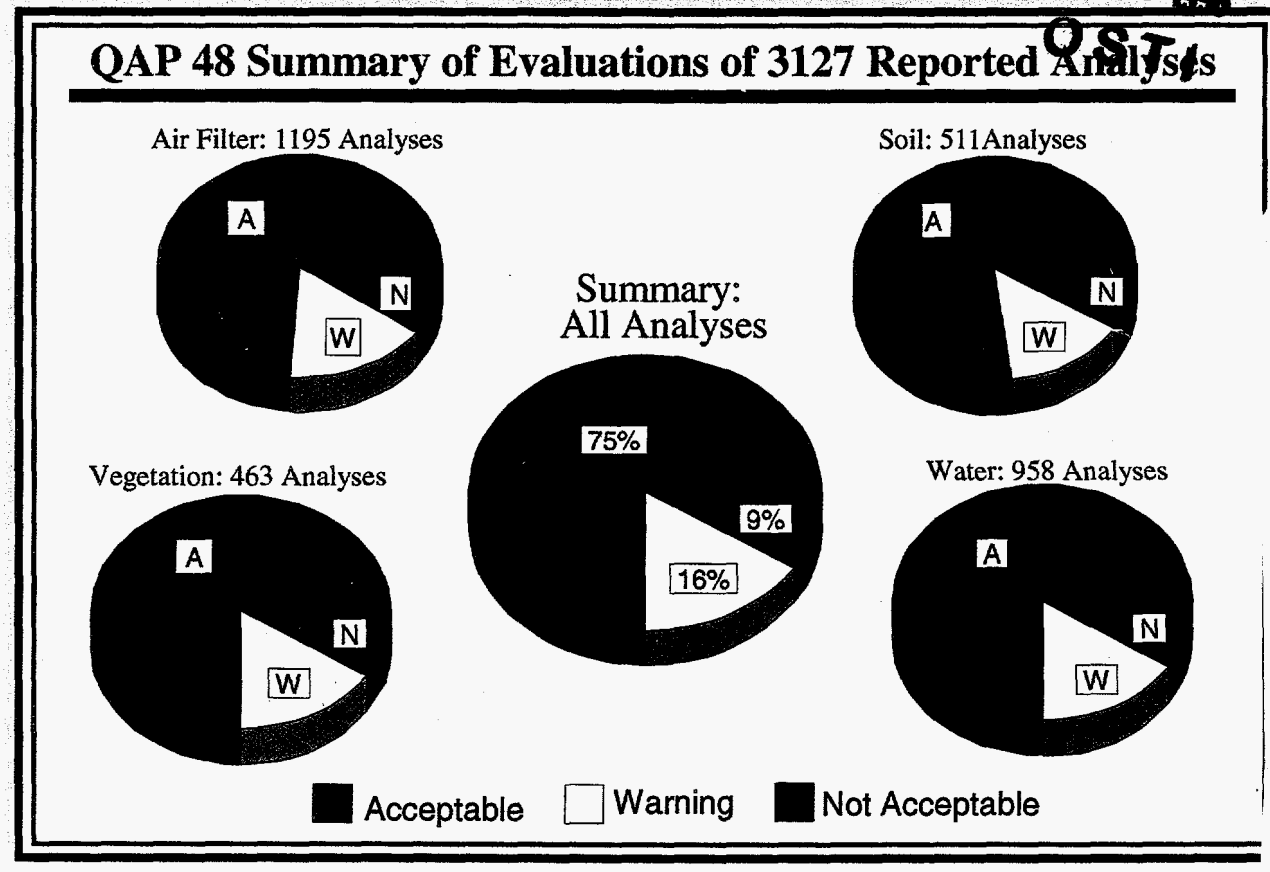
# ENVIRONMENTAL MEASUREMENTS LABORATORY

EML-596

## Semi-Annual Report Of The Department Of Energy, Office Of Environmental Management, Quality Assessment Program






*Pamela D. Greenlaw and Steven K. Minick*

July, 1998



201 Varick Street, 5th Floor, New York, NY 10014-4811
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EML-596

# SEMI-ANNUAL REPORT OF THE DEPARTMENT OF ENERGY, OFFICE OF ENVIRONMENTAL MANAGEMENT, QUALITY ASSESSMENT PROGRAM

Pamela D. Greenlaw and Steven K. Minick

Environmental Measurements Laboratory
U. S. Department of Energy
New York, NY 10014-4811

July 1, 1998

## DISCLAIMER

## ACKNOWLEDGEMENT

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## ABSTRACT

**This report presents the results from the analysis of the 48th set of environmental quality assessment samples (QAP XLVIII) that were received on or before June 1, 1998.**

# INTRODUCTION

This Quality Assessment Program (QAP) is designed to test the quality of the environmental measurements being reported to the Department of Energy by its contractors. Since 1976, real or synthetic environmental samples that have been prepared and thoroughly analyzed at the Environmental Measurements Laboratory (EML) have been distributed at first quarterly and then semi-annually to these contractors. Their results, which are returned to EML within 90 days, are compiled with EML's results and are reported back to the participating contractors 30 days later. A summary of the reported results is available to the participants 4 days after the reporting deadline via the Internet at www.eml.doe.gov.

This is the 54th report of this program. Preceding reports in this series are:

| | | | |
|---|---|---|---|
| HASL-317 | (February 1, 1977) | EML-439 | (March 1, 1985) |
| HASL-319 | (May 2, 1977) | EML-448 | (October 1, 1985) |
| HASL-323 | (August 1, 1977) | EML-453 | (March 1, 1986) |
| HASL-331 | (November 1, 1977) | EML-454 | (March 1, 1986) |
| EML-336 | (January 1, 1978) | EML-477 | (October 1, 1986) |
| EML-337 | (February 1, 1978) | EML-478 | (March 1, 1987) |
| EML-340 | (May 1, 1978) | EML-498 | (September 1, 1987) |
| EML-343 | (August 1, 1978) | EML-518 | (January 2, 1989) |
| EML-346 | (November 1, 1978) | EML-525* | (August 1, 1989) |
| EML-350 | (February 1, 1979) | EML-526 | (January 2, 1990) |
| EML-351 | (February 1, 1979) | EML-530 | (July 2, 1990) |
| EML-354 | (May 1, 1979) | EML-535 | (January 1, 1991) |
| EML-358 | (August 1, 1979) | EML-539 | (July 1, 1991) |
| EML-364 | (November 1, 1979) | EML-543 | (January 2, 1992) |
| EML-368 | (February 1, 1980) | EML-546 | (July 1, 1992) |
| EML-377 | (August 1, 1980) | EML-551 | (January 4, 1993) |
| EML-387 | (February 1, 1981) | EML-556 | (July 1, 1993) |
| EML-388 | (February 1, 1981) | EML-559 | (January 5, 1994) |
| EML-393 | (August 3, 1981) | EML-561 | (July 1, 1994) |
| EML-402 | (February 1, 1982) | EML-565 | (January 5, 1995) |
| EML-414 | (April 1, 1983) | EML-569 | (July 3, 1995) |
| EML-417 | (September 1, 1983) | EML-576 | (February 1, 1996, Revised) |
| EML-426 | (March 1, 1984) | EML-581 | (July 1, 1996) |
| PNL-5079 | (April 1, 1984) | EML-587 | (January 1997) |
| EML-431 | (September 1, 1984) | EML-591 | (July 1997) |
| EML-432 | (November 1, 1984) | EML-594 | (January 1998) |
| EML-438 | (March 1, 1985) | | |

*Please note this is a corrected report number.

## RESULTS

**The results from the analysis of QAP-XLVIII samples received on or before June 1, 1998 are listed according to the TABLE OF CONTENTS. The data for the different kinds of samples are given in the following units:**

| | |
|---|---|
| **Air Filters** | **Bq filter$^{-1}$** |
| **Soil** | **Bq kg$^{-1}$** |
| **Tissue** | **Bq kg$^{-1}$** |
| **Vegetation** | **Bq kg$^{-1}$** |
| **Water** | **Bq L$^{-1}$** |

**The values for elemental uranium are reported in μg filter$^{-1}$, g, or mL. Some programs require the use of pCi as reporting units, the conversion can be found on page 2.**

**The 'EML value' listed in the tables to which the contractors' results are compared is the mean of replicate determinations for each nuclide. The EML uncertainty is the standard error of the mean. All other uncertainties are as reported by the participants.**

**The control limit concept was established from percentiles of historic data distributions (1982-1992). The evaluation of this historic data and the development of the control limits are presented in DOE report EML-564. The control limits for QAP-XLVIII were developed from percentiles of data distributions for the years 1993-1998.**

**Participants' analytical performance is evaluated based on the historical analytical capabilities for individual analyte/matrix pairs. The criteria for acceptable performance, "A", has been chosen to be between the 15$^{th}$ and 85$^{th}$ percentile of the cumulative normalized distribution, which can be viewed as the middle 70% of all historic measurements. The acceptable with warning criteria, "W", is between the 5$^{th}$ and 15$^{th}$ percentile and between the 85$^{th}$ and 95$^{th}$ percentile. In other words, the middle 90% of all reported values are acceptable, while the outer 5$^{th}$-15$^{th}$ (10%) and 85$^{th}$-95$^{th}$ percentiles (10%) are in the warning area. The not acceptable criteria, "N", is established at less than the 5$^{th}$ percentile and greater than the 95$^{th}$ percentile, that is, the outer 10% of the historical data. These control limits for all 48 i/j pairs are listed in the Table of Control Limits (p. 3).**

**QAP is an external assessment of environmental radiological analyses. If your laboratory is performing other types of analyses (screening, high-level radiological), this evaluation system may not be appropriate, and you should continue to use an evaluation system appropriate to your data objectives.**

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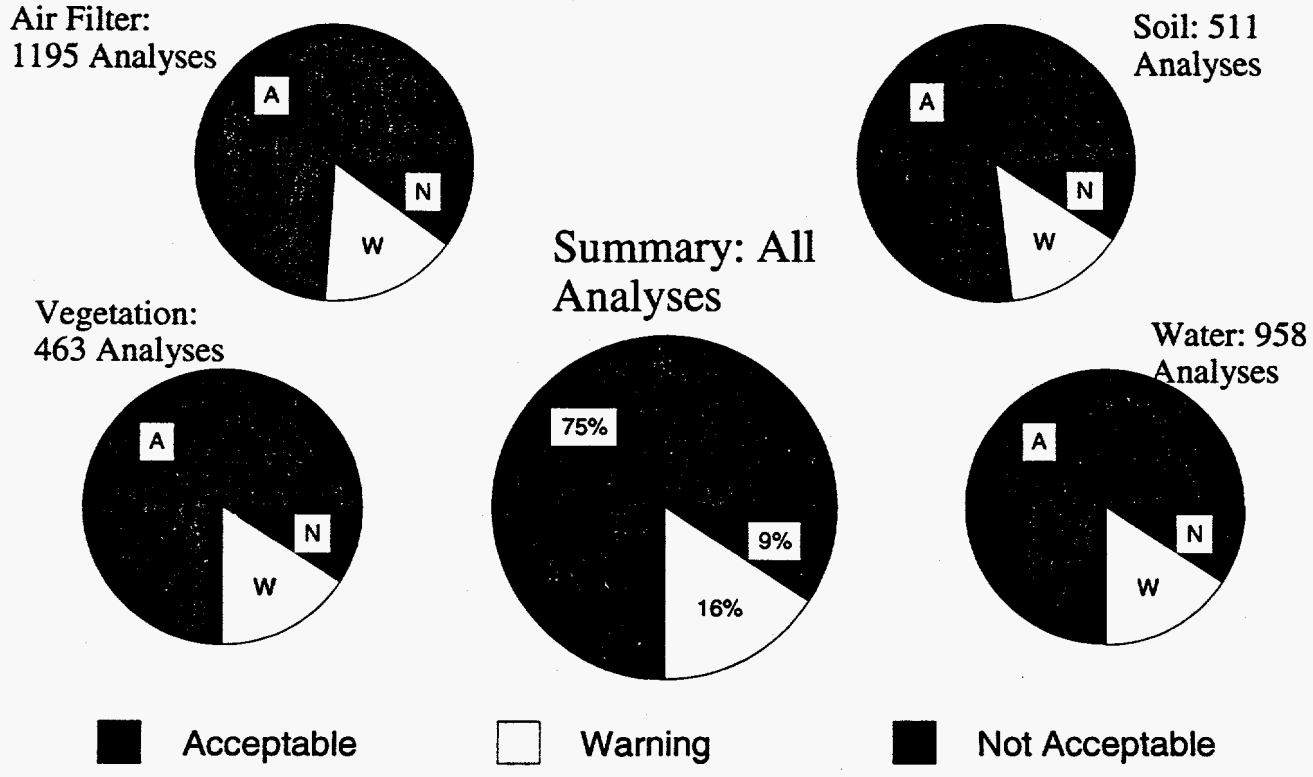
## Results Ordered by Matrix/Nuclide

**List of Participating Laboratories for EML QAP48**

# QAP 48 Summary of Evaluations of 3127 Reported Analyses



# QAP 48 Statistical Summary

| Nuclide | EML Value | EML Error | Reported Values / EML Value: Mean | Median | Std. Dev. | No. of Reported Values |
|---|---|---|---|---|---|---|
| **Matrix: VE** | | | | | | |
| CO60 | 10.575 | 0.206 | 1.065 | 1.078 | 0.151 | 82 |
| CS137 | 181.500 | 7.141 | 1.056 | 1.052 | 0.110 | 85 |
| SR90 | 359.005 | 6.021 | 0.879 | 0.927 | 0.150 | 44 |
| PU238 | 0.116 | 0.035 | 1.278 | 1.469 | 0.315 | 5 |
| PU239 | 1.770 | 0.154 | 0.991 | 1.011 | 0.158 | 49 |
| AM241 | 1.105 | 0.051 | 1.205 | 1.082 | 0.385 | 48 |
| CM244 | 2.174 | 0.066 | 0.970 | 0.963 | 0.148 | 29 |
| K40 | 707.500 | 24.987 | 1.057 | 1.060 | 0.114 | 80 |
| **Matrix: SO** | | | | | | |
| CS137 | 329.500 | 9.260 | 1.076 | 1.079 | 0.099 | 98 |
| SR90 | 13.091 | 0.279 | 1.129 | 1.069 | 0.274 | 39 |
| PU239 | 5.305 | 0.253 | 1.038 | 1.028 | 0.101 | 54 |
| AM241 | 2.678 | 0.212 | 1.132 | 1.106 | 0.242 | 55 |
| U234 | 31.133 | 0.802 | 0.950 | 0.972 | 0.133 | 39 |
| U238 | 31.900 | 2.552 | 0.913 | 0.903 | 0.171 | 46 |
| Bq U | 64.600 | 2.858 | 0.939 | 0.982 | 0.179 | 16 |
| ug U | 2.583 | 0.200 | 0.833 | 0.879 | 0.133 | 23 |
| K40 | 313.500 | 10.150 | 1.102 | 1.085 | 0.124 | 97 |
| **Matrix: WA** | | | | | | |
| MN54 | 57.000 | 1.900 | 1.097 | 1.094 | 0.068 | 96 |
| CO60 | 13.600 | 1.200 | 1.092 | 1.103 | 0.050 | 90 |
| CS137 | 46.000 | 1.700 | 1.107 | 1.109 | 0.059 | 100 |
| SR90 | 4.357 | 0.192 | 1.030 | 1.026 | 0.145 | 60 |
| PU238 | 2.526 | 0.060 | 0.957 | 0.962 | 0.070 | 59 |
| PU239 | 1.650 | 0.061 | 1.000 | 1.000 | 0.074 | 59 |
| AM241 | 1.226 | 0.050 | 1.068 | 1.036 | 0.156 | 63 |
| U234 | 0.396 | 0.026 | 1.076 | 1.085 | 0.104 | 45 |
| U238 | 0.396 | 0.037 | 1.076 | 1.087 | 0.090 | 48 |
| Bq U | 0.801 | 0.067 | 1.119 | 1.118 | 0.112 | 20 |
| ug U | 0.032 | 0.003 | 1.100 | 1.089 | 0.090 | 26 |
| GROSS ALPHA | 1421.000 | 100.000 | 1.010 | 1.049 | 0.159 | 61 |
| GROSS BETA | 2200.000 | 100.000 | 0.959 | 0.979 | 0.153 | 64 |
| H3 | 218.300 | 6.505 | 1.095 | 1.076 | 0.161 | 74 |
| FE55 | 202.800 | 2.921 | 1.194 | 1.303 | 0.233 | 14 |

**Statistical summary of "A" and "W" reported values**

# QAP 48 Statistical Summary

| Nuclide | EML Value | EML Error | Reported Values EML Value Mean | Median | Std. Dev. | No. of Reported Values |
|---|---|---|---|---|---|---|
| **Matrix: AI** | | | | | | |
| MN54 | 5.440 | 0.485 | 1.047 | 1.040 | 0.118 | 95 |
| CO57 | 11.110 | 0.846 | 0.978 | 0.972 | 0.110 | 89 |
| CO60 | 9.090 | 0.732 | 0.987 | 0.979 | 0.091 | 99 |
| SB125 | 12.160 | 1.151 | 1.058 | 1.053 | 0.144 | 92 |
| CS134 | 19.740 | 1.380 | 0.958 | 0.961 | 0.093 | 85 |
| CS137 | 11.860 | 0.957 | 1.012 | 1.003 | 0.108 | 95 |
| CE144 | 8.210 | 0.796 | 0.941 | 0.936 | 0.132 | 86 |
| SR90 | 1.758 | 0.042 | 0.986 | 0.955 | 0.213 | 31 |
| PU238 | 0.069 | 0.003 | 0.976 | 0.978 | 0.104 | 46 |
| PU239 | 0.062 | 0.002 | 1.065 | 1.075 | 0.114 | 49 |
| AM241 | 0.069 | 0.003 | 1.187 | 1.105 | 0.302 | 51 |
| U234 | 0.031 | 0.003 | 1.209 | 1.143 | 0.223 | 36 |
| U238 | 0.030 | 0.001 | 1.140 | 1.115 | 0.194 | 39 |
| Bq U | 0.063 | 0.004 | 1.226 | 1.109 | 0.381 | 15 |
| ug U | 2.472 | 0.101 | 1.144 | 1.153 | 0.126 | 23 |
| GROSS ALPHA | 1.400 | 0.100 | 0.968 | 0.961 | 0.203 | 74 |
| GROSS BETA | 1.960 | 0.300 | 1.087 | 1.078 | 0.155 | 71 |

Units for matrices: Air filter: AI=Bq/filter
Soil: SO=Bq/kg
Vegetation: VE=Bq/kg
Water: WA=Bq/L.

Values for elemental uranium in µg/filter, g or mL.

Conversion from Bq/kg or L to pCi/g or mL:
1 Bq/kg or L = 0.027 pCi/g or mL

Example: Convert 3 Bq/kg to pCi/g
3 Bq/kg x 27 pCi/Bq/1000 g/kg = 0.081 pCi/g

**Statistical summary of "A" and "W" reported values**

# QAP 48 Control Limits* by Matrix

| Nuclide | Lower Limit | Lower Middle Limit | Upper Middle Limit | Upper Limit |
|---|---|---|---|---|
| **Matrix: AI** | | | | |
| SB125 | 0.61 | 0.83 | 1.18 | 1.41 |
| GROSS BETA | 0.71 | 0.88 | 1.41 | 1.71 |
| MN54 | 0.76 | 0.84 | 1.15 | 1.37 |
| CO60 | 0.75 | 0.82 | 1.10 | 1.30 |
| CS134 | 0.74 | 0.82 | 1.12 | 1.23 |
| CS137 | 0.73 | 0.82 | 1.13 | 1.33 |
| CE144 | 0.60 | 0.66 | 1.10 | 1.30 |
| SR90 | 0.65 | 0.84 | 1.35 | 1.95 |
| PU239 | 0.72 | 0.90 | 1.18 | 1.42 |
| AM241 | 0.71 | 0.87 | 1.39 | 2.12 |
| U234 | 0.80 | 0.90 | 1.39 | 2.02 |
| U238 | 0.80 | 0.90 | 1.32 | 2.55 |
| Bq U | 0.80 | 0.90 | 1.67 | 3.35 |
| GROSS ALPHA | 0.49 | 0.84 | 1.35 | 1.56 |
| ug U | 0.54 | 0.87 | 1.25 | 1.87 |
| PU238 | 0.72 | 0.88 | 1.14 | 1.39 |
| CO57 | 0.65 | 0.71 | 1.10 | 1.34 |
| **Matrix: SO** | | | | |
| ug U | 0.44 | 0.66 | 1.10 | 1.22 |
| CS137 | 0.80 | 0.90 | 1.21 | 1.32 |
| PU239 | 0.69 | 0.88 | 1.22 | 1.67 |
| AM241 | 0.57 | 0.77 | 1.46 | 2.26 |
| U234 | 0.46 | 0.70 | 1.11 | 1.30 |
| U238 | 0.43 | 0.68 | 1.10 | 1.39 |
| K40 | 0.76 | 0.90 | 1.25 | 1.54 |
| SR90 | 0.56 | 0.75 | 1.50 | 2.87 |
| Bq U | 0.29 | 0.46 | 1.10 | 1.37 |
| **Matrix: VE** | | | | |
| CS137 | 0.80 | 0.90 | 1.25 | 1.39 |
| CO60 | 0.65 | 0.84 | 1.23 | 1.46 |
| K40 | 0.76 | 0.90 | 1.24 | 1.31 |
| CM244 | 0.46 | 0.81 | 1.36 | 1.65 |
| AM241 | 0.71 | 0.89 | 1.60 | 2.70 |
| PU239 | 0.59 | 0.85 | 1.24 | 1.72 |
| SR90 | 0.43 | 0.72 | 1.13 | 1.31 |
| PU238 | 0.34 | 0.76 | 2.59 | 6.95 |

***Control limits are reported as: the ratio of Reported Value vs. EML Value**

# QAP 48 Control Limits* by Matrix

| Nuclide | Lower Limit | Lower Middle Limit | Upper Middle Limit | Upper Limit |
|---|---|---|---|---|
| **Matrix: WA** | | | | |
| U234 | 0.80 | 0.90 | 1.22 | 1.42 |
| MN54 | 0.80 | 0.90 | 1.17 | 1.24 |
| CO60 | 0.80 | 0.90 | 1.13 | 1.20 |
| CS137 | 0.80 | 0.90 | 1.18 | 1.25 |
| SR90 | 0.75 | 0.89 | 1.26 | 1.56 |
| PU238 | 0.76 | 0.90 | 1.11 | 1.25 |
| AM241 | 0.72 | 0.90 | 1.23 | 1.52 |
| U238 | 0.80 | 0.90 | 1.17 | 1.29 |
| Bq U | 0.47 | 0.85 | 1.27 | 1.48 |
| ug U | 0.74 | 0.90 | 1.16 | 1.33 |
| GROSS ALPHA | 0.52 | 0.82 | 1.16 | 1.31 |
| GROSS BETA | 0.53 | 0.67 | 1.35 | 1.60 |
| H3 | 0.69 | 0.81 | 1.20 | 1.80 |
| FE55 | 0.22 | 0.56 | 1.28 | 1.51 |
| PU239 | 0.80 | 0.90 | 1.15 | 1.36 |

**Control limits are established from historical QAP data.**

**Where historical data are insufficient, limits of ±20% and ±50% are applied.**

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**The following are recommended performance criteria for analysis of environmental levels of analytes:**

**Acceptable:** **Lower Middle Limit $\leq$ A $\leq$ Upper Middle Limit**

**Acceptable with Warning: Lower Limit $\leq$ W < Lower Middle Limit or Upper Middle Limit < W $\leq$ Upper Limit**

**Not Acceptable: N < Lower Limit or N > Upper Limit**

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***Control limits are reported as: the ratio of Reported Value vs. EML Value**

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| **Matrix** | **A** | **W** | **N** | **Total Analyses** | **%A** | **%W** | **%N** |
| **Lab: AC** Analytical Chemistry Laboratory, Argonne National Lab | | | | | | | |
| WA | 5 | 2 | 1 | 8 | 63 | 25 | 13 |
| AI | 10 | 2 | 0 | 12 | 83 | 17 | 0 |
| SO | 3 | 0 | 1 | 4 | 75 | 0 | 25 |
| **Totals:** | **18** | **4** | **2** | **24** | **75%** | **17%** | **8%** |
| **Lab: AF** Air Force Analytical Lab, Brooks AFB | | | | | | | |
| VE | 1 | 3 | 2 | 6 | 17 | 50 | 33 |
| SO | 3 | 2 | 2 | 7 | 43 | 29 | 29 |
| WA | 9 | 1 | 2 | 12 | 75 | 8 | 17 |
| AI | 10 | 4 | 0 | 14 | 71 | 29 | 0 |
| **Totals:** | **23** | **10** | **6** | **39** | **59%** | **26%** | **15%** |
| **Lab: AG** Paragon Analytics, Inc, Fort Collins, CO | | | | | | | |
| SO | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| WA | 11 | 1 | 0 | 12 | 92 | 8 | 0 |
| VE | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| AI | 12 | 3 | 0 | 15 | 80 | 20 | 0 |
| **Totals:** | **39** | **4** | **0** | **43** | **91%** | **9%** | **0%** |
| **Lab: AI** Nuclear Technology Services, Inc., Roswell, GA | | | | | | | |
| AI | 4 | 8 | 1 | 13 | 31 | 62 | 8 |
| VE | 10 | 1 | 1 | 12 | 83 | 8 | 8 |
| SO | 7 | 2 | 2 | 11 | 64 | 18 | 18 |
| WA | 6 | 0 | 3 | 9 | 67 | 0 | 33 |
| **Totals:** | **27** | **11** | **7** | **45** | **60%** | **24%** | **16%** |
| **Lab: AL** Ames Laboratory, Ames, IA | | | | | | | |
| WA | 1 | 2 | 0 | 3 | 33 | 67 | 0 |
| AI | 2 | 3 | 4 | 9 | 22 | 33 | 44 |
| VE | 0 | 0 | 3 | 3 | 0 | 0 | 100 |
| SO | 0 | 0 | 2 | 2 | 0 | 0 | 100 |
| **Totals:** | **3** | **5** | **9** | **17** | **18%** | **29%** | **53%** |
| **Lab: AM** American Radiation Services, Inc., Baton Rouge | | | | | | | |
| VE | 4 | 0 | 0 | 4 | 100 | 0 | 0 |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| **Matrix** | **A** | **W** | **N** | **Total Analyses** | **%A** | **%W** | **%N** |
| SO | 2 | 4 | 0 | 6 | 33 | 67 | 0 |
| WA | 5 | 4 | 0 | 9 | 56 | 44 | 0 |
| AI | 5 | 4 | 4 | 13 | 38 | 31 | 31 |
| **Totals:** | **16** | **12** | **4** | **32** | **50%** | **38%** | **13%** |
| **Lab: AN** Argonne National Laboratory | | | | | | | |
| SO | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| WA | 10 | 0 | 0 | 10 | 100 | 0 | 0 |
| AI | 11 | 2 | 0 | 13 | 85 | 15 | 0 |
| **Totals:** | **28** | **2** | **0** | **30** | **93%** | **7%** | **0%** |
| **Lab: AR** Accu-Labs Research Inc., Golden, CO | | | | | | | |
| WA | 14 | 6 | 9 | 29 | 48 | 21 | 31 |
| SO | 14 | 1 | 2 | 17 | 82 | 6 | 12 |
| VE | 10 | 4 | 0 | 14 | 71 | 29 | 0 |
| AI | 19 | 8 | 8 | 35 | 54 | 23 | 23 |
| **Totals:** | **57** | **19** | **19** | **95** | **60%** | **20%** | **20%** |
| **Lab: AT** ATL International inc., Germantown, MD | | | | | | | |
| SO | 0 | 3 | 0 | 3 | 0 | 100 | 0 |
| WA | 3 | 1 | 0 | 4 | 75 | 25 | 0 |
| **Totals:** | **3** | **4** | **0** | **7** | **43%** | **57%** | **0%** |
| **Lab: AU** ORISE EESD/ESSAP, Oak Ridge | | | | | | | |
| VE | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| SO | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| WA | 7 | 4 | 1 | 12 | 58 | 33 | 8 |
| AI | 2 | 6 | 6 | 14 | 14 | 43 | 43 |
| **Totals:** | **22** | **10** | **7** | **39** | **56%** | **26%** | **18%** |
| **Lab: BA** Bettis Atomic Power Lab, West Mifflin, PA | | | | | | | |
| VE | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| SO | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| WA | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| AI | 4 | 1 | 0 | 5 | 80 | 20 | 0 |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Matrix | A | W | N | Total Analyses | %A | %W | %N |
| **Totals:** | **12** | **1** | **0** | **13** | **92%** | **8%** | **0%** |
| **Lab: BC** Babcock & Wilcox MC #42, Lynchburg, VA | | | | | | | |
| SO | 3 | 1 | 0 | 4 | 75 | 25 | 0 |
| WA | 4 | 4 | 0 | 8 | 50 | 50 | 0 |
| VE | 3 | 1 | 0 | 4 | 75 | 25 | 0 |
| AI | 2 | 3 | 7 | 12 | 17 | 25 | 58 |
| **Totals:** | **12** | **9** | **7** | **28** | **43%** | **32%** | **25%** |
| **Lab: BE** RUST Geotech, Grand Junction, CO | | | | | | | |
| VE | 6 | 1 | 0 | 7 | 86 | 14 | 0 |
| SO | 8 | 0 | 0 | 8 | 100 | 0 | 0 |
| WA | 11 | 1 | 1 | 13 | 85 | 8 | 8 |
| AI | 15 | 0 | 1 | 16 | 94 | 0 | 6 |
| **Totals:** | **40** | **2** | **2** | **44** | **91%** | **5%** | **5%** |
| **Lab: BL** Barringer Laboratories Inc., Golden, CO | | | | | | | |
| VE | 5 | 0 | 3 | 8 | 63 | 0 | 38 |
| SO | 10 | 0 | 0 | 10 | 100 | 0 | 0 |
| WA | 17 | 5 | 0 | 22 | 77 | 23 | 0 |
| AI | 16 | 2 | 0 | 18 | 89 | 11 | 0 |
| **Totals:** | **48** | **7** | **3** | **58** | **83%** | **12%** | **5%** |
| **Lab: BM** Battelle Memorial Institute, Columbus, OH | | | | | | | |
| WA | 8 | 0 | 0 | 8 | 100 | 0 | 0 |
| AI | 9 | 1 | 0 | 10 | 90 | 10 | 0 |
| SO | 6 | 1 | 0 | 7 | 86 | 14 | 0 |
| VE | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| **Totals:** | **29** | **2** | **0** | **31** | **94%** | **6%** | **0%** |
| **Lab: BN** Brookhaven National Laboratory, Upton, NY | | | | | | | |
| SO | 4 | 2 | 0 | 6 | 67 | 33 | 0 |
| WA | 16 | 2 | 2 | 20 | 80 | 10 | 10 |
| AI | 9 | 11 | 7 | 27 | 33 | 41 | 26 |
| VE | 9 | 0 | 0 | 9 | 100 | 0 | 0 |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| Matrix | Evaluation Summary A | W | N | Total Analyses | Evaluation Percentages %A | %W | %N |
|---|---|---|---|---|---|---|---|
| **Totals:** | **38** | **15** | **9** | **62** | **61%** | **24%** | **15%** |
| **Lab: BP** Battelle Pacific Northwest National Laboratory | | | | | | | |
| VE | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| SO | 4 | 1 | 0 | 5 | 80 | 20 | 0 |
| WA | 12 | 0 | 0 | 12 | 100 | 0 | 0 |
| AI | 13 | 1 | 0 | 14 | 93 | 7 | 0 |
| **Totals:** | **36** | **2** | **0** | **38** | **95%** | **5%** | **0%** |
| **Lab: BQ** Becquerel Laboratories Inc. Mississauga, Ontario, Canada | | | | | | | |
| VE | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| SO | 2 | 0 | 1 | 3 | 67 | 0 | 33 |
| WA | 4 | 1 | 0 | 5 | 80 | 20 | 0 |
| AI | 7 | 0 | 1 | 8 | 88 | 0 | 13 |
| **Totals:** | **14** | **2** | **2** | **18** | **78%** | **11%** | **11%** |
| **Lab: BR** US Army Research Laboratory, Aberdeen Proving Ground | | | | | | | |
| VE | 1 | 0 | 1 | 2 | 50 | 0 | 50 |
| WA | 0 | 4 | 0 | 4 | 0 | 100 | 0 |
| **Totals:** | **1** | **4** | **1** | **6** | **17%** | **67%** | **17%** |
| **Lab: BS** B&W Nuclear Envir. Services, Leechburg, PA | | | | | | | |
| SO | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| WA | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| AI | 6 | 2 | 1 | 9 | 67 | 22 | 11 |
| VE | 0 | 3 | 1 | 4 | 0 | 75 | 25 |
| **Totals:** | **12** | **5** | **2** | **19** | **63%** | **26%** | **11%** |
| **Lab: BU** Autoridad Regulatoria, Buenos Aires, Argentina | | | | | | | |
| VE | 7 | 1 | 0 | 8 | 88 | 13 | 0 |
| SO | 6 | 2 | 0 | 8 | 75 | 25 | 0 |
| WA | 10 | 1 | 0 | 11 | 91 | 9 | 0 |
| AI | 16 | 0 | 0 | 16 | 100 | 0 | 0 |
| **Totals:** | **39** | **4** | **0** | **43** | **91%** | **9%** | **0%** |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| Matrix | Evaluation Summary A | W | N | Total Analyses | Evaluation Percentages %A | %W | %N |
|---|---|---|---|---|---|---|---|
| **Lab: BX** B&W Nuclear Envir. Services, Lynchburg, VA | | | | | | | |
| AI | 6 | 2 | 7 | 15 | 40 | 13 | 47 |
| VE | 2 | 5 | 0 | 7 | 29 | 71 | 0 |
| SO | 5 | 1 | 0 | 6 | 83 | 17 | 0 |
| WA | 10 | 3 | 0 | 13 | 77 | 23 | 0 |
| **Totals:** | **23** | **11** | **7** | **41** | **56%** | **27%** | **17%** |
| **Lab: CA** Atomic Energy Control Board, Ottawa, Canada | | | | | | | |
| AI | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| SO | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| WA | 3 | 2 | 0 | 5 | 60 | 40 | 0 |
| **Totals:** | **13** | **2** | **0** | **15** | **87%** | **13%** | **0%** |
| **Lab: CB** Radiation Protection Bureau, Ontario, Canada | | | | | | | |
| WA | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| **Totals:** | **2** | **0** | **0** | **2** | **100%** | **0%** | **0%** |
| **Lab: CD** Gentilly-2 Nuclear Power Plant, Quebec Canada | | | | | | | |
| VE | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| SO | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| WA | 5 | 1 | 0 | 6 | 83 | 17 | 0 |
| AI | 5 | 3 | 1 | 9 | 56 | 33 | 11 |
| **Totals:** | **14** | **5** | **1** | **20** | **70%** | **25%** | **5%** |
| **Lab: CH** California State Dept. Health Serv., Sanitation & Radiation Laboratory | | | | | | | |
| VE | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| AI | 17 | 0 | 0 | 17 | 100 | 0 | 0 |
| **Totals:** | **24** | **0** | **0** | **24** | **100%** | **0%** | **0%** |
| **Lab: CL** Core Laboratories, Casper, WY | | | | | | | |
| AI | 12 | 1 | 1 | 14 | 86 | 7 | 7 |
| VE | 0 | 4 | 3 | 7 | 0 | 57 | 43 |
| SO | 7 | 1 | 0 | 8 | 88 | 13 | 0 |
| WA | 7 | 3 | 2 | 12 | 58 | 25 | 17 |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Matrix | A | W | N | Total Analyses | %A | %W | %N |
| **Totals:** | **26** | **9** | **6** | **41** | **63%** | **22%** | **15%** |
| **Lab: CN** China Institute for Radiation Protection | | | | | | | |
| AI | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| VE | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| SO | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| **Totals:** | **12** | **0** | **0** | **12** | **100%** | **0%** | **0%** |
| **Lab: CO** Bedford Institute of Oceanography, Dartmouth, Nova Scotia, Canada | | | | | | | |
| VE | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| SO | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| AI | 6 | 1 | 0 | 7 | 86 | 14 | 0 |
| **Totals:** | **9** | **1** | **0** | **10** | **90%** | **10%** | **0%** |
| **Lab: CR** Laboratorio de Fisica Nuclear Aplicada, Costa Rica | | | | | | | |
| AI | 2 | 3 | 0 | 5 | 40 | 60 | 0 |
| VE | 1 | 2 | 0 | 3 | 33 | 67 | 0 |
| SO | 0 | 2 | 0 | 2 | 0 | 100 | 0 |
| WA | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| **Totals:** | **6** | **7** | **0** | **13** | **46%** | **54%** | **0%** |
| **Lab: CS** Boeing North American, Canoga Park, CA | | | | | | | |
| WA | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| AI | 1 | 2 | 7 | 10 | 10 | 20 | 70 |
| VE | 3 | 0 | 1 | 4 | 75 | 0 | 25 |
| SO | 3 | 0 | 1 | 4 | 75 | 0 | 25 |
| **Totals:** | **11** | **2** | **9** | **22** | **50%** | **9%** | **41%** |
| **Lab: DC** Datachem Laboratories, Salt Lake City | | | | | | | |
| VE | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| SO | 1 | 0 | 1 | 2 | 50 | 0 | 50 |
| WA | 2 | 1 | 3 | 6 | 33 | 17 | 50 |
| AI | 7 | 1 | 1 | 9 | 78 | 11 | 11 |
| **Totals:** | **13** | **2** | **5** | **20** | **65%** | **10%** | **25%** |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| Matrix | Evaluation Summary A | W | N | Total Analyses | Evaluation Percentages %A | %W | %N |
|---|---|---|---|---|---|---|---|
| **Lab: DH** Duke Engineering Services Hanford | | | | | | | |
| AI | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| SO | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| WA | 3 | 1 | 3 | 7 | 43 | 14 | 43 |
| **Totals:** | **14** | **1** | **3** | **18** | **78%** | **6%** | **17%** |
| **Lab: DP** Duke Power Company, Huntersville, NC | | | | | | | |
| WA | 9 | 8 | 7 | 24 | 38 | 33 | 29 |
| AI | 3 | 3 | 0 | 6 | 50 | 50 | 0 |
| **Totals:** | **12** | **11** | **7** | **30** | **40%** | **37%** | **23%** |
| **Lab: EG** LMITCO/INEL, Scoville | | | | | | | |
| AI | 13 | 0 | 0 | 13 | 100 | 0 | 0 |
| VE | 8 | 0 | 0 | 8 | 100 | 0 | 0 |
| SO | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| WA | 10 | 1 | 0 | 11 | 91 | 9 | 0 |
| **Totals:** | **38** | **1** | **0** | **39** | **97%** | **3%** | **0%** |
| **Lab: EI** Eichrom Industries, Inc., Argonne | | | | | | | |
| AI | 3 | 2 | 0 | 5 | 60 | 40 | 0 |
| WA | 3 | 3 | 1 | 7 | 43 | 43 | 14 |
| VE | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| SO | 1 | 2 | 0 | 3 | 33 | 67 | 0 |
| **Totals:** | **8** | **7** | **1** | **16** | **50%** | **44%** | **6%** |
| **Lab: EL** Energy Laboratories, Inc., Casper, WY | | | | | | | |
| VE | 1 | 0 | 2 | 3 | 33 | 0 | 67 |
| SO | 1 | 2 | 0 | 3 | 33 | 67 | 0 |
| WA | 0 | 1 | 3 | 4 | 0 | 25 | 75 |
| AI | 0 | 0 | 7 | 7 | 0 | 0 | 100 |
| **Totals:** | **2** | **3** | **12** | **17** | **12%** | **18%** | **71%** |
| **Lab: EP** US EPA, Las Vegas | | | | | | | |
| VE | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| SO | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| WA | 7 | 1 | 0 | 8 | 88 | 13 | 0 |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Matrix | A | W | N | Total Analyses | %A | %W | %N |
| AI | 10 | 0 | 0 | 10 | 100 | 0 | 0 |
| **Totals:** | **22** | **1** | **0** | **23** | **96%** | **4%** | **0%** |
| **Lab: EG** EGL Environmental, Santa Paula, CA | | | | | | | |
| SO | 2 | 1 | 0 | 3 | 67 | 33 | 0 |
| AI | 9 | 0 | 1 | 10 | 90 | 0 | 10 |
| WA | 6 | 2 | 2 | 10 | 60 | 20 | 20 |
| **Totals:** | **17** | **3** | **3** | **23** | **74%** | **13%** | **13%** |
| **Lab: EJ** The University of the South Pacific, Fiji Islands | | | | | | | |
| VE | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| SO | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| AI | 2 | 3 | 3 | 8 | 25 | 38 | 38 |
| **Totals:** | **7** | **3** | **3** | **13** | **54%** | **23%** | **23%** |
| **Lab: FL** Florida Dept of Health & Rehab. Serv., Orlando | | | | | | | |
| VE | 3 | 1 | 0 | 4 | 75 | 25 | 0 |
| SO | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| WA | 5 | 1 | 1 | 7 | 71 | 14 | 14 |
| AI | 8 | 1 | 2 | 11 | 73 | 9 | 18 |
| **Totals:** | **20** | **3** | **3** | **26** | **77%** | **12%** | **12%** |
| **Lab: FM** Florida Mobile Emergency Radiological Laboratory, Orlando | | | | | | | |
| WA | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| AI | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| **Totals:** | **10** | **0** | **0** | **10** | **100%** | **0%** | **0%** |
| **Lab: FN** Fermi Lab, Batavia, IL | | | | | | | |
| WA | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| AI | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| SO | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| VE | 1 | 2 | 0 | 3 | 33 | 67 | 0 |
| **Totals:** | **15** | **2** | **0** | **17** | **88%** | **12%** | **0%** |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Matrix | A | W | N | Total Analyses | %A | %W | %N |
| **Lab: FR** CEA/DAM - SPR/B3 | | | | | | | |
| SO | 5 | 2 | 0 | 7 | 71 | 29 | 0 |
| WA | 9 | 3 | 0 | 12 | 75 | 25 | 0 |
| AI | 8 | 2 | 0 | 10 | 80 | 20 | 0 |
| VE | 5 | 0 | 0 | 5 | 100 | 0 | 0 |
| **Totals:** | **27** | **7** | **0** | **34** | **79%** | **21%** | **0%** |
| **Lab: FS** Florida State University, Tallahassee | | | | | | | |
| SO | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| **Totals:** | **3** | **0** | **0** | **3** | **100%** | **0%** | **0%** |
| **Lab: GA** Lockheed Martin, Pikton, OH | | | | | | | |
| AI | 11 | 2 | 0 | 13 | 85 | 15 | 0 |
| VE | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| SO | 5 | 2 | 0 | 7 | 71 | 29 | 0 |
| WA | 7 | 2 | 0 | 9 | 78 | 22 | 0 |
| **Totals:** | **29** | **6** | **0** | **35** | **83%** | **17%** | **0%** |
| **Lab: GC** Georgia Power Company Environmental Lab | | | | | | | |
| AI | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| WA | 7 | 1 | 0 | 8 | 88 | 13 | 0 |
| SO | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| VE | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| **Totals:** | **13** | **2** | **0** | **15** | **87%** | **13%** | **0%** |
| **Lab: GE** Environmental Physics, Inc., Charleston, SC | | | | | | | |
| VE | 6 | 1 | 0 | 7 | 86 | 14 | 0 |
| SO | 6 | 0 | 1 | 7 | 86 | 0 | 14 |
| WA | 13 | 1 | 0 | 14 | 93 | 7 | 0 |
| AI | 14 | 1 | 1 | 16 | 88 | 6 | 6 |
| **Totals:** | **39** | **3** | **2** | **44** | **89%** | **7%** | **5%** |
| **Lab: GP** GPU Nuclear, Inc., Harrisburg, PA | | | | | | | |
| VE | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| SO | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| WA | 12 | 0 | 2 | 14 | 86 | 0 | 14 |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Matrix | A | W | N | Total Analyses | %A | %W | %N |
| AI | 13 | 2 | 1 | 16 | 81 | 13 | 6 |
| **Totals:** | **31** | **2** | **3** | **36** | **86%** | **6%** | **8%** |
| **Lab: GS** USGS/NWQL, Arvada, CO | | | | | | | |
| WA | 2 | 0 | 1 | 3 | 67 | 0 | 33 |
| **Totals:** | **2** | **0** | **1** | **3** | **67%** | **0%** | **33%** |
| **Lab: GT** Georgia Institute of Technology | | | | | | | |
| SO | 5 | 0 | 0 | 5 | 100 | 0 | 0 |
| WA | 9 | 2 | 0 | 11 | 82 | 18 | 0 |
| VE | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| AI | 13 | 1 | 0 | 14 | 93 | 7 | 0 |
| **Totals:** | **33** | **3** | **0** | **36** | **92%** | **8%** | **0%** |
| **Lab: HC** Lawrence Livermore Laboratory, California | | | | | | | |
| WA | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| AI | 0 | 2 | 0 | 2 | 0 | 100 | 0 |
| **Totals:** | **3** | **2** | **0** | **5** | **60%** | **40%** | **0%** |
| **Lab: HU** Water Resources Research Centre (VITUKI), Hungary | | | | | | | |
| VE | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| SO | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| AI | 6 | 0 | 1 | 7 | 86 | 0 | 14 |
| **Totals:** | **10** | **1** | **1** | **12** | **83%** | **8%** | **8%** |
| **Lab: IA** Bhabha Atomic Research Centre, India | | | | | | | |
| VE | 0 | 9 | 4 | 13 | 0 | 69 | 31 |
| SO | 1 | 2 | 6 | 9 | 11 | 22 | 67 |
| AI | 11 | 10 | 3 | 24 | 46 | 42 | 13 |
| **Totals:** | **12** | **21** | **13** | **46** | **26%** | **46%** | **28%** |
| **Lab: ID** DPRA - IRD/CNEN, Rio de Janeiro, Brazil | | | | | | | |
| SO | 5 | 1 | 0 | 6 | 83 | 17 | 0 |
| WA | 8 | 1 | 0 | 9 | 89 | 11 | 0 |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| **Matrix** | **A** | **W** | **N** | **Total Analyses** | **%A** | **%W** | **%N** |
| AI | 3 | 7 | 3 | 13 | 23 | 54 | 23 |
| VE | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| **Totals:** | **22** | **9** | **3** | **34** | **65%** | **26%** | **9%** |
| **Lab: IE** IEA, Inc., Morrisville, NC | | | | | | | |
| VE | 5 | 2 | 0 | 7 | 71 | 29 | 0 |
| SO | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| WA | 14 | 0 | 0 | 14 | 100 | 0 | 0 |
| AI | 14 | 1 | 0 | 15 | 93 | 7 | 0 |
| **Totals:** | **42** | **3** | **0** | **45** | **93%** | **7%** | **0%** |
| **Lab: IL** ISU Environmental Monitoring Program, Pocatello, ID | | | | | | | |
| VE | 0 | 2 | 1 | 3 | 0 | 67 | 33 |
| SO | 0 | 0 | 2 | 2 | 0 | 0 | 100 |
| WA | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| AI | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| **Totals:** | **10** | **2** | **3** | **15** | **67%** | **13%** | **20%** |
| **Lab: IN** Lockheed Martin Idaho Technical Corp., Analytical Laboratory | | | | | | | |
| WA | 7 | 2 | 0 | 9 | 78 | 22 | 0 |
| AI | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| SO | 5 | 2 | 0 | 7 | 71 | 29 | 0 |
| VE | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| **Totals:** | **22** | **4** | **0** | **26** | **85%** | **15%** | **0%** |
| **Lab: IS** Quanterra- St. Louis | | | | | | | |
| SO | 3 | 1 | 1 | 5 | 60 | 20 | 20 |
| WA | 6 | 5 | 0 | 11 | 55 | 45 | 0 |
| AI | 10 | 1 | 1 | 12 | 83 | 8 | 8 |
| VE | 1 | 4 | 1 | 6 | 17 | 67 | 17 |
| **Totals:** | **20** | **11** | **3** | **34** | **59%** | **32%** | **9%** |
| **Lab: IT** Quanterra- Richland Laboratory | | | | | | | |
| VE | 5 | 2 | 0 | 7 | 71 | 29 | 0 |
| SO | 8 | 0 | 0 | 8 | 100 | 0 | 0 |
| WA | 12 | 1 | 0 | 13 | 92 | 8 | 0 |
| AI | 16 | 0 | 0 | 16 | 100 | 0 | 0 |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| Matrix | Evaluation Summary A | W | N | Total Analyses | Evaluation Percentages %A | %W | %N |
|---|---|---|---|---|---|---|---|
| **Totals:** | **41** | **3** | **0** | **44** | **93%** | **7%** | **0%** |
| **Lab: JE** Jacobs Engineering, Oak Ridge, TN | | | | | | | |
| WA | 3 | 1 | 1 | 5 | 60 | 20 | 20 |
| AI | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| SO | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| **Totals:** | **7** | **1** | **1** | **9** | **78%** | **11%** | **11%** |
| **Lab: JL** Jefferson Lab, Newport News, VA | | | | | | | |
| WA | 2 | 1 | 1 | 4 | 50 | 25 | 25 |
| AI | 6 | 1 | 1 | 8 | 75 | 13 | 13 |
| **Totals:** | **8** | **2** | **2** | **12** | **67%** | **17%** | **17%** |
| **Lab: KA** Knolls Atomic Power Lab, Schenectady | | | | | | | |
| SO | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| WA | 9 | 1 | 0 | 10 | 90 | 10 | 0 |
| AI | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| **Totals:** | **15** | **1** | **0** | **16** | **94%** | **6%** | **0%** |
| **Lab: KO** Korea Institute of Nuclear Safety] | | | | | | | |
| VE | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| SO | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| WA | 11 | 0 | 1 | 12 | 92 | 0 | 8 |
| AI | 16 | 0 | 1 | 17 | 94 | 0 | 6 |
| **Totals:** | **43** | **0** | **2** | **45** | **96%** | **0%** | **4%** |
| **Lab: KR** Korea Atomic Energy Research Institute | | | | | | | |
| VE | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| SO | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| AI | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| **Totals:** | **9** | **0** | **0** | **9** | **100%** | **0%** | **0%** |
| **Lab: LA** Los Alamos National Laboratory, NM | | | | | | | |
| SO | 12 | 2 | 4 | 18 | 67 | 11 | 22 |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Matrix | A | W | N | Total Analyses | %A | %W | %N |
| WA | 19 | 9 | 2 | 30 | 63 | 30 | 7 |
| VE | 13 | 1 | 0 | 14 | 93 | 7 | 0 |
| AI | 25 | 2 | 3 | 30 | 83 | 7 | 10 |
| **Totals:** | **69** | **14** | **9** | **92** | **75%** | **15%** | **10%** |
| **Lab: LL** LLNL Chemistry and Material Science/Environmental | | | | | | | |
| VE | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| SO | 5 | 0 | 1 | 6 | 83 | 0 | 17 |
| WA | 11 | 0 | 0 | 11 | 100 | 0 | 0 |
| AI | 10 | 1 | 3 | 14 | 71 | 7 | 21 |
| **Totals:** | **32** | **1** | **4** | **37** | **86%** | **3%** | **11%** |
| **Lab: LM** Los Alamos National Lab, Mercury, NV | | | | | | | |
| SO | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| WA | 1 | 0 | 2 | 3 | 33 | 0 | 67 |
| AI | 2 | 1 | 6 | 9 | 22 | 11 | 67 |
| **Totals:** | **5** | **1** | **8** | **14** | **36%** | **7%** | **57%** |
| **Lab: LN** Los Alamos National Lab, ES&H | | | | | | | |
| WA | 1 | 1 | 2 | 4 | 25 | 25 | 50 |
| AI | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| **Totals:** | **10** | **1** | **2** | **13** | **77%** | **8%** | **15%** |
| **Lab: LV** UNLV, Dept of Health Physics | | | | | | | |
| SO | 1 | 2 | 2 | 5 | 20 | 40 | 40 |
| WA | 2 | 3 | 4 | 9 | 22 | 33 | 44 |
| VE | 2 | 0 | 1 | 3 | 67 | 0 | 33 |
| AI | 6 | 1 | 3 | 10 | 60 | 10 | 30 |
| **Totals:** | **11** | **6** | **10** | **27** | **41%** | **22%** | **37%** |
| **Lab: LW** Lawrence Livermore National Lab, Waste | | | | | | | |
| WA | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| **Totals:** | **1** | **0** | **0** | **1** | **100%** | **0%** | **0%** |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Matrix | A | W | N | Total Analyses | %A | %W | %N |
| **Lab: MA ORNL Health Sciences Research Div** | | | | | | | |
| VE | 1 | 3 | 0 | 4 | 25 | 75 | 0 |
| SO | 2 | 2 | 0 | 4 | 50 | 50 | 0 |
| **Totals:** | **3** | **5** | **0** | **8** | **38%** | **63%** | **0%** |
| **Lab: ME Radiation Control Program, Jamaica Plain, MA** | | | | | | | |
| VE | 0 | 1 | 2 | 3 | 0 | 33 | 67 |
| SO | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| WA | 4 | 1 | 0 | 5 | 80 | 20 | 0 |
| AI | 3 | 6 | 1 | 10 | 30 | 60 | 10 |
| **Totals:** | **10** | **8** | **3** | **21** | **48%** | **38%** | **14%** |
| **Lab: MH Maine Health & Environmental Testing Laboratory** | | | | | | | |
| VE | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| SO | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| WA | 6 | 3 | 0 | 9 | 67 | 33 | 0 |
| AI | 2 | 5 | 0 | 7 | 29 | 71 | 0 |
| **Totals:** | **13** | **8** | **0** | **21** | **62%** | **38%** | **0%** |
| **Lab: ML EG&G Mound Applied Technologies, Miamisburg, OH** | | | | | | | |
| VE | 5 | 0 | 0 | 5 | 100 | 0 | 0 |
| AI | 7 | 4 | 0 | 11 | 64 | 36 | 0 |
| SO | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| WA | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| **Totals:** | **27** | **4** | **0** | **31** | **87%** | **13%** | **0%** |
| **Lab: MS Manufacturing Sciences Corporation, Oak Ridge** | | | | | | | |
| WA | 4 | 0 | 1 | 5 | 80 | 0 | 20 |
| AI | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| **Totals:** | **11** | **0** | **1** | **12** | **92%** | **0%** | **8%** |
| **Lab: NA US EPA NAREL, Montgomery, AL** | | | | | | | |
| VE | 5 | 1 | 0 | 6 | 83 | 17 | 0 |
| SO | 5 | 0 | 0 | 5 | 100 | 0 | 0 |
| WA | 5 | 2 | 0 | 7 | 71 | 29 | 0 |
| AI | 9 | 1 | 0 | 10 | 90 | 10 | 0 |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| Matrix | Evaluation Summary A | W | N | Total Analyses | Evaluation Percentages %A | %W | %N |
|---|---|---|---|---|---|---|---|
| **Totals:** | **24** | **4** | **0** | **28** | **86%** | **14%** | **0%** |
| **Lab: NF** Nuclear Fuels Services, Erwin, TN | | | | | | | |
| VE | 0 | 1 | 0 | 1 | 0 | 100 | 0 |
| SO | 0 | 1 | 1 | 2 | 0 | 50 | 50 |
| WA | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| **Totals:** | **3** | **2** | **1** | **6** | **50%** | **33%** | **17%** |
| **Lab: NL** Fluor Daniel Fernald, Inc., Ohio | | | | | | | |
| SO | 4 | 1 | 0 | 5 | 80 | 20 | 0 |
| WA | 3 | 4 | 0 | 7 | 43 | 57 | 0 |
| AI | 9 | 2 | 0 | 11 | 82 | 18 | 0 |
| **Totals:** | **16** | **7** | **0** | **23** | **70%** | **30%** | **0%** |
| **Lab: NM** Environmental Evaluation Group, Carlsbad, NM | | | | | | | |
| SO | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| WA | 3 | 1 | 0 | 4 | 75 | 25 | 0 |
| AI | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| **Totals:** | **10** | **1** | **0** | **11** | **91%** | **9%** | **0%** |
| **Lab: NP** IAE Environmental Laboratory, New York Power Authority | | | | | | | |
| VE | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| SO | 0 | 1 | 0 | 1 | 0 | 100 | 0 |
| WA | 3 | 2 | 0 | 5 | 60 | 40 | 0 |
| AI | 7 | 1 | 0 | 8 | 88 | 13 | 0 |
| **Totals:** | **11** | **5** | **0** | **16** | **69%** | **31%** | **0%** |
| **Lab: NR** Naval Reactors Facility Chemistry, Scoville, ID | | | | | | | |
| VE | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| SO | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| **Totals:** | **5** | **0** | **0** | **5** | **100%** | **0%** | **0%** |
| **Lab: NS** State Lab of Public Health, North Carolina | | | | | | | |
| WA | 4 | 1 | 0 | 5 | 80 | 20 | 0 |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| **Matrix** | **A** | **W** | **N** | **Total Analyses** | **%A** | **%W** | **%N** |
| AI | 7 | 2 | 0 | 9 | 78 | 22 | 0 |
| **Totals:** | **11** | **3** | **0** | **14** | **79%** | **21%** | **0%** |
| **Lab: OB** OBG Laboratories, East Syracuse, NY | | | | | | | |
| AI | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| WA | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| **Totals:** | **3** | **1** | **0** | **4** | **75%** | **25%** | **0%** |
| **Lab: OD** ORNL, Radiobioassay Lab | | | | | | | |
| WA | 10 | 0 | 0 | 10 | 100 | 0 | 0 |
| AI | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| **Totals:** | **19** | **0** | **0** | **19** | **100%** | **0%** | **0%** |
| **Lab: OK** Southwest Laboratory of Oklahoma | | | | | | | |
| WA | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| AI | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| **Totals:** | **4** | **1** | **0** | **5** | **80%** | **20%** | **0%** |
| **Lab: OL** ORNL Environmental Sciences Div | | | | | | | |
| VE | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| SO | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| WA | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| AI | 6 | 1 | 0 | 7 | 86 | 14 | 0 |
| **Totals:** | **14** | **1** | **0** | **15** | **93%** | **7%** | **0%** |
| **Lab: OT** ORNL Radioactive Material Analysis Lab | | | | | | | |
| AI | 12 | 1 | 1 | 14 | 86 | 7 | 7 |
| VE | 5 | 2 | 0 | 7 | 71 | 29 | 0 |
| SO | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| WA | 8 | 3 | 0 | 11 | 73 | 27 | 0 |
| **Totals:** | **31** | **6** | **1** | **38** | **82%** | **16%** | **3%** |
| **Lab: OU** Outreach Laboratory, Broken Arrow, OK | | | | | | | |
| AI | 6 | 2 | 1 | 9 | 67 | 22 | 11 |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Matrix | A | W | N | Total Analyses | %A | %W | %N |
| WA | 7 | 1 | 1 | 9 | 78 | 11 | 11 |
| VE | 0 | 1 | 2 | 3 | 0 | 33 | 67 |
| SO | 1 | 2 | 0 | 3 | 33 | 67 | 0 |
| **Totals:** | **14** | **6** | **4** | **24** | **58%** | **25%** | **17%** |
| **Lab: PA** Mason & Hanger-Silas Mason Co., Inc., Battelle Pantex, Amarillo, TX | | | | | | | |
| AI | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| **Totals:** | **2** | **0** | **0** | **2** | **100%** | **0%** | **0%** |
| **Lab: PK** Pakistan Institute of Nuclear Science & Technology | | | | | | | |
| VE | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| SO | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| AI | 0 | 0 | 2 | 2 | 0 | 0 | 100 |
| **Totals:** | **4** | **0** | **2** | **6** | **67%** | **0%** | **33%** |
| **Lab: PO** Institute of Oceanology PAN, Poland | | | | | | | |
| VE | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| SO | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| AI | 6 | 0 | 1 | 7 | 86 | 0 | 14 |
| **Totals:** | **11** | **0** | **1** | **12** | **92%** | **0%** | **8%** |
| **Lab: PR** Princeton Plasma Physics Lab | | | | | | | |
| WA | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| **Totals:** | **1** | **0** | **0** | **1** | **100%** | **0%** | **0%** |
| **Lab: RA** V. G. Khlopin Radium Institute, St. Petersburg, Russia | | | | | | | |
| AI | 10 | 0 | 0 | 10 | 100 | 0 | 0 |
| VE | 5 | 1 | 0 | 6 | 83 | 17 | 0 |
| SO | 4 | 3 | 0 | 7 | 57 | 43 | 0 |
| **Totals:** | **19** | **4** | **0** | **23** | **83%** | **17%** | **0%** |
| **Lab: RC** US NRC Region I Laboratory, PA | | | | | | | |
| AI | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| SO | 2 | 0 | 0 | 2 | 100 | 0 | 0 |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| **Matrix** | **A** | **W** | **N** | **Total Analyses** | **%A** | **%W** | **%N** |
| WA | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| **Totals:** | **15** | **0** | **0** | **15** | **100%** | **0%** | **0%** |
| **Lab: RD** Radiation Detection Company, CA | | | | | | | |
| AI | 0 | 1 | 1 | 2 | 0 | 50 | 50 |
| **Totals:** | **0** | **1** | **1** | **2** | **0%** | **50%** | **50%** |
| **Lab: RE** Bechtel Nevada, Mercury, NV | | | | | | | |
| VE | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| SO | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| WA | 10 | 0 | 2 | 12 | 83 | 0 | 17 |
| AI | 15 | 0 | 0 | 15 | 100 | 0 | 0 |
| **Totals:** | **38** | **0** | **2** | **40** | **95%** | **0%** | **5%** |
| **Lab: RG** Thermo Nutech Rocky Flats Plant, Golden | | | | | | | |
| WA | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| **Totals:** | **2** | **0** | **0** | **2** | **100%** | **0%** | **0%** |
| **Lab: RI** Rust Federal Services of Hanford, Inc., 222S Lab | | | | | | | |
| VE | 6 | 0 | 1 | 7 | 86 | 0 | 14 |
| AI | 11 | 1 | 0 | 12 | 92 | 8 | 0 |
| WA | 6 | 0 | 3 | 9 | 67 | 0 | 33 |
| SO | 1 | 0 | 2 | 3 | 33 | 0 | 67 |
| **Totals:** | **24** | **1** | **6** | **31** | **77%** | **3%** | **19%** |
| **Lab: RK** Rock Island Arsenal, Illinois | | | | | | | |
| AI | 1 | 2 | 0 | 3 | 33 | 67 | 0 |
| **Totals:** | **1** | **2** | **0** | **3** | **33%** | **67%** | **0%** |
| **Lab: RL** Thermo Hanford | | | | | | | |
| VE | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| SO | 0 | 2 | 0 | 2 | 0 | 100 | 0 |
| WA | 2 | 3 | 1 | 6 | 33 | 50 | 17 |
| AI | 9 | 0 | 1 | 10 | 90 | 0 | 10 |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| Matrix | Evaluation Summary A | W | N | Total Analyses | Evaluation Percentages %A | %W | %N |
|---|---|---|---|---|---|---|---|
| **Totals:** | **13** | **5** | **2** | **20** | **65%** | **25%** | **10%** |
| **Lab: SA** Sandia Labs Radioactive Sample Diag. Prog., NM | | | | | | | |
| SO | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| WA | 5 | 1 | 0 | 6 | 83 | 17 | 0 |
| AI | 10 | 0 | 0 | 10 | 100 | 0 | 0 |
| **Totals:** | **18** | **1** | **0** | **19** | **95%** | **5%** | **0%** |
| **Lab: SH** Savannah River Ecology Lab | | | | | | | |
| VE | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| SO | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| WA | 1 | 3 | 1 | 5 | 20 | 60 | 20 |
| **Totals:** | **7** | **3** | **1** | **11** | **64%** | **27%** | **9%** |
| **Lab: SK** Savannah River Plant | | | | | | | |
| SO | 2 | 1 | 0 | 3 | 67 | 33 | 0 |
| WA | 7 | 2 | 0 | 9 | 78 | 22 | 0 |
| VE | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| AI | 8 | 0 | 0 | 8 | 100 | 0 | 0 |
| **Totals:** | **20** | **3** | **0** | **23** | **87%** | **13%** | **0%** |
| **Lab: SL** Stanford Linear Accelerator Center | | | | | | | |
| WA | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| **Totals:** | **3** | **0** | **0** | **3** | **100%** | **0%** | **0%** |
| **Lab: SN** Sanford Cohen Associates, Inc., Montgomery, AL | | | | | | | |
| VE | 4 | 1 | 1 | 6 | 67 | 17 | 17 |
| SO | 5 | 1 | 0 | 6 | 83 | 17 | 0 |
| WA | 10 | 0 | 0 | 10 | 100 | 0 | 0 |
| AI | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| **Totals:** | **23** | **2** | **1** | **26** | **88%** | **8%** | **4%** |
| **Lab: SR** Savannah River Environmental Laboratory | | | | | | | |
| VE | 6 | 0 | 1 | 7 | 86 | 0 | 14 |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Matrix | A | W | N | Total Analyses | %A | %W | %N |
| SO | 2 | 0 | 3 | 5 | 40 | 0 | 60 |
| WA | 11 | 0 | 0 | 11 | 100 | 0 | 0 |
| AI | 12 | 2 | 0 | 14 | 86 | 14 | 0 |
| **Totals:** | **31** | **2** | **4** | **37** | **84%** | **5%** | **11%** |
| **Lab: ST** SC DHEC, Aiken, South Carolina | | | | | | | |
| WA | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| **Totals:** | **1** | **0** | **0** | **1** | **100%** | **0%** | **0%** |
| **Lab: SW** Southwest Research Institute, San Antonio, TX | | | | | | | |
| AI | 9 | 4 | 1 | 14 | 64 | 29 | 7 |
| WA | 7 | 0 | 4 | 11 | 64 | 0 | 36 |
| SO | 1 | 2 | 3 | 6 | 17 | 33 | 50 |
| VE | 0 | 1 | 5 | 6 | 0 | 17 | 83 |
| **Totals:** | **17** | **7** | **13** | **37** | **46%** | **19%** | **35%** |
| **Lab: TE** Teledyne Isotopes Midwest Lab, Northbrook, IL | | | | | | | |
| VE | 5 | 0 | 1 | 6 | 83 | 0 | 17 |
| SO | 3 | 2 | 1 | 6 | 50 | 33 | 17 |
| WA | 8 | 1 | 2 | 11 | 73 | 9 | 18 |
| AI | 11 | 0 | 1 | 12 | 92 | 0 | 8 |
| **Totals:** | **27** | **3** | **5** | **35** | **77%** | **9%** | **14%** |
| **Lab: TI** Teledyne Brown Engineering Environmental Services, Westwood, NJ | | | | | | | |
| VE | 5 | 0 | 2 | 7 | 71 | 0 | 29 |
| SO | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| WA | 10 | 2 | 0 | 12 | 83 | 17 | 0 |
| AI | 12 | 0 | 2 | 14 | 86 | 0 | 14 |
| **Totals:** | **33** | **2** | **4** | **39** | **85%** | **5%** | **10%** |
| **Lab: TM** Thermo Nutech Albuquerque Lab, NM | | | | | | | |
| WA | 8 | 6 | 0 | 14 | 57 | 43 | 0 |
| AI | 9 | 4 | 3 | 16 | 56 | 25 | 19 |
| SO | 7 | 1 | 0 | 8 | 88 | 13 | 0 |
| VE | 6 | 0 | 1 | 7 | 86 | 0 | 14 |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Matrix | A | W | N | Total Analyses | %A | %W | %N |
| **Totals:** | **30** | **11** | **4** | **45** | **67%** | **24%** | **9%** |
| **Lab: TN** Thermo NuTech, Richmond, CA | | | | | | | |
| SO | 4 | 2 | 1 | 7 | 57 | 29 | 14 |
| WA | 9 | 3 | 2 | 14 | 64 | 21 | 14 |
| AI | 13 | 3 | 0 | 16 | 81 | 19 | 0 |
| VE | 4 | 3 | 0 | 7 | 57 | 43 | 0 |
| **Totals:** | **30** | **11** | **3** | **44** | **68%** | **25%** | **7%** |
| **Lab: TO** Thermo NUtech Oak Ridge Laboratory | | | | | | | |
| VE | 4 | 0 | 1 | 5 | 80 | 0 | 20 |
| SO | 5 | 0 | 2 | 7 | 71 | 0 | 29 |
| WA | 9 | 4 | 0 | 13 | 69 | 31 | 0 |
| AI | 2 | 4 | 3 | 9 | 22 | 44 | 33 |
| **Totals:** | **20** | **8** | **6** | **34** | **59%** | **24%** | **18%** |
| **Lab: TP** Taiwan Power Company, Taipei, Taiwan | | | | | | | |
| SO | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| WA | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| VE | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| AI | 9 | 1 | 0 | 10 | 90 | 10 | 0 |
| **Totals:** | **22** | **1** | **0** | **23** | **96%** | **4%** | **0%** |
| **Lab: TT** Tracer Technologies International, Inc., Cleveland | | | | | | | |
| SO | 0 | 1 | 1 | 2 | 0 | 50 | 50 |
| WA | 3 | 1 | 0 | 4 | 75 | 25 | 0 |
| **Totals:** | **3** | **2** | **1** | **6** | **50%** | **33%** | **17%** |
| **Lab: TW** Taiwan Radiation Monitoring Center | | | | | | | |
| VE | 8 | 0 | 0 | 8 | 100 | 0 | 0 |
| SO | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| WA | 11 | 0 | 1 | 12 | 92 | 0 | 8 |
| AI | 15 | 0 | 0 | 15 | 100 | 0 | 0 |
| **Totals:** | **41** | **0** | **1** | **42** | **98%** | **0%** | **2%** |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Matrix | A | W | N | Total Analyses | %A | %W | %N |
| **Lab: TX Texas Dept of Health/Laboratories, Austin** | | | | | | | |
| VE | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| SO | 8 | 0 | 0 | 8 | 100 | 0 | 0 |
| WA | 10 | 3 | 0 | 13 | 77 | 23 | 0 |
| AI | 11 | 1 | 0 | 12 | 92 | 8 | 0 |
| **Totals:** | **35** | **4** | **0** | **39** | **90%** | **10%** | **0%** |
| **Lab: UC Lockheed Martin, Paducah, KY** | | | | | | | |
| WA | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| AI | 3 | 1 | 0 | 4 | 75 | 25 | 0 |
| SO | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| VE | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| **Totals:** | **13** | **2** | **0** | **15** | **87%** | **13%** | **0%** |
| **Lab: UP Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge** | | | | | | | |
| WA | 8 | 2 | 1 | 11 | 73 | 18 | 9 |
| AI | 3 | 4 | 3 | 10 | 30 | 40 | 30 |
| SO | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| **Totals:** | **17** | **6** | **4** | **27** | **63%** | **22%** | **15%** |
| **Lab: UY Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge** | | | | | | | |
| VE | 5 | 2 | 0 | 7 | 71 | 29 | 0 |
| SO | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| WA | 11 | 0 | 0 | 11 | 100 | 0 | 0 |
| AI | 13 | 1 | 0 | 14 | 93 | 7 | 0 |
| **Totals:** | **35** | **3** | **0** | **38** | **92%** | **8%** | **0%** |
| **Lab: WA Environmental Radiation Lab, Off of Public Health Labs, Seattle** | | | | | | | |
| AI | 13 | 3 | 0 | 16 | 81 | 19 | 0 |
| VE | 6 | 1 | 0 | 7 | 86 | 14 | 0 |
| SO | 8 | 0 | 0 | 8 | 100 | 0 | 0 |
| WA | 13 | 0 | 0 | 13 | 100 | 0 | 0 |
| **Totals:** | **40** | **4** | **0** | **44** | **91%** | **9%** | **0%** |
| **Lab: WC Westinghouse Hanford Co.** | | | | | | | |
| AI | 12 | 2 | 1 | 15 | 80 | 13 | 7 |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| **Matrix** | **A** | **W** | **N** | **Total Analyses** | **%A** | **%W** | **%N** |
| WA | 12 | 0 | 0 | 12 | 100 | 0 | 0 |
| VE | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| SO | 3 | 3 | 1 | 7 | 43 | 43 | 14 |
| **Totals:** | **34** | **5** | **2** | **41** | **83%** | **12%** | **5%** |
| **Lab: WI** WIPP Site, Westinghouse Electric Corp | | | | | | | |
| WA | 5 | 2 | 2 | 9 | 56 | 22 | 22 |
| AI | 13 | 0 | 0 | 13 | 100 | 0 | 0 |
| **Totals:** | **18** | **2** | **2** | **22** | **82%** | **9%** | **9%** |
| **Lab: WP** Washington Public Power Supply System, Richland | | | | | | | |
| VE | 2 | 1 | 0 | 3 | 67 | 33 | 0 |
| SO | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| WA | 4 | 1 | 1 | 6 | 67 | 17 | 17 |
| AI | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| **Totals:** | **15** | **2** | **1** | **18** | **83%** | **11%** | **6%** |
| **Lab: WS** Weldon Springs Site, St Charles, MO | | | | | | | |
| SO | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| AI | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| **Totals:** | **5** | **0** | **0** | **5** | **100%** | **0%** | **0%** |
| **Lab: WV** West Valley Nuclear Services Co, Inc, NY | | | | | | | |
| AI | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| WA | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| **Totals:** | **8** | **1** | **0** | **9** | **89%** | **11%** | **0%** |
| **Lab: YA** Duke Engineering Environmental Lab, Westboro, MA | | | | | | | |
| AI | 14 | 0 | 1 | 15 | 93 | 0 | 7 |
| WA | 12 | 2 | 0 | 14 | 86 | 14 | 0 |
| VE | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| SO | 6 | 1 | 0 | 7 | 86 | 14 | 0 |
| **Totals:** | **39** | **3** | **1** | **43** | **91%** | **7%** | **2%** |

# QAP 48 Summary of Matrix Evaluations by Laboratory

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| **Matrix** | **A** | **W** | **N** | **Total Analyses** | **%A** | **%W** | **%N** |
| **Lab: YP** US Army Proving Ground, Yuma, AZ | | | | | | | |
| SO | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| WA | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| AI | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| **Totals:** | **3** | **0** | **0** | **3** | **100%** | **0%** | **0%** |
| **Lab: YU** Institute of Occupational and Radiological Health, Yugoslovia | | | | | | | |
| AI | 0 | 7 | 0 | 7 | 0 | 100 | 0 |
| VE | 0 | 3 | 0 | 3 | 0 | 100 | 0 |
| SO | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| WA | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| **Totals:** | **5** | **10** | **0** | **15** | **33%** | **67%** | **0%** |

# QAP 48 Summary of Laboratory Evaluations by Matrix

## Matrix: AI Air Filter

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Labcode | A | W | N | Total Analyses | %A | %W | %N |
| AC | 10 | 2 | 0 | 12 | 83 | 17 | 0 |
| AF | 10 | 4 | 0 | 14 | 71 | 29 | 0 |
| AG | 12 | 3 | 0 | 15 | 80 | 20 | 0 |
| AI | 4 | 8 | 1 | 13 | 31 | 62 | 8 |
| AL | 2 | 3 | 4 | 9 | 22 | 33 | 44 |
| AM | 5 | 4 | 4 | 13 | 38 | 31 | 31 |
| AN | 11 | 2 | 0 | 13 | 85 | 15 | 0 |
| AR | 19 | 8 | 8 | 35 | 54 | 23 | 23 |
| AU | 2 | 6 | 6 | 14 | 14 | 43 | 43 |
| BA | 4 | 1 | 0 | 5 | 80 | 20 | 0 |
| BC | 2 | 3 | 7 | 12 | 17 | 25 | 58 |
| BE | 15 | 0 | 1 | 16 | 94 | 0 | 6 |
| BL | 16 | 2 | 0 | 18 | 89 | 11 | 0 |
| BM | 9 | 1 | 0 | 10 | 90 | 10 | 0 |
| BN | 9 | 11 | 7 | 27 | 33 | 41 | 26 |
| BP | 13 | 1 | 0 | 14 | 93 | 7 | 0 |
| BQ | 7 | 0 | 1 | 8 | 88 | 0 | 13 |
| BS | 6 | 2 | 1 | 9 | 67 | 22 | 11 |
| BU | 16 | 0 | 0 | 16 | 100 | 0 | 0 |
| BX | 6 | 2 | 7 | 15 | 40 | 13 | 47 |
| CA | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| CD | 5 | 3 | 1 | 9 | 56 | 33 | 11 |
| CH | 17 | 0 | 0 | 17 | 100 | 0 | 0 |
| CL | 12 | 1 | 1 | 14 | 86 | 7 | 7 |
| CN | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| CO | 6 | 1 | 0 | 7 | 86 | 14 | 0 |
| CR | 2 | 3 | 0 | 5 | 40 | 60 | 0 |
| CS | 1 | 2 | 7 | 10 | 10 | 20 | 70 |
| DC | 7 | 1 | 1 | 9 | 78 | 11 | 11 |
| DH | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| DP | 3 | 3 | 0 | 6 | 50 | 50 | 0 |
| EG | 13 | 0 | 0 | 13 | 100 | 0 | 0 |
| EI | 3 | 2 | 0 | 5 | 60 | 40 | 0 |
| EL | 0 | 0 | 7 | 7 | 0 | 0 | 100 |
| EP | 10 | 0 | 0 | 10 | 100 | 0 | 0 |
| FG | 9 | 0 | 1 | 10 | 90 | 0 | 10 |
| FJ | 2 | 3 | 3 | 8 | 25 | 38 | 38 |
| FL | 8 | 1 | 2 | 11 | 73 | 9 | 18 |
| FM | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| FN | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| FR | 8 | 2 | 0 | 10 | 80 | 20 | 0 |
| GA | 11 | 2 | 0 | 13 | 85 | 15 | 0 |
| GC | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| GE | 14 | 1 | 1 | 16 | 88 | 6 | 6 |
| GP | 13 | 2 | 1 | 16 | 81 | 13 | 6 |
| GT | 13 | 1 | 0 | 14 | 93 | 7 | 0 |
| HC | 0 | 2 | 0 | 2 | 0 | 100 | 0 |
| HU | 6 | 0 | 1 | 7 | 86 | 0 | 14 |
| IA | 11 | 10 | 3 | 24 | 46 | 42 | 13 |
| ID | 3 | 7 | 3 | 13 | 23 | 54 | 23 |
| IE | 14 | 1 | 0 | 15 | 93 | 7 | 0 |
| IL | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| IN | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| IS | 10 | 1 | 1 | 12 | 83 | 8 | 8 |
| IT | 16 | 0 | 0 | 16 | 100 | 0 | 0 |

# QAP 48 Summary of Laboratory Evaluations by Matrix

## Matrix: AI Air Filter

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Labcode | A | W | N | Total Analyses | %A | %W | %N |
| JE | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| JL | 6 | 1 | 1 | 8 | 75 | 13 | 13 |
| KA | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| KO | 16 | 0 | 1 | 17 | 94 | 0 | 6 |
| KR | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| LA | 25 | 2 | 3 | 30 | 83 | 7 | 10 |
| LL | 10 | 1 | 3 | 14 | 71 | 7 | 21 |
| LM | 2 | 1 | 6 | 9 | 22 | 11 | 67 |
| LN | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| LV | 6 | 1 | 3 | 10 | 60 | 10 | 30 |
| ME | 3 | 6 | 1 | 10 | 30 | 60 | 10 |
| MH | 2 | 5 | 0 | 7 | 29 | 71 | 0 |
| ML | 7 | 4 | 0 | 11 | 64 | 36 | 0 |
| MS | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| NA | 9 | 1 | 0 | 10 | 90 | 10 | 0 |
| NL | 9 | 2 | 0 | 11 | 82 | 18 | 0 |
| NM | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| NP | 7 | 1 | 0 | 8 | 88 | 13 | 0 |
| NS | 7 | 2 | 0 | 9 | 78 | 22 | 0 |
| OB | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| OD | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| OK | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| OL | 6 | 1 | 0 | 7 | 86 | 14 | 0 |
| OT | 12 | 1 | 1 | 14 | 86 | 7 | 7 |
| OU | 6 | 2 | 1 | 9 | 67 | 22 | 11 |
| PA | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| PK | 0 | 0 | 2 | 2 | 0 | 0 | 100 |
| PO | 6 | 0 | 1 | 7 | 86 | 0 | 14 |
| RA | 10 | 0 | 0 | 10 | 100 | 0 | 0 |
| RC | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| RD | 0 | 1 | 1 | 2 | 0 | 50 | 50 |
| RE | 15 | 0 | 0 | 15 | 100 | 0 | 0 |
| RI | 11 | 1 | 0 | 12 | 92 | 8 | 0 |
| RK | 1 | 2 | 0 | 3 | 33 | 67 | 0 |
| RL | 9 | 0 | 1 | 10 | 90 | 0 | 10 |
| SA | 10 | 0 | 0 | 10 | 100 | 0 | 0 |
| SK | 8 | 0 | 0 | 8 | 100 | 0 | 0 |
| SN | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| SR | 13 | 2 | 0 | 15 | 87 | 13 | 0 |
| SW | 9 | 4 | 1 | 14 | 64 | 29 | 7 |
| TE | 11 | 0 | 1 | 12 | 92 | 0 | 8 |
| TI | 12 | 0 | 2 | 14 | 86 | 0 | 14 |
| TM | 9 | 4 | 3 | 16 | 56 | 25 | 19 |
| TN | 13 | 3 | 0 | 16 | 81 | 19 | 0 |
| TO | 2 | 4 | 3 | 9 | 22 | 44 | 33 |
| TP | 9 | 1 | 0 | 10 | 90 | 10 | 0 |
| TW | 15 | 0 | 0 | 15 | 100 | 0 | 0 |
| TX | 11 | 1 | 0 | 12 | 92 | 8 | 0 |
| UC | 3 | 1 | 0 | 4 | 75 | 25 | 0 |
| UP | 3 | 4 | 3 | 10 | 30 | 40 | 30 |
| UY | 13 | 1 | 0 | 14 | 93 | 7 | 0 |
| WA | 13 | 3 | 0 | 16 | 81 | 19 | 0 |
| WC | 12 | 2 | 1 | 15 | 80 | 13 | 7 |
| WI | 13 | 0 | 0 | 13 | 100 | 0 | 0 |
| WP | 6 | 0 | 0 | 6 | 100 | 0 | 0 |

# QAP 48 Summary of Laboratory Evaluations by Matrix

## Matrix: AI Air Filter

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Labcode | A | W | N | Total Analyses | %A | %W | %N |
| WS | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| WV | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| YA | 14 | 0 | 1 | 15 | 93 | 0 | 7 |
| YP | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| YU | 0 | 7 | 0 | 7 | 0 | 100 | 0 |
| **Totals 115 Labs:** | **889** | **187** | **120** | **1196** | **74%** | **16%** | **10%** |

# QAP 48 Summary of Laboratory Evaluations by Matrix

## Matrix: SO Soil

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Labcode | A | W | N | Total Analyses | %A | %W | %N |
| AC | 3 | 0 | 1 | 4 | 75 | 0 | 25 |
| AF | 3 | 2 | 2 | 7 | 43 | 29 | 29 |
| AG | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| AI | 7 | 2 | 2 | 11 | 64 | 18 | 18 |
| AL | 0 | 0 | 2 | 2 | 0 | 0 | 100 |
| AM | 2 | 4 | 0 | 6 | 33 | 67 | 0 |
| AN | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| AR | 14 | 1 | 2 | 17 | 82 | 6 | 12 |
| AT | 0 | 3 | 0 | 3 | 0 | 100 | 0 |
| AU | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| BA | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| BC | 3 | 1 | 0 | 4 | 75 | 25 | 0 |
| BE | 8 | 0 | 0 | 8 | 100 | 0 | 0 |
| BL | 10 | 0 | 0 | 10 | 100 | 0 | 0 |
| BM | 6 | 1 | 0 | 7 | 86 | 14 | 0 |
| BN | 4 | 2 | 0 | 6 | 67 | 33 | 0 |
| BP | 4 | 1 | 0 | 5 | 80 | 20 | 0 |
| BQ | 2 | 0 | 1 | 3 | 67 | 0 | 33 |
| BS | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| BU | 6 | 2 | 0 | 8 | 75 | 25 | 0 |
| BX | 5 | 1 | 0 | 6 | 83 | 17 | 0 |
| CA | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| CD | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| CL | 7 | 1 | 0 | 8 | 88 | 13 | 0 |
| CN | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| CO | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| CR | 0 | 2 | 0 | 2 | 0 | 100 | 0 |
| CS | 3 | 0 | 1 | 4 | 75 | 0 | 25 |
| DC | 1 | 0 | 1 | 2 | 50 | 0 | 50 |
| DH | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| EG | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| EI | 1 | 2 | 0 | 3 | 33 | 67 | 0 |
| EL | 1 | 2 | 0 | 3 | 33 | 67 | 0 |
| EP | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| FG | 2 | 1 | 0 | 3 | 67 | 33 | 0 |
| FJ | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| FL | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| FN | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| FR | 5 | 2 | 0 | 7 | 71 | 29 | 0 |
| FS | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| GA | 5 | 2 | 0 | 7 | 71 | 29 | 0 |
| GC | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| GE | 6 | 0 | 1 | 7 | 86 | 0 | 14 |
| GP | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| GT | 5 | 0 | 0 | 5 | 100 | 0 | 0 |
| HU | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| IA | 1 | 2 | 6 | 9 | 11 | 22 | 67 |
| ID | 5 | 1 | 0 | 6 | 83 | 17 | 0 |
| IE | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| IL | 0 | 0 | 2 | 2 | 0 | 0 | 100 |
| IN | 5 | 2 | 0 | 7 | 71 | 29 | 0 |
| IS | 3 | 1 | 1 | 5 | 60 | 20 | 20 |
| IT | 8 | 0 | 0 | 8 | 100 | 0 | 0 |
| JE | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| KA | 4 | 0 | 0 | 4 | 100 | 0 | 0 |

# QAP 48 Summary of Laboratory Evaluations by Matrix

## Matrix: SO Soil

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Labcode | A | W | N | Total Analyses | %A | %W | %N |
| KO | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| KR | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| LA | 12 | 2 | 4 | 18 | 67 | 11 | 22 |
| LL | 5 | 0 | 1 | 6 | 83 | 0 | 17 |
| LM | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| LV | 1 | 2 | 2 | 5 | 20 | 40 | 40 |
| MA | 2 | 2 | 0 | 4 | 50 | 50 | 0 |
| ME | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| MH | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| ML | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| NA | 5 | 0 | 0 | 5 | 100 | 0 | 0 |
| NF | 0 | 1 | 1 | 2 | 0 | 50 | 50 |
| NL | 4 | 1 | 0 | 5 | 80 | 20 | 0 |
| NM | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| NP | 0 | 1 | 0 | 1 | 0 | 100 | 0 |
| NR | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| OL | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| OT | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| OU | 1 | 2 | 0 | 3 | 33 | 67 | 0 |
| PK | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| PO | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| RA | 4 | 3 | 0 | 7 | 57 | 43 | 0 |
| RC | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| RE | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| RI | 1 | 0 | 2 | 3 | 33 | 0 | 67 |
| RL | 0 | 2 | 0 | 2 | 0 | 100 | 0 |
| SA | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| SH | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| SK | 2 | 1 | 0 | 3 | 67 | 33 | 0 |
| SN | 5 | 1 | 0 | 6 | 83 | 17 | 0 |
| SR | 2 | 0 | 3 | 5 | 40 | 0 | 60 |
| SW | 1 | 2 | 3 | 6 | 17 | 33 | 50 |
| TE | 3 | 2 | 1 | 6 | 50 | 33 | 17 |
| TI | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| TM | 7 | 1 | 0 | 8 | 88 | 13 | 0 |
| TN | 4 | 2 | 1 | 7 | 57 | 29 | 14 |
| TO | 5 | 0 | 2 | 7 | 71 | 0 | 29 |
| TP | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| TT | 0 | 1 | 1 | 2 | 0 | 50 | 50 |
| TW | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| TX | 8 | 0 | 0 | 8 | 100 | 0 | 0 |
| UC | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| UP | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| UY | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| WA | 8 | 0 | 0 | 8 | 100 | 0 | 0 |
| WC | 3 | 3 | 1 | 7 | 43 | 43 | 14 |
| WP | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| WS | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| YA | 6 | 1 | 0 | 7 | 86 | 14 | 0 |
| YP | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| YU | 2 | 0 | 0 | 2 | 100 | 0 | 0 |

# QAP 48 Summary of Laboratory Evaluations by Matrix

## Matrix: SO Soil

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Labcode | A | W | N | Total Analyses | %A | %W | %N |
| Totals 106 Labs: | 396 | 71 | 44 | 511 | 77% | 14% | 9% |

# QAP 48 Summary of Laboratory Evaluations by Matrix

## Matrix: VE Vegetation

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Labcode | A | W | N | Total Analyses | %A | %W | %N |
| AF | 1 | 3 | 2 | 6 | 17 | 50 | 33 |
| AG | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| AI | 10 | 1 | 1 | 12 | 83 | 8 | 8 |
| AL | 0 | 0 | 3 | 3 | 0 | 0 | 100 |
| AM | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| AR | 10 | 4 | 0 | 14 | 71 | 29 | 0 |
| AU | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| BA | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| BC | 3 | 1 | 0 | 4 | 75 | 25 | 0 |
| BE | 6 | 1 | 0 | 7 | 86 | 14 | 0 |
| BL | 5 | 0 | 3 | 8 | 63 | 0 | 38 |
| BM | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| BN | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| BP | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| BQ | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| BR | 1 | 0 | 1 | 2 | 50 | 0 | 50 |
| BS | 0 | 3 | 1 | 4 | 0 | 75 | 25 |
| BU | 7 | 1 | 0 | 8 | 88 | 13 | 0 |
| BX | 2 | 5 | 0 | 7 | 29 | 71 | 0 |
| CD | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| CH | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| CL | 0 | 4 | 3 | 7 | 0 | 57 | 43 |
| CN | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| CO | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| CR | 1 | 2 | 0 | 3 | 33 | 67 | 0 |
| CS | 3 | 0 | 1 | 4 | 75 | 0 | 25 |
| DC | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| EG | 8 | 0 | 0 | 8 | 100 | 0 | 0 |
| EI | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| EL | 1 | 0 | 2 | 3 | 33 | 0 | 67 |
| EP | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| FJ | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| FL | 3 | 1 | 0 | 4 | 75 | 25 | 0 |
| FN | 1 | 2 | 0 | 3 | 33 | 67 | 0 |
| FR | 5 | 0 | 0 | 5 | 100 | 0 | 0 |
| GA | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| GC | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| GE | 6 | 1 | 0 | 7 | 86 | 14 | 0 |
| GP | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| GT | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| HU | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| IA | 0 | 9 | 4 | 13 | 0 | 69 | 31 |
| ID | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| IE | 5 | 2 | 0 | 7 | 71 | 29 | 0 |
| IL | 0 | 2 | 1 | 3 | 0 | 67 | 33 |
| IN | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| IS | 1 | 4 | 1 | 6 | 17 | 67 | 17 |
| IT | 5 | 2 | 0 | 7 | 71 | 29 | 0 |
| KO | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| KR | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| LA | 13 | 1 | 0 | 14 | 93 | 7 | 0 |
| LL | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| LV | 2 | 0 | 1 | 3 | 67 | 0 | 33 |
| MA | 1 | 3 | 0 | 4 | 25 | 75 | 0 |
| ME | 0 | 1 | 2 | 3 | 0 | 33 | 67 |

# QAP 48 Summary of Laboratory Evaluations by Matrix

## Matrix: VE Vegetation

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Labcode | A | W | N | Total Analyses | %A | %W | %N |
| MH | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| ML | 5 | 0 | 0 | 5 | 100 | 0 | 0 |
| NA | 5 | 1 | 0 | 6 | 83 | 17 | 0 |
| NF | 0 | 1 | 0 | 1 | 0 | 100 | 0 |
| NP | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| NR | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| OL | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| OT | 5 | 2 | 0 | 7 | 71 | 29 | 0 |
| OU | 0 | 1 | 2 | 3 | 0 | 33 | 67 |
| PK | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| PO | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| RA | 5 | 1 | 0 | 6 | 83 | 17 | 0 |
| RE | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| RI | 6 | 0 | 1 | 7 | 86 | 0 | 14 |
| RL | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| SH | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| SK | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| SN | 4 | 1 | 1 | 6 | 67 | 17 | 17 |
| SR | 6 | 0 | 1 | 7 | 86 | 0 | 14 |
| SW | 0 | 1 | 5 | 6 | 0 | 17 | 83 |
| TE | 5 | 0 | 1 | 6 | 83 | 0 | 17 |
| TI | 5 | 0 | 2 | 7 | 71 | 0 | 29 |
| TM | 6 | 0 | 1 | 7 | 86 | 0 | 14 |
| TN | 4 | 3 | 0 | 7 | 57 | 43 | 0 |
| TO | 4 | 0 | 1 | 5 | 80 | 0 | 20 |
| TP | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| TW | 8 | 0 | 0 | 8 | 100 | 0 | 0 |
| TX | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| UC | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| UY | 5 | 2 | 0 | 7 | 71 | 29 | 0 |
| WA | 6 | 1 | 0 | 7 | 86 | 14 | 0 |
| WC | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| WP | 2 | 1 | 0 | 3 | 67 | 33 | 0 |
| YA | 7 | 0 | 0 | 7 | 100 | 0 | 0 |
| YU | 0 | 3 | 0 | 3 | 0 | 100 | 0 |
| **Totals 90 Labs:** | **349** | **73** | **41** | **463** | **75%** | **16%** | **9%** |

# QAP 48 Summary of Laboratory Evaluations by Matrix

## Matrix: WAWater

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Labcode | A | W | N | Total Analyses | %A | %W | %N |
| AC | 5 | 2 | 1 | 8 | 63 | 25 | 13 |
| AF | 9 | 1 | 2 | 12 | 75 | 8 | 17 |
| AG | 11 | 1 | 0 | 12 | 92 | 8 | 0 |
| AI | 6 | 0 | 3 | 9 | 67 | 0 | 33 |
| AL | 1 | 2 | 0 | 3 | 33 | 67 | 0 |
| AM | 5 | 4 | 0 | 9 | 56 | 44 | 0 |
| AN | 10 | 0 | 0 | 10 | 100 | 0 | 0 |
| AR | 14 | 6 | 9 | 29 | 48 | 21 | 31 |
| AT | 3 | 1 | 0 | 4 | 75 | 25 | 0 |
| AU | 7 | 4 | 1 | 12 | 58 | 33 | 8 |
| BA | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| BC | 4 | 4 | 0 | 8 | 50 | 50 | 0 |
| BE | 11 | 1 | 1 | 13 | 85 | 8 | 8 |
| BL | 17 | 5 | 0 | 22 | 77 | 23 | 0 |
| BM | 8 | 0 | 0 | 8 | 100 | 0 | 0 |
| BN | 16 | 2 | 2 | 20 | 80 | 10 | 10 |
| BP | 12 | 0 | 0 | 12 | 100 | 0 | 0 |
| BQ | 4 | 1 | 0 | 5 | 80 | 20 | 0 |
| BR | 0 | 4 | 0 | 4 | 0 | 100 | 0 |
| BS | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| BU | 10 | 1 | 0 | 11 | 91 | 9 | 0 |
| BX | 10 | 3 | 0 | 13 | 77 | 23 | 0 |
| CA | 3 | 2 | 0 | 5 | 60 | 40 | 0 |
| CB | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| CD | 5 | 1 | 0 | 6 | 83 | 17 | 0 |
| CL | 7 | 3 | 2 | 12 | 58 | 25 | 17 |
| CR | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| CS | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| DC | 2 | 1 | 3 | 6 | 33 | 17 | 50 |
| DH | 3 | 1 | 3 | 7 | 43 | 14 | 43 |
| DP | 9 | 8 | 7 | 24 | 38 | 33 | 29 |
| EG | 10 | 1 | 0 | 11 | 91 | 9 | 0 |
| EI | 3 | 3 | 1 | 7 | 43 | 43 | 14 |
| EL | 0 | 1 | 3 | 4 | 0 | 25 | 75 |
| EP | 7 | 1 | 0 | 8 | 88 | 13 | 0 |
| FG | 6 | 2 | 2 | 10 | 60 | 20 | 20 |
| FL | 5 | 1 | 1 | 7 | 71 | 14 | 14 |
| FM | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| FN | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| FR | 9 | 3 | 0 | 12 | 75 | 25 | 0 |
| GA | 7 | 2 | 0 | 9 | 78 | 22 | 0 |
| GC | 7 | 1 | 0 | 8 | 88 | 13 | 0 |
| GE | 13 | 1 | 0 | 14 | 93 | 7 | 0 |
| GP | 12 | 0 | 2 | 14 | 86 | 0 | 14 |
| GS | 2 | 0 | 1 | 3 | 67 | 0 | 33 |
| GT | 9 | 2 | 0 | 11 | 82 | 18 | 0 |
| HC | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| ID | 8 | 1 | 0 | 9 | 89 | 11 | 0 |
| IE | 14 | 0 | 0 | 14 | 100 | 0 | 0 |
| IL | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| IN | 7 | 2 | 0 | 9 | 78 | 22 | 0 |
| IS | 6 | 5 | 0 | 11 | 55 | 45 | 0 |
| IT | 12 | 1 | 0 | 13 | 92 | 8 | 0 |
| JE | 3 | 1 | 1 | 5 | 60 | 20 | 20 |
| JL | 2 | 1 | 1 | 4 | 50 | 25 | 25 |

# QAP 48 Summary of Laboratory Evaluations by Matrix

## Matrix: WAWater

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Labcode | A | W | N | Total Analyses | %A | %W | %N |
| KA | 9 | 1 | 0 | 10 | 90 | 10 | 0 |
| KO | 11 | 0 | 1 | 12 | 92 | 0 | 8 |
| LA | 19 | 9 | 2 | 30 | 63 | 30 | 7 |
| LL | 11 | 0 | 0 | 11 | 100 | 0 | 0 |
| LM | 1 | 0 | 2 | 3 | 33 | 0 | 67 |
| LN | 1 | 1 | 2 | 4 | 25 | 25 | 50 |
| LV | 2 | 3 | 4 | 9 | 22 | 33 | 44 |
| LW | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| ME | 4 | 1 | 0 | 5 | 80 | 20 | 0 |
| MH | 6 | 3 | 0 | 9 | 67 | 33 | 0 |
| ML | 9 | 0 | 0 | 9 | 100 | 0 | 0 |
| MS | 4 | 0 | 1 | 5 | 80 | 0 | 20 |
| NA | 5 | 2 | 0 | 7 | 71 | 29 | 0 |
| NF | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| NL | 3 | 4 | 0 | 7 | 43 | 57 | 0 |
| NM | 3 | 1 | 0 | 4 | 75 | 25 | 0 |
| NP | 3 | 2 | 0 | 5 | 60 | 40 | 0 |
| NS | 4 | 1 | 0 | 5 | 80 | 20 | 0 |
| OB | 1 | 1 | 0 | 2 | 50 | 50 | 0 |
| OD | 10 | 0 | 0 | 10 | 100 | 0 | 0 |
| OK | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| OL | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| OT | 8 | 3 | 0 | 11 | 73 | 27 | 0 |
| OU | 7 | 1 | 1 | 9 | 78 | 11 | 11 |
| PR | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| RC | 4 | 0 | 0 | 4 | 100 | 0 | 0 |
| RE | 10 | 0 | 2 | 12 | 83 | 0 | 17 |
| RG | 2 | 0 | 0 | 2 | 100 | 0 | 0 |
| RI | 6 | 0 | 3 | 9 | 67 | 0 | 33 |
| RL | 2 | 3 | 1 | 6 | 33 | 50 | 17 |
| SA | 5 | 1 | 0 | 6 | 83 | 17 | 0 |
| SH | 1 | 3 | 1 | 5 | 20 | 60 | 20 |
| SK | 7 | 2 | 0 | 9 | 78 | 22 | 0 |
| SL | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| SN | 10 | 0 | 0 | 10 | 100 | 0 | 0 |
| SR | 11 | 0 | 0 | 11 | 100 | 0 | 0 |
| ST | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| SW | 7 | 0 | 4 | 11 | 64 | 0 | 36 |
| TE | 8 | 1 | 2 | 11 | 73 | 9 | 18 |
| TI | 10 | 2 | 0 | 12 | 83 | 17 | 0 |
| TM | 8 | 6 | 0 | 14 | 57 | 43 | 0 |
| TN | 9 | 3 | 2 | 14 | 64 | 21 | 14 |
| TO | 9 | 4 | 0 | 13 | 69 | 31 | 0 |
| TP | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| TT | 3 | 1 | 0 | 4 | 75 | 25 | 0 |
| TW | 11 | 0 | 1 | 12 | 92 | 0 | 8 |
| TX | 10 | 3 | 0 | 13 | 77 | 23 | 0 |
| UC | 6 | 0 | 0 | 6 | 100 | 0 | 0 |
| UP | 8 | 2 | 1 | 11 | 73 | 18 | 9 |
| UY | 11 | 0 | 0 | 11 | 100 | 0 | 0 |
| WA | 13 | 0 | 0 | 13 | 100 | 0 | 0 |
| WC | 12 | 0 | 0 | 12 | 100 | 0 | 0 |
| WI | 5 | 2 | 2 | 9 | 56 | 22 | 22 |
| WP | 4 | 1 | 1 | 6 | 67 | 17 | 17 |
| WV | 7 | 0 | 0 | 7 | 100 | 0 | 0 |

# QAP 48 Summary of Laboratory Evaluations by Matrix

## Matrix: WAWater

| | Evaluation Summary | | | | Evaluation Percentages | | |
|---|---|---|---|---|---|---|---|
| Labcode | A | W | N | Total Analyses | %A | %W | %N |
| YA | 12 | 2 | 0 | 14 | 86 | 14 | 0 |
| YP | 1 | 0 | 0 | 1 | 100 | 0 | 0 |
| YU | 3 | 0 | 0 | 3 | 100 | 0 | 0 |
| **Totals 113 Labs:** | **723** | **156** | **79** | **958** | **75%** | **16%** | **8%** |

# QAP 48 Summary of Matrix Evaluations by Radionuclide

**Matrix:** Air Filter

| Radio-Nuclide | Evaluation Summary A | W | N | Total Analyses | Evaluation Percentages %A | %W | %N |
|---|---|---|---|---|---|---|---|
| SB125 | 71 | 21 | 11 | 103 | 69 | 20 | 11 |
| GROSS | 64 | 7 | 4 | 75 | 85 | 9 | 5 |
| MN54 | 77 | 18 | 8 | 103 | 75 | 17 | 8 |
| CO60 | 84 | 15 | 6 | 105 | 80 | 14 | 6 |
| CS134 | 76 | 9 | 16 | 101 | 75 | 9 | 16 |
| CS137 | 79 | 16 | 12 | 107 | 74 | 15 | 11 |
| CE144 | 77 | 9 | 15 | 101 | 76 | 9 | 15 |
| SR90 | 25 | 6 | 8 | 39 | 64 | 15 | 21 |
| PU239 | 39 | 10 | 3 | 52 | 75 | 19 | 6 |
| AM241 | 41 | 10 | 11 | 62 | 66 | 16 | 18 |
| U234 | 29 | 7 | 2 | 38 | 76 | 18 | 5 |
| U238 | 34 | 5 | 4 | 43 | 79 | 12 | 9 |
| Bq U | 13 | 2 | 0 | 15 | 87 | 13 | 0 |
| GROSS | 50 | 24 | 2 | 76 | 66 | 32 | 3 |
| ug U | 20 | 3 | 2 | 25 | 80 | 12 | 8 |
| PU238 | 34 | 12 | 4 | 50 | 68 | 24 | 8 |
| CO57 | 76 | 13 | 12 | 101 | 75 | 13 | 12 |
| **Totals:** | **889** | **187** | **120** | **1196** | **74%** | **16%** | **10%** |

# QAP 48 Summary of Matrix Evaluations by Radionuclide

**Matrix:** Soil

| Radio-Nuclide | Evaluation Summary A | W | N | Total Analyses | Evaluation Percentages %A | %W | %N |
|---|---|---|---|---|---|---|---|
| ug U | 21 | 2 | 3 | 26 | 81 | 8 | 12 |
| CS137 | 82 | 16 | 10 | 108 | 76 | 15 | 9 |
| PU239 | 48 | 6 | 5 | 59 | 81 | 10 | 8 |
| AM241 | 47 | 8 | 6 | 61 | 77 | 13 | 10 |
| U234 | 34 | 5 | 1 | 40 | 85 | 13 | 3 |
| U238 | 36 | 10 | 5 | 51 | 71 | 20 | 10 |
| K40 | 79 | 18 | 6 | 103 | 77 | 17 | 6 |
| SR90 | 35 | 4 | 8 | 47 | 74 | 9 | 17 |
| Bq U | 14 | 2 | 0 | 16 | 88 | 13 | 0 |
| **Totals:** | **396** | **71** | **44** | **511** | **77%** | **14%** | **9%** |

# QAP 48 Summary of Matrix Evaluations by Radionuclide

**Matrix:** Vegetation

| Radio-Nuclide | Evaluation Summary A | W | N | Total Analyses | Evaluation Percentages %A | %W | %N |
|---|---|---|---|---|---|---|---|
| CS137 | 74 | 11 | 8 | 93 | 80 | 12 | 9 |
| CO60 | 64 | 18 | 5 | 87 | 74 | 21 | 6 |
| K40 | 67 | 13 | 10 | 90 | 74 | 14 | 11 |
| CM244 | 25 | 4 | 3 | 32 | 78 | 13 | 9 |
| AM241 | 39 | 9 | 6 | 54 | 72 | 17 | 11 |
| PU239 | 38 | 11 | 3 | 52 | 73 | 21 | 6 |
| SR90 | 37 | 7 | 6 | 50 | 74 | 14 | 12 |
| PU238 | 5 | 0 | 0 | 5 | 100 | 0 | 0 |
| **Totals:** | **349** | **73** | **41** | **463** | **75%** | **16%** | **9%** |

# QAP 48 Summary of Matrix Evaluations by Radionuclide

**Matrix:** Water

| Radio-Nuclide | Evaluation Summary A | W | N | Total Analyses | Evaluation Percentages %A | %W | %N |
|---|---|---|---|---|---|---|---|
| PU239 | 53 | 6 | 7 | 66 | 80 | 9 | 11 |
| MN54 | 82 | 14 | 9 | 105 | 78 | 13 | 9 |
| CO60 | 68 | 22 | 17 | 107 | 64 | 21 | 16 |
| CS137 | 88 | 12 | 8 | 108 | 81 | 11 | 7 |
| PU238 | 46 | 13 | 7 | 66 | 70 | 20 | 11 |
| AM241 | 48 | 15 | 2 | 65 | 74 | 23 | 3 |
| U234 | 39 | 6 | 0 | 45 | 87 | 13 | 0 |
| U238 | 41 | 7 | 1 | 49 | 84 | 14 | 2 |
| Bq U | 18 | 2 | 1 | 21 | 86 | 10 | 5 |
| ug U | 20 | 6 | 1 | 27 | 74 | 22 | 4 |
| GROSS | 45 | 16 | 9 | 70 | 64 | 23 | 13 |
| GROSS | 60 | 4 | 3 | 67 | 90 | 6 | 4 |
| H3 | 58 | 16 | 7 | 81 | 72 | 20 | 9 |
| FE55 | 7 | 7 | 4 | 18 | 39 | 39 | 22 |
| K40 | 0 | 0 | 0 | 0 | *** | *** | *** |
| SR90 | 50 | 10 | 3 | 63 | 79 | 16 | 5 |
| **Totals:** | **723** | **156** | **79** | **958** | **75%** | **16%** | **8%** |

# QAP 48 Results by Laboratory

**Lab: Environmental Measurements Laboratory**

| Sample ID | Radio-nuclide | Reported Value | Reported Error |
|---|---|---|---|
| Air Filter | Gross Alpha | 1.4000 | 0.1000 |
| Air Filter | Gross Beta | 1.9600 | 0.3000 |
| Air Filter | 54Mn | 5.4400 | 0.4854 |
| Air Filter | 57Co | 11.1100 | 0.8464 |
| Air Filter | 60Co | 9.0900 | 0.7319 |
| Air Filter | 90Sr | 1.7583 | 0.0422 |
| Air Filter | 125Sb | 12.1600 | 1.1510 |
| Air Filter | 134Cs | 19.7400 | 1.3800 |
| Air Filter | 137Cs | 11.8600 | 0.9571 |
| Air Filter | 144Ce | 8.2100 | 0.7960 |
| Air Filter | 234U | 0.0308 | 0.0029 |
| Air Filter | 238U | 0.0305 | 0.0013 |
| Air Filter | Bq U | 0.0631 | 0.0037 |
| Air Filter | ug U | 2.4718 | 0.1088 |
| Air Filter | 238Pu | 0.0695 | 0.0032 |
| Air Filter | 239Pu | 0.0624 | 0.0018 |
| Air Filter | 241Am | 0.0687 | 0.0031 |
| Soil | 40K | 313.5000 | 10.1500 |
| Soil | 90Sr | 13.0908 | 0.2790 |
| Soil | 137Cs | 329.5000 | 9.2600 |
| Soil | 234U | 31.1330 | 0.8021 |
| Soil | 238U | 31.9000 | 2.5515 |
| Soil | Bq U | 64.6000 | 2.8583 |
| Soil | ug U | 2.5832 | 0.2000 |
| Soil | 239Pu | 5.3047 | 0.2528 |
| Soil | 241Am | 2.6775 | 0.2117 |
| Vegetation | 40K | 707.5000 | 24.9867 |
| Vegetation | 60Co | 10.5750 | 0.2062 |
| Vegetation | 90Sr | 359.0052 | 6.0213 |
| Vegetation | 137Cs | 181.5000 | 7.1414 |
| Vegetation | 238Pu | 0.1157 | 0.0350 |
| Vegetation | 239Pu | 1.7702 | 0.1536 |
| Vegetation | 241Am | 1.1052 | 0.0506 |
| Vegetation | 244Cm | 2.1736 | 0.0658 |
| Water | Gross Alpha | 1421.0000 | 100.0000 |
| Water | Gross Beta | 2200.0000 | 100.0000 |
| Water | 3H | 218.3000 | 6.5046 |
| Water | 54Mn | 57.0000 | 1.9000 |
| Water | 55Fe | 20.2800 | 2.9206 |
| Water | 60Co | 13.6000 | 1.2000 |
| Water | 90Sr | 4.3574 | 0.1924 |
| Water | 137Cs | 46.0000 | 1.7000 |
| Water | 234U | 0.3962 | 0.0265 |
| Water | 238U | 0.3963 | 0.0366 |
| Water | Bq U | 0.8014 | 0.0670 |

**Values for elemental uranium are reported in µg/filter, g, or mL.**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable** **pCi/g or mL = Bq x 0.027**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Laboratory

**Lab: Environmental Measurements Laboratory**

| Sample ID | Radio-nuclide | Reported Value | Reported Error |
|---|---|---|---|
| Water | ug U | 0.0320 | 0.0029 |
| Water | 238Pu | 2.5257 | 0.0595 |
| Water | 239Pu | 1.6502 | 0.0607 |
| Water | 241Am | 1.2257 | 0.0501 |
| Water | 63Ni | 117.0000 | 5.0000 |

**Values for elemental uranium are reported in µg/filter, g, or mL.**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable** **pCi/g or mL = Bq x 0.027**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** AC Analytical Chemistry Laboratory, Argonne National Lab

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.910 | 0.240 | 5.440 | 0.485 | 1.086 | A | |
| 1 | CO57 | 11.000 | 0.600 | 11.110 | 0.846 | 0.990 | A | |
| 1 | CO60 | 9.020 | 0.330 | 9.090 | 0.732 | 0.992 | A | |
| 1 | SB125 | 12.500 | 1.200 | 12.160 | 1.151 | 1.028 | A | |
| 1 | CS134 | 20.800 | 0.400 | 19.740 | 1.380 | 1.054 | A | |
| 1 | CS137 | 12.000 | 0.400 | 11.860 | 0.957 | 1.012 | A | |
| 1 | CE144 | 8.490 | 1.030 | 8.210 | 0.796 | 1.034 | A | |
| 1 | U234 | 0.026 | 0.002 | 0.031 | 0.003 | 0.831 | W | |
| 1 | U238 | 0.027 | 0.002 | 0.030 | 0.001 | 0.879 | W | |
| 1 | PU238 | 0.062 | 0.008 | 0.069 | 0.003 | 0.889 | A | |
| 1 | PU239 | 0.067 | 0.009 | 0.062 | 0.002 | 1.079 | A | |
| 1 | AM241 | 0.078 | 0.009 | 0.069 | 0.003 | 1.135 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 71.900 | 1.000 | 57.000 | 1.900 | 1.261 | N | |
| 1 | CO60 | 14.600 | 0.700 | 13.600 | 1.200 | 1.074 | A | |
| 1 | CS137 | 47.600 | 0.900 | 46.000 | 1.700 | 1.035 | A | |
| 1 | U234 | 0.320 | 0.040 | 0.396 | 0.026 | 0.808 | W | |
| 1 | U238 | 0.320 | 0.026 | 0.396 | 0.037 | 0.807 | W | |
| 1 | PU238 | 2.490 | 0.130 | 2.526 | 0.060 | 0.986 | A | |
| 1 | PU239 | 1.730 | 0.090 | 1.650 | 0.061 | 1.048 | A | |
| 1 | AM241 | 1.180 | 0.100 | 1.226 | 0.050 | 0.963 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 325.000 | 13.000 | 313.500 | 10.150 | 1.037 | A | |
| 1 | CS137 | 350.000 | 2.000 | 329.500 | 9.260 | 1.062 | A | |
| 1 | PU239 | 5.700 | 0.740 | 5.305 | 0.253 | 1.075 | A | |
| 1 | AM241 | 30.300 | 0.300 | 2.678 | 0.212 | 11.317 | N | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** AF Air Force Analytical Lab, Brooks AFB

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.290 | 0.100 | 1.400 | 0.100 | 0.921 | A | W |
| 1 | GROSS BETA | 2.200 | 0.100 | 1.960 | 0.300 | 1.122 | A | N |
| 1 | MN54 | 5.200 | 1.200 | 5.440 | 0.485 | 0.956 | A | A |
| 1 | CO57 | 9.500 | 1.300 | 11.110 | 0.846 | 0.855 | A | A |
| 1 | CO60 | 9.100 | 1.600 | 9.090 | 0.732 | 1.001 | A | N |
| 1 | SR90 | 2.500 | 0.200 | 1.758 | 0.042 | 1.422 | W | N |
| 1 | SB125 | 12.500 | 3.100 | 12.160 | 1.151 | 1.028 | A | W |
| 1 | CS134 | 16.500 | 2.200 | 19.740 | 1.380 | 0.836 | A | N |
| 1 | CS137 | 10.900 | 1.600 | 11.860 | 0.957 | 0.919 | A | A |
| 1 | CE144 | 9.100 | 4.200 | 8.210 | 0.796 | 1.108 | W | A |
| 1 | U234 | 0.037 | 0.010 | 0.031 | 0.003 | 1.201 | A | |
| 1 | U238 | 0.030 | 0.010 | 0.030 | 0.001 | 0.984 | A | |
| 1 | PU239 | 0.050 | 0.030 | 0.062 | 0.002 | 0.802 | W | W |
| 1 | AM241 | 0.050 | 0.020 | 0.069 | 0.003 | 0.728 | W | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1346.800 | 44.100 | 1421.000 | 100.000 | 0.948 | A | N |
| 1 | GROSS BETA | 1798.200 | 37.000 | 2200.000 | 100.000 | 0.817 | A | N |
| 1 | H3 | 1579.900 | 3.700 | 218.300 | 6.505 | 7.237 | N | |
| 1 | MN54 | 59.200 | 7.400 | 57.000 | 1.900 | 1.039 | A | N |
| 1 | CO60 | 18.100 | 3.000 | 13.600 | 1.200 | 1.331 | N | N |
| 1 | SR90 | 4.500 | 0.400 | 4.357 | 0.192 | 1.033 | A | N |
| 1 | CS137 | 51.800 | 7.400 | 46.000 | 1.700 | 1.126 | A | N |
| 1 | U234 | 0.400 | 0.100 | 0.396 | 0.026 | 1.010 | A | |
| 1 | U238 | 0.400 | 0.100 | 0.396 | 0.037 | 1.009 | A | |
| 1 | PU238 | 2.000 | 0.500 | 2.526 | 0.060 | 0.792 | W | |
| 1 | PU239 | 1.600 | 0.400 | 1.650 | 0.061 | 0.970 | A | N |
| 1 | AM241 | 1.300 | 0.400 | 1.226 | 0.050 | 1.061 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 299.700 | 40.700 | 313.500 | 10.150 | 0.956 | A | A |
| 1 | SR90 | 51.100 | 18.500 | 13.091 | 0.279 | 3.904 | N | |
| 1 | CS137 | 270.100 | 25.900 | 329.500 | 9.260 | 0.820 | W | A |
| 1 | U234 | 32.900 | 20.000 | 31.133 | 0.802 | 1.057 | A | |
| 1 | U238 | 20.000 | 15.500 | 31.900 | 2.552 | 0.627 | W | |
| 1 | PU239 | 5.500 | 3.500 | 5.305 | 0.253 | 1.037 | A | N |
| 1 | AM241 | 38.900 | 16.700 | 2.678 | 0.212 | 14.528 | N | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 625.300 | 62.900 | 707.500 | 24.987 | 0.884 | W | N |
| 1 | CO60 | 9.300 | 1.500 | 10.575 | 0.206 | 0.879 | A | |
| 1 | SR90 | 66.200 | 4.600 | 359.005 | 6.021 | 0.184 | N | N |
| 1 | CS137 | 155.400 | 18.500 | 181.500 | 7.141 | 0.856 | W | N |
| 1 | PU239 | 0.100 | 0.060 | 1.770 | 0.154 | 0.056 | N | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** AF Air Force Analytical Lab, Brooks AFB

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | AM241 | 0.800 | 0.200 | 1.105 | 0.051 | 0.724 | W | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** AG Paragon Analytics, Inc, Fort Collins, CO

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 352.000 | 36.000 | 313.500 | 10.150 | 1.123 | A | A |
| 1 | CS137 | 385.000 | 25.000 | 329.500 | 9.260 | 1.168 | A | A |
| 1 | SR90 | 11.100 | 2.400 | 13.091 | 0.279 | 0.848 | A | A |
| 1 | U234 | 28.400 | 3.600 | 31.133 | 0.802 | 0.912 | A | A |
| 1 | U238 | 27.900 | 3.500 | 31.900 | 2.552 | 0.875 | A | A |
| 1 | Bq U | 59.400 | 5.100 | 64.600 | 2.858 | 0.920 | A | A |
| 1 | ug U | 1.750 | 0.250 | 2.583 | 0.200 | 0.677 | A | A |
| 1 | PU239 | 5.400 | 0.880 | 5.305 | 0.253 | 1.018 | A | A |
| 1 | AM241 | 2.620 | 0.390 | 2.678 | 0.212 | 0.979 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 209.000 | 35.000 | 218.300 | 6.505 | 0.957 | A | A |
| 1 | MN54 | 62.300 | 4.100 | 57.000 | 1.900 | 1.093 | A | A |
| 1 | CO60 | 14.000 | 1.100 | 13.600 | 1.200 | 1.029 | A | A |
| 1 | SR90 | 3.890 | 0.700 | 4.357 | 0.192 | 0.893 | A | A |
| 1 | CS137 | 51.100 | 3.400 | 46.000 | 1.700 | 1.111 | A | A |
| 1 | U234 | 0.429 | 0.059 | 0.396 | 0.026 | 1.083 | A | A |
| 1 | U238 | 0.429 | 0.059 | 0.396 | 0.037 | 1.083 | A | A |
| 1 | Bq U | 0.884 | 0.084 | 0.801 | 0.067 | 1.103 | A | A |
| 1 | ug U | 0.037 | 0.005 | 0.032 | 0.003 | 1.156 | A | N |
| 1 | PU238 | 2.160 | 0.260 | 2.526 | 0.060 | 0.855 | W | A |
| 1 | PU239 | 1.530 | 0.190 | 1.650 | 0.061 | 0.927 | A | A |
| 1 | AM241 | 1.150 | 0.150 | 1.226 | 0.050 | 0.938 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 814.000 | 64.000 | 707.500 | 24.987 | 1.151 | A | A |
| 1 | CO60 | 10.800 | 1.300 | 10.575 | 0.206 | 1.021 | A | A |
| 1 | SR90 | 306.000 | 58.000 | 359.005 | 6.021 | 0.852 | A | A |
| 1 | CS137 | 211.000 | 14.000 | 181.500 | 7.141 | 1.163 | A | A |
| 1 | PU239 | 1.540 | 0.260 | 1.770 | 0.154 | 0.870 | A | W |
| 1 | AM241 | 1.150 | 0.160 | 1.105 | 0.051 | 1.041 | A | A |
| 1 | CM244 | 1.990 | 0.260 | 2.174 | 0.066 | 0.916 | A | W |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.640 | 0.410 | 5.440 | 0.485 | 1.037 | A | A |
| 1 | CO57 | 10.400 | 0.690 | 11.110 | 0.846 | 0.936 | A | A |
| 1 | CO60 | 8.990 | 0.610 | 9.090 | 0.732 | 0.989 | A | A |
| 1 | SR90 | 1.500 | 0.270 | 1.758 | 0.042 | 0.853 | A | A |
| 1 | SB125 | 13.280 | 0.910 | 12.160 | 1.151 | 1.092 | A | A |
| 1 | CS134 | 19.000 | 1.200 | 19.740 | 1.380 | 0.963 | A | A |
| 1 | CS137 | 12.010 | 0.800 | 11.860 | 0.957 | 1.013 | A | A |
| 1 | CE144 | 7.550 | 0.710 | 8.210 | 0.796 | 0.920 | A | A |
| 1 | U234 | 0.045 | 0.008 | 0.031 | 0.003 | 1.451 | W | A |
| 1 | U238 | 0.035 | 0.007 | 0.030 | 0.001 | 1.155 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** AG Paragon Analytics, Inc, Fort Collins, CO

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | Bq U | 0.082 | 0.010 | 0.063 | 0.004 | 1.306 | A | A |
| 1 | ug U | 2.990 | 0.410 | 2.472 | 0.101 | 1.210 | A | A |
| 1 | PU238 | 0.060 | 0.010 | 0.069 | 0.003 | 0.863 | W | A |
| 1 | PU239 | 0.063 | 0.011 | 0.062 | 0.002 | 1.010 | A | |
| 1 | AM241 | 0.056 | 0.010 | 0.069 | 0.003 | 0.814 | W | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** AI Nuclear Technology Services, Inc., Roswell, GA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 6.830 | 0.109 | 5.440 | 0.485 | 1.256 | W | |
| 1 | CO57 | 13.000 | 0.076 | 11.110 | 0.846 | 1.170 | W | |
| 1 | CO60 | 9.710 | 0.094 | 9.090 | 0.732 | 1.068 | A | |
| 1 | SB125 | 14.400 | 0.191 | 12.160 | 1.151 | 1.184 | W | |
| 1 | CS134 | 20.200 | 0.108 | 19.740 | 1.380 | 1.023 | A | |
| 1 | CS137 | 14.300 | 0.132 | 11.860 | 0.957 | 1.206 | W | |
| 1 | CE144 | 8.820 | 0.296 | 8.210 | 0.796 | 1.074 | A | |
| 1 | U234 | 0.029 | 0.001 | 0.031 | 0.003 | 0.948 | A | |
| 1 | U238 | 0.027 | 0.001 | 0.030 | 0.001 | 0.873 | W | |
| 1 | Bq U | 0.057 | 0.003 | 0.063 | 0.004 | 0.897 | W | |
| 1 | PU238 | 0.089 | 0.006 | 0.069 | 0.003 | 1.279 | W | |
| 1 | PU239 | 0.080 | 0.005 | 0.062 | 0.002 | 1.288 | W | |
| 1 | AM241 | 0.043 | 0.003 | 0.069 | 0.003 | 0.630 | N | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 3810.000 | 175.000 | 218.300 | 6.505 | 17.453 | N | N |
| 1 | MN54 | 60.500 | 0.953 | 57.000 | 1.900 | 1.061 | A | A |
| 1 | CO60 | 14.000 | 0.396 | 13.600 | 1.200 | 1.029 | A | A |
| 1 | CS137 | 49.400 | 0.881 | 46.000 | 1.700 | 1.074 | A | A |
| 1 | U234 | 0.408 | 0.025 | 0.396 | 0.026 | 1.030 | A | |
| 1 | U238 | 0.431 | 0.026 | 0.396 | 0.037 | 1.088 | A | |
| 1 | Bq U | 0.860 | 0.060 | 0.801 | 0.067 | 1.073 | A | A |
| 1 | PU238 | 1.660 | 0.052 | 2.526 | 0.060 | 0.657 | N | A |
| 1 | PU239 | 1.200 | 0.039 | 1.650 | 0.061 | 0.727 | N | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 758.000 | 38.900 | 707.500 | 24.987 | 1.071 | A | A |
| 1 | CO60 | 12.300 | 1.320 | 10.575 | 0.206 | 1.163 | A | W |
| 1 | CS137 | 20.900 | 4.140 | 181.500 | 7.141 | 0.115 | N | A |
| 1 | PU239 | 1.910 | 0.135 | 1.770 | 0.154 | 1.079 | A | A |
| 1 | AM241 | 1.210 | 0.099 | 1.105 | 0.051 | 1.095 | A | W |
| 1 | CM244 | 2.490 | 0.240 | 2.174 | 0.066 | 1.146 | A | |
| 2 | PU239 | 1.230 | 0.076 | 1.770 | 0.154 | 0.695 | W | A |
| 2 | AM241 | 1.380 | 0.107 | 1.105 | 0.051 | 1.249 | A | W |
| 2 | CM244 | 2.690 | 0.247 | 2.174 | 0.066 | 1.238 | A | |
| 3 | PU239 | 1.650 | 0.108 | 1.770 | 0.154 | 0.932 | A | A |
| 3 | AM241 | 1.140 | 0.095 | 1.105 | 0.051 | 1.031 | A | W |
| 3 | CM244 | 2.610 | 0.253 | 2.174 | 0.066 | 1.201 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 424.000 | 54.700 | 313.500 | 10.150 | 1.352 | W | A |
| 1 | CS137 | 507.000 | 8.540 | 329.500 | 9.260 | 1.539 | N | A |
| 1 | U234 | 31.100 | 1.180 | 31.133 | 0.802 | 0.999 | A | |
| 1 | U238 | 33.100 | 1.230 | 31.900 | 2.552 | 1.038 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** AI Nuclear Technology Services, Inc., Roswell, GA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | Bq U | 67.000 | 3.350 | 64.600 | 2.858 | 1.037 | A | |
| 1 | PU239 | 5.280 | 0.342 | 5.305 | 0.253 | 0.995 | A | W |
| 1 | AM241 | 6.270 | 1.010 | 2.678 | 0.212 | 2.342 | N | N |
| 2 | PU239 | 5.030 | 0.413 | 5.305 | 0.253 | 0.948 | A | W |
| 2 | AM241 | 4.770 | 0.510 | 2.678 | 0.212 | 1.782 | W | N |
| 3 | PU239 | 4.880 | 0.360 | 5.305 | 0.253 | 0.920 | A | W |
| 4 | PU239 | 6.000 | 0.550 | 5.305 | 0.253 | 1.131 | A | W |

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** AL Ames Laboratory, Ames, IA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.523 | 0.060 | 1.400 | 0.100 | 1.088 | A | |
| 1 | GROSS BETA | 1.580 | 0.040 | 1.960 | 0.300 | 0.806 | W | |
| 1 | MN54 | 4.566 | 0.271 | 5.440 | 0.485 | 0.839 | W | |
| 1 | CO57 | 3.107 | 0.200 | 11.110 | 0.846 | 0.280 | N | |
| 1 | CO60 | 7.649 | 0.289 | 9.090 | 0.732 | 0.841 | A | |
| 1 | SB125 | 1.730 | 0.517 | 12.160 | 1.151 | 0.142 | N | |
| 1 | CS134 | 1.150 | 0.036 | 19.740 | 1.380 | 0.058 | N | |
| 1 | CS137 | 9.446 | 0.482 | 11.860 | 0.957 | 0.797 | W | |
| 1 | CE144 | 3.082 | 0.810 | 8.210 | 0.796 | 0.375 | N | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 58.726 | 1.820 | 57.000 | 1.900 | 1.030 | A | |
| 1 | CO60 | 15.900 | 0.828 | 13.600 | 1.200 | 1.169 | W | |
| 1 | CS137 | 56.432 | 1.970 | 46.000 | 1.700 | 1.227 | W | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 1204.800 | 94.900 | 707.500 | 24.987 | 1.703 | N | |
| 1 | CO60 | 29.427 | 8.860 | 10.575 | 0.206 | 2.783 | N | |
| 1 | CS137 | 313.290 | 12.100 | 181.500 | 7.141 | 1.726 | N | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 532.660 | 44.700 | 313.500 | 10.150 | 1.699 | N | |
| 1 | CS137 | 570.170 | 11.300 | 329.500 | 9.260 | 1.730 | N | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** AM American Radiation Services, Inc., Baton Rouge

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.940 | 0.050 | 1.400 | 0.100 | 1.386 | W | A |
| 1 | GROSS BETA | 2.990 | 0.050 | 1.960 | 0.300 | 1.526 | W | A |
| 1 | MN54 | 4.820 | 0.100 | 5.440 | 0.485 | 0.886 | A | W |
| 1 | CO57 | 9.230 | 0.080 | 11.110 | 0.846 | 0.831 | A | A |
| 1 | CO60 | 7.620 | 0.110 | 9.090 | 0.732 | 0.838 | A | W |
| 1 | SB125 | 8.040 | 0.190 | 12.160 | 1.151 | 0.661 | W | W |
| 1 | CS134 | 13.200 | 0.110 | 19.740 | 1.380 | 0.669 | N | N |
| 1 | CS137 | 10.310 | 0.160 | 11.860 | 0.957 | 0.869 | A | W |
| 1 | CE144 | 7.360 | 0.390 | 8.210 | 0.796 | 0.896 | A | A |
| 1 | U234 | 0.064 | 0.014 | 0.031 | 0.003 | 2.078 | N | N |
| 1 | U238 | 0.095 | 0.011 | 0.030 | 0.001 | 3.117 | N | N |
| 1 | AM241 | 0.034 | 0.030 | 0.069 | 0.003 | 0.495 | N | W |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 770.960 | 24.080 | 707.500 | 24.987 | 1.090 | A | A |
| 1 | CO60 | 10.540 | 1.000 | 10.575 | 0.206 | 0.997 | A | A |
| 1 | CS137 | 183.040 | 2.670 | 181.500 | 7.141 | 1.008 | A | A |
| 1 | AM241 | 1.660 | 1.250 | 1.105 | 0.051 | 1.502 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 931.750 | 31.320 | 1421.000 | 100.000 | 0.656 | W | W |
| 1 | GROSS BETA | 1757.350 | 72.130 | 2200.000 | 100.000 | 0.799 | A | A |
| 1 | MN54 | 66.500 | 0.870 | 57.000 | 1.900 | 1.167 | A | W |
| 1 | CO60 | 15.410 | 0.420 | 13.600 | 1.200 | 1.133 | W | W |
| 1 | CS137 | 55.310 | 0.740 | 46.000 | 1.700 | 1.202 | W | A |
| 1 | U234 | 0.330 | 0.050 | 0.396 | 0.026 | 0.833 | W | N |
| 1 | U238 | 0.410 | 0.050 | 0.396 | 0.037 | 1.035 | A | N |
| 1 | Bq U | 0.740 | 0.070 | 0.801 | 0.067 | 0.923 | A | N |
| 1 | AM241 | 1.290 | 0.450 | 1.226 | 0.050 | 1.052 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | Bq U | 0.159 | 0.013 | 0.063 | 0.004 | 2.520 | W | W |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 369.380 | 13.120 | 313.500 | 10.150 | 1.178 | A | A |
| 1 | CS137 | 349.590 | 2.390 | 329.500 | 9.260 | 1.061 | A | A |
| 1 | U234 | 36.510 | 8.280 | 31.133 | 0.802 | 1.173 | W | A |
| 1 | U238 | 42.180 | 7.180 | 31.900 | 2.552 | 1.322 | W | A |
| 1 | Bq U | 78.430 | 15.540 | 64.600 | 2.858 | 1.214 | W | A |
| 1 | AM241 | 4.260 | 0.980 | 2.678 | 0.212 | 1.591 | W | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** AN Argonne National Laboratory

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 327.000 | 14.000 | 313.500 | 10.150 | 1.043 | A | A |
| 1 | SR90 | 13.220 | 0.510 | 13.091 | 0.279 | 1.010 | A | A |
| 1 | CS137 | 371.000 | 11.000 | 329.500 | 9.260 | 1.126 | A | A |
| 1 | U234 | 30.260 | 0.300 | 31.133 | 0.802 | 0.972 | A | A |
| 1 | U238 | 31.350 | 1.240 | 31.900 | 2.552 | 0.983 | A | W |
| 1 | PU239 | 5.860 | 0.460 | 5.305 | 0.253 | 1.105 | A | A |
| 1 | AM241 | 3.030 | 0.390 | 2.678 | 0.212 | 1.132 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 221.500 | 1.400 | 218.300 | 6.505 | 1.015 | A | A |
| 1 | MN54 | 65.480 | 6.950 | 57.000 | 1.900 | 1.149 | A | A |
| 1 | CO60 | 14.890 | 1.370 | 13.600 | 1.200 | 1.095 | A | A |
| 1 | SR90 | 4.170 | 0.140 | 4.357 | 0.192 | 0.957 | A | A |
| 1 | CS137 | 50.590 | 1.990 | 46.000 | 1.700 | 1.100 | A | A |
| 1 | U234 | 0.430 | 0.020 | 0.396 | 0.026 | 1.085 | A | W |
| 1 | U238 | 0.430 | 0.020 | 0.396 | 0.037 | 1.085 | A | A |
| 1 | PU238 | 2.480 | 0.030 | 2.526 | 0.060 | 0.982 | A | A |
| 1 | PU239 | 1.690 | 0.060 | 1.650 | 0.061 | 1.024 | A | A |
| 1 | AM241 | 1.200 | 0.050 | 1.226 | 0.050 | 0.979 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.940 | 0.230 | 5.440 | 0.485 | 1.092 | A | A |
| 1 | CO57 | 12.570 | 1.040 | 11.110 | 0.846 | 1.131 | W | W |
| 1 | CO60 | 10.060 | 0.720 | 9.090 | 0.732 | 1.107 | W | A |
| 1 | SR90 | 1.580 | 0.010 | 1.758 | 0.042 | 0.899 | A | A |
| 1 | SB125 | 13.790 | 0.250 | 12.160 | 1.151 | 1.134 | A | W |
| 1 | CS134 | 19.500 | 0.470 | 19.740 | 1.380 | 0.988 | A | A |
| 1 | CS137 | 13.220 | 1.070 | 11.860 | 0.957 | 1.115 | A | A |
| 1 | CE144 | 8.710 | 1.020 | 8.210 | 0.796 | 1.061 | A | A |
| 1 | U234 | 0.033 | 0.003 | 0.031 | 0.003 | 1.071 | A | A |
| 1 | U238 | 0.033 | 0.003 | 0.030 | 0.001 | 1.083 | A | A |
| 1 | PU238 | 0.072 | 0.003 | 0.069 | 0.003 | 1.036 | A | A |
| 1 | PU239 | 0.069 | 0.005 | 0.062 | 0.002 | 1.107 | A | |
| 1 | AM241 | 0.071 | 0.004 | 0.069 | 0.003 | 1.033 | A | A |

**Values for elemental uranium are reported in μg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** AR Accu-Labs Research Inc., Golden, CO

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 6.124 | 0.562 | 5.440 | 0.485 | 1.126 | A | A |
| 1 | SR90 | 15.970 | 4.500 | 1.758 | 0.042 | 9.083 | N | W |
| 1 | CO57 | 11.640 | 0.790 | 11.110 | 0.846 | 1.048 | A | A |
| 1 | CO60 | 10.060 | 0.750 | 9.090 | 0.732 | 1.107 | W | A |
| 1 | SB125 | 12.070 | 1.440 | 12.160 | 1.151 | 0.993 | A | A |
| 1 | CS137 | 12.810 | 0.800 | 11.860 | 0.957 | 1.080 | A | A |
| 1 | CS134 | 20.030 | 1.220 | 19.740 | 1.380 | 1.015 | A | A |
| 1 | CE144 | 27.250 | 3.280 | 8.210 | 0.796 | 3.319 | N | N |
| 1 | PU238 | 0.055 | 0.010 | 0.069 | 0.003 | 0.791 | W | A |
| 1 | PU239 | 0.074 | 0.012 | 0.062 | 0.002 | 1.187 | W | A |
| 1 | AM241 | 0.632 | 0.129 | 0.069 | 0.003 | 9.199 | N | W |
| 1 | ug U | 3.105 | | 2.472 | 0.101 | 1.256 | W | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 331.700 | 33.000 | 313.500 | 10.150 | 1.058 | A | A |
| 1 | SR90 | 17.020 | 15.610 | 13.091 | 0.279 | 1.300 | A | A |
| 1 | CS137 | 382.200 | 24.200 | 329.500 | 9.260 | 1.160 | A | W |
| 1 | PU239 | 5.400 | 1.110 | 5.305 | 0.253 | 1.018 | A | W |
| 1 | ug U | 1.812 | | 2.583 | 0.200 | 0.701 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 0.068 | 0.006 | 57.000 | 1.900 | 0.001 | N | W |
| 1 | CO60 | 0.016 | 0.040 | 13.600 | 1.200 | 0.001 | N | A |
| 1 | SR90 | 4.900 | 1.060 | 4.357 | 0.192 | 1.125 | A | N |
| 1 | CS137 | 0.059 | 0.006 | 46.000 | 1.700 | 0.001 | N | A |
| 1 | PU238 | 2.110 | 0.200 | 2.526 | 0.060 | 0.835 | W | A |
| 1 | PU239 | 1.530 | 0.140 | 1.650 | 0.061 | 0.927 | A | A |
| 1 | AM241 | 0.990 | 0.097 | 1.226 | 0.050 | 0.808 | W | A |
| 1 | ug U | 0.033 | | 0.032 | 0.003 | 1.025 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 684.500 | 62.530 | 707.500 | 24.987 | 0.967 | A | A |
| 1 | CO60 | 12.220 | 2.700 | 10.575 | 0.206 | 1.156 | A | A |
| 1 | SR90 | 315.400 | 47.100 | 359.005 | 6.021 | 0.879 | A | A |
| 1 | CS137 | 185.800 | 10.900 | 181.500 | 7.141 | 1.024 | A | A |
| 1 | PU239 | 1.440 | 0.260 | 1.770 | 0.154 | 0.813 | W | A |
| 1 | AM241 | 1.790 | 1.420 | 1.105 | 0.051 | 1.620 | W | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 2 | MN54 | 5.600 | 0.510 | 5.440 | 0.485 | 1.029 | A | A |
| 3 | MN54 | 6.200 | 0.520 | 5.440 | 0.485 | 1.140 | A | A |
| 2 | CO57 | 11.690 | 0.790 | 11.110 | 0.846 | 1.052 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** AR Accu-Labs Research Inc., Golden, CO

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 3 | CO57 | 11.290 | 0.770 | 11.110 | 0.846 | 1.016 | A | A |
| 2 | CO60 | 9.900 | 0.740 | 9.090 | 0.732 | 1.089 | A | A |
| 3 | CO60 | 10.270 | 0.740 | 9.090 | 0.732 | 1.130 | W | A |
| 2 | SR90 | 19.310 | 4.840 | 1.758 | 0.042 | 10.982 | N | W |
| 3 | SR90 | 15.830 | 4.330 | 1.758 | 0.042 | 9.003 | N | W |
| 2 | SB125 | 13.500 | 1.740 | 12.160 | 1.151 | 1.110 | A | A |
| 3 | SB125 | 12.140 | 1.440 | 12.160 | 1.151 | 0.998 | A | A |
| 2 | CS137 | 13.410 | 0.860 | 11.860 | 0.957 | 1.131 | W | A |
| 3 | CS137 | 12.480 | 0.790 | 11.860 | 0.957 | 1.052 | A | A |
| 2 | CS134 | 20.960 | 1.250 | 19.740 | 1.380 | 1.062 | A | A |
| 3 | CS134 | 19.700 | 1.200 | 19.740 | 1.380 | 0.998 | A | A |
| 2 | CE144 | 28.220 | 2.940 | 8.210 | 0.796 | 3.437 | N | N |
| 3 | CE144 | 26.370 | 3.280 | 8.210 | 0.796 | 3.212 | N | N |
| 2 | PU238 | 0.055 | 0.011 | 0.069 | 0.003 | 0.791 | W | A |
| 2 | PU239 | 0.067 | 0.012 | 0.062 | 0.002 | 1.075 | A | A |
| 2 | AM241 | 0.734 | 0.128 | 0.069 | 0.003 | 10.684 | N | W |
| 2 | ug U | 2.920 | | 2.472 | 0.101 | 1.181 | A | A |
| 3 | ug U | 3.018 | | 2.472 | 0.101 | 1.221 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 2 | K40 | 350.800 | 34.290 | 313.500 | 10.150 | 1.119 | A | A |
| 3 | K40 | 330.960 | 32.890 | 313.500 | 10.150 | 1.056 | A | A |
| 2 | SR90 | 15.680 | 9.470 | 13.091 | 0.279 | 1.198 | A | A |
| 3 | SR90 | 19.540 | 16.090 | 13.091 | 0.279 | 1.493 | A | A |
| 2 | CS137 | 379.600 | 24.000 | 329.500 | 9.260 | 1.152 | A | W |
| 3 | CS137 | 385.200 | 24.300 | 329.500 | 9.260 | 1.169 | A | W |
| 2 | PU239 | 5.330 | 1.180 | 5.305 | 0.253 | 1.005 | A | W |
| 3 | PU239 | 5.620 | 1.070 | 5.305 | 0.253 | 1.059 | A | W |
| 1 | AM241 | 0.590 | 2.110 | 2.678 | 0.212 | 0.220 | N | A |
| 2 | AM241 | 0.960 | 2.290 | 2.678 | 0.212 | 0.359 | N | A |
| 2 | ug U | 1.745 | | 2.583 | 0.200 | 0.676 | A | |
| 3 | ug U | 1.655 | | 2.583 | 0.200 | 0.641 | W | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 2 | MN54 | 0.071 | 0.006 | 57.000 | 1.900 | 0.001 | N | W |
| 3 | MN54 | 0.068 | 0.005 | 57.000 | 1.900 | 0.001 | N | W |
| 2 | CO60 | 0.017 | 0.004 | 13.600 | 1.200 | 0.001 | N | A |
| 3 | CO60 | 0.015 | 0.004 | 13.600 | 1.200 | 0.001 | N | A |
| 2 | SR90 | 4.923 | 1.124 | 4.357 | 0.192 | 1.130 | A | N |
| 2 | CS137 | 0.059 | 0.006 | 46.000 | 1.700 | 0.001 | N | A |
| 3 | CS137 | 0.057 | 0.005 | 46.000 | 1.700 | 0.001 | N | A |
| 2 | PU238 | 2.130 | 0.200 | 2.526 | 0.060 | 0.843 | W | A |
| 3 | PU238 | 2.098 | 0.180 | 2.526 | 0.060 | 0.831 | W | A |
| 2 | PU239 | 1.500 | 0.150 | 1.650 | 0.061 | 0.909 | A | A |
| 3 | PU239 | 1.534 | 0.149 | 1.650 | 0.061 | 0.930 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** AR Accu-Labs Research Inc., Golden, CO

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 2 | AM241 | 1.072 | 0.109 | 1.226 | 0.050 | 0.875 | W | A |
| 3 | AM241 | 0.945 | 0.104 | 1.226 | 0.050 | 0.771 | W | A |
| 2 | ug U | 0.032 | | 0.032 | 0.003 | 0.991 | A | A |
| 3 | ug U | 0.033 | | 0.032 | 0.003 | 1.024 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 2 | K40 | 705.600 | 63.860 | 707.500 | 24.987 | 0.997 | A | A |
| 2 | CO60 | 12.520 | 3.440 | 10.575 | 0.206 | 1.184 | A | A |
| 2 | SR90 | 332.400 | 41.400 | 359.005 | 6.021 | 0.926 | A | A |
| 3 | SR90 | 297.000 | 38.800 | 359.005 | 6.021 | 0.827 | A | A |
| 2 | CS137 | 185.990 | 11.220 | 181.500 | 7.141 | 1.025 | A | A |
| 2 | PU239 | 1.480 | 0.260 | 1.770 | 0.154 | 0.836 | W | A |
| 3 | PU239 | 1.410 | 0.260 | 1.770 | 0.154 | 0.797 | W | A |
| 2 | AM241 | 1.170 | 0.620 | 1.105 | 0.051 | 1.059 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1435.000 | 262.000 | 1421.000 | 100.000 | 1.010 | A | A |
| 1 | GROSS BETA | 2146.000 | 376.000 | 2200.000 | 100.000 | 0.975 | A | A |
| 2 | GROSS ALPHA | 1524.000 | 289.000 | 1421.000 | 100.000 | 1.072 | A | A |
| 2 | GROSS BETA | 2115.000 | 433.000 | 2200.000 | 100.000 | 0.961 | A | A |
| 3 | GROSS ALPHA | 1566.000 | 296.000 | 1421.000 | 100.000 | 1.102 | A | A |
| 3 | GROSS BETA | 2126.000 | 435.000 | 2200.000 | 100.000 | 0.966 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.910 | 0.200 | 1.400 | 0.100 | 1.364 | W | N |
| 1 | GROSS BETA | 2.400 | 0.310 | 1.960 | 0.300 | 1.224 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** AT ATL International inc., Germantown, MD

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 65.890 | 6.810 | 57.000 | 1.900 | 1.156 | A | |
| 1 | CO60 | 16.170 | 1.530 | 13.600 | 1.200 | 1.189 | W | |
| 1 | CS137 | 53.850 | 5.270 | 46.000 | 1.700 | 1.171 | A | |
| 1 | AM241 | 1.390 | 0.210 | 1.226 | 0.050 | 1.134 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 410.250 | 45.120 | 313.500 | 10.150 | 1.309 | W | |
| 1 | CS137 | 431.400 | 43.100 | 329.500 | 9.260 | 1.309 | W | |
| 1 | AM241 | 4.050 | 1.220 | 2.678 | 0.212 | 1.513 | W | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** AU ORISE EESD/ESSAP, Oak Ridge

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 336.000 | 27.000 | 313.500 | 10.150 | 1.072 | A | A |
| 1 | SR90 | 16.700 | 4.700 | 13.091 | 0.279 | 1.276 | A | A |
| 1 | CS137 | 366.000 | 18.000 | 329.500 | 9.260 | 1.111 | A | A |
| 1 | U234 | 31.600 | 4.200 | 31.133 | 0.802 | 1.015 | A | A |
| 1 | U238 | 31.300 | 4.300 | 31.900 | 2.552 | 0.981 | A | A |
| 1 | PU239 | 5.500 | 1.000 | 5.305 | 0.253 | 1.037 | A | A |
| 1 | AM241 | 2.480 | 0.500 | 2.678 | 0.212 | 0.926 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1470.000 | 473.000 | 1421.000 | 100.000 | 1.034 | A | W |
| 1 | GROSS BETA | 2329.000 | 715.000 | 2200.000 | 100.000 | 1.059 | A | A |
| 1 | H3 | 221.000 | 27.000 | 218.300 | 6.505 | 1.012 | A | A |
| 1 | MN54 | 60.600 | 3.400 | 57.000 | 1.900 | 1.063 | A | A |
| 1 | CO60 | 15.400 | 0.800 | 13.600 | 1.200 | 1.132 | W | A |
| 1 | SR90 | 4.130 | 0.530 | 4.357 | 0.192 | 0.948 | A | A |
| 1 | CS137 | 50.800 | 2.100 | 46.000 | 1.700 | 1.104 | A | A |
| 1 | U234 | 0.503 | 0.065 | 0.396 | 0.026 | 1.270 | W | A |
| 1 | U238 | 0.514 | 0.066 | 0.396 | 0.037 | 1.297 | N | A |
| 1 | PU238 | 2.340 | 0.140 | 2.526 | 0.060 | 0.926 | A | N |
| 1 | PU239 | 2.080 | 0.130 | 1.650 | 0.061 | 1.260 | W | N |
| 1 | AM241 | 1.823 | 0.116 | 1.226 | 0.050 | 1.487 | W | N |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.740 | 0.070 | 1.400 | 0.100 | 1.243 | A | A |
| 1 | GROSS BETA | 2.540 | 0.140 | 1.960 | 0.300 | 1.296 | A | A |
| 1 | MN54 | 7.390 | 0.780 | 5.440 | 0.485 | 1.358 | W | W |
| 1 | CO57 | 13.430 | 0.600 | 11.110 | 0.846 | 1.209 | W | A |
| 1 | CO60 | 11.210 | 0.780 | 9.090 | 0.732 | 1.233 | W | A |
| 1 | SB125 | 15.500 | 1.900 | 12.160 | 1.151 | 1.275 | W | A |
| 1 | CS134 | 26.400 | 1.900 | 19.740 | 1.380 | 1.337 | N | A |
| 1 | CS137 | 7.990 | 0.700 | 11.860 | 0.957 | 0.674 | N | A |
| 1 | CE144 | 20.900 | 3.000 | 8.210 | 0.796 | 2.546 | N | A |
| 1 | U234 | 0.059 | 0.009 | 0.031 | 0.003 | 1.916 | W | A |
| 1 | U238 | 0.064 | 0.009 | 0.030 | 0.001 | 2.100 | W | A |
| 1 | PU238 | 0.236 | 0.016 | 0.069 | 0.003 | 3.396 | N | A |
| 1 | PU239 | 0.119 | 0.010 | 0.062 | 0.002 | 1.909 | N | A |
| 1 | AM241 | 0.207 | 0.012 | 0.069 | 0.003 | 3.013 | N | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 735.000 | 45.000 | 707.500 | 24.987 | 1.039 | A | A |
| 1 | CO60 | 12.600 | 1.800 | 10.575 | 0.206 | 1.191 | A | A |
| 1 | SR90 | 335.000 | 9.000 | 359.005 | 6.021 | 0.933 | A | A |
| 1 | CS137 | 195.000 | 10.000 | 181.500 | 7.141 | 1.074 | A | A |
| 1 | PU239 | 1.860 | 0.300 | 1.770 | 0.154 | 1.051 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** AU ORISE EESD/ESSAP, Oak Ridge

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | AM241 | 1.190 | 0.210 | 1.105 | 0.051 | 1.077 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BA Bettis Atomic Power Lab, West Mifflin, PA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 65.800 | 4.000 | 57.000 | 1.900 | 1.154 | A | A |
| 1 | CO60 | 15.100 | 1.200 | 13.600 | 1.200 | 1.110 | A | A |
| 1 | SR90 | 4.070 | 0.260 | 4.357 | 0.192 | 0.934 | A | |
| 1 | CS137 | 51.200 | 2.900 | 46.000 | 1.700 | 1.113 | A | A |
| 1 | PU238 | 2.520 | 0.450 | 2.526 | 0.060 | 0.998 | A | A |
| 1 | PU239 | 1.630 | 0.300 | 1.650 | 0.061 | 0.988 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 6.340 | 0.310 | 5.440 | 0.485 | 1.165 | W | A |
| 1 | CO60 | 9.380 | 0.430 | 9.090 | 0.732 | 1.032 | A | A |
| 1 | SB125 | 14.300 | 0.330 | 12.160 | 1.151 | 1.176 | A | A |
| 1 | CS134 | 16.700 | 0.360 | 19.740 | 1.380 | 0.846 | A | A |
| 1 | CS137 | 13.100 | 0.500 | 11.860 | 0.957 | 1.105 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | CS137 | 351.000 | 16.000 | 329.500 | 9.260 | 1.065 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | CS137 | 190.000 | 10.000 | 181.500 | 7.141 | 1.047 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BC Babcock & Wilcox MC #42, Lynchburg, VA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1710.000 | 100.000 | 1421.000 | 100.000 | 1.203 | W | A |
| 1 | GROSS BETA | 2210.000 | 110.000 | 2200.000 | 100.000 | 1.005 | A | A |
| 1 | MN54 | 62.500 | 2.200 | 57.000 | 1.900 | 1.096 | A | A |
| 1 | CO60 | 15.000 | 0.700 | 13.600 | 1.200 | 1.103 | A | A |
| 1 | SR90 | 3.470 | 0.330 | 4.357 | 0.192 | 0.796 | W | A |
| 1 | CS137 | 51.100 | 1.500 | 46.000 | 1.700 | 1.111 | A | A |
| 1 | U234 | 0.525 | 0.041 | 0.396 | 0.026 | 1.325 | W | N |
| 1 | U238 | 0.477 | 0.048 | 0.396 | 0.037 | 1.204 | W | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 392.000 | 22.000 | 313.500 | 10.150 | 1.250 | W | A |
| 1 | CS137 | 385.000 | 26.000 | 329.500 | 9.260 | 1.168 | A | A |
| 1 | U234 | 31.100 | 1.900 | 31.133 | 0.802 | 0.999 | A | W |
| 1 | U238 | 30.300 | 2.200 | 31.900 | 2.552 | 0.950 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 747.000 | 41.000 | 707.500 | 24.987 | 1.056 | A | A |
| 1 | CO60 | 11.700 | 0.900 | 10.575 | 0.206 | 1.106 | A | A |
| 1 | SR90 | 219.000 | 17.000 | 359.005 | 6.021 | 0.610 | W | A |
| 1 | CS137 | 175.000 | 14.000 | 181.500 | 7.141 | 0.964 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.390 | 0.030 | 1.400 | 0.100 | 0.993 | A | A |
| 1 | GROSS BETA | 1.810 | 0.030 | 1.960 | 0.300 | 0.923 | A | A |
| 1 | MN54 | 9.180 | 0.520 | 5.440 | 0.485 | 1.688 | N | A |
| 1 | CO57 | 16.900 | 0.800 | 11.110 | 0.846 | 1.521 | N | A |
| 1 | CO60 | 13.400 | 0.700 | 9.090 | 0.732 | 1.474 | N | A |
| 1 | SR90 | 1.450 | 0.110 | 1.758 | 0.042 | 0.825 | W | A |
| 1 | SB125 | 17.900 | 1.000 | 12.160 | 1.151 | 1.472 | N | A |
| 1 | CS134 | 29.100 | 1.700 | 19.740 | 1.380 | 1.474 | N | A |
| 1 | CS137 | 19.200 | 1.300 | 11.860 | 0.957 | 1.619 | N | A |
| 1 | CE144 | 12.100 | 0.600 | 8.210 | 0.796 | 1.474 | N | A |
| 1 | U234 | 0.052 | 0.006 | 0.031 | 0.003 | 1.682 | W | W |
| 1 | U238 | 0.043 | 0.007 | 0.030 | 0.001 | 1.407 | W | W |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BE RUST Geotech, Grand Junction, CO

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 390.000 | 30.000 | 313.500 | 10.150 | 1.244 | A | A |
| 1 | SR90 | 14.300 | 3.000 | 13.091 | 0.279 | 1.092 | A | A |
| 1 | CS137 | 386.000 | 30.000 | 329.500 | 9.260 | 1.171 | A | A |
| 1 | PU239 | 5.680 | 0.800 | 5.305 | 0.253 | 1.071 | A | A |
| 1 | AM241 | 2.880 | 0.340 | 2.678 | 0.212 | 1.076 | A | A |
| 1 | ug U | 2.600 | 0.000 | 2.583 | 0.200 | 1.007 | A | A |
| 1 | U234 | 30.910 | 3.760 | 31.133 | 0.802 | 0.993 | A | A |
| 1 | U238 | 31.540 | 3.800 | 31.900 | 2.552 | 0.989 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 893.000 | 50.000 | 707.500 | 24.987 | 1.262 | W | A |
| 1 | CO60 | 12.700 | 2.000 | 10.575 | 0.206 | 1.201 | A | A |
| 1 | SR90 | 350.000 | 17.000 | 359.005 | 6.021 | 0.975 | A | A |
| 1 | CS137 | 209.000 | 20.000 | 181.500 | 7.141 | 1.152 | A | A |
| 1 | PU239 | 1.790 | 0.250 | 1.770 | 0.154 | 1.011 | A | A |
| 1 | AM241 | 1.160 | 0.280 | 1.105 | 0.051 | 1.050 | A | A |
| 1 | CM244 | 2.310 | 0.390 | 2.174 | 0.066 | 1.063 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 230.000 | 14.000 | 218.300 | 6.505 | 1.054 | A | A |
| 1 | MN54 | 69.800 | 7.000 | 57.000 | 1.900 | 1.225 | W | N |
| 1 | CO60 | 16.700 | 1.500 | 13.600 | 1.200 | 1.228 | N | N |
| 1 | SR90 | 4.460 | 0.450 | 4.357 | 0.192 | 1.024 | A | A |
| 1 | CS137 | 51.400 | 5.000 | 46.000 | 1.700 | 1.117 | A | N |
| 1 | PU238 | 2.460 | 0.230 | 2.526 | 0.060 | 0.974 | A | A |
| 1 | PU239 | 1.670 | 0.170 | 1.650 | 0.061 | 1.012 | A | A |
| 1 | AM241 | 1.270 | 0.130 | 1.226 | 0.050 | 1.036 | A | A |
| 1 | ug U | 0.035 | 0.000 | 0.032 | 0.003 | 1.094 | A | A |
| 1 | U234 | 0.432 | 0.062 | 0.396 | 0.026 | 1.090 | A | A |
| 1 | U238 | 0.411 | 0.060 | 0.396 | 0.037 | 1.037 | A | A |
| 1 | GROSS ALPHA | 1541.000 | 88.000 | 1421.000 | 100.000 | 1.084 | A | A |
| 1 | GROSS BETA | 1995.000 | 73.000 | 2200.000 | 100.000 | 0.907 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.600 | 1.000 | 5.440 | 0.485 | 1.029 | A | A |
| 1 | CO57 | 10.600 | 0.400 | 11.110 | 0.846 | 0.954 | A | A |
| 1 | CO60 | 8.500 | 0.200 | 9.090 | 0.732 | 0.935 | A | A |
| 1 | SR90 | 1.690 | 0.140 | 1.758 | 0.042 | 0.961 | A | A |
| 1 | SB125 | 12.300 | 0.600 | 12.160 | 1.151 | 1.012 | A | A |
| 1 | CS134 | 12.500 | 0.600 | 19.740 | 1.380 | 0.633 | N | W |
| 1 | CS137 | 11.200 | 1.100 | 11.860 | 0.957 | 0.944 | A | A |
| 1 | CE144 | 7.300 | 0.500 | 8.210 | 0.796 | 0.889 | A | A |
| 1 | PU238 | 0.065 | 0.010 | 0.069 | 0.003 | 0.935 | A | A |
| 1 | PU239 | 0.063 | 0.010 | 0.062 | 0.002 | 1.010 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BE RUST Geotech, Grand Junction, CO

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | AM241 | 0.074 | 0.010 | 0.069 | 0.003 | 1.077 | A | A |
| 1 | ug U | 2.700 | 0.000 | 2.472 | 0.101 | 1.092 | A | A |
| 1 | U234 | 0.032 | 0.010 | 0.031 | 0.003 | 1.039 | A | A |
| 1 | U238 | 0.030 | 0.009 | 0.030 | 0.001 | 0.984 | A | A |
| 1 | GROSS ALPHA | 1.300 | 0.080 | 1.400 | 0.100 | 0.929 | A | A |
| 1 | GROSS BETA | 1.890 | 0.070 | 1.960 | 0.300 | 0.964 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BL Barringer Laboratories Inc., Golden, CO

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.584 | 0.053 | 1.400 | 0.100 | 1.131 | A | W |
| 1 | GROSS BETA | 1.837 | 0.056 | 1.960 | 0.300 | 0.937 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1788.630 | 41.920 | 1421.000 | 100.000 | 1.259 | W | A |
| 2 | GROSS ALPHA | 1581.610 | 38.610 | 1421.000 | 100.000 | 1.113 | A | A |
| 1 | GROSS BETA | 1828.980 | 33.950 | 2200.000 | 100.000 | 0.831 | A | A |
| 2 | GROSS BETA | 1725.910 | 32.450 | 2200.000 | 100.000 | 0.785 | A | A |
| 1 | Bq U | 0.980 | | 0.801 | 0.067 | 1.223 | A | A |
| 2 | Bq U | 0.780 | 0.030 | 0.801 | 0.067 | 0.973 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | Bq U | 67.600 | | 64.600 | 2.858 | 1.046 | A | A |
| 2 | Bq U | 66.400 | 1.500 | 64.600 | 2.858 | 1.028 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | Bq U | 0.070 | 0.000 | 0.063 | 0.004 | 1.109 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | FE55 | 283.000 | 31.000 | 202.800 | 2.921 | 1.395 | W | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | CE144 | 8.000 | 0.600 | 8.210 | 0.796 | 0.974 | A | A |
| 1 | MN54 | 5.900 | 0.300 | 5.440 | 0.485 | 1.085 | A | A |
| 1 | CO57 | 11.600 | 0.700 | 11.110 | 0.846 | 1.044 | A | A |
| 1 | CO60 | 9.100 | 0.400 | 9.090 | 0.732 | 1.001 | A | A |
| 1 | SB125 | 11.300 | 0.700 | 12.160 | 1.151 | 0.929 | A | A |
| 1 | CS134 | 18.000 | 0.900 | 19.740 | 1.380 | 0.912 | A | A |
| 1 | CS137 | 12.100 | 0.600 | 11.860 | 0.957 | 1.020 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 871.000 | 41.000 | 707.500 | 24.987 | 1.231 | A | A |
| 1 | CO60 | 12.700 | 1.200 | 10.575 | 0.206 | 1.201 | A | A |
| 1 | CS137 | 224.000 | 9.000 | 181.500 | 7.141 | 1.234 | A | W |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 348.000 | 17.000 | 313.500 | 10.150 | 1.110 | A | A |
| 1 | CS137 | 351.000 | 13.000 | 329.500 | 9.260 | 1.065 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BL Barringer Laboratories Inc., Golden, CO

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 57.900 | 1.900 | 57.000 | 1.900 | 1.016 | A | A |
| 1 | CO60 | 13.900 | 0.600 | 13.600 | 1.200 | 1.022 | A | A |
| 1 | CS137 | 47.300 | 1.800 | 46.000 | 1.700 | 1.028 | A | A |
| 1 | SR90 | 4.604 | 0.386 | 4.357 | 0.192 | 1.057 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | SR90 | 12.510 | 2.870 | 13.091 | 0.279 | 0.956 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | SR90 | 300.400 | 5.200 | 359.005 | 6.021 | 0.837 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | SR90 | 1.679 | 0.344 | 1.758 | 0.042 | 0.955 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | U234 | 0.480 | | 0.396 | 0.026 | 1.212 | A | A |
| 1 | U238 | 0.470 | | 0.396 | 0.037 | 1.186 | W | A |
| 2 | U234 | 0.380 | 0.010 | 0.396 | 0.026 | 0.959 | A | A |
| 2 | U238 | 0.370 | 0.010 | 0.396 | 0.037 | 0.934 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | U234 | 33.500 | | 31.133 | 0.802 | 1.076 | A | A |
| 1 | U238 | 32.600 | | 31.900 | 2.552 | 1.022 | A | A |
| 2 | U234 | 32.900 | 0.700 | 31.133 | 0.802 | 1.057 | A | A |
| 2 | U238 | 32.000 | 0.700 | 31.900 | 2.552 | 1.003 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | U234 | 0.035 | 0.001 | 0.031 | 0.003 | 1.136 | A | A |
| 1 | U238 | 0.034 | 0.001 | 0.030 | 0.001 | 1.119 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 288.330 | 12.540 | 218.300 | 6.505 | 1.321 | W | A |
| 1 | PU238 | 2.850 | 0.110 | 2.526 | 0.060 | 1.128 | W | W |
| 2 | PU238 | 2.480 | 0.130 | 2.526 | 0.060 | 0.982 | A | W |
| 1 | PU239 | 1.800 | 0.090 | 1.650 | 0.061 | 1.091 | A | A |
| 2 | PU239 | 1.600 | 0.100 | 1.650 | 0.061 | 0.970 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BL Barringer Laboratories Inc., Golden, CO

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | PU238 | 0.076 | 0.016 | 0.069 | 0.003 | 1.094 | A | W |
| 1 | PU239 | 0.057 | 0.016 | 0.062 | 0.002 | 0.914 | A | |
| 2 | PU238 | 0.065 | 0.012 | 0.069 | 0.003 | 0.935 | A | W |
| 2 | PU239 | 0.083 | 0.012 | 0.062 | 0.002 | 1.331 | W | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | PU239 | 5.330 | 0.390 | 5.305 | 0.253 | 1.005 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | PU239 | 2.060 | 0.260 | 1.770 | 0.154 | 1.164 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | AM241 | 1.260 | 0.200 | 1.226 | 0.050 | 1.028 | A | A |
| 2 | AM241 | 1.210 | 1.040 | 1.226 | 0.050 | 0.987 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | AM241 | 0.144 | 0.044 | 0.069 | 0.003 | 2.096 | W | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | AM241 | 0.153 | 0.668 | 1.105 | 0.051 | 0.138 | N | W |
| 1 | CM244 | 0.395 | 0.433 | 2.174 | 0.066 | 0.182 | N | N |
| 2 | CM244 | 0.590 | 0.440 | 2.174 | 0.066 | 0.271 | N | N |

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BM Battelle Memorial Institute, Columbus, OH

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | CO60 | 14.300 | 2.600 | 13.600 | 1.200 | 1.051 | A | A |
| 1 | SR90 | 4.560 | 0.300 | 4.357 | 0.192 | 1.046 | A | A |
| 1 | CS137 | 47.600 | 3.500 | 46.000 | 1.700 | 1.035 | A | A |
| 1 | U234 | 0.440 | 0.070 | 0.396 | 0.026 | 1.111 | A | A |
| 1 | U238 | 0.460 | 0.070 | 0.396 | 0.037 | 1.161 | A | A |
| 1 | PU238 | 2.680 | 0.380 | 2.526 | 0.060 | 1.061 | A | W |
| 1 | PU239 | 1.780 | 0.260 | 1.650 | 0.061 | 1.079 | A | A |
| 1 | AM241 | 1.180 | 0.180 | 1.226 | 0.050 | 0.963 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | CO57 | 13.300 | 0.160 | 11.110 | 0.846 | 1.197 | W | A |
| 1 | CO60 | 9.420 | 0.260 | 9.090 | 0.732 | 1.036 | A | A |
| 1 | SR90 | 1.580 | 0.040 | 1.758 | 0.042 | 0.899 | A | A |
| 1 | CS134 | 21.800 | 0.300 | 19.740 | 1.380 | 1.104 | A | A |
| 1 | CS137 | 13.200 | 0.280 | 11.860 | 0.957 | 1.113 | A | A |
| 1 | U234 | 0.034 | 0.006 | 0.031 | 0.003 | 1.104 | A | A |
| 1 | U238 | 0.034 | 0.006 | 0.030 | 0.001 | 1.115 | A | A |
| 1 | PU238 | 0.071 | 0.011 | 0.069 | 0.003 | 1.022 | A | W |
| 1 | PU239 | 0.072 | 0.011 | 0.062 | 0.002 | 1.155 | A | |
| 1 | AM241 | 0.068 | 0.014 | 0.069 | 0.003 | 0.990 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 340.000 | 19.000 | 313.500 | 10.150 | 1.085 | A | A |
| 1 | SR90 | 12.700 | 1.150 | 13.091 | 0.279 | 0.970 | A | A |
| 1 | CS137 | 359.000 | 3.900 | 329.500 | 9.260 | 1.090 | A | A |
| 1 | U234 | 29.780 | 4.920 | 31.133 | 0.802 | 0.957 | A | A |
| 1 | U238 | 27.440 | 4.580 | 31.900 | 2.552 | 0.860 | A | A |
| 1 | PU239 | 6.800 | 2.040 | 5.305 | 0.253 | 1.282 | W | A |
| 1 | AM241 | 3.380 | 1.710 | 2.678 | 0.212 | 1.262 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 795.000 | 28.000 | 707.500 | 24.987 | 1.124 | A | N |
| 1 | CO60 | 12.200 | 1.400 | 10.575 | 0.206 | 1.154 | A | A |
| 1 | SR90 | 350.000 | 5.100 | 359.005 | 6.021 | 0.975 | A | A |
| 1 | CS137 | 206.000 | 3.400 | 181.500 | 7.141 | 1.135 | A | W |
| 1 | PU239 | 1.930 | 0.420 | 1.770 | 0.154 | 1.090 | A | A |
| 1 | AM241 | 1.150 | 0.380 | 1.105 | 0.051 | 1.041 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BN Brookhaven National Laboratory, Upton, NY

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 284.720 | 8.790 | 313.500 | 10.150 | 0.908 | A | W |
| 1 | CS137 | 325.340 | 1.530 | 329.500 | 9.260 | 0.987 | A | A |
| 2 | K40 | 264.400 | 8.790 | 313.500 | 10.150 | 0.843 | W | W |
| 2 | CS137 | 328.820 | 1.530 | 329.500 | 9.260 | 0.998 | A | A |
| 3 | K40 | 280.720 | 8.790 | 313.500 | 10.150 | 0.895 | W | W |
| 3 | CS137 | 325.900 | 1.530 | 329.500 | 9.260 | 0.989 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 179.710 | 0.320 | 218.300 | 6.505 | 0.823 | A | A |
| 1 | MN54 | 65.860 | 0.790 | 57.000 | 1.900 | 1.155 | A | W |
| 1 | CO60 | 14.430 | 0.200 | 13.600 | 1.200 | 1.061 | A | A |
| 1 | CS137 | 58.160 | 0.910 | 46.000 | 1.700 | 1.264 | N | W |
| 2 | H3 | 180.360 | 0.320 | 218.300 | 6.505 | 0.826 | A | A |
| 2 | MN54 | 66.300 | 0.790 | 57.000 | 1.900 | 1.163 | A | W |
| 2 | CO60 | 14.890 | 0.200 | 13.600 | 1.200 | 1.095 | A | A |
| 2 | CS137 | 56.870 | 0.910 | 46.000 | 1.700 | 1.236 | W | W |
| 3 | MN54 | 67.710 | 0.790 | 57.000 | 1.900 | 1.188 | W | W |
| 3 | CO60 | 14.530 | 0.200 | 13.600 | 1.200 | 1.068 | A | A |
| 3 | CS137 | 59.090 | 0.910 | 46.000 | 1.700 | 1.285 | N | W |
| 1 | GROSS ALPHA | 1397.170 | 43.310 | 1421.000 | 100.000 | 0.983 | A | A |
| 1 | GROSS BETA | 2295.870 | 24.680 | 2200.000 | 100.000 | 1.044 | A | A |
| 2 | GROSS ALPHA | 1487.580 | 43.310 | 1421.000 | 100.000 | 1.047 | A | A |
| 2 | GROSS BETA | 2275.890 | 24.680 | 2200.000 | 100.000 | 1.034 | A | A |
| 3 | GROSS ALPHA | 1490.430 | 43.310 | 1421.000 | 100.000 | 1.049 | A | A |
| 3 | GROSS BETA | 2236.480 | 24.680 | 2200.000 | 100.000 | 1.017 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 7.040 | 0.230 | 5.440 | 0.485 | 1.294 | W | W |
| 1 | CO57 | 14.560 | 0.380 | 11.110 | 0.846 | 1.311 | W | N |
| 1 | CO60 | 8.780 | 0.280 | 9.090 | 0.732 | 0.966 | A | A |
| 1 | SB125 | 16.940 | 0.370 | 12.160 | 1.151 | 1.393 | W | N |
| 1 | CS134 | 17.530 | 0.730 | 19.740 | 1.380 | 0.888 | A | A |
| 1 | CS137 | 15.040 | 0.580 | 11.860 | 0.957 | 1.268 | W | N |
| 1 | CE144 | 10.340 | 0.130 | 8.210 | 0.796 | 1.259 | W | W |
| 2 | MN54 | 7.520 | 0.230 | 5.440 | 0.485 | 1.382 | N | W |
| 2 | CO57 | 15.450 | 0.380 | 11.110 | 0.846 | 1.391 | N | N |
| 2 | CO60 | 8.840 | 0.280 | 9.090 | 0.732 | 0.972 | A | A |
| 2 | SB125 | 17.750 | 0.370 | 12.160 | 1.151 | 1.460 | N | N |
| 2 | CS134 | 18.040 | 0.730 | 19.740 | 1.380 | 0.914 | A | A |
| 2 | CS137 | 16.330 | 0.580 | 11.860 | 0.957 | 1.377 | N | N |
| 2 | CE144 | 10.620 | 0.130 | 8.210 | 0.796 | 1.294 | W | W |
| 3 | MN54 | 7.510 | 0.230 | 5.440 | 0.485 | 1.381 | N | W |
| 3 | CO57 | 15.210 | 0.380 | 11.110 | 0.846 | 1.369 | N | N |
| 3 | CO60 | 9.400 | 0.280 | 9.090 | 0.732 | 1.034 | A | A |
| 3 | SB125 | 16.990 | 0.370 | 12.160 | 1.151 | 1.397 | W | N |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BN Brookhaven National Laboratory, Upton, NY

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 3 | CS134 | 19.280 | 0.730 | 19.740 | 1.380 | 0.977 | A | A |
| 3 | CS137 | 16.190 | 0.580 | 11.860 | 0.957 | 1.365 | N | N |
| 3 | CE144 | 10.360 | 0.130 | 8.210 | 0.796 | 1.262 | W | W |
| 1 | GROSS ALPHA | 1.070 | 0.020 | 1.400 | 0.100 | 0.764 | W | A |
| 1 | GROSS BETA | 1.790 | 0.020 | 1.960 | 0.300 | 0.913 | A | A |
| 2 | GROSS ALPHA | 1.060 | 0.020 | 1.400 | 0.100 | 0.757 | W | A |
| 2 | GROSS BETA | 1.780 | 0.020 | 1.960 | 0.300 | 0.908 | A | A |
| 3 | GROSS ALPHA | 1.040 | 0.020 | 1.400 | 0.100 | 0.743 | W | A |
| 3 | GROSS BETA | 1.740 | 0.020 | 1.960 | 0.300 | 0.888 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 648.980 | 28.310 | 707.500 | 24.987 | 0.917 | A | N |
| 1 | CO60 | 10.070 | 0.180 | 10.575 | 0.206 | 0.952 | A | W |
| 1 | CS137 | 201.210 | 2.320 | 181.500 | 7.141 | 1.109 | A | W |
| 2 | K40 | 712.990 | 28.310 | 707.500 | 24.987 | 1.008 | A | N |
| 2 | CO60 | 10.250 | 0.180 | 10.575 | 0.206 | 0.969 | A | W |
| 2 | CS137 | 200.650 | 2.320 | 181.500 | 7.141 | 1.106 | A | W |
| 3 | K40 | 657.860 | 28.310 | 707.500 | 24.987 | 0.930 | A | N |
| 3 | CO60 | 9.820 | 0.180 | 10.575 | 0.206 | 0.929 | A | W |
| 3 | CS137 | 196.030 | 2.320 | 181.500 | 7.141 | 1.080 | A | W |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | SR90 | 4.960 | 0.130 | 4.357 | 0.192 | 1.138 | A | A |
| 2 | SR90 | 5.090 | 0.130 | 4.357 | 0.192 | 1.168 | A | A |
| 3 | SR90 | 4.780 | 0.130 | 4.357 | 0.192 | 1.097 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BP Battelle Pacific Northwest National Laboratory

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.280 | 0.270 | 5.440 | 0.485 | 0.971 | A | A |
| 1 | CO57 | 10.420 | 0.150 | 11.110 | 0.846 | 0.938 | A | A |
| 1 | CO60 | 8.360 | 0.490 | 9.090 | 0.732 | 0.920 | A | A |
| 1 | SR90 | 1.470 | 0.120 | 1.758 | 0.042 | 0.836 | W | A |
| 1 | SB125 | 12.570 | 0.830 | 12.160 | 1.151 | 1.034 | A | W |
| 1 | CS134 | 19.570 | 0.410 | 19.740 | 1.380 | 0.991 | A | A |
| 1 | CS137 | 11.010 | 0.400 | 11.860 | 0.957 | 0.928 | A | A |
| 1 | CE144 | 6.810 | 0.850 | 8.210 | 0.796 | 0.829 | A | A |
| 1 | U238 | 0.033 | 0.001 | 0.030 | 0.001 | 1.073 | A | W |
| 1 | PU238 | 0.067 | 0.003 | 0.069 | 0.003 | 0.957 | A | A |
| 1 | PU239 | 0.068 | 0.003 | 0.062 | 0.002 | 1.086 | A | A |
| 1 | AM241 | 0.083 | 0.004 | 0.069 | 0.003 | 1.214 | A | A |
| 1 | GROSS ALPHA | 1.240 | 0.050 | 1.400 | 0.100 | 0.886 | A | A |
| 1 | GROSS BETA | 2.050 | 0.050 | 1.960 | 0.300 | 1.046 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1559.000 | 78.000 | 1421.000 | 100.000 | 1.097 | A | A |
| 1 | GROSS BETA | 2534.000 | 80.000 | 2200.000 | 100.000 | 1.152 | A | W |
| 1 | H3 | 246.000 | 8.000 | 218.300 | 6.505 | 1.127 | A | A |
| 1 | MN54 | 63.700 | 0.900 | 57.000 | 1.900 | 1.118 | A | A |
| 1 | FE55 | 246.000 | 11.000 | 202.800 | 2.921 | 1.213 | A | A |
| 1 | CO60 | 15.100 | 0.400 | 13.600 | 1.200 | 1.110 | A | A |
| 1 | SR90 | 4.100 | 0.100 | 4.357 | 0.192 | 0.941 | A | A |
| 1 | CS137 | 50.200 | 0.800 | 46.000 | 1.700 | 1.091 | A | A |
| 1 | U238 | 0.444 | 0.008 | 0.396 | 0.037 | 1.120 | A | N |
| 1 | PU238 | 2.490 | 0.060 | 2.526 | 0.060 | 0.986 | A | A |
| 1 | PU239 | 1.690 | 0.040 | 1.650 | 0.061 | 1.024 | A | A |
| 1 | AM241 | 1.500 | 0.160 | 1.226 | 0.050 | 1.224 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 694.000 | 35.000 | 707.500 | 24.987 | 0.981 | A | W |
| 1 | CO60 | 10.000 | 0.500 | 10.575 | 0.206 | 0.946 | A | A |
| 1 | SR90 | 347.000 | 15.000 | 359.005 | 6.021 | 0.967 | A | A |
| 1 | CS137 | 166.000 | 8.000 | 181.500 | 7.141 | 0.915 | A | A |
| 1 | PU239 | 1.580 | 0.040 | 1.770 | 0.154 | 0.893 | A | A |
| 1 | AM241 | 1.050 | 0.050 | 1.105 | 0.051 | 0.950 | A | A |
| 1 | CM244 | 1.910 | 0.160 | 2.174 | 0.066 | 0.879 | A | W |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 329.000 | 5.000 | 313.500 | 10.150 | 1.049 | A | A |
| 1 | SR90 | 27.500 | 4.600 | 13.091 | 0.279 | 2.101 | W | A |
| 1 | CS137 | 329.000 | 4.000 | 329.500 | 9.260 | 0.998 | A | A |
| 1 | PU239 | 5.110 | 0.190 | 5.305 | 0.253 | 0.963 | A | A |
| 1 | AM241 | 2.960 | 0.420 | 2.678 | 0.212 | 1.106 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BQ Becquerel Laboratories Inc., Mississauga, Ontario, Canada

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 316.000 | 11.000 | 218.300 | 6.505 | 1.448 | W | |
| 1 | ug U | 0.033 | 0.001 | 0.032 | 0.003 | 1.031 | A | N |
| 1 | MN54 | 54.000 | 1.000 | 57.000 | 1.900 | 0.947 | A | A |
| 1 | CO60 | 14.900 | 0.800 | 13.600 | 1.200 | 1.096 | A | A |
| 1 | CS137 | 44.000 | 1.000 | 46.000 | 1.700 | 0.957 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 328.000 | 5.000 | 313.500 | 10.150 | 1.046 | A | A |
| 1 | CS137 | 230.000 | 9.000 | 329.500 | 9.260 | 0.698 | N | A |
| 1 | ug U | 2.600 | 0.500 | 2.583 | 0.200 | 1.007 | A | N |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 625.000 | 13.000 | 707.500 | 24.987 | 0.883 | W | A |
| 1 | CS137 | 175.000 | 12.000 | 181.500 | 7.141 | 0.964 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | ug U | 2.600 | 0.100 | 2.472 | 0.101 | 1.052 | A | A |
| 1 | MN54 | 5.200 | 0.200 | 5.440 | 0.485 | 0.956 | A | A |
| 1 | CO57 | 8.700 | 0.080 | 11.110 | 0.846 | 0.783 | A | A |
| 1 | CO60 | 8.300 | 0.300 | 9.090 | 0.732 | 0.913 | A | A |
| 1 | SB125 | 2.700 | 0.300 | 12.160 | 1.151 | 0.222 | N | A |
| 1 | CS134 | 17.800 | 0.300 | 19.740 | 1.380 | 0.902 | A | A |
| 1 | CS137 | 12.100 | 0.200 | 11.860 | 0.957 | 1.020 | A | A |
| 1 | CE144 | 6.100 | 0.200 | 8.210 | 0.796 | 0.743 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BR US Army Research Laboratory, Aberdeen Proving Ground

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | CS137 | 206.000 | 33.020 | 181.500 | 7.141 | 1.135 | A | A |
| 1 | K40 | 940.000 | 183.350 | 707.500 | 24.987 | 1.329 | N | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 70.300 | 2.570 | 57.000 | 1.900 | 1.233 | W | W |
| 1 | CO60 | 16.100 | 1.000 | 13.600 | 1.200 | 1.184 | W | W |
| 1 | CS137 | 56.610 | 2.090 | 46.000 | 1.700 | 1.231 | W | A |
| 1 | AM241 | 1.680 | 0.550 | 1.226 | 0.050 | 1.371 | W | W |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BS B&W Nuclear Envir. Services, Leechburg, PA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.550 | 0.010 | 1.400 | 0.100 | 1.107 | A | W |
| 1 | GROSS BETA | 2.260 | 0.010 | 1.960 | 0.300 | 1.153 | A | A |
| 1 | MN54 | 6.780 | 0.110 | 5.440 | 0.485 | 1.246 | W | A |
| 1 | CO57 | 12.300 | 0.060 | 11.110 | 0.846 | 1.107 | W | A |
| 1 | CO60 | 9.560 | 0.130 | 9.090 | 0.732 | 1.052 | A | A |
| 1 | SB125 | 2.910 | 0.180 | 12.160 | 1.151 | 0.239 | N | W |
| 1 | CS134 | 21.220 | 0.160 | 19.740 | 1.380 | 1.075 | A | A |
| 1 | CS137 | 12.480 | 0.110 | 11.860 | 0.957 | 1.052 | A | A |
| 1 | CE144 | 8.780 | 0.180 | 8.210 | 0.796 | 1.069 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 620.000 | 12.460 | 707.500 | 24.987 | 0.876 | W | N |
| 1 | CO60 | 8.220 | 0.690 | 10.575 | 0.206 | 0.777 | W | W |
| 1 | CS137 | 151.370 | 1.410 | 181.500 | 7.141 | 0.834 | W | N |
| 1 | AM241 | 51.590 | 1.220 | 1.105 | 0.051 | 46.679 | N | W |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 61.110 | 0.610 | 57.000 | 1.900 | 1.072 | A | A |
| 1 | CO60 | 15.070 | 0.370 | 13.600 | 1.200 | 1.108 | A | A |
| 1 | CS137 | 48.520 | 0.510 | 46.000 | 1.700 | 1.055 | A | A |
| 1 | AM241 | 1.250 | 0.200 | 1.226 | 0.050 | 1.020 | A | W |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 359.630 | 9.140 | 313.500 | 10.150 | 1.147 | A | A |
| 1 | CS137 | 347.410 | 1.980 | 329.500 | 9.260 | 1.054 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BU Autoridad Regulatoria, Buenos Aires, Argentina

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.500 | 1.000 | 5.440 | 0.485 | 1.011 | A | A |
| 1 | CO57 | 11.000 | 1.000 | 11.110 | 0.846 | 0.990 | A | A |
| 1 | CO60 | 8.800 | 0.700 | 9.090 | 0.732 | 0.968 | A | A |
| 1 | SB125 | 12.000 | 1.000 | 12.160 | 1.151 | 0.987 | A | A |
| 1 | CS134 | 19.000 | 1.300 | 19.740 | 1.380 | 0.963 | A | A |
| 1 | CS137 | 12.000 | 1.000 | 11.860 | 0.957 | 1.012 | A | A |
| 1 | CE144 | 8.300 | 0.800 | 8.210 | 0.796 | 1.011 | A | A |
| 1 | PU238 | 0.068 | 0.006 | 0.069 | 0.003 | 0.978 | A | N |
| 1 | PU239 | 0.062 | 0.006 | 0.062 | 0.002 | 0.994 | A | |
| 1 | Bq U | 0.066 | 0.006 | 0.063 | 0.004 | 1.046 | A | A |
| 1 | U234 | 0.033 | 0.005 | 0.031 | 0.003 | 1.071 | A | |
| 1 | U238 | 0.032 | 0.004 | 0.030 | 0.001 | 1.050 | A | |
| 1 | ug U | 2.700 | 0.500 | 2.472 | 0.101 | 1.092 | A | |
| 1 | AM241 | 0.074 | 0.003 | 0.069 | 0.003 | 1.077 | A | |
| 1 | GROSS ALPHA | 1.310 | 0.130 | 1.400 | 0.100 | 0.936 | A | A |
| 1 | GROSS BETA | 2.300 | 0.200 | 1.960 | 0.300 | 1.173 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1690.000 | 250.000 | 1421.000 | 100.000 | 1.189 | W | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 280.000 | 40.000 | 313.500 | 10.150 | 0.893 | W | A |
| 1 | CS137 | 290.000 | 30.000 | 329.500 | 9.260 | 0.880 | W | A |
| 1 | PU239 | 5.800 | 0.700 | 5.305 | 0.253 | 1.093 | A | A |
| 1 | Bq U | 52.200 | 5.400 | 64.600 | 2.858 | 0.808 | A | |
| 1 | U234 | 25.400 | 2.800 | 31.133 | 0.802 | 0.816 | A | |
| 1 | U238 | 25.800 | 2.600 | 31.900 | 2.552 | 0.809 | A | |
| 1 | ug U | 2.100 | 0.400 | 2.583 | 0.200 | 0.813 | A | |
| 1 | AM241 | 2.700 | 0.400 | 2.678 | 0.212 | 1.008 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 660.000 | 80.000 | 707.500 | 24.987 | 0.933 | A | W |
| 1 | CO60 | 11.000 | 1.300 | 10.575 | 0.206 | 1.040 | A | A |
| 1 | SR90 | 340.000 | 34.000 | 359.005 | 6.021 | 0.947 | A | A |
| 1 | CS137 | 160.000 | 15.000 | 181.500 | 7.141 | 0.882 | W | A |
| 1 | PU238 | 0.110 | 0.030 | 0.116 | 0.035 | 0.951 | A | A |
| 1 | PU239 | 1.600 | 0.300 | 1.770 | 0.154 | 0.904 | A | A |
| 1 | AM241 | 1.100 | 0.140 | 1.105 | 0.051 | 0.995 | A | A |
| 1 | CM244 | 1.900 | 0.150 | 2.174 | 0.066 | 0.874 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 213.770 | 10.690 | 218.300 | 6.505 | 0.979 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BU Autoridad Regulatoria, Buenos Aires, Argentina

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | CO60 | 15.000 | 1.200 | 13.600 | 1.200 | 1.103 | A | A |
| 1 | CS137 | 45.000 | 4.000 | 46.000 | 1.700 | 0.978 | A | A |
| 1 | PU238 | 2.430 | 0.200 | 2.526 | 0.060 | 0.962 | A | |
| 1 | PU239 | 1.550 | 0.100 | 1.650 | 0.061 | 0.939 | A | A |
| 1 | Bq U | 0.880 | 0.040 | 0.801 | 0.067 | 1.098 | A | W |
| 1 | U234 | 0.430 | 0.020 | 0.396 | 0.026 | 1.085 | A | |
| 1 | U238 | 0.420 | 0.020 | 0.396 | 0.037 | 1.060 | A | |
| 1 | ug U | 0.034 | 0.004 | 0.032 | 0.003 | 1.063 | A | |
| 1 | AM241 | 1.290 | 0.100 | 1.226 | 0.050 | 1.052 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BX B&W Nuclear Envir. Services, Lynchburg, VA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1740.000 | 100.000 | 1421.000 | 100.000 | 1.224 | W | A |
| 1 | GROSS BETA | 2270.000 | 110.000 | 2200.000 | 100.000 | 1.032 | A | A |
| 1 | H3 | 246.000 | 23.000 | 218.300 | 6.505 | 1.127 | A | A |
| 1 | MN54 | 65.900 | 3.300 | 57.000 | 1.900 | 1.156 | A | W |
| 1 | FE55 | 209.000 | 17.000 | 202.800 | 2.921 | 1.031 | A | A |
| 1 | CO60 | 15.700 | 0.900 | 13.600 | 1.200 | 1.154 | W | A |
| 1 | SR90 | 3.390 | 0.340 | 4.357 | 0.192 | 0.778 | W | A |
| 1 | CS137 | 53.300 | 3.300 | 46.000 | 1.700 | 1.159 | A | A |
| 1 | U234 | 0.411 | 0.033 | 0.396 | 0.026 | 1.037 | A | N |
| 1 | U238 | 0.462 | 0.048 | 0.396 | 0.037 | 1.166 | A | A |
| 1 | PU238 | 2.470 | 0.081 | 2.526 | 0.060 | 0.978 | A | A |
| 1 | PU239 | 1.710 | 0.063 | 1.650 | 0.061 | 1.036 | A | A |
| 1 | AM241 | 1.290 | 0.059 | 1.226 | 0.050 | 1.052 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 418.000 | 2.000 | 313.500 | 10.150 | 1.333 | W | A |
| 1 | CS137 | 389.000 | 26.000 | 329.500 | 9.260 | 1.181 | A | A |
| 1 | U234 | 28.900 | 1.900 | 31.133 | 0.802 | 0.928 | A | N |
| 1 | U238 | 30.300 | 2.200 | 31.900 | 2.552 | 0.950 | A | A |
| 1 | PU239 | 5.140 | 0.440 | 5.305 | 0.253 | 0.969 | A | W |
| 1 | AM241 | 2.310 | 1.100 | 2.678 | 0.212 | 0.863 | A | W |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 903.000 | 48.000 | 707.500 | 24.987 | 1.276 | W | A |
| 1 | CO60 | 11.800 | 0.800 | 10.575 | 0.206 | 1.116 | A | A |
| 1 | SR90 | 209.000 | 16.000 | 359.005 | 6.021 | 0.582 | W | A |
| 1 | CS137 | 208.000 | 16.000 | 181.500 | 7.141 | 1.146 | A | A |
| 1 | PU239 | 1.050 | 0.370 | 1.770 | 0.154 | 0.593 | W | A |
| 1 | AM241 | 2.680 | 0.550 | 1.105 | 0.051 | 2.425 | W | W |
| 1 | CM244 | 1.570 | 0.440 | 2.174 | 0.066 | 0.722 | W | W |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.440 | 0.030 | 1.400 | 0.100 | 1.029 | A | A |
| 1 | GROSS BETA | 1.880 | 0.030 | 1.960 | 0.300 | 0.959 | A | A |
| 1 | MN54 | 8.730 | 0.520 | 5.440 | 0.485 | 1.605 | N | A |
| 1 | CO57 | 16.700 | 0.810 | 11.110 | 0.846 | 1.503 | N | A |
| 1 | CO60 | 13.500 | 0.700 | 9.090 | 0.732 | 1.485 | N | A |
| 1 | SR90 | 1.620 | 0.130 | 1.758 | 0.042 | 0.921 | A | A |
| 1 | SB125 | 20.200 | 1.000 | 12.160 | 1.151 | 1.661 | N | A |
| 1 | CS134 | 28.900 | 1.700 | 19.740 | 1.380 | 1.464 | N | A |
| 1 | CS137 | 18.900 | 1.300 | 11.860 | 0.957 | 1.594 | N | A |
| 1 | CE144 | 11.700 | 0.600 | 8.210 | 0.796 | 1.425 | N | A |
| 1 | U234 | 0.051 | 0.009 | 0.031 | 0.003 | 1.669 | W | W |
| 1 | U238 | 0.037 | 0.010 | 0.030 | 0.001 | 1.227 | A | W |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** BX B&W Nuclear Envir. Services, Lynchburg, VA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | PU238 | 0.082 | 0.009 | 0.069 | 0.003 | 1.177 | W | A |
| 1 | AM241 | 0.079 | 0.011 | 0.069 | 0.003 | 1.147 | A | A |
| 1 | PU239 | 0.060 | 0.007 | 0.062 | 0.002 | 0.956 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** CA Atomic Energy Control Board, Ottawa, Canada

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 268.000 | 22.000 | 218.300 | 6.505 | 1.228 | W | A |
| 1 | MN54 | 58.100 | 4.300 | 57.000 | 1.900 | 1.019 | A | A |
| 1 | CO60 | 13.100 | 0.100 | 13.600 | 1.200 | 0.963 | A | A |
| 1 | CS137 | 49.900 | 2.400 | 46.000 | 1.700 | 1.085 | A | A |
| 1 | ug U | 0.041 | 0.002 | 0.032 | 0.003 | 1.266 | W | N |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.380 | 0.020 | 1.400 | 0.100 | 0.986 | A | W |
| 1 | GROSS BETA | 2.030 | 0.100 | 1.960 | 0.300 | 1.036 | A | A |
| 1 | MN54 | 5.200 | 0.200 | 5.440 | 0.485 | 0.956 | A | A |
| 1 | CO57 | 10.100 | 0.100 | 11.110 | 0.846 | 0.909 | A | A |
| 1 | CO60 | 8.580 | 0.080 | 9.090 | 0.732 | 0.944 | A | A |
| 1 | SB125 | 11.500 | 0.500 | 12.160 | 1.151 | 0.946 | A | A |
| 1 | CS134 | 19.700 | 0.300 | 19.740 | 1.380 | 0.998 | A | A |
| 1 | CS137 | 11.500 | 0.400 | 11.860 | 0.957 | 0.970 | A | A |
| 1 | CE144 | 6.800 | 1.500 | 8.210 | 0.796 | 0.828 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | ug U | 2.064 | 0.038 | 2.583 | 0.200 | 0.799 | A | W |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** CB Radiation Protection Bureau, Ontario, Canada

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | SR90 | 4.780 | 0.460 | 4.357 | 0.192 | 1.097 | A | |
| 2 | SR90 | 4.520 | 0.460 | 4.357 | 0.192 | 1.037 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** CD Gentilly-2 Nuclear Power Plant, Quebec Canada

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.100 | 0.100 | 1.400 | 0.100 | 0.786 | W | |
| 1 | GROSS BETA | 1.000 | 0.100 | 1.960 | 0.300 | 0.510 | N | |
| 1 | MN54 | 5.000 | 0.200 | 5.440 | 0.485 | 0.919 | A | |
| 1 | CO57 | 9.500 | 0.100 | 11.110 | 0.846 | 0.855 | A | |
| 1 | CO60 | 7.800 | 0.200 | 9.090 | 0.732 | 0.858 | A | |
| 1 | SB125 | 10.500 | 0.300 | 12.160 | 1.151 | 0.863 | A | |
| 1 | CS134 | 15.500 | 0.200 | 19.740 | 1.380 | 0.785 | W | |
| 1 | CS137 | 9.700 | 0.200 | 11.860 | 0.957 | 0.818 | W | |
| 1 | CE144 | 6.600 | 0.300 | 8.210 | 0.796 | 0.804 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 400.000 | 20.000 | 313.500 | 10.150 | 1.276 | W | |
| 1 | CS137 | 388.000 | 6.000 | 329.500 | 9.260 | 1.178 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 800.000 | 40.000 | 707.500 | 24.987 | 1.131 | A | |
| 1 | CO60 | 12.000 | 2.000 | 10.575 | 0.206 | 1.135 | A | |
| 1 | CS137 | 188.000 | 6.000 | 181.500 | 7.141 | 1.036 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 910.000 | 90.000 | 1421.000 | 100.000 | 0.640 | W | |
| 1 | GROSS BETA | 2100.000 | 200.000 | 2200.000 | 100.000 | 0.955 | A | |
| 1 | H3 | 220.000 | 20.000 | 218.300 | 6.505 | 1.008 | A | |
| 1 | MN54 | 64.000 | 1.000 | 57.000 | 1.900 | 1.123 | A | |
| 1 | CO60 | 15.300 | 0.800 | 13.600 | 1.200 | 1.125 | A | |
| 1 | CS137 | 51.000 | 1.000 | 46.000 | 1.700 | 1.109 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** CH California State Dept. Health Serv.,Sanitation & Radiation Laboratory

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.420 | 0.116 | 1.400 | 0.100 | 1.014 | A | A |
| 1 | GROSS BETA | 2.080 | 0.016 | 1.960 | 0.300 | 1.061 | A | A |
| 1 | MN54 | 5.090 | 0.253 | 5.440 | 0.485 | 0.936 | A | A |
| 1 | CO57 | 10.320 | 0.226 | 11.110 | 0.846 | 0.929 | A | A |
| 1 | CO60 | 8.570 | 0.281 | 9.090 | 0.732 | 0.943 | A | A |
| 1 | SR90 | 1.630 | 0.112 | 1.758 | 0.042 | 0.927 | A | A |
| 1 | SB125 | 11.600 | 0.555 | 12.160 | 1.151 | 0.954 | A | A |
| 1 | CS134 | 18.600 | 0.589 | 19.740 | 1.380 | 0.942 | A | A |
| 1 | CS137 | 10.800 | 0.301 | 11.860 | 0.957 | 0.911 | A | A |
| 1 | CE144 | 7.410 | 0.418 | 8.210 | 0.796 | 0.903 | A | A |
| 1 | U234 | 0.035 | 0.004 | 0.031 | 0.003 | 1.140 | A | A |
| 1 | U238 | 0.032 | 0.003 | 0.030 | 0.001 | 1.060 | A | A |
| 1 | Bq U | 0.069 | 0.009 | 0.063 | 0.004 | 1.095 | A | A |
| 1 | ug U | 2.700 | 0.052 | 2.472 | 0.101 | 1.092 | A | A |
| 1 | PU238 | 0.066 | 0.002 | 0.069 | 0.003 | 0.954 | A | A |
| 1 | PU239 | 0.067 | 0.003 | 0.062 | 0.002 | 1.075 | A | |
| 1 | AM241 | 0.081 | 0.005 | 0.069 | 0.003 | 1.179 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 851.000 | 51.300 | 707.500 | 24.987 | 1.203 | A | A |
| 1 | CO60 | 11.800 | 0.407 | 10.575 | 0.206 | 1.116 | A | A |
| 1 | SR90 | 362.000 | 11.000 | 359.005 | 6.021 | 1.008 | A | A |
| 1 | CS137 | 188.000 | 5.520 | 181.500 | 7.141 | 1.036 | A | A |
| 1 | PU239 | 1.860 | 0.271 | 1.770 | 0.154 | 1.051 | A | A |
| 1 | AM241 | 1.400 | 0.219 | 1.105 | 0.051 | 1.267 | A | A |
| 1 | CM244 | 1.990 | 0.135 | 2.174 | 0.066 | 0.916 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** CL Core Laboratories, Casper, WY

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 220.000 | 15.000 | 218.300 | 6.505 | 1.008 | A | A |
| 1 | MN54 | 61.100 | 2.020 | 57.000 | 1.900 | 1.072 | A | W |
| 1 | FE55 | 189.000 | 13.900 | 202.800 | 2.921 | 0.932 | A | A |
| 1 | CO60 | 14.700 | 0.780 | 13.600 | 1.200 | 1.081 | A | A |
| 1 | SR90 | 3.900 | 0.430 | 4.357 | 0.192 | 0.895 | A | A |
| 1 | CS137 | 50.000 | 1.750 | 46.000 | 1.700 | 1.087 | A | W |
| 1 | U234 | 0.490 | 0.120 | 0.396 | 0.026 | 1.237 | W | W |
| 1 | U238 | 0.440 | 0.090 | 0.396 | 0.037 | 1.110 | A | W |
| 1 | Bq U | 1.050 | 0.090 | 0.801 | 0.067 | 1.310 | W | W |
| 1 | PU238 | 1.230 | 0.310 | 2.526 | 0.060 | 0.487 | N | W |
| 1 | PU239 | 1.090 | 0.260 | 1.650 | 0.061 | 0.661 | N | A |
| 1 | AM241 | 1.560 | 0.360 | 1.226 | 0.050 | 1.273 | W | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.650 | 0.480 | 5.440 | 0.485 | 1.039 | A | A |
| 1 | CO57 | 10.400 | 0.360 | 11.110 | 0.846 | 0.936 | A | A |
| 1 | CO60 | 8.830 | 0.380 | 9.090 | 0.732 | 0.971 | A | A |
| 1 | SR90 | 0.990 | 0.230 | 1.758 | 0.042 | 0.563 | N | W |
| 1 | SB125 | 13.100 | 0.690 | 12.160 | 1.151 | 1.077 | A | A |
| 1 | CS134 | 17.300 | 0.590 | 19.740 | 1.380 | 0.876 | A | N |
| 1 | CS137 | 11.300 | 0.440 | 11.860 | 0.957 | 0.953 | A | A |
| 1 | CE144 | 7.650 | 1.500 | 8.210 | 0.796 | 0.932 | A | A |
| 1 | U234 | 0.040 | 0.010 | 0.031 | 0.003 | 1.299 | A | W |
| 1 | U238 | 0.040 | 0.010 | 0.030 | 0.001 | 1.312 | A | A |
| 1 | Bq U | 0.090 | 0.010 | 0.063 | 0.004 | 1.426 | A | A |
| 1 | PU238 | 0.080 | 0.020 | 0.069 | 0.003 | 1.151 | W | N |
| 1 | PU239 | 0.070 | 0.020 | 0.062 | 0.002 | 1.123 | A | |
| 1 | AM241 | 0.070 | 0.020 | 0.069 | 0.003 | 1.019 | A | N |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 618.000 | 46.700 | 707.500 | 24.987 | 0.873 | W | A |
| 1 | CO60 | 13.400 | 3.200 | 10.575 | 0.206 | 1.267 | W | A |
| 1 | SR90 | 565.000 | 23.700 | 359.005 | 6.021 | 1.574 | N | N |
| 1 | CS137 | 154.000 | 6.080 | 181.500 | 7.141 | 0.848 | W | A |
| 1 | PU239 | 1.240 | 0.300 | 1.770 | 0.154 | 0.700 | W | A |
| 1 | AM241 | 0.650 | 0.150 | 1.105 | 0.051 | 0.588 | N | A |
| 1 | CM244 | 0.930 | 0.040 | 2.174 | 0.066 | 0.428 | N | W |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 375.000 | 43.500 | 313.500 | 10.150 | 1.196 | A | A |
| 1 | SR90 | 22.100 | 7.880 | 13.091 | 0.279 | 1.688 | W | W |
| 1 | CS137 | 323.000 | 11.100 | 329.500 | 9.260 | 0.980 | A | A |
| 1 | U234 | 27.000 | 6.230 | 31.133 | 0.802 | 0.867 | A | W |
| 1 | U238 | 28.600 | 6.570 | 31.900 | 2.552 | 0.897 | A | W |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** CL Core Laboratories, Casper, WY

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | Bq U | 60.500 | 12.100 | 64.600 | 2.858 | 0.937 | A | W |
| 1 | PU239 | 5.940 | 1.400 | 5.305 | 0.253 | 1.120 | A | A |
| 1 | AM241 | 3.030 | 0.730 | 2.678 | 0.212 | 1.132 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** CN China Institute for Radiation Protection

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | CO57 | 10.450 | 0.550 | 11.110 | 0.846 | 0.941 | A | N |
| 1 | SB125 | 12.430 | 0.790 | 12.160 | 1.151 | 1.022 | A | W |
| 1 | CS134 | 18.120 | 0.940 | 19.740 | 1.380 | 0.918 | A | A |
| 1 | CS137 | 11.440 | 0.590 | 11.860 | 0.957 | 0.965 | A | A |
| 1 | MN54 | 5.130 | 0.280 | 5.440 | 0.485 | 0.943 | A | N |
| 1 | CO60 | 8.660 | 0.460 | 9.090 | 0.732 | 0.953 | A | A |
| 1 | CE144 | 7.820 | 0.540 | 8.210 | 0.796 | 0.952 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | CS137 | 366.800 | 18.000 | 329.500 | 9.260 | 1.113 | A | A |
| 1 | K40 | 325.800 | 18.400 | 313.500 | 10.150 | 1.039 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | CS137 | 198.600 | 10.000 | 181.500 | 7.141 | 1.094 | A | A |
| 1 | CO60 | 9.760 | 0.720 | 10.575 | 0.206 | 0.923 | A | A |
| 1 | K40 | 677.500 | 34.900 | 707.500 | 24.987 | 0.958 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** CO Bedford Institute of Oceanography, Dartmouth. Nova Scotia, Canada

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | CS137 | 371.000 | 17.000 | 329.500 | 9.260 | 1.126 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | CO60 | 11.000 | 2.000 | 10.575 | 0.206 | 1.040 | A | A |
| 1 | CS137 | 193.000 | 9.000 | 181.500 | 7.141 | 1.063 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.700 | 0.200 | 5.440 | 0.485 | 1.048 | A | A |
| 1 | CO57 | 12.600 | 0.200 | 11.110 | 0.846 | 1.134 | W | W |
| 1 | CO60 | 8.900 | 0.300 | 9.090 | 0.732 | 0.979 | A | A |
| 1 | SB125 | 12.400 | 0.300 | 12.160 | 1.151 | 1.020 | A | A |
| 1 | CS134 | 18.800 | 0.600 | 19.740 | 1.380 | 0.952 | A | A |
| 1 | CS137 | 11.600 | 0.300 | 11.860 | 0.957 | 0.978 | A | A |
| 1 | CE144 | 6.000 | 1.000 | 8.210 | 0.796 | 0.731 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** CR Laboratorio de Fisica Nuclear Aplicada, Costa Rica

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 4.700 | 0.200 | 5.440 | 0.485 | 0.864 | A | W |
| 1 | CO60 | 7.700 | 0.400 | 9.090 | 0.732 | 0.847 | A | W |
| 1 | SB125 | 10.000 | 0.600 | 12.160 | 1.151 | 0.822 | W | W |
| 1 | CS134 | 15.300 | 0.600 | 19.740 | 1.380 | 0.775 | W | W |
| 1 | CS137 | 9.100 | 0.400 | 11.860 | 0.957 | 0.767 | W | W |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 919.600 | 83.000 | 707.500 | 24.987 | 1.300 | W | A |
| 1 | CO60 | 13.200 | 4.700 | 10.575 | 0.206 | 1.248 | W | A |
| 1 | CS137 | 224.500 | 9.900 | 181.500 | 7.141 | 1.237 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 453.800 | 63.500 | 313.500 | 10.150 | 1.448 | W | A |
| 1 | CS137 | 428.800 | 17.600 | 329.500 | 9.260 | 1.301 | W | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 61.100 | 2.100 | 57.000 | 1.900 | 1.072 | A | |
| 1 | CO60 | 14.700 | 0.800 | 13.600 | 1.200 | 1.081 | A | |
| 1 | CS137 | 49.300 | 2.000 | 46.000 | 1.700 | 1.072 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** CS Boeing North American, Canoga Park, CA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 351.000 | 16.290 | 313.500 | 10.150 | 1.120 | A | A |
| 1 | CS137 | 354.300 | 15.310 | 329.500 | 9.260 | 1.075 | A | A |
| 1 | U238 | 45.290 | 13.830 | 31.900 | 2.552 | 1.420 | N | |
| 1 | AM241 | 3.220 | 0.300 | 2.678 | 0.212 | 1.203 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 736.400 | 35.050 | 707.500 | 24.987 | 1.041 | A | A |
| 1 | CO60 | 11.740 | 0.440 | 10.575 | 0.206 | 1.110 | A | A |
| 1 | CS137 | 173.500 | 7.550 | 181.500 | 7.141 | 0.956 | A | A |
| 1 | AM241 | 0.721 | 0.220 | 1.105 | 0.051 | 0.653 | N | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 2.666 | 0.130 | 5.440 | 0.485 | 0.490 | N | W |
| 1 | CO57 | 6.172 | 0.210 | 11.110 | 0.846 | 0.556 | N | W |
| 1 | CO60 | 4.390 | 0.140 | 9.090 | 0.732 | 0.483 | N | N |
| 1 | SB125 | 5.793 | 0.180 | 12.160 | 1.151 | 0.476 | N | W |
| 1 | CS134 | 9.370 | 0.260 | 19.740 | 1.380 | 0.475 | N | W |
| 1 | CS137 | 5.353 | 0.240 | 11.860 | 0.957 | 0.451 | N | W |
| 1 | CE144 | 4.187 | 0.240 | 8.210 | 0.796 | 0.510 | N | W |
| 1 | AM241 | 0.141 | 0.030 | 0.069 | 0.003 | 2.048 | W | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 60.650 | 2.720 | 57.000 | 1.900 | 1.064 | A | A |
| 1 | CO60 | 14.480 | 0.470 | 13.600 | 1.200 | 1.065 | A | A |
| 1 | CS137 | 49.590 | 2.150 | 46.000 | 1.700 | 1.078 | A | A |
| 1 | AM241 | 1.380 | 0.100 | 1.226 | 0.050 | 1.126 | A | W |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.450 | 0.070 | 1.400 | 0.100 | 1.036 | A | A |
| 1 | GROSS BETA | 3.000 | 0.230 | 1.960 | 0.300 | 1.531 | W | W |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** DC Datachem Laboratories, Salt Lake City

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.240 | 0.242 | 1.400 | 0.100 | 0.886 | A | A |
| 1 | GROSS BETA | 1.770 | 0.349 | 1.960 | 0.300 | 0.903 | A | A |
| 1 | MN54 | 6.060 | 2.410 | 5.440 | 0.485 | 1.114 | A | W |
| 1 | CO57 | 12.000 | 1.270 | 11.110 | 0.846 | 1.080 | A | A |
| 1 | CO60 | 9.280 | 0.700 | 9.090 | 0.732 | 1.021 | A | A |
| 1 | SB125 | 13.700 | 2.080 | 12.160 | 1.151 | 1.127 | A | W |
| 1 | CS134 | 19.300 | 2.820 | 19.740 | 1.380 | 0.978 | A | A |
| 1 | CS137 | 13.600 | 1.470 | 11.860 | 0.957 | 1.147 | W | A |
| 1 | CE144 | 10.800 | 3.260 | 8.210 | 0.796 | 1.315 | N | N |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1620.000 | 319.000 | 1421.000 | 100.000 | 1.140 | A | W |
| 1 | GROSS BETA | 2330.000 | 456.000 | 2200.000 | 100.000 | 1.059 | A | W |
| 1 | H3 | 302.000 | 57.900 | 218.300 | 6.505 | 1.383 | W | W |
| 1 | MN54 | 92.200 | 45.500 | 57.000 | 1.900 | 1.618 | N | A |
| 1 | CO60 | 21.800 | 3.290 | 13.600 | 1.200 | 1.603 | N | A |
| 1 | CS137 | 74.300 | 17.700 | 46.000 | 1.700 | 1.615 | N | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 662.000 | 184.000 | 707.500 | 24.987 | 0.936 | A | A |
| 1 | CO60 | 10.300 | 2.110 | 10.575 | 0.206 | 0.974 | A | N |
| 1 | CS137 | 212.000 | 56.600 | 181.500 | 7.141 | 1.168 | A | N |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 329.000 | 94.400 | 313.500 | 10.150 | 1.049 | A | A |
| 1 | CS137 | 466.000 | 149.000 | 329.500 | 9.260 | 1.414 | N | W |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** DH Duke Engineering Services Hanford

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | CO60 | 151.700 | 4.050 | 13.600 | 1.200 | 11.154 | N | A |
| 1 | CS137 | 49.600 | 0.600 | 46.000 | 1.700 | 1.078 | A | A |
| 1 | AM241 | 1.820 | 0.840 | 1.226 | 0.050 | 1.485 | W | |
| 1 | MN54 | 61.400 | 0.700 | 57.000 | 1.900 | 1.077 | A | A |
| 1 | H3 | 229.800 | 53.000 | 218.300 | 6.505 | 1.053 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 322.100 | 21.100 | 313.500 | 10.150 | 1.027 | A | A |
| 1 | CS137 | 333.200 | 3.330 | 329.500 | 9.260 | 1.011 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.328 | 0.139 | 1.400 | 0.100 | 0.949 | A | A |
| 1 | GROSS BETA | 2.110 | 0.156 | 1.960 | 0.300 | 1.077 | A | A |
| 1 | MN54 | 5.360 | 0.139 | 5.440 | 0.485 | 0.985 | A | |
| 1 | CO57 | 10.500 | 0.096 | 11.110 | 0.846 | 0.945 | A | |
| 1 | CO60 | 8.650 | 0.192 | 9.090 | 0.732 | 0.952 | A | |
| 1 | SB125 | 12.240 | 0.374 | 12.160 | 1.151 | 1.007 | A | |
| 1 | CS134 | 18.950 | 0.227 | 19.740 | 1.380 | 0.960 | A | |
| 1 | CS137 | 11.230 | 0.184 | 11.860 | 0.957 | 0.947 | A | |
| 1 | CE144 | 6.950 | 0.279 | 8.210 | 0.796 | 0.847 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 2.808 | 0.293 | 1421.000 | 100.000 | 0.002 | N | |
| 1 | GROSS BETA | 3.870 | 0.286 | 2200.000 | 100.000 | 0.002 | N | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** DP Duke Power Company, Huntersville, NC

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 275.000 | 4.100 | 218.300 | 6.505 | 1.260 | W | A |
| 1 | MN54 | 68.800 | 1.600 | 57.000 | 1.900 | 1.207 | W | W |
| 1 | CO60 | 16.900 | 0.900 | 13.600 | 1.200 | 1.243 | N | A |
| 1 | SR90 | 4.700 | 0.400 | 4.357 | 0.192 | 1.079 | A | A |
| 1 | CS137 | 50.500 | 1.300 | 46.000 | 1.700 | 1.098 | A | A |
| 2 | H3 | 283.000 | 4.100 | 218.300 | 6.505 | 1.296 | W | A |
| 2 | MN54 | 61.500 | 2.000 | 57.000 | 1.900 | 1.079 | A | W |
| 2 | CO60 | 15.100 | 1.300 | 13.600 | 1.200 | 1.110 | A | A |
| 2 | SR90 | 4.100 | 0.400 | 4.357 | 0.192 | 0.941 | A | A |
| 2 | CS137 | 46.800 | 1.600 | 46.000 | 1.700 | 1.017 | A | A |
| 3 | H3 | 283.000 | 4.100 | 218.300 | 6.505 | 1.296 | W | A |
| 3 | MN54 | 69.600 | 1.700 | 57.000 | 1.900 | 1.221 | W | W |
| 3 | CO60 | 14.600 | 1.000 | 13.600 | 1.200 | 1.074 | A | A |
| 3 | SR90 | 4.100 | 0.400 | 4.357 | 0.192 | 0.941 | A | A |
| 3 | CS137 | 52.300 | 1.400 | 46.000 | 1.700 | 1.137 | A | A |
| 1 | GROSS ALPHA | 603.400 | 15.600 | 1421.000 | 100.000 | 0.425 | N | N |
| 1 | GROSS BETA | 1392.000 | 16.400 | 2200.000 | 100.000 | 0.633 | W | N |
| 1 | FE55 | 324.900 | 3.200 | 202.800 | 2.921 | 1.602 | N | W |
| 2 | GROSS ALPHA | 586.200 | 15.400 | 1421.000 | 100.000 | 0.413 | N | N |
| 2 | GROSS BETA | 1366.000 | 16.200 | 2200.000 | 100.000 | 0.621 | W | N |
| 2 | FE55 | 311.200 | 3.100 | 202.800 | 2.921 | 1.535 | N | W |
| 3 | GROSS ALPHA | 703.100 | 16.800 | 1421.000 | 100.000 | 0.495 | N | N |
| 3 | GROSS BETA | 1438.000 | 16.600 | 2200.000 | 100.000 | 0.654 | W | N |
| 3 | FE55 | 342.300 | 3.600 | 202.800 | 2.921 | 1.688 | N | W |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.300 | 0.050 | 1.400 | 0.100 | 0.929 | A | A |
| 1 | GROSS BETA | 1.600 | 0.040 | 1.960 | 0.300 | 0.816 | W | A |
| 2 | GROSS ALPHA | 1.400 | 0.050 | 1.400 | 0.100 | 1.000 | A | A |
| 2 | GROSS BETA | 1.500 | 0.040 | 1.960 | 0.300 | 0.765 | W | A |
| 3 | GROSS ALPHA | 1.400 | 0.050 | 1.400 | 0.100 | 1.000 | A | A |
| 3 | GROSS BETA | 1.700 | 0.040 | 1.960 | 0.300 | 0.867 | W | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** EG LMITCO/INEL, Scoville

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | SR90 | 1.660 | 0.050 | 1.758 | 0.042 | 0.944 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | SR90 | 4.730 | 0.170 | 4.357 | 0.192 | 1.086 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | U234 | 0.033 | 0.005 | 0.031 | 0.003 | 1.071 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | U234 | 0.409 | 0.056 | 0.396 | 0.026 | 1.032 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | U234 | 33.100 | 3.800 | 31.133 | 0.802 | 1.063 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | U238 | 0.033 | 0.005 | 0.030 | 0.001 | 1.083 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | U238 | 0.415 | 0.064 | 0.396 | 0.037 | 1.047 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | U238 | 32.600 | 4.400 | 31.900 | 2.552 | 1.022 | A | W |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | PU238 | 0.068 | 0.006 | 0.069 | 0.003 | 0.978 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | PU238 | 2.380 | 0.190 | 2.526 | 0.060 | 0.942 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | PU238 | 0.129 | 0.032 | 0.116 | 0.035 | 1.115 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** EG LMITCO/INEL, Scoville

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | PU239 | 0.062 | 0.006 | 0.062 | 0.002 | 0.994 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | PU239 | 1.580 | 0.130 | 1.650 | 0.061 | 0.957 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | PU239 | 1.900 | 0.220 | 1.770 | 0.154 | 1.073 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | PU239 | 5.220 | 0.520 | 5.305 | 0.253 | 0.984 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | AM241 | 0.071 | 0.006 | 0.069 | 0.003 | 1.033 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | AM241 | 1.260 | 0.090 | 1.226 | 0.050 | 1.028 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | AM241 | 1.320 | 0.150 | 1.105 | 0.051 | 1.194 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | AM241 | 2.650 | 0.390 | 2.678 | 0.212 | 0.990 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | CM244 | 2.210 | 0.210 | 2.174 | 0.066 | 1.017 | A | W |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 60.200 | 3.500 | 57.000 | 1.900 | 1.056 | A | A |
| 1 | CO60 | 14.700 | 1.000 | 13.600 | 1.200 | 1.081 | A | A |
| 1 | CS137 | 48.100 | 2.800 | 46.000 | 1.700 | 1.046 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 694.000 | 92.000 | 707.500 | 24.987 | 0.981 | A | A |
| 1 | CO60 | 11.100 | 2.300 | 10.575 | 0.206 | 1.050 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** EG LMITCO/INEL, Scoville

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | CS137 | 174.000 | 14.000 | 181.500 | 7.141 | 0.959 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 339.000 | 51.000 | 313.500 | 10.150 | 1.081 | A | A |
| 1 | CS137 | 391.000 | 21.000 | 329.500 | 9.260 | 1.187 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.560 | 0.310 | 5.440 | 0.485 | 1.022 | A | A |
| 1 | CO57 | 11.300 | 0.600 | 11.110 | 0.846 | 1.017 | A | A |
| 1 | CO60 | 8.980 | 0.470 | 9.090 | 0.732 | 0.988 | A | A |
| 1 | SB125 | 13.800 | 0.700 | 12.160 | 1.151 | 1.135 | A | A |
| 1 | CS134 | 20.100 | 1.000 | 19.740 | 1.380 | 1.018 | A | A |
| 1 | CS137 | 11.800 | 0.600 | 11.860 | 0.957 | 0.995 | A | A |
| 1 | CE144 | 7.650 | 0.510 | 8.210 | 0.796 | 0.932 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | SR90 | 362.000 | 11.000 | 359.005 | 6.021 | 1.008 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | SR90 | 14.400 | 1.400 | 13.091 | 0.279 | 1.100 | A | N |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1723.000 | 93.000 | 1421.000 | 100.000 | 1.213 | W | A |
| 1 | FE55 | 225.000 | 100.000 | 202.800 | 2.921 | 1.109 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** EI Eichrom Industries, Inc., Argonne

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | SR90 | 15.300 | 1.230 | 13.091 | 0.279 | 1.169 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | SR90 | 5.320 | 0.340 | 4.357 | 0.192 | 1.221 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | SR90 | 289.700 | 14.000 | 359.005 | 6.021 | 0.807 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 229.840 | 14.850 | 218.300 | 6.505 | 1.053 | A | N |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 2.010 | 0.180 | 1.400 | 0.100 | 1.436 | W | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1881.680 | 189.560 | 1421.000 | 100.000 | 1.324 | N | W |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | U234 | 21.210 | 1.240 | 31.133 | 0.802 | 0.681 | W | |
| 1 | U238 | 21.150 | 1.240 | 31.900 | 2.552 | 0.663 | W | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | PU239 | 1.400 | 0.080 | 1.650 | 0.061 | 0.848 | W | |
| 1 | PU238 | 2.170 | 0.120 | 2.526 | 0.060 | 0.859 | W | |
| 1 | U234 | 0.410 | 0.020 | 0.396 | 0.026 | 1.035 | A | |
| 1 | U238 | 0.350 | 0.020 | 0.396 | 0.037 | 0.883 | W | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | PU239 | 0.070 | 0.007 | 0.062 | 0.002 | 1.123 | A | |
| 1 | PU238 | 0.060 | 0.008 | 0.069 | 0.003 | 0.863 | W | |
| 1 | U234 | 0.040 | 0.040 | 0.031 | 0.003 | 1.299 | A | |
| 1 | U238 | 0.030 | 0.040 | 0.030 | 0.001 | 0.984 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** EL Energy Laboratories, Inc., Casper, WY

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 451.000 | 21.000 | 313.500 | 10.150 | 1.439 | W | |
| 1 | CS137 | 402.000 | 20.000 | 329.500 | 9.260 | 1.220 | W | |
| 1 | AM241 | 3.300 | 0.200 | 2.678 | 0.212 | 1.232 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 89.000 | 5.000 | 57.000 | 1.900 | 1.561 | N | |
| 1 | CO60 | 21.000 | 1.000 | 13.600 | 1.200 | 1.544 | N | |
| 1 | CS137 | 74.000 | 4.000 | 46.000 | 1.700 | 1.609 | N | |
| 1 | AM241 | 1.700 | 0.100 | 1.226 | 0.050 | 1.387 | W | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 12.200 | 0.600 | 5.440 | 0.485 | 2.243 | N | |
| 1 | CO57 | 32.000 | 1.600 | 11.110 | 0.846 | 2.880 | N | |
| 1 | CO60 | 18.500 | 0.900 | 9.090 | 0.732 | 2.035 | N | |
| 1 | SB125 | 28.500 | 1.400 | 12.160 | 1.151 | 2.344 | N | |
| 1 | CS134 | 36.500 | 1.800 | 19.740 | 1.380 | 1.849 | N | |
| 1 | CS137 | 24.000 | 1.200 | 11.860 | 0.957 | 2.024 | N | |
| 1 | CE144 | 19.200 | 0.900 | 8.210 | 0.796 | 2.339 | N | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 964.000 | 48.000 | 707.500 | 24.987 | 1.363 | N | |
| 1 | CO60 | 19.300 | 0.900 | 10.575 | 0.206 | 1.825 | N | |
| 1 | CS137 | 224.000 | 11.000 | 181.500 | 7.141 | 1.234 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** EP US EPA, Las Vegas

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 60.930 | 4.380 | 57.000 | 1.900 | 1.069 | A | |
| 1 | CO60 | 15.400 | 1.230 | 13.600 | 1.200 | 1.132 | W | A |
| 1 | CS137 | 49.300 | 3.520 | 46.000 | 1.700 | 1.072 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.520 | 0.436 | 5.440 | 0.485 | 1.015 | A | |
| 1 | CO57 | 10.580 | 0.745 | 11.110 | 0.846 | 0.952 | A | A |
| 1 | CO60 | 8.830 | 0.652 | 9.090 | 0.732 | 0.971 | A | A |
| 1 | SB125 | 13.300 | 1.077 | 12.160 | 1.151 | 1.094 | A | |
| 1 | CS134 | 18.280 | 1.299 | 19.740 | 1.380 | 0.926 | A | A |
| 1 | CS137 | 11.420 | 0.828 | 11.860 | 0.957 | 0.963 | A | A |
| 1 | CE144 | 7.380 | 1.085 | 8.210 | 0.796 | 0.899 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | SR90 | 4.480 | 0.396 | 4.357 | 0.192 | 1.028 | A | A |
| 1 | H3 | 234.500 | 8.410 | 218.300 | 6.505 | 1.074 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | PU239 | 5.510 | 0.460 | 5.305 | 0.253 | 1.039 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | PU239 | 1.580 | 0.139 | 1.770 | 0.154 | 0.893 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | PU238 | 0.071 | 0.006 | 0.069 | 0.003 | 1.014 | A | |
| 1 | PU239 | 0.069 | 0.006 | 0.062 | 0.002 | 1.100 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | PU238 | 2.510 | 0.182 | 2.526 | 0.060 | 0.994 | A | |
| 1 | PU239 | 1.680 | 0.123 | 1.650 | 0.061 | 1.018 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | AM241 | 2.720 | 0.245 | 2.678 | 0.212 | 1.016 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | AM241 | 1.140 | 0.111 | 1.105 | 0.051 | 1.031 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** EP US EPA, Las Vegas

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | AM241 | 0.071 | 0.006 | 0.069 | 0.003 | 1.036 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | AM241 | 1.190 | 0.091 | 1.226 | 0.050 | 0.971 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | CM244 | 1.980 | 0.178 | 2.174 | 0.066 | 0.911 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** FG FGL Environmental, Santa Paula, CA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1777.000 | 85.000 | 1421.000 | 100.000 | 1.251 | W | A |
| 1 | GROSS BETA | 2201.000 | 110.000 | 2200.000 | 100.000 | 1.000 | A | A |
| 1 | H3 | 199.000 | 20.400 | 218.300 | 6.505 | 0.912 | A | |
| 1 | MN54 | 88.960 | 14.950 | 57.000 | 1.900 | 1.561 | N | W |
| 1 | CO60 | 15.030 | 3.270 | 13.600 | 1.200 | 1.105 | A | A |
| 1 | CS137 | 50.960 | 9.400 | 46.000 | 1.700 | 1.108 | A | A |
| 1 | Bq U | 1.120 | 0.040 | 0.801 | 0.067 | 1.398 | W | |
| 1 | PU238 | 2.570 | 0.100 | 2.526 | 0.060 | 1.018 | A | |
| 1 | PU239 | 1.720 | 0.100 | 1.650 | 0.061 | 1.042 | A | |
| 1 | AM241 | 0.760 | 0.200 | 1.226 | 0.050 | 0.620 | N | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.195 | 0.080 | 1.400 | 0.100 | 0.854 | A | A |
| 1 | GROSS BETA | 1.991 | 0.090 | 1.960 | 0.300 | 1.016 | A | A |
| 1 | MN54 | 5.330 | 2.200 | 5.440 | 0.485 | 0.980 | A | A |
| 1 | CO57 | 10.580 | 1.900 | 11.110 | 0.846 | 0.952 | A | A |
| 1 | CO60 | 8.020 | 3.800 | 9.090 | 0.732 | 0.882 | A | A |
| 1 | SB125 | 12.390 | 3.900 | 12.160 | 1.151 | 1.019 | A | A |
| 1 | CS134 | 16.950 | 6.300 | 19.740 | 1.380 | 0.859 | A | A |
| 1 | CS137 | 12.450 | 4.300 | 11.860 | 0.957 | 1.050 | A | A |
| 1 | CE144 | 7.640 | 1.600 | 8.210 | 0.796 | 0.931 | A | A |
| 1 | AM241 | 0.340 | 0.100 | 0.069 | 0.003 | 4.949 | N | N |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 368.500 | 38.200 | 313.500 | 10.150 | 1.175 | A | A |
| 1 | CS137 | 381.300 | 18.390 | 329.500 | 9.260 | 1.157 | A | A |
| 1 | AM241 | 2.000 | 0.500 | 2.678 | 0.212 | 0.747 | W | W |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** FJ The University of the South Pacific, Fiji Islands

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | CO57 | 18.410 | 0.330 | 11.110 | 0.846 | 1.657 | N | |
| 1 | CO60 | 10.430 | 0.080 | 9.090 | 0.732 | 1.147 | W | |
| 1 | SB125 | 14.850 | 0.190 | 12.160 | 1.151 | 1.221 | W | |
| 1 | CS134 | 23.920 | 0.730 | 19.740 | 1.380 | 1.212 | W | |
| 1 | CS137 | 12.470 | 0.420 | 11.860 | 0.957 | 1.051 | A | |
| 1 | CE144 | 12.330 | 0.960 | 8.210 | 0.796 | 1.502 | N | |
| 1 | AM241 | 0.089 | 0.030 | 0.069 | 0.003 | 1.295 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | CS137 | 189.000 | 3.600 | 181.500 | 7.141 | 1.041 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | CS137 | 340.000 | 27.000 | 329.500 | 9.260 | 1.032 | A | |
| 1 | K40 | 354.000 | 26.000 | 313.500 | 10.150 | 1.129 | A | |
| 1 | AM241 | 3.000 | 0.500 | 2.678 | 0.212 | 1.120 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 745.000 | 55.000 | 707.500 | 24.987 | 1.053 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 8.730 | 0.540 | 5.440 | 0.485 | 1.605 | N | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** FL Florida Dept of Health & Rehab. Serv., Orlando

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.140 | 0.030 | 1.400 | 0.100 | 0.814 | W | A |
| 1 | GROSS BETA | 2.300 | 0.040 | 1.960 | 0.300 | 1.173 | A | A |
| 1 | MN54 | 5.950 | 0.080 | 5.440 | 0.485 | 1.094 | A | A |
| 1 | CO57 | 10.180 | 0.040 | 11.110 | 0.846 | 0.916 | A | A |
| 1 | CO60 | 8.960 | 0.070 | 9.090 | 0.732 | 0.986 | A | A |
| 1 | SB125 | 11.100 | 0.300 | 12.160 | 1.151 | 0.913 | A | A |
| 1 | CS134 | 17.100 | 0.100 | 19.740 | 1.380 | 0.866 | A | W |
| 1 | CS137 | 12.700 | 0.100 | 11.860 | 0.957 | 1.071 | A | A |
| 1 | CE144 | 7.700 | 0.100 | 8.210 | 0.796 | 0.938 | A | A |
| 1 | U238 | 0.800 | 0.100 | 0.030 | 0.001 | 26.247 | N | |
| 1 | AM241 | 0.170 | 0.030 | 0.069 | 0.003 | 2.475 | N | N |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 2059.900 | 70.500 | 1421.000 | 100.000 | 1.450 | N | N |
| 1 | GROSS BETA | 2543.600 | 51.350 | 2200.000 | 100.000 | 1.156 | A | W |
| 1 | H3 | 240.100 | 4.800 | 218.300 | 6.505 | 1.100 | A | A |
| 1 | MN54 | 63.500 | 0.600 | 57.000 | 1.900 | 1.114 | A | W |
| 1 | CO60 | 15.000 | 0.300 | 13.600 | 1.200 | 1.103 | A | A |
| 1 | CS137 | 51.500 | 0.600 | 46.000 | 1.700 | 1.120 | A | A |
| 1 | AM241 | 1.600 | 0.500 | 1.226 | 0.050 | 1.305 | W | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 757.000 | 10.000 | 707.500 | 24.987 | 1.070 | A | A |
| 1 | CO60 | 11.100 | 0.500 | 10.575 | 0.206 | 1.050 | A | A |
| 1 | CS137 | 186.000 | 1.000 | 181.500 | 7.141 | 1.025 | A | A |
| 1 | AM241 | 2.000 | 0.500 | 1.105 | 0.051 | 1.810 | W | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 313.000 | 6.000 | 313.500 | 10.150 | 0.998 | A | A |
| 1 | CS137 | 325.000 | 1.000 | 329.500 | 9.260 | 0.986 | A | A |
| 1 | U238 | 27.000 | 4.000 | 31.900 | 2.552 | 0.846 | A | A |
| 1 | AM241 | 2.300 | 0.400 | 2.678 | 0.212 | 0.859 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** FM Florida Mobile Emergency Radiological Laboratory, Orlando

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 6.020 | 0.060 | 5.440 | 0.485 | 1.107 | A | A |
| 1 | CO57 | 10.650 | 0.080 | 11.110 | 0.846 | 0.959 | A | A |
| 1 | CO60 | 9.160 | 0.050 | 9.090 | 0.732 | 1.008 | A | A |
| 1 | SB125 | 12.800 | 0.100 | 12.160 | 1.151 | 1.053 | A | A |
| 1 | CS134 | 18.750 | 0.110 | 19.740 | 1.380 | 0.950 | A | N |
| 1 | CS137 | 12.530 | 0.090 | 11.860 | 0.957 | 1.056 | A | A |
| 1 | CE144 | 7.430 | 0.090 | 8.210 | 0.796 | 0.905 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 58.100 | 0.400 | 57.000 | 1.900 | 1.019 | A | A |
| 1 | CO60 | 13.700 | 0.100 | 13.600 | 1.200 | 1.007 | A | A |
| 1 | CS137 | 47.900 | 0.300 | 46.000 | 1.700 | 1.041 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** FN Fermi Lab, Batavia, IL

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 239.000 | 11.000 | 218.300 | 6.505 | 1.095 | A | A |
| 1 | MN54 | 56.600 | 5.800 | 57.000 | 1.900 | 0.993 | A | A |
| 1 | CO60 | 15.000 | 1.200 | 13.600 | 1.200 | 1.103 | A | A |
| 1 | CS137 | 47.000 | 4.800 | 46.000 | 1.700 | 1.022 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 661.000 | 67.000 | 707.500 | 24.987 | 0.934 | A | A |
| 1 | CO60 | 8.720 | 0.860 | 10.575 | 0.206 | 0.825 | W | A |
| 1 | CS137 | 155.000 | 16.000 | 181.500 | 7.141 | 0.854 | W | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 340.000 | 35.000 | 313.500 | 10.150 | 1.085 | A | A |
| 1 | CS137 | 367.000 | 37.000 | 329.500 | 9.260 | 1.114 | A | A |
| 1 | U238 | 26.600 | 1.400 | 31.900 | 2.552 | 0.834 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.030 | 0.560 | 5.440 | 0.485 | 0.925 | A | N |
| 1 | CO57 | 9.740 | 0.780 | 11.110 | 0.846 | 0.877 | A | N |
| 1 | CO60 | 7.990 | 0.610 | 9.090 | 0.732 | 0.879 | A | N |
| 1 | SB125 | 13.300 | 0.700 | 12.160 | 1.151 | 1.094 | A | W |
| 1 | CS134 | 19.800 | 1.200 | 19.740 | 1.380 | 1.003 | A | N |
| 1 | CS137 | 11.500 | 1.200 | 11.860 | 0.957 | 0.970 | A | W |
| 1 | CE144 | 7.720 | 0.720 | 8.210 | 0.796 | 0.940 | A | W |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** FR CEA/DAM - SPR/B3

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.020 | 0.200 | 1.400 | 0.100 | 0.729 | W | A |
| 1 | GROSS BETA | 2.100 | 0.300 | 1.960 | 0.300 | 1.071 | A | A |
| 1 | MN54 | 4.880 | 1.000 | 5.440 | 0.485 | 0.897 | A | N |
| 1 | CO57 | 9.560 | 1.500 | 11.110 | 0.846 | 0.860 | A | W |
| 1 | CO60 | 8.110 | 1.500 | 9.090 | 0.732 | 0.892 | A | N |
| 1 | SB125 | 10.600 | 1.500 | 12.160 | 1.151 | 0.872 | A | W |
| 1 | CS134 | 14.850 | 2.000 | 19.740 | 1.380 | 0.752 | W | N |
| 1 | CS137 | 10.360 | 1.000 | 11.860 | 0.957 | 0.874 | A | N |
| 1 | CE144 | 6.690 | 1.300 | 8.210 | 0.796 | 0.815 | A | A |
| 1 | AM241 | 0.081 | 0.025 | 0.069 | 0.003 | 1.179 | A | N |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 840.000 | 200.000 | 1421.000 | 100.000 | 0.591 | W | W |
| 1 | GROSS BETA | 1720.000 | 350.000 | 2200.000 | 100.000 | 0.782 | A | A |
| 1 | H3 | 235.000 | 20.000 | 218.300 | 6.505 | 1.077 | A | N |
| 1 | MN54 | 62.610 | 10.000 | 57.000 | 1.900 | 1.098 | A | A |
| 1 | CO60 | 15.410 | 2.000 | 13.600 | 1.200 | 1.133 | W | A |
| 1 | CS137 | 51.620 | 5.000 | 46.000 | 1.700 | 1.122 | A | A |
| 1 | U234 | 0.435 | 0.052 | 0.396 | 0.026 | 1.098 | A | A |
| 1 | U238 | 0.445 | 0.020 | 0.396 | 0.037 | 1.123 | A | A |
| 1 | Bq U | 0.901 | 0.056 | 0.801 | 0.067 | 1.124 | A | A |
| 1 | PU238 | 2.390 | 0.360 | 2.526 | 0.060 | 0.946 | A | A |
| 1 | PU239 | 1.630 | 0.250 | 1.650 | 0.061 | 0.988 | A | A |
| 1 | AM241 | 1.700 | 0.510 | 1.226 | 0.050 | 1.387 | W | W |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 713.800 | 110.000 | 707.500 | 24.987 | 1.009 | A | A |
| 1 | CO60 | 10.950 | 1.650 | 10.575 | 0.206 | 1.035 | A | A |
| 1 | CS137 | 180.800 | 20.000 | 181.500 | 7.141 | 0.996 | A | A |
| 1 | PU239 | 2.010 | 0.300 | 1.770 | 0.154 | 1.135 | A | A |
| 1 | AM241 | 1.320 | 0.400 | 1.105 | 0.051 | 1.194 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 323.700 | 50.000 | 313.500 | 10.150 | 1.033 | A | A |
| 1 | CS137 | 332.500 | 35.000 | 329.500 | 9.260 | 1.009 | A | A |
| 1 | U234 | 17.910 | 1.230 | 31.133 | 0.802 | 0.575 | W | A |
| 1 | U238 | 17.340 | 0.860 | 31.900 | 2.552 | 0.544 | W | A |
| 1 | Bq U | 36.040 | 1.500 | 64.600 | 2.858 | 0.558 | A | A |
| 1 | PU239 | 5.720 | 0.860 | 5.305 | 0.253 | 1.078 | A | A |
| 1 | AM241 | 2.920 | 0.900 | 2.678 | 0.212 | 1.091 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** FS Florida State University, Tallahassee

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | CS137 | 316.000 | 4.000 | 329.500 | 9.260 | 0.959 | A | A |
| 1 | K40 | 315.000 | 6.000 | 313.500 | 10.150 | 1.005 | A | A |
| 1 | AM241 | 3.000 | 0.600 | 2.678 | 0.212 | 1.120 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** GA Lockheed Martin, Pikton, OH

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.620 | 0.560 | 5.440 | 0.485 | 1.033 | A | A |
| 1 | CO57 | 10.700 | 0.700 | 11.110 | 0.846 | 0.963 | A | A |
| 1 | CO60 | 8.730 | 0.370 | 9.090 | 0.732 | 0.960 | A | A |
| 1 | SB125 | 12.400 | 2.300 | 12.160 | 1.151 | 1.020 | A | W |
| 1 | CS134 | 17.900 | 2.100 | 19.740 | 1.380 | 0.907 | A | A |
| 1 | CS137 | 11.300 | 0.700 | 11.860 | 0.957 | 0.953 | A | A |
| 1 | CE144 | 8.140 | 1.480 | 8.210 | 0.796 | 0.991 | A | A |
| 1 | U234 | 0.043 | | 0.031 | 0.003 | 1.396 | W | A |
| 1 | U238 | 0.036 | | 0.030 | 0.001 | 1.181 | A | A |
| 1 | Bq U | 0.079 | | 0.063 | 0.004 | 1.252 | A | |
| 1 | PU238 | 0.078 | | 0.069 | 0.003 | 1.122 | A | W |
| 1 | PU239 | 0.083 | | 0.062 | 0.002 | 1.331 | W | |
| 1 | AM241 | 0.079 | | 0.069 | 0.003 | 1.150 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 363.000 | 20.000 | 313.500 | 10.150 | 1.158 | A | A |
| 1 | CS137 | 359.000 | 87.000 | 329.500 | 9.260 | 1.090 | A | A |
| 1 | U234 | 37.560 | | 31.133 | 0.802 | 1.206 | W | A |
| 1 | U238 | 36.710 | | 31.900 | 2.552 | 1.151 | W | A |
| 1 | ug U | 2.100 | | 2.583 | 0.200 | 0.813 | A | A |
| 1 | PU239 | 6.000 | | 5.305 | 0.253 | 1.131 | A | A |
| 1 | AM241 | 3.140 | | 2.678 | 0.212 | 1.173 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 782.000 | 91.000 | 707.500 | 24.987 | 1.105 | A | A |
| 1 | CO60 | 11.400 | 3.300 | 10.575 | 0.206 | 1.078 | A | A |
| 1 | CS137 | 189.000 | 11.000 | 181.500 | 7.141 | 1.041 | A | A |
| 1 | PU239 | 1.920 | | 1.770 | 0.154 | 1.085 | A | A |
| 1 | AM241 | 1.370 | | 1.105 | 0.051 | 1.240 | A | A |
| 1 | CM244 | 2.230 | | 2.174 | 0.066 | 1.026 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 60.500 | 8.800 | 57.000 | 1.900 | 1.061 | A | A |
| 1 | CO60 | 15.600 | 2.500 | 13.600 | 1.200 | 1.147 | W | A |
| 1 | CS137 | 49.600 | 3.900 | 46.000 | 1.700 | 1.078 | A | A |
| 1 | U234 | 0.480 | | 0.396 | 0.026 | 1.212 | A | W |
| 1 | U238 | 0.440 | | 0.396 | 0.037 | 1.110 | A | W |
| 1 | Bq U | 0.920 | | 0.801 | 0.067 | 1.148 | A | |
| 1 | PU238 | 2.810 | | 2.526 | 0.060 | 1.113 | W | W |
| 1 | PU239 | 1.880 | | 1.650 | 0.061 | 1.139 | A | A |
| 1 | AM241 | 1.400 | | 1.226 | 0.050 | 1.142 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** GC Georgia Power Company Environmental Lab

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.100 | 0.050 | 1.400 | 0.100 | 0.786 | W | |
| 1 | GROSS BETA | 2.000 | 0.040 | 1.960 | 0.300 | 1.020 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1440.600 | 59.220 | 1421.000 | 100.000 | 1.014 | A | W |
| 1 | GROSS BETA | 1205.000 | 55.400 | 2200.000 | 100.000 | 0.548 | W | A |
| 1 | H3 | 242.720 | 4.700 | 218.300 | 6.505 | 1.112 | A | A |
| 1 | MN54 | 63.060 | 3.040 | 57.000 | 1.900 | 1.106 | A | A |
| 1 | FE55 | 249.000 | | 202.800 | 2.921 | 1.228 | A | |
| 1 | CO60 | 14.850 | 0.740 | 13.600 | 1.200 | 1.092 | A | A |
| 1 | SR90 | 4.300 | | 4.357 | 0.192 | 0.987 | A | A |
| 1 | CS137 | 52.000 | 2.400 | 46.000 | 1.700 | 1.130 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 730.640 | 33.060 | 707.500 | 24.987 | 1.033 | A | A |
| 1 | CO60 | 10.500 | 0.470 | 10.575 | 0.206 | 0.993 | A | A |
| 1 | CS137 | 178.230 | 2.570 | 181.500 | 7.141 | 0.982 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 350.300 | 37.000 | 313.500 | 10.150 | 1.117 | A | A |
| 1 | CS137 | 334.900 | 16.900 | 329.500 | 9.260 | 1.016 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** GE Environmental Physics, Inc., Charleston, SC

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 354.090 | 42.032 | 313.500 | 10.150 | 1.129 | A | A |
| 1 | SR90 | 11.285 | 1.480 | 13.091 | 0.279 | 0.862 | A | |
| 1 | CS137 | 353.184 | 34.021 | 329.500 | 9.260 | 1.072 | A | A |
| 1 | U234 | 26.999 | 3.126 | 31.133 | 0.802 | 0.867 | A | A |
| 1 | U238 | 27.517 | 3.175 | 31.900 | 2.552 | 0.863 | A | A |
| 1 | ug U | 0.950 | 0.060 | 2.583 | 0.200 | 0.368 | N | A |
| 1 | PU239 | 5.420 | 0.709 | 5.305 | 0.253 | 1.022 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 812.520 | 98.013 | 707.500 | 24.987 | 1.148 | A | W |
| 1 | CO60 | 11.141 | 1.929 | 10.575 | 0.206 | 1.053 | A | A |
| 1 | SR90 | 339.956 | 4.893 | 359.005 | 6.021 | 0.947 | A | |
| 1 | CS137 | 189.403 | 17.394 | 181.500 | 7.141 | 1.044 | A | W |
| 1 | PU239 | 2.277 | 0.334 | 1.770 | 0.154 | 1.286 | W | A |
| 1 | AM241 | 1.432 | 0.256 | 1.105 | 0.051 | 1.296 | A | A |
| 1 | CM244 | 2.664 | 0.403 | 2.174 | 0.066 | 1.226 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1650.859 | 29.071 | 1421.000 | 100.000 | 1.162 | W | W |
| 1 | GROSS BETA | 2156.404 | 25.711 | 2200.000 | 100.000 | 0.980 | A | A |
| 1 | H3 | 212.044 | 18.807 | 218.300 | 6.505 | 0.971 | A | A |
| 1 | MN54 | 63.233 | 6.993 | 57.000 | 1.900 | 1.109 | A | A |
| 1 | FE55 | 260.369 | 61.161 | 202.800 | 2.921 | 1.284 | A | |
| 1 | CO60 | 14.728 | 1.545 | 13.600 | 1.200 | 1.083 | A | A |
| 1 | SR90 | 4.518 | 0.168 | 4.357 | 0.192 | 1.037 | A | A |
| 1 | CS137 | 51.597 | 6.494 | 46.000 | 1.700 | 1.122 | A | A |
| 1 | U234 | 0.385 | 0.047 | 0.396 | 0.026 | 0.971 | A | A |
| 1 | U238 | 0.392 | 0.048 | 0.396 | 0.037 | 0.990 | A | A |
| 1 | ug U | 0.035 | 0.001 | 0.032 | 0.003 | 1.085 | A | A |
| 1 | PU238 | 2.322 | 0.297 | 2.526 | 0.060 | 0.919 | A | A |
| 1 | PU239 | 1.595 | 0.206 | 1.650 | 0.061 | 0.966 | A | A |
| 1 | AM241 | 1.358 | 0.169 | 1.226 | 0.050 | 1.108 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.396 | 0.598 | 5.440 | 0.485 | 0.992 | A | A |
| 1 | CO57 | 10.665 | 0.971 | 11.110 | 0.846 | 0.960 | A | A |
| 1 | CO60 | 9.006 | 0.921 | 9.090 | 0.732 | 0.991 | A | A |
| 1 | SR90 | 1.025 | 0.071 | 1.758 | 0.042 | 0.583 | N | N |
| 1 | SB125 | 13.220 | 1.430 | 12.160 | 1.151 | 1.087 | A | A |
| 1 | CS134 | 18.271 | 1.774 | 19.740 | 1.380 | 0.926 | A | A |
| 1 | CS137 | 11.579 | 1.090 | 11.860 | 0.957 | 0.976 | A | A |
| 1 | CE144 | 7.505 | 1.358 | 8.210 | 0.796 | 0.914 | A | A |
| 1 | U234 | 0.034 | 0.006 | 0.031 | 0.003 | 1.107 | A | A |
| 1 | U238 | 0.035 | 0.006 | 0.030 | 0.001 | 1.142 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** GE Environmental Physics, Inc., Charleston, SC

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | ug U | 2.933 | 0.063 | 2.472 | 0.101 | 1.187 | A | A |
| 1 | PU238 | 0.066 | 0.010 | 0.069 | 0.003 | 0.945 | A | A |
| 1 | PU239 | 0.071 | 0.011 | 0.062 | 0.002 | 1.145 | A | |
| 1 | GROSS ALPHA | 1.376 | 0.007 | 1.400 | 0.100 | 0.983 | A | N |
| 1 | GROSS BETA | 1.935 | 0.004 | 1.960 | 0.300 | 0.987 | A | A |
| 1 | AM241 | 0.134 | 0.017 | 0.069 | 0.003 | 1.955 | W | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** GP GPU Nuclear, Inc., Harrisburg, PA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | FE55 | 310.000 | 30.000 | 202.800 | 2.921 | 1.529 | N | N |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | SR90 | 2.200 | 0.300 | 1.758 | 0.042 | 1.251 | A | N |
| 1 | GROSS ALPHA | 1.300 | 0.100 | 1.400 | 0.100 | 0.929 | A | W |
| 1 | GROSS BETA | 1.900 | 0.200 | 1.960 | 0.300 | 0.969 | A | N |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | SR90 | 5.300 | 0.900 | 4.357 | 0.192 | 1.216 | A | N |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | SR90 | 300.000 | 30.000 | 359.005 | 6.021 | 0.836 | A | N |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 63.000 | 6.000 | 57.000 | 1.900 | 1.105 | A | N |
| 1 | CO60 | 17.000 | 2.000 | 13.600 | 1.200 | 1.250 | N | N |
| 1 | CS137 | 53.000 | 5.000 | 46.000 | 1.700 | 1.152 | A | N |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 785.000 | 80.000 | 707.500 | 24.987 | 1.110 | A | W |
| 1 | CO60 | 11.000 | 2.000 | 10.575 | 0.206 | 1.040 | A | N |
| 1 | CS137 | 195.000 | 20.000 | 181.500 | 7.141 | 1.074 | A | N |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1500.000 | 100.000 | 1421.000 | 100.000 | 1.056 | A | N |
| 1 | GROSS BETA | 2200.000 | 200.000 | 2200.000 | 100.000 | 1.000 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.300 | 0.600 | 5.440 | 0.485 | 0.974 | A | W |
| 1 | CO57 | 11.000 | 1.000 | 11.110 | 0.846 | 0.990 | A | A |
| 1 | CO60 | 10.000 | 1.000 | 9.090 | 0.732 | 1.100 | A | N |
| 1 | SB125 | 10.000 | 1.100 | 12.160 | 1.151 | 0.822 | W | W |
| 1 | CS134 | 18.000 | 2.000 | 19.740 | 1.380 | 0.912 | A | N |
| 1 | CS137 | 27.000 | 3.000 | 11.860 | 0.957 | 2.277 | N | W |
| 1 | CE144 | 7.700 | 0.900 | 8.210 | 0.796 | 0.938 | A | A |
| 1 | U234 | 0.032 | 0.004 | 0.031 | 0.003 | 1.039 | A | W |
| 1 | U238 | 0.033 | 0.004 | 0.030 | 0.001 | 1.083 | A | W |
| 1 | Bq U | 0.066 | | 0.063 | 0.004 | 1.046 | A | W |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** GP GPU Nuclear, Inc., Harrisburg, PA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | PU238 | 0.060 | 0.006 | 0.069 | 0.003 | 0.863 | W | N |
| 1 | PU239 | 0.063 | 0.006 | 0.062 | 0.002 | 1.010 | A | A |
| 1 | AM241 | 0.076 | 0.008 | 0.069 | 0.003 | 1.106 | A | W |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 380.000 | 40.000 | 313.500 | 10.150 | 1.212 | A | A |
| 1 | CS137 | 370.000 | 40.000 | 329.500 | 9.260 | 1.123 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | U234 | 0.460 | 0.060 | 0.396 | 0.026 | 1.161 | A | N |
| 1 | U238 | 0.460 | 0.060 | 0.396 | 0.037 | 1.161 | A | N |
| 1 | Bq U | 0.940 | | 0.801 | 0.067 | 1.173 | A | N |
| 1 | PU238 | 2.500 | 0.300 | 2.526 | 0.060 | 0.990 | A | N |
| 1 | PU239 | 1.700 | 0.200 | 1.650 | 0.061 | 1.030 | A | A |
| 1 | AM241 | 1.400 | 0.100 | 1.226 | 0.050 | 1.142 | A | A |
| 1 | H3 | 240.000 | 30.000 | 218.300 | 6.505 | 1.099 | A | N |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** GS USGS/NWQL, Arvada, CO

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1948.000 | 146.000 | 1421.000 | 100.000 | 1.371 | N | A |
| 1 | GROSS BETA | 2436.000 | 125.000 | 2200.000 | 100.000 | 1.107 | A | A |
| 1 | ug U | 0.032 | 0.002 | 0.032 | 0.003 | 1.000 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** GT Georgia Institute of Technology

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 340.000 | 40.000 | 313.500 | 10.150 | 1.085 | A | A |
| 1 | CS137 | 340.000 | 70.000 | 329.500 | 9.260 | 1.032 | A | A |
| 1 | U238 | 28.000 | 6.000 | 31.900 | 2.552 | 0.878 | A | A |
| 1 | PU239 | 5.900 | 1.300 | 5.305 | 0.253 | 1.112 | A | A |
| 1 | AM241 | 3.100 | 2.400 | 2.678 | 0.212 | 1.158 | A | W |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1400.000 | 100.000 | 1421.000 | 100.000 | 0.985 | A | A |
| 1 | GROSS BETA | 1800.000 | 100.000 | 2200.000 | 100.000 | 0.818 | A | W |
| 1 | H3 | 220.000 | 10.000 | 218.300 | 6.505 | 1.008 | A | A |
| 1 | MN54 | 62.000 | 14.000 | 57.000 | 1.900 | 1.088 | A | A |
| 1 | CO60 | 15.000 | 1.700 | 13.600 | 1.200 | 1.103 | A | A |
| 1 | SR90 | 3.900 | 0.100 | 4.357 | 0.192 | 0.895 | A | W |
| 1 | CS137 | 50.000 | 10.000 | 46.000 | 1.700 | 1.087 | A | A |
| 1 | U238 | 0.400 | 0.100 | 0.396 | 0.037 | 1.009 | A | N |
| 1 | PU238 | 2.100 | 0.400 | 2.526 | 0.060 | 0.831 | W | N |
| 1 | PU239 | 1.400 | 0.300 | 1.650 | 0.061 | 0.848 | W | N |
| 1 | AM241 | 1.400 | 0.700 | 1.226 | 0.050 | 1.142 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.400 | 0.100 | 1.400 | 0.100 | 1.000 | A | A |
| 1 | GROSS BETA | 2.300 | 0.100 | 1.960 | 0.300 | 1.173 | A | A |
| 1 | MN54 | 5.000 | 0.800 | 5.440 | 0.485 | 0.919 | A | A |
| 1 | CO57 | 8.200 | 1.000 | 11.110 | 0.846 | 0.738 | A | A |
| 1 | CO60 | 7.800 | 0.800 | 9.090 | 0.732 | 0.858 | A | W |
| 1 | SR90 | 1.500 | 0.100 | 1.758 | 0.042 | 0.853 | A | A |
| 1 | SB125 | 9.700 | 0.900 | 12.160 | 1.151 | 0.798 | W | W |
| 1 | CS134 | 17.000 | 1.100 | 19.740 | 1.380 | 0.861 | A | N |
| 1 | CS137 | 9.900 | 1.500 | 11.860 | 0.957 | 0.835 | A | W |
| 1 | CE144 | 5.800 | 1.500 | 8.210 | 0.796 | 0.706 | A | A |
| 1 | U238 | 0.034 | 0.010 | 0.030 | 0.001 | 1.115 | A | A |
| 1 | PU238 | 0.075 | 0.020 | 0.069 | 0.003 | 1.079 | A | A |
| 1 | PU239 | 0.066 | 0.020 | 0.062 | 0.002 | 1.059 | A | |
| 1 | AM241 | 0.079 | 0.040 | 0.069 | 0.003 | 1.150 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 690.000 | 70.000 | 707.500 | 24.987 | 0.975 | A | A |
| 1 | CO60 | 9.900 | 1.600 | 10.575 | 0.206 | 0.936 | A | A |
| 1 | SR90 | 310.000 | 20.000 | 359.005 | 6.021 | 0.863 | A | A |
| 1 | CS137 | 170.000 | 40.000 | 181.500 | 7.141 | 0.937 | A | A |
| 1 | PU239 | 1.800 | 0.500 | 1.770 | 0.154 | 1.017 | A | A |
| 1 | AM241 | 1.100 | 0.600 | 1.105 | 0.051 | 0.995 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** HC Lawrence Livermore Laboratory, California

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 0.989 | 0.099 | 1.400 | 0.100 | 0.706 | W | A |
| 1 | GROSS BETA | 1.710 | 0.170 | 1.960 | 0.300 | 0.872 | W | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1515.000 | 80.000 | 1421.000 | 100.000 | 1.066 | A | A |
| 1 | GROSS BETA | 2422.000 | 120.000 | 2200.000 | 100.000 | 1.101 | A | A |
| 1 | H3 | 223.000 | 19.000 | 218.300 | 6.505 | 1.022 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** HU Water Resources Research Centre (VITUKI), Hungary

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.240 | 0.160 | 5.440 | 0.485 | 0.963 | A | N |
| 1 | CO57 | 9.340 | 0.260 | 11.110 | 0.846 | 0.841 | A | N |
| 1 | CO60 | 7.750 | 0.150 | 9.090 | 0.732 | 0.853 | A | A |
| 1 | SB125 | 10.800 | 0.200 | 12.160 | 1.151 | 0.888 | A | A |
| 1 | CS134 | 14.200 | 0.300 | 19.740 | 1.380 | 0.719 | N | A |
| 1 | CS137 | 10.300 | 0.300 | 11.860 | 0.957 | 0.868 | A | W |
| 1 | CE144 | 6.940 | 0.530 | 8.210 | 0.796 | 0.845 | A | N |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 335.000 | 28.000 | 313.500 | 10.150 | 1.069 | A | |
| 1 | CS137 | 296.300 | 8.600 | 329.500 | 9.260 | 0.899 | W | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 850.000 | 60.000 | 707.500 | 24.987 | 1.201 | A | N |
| 1 | CO60 | 11.800 | 0.800 | 10.575 | 0.206 | 1.116 | A | A |
| 1 | CS137 | 189.200 | 5.400 | 181.500 | 7.141 | 1.042 | A | N |

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** IA Bhabha Atomic Research Centre, India

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | CS137 | 243.000 | 2.000 | 329.500 | 9.260 | 0.737 | N | |
| 2 | CS137 | 238.000 | 2.000 | 329.500 | 9.260 | 0.722 | N | |
| 3 | CS137 | 244.000 | 2.000 | 329.500 | 9.260 | 0.741 | N | |
| 1 | K40 | 212.000 | 6.000 | 313.500 | 10.150 | 0.676 | N | |
| 2 | K40 | 224.000 | 6.000 | 313.500 | 10.150 | 0.715 | N | |
| 3 | K40 | 220.000 | 6.000 | 313.500 | 10.150 | 0.702 | N | |
| 1 | U238 | 19.800 | 2.480 | 31.900 | 2.552 | 0.621 | W | |
| 2 | U238 | 23.520 | 2.480 | 31.900 | 2.552 | 0.737 | A | |
| 3 | U238 | 19.800 | 2.480 | 31.900 | 2.552 | 0.621 | W | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | CS137 | 145.000 | 2.000 | 181.500 | 7.141 | 0.799 | N | |
| 2 | CS137 | 144.000 | 2.000 | 181.500 | 7.141 | 0.793 | N | |
| 3 | CS137 | 144.000 | 2.000 | 181.500 | 7.141 | 0.793 | N | |
| 1 | CO60 | 7.600 | 0.600 | 10.575 | 0.206 | 0.719 | W | |
| 2 | CO60 | 7.800 | 0.600 | 10.575 | 0.206 | 0.738 | W | |
| 3 | CO60 | 7.800 | 0.600 | 10.575 | 0.206 | 0.738 | W | |
| 1 | K40 | 561.000 | 12.000 | 707.500 | 24.987 | 0.793 | W | |
| 2 | K40 | 588.000 | 12.000 | 707.500 | 24.987 | 0.831 | W | |
| 3 | K40 | 537.000 | 12.000 | 707.500 | 24.987 | 0.759 | N | |
| 1 | SR90 | 217.800 | 5.500 | 359.005 | 6.021 | 0.607 | W | |
| 2 | SR90 | 204.500 | 2.300 | 359.005 | 6.021 | 0.570 | W | |
| 3 | SR90 | 214.700 | 5.500 | 359.005 | 6.021 | 0.598 | W | |
| 4 | SR90 | 194.400 | 8.900 | 359.005 | 6.021 | 0.541 | W | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 4.300 | 0.060 | 5.440 | 0.485 | 0.790 | W | |
| 2 | MN54 | 4.310 | 0.070 | 5.440 | 0.485 | 0.792 | W | |
| 3 | MN54 | 4.270 | 0.060 | 5.440 | 0.485 | 0.785 | W | |
| 1 | CO57 | 7.840 | 0.040 | 11.110 | 0.846 | 0.706 | W | |
| 2 | CO57 | 8.490 | 0.050 | 11.110 | 0.846 | 0.764 | A | |
| 3 | CO57 | 8.230 | 0.050 | 11.110 | 0.846 | 0.741 | A | |
| 1 | CO60 | 6.930 | 0.090 | 9.090 | 0.732 | 0.762 | W | |
| 2 | CO60 | 7.180 | 0.090 | 9.090 | 0.732 | 0.790 | W | |
| 3 | CO60 | 7.220 | 0.090 | 9.090 | 0.732 | 0.794 | W | |
| 1 | SB125 | 12.610 | 0.140 | 12.160 | 1.151 | 1.037 | A | |
| 2 | SB125 | 12.100 | 0.150 | 12.160 | 1.151 | 0.995 | A | |
| 3 | SB125 | 12.140 | 0.140 | 12.160 | 1.151 | 0.998 | A | |
| 1 | CS134 | 14.290 | 0.120 | 19.740 | 1.380 | 0.724 | N | |
| 2 | CS134 | 13.230 | 0.130 | 19.740 | 1.380 | 0.670 | N | |
| 3 | CS134 | 13.870 | 0.120 | 19.740 | 1.380 | 0.703 | N | |
| 1 | CS137 | 10.570 | 0.100 | 11.860 | 0.957 | 0.891 | A | |
| 2 | CS137 | 10.180 | 0.100 | 11.860 | 0.957 | 0.858 | A | |
| 3 | CS137 | 10.340 | 0.100 | 11.860 | 0.957 | 0.872 | A | |
| 1 | CE144 | 7.010 | 0.160 | 8.210 | 0.796 | 0.854 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** IA Bhabha Atomic Research Centre, India

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 2 | CE144 | 7.220 | 0.160 | 8.210 | 0.796 | 0.879 | A | |
| 3 | CE144 | 7.380 | 0.160 | 8.210 | 0.796 | 0.899 | A | |
| 1 | AM241 | 0.120 | 0.050 | 0.069 | 0.003 | 1.747 | W | |
| 2 | AM241 | 0.140 | 0.060 | 0.069 | 0.003 | 2.038 | W | |
| 3 | AM241 | 0.100 | 0.060 | 0.069 | 0.003 | 1.456 | W | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** ID DPRA - IRD/CNEN, Rio de Janeiro, Brazil

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 361.670 | 19.420 | 313.500 | 10.150 | 1.154 | A | A |
| 1 | SR90 | 18.130 | 1.310 | 13.091 | 0.279 | 1.385 | A | A |
| 1 | CS137 | 357.670 | 18.140 | 329.500 | 9.260 | 1.085 | A | A |
| 1 | PU239 | 6.757 | 0.887 | 5.305 | 0.253 | 1.274 | W | A |
| 1 | AM241 | 2.300 | 0.301 | 2.678 | 0.212 | 0.859 | A | A |
| 1 | Bq U | 55.400 | 2.870 | 64.600 | 2.858 | 0.858 | A | N |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 249.500 | 14.120 | 218.300 | 6.505 | 1.143 | A | N |
| 1 | MN54 | 61.200 | 3.110 | 57.000 | 1.900 | 1.074 | A | A |
| 1 | CO60 | 15.000 | 0.830 | 13.600 | 1.200 | 1.103 | A | A |
| 1 | SR90 | 3.867 | 0.225 | 4.357 | 0.192 | 0.887 | W | A |
| 1 | CS137 | 50.630 | 2.640 | 46.000 | 1.700 | 1.101 | A | A |
| 1 | U238 | 0.457 | 0.024 | 0.396 | 0.037 | 1.153 | A | |
| 1 | PU238 | 2.653 | 0.289 | 2.526 | 0.060 | 1.050 | A | N |
| 1 | PU239 | 1.740 | 0.203 | 1.650 | 0.061 | 1.054 | A | A |
| 1 | Bq U | 0.883 | 0.046 | 0.801 | 0.067 | 1.102 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 7.343 | 0.381 | 5.440 | 0.485 | 1.350 | W | A |
| 1 | CO57 | 15.700 | 0.820 | 11.110 | 0.846 | 1.413 | N | A |
| 1 | CO60 | 11.520 | 0.600 | 9.090 | 0.732 | 1.267 | W | A |
| 1 | SB125 | 17.110 | 0.960 | 12.160 | 1.151 | 1.407 | W | A |
| 1 | CS134 | 23.080 | 1.160 | 19.740 | 1.380 | 1.169 | W | A |
| 1 | CS137 | 15.250 | 0.770 | 11.860 | 0.957 | 1.286 | W | A |
| 1 | CE144 | 10.500 | 0.670 | 8.210 | 0.796 | 1.279 | W | A |
| 1 | U238 | 0.032 | 0.002 | 0.030 | 0.001 | 1.050 | A | |
| 1 | PU238 | 0.357 | 0.066 | 0.069 | 0.003 | 5.137 | N | A |
| 1 | PU239 | 0.277 | 0.038 | 0.062 | 0.002 | 4.443 | N | |
| 1 | Bq U | 0.062 | 0.003 | 0.063 | 0.004 | 0.983 | A | A |
| 1 | GROSS ALPHA | 0.723 | 0.038 | 1.400 | 0.100 | 0.516 | W | A |
| 1 | GROSS BETA | 2.373 | 0.119 | 1.960 | 0.300 | 1.211 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 769.000 | 46.550 | 707.500 | 24.987 | 1.087 | A | A |
| 1 | CO60 | 11.200 | 0.820 | 10.575 | 0.206 | 1.059 | A | A |
| 1 | SR90 | 350.570 | 17.740 | 359.005 | 6.021 | 0.977 | A | A |
| 1 | CS137 | 201.670 | 12.570 | 181.500 | 7.141 | 1.111 | A | A |
| 1 | PU239 | 1.540 | 0.414 | 1.770 | 0.154 | 0.870 | A | A |
| 1 | AM241 | 1.039 | 0.218 | 1.105 | 0.051 | 0.940 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab: IE IEA, Inc., Morrisville, NC**

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.540 | 0.260 | 5.440 | 0.485 | 1.018 | A | A |
| 1 | CO57 | 11.200 | 0.500 | 11.110 | 0.846 | 1.008 | A | W |
| 1 | CO60 | 9.360 | 0.620 | 9.090 | 0.732 | 1.030 | A | A |
| 1 | SR90 | 1.630 | 0.260 | 1.758 | 0.042 | 0.927 | A | A |
| 1 | SB125 | 12.000 | 0.600 | 12.160 | 1.151 | 0.987 | A | W |
| 1 | CS134 | 20.000 | 1.500 | 19.740 | 1.380 | 1.013 | A | A |
| 1 | CS137 | 12.100 | 0.700 | 11.860 | 0.957 | 1.020 | A | A |
| 1 | CE144 | 8.020 | 0.700 | 8.210 | 0.796 | 0.977 | A | W |
| 1 | PU238 | 0.058 | 0.008 | 0.069 | 0.003 | 0.835 | W | A |
| 1 | PU239 | 0.071 | 0.004 | 0.062 | 0.002 | 1.139 | A | A |
| 1 | AM241 | 0.064 | 0.004 | 0.069 | 0.003 | 0.932 | A | A |
| 1 | U234 | 0.039 | 0.006 | 0.031 | 0.003 | 1.266 | A | A |
| 1 | U238 | 0.031 | 0.003 | 0.030 | 0.001 | 1.017 | A | A |
| 1 | ug U | 2.480 | 0.240 | 2.472 | 0.101 | 1.003 | A | A |
| 1 | Bq U | 0.070 | 0.009 | 0.063 | 0.004 | 1.109 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 802.000 | 70.000 | 707.500 | 24.987 | 1.134 | A | A |
| 1 | CO60 | 12.000 | 0.800 | 10.575 | 0.206 | 1.135 | A | A |
| 1 | SR90 | 308.000 | 98.000 | 359.005 | 6.021 | 0.858 | A | A |
| 1 | CS137 | 195.000 | 8.000 | 181.500 | 7.141 | 1.074 | A | A |
| 1 | PU239 | 2.210 | 0.300 | 1.770 | 0.154 | 1.248 | W | A |
| 1 | AM241 | 2.240 | 0.280 | 1.105 | 0.051 | 2.027 | W | A |
| 1 | CM244 | 2.200 | 0.490 | 2.174 | 0.066 | 1.012 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 220.000 | 8.000 | 218.300 | 6.505 | 1.008 | A | A |
| 1 | MN54 | 59.800 | 3.400 | 57.000 | 1.900 | 1.049 | A | A |
| 1 | CO60 | 14.400 | 0.500 | 13.600 | 1.200 | 1.059 | A | A |
| 1 | SR90 | 4.640 | 0.130 | 4.357 | 0.192 | 1.065 | A | A |
| 1 | CS137 | 49.100 | 3.300 | 46.000 | 1.700 | 1.067 | A | A |
| 1 | PU238 | 2.480 | 0.260 | 2.526 | 0.060 | 0.982 | A | A |
| 1 | PU239 | 1.680 | 0.120 | 1.650 | 0.061 | 1.018 | A | A |
| 1 | AM241 | 1.260 | 0.070 | 1.226 | 0.050 | 1.028 | A | A |
| 1 | U234 | 0.440 | 0.028 | 0.396 | 0.026 | 1.111 | A | A |
| 1 | U238 | 0.440 | 0.028 | 0.396 | 0.037 | 1.110 | A | A |
| 1 | ug U | 0.036 | 0.002 | 0.032 | 0.003 | 1.125 | A | A |
| 1 | Bq U | 0.900 | 0.056 | 0.801 | 0.067 | 1.123 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 317.000 | 15.000 | 313.500 | 10.150 | 1.011 | A | A |
| 1 | SR90 | 11.100 | 1.300 | 13.091 | 0.279 | 0.848 | A | A |
| 1 | CS137 | 338.000 | 10.000 | 329.500 | 9.260 | 1.026 | A | A |
| 1 | PU239 | 5.390 | 0.520 | 5.305 | 0.253 | 1.016 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** IE IEA, Inc., Morrisville, NC

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | AM241 | 3.210 | 0.480 | 2.678 | 0.212 | 1.199 | A | A |
| 1 | U234 | 28.300 | 1.200 | 31.133 | 0.802 | 0.909 | A | A |
| 1 | U238 | 28.400 | 0.900 | 31.900 | 2.552 | 0.890 | A | A |
| 1 | ug U | 2.300 | 0.070 | 2.583 | 0.200 | 0.890 | A | A |
| 1 | Bq U | 58.000 | 2.100 | 64.600 | 2.858 | 0.898 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1599.000 | 80.000 | 1421.000 | 100.000 | 1.125 | A | A |
| 1 | GROSS BETA | 2068.000 | 88.000 | 2200.000 | 100.000 | 0.940 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** IL ISU Environmental Monitoring Program, Pocatello, ID

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.700 | 0.200 | 5.440 | 0.485 | 1.048 | A | |
| 1 | CO57 | 11.000 | 0.200 | 11.110 | 0.846 | 0.990 | A | |
| 1 | CO60 | 9.600 | 0.200 | 9.090 | 0.732 | 1.056 | A | |
| 1 | SB125 | 11.300 | 0.200 | 12.160 | 1.151 | 0.929 | A | |
| 1 | CS134 | 19.800 | 0.200 | 19.740 | 1.380 | 1.003 | A | |
| 1 | CS137 | 12.300 | 0.300 | 11.860 | 0.957 | 1.037 | A | |
| 1 | CE144 | 7.900 | 0.600 | 8.210 | 0.796 | 0.962 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 975.850 | 48.590 | 707.500 | 24.987 | 1.379 | N | |
| 1 | CO60 | 14.410 | 0.890 | 10.575 | 0.206 | 1.363 | W | |
| 1 | CS137 | 246.960 | 5.210 | 181.500 | 7.141 | 1.361 | W | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 506.170 | 31.110 | 313.500 | 10.150 | 1.615 | N | |
| 1 | CS137 | 496.340 | 9.810 | 329.500 | 9.260 | 1.506 | N | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 62.900 | 1.400 | 57.000 | 1.900 | 1.104 | A | |
| 1 | CO60 | 14.700 | 0.300 | 13.600 | 1.200 | 1.081 | A | |
| 1 | CS137 | 52.000 | 1.000 | 46.000 | 1.700 | 1.130 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** IN Lockheed Martin Idaho Technical Corp., Analytical Laboratory

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.300 | 0.200 | 5.440 | 0.485 | 0.974 | A | A |
| 1 | CO57 | 10.800 | 0.800 | 11.110 | 0.846 | 0.972 | A | A |
| 1 | CO60 | 8.500 | 0.300 | 9.090 | 0.732 | 0.935 | A | A |
| 1 | SB125 | 13.300 | 1.000 | 12.160 | 1.151 | 1.094 | A | A |
| 1 | CS134 | 18.800 | 0.400 | 19.740 | 1.380 | 0.952 | A | A |
| 1 | CS137 | 10.700 | 0.300 | 11.860 | 0.957 | 0.902 | A | W |
| 1 | CE144 | 7.800 | 0.800 | 8.210 | 0.796 | 0.950 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 67.200 | 1.600 | 57.000 | 1.900 | 1.179 | W | A |
| 1 | CO60 | 15.900 | 1.000 | 13.600 | 1.200 | 1.169 | W | A |
| 1 | SR90 | 4.420 | 0.440 | 4.357 | 0.192 | 1.014 | A | A |
| 1 | CS137 | 51.900 | 2.200 | 46.000 | 1.700 | 1.128 | A | A |
| 1 | U234 | 0.424 | 0.060 | 0.396 | 0.026 | 1.070 | A | |
| 1 | U238 | 0.426 | 0.060 | 0.396 | 0.037 | 1.075 | A | |
| 1 | PU238 | 2.490 | 0.210 | 2.526 | 0.060 | 0.986 | A | A |
| 1 | PU239 | 1.580 | 0.110 | 1.650 | 0.061 | 0.957 | A | A |
| 1 | AM241 | 1.340 | 0.120 | 1.226 | 0.050 | 1.093 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 723.200 | 46.300 | 707.500 | 24.987 | 1.022 | A | A |
| 1 | CO60 | 12.200 | 2.700 | 10.575 | 0.206 | 1.154 | A | A |
| 1 | CS137 | 202.400 | 3.600 | 181.500 | 7.141 | 1.115 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 339.200 | 38.800 | 313.500 | 10.150 | 1.082 | A | A |
| 1 | SR90 | 13.900 | 3.100 | 13.091 | 0.279 | 1.062 | A | W |
| 1 | CS137 | 345.000 | 10.200 | 329.500 | 9.260 | 1.047 | A | A |
| 1 | U234 | 38.600 | 6.200 | 31.133 | 0.802 | 1.240 | W | |
| 1 | U238 | 38.900 | 6.200 | 31.900 | 2.552 | 1.219 | W | |
| 1 | PU239 | 5.750 | 1.100 | 5.305 | 0.253 | 1.084 | A | A |
| 1 | AM241 | 2.820 | 0.600 | 2.678 | 0.212 | 1.053 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** IS Quanterra- St. Louis

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.540 | 0.680 | 5.440 | 0.485 | 1.018 | A | N |
| 1 | CO57 | 11.200 | 1.420 | 11.110 | 0.846 | 1.008 | A | A |
| 1 | CO60 | 8.680 | 1.080 | 9.090 | 0.732 | 0.955 | A | N |
| 1 | SB125 | 12.800 | 1.730 | 12.160 | 1.151 | 1.053 | A | W |
| 1 | CS134 | 18.600 | 2.100 | 19.740 | 1.380 | 0.942 | A | W |
| 1 | CS137 | 11.000 | 1.250 | 11.860 | 0.957 | 0.927 | A | W |
| 1 | CE144 | 6.860 | 1.900 | 8.210 | 0.796 | 0.836 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 67.600 | 6.600 | 57.000 | 1.900 | 1.186 | W | A |
| 1 | CO60 | 15.900 | 1.670 | 13.600 | 1.200 | 1.169 | W | A |
| 1 | CS137 | 55.200 | 5.610 | 46.000 | 1.700 | 1.200 | W | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 886.000 | 154.000 | 707.500 | 24.987 | 1.252 | W | A |
| 1 | CO60 | 13.300 | 3.500 | 10.575 | 0.206 | 1.258 | W | W |
| 1 | CS137 | 189.000 | 22.600 | 181.500 | 7.141 | 1.041 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 434.000 | 81.000 | 313.500 | 10.150 | 1.384 | W | A |
| 1 | CS137 | 368.000 | 43.600 | 329.500 | 9.260 | 1.117 | A | A |
| 1 | AM241 | 2.470 | 2.060 | 2.678 | 0.212 | 0.923 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | AM241 | 1.560 | 0.650 | 1.226 | 0.050 | 1.273 | W | A |
| 1 | PU238 | 2.400 | 0.770 | 2.526 | 0.060 | 0.950 | A | W |
| 1 | PU239 | 1.470 | 0.510 | 1.650 | 0.061 | 0.891 | W | W |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | AM241 | 3.020 | 2.060 | 1.105 | 0.051 | 2.733 | N | A |
| 1 | PU239 | 2.510 | 2.180 | 1.770 | 0.154 | 1.418 | W | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | ug U | 1.080 | 0.190 | 2.583 | 0.200 | 0.418 | N | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | Bq U | 0.870 | 0.150 | 0.801 | 0.067 | 1.086 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** IS Quanterra- St. Louis

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | ug U | 3.220 | 0.560 | 2.472 | 0.101 | 1.303 | W | W |
| 1 | AM241 | 2.290 | 0.240 | 0.069 | 0.003 | 33.333 | N | W |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1590.000 | 160.000 | 1421.000 | 100.000 | 1.119 | A | A |
| 1 | GROSS BETA | 2260.000 | 230.000 | 2200.000 | 100.000 | 1.027 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.550 | 0.160 | 1.400 | 0.100 | 1.107 | A | A |
| 1 | GROSS BETA | 2.170 | 0.220 | 1.960 | 0.300 | 1.107 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 207.000 | 1.000 | 218.300 | 6.505 | 0.948 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | SR90 | 18.600 | 0.300 | 13.091 | 0.279 | 1.421 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | SR90 | 4.010 | 0.030 | 4.357 | 0.192 | 0.920 | A | N |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | SR90 | 2.050 | 0.020 | 1.758 | 0.042 | 1.166 | A | W |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | SR90 | 213.000 | 2.000 | 359.005 | 6.021 | 0.593 | W | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** IT Quanterra- Richland Laboratory

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 350.000 | 20.000 | 313.500 | 10.150 | 1.116 | A | A |
| 1 | SR90 | 13.600 | 0.900 | 13.091 | 0.279 | 1.039 | A | A |
| 1 | CS137 | 372.000 | 6.000 | 329.500 | 9.260 | 1.129 | A | A |
| 1 | U234 | 29.100 | 3.300 | 31.133 | 0.802 | 0.935 | A | A |
| 1 | U238 | 30.500 | 0.500 | 31.900 | 2.552 | 0.956 | A | A |
| 1 | ug U | 2.280 | 0.040 | 2.583 | 0.200 | 0.883 | A | A |
| 1 | PU239 | 5.360 | 0.500 | 5.305 | 0.253 | 1.010 | A | A |
| 1 | AM241 | 2.670 | 0.250 | 2.678 | 0.212 | 0.997 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1262.000 | 32.000 | 1421.000 | 100.000 | 0.888 | A | A |
| 1 | GROSS BETA | 2007.000 | 245.000 | 2200.000 | 100.000 | 0.912 | A | A |
| 1 | H3 | 238.000 | 1.500 | 218.300 | 6.505 | 1.090 | A | A |
| 1 | MN54 | 65.400 | 4.300 | 57.000 | 1.900 | 1.147 | A | A |
| 1 | CO60 | 16.000 | 3.000 | 13.600 | 1.200 | 1.176 | W | A |
| 1 | SR90 | 4.990 | 0.160 | 4.357 | 0.192 | 1.145 | A | A |
| 1 | CS137 | 52.100 | 0.700 | 46.000 | 1.700 | 1.133 | A | A |
| 1 | U234 | 0.450 | 0.040 | 0.396 | 0.026 | 1.136 | A | A |
| 1 | U238 | 0.430 | 0.010 | 0.396 | 0.037 | 1.085 | A | A |
| 1 | ug U | 0.033 | 0.000 | 0.032 | 0.003 | 1.041 | A | A |
| 1 | PU238 | 2.420 | 0.170 | 2.526 | 0.060 | 0.958 | A | A |
| 1 | PU239 | 1.660 | 0.170 | 1.650 | 0.061 | 1.006 | A | A |
| 1 | AM241 | 1.120 | 0.060 | 1.226 | 0.050 | 0.914 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.560 | 0.050 | 1.400 | 0.100 | 1.114 | A | W |
| 1 | GROSS BETA | 2.320 | 0.040 | 1.960 | 0.300 | 1.184 | A | A |
| 1 | MN54 | 5.770 | 0.150 | 5.440 | 0.485 | 1.061 | A | A |
| 1 | CO57 | 10.300 | 0.500 | 11.110 | 0.846 | 0.927 | A | A |
| 1 | CO60 | 8.500 | 0.200 | 9.090 | 0.732 | 0.935 | A | A |
| 1 | SR90 | 1.750 | 0.150 | 1.758 | 0.042 | 0.995 | A | A |
| 1 | SB125 | 12.800 | 1.000 | 12.160 | 1.151 | 1.053 | A | N |
| 1 | CS134 | 17.500 | 0.600 | 19.740 | 1.380 | 0.887 | A | A |
| 1 | CS137 | 11.000 | 0.100 | 11.860 | 0.957 | 0.927 | A | A |
| 1 | CE144 | 7.500 | 0.400 | 8.210 | 0.796 | 0.914 | A | A |
| 1 | U234 | 0.037 | 0.001 | 0.031 | 0.003 | 1.214 | A | A |
| 1 | U238 | 0.035 | 0.002 | 0.030 | 0.001 | 1.145 | A | A |
| 1 | ug U | 2.690 | 0.010 | 2.472 | 0.101 | 1.088 | A | A |
| 1 | PU238 | 0.070 | 0.010 | 0.069 | 0.003 | 1.007 | A | A |
| 1 | PU239 | 0.064 | 0.010 | 0.062 | 0.002 | 1.026 | A | A |
| 1 | AM241 | 0.074 | 0.006 | 0.069 | 0.003 | 1.077 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 811.000 | 5.000 | 707.500 | 24.987 | 1.146 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** IT Quanterra- Richland Laboratory

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | CO60 | 13.500 | 0.500 | 10.575 | 0.206 | 1.277 | W | A |
| 1 | SR90 | 380.000 | 17.000 | 359.005 | 6.021 | 1.058 | A | A |
| 1 | CS137 | 202.000 | 4.000 | 181.500 | 7.141 | 1.113 | A | A |
| 1 | PU239 | 1.670 | 0.240 | 1.770 | 0.154 | 0.943 | A | A |
| 1 | AM241 | 1.290 | 0.250 | 1.105 | 0.051 | 1.167 | A | A |
| 1 | CM244 | 1.590 | 0.160 | 2.174 | 0.066 | 0.732 | W | W |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** JE Jacobs Engineering, Oak Ridge, TN

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | CS137 | 53.880 | 1.490 | 46.000 | 1.700 | 1.171 | A | |
| 1 | MN54 | 68.340 | 1.890 | 57.000 | 1.900 | 1.199 | W | |
| 1 | CO60 | 16.370 | 0.780 | 13.600 | 1.200 | 1.204 | N | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 321.250 | 29.290 | 313.500 | 10.150 | 1.025 | A | |
| 1 | CS137 | 384.660 | 9.250 | 329.500 | 9.260 | 1.167 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1359.000 | 6.460 | 1421.000 | 100.000 | 0.956 | A | |
| 1 | GROSS BETA | 2396.000 | 6.160 | 2200.000 | 100.000 | 1.089 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.470 | 0.180 | 1.400 | 0.100 | 1.050 | A | |
| 1 | GROSS BETA | 2.250 | 0.200 | 1.960 | 0.300 | 1.148 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** JL Jefferson Lab, Newport News, VA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 63.880 | 4.400 | 57.000 | 1.900 | 1.121 | A | A |
| 1 | CO60 | 16.880 | 1.400 | 13.600 | 1.200 | 1.241 | N | A |
| 1 | CS137 | 48.390 | 3.700 | 46.000 | 1.700 | 1.052 | A | A |
| 1 | AM241 | 0.930 | 0.500 | 1.226 | 0.050 | 0.759 | W | N |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.260 | 0.700 | 5.440 | 0.485 | 0.967 | A | W |
| 1 | CO57 | 10.000 | 0.600 | 11.110 | 0.846 | 0.900 | A | A |
| 1 | CO60 | 8.200 | 0.600 | 9.090 | 0.732 | 0.902 | A | A |
| 1 | SB125 | 10.400 | 0.800 | 12.160 | 1.151 | 0.855 | A | A |
| 1 | CS134 | 16.200 | 0.700 | 19.740 | 1.380 | 0.821 | A | A |
| 1 | CS137 | 16.200 | 0.700 | 11.860 | 0.957 | 1.366 | N | A |
| 1 | CE144 | 6.600 | 1.500 | 8.210 | 0.796 | 0.804 | A | |
| 1 | AM241 | 0.110 | 0.090 | 0.069 | 0.003 | 1.601 | W | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** KA Knolls Atomic Power Lab, Schenectady

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 323.000 | 50.000 | 313.500 | 10.150 | 1.030 | A | A |
| 1 | SR90 | 12.870 | 0.100 | 13.091 | 0.279 | 0.983 | A | A |
| 1 | CS137 | 356.000 | 40.000 | 329.500 | 9.260 | 1.080 | A | A |
| 1 | PU239 | 6.258 | 0.101 | 5.305 | 0.253 | 1.180 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1527.000 | 96.000 | 1421.000 | 100.000 | 1.075 | A | W |
| 1 | GROSS BETA | 2190.000 | 72.000 | 2200.000 | 100.000 | 0.995 | A | A |
| 1 | H3 | 236.000 | 12.000 | 218.300 | 6.505 | 1.081 | A | A |
| 1 | MN54 | 58.000 | 3.500 | 57.000 | 1.900 | 1.018 | A | A |
| 1 | FE55 | 271.000 | 7.000 | 202.800 | 2.921 | 1.336 | W | A |
| 1 | CO60 | 14.600 | 1.700 | 13.600 | 1.200 | 1.074 | A | A |
| 1 | SR90 | 4.490 | 0.330 | 4.357 | 0.192 | 1.030 | A | A |
| 1 | CS137 | 51.000 | 3.500 | 46.000 | 1.700 | 1.109 | A | A |
| 1 | ug U | 0.034 | 0.000 | 0.032 | 0.003 | 1.053 | A | A |
| 1 | PU239 | 1.738 | 0.012 | 1.650 | 0.061 | 1.053 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.520 | 0.060 | 1.400 | 0.100 | 1.086 | A | A |
| 1 | GROSS BETA | 2.143 | 0.051 | 1.960 | 0.300 | 1.093 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** KO Korea Institute of Nuclear Safety]

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | AM241 | 0.063 | 0.004 | 0.069 | 0.003 | 0.913 | A | |
| 1 | U234 | 0.035 | 0.001 | 0.031 | 0.003 | 1.149 | A | |
| 1 | U238 | 0.033 | 0.001 | 0.030 | 0.001 | 1.086 | A | |
| 1 | Bq U | 0.070 | 0.002 | 0.063 | 0.004 | 1.108 | A | |
| 1 | ug U | 2.680 | 0.099 | 2.472 | 0.101 | 1.084 | A | |
| 1 | PU238 | 0.062 | 0.002 | 0.069 | 0.003 | 0.885 | A | |
| 1 | PU239 | 0.058 | 0.002 | 0.062 | 0.002 | 0.937 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | U234 | 0.440 | 0.014 | 0.396 | 0.026 | 1.111 | A | |
| 1 | U238 | 0.435 | 0.014 | 0.396 | 0.037 | 1.098 | A | |
| 1 | Bq U | 0.892 | 0.019 | 0.801 | 0.067 | 1.113 | A | |
| 1 | ug U | 0.035 | 0.001 | 0.032 | 0.003 | 1.100 | A | |
| 1 | PU238 | 2.290 | 0.081 | 2.526 | 0.060 | 0.907 | A | |
| 1 | PU239 | 1.520 | 0.055 | 1.650 | 0.061 | 0.921 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | U234 | 30.400 | 0.840 | 31.133 | 0.802 | 0.976 | A | |
| 1 | U238 | 28.800 | 0.800 | 31.900 | 2.552 | 0.903 | A | |
| 1 | Bq U | 60.500 | 1.160 | 64.600 | 2.858 | 0.937 | A | |
| 1 | ug U | 2.330 | 0.064 | 2.583 | 0.200 | 0.902 | A | |
| 1 | SR90 | 13.030 | 1.130 | 13.091 | 0.279 | 0.995 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | SR90 | 351.930 | 11.420 | 359.005 | 6.021 | 0.980 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | SR90 | 1.516 | 0.060 | 4.357 | 0.192 | 0.348 | N | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | SR90 | 4.310 | 0.240 | 1.758 | 0.042 | 2.451 | N | |
| 1 | GROSS ALPHA | 1.250 | 0.060 | 1.400 | 0.100 | 0.893 | A | A |
| 1 | GROSS BETA | 1.960 | 0.070 | 1.960 | 0.300 | 1.000 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1523.000 | 60.400 | 1421.000 | 100.000 | 1.072 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** KO Korea Institute of Nuclear Safety]

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.451 | 0.087 | 5.440 | 0.485 | 1.002 | A | A |
| 1 | CO57 | 11.260 | 0.041 | 11.110 | 0.846 | 1.014 | A | A |
| 1 | CO60 | 9.031 | 0.145 | 9.090 | 0.732 | 0.994 | A | A |
| 1 | SB125 | 13.350 | 0.180 | 12.160 | 1.151 | 1.098 | A | A |
| 1 | CS134 | 19.350 | 0.232 | 19.740 | 1.380 | 0.980 | A | A |
| 1 | CS137 | 11.540 | 0.139 | 11.860 | 0.957 | 0.973 | A | A |
| 1 | CE144 | 7.523 | 0.133 | 8.210 | 0.796 | 0.916 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 348.100 | 7.175 | 313.500 | 10.150 | 1.110 | A | A |
| 1 | CS137 | 343.900 | 2.327 | 329.500 | 9.260 | 1.044 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 764.980 | 12.570 | 707.500 | 24.987 | 1.081 | A | A |
| 1 | CO60 | 11.530 | 0.535 | 10.575 | 0.206 | 1.090 | A | A |
| 1 | CS137 | 187.360 | 1.626 | 181.500 | 7.141 | 1.032 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 61.350 | 0.728 | 57.000 | 1.900 | 1.076 | A | |
| 1 | CO60 | 14.630 | 0.435 | 13.600 | 1.200 | 1.076 | A | |
| 1 | CS137 | 50.020 | 0.625 | 46.000 | 1.700 | 1.087 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | PU239 | 5.230 | 0.260 | 5.305 | 0.253 | 0.986 | A | |
| 1 | AM241 | 2.910 | 0.170 | 2.678 | 0.212 | 1.087 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | PU239 | 1.790 | 0.080 | 1.770 | 0.154 | 1.011 | A | |
| 1 | AM241 | 1.100 | 0.060 | 1.105 | 0.051 | 0.995 | A | |
| 1 | CM244 | 2.030 | 0.090 | 2.174 | 0.066 | 0.934 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 249.050 | 1.951 | 218.300 | 6.505 | 1.141 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** KR Korea Atomic Energy Research Institute

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 350.500 | 24.400 | 313.500 | 10.150 | 1.118 | A | |
| 1 | SR90 | 12.080 | 0.500 | 13.091 | 0.279 | 0.923 | A | |
| 1 | CS137 | 360.500 | 24.500 | 329.500 | 9.260 | 1.094 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 785.100 | 60.100 | 707.500 | 24.987 | 1.110 | A | |
| 1 | CO60 | 12.400 | 1.500 | 10.575 | 0.206 | 1.173 | A | |
| 1 | SR90 | 386.670 | 2.860 | 359.005 | 6.021 | 1.077 | A | |
| 1 | CS137 | 202.200 | 14.200 | 181.500 | 7.141 | 1.114 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.300 | 0.030 | 1.400 | 0.100 | 0.929 | A | |
| 1 | GROSS BETA | 2.120 | 0.030 | 1.960 | 0.300 | 1.082 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** LA Los Alamos National Laboratory, NM

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 332.000 | 33.000 | 313.500 | 10.150 | 1.059 | A | |
| 1 | CS137 | 296.000 | 22.000 | 329.500 | 9.260 | 0.898 | W | A |
| 2 | K40 | 320.000 | 32.000 | 313.500 | 10.150 | 1.021 | A | |
| 3 | K40 | 321.000 | 32.000 | 313.500 | 10.150 | 1.024 | A | |
| 2 | CS137 | 300.000 | 22.000 | 329.500 | 9.260 | 0.910 | A | A |
| 3 | CS137 | 294.000 | 22.000 | 329.500 | 9.260 | 0.892 | W | A |
| 1 | PU239 | 5.580 | 0.220 | 5.305 | 0.253 | 1.052 | A | A |
| 2 | PU239 | 5.580 | 0.220 | 5.305 | 0.253 | 1.052 | A | A |
| 3 | PU239 | 5.320 | 0.200 | 5.305 | 0.253 | 1.003 | A | A |
| 1 | AM241 | 2.700 | 0.300 | 2.678 | 0.212 | 1.008 | A | A |
| 2 | AM241 | 3.030 | 0.320 | 2.678 | 0.212 | 1.132 | A | A |
| 3 | AM241 | 3.050 | 0.380 | 2.678 | 0.212 | 1.139 | A | A |
| 1 | ug U | 2.410 | 0.240 | 2.583 | 0.200 | 0.933 | A | A |
| 2 | ug U | 3.580 | 0.360 | 2.583 | 0.200 | 1.386 | N | A |
| 3 | ug U | 2.390 | 0.240 | 2.583 | 0.200 | 0.925 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1305.000 | 160.000 | 1421.000 | 100.000 | 0.918 | A | A |
| 2 | GROSS ALPHA | 1444.000 | 176.000 | 1421.000 | 100.000 | 1.016 | A | A |
| 3 | GROSS ALPHA | 1468.000 | 179.000 | 1421.000 | 100.000 | 1.033 | A | A |
| 1 | GROSS BETA | 2405.000 | 296.000 | 2200.000 | 100.000 | 1.093 | A | A |
| 2 | GROSS BETA | 2475.000 | 304.000 | 2200.000 | 100.000 | 1.125 | A | A |
| 3 | GROSS BETA | 2602.000 | 319.000 | 2200.000 | 100.000 | 1.183 | A | A |
| 1 | H3 | 233.000 | 37.000 | 218.300 | 6.505 | 1.067 | A | W |
| 2 | H3 | 237.000 | 37.000 | 218.300 | 6.505 | 1.086 | A | W |
| 3 | H3 | 229.000 | 37.000 | 218.300 | 6.505 | 1.049 | A | W |
| 1 | MN54 | 70.500 | 7.100 | 57.000 | 1.900 | 1.237 | W | W |
| 2 | MN54 | 71.100 | 7.100 | 57.000 | 1.900 | 1.247 | N | W |
| 3 | MN54 | 68.900 | 7.000 | 57.000 | 1.900 | 1.209 | W | W |
| 1 | CO60 | 15.500 | 1.700 | 13.600 | 1.200 | 1.140 | W | |
| 2 | CO60 | 15.100 | 1.700 | 13.600 | 1.200 | 1.110 | A | |
| 3 | CO60 | 17.400 | 1.900 | 13.600 | 1.200 | 1.279 | N | |
| 1 | CS137 | 56.900 | 5.800 | 46.000 | 1.700 | 1.237 | W | W |
| 2 | CS137 | 57.000 | 5.800 | 46.000 | 1.700 | 1.239 | W | W |
| 3 | CS137 | 56.600 | 5.900 | 46.000 | 1.700 | 1.230 | W | W |
| 1 | PU238 | 2.460 | 0.100 | 2.526 | 0.060 | 0.974 | A | A |
| 2 | PU238 | 2.420 | 0.100 | 2.526 | 0.060 | 0.958 | A | A |
| 3 | PU238 | 2.410 | 0.100 | 2.526 | 0.060 | 0.954 | A | A |
| 1 | PU239 | 1.710 | 0.070 | 1.650 | 0.061 | 1.036 | A | A |
| 2 | PU239 | 1.610 | 0.070 | 1.650 | 0.061 | 0.976 | A | A |
| 3 | PU239 | 1.620 | 0.070 | 1.650 | 0.061 | 0.982 | A | A |
| 1 | AM241 | 1.170 | 0.060 | 1.226 | 0.050 | 0.955 | A | A |
| 2 | AM241 | 1.250 | 0.060 | 1.226 | 0.050 | 1.020 | A | A |
| 3 | AM241 | 1.260 | 0.060 | 1.226 | 0.050 | 1.028 | A | A |
| 1 | ug U | 0.040 | 0.010 | 0.032 | 0.003 | 1.250 | W | N |
| 2 | ug U | 0.040 | 0.010 | 0.032 | 0.003 | 1.250 | W | N |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** LA Los Alamos National Laboratory, NM

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 3 | ug U | 0.040 | 0.010 | 0.032 | 0.003 | 1.250 | W | N |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.770 | 0.470 | 5.440 | 0.485 | 1.061 | A | A |
| 2 | MN54 | 5.860 | 0.480 | 5.440 | 0.485 | 1.077 | A | A |
| 3 | MN54 | 5.660 | 0.470 | 5.440 | 0.485 | 1.040 | A | A |
| 1 | CO57 | 9.850 | 0.710 | 11.110 | 0.846 | 0.887 | A | A |
| 2 | CO57 | 9.930 | 0.710 | 11.110 | 0.846 | 0.894 | A | A |
| 3 | CO57 | 9.740 | 0.700 | 11.110 | 0.846 | 0.877 | A | A |
| 1 | CO60 | 8.500 | 0.690 | 9.090 | 0.732 | 0.935 | A | A |
| 2 | CO60 | 8.440 | 0.690 | 9.090 | 0.732 | 0.928 | A | A |
| 3 | CO60 | 8.580 | 0.700 | 9.090 | 0.732 | 0.944 | A | A |
| 1 | SB125 | 13.800 | 1.100 | 12.160 | 1.151 | 1.135 | A | A |
| 2 | SB125 | 13.200 | 1.100 | 12.160 | 1.151 | 1.086 | A | A |
| 3 | SB125 | 13.600 | 1.100 | 12.160 | 1.151 | 1.118 | A | A |
| 1 | CS137 | 11.900 | 0.900 | 11.860 | 0.957 | 1.003 | A | A |
| 2 | CS137 | 12.100 | 0.900 | 11.860 | 0.957 | 1.020 | A | A |
| 3 | CS137 | 11.600 | 0.900 | 11.860 | 0.957 | 0.978 | A | A |
| 1 | CE144 | 6.070 | 0.750 | 8.210 | 0.796 | 0.739 | A | A |
| 2 | CE144 | 4.530 | 0.640 | 8.210 | 0.796 | 0.552 | N | A |
| 3 | CE144 | 5.190 | 0.730 | 8.210 | 0.796 | 0.632 | W | A |
| 1 | PU238 | 0.068 | 0.008 | 0.069 | 0.003 | 0.978 | A | A |
| 2 | PU238 | 0.068 | 0.012 | 0.069 | 0.003 | 0.978 | A | A |
| 3 | PU238 | 0.066 | 0.008 | 0.069 | 0.003 | 0.950 | A | A |
| 1 | PU239 | 0.061 | 0.007 | 0.062 | 0.002 | 0.978 | A | A |
| 2 | PU239 | 0.071 | 0.008 | 0.062 | 0.002 | 1.139 | A | A |
| 3 | PU239 | 0.067 | 0.008 | 0.062 | 0.002 | 1.075 | A | A |
| 1 | AM241 | 0.074 | 0.009 | 0.069 | 0.003 | 1.077 | A | A |
| 2 | AM241 | 0.068 | 0.008 | 0.069 | 0.003 | 0.990 | A | A |
| 3 | AM241 | 0.074 | 0.009 | 0.069 | 0.003 | 1.077 | A | A |
| 1 | ug U | 4.780 | 0.480 | 2.472 | 0.101 | 1.934 | N | |
| 2 | ug U | 5.550 | 0.560 | 2.472 | 0.101 | 2.245 | N | |
| 3 | ug U | 3.780 | 0.380 | 2.472 | 0.101 | 1.529 | W | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 625.000 | 57.000 | 707.500 | 24.987 | 0.883 | W | |
| 2 | K40 | 679.000 | 60.000 | 707.500 | 24.987 | 0.960 | A | |
| 3 | K40 | 671.000 | 60.000 | 707.500 | 24.987 | 0.948 | A | |
| 1 | CO60 | 10.000 | 1.500 | 10.575 | 0.206 | 0.946 | A | |
| 2 | CO60 | 10.900 | 1.200 | 10.575 | 0.206 | 1.031 | A | |
| 3 | CO60 | 9.400 | 1.100 | 10.575 | 0.206 | 0.889 | A | |
| 1 | CS137 | 175.000 | 13.000 | 181.500 | 7.141 | 0.964 | A | A |
| 2 | CS137 | 178.000 | 14.000 | 181.500 | 7.141 | 0.981 | A | A |
| 3 | CS137 | 170.000 | 13.000 | 181.500 | 7.141 | 0.937 | A | A |
| 1 | PU239 | 1.558 | 0.122 | 1.770 | 0.154 | 0.880 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** LA Los Alamos National Laboratory, NM

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 2 | PU239 | 1.757 | 0.122 | 1.770 | 0.154 | 0.993 | A | A |
| 3 | PU239 | 1.890 | 0.104 | 1.770 | 0.154 | 1.068 | A | A |
| 1 | AM241 | 1.188 | 0.081 | 1.105 | 0.051 | 1.075 | A | A |
| 2 | AM241 | 1.028 | 0.052 | 1.105 | 0.051 | 0.931 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | SR90 | 39.600 | 28.900 | 13.091 | 0.279 | 3.025 | N | |
| 2 | SR90 | 51.400 | 31.800 | 13.091 | 0.279 | 3.926 | N | |
| 3 | SR90 | 60.700 | 30.000 | 13.091 | 0.279 | 4.637 | N | |

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** LL LLNL Chemistry and Material Science/Environmental

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 327.000 | 24.900 | 313.500 | 10.150 | 1.043 | A | A |
| 1 | CS137 | 374.000 | 8.200 | 329.500 | 9.260 | 1.135 | A | A |
| 1 | U234 | 25.100 | 2.040 | 31.133 | 0.802 | 0.806 | A | A |
| 1 | U238 | 2.520 | 2.040 | 31.900 | 2.552 | 0.079 | N | A |
| 1 | PU239 | 5.420 | 0.580 | 5.305 | 0.253 | 1.022 | A | A |
| 1 | AM241 | 3.870 | 1.300 | 2.678 | 0.212 | 1.445 | A | W |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 718.000 | 47.400 | 707.500 | 24.987 | 1.015 | A | A |
| 1 | CO60 | 12.200 | 2.100 | 10.575 | 0.206 | 1.154 | A | A |
| 1 | CS137 | 203.000 | 5.300 | 181.500 | 7.141 | 1.118 | A | A |
| 1 | PU239 | 1.870 | 0.241 | 1.770 | 0.154 | 1.056 | A | A |
| 1 | AM241 | 1.290 | 0.167 | 1.105 | 0.051 | 1.167 | A | A |
| 1 | CM244 | 2.170 | 0.242 | 2.174 | 0.066 | 0.998 | A | N |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 231.000 | 5.070 | 218.300 | 6.505 | 1.058 | A | A |
| 1 | MN54 | 62.100 | 2.600 | 57.000 | 1.900 | 1.089 | A | A |
| 1 | CO60 | 13.000 | 1.800 | 13.600 | 1.200 | 0.956 | A | A |
| 1 | CS137 | 49.700 | 2.300 | 46.000 | 1.700 | 1.080 | A | A |
| 1 | U234 | 0.428 | 0.058 | 0.396 | 0.026 | 1.080 | A | A |
| 1 | U238 | 0.396 | 0.055 | 0.396 | 0.037 | 0.999 | A | A |
| 1 | PU238 | 2.590 | 0.238 | 2.526 | 0.060 | 1.025 | A | A |
| 1 | PU239 | 1.800 | 0.171 | 1.650 | 0.061 | 1.091 | A | A |
| 1 | AM241 | 1.270 | 0.086 | 1.226 | 0.050 | 1.036 | A | A |
| 1 | GROSS ALPHA | 1560.000 | 18.600 | 1421.000 | 100.000 | 1.098 | A | A |
| 1 | GROSS BETA | 2680.000 | 20.200 | 2200.000 | 100.000 | 1.218 | A | W |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.780 | 0.230 | 5.440 | 0.485 | 1.063 | A | A |
| 1 | CO57 | 11.600 | 0.300 | 11.110 | 0.846 | 1.044 | A | A |
| 1 | CO60 | 9.100 | 0.230 | 9.090 | 0.732 | 1.001 | A | A |
| 1 | SB125 | 14.600 | 0.438 | 12.160 | 1.151 | 1.201 | W | A |
| 1 | CS134 | 20.800 | 0.333 | 19.740 | 1.380 | 1.054 | A | A |
| 1 | CS137 | 1.200 | 0.031 | 11.860 | 0.957 | 0.101 | N | A |
| 1 | CE144 | 8.060 | 0.870 | 8.210 | 0.796 | 0.982 | A | A |
| 1 | U234 | 0.009 | 0.002 | 0.031 | 0.003 | 0.284 | N | |
| 1 | U238 | 0.009 | 0.003 | 0.030 | 0.001 | 0.305 | N | A |
| 1 | PU238 | 0.069 | 0.008 | 0.069 | 0.003 | 0.993 | A | A |
| 1 | PU239 | 0.065 | 0.007 | 0.062 | 0.002 | 1.049 | A | A |
| 1 | AM241 | 0.076 | 0.006 | 0.069 | 0.003 | 1.105 | A | A |
| 1 | GROSS ALPHA | 1.310 | 0.016 | 1.400 | 0.100 | 0.936 | A | A |
| 1 | GROSS BETA | 2.500 | 0.020 | 1.960 | 0.300 | 1.276 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** LM Los Alamos National Lab, Mercury, NV

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.300 | 0.200 | 1.400 | 0.100 | 0.929 | A | |
| 1 | GROSS BETA | 2.100 | 0.400 | 1.960 | 0.300 | 1.071 | A | |
| 1 | MN54 | 8.800 | 0.650 | 5.440 | 0.485 | 1.618 | N | |
| 1 | CO57 | 18.900 | 0.710 | 11.110 | 0.846 | 1.701 | N | |
| 1 | CO60 | 14.500 | 0.890 | 9.090 | 0.732 | 1.595 | N | |
| 1 | SB125 | 17.100 | 1.300 | 12.160 | 1.151 | 1.406 | W | |
| 1 | CS134 | 27.500 | 1.200 | 19.740 | 1.380 | 1.393 | N | |
| 1 | CS137 | 19.600 | 0.990 | 11.860 | 0.957 | 1.653 | N | |
| 1 | CE144 | 21.200 | 2.000 | 8.210 | 0.796 | 2.582 | N | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 96.600 | 10.000 | 218.300 | 6.505 | 0.443 | N | |
| 1 | MN54 | 51.900 | 5.000 | 57.000 | 1.900 | 0.911 | A | |
| 1 | CO60 | 19.900 | 2.300 | 13.600 | 1.200 | 1.463 | N | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 325.000 | 40.000 | 313.500 | 10.150 | 1.037 | A | |
| 1 | CS137 | 352.000 | 15.000 | 329.500 | 9.260 | 1.068 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** LN Los Alamos National Lab, ES&H

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 316.000 | 31.000 | 218.300 | 6.505 | 1.448 | W | |
| 1 | MN54 | 64.000 | 6.000 | 57.000 | 1.900 | 1.123 | A | |
| 1 | CO60 | 17.000 | 1.200 | 13.600 | 1.200 | 1.250 | N | |
| 1 | CS137 | 58.000 | 6.000 | 46.000 | 1.700 | 1.261 | N | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.530 | 0.060 | 1.400 | 0.100 | 1.093 | A | |
| 1 | GROSS BETA | 2.140 | 0.080 | 1.960 | 0.300 | 1.092 | A | |
| 1 | MN54 | 5.900 | 0.300 | 5.440 | 0.485 | 1.085 | A | |
| 1 | CO57 | 9.900 | 1.000 | 11.110 | 0.846 | 0.891 | A | |
| 1 | CO60 | 8.700 | 0.500 | 9.090 | 0.732 | 0.957 | A | |
| 1 | SB125 | 10.300 | 0.800 | 12.160 | 1.151 | 0.847 | A | |
| 1 | CS134 | 16.300 | 1.000 | 19.740 | 1.380 | 0.826 | A | |
| 1 | CS137 | 11.700 | 0.600 | 11.860 | 0.957 | 0.987 | A | |
| 1 | CE144 | 7.000 | 0.900 | 8.210 | 0.796 | 0.853 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** LV UNLV, Dept of Health Physics

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 0.800 | 0.022 | 1.400 | 0.100 | 0.571 | W | W |
| 1 | GROSS BETA | 0.099 | 0.031 | 1.960 | 0.300 | 0.051 | N | W |
| 1 | MN54 | 4.980 | 0.400 | 5.440 | 0.485 | 0.915 | A | A |
| 1 | CO57 | 10.000 | 0.600 | 11.110 | 0.846 | 0.900 | A | A |
| 1 | CO60 | 8.540 | 0.090 | 9.090 | 0.732 | 0.939 | A | |
| 1 | SB125 | 10.800 | 0.100 | 12.160 | 1.151 | 0.888 | A | |
| 1 | CS134 | 18.400 | 0.100 | 19.740 | 1.380 | 0.932 | A | A |
| 1 | CS137 | 12.000 | 0.100 | 11.860 | 0.957 | 1.012 | A | A |
| 1 | CE144 | 11.000 | 0.200 | 8.210 | 0.796 | 1.340 | N | W |
| 1 | AM241 | 0.200 | 0.014 | 0.069 | 0.003 | 2.911 | N | N |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 2470.000 | 270.000 | 1421.000 | 100.000 | 1.738 | N | W |
| 1 | GROSS BETA | 4490.000 | 580.000 | 2200.000 | 100.000 | 2.041 | N | W |
| 1 | H3 | 237.000 | 4.000 | 218.300 | 6.505 | 1.086 | A | W |
| 1 | MN54 | 67.000 | 1.200 | 57.000 | 1.900 | 1.175 | W | A |
| 1 | CO60 | 15.600 | 0.500 | 13.600 | 1.200 | 1.147 | W | A |
| 1 | CS137 | 51.600 | 0.700 | 46.000 | 1.700 | 1.122 | A | A |
| 1 | PU238 | 1.860 | 0.100 | 2.526 | 0.060 | 0.736 | N | |
| 1 | PU239 | 1.050 | 0.060 | 1.650 | 0.061 | 0.636 | N | |
| 1 | AM241 | 1.550 | 0.270 | 1.226 | 0.050 | 1.265 | W | W |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 7250.000 | 100.000 | 707.500 | 24.987 | 10.247 | N | A |
| 1 | CO60 | 10.500 | 0.600 | 10.575 | 0.206 | 0.993 | A | A |
| 1 | CS137 | 177.000 | 2.000 | 181.500 | 7.141 | 0.975 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 390.000 | 7.000 | 313.500 | 10.150 | 1.244 | A | A |
| 1 | CS137 | 406.000 | 2.000 | 329.500 | 9.260 | 1.232 | W | A |
| 1 | U238 | 59.000 | 3.900 | 31.900 | 2.552 | 1.850 | N | N |
| 1 | AM241 | 4.200 | 0.480 | 2.678 | 0.212 | 1.569 | W | W |
| 1 | PU239 | 3.080 | 0.920 | 5.305 | 0.253 | 0.581 | N | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** LW Lawrence Livermore National Lab, Waste

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 214.000 | 16.700 | 218.300 | 6.505 | 0.980 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** MA ORNL Health Sciences Research Div.

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 359.000 | 81.000 | 313.500 | 10.150 | 1.145 | A | A |
| 1 | CS137 | 407.000 | 33.000 | 329.500 | 9.260 | 1.235 | W | A |
| 1 | U238 | 44.000 | 18.000 | 31.900 | 2.552 | 1.379 | W | A |
| 1 | AM241 | 3.600 | 1.900 | 2.678 | 0.212 | 1.345 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 740.000 | 118.000 | 707.500 | 24.987 | 1.046 | A | A |
| 1 | CO60 | 13.700 | 4.100 | 10.575 | 0.206 | 1.296 | W | A |
| 1 | CS137 | 233.000 | 20.000 | 181.500 | 7.141 | 1.284 | W | A |
| 1 | AM241 | 2.900 | 1.500 | 1.105 | 0.051 | 2.624 | W | W |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** ME Radiation Control Program, Jamaica Plain, MA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.980 | 0.050 | 1.400 | 0.100 | 1.414 | W | W |
| 1 | GROSS BETA | 2.620 | 0.050 | 1.960 | 0.300 | 1.337 | A | A |
| 1 | MN54 | 6.740 | 0.400 | 5.440 | 0.485 | 1.239 | W | W |
| 1 | CO57 | 13.300 | 0.550 | 11.110 | 0.846 | 1.197 | W | W |
| 1 | CO60 | 10.200 | 0.320 | 9.090 | 0.732 | 1.122 | W | W |
| 1 | SB125 | 13.800 | 0.620 | 12.160 | 1.151 | 1.135 | A | W |
| 1 | CS134 | 18.200 | 0.560 | 19.740 | 1.380 | 0.922 | A | A |
| 1 | CS137 | 13.700 | 0.590 | 11.860 | 0.957 | 1.155 | W | W |
| 1 | CE144 | 9.460 | 0.550 | 8.210 | 0.796 | 1.152 | W | A |
| 1 | AM241 | 0.270 | 0.070 | 0.069 | 0.003 | 3.930 | N | N |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 266.000 | 6.170 | 218.300 | 6.505 | 1.219 | W | |
| 1 | MN54 | 56.300 | 2.040 | 57.000 | 1.900 | 0.988 | A | N |
| 1 | CO60 | 13.100 | 0.360 | 13.600 | 1.200 | 0.963 | A | A |
| 1 | CS137 | 46.300 | 2.090 | 46.000 | 1.700 | 1.007 | A | A |
| 1 | AM241 | 1.370 | 0.250 | 1.226 | 0.050 | 1.118 | A | W |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 1003.000 | 46.900 | 707.500 | 24.987 | 1.418 | N | A |
| 1 | CO60 | 14.900 | 0.700 | 10.575 | 0.206 | 1.409 | W | A |
| 1 | CS137 | 264.000 | 11.300 | 181.500 | 7.141 | 1.455 | N | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 363.000 | 18.000 | 313.500 | 10.150 | 1.158 | A | A |
| 1 | CS137 | 361.000 | 15.300 | 329.500 | 9.260 | 1.096 | A | A |
| 1 | AM241 | 3.500 | 0.440 | 2.678 | 0.212 | 1.307 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** MH Maine Health & Environmental Testing Laboratory

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 6.710 | 0.220 | 5.440 | 0.485 | 1.233 | W | |
| 1 | CO57 | 12.740 | 0.390 | 11.110 | 0.846 | 1.147 | W | |
| 1 | CO60 | 10.130 | 0.220 | 9.090 | 0.732 | 1.114 | W | |
| 1 | SB125 | 16.340 | 0.460 | 12.160 | 1.151 | 1.344 | W | |
| 1 | CS134 | 20.910 | 0.460 | 19.740 | 1.380 | 1.059 | A | |
| 1 | CS137 | 14.350 | 0.450 | 11.860 | 0.957 | 1.210 | W | |
| 1 | CE144 | 8.980 | 0.430 | 8.210 | 0.796 | 1.094 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 735.900 | 35.600 | 707.500 | 24.987 | 1.040 | A | |
| 1 | CO60 | 11.200 | 0.500 | 10.575 | 0.206 | 1.059 | A | |
| 1 | CS137 | 191.000 | 9.300 | 181.500 | 7.141 | 1.052 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | SR90 | 3.750 | 0.290 | 4.357 | 0.192 | 0.861 | W | |
| 1 | H3 | 211.800 | 7.100 | 218.300 | 6.505 | 0.970 | A | |
| 1 | MN54 | 64.400 | 2.300 | 57.000 | 1.900 | 1.130 | A | |
| 1 | CO60 | 15.400 | 0.500 | 13.600 | 1.200 | 1.132 | W | |
| 1 | CS137 | 52.100 | 2.200 | 46.000 | 1.700 | 1.133 | A | |
| 1 | U238 | 0.410 | 0.040 | 0.396 | 0.037 | 1.035 | A | |
| 1 | U234 | 0.380 | 0.040 | 0.396 | 0.026 | 0.959 | A | |
| 1 | GROSS BETA | 2359.800 | 9.600 | 2200.000 | 100.000 | 1.073 | A | |
| 1 | GROSS ALPHA | 1664.300 | 4.000 | 1421.000 | 100.000 | 1.171 | W | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 337.500 | 18.500 | 313.500 | 10.150 | 1.077 | A | |
| 1 | CS137 | 346.700 | 16.800 | 329.500 | 9.260 | 1.052 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** ML EG&G Mound Applied Technologies, Miamisburg, OH

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 6.190 | 0.600 | 5.440 | 0.485 | 1.138 | A | W |
| 1 | CO57 | 12.620 | 1.300 | 11.110 | 0.846 | 1.136 | W | W |
| 1 | CO60 | 10.040 | 1.000 | 9.090 | 0.732 | 1.105 | W | A |
| 1 | SB125 | 14.580 | 1.500 | 12.160 | 1.151 | 1.199 | W | W |
| 1 | CS134 | 22.310 | 2.200 | 19.740 | 1.380 | 1.130 | W | W |
| 1 | CS137 | 12.970 | 1.300 | 11.860 | 0.957 | 1.094 | A | W |
| 1 | CE144 | 8.240 | 0.800 | 8.210 | 0.796 | 1.004 | A | |
| 1 | U234 | 0.040 | 0.003 | 0.031 | 0.003 | 1.299 | A | A |
| 1 | U238 | 0.040 | 0.003 | 0.030 | 0.001 | 1.312 | A | A |
| 1 | PU238 | 0.070 | 0.005 | 0.069 | 0.003 | 1.007 | A | A |
| 1 | PU239 | 0.070 | 0.005 | 0.062 | 0.002 | 1.123 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 248.680 | 13.920 | 218.300 | 6.505 | 1.139 | A | A |
| 1 | MN54 | 54.600 | 5.500 | 57.000 | 1.900 | 0.958 | A | A |
| 1 | CO60 | 14.800 | 1.500 | 13.600 | 1.200 | 1.088 | A | A |
| 1 | CS137 | 48.560 | 4.900 | 46.000 | 1.700 | 1.056 | A | A |
| 1 | U234 | 0.390 | 0.030 | 0.396 | 0.026 | 0.984 | A | A |
| 1 | U238 | 0.390 | 0.030 | 0.396 | 0.037 | 0.984 | A | A |
| 1 | PU238 | 2.450 | 0.020 | 2.526 | 0.060 | 0.970 | A | A |
| 1 | PU239 | 1.700 | 0.110 | 1.650 | 0.061 | 1.030 | A | A |
| 1 | AM241 | 1.400 | 0.100 | 1.226 | 0.050 | 1.142 | A | W |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 816.000 | 81.600 | 707.500 | 24.987 | 1.153 | A | A |
| 1 | CO60 | 11.650 | 1.200 | 10.575 | 0.206 | 1.102 | A | A |
| 1 | CS137 | 197.000 | 19.700 | 181.500 | 7.141 | 1.085 | A | A |
| 1 | PU239 | 1.880 | 0.130 | 1.770 | 0.154 | 1.062 | A | A |
| 1 | AM241 | 1.090 | 0.100 | 1.105 | 0.051 | 0.986 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 334.250 | 33.400 | 313.500 | 10.150 | 1.066 | A | A |
| 1 | CS137 | 330.260 | 33.000 | 329.500 | 9.260 | 1.002 | A | N |
| 1 | U234 | 30.010 | 2.020 | 31.133 | 0.802 | 0.964 | A | A |
| 1 | U238 | 31.130 | 2.090 | 31.900 | 2.552 | 0.976 | A | A |
| 1 | PU239 | 5.230 | 0.350 | 5.305 | 0.253 | 0.986 | A | A |
| 1 | AM241 | 2.710 | 0.300 | 2.678 | 0.212 | 1.012 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** MS Manufacturing Sciences Corporation, Oak Ridge

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 60.250 | 6.030 | 57.000 | 1.900 | 1.057 | A | A |
| 1 | CO60 | 14.400 | 1.400 | 13.600 | 1.200 | 1.059 | A | A |
| 1 | CS137 | 51.300 | 5.100 | 46.000 | 1.700 | 1.115 | A | A |
| 1 | AM241 | 1.300 | 0.130 | 1.226 | 0.050 | 1.061 | A | W |
| 1 | H3 | 674.000 | 67.000 | 218.300 | 6.505 | 3.087 | N | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.060 | 0.510 | 5.440 | 0.485 | 0.930 | A | A |
| 1 | CO60 | 9.110 | 0.910 | 9.090 | 0.732 | 1.002 | A | A |
| 1 | CS137 | 11.450 | 1.150 | 11.860 | 0.957 | 0.965 | A | A |
| 1 | CO57 | 10.450 | 1.050 | 11.110 | 0.846 | 0.941 | A | A |
| 1 | SB125 | 12.300 | 1.230 | 12.160 | 1.151 | 1.012 | A | A |
| 1 | CS134 | 19.000 | 1.900 | 19.740 | 1.380 | 0.963 | A | A |
| 1 | CE144 | 7.640 | 0.760 | 8.210 | 0.796 | 0.931 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** NA US EPA NAREL, Montgomery, AL

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 321.000 | 11.200 | 313.500 | 10.150 | 1.024 | A | A |
| 1 | CS137 | 341.000 | 2.500 | 329.500 | 9.260 | 1.035 | A | A |
| 1 | PU239 | 5.400 | 1.040 | 5.305 | 0.253 | 1.018 | A | A |
| 1 | U234 | 30.400 | 2.450 | 31.133 | 0.802 | 0.976 | A | A |
| 1 | U238 | 27.200 | 2.290 | 31.900 | 2.552 | 0.853 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 157.000 | 3.710 | 218.300 | 6.505 | 0.719 | W | A |
| 1 | MN54 | 61.500 | 0.922 | 57.000 | 1.900 | 1.079 | A | A |
| 1 | CO60 | 14.400 | 0.369 | 13.600 | 1.200 | 1.059 | A | A |
| 1 | SR90 | 4.630 | 0.740 | 4.357 | 0.192 | 1.063 | A | W |
| 1 | CS137 | 50.700 | 0.820 | 46.000 | 1.700 | 1.102 | A | A |
| 1 | PU238 | 2.250 | 0.102 | 2.526 | 0.060 | 0.891 | W | |
| 1 | PU239 | 1.590 | 0.075 | 1.650 | 0.061 | 0.964 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.660 | 0.167 | 5.440 | 0.485 | 1.040 | A | |
| 1 | CO57 | 10.100 | 0.135 | 11.110 | 0.846 | 0.909 | A | |
| 1 | CO60 | 8.460 | 0.149 | 9.090 | 0.732 | 0.931 | A | W |
| 1 | SR90 | 1.570 | 0.138 | 1.758 | 0.042 | 0.893 | A | N |
| 1 | SB125 | 12.200 | 0.345 | 12.160 | 1.151 | 1.003 | A | |
| 1 | CS134 | 18.300 | 0.185 | 19.740 | 1.380 | 0.927 | A | |
| 1 | CS137 | 11.900 | 0.213 | 11.860 | 0.957 | 1.003 | A | |
| 1 | CE144 | 6.760 | 0.565 | 8.210 | 0.796 | 0.823 | A | |
| 1 | U234 | 0.048 | 0.006 | 0.031 | 0.003 | 1.558 | W | |
| 1 | U238 | 0.036 | 0.005 | 0.030 | 0.001 | 1.181 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 866.000 | 22.300 | 707.500 | 24.987 | 1.224 | A | N |
| 1 | CO60 | 13.100 | 6.720 | 10.575 | 0.206 | 1.239 | W | N |
| 1 | SR90 | 333.000 | 14.100 | 359.005 | 6.021 | 0.928 | A | N |
| 1 | CS137 | 224.000 | 2.690 | 181.500 | 7.141 | 1.234 | A | N |
| 1 | PU239 | 1.620 | 0.266 | 1.770 | 0.154 | 0.915 | A | N |
| 1 | AM241 | 1.200 | 0.258 | 1.105 | 0.051 | 1.086 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** NF Nuclear Fuel Services, Erwin, TN

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | PU238 | 2.457 | 0.119 | 2.526 | 0.060 | 0.973 | A | |
| 1 | PU239 | 1.603 | 0.085 | 1.650 | 0.061 | 0.971 | A | |
| 1 | Bq U | 0.840 | 0.036 | 0.801 | 0.067 | 1.048 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | PU239 | 1.185 | 0.161 | 1.770 | 0.154 | 0.669 | W | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | Bq U | 79.925 | 2.719 | 64.600 | 2.858 | 1.237 | W | |
| 1 | PU239 | 3.656 | 0.950 | 5.305 | 0.253 | 0.689 | N | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

*If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.*

# QAP 48 Results by Laboratory

**Lab:** NL Fluor Daniel Fernald, Inc., Ohio

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.280 | 0.529 | 5.440 | 0.485 | 0.971 | A | |
| 1 | CO57 | 10.500 | 1.030 | 11.110 | 0.846 | 0.945 | A | |
| 1 | CO60 | 8.350 | 0.586 | 9.090 | 0.732 | 0.919 | A | |
| 1 | SB125 | 12.400 | 0.916 | 12.160 | 1.151 | 1.020 | A | |
| 1 | CS134 | 17.700 | 1.240 | 19.740 | 1.380 | 0.897 | A | |
| 1 | CS137 | 11.300 | 1.120 | 11.860 | 0.957 | 0.953 | A | |
| 1 | CE144 | 7.580 | 0.798 | 8.210 | 0.796 | 0.923 | A | |
| 1 | U234 | 0.035 | 0.011 | 0.031 | 0.003 | 1.146 | A | |
| 1 | U238 | 0.040 | 0.011 | 0.030 | 0.001 | 1.325 | W | |
| 1 | PU238 | 0.059 | 0.017 | 0.069 | 0.003 | 0.849 | W | |
| 1 | PU239 | 0.062 | 0.018 | 0.062 | 0.002 | 1.001 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 328.000 | 47.500 | 313.500 | 10.150 | 1.046 | A | |
| 1 | CS137 | 327.000 | 62.100 | 329.500 | 9.260 | 0.992 | A | |
| 1 | U234 | 24.900 | 7.700 | 31.133 | 0.802 | 0.800 | A | |
| 1 | U238 | 28.000 | 7.900 | 31.900 | 2.552 | 0.878 | A | |
| 1 | PU239 | 6.530 | 1.780 | 5.305 | 0.253 | 1.231 | W | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 69.900 | 11.200 | 57.000 | 1.900 | 1.226 | W | |
| 1 | CO60 | 15.600 | 1.910 | 13.600 | 1.200 | 1.147 | W | |
| 1 | CS137 | 54.400 | 10.700 | 46.000 | 1.700 | 1.183 | W | |
| 1 | U234 | 0.434 | 0.104 | 0.396 | 0.026 | 1.095 | A | |
| 1 | U238 | 0.431 | 0.102 | 0.396 | 0.037 | 1.088 | A | |
| 1 | PU238 | 2.240 | 0.510 | 2.526 | 0.060 | 0.887 | W | |
| 1 | PU239 | 1.590 | 0.360 | 1.650 | 0.061 | 0.964 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** NM Environmental Evaluation Group, Carlsbad, NM

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | CS137 | 10.500 | 0.900 | 11.860 | 0.957 | 0.885 | A | |
| 1 | PU238 | 0.069 | 0.002 | 0.069 | 0.003 | 0.988 | A | |
| 1 | PU239 | 0.069 | 0.002 | 0.062 | 0.002 | 1.108 | A | |
| 1 | AM241 | 0.076 | 0.004 | 0.069 | 0.003 | 1.105 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | CS137 | 55.100 | 4.700 | 46.000 | 1.700 | 1.198 | W | |
| 1 | PU238 | 2.310 | 0.070 | 2.526 | 0.060 | 0.915 | A | |
| 1 | PU239 | 1.590 | 0.050 | 1.650 | 0.061 | 0.964 | A | |
| 1 | AM241 | 1.210 | 0.040 | 1.226 | 0.050 | 0.987 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | CS137 | 298.000 | 27.000 | 329.500 | 9.260 | 0.904 | A | |
| 1 | PU239 | 5.660 | 0.400 | 5.305 | 0.253 | 1.067 | A | |
| 1 | AM241 | 2.940 | 0.330 | 2.678 | 0.212 | 1.098 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** NP JAF Environmental Laboratory, New York Power Authority

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS BETA | 2.150 | 0.020 | 1.960 | 0.300 | 1.097 | A | A |
| 1 | MN54 | 6.300 | 0.300 | 5.440 | 0.485 | 1.158 | W | A |
| 1 | CO57 | 11.600 | 0.400 | 11.110 | 0.846 | 1.044 | A | A |
| 1 | CO60 | 8.800 | 0.200 | 9.090 | 0.732 | 0.968 | A | A |
| 1 | SB125 | 13.400 | 0.600 | 12.160 | 1.151 | 1.102 | A | A |
| 1 | CS134 | 17.600 | 0.400 | 19.740 | 1.380 | 0.892 | A | W |
| 1 | CS137 | 11.600 | 0.300 | 11.860 | 0.957 | 0.978 | A | W |
| 1 | CE144 | 7.800 | 0.500 | 8.210 | 0.796 | 0.950 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS BETA | 2150.000 | 18.000 | 2200.000 | 100.000 | 0.977 | A | A |
| 1 | H3 | 289.000 | 33.000 | 218.300 | 6.505 | 1.324 | W | A |
| 1 | MN54 | 66.300 | 2.100 | 57.000 | 1.900 | 1.163 | A | A |
| 1 | CO60 | 16.300 | 0.800 | 13.600 | 1.200 | 1.199 | W | A |
| 1 | CS137 | 52.900 | 1.800 | 46.000 | 1.700 | 1.150 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | CO60 | 9.100 | 0.600 | 10.575 | 0.206 | 0.861 | A | W |
| 1 | CS137 | 152.000 | 2.100 | 181.500 | 7.141 | 0.837 | W | W |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | CS137 | 427.000 | 4.000 | 329.500 | 9.260 | 1.296 | W | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** NR Naval Reactors Facility Chemistry, Scoville, ID

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 335.000 | 67.000 | 313.500 | 10.150 | 1.069 | A | A |
| 1 | CS137 | 356.000 | 71.000 | 329.500 | 9.260 | 1.080 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 739.000 | 148.000 | 707.500 | 24.987 | 1.045 | A | A |
| 1 | CO60 | 11.500 | 2.300 | 10.575 | 0.206 | 1.087 | A | A |
| 1 | CS137 | 186.000 | 37.000 | 181.500 | 7.141 | 1.025 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** NS State Lab of Public Health, North Carolina

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.170 | 0.090 | 1.400 | 0.100 | 0.836 | W | |
| 1 | GROSS BETA | 2.090 | 0.090 | 1.960 | 0.300 | 1.066 | A | |
| 1 | MN54 | 6.040 | 0.080 | 5.440 | 0.485 | 1.110 | A | |
| 1 | CO57 | 11.070 | 0.410 | 11.110 | 0.846 | 0.996 | A | |
| 1 | CO60 | 10.540 | 0.330 | 9.090 | 0.732 | 1.160 | W | |
| 1 | SB125 | 13.260 | 0.490 | 12.160 | 1.151 | 1.090 | A | |
| 1 | CS134 | 16.190 | 0.600 | 19.740 | 1.380 | 0.820 | A | |
| 1 | CS137 | 11.700 | 0.430 | 11.860 | 0.957 | 0.987 | A | |
| 1 | CE144 | 7.300 | 0.270 | 8.210 | 0.796 | 0.889 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 189.600 | 13.900 | 218.300 | 6.505 | 0.869 | A | |
| 1 | MN54 | 65.850 | 0.480 | 57.000 | 1.900 | 1.155 | A | |
| 1 | CO60 | 15.700 | 0.290 | 13.600 | 1.200 | 1.154 | W | |
| 1 | SR90 | 3.980 | 0.860 | 4.357 | 0.192 | 0.913 | A | |
| 1 | CS137 | 51.480 | 0.370 | 46.000 | 1.700 | 1.119 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** OB OBG Laboratories, East Syracuse, NY

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.370 | 0.140 | 1.400 | 0.100 | 0.979 | A | A |
| 1 | GROSS BETA | 1.840 | 0.180 | 1.960 | 0.300 | 0.939 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1020.000 | 101.000 | 1421.000 | 100.000 | 0.718 | W | A |
| 1 | GROSS BETA | 1680.000 | 165.000 | 2200.000 | 100.000 | 0.764 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** OD ORNL, Radiobioassay Lab

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.230 | 0.040 | 1.400 | 0.100 | 0.879 | A | A |
| 1 | GROSS BETA | 2.460 | 0.060 | 1.960 | 0.300 | 1.255 | A | A |
| 1 | MN54 | 5.680 | 0.370 | 5.440 | 0.485 | 1.044 | A | A |
| 1 | CO57 | 11.300 | 0.190 | 11.110 | 0.846 | 1.017 | A | A |
| 1 | CO60 | 8.930 | 0.240 | 9.090 | 0.732 | 0.982 | A | A |
| 1 | SB125 | 13.780 | 0.460 | 12.160 | 1.151 | 1.133 | A | A |
| 1 | CS134 | 19.510 | 0.820 | 19.740 | 1.380 | 0.988 | A | A |
| 1 | CS137 | 12.070 | 0.760 | 11.860 | 0.957 | 1.018 | A | A |
| 1 | CE144 | 7.620 | 0.230 | 8.210 | 0.796 | 0.928 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | SR90 | 4.240 | 0.520 | 4.357 | 0.192 | 0.973 | A | A |
| 1 | PU238 | 2.420 | 0.250 | 2.526 | 0.060 | 0.958 | A | A |
| 1 | PU239 | 1.620 | 0.170 | 1.650 | 0.061 | 0.982 | A | A |
| 1 | AM241 | 1.410 | 0.150 | 1.226 | 0.050 | 1.150 | A | A |
| 1 | U234 | 0.384 | 0.043 | 0.396 | 0.026 | 0.969 | A | A |
| 1 | U238 | 0.441 | 0.048 | 0.396 | 0.037 | 1.113 | A | A |
| 1 | MN54 | 64.290 | 3.970 | 57.000 | 1.900 | 1.128 | A | A |
| 1 | CO60 | 13.740 | 1.570 | 13.600 | 1.200 | 1.010 | A | A |
| 1 | CS137 | 49.020 | 3.330 | 46.000 | 1.700 | 1.066 | A | A |
| 1 | H3 | 246.000 | 62.670 | 218.300 | 6.505 | 1.127 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** OK Southwest Laboratory of Oklahoma

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 262.700 | 17.500 | 218.300 | 6.505 | 1.203 | A | |
| 1 | U234 | 0.433 | 0.036 | 0.396 | 0.026 | 1.093 | A | |
| 1 | U238 | 0.374 | 0.033 | 0.396 | 0.037 | 0.944 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.099 | 0.053 | 1.400 | 0.100 | 0.785 | W | |
| 1 | GROSS BETA | 2.024 | 0.060 | 1.960 | 0.300 | 1.033 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** OL ORNL Environmental Sciences Div.

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 6.250 | 0.250 | 5.440 | 0.485 | 1.149 | A | A |
| 1 | CO57 | 11.880 | 0.380 | 11.110 | 0.846 | 1.069 | A | A |
| 1 | CO60 | 9.520 | 0.230 | 9.090 | 0.732 | 1.047 | A | A |
| 1 | SB125 | 14.720 | 0.430 | 12.160 | 1.151 | 1.211 | W | A |
| 1 | CS134 | 17.970 | 0.660 | 19.740 | 1.380 | 0.910 | A | A |
| 1 | CS137 | 12.530 | 0.700 | 11.860 | 0.957 | 1.056 | A | A |
| 1 | CE144 | 8.750 | 0.810 | 8.210 | 0.796 | 1.066 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 62.580 | 0.670 | 57.000 | 1.900 | 1.098 | A | A |
| 1 | CO60 | 15.070 | 0.400 | 13.600 | 1.200 | 1.108 | A | A |
| 1 | CS137 | 50.680 | 0.800 | 46.000 | 1.700 | 1.102 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | CS137 | 182.100 | 4.800 | 181.500 | 7.141 | 1.003 | A | A |
| 1 | CO60 | 11.400 | 1.040 | 10.575 | 0.206 | 1.078 | A | A |
| 1 | K40 | 750.000 | 22.900 | 707.500 | 24.987 | 1.060 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | CS137 | 354.900 | 3.800 | 329.500 | 9.260 | 1.077 | A | A |
| 1 | K40 | 343.400 | 11.100 | 313.500 | 10.150 | 1.095 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** OT ORNL Radioactive Material Analysis Lab

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | Bq U | 45.000 | 9.000 | 64.600 | 2.858 | 0.697 | A | |
| 1 | K40 | 300.000 | 30.000 | 313.500 | 10.150 | 0.957 | A | A |
| 1 | SR90 | 14.000 | 4.000 | 13.091 | 0.279 | 1.069 | A | |
| 1 | CS137 | 310.000 | 10.000 | 329.500 | 9.260 | 0.941 | A | A |
| 1 | PU239 | 6.000 | 0.800 | 5.305 | 0.253 | 1.131 | A | |
| 1 | AM241 | 2.800 | 0.700 | 2.678 | 0.212 | 1.046 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 300.000 | 20.000 | 218.300 | 6.505 | 1.374 | W | |
| 1 | MN54 | 63.000 | 1.000 | 57.000 | 1.900 | 1.105 | A | A |
| 1 | CO60 | 15.000 | 1.000 | 13.600 | 1.200 | 1.103 | A | A |
| 1 | SR90 | 4.300 | 0.500 | 4.357 | 0.192 | 0.987 | A | |
| 1 | CS137 | 52.000 | 1.000 | 46.000 | 1.700 | 1.130 | A | A |
| 1 | PU238 | 2.200 | 0.100 | 2.526 | 0.060 | 0.871 | W | |
| 1 | PU239 | 1.600 | 0.100 | 1.650 | 0.061 | 0.970 | A | |
| 1 | AM241 | 1.100 | 0.100 | 1.226 | 0.050 | 0.897 | W | |
| 1 | GROSS ALPHA | 1300.000 | 100.000 | 1421.000 | 100.000 | 0.915 | A | |
| 1 | GROSS BETA | 2200.000 | 100.000 | 2200.000 | 100.000 | 1.000 | A | |
| 1 | Bq U | 0.750 | 0.060 | 0.801 | 0.067 | 0.936 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.300 | 0.100 | 1.400 | 0.100 | 0.929 | A | |
| 1 | GROSS BETA | 2.200 | 0.100 | 1.960 | 0.300 | 1.122 | A | |
| 1 | MN54 | 6.300 | 0.200 | 5.440 | 0.485 | 1.158 | W | A |
| 1 | CO57 | 12.000 | 1.000 | 11.110 | 0.846 | 1.080 | A | A |
| 1 | CO60 | 9.500 | 0.200 | 9.090 | 0.732 | 1.045 | A | A |
| 1 | SR90 | 1.000 | 0.100 | 1.758 | 0.042 | 0.569 | N | |
| 1 | SB125 | 14.000 | 1.000 | 12.160 | 1.151 | 1.151 | A | A |
| 1 | CS134 | 19.000 | 1.000 | 19.740 | 1.380 | 0.963 | A | A |
| 1 | CS137 | 13.000 | 1.000 | 11.860 | 0.957 | 1.096 | A | A |
| 1 | CE144 | 8.600 | 0.300 | 8.210 | 0.796 | 1.048 | A | A |
| 1 | PU238 | 0.068 | 0.007 | 0.069 | 0.003 | 0.978 | A | |
| 1 | PU239 | 0.070 | 0.007 | 0.062 | 0.002 | 1.123 | A | |
| 1 | AM241 | 0.075 | 0.013 | 0.069 | 0.003 | 1.092 | A | |
| 1 | Bq U | 0.072 | 0.016 | 0.063 | 0.004 | 1.141 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 670.000 | 40.000 | 707.500 | 24.987 | 0.947 | A | W |
| 1 | CO60 | 9.700 | 1.500 | 10.575 | 0.206 | 0.917 | A | A |
| 1 | SR90 | 360.000 | 20.000 | 359.005 | 6.021 | 1.003 | A | |
| 1 | CS137 | 160.000 | 10.000 | 181.500 | 7.141 | 0.882 | W | A |
| 1 | PU239 | 1.800 | 0.300 | 1.770 | 0.154 | 1.017 | A | |
| 1 | AM241 | 1.600 | 0.500 | 1.105 | 0.051 | 1.448 | A | |
| 1 | CM244 | 1.700 | 0.500 | 2.174 | 0.066 | 0.782 | W | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** OU Outreach Laboratory, Broken Arrow, OK

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 529.000 | 43.300 | 707.500 | 24.987 | 0.748 | N | N |
| 1 | CO60 | 7.370 | 2.460 | 10.575 | 0.206 | 0.697 | W | W |
| 1 | CS137 | 139.000 | 6.330 | 181.500 | 7.141 | 0.766 | N | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1260.000 | 76.500 | 1421.000 | 100.000 | 0.887 | A | W |
| 1 | GROSS BETA | 1640.000 | 67.800 | 2200.000 | 100.000 | 0.745 | A | N |
| 1 | H3 | 267.000 | 21.900 | 218.300 | 6.505 | 1.223 | W | W |
| 1 | MN54 | 61.300 | 4.500 | 57.000 | 1.900 | 1.075 | A | W |
| 1 | CO60 | 16.400 | 2.600 | 13.600 | 1.200 | 1.206 | N | A |
| 1 | CS137 | 51.200 | 3.800 | 46.000 | 1.700 | 1.113 | A | A |
| 1 | U234 | 0.409 | 0.100 | 0.396 | 0.026 | 1.032 | A | W |
| 1 | U238 | 0.411 | 0.100 | 0.396 | 0.037 | 1.037 | A | W |
| 1 | ug U | 0.034 | 0.001 | 0.032 | 0.003 | 1.047 | A | W |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 3.150 | 0.140 | 1.400 | 0.100 | 2.250 | N | A |
| 1 | GROSS BETA | 2.270 | 0.090 | 1.960 | 0.300 | 1.158 | A | W |
| 1 | MN54 | 6.140 | 1.020 | 5.440 | 0.485 | 1.129 | A | A |
| 1 | CO57 | 10.400 | 3.970 | 11.110 | 0.846 | 0.936 | A | A |
| 1 | CO60 | 8.540 | 2.450 | 9.090 | 0.732 | 0.939 | A | A |
| 1 | SB125 | 14.400 | 5.300 | 12.160 | 1.151 | 1.184 | W | A |
| 1 | CS134 | 18.540 | 2.350 | 19.740 | 1.380 | 0.939 | A | A |
| 1 | CS137 | 13.460 | 1.000 | 11.860 | 0.957 | 1.135 | W | A |
| 1 | CE144 | 8.080 | 3.340 | 8.210 | 0.796 | 0.984 | A | W |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 248.000 | 46.600 | 313.500 | 10.150 | 0.791 | W | A |
| 1 | CS137 | 278.000 | 13.100 | 329.500 | 9.260 | 0.844 | W | A |
| 1 | ug U | 2.000 | 0.200 | 2.583 | 0.200 | 0.774 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** PA Mason & Hanger-Silas Mason Co., Inc., Battelle Pantex, Amarillo, TX

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.280 | 0.080 | 1.400 | 0.100 | 0.914 | A | |
| 1 | GROSS BETA | 2.200 | 0.080 | 1.960 | 0.300 | 1.122 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** PK Pakistan Institute of Nuclear Science & Technology

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 362.400 | 28.300 | 313.500 | 10.150 | 1.156 | A | |
| 1 | CS137 | 380.200 | 8.800 | 329.500 | 9.260 | 1.154 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 783.300 | 9.400 | 707.500 | 24.987 | 1.107 | A | |
| 1 | CS137 | 189.600 | 8.600 | 181.500 | 7.141 | 1.045 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | CS134 | 346.800 | 37.400 | 19.740 | 1.380 | 17.568 | N | |
| 1 | CS137 | 218.900 | 9.500 | 11.860 | 0.957 | 18.457 | N | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** PO Institute of Oceanology PAN, Poland

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 325.000 | 12.000 | 313.500 | 10.150 | 1.037 | A | A |
| 1 | CS137 | 353.000 | 10.000 | 329.500 | 9.260 | 1.071 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.500 | 0.100 | 5.440 | 0.485 | 1.011 | A | A |
| 1 | CO57 | 11.400 | 0.500 | 11.110 | 0.846 | 1.026 | A | |
| 1 | CO60 | 9.600 | 0.300 | 9.090 | 0.732 | 1.056 | A | A |
| 1 | SB125 | 12.300 | 0.300 | 12.160 | 1.151 | 1.012 | A | W |
| 1 | CS134 | 1.400 | 0.300 | 19.740 | 1.380 | 0.071 | N | A |
| 1 | CS137 | 12.400 | 0.800 | 11.860 | 0.957 | 1.046 | A | A |
| 1 | CE144 | 8.000 | 0.500 | 8.210 | 0.796 | 0.974 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 747.000 | 19.000 | 707.500 | 24.987 | 1.056 | A | A |
| 1 | CO60 | 12.000 | 1.000 | 10.575 | 0.206 | 1.135 | A | A |
| 1 | CS137 | 200.000 | 6.000 | 181.500 | 7.141 | 1.102 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** PR Princeton Plasma Physics Lab

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 223.030 | 4.280 | 218.300 | 6.505 | 1.022 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** RA V. G. Khlopin Radium Institute, St. Petersburg, Russia

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.710 | 0.230 | 5.440 | 0.485 | 1.050 | A | A |
| 1 | CO57 | 11.800 | 0.280 | 11.110 | 0.846 | 1.062 | A | A |
| 1 | CO60 | 9.170 | 0.250 | 9.090 | 0.732 | 1.009 | A | A |
| 1 | SB125 | 12.500 | 0.380 | 12.160 | 1.151 | 1.028 | A | A |
| 1 | CS134 | 21.100 | 0.500 | 19.740 | 1.380 | 1.069 | A | A |
| 1 | CS137 | 12.300 | 0.450 | 11.860 | 0.957 | 1.037 | A | A |
| 1 | CE144 | 7.610 | 0.370 | 8.210 | 0.796 | 0.927 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 280.000 | 40.000 | 313.500 | 10.150 | 0.893 | W | N |
| 1 | CS137 | 282.000 | 12.000 | 329.500 | 9.260 | 0.856 | W | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 780.000 | 70.000 | 707.500 | 24.987 | 1.102 | A | N |
| 1 | CO60 | 9.460 | 0.480 | 10.575 | 0.206 | 0.895 | A | A |
| 1 | CS137 | 171.000 | 7.000 | 181.500 | 7.141 | 0.942 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | SR90 | 14.000 | 4.000 | 13.091 | 0.279 | 1.069 | A | A |
| 1 | U234 | 28.400 | 4.300 | 31.133 | 0.802 | 0.912 | A | |
| 1 | U238 | 28.800 | 4.300 | 31.900 | 2.552 | 0.903 | A | W |
| 1 | ug U | 2.250 | 0.200 | 2.583 | 0.200 | 0.871 | A | A |
| 1 | PU239 | 6.900 | 0.800 | 5.305 | 0.253 | 1.301 | W | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | SR90 | 400.000 | 100.000 | 359.005 | 6.021 | 1.114 | A | W |
| 1 | PU238 | 0.170 | 0.060 | 0.116 | 0.035 | 1.469 | A | A |
| 1 | PU239 | 2.200 | 0.300 | 1.770 | 0.154 | 1.243 | W | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | U234 | 0.034 | 0.005 | 0.031 | 0.003 | 1.104 | A | |
| 1 | U238 | 0.035 | 0.005 | 0.030 | 0.001 | 1.148 | A | |
| 1 | ug U | 2.950 | 0.200 | 2.472 | 0.101 | 1.193 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** RC US NRC Region I Laboratory, PA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 226.000 | 15.000 | 218.300 | 6.505 | 1.035 | A | A |
| 1 | MN54 | 59.000 | 5.000 | 57.000 | 1.900 | 1.035 | A | A |
| 1 | CO60 | 14.500 | 1.400 | 13.600 | 1.200 | 1.066 | A | A |
| 1 | CS137 | 48.000 | 4.000 | 46.000 | 1.700 | 1.043 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 333.000 | 33.000 | 313.500 | 10.150 | 1.062 | A | A |
| 1 | CS137 | 342.000 | 34.000 | 329.500 | 9.260 | 1.038 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.330 | 0.070 | 1.400 | 0.100 | 0.950 | A | W |
| 1 | GROSS BETA | 1.990 | 0.100 | 1.960 | 0.300 | 1.015 | A | A |
| 1 | MN54 | 5.850 | 0.580 | 5.440 | 0.485 | 1.075 | A | A |
| 1 | CO57 | 10.900 | 0.900 | 11.110 | 0.846 | 0.981 | A | A |
| 1 | CO60 | 9.000 | 0.900 | 9.090 | 0.732 | 0.990 | A | A |
| 1 | SB125 | 13.300 | 1.500 | 12.160 | 1.151 | 1.094 | A | A |
| 1 | CS134 | 20.900 | 1.700 | 19.740 | 1.380 | 1.059 | A | A |
| 1 | CS137 | 12.100 | 1.100 | 11.860 | 0.957 | 1.020 | A | A |
| 1 | CE144 | 8.100 | 1.200 | 8.210 | 0.796 | 0.987 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** RD Radiation Detection Company, CA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.050 | 0.030 | 1.400 | 0.100 | 0.750 | W | A |
| 1 | GROSS BETA | 1.010 | 0.050 | 1.960 | 0.300 | 0.515 | N | N |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** RE Bechtel Nevada, Mercury, NV

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 297.000 | 33.000 | 313.500 | 10.150 | 0.947 | A | W |
| 1 | SR90 | 12.400 | 1.500 | 13.091 | 0.279 | 0.947 | A | A |
| 1 | CS137 | 322.000 | 25.000 | 329.500 | 9.260 | 0.977 | A | N |
| 1 | PU239 | 5.120 | 0.700 | 5.305 | 0.253 | 0.965 | A | A |
| 1 | AM241 | 2.340 | 0.440 | 2.678 | 0.212 | 0.874 | A | A |
| 1 | U234 | 25.500 | 2.400 | 31.133 | 0.802 | 0.819 | A | A |
| 1 | U238 | 27.300 | 2.500 | 31.900 | 2.552 | 0.856 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 236.000 | 22.000 | 218.300 | 6.505 | 1.081 | A | A |
| 1 | MN54 | 61.700 | 6.300 | 57.000 | 1.900 | 1.082 | A | A |
| 1 | CO60 | 15.100 | 2.200 | 13.600 | 1.200 | 1.110 | A | A |
| 1 | SR90 | 4.300 | 0.250 | 4.357 | 0.192 | 0.987 | A | A |
| 1 | CS137 | 50.500 | 5.300 | 46.000 | 1.700 | 1.098 | A | A |
| 1 | PU238 | 1.770 | 0.320 | 2.526 | 0.060 | 0.701 | N | A |
| 1 | PU239 | 1.240 | 0.230 | 1.650 | 0.061 | 0.751 | N | A |
| 1 | AM241 | 1.230 | 0.100 | 1.226 | 0.050 | 1.004 | A | A |
| 1 | U234 | 0.396 | 0.044 | 0.396 | 0.026 | 0.999 | A | A |
| 1 | U238 | 0.424 | 0.047 | 0.396 | 0.037 | 1.070 | A | A |
| 1 | GROSS ALPHA | 1450.000 | 101.000 | 1421.000 | 100.000 | 1.020 | A | A |
| 1 | GROSS BETA | 2080.000 | 146.000 | 2200.000 | 100.000 | 0.945 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.440 | 0.650 | 5.440 | 0.485 | 1.000 | A | A |
| 1 | CO57 | 10.800 | 1.000 | 11.110 | 0.846 | 0.972 | A | A |
| 1 | CO60 | 8.310 | 0.920 | 9.090 | 0.732 | 0.914 | A | A |
| 1 | SR90 | 1.720 | 0.090 | 1.758 | 0.042 | 0.978 | A | A |
| 1 | SB125 | 12.000 | 1.500 | 12.160 | 1.151 | 0.987 | A | A |
| 1 | CS134 | 16.900 | 1.600 | 19.740 | 1.380 | 0.856 | A | A |
| 1 | CS137 | 11.100 | 1.100 | 11.860 | 0.957 | 0.936 | A | A |
| 1 | CE144 | 6.060 | 1.440 | 8.210 | 0.796 | 0.738 | A | A |
| 1 | PU238 | 0.068 | 0.008 | 0.069 | 0.003 | 0.978 | A | A |
| 1 | PU239 | 0.058 | 0.007 | 0.062 | 0.002 | 0.930 | A | |
| 1 | AM241 | 0.074 | 0.008 | 0.069 | 0.003 | 1.077 | A | A |
| 1 | U234 | 0.032 | 0.005 | 0.031 | 0.003 | 1.039 | A | A |
| 1 | U238 | 0.033 | 0.005 | 0.030 | 0.001 | 1.083 | A | A |
| 1 | GROSS ALPHA | 1.260 | 0.190 | 1.400 | 0.100 | 0.900 | A | A |
| 1 | GROSS BETA | 2.250 | 0.320 | 1.960 | 0.300 | 1.148 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 715.000 | 84.000 | 707.500 | 24.987 | 1.011 | A | W |
| 1 | CO60 | 12.400 | 2.500 | 10.575 | 0.206 | 1.173 | A | W |
| 1 | SR90 | 325.000 | 17.000 | 359.005 | 6.021 | 0.905 | A | A |
| 1 | CS137 | 173.000 | 16.000 | 181.500 | 7.141 | 0.953 | A | N |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** RE Bechtel Nevada, Mercury, NV

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | PU239 | 1.710 | 0.230 | 1.770 | 0.154 | 0.966 | A | A |
| 1 | AM241 | 1.250 | 0.180 | 1.105 | 0.051 | 1.131 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** RG Thermo Nutech Rocky Flats Plant, Golden

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1531.000 | 65.600 | 1421.000 | 100.000 | 1.077 | A | |
| 1 | GROSS BETA | 2277.400 | 64.100 | 2200.000 | 100.000 | 1.035 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** RI Rust Federal Services of Hanford, Inc., 222S Lab

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 501.000 | 44.300 | 218.300 | 6.505 | 2.295 | N | |
| 1 | MN54 | 59.900 | 5.850 | 57.000 | 1.900 | 1.051 | A | A |
| 1 | CO60 | 17.000 | 2.790 | 13.600 | 1.200 | 1.250 | N | A |
| 1 | SR90 | 5.410 | 0.325 | 4.357 | 0.192 | 1.242 | A | A |
| 1 | CS137 | 53.200 | 6.690 | 46.000 | 1.700 | 1.157 | A | A |
| 1 | ug U | 0.725 | 0.022 | 0.032 | 0.003 | 22.656 | N | W |
| 1 | PU238 | 2.400 | 0.225 | 2.526 | 0.060 | 0.950 | A | A |
| 1 | PU239 | 1.550 | 0.155 | 1.650 | 0.061 | 0.939 | A | W |
| 1 | AM241 | 1.220 | 0.126 | 1.226 | 0.050 | 0.995 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 490.000 | 133.000 | 313.500 | 10.150 | 1.563 | N | W |
| 1 | SR90 | 91.400 | 2.650 | 13.091 | 0.279 | 6.982 | N | A |
| 1 | CS137 | 383.000 | 19.800 | 329.500 | 9.260 | 1.162 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 852.000 | 149.000 | 707.500 | 24.987 | 1.204 | A | A |
| 1 | CO60 | 16.700 | 4.960 | 10.575 | 0.206 | 1.579 | N | A |
| 1 | SR90 | 351.000 | 8.420 | 359.005 | 6.021 | 0.978 | A | A |
| 1 | CS137 | 216.000 | 15.300 | 181.500 | 7.141 | 1.190 | A | N |
| 1 | PU239 | 1.700 | 0.232 | 1.770 | 0.154 | 0.960 | A | A |
| 1 | AM241 | 1.080 | 0.170 | 1.105 | 0.051 | 0.977 | A | W |
| 1 | CM244 | 2.300 | 0.299 | 2.174 | 0.066 | 1.058 | A | A |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.870 | 1.170 | 5.440 | 0.485 | 1.079 | A | A |
| 1 | CO57 | 9.660 | 0.854 | 11.110 | 0.846 | 0.869 | A | A |
| 1 | CO60 | 8.590 | 0.991 | 9.090 | 0.732 | 0.945 | A | A |
| 1 | SR90 | 2.020 | 0.116 | 1.758 | 0.042 | 1.149 | A | A |
| 1 | SB125 | 10.200 | 2.090 | 12.160 | 1.151 | 0.839 | A | N |
| 1 | CS134 | 19.300 | 1.020 | 19.740 | 1.380 | 0.978 | A | A |
| 1 | CS137 | 11.200 | 1.520 | 11.860 | 0.957 | 0.944 | A | A |
| 1 | CE144 | 5.720 | 5.230 | 8.210 | 0.796 | 0.697 | A | A |
| 1 | ug U | 2.850 | 0.082 | 2.472 | 0.101 | 1.153 | A | A |
| 1 | PU238 | 0.069 | 0.008 | 0.069 | 0.003 | 0.990 | A | A |
| 1 | PU239 | 0.074 | 0.009 | 0.062 | 0.002 | 1.193 | W | |
| 1 | AM241 | 0.078 | 0.019 | 0.069 | 0.003 | 1.141 | A | N |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** RK Rock Island Arsenal, Illinois

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 0.730 | 0.070 | 1.400 | 0.100 | 0.521 | W | |
| 1 | GROSS BETA | 1.840 | 0.100 | 1.960 | 0.300 | 0.939 | A | |
| 2 | GROSS ALPHA | 0.790 | 0.070 | 1.400 | 0.100 | 0.564 | W | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** RL Thermo Hanford

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.360 | 0.120 | 1.400 | 0.100 | 0.971 | A | A |
| 1 | GROSS BETA | 2.600 | 0.070 | 1.960 | 0.300 | 1.327 | A | A |
| 1 | MN54 | 5.120 | 1.300 | 5.440 | 0.485 | 0.941 | A | A |
| 1 | CO57 | 8.810 | 2.100 | 11.110 | 0.846 | 0.793 | A | A |
| 1 | CO60 | 8.510 | 0.620 | 9.090 | 0.732 | 0.936 | A | W |
| 1 | SB125 | 12.200 | 0.180 | 12.160 | 1.151 | 1.003 | A | A |
| 1 | CS134 | 16.200 | 1.100 | 19.740 | 1.380 | 0.821 | A | W |
| 1 | CS137 | 11.900 | 0.400 | 11.860 | 0.957 | 1.003 | A | A |
| 1 | CE144 | 5.890 | 1.100 | 8.210 | 0.796 | 0.717 | A | A |
| 1 | AM241 | 0.204 | 0.030 | 0.069 | 0.003 | 2.969 | N | N |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 873.000 | 79.000 | 707.500 | 24.987 | 1.234 | A | A |
| 1 | CS137 | 214.000 | 16.000 | 181.500 | 7.141 | 1.179 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1204.000 | 24.000 | 1421.000 | 100.000 | 0.847 | A | N |
| 1 | GROSS BETA | 1901.000 | 210.000 | 2200.000 | 100.000 | 0.864 | A | A |
| 1 | MN54 | 68.000 | 8.700 | 57.000 | 1.900 | 1.193 | W | N |
| 1 | CO60 | 15.500 | 1.800 | 13.600 | 1.200 | 1.140 | W | N |
| 1 | CS137 | 56.000 | 9.500 | 46.000 | 1.700 | 1.217 | W | W |
| 1 | PU238 | 1.800 | 0.600 | 2.526 | 0.060 | 0.713 | N | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 415.000 | 88.000 | 313.500 | 10.150 | 1.324 | W | A |
| 1 | CS137 | 401.000 | 84.000 | 329.500 | 9.260 | 1.217 | W | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** SA Sandia Labs Radioactive Sample Diag. Prog., NM

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.470 | 0.190 | 1.400 | 0.100 | 1.050 | A | A |
| 1 | GROSS BETA | 2.120 | 0.240 | 1.960 | 0.300 | 1.082 | A | A |
| 1 | MN54 | 5.700 | 0.900 | 5.440 | 0.485 | 1.048 | A | A |
| 1 | CO57 | 11.000 | 1.500 | 11.110 | 0.846 | 0.990 | A | A |
| 1 | CO60 | 8.700 | 0.800 | 9.090 | 0.732 | 0.957 | A | A |
| 1 | SB125 | 12.900 | 2.200 | 12.160 | 1.151 | 1.061 | A | A |
| 1 | CS134 | 19.100 | 2.900 | 19.740 | 1.380 | 0.968 | A | A |
| 1 | CS137 | 11.700 | 1.600 | 11.860 | 0.957 | 0.987 | A | A |
| 1 | CE144 | 7.900 | 0.900 | 8.210 | 0.796 | 0.962 | A | A |
| 1 | ug U | 3.030 | 0.080 | 2.472 | 0.101 | 1.226 | A | A |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 976.000 | 98.000 | 1421.000 | 100.000 | 0.687 | W | W |
| 1 | GROSS BETA | 1608.000 | 161.000 | 2200.000 | 100.000 | 0.731 | A | N |
| 1 | MN54 | 65.000 | 4.000 | 57.000 | 1.900 | 1.140 | A | A |
| 1 | CO60 | 15.000 | 0.500 | 13.600 | 1.200 | 1.103 | A | A |
| 1 | CS137 | 51.000 | 2.100 | 46.000 | 1.700 | 1.109 | A | A |
| 1 | ug U | 0.034 | 0.004 | 0.032 | 0.003 | 1.063 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 341.000 | 30.000 | 313.500 | 10.150 | 1.088 | A | A |
| 1 | CS137 | 349.000 | 11.000 | 329.500 | 9.260 | 1.059 | A | A |
| 1 | ug U | 2.520 | 0.026 | 2.583 | 0.200 | 0.976 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** SH Savannah River Ecology Lab

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | SR90 | 340.485 | 4.933 | 359.005 | 6.021 | 0.948 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | CS137 | 51.200 | 1.020 | 46.000 | 1.700 | 1.113 | A | |
| 1 | SR90 | 6.517 | 0.173 | 4.357 | 0.192 | 1.496 | W | |
| 1 | MN54 | 78.950 | 1.500 | 57.000 | 1.900 | 1.385 | N | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | CS137 | 351.800 | 8.200 | 329.500 | 9.260 | 1.068 | A | |
| 1 | SR90 | 14.473 | 0.566 | 13.091 | 0.279 | 1.106 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | CS137 | 206.500 | 8.700 | 181.500 | 7.141 | 1.138 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 2 | SR90 | 6.528 | 0.177 | 4.357 | 0.192 | 1.498 | W | |
| 3 | SR90 | 6.078 | 0.169 | 4.357 | 0.192 | 1.395 | W | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 2 | SR90 | 13.948 | 0.567 | 13.091 | 0.279 | 1.065 | A | |
| 3 | SR90 | 14.335 | 0.574 | 13.091 | 0.279 | 1.095 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** SK Savannah River Plant

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 227.000 | 4.000 | 218.300 | 6.505 | 1.040 | A | N |
| 1 | MN54 | 60.200 | 3.000 | 57.000 | 1.900 | 1.056 | A | A |
| 1 | CO60 | 15.300 | 0.800 | 13.600 | 1.200 | 1.125 | A | A |
| 1 | CS137 | 50.400 | 2.100 | 46.000 | 1.700 | 1.096 | A | A |
| 1 | U234 | 0.517 | 0.026 | 0.396 | 0.026 | 1.305 | W | A |
| 1 | U238 | 0.501 | 0.025 | 0.396 | 0.037 | 1.264 | W | A |
| 1 | PU238 | 2.620 | 0.090 | 2.526 | 0.060 | 1.037 | A | A |
| 1 | PU239 | 1.770 | 0.060 | 1.650 | 0.061 | 1.073 | A | N |
| 1 | AM241 | 1.230 | 0.040 | 1.226 | 0.050 | 1.004 | A | A |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 742.000 | 43.000 | 707.500 | 24.987 | 1.049 | A | A |
| 1 | CO60 | 11.900 | 0.500 | 10.575 | 0.206 | 1.125 | A | A |
| 1 | CS137 | 199.000 | 10.000 | 181.500 | 7.141 | 1.096 | A | A |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 355.000 | 19.000 | 313.500 | 10.150 | 1.132 | A | A |
| 1 | CS137 | 399.000 | 18.000 | 329.500 | 9.260 | 1.211 | W | A |
| 1 | AM241 | 3.850 | 0.230 | 2.678 | 0.212 | 1.438 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.100 | 0.200 | 5.440 | 0.485 | 0.938 | A | A |
| 1 | CO57 | 11.400 | 0.100 | 11.110 | 0.846 | 1.026 | A | A |
| 1 | CO60 | 8.900 | 0.400 | 9.090 | 0.732 | 0.979 | A | A |
| 1 | SB125 | 12.800 | 0.500 | 12.160 | 1.151 | 1.053 | A | W |
| 1 | CS134 | 19.600 | 1.100 | 19.740 | 1.380 | 0.993 | A | A |
| 1 | CS137 | 11.200 | 0.100 | 11.860 | 0.957 | 0.944 | A | A |
| 1 | CE144 | 8.200 | 0.400 | 8.210 | 0.796 | 0.999 | A | A |
| 1 | AM241 | 0.088 | 0.014 | 0.069 | 0.003 | 1.281 | A | A |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** SL Stanford Linear Accelerator Center

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 60.000 | 3.000 | 57.000 | 1.900 | 1.053 | A | |
| 1 | CO60 | 14.700 | 1.000 | 13.600 | 1.200 | 1.081 | A | |
| 1 | CS137 | 50.800 | 3.000 | 46.000 | 1.700 | 1.104 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** SN Sanford Cohen Associates, Inc., Montgomery, AL

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | U234 | 0.039 | 0.007 | 0.031 | 0.003 | 1.266 | A | |
| 1 | U238 | 0.040 | 0.007 | 0.030 | 0.001 | 1.312 | A | |
| 1 | PU239 | 0.062 | 0.011 | 0.062 | 0.002 | 0.994 | A | |
| 1 | AM241 | 0.067 | 0.012 | 0.069 | 0.003 | 0.975 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1185.720 | 56.080 | 1421.000 | 100.000 | 0.834 | A | |
| 1 | GROSS BETA | 1777.520 | 62.880 | 2200.000 | 100.000 | 0.808 | A | |
| 1 | MN54 | 60.830 | 6.360 | 57.000 | 1.900 | 1.067 | A | |
| 1 | CO60 | 14.600 | 1.420 | 13.600 | 1.200 | 1.074 | A | |
| 1 | CS137 | 46.750 | 4.170 | 46.000 | 1.700 | 1.016 | A | |
| 1 | U234 | 0.435 | 0.073 | 0.396 | 0.026 | 1.098 | A | |
| 1 | U238 | 0.447 | 0.074 | 0.396 | 0.037 | 1.128 | A | |
| 1 | PU238 | 2.550 | 0.364 | 2.526 | 0.060 | 1.010 | A | |
| 1 | PU239 | 1.682 | 0.253 | 1.650 | 0.061 | 1.019 | A | |
| 1 | AM241 | 1.354 | 0.209 | 1.226 | 0.050 | 1.105 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 406.710 | 45.960 | 313.500 | 10.150 | 1.297 | W | |
| 1 | CS137 | 390.680 | 40.950 | 329.500 | 9.260 | 1.186 | A | |
| 1 | U234 | 28.290 | 5.720 | 31.133 | 0.802 | 0.909 | A | |
| 1 | U238 | 34.670 | 6.460 | 31.900 | 2.552 | 1.087 | A | |
| 1 | PU239 | 4.936 | 2.395 | 5.305 | 0.253 | 0.930 | A | |
| 1 | AM241 | 2.649 | 2.004 | 2.678 | 0.212 | 0.989 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 947.220 | 89.540 | 707.500 | 24.987 | 1.339 | N | |
| 1 | CO60 | 12.880 | 1.940 | 10.575 | 0.206 | 1.218 | A | |
| 1 | CS137 | 217.280 | 21.910 | 181.500 | 7.141 | 1.197 | A | |
| 1 | PU239 | 1.865 | 0.851 | 1.770 | 0.154 | 1.054 | A | |
| 1 | AM241 | 0.903 | 0.675 | 1.105 | 0.051 | 0.817 | W | |
| 1 | CM244 | 2.094 | 0.928 | 2.174 | 0.066 | 0.963 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** SR Savannah River Environmental Laboratory

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 805.000 | 84.000 | 707.500 | 24.987 | 1.138 | A | |
| 1 | CS137 | 193.000 | 18.000 | 181.500 | 7.141 | 1.063 | A | |
| 1 | CO60 | 11.500 | 1.300 | 10.575 | 0.206 | 1.087 | A | |
| 1 | SR90 | 494.000 | 52.000 | 359.005 | 6.021 | 1.376 | N | |
| 1 | PU239 | 1.700 | 0.290 | 1.770 | 0.154 | 0.960 | A | |
| 1 | AM241 | 1.190 | 0.230 | 1.105 | 0.051 | 1.077 | A | |
| 1 | CM244 | 2.040 | 0.310 | 2.174 | 0.066 | 0.939 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | CS137 | 368.000 | 41.000 | 329.500 | 9.260 | 1.117 | A | |
| 1 | K40 | 371.000 | 40.000 | 313.500 | 10.150 | 1.183 | A | |
| 1 | PU239 | 2.880 | 0.540 | 5.305 | 0.253 | 0.543 | N | |
| 1 | U234 | 9.000 | 1.400 | 31.133 | 0.802 | 0.289 | N | |
| 1 | U238 | 9.400 | 1.400 | 31.900 | 2.552 | 0.295 | N | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 62.500 | 6.300 | 57.000 | 1.900 | 1.096 | A | |
| 1 | CO60 | 15.000 | 1.000 | 13.600 | 1.200 | 1.103 | A | |
| 1 | CS137 | 50.500 | 4.800 | 46.000 | 1.700 | 1.098 | A | |
| 1 | H3 | 208.000 | 15.000 | 218.300 | 6.505 | 0.953 | A | |
| 1 | SR90 | 5.100 | 1.900 | 4.357 | 0.192 | 1.170 | A | |
| 1 | PU239 | 1.570 | 0.190 | 1.650 | 0.061 | 0.951 | A | |
| 1 | PU238 | 2.280 | 0.270 | 2.526 | 0.060 | 0.903 | A | |
| 1 | U234 | 0.380 | 0.070 | 0.396 | 0.026 | 0.959 | A | |
| 1 | U238 | 0.370 | 0.060 | 0.396 | 0.037 | 0.934 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.500 | 0.200 | 5.440 | 0.485 | 1.011 | A | |
| 1 | CO57 | 11.100 | 1.000 | 11.110 | 0.846 | 0.999 | A | |
| 1 | CO60 | 8.900 | 1.000 | 9.090 | 0.732 | 0.979 | A | |
| 1 | SR90 | 1.210 | 0.100 | 1.758 | 0.042 | 0.688 | W | |
| 1 | SB125 | 13.300 | 1.800 | 12.160 | 1.151 | 1.094 | A | |
| 1 | CS134 | 19.300 | 1.400 | 19.740 | 1.380 | 0.978 | A | |
| 1 | CS137 | 11.500 | 1.500 | 11.860 | 0.957 | 0.970 | A | |
| 1 | CE144 | 8.000 | 2.600 | 8.210 | 0.796 | 0.974 | A | |
| 1 | PU238 | 0.066 | 0.008 | 0.069 | 0.003 | 0.950 | A | |
| 1 | PU239 | 0.067 | 0.008 | 0.062 | 0.002 | 1.075 | A | W |
| 1 | U234 | 0.032 | 0.005 | 0.031 | 0.003 | 1.039 | A | |
| 1 | U238 | 0.032 | 0.005 | 0.030 | 0.001 | 1.050 | A | |
| 1 | AM241 | 0.082 | 0.008 | 0.069 | 0.003 | 1.194 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** SR Savannah River Environmental Laboratory

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1399.000 | 236.000 | 1421.000 | 100.000 | 0.985 | A | |
| 1 | GROSS BETA | 2460.000 | 604.000 | 2200.000 | 100.000 | 1.118 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 2.170 | 0.200 | 1.400 | 0.100 | 1.550 | W | |
| 1 | GROSS BETA | 2.140 | 0.140 | 1.960 | 0.300 | 1.092 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** ST SC DHEC, Aiken, South Carolina

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 226.460 | 8.760 | 218.300 | 6.505 | 1.037 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** SW Southwest Research Institute, San Antonio, TX

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | SR90 | 44.800 | 11.500 | 13.091 | 0.279 | 3.422 | N | |
| 1 | CS137 | 437.100 | 4.500 | 329.500 | 9.260 | 1.327 | N | |
| 1 | K40 | 424.900 | 22.300 | 313.500 | 10.150 | 1.355 | W | |
| 1 | PU239 | 1.390 | 0.260 | 5.305 | 0.253 | 0.262 | N | |
| 1 | AM241 | 4.690 | 1.820 | 2.678 | 0.212 | 1.752 | W | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1529.000 | 23.000 | 1421.000 | 100.000 | 1.076 | A | |
| 1 | GROSS BETA | 2089.000 | 23.000 | 2200.000 | 100.000 | 0.950 | A | |
| 1 | H3 | 1212.000 | 24.000 | 218.300 | 6.505 | 5.552 | N | |
| 1 | MN54 | 58.000 | 0.500 | 57.000 | 1.900 | 1.018 | A | |
| 1 | CO60 | 15.300 | 0.200 | 13.600 | 1.200 | 1.125 | A | |
| 1 | SR90 | 7.550 | 0.650 | 4.357 | 0.192 | 1.733 | N | |
| 1 | CS137 | 51.100 | 0.500 | 46.000 | 1.700 | 1.111 | A | |
| 1 | PU238 | 2.310 | 0.190 | 2.526 | 0.060 | 0.915 | A | |
| 1 | PU239 | 1.090 | 0.100 | 1.650 | 0.061 | 0.661 | N | |
| 1 | AM241 | 1.310 | 0.160 | 1.226 | 0.050 | 1.069 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.160 | 0.040 | 1.400 | 0.100 | 0.829 | W | |
| 1 | GROSS BETA | 2.110 | 0.060 | 1.960 | 0.300 | 1.077 | A | |
| 1 | MN54 | 5.060 | 0.100 | 5.440 | 0.485 | 0.930 | A | |
| 1 | CO57 | 10.100 | 0.100 | 11.110 | 0.846 | 0.909 | A | |
| 1 | CO60 | 8.840 | 0.110 | 9.090 | 0.732 | 0.972 | A | |
| 1 | SR90 | 3.240 | 0.190 | 1.758 | 0.042 | 1.843 | W | |
| 1 | SB125 | 12.100 | 0.300 | 12.160 | 1.151 | 0.995 | A | |
| 1 | CS134 | 15.900 | 1.400 | 19.740 | 1.380 | 0.805 | W | |
| 1 | CS137 | 11.500 | 0.200 | 11.860 | 0.957 | 0.970 | A | |
| 1 | CE144 | 6.860 | 0.300 | 8.210 | 0.796 | 0.836 | A | |
| 1 | PU238 | 0.420 | 0.040 | 0.069 | 0.003 | 6.043 | N | |
| 1 | PU239 | 0.080 | 0.010 | 0.062 | 0.002 | 1.283 | W | |
| 1 | AM241 | 0.090 | 0.020 | 0.069 | 0.003 | 1.310 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 998.000 | 25.000 | 707.500 | 24.987 | 1.411 | N | |
| 1 | CO60 | 15.600 | 1.100 | 10.575 | 0.206 | 1.475 | N | |
| 1 | SR90 | 554.000 | 32.000 | 359.005 | 6.021 | 1.543 | N | |
| 1 | CS137 | 254.000 | 3.000 | 181.500 | 7.141 | 1.399 | N | |
| 1 | PU239 | 0.960 | 0.200 | 1.770 | 0.154 | 0.542 | N | |
| 1 | AM241 | 2.200 | 0.200 | 1.105 | 0.051 | 1.991 | W | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** SW Southwest Research Institute, San Antonio, TX

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | Bq U | 0.035 | | 0.801 | 0.067 | 0.043 | N | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | ug U | 2.650 | | 2.472 | 0.101 | 1.072 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | ug U | 2.260 | | 2.583 | 0.200 | 0.875 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** TE Teledyne Isotopes Midwest Lab, Northbrook, IL

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 322.100 | 24.320 | 313.500 | 10.150 | 1.027 | A | |
| 1 | SR90 | 9.890 | 3.830 | 13.091 | 0.279 | 0.755 | A | |
| 1 | CS137 | 322.590 | 4.570 | 329.500 | 9.260 | 0.979 | A | |
| 1 | PU239 | 4.650 | 1.660 | 5.305 | 0.253 | 0.877 | W | |
| 1 | AM241 | 1.670 | 1.110 | 2.678 | 0.212 | 0.624 | W | |
| 1 | U238 | 13.440 | 2.490 | 31.900 | 2.552 | 0.421 | N | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 61.700 | 1.300 | 57.000 | 1.900 | 1.082 | A | |
| 1 | FE55 | 243.000 | 29.400 | 202.800 | 2.921 | 1.198 | A | |
| 1 | CO60 | 14.800 | 0.600 | 13.600 | 1.200 | 1.088 | A | |
| 1 | SR90 | 1.700 | 0.400 | 4.357 | 0.192 | 0.390 | N | |
| 1 | CS137 | 51.200 | 1.200 | 46.000 | 1.700 | 1.113 | A | |
| 1 | PU238 | 2.610 | 0.270 | 2.526 | 0.060 | 1.033 | A | |
| 1 | PU239 | 1.790 | 0.210 | 1.650 | 0.061 | 1.085 | A | |
| 1 | U238 | 0.500 | 0.200 | 0.396 | 0.037 | 1.262 | W | |
| 1 | H3 | 399.700 | 32.500 | 218.300 | 6.505 | 1.831 | N | |
| 1 | GROSS ALPHA | 1592.900 | 63.800 | 1421.000 | 100.000 | 1.121 | A | |
| 1 | GROSS BETA | 2509.000 | 67.100 | 2200.000 | 100.000 | 1.140 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 6.177 | 0.201 | 5.440 | 0.485 | 1.136 | A | |
| 1 | CO57 | 10.152 | 0.114 | 11.110 | 0.846 | 0.914 | A | |
| 1 | CO60 | 9.243 | 0.160 | 9.090 | 0.732 | 1.017 | A | |
| 1 | SR90 | 1.820 | 0.210 | 1.758 | 0.042 | 1.035 | A | |
| 1 | SB125 | 13.542 | 0.561 | 12.160 | 1.151 | 1.114 | A | |
| 1 | CS134 | 18.976 | 0.204 | 19.740 | 1.380 | 0.961 | A | |
| 1 | CS137 | 12.876 | 0.204 | 11.860 | 0.957 | 1.086 | A | |
| 1 | CE144 | 7.773 | 0.621 | 8.210 | 0.796 | 0.947 | A | |
| 1 | PU238 | 0.068 | 0.023 | 0.069 | 0.003 | 0.976 | A | |
| 1 | PU239 | 0.067 | 0.015 | 0.062 | 0.002 | 1.081 | A | |
| 1 | AM241 | 0.070 | 0.012 | 0.069 | 0.003 | 1.019 | A | |
| 1 | U238 | 0.391 | 0.075 | 0.030 | 0.001 | 12.844 | N | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 677.161 | 31.469 | 707.500 | 24.987 | 0.957 | A | |
| 1 | CO60 | 10.173 | 1.539 | 10.575 | 0.206 | 0.962 | A | |
| 1 | SR90 | 315.309 | 15.062 | 359.005 | 6.021 | 0.878 | A | |
| 1 | CS137 | 166.025 | 3.456 | 181.500 | 7.141 | 0.915 | A | |
| 1 | AM241 | 0.667 | 0.370 | 1.105 | 0.051 | 0.603 | N | |
| 1 | CM244 | 1.778 | 0.333 | 2.174 | 0.066 | 0.818 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** TI Teledyne Brown Engineering Environmental Services, Westwood, NJ

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1500.000 | 100.000 | 1421.000 | 100.000 | 1.056 | A | |
| 1 | GROSS BETA | 2200.000 | 100.000 | 2200.000 | 100.000 | 1.000 | A | |
| 1 | H3 | 260.000 | 50.000 | 218.300 | 6.505 | 1.191 | A | |
| 1 | MN54 | 60.300 | 6.000 | 57.000 | 1.900 | 1.058 | A | |
| 1 | FE55 | 280.000 | 30.000 | 202.800 | 2.921 | 1.381 | W | |
| 1 | CO60 | 14.500 | 1.400 | 13.600 | 1.200 | 1.066 | A | |
| 1 | SR90 | 4.300 | 0.500 | 4.357 | 0.192 | 0.987 | A | |
| 1 | CS137 | 49.900 | 5.000 | 46.000 | 1.700 | 1.085 | A | |
| 1 | ug U | 0.032 | 0.005 | 0.032 | 0.003 | 1.000 | A | |
| 1 | PU238 | 2.800 | 0.300 | 2.526 | 0.060 | 1.109 | A | |
| 1 | PU239 | 1.900 | 0.300 | 1.650 | 0.061 | 1.151 | W | |
| 1 | AM241 | 1.200 | 0.200 | 1.226 | 0.050 | 0.979 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.500 | 0.100 | 1.400 | 0.100 | 1.071 | A | |
| 1 | GROSS BETA | 1.900 | 0.100 | 1.960 | 0.300 | 0.969 | A | |
| 1 | MN54 | 5.990 | 0.600 | 5.440 | 0.485 | 1.101 | A | |
| 1 | CO57 | 12.100 | 1.200 | 11.110 | 0.846 | 1.089 | A | |
| 1 | CO60 | 9.060 | 0.910 | 9.090 | 0.732 | 0.997 | A | |
| 1 | SR90 | 1.600 | 0.300 | 1.758 | 0.042 | 0.910 | A | |
| 1 | SB125 | 13.700 | 1.400 | 12.160 | 1.151 | 1.127 | A | |
| 1 | CS134 | 19.800 | 2.000 | 19.740 | 1.380 | 1.003 | A | |
| 1 | CS137 | 13.000 | 1.300 | 11.860 | 0.957 | 1.096 | A | |
| 1 | CE144 | 8.040 | 0.590 | 8.210 | 0.796 | 0.979 | A | |
| 1 | ug U | 2.300 | 0.300 | 2.472 | 0.101 | 0.930 | A | |
| 1 | PU238 | 0.048 | 0.013 | 0.069 | 0.003 | 0.691 | N | |
| 1 | PU239 | 0.041 | 0.012 | 0.062 | 0.002 | 0.658 | N | |
| 1 | AM241 | 0.082 | 0.017 | 0.069 | 0.003 | 1.194 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 334.000 | 33.000 | 313.500 | 10.150 | 1.065 | A | |
| 1 | SR90 | 13.000 | 5.000 | 13.091 | 0.279 | 0.993 | A | |
| 1 | CS137 | 369.000 | 37.000 | 329.500 | 9.260 | 1.120 | A | |
| 1 | ug U | 1.900 | 0.300 | 2.583 | 0.200 | 0.736 | A | |
| 1 | PU239 | 5.300 | 1.100 | 5.305 | 0.253 | 0.999 | A | |
| 1 | AM241 | 3.400 | 1.500 | 2.678 | 0.212 | 1.270 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 751.000 | 75.000 | 707.500 | 24.987 | 1.061 | A | |
| 1 | CO60 | 12.200 | 1.300 | 10.575 | 0.206 | 1.154 | A | |
| 1 | SR90 | 570.000 | 20.000 | 359.005 | 6.021 | 1.588 | N | |
| 1 | CS137 | 203.000 | 20.000 | 181.500 | 7.141 | 1.118 | A | |
| 1 | PU239 | 7.100 | 1.300 | 1.770 | 0.154 | 4.011 | N | |
| 1 | AM241 | 1.300 | 0.300 | 1.105 | 0.051 | 1.176 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** TI Teledyne Brown Engineering Environmental Services, Westwood, NJ

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | CM244 | 2.300 | 0.400 | 2.174 | 0.066 | 1.058 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** TM Thermo Nutech Albuquerque Lab, NM

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 0.640 | 0.103 | 1.400 | 0.100 | 0.457 | N | |
| 1 | GROSS BETA | 1.380 | 0.139 | 1.960 | 0.300 | 0.704 | N | |
| 1 | MN54 | 5.960 | 0.335 | 5.440 | 0.485 | 1.096 | A | |
| 1 | CO57 | 12.500 | 0.412 | 11.110 | 0.846 | 1.125 | W | |
| 1 | CO60 | 10.000 | 0.486 | 9.090 | 0.732 | 1.100 | A | |
| 1 | SR90 | 0.978 | 0.107 | 1.758 | 0.042 | 0.556 | N | |
| 1 | SB125 | 14.500 | 0.852 | 12.160 | 1.151 | 1.192 | W | |
| 1 | CS134 | 20.500 | 0.688 | 19.740 | 1.380 | 1.039 | A | |
| 1 | CS137 | 13.400 | 0.525 | 11.860 | 0.957 | 1.130 | W | |
| 1 | CE144 | 8.960 | 0.919 | 8.210 | 0.796 | 1.091 | A | |
| 1 | ug U | 3.040 | 0.156 | 2.472 | 0.101 | 1.230 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1630.000 | 189.000 | 1421.000 | 100.000 | 1.147 | A | |
| 1 | GROSS BETA | 1970.000 | 155.000 | 2200.000 | 100.000 | 0.895 | A | |
| 1 | H3 | 227.000 | 10.200 | 218.300 | 6.505 | 1.040 | A | |
| 1 | MN54 | 68.000 | 2.100 | 57.000 | 1.900 | 1.193 | W | |
| 1 | CO60 | 15.600 | 0.631 | 13.600 | 1.200 | 1.147 | W | |
| 1 | SR90 | 3.450 | 0.294 | 4.357 | 0.192 | 0.792 | W | |
| 1 | CS137 | 54.800 | 1.710 | 46.000 | 1.700 | 1.191 | W | |
| 1 | ug U | 0.039 | 0.002 | 0.032 | 0.003 | 1.231 | W | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 796.000 | 77.200 | 707.500 | 24.987 | 1.125 | A | |
| 1 | CO60 | 17.400 | 5.760 | 10.575 | 0.206 | 1.645 | N | |
| 1 | SR90 | 298.000 | 21.600 | 359.005 | 6.021 | 0.830 | A | |
| 1 | CS137 | 212.000 | 8.670 | 181.500 | 7.141 | 1.168 | A | |
| 1 | PU239 | 2.090 | 0.176 | 1.770 | 0.154 | 1.181 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 358.000 | 37.000 | 313.500 | 10.150 | 1.142 | A | |
| 1 | SR90 | 22.200 | 5.480 | 13.091 | 0.279 | 1.696 | W | |
| 1 | CS137 | 355.000 | 11.500 | 329.500 | 9.260 | 1.077 | A | |
| 1 | ug U | 2.280 | 0.140 | 2.583 | 0.200 | 0.883 | A | |
| 1 | PU239 | 4.750 | 0.620 | 5.305 | 0.253 | 0.895 | A | |
| 1 | U234 | 28.800 | 2.060 | 31.133 | 0.802 | 0.925 | A | |
| 1 | U238 | 28.000 | 1.980 | 31.900 | 2.552 | 0.878 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | U234 | 0.438 | 0.032 | 0.396 | 0.026 | 1.106 | A | |
| 1 | U238 | 0.449 | 0.033 | 0.396 | 0.037 | 1.133 | A | |
| 1 | PU238 | 2.530 | 0.103 | 2.526 | 0.060 | 1.002 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** TM Thermo Nutech Albuquerque Lab, NM

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | PU239 | 1.830 | 0.079 | 1.650 | 0.061 | 1.109 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | U234 | 0.031 | 0.003 | 0.031 | 0.003 | 0.990 | A | |
| 1 | U238 | 0.031 | 0.003 | 0.030 | 0.001 | 1.027 | A | |
| 1 | PU238 | 0.064 | 0.004 | 0.069 | 0.003 | 0.917 | A | |
| 1 | PU239 | 0.055 | 0.004 | 0.062 | 0.002 | 0.889 | W | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | AM241 | 1.110 | 0.250 | 1.105 | 0.051 | 1.004 | A | |
| 1 | CM244 | 2.370 | 0.361 | 2.174 | 0.066 | 1.090 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | AM241 | 0.072 | 0.008 | 0.069 | 0.003 | 1.055 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | AM241 | 3.550 | 0.536 | 2.678 | 0.212 | 1.326 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | FE55 | 111.000 | 7.480 | 202.800 | 2.921 | 0.547 | W | |
| 1 | AM241 | 1.420 | 0.110 | 1.226 | 0.050 | 1.159 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** TN Thermo NuTech, Richmond, CA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 301.300 | 14.300 | 313.500 | 10.150 | 0.961 | A | |
| 1 | U234 | 27.390 | 2.594 | 31.133 | 0.802 | 0.880 | A | |
| 1 | U238 | 26.210 | 2.530 | 31.900 | 2.552 | 0.822 | A | |
| 1 | ug U | 1.250 | 0.162 | 2.583 | 0.200 | 0.484 | W | |
| 1 | PU239 | 3.773 | 0.817 | 5.305 | 0.253 | 0.711 | W | |
| 1 | AM241 | 2.265 | 0.699 | 2.678 | 0.212 | 0.846 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 948.200 | 57.200 | 1421.000 | 100.000 | 0.667 | W | |
| 1 | GROSS BETA | 2071.000 | 61.150 | 2200.000 | 100.000 | 0.941 | A | |
| 1 | MN54 | 57.870 | 0.740 | 57.000 | 1.900 | 1.015 | A | |
| 1 | FE55 | 274.600 | 6.464 | 202.800 | 2.921 | 1.354 | W | |
| 1 | CO60 | 13.720 | 0.440 | 13.600 | 1.200 | 1.009 | A | |
| 1 | CS137 | 47.110 | 0.690 | 46.000 | 1.700 | 1.024 | A | |
| 1 | U234 | 0.430 | 0.039 | 0.396 | 0.026 | 1.086 | A | |
| 1 | U238 | 0.407 | 0.038 | 0.396 | 0.037 | 1.026 | A | |
| 1 | ug U | 0.032 | 0.004 | 0.032 | 0.003 | 0.987 | A | |
| 1 | PU238 | 1.662 | 0.091 | 2.526 | 0.060 | 0.658 | N | |
| 1 | PU239 | 2.436 | 0.127 | 1.650 | 0.061 | 1.476 | N | |
| 1 | AM241 | 1.208 | 0.186 | 1.226 | 0.050 | 0.986 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.805 | 0.093 | 1.400 | 0.100 | 1.289 | A | |
| 1 | GROSS BETA | 2.052 | 0.085 | 1.960 | 0.300 | 1.047 | A | |
| 1 | MN54 | 5.818 | 0.776 | 5.440 | 0.485 | 1.069 | A | |
| 1 | CO57 | 10.380 | 0.840 | 11.110 | 0.846 | 0.934 | A | |
| 1 | CO60 | 8.682 | 0.899 | 9.090 | 0.732 | 0.955 | A | |
| 1 | SB125 | 11.750 | 2.030 | 12.160 | 1.151 | 0.966 | A | |
| 1 | CS134 | 22.290 | 1.750 | 19.740 | 1.380 | 1.129 | W | |
| 1 | CS137 | 11.600 | 0.975 | 11.860 | 0.957 | 0.978 | A | |
| 1 | CE144 | 7.959 | 1.862 | 8.210 | 0.796 | 0.969 | A | |
| 1 | U234 | 0.034 | 0.006 | 0.031 | 0.003 | 1.095 | A | |
| 1 | U238 | 0.034 | 0.006 | 0.030 | 0.001 | 1.111 | A | |
| 1 | ug U | 2.705 | 0.347 | 2.472 | 0.101 | 1.094 | A | |
| 1 | PU238 | 0.056 | 0.006 | 0.069 | 0.003 | 0.801 | W | |
| 1 | PU239 | 0.052 | 0.006 | 0.062 | 0.002 | 0.836 | W | |
| 1 | AM241 | 0.072 | 0.007 | 0.069 | 0.003 | 1.041 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 627.900 | 37.400 | 707.500 | 24.987 | 0.887 | W | |
| 1 | CO60 | 8.621 | 2.797 | 10.575 | 0.206 | 0.815 | W | |
| 1 | CS137 | 156.900 | 4.000 | 181.500 | 7.141 | 0.864 | W | |
| 1 | PU239 | 1.864 | 0.533 | 1.770 | 0.154 | 1.053 | A | |
| 1 | AM241 | 1.119 | 0.525 | 1.105 | 0.051 | 1.012 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** TN Thermo NuTech, Richmond, CA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | CM244 | 2.511 | 0.796 | 2.174 | 0.066 | 1.155 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 171.220 | 15.521 | 218.300 | 6.505 | 0.784 | W | |
| 1 | SR90 | 4.328 | 0.166 | 4.357 | 0.192 | 0.993 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | SR90 | 1.572 | 0.072 | 1.758 | 0.042 | 0.894 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | SR90 | 364.600 | 13.000 | 359.005 | 6.021 | 1.016 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | SR90 | 57.765 | 5.075 | 13.091 | 0.279 | 4.413 | N | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** TO Thermo NUtech Oak Ridge Laboratory

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 317.400 | 57.600 | 313.500 | 10.150 | 1.012 | A | |
| 1 | SR90 | 16.000 | 2.300 | 13.091 | 0.279 | 1.222 | A | |
| 1 | CS137 | 340.800 | 49.300 | 329.500 | 9.260 | 1.034 | A | |
| 1 | U234 | 32.700 | 3.200 | 31.133 | 0.802 | 1.050 | A | |
| 1 | U238 | 33.200 | 3.400 | 31.900 | 2.552 | 1.041 | A | |
| 1 | PU239 | 3.600 | 1.400 | 5.305 | 0.253 | 0.679 | N | |
| 1 | AM241 | 7.800 | 3.500 | 2.678 | 0.212 | 2.913 | N | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 636.600 | 101.000 | 707.500 | 24.987 | 0.900 | A | |
| 1 | CO60 | 10.100 | 2.700 | 10.575 | 0.206 | 0.955 | A | |
| 1 | SR90 | 138.700 | 6.300 | 359.005 | 6.021 | 0.386 | N | |
| 1 | PU239 | 1.800 | 1.300 | 1.770 | 0.154 | 1.017 | A | |
| 1 | AM241 | 1.300 | 1.200 | 1.105 | 0.051 | 1.176 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.900 | 1.200 | 1.400 | 0.100 | 1.357 | W | |
| 1 | GROSS BETA | 2.700 | 0.500 | 1.960 | 0.300 | 1.378 | A | |
| 1 | MN54 | 7.300 | 1.300 | 5.440 | 0.485 | 1.342 | W | |
| 1 | CO57 | 20.500 | 1.300 | 11.110 | 0.846 | 1.845 | N | |
| 1 | CO60 | 12.000 | 1.500 | 9.090 | 0.732 | 1.320 | N | |
| 1 | SB125 | 16.600 | 1.200 | 12.160 | 1.151 | 1.365 | W | |
| 1 | CS134 | 21.900 | 1.600 | 19.740 | 1.380 | 1.109 | A | |
| 1 | CS137 | 15.300 | 2.500 | 11.860 | 0.957 | 1.290 | W | |
| 1 | CE144 | 15.900 | 1.700 | 8.210 | 0.796 | 1.937 | N | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1001.000 | 30.600 | 1421.000 | 100.000 | 0.704 | W | |
| 1 | GROSS BETA | 1662.000 | 28.500 | 2200.000 | 100.000 | 0.755 | A | |
| 1 | H3 | 344.000 | 104.000 | 218.300 | 6.505 | 1.576 | W | |
| 1 | MN54 | 61.700 | 11.100 | 57.000 | 1.900 | 1.082 | A | |
| 1 | FE55 | 268.000 | 56.000 | 202.800 | 2.921 | 1.321 | W | |
| 1 | CO60 | 14.300 | 1.200 | 13.600 | 1.200 | 1.051 | A | |
| 1 | SR90 | 3.700 | 0.100 | 4.357 | 0.192 | 0.849 | W | |
| 1 | CS137 | 50.600 | 6.000 | 46.000 | 1.700 | 1.100 | A | |
| 1 | U234 | 0.400 | 0.150 | 0.396 | 0.026 | 1.010 | A | |
| 1 | U238 | 0.460 | 0.170 | 0.396 | 0.037 | 1.161 | A | |
| 1 | PU238 | 2.300 | 0.400 | 2.526 | 0.060 | 0.911 | A | |
| 1 | PU239 | 1.600 | 0.300 | 1.650 | 0.061 | 0.970 | A | |
| 1 | AM241 | 1.500 | 0.300 | 1.226 | 0.050 | 1.224 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** TP Taiwan Power Company, Taipei, Taiwan

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.765 | 0.252 | 5.440 | 0.485 | 1.060 | A | |
| 1 | CO57 | 11.375 | 0.739 | 11.110 | 0.846 | 1.024 | A | |
| 1 | CO60 | 9.314 | 0.107 | 9.090 | 0.732 | 1.025 | A | |
| 1 | SB125 | 12.911 | 0.358 | 12.160 | 1.151 | 1.062 | A | |
| 1 | CS134 | 21.218 | 0.582 | 19.740 | 1.380 | 1.075 | A | |
| 1 | CS137 | 12.121 | 0.514 | 11.860 | 0.957 | 1.022 | A | |
| 1 | CE144 | 7.864 | 0.695 | 8.210 | 0.796 | 0.958 | A | |
| 1 | SR90 | 1.817 | 0.071 | 1.758 | 0.042 | 1.033 | A | |
| 1 | GROSS ALPHA | 1.108 | 0.026 | 1.400 | 0.100 | 0.791 | W | |
| 1 | GROSS BETA | 2.112 | 0.045 | 1.960 | 0.300 | 1.078 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | CS137 | 357.351 | 20.093 | 329.500 | 9.260 | 1.085 | A | |
| 1 | K40 | 334.230 | 16.493 | 313.500 | 10.150 | 1.066 | A | |
| 1 | SR90 | 14.152 | 1.411 | 13.091 | 0.279 | 1.081 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | CO60 | 11.728 | 1.284 | 10.575 | 0.206 | 1.109 | A | |
| 1 | CS137 | 176.426 | 13.376 | 181.500 | 7.141 | 0.972 | A | |
| 1 | K40 | 764.680 | 35.705 | 707.500 | 24.987 | 1.081 | A | |
| 1 | SR90 | 370.495 | 32.020 | 359.005 | 6.021 | 1.032 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 56.727 | 1.519 | 57.000 | 1.900 | 0.995 | A | |
| 1 | CO60 | 14.166 | 0.723 | 13.600 | 1.200 | 1.042 | A | |
| 1 | CS137 | 46.945 | 0.683 | 46.000 | 1.700 | 1.021 | A | |
| 1 | SR90 | 5.029 | 0.102 | 4.357 | 0.192 | 1.154 | A | |
| 1 | GROSS BETA | 1949.569 | 46.555 | 2200.000 | 100.000 | 0.886 | A | |
| 1 | H3 | 223.315 | 13.736 | 218.300 | 6.505 | 1.023 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** TT Tracer Technologies International, Inc., Cleveland

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 257.000 | 6.030 | 313.500 | 10.150 | 0.820 | W | |
| 1 | CS137 | 261.000 | 9.250 | 329.500 | 9.260 | 0.792 | N | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 213.000 | 3.630 | 218.300 | 6.505 | 0.976 | A | |
| 1 | MN54 | 66.200 | 7.020 | 57.000 | 1.900 | 1.161 | A | |
| 1 | CO60 | 15.500 | 3.580 | 13.600 | 1.200 | 1.140 | W | |
| 1 | CS137 | 53.600 | 6.830 | 46.000 | 1.700 | 1.165 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** TW Taiwan Radiation Monitoring Center

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 310.000 | 10.000 | 313.500 | 10.150 | 0.989 | A | |
| 1 | SR90 | 16.000 | 2.000 | 13.091 | 0.279 | 1.222 | A | |
| 1 | CS137 | 325.000 | 3.000 | 329.500 | 9.260 | 0.986 | A | |
| 1 | U234 | 27.000 | 0.900 | 31.133 | 0.802 | 0.867 | A | |
| 1 | U238 | 27.900 | 0.900 | 31.900 | 2.552 | 0.875 | A | |
| 1 | PU239 | 5.600 | 0.400 | 5.305 | 0.253 | 1.056 | A | |
| 1 | AM241 | 2.800 | 0.100 | 2.678 | 0.212 | 1.046 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.400 | 0.030 | 1.400 | 0.100 | 1.000 | A | |
| 1 | GROSS BETA | 2.280 | 0.030 | 1.960 | 0.300 | 1.163 | A | |
| 1 | MN54 | 5.400 | 0.200 | 5.440 | 0.485 | 0.993 | A | |
| 1 | CO57 | 11.000 | 0.200 | 11.110 | 0.846 | 0.990 | A | |
| 1 | CO60 | 8.900 | 0.200 | 9.090 | 0.732 | 0.979 | A | |
| 1 | SR90 | 1.730 | 0.090 | 1.758 | 0.042 | 0.984 | A | |
| 1 | SB125 | 12.000 | 0.200 | 12.160 | 1.151 | 0.987 | A | |
| 1 | CS134 | 18.500 | 0.200 | 19.740 | 1.380 | 0.937 | A | |
| 1 | CS137 | 11.200 | 0.200 | 11.860 | 0.957 | 0.944 | A | |
| 1 | CE144 | 7.700 | 0.500 | 8.210 | 0.796 | 0.938 | A | |
| 1 | U234 | 0.034 | 0.003 | 0.031 | 0.003 | 1.104 | A | |
| 1 | U238 | 0.036 | 0.003 | 0.030 | 0.001 | 1.181 | A | |
| 1 | PU238 | 0.072 | 0.005 | 0.069 | 0.003 | 1.036 | A | |
| 1 | PU239 | 0.065 | 0.005 | 0.062 | 0.002 | 1.043 | A | |
| 1 | AM241 | 0.076 | 0.005 | 0.069 | 0.003 | 1.106 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 700.000 | 20.000 | 707.500 | 24.987 | 0.989 | A | |
| 1 | CO60 | 11.100 | 0.600 | 10.575 | 0.206 | 1.050 | A | |
| 1 | SR90 | 312.000 | 8.000 | 359.005 | 6.021 | 0.869 | A | |
| 1 | CS137 | 183.000 | 2.000 | 181.500 | 7.141 | 1.008 | A | |
| 1 | PU238 | 0.130 | 0.030 | 0.116 | 0.035 | 1.124 | A | |
| 1 | PU239 | 1.700 | 0.100 | 1.770 | 0.154 | 0.960 | A | |
| 1 | AM241 | 1.030 | 0.060 | 1.105 | 0.051 | 0.932 | A | |
| 1 | CM244 | 2.040 | 0.090 | 2.174 | 0.066 | 0.939 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 670.000 | 50.000 | 1421.000 | 100.000 | 0.471 | N | |
| 1 | GROSS BETA | 2000.000 | 60.000 | 2200.000 | 100.000 | 0.909 | A | |
| 1 | H3 | 236.000 | 2.000 | 218.300 | 6.505 | 1.081 | A | |
| 1 | MN54 | 62.000 | 1.000 | 57.000 | 1.900 | 1.088 | A | |
| 1 | CO60 | 14.000 | 0.400 | 13.600 | 1.200 | 1.029 | A | |
| 1 | SR90 | 4.400 | 0.200 | 4.357 | 0.192 | 1.010 | A | |
| 1 | CS137 | 51.000 | 1.000 | 46.000 | 1.700 | 1.109 | A | |
| 1 | U234 | 0.430 | 0.030 | 0.396 | 0.026 | 1.085 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** TW Taiwan Radiation Monitoring Center

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | U238 | 0.420 | 0.030 | 0.396 | 0.037 | 1.060 | A | |
| 1 | PU238 | 2.400 | 0.100 | 2.526 | 0.060 | 0.950 | A | |
| 1 | PU239 | 1.660 | 0.080 | 1.650 | 0.061 | 1.006 | A | |
| 1 | AM241 | 1.240 | 0.060 | 1.226 | 0.050 | 1.012 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** TX Texas Dept. of Health/Laboratories, Austin

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.410 | 0.050 | 1.400 | 0.100 | 1.007 | A | |
| 1 | GROSS BETA | 1.890 | 0.080 | 1.960 | 0.300 | 0.964 | A | |
| 1 | MN54 | 6.120 | 0.100 | 5.440 | 0.485 | 1.125 | A | |
| 1 | CO57 | 11.210 | 0.130 | 11.110 | 0.846 | 1.009 | A | |
| 1 | CO60 | 9.180 | 0.080 | 9.090 | 0.732 | 1.010 | A | |
| 1 | SB125 | 8.470 | 0.150 | 12.160 | 1.151 | 0.697 | W | |
| 1 | CS134 | 18.240 | 0.090 | 19.740 | 1.380 | 0.924 | A | |
| 1 | CS137 | 11.870 | 0.110 | 11.860 | 0.957 | 1.001 | A | |
| 1 | CE144 | 7.900 | 0.180 | 8.210 | 0.796 | 0.962 | A | |
| 1 | PU238 | 0.065 | 0.004 | 0.069 | 0.003 | 0.935 | A | |
| 1 | PU239 | 0.065 | 0.005 | 0.062 | 0.002 | 1.043 | A | |
| 1 | AM241 | 0.066 | 0.004 | 0.069 | 0.003 | 0.961 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1778.000 | 47.000 | 1421.000 | 100.000 | 1.251 | W | |
| 1 | GROSS BETA | 2036.000 | 70.000 | 2200.000 | 100.000 | 0.925 | A | |
| 1 | H3 | 233.000 | 12.000 | 218.300 | 6.505 | 1.067 | A | |
| 1 | MN54 | 63.680 | 0.480 | 57.000 | 1.900 | 1.117 | A | |
| 1 | CO60 | 15.090 | 0.200 | 13.600 | 1.200 | 1.110 | A | |
| 1 | SR90 | 4.260 | 0.650 | 4.357 | 0.192 | 0.978 | A | |
| 1 | CS137 | 50.280 | 0.440 | 46.000 | 1.700 | 1.093 | A | |
| 1 | U234 | 0.455 | 0.027 | 0.396 | 0.026 | 1.148 | A | |
| 1 | U238 | 0.474 | 0.026 | 0.396 | 0.037 | 1.196 | W | |
| 1 | Bq U | 0.961 | 0.062 | 0.801 | 0.067 | 1.199 | A | |
| 1 | PU238 | 2.357 | 0.063 | 2.526 | 0.060 | 0.933 | A | |
| 1 | PU239 | 1.602 | 0.043 | 1.650 | 0.061 | 0.971 | A | |
| 1 | AM241 | 1.008 | 0.034 | 1.226 | 0.050 | 0.822 | W | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 795.000 | 17.000 | 707.500 | 24.987 | 1.124 | A | |
| 1 | CO60 | 11.160 | 0.070 | 10.575 | 0.206 | 1.055 | A | |
| 1 | SR90 | 327.820 | 21.830 | 359.005 | 6.021 | 0.913 | A | |
| 1 | CS137 | 185.000 | 2.000 | 181.500 | 7.141 | 1.019 | A | |
| 1 | PU239 | 1.769 | 0.130 | 1.770 | 0.154 | 0.999 | A | |
| 1 | AM241 | 1.070 | 0.110 | 1.105 | 0.051 | 0.968 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 345.000 | 9.000 | 313.500 | 10.150 | 1.100 | A | |
| 1 | SR90 | 18.000 | 5.000 | 13.091 | 0.279 | 1.375 | A | |
| 1 | CS137 | 355.000 | 2.000 | 329.500 | 9.260 | 1.077 | A | |
| 1 | U234 | 32.856 | 0.866 | 31.133 | 0.802 | 1.055 | A | |
| 1 | U238 | 32.889 | 0.907 | 31.900 | 2.552 | 1.031 | A | |
| 1 | Bq U | 68.136 | 2.061 | 64.600 | 2.858 | 1.055 | A | |
| 1 | PU239 | 5.487 | 0.270 | 5.305 | 0.253 | 1.034 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** TX Texas Dept. of Health/Laboratories, Austin

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | AM241 | 2.675 | 0.218 | 2.678 | 0.212 | 0.999 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** UC Lockheed Martin, Paducah, KY

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | CS137 | 400.620 | 41.210 | 329.500 | 9.260 | 1.216 | W | |
| 1 | K40 | 363.920 | 16.060 | 313.500 | 10.150 | 1.161 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.330 | 0.060 | 1.400 | 0.100 | 0.950 | A | |
| 1 | GROSS BETA | 2.750 | 0.080 | 1.960 | 0.300 | 1.403 | A | |
| 1 | CS137 | 15.560 | 1.950 | 11.860 | 0.957 | 1.312 | W | |
| 1 | CO60 | 9.090 | 0.270 | 9.090 | 0.732 | 1.000 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | CS137 | 194.280 | 23.210 | 181.500 | 7.141 | 1.070 | A | |
| 1 | CO60 | 11.360 | 0.550 | 10.575 | 0.206 | 1.074 | A | |
| 1 | K40 | 761.740 | 28.270 | 707.500 | 24.987 | 1.077 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | ug U | 0.035 | | 0.032 | 0.003 | 1.094 | A | |
| 1 | PU238 | 2.343 | 0.298 | 2.526 | 0.060 | 0.928 | A | |
| 1 | PU239 | 1.663 | 0.168 | 1.650 | 0.061 | 1.008 | A | |
| 1 | GROSS ALPHA | 1364.750 | 47.000 | 1421.000 | 100.000 | 0.960 | A | |
| 1 | CS137 | 52.810 | 5.160 | 46.000 | 1.700 | 1.148 | A | |
| 1 | CO60 | 15.070 | 0.360 | 13.600 | 1.200 | 1.108 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** UP Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | ug U | 0.035 | 0.004 | 0.032 | 0.003 | 1.094 | A | |
| 1 | AM241 | 0.694 | 0.229 | 1.226 | 0.050 | 0.566 | N | |
| 1 | PU238 | 2.230 | 0.412 | 2.526 | 0.060 | 0.883 | W | |
| 1 | PU239 | 1.380 | 0.292 | 1.650 | 0.061 | 0.836 | W | |
| 1 | CO60 | 15.300 | 0.852 | 13.600 | 1.200 | 1.125 | A | |
| 1 | MN54 | 62.600 | 4.530 | 57.000 | 1.900 | 1.098 | A | |
| 1 | CS137 | 51.200 | 3.160 | 46.000 | 1.700 | 1.113 | A | |
| 1 | SR90 | 4.010 | 1.070 | 4.357 | 0.192 | 0.920 | A | |
| 1 | H3 | 258.500 | 33.000 | 218.300 | 6.505 | 1.184 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | ug U | 2.270 | 0.200 | 2.583 | 0.200 | 0.879 | A | |
| 1 | AM241 | 3.330 | 0.975 | 2.678 | 0.212 | 1.244 | A | |
| 1 | PU239 | 5.060 | 1.490 | 5.305 | 0.253 | 0.954 | A | |
| 1 | U234 | 31.630 | 6.740 | 31.133 | 0.802 | 1.016 | A | |
| 1 | U238 | 26.970 | 4.810 | 31.900 | 2.552 | 0.845 | A | |
| 1 | CS137 | 364.000 | 44.300 | 329.500 | 9.260 | 1.105 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | SB125 | 17.400 | 1.680 | 12.160 | 1.151 | 1.431 | N | |
| 1 | CE144 | 10.600 | 1.620 | 8.210 | 0.796 | 1.291 | W | |
| 1 | CS134 | 25.000 | 1.640 | 19.740 | 1.380 | 1.266 | N | |
| 1 | CS137 | 15.400 | 1.100 | 11.860 | 0.957 | 1.298 | W | |
| 1 | CO57 | 15.400 | 0.898 | 11.110 | 0.846 | 1.386 | N | |
| 1 | CO60 | 11.100 | 0.472 | 9.090 | 0.732 | 1.221 | W | |
| 1 | MN54 | 7.420 | 0.626 | 5.440 | 0.485 | 1.364 | W | |
| 1 | ug U | 2.600 | 0.300 | 2.472 | 0.101 | 1.052 | A | |
| 1 | GROSS ALPHA | 1.370 | 0.070 | 1.400 | 0.100 | 0.979 | A | |
| 1 | GROSS BETA | 2.100 | 0.070 | 1.960 | 0.300 | 1.071 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1560.000 | 90.200 | 1421.000 | 100.000 | 1.098 | A | |
| 1 | GROSS BETA | 2960.000 | 93.600 | 2200.000 | 100.000 | 1.345 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.780 | 0.100 | 1.400 | 0.100 | 1.271 | A | |
| 1 | GROSS BETA | 2.260 | 0.100 | 1.960 | 0.300 | 1.153 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1493.000 | 60.000 | 1421.000 | 100.000 | 1.051 | A | |
| 1 | GROSS BETA | 2425.000 | 70.000 | 2200.000 | 100.000 | 1.102 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** UY Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 5.600 | 0.600 | 5.440 | 0.485 | 1.029 | A | |
| 1 | CO57 | 11.100 | 0.300 | 11.110 | 0.846 | 0.999 | A | |
| 1 | CO60 | 8.800 | 0.900 | 9.090 | 0.732 | 0.968 | A | |
| 1 | SB125 | 12.800 | 0.800 | 12.160 | 1.151 | 1.053 | A | |
| 1 | CS134 | 19.100 | 0.900 | 19.740 | 1.380 | 0.968 | A | |
| 1 | CS137 | 11.700 | 1.000 | 11.860 | 0.957 | 0.987 | A | |
| 1 | CE144 | 7.600 | 0.800 | 8.210 | 0.796 | 0.926 | A | |
| 1 | Bq U | 0.070 | 0.010 | 0.063 | 0.004 | 1.109 | A | |
| 1 | PU238 | 0.064 | 0.011 | 0.069 | 0.003 | 0.921 | A | |
| 1 | PU239 | 0.060 | 0.010 | 0.062 | 0.002 | 0.962 | A | |
| 1 | AM241 | 0.069 | 0.012 | 0.069 | 0.003 | 1.004 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 370.000 | 100.000 | 313.500 | 10.150 | 1.180 | A | |
| 1 | CS137 | 360.000 | 40.000 | 329.500 | 9.260 | 1.093 | A | |
| 1 | Bq U | 48.700 | 8.500 | 64.600 | 2.858 | 0.754 | A | |
| 1 | AM241 | 2.600 | 1.100 | 2.678 | 0.212 | 0.971 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 62.400 | 7.400 | 57.000 | 1.900 | 1.095 | A | |
| 1 | CO60 | 14.100 | 1.200 | 13.600 | 1.200 | 1.037 | A | |
| 1 | CS137 | 50.900 | 7.400 | 46.000 | 1.700 | 1.107 | A | |
| 1 | Bq U | 0.910 | 0.130 | 0.801 | 0.067 | 1.136 | A | |
| 1 | PU238 | 2.400 | 0.250 | 2.526 | 0.060 | 0.950 | A | |
| 1 | PU239 | 1.650 | 0.180 | 1.650 | 0.061 | 1.000 | A | |
| 1 | AM241 | 1.210 | 0.150 | 1.226 | 0.050 | 0.987 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 770.000 | 140.000 | 707.500 | 24.987 | 1.088 | A | |
| 1 | CO60 | 14.800 | 5.100 | 10.575 | 0.206 | 1.400 | W | |
| 1 | CS137 | 204.000 | 23.000 | 181.500 | 7.141 | 1.124 | A | |
| 1 | PU239 | 2.080 | 0.270 | 1.770 | 0.154 | 1.175 | A | |
| 1 | AM241 | 1.240 | 0.280 | 1.105 | 0.051 | 1.122 | A | |
| 1 | CM244 | 1.410 | 0.340 | 2.174 | 0.066 | 0.649 | W | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | PU239 | 4.930 | 1.000 | 5.305 | 0.253 | 0.929 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | SR90 | 1.260 | 0.100 | 1.758 | 0.042 | 0.717 | W | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** UY Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | SR90 | 13.000 | 6.000 | 13.091 | 0.279 | 0.993 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | H3 | 250.000 | 50.000 | 218.300 | 6.505 | 1.145 | A | |
| 1 | SR90 | 4.510 | 0.450 | 4.357 | 0.192 | 1.035 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | SR90 | 300.000 | 10.000 | 359.005 | 6.021 | 0.836 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** WA Environmental Radiation Lab, Off. of Public Health Labs. Seattle

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.500 | 0.100 | 1.400 | 0.100 | 1.071 | A | |
| 1 | GROSS BETA | 2.300 | 0.100 | 1.960 | 0.300 | 1.173 | A | |
| 1 | MN54 | 6.300 | 0.300 | 5.440 | 0.485 | 1.158 | W | |
| 1 | CO57 | 11.700 | 0.200 | 11.110 | 0.846 | 1.053 | A | |
| 1 | CO60 | 9.300 | 0.200 | 9.090 | 0.732 | 1.023 | A | |
| 1 | SR90 | 1.730 | 0.160 | 1.758 | 0.042 | 0.984 | A | |
| 1 | SB125 | 14.900 | 0.500 | 12.160 | 1.151 | 1.225 | W | |
| 1 | CS134 | 17.600 | 0.300 | 19.740 | 1.380 | 0.892 | A | |
| 1 | CS137 | 12.400 | 0.300 | 11.860 | 0.957 | 1.046 | A | |
| 1 | CE144 | 8.300 | 0.500 | 8.210 | 0.796 | 1.011 | A | |
| 1 | U234 | 0.042 | 0.018 | 0.031 | 0.003 | 1.364 | A | |
| 1 | U238 | 0.033 | 0.016 | 0.030 | 0.001 | 1.083 | A | |
| 1 | Bq U | 0.078 | 0.027 | 0.063 | 0.004 | 1.236 | A | |
| 1 | PU238 | 0.065 | 0.020 | 0.069 | 0.003 | 0.935 | A | |
| 1 | PU239 | 0.075 | 0.018 | 0.062 | 0.002 | 1.203 | W | |
| 1 | AM241 | 0.069 | 0.017 | 0.069 | 0.003 | 1.004 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1450.000 | 60.000 | 1421.000 | 100.000 | 1.020 | A | |
| 1 | GROSS BETA | 2340.000 | 60.000 | 2200.000 | 100.000 | 1.064 | A | |
| 1 | H3 | 233.000 | 50.000 | 218.300 | 6.505 | 1.067 | A | |
| 1 | MN54 | 61.400 | 4.400 | 57.000 | 1.900 | 1.077 | A | |
| 1 | CO60 | 14.700 | 1.000 | 13.600 | 1.200 | 1.081 | A | |
| 1 | SR90 | 4.590 | 0.630 | 4.357 | 0.192 | 1.053 | A | |
| 1 | CS137 | 51.400 | 3.000 | 46.000 | 1.700 | 1.117 | A | |
| 1 | U234 | 0.410 | 0.060 | 0.396 | 0.026 | 1.035 | A | |
| 1 | U238 | 0.440 | 0.060 | 0.396 | 0.037 | 1.110 | A | |
| 1 | Bq U | 0.880 | 0.090 | 0.801 | 0.067 | 1.098 | A | |
| 1 | PU238 | 2.590 | 0.160 | 2.526 | 0.060 | 1.025 | A | |
| 1 | PU239 | 1.700 | 0.190 | 1.650 | 0.061 | 1.030 | A | |
| 1 | AM241 | 1.110 | 0.090 | 1.226 | 0.050 | 0.906 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 773.000 | 44.000 | 707.500 | 24.987 | 1.093 | A | |
| 1 | CO60 | 11.800 | 1.000 | 10.575 | 0.206 | 1.116 | A | |
| 1 | SR90 | 369.000 | 19.000 | 359.005 | 6.021 | 1.028 | A | |
| 1 | CS137 | 192.000 | 21.000 | 181.500 | 7.141 | 1.058 | A | |
| 1 | PU238 | 0.200 | 0.120 | 0.116 | 0.035 | 1.729 | A | |
| 1 | PU239 | 1.640 | 0.240 | 1.770 | 0.154 | 0.926 | A | |
| 1 | AM241 | 0.940 | 0.220 | 1.105 | 0.051 | 0.851 | W | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 367.000 | 26.000 | 313.500 | 10.150 | 1.171 | A | |
| 1 | SR90 | 12.200 | 2.100 | 13.091 | 0.279 | 0.932 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** WA Environmental Radiation Lab, Off. of Public Health Labs. Seattle

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | CS137 | 356.000 | 18.000 | 329.500 | 9.260 | 1.080 | A | |
| 1 | U234 | 32.700 | 3.300 | 31.133 | 0.802 | 1.050 | A | |
| 1 | U238 | 31.800 | 3.200 | 31.900 | 2.552 | 0.997 | A | |
| 1 | Bq U | 67.000 | 4.400 | 64.600 | 2.858 | 1.037 | A | |
| 1 | PU239 | 5.400 | 0.470 | 5.305 | 0.253 | 1.018 | A | |
| 1 | AM241 | 2.420 | 0.200 | 2.678 | 0.212 | 0.904 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** WC Westinghouse Hanford Co.

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 873.000 | 103.000 | 707.500 | 24.987 | 1.234 | A | |
| 1 | CO60 | 11.200 | 1.300 | 10.575 | 0.206 | 1.059 | A | |
| 1 | SR90 | 278.000 | 39.000 | 359.005 | 6.021 | 0.774 | A | |
| 1 | CS137 | 202.000 | 30.000 | 181.500 | 7.141 | 1.113 | A | |
| 1 | PU239 | 1.750 | 0.310 | 1.770 | 0.154 | 0.989 | A | |
| 1 | AM241 | 1.440 | 0.190 | 1.105 | 0.051 | 1.303 | A | |
| 1 | CM244 | 2.090 | 0.230 | 2.174 | 0.066 | 0.962 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 396.000 | 49.000 | 313.500 | 10.150 | 1.263 | W | |
| 1 | SR90 | 6.700 | 8.700 | 13.091 | 0.279 | 0.512 | N | |
| 1 | CS137 | 351.000 | 53.000 | 329.500 | 9.260 | 1.065 | A | |
| 1 | PU239 | 5.590 | 0.960 | 5.305 | 0.253 | 1.054 | A | |
| 1 | AM241 | 4.180 | 1.670 | 2.678 | 0.212 | 1.561 | W | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.380 | 0.030 | 1.400 | 0.100 | 0.986 | A | |
| 1 | GROSS BETA | 2.620 | 0.050 | 1.960 | 0.300 | 1.337 | A | |
| 1 | MN54 | 5.510 | 0.770 | 5.440 | 0.485 | 1.013 | A | |
| 1 | CO57 | 10.700 | 0.950 | 11.110 | 0.846 | 0.963 | A | |
| 1 | CO60 | 8.810 | 0.690 | 9.090 | 0.732 | 0.969 | A | |
| 1 | SR90 | 1.690 | 0.250 | 1.758 | 0.042 | 0.961 | A | |
| 1 | SB125 | 7.070 | 0.520 | 12.160 | 1.151 | 0.581 | N | |
| 1 | CS134 | 16.600 | 1.100 | 19.740 | 1.380 | 0.841 | A | |
| 1 | CS137 | 11.700 | 1.600 | 11.860 | 0.957 | 0.987 | A | |
| 1 | CE144 | 6.620 | 1.100 | 8.210 | 0.796 | 0.806 | A | |
| 1 | U234 | 0.039 | 0.009 | 0.031 | 0.003 | 1.256 | A | |
| 1 | U238 | 0.032 | 0.008 | 0.030 | 0.001 | 1.050 | A | |
| 1 | PU238 | 0.083 | 0.015 | 0.069 | 0.003 | 1.199 | W | |
| 1 | PU239 | 0.063 | 0.012 | 0.062 | 0.002 | 1.009 | A | |
| 1 | AM241 | 0.096 | 0.017 | 0.069 | 0.003 | 1.394 | W | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1460.000 | 146.000 | 1421.000 | 100.000 | 1.027 | A | |
| 1 | GROSS BETA | 2150.000 | 215.000 | 2200.000 | 100.000 | 0.977 | A | |
| 1 | H3 | 192.000 | 40.000 | 218.300 | 6.505 | 0.880 | A | |
| 1 | MN54 | 64.900 | 9.000 | 57.000 | 1.900 | 1.139 | A | |
| 1 | CO60 | 14.700 | 1.300 | 13.600 | 1.200 | 1.081 | A | |
| 1 | SR90 | 4.420 | 0.610 | 4.357 | 0.192 | 1.014 | A | |
| 1 | CS137 | 53.500 | 7.300 | 46.000 | 1.700 | 1.163 | A | |
| 1 | U234 | 0.451 | 0.047 | 0.396 | 0.026 | 1.138 | A | |
| 1 | U238 | 0.433 | 0.046 | 0.396 | 0.037 | 1.093 | A | |
| 1 | PU238 | 2.520 | 0.430 | 2.526 | 0.060 | 0.998 | A | |
| 1 | PU239 | 1.700 | 0.290 | 1.650 | 0.061 | 1.030 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** WC Westinghouse Hanford Co.

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | AM241 | 1.330 | 0.220 | 1.226 | 0.050 | 1.085 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | U234 | 23.200 | 2.200 | 31.133 | 0.802 | 0.745 | A | |
| 1 | U238 | 19.200 | 1.700 | 31.900 | 2.552 | 0.602 | W | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** WI WIPP Site, Westinghouse Electric Corp.

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | AM241 | 0.074 | 0.015 | 0.069 | 0.003 | 1.077 | A | |
| 1 | U234 | 0.032 | 0.008 | 0.031 | 0.003 | 1.055 | A | |
| 1 | U238 | 0.034 | 0.008 | 0.030 | 0.001 | 1.115 | A | |
| 1 | PU238 | 0.072 | 0.015 | 0.069 | 0.003 | 1.036 | A | |
| 1 | PU239 | 0.060 | 0.013 | 0.062 | 0.002 | 0.954 | A | |
| 1 | MN54 | 5.470 | 0.560 | 5.440 | 0.485 | 1.006 | A | |
| 1 | CO57 | 10.800 | 0.920 | 11.110 | 0.846 | 0.972 | A | |
| 1 | CO60 | 8.780 | 0.760 | 9.090 | 0.732 | 0.966 | A | |
| 1 | SB125 | 12.100 | 0.810 | 12.160 | 1.151 | 0.995 | A | |
| 1 | CS134 | 18.900 | 1.100 | 19.740 | 1.380 | 0.957 | A | |
| 1 | CS137 | 11.400 | 1.200 | 11.860 | 0.957 | 0.961 | A | |
| 1 | CE144 | 7.660 | 1.100 | 8.210 | 0.796 | 0.933 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | AM241 | 1.180 | 0.180 | 1.226 | 0.050 | 0.963 | A | |
| 1 | U234 | 0.404 | 0.070 | 0.396 | 0.026 | 1.020 | A | |
| 1 | U238 | 0.401 | 0.070 | 0.396 | 0.037 | 1.012 | A | |
| 1 | PU238 | 1.828 | 0.290 | 2.526 | 0.060 | 0.724 | N | |
| 1 | PU239 | 1.313 | 0.210 | 1.650 | 0.061 | 0.796 | N | |
| 1 | MN54 | 64.700 | 5.900 | 57.000 | 1.900 | 1.135 | A | |
| 1 | CO60 | 15.510 | 1.400 | 13.600 | 1.200 | 1.140 | W | |
| 1 | CS137 | 51.500 | 5.300 | 46.000 | 1.700 | 1.120 | A | |
| 1 | SR90 | 3.863 | 0.500 | 4.357 | 0.192 | 0.887 | W | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | SR90 | 1.710 | 0.150 | 1.758 | 0.042 | 0.973 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** WP Washington Public Power Supply System, Richland

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS BETA | 2.110 | 0.074 | 1.960 | 0.300 | 1.077 | A | |
| 1 | MN54 | 5.810 | 0.250 | 5.440 | 0.485 | 1.068 | A | |
| 1 | CO60 | 8.710 | 0.330 | 9.090 | 0.732 | 0.958 | A | |
| 1 | SB125 | 12.800 | 0.630 | 12.160 | 1.151 | 1.053 | A | |
| 1 | CS137 | 12.200 | 0.330 | 11.860 | 0.957 | 1.029 | A | |
| 1 | CE144 | 7.360 | 0.570 | 8.210 | 0.796 | 0.896 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 838.000 | 22.000 | 707.500 | 24.987 | 1.184 | A | |
| 1 | CO60 | 13.300 | 1.200 | 10.575 | 0.206 | 1.258 | W | |
| 1 | CS137 | 223.000 | 3.000 | 181.500 | 7.141 | 1.229 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 389.000 | 14.000 | 313.500 | 10.150 | 1.241 | A | |
| 1 | SR90 | 13.000 | 2.200 | 13.091 | 0.279 | 0.993 | A | |
| 1 | CS137 | 392.000 | 3.400 | 329.500 | 9.260 | 1.190 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1400.000 | 110.000 | 1421.000 | 100.000 | 0.985 | A | |
| 1 | GROSS BETA | 53.000 | 2.000 | 2200.000 | 100.000 | 0.024 | N | |
| 1 | H3 | 340.000 | 48.000 | 218.300 | 6.505 | 1.557 | W | |
| 1 | MN54 | 56.100 | 1.300 | 57.000 | 1.900 | 0.984 | A | |
| 1 | CO60 | 13.600 | 0.800 | 13.600 | 1.200 | 1.000 | A | |
| 1 | CS137 | 47.200 | 1.200 | 46.000 | 1.700 | 1.026 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** WS Weldon Springs Site, St Charles, MO

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.400 | 0.027 | 1.400 | 0.100 | 1.000 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 335.600 | 13.400 | 313.500 | 10.150 | 1.070 | A | |
| 1 | CS137 | 365.600 | 12.100 | 329.500 | 9.260 | 1.110 | A | |
| 1 | U238 | 30.000 | 4.600 | 31.900 | 2.552 | 0.940 | A | |
| 1 | AM241 | 3.500 | 0.740 | 2.678 | 0.212 | 1.307 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** WV West Valley Nuclear Services Co, Inc, NY

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.150 | 0.027 | 1.400 | 0.100 | 0.821 | W | |
| 1 | GROSS BETA | 2.180 | 0.035 | 1.960 | 0.300 | 1.112 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1228.000 | 73.000 | 1421.000 | 100.000 | 0.864 | A | |
| 1 | GROSS BETA | 2391.000 | 87.000 | 2200.000 | 100.000 | 1.087 | A | |
| 1 | H3 | 234.000 | 8.800 | 218.300 | 6.505 | 1.072 | A | |
| 1 | MN54 | 61.900 | 0.670 | 57.000 | 1.900 | 1.086 | A | |
| 1 | CO60 | 14.900 | 0.400 | 13.600 | 1.200 | 1.096 | A | |
| 1 | SR90 | 4.520 | 0.300 | 4.357 | 0.192 | 1.037 | A | |
| 1 | CS137 | 48.600 | 0.520 | 46.000 | 1.700 | 1.057 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** YA Duke Engineering Environmental Lab, Westboro, MA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | GROSS ALPHA | 1382.813 | 10.980 | 1421.000 | 100.000 | 0.973 | A | |
| 1 | GROSS BETA | 2123.183 | 23.187 | 2200.000 | 100.000 | 0.965 | A | |
| 1 | H3 | 246.790 | 6.290 | 218.300 | 6.505 | 1.131 | A | |
| 1 | MN54 | 60.594 | 0.814 | 57.000 | 1.900 | 1.063 | A | |
| 1 | FE55 | 281.077 | 23.063 | 202.800 | 2.921 | 1.386 | W | |
| 1 | CO60 | 14.040 | 0.368 | 13.600 | 1.200 | 1.032 | A | |
| 1 | SR90 | 4.121 | 0.199 | 4.357 | 0.192 | 0.946 | A | |
| 1 | CS137 | 49.074 | 0.752 | 46.000 | 1.700 | 1.067 | A | |
| 1 | U234 | 0.434 | 0.020 | 0.396 | 0.026 | 1.096 | A | |
| 1 | U238 | 0.430 | 0.020 | 0.396 | 0.037 | 1.086 | A | |
| 1 | ug U | 0.039 | 0.004 | 0.032 | 0.003 | 1.209 | W | |
| 1 | PU238 | 2.464 | 0.043 | 2.526 | 0.060 | 0.976 | A | |
| 1 | PU239 | 1.643 | 0.030 | 1.650 | 0.061 | 0.996 | A | |
| 1 | AM241 | 1.157 | 0.023 | 1.226 | 0.050 | 0.944 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 357.050 | 9.990 | 313.500 | 10.150 | 1.139 | A | |
| 1 | SR90 | 9.201 | 0.666 | 13.091 | 0.279 | 0.703 | W | |
| 1 | CS137 | 359.215 | 2.164 | 329.500 | 9.260 | 1.090 | A | |
| 1 | U234 | 31.092 | 1.122 | 31.133 | 0.802 | 0.999 | A | |
| 1 | U238 | 31.179 | 1.135 | 31.900 | 2.552 | 0.977 | A | |
| 1 | PU239 | 5.361 | 0.159 | 5.305 | 0.253 | 1.011 | A | |
| 1 | AM241 | 2.216 | 0.120 | 2.678 | 0.212 | 0.828 | A | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 775.705 | 12.210 | 707.500 | 24.987 | 1.096 | A | |
| 1 | CO60 | 10.156 | 0.426 | 10.575 | 0.206 | 0.960 | A | |
| 1 | SR90 | 358.653 | 18.870 | 359.005 | 6.021 | 0.999 | A | |
| 1 | CS137 | 187.719 | 1.480 | 181.500 | 7.141 | 1.034 | A | |
| 1 | PU239 | 1.674 | 0.060 | 1.770 | 0.154 | 0.945 | A | |
| 1 | AM241 | 1.088 | 0.051 | 1.105 | 0.051 | 0.984 | A | |
| 1 | CM244 | 1.998 | 0.073 | 2.174 | 0.066 | 0.919 | A | |
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | GROSS ALPHA | 1.215 | 0.015 | 1.400 | 0.100 | 0.868 | A | |
| 1 | GROSS BETA | 1.956 | 0.020 | 1.960 | 0.300 | 0.998 | A | |
| 1 | MN54 | 5.426 | 0.096 | 5.440 | 0.485 | 0.997 | A | |
| 1 | CO57 | 10.386 | 0.078 | 11.110 | 0.846 | 0.935 | A | |
| 1 | CO60 | 8.743 | 0.087 | 9.090 | 0.732 | 0.962 | A | |
| 1 | SR90 | 1.560 | 0.142 | 1.758 | 0.042 | 0.887 | A | |
| 1 | SB125 | 6.272 | 0.167 | 12.160 | 1.151 | 0.516 | N | |
| 1 | CS134 | 20.663 | 0.154 | 19.740 | 1.380 | 1.047 | A | |
| 1 | CS137 | 11.281 | 0.118 | 11.860 | 0.957 | 0.951 | A | |
| 1 | CE144 | 6.401 | 0.274 | 8.210 | 0.796 | 0.780 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** YA Duke Engineering Environmental Lab, Westboro, MA

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | U234 | 0.035 | 0.002 | 0.031 | 0.003 | 1.127 | A | |
| 1 | U238 | 0.036 | 0.002 | 0.030 | 0.001 | 1.168 | A | |
| 1 | PU238 | 0.075 | 0.002 | 0.069 | 0.003 | 1.073 | A | |
| 1 | PU239 | 0.066 | 0.002 | 0.062 | 0.002 | 1.057 | A | |
| 1 | AM241 | 0.071 | 0.002 | 0.069 | 0.003 | 1.031 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** YP US Army Proving Ground, Yuma, AZ

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | ug U | 2.400 | 0.115 | 2.472 | 0.101 | 0.971 | A | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | ug U | 2.600 | 0.650 | 2.583 | 0.200 | 1.007 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | ug U | 0.034 | 0.001 | 0.032 | 0.003 | 1.059 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Laboratory

**Lab:** YU Institute of Occupational and Radiological Health, Yugoslovia

| No. Test | Radionuclide | Reported Value | Reported Error | EML Value | EML Error | Reported / EML | Evaluation | QAP 47 Evaluation |
|---|---|---|---|---|---|---|---|---|
| **Matrix:** AI Air Filter Bq / filter | | | | | | | | |
| 1 | MN54 | 6.600 | 0.500 | 5.440 | 0.485 | 1.213 | W | |
| 1 | CO57 | 13.000 | 0.500 | 11.110 | 0.846 | 1.170 | W | |
| 1 | CO60 | 10.800 | 0.300 | 9.090 | 0.732 | 1.188 | W | |
| 1 | SB125 | 15.500 | 0.400 | 12.160 | 1.151 | 1.275 | W | |
| 1 | CS134 | 22.800 | 0.500 | 19.740 | 1.380 | 1.155 | W | |
| 1 | CS137 | 14.300 | 0.500 | 11.860 | 0.957 | 1.206 | W | |
| 1 | CE144 | 9.500 | 0.500 | 8.210 | 0.796 | 1.157 | W | |
| **Matrix:** VE Vegetation Bq / kg | | | | | | | | |
| 1 | K40 | 890.000 | 20.000 | 707.500 | 24.987 | 1.258 | W | |
| 1 | CO60 | 13.500 | 0.900 | 10.575 | 0.206 | 1.277 | W | |
| 1 | CS137 | 230.000 | 20.000 | 181.500 | 7.141 | 1.267 | W | |
| **Matrix:** SO Soil Bq / kg | | | | | | | | |
| 1 | K40 | 355.000 | 20.000 | 313.500 | 10.150 | 1.132 | A | |
| 1 | CS137 | 345.000 | 20.000 | 329.500 | 9.260 | 1.047 | A | |
| **Matrix:** WA Water Bq / L | | | | | | | | |
| 1 | MN54 | 54.000 | 1.400 | 57.000 | 1.900 | 0.947 | A | |
| 1 | CO60 | 13.800 | 0.500 | 13.600 | 1.200 | 1.015 | A | |
| 1 | CS137 | 45.800 | 1.500 | 46.000 | 1.700 | 0.996 | A | |

**Values for elemental uranium are reported in µg/filter, g, or mL.** **pCi/g or mL=Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**
If the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** AM241

**EML Value:** 0.0687
**EML Error:** 0.0031

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 0.0780 | 0.0090 | 1.135 | | A |
| AF | 1 | 0.0500 | 0.0200 | 0.728 | | W |
| AG | 1 | 0.0559 | 0.0097 | 0.814 | A | W |
| AI | 1 | 0.0433 | 0.0033 | 0.630 | | N |
| AM | 1 | 0.0340 | 0.0300 | 0.495 | W | N |
| AN | 1 | 0.0710 | 0.0040 | 1.033 | A | A |
| AR | 1 | 0.6320 | 0.1290 | 9.199 | W | N |
| AR | 2 | 0.7340 | 0.1280 | 10.684 | W | N |
| AU | 1 | 0.2070 | 0.0120 | 3.013 | A | N |
| BE | 1 | 0.0740 | 0.0100 | 1.077 | A | A |
| BL | 1 | 0.1440 | 0.0440 | 2.096 | A | W |
| BM | 1 | 0.0680 | 0.0140 | 0.990 | A | A |
| BP | 1 | 0.0834 | 0.0037 | 1.214 | A | A |
| BU | 1 | 0.0740 | 0.0030 | 1.077 | | A |
| BX | 1 | 0.0788 | 0.0107 | 1.147 | A | A |
| CH | 1 | 0.0810 | 0.0046 | 1.179 | A | A |
| CL | 1 | 0.0700 | 0.0200 | 1.019 | N | A |
| CS | 1 | 0.1407 | 0.0300 | 2.048 | A | W |
| EG | 1 | 0.0710 | 0.0060 | 1.033 | A | A |
| EP | 1 | 0.0712 | 0.0062 | 1.036 | | A |
| FG | 1 | 0.3400 | 0.1000 | 4.949 | N | N |
| FJ | 1 | 0.0890 | 0.0300 | 1.295 | | A |
| FL | 1 | 0.1700 | 0.0300 | 2.475 | N | N |
| FR | 1 | 0.0810 | 0.0250 | 1.179 | N | A |
| GA | 1 | 0.0790 | | 1.150 | A | A |
| GE | 1 | 0.1343 | 0.0172 | 1.955 | A | W |
| GP | 1 | 0.0760 | 0.0080 | 1.106 | W | A |
| GT | 1 | 0.0790 | 0.0400 | 1.150 | A | A |
| IA | 1 | 0.1200 | 0.0500 | 1.747 | | W |
| IA | 2 | 0.1400 | 0.0600 | 2.038 | | W |
| IA | 3 | 0.1000 | 0.0600 | 1.456 | | W |
| IE | 1 | 0.0640 | 0.0040 | 0.932 | A | A |
| IS | 1 | 2.2900 | 0.2400 | 33.333 | W | N |
| IT | 1 | 0.0740 | 0.0060 | 1.077 | A | A |
| JL | 1 | 0.1100 | 0.0900 | 1.601 | | W |
| KO | 1 | 0.0627 | 0.0040 | 0.913 | | A |
| LA | 1 | 0.0740 | 0.0090 | 1.077 | A | A |
| LA | 2 | 0.0680 | 0.0080 | 0.990 | A | A |
| LA | 3 | 0.0740 | 0.0090 | 1.077 | A | A |
| LL | 1 | 0.0759 | 0.0062 | 1.105 | A | A |
| LV | 1 | 0.2000 | 0.0140 | 2.911 | N | N |
| ME | 1 | 0.2700 | 0.0700 | 3.930 | N | N |
| NM | 1 | 0.0759 | 0.0043 | 1.105 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** AM241

**EML Value:** 0.0687
**EML Error:** 0.0031

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| OT | 1 | 0.0750 | 0.0130 | 1.092 | | A |
| RE | 1 | 0.0740 | 0.0080 | 1.077 | | A |
| RI | 1 | 0.0784 | 0.0191 | 1.141 | | A |
| RL | 1 | 0.2040 | 0.0300 | 2.969 | | N |
| SK | 1 | 0.0880 | 0.0140 | 1.281 | | A |
| SN | 1 | 0.0670 | 0.0120 | 0.975 | | A |
| SR | 1 | 0.0820 | 0.0080 | 1.194 | | A |
| SW | 1 | 0.0900 | 0.0200 | 1.310 | | A |
| TE | 1 | 0.0700 | 0.0122 | 1.019 | | A |
| TI | 1 | 0.0820 | 0.0170 | 1.194 | | A |
| TM | 1 | 0.0725 | 0.0083 | 1.055 | | A |
| TN | 1 | 0.0715 | 0.0067 | 1.041 | | A |
| TW | 1 | 0.0760 | 0.0050 | 1.106 | | A |
| TX | 1 | 0.0660 | 0.0040 | 0.961 | | A |
| UY | 1 | 0.0690 | 0.0120 | 1.004 | | A |
| WA | 1 | 0.0690 | 0.0170 | 1.004 | | A |
| WC | 1 | 0.0958 | 0.0172 | 1.394 | | W |
| WI | 1 | 0.0740 | 0.0150 | 1.077 | | A |
| YA | 1 | 0.0708 | 0.0023 | 1.031 | | A |

**Total Number Reported:** **62**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** Bq U

**EML Value:** 0.0631
**EML Error:** 0.0037

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AG | 1 | 0.0824 | 0.0100 | 1.306 | A | A |
| AI | 1 | 0.0566 | 0.0028 | 0.897 | | W |
| AM | 1 | 0.1590 | 0.0130 | 2.520 | W | W |
| BL | 1 | 0.0700 | 0.0000 | 1.109 | A | A |
| BU | 1 | 0.0660 | 0.0060 | 1.046 | A | A |
| CH | 1 | 0.0691 | 0.0090 | 1.095 | A | A |
| CL | 1 | 0.0900 | 0.0100 | 1.426 | A | A |
| GA | 1 | 0.0790 | | 1.252 | | A |
| GP | 1 | 0.0660 | | 1.046 | W | A |
| ID | 1 | 0.0620 | 0.0030 | 0.983 | A | A |
| IE | 1 | 0.0700 | 0.0090 | 1.109 | | A |
| KO | 1 | 0.0699 | 0.0018 | 1.108 | | A |
| OT | 1 | 0.0720 | 0.0160 | 1.141 | | A |
| UY | 1 | 0.0700 | 0.0100 | 1.109 | | A |
| WA | 1 | 0.0780 | 0.0270 | 1.236 | | A |

**Total Number Reported:** 15

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** CE144

**EML Value:** 8.2100
**EML Error:** 0.7960

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 8.4900 | 1.0300 | 1.034 | | A |
| AF | 1 | 9.1000 | 4.2000 | 1.108 | A | W |
| AG | 1 | 7.5500 | 0.7100 | 0.920 | A | A |
| AI | 1 | 8.8200 | 0.2960 | 1.074 | | A |
| AL | 1 | 3.0825 | 0.8100 | 0.375 | | N |
| AM | 1 | 7.3600 | 0.3900 | 0.896 | A | A |
| AN | 1 | 8.7100 | 1.0200 | 1.061 | A | A |
| AR | 1 | 27.2500 | 3.2800 | 3.319 | N | N |
| AR | 2 | 28.2200 | 2.9400 | 3.437 | N | N |
| AR | 3 | 26.3700 | 3.2800 | 3.212 | N | N |
| AU | 1 | 20.9000 | 3.0000 | 2.546 | A | N |
| BC | 1 | 12.1000 | 0.6000 | 1.474 | A | N |
| BE | 1 | 7.3000 | 0.5000 | 0.889 | A | A |
| BL | 1 | 8.0000 | 0.6000 | 0.974 | A | A |
| BN | 1 | 10.3400 | 0.1300 | 1.259 | W | W |
| BN | 2 | 10.6200 | 0.1300 | 1.294 | W | W |
| BN | 3 | 10.3600 | 0.1300 | 1.262 | W | W |
| BP | 1 | 6.8100 | 0.8500 | 0.829 | A | A |
| BQ | 1 | 6.1000 | 0.2000 | 0.743 | A | A |
| BS | 1 | 8.7800 | 0.1800 | 1.069 | | A |
| BU | 1 | 8.3000 | 0.8000 | 1.011 | A | A |
| BX | 1 | 11.7000 | 0.6000 | 1.425 | A | N |
| CA | 1 | 6.8000 | 1.5000 | 0.828 | A | A |
| CD | 1 | 6.6000 | 0.3000 | 0.804 | | A |
| CH | 1 | 7.4100 | 0.4180 | 0.903 | A | A |
| CL | 1 | 7.6500 | 1.5000 | 0.932 | A | A |
| CN | 1 | 7.8200 | 0.5400 | 0.952 | | A |
| CO | 1 | 6.0000 | 1.0000 | 0.731 | A | A |
| CS | 1 | 4.1870 | 0.2400 | 0.510 | W | N |
| DC | 1 | 10.8000 | 3.2600 | 1.315 | N | N |
| DH | 1 | 6.9500 | 0.2790 | 0.847 | | A |
| EG | 1 | 7.6500 | 0.5100 | 0.932 | A | A |
| EL | 1 | 19.2000 | 0.9000 | 2.339 | | N |
| EP | 1 | 7.3800 | 1.0850 | 0.899 | | A |
| FG | 1 | 7.6400 | 1.6000 | 0.931 | A | A |
| FJ | 1 | 12.3300 | 0.9600 | 1.502 | | N |
| FL | 1 | 7.7000 | 0.1000 | 0.938 | A | A |
| FM | 1 | 7.4300 | 0.0900 | 0.905 | A | A |
| FN | 1 | 7.7200 | 0.7200 | 0.940 | W | A |
| FR | 1 | 6.6900 | 1.3000 | 0.815 | A | A |
| GA | 1 | 8.1400 | 1.4800 | 0.991 | A | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** CE144

**EML Value:** 8.2100
**EML Error:** 0.7960

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| GE | 1 | 7.5054 | 1.3579 | 0.914 | A | A |
| GP | 1 | 7.7000 | 0.9000 | 0.938 | A | A |
| GT | 1 | 5.8000 | 1.5000 | 0.706 | A | A |
| HU | 1 | 6.9400 | 0.5300 | 0.845 | N | A |
| IA | 1 | 7.0100 | 0.1600 | 0.854 | | A |
| IA | 2 | 7.2200 | 0.1600 | 0.879 | | A |
| IA | 3 | 7.3800 | 0.1600 | 0.899 | | A |
| ID | 1 | 10.5000 | 0.6700 | 1.279 | A | W |
| IE | 1 | 8.0200 | 0.7000 | 0.977 | W | A |
| IL | 1 | 7.9000 | 0.6000 | 0.962 | | A |
| IN | 1 | 7.8000 | 0.8000 | 0.950 | A | A |
| IS | 1 | 6.8600 | 1.9000 | 0.836 | A | A |
| IT | 1 | 7.5000 | 0.4000 | 0.914 | A | A |
| JL | 1 | 6.6000 | 1.5000 | 0.804 | | A |
| KO | 1 | 7.5230 | 0.1330 | 0.916 | A | A |
| LA | 1 | 6.0700 | 0.7500 | 0.739 | A | A |
| LA | 2 | 4.5300 | 0.6400 | 0.552 | A | N |
| LA | 3 | 5.1900 | 0.7300 | 0.632 | A | W |
| LL | 1 | 8.0600 | 0.8700 | 0.982 | A | A |
| LM | 1 | 21.2000 | 2.0000 | 2.582 | | N |
| LN | 1 | 7.0000 | 0.9000 | 0.853 | | A |
| LV | 1 | 11.0000 | 0.2000 | 1.340 | W | N |
| ME | 1 | 9.4600 | 0.5500 | 1.152 | A | W |
| MH | 1 | 8.9800 | 0.4300 | 1.094 | | A |
| ML | 1 | 8.2400 | 0.8000 | 1.004 | | A |
| MS | 1 | 7.6400 | 0.7600 | 0.931 | A | A |
| NA | 1 | 6.7600 | 0.5650 | 0.823 | | A |
| NL | 1 | 7.5800 | 0.7980 | 0.923 | | A |
| NP | 1 | 7.8000 | 0.5000 | 0.950 | | A |
| NS | 1 | 7.3000 | 0.2700 | 0.889 | | A |
| OD | 1 | 7.6200 | 0.2300 | 0.928 | | A |
| OL | 1 | 8.7500 | 0.8100 | 1.066 | | A |
| OT | 1 | 8.6000 | 0.3000 | 1.048 | | A |
| OU | 1 | 8.0800 | 3.3400 | 0.984 | | A |
| PO | 1 | 8.0000 | 0.5000 | 0.974 | | A |
| RA | 1 | 7.6100 | 0.3700 | 0.927 | | A |
| RC | 1 | 8.1000 | 1.2000 | 0.987 | | A |
| RE | 1 | 6.0600 | 1.4400 | 0.738 | | A |
| RI | 1 | 5.7200 | 5.2300 | 0.697 | | A |
| RL | 1 | 5.8900 | 1.1000 | 0.717 | | A |
| SA | 1 | 7.9000 | 0.9000 | 0.962 | | A |
| SK | 1 | 8.2000 | 0.4000 | 0.999 | | A |
| SR | 1 | 8.0000 | 2.6000 | 0.974 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** Al Air Filter Bq / filter
**Radionuclide:** CE144

**EML Value:** 8.2100
**EML Error:** 0.7960

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| SW | 1 | 6.8600 | 0.3000 | 0.836 | | A |
| TE | 1 | 7.7735 | 0.6210 | 0.947 | | A |
| TI | 1 | 8.0400 | 0.5900 | 0.979 | | A |
| TM | 1 | 8.9600 | 0.9190 | 1.091 | | A |
| TN | 1 | 7.9590 | 1.8620 | 0.969 | | A |
| TO | 1 | 15.9000 | 1.7000 | 1.937 | | N |
| TP | 1 | 7.8640 | 0.6950 | 0.958 | | A |
| TW | 1 | 7.7000 | 0.5000 | 0.938 | | A |
| TX | 1 | 7.9000 | 0.1800 | 0.962 | | A |
| UP | 1 | 10.6000 | 1.6200 | 1.291 | | W |
| UY | 1 | 7.6000 | 0.8000 | 0.926 | | A |
| WA | 1 | 8.3000 | 0.5000 | 1.011 | | A |
| WC | 1 | 6.6200 | 1.1000 | 0.806 | | A |
| WI | 1 | 7.6600 | 1.1000 | 0.933 | | A |
| WP | 1 | 7.3600 | 0.5700 | 0.896 | | A |
| YA | 1 | 6.4010 | 0.2738 | 0.780 | | A |
| YU | 1 | 9.5000 | 0.5000 | 1.157 | | W |

**Total Number Reported:** **101**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** CO57

**EML Value:** 11.1100
**EML Error:** 0.8464

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 11.0000 | 0.6000 | 0.990 | | A |
| AF | 1 | 9.5000 | 1.3000 | 0.855 | A | A |
| AG | 1 | 10.4000 | 0.6900 | 0.936 | A | A |
| AI | 1 | 13.0000 | 0.0757 | 1.170 | | W |
| AL | 1 | 3.1066 | 0.2000 | 0.280 | | N |
| AM | 1 | 9.2300 | 0.0800 | 0.831 | A | A |
| AN | 1 | 12.5700 | 1.0400 | 1.131 | W | W |
| AR | 1 | 11.6400 | 0.7900 | 1.048 | A | A |
| AR | 2 | 11.6900 | 0.7900 | 1.052 | A | A |
| AR | 3 | 11.2900 | 0.7700 | 1.016 | A | A |
| AU | 1 | 13.4300 | 0.6000 | 1.209 | A | W |
| BC | 1 | 16.9000 | 0.8000 | 1.521 | A | N |
| BE | 1 | 10.6000 | 0.4000 | 0.954 | A | A |
| BL | 1 | 11.6000 | 0.7000 | 1.044 | A | A |
| BM | 1 | 13.3000 | 0.1600 | 1.197 | A | W |
| BN | 1 | 14.5600 | 0.3800 | 1.311 | N | W |
| BN | 2 | 15.4500 | 0.3800 | 1.391 | N | N |
| BN | 3 | 15.2100 | 0.3800 | 1.369 | N | N |
| BP | 1 | 10.4200 | 0.1500 | 0.938 | A | A |
| BQ | 1 | 8.7000 | 0.0800 | 0.783 | A | A |
| BS | 1 | 12.3000 | 0.0600 | 1.107 | A | W |
| BU | 1 | 11.0000 | 1.0000 | 0.990 | A | A |
| BX | 1 | 16.7000 | 0.8100 | 1.503 | A | N |
| CA | 1 | 10.1000 | 0.1000 | 0.909 | A | A |
| CD | 1 | 9.5000 | 0.1000 | 0.855 | | A |
| CH | 1 | 10.3200 | 0.2260 | 0.929 | A | A |
| CL | 1 | 10.4000 | 0.3600 | 0.936 | A | A |
| CN | 1 | 10.4500 | 0.5500 | 0.941 | N | A |
| CO | 1 | 12.6000 | 0.2000 | 1.134 | W | W |
| CS | 1 | 6.1720 | 0.2100 | 0.556 | W | N |
| DC | 1 | 12.0000 | 1.2700 | 1.080 | A | A |
| DH | 1 | 10.5000 | 0.0958 | 0.945 | | A |
| EG | 1 | 11.3000 | 0.6000 | 1.017 | A | A |
| EL | 1 | 32.0000 | 1.6000 | 2.880 | | N |
| EP | 1 | 10.5800 | 0.7450 | 0.952 | A | A |
| FG | 1 | 10.5800 | 1.9000 | 0.952 | A | A |
| FJ | 1 | 18.4100 | 0.3300 | 1.657 | | N |
| FL | 1 | 10.1800 | 0.0400 | 0.916 | A | A |
| FM | 1 | 10.6500 | 0.0800 | 0.959 | A | A |
| FN | 1 | 9.7400 | 0.7800 | 0.877 | N | A |
| FR | 1 | 9.5600 | 1.5000 | 0.860 | W | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** Al Air Filter Bq / filter
**Radionuclide:** CO57

**EML Value:** 11.1100
**EML Error:** 0.8464

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| GA | 1 | 10.7000 | 0.7000 | 0.963 | A | A |
| GE | 1 | 10.6652 | 0.9712 | 0.960 | A | A |
| GP | 1 | 11.0000 | 1.0000 | 0.990 | A | A |
| GT | 1 | 8.2000 | 1.0000 | 0.738 | A | A |
| HU | 1 | 9.3400 | 0.2600 | 0.841 | N | A |
| IA | 1 | 7.8400 | 0.0400 | 0.706 | | W |
| IA | 2 | 8.4900 | 0.0500 | 0.764 | | A |
| IA | 3 | 8.2300 | 0.0500 | 0.741 | | A |
| ID | 1 | 15.7000 | 0.8200 | 1.413 | A | N |
| IE | 1 | 11.2000 | 0.5000 | 1.008 | W | A |
| IL | 1 | 11.0000 | 0.2000 | 0.990 | | A |
| IN | 1 | 10.8000 | 0.8000 | 0.972 | A | A |
| IS | 1 | 11.2000 | 1.4200 | 1.008 | A | A |
| IT | 1 | 10.3000 | 0.5000 | 0.927 | A | A |
| JL | 1 | 10.0000 | 0.6000 | 0.900 | A | A |
| KO | 1 | 11.2600 | 0.0410 | 1.014 | A | A |
| LA | 1 | 9.8500 | 0.7100 | 0.887 | A | A |
| LA | 2 | 9.9300 | 0.7100 | 0.894 | A | A |
| LA | 3 | 9.7400 | 0.7000 | 0.877 | A | A |
| LL | 1 | 11.6000 | 0.3000 | 1.044 | A | A |
| LM | 1 | 18.9000 | 0.7100 | 1.701 | | N |
| LN | 1 | 9.9000 | 1.0000 | 0.891 | | A |
| LV | 1 | 10.0000 | 0.6000 | 0.900 | A | A |
| ME | 1 | 13.3000 | 0.5500 | 1.197 | W | W |
| MH | 1 | 12.7400 | 0.3900 | 1.147 | | W |
| ML | 1 | 12.6200 | 1.3000 | 1.136 | W | W |
| MS | 1 | 10.4500 | 1.0500 | 0.941 | A | A |
| NA | 1 | 10.1000 | 0.1350 | 0.909 | | A |
| NL | 1 | 10.5000 | 1.0300 | 0.945 | | A |
| NP | 1 | 11.6000 | 0.4000 | 1.044 | | A |
| NS | 1 | 11.0700 | 0.4100 | 0.996 | | A |
| OD | 1 | 11.3000 | 0.1900 | 1.017 | | A |
| OL | 1 | 11.8800 | 0.3800 | 1.069 | | A |
| OT | 1 | 12.0000 | 1.0000 | 1.080 | | A |
| OU | 1 | 10.4000 | 3.9700 | 0.936 | | A |
| PO | 1 | 11.4000 | 0.5000 | 1.026 | | A |
| RA | 1 | 11.8000 | 0.2800 | 1.062 | | A |
| RC | 1 | 10.9000 | 0.9000 | 0.981 | | A |
| RE | 1 | 10.8000 | 1.0000 | 0.972 | | A |
| RI | 1 | 9.6600 | 0.8540 | 0.869 | | A |
| RL | 1 | 8.8100 | 2.1000 | 0.793 | | A |
| SA | 1 | 11.0000 | 1.5000 | 0.990 | | A |
| SK | 1 | 11.4000 | 0.1000 | 1.026 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** CO57

**EML Value:** 11.1100
**EML Error:** 0.8464

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| SR | 1 | 11.1000 | 1.0000 | 0.999 | | A |
| SW | 1 | 10.1000 | 0.1000 | 0.909 | | A |
| TE | 1 | 10.1523 | 0.1143 | 0.914 | | A |
| TI | 1 | 12.1000 | 1.2000 | 1.089 | | A |
| TM | 1 | 12.5000 | 0.4120 | 1.125 | | W |
| TN | 1 | 10.3800 | 0.8400 | 0.934 | | A |
| TO | 1 | 20.5000 | 1.3000 | 1.845 | | N |
| TP | 1 | 11.3750 | 0.7390 | 1.024 | | A |
| TW | 1 | 11.0000 | 0.2000 | 0.990 | | A |
| TX | 1 | 11.2100 | 0.1300 | 1.009 | | A |
| UP | 1 | 15.4000 | 0.8980 | 1.386 | | N |
| UY | 1 | 11.1000 | 0.3000 | 0.999 | | A |
| WA | 1 | 11.7000 | 0.2000 | 1.053 | | A |
| WC | 1 | 10.7000 | 0.9500 | 0.963 | | A |
| WI | 1 | 10.8000 | 0.9200 | 0.972 | | A |
| YA | 1 | 10.3860 | 0.0780 | 0.935 | | A |
| YU | 1 | 13.0000 | 0.5000 | 1.170 | | W |

**Total Number Reported:** **101**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** CO60

**EML Value:** 9.0900
**EML Error:** 0.7319

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 9.0200 | 0.3300 | 0.992 | | A |
| AF | 1 | 9.1000 | 1.6000 | 1.001 | N | A |
| AG | 1 | 8.9900 | 0.6100 | 0.989 | A | A |
| AI | 1 | 9.7100 | 0.0941 | 1.068 | | A |
| AL | 1 | 7.6491 | 0.2890 | 0.841 | | A |
| AM | 1 | 7.6200 | 0.1100 | 0.838 | W | A |
| AN | 1 | 10.0600 | 0.7200 | 1.107 | A | W |
| AR | 1 | 10.0600 | 0.7500 | 1.107 | A | W |
| AR | 2 | 9.9000 | 0.7400 | 1.089 | A | A |
| AR | 3 | 10.2700 | 0.7400 | 1.130 | A | W |
| AU | 1 | 11.2100 | 0.7800 | 1.233 | A | W |
| BA | 1 | 9.3800 | 0.4300 | 1.032 | A | A |
| BC | 1 | 13.4000 | 0.7000 | 1.474 | A | N |
| BE | 1 | 8.5000 | 0.2000 | 0.935 | A | A |
| BL | 1 | 9.1000 | 0.4000 | 1.001 | A | A |
| BM | 1 | 9.4200 | 0.2600 | 1.036 | A | A |
| BN | 1 | 8.7800 | 0.2800 | 0.966 | A | A |
| BN | 2 | 8.8400 | 0.2800 | 0.972 | A | A |
| BN | 3 | 9.4000 | 0.2800 | 1.034 | A | A |
| BP | 1 | 8.3600 | 0.4900 | 0.920 | A | A |
| BQ | 1 | 8.3000 | 0.3000 | 0.913 | A | A |
| BS | 1 | 9.5600 | 0.1300 | 1.052 | A | A |
| BU | 1 | 8.8000 | 0.7000 | 0.968 | A | A |
| BX | 1 | 13.5000 | 0.7000 | 1.485 | A | N |
| CA | 1 | 8.5800 | 0.0800 | 0.944 | A | A |
| CD | 1 | 7.8000 | 0.2000 | 0.858 | | A |
| CH | 1 | 8.5700 | 0.2810 | 0.943 | A | A |
| CL | 1 | 8.8300 | 0.3800 | 0.971 | A | A |
| CN | 1 | 8.6600 | 0.4600 | 0.953 | A | A |
| CO | 1 | 8.9000 | 0.3000 | 0.979 | A | A |
| CR | 1 | 7.7000 | 0.4000 | 0.847 | W | A |
| CS | 1 | 4.3900 | 0.1400 | 0.483 | N | N |
| DC | 1 | 9.2800 | 0.7000 | 1.021 | A | A |
| DH | 1 | 8.6500 | 0.1920 | 0.952 | | A |
| EG | 1 | 8.9800 | 0.4700 | 0.988 | A | A |
| EL | 1 | 18.5000 | 0.9000 | 2.035 | | N |
| EP | 1 | 8.8300 | 0.6520 | 0.971 | A | A |
| FG | 1 | 8.0200 | 3.8000 | 0.882 | A | A |
| FJ | 1 | 10.4300 | 0.0800 | 1.147 | | W |
| FL | 1 | 8.9600 | 0.0700 | 0.986 | A | A |
| FM | 1 | 9.1600 | 0.0500 | 1.008 | A | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** CO60

**EML Value:** 9.0900
**EML Error:** 0.7319

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| FN | 1 | 7.9900 | 0.6100 | 0.879 | N | A |
| FR | 1 | 8.1100 | 1.5000 | 0.892 | N | A |
| GA | 1 | 8.7300 | 0.3700 | 0.960 | A | A |
| GE | 1 | 9.0058 | 0.9213 | 0.991 | A | A |
| GP | 1 | 10.0000 | 1.0000 | 1.100 | N | A |
| GT | 1 | 7.8000 | 0.8000 | 0.858 | W | A |
| HU | 1 | 7.7500 | 0.1500 | 0.853 | A | A |
| IA | 1 | 6.9300 | 0.0900 | 0.762 | | W |
| IA | 2 | 7.1800 | 0.0900 | 0.790 | | W |
| IA | 3 | 7.2200 | 0.0900 | 0.794 | | W |
| ID | 1 | 11.5200 | 0.6000 | 1.267 | A | W |
| IE | 1 | 9.3600 | 0.6200 | 1.030 | A | A |
| IL | 1 | 9.6000 | 0.2000 | 1.056 | | A |
| IN | 1 | 8.5000 | 0.3000 | 0.935 | A | A |
| IS | 1 | 8.6800 | 1.0800 | 0.955 | N | A |
| IT | 1 | 8.5000 | 0.2000 | 0.935 | A | A |
| JL | 1 | 8.2000 | 0.6000 | 0.902 | A | A |
| KO | 1 | 9.0310 | 0.1450 | 0.994 | A | A |
| LA | 1 | 8.5000 | 0.6900 | 0.935 | A | A |
| LA | 2 | 8.4400 | 0.6900 | 0.928 | A | A |
| LA | 3 | 8.5800 | 0.7000 | 0.944 | A | A |
| LL | 1 | 9.1000 | 0.2300 | 1.001 | A | A |
| LM | 1 | 14.5000 | 0.8900 | 1.595 | | N |
| LN | 1 | 8.7000 | 0.5000 | 0.957 | | A |
| LV | 1 | 8.5400 | 0.0900 | 0.939 | | A |
| ME | 1 | 10.2000 | 0.3200 | 1.122 | W | W |
| MH | 1 | 10.1300 | 0.2200 | 1.114 | | W |
| ML | 1 | 10.0400 | 1.0000 | 1.105 | A | W |
| MS | 1 | 9.1100 | 0.9100 | 1.002 | A | A |
| NA | 1 | 8.4600 | 0.1490 | 0.931 | W | A |
| NL | 1 | 8.3500 | 0.5860 | 0.919 | | A |
| NP | 1 | 8.8000 | 0.2000 | 0.968 | | A |
| NS | 1 | 10.5400 | 0.3300 | 1.160 | | W |
| OD | 1 | 8.9300 | 0.2400 | 0.982 | | A |
| OL | 1 | 9.5200 | 0.2300 | 1.047 | | A |
| OT | 1 | 9.5000 | 0.2000 | 1.045 | | A |
| OU | 1 | 8.5400 | 2.4500 | 0.939 | | A |
| PO | 1 | 9.6000 | 0.3000 | 1.056 | | A |
| RA | 1 | 9.1700 | 0.2500 | 1.009 | | A |
| RC | 1 | 9.0000 | 0.9000 | 0.990 | | A |
| RE | 1 | 8.3100 | 0.9200 | 0.914 | | A |
| RI | 1 | 8.5900 | 0.9910 | 0.945 | | A |
| RL | 1 | 8.5100 | 0.6200 | 0.936 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** CO60

**EML Value:** 9.0900
**EML Error:** 0.7319

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| SA | 1 | 8.7000 | 0.8000 | 0.957 | | A |
| SK | 1 | 8.9000 | 0.4000 | 0.979 | | A |
| SR | 1 | 8.9000 | 1.0000 | 0.979 | | A |
| SW | 1 | 8.8400 | 0.1100 | 0.972 | | A |
| TE | 1 | 9.2430 | 0.1604 | 1.017 | | A |
| TI | 1 | 9.0600 | 0.9100 | 0.997 | | A |
| TM | 1 | 10.0000 | 0.4860 | 1.100 | | A |
| TN | 1 | 8.6820 | 0.8985 | 0.955 | | A |
| TO | 1 | 12.0000 | 1.5000 | 1.320 | | N |
| TP | 1 | 9.3140 | 0.1070 | 1.025 | | A |
| TW | 1 | 8.9000 | 0.2000 | 0.979 | | A |
| TX | 1 | 9.1800 | 0.0800 | 1.010 | | A |
| UC | 1 | 9.0900 | 0.2700 | 1.000 | | A |
| UP | 1 | 11.1000 | 0.4720 | 1.221 | | W |
| UY | 1 | 8.8000 | 0.9000 | 0.968 | | A |
| WA | 1 | 9.3000 | 0.2000 | 1.023 | | A |
| WC | 1 | 8.8100 | 0.6900 | 0.969 | | A |
| WI | 1 | 8.7800 | 0.7600 | 0.966 | | A |
| WP | 1 | 8.7100 | 0.3300 | 0.958 | | A |
| YA | 1 | 8.7431 | 0.0870 | 0.962 | | A |
| YU | 1 | 10.8000 | 0.3000 | 1.188 | | W |

**Total Number Reported:** **105**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** CS134

**EML Value:** 19.7400
**EML Error:** 1.3800

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 20.8000 | 0.4000 | 1.054 | | A |
| AF | 1 | 16.5000 | 2.2000 | 0.836 | N | A |
| AG | 1 | 19.0000 | 1.2000 | 0.963 | A | A |
| AI | 1 | 20.2000 | 0.1080 | 1.023 | | A |
| AL | 1 | 1.1504 | 0.0357 | 0.058 | | N |
| AM | 1 | 13.2000 | 0.1100 | 0.669 | N | N |
| AN | 1 | 19.5000 | 0.4700 | 0.988 | A | A |
| AR | 1 | 20.0300 | 1.2200 | 1.015 | A | A |
| AR | 2 | 20.9600 | 1.2500 | 1.062 | A | A |
| AR | 3 | 19.7000 | 1.2000 | 0.998 | A | A |
| AU | 1 | 26.4000 | 1.9000 | 1.337 | A | N |
| BA | 1 | 16.7000 | 0.3600 | 0.846 | A | A |
| BC | 1 | 29.1000 | 1.7000 | 1.474 | A | N |
| BE | 1 | 12.5000 | 0.6000 | 0.633 | W | N |
| BL | 1 | 18.0000 | 0.9000 | 0.912 | A | A |
| BM | 1 | 21.8000 | 0.3000 | 1.104 | A | A |
| BN | 1 | 17.5300 | 0.7300 | 0.888 | A | A |
| BN | 2 | 18.0400 | 0.7300 | 0.914 | A | A |
| BN | 3 | 19.2800 | 0.7300 | 0.977 | A | A |
| BP | 1 | 19.5700 | 0.4100 | 0.991 | A | A |
| BQ | 1 | 17.8000 | 0.3000 | 0.902 | A | A |
| BS | 1 | 21.2200 | 0.1600 | 1.075 | A | A |
| BU | 1 | 19.0000 | 1.3000 | 0.963 | A | A |
| BX | 1 | 28.9000 | 1.7000 | 1.464 | A | N |
| CA | 1 | 19.7000 | 0.3000 | 0.998 | A | A |
| CD | 1 | 15.5000 | 0.2000 | 0.785 | | W |
| CH | 1 | 18.6000 | 0.5890 | 0.942 | A | A |
| CL | 1 | 17.3000 | 0.5900 | 0.876 | N | A |
| CN | 1 | 18.1200 | 0.9400 | 0.918 | A | A |
| CO | 1 | 18.8000 | 0.6000 | 0.952 | A | A |
| CR | 1 | 15.3000 | 0.6000 | 0.775 | W | W |
| CS | 1 | 9.3700 | 0.2600 | 0.475 | W | N |
| DC | 1 | 19.3000 | 2.8200 | 0.978 | A | A |
| DH | 1 | 18.9500 | 0.2270 | 0.960 | | A |
| EG | 1 | 20.1000 | 1.0000 | 1.018 | A | A |
| EL | 1 | 36.5000 | 1.8000 | 1.849 | | N |
| EP | 1 | 18.2800 | 1.2990 | 0.926 | A | A |
| FG | 1 | 16.9500 | 6.3000 | 0.859 | A | A |
| FJ | 1 | 23.9200 | 0.7300 | 1.212 | | W |
| FL | 1 | 17.1000 | 0.1000 | 0.866 | W | A |
| FM | 1 | 18.7500 | 0.1100 | 0.950 | N | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** CS134

**EML Value:** 19.7400
**EML Error:** 1.3800

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| FN | 1 | 19.8000 | 1.2000 | 1.003 | N | A |
| FR | 1 | 14.8500 | 2.0000 | 0.752 | N | W |
| GA | 1 | 17.9000 | 2.1000 | 0.907 | A | A |
| GE | 1 | 18.2706 | 1.7742 | 0.926 | A | A |
| GP | 1 | 18.0000 | 2.0000 | 0.912 | N | A |
| GT | 1 | 17.0000 | 1.1000 | 0.861 | N | A |
| HU | 1 | 14.2000 | 0.3000 | 0.719 | A | N |
| IA | 1 | 14.2900 | 0.1200 | 0.724 | | N |
| IA | 2 | 13.2300 | 0.1300 | 0.670 | | N |
| IA | 3 | 13.8700 | 0.1200 | 0.703 | | N |
| ID | 1 | 23.0800 | 1.1600 | 1.169 | A | W |
| IE | 1 | 20.0000 | 1.5000 | 1.013 | A | A |
| IL | 1 | 19.8000 | 0.2000 | 1.003 | | A |
| IN | 1 | 18.8000 | 0.4000 | 0.952 | A | A |
| IS | 1 | 18.6000 | 2.1000 | 0.942 | W | A |
| IT | 1 | 17.5000 | 0.6000 | 0.887 | A | A |
| JL | 1 | 16.2000 | 0.7000 | 0.821 | A | A |
| KO | 1 | 19.3500 | 0.2320 | 0.980 | A | A |
| LL | 1 | 20.8000 | 0.3330 | 1.054 | A | A |
| LM | 1 | 27.5000 | 1.2000 | 1.393 | | N |
| LN | 1 | 16.3000 | 1.0000 | 0.826 | | A |
| LV | 1 | 18.4000 | 0.1000 | 0.932 | A | A |
| ME | 1 | 18.2000 | 0.5600 | 0.922 | A | A |
| MH | 1 | 20.9100 | 0.4600 | 1.059 | | A |
| ML | 1 | 22.3100 | 2.2000 | 1.130 | W | W |
| MS | 1 | 19.0000 | 1.9000 | 0.963 | A | A |
| NA | 1 | 18.3000 | 0.1850 | 0.927 | | A |
| NL | 1 | 17.7000 | 1.2400 | 0.897 | | A |
| NP | 1 | 17.6000 | 0.4000 | 0.892 | | A |
| NS | 1 | 16.1900 | 0.6000 | 0.820 | | A |
| OD | 1 | 19.5100 | 0.8200 | 0.988 | | A |
| OL | 1 | 17.9700 | 0.6600 | 0.910 | | A |
| OT | 1 | 19.0000 | 1.0000 | 0.963 | | A |
| OU | 1 | 18.5400 | 2.3500 | 0.939 | | A |
| PK | 1 | 346.8000 | 37.4000 | 17.568 | | N |
| PO | 1 | 1.4000 | 0.3000 | 0.071 | | N |
| RA | 1 | 21.1000 | 0.5000 | 1.069 | | A |
| RC | 1 | 20.9000 | 1.7000 | 1.059 | | A |
| RE | 1 | 16.9000 | 1.6000 | 0.856 | | A |
| RI | 1 | 19.3000 | 1.0200 | 0.978 | | A |
| RL | 1 | 16.2000 | 1.1000 | 0.821 | | A |
| SA | 1 | 19.1000 | 2.9000 | 0.968 | | A |
| SK | 1 | 19.6000 | 1.1000 | 0.993 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** CS134

**EML Value:** 19.7400
**EML Error:** 1.3800

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| SR | 1 | 19.3000 | 1.4000 | 0.978 | | A |
| SW | 1 | 15.9000 | 1.4000 | 0.805 | | W |
| TE | 1 | 18.9759 | 0.2042 | 0.961 | | A |
| TI | 1 | 19.8000 | 2.0000 | 1.003 | | A |
| TM | 1 | 20.5000 | 0.6880 | 1.039 | | A |
| TN | 1 | 22.2900 | 1.7500 | 1.129 | | W |
| TO | 1 | 21.9000 | 1.6000 | 1.109 | | A |
| TP | 1 | 21.2180 | 0.5820 | 1.075 | | A |
| TW | 1 | 18.5000 | 0.2000 | 0.937 | | A |
| TX | 1 | 18.2400 | 0.0900 | 0.924 | | A |
| UP | 1 | 25.0000 | 1.6400 | 1.266 | | N |
| UY | 1 | 19.1000 | 0.9000 | 0.968 | | A |
| WA | 1 | 17.6000 | 0.3000 | 0.892 | | A |
| WC | 1 | 16.6000 | 1.1000 | 0.841 | | A |
| WI | 1 | 18.9000 | 1.1000 | 0.957 | | A |
| YA | 1 | 20.6627 | 0.1536 | 1.047 | | A |
| YU | 1 | 22.8000 | 0.5000 | 1.155 | | W |

**Total Number Reported:** **101**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** CS137

**EML Value:** 11.8600
**EML Error:** 0.9571

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 12.0000 | 0.4000 | 1.012 | | A |
| AF | 1 | 10.9000 | 1.6000 | 0.919 | A | A |
| AG | 1 | 12.0100 | 0.8000 | 1.013 | A | A |
| AI | 1 | 14.3000 | 0.1320 | 1.206 | | W |
| AL | 1 | 9.4465 | 0.4820 | 0.797 | | W |
| AM | 1 | 10.3100 | 0.1600 | 0.869 | W | A |
| AN | 1 | 13.2200 | 1.0700 | 1.115 | A | A |
| AR | 1 | 12.8100 | 0.8000 | 1.080 | A | A |
| AR | 2 | 13.4100 | 0.8600 | 1.131 | A | W |
| AR | 3 | 12.4800 | 0.7900 | 1.052 | A | A |
| AU | 1 | 7.9900 | 0.7000 | 0.674 | A | N |
| BA | 1 | 13.1000 | 0.5000 | 1.105 | A | A |
| BC | 1 | 19.2000 | 1.3000 | 1.619 | A | N |
| BE | 1 | 11.2000 | 1.1000 | 0.944 | A | A |
| BL | 1 | 12.1000 | 0.6000 | 1.020 | A | A |
| BM | 1 | 13.2000 | 0.2800 | 1.113 | A | A |
| BN | 1 | 15.0400 | 0.5800 | 1.268 | N | W |
| BN | 2 | 16.3300 | 0.5800 | 1.377 | N | N |
| BN | 3 | 16.1900 | 0.5800 | 1.365 | N | N |
| BP | 1 | 11.0100 | 0.4000 | 0.928 | A | A |
| BQ | 1 | 12.1000 | 0.2000 | 1.020 | A | A |
| BS | 1 | 12.4800 | 0.1100 | 1.052 | A | A |
| BU | 1 | 12.0000 | 1.0000 | 1.012 | A | A |
| BX | 1 | 18.9000 | 1.3000 | 1.594 | A | N |
| CA | 1 | 11.5000 | 0.4000 | 0.970 | A | A |
| CD | 1 | 9.7000 | 0.2000 | 0.818 | | W |
| CH | 1 | 10.8000 | 0.3010 | 0.911 | A | A |
| CL | 1 | 11.3000 | 0.4400 | 0.953 | A | A |
| CN | 1 | 11.4400 | 0.5900 | 0.965 | A | A |
| CO | 1 | 11.6000 | 0.3000 | 0.978 | A | A |
| CR | 1 | 9.1000 | 0.4000 | 0.767 | W | W |
| CS | 1 | 5.3530 | 0.2400 | 0.451 | W | N |
| DC | 1 | 13.6000 | 1.4700 | 1.147 | A | W |
| DH | 1 | 11.2300 | 0.1840 | 0.947 | | A |
| EG | 1 | 11.8000 | 0.6000 | 0.995 | A | A |
| EL | 1 | 24.0000 | 1.2000 | 2.024 | | N |
| EP | 1 | 11.4200 | 0.8280 | 0.963 | A | A |
| FG | 1 | 12.4500 | 4.3000 | 1.050 | A | A |
| FJ | 1 | 12.4700 | 0.4200 | 1.051 | | A |
| FL | 1 | 12.7000 | 0.1000 | 1.071 | A | A |
| FM | 1 | 12.5300 | 0.0900 | 1.056 | A | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** CS137

**EML Value:** 11.8600
**EML Error:** 0.9571

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| FN | 1 | 11.5000 | 1.2000 | 0.970 | W | A |
| FR | 1 | 10.3600 | 1.0000 | 0.874 | N | A |
| GA | 1 | 11.3000 | 0.7000 | 0.953 | A | A |
| GE | 1 | 11.5792 | 1.0897 | 0.976 | A | A |
| GP | 1 | 27.0000 | 3.0000 | 2.277 | W | N |
| GT | 1 | 9.9000 | 1.5000 | 0.835 | W | A |
| HU | 1 | 10.3000 | 0.3000 | 0.868 | W | A |
| IA | 1 | 10.5700 | 0.1000 | 0.891 | | A |
| IA | 2 | 10.1800 | 0.1000 | 0.858 | | A |
| IA | 3 | 10.3400 | 0.1000 | 0.872 | | A |
| ID | 1 | 15.2500 | 0.7700 | 1.286 | A | W |
| IE | 1 | 12.1000 | 0.7000 | 1.020 | A | A |
| IL | 1 | 12.3000 | 0.3000 | 1.037 | | A |
| IN | 1 | 10.7000 | 0.3000 | 0.902 | W | A |
| IS | 1 | 11.0000 | 1.2500 | 0.927 | W | A |
| IT | 1 | 11.0000 | 0.1000 | 0.927 | A | A |
| JL | 1 | 16.2000 | 0.7000 | 1.366 | A | N |
| KO | 1 | 11.5400 | 0.1390 | 0.973 | A | A |
| LA | 1 | 11.9000 | 0.9000 | 1.003 | A | A |
| LA | 2 | 12.1000 | 0.9000 | 1.020 | A | A |
| LA | 3 | 11.6000 | 0.9000 | 0.978 | A | A |
| LL | 1 | 1.2000 | 0.0310 | 0.101 | A | N |
| LM | 1 | 19.6000 | 0.9900 | 1.653 | | N |
| LN | 1 | 11.7000 | 0.6000 | 0.987 | | A |
| LV | 1 | 12.0000 | 0.1000 | 1.012 | A | A |
| ME | 1 | 13.7000 | 0.5900 | 1.155 | W | W |
| MH | 1 | 14.3500 | 0.4500 | 1.210 | | W |
| ML | 1 | 12.9700 | 1.3000 | 1.094 | W | A |
| MS | 1 | 11.4500 | 1.1500 | 0.965 | A | A |
| NA | 1 | 11.9000 | 0.2130 | 1.003 | | A |
| NL | 1 | 11.3000 | 1.1200 | 0.953 | | A |
| NM | 1 | 10.5000 | 0.9000 | 0.885 | | A |
| NP | 1 | 11.6000 | 0.3000 | 0.978 | | A |
| NS | 1 | 11.7000 | 0.4300 | 0.987 | | A |
| OD | 1 | 12.0700 | 0.7600 | 1.018 | | A |
| OL | 1 | 12.5300 | 0.7000 | 1.056 | | A |
| OT | 1 | 13.0000 | 1.0000 | 1.096 | | A |
| OU | 1 | 13.4600 | 1.0000 | 1.135 | | W |
| PK | 1 | 218.9000 | 9.5000 | 18.457 | | N |
| PO | 1 | 12.4000 | 0.8000 | 1.046 | | A |
| RA | 1 | 12.3000 | 0.4500 | 1.037 | | A |
| RC | 1 | 12.1000 | 1.1000 | 1.020 | | A |
| RE | 1 | 11.1000 | 1.1000 | 0.936 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** CS137

**EML Value:** 11.8600
**EML Error:** 0.9571

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| RI | 1 | 11.2000 | 1.5200 | 0.944 | | A |
| RL | 1 | 11.9000 | 0.4000 | 1.003 | | A |
| SA | 1 | 11.7000 | 1.6000 | 0.987 | | A |
| SK | 1 | 11.2000 | 0.1000 | 0.944 | | A |
| SR | 1 | 11.5000 | 1.5000 | 0.970 | | A |
| SW | 1 | 11.5000 | 0.2000 | 0.970 | | A |
| TE | 1 | 12.8759 | 0.2042 | 1.086 | | A |
| TI | 1 | 13.0000 | 1.3000 | 1.096 | | A |
| TM | 1 | 13.4000 | 0.5250 | 1.130 | | W |
| TN | 1 | 11.6000 | 0.9750 | 0.978 | | A |
| TO | 1 | 15.3000 | 2.5000 | 1.290 | | W |
| TP | 1 | 12.1210 | 0.5140 | 1.022 | | A |
| TW | 1 | 11.2000 | 0.2000 | 0.944 | | A |
| TX | 1 | 11.8700 | 0.1100 | 1.001 | | A |
| UC | 1 | 15.5600 | 1.9500 | 1.312 | | W |
| UP | 1 | 15.4000 | 1.1000 | 1.298 | | W |
| UY | 1 | 11.7000 | 1.0000 | 0.987 | | A |
| WA | 1 | 12.4000 | 0.3000 | 1.046 | | A |
| WC | 1 | 11.7000 | 1.6000 | 0.987 | | A |
| WI | 1 | 11.4000 | 1.2000 | 0.961 | | A |
| WP | 1 | 12.2000 | 0.3300 | 1.029 | | A |
| YA | 1 | 11.2813 | 0.1184 | 0.951 | | A |
| YU | 1 | 14.3000 | 0.5000 | 1.206 | | W |

**Total Number Reported:** **107**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** GROSS ALPHA

**EML Value:** 1.4000
**EML Error:** 0.1000

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AF | 1 | 1.2900 | 0.1000 | 0.921 | W | A |
| AL | 1 | 1.5230 | 0.0600 | 1.088 | | A |
| AM | 1 | 1.9400 | 0.0500 | 1.386 | A | W |
| AR | 1 | 1.9100 | 0.2000 | 1.364 | N | W |
| AU | 1 | 1.7400 | 0.0700 | 1.243 | A | A |
| BC | 1 | 1.3900 | 0.0300 | 0.993 | A | A |
| BE | 1 | 1.3000 | 0.0800 | 0.929 | A | A |
| BL | 1 | 1.5840 | 0.0530 | 1.131 | W | A |
| BN | 1 | 1.0700 | 0.0200 | 0.764 | A | W |
| BN | 2 | 1.0600 | 0.0200 | 0.757 | A | W |
| BN | 3 | 1.0400 | 0.0200 | 0.743 | A | W |
| BP | 1 | 1.2400 | 0.0500 | 0.886 | A | A |
| BS | 1 | 1.5500 | 0.0100 | 1.107 | W | A |
| BU | 1 | 1.3100 | 0.1300 | 0.936 | A | A |
| BX | 1 | 1.4400 | 0.0300 | 1.029 | A | A |
| CA | 1 | 1.3800 | 0.0200 | 0.986 | W | A |
| CD | 1 | 1.1000 | 0.1000 | 0.786 | | W |
| CH | 1 | 1.4200 | 0.1160 | 1.014 | A | A |
| CS | 1 | 1.4500 | 0.0700 | 1.036 | A | A |
| DC | 1 | 1.2400 | 0.2420 | 0.886 | A | A |
| DH | 1 | 1.3280 | 0.1390 | 0.949 | A | A |
| DP | 1 | 1.3000 | 0.0500 | 0.929 | A | A |
| DP | 2 | 1.4000 | 0.0500 | 1.000 | A | A |
| DP | 3 | 1.4000 | 0.0500 | 1.000 | A | A |
| EI | 1 | 2.0100 | 0.1300 | 1.436 | A | W |
| FG | 1 | 1.1950 | 0.0300 | 0.854 | A | A |
| FL | 1 | 1.1400 | 0.0300 | 0.814 | A | W |
| FR | 1 | 1.0200 | 0.2000 | 0.729 | A | W |
| GC | 1 | 1.1000 | 0.0500 | 0.786 | | W |
| GE | 1 | 1.3764 | 0.0074 | 0.983 | N | A |
| GP | 1 | 1.3000 | 0.1000 | 0.929 | W | A |
| GT | 1 | 1.4000 | 0.1000 | 1.000 | A | A |
| HC | 1 | 0.9890 | 0.0990 | 0.706 | A | W |
| ID | 1 | 0.7230 | 0.0380 | 0.516 | A | W |
| IS | 1 | 1.5500 | 0.1500 | 1.107 | A | A |
| IT | 1 | 1.5600 | 0.0500 | 1.114 | W | A |
| JE | 1 | 1.4700 | 0.1800 | 1.050 | | A |
| KA | 1 | 1.5200 | 0.0500 | 1.086 | A | A |
| KO | 1 | 1.2500 | 0.0600 | 0.893 | A | A |
| KR | 1 | 1.3000 | 0.0300 | 0.929 | | A |
| LL | 1 | 1.3100 | 0.0162 | 0.936 | A | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** GROSS ALPHA

**EML Value:** 1.4000
**EML Error:** 0.1000

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| LM | 1 | 1.3000 | 0.2000 | 0.929 | | A |
| LN | 1 | 1.5300 | 0.0600 | 1.093 | | A |
| LV | 1 | 0.8000 | 0.0220 | 0.571 | W | W |
| ME | 1 | 1.9800 | 0.0500 | 1.414 | W | W |
| NS | 1 | 1.1700 | 0.0900 | 0.836 | | W |
| OB | 1 | 1.3700 | 0.1400 | 0.979 | | A |
| OD | 1 | 1.2300 | 0.0400 | 0.879 | | A |
| OK | 1 | 1.0990 | 0.0530 | 0.785 | | W |
| OT | 1 | 1.3000 | 0.1000 | 0.929 | | A |
| OU | 1 | 3.1500 | 0.1400 | 2.250 | | N |
| PA | 1 | 1.2800 | 0.0800 | 0.914 | | A |
| RC | 1 | 1.3300 | 0.0700 | 0.950 | | A |
| RD | 1 | 1.0500 | 0.0300 | 0.750 | | W |
| RE | 1 | 1.2600 | 0.1900 | 0.900 | | A |
| RK | 1 | 0.7300 | 0.0700 | 0.521 | | W |
| RK | 2 | 0.7900 | 0.0700 | 0.564 | | W |
| RL | 1 | 1.3600 | 0.1200 | 0.971 | | A |
| SA | 1 | 1.4700 | 0.1900 | 1.050 | | A |
| SR | 1 | 2.1700 | 0.2000 | 1.550 | | W |
| SW | 1 | 1.1600 | 0.0400 | 0.829 | | W |
| TI | 1 | 1.5000 | 0.1000 | 1.071 | | A |
| TM | 1 | 0.6400 | 0.1030 | 0.457 | | N |
| TN | 1 | 1.8050 | 0.0926 | 1.289 | | A |
| TO | 1 | 1.9000 | 1.2000 | 1.357 | | W |
| TP | 1 | 1.1080 | 0.0260 | 0.791 | | W |
| TW | 1 | 1.4000 | 0.0300 | 1.000 | | A |
| TX | 1 | 1.4100 | 0.0500 | 1.007 | | A |
| UC | 1 | 1.3300 | 0.0600 | 0.950 | | A |
| UP | 1 | 1.3700 | 0.0700 | 0.979 | | A |
| UY | 1 | 1.7800 | 0.1000 | 1.271 | | A |
| WA | 1 | 1.5000 | 0.1000 | 1.071 | | A |
| WC | 1 | 1.3800 | 0.0300 | 0.986 | | A |
| WS | 1 | 1.4000 | 0.0270 | 1.000 | | A |
| WV | 1 | 1.1500 | 0.0270 | 0.821 | | W |
| YA | 1 | 1.2147 | 0.0149 | 0.868 | | A |

**Total Number Reported:** 76

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** GROSS BETA

**EML Value:** 1.9600
**EML Error:** 0.3000

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AF | 1 | 2.2000 | 0.1000 | 1.122 | N | A |
| AL | 1 | 1.5800 | 0.0400 | 0.806 | | W |
| AM | 1 | 2.9900 | 0.0500 | 1.526 | A | W |
| AR | 1 | 2.4000 | 0.3100 | 1.224 | A | A |
| AU | 1 | 2.5400 | 0.1400 | 1.296 | A | A |
| BC | 1 | 1.8100 | 0.0300 | 0.923 | A | A |
| BE | 1 | 1.8900 | 0.0700 | 0.964 | A | A |
| BL | 1 | 1.8370 | 0.0560 | 0.937 | A | A |
| BN | 1 | 1.7900 | 0.0200 | 0.913 | A | A |
| BN | 2 | 1.7800 | 0.0200 | 0.908 | A | A |
| BN | 3 | 1.7400 | 0.0200 | 0.888 | A | A |
| BP | 1 | 2.0500 | 0.0500 | 1.046 | A | A |
| BS | 1 | 2.2600 | 0.0100 | 1.153 | A | A |
| BU | 1 | 2.3000 | 0.2000 | 1.173 | A | A |
| BX | 1 | 1.8800 | 0.0300 | 0.959 | A | A |
| CA | 1 | 2.0300 | 0.1000 | 1.036 | A | A |
| CD | 1 | 1.0000 | 0.1000 | 0.510 | | N |
| CH | 1 | 2.0800 | 0.0160 | 1.061 | A | A |
| CS | 1 | 3.0000 | 0.2300 | 1.531 | W | W |
| DC | 1 | 1.7700 | 0.3490 | 0.903 | A | A |
| DH | 1 | 2.1100 | 0.1560 | 1.077 | A | A |
| DP | 1 | 1.6000 | 0.0400 | 0.816 | A | W |
| DP | 2 | 1.5000 | 0.0400 | 0.765 | A | W |
| DP | 3 | 1.7000 | 0.0400 | 0.867 | A | W |
| FG | 1 | 1.9910 | 0.0900 | 1.016 | A | A |
| FL | 1 | 2.3000 | 0.0400 | 1.173 | A | A |
| FR | 1 | 2.1000 | 0.3000 | 1.071 | A | A |
| GC | 1 | 2.0000 | 0.0400 | 1.020 | | A |
| GE | 1 | 1.9351 | 0.0037 | 0.987 | A | A |
| GP | 1 | 1.9000 | 0.2000 | 0.969 | N | A |
| GT | 1 | 2.3000 | 0.1000 | 1.173 | A | A |
| HC | 1 | 1.7100 | 0.1700 | 0.872 | A | W |
| ID | 1 | 2.3730 | 0.1190 | 1.211 | A | A |
| IS | 1 | 2.1700 | 0.2200 | 1.107 | A | A |
| IT | 1 | 2.3200 | 0.0400 | 1.184 | A | A |
| JE | 1 | 2.2500 | 0.2000 | 1.148 | | A |
| KA | 1 | 2.1432 | 0.0513 | 1.093 | A | A |
| KO | 1 | 1.9600 | 0.0700 | 1.000 | A | A |
| KR | 1 | 2.1200 | 0.0300 | 1.082 | | A |
| LL | 1 | 2.5000 | 0.0197 | 1.276 | A | A |
| LM | 1 | 2.1000 | 0.4000 | 1.071 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** GROSS BETA

**EML Value:** 1.9600
**EML Error:** 0.3000

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| LN | 1 | 2.1400 | 0.0800 | 1.092 | | A |
| LV | 1 | 0.0990 | 0.0310 | 0.051 | W | N |
| ME | 1 | 2.6200 | 0.0500 | 1.337 | A | A |
| NP | 1 | 2.1500 | 0.0200 | 1.097 | | A |
| NS | 1 | 2.0900 | 0.0900 | 1.066 | | A |
| OB | 1 | 1.8400 | 0.1800 | 0.939 | | A |
| OD | 1 | 2.4600 | 0.0600 | 1.255 | | A |
| OK | 1 | 2.0240 | 0.0600 | 1.033 | | A |
| OT | 1 | 2.2000 | 0.1000 | 1.122 | | A |
| OU | 1 | 2.2700 | 0.0900 | 1.158 | | A |
| PA | 1 | 2.2000 | 0.0800 | 1.122 | | A |
| RC | 1 | 1.9900 | 0.1000 | 1.015 | | A |
| RD | 1 | 1.0100 | 0.0500 | 0.515 | | N |
| RE | 1 | 2.2500 | 0.3200 | 1.148 | | A |
| RK | 1 | 1.8400 | 0.1000 | 0.939 | | A |
| RL | 1 | 2.6000 | 0.0700 | 1.327 | | A |
| SA | 1 | 2.1200 | 0.2400 | 1.082 | | A |
| SR | 1 | 2.1400 | 0.1400 | 1.092 | | A |
| SW | 1 | 2.1100 | 0.0600 | 1.077 | | A |
| TI | 1 | 1.9000 | 0.1000 | 0.969 | | A |
| TM | 1 | 1.3800 | 0.1390 | 0.704 | | N |
| TN | 1 | 2.0520 | 0.0848 | 1.047 | | A |
| TO | 1 | 2.7000 | 0.5000 | 1.378 | | A |
| TP | 1 | 2.1120 | 0.0450 | 1.078 | | A |
| TW | 1 | 2.2800 | 0.0300 | 1.163 | | A |
| TX | 1 | 1.8900 | 0.0800 | 0.964 | | A |
| UC | 1 | 2.7500 | 0.0800 | 1.403 | | A |
| UP | 1 | 2.1000 | 0.0700 | 1.071 | | A |
| UY | 1 | 2.2600 | 0.1000 | 1.153 | | A |
| WA | 1 | 2.3000 | 0.1000 | 1.173 | | A |
| WC | 1 | 2.6200 | 0.0500 | 1.337 | | A |
| WP | 1 | 2.1100 | 0.0740 | 1.077 | | A |
| WV | 1 | 2.1800 | 0.0350 | 1.112 | | A |
| YA | 1 | 1.9560 | 0.0204 | 0.998 | | A |

**Total Number Reported:** 75

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** MN54

**EML Value:** 5.4400
**EML Error:** 0.4854

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 5.9100 | 0.2400 | 1.086 | | A |
| AF | 1 | 5.2000 | 1.2000 | 0.956 | A | A |
| AG | 1 | 5.6400 | 0.4100 | 1.037 | A | A |
| AI | 1 | 6.8300 | 0.1090 | 1.256 | | W |
| AL | 1 | 4.5664 | 0.2710 | 0.839 | | W |
| AM | 1 | 4.8200 | 0.1000 | 0.886 | W | A |
| AN | 1 | 5.9400 | 0.2300 | 1.092 | A | A |
| AR | 1 | 6.1240 | 0.5620 | 1.126 | A | A |
| AR | 2 | 5.6000 | 0.5100 | 1.029 | A | A |
| AR | 3 | 6.2000 | 0.5200 | 1.140 | A | A |
| AU | 1 | 7.3900 | 0.7300 | 1.358 | W | W |
| BA | 1 | 6.3400 | 0.3100 | 1.165 | A | W |
| BC | 1 | 9.1800 | 0.5200 | 1.688 | A | N |
| BE | 1 | 5.6000 | 1.0000 | 1.029 | A | A |
| BL | 1 | 5.9000 | 0.3000 | 1.085 | A | A |
| BN | 1 | 7.0400 | 0.2300 | 1.294 | W | W |
| BN | 2 | 7.5200 | 0.2300 | 1.382 | W | N |
| BN | 3 | 7.5100 | 0.2300 | 1.381 | W | N |
| BP | 1 | 5.2800 | 0.2700 | 0.971 | A | A |
| BQ | 1 | 5.2000 | 0.2000 | 0.956 | A | A |
| BS | 1 | 6.7800 | 0.1100 | 1.246 | A | W |
| BU | 1 | 5.5000 | 1.0000 | 1.011 | A | A |
| BX | 1 | 8.7300 | 0.5200 | 1.605 | A | N |
| CA | 1 | 5.2000 | 0.2000 | 0.956 | A | A |
| CD | 1 | 5.0000 | 0.2000 | 0.919 | | A |
| CH | 1 | 5.0900 | 0.2530 | 0.936 | A | A |
| CL | 1 | 5.6500 | 0.4800 | 1.039 | A | A |
| CN | 1 | 5.1300 | 0.2800 | 0.943 | N | A |
| CO | 1 | 5.7000 | 0.2000 | 1.048 | A | A |
| CR | 1 | 4.7000 | 0.2000 | 0.864 | W | A |
| CS | 1 | 2.6660 | 0.1300 | 0.490 | W | N |
| DC | 1 | 6.0600 | 2.4100 | 1.114 | W | A |
| DH | 1 | 5.3600 | 0.1390 | 0.985 | | A |
| EG | 1 | 5.5600 | 0.3100 | 1.022 | A | A |
| EL | 1 | 12.2000 | 0.6000 | 2.243 | | N |
| EP | 1 | 5.5200 | 0.4360 | 1.015 | | A |
| FG | 1 | 5.3300 | 2.2000 | 0.980 | A | A |
| FJ | 1 | 8.7300 | 0.5400 | 1.605 | | N |
| FL | 1 | 5.9500 | 0.0800 | 1.094 | A | A |
| FM | 1 | 6.0200 | 0.0600 | 1.107 | A | A |
| FN | 1 | 5.0300 | 0.5600 | 0.925 | N | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** MN54

**EML Value:** 5.4400
**EML Error:** 0.4854

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| FR | 1 | 4.8800 | 1.0000 | 0.897 | N | A |
| GA | 1 | 5.6200 | 0.5600 | 1.033 | A | A |
| GE | 1 | 5.3965 | 0.5975 | 0.992 | A | A |
| GP | 1 | 5.3000 | 0.6000 | 0.974 | W | A |
| GT | 1 | 5.0000 | 0.8000 | 0.919 | A | A |
| HU | 1 | 5.2400 | 0.1600 | 0.963 | N | A |
| IA | 1 | 4.3000 | 0.0600 | 0.790 | | W |
| IA | 2 | 4.3100 | 0.0700 | 0.792 | | W |
| IA | 3 | 4.2700 | 0.0600 | 0.785 | | W |
| ID | 1 | 7.3430 | 0.3810 | 1.350 | A | W |
| IE | 1 | 5.5400 | 0.2600 | 1.018 | A | A |
| IL | 1 | 5.7000 | 0.2000 | 1.048 | | A |
| IN | 1 | 5.3000 | 0.2000 | 0.974 | A | A |
| IS | 1 | 5.5400 | 0.6800 | 1.018 | N | A |
| IT | 1 | 5.7700 | 0.1500 | 1.061 | A | A |
| JL | 1 | 5.2600 | 0.7000 | 0.967 | W | A |
| KO | 1 | 5.4510 | 0.0870 | 1.002 | A | A |
| LA | 1 | 5.7700 | 0.4700 | 1.061 | A | A |
| LA | 2 | 5.8600 | 0.4800 | 1.077 | A | A |
| LA | 3 | 5.6600 | 0.4700 | 1.040 | A | A |
| LL | 1 | 5.7800 | 0.2300 | 1.063 | A | A |
| LM | 1 | 8.8000 | 0.6500 | 1.618 | | N |
| LN | 1 | 5.9000 | 0.3000 | 1.085 | | A |
| LV | 1 | 4.9800 | 0.4000 | 0.915 | A | A |
| ME | 1 | 6.7400 | 0.4000 | 1.239 | W | W |
| MH | 1 | 6.7100 | 0.2200 | 1.233 | | W |
| ML | 1 | 6.1900 | 0.6000 | 1.138 | W | A |
| MS | 1 | 5.0600 | 0.5100 | 0.930 | A | A |
| NA | 1 | 5.6600 | 0.1670 | 1.040 | | A |
| NL | 1 | 5.2800 | 0.5290 | 0.971 | | A |
| NP | 1 | 6.3000 | 0.3000 | 1.158 | | W |
| NS | 1 | 6.0400 | 0.0800 | 1.110 | | A |
| OD | 1 | 5.6800 | 0.3700 | 1.044 | | A |
| OL | 1 | 6.2500 | 0.2500 | 1.149 | | A |
| OT | 1 | 6.3000 | 0.2000 | 1.158 | | W |
| OU | 1 | 6.1400 | 1.0200 | 1.129 | | A |
| PO | 1 | 5.5000 | 0.1000 | 1.011 | | A |
| RA | 1 | 5.7100 | 0.2300 | 1.050 | | A |
| RC | 1 | 5.8500 | 0.5800 | 1.075 | | A |
| RE | 1 | 5.4400 | 0.6500 | 1.000 | | A |
| RI | 1 | 5.8700 | 1.1700 | 1.079 | | A |
| RL | 1 | 5.1200 | 1.3000 | 0.941 | | A |
| SA | 1 | 5.7000 | 0.9000 | 1.048 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** MN54

**EML Value:** 5.4400
**EML Error:** 0.4854

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| SK | 1 | 5.1000 | 0.2000 | 0.938 | | A |
| SR | 1 | 5.5000 | 0.2000 | 1.011 | | A |
| SW | 1 | 5.0600 | 0.1000 | 0.930 | | A |
| TE | 1 | 6.1773 | 0.2015 | 1.136 | | A |
| TI | 1 | 5.9900 | 0.6000 | 1.101 | | A |
| TM | 1 | 5.9600 | 0.3350 | 1.096 | | A |
| TN | 1 | 5.8180 | 0.7765 | 1.069 | | A |
| TO | 1 | 7.3000 | 1.3000 | 1.342 | | W |
| TP | 1 | 5.7650 | 0.2520 | 1.060 | | A |
| TW | 1 | 5.4000 | 0.2000 | 0.993 | | A |
| TX | 1 | 6.1200 | 0.1000 | 1.125 | | A |
| UP | 1 | 7.4200 | 0.6260 | 1.364 | | W |
| UY | 1 | 5.6000 | 0.6000 | 1.029 | | A |
| WA | 1 | 6.3000 | 0.3000 | 1.158 | | W |
| WC | 1 | 5.5100 | 0.7700 | 1.013 | | A |
| WI | 1 | 5.4700 | 0.5600 | 1.006 | | A |
| WP | 1 | 5.8100 | 0.2500 | 1.068 | | A |
| YA | 1 | 5.4261 | 0.0962 | 0.997 | | A |
| YU | 1 | 6.6000 | 0.5000 | 1.213 | | W |

**Total Number Reported:** **103**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** PU238

**EML Value:** 0.0695
**EML Error:** 0.0032

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 0.0618 | 0.0081 | 0.889 | | A |
| AG | 1 | 0.0600 | 0.0100 | 0.863 | A | W |
| AI | 1 | 0.0889 | 0.0059 | 1.279 | | W |
| AN | 1 | 0.0720 | 0.0030 | 1.036 | A | A |
| AR | 1 | 0.0550 | 0.0100 | 0.791 | A | W |
| AR | 2 | 0.0550 | 0.0110 | 0.791 | A | W |
| AU | 1 | 0.2360 | 0.0160 | 3.396 | A | N |
| BE | 1 | 0.0650 | 0.0100 | 0.935 | A | A |
| BL | 1 | 0.0760 | 0.0160 | 1.094 | W | A |
| BL | 2 | 0.0650 | 0.0120 | 0.935 | W | A |
| BM | 1 | 0.0710 | 0.0110 | 1.022 | W | A |
| BP | 1 | 0.0665 | 0.0028 | 0.957 | A | A |
| BU | 1 | 0.0680 | 0.0060 | 0.978 | N | A |
| BX | 1 | 0.0818 | 0.0085 | 1.177 | A | W |
| CH | 1 | 0.0663 | 0.0024 | 0.954 | A | A |
| CL | 1 | 0.0800 | 0.0200 | 1.151 | N | W |
| EG | 1 | 0.0680 | 0.0060 | 0.978 | A | A |
| EI | 1 | 0.0600 | 0.0080 | 0.863 | | W |
| EP | 1 | 0.0705 | 0.0061 | 1.014 | | A |
| GA | 1 | 0.0780 | | 1.122 | W | A |
| GE | 1 | 0.0657 | 0.0102 | 0.945 | A | A |
| GP | 1 | 0.0600 | 0.0060 | 0.863 | N | W |
| GT | 1 | 0.0750 | 0.0200 | 1.079 | A | A |
| ID | 1 | 0.3570 | 0.0660 | 5.137 | A | N |
| IE | 1 | 0.0580 | 0.0080 | 0.835 | A | W |
| IT | 1 | 0.0700 | 0.0100 | 1.007 | A | A |
| KO | 1 | 0.0615 | 0.0024 | 0.885 | | A |
| LA | 1 | 0.0680 | 0.0080 | 0.978 | A | A |
| LA | 2 | 0.0680 | 0.0120 | 0.978 | A | A |
| LA | 3 | 0.0660 | 0.0080 | 0.950 | A | A |
| LL | 1 | 0.0690 | 0.0077 | 0.993 | A | A |
| ML | 1 | 0.0700 | 0.0050 | 1.007 | A | A |
| NL | 1 | 0.0590 | 0.0174 | 0.849 | | W |
| NM | 1 | 0.0687 | 0.0023 | 0.988 | | A |
| OT | 1 | 0.0680 | 0.0070 | 0.978 | | A |
| RE | 1 | 0.0680 | 0.0080 | 0.978 | | A |
| RI | 1 | 0.0688 | 0.0083 | 0.990 | | A |
| SR | 1 | 0.0660 | 0.0080 | 0.950 | | A |
| SW | 1 | 0.4200 | 0.0400 | 6.043 | | N |
| TE | 1 | 0.0678 | 0.0233 | 0.976 | | A |
| TI | 1 | 0.0480 | 0.0130 | 0.691 | | N |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** PU238

**EML Value:** 0.0695
**EML Error:** 0.0032

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| TM | 1 | 0.0637 | 0.0043 | 0.917 | | A |
| TN | 1 | 0.0557 | 0.0061 | 0.801 | | W |
| TW | 1 | 0.0720 | 0.0050 | 1.036 | | A |
| TX | 1 | 0.0650 | 0.0040 | 0.935 | | A |
| UY | 1 | 0.0640 | 0.0110 | 0.921 | | A |
| WA | 1 | 0.0650 | 0.0200 | 0.935 | | A |
| WC | 1 | 0.0833 | 0.0150 | 1.199 | | W |
| WI | 1 | 0.0720 | 0.0150 | 1.036 | | A |
| YA | 1 | 0.0746 | 0.0019 | 1.073 | | A |

**Total Number Reported:** **50**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** PU239

**EML Value:** 0.0624
**EML Error:** 0.0018

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 0.0673 | 0.0085 | 1.079 | | A |
| AF | 1 | 0.0500 | 0.0300 | 0.802 | W | W |
| AG | 1 | 0.0630 | 0.0110 | 1.010 | | A |
| AI | 1 | 0.0803 | 0.0054 | 1.288 | | W |
| AN | 1 | 0.0690 | 0.0050 | 1.107 | | A |
| AR | 1 | 0.0740 | 0.0120 | 1.187 | A | W |
| AR | 2 | 0.0670 | 0.0120 | 1.075 | A | A |
| AU | 1 | 0.1190 | 0.0100 | 1.909 | A | N |
| BE | 1 | 0.0630 | 0.0100 | 1.010 | | A |
| BL | 1 | 0.0570 | 0.0160 | 0.914 | | A |
| BL | 2 | 0.0830 | 0.0120 | 1.331 | | W |
| BM | 1 | 0.0720 | 0.0110 | 1.155 | | A |
| BP | 1 | 0.0677 | 0.0028 | 1.086 | A | A |
| BU | 1 | 0.0620 | 0.0060 | 0.994 | | A |
| BX | 1 | 0.0596 | 0.0070 | 0.956 | | A |
| CH | 1 | 0.0670 | 0.0031 | 1.075 | | A |
| CL | 1 | 0.0700 | 0.0200 | 1.123 | | A |
| EG | 1 | 0.0620 | 0.0060 | 0.994 | | A |
| EI | 1 | 0.0700 | 0.0070 | 1.123 | | A |
| EP | 1 | 0.0686 | 0.0059 | 1.100 | | A |
| GA | 1 | 0.0830 | | 1.331 | | W |
| GE | 1 | 0.0714 | 0.0108 | 1.145 | | A |
| GP | 1 | 0.0630 | 0.0060 | 1.010 | A | A |
| GT | 1 | 0.0660 | 0.0200 | 1.059 | | A |
| ID | 1 | 0.2770 | 0.0380 | 4.443 | | N |
| IE | 1 | 0.0710 | 0.0040 | 1.139 | A | A |
| IT | 1 | 0.0640 | 0.0100 | 1.026 | A | A |
| KO | 1 | 0.0584 | 0.0023 | 0.937 | | A |
| LA | 1 | 0.0610 | 0.0070 | 0.978 | A | A |
| LA | 2 | 0.0710 | 0.0080 | 1.139 | A | A |
| LA | 3 | 0.0670 | 0.0080 | 1.075 | A | A |
| LL | 1 | 0.0654 | 0.0074 | 1.049 | A | A |
| ML | 1 | 0.0700 | 0.0050 | 1.123 | | A |
| NL | 1 | 0.0624 | 0.0177 | 1.001 | | A |
| NM | 1 | 0.0691 | 0.0023 | 1.108 | | A |
| OT | 1 | 0.0700 | 0.0070 | 1.123 | | A |
| RE | 1 | 0.0580 | 0.0070 | 0.930 | | A |
| RI | 1 | 0.0744 | 0.0087 | 1.193 | | W |
| SN | 1 | 0.0620 | 0.0110 | 0.994 | | A |
| SR | 1 | 0.0670 | 0.0080 | 1.075 | W | A |
| SW | 1 | 0.0800 | 0.0100 | 1.283 | | W |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** PU239

**EML Value:** 0.0624
**EML Error:** 0.0018

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| TE | 1 | 0.0674 | 0.0148 | 1.081 | | A |
| TI | 1 | 0.0410 | 0.0120 | 0.658 | | N |
| TM | 1 | 0.0554 | 0.0039 | 0.889 | | W |
| TN | 1 | 0.0521 | 0.0059 | 0.836 | | W |
| TW | 1 | 0.0650 | 0.0050 | 1.043 | | A |
| TX | 1 | 0.0650 | 0.0050 | 1.043 | | A |
| UY | 1 | 0.0600 | 0.0100 | 0.962 | | A |
| WA | 1 | 0.0750 | 0.0180 | 1.203 | | W |
| WC | 1 | 0.0629 | 0.0120 | 1.009 | | A |
| WI | 1 | 0.0595 | 0.0130 | 0.954 | | A |
| YA | 1 | 0.0659 | 0.0018 | 1.057 | | A |

**Total Number Reported:** 52

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** SB125

**EML Value:** 12.1600
**EML Error:** 1.1510

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 12.5000 | 1.2000 | 1.028 | | A |
| AF | 1 | 12.5000 | 3.1000 | 1.028 | W | A |
| AG | 1 | 13.2800 | 0.9100 | 1.092 | A | A |
| AI | 1 | 14.4000 | 0.1910 | 1.184 | | W |
| AL | 1 | 1.7303 | 0.5170 | 0.142 | | N |
| AM | 1 | 8.0400 | 0.1900 | 0.661 | W | W |
| AN | 1 | 13.7900 | 0.2500 | 1.134 | W | A |
| AR | 1 | 12.0700 | 1.4400 | 0.993 | A | A |
| AR | 2 | 13.5000 | 1.7400 | 1.110 | A | A |
| AR | 3 | 12.1400 | 1.4400 | 0.998 | A | A |
| AU | 1 | 15.5000 | 1.9000 | 1.275 | A | W |
| BA | 1 | 14.3000 | 0.3300 | 1.176 | A | A |
| BC | 1 | 17.9000 | 1.0000 | 1.472 | A | N |
| BE | 1 | 12.3000 | 0.6000 | 1.012 | A | A |
| BL | 1 | 11.3000 | 0.7000 | 0.929 | A | A |
| BN | 1 | 16.9400 | 0.3700 | 1.393 | N | W |
| BN | 2 | 17.7500 | 0.3700 | 1.460 | N | N |
| BN | 3 | 16.9900 | 0.3700 | 1.397 | N | W |
| BP | 1 | 12.5700 | 0.8300 | 1.034 | W | A |
| BQ | 1 | 2.7000 | 0.3000 | 0.222 | A | N |
| BS | 1 | 2.9100 | 0.1800 | 0.239 | W | N |
| BU | 1 | 12.0000 | 1.0000 | 0.987 | A | A |
| BX | 1 | 20.2000 | 1.0000 | 1.661 | A | N |
| CA | 1 | 11.5000 | 0.5000 | 0.946 | A | A |
| CD | 1 | 10.5000 | 0.3000 | 0.863 | | A |
| CH | 1 | 11.6000 | 0.5550 | 0.954 | A | A |
| CL | 1 | 13.1000 | 0.6900 | 1.077 | A | A |
| CN | 1 | 12.4300 | 0.7900 | 1.022 | W | A |
| CO | 1 | 12.4000 | 0.3000 | 1.020 | A | A |
| CR | 1 | 10.0000 | 0.6000 | 0.822 | W | W |
| CS | 1 | 5.7930 | 0.1800 | 0.476 | W | N |
| DC | 1 | 13.7000 | 2.0800 | 1.127 | W | A |
| DH | 1 | 12.2400 | 0.3740 | 1.007 | | A |
| EG | 1 | 13.8000 | 0.7000 | 1.135 | A | A |
| EL | 1 | 28.5000 | 1.4000 | 2.344 | | N |
| EP | 1 | 13.3000 | 1.0770 | 1.094 | | A |
| FG | 1 | 12.3900 | 3.9000 | 1.019 | A | A |
| FJ | 1 | 14.8500 | 0.1900 | 1.221 | | W |
| FL | 1 | 11.1000 | 0.3000 | 0.913 | A | A |
| FM | 1 | 12.8000 | 0.1000 | 1.053 | A | A |
| FN | 1 | 13.3000 | 0.7000 | 1.094 | W | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** SB125

**EML Value:** 12.1600
**EML Error:** 1.1510

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| FR | 1 | 10.6000 | 1.5000 | 0.872 | W | A |
| GA | 1 | 12.4000 | 2.3000 | 1.020 | W | A |
| GE | 1 | 13.2201 | 1.4301 | 1.087 | A | A |
| GP | 1 | 10.0000 | 1.1000 | 0.822 | W | W |
| GT | 1 | 9.7000 | 0.9000 | 0.798 | W | W |
| HU | 1 | 10.8000 | 0.2000 | 0.888 | A | A |
| IA | 1 | 12.6100 | 0.1400 | 1.037 | | A |
| IA | 2 | 12.1000 | 0.1500 | 0.995 | | A |
| IA | 3 | 12.1400 | 0.1400 | 0.998 | | A |
| ID | 1 | 17.1100 | 0.9600 | 1.407 | A | W |
| IE | 1 | 12.0000 | 0.6000 | 0.987 | W | A |
| IL | 1 | 11.3000 | 0.2000 | 0.929 | | A |
| IN | 1 | 13.3000 | 1.0000 | 1.094 | A | A |
| IS | 1 | 12.8000 | 1.7300 | 1.053 | W | A |
| IT | 1 | 12.8000 | 1.0000 | 1.053 | N | A |
| JL | 1 | 10.4000 | 0.8000 | 0.855 | A | A |
| KO | 1 | 13.3500 | 0.1800 | 1.098 | A | A |
| LA | 1 | 13.8000 | 1.1000 | 1.135 | A | A |
| LA | 2 | 13.2000 | 1.1000 | 1.086 | A | A |
| LA | 3 | 13.6000 | 1.1000 | 1.118 | A | A |
| LL | 1 | 14.6000 | 0.4380 | 1.201 | A | W |
| LM | 1 | 17.1000 | 1.3000 | 1.406 | | W |
| LN | 1 | 10.3000 | 0.8000 | 0.847 | | A |
| LV | 1 | 10.8000 | 0.1000 | 0.888 | | A |
| ME | 1 | 13.8000 | 0.6200 | 1.135 | W | A |
| MH | 1 | 16.3400 | 0.4600 | 1.344 | | W |
| ML | 1 | 14.5800 | 1.5000 | 1.199 | W | W |
| MS | 1 | 12.3000 | 1.2300 | 1.012 | A | A |
| NA | 1 | 12.2000 | 0.3450 | 1.003 | | A |
| NL | 1 | 12.4000 | 0.9160 | 1.020 | | A |
| NP | 1 | 13.4000 | 0.6000 | 1.102 | | A |
| NS | 1 | 13.2600 | 0.4900 | 1.090 | | A |
| OD | 1 | 13.7800 | 0.4600 | 1.133 | | A |
| OL | 1 | 14.7200 | 0.4300 | 1.211 | | W |
| OT | 1 | 14.0000 | 1.0000 | 1.151 | | A |
| OU | 1 | 14.4000 | 5.3000 | 1.184 | | W |
| PO | 1 | 12.3000 | 0.3000 | 1.012 | | A |
| RA | 1 | 12.5000 | 0.3800 | 1.028 | | A |
| RC | 1 | 13.3000 | 1.5000 | 1.094 | | A |
| RE | 1 | 12.0000 | 1.5000 | 0.987 | | A |
| RI | 1 | 10.2000 | 2.0900 | 0.839 | | A |
| RL | 1 | 12.2000 | 0.1800 | 1.003 | | A |
| SA | 1 | 12.9000 | 2.2000 | 1.061 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** SB125

**EML Value:** 12.1600
**EML Error:** 1.1510

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| SK | 1 | 12.8000 | 0.5000 | 1.053 | | A |
| SR | 1 | 13.3000 | 1.8000 | 1.094 | | A |
| SW | 1 | 12.1000 | 0.3000 | 0.995 | | A |
| TE | 1 | 13.5425 | 0.5605 | 1.114 | | A |
| TI | 1 | 13.7000 | 1.4000 | 1.127 | | A |
| TM | 1 | 14.5000 | 0.8520 | 1.192 | | W |
| TN | 1 | 11.7500 | 2.0300 | 0.966 | | A |
| TO | 1 | 16.6000 | 1.2000 | 1.365 | | W |
| TP | 1 | 12.9110 | 0.3580 | 1.062 | | A |
| TW | 1 | 12.0000 | 0.2000 | 0.987 | | A |
| TX | 1 | 8.4700 | 0.1500 | 0.697 | | W |
| UP | 1 | 17.4000 | 1.6800 | 1.431 | | N |
| UY | 1 | 12.8000 | 0.8000 | 1.053 | | A |
| WA | 1 | 14.9000 | 0.5000 | 1.225 | | W |
| WC | 1 | 7.0700 | 0.5200 | 0.581 | | N |
| WI | 1 | 12.1000 | 0.8100 | 0.995 | | A |
| WP | 1 | 12.8000 | 0.6300 | 1.053 | | A |
| YA | 1 | 6.2715 | 0.1665 | 0.516 | | N |
| YU | 1 | 15.5000 | 0.4000 | 1.275 | | W |

**Total Number Reported:** **103**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** SR90

**EML Value:** 1.7583
**EML Error:** 0.0422

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AF | 1 | 2.5000 | 0.2000 | 1.422 | N | W |
| AG | 1 | 1.5000 | 0.2700 | 0.853 | A | A |
| AN | 1 | 1.5800 | 0.0100 | 0.899 | A | A |
| AR | 1 | 15.9700 | 4.5000 | 9.083 | W | N |
| AR | 2 | 19.3100 | 4.8400 | 10.982 | W | N |
| AR | 3 | 15.8300 | 4.3300 | 9.003 | W | N |
| BC | 1 | 1.4500 | 0.1100 | 0.825 | A | W |
| BE | 1 | 1.6900 | 0.1400 | 0.961 | A | A |
| BL | 1 | 1.6790 | 0.3440 | 0.955 | A | A |
| BM | 1 | 1.5800 | 0.0400 | 0.899 | A | A |
| BP | 1 | 1.4700 | 0.1200 | 0.836 | A | W |
| BX | 1 | 1.6200 | 0.1300 | 0.921 | A | A |
| CH | 1 | 1.6300 | 0.1120 | 0.927 | A | A |
| CL | 1 | 0.9900 | 0.2300 | 0.563 | W | N |
| EG | 1 | 1.6600 | 0.0500 | 0.944 | A | A |
| GE | 1 | 1.0255 | 0.0709 | 0.583 | N | N |
| GP | 1 | 2.2000 | 0.3000 | 1.251 | N | A |
| GT | 1 | 1.5000 | 0.1000 | 0.853 | A | A |
| IE | 1 | 1.6300 | 0.2600 | 0.927 | A | A |
| IS | 1 | 2.0500 | 0.0200 | 1.166 | W | A |
| IT | 1 | 1.7500 | 0.1500 | 0.995 | A | A |
| KO | 1 | 4.3100 | 0.2400 | 2.451 | | N |
| NA | 1 | 1.5700 | 0.1380 | 0.893 | N | A |
| OT | 1 | 1.0000 | 0.1000 | 0.569 | | N |
| RE | 1 | 1.7200 | 0.0900 | 0.978 | | A |
| RI | 1 | 2.0200 | 0.1160 | 1.149 | | A |
| SR | 1 | 1.2100 | 0.1000 | 0.688 | | W |
| SW | 1 | 3.2400 | 0.1900 | 1.843 | | W |
| TE | 1 | 1.8200 | 0.2100 | 1.035 | | A |
| TI | 1 | 1.6000 | 0.3000 | 0.910 | | A |
| TM | 1 | 0.9780 | 0.1070 | 0.556 | | N |
| TN | 1 | 1.5720 | 0.0716 | 0.894 | | A |
| TP | 1 | 1.8170 | 0.0710 | 1.033 | | A |
| TW | 1 | 1.7300 | 0.0900 | 0.984 | | A |
| UY | 1 | 1.2600 | 0.1000 | 0.717 | | W |
| WA | 1 | 1.7300 | 0.1600 | 0.984 | | A |
| WC | 1 | 1.6900 | 0.2500 | 0.961 | | A |
| WI | 1 | 1.7100 | 0.1500 | 0.973 | | A |
| YA | 1 | 1.5596 | 0.1425 | 0.887 | | A |

**Total Number Reported:** 39

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** U234

**EML Value:** 0.0308
**EML Error:** 0.0029

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 0.0256 | 0.0024 | 0.831 | | W |
| AF | 1 | 0.0370 | 0.0100 | 1.201 | | A |
| AG | 1 | 0.0447 | 0.0076 | 1.451 | A | W |
| AI | 1 | 0.0292 | 0.0015 | 0.948 | | A |
| AM | 1 | 0.0640 | 0.0140 | 2.078 | N | N |
| AN | 1 | 0.0330 | 0.0030 | 1.071 | A | A |
| AU | 1 | 0.0590 | 0.0090 | 1.916 | A | W |
| BC | 1 | 0.0518 | 0.0063 | 1.682 | W | W |
| BE | 1 | 0.0320 | 0.0100 | 1.039 | A | A |
| BL | 1 | 0.0350 | 0.0007 | 1.136 | A | A |
| BM | 1 | 0.0340 | 0.0060 | 1.104 | A | A |
| BU | 1 | 0.0330 | 0.0050 | 1.071 | | A |
| BX | 1 | 0.0514 | 0.0089 | 1.669 | W | W |
| CH | 1 | 0.0351 | 0.0045 | 1.140 | A | A |
| CL | 1 | 0.0400 | 0.0100 | 1.299 | W | A |
| EG | 1 | 0.0330 | 0.0050 | 1.071 | A | A |
| EI | 1 | 0.0400 | 0.0400 | 1.299 | | A |
| GA | 1 | 0.0430 | | 1.396 | A | W |
| GE | 1 | 0.0341 | 0.0056 | 1.107 | A | A |
| GP | 1 | 0.0320 | 0.0040 | 1.039 | W | A |
| IE | 1 | 0.0390 | 0.0060 | 1.266 | A | A |
| IT | 1 | 0.0374 | 0.0005 | 1.214 | A | A |
| KO | 1 | 0.0354 | 0.0013 | 1.149 | | A |
| LL | 1 | 0.0088 | 0.0021 | 0.284 | | N |
| ML | 1 | 0.0400 | 0.0030 | 1.299 | A | A |
| NA | 1 | 0.0480 | 0.0060 | 1.558 | | W |
| NL | 1 | 0.0353 | 0.0110 | 1.146 | | A |
| RA | 1 | 0.0340 | 0.0050 | 1.104 | | A |
| RE | 1 | 0.0320 | 0.0050 | 1.039 | | A |
| SN | 1 | 0.0390 | 0.0070 | 1.266 | | A |
| SR | 1 | 0.0320 | 0.0050 | 1.039 | | A |
| TM | 1 | 0.0305 | 0.0030 | 0.990 | | A |
| TN | 1 | 0.0337 | 0.0055 | 1.095 | | A |
| TW | 1 | 0.0340 | 0.0030 | 1.104 | | A |
| WA | 1 | 0.0420 | 0.0180 | 1.364 | | A |
| WC | 1 | 0.0387 | 0.0085 | 1.256 | | A |
| WI | 1 | 0.0325 | 0.0080 | 1.055 | | A |
| YA | 1 | 0.0347 | 0.0018 | 1.127 | | A |

**Total Number Reported:** **38**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** U238

**EML Value:** 0.0305
**EML Error:** 0.0013

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 0.0268 | 0.0025 | 0.879 | | W |
| AF | 1 | 0.0300 | 0.0100 | 0.984 | | A |
| AG | 1 | 0.0352 | 0.0066 | 1.155 | A | A |
| AI | 1 | 0.0266 | 0.0014 | 0.873 | | W |
| AM | 1 | 0.0950 | 0.0110 | 3.117 | N | N |
| AN | 1 | 0.0330 | 0.0030 | 1.083 | A | A |
| AU | 1 | 0.0640 | 0.0090 | 2.100 | A | W |
| BC | 1 | 0.0429 | 0.0074 | 1.407 | W | W |
| BE | 1 | 0.0300 | 0.0090 | 0.984 | A | A |
| BL | 1 | 0.0341 | 0.0007 | 1.119 | A | A |
| BM | 1 | 0.0340 | 0.0060 | 1.115 | A | A |
| BP | 1 | 0.0327 | 0.0011 | 1.073 | W | A |
| BU | 1 | 0.0320 | 0.0040 | 1.050 | | A |
| BX | 1 | 0.0374 | 0.0096 | 1.227 | W | A |
| CH | 1 | 0.0323 | 0.0032 | 1.060 | A | A |
| CL | 1 | 0.0400 | 0.0100 | 1.312 | A | A |
| EG | 1 | 0.0330 | 0.0050 | 1.083 | A | A |
| EI | 1 | 0.0300 | 0.0400 | 0.984 | | A |
| FL | 1 | 0.8000 | 0.1000 | 26.247 | | N |
| GA | 1 | 0.0360 | | 1.181 | A | A |
| GE | 1 | 0.0348 | 0.0057 | 1.142 | A | A |
| GP | 1 | 0.0330 | 0.0040 | 1.083 | W | A |
| GT | 1 | 0.0340 | 0.0100 | 1.115 | A | A |
| ID | 1 | 0.0320 | 0.0020 | 1.050 | | A |
| IE | 1 | 0.0310 | 0.0030 | 1.017 | A | A |
| IT | 1 | 0.0349 | 0.0022 | 1.145 | A | A |
| KO | 1 | 0.0331 | 0.0012 | 1.086 | | A |
| LL | 1 | 0.0093 | 0.0027 | 0.305 | A | N |
| ML | 1 | 0.0400 | 0.0030 | 1.312 | A | A |
| NA | 1 | 0.0360 | 0.0050 | 1.181 | | A |
| NL | 1 | 0.0404 | 0.0114 | 1.325 | | W |
| RA | 1 | 0.0350 | 0.0050 | 1.148 | | A |
| RE | 1 | 0.0330 | 0.0050 | 1.083 | | A |
| SN | 1 | 0.0400 | 0.0070 | 1.312 | | A |
| SR | 1 | 0.0320 | 0.0050 | 1.050 | | A |
| TE | 1 | 0.3915 | 0.0752 | 12.844 | | N |
| TM | 1 | 0.0313 | 0.0029 | 1.027 | | A |
| TN | 1 | 0.0339 | 0.0055 | 1.111 | | A |
| TW | 1 | 0.0360 | 0.0030 | 1.181 | | A |
| WA | 1 | 0.0330 | 0.0160 | 1.083 | | A |
| WC | 1 | 0.0320 | 0.0077 | 1.050 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** U238

**EML Value:** 0.0305
**EML Error:** 0.0013

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| WI | 1 | 0.0340 | 0.0080 | 1.115 | | A |
| YA | 1 | 0.0356 | 0.0018 | 1.168 | | A |

**Total Number Reported:** **43**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** AI Air Filter Bq / filter
**Radionuclide:** ug U

**EML Value:** 2.4718
**EML Error:** 0.1008

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AG | 1 | 2.9900 | 0.4100 | 1.210 | A | A |
| AR | 1 | 3.1050 | | 1.256 | A | W |
| AR | 2 | 2.9200 | | 1.181 | A | A |
| AR | 3 | 3.0180 | | 1.221 | A | A |
| BE | 1 | 2.7000 | 0.0000 | 1.092 | A | A |
| BQ | 1 | 2.6000 | 0.1000 | 1.052 | A | A |
| BU | 1 | 2.7000 | 0.5000 | 1.092 | | A |
| CH | 1 | 2.7000 | 0.0515 | 1.092 | A | A |
| GE | 1 | 2.9330 | 0.0630 | 1.187 | A | A |
| IE | 1 | 2.4800 | 0.2400 | 1.003 | A | A |
| IS | 1 | 3.2200 | 0.5600 | 1.303 | W | W |
| IT | 1 | 2.6900 | 0.0100 | 1.088 | A | A |
| KO | 1 | 2.6800 | 0.0985 | 1.084 | | A |
| LA | 1 | 4.7800 | 0.4800 | 1.934 | | N |
| LA | 2 | 5.5500 | 0.5600 | 2.245 | | N |
| LA | 3 | 3.7800 | 0.3800 | 1.529 | | W |
| RA | 1 | 2.9500 | 0.2000 | 1.193 | | A |
| RI | 1 | 2.8500 | 0.0815 | 1.153 | | A |
| SA | 1 | 3.0300 | 0.0800 | 1.226 | | A |
| SW | 1 | 2.6500 | | 1.072 | | A |
| TI | 1 | 2.3000 | 0.3000 | 0.930 | | A |
| TM | 1 | 3.0400 | 0.1560 | 1.230 | | A |
| TN | 1 | 2.7050 | 0.3475 | 1.094 | | A |
| UP | 1 | 2.6000 | 0.3000 | 1.052 | | A |
| YP | 1 | 2.4000 | 0.1150 | 0.971 | | A |

**Total Number Reported:** **25**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** AM241

**EML Value:** 2.6775
**EML Error:** 0.2117

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 30.3000 | 0.3000 | 11.317 | | N |
| AF | 1 | 38.9000 | 16.7000 | 14.528 | A | N |
| AG | 1 | 2.6200 | 0.3900 | 0.979 | A | A |
| AI | 1 | 6.2700 | 1.0100 | 2.342 | N | N |
| AI | 2 | 4.7700 | 0.5100 | 1.782 | N | W |
| AM | 1 | 4.2600 | 0.9800 | 1.591 | A | W |
| AN | 1 | 3.0300 | 0.3900 | 1.132 | A | A |
| AR | 1 | 0.5900 | 2.1100 | 0.220 | A | N |
| AR | 2 | 0.9600 | 2.2900 | 0.359 | A | N |
| AT | 1 | 4.0500 | 1.2200 | 1.513 | | W |
| AU | 1 | 2.4800 | 0.5000 | 0.926 | A | A |
| BE | 1 | 2.8800 | 0.3400 | 1.076 | A | A |
| BM | 1 | 3.3800 | 1.7100 | 1.262 | A | A |
| BP | 1 | 2.9600 | 0.4200 | 1.106 | A | A |
| BU | 1 | 2.7000 | 0.4000 | 1.008 | A | A |
| BX | 1 | 2.3100 | 1.1000 | 0.863 | W | A |
| CL | 1 | 3.0300 | 0.7300 | 1.132 | A | A |
| CS | 1 | 3.2200 | 0.3000 | 1.203 | A | A |
| EG | 1 | 2.6500 | 0.3900 | 0.990 | A | A |
| EL | 1 | 3.3000 | 0.2000 | 1.232 | | A |
| EP | 1 | 2.7200 | 0.2450 | 1.016 | | A |
| FG | 1 | 2.0000 | 0.5000 | 0.747 | W | W |
| FJ | 1 | 3.0000 | 0.5000 | 1.120 | | A |
| FL | 1 | 2.3000 | 0.4000 | 0.859 | A | A |
| FR | 1 | 2.9200 | 0.9000 | 1.091 | A | A |
| FS | 1 | 3.0000 | 0.6000 | 1.120 | A | A |
| GA | 1 | 3.1400 | | 1.173 | A | A |
| GT | 1 | 3.1000 | 2.4000 | 1.158 | W | A |
| ID | 1 | 2.3000 | 0.3010 | 0.859 | A | A |
| IE | 1 | 3.2100 | 0.4800 | 1.199 | A | A |
| IN | 1 | 2.8200 | 0.6000 | 1.053 | A | A |
| IS | 1 | 2.4700 | 2.0600 | 0.923 | A | A |
| IT | 1 | 2.6700 | 0.2500 | 0.997 | A | A |
| KO | 1 | 2.9100 | 0.1700 | 1.087 | | A |
| LA | 1 | 2.7000 | 0.3000 | 1.008 | A | A |
| LA | 2 | 3.0300 | 0.3200 | 1.132 | A | A |
| LA | 3 | 3.0500 | 0.3800 | 1.139 | A | A |
| LL | 1 | 3.8700 | 1.3000 | 1.445 | W | A |
| LV | 1 | 4.2000 | 0.4800 | 1.569 | W | W |
| MA | 1 | 3.6000 | 1.9000 | 1.345 | A | A |
| ME | 1 | 3.5000 | 0.4400 | 1.307 | A | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** AM241

**EML Value:** 2.6775
**EML Error:** 0.2117

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| ML | 1 | 2.7100 | 0.3000 | 1.012 | A | A |
| NM | 1 | 2.9400 | 0.3300 | 1.098 | | A |
| OT | 1 | 2.8000 | 0.7000 | 1.046 | | A |
| RE | 1 | 2.3400 | 0.4400 | 0.874 | | A |
| SK | 1 | 3.8500 | 0.2300 | 1.438 | | A |
| SN | 1 | 2.6490 | 2.0040 | 0.989 | | A |
| SW | 1 | 4.6900 | 1.8200 | 1.752 | | W |
| TE | 1 | 1.6700 | 1.1100 | 0.624 | | W |
| TI | 1 | 3.4000 | 1.5000 | 1.270 | | A |
| TM | 1 | 3.5500 | 0.5360 | 1.326 | | A |
| TN | 1 | 2.2650 | 0.6993 | 0.846 | | A |
| TO | 1 | 7.8000 | 3.5000 | 2.913 | | N |
| TW | 1 | 2.8000 | 0.1000 | 1.046 | | A |
| TX | 1 | 2.6750 | 0.2180 | 0.999 | | A |
| UP | 1 | 3.3300 | 0.9750 | 1.244 | | A |
| UY | 1 | 2.6000 | 1.1000 | 0.971 | | A |
| WA | 1 | 2.4200 | 0.2000 | 0.904 | | A |
| WC | 1 | 4.1800 | 1.6700 | 1.561 | | W |
| WS | 1 | 3.5000 | 0.7400 | 1.307 | | A |
| YA | 1 | 2.2163 | 0.1196 | 0.828 | | A |

**Total Number Reported:** 61

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** Bq U

**EML Value:** 64.6000
**EML Error:** 2.8583

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AG | 1 | 59.4000 | 5.1000 | 0.920 | A | A |
| AI | 1 | 67.0000 | 3.3500 | 1.037 | | A |
| AM | 1 | 78.4300 | 15.5400 | 1.214 | A | W |
| BL | 1 | 67.6000 | | 1.046 | A | A |
| BL | 2 | 66.4000 | 1.5000 | 1.028 | A | A |
| BU | 1 | 52.2000 | 5.4000 | 0.808 | | A |
| CL | 1 | 60.5000 | 12.1000 | 0.937 | W | A |
| FR | 1 | 36.0400 | 1.5000 | 0.558 | A | A |
| ID | 1 | 55.4000 | 2.8700 | 0.858 | N | A |
| IE | 1 | 58.0000 | 2.1000 | 0.898 | | A |
| KO | 1 | 60.5000 | 1.1600 | 0.937 | | A |
| NF | 1 | 79.9250 | 2.7190 | 1.237 | | W |
| OT | 1 | 45.0000 | 9.0000 | 0.697 | | A |
| TX | 1 | 68.1360 | 2.0610 | 1.055 | | A |
| UY | 1 | 48.7000 | 8.5000 | 0.754 | | A |
| WA | 1 | 67.0000 | 4.4000 | 1.037 | | A |

**Total Number Reported:** 16

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** CS137

**EML Value:** 329.5000
**EML Error:** 9.2600

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 350.0000 | 2.0000 | 1.062 | | A |
| AF | 1 | 270.1000 | 25.9000 | 0.820 | A | W |
| AG | 1 | 385.0000 | 25.0000 | 1.168 | A | A |
| AI | 1 | 507.0000 | 8.5400 | 1.539 | A | N |
| AL | 1 | 570.1700 | 11.3000 | 1.730 | | N |
| AM | 1 | 349.5900 | 2.3900 | 1.061 | A | A |
| AN | 1 | 371.0000 | 11.0000 | 1.126 | A | A |
| AR | 1 | 382.2000 | 24.2000 | 1.160 | W | A |
| AR | 2 | 379.6000 | 24.0000 | 1.152 | W | A |
| AR | 3 | 385.2000 | 24.3000 | 1.169 | W | A |
| AT | 1 | 431.4000 | 43.1000 | 1.309 | | W |
| AU | 1 | 366.0000 | 18.0000 | 1.111 | A | A |
| BA | 1 | 351.0000 | 16.0000 | 1.065 | A | A |
| BC | 1 | 385.0000 | 26.0000 | 1.168 | A | A |
| BE | 1 | 386.0000 | 30.0000 | 1.171 | A | A |
| BL | 1 | 351.0000 | 13.0000 | 1.065 | A | A |
| BM | 1 | 359.0000 | 3.9000 | 1.090 | A | A |
| BN | 1 | 325.3400 | 1.5300 | 0.987 | A | A |
| BN | 2 | 328.8200 | 1.5300 | 0.998 | A | A |
| BN | 3 | 325.9000 | 1.5300 | 0.989 | A | A |
| BP | 1 | 329.0000 | 4.0000 | 0.998 | A | A |
| BQ | 1 | 230.0000 | 9.0000 | 0.698 | A | N |
| BS | 1 | 347.4100 | 1.9300 | 1.054 | A | A |
| BU | 1 | 290.0000 | 30.0000 | 0.880 | A | W |
| BX | 1 | 389.0000 | 26.0000 | 1.181 | A | A |
| CD | 1 | 388.0000 | 6.0000 | 1.178 | | A |
| CL | 1 | 323.0000 | 11.1000 | 0.980 | A | A |
| CN | 1 | 366.8000 | 18.0000 | 1.113 | A | A |
| CO | 1 | 371.0000 | 17.0000 | 1.126 | A | A |
| CR | 1 | 428.8000 | 17.6000 | 1.301 | A | W |
| CS | 1 | 354.3000 | 15.3100 | 1.075 | A | A |
| DC | 1 | 466.0000 | 149.0000 | 1.414 | W | N |
| DH | 1 | 333.2000 | 3.3300 | 1.011 | A | A |
| EG | 1 | 391.0000 | 21.0000 | 1.187 | A | A |
| EL | 1 | 402.0000 | 20.0000 | 1.220 | | W |
| FG | 1 | 381.3000 | 18.3900 | 1.157 | A | A |
| FJ | 1 | 340.0000 | 27.0000 | 1.032 | | A |
| FL | 1 | 325.0000 | 1.0000 | 0.986 | A | A |
| FN | 1 | 367.0000 | 37.0000 | 1.114 | A | A |
| FR | 1 | 332.5000 | 35.0000 | 1.009 | A | A |
| FS | 1 | 316.0000 | 4.0000 | 0.959 | A | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** CS137

**EML Value:** 329.5000
**EML Error:** 9.2600

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| GA | 1 | 359.0000 | 87.0000 | 1.090 | A | A |
| GC | 1 | 334.9000 | 16.9000 | 1.016 | A | A |
| GE | 1 | 353.1835 | 34.0215 | 1.072 | A | A |
| GP | 1 | 370.0000 | 40.0000 | 1.123 | A | A |
| GT | 1 | 340.0000 | 70.0000 | 1.032 | A | A |
| HU | 1 | 296.3000 | 8.6000 | 0.899 | A | W |
| IA | 1 | 243.0000 | 2.0000 | 0.737 | | N |
| IA | 2 | 238.0000 | 2.0000 | 0.722 | | N |
| IA | 3 | 244.0000 | 2.0000 | 0.741 | | N |
| ID | 1 | 357.6700 | 18.1400 | 1.085 | A | A |
| IE | 1 | 338.0000 | 10.0000 | 1.026 | A | A |
| IL | 1 | 496.3400 | 9.8100 | 1.506 | | N |
| IN | 1 | 345.0000 | 10.2000 | 1.047 | A | A |
| IS | 1 | 368.0000 | 43.6000 | 1.117 | A | A |
| IT | 1 | 372.0000 | 6.0000 | 1.129 | A | A |
| JE | 1 | 384.6600 | 9.2500 | 1.167 | | A |
| KA | 1 | 356.0000 | 40.0000 | 1.080 | A | A |
| KO | 1 | 343.9000 | 2.3270 | 1.044 | A | A |
| KR | 1 | 360.5000 | 24.5000 | 1.094 | | A |
| LA | 1 | 296.0000 | 22.0000 | 0.898 | A | W |
| LA | 2 | 300.0000 | 22.0000 | 0.910 | A | A |
| LA | 3 | 294.0000 | 22.0000 | 0.892 | A | W |
| LL | 1 | 374.0000 | 8.2000 | 1.135 | A | A |
| LM | 1 | 352.0000 | 15.0000 | 1.068 | | A |
| LV | 1 | 406.0000 | 2.0000 | 1.232 | A | W |
| MA | 1 | 407.0000 | 33.0000 | 1.235 | A | W |
| ME | 1 | 361.0000 | 15.3000 | 1.096 | A | A |
| MH | 1 | 346.7000 | 16.8000 | 1.052 | | A |
| ML | 1 | 330.2600 | 33.0000 | 1.002 | N | A |
| NA | 1 | 341.0000 | 2.5000 | 1.035 | A | A |
| NL | 1 | 327.0000 | 62.1000 | 0.992 | | A |
| NM | 1 | 298.0000 | 27.0000 | 0.904 | | A |
| NP | 1 | 427.0000 | 4.0000 | 1.296 | | W |
| NR | 1 | 356.0000 | 71.0000 | 1.080 | | A |
| OL | 1 | 354.9000 | 3.8000 | 1.077 | | A |
| OT | 1 | 310.0000 | 10.0000 | 0.941 | | A |
| OU | 1 | 278.0000 | 13.1000 | 0.844 | | W |
| PK | 1 | 380.2000 | 8.8000 | 1.154 | | A |
| PO | 1 | 353.0000 | 10.0000 | 1.071 | | A |
| RA | 1 | 282.0000 | 12.0000 | 0.856 | | W |
| RC | 1 | 342.0000 | 34.0000 | 1.038 | | A |
| RE | 1 | 322.0000 | 25.0000 | 0.977 | | A |
| RI | 1 | 383.0000 | 19.8000 | 1.162 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** CS137

**EML Value:** 329.5000
**EML Error:** 9.2600

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| RL | 1 | 401.0000 | 84.0000 | 1.217 | | W |
| SA | 1 | 349.0000 | 11.0000 | 1.059 | | A |
| SH | 1 | 351.8000 | 8.2000 | 1.068 | | A |
| SK | 1 | 399.0000 | 18.0000 | 1.211 | | W |
| SN | 1 | 390.6800 | 40.9500 | 1.186 | | A |
| SR | 1 | 368.0000 | 41.0000 | 1.117 | | A |
| SW | 1 | 437.1000 | 4.5000 | 1.327 | | N |
| TE | 1 | 322.5900 | 4.5700 | 0.979 | | A |
| TI | 1 | 369.0000 | 37.0000 | 1.120 | | A |
| TM | 1 | 355.0000 | 11.5000 | 1.077 | | A |
| TO | 1 | 340.8000 | 49.3000 | 1.034 | | A |
| TP | 1 | 357.3510 | 20.0930 | 1.085 | | A |
| TT | 1 | 261.0000 | 9.2500 | 0.792 | | N |
| TW | 1 | 325.0000 | 3.0000 | 0.986 | | A |
| TX | 1 | 355.0000 | 2.0000 | 1.077 | | A |
| UC | 1 | 400.6200 | 41.2100 | 1.216 | | W |
| UP | 1 | 364.0000 | 44.3000 | 1.105 | | A |
| UY | 1 | 360.0000 | 40.0000 | 1.093 | | A |
| WA | 1 | 356.0000 | 18.0000 | 1.080 | | A |
| WC | 1 | 351.0000 | 53.0000 | 1.065 | | A |
| WP | 1 | 392.0000 | 3.4000 | 1.190 | | A |
| WS | 1 | 365.6000 | 12.1000 | 1.110 | | A |
| YA | 1 | 359.2145 | 2.1645 | 1.090 | | A |
| YU | 1 | 345.0000 | 20.0000 | 1.047 | | A |

**Total Number Reported:** **108**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** K40

**EML Value:** 313.5000
**EML Error:** 10.1500

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 325.0000 | 13.0000 | 1.037 | | A |
| AF | 1 | 299.7000 | 40.7000 | 0.956 | A | A |
| AG | 1 | 352.0000 | 36.0000 | 1.123 | A | A |
| AI | 1 | 424.0000 | 54.7000 | 1.352 | A | W |
| AL | 1 | 532.6600 | 44.7000 | 1.699 | | N |
| AM | 1 | 369.3800 | 13.1200 | 1.178 | A | A |
| AN | 1 | 327.0000 | 14.0000 | 1.043 | A | A |
| AR | 1 | 331.7000 | 33.0000 | 1.058 | A | A |
| AR | 2 | 350.8000 | 34.2900 | 1.119 | A | A |
| AR | 3 | 330.9600 | 32.8900 | 1.056 | A | A |
| AT | 1 | 410.2500 | 45.1200 | 1.309 | | W |
| AU | 1 | 336.0000 | 27.0000 | 1.072 | A | A |
| BC | 1 | 392.0000 | 22.0000 | 1.250 | A | W |
| BE | 1 | 390.0000 | 30.0000 | 1.244 | A | A |
| BL | 1 | 348.0000 | 17.0000 | 1.110 | A | A |
| BM | 1 | 340.0000 | 19.0000 | 1.085 | A | A |
| BN | 1 | 284.7200 | 8.7900 | 0.908 | W | A |
| BN | 2 | 264.4000 | 8.7900 | 0.843 | W | W |
| BN | 3 | 280.7200 | 8.7900 | 0.895 | W | W |
| BP | 1 | 329.0000 | 5.0000 | 1.049 | A | A |
| BQ | 1 | 328.0000 | 5.0000 | 1.046 | A | A |
| BS | 1 | 359.6300 | 9.1400 | 1.147 | A | A |
| BU | 1 | 280.0000 | 40.0000 | 0.893 | A | W |
| BX | 1 | 418.0000 | 2.0000 | 1.333 | A | W |
| CD | 1 | 400.0000 | 20.0000 | 1.276 | | W |
| CL | 1 | 375.0000 | 43.5000 | 1.196 | A | A |
| CN | 1 | 325.8000 | 18.4000 | 1.039 | A | A |
| CR | 1 | 453.8000 | 63.5000 | 1.448 | A | W |
| CS | 1 | 351.0000 | 16.2900 | 1.120 | A | A |
| DC | 1 | 329.0000 | 94.4000 | 1.049 | A | A |
| DH | 1 | 322.1000 | 21.1000 | 1.027 | A | A |
| EG | 1 | 339.0000 | 51.0000 | 1.081 | A | A |
| EL | 1 | 451.0000 | 21.0000 | 1.439 | | W |
| FG | 1 | 368.5000 | 38.2000 | 1.175 | A | A |
| FJ | 1 | 354.0000 | 26.0000 | 1.129 | | A |
| FL | 1 | 313.0000 | 6.0000 | 0.998 | A | A |
| FN | 1 | 340.0000 | 35.0000 | 1.085 | A | A |
| FR | 1 | 323.7000 | 50.0000 | 1.033 | A | A |
| FS | 1 | 315.0000 | 6.0000 | 1.005 | A | A |
| GA | 1 | 363.0000 | 20.0000 | 1.158 | A | A |
| GC | 1 | 350.3000 | 37.0000 | 1.117 | A | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** K40

**EML Value:** 313.5000
**EML Error:** 10.1500

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| GE | 1 | 354.0900 | 42.0320 | 1.129 | A | A |
| GP | 1 | 380.0000 | 40.0000 | 1.212 | A | A |
| GT | 1 | 340.0000 | 40.0000 | 1.085 | A | A |
| HU | 1 | 335.0000 | 28.0000 | 1.069 | | A |
| IA | 1 | 212.0000 | 6.0000 | 0.676 | | N |
| IA | 2 | 224.0000 | 6.0000 | 0.715 | | N |
| IA | 3 | 220.0000 | 6.0000 | 0.702 | | N |
| ID | 1 | 361.6700 | 19.4200 | 1.154 | A | A |
| IE | 1 | 317.0000 | 15.0000 | 1.011 | A | A |
| IL | 1 | 506.1700 | 31.1100 | 1.615 | | N |
| IN | 1 | 339.2000 | 38.8000 | 1.082 | A | A |
| IS | 1 | 434.0000 | 81.0000 | 1.384 | A | W |
| IT | 1 | 350.0000 | 20.0000 | 1.116 | A | A |
| JE | 1 | 321.2500 | 29.2900 | 1.025 | | A |
| KA | 1 | 323.0000 | 50.0000 | 1.030 | A | A |
| KO | 1 | 348.1000 | 7.1750 | 1.110 | A | A |
| KR | 1 | 350.5000 | 24.4000 | 1.118 | | A |
| LA | 1 | 332.0000 | 33.0000 | 1.059 | | A |
| LA | 2 | 320.0000 | 32.0000 | 1.021 | | A |
| LA | 3 | 321.0000 | 32.0000 | 1.024 | | A |
| LL | 1 | 327.0000 | 24.9000 | 1.043 | A | A |
| LM | 1 | 325.0000 | 40.0000 | 1.037 | | A |
| LV | 1 | 390.0000 | 7.0000 | 1.244 | A | A |
| MA | 1 | 359.0000 | 81.0000 | 1.145 | A | A |
| ME | 1 | 363.0000 | 18.0000 | 1.158 | A | A |
| MH | 1 | 337.5000 | 18.5000 | 1.077 | | A |
| ML | 1 | 334.2500 | 33.4000 | 1.066 | A | A |
| NA | 1 | 321.0000 | 11.2000 | 1.024 | A | A |
| NL | 1 | 328.0000 | 47.5000 | 1.046 | | A |
| NR | 1 | 335.0000 | 67.0000 | 1.069 | | A |
| OL | 1 | 343.4000 | 11.1000 | 1.095 | | A |
| OT | 1 | 300.0000 | 30.0000 | 0.957 | | A |
| OU | 1 | 248.0000 | 46.6000 | 0.791 | | W |
| PK | 1 | 362.4000 | 28.3000 | 1.156 | | A |
| PO | 1 | 325.0000 | 12.0000 | 1.037 | | A |
| RA | 1 | 280.0000 | 40.0000 | 0.893 | | W |
| RC | 1 | 333.0000 | 33.0000 | 1.062 | | A |
| RE | 1 | 297.0000 | 33.0000 | 0.947 | | A |
| RI | 1 | 490.0000 | 133.0000 | 1.563 | | N |
| RL | 1 | 415.0000 | 88.0000 | 1.324 | | W |
| SA | 1 | 341.0000 | 30.0000 | 1.088 | | A |
| SK | 1 | 355.0000 | 19.0000 | 1.132 | | A |
| SN | 1 | 406.7100 | 45.9600 | 1.297 | | W |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** K40

**EML Value:** 313.5000
**EML Error:** 10.1500

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| SR | 1 | 371.0000 | 40.0000 | 1.183 | | A |
| SW | 1 | 424.9000 | 22.3000 | 1.355 | | W |
| TE | 1 | 322.1000 | 24.3200 | 1.027 | | A |
| TI | 1 | 334.0000 | 33.0000 | 1.065 | | A |
| TM | 1 | 358.0000 | 37.0000 | 1.142 | | A |
| TN | 1 | 301.3000 | 14.3000 | 0.961 | | A |
| TO | 1 | 317.4000 | 57.6000 | 1.012 | | A |
| TP | 1 | 334.2300 | 16.4930 | 1.066 | | A |
| TT | 1 | 257.0000 | 6.0300 | 0.820 | | W |
| TW | 1 | 310.0000 | 10.0000 | 0.989 | | A |
| TX | 1 | 345.0000 | 9.0000 | 1.100 | | A |
| UC | 1 | 363.9200 | 16.0600 | 1.161 | | A |
| UY | 1 | 370.0000 | 100.0000 | 1.180 | | A |
| WA | 1 | 367.0000 | 26.0000 | 1.171 | | A |
| WC | 1 | 396.0000 | 49.0000 | 1.263 | | W |
| WP | 1 | 389.0000 | 14.0000 | 1.241 | | A |
| WS | 1 | 335.6000 | 13.4000 | 1.070 | | A |
| YA | 1 | 357.0500 | 9.9900 | 1.139 | | A |
| YU | 1 | 355.0000 | 20.0000 | 1.132 | | A |

**Total Number Reported:** **103**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** PU239

**EML Value:** 5.3047
**EML Error:** 0.2528

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 5.7000 | 0.7400 | 1.075 | | A |
| AF | 1 | 5.5000 | 3.5000 | 1.037 | N | A |
| AG | 1 | 5.4000 | 0.8800 | 1.018 | A | A |
| AI | 1 | 5.2800 | 0.3420 | 0.995 | W | A |
| AI | 2 | 5.0300 | 0.4130 | 0.948 | W | A |
| AI | 3 | 4.8800 | 0.3600 | 0.920 | W | A |
| AI | 4 | 6.0000 | 0.5500 | 1.131 | W | A |
| AN | 1 | 5.8600 | 0.4600 | 1.105 | A | A |
| AR | 1 | 5.4000 | 1.1100 | 1.018 | W | A |
| AR | 2 | 5.3300 | 1.1800 | 1.005 | W | A |
| AR | 3 | 5.6200 | 1.0700 | 1.059 | W | A |
| AU | 1 | 5.5000 | 1.0000 | 1.037 | A | A |
| BE | 1 | 5.6800 | 0.8000 | 1.071 | A | A |
| BL | 1 | 5.3300 | 0.3900 | 1.005 | A | A |
| BM | 1 | 6.8000 | 2.0400 | 1.282 | A | W |
| BP | 1 | 5.1100 | 0.1900 | 0.963 | A | A |
| BU | 1 | 5.8000 | 0.7000 | 1.093 | A | A |
| BX | 1 | 5.1400 | 0.4400 | 0.969 | W | A |
| CL | 1 | 5.9400 | 1.4000 | 1.120 | A | A |
| EG | 1 | 5.2200 | 0.5200 | 0.984 | A | A |
| EP | 1 | 5.5100 | 0.4600 | 1.039 | | A |
| FR | 1 | 5.7200 | 0.8600 | 1.078 | A | A |
| GA | 1 | 6.0000 | | 1.131 | A | A |
| GE | 1 | 5.4205 | 0.7085 | 1.022 | A | A |
| GT | 1 | 5.9000 | 1.3000 | 1.112 | A | A |
| ID | 1 | 6.7570 | 0.8870 | 1.274 | A | W |
| IE | 1 | 5.3900 | 0.5200 | 1.016 | A | A |
| IN | 1 | 5.7500 | 1.1000 | 1.084 | A | A |
| IT | 1 | 5.3600 | 0.5000 | 1.010 | A | A |
| KA | 1 | 6.2580 | 0.1010 | 1.180 | A | A |
| KO | 1 | 5.2300 | 0.2600 | 0.986 | | A |
| LA | 1 | 5.5800 | 0.2200 | 1.052 | A | A |
| LA | 2 | 5.5800 | 0.2200 | 1.052 | A | A |
| LA | 3 | 5.3200 | 0.2000 | 1.003 | A | A |
| LL | 1 | 5.4200 | 0.5800 | 1.022 | A | A |
| LV | 1 | 3.0800 | 0.9200 | 0.581 | | N |
| ML | 1 | 5.2300 | 0.3500 | 0.986 | A | A |
| NA | 1 | 5.4000 | 1.0400 | 1.018 | A | A |
| NF | 1 | 3.6560 | 0.9500 | 0.689 | | N |
| NL | 1 | 6.5300 | 1.7800 | 1.231 | | W |
| NM | 1 | 5.6600 | 0.4000 | 1.067 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** PU239

**EML Value:** 5.3047
**EML Error:** 0.2528

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| OT | 1 | 6.0000 | 0.8000 | 1.131 | | A |
| RA | 1 | 6.9000 | 0.8000 | 1.301 | | W |
| RE | 1 | 5.1200 | 0.7000 | 0.965 | | A |
| SN | 1 | 4.9360 | 2.3950 | 0.930 | | A |
| SR | 1 | 2.8800 | 0.5400 | 0.543 | | N |
| SW | 1 | 1.3900 | 0.2600 | 0.262 | | N |
| TE | 1 | 4.6500 | 1.6600 | 0.877 | | W |
| TI | 1 | 5.3000 | 1.1000 | 0.999 | | A |
| TM | 1 | 4.7500 | 0.6200 | 0.895 | | A |
| TN | 1 | 3.7730 | 0.8172 | 0.711 | | W |
| TO | 1 | 3.6000 | 1.4000 | 0.679 | | N |
| TW | 1 | 5.6000 | 0.4000 | 1.056 | | A |
| TX | 1 | 5.4870 | 0.2700 | 1.034 | | A |
| UP | 1 | 5.0600 | 1.4900 | 0.954 | | A |
| UY | 1 | 4.9300 | 1.0000 | 0.929 | | A |
| WA | 1 | 5.4000 | 0.4700 | 1.018 | | A |
| WC | 1 | 5.5900 | 0.9600 | 1.054 | | A |
| YA | 1 | 5.3613 | 0.1591 | 1.011 | | A |

**Total Number Reported:** 59

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** SR90

**EML Value:** 13.0908
**EML Error:** 0.2790

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AF | 1 | 51.1000 | 18.5000 | 3.904 | | N |
| AG | 1 | 11.1000 | 2.4000 | 0.848 | A | A |
| AN | 1 | 13.2200 | 0.5100 | 1.010 | A | A |
| AR | 1 | 17.0200 | 15.6100 | 1.300 | A | A |
| AR | 2 | 15.6800 | 9.4700 | 1.198 | A | A |
| AR | 3 | 19.5400 | 16.0900 | 1.493 | A | A |
| AU | 1 | 16.7000 | 4.7000 | 1.276 | A | A |
| BE | 1 | 14.3000 | 3.0000 | 1.092 | A | A |
| BL | 1 | 12.5100 | 2.8700 | 0.956 | A | A |
| BM | 1 | 12.7000 | 1.1500 | 0.970 | A | A |
| BP | 1 | 27.5000 | 4.6000 | 2.101 | A | W |
| CL | 1 | 22.1000 | 7.8800 | 1.688 | W | W |
| EG | 1 | 14.4000 | 1.4000 | 1.100 | N | A |
| EI | 1 | 15.3000 | 1.2300 | 1.169 | | A |
| GE | 1 | 11.2850 | 1.4800 | 0.862 | | A |
| ID | 1 | 18.1300 | 1.3100 | 1.385 | A | A |
| IE | 1 | 11.1000 | 1.3000 | 0.848 | A | A |
| IN | 1 | 13.9000 | 3.1000 | 1.062 | W | A |
| IS | 1 | 18.6000 | 0.3000 | 1.421 | A | A |
| IT | 1 | 13.6000 | 0.9000 | 1.039 | A | A |
| KA | 1 | 12.8700 | 0.1000 | 0.983 | A | A |
| KO | 1 | 13.0300 | 1.1300 | 0.995 | | A |
| KR | 1 | 12.0800 | 0.5000 | 0.923 | | A |
| LA | 1 | 39.6000 | 28.9000 | 3.025 | | N |
| LA | 2 | 51.4000 | 31.8000 | 3.926 | | N |
| LA | 3 | 60.7000 | 30.0000 | 4.637 | | N |
| OT | 1 | 14.0000 | 4.0000 | 1.069 | | A |
| RA | 1 | 14.0000 | 4.0000 | 1.069 | | A |
| RE | 1 | 12.4000 | 1.5000 | 0.947 | | A |
| RI | 1 | 91.4000 | 2.6500 | 6.982 | | N |
| SH | 1 | 14.4730 | 0.5660 | 1.106 | | A |
| SH | 2 | 13.9480 | 0.5670 | 1.065 | | A |
| SH | 3 | 14.3350 | 0.5740 | 1.095 | | A |
| SW | 1 | 44.8000 | 11.5000 | 3.422 | | N |
| TE | 1 | 9.8900 | 3.8300 | 0.755 | | A |
| TI | 1 | 13.0000 | 5.0000 | 0.993 | | A |
| TM | 1 | 22.2000 | 5.4800 | 1.696 | | W |
| TN | 1 | 57.7650 | 5.0750 | 4.413 | | N |
| TO | 1 | 16.0000 | 2.3000 | 1.222 | | A |
| TP | 1 | 14.1520 | 1.4110 | 1.081 | | A |
| TW | 1 | 16.0000 | 2.0000 | 1.222 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** SR90

**EML Value:** 13.0908
**EML Error:** 0.2790

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| TX | 1 | 18.0000 | 5.0000 | 1.375 | | A |
| UY | 1 | 13.0000 | 6.0000 | 0.993 | | A |
| WA | 1 | 12.2000 | 2.1000 | 0.932 | | A |
| WC | 1 | 6.7000 | 8.7000 | 0.512 | | N |
| WP | 1 | 13.0000 | 2.2000 | 0.993 | | A |
| YA | 1 | 9.2007 | 0.6660 | 0.703 | | W |

**Total Number Reported:** **47**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** U234

**EML Value:** 31.1333
**EML Error:** 0.8021

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AF | 1 | 32.9000 | 20.0000 | 1.057 | | A |
| AG | 1 | 28.4000 | 3.6000 | 0.912 | A | A |
| AI | 1 | 31.1000 | 1.1800 | 0.999 | | A |
| AM | 1 | 36.5100 | 8.2800 | 1.173 | A | W |
| AN | 1 | 30.2600 | 0.3000 | 0.972 | A | A |
| AU | 1 | 31.6000 | 4.2000 | 1.015 | A | A |
| BC | 1 | 31.1000 | 1.9000 | 0.999 | W | A |
| BE | 1 | 30.9100 | 3.7600 | 0.993 | A | A |
| BL | 1 | 33.5000 | | 1.076 | A | A |
| BL | 2 | 32.9000 | 0.7000 | 1.057 | A | A |
| BM | 1 | 29.7800 | 4.9200 | 0.957 | A | A |
| BU | 1 | 25.4000 | 2.8000 | 0.816 | | A |
| BX | 1 | 28.9000 | 1.9000 | 0.928 | N | A |
| CL | 1 | 27.0000 | 6.2300 | 0.867 | W | A |
| EG | 1 | 33.1000 | 3.8000 | 1.063 | A | A |
| EI | 1 | 21.2100 | 1.2400 | 0.681 | | W |
| FR | 1 | 17.9100 | 1.2300 | 0.575 | A | W |
| GA | 1 | 37.5600 | | 1.206 | A | W |
| GE | 1 | 26.9989 | 3.1265 | 0.867 | A | A |
| IE | 1 | 28.3000 | 1.2000 | 0.909 | A | A |
| IN | 1 | 38.6000 | 6.2000 | 1.240 | | W |
| IT | 1 | 29.1000 | 3.3000 | 0.935 | A | A |
| KO | 1 | 30.4000 | 0.8400 | 0.976 | | A |
| LL | 1 | 25.1000 | 2.0400 | 0.806 | A | A |
| ML | 1 | 30.0100 | 2.0200 | 0.964 | A | A |
| NA | 1 | 30.4000 | 2.4500 | 0.976 | A | A |
| NL | 1 | 24.9000 | 7.7000 | 0.800 | | A |
| RA | 1 | 28.4000 | 4.3000 | 0.912 | | A |
| RE | 1 | 25.5000 | 2.4000 | 0.819 | | A |
| SN | 1 | 28.2900 | 5.7200 | 0.909 | | A |
| SR | 1 | 9.0000 | 1.4000 | 0.289 | | N |
| TM | 1 | 28.8000 | 2.0600 | 0.925 | | A |
| TN | 1 | 27.3900 | 2.5940 | 0.880 | | A |
| TO | 1 | 32.7000 | 3.2000 | 1.050 | | A |
| TW | 1 | 27.0000 | 0.9000 | 0.867 | | A |
| TX | 1 | 32.8560 | 0.8660 | 1.055 | | A |
| UP | 1 | 31.6300 | 6.7400 | 1.016 | | A |
| WA | 1 | 32.7000 | 3.3000 | 1.050 | | A |
| WC | 1 | 23.2000 | 2.2000 | 0.745 | | A |
| YA | 1 | 31.0923 | 1.1223 | 0.999 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** U234

**EML Value:** 31.1333
**EML Error:** 0.8021

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|

**Total Number Reported:** 40

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** U238

**EML Value:** 31.9000
**EML Error:** 2.5515

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AF | 1 | 20.0000 | 15.5000 | 0.627 | | W |
| AG | 1 | 27.9000 | 3.5000 | 0.875 | A | A |
| AI | 1 | 33.1000 | 1.2300 | 1.038 | | A |
| AM | 1 | 42.1800 | 7.1800 | 1.322 | A | W |
| AN | 1 | 31.3500 | 1.2400 | 0.983 | W | A |
| AU | 1 | 31.3000 | 4.3000 | 0.981 | A | A |
| BC | 1 | 30.3000 | 2.2000 | 0.950 | A | A |
| BE | 1 | 31.5400 | 3.8000 | 0.989 | A | A |
| BL | 1 | 32.6000 | | 1.022 | A | A |
| BL | 2 | 32.0000 | 0.7000 | 1.003 | A | A |
| BM | 1 | 27.4400 | 4.5800 | 0.860 | A | A |
| BU | 1 | 25.8000 | 2.6000 | 0.809 | | A |
| BX | 1 | 30.3000 | 2.2000 | 0.950 | A | A |
| CL | 1 | 28.6000 | 6.5700 | 0.897 | W | A |
| CS | 1 | 45.2900 | 13.8300 | 1.420 | | N |
| EG | 1 | 32.6000 | 4.4000 | 1.022 | W | A |
| EI | 1 | 21.1500 | 1.2400 | 0.663 | | W |
| FL | 1 | 27.0000 | 4.0000 | 0.846 | A | A |
| FN | 1 | 26.6000 | 1.4000 | 0.834 | A | A |
| FR | 1 | 17.3400 | 0.8600 | 0.544 | A | W |
| GA | 1 | 36.7100 | | 1.151 | A | W |
| GE | 1 | 27.5169 | 3.1746 | 0.863 | A | A |
| GT | 1 | 28.0000 | 6.0000 | 0.878 | A | A |
| IA | 1 | 19.8000 | 2.4800 | 0.621 | | W |
| IA | 2 | 23.5200 | 2.4800 | 0.737 | | A |
| IA | 3 | 19.8000 | 2.4800 | 0.621 | | W |
| IE | 1 | 28.4000 | 0.9000 | 0.890 | A | A |
| IN | 1 | 38.9000 | 6.2000 | 1.219 | | W |
| IT | 1 | 30.5000 | 0.5000 | 0.956 | A | A |
| KO | 1 | 28.8000 | 0.8000 | 0.903 | | A |
| LL | 1 | 2.5200 | 2.0400 | 0.079 | A | N |
| LV | 1 | 59.0000 | 3.9000 | 1.850 | N | N |
| MA | 1 | 44.0000 | 18.0000 | 1.379 | A | W |
| ML | 1 | 31.1300 | 2.0900 | 0.976 | A | A |
| NA | 1 | 27.2000 | 2.2900 | 0.853 | A | A |
| NL | 1 | 28.0000 | 7.9000 | 0.878 | | A |
| RA | 1 | 28.8000 | 4.3000 | 0.903 | | A |
| RE | 1 | 27.3000 | 2.5000 | 0.856 | | A |
| SN | 1 | 34.6700 | 6.4600 | 1.087 | | A |
| SR | 1 | 9.4000 | 1.4000 | 0.295 | | N |
| TE | 1 | 13.4400 | 2.4900 | 0.421 | | N |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** U238

**EML Value:** 31.9000
**EML Error:** 2.5515

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| TM | 1 | 28.0000 | 1.9800 | 0.878 | | A |
| TN | 1 | 26.2100 | 2.5300 | 0.822 | | A |
| TO | 1 | 33.2000 | 3.4000 | 1.041 | | A |
| TW | 1 | 27.9000 | 0.9000 | 0.875 | | A |
| TX | 1 | 32.8890 | 0.9070 | 1.031 | | A |
| UP | 1 | 26.9700 | 4.8100 | 0.845 | | A |
| WA | 1 | 31.8000 | 3.2000 | 0.997 | | A |
| WC | 1 | 19.2000 | 1.7000 | 0.602 | | W |
| WS | 1 | 30.0000 | 4.6000 | 0.940 | | A |
| YA | 1 | 31.1787 | 1.1347 | 0.977 | | A |

**Total Number Reported:** **51**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** SO Soil Bq / kg
**Radionuclide:** ug U

**EML Value:** 2.5832
**EML Error:** 0.2000

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AG | 1 | 1.7500 | 0.2500 | 0.677 | A | A |
| AR | 1 | 1.8120 | | 0.701 | | A |
| AR | 2 | 1.7450 | | 0.676 | | A |
| AR | 3 | 1.6550 | | 0.641 | | W |
| BE | 1 | 2.6000 | 0.0000 | 1.007 | A | A |
| BQ | 1 | 2.6000 | 0.5000 | 1.007 | N | A |
| BU | 1 | 2.1000 | 0.4000 | 0.813 | | A |
| CA | 1 | 2.0640 | 0.0380 | 0.799 | W | A |
| GA | 1 | 2.1000 | | 0.813 | A | A |
| GE | 1 | 0.9500 | 0.0600 | 0.368 | A | N |
| IE | 1 | 2.3000 | 0.0700 | 0.890 | A | A |
| IS | 1 | 1.0800 | 0.1900 | 0.418 | A | N |
| IT | 1 | 2.2800 | 0.0400 | 0.883 | A | A |
| KO | 1 | 2.3300 | 0.0640 | 0.902 | | A |
| LA | 1 | 2.4100 | 0.2400 | 0.933 | A | A |
| LA | 2 | 3.5800 | 0.3600 | 1.386 | A | N |
| LA | 3 | 2.3900 | 0.2400 | 0.925 | A | A |
| OU | 1 | 2.0000 | 0.2000 | 0.774 | | A |
| RA | 1 | 2.2500 | 0.2000 | 0.871 | | A |
| SA | 1 | 2.5200 | 0.0260 | 0.976 | | A |
| SW | 1 | 2.2600 | | 0.875 | | A |
| TI | 1 | 1.9000 | 0.3000 | 0.736 | | A |
| TM | 1 | 2.2800 | 0.1400 | 0.883 | | A |
| TN | 1 | 1.2500 | 0.1620 | 0.484 | | W |
| UP | 1 | 2.2700 | 0.2000 | 0.879 | | A |
| YP | 1 | 2.6000 | 0.6500 | 1.007 | | A |

**Total Number Reported:** **26**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** VE Vegetation Bq / kg
**Radionuclide:** AM241

**EML Value:** 1.1052
**EML Error:** 0.0506

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AF | 1 | 0.8000 | 0.2000 | 0.724 | | W |
| AG | 1 | 1.1500 | 0.1600 | 1.041 | A | A |
| AI | 1 | 1.2100 | 0.0991 | 1.095 | W | A |
| AI | 2 | 1.3800 | 0.1070 | 1.249 | W | A |
| AI | 3 | 1.1400 | 0.0947 | 1.031 | W | A |
| AM | 1 | 1.6600 | 1.2500 | 1.502 | A | A |
| AR | 1 | 1.7900 | 1.4200 | 1.620 | A | W |
| AR | 2 | 1.1700 | 0.6200 | 1.059 | A | A |
| AU | 1 | 1.1900 | 0.2100 | 1.077 | A | A |
| BE | 1 | 1.1600 | 0.2800 | 1.050 | A | A |
| BL | 1 | 0.1530 | 0.6680 | 0.138 | W | N |
| BM | 1 | 1.1500 | 0.3800 | 1.041 | A | A |
| BP | 1 | 1.0500 | 0.0500 | 0.950 | A | A |
| BS | 1 | 51.5900 | 1.2200 | 46.679 | W | N |
| BU | 1 | 1.1000 | 0.1400 | 0.995 | A | A |
| BX | 1 | 2.6800 | 0.5500 | 2.425 | W | W |
| CH | 1 | 1.4000 | 0.2190 | 1.267 | A | A |
| CL | 1 | 0.6500 | 0.1500 | 0.588 | A | N |
| CS | 1 | 0.7215 | 0.2200 | 0.653 | A | N |
| EG | 1 | 1.3200 | 0.1500 | 1.194 | A | A |
| EP | 1 | 1.1400 | 0.1110 | 1.031 | | A |
| FL | 1 | 2.0000 | 0.5000 | 1.810 | A | W |
| FR | 1 | 1.3200 | 0.4000 | 1.194 | A | A |
| GA | 1 | 1.3700 | | 1.240 | A | A |
| GE | 1 | 1.4319 | 0.2557 | 1.296 | A | A |
| GT | 1 | 1.1000 | 0.6000 | 0.995 | A | A |
| ID | 1 | 1.0390 | 0.2180 | 0.940 | | A |
| IE | 1 | 2.2400 | 0.2800 | 2.027 | A | W |
| IS | 1 | 3.0200 | 2.0600 | 2.733 | A | N |
| IT | 1 | 1.2900 | 0.2500 | 1.167 | A | A |
| KO | 1 | 1.1000 | 0.0600 | 0.995 | | A |
| LA | 1 | 1.1876 | 0.0814 | 1.075 | A | A |
| LA | 2 | 1.0285 | 0.0518 | 0.931 | A | A |
| LL | 1 | 1.2900 | 0.1670 | 1.167 | A | A |
| MA | 1 | 2.9000 | 1.5000 | 2.624 | W | W |
| ML | 1 | 1.0900 | 0.1000 | 0.986 | A | A |
| NA | 1 | 1.2000 | 0.2580 | 1.086 | | A |
| OT | 1 | 1.6000 | 0.5000 | 1.448 | | A |
| RE | 1 | 1.2500 | 0.1800 | 1.131 | | A |
| RI | 1 | 1.0800 | 0.1700 | 0.977 | | A |
| SN | 1 | 0.9030 | 0.6750 | 0.817 | | W |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** VE Vegetation Bq / kg
**Radionuclide:** AM241

**EML Value:** 1.1052
**EML Error:** 0.0506

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| SR | 1 | 1.1900 | 0.2300 | 1.077 | | A |
| SW | 1 | 2.2000 | 0.2000 | 1.991 | | W |
| TE | 1 | 0.6667 | 0.3704 | 0.603 | | N |
| TI | 1 | 1.3000 | 0.3000 | 1.176 | | A |
| TM | 1 | 1.1100 | 0.2500 | 1.004 | | A |
| TN | 1 | 1.1190 | 0.5251 | 1.012 | | A |
| TO | 1 | 1.3000 | 1.2000 | 1.176 | | A |
| TW | 1 | 1.0300 | 0.0500 | 0.932 | | A |
| TX | 1 | 1.0700 | 0.1100 | 0.968 | | A |
| UY | 1 | 1.2400 | 0.2800 | 1.122 | | A |
| WA | 1 | 0.9400 | 0.2200 | 0.851 | | W |
| WC | 1 | 1.4400 | 0.1900 | 1.303 | | A |
| YA | 1 | 1.0878 | 0.0506 | 0.984 | | A |

**Total Number Reported:** **54**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** VE Vegetation Bq / kg
**Radionuclide:** CM244

**EML Value:** 2.1736
**EML Error:** 0.0658

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AG | 1 | 1.9900 | 0.2600 | 0.916 | W | A |
| AI | 1 | 2.4900 | 0.2400 | 1.146 | | A |
| AI | 2 | 2.6900 | 0.2470 | 1.238 | | A |
| AI | 3 | 2.6100 | 0.2530 | 1.201 | | A |
| BE | 1 | 2.3100 | 0.3900 | 1.063 | A | A |
| BL | 1 | 0.3950 | 0.4330 | 0.182 | N | N |
| BL | 2 | 0.5900 | 0.4400 | 0.271 | N | N |
| BP | 1 | 1.9100 | 0.1600 | 0.879 | W | A |
| BU | 1 | 1.9000 | 0.1500 | 0.874 | | A |
| BX | 1 | 1.5700 | 0.4400 | 0.722 | W | W |
| CH | 1 | 1.9900 | 0.1350 | 0.916 | A | A |
| CL | 1 | 0.9300 | 0.0400 | 0.428 | W | N |
| EG | 1 | 2.2100 | 0.2100 | 1.017 | W | A |
| EP | 1 | 1.9800 | 0.1780 | 0.911 | | A |
| GA | 1 | 2.2300 | | 1.026 | A | A |
| GE | 1 | 2.6640 | 0.4033 | 1.226 | A | A |
| IE | 1 | 2.2000 | 0.4900 | 1.012 | A | A |
| IT | 1 | 1.5900 | 0.1600 | 0.732 | W | W |
| KO | 1 | 2.0300 | 0.0900 | 0.934 | | A |
| LL | 1 | 2.1700 | 0.2420 | 0.998 | N | A |
| OT | 1 | 1.7000 | 0.5000 | 0.782 | | W |
| RI | 1 | 2.3000 | 0.2990 | 1.058 | | A |
| SN | 1 | 2.0940 | 0.9280 | 0.963 | | A |
| SR | 1 | 2.0400 | 0.3100 | 0.939 | | A |
| TE | 1 | 1.7778 | 0.3333 | 0.818 | | A |
| TI | 1 | 2.3000 | 0.4000 | 1.058 | | A |
| TM | 1 | 2.3700 | 0.3610 | 1.090 | | A |
| TN | 1 | 2.5110 | 0.7961 | 1.155 | | A |
| TW | 1 | 2.0400 | 0.0900 | 0.939 | | A |
| UY | 1 | 1.4100 | 0.3400 | 0.649 | | W |
| WC | 1 | 2.0900 | 0.2300 | 0.962 | | A |
| YA | 1 | 1.9980 | 0.0728 | 0.919 | | A |

**Total Number Reported:** 32

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** VE Vegetation Bq / kg
**Radionuclide:** CO60

**EML Value:** 10.5750
**EML Error:** 0.2062

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AF | 1 | 9.3000 | 1.5000 | 0.879 | | A |
| AG | 1 | 10.8000 | 1.3000 | 1.021 | A | A |
| AI | 1 | 12.3000 | 1.3200 | 1.163 | W | A |
| AL | 1 | 29.4270 | 8.8600 | 2.783 | | N |
| AM | 1 | 10.5400 | 1.0000 | 0.997 | A | A |
| AR | 1 | 12.2200 | 2.7000 | 1.156 | A | A |
| AR | 2 | 12.5200 | 3.4400 | 1.184 | A | A |
| AU | 1 | 12.6000 | 1.8000 | 1.191 | A | A |
| BC | 1 | 11.7000 | 0.9000 | 1.106 | A | A |
| BE | 1 | 12.7000 | 2.0000 | 1.201 | A | A |
| BL | 1 | 12.7000 | 1.2000 | 1.201 | A | A |
| BM | 1 | 12.2000 | 1.4000 | 1.154 | A | A |
| BN | 1 | 10.0700 | 0.1800 | 0.952 | W | A |
| BN | 2 | 10.2500 | 0.1800 | 0.969 | W | A |
| BN | 3 | 9.8200 | 0.1800 | 0.929 | W | A |
| BP | 1 | 10.0000 | 0.5000 | 0.946 | A | A |
| BS | 1 | 8.2200 | 0.6900 | 0.777 | W | W |
| BU | 1 | 11.0000 | 1.3000 | 1.040 | A | A |
| BX | 1 | 11.8000 | 0.8000 | 1.116 | A | A |
| CD | 1 | 12.0000 | 2.0000 | 1.135 | | A |
| CH | 1 | 11.8000 | 0.4070 | 1.116 | A | A |
| CL | 1 | 13.4000 | 3.2000 | 1.267 | A | W |
| CN | 1 | 9.7600 | 0.7200 | 0.923 | A | A |
| CO | 1 | 11.0000 | 2.0000 | 1.040 | A | A |
| CR | 1 | 13.2000 | 4.7000 | 1.248 | A | W |
| CS | 1 | 11.7400 | 0.4400 | 1.110 | A | A |
| DC | 1 | 10.3000 | 2.1100 | 0.974 | N | A |
| EG | 1 | 11.1000 | 2.3000 | 1.050 | A | A |
| EL | 1 | 19.3000 | 0.9000 | 1.825 | | N |
| FL | 1 | 11.1000 | 0.5000 | 1.050 | A | A |
| FN | 1 | 8.7200 | 0.8600 | 0.825 | A | W |
| FR | 1 | 10.9500 | 1.6500 | 1.035 | A | A |
| GA | 1 | 11.4000 | 3.3000 | 1.078 | A | A |
| GC | 1 | 10.5000 | 0.4700 | 0.993 | A | A |
| GE | 1 | 11.1407 | 1.9288 | 1.053 | A | A |
| GP | 1 | 11.0000 | 2.0000 | 1.040 | N | A |
| GT | 1 | 9.9000 | 1.6000 | 0.936 | A | A |
| HU | 1 | 11.8000 | 0.8000 | 1.116 | A | A |
| IA | 1 | 7.6000 | 0.6000 | 0.719 | | W |
| IA | 2 | 7.8000 | 0.6000 | 0.738 | | W |
| IA | 3 | 7.8000 | 0.6000 | 0.738 | | W |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** VE Vegetation Bq / kg
**Radionuclide:** CO60

**EML Value:** 10.5750
**EML Error:** 0.2062

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| ID | 1 | 11.2000 | 0.8200 | 1.059 | A | A |
| IE | 1 | 12.0000 | 0.8000 | 1.135 | A | A |
| IL | 1 | 14.4100 | 0.8900 | 1.363 | | W |
| IN | 1 | 12.2000 | 2.7000 | 1.154 | A | A |
| IS | 1 | 13.3000 | 3.5000 | 1.258 | W | W |
| IT | 1 | 13.5000 | 0.5000 | 1.277 | A | W |
| KO | 1 | 11.5300 | 0.5350 | 1.090 | A | A |
| KR | 1 | 12.4000 | 1.5000 | 1.173 | | A |
| LA | 1 | 10.0000 | 1.5000 | 0.946 | | A |
| LA | 2 | 10.9000 | 1.2000 | 1.031 | | A |
| LA | 3 | 9.4000 | 1.1000 | 0.889 | | A |
| LL | 1 | 12.2000 | 2.1000 | 1.154 | A | A |
| LV | 1 | 10.5000 | 0.6000 | 0.993 | A | A |
| MA | 1 | 13.7000 | 4.1000 | 1.296 | A | W |
| ME | 1 | 14.9000 | 0.7000 | 1.409 | A | W |
| MH | 1 | 11.2000 | 0.5000 | 1.059 | | A |
| ML | 1 | 11.6500 | 1.2000 | 1.102 | A | A |
| NA | 1 | 13.1000 | 6.7200 | 1.239 | N | W |
| NP | 1 | 9.1000 | 0.6000 | 0.861 | | A |
| NR | 1 | 11.5000 | 2.3000 | 1.087 | | A |
| OL | 1 | 11.4000 | 1.0400 | 1.078 | | A |
| OT | 1 | 9.7000 | 1.5000 | 0.917 | | A |
| OU | 1 | 7.3700 | 2.4600 | 0.697 | | W |
| PO | 1 | 12.0000 | 1.0000 | 1.135 | | A |
| RA | 1 | 9.4600 | 0.4800 | 0.895 | | A |
| RE | 1 | 12.4000 | 2.5000 | 1.173 | | A |
| RI | 1 | 16.7000 | 4.9600 | 1.579 | | N |
| SK | 1 | 11.9000 | 0.5000 | 1.125 | | A |
| SN | 1 | 12.8800 | 1.9400 | 1.218 | | A |
| SR | 1 | 11.5000 | 1.3000 | 1.087 | | A |
| SW | 1 | 15.6000 | 1.1000 | 1.475 | | N |
| TE | 1 | 10.1728 | 1.5395 | 0.962 | | A |
| TI | 1 | 12.2000 | 1.3000 | 1.154 | | A |
| TM | 1 | 17.4000 | 5.7600 | 1.645 | | N |
| TN | 1 | 8.6210 | 2.7970 | 0.815 | | W |
| TO | 1 | 10.1000 | 2.7000 | 0.955 | | A |
| TP | 1 | 11.7280 | 1.2840 | 1.109 | | A |
| TW | 1 | 11.1000 | 0.6000 | 1.050 | | A |
| TX | 1 | 11.1600 | 0.0700 | 1.055 | | A |
| UC | 1 | 11.3600 | 0.5500 | 1.074 | | A |
| UY | 1 | 14.8000 | 5.1000 | 1.400 | | W |
| WA | 1 | 11.8000 | 1.0000 | 1.116 | | A |
| WC | 1 | 11.2000 | 1.3000 | 1.059 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

*If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.*

# QAP 48 Results by Nuclide

**Matrix:** VE Vegetation Bq / kg
**Radionuclide:** CO60

**EML Value:** 10.5750
**EML Error:** 0.2062

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| WP | 1 | 13.3000 | 1.2000 | 1.258 | | W |
| YA | 1 | 10.1565 | 0.4255 | 0.960 | | A |
| YU | 1 | 13.5000 | 0.9000 | 1.277 | | W |

**Total Number Reported:** 87

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** VE Vegetation Bq / kg
**Radionuclide:** CS137

**EML Value:** 181.5000
**EML Error:** 7.1414

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AF | 1 | 155.4000 | 18.5000 | 0.856 | N | W |
| AG | 1 | 211.0000 | 14.0000 | 1.163 | A | A |
| AI | 1 | 20.9000 | 4.1400 | 0.115 | A | N |
| AL | 1 | 313.2900 | 12.1000 | 1.726 | | N |
| AM | 1 | 183.0400 | 2.6700 | 1.008 | A | A |
| AR | 1 | 185.8000 | 10.9000 | 1.024 | A | A |
| AR | 2 | 185.9900 | 11.2200 | 1.025 | A | A |
| AU | 1 | 195.0000 | 10.0000 | 1.074 | A | A |
| BA | 1 | 190.0000 | 10.0000 | 1.047 | A | A |
| BC | 1 | 175.0000 | 14.0000 | 0.964 | A | A |
| BE | 1 | 209.0000 | 20.0000 | 1.152 | A | A |
| BL | 1 | 224.0000 | 9.0000 | 1.234 | W | A |
| BM | 1 | 206.0000 | 3.4000 | 1.135 | W | A |
| BN | 1 | 201.2100 | 2.3200 | 1.109 | W | A |
| BN | 2 | 200.6500 | 2.3200 | 1.106 | W | A |
| BN | 3 | 196.0300 | 2.3200 | 1.080 | W | A |
| BP | 1 | 166.0000 | 8.0000 | 0.915 | A | A |
| BQ | 1 | 175.0000 | 12.0000 | 0.964 | A | A |
| BR | 1 | 206.0000 | 33.0200 | 1.135 | A | A |
| BS | 1 | 151.3700 | 1.4100 | 0.834 | N | W |
| BU | 1 | 160.0000 | 15.0000 | 0.882 | A | W |
| BX | 1 | 208.0000 | 16.0000 | 1.146 | A | A |
| CD | 1 | 188.0000 | 6.0000 | 1.036 | | A |
| CH | 1 | 188.0000 | 5.5200 | 1.036 | A | A |
| CL | 1 | 154.0000 | 6.0800 | 0.848 | A | W |
| CN | 1 | 198.6000 | 10.0000 | 1.094 | A | A |
| CO | 1 | 193.0000 | 9.0000 | 1.063 | A | A |
| CR | 1 | 224.5000 | 9.9000 | 1.237 | A | A |
| CS | 1 | 173.5000 | 7.5500 | 0.956 | A | A |
| DC | 1 | 212.0000 | 56.6000 | 1.168 | N | A |
| EG | 1 | 174.0000 | 14.0000 | 0.959 | A | A |
| EL | 1 | 224.0000 | 11.0000 | 1.234 | | A |
| FJ | 1 | 189.0000 | 3.6000 | 1.041 | | A |
| FL | 1 | 186.0000 | 1.0000 | 1.025 | A | A |
| FN | 1 | 155.0000 | 16.0000 | 0.854 | A | W |
| FR | 1 | 180.8000 | 20.0000 | 0.996 | A | A |
| GA | 1 | 189.0000 | 11.0000 | 1.041 | A | A |
| GC | 1 | 178.2300 | 2.5700 | 0.982 | A | A |
| GE | 1 | 189.4030 | 17.3937 | 1.044 | W | A |
| GP | 1 | 195.0000 | 20.0000 | 1.074 | N | A |
| GT | 1 | 170.0000 | 40.0000 | 0.937 | A | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** VE Vegetation Bq / kg
**Radionuclide:** CS137

**EML Value:** 181.5000
**EML Error:** 7.1414

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| HU | 1 | 189.2000 | 5.4000 | 1.042 | N | A |
| IA | 1 | 145.0000 | 2.0000 | 0.799 | | N |
| IA | 2 | 144.0000 | 2.0000 | 0.793 | | N |
| IA | 3 | 144.0000 | 2.0000 | 0.793 | | N |
| ID | 1 | 201.6700 | 12.5700 | 1.111 | A | A |
| IE | 1 | 195.0000 | 8.0000 | 1.074 | A | A |
| IL | 1 | 246.9600 | 5.2100 | 1.361 | | W |
| IN | 1 | 202.4000 | 3.6000 | 1.115 | A | A |
| IS | 1 | 189.0000 | 22.6000 | 1.041 | A | A |
| IT | 1 | 202.0000 | 4.0000 | 1.113 | A | A |
| KO | 1 | 187.3600 | 1.6260 | 1.032 | A | A |
| KR | 1 | 202.2000 | 14.2000 | 1.114 | | A |
| LA | 1 | 175.0000 | 13.0000 | 0.964 | A | A |
| LA | 2 | 178.0000 | 14.0000 | 0.981 | A | A |
| LA | 3 | 170.0000 | 13.0000 | 0.937 | A | A |
| LL | 1 | 203.0000 | 5.3000 | 1.118 | A | A |
| LV | 1 | 177.0000 | 2.0000 | 0.975 | A | A |
| MA | 1 | 233.0000 | 20.0000 | 1.284 | A | W |
| ME | 1 | 264.0000 | 11.3000 | 1.455 | A | N |
| MH | 1 | 191.0000 | 9.3000 | 1.052 | | A |
| ML | 1 | 197.0000 | 19.7000 | 1.085 | A | A |
| NA | 1 | 224.0000 | 2.6900 | 1.234 | N | A |
| NP | 1 | 152.0000 | 2.1000 | 0.837 | | W |
| NR | 1 | 186.0000 | 37.0000 | 1.025 | | A |
| OL | 1 | 182.1000 | 4.8000 | 1.003 | | A |
| OT | 1 | 160.0000 | 10.0000 | 0.882 | | W |
| OU | 1 | 139.0000 | 6.3300 | 0.766 | | N |
| PK | 1 | 189.6000 | 8.6000 | 1.045 | | A |
| PO | 1 | 200.0000 | 6.0000 | 1.102 | | A |
| RA | 1 | 171.0000 | 7.0000 | 0.942 | | A |
| RE | 1 | 173.0000 | 16.0000 | 0.953 | | A |
| RI | 1 | 216.0000 | 15.3000 | 1.190 | | A |
| RL | 1 | 214.0000 | 16.0000 | 1.179 | | A |
| SH | 1 | 206.5000 | 8.7000 | 1.138 | | A |
| SK | 1 | 199.0000 | 10.0000 | 1.096 | | A |
| SN | 1 | 217.2800 | 21.9100 | 1.197 | | A |
| SR | 1 | 193.0000 | 18.0000 | 1.063 | | A |
| SW | 1 | 254.0000 | 3.0000 | 1.399 | | N |
| TE | 1 | 166.0247 | 3.4556 | 0.915 | | A |
| TI | 1 | 203.0000 | 20.0000 | 1.118 | | A |
| TM | 1 | 212.0000 | 8.6700 | 1.168 | | A |
| TN | 1 | 156.9000 | 4.0000 | 0.864 | | W |
| TP | 1 | 176.4260 | 13.3760 | 0.972 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** VE Vegetation Bq / kg
**Radionuclide:** CS137

**EML Value:** 181.5000
**EML Error:** 7.1414

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| TW | 1 | 183.0000 | 2.0000 | 1.008 | | A |
| TX | 1 | 185.0000 | 2.0000 | 1.019 | | A |
| UC | 1 | 194.2800 | 23.2100 | 1.070 | | A |
| UY | 1 | 204.0000 | 23.0000 | 1.124 | | A |
| WA | 1 | 192.0000 | 21.0000 | 1.058 | | A |
| WC | 1 | 202.0000 | 30.0000 | 1.113 | | A |
| WP | 1 | 223.0000 | 3.0000 | 1.229 | | A |
| YA | 1 | 187.7195 | 1.4800 | 1.034 | | A |
| YU | 1 | 230.0000 | 20.0000 | 1.267 | | W |

**Total Number Reported:** **93**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** VE Vegetation Bq / kg
**Radionuclide:** K40

**EML Value:** 707.5000
**EML Error:**24.9867

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AF | 1 | 625.3000 | 62.9000 | 0.884 | N | W |
| AG | 1 | 814.0000 | 64.0000 | 1.151 | A | A |
| AI | 1 | 758.0000 | 38.9000 | 1.071 | A | A |
| AL | 1 | 1204.8000 | 94.9000 | 1.703 | | N |
| AM | 1 | 770.9600 | 24.0800 | 1.090 | A | A |
| AR | 1 | 684.5000 | 62.5300 | 0.967 | A | A |
| AR | 2 | 705.6000 | 63.8600 | 0.997 | A | A |
| AU | 1 | 735.0000 | 45.0000 | 1.039 | A | A |
| BC | 1 | 747.0000 | 41.0000 | 1.056 | A | A |
| BE | 1 | 893.0000 | 50.0000 | 1.262 | A | W |
| BL | 1 | 871.0000 | 41.0000 | 1.231 | A | A |
| BM | 1 | 795.0000 | 28.0000 | 1.124 | N | A |
| BN | 1 | 648.9800 | 28.3100 | 0.917 | N | A |
| BN | 2 | 712.9900 | 28.3100 | 1.008 | N | A |
| BN | 3 | 657.8600 | 28.3100 | 0.930 | N | A |
| BP | 1 | 694.0000 | 35.0000 | 0.981 | W | A |
| BQ | 1 | 625.0000 | 13.0000 | 0.883 | A | W |
| BR | 1 | 940.0000 | 183.3500 | 1.329 | A | N |
| BS | 1 | 620.0000 | 12.4600 | 0.876 | N | W |
| BU | 1 | 660.0000 | 80.0000 | 0.933 | W | A |
| BX | 1 | 903.0000 | 48.0000 | 1.276 | A | W |
| CD | 1 | 800.0000 | 40.0000 | 1.131 | | A |
| CH | 1 | 851.0000 | 51.3000 | 1.203 | A | A |
| CL | 1 | 618.0000 | 46.7000 | 0.873 | A | W |
| CN | 1 | 677.5000 | 34.9000 | 0.958 | A | A |
| CR | 1 | 919.6000 | 83.0000 | 1.300 | A | W |
| CS | 1 | 736.4000 | 35.0500 | 1.041 | A | A |
| DC | 1 | 662.0000 | 184.0000 | 0.936 | A | A |
| EG | 1 | 694.0000 | 92.0000 | 0.981 | A | A |
| EL | 1 | 964.0000 | 48.0000 | 1.363 | | N |
| FJ | 1 | 745.0000 | 55.0000 | 1.053 | | A |
| FL | 1 | 757.0000 | 10.0000 | 1.070 | A | A |
| FN | 1 | 661.0000 | 67.0000 | 0.934 | A | A |
| FR | 1 | 713.8000 | 110.0000 | 1.009 | A | A |
| GA | 1 | 782.0000 | 91.0000 | 1.105 | A | A |
| GC | 1 | 730.6400 | 33.0600 | 1.033 | A | A |
| GE | 1 | 812.5200 | 98.0130 | 1.148 | W | A |
| GP | 1 | 785.0000 | 80.0000 | 1.110 | W | A |
| GT | 1 | 690.0000 | 70.0000 | 0.975 | A | A |
| HU | 1 | 850.0000 | 60.0000 | 1.201 | N | A |
| IA | 1 | 561.0000 | 12.0000 | 0.793 | | W |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** VE Vegetation Bq / kg
**Radionuclide:** K40

**EML Value:** 707.5000
**EML Error:**24.9867

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| IA | 2 | 588.0000 | 12.0000 | 0.831 | | W |
| IA | 3 | 537.0000 | 12.0000 | 0.759 | | N |
| ID | 1 | 769.0000 | 46.5500 | 1.087 | A | A |
| IE | 1 | 802.0000 | 70.0000 | 1.134 | A | A |
| IL | 1 | 975.8500 | 48.5900 | 1.379 | | N |
| IN | 1 | 723.2000 | 46.3000 | 1.022 | A | A |
| IS | 1 | 886.0000 | 154.0000 | 1.252 | A | W |
| IT | 1 | 811.0000 | 5.0000 | 1.146 | A | A |
| KO | 1 | 764.9800 | 12.5700 | 1.081 | A | A |
| KR | 1 | 785.1000 | 60.1000 | 1.110 | | A |
| LA | 1 | 625.0000 | 57.0000 | 0.883 | | W |
| LA | 2 | 679.0000 | 60.0000 | 0.960 | | A |
| LA | 3 | 671.0000 | 60.0000 | 0.948 | | A |
| LL | 1 | 718.0000 | 47.4000 | 1.015 | A | A |
| LV | 1 | 7250.0000 | 100.0000 | 10.247 | A | N |
| MA | 1 | 740.0000 | 118.0000 | 1.046 | A | A |
| ME | 1 | 1003.0000 | 46.9000 | 1.418 | A | N |
| MH | 1 | 735.9000 | 35.6000 | 1.040 | | A |
| ML | 1 | 816.0000 | 81.6000 | 1.153 | A | A |
| NA | 1 | 866.0000 | 22.3000 | 1.224 | N | A |
| NR | 1 | 739.0000 | 148.0000 | 1.045 | | A |
| OL | 1 | 750.0000 | 22.9000 | 1.060 | | A |
| OT | 1 | 670.0000 | 40.0000 | 0.947 | | A |
| OU | 1 | 529.0000 | 43.3000 | 0.748 | | N |
| PK | 1 | 783.3000 | 9.4000 | 1.107 | | A |
| PO | 1 | 747.0000 | 19.0000 | 1.056 | | A |
| RA | 1 | 780.0000 | 70.0000 | 1.102 | | A |
| RE | 1 | 715.0000 | 84.0000 | 1.011 | | A |
| RI | 1 | 852.0000 | 149.0000 | 1.204 | | A |
| RL | 1 | 873.0000 | 79.0000 | 1.234 | | A |
| SK | 1 | 742.0000 | 43.0000 | 1.049 | | A |
| SN | 1 | 947.2200 | 89.5400 | 1.339 | | N |
| SR | 1 | 805.0000 | 84.0000 | 1.138 | | A |
| SW | 1 | 998.0000 | 25.0000 | 1.411 | | N |
| TE | 1 | 677.1605 | 31.4691 | 0.957 | | A |
| TI | 1 | 751.0000 | 75.0000 | 1.061 | | A |
| TM | 1 | 796.0000 | 77.2000 | 1.125 | | A |
| TN | 1 | 627.9000 | 37.4000 | 0.887 | | W |
| TO | 1 | 636.6000 | 101.0000 | 0.900 | | A |
| TP | 1 | 764.6800 | 35.7050 | 1.081 | | A |
| TW | 1 | 700.0000 | 20.0000 | 0.989 | | A |
| TX | 1 | 795.0000 | 17.0000 | 1.124 | | A |
| UC | 1 | 761.7400 | 28.2700 | 1.077 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

*If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.*

# QAP 48 Results by Nuclide

**Matrix:** VE Vegetation Bq / kg
**Radionuclide:** K40

**EML Value:** 707.5000
**EML Error:**24.9867

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| UY | 1 | 770.0000 | 140.0000 | 1.088 | | A |
| WA | 1 | 773.0000 | 44.0000 | 1.093 | | A |
| WC | 1 | 873.0000 | 103.0000 | 1.234 | | A |
| WP | 1 | 838.0000 | 22.0000 | 1.184 | | A |
| YA | 1 | 775.7050 | 12.2100 | 1.096 | | A |
| YU | 1 | 890.0000 | 20.0000 | 1.258 | | W |

**Total Number Reported:** **90**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** VE Vegetation Bq / kg
**Radionuclide:** PU238

**EML Value:** 0.1157
**EML Error:** 0.0350

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| BU | 1 | 0.1100 | 0.0300 | 0.951 | A | A |
| EG | 1 | 0.1290 | 0.0320 | 1.115 | | A |
| RA | 1 | 0.1700 | 0.0600 | 1.469 | | A |
| TW | 1 | 0.1300 | 0.0300 | 1.124 | | A |
| WA | 1 | 0.2000 | 0.1200 | 1.729 | | A |

**Total Number Reported:** 5

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** VE Vegetation Bq / kg
**Radionuclide:** PU239

**EML Value:** 1.7702
**EML Error:** 0.1536

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AF | 1 | 0.1000 | 0.0600 | 0.056 | | N |
| AG | 1 | 1.5400 | 0.2600 | 0.870 | W | A |
| AI | 1 | 1.9100 | 0.1350 | 1.079 | A | A |
| AI | 2 | 1.2300 | 0.0758 | 0.695 | A | W |
| AI | 3 | 1.6500 | 0.1080 | 0.932 | A | A |
| AR | 1 | 1.4400 | 0.2600 | 0.813 | A | W |
| AR | 2 | 1.4800 | 0.2600 | 0.836 | A | W |
| AR | 3 | 1.4100 | 0.2600 | 0.797 | A | W |
| AU | 1 | 1.8600 | 0.3000 | 1.051 | A | A |
| BE | 1 | 1.7900 | 0.2500 | 1.011 | A | A |
| BL | 1 | 2.0600 | 0.2600 | 1.164 | A | A |
| BM | 1 | 1.9300 | 0.4200 | 1.090 | A | A |
| BP | 1 | 1.5800 | 0.0400 | 0.893 | A | A |
| BU | 1 | 1.6000 | 0.3000 | 0.904 | A | A |
| BX | 1 | 1.0500 | 0.3700 | 0.593 | A | W |
| CH | 1 | 1.8600 | 0.2710 | 1.051 | A | A |
| CL | 1 | 1.2400 | 0.3000 | 0.700 | A | W |
| EG | 1 | 1.9000 | 0.2200 | 1.073 | A | A |
| EP | 1 | 1.5800 | 0.1390 | 0.893 | | A |
| FR | 1 | 2.0100 | 0.3000 | 1.135 | A | A |
| GA | 1 | 1.9200 | | 1.085 | A | A |
| GE | 1 | 2.2773 | 0.3337 | 1.286 | A | W |
| GT | 1 | 1.8000 | 0.5000 | 1.017 | A | A |
| ID | 1 | 1.5400 | 0.4140 | 0.870 | A | A |
| IE | 1 | 2.2100 | 0.3000 | 1.248 | A | W |
| IS | 1 | 2.5100 | 2.1800 | 1.418 | A | W |
| IT | 1 | 1.6700 | 0.2400 | 0.943 | A | A |
| KO | 1 | 1.7900 | 0.0800 | 1.011 | | A |
| LA | 1 | 1.5575 | 0.1221 | 0.880 | A | A |
| LA | 2 | 1.7573 | 0.1221 | 0.993 | A | A |
| LA | 3 | 1.8905 | 0.1036 | 1.068 | A | A |
| LL | 1 | 1.8700 | 0.2410 | 1.056 | A | A |
| ML | 1 | 1.8800 | 0.1300 | 1.062 | A | A |
| NA | 1 | 1.6200 | 0.2660 | 0.915 | N | A |
| NF | 1 | 1.1850 | 0.1610 | 0.669 | | W |
| OT | 1 | 1.8000 | 0.3000 | 1.017 | | A |
| RA | 1 | 2.2000 | 0.3000 | 1.243 | | W |
| RE | 1 | 1.7100 | 0.2300 | 0.966 | | A |
| RI | 1 | 1.7000 | 0.2320 | 0.960 | | A |
| SN | 1 | 1.8650 | 0.8510 | 1.054 | | A |
| SR | 1 | 1.7000 | 0.2900 | 0.960 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** VE Vegetation Bq / kg
**Radionuclide:** PU239

**EML Value:** 1.7702
**EML Error:** 0.1536

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| SW | 1 | 0.9600 | 0.2000 | 0.542 | | N |
| TI | 1 | 7.1000 | 1.3000 | 4.011 | | N |
| TM | 1 | 2.0900 | 0.1760 | 1.181 | | A |
| TN | 1 | 1.8640 | 0.5334 | 1.053 | | A |
| TO | 1 | 1.8000 | 1.3000 | 1.017 | | A |
| TW | 1 | 1.7000 | 0.1000 | 0.960 | | A |
| TX | 1 | 1.7690 | 0.1300 | 0.999 | | A |
| UY | 1 | 2.0800 | 0.2700 | 1.175 | | A |
| WA | 1 | 1.6400 | 0.2400 | 0.926 | | A |
| WC | 1 | 1.7500 | 0.3100 | 0.989 | | A |
| YA | 1 | 1.6736 | 0.0604 | 0.945 | | A |

**Total Number Reported:** 52

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** VE Vegetation Bq / kg
**Radionuclide:** SR90

**EML Value:** 359.0052
**EML Error:** 6.0213

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AF | 1 | 66.2000 | 4.6000 | 0.184 | N | N |
| AG | 1 | 306.0000 | 58.0000 | 0.852 | A | A |
| AR | 1 | 315.4000 | 47.1000 | 0.879 | A | A |
| AR | 2 | 332.4000 | 41.4000 | 0.926 | A | A |
| AR | 3 | 297.0000 | 38.8000 | 0.827 | A | A |
| AU | 1 | 335.0000 | 9.0000 | 0.933 | A | A |
| BC | 1 | 219.0000 | 17.0000 | 0.610 | A | W |
| BE | 1 | 350.0000 | 17.0000 | 0.975 | A | A |
| BL | 1 | 300.4000 | 5.2000 | 0.837 | A | A |
| BM | 1 | 350.0000 | 5.1000 | 0.975 | A | A |
| BP | 1 | 347.0000 | 15.0000 | 0.967 | A | A |
| BU | 1 | 340.0000 | 34.0000 | 0.947 | A | A |
| BX | 1 | 209.0000 | 16.0000 | 0.582 | A | W |
| CH | 1 | 362.0000 | 11.0000 | 1.008 | A | A |
| CL | 1 | 565.0000 | 23.7000 | 1.574 | N | N |
| EG | 1 | 362.0000 | 11.0000 | 1.008 | A | A |
| EI | 1 | 289.7000 | 14.0000 | 0.807 | | A |
| GE | 1 | 339.9560 | 4.8932 | 0.947 | | A |
| GP | 1 | 300.0000 | 30.0000 | 0.836 | N | A |
| GT | 1 | 310.0000 | 20.0000 | 0.863 | A | A |
| IA | 1 | 217.8000 | 5.5000 | 0.607 | | W |
| IA | 2 | 204.5000 | 2.3000 | 0.570 | | W |
| IA | 3 | 214.7000 | 5.5000 | 0.598 | | W |
| IA | 4 | 194.4000 | 8.9000 | 0.541 | | W |
| ID | 1 | 350.5700 | 17.7400 | 0.977 | A | A |
| IE | 1 | 308.0000 | 98.0000 | 0.858 | A | A |
| IS | 1 | 213.0000 | 2.0000 | 0.593 | A | W |
| IT | 1 | 380.0000 | 17.0000 | 1.058 | A | A |
| KO | 1 | 351.9300 | 11.4200 | 0.980 | | A |
| KR | 1 | 386.6700 | 2.8600 | 1.077 | | A |
| NA | 1 | 333.0000 | 14.1000 | 0.928 | N | A |
| OT | 1 | 360.0000 | 20.0000 | 1.003 | | A |
| RA | 1 | 400.0000 | 100.0000 | 1.114 | | A |
| RE | 1 | 325.0000 | 17.0000 | 0.905 | | A |
| RI | 1 | 351.0000 | 8.4200 | 0.978 | | A |
| SH | 1 | 340.4850 | 4.9330 | 0.948 | | A |
| SR | 1 | 494.0000 | 52.0000 | 1.376 | | N |
| SW | 1 | 554.0000 | 32.0000 | 1.543 | | N |
| TE | 1 | 315.3086 | 15.0617 | 0.878 | | A |
| TI | 1 | 570.0000 | 20.0000 | 1.588 | | N |
| TM | 1 | 298.0000 | 21.6000 | 0.830 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** VE Vegetation Bq / kg
**Radionuclide:** SR90

**EML Value:** 359.0052
**EML Error:** 6.0213

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| TN | 1 | 364.6000 | 13.0000 | 1.016 | | A |
| TO | 1 | 138.7000 | 6.3000 | 0.386 | | N |
| TP | 1 | 370.4950 | 32.0200 | 1.032 | | A |
| TW | 1 | 312.0000 | 8.0000 | 0.869 | | A |
| TX | 1 | 327.8200 | 21.8300 | 0.913 | | A |
| UY | 1 | 300.0000 | 10.0000 | 0.836 | | A |
| WA | 1 | 369.0000 | 19.0000 | 1.028 | | A |
| WC | 1 | 278.0000 | 39.0000 | 0.774 | | A |
| YA | 1 | 358.6533 | 18.8700 | 0.999 | | A |

**Total Number Reported:** **50**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** AM241

**EML Value:** 1.2257
**EML Error:** 0.0501

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 1.1800 | 0.1000 | 0.963 | | A |
| AF | 1 | 1.3000 | 0.4000 | 1.061 | | A |
| AG | 1 | 1.1500 | 0.1500 | 0.938 | A | A |
| AM | 1 | 1.2900 | 0.4500 | 1.052 | A | A |
| AN | 1 | 1.2000 | 0.0500 | 0.979 | A | A |
| AR | 1 | 0.9900 | 0.0970 | 0.808 | A | W |
| AR | 2 | 1.0720 | 0.1090 | 0.875 | A | W |
| AR | 3 | 0.9450 | 0.1040 | 0.771 | A | W |
| AT | 1 | 1.3900 | 0.2100 | 1.134 | | A |
| AU | 1 | 1.8230 | 0.1160 | 1.487 | N | W |
| BE | 1 | 1.2700 | 0.1300 | 1.036 | A | A |
| BL | 1 | 1.2600 | 0.2000 | 1.028 | A | A |
| BL | 2 | 1.2100 | 1.0400 | 0.987 | A | A |
| BM | 1 | 1.1800 | 0.1800 | 0.963 | A | A |
| BP | 1 | 1.5000 | 0.1600 | 1.224 | A | A |
| BR | 1 | 1.6800 | 0.5500 | 1.371 | W | W |
| BS | 1 | 1.2500 | 0.2000 | 1.020 | W | A |
| BU | 1 | 1.2900 | 0.1000 | 1.052 | A | A |
| BX | 1 | 1.2900 | 0.0590 | 1.052 | A | A |
| CL | 1 | 1.5600 | 0.3600 | 1.273 | A | W |
| CS | 1 | 1.3800 | 0.1000 | 1.126 | W | A |
| DH | 1 | 1.8200 | 0.8400 | 1.485 | | W |
| EG | 1 | 1.2600 | 0.0900 | 1.028 | A | A |
| EL | 1 | 1.7000 | 0.1000 | 1.387 | | W |
| EP | 1 | 1.1900 | 0.0911 | 0.971 | | A |
| FG | 1 | 0.7600 | 0.2000 | 0.620 | A | N |
| FL | 1 | 1.6000 | 0.5000 | 1.305 | | W |
| FR | 1 | 1.7000 | 0.5100 | 1.387 | W | W |
| GA | 1 | 1.4000 | | 1.142 | A | A |
| GE | 1 | 1.3579 | 0.1695 | 1.108 | A | A |
| GP | 1 | 1.4000 | 0.1000 | 1.142 | A | A |
| GT | 1 | 1.4000 | 0.7000 | 1.142 | A | A |
| IE | 1 | 1.2600 | 0.0700 | 1.028 | A | A |
| IN | 1 | 1.3400 | 0.1200 | 1.093 | A | A |
| IS | 1 | 1.5600 | 0.6500 | 1.273 | A | W |
| IT | 1 | 1.1200 | 0.0600 | 0.914 | A | A |
| JL | 1 | 0.9300 | 0.5000 | 0.759 | N | W |
| LA | 1 | 1.1700 | 0.0600 | 0.955 | A | A |
| LA | 2 | 1.2500 | 0.0600 | 1.020 | A | A |
| LA | 3 | 1.2600 | 0.0600 | 1.028 | A | A |
| LL | 1 | 1.2700 | 0.0356 | 1.036 | A | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** AM241

**EML Value:** 1.2257
**EML Error:** 0.0501

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| LV | 1 | 1.5500 | 0.2700 | 1.265 | W | W |
| ME | 1 | 1.3700 | 0.2500 | 1.118 | W | A |
| ML | 1 | 1.4000 | 0.1000 | 1.142 | W | A |
| MS | 1 | 1.3000 | 0.1300 | 1.061 | W | A |
| NM | 1 | 1.2100 | 0.0400 | 0.987 | | A |
| OD | 1 | 1.4100 | 0.1500 | 1.150 | | A |
| OT | 1 | 1.1000 | 0.1000 | 0.897 | | W |
| RE | 1 | 1.2300 | 0.1000 | 1.004 | | A |
| RI | 1 | 1.2200 | 0.1260 | 0.995 | | A |
| SK | 1 | 1.2300 | 0.0400 | 1.004 | | A |
| SN | 1 | 1.3540 | 0.2090 | 1.105 | | A |
| SW | 1 | 1.3100 | 0.1600 | 1.069 | | A |
| TI | 1 | 1.2000 | 0.2000 | 0.979 | | A |
| TM | 1 | 1.4200 | 0.1100 | 1.159 | | A |
| TN | 1 | 1.2080 | 0.1862 | 0.986 | | A |
| TO | 1 | 1.5000 | 0.3000 | 1.224 | | A |
| TW | 1 | 1.2400 | 0.0600 | 1.012 | | A |
| TX | 1 | 1.0080 | 0.0340 | 0.822 | | W |
| UP | 1 | 0.6940 | 0.2290 | 0.566 | | N |
| UY | 1 | 1.2100 | 0.1500 | 0.987 | | A |
| WA | 1 | 1.1100 | 0.0900 | 0.906 | | A |
| WC | 1 | 1.3300 | 0.2200 | 1.085 | | A |
| WI | 1 | 1.1800 | 0.1800 | 0.963 | | A |
| YA | 1 | 1.1567 | 0.0228 | 0.944 | | A |

**Total Number Reported:** 65

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** Bq U

**EML Value:** 0.8014
**EML Error:** 0.0670

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AG | 1 | 0.8840 | 0.0840 | 1.103 | A | A |
| AI | 1 | 0.8600 | 0.0602 | 1.073 | A | A |
| AM | 1 | 0.7400 | 0.0700 | 0.923 | N | A |
| BL | 1 | 0.9800 | | 1.223 | A | A |
| BL | 2 | 0.7800 | 0.0300 | 0.973 | A | A |
| BU | 1 | 0.8800 | 0.0400 | 1.098 | W | A |
| CL | 1 | 1.0500 | 0.0900 | 1.310 | W | W |
| FG | 1 | 1.1200 | 0.0400 | 1.398 | | W |
| FR | 1 | 0.9010 | 0.0560 | 1.124 | A | A |
| GA | 1 | 0.9200 | | 1.148 | | A |
| GP | 1 | 0.9400 | | 1.173 | N | A |
| ID | 1 | 0.8830 | 0.0460 | 1.102 | A | A |
| IE | 1 | 0.9000 | 0.0560 | 1.123 | | A |
| IS | 1 | 0.8700 | 0.1500 | 1.086 | | A |
| KO | 1 | 0.8920 | 0.0195 | 1.113 | | A |
| NF | 1 | 0.8400 | 0.0360 | 1.048 | | A |
| OT | 1 | 0.7500 | 0.0600 | 0.936 | | A |
| SW | 1 | 0.0346 | | 0.043 | | N |
| TX | 1 | 0.9610 | 0.0620 | 1.199 | | A |
| UY | 1 | 0.9100 | 0.1300 | 1.136 | | A |
| WA | 1 | 0.8800 | 0.0900 | 1.098 | | A |

**Total Number Reported:** 21

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** CO60

**EML Value:** 13.6000
**EML Error:** 1.2000

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 14.6000 | 0.7000 | 1.074 | | A |
| AF | 1 | 18.1000 | 3.0000 | 1.331 | N | N |
| AG | 1 | 14.0000 | 1.1000 | 1.029 | A | A |
| AI | 1 | 14.0000 | 0.3960 | 1.029 | A | A |
| AL | 1 | 15.9000 | 0.8280 | 1.169 | | W |
| AM | 1 | 15.4100 | 0.4200 | 1.133 | W | W |
| AN | 1 | 14.8900 | 1.3700 | 1.095 | A | A |
| AR | 1 | 0.0160 | 0.0400 | 0.001 | A | N |
| AR | 2 | 0.0170 | 0.0040 | 0.001 | A | N |
| AR | 3 | 0.0150 | 0.0040 | 0.001 | A | N |
| AT | 1 | 16.1700 | 1.5300 | 1.189 | | W |
| AU | 1 | 15.4000 | 0.8000 | 1.132 | A | W |
| BA | 1 | 15.1000 | 1.2000 | 1.110 | A | A |
| BC | 1 | 15.0000 | 0.7000 | 1.103 | A | A |
| BE | 1 | 16.7000 | 1.5000 | 1.228 | N | N |
| BL | 1 | 13.9000 | 0.6000 | 1.022 | A | A |
| BM | 1 | 14.3000 | 2.6000 | 1.051 | A | A |
| BN | 1 | 14.4300 | 0.2000 | 1.061 | A | A |
| BN | 2 | 14.8900 | 0.2000 | 1.095 | A | A |
| BN | 3 | 14.5300 | 0.2000 | 1.068 | A | A |
| BP | 1 | 15.1000 | 0.4000 | 1.110 | A | A |
| BQ | 1 | 14.9000 | 0.8000 | 1.096 | A | A |
| BR | 1 | 16.1000 | 1.0000 | 1.184 | W | W |
| BS | 1 | 15.0700 | 0.3700 | 1.108 | A | A |
| BU | 1 | 15.0000 | 1.2000 | 1.103 | A | A |
| BX | 1 | 15.7000 | 0.9000 | 1.154 | A | W |
| CA | 1 | 13.1000 | 0.1000 | 0.963 | A | A |
| CD | 1 | 15.3000 | 0.8000 | 1.125 | | A |
| CL | 1 | 14.7000 | 0.7800 | 1.081 | A | A |
| CR | 1 | 14.7000 | 0.8000 | 1.081 | | A |
| CS | 1 | 14.4800 | 0.4700 | 1.065 | A | A |
| DC | 1 | 21.8000 | 3.2900 | 1.603 | A | N |
| DH | 1 | 151.7000 | 4.0500 | 11.154 | A | N |
| DP | 1 | 16.9000 | 0.9000 | 1.243 | A | N |
| DP | 2 | 15.1000 | 1.3000 | 1.110 | A | A |
| DP | 3 | 14.6000 | 1.0000 | 1.074 | A | A |
| EG | 1 | 14.7000 | 1.0000 | 1.081 | A | A |
| EL | 1 | 21.0000 | 1.0000 | 1.544 | | N |
| EP | 1 | 15.4000 | 1.2300 | 1.132 | A | W |
| FG | 1 | 15.0300 | 3.2700 | 1.105 | A | A |
| FL | 1 | 15.0000 | 0.3000 | 1.103 | A | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** CO60

**EML Value:** 13.6000
**EML Error:** 1.2000

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| FM | 1 | 13.7000 | 0.1000 | 1.007 | A | A |
| FN | 1 | 15.0000 | 1.2000 | 1.103 | A | A |
| FR | 1 | 15.4100 | 2.0000 | 1.133 | A | W |
| GA | 1 | 15.6000 | 2.5000 | 1.147 | A | W |
| GC | 1 | 14.8500 | 0.7400 | 1.092 | A | A |
| GE | 1 | 14.7278 | 1.5447 | 1.083 | A | A |
| GP | 1 | 17.0000 | 2.0000 | 1.250 | N | N |
| GT | 1 | 15.0000 | 1.7000 | 1.103 | A | A |
| ID | 1 | 15.0000 | 0.8300 | 1.103 | A | A |
| IE | 1 | 14.4000 | 0.5000 | 1.059 | A | A |
| IL | 1 | 14.7000 | 0.3000 | 1.081 | | A |
| IN | 1 | 15.9000 | 1.0000 | 1.169 | A | W |
| IS | 1 | 15.9000 | 1.6700 | 1.169 | A | W |
| IT | 1 | 16.0000 | 3.0000 | 1.176 | A | W |
| JE | 1 | 16.3700 | 0.7800 | 1.204 | | N |
| JL | 1 | 16.8800 | 1.4000 | 1.241 | A | N |
| KA | 1 | 14.6000 | 1.7000 | 1.074 | A | A |
| KO | 1 | 14.6300 | 0.4350 | 1.076 | | A |
| LA | 1 | 15.5000 | 1.7000 | 1.140 | | W |
| LA | 2 | 15.1000 | 1.7000 | 1.110 | | A |
| LA | 3 | 17.4000 | 1.9000 | 1.279 | | N |
| LL | 1 | 13.0000 | 1.8000 | 0.956 | A | A |
| LM | 1 | 19.9000 | 2.3000 | 1.463 | | N |
| LN | 1 | 17.0000 | 1.2000 | 1.250 | | N |
| LV | 1 | 15.6000 | 0.5000 | 1.147 | A | W |
| ME | 1 | 13.1000 | 0.3600 | 0.963 | A | A |
| MH | 1 | 15.4000 | 0.5000 | 1.132 | | W |
| ML | 1 | 14.8000 | 1.5000 | 1.088 | A | A |
| MS | 1 | 14.4000 | 1.4000 | 1.059 | A | A |
| NA | 1 | 14.4000 | 0.3690 | 1.059 | A | A |
| NL | 1 | 15.6000 | 1.9100 | 1.147 | | W |
| NP | 1 | 16.3000 | 0.8000 | 1.199 | | W |
| NS | 1 | 15.7000 | 0.2900 | 1.154 | | W |
| OD | 1 | 13.7400 | 1.5700 | 1.010 | | A |
| OL | 1 | 15.0700 | 0.4000 | 1.108 | | A |
| OT | 1 | 15.0000 | 1.0000 | 1.103 | | A |
| OU | 1 | 16.4000 | 2.6000 | 1.206 | | N |
| RC | 1 | 14.5000 | 1.4000 | 1.066 | | A |
| RE | 1 | 15.1000 | 2.2000 | 1.110 | | A |
| RI | 1 | 17.0000 | 2.7900 | 1.250 | | N |
| RL | 1 | 15.5000 | 1.8000 | 1.140 | | W |
| SA | 1 | 15.0000 | 0.5000 | 1.103 | | A |
| SK | 1 | 15.3000 | 0.8000 | 1.125 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** CO60

**EML Value:** 13.6000
**EML Error:** 1.2000

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| SL | 1 | 14.7000 | 1.0000 | 1.081 | | A |
| SN | 1 | 14.6000 | 1.4200 | 1.074 | | A |
| SR | 1 | 15.0000 | 1.0000 | 1.103 | | A |
| SW | 1 | 15.3000 | 0.2000 | 1.125 | | A |
| TE | 1 | 14.8000 | 0.6000 | 1.088 | | A |
| TI | 1 | 14.5000 | 1.4000 | 1.066 | | A |
| TM | 1 | 15.6000 | 0.6310 | 1.147 | | W |
| TN | 1 | 13.7200 | 0.4400 | 1.009 | | A |
| TO | 1 | 14.3000 | 1.2000 | 1.051 | | A |
| TP | 1 | 14.1660 | 0.7230 | 1.042 | | A |
| TT | 1 | 15.5000 | 3.5800 | 1.140 | | W |
| TW | 1 | 14.0000 | 0.4000 | 1.029 | | A |
| TX | 1 | 15.0900 | 0.2000 | 1.110 | | A |
| UC | 1 | 15.0700 | 0.3600 | 1.108 | | A |
| UP | 1 | 15.3000 | 0.8520 | 1.125 | | A |
| UY | 1 | 14.1000 | 1.2000 | 1.037 | | A |
| WA | 1 | 14.7000 | 1.0000 | 1.081 | | A |
| WC | 1 | 14.7000 | 1.3000 | 1.081 | | A |
| WI | 1 | 15.5100 | 1.4000 | 1.140 | | W |
| WP | 1 | 13.6000 | 0.8000 | 1.000 | | A |
| WV | 1 | 14.9000 | 0.4000 | 1.096 | | A |
| YA | 1 | 14.0403 | 0.3675 | 1.032 | | A |
| YU | 1 | 13.8000 | 0.5000 | 1.015 | | A |

**Total Number Reported:** **107**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** CS137

**EML Value:** 46.0000
**EML Error:** 1.7000

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 47.6000 | 0.9000 | 1.035 | | A |
| AF | 1 | 51.8000 | 7.4000 | 1.126 | N | A |
| AG | 1 | 51.1000 | 3.4000 | 1.111 | A | A |
| AI | 1 | 49.4000 | 0.8810 | 1.074 | A | A |
| AL | 1 | 56.4320 | 1.9700 | 1.227 | | W |
| AM | 1 | 55.3100 | 0.7400 | 1.202 | A | W |
| AN | 1 | 50.5900 | 1.9900 | 1.100 | A | A |
| AR | 1 | 0.0590 | 0.0060 | 0.001 | A | N |
| AR | 2 | 0.0587 | 0.0056 | 0.001 | A | N |
| AR | 3 | 0.0570 | 0.0053 | 0.001 | A | N |
| AT | 1 | 53.8500 | 5.2700 | 1.171 | | A |
| AU | 1 | 50.8000 | 2.1000 | 1.104 | A | A |
| BA | 1 | 51.2000 | 2.9000 | 1.113 | A | A |
| BC | 1 | 51.1000 | 1.5000 | 1.111 | A | A |
| BE | 1 | 51.4000 | 5.0000 | 1.117 | N | A |
| BL | 1 | 47.3000 | 1.8000 | 1.028 | A | A |
| BM | 1 | 47.6000 | 3.5000 | 1.035 | A | A |
| BN | 1 | 58.1600 | 0.9100 | 1.264 | W | N |
| BN | 2 | 56.8700 | 0.9100 | 1.236 | W | W |
| BN | 3 | 59.0900 | 0.9100 | 1.285 | W | N |
| BP | 1 | 50.2000 | 0.8000 | 1.091 | A | A |
| BQ | 1 | 44.0000 | 1.0000 | 0.957 | A | A |
| BR | 1 | 56.6100 | 2.0900 | 1.231 | A | W |
| BS | 1 | 48.5200 | 0.5100 | 1.055 | A | A |
| BU | 1 | 45.0000 | 4.0000 | 0.978 | A | A |
| BX | 1 | 53.3000 | 3.3000 | 1.159 | A | A |
| CA | 1 | 49.9000 | 2.4000 | 1.085 | A | A |
| CD | 1 | 51.0000 | 1.0000 | 1.109 | | A |
| CL | 1 | 50.0000 | 1.7500 | 1.087 | W | A |
| CR | 1 | 49.3000 | 2.0000 | 1.072 | | A |
| CS | 1 | 49.5900 | 2.1500 | 1.078 | A | A |
| DC | 1 | 74.3000 | 17.7000 | 1.615 | A | N |
| DH | 1 | 49.6000 | 0.6000 | 1.078 | A | A |
| DP | 1 | 50.5000 | 1.3000 | 1.098 | A | A |
| DP | 2 | 46.8000 | 1.6000 | 1.017 | A | A |
| DP | 3 | 52.3000 | 1.4000 | 1.137 | A | A |
| EG | 1 | 48.1000 | 2.8000 | 1.046 | A | A |
| EL | 1 | 74.0000 | 4.0000 | 1.609 | | N |
| EP | 1 | 49.3000 | 3.5200 | 1.072 | A | A |
| FG | 1 | 50.9600 | 9.4000 | 1.108 | A | A |
| FL | 1 | 51.5000 | 0.6000 | 1.120 | A | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** CS137

**EML Value:** 46.0000
**EML Error:** 1.7000

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| FM | 1 | 47.9000 | 0.3000 | 1.041 | A | A |
| FN | 1 | 47.0000 | 4.8000 | 1.022 | A | A |
| FR | 1 | 51.6200 | 5.0000 | 1.122 | A | A |
| GA | 1 | 49.6000 | 3.9000 | 1.078 | A | A |
| GC | 1 | 52.0000 | 2.4000 | 1.130 | A | A |
| GE | 1 | 51.5965 | 6.4935 | 1.122 | A | A |
| GP | 1 | 53.0000 | 5.0000 | 1.152 | N | A |
| GT | 1 | 50.0000 | 10.0000 | 1.087 | A | A |
| ID | 1 | 50.6300 | 2.6400 | 1.101 | A | A |
| IE | 1 | 49.1000 | 3.3000 | 1.067 | A | A |
| IL | 1 | 52.0000 | 1.0000 | 1.130 | | A |
| IN | 1 | 51.9000 | 2.2000 | 1.128 | A | A |
| IS | 1 | 55.2000 | 5.6100 | 1.200 | A | W |
| IT | 1 | 52.1000 | 0.7000 | 1.133 | A | A |
| JE | 1 | 53.8800 | 1.4900 | 1.171 | | A |
| JL | 1 | 48.3900 | 3.7000 | 1.052 | A | A |
| KA | 1 | 51.0000 | 3.5000 | 1.109 | A | A |
| KO | 1 | 50.0200 | 0.6250 | 1.087 | | A |
| LA | 1 | 56.9000 | 5.8000 | 1.237 | W | W |
| LA | 2 | 57.0000 | 5.8000 | 1.239 | W | W |
| LA | 3 | 56.6000 | 5.9000 | 1.230 | W | W |
| LL | 1 | 49.7000 | 2.3000 | 1.080 | A | A |
| LN | 1 | 58.0000 | 6.0000 | 1.261 | | N |
| LV | 1 | 51.6000 | 0.7000 | 1.122 | A | A |
| ME | 1 | 46.3000 | 2.0900 | 1.007 | A | A |
| MH | 1 | 52.1000 | 2.2000 | 1.133 | | A |
| ML | 1 | 48.5600 | 4.9000 | 1.056 | A | A |
| MS | 1 | 51.3000 | 5.1000 | 1.115 | A | A |
| NA | 1 | 50.7000 | 0.8200 | 1.102 | A | A |
| NL | 1 | 54.4000 | 10.7000 | 1.183 | | W |
| NM | 1 | 55.1000 | 4.7000 | 1.198 | | W |
| NP | 1 | 52.9000 | 1.8000 | 1.150 | | A |
| NS | 1 | 51.4800 | 0.3700 | 1.119 | | A |
| OD | 1 | 49.0200 | 3.3300 | 1.066 | | A |
| OL | 1 | 50.6800 | 0.8000 | 1.102 | | A |
| OT | 1 | 52.0000 | 1.0000 | 1.130 | | A |
| OU | 1 | 51.2000 | 3.8000 | 1.113 | | A |
| RC | 1 | 48.0000 | 4.0000 | 1.043 | | A |
| RE | 1 | 50.5000 | 5.3000 | 1.098 | | A |
| RI | 1 | 53.2000 | 6.6900 | 1.157 | | A |
| RL | 1 | 56.0000 | 9.5000 | 1.217 | | W |
| SA | 1 | 51.0000 | 2.1000 | 1.109 | | A |
| SH | 1 | 51.2000 | 1.0200 | 1.113 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** CS137

**EML Value:** 46.0000
**EML Error:** 1.7000

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| SK | 1 | 50.4000 | 2.1000 | 1.096 | | A |
| SL | 1 | 50.8000 | 3.0000 | 1.104 | | A |
| SN | 1 | 46.7500 | 4.1700 | 1.016 | | A |
| SR | 1 | 50.5000 | 4.8000 | 1.098 | | A |
| SW | 1 | 51.1000 | 0.5000 | 1.111 | | A |
| TE | 1 | 51.2000 | 1.2000 | 1.113 | | A |
| TI | 1 | 49.9000 | 5.0000 | 1.085 | | A |
| TM | 1 | 54.8000 | 1.7100 | 1.191 | | W |
| TN | 1 | 47.1100 | 0.6900 | 1.024 | | A |
| TO | 1 | 50.6000 | 6.0000 | 1.100 | | A |
| TP | 1 | 46.9450 | 0.6830 | 1.021 | | A |
| TT | 1 | 53.6000 | 6.8300 | 1.165 | | A |
| TW | 1 | 51.0000 | 1.0000 | 1.109 | | A |
| TX | 1 | 50.2800 | 0.4400 | 1.093 | | A |
| UC | 1 | 52.8100 | 5.1600 | 1.148 | | A |
| UP | 1 | 51.2000 | 3.1600 | 1.113 | | A |
| UY | 1 | 50.9000 | 7.4000 | 1.107 | | A |
| WA | 1 | 51.4000 | 3.0000 | 1.117 | | A |
| WC | 1 | 53.5000 | 7.3000 | 1.163 | | A |
| WI | 1 | 51.5000 | 5.3000 | 1.120 | | A |
| WP | 1 | 47.2000 | 1.2000 | 1.026 | | A |
| WV | 1 | 48.6000 | 0.5200 | 1.057 | | A |
| YA | 1 | 49.0743 | 0.7523 | 1.067 | | A |
| YU | 1 | 45.8000 | 1.5000 | 0.996 | | A |

**Total Number Reported:** **108**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** FE55

**EML Value:** 202.8000
**EML Error:** 2.9206

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| BL | 1 | 283.0000 | 31.0000 | 1.395 | A | W |
| BP | 1 | 246.0000 | 11.0000 | 1.213 | A | A |
| BX | 1 | 209.0000 | 17.0000 | 1.031 | A | A |
| CL | 1 | 189.0000 | 13.9000 | 0.932 | A | A |
| DP | 1 | 324.9000 | 3.2000 | 1.602 | W | N |
| DP | 2 | 311.2000 | 3.1000 | 1.535 | W | N |
| DP | 3 | 342.3000 | 3.6000 | 1.688 | W | N |
| EG | 1 | 225.0000 | 100.0000 | 1.109 | | A |
| GC | 1 | 249.0000 | | 1.228 | | A |
| GE | 1 | 260.3690 | 61.1610 | 1.284 | | A |
| GP | 1 | 310.0000 | 30.0000 | 1.529 | N | N |
| KA | 1 | 271.0000 | 7.0000 | 1.336 | A | W |
| TE | 1 | 243.0000 | 29.4000 | 1.198 | | A |
| TI | 1 | 280.0000 | 30.0000 | 1.381 | | W |
| TM | 1 | 111.0000 | 7.4800 | 0.547 | | W |
| TN | 1 | 274.6000 | 6.4640 | 1.354 | | W |
| TO | 1 | 268.0000 | 56.0000 | 1.321 | | W |
| YA | 1 | 281.0767 | 23.0633 | 1.386 | | W |

**Total Number Reported:** **18**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** GROSS ALPHA

**EML Value:** 1421.0000
**EML Error:** ±00.0000

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AF | 1 | 1346.8000 | 44.1000 | 0.948 | N | A |
| AM | 1 | 931.7500 | 31.3200 | 0.656 | W | W |
| AR | 1 | 1435.0000 | 262.0000 | 1.010 | A | A |
| AR | 2 | 1524.0000 | 289.0000 | 1.072 | A | A |
| AR | 3 | 1566.0000 | 296.0000 | 1.102 | A | A |
| AU | 1 | 1470.0000 | 473.0000 | 1.034 | W | A |
| BC | 1 | 1710.0000 | 100.0000 | 1.203 | A | W |
| BE | 1 | 1541.0000 | 88.0000 | 1.084 | A | A |
| BL | 1 | 1788.6300 | 41.9200 | 1.259 | A | W |
| BL | 2 | 1581.6100 | 38.6100 | 1.113 | A | A |
| BN | 1 | 1397.1700 | 43.3100 | 0.983 | A | A |
| BN | 2 | 1487.5800 | 43.3100 | 1.047 | A | A |
| BN | 3 | 1490.4301 | 43.3100 | 1.049 | A | A |
| BP | 1 | 1559.0000 | 78.0000 | 1.097 | A | A |
| BU | 1 | 1690.0000 | 250.0000 | 1.189 | A | W |
| BX | 1 | 1740.0000 | 100.0000 | 1.224 | A | W |
| CD | 1 | 910.0000 | 90.0000 | 0.640 | | W |
| DC | 1 | 1620.0000 | 319.0000 | 1.140 | W | A |
| DH | 1 | 2.8080 | 0.2930 | 0.002 | | N |
| DP | 1 | 603.4000 | 15.6000 | 0.425 | N | N |
| DP | 2 | 586.2000 | 15.4000 | 0.413 | N | N |
| DP | 3 | 703.1000 | 16.8000 | 0.495 | N | N |
| EG | 1 | 1723.0000 | 93.0000 | 1.213 | A | W |
| EI | 1 | 1881.6801 | 189.5600 | 1.324 | W | N |
| FG | 1 | 1777.0000 | 85.0000 | 1.251 | A | W |
| FL | 1 | 2059.8999 | 70.5000 | 1.450 | N | N |
| FR | 1 | 840.0000 | 200.0000 | 0.591 | W | W |
| GC | 1 | 1440.6000 | 59.2200 | 1.014 | W | A |
| GE | 1 | 1650.8590 | 29.0709 | 1.162 | W | W |
| GP | 1 | 1500.0000 | 100.0000 | 1.056 | N | A |
| GS | 1 | 1948.0000 | 146.0000 | 1.371 | A | N |
| GT | 1 | 1400.0000 | 100.0000 | 0.985 | A | A |
| HC | 1 | 1515.0000 | 80.0000 | 1.066 | A | A |
| IE | 1 | 1599.0000 | 80.0000 | 1.125 | A | A |
| IS | 1 | 1590.0000 | 160.0000 | 1.119 | A | A |
| IT | 1 | 1262.0000 | 32.0000 | 0.888 | A | A |
| JE | 1 | 1359.0000 | 6.4600 | 0.956 | | A |
| KA | 1 | 1527.0000 | 96.0000 | 1.075 | W | A |
| KO | 1 | 1523.0000 | 60.4000 | 1.072 | | A |
| LA | 1 | 1305.0000 | 160.0000 | 0.918 | A | A |
| LA | 2 | 1444.0000 | 176.0000 | 1.016 | A | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** GROSS ALPHA

**EML Value:** 1421.0000
**EML Error:** 00.0000

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| LA | 3 | 1468.0000 | 179.0000 | 1.033 | A | A |
| LL | 1 | 1560.0000 | 18.6000 | 1.098 | A | A |
| LV | 1 | 2470.0000 | 270.0000 | 1.738 | W | N |
| MH | 1 | 1664.3000 | 4.0000 | 1.171 | | W |
| OB | 1 | 1020.0000 | 101.0000 | 0.718 | | W |
| OT | 1 | 1300.0000 | 100.0000 | 0.915 | | A |
| OU | 1 | 1260.0000 | 76.5000 | 0.887 | | A |
| RE | 1 | 1450.0000 | 101.0000 | 1.020 | | A |
| RG | 1 | 1531.0000 | 65.6000 | 1.077 | | A |
| RL | 1 | 1204.0000 | 24.0000 | 0.847 | | A |
| SA | 1 | 976.0000 | 98.0000 | 0.687 | | W |
| SN | 1 | 1185.7200 | 56.0800 | 0.834 | | A |
| SR | 1 | 1399.0000 | 236.0000 | 0.985 | | A |
| SW | 1 | 1529.0000 | 23.0000 | 1.076 | | A |
| TE | 1 | 1592.9000 | 63.8000 | 1.121 | | A |
| TI | 1 | 1500.0000 | 100.0000 | 1.056 | | A |
| TM | 1 | 1630.0000 | 189.0000 | 1.147 | | A |
| TN | 1 | 948.2000 | 57.2000 | 0.667 | | W |
| TO | 1 | 1001.0000 | 30.6000 | 0.704 | | W |
| TW | 1 | 670.0000 | 50.0000 | 0.471 | | N |
| TX | 1 | 1778.0000 | 47.0000 | 1.251 | | W |
| UC | 1 | 1364.7500 | 47.0000 | 0.960 | | A |
| UP | 1 | 1560.0000 | 90.2000 | 1.098 | | A |
| UY | 1 | 1493.0000 | 60.0000 | 1.051 | | A |
| WA | 1 | 1450.0000 | 60.0000 | 1.020 | | A |
| WC | 1 | 1460.0000 | 146.0000 | 1.027 | | A |
| WP | 1 | 1400.0000 | 110.0000 | 0.985 | | A |
| WV | 1 | 1228.0000 | 73.0000 | 0.864 | | A |
| YA | 1 | 1382.8134 | 10.9800 | 0.973 | | A |

**Total Number Reported:** **70**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** GROSS BETA

**EML Value:** 2200.0000
**EML Error:** 100.0000

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AF | 1 | 1798.2000 | 37.0000 | 0.817 | N | A |
| AM | 1 | 1757.3500 | 72.1300 | 0.799 | A | A |
| AR | 1 | 2146.0000 | 376.0000 | 0.975 | A | A |
| AR | 2 | 2115.0000 | 433.0000 | 0.961 | A | A |
| AR | 3 | 2126.0000 | 435.0000 | 0.966 | A | A |
| AU | 1 | 2329.0000 | 715.0000 | 1.059 | A | A |
| BC | 1 | 2210.0000 | 110.0000 | 1.005 | A | A |
| BE | 1 | 1995.0000 | 73.0000 | 0.907 | A | A |
| BL | 1 | 1828.9800 | 33.9500 | 0.831 | A | A |
| BL | 2 | 1725.9100 | 32.4500 | 0.785 | A | A |
| BN | 1 | 2295.8701 | 24.6800 | 1.044 | A | A |
| BN | 2 | 2275.8899 | 24.6800 | 1.034 | A | A |
| BN | 3 | 2236.4800 | 24.6800 | 1.017 | A | A |
| BP | 1 | 2534.0000 | 80.0000 | 1.152 | W | A |
| BX | 1 | 2270.0000 | 110.0000 | 1.032 | A | A |
| CD | 1 | 2100.0000 | 200.0000 | 0.955 | | A |
| DC | 1 | 2330.0000 | 456.0000 | 1.059 | W | A |
| DH | 1 | 3.8700 | 0.2860 | 0.002 | | N |
| DP | 1 | 1392.0000 | 16.4000 | 0.633 | N | W |
| DP | 2 | 1366.0000 | 16.2000 | 0.621 | N | W |
| DP | 3 | 1438.0000 | 16.6000 | 0.654 | N | W |
| FG | 1 | 2201.0000 | 110.0000 | 1.000 | A | A |
| FL | 1 | 2543.6001 | 51.3500 | 1.156 | W | A |
| FR | 1 | 1720.0000 | 350.0000 | 0.782 | A | A |
| GC | 1 | 1205.0000 | 55.4000 | 0.548 | A | W |
| GE | 1 | 2156.4041 | 25.7113 | 0.980 | A | A |
| GP | 1 | 2200.0000 | 200.0000 | 1.000 | A | A |
| GS | 1 | 2436.0000 | 125.0000 | 1.107 | A | A |
| GT | 1 | 1800.0000 | 100.0000 | 0.818 | W | A |
| HC | 1 | 2422.0000 | 120.0000 | 1.101 | A | A |
| IE | 1 | 2068.0000 | 88.0000 | 0.940 | A | A |
| IS | 1 | 2260.0000 | 230.0000 | 1.027 | A | A |
| IT | 1 | 2007.0000 | 245.0000 | 0.912 | A | A |
| JE | 1 | 2396.0000 | 6.1600 | 1.089 | | A |
| KA | 1 | 2190.0000 | 72.0000 | 0.995 | A | A |
| LA | 1 | 2405.0000 | 296.0000 | 1.093 | A | A |
| LA | 2 | 2475.0000 | 304.0000 | 1.125 | A | A |
| LA | 3 | 2602.0000 | 319.0000 | 1.183 | A | A |
| LL | 1 | 2680.0000 | 20.2000 | 1.218 | W | A |
| LV | 1 | 4490.0000 | 580.0000 | 2.041 | W | N |
| MH | 1 | 2359.8000 | 9.6000 | 1.073 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** GROSS BETA

**EML Value:** 2200.0000
**EML Error:** 100.0000

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| NP | 1 | 2150.0000 | 18.0000 | 0.977 | | A |
| OB | 1 | 1680.0000 | 165.0000 | 0.764 | | A |
| OT | 1 | 2200.0000 | 100.0000 | 1.000 | | A |
| OU | 1 | 1640.0000 | 67.8000 | 0.745 | | A |
| RE | 1 | 2080.0000 | 146.0000 | 0.945 | | A |
| RG | 1 | 2277.3999 | 64.1000 | 1.035 | | A |
| RL | 1 | 1901.0000 | 210.0000 | 0.864 | | A |
| SA | 1 | 1608.0000 | 161.0000 | 0.731 | | A |
| SN | 1 | 1777.5200 | 62.8800 | 0.808 | | A |
| SR | 1 | 2460.0000 | 604.0000 | 1.118 | | A |
| SW | 1 | 2089.0000 | 23.0000 | 0.950 | | A |
| TE | 1 | 2509.0000 | 67.1000 | 1.140 | | A |
| TI | 1 | 2200.0000 | 100.0000 | 1.000 | | A |
| TM | 1 | 1970.0000 | 155.0000 | 0.895 | | A |
| TN | 1 | 2071.0000 | 61.1500 | 0.941 | | A |
| TO | 1 | 1662.0000 | 28.5000 | 0.755 | | A |
| TP | 1 | 1949.5690 | 46.5550 | 0.886 | | A |
| TW | 1 | 2000.0000 | 60.0000 | 0.909 | | A |
| TX | 1 | 2036.0000 | 70.0000 | 0.925 | | A |
| UP | 1 | 2960.0000 | 93.6000 | 1.345 | | A |
| UY | 1 | 2425.0000 | 70.0000 | 1.102 | | A |
| WA | 1 | 2340.0000 | 60.0000 | 1.064 | | A |
| WC | 1 | 2150.0000 | 215.0000 | 0.977 | | A |
| WP | 1 | 53.0000 | 2.0000 | 0.024 | | N |
| WV | 1 | 2391.0000 | 87.0000 | 1.087 | | A |
| YA | 1 | 2123.1833 | 23.1867 | 0.965 | | A |

**Total Number Reported:** 67

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** H3

**EML Value:** 218.3000
**EML Error:** 6.5046

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AF | 1 | 1579.9000 | 3.7000 | 7.237 | | N |
| AG | 1 | 209.0000 | 35.0000 | 0.957 | A | A |
| AI | 1 | 3810.0000 | 175.0000 | 17.453 | N | N |
| AN | 1 | 221.5000 | 1.4000 | 1.015 | A | A |
| AU | 1 | 221.0000 | 27.0000 | 1.012 | A | A |
| BE | 1 | 230.0000 | 14.0000 | 1.054 | A | A |
| BL | 1 | 288.3300 | 12.5400 | 1.321 | A | W |
| BN | 1 | 179.7100 | 0.3200 | 0.823 | A | A |
| BN | 2 | 180.3600 | 0.3200 | 0.826 | A | A |
| BP | 1 | 246.0000 | 8.0000 | 1.127 | A | A |
| BQ | 1 | 316.0000 | 11.0000 | 1.448 | | W |
| BU | 1 | 213.7700 | 10.6900 | 0.979 | A | A |
| BX | 1 | 246.0000 | 23.0000 | 1.127 | A | A |
| CA | 1 | 268.0000 | 22.0000 | 1.228 | A | W |
| CD | 1 | 220.0000 | 20.0000 | 1.008 | | A |
| CL | 1 | 220.0000 | 15.0000 | 1.008 | A | A |
| DC | 1 | 302.0000 | 57.9000 | 1.383 | W | W |
| DH | 1 | 229.8000 | 53.0000 | 1.053 | | A |
| DP | 1 | 275.0000 | 4.1000 | 1.260 | A | W |
| DP | 2 | 283.0000 | 4.1000 | 1.296 | A | W |
| DP | 3 | 283.0000 | 4.1000 | 1.296 | A | W |
| EI | 1 | 229.8400 | 14.8500 | 1.053 | N | A |
| EP | 1 | 234.5000 | 8.4100 | 1.074 | A | A |
| FG | 1 | 199.0000 | 20.4000 | 0.912 | | A |
| FL | 1 | 240.1000 | 4.8000 | 1.100 | A | A |
| FN | 1 | 239.0000 | 11.0000 | 1.095 | A | A |
| FR | 1 | 235.0000 | 20.0000 | 1.077 | N | A |
| GC | 1 | 242.7200 | 4.7000 | 1.112 | A | A |
| GE | 1 | 212.0444 | 18.8071 | 0.971 | A | A |
| GP | 1 | 240.0000 | 30.0000 | 1.099 | N | A |
| GT | 1 | 220.0000 | 10.0000 | 1.008 | A | A |
| HC | 1 | 223.0000 | 19.0000 | 1.022 | A | A |
| ID | 1 | 249.5000 | 14.1200 | 1.143 | N | A |
| IE | 1 | 220.0000 | 8.0000 | 1.008 | A | A |
| IS | 1 | 207.0000 | 1.0000 | 0.948 | A | A |
| IT | 1 | 238.0000 | 1.5000 | 1.090 | A | A |
| KA | 1 | 236.0000 | 12.0000 | 1.081 | A | A |
| KO | 1 | 249.0500 | 1.9510 | 1.141 | | A |
| LA | 1 | 233.0000 | 37.0000 | 1.067 | W | A |
| LA | 2 | 237.0000 | 37.0000 | 1.086 | W | A |
| LA | 3 | 229.0000 | 37.0000 | 1.049 | W | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** H3

**EML Value:** 218.3000
**EML Error:** 6.5046

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| LL | 1 | 231.0000 | 5.0700 | 1.058 | A | A |
| LM | 1 | 96.6000 | 10.0000 | 0.443 | | N |
| LN | 1 | 316.0000 | 31.0000 | 1.448 | | W |
| LV | 1 | 237.0000 | 4.0000 | 1.086 | W | A |
| LW | 1 | 214.0000 | 16.7000 | 0.980 | A | A |
| ME | 1 | 266.0000 | 6.1700 | 1.219 | | W |
| MH | 1 | 211.8000 | 7.1000 | 0.970 | | A |
| ML | 1 | 248.6800 | 13.9200 | 1.139 | A | A |
| MS | 1 | 674.0000 | 67.0000 | 3.087 | | N |
| NA | 1 | 157.0000 | 3.7100 | 0.719 | A | W |
| NP | 1 | 289.0000 | 33.0000 | 1.324 | | W |
| NS | 1 | 189.6000 | 13.9000 | 0.869 | | A |
| OD | 1 | 246.0000 | 62.6700 | 1.127 | | A |
| OK | 1 | 262.7000 | 17.5000 | 1.203 | | A |
| OT | 1 | 300.0000 | 20.0000 | 1.374 | | W |
| OU | 1 | 267.0000 | 21.9000 | 1.223 | | W |
| PR | 1 | 223.0300 | 4.2800 | 1.022 | | A |
| RC | 1 | 226.0000 | 15.0000 | 1.035 | | A |
| RE | 1 | 236.0000 | 22.0000 | 1.081 | | A |
| RI | 1 | 501.0000 | 44.3000 | 2.295 | | N |
| SK | 1 | 227.0000 | 4.0000 | 1.040 | | A |
| SR | 1 | 208.0000 | 15.0000 | 0.953 | | A |
| ST | 1 | 226.4600 | 8.7600 | 1.037 | | A |
| SW | 1 | 1212.0000 | 24.0000 | 5.552 | | N |
| TE | 1 | 399.7000 | 32.5000 | 1.831 | | N |
| TI | 1 | 260.0000 | 50.0000 | 1.191 | | A |
| TM | 1 | 227.0000 | 10.2000 | 1.040 | | A |
| TN | 1 | 171.2200 | 15.5210 | 0.784 | | W |
| TO | 1 | 344.0000 | 104.0000 | 1.576 | | W |
| TP | 1 | 223.3150 | 13.7360 | 1.023 | | A |
| TT | 1 | 213.0000 | 3.6300 | 0.976 | | A |
| TW | 1 | 236.0000 | 2.0000 | 1.081 | | A |
| TX | 1 | 233.0000 | 12.0000 | 1.067 | | A |
| UP | 1 | 258.5000 | 33.0000 | 1.184 | | A |
| UY | 1 | 250.0000 | 50.0000 | 1.145 | | A |
| WA | 1 | 233.0000 | 50.0000 | 1.067 | | A |
| WC | 1 | 192.0000 | 40.0000 | 0.880 | | A |
| WP | 1 | 340.0000 | 48.0000 | 1.557 | | W |
| WV | 1 | 234.0000 | 8.8000 | 1.072 | | A |
| YA | 1 | 246.7900 | 6.2900 | 1.131 | | A |

**Total Number Reported:** 81

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** MN54

**EML Value:** 57.0000
**EML Error:** 1.9000

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 71.9000 | 1.0000 | 1.261 | | N |
| AF | 1 | 59.2000 | 7.4000 | 1.039 | N | A |
| AG | 1 | 62.3000 | 4.1000 | 1.093 | A | A |
| AI | 1 | 60.5000 | 0.9530 | 1.061 | A | A |
| AL | 1 | 58.7260 | 1.8200 | 1.030 | | A |
| AM | 1 | 66.5000 | 0.8700 | 1.167 | W | A |
| AN | 1 | 65.4800 | 6.9500 | 1.149 | A | A |
| AR | 1 | 0.0680 | 0.0060 | 0.001 | W | N |
| AR | 2 | 0.0710 | 0.0058 | 0.001 | W | N |
| AR | 3 | 0.0677 | 0.0055 | 0.001 | W | N |
| AT | 1 | 65.8900 | 6.8100 | 1.156 | | A |
| AU | 1 | 60.6000 | 3.4000 | 1.063 | A | A |
| BA | 1 | 65.8000 | 4.0000 | 1.154 | A | A |
| BC | 1 | 62.5000 | 2.2000 | 1.096 | A | A |
| BE | 1 | 69.8000 | 7.0000 | 1.225 | N | W |
| BL | 1 | 57.9000 | 1.9000 | 1.016 | A | A |
| BN | 1 | 65.8600 | 0.7900 | 1.155 | W | A |
| BN | 2 | 66.3000 | 0.7900 | 1.163 | W | A |
| BN | 3 | 67.7100 | 0.7900 | 1.188 | W | W |
| BP | 1 | 63.7000 | 0.9000 | 1.118 | A | A |
| BQ | 1 | 54.0000 | 1.0000 | 0.947 | A | A |
| BR | 1 | 70.3000 | 2.5700 | 1.233 | W | W |
| BS | 1 | 61.1100 | 0.6100 | 1.072 | A | A |
| BX | 1 | 65.9000 | 3.3000 | 1.156 | W | A |
| CA | 1 | 58.1000 | 4.3000 | 1.019 | A | A |
| CD | 1 | 64.0000 | 1.0000 | 1.123 | | A |
| CL | 1 | 61.1000 | 2.0200 | 1.072 | W | A |
| CR | 1 | 61.1000 | 2.1000 | 1.072 | | A |
| CS | 1 | 60.6500 | 2.7200 | 1.064 | A | A |
| DC | 1 | 92.2000 | 45.5000 | 1.618 | A | N |
| DH | 1 | 61.4000 | 0.7000 | 1.077 | A | A |
| DP | 1 | 68.8000 | 1.6000 | 1.207 | W | W |
| DP | 2 | 61.5000 | 2.0000 | 1.079 | W | A |
| DP | 3 | 69.6000 | 1.7000 | 1.221 | W | W |
| EG | 1 | 60.2000 | 3.5000 | 1.056 | A | A |
| EL | 1 | 89.0000 | 5.0000 | 1.561 | | N |
| EP | 1 | 60.9300 | 4.3800 | 1.069 | | A |
| FG | 1 | 88.9600 | 14.9500 | 1.561 | W | N |
| FL | 1 | 63.5000 | 0.6000 | 1.114 | W | A |
| FM | 1 | 58.1000 | 0.4000 | 1.019 | A | A |
| FN | 1 | 56.6000 | 5.8000 | 0.993 | A | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** MN54

**EML Value:** 57.0000
**EML Error:** 1.9000

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| FR | 1 | 62.6100 | 10.0000 | 1.098 | A | A |
| GA | 1 | 60.5000 | 8.8000 | 1.061 | A | A |
| GC | 1 | 63.0600 | 3.0400 | 1.106 | A | A |
| GE | 1 | 63.2330 | 6.9930 | 1.109 | A | A |
| GP | 1 | 63.0000 | 6.0000 | 1.105 | N | A |
| GT | 1 | 62.0000 | 14.0000 | 1.088 | A | A |
| ID | 1 | 61.2000 | 3.1100 | 1.074 | A | A |
| IE | 1 | 59.8000 | 3.4000 | 1.049 | A | A |
| IL | 1 | 62.9000 | 1.4000 | 1.104 | | A |
| IN | 1 | 67.2000 | 1.6000 | 1.179 | A | W |
| IS | 1 | 67.6000 | 6.6000 | 1.186 | A | W |
| IT | 1 | 65.4000 | 4.3000 | 1.147 | A | A |
| JE | 1 | 68.3400 | 1.8900 | 1.199 | | W |
| JL | 1 | 63.8800 | 4.4000 | 1.121 | A | A |
| KA | 1 | 58.0000 | 3.5000 | 1.018 | A | A |
| KO | 1 | 61.3500 | 0.7280 | 1.076 | | A |
| LA | 1 | 70.5000 | 7.1000 | 1.237 | W | W |
| LA | 2 | 71.1000 | 7.1000 | 1.247 | W | N |
| LA | 3 | 68.9000 | 7.0000 | 1.209 | W | W |
| LL | 1 | 62.1000 | 2.6000 | 1.089 | A | A |
| LM | 1 | 51.9000 | 5.0000 | 0.911 | | A |
| LN | 1 | 64.0000 | 6.0000 | 1.123 | | A |
| LV | 1 | 67.0000 | 1.2000 | 1.175 | A | W |
| ME | 1 | 56.3000 | 2.0400 | 0.988 | N | A |
| MH | 1 | 64.4000 | 2.3000 | 1.130 | | A |
| ML | 1 | 54.6000 | 5.5000 | 0.958 | A | A |
| MS | 1 | 60.2500 | 6.0300 | 1.057 | A | A |
| NA | 1 | 61.5000 | 0.9220 | 1.079 | A | A |
| NL | 1 | 69.9000 | 11.2000 | 1.226 | | W |
| NP | 1 | 66.3000 | 2.1000 | 1.163 | | A |
| NS | 1 | 65.8500 | 0.4800 | 1.155 | | A |
| OD | 1 | 64.2900 | 3.9700 | 1.128 | | A |
| OL | 1 | 62.5800 | 0.6700 | 1.098 | | A |
| OT | 1 | 63.0000 | 1.0000 | 1.105 | | A |
| OU | 1 | 61.3000 | 4.5000 | 1.075 | | A |
| RC | 1 | 59.0000 | 5.0000 | 1.035 | | A |
| RE | 1 | 61.7000 | 6.3000 | 1.082 | | A |
| RI | 1 | 59.9000 | 5.8500 | 1.051 | | A |
| RL | 1 | 68.0000 | 8.7000 | 1.193 | | W |
| SA | 1 | 65.0000 | 4.0000 | 1.140 | | A |
| SH | 1 | 78.9500 | 1.5000 | 1.385 | | N |
| SK | 1 | 60.2000 | 3.0000 | 1.056 | | A |
| SL | 1 | 60.0000 | 3.0000 | 1.053 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** MN54

**EML Value:** 57.0000
**EML Error:** 1.9000

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| SN | 1 | 60.8300 | 6.3600 | 1.067 | | A |
| SR | 1 | 62.5000 | 6.3000 | 1.096 | | A |
| SW | 1 | 58.0000 | 0.5000 | 1.018 | | A |
| TE | 1 | 61.7000 | 1.3000 | 1.082 | | A |
| TI | 1 | 60.3000 | 6.0000 | 1.058 | | A |
| TM | 1 | 68.0000 | 2.1000 | 1.193 | | W |
| TN | 1 | 57.8700 | 0.7400 | 1.015 | | A |
| TO | 1 | 61.7000 | 11.1000 | 1.082 | | A |
| TP | 1 | 56.7270 | 1.5190 | 0.995 | | A |
| TT | 1 | 66.2000 | 7.0200 | 1.161 | | A |
| TW | 1 | 62.0000 | 1.0000 | 1.088 | | A |
| TX | 1 | 63.6800 | 0.4800 | 1.117 | | A |
| UP | 1 | 62.6000 | 4.5300 | 1.098 | | A |
| UY | 1 | 62.4000 | 7.4000 | 1.095 | | A |
| WA | 1 | 61.4000 | 4.4000 | 1.077 | | A |
| WC | 1 | 64.9000 | 9.0000 | 1.139 | | A |
| WI | 1 | 64.7000 | 5.9000 | 1.135 | | A |
| WP | 1 | 56.1000 | 1.3000 | 0.984 | | A |
| WV | 1 | 61.9000 | 0.6700 | 1.086 | | A |
| YA | 1 | 60.5937 | 0.8140 | 1.063 | | A |
| YU | 1 | 54.0000 | 1.4000 | 0.947 | | A |

**Total Number Reported:** **105**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** PU238

**EML Value:** 2.5257
**EML Error:** 0.0595

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 2.4900 | 0.1300 | 0.986 | | A |
| AF | 1 | 2.0000 | 0.5000 | 0.792 | | W |
| AG | 1 | 2.1600 | 0.2600 | 0.855 | A | W |
| AI | 1 | 1.6600 | 0.0519 | 0.657 | A | N |
| AN | 1 | 2.4800 | 0.0300 | 0.982 | A | A |
| AR | 1 | 2.1100 | 0.2000 | 0.835 | A | W |
| AR | 2 | 2.1300 | 0.2000 | 0.843 | A | W |
| AR | 3 | 2.0980 | 0.1800 | 0.831 | A | W |
| AU | 1 | 2.3400 | 0.1400 | 0.926 | N | A |
| BA | 1 | 2.5200 | 0.4500 | 0.998 | A | A |
| BE | 1 | 2.4600 | 0.2300 | 0.974 | A | A |
| BL | 1 | 2.8500 | 0.1100 | 1.128 | W | W |
| BL | 2 | 2.4800 | 0.1300 | 0.982 | W | A |
| BM | 1 | 2.6800 | 0.3800 | 1.061 | W | A |
| BP | 1 | 2.4900 | 0.0600 | 0.986 | A | A |
| BU | 1 | 2.4300 | 0.2000 | 0.962 | | A |
| BX | 1 | 2.4700 | 0.0810 | 0.978 | A | A |
| CL | 1 | 1.2300 | 0.3100 | 0.487 | W | N |
| EG | 1 | 2.3800 | 0.1900 | 0.942 | A | A |
| EI | 1 | 2.1700 | 0.1200 | 0.859 | | W |
| EP | 1 | 2.5100 | 0.1820 | 0.994 | | A |
| FG | 1 | 2.5700 | 0.1000 | 1.018 | | A |
| FR | 1 | 2.3900 | 0.3600 | 0.946 | A | A |
| GA | 1 | 2.8100 | | 1.113 | W | W |
| GE | 1 | 2.3217 | 0.2967 | 0.919 | A | A |
| GP | 1 | 2.5000 | 0.3000 | 0.990 | N | A |
| GT | 1 | 2.1000 | 0.4000 | 0.831 | N | W |
| ID | 1 | 2.6530 | 0.2890 | 1.050 | N | A |
| IE | 1 | 2.4800 | 0.2600 | 0.982 | A | A |
| IN | 1 | 2.4900 | 0.2100 | 0.986 | A | A |
| IS | 1 | 2.4000 | 0.7700 | 0.950 | W | A |
| IT | 1 | 2.4200 | 0.1700 | 0.958 | A | A |
| KO | 1 | 2.2900 | 0.0812 | 0.907 | | A |
| LA | 1 | 2.4600 | 0.1000 | 0.974 | A | A |
| LA | 2 | 2.4200 | 0.1000 | 0.958 | A | A |
| LA | 3 | 2.4100 | 0.1000 | 0.954 | A | A |
| LL | 1 | 2.5900 | 0.2380 | 1.025 | A | A |
| LV | 1 | 1.8600 | 0.1000 | 0.736 | | N |
| ML | 1 | 2.4500 | 0.0200 | 0.970 | A | A |
| NA | 1 | 2.2500 | 0.1020 | 0.891 | | W |
| NF | 1 | 2.4570 | 0.1190 | 0.973 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** PU238

**EML Value:** 2.5257
**EML Error:** 0.0595

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| NL | 1 | 2.2400 | 0.5100 | 0.887 | | W |
| NM | 1 | 2.3100 | 0.0700 | 0.915 | | A |
| OD | 1 | 2.4200 | 0.2500 | 0.958 | | A |
| OT | 1 | 2.2000 | 0.1000 | 0.871 | | W |
| RE | 1 | 1.7700 | 0.3200 | 0.701 | | N |
| RI | 1 | 2.4000 | 0.2250 | 0.950 | | A |
| RL | 1 | 1.8000 | 0.6000 | 0.713 | | N |
| SK | 1 | 2.6200 | 0.0900 | 1.037 | | A |
| SN | 1 | 2.5500 | 0.3640 | 1.010 | | A |
| SR | 1 | 2.2800 | 0.2700 | 0.903 | | A |
| SW | 1 | 2.3100 | 0.1900 | 0.915 | | A |
| TE | 1 | 2.6100 | 0.2700 | 1.033 | | A |
| TI | 1 | 2.8000 | 0.3000 | 1.109 | | A |
| TM | 1 | 2.5300 | 0.1030 | 1.002 | | A |
| TN | 1 | 1.6620 | 0.0905 | 0.658 | | N |
| TO | 1 | 2.3000 | 0.4000 | 0.911 | | A |
| TW | 1 | 2.4000 | 0.1000 | 0.950 | | A |
| TX | 1 | 2.3570 | 0.0630 | 0.933 | | A |
| UC | 1 | 2.3430 | 0.2980 | 0.928 | | A |
| UP | 1 | 2.2300 | 0.4120 | 0.883 | | W |
| UY | 1 | 2.4000 | 0.2500 | 0.950 | | A |
| WA | 1 | 2.5900 | 0.1600 | 1.025 | | A |
| WC | 1 | 2.5200 | 0.4300 | 0.998 | | A |
| WI | 1 | 1.8280 | 0.2900 | 0.724 | | N |
| YA | 1 | 2.4642 | 0.0432 | 0.976 | | A |

**Total Number Reported:** **66**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** PU239

**EML Value:** 1.6502
**EML Error:** 0.0607

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 1.7300 | 0.0900 | 1.048 | | A |
| AF | 1 | 1.6000 | 0.4000 | 0.970 | N | A |
| AG | 1 | 1.5300 | 0.1900 | 0.927 | A | A |
| AI | 1 | 1.2000 | 0.0392 | 0.727 | A | N |
| AN | 1 | 1.6900 | 0.0600 | 1.024 | A | A |
| AR | 1 | 1.5300 | 0.1400 | 0.927 | A | A |
| AR | 2 | 1.5000 | 0.1500 | 0.909 | A | A |
| AR | 3 | 1.5340 | 0.1490 | 0.930 | A | A |
| AU | 1 | 2.0800 | 0.1300 | 1.260 | N | W |
| BA | 1 | 1.6300 | 0.3000 | 0.988 | A | A |
| BE | 1 | 1.6700 | 0.1700 | 1.012 | A | A |
| BL | 1 | 1.8000 | 0.0900 | 1.091 | A | A |
| BL | 2 | 1.6000 | 0.1000 | 0.970 | A | A |
| BM | 1 | 1.7800 | 0.2600 | 1.079 | A | A |
| BP | 1 | 1.6900 | 0.0400 | 1.024 | A | A |
| BU | 1 | 1.5500 | 0.1000 | 0.939 | A | A |
| BX | 1 | 1.7100 | 0.0630 | 1.036 | A | A |
| CL | 1 | 1.0900 | 0.2600 | 0.661 | A | N |
| EG | 1 | 1.5800 | 0.1300 | 0.957 | A | A |
| EI | 1 | 1.4000 | 0.0800 | 0.848 | | W |
| EP | 1 | 1.6800 | 0.1230 | 1.018 | | A |
| FG | 1 | 1.7200 | 0.1000 | 1.042 | | A |
| FR | 1 | 1.6300 | 0.2500 | 0.988 | A | A |
| GA | 1 | 1.8800 | | 1.139 | A | A |
| GE | 1 | 1.5947 | 0.2063 | 0.966 | A | A |
| GP | 1 | 1.7000 | 0.2000 | 1.030 | A | A |
| GT | 1 | 1.4000 | 0.3000 | 0.848 | N | W |
| ID | 1 | 1.7400 | 0.2030 | 1.054 | A | A |
| IE | 1 | 1.6800 | 0.1200 | 1.018 | A | A |
| IN | 1 | 1.5800 | 0.1100 | 0.957 | A | A |
| IS | 1 | 1.4700 | 0.5100 | 0.891 | W | W |
| IT | 1 | 1.6600 | 0.1700 | 1.006 | A | A |
| KA | 1 | 1.7380 | 0.0120 | 1.053 | A | A |
| KO | 1 | 1.5200 | 0.0547 | 0.921 | | A |
| LA | 1 | 1.7100 | 0.0700 | 1.036 | A | A |
| LA | 2 | 1.6100 | 0.0700 | 0.976 | A | A |
| LA | 3 | 1.6200 | 0.0700 | 0.982 | A | A |
| LL | 1 | 1.8000 | 0.1710 | 1.091 | A | A |
| LV | 1 | 1.0500 | 0.0600 | 0.636 | | N |
| ML | 1 | 1.7000 | 0.1100 | 1.030 | A | A |
| NA | 1 | 1.5900 | 0.0750 | 0.964 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

*If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.*

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** PU239

**EML Value:** 1.6502
**EML Error:** 0.0607

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| NF | 1 | 1.6030 | 0.0850 | 0.971 | | A |
| NL | 1 | 1.5900 | 0.3600 | 0.964 | | A |
| NM | 1 | 1.5900 | 0.0500 | 0.964 | | A |
| OD | 1 | 1.6200 | 0.1700 | 0.982 | | A |
| OT | 1 | 1.6000 | 0.1000 | 0.970 | | A |
| RE | 1 | 1.2400 | 0.2300 | 0.751 | | N |
| RI | 1 | 1.5500 | 0.1550 | 0.939 | | A |
| SK | 1 | 1.7700 | 0.0600 | 1.073 | | A |
| SN | 1 | 1.6820 | 0.2530 | 1.019 | | A |
| SR | 1 | 1.5700 | 0.1900 | 0.951 | | A |
| SW | 1 | 1.0900 | 0.1000 | 0.661 | | N |
| TE | 1 | 1.7900 | 0.2100 | 1.085 | | A |
| TI | 1 | 1.9000 | 0.3000 | 1.151 | | W |
| TM | 1 | 1.8300 | 0.0786 | 1.109 | | A |
| TN | 1 | 2.4360 | 0.1267 | 1.476 | | N |
| TO | 1 | 1.6000 | 0.3000 | 0.970 | | A |
| TW | 1 | 1.6600 | 0.0800 | 1.006 | | A |
| TX | 1 | 1.6020 | 0.0430 | 0.971 | | A |
| UC | 1 | 1.6630 | 0.1680 | 1.008 | | A |
| UP | 1 | 1.3800 | 0.2920 | 0.836 | | W |
| UY | 1 | 1.6500 | 0.1800 | 1.000 | | A |
| WA | 1 | 1.7000 | 0.1900 | 1.030 | | A |
| WC | 1 | 1.7000 | 0.2900 | 1.030 | | A |
| WI | 1 | 1.3130 | 0.2100 | 0.796 | | N |
| YA | 1 | 1.6432 | 0.0303 | 0.996 | | A |

**Total Number Reported:** **66**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** SR90

**EML Value:** 4.3574
**EML Error:** 0.1924

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AF | 1 | 4.5000 | 0.4000 | 1.033 | N | A |
| AG | 1 | 3.8900 | 0.7000 | 0.893 | A | A |
| AN | 1 | 4.1700 | 0.1400 | 0.957 | A | A |
| AR | 1 | 4.9000 | 1.0600 | 1.125 | N | A |
| AR | 2 | 4.9230 | 1.1240 | 1.130 | N | A |
| AU | 1 | 4.1300 | 0.5300 | 0.948 | A | A |
| BA | 1 | 4.0700 | 0.2600 | 0.934 | | A |
| BC | 1 | 3.4700 | 0.3300 | 0.796 | A | W |
| BE | 1 | 4.4600 | 0.4500 | 1.024 | A | A |
| BL | 1 | 4.6040 | 0.3860 | 1.057 | A | A |
| BM | 1 | 4.5600 | 0.3000 | 1.046 | A | A |
| BN | 1 | 4.9600 | 0.1300 | 1.138 | A | A |
| BN | 2 | 5.0900 | 0.1300 | 1.168 | A | A |
| BN | 3 | 4.7800 | 0.1300 | 1.097 | A | A |
| BP | 1 | 4.1000 | 0.1000 | 0.941 | A | A |
| BX | 1 | 3.3900 | 0.3400 | 0.778 | A | W |
| CB | 1 | 4.7800 | 0.4600 | 1.097 | | A |
| CB | 2 | 4.5200 | 0.4600 | 1.037 | | A |
| CL | 1 | 3.9000 | 0.4300 | 0.895 | A | A |
| DP | 1 | 4.7000 | 0.4000 | 1.079 | A | A |
| DP | 2 | 4.1000 | 0.4000 | 0.941 | A | A |
| DP | 3 | 4.1000 | 0.4000 | 0.941 | A | A |
| EG | 1 | 4.7300 | 0.1700 | 1.086 | A | A |
| EI | 1 | 5.3200 | 0.3400 | 1.221 | A | A |
| EP | 1 | 4.4800 | 0.3960 | 1.028 | A | A |
| GC | 1 | 4.3000 | | 0.987 | A | A |
| GE | 1 | 4.5177 | 0.1683 | 1.037 | A | A |
| GP | 1 | 5.3000 | 0.9000 | 1.216 | N | A |
| GT | 1 | 3.9000 | 0.1000 | 0.895 | W | A |
| ID | 1 | 3.8670 | 0.2250 | 0.887 | A | W |
| IE | 1 | 4.6400 | 0.1300 | 1.065 | A | A |
| IN | 1 | 4.4200 | 0.4400 | 1.014 | A | A |
| IS | 1 | 4.0100 | 0.0300 | 0.920 | N | A |
| IT | 1 | 4.9900 | 0.1600 | 1.145 | A | A |
| KA | 1 | 4.4900 | 0.3300 | 1.030 | A | A |
| KO | 1 | 1.5163 | 0.0600 | 0.348 | | N |
| MH | 1 | 3.7500 | 0.2900 | 0.861 | | W |
| NA | 1 | 4.6300 | 0.7400 | 1.063 | W | A |
| NS | 1 | 3.9800 | 0.8600 | 0.913 | | A |
| OD | 1 | 4.2400 | 0.5200 | 0.973 | | A |
| OT | 1 | 4.3000 | 0.5000 | 0.987 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** SR90

**EML Value:** 4.3574
**EML Error:** 0.1924

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| RE | 1 | 4.3000 | 0.2500 | 0.987 | | A |
| RI | 1 | 5.4100 | 0.3250 | 1.242 | | A |
| SH | 1 | 6.5170 | 0.1730 | 1.496 | | W |
| SH | 2 | 6.5280 | 0.1770 | 1.498 | | W |
| SH | 3 | 6.0780 | 0.1690 | 1.395 | | W |
| SR | 1 | 5.1000 | 1.9000 | 1.170 | | A |
| SW | 1 | 7.5500 | 0.6500 | 1.733 | | N |
| TE | 1 | 1.7000 | 0.4000 | 0.390 | | N |
| TI | 1 | 4.3000 | 0.5000 | 0.987 | | A |
| TM | 1 | 3.4500 | 0.2940 | 0.792 | | W |
| TN | 1 | 4.3280 | 0.1655 | 0.993 | | A |
| TO | 1 | 3.7000 | 0.1000 | 0.849 | | W |
| TP | 1 | 5.0290 | 0.1020 | 1.154 | | A |
| TW | 1 | 4.4000 | 0.2000 | 1.010 | | A |
| TX | 1 | 4.2600 | 0.6500 | 0.978 | | A |
| UP | 1 | 4.0100 | 1.0700 | 0.920 | | A |
| UY | 1 | 4.5100 | 0.4500 | 1.035 | | A |
| WA | 1 | 4.5900 | 0.6300 | 1.053 | | A |
| WC | 1 | 4.4200 | 0.6100 | 1.014 | | A |
| WI | 1 | 3.8630 | 0.5000 | 0.887 | | W |
| WV | 1 | 4.5200 | 0.3000 | 1.037 | | A |
| YA | 1 | 4.1206 | 0.1986 | 0.946 | | A |

**Total Number Reported:** **63**

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** U234

**EML Value:** 0.3962
**EML Error:** 0.0265

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 0.3200 | 0.0400 | 0.808 | | W |
| AF | 1 | 0.4000 | 0.1000 | 1.010 | | A |
| AG | 1 | 0.4290 | 0.0590 | 1.083 | A | A |
| AI | 1 | 0.4080 | 0.0253 | 1.030 | | A |
| AM | 1 | 0.3300 | 0.0500 | 0.833 | N | W |
| AN | 1 | 0.4300 | 0.0200 | 1.085 | W | A |
| AU | 1 | 0.5030 | 0.0650 | 1.270 | A | W |
| BC | 1 | 0.5250 | 0.0410 | 1.325 | N | W |
| BE | 1 | 0.4320 | 0.0620 | 1.090 | A | A |
| BL | 1 | 0.4800 | | 1.212 | A | A |
| BL | 2 | 0.3800 | 0.0100 | 0.959 | A | A |
| BM | 1 | 0.4400 | 0.0700 | 1.111 | A | A |
| BU | 1 | 0.4300 | 0.0200 | 1.085 | | A |
| BX | 1 | 0.4110 | 0.0330 | 1.037 | N | A |
| CL | 1 | 0.4900 | 0.1200 | 1.237 | W | W |
| EG | 1 | 0.4090 | 0.0560 | 1.032 | A | A |
| EI | 1 | 0.4100 | 0.0200 | 1.035 | | A |
| FR | 1 | 0.4350 | 0.0520 | 1.098 | A | A |
| GA | 1 | 0.4800 | | 1.212 | W | A |
| GE | 1 | 0.3848 | 0.0474 | 0.971 | A | A |
| GP | 1 | 0.4600 | 0.0600 | 1.161 | N | A |
| IE | 1 | 0.4400 | 0.0280 | 1.111 | A | A |
| IN | 1 | 0.4240 | 0.0600 | 1.070 | | A |
| IT | 1 | 0.4500 | 0.0400 | 1.136 | A | A |
| KO | 1 | 0.4400 | 0.0138 | 1.111 | | A |
| LL | 1 | 0.4280 | 0.0582 | 1.080 | A | A |
| MH | 1 | 0.3800 | 0.0400 | 0.959 | | A |
| ML | 1 | 0.3900 | 0.0300 | 0.984 | A | A |
| NL | 1 | 0.4340 | 0.1040 | 1.095 | | A |
| OD | 1 | 0.3840 | 0.0430 | 0.969 | | A |
| OK | 1 | 0.4330 | 0.0360 | 1.093 | | A |
| OU | 1 | 0.4090 | 0.1000 | 1.032 | | A |
| RE | 1 | 0.3960 | 0.0440 | 0.999 | | A |
| SK | 1 | 0.5170 | 0.0260 | 1.305 | | W |
| SN | 1 | 0.4350 | 0.0730 | 1.098 | | A |
| SR | 1 | 0.3800 | 0.0700 | 0.959 | | A |
| TM | 1 | 0.4380 | 0.0324 | 1.106 | | A |
| TN | 1 | 0.4304 | 0.0393 | 1.086 | | A |
| TO | 1 | 0.4000 | 0.1500 | 1.010 | | A |
| TW | 1 | 0.4300 | 0.0300 | 1.085 | | A |
| TX | 1 | 0.4550 | 0.0270 | 1.148 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** U234

**EML Value:** 0.3962
**EML Error:** 0.0265

| Labcode | Test # | Reported Value | Reported Error | Reported / EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| WA | 1 | 0.4100 | 0.0600 | 1.035 | | A |
| WC | 1 | 0.4510 | 0.0470 | 1.138 | | A |
| WI | 1 | 0.4040 | 0.0700 | 1.020 | | A |
| YA | 1 | 0.4343 | 0.0199 | 1.096 | | A |

**Total Number Reported:** 45

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** U238

**EML Value:** 0.3963
**EML Error:** 0.0366

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AC | 1 | 0.3200 | 0.0260 | 0.807 | | W |
| AF | 1 | 0.4000 | 0.1000 | 1.009 | | A |
| AG | 1 | 0.4290 | 0.0590 | 1.083 | A | A |
| AI | 1 | 0.4310 | 0.0263 | 1.088 | | A |
| AM | 1 | 0.4100 | 0.0500 | 1.035 | N | A |
| AN | 1 | 0.4300 | 0.0200 | 1.085 | A | A |
| AU | 1 | 0.5140 | 0.0660 | 1.297 | A | N |
| BC | 1 | 0.4770 | 0.0480 | 1.204 | A | W |
| BE | 1 | 0.4110 | 0.0600 | 1.037 | A | A |
| BL | 1 | 0.4700 | | 1.186 | A | W |
| BL | 2 | 0.3700 | 0.0100 | 0.934 | A | A |
| BM | 1 | 0.4600 | 0.0700 | 1.161 | A | A |
| BP | 1 | 0.4440 | 0.0077 | 1.120 | N | A |
| BU | 1 | 0.4200 | 0.0200 | 1.060 | | A |
| BX | 1 | 0.4620 | 0.0480 | 1.166 | A | A |
| CL | 1 | 0.4400 | 0.0900 | 1.110 | W | A |
| EG | 1 | 0.4150 | 0.0640 | 1.047 | A | A |
| EI | 1 | 0.3500 | 0.0200 | 0.883 | | W |
| FR | 1 | 0.4450 | 0.0200 | 1.123 | A | A |
| GA | 1 | 0.4400 | | 1.110 | W | A |
| GE | 1 | 0.3922 | 0.0481 | 0.990 | A | A |
| GP | 1 | 0.4600 | 0.0600 | 1.161 | N | A |
| GT | 1 | 0.4000 | 0.1000 | 1.009 | N | A |
| ID | 1 | 0.4570 | 0.0240 | 1.153 | | A |
| IE | 1 | 0.4400 | 0.0280 | 1.110 | A | A |
| IN | 1 | 0.4260 | 0.0600 | 1.075 | | A |
| IT | 1 | 0.4300 | 0.0100 | 1.085 | A | A |
| KO | 1 | 0.4350 | 0.0137 | 1.098 | | A |
| LL | 1 | 0.3960 | 0.0551 | 0.999 | A | A |
| MH | 1 | 0.4100 | 0.0400 | 1.035 | | A |
| ML | 1 | 0.3900 | 0.0300 | 0.984 | A | A |
| NL | 1 | 0.4310 | 0.1020 | 1.088 | | A |
| OD | 1 | 0.4410 | 0.0480 | 1.113 | | A |
| OK | 1 | 0.3740 | 0.0330 | 0.944 | | A |
| OU | 1 | 0.4110 | 0.1000 | 1.037 | | A |
| RE | 1 | 0.4240 | 0.0470 | 1.070 | | A |
| SK | 1 | 0.5010 | 0.0250 | 1.264 | | W |
| SN | 1 | 0.4470 | 0.0740 | 1.128 | | A |
| SR | 1 | 0.3700 | 0.0600 | 0.934 | | A |
| TE | 1 | 0.5000 | 0.2000 | 1.262 | | W |
| TM | 1 | 0.4490 | 0.0328 | 1.133 | | A |

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** U238

**EML Value:** 0.3963
**EML Error:** 0.0366

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| TN | 1 | 0.4065 | 0.0375 | 1.026 | | A |
| TO | 1 | 0.4600 | 0.1700 | 1.161 | | A |
| TW | 1 | 0.4200 | 0.0300 | 1.060 | | A |
| TX | 1 | 0.4740 | 0.0260 | 1.196 | | W |
| WA | 1 | 0.4400 | 0.0600 | 1.110 | | A |
| WC | 1 | 0.4330 | 0.0460 | 1.093 | | A |
| WI | 1 | 0.4010 | 0.0700 | 1.012 | | A |
| YA | 1 | 0.4304 | 0.0197 | 1.086 | | A |

**Total Number Reported:** 49

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# QAP 48 Results by Nuclide

**Matrix:** WA Water Bq / L
**Radionuclide:** ug U

**EML Value:** 0.0320
**EML Error:** 0.0029

| Labcode | Test # | Reported Value | Reported Error | Reported EML | QAP 47 Evaluation | Evaluation |
|---|---|---|---|---|---|---|
| AG | 1 | 0.0370 | 0.0052 | 1.156 | N | A |
| AR | 1 | 0.0328 | | 1.025 | A | A |
| AR | 2 | 0.0317 | | 0.991 | A | A |
| AR | 3 | 0.0328 | | 1.024 | A | A |
| BE | 1 | 0.0350 | 0.0000 | 1.094 | A | A |
| BQ | 1 | 0.0330 | 0.0010 | 1.031 | N | A |
| BU | 1 | 0.0340 | 0.0040 | 1.063 | | A |
| CA | 1 | 0.0405 | 0.0021 | 1.266 | N | W |
| GE | 1 | 0.0347 | 0.0007 | 1.085 | A | A |
| GS | 1 | 0.0320 | 0.0020 | 1.000 | A | A |
| IE | 1 | 0.0360 | 0.0020 | 1.125 | A | A |
| IT | 1 | 0.0333 | 0.0002 | 1.041 | A | A |
| KA | 1 | 0.0337 | 0.0002 | 1.053 | A | A |
| KO | 1 | 0.0352 | 0.0011 | 1.100 | | A |
| LA | 1 | 0.0400 | 0.0100 | 1.250 | N | W |
| LA | 2 | 0.0400 | 0.0100 | 1.250 | N | W |
| LA | 3 | 0.0400 | 0.0100 | 1.250 | N | W |
| OU | 1 | 0.0335 | 0.0005 | 1.047 | | A |
| RI | 1 | 0.7250 | 0.0220 | 22.656 | | N |
| SA | 1 | 0.0340 | 0.0039 | 1.063 | | A |
| TI | 1 | 0.0320 | 0.0050 | 1.000 | | A |
| TM | 1 | 0.0394 | 0.0020 | 1.231 | | W |
| TN | 1 | 0.0316 | 0.0040 | 0.987 | | A |
| UC | 1 | 0.0350 | | 1.094 | | A |
| UP | 1 | 0.0350 | 0.0040 | 1.094 | | A |
| YA | 1 | 0.0387 | 0.0044 | 1.209 | | W |
| YP | 1 | 0.0339 | 0.0012 | 1.059 | | A |

**Total Number Reported:** 27

**Values for elemental uranium are reported in µg/filter, g or mL.** **pCi/g or mL = Bq x 0.027**

**Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable**

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

# Participating Laboratories in EML QAP48

## Laboratories Reporting Data

| Code | Laboratory Name |
|---|---|
| **AC** | Analytical Chemistry Laboratory, Argonne National Lab |
| **AF** | Air Force Analytical Lab, Brooks AFB |
| **AG** | Paragon Analytics, Inc, Fort Collins, CO |
| **AI** | Nuclear Technology Services, Inc., Roswell, GA |
| **AL** | Ames Laboratory, Ames, IA |
| **AM** | American Radiation Services, Inc., Baton Rouge |
| **AN** | Argonne National Laboratory |
| **AR** | Accu-Labs Research Inc., Golden, CO |
| **AT** | ATL International inc., Germantown, MD |
| **AU** | ORISE EESD/ESSAP, Oak Ridge |
| **BA** | Bettis Atomic Power Lab, West Mifflin, PA |
| **BC** | Babcock & Wilcox MC #42, Lynchburg, VA |
| **BE** | RUST Geotech, Grand Junction, CO |
| **BL** | Barringer Laboratories Inc., Golden, CO |
| **BM** | Battelle Memorial Institute, Columbus, OH |
| **BN** | Brookhaven National Laboratory, Upton, NY |
| **BP** | Battelle Pacific Northwest National Laboratory |
| **BQ** | Becquerel Laboratories Inc., Mississauga, Ontario, Canada |
| **BR** | US Army Research Laboratory, Aberdeen Proving Ground |
| **BS** | B&W Nuclear Envir. Services, Leechburg, PA |
| **BU** | Autoridad Regulatoria, Buenos Aires, Argentina |
| **BX** | B&W Nuclear Envir. Services, Lynchburg, VA |
| **CA** | Atomic Energy Control Board, Ottawa, Canada |
| **CB** | Radiation Protection Bureau, Ontario, Canada |
| **CD** | Gentilly-2 Nuclear Power Plant, Quebec Canada |
| **CH** | California State Dept. Health Serv.,Sanitation & Radiation Laboratory |
| **CL** | Core Laboratories, Casper, WY |
| **CN** | China Institute for Radiation Protection |
| **CO** | Bedford Institute of Oceanography, Dartmouth. Nova Scotia, Canada |
| **CR** | Laboratorio de Fisica Nuclear Aplicada, Costa Rica |
| **CS** | Boeing North American, Canoga Park, CA |
| **DC** | Datachem Laboratories, Salt Lake City |
| **DH** | Duke Engineering Services Hanford |
| **DP** | Duke Power Company, Huntersville, NC |
| **EG** | LMITCO/INEL, Scoville |
| **EI** | Eichrom Industries, Inc., Argonne |
| **EL** | Energy Laboratories, Inc., Casper, WY |
| **EP** | US EPA, Las Vegas |
| **FG** | FGL Environmental, Santa Paula, CA |
| **FJ** | The University of the South Pacific, Fiji Islands |
| **FL** | Florida Dept of Health & Rehab. Serv., Orlando |
| **FM** | Florida Mobile Emergency Radiological Laboratory, Orlando |
| **FN** | Fermi Lab, Batavia, IL |
| **FR** | CEA/DAM - SPR/B3 |
| **FS** | Florida State University, Tallahassee |
| **GA** | Lockheed Martin, Pikton, OH |
| **GC** | Georgia Power Company Environmental Lab |
| **GE** | Environmental Physics, Inc., Charleston, SC |
| **GP** | GPU Nuclear, Inc., Harrisburg, PA |
| **GS** | USGS/NWQL, Arvada, CO |
| **GT** | Georgia Institute of Technology |

# Participating Laboratories in EML QAP48

## Laboratories Reporting Data

| Code | Laboratory Name |
|---|---|
| **HC** | Lawrence Livermore Laboratory, California |
| **HU** | Water Resources Research Centre (VITUKI), Hungary |
| **IA** | Bhabha Atomic Research Centre, India |
| **ID** | DPRA - IRD/CNEN, Rio de Janeiro, Brazil |
| **IE** | IEA, Inc., Morrisville, NC |
| **IL** | ISU Environmental Monitoring Program, Pocatello, ID |
| **IN** | Lockheed Martin Idaho Technical Corp., Analytical Laboratory |
| **IS** | Quanterra- St. Louis |
| **IT** | Quanterra- Richland Laboratory |
| **JE** | Jacobs Engineering, Oak Ridge, TN |
| **JL** | Jefferson Lab, Newport News, VA |
| **KA** | Knolls Atomic Power Lab, Schenectady |
| **KO** | Korea Institute of Nuclear Safety] |
| **KR** | Korea Atomic Energy Research Institute |
| **LA** | Los Alamos National Laboratory, NM |
| **LL** | LLNL Chemistry and Material Science/Environmental |
| **LM** | Los Alamos National Lab, Mercury, NV |
| **LN** | Los Alamos National Lab, ES&H |
| **LV** | UNLV, Dept of Health Physics |
| **LW** | Lawrence Livermore National Lab, Waste |
| **MA** | ORNL Health Sciences Research Div. |
| **ME** | Radiation Control Program, Jamaica Plain, MA |
| **MH** | Maine Health & Environmental Testing Laboratory |
| **ML** | EG&G Mound Applied Technologies, Miamisburg, OH |
| **MS** | Manufacturing Sciences Corporation, Oak Ridge |
| **NA** | US EPA NAREL, Montgomery, AL |
| **NF** | Nuclear Fueld Services, Erwin, TN |
| **NL** | Fluor Daniel Fernald, Inc., Ohio |
| **NM** | Environmental Evaluation Group, Carlsbad, NM |
| **NP** | JAF Environmental Laboratory, New York Power Authority |
| **NR** | Naval Reactors Facility Chemistry, Scoville, ID |
| **NS** | State Lab of Public Health, North Carolina |
| **OB** | OBG Laboratories, East Syracuse, NY |
| **OD** | ORNL, Radiobioassay Lab |
| **OK** | Southwest Laboratory of Oklahoma |
| **OL** | ORNL Environmental Sciences Div. |
| **OT** | ORNL Radioactive Material Analysis Lab |
| **OU** | Outreach Laboratory, Broken Arrow, OK |
| **PA** | Mason & Hanger-Silas Mason Co., Inc., Battelle Pantex, Amarillo, TX |
| **PK** | Pakistan Institute of Nuclear Science & Technology |
| **PO** | Institute of Oceanology PAN, Poland |
| **PR** | Princeton Plasma Physics Lab |
| **RA** | V. G. Khlopin Radium Institute, St. Petersburg, Russia |
| **RC** | US NRC Region I Laboratory, PA |
| **RD** | Radiation Detection Company, CA |
| **RE** | Bechtel Nevada, Mercury, NV |
| **RG** | Thermo Nutech Rocky Flats Plant, Golden |
| **RI** | Rust Federal Services of Hanford, Inc., 222S Lab |
| **RK** | Rock Island Arsenal, Illinois |
| **RL** | Thermo Hanford |
| **SA** | Sandia Labs Radioactive Sample Diag. Prog., NM |

# Participating Laboratories in EML QAP48

## Laboratories Reporting Data

| Code | Laboratory Name |
|---|---|
| SH | Savannah River Ecology Lab |
| SK | Savannah River Plant |
| SL | Stanford Linear Accelerator Center |
| SN | Sanford Cohen Associates, Inc., Montgomery, AL |
| SR | Savannah River Environmental Laboratory |
| ST | SC DHEC, Aiken, South Carolina |
| SW | Southwest Research Institute, San Antonio, TX |
| TE | Teledyne Isotopes Midwest Lab, Northbrook, IL |
| TI | Teledyne Brown Engineering Environmental Services, Westwood, NJ |
| TM | Thermo Nutech Albuquerque Lab, NM |
| TN | Thermo NuTech, Richmond, CA |
| TO | Thermo NUtech Oak Ridge Laboratory |
| TP | Taiwan Power Company, Taipei, Taiwan |
| TT | Tracer Technologies International, Inc., Cleveland |
| TW | Taiwan Radiation Monitoring Center |
| TX | Texas Dept. of Health/Laboratories, Austin |
| UC | Lockheed Martin, Paducah, KY |
| UP | Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge |
| UY | Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge |
| WA | Environmental Radiation Lab, Off. of Public Health Labs. Seattle |
| WC | Westinghouse Hanford Co. |
| WI | WIPP Site, Westinghouse Electric Corp. |
| WP | Washington Public Power Supply System, Richland |
| WS | Weldon Springs Site, St Charles, MO |
| WV | West Valley Nuclear Services Co, Inc, NY |
| YA | Duke Engineering Environmental Lab, Westboro, MA |
| YP | US Army Proving Ground, Yuma, AZ |
| YU | Institute of Occupational and Radiological Health, Yugoslovia |

**Total Reporting Labs: 130**

# Participating Laboratories in EML QAP48

## Laboratories NOT Reporting Data

| Code | Laboratory Name |
|---|---|
| AP | Aberdeen Proving Ground, Aberdeen, MD |
| AW | Argonne National Laboratory, Idaho Falls |
| AY | Analytics, Inc. Atlanta, GA |
| CW | Carlsbad Environmental Monitoring Research Center, NM |
| CZ | ACZ Laboratories, Inc., Steamboat Springs, CO |
| ES | QST Environmental, Gainesville, FL |
| EM | 3M, Empore Disks, St. Paul, MN |
| FC | Marine Nationale Lab del Surveillance de l'Environement, France |
| FT | USACECOM-DSRM, Fort Monmouth, NJ |
| HS | RESL - US DOE, Idaho Falls |
| IR | Idaho National Engineering Laboratory |
| LB | Lawrence Berkeley Lab UCB |
| LE | Lyle Environmental Management, Columbus, Ohio |
| MI | Massachusetts Institute of Technology |
| ND | Dept. of Environmental Health and Safety, NC State University |
| NZ | National Radiation Laboratory, New Zealand |
| OS | Oregon Health Division Radiation Controls Section, Portland |
| RB | US NRC Region III Laboratory, IL |
| SB | SC Dept. of Health and Environment Control Radiological Lab |
| SE | Shealy Environmental Services Inc., Cayce, SC |
| TR | University of Istanbul, Turkey |
| TU | Texas A&M University, Dept of Nuclear Engineering |
| TY | Scientific Production Association, Russia |
| UK | Lockheed Martin Energy Systems, Oak Ridge |
| WE | Westinghouse Electric Corp., Madison, PA |

**Total Non-Reporting Labs: 25**