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MaSU54 Participating Laboratories

Lab Code	Lab Name	Matrix Code
AFOH01	USAFSAM/OEA	MaU
CMRC01	Carlsbad Environmental Monitoring and Research Center	MaU
ERCL01	Washington State Public Health Laboratories	MaU
FDHE01	Florida Dept of Health Environmental Laboratory	MaU
FDOH01	Florida Dept. of Health, Mobile Environmental Radiological Lab	MaU
HCAL01	Lawrence Livermore National Laboratory	MaU
IDGR01	Oak Ridge National Laboratory-Internal Dosimetry Group	MaU
ODHL01	Ohio Department of Health Laboratory	MaU
TELE01	Teledyne Brown Engineering - Environmental Services	MaU
WSHL01	Wisconsin State Laboratory of Hygiene	MaU

Laboratories Not Reporting

Lab Code	Lab Name	Matrix Code
LANL01	Los Alamos National Laboratory	MaU

Study Reference Values

MAPEP-26-MaSU54

Radiological Reference Date: 02/01/2026

Analyte	Ref Value	Ref Unc	Units
Radiological			
Americium-241	0.0183	0.0003	(Bq/L)
Cesium-134	0.642	0.013	(Bq/L)
Cesium-137	0.839	0.013	(Bq/L)
Cobalt-57	3.12	0.06	(Bq/L)
Cobalt-60	0.792	0.016	(Bq/L)
Curium-244			(Bq/L)
Manganese-54	3.24	0.07	(Bq/L)
Plutonium-238			(Bq/L)
Plutonium-239/240			(Bq/L)
Potassium-40			(Bq/L)
Strontium-90	1.18	0.03	(Bq/L)
Zinc-65	2.91	0.06	(Bq/L)

Sample Statistical Summary

MAPEP-26-MaSU54

Radiological Reference Date: 02/01/2026

Analyte	T(1)	A(2)	Grand(3) Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range	Units
Radiological								
Americium-241	7	4			0.0183	0.0003	0.0128 - 0.0238	(Bq/L)
Cesium-134	9	9	0.608	0.055	0.642	0.013	0.449 - 0.835	(Bq/L)
Cesium-137	9	9	0.909	0.088	0.839	0.013	0.587 - 1.091	(Bq/L)
Cobalt-57	9	9	3.06	0.21	3.12	0.06	2.18 - 4.06	(Bq/L)
Cobalt-60	9	9	0.792	0.077	0.792	0.016	0.554 - 1.030	(Bq/L)
Curium-244	3							(Bq/L)
Manganese-54	9	9	3.20	0.20	3.24	0.07	2.27 - 4.21	(Bq/L)
Plutonium-238	6							(Bq/L)
Plutonium-239/240	6							(Bq/L)
Potassium-40	8							(Bq/L)
Strontium-90	4	4			1.18	0.03	0.83 - 1.53	(Bq/L)
Uranium-234	6	5					False Positive Test	(Bq/L)
Uranium-238	7	6					False Positive Test	(Bq/L)
Zinc-65	8	8	3.07	0.26	2.91	0.06	2.04 - 3.78	(Bq/L)

Note: (1) T = Total number of laboratories reporting analyte.
(2) A = Number of laboratories with 'Acceptable' performance.
(3) Mean excludes values indicated as "Not Acceptable".

There are trace levels from the Am decay products that are currently below normal alpha spectroscopy limits of detection.

The uncertainty flags are for information only (See MAPEP Handbook for more details).

RESL did not add a Uranium-234/238 spike to the MaSU54 Sample Matrix.

RESL has measured a K-40 value in the background urine of 63 +/- 6 Bq/L.

Flag Summary Report

MAPEP-26-MaSU54

Radiological				
Analyte	A	W	RW	N
Americium-241	4			3
Cesium-134	9			
Cesium-137	8	1		
Cobalt-57	9			
Cobalt-60	9			
Manganese-54	9			
Strontium-90	3	1		
Uranium-234	5			
Uranium-238	6			
Zinc-65	7	1		



Laboratory Results For MAPEP-26-MaSU54
(AFOH01) USAFSAM/OEA
2510 Fifth Street, Area B
Wright-Patterson AFB, OH 45433-7913

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.0180	0.0183	A		-1.6	0.0128 - 0.0238	0.0015	A
Cesium-134	0.59	0.642	A		-8.1	0.449 - 0.835	0.04	A
Cesium-137	0.75	0.839	A		-10.6	0.587 - 1.091	0.05	A
Cobalt-57	2.81	3.12	A		-9.9	2.18 - 4.06	0.12	A
Cobalt-60	0.71	0.792	A		-10.4	0.554 - 1.030	0.05	A
Curium-244	0.0002						0.0001	
Manganese-54	2.84	3.24	A		-12.3	2.27 - 4.21	0.10	A
Plutonium-238	0.00037						0.00015	
Plutonium-239/240	0.00038						0.00016	
Potassium-40	39.07						1.38	
Strontium-90	0.98	1.18	A		-16.9	0.83 - 1.53	0.05	A
Uranium-234	0.0002		A			False Positive Test	0.0004	
Uranium-238	-0.0002		A			False Positive Test	0.0004	
Zinc-65	2.67	2.91	A		-8.2	2.04 - 3.78	0.26	A

Radiological Reference Date: February 1, 2026

There are trace levels from the Am decay products that are currently below normal alpha spectroscopy limits of detection.

The uncertainty flags are for information only (See MAPEP Handbook for more details).

RESL did not add a Uranium-234/238 spike to the MaSU54 Sample Matrix.

RESL has measured a K-40 value in the background urine of 63 +/- 6 Bq/L.

Notes:

(6) = Not Evaluated



Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-26-MaSU54

(CMRC01) Carlsbad Environmental Monitoring and Research Center

1400 University Dr.

Carlsbad, NM 88220

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	1.79E-02	0.0183	A		-2.2	0.0128 - 0.0238	8.96E-04	A
Cesium-134	5.40E-01	0.642	A		-15.9	0.449 - 0.835	6.21E-02	A
Cesium-137	8.56E-01	0.839	A		2.0	0.587 - 1.091	6.54E-02	A
Cobalt-57	3.23E+00	3.12	A		3.5	2.18 - 4.06	1.19E-01	A
Cobalt-60	7.59E-01	0.792	A		-4.2	0.554 - 1.030	6.92E-02	A
Manganese-54	3.18E+00	3.24	A		-1.9	2.27 - 4.21	1.34E-01	A
Plutonium-238	3.52E-04						1.91E-04	
Plutonium-239/240	1.89E-02						1.08E-03	
Potassium-40	6.92E+01						3.16	
Strontium-90	1.02E+00	1.18	A		-13.6	0.83 - 1.53	5.04E-03	N
Uranium-234	2.08E-03			(6)		False Positive Test	3.23E-04	
Uranium-238	9.72E-04			(6)		False Positive Test	2.18E-04	
Zinc-65	2.84E+00	2.91	A		-2.4	2.04 - 3.78	1.90E-01	A

Radiological Reference Date: February 1, 2026

There are trace levels from the Am decay products that are currently below normal alpha spectroscopy limits of detection.

The uncertainty flags are for information only (See MAPEP Handbook for more details).

RESL did not add a Uranium-234/238 spike to the MaSU54 Sample Matrix.

RESL has measured a K-40 value in the background urine of 63 +/- 6 Bq/L.

Notes:

(6) = Not Evaluated



Laboratory Results For MAPEP-26-MaSU54
(ERCL01) Washington State Public Health Laboratories
1610 N.E. 150th Street
Shoreline, WA 98155-9701

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.0183				0.0128 - 0.0238		
Cesium-134	0.62	0.642	A		-3.4	0.449 - 0.835	0.14	W
Cesium-137	0.97	0.839	A		15.6	0.587 - 1.091	0.18	W
Cobalt-57	2.92	3.12	A		-6.4	2.18 - 4.06	0.17	A
Cobalt-60	0.82	0.792	A		3.5	0.554 - 1.030	0.15	W
Manganese-54	3.26	3.24	A		0.6	2.27 - 4.21	0.28	A
Potassium-40	2.2						4.7	
Strontium-90	NR	1.18				0.83 - 1.53		
Uranium-234	NR					False Positive Test		
Uranium-238	NR					False Positive Test		
Zinc-65	3.52	2.91	W		21.0	2.04 - 3.78	0.62	W

Radiological Reference Date: February 1, 2026

There are trace levels from the Am decay products that are currently below normal alpha spectroscopy limits of detection.

The uncertainty flags are for information only (See MAPEP Handbook for more details).

RESL did not add a Uranium-234/238 spike to the MaSU54 Sample Matrix.

RESL has measured a K-40 value in the background urine of 63 +/- 6 Bq/L.

Notes:

(6) = Not Evaluated



Laboratory Results For MAPEP-26-MaSU54

(FDHE01) Florida Dept of Health Environmental Laboratory
 2100 All Childrens Way
 Orlando, FL 32818-5271

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.01	0.0183	N		-45.4	0.0128 - 0.0238	0.67	N
Cesium-134	0.65	0.642	A		1.2	0.449 - 0.835	0.07	A
Cesium-137	0.86	0.839	A		2.5	0.587 - 1.091	0.04	A
Cobalt-57	2.98	3.12	A		-4.5	2.18 - 4.06	0.1	A
Cobalt-60	0.82	0.792	A		3.5	0.554 - 1.030	0.04	A
Manganese-54	3.08	3.24	A		-4.9	2.27 - 4.21	0.102	A
Plutonium-238	0.01						0.04	
Plutonium-239/240	0.021						0.04	
Potassium-40	55.95						1.3	
Strontium-90	1.49	1.18	W		26.3	0.83 - 1.53	0.44	W
Uranium-234	0.01		A			False Positive Test	0.04	
Uranium-238	0.01		A			False Positive Test	0.04	
Zinc-65	3.08	2.91	A		5.8	2.04 - 3.78	0.12	A

Radiological Reference Date: February 1, 2026

There are trace levels from the Am decay products that are currently below normal alpha spectroscopy limits of detection.

The uncertainty flags are for information only (See MAPEP Handbook for more details).

RESL did not add a Uranium-234/238 spike to the MaSU54 Sample Matrix.

RESL has measured a K-40 value in the background urine of 63 +/- 6 Bq/L.

Notes:

(6) = Not Evaluated



Laboratory Results For MAPEP-26-MaSU54

(FDOH01) Florida Dept. of Health, Mobile Environmental Radiological Lab
2100 All Childrens Way
Orlando, FL 32818-5271

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.01	0.0183	N		-45.4	0.0128 - 0.0238	0.09	N
Cesium-134	0.71	0.642	A		10.6	0.449 - 0.835	0.08	A
Cesium-137	0.89	0.839	A		6.1	0.587 - 1.091	0.09	A
Cobalt-57	2.93	3.12	A		-6.1	2.18 - 4.06	0.1	A
Cobalt-60	0.84	0.792	A		6.1	0.554 - 1.030	0.07	A
Manganese-54	3.24	3.24	A		0.0	2.27 - 4.21	0.13	A
Potassium-40	48.23						2.03	
Strontium-90	NR	1.18				0.83 - 1.53		
Uranium-234	NR					False Positive Test		
Uranium-238	0.02		A			False Positive Test	0.04	
Zinc-65	3.07	2.91	A		5.5	2.04 - 3.78	0.21	A

Radiological Reference Date: February 1, 2026

There are trace levels from the Am decay products that are currently below normal alpha spectroscopy limits of detection.

The uncertainty flags are for information only (See MAPEP Handbook for more details).

RESL did not add a Uranium-234/238 spike to the MaSU54 Sample Matrix.

RESL has measured a K-40 value in the background urine of 63 +/- 6 Bq/L.

Notes:

(6) = Not Evaluated



Laboratory Results For MAPEP-26-MaSU54
(HCAL01) Lawrence Livermore National Laboratory
Analytical Services and Instrumentation Analytical Lab
Livermore, CA 94550

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	1.77e-02	0.0183	A		-3.3	0.0128 - 0.0238	1.31e-03	A
Cesium-134	6.40e-01	0.642	A		-0.3	0.449 - 0.835	1.24e-01	W
Cesium-137	1.06	0.839	W		26.3	0.587 - 1.091	1.33e-01	A
Cobalt-57	3.42	3.12	A		9.6	2.18 - 4.06	3.05e-01	A
Cobalt-60	6.34e-01	0.792	A		-19.9	0.554 - 1.030	1.43e-01	W
Curium-244	3.04e-04						8.66e-05	
Manganese-54	3.49	3.24	A		7.7	2.27 - 4.21	1.46	N
Plutonium-238	1.44e-04						5.40e-05	
Plutonium-239/240	2.49e-04						8.83e-05	
Potassium-40	3.06e01						2.12	
Strontium-90	NR	1.18				0.83 - 1.53		
Uranium-234	NR					False Positive Test		
Uranium-238	NR					False Positive Test		
Zinc-65	NR	2.91				2.04 - 3.78		

Radiological Reference Date: February 1, 2026

There are trace levels from the Am decay products that are currently below normal alpha spectroscopy limits of detection.

The uncertainty flags are for information only (See MAPEP Handbook for more details).

RESL did not add a Uranium-234/238 spike to the MaSU54 Sample Matrix.

RESL has measured a K-40 value in the background urine of 63 +/- 6 Bq/L.

Notes:

(6) = Not Evaluated



Laboratory Results For MAPEP-26-MaSU54
(IDGR01) Oak Ridge National Laboratory-Internal Dosimetry Group
Bethel Valley Road
Oak Ridge, TN 37831-6107

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.018	0.0183	A		-1.6	0.0128 - 0.0238	0.001	A
Cesium-134	NR	0.642				0.449 - 0.835		
Cesium-137	NR	0.839				0.587 - 1.091		
Cobalt-57	NR	3.12				2.18 - 4.06		
Cobalt-60	NR	0.792				0.554 - 1.030		
Curium-244	0.00026						0.00012	
Manganese-54	NR	3.24				2.27 - 4.21		
Plutonium-238	0.00021						0.00013	
Plutonium-239/240	0.00032						0.00018	
Strontium-90	1.14	1.18	A		-3.4	0.83 - 1.53	0.13	A
Uranium-234	0.00006		A			False Positive Test	0.00022	
Uranium-238	-0.00004		A			False Positive Test	0.00017	
Zinc-65	NR	2.91				2.04 - 3.78		

Radiological Reference Date: February 1, 2026

There are trace levels from the Am decay products that are currently below normal alpha spectroscopy limits of detection.

The uncertainty flags are for information only (See MAPEP Handbook for more details).

RESL did not add a Uranium-234/238 spike to the MaSU54 Sample Matrix.

RESL has measured a K-40 value in the background urine of 63 +/- 6 Bq/L.

Notes:

(6) = Not Evaluated



Laboratory Results For MAPEP-26-MaSU54
(ODHL01) Ohio Department of Health Laboratory
8995 E Main Street
Reynoldsburg, OH 43068

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.0183				0.0128 - 0.0238		
Cesium-134	0.610	0.642	A		-5.0	0.449 - 0.835	0.0419	A
Cesium-137	0.913	0.839	A		8.8	0.587 - 1.091	0.103	A
Cobalt-57	3.29	3.12	A		5.4	2.18 - 4.06	0.284	A
Cobalt-60	0.839	0.792	A		5.9	0.554 - 1.030	0.0641	A
Manganese-54	3.17	3.24	A		-2.2	2.27 - 4.21	0.230	A
Potassium-40	9.50						3.71	
Strontium-90	NR	1.18				0.83 - 1.53		
Uranium-234	NR					False Positive Test		
Uranium-238	NR					False Positive Test		
Zinc-65	3.06	2.91	A		5.2	2.04 - 3.78	0.265	A

Radiological Reference Date: February 1, 2026

There are trace levels from the Am decay products that are currently below normal alpha spectroscopy limits of detection.

The uncertainty flags are for information only (See MAPEP Handbook for more details).

RESL did not add a Uranium-234/238 spike to the MaSU54 Sample Matrix.

RESL has measured a K-40 value in the background urine of 63 +/- 6 Bq/L.

Notes:

(6) = Not Evaluated



Laboratory Results For MAPEP-26-MaSU54

(TELE01) Teledyne Brown Engineering - Environmental Services
2508 Quality Lane
Knoxville, TN 37931-6819

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.0183				0.0128 - 0.0238		
Cesium-134	0.558	0.642	A		-13.1	0.449 - 0.835	0.116	W
Cesium-137	0.975	0.839	A		16.2	0.587 - 1.091	0.194	W
Cobalt-57	3.014	3.12	A		-3.4	2.18 - 4.06	0.157	A
Cobalt-60	0.874	0.792	A		10.4	0.554 - 1.030	0.140	W
Manganese-54	3.093	3.24	A		-4.5	2.27 - 4.21	0.239	A
Potassium-40	NR							
Strontium-90	NR	1.18				0.83 - 1.53		
Uranium-234	0.00582		A			False Positive Test	0.00683	
Uranium-238	-0.000917		A			False Positive Test	0.00903	
Zinc-65	3.27	2.91	A		12.4	2.04 - 3.78	0.447	A

Radiological Reference Date: February 1, 2026

There are trace levels from the Am decay products that are currently below normal alpha spectroscopy limits of detection.

The uncertainty flags are for information only (See MAPEP Handbook for more details).

RESL did not add a Uranium-234/238 spike to the MaSU54 Sample Matrix.

RESL has measured a K-40 value in the background urine of 63 +/- 6 Bq/L.

Notes:

(6) = Not Evaluated



Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-26-MaSU54
 (WSHL01) Wisconsin State Laboratory of Hygiene
 2601 Agriculture Drive
 Madison, WI 53718

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.02399	0.0183	N		31.1	0.0128 - 0.0238	0.005031	W
Cesium-134	0.552	0.642	A		-14.0	0.449 - 0.835	0.373	N
Cesium-137	0.909	0.839	A		8.3	0.587 - 1.091	0.0566	A
Cobalt-57	2.92	3.12	A		-6.4	2.18 - 4.06	0.0974	A
Cobalt-60	0.830	0.792	A		4.8	0.554 - 1.030	0.0694	A
Manganese-54	3.48	3.24	A		7.4	2.27 - 4.21	0.202	A
Plutonium-238	-0.000067						0.003233	
Plutonium-239/240	0.004927						0.002392	
Potassium-40	-11.4						3.67	
Strontium-90	NR	1.18				0.83 - 1.53		
Uranium-234	0.008998		A			False Positive Test	0.003263	
Uranium-238	0.003714		A			False Positive Test	0.001994	
Zinc-65	3.03	2.91	A		4.1	2.04 - 3.78	0.311	A

Radiological Reference Date: February 1, 2026

There are trace levels from the Am decay products that are currently below normal alpha spectroscopy limits of detection.

The uncertainty flags are for information only (See MAPEP Handbook for more details).

RESL did not add a Uranium-234/238 spike to the MaSU54 Sample Matrix.

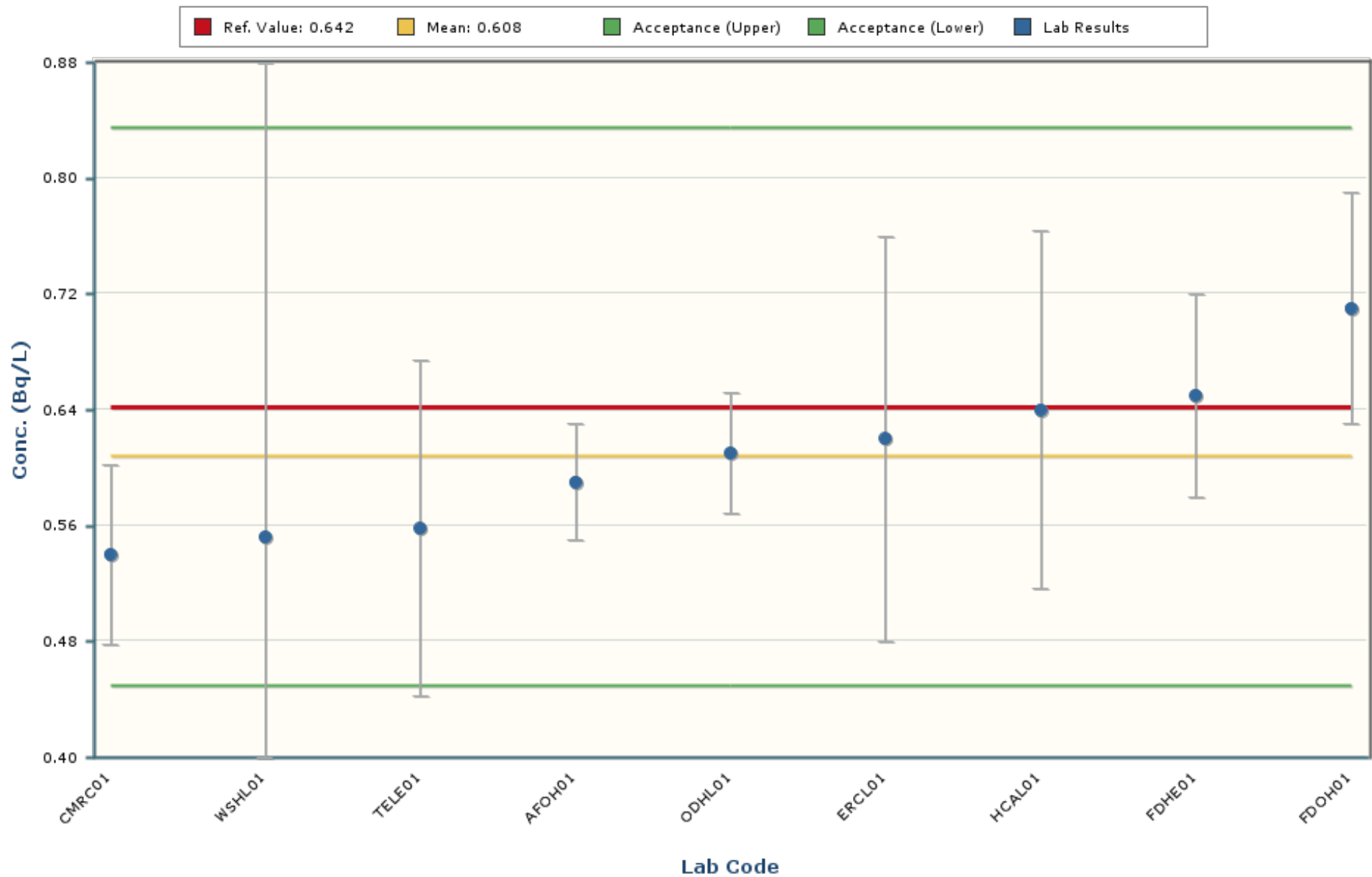
RESL has measured a K-40 value in the background urine of 63 +/- 6 Bq/L.

Notes:

(6) = Not Evaluated

Cesium-134

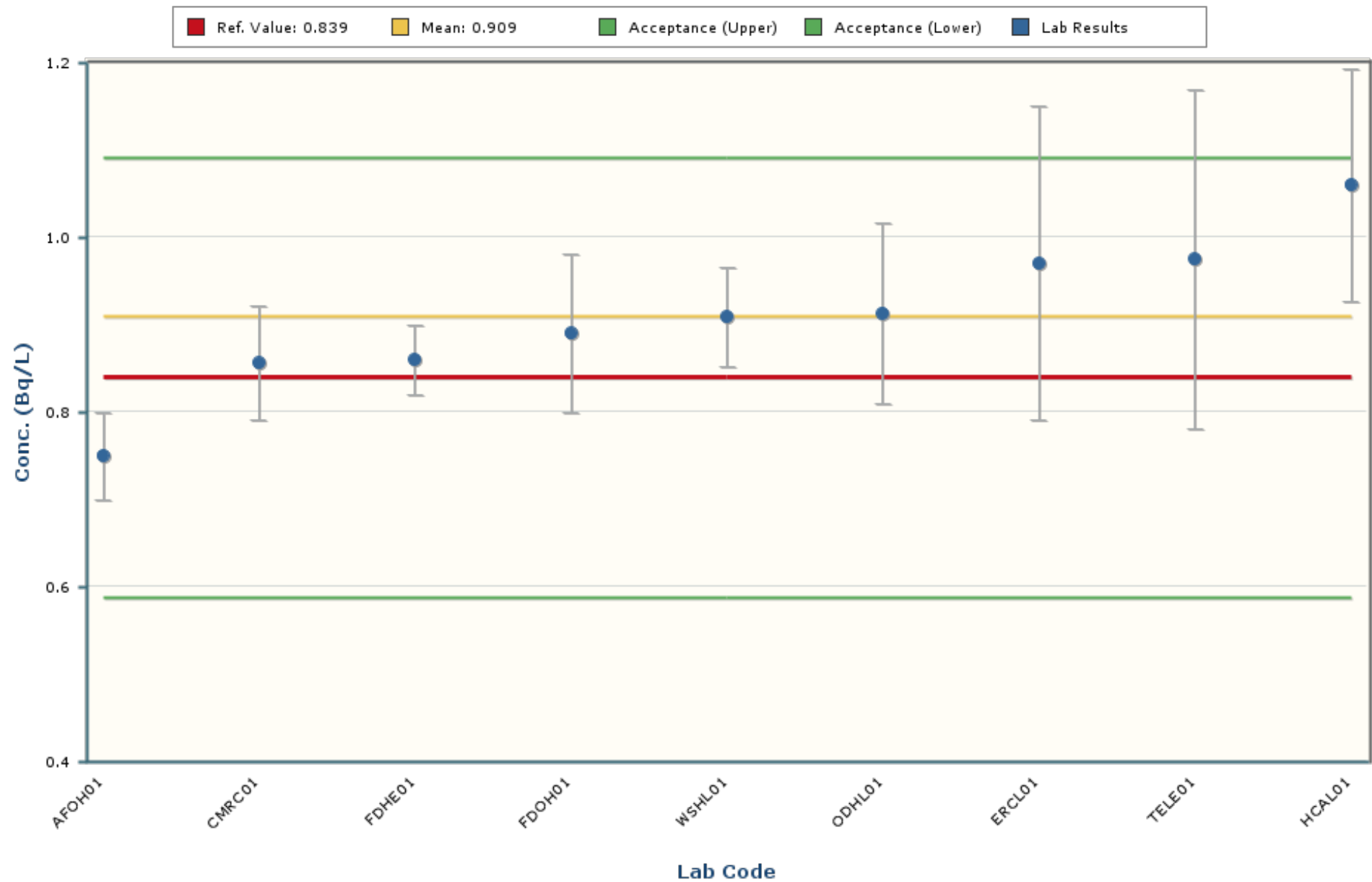
MAPEP-26-MaSU54



Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.334 and 0.881 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Cesium-137

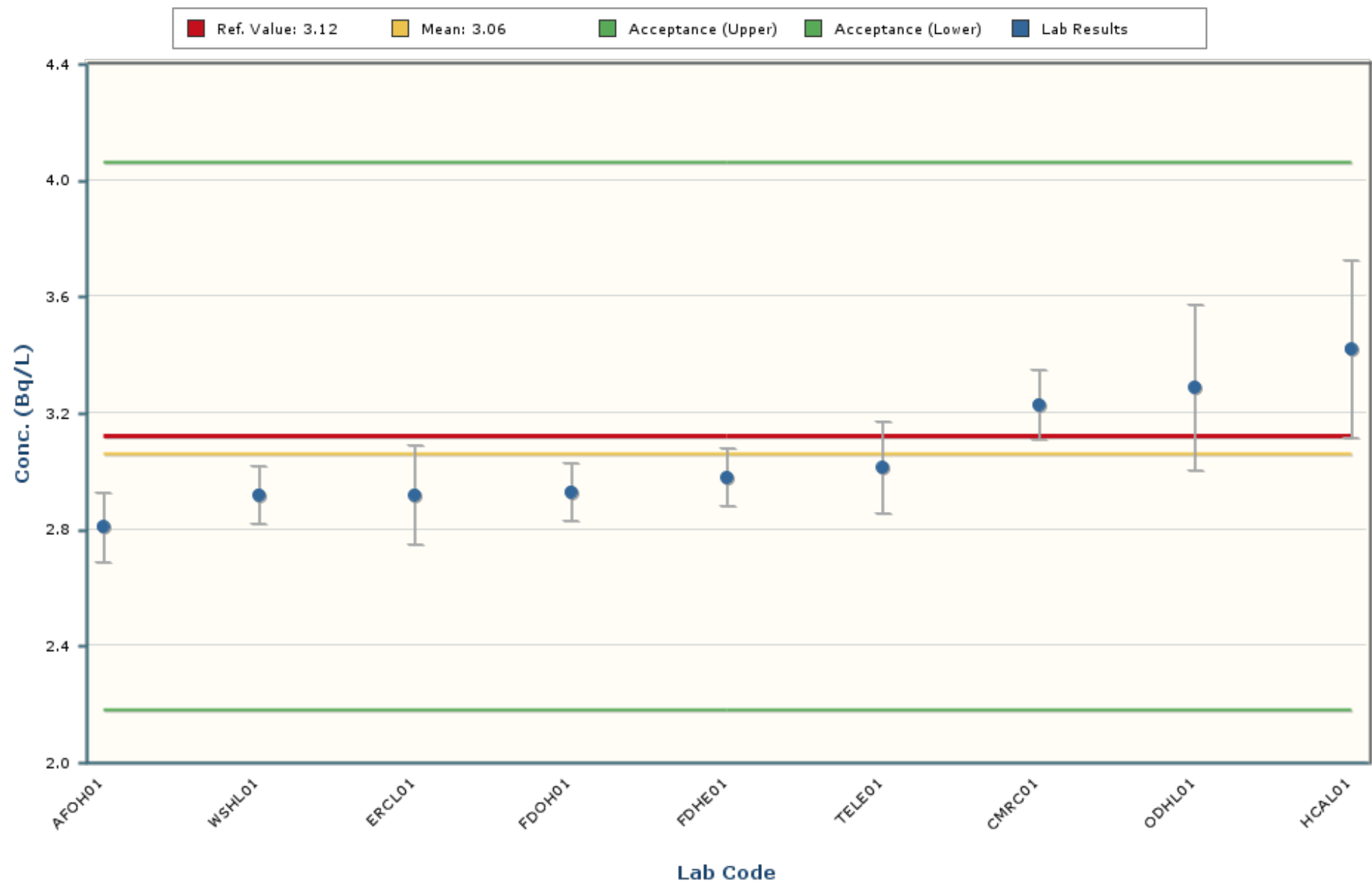
MAPEP-26-MaSU54



Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.470 and 1.348 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at ± 1 standard deviation.

Cobalt-57

MAPEP-26-MaSU54



Notes:

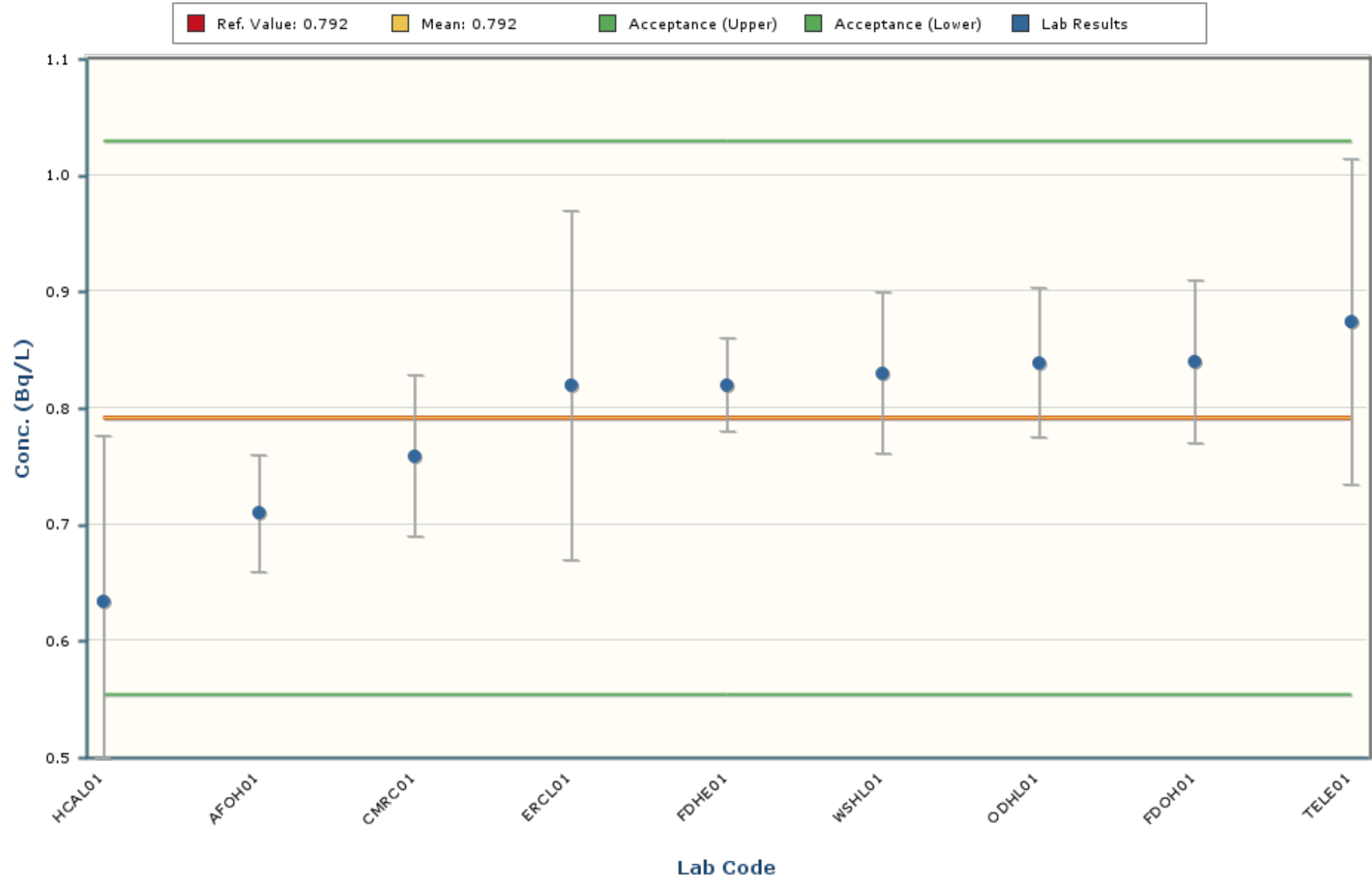
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 2.03 and 4.09 (± 5 Standard Deviations).

The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Cobalt-60

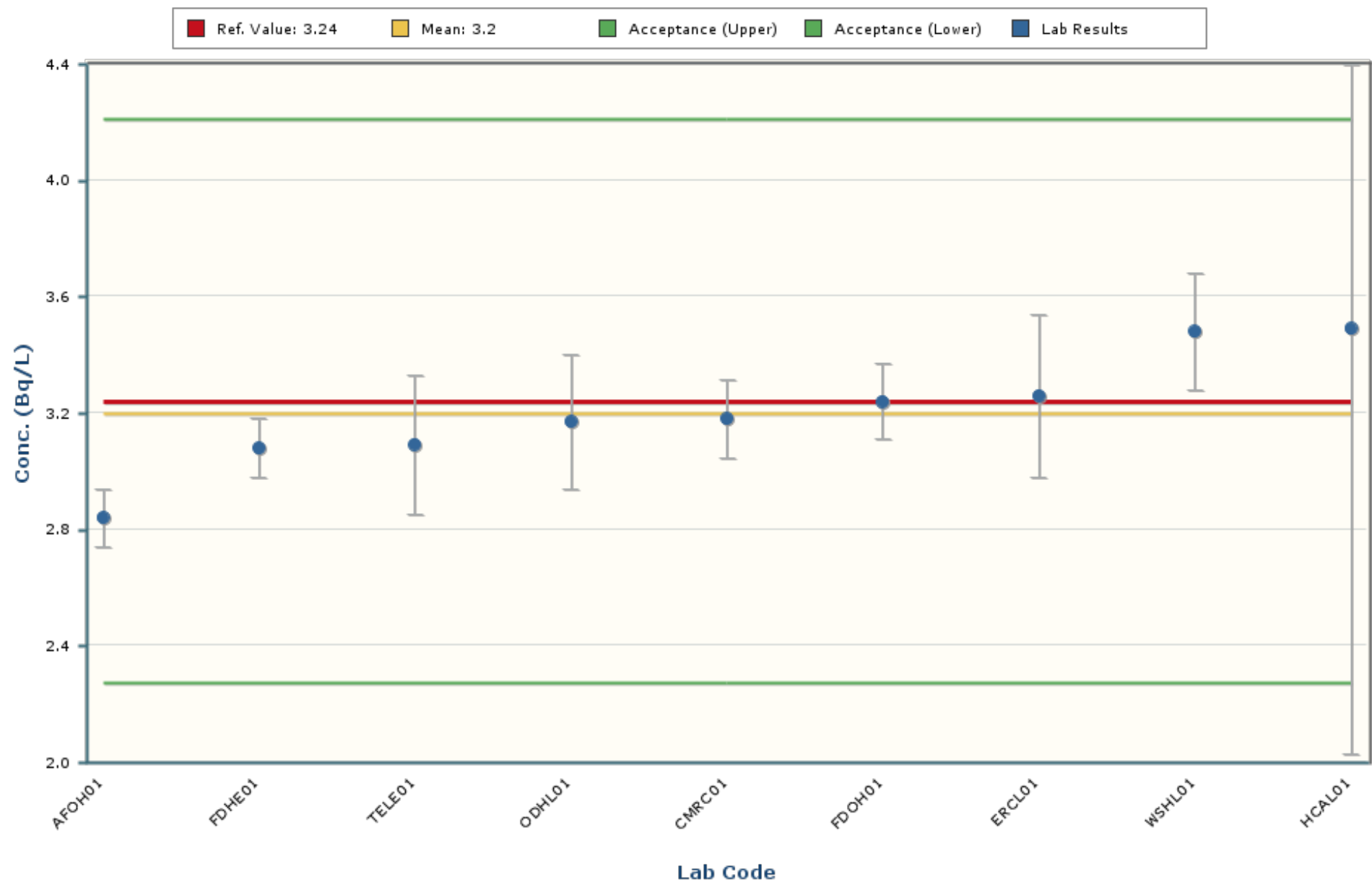
MAPEP-26-MaSU54



Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.408 and 1.175 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Manganese-54

MAPEP-26-MaSU54



Notes:

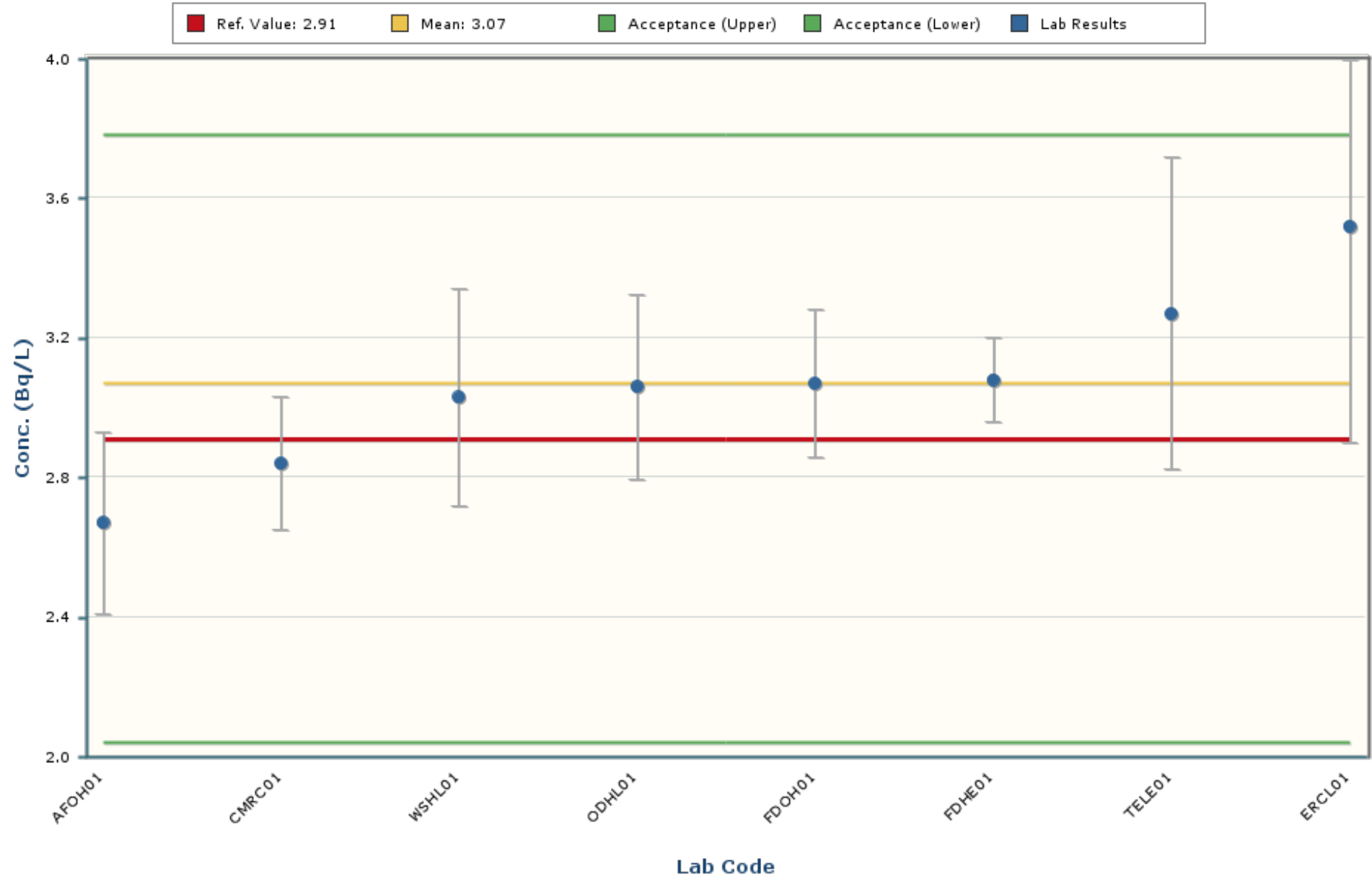
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 2.20 and 4.21 (± 5 Standard Deviations).

The error bars encompassing each result are plotted at $\pm$ one standard deviation.

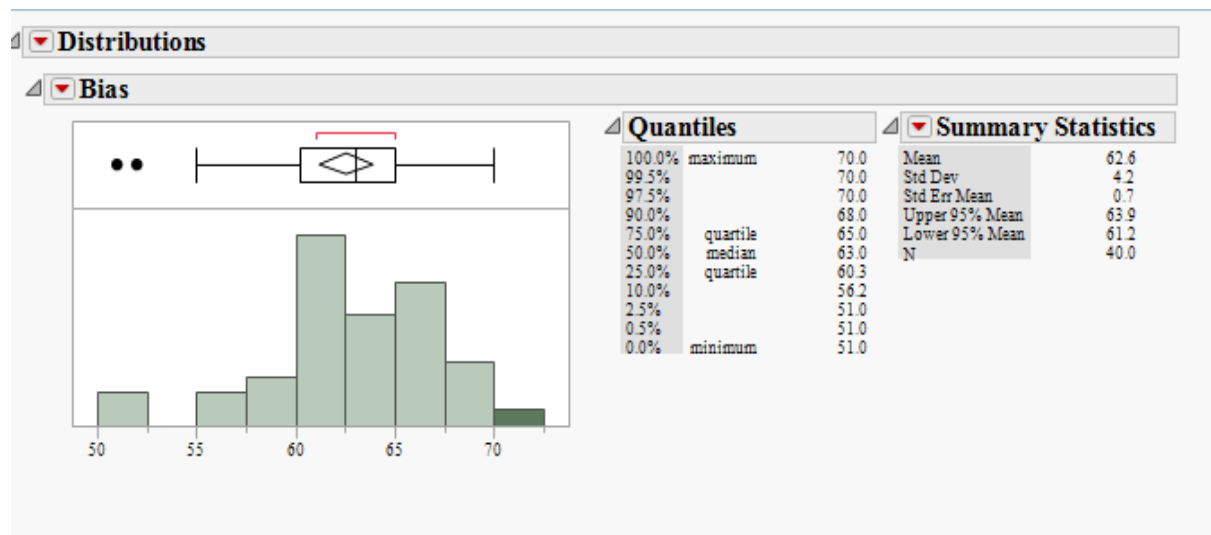
Zinc-65

MAPEP-26-MaSU54



Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 1.79 and 4.35 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

The intent of the distribution graphs contained within this report is to graphically demonstrate to users how % Bias data within the current MAPEP Series appears when examined by matrix, by analyte, by method of sample preparation or by method of detection. Biases greater than +/- 100% have been screened from the data. The box plot of the bias data points and the mean visually illustrate the breadth of the distribution and where potential outliers in the distribution might lie. The statistics for the distribution plot are provided adjacent to the Bias plot. In some cases, N becomes very small and thus developed statistics may not accurately reflect estimates of the population if N were a significantly larger value.

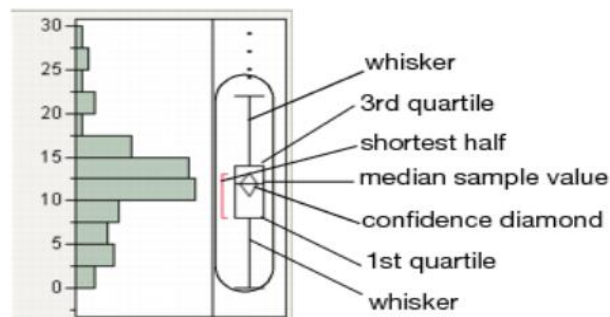


Outlier Box Plot

The BLACK small vertical line inside the small rectangle at the top of the data distribution graph is the median of the population of the bias shown for that analyte in the matrix. The confidence diamond contains the mean and the upper and lower 95% of the mean. If you drew a line through the middle of the diamond, you would have the mean. The top and bottom points of the diamond represent the upper and lower 95% of the mean. The ends of the box represent the 25th and 75th quantiles, also expressed as 1st and 3rd quartile. The difference between the 1st and 3rd quartiles is called the interquartile range. Each box has lines that extend from each end, sometimes called whiskers. The whiskers extend from the ends of the box to the outermost data point that falls within the distances computed as follows:

3rd quartile + 1.5*(interquartile range)

1st quartile - 1.5*(interquartile range)

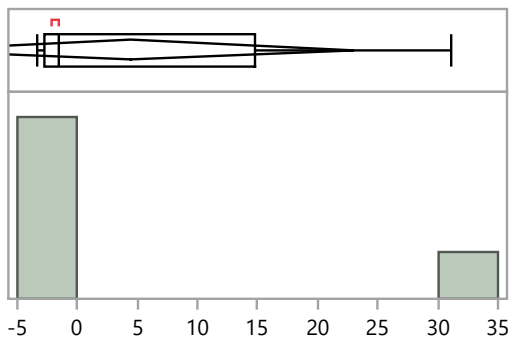


If the data points do not reach the computed ranges, then the whiskers are determined by the upper and lower data point values (not including outliers). The bracket outside of the box identifies the *shortest half*, which is the most dense 50% of the observations (Rousseuw and Leroy 1987).

MaU54 Distribution by Detection Method

Distributions Analyte_Detection=Americium-241 Alpha Spectrometry

Bias



Quantiles

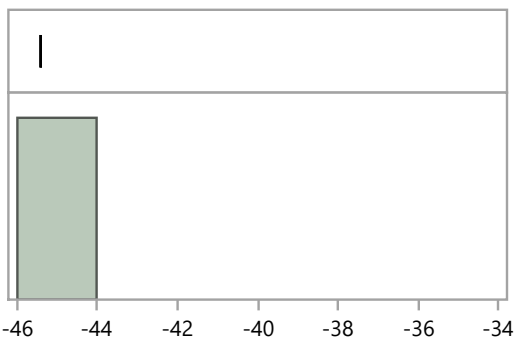
100.0%	maximum	31.1
99.5%		31.1
97.5%		31.1
90.0%		31.1
75.0%	quartile	14.8
50.0%	median	-1.6
25.0%	quartile	-2.8
10.0%		-3.3
2.5%		-3.3
0.5%		-3.3
0.0%	minimum	-3.3

Summary Statistics

Mean	4.5
Std Dev	14.9
Std Err Mean	6.7
Upper 95% Mean	23.0
Lower 95% Mean	-14.0
N	5.0

Distributions Analyte_Detection=Americium-241 Gamma Spectrometry

Bias



Quantiles

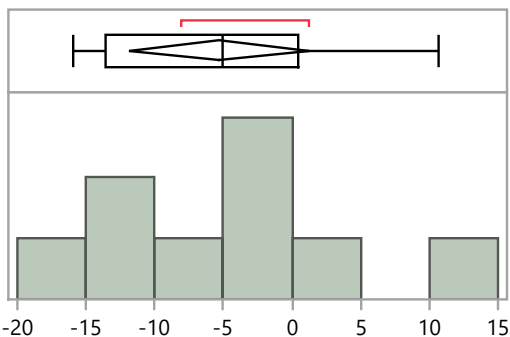
100.0%	maximum	-45.4
99.5%		-45.4
97.5%		-45.4
90.0%		-45.4
75.0%	quartile	-45.4
50.0%	median	-45.4
25.0%	quartile	-45.4
10.0%		-45.4
2.5%		-45.4
0.5%		-45.4
0.0%	minimum	-45.4

Summary Statistics

Mean	-45.4
Std Dev	0.0
Std Err Mean	0.0
Upper 95% Mean	-45.4
Lower 95% Mean	-45.4
N	2.0

Distributions Analyte_Detection=Cesium-134 Gamma Spectrometry

Bias

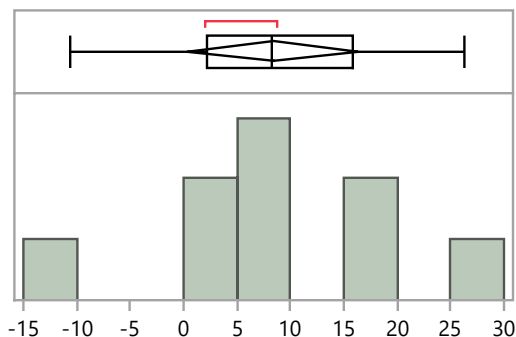


Quantiles

100.0%	maximum	10.6
99.5%		10.6
97.5%		10.6
90.0%		10.6
75.0%	quartile	0.5
50.0%	median	-5.0
25.0%	quartile	-13.6
10.0%		-15.9
2.5%		-15.9
0.5%		-15.9
0.0%	minimum	-15.9

Summary Statistics

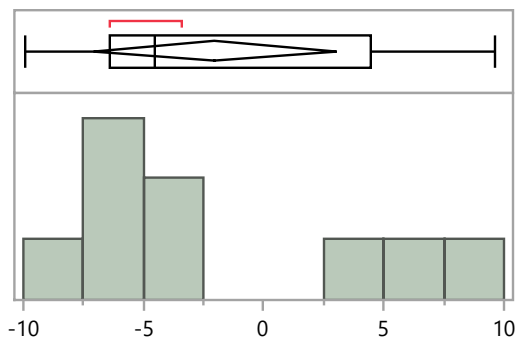
Mean	-5.3
Std Dev	8.5
Std Err Mean	2.8
Upper 95% Mean	1.2
Lower 95% Mean	-11.9
N	9.0

MaU54 Distribution by Detection Method**Distributions Analyte_Detection=Cesium-137 Gamma Spectrometry****Bias****Quantiles**

100.0%	maximum	26.3
99.5%		26.3
97.5%		26.3
90.0%		26.3
75.0%	quartile	15.9
50.0%	median	8.3
25.0%	quartile	2.3
10.0%		-10.6
2.5%		-10.6
0.5%		-10.6
0.0%	minimum	-10.6

Summary Statistics

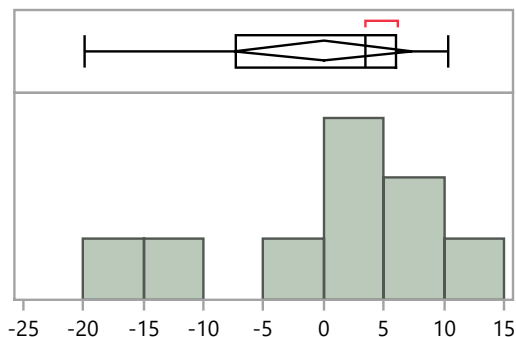
Mean	8.4
Std Dev	10.5
Std Err Mean	3.5
Upper 95% Mean	16.4
Lower 95% Mean	0.3
N	9.0

Distributions Analyte_Detection=Cobalt-57 Gamma Spectrometry**Bias****Quantiles**

100.0%	maximum	9.6
99.5%		9.6
97.5%		9.6
90.0%		9.6
75.0%	quartile	4.5
50.0%	median	-4.5
25.0%	quartile	-6.4
10.0%		-9.9
2.5%		-9.9
0.5%		-9.9
0.0%	minimum	-9.9

Summary Statistics

Mean	-2.0
Std Dev	6.6
Std Err Mean	2.2
Upper 95% Mean	3.0
Lower 95% Mean	-7.1
N	9.0

Distributions Analyte_Detection=Cobalt-60 Gamma Spectrometry**Bias****Quantiles**

100.0%	maximum	10.4
99.5%		10.4
97.5%		10.4
90.0%		10.4
75.0%	quartile	6.0
50.0%	median	3.5
25.0%	quartile	-7.3
10.0%		-19.9
2.5%		-19.9
0.5%		-19.9
0.0%	minimum	-19.9

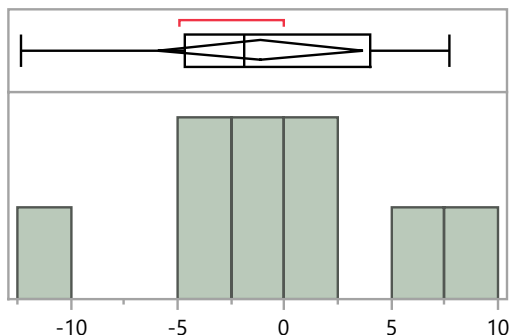
Summary Statistics

Mean	-0.0
Std Dev	9.7
Std Err Mean	3.2
Upper 95% Mean	7.4
Lower 95% Mean	-7.5
N	9.0

MaU54 Distribution by Detection Method

Distributions Analyte_Detection=Manganese-54 Gamma Spectrometry

Bias



Quantiles

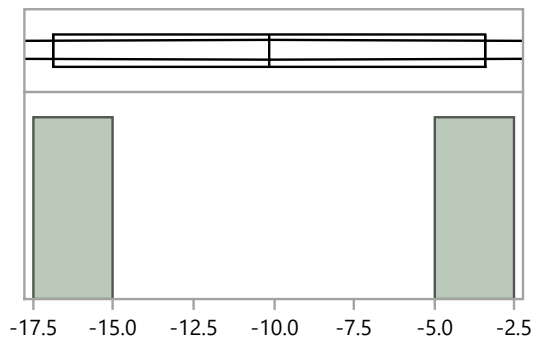
100.0%	maximum	7.7
99.5%		7.7
97.5%		7.7
90.0%		7.7
75.0%	quartile	4.0
50.0%	median	-1.9
25.0%	quartile	-4.7
10.0%		-12.3
2.5%		-12.3
0.5%		-12.3
0.0%	minimum	-12.3

Summary Statistics

Mean	-1.1
Std Dev	6.2
Std Err Mean	2.1
Upper 95% Mean	3.6
Lower 95% Mean	-5.9
N	9.0

Distributions Analyte_Detection=Strontium-90 Gas Flow Proportional Counter

Bias



Quantiles

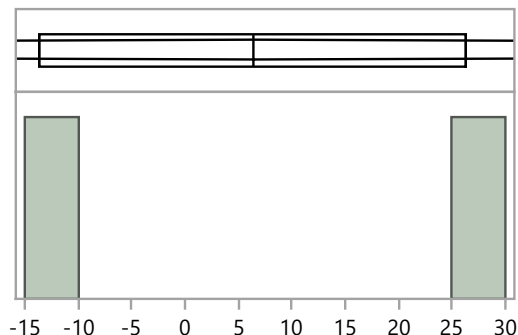
100.0%	maximum	-3.4
99.5%		-3.4
97.5%		-3.4
90.0%		-3.4
75.0%	quartile	-3.4
50.0%	median	-10.2
25.0%	quartile	-16.9
10.0%		-16.9
2.5%		-16.9
0.5%		-16.9
0.0%	minimum	-16.9

Summary Statistics

Mean	-10.2
Std Dev	9.5
Std Err Mean	6.8
Upper 95% Mean	75.6
Lower 95% Mean	-95.9
N	2.0

Distributions Analyte_Detection=Strontium-90 Gross Alpha/Beta - 2 pi gas flow proportional counter

Bias



Quantiles

100.0%	maximum	26.3
99.5%		26.3
97.5%		26.3
90.0%		26.3
75.0%	quartile	26.3
50.0%	median	6.4
25.0%	quartile	-13.6
10.0%		-13.6
2.5%		-13.6
0.5%		-13.6
0.0%	minimum	-13.6

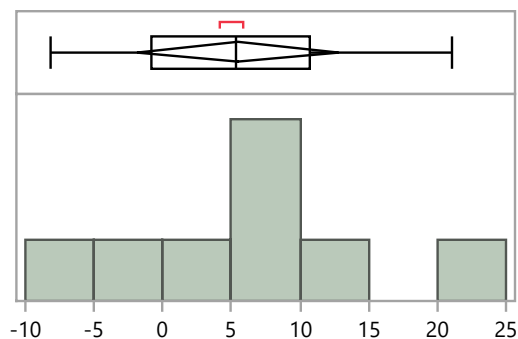
Summary Statistics

Mean	6.4
Std Dev	28.2
Std Err Mean	20.0
Upper 95% Mean	259.8
Lower 95% Mean	-247.1
N	2.0

MaU54 Distribution by Detection Method

Distributions Analyte_Detection=Zinc-65 Gamma Spectrometry

Bias

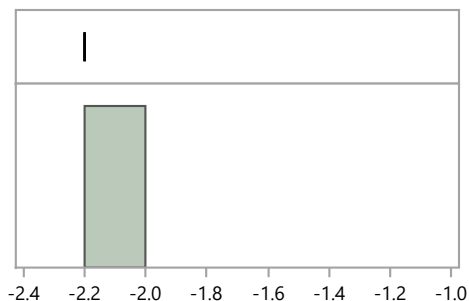


Quantiles

100.0%	maximum	21.0
99.5%		21.0
97.5%		21.0
90.0%		21.0
75.0%	quartile	10.8
50.0%	median	5.4
25.0%	quartile	-0.8
10.0%		-8.2
2.5%		-8.2
0.5%		-8.2
0.0%	minimum	-8.2

Summary Statistics

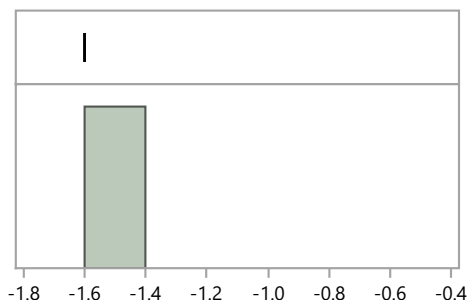
Mean	5.4
Std Dev	8.8
Std Err Mean	3.1
Upper 95% Mean	12.8
Lower 95% Mean	-1.9
N	8.0

MaU54 Distribution by Preparation Method
Distributions Analyte_Method=Americium-241 Acid dissolution with hydrofluoric acid
Bias

Quantiles

100.0%	maximum	-2.2
99.5%		-2.2
97.5%		-2.2
90.0%		-2.2
75.0%	quartile	-2.2
50.0%	median	-2.2
25.0%	quartile	-2.2
10.0%		-2.2
2.5%		-2.2
0.5%		-2.2
0.0%	minimum	-2.2

Summary Statistics

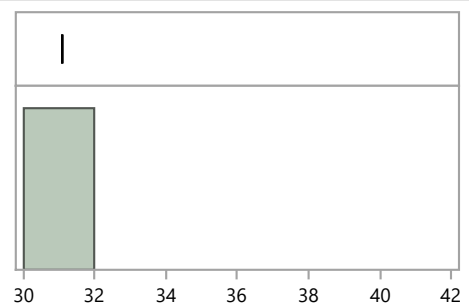
Mean	-2.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Americium-241 Coprecipitation, acidified
Bias

Quantiles

100.0%	maximum	-1.6
99.5%		-1.6
97.5%		-1.6
90.0%		-1.6
75.0%	quartile	-1.6
50.0%	median	-1.6
25.0%	quartile	-1.6
10.0%		-1.6
2.5%		-1.6
0.5%		-1.6
0.0%	minimum	-1.6

Summary Statistics

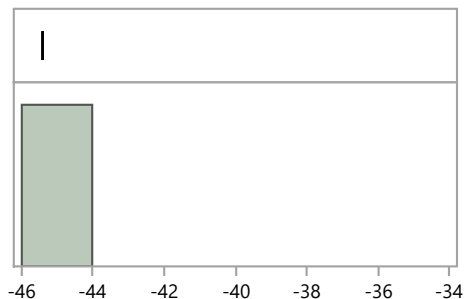
Mean	-1.6
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Americium-241 Evaporation, acidified
Bias

Quantiles

100.0%	maximum	31.1
99.5%		31.1
97.5%		31.1
90.0%		31.1
75.0%	quartile	31.1
50.0%	median	31.1
25.0%	quartile	31.1
10.0%		31.1
2.5%		31.1
0.5%		31.1
0.0%	minimum	31.1

Summary Statistics

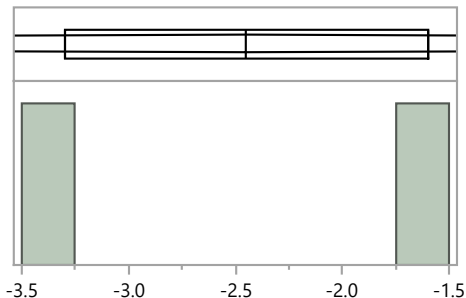
Mean	31.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaU54 Distribution by Preparation Method
Distributions Analyte_Method=Americium-241 No preparation - analyzed as received
Bias

Quantiles

100.0%	maximum	-45.4
99.5%		-45.4
97.5%		-45.4
90.0%		-45.4
75.0%	quartile	-45.4
50.0%	median	-45.4
25.0%	quartile	-45.4
10.0%		-45.4
2.5%		-45.4
0.5%		-45.4
0.0%	minimum	-45.4

Summary Statistics

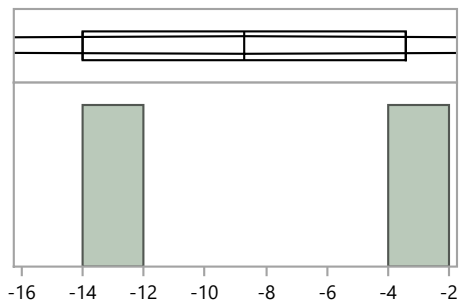
Mean	-45.4
Std Dev	0.0
Std Err Mean	0.0
Upper 95% Mean	-45.4
Lower 95% Mean	-45.4
N	2.0

Distributions Analyte_Method=Americium-241 Other
Bias

Quantiles

100.0%	maximum	-1.6
99.5%		-1.6
97.5%		-1.6
90.0%		-1.6
75.0%	quartile	-1.6
50.0%	median	-2.5
25.0%	quartile	-3.3
10.0%		-3.3
2.5%		-3.3
0.5%		-3.3
0.0%	minimum	-3.3

Summary Statistics

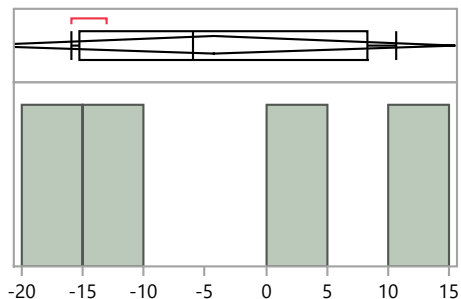
Mean	-2.5
Std Dev	1.2
Std Err Mean	0.9
Upper 95% Mean	8.4
Lower 95% Mean	-13.3
N	2.0

Distributions Analyte_Method=Cesium-134 EPA 901.1, Gamma Emitting, 600/4-80-032
Bias

Quantiles

100.0%	maximum	-3.4
99.5%		-3.4
97.5%		-3.4
90.0%		-3.4
75.0%	quartile	-3.4
50.0%	median	-8.7
25.0%	quartile	-14.0
10.0%		-14.0
2.5%		-14.0
0.5%		-14.0
0.0%	minimum	-14.0

Summary Statistics

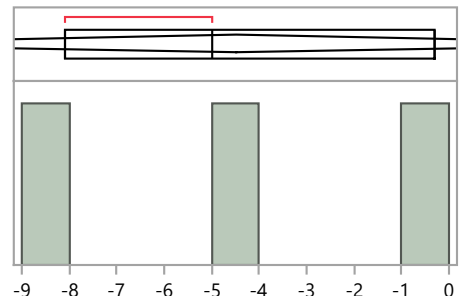
Mean	-8.7
Std Dev	7.5
Std Err Mean	5.3
Upper 95% Mean	58.6
Lower 95% Mean	-76.0
N	2.0

MaU54 Distribution by Preparation Method**Distributions Analyte_Method=Cesium-134 No preparation - analyzed as received****Bias****Quantiles**

100.0%	maximum	10.6
99.5%		10.6
97.5%		10.6
90.0%		10.6
75.0%	quartile	8.3
50.0%	median	-6.0
25.0%	quartile	-15.2
10.0%		-15.9
2.5%		-15.9
0.5%		-15.9
0.0%	minimum	-15.9

Summary Statistics

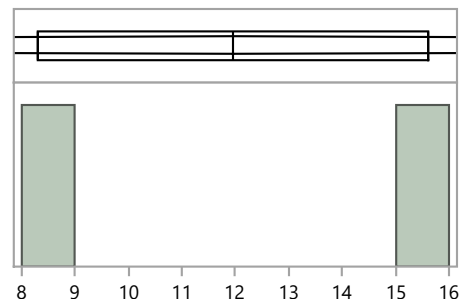
Mean	-4.3
Std Dev	12.4
Std Err Mean	6.2
Upper 95% Mean	15.5
Lower 95% Mean	-24.1
N	4.0

Distributions Analyte_Method=Cesium-134 Other**Bias****Quantiles**

100.0%	maximum	-0.3
99.5%		-0.3
97.5%		-0.3
90.0%		-0.3
75.0%	quartile	-0.3
50.0%	median	-5.0
25.0%	quartile	-8.1
10.0%		-8.1
2.5%		-8.1
0.5%		-8.1
0.0%	minimum	-8.1

Summary Statistics

Mean	-4.5
Std Dev	3.9
Std Err Mean	2.3
Upper 95% Mean	5.3
Lower 95% Mean	-14.2
N	3.0

Distributions Analyte_Method=Cesium-137 EPA 901.1, Gamma Emitting, 600/4-80-032**Bias****Quantiles**

100.0%	maximum	15.6
99.5%		15.6
97.5%		15.6
90.0%		15.6
75.0%	quartile	15.6
50.0%	median	12.0
25.0%	quartile	8.3
10.0%		8.3
2.5%		8.3
0.5%		8.3
0.0%	minimum	8.3

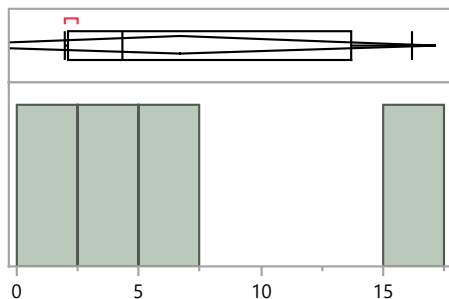
Summary Statistics

Mean	12.0
Std Dev	5.2
Std Err Mean	3.7
Upper 95% Mean	58.3
Lower 95% Mean	-34.4
N	2.0

MaU54 Distribution by Preparation Method

Distributions Analyte_Method=Cesium-137 No preparation - analyzed as received

Bias



Quantiles

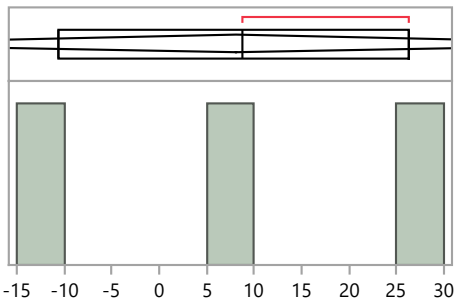
100.0%	maximum	16.2
99.5%		16.2
97.5%		16.2
90.0%		16.2
75.0%	quartile	13.7
50.0%	median	4.3
25.0%	quartile	2.1
10.0%		2.0
2.5%		2.0
0.5%		2.0
0.0%	minimum	2.0

Summary Statistics

Mean	6.7
Std Dev	6.6
Std Err Mean	3.3
Upper 95% Mean	17.2
Lower 95% Mean	-3.8
N	4.0

Distributions Analyte_Method=Cesium-137 Other

Bias



Quantiles

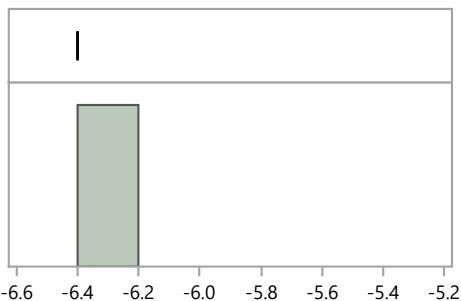
100.0%	maximum	26.3
99.5%		26.3
97.5%		26.3
90.0%		26.3
75.0%	quartile	26.3
50.0%	median	8.8
25.0%	quartile	-10.6
10.0%		-10.6
2.5%		-10.6
0.5%		-10.6
0.0%	minimum	-10.6

Summary Statistics

Mean	8.2
Std Dev	18.5
Std Err Mean	10.7
Upper 95% Mean	54.0
Lower 95% Mean	-37.7
N	3.0

Distributions Analyte_Method=Cobalt-57 EPA 901.1, Gamma Emitting, 600/4-80-032

Bias



Quantiles

100.0%	maximum	-6.4
99.5%		-6.4
97.5%		-6.4
90.0%		-6.4
75.0%	quartile	-6.4
50.0%	median	-6.4
25.0%	quartile	-6.4
10.0%		-6.4
2.5%		-6.4
0.5%		-6.4
0.0%	minimum	-6.4

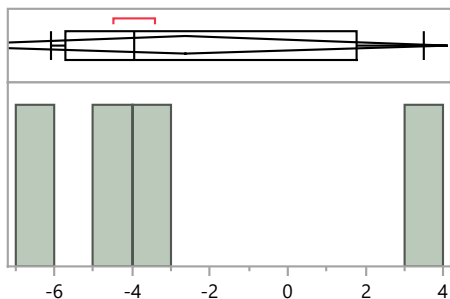
Summary Statistics

Mean	-6.4
Std Dev	0.0
Std Err Mean	0.0
Upper 95% Mean	-6.4
Lower 95% Mean	-6.4
N	2.0

MaU54 Distribution by Preparation Method

Distributions Analyte_Method=Cobalt-57 No preparation - analyzed as received

Bias



Quantiles

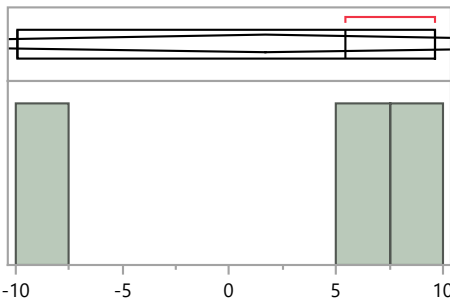
100.0%	maximum	3.5
99.5%		3.5
97.5%		3.5
90.0%		3.5
75.0%	quartile	1.8
50.0%	median	-4.0
25.0%	quartile	-5.7
10.0%		-6.1
2.5%		-6.1
0.5%		-6.1
0.0%	minimum	-6.1

Summary Statistics

Mean	-2.6
Std Dev	4.2
Std Err Mean	2.1
Upper 95% Mean	4.1
Lower 95% Mean	-9.4
N	4.0

Distributions Analyte_Method=Cobalt-57 Other

Bias



Quantiles

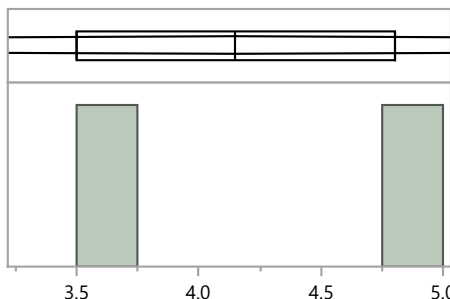
100.0%	maximum	9.6
99.5%		9.6
97.5%		9.6
90.0%		9.6
75.0%	quartile	9.6
50.0%	median	5.4
25.0%	quartile	-9.9
10.0%		-9.9
2.5%		-9.9
0.5%		-9.9
0.0%	minimum	-9.9

Summary Statistics

Mean	1.7
Std Dev	10.3
Std Err Mean	5.9
Upper 95% Mean	27.2
Lower 95% Mean	-23.8
N	3.0

Distributions Analyte_Method=Cobalt-60 EPA 901.1, Gamma Emitting, 600/4-80-032

Bias



Quantiles

100.0%	maximum	4.8
99.5%		4.8
97.5%		4.8
90.0%		4.8
75.0%	quartile	4.8
50.0%	median	4.2
25.0%	quartile	3.5
10.0%		3.5
2.5%		3.5
0.5%		3.5
0.0%	minimum	3.5

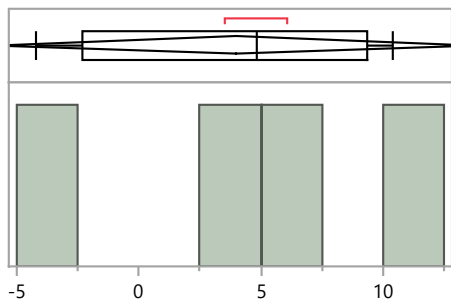
Summary Statistics

Mean	4.2
Std Dev	0.9
Std Err Mean	0.6
Upper 95% Mean	12.4
Lower 95% Mean	-4.1
N	2.0

MaU54 Distribution by Preparation Method

Distributions Analyte_Method=Cobalt-60 No preparation - analyzed as received

Bias



Quantiles

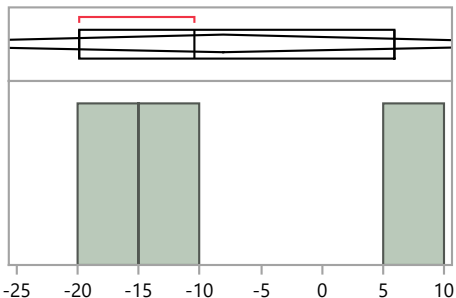
100.0%	maximum	10.4
99.5%		10.4
97.5%		10.4
90.0%		10.4
75.0%	quartile	9.3
50.0%	median	4.8
25.0%	quartile	-2.3
10.0%		-4.2
2.5%		-4.2
0.5%		-4.2
0.0%	minimum	-4.2

Summary Statistics

Mean	4.0
Std Dev	6.1
Std Err Mean	3.1
Upper 95% Mean	13.7
Lower 95% Mean	-5.8
N	4.0

Distributions Analyte_Method=Cobalt-60 Other

Bias



Quantiles

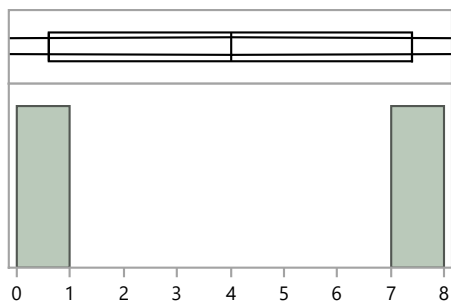
100.0%	maximum	5.9
99.5%		5.9
97.5%		5.9
90.0%		5.9
75.0%	quartile	5.9
50.0%	median	-10.4
25.0%	quartile	-19.9
10.0%		-19.9
2.5%		-19.9
0.5%		-19.9
0.0%	minimum	-19.9

Summary Statistics

Mean	-8.1
Std Dev	13.0
Std Err Mean	7.5
Upper 95% Mean	24.3
Lower 95% Mean	-40.5
N	3.0

Distributions Analyte_Method=Manganese-54 EPA 901.1, Gamma Emitting, 600/4-80-032

Bias



Quantiles

100.0%	maximum	7.4
99.5%		7.4
97.5%		7.4
90.0%		7.4
75.0%	quartile	7.4
50.0%	median	4.0
25.0%	quartile	0.6
10.0%		0.6
2.5%		0.6
0.5%		0.6
0.0%	minimum	0.6

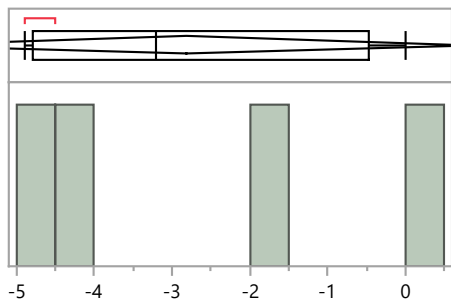
Summary Statistics

Mean	4.0
Std Dev	4.8
Std Err Mean	3.4
Upper 95% Mean	47.2
Lower 95% Mean	-39.2
N	2.0

MaU54 Distribution by Preparation Method

Distributions Analyte_Method=Manganese-54 No preparation - analyzed as received

Bias



Quantiles

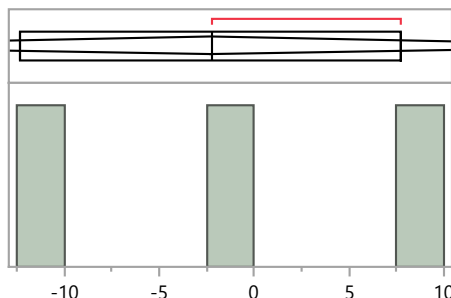
100.0%	maximum	0.0
99.5%		0.0
97.5%		0.0
90.0%		0.0
75.0%	quartile	-0.5
50.0%	median	-3.2
25.0%	quartile	-4.8
10.0%		-4.9
2.5%		-4.9
0.5%		-4.9
0.0%	minimum	-4.9

Summary Statistics

Mean	-2.8
Std Dev	2.3
Std Err Mean	1.2
Upper 95% Mean	0.8
Lower 95% Mean	-6.5
N	4.0

Distributions Analyte_Method=Manganese-54 Other

Bias



Quantiles

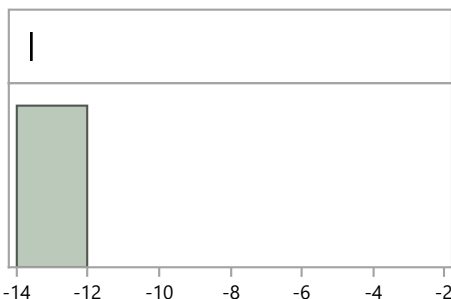
100.0%	maximum	7.7
99.5%		7.7
97.5%		7.7
90.0%		7.7
75.0%	quartile	7.7
50.0%	median	-2.2
25.0%	quartile	-12.3
10.0%		-12.3
2.5%		-12.3
0.5%		-12.3
0.0%	minimum	-12.3

Summary Statistics

Mean	-2.3
Std Dev	10.0
Std Err Mean	5.8
Upper 95% Mean	22.6
Lower 95% Mean	-27.1
N	3.0

Distributions Analyte_Method=Strontium-90 Acid dissolution with hydrofluoric acid

Bias



Quantiles

100.0%	maximum	-13.6
99.5%		-13.6
97.5%		-13.6
90.0%		-13.6
75.0%	quartile	-13.6
50.0%	median	-13.6
25.0%	quartile	-13.6
10.0%		-13.6
2.5%		-13.6
0.5%		-13.6
0.0%	minimum	-13.6

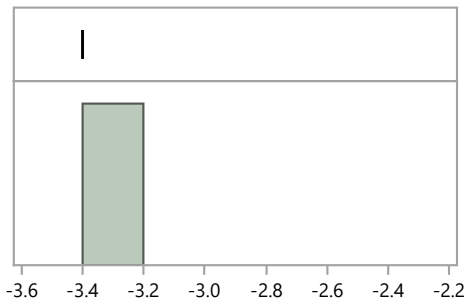
Summary Statistics

Mean	-13.6
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaU54 Distribution by Preparation Method

Distributions Analyte_Method=Strontium-90 Coprecipitation, acidified

Bias



Quantiles

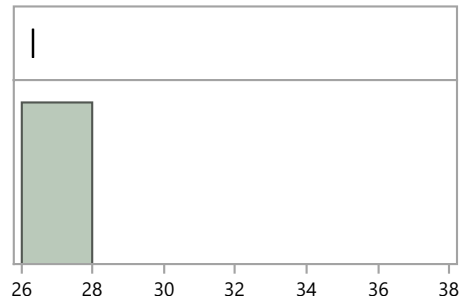
100.0%	maximum	-3.4
99.5%		-3.4
97.5%		-3.4
90.0%		-3.4
75.0%	quartile	-3.4
50.0%	median	-3.4
25.0%	quartile	-3.4
10.0%		-3.4
2.5%		-3.4
0.5%		-3.4
0.0%	minimum	-3.4

Summary Statistics

Mean	-3.4
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Strontium-90 EPA 905, Radioactive Strontium, 600/4-80-032

Bias



Quantiles

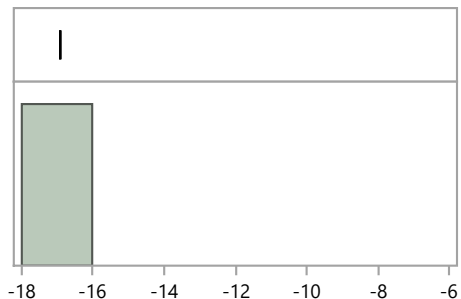
100.0%	maximum	26.3
99.5%		26.3
97.5%		26.3
90.0%		26.3
75.0%	quartile	26.3
50.0%	median	26.3
25.0%	quartile	26.3
10.0%		26.3
2.5%		26.3
0.5%		26.3
0.0%	minimum	26.3

Summary Statistics

Mean	26.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Strontium-90 Other

Bias

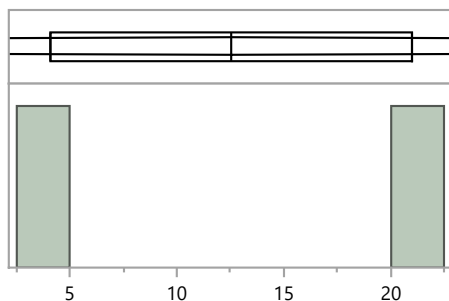


Quantiles

100.0%	maximum	-16.9
99.5%		-16.9
97.5%		-16.9
90.0%		-16.9
75.0%	quartile	-16.9
50.0%	median	-16.9
25.0%	quartile	-16.9
10.0%		-16.9
2.5%		-16.9
0.5%		-16.9
0.0%	minimum	-16.9

Summary Statistics

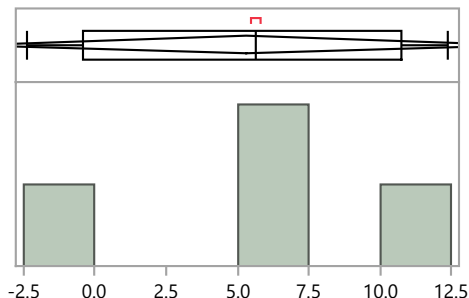
Mean	-16.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaU54 Distribution by Preparation Method
Distributions Analyte_Method=Zinc-65 EPA 901.1, Gamma Emitting, 600/4-80-032
Bias

Quantiles

100.0%	maximum	21.0
99.5%		21.0
97.5%		21.0
90.0%		21.0
75.0%	quartile	21.0
50.0%	median	12.6
25.0%	quartile	4.1
10.0%		4.1
2.5%		4.1
0.5%		4.1
0.0%	minimum	4.1

Summary Statistics

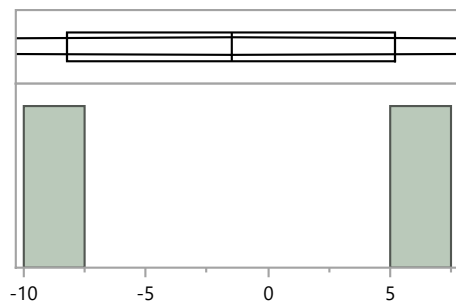
Mean	12.6
Std Dev	12.0
Std Err Mean	8.5
Upper 95% Mean	119.9
Lower 95% Mean	-94.8
N	2.0

Distributions Analyte_Method=Zinc-65 No preparation - analyzed as received
Bias

Quantiles

100.0%	maximum	12.4
99.5%		12.4
97.5%		12.4
90.0%		12.4
75.0%	quartile	10.8
50.0%	median	5.7
25.0%	quartile	-0.4
10.0%		-2.4
2.5%		-2.4
0.5%		-2.4
0.0%	minimum	-2.4

Summary Statistics

Mean	5.3
Std Dev	6.1
Std Err Mean	3.0
Upper 95% Mean	15.0
Lower 95% Mean	-4.3
N	4.0

Distributions Analyte_Method=Zinc-65 Other
Bias

Quantiles

100.0%	maximum	5.2
99.5%		5.2
97.5%		5.2
90.0%		5.2
75.0%	quartile	5.2
50.0%	median	-1.5
25.0%	quartile	-8.2
10.0%		-8.2
2.5%		-8.2
0.5%		-8.2
0.0%	minimum	-8.2

Summary Statistics

Mean	-1.5
Std Dev	9.5
Std Err Mean	6.7
Upper 95% Mean	83.6
Lower 95% Mean	-86.6
N	2.0