

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

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# **A**bstract

This report presents the results from the analysis of the 54th set of environmental quality assessment samples (QAP-LIV) that were received on or before June 1, 2001.

## **A**CKNOWLEDGEMENT

This report represents the efforts of the following EML staff: Karin Decker, Michele DeGennaro, Richard Godwin, John Kada, Ada Kong, Stacey Loyland-Asbury, Pamela M. Perry, Raymond J. Lagomarsino, William Rivera, Arnold Boyd, Nancy Chieco, Kevin Clancy, Sylvia Kendall, and Camille Marinetti.

# I NTRODUCTION

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](http://www.eml.doe.gov).

This is the 60th report of this program. Preceding reports in this series are:

HASL-317	(February 1, 1977)	EML-454	(March 1, 1986)
HASL-319	(May 2, 1977)	EML-477	(October 1, 1986)
HASL-323	(August 1, 1977)	EML-478	(March 1, 1987)
HASL-331	(November 1, 1977)	EML-498	(September 1, 1987)
EML-336	(January 1, 1978)	EML-518	(January 2, 1989)
EML-337	(February 1, 1978)	EML-525*	(August 1, 1989)
EML-340	(May 1, 1978)	EML-526	(January 2, 1990)
EML-343	(August 1, 1978)	EML-530	(July 2, 1990)
EML-346	(November 1, 1978)	EML-535	(January 1, 1991)
EML-350	(February 1, 1979)	EML-539	(July 1, 1991)
EML-351	(February 1, 1979)	EML-543	(January 2, 1992)
EML-354	(May 1, 1979)	EML-546	(July 1, 1992)
EML-358	(August 1, 1979)	EML-551	(January 4, 1993)
EML-364	(November 1, 1979)	EML-556	(July 1, 1993)
EML-368	(February 1, 1980)	EML-559	(January 5, 1994)
EML-377	(August 1, 1980)	EML-561	(July 1, 1994)
EML-387	(February 1, 1981)	EML-565	(January 5, 1995)
EML-388	(February 1, 1981)	EML-569	(July 3, 1995)
EML-393	(August 3, 1981)	EML-576	(February 1, 1996, Revised)
EML-402	(February 1, 1982)	EML-581	(July 1, 1996)
EML-414	(April 1, 1983)	EML-587	(January 1997)
EML-417	(September 1, 1983)	EML-591	(July 1997)
EML-426	(March 1, 1984)	EML-594	(January 1998)
PNL-5079	(April 1, 1984)	EML-596	(July 1998)
EML-431	(September 1, 1984)	EML-600	(December 1998)
EML-432	(November 1, 1984)	EML-604	(June 1999)
EML-438	(March 1, 1985)	EML-605	(December 1999)
EML-439	(March 1, 1985)	EML-608	(June 2000)
EML-448	(October 1, 1985)	EML-609	(December 2000)
EML-453	(March 1, 1986)		

\*Please note this is a corrected report number.

# RESULTS

The results from the analysis of QAP-LIV samples (4001 results from 149 laboratories) received on or before June 1, 2001 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 <sup>-1</sup>
Soil	Bq kg <sup>-1</sup>
Vegetation	Bq kg <sup>-1</sup>
Water	Bq L <sup>-1</sup>

The values for elemental uranium are reported in  $\mu\text{g filter}^{-1}$ ,  $\text{g}^{-1}$ , or  $\text{mL}^{-1}$ . Some programs require the use of pCi as reporting units, the conversion can be found on page 3.

The 'EML value' listed in the tables to which the contractors' results are compared is the mean of replicate EML determinations for each nuclide. The EML uncertainty is the standard deviation 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-LIV were developed from percentiles of data distributions for the years 1993-1999.

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<sup>th</sup> and 85<sup>th</sup> 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<sup>th</sup> and 15<sup>th</sup> percentile and between the 85<sup>th</sup> and 95<sup>th</sup> percentile. In other words, the middle 90% of all reported values are acceptable, while the outer 5<sup>th</sup>-15<sup>th</sup> (10%) and 85<sup>th</sup>-95<sup>th</sup> percentiles (10%) are in the warning area. The not acceptable criteria, "N", is established at less than the 5<sup>th</sup> percentile and greater than the 95<sup>th</sup> 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 and Performance Criteria (p. 4).

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 quality objectives.

# QAP 0103/Quality Assessment Program 54 Report

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## List of Labcodes of Participating\* Laboratories for EML QAP-LIV

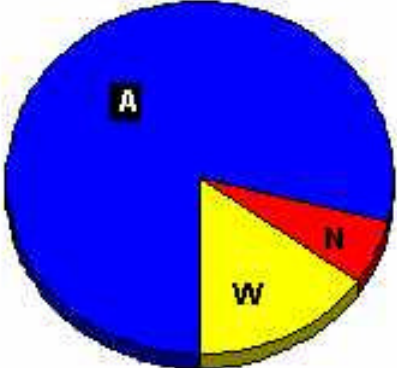
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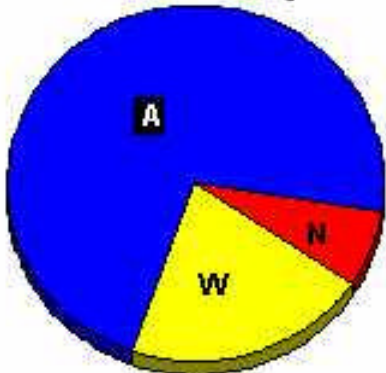
\*Participating Laboratories are those laboratories that were sent samples.

# QAP 54 Summary of 4001 Reported Analyses

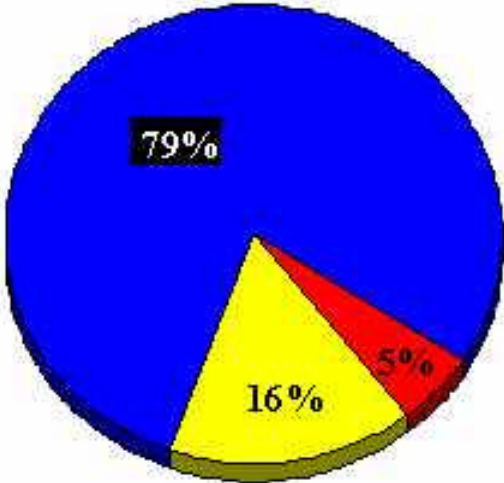
Air Filter: 1140 Analyses



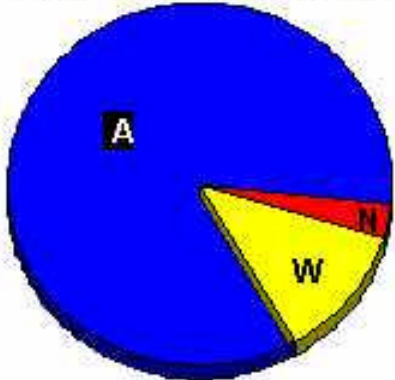
Soil: 1293 Analyses



Summary:  
All Analyses



Vetetation: 547 Analyses



Water: 1021 Analyses



**QAP 54 Statistical Summary**

Nuclide	EML Value	EML Error	<u>Reported Values</u> EML Value			No.* of Reported Values
			Mean	Median	Std. Dev.	
<b>Matrix: AI</b>						
AM241	0.486	0.016	1.003	0.984	0.179	77
Bq U	0.093	0.004	1.089	1.039	0.190	11
CO60	19.440	0.500	1.001	0.993	0.064	135
CS134	2.830	0.160	0.950	0.960	0.099	118
CS137	8.760	0.340	1.049	1.037	0.088	137
GROSS ALPHA	3.970	0.300	0.922	0.904	0.159	92
GROSS BETA	2.580	0.150	1.068	1.050	0.145	95
MN54	6.520	0.280	1.043	1.041	0.093	133
PU238	0.215	0.009	0.965	0.977	0.101	51
PU239	0.136	0.012	0.986	1.022	0.103	51
RU106	49.540	3.530	1.069	1.090	0.100	33
RU106	49.540	3.530	1.069	1.090	0.100	33
SR90	7.100	0.220	1.019	1.050	0.174	46
U234	0.046	0.002	1.116	1.046	0.239	37
U238	0.046	0.002	1.044	1.039	0.154	38
UG U	3.700	0.160	1.022	1.028	0.133	18

<b>Matrix: SO</b>						
AC228	42.700	1.700	0.967	0.941	0.106	101
AM241	14.800	0.510	1.034	1.000	0.212	99
BI212	42.000	4.100	0.877	0.918	0.214	82
BI214	32.600	1.400	0.969	0.940	0.137	100
Bq U	91.800	2.300	0.863	0.880	0.097	19
CS137	1740.000	90.000	1.022	1.019	0.088	147
K40	468.000	25.000	1.034	1.028	0.104	129
PB212	41.500	2.200	1.011	0.990	0.131	97
PB214	34.300	1.600	0.970	0.947	0.137	98
PU238	0.910	0.100	1.065	1.087	0.221	18
PU239	25.600	0.670	1.009	0.998	0.090	70
SR90	69.000	5.700	1.034	0.987	0.182	59
TH234	46.600	3.500	1.199	1.173	0.338	51
U234	43.600	1.800	0.904	0.906	0.098	47
U238	46.100	1.300	0.886	0.885	0.106	51
UG U	3.730	0.020	0.801	0.835	0.162	32

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

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**QAP 54 Statistical Summary**

Nuclide	EML Value	EML Error	<u>Reported Values</u> EML Value			No.* of Reported Values
			Mean	Median	Std. Dev.	
<b>Matrix: VE</b>						
AM241	6.170	0.320	1.080	1.050	0.190	67
CM244	3.690	0.290	0.900	0.921	0.110	33
CO60	30.400	1.200	1.050	1.030	0.108	110
CS137	842.000	42.000	1.045	1.033	0.095	111
K40	603.000	32.000	1.072	1.075	0.117	102
PU238	0.660	0.020	1.059	1.167	0.164	11
PU239	9.580	1.300	0.937	0.939	0.108	45
SR90	1330.000	70.000	0.889	0.895	0.117	51

<b>Matrix: WA</b>						
AM241	1.670	0.080	1.026	1.000	0.131	87
Bq U	2.120	0.090	0.960	0.967	0.113	23
CO60	98.200	3.600	1.028	1.032	0.049	143
CS137	73.000	3.700	1.039	1.041	0.055	142
GROSS ALPHA	1900.000	190.000	0.964	0.966	0.104	80
GROSS BETA	1297.000	100.000	1.062	1.044	0.163	89
H3	79.300	2.000	1.116	1.086	0.232	89
PU238	1.580	0.090	0.985	0.987	0.077	61
PU239	1.640	0.090	1.003	1.006	0.085	63
SR90	4.400	0.200	0.978	0.969	0.123	71
U234	1.040	0.050	0.981	0.972	0.082	51
U238	1.040	0.040	0.975	0.962	0.073	53
UG U	0.080	0.003	0.981	0.988	0.088	31

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 54 Control Limits\* by Matrix**

Nuclide	Lower Limit	Lower Middle Limit	Upper Middle Limit	Upper Limit
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**Matrix: AI**

AM241	0.69	0.87	1.38	2.40
Bq U	0.80	0.90	1.53	2.54
CO60	0.79	0.87	1.13	1.30
CS134	0.74	0.82	1.10	1.21
CS137	0.78	0.88	1.16	1.35
GROSS ALPHA	0.57	0.83	1.24	1.47
GROSS BETA	0.76	0.88	1.29	1.52
MN54	0.80	0.89	1.20	1.36
PU238	0.66	0.88	1.12	1.35
PU239	0.69	0.89	1.13	1.29
RU106	0.70	0.80	1.20	1.40
RU106	0.70	0.80	1.20	1.40
SR90	0.55	0.80	1.31	2.05
U234	0.80	0.90	1.36	1.92
U238	0.80	0.90	1.26	1.59
UG U	0.72	0.90	1.23	1.55

**Matrix: SO**

AC228	0.80	0.89	1.24	1.50
AM241	0.63	0.84	1.53	2.64
BI212	0.45	0.56	1.10	1.23
BI214	0.78	0.88	1.26	1.50
Bq U	0.62	0.80	1.12	1.35
CS137	0.80	0.90	1.18	1.29
K40	0.80	0.90	1.23	1.37
PB212	0.74	0.90	1.22	1.36
PB214	0.76	0.90	1.30	1.53
PU238	0.60	0.79	1.26	2.73
PU239	0.71	0.87	1.16	1.33
SR90	0.61	0.78	1.46	3.91
TH234	0.68	0.81	1.61	2.36
U234	0.71	0.86	1.11	1.27
U238	0.63	0.83	1.11	1.34
UG U	0.47	0.67	1.10	1.18

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\*Control limits are established from historical QAP data and reported as:  
the ratio of Reported Value vs. EML Value

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**QAP 54 Control Limits\* by Matrix**

Nuclide	Lower Limit	Lower Middle Limit	Upper Middle Limit	Upper Limit
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**Matrix: VE**

AM241	0.72	0.88	1.48	2.34
CM244	0.61	0.82	1.35	1.61
CO60	0.75	0.88	1.25	1.51
CS137	0.80	0.90	1.23	1.37
K40	0.78	0.90	1.25	1.43
PU238	0.44	0.74	1.42	2.39
PU239	0.67	0.85	1.16	1.49
SR90	0.52	0.74	1.11	1.23

**Matrix: WA**

AM241	0.76	0.90	1.22	1.48
Bq U	0.73	0.90	1.26	1.37
CO60	0.80	0.90	1.12	1.20
CS137	0.80	0.90	1.15	1.24
GROSS ALPHA	0.58	0.79	1.12	1.26
GROSS BETA	0.56	0.75	1.33	1.50
H3	0.74	0.84	1.31	2.29
PU238	0.74	0.90	1.10	1.22
PU239	0.75	0.90	1.11	1.26
SR90	0.64	0.85	1.18	1.50
U234	0.80	0.90	1.23	1.40
U238	0.80	0.90	1.19	1.29
UG U	0.80	0.90	1.15	1.26

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

\*Control limits are established from historical QAP data and reported as:  
the ratio of Reported Value vs. EML Value



**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
<b>Lab: AB</b> Accura Analytical Labs, Norcross, GA							
WA	2	0	2	4	50	0	50
<b>Totals:</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>50%</b>	<b>0%</b>	<b>50%</b>
<b>Lab: AC</b> Analytical Chemistry Laboratory, Argonne National Lab							
SO	6	1	0	7	86	14	0
WA	4	1	1	6	67	17	17
AI	4	0	0	4	100	0	0
<b>Totals:</b>	<b>14</b>	<b>2</b>	<b>1</b>	<b>17</b>	<b>82%</b>	<b>12%</b>	<b>6%</b>
<b>Lab: AF</b> Air Force Analytical Lab (AFIERA/SDRR), Brooks AFB							
VE	5	2	0	7	71	29	0
SO	6	5	2	13	46	38	15
WA	7	2	0	9	78	22	0
AI	9	1	3	13	69	8	23
<b>Totals:</b>	<b>27</b>	<b>10</b>	<b>5</b>	<b>42</b>	<b>64%</b>	<b>24%</b>	<b>12%</b>
<b>Lab: AG</b> Paragon Analytics, Inc, Fort Collins, CO							
VE	8	0	0	8	100	0	0
AI	9	0	0	9	100	0	0
SO	11	1	1	13	85	8	8
WA	9	0	1	10	90	0	10
<b>Totals:</b>	<b>37</b>	<b>1</b>	<b>2</b>	<b>40</b>	<b>93%</b>	<b>3%</b>	<b>5%</b>
<b>Lab: AI</b> Nuclear Technology Services, Inc., Roswell, GA							
SO	6	5	1	12	50	42	8
WA	5	4	1	10	50	40	10
AI	4	7	0	11	36	64	0
<b>Totals:</b>	<b>15</b>	<b>16</b>	<b>2</b>	<b>33</b>	<b>45%</b>	<b>48%</b>	<b>6%</b>
<b>Lab: AM</b> American Radiation Services, Inc., Baton Rouge							
VE	6	0	0	6	100	0	0
AI	9	2	2	13	69	15	15
SO	8	6	0	14	57	43	0
WA	10	1	1	12	83	8	8
<b>Totals:</b>	<b>33</b>	<b>9</b>	<b>3</b>	<b>45</b>	<b>73%</b>	<b>20%</b>	<b>7%</b>
<b>Lab: AN</b> Argonne National Laboratory							
SO	6	1	0	7	86	14	0
WA	9	0	0	9	100	0	0

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
AI	10	0	0	10	100	0	0
<b>Totals:</b>	<b>25</b>	<b>1</b>	<b>0</b>	<b>26</b>	<b>96%</b>	<b>4%</b>	<b>0%</b>
<b>Lab: AR</b> Acculabs Inc., Golden, CO							
VE	7	1	0	8	88	13	0
SO	10	4	0	14	71	29	0
WA	12	0	0	12	100	0	0
AI	12	1	0	13	92	8	0
<b>Totals:</b>	<b>41</b>	<b>6</b>	<b>0</b>	<b>47</b>	<b>87%</b>	<b>13%</b>	<b>0%</b>
<b>Lab: AS</b> USACHPPM, Aberdeen Proving Ground, MD							
SO	8	1	0	9	89	11	0
WA	4	1	2	7	57	14	29
AI	6	1	0	7	86	14	0
<b>Totals:</b>	<b>18</b>	<b>3</b>	<b>2</b>	<b>23</b>	<b>78%</b>	<b>13%</b>	<b>9%</b>
<b>Lab: AT</b> ATL International inc., Germantown, MD							
VE	7	0	0	7	100	0	0
AI	13	0	0	13	100	0	0
WA	12	0	0	12	100	0	0
SO	6	6	0	12	50	50	0
<b>Totals:</b>	<b>38</b>	<b>6</b>	<b>0</b>	<b>44</b>	<b>86%</b>	<b>14%</b>	<b>0%</b>
<b>Lab: AU</b> ORISE RSAT/ESSAP, Oak Ridge							
VE	5	1	0	6	83	17	0
SO	11	2	0	13	85	15	0
WA	9	2	0	11	82	18	0
AI	11	0	0	11	100	0	0
<b>Totals:</b>	<b>36</b>	<b>5</b>	<b>0</b>	<b>41</b>	<b>88%</b>	<b>12%</b>	<b>0%</b>
<b>Lab: AW</b> Argonne West National Lab							
WA	2	0	0	2	100	0	0
AI	4	1	0	5	80	20	0
<b>Totals:</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>7</b>	<b>86%</b>	<b>14%</b>	<b>0%</b>
<b>Lab: BA</b> Bettis Atomic Power Lab, West Mifflin, PA							
VE	2	0	0	2	100	0	0
SO	1	0	0	1	100	0	0
WA	0	2	0	2	0	100	0
AI	3	0	0	3	100	0	0

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
<b>Totals:</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>8</b>	<b>75%</b>	<b>25%</b>	<b>0%</b>
<b>Lab: BC</b> BWX Technologies, Inc, Naval Nuclear Fuel Division, Lynchburg, VA							
WA	5	2	0	7	71	29	0
AI	8	1	0	9	89	11	0
SO	4	0	0	4	100	0	0
VE	1	3	0	4	25	75	0
<b>Totals:</b>	<b>18</b>	<b>6</b>	<b>0</b>	<b>24</b>	<b>75%</b>	<b>25%</b>	<b>0%</b>
<b>Lab: BE</b> Grand Junction Office Analytical Laboratory							
SO	12	1	0	13	92	8	0
WA	12	0	0	12	100	0	0
AI	13	0	0	13	100	0	0
VE	7	0	0	7	100	0	0
<b>Totals:</b>	<b>44</b>	<b>1</b>	<b>0</b>	<b>45</b>	<b>98%</b>	<b>2%</b>	<b>0%</b>
<b>Lab: BM</b> Battelle Memorial Institute, Columbus, OH							
VE	4	1	0	5	80	20	0
SO	6	0	0	6	100	0	0
WA	8	0	0	8	100	0	0
AI	8	0	0	8	100	0	0
<b>Totals:</b>	<b>26</b>	<b>1</b>	<b>0</b>	<b>27</b>	<b>96%</b>	<b>4%</b>	<b>0%</b>
<b>Lab: BN</b> Brookhaven National Laboratory, Upton, NY							
AI	4	2	1	7	57	29	14
VE	3	0	1	4	75	0	25
SO	7	1	0	8	88	13	0
WA	4	1	1	6	67	17	17
<b>Totals:</b>	<b>18</b>	<b>4</b>	<b>3</b>	<b>25</b>	<b>72%</b>	<b>16%</b>	<b>12%</b>
<b>Lab: BP</b> Battelle Pacific Northwest National Laboratory							
WA	2	0	0	2	100	0	0
AI	2	0	0	2	100	0	0
<b>Totals:</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: BQ</b> Becquerel Laboratories Inc., Mississauga, Ontario, Canada							
VE	1	1	0	2	50	50	0
SO	5	1	3	9	56	11	33
WA	3	2	0	5	60	40	0
AI	7	0	0	7	100	0	0

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
<b>Totals:</b>	<b>16</b>	<b>4</b>	<b>3</b>	<b>23</b>	<b>70%</b>	<b>17%</b>	<b>13%</b>
<b>Lab: BU</b> Autoridad Regulatoria, Buenos Aires, Argentina							
WA	10	1	0	11	91	9	0
AI	11	1	0	12	92	8	0
SO	10	4	0	14	71	29	0
VE	7	1	0	8	88	13	0
<b>Totals:</b>	<b>38</b>	<b>7</b>	<b>0</b>	<b>45</b>	<b>84%</b>	<b>16%</b>	<b>0%</b>
<b>Lab: BX</b> BWX Technologies, Inc., Lynchburg, VA							
SO	10	2	0	12	83	17	0
WA	9	2	0	11	82	18	0
AI	9	3	0	12	75	25	0
VE	6	0	1	7	86	0	14
<b>Totals:</b>	<b>34</b>	<b>7</b>	<b>1</b>	<b>42</b>	<b>81%</b>	<b>17%</b>	<b>2%</b>
<b>Lab: CA</b> Atomic Energy Control Board, Ottawa, Canada							
AI	5	1	0	6	83	17	0
SO	1	0	0	1	100	0	0
WA	3	1	1	5	60	20	20
<b>Totals:</b>	<b>9</b>	<b>2</b>	<b>1</b>	<b>12</b>	<b>75%</b>	<b>17%</b>	<b>8%</b>
<b>Lab: CB</b> Radiation Protection Bureau, Ontario, Canada							
WA	7	0	0	7	100	0	0
AI	6	0	3	9	67	0	33
<b>Totals:</b>	<b>13</b>	<b>0</b>	<b>3</b>	<b>16</b>	<b>81%</b>	<b>0%</b>	<b>19%</b>
<b>Lab: CD</b> Gentilly-2 Nuclear Power Plant, Quebec Canada							
VE	3	0	0	3	100	0	0
SO	7	0	0	7	100	0	0
WA	4	0	0	4	100	0	0
AI	6	0	0	6	100	0	0
<b>Totals:</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: CE</b> Environmental Monitoring Laboratory, New Brunswick, Canada							
VE	2	1	0	3	67	33	0
SO	2	0	0	2	100	0	0
WA	5	1	0	6	83	17	0
AI	7	0	0	7	100	0	0

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
<b>Totals:</b>	<b>16</b>	<b>2</b>	<b>0</b>	<b>18</b>	<b>89%</b>	<b>11%</b>	<b>0%</b>
<b>Lab: CF</b> Freshwater Institute Radiochemistry Winnipeg, Manitoba, Canada							
WA	12	0	0	12	100	0	0
VE	6	3	0	9	67	33	0
SO	9	2	4	15	60	13	27
<b>Totals:</b>	<b>27</b>	<b>5</b>	<b>4</b>	<b>36</b>	<b>75%</b>	<b>14%</b>	<b>11%</b>
<b>Lab: CH</b> California State Dept. Health Serv., Sanitation & Radiation Laboratory							
AI	13	0	0	13	100	0	0
WA	13	0	0	13	100	0	0
SO	12	2	0	14	86	14	0
VE	7	0	0	7	100	0	0
<b>Totals:</b>	<b>45</b>	<b>2</b>	<b>0</b>	<b>47</b>	<b>96%</b>	<b>4%</b>	<b>0%</b>
<b>Lab: CL</b> Enviro-Test Laboratories, Casper, WY							
VE	4	0	3	7	57	0	43
SO	8	2	4	14	57	14	29
WA	6	3	1	10	60	30	10
AI	7	5	1	13	54	38	8
<b>Totals:</b>	<b>25</b>	<b>10</b>	<b>9</b>	<b>44</b>	<b>57%</b>	<b>23%</b>	<b>20%</b>
<b>Lab: CM</b> Metropolitan Water Reclamation District of Greater Chicago							
SO	12	2	0	14	86	14	0
WA	14	1	0	15	93	7	0
<b>Totals:</b>	<b>26</b>	<b>3</b>	<b>0</b>	<b>29</b>	<b>90%</b>	<b>10%</b>	<b>0%</b>
<b>Lab: CN</b> China Institute for Radiation Protection							
VE	4	0	0	4	100	0	0
SO	6	1	0	7	86	14	0
AI	6	0	0	6	100	0	0
<b>Totals:</b>	<b>16</b>	<b>1</b>	<b>0</b>	<b>17</b>	<b>94%</b>	<b>6%</b>	<b>0%</b>
<b>Lab: CO</b> Bedford Institute of Oceanography, Dartmouth, Nova Scotia, Canada							
SO	8	1	0	9	89	11	0
<b>Totals:</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>9</b>	<b>89%</b>	<b>11%</b>	<b>0%</b>

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
<b>Lab: CS</b> Rocketdyne Propulsion & Power, Canoga Park, CA							
WA	2	1	0	3	67	33	0
AI	5	1	0	6	83	17	0
SO	4	4	0	8	50	50	0
<b>Totals:</b>	<b>11</b>	<b>6</b>	<b>0</b>	<b>17</b>	<b>65%</b>	<b>35%</b>	<b>0%</b>
<b>Lab: CU</b> Universite Laval, Quebec Canada							
SO	6	6	2	14	43	43	14
WA	3	1	0	4	75	25	0
AI	10	0	0	10	100	0	0
VE	6	0	0	6	100	0	0
<b>Totals:</b>	<b>25</b>	<b>7</b>	<b>2</b>	<b>34</b>	<b>74%</b>	<b>21%</b>	<b>6%</b>
<b>Lab: CW</b> Carlsbad Environmental Monitoring Research Center, NM							
VE	7	0	0	7	100	0	0
SO	9	3	0	12	75	25	0
WA	7	2	0	9	78	22	0
AI	9	0	0	9	100	0	0
<b>Totals:</b>	<b>32</b>	<b>5</b>	<b>0</b>	<b>37</b>	<b>86%</b>	<b>14%</b>	<b>0%</b>
<b>Lab: CZ</b> ACZ Laboratories, Inc., Steamboat Springs, CO							
WA	2	0	0	2	100	0	0
<b>Totals:</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: DC</b> Datachem Laboratories, Salt Lake City							
WA	2	0	0	2	100	0	0
<b>Totals:</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: DH</b> Duke Engineering Services Hanford							
AI	6	0	0	6	100	0	0
SO	6	1	0	7	86	14	0
WA	3	1	1	5	60	20	20
<b>Totals:</b>	<b>15</b>	<b>2</b>	<b>1</b>	<b>18</b>	<b>83%</b>	<b>11%</b>	<b>6%</b>
<b>Lab: EC</b> Envirocare of Utah							
SO	25	14	6	45	56	31	13
WA	14	1	0	15	93	7	0
AI	28	7	0	35	80	20	0

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
<b>Totals:</b>	<b>67</b>	<b>22</b>	<b>6</b>	<b>95</b>	<b>71%</b>	<b>23%</b>	<b>6%</b>
<b>Lab: EG</b> INEEL TRA Radioanalytical Laboratory							
AI	10	2	0	12	83	17	0
VE	4	3	0	7	57	43	0
SO	15	2	1	18	83	11	6
WA	9	3	1	13	69	23	8
<b>Totals:</b>	<b>38</b>	<b>10</b>	<b>2</b>	<b>50</b>	<b>76%</b>	<b>20%</b>	<b>4%</b>
<b>Lab: EP</b> US EPA, Las Vegas							
WA	5	0	0	5	100	0	0
AI	6	0	0	6	100	0	0
<b>Totals:</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: FE</b> Fernald WPRAP Field Office, Ohio							
SO	7	1	1	9	78	11	11
WA	5	0	0	5	100	0	0
AI	0	1	1	2	0	50	50
<b>Totals:</b>	<b>12</b>	<b>2</b>	<b>2</b>	<b>16</b>	<b>75%</b>	<b>13%</b>	<b>13%</b>
<b>Lab: FG</b> FGL Environmental, Santa Paula, CA							
AI	4	2	0	6	67	33	0
WA	5	0	0	5	100	0	0
SO	6	0	0	6	100	0	0
<b>Totals:</b>	<b>15</b>	<b>2</b>	<b>0</b>	<b>17</b>	<b>88%</b>	<b>12%</b>	<b>0%</b>
<b>Lab: FJ</b> The University of the South Pacific, Fiji Islands							
SO	5	1	2	8	63	13	25
AI	0	0	3	3	0	0	100
VE	2	1	0	3	67	33	0
<b>Totals:</b>	<b>7</b>	<b>2</b>	<b>5</b>	<b>14</b>	<b>50%</b>	<b>14%</b>	<b>36%</b>
<b>Lab: FL</b> Florida Dept of Health & Rehab. Serv., Orlando							
VE	4	0	0	4	100	0	0
SO	6	1	3	10	60	10	30
WA	7	0	0	7	100	0	0
AI	7	1	0	8	88	13	0
<b>Totals:</b>	<b>24</b>	<b>2</b>	<b>3</b>	<b>29</b>	<b>83%</b>	<b>7%</b>	<b>10%</b>

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
<b>Lab: FM</b> Florida Mobile Emergency Radiological Laboratory, Orlando							
WA	3	0	0	3	100	0	0
AI	5	1	0	6	83	17	0
<b>Totals:</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>9</b>	<b>89%</b>	<b>11%</b>	<b>0%</b>
<b>Lab: FN</b> Fermi Lab, Batavia, IL							
AI	5	2	0	7	71	29	0
VE	3	0	0	3	100	0	0
SO	6	1	0	7	86	14	0
WA	5	0	0	5	100	0	0
<b>Totals:</b>	<b>19</b>	<b>3</b>	<b>0</b>	<b>22</b>	<b>86%</b>	<b>14%</b>	<b>0%</b>
<b>Lab: FR</b> CEA/SACLAY - SPR/SRSE, France							
WA	3	0	0	3	100	0	0
SO	9	1	0	10	90	10	0
VE	4	0	0	4	100	0	0
<b>Totals:</b>	<b>16</b>	<b>1</b>	<b>0</b>	<b>17</b>	<b>94%</b>	<b>6%</b>	<b>0%</b>
<b>Lab: FS</b> Florida State University, Tallahassee							
SO	3	3	1	7	43	43	14
<b>Totals:</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>7</b>	<b>43%</b>	<b>43%</b>	<b>14%</b>
<b>Lab: FU</b> FUSRAP Laboratory, Missouri							
VE	4	0	0	4	100	0	0
SO	10	1	0	11	91	9	0
<b>Totals:</b>	<b>14</b>	<b>1</b>	<b>0</b>	<b>15</b>	<b>93%</b>	<b>7%</b>	<b>0%</b>
<b>Lab: GA</b> Lockheed Martin, Pikton, OH							
VE	6	0	0	6	100	0	0
SO	9	2	0	11	82	18	0
WA	7	0	0	7	100	0	0
AI	7	1	1	9	78	11	11
<b>Totals:</b>	<b>29</b>	<b>3</b>	<b>1</b>	<b>33</b>	<b>88%</b>	<b>9%</b>	<b>3%</b>
<b>Lab: GC</b> Georgia Power Company Environmental Lab							
VE	9	0	0	9	100	0	0
SO	18	3	3	24	75	13	13
WA	8	0	0	8	100	0	0
AI	11	1	0	12	92	8	0



**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
<b>Totals:</b>	<b>46</b>	<b>4</b>	<b>3</b>	<b>53</b>	<b>87%</b>	<b>8%</b>	<b>6%</b>
<b>Lab: GE</b> General Engineering Labs, Charleston, SC							
SO	11	3	0	14	79	21	0
WA	10	2	0	12	83	17	0
VE	7	0	0	7	100	0	0
AI	11	2	0	13	85	15	0
<b>Totals:</b>	<b>39</b>	<b>7</b>	<b>0</b>	<b>46</b>	<b>85%</b>	<b>15%</b>	<b>0%</b>
<b>Lab: GS</b> USGS/NWQL, Arvada, CO							
WA	4	2	0	6	67	33	0
<b>Totals:</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>6</b>	<b>67%</b>	<b>33%</b>	<b>0%</b>
<b>Lab: GT</b> Georgia Institute of Technology							
VE	7	1	0	8	88	13	0
SO	5	1	0	6	83	17	0
WA	9	1	0	10	90	10	0
AI	12	0	0	12	100	0	0
<b>Totals:</b>	<b>33</b>	<b>3</b>	<b>0</b>	<b>36</b>	<b>92%</b>	<b>8%</b>	<b>0%</b>
<b>Lab: HC</b> Lawrence Livermore Laboratory, California							
WA	3	0	0	3	100	0	0
AI	2	0	0	2	100	0	0
<b>Totals:</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: HT</b> Technical University, Budapest, Hungary							
SO	4	0	0	4	100	0	0
WA	4	0	0	4	100	0	0
<b>Totals:</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: HU</b> Water Resources Research Centre (VITUKI), Hungary							
VE	4	0	0	4	100	0	0
AI	4	1	1	6	67	17	17
SO	7	1	1	9	78	11	11
WA	1	3	1	5	20	60	20
<b>Totals:</b>	<b>16</b>	<b>5</b>	<b>3</b>	<b>24</b>	<b>67%</b>	<b>21%</b>	<b>13%</b>

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
<b>Lab: ID</b> Institute of Radiation Protection and Dosimetry, IRD/ CNEN, Brazil							
VE	5	1	0	6	83	17	0
SO	8	4	0	12	67	33	0
AI	8	1	2	11	73	9	18
<b>Totals:</b>	<b>21</b>	<b>6</b>	<b>2</b>	<b>29</b>	<b>72%</b>	<b>21%</b>	<b>7%</b>
<b>Lab: IL</b> ISU Environmental Assessment Laboratory, Pocatello, ID							
WA	4	0	0	4	100	0	0
AI	6	0	0	6	100	0	0
<b>Totals:</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: IN</b> INEEL INTECH Radioanalytical Laboratory							
SO	16	3	0	19	84	16	0
WA	23	4	0	27	85	15	0
VE	4	2	0	6	67	33	0
AI	3	0	0	3	100	0	0
<b>Totals:</b>	<b>46</b>	<b>9</b>	<b>0</b>	<b>55</b>	<b>84%</b>	<b>16%</b>	<b>0%</b>
<b>Lab: IS</b> Severn Trent Laboratories - St. Louis							
VE	4	2	2	8	50	25	25
SO	9	6	0	15	60	40	0
WA	12	1	0	13	92	8	0
AI	11	1	2	14	79	7	14
<b>Totals:</b>	<b>36</b>	<b>10</b>	<b>4</b>	<b>50</b>	<b>72%</b>	<b>20%</b>	<b>8%</b>
<b>Lab: IT</b> Severn Trent Laboratories - Richland							
VE	6	1	0	7	86	14	0
AI	10	3	0	13	77	23	0
SO	6	7	1	14	43	50	7
WA	9	3	0	12	75	25	0
<b>Totals:</b>	<b>31</b>	<b>14</b>	<b>1</b>	<b>46</b>	<b>67%</b>	<b>30%</b>	<b>2%</b>
<b>Lab: JL</b> Jefferson Lab, Newport News, VA							
WA	6	0	0	6	100	0	0
AI	11	1	0	12	92	8	0
<b>Totals:</b>	<b>17</b>	<b>1</b>	<b>0</b>	<b>18</b>	<b>94%</b>	<b>6%</b>	<b>0%</b>
<b>Lab: KA</b> Knolls Atomic Power Lab, Schenectady							
SO	4	0	0	4	100	0	0
WA	7	1	0	8	88	13	0

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
AI	1	1	0	2	50	50	0
<b>Totals:</b>	<b>12</b>	<b>2</b>	<b>0</b>	<b>14</b>	<b>86%</b>	<b>14%</b>	<b>0%</b>
<b>Lab: KE</b> Uljin NPP Environmental Radiation Laboratory, South Korea							
VE	3	0	0	3	100	0	0
SO	3	0	1	4	75	0	25
AI	5	0	2	7	71	0	29
<b>Totals:</b>	<b>11</b>	<b>0</b>	<b>3</b>	<b>14</b>	<b>79%</b>	<b>0%</b>	<b>21%</b>
<b>Lab: KG</b> Korea Institute of Geoscience And Mineral Resources (KIGAM)							
WA	1	0	0	1	100	0	0
<b>Totals:</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: KO</b> Korea Institute of Nuclear Safety							
AI	14	0	0	14	100	0	0
WA	13	0	0	13	100	0	0
VE	7	1	0	8	88	13	0
SO	13	3	0	16	81	19	0
<b>Totals:</b>	<b>47</b>	<b>4</b>	<b>0</b>	<b>51</b>	<b>92%</b>	<b>8%</b>	<b>0%</b>
<b>Lab: KR</b> Korea Atomic Energy Research Institute							
VE	17	3	1	21	81	14	5
SO	20	10	0	30	67	33	0
AI	14	8	0	22	64	36	0
<b>Totals:</b>	<b>51</b>	<b>21</b>	<b>1</b>	<b>73</b>	<b>70%</b>	<b>29%</b>	<b>1%</b>
<b>Lab: LA</b> Los Alamos National Laboratory, NM							
VE	18	0	0	18	100	0	0
SO	26	7	3	36	72	19	8
WA	29	1	0	30	97	3	0
<b>Totals:</b>	<b>73</b>	<b>8</b>	<b>3</b>	<b>84</b>	<b>87%</b>	<b>10%</b>	<b>4%</b>
<b>Lab: LB</b> Lawrence Berkeley Lab UCB							
VE	4	0	0	4	100	0	0
SO	3	1	5	9	33	11	56
WA	6	0	2	8	75	0	25
AI	7	0	0	7	100	0	0
<b>Totals:</b>	<b>20</b>	<b>1</b>	<b>7</b>	<b>28</b>	<b>71%</b>	<b>4%</b>	<b>25%</b>

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
<b>Lab: LL</b> LLNL Chemistry and Material Science/Environmental							
VE	1	0	0	1	100	0	0
AI	3	2	2	7	43	29	29
SO	4	1	1	6	67	17	17
WA	6	2	0	8	75	25	0
<b>Totals:</b>	<b>14</b>	<b>5</b>	<b>3</b>	<b>22</b>	<b>64%</b>	<b>23%</b>	<b>14%</b>
<b>Lab: LM</b> American Radiation Services of New Mexico, Los Alamos							
VE	3	1	0	4	75	25	0
SO	7	1	0	8	88	13	0
WA	3	2	1	6	50	33	17
AI	6	1	0	7	86	14	0
<b>Totals:</b>	<b>19</b>	<b>5</b>	<b>1</b>	<b>25</b>	<b>76%</b>	<b>20%</b>	<b>4%</b>
<b>Lab: LN</b> Los Alamos National Lab, ES&H							
WA	3	0	0	3	100	0	0
AI	10	4	0	14	71	29	0
<b>Totals:</b>	<b>13</b>	<b>4</b>	<b>0</b>	<b>17</b>	<b>76%</b>	<b>24%</b>	<b>0%</b>
<b>Lab: LV</b> UNLV, Dept of Health Physics							
WA	6	1	2	9	67	11	22
VE	3	0	1	4	75	0	25
AI	6	4	1	11	55	36	9
SO	4	3	1	8	50	38	13
<b>Totals:</b>	<b>19</b>	<b>8</b>	<b>5</b>	<b>32</b>	<b>59%</b>	<b>25%</b>	<b>16%</b>
<b>Lab: LW</b> Lawrence Livermore National Lab, Waste							
SO	4	1	2	7	57	14	29
WA	9	1	0	10	90	10	0
<b>Totals:</b>	<b>13</b>	<b>2</b>	<b>2</b>	<b>17</b>	<b>76%</b>	<b>12%</b>	<b>12%</b>
<b>Lab: ME</b> Radiation Control Program, Jamaica Plain, MA							
VE	9	0	2	11	82	0	18
SO	22	3	2	27	81	11	7
WA	11	1	0	12	92	8	0
AI	16	5	0	21	76	24	0
<b>Totals:</b>	<b>58</b>	<b>9</b>	<b>4</b>	<b>71</b>	<b>82%</b>	<b>13%</b>	<b>6%</b>
<b>Lab: MH</b> Maine Health & Environmental Testing Laboratory							
SO	6	3	0	9	67	33	0

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
WA	5	3	0	8	63	38	0
VE	4	0	0	4	100	0	0
AI	5	2	0	7	71	29	0
<b>Totals:</b>	<b>20</b>	<b>8</b>	<b>0</b>	<b>28</b>	<b>71%</b>	<b>29%</b>	<b>0%</b>
<b>Lab: MI</b> Massachusetts Institute of Technology							
WA	7	2	1	10	70	20	10
AI	4	1	1	6	67	17	17
<b>Totals:</b>	<b>11</b>	<b>3</b>	<b>2</b>	<b>16</b>	<b>69%</b>	<b>19%</b>	<b>13%</b>
<b>Lab: MI</b> Mississippi State Department of Health, Jackson							
AI	0	1	5	6	0	17	83
<b>Totals:</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>6</b>	<b>0%</b>	<b>17%</b>	<b>83%</b>
<b>Lab: ML</b> Babcock & Wilcox of Ohio, Mound, Miamisburg, Ohio							
SO	8	1	1	10	80	10	10
WA	8	0	0	8	100	0	0
VE	0	1	0	1	0	100	0
AI	6	3	0	9	67	33	0
<b>Totals:</b>	<b>22</b>	<b>5</b>	<b>1</b>	<b>28</b>	<b>79%</b>	<b>18%</b>	<b>4%</b>
<b>Lab: MS</b> Manufacturing Sciences Corporation, Oak Ridge							
SO	6	0	0	6	100	0	0
WA	2	1	0	3	67	33	0
AI	5	1	0	6	83	17	0
<b>Totals:</b>	<b>13</b>	<b>2</b>	<b>0</b>	<b>15</b>	<b>87%</b>	<b>13%</b>	<b>0%</b>
<b>Lab: MX</b> Laboratory of Radiochimica CREN-U of Zacatecas, Mexico							
SO	0	2	0	2	0	100	0
<b>Totals:</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0%</b>	<b>100%</b>	<b>0%</b>
<b>Lab: MZ</b> Vigilancia Radiológica Ambiental, CNSNS, Mexico							
SO	7	2	0	9	78	22	0
AI	3	3	14	20	15	15	70
<b>Totals:</b>	<b>10</b>	<b>5</b>	<b>14</b>	<b>29</b>	<b>34%</b>	<b>17%</b>	<b>48%</b>
<b>Lab: NA</b> US EPA NAREL, Montgomery, AL							
VE	4	2	0	6	67	33	0

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
SO	8	3	0	11	73	27	0
WA	6	3	0	9	67	33	0
AI	5	2	1	8	63	25	13
<b>Totals:</b>	<b>23</b>	<b>10</b>	<b>1</b>	<b>34</b>	<b>68%</b>	<b>29%</b>	<b>3%</b>
<b>Lab: NF</b> Nuclear Fuel Services, Erwin, TN							
WA	3	2	0	5	60	40	0
<b>Totals:</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>5</b>	<b>60%</b>	<b>40%</b>	<b>0%</b>
<b>Lab: NJ</b> NJ Department of Health and Senior Services							
VE	12	0	0	12	100	0	0
AI	22	2	0	24	92	8	0
SO	20	4	2	26	77	15	8
WA	19	3	0	22	86	14	0
<b>Totals:</b>	<b>73</b>	<b>9</b>	<b>2</b>	<b>84</b>	<b>87%</b>	<b>11%</b>	<b>2%</b>
<b>Lab: NL</b> Fluor Daniel Fernald, Inc., Ohio							
SO	12	0	0	12	100	0	0
WA	10	0	0	10	100	0	0
AI	9	0	0	9	100	0	0
<b>Totals:</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: NM</b> Environmental Evaluation Group, Carlsbad, NM							
SO	7	0	0	7	100	0	0
WA	4	0	1	5	80	0	20
AI	3	0	1	4	75	0	25
<b>Totals:</b>	<b>14</b>	<b>0</b>	<b>2</b>	<b>16</b>	<b>88%</b>	<b>0%</b>	<b>13%</b>
<b>Lab: NP</b> JAF Environmental Laboratory, New York Power Authority							
WA	2	0	1	3	67	0	33
AI	5	0	0	5	100	0	0
<b>Totals:</b>	<b>7</b>	<b>0</b>	<b>1</b>	<b>8</b>	<b>88%</b>	<b>0%</b>	<b>13%</b>
<b>Lab: NQ</b> New Mexico Department of Health, Albuquerque							
SO	10	1	1	12	83	8	8
WA	4	3	0	7	57	43	0
AI	9	2	0	11	82	18	0
<b>Totals:</b>	<b>23</b>	<b>6</b>	<b>1</b>	<b>30</b>	<b>77%</b>	<b>20%</b>	<b>3%</b>

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
<b>Lab: NR</b> Naval Reactors Facility Chemistry, Scoville, ID							
SO	0	1	0	1	0	100	0
WA	2	0	0	2	100	0	0
VE	2	0	0	2	100	0	0
AI	4	0	0	4	100	0	0
<b>Totals:</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>9</b>	<b>89%</b>	<b>11%</b>	<b>0%</b>
<b>Lab: NS</b> State Lab of Public Health, North Carolina							
WA	2	0	1	3	67	0	33
<b>Totals:</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>67%</b>	<b>0%</b>	<b>33%</b>
<b>Lab: NZ</b> National Radiation Laboratory, New Zealand							
VE	2	0	1	3	67	0	33
SO	5	1	3	9	56	11	33
WA	1	4	1	6	17	67	17
AI	3	1	0	4	75	25	0
<b>Totals:</b>	<b>11</b>	<b>6</b>	<b>5</b>	<b>22</b>	<b>50%</b>	<b>27%</b>	<b>23%</b>
<b>Lab: OB</b> OBG Laboratories, East Syracuse, NY							
VE	3	1	2	6	50	17	33
SO	6	2	3	11	55	18	27
WA	6	2	1	9	67	22	11
AI	6	2	3	11	55	18	27
<b>Totals:</b>	<b>21</b>	<b>7</b>	<b>9</b>	<b>37</b>	<b>57%</b>	<b>19%</b>	<b>24%</b>
<b>Lab: OC</b> Radiation Protection Service Laboratory, Ontario, Canada							
AI	6	0	0	6	100	0	0
WA	6	0	0	6	100	0	0
SO	6	1	0	7	86	14	0
VE	3	0	0	3	100	0	0
<b>Totals:</b>	<b>21</b>	<b>1</b>	<b>0</b>	<b>22</b>	<b>95%</b>	<b>5%</b>	<b>0%</b>
<b>Lab: OD</b> ORNL, Radiobioassay Lab							
AI	3	2	0	5	60	40	0
WA	7	4	0	11	64	36	0
<b>Totals:</b>	<b>10</b>	<b>6</b>	<b>0</b>	<b>16</b>	<b>63%</b>	<b>38%</b>	<b>0%</b>
<b>Lab: OH</b> Ohio Dept Of Health Laboratory, Columbus							
VE	3	0	0	3	100	0	0
SO	1	4	2	7	14	57	29

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary				Evaluation Percentages		
	A	W	N	Total Analyses	% A	% W	% N
WA	4	1	1	6	67	17	17
AI	6	0	0	6	100	0	0
<b>Totals:</b>	<b>14</b>	<b>5</b>	<b>3</b>	<b>22</b>	<b>64%</b>	<b>23%</b>	<b>14%</b>
<b>Lab: OK</b> Southwest Laboratory of Oklahoma							
SO	2	3	1	6	33	50	17
WA	9	1	0	10	90	10	0
AI	3	2	0	5	60	40	0
<b>Totals:</b>	<b>14</b>	<b>6</b>	<b>1</b>	<b>21</b>	<b>67%</b>	<b>29%</b>	<b>5%</b>
<b>Lab: OS</b> Oregon Health Division Radiation Controls Section, Portland							
VE	4	2	0	6	67	33	0
WA	4	0	0	4	100	0	0
AI	8	0	0	8	100	0	0
<b>Totals:</b>	<b>16</b>	<b>2</b>	<b>0</b>	<b>18</b>	<b>89%</b>	<b>11%</b>	<b>0%</b>
<b>Lab: OT</b> ORNL Radioactive Material Analysis Lab							
WA	9	0	1	10	90	0	10
SO	5	4	0	9	56	44	0
VE	7	0	0	7	100	0	0
AI	11	0	0	11	100	0	0
<b>Totals:</b>	<b>32</b>	<b>4</b>	<b>1</b>	<b>37</b>	<b>86%</b>	<b>11%</b>	<b>3%</b>
<b>Lab: OU</b> Outreach Laboratory, Broken Arrow, OK							
VE	2	1	0	3	67	33	0
SO	4	2	2	8	50	25	25
WA	5	0	0	5	100	0	0
AI	6	0	0	6	100	0	0
<b>Totals:</b>	<b>17</b>	<b>3</b>	<b>2</b>	<b>22</b>	<b>77%</b>	<b>14%</b>	<b>9%</b>
<b>Lab: PA</b> BWXT Pantex, Amarillo, TX							
AI	6	4	0	10	60	40	0
<b>Totals:</b>	<b>6</b>	<b>4</b>	<b>0</b>	<b>10</b>	<b>60%</b>	<b>40%</b>	<b>0%</b>
<b>Lab: PK</b> Pakistan Institute of Nuclear Science & Technology							
VE	1	1	0	2	50	50	0
SO	5	0	1	6	83	0	17
AI	3	1	0	4	75	25	0



**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
<b>Totals:</b>	<b>9</b>	<b>2</b>	<b>1</b>	<b>12</b>	<b>75%</b>	<b>17%</b>	<b>8%</b>
<b>Lab: PR</b> Princeton Plasma Physics Lab							
WA	3	0	0	3	100	0	0
AI	3	1	0	4	75	25	0
<b>Totals:</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>7</b>	<b>86%</b>	<b>14%</b>	<b>0%</b>
<b>Lab: PS</b> PA-DEP Bureau of Radiation Protection, Harrisburg							
SO	4	5	0	9	44	56	0
WA	7	3	0	10	70	30	0
VE	5	1	0	6	83	17	0
AI	4	3	0	7	57	43	0
<b>Totals:</b>	<b>20</b>	<b>12</b>	<b>0</b>	<b>32</b>	<b>63%</b>	<b>38%</b>	<b>0%</b>
<b>Lab: RA</b> V. G. Khlopin Radium Institute, St. Petersburg, Russia							
VE	8	0	1	9	89	0	11
SO	11	4	5	20	55	20	25
AI	14	0	0	14	100	0	0
<b>Totals:</b>	<b>33</b>	<b>4</b>	<b>6</b>	<b>43</b>	<b>77%</b>	<b>9%</b>	<b>14%</b>
<b>Lab: RC</b> US NRC Region I Laboratory, PA							
SO	2	0	0	2	100	0	0
WA	3	0	0	3	100	0	0
AI	6	0	0	6	100	0	0
<b>Totals:</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: RG</b> Thermo Nutech Rocky Flats Plant, Golden							
WA	2	0	0	2	100	0	0
<b>Totals:</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: RI</b> Fluor Hanford, Inc., 222S Lab.							
VE	4	1	0	5	80	20	0
SO	3	3	0	6	50	50	0
WA	6	5	1	12	50	42	8
AI	2	2	4	8	25	25	50
<b>Totals:</b>	<b>15</b>	<b>11</b>	<b>5</b>	<b>31</b>	<b>48%</b>	<b>35%</b>	<b>16%</b>

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
<b>Lab: RM</b> Earthline Technologies, Ashtabula, OH							
WA	5	0	0	5	100	0	0
AI	6	1	0	7	86	14	0
SO	8	2	0	10	80	20	0
<b>Totals:</b>	<b>19</b>	<b>3</b>	<b>0</b>	<b>22</b>	<b>86%</b>	<b>14%</b>	<b>0%</b>
<b>Lab: RU</b> Research Institute of Radiology, Belarus							
SO	2	0	1	3	67	0	33
WA	2	1	0	3	67	33	0
AI	1	2	1	4	25	50	25
VE	2	1	1	4	50	25	25
<b>Totals:</b>	<b>7</b>	<b>4</b>	<b>3</b>	<b>14</b>	<b>50%</b>	<b>29%</b>	<b>21%</b>
<b>Lab: SA</b> Sandia Labs Radioactive Sample Diag. Prog., NM							
SO	2	0	0	2	100	0	0
WA	7	1	0	8	88	13	0
AI	8	1	0	9	89	11	0
<b>Totals:</b>	<b>17</b>	<b>2</b>	<b>0</b>	<b>19</b>	<b>89%</b>	<b>11%</b>	<b>0%</b>
<b>Lab: SB</b> SC Dept. of Health and Environment Control Radiological Lab							
VE	4	0	0	4	100	0	0
SO	3	0	0	3	100	0	0
WA	6	0	0	6	100	0	0
AI	6	0	0	6	100	0	0
<b>Totals:</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: SE</b> Defence Research Establishment of Sweden (FOA)							
VE	4	0	0	4	100	0	0
AI	5	0	0	5	100	0	0
WA	3	0	0	3	100	0	0
SO	4	3	1	8	50	38	13
<b>Totals:</b>	<b>16</b>	<b>3</b>	<b>1</b>	<b>20</b>	<b>80%</b>	<b>15%</b>	<b>5%</b>
<b>Lab: SI</b> Jozef Stefan Institute, Slovenia							
VE	4	0	0	4	100	0	0
SO	9	2	0	11	82	18	0
WA	3	0	0	3	100	0	0
AI	6	0	0	6	100	0	0
<b>Totals:</b>	<b>22</b>	<b>2</b>	<b>0</b>	<b>24</b>	<b>92%</b>	<b>8%</b>	<b>0%</b>

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
<b>Lab: SN</b> Sanford Cohen Associates, Inc., Montgomery, AL							
WA	5	1	0	6	83	17	0
AI	6	0	0	6	100	0	0
SO	8	2	1	11	73	18	9
VE	7	0	0	7	100	0	0
<b>Totals:</b>	<b>26</b>	<b>3</b>	<b>1</b>	<b>30</b>	<b>87%</b>	<b>10%</b>	<b>3%</b>
<b>Lab: SR</b> Savannah River Environmental Laboratory							
SO	11	0	1	12	92	0	8
WA	10	0	1	11	91	0	9
AI	10	2	0	12	83	17	0
VE	5	2	0	7	71	29	0
<b>Totals:</b>	<b>36</b>	<b>4</b>	<b>2</b>	<b>42</b>	<b>86%</b>	<b>10%</b>	<b>5%</b>
<b>Lab: ST</b> SC DHEC, Aiken, South Carolina							
WA	1	0	0	1	100	0	0
<b>Totals:</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: SW</b> Southwest Research Institute, San Antonio, TX							
SO	1	0	0	1	100	0	0
WA	1	0	0	1	100	0	0
AI	1	0	0	1	100	0	0
<b>Totals:</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: SX</b> Saxton Nuclear Experimental Corp., Saxton, PA							
VE	3	0	0	3	100	0	0
SO	3	1	1	5	60	20	20
WA	3	0	0	3	100	0	0
AI	4	0	0	4	100	0	0
<b>Totals:</b>	<b>13</b>	<b>1</b>	<b>1</b>	<b>15</b>	<b>87%</b>	<b>7%</b>	<b>7%</b>
<b>Lab: SY</b> Syrian Arab Republic Atomic Energy Commission							
VE	4	0	0	4	100	0	0
SO	7	3	0	10	70	30	0
<b>Totals:</b>	<b>11</b>	<b>3</b>	<b>0</b>	<b>14</b>	<b>79%</b>	<b>21%</b>	<b>0%</b>
<b>Lab: TE</b> Environmental Inc.							
VE	7	0	0	7	100	0	0
SO	6	3	1	10	60	30	10
WA	8	3	0	11	73	27	0

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary				Evaluation Percentages		
	A	W	N	Total Analyses	% A	% W	% N
AI	10	2	0	12	83	17	0
<b>Totals:</b>	<b>31</b>	<b>8</b>	<b>1</b>	<b>40</b>	<b>78%</b>	<b>20%</b>	<b>3%</b>
<b>Lab: TI</b> Teledyne Brown Engineering Environmental Services, Knoxville, TN							
WA	5	4	1	10	50	40	10
SO	4	0	0	4	100	0	0
VE	6	1	0	7	86	14	0
AI	9	2	1	12	75	17	8
<b>Totals:</b>	<b>24</b>	<b>7</b>	<b>2</b>	<b>33</b>	<b>73%</b>	<b>21%</b>	<b>6%</b>
<b>Lab: TM</b> Eberline Services Albuquerque Lab, NM							
VE	7	0	0	7	100	0	0
SO	11	1	2	14	79	7	14
WA	8	2	2	12	67	17	17
AI	10	4	0	14	71	29	0
<b>Totals:</b>	<b>36</b>	<b>7</b>	<b>4</b>	<b>47</b>	<b>77%</b>	<b>15%</b>	<b>9%</b>
<b>Lab: TN</b> Eberline Services, Richmond, CA							
WA	10	1	1	12	83	8	8
AI	5	7	1	13	38	54	8
SO	8	4	0	12	67	33	0
VE	3	4	0	7	43	57	0
<b>Totals:</b>	<b>26</b>	<b>16</b>	<b>2</b>	<b>44</b>	<b>59%</b>	<b>36%</b>	<b>5%</b>
<b>Lab: TO</b> Eberline Services Oak Ridge Laboratory							
SO	3	7	5	15	20	47	33
WA	8	1	0	9	89	11	0
AI	9	5	0	14	64	36	0
VE	6	0	1	7	86	0	14
<b>Totals:</b>	<b>26</b>	<b>13</b>	<b>6</b>	<b>45</b>	<b>58%</b>	<b>29%</b>	<b>13%</b>
<b>Lab: TP</b> Taiwan Power Company, Taipei, Taiwan							
VE	4	0	0	4	100	0	0
AI	7	0	0	7	100	0	0
SO	8	0	0	8	100	0	0
WA	5	1	0	6	83	17	0
<b>Totals:</b>	<b>24</b>	<b>1</b>	<b>0</b>	<b>25</b>	<b>96%</b>	<b>4%</b>	<b>0%</b>
<b>Lab: TQ</b> Institute of Nuclear Energy Research, Taiwan							
VE	4	0	0	4	100	0	0
SO	6	1	1	8	75	13	13

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
WA	11	1	1	13	85	8	8
AI	6	0	0	6	100	0	0
<b>Totals:</b>	<b>27</b>	<b>2</b>	<b>2</b>	<b>31</b>	<b>87%</b>	<b>6%</b>	<b>6%</b>
<b>Lab: TW</b> Taiwan Radiation Monitoring Center							
VE	3	0	0	3	100	0	0
SO	5	2	0	7	71	29	0
WA	4	0	0	4	100	0	0
AI	6	0	0	6	100	0	0
<b>Totals:</b>	<b>18</b>	<b>2</b>	<b>0</b>	<b>20</b>	<b>90%</b>	<b>10%</b>	<b>0%</b>
<b>Lab: TX</b> Texas Dept. of Health/Laboratories, Austin							
SO	11	1	0	12	92	8	0
WA	8	1	1	10	80	10	10
AI	11	0	0	11	100	0	0
VE	5	0	0	5	100	0	0
<b>Totals:</b>	<b>35</b>	<b>2</b>	<b>1</b>	<b>38</b>	<b>92%</b>	<b>5%</b>	<b>3%</b>
<b>Lab: UC</b> United States Enrichment Corporation, Paducah, KY							
VE	3	0	0	3	100	0	0
SO	2	1	0	3	67	33	0
WA	5	0	1	6	83	0	17
AI	1	3	0	4	25	75	0
<b>Totals:</b>	<b>11</b>	<b>4</b>	<b>1</b>	<b>16</b>	<b>69%</b>	<b>25%</b>	<b>6%</b>
<b>Lab: UG</b> USGS Menlo Park WRD sediment radioisotope laboratory							
SO	1	0	0	1	100	0	0
<b>Totals:</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>
<b>Lab: UP</b> BWXT Y-12, L.L.C. Analytical Chemistry Organization, Oak Ridge							
WA	0	0	1	1	0	0	100
SO	1	0	0	1	100	0	0
<b>Totals:</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>50%</b>	<b>0%</b>	<b>50%</b>
<b>Lab: US</b> Unitech, Springfield, MA							
WA	3	0	0	3	100	0	0
<b>Totals:</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
<b>Lab: UY</b> BWXT Y-12, L.L.C. Analytical Chemistry Organization Oak Ridge							
SO	7	0	0	7	100	0	0
WA	7	2	1	10	70	20	10
AI	10	1	0	11	91	9	0
VE	6	1	0	7	86	14	0
<b>Totals:</b>	<b>30</b>	<b>4</b>	<b>1</b>	<b>35</b>	<b>86%</b>	<b>11%</b>	<b>3%</b>
<b>Lab: WA</b> Environmental Radiation Lab, Off. of Public Health Labs. Seattle							
VE	5	3	0	8	63	38	0
AI	9	3	3	15	60	20	20
SO	13	2	0	15	87	13	0
WA	11	1	0	12	92	8	0
<b>Totals:</b>	<b>38</b>	<b>9</b>	<b>3</b>	<b>50</b>	<b>76%</b>	<b>18%</b>	<b>6%</b>
<b>Lab: WC</b> Waste Management Federal Services of Hanford							
VE	7	0	0	7	100	0	0
SO	5	0	2	7	71	0	29
WA	11	0	0	11	100	0	0
AI	9	1	2	12	75	8	17
<b>Totals:</b>	<b>32</b>	<b>1</b>	<b>4</b>	<b>37</b>	<b>86%</b>	<b>3%</b>	<b>11%</b>
<b>Lab: WE</b> Antech Ltd.-Waltz Mill Site, PA							
VE	19	0	0	19	100	0	0
SO	30	6	0	36	83	17	0
WA	30	3	0	33	91	9	0
AI	28	1	1	30	93	3	3
<b>Totals:</b>	<b>107</b>	<b>10</b>	<b>1</b>	<b>118</b>	<b>91%</b>	<b>8%</b>	<b>1%</b>
<b>Lab: WI</b> WIPP Site, Westinghouse Electric Corp.							
WA	17	3	0	20	85	15	0
AI	20	7	0	27	74	26	0
VE	18	3	0	21	86	14	0
SO	24	9	0	33	73	27	0
<b>Totals:</b>	<b>79</b>	<b>22</b>	<b>0</b>	<b>101</b>	<b>78%</b>	<b>22%</b>	<b>0%</b>
<b>Lab: WN</b> State Health Radiation Protection Section, Madison, WI							
VE	3	9	0	12	25	75	0
SO	21	3	0	24	88	13	0
WA	7	2	0	9	78	22	0
AI	16	2	0	18	89	11	0

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
<b>Totals:</b>	<b>47</b>	<b>16</b>	<b>0</b>	<b>63</b>	<b>75%</b>	<b>25%</b>	<b>0%</b>
<b>Lab: WO</b> Wisconsin State Lab of Hygiene							
VE	6	0	0	6	100	0	0
SO	14	2	2	18	78	11	11
WA	12	2	0	14	86	14	0
AI	6	8	0	14	43	57	0
<b>Totals:</b>	<b>38</b>	<b>12</b>	<b>2</b>	<b>52</b>	<b>73%</b>	<b>23%</b>	<b>4%</b>
<b>Lab: WT</b> Waste Stream Technology, Buffalo, NY							
VE	2	1	0	3	67	33	0
SO	4	5	0	9	44	56	0
WA	1	3	0	4	25	75	0
AI	4	1	0	5	80	20	0
<b>Totals:</b>	<b>11</b>	<b>10</b>	<b>0</b>	<b>21</b>	<b>52%</b>	<b>48%</b>	<b>0%</b>
<b>Lab: WV</b> West Valley Nuclear Services, NY							
WA	6	0	0	6	100	0	0
AI	5	1	0	6	83	17	0
<b>Totals:</b>	<b>11</b>	<b>1</b>	<b>0</b>	<b>12</b>	<b>92%</b>	<b>8%</b>	<b>0%</b>
<b>Lab: WW</b> West Valley Radiation Protection, NY							
AI	11	0	3	14	79	0	21
SO	15	10	2	27	56	37	7
<b>Totals:</b>	<b>26</b>	<b>10</b>	<b>5</b>	<b>41</b>	<b>63%</b>	<b>24%</b>	<b>12%</b>
<b>Lab: WY</b> Wayne Interim Storage Site, NJ							
SO	3	2	0	5	60	40	0
<b>Totals:</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>5</b>	<b>60%</b>	<b>40%</b>	<b>0%</b>
<b>Lab: YA</b> Duke Engineering & Sciences Environmental Lab, Westboro, MA							
VE	4	0	0	4	100	0	0
SO	5	4	0	9	56	44	0
WA	11	0	0	11	100	0	0
AI	5	1	0	6	83	17	0
<b>Totals:</b>	<b>25</b>	<b>5</b>	<b>0</b>	<b>30</b>	<b>83%</b>	<b>17%</b>	<b>0%</b>

**QAP 54 Summary of Matrix Evaluations by Laboratory**

Matrix	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
<b>Lab: YP</b> US Army Proving Ground, Yuma, AZ							
SO	1	0	0	1	100	0	0
WA	1	0	0	1	100	0	0
AI	0	1	0	1	0	100	0
<b>Totals:</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>67%</b>	<b>33%</b>	<b>0%</b>
<b>Lab: YU</b> Institute of Occupational and Radiological Health, Serbia							
AI	3	0	2	5	60	0	40
VE	3	1	0	4	75	25	0
SO	3	3	1	7	43	43	14
<b>Totals:</b>	<b>9</b>	<b>4</b>	<b>3</b>	<b>16</b>	<b>56%</b>	<b>25%</b>	<b>19%</b>



**QAP 54 Summary of Laboratory Evaluations by Matrix****Matrix: AI Air Filter**

Labcode	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
AC	4	0	0	4	100	0	0
AF	9	1	3	13	69	8	23
AG	9	0	0	9	100	0	0
AI	4	7	0	11	36	64	0
AM	9	2	2	13	69	15	15
AN	10	0	0	10	100	0	0
AR	12	1	0	13	92	8	0
AS	6	1	0	7	86	14	0
AT	13	0	0	13	100	0	0
AU	11	0	0	11	100	0	0
AW	4	1	0	5	80	20	0
BA	3	0	0	3	100	0	0
BC	8	1	0	9	89	11	0
BE	13	0	0	13	100	0	0
BM	8	0	0	8	100	0	0
BN	4	2	1	7	57	29	14
BP	2	0	0	2	100	0	0
BQ	7	0	0	7	100	0	0
BU	11	1	0	12	92	8	0
BX	9	3	0	12	75	25	0
CA	5	1	0	6	83	17	0
CB	6	0	3	9	67	0	33
CD	6	0	0	6	100	0	0
CE	7	0	0	7	100	0	0
CH	13	0	0	13	100	0	0
CL	7	5	1	13	54	38	8
CN	6	0	0	6	100	0	0
CS	5	1	0	6	83	17	0
CU	10	0	0	10	100	0	0
CW	9	0	0	9	100	0	0
DH	6	0	0	6	100	0	0
EC	28	7	0	35	80	20	0
EG	10	2	0	12	83	17	0
EP	6	0	0	6	100	0	0
FE	0	1	1	2	0	50	50
FG	4	2	0	6	67	33	0
FJ	0	0	3	3	0	0	100
FL	7	1	0	8	88	13	0
FM	5	1	0	6	83	17	0
FN	5	2	0	7	71	29	0
GA	7	1	1	9	78	11	11
GC	11	1	0	12	92	8	0
GE	11	2	0	13	85	15	0
GT	12	0	0	12	100	0	0
HC	2	0	0	2	100	0	0
HU	4	1	1	6	67	17	17
ID	8	1	2	11	73	9	18
IL	6	0	0	6	100	0	0
IN	3	0	0	3	100	0	0
IS	11	1	2	14	79	7	14
IT	10	3	0	13	77	23	0
JL	11	1	0	12	92	8	0
KA	1	1	0	2	50	50	0
KE	5	0	2	7	71	0	29

**QAP 54 Summary of Laboratory Evaluations by Matrix****Matrix: AI Air Filter**

Labcode	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
KO	14	0	0	14	100	0	0
KR	14	8	0	22	64	36	0
LB	7	0	0	7	100	0	0
LL	3	2	2	7	43	29	29
LM	6	1	0	7	86	14	0
LN	10	4	0	14	71	29	0
LV	6	4	1	11	55	36	9
ME	16	5	0	21	76	24	0
MH	5	2	0	7	71	29	0
MI	4	1	1	6	67	17	17
MJ	0	1	5	6	0	17	83
ML	6	3	0	9	67	33	0
MS	5	1	0	6	83	17	0
MZ	3	3	14	20	15	15	70
NA	5	2	1	8	63	25	13
NJ	22	2	0	24	92	8	0
NL	9	0	0	9	100	0	0
NM	3	0	1	4	75	0	25
NP	5	0	0	5	100	0	0
NQ	9	2	0	11	82	18	0
NR	4	0	0	4	100	0	0
NZ	3	1	0	4	75	25	0
OB	6	2	3	11	55	18	27
OC	6	0	0	6	100	0	0
OD	3	2	0	5	60	40	0
OH	6	0	0	6	100	0	0
OK	3	2	0	5	60	40	0
OS	8	0	0	8	100	0	0
OT	11	0	0	11	100	0	0
OU	6	0	0	6	100	0	0
PA	6	4	0	10	60	40	0
PK	3	1	0	4	75	25	0
PR	3	1	0	4	75	25	0
PS	4	3	0	7	57	43	0
RA	14	0	0	14	100	0	0
RC	6	0	0	6	100	0	0
RI	2	2	4	8	25	25	50
RM	6	1	0	7	86	14	0
RU	1	2	1	4	25	50	25
SA	8	1	0	9	89	11	0
SB	6	0	0	6	100	0	0
SE	5	0	0	5	100	0	0
SI	6	0	0	6	100	0	0
SN	6	0	0	6	100	0	0
SR	10	2	0	12	83	17	0
SW	1	0	0	1	100	0	0
SX	4	0	0	4	100	0	0
TE	10	2	0	12	83	17	0
TI	9	2	1	12	75	17	8
TM	10	4	0	14	71	29	0
TN	5	7	1	13	38	54	8
TO	9	5	0	14	64	36	0
TP	7	0	0	7	100	0	0
TQ	6	0	0	6	100	0	0

**QAP 54 Summary of Laboratory Evaluations by Matrix****Matrix: AI** Air Filter

Labcode	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
TW	6	0	0	6	100	0	0
TX	11	0	0	11	100	0	0
UC	1	3	0	4	25	75	0
UY	10	1	0	11	91	9	0
WA	9	3	3	15	60	20	20
WC	9	1	2	12	75	8	17
WE	28	1	1	30	93	3	3
WI	20	7	0	27	74	26	0
WN	16	2	0	18	89	11	0
WO	6	8	0	14	43	57	0
WT	4	1	0	5	80	20	0
WV	5	1	0	6	83	17	0
WW	11	0	3	14	79	0	21
YA	5	1	0	6	83	17	0
YP	0	1	0	1	0	100	0
YU	3	0	2	5	60	0	40
<hr/>							
<b>Totals</b>							
<b>124 Labs:</b>	<b>902</b>	<b>170</b>	<b>68</b>	<b>1140</b>	<b>79%</b>	<b>15%</b>	<b>6%</b>

**QAP 54 Summary of Laboratory Evaluations by Matrix****Matrix: SO Soil**

Labcode	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
AC	6	1	0	7	86	14	0
AF	6	5	2	13	46	38	15
AG	11	1	1	13	85	8	8
AI	6	5	1	12	50	42	8
AM	8	6	0	14	57	43	0
AN	6	1	0	7	86	14	0
AR	10	4	0	14	71	29	0
AS	8	1	0	9	89	11	0
AT	6	6	0	12	50	50	0
AU	11	2	0	13	85	15	0
BA	1	0	0	1	100	0	0
BC	4	0	0	4	100	0	0
BE	12	1	0	13	92	8	0
BM	6	0	0	6	100	0	0
BN	7	1	0	8	88	13	0
BQ	5	1	3	9	56	11	33
BU	10	4	0	14	71	29	0
BX	10	2	0	12	83	17	0
CA	1	0	0	1	100	0	0
CD	7	0	0	7	100	0	0
CE	2	0	0	2	100	0	0
CF	9	2	4	15	60	13	27
CH	12	2	0	14	86	14	0
CL	8	2	4	14	57	14	29
CM	12	2	0	14	86	14	0
CN	6	1	0	7	86	14	0
CO	8	1	0	9	89	11	0
CS	4	4	0	8	50	50	0
CU	6	6	2	14	43	43	14
CW	9	3	0	12	75	25	0
DH	6	1	0	7	86	14	0
EC	25	14	6	45	56	31	13
EG	15	2	1	18	83	11	6
FE	7	1	1	9	78	11	11
FG	6	0	0	6	100	0	0
FJ	5	1	2	8	63	13	25
FL	6	1	3	10	60	10	30
FN	6	1	0	7	86	14	0
FR	9	1	0	10	90	10	0
FS	3	3	1	7	43	43	14
FU	10	1	0	11	91	9	0
GA	9	2	0	11	82	18	0
GC	18	3	3	24	75	13	13
GE	11	3	0	14	79	21	0
GT	5	1	0	6	83	17	0
HT	4	0	0	4	100	0	0
HU	7	1	1	9	78	11	11
ID	8	4	0	12	67	33	0
IN	16	3	0	19	84	16	0
IS	9	6	0	15	60	40	0
IT	6	7	1	14	43	50	7
KA	4	0	0	4	100	0	0
KE	3	0	1	4	75	0	25
KO	13	3	0	16	81	19	0

**QAP 54 Summary of Laboratory Evaluations by Matrix****Matrix: SO Soil**

Labcode	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
KR	20	10	0	30	67	33	0
LA	26	7	3	36	72	19	8
LB	3	1	5	9	33	11	56
LL	4	1	1	6	67	17	17
LM	7	1	0	8	88	13	0
LV	4	3	1	8	50	38	13
LW	4	1	2	7	57	14	29
ME	22	3	2	27	81	11	7
MH	6	3	0	9	67	33	0
ML	8	1	1	10	80	10	10
MS	6	0	0	6	100	0	0
MX	0	2	0	2	0	100	0
MZ	7	2	0	9	78	22	0
NA	8	3	0	11	73	27	0
NJ	20	4	2	26	77	15	8
NL	12	0	0	12	100	0	0
NM	7	0	0	7	100	0	0
NQ	10	1	1	12	83	8	8
NR	0	1	0	1	0	100	0
NZ	5	1	3	9	56	11	33
OB	6	2	3	11	55	18	27
OC	6	1	0	7	86	14	0
OH	1	4	2	7	14	57	29
OK	2	3	1	6	33	50	17
OT	5	4	0	9	56	44	0
OU	4	2	2	8	50	25	25
PK	5	0	1	6	83	0	17
PS	4	5	0	9	44	56	0
RA	11	4	5	20	55	20	25
RC	2	0	0	2	100	0	0
RI	3	3	0	6	50	50	0
RM	8	2	0	10	80	20	0
RU	2	0	1	3	67	0	33
SA	2	0	0	2	100	0	0
SB	3	0	0	3	100	0	0
SE	4	3	1	8	50	38	13
SI	9	2	0	11	82	18	0
SN	8	2	1	11	73	18	9
SR	11	0	1	12	92	0	8
SW	1	0	0	1	100	0	0
SX	3	1	1	5	60	20	20
SY	7	3	0	10	70	30	0
TE	6	3	1	10	60	30	10
TI	4	0	0	4	100	0	0
TM	11	1	2	14	79	7	14
TN	8	4	0	12	67	33	0
TO	3	7	5	15	20	47	33
TP	8	0	0	8	100	0	0
TQ	6	1	1	8	75	13	13
TW	5	2	0	7	71	29	0
TX	11	1	0	12	92	8	0
UC	2	1	0	3	67	33	0
UG	1	0	0	1	100	0	0
UP	1	0	0	1	100	0	0

**QAP 54 Summary of Laboratory Evaluations by Matrix****Matrix: SO Soil**

<b>Labcode</b>	<b>Evaluation Summary</b>			<b>Total Analyses</b>	<b>Evaluation Percentages</b>		
	<b>A</b>	<b>W</b>	<b>N</b>		<b>% A</b>	<b>% W</b>	<b>% N</b>
UY	7	0	0	7	100	0	0
WA	13	2	0	15	87	13	0
WC	5	0	2	7	71	0	29
WE	30	6	0	36	83	17	0
WI	24	9	0	33	73	27	0
WN	21	3	0	24	88	13	0
WO	14	2	2	18	78	11	11
WT	4	5	0	9	44	56	0
WW	15	10	2	27	56	37	7
WY	3	2	0	5	60	40	0
YA	5	4	0	9	56	44	0
YP	1	0	0	1	100	0	0
YU	3	3	1	7	43	43	14
<b>Totals</b>							
<b>121 Labs:</b>	<b>925</b>	<b>275</b>	<b>93</b>	<b>1293</b>	<b>72%</b>	<b>21%</b>	<b>7%</b>

**QAP 54 Summary of Laboratory Evaluations by Matrix****Matrix: VE Vegetation**

Labcode	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
AF	5	2	0	7	71	29	0
AG	8	0	0	8	100	0	0
AM	6	0	0	6	100	0	0
AR	7	1	0	8	88	13	0
AT	7	0	0	7	100	0	0
AU	5	1	0	6	83	17	0
BA	2	0	0	2	100	0	0
BC	1	3	0	4	25	75	0
BE	7	0	0	7	100	0	0
BM	4	1	0	5	80	20	0
BN	3	0	1	4	75	0	25
BQ	1	1	0	2	50	50	0
BU	7	1	0	8	88	13	0
BX	6	0	1	7	86	0	14
CD	3	0	0	3	100	0	0
CE	2	1	0	3	67	33	0
CF	6	3	0	9	67	33	0
CH	7	0	0	7	100	0	0
CL	4	0	3	7	57	0	43
CN	4	0	0	4	100	0	0
CU	6	0	0	6	100	0	0
CW	7	0	0	7	100	0	0
EG	4	3	0	7	57	43	0
FJ	2	1	0	3	67	33	0
FL	4	0	0	4	100	0	0
FN	3	0	0	3	100	0	0
FR	4	0	0	4	100	0	0
FU	4	0	0	4	100	0	0
GA	6	0	0	6	100	0	0
GC	9	0	0	9	100	0	0
GE	7	0	0	7	100	0	0
GT	7	1	0	8	88	13	0
HU	4	0	0	4	100	0	0
ID	5	1	0	6	83	17	0
IN	4	2	0	6	67	33	0
IS	4	2	2	8	50	25	25
IT	6	1	0	7	86	14	0
KE	3	0	0	3	100	0	0
KO	7	1	0	8	88	13	0
KR	17	3	1	21	81	14	5
LA	18	0	0	18	100	0	0
LB	4	0	0	4	100	0	0
LL	1	0	0	1	100	0	0
LM	3	1	0	4	75	25	0
LV	3	0	1	4	75	0	25
ME	9	0	2	11	82	0	18
MH	4	0	0	4	100	0	0
ML	0	1	0	1	0	100	0
NA	4	2	0	6	67	33	0
NJ	12	0	0	12	100	0	0
NR	2	0	0	2	100	0	0
NZ	2	0	1	3	67	0	33
OB	3	1	2	6	50	17	33
OC	3	0	0	3	100	0	0

**QAP 54 Summary of Laboratory Evaluations by Matrix****Matrix: VE Vegetation**

Labcode	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
OH	3	0	0	3	100	0	0
OS	4	2	0	6	67	33	0
OT	7	0	0	7	100	0	0
OU	2	1	0	3	67	33	0
PK	1	1	0	2	50	50	0
PS	5	1	0	6	83	17	0
RA	8	0	1	9	89	0	11
RI	4	1	0	5	80	20	0
RU	2	1	1	4	50	25	25
SB	4	0	0	4	100	0	0
SE	4	0	0	4	100	0	0
SI	4	0	0	4	100	0	0
SN	7	0	0	7	100	0	0
SR	5	2	0	7	71	29	0
SX	3	0	0	3	100	0	0
SY	4	0	0	4	100	0	0
TE	7	0	0	7	100	0	0
TI	6	1	0	7	86	14	0
TM	7	0	0	7	100	0	0
TN	3	4	0	7	43	57	0
TO	6	0	1	7	86	0	14
TP	4	0	0	4	100	0	0
TQ	4	0	0	4	100	0	0
TW	3	0	0	3	100	0	0
TX	5	0	0	5	100	0	0
UC	3	0	0	3	100	0	0
UY	6	1	0	7	86	14	0
WA	5	3	0	8	63	38	0
WC	7	0	0	7	100	0	0
WE	19	0	0	19	100	0	0
WI	18	3	0	21	86	14	0
WN	3	9	0	12	25	75	0
WO	6	0	0	6	100	0	0
WT	2	1	0	3	67	33	0
YA	4	0	0	4	100	0	0
YU	3	1	0	4	75	25	0
<b>Totals</b>							
<b>90 Labs:</b>	<b>464</b>	<b>66</b>	<b>17</b>	<b>547</b>	<b>85%</b>	<b>12%</b>	<b>3%</b>



**QAP 54 Summary of Laboratory Evaluations by Matrix****Matrix: WA Water**

Labcode	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
AB	2	0	2	4	50	0	50
AC	4	1	1	6	67	17	17
AF	7	2	0	9	78	22	0
AG	9	0	1	10	90	0	10
AI	5	4	1	10	50	40	10
AM	10	1	1	12	83	8	8
AN	9	0	0	9	100	0	0
AR	12	0	0	12	100	0	0
AS	4	1	2	7	57	14	29
AT	12	0	0	12	100	0	0
AU	9	2	0	11	82	18	0
AW	2	0	0	2	100	0	0
BA	0	2	0	2	0	100	0
BC	5	2	0	7	71	29	0
BE	12	0	0	12	100	0	0
BM	8	0	0	8	100	0	0
BN	4	1	1	6	67	17	17
BP	2	0	0	2	100	0	0
BQ	3	2	0	5	60	40	0
BU	10	1	0	11	91	9	0
BX	9	2	0	11	82	18	0
CA	3	1	1	5	60	20	20
CB	7	0	0	7	100	0	0
CD	4	0	0	4	100	0	0
CE	5	1	0	6	83	17	0
CF	12	0	0	12	100	0	0
CH	13	0	0	13	100	0	0
CL	6	3	1	10	60	30	10
CM	14	1	0	15	93	7	0
CS	2	1	0	3	67	33	0
CU	3	1	0	4	75	25	0
CW	7	2	0	9	78	22	0
CZ	2	0	0	2	100	0	0
DC	2	0	0	2	100	0	0
DH	3	1	1	5	60	20	20
EC	14	1	0	15	93	7	0
EG	9	3	1	13	69	23	8
EP	5	0	0	5	100	0	0
FE	5	0	0	5	100	0	0
FG	5	0	0	5	100	0	0
FL	7	0	0	7	100	0	0
FM	3	0	0	3	100	0	0
FN	5	0	0	5	100	0	0
FR	3	0	0	3	100	0	0
GA	7	0	0	7	100	0	0
GC	8	0	0	8	100	0	0
GE	10	2	0	12	83	17	0
GS	4	2	0	6	67	33	0
GT	9	1	0	10	90	10	0
HC	3	0	0	3	100	0	0
HT	4	0	0	4	100	0	0
HU	1	3	1	5	20	60	20
IL	4	0	0	4	100	0	0
IN	23	4	0	27	85	15	0

**QAP 54 Summary of Laboratory Evaluations by Matrix****Matrix: WA Water**

Labcode	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
IS	12	1	0	13	92	8	0
IT	9	3	0	12	75	25	0
JL	6	0	0	6	100	0	0
KA	7	1	0	8	88	13	0
KG	1	0	0	1	100	0	0
KO	13	0	0	13	100	0	0
LA	29	1	0	30	97	3	0
LB	6	0	2	8	75	0	25
LL	6	2	0	8	75	25	0
LM	3	2	1	6	50	33	17
LN	3	0	0	3	100	0	0
LV	6	1	2	9	67	11	22
LW	9	1	0	10	90	10	0
ME	11	1	0	12	92	8	0
MH	5	3	0	8	63	38	0
MI	7	2	1	10	70	20	10
ML	8	0	0	8	100	0	0
MS	2	1	0	3	67	33	0
NA	6	3	0	9	67	33	0
NF	3	2	0	5	60	40	0
NJ	19	3	0	22	86	14	0
NL	10	0	0	10	100	0	0
NM	4	0	1	5	80	0	20
NP	2	0	1	3	67	0	33
NQ	4	3	0	7	57	43	0
NR	2	0	0	2	100	0	0
NS	2	0	1	3	67	0	33
NZ	1	4	1	6	17	67	17
OB	6	2	1	9	67	22	11
OC	6	0	0	6	100	0	0
OD	7	4	0	11	64	36	0
OH	4	1	1	6	67	17	17
OK	9	1	0	10	90	10	0
OS	4	0	0	4	100	0	0
OT	9	0	1	10	90	0	10
OU	5	0	0	5	100	0	0
PR	3	0	0	3	100	0	0
PS	7	3	0	10	70	30	0
RC	3	0	0	3	100	0	0
RG	2	0	0	2	100	0	0
RI	6	5	1	12	50	42	8
RM	5	0	0	5	100	0	0
RU	2	1	0	3	67	33	0
SA	7	1	0	8	88	13	0
SB	6	0	0	6	100	0	0
SE	3	0	0	3	100	0	0
SI	3	0	0	3	100	0	0
SN	5	1	0	6	83	17	0
SR	10	0	1	11	91	0	9
ST	1	0	0	1	100	0	0
SW	1	0	0	1	100	0	0
SX	3	0	0	3	100	0	0
TE	8	3	0	11	73	27	0
TI	5	4	1	10	50	40	10

**QAP 54 Summary of Laboratory Evaluations by Matrix****Matrix: WA Water**

Labcode	Evaluation Summary			Total Analyses	Evaluation Percentages		
	A	W	N		% A	% W	% N
TM	8	2	2	12	67	17	17
TN	10	1	1	12	83	8	8
TO	8	1	0	9	89	11	0
TP	5	1	0	6	83	17	0
TQ	11	1	1	13	85	8	8
TW	4	0	0	4	100	0	0
TX	8	1	1	10	80	10	10
UC	5	0	1	6	83	0	17
UP	0	0	1	1	0	0	100
US	3	0	0	3	100	0	0
UY	7	2	1	10	70	20	10
WA	11	1	0	12	92	8	0
WC	11	0	0	11	100	0	0
WE	30	3	0	33	91	9	0
WI	17	3	0	20	85	15	0
WN	7	2	0	9	78	22	0
WO	12	2	0	14	86	14	0
WT	1	3	0	4	25	75	0
WV	6	0	0	6	100	0	0
YA	11	0	0	11	100	0	0
YP	1	0	0	1	100	0	0
<b>Totals</b> <b>129 Labs:</b>	<b>852</b>	<b>131</b>	<b>38</b>	<b>1021</b>	<b>83%</b>	<b>13%</b>	<b>4%</b>

**QAP 54 Summary of Matrix Evaluations by Radionuclide****Matrix:** Air Filter

<b>Radio- Nuclide</b>	<b>Evaluation Summary</b>			<b>Total Analyses</b>	<b>Evaluation Percentages</b>		
	<b>A</b>	<b>W</b>	<b>N</b>		<b>% A</b>	<b>% W</b>	<b>% N</b>
PU238	41	10	2	53	77	19	4
RU106	31	2	1	34	91	6	3
CO60	129	6	8	143	90	4	6
SR90	38	8	2	48	79	17	4
PU239	38	13	4	55	69	24	7
AM241	60	17	6	83	72	20	7
U234	27	10	2	39	69	26	5
U238	29	9	2	40	73	23	5
UG U	13	5	7	25	52	20	28
GROSS ALPHA	62	30	2	94	66	32	2
GROSS BETA	83	12	2	97	86	12	2
MN54	121	12	8	141	86	9	6
CS134	100	18	10	128	78	14	8
RU106	31	2	1	34	91	6	3
Bq U	10	1	4	15	67	7	27
CS137	120	17	8	145	83	12	6
<b>Totals:</b>	<b>933</b>	<b>172</b>	<b>69</b>	<b>1174</b>	<b>79%</b>	<b>15%</b>	<b>6%</b>

**QAP 54 Summary of Matrix Evaluations by Radionuclide****Matrix:** Soil

<b>Radio- Nuclide</b>	<b>Evaluation Summary</b>			<b>Total Analyses</b>	<b>Evaluation Percentages</b>		
	<b>A</b>	<b>W</b>	<b>N</b>		<b>% A</b>	<b>% W</b>	<b>% N</b>
AC228	78	23	4	105	74	22	4
PU238	12	6	0	18	67	33	0
PU239	61	9	3	73	84	12	4
PB212	66	31	7	104	63	30	7
TH234	43	8	7	58	74	14	12
SR90	57	2	2	61	93	3	3
U234	30	17	5	52	58	33	10
K40	109	20	10	139	78	14	7
CS137	128	19	1	148	86	13	1
AM241	82	17	7	106	77	16	7
PB214	62	36	14	112	55	32	13
BI214	62	38	9	109	57	35	8
UG U	25	7	2	34	74	21	6
BI212	61	21	17	99	62	21	17
U238	36	15	3	54	67	28	6
Bq U	13	6	2	21	62	29	10
<b>Totals:</b>	<b>925</b>	<b>275</b>	<b>93</b>	<b>1293</b>	<b>72%</b>	<b>21%</b>	<b>7%</b>

**QAP 54 Summary of Matrix Evaluations by Radionuclide****Matrix:** Vegetation

<b>Radio- Nuclide</b>	<b>Evaluation Summary</b>			<b>Total Analyses</b>	<b>Evaluation Percentages</b>		
	<b>A</b>	<b>W</b>	<b>N</b>		<b>% A</b>	<b>% W</b>	<b>% N</b>
AM241	58	9	3	70	83	13	4
CO60	100	10	0	110	91	9	0
CM244	26	7	2	35	74	20	6
PU239	35	10	2	47	74	21	4
PU238	11	0	0	11	100	0	0
SR90	43	8	2	53	81	15	4
CS137	106	5	2	113	94	4	2
K40	85	17	6	108	79	16	6
<b>Totals:</b>	<b>464</b>	<b>66</b>	<b>17</b>	<b>547</b>	<b>85%</b>	<b>12%</b>	<b>3%</b>

**QAP 54 Summary of Matrix Evaluations by Radionuclide****Matrix:** Water

<b>Radio- Nuclide</b>	<b>Evaluation Summary</b>			<b>Total Analyses</b>	<b>Evaluation Percentages</b>		
	<b>A</b>	<b>W</b>	<b>N</b>		<b>% A</b>	<b>% W</b>	<b>% N</b>
SR90	59	12	4	75	79	16	5
CS137	135	7	2	144	94	5	1
PU238	46	15	1	62	74	24	2
PU239	49	14	1	64	77	22	2
AM241	67	20	3	90	74	22	3
U234	43	8	2	53	81	15	4
U238	46	7	1	54	85	13	2
Bq U	17	6	2	25	68	24	8
UG U	23	8	5	36	64	22	14
GROSS ALPHA	72	8	9	89	81	9	10
GROSS BETA	84	5	3	92	91	5	3
H3	76	13	5	94	81	14	5
CO60	135	8	0	143	94	6	0
<b>Totals:</b>	<b>852</b>	<b>131</b>	<b>38</b>	<b>1021</b>	<b>83%</b>	<b>13%</b>	<b>4%</b>

**QAP 54 EML Results****Environmental Measurements Laboratory, New York, NY**

<b>Matrix</b>	<b>Radionuclide</b>	<b>EML Value</b>	<b>EML Error</b>
Air Filter	241Am	0.486	0.016
	Gross Alpha	3.970	0.300
	54Mn	6.520	0.280
	239Pu	0.136	0.012
	238Pu	0.215	0.009
	UG/G U	3.700	0.160
	Bq U	0.093	0.004
	238U	0.046	0.002
	137Cs	8.760	0.340
	90Sr	7.100	0.220
	60Co	19.440	0.500
	106Ru	49.540	3.530
	134Cs	2.830	0.160
	Gross Beta	2.580	0.150
	234U	0.046	0.002

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**pCi/g or mL = Bq x 0.027**

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**QAP 54 EML Results****Environmental Measurements Laboratory, New York, NY**

<b>Matrix</b>	<b>Radionuclide</b>	<b>EML Value</b>	<b>EML Error</b>
Soil	137Cs	1740.000	90.000
	241Am	14.800	0.510
	239Pu	25.600	0.670
	238Pu	0.910	0.100
	UG/G U	3.730	0.020
	Bq U	91.800	2.300
	40K	468.000	25.000
	234U	43.600	1.800
	90Sr	69.000	5.700
	214Pb	34.300	1.600
	212Pb	41.500	2.200
	238U	46.100	1.300
	212Bi	42.000	4.100
	228Ac	42.700	1.700
	234Th	46.600	3.500
214Bi	32.600	1.400	

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**pCi/g or mL = Bq x 0.027**

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## QAP 54 EML Results

### Environmental Measurements Laboratory, New York, NY

<b>Matrix</b>	<b>Radionuclide</b>	<b>EML Value</b>	<b>EML Error</b>
Vegetation	241Am	6.170	0.320
	239Pu	9.580	1.300
	238Pu	0.660	0.020
	137Cs	842.000	42.000
	90Sr	1330.000	70.000
	60Co	30.400	1.200
	40K	603.000	32.000
	244Cm	3.690	0.290

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pCi/g or mL = Bq x 0.027

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**QAP 54 EML Results****Environmental Measurements Laboratory, New York, NY**

<b>Matrix</b>	<b>Radionuclide</b>	<b>EML Value</b>	<b>EML Error</b>
Water	3H	79.300	2.000
	Bq U	2.120	0.090
	241Am	1.670	0.080
	239Pu	1.640	0.090
	238Pu	1.580	0.090
	UG/G U	0.080	0.003
	238U	1.040	0.040
	234U	1.040	0.050
	137Cs	73.000	3.700
	60Co	98.200	3.600
	63Ni	50.500	5.000
	Gross Beta	1297.000	100.000
	Gross Alpha	1900.000	190.000
	90Sr	4.400	0.200

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**pCi/g or mL = Bq x 0.027**

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**QAP 54 Results by Laboratory****Lab:** AB Accura Analytical Labs, Norcross, GA

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	GROSS ALPHA	588.000	76.000	1900.000	190.000	0.309	N	A
2	GROSS ALPHA	534.000	62.000	1900.000	190.000	0.281	N	A
2	GROSS BETA	1085.000	39.000	1297.000	100.000	0.837	A	A
1	GROSS BETA	1232.000	55.000	1297.000	100.000	0.950	A	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	19.300	0.400	19.440	0.500	0.993	A	A
1	CS134	2.500	0.100	2.830	0.160	0.883	A	
1	CS137	8.900	0.300	8.760	0.340	1.016	A	A
1	MN54	6.600	0.300	6.520	0.280	1.012	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	43.000	3.000	42.700	1.700	1.007	A	A
1	BI212	50.000	6.000	42.000	4.100	1.190	W	N
1	BI214	36.000	4.000	32.600	1.400	1.104	A	W
1	CS137	1700.000	140.000	1740.000	90.000	0.977	A	A
1	K40	444.000	16.000	468.000	25.000	0.949	A	A
1	PB212	40.000	2.000	41.500	2.200	0.964	A	W
1	PB214	38.000	3.000	34.300	1.600	1.108	A	A
<b>Matrix:</b> WA Water Bq / L								
1	AM241	2.200	0.200	1.670	0.080	1.317	W	
1	CO60	105.000	2.000	98.200	3.600	1.069	A	A
1	CS137	69.300	3.000	73.000	3.700	0.949	A	A
1	GROSS ALPHA	1750.000	135.000	1900.000	190.000	0.921	A	
1	GROSS BETA	1400.000	75.000	1297.000	100.000	1.079	A	
1	H3	300.000	20.000	79.300	2.000	3.783	N	

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** AF Air Force Analytical Lab (AFIERA/SDRR), Brooks AFB

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.470	0.028	0.486	0.016	0.967	A	A
1	Bq U	0.140	0.011	0.093	0.004	1.503	A	N
1	CO60	18.864	1.267	19.440	0.500	0.970	A	A
1	CS134	3.000	0.274	2.830	0.160	1.060	A	
1	CS137	8.928	0.633	8.760	0.340	1.019	A	A
1	GROSS ALPHA	3.615	0.047	3.970	0.300	0.911	A	A
1	GROSS BETA	2.394	0.032	2.580	0.150	0.928	A	N
1	MN54	6.443	0.518	6.520	0.280	0.988	A	A
1	PU238	0.034	0.005	0.215	0.009	0.159	N	W
1	PU239	0.056	0.007	0.136	0.012	0.414	N	W
1	SR90	1.231	0.064	7.100	0.220	0.173	N	W
1	U234	0.088	0.009	0.046	0.002	1.907	W	N
1	U238	0.052	0.007	0.046	0.002	1.133	A	N

**Matrix:** SO Soil Bq / kg

1	AC228	38.973	3.491	42.700	1.700	0.913	A	N
1	AM241	14.111	1.878	14.800	0.510	0.953	A	A
1	BI212	54.760	8.131	42.000	4.100	1.304	N	A
1	BI214	25.283	2.281	32.600	1.400	0.776	N	N
1	Bq U	70.570	4.249	91.800	2.300	0.769	W	A
1	CS137	1570.157	96.201	1740.000	90.000	0.902	A	W
1	K40	439.313	28.555	468.000	25.000	0.939	A	W
1	PB212	36.753	2.708	41.500	2.200	0.886	W	W
1	PB214	27.503	2.932	34.300	1.600	0.802	W	N
1	PU239	23.607	2.445	25.600	0.670	0.922	A	A
1	TH234	53.280	9.008	46.600	3.500	1.143	A	A
1	U234	33.817	2.964	43.600	1.800	0.776	W	W
1	U238	33.618	2.944	46.100	1.300	0.729	W	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	6.437	0.407	6.170	0.320	1.043	A	A
1	CM244	3.102	0.231	3.690	0.290	0.841	A	A
1	CO60	34.718	3.216	30.400	1.200	1.142	A	W
1	CS137	893.303	54.190	842.000	42.000	1.061	A	W
1	K40	664.520	51.344	603.000	32.000	1.102	A	W
1	PU239	7.385	0.613	9.580	1.300	0.771	W	W
1	SR90	963.357	6.836	1330.000	70.000	0.724	W	W

**Matrix:** WA Water Bq / L

1	AM241	1.710	0.115	1.670	0.080	1.024	A	A
1	CO60	98.290	5.635	98.200	3.600	1.001	A	A
1	CS137	72.770	4.255	73.000	3.700	0.997	A	A
1	GROSS ALPHA	1374.800	43.900	1900.000	190.000	0.724	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 54 Results by Laboratory****Lab:** AF Air Force Analytical Lab (AFIERA/SDRR), Brooks AFB

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	GROSS BETA	1152.500	356.900	1297.000	100.000	0.889	A	A
1	H3	84.181	15.694	79.300	2.000	1.062	A	A
1	PU238	1.629	0.091	1.580	0.090	1.031	A	A
1	PU239	1.408	0.104	1.640	0.090	0.859	W	A
1	SR90	3.844	0.320	4.400	0.200	0.874	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.477	0.064	0.486	0.016	0.981	A	A
1	CO60	19.100	2.800	19.440	0.500	0.983	A	A
1	CS134	2.880	0.460	2.830	0.160	1.018	A	
1	CS137	9.270	1.390	8.760	0.340	1.058	A	A
1	MN54	6.830	1.030	6.520	0.280	1.048	A	A
1	PU238	0.219	0.031	0.215	0.009	1.019	A	A
1	PU239	0.139	0.021	0.136	0.012	1.022	A	A
1	SR90	7.230	1.320	7.100	0.220	1.018	A	A
1	UG U	3.730	0.503	3.700	0.160	1.008	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	38.000	7.300	42.700	1.700	0.890	A	A
1	AM241	16.700	2.590	14.800	0.510	1.128	A	A
1	BI212	42.700	14.300	42.000	4.100	1.017	A	A
1	BI214	24.700	21.800	32.600	1.400	0.758	N	W
1	CS137	1760.000	290.000	1740.000	90.000	1.011	A	A
1	K40	468.000	82.700	468.000	25.000	1.000	A	A
1	PB212	43.700	7.770	41.500	2.200	1.053	A	A
1	PB214	29.300	5.770	34.300	1.600	0.854	W	A
1	PU238	0.861	0.442	0.910	0.100	0.946	A	A
1	PU239	25.100	3.610	25.600	0.670	0.980	A	A
1	SR90	74.200	13.900	69.000	5.700	1.075	A	A
1	TH234	63.000	18.300	46.600	3.500	1.352	A	A
1	UG U	2.948	0.399	3.730	0.020	0.790	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	6.060	1.210	6.170	0.320	0.982	A	A
1	CM244	3.210	0.812	3.690	0.290	0.870	A	A
1	CO60	31.100	5.330	30.400	1.200	1.023	A	A
1	CS137	933.000	157.000	842.000	42.000	1.108	A	A
1	K40	660.000	113.000	603.000	32.000	1.095	A	A
1	PU238	0.835	0.357	0.660	0.020	1.265	A	
1	PU239	8.600	1.470	9.580	1.300	0.898	A	
1	SR90	1190.000	215.000	1330.000	70.000	0.895	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.590	0.217	1.670	0.080	0.952	A	A
1	CO60	96.000	12.000	98.200	3.600	0.978	A	A
1	CS137	73.800	9.330	73.000	3.700	1.011	A	A
1	GROSS ALPHA	2083.000	283.300	1900.000	190.000	1.096	A	
1	GROSS BETA	1167.000	160.000	1297.000	100.000	0.900	A	
1	H3	85.500	15.000	79.300	2.000	1.078	A	A
1	PU238	1.500	0.201	1.580	0.090	0.949	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 54 Results by Laboratory****Lab:** AG Paragon Analytics, Inc, Fort Collins, CO

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	PU239	1.610	0.214	1.640	0.090	0.982	A	A
1	SR90	1.690	0.310	4.400	0.200	0.384	N	A
1	UG U	0.081	0.011	0.080	0.003	1.008	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi}/\text{g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.421	0.009	0.486	0.016	0.866	W	A
1	Bq U	0.079	0.003	0.093	0.004	0.849	W	N
1	CO60	21.500	0.220	19.440	0.500	1.106	A	A
1	CS134	2.700	0.090	2.830	0.160	0.954	A	
1	CS137	10.300	0.200	8.760	0.340	1.176	W	A
1	GROSS ALPHA	3.100	0.040	3.970	0.300	0.781	W	A
1	GROSS BETA	2.200	0.030	2.580	0.150	0.853	A	W
1	MN54	7.460	0.220	6.520	0.280	1.144	A	A
1	PU238	0.170	0.005	0.215	0.009	0.791	W	A
1	PU239	0.120	0.004	0.136	0.012	0.882	W	A
1	SR90	4.840	0.410	7.100	0.220	0.682	W	

**Matrix:** SO Soil Bq / kg

1	AC228	46.500	10.400	42.700	1.700	1.089	A	
1	AM241	10.900	1.400	14.800	0.510	0.736	W	
1	BI212	30.000	8.000	42.000	4.100	0.714	A	
1	BI214	24.000	5.000	32.600	1.400	0.736	N	
1	Bq U	80.300	3.300	91.800	2.300	0.875	A	
1	CS137	1850.000	310.000	1740.000	90.000	1.063	A	
1	K40	569.000	20.000	468.000	25.000	1.216	A	
1	PB212	52.000	10.000	41.500	2.200	1.253	W	
1	PB214	27.500	6.300	34.300	1.600	0.802	W	
1	PU239	21.600	3.800	25.600	0.670	0.844	W	
1	SR90	65.000	18.000	69.000	5.700	0.942	A	
1	TH234	35.500	8.100	46.600	3.500	0.762	W	

**Matrix:** WA Water Bq / L

1	AM241	1.600	0.056	1.670	0.080	0.958	A	W
1	Bq U	1.610	0.040	2.120	0.090	0.759	W	W
1	CO60	100.300	1.100	98.200	3.600	1.021	A	A
1	CS137	74.850	1.120	73.000	3.700	1.025	A	A
1	GROSS ALPHA	1093.000	22.000	1900.000	190.000	0.575	N	A
1	GROSS BETA	1130.000	23.000	1297.000	100.000	0.871	A	A
1	H3	132.000	16.000	79.300	2.000	1.665	W	A
1	PU238	1.290	0.052	1.580	0.090	0.816	W	A
1	PU239	1.330	0.054	1.640	0.090	0.811	W	W
1	SR90	4.390	0.360	4.400	0.200	0.998	A	

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

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.485	0.071	0.486	0.016	0.998	A	N
1	Bq U	0.116	0.030	0.093	0.004	1.247	A	W
1	CO60	19.330	0.290	19.440	0.500	0.994	A	A
1	CS134	2.240	0.070	2.830	0.160	0.792	W	
1	CS137	8.960	0.120	8.760	0.340	1.023	A	A
1	GROSS ALPHA	3.360	0.020	3.970	0.300	0.846	A	A
1	GROSS BETA	2.630	0.020	2.580	0.150	1.019	A	A
1	MN54	6.620	0.110	6.520	0.280	1.015	A	A
1	PU238	0.580	0.040	0.215	0.009	2.698	N	N
1	PU239	0.246	0.028	0.136	0.012	1.809	N	W
1	SR90	4.430	0.240	7.100	0.220	0.624	W	A
1	U234	0.061	0.016	0.046	0.002	1.326	A	N
1	U238	0.055	0.014	0.046	0.002	1.196	A	N

**Matrix:** SO Soil Bq / kg

1	AC228	37.310	3.820	42.700	1.700	0.874	W	A
1	AM241	13.570	1.890	14.800	0.510	0.917	A	A
1	BI212	48.520	5.910	42.000	4.100	1.155	W	A
1	BI214	27.950	1.720	32.600	1.400	0.857	W	A
1	Bq U	65.370	12.580	91.800	2.300	0.712	W	A
1	CS137	1746.900	6.500	1740.000	90.000	1.004	A	A
1	K40	484.860	16.500	468.000	25.000	1.036	A	A
1	PB212	43.690	1.650	41.500	2.200	1.053	A	A
1	PB214	35.850	3.500	34.300	1.600	1.045	A	A
1	PU239	25.470	4.070	25.600	0.670	0.995	A	A
1	SR90	68.070	13.320	69.000	5.700	0.987	A	W
1	TH234	39.770	13.050	46.600	3.500	0.853	A	A
1	U234	33.940	6.520	43.600	1.800	0.778	W	A
1	U238	31.430	6.060	46.100	1.300	0.682	W	W

**Matrix:** VE Vegetation Bq / kg

1	AM241	7.000	2.300	6.170	0.320	1.135	A	A
1	CO60	30.410	1.780	30.400	1.200	1.000	A	A
1	CS137	876.120	6.560	842.000	42.000	1.041	A	A
1	K40	634.550	32.130	603.000	32.000	1.052	A	A
1	PU239	8.770	1.850	9.580	1.300	0.915	A	A
1	SR90	1057.000	43.650	1330.000	70.000	0.795	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.490	0.330	1.670	0.080	0.892	W	W
1	Bq U	2.180	0.150	2.120	0.090	1.028	A	A
1	CO60	99.940	0.970	98.200	3.600	1.018	A	A
1	CS137	78.660	0.770	73.000	3.700	1.078	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

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	GROSS ALPHA	1622.450	13.860	1900.000	190.000	0.854	A	W
1	GROSS BETA	1389.660	12.520	1297.000	100.000	1.071	A	A
1	H3	67.290	4.120	79.300	2.000	0.849	A	A
1	PU238	1.530	0.090	1.580	0.090	0.968	A	W
1	PU239	1.560	0.090	1.640	0.090	0.951	A	A
1	SR90	7.830	0.370	4.400	0.200	1.780	N	A
1	U234	1.010	0.090	1.040	0.050	0.971	A	A
1	U238	0.960	0.080	1.040	0.040	0.923	A	W

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** AN Argonne National Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.490	0.030	0.486	0.016	1.008	A	A
1	CO60	19.000	1.000	19.440	0.500	0.977	A	A
1	CS134	2.800	0.500	2.830	0.160	0.989	A	
1	CS137	9.100	0.300	8.760	0.340	1.039	A	A
1	MN54	6.300	1.000	6.520	0.280	0.966	A	A
1	PU238	0.210	0.003	0.215	0.009	0.977	A	A
1	PU239	0.140	0.006	0.136	0.012	1.029	A	A
1	SR90	7.400	0.400	7.100	0.220	1.042	A	A
1	U234	0.047	0.003	0.046	0.002	1.022	A	A
1	U238	0.043	0.003	0.046	0.002	0.935	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AM241	14.000	0.900	14.800	0.510	0.946	A	A
1	CS137	1874.000	15.000	1740.000	90.000	1.077	A	A
1	K40	485.000	18.000	468.000	25.000	1.036	A	A
1	PU239	25.000	3.000	25.600	0.670	0.977	A	A
1	SR90	66.000	4.000	69.000	5.700	0.957	A	A
1	U234	52.000	14.000	43.600	1.800	1.193	W	A
1	U238	51.000	12.000	46.100	1.300	1.106	A	A
<b>Matrix:</b> WA Water Bq / L								
1	AM241	1.630	0.050	1.670	0.080	0.976	A	A
1	CO60	99.000	3.000	98.200	3.600	1.008	A	A
1	CS137	72.000	3.000	73.000	3.700	0.986	A	A
1	H3	85.000	1.000	79.300	2.000	1.072	A	A
1	PU238	1.560	0.040	1.580	0.090	0.987	A	A
1	PU239	1.640	0.040	1.640	0.090	1.000	A	A
1	SR90	4.200	0.100	4.400	0.200	0.955	A	A
1	U234	0.980	0.030	1.040	0.050	0.942	A	A
1	U238	1.000	0.030	1.040	0.040	0.962	A	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** AR Acculabs Inc., Golden, CO

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.452	0.064	0.486	0.016	0.930	A	A
1	CO60	19.416	6.775	19.440	0.500	0.999	A	A
1	CS137	9.084	3.176	8.760	0.340	1.037	A	A
1	GROSS ALPHA	2.882	0.110	3.970	0.300	0.726	W	A
1	GROSS BETA	2.836	0.073	2.580	0.150	1.099	A	A
1	MN54	6.790	2.436	6.520	0.280	1.041	A	A
1	PU238	0.228	0.038	0.215	0.009	1.060	A	A
1	PU239	0.135	0.027	0.136	0.012	0.993	A	A
1	RU106	58.164	21.225	49.540	3.530	1.174	A	
1	SR90	7.450	0.615	7.100	0.220	1.049	A	A
1	U234	0.046	0.018	0.046	0.002	0.991	A	A
1	U238	0.048	0.019	0.046	0.002	1.039	A	A
1	UG U	3.850		3.700	0.160	1.041	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	40.140	20.200	42.700	1.700	0.940	A	A
1	AM241	14.800	1.830	14.800	0.510	1.000	A	A
1	BI212	50.280	30.400	42.000	4.100	1.197	W	N
1	BI214	28.860	11.000	32.600	1.400	0.885	A	A
1	CS137	1680.000	822.300	1740.000	90.000	0.966	A	A
1	K40	440.400	216.600	468.000	25.000	0.941	A	A
1	PB212	42.710	21.600	41.500	2.200	1.029	A	A
1	PB214	28.205	14.700	34.300	1.600	0.822	W	A
1	PU238	0.979	0.370	0.910	0.100	1.076	A	A
1	PU239	27.731	3.740	25.600	0.670	1.083	A	A
1	TH234	38.200	15.900	46.600	3.500	0.820	A	A
1	U234	36.279	8.600	43.600	1.800	0.832	W	A
1	U238	36.556	9.000	46.100	1.300	0.793	W	A
1	UG U	2.895		3.730	0.020	0.776	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	5.809	0.707	6.170	0.320	0.941	A	A
1	CM244	3.460	0.523	3.690	0.290	0.938	A	A
1	CO60	29.755	14.871	30.400	1.200	0.979	A	A
1	CS137	825.350	403.990	842.000	42.000	0.980	A	A
1	K40	599.350	296.770	603.000	32.000	0.994	A	A
1	PU238	0.796	0.262	0.660	0.020	1.206	A	A
1	PU239	9.015	0.994	9.580	1.300	0.941	A	A
1	SR90	877.490	102.450	1330.000	70.000	0.660	W	W

**Matrix:** WA Water Bq / L

1	AM241	1.625	0.236	1.670	0.080	0.973	A	A
1	CO60	100.400	49.477	98.200	3.600	1.022	A	A

**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, 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 54 Results by Laboratory****Lab:** AR Acculabs Inc., Golden, CO

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	CS137	75.150	37.133	73.000	3.700	1.029	A	A
1	GROSS ALPHA	1735.760	114.980	1900.000	190.000	0.914	A	A
1	GROSS BETA	1648.160	373.500	1297.000	100.000	1.271	A	A
1	H3	89.170	0.430	79.300	2.000	1.124	A	A
1	PU238	1.603	0.228	1.580	0.090	1.015	A	A
1	PU239	1.686	0.237	1.640	0.090	1.028	A	A
1	SR90	4.264	0.702	4.400	0.200	0.969	A	A
1	U234	1.013	0.186	1.040	0.050	0.974	A	A
1	U238	0.989	0.182	1.040	0.040	0.951	A	A
1	UG U	0.080		0.080	0.003	1.003	A	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** AS USACHPPM, Aberdeen Proving Ground, MD

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.527	0.152	0.486	0.016	1.084	A	
1	CO60	18.526	0.236	19.440	0.500	0.953	A	A
1	CS134	2.202	0.084	2.830	0.160	0.778	W	
1	CS137	9.080	0.110	8.760	0.340	1.037	A	A
1	GROSS ALPHA	3.344	0.078	3.970	0.300	0.842	A	A
1	GROSS BETA	2.951	0.072	2.580	0.150	1.144	A	A
1	MN54	6.940	0.470	6.520	0.280	1.064	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	51.470	5.110	42.700	1.700	1.205	A	A
1	AM241	18.640	3.660	14.800	0.510	1.259	A	A
1	BI212	29.670	5.410	42.000	4.100	0.706	A	A
1	BI214	32.280	2.880	32.600	1.400	0.990	A	A
1	CS137	2101.600	10.400	1740.000	90.000	1.208	W	A
1	K40	550.190	23.660	468.000	25.000	1.176	A	A
1	PB212	48.690	3.710	41.500	2.200	1.173	A	A
1	PB214	34.940	6.490	34.300	1.600	1.019	A	A
1	TH234	54.940	35.350	46.600	3.500	1.179	A	A

**Matrix:** WA Water Bq / L

1	AM241	2.800	0.800	1.670	0.080	1.677	N	W
1	CO60	108.400	1.200	98.200	3.600	1.104	A	A
1	CS137	86.840	0.960	73.000	3.700	1.190	W	A
1	GROSS ALPHA	1731.000	46.000	1900.000	190.000	0.911	A	N
1	GROSS BETA	991.000	38.000	1297.000	100.000	0.764	A	N
1	H3	55.800	7.000	79.300	2.000	0.704	N	W
1	SR90	3.935	0.131	4.400	0.200	0.894	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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.500	0.079	0.486	0.016	1.029	A	
1	Bq U	0.095	0.009	0.093	0.004	1.022	A	
1	CO60	18.948	1.210	19.440	0.500	0.975	A	A
1	CS134	2.712	0.245	2.830	0.160	0.958	A	
1	CS137	8.602	0.849	8.760	0.340	0.982	A	A
1	GROSS ALPHA	3.316	0.130	3.970	0.300	0.835	A	A
1	GROSS BETA	2.910	0.081	2.580	0.150	1.128	A	A
1	MN54	6.426	0.685	6.520	0.280	0.986	A	A
1	PU238	0.225	0.030	0.215	0.009	1.047	A	
1	PU239	0.146	0.020	0.136	0.012	1.074	A	
1	SR90	7.554	0.409	7.100	0.220	1.064	A	
1	U234	0.048	0.007	0.046	0.002	1.043	A	
1	U238	0.045	0.007	0.046	0.002	0.978	A	

**Matrix:** SO Soil Bq / kg

1	AC228	37.087	8.760	42.700	1.700	0.869	W	A
1	AM241	14.737	1.933	14.800	0.510	0.996	A	A
1	BI214	29.160	2.710	32.600	1.400	0.894	A	A
1	Bq U	71.437	6.558	91.800	2.300	0.778	W	W
1	CS137	1594.333	135.667	1740.000	90.000	0.916	A	A
1	K40	454.100	47.800	468.000	25.000	0.970	A	A
1	PB214	29.707	3.633	34.300	1.600	0.866	W	W
1	PU238	1.179	0.316	0.910	0.100	1.296	W	A
1	PU239	28.195	3.780	25.600	0.670	1.101	A	A
1	SR90	68.358	4.566	69.000	5.700	0.991	A	
1	U234	33.535	4.447	43.600	1.800	0.769	W	W
1	U238	36.408	4.801	46.100	1.300	0.790	W	W

**Matrix:** VE Vegetation Bq / kg

1	AM241	5.973	1.235	6.170	0.320	0.968	A	W
1	CO60	30.405	2.225	30.400	1.200	1.000	A	A
1	CS137	834.950	71.050	842.000	42.000	0.992	A	A
1	K40	648.150	68.650	603.000	32.000	1.075	A	A
1	PU238	0.813	0.345	0.660	0.020	1.232	A	
1	PU239	10.196	1.681	9.580	1.300	1.064	A	A
1	SR90	1089.591	59.831	1330.000	70.000	0.819	A	

**Matrix:** WA Water Bq / L

1	AM241	1.748	0.399	1.670	0.080	1.047	A	W
1	Bq U	1.986	0.207	2.120	0.090	0.937	A	A
1	CO60	104.800	6.667	98.200	3.600	1.067	A	A
1	CS137	77.863	7.567	73.000	3.700	1.067	A	A
1	GROSS ALPHA	1763.333	91.933	1900.000	190.000	0.928	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 54 Results by Laboratory****Lab:** AT ATL International inc., Germantown, MD

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	GROSS BETA	1430.000	79.200	1297.000	100.000	1.103	A	A
1	H3	77.413	5.728	79.300	2.000	0.976	A	A
1	PU238	1.612	0.215	1.580	0.090	1.020	A	A
1	PU239	1.661	0.221	1.640	0.090	1.013	A	A
1	SR90	4.330	0.272	4.400	0.200	0.984	A	A
1	U234	0.985	0.148	1.040	0.050	0.947	A	W
1	U238	0.956	0.144	1.040	0.040	0.919	A	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** AU ORISE RSAT/ESSAP, Oak Ridge

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.457	0.035	0.486	0.016	0.940	A	A
1	CO60	19.750	0.720	19.440	0.500	1.016	A	A
1	CS134	2.820	0.370	2.830	0.160	0.996	A	
1	CS137	9.130	0.500	8.760	0.340	1.042	A	W
1	GROSS ALPHA	3.490	0.150	3.970	0.300	0.879	A	W
1	GROSS BETA	2.970	0.240	2.580	0.150	1.151	A	A
1	MN54	6.900	0.500	6.520	0.280	1.058	A	A
1	PU238	0.214	0.020	0.215	0.009	0.995	A	
1	PU239	0.144	0.014	0.136	0.012	1.059	A	
1	U234	0.044	0.005	0.046	0.002	0.957	A	A
1	U238	0.042	0.005	0.046	0.002	0.913	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	41.800	5.400	42.700	1.700	0.979	A	A
1	AM241	13.700	1.800	14.800	0.510	0.926	A	A
1	BI212	39.600	9.100	42.000	4.100	0.943	A	W
1	BI214	28.500	3.400	32.600	1.400	0.874	W	A
1	CS137	1656.000	19.000	1740.000	90.000	0.952	A	A
1	K40	427.000	25.000	468.000	25.000	0.912	A	A
1	PB212	36.200	3.000	41.500	2.200	0.872	W	W
1	PB214	31.100	4.100	34.300	1.600	0.907	A	W
1	PU239	25.900	2.800	25.600	0.670	1.012	A	
1	SR90	68.100	6.800	69.000	5.700	0.987	A	A
1	TH234	51.000	17.000	46.600	3.500	1.094	A	A
1	U234	42.100	4.200	43.600	1.800	0.966	A	A
1	U238	44.300	4.400	46.100	1.300	0.961	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	7.160	0.680	6.170	0.320	1.160	A	A
1	CO60	30.900	2.700	30.400	1.200	1.016	A	A
1	CS137	827.000	11.000	842.000	42.000	0.982	A	A
1	K40	550.000	34.000	603.000	32.000	0.912	A	A
1	PU239	9.600	1.000	9.580	1.300	1.002	A	
1	SR90	1503.000	56.000	1330.000	70.000	1.130	W	A

**Matrix:** WA Water Bq / L

1	AM241	1.640	0.180	1.670	0.080	0.982	A	A
1	CO60	102.300	3.700	98.200	3.600	1.042	A	A
1	CS137	76.500	1.600	73.000	3.700	1.048	A	A
1	GROSS ALPHA	1882.000	584.000	1900.000	190.000	0.991	A	A
1	GROSS BETA	1525.000	483.000	1297.000	100.000	1.176	A	A
1	H3	141.000	21.000	79.300	2.000	1.778	W	A
1	PU238	1.650	0.190	1.580	0.090	1.044	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 54 Results by Laboratory****Lab:** AU ORISE RSAT/ESSAP, Oak Ridge

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	PU239	1.780	0.200	1.640	0.090	1.085	A	
1	SR90	3.870	0.360	4.400	0.200	0.880	A	A
1	U234	0.930	0.130	1.040	0.050	0.894	W	W
1	U238	0.940	0.130	1.040	0.040	0.904	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** AW Argonne West National Lab

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	20.100	1.200	19.440	0.500	1.034	A	A
1	CS134	3.000	0.300	2.830	0.160	1.060	A	
1	CS137	9.400	0.600	8.760	0.340	1.073	A	A
1	MN54	6.400	0.400	6.520	0.280	0.982	A	A
1	RU106	60.000	4.000	49.540	3.530	1.211	W	

**Matrix:** WA Water Bq / L

1	CO60	99.000	6.000	98.200	3.600	1.008	A	A
1	CS137	76.000	5.000	73.000	3.700	1.041	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi/g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	18.170	0.470	19.440	0.500	0.935	A	A
1	CS137	8.748	0.504	8.760	0.340	0.999	A	A
1	MN54	6.667	0.504	6.520	0.280	1.023	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	CS137	1727.000	32.500	1740.000	90.000	0.993	A	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	31.760	1.983	30.400	1.200	1.045	A	A
1	CS137	828.100	23.630	842.000	42.000	0.983	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	111.800	1.000	98.200	3.600	1.138	W	A
1	CS137	86.570	0.604	73.000	3.700	1.186	W	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi/g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** BC BWX Technologies, Inc, Naval Nuclear Fuel Division, Lynchburg, VA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	18.900	1.100	19.440	0.500	0.972	A	A
1	CS134	2.580	0.230	2.830	0.160	0.912	A	
1	CS137	9.030	0.430	8.760	0.340	1.031	A	A
1	GROSS ALPHA	2.810	0.090	3.970	0.300	0.708	W	A
1	GROSS BETA	2.210	0.050	2.580	0.150	0.857	A	W
1	MN54	6.140	0.530	6.520	0.280	0.942	A	A
1	SR90	6.570	0.380	7.100	0.220	0.925	A	A
1	U234	0.051	0.012	0.046	0.002	1.113	A	A
1	U238	0.051	0.012	0.046	0.002	1.100	A	A

**Matrix:** SO Soil Bq / kg

1	CS137	1860.000	180.000	1740.000	90.000	1.069	A	W
1	K40	525.000	58.000	468.000	25.000	1.122	A	A
1	U234	43.700	5.200	43.600	1.800	1.002	A	A
1	U238	46.200	5.200	46.100	1.300	1.002	A	A

**Matrix:** VE Vegetation Bq / kg

1	CO60	40.000	4.300	30.400	1.200	1.316	W	A
1	CS137	1080.000	112.000	842.000	42.000	1.283	W	A
1	K40	810.000	84.000	603.000	32.000	1.343	W	A
1	SR90	1120.000	60.000	1330.000	70.000	0.842	A	A

**Matrix:** WA Water Bq / L

1	CO60	98.800	3.600	98.200	3.600	1.006	A	A
1	CS137	73.600	2.500	73.000	3.700	1.008	A	A
1	GROSS ALPHA	2160.000	60.000	1900.000	190.000	1.137	W	W
1	GROSS BETA	1360.000	20.000	1297.000	100.000	1.049	A	A
1	SR90	3.650	0.310	4.400	0.200	0.830	W	W
1	U234	1.190	0.110	1.040	0.050	1.144	A	A
1	U238	1.170	0.110	1.040	0.040	1.125	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 54 Results by Laboratory****Lab:** BE Grand Junction Office Analytical Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.490	0.020	0.486	0.016	1.008	A	A
1	CO60	21.000	2.000	19.440	0.500	1.080	A	W
1	CS134	2.400	0.200	2.830	0.160	0.848	A	
1	CS137	9.800	2.000	8.760	0.340	1.119	A	W
1	GROSS ALPHA	3.570	0.340	3.970	0.300	0.899	A	A
1	GROSS BETA	2.510	0.290	2.580	0.150	0.973	A	A
1	MN54	7.400	1.000	6.520	0.280	1.135	A	W
1	PU238	0.210	0.008	0.215	0.009	0.977	A	A
1	PU239	0.140	0.006	0.136	0.012	1.029	A	A
1	SR90	7.340	0.390	7.100	0.220	1.034	A	A
1	U234	0.043	0.004	0.046	0.002	0.935	A	A
1	U238	0.046	0.004	0.046	0.002	1.000	A	A
1	UG U	3.600		3.700	0.160	0.973	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	42.400	10.000	42.700	1.700	0.993	A	
1	AM241	14.530	0.760	14.800	0.510	0.982	A	A
1	BI212	25.400	20.000	42.000	4.100	0.605	A	
1	CS137	1624.000	162.000	1740.000	90.000	0.933	A	A
1	K40	462.000	56.000	468.000	25.000	0.987	A	N
1	PB212	45.800	16.000	41.500	2.200	1.104	A	A
1	PB214	29.500	10.000	34.300	1.600	0.860	W	W
1	PU239	24.830	1.110	25.600	0.670	0.970	A	A
1	SR90	66.600	5.100	69.000	5.700	0.965	A	A
1	TH234	59.300	24.000	46.600	3.500	1.273	A	A
1	U234	40.460	2.410	43.600	1.800	0.928	A	A
1	U238	42.270	2.460	46.100	1.300	0.917	A	A
1	UG U	3.600		3.730	0.020	0.965	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	6.190	0.340	6.170	0.320	1.003	A	A
1	CM244	3.650	0.240	3.690	0.290	0.989	A	A
1	CO60	32.400	6.000	30.400	1.200	1.066	A	A
1	CS137	835.000	168.000	842.000	42.000	0.992	A	A
1	K40	691.000	166.000	603.000	32.000	1.146	A	N
1	PU239	9.180	0.480	9.580	1.300	0.958	A	A
1	SR90	1224.000	65.000	1330.000	70.000	0.920	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.620	0.070	1.670	0.080	0.970	A	A
1	CO60	104.000	8.000	98.200	3.600	1.059	A	A
1	CS137	77.000	14.000	73.000	3.700	1.055	A	W
1	GROSS ALPHA	1918.000	165.000	1900.000	190.000	1.009	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 54 Results by Laboratory****Lab:** BE Grand Junction Office Analytical Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	GROSS BETA	1272.000	140.000	1297.000	100.000	0.981	A	A
1	H3	86.100	8.400	79.300	2.000	1.086	A	A
1	PU238	1.580	0.070	1.580	0.090	1.000	A	A
1	PU239	1.650	0.070	1.640	0.090	1.006	A	A
1	SR90	4.080	0.260	4.400	0.200	0.927	A	A
1	U234	0.950	0.050	1.040	0.050	0.913	A	A
1	U238	0.970	0.050	1.040	0.040	0.933	A	A
1	UG U	0.078		0.080	0.003	0.971	A	W

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.470	0.062	0.486	0.016	0.967	A	A
1	CO60	19.400	1.900	19.440	0.500	0.998	A	A
1	CS137	8.870	1.110	8.760	0.340	1.013	A	A
1	PU238	0.220	0.021	0.215	0.009	1.023	A	W
1	PU239	0.140	0.015	0.136	0.012	1.029	A	A
1	SR90	8.030	0.200	7.100	0.220	1.131	A	A
1	U234	0.047	0.007	0.046	0.002	1.022	A	A
1	U238	0.048	0.007	0.046	0.002	1.043	A	A

**Matrix:** SO Soil Bq / kg

1	AM241	15.800	2.400	14.800	0.510	1.068	A	
1	CS137	1919.000	231.000	1740.000	90.000	1.103	A	A
1	PU239	23.380	2.510	25.600	0.670	0.913	A	A
1	SR90	69.000	4.800	69.000	5.700	1.000	A	A
1	U234	41.560	8.080	43.600	1.800	0.953	A	A
1	U238	42.100	8.130	46.100	1.300	0.913	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	5.400	1.100	6.170	0.320	0.875	W	A
1	CO60	32.000	2.800	30.400	1.200	1.053	A	A
1	CS137	871.000	105.000	842.000	42.000	1.034	A	A
1	PU239	8.740	1.170	9.580	1.300	0.912	A	A
1	SR90	1214.200	32.100	1330.000	70.000	0.913	A	W

**Matrix:** WA Water Bq / L

1	AM241	1.650	0.230	1.670	0.080	0.988	A	A
1	CO60	95.400	5.210	98.200	3.600	0.971	A	W
1	CS137	75.700	10.000	73.000	3.700	1.037	A	A
1	PU238	1.540	0.150	1.580	0.090	0.975	A	A
1	PU239	1.590	0.160	1.640	0.090	0.970	A	A
1	SR90	4.420	0.360	4.400	0.200	1.005	A	A
1	U234	1.020	0.140	1.040	0.050	0.981	A	W
1	U238	1.030	0.140	1.040	0.040	0.990	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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	2.340	0.340	0.486	0.016	4.815	N	
1	CO60	18.690	0.370	19.440	0.500	0.961	A	W
1	CS134	2.340	0.020	2.830	0.160	0.827	A	
1	CS137	9.710	0.560	8.760	0.340	1.108	A	A
1	GROSS ALPHA	3.140	0.080	3.970	0.300	0.791	W	A
1	GROSS BETA	2.070	0.060	2.580	0.150	0.802	W	W
1	MN54	6.920	0.400	6.520	0.280	1.061	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	38.850	0.520	42.700	1.700	0.910	A	W
1	AM241	25.170	9.010	14.800	0.510	1.701	W	
1	BI212	25.230	3.690	42.000	4.100	0.601	A	W
1	BI214	32.250	1.730	32.600	1.400	0.989	A	A
1	CS137	1891.930	92.640	1740.000	90.000	1.087	A	A
1	K40	460.030	16.640	468.000	25.000	0.983	A	W
1	PB212	42.060	0.970	41.500	2.200	1.013	A	A
1	PB214	33.650	3.180	34.300	1.600	0.981	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	14.480	4.120	6.170	0.320	2.347	N	
1	CO60	27.940	0.600	30.400	1.200	0.919	A	W
1	CS137	915.130	48.560	842.000	42.000	1.087	A	A
1	K40	550.070	37.770	603.000	32.000	0.912	A	W

**Matrix:** WA Water Bq / L

1	CO60	101.870	0.970	98.200	3.600	1.037	A	A
1	CS137	79.550	1.090	73.000	3.700	1.090	A	A
1	GROSS ALPHA	725.430	36.540	1900.000	190.000	0.382	N	N
1	GROSS BETA	1459.160	79.750	1297.000	100.000	1.125	A	W
1	H3	81.600	5.450	79.300	2.000	1.029	A	A
1	SR90	3.010	0.240	4.400	0.200	0.684	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 54 Results by Laboratory****Lab:** BP Battelle Pacific Northwest National Laboratory

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
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**Matrix:** AI Air Filter Bq / filter

1	GROSS ALPHA	4.000	0.100	3.970	0.300	1.008	A	
1	GROSS BETA	2.700	0.100	2.580	0.150	1.047	A	

**Matrix:** WA Water Bq / L

1	H3	78.000	6.000	79.300	2.000	0.984	A	
1	UG U	0.076	0.002	0.080	0.003	0.950	A	

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	18.800	0.400	19.440	0.500	0.967	A	A
1	CS134	2.900	0.200	2.830	0.160	1.025	A	
1	CS137	10.000	0.300	8.760	0.340	1.142	A	W
1	GROSS ALPHA	4.000	0.300	3.970	0.300	1.008	A	W
1	GROSS BETA	3.100	0.100	2.580	0.150	1.202	A	A
1	MN54	6.800	0.200	6.520	0.280	1.043	A	A
1	UG U	4.200	0.200	3.700	0.160	1.135	A	W
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	36.000	10.000	42.700	1.700	0.843	W	W
1	BI212	58.000	9.000	42.000	4.100	1.381	N	
1	BI214	38.000	8.000	32.600	1.400	1.166	A	W
1	CS137	1820.000	27.000	1740.000	90.000	1.046	A	A
1	K40	820.000	260.000	468.000	25.000	1.752	N	
1	PB212	43.000	3.000	41.500	2.200	1.036	A	A
1	PB214	25.000	10.000	34.300	1.600	0.729	N	N
1	TH234	60.000	29.000	46.600	3.500	1.288	A	W
1	UG U	3.200	0.200	3.730	0.020	0.858	A	W
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CS137	905.000	25.000	842.000	42.000	1.075	A	A
1	K40	520.000	240.000	603.000	32.000	0.862	W	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	112.000	2.000	98.200	3.600	1.141	W	A
1	CS137	74.000	1.000	73.000	3.700	1.014	A	W
1	GROSS ALPHA	1570.000	87.000	1900.000	190.000	0.826	A	A
1	GROSS BETA	1554.000	43.000	1297.000	100.000	1.198	A	A
1	UG U	0.097	0.003	0.080	0.003	1.213	W	W

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.420	0.025	0.486	0.016	0.864	W	A
1	Bq U	0.120	0.060	0.093	0.004	1.290	A	A
1	CO60	19.000	0.400	19.440	0.500	0.977	A	A
1	CS134	3.000	0.500	2.830	0.160	1.060	A	A
1	CS137	8.700	0.300	8.760	0.340	0.993	A	A
1	GROSS ALPHA	3.600	0.200	3.970	0.300	0.907	A	A
1	MN54	6.300	0.300	6.520	0.280	0.966	A	A
1	PU238	0.210	0.010	0.215	0.009	0.977	A	A
1	PU239	0.140	0.007	0.136	0.012	1.029	A	A
1	U234	0.056	0.003	0.046	0.002	1.217	A	A
1	U238	0.051	0.003	0.046	0.002	1.109	A	A
1	UG U	4.500	0.450	3.700	0.160	1.216	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	37.000	3.000	42.700	1.700	0.867	W	A
1	AM241	14.400	0.900	14.800	0.510	0.973	A	A
1	BI212	35.000	3.000	42.000	4.100	0.833	A	A
1	BI214	28.000	3.000	32.600	1.400	0.859	W	W
1	Bq U	89.000	9.000	91.800	2.300	0.969	A	A
1	CS137	1670.000	60.000	1740.000	90.000	0.960	A	A
1	K40	430.000	30.000	468.000	25.000	0.919	A	A
1	PB212	34.000	3.000	41.500	2.200	0.819	W	A
1	PB214	28.000	3.000	34.300	1.600	0.816	W	A
1	PU239	24.300	1.200	25.600	0.670	0.949	A	A
1	SR90	60.600	6.100	69.000	5.700	0.878	A	A
1	U234	43.000	3.500	43.600	1.800	0.986	A	A
1	U238	44.000	3.500	46.100	1.300	0.954	A	A
1	UG U	3.400	0.340	3.730	0.020	0.912	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	5.560	0.300	6.170	0.320	0.901	A	A
1	CM244	3.200	0.180	3.690	0.290	0.867	A	A
1	CO60	30.000	2.000	30.400	1.200	0.987	A	A
1	CS137	830.000	30.000	842.000	42.000	0.986	A	A
1	K40	580.000	30.000	603.000	32.000	0.962	A	A
1	PU238	0.520	0.050	0.660	0.020	0.788	A	A
1	PU239	7.400	0.400	9.580	1.300	0.772	W	A
1	SR90	1165.000	58.000	1330.000	70.000	0.876	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.630	0.080	1.670	0.080	0.976	A	A
1	Bq U	2.580	0.130	2.120	0.090	1.217	A	A
1	CO60	102.000	5.000	98.200	3.600	1.039	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 54 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 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	CS137	77.000	4.000	73.000	3.700	1.055	A	A
1	H3	66.600	1.500	79.300	2.000	0.840	A	A
1	PU238	1.550	0.075	1.580	0.090	0.981	A	A
1	PU239	1.620	0.080	1.640	0.090	0.988	A	A
1	SR90	4.260	0.500	4.400	0.200	0.968	A	A
1	U234	1.210	0.060	1.040	0.050	1.163	A	A
1	U238	1.120	0.055	1.040	0.040	1.077	A	A
1	UG U	0.095	0.010	0.080	0.003	1.188	W	W

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** BX BWX Technologies, Inc., Lynchburg, VA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.478	0.073	0.486	0.016	0.984	A	W
1	CO60	19.700	1.100	19.440	0.500	1.013	A	A
1	CS134	2.350	0.170	2.830	0.160	0.830	A	
1	CS137	8.840	0.400	8.760	0.340	1.009	A	A
1	GROSS ALPHA	2.660	0.080	3.970	0.300	0.670	W	W
1	GROSS BETA	2.060	0.040	2.580	0.150	0.798	W	W
1	MN54	6.770	0.560	6.520	0.280	1.038	A	A
1	PU238	0.229	0.032	0.215	0.009	1.065	A	N
1	PU239	0.140	0.022	0.136	0.012	1.029	A	A
1	SR90	6.500	0.370	7.100	0.220	0.915	A	W
1	U234	0.055	0.014	0.046	0.002	1.198	A	A
1	U238	0.060	0.014	0.046	0.002	1.300	W	W

**Matrix:** SO Soil Bq / kg

1	AC228	41.400	5.100	42.700	1.700	0.970	A	A
1	AM241	11.100	3.400	14.800	0.510	0.750	W	N
1	BI212	33.000	6.300	42.000	4.100	0.786	A	A
1	BI214	28.900	4.000	32.600	1.400	0.887	A	A
1	CS137	1910.000	198.000	1740.000	90.000	1.098	A	W
1	K40	511.000	51.000	468.000	25.000	1.092	A	A
1	PB212	49.600	6.000	41.500	2.200	1.195	A	N
1	PB214	32.400	4.600	34.300	1.600	0.945	A	A
1	PU239	21.300	3.100	25.600	0.670	0.832	W	A
1	TH234	64.800	8.800	46.600	3.500	1.391	A	N
1	U234	41.500	5.000	43.600	1.800	0.952	A	W
1	U238	43.700	5.200	46.100	1.300	0.948	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	6.880	1.520	6.170	0.320	1.115	A	A
1	CM244	3.260	1.910	3.690	0.290	0.883	A	W
1	CO60	36.700	4.600	30.400	1.200	1.207	A	A
1	CS137	1030.000	103.000	842.000	42.000	1.223	A	A
1	K40	870.000	96.000	603.000	32.000	1.443	N	A
1	PU239	9.470	1.840	9.580	1.300	0.989	A	A
1	SR90	1070.000	50.000	1330.000	70.000	0.805	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.580	0.190	1.670	0.080	0.946	A	A
1	CO60	94.700	6.300	98.200	3.600	0.964	A	A
1	CS137	68.100	2.200	73.000	3.700	0.933	A	A
1	GROSS ALPHA	1970.000	50.000	1900.000	190.000	1.037	A	A
1	GROSS BETA	1310.000	20.000	1297.000	100.000	1.010	A	A
1	H3	98.500	19.400	79.300	2.000	1.242	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 54 Results by Laboratory****Lab:** BX BWX Technologies, Inc., Lynchburg, VA

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	PU238	1.510	0.140	1.580	0.090	0.956	A	A
1	PU239	1.450	0.130	1.640	0.090	0.884	W	A
1	SR90	3.480	0.290	4.400	0.200	0.791	W	W
1	U234	1.160	0.110	1.040	0.050	1.115	A	A
1	U238	1.200	0.120	1.040	0.040	1.154	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi}/\text{g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	19.700	1.900	19.440	0.500	1.013	A	A
1	CS134	3.100	0.300	2.830	0.160	1.095	A	
1	CS137	9.500	0.900	8.760	0.340	1.084	A	A
1	GROSS ALPHA	2.600	0.300	3.970	0.300	0.655	W	A
1	GROSS BETA	3.100	0.300	2.580	0.150	1.202	A	W
1	MN54	6.930	0.700	6.520	0.280	1.063	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	UG U	2.630	0.260	3.730	0.020	0.705	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	93.200	9.300	98.200	3.600	0.949	A	A
1	CS137	74.400	7.400	73.000	3.700	1.019	A	A
1	GROSS BETA	460.000	46.000	1297.000	100.000	0.355	N	A
1	H3	101.000	10.000	79.300	2.000	1.274	A	A
1	UG U	0.068	0.007	0.080	0.003	0.850	W	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.511	0.069	0.486	0.016	1.051	A	N
1	CO60	20.200	0.500	19.440	0.500	1.039	A	A
1	CS134	2.700	0.100	2.830	0.160	0.954	A	
1	CS137	9.600	0.300	8.760	0.340	1.096	A	A
1	MN54	7.100	0.300	6.520	0.280	1.089	A	A
1	RU106	51.200	3.700	49.540	3.530	1.034	A	
3	UG U	0.080	0.006	3.700	0.160	0.022	N	
2	UG U	0.081	0.006	3.700	0.160	0.022	N	
1	UG U	0.080	0.006	3.700	0.160	0.022	N	

**Matrix:** WA Water Bq / L

1	AM241	1.680	0.180	1.670	0.080	1.006	A	A
1	CO60	99.800	3.900	98.200	3.600	1.016	A	A
1	CS137	75.800	4.700	73.000	3.700	1.038	A	A
2	H3	82.400	6.000	79.300	2.000	1.039	A	
1	H3	75.700	5.900	79.300	2.000	0.955	A	
1	SR90	4.340	0.170	4.400	0.200	0.986	A	A
2	SR90	4.340	0.170	4.400	0.200	0.986	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 Results by Laboratory****Lab:** CD Gently-2 Nuclear Power Plant, Quebec Canada

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	20.000	1.000	19.440	0.500	1.029	A	A
1	CS134	2.700	0.300	2.830	0.160	0.954	A	
1	CS137	9.700	0.500	8.760	0.340	1.107	A	A
1	GROSS BETA	2.500	0.500	2.580	0.150	0.969	A	W
1	MN54	7.400	0.500	6.520	0.280	1.135	A	A
1	RU106	52.000	3.000	49.540	3.530	1.050	A	
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	40.000	5.000	42.700	1.700	0.937	A	A
1	BI212	44.000	5.000	42.000	4.100	1.048	A	N
1	BI214	32.000	5.000	32.600	1.400	0.982	A	A
1	CS137	1820.000	150.000	1740.000	90.000	1.046	A	A
1	K40	500.000	40.000	468.000	25.000	1.068	A	A
1	PB212	44.000	5.000	41.500	2.200	1.060	A	A
1	PB214	34.000	5.000	34.300	1.600	0.991	A	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	33.000	3.000	30.400	1.200	1.086	A	A
1	CS137	926.000	65.000	842.000	42.000	1.100	A	A
1	K40	670.000	40.000	603.000	32.000	1.111	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	96.000	10.000	98.200	3.600	0.978	A	A
1	CS137	75.000	7.000	73.000	3.700	1.027	A	A
1	GROSS BETA	1290.000	120.000	1297.000	100.000	0.995	A	A
1	H3	75.000	10.000	79.300	2.000	0.946	A	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** CE Environmental Monitoring Laboratory, New Brunswick, Canada

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	18.800	0.840	19.440	0.500	0.967	A	A
1	CS134	2.700	0.230	2.830	0.160	0.954	A	
1	CS137	8.600	0.560	8.760	0.340	0.982	A	A
1	GROSS ALPHA	3.800	0.120	3.970	0.300	0.957	A	A
1	GROSS BETA	3.000	0.100	2.580	0.150	1.163	A	A
1	MN54	7.000	0.490	6.520	0.280	1.074	A	A
1	SR90	5.800	0.090	7.100	0.220	0.817	A	A

**Matrix:** SO Soil Bq / kg

1	CS137	1627.000	94.000	1740.000	90.000	0.935	A	W
1	K40	465.000	42.000	468.000	25.000	0.994	A	A

**Matrix:** VE Vegetation Bq / kg

1	CO60	33.000	3.100	30.400	1.200	1.086	A	A
1	CS137	909.000	55.000	842.000	42.000	1.080	A	A
1	K40	803.000	76.000	603.000	32.000	1.332	W	A

**Matrix:** WA Water Bq / L

1	CO60	91.000	5.000	98.200	3.600	0.927	A	A
1	CS137	66.000	4.900	73.000	3.700	0.904	A	A
1	GROSS ALPHA	1593.000	85.000	1900.000	190.000	0.838	A	A
1	GROSS BETA	1510.000	77.000	1297.000	100.000	1.164	A	A
1	H3	74.000	8.000	79.300	2.000	0.933	A	N
1	SR90	3.600	0.260	4.400	0.200	0.818	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 54 Results by Laboratory****Lab:** CF Freshwater Institute Radiochemistry Winnipeg, Manitoba, Canada

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
1	CS137	1650.000	5.000	1740.000	90.000	0.948	A	A
3	CS137	1605.000	6.000	1740.000	90.000	0.922	A	A
2	CS137	1621.000	3.000	1740.000	90.000	0.932	A	A
1	K40	289.700	4.600	468.000	25.000	0.619	N	
3	K40	286.400	6.000	468.000	25.000	0.612	N	
2	K40	294.400	2.900	468.000	25.000	0.629	N	
1	PB214	24.700	1.500	34.300	1.600	0.720	N	A
3	PB214	27.200	2.000	34.300	1.600	0.793	W	A
2	PB214	30.200	1.100	34.300	1.600	0.880	W	A
3	U234	42.900	2.900	43.600	1.800	0.984	A	W
2	U234	43.100	2.800	43.600	1.800	0.989	A	W
1	U234	46.100	2.900	43.600	1.800	1.057	A	W
2	U238	47.600	3.000	46.100	1.300	1.033	A	A
1	U238	49.400	3.100	46.100	1.300	1.072	A	A
3	U238	45.700	3.100	46.100	1.300	0.991	A	A

**Matrix:** VE Vegetation Bq/kg

1	CO60	31.900	1.400	30.400	1.200	1.049	A	A
2	CO60	29.300	1.000	30.400	1.200	0.964	A	A
3	CO60	28.100	1.300	30.400	1.200	0.924	A	A
1	CS137	830.000	4.000	842.000	42.000	0.986	A	A
2	CS137	831.000	3.000	842.000	42.000	0.987	A	A
3	CS137	823.000	3.000	842.000	42.000	0.977	A	A
1	K40	483.600	7.300	603.000	32.000	0.802	W	
2	K40	491.600	4.900	603.000	32.000	0.815	W	
3	K40	510.000	6.100	603.000	32.000	0.846	W	

**Matrix:** WA Water Bq/L

2	CO60	99.900	1.300	98.200	3.600	1.017	A	A
3	CO60	103.500	0.600	98.200	3.600	1.054	A	A
1	CO60	102.100	0.900	98.200	3.600	1.040	A	A
1	CS137	78.300	0.900	73.000	3.700	1.073	A	A
3	CS137	77.400	0.700	73.000	3.700	1.060	A	A
2	CS137	78.800	0.400	73.000	3.700	1.079	A	A
3	U234	1.100	0.070	1.040	0.050	1.058	A	
2	U234	1.020	0.070	1.040	0.050	0.981	A	
1	U234	1.050	0.070	1.040	0.050	1.010	A	
2	U238	1.060	0.070	1.040	0.040	1.019	A	
3	U238	1.050	0.070	1.040	0.040	1.010	A	
1	U238	1.040	0.070	1.040	0.040	1.000	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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.490	0.026	0.486	0.016	1.008	A	A
1	Bq U	0.095	0.007	0.093	0.004	1.022	A	A
1	CO60	19.800	0.140	19.440	0.500	1.019	A	W
1	CS137	9.030	0.085	8.760	0.340	1.031	A	W
1	GROSS ALPHA	3.340	0.033	3.970	0.300	0.841	A	A
1	GROSS BETA	2.560	0.026	2.580	0.150	0.992	A	A
1	MN54	6.820	0.084	6.520	0.280	1.046	A	W
1	PU238	0.213	0.010	0.215	0.009	0.991	A	A
1	PU239	0.144	0.008	0.136	0.012	1.059	A	A
1	SR90	7.640	0.150	7.100	0.220	1.076	A	A
1	U234	0.048	0.004	0.046	0.002	1.043	A	A
1	U238	0.047	0.004	0.046	0.002	1.022	A	A
1	UG U	4.180	0.420	3.700	0.160	1.130	A	W

**Matrix:** SO Soil Bq / kg

1	AC228	42.700	1.900	42.700	1.700	1.000	A	A
1	AM241	15.800	1.700	14.800	0.510	1.068	A	A
1	BI212	48.800	5.200	42.000	4.100	1.162	W	N
1	BI214	29.500	1.600	32.600	1.400	0.905	A	A
1	Bq U	79.400	3.200	91.800	2.300	0.865	A	A
1	CS137	1880.000	3.900	1740.000	90.000	1.080	A	W
1	K40	506.000	9.600	468.000	25.000	1.081	A	A
1	PB212	41.700	1.100	41.500	2.200	1.005	A	A
1	PB214	31.800	2.000	34.300	1.600	0.927	A	A
1	PU239	26.200	1.200	25.600	0.670	1.023	A	A
1	SR90	72.300	5.400	69.000	5.700	1.048	A	A
1	U234	37.300	1.500	43.600	1.800	0.856	W	A
1	U238	40.200	1.600	46.100	1.300	0.872	A	A
1	UG U	3.010	0.150	3.730	0.020	0.807	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	6.700	0.500	6.170	0.320	1.086	A	A
1	CM244	3.480	0.310	3.690	0.290	0.943	A	A
1	CO60	30.500	0.960	30.400	1.200	1.003	A	A
1	CS137	764.000	3.100	842.000	42.000	0.907	A	A
1	K40	611.000	14.000	603.000	32.000	1.013	A	A
1	PU239	9.660	0.630	9.580	1.300	1.008	A	A
1	SR90	1188.000	11.000	1330.000	70.000	0.893	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.700	0.066	1.670	0.080	1.018	A	A
1	Bq U	2.000	0.092	2.120	0.090	0.943	A	A
1	CO60	100.000	0.940	98.200	3.600	1.018	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 54 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 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	CS137	74.400	0.720	73.000	3.700	1.019	A	A
1	GROSS ALPHA	2077.000	26.000	1900.000	190.000	1.093	A	W
1	GROSS BETA	1333.000	14.000	1297.000	100.000	1.028	A	A
1	H3	91.200	4.500	79.300	2.000	1.150	A	W
1	PU238	1.530	0.059	1.580	0.090	0.968	A	A
1	PU239	1.660	0.063	1.640	0.090	1.012	A	A
1	SR90	4.360	0.200	4.400	0.200	0.991	A	A
1	U234	0.960	0.042	1.040	0.050	0.923	A	A
1	U238	1.000	0.043	1.040	0.040	0.962	A	A
1	UG U	0.074	0.007	0.080	0.003	0.925	A	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** CL Enviro-Test Laboratories, Casper, WY

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.500	0.100	0.486	0.016	1.029	A	N
1	CO60	18.100	0.200	19.440	0.500	0.931	A	A
1	CS134	2.130	0.070	2.830	0.160	0.753	W	
1	CS137	8.500	0.200	8.760	0.340	0.970	A	A
1	GROSS ALPHA	4.000	0.200	3.970	0.300	1.008	A	A
1	GROSS BETA	3.600	0.100	2.580	0.150	1.395	W	W
1	MN54	6.400	0.200	6.520	0.280	0.982	A	A
1	PU238	0.170	0.060	0.215	0.009	0.791	W	N
1	PU239	0.120	0.050	0.136	0.012	0.882	W	N
1	SR90	8.100	0.900	7.100	0.220	1.141	A	W
1	U234	0.060	0.030	0.046	0.002	1.304	A	W
1	U238	0.070	0.030	0.046	0.002	1.522	W	N
1	UG U	11.000	0.100	3.700	0.160	2.973	N	N

**Matrix:** SO Soil Bq / kg

1	AC228	47.600	3.400	42.700	1.700	1.115	A	W
1	AM241	13.100	1.800	14.800	0.510	0.885	A	A
1	BI212	46.900	2.500	42.000	4.100	1.117	W	N
1	BI214	46.200	4.400	32.600	1.400	1.417	W	N
1	CS137	1820.000	8.300	1740.000	90.000	1.046	A	W
1	K40	759.000	23.600	468.000	25.000	1.622	N	A
1	PB212	46.700	14.000	41.500	2.200	1.125	A	W
1	PB214	40.000	3.600	34.300	1.600	1.166	A	N
1	PU239	7.600	2.500	25.600	0.670	0.297	N	A
1	SR90	80.800	13.600	69.000	5.700	1.171	A	W
1	TH234	68.600	18.600	46.600	3.500	1.472	A	N
1	U234	17.000	3.600	43.600	1.800	0.390	N	W
1	U238	19.700	3.900	46.100	1.300	0.427	N	W
1	UG U	3.490	0.300	3.730	0.020	0.936	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	5.500	2.000	6.170	0.320	0.891	A	A
1	CM244	3.800	1.700	3.690	0.290	1.030	A	A
1	CO60	34.800	2.300	30.400	1.200	1.145	A	W
1	CS137	168.000	8.200	842.000	42.000	0.200	N	W
1	K40	1150.000	40.200	603.000	32.000	1.907	N	N
1	PU239	3.300	1.600	9.580	1.300	0.344	N	A
1	SR90	1220.000	64.000	1330.000	70.000	0.917	A	N

**Matrix:** WA Water Bq / L

1	AM241	1.800	0.200	1.670	0.080	1.078	A	A
1	CO60	102.000	0.900	98.200	3.600	1.039	A	A
1	CS137	77.300	1.000	73.000	3.700	1.059	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 54 Results by Laboratory****Lab:** CL Enviro-Test Laboratories, Casper, WY

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	H3	173.000	9.500	79.300	2.000	2.182	W	A
1	PU238	1.400	0.200	1.580	0.090	0.886	W	A
1	PU239	1.400	0.200	1.640	0.090	0.854	W	A
1	SR90	4.400	0.300	4.400	0.200	1.000	A	A
1	U234	1.000	0.200	1.040	0.050	0.962	A	N
1	U238	1.000	0.200	1.040	0.040	0.962	A	W
1	UG U	65.800	0.700	0.080	0.003	822.500	N	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** CM Metropolitan Water Reclamation District of Greater Chicago

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix: SO Soil Bq/kg</b>								
1	AC228	39.000	1.000	42.700	1.700	0.913	A	
2	AC228	41.000	1.000	42.700	1.700	0.960	A	
1	BI212	24.000	2.000	42.000	4.100	0.571	A	
2	BI212	25.000	2.000	42.000	4.100	0.595	A	
1	BI214	28.000	2.000	32.600	1.400	0.859	W	
2	BI214	28.000	2.000	32.600	1.400	0.859	W	
2	CS137	1708.000	32.000	1740.000	90.000	0.982	A	
1	CS137	1661.000	31.000	1740.000	90.000	0.955	A	
2	K40	472.000	16.000	468.000	25.000	1.009	A	
1	K40	463.000	15.000	468.000	25.000	0.989	A	
1	PB212	39.000	2.000	41.500	2.200	0.940	A	
2	PB212	39.000	2.000	41.500	2.200	0.940	A	
1	PB214	33.000	2.000	34.300	1.600	0.962	A	
2	PB214	34.000	2.000	34.300	1.600	0.991	A	

**Matrix: WA Water Bq/L**

1	CO60	98.800	1.500	98.200	3.600	1.006	A	A
3	CO60	92.700	1.400	98.200	3.600	0.944	A	A
2	CO60	98.600	1.500	98.200	3.600	1.004	A	A
3	CS137	69.600	1.400	73.000	3.700	0.953	A	A
2	CS137	75.400	1.500	73.000	3.700	1.033	A	A
1	CS137	74.700	1.500	73.000	3.700	1.023	A	A
2	GROSS ALPHA	1626.000	51.000	1900.000	190.000	0.856	A	W
1	GROSS ALPHA	1769.000	54.000	1900.000	190.000	0.931	A	W
3	GROSS ALPHA	1660.000	48.000	1900.000	190.000	0.874	A	W
1	GROSS BETA	1753.000	47.000	1297.000	100.000	1.352	W	A
3	GROSS BETA	1489.000	38.000	1297.000	100.000	1.148	A	A
2	GROSS BETA	1695.000	44.000	1297.000	100.000	1.307	A	A
3	H3	88.900	2.400	79.300	2.000	1.121	A	A
2	H3	90.000	2.500	79.300	2.000	1.135	A	A
1	H3	91.200	2.500	79.300	2.000	1.150	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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.670	0.250	0.486	0.016	1.379	A	
1	CO60	18.580	0.940	19.440	0.500	0.956	A	
1	CS134	2.600	0.140	2.830	0.160	0.919	A	
1	CS137	8.990	0.450	8.760	0.340	1.026	A	
1	MN54	6.700	0.340	6.520	0.280	1.028	A	
1	RU106	51.730	2.610	49.540	3.530	1.044	A	

**Matrix:** SO Soil Bq / kg

1	AC228	38.450	2.900	42.700	1.700	0.900	A	
1	AM241	15.770	0.890	14.800	0.510	1.066	A	
1	BI214	31.530	1.800	32.600	1.400	0.967	A	
1	CS137	1880.000	93.000	1740.000	90.000	1.080	A	
1	K40	477.700	24.900	468.000	25.000	1.021	A	
1	PB212	39.910	2.160	41.500	2.200	0.962	A	
1	PB214	29.220	1.970	34.300	1.600	0.852	W	

**Matrix:** VE Vegetation Bq / kg

1	AM241	8.470	0.590	6.170	0.320	1.373	A	
1	CO60	30.000	1.670	30.400	1.200	0.987	A	
1	CS137	855.700	43.100	842.000	42.000	1.016	A	
1	K40	589.000	30.500	603.000	32.000	0.977	A	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 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 52 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
2	CS137	1785.000	23.000	1740.000	90.000	1.026	A	A
1	CS137	1794.000	23.000	1740.000	90.000	1.031	A	A
3	CS137	1798.000	22.000	1740.000	90.000	1.033	A	A
3	PU238	0.600	0.200	0.910	0.100	0.659	W	
2	PU238	0.800	0.200	0.910	0.100	0.879	A	
1	PU238	0.900	0.200	0.910	0.100	0.989	A	
2	PU239	24.000	2.000	25.600	0.670	0.938	A	
1	PU239	24.000	2.000	25.600	0.670	0.938	A	
3	PU239	25.000	2.000	25.600	0.670	0.977	A	

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** CS Rocketdyne Propulsion & Power, Canoga Park, CA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.390	0.090	0.486	0.016	0.802	W	
1	CO60	19.260	1.610	19.440	0.500	0.991	A	A
1	CS134	2.750	0.260	2.830	0.160	0.972	A	
1	CS137	8.310	0.780	8.760	0.340	0.949	A	A
1	MN54	6.340	0.650	6.520	0.280	0.972	A	A
1	RU106	57.970	7.360	49.540	3.530	1.170	A	

**Matrix:** SO Soil Bq / kg

1	AC228	38.170	12.080	42.700	1.700	0.894	A	W
1	AM241	9.720	3.410	14.800	0.510	0.657	W	
1	BI212	24.460	8.100	42.000	4.100	0.582	A	A
1	BI214	28.360	8.910	32.600	1.400	0.870	W	A
1	CS137	1680.000	528.500	1740.000	90.000	0.966	A	A
1	K40	505.100	160.600	468.000	25.000	1.079	A	A
1	PB212	36.800	11.680	41.500	2.200	0.887	W	A
1	PB214	28.550	9.030	34.300	1.600	0.832	W	W

**Matrix:** WA Water Bq / L

1	AM241	1.460	0.390	1.670	0.080	0.874	W	W
1	CO60	100.600	15.030	98.200	3.600	1.024	A	A
1	CS137	77.960	11.910	73.000	3.700	1.068	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 Results by Laboratory****Lab:** CU Universite Laval, Quebec Canada

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
2	CO60	21.200	0.200	19.440	0.500	1.091	A	A
1	CO60	20.700	0.200	19.440	0.500	1.065	A	A
2	CS134	2.700	0.200	2.830	0.160	0.954	A	
1	CS134	2.700	0.200	2.830	0.160	0.954	A	
1	CS137	9.500	0.200	8.760	0.340	1.084	A	A
2	CS137	9.300	0.200	8.760	0.340	1.062	A	A
1	MN54	7.100	0.400	6.520	0.280	1.089	A	A
2	MN54	7.000	0.400	6.520	0.280	1.074	A	A
1	RU106	54.500	1.000	49.540	3.530	1.100	A	
2	RU106	56.000	1.000	49.540	3.530	1.130	A	
<b>Matrix:</b> SO Soil Bq / kg								
2	AC228	37.500	5.000	42.700	1.700	0.878	W	A
1	AC228	36.500	5.000	42.700	1.700	0.855	W	A
2	BI212	36.400	4.000	42.000	4.100	0.867	A	A
1	BI212	37.500	4.000	42.000	4.100	0.893	A	A
1	BI214	26.400	3.000	32.600	1.400	0.810	W	A
2	BI214	26.500	3.000	32.600	1.400	0.813	W	A
1	CS137	1650.000	50.000	1740.000	90.000	0.948	A	A
2	CS137	1598.000	50.000	1740.000	90.000	0.918	A	A
1	K40	419.000	30.000	468.000	25.000	0.895	W	A
2	K40	400.000	30.000	468.000	25.000	0.855	W	A
2	PB212	38.700	4.000	41.500	2.200	0.933	A	A
1	PB212	40.000	4.000	41.500	2.200	0.964	A	A
2	PB214	24.600	3.000	34.300	1.600	0.717	N	W
1	PB214	25.000	3.000	34.300	1.600	0.729	N	W
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	27.500	3.000	30.400	1.200	0.905	A	A
2	CO60	28.000	3.000	30.400	1.200	0.921	A	A
2	CS137	834.000	60.000	842.000	42.000	0.990	A	A
1	CS137	827.000	60.000	842.000	42.000	0.982	A	A
2	K40	570.000	50.000	603.000	32.000	0.945	A	A
1	K40	599.000	50.000	603.000	32.000	0.993	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	101.000	2.000	98.200	3.600	1.029	A	A
1	CS137	72.700	2.000	73.000	3.700	0.996	A	A
1	H3	74.000	5.000	79.300	2.000	0.933	A	A
1	SR90	6.100	0.300	4.400	0.200	1.386	W	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 Results by Laboratory****Lab:** CW Carlsbad Environmental Monitoring Research Center, NM

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.490	0.010	0.486	0.016	1.008	A	A
1	CO60	19.100	0.300	19.440	0.500	0.983	A	A
1	CS134	2.880	0.080	2.830	0.160	1.018	A	
1	CS137	8.700	0.200	8.760	0.340	0.993	A	A
1	MN54	6.400	0.200	6.520	0.280	0.982	A	A
1	PU238	0.220	0.005	0.215	0.009	1.023	A	A
1	PU239	0.143	0.004	0.136	0.012	1.051	A	A
1	U234	0.046	0.002	0.046	0.002	1.000	A	N
1	U238	0.046	0.002	0.046	0.002	1.000	A	N

**Matrix:** SO Soil Bq / kg

1	AC228	41.000	2.000	42.700	1.700	0.960	A	A
1	AM241	14.600	0.400	14.800	0.510	0.986	A	A
1	BI212	35.000	5.000	42.000	4.100	0.833	A	A
1	BI214	28.000	2.000	32.600	1.400	0.859	W	A
1	CS137	1599.000	33.000	1740.000	90.000	0.919	A	A
1	K40	430.000	16.000	468.000	25.000	0.919	A	A
1	PB212	37.000	2.000	41.500	2.200	0.892	W	A
1	PB214	29.000	2.000	34.300	1.600	0.845	W	A
1	PU238	1.000	0.100	0.910	0.100	1.099	A	A
1	PU239	24.700	0.700	25.600	0.670	0.965	A	A
1	U234	41.400	0.700	43.600	1.800	0.950	A	A
1	U238	43.100	0.700	46.100	1.300	0.935	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	7.400	0.200	6.170	0.320	1.199	A	A
1	CM244	3.700	0.100	3.690	0.290	1.003	A	A
1	CO60	32.000	1.000	30.400	1.200	1.053	A	A
1	CS137	854.000	33.000	842.000	42.000	1.014	A	A
1	K40	613.000	31.000	603.000	32.000	1.017	A	A
1	PU238	0.590	0.050	0.660	0.020	0.894	A	A
1	PU239	8.200	0.200	9.580	1.300	0.856	A	A

**Matrix:** WA Water Bq / L

1	AM241	2.020	0.060	1.670	0.080	1.210	A	A
1	CO60	101.000	2.000	98.200	3.600	1.029	A	A
1	CS137	75.000	2.000	73.000	3.700	1.027	A	A
1	GROSS ALPHA	1948.000	53.000	1900.000	190.000	1.025	A	A
1	GROSS BETA	1224.000	26.000	1297.000	100.000	0.944	A	A
1	PU238	1.850	0.040	1.580	0.090	1.171	W	A
1	PU239	1.930	0.040	1.640	0.090	1.177	W	A
1	U234	1.170	0.040	1.040	0.050	1.125	A	N
1	U238	1.160	0.040	1.040	0.040	1.115	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 54 Results by Laboratory****Lab:** CZ ACZ Laboratories, Inc. Steamboat Springs, CO

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	GROSS ALPHA	2072.000	66.600	1900.000	190.000	1.091	A	
1	GROSS BETA	1443.000	44.400	1297.000	100.000	1.113	A	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi}/\text{g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** DC Datchem Laboratories, Salt Lake City

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	GROSS ALPHA	1930.000	16.300	1900.000	190.000	1.016	A	A
1	GROSS BETA	1650.000	12.300	1297.000	100.000	1.272	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi/g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** DH Duke Engineering Services Hanford

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	19.080	1.490	19.440	0.500	0.981	A	A
1	CS137	9.260	0.960	8.760	0.340	1.057	A	A
1	GROSS ALPHA	3.310	0.190	3.970	0.300	0.834	A	A
1	GROSS BETA	2.530	0.050	2.580	0.150	0.981	A	A
1	MN54	6.430	0.500	6.520	0.280	0.986	A	A
1	RU106	54.660	5.450	49.540	3.530	1.103	A	
<b>Matrix:</b> SO Soil Bq / kg								
1	AM241	15.320	0.690	14.800	0.510	1.035	A	
1	BI212	38.590	7.430	42.000	4.100	0.919	A	W
1	BI214	34.380	5.500	32.600	1.400	1.055	A	A
1	CS137	1872.410	23.710	1740.000	90.000	1.076	A	A
1	K40	490.080	20.750	468.000	25.000	1.047	A	A
1	PB212	35.690	2.790	41.500	2.200	0.860	W	W
1	PB214	32.080	5.080	34.300	1.600	0.935	A	W
<b>Matrix:</b> WA Water Bq / L								
1	CO60	108.290	5.800	98.200	3.600	1.103	A	A
1	CS137	79.000	6.140	73.000	3.700	1.082	A	A
1	GROSS ALPHA	445.250	18.020	1900.000	190.000	0.234	N	A
1	GROSS BETA	977.920	40.370	1297.000	100.000	0.754	A	A
1	H3	133.140	14.790	79.300	2.000	1.679	W	

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** EC Envirocare of Utah

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.595	0.125	0.486	0.016	1.224	A	A
5	AM241	0.428	0.131	0.486	0.016	0.881	A	A
3	AM241	0.635	0.159	0.486	0.016	1.307	A	A
2	AM241	0.684	0.152	0.486	0.016	1.407	W	A
4	AM241	0.452	0.115	0.486	0.016	0.930	A	A
5	CO60	22.000	0.773	19.440	0.500	1.132	W	A
1	CO60	21.500	0.658	19.440	0.500	1.106	A	A
2	CO60	21.400	0.707	19.440	0.500	1.101	A	A
4	CO60	22.000	0.677	19.440	0.500	1.132	W	A
3	CO60	21.700	0.794	19.440	0.500	1.116	A	A
1	CS134	2.870	0.139	2.830	0.160	1.014	A	
2	CS134	2.830	0.190	2.830	0.160	1.000	A	
3	CS134	3.110	0.271	2.830	0.160	1.099	A	
4	CS134	2.830	0.190	2.830	0.160	1.000	A	
5	CS134	3.110	0.271	2.830	0.160	1.099	A	
4	CS137	10.500	0.433	8.760	0.340	1.199	W	A
3	CS137	9.950	0.524	8.760	0.340	1.136	A	A
5	CS137	10.400	0.518	8.760	0.340	1.187	W	A
2	CS137	10.100	0.461	8.760	0.340	1.153	A	A
1	CS137	9.930	0.410	8.760	0.340	1.134	A	A
1	GROSS ALPHA	3.900	0.390	3.970	0.300	0.982	A	W
4	GROSS ALPHA	3.910	0.391	3.970	0.300	0.985	A	W
3	GROSS ALPHA	3.890	0.389	3.970	0.300	0.980	A	W
2	GROSS ALPHA	3.940	0.394	3.970	0.300	0.992	A	W
5	GROSS ALPHA	4.040	0.404	3.970	0.300	1.018	A	W
2	GROSS BETA	2.260	0.226	2.580	0.150	0.876	A	A
3	GROSS BETA	2.350	0.235	2.580	0.150	0.911	A	A
4	GROSS BETA	2.490	0.249	2.580	0.150	0.965	A	A
5	GROSS BETA	2.320	0.232	2.580	0.150	0.899	A	A
1	GROSS BETA	2.460	0.246	2.580	0.150	0.953	A	A
1	MN54	7.650	0.324	6.520	0.280	1.173	A	A
2	MN54	7.720	0.387	6.520	0.280	1.184	A	A
3	MN54	7.810	0.478	6.520	0.280	1.198	A	A
4	MN54	7.940	0.390	6.520	0.280	1.218	W	A
5	MN54	8.040	0.499	6.520	0.280	1.233	W	A

**Matrix:** SO Soil Bq / kg

2	AC228	49.300	2.070	42.700	1.700	1.155	A	A
5	AC228	49.600	2.120	42.700	1.700	1.162	A	A
1	AC228	49.400	2.000	42.700	1.700	1.157	A	A
3	AC228	48.100	2.040	42.700	1.700	1.126	A	A
4	AC228	48.500	2.030	42.700	1.700	1.136	A	A
1	AM241	21.400	1.870	14.800	0.510	1.446	A	A
2	AM241	21.200	1.870	14.800	0.510	1.432	A	A
3	AM241	21.100	1.830	14.800	0.510	1.426	A	A
4	AM241	20.500	1.780	14.800	0.510	1.385	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 54 Results by Laboratory****Lab:** EC Envirocare of Utah

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
5	AM241	20.800	1.840	14.800	0.510	1.405	A	A
4	BI212	54.600	7.000	42.000	4.100	1.300	N	N
3	BI212	57.400	7.060	42.000	4.100	1.367	N	N
1	BI212	56.600	6.720	42.000	4.100	1.348	N	N
5	BI212	57.800	7.070	42.000	4.100	1.376	N	N
2	BI212	57.100	7.310	42.000	4.100	1.360	N	N
1	BI214	36.300	1.960	32.600	1.400	1.113	A	W
2	BI214	37.500	2.010	32.600	1.400	1.150	A	W
3	BI214	35.800	1.910	32.600	1.400	1.098	A	W
4	BI214	36.900	1.900	32.600	1.400	1.132	A	W
5	BI214	35.700	1.960	32.600	1.400	1.095	A	W
2	CS137	2080.000	84.900	1740.000	90.000	1.195	W	A
3	CS137	2080.000	66.700	1740.000	90.000	1.195	W	A
4	CS137	2090.000	65.400	1740.000	90.000	1.201	W	A
1	CS137	2090.000	58.200	1740.000	90.000	1.201	W	A
5	CS137	2090.000	67.000	1740.000	90.000	1.201	W	A
5	K40	595.000	32.700	468.000	25.000	1.271	W	A
4	K40	593.000	29.100	468.000	25.000	1.267	W	A
3	K40	583.000	30.100	468.000	25.000	1.246	W	A
2	K40	592.000	31.800	468.000	25.000	1.265	W	A
1	K40	589.000	32.600	468.000	25.000	1.259	W	A
2	PB212	55.400	4.110	41.500	2.200	1.335	W	W
3	PB212	54.000	3.140	41.500	2.200	1.301	W	W
4	PB212	52.900	3.090	41.500	2.200	1.275	W	W
5	PB212	57.200	3.270	41.500	2.200	1.378	N	W
1	PB212	55.600	4.140	41.500	2.200	1.340	W	W
5	PB214	43.800	2.220	34.300	1.600	1.277	A	W
1	PB214	41.500	2.160	34.300	1.600	1.210	A	W
2	PB214	42.200	2.180	34.300	1.600	1.230	A	W
4	PB214	42.400	2.030	34.300	1.600	1.236	A	W
3	PB214	41.900	2.070	34.300	1.600	1.222	A	W
1	TH234	54.500	6.670	46.600	3.500	1.170	A	A
2	TH234	45.000	7.030	46.600	3.500	0.966	A	A
3	TH234	48.600	6.750	46.600	3.500	1.043	A	A
4	TH234	42.700	5.970	46.600	3.500	0.916	A	A
5	TH234	46.500	6.670	46.600	3.500	0.998	A	A

**Matrix:** WA Water Bq/L

1	AM241	1.760	0.335	1.670	0.080	1.054	A	W
2	AM241	1.560	0.322	1.670	0.080	0.934	A	W
3	AM241	1.710	0.336	1.670	0.080	1.024	A	W
4	AM241	1.640	0.328	1.670	0.080	0.982	A	W
5	AM241	1.480	0.279	1.670	0.080	0.886	W	W
3	CO60	102.000	2.890	98.200	3.600	1.039	A	A
1	CO60	102.000	2.890	98.200	3.600	1.039	A	A
2	CO60	101.000	2.870	98.200	3.600	1.029	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 54 Results by Laboratory****Lab:** EC Envirocare of Utah

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
4	CO60	102.000	2.890	98.200	3.600	1.039	A	A
5	CO60	101.000	3.180	98.200	3.600	1.029	A	A
4	CS137	73.000	2.590	73.000	3.700	1.000	A	A
3	CS137	72.500	2.580	73.000	3.700	0.993	A	A
2	CS137	72.500	3.170	73.000	3.700	0.993	A	A
1	CS137	72.500	2.580	73.000	3.700	0.993	A	A
5	CS137	72.900	3.180	73.000	3.700	0.999	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** EG INEEL TRA Radioanalytical Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.413	0.031	0.486	0.016	0.850	W	A
2	AM241	0.500	0.100	0.486	0.016	1.029	A	A
1	CO60	20.000	1.000	19.440	0.500	1.029	A	W
1	CS134	2.700	0.100	2.830	0.160	0.954	A	
1	CS137	9.300	0.500	8.760	0.340	1.062	A	W
1	MN54	7.200	0.400	6.520	0.280	1.104	A	W
1	PU238	0.191	0.015	0.215	0.009	0.888	A	A
1	PU239	0.133	0.011	0.136	0.012	0.978	A	A
1	RU106	52.000	3.000	49.540	3.530	1.050	A	
1	SR90	8.070	0.300	7.100	0.220	1.137	A	A
1	U234	0.041	0.003	0.046	0.002	0.896	W	W
1	U238	0.046	0.004	0.046	0.002	1.000	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	45.000	7.000	42.700	1.700	1.054	A	
1	AM241	13.500	1.200	14.800	0.510	0.912	A	
2	AM241	14.000	4.000	14.800	0.510	0.946	A	
1	BI212	57.000	14.000	42.000	4.100	1.357	N	
1	BI214	26.000	4.000	32.600	1.400	0.798	W	
1	CS137	1800.000	130.000	1740.000	90.000	1.034	A	A
1	K40	470.000	48.000	468.000	25.000	1.004	A	A
1	PB212	45.000	5.000	41.500	2.200	1.084	A	
1	PB214	27.000	4.000	34.300	1.600	0.787	W	
1	PU238	0.820	0.140	0.910	0.100	0.901	A	A
1	PU239	25.300	2.000	25.600	0.670	0.988	A	A
2	SR90	76.900	4.600	69.000	5.700	1.114	A	A
1	SR90	61.900	4.000	69.000	5.700	0.897	A	A
1	TH234	69.000	28.000	46.600	3.500	1.481	A	
1	U234	43.300	3.500	43.600	1.800	0.993	A	A
2	U234	46.900	3.800	43.600	1.800	1.076	A	A
1	U238	44.700	3.600	46.100	1.300	0.970	A	A
2	U238	44.800	3.600	46.100	1.300	0.972	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	5.090	0.400	6.170	0.320	0.825	W	A
1	CM244	2.890	0.280	3.690	0.290	0.783	W	W
1	CO60	33.000	4.000	30.400	1.200	1.086	A	A
1	CS137	960.000	70.000	842.000	42.000	1.140	A	A
1	K40	760.000	80.000	603.000	32.000	1.260	W	A
1	PU238	0.650	0.110	0.660	0.020	0.985	A	
1	PU239	8.930	0.710	9.580	1.300	0.932	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 54 Results by Laboratory****Lab:** EG INEEL TRA Radioanalytical Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	AM241	1.390	0.140	1.670	0.080	0.832	W	A
1	CO60	100.000	4.000	98.200	3.600	1.018	A	A
1	CS137	74.000	1.200	73.000	3.700	1.014	A	A
1	GROSS ALPHA	925.000	56.000	1900.000	190.000	0.487	N	A
1	GROSS BETA	1476.000	67.000	1297.000	100.000	1.138	A	A
2	H3	101.000	10.000	79.300	2.000	1.274	A	
1	H3	100.700	9.800	79.300	2.000	1.270	A	
1	PU238	1.490	0.110	1.580	0.090	0.943	A	A
1	PU239	1.480	0.110	1.640	0.090	0.902	A	A
2	SR90	5.450	0.440	4.400	0.200	1.239	W	A
1	SR90	4.360	0.320	4.400	0.200	0.991	A	A
1	U234	0.920	0.070	1.040	0.050	0.885	W	W
1	U238	0.950	0.070	1.040	0.040	0.913	A	W

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

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

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**QAP 54 Results by Laboratory****Lab:** EP US EPA, Las Vegas

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	19.300	1.190	19.440	0.500	0.993	A	A
1	CS134	2.810	0.240	2.830	0.160	0.993	A	A
1	CS137	9.200	0.670	8.760	0.340	1.050	A	A
1	MN54	6.810	0.500	6.520	0.280	1.044	A	A
1	PU238	0.218	0.035	0.215	0.009	1.014	A	A
1	PU239	0.145	0.024	0.136	0.012	1.063	A	W

**Matrix:** WA Water Bq / L

1	CO60	102.610	6.240	98.200	3.600	1.045	A	A
1	CS137	77.060	5.400	73.000	3.700	1.056	A	A
1	H3	90.460	3.210	79.300	2.000	1.141	A	A
1	PU238	1.614	0.251	1.580	0.090	1.022	A	A
1	PU239	1.646	0.255	1.640	0.090	1.004	A	W

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** FE Fernald WPRAP Field Office, Ohio

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	U234	0.067	0.010	0.046	0.002	1.457	W	W
1	U238	0.075	0.011	0.046	0.002	1.630	N	W
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	48.280	5.170	42.700	1.700	1.131	A	A
1	AM241	17.200	0.810	14.800	0.510	1.162	A	A
1	BI212	52.720	8.570	42.000	4.100	1.255	N	W
1	BI214	33.420	2.460	32.600	1.400	1.025	A	A
1	CS137	1896.250	45.270	1740.000	90.000	1.090	A	A
1	K40	505.980	18.220	468.000	25.000	1.081	A	A
1	PB212	41.070	0.910	41.500	2.200	0.990	A	A
1	PB214	28.220	5.210	34.300	1.600	0.823	W	A
1	TH234	58.740	10.510	46.600	3.500	1.261	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	105.450	1.960	98.200	3.600	1.074	A	A
1	CS137	79.670	1.540	73.000	3.700	1.091	A	A
1	U234	1.150	0.030	1.040	0.050	1.106	A	A
1	U238	1.130	0.030	1.040	0.040	1.087	A	A
1	UG U	0.089	0.002	0.080	0.003	1.113	A	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	17.900	1.200	19.440	0.500	0.921	A	A
1	CS134	2.250	1.000	2.830	0.160	0.795	W	
1	CS137	8.270	1.000	8.760	0.340	0.944	A	A
1	GROSS ALPHA	3.010	0.150	3.970	0.300	0.758	W	W
1	GROSS BETA	2.360	0.200	2.580	0.150	0.915	A	A
1	MN54	6.264	1.000	6.520	0.280	0.961	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	45.900	8.000	42.700	1.700	1.075	A	A
1	BI214	39.700	6.000	32.600	1.400	1.218	A	
1	CS137	1792.000	220.000	1740.000	90.000	1.030	A	A
1	K40	483.000	100.000	468.000	25.000	1.032	A	A
1	PB212	41.400	8.000	41.500	2.200	0.998	A	A
1	PB214	34.800	8.000	34.300	1.600	1.015	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	105.600	12.000	98.200	3.600	1.075	A	A
1	CS137	76.780	7.000	73.000	3.700	1.052	A	A
1	GROSS ALPHA	1909.000	80.000	1900.000	190.000	1.005	A	W
1	GROSS BETA	1354.000	100.000	1297.000	100.000	1.044	A	A
1	H3	80.630	10.000	79.300	2.000	1.017	A	W

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	47.280	2.400	19.440	0.500	2.432	N	A
1	CS137	21.410	1.100	8.760	0.340	2.444	N	A
1	MN54	13.030	0.700	6.520	0.280	1.998	N	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	40.300	2.000	42.700	1.700	0.944	A	
1	BI212	34.450	1.700	42.000	4.100	0.820	A	
1	BI214	32.760	1.600	32.600	1.400	1.005	A	
1	CS137	1511.050	75.600	1740.000	90.000	0.868	W	N
1	K40	424.510	21.200	468.000	25.000	0.907	A	A
1	PB212	28.290	1.400	41.500	2.200	0.682	N	
1	TH234	57.160	2.900	46.600	3.500	1.227	A	
1	UG U	5.100	0.300	3.730	0.020	1.367	N	
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	26.580	1.300	30.400	1.200	0.874	W	A
1	CS137	783.340	39.200	842.000	42.000	0.930	A	A
1	K40	584.300	29.200	603.000	32.000	0.969	A	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.560	0.010	0.486	0.016	1.152	A	A
1	CO60	20.490	0.320	19.440	0.500	1.054	A	A
1	CS134	2.510	0.060	2.830	0.160	0.887	A	
1	CS137	9.950	0.100	8.760	0.340	1.136	A	A
1	GROSS ALPHA	3.157	0.097	3.970	0.300	0.795	W	A
1	GROSS BETA	3.218	0.083	2.580	0.150	1.247	A	A
1	MN54	7.300	0.090	6.520	0.280	1.120	A	A
1	RU106	44.400	0.690	49.540	3.530	0.896	A	

**Matrix:** SO Soil Bq / kg

1	AC228	40.980	1.740	42.700	1.700	0.960	A	A
1	AM241	15.140	0.590	14.800	0.510	1.023	A	A
1	BI212	49.230	1.950	42.000	4.100	1.172	W	W
1	BI214	32.090	0.460	32.600	1.400	0.984	A	A
1	CS137	1915.780	16.970	1740.000	90.000	1.101	A	A
1	K40	489.680	6.980	468.000	25.000	1.046	A	A
1	PB212	43.570	1.330	41.500	2.200	1.050	A	A
1	PB214	20.970	1.610	34.300	1.600	0.611	N	N
1	TH234	30.310	8.260	46.600	3.500	0.650	N	W
1	UG U	60.620	16.530	3.730	0.020	16.252	N	

**Matrix:** VE Vegetation Bq / kg

1	AM241	5.740	0.520	6.170	0.320	0.930	A	A
1	CO60	29.320	0.700	30.400	1.200	0.964	A	A
1	CS137	846.200	3.210	842.000	42.000	1.005	A	A
1	K40	631.460	2.470	603.000	32.000	1.047	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.860	0.190	1.670	0.080	1.114	A	A
1	CO60	101.130	0.300	98.200	3.600	1.030	A	A
1	CS137	78.270	0.240	73.000	3.700	1.072	A	A
1	GROSS ALPHA	1698.200	27.000	1900.000	190.000	0.894	A	W
1	GROSS BETA	1045.600	2.700	1297.000	100.000	0.806	A	A
1	H3	91.580	3.040	79.300	2.000	1.155	A	W
1	SR90	3.920	0.210	4.400	0.200	0.891	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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.450	0.050	0.486	0.016	0.926	A	N
1	CO60	20.500	0.200	19.440	0.500	1.055	A	A
1	CS134	2.800	0.100	2.830	0.160	0.989	A	
1	CS137	10.300	0.100	8.760	0.340	1.176	W	W
1	MN54	7.700	0.100	6.520	0.280	1.181	A	A
1	RU106	55.700	0.500	49.540	3.530	1.124	A	

**Matrix:** WA Water Bq / L

1	AM241	1.600	0.400	1.670	0.080	0.958	A	A
1	CO60	102.000	1.000	98.200	3.600	1.039	A	A
1	CS137	79.000	1.000	73.000	3.700	1.082	A	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** FN Fermi Lab, Batavia, IL

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	20.000	1.100	19.440	0.500	1.029	A	
1	CS134	3.190	0.160	2.830	0.160	1.127	W	
1	CS137	9.090	0.680	8.760	0.340	1.038	A	
1	GROSS ALPHA	3.630	0.540	3.970	0.300	0.914	A	
1	GROSS BETA	2.820	0.420	2.580	0.150	1.093	A	
1	MN54	6.440	0.490	6.520	0.280	0.988	A	
1	RU106	62.100	4.700	49.540	3.530	1.254	W	
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	38.400	2.300	42.700	1.700	0.899	A	
1	BI212	39.700	5.600	42.000	4.100	0.945	A	
1	BI214	29.400	1.800	32.600	1.400	0.902	A	
1	CS137	1680.000	150.000	1740.000	90.000	0.966	A	
1	K40	464.000	41.000	468.000	25.000	0.991	A	
1	PB212	40.600	3.600	41.500	2.200	0.978	A	
1	PB214	29.200	2.000	34.300	1.600	0.851	W	
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	31.400	2.000	30.400	1.200	1.033	A	
1	CS137	825.000	72.000	842.000	42.000	0.980	A	
1	K40	611.000	54.000	603.000	32.000	1.013	A	
<b>Matrix:</b> WA Water Bq / L								
1	CO60	102.000	6.000	98.200	3.600	1.039	A	
1	CS137	74.200	6.500	73.000	3.700	1.016	A	
1	GROSS ALPHA	1618.000	50.000	1900.000	190.000	0.852	A	
1	GROSS BETA	1335.000	26.000	1297.000	100.000	1.029	A	
1	H3	87.900	8.600	79.300	2.000	1.108	A	

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** FR CEA/SACLAY - SPR/SRSE, France

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
1	AC228	38.000	4.000	42.700	1.700	0.890	A	A
1	BI212	41.000	6.000	42.000	4.100	0.976	A	A
1	BI214	27.000	3.000	32.600	1.400	0.828	W	A
1	CS137	1700.000	190.000	1740.000	90.000	0.977	A	A
1	K40	470.000	35.000	468.000	25.000	1.004	A	A
1	PB212	45.000	5.000	41.500	2.200	1.084	A	A
1	PB214	33.000	5.000	34.300	1.600	0.962	A	A
1	PU238	1.100	0.200	0.910	0.100	1.209	A	
1	PU239	24.000	2.000	25.600	0.670	0.938	A	
1	TH234	41.000	19.000	46.600	3.500	0.880	A	A

**Matrix:** VE Vegetation Bq/kg

1	AM241	6.000	1.000	6.170	0.320	0.972	A	
1	CO60	30.000	3.000	30.400	1.200	0.987	A	
1	CS137	840.000	90.000	842.000	42.000	0.998	A	
1	K40	620.000	70.000	603.000	32.000	1.028	A	

**Matrix:** WA Water Bq/L

1	AM241	1.600	0.300	1.670	0.080	0.958	A	
1	CO60	90.000	9.000	98.200	3.600	0.916	A	
1	CS137	68.000	6.000	73.000	3.700	0.932	A	

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 Results by Laboratory****Lab:** FS Florida State University, Tallahassee

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
1	AC228	37.300	0.400	42.700	1.700	0.874	W	A
1	AM241	15.500	1.000	14.800	0.510	1.047	A	W
1	BI214	25.900	0.500	32.600	1.400	0.794	W	A
1	CS137	1720.000	3.000	1740.000	90.000	0.989	A	A
1	K40	453.500	0.400	468.000	25.000	0.969	A	A
1	PB214	27.900	0.600	34.300	1.600	0.813	W	A
1	TH234	26.300	4.600	46.600	3.500	0.564	N	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** FU FUSRAP Laboratory, Missouri

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
1	AC228	41.560	3.390	42.700	1.700	0.973	A	
1	AM241	17.920	2.670	14.800	0.510	1.211	A	
1	BI212	47.020	8.280	42.000	4.100	1.120	W	
1	BI214	34.290	2.280	32.600	1.400	1.052	A	
1	CS137	1864.000	140.730	1740.000	90.000	1.071	A	
1	K40	508.100	29.880	468.000	25.000	1.086	A	
1	PB212	43.540	2.980	41.500	2.200	1.049	A	
1	PB214	31.710	3.070	34.300	1.600	0.924	A	
1	TH234	58.960	10.640	46.600	3.500	1.265	A	
1	U234	43.190	8.330	43.600	1.800	0.991	A	
1	U238	47.030	8.780	46.100	1.300	1.020	A	

**Matrix:** VE Vegetation Bq/kg

1	AM241	7.110	1.230	6.170	0.320	1.152	A	
1	CO60	34.550	1.640	30.400	1.200	1.137	A	
1	CS137	956.760	66.580	842.000	42.000	1.136	A	
1	K40	750.360	44.950	603.000	32.000	1.244	A	

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** GA Lockheed Martin, Pikton, OH

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.490	0.034	0.486	0.016	1.008	A	A
1	CO60	18.400	1.100	19.440	0.500	0.947	A	A
1	CS134	2.730	0.450	2.830	0.160	0.965	A	
1	CS137	8.760	0.740	8.760	0.340	1.000	A	A
1	MN54	6.190	0.720	6.520	0.280	0.949	A	A
1	PU238	0.280	0.025	0.215	0.009	1.302	W	W
1	PU239	0.180	0.017	0.136	0.012	1.324	N	A
1	SR90	7.470	0.280	7.100	0.220	1.052	A	A
1	UG U	4.100	0.648	3.700	0.160	1.108	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	35.000	12.400	42.700	1.700	0.820	W	A
1	AM241	15.500	1.360	14.800	0.510	1.047	A	A
1	BI212	32.800	12.000	42.000	4.100	0.781	A	A
1	BI214	32.300	9.000	32.600	1.400	0.991	A	A
1	CS137	1710.000	117.000	1740.000	90.000	0.983	A	A
1	K40	474.000	53.000	468.000	25.000	1.013	A	A
1	PB212	39.100	25.600	41.500	2.200	0.942	A	A
1	PB214	31.000	31.000	34.300	1.600	0.904	A	A
1	PU239	31.300	2.810	25.600	0.670	1.223	W	A
1	SR90	79.900	10.730	69.000	5.700	1.158	A	A
1	UG U	3.700		3.730	0.020	0.992	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	6.870	0.489	6.170	0.320	1.113	A	A
1	CM244	3.560	0.310	3.690	0.290	0.965	A	A
1	CO60	31.700	5.900	30.400	1.200	1.043	A	A
1	CS137	869.000	56.000	842.000	42.000	1.032	A	A
1	K40	662.000	88.000	603.000	32.000	1.098	A	A
1	PU239	8.230	0.678	9.580	1.300	0.859	A	W

**Matrix:** WA Water Bq / L

1	AM241	1.770	0.098	1.670	0.080	1.060	A	A
1	CO60	98.000	7.000	98.200	3.600	0.998	A	W
1	CS137	72.000	6.000	73.000	3.700	0.986	A	A
1	PU238	1.710	0.123	1.580	0.090	1.082	A	W
1	PU239	1.800	0.129	1.640	0.090	1.098	A	W
1	SR90	4.200	0.340	4.400	0.200	0.955	A	A
1	UG U	0.074	0.006	0.080	0.003	0.925	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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	18.910	1.000	19.440	0.500	0.973	A	A
2	CO60	18.770	1.000	19.440	0.500	0.966	A	A
3	CO60	20.550	0.900	19.440	0.500	1.057	A	A
3	CS134	2.760	0.100	2.830	0.160	0.975	A	
1	CS134	2.660	0.300	2.830	0.160	0.940	A	
2	CS134	2.670	0.300	2.830	0.160	0.943	A	
1	CS137	8.720	0.600	8.760	0.340	0.995	A	A
3	CS137	10.580	0.500	8.760	0.340	1.208	W	A
2	CS137	8.520	0.600	8.760	0.340	0.973	A	A
3	MN54	7.750	0.400	6.520	0.280	1.189	A	A
2	MN54	6.920	0.600	6.520	0.280	1.061	A	A
1	MN54	6.590	0.700	6.520	0.280	1.011	A	A

**Matrix:** SO Soil Bq / kg

2	AC228	39.400	4.800	42.700	1.700	0.923	A	A
3	AC228	39.200	3.400	42.700	1.700	0.918	A	A
1	AC228	40.900	6.800	42.700	1.700	0.958	A	A
1	AM241	10.100	5.200	14.800	0.510	0.682	W	
3	AM241	7.000	4.100	14.800	0.510	0.473	N	
2	AM241	8.500	0.000	14.800	0.510	0.574	N	
1	BI212	36.000	12.400	42.000	4.100	0.857	A	A
3	BI212	24.200	5.700	42.000	4.100	0.576	A	A
2	BI212	25.600	8.600	42.000	4.100	0.610	A	A
2	BI214	35.200	5.300	32.600	1.400	1.080	A	A
1	BI214	36.900	7.100	32.600	1.400	1.132	A	A
3	BI214	39.200	2.900	32.600	1.400	1.202	A	A
1	CS137	1531.500	193.000	1740.000	90.000	0.880	W	A
2	CS137	1526.100	64.500	1740.000	90.000	0.877	W	A
3	CS137	1624.400	65.900	1740.000	90.000	0.934	A	A
3	K40	477.000	24.600	468.000	25.000	1.019	A	A
2	K40	455.100	30.200	468.000	25.000	0.972	A	A
1	K40	437.600	60.200	468.000	25.000	0.935	A	A
3	PB212	40.900	2.400	41.500	2.200	0.986	A	W
2	PB212	29.600	2.900	41.500	2.200	0.713	N	W
1	PB212	39.600	5.700	41.500	2.200	0.954	A	W
3	PB214	40.300	3.100	34.300	1.600	1.175	A	A
2	PB214	37.500	5.200	34.300	1.600	1.093	A	A
1	PB214	37.200	7.000	34.300	1.600	1.085	A	A

**Matrix:** VE Vegetation Bq / kg

3	CO60	30.000	4.500	30.400	1.200	0.987	A	A
1	CO60	30.000	2.700	30.400	1.200	0.987	A	A
2	CO60	30.000	1.800	30.400	1.200	0.987	A	A
2	CS137	838.600	34.500	842.000	42.000	0.996	A	A
1	CS137	807.100	35.000	842.000	42.000	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 a site specific evaluation.

**QAP 54 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 52 Evaluation
<b>Matrix:</b> VE Vegetation Bq/kg								
3	CS137	800.000	98.300	842.000	42.000	0.950	A	A
1	K40	700.000	47.400	603.000	32.000	1.161	A	A
3	K40	630.600	88.000	603.000	32.000	1.046	A	A
2	K40	695.900	38.000	603.000	32.000	1.154	A	A
<b>Matrix:</b> WA Water Bq/L								
2	CO60	97.100	4.600	98.200	3.600	0.989	A	A
1	CO60	96.800	12.000	98.200	3.600	0.986	A	A
3	CO60	98.600	4.200	98.200	3.600	1.004	A	A
1	CS137	73.600	9.300	73.000	3.700	1.008	A	A
3	CS137	77.800	3.500	73.000	3.700	1.066	A	A
2	CS137	74.800	3.900	73.000	3.700	1.025	A	A
1	H3	83.600		79.300	2.000	1.054	A	A
1	SR90	4.350		4.400	0.200	0.989	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** GE General Engineering Labs, Charleston, SC

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.519	0.063	0.486	0.016	1.068	A	A
1	CO60	19.300	0.931	19.440	0.500	0.993	A	A
1	CS134	2.620	0.203	2.830	0.160	0.926	A	
1	CS137	8.860	0.433	8.760	0.340	1.011	A	A
1	GROSS ALPHA	3.590	0.035	3.970	0.300	0.904	A	A
1	GROSS BETA	2.680	0.025	2.580	0.150	1.039	A	A
1	MN54	6.550	0.416	6.520	0.280	1.005	A	A
1	PU238	0.212	0.035	0.215	0.009	0.986	A	A
1	PU239	0.139	0.025	0.136	0.012	1.022	A	A
1	SR90	8.900	0.107	7.100	0.220	1.254	A	A
1	U234	0.059	0.022	0.046	0.002	1.283	A	A
1	U238	0.037	0.017	0.046	0.002	0.804	W	W
1	UG U	2.890	0.034	3.700	0.160	0.781	W	A

**Matrix:** SO Soil Bq / kg

1	AC228	41.800	7.040	42.700	1.700	0.979	A	A
1	AM241	14.200	2.740	14.800	0.510	0.959	A	A
1	BI212	24.500	6.180	42.000	4.100	0.583	A	A
1	BI214	26.600	4.130	32.600	1.400	0.816	W	A
1	CS137	1836.000	213.200	1740.000	90.000	1.055	A	A
1	K40	519.000	57.700	468.000	25.000	1.109	A	A
1	PB212	44.300	5.320	41.500	2.200	1.067	A	A
1	PB214	31.100	4.610	34.300	1.600	0.907	A	A
1	PU239	26.800	3.410	25.600	0.670	1.047	A	A
1	SR90	66.600	4.100	69.000	5.700	0.965	A	A
1	TH234	60.900	27.400	46.600	3.500	1.307	A	W
1	U234	33.600	3.850	43.600	1.800	0.771	W	W
1	U238	34.800	3.970	46.100	1.300	0.755	W	W
1	UG U	2.600	0.085	3.730	0.020	0.697	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	5.810	0.879	6.170	0.320	0.942	A	A
1	CM244	3.850	0.649	3.690	0.290	1.043	A	A
1	CO60	31.700	3.960	30.400	1.200	1.043	A	A
1	CS137	899.000	103.000	842.000	42.000	1.068	A	A
1	K40	688.000	77.900	603.000	32.000	1.141	A	A
1	PU239	9.230	1.020	9.580	1.300	0.963	A	A
1	SR90	1156.000	5.760	1330.000	70.000	0.869	A	W

**Matrix:** WA Water Bq / L

1	AM241	1.570	0.167	1.670	0.080	0.940	A	A
1	CO60	103.000	1.160	98.200	3.600	1.049	A	A
1	CS137	76.100	0.858	73.000	3.700	1.042	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 54 Results by Laboratory****Lab:** GE General Engineering Labs, Charleston, SC

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	GROSS ALPHA	2076.000	32.800	1900.000	190.000	1.093	A	A
1	GROSS BETA	1348.000	21.300	1297.000	100.000	1.039	A	A
1	H3	76.400	12.400	79.300	2.000	0.963	A	A
1	PU238	1.720	0.241	1.580	0.090	1.089	A	A
1	PU239	1.750	0.244	1.640	0.090	1.067	A	A
1	SR90	4.360	0.143	4.400	0.200	0.991	A	W
1	U234	0.895	0.099	1.040	0.050	0.861	W	W
1	U238	0.904	0.100	1.040	0.040	0.869	W	W
1	UG U	0.075	0.002	0.080	0.003	0.935	A	W

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** GS USGS/NWQL, Arvada, CO

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	GROSS ALPHA	1981.000	78.000	1900.000	190.000	1.043	A	N
2	GROSS ALPHA	2225.000	185.000	1900.000	190.000	1.171	W	N
3	GROSS ALPHA	2262.000	187.000	1900.000	190.000	1.191	W	N
3	GROSS BETA	1622.000	51.000	1297.000	100.000	1.251	A	A
2	GROSS BETA	1641.000	51.000	1297.000	100.000	1.265	A	A
1	GROSS BETA	1650.000	129.000	1297.000	100.000	1.272	A	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** GT Georgia Institute of Technology

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.450	0.070	0.486	0.016	0.926	A	A
1	CO60	19.000	2.000	19.440	0.500	0.977	A	A
1	CS134	2.400	0.300	2.830	0.160	0.848	A	
1	CS137	9.900	1.600	8.760	0.340	1.130	A	A
1	GROSS ALPHA	3.700	0.370	3.970	0.300	0.932	A	A
1	GROSS BETA	2.700	0.260	2.580	0.150	1.047	A	A
1	MN54	7.300	1.600	6.520	0.280	1.120	A	A
1	PU238	0.200	0.040	0.215	0.009	0.930	A	A
1	PU239	0.130	0.030	0.136	0.012	0.956	A	A
1	RU106	52.000	12.000	49.540	3.530	1.050	A	
1	SR90	7.500	0.700	7.100	0.220	1.056	A	A
1	U238	0.052	0.013	0.046	0.002	1.130	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AM241	15.000	3.000	14.800	0.510	1.014	A	A
1	CS137	1950.000	150.000	1740.000	90.000	1.121	A	A
1	K40	510.000	52.000	468.000	25.000	1.090	A	A
1	PU239	22.000	5.000	25.600	0.670	0.859	W	A
1	SR90	66.000	1.200	69.000	5.700	0.957	A	A
1	U238	40.000	7.000	46.100	1.300	0.868	A	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	AM241	5.700	1.200	6.170	0.320	0.924	A	A
1	CM244	3.300	0.900	3.690	0.290	0.894	A	A
1	CO60	34.000	3.000	30.400	1.200	1.118	A	A
1	CS137	950.000	74.000	842.000	42.000	1.128	A	A
1	K40	690.000	70.000	603.000	32.000	1.144	A	A
1	PU238	0.630	0.200	0.660	0.020	0.955	A	A
1	PU239	8.100	1.500	9.580	1.300	0.846	W	A
1	SR90	1160.000	110.000	1330.000	70.000	0.872	A	A
<b>Matrix:</b> WA Water Bq / L								
1	AM241	1.600	0.300	1.670	0.080	0.958	A	A
1	CO60	101.000	11.000	98.200	3.600	1.029	A	A
1	CS137	77.000	11.000	73.000	3.700	1.055	A	A
1	GROSS ALPHA	1800.000	74.000	1900.000	190.000	0.947	A	W
1	GROSS BETA	1400.000	37.000	1297.000	100.000	1.079	A	A
1	H3	79.000	9.000	79.300	2.000	0.996	A	A
1	PU238	1.400	0.300	1.580	0.090	0.886	W	A
1	PU239	1.500	0.300	1.640	0.090	0.915	A	A
1	SR90	4.500	0.500	4.400	0.200	1.023	A	A
1	U238	1.200	0.300	1.040	0.040	1.154	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 54 Results by Laboratory****Lab:** HC Lawrence Livermore Laboratory, California

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	GROSS ALPHA	3.550	0.250	3.970	0.300	0.894	A	
1	GROSS BETA	2.290	0.160	2.580	0.150	0.888	A	
<b>Matrix:</b> WA Water Bq / L								
1	GROSS ALPHA	1700.000	170.000	1900.000	190.000	0.895	A	
1	GROSS BETA	1450.000	150.000	1297.000	100.000	1.118	A	
1	H3	80.500	8.100	79.300	2.000	1.015	A	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi}/\text{g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** HT Technical University, Budapest, Hungary

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
1	Bq U	80.000	7.000	91.800	2.300	0.871	A	A
1	U234	40.700	2.500	43.600	1.800	0.933	A	A
1	U238	39.500	2.000	46.100	1.300	0.857	A	A
1	UG U	3.200	0.300	3.730	0.020	0.858	A	A
<b>Matrix:</b> WA Water Bq/L								
1	Bq U	2.050	0.100	2.120	0.090	0.967	A	A
1	U234	1.050	0.060	1.040	0.050	1.010	A	A
1	U238	0.980	0.060	1.040	0.040	0.942	A	W
1	UG U	0.080	0.008	0.080	0.003	0.995	A	W

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.170	0.030	0.486	0.016	0.350	N	
1	CO60	17.500	0.700	19.440	0.500	0.900	A	A
1	CS134	2.150	0.100	2.830	0.160	0.760	W	
1	CS137	8.130	0.550	8.760	0.340	0.928	A	A
1	GROSS BETA	3.200	0.750	2.580	0.150	1.240	A	N
1	MN54	6.130	0.300	6.520	0.280	0.940	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	40.200	1.200	42.700	1.700	0.941	A	A
1	AM241	7.500	1.300	14.800	0.510	0.507	N	W
1	BI212	38.600	3.600	42.000	4.100	0.919	A	A
1	BI214	27.500	1.200	32.600	1.400	0.844	W	A
1	CS137	1830.000	52.000	1740.000	90.000	1.052	A	A
1	K40	508.000	21.000	468.000	25.000	1.085	A	A
1	PB212	38.100	1.200	41.500	2.200	0.918	A	A
1	PB214	32.600	1.200	34.300	1.600	0.950	A	A
1	TH234	64.000	7.000	46.600	3.500	1.373	A	

**Matrix:** VE Vegetation Bq / kg

1	AM241	8.800	2.800	6.170	0.320	1.426	A	
1	CO60	33.100	0.800	30.400	1.200	1.089	A	A
1	CS137	870.000	23.000	842.000	42.000	1.033	A	A
1	K40	673.000	46.000	603.000	32.000	1.116	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.180	0.250	1.670	0.080	0.707	N	W
1	CO60	86.900	1.800	98.200	3.600	0.885	W	W
1	CS137	64.000	1.800	73.000	3.700	0.877	W	W
1	GROSS BETA	1120.000	160.000	1297.000	100.000	0.864	A	N
1	H3	160.000	12.000	79.300	2.000	2.018	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 54 Results by Laboratory****Lab:** ID Institute of Radiation Protection and Dosimetry, IRD/ CNEN, Brazil

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.457	0.024	0.486	0.016	0.940	A	
1	Bq U	0.001	0.000	0.093	0.004	0.013	N	
1	CO60	18.473	0.924	19.440	0.500	0.950	A	A
1	CS134	2.773	0.144	2.830	0.160	0.980	A	
1	CS137	8.957	0.453	8.760	0.340	1.022	A	A
1	MN54	6.273	0.316	6.520	0.280	0.962	A	N
1	PU238	0.203	0.033	0.215	0.009	0.944	A	A
1	PU239	0.120	0.012	0.136	0.012	0.882	W	A
1	RU106	59.407	3.007	49.540	3.530	1.199	A	
1	SR90	6.733	0.370	7.100	0.220	0.948	A	A
1	UG U	0.046	0.003	3.700	0.160	0.012	N	A

**Matrix:** SO Soil Bq / kg

1	AC228	36.227	1.963	42.700	1.700	0.848	W	N
1	AM241	14.793	0.893	14.800	0.510	1.000	A	W
1	BI212	22.030	1.722	42.000	4.100	0.525	W	N
1	BI214	26.193	1.315	32.600	1.400	0.803	W	N
1	CS137	1722.670	86.147	1740.000	90.000	0.990	A	N
1	K40	459.430	23.600	468.000	25.000	0.982	A	N
1	PB212	38.730	2.061	41.500	2.200	0.933	A	N
1	PB214	29.660	1.805	34.300	1.600	0.865	W	N
1	PU239	23.840	1.192	25.600	0.670	0.931	A	A
1	SR90	73.167	6.901	69.000	5.700	1.060	A	A
1	TH234	39.477	5.189	46.600	3.500	0.847	A	A
1	UG U	3.003	0.164	3.730	0.020	0.805	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	6.810	1.002	6.170	0.320	1.104	A	W
1	CO60	31.327	2.464	30.400	1.200	1.030	A	A
1	CS137	912.400	49.102	842.000	42.000	1.084	A	A
1	K40	546.800	45.816	603.000	32.000	0.907	A	A
1	PU239	7.600	0.442	9.580	1.300	0.793	W	W
1	SR90	1118.670	74.363	1330.000	70.000	0.841	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 54 Results by Laboratory****Lab:** IL ISU Environmental Assessment Laboratory, Pocatello, ID

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	20.800	0.200	19.440	0.500	1.070	A	A
1	CS134	3.000	0.100	2.830	0.160	1.060	A	A
1	CS137	9.700	0.200	8.760	0.340	1.107	A	A
1	GROSS ALPHA	3.810	0.030	3.970	0.300	0.960	A	A
1	GROSS BETA	2.540	0.030	2.580	0.150	0.984	A	A
1	MN54	7.100	0.100	6.520	0.280	1.089	A	A

**Matrix:** WA Water Bq / L

1	CO60	103.200	1.100	98.200	3.600	1.051	A	A
1	CS137	77.800	0.900	73.000	3.700	1.066	A	A
1	GROSS ALPHA	1787.100	16.800	1900.000	190.000	0.941	A	A
1	GROSS BETA	1150.600	13.900	1297.000	100.000	0.887	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** IN INEEL INTECH Radioanalytical Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	20.100	1.500	19.440	0.500	1.034	A	A
1	CS137	9.230	1.000	8.760	0.340	1.054	A	A
1	MN54	6.990	0.800	6.520	0.280	1.072	A	A
<b>Matrix:</b> SO Soil Bq / kg								
5	AM241	19.400	3.200	14.800	0.510	1.311	A	W
2	AM241	19.500	2.900	14.800	0.510	1.318	A	W
1	AM241	21.100	2.800	14.800	0.510	1.426	A	W
4	AM241	17.900	3.500	14.800	0.510	1.209	A	W
3	AM241	27.500	3.000	14.800	0.510	1.858	W	W
2	Bq U	89.400	6.500	91.800	2.300	0.974	A	A
1	Bq U	94.900	5.000	91.800	2.300	1.034	A	A
2	PU239	22.100	2.600	25.600	0.670	0.863	W	W
1	PU239	25.500	2.500	25.600	0.670	0.996	A	W
5	PU239	24.600	3.000	25.600	0.670	0.961	A	W
4	PU239	22.000	3.000	25.600	0.670	0.859	W	W
3	PU239	25.800	2.700	25.600	0.670	1.008	A	W
2	SR90	59.800	3.100	69.000	5.700	0.867	A	A
1	SR90	58.400	5.500	69.000	5.700	0.846	A	A
3	SR90	62.800	3.200	69.000	5.700	0.910	A	A
1	U234	47.400	5.000	43.600	1.800	1.087	A	A
2	U234	41.100	5.200	43.600	1.800	0.943	A	A
2	U238	46.800	10.500	46.100	1.300	1.015	A	A
1	U238	45.300	11.000	46.100	1.300	0.983	A	A
<b>Matrix:</b> VE Vegetation Bq / kg								
2	CO60	35.300	3.000	30.400	1.200	1.161	A	A
1	CO60	34.400	3.000	30.400	1.200	1.132	A	A
2	CS137	884.000	10.500	842.000	42.000	1.050	A	A
1	CS137	902.000	10.000	842.000	42.000	1.071	A	A
2	K40	813.000	9.000	603.000	32.000	1.348	W	A
1	K40	754.000	20.000	603.000	32.000	1.250	W	A
<b>Matrix:</b> WA Water Bq / L								
2	AM241	1.540	0.450	1.670	0.080	0.922	A	A
3	AM241	1.650	0.400	1.670	0.080	0.988	A	A
1	AM241	1.630	0.400	1.670	0.080	0.976	A	A
3	Bq U	2.190	0.200	2.120	0.090	1.033	A	A
2	Bq U	2.070	0.200	2.120	0.090	0.976	A	A
1	Bq U	2.107	0.200	2.120	0.090	0.994	A	A
3	CO60	101.000	1.500	98.200	3.600	1.029	A	A
2	CO60	108.000	2.000	98.200	3.600	1.100	A	A
1	CO60	109.000	2.000	98.200	3.600	1.110	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 54 Results by Laboratory****Lab:** IN INEEL INTECH Radioanalytical Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
3	CS137	78.200	3.000	73.000	3.700	1.071	A	A
1	CS137	73.200	1.000	73.000	3.700	1.003	A	A
2	CS137	85.200	2.000	73.000	3.700	1.167	W	A
2	PU238	1.420	0.300	1.580	0.090	0.899	W	A
3	PU238	1.430	0.500	1.580	0.090	0.905	A	A
1	PU238	1.560	0.400	1.580	0.090	0.987	A	A
2	PU239	1.680	0.300	1.640	0.090	1.024	A	W
1	PU239	1.950	0.200	1.640	0.090	1.189	W	W
3	PU239	1.880	0.400	1.640	0.090	1.146	W	W
3	SR90	4.540	0.600	4.400	0.200	1.032	A	A
2	SR90	4.170	0.500	4.400	0.200	0.948	A	A
1	SR90	4.140	0.400	4.400	0.200	0.941	A	A
2	U234	1.060	0.220	1.040	0.050	1.019	A	A
1	U234	1.130	0.200	1.040	0.050	1.087	A	A
3	U234	1.210	0.150	1.040	0.050	1.163	A	A
3	U238	0.980	0.250	1.040	0.040	0.942	A	A
1	U238	0.980	0.200	1.040	0.040	0.942	A	A
2	U238	1.010	0.200	1.040	0.040	0.971	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** IS Severn Trent Laboratories - St. Louis

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.450	0.087	0.486	0.016	0.926	A	A
2	AM241	0.470	0.124	0.486	0.016	0.967	A	A
1	CO60	19.800	2.200	19.440	0.500	1.019	A	A
1	CS134	2.490	0.400	2.830	0.160	0.880	A	A
1	CS137	9.130	1.490	8.760	0.340	1.042	A	A
1	GROSS ALPHA	6.120	0.630	3.970	0.300	1.542	N	W
1	GROSS BETA	3.270	0.330	2.580	0.150	1.267	A	A
1	MN54	6.800	1.190	6.520	0.280	1.043	A	A
1	PU238	0.245	0.049	0.215	0.009	1.140	W	A
1	PU239	0.141	0.029	0.136	0.012	1.037	A	W
1	SR90	8.600	1.690	7.100	0.220	1.211	A	W
1	U234	0.044	0.010	0.046	0.002	0.957	A	W
1	U238	0.044	0.010	0.046	0.002	0.957	A	N
1	UG U	0.128	0.012	3.700	0.160	0.035	N	

**Matrix:** SO Soil Bq / kg

1	AC228	36.100	10.000	42.700	1.700	0.845	W	A
1	AM241	10.900	2.200	14.800	0.510	0.736	W	W
2	AM241	17.800	3.300	14.800	0.510	1.203	A	W
1	BI212	43.400	16.100	42.000	4.100	1.033	A	W
1	BI214	26.500	5.300	32.600	1.400	0.813	W	W
1	CS137	1910.000	218.000	1740.000	90.000	1.098	A	N
1	K40	474.000	56.000	468.000	25.000	1.013	A	W
1	PB212	39.700	6.000	41.500	2.200	0.957	A	W
1	PB214	29.000	6.300	34.300	1.600	0.845	W	W
1	PU239	22.600	5.200	25.600	0.670	0.883	A	A
1	SR90	89.100	35.000	69.000	5.700	1.291	A	
1	TH234	44.200	11.600	46.600	3.500	0.948	A	W
1	U234	37.400	8.100	43.600	1.800	0.858	W	A
1	U238	39.500	8.500	46.100	1.300	0.857	A	A
1	UG U	2.065	0.209	3.730	0.020	0.554	W	

**Matrix:** VE Vegetation Bq / kg

1	AM241	4.660	1.340	6.170	0.320	0.755	W	A
2	AM241	9.220	2.400	6.170	0.320	1.494	W	A
1	CM244	3.100	1.080	3.690	0.290	0.840	A	A
1	CO60	35.300	4.900	30.400	1.200	1.161	A	W
1	CS137	976.000	109.000	842.000	42.000	1.159	A	N
1	K40	675.000	82.000	603.000	32.000	1.119	A	W
1	PU239	6.050	1.320	9.580	1.300	0.632	N	A
1	SR90	1790.000	356.000	1330.000	70.000	1.346	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 54 Results by Laboratory****Lab:** IS Severn Trent Laboratories - St. Louis

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	AM241	1.540	0.290	1.670	0.080	0.922	A	W
2	AM241	1.710	0.460	1.670	0.080	1.024	A	W
1	CO60	103.000	10.000	98.200	3.600	1.049	A	A
1	CS137	76.700	8.900	73.000	3.700	1.051	A	A
1	GROSS ALPHA	2220.000	225.000	1900.000	190.000	1.168	W	A
1	GROSS BETA	1570.000	157.000	1297.000	100.000	1.210	A	A
1	H3	75.100	9.400	79.300	2.000	0.947	A	A
1	PU238	1.640	0.310	1.580	0.090	1.038	A	N
1	PU239	1.510	0.290	1.640	0.090	0.921	A	W
1	SR90	5.040	1.010	4.400	0.200	1.145	A	W
1	U234	1.053	0.203	1.040	0.050	1.013	A	A
1	U238	1.020	0.197	1.040	0.040	0.981	A	W
1	UG U	0.079	0.009	0.080	0.003	0.988	A	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** IT Severn Trent Laboratories - Richland

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.400	0.030	0.486	0.016	0.823	W	A
1	CO60	18.500	1.100	19.440	0.500	0.952	A	A
1	CS134	2.400	0.160	2.830	0.160	0.848	A	
1	CS137	8.400	0.500	8.760	0.340	0.959	A	A
1	GROSS ALPHA	4.100	0.400	3.970	0.300	1.033	A	A
1	GROSS BETA	3.000	0.200	2.580	0.150	1.163	A	A
1	MN54	6.200	0.380	6.520	0.280	0.951	A	A
1	PU238	0.200	0.006	0.215	0.009	0.930	A	A
1	PU239	0.100	0.010	0.136	0.012	0.735	W	A
1	SR90	7.600	0.600	7.100	0.220	1.070	A	W
1	U234	0.040	0.006	0.046	0.002	0.870	W	N
1	U238	0.050	0.006	0.046	0.002	1.087	A	W
1	UG U	3.600	0.400	3.700	0.160	0.973	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	55.000	3.900	42.700	1.700	1.288	W	W
1	AM241	13.600	1.300	14.800	0.510	0.919	A	A
1	BI212	49.900	7.300	42.000	4.100	1.188	W	
1	BI214	34.200	2.700	32.600	1.400	1.049	A	W
1	CS137	2097.000	124.000	1740.000	90.000	1.205	W	N
1	K40	547.500	34.000	468.000	25.000	1.170	A	W
1	PB212	52.200	3.600	41.500	2.200	1.258	W	N
1	PB214	39.100	3.400	34.300	1.600	1.140	A	W
1	PU239	24.900	1.900	25.600	0.670	0.973	A	A
1	SR90	65.600	9.200	69.000	5.700	0.951	A	A
1	TH234	30.900	25.000	46.600	3.500	0.663	N	N
1	U234	34.700	3.100	43.600	1.800	0.796	W	W
1	U238	36.800	3.300	46.100	1.300	0.798	W	A
1	UG U	2.400	0.100	3.730	0.020	0.643	W	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	5.100	0.400	6.170	0.320	0.827	W	A
1	CM244	3.300	0.300	3.690	0.290	0.894	A	A
1	CO60	28.800	1.900	30.400	1.200	0.947	A	W
1	CS137	854.800	50.000	842.000	42.000	1.015	A	A
1	K40	579.000	37.000	603.000	32.000	0.960	A	A
1	PU239	9.000	0.700	9.580	1.300	0.939	A	A
1	SR90	1326.000	147.000	1330.000	70.000	0.997	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.500	0.100	1.670	0.080	0.898	W	A
1	CO60	105.400	6.300	98.200	3.600	1.073	A	W
1	CS137	79.600	4.700	73.000	3.700	1.090	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 54 Results by Laboratory****Lab:** IT Severn Trent Laboratories - Richland

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	GROSS ALPHA	1960.900	228.000	1900.000	190.000	1.032	A	A
1	GROSS BETA	1260.300	6.300	1297.000	100.000	0.972	A	A
1	H3	77.400	2.900	79.300	2.000	0.976	A	A
1	PU238	1.500	0.100	1.580	0.090	0.949	A	A
1	PU239	1.600	0.100	1.640	0.090	0.976	A	A
1	SR90	5.000	0.500	4.400	0.200	1.136	A	W
1	U234	0.900	0.090	1.040	0.050	0.865	W	W
1	U238	0.900	0.090	1.040	0.040	0.865	W	W
1	UG U	0.080	0.009	0.080	0.003	1.000	A	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	20.440	0.680	19.440	0.500	1.051	A	
3	CO60	20.500	0.670	19.440	0.500	1.055	A	
2	CO60	20.000	0.660	19.440	0.500	1.029	A	
3	CS134	2.190	0.210	2.830	0.160	0.774	W	
1	CS134	2.850	0.240	2.830	0.160	1.007	A	
2	CS134	2.720	0.170	2.830	0.160	0.961	A	
2	CS137	9.470	0.480	8.760	0.340	1.081	A	
1	CS137	9.160	0.500	8.760	0.340	1.046	A	
3	CS137	9.260	0.520	8.760	0.340	1.057	A	
2	MN54	7.250	0.570	6.520	0.280	1.112	A	
1	MN54	7.100	0.540	6.520	0.280	1.089	A	
3	MN54	6.720	0.520	6.520	0.280	1.031	A	

**Matrix:** WA Water Bq / L

2	CO60	102.500	3.000	98.200	3.600	1.044	A	A
3	CO60	102.530	3.500	98.200	3.600	1.044	A	A
1	CO60	104.970	3.000	98.200	3.600	1.069	A	A
3	CS137	76.170	3.800	73.000	3.700	1.043	A	A
2	CS137	77.660	3.200	73.000	3.700	1.064	A	A
1	CS137	75.880	3.100	73.000	3.700	1.039	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	GROSS ALPHA	3.590	0.160	3.970	0.300	0.904	A	W
1	GROSS BETA	2.850	0.120	2.580	0.150	1.105	W	A
<b>Matrix:</b> SO Soil Bq / kg								
1	CS137	1790.300	102.200	1740.000	90.000	1.029	A	A
1	K40	459.670	118.570	468.000	25.000	0.982	A	A
1	PU239	28.750	0.170	25.600	0.670	1.123	A	A
1	SR90	69.000	5.660	69.000	5.700	1.000	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	97.670	7.350	98.200	3.600	0.995	A	A
1	CS137	73.670	8.060	73.000	3.700	1.009	A	A
1	GROSS ALPHA	1858.300	148.000	1900.000	190.000	0.978	A	A
1	GROSS BETA	1372.700	119.500	1297.000	100.000	1.058	A	A
1	H3	77.670	17.320	79.300	2.000	0.979	A	A
1	PU239	1.831	0.037	1.640	0.090	1.116	W	A
1	SR90	4.000	0.620	4.400	0.200	0.909	A	A
1	UG U	0.077	0.001	0.080	0.003	0.958	A	W

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** KE Ulsin NPP Environmental Radiation Laboratory, South Korea

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.260	0.050	0.486	0.016	0.535	N	
1	CO60	18.210	1.010	19.440	0.500	0.937	A	
1	CS134	5.350	0.610	2.830	0.160	1.890	N	
1	CS137	9.280	0.520	8.760	0.340	1.059	A	
1	MN54	6.180	0.350	6.520	0.280	0.948	A	
1	RU106	45.730	2.550	49.540	3.530	0.923	A	
1	SR90	7.910	0.180	7.100	0.220	1.114	A	

**Matrix:** SO Soil Bq / kg

1	AM241	6.830	0.140	14.800	0.510	0.461	N	
1	CS137	1731.930	11.820	1740.000	90.000	0.995	A	
1	K40	464.760	3.240	468.000	25.000	0.993	A	
1	SR90	72.000	1.580	69.000	5.700	1.043	A	

**Matrix:** VE Vegetation Bq / kg

1	CO60	36.000	0.120	30.400	1.200	1.184	A	
1	CS137	1017.440	3.410	842.000	42.000	1.208	A	
1	K40	708.940	2.450	603.000	32.000	1.176	A	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 Results by Laboratory****Lab:** KG Korea Institute of Geoscience And Mineral Resources (KIGAM)

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
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**Matrix:** WA Water Bq/L

1	GROSS ALPHA	1704.300	61.400	1900.000	190.000	0.897	A	
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**Values for elemental uranium are reported in µg/filter, g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.432	0.031	0.486	0.016	0.889	A	
1	Bq U	0.097	0.005	0.093	0.004	1.039	A	
1	CO60	21.000	0.600	19.440	0.500	1.080	A	
1	CS134	2.960	0.090	2.830	0.160	1.046	A	
1	CS137	9.550	0.210	8.760	0.340	1.090	A	
1	GROSS ALPHA	3.700	0.100	3.970	0.300	0.932	A	
1	GROSS BETA	2.680	0.080	2.580	0.150	1.039	A	
1	MN54	6.980	0.170	6.520	0.280	1.071	A	
1	PU238	0.226	0.021	0.215	0.009	1.051	A	
1	PU239	0.148	0.140	0.136	0.012	1.088	A	
1	SR90	6.780	0.070	7.100	0.220	0.955	A	
1	U234	0.047	0.004	0.046	0.002	1.020	A	
1	U238	0.048	0.004	0.046	0.002	1.039	A	
1	UG U	3.865	0.200	3.700	0.160	1.045	A	

**Matrix:** SO Soil Bq / kg

1	AC228	36.700	1.800	42.700	1.700	0.859	W	
1	AM241	13.600	0.600	14.800	0.510	0.919	A	
1	BI212	41.700	4.100	42.000	4.100	0.993	A	
1	BI214	28.500	1.400	32.600	1.400	0.874	W	
1	Bq U	91.000	5.500	91.800	2.300	0.991	A	
1	CS137	1675.000	31.000	1740.000	90.000	0.963	A	
1	K40	465.000	14.000	468.000	25.000	0.994	A	
1	PB212	41.700	1.200	41.500	2.200	1.005	A	
1	PB214	29.400	1.700	34.300	1.600	0.857	W	
1	PU238	1.020	0.090	0.910	0.100	1.121	A	
1	PU239	27.400	1.600	25.600	0.670	1.070	A	
1	SR90	64.570	1.580	69.000	5.700	0.936	A	
1	TH234	41.900	8.100	46.600	3.500	0.899	A	
1	U234	43.600	3.900	43.600	1.800	1.000	A	
1	U238	45.500	4.000	46.100	1.300	0.987	A	
1	UG U	3.680	0.220	3.730	0.020	0.987	A	

**Matrix:** VE Vegetation Bq / kg

1	AM241	6.240	0.350	6.170	0.320	1.011	A	
1	CM244	2.540	0.160	3.690	0.290	0.688	W	
1	CO60	30.500	1.100	30.400	1.200	1.003	A	
1	CS137	866.000	15.000	842.000	42.000	1.029	A	
1	K40	648.000	20.000	603.000	32.000	1.075	A	
1	PU238	0.730	0.050	0.660	0.020	1.106	A	
1	PU239	9.660	0.370	9.580	1.300	1.008	A	
1	SR90	1189.800	10.500	1330.000	70.000	0.895	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 54 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 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	AM241	1.830	0.180	1.670	0.080	1.096	A	
1	Bq U	2.060	0.080	2.120	0.090	0.972	A	
1	CO60	98.200	2.500	98.200	3.600	1.000	A	
1	CS137	74.800	1.600	73.000	3.700	1.025	A	
1	GROSS ALPHA	1867.000	57.000	1900.000	190.000	0.983	A	
1	GROSS BETA	1244.000	46.000	1297.000	100.000	0.959	A	
1	H3	83.820	0.340	79.300	2.000	1.057	A	
1	PU238	1.620	0.060	1.580	0.090	1.025	A	
1	PU239	1.710	0.070	1.640	0.090	1.043	A	
1	SR90	3.920	0.090	4.400	0.200	0.891	A	
1	U234	1.000	0.060	1.040	0.050	0.962	A	
1	U238	1.010	0.060	1.040	0.040	0.971	A	
1	UG U	0.082	0.003	0.080	0.003	1.025	A	

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.600	0.100	0.486	0.016	1.235	A	W
4	CO60	20.400	0.900	19.440	0.500	1.049	A	A
5	CO60	20.400	0.900	19.440	0.500	1.049	A	A
3	CO60	19.500	0.900	19.440	0.500	1.003	A	A
2	CO60	20.200	0.900	19.440	0.500	1.039	A	A
1	CO60	22.000	1.000	19.440	0.500	1.132	W	A
1	CS134	3.200	0.200	2.830	0.160	1.131	W	
2	CS134	2.900	0.200	2.830	0.160	1.025	A	
4	CS134	2.800	0.200	2.830	0.160	0.989	A	
3	CS134	2.800	0.200	2.830	0.160	0.989	A	
1	CS137	10.700	0.500	8.760	0.340	1.221	W	W
4	CS137	10.600	0.500	8.760	0.340	1.210	W	W
3	CS137	10.200	0.500	8.760	0.340	1.164	W	W
2	CS137	9.600	0.400	8.760	0.340	1.096	A	W
1	GROSS ALPHA	3.460	0.040	3.970	0.300	0.872	A	A
1	GROSS BETA	2.770	0.030	2.580	0.150	1.074	A	A
4	MN54	8.100	0.400	6.520	0.280	1.242	W	A
5	MN54	8.100	0.400	6.520	0.280	1.242	W	A
3	MN54	7.500	0.400	6.520	0.280	1.150	A	A
2	MN54	7.600	0.400	6.520	0.280	1.166	A	A
1	MN54	7.900	0.500	6.520	0.280	1.212	W	A
1	SR90	8.710	0.080	7.100	0.220	1.227	A	A

**Matrix:** SO Soil Bq / kg

2	AM241	14.000	2.100	14.800	0.510	0.946	A	A
1	AM241	13.700	2.500	14.800	0.510	0.926	A	A
5	AM241	13.300	1.300	14.800	0.510	0.899	A	A
4	AM241	10.900	1.500	14.800	0.510	0.736	W	A
3	AM241	12.000	1.200	14.800	0.510	0.811	W	A
1	CS137	1660.300	73.200	1740.000	90.000	0.954	A	A
3	CS137	1667.800	73.200	1740.000	90.000	0.959	A	A
2	CS137	1648.100	68.500	1740.000	90.000	0.947	A	A
5	CS137	1639.400	66.900	1740.000	90.000	0.942	A	A
4	CS137	1656.900	68.500	1740.000	90.000	0.952	A	A
3	K40	413.900	34.600	468.000	25.000	0.884	W	A
2	K40	416.200	25.900	468.000	25.000	0.889	W	A
4	K40	420.200	27.300	468.000	25.000	0.898	W	A
5	K40	401.300	29.000	468.000	25.000	0.857	W	A
1	K40	417.600	27.300	468.000	25.000	0.892	W	A
3	PU238	1.270	0.150	0.910	0.100	1.396	W	W
2	PU238	1.010	0.200	0.910	0.100	1.110	A	W
1	PU238	1.290	0.170	0.910	0.100	1.418	W	W
1	PU239	28.900	1.600	25.600	0.670	1.129	A	N
2	PU239	27.500	2.500	25.600	0.670	1.074	A	N
3	PU239	31.800	3.100	25.600	0.670	1.242	W	N
1	SR90	87.760	2.220	69.000	5.700	1.272	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 54 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 52 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
3	SR90	90.870	2.340	69.000	5.700	1.317	A	W
2	SR90	91.100	2.200	69.000	5.700	1.320	A	W
2	U234	38.100	2.000	43.600	1.800	0.874	A	
3	U234	40.500	1.800	43.600	1.800	0.929	A	
1	U234	38.600	1.800	43.600	1.800	0.885	A	
1	U238	40.800	1.900	46.100	1.300	0.885	A	
2	U238	39.700	2.500	46.100	1.300	0.861	A	
3	U238	45.200	1.600	46.100	1.300	0.980	A	

**Matrix:** VE Vegetation Bq/kg

4	AM241	6.900	1.200	6.170	0.320	1.118	A	A
2	AM241	8.600	2.800	6.170	0.320	1.394	A	A
3	AM241	7.400	1.600	6.170	0.320	1.199	A	A
1	AM241	9.800	3.600	6.170	0.320	1.588	W	A
3	CO60	32.700	2.200	30.400	1.200	1.076	A	A
4	CO60	30.700	2.600	30.400	1.200	1.010	A	A
2	CO60	30.000	2.300	30.400	1.200	0.987	A	A
1	CO60	30.900	2.600	30.400	1.200	1.016	A	A
5	CO60	30.900	2.200	30.400	1.200	1.016	A	A
3	CS137	796.700	35.400	842.000	42.000	0.946	A	A
4	CS137	799.500	33.600	842.000	42.000	0.950	A	A
2	CS137	801.100	38.400	842.000	42.000	0.951	A	A
1	CS137	796.800	33.600	842.000	42.000	0.946	A	A
5	CS137	803.600	35.100	842.000	42.000	0.954	A	A
4	K40	624.100	40.000	603.000	32.000	1.035	A	A
3	K40	609.700	41.500	603.000	32.000	1.011	A	A
2	K40	623.300	40.700	603.000	32.000	1.034	A	A
1	K40	622.400	55.400	603.000	32.000	1.032	A	A
1	SR90	1648.900	14.500	1330.000	70.000	1.240	N	A
3	SR90	1556.300	12.900	1330.000	70.000	1.170	W	A
2	SR90	1541.000	13.900	1330.000	70.000	1.159	W	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 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 52 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
2	AC228	35.500	5.300	42.700	1.700	0.831	W	A
3	AC228	41.000	6.300	42.700	1.700	0.960	A	A
1	AC228	39.100	6.500	42.700	1.700	0.916	A	A
1	AM241	14.756	0.592	14.800	0.510	0.997	A	
2	AM241	13.890	0.540	14.800	0.510	0.939	A	
3	AM241	14.659	0.544	14.800	0.510	0.990	A	
1	BI212	41.200	14.500	42.000	4.100	0.981	A	A
2	BI212	38.500	15.600	42.000	4.100	0.917	A	A
3	BI212	37.100	14.500	42.000	4.100	0.883	A	A
1	BI214	30.000	4.600	32.600	1.400	0.920	A	A
2	BI214	24.900	4.100	32.600	1.400	0.764	N	A
3	BI214	28.300	4.100	32.600	1.400	0.868	W	A
3	CS137	1617.000	178.000	1740.000	90.000	0.929	A	A
2	CS137	1622.000	179.000	1740.000	90.000	0.932	A	A
1	CS137	1622.000	179.000	1740.000	90.000	0.932	A	A
2	K40	409.000	49.000	468.000	25.000	0.874	W	A
1	K40	450.000	53.000	468.000	25.000	0.962	A	A
3	K40	441.000	52.000	468.000	25.000	0.942	A	A
1	PB212	36.800	4.500	41.500	2.200	0.887	W	A
2	PB212	36.500	4.400	41.500	2.200	0.880	W	A
3	PB212	37.900	4.600	41.500	2.200	0.913	A	A
2	PB214	30.300	6.200	34.300	1.600	0.883	W	A
1	PB214	24.300	4.800	34.300	1.600	0.708	N	A
3	PB214	24.900	3.900	34.300	1.600	0.726	N	A
1	PU239	28.209	1.051	25.600	0.670	1.102	A	
2	PU239	26.237	0.962	25.600	0.670	1.025	A	
3	PU239	27.750	0.929	25.600	0.670	1.084	A	
1	SR90	94.700	16.700	69.000	5.700	1.372	A	
3	SR90	81.000	16.700	69.000	5.700	1.174	A	
2	SR90	73.600	15.900	69.000	5.700	1.067	A	
3	TH234	82.700	12.400	46.600	3.500	1.775	W	A
2	TH234	69.200	11.200	46.600	3.500	1.485	A	A
1	TH234	60.700	11.100	46.600	3.500	1.303	A	A
1	UG U	3.110	0.310	3.730	0.020	0.834	A	A
2	UG U	3.120	0.310	3.730	0.020	0.836	A	A
3	UG U	3.120	0.310	3.730	0.020	0.836	A	A

**Matrix:** VE Vegetation Bq/kg

1	AM241	5.679	0.255	6.170	0.320	0.920	A	
3	AM241	5.916	0.274	6.170	0.320	0.959	A	
2	AM241	6.552	0.329	6.170	0.320	1.062	A	
1	CO60	34.300	4.000	30.400	1.200	1.128	A	A
3	CO60	33.400	3.800	30.400	1.200	1.099	A	A
2	CO60	33.200	3.900	30.400	1.200	1.092	A	A
3	CS137	980.000	108.000	842.000	42.000	1.164	A	A
2	CS137	983.000	108.000	842.000	42.000	1.167	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 54 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 52 Evaluation
<b>Matrix:</b> VE Vegetation Bq/kg								
1	CS137	982.000	108.000	842.000	42.000	1.166	A	A
3	K40	651.000	75.000	603.000	32.000	1.080	A	W
2	K40	594.000	70.000	603.000	32.000	0.985	A	W
1	K40	687.000	79.000	603.000	32.000	1.139	A	W
2	PU239	9.726	0.451	9.580	1.300	1.015	A	
1	PU239	8.908	0.418	9.580	1.300	0.930	A	
3	PU239	8.217	0.392	9.580	1.300	0.858	A	
3	SR90	1357.000	81.000	1330.000	70.000	1.020	A	
2	SR90	1254.000	70.000	1330.000	70.000	0.943	A	
1	SR90	1255.000	71.000	1330.000	70.000	0.944	A	

**Matrix:** WA Water Bq/L

1	AM241	1.682	0.043	1.670	0.080	1.007	A	
2	AM241	1.671	0.039	1.670	0.080	1.001	A	
3	AM241	1.650	0.042	1.670	0.080	0.988	A	
1	CO60	103.000	11.000	98.200	3.600	1.049	A	A
2	CO60	93.800	10.500	98.200	3.600	0.955	A	A
3	CO60	94.300	10.500	98.200	3.600	0.960	A	A
2	CS137	72.400	8.100	73.000	3.700	0.992	A	A
3	CS137	73.300	8.100	73.000	3.700	1.004	A	A
1	CS137	82.100	9.300	73.000	3.700	1.125	A	A
1	GROSS ALPHA	1546.000	130.000	1900.000	190.000	0.814	A	W
2	GROSS ALPHA	1745.000	150.000	1900.000	190.000	0.918	A	W
3	GROSS ALPHA	1607.000	140.000	1900.000	190.000	0.846	A	W
1	GROSS BETA	1251.000	275.000	1297.000	100.000	0.965	A	A
3	GROSS BETA	1306.000	286.000	1297.000	100.000	1.007	A	A
2	GROSS BETA	1358.000	296.000	1297.000	100.000	1.047	A	A
3	H3	93.200	23.300	79.300	2.000	1.175	A	A
2	H3	93.200	23.300	79.300	2.000	1.175	A	A
1	H3	93.200	23.300	79.300	2.000	1.175	A	A
3	PU238	1.674	0.055	1.580	0.090	1.059	A	
2	PU238	1.595	0.055	1.580	0.090	1.009	A	
1	PU238	1.597	0.053	1.580	0.090	1.011	A	
1	PU239	1.693	0.056	1.640	0.090	1.032	A	
2	PU239	1.683	0.058	1.640	0.090	1.026	A	
3	PU239	1.744	0.057	1.640	0.090	1.063	A	
3	SR90	5.400	0.500	4.400	0.200	1.227	W	
2	SR90	4.000	0.400	4.400	0.200	0.909	A	
1	SR90	5.000	0.500	4.400	0.200	1.136	A	
3	UG U	0.080	0.010	0.080	0.003	1.000	A	A
2	UG U	0.080	0.010	0.080	0.003	1.000	A	A
1	UG U	0.080	0.010	0.080	0.003	1.000	A	A

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**QAP 54 Results by Laboratory****Lab:** LB Lawrence Berkeley Lab UCB

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.460	0.070	0.486	0.016	0.947	A	
1	CO60	18.000	1.000	19.440	0.500	0.926	A	A
1	CS134	2.700	0.200	2.830	0.160	0.954	A	
1	CS137	8.200	0.600	8.760	0.340	0.936	A	A
1	GROSS ALPHA	3.800	0.200	3.970	0.300	0.957	A	A
1	GROSS BETA	2.700	0.100	2.580	0.150	1.047	A	W
1	MN54	6.100	0.400	6.520	0.280	0.936	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	75.000	13.000	42.700	1.700	1.756	N	A
1	AM241	15.000	2.000	14.800	0.510	1.014	A	A
1	BI212	75.000	10.000	42.000	4.100	1.786	N	W
1	BI214	53.000	9.000	32.600	1.400	1.626	N	A
1	CS137	2019.000	147.000	1740.000	90.000	1.160	A	A
1	K40	546.000	44.000	468.000	25.000	1.167	A	A
1	PB212	74.000	7.000	41.500	2.200	1.783	N	A
1	PB214	64.000	9.000	34.300	1.600	1.866	N	A
1	TH234	97.000	12.000	46.600	3.500	2.082	W	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	AM241	8.000	1.000	6.170	0.320	1.297	A	N
1	CO60	32.000	2.000	30.400	1.200	1.053	A	A
1	CS137	903.000	63.000	842.000	42.000	1.072	A	A
1	K40	625.000	49.000	603.000	32.000	1.036	A	A
<b>Matrix:</b> WA Water Bq / L								
1	AM241	1.700	0.300	1.670	0.080	1.018	A	A
1	CO60	104.000	6.000	98.200	3.600	1.059	A	A
1	CS137	76.000	6.000	73.000	3.700	1.041	A	A
1	GROSS ALPHA	1854.000	166.000	1900.000	190.000	0.976	A	A
1	GROSS BETA	1130.000	35.000	1297.000	100.000	0.871	A	W
1	H3	94.000	10.000	79.300	2.000	1.185	A	A
1	U234	2.100	0.300	1.040	0.050	2.019	N	A
1	U238	1.900	0.200	1.040	0.040	1.827	N	N

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.485	0.035	0.486	0.016	0.998	A	
1	CO60	25.500	2.480	19.440	0.500	1.312	N	W
1	CS137	12.100	1.720	8.760	0.340	1.381	N	W
1	PU238	0.202	0.010	0.215	0.009	0.940	A	A
1	PU239	0.135	0.007	0.136	0.012	0.993	A	A
1	U234	0.041	0.045	0.046	0.002	0.880	W	
1	U238	0.037	0.004	0.046	0.002	0.813	W	
<b>Matrix:</b> SO Soil Bq / kg								
1	AM241	15.300	0.640	14.800	0.510	1.034	A	A
1	CS137	1660.000	209.000	1740.000	90.000	0.954	A	W
1	K40	494.000	64.400	468.000	25.000	1.056	A	A
1	PU239	25.800	1.610	25.600	0.670	1.008	A	A
1	U234	30.200	2.420	43.600	1.800	0.693	N	
1	U238	32.600	2.570	46.100	1.300	0.707	W	
<b>Matrix:</b> VE Vegetation Bq / kg								
1	PU239	8.730	0.660	9.580	1.300	0.911	A	A
<b>Matrix:</b> WA Water Bq / L								
1	AM241	1.730	0.140	1.670	0.080	1.036	A	W
1	CO60	108.000	9.830	98.200	3.600	1.100	A	A
1	CS137	80.100	9.930	73.000	3.700	1.097	A	A
1	H3	69.400	10.200	79.300	2.000	0.875	A	W
1	PU238	1.560	0.084	1.580	0.090	0.987	A	W
1	PU239	1.640	0.087	1.640	0.090	1.000	A	N
1	U234	0.907	0.052	1.040	0.050	0.872	W	
1	U238	0.910	0.052	1.040	0.040	0.875	W	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 Results by Laboratory****Lab:** LM American Radiation Services of New Mexico, Los Alamos

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.438	0.080	0.486	0.016	0.901	A	
1	CO60	18.483	0.340	19.440	0.500	0.951	A	A
1	CS134	2.342	0.160	2.830	0.160	0.828	A	
1	CS137	8.781	0.260	8.760	0.340	1.002	A	A
1	GROSS ALPHA	3.992	0.232	3.970	0.300	1.006	A	A
1	GROSS BETA	2.859	0.145	2.580	0.150	1.108	A	A
1	MN54	5.746	0.200	6.520	0.280	0.881	W	A

**Matrix:** SO Soil Bq / kg

1	AC228	43.670	2.780	42.700	1.700	1.023	A	A
1	AM241	20.333	1.800	14.800	0.510	1.374	A	W
1	BI212	43.590	14.170	42.000	4.100	1.038	A	A
1	BI214	26.640	3.000	32.600	1.400	0.817	W	A
1	CS137	1951.400	5.800	1740.000	90.000	1.121	A	A
1	K40	562.240	19.770	468.000	25.000	1.201	A	W
1	PB212	45.704	1.430	41.500	2.200	1.101	A	W
1	PB214	33.146	2.860	34.300	1.600	0.966	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	8.400	1.900	6.170	0.320	1.361	A	A
1	CO60	32.954	1.280	30.400	1.200	1.084	A	A
1	CS137	954.050	5.830	842.000	42.000	1.133	A	A
1	K40	764.100	29.620	603.000	32.000	1.267	W	A

**Matrix:** WA Water Bq / L

1	AM241	1.856	0.800	1.670	0.080	1.111	A	A
1	CO60	112.650	1.280	98.200	3.600	1.147	W	A
1	CS137	91.444	1.460	73.000	3.700	1.253	N	W
1	GROSS ALPHA	1546.675	112.535	1900.000	190.000	0.814	A	W
1	GROSS BETA	1258.609	81.548	1297.000	100.000	0.970	A	A
1	H3	62.290	3.035	79.300	2.000	0.785	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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.500	0.050	0.486	0.016	1.029	A	
2	AM241	0.400	0.050	0.486	0.016	0.823	W	
2	CO60	20.300	0.500	19.440	0.500	1.044	A	A
1	CO60	19.600	0.500	19.440	0.500	1.008	A	A
2	CS134	2.600	0.250	2.830	0.160	0.919	A	
1	CS134	2.200	0.250	2.830	0.160	0.777	W	
2	CS137	8.700	0.300	8.760	0.340	0.993	A	A
1	CS137	9.200	0.300	8.760	0.340	1.050	A	A
1	GROSS ALPHA	2.800	0.100	3.970	0.300	0.705	W	A
2	GROSS ALPHA	2.800	0.100	3.970	0.300	0.705	W	A
1	GROSS BETA	2.600	0.100	2.580	0.150	1.008	A	W
2	GROSS BETA	2.400	0.100	2.580	0.150	0.930	A	W
2	MN54	7.000	0.600	6.520	0.280	1.074	A	A
1	MN54	6.330	0.500	6.520	0.280	0.971	A	A

**Matrix:** WA Water Bq/L

1	CO60	90.600	5.500	98.200	3.600	0.923	A	A
1	CS137	71.000	3.900	73.000	3.700	0.973	A	A
1	H3	97.300	8.000	79.300	2.000	1.227	A	W

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

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**QAP 54 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 52 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	AM241	0.638	0.050	0.486	0.016	1.313	A	W
1	Bq U	0.048	0.012	0.093	0.004	0.516	N	
1	CO60	18.200	0.300	19.440	0.500	0.936	A	A
1	CS134	3.250	0.070	2.830	0.160	1.148	W	
1	CS137	11.500	0.400	8.760	0.340	1.313	W	A
1	GROSS ALPHA	3.450	0.160	3.970	0.300	0.869	A	A
1	GROSS BETA	2.510	0.043	2.580	0.150	0.973	A	A
1	MN54	6.530	0.200	6.520	0.280	1.002	A	A
1	PU238	0.167	0.009	0.215	0.009	0.777	W	
1	PU239	0.103	0.006	0.136	0.012	0.757	W	
1	RU106	44.200	1.300	49.540	3.530	0.892	A	
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	38.900	1.000	42.700	1.700	0.911	A	A
1	AM241	6.820	1.120	14.800	0.510	0.461	N	A
1	BI212	47.300	3.200	42.000	4.100	1.126	W	A
1	BI214	29.500	0.900	32.600	1.400	0.905	A	A
1	CS137	1663.000	55.000	1740.000	90.000	0.956	A	A
1	K40	454.000	19.000	468.000	25.000	0.970	A	A
1	PB212	35.400	2.100	41.500	2.200	0.853	W	A
1	PB214	26.800	1.100	34.300	1.600	0.781	W	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	AM241	3.660	0.600	6.170	0.320	0.593	N	A
1	CO60	29.700	0.720	30.400	1.200	0.977	A	A
1	CS137	805.000	27.000	842.000	42.000	0.956	A	A
1	K40	597.000	25.000	603.000	32.000	0.990	A	A
<b>Matrix: WA Water Bq / L</b>								
1	AM241	2.200	0.150	1.670	0.080	1.317	W	W
1	Bq U	1.930	0.160	2.120	0.090	0.910	A	
1	CO60	97.000	1.700	98.200	3.600	0.988	A	A
1	CS137	74.800	2.500	73.000	3.700	1.025	A	A
1	GROSS ALPHA	2100.000	170.000	1900.000	190.000	1.105	A	N
1	GROSS BETA	993.000	42.000	1297.000	100.000	0.766	A	N
1	H3	91.400	6.700	79.300	2.000	1.153	A	W
1	PU238	0.239	0.022	1.580	0.090	0.151	N	
1	PU239	0.416	0.320	1.640	0.090	0.254	N	

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation: A=Acceptable, 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 54 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 52 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
1	AM241	17.000	1.840	14.800	0.510	1.149	A	
1	CS137	2460.000	171.000	1740.000	90.000	1.414	N	A
1	K40	715.000	165.000	468.000	25.000	1.528	N	W
1	PU238	0.650	0.510	0.910	0.100	0.714	W	
1	PU239	24.900	4.110	25.600	0.670	0.973	A	N
1	U234	37.500	3.270	43.600	1.800	0.860	A	N
1	U238	39.500	4.480	46.100	1.300	0.857	A	N

**Matrix:** WA Water Bq/L

1	AM241	1.660	0.140	1.670	0.080	0.994	A	W
1	CO60	106.000	8.230	98.200	3.600	1.079	A	N
1	CS137	77.300	8.770	73.000	3.700	1.059	A	W
1	GROSS ALPHA	1810.000	81.500	1900.000	190.000	0.953	A	A
1	GROSS BETA	1450.000	46.500	1297.000	100.000	1.118	A	A
1	H3	108.000	18.400	79.300	2.000	1.362	W	W
1	PU238	1.430	0.190	1.580	0.090	0.905	A	A
1	PU239	1.490	0.200	1.640	0.090	0.909	A	A
1	U234	1.060	0.110	1.040	0.050	1.019	A	A
1	U238	1.060	0.140	1.040	0.040	1.019	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
3	AM241	0.660	0.270	0.486	0.016	1.358	A	
2	AM241	0.500	0.150	0.486	0.016	1.029	A	
1	AM241	0.460	0.040	0.486	0.016	0.947	A	
2	CO60	20.400	0.400	19.440	0.500	1.049	A	A
1	CO60	20.200	0.400	19.440	0.500	1.039	A	A
3	CO60	21.300	0.400	19.440	0.500	1.096	A	A
3	CS134	3.100	0.100	2.830	0.160	1.095	A	
1	CS134	3.200	0.100	2.830	0.160	1.131	W	
2	CS134	2.900	0.100	2.830	0.160	1.025	A	
2	CS137	9.400	0.400	8.760	0.340	1.073	A	A
1	CS137	9.600	0.400	8.760	0.340	1.096	A	A
3	CS137	10.600	0.400	8.760	0.340	1.210	W	A
3	GROSS ALPHA	5.200	0.100	3.970	0.300	1.310	W	W
2	GROSS ALPHA	5.200	0.100	3.970	0.300	1.310	W	W
1	GROSS ALPHA	4.900	0.100	3.970	0.300	1.234	A	W
3	GROSS BETA	2.900	0.100	2.580	0.150	1.124	A	A
1	GROSS BETA	3.500	0.100	2.580	0.150	1.357	W	A
2	GROSS BETA	3.000	0.100	2.580	0.150	1.163	A	A
2	MN54	7.000	0.200	6.520	0.280	1.074	A	A
1	MN54	7.000	0.200	6.520	0.280	1.074	A	A
3	MN54	7.500	0.300	6.520	0.280	1.150	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	49.900	1.700	42.700	1.700	1.169	A	A
2	AC228	48.800	2.100	42.700	1.700	1.143	A	A
3	AC228	46.600	1.600	42.700	1.700	1.091	A	A
1	AM241	16.500	2.000	14.800	0.510	1.115	A	A
2	AM241	16.400	3.300	14.800	0.510	1.108	A	A
3	AM241	15.600	1.900	14.800	0.510	1.054	A	A
1	BI212	59.200	5.100	42.000	4.100	1.410	N	W
2	BI212	42.500	3.500	42.000	4.100	1.012	A	W
3	BI212	56.600	13.100	42.000	4.100	1.348	N	W
3	BI214	41.300	1.900	32.600	1.400	1.267	W	A
1	BI214	38.100	1.900	32.600	1.400	1.169	A	A
2	BI214	38.100	1.300	32.600	1.400	1.169	A	A
1	CS137	1971.900	48.500	1740.000	90.000	1.133	A	A
2	CS137	1927.500	45.500	1740.000	90.000	1.108	A	A
3	CS137	1934.900	47.400	1740.000	90.000	1.112	A	A
1	K40	488.300	31.100	468.000	25.000	1.043	A	A
2	K40	506.800	26.200	468.000	25.000	1.083	A	A
3	K40	458.800	27.800	468.000	25.000	0.980	A	A
3	PB212	35.500	2.400	41.500	2.200	0.855	W	W
1	PB212	36.300	2.500	41.500	2.200	0.875	W	W
2	PB212	39.200	2.400	41.500	2.200	0.945	A	W
3	PB214	41.800	3.200	34.300	1.600	1.219	A	A
1	PB214	37.700	3.400	34.300	1.600	1.099	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 54 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 52 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
2	PB214	35.900	1.800	34.300	1.600	1.047	A	A
3	TH234	57.700	8.200	46.600	3.500	1.238	A	A
1	TH234	63.300	8.800	46.600	3.500	1.358	A	A
2	TH234	55.900	9.000	46.600	3.500	1.200	A	A
<b>Matrix:</b> VE Vegetation Bq/kg								
2	AM241	6.200	0.800	6.170	0.320	1.005	A	N
1	AM241	7.400	1.600	6.170	0.320	1.199	A	N
2	CO60	31.400	1.000	30.400	1.200	1.033	A	N
3	CO60	29.700	1.400	30.400	1.200	0.977	A	N
1	CO60	29.700	2.400	30.400	1.200	0.977	A	N
3	CS137	802.800	20.900	842.000	42.000	0.953	A	N
2	CS137	791.700	18.100	842.000	42.000	0.940	A	N
1	CS137	806.500	21.000	842.000	42.000	0.958	A	N
1	K40	599.300	67.700	603.000	32.000	0.994	A	N
3	K40	436.600	66.200	603.000	32.000	0.724	N	N
2	K40	432.800	28.100	603.000	32.000	0.718	N	N
<b>Matrix:</b> WA Water Bq/L								
3	AM241	1.700	0.300	1.670	0.080	1.018	A	A
1	AM241	1.500	0.100	1.670	0.080	0.898	W	A
2	AM241	1.900	0.500	1.670	0.080	1.138	A	A
1	CO60	104.700	1.800	98.200	3.600	1.066	A	A
2	CO60	104.000	1.700	98.200	3.600	1.059	A	A
3	CO60	104.300	1.800	98.200	3.600	1.062	A	A
3	CS137	78.100	1.900	73.000	3.700	1.070	A	A
2	CS137	79.200	1.800	73.000	3.700	1.085	A	A
1	CS137	78.100	1.800	73.000	3.700	1.070	A	A
1	H3	93.000	4.400	79.300	2.000	1.173	A	W
3	H3	88.600	4.300	79.300	2.000	1.117	A	W
2	H3	92.400	4.400	79.300	2.000	1.165	A	W

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

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

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.375	0.088	0.486	0.016	0.772	W	
1	CO60	20.390	0.790	19.440	0.500	1.049	A	A
1	CS134	2.890	0.130	2.830	0.160	1.021	A	
1	CS137	10.190	0.580	8.760	0.340	1.163	W	W
1	GROSS ALPHA	3.960	0.020	3.970	0.300	0.997	A	A
1	GROSS BETA	2.620	0.030	2.580	0.150	1.016	A	A
1	MN54	7.390	0.430	6.520	0.280	1.133	A	W
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	38.900	1.600	42.700	1.700	0.911	A	A
1	AM241	10.900	1.000	14.800	0.510	0.736	W	W
1	BI212	22.100	2.300	42.000	4.100	0.526	W	A
1	BI214	27.600	1.200	32.600	1.400	0.847	W	A
1	CS137	1752.800	88.500	1740.000	90.000	1.007	A	A
1	K40	499.700	24.400	468.000	25.000	1.068	A	A
1	PB212	38.500	2.700	41.500	2.200	0.928	A	A
1	PB214	32.900	1.300	34.300	1.600	0.959	A	A
1	TH234	48.700	3.500	46.600	3.500	1.045	A	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	AM241	6.570	0.760	6.170	0.320	1.065	A	A
1	CO60	33.630	1.130	30.400	1.200	1.106	A	A
1	CS137	935.940	47.260	842.000	42.000	1.112	A	A
1	K40	717.850	35.030	603.000	32.000	1.190	A	A
<b>Matrix:</b> WA Water Bq / L								
1	AM241	1.502	0.241	1.670	0.080	0.899	W	A
1	CO60	101.400	4.600	98.200	3.600	1.033	A	A
1	CS137	75.900	5.500	73.000	3.700	1.040	A	A
1	GROSS ALPHA	1688.060	5.260	1900.000	190.000	0.888	A	A
1	GROSS BETA	1210.700	9.280	1297.000	100.000	0.933	A	A
1	H3	87.710	3.080	79.300	2.000	1.106	A	A
1	U234	0.911	0.060	1.040	0.050	0.876	W	W
1	U238	0.928	0.061	1.040	0.040	0.892	W	W

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 Results by Laboratory****Lab:** MI Massachusetts Institute of Technology

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	18.800	0.600	19.440	0.500	0.967	A	A
1	CS134	3.000	0.200	2.830	0.160	1.060	A	
1	CS137	9.600	0.500	8.760	0.340	1.096	A	W
1	GROSS ALPHA	2.900	0.300	3.970	0.300	0.730	W	
1	GROSS BETA	4.000	0.300	2.580	0.150	1.550	N	
1	MN54	5.800	0.400	6.520	0.280	0.890	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.900	0.150	1.670	0.080	1.138	A	W
2	AM241	1.840	0.170	1.670	0.080	1.102	A	W
2	CO60	104.700	2.300	98.200	3.600	1.066	A	A
1	CO60	104.500	2.300	98.200	3.600	1.064	A	A
1	CS137	79.300	3.400	73.000	3.700	1.086	A	A
2	CS137	78.700	3.300	73.000	3.700	1.078	A	A
1	GROSS ALPHA	1800.000	55.000	1900.000	190.000	0.947	A	
1	GROSS BETA	2469.000	72.000	1297.000	100.000	1.904	N	
1	H3	66.000	8.000	79.300	2.000	0.832	W	W
2	H3	66.000	8.000	79.300	2.000	0.832	W	W

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 Results by Laboratory****Lab:** MJ Mississippi State Department of Health, Jackson

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> AI Air Filter Bq / filter								
1	Bq U	1.660	0.500	0.093	0.004	17.849	N	
1	CO60	103.000	4.000	19.440	0.500	5.298	N	
1	CS137	78.000	3.000	8.760	0.340	8.904	N	
1	GROSS ALPHA	1860.000	180.000	3.970	0.300	468.514	N	
1	GROSS BETA	1400.000	140.000	2.580	0.150	542.636	N	
1	SR90	4.800	0.200	7.100	0.220	0.676	W	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi/g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** ML Babcock & Wilcox of Ohio, Mound, Miamisburg, Ohio

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.500	0.050	0.486	0.016	1.029	A	A
1	CO60	19.000	1.900	19.440	0.500	0.977	A	A
1	CS134	2.200	0.220	2.830	0.160	0.777	W	
1	CS137	9.000	0.900	8.760	0.340	1.027	A	A
1	MN54	8.000	0.800	6.520	0.280	1.227	W	A
1	PU238	0.220	0.030	0.215	0.009	1.023	A	A
1	PU239	0.150	0.020	0.136	0.012	1.103	A	A
1	U234	0.042	0.006	0.046	0.002	0.913	A	A
1	U238	0.041	0.006	0.046	0.002	0.891	W	A

**Matrix:** SO Soil Bq / kg

1	AM241	14.400	1.400	14.800	0.510	0.973	A	A
1	BI212	29.000	2.900	42.000	4.100	0.690	A	W
1	BI214	25.000	2.500	32.600	1.400	0.767	N	A
1	CS137	1743.000	174.300	1740.000	90.000	1.002	A	A
1	K40	493.000	49.300	468.000	25.000	1.053	A	A
1	PB212	53.000	5.300	41.500	2.200	1.277	W	A
1	PB214	34.000	3.400	34.300	1.600	0.991	A	A
1	PU239	25.590	4.590	25.600	0.670	1.000	A	A
1	U234	38.370	6.150	43.600	1.800	0.880	A	A
1	U238	40.110	6.370	46.100	1.300	0.870	A	A

**Matrix:** VE Vegetation Bq / kg

1	PU239	7.850	1.180	9.580	1.300	0.819	W	
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**Matrix:** WA Water Bq / L

1	AM241	1.720	0.340	1.670	0.080	1.030	A	W
1	CO60	108.000	10.800	98.200	3.600	1.100	A	A
1	CS137	80.000	8.000	73.000	3.700	1.096	A	A
1	H3	67.650	4.100	79.300	2.000	0.853	A	A
1	PU238	1.660	0.260	1.580	0.090	1.051	A	A
1	PU239	1.770	0.270	1.640	0.090	1.079	A	A
1	U234	1.000	0.160	1.040	0.050	0.962	A	A
1	U238	1.060	0.170	1.040	0.040	1.019	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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	18.100	1.800	19.440	0.500	0.931	A	A
1	CS134	2.850	0.290	2.830	0.160	1.007	A	A
1	CS137	8.050	0.810	8.760	0.340	0.919	A	A
1	GROSS ALPHA	4.070	0.410	3.970	0.300	1.025	A	A
1	GROSS BETA	2.090	0.210	2.580	0.150	0.810	W	W
1	MN54	7.050	0.710	6.520	0.280	1.081	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	49.800	5.000	42.700	1.700	1.166	A	A
1	BI214	32.200	3.200	32.600	1.400	0.988	A	A
1	CS137	1965.000	197.000	1740.000	90.000	1.129	A	A
1	K40	518.000	52.000	468.000	25.000	1.107	A	W
1	PB212	37.700	3.800	41.500	2.200	0.908	A	A
1	PB214	35.000	3.500	34.300	1.600	1.020	A	A
<b>Matrix:</b> WA Water Bq / L								
1	AM241	2.400	0.240	1.670	0.080	1.437	W	W
1	CO60	101.000	10.100	98.200	3.600	1.029	A	A
1	CS137	76.100	7.600	73.000	3.700	1.042	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

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**QAP 54 Results by Laboratory****Lab:** MX Laboratory of Radiochimica CREN-U of Zacatecas, Mexico

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
1	Bq U	67.300	4.680	91.800	2.300	0.733	W	
2	Bq U	65.120	4.750	91.800	2.300	0.709	W	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi}/\text{g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** MZ Vigilancia Radiológica Ambiental, CNSNS, Mexico

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	1.930	0.280	0.486	0.016	3.971	N	
2	AM241	2.050	0.290	0.486	0.016	4.218	N	
1	CO60	28.450	1.110	19.440	0.500	1.463	N	
3	CO60	28.340	1.100	19.440	0.500	1.458	N	
2	CO60	28.850	1.110	19.440	0.500	1.484	N	
1	CS134	3.530	0.640	2.830	0.160	1.247	N	
3	CS134	3.640	0.600	2.830	0.160	1.286	N	
2	CS134	3.590	0.610	2.830	0.160	1.269	N	
1	CS137	12.940	0.420	8.760	0.340	1.477	N	
3	CS137	12.840	0.420	8.760	0.340	1.466	N	
2	CS137	12.240	0.410	8.760	0.340	1.397	N	
1	GROSS ALPHA	4.630	0.280	3.970	0.300	1.166	A	
3	GROSS ALPHA	4.950	0.300	3.970	0.300	1.247	W	
2	GROSS ALPHA	4.780	0.290	3.970	0.300	1.204	A	
1	GROSS BETA	3.380	0.170	2.580	0.150	1.310	W	
2	GROSS BETA	3.340	0.170	2.580	0.150	1.295	A	
3	GROSS BETA	3.450	0.170	2.580	0.150	1.337	W	
1	MN54	9.780	0.380	6.520	0.280	1.500	N	
2	MN54	9.660	0.380	6.520	0.280	1.482	N	
3	MN54	9.990	0.390	6.520	0.280	1.532	N	

**Matrix:** SO Soil Bq / kg

1	CS137	2010.460	16.280	1740.000	90.000	1.155	A	
3	CS137	2043.160	16.350	1740.000	90.000	1.174	A	
2	CS137	2033.300	16.270	1740.000	90.000	1.169	A	
2	K40	392.270	24.240	468.000	25.000	0.838	W	
1	K40	426.690	25.260	468.000	25.000	0.912	A	
3	K40	381.800	23.900	468.000	25.000	0.816	W	
1	SR90	56.000	1.000	69.000	5.700	0.812	A	
2	SR90	67.000	1.000	69.000	5.700	0.971	A	
3	SR90	62.000	1.000	69.000	5.700	0.899	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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CS134	2.730	0.140	2.830	0.160	0.965	A	
1	CS137	9.010	0.350	8.760	0.340	1.029	A	N
1	MN54	6.670	0.290	6.520	0.280	1.023	A	N
1	PU238	0.181	0.019	0.215	0.009	0.842	W	A
1	PU239	0.131	0.015	0.136	0.012	0.963	A	W
1	SR90	7.200	0.560	7.100	0.220	1.014	A	A
1	U234	0.112	0.018	0.046	0.002	2.435	N	A
1	U238	0.066	0.013	0.046	0.002	1.435	W	A

**Matrix:** SO Soil Bq / kg

1	AC228	38.700	2.500	42.700	1.700	0.906	A	
1	AM241	12.100	2.700	14.800	0.510	0.818	W	
1	BI212	40.000	8.000	42.000	4.100	0.952	A	A
1	BI214	28.100	1.800	32.600	1.400	0.862	W	A
1	CS137	1807.000	58.000	1740.000	90.000	1.039	A	A
1	K40	481.000	21.000	468.000	25.000	1.028	A	A
1	PB212	42.100	2.200	41.500	2.200	1.014	A	A
1	PB214	30.600	2.300	34.300	1.600	0.892	W	A
1	PU239	25.400	4.000	25.600	0.670	0.992	A	A
1	U234	39.800	6.000	43.600	1.800	0.913	A	
1	U238	41.600	5.300	46.100	1.300	0.902	A	

**Matrix:** VE Vegetation Bq / kg

1	AM241	7.600	3.700	6.170	0.320	1.232	A	
1	CO60	36.000	1.500	30.400	1.200	1.184	A	A
1	CS137	1089.000	36.000	842.000	42.000	1.293	W	W
1	K40	749.000	30.000	603.000	32.000	1.242	A	W
1	PU239	7.560	0.440	9.580	1.300	0.789	W	A
1	SR90	1122.000	43.000	1330.000	70.000	0.844	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.480	0.070	1.670	0.080	0.886	W	
1	CO60	99.000	3.300	98.200	3.600	1.008	A	A
1	CS137	80.900	2.800	73.000	3.700	1.108	A	A
1	H3	86.000	3.100	79.300	2.000	1.084	A	A
1	PU238	1.400	0.080	1.580	0.090	0.886	W	W
1	PU239	1.470	0.080	1.640	0.090	0.896	W	A
1	SR90	4.600	1.100	4.400	0.200	1.045	A	A
1	U234	0.960	0.060	1.040	0.050	0.923	A	
1	U238	0.980	0.060	1.040	0.040	0.942	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 54 Results by Laboratory****Lab:** NF Nuclear Fuel Services, Erwin, TN

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	AM241	1.509	0.050	1.670	0.080	0.904	A	W
1	PU238	1.876	0.064	1.580	0.090	1.187	W	A
1	PU239	1.920	0.064	1.640	0.090	1.171	W	A
1	U234	1.044	0.034	1.040	0.050	1.004	A	A
1	U238	1.033	0.033	1.040	0.040	0.993	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** NJ NJ Department of Health and Senior Services

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
3	AM241	0.540	0.150	0.486	0.016	1.111	A	
2	AM241	0.530	0.160	0.486	0.016	1.091	A	
4	AM241	0.670	0.210	0.486	0.016	1.379	A	
1	AM241	0.510	0.140	0.486	0.016	1.049	A	
5	CO60	18.000	1.000	19.440	0.500	0.926	A	
4	CO60	18.000	1.000	19.440	0.500	0.926	A	
3	CO60	18.000	1.000	19.440	0.500	0.926	A	
2	CO60	18.000	1.000	19.440	0.500	0.926	A	
1	CO60	18.000	1.000	19.440	0.500	0.926	A	
5	CS134	2.400	0.200	2.830	0.160	0.848	A	
1	CS134	2.300	0.300	2.830	0.160	0.813	W	
2	CS134	2.400	0.300	2.830	0.160	0.848	A	
3	CS134	2.400	0.200	2.830	0.160	0.848	A	
4	CS134	2.300	0.200	2.830	0.160	0.813	W	
4	CS137	8.000	0.700	8.760	0.340	0.913	A	
1	CS137	8.200	0.900	8.760	0.340	0.936	A	
3	CS137	7.900	0.700	8.760	0.340	0.902	A	
5	CS137	8.100	0.700	8.760	0.340	0.925	A	
2	CS137	8.100	0.700	8.760	0.340	0.925	A	
3	MN54	5.900	1.400	6.520	0.280	0.905	A	
4	MN54	5.800	1.300	6.520	0.280	0.890	A	
1	MN54	5.900	2.100	6.520	0.280	0.905	A	
2	MN54	6.000	1.800	6.520	0.280	0.920	A	
5	MN54	6.000	1.400	6.520	0.280	0.920	A	

**Matrix:** SO Soil Bq / kg

1	AC228	40.000	2.000	42.700	1.700	0.937	A	
3	AC228	40.000	2.000	42.700	1.700	0.937	A	
2	AC228	40.000	2.000	42.700	1.700	0.937	A	
1	AM241	12.000	3.000	14.800	0.510	0.811	W	
2	AM241	12.000	3.000	14.800	0.510	0.811	W	
3	AM241	14.000	1.000	14.800	0.510	0.946	A	
3	BI212	49.000	8.000	42.000	4.100	1.167	W	
2	BI212	50.000	8.000	42.000	4.100	1.190	W	
1	BI212	42.000	9.000	42.000	4.100	1.000	A	
1	BI214	33.000	2.000	32.600	1.400	1.012	A	
2	BI214	33.000	2.000	32.600	1.400	1.012	A	
3	BI214	34.000	2.000	32.600	1.400	1.043	A	
3	CS137	1850.000	100.000	1740.000	90.000	1.063	A	
2	CS137	1880.000	90.000	1740.000	90.000	1.080	A	
1	CS137	1870.000	90.000	1740.000	90.000	1.075	A	
3	K40	494.000	20.000	468.000	25.000	1.056	A	
1	K40	479.000	20.000	468.000	25.000	1.024	A	
2	K40	476.000	20.000	468.000	25.000	1.017	A	
3	PB212	43.000	2.000	41.500	2.200	1.036	A	
2	PB212	42.000	2.000	41.500	2.200	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 54 Results by Laboratory****Lab:** NJ NJ Department of Health and Senior Services

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
1	PB212	42.000	2.000	41.500	2.200	1.012	A	
1	PB214	32.000	3.000	34.300	1.600	0.933	A	
2	PB214	34.000	3.000	34.300	1.600	0.991	A	
3	PB214	31.000	2.000	34.300	1.600	0.904	A	
2	TH234	27.000	5.000	46.600	3.500	0.579	N	
1	TH234	25.000	6.000	46.600	3.500	0.536	N	

**Matrix:** VE Vegetation Bq/kg

3	AM241	7.000	1.400	6.170	0.320	1.135	A	
1	AM241	6.700	1.100	6.170	0.320	1.086	A	
2	AM241	6.800	2.100	6.170	0.320	1.102	A	
1	CO60	35.000	1.000	30.400	1.200	1.151	A	
2	CO60	35.000	1.000	30.400	1.200	1.151	A	
3	CO60	35.000	1.000	30.400	1.200	1.151	A	
3	CS137	980.000	50.000	842.000	42.000	1.164	A	
1	CS137	980.000	50.000	842.000	42.000	1.164	A	
2	CS137	980.000	60.000	842.000	42.000	1.164	A	
2	K40	670.000	30.000	603.000	32.000	1.111	A	
1	K40	660.000	30.000	603.000	32.000	1.095	A	
3	K40	670.000	30.000	603.000	32.000	1.111	A	

**Matrix:** WA Water Bq/L

2	AM241	2.290	0.470	1.670	0.080	1.371	W	
1	AM241	1.850	0.590	1.670	0.080	1.108	A	
3	AM241	1.530	0.440	1.670	0.080	0.916	A	
1	Bq U	2.400	0.200	2.120	0.090	1.132	A	
3	Bq U	2.300	0.200	2.120	0.090	1.085	A	
2	Bq U	2.400	0.200	2.120	0.090	1.132	A	
1	CO60	97.700	1.600	98.200	3.600	0.995	A	
2	CO60	98.000	1.700	98.200	3.600	0.998	A	
3	CO60	99.300	1.700	98.200	3.600	1.011	A	
1	CS137	73.700	3.900	73.000	3.700	1.010	A	
2	CS137	73.900	3.700	73.000	3.700	1.012	A	
3	CS137	75.400	3.800	73.000	3.700	1.033	A	
1	GROSS ALPHA	1740.000	40.000	1900.000	190.000	0.916	A	
2	GROSS ALPHA	1790.000	40.000	1900.000	190.000	0.942	A	
2	GROSS BETA	1690.000	30.000	1297.000	100.000	1.303	A	
1	GROSS BETA	1720.000	30.000	1297.000	100.000	1.326	A	
3	H3	97.000	7.000	79.300	2.000	1.223	A	
1	H3	109.000	7.000	79.300	2.000	1.375	W	
2	H3	102.000	7.000	79.300	2.000	1.286	A	
3	SR90	4.200	0.300	4.400	0.200	0.955	A	
2	SR90	3.800	0.300	4.400	0.200	0.864	A	
1	SR90	3.400	0.300	4.400	0.200	0.773	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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	18.500	0.700	19.440	0.500	0.952	A	A
1	CS134	2.810	0.130	2.830	0.160	0.993	A	
1	CS137	9.080	0.480	8.760	0.340	1.037	A	W
1	MN54	6.950	0.380	6.520	0.280	1.066	A	A
1	PU238	0.222	0.026	0.215	0.009	1.033	A	A
1	PU239	0.142	0.017	0.136	0.012	1.044	A	A
1	U234	0.048	0.007	0.046	0.002	1.046	A	A
1	U238	0.046	0.006	0.046	0.002	0.998	A	A
1	UG U	3.700	0.510	3.700	0.160	1.000	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	41.600	1.700	42.700	1.700	0.974	A	A
1	BI212	38.900	2.100	42.000	4.100	0.926	A	A
1	BI214	29.400	1.300	32.600	1.400	0.902	A	A
1	CS137	1762.000	88.000	1740.000	90.000	1.013	A	A
1	K40	537.000	27.000	468.000	25.000	1.147	A	A
1	PB212	38.900	2.100	41.500	2.200	0.937	A	A
1	PB214	32.200	1.600	34.300	1.600	0.939	A	A
1	PU239	23.600	2.800	25.600	0.670	0.922	A	A
1	TH234	49.600	7.500	46.600	3.500	1.064	A	A
1	U234	40.500	5.300	43.600	1.800	0.929	A	A
1	U238	49.900	6.500	46.100	1.300	1.082	A	A
1	UG U	4.050	0.530	3.730	0.020	1.086	A	A

**Matrix:** WA Water Bq / L

1	CO60	100.100	3.600	98.200	3.600	1.019	A	A
1	CS137	80.500	4.100	73.000	3.700	1.103	A	A
1	GROSS ALPHA	2000.000	195.000	1900.000	190.000	1.053	A	W
1	GROSS BETA	1690.000	174.000	1297.000	100.000	1.303	A	W
1	PU238	1.560	0.180	1.580	0.090	0.987	A	A
1	PU239	1.590	0.190	1.640	0.090	0.970	A	A
1	U234	0.986	0.115	1.040	0.050	0.948	A	A
1	U238	1.020	0.120	1.040	0.040	0.981	A	A
1	UG U	0.082	0.001	0.080	0.003	1.025	A	A
2	UG U	0.082	0.001	0.080	0.003	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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CS137	8.350	0.530	8.760	0.340	0.953	A	A
1	PU238	0.196	0.007	0.215	0.009	0.912	A	A
1	PU239	0.126	0.005	0.136	0.012	0.926	A	A
1	SR90	2.120	0.160	7.100	0.220	0.299	N	A
<b>Matrix:</b> SO Soil Bq / kg								
3	AM241	15.600	1.300	14.800	0.510	1.054	A	A
1	AM241	14.000	0.700	14.800	0.510	0.946	A	A
2	AM241	14.800	1.400	14.800	0.510	1.000	A	A
1	CS137	1880.000	80.000	1740.000	90.000	1.080	A	A
3	PU239	26.700	1.100	25.600	0.670	1.043	A	A
2	PU239	27.700	1.300	25.600	0.670	1.082	A	A
1	PU239	27.400	1.000	25.600	0.670	1.070	A	A
<b>Matrix:</b> WA Water Bq / L								
1	AM241	1.640	0.055	1.670	0.080	0.982	A	A
1	CS137	74.700	2.600	73.000	3.700	1.023	A	A
1	PU238	1.650	0.061	1.580	0.090	1.044	A	A
1	PU239	1.690	0.063	1.640	0.090	1.030	A	A
1	SR90	17.600	1.200	4.400	0.200	4.000	N	W

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	18.300	0.200	19.440	0.500	0.941	A	A
1	CS134	2.400	0.200	2.830	0.160	0.848	A	
1	CS137	8.400	0.200	8.760	0.340	0.959	A	A
1	GROSS BETA	2.640	0.050	2.580	0.150	1.023	A	A
1	MN54	6.700	0.200	6.520	0.280	1.028	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	102.500	1.500	98.200	3.600	1.044	A	A
1	CS137	71.500	1.500	73.000	3.700	0.979	A	A
1	GROSS BETA	1.220	0.020	1297.000	100.000	0.001	N	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi/g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** NQ New Mexico Department of Health, Albuquerque

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.371	0.022	0.486	0.016	0.764	W	A
1	CO60	18.130	3.690	19.440	0.500	0.933	A	A
1	CS134	2.360	0.490	2.830	0.160	0.834	A	
1	CS137	8.400	1.730	8.760	0.340	0.959	A	A
1	GROSS ALPHA	3.420	0.520	3.970	0.300	0.861	A	A
1	GROSS BETA	2.640	0.400	2.580	0.150	1.023	A	A
1	MN54	6.210	1.290	6.520	0.280	0.952	A	A
1	PU238	0.194	0.011	0.215	0.009	0.902	A	A
1	PU239	0.133	0.008	0.136	0.012	0.977	A	A
1	U234	0.042	0.003	0.046	0.002	0.917	A	A
1	U238	0.039	0.003	0.046	0.002	0.852	W	A

**Matrix:** SO Soil Bq / kg

1	AC228	42.200	8.900	42.700	1.700	0.988	A	A
1	AM241	17.800	1.600	14.800	0.510	1.203	A	
1	BI212	53.300	14.100	42.000	4.100	1.269	N	N
1	BI214	33.000	7.000	32.600	1.400	1.012	A	A
1	CS137	2000.000	410.000	1740.000	90.000	1.149	A	A
1	K40	544.000	112.000	468.000	25.000	1.162	A	A
1	PB212	37.400	7.800	41.500	2.200	0.901	A	A
1	PB214	31.100	6.700	34.300	1.600	0.907	A	A
1	PU239	24.100	1.700	25.600	0.670	0.941	A	A
1	TH234	34.100	9.300	46.600	3.500	0.732	W	A
1	U234	39.200	2.600	43.600	1.800	0.899	A	A
1	U238	40.800	2.700	46.100	1.300	0.885	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.461	0.112	1.670	0.080	0.875	W	A
1	CO60	102.300	21.000	98.200	3.600	1.042	A	A
1	CS137	75.900	16.000	73.000	3.700	1.040	A	A
1	PU238	1.391	0.085	1.580	0.090	0.880	W	A
1	PU239	1.481	0.091	1.640	0.090	0.903	A	A
1	U234	0.979	0.061	1.040	0.050	0.941	A	W
1	U238	0.926	0.058	1.040	0.040	0.890	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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	17.700	3.500	19.440	0.500	0.910	A	A
1	CS134	2.920	0.580	2.830	0.160	1.032	A	A
1	CS137	8.580	1.720	8.760	0.340	0.979	A	A
1	MN54	6.250	1.250	6.520	0.280	0.959	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	CS137	1536.000	307.000	1740.000	90.000	0.883	W	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	30.700	6.100	30.400	1.200	1.010	A	A
1	CS137	832.000	166.000	842.000	42.000	0.988	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	100.600	20.100	98.200	3.600	1.024	A	A
1	CS137	76.900	15.400	73.000	3.700	1.053	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** NS State Lab of Public Health, North Carolina

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	Bq U	1.430	0.362	2.120	0.090	0.675	N	
1	GROSS ALPHA	1864.000	77.000	1900.000	190.000	0.981	A	
1	GROSS BETA	1419.000	47.000	1297.000	100.000	1.094	A	

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** NZ National Radiation Laboratory, New Zealand

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	18.100	0.900	19.440	0.500	0.931	A	A
1	CS134	2.100	0.100	2.830	0.160	0.742	W	
1	CS137	8.200	0.400	8.760	0.340	0.936	A	A
1	MN54	6.300	0.300	6.520	0.280	0.966	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	27.000	2.000	42.700	1.700	0.632	N	W
1	AM241	17.800	1.300	14.800	0.510	1.203	A	A
1	BI212	59.000	9.000	42.000	4.100	1.405	N	A
1	BI214	26.000	2.000	32.600	1.400	0.798	W	A
1	CS137	1820.000	20.000	1740.000	90.000	1.046	A	A
1	K40	466.000	14.000	468.000	25.000	0.996	A	A
1	PB212	41.100	0.900	41.500	2.200	0.990	A	A
1	PB214	26.000	2.000	34.300	1.600	0.758	N	W
1	TH234	38.000	6.000	46.600	3.500	0.815	A	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	29.500	1.500	30.400	1.200	0.970	A	A
1	CS137	760.000	40.000	842.000	42.000	0.903	A	A
1	K40	880.000	40.000	603.000	32.000	1.459	N	N
<b>Matrix:</b> WA Water Bq / L								
1	Bq U	0.710	0.080	2.120	0.090	0.335	N	
1	CO60	88.000	4.000	98.200	3.600	0.896	W	A
1	CS137	63.000	3.000	73.000	3.700	0.863	W	A
1	GROSS ALPHA	1240.000	130.000	1900.000	190.000	0.653	W	W
1	GROSS BETA	1340.000	140.000	1297.000	100.000	1.033	A	A
1	SR90	3.200	0.100	4.400	0.200	0.727	W	W

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**Values for elemental uranium are reported in µg/filter, g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.422	0.111	0.486	0.016	0.868	W	
1	CO60	15.000	2.030	19.440	0.500	0.772	N	
1	CS137	4.470	0.928	8.760	0.340	0.510	N	
1	GROSS ALPHA	3.670	0.366	3.970	0.300	0.924	A	
1	GROSS BETA	2.600	0.258	2.580	0.150	1.008	A	
1	MN54	4.610	0.935	6.520	0.280	0.707	N	
1	PU238	0.196	0.055	0.215	0.009	0.912	A	
1	PU239	0.131	0.039	0.136	0.012	0.963	A	
1	RU106	42.000	92.500	49.540	3.530	0.848	A	
1	U234	0.080	0.026	0.046	0.002	1.750	W	
1	U238	0.043	0.016	0.046	0.002	0.935	A	

**Matrix:** SO Soil Bq / kg

1	AC228	32.000	8.480	42.700	1.700	0.749	N	
1	AM241	17.500	10.200	14.800	0.510	1.182	A	
1	BI212	28.300	24.300	42.000	4.100	0.674	A	
1	BI214	30.100	8.010	32.600	1.400	0.923	A	
1	CS137	1500.000	277.000	1740.000	90.000	0.862	W	
1	K40	460.000	98.200	468.000	25.000	0.983	A	
1	PB212	31.200	10.400	41.500	2.200	0.752	W	
1	PB214	38.800	13.800	34.300	1.600	1.131	A	
1	PU239	28.900	14.600	25.600	0.670	1.129	A	
1	U234	320.000	93.600	43.600	1.800	7.339	N	
1	U238	89.400	34.800	46.100	1.300	1.939	N	

**Matrix:** VE Vegetation Bq / kg

1	AM241	65.900	29.300	6.170	0.320	10.681	N	
1	CM244	27.600	17.600	3.690	0.290	7.480	N	
1	CO60	30.500	5.130	30.400	1.200	1.003	A	
1	CS137	828.000	153.000	842.000	42.000	0.983	A	
1	K40	634.000	133.000	603.000	32.000	1.051	A	
1	PU239	13.000	9.680	9.580	1.300	1.357	W	

**Matrix:** WA Water Bq / L

1	AM241	1.590	0.406	1.670	0.080	0.952	A	
1	CO60	102.000	13.600	98.200	3.600	1.039	A	
1	CS137	76.900	14.300	73.000	3.700	1.053	A	
1	GROSS ALPHA	1800.000	158.000	1900.000	190.000	0.947	A	
1	GROSS BETA	1260.000	275.000	1297.000	100.000	0.971	A	
1	PU238	1.330	0.342	1.580	0.090	0.842	W	
1	PU239	1.440	0.368	1.640	0.090	0.878	W	
1	U234	1.750	0.406	1.040	0.050	1.683	N	
1	U238	1.130	0.266	1.040	0.040	1.087	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 54 Results by Laboratory****Lab:** OC Radiation Protection Service Laboratory, Ontario, Canada

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	18.400	1.800	19.440	0.500	0.947	A	A
1	CS134	2.500	0.300	2.830	0.160	0.883	A	
1	CS137	8.300	1.000	8.760	0.340	0.947	A	A
1	GROSS ALPHA	3.700	0.370	3.970	0.300	0.932	A	A
1	GROSS BETA	2.700	0.270	2.580	0.150	1.047	A	A
1	MN54	6.200	0.800	6.520	0.280	0.951	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	46.000	9.000	42.700	1.700	1.077	A	N
1	BI214	34.000	5.000	32.600	1.400	1.043	A	A
1	CS137	1930.000	190.000	1740.000	90.000	1.109	A	A
1	K40	444.000	60.000	468.000	25.000	0.949	A	A
1	PB212	52.000	9.000	41.500	2.200	1.253	W	A
1	PB214	32.000	7.000	34.300	1.600	0.933	A	W
1	TH234	51.000	12.000	46.600	3.500	1.094	A	W
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	30.600	6.100	30.400	1.200	1.007	A	A
1	CS137	807.000	81.000	842.000	42.000	0.958	A	A
1	K40	594.000	59.000	603.000	32.000	0.985	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	99.500	9.900	98.200	3.600	1.013	A	A
1	CS137	76.000	7.600	73.000	3.700	1.041	A	A
1	GROSS ALPHA	2050.000	205.000	1900.000	190.000	1.079	A	W
1	GROSS BETA	1277.000	128.000	1297.000	100.000	0.985	A	A
1	H3	80.000	8.000	79.300	2.000	1.009	A	A
1	SR90	4.150	0.410	4.400	0.200	0.943	A	A

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**QAP 54 Results by Laboratory****Lab:** OD ORNL, Radiobioassay Lab

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	19.090	0.270	19.440	0.500	0.982	A	A
1	CS137	8.670	0.220	8.760	0.340	0.990	A	A
1	GROSS ALPHA	3.080	0.070	3.970	0.300	0.776	W	W
1	GROSS BETA	3.550	0.060	2.580	0.150	1.376	W	A
1	MN54	6.480	0.168	6.520	0.280	0.994	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.503	0.144	1.670	0.080	0.900	A	A
1	CO60	97.290	3.180	98.200	3.600	0.991	A	A
2	CO60	101.470	3.440	98.200	3.600	1.033	A	A
2	CS137	76.500	3.650	73.000	3.700	1.048	A	A
1	CS137	75.510	3.960	73.000	3.700	1.034	A	A
1	H3	101.000	14.000	79.300	2.000	1.274	A	A
1	PU238	1.373	0.148	1.580	0.090	0.869	W	A
1	PU239	1.441	0.156	1.640	0.090	0.879	W	A
1	SR90	4.020	0.690	4.400	0.200	0.914	A	A
1	U234	0.876	0.092	1.040	0.050	0.843	W	A
1	U238	0.906	0.095	1.040	0.040	0.871	W	A

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**QAP 54 Results by Laboratory****Lab:** OH Ohio Dept Of Health Laboratory, Columbus

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	19.600	0.320	19.440	0.500	1.008	A	A
1	CS134	2.890	0.130	2.830	0.160	1.021	A	
1	CS137	10.130	0.210	8.760	0.340	1.156	A	W
1	GROSS ALPHA	3.900	0.150	3.970	0.300	0.982	A	A
1	GROSS BETA	3.230	0.100	2.580	0.150	1.252	A	A
1	MN54	7.350	0.210	6.520	0.280	1.127	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	39.400	3.400	42.700	1.700	0.923	A	A
1	BI212	47.800	9.000	42.000	4.100	1.138	W	W
1	BI214	22.600	2.700	32.600	1.400	0.693	N	A
1	CS137	1536.600	6.800	1740.000	90.000	0.883	W	A
1	K40	395.000	18.000	468.000	25.000	0.844	W	A
1	PB212	35.400	1.800	41.500	2.200	0.853	W	A
1	PB214	22.900	3.300	34.300	1.600	0.668	N	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	29.700	1.900	30.400	1.200	0.977	A	N
1	CS137	821.000	6.400	842.000	42.000	0.975	A	W
1	K40	570.000	26.000	603.000	32.000	0.945	A	W
<b>Matrix:</b> WA Water Bq / L								
1	Bq U	1.720	0.370	2.120	0.090	0.811	W	
1	CO60	102.000	1.900	98.200	3.600	1.039	A	A
1	CS137	76.600	1.400	73.000	3.700	1.049	A	A
1	GROSS ALPHA	1920.000	140.000	1900.000	190.000	1.011	A	A
1	GROSS BETA	1416.000	86.000	1297.000	100.000	1.092	A	A
1	SR90	1.340	0.130	4.400	0.200	0.305	N	A

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**Evaluation:** A=Acceptable, 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 54 Results by Laboratory****Lab:** OK Southwest Laboratory of Oklahoma

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.430	0.060	0.486	0.016	0.885	A	A
1	PU238	0.174	0.020	0.215	0.009	0.809	W	A
1	PU239	0.110	0.020	0.136	0.012	0.809	W	A
1	U234	0.057	0.010	0.046	0.002	1.239	A	A
1	U238	0.044	0.020	0.046	0.002	0.957	A	A
<b>Matrix:</b> SO Soil Bq/kg								
1	AM241	14.000	2.600	14.800	0.510	0.946	A	A
1	CS137	2068.000	48.000	1740.000	90.000	1.189	W	
1	K40	740.000	15.000	468.000	25.000	1.581	N	
1	PU239	25.000	3.000	25.600	0.670	0.977	A	N
1	U234	33.000	5.000	43.600	1.800	0.757	W	A
1	U238	32.000	4.000	46.100	1.300	0.694	W	A
<b>Matrix:</b> WA Water Bq/L								
1	AM241	1.700	0.230	1.670	0.080	1.018	A	A
1	CO60	101.000	1.610	98.200	3.600	1.029	A	
1	CS137	77.000	2.080	73.000	3.700	1.055	A	
1	GROSS ALPHA	1959.000	100.000	1900.000	190.000	1.031	A	A
1	GROSS BETA	1184.000	101.000	1297.000	100.000	0.913	A	A
1	H3	77.000	11.000	79.300	2.000	0.971	A	A
1	PU238	1.320	0.200	1.580	0.090	0.835	W	A
1	PU239	1.800	0.250	1.640	0.090	1.098	A	A
1	U234	1.055	0.200	1.040	0.050	1.014	A	W
1	U238	0.950	0.100	1.040	0.040	0.913	A	A

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**Evaluation:** A=Acceptable, 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 54 Results by Laboratory****Lab:** OS Oregon Health Division Radiation Controls Section, Portland

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	17.870	0.480	19.440	0.500	0.919	A	A
2	CO60	17.910	0.440	19.440	0.500	0.921	A	A
1	CS134	2.330	0.160	2.830	0.160	0.823	A	
2	CS134	2.320	0.150	2.830	0.160	0.820	A	
2	CS137	8.290	124.000	8.760	0.340	0.946	A	A
1	CS137	8.320	1.750	8.760	0.340	0.950	A	A
2	MN54	6.180	0.300	6.520	0.280	0.948	A	A
1	MN54	6.170	0.330	6.520	0.280	0.946	A	A

**Matrix:** VE Vegetation Bq / kg

2	CO60	32.100	2.200	30.400	1.200	1.056	A	
1	CO60	31.800	2.100	30.400	1.200	1.046	A	
1	CS137	880.000	37.000	842.000	42.000	1.045	A	
2	CS137	873.000	37.000	842.000	42.000	1.037	A	
2	K40	773.000	36.000	603.000	32.000	1.282	W	
1	K40	760.000	36.000	603.000	32.000	1.260	W	

**Matrix:** WA Water Bq / L

2	CO60	107.000	3.000	98.200	3.600	1.090	A	A
1	CO60	107.000	3.000	98.200	3.600	1.090	A	A
1	CS137	80.000	4.000	73.000	3.700	1.096	A	A
2	CS137	82.000	4.000	73.000	3.700	1.123	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.440	0.100	0.486	0.016	0.905	A	W
1	Bq U	0.090	0.010	0.093	0.004	0.968	A	W
1	CO60	20.000	0.300	19.440	0.500	1.029	A	A
1	CS134	2.500	0.100	2.830	0.160	0.883	A	
1	CS137	9.600	0.200	8.760	0.340	1.096	A	A
1	GROSS ALPHA	3.500	0.200	3.970	0.300	0.882	A	A
1	GROSS BETA	3.000	0.100	2.580	0.150	1.163	A	A
1	MN54	7.200	0.200	6.520	0.280	1.104	A	A
1	PU238	0.200	0.100	0.215	0.009	0.930	A	A
1	PU239	0.150	0.100	0.136	0.012	1.103	A	A
1	SR90	6.200	0.300	7.100	0.220	0.873	A	N
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	35.000	4.000	42.700	1.700	0.820	W	A
1	AM241	13.000	1.000	14.800	0.510	0.878	A	W
1	BI214	27.000	7.000	32.600	1.400	0.828	W	A
1	Bq U	70.000	6.000	91.800	2.300	0.763	W	
1	CS137	1583.000	100.000	1740.000	90.000	0.910	A	A
1	K40	435.000	20.000	468.000	25.000	0.929	A	A
1	PB214	27.000	7.000	34.300	1.600	0.787	W	A
1	PU239	24.000	1.000	25.600	0.670	0.938	A	A
1	SR90	63.000	5.000	69.000	5.700	0.913	A	N
<b>Matrix:</b> VE Vegetation Bq / kg								
1	AM241	6.300	0.500	6.170	0.320	1.021	A	A
1	CM244	3.400	0.400	3.690	0.290	0.921	A	A
1	CO60	29.000	2.000	30.400	1.200	0.954	A	A
1	CS137	810.000	10.000	842.000	42.000	0.962	A	A
1	K40	579.000	34.000	603.000	32.000	0.960	A	A
1	PU239	8.500	0.500	9.580	1.300	0.887	A	A
1	SR90	1220.000	100.000	1330.000	70.000	0.917	A	A
<b>Matrix:</b> WA Water Bq / L								
1	AM241	1.700	0.100	1.670	0.080	1.018	A	A
1	Bq U	2.100	0.100	2.120	0.090	0.991	A	A
1	CO60	106.000	10.000	98.200	3.600	1.079	A	A
1	CS137	80.000	2.000	73.000	3.700	1.096	A	A
1	GROSS ALPHA	1945.000	100.000	1900.000	190.000	1.024	A	A
1	GROSS BETA	1535.000	100.000	1297.000	100.000	1.184	A	A
1	H3	195.000	30.000	79.300	2.000	2.459	N	
1	PU238	1.600	0.100	1.580	0.090	1.013	A	A
1	PU239	1.700	0.100	1.640	0.090	1.037	A	A
1	SR90	4.300	0.400	4.400	0.200	0.977	A	A

**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL. pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	18.900	1.240	19.440	0.500	0.972	A	W
1	CS134	2.560	0.266	2.830	0.160	0.905	A	
1	CS137	9.550	0.874	8.760	0.340	1.090	A	A
1	GROSS ALPHA	3.310	0.165	3.970	0.300	0.834	A	W
1	GROSS BETA	2.750	0.138	2.580	0.150	1.066	A	A
1	MN54	7.620	0.930	6.520	0.280	1.169	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	41.700	7.630	42.700	1.700	0.977	A	W
1	BI214	29.100	5.500	32.600	1.400	0.893	A	W
1	CS137	1710.000	81.200	1740.000	90.000	0.983	A	W
1	K40	511.000	47.000	468.000	25.000	1.092	A	N
1	PB212	30.200	4.600	41.500	2.200	0.728	N	N
1	PB214	27.600	4.050	34.300	1.600	0.805	W	W
1	TH234	22.600	0.250	46.600	3.500	0.485	N	N
1	UG U	1.830	0.130	3.730	0.020	0.491	W	
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	24.600	2.340	30.400	1.200	0.809	W	
1	CS137	854.000	41.400	842.000	42.000	1.014	A	
1	K40	655.000	70.900	603.000	32.000	1.086	A	
<b>Matrix:</b> WA Water Bq / L								
1	CO60	96.500	3.420	98.200	3.600	0.983	A	A
1	CS137	73.800	4.020	73.000	3.700	1.011	A	A
1	GROSS ALPHA	1770.000	196.000	1900.000	190.000	0.932	A	W
1	GROSS BETA	1550.000	160.000	1297.000	100.000	1.195	A	W
1	UG U	0.079	0.002	0.080	0.003	0.988	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 Results by Laboratory****Lab:** PA BWXT Pantex, Amarillo, TX

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
5	GROSS ALPHA	3.456	0.161	3.970	0.300	0.871	A	
4	GROSS ALPHA	3.392	0.125	3.970	0.300	0.854	A	
3	GROSS ALPHA	3.469	0.132	3.970	0.300	0.874	A	
2	GROSS ALPHA	3.273	0.107	3.970	0.300	0.824	W	
1	GROSS ALPHA	3.135	0.106	3.970	0.300	0.790	W	
3	GROSS BETA	3.301	0.129	2.580	0.150	1.279	A	
4	GROSS BETA	3.481	0.102	2.580	0.150	1.349	W	
1	GROSS BETA	2.837	0.084	2.580	0.150	1.100	A	
2	GROSS BETA	2.847	0.112	2.580	0.150	1.103	A	
5	GROSS BETA	3.529	0.150	2.580	0.150	1.368	W	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	19.160	2.040	19.440	0.500	0.986	A	A
1	CS134	2.920	0.020	2.830	0.160	1.032	A	
1	CS137	10.230	0.490	8.760	0.340	1.168	W	A
1	MN54	6.340	0.370	6.520	0.280	0.972	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	49.220	1.760	42.700	1.700	1.153	A	A
1	BI212	56.020	10.920	42.000	4.100	1.334	N	
1	BI214	36.240	2.360	32.600	1.400	1.112	A	A
1	CS137	1756.000	29.000	1740.000	90.000	1.009	A	A
1	K40	522.900	18.400	468.000	25.000	1.117	A	
1	PB214	39.000	2.400	34.300	1.600	1.137	A	N
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CS137	831.300	4.300	842.000	42.000	0.987	A	A
1	K40	514.100	66.200	603.000	32.000	0.853	W	W

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi/g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** PR Princeton Plasma Physics Lab

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
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**Matrix:** AI Air Filter Bq / filter

1	CO60	19.280	0.848	19.440	0.500	0.992	A	
1	CS134	2.720	0.240	2.830	0.160	0.961	A	
1	CS137	8.660	0.269	8.760	0.340	0.989	A	
1	MN54	5.370	0.702	6.520	0.280	0.824	W	

**Matrix:** WA Water Bq / L

1	CO60	101.370	2.130	98.200	3.600	1.032	A	
1	CS137	77.590	1.730	73.000	3.700	1.063	A	
1	H3	87.120	0.730	79.300	2.000	1.099	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi/g or mL} = \text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** PS PA-DEP Bureau of Radiation Protection, Harrisburg

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	GROSS ALPHA	2.820	0.070	3.970	0.300	0.710	W	W
1	GROSS BETA	2.700	0.060	2.580	0.150	1.047	A	W
1	PU238	0.190	0.040	0.215	0.009	0.884	A	
1	PU239	0.130	0.030	0.136	0.012	0.956	A	
1	SR90	6.660	0.100	7.100	0.220	0.938	A	
1	U234	0.040	0.000	0.046	0.002	0.870	W	
1	U238	0.040	0.010	0.046	0.002	0.870	W	
<b>Matrix:</b> SO Soil Bq / kg								
1	AM241	12.500	6.400	14.800	0.510	0.845	A	
1	CS137	1542.730	6.400	1740.000	90.000	0.887	W	
1	K40	421.750	14.610	468.000	25.000	0.901	A	
1	PB212	33.740	2.660	41.500	2.200	0.813	W	
1	PB214	29.740	5.070	34.300	1.600	0.867	W	
1	PU239	25.310	4.040	25.600	0.670	0.989	A	
1	SR90	69.900	6.320	69.000	5.700	1.013	A	A
1	U234	33.930	3.510	43.600	1.800	0.778	W	
1	U238	35.540	3.620	46.100	1.300	0.771	W	
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	31.040	2.030	30.400	1.200	1.021	A	
1	CS137	858.310	6.920	842.000	42.000	1.019	A	
1	K40	632.630	25.120	603.000	32.000	1.049	A	
1	PU238	0.770	0.830	0.660	0.020	1.167	A	
1	PU239	7.880	2.480	9.580	1.300	0.823	W	
1	SR90	1232.710	26.030	1330.000	70.000	0.927	A	W
<b>Matrix:</b> WA Water Bq / L								
1	CO60	87.680	1.330	98.200	3.600	0.893	W	N
1	CS137	64.740	1.000	73.000	3.700	0.887	W	N
1	GROSS ALPHA	2039.750	34.980	1900.000	190.000	1.074	A	A
1	GROSS BETA	1655.120	23.520	1297.000	100.000	1.276	A	A
1	H3	82.500	6.370	79.300	2.000	1.040	A	
1	PU238	1.420	0.190	1.580	0.090	0.899	W	
1	PU239	1.490	0.200	1.640	0.090	0.909	A	
1	SR90	4.100	0.180	4.400	0.200	0.932	A	
1	U234	0.950	0.090	1.040	0.050	0.913	A	
1	U238	1.050	0.100	1.040	0.040	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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
2	CO60	19.700	1.100	19.440	0.500	1.013	A	A
1	CO60	19.400	1.200	19.440	0.500	0.998	A	A
1	CS134	2.700	0.170	2.830	0.160	0.954	A	
2	CS134	2.500	0.400	2.830	0.160	0.883	A	
2	CS137	9.300	0.500	8.760	0.340	1.062	A	A
1	CS137	9.220	0.590	8.760	0.340	1.053	A	A
2	MN54	6.400	0.400	6.520	0.280	0.982	A	A
1	MN54	6.480	0.420	6.520	0.280	0.994	A	A
1	PU238	0.220	0.050	0.215	0.009	1.023	A	N
1	PU239	0.130	0.030	0.136	0.012	0.956	A	W
2	RU106	54.600	3.800	49.540	3.530	1.102	A	
1	RU106	54.000	4.900	49.540	3.530	1.090	A	
1	SR90	7.600	1.500	7.100	0.220	1.070	A	W
1	UG U	3.800	0.220	3.700	0.160	1.027	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	36.000	4.000	42.700	1.700	0.843	W	A
2	AC228	36.000	3.000	42.700	1.700	0.843	W	A
1	BI212	34.600	4.500	42.000	4.100	0.824	A	A
2	BI212	36.000	4.000	42.000	4.100	0.857	A	A
2	BI214	25.000	3.000	32.600	1.400	0.767	N	A
1	BI214	25.100	3.300	32.600	1.400	0.770	N	A
2	CS137	1660.000	100.000	1740.000	90.000	0.954	A	A
1	CS137	1660.000	130.000	1740.000	90.000	0.954	A	A
2	K40	460.000	100.000	468.000	25.000	0.983	A	A
1	K40	1080.000	100.000	468.000	25.000	2.308	N	A
2	PB212	33.000	4.000	41.500	2.200	0.795	W	A
1	PB212	36.000	4.000	41.500	2.200	0.867	W	A
1	PB214	24.500	2.700	34.300	1.600	0.714	N	W
2	PB214	25.000	3.000	34.300	1.600	0.729	N	W
1	PU238	0.820	0.320	0.910	0.100	0.901	A	A
1	PU239	25.500	5.100	25.600	0.670	0.996	A	A
1	SR90	70.000	14.000	69.000	5.700	1.014	A	A
1	TH234	40.000	10.000	46.600	3.500	0.858	A	N
2	TH234	41.000	12.000	46.600	3.500	0.880	A	N
1	UG U	3.070	0.090	3.730	0.020	0.823	A	A

**Matrix:** VE Vegetation Bq / kg

2	CO60	33.000	3.000	30.400	1.200	1.086	A	W
1	CO60	31.000	3.700	30.400	1.200	1.020	A	W
2	CS137	650.000	90.000	842.000	42.000	0.772	N	A
1	CS137	875.000	70.000	842.000	42.000	1.039	A	A
2	K40	660.000	100.000	603.000	32.000	1.095	A	A
1	K40	690.000	60.000	603.000	32.000	1.144	A	A
1	PU238	0.580	0.200	0.660	0.020	0.879	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 54 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 52 Evaluation
<b>Matrix:</b> VE Vegetation Bq/kg								
1	PU239	9.200	1.800	9.580	1.300	0.960	A	A
1	SR90	1125.000	225.000	1330.000	70.000	0.846	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	19.200	0.800	19.440	0.500	0.988	A	A
1	CS137	8.700	0.500	8.760	0.340	0.993	A	A
1	GROSS ALPHA	4.270	0.210	3.970	0.300	1.076	A	A
1	GROSS BETA	2.750	0.140	2.580	0.150	1.066	A	A
1	MN54	6.600	0.300	6.520	0.280	1.012	A	A
1	RU106	57.000	3.000	49.540	3.530	1.151	A	

**Matrix:** SO Soil Bq / kg

1	CS137	1760.000	120.000	1740.000	90.000	1.011	A	A
1	K40	503.000	35.000	468.000	25.000	1.075	A	A

**Matrix:** WA Water Bq / L

1	CO60	103.000	4.000	98.200	3.600	1.049	A	A
1	CS137	75.000	3.000	73.000	3.700	1.027	A	A
1	H3	79.000	5.000	79.300	2.000	0.996	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi/g or mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** RG Thermo Nutech Rocky Flats Plant, Golden

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	GROSS ALPHA	1690.000	57.000	1900.000	190.000	0.889	A	A
1	GROSS BETA	1209.000	39.000	1297.000	100.000	0.932	A	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** RI Fluor Hanford, Inc., 222S Lab.

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.386	0.040	0.486	0.016	0.794	W	W
1	CO60	36.100	1.400	19.440	0.500	1.857	N	A
1	CS134	5.620	0.643	2.830	0.160	1.986	N	
1	CS137	17.000	1.500	8.760	0.340	1.941	N	A
1	MN54	12.800	1.340	6.520	0.280	1.963	N	A
1	PU238	0.237	0.022	0.215	0.009	1.102	A	W
1	PU239	0.154	0.015	0.136	0.012	1.132	W	A
1	SR90	7.610	0.122	7.100	0.220	1.072	A	A

**Matrix:** SO Soil Bq / kg

1	CS137	1600.000	35.500	1740.000	90.000	0.920	A	A
1	PU239	26.600	1.600	25.600	0.670	1.039	A	A
1	SR90	68.300	2.460	69.000	5.700	0.990	A	A
2	UG U	1.850	0.107	3.730	0.020	0.496	W	W
1	UG U	1.860	0.487	3.730	0.020	0.499	W	W
3	UG U	2.040	0.202	3.730	0.020	0.547	W	W

**Matrix:** VE Vegetation Bq / kg

1	AM241	6.610	0.502	6.170	0.320	1.071	A	A
1	CM244	2.770	0.263	3.690	0.290	0.751	W	A
1	CS137	885.000	37.100	842.000	42.000	1.051	A	A
1	PU239	10.300	0.842	9.580	1.300	1.075	A	W
1	SR90	1330.000	12.000	1330.000	70.000	1.000	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.290	0.075	1.670	0.080	0.772	W	N
1	CO60	105.000	2.030	98.200	3.600	1.069	A	A
1	CS137	103.000	2.710	73.000	3.700	1.411	N	A
1	GROSS ALPHA	1510.000	40.900	1900.000	190.000	0.795	A	A
1	GROSS BETA	1550.000	35.600	1297.000	100.000	1.195	A	A
1	H3	88.100	5.280	79.300	2.000	1.111	A	W
1	PU238	1.750	0.082	1.580	0.090	1.108	W	A
1	PU239	1.710	0.080	1.640	0.090	1.043	A	A
1	SR90	4.580	0.233	4.400	0.200	1.041	A	A
1	UG U	0.070	0.006	0.080	0.003	0.876	W	A
2	UG U	0.067	0.004	0.080	0.003	0.843	W	A
3	UG U	0.071	0.003	0.080	0.003	0.893	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 54 Results by Laboratory****Lab:** RM Earthline Technologies, Ashtabula, OH

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	18.000	3.000	19.440	0.500	0.926	A	A
1	CS134	2.900	0.500	2.830	0.160	1.025	A	
1	CS137	8.700	1.200	8.760	0.340	0.993	A	A
1	MN54	6.600	1.000	6.520	0.280	1.012	A	A
1	U234	0.049	0.015	0.046	0.002	1.065	A	
1	U238	0.056	0.015	0.046	0.002	1.217	A	
1	UG U	3.300	0.400	3.700	0.160	0.892	W	W
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	44.000	9.000	42.700	1.700	1.030	A	A
1	BI212	44.000	6.000	42.000	4.100	1.048	A	A
1	BI214	34.000	8.000	32.600	1.400	1.043	A	A
1	CS137	1910.000	220.000	1740.000	90.000	1.098	A	A
1	K40	542.000	74.000	468.000	25.000	1.158	A	A
1	PB212	44.000	6.000	41.500	2.200	1.060	A	A
1	PB214	34.000	8.000	34.300	1.600	0.991	A	A
1	U234	34.000	4.000	43.600	1.800	0.780	W	W
1	U238	36.000	4.000	46.100	1.300	0.781	W	W
1	UG U	3.200	0.400	3.730	0.020	0.858	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	97.000	12.000	98.200	3.600	0.988	A	A
1	CS137	76.000	9.000	73.000	3.700	1.041	A	A
1	U234	0.970	0.200	1.040	0.050	0.933	A	A
1	U238	1.000	0.200	1.040	0.040	0.962	A	A
1	UG U	0.088	0.009	0.080	0.003	1.100	A	N

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**Values for elemental uranium are reported in µg/filter, g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 Results by Laboratory****Lab:** RU Research Institute of Radiology, Belarus

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	21.800	1.530	19.440	0.500	1.121	A	
1	CS134	3.300	0.590	2.830	0.160	1.166	W	
1	CS137	11.100	1.640	8.760	0.340	1.267	W	
1	MN54	8.890	1.300	6.520	0.280	1.363	N	
<b>Matrix:</b> SO Soil Bq / kg								
1	CS137	1620.000	160.000	1740.000	90.000	0.931	A	
1	K40	708.000	106.200	468.000	25.000	1.513	N	
1	SR90	63.060	9.460	69.000	5.700	0.914	A	
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	25.730	3.860	30.400	1.200	0.846	W	
1	CS137	867.000	130.050	842.000	42.000	1.030	A	
1	K40	1160.000	174.000	603.000	32.000	1.924	N	
1	SR90	1042.430	104.000	1330.000	70.000	0.784	A	
<b>Matrix:</b> WA Water Bq / L								
1	CO60	84.830	8.500	98.200	3.600	0.864	W	
1	CS137	67.460	7.000	73.000	3.700	0.924	A	
1	SR90	4.180	0.630	4.400	0.200	0.950	A	

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**Values for elemental uranium are reported in µg/filter, g, or mL.      pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	18.920	0.670	19.440	0.500	0.973	A	A
1	CS134	2.520	0.160	2.830	0.160	0.890	A	
1	CS137	9.070	0.340	8.760	0.340	1.035	A	A
1	GROSS ALPHA	4.190	0.290	3.970	0.300	1.055	A	A
2	GROSS ALPHA	2.700	0.280	3.970	0.300	0.680	W	A
1	GROSS BETA	2.910	0.210	2.580	0.150	1.128	A	A
2	GROSS BETA	2.810	0.390	2.580	0.150	1.089	A	A
1	MN54	7.120	0.390	6.520	0.280	1.092	A	A
1	RU106	49.300	4.000	49.540	3.530	0.995	A	

**Matrix:** SO Soil Bq / kg

1	CS137	1940.000	75.000	1740.000	90.000	1.115	A	A
1	K40	542.000	53.000	468.000	25.000	1.158	A	A

**Matrix:** WA Water Bq / L

1	CO60	98.000	14.000	98.200	3.600	0.998	A	A
1	CS137	74.000	11.000	73.000	3.700	1.014	A	A
1	GROSS ALPHA	1716.000	131.000	1900.000	190.000	0.903	A	A
1	GROSS BETA	1308.000	156.000	1297.000	100.000	1.008	A	A
1	H3	75.000	12.000	79.300	2.000	0.946	A	N
2	H3	79.000	12.000	79.300	2.000	0.996	A	N
1	UG U	0.075	0.004	0.080	0.003	0.939	A	A
2	UG U	0.071	0.004	0.080	0.003	0.893	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 54 Results by Laboratory****Lab:** SB SC Dept. of Health and Environment Control Radiological Lab

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.540	0.103	0.486	0.016	1.111	A	
1	CO60	20.833	2.162	19.440	0.500	1.072	A	W
1	CS137	9.550	1.236	8.760	0.340	1.090	A	W
1	GROSS ALPHA	4.001	0.134	3.970	0.300	1.008	A	A
1	GROSS BETA	2.636	0.096	2.580	0.150	1.022	A	A
1	MN54	7.332	1.052	6.520	0.280	1.125	A	W
<b>Matrix:</b> SO Soil Bq / kg								
1	AM241	15.050	1.934	14.800	0.510	1.017	A	W
1	CS137	1719.000	213.900	1740.000	90.000	0.988	A	W
1	K40	488.000	47.800	468.000	25.000	1.043	A	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	AM241	5.939	1.264	6.170	0.320	0.963	A	W
1	CO60	31.350	3.070	30.400	1.200	1.031	A	W
1	CS137	861.400	107.300	842.000	42.000	1.023	A	N
1	K40	641.600	63.200	603.000	32.000	1.064	A	N
<b>Matrix:</b> WA Water Bq / L								
1	AM241	1.865	0.583	1.670	0.080	1.117	A	W
1	CO60	99.680	8.904	98.200	3.600	1.015	A	A
1	CS137	74.905	9.410	73.000	3.700	1.026	A	A
1	GROSS ALPHA	2009.376	50.560	1900.000	190.000	1.058	A	A
1	GROSS BETA	1008.673	28.344	1297.000	100.000	0.778	A	A
1	H3	86.770	7.123	79.300	2.000	1.094	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 Results by Laboratory****Lab:** SE Defence Research Establishment of Sweden (FOA)

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	17.100	0.200	19.440	0.500	0.880	A	A
1	CS134	2.900	0.100	2.830	0.160	1.025	A	
1	CS137	8.600	0.100	8.760	0.340	0.982	A	A
1	MN54	5.900	0.100	6.520	0.280	0.905	A	A
1	SR90	6.700	0.070	7.100	0.220	0.944	A	
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	39.600	2.300	42.700	1.700	0.927	A	W
1	BI212	33.700	4.400	42.000	4.100	0.802	A	
1	BI214	27.000	1.600	32.600	1.400	0.828	W	A
1	CS137	1880.000	19.000	1740.000	90.000	1.080	A	A
1	K40	347.000	17.000	468.000	25.000	0.741	N	W
1	PB212	41.100	1.500	41.500	2.200	0.990	A	A
1	PB214	30.500	1.700	34.300	1.600	0.889	W	
1	SR90	126.000	2.500	69.000	5.700	1.826	W	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	29.200	1.000	30.400	1.200	0.961	A	A
1	CS137	882.000	9.000	842.000	42.000	1.048	A	A
1	K40	621.000	23.000	603.000	32.000	1.030	A	A
1	SR90	1260.000	13.000	1330.000	70.000	0.947	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	92.700	1.000	98.200	3.600	0.944	A	
1	CS137	75.500	0.800	73.000	3.700	1.034	A	
1	SR90	3.750	0.060	4.400	0.200	0.852	A	

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**QAP 54 Results by Laboratory****Lab:** SI Jozef Stefan Institute, Slovenia

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.540	0.020	0.486	0.016	1.111	A	A
1	CO60	19.600	0.400	19.440	0.500	1.008	A	A
1	CS134	3.080	0.060	2.830	0.160	1.088	A	
1	CS137	9.120	0.220	8.760	0.340	1.041	A	A
1	MN54	6.610	0.140	6.520	0.280	1.014	A	A
1	RU106	51.400	1.900	49.540	3.530	1.038	A	

**Matrix:** SO Soil Bq / kg

1	AC228	40.200	2.000	42.700	1.700	0.941	A	A
1	AM241	15.000	0.500	14.800	0.510	1.014	A	A
1	BI212	38.900	0.900	42.000	4.100	0.926	A	A
1	BI214	28.400	0.800	32.600	1.400	0.871	W	A
2	BI214	32.500	1.200	32.600	1.400	0.997	A	A
1	CS137	1695.000	34.000	1740.000	90.000	0.974	A	A
1	K40	430.000	10.000	468.000	25.000	0.919	A	A
1	PB212	41.500	0.900	41.500	2.200	1.000	A	A
2	PB214	33.000	0.800	34.300	1.600	0.962	A	W
1	PB214	28.600	0.800	34.300	1.600	0.834	W	W
1	U238	42.000	2.000	46.100	1.300	0.911	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	6.300	0.300	6.170	0.320	1.021	A	A
1	CO60	30.700	0.600	30.400	1.200	1.010	A	A
1	CS137	841.000	17.000	842.000	42.000	0.999	A	A
1	K40	577.000	13.000	603.000	32.000	0.957	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.800	0.100	1.670	0.080	1.078	A	A
1	CO60	98.500	2.000	98.200	3.600	1.003	A	A
1	CS137	73.800	1.500	73.000	3.700	1.011	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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.494	0.054	0.486	0.016	1.016	A	A
1	Bq U	0.085	0.012	0.093	0.004	0.914	A	A
1	GROSS ALPHA	4.603	0.229	3.970	0.300	1.159	A	W
1	GROSS BETA	2.201	0.231	2.580	0.150	0.853	A	A
1	PU238	0.217	0.024	0.215	0.009	1.009	A	W
1	PU239	0.134	0.016	0.136	0.012	0.985	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	41.600	6.640	42.700	1.700	0.974	A	A
1	AM241	14.800	4.580	14.800	0.510	1.000	A	
1	BI212	20.200	11.200	42.000	4.100	0.481	W	A
1	BI214	26.100	4.760	32.600	1.400	0.801	W	A
1	Bq U	80.800	15.400	91.800	2.300	0.880	A	A
1	CS137	1760.000	172.000	1740.000	90.000	1.011	A	A
1	K40	544.000	61.000	468.000	25.000	1.162	A	W
1	PB212	42.700	5.150	41.500	2.200	1.029	A	A
1	PB214	34.000	5.940	34.300	1.600	0.991	A	A
1	PU239	23.000	5.540	25.600	0.670	0.898	A	A
1	SR90	40.500	2.270	69.000	5.700	0.587	N	W
<b>Matrix:</b> VE Vegetation Bq / kg								
1	AM241	5.764	1.693	6.170	0.320	0.934	A	A
1	CM244	3.583	1.281	3.690	0.290	0.971	A	A
1	CO60	32.300	4.210	30.400	1.200	1.063	A	A
1	CS137	833.000	82.000	842.000	42.000	0.989	A	A
1	K40	676.000	74.000	603.000	32.000	1.121	A	W
1	PU239	9.213	2.079	9.580	1.300	0.962	A	W
1	SR90	1245.000	25.000	1330.000	70.000	0.936	A	W
<b>Matrix:</b> WA Water Bq / L								
1	CO60	95.000	10.000	98.200	3.600	0.967	A	A
1	CS137	68.300	6.900	73.000	3.700	0.936	A	W
1	GROSS ALPHA	1460.000	76.000	1900.000	190.000	0.768	W	A
1	GROSS BETA	1167.000	121.000	1297.000	100.000	0.900	A	A
1	H3	95.600	17.500	79.300	2.000	1.206	A	A
1	SR90	3.879	0.455	4.400	0.200	0.882	A	N

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 Results by Laboratory****Lab:** SR Savannah River Environmental Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.451	0.049	0.486	0.016	0.928	A	A
1	CO60	21.300	1.400	19.440	0.500	1.096	A	A
1	CS134	3.200	0.270	2.830	0.160	1.131	W	
1	CS137	9.780	1.050	8.760	0.340	1.116	A	A
1	GROSS ALPHA	3.800	0.210	3.970	0.300	0.957	A	A
1	GROSS BETA	2.500	0.150	2.580	0.150	0.969	A	W
1	MN54	7.320	0.800	6.520	0.280	1.123	A	A
1	PU238	0.208	0.027	0.215	0.009	0.967	A	A
1	PU239	0.140	0.019	0.136	0.012	1.029	A	A
1	SR90	10.000	0.300	7.100	0.220	1.408	W	W
1	U234	0.048	0.007	0.046	0.002	1.043	A	A
1	U238	0.048	0.007	0.046	0.002	1.043	A	A

**Matrix:** SO Soil Bq / kg

1	AM241	13.700	2.200	14.800	0.510	0.926	A	W
1	BI212	26.300	6.700	42.000	4.100	0.626	A	A
1	BI214	28.800	3.200	32.600	1.400	0.883	A	A
1	CS137	1740.000	176.000	1740.000	90.000	1.000	A	A
1	K40	482.000	49.000	468.000	25.000	1.030	A	A
1	PB212	29.000	6.500	41.500	2.200	0.699	N	W
1	PB214	31.300	3.700	34.300	1.600	0.913	A	A
1	PU239	25.600	3.700	25.600	0.670	1.000	A	A
1	SR90	88.200	19.000	69.000	5.700	1.278	A	A
1	TH234	39.900	18.000	46.600	3.500	0.856	A	W
1	U234	39.500	6.100	43.600	1.800	0.906	A	A
1	U238	42.200	6.300	46.100	1.300	0.915	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	5.390	1.010	6.170	0.320	0.874	W	A
1	CM244	2.770	0.480	3.690	0.290	0.751	W	A
1	CO60	34.700	2.500	30.400	1.200	1.141	A	A
1	CS137	929.000	95.000	842.000	42.000	1.103	A	A
1	K40	704.000	70.000	603.000	32.000	1.167	A	A
1	PU239	9.250	1.360	9.580	1.300	0.966	A	A
1	SR90	1270.000	63.000	1330.000	70.000	0.955	A	N

**Matrix:** WA Water Bq / L

1	AM241	1.650	0.210	1.670	0.080	0.988	A	A
1	CO60	100.000	6.000	98.200	3.600	1.018	A	A
1	CS137	76.200	7.900	73.000	3.700	1.044	A	A
1	GROSS ALPHA	1703.000	160.000	1900.000	190.000	0.896	A	A
1	GROSS BETA	1167.000	103.000	1297.000	100.000	0.900	A	A
1	H3	292.000	68.000	79.300	2.000	3.682	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 a site specific evaluation.

**QAP 54 Results by Laboratory****Lab:** SR Savannah River Environmental Laboratory

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	PU238	1.680	0.230	1.580	0.090	1.063	A	W
1	PU239	1.650	0.230	1.640	0.090	1.006	A	A
1	SR90	3.870	0.830	4.400	0.200	0.880	A	A
1	U234	1.020	0.140	1.040	0.050	0.981	A	N
1	U238	1.050	0.140	1.040	0.040	1.010	A	N

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi}/\text{g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** ST SC DHEC, Aiken, South Carolina

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	H3	79.100	5.600	79.300	2.000	0.997	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi}/\text{g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	UGU	3.750		3.700	0.160	1.014	A	
<b>Matrix:</b> SO Soil Bq / kg								
1	UGU	3.540		3.730	0.020	0.949	A	
<b>Matrix:</b> WA Water Bq / L								
1	UGU	0.076		0.080	0.003	0.948	A	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi/g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** SX Saxton Nuclear Experimental Corp., Saxton, PA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	17.810	0.930	19.440	0.500	0.916	A	
1	CS134	2.360	0.290	2.830	0.160	0.834	A	
1	CS137	8.560	0.760	8.760	0.340	0.977	A	
1	MN54	6.450	0.710	6.520	0.280	0.989	A	
<b>Matrix:</b> SO Soil Bq / kg								
1	BI214	30.180	5.060	32.600	1.400	0.926	A	
1	CS137	1662.830	87.940	1740.000	90.000	0.956	A	
1	K40	439.140	52.980	468.000	25.000	0.938	A	
1	PB212	30.030	3.410	41.500	2.200	0.724	N	
1	PB214	26.570	5.430	34.300	1.600	0.775	W	
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	27.290	3.310	30.400	1.200	0.898	A	
1	CS137	817.840	45.140	842.000	42.000	0.971	A	
1	K40	594.730	72.790	603.000	32.000	0.986	A	
<b>Matrix:</b> WA Water Bq / L								
1	CO60	99.710	4.670	98.200	3.600	1.015	A	
1	CS137	72.560	4.840	73.000	3.700	0.994	A	
1	H3	82.620	6.570	79.300	2.000	1.042	A	

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** SY Syrian Arab Republic Atomic Energy Commission

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
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**Matrix:** SO Soil Bq/kg

1	AC228	34.700	1.300	42.700	1.700	0.813	W	
1	AM241	14.960	1.820	14.800	0.510	1.011	A	
1	BI212	32.000	3.600	42.000	4.100	0.762	A	
1	BI214	44.520	1.790	32.600	1.400	1.366	W	
1	CS137	1640.000	84.000	1740.000	90.000	0.943	A	
1	K40	438.000	25.000	468.000	25.000	0.936	A	
1	PB212	39.500	1.300	41.500	2.200	0.952	A	
1	SR90	48.500	6.000	69.000	5.700	0.703	W	
1	TH234	61.400	8.400	46.600	3.500	1.318	A	
1	UG U	3.920	0.320	3.730	0.020	1.051	A	

**Matrix:** VE Vegetation Bq/kg

1	CO60	32.500	1.800	30.400	1.200	1.069	A	
1	CS137	870.000	45.000	842.000	42.000	1.033	A	
1	K40	607.000	36.000	603.000	32.000	1.007	A	
1	SR90	998.000	24.500	1330.000	70.000	0.750	A	

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** TE Environmental Inc.

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.470	0.040	0.486	0.016	0.967	A	W
1	CO60	20.110	0.160	19.440	0.500	1.034	A	A
1	CS134	2.710	0.150	2.830	0.160	0.958	A	
1	CS137	9.860	0.230	8.760	0.340	1.126	A	W
1	GROSS ALPHA	2.660	0.020	3.970	0.300	0.670	W	A
1	GROSS BETA	2.300	0.020	2.580	0.150	0.891	A	W
1	MN54	7.250	0.220	6.520	0.280	1.112	A	A
1	PU238	0.230	0.030	0.215	0.009	1.070	A	W
1	PU239	0.120	0.020	0.136	0.012	0.882	W	A
1	SR90	7.410	0.150	7.100	0.220	1.044	A	W
1	U234	0.050	0.010	0.046	0.002	1.087	A	W
1	U238	0.050	0.010	0.046	0.002	1.087	A	N

**Matrix:** SO Soil Bq / kg

1	AC228	45.600	4.000	42.700	1.700	1.068	A	A
1	AM241	14.400	0.500	14.800	0.510	0.973	A	
1	BI212	53.200	3.100	42.000	4.100	1.267	N	A
1	BI214	42.100	7.700	32.600	1.400	1.291	W	A
1	CS137	1772.600	79.800	1740.000	90.000	1.019	A	A
1	K40	583.800	52.600	468.000	25.000	1.247	W	A
1	PB212	46.600	8.500	41.500	2.200	1.123	A	W
1	PB214	45.300	8.600	34.300	1.600	1.321	W	A
1	PU239	26.000	0.800	25.600	0.670	1.016	A	A
1	SR90	55.600	2.200	69.000	5.700	0.806	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	6.100	0.200	6.170	0.320	0.989	A	A
1	CM244	3.500	0.500	3.690	0.290	0.949	A	A
1	CO60	28.500	2.100	30.400	1.200	0.938	A	A
1	CS137	795.500	76.400	842.000	42.000	0.945	A	W
1	K40	592.600	42.500	603.000	32.000	0.983	A	A
1	PU239	8.500	0.600	9.580	1.300	0.887	A	N
1	SR90	1239.600	130.000	1330.000	70.000	0.932	A	A

**Matrix:** WA Water Bq / L

1	AM241	2.150	0.140	1.670	0.080	1.287	W	A
1	CO60	97.000	0.800	98.200	3.600	0.988	A	A
1	CS137	70.100	4.000	73.000	3.700	0.960	A	A
1	GROSS ALPHA	1724.600	141.700	1900.000	190.000	0.908	A	A
1	GROSS BETA	1246.400	31.100	1297.000	100.000	0.961	A	A
1	H3	76.500	5.500	79.300	2.000	0.965	A	A
1	PU238	1.650	0.070	1.580	0.090	1.044	A	W
1	PU239	1.690	0.070	1.640	0.090	1.030	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 54 Results by Laboratory****Lab:** TE Environmental Inc.

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	SR90	3.850	0.130	4.400	0.200	0.875	A	A
1	U234	0.900	0.050	1.040	0.050	0.865	W	
1	U238	0.880	0.050	1.040	0.040	0.846	W	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi/g or mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** TI Teledyne Brown Engineering Environmental Services, Knoxville, TN

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.930	0.130	0.486	0.016	1.914	W	
1	CO60	19.400	0.770	19.440	0.500	0.998	A	A
1	CS134	2.590	0.060	2.830	0.160	0.915	A	
1	CS137	9.520	0.150	8.760	0.340	1.087	A	A
1	GROSS ALPHA	3.330	0.120	3.970	0.300	0.839	A	A
1	GROSS BETA	2.260	0.080	2.580	0.150	0.876	A	A
1	MN54	6.960	0.230	6.520	0.280	1.067	A	A
1	PU238	0.230	0.040	0.215	0.009	1.070	A	
1	PU239	0.170	0.030	0.136	0.012	1.250	W	
1	RU106	53.300	1.640	49.540	3.530	1.076	A	
1	SR90	7.460	0.180	7.100	0.220	1.051	A	
1	UG U	0.127	0.019	3.700	0.160	0.034	N	

**Matrix:** SO Soil Bq / kg

1	CS137	1696.000	116.700	1740.000	90.000	0.975	A	A
1	K40	464.800	27.000	468.000	25.000	0.993	A	A
1	PU239	24.320	3.240	25.600	0.670	0.950	A	
1	SR90	80.800	2.670	69.000	5.700	1.171	A	

**Matrix:** VE Vegetation Bq / kg

1	AM241	7.030	1.110	6.170	0.320	1.139	A	
1	CM244	2.260	0.630	3.690	0.290	0.612	W	
1	CO60	34.000	0.900	30.400	1.200	1.118	A	A
1	CS137	1005.000	35.700	842.000	42.000	1.194	A	A
1	K40	728.000	68.400	603.000	32.000	1.207	A	W
1	PU239	10.540	0.310	9.580	1.300	1.100	A	
1	SR90	1283.000	88.300	1330.000	70.000	0.965	A	

**Matrix:** WA Water Bq / L

1	AM241	2.200	0.200	1.670	0.080	1.317	W	
1	CO60	100.300	6.930	98.200	3.600	1.021	A	A
1	CS137	75.800	2.800	73.000	3.700	1.038	A	A
1	GROSS ALPHA	1600.000	100.000	1900.000	190.000	0.842	A	
1	GROSS BETA	1200.000	100.000	1297.000	100.000	0.925	A	
1	H3	61.000	23.000	79.300	2.000	0.769	W	
1	PU238	1.780	0.220	1.580	0.090	1.127	W	
1	PU239	1.990	0.260	1.640	0.090	1.213	W	
1	SR90	4.570	0.220	4.400	0.200	1.039	A	
1	UG U	1.460	0.220	0.080	0.003	18.250	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 54 Results by Laboratory****Lab:** TM Eberline Services Albuquerque Lab, NM

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.413	0.135	0.486	0.016	0.850	W	W
1	CO60	22.240	1.310	19.440	0.500	1.144	W	W
1	CS134	3.010	0.314	2.830	0.160	1.064	A	
1	CS137	10.579	1.098	8.760	0.340	1.208	W	W
1	GROSS ALPHA	5.476	0.821	3.970	0.300	1.379	W	A
1	GROSS BETA	2.830	0.424	2.580	0.150	1.097	A	A
1	MN54	7.715	0.686	6.520	0.280	1.183	A	A
1	PU238	0.195	0.022	0.215	0.009	0.907	A	A
1	PU239	0.121	0.016	0.136	0.012	0.890	A	W
1	RU106	58.501	8.188	49.540	3.530	1.181	A	
1	SR90	5.846	0.712	7.100	0.220	0.823	A	
1	U234	0.055	0.014	0.046	0.002	1.196	A	A
1	U238	0.045	0.012	0.046	0.002	0.978	A	A
1	UG U	3.810	0.040	3.700	0.160	1.030	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	43.818	5.774	42.700	1.700	1.026	A	A
1	AM241	16.243	5.214	14.800	0.510	1.097	A	A
1	BI212	27.248	13.904	42.000	4.100	0.649	A	A
1	BI214	35.464	6.777	32.600	1.400	1.088	A	W
1	CS137	2003.580	137.030	1740.000	90.000	1.151	A	A
1	K40	528.411	113.590	468.000	25.000	1.129	A	W
1	PB212	47.796	10.005	41.500	2.200	1.152	A	A
1	PB214	26.421	16.797	34.300	1.600	0.770	W	W
1	PU239	36.352	6.771	25.600	0.670	1.420	N	A
1	SR90	61.050	32.172	69.000	5.700	0.885	A	
1	TH234	20.842	8.332	46.600	3.500	0.447	N	A
1	U234	38.202	4.348	43.600	1.800	0.876	A	A
1	U238	39.090	4.403	46.100	1.300	0.848	A	A
1	UG U	3.530	0.360	3.730	0.020	0.946	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	5.920	0.745	6.170	0.320	0.959	A	A
1	CM244	3.367	0.531	3.690	0.290	0.912	A	N
1	CO60	30.350	4.887	30.400	1.200	0.998	A	A
1	CS137	823.365	82.726	842.000	42.000	0.978	A	A
1	K40	581.600	191.231	603.000	32.000	0.965	A	
1	PU239	8.158	0.925	9.580	1.300	0.852	A	W
1	SR90	1152.550	130.406	1330.000	70.000	0.867	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.465	0.141	1.670	0.080	0.877	W	A
1	CO60	103.500	3.447	98.200	3.600	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 54 Results by Laboratory****Lab:** TM Eberline Services Albuquerque Lab, NM

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	CS137	78.130	4.749	73.000	3.700	1.070	A	A
1	GROSS ALPHA	780.700	142.600	1900.000	190.000	0.411	N	A
1	GROSS BETA	1212.000	192.800	1297.000	100.000	0.934	A	A
1	H3	60.800	12.380	79.300	2.000	0.767	W	A
1	PU238	1.499	0.085	1.580	0.090	0.949	A	A
1	PU239	1.668	0.090	1.640	0.090	1.017	A	A
1	SR90	4.274	0.072	4.400	0.200	0.971	A	W
1	U234	1.011	0.105	1.040	0.050	0.972	A	A
1	U238	0.991	0.103	1.040	0.040	0.953	A	A
1	UG U	69.255	7.096	0.080	0.003	865.688	N	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** TN Eberline Services, Richmond, CA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.382	0.023	0.486	0.016	0.787	W	A
1	CO60	17.880	0.560	19.440	0.500	0.920	A	A
1	CS134	3.168	0.453	2.830	0.160	1.119	W	
1	CS137	8.510	0.373	8.760	0.340	0.971	A	A
1	GROSS ALPHA	2.853	0.057	3.970	0.300	0.719	W	A
1	GROSS BETA	2.243	0.045	2.580	0.150	0.869	A	W
1	MN54	5.997	0.393	6.520	0.280	0.920	A	A
1	PU238	0.167	0.014	0.215	0.009	0.775	W	A
1	PU239	0.112	0.011	0.136	0.012	0.820	W	A
1	SR90	6.866	0.151	7.100	0.220	0.967	A	A
1	U234	0.040	0.005	0.046	0.002	0.874	W	W
1	U238	0.037	0.004	0.046	0.002	0.798	N	W
1	UG U	3.080	0.380	3.700	0.160	0.832	W	W

**Matrix:** SO Soil Bq / kg

1	AM241	14.710	1.810	14.800	0.510	0.994	A	A
1	BI212	23.990	16.530	42.000	4.100	0.571	A	
1	BI214	29.260	9.780	32.600	1.400	0.898	A	W
1	CS137	1798.000	20.000	1740.000	90.000	1.033	A	A
1	K40	446.900	50.300	468.000	25.000	0.955	A	N
1	PB212	53.900	9.840	41.500	2.200	1.299	W	A
1	PB214	27.790	11.160	34.300	1.600	0.810	W	
1	PU239	28.190	2.670	25.600	0.670	1.101	A	W
1	SR90	68.080	4.720	69.000	5.700	0.987	A	A
1	U234	35.850	2.250	43.600	1.800	0.822	W	N
1	U238	37.340	2.320	46.100	1.300	0.810	W	W
1	UG U	3.000	0.370	3.730	0.020	0.804	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	5.573	1.181	6.170	0.320	0.903	A	A
1	CM244	2.994	0.866	3.690	0.290	0.811	W	A
1	CO60	25.700	4.400	30.400	1.200	0.845	W	A
1	CS137	836.800	11.800	842.000	42.000	0.994	A	A
1	K40	534.800	53.300	603.000	32.000	0.887	W	N
1	PU239	8.060	1.198	9.580	1.300	0.841	W	A
1	SR90	1223.000	22.400	1330.000	70.000	0.920	A	W

**Matrix:** WA Water Bq / L

1	AM241	1.609	0.089	1.670	0.080	0.963	A	A
1	CO60	109.400	1.500	98.200	3.600	1.114	A	A
1	CS137	81.900	1.180	73.000	3.700	1.122	A	A
1	GROSS ALPHA	1073.000	32.000	1900.000	190.000	0.565	N	A
1	GROSS BETA	1240.000	25.000	1297.000	100.000	0.956	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 54 Results by Laboratory****Lab:** TN Eberline Services, Richmond, CA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	H3	85.520	6.890	79.300	2.000	1.078	A	A
1	PU238	1.620	0.120	1.580	0.090	1.025	A	A
1	PU239	1.633	0.121	1.640	0.090	0.996	A	A
1	SR90	4.703	0.114	4.400	0.200	1.069	A	A
1	U234	0.977	0.043	1.040	0.050	0.939	A	A
1	U238	0.968	0.042	1.040	0.040	0.931	A	W
1	UG U	0.067	0.008	0.080	0.003	0.843	W	W

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** TO Eberline Services Oak Ridge Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.466	0.094	0.486	0.016	0.959	A	W
1	CO60	18.694	1.802	19.440	0.500	0.962	A	A
1	CS134	2.831	0.316	2.830	0.160	1.000	A	
1	CS137	9.495	1.307	8.760	0.340	1.084	A	A
1	GROSS ALPHA	5.753	0.161	3.970	0.300	1.449	W	N
1	GROSS BETA	2.711	0.072	2.580	0.150	1.051	A	W
1	MN54	6.883	1.058	6.520	0.280	1.056	A	A
1	PU238	0.175	0.049	0.215	0.009	0.814	W	A
1	PU239	0.151	0.044	0.136	0.012	1.110	A	A
1	RU106	53.447	8.910	49.540	3.530	1.079	A	
1	SR90	5.593	0.451	7.100	0.220	0.788	W	W
1	U234	0.070	0.027	0.046	0.002	1.522	W	W
1	U238	0.049	0.022	0.046	0.002	1.054	A	A
1	UG U	4.891	0.710	3.700	0.160	1.322	W	

**Matrix:** SO Soil Bq / kg

1	AC228	32.298	6.119	42.700	1.700	0.756	N	W
1	AM241	14.918	4.078	14.800	0.510	1.008	A	A
1	BI212	21.050	11.451	42.000	4.100	0.501	W	A
1	BI214	28.608	7.055	32.600	1.400	0.878	W	A
1	CS137	1519.915	147.649	1740.000	90.000	0.874	W	A
1	K40	403.675	50.888	468.000	25.000	0.863	W	A
1	PB212	39.424	6.309	41.500	2.200	0.950	A	A
1	PB214	26.136	4.770	34.300	1.600	0.762	N	A
1	PU238	1.282	0.887	0.910	0.100	1.409	W	
1	PU239	35.294	4.996	25.600	0.670	1.379	N	W
1	SR90	34.641	3.211	69.000	5.700	0.502	N	W
1	TH234	54.683	30.749	46.600	3.500	1.173	A	A
1	U234	30.720	3.453	43.600	1.800	0.705	N	N
1	U238	32.478	3.617	46.100	1.300	0.705	W	W
1	UG U	2.349	0.043	3.730	0.020	0.630	W	

**Matrix:** VE Vegetation Bq / kg

1	AM241	5.603	2.529	6.170	0.320	0.908	A	A
1	CM244	2.010	0.689	3.690	0.290	0.545	N	W
1	CO60	27.917	3.230	30.400	1.200	0.918	A	A
1	CS137	760.397	81.645	842.000	42.000	0.903	A	A
1	K40	543.854	72.858	603.000	32.000	0.902	A	N
1	PU239	10.029	7.770	9.580	1.300	1.047	A	
1	SR90	999.709	23.383	1330.000	70.000	0.752	A	

**Matrix:** WA Water Bq / L

1	AM241	1.768	0.339	1.670	0.080	1.059	A	A
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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027****Evaluation:** A=Acceptable, 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 54 Results by Laboratory****Lab:** TO Eberline Services Oak Ridge Laboratory

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	CO60	100.557	7.936	98.200	3.600	1.024	A	A
1	CS137	76.276	8.315	73.000	3.700	1.045	A	A
1	H3	105.294	32.401	79.300	2.000	1.328	W	A
1	PU238	1.516	0.316	1.580	0.090	0.959	A	A
1	PU239	1.776	0.361	1.640	0.090	1.083	A	A
1	SR90	3.979	0.441	4.400	0.200	0.904	A	A
1	U234	1.060	0.258	1.040	0.050	1.019	A	A
1	U238	1.008	0.244	1.040	0.040	0.969	A	W

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	18.570	0.210	19.440	0.500	0.955	A	A
1	CS134	2.810	0.060	2.830	0.160	0.993	A	
1	CS137	8.780	0.320	8.760	0.340	1.002	A	A
1	GROSS ALPHA	3.810	0.100	3.970	0.300	0.960	A	
1	GROSS BETA	2.830	0.050	2.580	0.150	1.097	A	
1	MN54	6.180	0.180	6.520	0.280	0.948	A	A
1	SR90	8.450	0.070	7.100	0.220	1.190	A	

**Matrix:** SO Soil Bq / kg

1	AC228	40.290	1.210	42.700	1.700	0.944	A	A
1	BI212	43.280	3.970	42.000	4.100	1.030	A	W
1	BI214	30.570	1.910	32.600	1.400	0.938	A	A
1	CS137	1686.550	13.060	1740.000	90.000	0.969	A	A
1	K40	443.480	14.390	468.000	25.000	0.948	A	A
1	PB212	40.530	1.490	41.500	2.200	0.977	A	A
1	PB214	31.670	2.230	34.300	1.600	0.923	A	A
1	SR90	63.690	4.810	69.000	5.700	0.923	A	

**Matrix:** VE Vegetation Bq / kg

1	CO60	29.320	0.090	30.400	1.200	0.964	A	W
1	CS137	885.990	14.900	842.000	42.000	1.052	A	A
1	K40	616.470	10.960	603.000	32.000	1.022	A	W
1	SR90	1243.400	41.760	1330.000	70.000	0.935	A	

**Matrix:** WA Water Bq / L

1	CO60	101.200	0.600	98.200	3.600	1.031	A	A
1	CS137	78.640	0.930	73.000	3.700	1.077	A	A
1	GROSS ALPHA	1667.120	62.940	1900.000	190.000	0.877	A	
1	GROSS BETA	1535.840	31.760	1297.000	100.000	1.184	A	
1	H3	79.330	1.950	79.300	2.000	1.000	A	
1	SR90	5.200	0.310	4.400	0.200	1.182	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 54 Results by Laboratory****Lab:** TQ Institute of Nuclear Energy Research, Taiwan

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	18.400	1.300	19.440	0.500	0.947	A	A
1	CS134	2.820	0.170	2.830	0.160	0.996	A	
1	CS137	9.910	0.740	8.760	0.340	1.131	A	A
1	GROSS ALPHA	3.570	0.020	3.970	0.300	0.899	A	A
1	GROSS BETA	2.690	0.020	2.580	0.150	1.043	A	A
1	MN54	6.170	0.510	6.520	0.280	0.946	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	41.400	1.300	42.700	1.700	0.970	A	A
1	BI212	41.500	2.000	42.000	4.100	0.988	A	W
1	BI214	27.000	0.800	32.600	1.400	0.828	W	A
1	CS137	1798.000	45.000	1740.000	90.000	1.033	A	A
1	K40	438.000	12.000	468.000	25.000	0.936	A	A
1	PB212	39.500	1.100	41.500	2.200	0.952	A	A
1	PB214	24.800	0.900	34.300	1.600	0.723	N	A
1	SR90	61.300	1.500	69.000	5.700	0.888	A	A

**Matrix:** VE Vegetation Bq / kg

1	CO60	30.100	1.200	30.400	1.200	0.990	A	A
1	CS137	953.000	34.000	842.000	42.000	1.132	A	A
1	K40	617.000	24.000	603.000	32.000	1.023	A	A
1	SR90	993.000	5.000	1330.000	70.000	0.747	A	A

**Matrix:** WA Water Bq / L

1	AM241	1.240	0.080	1.670	0.080	0.743	N	
1	CO60	95.000	3.400	98.200	3.600	0.967	A	A
1	CS137	79.400	2.900	73.000	3.700	1.088	A	A
1	GROSS ALPHA	1883.000	30.000	1900.000	190.000	0.991	A	A
2	GROSS ALPHA	1945.000	21.000	1900.000	190.000	1.024	A	A
1	GROSS BETA	1369.000	19.000	1297.000	100.000	1.056	A	A
2	GROSS BETA	1223.000	26.000	1297.000	100.000	0.943	A	A
1	H3	101.000	3.000	79.300	2.000	1.274	A	W
1	PU238	1.710	0.020	1.580	0.090	1.082	A	
1	PU239	1.780	0.020	1.640	0.090	1.085	A	
1	SR90	5.270	0.100	4.400	0.200	1.198	W	A
1	U234	0.950	0.030	1.040	0.050	0.913	A	
1	U238	1.000	0.030	1.040	0.040	0.962	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 54 Results by Laboratory****Lab:** TW Taiwan Radiation Monitoring Center

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	20.000	0.400	19.440	0.500	1.029	A	A
1	CS134	2.810	0.060	2.830	0.160	0.993	A	A
1	CS137	9.340	0.230	8.760	0.340	1.066	A	A
1	GROSS ALPHA	3.560	0.050	3.970	0.300	0.897	A	W
1	GROSS BETA	2.890	0.050	2.580	0.150	1.120	A	A
1	MN54	6.730	0.160	6.520	0.280	1.032	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	41.100	1.600	42.700	1.700	0.963	A	A
1	BI212	45.200	5.900	42.000	4.100	1.076	A	A
1	BI214	27.500	1.400	32.600	1.400	0.844	W	A
1	CS137	1718.000	14.000	1740.000	90.000	0.987	A	A
1	K40	478.000	11.000	468.000	25.000	1.021	A	A
1	PB212	44.200	2.500	41.500	2.200	1.065	A	A
1	PB214	29.100	2.000	34.300	1.600	0.848	W	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	31.200	0.600	30.400	1.200	1.026	A	A
1	CS137	894.000	6.000	842.000	42.000	1.062	A	A
1	K40	656.000	14.000	603.000	32.000	1.088	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	98.000	0.800	98.200	3.600	0.998	A	A
1	CS137	73.200	0.900	73.000	3.700	1.003	A	A
1	GROSS ALPHA	1850.000	63.000	1900.000	190.000	0.974	A	A
1	GROSS BETA	1245.000	46.000	1297.000	100.000	0.960	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 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 52 Evaluation
<b>Matrix: AI Air Filter Bq / filter</b>								
1	CO60	19.770	0.150	19.440	0.500	1.017	A	A
1	CS134	2.450	0.060	2.830	0.160	0.866	A	
1	CS137	9.040	0.140	8.760	0.340	1.032	A	A
1	GROSS ALPHA	3.910	0.080	3.970	0.300	0.985	A	A
1	GROSS BETA	2.360	0.080	2.580	0.150	0.915	A	A
1	MN54	6.990	0.130	6.520	0.280	1.072	A	A
1	PU238	0.220	0.007	0.215	0.009	1.023	A	A
1	PU239	0.132	0.005	0.136	0.012	0.971	A	A
1	RU106	51.280	0.750	49.540	3.530	1.035	A	
1	U234	0.049	0.005	0.046	0.002	1.065	A	A
1	U238	0.055	0.006	0.046	0.002	1.196	A	A
<b>Matrix: SO Soil Bq / kg</b>								
1	AC228	40.000	1.220	42.700	1.700	0.937	A	A
1	BI212	25.110	3.300	42.000	4.100	0.598	A	A
1	BI214	30.040	1.260	32.600	1.400	0.921	A	A
1	CS137	1804.000	17.000	1740.000	90.000	1.037	A	A
1	K40	498.000	11.000	468.000	25.000	1.064	A	A
1	PB212	42.030	1.800	41.500	2.200	1.013	A	A
1	PB214	30.040	1.770	34.300	1.600	0.876	W	A
1	PU239	25.050	1.170	25.600	0.670	0.979	A	A
1	SR90	67.820	7.250	69.000	5.700	0.983	A	A
1	TH234	51.620	4.970	46.600	3.500	1.108	A	A
1	U234	42.850	2.000	43.600	1.800	0.983	A	A
1	U238	43.440	2.040	46.100	1.300	0.942	A	A
<b>Matrix: VE Vegetation Bq / kg</b>								
1	CO60	35.450	1.000	30.400	1.200	1.166	A	A
1	CS137	939.000	11.000	842.000	42.000	1.115	A	A
1	K40	689.000	20.000	603.000	32.000	1.143	A	A
1	PU239	9.916	0.555	9.580	1.300	1.035	A	A
1	SR90	1157.000	28.000	1330.000	70.000	0.870	A	A
<b>Matrix: WA Water Bq / L</b>								
1	CO60	102.900	0.600	98.200	3.600	1.048	A	A
1	CS137	76.890	0.920	73.000	3.700	1.053	A	A
1	GROSS ALPHA	2782.000	58.000	1900.000	190.000	1.464	N	W
1	GROSS BETA	1774.000	55.000	1297.000	100.000	1.368	W	A
1	H3	90.260	18.130	79.300	2.000	1.138	A	A
1	PU238	1.479	0.089	1.580	0.090	0.936	A	A
1	PU239	1.650	0.074	1.640	0.090	1.006	A	A
1	SR90	4.670	0.610	4.400	0.200	1.061	A	A
1	U234	0.989	0.066	1.040	0.050	0.951	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 54 Results by Laboratory****Lab:** TX Texas Dept. of Health/Laboratories, Austin

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<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> WA Water Bq/L								
1	U238	1.010	0.068	1.040	0.040	0.971	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi}/\text{g}$  or  $\text{mL}=\text{Bq} \times 0.027$** **Evaluation:** A=Acceptable, W=Acceptable with Warning, N=Not AcceptableIf the evaluation system is not appropriate for the types of analyses performed in your lab, apply a site specific evaluation.

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**QAP 54 Results by Laboratory****Lab:** UC United States Enrichment Corporation, Paducah, KY

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	19.740	3.290	19.440	0.500	1.015	A	A
1	CS137	11.800	5.090	8.760	0.340	1.347	W	N
1	GROSS BETA	1.960	0.040	2.580	0.150	0.760	W	A
1	PU239	0.109	0.007	0.136	0.012	0.801	W	A
<b>Matrix:</b> SO Soil Bq / kg								
1	CS137	1970.000	5.490	1740.000	90.000	1.132	A	A
1	K40	529.000	19.100	468.000	25.000	1.130	A	A
1	PU239	30.300	5.570	25.600	0.670	1.184	W	W
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	34.800	1.120	30.400	1.200	1.145	A	A
1	CS137	983.000	4.760	842.000	42.000	1.167	A	A
1	K40	677.000	29.600	603.000	32.000	1.123	A	A
<b>Matrix:</b> WA Water Bq / L								
1	CO60	103.000	0.999	98.200	3.600	1.049	A	A
1	CS137	77.900	1.040	73.000	3.700	1.067	A	A
1	GROSS ALPHA	1872.320	67.400	1900.000	190.000	0.985	A	A
1	GROSS BETA	1168.230	46.610	1297.000	100.000	0.901	A	N
1	PU239	1.520	0.108	1.640	0.090	0.927	A	A
1	UG U	0.030		0.080	0.003	0.375	N	

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** UG USGS Menlo Park WRD sediment radioisotope laboratory

<b>No. Test</b>	<b>Radionuclide</b>	<b>Reported Value</b>	<b>Reported Error</b>	<b>EML Value</b>	<b>EML Error</b>	<b>Reported EML</b>	<b>Evaluation</b>	<b>QAP 52 Evaluation</b>
<b>Matrix:</b> SO Soil Bq/kg								
1	CS137	1734.900	60.100	1740.000	90.000	0.997	A	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** UP BWXT Y-12, L.L.C. Analytical Chemistry Organization Oak Ridge

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
1	UGU	3.240	0.300	3.730	0.020	0.869	A	A
<b>Matrix:</b> WA Water Bq/L								
1	UGU	79.000	8.000	0.080	0.003	987.500	N	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi}/\text{g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** US Unitech, Springfield, MA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	AM241	2.004	1.774	1.670	0.080	1.200	A	
1	CO60	101.000	25.550	98.200	3.600	1.029	A	A
1	CS137	77.490	14.870	73.000	3.700	1.062	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** UY BWXT Y-12, L.L.C. Analytical Chemistry Organization Oak Ridge

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.417	0.048	0.486	0.016	0.858	W	A
1	Bq U	0.092	0.013	0.093	0.004	0.990	A	A
1	CO60	18.300	1.700	19.440	0.500	0.941	A	A
1	CS134	2.580	0.180	2.830	0.160	0.912	A	A
1	CS137	8.290	0.620	8.760	0.340	0.946	A	A
1	GROSS ALPHA	3.510	0.130	3.970	0.300	0.884	A	A
1	GROSS BETA	2.570	0.100	2.580	0.150	0.996	A	A
1	MN54	6.350	0.620	6.520	0.280	0.974	A	A
1	PU238	0.225	0.023	0.215	0.009	1.047	A	A
1	PU239	0.143	0.014	0.136	0.012	1.051	A	A
1	SR90	6.580	0.120	7.100	0.220	0.927	A	W
<b>Matrix:</b> SO Soil Bq / kg								
1	AM241	13.500	2.300	14.800	0.510	0.912	A	N
1	Bq U	77.100	9.700	91.800	2.300	0.840	A	W
1	CS137	1817.000	170.000	1740.000	90.000	1.044	A	W
1	K40	510.000	82.000	468.000	25.000	1.090	A	A
1	PU239	26.800	3.800	25.600	0.670	1.047	A	N
1	SR90	65.200	6.500	69.000	5.700	0.945	A	W
1	TH234	38.500	4.500	46.600	3.500	0.826	A	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	AM241	6.320	1.400	6.170	0.320	1.024	A	W
1	CM244	3.220	0.900	3.690	0.290	0.873	A	A
1	CO60	39.000	5.400	30.400	1.200	1.283	W	A
1	CS137	909.000	80.000	842.000	42.000	1.080	A	A
1	K40	681.000	113.000	603.000	32.000	1.129	A	A
1	PU239	8.900	1.400	9.580	1.300	0.929	A	A
1	SR90	1114.000	12.000	1330.000	70.000	0.838	A	A
<b>Matrix:</b> WA Water Bq / L								
1	AM241	1.280	0.180	1.670	0.080	0.766	W	A
1	Bq U	1.860	0.200	2.120	0.090	0.877	W	W
1	CO60	98.300	7.400	98.200	3.600	1.001	A	A
1	CS137	76.300	10.000	73.000	3.700	1.045	A	A
1	GROSS ALPHA	2027.000	60.000	1900.000	190.000	1.067	A	A
1	GROSS BETA	1719.000	50.000	1297.000	100.000	1.325	A	A
1	H3	211.000	10.000	79.300	2.000	2.661	N	A
1	PU238	1.580	0.160	1.580	0.090	1.000	A	A
1	PU239	1.590	0.160	1.640	0.090	0.970	A	A
1	SR90	3.890	0.190	4.400	0.200	0.884	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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.428	0.041	0.486	0.016	0.881	A	A
1	Bq U	0.072	0.021	0.093	0.004	0.774	N	A
1	CO60	21.300	0.300	19.440	0.500	1.096	A	A
1	CS134	2.830	0.150	2.830	0.160	1.000	A	A
1	CS137	9.690	0.450	8.760	0.340	1.106	A	A
1	GROSS ALPHA	4.590	0.630	3.970	0.300	1.156	A	A
1	GROSS BETA	3.080	0.110	2.580	0.150	1.194	A	A
1	MN54	7.960	0.590	6.520	0.280	1.221	W	W
1	PU238	0.199	0.022	0.215	0.009	0.926	A	N
1	PU239	0.144	0.017	0.136	0.012	1.059	A	A
2	PU239	7.700	0.900	0.136	0.012	56.618	N	A
1	RU106	56.000	3.500	49.540	3.530	1.130	A	
1	SR90	10.200	0.500	7.100	0.220	1.437	W	A
1	U234	0.033	0.014	0.046	0.002	0.717	N	A
1	U238	0.038	0.014	0.046	0.002	0.826	W	A

**Matrix:** SO Soil Bq / kg

1	AC228	43.000	4.000	42.700	1.700	1.007	A	W
1	AM241	14.200	1.800	14.800	0.510	0.959	A	A
1	BI212	43.000	7.000	42.000	4.100	1.024	A	A
1	BI214	28.000	3.000	32.600	1.400	0.859	W	A
1	Bq U	84.000	6.000	91.800	2.300	0.915	A	A
1	CS137	1880.000	120.000	1740.000	90.000	1.080	A	A
1	K40	522.000	22.000	468.000	25.000	1.115	A	A
1	PB212	41.000	3.000	41.500	2.200	0.988	A	A
1	PB214	29.000	3.000	34.300	1.600	0.845	W	A
1	PU238	0.930	0.320	0.910	0.100	1.022	A	A
1	PU239	24.200	1.100	25.600	0.670	0.945	A	A
1	SR90	89.000	7.000	69.000	5.700	1.290	A	A
1	TH234	44.000	21.000	46.600	3.500	0.944	A	A
1	U234	38.000	4.000	43.600	1.800	0.872	A	A
1	U238	44.000	4.000	46.100	1.300	0.954	A	A

**Matrix:** VE Vegetation Bq / kg

1	AM241	4.470	0.510	6.170	0.320	0.724	W	A
1	CM244	2.760	0.400	3.690	0.290	0.748	W	A
1	CO60	31.300	1.500	30.400	1.200	1.030	A	A
1	CS137	825.000	37.000	842.000	42.000	0.980	A	A
1	K40	655.000	33.000	603.000	32.000	1.086	A	A
1	PU238	0.770	0.570	0.660	0.020	1.167	A	A
1	PU239	7.700	0.900	9.580	1.300	0.804	W	A
1	SR90	1440.000	30.000	1330.000	70.000	1.083	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 54 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 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	AM241	1.670	0.130	1.670	0.080	1.000	A	A
1	Bq U	2.010	0.120	2.120	0.090	0.948	A	A
1	CO60	102.000	2.000	98.200	3.600	1.039	A	A
1	CS137	74.000	4.000	73.000	3.700	1.014	A	A
1	GROSS ALPHA	1810.000	110.000	1900.000	190.000	0.953	A	A
1	GROSS BETA	1570.000	80.000	1297.000	100.000	1.210	A	A
1	H3	85.000	4.000	79.300	2.000	1.072	A	A
1	PU238	1.460	0.150	1.580	0.090	0.924	A	W
1	PU239	1.710	0.150	1.640	0.090	1.043	A	A
1	SR90	5.600	0.600	4.400	0.200	1.273	W	A
1	U234	0.970	0.080	1.040	0.050	0.933	A	A
1	U238	1.000	0.080	1.040	0.040	0.962	A	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** WC Waste Management Federal Services of Hanford

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.488	0.090	0.486	0.016	1.004	A	A
1	CO60	21.500	1.670	19.440	0.500	1.106	A	A
1	CS134	3.760	0.540	2.830	0.160	1.329	N	
1	CS137	9.090	1.230	8.760	0.340	1.038	A	A
1	GROSS ALPHA	3.520	0.350	3.970	0.300	0.887	A	A
1	GROSS BETA	3.220	0.320	2.580	0.150	1.248	A	A
1	MN54	14.800	2.060	6.520	0.280	2.270	N	A
1	PU238	0.210	0.045	0.215	0.009	0.977	A	A
1	PU239	0.157	0.034	0.136	0.012	1.154	W	A
1	SR90	8.210	1.470	7.100	0.220	1.156	A	A
1	U234	0.058	0.015	0.046	0.002	1.261	A	A
1	U238	0.047	0.013	0.046	0.002	1.022	A	W
<b>Matrix:</b> SO Soil Bq / kg								
1	AM241	13.800	2.770	14.800	0.510	0.932	A	A
1	CS137	1790.000	267.000	1740.000	90.000	1.029	A	A
1	K40	527.000	67.000	468.000	25.000	1.126	A	W
1	PU239	25.300	5.070	25.600	0.670	0.988	A	A
1	SR90	83.300	14.400	69.000	5.700	1.207	A	A
1	U234	26.300	5.260	43.600	1.800	0.603	N	W
1	U238	26.700	5.330	46.100	1.300	0.579	N	W
<b>Matrix:</b> VE Vegetation Bq / kg								
1	AM241	5.680	1.470	6.170	0.320	0.921	A	A
1	CM244	3.350	1.090	3.690	0.290	0.908	A	A
1	CO60	31.100	0.320	30.400	1.200	1.023	A	A
1	CS137	907.000	135.000	842.000	42.000	1.077	A	A
1	K40	710.000	91.500	603.000	32.000	1.177	A	A
1	PU239	9.220	2.070	9.580	1.300	0.962	A	A
1	SR90	1370.000	278.000	1330.000	70.000	1.030	A	W
<b>Matrix:</b> WA Water Bq / L								
1	AM241	1.650	0.300	1.670	0.080	0.988	A	A
1	CO60	103.000	8.110	98.200	3.600	1.049	A	A
1	CS137	78.600	10.600	73.000	3.700	1.077	A	A
1	GROSS ALPHA	1850.000	188.000	1900.000	190.000	0.974	A	A
1	GROSS BETA	1460.000	148.000	1297.000	100.000	1.126	A	A
1	H3	85.900	18.600	79.300	2.000	1.083	A	W
1	PU238	1.590	0.320	1.580	0.090	1.006	A	A
1	PU239	1.670	0.330	1.640	0.090	1.018	A	A
1	SR90	5.060	0.870	4.400	0.200	1.150	A	W
1	U234	1.020	0.200	1.040	0.050	0.981	A	A
1	U238	0.952	0.190	1.040	0.040	0.915	A	A

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

**QAP 54 Results by Laboratory****Lab:** WE Antech Ltd.-Waltz Mill Site, PA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
2	AM241	0.484	0.096	0.486	0.016	0.996	A	A
3	AM241	0.478	0.097	0.486	0.016	0.984	A	A
1	AM241	0.492	0.101	0.486	0.016	1.012	A	A
1	CO60	18.000	0.340	19.440	0.500	0.926	A	A
2	CO60	18.400	0.340	19.440	0.500	0.947	A	A
1	CS134	2.340	0.130	2.830	0.160	0.827	A	
2	CS134	2.090	0.150	2.830	0.160	0.739	N	
2	CS137	8.620	0.860	8.760	0.340	0.984	A	A
1	CS137	8.420	0.850	8.760	0.340	0.961	A	A
2	GROSS ALPHA	3.910	0.730	3.970	0.300	0.985	A	W
3	GROSS ALPHA	4.210	0.790	3.970	0.300	1.060	A	W
1	GROSS ALPHA	4.430	0.840	3.970	0.300	1.116	A	W
3	GROSS BETA	3.240	0.290	2.580	0.150	1.256	A	N
2	GROSS BETA	3.090	0.270	2.580	0.150	1.198	A	N
1	GROSS BETA	3.260	0.300	2.580	0.150	1.264	A	N
1	MN54	6.540	0.530	6.520	0.280	1.003	A	A
2	MN54	6.530	0.490	6.520	0.280	1.002	A	A
3	PU238	0.199	0.030	0.215	0.009	0.926	A	A
2	PU238	0.199	0.030	0.215	0.009	0.926	A	A
1	PU238	0.197	0.040	0.215	0.009	0.916	A	A
1	PU239	0.126	0.030	0.136	0.012	0.926	A	A
2	PU239	0.130	0.020	0.136	0.012	0.956	A	A
3	PU239	0.123	0.020	0.136	0.012	0.904	A	A
3	SR90	8.640	0.660	7.100	0.220	1.217	A	N
1	SR90	7.710	0.640	7.100	0.220	1.086	A	N
2	SR90	8.150	0.650	7.100	0.220	1.148	A	N
1	U234	0.051	0.016	0.046	0.002	1.109	A	
2	U234	0.041	0.014	0.046	0.002	0.891	W	
1	U238	0.049	0.016	0.046	0.002	1.065	A	
2	U238	0.051	0.016	0.046	0.002	1.109	A	

**Matrix:** SO Soil Bq / kg

2	AC228	35.200	3.200	42.700	1.700	0.824	W	A
3	AC228	38.600	3.400	42.700	1.700	0.904	A	A
1	AC228	38.600	2.900	42.700	1.700	0.904	A	A
2	AM241	18.100	5.000	14.800	0.510	1.223	A	A
3	AM241	20.600	5.700	14.800	0.510	1.392	A	A
1	AM241	16.100	4.400	14.800	0.510	1.088	A	A
2	BI212	44.100	9.700	42.000	4.100	1.050	A	A
1	BI212	38.200	11.400	42.000	4.100	0.910	A	A
3	BI212	47.800	11.900	42.000	4.100	1.138	W	A
1	BI214	30.400	2.800	32.600	1.400	0.933	A	A
2	BI214	30.700	2.600	32.600	1.400	0.942	A	A
3	BI214	31.000	2.700	32.600	1.400	0.951	A	A
3	CS137	1783.000	76.400	1740.000	90.000	1.025	A	A
2	CS137	1804.000	124.000	1740.000	90.000	1.037	A	A

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

**QAP 54 Results by Laboratory****Lab:** WE Antech Ltd.-Waltz Mill Site, PA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
1	CS137	1806.000	125.000	1740.000	90.000	1.038	A	A
3	K40	477.000	31.800	468.000	25.000	1.019	A	A
2	K40	488.000	24.800	468.000	25.000	1.043	A	A
1	K40	484.000	24.900	468.000	25.000	1.034	A	A
2	PB212	41.900	4.100	41.500	2.200	1.010	A	A
3	PB212	41.300	4.000	41.500	2.200	0.995	A	A
1	PB212	40.600	4.700	41.500	2.200	0.978	A	A
2	PB214	30.900	3.100	34.300	1.600	0.901	A	A
1	PB214	32.000	3.500	34.300	1.600	0.933	A	A
3	PB214	36.000	3.100	34.300	1.600	1.050	A	A
3	PU239	25.700	5.900	25.600	0.670	1.004	A	A
1	PU239	26.600	6.100	25.600	0.670	1.039	A	A
2	PU239	27.100	6.100	25.600	0.670	1.059	A	A
3	SR90	72.600	17.000	69.000	5.700	1.052	A	A
2	SR90	82.700	16.000	69.000	5.700	1.199	A	A
1	SR90	85.100	18.000	69.000	5.700	1.233	A	A
1	U234	36.300	9.400	43.600	1.800	0.833	W	A
2	U234	33.900	8.700	43.600	1.800	0.778	W	A
3	U234	38.500	9.700	43.600	1.800	0.883	A	A
3	U238	39.900	10.000	46.100	1.300	0.866	A	A
1	U238	35.900	9.300	46.100	1.300	0.779	W	A
2	U238	35.200	9.000	46.100	1.300	0.764	W	A

**Matrix:** VE Vegetation Bq/kg

1	AM241	7.990	2.650	6.170	0.320	1.295	A	A
2	AM241	7.990	2.220	6.170	0.320	1.295	A	A
3	AM241	8.460	2.670	6.170	0.320	1.371	A	A
3	CM244	3.710	0.900	3.690	0.290	1.005	A	A
1	CM244	3.640	0.640	3.690	0.290	0.986	A	A
2	CM244	3.470	0.840	3.690	0.290	0.940	A	A
3	CO60	30.900	1.900	30.400	1.200	1.016	A	A
2	CO60	31.800	1.300	30.400	1.200	1.046	A	A
1	CO60	30.200	1.300	30.400	1.200	0.993	A	A
3	CS137	877.000	72.000	842.000	42.000	1.042	A	A
2	CS137	887.000	76.000	842.000	42.000	1.053	A	A
1	CS137	878.000	72.000	842.000	42.000	1.043	A	A
3	K40	626.000	40.000	603.000	32.000	1.038	A	A
2	K40	622.000	34.000	603.000	32.000	1.032	A	A
1	K40	605.000	31.000	603.000	32.000	1.003	A	A
1	PU239	9.710	1.920	9.580	1.300	1.014	A	W
3	SR90	1230.000	91.000	1330.000	70.000	0.925	A	A
2	SR90	1190.000	89.000	1330.000	70.000	0.895	A	A
1	SR90	1240.000	90.000	1330.000	70.000	0.932	A	A

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

**QAP 54 Results by Laboratory****Lab:** WE Antech Ltd.-Waltz Mill Site, PA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
2	AM241	1.750	0.340	1.670	0.080	1.048	A	A
3	AM241	1.790	0.350	1.670	0.080	1.072	A	A
1	AM241	1.850	0.360	1.670	0.080	1.108	A	A
3	CO60	99.900	4.500	98.200	3.600	1.017	A	A
1	CO60	101.400	2.900	98.200	3.600	1.033	A	A
2	CO60	102.100	2.800	98.200	3.600	1.040	A	A
1	CS137	76.700	3.200	73.000	3.700	1.051	A	A
3	CS137	79.900	4.500	73.000	3.700	1.095	A	A
2	CS137	77.200	3.000	73.000	3.700	1.058	A	A
2	GROSS ALPHA	1954.000	370.000	1900.000	190.000	1.028	A	A
3	GROSS ALPHA	1820.000	351.000	1900.000	190.000	0.958	A	A
1	GROSS ALPHA	1806.000	348.000	1900.000	190.000	0.951	A	A
1	GROSS BETA	1746.000	163.000	1297.000	100.000	1.346	W	A
3	GROSS BETA	1805.000	170.000	1297.000	100.000	1.392	W	A
2	GROSS BETA	1824.000	170.000	1297.000	100.000	1.406	W	A
1	H3	100.000	8.100	79.300	2.000	1.261	A	A
2	H3	93.400	8.000	79.300	2.000	1.178	A	A
3	PU238	1.570	0.110	1.580	0.090	0.994	A	A
2	PU238	1.570	0.120	1.580	0.090	0.994	A	A
1	PU238	1.520	0.270	1.580	0.090	0.962	A	A
1	PU239	1.580	0.280	1.640	0.090	0.963	A	A
2	PU239	1.600	0.120	1.640	0.090	0.976	A	A
3	PU239	1.640	0.120	1.640	0.090	1.000	A	A
4	SR90	4.450	0.630	4.400	0.200	1.011	A	A
3	SR90	4.700	0.640	4.400	0.200	1.068	A	A
2	SR90	4.230	0.510	4.400	0.200	0.961	A	A
1	SR90	3.970	0.510	4.400	0.200	0.902	A	A
1	U234	1.160	0.280	1.040	0.050	1.115	A	A
2	U234	1.060	0.260	1.040	0.050	1.019	A	A
3	U234	1.120	0.270	1.040	0.050	1.077	A	A
3	U238	1.110	0.270	1.040	0.040	1.067	A	A
2	U238	1.090	0.270	1.040	0.040	1.048	A	A
1	U238	1.020	0.250	1.040	0.040	0.981	A	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
2	AM241	0.464	0.091	0.486	0.016	0.955	A	
1	AM241	0.460	0.102	0.486	0.016	0.947	A	
1	Bq U	0.105	0.016	0.093	0.004	1.130	A	
3	CO60	18.900	2.550	19.440	0.500	0.972	A	A
1	CO60	19.000	2.550	19.440	0.500	0.977	A	A
2	CO60	19.500	2.620	19.440	0.500	1.003	A	A
3	CS134	2.780	0.435	2.830	0.160	0.982	A	
2	CS134	2.780	0.423	2.830	0.160	0.982	A	
1	CS134	2.590	0.400	2.830	0.160	0.915	A	
3	CS137	8.410	1.170	8.760	0.340	0.960	A	A
1	CS137	8.400	1.170	8.760	0.340	0.959	A	A
2	CS137	8.320	1.160	8.760	0.340	0.950	A	A
1	GROSS ALPHA	3.240	0.330	3.970	0.300	0.816	W	A
3	GROSS ALPHA	3.280	0.333	3.970	0.300	0.826	W	A
2	GROSS ALPHA	3.260	0.332	3.970	0.300	0.821	W	A
2	GROSS BETA	2.540	0.258	2.580	0.150	0.984	A	A
3	GROSS BETA	2.470	0.251	2.580	0.150	0.957	A	A
1	GROSS BETA	2.560	0.259	2.580	0.150	0.992	A	A
1	MN54	6.490	0.930	6.520	0.280	0.995	A	A
3	MN54	6.730	0.977	6.520	0.280	1.032	A	A
2	MN54	6.560	0.937	6.520	0.280	1.006	A	A
1	PU238	0.222	0.047	0.215	0.009	1.033	A	A
2	PU238	0.178	0.037	0.215	0.009	0.828	W	A
1	PU239	0.140	0.030	0.136	0.012	1.029	A	A
2	PU239	0.118	0.025	0.136	0.012	0.868	W	A
1	SR90	5.450	0.307	7.100	0.220	0.768	W	A
2	SR90	5.370	0.289	7.100	0.220	0.756	W	A

**Matrix:** SO Soil Bq / kg

3	AC228	39.600	6.890	42.700	1.700	0.927	A	
2	AC228	35.200	6.260	42.700	1.700	0.824	W	
1	AC228	38.200	6.720	42.700	1.700	0.895	A	
3	AM241	17.340	2.554	14.800	0.510	1.172	A	
1	AM241	16.600	2.475	14.800	0.510	1.122	A	
2	AM241	17.210	2.619	14.800	0.510	1.163	A	
3	BI212	50.900	12.600	42.000	4.100	1.212	W	
2	BI212	46.700	11.300	42.000	4.100	1.112	W	
1	BI212	45.200	10.600	42.000	4.100	1.076	A	
1	BI214	26.400	4.630	32.600	1.400	0.810	W	
2	BI214	26.600	4.660	32.600	1.400	0.816	W	
3	BI214	28.000	4.850	32.600	1.400	0.859	W	
1	Bq U	82.950	8.178	91.800	2.300	0.904	A	
2	Bq U	85.600	8.390	91.800	2.300	0.932	A	
3	Bq U	81.680	8.173	91.800	2.300	0.890	A	
3	CS137	1650.000	208.000	1740.000	90.000	0.948	A	
1	CS137	1630.000	205.000	1740.000	90.000	0.937	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 54 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 52 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
2	CS137	1620.000	204.000	1740.000	90.000	0.931	A	
3	K40	531.000	71.600	468.000	25.000	1.135	A	
2	K40	534.000	72.000	468.000	25.000	1.141	A	
1	K40	530.000	71.400	468.000	25.000	1.132	A	
3	PB212	52.300	7.740	41.500	2.200	1.260	W	
2	PB212	51.100	7.570	41.500	2.200	1.231	W	
1	PB212	50.600	7.510	41.500	2.200	1.219	A	
1	PB214	34.400	5.800	34.300	1.600	1.003	A	
2	PB214	33.100	5.680	34.300	1.600	0.965	A	
3	PB214	36.500	6.030	34.300	1.600	1.064	A	
3	PU239	29.070	4.582	25.600	0.670	1.136	A	A
1	PU239	29.280	4.375	25.600	0.670	1.144	A	A
2	PU239	31.820	4.937	25.600	0.670	1.243	W	A
3	SR90	60.970	7.540	69.000	5.700	0.884	A	A
2	SR90	66.490	7.620	69.000	5.700	0.964	A	A
1	SR90	57.460	6.930	69.000	5.700	0.833	A	A

**Matrix:** VE Vegetation Bq/kg

2	AM241	6.400	1.100	6.170	0.320	1.037	A	
3	AM241	5.970	1.130	6.170	0.320	0.968	A	
1	AM241	6.480	1.190	6.170	0.320	1.050	A	
3	CM244	3.470	0.739	3.690	0.290	0.940	A	
2	CM244	4.070	0.764	3.690	0.290	1.103	A	
1	CM244	3.920	0.803	3.690	0.290	1.062	A	
3	CO60	30.100	3.990	30.400	1.200	0.990	A	
1	CO60	29.500	3.910	30.400	1.200	0.970	A	
2	CO60	30.300	4.010	30.400	1.200	0.997	A	
3	CS137	759.000	95.500	842.000	42.000	0.901	A	
2	CS137	764.000	96.200	842.000	42.000	0.907	A	
1	CS137	760.000	95.700	842.000	42.000	0.903	A	
3	K40	658.000	87.800	603.000	32.000	1.091	A	
2	K40	656.000	87.600	603.000	32.000	1.088	A	
1	K40	669.000	89.100	603.000	32.000	1.109	A	
1	PU239	10.400	1.590	9.580	1.300	1.086	A	
2	PU239	8.390	1.290	9.580	1.300	0.876	A	
3	PU239	9.020	1.430	9.580	1.300	0.942	A	
3	SR90	872.000	66.300	1330.000	70.000	0.656	W	
2	SR90	851.000	67.500	1330.000	70.000	0.640	W	
1	SR90	909.000	77.300	1330.000	70.000	0.683	W	

**Matrix:** WA Water Bq/L

2	AM241	1.550	0.256	1.670	0.080	0.928	A	
1	AM241	1.850	0.312	1.670	0.080	1.108	A	
3	AM241	1.580	0.263	1.670	0.080	0.946	A	
1	Bq U	1.970	0.224	2.120	0.090	0.929	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 54 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 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
2	Bq U	1.830	0.209	2.120	0.090	0.863	W	
3	Bq U	2.040	0.236	2.120	0.090	0.962	A	
1	CO60	102.000	13.600	98.200	3.600	1.039	A	A
2	CO60	103.000	13.700	98.200	3.600	1.049	A	A
3	CO60	103.000	13.600	98.200	3.600	1.049	A	A
1	CS137	74.400	10.100	73.000	3.700	1.019	A	A
2	CS137	75.300	10.200	73.000	3.700	1.032	A	A
3	CS137	75.400	10.200	73.000	3.700	1.033	A	A
3	PU238	1.510	0.303	1.580	0.090	0.956	A	W
1	PU238	1.410	0.281	1.580	0.090	0.892	W	W
2	PU238	1.600	0.309	1.580	0.090	1.013	A	W
3	PU239	1.640	0.328	1.640	0.090	1.000	A	W
2	PU239	1.700	0.328	1.640	0.090	1.037	A	W
1	PU239	1.450	0.289	1.640	0.090	0.884	W	W
2	SR90	4.030	0.284	4.400	0.200	0.916	A	W
1	SR90	4.180	0.295	4.400	0.200	0.950	A	W

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

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**QAP 54 Results by Laboratory****Lab:** WN State Health Radiation Protection Section, Madison, WI

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
3	AM241	0.370	0.170	0.486	0.016	0.761	W	
1	AM241	0.490	0.190	0.486	0.016	1.008	A	
2	AM241	0.400	0.150	0.486	0.016	0.823	W	
1	CO60	19.600	0.400	19.440	0.500	1.008	A	A
3	CO60	19.700	0.400	19.440	0.500	1.013	A	A
2	CO60	19.400	0.400	19.440	0.500	0.998	A	A
2	CS134	2.380	0.060	2.830	0.160	0.841	A	
3	CS134	2.370	0.070	2.830	0.160	0.837	A	
1	CS134	2.410	0.060	2.830	0.160	0.852	A	
2	CS137	9.000	0.300	8.760	0.340	1.027	A	A
3	CS137	9.000	0.300	8.760	0.340	1.027	A	A
1	CS137	9.200	0.300	8.760	0.340	1.050	A	A
1	MN54	6.900	0.200	6.520	0.280	1.058	A	A
2	MN54	6.900	0.200	6.520	0.280	1.058	A	A
3	MN54	6.800	0.200	6.520	0.280	1.043	A	A
3	RU106	47.000	2.700	49.540	3.530	0.949	A	
2	RU106	47.400	2.300	49.540	3.530	0.957	A	
1	RU106	47.800	2.300	49.540	3.530	0.965	A	

**Matrix:** SO Soil Bq / kg

1	AC228	41.500	2.300	42.700	1.700	0.972	A	A
2	AC228	43.300	2.100	42.700	1.700	1.014	A	A
3	AC228	41.100	2.200	42.700	1.700	0.963	A	A
3	AM241	11.000	3.000	14.800	0.510	0.743	W	
1	AM241	11.600	1.400	14.800	0.510	0.784	W	
2	AM241	14.500	1.500	14.800	0.510	0.980	A	
3	BI212	25.000	6.000	42.000	4.100	0.595	A	N
1	BI212	31.300	4.700	42.000	4.100	0.745	A	N
2	BI212	33.500	4.900	42.000	4.100	0.798	A	N
3	BI214	30.300	1.800	32.600	1.400	0.929	A	N
1	BI214	31.700	2.100	32.600	1.400	0.972	A	N
2	BI214	30.800	2.100	32.600	1.400	0.945	A	N
3	CS137	1911.000	63.000	1740.000	90.000	1.098	A	W
2	CS137	1925.000	63.000	1740.000	90.000	1.106	A	W
1	CS137	1941.000	64.000	1740.000	90.000	1.116	A	W
1	K40	500.000	25.000	468.000	25.000	1.068	A	W
3	K40	522.000	26.000	468.000	25.000	1.115	A	W
2	K40	492.000	25.000	468.000	25.000	1.051	A	W
3	PB212	43.000	1.800	41.500	2.200	1.036	A	W
2	PB212	37.000	2.000	41.500	2.200	0.892	W	W
1	PB212	38.200	2.000	41.500	2.200	0.920	A	W
3	PB214	37.400	2.100	34.300	1.600	1.090	A	W
2	PB214	34.100	2.500	34.300	1.600	0.994	A	W
1	PB214	34.600	2.600	34.300	1.600	1.009	A	W

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**QAP 54 Results by Laboratory****Lab:** WN State Health Radiation Protection Section, Madison, WI

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> VE Vegetation Bq/kg								
3	AM241	6.700	1.000	6.170	0.320	1.086	A	W
2	AM241	6.200	2.200	6.170	0.320	1.005	A	W
1	AM241	7.500	1.000	6.170	0.320	1.216	A	W
2	CO60	41.900	1.300	30.400	1.200	1.378	W	A
3	CO60	41.500	1.300	30.400	1.200	1.365	W	A
1	CO60	40.400	1.800	30.400	1.200	1.329	W	A
2	CS137	1133.000	37.000	842.000	42.000	1.346	W	A
3	CS137	1119.000	37.000	842.000	42.000	1.329	W	A
1	CS137	1122.000	37.000	842.000	42.000	1.333	W	A
3	K40	793.000	35.000	603.000	32.000	1.315	W	A
2	K40	778.000	35.000	603.000	32.000	1.290	W	A
1	K40	770.000	35.000	603.000	32.000	1.277	W	A

**Matrix:** WA Water Bq/L

3	AM241	2.200	0.300	1.670	0.080	1.317	W	
2	AM241	2.000	0.600	1.670	0.080	1.198	A	
1	AM241	2.200	0.300	1.670	0.080	1.317	W	
1	CO60	106.300	2.500	98.200	3.600	1.082	A	A
3	CO60	106.700	2.300	98.200	3.600	1.087	A	A
2	CO60	104.100	2.200	98.200	3.600	1.060	A	A
3	CS137	80.000	2.700	73.000	3.700	1.096	A	A
2	CS137	79.300	2.700	73.000	3.700	1.086	A	A
1	CS137	82.600	3.000	73.000	3.700	1.132	A	A

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**QAP 54 Results by Laboratory****Lab:** WO Wisconsin State Lab of Hygiene

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
2	CO60	23.740	1.460	19.440	0.500	1.221	W	W
1	CO60	23.400	5.640	19.440	0.500	1.204	W	W
1	CS134	2.840	0.620	2.830	0.160	1.004	A	
2	CS134	2.920	0.300	2.830	0.160	1.032	A	
2	CS137	11.140	0.890	8.760	0.340	1.272	W	A
1	CS137	10.950	2.170	8.760	0.340	1.250	W	A
1	GROSS ALPHA	3.060	0.100	3.970	0.300	0.771	W	A
2	GROSS ALPHA	3.190	0.100	3.970	0.300	0.804	W	A
2	GROSS BETA	2.830	0.070	2.580	0.150	1.097	A	A
1	GROSS BETA	2.700	0.070	2.580	0.150	1.047	A	A
1	MN54	8.290	1.740	6.520	0.280	1.271	W	W
2	MN54	8.370	0.580	6.520	0.280	1.284	W	W
1	RU106	58.070	11.860	49.540	3.530	1.172	A	
2	RU106	54.880	5.410	49.540	3.530	1.108	A	

**Matrix:** SO Soil Bq / kg

1	AC228	39.700	6.100	42.700	1.700	0.930	A	A
2	AC228	40.740	9.310	42.700	1.700	0.954	A	A
1	BI212	43.500	12.300	42.000	4.100	1.036	A	A
2	BI212	48.950	15.550	42.000	4.100	1.165	W	A
2	BI214	32.520	7.600	32.600	1.400	0.998	A	N
1	BI214	35.900	7.000	32.600	1.400	1.101	A	N
2	Bq U	210.100	38.800	91.800	2.300	2.289	N	A
1	Bq U	208.700	40.200	91.800	2.300	2.273	N	A
1	CS137	1832.200	216.400	1740.000	90.000	1.053	A	A
2	CS137	1783.400	301.900	1740.000	90.000	1.025	A	A
1	K40	509.100	78.900	468.000	25.000	1.088	A	W
2	K40	473.600	110.500	468.000	25.000	1.012	A	W
2	PB212	40.480	4.540	41.500	2.200	0.975	A	A
1	PB212	43.000	5.600	41.500	2.200	1.036	A	A
1	PB214	38.800	4.700	34.300	1.600	1.131	A	N
2	PB214	38.300	7.500	34.300	1.600	1.117	A	N
2	TH234	97.800	40.400	46.600	3.500	2.099	W	N
1	TH234	50.400	28.900	46.600	3.500	1.082	A	N

**Matrix:** VE Vegetation Bq / kg

2	CO60	34.200	8.200	30.400	1.200	1.125	A	A
1	CO60	35.100	6.100	30.400	1.200	1.155	A	A
1	CS137	966.100	114.800	842.000	42.000	1.147	A	A
2	CS137	938.000	158.600	842.000	42.000	1.114	A	A
2	K40	697.500	167.200	603.000	32.000	1.157	A	A
1	K40	668.600	112.600	603.000	32.000	1.109	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 54 Results by Laboratory****Lab:** WO Wisconsin State Lab of Hygiene

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> WA Water Bq/L								
1	Bq U	1.730	0.130	2.120	0.090	0.816	W	W
2	Bq U	1.710	0.130	2.120	0.090	0.807	W	W
1	CO60	102.100	21.100	98.200	3.600	1.040	A	A
2	CO60	101.600	26.400	98.200	3.600	1.035	A	A
1	CS137	75.700	11.600	73.000	3.700	1.037	A	A
2	CS137	75.600	14.900	73.000	3.700	1.036	A	A
1	GROSS ALPHA	2056.000	364.000	1900.000	190.000	1.082	A	A
2	GROSS ALPHA	1994.000	159.000	1900.000	190.000	1.049	A	A
1	GROSS BETA	1230.000	142.000	1297.000	100.000	0.948	A	A
2	GROSS BETA	1281.000	103.000	1297.000	100.000	0.988	A	A
2	H3	79.500	8.700	79.300	2.000	1.003	A	A
1	H3	78.400	8.700	79.300	2.000	0.989	A	A
2	SR90	4.550	0.590	4.400	0.200	1.034	A	A
1	SR90	4.490	0.680	4.400	0.200	1.020	A	A

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

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

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**QAP 54 Results by Laboratory****Lab:** WT Waste Stream Technology, Buffalo, NY

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CS134	2.636	0.433	2.830	0.160	0.931	A	
1	CS137	8.719	1.123	8.760	0.340	0.995	A	A
1	GROSS ALPHA	3.700	0.300	3.970	0.300	0.932	A	A
1	GROSS BETA	2.710	0.200	2.580	0.150	1.050	A	W
1	MN54	5.457	0.836	6.520	0.280	0.837	W	A
<b>Matrix:</b> SO Soil Bq/kg								
1	AC228	51.525	10.760	42.700	1.700	1.207	A	
1	BI212	37.785	16.230	42.000	4.100	0.900	A	A
1	BI214	41.928	9.628	32.600	1.400	1.286	W	W
1	CS137	2060.800	230.600	1740.000	90.000	1.184	W	A
1	K40	581.000	90.800	468.000	25.000	1.241	W	A
1	PB212	48.175	8.507	41.500	2.200	1.161	A	A
1	PB214	45.609	14.250	34.300	1.600	1.330	W	A
1	U234	37.200	7.400	43.600	1.800	0.853	W	A
1	U238	38.670	7.900	46.100	1.300	0.839	A	A
<b>Matrix:</b> VE Vegetation Bq/kg								
1	CO60	44.241	8.716	30.400	1.200	1.455	W	A
1	CS137	873.980	100.800	842.000	42.000	1.038	A	A
1	K40	674.010	115.920	603.000	32.000	1.118	A	A
<b>Matrix:</b> WA Water Bq/L								
1	CO60	114.570	13.290	98.200	3.600	1.167	W	N
1	CS137	90.312	10.930	73.000	3.700	1.237	W	A
1	GROSS ALPHA	2220.000	229.000	1900.000	190.000	1.168	W	A
1	GROSS BETA	1320.000	145.000	1297.000	100.000	1.018	A	A

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**Evaluation:** A=Acceptable, 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 54 Results by Laboratory****Lab:** WV West Valley Nuclear Services, NY

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	19.120	0.333	19.440	0.500	0.984	A	A
1	CS134	2.610	0.119	2.830	0.160	0.922	A	A
1	CS137	8.710	0.199	8.760	0.340	0.994	A	A
1	GROSS ALPHA	3.170	0.077	3.970	0.300	0.798	W	A
1	GROSS BETA	3.090	0.066	2.580	0.150	1.198	A	A
1	MN54	7.360	0.236	6.520	0.280	1.129	A	A

**Matrix:** WA Water Bq / L

1	CO60	101.700	1.530	98.200	3.600	1.036	A	A
1	CS137	74.000	1.110	73.000	3.700	1.014	A	A
1	GROSS ALPHA	1947.000	100.300	1900.000	190.000	1.025	A	W
1	GROSS BETA	1682.000	68.000	1297.000	100.000	1.297	A	A
1	H3	86.300	4.650	79.300	2.000	1.088	A	A
1	SR90	4.480	0.243	4.400	0.200	1.018	A	A

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

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** WWest Valley Radiation Protection, NY

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
2	CO60	18.300	0.900	19.440	0.500	0.941	A	A
3	CO60	18.600	0.900	19.440	0.500	0.957	A	A
1	CO60	18.400	0.900	19.440	0.500	0.947	A	A
3	CS134	1.900	0.100	2.830	0.160	0.671	N	
1	CS134	1.900	0.100	2.830	0.160	0.671	N	
2	CS134	1.900	0.100	2.830	0.160	0.671	N	
3	CS137	8.800	0.700	8.760	0.340	1.005	A	A
1	CS137	8.800	0.700	8.760	0.340	1.005	A	A
2	CS137	8.700	0.700	8.760	0.340	0.993	A	A
1	GROSS ALPHA	3.636	0.059	3.970	0.300	0.916	A	A
1	GROSS BETA	2.865	0.044	2.580	0.150	1.110	A	A
1	MN54	6.900	0.600	6.520	0.280	1.058	A	A
2	MN54	6.800	0.600	6.520	0.280	1.043	A	A
3	MN54	6.700	0.600	6.520	0.280	1.028	A	A

**Matrix:** SO Soil Bq / kg

1	AC228	37.800	2.000	42.700	1.700	0.885	W	A
2	AC228	40.100	2.200	42.700	1.700	0.939	A	A
3	AC228	37.400	2.000	42.700	1.700	0.876	W	A
1	AM241	9.100	2.500	14.800	0.510	0.615	N	W
3	AM241	8.400	2.500	14.800	0.510	0.568	N	W
2	AM241	9.600	2.500	14.800	0.510	0.649	W	W
1	BI212	22.500	3.500	42.000	4.100	0.536	W	A
2	BI212	26.700	3.700	42.000	4.100	0.636	A	A
3	BI212	26.300	4.100	42.000	4.100	0.626	A	A
1	BI214	32.600	2.200	32.600	1.400	1.000	A	A
2	BI214	32.200	2.200	32.600	1.400	0.988	A	A
3	BI214	34.100	2.000	32.600	1.400	1.046	A	A
1	CS137	1584.000	117.700	1740.000	90.000	0.910	A	A
2	CS137	1609.100	119.400	1740.000	90.000	0.925	A	A
3	CS137	1585.500	117.800	1740.000	90.000	0.911	A	A
2	K40	539.500	40.100	468.000	25.000	1.153	A	W
3	K40	522.100	38.900	468.000	25.000	1.116	A	W
1	K40	520.200	38.800	468.000	25.000	1.112	A	W
2	PB212	36.800	2.600	41.500	2.200	0.887	W	A
1	PB212	35.600	2.600	41.500	2.200	0.858	W	A
3	PB212	36.600	2.700	41.500	2.200	0.882	W	A
1	PB214	37.600	2.300	34.300	1.600	1.096	A	A
2	PB214	40.000	2.100	34.300	1.600	1.166	A	A
3	PB214	40.400	2.300	34.300	1.600	1.178	A	A
1	TH234	89.300	9.700	46.600	3.500	1.916	W	W
3	TH234	84.400	9.600	46.600	3.500	1.811	W	W
2	TH234	87.900	9.300	46.600	3.500	1.886	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 54 Results by Laboratory****Lab:** WY Wayne Interim Storage Site, NJ

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	<u>Reported</u> EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> SO Soil Bq/kg								
1	AC228	37.400	9.600	42.700	1.700	0.876	W	
1	BI214	28.900	5.520	32.600	1.400	0.887	A	
1	CS137	1831.000	97.700	1740.000	90.000	1.052	A	
1	K40	428.800	45.100	468.000	25.000	0.916	A	
1	PB214	28.900	6.290	34.300	1.600	0.843	W	

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.      pCi/g or mL=Bq x 0.027**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** YA Duke Engineering & Sciences Environmental Lab, Westboro, MA

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	CO60	19.027	0.085	19.440	0.500	0.979	A	A
1	CS137	8.769	0.048	8.760	0.340	1.001	A	A
1	GROSS ALPHA	3.265	0.017	3.970	0.300	0.822	W	A
1	GROSS BETA	2.520	0.018	2.580	0.150	0.977	A	W
1	MN54	6.399	0.047	6.520	0.280	0.981	A	A
1	SR90	7.078	0.079	7.100	0.220	0.997	A	A
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	35.458	0.784	42.700	1.700	0.830	W	A
1	AM241	14.664	0.450	14.800	0.510	0.991	A	A
1	CS137	1543.500	1.700	1740.000	90.000	0.887	W	A
1	K40	432.530	3.849	468.000	25.000	0.924	A	A
1	PU238	0.930	0.057	0.910	0.100	1.022	A	A
1	PU239	26.455	0.335	25.600	0.670	1.033	A	A
1	SR90	64.380	1.022	69.000	5.700	0.933	A	A
1	U234	33.756	0.486	43.600	1.800	0.774	W	A
1	U238	36.285	0.512	46.100	1.300	0.787	W	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	CO60	30.192	0.435	30.400	1.200	0.993	A	A
1	CS137	832.130	1.620	842.000	42.000	0.988	A	A
1	K40	598.410	5.910	603.000	32.000	0.992	A	A
1	SR90	1155.390	8.690	1330.000	70.000	0.869	A	W
<b>Matrix:</b> WA Water Bq / L								
1	AM241	1.663	0.021	1.670	0.080	0.996	A	A
1	CO60	100.490	0.891	98.200	3.600	1.023	A	A
1	CS137	73.370	0.634	73.000	3.700	1.005	A	A
1	GROSS ALPHA	1679.310	8.478	1900.000	190.000	0.884	A	N
1	GROSS BETA	1140.220	7.406	1297.000	100.000	0.879	A	A
1	H3	90.280	2.990	79.300	2.000	1.138	A	A
1	PU238	1.538	0.026	1.580	0.090	0.973	A	A
1	PU239	1.598	0.027	1.640	0.090	0.974	A	A
1	SR90	4.055	0.066	4.400	0.200	0.922	A	A
1	U234	0.976	0.019	1.040	0.050	0.938	A	
1	U238	0.981	0.019	1.040	0.040	0.943	A	

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 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 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	UGU	3.190	0.027	3.700	0.160	0.862	W	A
<b>Matrix:</b> SO Soil Bq / kg								
1	UGU	2.980	0.353	3.730	0.020	0.799	A	A
<b>Matrix:</b> WA Water Bq / L								
1	UGU	0.079	0.001	0.080	0.003	0.982	A	A

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**Values for elemental uranium are reported in  $\mu\text{g}/\text{filter}$ , g, or mL.       $\text{pCi/g}$  or  $\text{mL}=\text{Bq} \times 0.027$**

**Evaluation:** A=Acceptable, 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.

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**QAP 54 Results by Laboratory****Lab:** YU Institute of Occupational and Radiological Health, Serbia

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation	QAP 52 Evaluation
<b>Matrix:</b> AI Air Filter Bq / filter								
1	AM241	0.310	0.010	0.486	0.016	0.638	N	
1	CO60	18.300	0.200	19.440	0.500	0.941	A	A
1	CS137	7.830	0.080	8.760	0.340	0.894	A	A
1	MN54	6.200	0.100	6.520	0.280	0.951	A	A
1	RU106	30.000	1.500	49.540	3.530	0.606	N	
<b>Matrix:</b> SO Soil Bq / kg								
1	AC228	51.700	2.200	42.700	1.700	1.211	A	A
1	AM241	11.000	3.000	14.800	0.510	0.743	W	A
1	BI212	54.500	2.800	42.000	4.100	1.298	N	W
1	BI214	35.500	3.500	32.600	1.400	1.089	A	A
1	CS137	2088.000	40.000	1740.000	90.000	1.200	W	A
1	K40	590.000	12.000	468.000	25.000	1.261	W	A
1	PB214	36.800	1.500	34.300	1.600	1.073	A	A
<b>Matrix:</b> VE Vegetation Bq / kg								
1	AM241	10.400	0.900	6.170	0.320	1.686	W	A
1	CO60	34.300	0.700	30.400	1.200	1.128	A	A
1	CS137	902.000	13.000	842.000	42.000	1.071	A	A
1	K40	635.000	13.000	603.000	32.000	1.053	A	A

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**Values for elemental uranium are reported in µg/filter, g, or mL. pCi/g or mL=Bq x 0.027**
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

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

**EML Value:** 0.4860  
**EML Error:** 0.0160

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	0.4699	0.0279	0.97	A	A
AG	1	0.4770	0.0637	0.98	A	A
AI	1	0.4210	0.0090	0.87	A	W
AM	1	0.4850	0.0710	1.00	N	A
AN	1	0.4900	0.0300	1.01	A	A
AR	1	0.4520	0.0640	0.93	A	A
AS	1	0.5270	0.1520	1.08		A
AT	1	0.5000	0.0790	1.03		A
AU	1	0.4570	0.0350	0.94	A	A
BE	1	0.4900	0.0200	1.01	A	A
BM	1	0.4700	0.0620	0.97	A	A
BN	1	2.3400	0.3400	4.82		N
BU	1	0.4200	0.0250	0.86	A	W
BX	1	0.4780	0.0730	0.98	W	A
CB	1	0.5110	0.0690	1.05	N	A
CH	1	0.4900	0.0260	1.01	A	A
CL	1	0.5000	0.1000	1.03	N	A
CN	1	0.6700	0.2500	1.38		A
CS	1	0.3900	0.0900	0.80		W
CW	1	0.4900	0.0100	1.01	A	A
EC	3	0.6350	0.1590	1.31	A	A
EC	5	0.4280	0.1310	0.88	A	A
EC	4	0.4520	0.1150	0.93	A	A
EC	2	0.6840	0.1520	1.41	A	W
EC	1	0.5950	0.1250	1.22	A	A
EG	2	0.5000	0.1000	1.03	A	A
EG	1	0.4130	0.0310	0.85	A	W
FL	1	0.5600	0.0100	1.15	A	A
FM	1	0.4500	0.0500	0.93	N	A
GA	1	0.4900	0.0340	1.01	A	A
GE	1	0.5190	0.0630	1.07	A	A
GT	1	0.4500	0.0700	0.93	A	A
HU	1	0.1700	0.0300	0.35		N
ID	1	0.4570	0.0240	0.94		A
IS	1	0.4500	0.0870	0.93	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

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

**EML Value:** 0.4860  
**EML Error:** 0.0160

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
IS	2	0.4700	0.1240	0.97	A	A
IT	1	0.4000	0.0300	0.82	A	W
KE	1	0.2600	0.0500	0.54		N
KO	1	0.4320	0.0310	0.89		A
KR	1	0.6000	0.1000	1.24	W	A
LB	1	0.4600	0.0700	0.95		A
LL	1	0.4850	0.0349	1.00		A
LM	1	0.4380	0.0800	0.90		A
LN	2	0.4000	0.0500	0.82		W
LN	1	0.5000	0.0500	1.03		A
LV	1	0.6380	0.0500	1.31	W	A
ME	2	0.5000	0.1500	1.03		A
ME	3	0.6600	0.2700	1.36		A
ME	1	0.4600	0.0400	0.95		A
MH	1	0.3750	0.0880	0.77		W
ML	1	0.5000	0.0500	1.03	A	A
MZ	1	1.9300	0.2800	3.97		N
MZ	2	2.0500	0.2900	4.22		N
NJ	1	0.5100	0.1400	1.05		A
NJ	2	0.5300	0.1600	1.09		A
NJ	3	0.5400	0.1500	1.11		A
NJ	4	0.6700	0.2100	1.38		A
NQ	1	0.3715	0.0219	0.76	A	W
OB	1	0.4220	0.1110	0.87		W
OK	1	0.4300	0.0600	0.88	A	A
OT	1	0.4400	0.1000	0.90	W	A
RI	1	0.3860	0.0397	0.79	W	W
SB	1	0.5400	0.1030	1.11		A
SI	1	0.5400	0.0200	1.11	A	A
SN	1	0.4940	0.0540	1.02	A	A
SR	1	0.4510	0.0490	0.93	A	A
TE	1	0.4700	0.0400	0.97	W	A
TI	1	0.9300	0.1300	1.91		W
TM	1	0.4130	0.1350	0.85	W	W
TN	1	0.3823	0.0229	0.79	A	W

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

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

**EML Value:** 0.4860  
**EML Error:** 0.0160

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
TO	1	0.4660	0.0940	0.96	W	A
UY	1	0.4170	0.0480	0.86	A	W
WA	1	0.4280	0.0410	0.88	A	A
WC	1	0.4880	0.0900	1.00	A	A
WE	1	0.4920	0.1010	1.01	A	A
WE	3	0.4780	0.0970	0.98	A	A
WE	2	0.4840	0.0960	1.00	A	A
WI	2	0.4640	0.0912	0.95		A
WI	1	0.4600	0.1020	0.95		A
WN	2	0.4000	0.1500	0.82		W
WN	1	0.4900	0.1900	1.01		A
WN	3	0.3700	0.1700	0.76		W
YU	1	0.3100	0.0100	0.64		N

**Total Number Reported:** 83

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

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

**EML Value:** 0.0930  
**EML Error:** 0.0040

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	0.1398	0.0112	1.50	N	A
AI	1	0.0790	0.0030	0.85	N	W
AM	1	0.1160	0.0300	1.25	W	A
AT	1	0.0950	0.0090	1.02		A
BU	1	0.1200	0.0600	1.29	A	A
CH	1	0.0950	0.0070	1.02	A	A
ID	1	0.0012	0.0001	0.01		N
KO	1	0.0966	0.0050	1.04		A
LV	1	0.0480	0.0120	0.52		N
MJ	1	1.6600	0.5000	17.85		N
OT	1	0.0900	0.0100	0.97	W	A
SN	1	0.0850	0.0120	0.91	A	A
UY	1	0.0921	0.0130	0.99	A	A
WA	1	0.0720	0.0210	0.77	A	N
WI	1	0.1051	0.0157	1.13		A

**Total Number Reported:** 15

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CO60

**EML Value:** 19.4400  
**EML Error:** 0.5000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AC	1	19.3000	0.4000	0.99	A	A
AF	1	18.8638	1.2667	0.97	A	A
AG	1	19.1000	2.8000	0.98	A	A
AI	1	21.5000	0.2200	1.11	A	A
AM	1	19.3300	0.2900	0.99	A	A
AN	1	19.0000	1.0000	0.98	A	A
AR	1	19.4160	6.7750	1.00	A	A
AS	1	18.5260	0.2360	0.95	A	A
AT	1	18.9480	1.2100	0.98	A	A
AU	1	19.7500	0.7200	1.02	A	A
AW	1	20.1000	1.2000	1.03	A	A
BA	1	18.1700	0.4700	0.94	A	A
BC	1	18.9000	1.1000	0.97	A	A
BE	1	21.0000	2.0000	1.08	W	A
BM	1	19.4000	1.9000	1.00	A	A
BN	1	18.6900	0.3700	0.96	W	A
BQ	1	18.8000	0.4000	0.97	A	A
BU	1	19.0000	0.4000	0.98	A	A
BX	1	19.7000	1.1000	1.01	A	A
CA	1	19.7000	1.9000	1.01	A	A
CB	1	20.2000	0.5000	1.04	A	A
CD	1	20.0000	1.0000	1.03	A	A
CE	1	18.8000	0.8400	0.97	A	A
CH	1	19.8000	0.1400	1.02	W	A
CL	1	18.1000	0.2000	0.93	A	A
CN	1	18.5800	0.9400	0.96		A
CS	1	19.2600	1.6100	0.99	A	A
CU	2	21.2000	0.2000	1.09	A	A
CU	1	20.7000	0.2000	1.07	A	A
CW	1	19.1000	0.3000	0.98	A	A
DH	1	19.0800	1.4900	0.98	A	A
EC	2	21.4000	0.7070	1.10	A	A
EC	1	21.5000	0.6580	1.11	A	A
EC	4	22.0000	0.6770	1.13	A	W

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CO60

**EML Value:** 19.4400  
**EML Error:** 0.5000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
EC	5	22.0000	0.7730	1.13	A	W
EC	3	21.7000	0.7940	1.12	A	A
EG	1	20.0000	1.0000	1.03	W	A
EP	1	19.3000	1.1900	0.99	A	A
FG	1	17.9000	1.2000	0.92	A	A
FJ	1	47.2800	2.4000	2.43	A	N
FL	1	20.4900	0.3200	1.05	A	A
FM	1	20.5000	0.2000	1.05	A	A
FN	1	20.0000	1.1000	1.03		A
GA	1	18.4000	1.1000	0.95	A	A
GC	1	18.9100	1.0000	0.97	A	A
GC	2	18.7700	1.0000	0.97	A	A
GC	3	20.5500	0.9000	1.06	A	A
GE	1	19.3000	0.9310	0.99	A	A
GT	1	19.0000	2.0000	0.98	A	A
HU	1	17.5000	0.7000	0.90	A	A
ID	1	18.4730	0.9240	0.95	A	A
IL	1	20.8000	0.2000	1.07	A	A
IN	1	20.1000	1.5000	1.03	A	A
IS	1	19.8000	2.2000	1.02	A	A
IT	1	18.5000	1.1000	0.95	A	A
JL	2	20.0000	0.6600	1.03		A
JL	1	20.4400	0.6800	1.05		A
JL	3	20.5000	0.6700	1.05		A
KE	1	18.2100	1.0100	0.94		A
KO	1	21.0000	0.6000	1.08		A
KR	2	20.2000	0.9000	1.04	A	A
KR	1	22.0000	1.0000	1.13	A	W
KR	5	20.4000	0.9000	1.05	A	A
KR	4	20.4000	0.9000	1.05	A	A
KR	3	19.5000	0.9000	1.00	A	A
LB	1	18.0000	1.0000	0.93	A	A
LL	1	25.5000	2.4800	1.31	W	N
LM	1	18.4830	0.3400	0.95	A	A
LN	1	19.6000	0.5000	1.01	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CO60

**EML Value:** 19.4400  
**EML Error:** 0.5000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
LN	2	20.3000	0.5000	1.04	A	A
LV	1	18.2000	0.3000	0.94	A	A
ME	1	20.2000	0.4000	1.04	A	A
ME	2	20.4000	0.4000	1.05	A	A
ME	3	21.3000	0.4000	1.10	A	A
MH	1	20.3900	0.7900	1.05	A	A
MI	1	18.8000	0.6000	0.97	A	A
MJ	1	103.0000	4.0000	5.30		N
ML	1	19.0000	1.9000	0.98	A	A
MS	1	18.1000	1.8000	0.93	A	A
MZ	3	28.3400	1.1000	1.46		N
MZ	1	28.4500	1.1100	1.46		N
MZ	2	28.8500	1.1100	1.48		N
NJ	1	18.0000	1.0000	0.93		A
NJ	2	18.0000	1.0000	0.93		A
NJ	4	18.0000	1.0000	0.93		A
NJ	5	18.0000	1.0000	0.93		A
NJ	3	18.0000	1.0000	0.93		A
NL	1	18.5000	0.7000	0.95	A	A
NP	1	18.3000	0.2000	0.94	A	A
NQ	1	18.1300	3.6900	0.93	A	A
NR	1	17.7000	3.5000	0.91	A	A
NZ	1	18.1000	0.9000	0.93	A	A
OB	1	15.0000	2.0300	0.77		N
OC	1	18.4000	1.8000	0.95	A	A
OD	1	19.0900	0.2700	0.98	A	A
OH	1	19.6000	0.3200	1.01	A	A
OS	2	17.9100	0.4400	0.92	A	A
OS	1	17.8700	0.4800	0.92	A	A
OT	1	20.0000	0.3000	1.03	A	A
OU	1	18.9000	1.2400	0.97	W	A
PK	1	19.1600	2.0400	0.99	A	A
PR	1	19.2800	0.8480	0.99		A
RA	2	19.7000	1.1000	1.01	A	A
RA	1	19.4000	1.2000	1.00	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CO60

**EML Value:** 19.4400  
**EML Error:** 0.5000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
RC	1	19.2000	0.8000	0.99	A	A
RI	1	36.1000	1.4000	1.86	A	N
RM	1	18.0000	3.0000	0.93	A	A
RU	1	21.8000	1.5300	1.12		A
SA	1	18.9200	0.6700	0.97	A	A
SB	1	20.8330	2.1620	1.07	W	A
SE	1	17.1000	0.2000	0.88	A	A
SI	1	19.6000	0.4000	1.01	A	A
SR	1	21.3000	1.4000	1.10	A	A
SX	1	17.8100	0.9300	0.92		A
TE	1	20.1100	0.1600	1.03	A	A
TI	1	19.4000	0.7700	1.00	A	A
TM	1	22.2400	1.3100	1.14	W	W
TN	1	17.8800	0.5600	0.92	A	A
TO	1	18.6940	1.8020	0.96	A	A
TP	1	18.5700	0.2100	0.95	A	A
TQ	1	18.4000	1.3000	0.95	A	A
TW	1	20.0000	0.4000	1.03	A	A
TX	1	19.7700	0.1500	1.02	A	A
UC	1	19.7400	3.2900	1.01	A	A
UY	1	18.3000	1.7000	0.94	A	A
WA	1	21.3000	0.3000	1.10	A	A
WC	1	21.5000	1.6700	1.11	A	A
WE	2	18.4000	0.3400	0.95	A	A
WE	1	18.0000	0.3400	0.93	A	A
WI	1	19.0000	2.5500	0.98	A	A
WI	2	19.5000	2.6200	1.00	A	A
WI	3	18.9000	2.5500	0.97	A	A
WN	3	19.7000	0.4000	1.01	A	A
WN	2	19.4000	0.4000	1.00	A	A
WN	1	19.6000	0.4000	1.01	A	A
WO	1	23.4000	5.6400	1.20	W	W
WO	2	23.7400	1.4600	1.22	W	W
WV	1	19.1200	0.3330	0.98	A	A
WW	1	18.4000	0.9000	0.95	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CO60

**EML Value:** 19.4400  
**EML Error:** 0.5000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
WW	3	18.6000	0.9000	0.96	A	A
WW	2	18.3000	0.9000	0.94	A	A
YA	1	19.0270	0.0851	0.98	A	A
YU	1	18.3000	0.2000	0.94	A	A

**Total Number Reported:** 143

**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**  
**Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CS134

**EML Value:** 2.8300  
**EML Error:** 0.1600

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AC	1	2.5000	0.1000	0.88		A
AF	1	3.0003	0.2738	1.06		A
AG	1	2.8800	0.4600	1.02		A
AI	1	2.7000	0.0900	0.95		A
AM	1	2.2400	0.0700	0.79		W
AN	1	2.8000	0.5000	0.99		A
AS	1	2.2020	0.0840	0.78		W
AT	1	2.7120	0.2450	0.96		A
AU	1	2.8200	0.3700	1.00		A
AW	1	3.0000	0.3000	1.06		A
BC	1	2.5800	0.2300	0.91		A
BE	1	2.4000	0.2000	0.85		A
BN	1	2.3400	0.0200	0.83		A
BQ	1	2.9000	0.2000	1.02		A
BU	1	3.0000	0.5000	1.06		A
BX	1	2.3500	0.1700	0.83		A
CA	1	3.1000	0.3000	1.10		A
CB	1	2.7000	0.1000	0.95		A
CD	1	2.7000	0.3000	0.95		A
CE	1	2.7000	0.2300	0.95		A
CL	1	2.1300	0.0700	0.75		W
CN	1	2.6000	0.1400	0.92		A
CS	1	2.7500	0.2600	0.97		A
CU	2	2.7000	0.2000	0.95		A
CU	1	2.7000	0.2000	0.95		A
CW	1	2.8800	0.0800	1.02		A
EC	1	2.8700	0.1390	1.01		A
EC	2	2.8300	0.1900	1.00		A
EC	3	3.1100	0.2710	1.10		A
EC	4	2.8300	0.1900	1.00		A
EC	5	3.1100	0.2710	1.10		A
EG	1	2.7000	0.1000	0.95		A
EP	1	2.8100	0.2400	0.99		A
FG	1	2.2500	1.0000	0.80		W

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CS134

**EML Value:** 2.8300  
**EML Error:** 0.1600

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
FL	1	2.5100	0.0600	0.89		A
FM	1	2.8000	0.1000	0.99		A
FN	1	3.1900	0.1600	1.13		W
GA	1	2.7300	0.4500	0.96		A
GC	3	2.7600	0.1000	0.98		A
GC	1	2.6600	0.3000	0.94		A
GC	2	2.6700	0.3000	0.94		A
GE	1	2.6200	0.2030	0.93		A
GT	1	2.4000	0.3000	0.85		A
HU	1	2.1500	0.1000	0.76		W
ID	1	2.7730	0.1440	0.98		A
IL	1	3.0000	0.1000	1.06		A
IS	1	2.4900	0.4000	0.88		A
IT	1	2.4000	0.1600	0.85		A
JL	1	2.8500	0.2400	1.01		A
JL	2	2.7200	0.1700	0.96		A
JL	3	2.1900	0.2100	0.77		W
KE	1	5.3500	0.6100	1.89		N
KO	1	2.9600	0.0900	1.05		A
KR	1	3.2000	0.2000	1.13		W
KR	4	2.8000	0.2000	0.99		A
KR	2	2.9000	0.2000	1.02		A
KR	3	2.8000	0.2000	0.99		A
LB	1	2.7000	0.2000	0.95		A
LM	1	2.3420	0.1600	0.83		A
LN	2	2.6000	0.2500	0.92		A
LN	1	2.2000	0.2500	0.78		W
LV	1	3.2500	0.0700	1.15		W
ME	1	3.2000	0.1000	1.13		W
ME	2	2.9000	0.1000	1.02		A
ME	3	3.1000	0.1000	1.10		A
MH	1	2.8900	0.1300	1.02		A
MI	1	3.0000	0.2000	1.06		A
ML	1	2.2000	0.2200	0.78		W
MS	1	2.8500	0.2900	1.01		A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CS134

**EML Value:** 2.8300  
**EML Error:** 0.1600

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
MZ	1	3.5300	0.6400	1.25		N
MZ	2	3.5900	0.6100	1.27		N
MZ	3	3.6400	0.6000	1.29		N
NA	1	2.7300	0.1400	0.96		A
NJ	5	2.4000	0.2000	0.85		A
NJ	1	2.3000	0.3000	0.81		W
NJ	2	2.4000	0.3000	0.85		A
NJ	3	2.4000	0.2000	0.85		A
NJ	4	2.3000	0.2000	0.81		W
NL	1	2.8100	0.1300	0.99		A
NP	1	2.4000	0.2000	0.85		A
NQ	1	2.3600	0.4900	0.83		A
NR	1	2.9200	0.5800	1.03		A
NZ	1	2.1000	0.1000	0.74		W
OC	1	2.5000	0.3000	0.88		A
OH	1	2.8900	0.1300	1.02		A
OS	1	2.3300	0.1600	0.82		A
OS	2	2.3200	0.1500	0.82		A
OT	1	2.5000	0.1000	0.88		A
OU	1	2.5600	0.2660	0.90		A
PK	1	2.9200	0.0200	1.03		A
PR	1	2.7200	0.2400	0.96		A
RA	2	2.5000	0.4000	0.88		A
RA	1	2.7000	0.1700	0.95		A
RI	1	5.6200	0.6430	1.99		N
RM	1	2.9000	0.5000	1.02		A
RU	1	3.3000	0.5900	1.17		W
SA	1	2.5200	0.1600	0.89		A
SE	1	2.9000	0.1000	1.02		A
SI	1	3.0800	0.0600	1.09		A
SR	1	3.2000	0.2700	1.13		W
SX	1	2.3600	0.2900	0.83		A
TE	1	2.7100	0.1500	0.96		A
TI	1	2.5900	0.0600	0.92		A
TM	1	3.0100	0.3140	1.06		A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CS134

**EML Value:** 2.8300  
**EML Error:** 0.1600

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
TN	1	3.1680	0.4530	1.12		W
TO	1	2.8310	0.3160	1.00		A
TP	1	2.8100	0.0600	0.99		A
TQ	1	2.8200	0.1700	1.00		A
TW	1	2.8100	0.0600	0.99		A
TX	1	2.4500	0.0600	0.87		A
UY	1	2.5800	0.1800	0.91		A
WA	1	2.8300	0.1500	1.00		A
WC	1	3.7600	0.5400	1.33		N
WE	2	2.0900	0.1500	0.74		N
WE	1	2.3400	0.1300	0.83		A
WI	3	2.7800	0.4350	0.98		A
WI	2	2.7800	0.4230	0.98		A
WI	1	2.5900	0.4000	0.92		A
WN	1	2.4100	0.0600	0.85		A
WN	3	2.3700	0.0700	0.84		A
WN	2	2.3800	0.0600	0.84		A
WO	2	2.9200	0.3000	1.03		A
WO	1	2.8400	0.6200	1.00		A
WT	1	2.6360	0.4332	0.93		A
WV	1	2.6100	0.1190	0.92		A
WW	3	1.9000	0.1000	0.67		N
WW	2	1.9000	0.1000	0.67		N
WW	1	1.9000	0.1000	0.67		N

**Total Number Reported:** 128

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CS137

**EML Value:** 8.7600  
**EML Error:** 0.3400

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AC	1	8.9000	0.3000	1.02	A	A
AF	1	8.9281	0.6326	1.02	A	A
AG	1	9.2700	1.3900	1.06	A	A
AI	1	10.3000	0.2000	1.18	A	W
AM	1	8.9600	0.1200	1.02	A	A
AN	1	9.1000	0.3000	1.04	A	A
AR	1	9.0840	3.1760	1.04	A	A
AS	1	9.0800	0.1100	1.04	A	A
AT	1	8.6020	0.8490	0.98	A	A
AU	1	9.1300	0.5000	1.04	W	A
AW	1	9.4000	0.6000	1.07	A	A
BA	1	8.7480	0.5038	1.00	A	A
BC	1	9.0300	0.4300	1.03	A	A
BE	1	9.8000	2.0000	1.12	W	A
BM	1	8.8700	1.1100	1.01	A	A
BN	1	9.7100	0.5600	1.11	A	A
BQ	1	10.0000	0.3000	1.14	W	A
BU	1	8.7000	0.3000	0.99	A	A
BX	1	8.8400	0.4000	1.01	A	A
CA	1	9.5000	0.9000	1.08	A	A
CB	1	9.6000	0.3000	1.10	A	A
CD	1	9.7000	0.5000	1.11	A	A
CE	1	8.6000	0.5600	0.98	A	A
CH	1	9.0300	0.0850	1.03	W	A
CL	1	8.5000	0.2000	0.97	A	A
CN	1	8.9900	0.4500	1.03		A
CS	1	8.3100	0.7800	0.95	A	A
CU	1	9.5000	0.2000	1.08	A	A
CU	2	9.3000	0.2000	1.06	A	A
CW	1	8.7000	0.2000	0.99	A	A
DH	1	9.2600	0.9600	1.06	A	A
EC	1	9.9300	0.4100	1.13	A	A
EC	2	10.1000	0.4610	1.15	A	A
EC	3	9.9500	0.5240	1.14	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CS137

**EML Value:** 8.7600  
**EML Error:** 0.3400

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
EC	4	10.5000	0.4330	1.20	A	W
EC	5	10.4000	0.5180	1.19	A	W
EG	1	9.3000	0.5000	1.06	W	A
EP	1	9.2000	0.6700	1.05	A	A
FG	1	8.2700	1.0000	0.94	A	A
FJ	1	21.4100	1.1000	2.44	A	N
FL	1	9.9500	0.1000	1.14	A	A
FM	1	10.3000	0.1000	1.18	W	W
FN	1	9.0900	0.6800	1.04		A
GA	1	8.7600	0.7400	1.00	A	A
GC	3	10.5800	0.5000	1.21	A	W
GC	1	8.7200	0.6000	1.00	A	A
GC	2	8.5200	0.6000	0.97	A	A
GE	1	8.8600	0.4330	1.01	A	A
GT	1	9.9000	1.6000	1.13	A	A
HU	1	8.1300	0.5500	0.93	A	A
ID	1	8.9570	0.4530	1.02	A	A
IL	1	9.7000	0.2000	1.11	A	A
IN	1	9.2300	1.0000	1.05	A	A
IS	1	9.1300	1.4900	1.04	A	A
IT	1	8.4000	0.5000	0.96	A	A
JL	2	9.4700	0.4800	1.08		A
JL	3	9.2600	0.5200	1.06		A
JL	1	9.1600	0.5000	1.05		A
KE	1	9.2800	0.5200	1.06		A
KO	1	9.5500	0.2100	1.09		A
KR	1	10.7000	0.5000	1.22	W	W
KR	2	9.6000	0.4000	1.10	W	A
KR	3	10.2000	0.5000	1.16	W	W
KR	4	10.6000	0.5000	1.21	W	W
LB	1	8.2000	0.6000	0.94	A	A
LL	1	12.1000	1.7200	1.38	W	N
LM	1	8.7810	0.2600	1.00	A	A
LN	2	8.7000	0.3000	0.99	A	A
LN	1	9.2000	0.3000	1.05	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CS137

**EML Value:** 8.7600  
**EML Error:** 0.3400

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
LV	1	11.5000	0.4000	1.31	A	W
ME	3	10.6000	0.4000	1.21	A	W
ME	2	9.4000	0.4000	1.07	A	A
ME	1	9.6000	0.4000	1.10	A	A
MH	1	10.1900	0.5800	1.16	W	W
MI	1	9.6000	0.5000	1.10	W	A
MJ	1	78.0000	3.0000	8.90		N
ML	1	9.0000	0.9000	1.03	A	A
MS	1	8.0500	0.8100	0.92	A	A
MZ	2	12.2400	0.4100	1.40		N
MZ	3	12.8400	0.4200	1.47		N
MZ	1	12.9400	0.4200	1.48		N
NA	1	9.0100	0.3500	1.03	N	A
NJ	3	7.9000	0.7000	0.90		A
NJ	1	8.2000	0.9000	0.94		A
NJ	5	8.1000	0.7000	0.93		A
NJ	4	8.0000	0.7000	0.91		A
NJ	2	8.1000	0.7000	0.93		A
NL	1	9.0800	0.4800	1.04	W	A
NM	1	8.3500	0.5300	0.95	A	A
NP	1	8.4000	0.2000	0.96	A	A
NQ	1	8.4000	1.7300	0.96	A	A
NR	1	8.5800	1.7200	0.98	A	A
NZ	1	8.2000	0.4000	0.94	A	A
OB	1	4.4700	0.9280	0.51		N
OC	1	8.3000	1.0000	0.95	A	A
OD	1	8.6700	0.2200	0.99	A	A
OH	1	10.1300	0.2100	1.16	W	A
OS	2	8.2900	124.0000	0.95	A	A
OS	1	8.3200	1.7500	0.95	A	A
OT	1	9.6000	0.2000	1.10	A	A
OU	1	9.5500	0.8740	1.09	A	A
PK	1	10.2300	0.4900	1.17	A	W
PR	1	8.6600	0.2690	0.99		A
RA	2	9.3000	0.5000	1.06	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CS137

**EML Value:** 8.7600  
**EML Error:** 0.3400

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
RA	1	9.2200	0.5900	1.05	A	A
RC	1	8.7000	0.5000	0.99	A	A
RI	1	17.0000	1.5000	1.94	A	N
RM	1	8.7000	1.2000	0.99	A	A
RU	1	11.1000	1.6400	1.27		W
SA	1	9.0700	0.3400	1.03	A	A
SB	1	9.5500	1.2360	1.09	W	A
SE	1	8.6000	0.1000	0.98	A	A
SI	1	9.1200	0.2200	1.04	A	A
SR	1	9.7800	1.0500	1.12	A	A
SX	1	8.5600	0.7600	0.98		A
TE	1	9.8600	0.2300	1.13	W	A
TI	1	9.5200	0.1500	1.09	A	A
TM	1	10.5790	1.0980	1.21	W	W
TN	1	8.5100	0.3730	0.97	A	A
TO	1	9.4950	1.3070	1.08	A	A
TP	1	8.7800	0.3200	1.00	A	A
TQ	1	9.9100	0.7400	1.13	A	A
TW	1	9.3400	0.2300	1.07	A	A
TX	1	9.0400	0.1400	1.03	A	A
UC	1	11.8000	5.0900	1.35	N	W
UY	1	8.2900	0.6200	0.95	A	A
WA	1	9.6900	0.4500	1.11	A	A
WC	1	9.0900	1.2300	1.04	A	A
WE	2	8.6200	0.8600	0.98	A	A
WE	1	8.4200	0.8500	0.96	A	A
WI	1	8.4000	1.1700	0.96	A	A
WI	3	8.4100	1.1700	0.96	A	A
WI	2	8.3200	1.1600	0.95	A	A
WN	1	9.2000	0.3000	1.05	A	A
WN	2	9.0000	0.3000	1.03	A	A
WN	3	9.0000	0.3000	1.03	A	A
WO	2	11.1400	0.8900	1.27	A	W
WO	1	10.9500	2.1700	1.25	A	W
WT	1	8.7193	1.1230	1.00	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** CS137

**EML Value:** 8.7600  
**EML Error:** 0.3400

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
WV	1	8.7100	0.1990	0.99	A	A
WW	3	8.8000	0.7000	1.00	A	A
WW	2	8.7000	0.7000	0.99	A	A
WW	1	8.8000	0.7000	1.00	A	A
YA	1	8.7690	0.0484	1.00	A	A
YU	1	7.8300	0.0800	0.89	A	A

**Total Number Reported:** 145

**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**  
**Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** GROSS ALPHA

**EML Value:** 3.9700  
**EML Error:** 0.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	3.6150	0.0470	0.91	A	A
AI	1	3.1000	0.0400	0.78	A	W
AM	1	3.3600	0.0200	0.85	A	A
AR	1	2.8820	0.1100	0.73	A	W
AS	1	3.3440	0.0780	0.84	A	A
AT	1	3.3160	0.1300	0.83	A	A
AU	1	3.4900	0.1500	0.88	W	A
BC	1	2.8100	0.0900	0.71	A	W
BE	1	3.5700	0.3400	0.90	A	A
BN	1	3.1400	0.0800	0.79	A	W
BP	1	4.0000	0.1000	1.01		A
BQ	1	4.0000	0.3000	1.01	W	A
BU	1	3.6000	0.2000	0.91	A	A
BX	1	2.6600	0.0800	0.67	W	W
CA	1	2.6000	0.3000	0.65	A	W
CE	1	3.8000	0.1200	0.96	A	A
CH	1	3.3400	0.0330	0.84	A	A
CL	1	4.0000	0.2000	1.01	A	A
DH	1	3.3100	0.1900	0.83	A	A
EC	4	3.9100	0.3910	0.99	W	A
EC	3	3.8900	0.3890	0.98	W	A
EC	2	3.9400	0.3940	0.99	W	A
EC	1	3.9000	0.3900	0.98	W	A
EC	5	4.0400	0.4040	1.02	W	A
FG	1	3.0100	0.1500	0.76	W	W
FL	1	3.1570	0.0970	0.80	A	W
FN	1	3.6300	0.5400	0.91		A
GE	1	3.5900	0.0350	0.90	A	A
GT	1	3.7000	0.3700	0.93	A	A
HC	1	3.5500	0.2500	0.89		A
IL	1	3.8100	0.0300	0.96	A	A
IS	1	6.1200	0.6300	1.54	W	N
IT	1	4.1000	0.4000	1.03	A	A
KA	1	3.5900	0.1600	0.90	W	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** GROSS ALPHA

**EML Value:** 3.9700  
**EML Error:** 0.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
KO	1	3.7000	0.1000	0.93		A
KR	1	3.4600	0.0400	0.87	A	A
LB	1	3.8000	0.2000	0.96	A	A
LM	1	3.9920	0.2320	1.01	A	A
LN	2	2.8000	0.1000	0.70	A	W
LN	1	2.8000	0.1000	0.70	A	W
LV	1	3.4500	0.1600	0.87	A	A
ME	2	5.2000	0.1000	1.31	W	W
ME	1	4.9000	0.1000	1.23	W	A
ME	3	5.2000	0.1000	1.31	W	W
MH	1	3.9600	0.0200	1.00	A	A
MI	1	2.9000	0.3000	0.73		W
MJ	1	1860.0000	180.0000	**.**		N
MS	1	4.0700	0.4100	1.02	A	A
MZ	2	4.7800	0.2900	1.20		A
MZ	1	4.6300	0.2800	1.17		A
MZ	3	4.9500	0.3000	1.25		W
NQ	1	3.4200	0.5200	0.86	A	A
OB	1	3.6700	0.3660	0.92		A
OC	1	3.7000	0.3700	0.93	A	A
OD	1	3.0800	0.0700	0.78	W	W
OH	1	3.9000	0.1500	0.98	A	A
OT	1	3.5000	0.2000	0.88	A	A
OU	1	3.3100	0.1650	0.83	W	A
PA	1	3.1350	0.1060	0.79		W
PA	2	3.2730	0.1070	0.82		W
PA	5	3.4560	0.1610	0.87		A
PA	4	3.3920	0.1250	0.85		A
PA	3	3.4690	0.1320	0.87		A
PS	1	2.8200	0.0700	0.71	W	W
RC	1	4.2700	0.2100	1.08	A	A
SA	1	4.1900	0.2900	1.05	A	A
SA	2	2.7000	0.2800	0.68	A	W
SB	1	4.0010	0.1340	1.01	A	A
SN	1	4.6030	0.2290	1.16	W	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** GROSS ALPHA

**EML Value:** 3.9700  
**EML Error:** 0.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
SR	1	3.8000	0.2100	0.96	A	A
TE	1	2.6600	0.0200	0.67	A	W
TI	1	3.3300	0.1200	0.84	A	A
TM	1	5.4760	0.8210	1.38	A	W
TN	1	2.8530	0.0570	0.72	A	W
TO	1	5.7530	0.1610	1.45	N	W
TP	1	3.8100	0.1000	0.96		A
TQ	1	3.5700	0.0200	0.90	A	A
TW	1	3.5600	0.0500	0.90	W	A
TX	1	3.9100	0.0800	0.99	A	A
UY	1	3.5100	0.1300	0.88	A	A
WA	1	4.5900	0.6300	1.16	A	A
WC	1	3.5200	0.3500	0.89	A	A
WE	3	4.2100	0.7900	1.06	W	A
WE	2	3.9100	0.7300	0.99	W	A
WE	1	4.4300	0.8400	1.12	W	A
WI	2	3.2600	0.3320	0.82	A	W
WI	3	3.2800	0.3330	0.83	A	W
WI	1	3.2400	0.3300	0.82	A	W
WO	1	3.0600	0.1000	0.77	A	W
WO	2	3.1900	0.1000	0.80	A	W
WT	1	3.7000	0.3000	0.93	A	A
WV	1	3.1700	0.0768	0.80	A	W
WW	1	3.6360	0.0590	0.92	A	A
YA	1	3.2650	0.0170	0.82	A	W

**Total Number Reported:** 94

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** GROSS BETA

**EML Value:** 2.5800  
**EML Error:** 0.1500

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	2.3935	0.0325	0.93	N	A
AI	1	2.2000	0.0300	0.85	W	A
AM	1	2.6300	0.0200	1.02	A	A
AR	1	2.8360	0.0730	1.10	A	A
AS	1	2.9510	0.0720	1.14	A	A
AT	1	2.9100	0.0810	1.13	A	A
AU	1	2.9700	0.2400	1.15	A	A
BC	1	2.2100	0.0500	0.86	W	A
BE	1	2.5100	0.2900	0.97	A	A
BN	1	2.0700	0.0600	0.80	W	W
BP	1	2.7000	0.1000	1.05		A
BQ	1	3.1000	0.1000	1.20	A	A
BX	1	2.0600	0.0400	0.80	W	W
CA	1	3.1000	0.3000	1.20	W	A
CD	1	2.5000	0.5000	0.97	W	A
CE	1	3.0000	0.1000	1.16	A	A
CH	1	2.5600	0.0260	0.99	A	A
CL	1	3.6000	0.1000	1.40	W	W
DH	1	2.5300	0.0500	0.98	A	A
EC	2	2.2600	0.2260	0.88	A	A
EC	3	2.3500	0.2350	0.91	A	A
EC	1	2.4600	0.2460	0.95	A	A
EC	4	2.4900	0.2490	0.97	A	A
EC	5	2.3200	0.2320	0.90	A	A
FG	1	2.3600	0.2000	0.91	A	A
FL	1	3.2180	0.0830	1.25	A	A
FN	1	2.8200	0.4200	1.09		A
GE	1	2.6800	0.0250	1.04	A	A
GT	1	2.7000	0.2600	1.05	A	A
HC	1	2.2900	0.1600	0.89		A
HU	1	3.2000	0.7500	1.24	N	A
IL	1	2.5400	0.0300	0.98	A	A
IS	1	3.2700	0.3300	1.27	A	A
IT	1	3.0000	0.2000	1.16	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** GROSS BETA

**EML Value:** 2.5800  
**EML Error:** 0.1500

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
KA	1	2.8500	0.1200	1.10	A	W
KO	1	2.6800	0.0800	1.04		A
KR	1	2.7700	0.0300	1.07	A	A
LB	1	2.7000	0.1000	1.05	W	A
LM	1	2.8590	0.1450	1.11	A	A
LN	1	2.6000	0.1000	1.01	W	A
LN	2	2.4000	0.1000	0.93	W	A
LV	1	2.5100	0.0430	0.97	A	A
ME	3	2.9000	0.1000	1.12	A	A
ME	2	3.0000	0.1000	1.16	A	A
ME	1	3.5000	0.1000	1.36	A	W
MH	1	2.6200	0.0300	1.02	A	A
MI	1	4.0000	0.3000	1.55		N
MJ	1	1400.0000	140.0000	**. **		N
MS	1	2.0900	0.2100	0.81	W	W
MZ	3	3.4500	0.1700	1.34		W
MZ	1	3.3800	0.1700	1.31		W
MZ	2	3.3400	0.1700	1.29		A
NP	1	2.6400	0.0500	1.02	A	A
NQ	1	2.6400	0.4000	1.02	A	A
OB	1	2.6000	0.2580	1.01		A
OC	1	2.7000	0.2700	1.05	A	A
OD	1	3.5500	0.0600	1.38	A	W
OH	1	3.2300	0.1000	1.25	A	A
OT	1	3.0000	0.1000	1.16	A	A
OU	1	2.7500	0.1380	1.07	A	A
PA	1	2.8370	0.0840	1.10		A
PA	2	2.8470	0.1120	1.10		A
PA	3	3.3010	0.1290	1.28		A
PA	5	3.5290	0.1500	1.37		W
PA	4	3.4810	0.1020	1.35		W
PS	1	2.7000	0.0600	1.05	W	A
RC	1	2.7500	0.1400	1.07	A	A
SA	2	2.8100	0.3900	1.09	A	A
SA	1	2.9100	0.2100	1.13	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** GROSS BETA

**EML Value:** 2.5800  
**EML Error:** 0.1500

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
SB	1	2.6360	0.0960	1.02	A	A
SN	1	2.2010	0.2310	0.85	A	A
SR	1	2.5000	0.1500	0.97	W	A
TE	1	2.3000	0.0200	0.89	W	A
TI	1	2.2600	0.0800	0.88	A	A
TM	1	2.8300	0.4240	1.10	A	A
TN	1	2.2430	0.0445	0.87	W	A
TO	1	2.7114	0.0715	1.05	W	A
TP	1	2.8300	0.0500	1.10		A
TQ	1	2.6900	0.0200	1.04	A	A
TW	1	2.8900	0.0500	1.12	A	A
TX	1	2.3600	0.0800	0.91	A	A
UC	1	1.9600	0.0400	0.76	A	W
UY	1	2.5700	0.1000	1.00	A	A
WA	1	3.0800	0.1100	1.19	A	A
WC	1	3.2200	0.3200	1.25	A	A
WE	3	3.2400	0.2900	1.26	N	A
WE	1	3.2600	0.3000	1.26	N	A
WE	2	3.0900	0.2700	1.20	N	A
WI	3	2.4700	0.2510	0.96	A	A
WI	1	2.5600	0.2590	0.99	A	A
WI	2	2.5400	0.2580	0.98	A	A
WO	1	2.7000	0.0700	1.05	A	A
WO	2	2.8300	0.0700	1.10	A	A
WT	1	2.7100	0.2000	1.05	W	A
WV	1	3.0900	0.0664	1.20	A	A
WW	1	2.8650	0.0440	1.11	A	A
YA	1	2.5200	0.0179	0.98	W	A

**Total Number Reported:** 97

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** MN54

**EML Value:** 6.5200  
**EML Error:** 0.2800

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AC	1	6.6000	0.3000	1.01	A	A
AF	1	6.4429	0.5179	0.99	A	A
AG	1	6.8300	1.0300	1.05	A	A
AI	1	7.4600	0.2200	1.14	A	A
AM	1	6.6200	0.1100	1.01	A	A
AN	1	6.3000	1.0000	0.97	A	A
AR	1	6.7900	2.4360	1.04	A	A
AS	1	6.9400	0.4700	1.06	A	A
AT	1	6.4260	0.6850	0.99	A	A
AU	1	6.9000	0.5000	1.06	A	A
AW	1	6.4000	0.4000	0.98	A	A
BA	1	6.6670	0.5038	1.02	A	A
BC	1	6.1400	0.5300	0.94	A	A
BE	1	7.4000	1.0000	1.13	W	A
BN	1	6.9200	0.4000	1.06	A	A
BQ	1	6.8000	0.2000	1.04	A	A
BU	1	6.3000	0.3000	0.97	A	A
BX	1	6.7700	0.5600	1.04	A	A
CA	1	6.9300	0.7000	1.06	A	A
CB	1	7.1000	0.3000	1.09	A	A
CD	1	7.4000	0.5000	1.13	A	A
CE	1	7.0000	0.4900	1.07	A	A
CH	1	6.8200	0.0840	1.05	W	A
CL	1	6.4000	0.2000	0.98	A	A
CN	1	6.7000	0.3400	1.03		A
CS	1	6.3400	0.6500	0.97	A	A
CU	1	7.1000	0.4000	1.09	A	A
CU	2	7.0000	0.4000	1.07	A	A
CW	1	6.4000	0.2000	0.98	A	A
DH	1	6.4300	0.5000	0.99	A	A
EC	2	7.7200	0.3870	1.18	A	A
EC	3	7.8100	0.4780	1.20	A	A
EC	4	7.9400	0.3900	1.22	A	W
EC	5	8.0400	0.4990	1.23	A	W

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** MN54

**EML Value:** 6.5200  
**EML Error:** 0.2800

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
EC	1	7.6500	0.3240	1.17	A	A
EG	1	7.2000	0.4000	1.10	W	A
EP	1	6.8100	0.5000	1.04	A	A
FG	1	6.2640	1.0000	0.96	A	A
FJ	1	13.0300	0.7000	2.00	A	N
FL	1	7.3000	0.0900	1.12	A	A
FM	1	7.7000	0.1000	1.18	A	A
FN	1	6.4400	0.4900	0.99		A
GA	1	6.1900	0.7200	0.95	A	A
GC	1	6.5900	0.7000	1.01	A	A
GC	2	6.9200	0.6000	1.06	A	A
GC	3	7.7500	0.4000	1.19	A	A
GE	1	6.5500	0.4160	1.00	A	A
GT	1	7.3000	1.6000	1.12	A	A
HU	1	6.1300	0.3000	0.94	A	A
ID	1	6.2730	0.3160	0.96	N	A
IL	1	7.1000	0.1000	1.09	A	A
IN	1	6.9900	0.8000	1.07	A	A
IS	1	6.8000	1.1900	1.04	A	A
IT	1	6.2000	0.3800	0.95	A	A
JL	1	7.1000	0.5400	1.09		A
JL	3	6.7200	0.5200	1.03		A
JL	2	7.2500	0.5700	1.11		A
KE	1	6.1800	0.3500	0.95		A
KO	1	6.9800	0.1700	1.07		A
KR	1	7.9000	0.5000	1.21	A	W
KR	3	7.5000	0.4000	1.15	A	A
KR	2	7.6000	0.4000	1.17	A	A
KR	5	8.1000	0.4000	1.24	A	W
KR	4	8.1000	0.4000	1.24	A	W
LB	1	6.1000	0.4000	0.94	A	A
LM	1	5.7460	0.2000	0.88	A	W
LN	2	7.0000	0.6000	1.07	A	A
LN	1	6.3300	0.5000	0.97	A	A
LV	1	6.5300	0.2000	1.00	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** MN54

**EML Value:** 6.5200  
**EML Error:** 0.2800

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
ME	3	7.5000	0.3000	1.15	A	A
ME	1	7.0000	0.2000	1.07	A	A
ME	2	7.0000	0.2000	1.07	A	A
MH	1	7.3900	0.4300	1.13	W	A
MI	1	5.8000	0.4000	0.89	A	A
ML	1	8.0000	0.8000	1.23	A	W
MS	1	7.0500	0.7100	1.08	A	A
MZ	1	9.7800	0.3800	1.50		N
MZ	2	9.6600	0.3800	1.48		N
MZ	3	9.9900	0.3900	1.53		N
NA	1	6.6700	0.2900	1.02	N	A
NJ	4	5.8000	1.3000	0.89		A
NJ	5	6.0000	1.4000	0.92		A
NJ	1	5.9000	2.1000	0.90		A
NJ	2	6.0000	1.8000	0.92		A
NJ	3	5.9000	1.4000	0.90		A
NL	1	6.9500	0.3800	1.07	A	A
NP	1	6.7000	0.2000	1.03	A	A
NQ	1	6.2100	1.2900	0.95	A	A
NR	1	6.2500	1.2500	0.96	A	A
NZ	1	6.3000	0.3000	0.97	A	A
OB	1	4.6100	0.9350	0.71		N
OC	1	6.2000	0.8000	0.95	A	A
OD	1	6.4800	0.1680	0.99	A	A
OH	1	7.3500	0.2100	1.13	A	A
OS	2	6.1800	0.3000	0.95	A	A
OS	1	6.1700	0.3300	0.95	A	A
OT	1	7.2000	0.2000	1.10	A	A
OU	1	7.6200	0.9300	1.17	A	A
PK	1	6.3400	0.3700	0.97	A	A
PR	1	5.3700	0.7020	0.82		W
RA	2	6.4000	0.4000	0.98	A	A
RA	1	6.4800	0.4200	0.99	A	A
RC	1	6.6000	0.3000	1.01	A	A
RI	1	12.8000	1.3400	1.96	A	N

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** MN54

**EML Value:** 6.5200  
**EML Error:** 0.2800

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
RM	1	6.6000	1.0000	1.01	A	A
RU	1	8.8900	1.3000	1.36		N
SA	1	7.1200	0.3900	1.09	A	A
SB	1	7.3320	1.0520	1.13	W	A
SE	1	5.9000	0.1000	0.90	A	A
SI	1	6.6100	0.1400	1.01	A	A
SR	1	7.3200	0.8000	1.12	A	A
SX	1	6.4500	0.7100	0.99		A
TE	1	7.2500	0.2200	1.11	A	A
TI	1	6.9600	0.2300	1.07	A	A
TM	1	7.7150	0.6860	1.18	A	A
TN	1	5.9970	0.3930	0.92	A	A
TO	1	6.8830	1.0580	1.06	A	A
TP	1	6.1800	0.1800	0.95	A	A
TQ	1	6.1700	0.5100	0.95	A	A
TW	1	6.7300	0.1600	1.03	A	A
TX	1	6.9900	0.1300	1.07	A	A
UY	1	6.3500	0.6200	0.97	A	A
WA	1	7.9600	0.5900	1.22	W	W
WC	1	14.8000	2.0600	2.27	A	N
WE	2	6.5300	0.4900	1.00	A	A
WE	1	6.5400	0.5300	1.00	A	A
WI	2	6.5600	0.9370	1.01	A	A
WI	1	6.4900	0.9300	1.00	A	A
WI	3	6.7300	0.9770	1.03	A	A
WN	3	6.8000	0.2000	1.04	A	A
WN	2	6.9000	0.2000	1.06	A	A
WN	1	6.9000	0.2000	1.06	A	A
WO	2	8.3700	0.5800	1.28	W	W
WO	1	8.2900	1.7400	1.27	W	W
WT	1	5.4575	0.8359	0.84	A	W
WV	1	7.3600	0.2360	1.13	A	A
WW	3	6.7000	0.6000	1.03	A	A
WW	2	6.8000	0.6000	1.04	A	A
WW	1	6.9000	0.6000	1.06	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** MN54

**EML Value:** 6.5200  
**EML Error:** 0.2800

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
YA	1	6.3990	0.0472	0.98	A	A
YU	1	6.2000	0.1000	0.95	A	A

**Total Number Reported:** 141

**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**  
**Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** PU238

**EML Value:** 0.2150  
**EML Error:** 0.0090

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	0.0341	0.0054	0.16	W	N
AG	1	0.2190	0.0310	1.02	A	A
AI	1	0.1700	0.0055	0.79	A	W
AM	1	0.5800	0.0400	2.70	N	N
AN	1	0.2100	0.0030	0.98	A	A
AR	1	0.2280	0.0380	1.06	A	A
AT	1	0.2250	0.0300	1.05		A
AU	1	0.2140	0.0200	1.00		A
BE	1	0.2100	0.0080	0.98	A	A
BM	1	0.2200	0.0210	1.02	W	A
BU	1	0.2100	0.0100	0.98	A	A
BX	1	0.2290	0.0320	1.07	N	A
CH	1	0.2130	0.0100	0.99	A	A
CL	1	0.1700	0.0600	0.79	N	W
CW	1	0.2200	0.0050	1.02	A	A
EG	1	0.1910	0.0150	0.89	A	A
EP	1	0.2181	0.0349	1.01	A	A
GA	1	0.2800	0.0250	1.30	W	W
GE	1	0.2120	0.0350	0.99	A	A
GT	1	0.2000	0.0400	0.93	A	A
ID	1	0.2030	0.0330	0.94	A	A
IS	1	0.2450	0.0490	1.14	A	W
IT	1	0.2000	0.0060	0.93	A	A
KO	1	0.2260	0.0210	1.05		A
LL	1	0.2020	0.0103	0.94	A	A
LV	1	0.1670	0.0090	0.78		W
ML	1	0.2200	0.0300	1.02	A	A
NA	1	0.1810	0.0190	0.84	A	W
NL	1	0.2220	0.0260	1.03	A	A
NM	1	0.1960	0.0070	0.91	A	A
NQ	1	0.1939	0.0111	0.90	A	A
OB	1	0.1960	0.0554	0.91		A
OK	1	0.1740	0.0200	0.81	A	W
OT	1	0.2000	0.1000	0.93	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** PU238

**EML Value:** 0.2150  
**EML Error:** 0.0090

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
PS	1	0.1900	0.0400	0.88		A
RA	1	0.2200	0.0500	1.02	N	A
RI	1	0.2370	0.0218	1.10	W	A
SN	1	0.2170	0.0240	1.01	W	A
SR	1	0.2080	0.0270	0.97	A	A
TE	1	0.2300	0.0300	1.07	W	A
TI	1	0.2300	0.0400	1.07		A
TM	1	0.1950	0.0220	0.91	A	A
TN	1	0.1666	0.0145	0.77	A	W
TO	1	0.1750	0.0491	0.81	A	W
TX	1	0.2200	0.0070	1.02	A	A
UY	1	0.2250	0.0230	1.05	A	A
WA	1	0.1990	0.0220	0.93	N	A
WC	1	0.2100	0.0450	0.98	A	A
WE	1	0.1970	0.0400	0.92	A	A
WE	2	0.1990	0.0300	0.93	A	A
WE	3	0.1990	0.0300	0.93	A	A
WI	2	0.1780	0.0368	0.83	A	W
WI	1	0.2220	0.0466	1.03	A	A

**Total Number Reported:** 53

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** PU239

**EML Value:** 0.1360  
**EML Error:** 0.0120

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	0.0563	0.0072	0.41	W	N
AG	1	0.1390	0.0212	1.02	A	A
AI	1	0.1200	0.0044	0.88	A	W
AM	1	0.2460	0.0280	1.81	W	N
AN	1	0.1400	0.0060	1.03	A	A
AR	1	0.1350	0.0270	0.99	A	A
AT	1	0.1460	0.0200	1.07		A
AU	1	0.1440	0.0140	1.06		A
BE	1	0.1400	0.0060	1.03	A	A
BM	1	0.1400	0.0150	1.03	A	A
BU	1	0.1400	0.0070	1.03	A	A
BX	1	0.1400	0.0220	1.03	A	A
CH	1	0.1440	0.0080	1.06	A	A
CL	1	0.1200	0.0500	0.88	N	W
CW	1	0.1430	0.0040	1.05	A	A
EG	1	0.1330	0.0110	0.98	A	A
EP	1	0.1446	0.0239	1.06	W	A
GA	1	0.1800	0.0170	1.32	A	N
GE	1	0.1390	0.0250	1.02	A	A
GT	1	0.1300	0.0300	0.96	A	A
ID	1	0.1200	0.0120	0.88	A	W
IS	1	0.1410	0.0290	1.04	W	A
IT	1	0.1000	0.0100	0.74	A	W
KO	1	0.1480	0.1400	1.09		A
LL	1	0.1350	0.0071	0.99	A	A
LV	1	0.1030	0.0060	0.76		W
ML	1	0.1500	0.0200	1.10	A	A
NA	1	0.1310	0.0150	0.96	W	A
NL	1	0.1420	0.0170	1.04	A	A
NM	1	0.1260	0.0050	0.93	A	A
NQ	1	0.1329	0.0078	0.98	A	A
OB	1	0.1310	0.0389	0.96		A
OK	1	0.1100	0.0200	0.81	A	W
OT	1	0.1500	0.1000	1.10	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** PU239

**EML Value:** 0.1360  
**EML Error:** 0.0120

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
PS	1	0.1300	0.0300	0.96		A
RA	1	0.1300	0.0300	0.96	W	A
RI	1	0.1540	0.0154	1.13	A	W
SN	1	0.1340	0.0160	0.99	A	A
SR	1	0.1400	0.0190	1.03	A	A
TE	1	0.1200	0.0200	0.88	A	W
TI	1	0.1700	0.0300	1.25		W
TM	1	0.1210	0.0160	0.89	W	A
TN	1	0.1115	0.0111	0.82	A	W
TO	1	0.1510	0.0440	1.11	A	A
TX	1	0.1320	0.0050	0.97	A	A
UC	1	0.1090	0.0065	0.80	A	W
UY	1	0.1430	0.0140	1.05	A	A
WA	2	7.7000	0.9000	56.62	A	N
WA	1	0.1440	0.0170	1.06	A	A
WC	1	0.1570	0.0340	1.15	A	W
WE	1	0.1260	0.0300	0.93	A	A
WE	2	0.1300	0.0200	0.96	A	A
WE	3	0.1230	0.0200	0.90	A	A
WI	2	0.1180	0.0252	0.87	A	W
WI	1	0.1400	0.0304	1.03	A	A

**Total Number Reported:** 55

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** RU106

**EML Value:** 49.5400  
**EML Error:** 3.5300

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AR	1	58.1640	21.2250	1.17		A
AW	1	60.0000	4.0000	1.21		W
CB	1	51.2000	3.7000	1.03		A
CD	1	52.0000	3.0000	1.05		A
CN	1	51.7300	2.6100	1.04		A
CS	1	57.9700	7.3600	1.17		A
CU	1	54.5000	1.0000	1.10		A
CU	2	56.0000	1.0000	1.13		A
DH	1	54.6600	5.4500	1.10		A
EG	1	52.0000	3.0000	1.05		A
FL	1	44.4000	0.6900	0.90		A
FM	1	55.7000	0.5000	1.12		A
FN	1	62.1000	4.7000	1.25		W
GT	1	52.0000	12.0000	1.05		A
ID	1	59.4070	3.0070	1.20		A
KE	1	45.7300	2.5500	0.92		A
LV	1	44.2000	1.3000	0.89		A
OB	1	42.0000	92.5000	0.85		A
RA	1	54.0000	4.9000	1.09		A
RA	2	54.6000	3.8000	1.10		A
RC	1	57.0000	3.0000	1.15		A
SA	1	49.3000	4.0000	1.00		A
SI	1	51.4000	1.9000	1.04		A
TI	1	53.3000	1.6400	1.08		A
TM	1	58.5010	8.1880	1.18		A
TO	1	53.4470	8.9100	1.08		A
TX	1	51.2800	0.7500	1.03		A
WA	1	56.0000	3.5000	1.13		A
WN	2	47.4000	2.3000	0.96		A
WN	1	47.8000	2.3000	0.96		A
WN	3	47.0000	2.7000	0.95		A
WO	2	54.8800	5.4100	1.11		A
WO	1	58.0700	11.8600	1.17		A
YU	1	30.0000	1.5000	0.61		N

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** RU106

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**EML Value:** 49.5400  
**EML Error:** 3.5300

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Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
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**Total Number Reported:** 34

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**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**  
**Evaluation: A=Acceptable, 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.**

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**QAP 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** SR90

**EML Value:** 7.1000  
**EML Error:** 0.2200

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	1.2310	0.0638	0.17	W	N
AG	1	7.2300	1.3200	1.02	A	A
AI	1	4.8400	0.4100	0.68		W
AM	1	4.4300	0.2400	0.62	A	W
AN	1	7.4000	0.4000	1.04	A	A
AR	1	7.4500	0.6150	1.05	A	A
AT	1	7.5540	0.4090	1.06		A
BC	1	6.5700	0.3800	0.93	A	A
BE	1	7.3400	0.3900	1.03	A	A
BM	1	8.0300	0.2000	1.13	A	A
BX	1	6.5000	0.3700	0.92	W	A
CE	1	5.8000	0.0900	0.82	A	A
CH	1	7.6400	0.1500	1.08	A	A
CL	1	8.1000	0.9000	1.14	W	A
EG	1	8.0700	0.3000	1.14	A	A
GA	1	7.4700	0.2800	1.05	A	A
GE	1	8.9000	0.1070	1.25	A	A
GT	1	7.5000	0.7000	1.06	A	A
ID	1	6.7330	0.3700	0.95	A	A
IS	1	8.6000	1.6900	1.21	W	A
IT	1	7.6000	0.6000	1.07	W	A
KE	1	7.9100	0.1800	1.11		A
KO	1	6.7800	0.0700	0.95		A
KR	1	8.7100	0.0800	1.23	A	A
MJ	1	4.8000	0.2000	0.68		W
NA	1	7.2000	0.5600	1.01	A	A
NM	1	2.1200	0.1600	0.30	A	N
OT	1	6.2000	0.3000	0.87	N	A
PS	1	6.6600	0.1000	0.94		A
RA	1	7.6000	1.5000	1.07	W	A
RI	1	7.6100	0.1220	1.07	A	A
SE	1	6.7000	0.0700	0.94		A
SR	1	10.0000	0.3000	1.41	W	W
TE	1	7.4100	0.1500	1.04	W	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** SR90

**EML Value:** 7.1000  
**EML Error:** 0.2200

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
TI	1	7.4600	0.1800	1.05		A
TM	1	5.8460	0.7120	0.82		A
TN	1	6.8659	0.1506	0.97	A	A
TO	1	5.5930	0.4510	0.79	W	W
TP	1	8.4500	0.0700	1.19		A
UY	1	6.5800	0.1200	0.93	W	A
WA	1	10.2000	0.5000	1.44	A	W
WC	1	8.2100	1.4700	1.16	A	A
WE	2	8.1500	0.6500	1.15	N	A
WE	3	8.6400	0.6600	1.22	N	A
WE	1	7.7100	0.6400	1.09	N	A
WI	1	5.4500	0.3070	0.77	A	W
WI	2	5.3700	0.2890	0.76	A	W
YA	1	7.0780	0.0785	1.00	A	A

**Total Number Reported:** 48

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** U234

**EML Value:** 0.0460  
**EML Error:** 0.0020

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	0.0877	0.0090	1.91	N	W
AM	1	0.0610	0.0160	1.33	N	A
AN	1	0.0470	0.0030	1.02	A	A
AR	1	0.0456	0.0184	0.99	A	A
AT	1	0.0480	0.0070	1.04		A
AU	1	0.0440	0.0050	0.96	A	A
BC	1	0.0512	0.0117	1.11	A	A
BE	1	0.0430	0.0040	0.94	A	A
BM	1	0.0470	0.0072	1.02	A	A
BU	1	0.0560	0.0030	1.22	A	A
BX	1	0.0551	0.0145	1.20	A	A
CH	1	0.0480	0.0040	1.04	A	A
CL	1	0.0600	0.0300	1.30	W	A
CW	1	0.0460	0.0020	1.00	N	A
EG	1	0.0412	0.0033	0.90	W	W
FE	1	0.0670	0.0100	1.46	W	W
GE	1	0.0590	0.0220	1.28	A	A
IS	1	0.0440	0.0100	0.96	W	A
IT	1	0.0400	0.0060	0.87	N	W
KO	1	0.0469	0.0036	1.02		A
LL	1	0.0405	0.0449	0.88		W
ML	1	0.0420	0.0060	0.91	A	A
NA	1	0.1120	0.0180	2.43	A	N
NL	1	0.0481	0.0066	1.05	A	A
NQ	1	0.0422	0.0029	0.92	A	A
OB	1	0.0805	0.0257	1.75		W
OK	1	0.0570	0.0100	1.24	A	A
PS	1	0.0400	0.0000	0.87		W
RM	1	0.0490	0.0150	1.07		A
SR	1	0.0480	0.0070	1.04	A	A
TE	1	0.0500	0.0100	1.09	W	A
TM	1	0.0550	0.0140	1.20	A	A
TN	1	0.0402	0.0046	0.87	W	W
TO	1	0.0700	0.0270	1.52	W	W

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** U234

**EML Value:** 0.0460  
**EML Error:** 0.0020

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
TX	1	0.0490	0.0050	1.07	A	A
WA	1	0.0330	0.0140	0.72	A	N
WC	1	0.0580	0.0150	1.26	A	A
WE	1	0.0510	0.0160	1.11		A
WE	2	0.0410	0.0140	0.89		W

**Total Number Reported:** 39

**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**  
**Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** U238

**EML Value:** 0.0460  
**EML Error:** 0.0020

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	0.0521	0.0066	1.13	N	A
AM	1	0.0550	0.0140	1.20	N	A
AN	1	0.0430	0.0030	0.94	A	A
AR	1	0.0478	0.0190	1.04	A	A
AT	1	0.0450	0.0070	0.98		A
AU	1	0.0420	0.0050	0.91	A	A
BC	1	0.0506	0.0117	1.10	A	A
BE	1	0.0460	0.0040	1.00	A	A
BM	1	0.0480	0.0073	1.04	A	A
BU	1	0.0510	0.0030	1.11	A	A
BX	1	0.0598	0.0140	1.30	W	W
CH	1	0.0470	0.0040	1.02	A	A
CL	1	0.0700	0.0300	1.52	N	W
CW	1	0.0460	0.0020	1.00	N	A
EG	1	0.0460	0.0037	1.00	A	A
FE	1	0.0750	0.0110	1.63	W	N
GE	1	0.0370	0.0170	0.80	W	W
GT	1	0.0520	0.0130	1.13	A	A
IS	1	0.0440	0.0100	0.96	N	A
IT	1	0.0500	0.0060	1.09	W	A
KO	1	0.0478	0.0037	1.04		A
LL	1	0.0374	0.0042	0.81		W
ML	1	0.0410	0.0060	0.89	A	W
NA	1	0.0660	0.0130	1.43	A	W
NL	1	0.0459	0.0063	1.00	A	A
NQ	1	0.0392	0.0027	0.85	A	W
OB	1	0.0430	0.0160	0.94		A
OK	1	0.0440	0.0200	0.96	A	A
PS	1	0.0400	0.0100	0.87		W
RM	1	0.0560	0.0150	1.22		A
SR	1	0.0480	0.0070	1.04	A	A
TE	1	0.0500	0.0100	1.09	N	A
TM	1	0.0450	0.0120	0.98	A	A
TN	1	0.0367	0.0044	0.80	W	N

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** AI Air Filter Bq / filter  
**Radionuclide:** U238

**EML Value:** 0.0460  
**EML Error:** 0.0020

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
TO	1	0.0485	0.0215	1.05	A	A
TX	1	0.0550	0.0060	1.20	A	A
WA	1	0.0380	0.0140	0.83	A	W
WC	1	0.0470	0.0130	1.02	W	A
WE	2	0.0510	0.0160	1.11		A
WE	1	0.0490	0.0160	1.07		A

**Total Number Reported:** 40

**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**  
**Evaluation: A=Acceptable, 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 54 Results by Nuclide**

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

**EML Value:** 3.7000  
**EML Error:** 0.1600

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AG	1	3.7300	0.5030	1.01	A	A
AR	1	3.8500		1.04	A	A
BE	1	3.6000		0.97	A	A
BQ	1	4.2000	0.2000	1.13	W	A
BU	1	4.5000	0.4500	1.22		A
CB	3	0.0800	0.0060	0.02		N
CB	1	0.0800	0.0060	0.02		N
CB	2	0.0810	0.0060	0.02		N
CH	1	4.1800	0.4200	1.13	W	A
CL	1	11.0000	0.1000	2.97	N	N
GA	1	4.1000	0.6480	1.11	A	A
GE	1	2.8900	0.0340	0.78	A	W
ID	1	0.0460	0.0030	0.01	A	N
IS	1	0.1280	0.0120	0.04		N
IT	1	3.6000	0.4000	0.97	A	A
KO	1	3.8650	0.2000	1.04		A
NL	1	3.7000	0.5100	1.00	A	A
RA	1	3.8000	0.2200	1.03	A	A
RM	1	3.3000	0.4000	0.89	W	W
SW	1	3.7500		1.01		A
TI	1	0.1270	0.0190	0.03		N
TM	1	3.8100	0.0400	1.03	A	A
TN	1	3.0800	0.3800	0.83	W	W
TO	1	4.8910	0.7100	1.32		W
YP	1	3.1900	0.0270	0.86	A	W

**Total Number Reported:** 25

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** AC228

**EML Value:** 42.7000  
**EML Error:** 1.7000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AC	1	43.0000	3.0000	1.01	A	A
AF	1	38.9733	3.4906	0.91	N	A
AG	1	38.0000	7.3000	0.89	A	A
AI	1	46.5000	10.4000	1.09		A
AM	1	37.3100	3.8200	0.87	A	W
AR	1	40.1400	20.2000	0.94	A	A
AS	1	51.4700	5.1100	1.21	A	A
AT	1	37.0870	8.7600	0.87	A	W
AU	1	41.8000	5.4000	0.98	A	A
BE	1	42.4000	10.0000	0.99		A
BN	1	38.8500	0.5200	0.91	W	A
BQ	1	36.0000	10.0000	0.84	W	W
BU	1	37.0000	3.0000	0.87	A	W
BX	1	41.4000	5.1000	0.97	A	A
CD	1	40.0000	5.0000	0.94	A	A
CH	1	42.7000	1.9000	1.00	A	A
CL	1	47.6000	3.4000	1.12	W	A
CM	2	41.0000	1.0000	0.96		A
CM	1	39.0000	1.0000	0.91		A
CN	1	38.4500	2.9000	0.90		A
CS	1	38.1700	12.0800	0.89	W	A
CU	2	37.5000	5.0000	0.88	A	W
CU	1	36.5000	5.0000	0.86	A	W
CW	1	41.0000	2.0000	0.96	A	A
EC	1	49.4000	2.0000	1.16	A	A
EC	3	48.1000	2.0400	1.13	A	A
EC	4	48.5000	2.0300	1.14	A	A
EC	5	49.6000	2.1200	1.16	A	A
EC	2	49.3000	2.0700	1.15	A	A
EG	1	45.0000	7.0000	1.05		A
FE	1	48.2800	5.1700	1.13	A	A
FG	1	45.9000	8.0000	1.08	A	A
FJ	1	40.3000	2.0000	0.94		A
FL	1	40.9800	1.7400	0.96	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** AC228

**EML Value:** 42.7000  
**EML Error:** 1.7000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
FN	1	38.4000	2.3000	0.90		A
FR	1	38.0000	4.0000	0.89	A	A
FS	1	37.3000	0.4000	0.87	A	W
FU	1	41.5600	3.3900	0.97		A
GA	1	35.0000	12.4000	0.82	A	W
GC	3	39.2000	3.4000	0.92	A	A
GC	1	40.9000	6.8000	0.96	A	A
GC	2	39.4000	4.8000	0.92	A	A
GE	1	41.8000	7.0400	0.98	A	A
HU	1	40.2000	1.2000	0.94	A	A
ID	1	36.2270	1.9630	0.85	N	W
IS	1	36.1000	10.0000	0.85	A	W
IT	1	55.0000	3.9000	1.29	W	W
KO	1	36.7000	1.8000	0.86		W
LA	1	39.1000	6.5000	0.92	A	A
LA	3	41.0000	6.3000	0.96	A	A
LA	2	35.5000	5.3000	0.83	A	W
LB	1	75.0000	13.0000	1.76	A	N
LM	1	43.6700	2.7800	1.02	A	A
LV	1	38.9000	1.0000	0.91	A	A
ME	3	46.6000	1.6000	1.09	A	A
ME	2	48.8000	2.1000	1.14	A	A
ME	1	49.9000	1.7000	1.17	A	A
MH	1	38.9000	1.6000	0.91	A	A
MS	1	49.8000	5.0000	1.17	A	A
NA	1	38.7000	2.5000	0.91		A
NJ	2	40.0000	2.0000	0.94		A
NJ	1	40.0000	2.0000	0.94		A
NJ	3	40.0000	2.0000	0.94		A
NL	1	41.6000	1.7000	0.97	A	A
NQ	1	42.2000	8.9000	0.99	A	A
NZ	1	27.0000	2.0000	0.63	W	N
OB	1	32.0000	8.4800	0.75		N
OC	1	46.0000	9.0000	1.08	N	A
OH	1	39.4000	3.4000	0.92	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** AC228

**EML Value:** 42.7000  
**EML Error:** 1.7000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
OT	1	35.0000	4.0000	0.82	A	W
OU	1	41.7000	7.6300	0.98	W	A
PK	1	49.2200	1.7600	1.15	A	A
RA	2	36.0000	3.0000	0.84	A	W
RA	1	36.0000	4.0000	0.84	A	W
RM	1	44.0000	9.0000	1.03	A	A
SE	1	39.6000	2.3000	0.93	W	A
SI	1	40.2000	2.0000	0.94	A	A
SN	1	41.6000	6.6400	0.97	A	A
SY	1	34.7000	1.3000	0.81		W
TE	1	45.6000	4.0000	1.07	A	A
TM	1	43.8180	5.7740	1.03	A	A
TO	1	32.2980	6.1190	0.76	W	N
TP	1	40.2900	1.2100	0.94	A	A
TQ	1	41.4000	1.3000	0.97	A	A
TW	1	41.1000	1.6000	0.96	A	A
TX	1	40.0000	1.2200	0.94	A	A
WA	1	43.0000	4.0000	1.01	W	A
WE	2	35.2000	3.2000	0.82	A	W
WE	3	38.6000	3.4000	0.90	A	A
WE	1	38.6000	2.9000	0.90	A	A
WI	2	35.2000	6.2600	0.82		W
WI	1	38.2000	6.7200	0.89		A
WI	3	39.6000	6.8900	0.93		A
WN	2	43.3000	2.1000	1.01	A	A
WN	3	41.1000	2.2000	0.96	A	A
WN	1	41.5000	2.3000	0.97	A	A
WO	2	40.7400	9.3100	0.95	A	A
WO	1	39.7000	6.1000	0.93	A	A
WT	1	51.5250	10.7600	1.21		A
WW	2	40.1000	2.2000	0.94	A	A
WW	3	37.4000	2.0000	0.88	A	W
WW	1	37.8000	2.0000	0.88	A	W
WY	1	37.4000	9.6000	0.88		W
YA	1	35.4580	0.7840	0.83	A	W

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** AC228

**EML Value:** 42.7000  
**EML Error:** 1.7000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
YU	1	51.7000	2.2000	1.21	A	A

**Total Number Reported:** 105

**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**  
**Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq/kg  
**Radionuclide:** AM241

**EML Value:** 14.8000  
**EML Error:** 0.5100

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	14.1106	1.8784	0.95	A	A
AG	1	16.7000	2.5900	1.13	A	A
AI	1	10.9000	1.4000	0.74		W
AM	1	13.5700	1.8900	0.92	A	A
AN	1	14.0000	0.9000	0.95	A	A
AR	1	14.8000	1.8300	1.00	A	A
AS	1	18.6400	3.6600	1.26	A	A
AT	1	14.7370	1.9330	1.00	A	A
AU	1	13.7000	1.8000	0.93	A	A
BE	1	14.5300	0.7600	0.98	A	A
BM	1	15.8000	2.4000	1.07		A
BN	1	25.1700	9.0100	1.70		W
BU	1	14.4000	0.9000	0.97	A	A
BX	1	11.1000	3.4000	0.75	N	W
CH	1	15.8000	1.7000	1.07	A	A
CL	1	13.1000	1.8000	0.88	A	A
CN	1	15.7700	0.8900	1.07		A
CS	1	9.7200	3.4100	0.66		W
CW	1	14.6000	0.4000	0.99	A	A
DH	1	15.3200	0.6900	1.03		A
EC	3	21.1000	1.8300	1.43	A	A
EC	1	21.4000	1.8700	1.45	A	A
EC	2	21.2000	1.8700	1.43	A	A
EC	5	20.8000	1.8400	1.40	A	A
EC	4	20.5000	1.7800	1.38	A	A
EG	2	14.0000	4.0000	0.95		A
EG	1	13.5000	1.2000	0.91		A
FE	1	17.2000	0.8100	1.16	A	A
FL	1	15.1400	0.5900	1.02	A	A
FS	1	15.5000	1.0000	1.05	W	A
FU	1	17.9200	2.6700	1.21		A
GA	1	15.5000	1.3600	1.05	A	A
GC	1	10.1000	5.2000	0.68		W
GC	3	7.0000	4.1000	0.47		N

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** AM241

**EML Value:** 14.8000  
**EML Error:** 0.5100

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
GC	2	8.5000	0.0000	0.57		N
GE	1	14.2000	2.7400	0.96	A	A
GT	1	15.0000	3.0000	1.01	A	A
HU	1	7.5000	1.3000	0.51	W	N
ID	1	14.7930	0.8930	1.00	W	A
IN	4	17.9000	3.5000	1.21	W	A
IN	5	19.4000	3.2000	1.31	W	A
IN	2	19.5000	2.9000	1.32	W	A
IN	3	27.5000	3.0000	1.86	W	W
IN	1	21.1000	2.8000	1.43	W	A
IS	1	10.9000	2.2000	0.74	W	W
IS	2	17.8000	3.3000	1.20	W	A
IT	1	13.6000	1.3000	0.92	A	A
KE	1	6.8300	0.1400	0.46		N
KO	1	13.6000	0.6000	0.92		A
KR	2	14.0000	2.1000	0.95	A	A
KR	4	10.9000	1.5000	0.74	A	W
KR	3	12.0000	1.2000	0.81	A	W
KR	1	13.7000	2.5000	0.93	A	A
KR	5	13.3000	1.3000	0.90	A	A
LA	1	14.7560	0.5920	1.00		A
LA	3	14.6590	0.5440	0.99		A
LA	2	13.8900	0.5400	0.94		A
LB	1	15.0000	2.0000	1.01	A	A
LL	1	15.3000	0.6400	1.03	A	A
LM	1	20.3330	1.8000	1.37	W	A
LV	1	6.8200	1.1200	0.46	A	N
LW	1	17.0000	1.8400	1.15		A
ME	3	15.6000	1.9000	1.05	A	A
ME	2	16.4000	3.3000	1.11	A	A
ME	1	16.5000	2.0000	1.12	A	A
MH	1	10.9000	1.0000	0.74	W	W
ML	1	14.4000	1.4000	0.97	A	A
NA	1	12.1000	2.7000	0.82		W
NJ	2	12.0000	3.0000	0.81		W

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** AM241

**EML Value:** 14.8000  
**EML Error:** 0.5100

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
NJ	1	12.0000	3.0000	0.81		W
NJ	3	14.0000	1.0000	0.95		A
NM	3	15.6000	1.3000	1.05	A	A
NM	1	14.0000	0.7000	0.95	A	A
NM	2	14.8000	1.4000	1.00	A	A
NQ	1	17.8000	1.6000	1.20		A
NZ	1	17.8000	1.3000	1.20	A	A
OB	1	17.5000	10.2000	1.18		A
OK	1	14.0000	2.6000	0.95	A	A
OT	1	13.0000	1.0000	0.88	W	A
PS	1	12.5000	6.4000	0.85		A
SB	1	15.0500	1.9340	1.02	W	A
SI	1	15.0000	0.5000	1.01	A	A
SN	1	14.8000	4.5800	1.00		A
SR	1	13.7000	2.2000	0.93	W	A
SY	1	14.9600	1.8200	1.01		A
TE	1	14.4000	0.5000	0.97		A
TM	1	16.2430	5.2140	1.10	A	A
TN	1	14.7100	1.8100	0.99	A	A
TO	1	14.9180	4.0780	1.01	A	A
UY	1	13.5000	2.3000	0.91	N	A
WA	1	14.2000	1.8000	0.96	A	A
WC	1	13.8000	2.7700	0.93	A	A
WE	2	18.1000	5.0000	1.22	A	A
WE	3	20.6000	5.7000	1.39	A	A
WE	1	16.1000	4.4000	1.09	A	A
WI	2	17.2100	2.6190	1.16		A
WI	1	16.6000	2.4750	1.12		A
WI	3	17.3400	2.5540	1.17		A
WN	3	11.0000	3.0000	0.74		W
WN	2	14.5000	1.5000	0.98		A
WN	1	11.6000	1.4000	0.78		W
WW	2	9.6000	2.5000	0.65	W	W
WW	1	9.1000	2.5000	0.62	W	N
WW	3	8.4000	2.5000	0.57	W	N

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** AM241

**EML Value:** 14.8000  
**EML Error:** 0.5100

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
YA	1	14.6640	0.4500	0.99	A	A
YU	1	11.0000	3.0000	0.74	A	W

**Total Number Reported:** 106

**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**  
**Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq/kg  
**Radionuclide:** BI212

**EML Value:** 42.0000  
**EML Error:** 4.1000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AC	1	50.0000	6.0000	1.19	N	W
AF	1	54.7600	8.1307	1.30	A	N
AG	1	42.7000	14.3000	1.02	A	A
AI	1	30.0000	8.0000	0.71		A
AM	1	48.5200	5.9100	1.15	A	W
AR	1	50.2800	30.4000	1.20	N	W
AS	1	29.6700	5.4100	0.71	A	A
AU	1	39.6000	9.1000	0.94	W	A
BE	1	25.4000	20.0000	0.61		A
BN	1	25.2300	3.6900	0.60	W	A
BQ	1	58.0000	9.0000	1.38		N
BU	1	35.0000	3.0000	0.83	A	A
BX	1	33.0000	6.3000	0.79	A	A
CD	1	44.0000	5.0000	1.05	N	A
CH	1	48.8000	5.2000	1.16	N	W
CL	1	46.9000	2.5000	1.12	N	W
CM	2	25.0000	2.0000	0.60		A
CM	1	24.0000	2.0000	0.57		A
CS	1	24.4600	8.1000	0.58	A	A
CU	2	36.4000	4.0000	0.87	A	A
CU	1	37.5000	4.0000	0.89	A	A
CW	1	35.0000	5.0000	0.83	A	A
DH	1	38.5900	7.4300	0.92	W	A
EC	1	56.6000	6.7200	1.35	N	N
EC	2	57.1000	7.3100	1.36	N	N
EC	4	54.6000	7.0000	1.30	N	N
EC	5	57.8000	7.0700	1.38	N	N
EC	3	57.4000	7.0600	1.37	N	N
EG	1	57.0000	14.0000	1.36		N
FE	1	52.7200	8.5700	1.25	W	N
FJ	1	34.4500	1.7000	0.82		A
FL	1	49.2300	1.9500	1.17	W	W
FN	1	39.7000	5.6000	0.94		A
FR	1	41.0000	6.0000	0.98	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** BI212

**EML Value:** 42.0000  
**EML Error:** 4.1000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
FU	1	47.0200	8.2800	1.12		W
GA	1	32.8000	12.0000	0.78	A	A
GC	2	25.6000	8.6000	0.61	A	A
GC	3	24.2000	5.7000	0.58	A	A
GC	1	36.0000	12.4000	0.86	A	A
GE	1	24.5000	6.1800	0.58	A	A
HU	1	38.6000	3.6000	0.92	A	A
ID	1	22.0300	1.7220	0.52	N	W
IS	1	43.4000	16.1000	1.03	W	A
IT	1	49.9000	7.3000	1.19		W
KO	1	41.7000	4.1000	0.99		A
LA	2	38.5000	15.6000	0.92	A	A
LA	3	37.1000	14.5000	0.88	A	A
LA	1	41.2000	14.5000	0.98	A	A
LB	1	75.0000	10.0000	1.79	W	N
LM	1	43.5900	14.1700	1.04	A	A
LV	1	47.3000	3.2000	1.13	A	W
ME	2	42.5000	3.5000	1.01	W	A
ME	1	59.2000	5.1000	1.41	W	N
ME	3	56.6000	13.1000	1.35	W	N
MH	1	22.1000	2.3000	0.53	A	W
ML	1	29.0000	2.9000	0.69	W	A
NA	1	40.0000	8.0000	0.95	A	A
NJ	3	49.0000	8.0000	1.17		W
NJ	1	42.0000	9.0000	1.00		A
NJ	2	50.0000	8.0000	1.19		W
NL	1	38.9000	2.1000	0.93	A	A
NQ	1	53.3000	14.1000	1.27	N	N
NZ	1	59.0000	9.0000	1.40	A	N
OB	1	28.3000	24.3000	0.67		A
OH	1	47.8000	9.0000	1.14	W	W
PK	1	56.0200	10.9200	1.33		N
RA	2	36.0000	4.0000	0.86	A	A
RA	1	34.6000	4.5000	0.82	A	A
RM	1	44.0000	6.0000	1.05	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** BI212

**EML Value:** 42.0000  
**EML Error:** 4.1000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
SE	1	33.7000	4.4000	0.80		A
SI	1	38.9000	0.9000	0.93	A	A
SN	1	20.2000	11.2000	0.48	A	W
SR	1	26.3000	6.7000	0.63	A	A
SY	1	32.0000	3.6000	0.76		A
TE	1	53.2000	3.1000	1.27	A	N
TM	1	27.2480	13.9040	0.65	A	A
TN	1	23.9900	16.5300	0.57		A
TO	1	21.0500	11.4510	0.50	A	W
TP	1	43.2800	3.9700	1.03	W	A
TQ	1	41.5000	2.0000	0.99	W	A
TW	1	45.2000	5.9000	1.08	A	A
TX	1	25.1100	3.3000	0.60	A	A
WA	1	43.0000	7.0000	1.02	A	A
WE	1	38.2000	11.4000	0.91	A	A
WE	2	44.1000	9.7000	1.05	A	A
WE	3	47.8000	11.9000	1.14	A	W
WI	2	46.7000	11.3000	1.11		W
WI	3	50.9000	12.6000	1.21		W
WI	1	45.2000	10.6000	1.08		A
WN	2	33.5000	4.9000	0.80	N	A
WN	3	25.0000	6.0000	0.60	N	A
WN	1	31.3000	4.7000	0.75	N	A
WO	2	48.9500	15.5500	1.16	A	W
WO	1	43.5000	12.3000	1.04	A	A
WT	1	37.7850	16.2300	0.90	A	A
WW	3	26.3000	4.1000	0.63	A	A
WW	2	26.7000	3.7000	0.64	A	A
WW	1	22.5000	3.5000	0.54	A	W
YU	1	54.5000	2.8000	1.30	W	N

**Total Number Reported:** 99

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq/kg  
**Radionuclide:** BI214

**EML Value:** 32.6000  
**EML Error:** 1.4000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AC	1	36.0000	4.0000	1.10	W	A
AF	1	25.2833	2.2808	0.78	N	N
AG	1	24.7000	21.8000	0.76	W	N
AI	1	24.0000	5.0000	0.74		N
AM	1	27.9500	1.7200	0.86	A	W
AR	1	28.8600	11.0000	0.88	A	A
AS	1	32.2800	2.8800	0.99	A	A
AT	1	29.1600	2.7100	0.89	A	A
AU	1	28.5000	3.4000	0.87	A	W
BN	1	32.2500	1.7300	0.99	A	A
BQ	1	38.0000	8.0000	1.17	W	A
BU	1	28.0000	3.0000	0.86	W	W
BX	1	28.9000	4.0000	0.89	A	A
CD	1	32.0000	5.0000	0.98	A	A
CH	1	29.5000	1.6000	0.90	A	A
CL	1	46.2000	4.4000	1.42	N	W
CM	2	28.0000	2.0000	0.86		W
CM	1	28.0000	2.0000	0.86		W
CN	1	31.5300	1.8000	0.97		A
CS	1	28.3600	8.9100	0.87	A	W
CU	1	26.4000	3.0000	0.81	A	W
CU	2	26.5000	3.0000	0.81	A	W
CW	1	28.0000	2.0000	0.86	A	W
DH	1	34.3800	5.5000	1.05	A	A
EC	1	36.3000	1.9600	1.11	W	A
EC	4	36.9000	1.9000	1.13	W	A
EC	2	37.5000	2.0100	1.15	W	A
EC	3	35.8000	1.9100	1.10	W	A
EC	5	35.7000	1.9600	1.10	W	A
EG	1	26.0000	4.0000	0.80		W
FE	1	33.4200	2.4600	1.02	A	A
FG	1	39.7000	6.0000	1.22		A
FJ	1	32.7600	1.6000	1.00		A
FL	1	32.0900	0.4600	0.98	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** BI214

**EML Value:** 32.6000  
**EML Error:** 1.4000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
FN	1	29.4000	1.8000	0.90		A
FR	1	27.0000	3.0000	0.83	A	W
FS	1	25.9000	0.5000	0.79	A	W
FU	1	34.2900	2.2800	1.05		A
GA	1	32.3000	9.0000	0.99	A	A
GC	3	39.2000	2.9000	1.20	A	A
GC	2	35.2000	5.3000	1.08	A	A
GC	1	36.9000	7.1000	1.13	A	A
GE	1	26.6000	4.1300	0.82	A	W
HU	1	27.5000	1.2000	0.84	A	W
ID	1	26.1930	1.3150	0.80	N	W
IS	1	26.5000	5.3000	0.81	W	W
IT	1	34.2000	2.7000	1.05	W	A
KO	1	28.5000	1.4000	0.87		W
LA	1	30.0000	4.6000	0.92	A	A
LA	2	24.9000	4.1000	0.76	A	N
LA	3	28.3000	4.1000	0.87	A	W
LB	1	53.0000	9.0000	1.63	A	N
LM	1	26.6400	3.0000	0.82	A	W
LV	1	29.5000	0.9000	0.90	A	A
ME	2	38.1000	1.3000	1.17	A	A
ME	3	41.3000	1.9000	1.27	A	W
ME	1	38.1000	1.9000	1.17	A	A
MH	1	27.6000	1.2000	0.85	A	W
ML	1	25.0000	2.5000	0.77	A	N
MS	1	32.2000	3.2000	0.99	A	A
NA	1	28.1000	1.8000	0.86	A	W
NJ	2	33.0000	2.0000	1.01		A
NJ	1	33.0000	2.0000	1.01		A
NJ	3	34.0000	2.0000	1.04		A
NL	1	29.4000	1.3000	0.90	A	A
NQ	1	33.0000	7.0000	1.01	A	A
NZ	1	26.0000	2.0000	0.80	A	W
OB	1	30.1000	8.0100	0.92		A
OC	1	34.0000	5.0000	1.04	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** BI214

**EML Value:** 32.6000  
**EML Error:** 1.4000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
OH	1	22.6000	2.7000	0.69	A	N
OT	1	27.0000	7.0000	0.83	A	W
OU	1	29.1000	5.5000	0.89	W	A
PK	1	36.2400	2.3600	1.11	A	A
RA	1	25.1000	3.3000	0.77	A	N
RA	2	25.0000	3.0000	0.77	A	N
RM	1	34.0000	8.0000	1.04	A	A
SE	1	27.0000	1.6000	0.83	A	W
SI	1	28.4000	0.8000	0.87	A	W
SI	2	32.5000	1.2000	1.00	A	A
SN	1	26.1000	4.7600	0.80	A	W
SR	1	28.8000	3.2000	0.88	A	A
SX	1	30.1800	5.0600	0.93		A
SY	1	44.5200	1.7900	1.37		W
TE	1	42.1000	7.7000	1.29	A	W
TM	1	35.4640	6.7770	1.09	W	A
TN	1	29.2600	9.7800	0.90	W	A
TO	1	28.6080	7.0550	0.88	A	W
TP	1	30.5700	1.9100	0.94	A	A
TQ	1	27.0000	0.8000	0.83	A	W
TW	1	27.5000	1.4000	0.84	A	W
TX	1	30.0400	1.2600	0.92	A	A
WA	1	28.0000	3.0000	0.86	A	W
WE	1	30.4000	2.8000	0.93	A	A
WE	3	31.0000	2.7000	0.95	A	A
WE	2	30.7000	2.6000	0.94	A	A
WI	3	28.0000	4.8500	0.86		W
WI	2	26.6000	4.6600	0.82		W
WI	1	26.4000	4.6300	0.81		W
WN	3	30.3000	1.8000	0.93	N	A
WN	2	30.8000	2.1000	0.94	N	A
WN	1	31.7000	2.1000	0.97	N	A
WO	2	32.5200	7.6000	1.00	N	A
WO	1	35.9000	7.0000	1.10	N	A
WT	1	41.9280	9.6280	1.29	W	W

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** BI214

**EML Value:** 32.6000  
**EML Error:** 1.4000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
WW	3	34.1000	2.0000	1.05	A	A
WW	1	32.6000	2.2000	1.00	A	A
WW	2	32.2000	2.2000	0.99	A	A
WY	1	28.9000	5.5200	0.89		A
YU	1	35.5000	3.5000	1.09	A	A

**Total Number Reported:** 109

**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**  
**Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** Bq U

**EML Value:** 91.8000  
**EML Error:** 2.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	70.5701	4.2487	0.77	A	W
AI	1	80.3000	3.3000	0.88		A
AM	1	65.3700	12.5800	0.71	A	W
AT	1	71.4370	6.5580	0.78	W	W
BU	1	89.0000	9.0000	0.97	A	A
CH	1	79.4000	3.2000	0.87	A	A
HT	1	80.0000	7.0000	0.87	A	A
IN	2	89.4000	6.5000	0.97	A	A
IN	1	94.9000	5.0000	1.03	A	A
KO	1	91.0000	5.5000	0.99		A
MX	1	67.3000	4.6800	0.73		W
MX	2	65.1200	4.7500	0.71		W
OT	1	70.0000	6.0000	0.76		W
SN	1	80.8000	15.4000	0.88	A	A
UY	1	77.1000	9.7000	0.84	W	A
WA	1	84.0000	6.0000	0.92	A	A
WI	2	85.6000	8.3900	0.93		A
WI	3	81.6800	8.1730	0.89		A
WI	1	82.9500	8.1780	0.90		A
WO	2	210.1000	38.8000	2.29	A	N
WO	1	208.7000	40.2000	2.27	A	N

**Total Number Reported:** 21

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** CS137

**EML Value:**1740.0000

**EML Error:** 90.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AC	1	1700.0000	140.0000	0.98	A	A
AF	1	1570.1570	96.2007	0.90	W	A
AG	1	1760.0000	290.0000	1.01	A	A
AI	1	1850.0000	310.0000	1.06		A
AM	1	1746.9000	6.5000	1.00	A	A
AN	1	1874.0000	15.0000	1.08	A	A
AR	1	1680.0000	822.3000	0.97	A	A
AS	1	2101.6001	10.4000	1.21	A	W
AT	1	1594.3330	135.6670	0.92	A	A
AU	1	1656.0000	19.0000	0.95	A	A
BA	1	1727.0000	32.5000	0.99	A	A
BC	1	1860.0000	180.0000	1.07	W	A
BE	1	1624.0000	162.0000	0.93	A	A
BM	1	1919.0000	231.0000	1.10	A	A
BN	1	1891.9301	92.6400	1.09	A	A
BQ	1	1820.0000	27.0000	1.05	A	A
BU	1	1670.0000	60.0000	0.96	A	A
BX	1	1910.0000	198.0000	1.10	W	A
CD	1	1820.0000	150.0000	1.05	A	A
CE	1	1627.0000	94.0000	0.94	W	A
CF	3	1605.0000	6.0000	0.92	A	A
CF	2	1621.0000	3.0000	0.93	A	A
CF	1	1650.0000	5.0000	0.95	A	A
CH	1	1880.0000	3.9000	1.08	W	A
CL	1	1820.0000	8.3000	1.05	W	A
CM	2	1708.0000	32.0000	0.98		A
CM	1	1661.0000	31.0000	0.95		A
CN	1	1880.0000	93.0000	1.08		A
CO	3	1798.0000	22.0000	1.03	A	A
CO	2	1785.0000	23.0000	1.03	A	A
CO	1	1794.0000	23.0000	1.03	A	A
CS	1	1680.0000	528.5000	0.97	A	A
CU	1	1650.0000	50.0000	0.95	A	A
CU	2	1598.0000	50.0000	0.92	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** CS137

**EML Value:**1740.0000

**EML Error:** 90.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
CW	1	1599.0000	33.0000	0.92	A	A
DH	1	1872.4100	23.7100	1.08	A	A
EC	2	2080.0000	84.9000	1.20	A	W
EC	1	2090.0000	58.2000	1.20	A	W
EC	3	2080.0000	66.7000	1.20	A	W
EC	4	2090.0000	65.4000	1.20	A	W
EC	5	2090.0000	67.0000	1.20	A	W
EG	1	1800.0000	130.0000	1.03	A	A
FE	1	1896.2500	45.2700	1.09	A	A
FG	1	1792.0000	220.0000	1.03	A	A
FJ	1	1511.0500	75.6000	0.87	N	W
FL	1	1915.7800	16.9700	1.10	A	A
FN	1	1680.0000	150.0000	0.97		A
FR	1	1700.0000	190.0000	0.98	A	A
FS	1	1720.0000	3.0000	0.99	A	A
FU	1	1864.0000	140.7300	1.07		A
GA	1	1710.0000	117.0000	0.98	A	A
GC	2	1526.1000	64.5000	0.88	A	W
GC	3	1624.4000	65.9000	0.93	A	A
GC	1	1531.5000	193.0000	0.88	A	W
GE	1	1836.0000	213.2000	1.05	A	A
GT	1	1950.0000	150.0000	1.12	A	A
HU	1	1830.0000	52.0000	1.05	A	A
ID	1	1722.6700	86.1470	0.99	N	A
IS	1	1910.0000	218.0000	1.10	N	A
IT	1	2097.0000	124.0000	1.21	N	W
KA	1	1790.3000	102.2000	1.03	A	A
KE	1	1731.9301	11.8200	1.00		A
KO	1	1675.0000	31.0000	0.96		A
KR	1	1660.3000	73.2000	0.95	A	A
KR	2	1648.1000	68.5000	0.95	A	A
KR	3	1667.8000	73.2000	0.96	A	A
KR	5	1639.4000	66.9000	0.94	A	A
KR	4	1656.9000	68.5000	0.95	A	A
LA	2	1622.0000	179.0000	0.93	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** CS137

**EML Value:**1740.0000

**EML Error:** 90.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
LA	1	1622.0000	179.0000	0.93	A	A
LA	3	1617.0000	178.0000	0.93	A	A
LB	1	2019.0000	147.0000	1.16	A	A
LL	1	1660.0000	209.0000	0.95	W	A
LM	1	1951.4000	5.8000	1.12	A	A
LV	1	1663.0000	55.0000	0.96	A	A
LW	1	2460.0000	171.0000	1.41	A	N
ME	2	1927.5000	45.5000	1.11	A	A
ME	3	1934.9000	47.4000	1.11	A	A
ME	1	1971.9000	48.5000	1.13	A	A
MH	1	1752.8000	88.5000	1.01	A	A
ML	1	1743.0000	174.3000	1.00	A	A
MS	1	1965.0000	197.0000	1.13	A	A
MZ	1	2010.4600	16.2800	1.15		A
MZ	3	2043.1600	16.3500	1.17		A
MZ	2	2033.3000	16.2700	1.17		A
NA	1	1807.0000	58.0000	1.04	A	A
NJ	2	1880.0000	90.0000	1.08		A
NJ	3	1850.0000	100.0000	1.06		A
NJ	1	1870.0000	90.0000	1.08		A
NL	1	1762.0000	88.0000	1.01	A	A
NM	1	1880.0000	80.0000	1.08	A	A
NQ	1	2000.0000	410.0000	1.15	A	A
NR	1	1536.0000	307.0000	0.88	A	W
NZ	1	1820.0000	20.0000	1.05	A	A
OB	1	1500.0000	277.0000	0.86		W
OC	1	1930.0000	190.0000	1.11	A	A
OH	1	1536.6000	6.8000	0.88	A	W
OK	1	2068.0000	48.0000	1.19		W
OT	1	1583.0000	100.0000	0.91	A	A
OU	1	1710.0000	81.2000	0.98	W	A
PK	1	1756.0000	29.0000	1.01	A	A
PS	1	1542.7300	6.4000	0.89		W
RA	1	1660.0000	130.0000	0.95	A	A
RA	2	1660.0000	100.0000	0.95	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq/kg  
**Radionuclide:** CS137

**EML Value:**1740.0000

**EML Error:** 90.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
RC	1	1760.0000	120.0000	1.01	A	A
RI	1	1600.0000	35.5000	0.92	A	A
RM	1	1910.0000	220.0000	1.10	A	A
RU	1	1620.0000	160.0000	0.93		A
SA	1	1940.0000	75.0000	1.12	A	A
SB	1	1719.0000	213.9000	0.99	W	A
SE	1	1880.0000	19.0000	1.08	A	A
SI	1	1695.0000	34.0000	0.97	A	A
SN	1	1760.0000	172.0000	1.01	A	A
SR	1	1740.0000	176.0000	1.00	A	A
SX	1	1662.8300	87.9400	0.96		A
SY	1	1640.0000	84.0000	0.94		A
TE	1	1772.6000	79.8000	1.02	A	A
TI	1	1696.0000	116.7000	0.98	A	A
TM	1	2003.5800	137.0300	1.15	A	A
TN	1	1798.0000	20.0000	1.03	A	A
TO	1	1519.9150	147.6490	0.87	A	W
TP	1	1686.5500	13.0600	0.97	A	A
TQ	1	1798.0000	45.0000	1.03	A	A
TW	1	1718.0000	14.0000	0.99	A	A
TX	1	1804.0000	17.0000	1.04	A	A
UC	1	1970.0000	5.4900	1.13	A	A
UG	1	1734.9000	60.1000	1.00		A
UY	1	1817.0000	170.0000	1.04	W	A
WA	1	1880.0000	120.0000	1.08	A	A
WC	1	1790.0000	267.0000	1.03	A	A
WE	3	1783.0000	76.4000	1.02	A	A
WE	2	1804.0000	124.0000	1.04	A	A
WE	1	1806.0000	125.0000	1.04	A	A
WI	2	1620.0000	204.0000	0.93		A
WI	3	1650.0000	208.0000	0.95		A
WI	1	1630.0000	205.0000	0.94		A
WN	1	1941.0000	64.0000	1.12	W	A
WN	2	1925.0000	63.0000	1.11	W	A
WN	3	1911.0000	63.0000	1.10	W	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** CS137

**EML Value:**1740.0000  
**EML Error:** 90.0000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
WO	2	1783.4000	301.9000	1.02	A	A
WO	1	1832.2000	216.4000	1.05	A	A
WT	1	2060.8000	230.6000	1.18	A	W
WW	1	1584.0000	117.7000	0.91	A	A
WW	2	1609.1000	119.4000	0.93	A	A
WW	3	1585.5000	117.8000	0.91	A	A
WY	1	1831.0000	97.7000	1.05		A
YA	1	1543.5000	1.7000	0.89	A	W
YU	1	2088.0000	40.0000	1.20	A	W

**Total Number Reported:** 148

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq/kg  
**Radionuclide:** K40

**EML Value:** 468.0000  
**EML Error:** 25.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AC	1	444.0000	16.0000	0.95	A	A
AF	1	439.3133	28.5545	0.94	W	A
AG	1	468.0000	82.7000	1.00	A	A
AI	1	569.0000	20.0000	1.22		A
AM	1	484.8600	16.5000	1.04	A	A
AN	1	485.0000	18.0000	1.04	A	A
AR	1	440.4000	216.6000	0.94	A	A
AS	1	550.1900	23.6600	1.18	A	A
AT	1	454.1000	47.8000	0.97	A	A
AU	1	427.0000	25.0000	0.91	A	A
BC	1	525.0000	58.0000	1.12	A	A
BE	1	462.0000	56.0000	0.99	N	A
BN	1	460.0300	16.6400	0.98	W	A
BQ	1	820.0000	260.0000	1.75		N
BU	1	430.0000	30.0000	0.92	A	A
BX	1	511.0000	51.0000	1.09	A	A
CD	1	500.0000	40.0000	1.07	A	A
CE	1	465.0000	42.0000	0.99	A	A
CF	3	286.4000	6.0000	0.61		N
CF	1	289.7000	4.6000	0.62		N
CF	2	294.4000	2.9000	0.63		N
CH	1	506.0000	9.6000	1.08	A	A
CL	1	759.0000	23.6000	1.62	A	N
CM	1	463.0000	15.0000	0.99		A
CM	2	472.0000	16.0000	1.01		A
CN	1	477.7000	24.9000	1.02		A
CS	1	505.1000	160.6000	1.08	A	A
CU	1	419.0000	30.0000	0.89	A	W
CU	2	400.0000	30.0000	0.86	A	W
CW	1	430.0000	16.0000	0.92	A	A
DH	1	490.0800	20.7500	1.05	A	A
EC	1	589.0000	32.6000	1.26	A	W
EC	2	592.0000	31.8000	1.26	A	W
EC	3	583.0000	30.1000	1.25	A	W

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq/kg  
**Radionuclide:** K40

**EML Value:** 468.0000  
**EML Error:** 25.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
EC	5	595.0000	32.7000	1.27	A	W
EC	4	593.0000	29.1000	1.27	A	W
EG	1	470.0000	48.0000	1.00	A	A
FE	1	505.9800	18.2200	1.08	A	A
FG	1	483.0000	100.0000	1.03	A	A
FJ	1	424.5100	21.2000	0.91	A	A
FL	1	489.6800	6.9800	1.05	A	A
FN	1	464.0000	41.0000	0.99		A
FR	1	470.0000	35.0000	1.00	A	A
FS	1	453.5000	0.4000	0.97	A	A
FU	1	508.1000	29.8800	1.09		A
GA	1	474.0000	53.0000	1.01	A	A
GC	1	437.6000	60.2000	0.94	A	A
GC	2	455.1000	30.2000	0.97	A	A
GC	3	477.0000	24.6000	1.02	A	A
GE	1	519.0000	57.7000	1.11	A	A
GT	1	510.0000	52.0000	1.09	A	A
HU	1	508.0000	21.0000	1.09	A	A
ID	1	459.4300	23.6000	0.98	N	A
IS	1	474.0000	56.0000	1.01	W	A
IT	1	547.5000	34.0000	1.17	W	A
KA	1	459.6700	118.5700	0.98	A	A
KE	1	464.7600	3.2400	0.99		A
KO	1	465.0000	14.0000	0.99		A
KR	5	401.3000	29.0000	0.86	A	W
KR	4	420.2000	27.3000	0.90	A	W
KR	1	417.6000	27.3000	0.89	A	W
KR	2	416.2000	25.9000	0.89	A	W
KR	3	413.9000	34.6000	0.88	A	W
LA	1	450.0000	53.0000	0.96	A	A
LA	2	409.0000	49.0000	0.87	A	W
LA	3	441.0000	52.0000	0.94	A	A
LB	1	546.0000	44.0000	1.17	A	A
LL	1	494.0000	64.4000	1.06	A	A
LM	1	562.2400	19.7700	1.20	W	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq/kg  
**Radionuclide:** K40

**EML Value:** 468.0000

**EML Error:** 25.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
LV	1	454.0000	19.0000	0.97	A	A
LW	1	715.0000	165.0000	1.53	W	N
ME	1	488.3000	31.1000	1.04	A	A
ME	3	458.8000	27.8000	0.98	A	A
ME	2	506.8000	26.2000	1.08	A	A
MH	1	499.7000	24.4000	1.07	A	A
ML	1	493.0000	49.3000	1.05	A	A
MS	1	518.0000	52.0000	1.11	W	A
MZ	1	426.6900	25.2600	0.91		A
MZ	2	392.2700	24.2400	0.84		W
MZ	3	381.8000	23.9000	0.82		W
NA	1	481.0000	21.0000	1.03	A	A
NJ	1	479.0000	20.0000	1.02		A
NJ	3	494.0000	20.0000	1.06		A
NJ	2	476.0000	20.0000	1.02		A
NL	1	537.0000	27.0000	1.15	A	A
NQ	1	544.0000	112.0000	1.16	A	A
NZ	1	466.0000	14.0000	1.00	A	A
OB	1	460.0000	98.2000	0.98		A
OC	1	444.0000	60.0000	0.95	A	A
OH	1	395.0000	18.0000	0.84	A	W
OK	1	740.0000	15.0000	1.58		N
OT	1	435.0000	20.0000	0.93	A	A
OU	1	511.0000	47.0000	1.09	N	A
PK	1	522.9000	18.4000	1.12		A
PS	1	421.7500	14.6100	0.90		A
RA	1	1080.0000	100.0000	2.31	A	N
RA	2	460.0000	100.0000	0.98	A	A
RC	1	503.0000	35.0000	1.08	A	A
RM	1	542.0000	74.0000	1.16	A	A
RU	1	708.0000	106.2000	1.51		N
SA	1	542.0000	53.0000	1.16	A	A
SB	1	488.0000	47.8000	1.04	A	A
SE	1	347.0000	17.0000	0.74	W	N
SI	1	430.0000	10.0000	0.92	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq/kg  
**Radionuclide:** K40

**EML Value:** 468.0000  
**EML Error:** 25.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
SN	1	544.0000	61.0000	1.16	W	A
SR	1	482.0000	49.0000	1.03	A	A
SX	1	439.1400	52.9800	0.94		A
SY	1	438.0000	25.0000	0.94		A
TE	1	583.8000	52.6000	1.25	A	W
TI	1	464.8000	27.0000	0.99	A	A
TM	1	528.4110	113.5900	1.13	W	A
TN	1	446.9000	50.3000	0.95	N	A
TO	1	403.6750	50.8880	0.86	A	W
TP	1	443.4800	14.3900	0.95	A	A
TQ	1	438.0000	12.0000	0.94	A	A
TW	1	478.0000	11.0000	1.02	A	A
TX	1	498.0000	11.0000	1.06	A	A
UC	1	529.0000	19.1000	1.13	A	A
UY	1	510.0000	82.0000	1.09	A	A
WA	1	522.0000	22.0000	1.12	A	A
WC	1	527.0000	67.0000	1.13	W	A
WE	1	484.0000	24.9000	1.03	A	A
WE	2	488.0000	24.8000	1.04	A	A
WE	3	477.0000	31.8000	1.02	A	A
WI	2	534.0000	72.0000	1.14		A
WI	1	530.0000	71.4000	1.13		A
WI	3	531.0000	71.6000	1.13		A
WN	1	500.0000	25.0000	1.07	W	A
WN	3	522.0000	26.0000	1.12	W	A
WN	2	492.0000	25.0000	1.05	W	A
WO	1	509.1000	78.9000	1.09	W	A
WO	2	473.6000	110.5000	1.01	W	A
WT	1	581.0000	90.8000	1.24	A	W
WW	1	520.2000	38.8000	1.11	W	A
WW	2	539.5000	40.1000	1.15	W	A
WW	3	522.1000	38.9000	1.12	W	A
WY	1	428.8000	45.1000	0.92		A
YA	1	432.5300	3.8490	0.92	A	A
YU	1	590.0000	12.0000	1.26	A	W

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** K40

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**EML Value:** 468.0000  
**EML Error:** 25.0000

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Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
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**Total Number Reported:** 139

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**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**  
**Evaluation: A=Acceptable, 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.**

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**QAP 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PB212

**EML Value:** 41.5000  
**EML Error:** 2.2000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AC	1	40.0000	2.0000	0.96	W	A
AF	1	36.7533	2.7077	0.89	W	W
AG	1	43.7000	7.7700	1.05	A	A
AI	1	52.0000	10.0000	1.25		W
AM	1	43.6900	1.6500	1.05	A	A
AR	1	42.7100	21.6000	1.03	A	A
AS	1	48.6900	3.7100	1.17	A	A
AU	1	36.2000	3.0000	0.87	W	W
BE	1	45.8000	16.0000	1.10	A	A
BN	1	42.0600	0.9700	1.01	A	A
BQ	1	43.0000	3.0000	1.04	A	A
BU	1	34.0000	3.0000	0.82	A	W
BX	1	49.6000	6.0000	1.20	N	A
CD	1	44.0000	5.0000	1.06	A	A
CH	1	41.7000	1.1000	1.00	A	A
CL	1	46.7000	14.0000	1.13	W	A
CM	2	39.0000	2.0000	0.94		A
CM	1	39.0000	2.0000	0.94		A
CN	1	39.9100	2.1600	0.96		A
CS	1	36.8000	11.6800	0.89	A	W
CU	1	40.0000	4.0000	0.96	A	A
CU	2	38.7000	4.0000	0.93	A	A
CW	1	37.0000	2.0000	0.89	A	W
DH	1	35.6900	2.7900	0.86	W	W
EC	2	55.4000	4.1100	1.34	W	W
EC	1	55.6000	4.1400	1.34	W	W
EC	3	54.0000	3.1400	1.30	W	W
EC	4	52.9000	3.0900	1.27	W	W
EC	5	57.2000	3.2700	1.38	W	N
EG	1	45.0000	5.0000	1.08		A
FE	1	41.0700	0.9100	0.99	A	A
FG	1	41.4000	8.0000	1.00	A	A
FJ	1	28.2900	1.4000	0.68		N
FL	1	43.5700	1.3300	1.05	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq/kg  
**Radionuclide:** PB212

**EML Value:** 41.5000  
**EML Error:** 2.2000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
FN	1	40.6000	3.6000	0.98		A
FR	1	45.0000	5.0000	1.08	A	A
FU	1	43.5400	2.9800	1.05		A
GA	1	39.1000	25.6000	0.94	A	A
GC	2	29.6000	2.9000	0.71	W	N
GC	1	39.6000	5.7000	0.95	W	A
GC	3	40.9000	2.4000	0.99	W	A
GE	1	44.3000	5.3200	1.07	A	A
HU	1	38.1000	1.2000	0.92	A	A
ID	1	38.7300	2.0610	0.93	N	A
IS	1	39.7000	6.0000	0.96	W	A
IT	1	52.2000	3.6000	1.26	N	W
KO	1	41.7000	1.2000	1.00		A
LA	1	36.8000	4.5000	0.89	A	W
LA	3	37.9000	4.6000	0.91	A	A
LA	2	36.5000	4.4000	0.88	A	W
LB	1	74.0000	7.0000	1.78	A	N
LM	1	45.7040	1.4300	1.10	W	A
LV	1	35.4000	2.1000	0.85	A	W
ME	1	36.3000	2.5000	0.88	W	W
ME	3	35.5000	2.4000	0.86	W	W
ME	2	39.2000	2.4000	0.94	W	A
MH	1	38.5000	2.7000	0.93	A	A
ML	1	53.0000	5.3000	1.28	A	W
MS	1	37.7000	3.8000	0.91	A	A
NA	1	42.1000	2.2000	1.01	A	A
NJ	2	42.0000	2.0000	1.01		A
NJ	3	43.0000	2.0000	1.04		A
NJ	1	42.0000	2.0000	1.01		A
NL	1	38.9000	2.1000	0.94	A	A
NQ	1	37.4000	7.8000	0.90	A	A
NZ	1	41.1000	0.9000	0.99	A	A
OB	1	31.2000	10.4000	0.75		W
OC	1	52.0000	9.0000	1.25	A	W
OH	1	35.4000	1.8000	0.85	A	W

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PB212

**EML Value:** 41.5000  
**EML Error:** 2.2000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
OU	1	30.2000	4.6000	0.73	N	N
PS	1	33.7400	2.6600	0.81		W
RA	1	36.0000	4.0000	0.87	A	W
RA	2	33.0000	4.0000	0.80	A	W
RM	1	44.0000	6.0000	1.06	A	A
SE	1	41.1000	1.5000	0.99	A	A
SI	1	41.5000	0.9000	1.00	A	A
SN	1	42.7000	5.1500	1.03	A	A
SR	1	29.0000	6.5000	0.70	W	N
SX	1	30.0300	3.4100	0.72		N
SY	1	39.5000	1.3000	0.95		A
TE	1	46.6000	8.5000	1.12	W	A
TM	1	47.7960	10.0050	1.15	A	A
TN	1	53.9000	9.8400	1.30	A	W
TO	1	39.4240	6.3090	0.95	A	A
TP	1	40.5300	1.4900	0.98	A	A
TQ	1	39.5000	1.1000	0.95	A	A
TW	1	44.2000	2.5000	1.07	A	A
TX	1	42.0300	1.8000	1.01	A	A
WA	1	41.0000	3.0000	0.99	A	A
WE	3	41.3000	4.0000	1.00	A	A
WE	2	41.9000	4.1000	1.01	A	A
WE	1	40.6000	4.7000	0.98	A	A
WI	1	50.6000	7.5100	1.22		A
WI	2	51.1000	7.5700	1.23		W
WI	3	52.3000	7.7400	1.26		W
WN	3	43.0000	1.8000	1.04	W	A
WN	2	37.0000	2.0000	0.89	W	W
WN	1	38.2000	2.0000	0.92	W	A
WO	1	43.0000	5.6000	1.04	A	A
WO	2	40.4800	4.5400	0.98	A	A
WT	1	48.1750	8.5070	1.16	A	A
WW	2	36.8000	2.6000	0.89	A	W
WW	3	36.6000	2.7000	0.88	A	W
WW	1	35.6000	2.6000	0.86	A	W

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PB212

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**EML Value:** 41.5000  
**EML Error:** 2.2000

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Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
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**Total Number Reported:** 104

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**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**

**Evaluation: A=Acceptable, 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.**

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**QAP 54 Results by Nuclide**

**Matrix:** SO Soil Bq/kg  
**Radionuclide:** PB214

**EML Value:** 34.3000  
**EML Error:** 1.6000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AC	1	38.0000	3.0000	1.11	A	A
AF	1	27.5033	2.9316	0.80	N	W
AG	1	29.3000	5.7700	0.85	A	W
AI	1	27.5000	6.3000	0.80		W
AM	1	35.8500	3.5000	1.04	A	A
AR	1	28.2050	14.7000	0.82	A	W
AS	1	34.9400	6.4900	1.02	A	A
AT	1	29.7070	3.6330	0.87	W	W
AU	1	31.1000	4.1000	0.91	W	A
BE	1	29.5000	10.0000	0.86	W	W
BN	1	33.6500	3.1800	0.98	A	A
BQ	1	25.0000	10.0000	0.73	N	N
BU	1	28.0000	3.0000	0.82		W
BX	1	32.4000	4.6000	0.94	A	A
CD	1	34.0000	5.0000	0.99	A	A
CF	3	27.2000	2.0000	0.79	A	W
CF	2	30.2000	1.1000	0.88	A	W
CF	1	24.7000	1.5000	0.72	A	N
CH	1	31.8000	2.0000	0.93	A	A
CL	1	40.0000	3.6000	1.17	N	A
CM	1	33.0000	2.0000	0.96		A
CM	2	34.0000	2.0000	0.99		A
CN	1	29.2200	1.9700	0.85		W
CS	1	28.5500	9.0300	0.83	W	W
CU	2	24.6000	3.0000	0.72	W	N
CU	1	25.0000	3.0000	0.73	W	N
CW	1	29.0000	2.0000	0.85	A	W
DH	1	32.0800	5.0800	0.94	W	A
EC	4	42.4000	2.0300	1.24	W	A
EC	2	42.2000	2.1800	1.23	W	A
EC	3	41.9000	2.0700	1.22	W	A
EC	1	41.5000	2.1600	1.21	W	A
EC	5	43.8000	2.2200	1.28	W	A
EG	1	27.0000	4.0000	0.79		W

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PB214

**EML Value:** 34.3000  
**EML Error:** 1.6000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
FE	1	28.2200	5.2100	0.82	A	W
FG	1	34.8000	8.0000	1.01	A	A
FL	1	20.9700	1.6100	0.61	N	N
FN	1	29.2000	2.0000	0.85		W
FR	1	33.0000	5.0000	0.96	A	A
FS	1	27.9000	0.6000	0.81	A	W
FU	1	31.7100	3.0700	0.92		A
GA	1	31.0000	31.0000	0.90	A	A
GC	1	37.2000	7.0000	1.09	A	A
GC	3	40.3000	3.1000	1.17	A	A
GC	2	37.5000	5.2000	1.09	A	A
GE	1	31.1000	4.6100	0.91	A	A
HU	1	32.6000	1.2000	0.95	A	A
ID	1	29.6600	1.8050	0.87	N	W
IS	1	29.0000	6.3000	0.85	W	W
IT	1	39.1000	3.4000	1.14	W	A
KO	1	29.4000	1.7000	0.86		W
LA	1	24.3000	4.8000	0.71	A	N
LA	2	30.3000	6.2000	0.88	A	W
LA	3	24.9000	3.9000	0.73	A	N
LB	1	64.0000	9.0000	1.87	A	N
LM	1	33.1460	2.8600	0.97	A	A
LV	1	26.8000	1.1000	0.78	A	W
ME	1	37.7000	3.4000	1.10	A	A
ME	2	35.9000	1.8000	1.05	A	A
ME	3	41.8000	3.2000	1.22	A	A
MH	1	32.9000	1.3000	0.96	A	A
ML	1	34.0000	3.4000	0.99	A	A
MS	1	35.0000	3.5000	1.02	A	A
NA	1	30.6000	2.3000	0.89	A	W
NJ	1	32.0000	3.0000	0.93		A
NJ	3	31.0000	2.0000	0.90		A
NJ	2	34.0000	3.0000	0.99		A
NL	1	32.2000	1.6000	0.94	A	A
NQ	1	31.1000	6.7000	0.91	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PB214

**EML Value:** 34.3000  
**EML Error:** 1.6000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
NZ	1	26.0000	2.0000	0.76	W	N
OB	1	38.8000	13.8000	1.13		A
OC	1	32.0000	7.0000	0.93	W	A
OH	1	22.9000	3.3000	0.67	A	N
OT	1	27.0000	7.0000	0.79	A	W
OU	1	27.6000	4.0500	0.81	W	W
PK	1	39.0000	2.4000	1.14	N	A
PS	1	29.7400	5.0700	0.87		W
RA	1	24.5000	2.7000	0.71	W	N
RA	2	25.0000	3.0000	0.73	W	N
RM	1	34.0000	8.0000	0.99	A	A
SE	1	30.5000	1.7000	0.89		W
SI	2	33.0000	0.8000	0.96	W	A
SI	1	28.6000	0.8000	0.83	W	W
SN	1	34.0000	5.9400	0.99	A	A
SR	1	31.3000	3.7000	0.91	A	A
SX	1	26.5700	5.4300	0.77		W
TE	1	45.3000	8.6000	1.32	A	W
TM	1	26.4210	16.7970	0.77	W	W
TN	1	27.7900	11.1600	0.81		W
TO	1	26.1360	4.7700	0.76	A	N
TP	1	31.6700	2.2300	0.92	A	A
TQ	1	24.8000	0.9000	0.72	A	N
TW	1	29.1000	2.0000	0.85	A	W
TX	1	30.0400	1.7700	0.88	A	W
WA	1	29.0000	3.0000	0.85	A	W
WE	1	32.0000	3.5000	0.93	A	A
WE	3	36.0000	3.1000	1.05	A	A
WE	2	30.9000	3.1000	0.90	A	A
WI	1	34.4000	5.8000	1.00		A
WI	2	33.1000	5.6800	0.96		A
WI	3	36.5000	6.0300	1.06		A
WN	2	34.1000	2.5000	0.99	W	A
WN	3	37.4000	2.1000	1.09	W	A
WN	1	34.6000	2.6000	1.01	W	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PB214

**EML Value:** 34.3000  
**EML Error:** 1.6000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
WO	1	38.8000	4.7000	1.13	N	A
WO	2	38.3000	7.5000	1.12	N	A
WT	1	45.6090	14.2500	1.33	A	W
WW	2	40.0000	2.1000	1.17	A	A
WW	3	40.4000	2.3000	1.18	A	A
WW	1	37.6000	2.3000	1.10	A	A
WY	1	28.9000	6.2900	0.84		W
YU	1	36.8000	1.5000	1.07	A	A

**Total Number Reported:** 112

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PU238

**EML Value:** 0.9100  
**EML Error:** 0.1000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AG	1	0.8610	0.4420	0.95	A	A
AR	1	0.9790	0.3700	1.08	A	A
AT	1	1.1790	0.3160	1.30	A	W
CO	3	0.6000	0.2000	0.66		W
CO	2	0.8000	0.2000	0.88		A
CO	1	0.9000	0.2000	0.99		A
CW	1	1.0000	0.1000	1.10	A	A
EG	1	0.8200	0.1400	0.90	A	A
FR	1	1.1000	0.2000	1.21		A
KO	1	1.0200	0.0900	1.12		A
KR	3	1.2700	0.1500	1.40	W	W
KR	2	1.0100	0.2000	1.11	W	A
KR	1	1.2900	0.1700	1.42	W	W
LW	1	0.6500	0.5100	0.71		W
RA	1	0.8200	0.3200	0.90	A	A
TO	1	1.2820	0.8870	1.41		W
WA	1	0.9300	0.3200	1.02	A	A
YA	1	0.9299	0.0570	1.02	A	A

**Total Number Reported:** 18

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PU239

**EML Value:** 25.6000  
**EML Error:** 0.6700

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	23.6072	2.4450	0.92	A	A
AG	1	25.1000	3.6100	0.98	A	A
AI	1	21.6000	3.8000	0.84		W
AM	1	25.4700	4.0700	1.00	A	A
AN	1	25.0000	3.0000	0.98	A	A
AR	1	27.7310	3.7400	1.08	A	A
AT	1	28.1950	3.7800	1.10	A	A
AU	1	25.9000	2.8000	1.01		A
BE	1	24.8300	1.1100	0.97	A	A
BM	1	23.3800	2.5100	0.91	A	A
BU	1	24.3000	1.2000	0.95	A	A
BX	1	21.3000	3.1000	0.83	A	W
CH	1	26.2000	1.2000	1.02	A	A
CL	1	7.6000	2.5000	0.30	A	N
CO	3	25.0000	2.0000	0.98		A
CO	1	24.0000	2.0000	0.94		A
CO	2	24.0000	2.0000	0.94		A
CW	1	24.7000	0.7000	0.96	A	A
EG	1	25.3000	2.0000	0.99	A	A
FR	1	24.0000	2.0000	0.94		A
GA	1	31.3000	2.8100	1.22	A	W
GE	1	26.8000	3.4100	1.05	A	A
GT	1	22.0000	5.0000	0.86	A	W
ID	1	23.8400	1.1920	0.93	A	A
IN	5	24.6000	3.0000	0.96	W	A
IN	1	25.5000	2.5000	1.00	W	A
IN	2	22.1000	2.6000	0.86	W	W
IN	4	22.0000	3.0000	0.86	W	W
IN	3	25.8000	2.7000	1.01	W	A
IS	1	22.6000	5.2000	0.88	A	A
IT	1	24.9000	1.9000	0.97	A	A
KA	1	28.7500	0.1700	1.12	A	A
KO	1	27.4000	1.6000	1.07		A
KR	2	27.5000	2.5000	1.07	N	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PU239

**EML Value:** 25.6000  
**EML Error:** 0.6700

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
KR	1	28.9000	1.6000	1.13	N	A
KR	3	31.8000	3.1000	1.24	N	W
LA	1	28.2090	1.0510	1.10		A
LA	3	27.7500	0.9290	1.08		A
LA	2	26.2370	0.9620	1.02		A
LL	1	25.8000	1.6100	1.01	A	A
LW	1	24.9000	4.1100	0.97	N	A
ML	1	25.5900	4.5900	1.00	A	A
NA	1	25.4000	4.0000	0.99	A	A
NL	1	23.6000	2.8000	0.92	A	A
NM	2	27.7000	1.3000	1.08	A	A
NM	3	26.7000	1.1000	1.04	A	A
NM	1	27.4000	1.0000	1.07	A	A
NQ	1	24.1000	1.7000	0.94	A	A
OB	1	28.9000	14.6000	1.13		A
OK	1	25.0000	3.0000	0.98	N	A
OT	1	24.0000	1.0000	0.94	A	A
PS	1	25.3100	4.0400	0.99		A
RA	1	25.5000	5.1000	1.00	A	A
RI	1	26.6000	1.6000	1.04	A	A
SN	1	23.0000	5.5400	0.90	A	A
SR	1	25.6000	3.7000	1.00	A	A
TE	1	26.0000	0.8000	1.02	A	A
TI	1	24.3200	3.2400	0.95		A
TM	1	36.3520	6.7710	1.42	A	N
TN	1	28.1900	2.6700	1.10	W	A
TO	1	35.2940	4.9960	1.38	W	N
TX	1	25.0500	1.1700	0.98	A	A
UC	1	30.3000	5.5700	1.18	W	W
UY	1	26.8000	3.8000	1.05	N	A
WA	1	24.2000	1.1000	0.94	A	A
WC	1	25.3000	5.0700	0.99	A	A
WE	2	27.1000	6.1000	1.06	A	A
WE	1	26.6000	6.1000	1.04	A	A
WE	3	25.7000	5.9000	1.00	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** PU239

**EML Value:** 25.6000  
**EML Error:** 0.6700

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
WI	3	29.0700	4.5820	1.14	A	A
WI	2	31.8200	4.9370	1.24	A	W
WI	1	29.2800	4.3750	1.14	A	A
YA	1	26.4550	0.3350	1.03	A	A

**Total Number Reported:** 73

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq/kg  
**Radionuclide:** SR90

**EML Value:** 69.0000  
**EML Error:** 5.7000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AG	1	74.2000	13.9000	1.08	A	A
AI	1	65.0000	18.0000	0.94		A
AM	1	68.0700	13.3200	0.99	W	A
AN	1	66.0000	4.0000	0.96	A	A
AT	1	68.3580	4.5660	0.99		A
AU	1	68.1000	6.8000	0.99	A	A
BE	1	66.6000	5.1000	0.96	A	A
BM	1	69.0000	4.8000	1.00	A	A
BU	1	60.6000	6.1000	0.88		A
CH	1	72.3000	5.4000	1.05	A	A
CL	1	80.8000	13.6000	1.17	W	A
EG	2	76.9000	4.6000	1.11	A	A
EG	1	61.9000	4.0000	0.90	A	A
GA	1	79.9000	10.7300	1.16		A
GE	1	66.6000	4.1000	0.96	A	A
GT	1	66.0000	1.2000	0.96	A	A
ID	1	73.1670	6.9010	1.06	A	A
IN	2	59.8000	3.1000	0.87	A	A
IN	3	62.8000	3.2000	0.91	A	A
IN	1	58.4000	5.5000	0.85	A	A
IS	1	89.1000	35.0000	1.29		A
IT	1	65.6000	9.2000	0.95	A	A
KA	1	69.0000	5.6600	1.00	A	A
KE	1	72.0000	1.5800	1.04		A
KO	1	64.5700	1.5800	0.94		A
KR	3	90.8700	2.3400	1.32	W	A
KR	1	87.7600	2.2200	1.27	W	A
KR	2	91.1000	2.2000	1.32	W	A
LA	3	81.0000	16.7000	1.17		A
LA	2	73.6000	15.9000	1.07		A
LA	1	94.7000	16.7000	1.37		A
MZ	3	62.0000	1.0000	0.90		A
MZ	1	56.0000	1.0000	0.81		A
MZ	2	67.0000	1.0000	0.97		A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** SR90

**EML Value:** 69.0000  
**EML Error:** 5.7000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
OT	1	63.0000	5.0000	0.91	N	A
PS	1	69.9000	6.3200	1.01	A	A
RA	1	70.0000	14.0000	1.01	A	A
RI	1	68.3000	2.4600	0.99	A	A
RU	1	63.0600	9.4600	0.91		A
SE	1	126.0000	2.5000	1.83	A	W
SN	1	40.5000	2.2700	0.59	W	N
SR	1	88.2000	19.0000	1.28	A	A
SY	1	48.5000	6.0000	0.70		W
TE	1	55.6000	2.2000	0.81	A	A
TI	1	80.8000	2.6700	1.17		A
TM	1	61.0500	32.1720	0.88		A
TN	1	68.0800	4.7200	0.99	A	A
TO	1	34.6410	3.2110	0.50	W	N
TP	1	63.6900	4.8100	0.92		A
TQ	1	61.3000	1.5000	0.89	A	A
TX	1	67.8200	7.2500	0.98	A	A
UY	1	65.2000	6.5000	0.94	W	A
WA	1	89.0000	7.0000	1.29	A	A
WC	1	83.3000	14.4000	1.21	A	A
WE	1	85.1000	18.0000	1.23	A	A
WE	3	72.6000	17.0000	1.05	A	A
WE	2	82.7000	16.0000	1.20	A	A
WI	3	60.9700	7.5400	0.88	A	A
WI	2	66.4900	7.6200	0.96	A	A
WI	1	57.4600	6.9300	0.83	A	A
YA	1	64.3800	1.0220	0.93	A	A

**Total Number Reported:** 61

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** TH234

**EML Value:** 46.6000  
**EML Error:** 3.5000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	53.2800	9.0076	1.14	A	A
AG	1	63.0000	18.3000	1.35	A	A
AI	1	35.5000	8.1000	0.76		W
AM	1	39.7700	13.0500	0.85	A	A
AR	1	38.2000	15.9000	0.82	A	A
AS	1	54.9400	35.3500	1.18	A	A
AU	1	51.0000	17.0000	1.09	A	A
BE	1	59.3000	24.0000	1.27	A	A
BQ	1	60.0000	29.0000	1.29	W	A
BX	1	64.8000	8.8000	1.39	N	A
CL	1	68.6000	18.6000	1.47	N	A
EC	1	54.5000	6.6700	1.17	A	A
EC	3	48.6000	6.7500	1.04	A	A
EC	4	42.7000	5.9700	0.92	A	A
EC	5	46.5000	6.6700	1.00	A	A
EC	2	45.0000	7.0300	0.97	A	A
EG	1	69.0000	28.0000	1.48		A
FE	1	58.7400	10.5100	1.26	A	A
FJ	1	57.1600	2.9000	1.23		A
FL	1	30.3100	8.2600	0.65	W	N
FR	1	41.0000	19.0000	0.88	A	A
FS	1	26.3000	4.6000	0.56	A	N
FU	1	58.9600	10.6400	1.26		A
GE	1	60.9000	27.4000	1.31	W	A
HU	1	64.0000	7.0000	1.37		A
ID	1	39.4770	5.1890	0.85	A	A
IS	1	44.2000	11.6000	0.95	W	A
IT	1	30.9000	25.0000	0.66	N	N
KO	1	41.9000	8.1000	0.90		A
LA	3	82.7000	12.4000	1.77	A	W
LA	1	60.7000	11.1000	1.30	A	A
LA	2	69.2000	11.2000	1.49	A	A
LB	1	97.0000	12.0000	2.08	A	W
ME	1	63.3000	8.8000	1.36	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** TH234

**EML Value:** 46.6000  
**EML Error:** 3.5000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
ME	2	55.9000	9.0000	1.20	A	A
ME	3	57.7000	8.2000	1.24	A	A
MH	1	48.7000	3.5000	1.04	A	A
NJ	2	27.0000	5.0000	0.58		N
NJ	1	25.0000	6.0000	0.54		N
NL	1	49.6000	7.5000	1.06	A	A
NQ	1	34.1000	9.3000	0.73	A	W
NZ	1	38.0000	6.0000	0.81	A	A
OC	1	51.0000	12.0000	1.09	W	A
OU	1	22.6000	0.2500	0.49	N	N
RA	2	41.0000	12.0000	0.88	N	A
RA	1	40.0000	10.0000	0.86	N	A
SR	1	39.9000	18.0000	0.86	W	A
SY	1	61.4000	8.4000	1.32		A
TM	1	20.8420	8.3320	0.45	A	N
TO	1	54.6830	30.7490	1.17	A	A
TX	1	51.6200	4.9700	1.11	A	A
UY	1	38.5000	4.5000	0.83	A	A
WA	1	44.0000	21.0000	0.94	A	A
WO	1	50.4000	28.9000	1.08	N	A
WO	2	97.8000	40.4000	2.10	N	W
WW	1	89.3000	9.7000	1.92	W	W
WW	2	87.9000	9.3000	1.89	W	W
WW	3	84.4000	9.6000	1.81	W	W

**Total Number Reported:** 58

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** U234

**EML Value:** 43.6000  
**EML Error:** 1.8000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	33.8168	2.9636	0.78	W	W
AM	1	33.9400	6.5200	0.78	A	W
AN	1	52.0000	14.0000	1.19	A	W
AR	1	36.2790	8.6000	0.83	A	W
AT	1	33.5350	4.4470	0.77	W	W
AU	1	42.1000	4.2000	0.97	A	A
BC	1	43.7000	5.2000	1.00	A	A
BE	1	40.4600	2.4100	0.93	A	A
BM	1	41.5600	8.0800	0.95	A	A
BU	1	43.0000	3.5000	0.99	A	A
BX	1	41.5000	5.0000	0.95	W	A
CF	1	46.1000	2.9000	1.06	W	A
CF	3	42.9000	2.9000	0.98	W	A
CF	2	43.1000	2.8000	0.99	W	A
CH	1	37.3000	1.5000	0.86	A	W
CL	1	17.0000	3.6000	0.39	W	N
CW	1	41.4000	0.7000	0.95	A	A
EG	1	43.3000	3.5000	0.99	A	A
EG	2	46.9000	3.8000	1.08	A	A
FU	1	43.1900	8.3300	0.99		A
GE	1	33.6000	3.8500	0.77	W	W
HT	1	40.7000	2.5000	0.93	A	A
IN	2	41.1000	5.2000	0.94	A	A
IN	1	47.4000	5.0000	1.09	A	A
IS	1	37.4000	8.1000	0.86	A	W
IT	1	34.7000	3.1000	0.80	W	W
KO	1	43.6000	3.9000	1.00		A
KR	3	40.5000	1.8000	0.93		A
KR	2	38.1000	2.0000	0.87		A
KR	1	38.6000	1.8000	0.88		A
LL	1	30.2000	2.4200	0.69		N
LW	1	37.5000	3.2700	0.86	N	A
ML	1	38.3700	6.1500	0.88	A	A
NA	1	39.8000	6.0000	0.91		A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** U234

**EML Value:** 43.6000  
**EML Error:** 1.8000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
NL	1	40.5000	5.3000	0.93	A	A
NQ	1	39.2000	2.6000	0.90	A	A
OB	1	320.0000	93.6000	7.34		N
OK	1	33.0000	5.0000	0.76	A	W
PS	1	33.9300	3.5100	0.78		W
RM	1	34.0000	4.0000	0.78	W	W
SR	1	39.5000	6.1000	0.91	A	A
TM	1	38.2020	4.3480	0.88	A	A
TN	1	35.8500	2.2500	0.82	N	W
TO	1	30.7200	3.4530	0.70	N	N
TX	1	42.8500	2.0000	0.98	A	A
WA	1	38.0000	4.0000	0.87	A	A
WC	1	26.3000	5.2600	0.60	W	N
WE	1	36.3000	9.4000	0.83	A	W
WE	3	38.5000	9.7000	0.88	A	A
WE	2	33.9000	8.7000	0.78	A	W
WT	1	37.2000	7.4000	0.85	A	W
YA	1	33.7560	0.4860	0.77	A	W

**Total Number Reported:** 52

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq/kg  
**Radionuclide:** U238

**EML Value:** 46.1000  
**EML Error:** 1.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	33.6182	2.9437	0.73	A	W
AM	1	31.4300	6.0600	0.68	W	W
AN	1	51.0000	12.0000	1.11	A	A
AR	1	36.5560	9.0000	0.79	A	W
AT	1	36.4080	4.8010	0.79	W	W
AU	1	44.3000	4.4000	0.96	A	A
BC	1	46.2000	5.2000	1.00	A	A
BE	1	42.2700	2.4600	0.92	A	A
BM	1	42.1000	8.1300	0.91	A	A
BU	1	44.0000	3.5000	0.95	A	A
BX	1	43.7000	5.2000	0.95	A	A
CF	3	45.7000	3.1000	0.99	A	A
CF	2	47.6000	3.0000	1.03	A	A
CF	1	49.4000	3.1000	1.07	A	A
CH	1	40.2000	1.6000	0.87	A	A
CL	1	19.7000	3.9000	0.43	W	N
CW	1	43.1000	0.7000	0.94	A	A
EG	1	44.7000	3.6000	0.97	A	A
EG	2	44.8000	3.6000	0.97	A	A
FU	1	47.0300	8.7800	1.02		A
GE	1	34.8000	3.9700	0.75	W	W
GT	1	40.0000	7.0000	0.87	A	A
HT	1	39.5000	2.0000	0.86	A	A
IN	1	45.3000	11.0000	0.98	A	A
IN	2	46.8000	10.5000	1.01	A	A
IS	1	39.5000	8.5000	0.86	A	A
IT	1	36.8000	3.3000	0.80	A	W
KO	1	45.5000	4.0000	0.99		A
KR	1	40.8000	1.9000	0.88		A
KR	3	45.2000	1.6000	0.98		A
KR	2	39.7000	2.5000	0.86		A
LL	1	32.6000	2.5700	0.71		W
LW	1	39.5000	4.4800	0.86	N	A
ML	1	40.1100	6.3700	0.87	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** U238

**EML Value:** 46.1000  
**EML Error:** 1.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
NA	1	41.6000	5.3000	0.90		A
NL	1	49.9000	6.5000	1.08	A	A
NQ	1	40.8000	2.7000	0.88	A	A
OB	1	89.4000	34.8000	1.94		N
OK	1	32.0000	4.0000	0.69	A	W
PS	1	35.5400	3.6200	0.77		W
RM	1	36.0000	4.0000	0.78	W	W
SI	1	42.0000	2.0000	0.91	A	A
SR	1	42.2000	6.3000	0.92	A	A
TM	1	39.0900	4.4030	0.85	A	A
TN	1	37.3400	2.3200	0.81	W	W
TO	1	32.4780	3.6170	0.70	W	W
TX	1	43.4400	2.0400	0.94	A	A
WA	1	44.0000	4.0000	0.95	A	A
WC	1	26.7000	5.3300	0.58	W	N
WE	3	39.9000	10.0000	0.87	A	A
WE	2	35.2000	9.0000	0.76	A	W
WE	1	35.9000	9.3000	0.78	A	W
WT	1	38.6700	7.9000	0.84	A	A
YA	1	36.2850	0.5120	0.79	A	W

**Total Number Reported:** 54

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** UG U

**EML Value:** 3.7300  
**EML Error:** 0.0200

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AG	1	2.9480	0.3986	0.79	A	A
AR	1	2.8950		0.78	A	A
BE	1	3.6000		0.96	A	A
BQ	1	3.2000	0.2000	0.86	W	A
BU	1	3.4000	0.3400	0.91	A	A
CA	1	2.6300	0.2600	0.70	A	A
CH	1	3.0100	0.1500	0.81	A	A
CL	1	3.4900	0.3000	0.94	A	A
FJ	1	5.1000	0.3000	1.37		N
FL	1	60.6200	16.5300	16.25		N
GA	1	3.7000		0.99	A	A
GE	1	2.6000	0.0850	0.70	A	A
HT	1	3.2000	0.3000	0.86	A	A
ID	1	3.0030	0.1640	0.81	A	A
IS	1	2.0650	0.2090	0.55		W
IT	1	2.4000	0.1000	0.64	A	W
KO	1	3.6800	0.2200	0.99		A
LA	1	3.1100	0.3100	0.83	A	A
LA	2	3.1200	0.3100	0.84	A	A
LA	3	3.1200	0.3100	0.84	A	A
NL	1	4.0500	0.5300	1.09	A	A
OU	1	1.8300	0.1300	0.49		W
RA	1	3.0700	0.0900	0.82	A	A
RI	3	2.0400	0.2020	0.55	W	W
RI	2	1.8500	0.1070	0.50	W	W
RI	1	1.8600	0.4870	0.50	W	W
RM	1	3.2000	0.4000	0.86	A	A
SW	1	3.5400		0.95		A
SY	1	3.9200	0.3200	1.05		A
TM	1	3.5300	0.3600	0.95	A	A
TN	1	3.0000	0.3700	0.80	A	A
TO	1	2.3490	0.0430	0.63		W
UP	1	3.2400	0.3000	0.87	A	A
YP	1	2.9800	0.3530	0.80	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** SO Soil Bq / kg  
**Radionuclide:** UG U

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**EML Value:** 3.7300  
**EML Error:** 0.0200

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Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
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**Total Number Reported:** 34

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**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**

**Evaluation: A=Acceptable, 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.**

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**QAP 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** AM241

**EML Value:** 6.1700  
**EML Error:** 0.3200

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	6.4368	0.4065	1.04	A	A
AG	1	6.0600	1.2100	0.98	A	A
AM	1	7.0000	2.3000	1.13	A	A
AR	1	5.8090	0.7070	0.94	A	A
AT	1	5.9730	1.2350	0.97	W	A
AU	1	7.1600	0.6800	1.16	A	A
BE	1	6.1900	0.3400	1.00	A	A
BM	1	5.4000	1.1000	0.88	A	W
BN	1	14.4800	4.1200	2.35		N
BU	1	5.5600	0.3000	0.90	A	A
BX	1	6.8800	1.5200	1.12	A	A
CH	1	6.7000	0.5000	1.09	A	A
CL	1	5.5000	2.0000	0.89	A	A
CN	1	8.4700	0.5900	1.37		A
CW	1	7.4000	0.2000	1.20	A	A
EG	1	5.0900	0.4000	0.82	A	W
FL	1	5.7400	0.5200	0.93	A	A
FR	1	6.0000	1.0000	0.97		A
FU	1	7.1100	1.2300	1.15		A
GA	1	6.8700	0.4890	1.11	A	A
GE	1	5.8100	0.8790	0.94	A	A
GT	1	5.7000	1.2000	0.92	A	A
HU	1	8.8000	2.8000	1.43		A
ID	1	6.8100	1.0020	1.10	W	A
IS	1	4.6600	1.3400	0.75	A	W
IS	2	9.2200	2.4000	1.49	A	W
IT	1	5.1000	0.4000	0.83	A	W
KO	1	6.2400	0.3500	1.01		A
KR	4	6.9000	1.2000	1.12	A	A
KR	2	8.6000	2.8000	1.39	A	A
KR	1	9.8000	3.6000	1.59	A	W
KR	3	7.4000	1.6000	1.20	A	A
LA	3	5.9160	0.2740	0.96		A
LA	1	5.6790	0.2550	0.92		A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** AM241

**EML Value:** 6.1700  
**EML Error:** 0.3200

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
LA	2	6.5520	0.3290	1.06		A
LB	1	8.0000	1.0000	1.30	N	A
LM	1	8.4000	1.9000	1.36	A	A
LV	1	3.6600	0.6000	0.59	A	N
ME	1	7.4000	1.6000	1.20	N	A
ME	2	6.2000	0.8000	1.00	N	A
MH	1	6.5700	0.7600	1.07	A	A
NA	1	7.6000	3.7000	1.23		A
NJ	2	6.8000	2.1000	1.10		A
NJ	1	6.7000	1.1000	1.09		A
NJ	3	7.0000	1.4000	1.13		A
OB	1	65.9000	29.3000	10.68		N
OT	1	6.3000	0.5000	1.02	A	A
RI	1	6.6100	0.5020	1.07	A	A
SB	1	5.9390	1.2640	0.96	W	A
SI	1	6.3000	0.3000	1.02	A	A
SN	1	5.7640	1.6930	0.93	A	A
SR	1	5.3900	1.0100	0.87	A	W
TE	1	6.1000	0.2000	0.99	A	A
TI	1	7.0300	1.1100	1.14		A
TM	1	5.9200	0.7450	0.96	A	A
TN	1	5.5730	1.1810	0.90	A	A
TO	1	5.6030	2.5290	0.91	A	A
UY	1	6.3200	1.4000	1.02	W	A
WA	1	4.4700	0.5100	0.72	A	W
WC	1	5.6800	1.4700	0.92	A	A
WE	3	8.4600	2.6700	1.37	A	A
WE	1	7.9900	2.6500	1.29	A	A
WE	2	7.9900	2.2200	1.29	A	A
WI	3	5.9700	1.1300	0.97		A
WI	2	6.4000	1.1000	1.04		A
WI	1	6.4800	1.1900	1.05		A
WN	1	7.5000	1.0000	1.22	W	A
WN	2	6.2000	2.2000	1.00	W	A
WN	3	6.7000	1.0000	1.09	W	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** AM241

**EML Value:** 6.1700  
**EML Error:** 0.3200

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
YU	1	10.4000	0.9000	1.69	A	W

**Total Number Reported:** 70

**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**  
**Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CM244

**EML Value:** 3.6900  
**EML Error:** 0.2900

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	3.1016	0.2309	0.84	A	A
AG	1	3.2100	0.8120	0.87	A	A
AR	1	3.4600	0.5230	0.94	A	A
BE	1	3.6500	0.2400	0.99	A	A
BU	1	3.2000	0.1800	0.87	A	A
BX	1	3.2600	1.9100	0.88	W	A
CH	1	3.4800	0.3100	0.94	A	A
CL	1	3.8000	1.7000	1.03	A	A
CW	1	3.7000	0.1000	1.00	A	A
EG	1	2.8900	0.2800	0.78	W	W
GA	1	3.5600	0.3100	0.96	A	A
GE	1	3.8500	0.6490	1.04	A	A
GT	1	3.3000	0.9000	0.89	A	A
IS	1	3.1000	1.0800	0.84	A	A
IT	1	3.3000	0.3000	0.89	A	A
KO	1	2.5400	0.1600	0.69		W
OB	1	27.6000	17.6000	7.48		N
OT	1	3.4000	0.4000	0.92	A	A
RI	1	2.7700	0.2630	0.75	A	W
SN	1	3.5830	1.2810	0.97	A	A
SR	1	2.7700	0.4800	0.75	A	W
TE	1	3.5000	0.5000	0.95	A	A
TI	1	2.2600	0.6300	0.61		W
TM	1	3.3670	0.5310	0.91	N	A
TN	1	2.9940	0.8660	0.81	A	W
TO	1	2.0100	0.6890	0.55	W	N
UY	1	3.2200	0.9000	0.87	A	A
WA	1	2.7600	0.4000	0.75	A	W
WC	1	3.3500	1.0900	0.91	A	A
WE	1	3.6400	0.6400	0.99	A	A
WE	3	3.7100	0.9000	1.00	A	A
WE	2	3.4700	0.8400	0.94	A	A
WI	2	4.0700	0.7640	1.10		A
WI	3	3.4700	0.7390	0.94		A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CM244

**EML Value:** 3.6900  
**EML Error:** 0.2900

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
WI	1	3.9200	0.8030	1.06		A

**Total Number Reported:** 35

**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**  
**Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CO60

**EML Value:** 30.4000  
**EML Error:** 1.2000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	34.7183	3.2164	1.14	W	A
AG	1	31.1000	5.3300	1.02	A	A
AM	1	30.4100	1.7800	1.00	A	A
AR	1	29.7550	14.8710	0.98	A	A
AT	1	30.4050	2.2250	1.00	A	A
AU	1	30.9000	2.7000	1.02	A	A
BA	1	31.7600	1.9830	1.04	A	A
BC	1	40.0000	4.3000	1.32	A	W
BE	1	32.4000	6.0000	1.07	A	A
BM	1	32.0000	2.8000	1.05	A	A
BN	1	27.9400	0.6000	0.92	W	A
BU	1	30.0000	2.0000	0.99	A	A
BX	1	36.7000	4.6000	1.21	A	A
CD	1	33.0000	3.0000	1.09	A	A
CE	1	33.0000	3.1000	1.09	A	A
CF	1	31.9000	1.4000	1.05	A	A
CF	2	29.3000	1.0000	0.96	A	A
CF	3	28.1000	1.3000	0.92	A	A
CH	1	30.5000	0.9600	1.00	A	A
CL	1	34.8000	2.3000	1.14	W	A
CN	1	30.0000	1.6700	0.99		A
CU	1	27.5000	3.0000	0.90	A	A
CU	2	28.0000	3.0000	0.92	A	A
CW	1	32.0000	1.0000	1.05	A	A
EG	1	33.0000	4.0000	1.09	A	A
FJ	1	26.5800	1.3000	0.87	A	W
FL	1	29.3200	0.7000	0.96	A	A
FN	1	31.4000	2.0000	1.03		A
FR	1	30.0000	3.0000	0.99		A
FU	1	34.5500	1.6400	1.14		A
GA	1	31.7000	5.9000	1.04	A	A
GC	2	30.0000	1.8000	0.99	A	A
GC	1	30.0000	2.7000	0.99	A	A
GC	3	30.0000	4.5000	0.99	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CO60

**EML Value:** 30.4000  
**EML Error:** 1.2000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
GE	1	31.7000	3.9600	1.04	A	A
GT	1	34.0000	3.0000	1.12	A	A
HU	1	33.1000	0.8000	1.09	A	A
ID	1	31.3270	2.4640	1.03	A	A
IN	1	34.4000	3.0000	1.13	A	A
IN	2	35.3000	3.0000	1.16	A	A
IS	1	35.3000	4.9000	1.16	W	A
IT	1	28.8000	1.9000	0.95	W	A
KE	1	36.0000	0.1200	1.18		A
KO	1	30.5000	1.1000	1.00		A
KR	2	30.0000	2.3000	0.99	A	A
KR	5	30.9000	2.2000	1.02	A	A
KR	1	30.9000	2.6000	1.02	A	A
KR	3	32.7000	2.2000	1.08	A	A
KR	4	30.7000	2.6000	1.01	A	A
LA	3	33.4000	3.8000	1.10	A	A
LA	2	33.2000	3.9000	1.09	A	A
LA	1	34.3000	4.0000	1.13	A	A
LB	1	32.0000	2.0000	1.05	A	A
LM	1	32.9540	1.2800	1.08	A	A
LV	1	29.7000	0.7200	0.98	A	A
ME	3	29.7000	1.4000	0.98	N	A
ME	1	29.7000	2.4000	0.98	N	A
ME	2	31.4000	1.0000	1.03	N	A
MH	1	33.6300	1.1300	1.11	A	A
NA	1	36.0000	1.5000	1.18	A	A
NJ	3	35.0000	1.0000	1.15		A
NJ	2	35.0000	1.0000	1.15		A
NJ	1	35.0000	1.0000	1.15		A
NR	1	30.7000	6.1000	1.01	A	A
NZ	1	29.5000	1.5000	0.97	A	A
OB	1	30.5000	5.1300	1.00		A
OC	1	30.6000	6.1000	1.01	A	A
OH	1	29.7000	1.9000	0.98	N	A
OS	1	31.8000	2.1000	1.05		A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CO60

**EML Value:** 30.4000  
**EML Error:** 1.2000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
OS	2	32.1000	2.2000	1.06		A
OT	1	29.0000	2.0000	0.95	A	A
OU	1	24.6000	2.3400	0.81		W
PS	1	31.0400	2.0300	1.02		A
RA	2	33.0000	3.0000	1.09	W	A
RA	1	31.0000	3.7000	1.02	W	A
RU	1	25.7300	3.8600	0.85		W
SB	1	31.3500	3.0700	1.03	W	A
SE	1	29.2000	1.0000	0.96	A	A
SI	1	30.7000	0.6000	1.01	A	A
SN	1	32.3000	4.2100	1.06	A	A
SR	1	34.7000	2.5000	1.14	A	A
SX	1	27.2900	3.3100	0.90		A
SY	1	32.5000	1.8000	1.07		A
TE	1	28.5000	2.1000	0.94	A	A
TI	1	34.0000	0.9000	1.12	A	A
TM	1	30.3500	4.8870	1.00	A	A
TN	1	25.7000	4.4000	0.85	A	W
TO	1	27.9170	3.2300	0.92	A	A
TP	1	29.3200	0.0900	0.96	W	A
TQ	1	30.1000	1.2000	0.99	A	A
TW	1	31.2000	0.6000	1.03	A	A
TX	1	35.4500	1.0000	1.17	A	A
UC	1	34.8000	1.1200	1.14	A	A
UY	1	39.0000	5.4000	1.28	A	W
WA	1	31.3000	1.5000	1.03	A	A
WC	1	31.1000	0.3200	1.02	A	A
WE	1	30.2000	1.3000	0.99	A	A
WE	2	31.8000	1.3000	1.05	A	A
WE	3	30.9000	1.9000	1.02	A	A
WI	1	29.5000	3.9100	0.97		A
WI	3	30.1000	3.9900	0.99		A
WI	2	30.3000	4.0100	1.00		A
WN	3	41.5000	1.3000	1.37	A	W
WN	1	40.4000	1.8000	1.33	A	W

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CO60

**EML Value:** 30.4000  
**EML Error:** 1.2000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
WN	2	41.9000	1.3000	1.38	A	W
WO	1	35.1000	6.1000	1.15	A	A
WO	2	34.2000	8.2000	1.13	A	A
WT	1	44.2410	8.7160	1.46	A	W
YA	1	30.1920	0.4350	0.99	A	A
YU	1	34.3000	0.7000	1.13	A	A

**Total Number Reported:** 110

**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**  
**Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CS137

**EML Value:** 842.0000  
**EML Error:** 42.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	893.3033	54.1904	1.06	W	A
AG	1	933.0000	157.0000	1.11	A	A
AM	1	876.1200	6.5600	1.04	A	A
AR	1	825.3500	403.9900	0.98	A	A
AT	1	834.9500	71.0500	0.99	A	A
AU	1	827.0000	11.0000	0.98	A	A
BA	1	828.1000	23.6300	0.98	A	A
BC	1	1080.0000	112.0000	1.28	A	W
BE	1	835.0000	168.0000	0.99	A	A
BM	1	871.0000	105.0000	1.03	A	A
BN	1	915.1300	48.5600	1.09	A	A
BQ	1	905.0000	25.0000	1.08	A	A
BU	1	830.0000	30.0000	0.99	A	A
BX	1	1030.0000	103.0000	1.22	A	A
CD	1	926.0000	65.0000	1.10	A	A
CE	1	909.0000	55.0000	1.08	A	A
CF	3	823.0000	3.0000	0.98	A	A
CF	1	830.0000	4.0000	0.99	A	A
CF	2	831.0000	3.0000	0.99	A	A
CH	1	764.0000	3.1000	0.91	A	A
CL	1	168.0000	8.2000	0.20	W	N
CN	1	855.7000	43.1000	1.02		A
CU	1	827.0000	60.0000	0.98	A	A
CU	2	834.0000	60.0000	0.99	A	A
CW	1	854.0000	33.0000	1.01	A	A
EG	1	960.0000	70.0000	1.14	A	A
FJ	1	783.3400	39.2000	0.93	A	A
FL	1	846.2000	3.2100	1.00	A	A
FN	1	825.0000	72.0000	0.98		A
FR	1	840.0000	90.0000	1.00		A
FU	1	956.7600	66.5800	1.14		A
GA	1	869.0000	56.0000	1.03	A	A
GC	2	838.6000	34.5000	1.00	A	A
GC	1	807.1000	35.0000	0.96	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CS137

**EML Value:** 842.0000  
**EML Error:** 42.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
GC	3	800.0000	98.3000	0.95	A	A
GE	1	899.0000	103.0000	1.07	A	A
GT	1	950.0000	74.0000	1.13	A	A
HU	1	870.0000	23.0000	1.03	A	A
ID	1	912.4000	49.1020	1.08	A	A
IN	2	884.0000	10.5000	1.05	A	A
IN	1	902.0000	10.0000	1.07	A	A
IS	1	976.0000	109.0000	1.16	N	A
IT	1	854.8000	50.0000	1.01	A	A
KE	1	1017.4400	3.4100	1.21		A
KO	1	866.0000	15.0000	1.03		A
KR	5	803.6000	35.1000	0.95	A	A
KR	1	796.8000	33.6000	0.95	A	A
KR	3	796.7000	35.4000	0.95	A	A
KR	2	801.1000	38.4000	0.95	A	A
KR	4	799.5000	33.6000	0.95	A	A
LA	1	982.0000	108.0000	1.17	A	A
LA	2	983.0000	108.0000	1.17	A	A
LA	3	980.0000	108.0000	1.16	A	A
LB	1	903.0000	63.0000	1.07	A	A
LM	1	954.0500	5.8300	1.13	A	A
LV	1	805.0000	27.0000	0.96	A	A
ME	2	791.7000	18.1000	0.94	N	A
ME	1	806.5000	21.0000	0.96	N	A
ME	3	802.8000	20.9000	0.95	N	A
MH	1	935.9400	47.2600	1.11	A	A
NA	1	1089.0000	36.0000	1.29	W	W
NJ	2	980.0000	60.0000	1.16		A
NJ	3	980.0000	50.0000	1.16		A
NJ	1	980.0000	50.0000	1.16		A
NR	1	832.0000	166.0000	0.99	A	A
NZ	1	760.0000	40.0000	0.90	A	A
OB	1	828.0000	153.0000	0.98		A
OC	1	807.0000	81.0000	0.96	A	A
OH	1	821.0000	6.4000	0.98	W	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CS137

**EML Value:** 842.0000  
**EML Error:** 42.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
OS	1	880.0000	37.0000	1.04		A
OS	2	873.0000	37.0000	1.04		A
OT	1	810.0000	10.0000	0.96	A	A
OU	1	854.0000	41.4000	1.01		A
PK	1	831.3000	4.3000	0.99	A	A
PS	1	858.3100	6.9200	1.02		A
RA	1	875.0000	70.0000	1.04	A	A
RA	2	650.0000	90.0000	0.77	A	N
RI	1	885.0000	37.1000	1.05	A	A
RU	1	867.0000	130.0500	1.03		A
SB	1	861.4000	107.3000	1.02	N	A
SE	1	882.0000	9.0000	1.05	A	A
SI	1	841.0000	17.0000	1.00	A	A
SN	1	833.0000	82.0000	0.99	A	A
SR	1	929.0000	95.0000	1.10	A	A
SX	1	817.8400	45.1400	0.97		A
SY	1	870.0000	45.0000	1.03		A
TE	1	795.5000	76.4000	0.94	W	A
TI	1	1005.0000	35.7000	1.19	A	A
TM	1	823.3650	82.7260	0.98	A	A
TN	1	836.8000	11.8000	0.99	A	A
TO	1	760.3970	81.6450	0.90	A	A
TP	1	885.9900	14.9000	1.05	A	A
TQ	1	953.0000	34.0000	1.13	A	A
TW	1	894.0000	6.0000	1.06	A	A
TX	1	939.0000	11.0000	1.12	A	A
UC	1	983.0000	4.7600	1.17	A	A
UY	1	909.0000	80.0000	1.08	A	A
WA	1	825.0000	37.0000	0.98	A	A
WC	1	907.0000	135.0000	1.08	A	A
WE	1	878.0000	72.0000	1.04	A	A
WE	2	887.0000	76.0000	1.05	A	A
WE	3	877.0000	72.0000	1.04	A	A
WI	2	764.0000	96.2000	0.91		A
WI	3	759.0000	95.5000	0.90		A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** CS137

**EML Value:** 842.0000  
**EML Error:** 42.0000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
WI	1	760.0000	95.7000	0.90		A
WN	2	1133.0000	37.0000	1.35	A	W
WN	1	1122.0000	37.0000	1.33	A	W
WN	3	1119.0000	37.0000	1.33	A	W
WO	2	938.0000	158.6000	1.11	A	A
WO	1	966.1000	114.8000	1.15	A	A
WT	1	873.9800	100.8000	1.04	A	A
YA	1	832.1300	1.6200	0.99	A	A
YU	1	902.0000	13.0000	1.07	A	A

**Total Number Reported:** 113

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** K40

**EML Value:** 603.0000  
**EML Error:** 32.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	664.5200	51.3437	1.10	W	A
AG	1	660.0000	113.0000	1.10	A	A
AM	1	634.5500	32.1300	1.05	A	A
AR	1	599.3500	296.7700	0.99	A	A
AT	1	648.1500	68.6500	1.08	A	A
AU	1	550.0000	34.0000	0.91	A	A
BC	1	810.0000	84.0000	1.34	A	W
BE	1	691.0000	166.0000	1.15	N	A
BN	1	550.0700	37.7700	0.91	W	A
BQ	1	520.0000	240.0000	0.86	A	W
BU	1	580.0000	30.0000	0.96	A	A
BX	1	870.0000	96.0000	1.44	A	N
CD	1	670.0000	40.0000	1.11	A	A
CE	1	803.0000	76.0000	1.33	A	W
CF	1	483.6000	7.3000	0.80		W
CF	2	491.6000	4.9000	0.81		W
CF	3	510.0000	6.1000	0.85		W
CH	1	611.0000	14.0000	1.01	A	A
CL	1	1150.0000	40.2000	1.91	N	N
CN	1	589.0000	30.5000	0.98		A
CU	1	599.0000	50.0000	0.99	A	A
CU	2	570.0000	50.0000	0.94	A	A
CW	1	613.0000	31.0000	1.02	A	A
EG	1	760.0000	80.0000	1.26	A	W
FJ	1	584.3000	29.2000	0.97	A	A
FL	1	631.4600	2.4700	1.05	A	A
FN	1	611.0000	54.0000	1.01		A
FR	1	620.0000	70.0000	1.03		A
FU	1	750.3600	44.9500	1.24		A
GA	1	662.0000	88.0000	1.10	A	A
GC	3	630.6000	88.0000	1.05	A	A
GC	2	695.9000	38.0000	1.15	A	A
GC	1	700.0000	47.4000	1.16	A	A
GE	1	688.0000	77.9000	1.14	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** K40

**EML Value:** 603.0000  
**EML Error:** 32.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
GT	1	690.0000	70.0000	1.14	A	A
HU	1	673.0000	46.0000	1.12	A	A
ID	1	546.8000	45.8160	0.91	A	A
IN	2	813.0000	9.0000	1.35	A	W
IN	1	754.0000	20.0000	1.25	A	W
IS	1	675.0000	82.0000	1.12	W	A
IT	1	579.0000	37.0000	0.96	A	A
KE	1	708.9400	2.4500	1.18		A
KO	1	648.0000	20.0000	1.08		A
KR	3	609.7000	41.5000	1.01	A	A
KR	4	624.1000	40.0000	1.03	A	A
KR	1	622.4000	55.4000	1.03	A	A
KR	2	623.3000	40.7000	1.03	A	A
LA	1	687.0000	79.0000	1.14	W	A
LA	3	651.0000	75.0000	1.08	W	A
LA	2	594.0000	70.0000	0.99	W	A
LB	1	625.0000	49.0000	1.04	A	A
LM	1	764.1000	29.6200	1.27	A	W
LV	1	597.0000	25.0000	0.99	A	A
ME	3	436.6000	66.2000	0.72	N	N
ME	2	432.8000	28.1000	0.72	N	N
ME	1	599.3000	67.7000	0.99	N	A
MH	1	717.8500	35.0300	1.19	A	A
NA	1	749.0000	30.0000	1.24	W	A
NJ	1	660.0000	30.0000	1.10		A
NJ	3	670.0000	30.0000	1.11		A
NJ	2	670.0000	30.0000	1.11		A
NZ	1	880.0000	40.0000	1.46	N	N
OB	1	634.0000	133.0000	1.05		A
OC	1	594.0000	59.0000	0.99	A	A
OH	1	570.0000	26.0000	0.94	W	A
OS	1	760.0000	36.0000	1.26		W
OS	2	773.0000	36.0000	1.28		W
OT	1	579.0000	34.0000	0.96	A	A
OU	1	655.0000	70.9000	1.09		A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** K40

**EML Value:** 603.0000  
**EML Error:** 32.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
PK	1	514.1000	66.2000	0.85	W	W
PS	1	632.6300	25.1200	1.05		A
RA	2	660.0000	100.0000	1.10	A	A
RA	1	690.0000	60.0000	1.14	A	A
RU	1	1160.0000	174.0000	1.92		N
SB	1	641.6000	63.2000	1.06	N	A
SE	1	621.0000	23.0000	1.03	A	A
SI	1	577.0000	13.0000	0.96	A	A
SN	1	676.0000	74.0000	1.12	W	A
SR	1	704.0000	70.0000	1.17	A	A
SX	1	594.7300	72.7900	0.99		A
SY	1	607.0000	36.0000	1.01		A
TE	1	592.6000	42.5000	0.98	A	A
TI	1	728.0000	68.4000	1.21	W	A
TM	1	581.6000	191.2310	0.96		A
TN	1	534.8000	53.3000	0.89	N	W
TO	1	543.8540	72.8580	0.90	N	A
TP	1	616.4700	10.9600	1.02	W	A
TQ	1	617.0000	24.0000	1.02	A	A
TW	1	656.0000	14.0000	1.09	A	A
TX	1	689.0000	20.0000	1.14	A	A
UC	1	677.0000	29.6000	1.12	A	A
UY	1	681.0000	113.0000	1.13	A	A
WA	1	655.0000	33.0000	1.09	A	A
WC	1	710.0000	91.5000	1.18	A	A
WE	1	605.0000	31.0000	1.00	A	A
WE	3	626.0000	40.0000	1.04	A	A
WE	2	622.0000	34.0000	1.03	A	A
WI	1	669.0000	89.1000	1.11		A
WI	2	656.0000	87.6000	1.09		A
WI	3	658.0000	87.8000	1.09		A
WN	2	778.0000	35.0000	1.29	A	W
WN	1	770.0000	35.0000	1.28	A	W
WN	3	793.0000	35.0000	1.32	A	W
WO	2	697.5000	167.2000	1.16	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** K40

**EML Value:** 603.0000  
**EML Error:** 32.0000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
WO	1	668.6000	112.6000	1.11	A	A
WT	1	674.0100	115.9200	1.12	A	A
YA	1	598.4100	5.9100	0.99	A	A
YU	1	635.0000	13.0000	1.05	A	A

**Total Number Reported:** 108

**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**  
**Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** PU238

**EML Value:** 0.6600  
**EML Error:** 0.0200

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
AG	1	0.8350	0.3570	1.26		A
AR	1	0.7960	0.2620	1.21		A
AT	1	0.8130	0.3450	1.23		A
BU	1	0.5200	0.0500	0.79	A	A
CW	1	0.5900	0.0500	0.89	A	A
EG	1	0.6500	0.1100	0.99		A
GT	1	0.6300	0.2000	0.95	A	A
KO	1	0.7300	0.0500	1.11		A
PS	1	0.7700	0.8300	1.17		A
RA	1	0.5800	0.2000	0.88	A	A
WA	1	0.7700	0.5700	1.17	A	A

**Total Number Reported:** 11

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** PU239

**EML Value:** 9.5800  
**EML Error:** 1.3000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	7.3852	0.6135	0.77	W	W
AG	1	8.6000	1.4700	0.90		A
AM	1	8.7700	1.8500	0.92	A	A
AR	1	9.0150	0.9940	0.94	A	A
AT	1	10.1960	1.6810	1.06	A	A
AU	1	9.6000	1.0000	1.00		A
BE	1	9.1800	0.4800	0.96	A	A
BM	1	8.7400	1.1700	0.91	A	A
BU	1	7.4000	0.4000	0.77	A	W
BX	1	9.4700	1.8400	0.99	A	A
CH	1	9.6600	0.6300	1.01	A	A
CL	1	3.3000	1.6000	0.34	A	N
CW	1	8.2000	0.2000	0.86	A	A
EG	1	8.9300	0.7100	0.93	A	A
GA	1	8.2300	0.6780	0.86	W	A
GE	1	9.2300	1.0200	0.96	A	A
GT	1	8.1000	1.5000	0.85	A	W
ID	1	7.6000	0.4420	0.79	W	W
IS	1	6.0500	1.3200	0.63	A	N
IT	1	9.0000	0.7000	0.94	A	A
KO	1	9.6600	0.3700	1.01		A
LA	3	8.2170	0.3920	0.86		A
LA	1	8.9080	0.4180	0.93		A
LA	2	9.7260	0.4510	1.01		A
LL	1	8.7300	0.6600	0.91	A	A
ML	1	7.8500	1.1800	0.82		W
NA	1	7.5600	0.4400	0.79	A	W
OB	1	13.0000	9.6800	1.36		W
OT	1	8.5000	0.5000	0.89	A	A
PS	1	7.8800	2.4800	0.82		W
RA	1	9.2000	1.8000	0.96	A	A
RI	1	10.3000	0.8420	1.08	W	A
SN	1	9.2130	2.0790	0.96	W	A
SR	1	9.2500	1.3600	0.97	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** PU239

**EML Value:** 9.5800  
**EML Error:** 1.3000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
TE	1	8.5000	0.6000	0.89	N	A
TI	1	10.5400	0.3100	1.10		A
TM	1	8.1580	0.9250	0.85	W	A
TN	1	8.0600	1.1980	0.84	A	W
TO	1	10.0290	7.7700	1.05		A
TX	1	9.9160	0.5550	1.03	A	A
UY	1	8.9000	1.4000	0.93	A	A
WA	1	7.7000	0.9000	0.80	A	W
WC	1	9.2200	2.0700	0.96		A
WE	1	9.7100	1.9200	1.01	W	A
WI	2	8.3900	1.2900	0.88		A
WI	1	10.4000	1.5900	1.09		A
WI	3	9.0200	1.4300	0.94		A

**Total Number Reported:** 47

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** SR90

**EML Value:**1330.0000  
**EML Error:** 70.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	963.3567	6.8358	0.72	W	W
AG	1	1190.0000	215.0000	0.89	A	A
AM	1	1057.0000	43.6500	0.80	A	A
AR	1	877.4900	102.4500	0.66	W	W
AT	1	1089.5909	59.8310	0.82		A
AU	1	1503.0000	56.0000	1.13	A	W
BC	1	1120.0000	60.0000	0.84	A	A
BE	1	1224.0000	65.0000	0.92	A	A
BM	1	1214.2000	32.1000	0.91	W	A
BU	1	1165.0000	58.0000	0.88	A	A
BX	1	1070.0000	50.0000	0.81	A	A
CH	1	1188.0000	11.0000	0.89	A	A
CL	1	1220.0000	64.0000	0.92	N	A
GE	1	1156.0000	5.7600	0.87	W	A
GT	1	1160.0000	110.0000	0.87	A	A
ID	1	1118.6700	74.3630	0.84	A	A
IS	1	1790.0000	356.0000	1.35	N	N
IT	1	1326.0000	147.0000	1.00	A	A
KO	1	1189.8000	10.5000	0.89		A
KR	1	1648.9000	14.5000	1.24	A	N
KR	2	1541.0000	13.9000	1.16	A	W
KR	3	1556.3000	12.9000	1.17	A	W
LA	2	1254.0000	70.0000	0.94		A
LA	3	1357.0000	81.0000	1.02		A
LA	1	1255.0000	71.0000	0.94		A
NA	1	1122.0000	43.0000	0.84	A	A
OT	1	1220.0000	100.0000	0.92	A	A
PS	1	1232.7100	26.0300	0.93	W	A
RA	1	1125.0000	225.0000	0.85	A	A
RI	1	1330.0000	12.0000	1.00	A	A
RU	1	1042.4301	104.0000	0.78		A
SE	1	1260.0000	13.0000	0.95	A	A
SN	1	1245.0000	25.0000	0.94	W	A
SR	1	1270.0000	63.0000	0.95	N	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** VE Vegetation Bq / kg  
**Radionuclide:** SR90

**EML Value:**1330.0000  
**EML Error:** 70.0000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
SY	1	998.0000	24.5000	0.75		A
TE	1	1239.6000	130.0000	0.93	A	A
TI	1	1283.0000	88.3000	0.96		A
TM	1	1152.5500	130.4060	0.87	A	A
TN	1	1223.0000	22.4000	0.92	W	A
TO	1	999.7090	23.3830	0.75		A
TP	1	1243.4000	41.7600	0.94		A
TQ	1	993.0000	5.0000	0.75	A	A
TX	1	1157.0000	28.0000	0.87	A	A
UY	1	1114.0000	12.0000	0.84	A	A
WA	1	1440.0000	30.0000	1.08	A	A
WC	1	1370.0000	278.0000	1.03	W	A
WE	2	1190.0000	89.0000	0.89	A	A
WE	3	1230.0000	91.0000	0.93	A	A
WE	1	1240.0000	90.0000	0.93	A	A
WI	2	851.0000	67.5000	0.64		W
WI	3	872.0000	66.3000	0.66		W
WI	1	909.0000	77.3000	0.68		W
YA	1	1155.3900	8.6900	0.87	W	A

**Total Number Reported:** 53

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** AM241

**EML Value:** 1.6700  
**EML Error:** 0.0800

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AC	1	2.2000	0.2000	1.32		W
AF	1	1.7099	0.1152	1.02	A	A
AG	1	1.5900	0.2170	0.95	A	A
AI	1	1.6000	0.0560	0.96	W	A
AM	1	1.4900	0.3300	0.89	W	W
AN	1	1.6300	0.0500	0.98	A	A
AR	1	1.6250	0.2360	0.97	A	A
AS	1	2.8000	0.8000	1.68	W	N
AT	1	1.7480	0.3990	1.05	W	A
AU	1	1.6400	0.1800	0.98	A	A
BE	1	1.6200	0.0700	0.97	A	A
BM	1	1.6500	0.2300	0.99	A	A
BU	1	1.6300	0.0800	0.98	A	A
BX	1	1.5800	0.1900	0.95	A	A
CB	1	1.6800	0.1800	1.01	A	A
CH	1	1.7000	0.0660	1.02	A	A
CL	1	1.8000	0.2000	1.08	A	A
CS	1	1.4600	0.3900	0.87	W	W
CW	1	2.0200	0.0600	1.21	A	A
EC	2	1.5600	0.3220	0.93	W	A
EC	3	1.7100	0.3360	1.02	W	A
EC	1	1.7600	0.3350	1.05	W	A
EC	4	1.6400	0.3280	0.98	W	A
EC	5	1.4800	0.2790	0.89	W	W
EG	1	1.3900	0.1400	0.83	A	W
FL	1	1.8600	0.1900	1.11	A	A
FM	1	1.6000	0.4000	0.96	A	A
FR	1	1.6000	0.3000	0.96		A
GA	1	1.7700	0.0979	1.06	A	A
GE	1	1.5700	0.1670	0.94	A	A
GT	1	1.6000	0.3000	0.96	A	A
HU	1	1.1800	0.2500	0.71	W	N
IN	1	1.6300	0.4000	0.98	A	A
IN	2	1.5400	0.4500	0.92	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** AM241

**EML Value:** 1.6700  
**EML Error:** 0.0800

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
IN	3	1.6500	0.4000	0.99	A	A
IS	1	1.5400	0.2900	0.92	W	A
IS	2	1.7100	0.4600	1.02	W	A
IT	1	1.5000	0.1000	0.90	A	W
KO	1	1.8300	0.1800	1.10		A
LA	3	1.6500	0.0420	0.99		A
LA	2	1.6710	0.0390	1.00		A
LA	1	1.6820	0.0430	1.01		A
LB	1	1.7000	0.3000	1.02	A	A
LL	1	1.7300	0.1400	1.04	W	A
LM	1	1.8560	0.8000	1.11	A	A
LV	1	2.2000	0.1500	1.32	W	W
LW	1	1.6600	0.1400	0.99	W	A
ME	3	1.7000	0.3000	1.02	A	A
ME	1	1.5000	0.1000	0.90	A	W
ME	2	1.9000	0.5000	1.14	A	A
MH	1	1.5020	0.2410	0.90	A	W
MI	2	1.8400	0.1700	1.10	W	A
MI	1	1.9000	0.1500	1.14	W	A
ML	1	1.7200	0.3400	1.03	W	A
MS	1	2.4000	0.2400	1.44	W	W
NA	1	1.4800	0.0700	0.89		W
NF	1	1.5090	0.0500	0.90	W	A
NJ	1	1.8500	0.5900	1.11		A
NJ	2	2.2900	0.4700	1.37		W
NJ	3	1.5300	0.4400	0.92		A
NM	1	1.6400	0.0550	0.98	A	A
NQ	1	1.4610	0.1120	0.88	A	W
OB	1	1.5900	0.4060	0.95		A
OD	1	1.5027	0.1441	0.90	A	A
OK	1	1.7000	0.2300	1.02	A	A
OT	1	1.7000	0.1000	1.02	A	A
RI	1	1.2900	0.0750	0.77	N	W
SB	1	1.8655	0.5828	1.12	W	A
SI	1	1.8000	0.1000	1.08	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** AM241

**EML Value:** 1.6700  
**EML Error:** 0.0800

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
SR	1	1.6500	0.2100	0.99	A	A
TE	1	2.1500	0.1400	1.29	A	W
TI	1	2.2000	0.2000	1.32		W
TM	1	1.4650	0.1410	0.88	A	W
TN	1	1.6090	0.0890	0.96	A	A
TO	1	1.7680	0.3390	1.06	A	A
TQ	1	1.2400	0.0800	0.74		N
US	1	2.0040	1.7740	1.20		A
UY	1	1.2800	0.1800	0.77	A	W
WA	1	1.6700	0.1300	1.00	A	A
WC	1	1.6500	0.3000	0.99	A	A
WE	1	1.8500	0.3600	1.11	A	A
WE	3	1.7900	0.3500	1.07	A	A
WE	2	1.7500	0.3400	1.05	A	A
WI	1	1.8500	0.3120	1.11		A
WI	2	1.5500	0.2560	0.93		A
WI	3	1.5800	0.2630	0.95		A
WN	1	2.2000	0.3000	1.32		W
WN	2	2.0000	0.6000	1.20		A
WN	3	2.2000	0.3000	1.32		W
YA	1	1.6630	0.0214	1.00	A	A

**Total Number Reported:** 90

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** Bq U

**EML Value:** 2.1200  
**EML Error:** 0.0900

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AI	1	1.6100	0.0400	0.76	W	W
AM	1	2.1800	0.1500	1.03	A	A
AT	1	1.9860	0.2070	0.94	A	A
BU	1	2.5800	0.1300	1.22	A	A
CH	1	2.0000	0.0920	0.94	A	A
HT	1	2.0500	0.1000	0.97	A	A
IN	1	2.1070	0.2000	0.99	A	A
IN	3	2.1900	0.2000	1.03	A	A
IN	2	2.0700	0.2000	0.98	A	A
KO	1	2.0600	0.0800	0.97		A
LV	1	1.9300	0.1600	0.91		A
NJ	3	2.3000	0.2000	1.09		A
NJ	1	2.4000	0.2000	1.13		A
NJ	2	2.4000	0.2000	1.13		A
NS	1	1.4300	0.3620	0.68		N
NZ	1	0.7100	0.0800	0.34		N
OH	1	1.7200	0.3700	0.81		W
OT	1	2.1000	0.1000	0.99	A	A
UY	1	1.8600	0.2000	0.88	W	W
WA	1	2.0100	0.1200	0.95	A	A
WI	1	1.9700	0.2240	0.93		A
WI	3	2.0400	0.2360	0.96		A
WI	2	1.8300	0.2090	0.86		W
WO	2	1.7100	0.1300	0.81	W	W
WO	1	1.7300	0.1300	0.82	W	W

**Total Number Reported:** 25

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CO60

**EML Value:** 98.2000  
**EML Error:** 3.6000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AC	1	105.0000	2.0000	1.07	A	A
AF	1	98.2905	5.6350	1.00	A	A
AG	1	96.0000	12.0000	0.98	A	A
AI	1	100.3000	1.1000	1.02	A	A
AM	1	99.9400	0.9700	1.02	A	A
AN	1	99.0000	3.0000	1.01	A	A
AR	1	100.4000	49.4770	1.02	A	A
AS	1	108.4000	1.2000	1.10	A	A
AT	1	104.8000	6.6670	1.07	A	A
AU	1	102.3000	3.7000	1.04	A	A
AW	1	99.0000	6.0000	1.01	A	A
BA	1	111.8000	1.0000	1.14	A	W
BC	1	98.8000	3.6000	1.01	A	A
BE	1	104.0000	8.0000	1.06	A	A
BM	1	95.4000	5.2100	0.97	W	A
BN	1	101.8700	0.9700	1.04	A	A
BQ	1	112.0000	2.0000	1.14	A	W
BU	1	102.0000	5.0000	1.04	A	A
BX	1	94.7000	6.3000	0.96	A	A
CA	1	93.2000	9.3000	0.95	A	A
CB	1	99.8000	3.9000	1.02	A	A
CD	1	96.0000	10.0000	0.98	A	A
CE	1	91.0000	5.0000	0.93	A	A
CF	1	102.1000	0.9000	1.04	A	A
CF	2	99.9000	1.3000	1.02	A	A
CF	3	103.5000	0.6000	1.05	A	A
CH	1	100.0000	0.9400	1.02	A	A
CL	1	102.0000	0.9000	1.04	A	A
CM	3	92.7000	1.4000	0.94	A	A
CM	2	98.6000	1.5000	1.00	A	A
CM	1	98.8000	1.5000	1.01	A	A
CS	1	100.6000	15.0300	1.02	A	A
CU	1	101.0000	2.0000	1.03	A	A
CW	1	101.0000	2.0000	1.03	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CO60

**EML Value:** 98.2000  
**EML Error:** 3.6000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
DH	1	108.2900	5.8000	1.10	A	A
EC	1	102.0000	2.8900	1.04	A	A
EC	2	101.0000	2.8700	1.03	A	A
EC	4	102.0000	2.8900	1.04	A	A
EC	5	101.0000	3.1800	1.03	A	A
EC	3	102.0000	2.8900	1.04	A	A
EG	1	100.0000	4.0000	1.02	A	A
EP	1	102.6100	6.2400	1.04	A	A
FE	1	105.4500	1.9600	1.07	A	A
FG	1	105.6000	12.0000	1.08	A	A
FL	1	101.1300	0.3000	1.03	A	A
FM	1	102.0000	1.0000	1.04	A	A
FN	1	102.0000	6.0000	1.04		A
FR	1	90.0000	9.0000	0.92		A
GA	1	98.0000	7.0000	1.00	W	A
GC	3	98.6000	4.2000	1.00	A	A
GC	1	96.8000	12.0000	0.99	A	A
GC	2	97.1000	4.6000	0.99	A	A
GE	1	103.0000	1.1600	1.05	A	A
GT	1	101.0000	11.0000	1.03	A	A
HU	1	86.9000	1.8000	0.88	W	W
IL	1	103.2000	1.1000	1.05	A	A
IN	1	109.0000	2.0000	1.11	A	A
IN	2	108.0000	2.0000	1.10	A	A
IN	3	101.0000	1.5000	1.03	A	A
IS	1	103.0000	10.0000	1.05	A	A
IT	1	105.4000	6.3000	1.07	W	A
JL	2	102.5000	3.0000	1.04	A	A
JL	3	102.5300	3.5000	1.04	A	A
JL	1	104.9700	3.0000	1.07	A	A
KA	1	97.6700	7.3500	1.00	A	A
KO	1	98.2000	2.5000	1.00		A
LA	3	94.3000	10.5000	0.96	A	A
LA	2	93.8000	10.5000	0.95	A	A
LA	1	103.0000	11.0000	1.05	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CO60

**EML Value:** 98.2000  
**EML Error:** 3.6000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
LB	1	104.0000	6.0000	1.06	A	A
LL	1	108.0000	9.8300	1.10	A	A
LM	1	112.6500	1.2800	1.15	A	W
LN	1	90.6000	5.5000	0.92	A	A
LV	1	97.0000	1.7000	0.99	A	A
LW	1	106.0000	8.2300	1.08	N	A
ME	3	104.3000	1.8000	1.06	A	A
ME	1	104.7000	1.8000	1.07	A	A
ME	2	104.0000	1.7000	1.06	A	A
MH	1	101.4000	4.6000	1.03	A	A
MI	2	104.7000	2.3000	1.07	A	A
MI	1	104.5000	2.3000	1.06	A	A
ML	1	108.0000	10.8000	1.10	A	A
MS	1	101.0000	10.1000	1.03	A	A
NA	1	99.0000	3.3000	1.01	A	A
NJ	1	97.7000	1.6000	1.00		A
NJ	3	99.3000	1.7000	1.01		A
NJ	2	98.0000	1.7000	1.00		A
NL	1	100.1000	3.6000	1.02	A	A
NP	1	102.5000	1.5000	1.04	A	A
NQ	1	102.3000	21.0000	1.04	A	A
NR	1	100.6000	20.1000	1.02	A	A
NZ	1	88.0000	4.0000	0.90	A	W
OB	1	102.0000	13.6000	1.04		A
OC	1	99.5000	9.9000	1.01	A	A
OD	1	97.2900	3.1800	0.99	A	A
OD	2	101.4700	3.4400	1.03	A	A
OH	1	102.0000	1.9000	1.04	A	A
OK	1	101.0000	1.6100	1.03		A
OS	1	107.0000	3.0000	1.09	A	A
OS	2	107.0000	3.0000	1.09	A	A
OT	1	106.0000	10.0000	1.08	A	A
OU	1	96.5000	3.4200	0.98	A	A
PR	1	101.3700	2.1300	1.03		A
PS	1	87.6800	1.3300	0.89	N	W

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CO60

**EML Value:** 98.2000  
**EML Error:** 3.6000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
RC	1	103.0000	4.0000	1.05	A	A
RI	1	105.0000	2.0300	1.07	A	A
RM	1	97.0000	12.0000	0.99	A	A
RU	1	84.8300	8.5000	0.86		W
SA	1	98.0000	14.0000	1.00	A	A
SB	1	99.6800	8.9040	1.01	A	A
SE	1	92.7000	1.0000	0.94		A
SI	1	98.5000	2.0000	1.00	A	A
SN	1	95.0000	10.0000	0.97	A	A
SR	1	100.0000	6.0000	1.02	A	A
SX	1	99.7100	4.6700	1.01		A
TE	1	97.0000	0.8000	0.99	A	A
TI	1	100.3000	6.9300	1.02	A	A
TM	1	103.5000	3.4470	1.05	A	A
TN	1	109.4000	1.5000	1.11	A	A
TO	1	100.5570	7.9360	1.02	A	A
TP	1	101.2000	0.6000	1.03	A	A
TQ	1	95.0000	3.4000	0.97	A	A
TW	1	98.0000	0.8000	1.00	A	A
TX	1	102.9000	0.6000	1.05	A	A
UC	1	103.0000	0.9990	1.05	A	A
US	1	101.0000	25.5500	1.03	A	A
UY	1	98.3000	7.4000	1.00	A	A
WA	1	102.0000	2.0000	1.04	A	A
WC	1	103.0000	8.1100	1.05	A	A
WE	1	101.4000	2.9000	1.03	A	A
WE	2	102.1000	2.8000	1.04	A	A
WE	3	99.9000	4.5000	1.02	A	A
WI	1	102.0000	13.6000	1.04	A	A
WI	2	103.0000	13.7000	1.05	A	A
WI	3	103.0000	13.6000	1.05	A	A
WN	2	104.1000	2.2000	1.06	A	A
WN	1	106.3000	2.5000	1.08	A	A
WN	3	106.7000	2.3000	1.09	A	A
WO	2	101.6000	26.4000	1.03	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CO60

**EML Value:** 98.2000  
**EML Error:** 3.6000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
WO	1	102.1000	21.1000	1.04	A	A
WT	1	114.5700	13.2900	1.17	N	W
WV	1	101.7000	1.5300	1.04	A	A
YA	1	100.4900	0.8910	1.02	A	A

**Total Number Reported:** 143

**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**  
**Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CS137

**EML Value:** 73.0000  
**EML Error:** 3.7000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AC	1	69.3000	3.0000	0.95	A	A
AF	1	72.7698	4.2554	1.00	A	A
AG	1	73.8000	9.3300	1.01	A	A
AI	1	74.8500	1.1200	1.02	A	A
AM	1	78.6600	0.7700	1.08	A	A
AN	1	72.0000	3.0000	0.99	A	A
AR	1	75.1500	37.1330	1.03	A	A
AS	1	86.8400	0.9600	1.19	A	W
AT	1	77.8630	7.5670	1.07	A	A
AU	1	76.5000	1.6000	1.05	A	A
AW	1	76.0000	5.0000	1.04	A	A
BA	1	86.5700	0.6038	1.19	A	W
BC	1	73.6000	2.5000	1.01	A	A
BE	1	77.0000	14.0000	1.05	W	A
BM	1	75.7000	10.0000	1.04	A	A
BN	1	79.5500	1.0900	1.09	A	A
BQ	1	74.0000	1.0000	1.01	W	A
BU	1	77.0000	4.0000	1.05	A	A
BX	1	68.1000	2.2000	0.93	A	A
CA	1	74.4000	7.4000	1.02	A	A
CB	1	75.8000	4.7000	1.04	A	A
CD	1	75.0000	7.0000	1.03	A	A
CE	1	66.0000	4.9000	0.90	A	A
CF	3	77.4000	0.7000	1.06	A	A
CF	2	78.8000	0.4000	1.08	A	A
CF	1	78.3000	0.9000	1.07	A	A
CH	1	74.4000	0.7200	1.02	A	A
CL	1	77.3000	1.0000	1.06	A	A
CM	3	69.6000	1.4000	0.95	A	A
CM	2	75.4000	1.5000	1.03	A	A
CM	1	74.7000	1.5000	1.02	A	A
CS	1	77.9600	11.9100	1.07	A	A
CU	1	72.7000	2.0000	1.00	A	A
CW	1	75.0000	2.0000	1.03	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CS137

**EML Value:** 73.0000  
**EML Error:** 3.7000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
DH	1	79.0000	6.1400	1.08	A	A
EC	5	72.9000	3.1800	1.00	A	A
EC	2	72.5000	3.1700	0.99	A	A
EC	1	72.5000	2.5800	0.99	A	A
EC	3	72.5000	2.5800	0.99	A	A
EC	4	73.0000	2.5900	1.00	A	A
EG	1	74.0000	1.2000	1.01	A	A
EP	1	77.0600	5.4000	1.06	A	A
FE	1	79.6700	1.5400	1.09	A	A
FG	1	76.7800	7.0000	1.05	A	A
FL	1	78.2700	0.2400	1.07	A	A
FM	1	79.0000	1.0000	1.08	A	A
FN	1	74.2000	6.5000	1.02		A
FR	1	68.0000	6.0000	0.93		A
GA	1	72.0000	6.0000	0.99	A	A
GC	1	73.6000	9.3000	1.01	A	A
GC	2	74.8000	3.9000	1.02	A	A
GC	3	77.8000	3.5000	1.07	A	A
GE	1	76.1000	0.8580	1.04	A	A
GT	1	77.0000	11.0000	1.05	A	A
HU	1	64.0000	1.8000	0.88	W	W
IL	1	77.8000	0.9000	1.07	A	A
IN	3	78.2000	3.0000	1.07	A	A
IN	2	85.2000	2.0000	1.17	A	W
IN	1	73.2000	1.0000	1.00	A	A
IS	1	76.7000	8.9000	1.05	A	A
IT	1	79.6000	4.7000	1.09	W	A
JL	1	75.8800	3.1000	1.04	A	A
JL	3	76.1700	3.8000	1.04	A	A
JL	2	77.6600	3.2000	1.06	A	A
KA	1	73.6700	8.0600	1.01	A	A
KO	1	74.8000	1.6000	1.02		A
LA	2	72.4000	8.1000	0.99	A	A
LA	1	82.1000	9.3000	1.13	A	A
LA	3	73.3000	8.1000	1.00	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CS137

**EML Value:** 73.0000  
**EML Error:** 3.7000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
LB	1	76.0000	6.0000	1.04	A	A
LL	1	80.1000	9.9300	1.10	A	A
LM	1	91.4440	1.4600	1.25	W	N
LN	1	71.0000	3.9000	0.97	A	A
LV	1	74.8000	2.5000	1.02	A	A
LW	1	77.3000	8.7700	1.06	W	A
ME	3	78.1000	1.9000	1.07	A	A
ME	1	78.1000	1.8000	1.07	A	A
ME	2	79.2000	1.8000	1.09	A	A
MH	1	75.9000	5.5000	1.04	A	A
MI	1	79.3000	3.4000	1.09	A	A
MI	2	78.7000	3.3000	1.08	A	A
ML	1	80.0000	8.0000	1.10	A	A
MS	1	76.1000	7.6000	1.04	A	A
NA	1	80.9000	2.8000	1.11	A	A
NJ	2	73.9000	3.7000	1.01		A
NJ	1	73.7000	3.9000	1.01		A
NJ	3	75.4000	3.8000	1.03		A
NL	1	80.5000	4.1000	1.10	A	A
NM	1	74.7000	2.6000	1.02	A	A
NP	1	71.5000	1.5000	0.98	A	A
NQ	1	75.9000	16.0000	1.04	A	A
NR	1	76.9000	15.4000	1.05	A	A
NZ	1	63.0000	3.0000	0.86	A	W
OB	1	76.9000	14.3000	1.05		A
OC	1	76.0000	7.6000	1.04	A	A
OD	2	76.5000	3.6500	1.05	A	A
OD	1	75.5100	3.9600	1.03	A	A
OH	1	76.6000	1.4000	1.05	A	A
OK	1	77.0000	2.0800	1.05		A
OS	1	80.0000	4.0000	1.10	A	A
OS	2	82.0000	4.0000	1.12	A	A
OT	1	80.0000	2.0000	1.10	A	A
OU	1	73.8000	4.0200	1.01	A	A
PR	1	77.5900	1.7300	1.06		A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CS137

**EML Value:** 73.0000  
**EML Error:** 3.7000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
PS	1	64.7400	1.0000	0.89	N	W
RC	1	75.0000	3.0000	1.03	A	A
RI	1	103.0000	2.7100	1.41	A	N
RM	1	76.0000	9.0000	1.04	A	A
RU	1	67.4600	7.0000	0.92		A
SA	1	74.0000	11.0000	1.01	A	A
SB	1	74.9050	9.4100	1.03	A	A
SE	1	75.5000	0.8000	1.03		A
SI	1	73.8000	1.5000	1.01	A	A
SN	1	68.3000	6.9000	0.94	W	A
SR	1	76.2000	7.9000	1.04	A	A
SX	1	72.5600	4.8400	0.99		A
TE	1	70.1000	4.0000	0.96	A	A
TI	1	75.8000	2.8000	1.04	A	A
TM	1	78.1300	4.7490	1.07	A	A
TN	1	81.9000	1.1800	1.12	A	A
TO	1	76.2760	8.3150	1.04	A	A
TP	1	78.6400	0.9300	1.08	A	A
TQ	1	79.4000	2.9000	1.09	A	A
TW	1	73.2000	0.9000	1.00	A	A
TX	1	76.8900	0.9200	1.05	A	A
UC	1	77.9000	1.0400	1.07	A	A
US	1	77.4900	14.8700	1.06	A	A
UY	1	76.3000	10.0000	1.04	A	A
WA	1	74.0000	4.0000	1.01	A	A
WC	1	78.6000	10.6000	1.08	A	A
WE	1	76.7000	3.2000	1.05	A	A
WE	2	77.2000	3.0000	1.06	A	A
WE	3	79.9000	4.5000	1.10	A	A
WI	1	74.4000	10.1000	1.02	A	A
WI	3	75.4000	10.2000	1.03	A	A
WI	2	75.3000	10.2000	1.03	A	A
WN	3	80.0000	2.7000	1.10	A	A
WN	2	79.3000	2.7000	1.09	A	A
WN	1	82.6000	3.0000	1.13	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** CS137

**EML Value:** 73.0000  
**EML Error:** 3.7000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
WO	1	75.7000	11.6000	1.04	A	A
WO	2	75.6000	14.9000	1.04	A	A
WT	1	90.3120	10.9300	1.24	A	W
WV	1	74.0000	1.1100	1.01	A	A
YA	1	73.3700	0.6340	1.00	A	A

**Total Number Reported:** 144

**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**  
**Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq/L  
**Radionuclide:** GROSS ALPHA

**EML Value:**1900.0000  
**EML Error:** 190.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AB	1	588.0000	76.0000	0.31	A	N
AB	2	534.0000	62.0000	0.28	A	N
AC	1	1750.0000	135.0000	0.92		A
AF	1	1374.8000	43.9000	0.72	N	W
AG	1	2083.0000	283.3000	1.10		A
AI	1	1093.0000	22.0000	0.57	A	N
AM	1	1622.4500	13.8600	0.85	W	A
AR	1	1735.7600	114.9800	0.91	A	A
AS	1	1731.0000	46.0000	0.91	N	A
AT	1	1763.3330	91.9330	0.93	W	A
AU	1	1882.0000	584.0000	0.99	A	A
BC	1	2160.0000	60.0000	1.14	W	W
BE	1	1918.0000	165.0000	1.01	A	A
BN	1	725.4300	36.5400	0.38	N	N
BQ	1	1570.0000	87.0000	0.83	A	A
BX	1	1970.0000	50.0000	1.04	A	A
CE	1	1593.0000	85.0000	0.84	A	A
CH	1	2077.0000	26.0000	1.09	W	A
CM	3	1660.0000	48.0000	0.87	W	A
CM	2	1626.0000	51.0000	0.86	W	A
CM	1	1769.0000	54.0000	0.93	W	A
CW	1	1948.0000	53.0000	1.02	A	A
CZ	1	2072.0000	66.6000	1.09		A
DC	1	1930.0000	16.3000	1.02	A	A
DH	1	445.2500	18.0200	0.23	A	N
EG	1	925.0000	56.0000	0.49	A	N
FG	1	1909.0000	80.0000	1.00	W	A
FL	1	1698.2000	27.0000	0.89	W	A
FN	1	1618.0000	50.0000	0.85		A
GE	1	2076.0000	32.8000	1.09	A	A
GS	1	1981.0000	78.0000	1.04	N	A
GS	2	2225.0000	185.0000	1.17	N	W
GS	3	2262.0000	187.0000	1.19	N	W
GT	1	1800.0000	74.0000	0.95	W	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq/L  
**Radionuclide:** GROSS ALPHA

**EML Value:**1900.0000

**EML Error:** 190.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
HC	1	1700.0000	170.0000	0.89		A
IL	1	1787.1000	16.8000	0.94	A	A
IS	1	2220.0000	225.0000	1.17	A	W
IT	1	1960.9000	228.0000	1.03	A	A
KA	1	1858.3000	148.0000	0.98	A	A
KG	1	1704.3000	61.4000	0.90		A
KO	1	1867.0000	57.0000	0.98		A
LA	2	1745.0000	150.0000	0.92	W	A
LA	3	1607.0000	140.0000	0.85	W	A
LA	1	1546.0000	130.0000	0.81	W	A
LB	1	1854.0000	166.0000	0.98	A	A
LM	1	1546.6750	112.5350	0.81	W	A
LV	1	2100.0000	170.0000	1.11	N	A
LW	1	1810.0000	81.5000	0.95	A	A
MH	1	1688.0601	5.2600	0.89	A	A
MI	1	1800.0000	55.0000	0.95		A
NJ	1	1740.0000	40.0000	0.92		A
NJ	2	1790.0000	40.0000	0.94		A
NL	1	2000.0000	195.0000	1.05	W	A
NS	1	1864.0000	77.0000	0.98		A
NZ	1	1240.0000	130.0000	0.65	W	W
OB	1	1800.0000	158.0000	0.95		A
OC	1	2050.0000	205.0000	1.08	W	A
OH	1	1920.0000	140.0000	1.01	A	A
OK	1	1959.0000	100.0000	1.03	A	A
OT	1	1945.0000	100.0000	1.02	A	A
OU	1	1770.0000	196.0000	0.93	W	A
PS	1	2039.7500	34.9800	1.07	A	A
RG	1	1690.0000	57.0000	0.89	A	A
RI	1	1510.0000	40.9000	0.80	A	A
SA	1	1716.0000	131.0000	0.90	A	A
SB	1	2009.3760	50.5600	1.06	A	A
SN	1	1460.0000	76.0000	0.77	A	W
SR	1	1703.0000	160.0000	0.90	A	A
TE	1	1724.6000	141.7000	0.91	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq/L  
**Radionuclide:** GROSS ALPHA

**EML Value:**1900.0000  
**EML Error:** 190.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
TI	1	1600.0000	100.0000	0.84		A
TM	1	780.7000	142.6000	0.41	A	N
TN	1	1073.0000	32.0000	0.56	A	N
TP	1	1667.1200	62.9400	0.88		A
TQ	2	1945.0000	21.0000	1.02	A	A
TQ	1	1883.0000	30.0000	0.99	A	A
TW	1	1850.0000	63.0000	0.97	A	A
TX	1	2782.0000	58.0000	1.46	W	N
UC	1	1872.3199	67.4000	0.99	A	A
UY	1	2027.0000	60.0000	1.07	A	A
WA	1	1810.0000	110.0000	0.95	A	A
WC	1	1850.0000	188.0000	0.97	A	A
WE	1	1806.0000	348.0000	0.95	A	A
WE	2	1954.0000	370.0000	1.03	A	A
WE	3	1820.0000	351.0000	0.96	A	A
WO	1	2056.0000	364.0000	1.08	A	A
WO	2	1994.0000	159.0000	1.05	A	A
WT	1	2220.0000	229.0000	1.17	A	W
WV	1	1947.0000	100.3000	1.02	W	A
YA	1	1679.3101	8.4780	0.88	N	A

**Total Number Reported:** 89

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq/L  
**Radionuclide:** GROSS BETA

**EML Value:**1297.0000  
**EML Error:** 100.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AB	1	1232.0000	55.0000	0.95	A	A
AB	2	1085.0000	39.0000	0.84	A	A
AC	1	1400.0000	75.0000	1.08		A
AF	1	1152.5000	356.9000	0.89	A	A
AG	1	1167.0000	160.0000	0.90		A
AI	1	1130.0000	23.0000	0.87	A	A
AM	1	1389.6600	12.5200	1.07	A	A
AR	1	1648.1600	373.5000	1.27	A	A
AS	1	991.0000	38.0000	0.76	N	A
AT	1	1430.0000	79.2000	1.10	A	A
AU	1	1525.0000	483.0000	1.18	A	A
BC	1	1360.0000	20.0000	1.05	A	A
BE	1	1272.0000	140.0000	0.98	A	A
BN	1	1459.1600	79.7500	1.13	W	A
BQ	1	1554.0000	43.0000	1.20	A	A
BX	1	1310.0000	20.0000	1.01	A	A
CA	1	460.0000	46.0000	0.35	A	N
CD	1	1290.0000	120.0000	0.99	A	A
CE	1	1510.0000	77.0000	1.16	A	A
CH	1	1333.0000	14.0000	1.03	A	A
CM	3	1489.0000	38.0000	1.15	A	A
CM	2	1695.0000	44.0000	1.31	A	A
CM	1	1753.0000	47.0000	1.35	A	W
CW	1	1224.0000	26.0000	0.94	A	A
CZ	1	1443.0000	44.4000	1.11		A
DC	1	1650.0000	12.3000	1.27	A	A
DH	1	977.9200	40.3700	0.75	A	A
EG	1	1476.0000	67.0000	1.14	A	A
FG	1	1354.0000	100.0000	1.04	A	A
FL	1	1045.6000	2.7000	0.81	A	A
FN	1	1335.0000	26.0000	1.03		A
GE	1	1348.0000	21.3000	1.04	A	A
GS	3	1622.0000	51.0000	1.25	A	A
GS	1	1650.0000	129.0000	1.27	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq/L  
**Radionuclide:** GROSS BETA

**EML Value:**1297.0000

**EML Error:** 100.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
GS	2	1641.0000	51.0000	1.27	A	A
GT	1	1400.0000	37.0000	1.08	A	A
HC	1	1450.0000	150.0000	1.12		A
HU	1	1120.0000	160.0000	0.86	N	A
IL	1	1150.6000	13.9000	0.89	A	A
IS	1	1570.0000	157.0000	1.21	A	A
IT	1	1260.3000	6.3000	0.97	A	A
KA	1	1372.7000	119.5000	1.06	A	A
KO	1	1244.0000	46.0000	0.96		A
LA	3	1306.0000	286.0000	1.01	A	A
LA	1	1251.0000	275.0000	0.96	A	A
LA	2	1358.0000	296.0000	1.05	A	A
LB	1	1130.0000	35.0000	0.87	W	A
LM	1	1258.6090	81.5480	0.97	A	A
LV	1	993.0000	42.0000	0.77	N	A
LW	1	1450.0000	46.5000	1.12	A	A
MH	1	1210.7000	9.2800	0.93	A	A
MI	1	2469.0000	72.0000	1.90		N
NJ	2	1690.0000	30.0000	1.30		A
NJ	1	1720.0000	30.0000	1.33		A
NL	1	1690.0000	174.0000	1.30	W	A
NP	1	1.2200	0.0200	0.00	A	N
NS	1	1419.0000	47.0000	1.09		A
NZ	1	1340.0000	140.0000	1.03	A	A
OB	1	1260.0000	275.0000	0.97		A
OC	1	1277.0000	128.0000	0.98	A	A
OH	1	1416.0000	86.0000	1.09	A	A
OK	1	1184.0000	101.0000	0.91	A	A
OT	1	1535.0000	100.0000	1.18	A	A
OU	1	1550.0000	160.0000	1.20	W	A
PS	1	1655.1200	23.5200	1.28	A	A
RG	1	1209.0000	39.0000	0.93	A	A
RI	1	1550.0000	35.6000	1.20	A	A
SA	1	1308.0000	156.0000	1.01	A	A
SB	1	1008.6730	28.3440	0.78	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** GROSS BETA

**EML Value:** 1297.0000  
**EML Error:** 100.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
SN	1	1167.0000	121.0000	0.90	A	A
SR	1	1167.0000	103.0000	0.90	A	A
TE	1	1246.4000	31.1000	0.96	A	A
TI	1	1200.0000	100.0000	0.93		A
TM	1	1212.0000	192.8000	0.93	A	A
TN	1	1240.0000	25.0000	0.96	A	A
TP	1	1535.8400	31.7600	1.18		A
TQ	2	1223.0000	26.0000	0.94	A	A
TQ	1	1369.0000	19.0000	1.06	A	A
TW	1	1245.0000	46.0000	0.96	A	A
TX	1	1774.0000	55.0000	1.37	A	W
UC	1	1168.2300	46.6100	0.90	N	A
UY	1	1719.0000	50.0000	1.33	A	A
WA	1	1570.0000	80.0000	1.21	A	A
WC	1	1460.0000	148.0000	1.13	A	A
WE	3	1805.0000	170.0000	1.39	A	W
WE	1	1746.0000	163.0000	1.35	A	W
WE	2	1824.0000	170.0000	1.41	A	W
WO	1	1230.0000	142.0000	0.95	A	A
WO	2	1281.0000	103.0000	0.99	A	A
WT	1	1320.0000	145.0000	1.02	A	A
WV	1	1682.0000	68.0000	1.30	A	A
YA	1	1140.2200	7.4060	0.88	A	A

**Total Number Reported:** 92

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** H3

**EML Value:** 79.3000  
**EML Error:** 2.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AC	1	300.0000	20.0000	3.78		N
AF	1	84.1812	15.6941	1.06	A	A
AG	1	85.5000	15.0000	1.08	A	A
AI	1	132.0000	16.0000	1.66	A	W
AM	1	67.2900	4.1200	0.85	A	A
AN	1	85.0000	1.0000	1.07	A	A
AR	1	89.1700	0.4300	1.12	A	A
AS	1	55.8000	7.0000	0.70	W	N
AT	1	77.4130	5.7280	0.98	A	A
AU	1	141.0000	21.0000	1.78	A	W
BE	1	86.1000	8.4000	1.09	A	A
BN	1	81.6000	5.4500	1.03	A	A
BP	1	78.0000	6.0000	0.98		A
BU	1	66.6000	1.5000	0.84	A	A
BX	1	98.5000	19.4000	1.24	W	A
CA	1	101.0000	10.0000	1.27	A	A
CB	2	82.4000	6.0000	1.04		A
CB	1	75.7000	5.9000	0.95		A
CD	1	75.0000	10.0000	0.95	A	A
CE	1	74.0000	8.0000	0.93	N	A
CH	1	91.2000	4.5000	1.15	W	A
CL	1	173.0000	9.5000	2.18	A	W
CM	2	90.0000	2.5000	1.13	A	A
CM	3	88.9000	2.4000	1.12	A	A
CM	1	91.2000	2.5000	1.15	A	A
CU	1	74.0000	5.0000	0.93	A	A
DH	1	133.1400	14.7900	1.68		W
EG	2	101.0000	10.0000	1.27		A
EG	1	100.7000	9.8000	1.27		A
EP	1	90.4600	3.2100	1.14	A	A
FG	1	80.6300	10.0000	1.02	W	A
FL	1	91.5800	3.0400	1.15	W	A
FN	1	87.9000	8.6000	1.11		A
GC	1	83.6000		1.05	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** H3

**EML Value:** 79.3000  
**EML Error:** 2.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
GE	1	76.4000	12.4000	0.96	A	A
GT	1	79.0000	9.0000	1.00	A	A
HC	1	80.5000	8.1000	1.01		A
HU	1	160.0000	12.0000	2.02	A	W
IS	1	75.1000	9.4000	0.95	A	A
IT	1	77.4000	2.9000	0.98	A	A
KA	1	77.6700	17.3200	0.98	A	A
KO	1	83.8200	0.3400	1.06		A
LA	2	93.2000	23.3000	1.17	A	A
LA	1	93.2000	23.3000	1.17	A	A
LA	3	93.2000	23.3000	1.17	A	A
LB	1	94.0000	10.0000	1.18	A	A
LL	1	69.4000	10.2000	0.88	W	A
LM	1	62.2900	3.0350	0.79	A	W
LN	1	97.3000	8.0000	1.23	W	A
LV	1	91.4000	6.7000	1.15	W	A
LW	1	108.0000	18.4000	1.36	W	W
ME	1	93.0000	4.4000	1.17	W	A
ME	2	92.4000	4.4000	1.16	W	A
ME	3	88.6000	4.3000	1.12	W	A
MH	1	87.7100	3.0800	1.11	A	A
MI	1	66.0000	8.0000	0.83	W	W
MI	2	66.0000	8.0000	0.83	W	W
ML	1	67.6500	4.1000	0.85	A	A
NA	1	86.0000	3.1000	1.08	A	A
NJ	3	97.0000	7.0000	1.22		A
NJ	2	102.0000	7.0000	1.29		A
NJ	1	109.0000	7.0000	1.38		W
OC	1	80.0000	8.0000	1.01	A	A
OD	1	101.0000	14.0000	1.27	A	A
OK	1	77.0000	11.0000	0.97	A	A
OT	1	195.0000	30.0000	2.46		N
PR	1	87.1200	0.7300	1.10	A	A
PS	1	82.5000	6.3700	1.04		A
RC	1	79.0000	5.0000	1.00	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** H3

**EML Value:** 79.3000  
**EML Error:** 2.0000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
RI	1	88.1000	5.2800	1.11	W	A
SA	2	79.0000	12.0000	1.00	N	A
SA	1	75.0000	12.0000	0.95	N	A
SB	1	86.7700	7.1230	1.09	A	A
SN	1	95.6000	17.5000	1.21	A	A
SR	1	292.0000	68.0000	3.68	A	N
ST	1	79.1000	5.6000	1.00	A	A
SX	1	82.6200	6.5700	1.04		A
TE	1	76.5000	5.5000	0.96	A	A
TI	1	61.0000	23.0000	0.77		W
TM	1	60.8000	12.3800	0.77	A	W
TN	1	85.5200	6.8900	1.08	A	A
TO	1	105.2940	32.4010	1.33	A	W
TP	1	79.3300	1.9500	1.00		A
TQ	1	101.0000	3.0000	1.27	W	A
TX	1	90.2600	18.1300	1.14	A	A
UY	1	211.0000	10.0000	2.66	A	N
WA	1	85.0000	4.0000	1.07	A	A
WC	1	85.9000	18.6000	1.08	W	A
WE	2	93.4000	8.0000	1.18	A	A
WE	1	100.0000	8.1000	1.26	A	A
WO	2	79.5000	8.7000	1.00	A	A
WO	1	78.4000	8.7000	0.99	A	A
WV	1	86.3000	4.6500	1.09	A	A
YA	1	90.2800	2.9900	1.14	A	A

**Total Number Reported:** 94

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** PU238

**EML Value:** 1.5800  
**EML Error:** 0.0900

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	1.6286	0.0909	1.03	A	A
AG	1	1.5000	0.2010	0.95	A	A
AI	1	1.2900	0.0520	0.82	A	W
AM	1	1.5300	0.0900	0.97	W	A
AN	1	1.5600	0.0400	0.99	A	A
AR	1	1.6030	0.2280	1.01	A	A
AT	1	1.6120	0.2150	1.02	A	A
AU	1	1.6500	0.1900	1.04		A
BE	1	1.5800	0.0700	1.00	A	A
BM	1	1.5400	0.1500	0.98	A	A
BU	1	1.5500	0.0750	0.98	A	A
BX	1	1.5100	0.1400	0.96	A	A
CH	1	1.5300	0.0590	0.97	A	A
CL	1	1.4000	0.2000	0.89	A	W
CW	1	1.8500	0.0400	1.17	A	W
EG	1	1.4900	0.1100	0.94	A	A
EP	1	1.6140	0.2506	1.02	A	A
GA	1	1.7100	0.1230	1.08	W	A
GE	1	1.7200	0.2410	1.09	A	A
GT	1	1.4000	0.3000	0.89	A	W
IN	3	1.4300	0.5000	0.90	A	A
IN	2	1.4200	0.3000	0.90	A	W
IN	1	1.5600	0.4000	0.99	A	A
IS	1	1.6400	0.3100	1.04	N	A
IT	1	1.5000	0.1000	0.95	A	A
KO	1	1.6200	0.0600	1.02		A
LA	2	1.5950	0.0550	1.01		A
LA	1	1.5970	0.0530	1.01		A
LA	3	1.6740	0.0550	1.06		A
LL	1	1.5600	0.0840	0.99	W	A
LV	1	0.2390	0.0220	0.15		N
LW	1	1.4300	0.1900	0.90	A	A
ML	1	1.6600	0.2600	1.05	A	A
NA	1	1.4000	0.0800	0.89	W	W

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** PU238

**EML Value:** 1.5800  
**EML Error:** 0.0900

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
NF	1	1.8760	0.0640	1.19	A	W
NL	1	1.5600	0.1800	0.99	A	A
NM	1	1.6500	0.0610	1.04	A	A
NQ	1	1.3910	0.0850	0.88	A	W
OB	1	1.3300	0.3420	0.84		W
OD	1	1.3727	0.1484	0.87	A	W
OK	1	1.3200	0.2000	0.83	A	W
OT	1	1.6000	0.1000	1.01	A	A
PS	1	1.4200	0.1900	0.90		W
RI	1	1.7500	0.0821	1.11	A	W
SR	1	1.6800	0.2300	1.06	W	A
TE	1	1.6500	0.0700	1.04	W	A
TI	1	1.7800	0.2200	1.13		W
TM	1	1.4990	0.0850	0.95	A	A
TN	1	1.6200	0.1200	1.02	A	A
TO	1	1.5160	0.3160	0.96	A	A
TQ	1	1.7100	0.0200	1.08		A
TX	1	1.4790	0.0890	0.94	A	A
UY	1	1.5800	0.1600	1.00	A	A
WA	1	1.4600	0.1500	0.92	W	A
WC	1	1.5900	0.3200	1.01	A	A
WE	1	1.5200	0.2700	0.96	A	A
WE	2	1.5700	0.1200	0.99	A	A
WE	3	1.5700	0.1100	0.99	A	A
WI	3	1.5100	0.3030	0.96	W	A
WI	2	1.6000	0.3090	1.01	W	A
WI	1	1.4100	0.2810	0.89	W	W
YA	1	1.5380	0.0265	0.97	A	A

**Total Number Reported:** 62

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** PU239

**EML Value:** 1.6400  
**EML Error:** 0.0900

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	1.4080	0.1035	0.86	A	W
AG	1	1.6100	0.2140	0.98	A	A
AI	1	1.3300	0.0540	0.81	W	W
AM	1	1.5600	0.0900	0.95	A	A
AN	1	1.6400	0.0400	1.00	A	A
AR	1	1.6860	0.2370	1.03	A	A
AT	1	1.6610	0.2210	1.01	A	A
AU	1	1.7800	0.2000	1.09		A
BE	1	1.6500	0.0700	1.01	A	A
BM	1	1.5900	0.1600	0.97	A	A
BU	1	1.6200	0.0800	0.99	A	A
BX	1	1.4500	0.1300	0.88	A	W
CH	1	1.6600	0.0630	1.01	A	A
CL	1	1.4000	0.2000	0.85	A	W
CW	1	1.9300	0.0400	1.18	A	W
EG	1	1.4800	0.1100	0.90	A	A
EP	1	1.6460	0.2554	1.00	W	A
GA	1	1.8000	0.1290	1.10	W	A
GE	1	1.7500	0.2440	1.07	A	A
GT	1	1.5000	0.3000	0.92	A	A
IN	1	1.9500	0.2000	1.19	W	W
IN	2	1.6800	0.3000	1.02	W	A
IN	3	1.8800	0.4000	1.15	W	W
IS	1	1.5100	0.2900	0.92	W	A
IT	1	1.6000	0.1000	0.98	A	A
KA	1	1.8310	0.0370	1.12	A	W
KO	1	1.7100	0.0700	1.04		A
LA	3	1.7440	0.0570	1.06		A
LA	2	1.6830	0.0580	1.03		A
LA	1	1.6930	0.0560	1.03		A
LL	1	1.6400	0.0870	1.00	N	A
LV	1	0.4160	0.3200	0.25		N
LW	1	1.4900	0.2000	0.91	A	A
ML	1	1.7700	0.2700	1.08	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** PU239

**EML Value:** 1.6400  
**EML Error:** 0.0900

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
NA	1	1.4700	0.0800	0.90	A	W
NF	1	1.9200	0.0640	1.17	A	W
NL	1	1.5900	0.1900	0.97	A	A
NM	1	1.6900	0.0630	1.03	A	A
NQ	1	1.4810	0.0910	0.90	A	A
OB	1	1.4400	0.3680	0.88		W
OD	1	1.4412	0.1556	0.88	A	W
OK	1	1.8000	0.2500	1.10	A	A
OT	1	1.7000	0.1000	1.04	A	A
PS	1	1.4900	0.2000	0.91		A
RI	1	1.7100	0.0803	1.04	A	A
SR	1	1.6500	0.2300	1.01	A	A
TE	1	1.6900	0.0700	1.03	A	A
TI	1	1.9900	0.2600	1.21		W
TM	1	1.6680	0.0900	1.02	A	A
TN	1	1.6330	0.1210	1.00	A	A
TO	1	1.7760	0.3610	1.08	A	A
TQ	1	1.7800	0.0200	1.09		A
TX	1	1.6500	0.0740	1.01	A	A
UC	1	1.5200	0.1080	0.93	A	A
UY	1	1.5900	0.1600	0.97	A	A
WA	1	1.7100	0.1500	1.04	A	A
WC	1	1.6700	0.3300	1.02	A	A
WE	1	1.5800	0.2800	0.96	A	A
WE	2	1.6000	0.1200	0.98	A	A
WE	3	1.6400	0.1200	1.00	A	A
WI	1	1.4500	0.2890	0.88	W	W
WI	2	1.7000	0.3280	1.04	W	A
WI	3	1.6400	0.3280	1.00	W	A
YA	1	1.5980	0.0271	0.97	A	A

**Total Number Reported:** 64

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** SR90

**EML Value:** 4.4000  
**EML Error:** 0.2000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AF	1	3.8436	0.3198	0.87	A	A
AG	1	1.6900	0.3100	0.38	A	N
AI	1	4.3900	0.3600	1.00		A
AM	1	7.8300	0.3700	1.78	A	N
AN	1	4.2000	0.1000	0.95	A	A
AR	1	4.2640	0.7020	0.97	A	A
AS	1	3.9350	0.1310	0.89	W	A
AT	1	4.3300	0.2720	0.98		A
AU	1	3.8700	0.3600	0.88	A	A
BC	1	3.6500	0.3100	0.83	W	W
BE	1	4.0800	0.2600	0.93	A	A
BM	1	4.4200	0.3600	1.00	A	A
BN	1	3.0100	0.2400	0.68	A	W
BU	1	4.2600	0.5000	0.97	A	A
BX	1	3.4800	0.2900	0.79	W	W
CB	1	4.3400	0.1700	0.99	A	A
CB	2	4.3400	0.1700	0.99	A	A
CE	1	3.6000	0.2600	0.82	A	W
CH	1	4.3600	0.2000	0.99	A	A
CL	1	4.4000	0.3000	1.00	A	A
CU	1	6.1000	0.3000	1.39	A	W
EG	2	5.4500	0.4400	1.24	A	W
EG	1	4.3600	0.3200	0.99	A	A
FL	1	3.9200	0.2100	0.89		A
GA	1	4.2000	0.3400	0.95	A	A
GC	1	4.3500		0.99	A	A
GE	1	4.3600	0.1430	0.99	W	A
GT	1	4.5000	0.5000	1.02	A	A
IN	1	4.1400	0.4000	0.94	A	A
IN	2	4.1700	0.5000	0.95	A	A
IN	3	4.5400	0.6000	1.03	A	A
IS	1	5.0400	1.0100	1.14	W	A
IT	1	5.0000	0.5000	1.14	W	A
KA	1	4.0000	0.6200	0.91	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** SR90

**EML Value:** 4.4000  
**EML Error:** 0.2000

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
KO	1	3.9200	0.0900	0.89		A
LA	1	5.0000	0.5000	1.14		A
LA	2	4.0000	0.4000	0.91		A
LA	3	5.4000	0.5000	1.23		W
NA	1	4.6000	1.1000	1.04	A	A
NJ	3	4.2000	0.3000	0.95		A
NJ	2	3.8000	0.3000	0.86		A
NJ	1	3.4000	0.3000	0.77		W
NM	1	17.6000	1.2000	4.00	W	N
NZ	1	3.2000	0.1000	0.73	W	W
OC	1	4.1500	0.4100	0.94	A	A
OD	1	4.0200	0.6900	0.91	A	A
OH	1	1.3400	0.1300	0.31	A	N
OT	1	4.3000	0.4000	0.98	A	A
PS	1	4.1000	0.1800	0.93		A
RI	1	4.5800	0.2330	1.04	A	A
RU	1	4.1800	0.6300	0.95		A
SE	1	3.7500	0.0600	0.85		A
SN	1	3.8790	0.4550	0.88	N	A
SR	1	3.8700	0.8300	0.88	A	A
TE	1	3.8500	0.1300	0.88	A	A
TI	1	4.5700	0.2200	1.04		A
TM	1	4.2740	0.0722	0.97	W	A
TN	1	4.7031	0.1140	1.07	A	A
TO	1	3.9790	0.4410	0.90	A	A
TP	1	5.2000	0.3100	1.18		W
TQ	1	5.2700	0.1000	1.20	A	W
TX	1	4.6700	0.6100	1.06	A	A
UY	1	3.8900	0.1900	0.88	A	A
WA	1	5.6000	0.6000	1.27	A	W
WC	1	5.0600	0.8700	1.15	W	A
WE	2	4.2300	0.5100	0.96	A	A
WE	4	4.4500	0.6300	1.01	A	A
WE	3	4.7000	0.6400	1.07	A	A
WE	1	3.9700	0.5100	0.90	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** SR90

**EML Value:** 4.4000  
**EML Error:** 0.2000

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
WI	1	4.1800	0.2950	0.95	W	A
WI	2	4.0300	0.2840	0.92	W	A
WO	1	4.4900	0.6800	1.02	A	A
WO	2	4.5500	0.5900	1.03	A	A
WV	1	4.4800	0.2430	1.02	A	A
YA	1	4.0550	0.0664	0.92	A	A

**Total Number Reported:** 75

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** U234

**EML Value:** 1.0400  
**EML Error:** 0.0500

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AM	1	1.0100	0.0900	0.97	A	A
AN	1	0.9800	0.0300	0.94	A	A
AR	1	1.0130	0.1860	0.97	A	A
AT	1	0.9850	0.1480	0.95	W	A
AU	1	0.9300	0.1300	0.89	W	W
BC	1	1.1900	0.1100	1.14	A	A
BE	1	0.9500	0.0500	0.91	A	A
BM	1	1.0200	0.1400	0.98	W	A
BU	1	1.2100	0.0600	1.16	A	A
BX	1	1.1600	0.1100	1.12	A	A
CF	3	1.1000	0.0700	1.06		A
CF	2	1.0200	0.0700	0.98		A
CF	1	1.0500	0.0700	1.01		A
CH	1	0.9600	0.0420	0.92	A	A
CL	1	1.0000	0.2000	0.96	N	A
CW	1	1.1700	0.0400	1.13	N	A
EG	1	0.9200	0.0700	0.88	W	W
FE	1	1.1500	0.0300	1.11	A	A
GE	1	0.8950	0.0990	0.86	W	W
HT	1	1.0500	0.0600	1.01	A	A
IN	1	1.1300	0.2000	1.09	A	A
IN	2	1.0600	0.2200	1.02	A	A
IN	3	1.2100	0.1500	1.16	A	A
IS	1	1.0530	0.2030	1.01	A	A
IT	1	0.9000	0.0900	0.87	W	W
KO	1	1.0000	0.0600	0.96		A
LB	1	2.1000	0.3000	2.02	A	N
LL	1	0.9070	0.0520	0.87		W
LW	1	1.0600	0.1100	1.02	A	A
MH	1	0.9110	0.0600	0.88	W	W
ML	1	1.0000	0.1600	0.96	A	A
NA	1	0.9600	0.0600	0.92		A
NF	1	1.0440	0.0340	1.00	A	A
NL	1	0.9860	0.1150	0.95	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** U234

**EML Value:** 1.0400  
**EML Error:** 0.0500

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
NQ	1	0.9790	0.0610	0.94	W	A
OB	1	1.7500	0.4060	1.68		N
OD	1	0.8762	0.0924	0.84	A	W
OK	1	1.0550	0.2000	1.01	W	A
PS	1	0.9500	0.0900	0.91		A
RM	1	0.9700	0.2000	0.93	A	A
SR	1	1.0200	0.1400	0.98	N	A
TE	1	0.9000	0.0500	0.87		W
TM	1	1.0110	0.1050	0.97	A	A
TN	1	0.9769	0.0427	0.94	A	A
TO	1	1.0600	0.2580	1.02	A	A
TQ	1	0.9500	0.0300	0.91		A
TX	1	0.9890	0.0660	0.95	A	A
WA	1	0.9700	0.0800	0.93	A	A
WC	1	1.0200	0.2000	0.98	A	A
WE	2	1.0600	0.2600	1.02	A	A
WE	3	1.1200	0.2700	1.08	A	A
WE	1	1.1600	0.2800	1.12	A	A
YA	1	0.9756	0.0190	0.94		A

**Total Number Reported:** 53

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** U238

**EML Value:** 1.0400  
**EML Error:** 0.0400

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AM	1	0.9600	0.0800	0.92	W	A
AN	1	1.0000	0.0300	0.96	A	A
AR	1	0.9890	0.1820	0.95	A	A
AT	1	0.9560	0.1440	0.92	A	A
AU	1	0.9400	0.1300	0.90	A	A
BC	1	1.1700	0.1100	1.13	A	A
BE	1	0.9700	0.0500	0.93	A	A
BM	1	1.0300	0.1400	0.99	W	A
BU	1	1.1200	0.0550	1.08	A	A
BX	1	1.2000	0.1200	1.15	A	A
CF	1	1.0400	0.0700	1.00		A
CF	2	1.0600	0.0700	1.02		A
CF	3	1.0500	0.0700	1.01		A
CH	1	1.0000	0.0430	0.96	A	A
CL	1	1.0000	0.2000	0.96	W	A
CW	1	1.1600	0.0400	1.12	N	A
EG	1	0.9500	0.0700	0.91	W	A
FE	1	1.1300	0.0300	1.09	A	A
GE	1	0.9040	0.1000	0.87	W	W
GT	1	1.2000	0.3000	1.15	A	A
HT	1	0.9800	0.0600	0.94	W	A
IN	2	1.0100	0.2000	0.97	A	A
IN	1	0.9800	0.2000	0.94	A	A
IN	3	0.9800	0.2500	0.94	A	A
IS	1	1.0200	0.1970	0.98	W	A
IT	1	0.9000	0.0900	0.87	W	W
KO	1	1.0100	0.0600	0.97		A
LB	1	1.9000	0.2000	1.83	N	N
LL	1	0.9100	0.0520	0.88		W
LW	1	1.0600	0.1400	1.02	A	A
MH	1	0.9280	0.0610	0.89	W	W
ML	1	1.0600	0.1700	1.02	A	A
NA	1	0.9800	0.0600	0.94		A
NF	1	1.0330	0.0330	0.99	A	A

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** U238

**EML Value:** 1.0400  
**EML Error:** 0.0400

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
NL	1	1.0200	0.1200	0.98	A	A
NQ	1	0.9260	0.0580	0.89	A	W
OB	1	1.1300	0.2660	1.09		A
OD	1	0.9063	0.0954	0.87	A	W
OK	1	0.9500	0.1000	0.91	A	A
PS	1	1.0500	0.1000	1.01		A
RM	1	1.0000	0.2000	0.96	A	A
SR	1	1.0500	0.1400	1.01	N	A
TE	1	0.8800	0.0500	0.85		W
TM	1	0.9910	0.1030	0.95	A	A
TN	1	0.9681	0.0423	0.93	W	A
TO	1	1.0080	0.2440	0.97	W	A
TQ	1	1.0000	0.0300	0.96		A
TX	1	1.0100	0.0680	0.97	A	A
WA	1	1.0000	0.0800	0.96	A	A
WC	1	0.9520	0.1900	0.92	A	A
WE	3	1.1100	0.2700	1.07	A	A
WE	2	1.0900	0.2700	1.05	A	A
WE	1	1.0200	0.2500	0.98	A	A
YA	1	0.9810	0.0192	0.94		A

**Total Number Reported:** 54

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027  
**Evaluation:** A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** UG U

**EML Value:** 0.0800  
**EML Error:** 0.0030

Labcode	Test Number	Reported Value	Reported Error	Reported EML	QAP 52 Evaluation	Evaluation
AG	1	0.0806	0.0110	1.01	A	A
AR	1	0.0802		1.00	A	A
BE	1	0.0777		0.97	W	A
BP	1	0.0760	0.0020	0.95		A
BQ	1	0.0970	0.0030	1.21	W	W
BU	1	0.0950	0.0100	1.19	W	W
CA	1	0.0680	0.0070	0.85	A	W
CH	1	0.0740	0.0070	0.93	A	A
CL	1	65.8000	0.7000	**.**	A	N
FE	1	0.0890	0.0020	1.11	A	A
GA	1	0.0740	0.0063	0.93	A	A
GE	1	0.0748	0.0020	0.94	W	A
HT	1	0.0796	0.0080	1.00	W	A
IS	1	0.0790	0.0090	0.99	A	A
IT	1	0.0800	0.0090	1.00	A	A
KA	1	0.0767	0.0010	0.96	W	A
KO	1	0.0820	0.0030	1.02		A
LA	1	0.0800	0.0100	1.00	A	A
LA	2	0.0800	0.0100	1.00	A	A
LA	3	0.0800	0.0100	1.00	A	A
NL	1	0.0820	0.0010	1.02	A	A
NL	2	0.0820	0.0010	1.02	A	A
OU	1	0.0790	0.0020	0.99	A	A
RI	1	0.0701	0.0060	0.88	A	W
RI	2	0.0674	0.0037	0.84	A	W
RI	3	0.0714	0.0027	0.89	A	W
RM	1	0.0880	0.0090	1.10	N	A
SA	1	0.0751	0.0038	0.94	A	A
SA	2	0.0714	0.0037	0.89	A	W
SW	1	0.0758		0.95		A
TI	1	1.4600	0.2200	18.25	N	N
TM	1	69.2550	7.0960	**.**	A	N
TN	1	0.0674	0.0083	0.84	W	W
UC	1	0.0300		0.38		N

Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027

Evaluation: A=Acceptable, 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 54 Results by Nuclide**

**Matrix:** WA Water Bq / L  
**Radionuclide:** UG U

**EML Value:** 0.0800  
**EML Error:** 0.0030

Labcode	Test Number	Reported Value	Reported Error	<u>Reported EML</u>	QAP 52 Evaluation	Evaluation
UP	1	79.0000	8.0000	**.**	A	N
YP	1	0.0786	0.0010	0.98	A	A

**Total Number Reported:** 36

**Values for elemental Uranium are reported in micrograms/filter, g or mL pCi/g or mL =Bq x 0.027**  
**Evaluation: A=Acceptable, 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 QAP 54****Laboratories Reporting Data**

<b>Code</b>	<b>Laboratory Name</b>
<b>AB</b>	Accura Analytical Labs, Norcross, GA
<b>AC</b>	Analytical Chemistry Laboratory, Argonne National Lab
<b>AF</b>	Air Force Analytical Lab (AFIERA/SDRR), Brooks AFB
<b>AG</b>	Paragon Analytics, Inc, Fort Collins, CO
<b>AI</b>	Nuclear Technology Services, Inc., Roswell, GA
<b>AM</b>	American Radiation Services, Inc., Baton Rouge
<b>AN</b>	Argonne National Laboratory
<b>AR</b>	Acculabs Inc., Golden, CO
<b>AS</b>	USACHPPM, Aberdeen Proving Ground, MD
<b>AT</b>	ATL International inc., Germantown, MD
<b>AU</b>	ORISE RSAT/ESSAP, Oak Ridge
<b>AW</b>	Argonne West National Lab
<b>BA</b>	Bettis Atomic Power Lab, West Mifflin, PA
<b>BC</b>	BWX Technologies, Inc, Naval Nuclear Fuel Division, Lynchburg, VA
<b>BE</b>	Grand Junction Office Analytical Laboratory
<b>BM</b>	Battelle Memorial Institute, Columbus, OH
<b>BN</b>	Brookhaven National Laboratory, Upton, NY
<b>BP</b>	Battelle Pacific Northwest National Laboratory
<b>BQ</b>	Becquerel Laboratories Inc., Mississauga, Ontario, Canada
<b>BU</b>	Autoridad Regulatoria, Buenos Aires, Argentina
<b>BX</b>	BWX Technologies, Inc., Lynchburg, VA
<b>CA</b>	Atomic Energy Control Board, Ottawa, Canada
<b>CB</b>	Radiation Protection Bureau, Ontario, Canada
<b>CD</b>	Gentilly-2 Nuclear Power Plant, Quebec Canada
<b>CE</b>	Environmental Monitoring Laboratory, New Brunswick, Canada
<b>CF</b>	Freshwater Institute Radiochemistry Winnipeg, Manitoba, Canada
<b>CH</b>	California State Dept. Health Serv., Sanitation & Radiation Laboratory
<b>CL</b>	Enviro-Test Laboratories, Casper, WY
<b>CM</b>	Metropolitan Water Reclamation District of Greater Chicago
<b>CN</b>	China Institute for Radiation Protection
<b>CO</b>	Bedford Institute of Oceanography, Dartmouth. Nova Scotia, Canada
<b>CS</b>	Rocketdyne Propulsion & Power, Canoga Park, CA
<b>CU</b>	Universite Laval, Quebec Canada
<b>CW</b>	Carlsbad Environmental Monitoring Research Center, NM
<b>CZ</b>	ACZ Laboratories, Inc. Steamboat Springs, CO
<b>DC</b>	Datachem Laboratories, Salt Lake City
<b>DH</b>	Duke Engineering Services Hanford
<b>EC</b>	Envirocare of Utah
<b>EG</b>	INEEL TRA Radioanalytical Laboratory
<b>EP</b>	US EPA, Las Vegas
<b>FE</b>	Fernald WPRAP Field Office, Ohio
<b>FG</b>	FGL Environmental, Santa Paula, CA
<b>FJ</b>	The University of the South Pacific, Fiji Islands
<b>FL</b>	Florida Dept of Health & Rehab. Serv., Orlando
<b>FM</b>	Florida Mobile Emergency Radiological Laboratory, Orlando
<b>FN</b>	Fermi Lab, Batavia, IL
<b>FR</b>	CEA/SACLAY - SPR/SRSE, France
<b>FS</b>	Florida State University, Tallahassee
<b>FU</b>	FUSRAP Laboratory, Missouri
<b>GA</b>	Lockheed Martin, Pikton, OH
<b>GC</b>	Georgia Power Company Environmental Lab

**Participating Laboratories in EML QAP 54****Laboratories Reporting Data**

<b>Code</b>	<b>Laboratory Name</b>
<b>GE</b>	General Engineering Labs, Charleston, SC
<b>GS</b>	USGS/NWQL, Arvada, CO
<b>GT</b>	Georgia Institute of Technology
<b>HC</b>	Lawrence Livermore Laboratory, California
<b>HT</b>	Technical University, Budapest, Hungary
<b>HU</b>	Water Resources Research Centre (VITUKI), Hungary
<b>ID</b>	Institute of Radiation Protection and Dosimetry, IRD/ CNEN, Brazil
<b>IL</b>	ISU Environmental Assessment Laboratory, Pocatello, ID
<b>IN</b>	INEEL INTECH Radioanalytical Laboratory
<b>IS</b>	Severn Trent Laboratories - St. Louis
<b>IT</b>	Severn Trent Laboratories - Richland
<b>JL</b>	Jefferson Lab, Newport News, VA
<b>KA</b>	Knolls Atomic Power Lab, Schenectady
<b>KE</b>	Uljin NPP Environmental Radiation Laboratory, South Korea
<b>KG</b>	Korea Institute of Geoscience And Mineral Resources (KIGAM)
<b>KO</b>	Korea Institute of Nuclear Safety
<b>KR</b>	Korea Atomic Energy Research Institute
<b>LA</b>	Los Alamos National Laboratory, NM
<b>LB</b>	Lawrence Berkeley Lab UCB
<b>LL</b>	LLNL Chemistry and Material Science/Environmental
<b>LM</b>	American Radiation Services of New Mexico, Los Alamos
<b>LN</b>	Los Alamos National Lab, ES&H
<b>LV</b>	UNLV, Dept of Health Physics
<b>LW</b>	Lawrence Livermore National Lab, Waste
<b>ME</b>	Radiation Control Program, Jamaica Plain, MA
<b>MH</b>	Maine Health & Environmental Testing Laboratory
<b>MI</b>	Massachusetts Institute of Technology
<b>MJ</b>	Mississippi State Department of Health, Jackson
<b>ML</b>	Babcock & Wilcox of Ohio, Mound, Miamisburg, Ohio
<b>MS</b>	Manufacturing Sciences Corporation, Oak Ridge
<b>MX</b>	Laboratory of Radiochimica CREN-U of Zacatecas, Mexico
<b>MZ</b>	Vigilancia Radiológica Ambiental, CNSNS, Mexico
<b>NA</b>	US EPA NAREL, Montgomery, AL
<b>NF</b>	Nuclear Fuel Services, Erwin, TN
<b>NJ</b>	NJ Department of Health and Senior Services
<b>NL</b>	Fluor Daniel Fernald, Inc., Ohio
<b>NM</b>	Environmental Evaluation Group, Carlsbad, NM
<b>NP</b>	JAF Environmental Laboratory, New York Power Authority
<b>NQ</b>	New Mexico Department of Health, Albuquerque
<b>NR</b>	Naval Reactors Facility Chemistry, Scoville, ID
<b>NS</b>	State Lab of Public Health, North Carolina
<b>NZ</b>	National Radiation Laboratory, New Zealand
<b>OB</b>	OBG Laboratories, East Syracuse, NY
<b>OC</b>	Radiation Protection Service Laboratory, Ontario, Canada
<b>OD</b>	ORNL, Radiobioassay Lab
<b>OH</b>	Ohio Dept Of Health Laboratory, Columbus
<b>OK</b>	Southwest Laboratory of Oklahoma
<b>OS</b>	Oregon Health Division Radiation Controls Section, Portland
<b>OT</b>	ORNL Radioactive Material Analysis Lab
<b>OU</b>	Outreach Laboratory, Broken Arrow, OK
<b>PA</b>	BWXT Pantex, Amarillo, TX

**Participating Laboratories in EML QAP 54****Laboratories Reporting Data**

<b>Code</b>	<b>Laboratory Name</b>
<b>PK</b>	Pakistan Institute of Nuclear Science & Technology
<b>PR</b>	Princeton Plasma Physics Lab
<b>PS</b>	PA-DEP Bureau of Radiation Protection, Harrisburg
<b>RA</b>	V. G. Khlopin Radium Institute, St. Petersburg, Russia
<b>RC</b>	US NRC Region I Laboratory, PA
<b>RG</b>	Thermo Nutech Rocky Flats Plant, Golden
<b>RI</b>	Fluor Hanford, Inc., 222S Lab.
<b>RM</b>	Earthline Technologies, Ashtabula, OH
<b>RU</b>	Research Institute of Radiology, Belarus
<b>SA</b>	Sandia Labs Radioactive Sample Diag. Prog., NM
<b>SB</b>	SC Dept. of Health and Environment Control Radiological Lab
<b>SE</b>	Defence Research Establishment of Sweden (FOA)
<b>SI</b>	Jozef Stefan Institute, Slovenia
<b>SN</b>	Sanford Cohen Associates, Inc., Montgomery, AL
<b>SR</b>	Savannah River Environmental Laboratory
<b>ST</b>	SC DHEC, Aiken, South Carolina
<b>SW</b>	Southwest Research Institute, San Antonio, TX
<b>SX</b>	Saxton Nuclear Experimental Corp., Saxton, PA
<b>SY</b>	Syrian Arab Republic Atomic Energy Commission
<b>TE</b>	Environmental Inc.
<b>TI</b>	Teledyne Brown Engineering Environmental Services, Knoxville, TN
<b>TM</b>	Eberline Services Albuquerque Lab, NM
<b>TN</b>	Eberline Services, Richmond, CA
<b>TO</b>	Eberline Services Oak Ridge Laboratory
<b>TP</b>	Taiwan Power Company, Taipei, Taiwan
<b>TQ</b>	Institute of Nuclear Energy Research, Taiwan
<b>TW</b>	Taiwan Radiation Monitoring Center
<b>TX</b>	Texas Dept. of Health/Laboratories, Austin
<b>UC</b>	United States Enrichment Corporation, Paducah, KY
<b>UG</b>	USGS Menlo Park WRD sediment radioisotope laboratory
<b>UP</b>	BWXT Y-12, L.L.C. Analytical Chemistry Organization Oak Ridge
<b>US</b>	Unitech, Springfield, MA
<b>UY</b>	BWXT Y-12, L.L.C. Analytical Chemistry Organization Oak Ridge
<b>WA</b>	Environmental Radiation Lab, Off. of Public Health Labs. Seattle
<b>WC</b>	Waste Management Federal Services of Hanford
<b>WE</b>	Antech Ltd.-Waltz Mill Site, PA
<b>WI</b>	WIPP Site, Westinghouse Electric Corp.
<b>WN</b>	State Health Radiation Protection Section, Madison, WI
<b>WO</b>	Wisconsin State Lab of Hygiene
<b>WP</b>	Washington Public Power Supply System, Richland
<b>WT</b>	Waste Stream Technology, Buffalo, NY
<b>WV</b>	West Valley Nuclear Services, NY
<b>WW</b>	West Valley Radiation Protection, NY
<b>WY</b>	Wayne Interim Storage Site, NJ
<b>YA</b>	Duke Engineering & Sciences Environmental Lab, Westboro, MA
<b>YP</b>	US Army Proving Ground, Yuma, AZ
<b>YU</b>	Institute of Occupational and Radiological Health, Serbia

**Total Reporting Labs: 149**

**Participating Laboratories in EML QAP 54****Laboratories NOT Reporting Data**

<b>Code</b>	<b>Laboratory Name</b>
<b>TY</b>	Scientific Production Association, Russia
<b>BR</b>	US Army Research Laboratory, Aberdeen Proving Ground
<b>XZ</b>	Pacific Northwest National Laboratory
<b>AP</b>	Aberdeen Proving Ground, Aberdeen, MD
<b>RK</b>	Rock Island Arsenal, Illinois
<b>ND</b>	Dept. of Environmental Health and Safety, NC State University
<b>NT</b>	New World Technology, Livermore, CA
<b>NW</b>	Naval Reasearch LAB, Washington,DC
<b>KN</b>	Kori Nuclear Station, Pusan, Korea
<b>JE</b>	Jacobs Engineering, Oak Ridge, TN
<b>IO</b>	Illinois Department of Nuclear Safety
<b>PO</b>	Institute of Oceanology PAN, Poland
<b>IA</b>	Bhabha Atomic Research Centre, India
<b>SL</b>	Stanford Linear Accelerator Center
<b>RF</b>	Rocky Flats Environmental Tech Site, Colorado
<b>TU</b>	Texas A&M University, Dept of Nuclear Engineering
<b>GD</b>	GTS Duratek, Oak Ridge, TN
<b>RL</b>	Bechtel Hanford Counting Facility
<b>RS</b>	RSA Laboratories, Hebron, CT
<b>SH</b>	Savannah River Ecology Lab
<b>SK</b>	Savannah River Plant
<b>EM</b>	3M, Empore Disks, St. Paul, MN
<b>EL</b>	Energy Laboratories, Inc., Casper, WY
<b>CY</b>	Chem-Nuclear Systems, Barnwell, SC
<b>TK</b>	ATG, Kingston, TN
<b>TR</b>	University of Istanbul, Turkey
<b>TT</b>	Tracer Technologies International, Inc., Cleveland
<b>HO</b>	Rontgen Technische Dienst bv, The Netherlands

**Total Non-Reporting Labs: 28**