SPW-47732 | 8/24/2005 | C-14 | 2294.10 ± 10.37 | 2370.80 | 1422.48 - 3319.12 | Pass |
| SPW-4775 | 8/24/2005 | Fe-55 | 2633.50 ± 62.40 | 2777.50 | 2222.00 - 3333.00 | Pass |
| SPMI-4834 | 8/30/2005 | Cs-134 | 49.27 ± 4.68 | 47.02 | 37.02 - 57.02 | Pass |
| SPMI-4834 | 8/30/2005 | Cs-137 | 58.17 ± 8.18 | 60.37 | 50.37 - 70.37 | Pass |
| SPMI-4834 | 8/30/2005 | Sr-89 | 66.39 ± 3.13 | 65.90 | 52.72 - 79.08 | Pass |
| SPMI-4834 | 8/30/2005 | Sr-90 | 11.15 ± 1.13 | 9.60 | 0.00 - 19.60 | Pass |

TABLE A-3. In-House "Spike" Samples

| Lab Code | Date | Analysis | Concentration (pCi/L) Laboratory results 2s, n=1[b] | Known Activity | Control Limits[c] | Acceptance |
|---|---|---|---|---|---|---|
| SPW-4836 | 8/30/2005 | Cs-134 | 47.35 ± 5.19 | 47.02 | 37.02 - 57.02 | Pass |
| SPW-4836 | 8/30/2005 | Cs-137 | 62.91 ± 9.08 | 60.37 | 50.37 - 70.37 | Pass |
| SPW-4836 | 8/30/2005 | Sr-89 | 11.04 ± 0.98 | 9.60 | 0.00 - 19.60 | Pass |
| SPW-4836 | 8/30/2005 | Sr-90 | 65.89 ± 2.79 | 65.90 | 52.72 - 79.08 | Pass |
| SPW-5014 | 8/30/2005 | H-3 | 77518.20 ± 753.80 | 77602.52 | 62082.02 - 93123.02 | Pass |
| W-90705 | 9/7/2005 | Gr. Alpha | 24.61 ± 0.48 | 20.08 | 10.04 - 30.12 | Pass |
| W-90705 | 9/7/2005 | Gr. Beta | 58.35 ± 0.49 | 65.73 | 55.73 - 75.73 | Pass |
| SPW-5237 | 9/22/2005 | C-14 | 2387.40 ± 11.00 | 2370.80 | 1422.48 - 3319.12 | Pass |
| SPW-5508 | 9/26/2005 | Ni-63 | 20.64 ± 1.23 | 16.70 | 10.02 - 23.38 | Pass |
| SPW-6019 | 10/24/2005 | Tc-99 | 547.99 ± 6.69 | 539.22 | 377.45 - 700.99 | Pass |
| SPF-6293 | 11/4/2005 | Cs-134 | 941.30 ± 44.10 | 886.00 | 797.40 - 974.60 | Pass |
| SPF-6293 | 11/4/2005 | Cs-137 | 2570.40 ± 105.30 | 2400.00 | 2160.00 - 2640.00 | Pass |
| SPAP-6309 | 11/7/2005 | Cs-134 | 41.24 ± 1.91 | 44.03 | 34.03 - 54.03 | Pass |
| SPAP-6309 | 11/7/2005 | Cs-137 | 114.03 ± 5.01 | 120.24 | 108.22 - 132.26 | Pass |
| SPAP-6311 | 11/7/2005 | Gr. Beta | 1.58 ± 0.02 | 1.42 | 1.14 - 11.42 | Pass |
| SPW-6451 | 11/10/2005 | H-3 | 77126.00 ± 747.00 | 76749.00 | 61399.20 - 92098.80 | Pass |
| W-120105 | 12/1/2005 | Gr. Alpha | 25.16 ± 0.45 | 20.08 | 10.04 - 30.12 | Pass |
| W-120105 | 12/1/2005 | Gr. Beta | 74.58 ± 0.81 | 65.73 | 55.73 - 75.73 | Pass |
| SPW-7440 | 12/30/2005 | Cs-134 | 42.67 ± 4.22 | 42.03 | 32.03 - 52.03 | Pass |
| SPW-7440 | 12/30/2005 | Cs-137 | 61.19 ± 7.20 | 59.91 | 49.91 - 69.91 | Pass |
| SPMI-7442 | 12/31/2005 | Cs-134 | 40.41 ± 5.66 | 42.03 | 32.03 - 52.03 | Pass |
| SPMI-7442 | 12/31/2005 | Cs-137 | 60.05 ± 7.80 | 59.91 | 49.91 - 69.91 | Pass |

[a] Liquid sample results are reported in pCi/Liter, air filters( pCi/filter), charcoal (pCi/m$^3$), and solid samples (pCi/g).

[b] Laboratory codes as follows: W (water), MI (milk), AP (air filter), SO (soil), VE (vegetation), CH (charcoal canister), F (fish).

[c] Results are based on single determinations.

[d] Control limits are based on Attachment A, Page A2 of this report.

NOTE: For fish, Jello is used for the Spike matrix. For Vegetation, cabbage is used for the Spike matrix.

TABLE A-4. In-House "Blank" Samples

| Lab Code | Sample Type | Date | Analysis | Concentration (pCi/L)[a] Laboratory results (4.66σ) LLD | Activity[b] | Acceptance Criteria (4.66 σ) |
|---|---|---|---|---|---|---|
| W-11105 | water | 1/11/2005 | Gr. Alpha | 0.055 | 0.00 ± 0.038 | 1 |
| W-11105 | water | 1/11/2005 | Gr. Beta | 0.15 | -0.016 ± 0.10 | 3.2 |
| SPW-765 | water | 2/18/2005 | H-3 | 165.8 | 7.4 ± 82.5 | 200 |
| SPAP-766 | Air Filter | 2/18/2005 | Gr. Beta | 0.72 | 0.29 ± 0.48 | 3.2 |
| STW-2888 | water | 2/28/2005 | Tc-99 | 1.32 | 0.45 ± 0.81 | 10 |
| W-30105 | water | 3/1/2005 | Gr. Alpha | 0.067 | -0.007 ± 0.043 | 1 |
| W-30105 | water | 3/1/2005 | Gr. Beta | 0.18 | -0.04 ± 0.11 | 3.2 |
| SPW-1837 | water | 4/15/2005 | Cs-134 | 4.66 | | 10 |
| SPW-1837 | water | 4/15/2005 | Cs-137 | 5.38 | | 10 |
| SPW-1837 | water | 4/15/2005 | I-131 | 0.30 | -0.13 ± 0.16 | 0.5 |
| SPW-1837 | water | 4/15/2005 | I-131(G) | 6.56 | | 20 |
| SPMI-1839 | Milk | 4/15/2005 | I-131 | 0.26 | -0.083 ± 0.14 | 0.5 |
| SPMI-1839 | Milk | 4/15/2005 | Sr-89 | 0.54 | -0.069 ± 0.56 | 5 |
| SPMI-1839 | Milk | 4/15/2005 | Sr-90 | 0.53 | 0.88 ± 0.34 | 1 |
| SPCH-1934 | Charcoal | 4/18/2005 | I-131(G) | 2.34 | | 9.6 |
| SPW-2097 | water | 4/26/2005 | Fe-55 | 859.0 | 96.1 ± 528.4 | 1000 |
| SPW-2923 | water | 5/31/2005 | Cs-134 | 3.29 | | 10 |
| SPW-2923 | water | 5/31/2005 | Cs-137 | 3.87 | | 10 |
| SPW-2896 | water | 6/1/2005 | H-3 | 138.30 | 48.1 ± 85.9 | 200 |
| w-60105 | water | 6/1/2005 | Gr. Alpha | 0.061 | 0.002 ± 0.043 | 1 |
| w-60105 | water | 6/1/2005 | Gr. Beta | 0.16 | 0.056 ± 0.11 | 3.2 |
| SPF-3090 | Fish | 6/7/2005 | Cs-134 | 15.69 | | 100 |
| SPF-3090 | Fish | 6/7/2005 | Cs-137 | 11.71 | | 100 |
| SPW- | water | 7/1/2005 | Ni-63 | 1.60 | 0.79 ± 0.99 | 20 |
| SPW-4774 | water | 8/24/2005 | C-14 | 12.18 | 2.84 ± 6.45 | 200 |
| SPW-4776 | water | 8/24/2005 | Fe-55 | 833 | 275 ± 525 | 1000 |
| SPMI-4835 | Milk | 8/30/2005 | Co-60 | 4.42 | | 10 |
| SPMI-4835 | Milk | 8/30/2005 | Cs-134 | 4.18 | | 10 |
| SPMI-4835 | Milk | 8/30/2005 | Cs-137 | 6.25 | | 10 |
| SPMI-4835 | Milk | 8/30/2005 | I-131(G) | 5.37 | | 20 |
| SPMI-4835 | Milk | 8/30/2005 | Sr-89 | 0.66 | -0.23 ± 0.65 | 5 |
| SPMI-4835 [d] | Milk | 8/30/2005 | Sr-90 | 0.66 | 1.02 ± 0.41 | 1 |
| SPW-4837 | water | 8/30/2005 | Co-60 | 2.48 | | 10 |
| SPW-4837 | water | 8/30/2005 | Cs-134 | 3.85 | | 10 |
| SPW-4837 | water | 8/30/2005 | Cs-137 | 3.00 | | 10 |
| SPW-4837 | water | 8/30/2005 | Sr-89 | 0.63 | 0.25 ± 0.53 | 5 |
| SPW-4837 | water | 8/30/2005 | Sr-90 | 0.63 | -0.035 ± 0.29 | 1 |
| SPW-5015 | water | 8/30/2005 | H-3 | 142.8 | 168 ± 93 | 200 |
| SPW-5238 | water | 9/22/2005 | C-14 | 17.10 | 3.02 ± 9.04 | 200 |

TABLE A-4. In-House "Blank" Samples

| Lab Code | Sample Type | Date | Analysis | Concentration (pCi/L)[a] Laboratory results (4.66σ) LLD | Activity[b] | Acceptance Criteria (4.66 σ) |
|---|---|---|---|---|---|---|
| W-90705 | water | 9/7/2005 | Gr. Alpha | 0.056 | 0.034 ± 0.04 | 1 |
| W-90705 | water | 9/7/2005 | Gr. Beta | 0.16 | 0.082 ± 0.11 | 3.2 |
| SPW-5238 | water | 9/22/2005 | C-14 | 17.10 | 3.02 ± 9.04 | 200 |
| SPW-5509 | water | 9/26/2005 | Ni-63 | 1.25 | 1.23 ± 0.79 | 20 |
| SPW-6020 | water | 10/24/2005 | Tc-99 | 4.81 | -1.75 ± 2.90 | 10 |
| SPF-6294 | Fish | 11/4/2005 | Cs-134 | 18.60 | | 100 |
| SPF-6294 | Fish | 11/4/2005 | Cs-137 | 12.99 | | 100 |
| SPAP-6310 | Air Filter | 11/7/2005 | Cs-134 | 3.23 | | 100 |
| SPAP-6310 | Air Filter | 11/7/2005 | Cs-137 | 3.86 | | 100 |
| SPAP-6312 | Air Filter | 11/7/2005 | Gr. Beta | 1.22 | -0.64 ± 0.64 | 3.2 |
| W-120105 | water | 12/1/2005 | Gr. Alpha | 0.05 | 0.033 ± 0.04 | 1 |
| W-120105 | water | 12/1/2005 | Gr. Beta | 0.15 | -0.043 ± 0.11 | 3.2 |
| SPMI-7419 | Milk | 12/22/2005 | Co-60 | 7.24 | | 10 |
| SPMI-7419 | Milk | 12/22/2005 | Cs-137 | 5.61 | | 10 |
| SPMI-7419 | Milk | 12/22/2005 | I-131(G) | 10.96 | | 20 |
| SPW-7421 | water | 12/22/2005 | Co-60 | 2.43 | | 10 |
| SPW-7421 | water | 12/22/2005 | Cs-137 | 3.12 | | 10 |
| SPW-7441 | water | 12/30/2005 | Cs-134 | 4.25 | | 10 |
| SPW-7441 | water | 12/30/2005 | Cs-137 | 1.63 | | 10 |
| SPMI-7443 | Milk | 12/30/2005 | Cs-134 | 4.74 | | 10 |
| SPMI-7443 | Milk | 12/30/2005 | Cs-137 | 8.53 | | 10 |

[a] Liquid sample results are reported in pCi/Liter, air filters( pCi/filter), charcoal (pCi/charcoal canister), and solid samples (pCi/g).
[b] Activity reported is a net activity result. For gamma spectroscopic analysis, activity detected below the LLD value is not reported
[c] I-131(G); iodine-131 as analyzed by gamma spectroscopy.
[d] Low levels of Sr-90 are still detected in the environment. A concentration of (1-5 pCi/L) in milk is not unusual.

TABLE A-5. In-House "Duplicate" Samples

| Lab Code | Date | Analysis | Concentration (pCi/L)[a] First Result | Second Result | Averaged Result | Acceptance |
|---|---|---|---|---|---|---|
| SW-62, 63 | 1/3/2005 | Gr. Beta | 3.01 ± 0.57 | 2.39 ± 0.58 | 2.70 ± 0.41 | Pass |
| SW-62, 63 | 1/3/2005 | K-40 | 2.00 ± 0.20 | 2.10 ± 0.20 | 2.05 ± 0.14 | Pass |
| CF-95, 96 | 1/3/2005 | Gr. Beta | 6.26 ± 0.23 | 6.28 ± 0.23 | 6.27 ± 0.16 | Pass |
| CF-95, 96 | 1/3/2005 | K-40 | 5.68 ± 0.59 | 5.37 ± 0.48 | 5.53 ± 0.38 | Pass |
| AP-791, 792 | 1/14/2005 | Be-7 | 0.057 ± 0.017 | 0.07 ± 0.04 | 0.06 ± 0.02 | Pass |
| WW-353, 354 | 1/19/2005 | Gr. Beta | 8.37 ± 1.21 | 10.28 ± 1.34 | 9.32 ± 0.90 | Pass |
| SO-383, 384 | 1/19/2005 | H-3 | 453.50 ± 107.20 | 417.90 ± 106.00 | 435.70 ± 75.38 | Pass |
| LW-431, 432 | 1/27/2005 | Gr. Beta | 2.45 ± 0.54 | 2.20 ± 0.54 | 2.33 ± 0.38 | Pass |
| MI-486, 487 | 2/1/2005 | K-40 | 1319.40 ± 163.60 | 1177.20 ± 179.70 | 1248.30 ± 121.51 | Pass |
| SW-511, 512 | 2/1/2005 | I-131 | 0.37 ± 0.22 | 0.44 ± 0.23 | 0.40 ± 0.16 | Pass |
| TD-628, 629 | 2/1/2005 | H-3 | 489663 ± 1918 | 491225 ± 1915 | 490444 ± 1355 | Pass |
| DW-538, 539 | 2/3/2005 | Gr. Beta | 3.93 ± 1.18 | 3.62 ± 1.10 | 3.78 ± 0.81 | Pass |
| MI-564, 565 | 2/8/2005 | K-40 | 1316.20 ± 171.10 | 1292.60 ± 154.40 | 1304.40 ± 115.23 | Pass |
| DW-50134, 5 | 2/11/2005 | Gr. Beta | 18.41 ± 0.98 | 16.76 ± 0.98 | 17.59 ± 0.69 | Pass |
| SWU-893, 894 | 2/22/2005 | Gr. Beta | 4.00 ± 0.96 | 4.20 ± 0.72 | 4.10 ± 0.60 | Pass |
| SW-925, 926 | 2/25/2005 | Gr. Beta | 5.97 ± 1.51 | 6.14 ± 1.55 | 6.06 ± 1.08 | Pass |
| SW-950, 951 | 3/1/2005 | Gr. Beta | 0.92 ± 0.27 | 1.21 ± 0.27 | 1.07 ± 0.19 | Pass |
| SW-950, 951 | 3/1/2005 | Gr. Beta | 2.06 ± 0.40 | 2.29 ± 0.44 | 2.18 ± 0.30 | Pass |
| SW-973, 974 | 3/1/2005 | I-131 | 1.08 ± 0.19 | 0.92 ± 0.18 | 1.00 ± 0.13 | Pass |
| DW-50248, 9 | 3/16/2005 | Gr. Alpha | 5.27 ± 1.06 | 4.17 ± 0.90 | 4.72 ± 0.70 | Pass |
| DW-1264, 1265 | 3/19/2005 | I-131 | 0.54 ± 0.21 | 0.73 ± 0.20 | 0.63 ± 0.15 | Pass |
| AP-1955, 1956 | 3/28/2005 | Be-7 | 0.071 ± 0.009 | 0.071 ± 0.009 | 0.071 ± 0.006 | Pass |
| AP-1890, 1891 | 3/29/2005 | Be-7 | 0.060 ± 0.013 | 0.069 ± 0.013 | 0.065 ± 0.009 | Pass |
| AP-2025, 2026 | 3/29/2005 | Be-7 | 0.063 ± 0.012 | 0.071 ± 0.011 | 0.067 ± 0.008 | Pass |
| MI-1346, 1347 | 3/30/2005 | K-40 | 1252.80 ± 120.50 | 1334.10 ± 106.60 | 1293.45 ± 80.44 | Pass |
| AP-2048, 2049 | 3/30/2005 | Be-7 | 0.075 ± 0.018 | 0.071 ± 0.015 | 0.073 ± 0.012 | Pass |
| AP-2081, 2082 | 3/30/2005 | Be-7 | 0.073 ± 0.016 | 0.061 ± 0.018 | 0.067 ± 0.012 | Pass |
| SWU-1521, 1522 | 3/31/2005 | Gr. Beta | 2.83 ± 1.16 | 3.46 ± 1.23 | 3.14 ± 0.85 | Pass |
| WW-1738, 1739 | 4/5/2005 | Gr. Beta | 11.44 ± 1.17 | 11.14 ± 1.62 | 11.29 ± 1.00 | Pass |
| SW-1857, 1858 | 4/13/2005 | Gr. Beta | 7.04 ± 1.71 | 9.96 ± 1.65 | 8.50 ± 1.19 | Pass |
| LW-1911, 1912 | 4/14/2005 | Gr. Beta | 2.50 ± 0.63 | 3.23 ± 0.67 | 2.86 ± 0.46 | Pass |
| F-1976, 1977 | 4/18/2005 | K-40 | 3.09 ± 0.60 | 3.33 ± 0.40 | 3.21 ± 0.36 | Pass |
| MI-2111, 2112 | 4/26/2005 | K-40 | 1291.50 ± 177.90 | 1323.70 ± 108.80 | 1307.60 ± 104.27 | Pass |
| SWU-2158, 2159 | 4/26/2005 | Gr. Beta | 3.69 ± 0.74 | 3.54 ± 0.66 | 3.62 ± 0.50 | Pass |
| DW-2349, 2350 | 4/29/2005 | I-131 | 0.58 ± 0.27 | 0.49 ± 0.27 | 0.53 ± 0.19 | Pass |
| SO-2305, 2306 | 5/2/2005 | Cs-137 | 0.11 ± 0.05 | 0.11 ± 0.04 | 0.11 ± 0.03 | Pass |
| SO-2305, 2306 | 5/2/2005 | Gr. Alpha | 7.55 ± 2.88 | 12.41 ± 3.38 | 9.98 ± 2.22 | Pass |
| SO-2305, 2306 | 5/2/2005 | Gr. Beta | 28.74 ± 2.57 | 28.17 ± 2.52 | 28.46 ± 1.80 | Pass |
| SO-2305, 2306 | 5/2/2005 | K-40 | 21.51 ± 1.22 | 21.42 ± 1.24 | 21.47 ± 0.87 | Pass |
| SO-2305, 2306 | 5/2/2005 | Sr-90 | 32.90 ± 9.90 | 29.60 ± 13.90 | 31.25 ± 8.53 | Pass |
| MI-2260, 2261 | 5/3/2005 | K-40 | 1028.10 ± 99.36 | 1206.70 ± 118.50 | 1117.40 ± 77.32 | Pass |
| F-2630, 2631 | 5/5/2005 | K-40 | 3.08 ± 0.46 | 3.04 ± 0.51 | 3.06 ± 0.34 | Pass |
| VE-2502, 2503 | 5/10/2005 | Gr. Alpha | 0.06 ± 0.03 | 0.07 ± 0.04 | 0.07 ± 0.03 | Pass |

TABLE A-5. In-House "Duplicate" Samples

| Lab Code | Date | Analysis | Concentration (pCi/L)[a] First Result | Second Result | Averaged Result | Acceptance |
|---|---|---|---|---|---|---|
| VE-2502, 2503 | 5/10/2005 | Gr. Beta | 3.81 ± 0.10 | 3.86 ± 0.10 | 3.83 ± 0.07 | Pass |
| VE-2502, 2503 | 5/10/2005 | K-40 | 3.79 ± 0.40 | 4.30 ± 0.59 | 4.04 ± 0.36 | Pass |
| G-2546, 2547 | 5/11/2005 | Be-7 | 0.81 ± 0.39 | 1.25 ± 0.38 | 1.03 ± 0.27 | Pass |
| G-2546, 2547 | 5/11/2005 | K-40 | 9.43 ± 1.00 | 7.96 ± 0.85 | 8.70 ± 0.66 | Pass |
| SS-2787, 2788 | 5/18/2005 | Cs-137 | 0.13 ± 0.04 | 0.14 ± 0.05 | 0.13 ± 0.03 | Pass |
| SS-2787, 2788 | 5/18/2005 | K-40 | 12.44 ± 0.76 | 13.33 ± 0.83 | 12.88 ± 0.56 | Pass |
| SO-3056, 3057 | 5/19/2005 | Cs-137 | 0.18 ± 0.04 | 0.17 ± 0.01 | 0.18 ± 0.02 | Pass |
| SO-3056, 3057 [b] | 5/19/2005 | K-40 | 20.06 ± 1.10 | 21.73 ± 0.36 | 20.90 ± 0.58 | Fail |
| SS-3175, 3176 | 5/23/2005 | K-40 | 6.06 ± 0.44 | 5.96 ± 0.61 | 6.01 ± 0.38 | Pass |
| SO-2865, 2866 | 5/25/2005 | Cs-137 | 0.18 ± 0.04 | 0.18 ± 0.03 | 0.18 ± 0.02 | Pass |
| SO-2865, 2866 | 5/25/2005 | Gr. Beta | 32.95 ± 2.48 | 33.88 ± 2.36 | 33.41 ± 1.71 | Pass |
| SO-2865, 2866 | 5/25/2005 | K-40 | 21.93 ± 0.97 | 22.32 ± 0.98 | 22.13 ± 0.69 | Pass |
| DW-2935, 2936 | 5/27/2005 | I-131 | 0.51 ± 0.34 | 0.56 ± 0.30 | 0.53 ± 0.23 | Pass |
| SWU-3103, 3104 | 6/1/2005 | Gr. Beta | 3.29 ± 0.49 | 3.75 ± 0.66 | 3.52 ± 0.41 | Pass |
| G-2958, 2959 | 6/1/2005 | Be-7 | 1.06 ± 0.40 | 1.21 ± 0.28 | 1.14 ± 0.24 | Pass |
| G-2958, 2959 [b] | 6/1/2005 | Gr. Beta | 8.06 ± 0.07 | 7.79 ± 0.07 | 7.93 ± 0.05 | Fail |
| G-2958, 2959 | 6/1/2005 | K-40 | 5.93 ± 0.73 | 6.05 ± 0.28 | 5.99 ± 0.39 | Pass |
| BS-4089, 4090 | 6/3/2005 | Co-60 | 0.11 ± 0.02 | 0.10 ± 0.02 | 0.11 ± 0.02 | Pass |
| BS-4089, 4090 | 6/3/2005 | Cs-137 | 0.60 ± 0.05 | 0.62 ± 0.05 | 0.61 ± 0.04 | Pass |
| DW-50527, 8 | 6/8/2005 | Gr. Alpha | 11.58 ± 1.31 | 13.52 ± 1.43 | 12.55 ± 0.97 | Pass |
| VE-3278, 3279 | 6/13/2005 | K-40 | 6.34 ± 0.59 | 7.29 ± 0.68 | 6.81 ± 0.45 | Pass |
| MI-3299, 3300 | 6/15/2005 | K-40 | 1215.40 ± 110.20 | 1250.70 ± 106.70 | 1233.05 ± 76.70 | Pass |
| BS-3348, 3349 | 6/17/2005 | Co-60 | 0.20 ± 0.04 | 0.22 ± 0.04 | 0.21 ± 0.03 | Pass |
| BS-3348, 3349 | 6/17/2005 | Cs-137 | 2.59 ± 0.10 | 2.51 ± 0.07 | 2.55 ± 0.06 | Pass |
| BS-3348, 3349 | 6/17/2005 | K-40 | 11.57 ± 0.81 | 11.82 ± 0.76 | 11.69 ± 0.56 | Pass |
| DW-3486, 3487 | 6/28/2005 | Gr. Beta | 0.97 ± 0.54 | 1.67 ± 0.58 | 1.32 ± 0.40 | Pass |
| SWT-3631, 3632 | 6/28/2005 | Gr. Beta | 2.12 ± 0.53 | 1.62 ± 0.56 | 1.87 ± 0.39 | Pass |
| W-3507, 3508 | 6/29/2005 | H-3 | 38717 ± 382 | 38017 ± 535 | 38367 ± 329 | Pass |
| VE-3555, 3556 | 6/29/2005 | Gr. Beta | 7.53 ± 0.18 | 7.56 ± 0.18 | 7.55 ± 0.13 | Pass |
| VE-3555, 3556 | 6/29/2005 | K-40 | 5.70 ± 0.52 | 5.64 ± 0.53 | 5.67 ± 0.37 | Pass |
| AP-3781, 3782 | 6/29/2005 | Be-7 | 0.09 ± 0.02 | 0.08 ± 0.02 | 0.09 ± 0.01 | Pass |
| LW-3610, 3611 | 6/30/2005 | Gr. Beta | 1.37 ± 0.35 | 1.40 ± 0.36 | 1.39 ± 0.25 | Pass |
| SW-3760, 3761 | 6/30/2005 | Gr. Beta | 9.70 ± 1.63 | 9.77 ± 1.61 | 9.73 ± 1.15 | Pass |
| E-3654, 3655 | 7/5/2005 | Gr. Beta | 1.76 ± 0.07 | 1.69 ± 0.07 | 1.72 ± 0.05 | Pass |
| E-3654, 3655 | 7/5/2005 | K-40 | 1.49 ± 0.25 | 1.05 ± 0.21 | 1.27 ± 0.16 | Pass |
| MI-3676, 3677 | 7/5/2005 | K-40 | 1383.90 ± 116.20 | 1428.20 ± 125.40 | 1406.05 ± 85.48 | Pass |
| DW-3739, 3740 | 7/5/2005 | I-131 | 1.93 ± 0.24 | 2.18 ± 0.23 | 2.05 ± 0.17 | Pass |
| W-3808, 3809 | 7/6/2005 | H-3 | 4189.61 ± 196.68 | 4438.33 ± 201.39 | 4313.97 ± 140.75 | Pass |
| DW-3938, 3939 | 7/8/2005 | I-131 | 1.11 ± 0.30 | 1.26 ± 0.31 | 1.18 ± 0.22 | Pass |
| VE-3896, 3897 | 7/12/2005 | K-40 | 3.44 ± 0.62 | 3.60 ± 0.36 | 3.52 ± 0.36 | Pass |
| MI-3963, 3964 | 7/13/2005 | K-40 | 1438.70 ± 102.80 | 1351.80 ± 100.80 | 1395.25 ± 71.99 | Pass |
| DW-4068, 4069 | 7/15/2005 | I-131 | 0.64 ± 0.27 | 0.91 ± 0.28 | 0.78 ± 0.20 | Pass |

TABLE A-5. In-House "Duplicate" Samples

| | | | Concentration (pCi/L)[a] | | | |
|---|---|---|---|---|---|---|
| Lab Code | Date | Analysis | First Result | Second Result | Averaged Result | Acceptance |
| VE-4290, 4291 | 7/26/2005 | Gr. Alpha | 0.11 ± 0.04 | 0.05 ± 0.03 | 0.08 ± 0.03 | Pass |
| VE-4290, 4291 | 7/26/2005 | Gr. Beta | 4.55 ± 0.13 | 4.69 ± 0.14 | 4.62 ± 0.09 | Pass |
| SWU-4311, 4312 | 7/26/2005 | Gr. Beta | 2.62 ± 0.64 | 1.67 ± 0.37 | 2.15 ± 0.37 | Pass |
| SWU-4311, 4312 | 7/26/2005 | H-3 | 192.30 ± 92.90 | 304.60 ± 97.40 | 248.45 ± 67.30 | Pass |
| G-4383, 4384 | 8/1/2005 | Be-7 | 2.06 ± 0.49 | 1.76 ± 0.29 | 1.91 ± 0.28 | Pass |
| G-4383, 4384 | 8/1/2005 | Gr. Beta | 8.76 ± 0.22 | 8.40 ± 0.20 | 8.58 ± 0.15 | Pass |
| G-4383, 4384 | 8/1/2005 | K-40 | 6.74 ± 0.64 | 6.88 ± 0.92 | 6.81 ± 0.56 | Pass |
| MI-4425, 4426 | 8/1/2005 | K-40 | 1358.10 ± 169.20 | 1267.90 ± 164.40 | 1313.00 ± 117.96 | Pass |
| TD-4446, 4447 | 8/1/2005 | H-3 | 563.00 ± 252.00 | 529.00 ± 251.00 | 546.00 ± 177.84 | Pass |
| SL-4473, 4474 | 8/4/2005 | Gr. Beta | 5.44 ± 0.48 | 4.57 ± 0.42 | 5.00 ± 0.32 | Pass |
| SL-4473, 4474 | 8/4/2005 | K-40 | 2.91 ± 0.83 | 2.74 ± 0.54 | 2.82 ± 0.49 | Pass |
| VE-4532, 4533 | 8/5/2005 | Gr. Beta | 31.20 ± 1.20 | 31.70 ± 1.20 | 31.45 ± 0.85 | Pass |
| VE-4618, 4619 | 8/9/2005 | Gr. Alpha | 0.09 ± 0.05 | 0.09 ± 0.04 | 0.09 ± 0.03 | Pass |
| VE-4618, 4619 | 8/9/2005 | Gr. Beta | 4.60 ± 0.13 | 4.54 ± 0.12 | 4.57 ± 0.09 | Pass |
| VE-4618, 4619 | 8/9/2005 | K-40 | 4.19 ± 0.46 | 4.34 ± 0.47 | 4.27 ± 0.33 | Pass |
| F-4639, 4640 | 8/11/2005 | Cs-137 | 0.05 ± 0.02 | 0.05 ± 0.02 | 0.05 ± 0.02 | Pass |
| F-4639, 4640 | 8/11/2005 | Gr. Beta | 3.33 ± 0.11 | 3.37 ± 0.10 | 3.35 ± 0.07 | Pass |
| F-4639, 4640 | 8/11/2005 | K-40 | 2.62 ± 0.57 | 2.58 ± 0.59 | 2.60 ± 0.41 | Pass |
| DW-4730, 4731 | 8/12/2005 | I-131 | 0.82 ± 0.23 | 0.83 ± 0.25 | 0.83 ± 0.17 | Pass |
| MI-4855, 4856 | 8/28/2005 | K-40 | 1341.50 ± 107.70 | 1340.00 ± 114.70 | 1340.75 ± 78.67 | Pass |
| MI-4855, 4856 | 8/28/2005 | Sr-90 | 0.77 ± 0.37 | 0.87 ± 0.37 | 0.82 ± 0.26 | Pass |
| MI-4945, 4946 | 8/31/2005 | K-40 | 1388.90 ± 158.90 | 1307.50 ± 165.20 | 1348.20 ± 114.61 | Pass |
| MI-4945, 4946 | 8/31/2005 | Sr-90 | 0.67 ± 0.34 | 0.82 ± 0.36 | 0.75 ± 0.25 | Pass |
| TD-4921, 4922 | 9/1/2005 | H-3 | 5737.00 ± 266.00 | 5860.00 ± 269.00 | 5798.50 ± 189.15 | Pass |
| VE-4900, 4901 | 9/2/2005 | Gr. Beta | 3.40 ± 0.06 | 3.51 ± 0.06 | 3.45 ± 0.04 | Pass |
| VE-4900, 4901 | 9/2/2005 | K-40 | 2.15 ± 0.27 | 2.27 ± 0.24 | 2.21 ± 0.18 | Pass |
| DW-50769, 50770 | 9/2/2005 | Gr. Alpha | 6.17 ± 1.42 | 6.08 ± 1.46 | 6.13 ± 1.02 | Pass |
| VE-4990, 4991 | 9/6/2005 | K-40 | 18.81 ± 1.12 | 19.52 ± 0.86 | 19.17 ± 0.71 | Pass |
| MI-5011, 5012 | 9/8/2005 | K-40 | 1584.00 ± 194.00 | 1707.60 ± 173.00 | 1645.80 ± 129.97 | Pass |
| VE-5119, 5120 | 9/12/2005 | Gr. Alpha | 0.10 ± 0.06 | 0.09 ± 0.05 | 0.10 ± 0.04 | Pass |
| VE-5119, 5120 | 9/12/2005 | Gr. Beta | 6.05 ± 0.18 | 5.92 ± 0.17 | 5.98 ± 0.12 | Pass |
| VE-5119, 5120 | 9/12/2005 | K-40 | 4.61 ± 0.46 | 4.74 ± 0.69 | 4.68 ± 0.41 | Pass |
| LW-5361, 5362 | 9/12/2005 | Gr. Beta | 1.09 ± 0.33 | 1.18 ± 0.34 | 1.13 ± 0.24 | Pass |
| SW-5098, 5099 | 9/13/2005 | I-131 | 0.44 ± 0.22 | 0.31 ± 0.20 | 0.38 ± 0.15 | Pass |
| LW-5178, 5179 | 9/14/2005 | Gr. Beta | 2.92 ± 0.56 | 2.95 ± 0.59 | 2.93 ± 0.41 | Pass |
| DW-5239, 5240 | 9/16/2005 | I-131 | 0.45 ± 0.27 | 0.55 ± 0.29 | 0.50 ± 0.20 | Pass |
| CF-5432, 5433 | 9/19/2005 | Be-7 | 0.91 ± 0.40 | 0.64 ± 0.30 | 0.78 ± 0.25 | Pass |
| CF-5432, 5433 | 9/19/2005 | K-40 | 1.43 ± 0.34 | 1.38 ± 0.43 | 1.41 ± 0.27 | Pass |
| MI-5292, 5293 | 9/21/2005 | K-40 | 1228.80 ± 78.13 | 1297.00 ± 81.03 | 1262.90 ± 56.28 | Pass |
| BS-5340, 5341 | 9/23/2005 | Be-7 | 1286.10 ± 550.80 | 1222.90 ± 394.40 | 1254.50 ± 338.72 | Pass |
| BS-5340, 5341 | 9/23/2005 | Cs-137 | 726.97 ± 76.24 | 677.49 ± 70.03 | 702.23 ± 51.76 | Pass |

TABLE A-5. In-House "Duplicate" Samples

| Lab Code | Date | Analysis | Concentration (pCi/L)[a] First Result | Second Result | Averaged Result | Acceptance |
|---|---|---|---|---|---|---|
| BS-5340, 5341 | 9/23/2005 | K-40 | 12404 ± 1154 | 13033 ± 983 | 12719 ± 758 | Pass |
| DW-5382, 5383 | 9/23/2005 | I-131 | 0.79 ± 0.31 | 0.53 ± 0.31 | 0.66 ± 0.22 | Pass |
| MI-5405, 5406 | 9/27/2005 | K-40 | 1324.80 ± 112.20 | 1366.80 ± 99.44 | 1345.80 ± 74.96 | Pass |
| AP-5769, 5770 | 9/27/2005 | Be-7 | 0.08 ± 0.01 | 0.09 ± 0.02 | 0.08 ± 0.01 | Pass |
| AP-5983, 5984 | 9/27/2005 | Be-7 | 0.08 ± 0.01 | 0.08 ± 0.01 | 0.08 ± 0.01 | Pass |
| AP-5878, 5879 | 9/29/2005 | Be-7 | 0.06 ± 0.01 | 0.07 ± 0.01 | 0.07 ± 0.01 | Pass |
| G-5526, 5527 | 10/3/2005 | Be-7 | 4.03 ± 0.62 | 4.07 ± 0.80 | 4.05 ± 0.51 | Pass |
| G-5526, 5527 | 10/3/2005 | Gr. Beta | 8.10 ± 0.30 | 8.80 ± 0.40 | 8.41 ± 0.24 | Pass |
| G-5526, 5527 | 10/3/2005 | K-40 | 4.93 ± 0.67 | 6.00 ± 0.72 | 5.47 ± 0.49 | Pass |
| VE-5721, 5722 | 10/10/2005 | Gr. Alpha | 0.07 ± 0.05 | 0.08 ± 0.06 | 0.08 ± 0.04 | Pass |
| VE-5721, 5722 | 10/10/2005 | Gr. Beta | 5.09 ± 0.15 | 5.00 ± 0.16 | 5.05 ± 0.11 | Pass |
| VE-5721, 5722 | 10/10/2005 | K-40 | 4.27 ± 0.43 | 4.20 ± 0.34 | 4.23 ± 0.27 | Pass |
| CF-5695, 5696 | 10/11/2005 | Be-7 | 2.70 ± 0.37 | 2.80 ± 0.34 | 2.75 ± 0.25 | Pass |
| CF-5695, 5696 | 10/11/2005 | K-40 | 11.79 ± 0.86 | 13.11 ± 0.68 | 12.45 ± 0.55 | Pass |
| LW-6129, 6130 | 10/11/2005 | Gr. Beta | 1.34 ± 0.25 | 1.85 ± 0.29 | 1.59 ± 0.19 | Pass |
| LW-6129, 6130 | 10/11/2005 | H-3 | 304.35 ± 95.31 | 369.23 ± 97.88 | 336.79 ± 68.31 | Pass |
| DW-50844, 5 | 10/11/2005 | Gr. Beta | 5.30 ± 1.50 | 4.20 ± 1.40 | 4.75 ± 1.03 | Pass |
| LW-5748, 5749 [c] | 10/12/2005 | Gr. Beta | 1.09 ± 0.25 | 1.89 ± 0.28 | 1.49 ± 0.19 | Fail |
| AP-6485, 6486 | 10/20/2005 | Be-7 | 0.10 ± 0.03 | 0.09 ± 0.03 | 0.09 ± 0.02 | Pass |
| SWU-6156, 6157 | 10/25/2005 | Gr. Beta | 4.69 ± 1.34 | 4.18 ± 1.34 | 4.44 ± 0.95 | Pass |
| VE-6186, 6187 | 10/26/2005 | K-40 | 2.90 ± 0.49 | 2.83 ± 0.51 | 2.87 ± 0.35 | Pass |
| LW-6203, 6204 | 10/27/2005 | Gr. Beta | 2.92 ± 0.62 | 3.09 ± 0.66 | 3.01 ± 0.45 | Pass |
| SO-6270, 6271 | 10/28/2005 | Cs-137 | 0.33 ± 0.03 | 0.34 ± 0.04 | 0.33 ± 0.03 | Pass |
| SO-6270, 6271 | 10/28/2005 | Gr. Beta | 26.85 ± 2.78 | 22.25 ± 2.41 | 24.55 ± 1.84 | Pass |
| SO-6270, 6271 | 10/28/2005 | K-40 | 13.67 ± 0.74 | 14.02 ± 0.76 | 13.85 ± 0.53 | Pass |
| TD-6320, 6321 | 11/1/2005 | H-3 | 444202 ± 1770 | 446633 ± 1775 | 445418 ± 1253 | Pass |
| SO-6605, 6606 | 11/11/2005 | Gr. Beta | 18.22 ± 2.23 | 18.47 ± 2.22 | 18.35 ± 1.57 | Pass |
| CF-6509, 6510 | 11/14/2005 | K-40 | 0.85 ± 0.14 | 0.99 ± 0.22 | 0.92 ± 0.13 | Pass |
| SW-6638, 6639 | 11/22/2005 | I-131 | 0.95 ± 0.35 | 0.67 ± 0.31 | 0.81 ± 0.23 | Pass |
| SO-6887, 6888 | 11/22/2005 | Gr. Alpha | 6.80 ± 2.92 | 10.27 ± 3.26 | 8.53 ± 2.19 | Pass |
| SO-6887, 6888 | 11/22/2005 | Gr. Beta | 19.27 ± 2.16 | 18.43 ± 2.21 | 18.85 ± 1.54 | Pass |
| SO-6887, 6888 | 11/22/2005 | K-40 | 14.29 ± 1.11 | 13.78 ± 0.78 | 14.03 ± 0.68 | Pass |
| SWT-6721, 6722 | 11/29/2005 | Gr. Beta | 0.98 ± 0.31 | 0.87 ± 0.31 | 0.93 ± 0.22 | Pass |
| VE-6775, 6776 | 11/29/2005 | Gr. Beta | 12.75 ± 0.28 | 13.16 ± 0.21 | 12.96 ± 0.18 | Pass |
| LW-6743, 6744 | 11/30/2005 | Gr. Beta | 3.19 ± 0.47 | 2.50 ± 0.44 | 2.85 ± 0.32 | Pass |
| DW-51023, 4 | 12/2/2005 | Gr. Alpha | 0.55 ± 1.40 | 2.21 ± 1.31 | 1.38 ± 0.96 | Pass |
| SWT-7282, 7283 | 12/27/2005 | Gr. Beta | 1.62 ± 0.37 | 1.85 ± 0.38 | 1.74 ± 0.27 | Pass |

Note: Duplicate analyses are performed on every twentieth sample received in-house. Results are not listed for those analyses with activities that measure below the LLD.

[a] Results are reported in units of pCi/L, except for air filters (pCi/Filter), food products, vegetation, soil, sediment (pC /g).

[b] 600 minute count time or longer, resulting in lower error.

[c] Recount of W-5748, 2.38 ± 0.85 pCi/L Averaged result; 2.14 ± 0.45 pCi/L

TABLE A-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP)[a].

| Lab Code[c] | Date | Analysis | Concentration[b] Laboratory result | Known Activity | Control Limits[d] | Acceptance |
|---|---|---|---|---|---|---|
| STW-1045 | 01/01/05 | Gr. Alpha | 0.45 ± 0.10 | 0.53 | 0.00 - 1.05 | Pass |
| STW-1045 | 01/01/05 | Gr. Beta | 1.90 ± 0.10 | 1.67 | 0.84 - 2.51 | Pass |
| STW-1046 | 01/01/05 | Am-241 | 1.62 ± 0.12 | 1.72 | 1.20 - 2.24 | Pass |
| STW-1046 | 01/01/05 | Co-57 | 239.40 ± 1.20 | 227.00 | 158.90 - 295.10 | Pass |
| STW-1046 | 01/01/05 | Co-60 | 248.70 ± 1.00 | 251.00 | 175.70 - 326.30 | Pass |
| STW-1046 | 01/01/05 | Cs-134 | 115.50 ± 1.80 | 127.00 | 88.90 - 165.10 | Pass |
| STW-1046 | 01/01/05 | Cs-137 | 328.50 ± 1.70 | 332.00 | 232.40 - 431.60 | Pass |
| STW-1046 | 01/01/05 | Fe-55 | 64.90 ± 7.00 | 75.90 | 53.13 - 98.67 | Pass |
| STW-1046 | 01/01/05 | H-3 | 304.00 ± 9.70 | 280.00 | 196.00 - 364.00 | Pass |
| STW-1046 | 01/01/05 | Mn-54 | 334.80 ± 1.90 | 331.00 | 231.70 - 430.30 | Pass |
| STW-1046 | 01/01/05 | Ni-63 | 7.10 ± 1.60 | 9.00 | 0.00 - 20.00 | Pass |
| STW-1046 | 01/01/05 | Pu-238 | 0.01 ± 0.02 | 0.02 | 0.00 - 1.00 | Pass |
| STW-1046 | 01/01/05 | Pu-239/40 | 2.50 ± 0.14 | 2.40 | 1.68 - 3.12 | Pass |
| STW-1046 | 01/01/05 | Sr-90 | 0.70 ± 0.80 | 0.00 | 0.00 - 5.00 | Pass |
| STW-1046 | 01/01/05 | Tc-99 | 43.20 ± 1.40 | 42.90 | 30.03 - 55.77 | Pass |
| STW-1046 | 01/01/05 | U-233/4 | 3.31 ± 0.20 | 3.24 | 2.27 - 4.21 | Pass |
| STW-1046 | 01/01/05 | U-238 | 3.38 ± 0.20 | 3.33 | 2.33 - 4.33 | Pass |
| STW-1046 | 01/01/05 | Zn-65 | 538.40 ± 3.80 | 496.00 | 347.20 - 644.80 | Pass |
| STVE-1047 | 01/01/05 | Co-57 | 10.60 ± 0.20 | 9.88 | 6.92 - 12.84 | Pass |
| STVE-1047 | 01/01/05 | Co-60 | 3.00 ± 0.20 | 3.15 | 2.21 - 4.10 | Pass |
| STVE-1047 | 01/01/05 | Cs-134 | 4.80 ± 0.40 | 5.00 | 3.50 - 6.50 | Pass |
| STVE-1047 | 01/01/05 | Cs-137 | 4.10 ± 0.30 | 4.11 | 2.88 - 5.34 | Pass |
| STVE-1047 | 01/01/05 | Mn-54 | 5.10 ± 0.30 | 5.18 | 3.63 - 6.73 | Pass |
| STVE-1047 | 01/01/05 | Zn-65 | 6.20 ± 0.50 | 6.29 | 4.40 - 8.18 | Pass |
| STSO-1048 | 01/01/05 | Am-241 | 96.60 ± 10.00 | 109.00 | 76.30 - 141.70 | Pass |
| STSO-1048 | 01/01/05 | Co-57 | 264.00 ± 2.00 | 242.00 | 169.40 - 314.60 | Pass |
| STSO-1048 | 01/01/05 | Co-60 | 226.50 ± 2.20 | 212.00 | 148.40 - 275.60 | Pass |
| STSO-1048 | 01/01/05 | Cs-134 | 760.60 ± 3.70 | 759.00 | 531.30 - 986.70 | Pass |
| STSO-1048 | 01/01/05 | Cs-137 | 336.20 ± 3.60 | 315.00 | 220.50 - 409.50 | Pass |
| STSO-1048 | 01/01/05 | K-40 | 663.70 ± 18.00 | 604.00 | 422.80 - 785.20 | Pass |
| STSO-1048 | 01/01/05 | Mn-54 | 541.30 ± 3.90 | 485.00 | 339.50 - 630.50 | Pass |
| STSO-1048 | 01/01/05 | Ni-63 | 924.30 ± 17.20 | 1220.00 | 854.00 - 1586.00 | Pass |
| STSO-1048 | 01/01/05 | Pu-238 | 0.60 ± 0.80 | 0.48 | 0.00 - 1.00 | Pass |
| STSO-1048 | 01/01/05 | Pu-239/40 | 78.00 ± 4.80 | 89.50 | 62.65 - 116.35 | Pass |
| STSO-1048 | 01/01/05 | Sr-90 | 514.60 ± 18.70 | 640.00 | 448.00 - 832.00 | Pass |
| STSO-1048 | 01/01/05 | U-233/4 | 47.90 ± 4.00 | 62.50 | 43.75 - 81.25 | Pass |
| STSO-1048 | 01/01/05 | U-238 | 226.30 ± 8.60 | 249.00 | 174.30 - 323.70 | Pass |
| STSO-1048 | 01/01/05 | Zn-65 | 851.30 ± 7.30 | 810.00 | 567.00 - 1053.00 | Pass |
| STAP-1050 | 01/01/05 | Gr. Alpha | 0.11 ± 0.03 | 0.23 | 0.00 - 0.46 | Pass |
| STAP-1050 | 01/01/05 | Gr. Beta | 0.38 ± 0.05 | 0.30 | 0.15 - 0.45 | Pass |

TABLE A-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP)[a].

| | | Concentration [b] | | | | |
|---|---|---|---|---|---|---|
| Lab Code[c] | Date | Analysis | Laboratory result | Known Activity | Control Limits [d] | Acceptance |
| STAP-1049 | 01/01/05 | Am-241 | 0.10 ± 0.04 | 0.10 | 0.07 - 0.13 | Pass |
| STAP-1049 | 01/01/05 | Co-57 | 4.76 ± 0.64 | 4.92 | 3.44 - 6.40 | Pass |
| STAP-1049 | 01/01/05 | Co-60 | 2.84 ± 0.22 | 3.03 | 2.12 - 3.94 | Pass |
| STAP-1049 | 01/01/05 | Cs-134 | 3.54 ± 0.37 | 3.51 | 2.46 - 4.56 | Pass |
| STAP-1049 | 01/01/05 | Cs-137 | 2.20 ± 0.27 | 2.26 | 1.58 - 2.94 | Pass |
| STAP-1049 | 01/01/05 | Mn-54 | 3.15 ± 0.21 | 3.33 | 2.33 - 4.33 | Pass |
| STAP-1049 | 01/01/05 | Pu-238 | 0.16 ± 0.04 | 0.20 | 0.14 - 0.25 | Pass |
| STAP-1049 | 01/01/05 | Pu-239/40 | 0.17 ± 0.02 | 0.17 | 0.14 - 0.25 | Pass |
| STAP-1049[e] | 01/01/05 | Sr-90 | 2.24 ± 0.34 | 1.35 | 0.95 - 1.76 | Fail |
| STAP-1049 | 01/01/05 | U-233/4 | 0.34 ± 0.02 | 0.34 | 0.24 - 0.44 | Pass |
| STAP-1049 | 01/01/05 | U-238 | 0.35 ± 0.02 | 0.35 | 0.25 - 0.46 | Pass |
| STAP-1049 | 01/01/05 | Zn-65 | 3.12 ± 0.15 | 3.14 | 2.20 - 4.08 | Pass |
| STW-1061 | 07/01/05 | Am-241 | 2.21 ± 0.13 | 2.23 | 1.56 - 2.90 | Pass |
| STW-1061 | 07/01/05 | Co-57 | 293.20 ± 7.30 | 272.00 | 190.40 - 353.60 | Pass |
| STW-1061 | 07/01/05 | Co-60 | 275.70 ± 1.30 | 261.00 | 182.70 - 339.30 | Pass |
| STW-1061 | 07/01/05 | Cs-134 | 171.80 ± 4.00 | 167.00 | 116.90 - 217.10 | Pass |
| STW-1061 | 07/01/05 | Cs-137 | 342.10 ± 2.20 | 333.00 | 233.10 - 432.90 | Pass |
| STW-1061 | 07/01/05 | Fe-55 | 167.80 ± 9.30 | 196.00 | 137.20 - 254.80 | Pass |
| STW-1061 | 07/01/05 | H-3 | 514.20 ± 12.60 | 527.00 | 368.90 - 685.10 | Pass |
| STW-1061 | 07/01/05 | Mn-54 | 437.00 ± 2.50 | 418.00 | 292.60 - 543.40 | Pass |
| STW-1061 | 07/01/05 | Ni-63 | 105.10 ± 3.60 | 100.00 | 70.00 - 130.00 | Pass |
| STW-1061 | 07/01/05 | Pu-238 | 1.64 ± 0.12 | 1.91 | 1.34 - 2.48 | Pass |
| STW-1061 | 07/01/05 | Pu-239/40 | 2.32 ± 0.13 | 2.75 | 1.93 - 3.58 | Pass |
| STW-1061 | 07/01/05 | Sr-90 | 9.20 ± 1.30 | 8.98 | 6.29 - 11.67 | Pass |
| STW-1061 | 07/01/05 | Tc-99 | 72.30 ± 2.30 | 66.50 | 46.55 - 86.45 | Pass |
| STW-1061 | 07/01/05 | U-233/4 | 4.11 ± 0.18 | 4.10 | 2.87 - 5.33 | Pass |
| STW-1061 | 07/01/05 | U-238 | 4.14 ± 0.18 | 4.26 | 2.98 - 5.54 | Pass |
| STW-1061 | 07/01/05 | Zn-65 | 364.60 ± 4.90 | 330.00 | 231.00 - 429.00 | Pass |
| STW-1062 | 07/01/05 | Gr. Alpha | 0.57 ± 0.05 | 0.79 | 0.21 - 1.38 | Pass |
| STW-1062 | 07/01/05 | Gr. Beta | 1.36 ± 0.05 | 1.35 | 0.85 - 1.92 | Pass |
| STSO-1063[f] | 07/01/05 | Am-241 | 48.40 ± 3.90 | 81.10 | 56.77 - 105.43 | Fail |
| STSO-1063 | 07/01/05 | Co-57 | 608.30 ± 2.80 | 524.00 | 366.80 - 681.20 | Pass |
| STSO-1063 | 07/01/05 | Co-60 | 322.70 ± 2.40 | 287.00 | 200.90 - 373.10 | Pass |
| STSO-1063 | 07/01/05 | Cs-134 | 632.10 ± 5.20 | 568.00 | 397.60 - 738.40 | Pass |
| STSO-1063 | 07/01/05 | Cs-137 | 512.40 ± 4.20 | 439.00 | 307.30 - 570.70 | Pass |
| STSO-1063 | 07/01/05 | K-40 | 720.50 ± 19.00 | 604.00 | 422.80 - 785.20 | Pass |
| STSO-1063 | 07/01/05 | Mn-54 | 516.80 ± 5.10 | 439.00 | 307.30 - 570.70 | Pass |
| STSO-1063 | 07/01/05 | Ni-63 | 366.50 ± 13.30 | 445.00 | 311.50 - 578.50 | Pass |
| STSO-1063 | 07/01/05 | Pu-238 | 68.80 ± 15.00 | 60.80 | 42.56 - 79.04 | Pass |
| STSO-1063 | 07/01/05 | Pu-239/40 | 0.00 ± 0.00 | 0.00 | 0.00 - 0.00 | |
| STSO-1063 | 07/01/05 | Sr-90 | 602.90 ± 17.20 | 757.00 | 529.90 - 984.10 | Pass |
| STSO-1063 | 07/01/05 | U-233/4 | 61.50 ± 1.00 | 52.50 | 36.75 - 68.25 | Pass |
| STSO-1063 | 07/01/05 | U-238 | 164.50 ± 16.70 | 168.00 | 117.60 - 218.40 | Pass |
| STSO-1063 | 07/01/05 | Zn-65 | 874.70 ± 8.40 | 823.00 | 576.10 - 1070.00 | Pass |

TABLE A-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP)[a].

| | | | Concentration [b] | | | |
|---|---|---|---|---|---|---|
| Lab Code[c] | Date | Analysis | Laboratory result | Known Activity | Control Limits [d] | Acceptance |
| STVE-1064 | 07/01/05 | Am-241 | 0.18 ± 0.03 | 0.23 | 0.16 - 0.30 | Pass |
| STVE-1064 | 07/01/05 | Co-57 | 15.90 ± 0.20 | 13.30 | 9.31 - 17.29 | Pass |
| STVE-1064 | 07/01/05 | Co-60 | 4.80 ± 0.10 | 4.43 | 3.10 - 5.76 | Pass |
| STVE-1064 | 07/01/05 | Cs-134 | 4.60 ± 0.20 | 4.09 | 2.86 - 5.32 | Pass |
| STVE-1064 | 07/01/05 | Cs-137 | 5.90 ± 0.30 | 5.43 | 3.80 - 7.06 | Pass |
| STVE-1064 | 07/01/05 | Mn-54 | 7.20 ± 0.20 | 6.57 | 4.60 - 8.54 | Pass |
| STVE-1064 | 07/01/05 | Pu-238 | 0.04 ± 0.02 | 0.00 | 0.00 - 1.00 | Pass |
| STVE-1064 | 07/01/05 | Pu-239/40 | 0.13 ± 0.02 | 0.16 | 0.11 - 0.21 | Pass |
| STVE-1064 | 07/01/05 | Sr-90 | 2.80 ± 0.30 | 2.42 | 1.69 - 3.15 | Pass |
| STVE-1064 | 07/01/05 | U-233/4 | 0.28 ± 0.03 | 0.33 | 0.23 - 0.43 | Pass |
| STVE-1064 | 07/01/05 | U-238 | 0.33 ± 0.04 | 0.35 | 0.24 - 0.45 | Pass |
| STVE-1064 | 07/01/05 | Zn-65 | 11.00 ± 0.50 | 10.20 | 7.14 - 13.26 | Pass |
| STAP-1065 | 07/01/05 | Gr. Alpha | 0.30 ± 0.04 | 0.48 | 0.00 - 0.80 | Pass |
| STAP-1065 | 07/01/05 | Gr. Beta | 0.97 ± 0.06 | 0.83 | 0.55 - 1.22 | Pass |
| STAP-1066 | 07/01/05 | Am-241 | 0.14 ± 0.03 | 0.16 | 0.11 - 0.21 | Pass |
| STAP-1066 | 07/01/05 | Co-57 | 5.81 ± 0.17 | 6.20 | 4.34 - 8.06 | Pass |
| STAP-1066 | 07/01/05 | Co-60 | 2.79 ± 0.14 | 2.85 | 2.00 - 3.71 | Pass |
| STAP-1066 | 07/01/05 | Cs-134 | 3.67 ± 0.12 | 3.85 | 2.70 - 5.01 | Pass |
| STAP-1066 | 07/01/05 | Cs-137 | 2.93 ± 0.23 | 3.23 | 2.26 - 4.20 | Pass |
| STAP-1066 | 07/01/05 | Mn-54 | 4.11 ± 0.26 | 4.37 | 3.06 - 5.68 | Pass |
| STAP-1066 | 07/01/05 | Pu-238 | 0.11 ± 0.02 | 0.10 | 0.07 - 0.13 | Pass |
| STAP-1066 | 07/01/05 | Pu-239/40 | 0.10 ± 0.01 | 0.09 | 0.06 - 0.12 | Pass |
| STAP-1066 | 07/01/05 | Sr-90 | 2.25 ± 0.29 | 2.25 | 1.58 - 2.93 | Pass |
| STAP-1066 | 07/01/05 | U-233/4 | 0.28 ± 0.02 | 0.27 | 0.19 - 0.35 | Pass |
| STAP-1066 | 07/01/05 | U-238 | 0.28 ± 0.02 | 0.28 | 0.20 - 0.37 | Pass |
| STAP-1066 | 07/01/05 | Zn-65 | 4.11 ± 0.26 | 4.33 | 3.06 - 5.68 | Pass |

[a] Results obtained by Environmental, Inc., Midwest Laboratory as a participant in the Department of Energy's Mixed Analyte Performance Evaluation Program, Idaho Operations office, Idaho Falls, Idaho

[b] Results are reported in units of Bq/kg (soil), Bq/L (water) or Bq/total sample (filters, vegetation) as requested by the Department of Energy.

[c] Laboratory codes as follows: STW (water), STAP (air filter), STSO (soil), STVE (vegetation).

[d] MAPEP results are presented as the known values and expected laboratory precision (1 sigma, 1 determination) and control limits as defined by the MAPEP.

[e] The strontium carbonate precipitates were redissolved and processed. The average of the three analyses was 1.34 p although the recovery was only 30%. The result of a new analysis was 1.56 pCi/L.

[f] Incorrect sample weight used in calculation. Result of recalculation: 97.0 ± 7.8 Bq/kg.

# APPENDIX B

## DATA REPORTING CONVENTIONS

## Data Reporting Conventions

1.0. All activities, except gross alpha and gross beta, are decay corrected to collection time or the end of the collection period.

2.0. Single Measurements

Each single measurement is reported as follows: $x \pm s$

where: $x$ = value of the measurement;

$s$ = 2s counting uncertainty (corresponding to the 95% confidence level).

In cases where the activity is less than the lower limit of detection L, it is reported as: <L, where L = the lower limit of detection based on 4.66s uncertainty for a background sample.

3.0. Duplicate analyses

3.1 Individual results: For two analysis results; $x_1 \pm s_1$ and $x_2 \pm s_2$

Reported result: $x \pm s$; where $x = (1/2)(x_1 + x_2)$ and $s = (1/2)\sqrt{s_1^2 + s_2^2}$

3.2. Individual results: $<L_1$, $<L_2$ Reported result: <L, where L = lower of $L_1$ and $L_2$

3.3. Individual results: $x \pm s$, <L Reported result: $x \pm s$ if $x \geq L$; <L otherwise.

4.0. Computation of Averages and Standard Deviations

4.1 Averages and standard deviations listed in the tables are computed from all of the individual measurements over the period averaged; for example, an annual standard deviation would not be the average of quarterly standard deviations. The average $\bar{x}$ and standard deviation s of a set of n numbers $x_1, x_2 \ldots x_n$ are defined as follows:

$$\bar{x} = \frac{1}{n} \Sigma x \qquad s = \sqrt{\frac{\Sigma(x - \bar{x})^2}{n-1}}$$

4.2 Values below the highest lower limit of detection are not included in the average.

4.3 If all values in the averaging group are less than the highest LLD, the highest LLD is reported.

4.4 If all but one of the values are less than the highest LLD, the single value x and associated two sigma error is reported.

4.5 In rounding off, the following rules are followed:

4.5.1. If the number following those to be retained is less than 5, the number is dropped, and the retained number s are kept unchanged. As an example, 11.443 is rounded off to 11.44.

4.5.2. If the number following those to be retained is equal to or greater than 5, the number is dropped and the last retained number is raised by 1. As an example, 11.445 is rounded off to 11.45.

# APPENDIX C
# PROGRAM DEVIATIONS

Appendix C. Program Deviations

| Collection Date | Sample Type | Location | Program Deviation |
|---|---|---|---|
| 10-04-05 | Airborne Iodine | T-1 | Iodine-131 concentration: < 0.072 pCi/m$^3$. Collection run time, 48.3 hrs., Volume 79 m$^3$. The sampler pump failed, due to an open fuse. |

Table 4.5 Radiological Environmental Monitoring Program Summary

| | | | |
|---|---|---|---|
| Name of Facility | Davis-Besse Nuclear Power Station | Docket No. | 50-346 |
| Location of Facility | Ottawa, Ohio | Reporting Period | January-December, 2005 |
| | ( County, State ) | | |

| Sample Type (Units) | Type and Number of Analyses[a] | LLD[b] | Indicator Locations Mean (F)[c] Range[c] | Location with Highest Annual Mean: Location[d] | Location with Highest Annual Mean: Mean (F)[c] Range[c] | Control Locations Mean (F)[c] Range[c] | Number Non-Routine Results[e] |
|---|---|---|---|---|---|---|---|
| Airborne Particulates (pCi/m3) | GB 528[f] | 0.005 | 0.025 (316/316) (0.008-0.058) | T-27, Crane Creek S.P. 5.3 mi. SW | 0.026 (53/53) (0.009-0.052) | 0.025 (212/212) (0.007-0.056) | 0 |
| | Sr-89 40 | 0.0014 | < LLD | - | - | < LLD | 0 |
| | Sr-90 40 | 0.0008 | < LLD | - | - | < LLD | 0 |
| | GS 40 | | | | | | |
| | Be-7 | 0.015 | 0.071 (24/24) (0.046-0.094) | T-12, Water Treatment Plant, 23.5 mi. WNW | 0.075 (4/4) (0.070-0.083) | 0.065 (16/16) (0.039-0.092) | 0 |
| | K-40 | 0.027 | < LLD | - | - | < LLD | 0 |
| | Nb-95 | 0.0012 | < LLD | - | - | < LLD | 0 |
| | Zr-95 | 0.0020 | < LLD | - | - | < LLD | 0 |
| | Ru-103 | 0.0012 | < LLD | - | - | < LLD | 0 |
| | Ru-106 | 0.0088 | < LLD | - | - | < LLD | 0 |
| | Cs-134 | 0.0010 | < LLD | - | - | < LLD | 0 |
| | Cs-137 | 0.0010 | < LLD | - | - | < LLD | 0 |
| | Ce-141 | 0.0019 | < LLD | - | - | < LLD | 0 |
| | Ce-144 | 0.0059 | < LLD | - | - | < LLD | 0 |
| Airborne Iodine (pCi/m3) | I-131 528 | 0.07 | < LLD | - | - | < LLD | 0 |
| TLD (Quarterly) (mR/91 days) | Gamma 351 | 1.0 | 14.1 (307/307) ( 7.2-24.4) | T-45, Site Boundary 0.5 mi. WNW | 20.3 (4/4) (18.5-21.5) | 14.9 (44/44) ( 11.2-20.4) | 0 |
| TLD (Quarterly) (mR/91 days) (Shield) | Gamma 4 | 1.0 | 7.2 (4/4) ( 6.7-8.0) | - | - | None | 0 |
| TLD (Annual) (mR/365 days) | Gamma 87 | 1.0 | 54.9 (76/76) ( 32.2-80.9) | T-45, Site Boundary 0.5 mi. WNW | 80.9 (1/1) | 57.4 (11/11) ( 38.2-74.1) | 0 |
| TLD (Annual) (mR/365 days) (Shield) | Gamma 1 | 1.0 | 25.2 (1/1) | - | - | None | 0 |

Table 4.5 Radiological Environmental Monitoring Program Summary

Name of Facility: Davis-Besse Nuclear Power Station — Docket No. 50-346

Location of Facility: Ottawa, Ohio (County, State) — Reporting Period: January-December, 2005

| Sample Type (Units) | Type and Number of Analyses[a] | | LLD[b] | Indicator Locations Mean (F)[c] Range[c] | Location with Highest Annual Mean: Location[d] | Location with Highest Annual Mean: Mean (F)[c] Range[c] | Control Locations Mean (F)[c] Range[c] | Number Non-Routine Results[e] |
|---|---|---|---|---|---|---|---|---|
| Milk (pCi/L) | I-131 | 12 | 0.4 | none | - | - | < LLD | 0 |
| | Sr-89 | 12 | 0.7 | none | - | - | < LLD | 0 |
| | Sr-90 | 12 | 0.7 | none | T-24, Sandusky 21.0 mi. SE | 0.9 (9/12) (0.7-1.4) | 0.9 (9/12) (0.7-1.4) | 0 |
| | GS | 12 | | | | | | |
| | K-40 | | 100 | none | T-24, Sandusky 21.0 mi. SE | 1286 (12/12) (1191-1391) | 1286 (12/12) (1191-1391) | 0 |
| | Cs-134 | | 6.0 | none | - | - | < LLD | 0 |
| | Cs-137 | | 6.3 | none | - | - | < LLD | 0 |
| | Ba-La-140 | | 5.6 | none | - | - | < LLD | 0 |
| (g/L) | Ca | 12 | 0.50 | none | T-24, Sandusky 21.0 mi. SE | 0.99 (12/12) (0.86-1.15) | 0.99 (12/12) (0.86-1.15) | 0 |
| (g/L) | K (stable) | 12 | | none | T-24, Sandusky 21.0 mi. SE | 1.49 (12/12) (1.38-1.61) | 1.49 (12/12) (1.38-1.61) | 0 |
| (pCi/g) | Sr-90/Ca | 12 | | none | T-24, Sandusky 21.0 mi. SE | 1.03 (5/12) (0.83-1.35) | 1.03 (5/12) (0.83-1.35) | 0 |
| (pCi/g) | Cs-137/K | 12 | | none | - | - | < LLD | 0 |
| Ground Water (pCi/L) | GB (TR) | 7 | 3.5 | 5.6 (2/3) (5.5-5.6) | T-225, Residence 1.55 mi. NW | 5.6 (2/3) (5.5-5.6) | 4.5 (1/4) | |
| | H-3 | 7 | 330 | < LLD | - | - | < LLD | 0 |
| | Sr-89 | 7 | 0.9 | < LLD | - | - | < LLD | 0 |
| | Sr-90 | 7 | 0.7 | < LLD | - | - | < LLD | 0 |
| | GS | | | | | | | |
| | Mn-54 | | 15 | < LLD | - | - | < LLD | 0 |
| | Fe-59 | | 30 | < LLD | - | - | < LLD | 0 |
| | Co-58 | | 15 | < LLD | - | - | < LLD | 0 |
| | Co-60 | | 15 | < LLD | - | - | < LLD | 0 |
| | Zn-65 | | 30 | < LLD | - | - | < LLD | 0 |
| | Zr-95 | | 15 | < LLD | - | - | < LLD | 0 |
| | Cs-134 | | 10 | < LLD | - | - | < LLD | 0 |
| | Cs-137 | | 10 | < LLD | - | - | < LLD | 0 |
| | Ba-La-140 | | 15 | < LLD | - | - | < LLD | 0 |

Table 4.5 Radiological Environmental Monitoring Program Summary

Name of Facility: Davis-Besse Nuclear Power Station — Docket No. 50-346

Location of Facility: Ottawa, Ohio (County, State) — Reporting Period: January-December, 2005

| Sample Type (Units) | Type and Number of Analyses[a] | LLD[b] | Indicator Locations Mean (F)[c] Range[c] | Location with Highest Annual Mean: Location[d] | Location with Highest Annual Mean: Mean (F)[c] Range[c] | Control Locations Mean (F)[c] Range[c] | Number Non-Routine Results[e] |
|---|---|---|---|---|---|---|---|
| Edible Meal (pCi/g wet) | GS 2 | | | | | | |
| | K-40 | 0.10 | 2.84 (1/1) | T-31, Roving On-site location | 2.84 (1/1) | 2.34 (1/1) | 0 |
| | Nb-95 | 0.071 | < LLD | - | - | < LLD | 0 |
| | Zr-95 | 0.070 | < LLD | - | - | < LLD | 0 |
| | Ru-103 | 0.033 | < LLD | - | - | < LLD | 0 |
| | Ru-106 | 0.11 | < LLD | - | - | < LLD | 0 |
| | Cs-134 | 0.009 | < LLD | - | - | < LLD | 0 |
| | Cs-137 | 0.010 | < LLD | - | - | < LLD | 0 |
| | Ce-141 | 0.16 | < LLD | - | - | < LLD | 0 |
| | Ce-144 | 0.12 | < LLD | - | - | < LLD | 0 |
| Fruits and Vegetables (pCi/g wet) | Sr-89 3 | 0.003 | < LLD | - | - | < LLD | 0 |
| | Sr-90 3 | 0.002 | < LLD | - | - | < LLD | 0 |
| | I-131 3 | 0.025 | < LLD | - | - | < LLD | 0 |
| | GS 3 | | | | | | |
| | K-40 | 0.50 | 0.96 (2/2) (0.91-1.01) | T-25, Residence 1.6 mi. S | 1.01 (1/1) | 0.88 (1/1) | 0 |
| | Nb-95 | 0.010 | < LLD | - | - | < LLD | 0 |
| | Zr-95 | 0.013 | < LLD | - | - | < LLD | 0 |
| | Cs-134 | 0.010 | < LLD | - | - | < LLD | 0 |
| | Cs-137 | 0.008 | < LLD | - | - | < LLD | 0 |
| | Ce-141 | 0.014 | < LLD | - | - | < LLD | 0 |
| | Ce-144 | 0.056 | < LLD | - | - | < LLD | 0 |
| Broad Leaf Vegetation (pCi/g wet) | Sr-89 11 | 0.005 | < LLD | - | - | < LLD | 0 |
| | Sr-90 11 | 0.003 | 0.003 (1/7) | T-19, Residence 1.0 mi. W | 0.003 (1/4) | < LLD | 0 |
| | I-131 11 | 0.023 | < LLD | - | - | < LLD | 0 |
| | GS 11 | | | | | | |
| | K-40 | 0.50 | 2.57 (7/7) (1.58-5.07) | T-227, Roving Off-site location | 3.82 (3/3) (2.44-5.07) | 2.15 (4/4) (1.44-2.66) | 0 |
| | Nb-95 | 0.014 | < LLD | - | - | < LLD | 0 |
| | Zr-95 | 0.031 | < LLD | - | - | < LLD | 0 |
| | Cs-134 | 0.018 | < LLD | - | - | < LLD | 0 |
| | Cs-137 | 0.015 | < LLD | - | - | < LLD | 0 |
| | Ce-141 | 0.028 | < LLD | - | - | < LLD | 0 |
| | Ce-144 | 0.12 | < LLD | - | - | < LLD | 0 |

Table 4.5 Radiological Environmental Monitoring Program Summary

Name of Facility: Davis-Besse Nuclear Power Station
Location of Facility: Ottawa, Ohio
( County, State )

Docket No. 50-346
Reporting Period January-December, 2005

| Sample Type (Units) | Type and Number of Analyses[a] | LLD[b] | Indicator Locations Mean (F)[c] Range[c] | Location with Highest Annual Mean: Location[d] | Location with Highest Annual Mean: Mean (F)[c] Range[c] | Control Locations Mean (F)[c] Range[c] | Number Non-Routine Results[e] |
|---|---|---|---|---|---|---|---|
| Animal / Wildlife Feed (pCi/g wet) | GS 3 | | | | | | |
| | Be-7 | 0.31 | 1.38 (1/2) | T-31, Roving On-site location | 1.38 (1/1) | 0.78 (1/1) | 0 |
| | K-40 | 0.10 | 1.83 (2/2) (0.89-2.77) | T-31, Roving On-site location | 2.77 (1/1) | 1.41 (1/1) | 0 |
| | Nb-95 | 0.028 | < LLD | - | - | < LLD | 0 |
| | Zr-95 | 0.065 | < LLD | - | - | < LLD | 0 |
| | Ru-103 | 0.034 | < LLD | - | - | < LLD | 0 |
| | Ru-106 | 0.21 | < LLD | - | - | < LLD | 0 |
| | Cs-134 | 0.026 | < LLD | - | - | < LLD | 0 |
| | Cs-137 | 0.022 | < LLD | - | - | < LLD | 0 |
| | Ce-141 | 0.073 | < LLD | - | - | < LLD | 0 |
| | Ce-144 | 0.15 | < LLD | - | - | < LLD | 0 |
| Soil (pCi/g dry) | GS 10 | | | | | | |
| | Be-7 | 0.64 | 0.77 (2/6) (0.74-0.80) | T-3, Site Boundary 1.4 mi. ESE | 0.80 (1/1) | 0.74 (1/4) | 0 |
| | K-40 | 0.10 | 10.38 (6/6) (5.41-21.15) | T-9, Oak Harbor 6.8 mi. SW | 23.97 (1/1) | 16.74 (4/4) (10.10-23.97) | 0 |
| | Nb-95 | 0.13 | < LLD | - | - | < LLD | 0 |
| | Zr-95 | 0.13 | < LLD | - | - | < LLD | 0 |
| | Ru-103 | 0.068 | < LLD | - | - | < LLD | 0 |
| | Ru-106 | 0.4 | < LLD | - | - | < LLD | 0 |
| | Cs-134 | 0.074 | < LLD | - | - | < LLD | 0 |
| | Cs-137 | 0.019 | 0.13 (4/6) (0.042-0.32) | T-8, Farm 2.7 mi. WSW | 0.32 (1/1) | 0.16 (4/4) (0.11-0.23) | 0 |
| | Ce-141 | 0.14 | < LLD | - | - | < LLD | 0 |
| | Ce-144 | 0.25 | < LLD | - | - | < LLD | 0 |

Table 4.5 Radiological Environmental Monitoring Program Summary

| | | | |
|---|---|---|---|
| Name of Facility | Davis-Besse Nuclear Power Station | Docket No. | 50-346 |
| Location of Facility | Ottawa, Ohio<br>( County, State ) | Reporting Period | January-December, 2005 |

| Sample Type (Units) | Type and Number of Analyses[a] | LLD[b] | Indicator Locations Mean (F)[c] Range[c] | Location with Highest Annual Mean: Location[d] | Location with Highest Annual Mean: Mean (F)[c] Range[c] | Control Locations Mean (F)[c] Range[c] | Number Non-Routine Results[e] |
|---|---|---|---|---|---|---|---|
| Fish (pCi/g wet) | GB 6 | 0.10 | 4.40 (3/3) (3.77-5.55) | T-33, Lake Erie 1.5 mi. NE | 4.40 (3/3) (3.77-5.55) | 4.06 (3/3) (3.53-4.49) | 0 |
| | GS 6 | | | | | | |
| | K-40 | 0.10 | 2.69 (3/3) (2.55-2.83) | T-35, Lake Erie > 10 mi. | 2.71 (3/3) (2.22-3.37) | 2.71 (3/3) (2.22-3.37) | 0 |
| | Mn-54 | 0.021 | < LLD | - | - | < LLD | 0 |
| | Fe-59 | 0.094 | < LLD | - | - | < LLD | 0 |
| | Co-58 | 0.034 | < LLD | - | - | < LLD | 0 |
| | Co-60 | 0.019 | < LLD | - | - | < LLD | 0 |
| | Zn-65 | 0.064 | < LLD | - | - | < LLD | 0 |
| | Cs-134 | 0.024 | < LLD | - | - | < LLD | 0 |
| | Cs-137 | 0.026 | < LLD | - | - | < LLD | 0 |
| Shoreline Sediments (pCi/g dry) | GS 8 | | | | | | |
| | K-40 | 0.10 | 13.10 (6/6) (10.29-16.80) | T-4, Site Boundary 0.8 mi. S | 14.88 (2/2) (12.96-16.80) | 11.66 (2/2) (11.40-11.91) | 0 |
| | Mn-54 | 0.041 | < LLD | - | - | < LLD | 0 |
| | Co-58 | 0.059 | < LLD | - | - | < LLD | 0 |
| | Co-60 | 0.05 | < LLD | - | - | < LLD | 0 |
| | Cs-134 | 0.08 | < LLD | - | - | < LLD | 0 |
| | Cs-137 | 0.027 | < LLD | - | - | < LLD | 0 |

[a] GB = gross beta, GS = gamma scan.

[b] LLD = nominal lower limit of detection based on a 4.66 sigma counting error for background sample.

[c] Mean and range are based on detectable measurements only (i.e., >LLD) Fraction of detectable measurements at specified locations is indicated in parentheses (F).

[d] Locations are specified by station code (Table 4.1) and distance (miles) and direction relative to reactor site..

[e] Non-routine results are those which exceed ten times the control station value.

[f] One result was eliminated from the calculation due to low volume. Location T-1 for the week ending 10-04-05.

Table 4.5 Radiological Environmental Monitoring Program Summary

Name of Facility: Davis-Besse Nuclear Power Station
Location of Facility: Ottawa, Ohio
( County, State )
Docket No. 50-346
Reporting Period January-December, 2005

| Sample Type (Units) | Type and Number of Analyses[a] | | LLD[b] | Indicator Locations Mean (F)[c] Range[c] | Location with Highest Annual Mean: Location[d] | Location with Highest Annual Mean: Mean (F)[c] Range[c] | Control Locations Mean (F)[c] Range[c] | Number Non-Routine Results[e] |
|---|---|---|---|---|---|---|---|---|
| Treated Surface Water (pCi/L) | GB (TR) | 48 | 0.5 | 2.0 (24/24) (0.9-3.2) | T-22, Carroll Twp. WTP, 3.0 mi. NW | 2.2 (12/12) (1.4-3.1) | 1.7 (24/24) (0.7-3.2) | 0 |
| | H-3 | 16 | 330 | < LLD | - | - | < LLD | 0 |
| | Sr-89 | 16 | 1.1 | < LLD | - | - | < LLD | 0 |
| | Sr-90 | 16 | 0.8 | < LLD | - | - | < LLD | 0 |
| | GS | 16 | | | | | | |
| | Mn-54 | | 15 | < LLD | - | - | < LLD | 0 |
| | Fe-59 | | 30 | < LLD | - | - | < LLD | 0 |
| | Co-58 | | 15 | < LLD | - | - | < LLD | 0 |
| | Co-60 | | 15 | < LLD | - | - | < LLD | 0 |
| | Zn-65 | | 30 | < LLD | - | - | < LLD | 0 |
| | Zr-Nb-95 | | 15 | < LLD | - | - | < LLD | 0 |
| | Cs-134 | | 10 | < LLD | - | - | < LLD | 0 |
| | Cs-137 | | 10 | < LLD | - | - | < LLD | 0 |
| | Ba-La-140 | | 15 | < LLD | - | - | < LLD | 0 |
| Untreated Surface Water (pCi/L) | GB (TR) | 95 | 1.0 | 2.3 (50/50) (1.0-6.1) | T-3, Site Boundary 1.4 mi. ESE | 3.3 (12/12) (1.7-6.1) | 2.2 (45/45) (1.1-4.0) | 0 |
| | H-3 | 95 | 330 | 753 (2/50) (529-976) | T-134, Lake Erie Unassigned | 976 (1/7) | < LLD | 0 |
| | Sr-89 | 20 | 1.2 | < LLD | - | - | < LLD | 0 |
| | Sr-90 | 20 | 0.9 | < LLD | - | - | < LLD | 0 |
| | GS | 95 | | | | | | |
| | Mn-54 | | 15 | < LLD | - | - | < LLD | 0 |
| | Fe-59 | | 30 | < LLD | - | - | < LLD | 0 |
| | Co-58 | | 15 | < LLD | - | - | < LLD | 0 |
| | Co-60 | | 15 | < LLD | - | - | < LLD | 0 |
| | Zn-65 | | 30 | < LLD | - | - | < LLD | 0 |
| | Zr-Nb-95 | | 15 | < LLD | - | - | < LLD | 0 |
| | Cs-134 | | 10 | < LLD | - | - | < LLD | 0 |
| | Cs-137 | | 10 | < LLD | - | - | < LLD | 0 |
| | Ba-La-140 | | 15 | < LLD | - | - | < LLD | 0 |