

RESL CUSTOMER EXPORT CONTROL AGREEMENT

It is the Radiological and Environmental Sciences Laboratory's (RESL) policy to conduct business in accordance with all applicable U.S. export control laws and regulations. It is also RESL's policy that its Customers comply with U.S. export control laws and regulations. Therefore, Customer agrees to the following:

1. Because products, technical data, and technical assistance (i.e., services) provided to Customer by RESL may be subject to U.S. export control laws and regulations, (i) transactions with certain persons and companies and (ii) the export or reexport of certain types and levels of products, technical data, and services are prohibited or restricted.
2. Customer acknowledges that it is responsible for its own compliance with U.S. export control laws and regulations. Customer further agrees that it assumes the responsibility to obtain all necessary U.S. export licenses or other U.S. governmental authorizations, as well as all liability for the failure to do so.
3. Customer acknowledges that export control requirements may change and that the export or reexport of RESL products, technical data, and services without an export license or other appropriate governmental authorization may result in criminal and/or civil liability.
4. The obligations and requirements described herein shall survive the expiration or termination of any agreement or contract between RESL and Customer.

MaSU44 Participating Laboratories

Lab Code	Lab Name	Matrix Code
AFOH01	USAFSAM/OEA	MaU
ERCL01	Washington State Public Health Laboratories	MaU
FDOH01	Florida Dept. of Health, Mobile Environmental Radiological Lab	MaU
GENE01	GEL Laboratories, LLC	MaU
HCAL01	Lawrence Livermore National Laboratory	MaU
IDGR01	Oak Ridge National Laboratory-Internal Dosimetry Group	MaU
RQCT01	Radiobioassay Quality Control Testing	MaU
SEML01	SRS Environmental Monitoring Laboratory	MaU
TELE01	Teledyne Brown Engineering - Environmental Services	MaU

Study Reference Values

MAPEP-21-MaSU44

Radiological Reference Date: 02/01/2021

Analyte	Ref Value	Ref Unc
Radiological	Units: (Bq/L)	
Americium-241	0.0748	0.0018
Cesium-134	2.73	0.06
Cesium-137	2.71	0.04
Cobalt-60	2.44	0.05
Manganese-54	2.03	0.04
Plutonium-238	0.0468	0.0013
Plutonium-239/240	0.0772	0.0019
Potassium-40	54	3
Strontium-90	0.48	0.011
Uranium-234	0.0877	0.0017
Uranium-238	0.091	0.0019
Zinc-65	1.34	0.03

Sample Statistical Summary

MAPEP-21-MaSU44

Radiological Reference Date: 02/01/2021

Analyte	T(1)	A(2)	Grand(3) Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range
							Units: (Bq/L)
Radiological							
Americium-241	7	7	0.0726	0.0068	0.0748	0.0018	0.0524 - 0.0972
Cesium-134	9	9	2.57	0.19	2.73	0.06	1.91 - 3.55
Cesium-137	9	9	2.75	0.20	2.71	0.04	1.90 - 3.52
Cobalt-57	7	7					False Positive Test
Cobalt-60	9	9	2.45	0.16	2.44	0.05	1.71 - 3.17
Curium-244	5	5					False Positive Test
Hydrogen-3	1	1					False Positive Test
Iron-55	1	1					False Positive Test
Manganese-54	9	9	2.02	0.22	2.03	0.04	1.42 - 2.64
Nickel-63	1	1					False Positive Test
Plutonium-238	8	7	0.0471	0.0031	0.0468	0.0013	0.0328 - 0.0608
Plutonium-239/240	8	8	0.0761	0.0067	0.0772	0.0019	0.0540 - 0.1004
Potassium-40	9	8	62	5	54	3	38 - 70
Radium-226	2	2					False Positive Test
Strontium-90	7	7	0.42	0.06	0.48	0.011	0.34 - 0.62
Technetium-99	1	1					False Positive Test
Uranium-234	8	8	0.0939	0.0108	0.0877	0.0017	0.0614 - 0.1140
Uranium-238	8	8	0.092	0.008	0.091	0.0019	0.064 - 0.118
Zinc-65	9	9	1.22	0.47	1.34	0.03	Sensitivity Evaluation

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".

Flag Summary Report

MAPEP-21-MaSU44

Radiological				
Analyte	A	W	RW	N
Americium-241	7			
Cesium-134	9			
Cesium-137	9			
Cobalt-57	7			2
Cobalt-60	9			
Curium-244	5			
Hydrogen-3	1			
Iron-55	1			
Manganese-54	8	1		
Nickel-63	1			
Plutonium-238	7			1
Plutonium-239/240	8			
Potassium-40	5	3		1
Radium-226	2			
Strontium-90	4	3		
Technetium-99	1			
Uranium-234	6	2		
Uranium-238	8			
Zinc-65	9			



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

Laboratory Results For MAPEP-21-MaSU44

(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	0.0700	0.0748	A		-6.4	0.0524 - 0.0972	0.0037	A
Cesium-134	2.44	2.73	A		-10.6	1.91 - 3.55	0.18	A
Cesium-137	2.58	2.71	A		-4.8	1.90 - 3.52	0.16	A
Cobalt-57	-0.033		A			False Positive Test	0.058	
Cobalt-60	2.33	2.44	A		-4.5	1.71 - 3.17	0.15	A
Curium-244	-0.00017		A			False Positive Test	0.00022	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR					False Positive Test		
Manganese-54	1.789	2.03	A		-11.9	1.42 - 2.64	0.071	A
Nickel-63	NR					False Positive Test		
Plutonium-238	0.0433	0.0468	A		-7.5	0.0328 - 0.0608	0.0028	A
Plutonium-239/240	0.0728	0.0772	A		-5.7	0.0540 - 0.1004	0.0039	A
Potassium-40	54.8	54	A		1.5	38 - 70	1.9	A
Radium-226	0.0044		A			False Positive Test	0.0038	
Strontium-90	0.492	0.48	A		2.5	0.34 - 0.62	0.030	A
Technetium-99	NR					False Positive Test		
Uranium-234	0.0962	0.0877	A		9.7	0.0614 - 0.1140	0.0047	A
Uranium-238	0.0967	0.091	A		6.3	0.064 - 0.118	0.0047	A
Zinc-65	1.31	1.34	A			Sensitivity Evaluation	0.24	

Radiological Reference Date: February 1, 2021

Notes:

(11) = False Positive Test, Result Not Reported

(17) = NOT DETECTED - reported a statistically zero result



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

Laboratory Results For MAPEP-21-MaSU44
 (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	0.0662	0.0748	A		-11.5	0.0524 - 0.0972	0.0092	A
Cesium-134	2.66	2.73	A		-2.6	1.91 - 3.55	0.26	A
Cesium-137	3.11	2.71	A		14.8	1.90 - 3.52	0.26	A
Cobalt-57	-0.15		A			False Positive Test	0.11	
Cobalt-60	2.74	2.44	A		12.3	1.71 - 3.17	0.21	A
Curium-244	0.000004		A			False Positive Test	0.000566	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR					False Positive Test		
Manganese-54	2.26	2.03	A		11.3	1.42 - 2.64	0.28	A
Nickel-63	NR					False Positive Test		
Plutonium-238	0.0496	0.0468	A		6.0	0.0328 - 0.0608	0.0077	W
Plutonium-239/240	0.0662	0.0772	A		-14.2	0.0540 - 0.1004	0.0087	A
Potassium-40	66.2	54	W		22.6	38 - 70	3.8	A
Radium-226	NR					False Positive Test		
Strontium-90	0.377	0.48	W		-21.5	0.34 - 0.62	0.053	A
Technetium-99	NR					False Positive Test		
Uranium-234	0.106	0.0877	W		20.9	0.0614 - 0.1140	0.015	A
Uranium-238	0.078	0.091	A		-14.3	0.064 - 0.118	0.014	W
Zinc-65	0.37	1.34	A	(17)		Sensitivity Evaluation	0.45	

Radiological Reference Date: February 1, 2021

Notes:

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

Laboratory Results For MAPEP-21-MaSU44

(FDOH01) Florida Dept. of Health, Mobile Environmental Radiological Lab

PO Box 680069

Orlando, FL 32868-0069

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.0748				0.0524 - 0.0972		
Cesium-134	2.64	2.73	A		-3.3	1.91 - 3.55	0.07	A
Cesium-137	2.95	2.71	A		8.9	1.90 - 3.52	0.12	A
Cobalt-57	NR		N	(11)		False Positive Test		
Cobalt-60	2.44	2.44	A		0.0	1.71 - 3.17	0.09	A
Curium-244	NR					False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR					False Positive Test		
Manganese-54	2.03	2.03	A		0.0	1.42 - 2.64	0.23	A
Nickel-63	NR					False Positive Test		
Plutonium-238	0.083	0.0468	N		77.4	0.0328 - 0.0608	0.014	W
Plutonium-239/240	0.089	0.0772	A		15.3	0.0540 - 0.1004	0.015	W
Potassium-40	60.64	54	A		12.3	38 - 70	2.37	A
Radium-226	NR					False Positive Test		
Strontium-90	0.354	0.48	W		-26.3	0.34 - 0.62	0.187	N
Technetium-99	NR					False Positive Test		
Uranium-234	0.078	0.0877	A		-11.1	0.0614 - 0.1140	0.028	N
Uranium-238	0.088	0.091	A		-3.3	0.064 - 0.118	0.029	N
Zinc-65	1.28	1.34	A			Sensitivity Evaluation	0.18	

Radiological Reference Date: February 1, 2021

Notes:

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

Laboratory Results For MAPEP-21-MaSU44

(GENE01) GEL Laboratories, LLC

2040 Savage Road

Charleston, SC 29407

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.0831	0.0748	A		11.1	0.0524 - 0.0972	0.00315	A
Cesium-134	2.55	2.73	A		-6.6	1.91 - 3.55	0.335	A
Cesium-137	2.63	2.71	A		-3.0	1.90 - 3.52	0.299	A
Cobalt-57	-0.151		A			False Positive Test	0.126	
Cobalt-60	2.62	2.44	A		7.4	1.71 - 3.17	0.391	A
Curium-244	0.0000001		A			False Positive Test	0.000238	
Hydrogen-3	NR					False Positive Test		
Iron-55	-1.51		A			False Positive Test	0.929	
Manganese-54	1.61	2.03	W		-20.7	1.42 - 2.64	0.337	W
Nickel-63	0.0467		A			False Positive Test	0.233	
Plutonium-238	0.045	0.0468	A		-3.8	0.0328 - 0.0608	0.00221	A
Plutonium-239/240	0.074	0.0772	A		-4.1	0.0540 - 0.1004	0.00282	A
Potassium-40	66.3	54	W		22.8	38 - 70	5.31	A
Radium-226	0.0149		A			False Positive Test	0.0119	
Strontium-90	0.375	0.48	W		-21.9	0.34 - 0.62	0.0375	A
Technetium-99	-0.0966		A			False Positive Test	0.209	
Uranium-234	0.101	0.0877	A		15.2	0.0614 - 0.1140	0.00451	A
Uranium-238	0.0949	0.091	A		4.3	0.064 - 0.118	0.00436	A
Zinc-65	1.38	1.34	A	(17)		Sensitivity Evaluation	0.715	

Radiological Reference Date: February 1, 2021

Notes:

(11) = False Positive Test, Result Not Reported

(17) = NOT DETECTED - reported a statistically zero result



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

Laboratory Results For MAPEP-21-MaSU44
 (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	0.08	0.0748	A		7.0	0.0524 - 0.0972	0.005	A
Cesium-134	2.75	2.73	A		0.7	1.91 - 3.55	0.24	A
Cesium-137	2.73	2.71	A		0.7	1.90 - 3.52	0.32	A
Cobalt-57	NR		N	(11)		False Positive Test		
Cobalt-60	2.33	2.44	A		-4.5	1.71 - 3.17	0.26	A
Curium-244	NR					False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR					False Positive Test		
Manganese-54	2.22	2.03	A		9.4	1.42 - 2.64	0.32	A
Nickel-63	NR					False Positive Test		
Plutonium-238	0.05	0.0468	A		6.8	0.0328 - 0.0608	0.003	A
Plutonium-239/240	0.08	0.0772	A		3.6	0.0540 - 0.1004	0.004	A
Potassium-40	275.84	54	N		410.8	38 - 70	7.29	A
Radium-226	NR					False Positive Test		
Strontium-90	NR	0.48				0.34 - 0.62		
Technetium-99	NR					False Positive Test		
Uranium-234	NR	0.0877				0.0614 - 0.1140		
Uranium-238	NR	0.091				0.064 - 0.118		
Zinc-65	2.17	1.34	A			Sensitivity Evaluation	0.59	

Radiological Reference Date: February 1, 2021

Notes:

- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result



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

Laboratory Results For MAPEP-21-MaSU44

(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	0.074	0.0748	A		-1.1	0.0524 - 0.0972	0.005	A
Cesium-134	2.31	2.73	A		-15.4	1.91 - 3.55	0.07	A
Cesium-137	2.8	2.71	A		3.3	1.90 - 3.52	0.1	A
Cobalt-57	0.01		A			False Positive Test	0.02	
Cobalt-60	2.37	2.44	A		-2.9	1.71 - 3.17	0.08	A
Curium-244	-0.0002		A			False Positive Test	0.0002	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR					False Positive Test		
Manganese-54	2.2	2.03	A		8.4	1.42 - 2.64	0.1	A
Nickel-63	NR					False Positive Test		
Plutonium-238	0.049	0.0468	A		4.7	0.0328 - 0.0608	0.003	A
Plutonium-239/240	0.079	0.0772	A		2.3	0.0540 - 0.1004	0.005	A
Potassium-40	66	54	W		22.2	38 - 70	2	A
Radium-226	NR					False Positive Test		
Strontium-90	0.45	0.48	A		-6.3	0.34 - 0.62	0.11	W
Technetium-99	NR					False Positive Test		
Uranium-234	0.086	0.0877	A		-1.9	0.0614 - 0.1140	0.006	A
Uranium-238	0.092	0.091	A		1.1	0.064 - 0.118	0.006	A
Zinc-65	1.1	1.34	A			Sensitivity Evaluation	0.2	

Radiological Reference Date: February 1, 2021

Notes:

(11) = False Positive Test, Result Not Reported

(17) = NOT DETECTED - reported a statistically zero result



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

Laboratory Results For MAPEP-21-MaSU44
 (RQCT01) Radiobioassay Quality Control Testing
 PO Box 1625, MS 2114
 Idaho Falls, ID 83415

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.06509	0.0748	A		-13.0	0.0524 - 0.0972	0.00529	A
Cesium-134	2.56	2.73	A		-6.2	1.91 - 3.55	0.193	A
Cesium-137	2.54	2.71	A		-6.3	1.90 - 3.52	0.190	A
Cobalt-57	-0.0943		A			False Positive Test	0.0525	
Cobalt-60	2.56	2.44	A		4.9	1.71 - 3.17	0.187	A
Curium-244	NR					False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR					False Positive Test		
Manganese-54	1.92	2.03	A		-5.4	1.42 - 2.64	0.192	A
Nickel-63	NR					False Positive Test		
Plutonium-238	.0433	0.0468	A		-7.5	0.0328 - 0.0608	.00273	A
Plutonium-239/240	0.0747	0.0772	A		-3.2	0.0540 - 0.1004	0.00447	A
Potassium-40	63.6	54	A		17.8	38 - 70	3.81	A
Radium-226	NR					False Positive Test		
Strontium-90	0.396	0.48	A		-17.5	0.34 - 0.62	0.0330	A
Technetium-99	NR					False Positive Test		
Uranium-234	0.0839	0.0877	A		-4.3	0.0614 - 0.1140	0.00547	A
Uranium-238	0.0851	0.091	A		-6.5	0.064 - 0.118	0.00555	A
Zinc-65	1.05	1.34	A			Sensitivity Evaluation	0.327	

Radiological Reference Date: February 1, 2021

Notes:

- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result



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

Laboratory Results For MAPEP-21-MaSU44
 (SEML01) SRS Environmental Monitoring Laboratory
 Bldg 735-B
 Aiken, SC 29808

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.0696	0.0748	A		-7.0	0.0524 - 0.0972	0.0052	A
Cesium-134	2.90	2.73	A		6.2	1.91 - 3.55	0.18	A
Cesium-137	2.89	2.71	A		6.6	1.90 - 3.52	0.21	A
Cobalt-57	0.01		A			False Positive Test	0.08	
Cobalt-60	2.38	2.44	A		-2.5	1.71 - 3.17	0.16	A
Curium-244	-.000033		A			False Positive Test	.000035	
Hydrogen-3	-5.55		A			False Positive Test	5.55	
Iron-55	NR					False Positive Test		
Manganese-54	2.13	2.03	A		4.9	1.42 - 2.64	0.17	A
Nickel-63	NR					False Positive Test		
Plutonium-238	0.0498	0.0468	A		6.4	0.0328 - 0.0608	0.0039	A
Plutonium-239/240	0.0733	0.0772	A		-5.1	0.0540 - 0.1004	0.0051	A
Potassium-40	63.0	54	A		16.7	38 - 70	4.4	A
Radium-226	NR					False Positive Test		
Strontium-90	0.490	0.48	A		2.1	0.34 - 0.62	0.069	A
Technetium-99	NR					False Positive Test		
Uranium-234	0.0924	0.0877	A		5.4	0.0614 - 0.1140	0.0072	A
Uranium-238	0.0996	0.091	A		9.5	0.064 - 0.118	0.0077	A
Zinc-65	1.28	1.34	A			Sensitivity Evaluation	0.20	

Radiological Reference Date: February 1, 2021

Notes:

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- (17) = NOT DETECTED - reported a statistically zero result



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

Laboratory Results For MAPEP-21-MaSU44
 (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	0.0748				0.0524 - 0.0972		
Cesium-134	2.34	2.73	A		-14.3	1.91 - 3.55	.123	A
Cesium-137	2.54	2.71	A		-6.3	1.90 - 3.52	.171	A
Cobalt-57	.041			A		False Positive Test	.0472	
Cobalt-60	2.24	2.44	A		-8.2	1.71 - 3.17	.124	A
Curium-244	NR					False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR					False Positive Test		
Manganese-54	2.03	2.03	A		0.0	1.42 - 2.64	.177	A
Nickel-63	NR					False Positive Test		
Plutonium-238	NR	0.0468				0.0328 - 0.0608		
Plutonium-239/240	NR	0.0772				0.0540 - 0.1004		
Potassium-40	52.8	54	A		-2.2	38 - 70	2.37	A
Radium-226	NR					False Positive Test		
Strontium-90	NR	0.48				0.34 - 0.62		
Technetium-99	NR					False Positive Test		
Uranium-234	.108	0.0877	W		23.1	0.0614 - 0.1140	.0319	W
Uranium-238	.101	0.091	A		11.0	0.064 - 0.118	.0304	N
Zinc-65	1.06	1.34	A			Sensitivity Evaluation	.309	

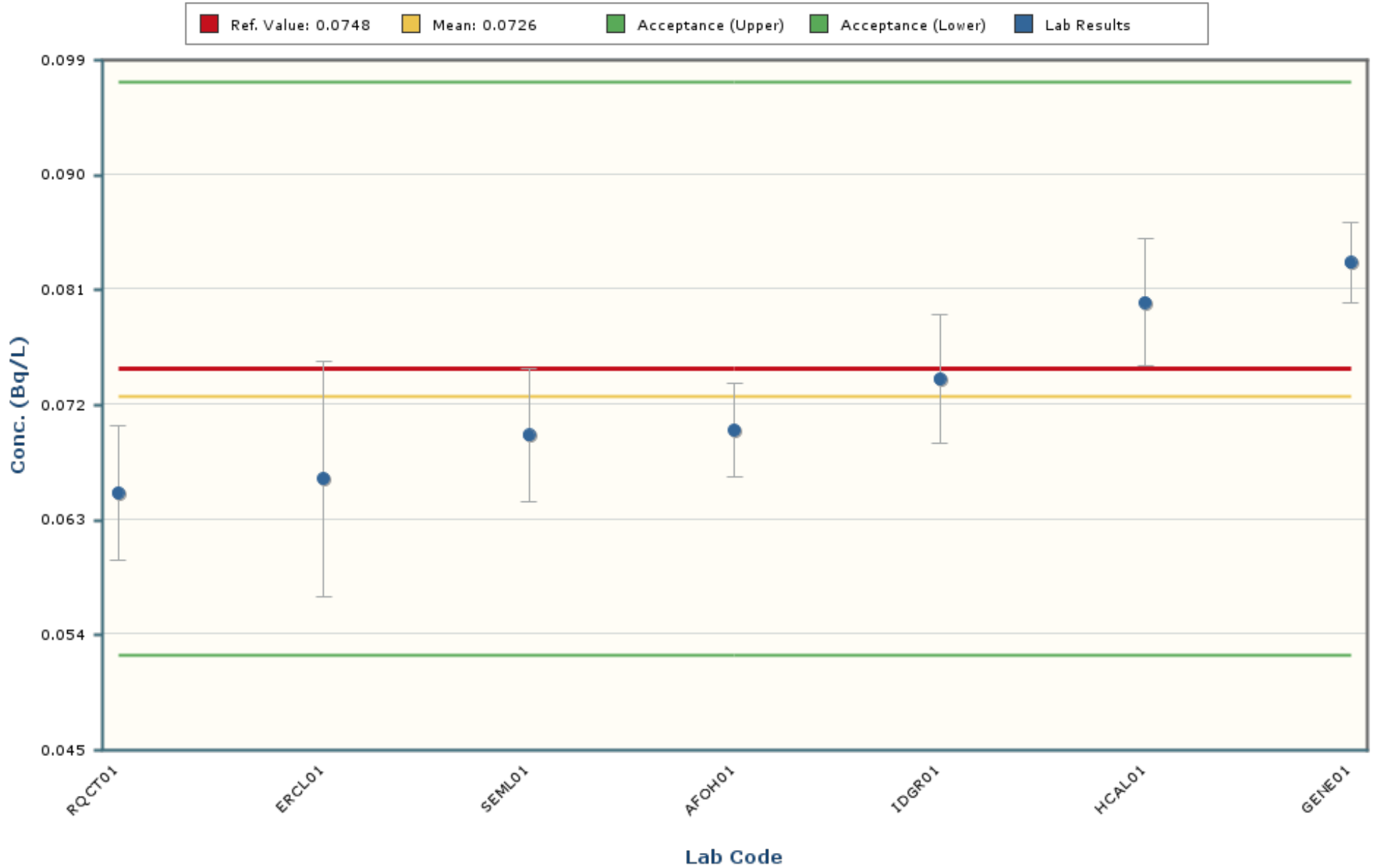
Radiological Reference Date: February 1, 2021

Notes:

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- (17) = NOT DETECTED - reported a statistically zero result

Americium-241

MAPEP-21-MaSU44



Notes:

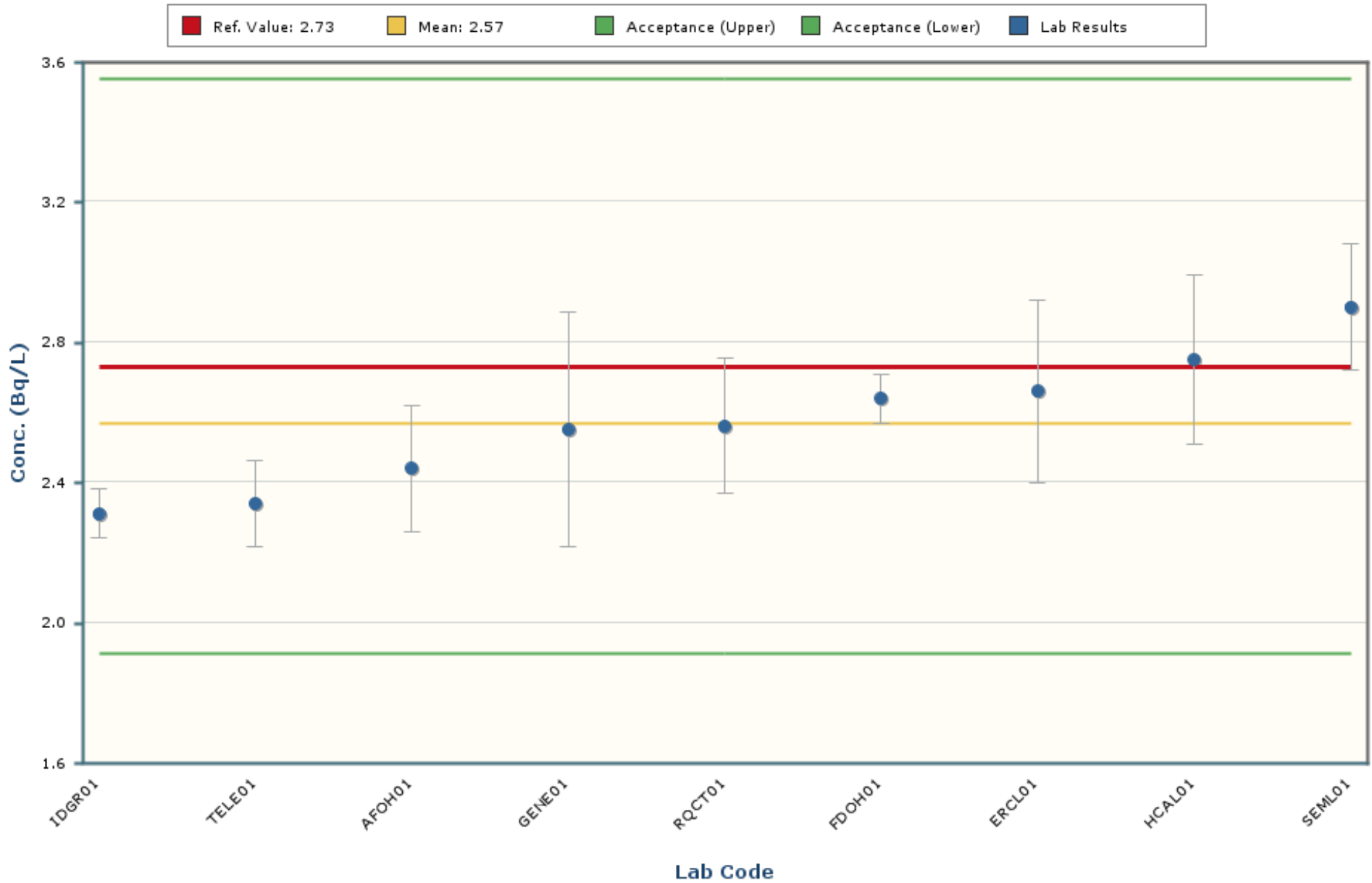
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.0384 and 0.1067 (± 5 Standard Deviations).

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

Cesium-134

MAPEP-21-MaSU44



Notes:

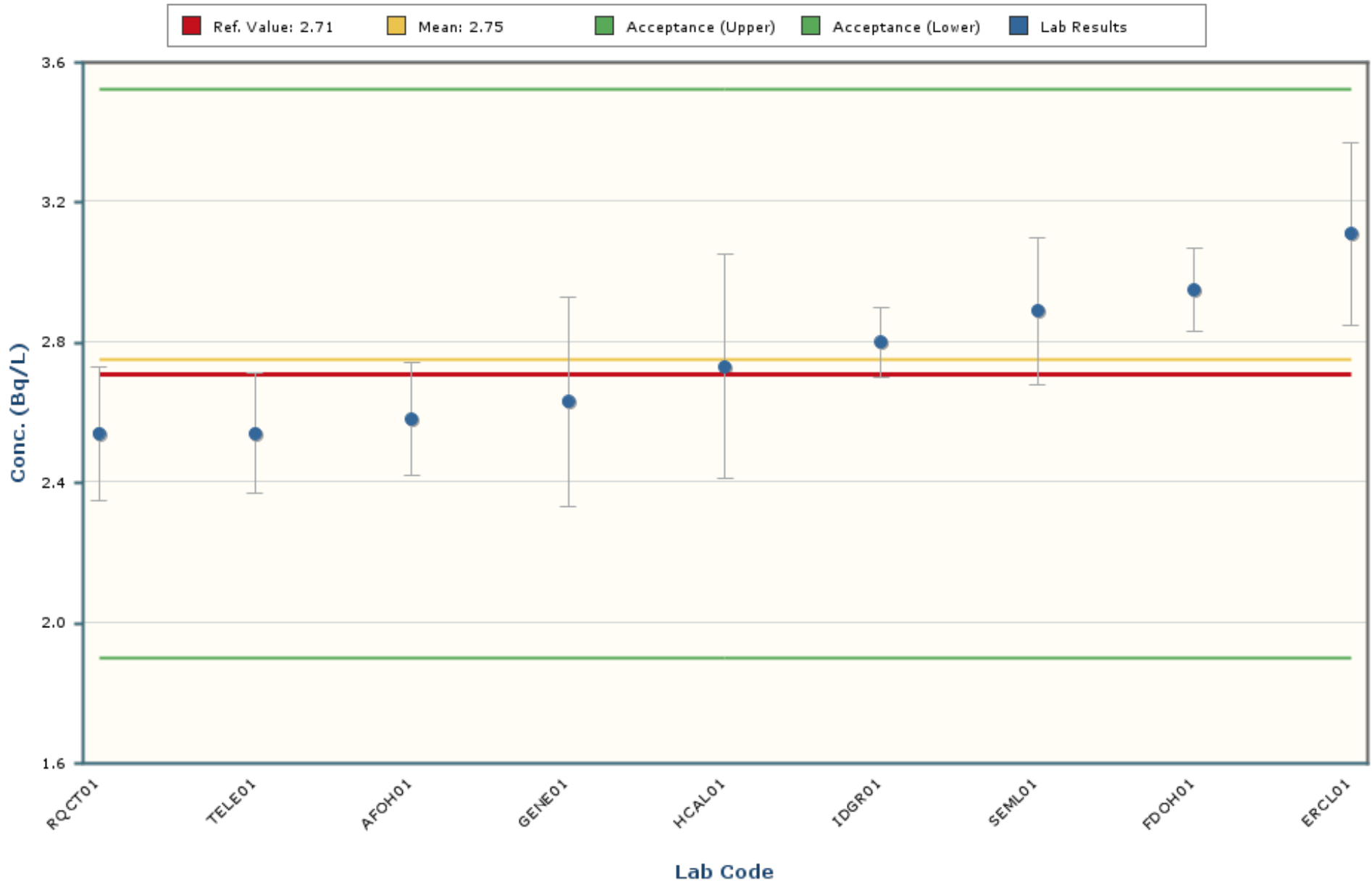
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 1.62 and 3.53 (± 5 Standard Deviations).

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

Cesium-137

MAPEP-21-MaSU44



Notes:

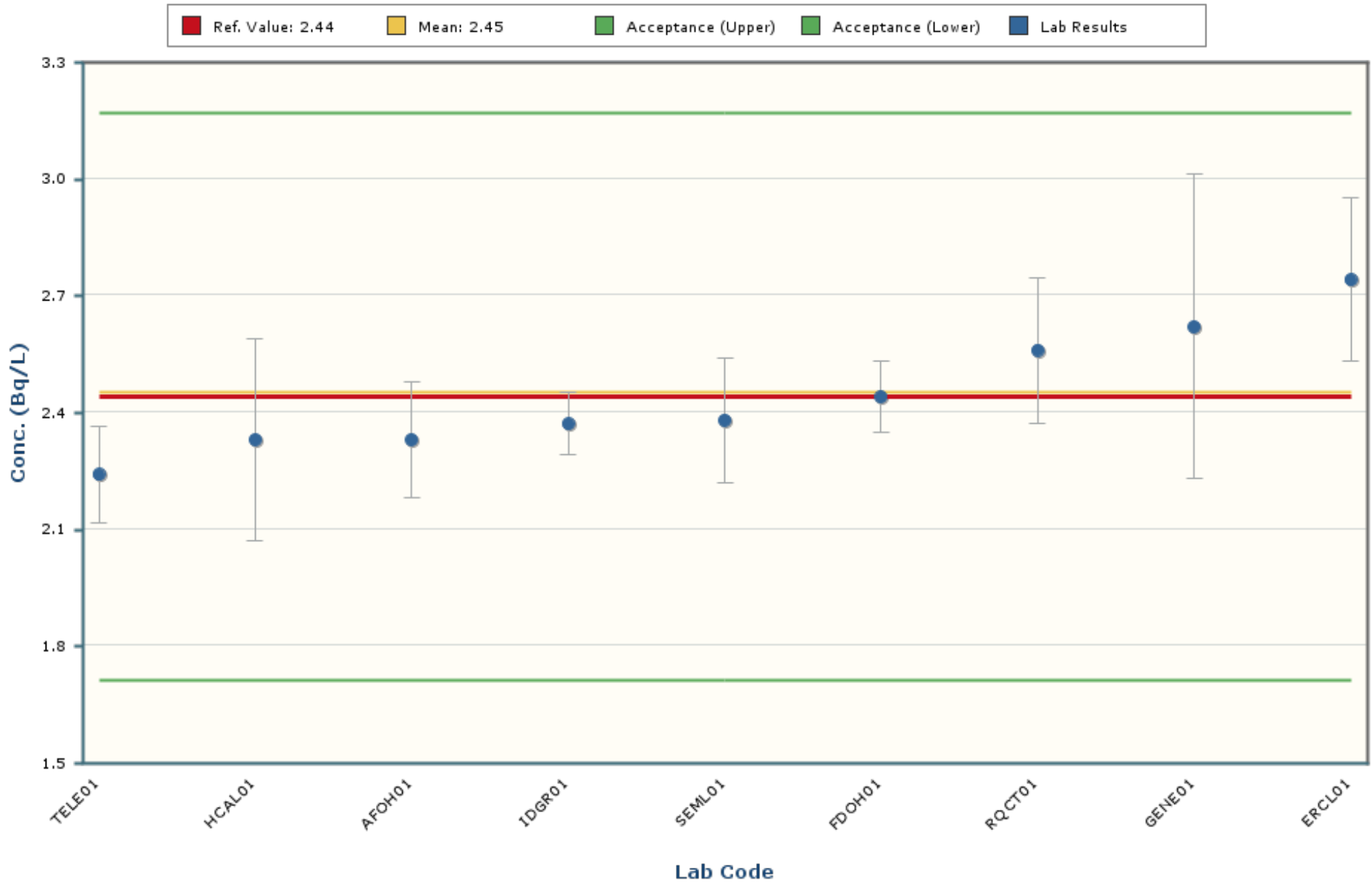
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 1.75 and 3.76 (± 5 Standard Deviations).

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

Cobalt-60

MAPEP-21-MaSU44



Notes:

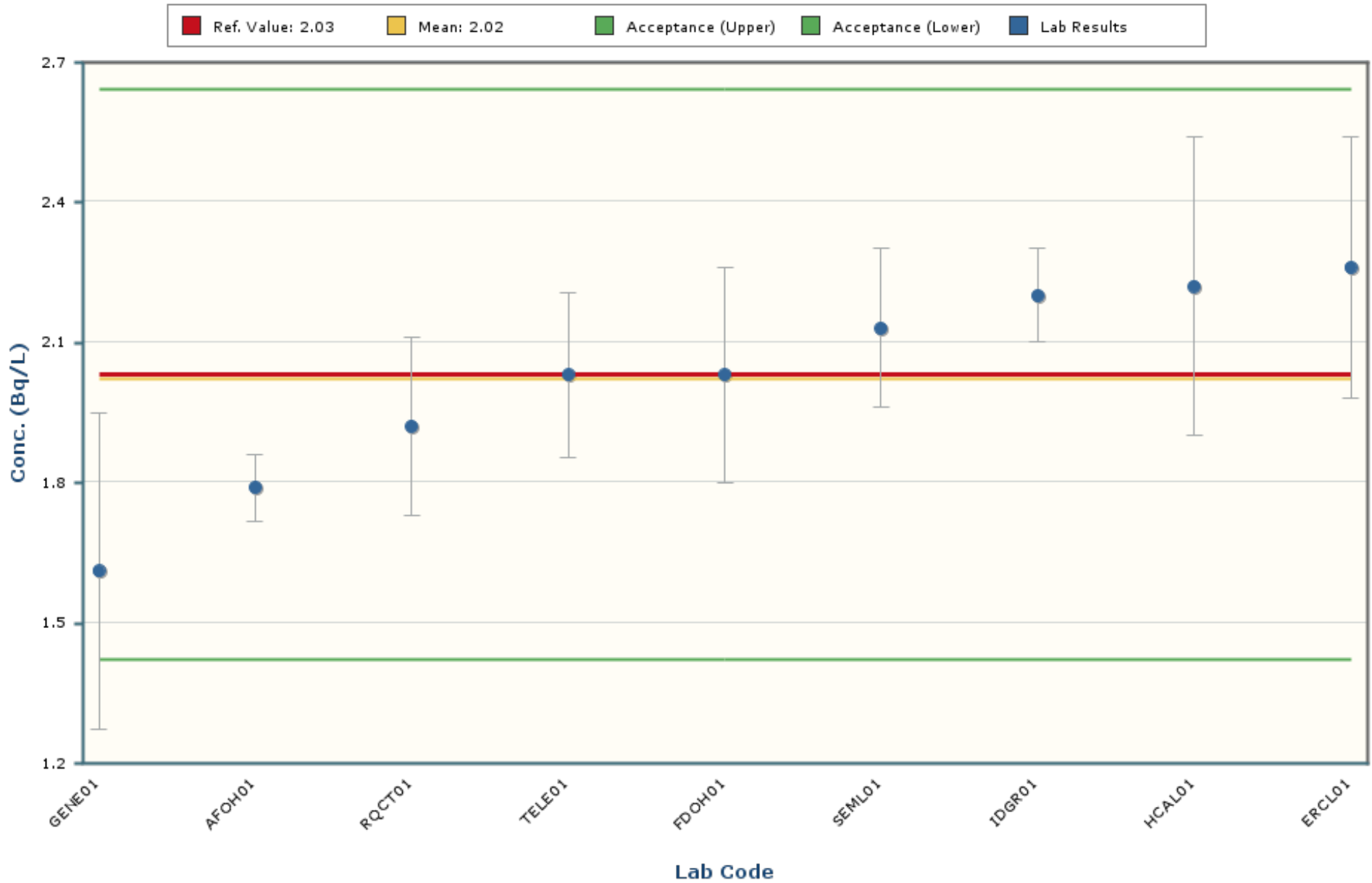
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 1.64 and 3.25 (± 5 Standard Deviations).

The error bars encompassing each result are plotted at ± 1 standard deviation.

Manganese-54

MAPEP-21-MaSU44



Notes:

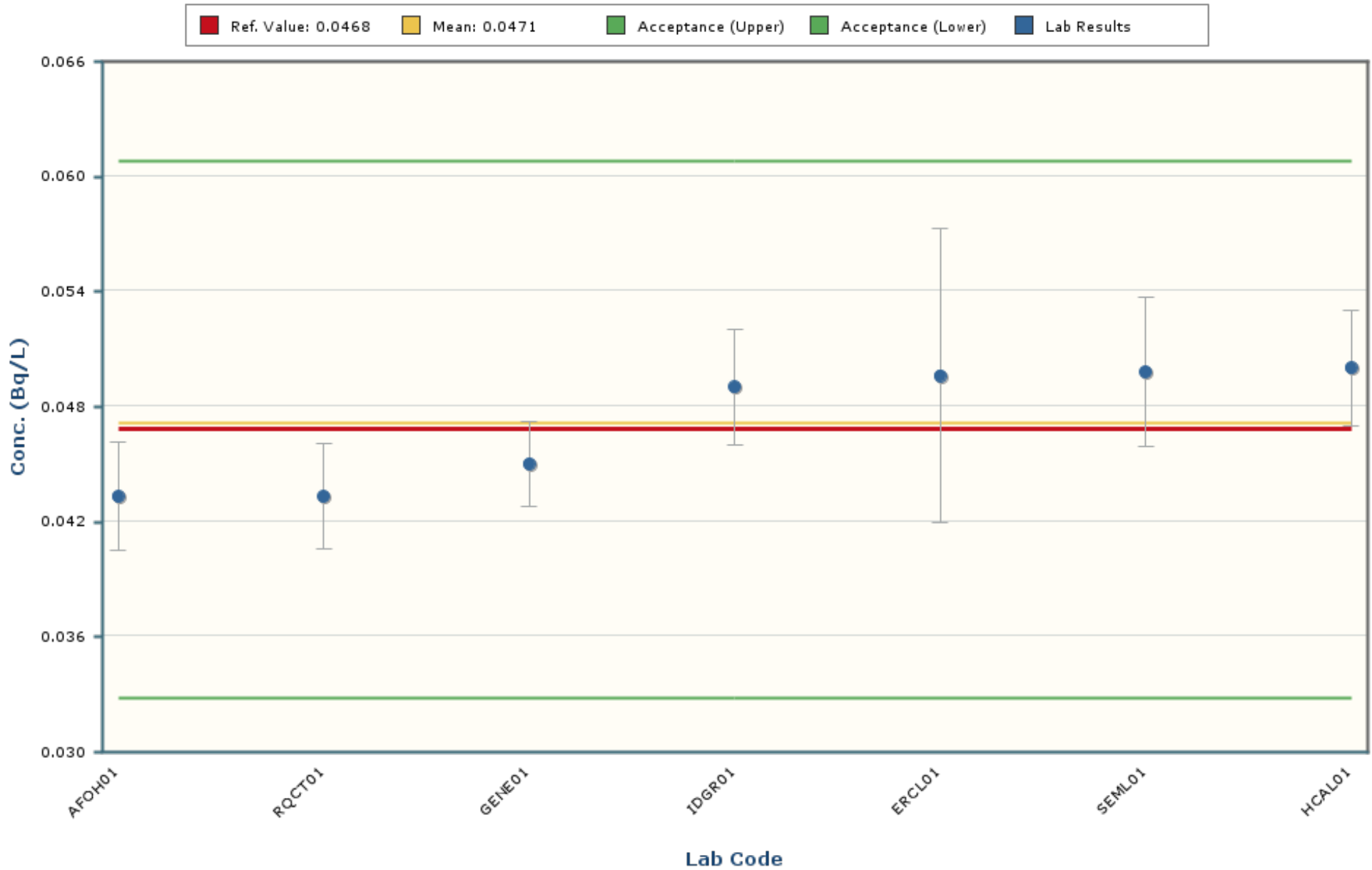
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.94 and 3.10 (± 5 Standard Deviations).

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

Plutonium-238

MAPEP-21-MaSU44



Notes:

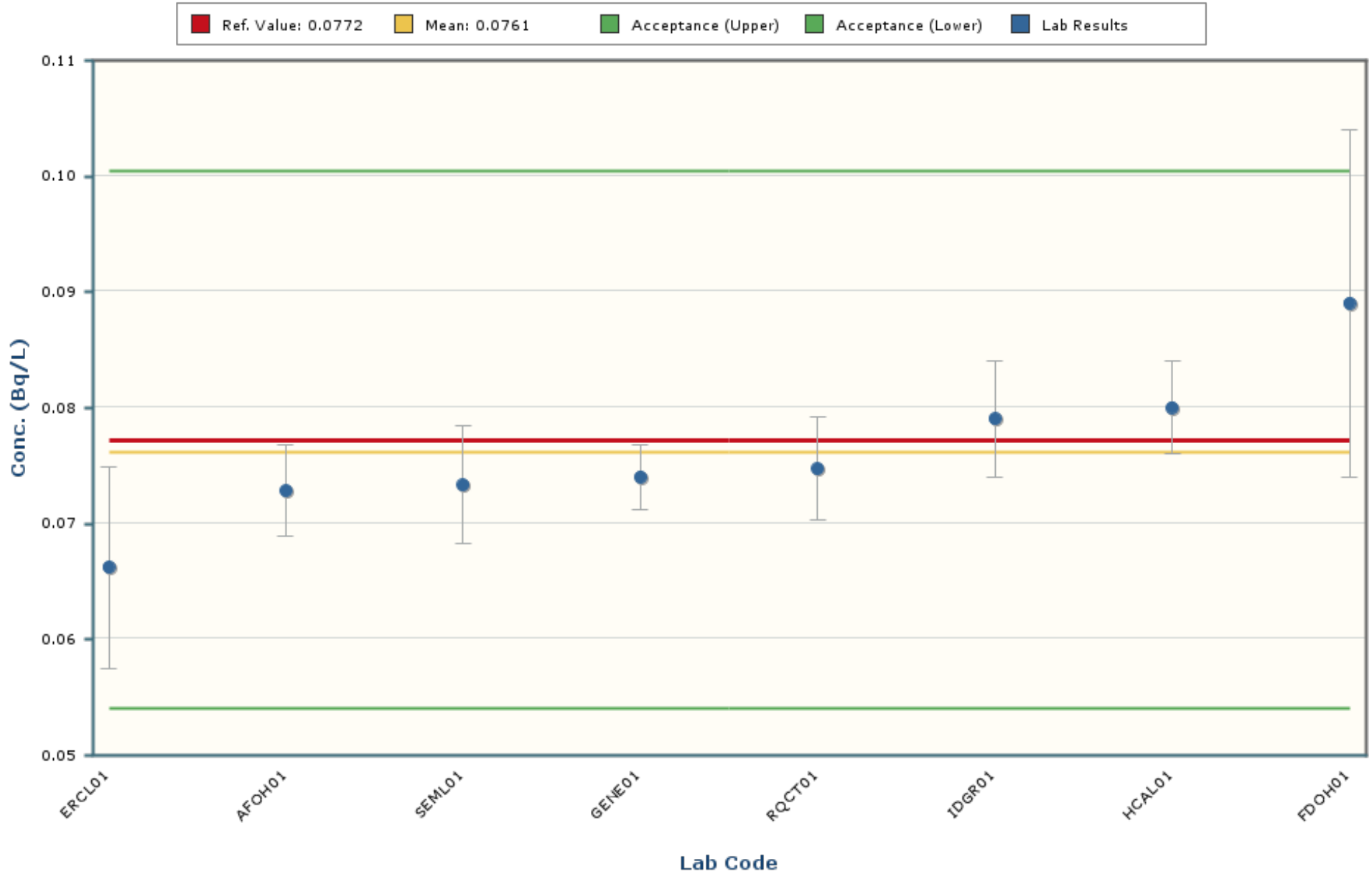
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.0315 and 0.0628 (± 5 Standard Deviations).

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

Plutonium-239/240

MAPEP-21-MaSU44



Notes:

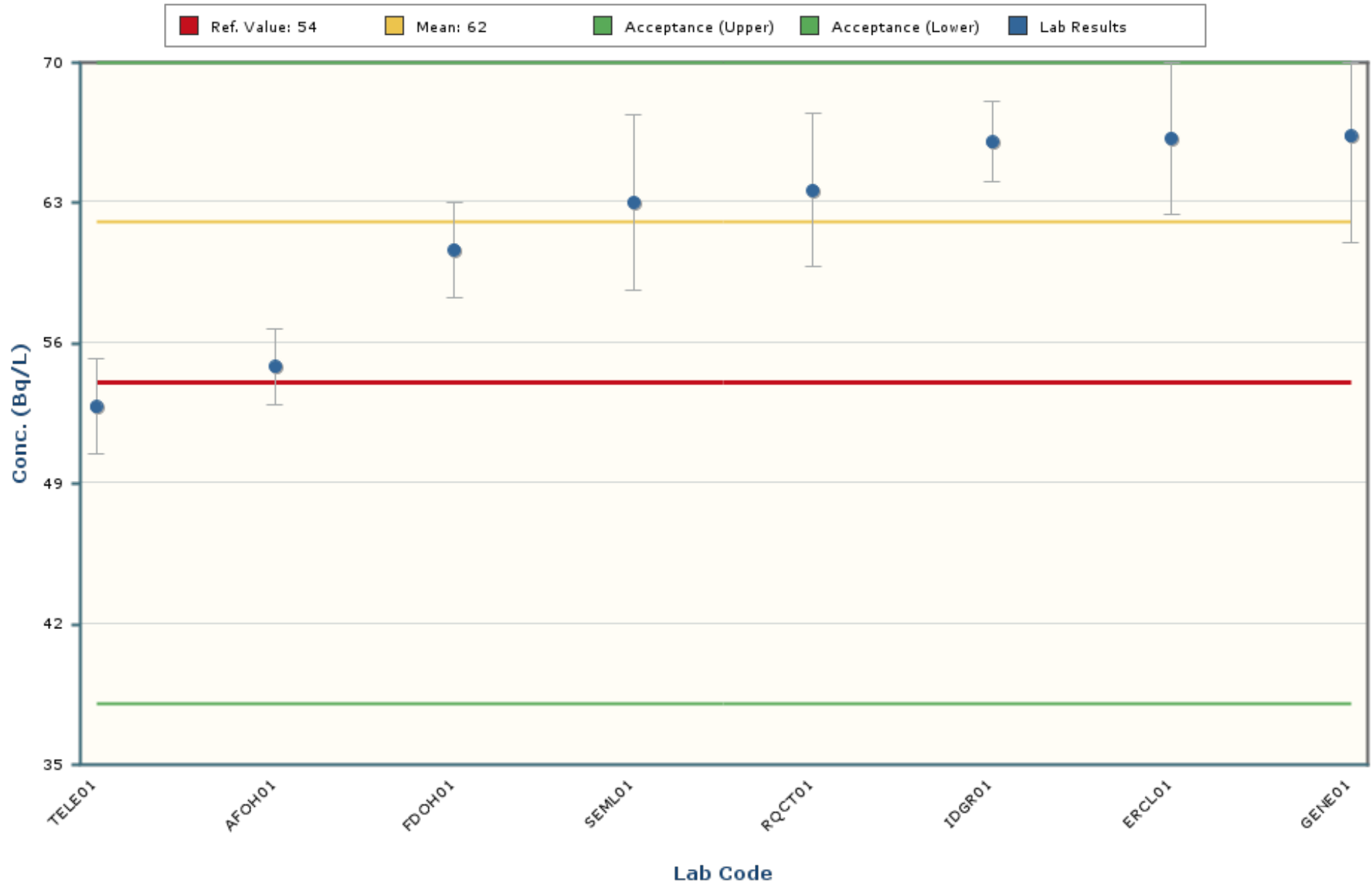
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.0427 and 0.1096 (± 5 Standard Deviations).

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

Potassium-40

MAPEP-21-MaSU44



Notes:

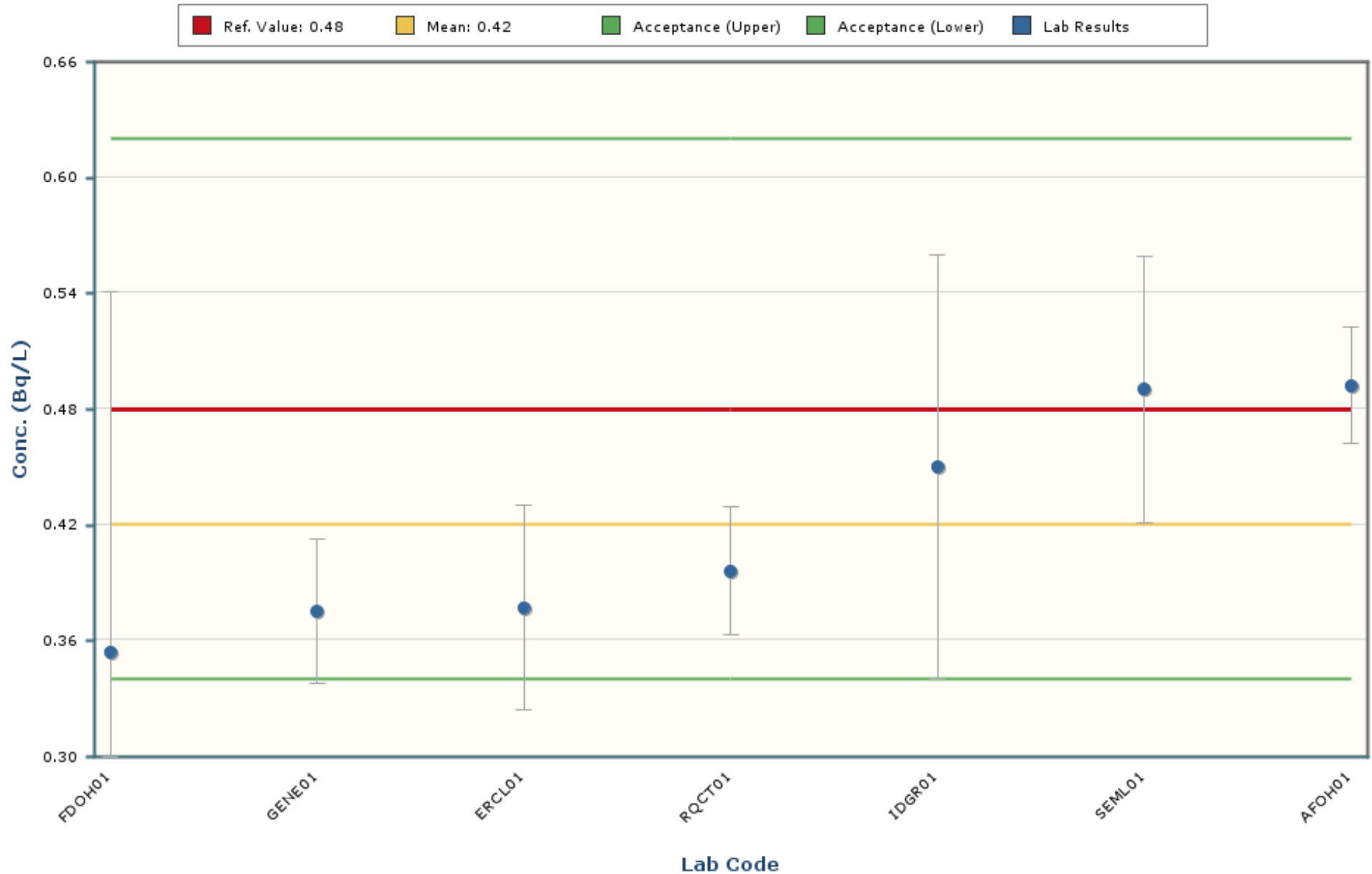
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 35 and 88 (± 5 Standard Deviations).

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

Strontium-90

MAPEP-21-MaSU44



Notes:

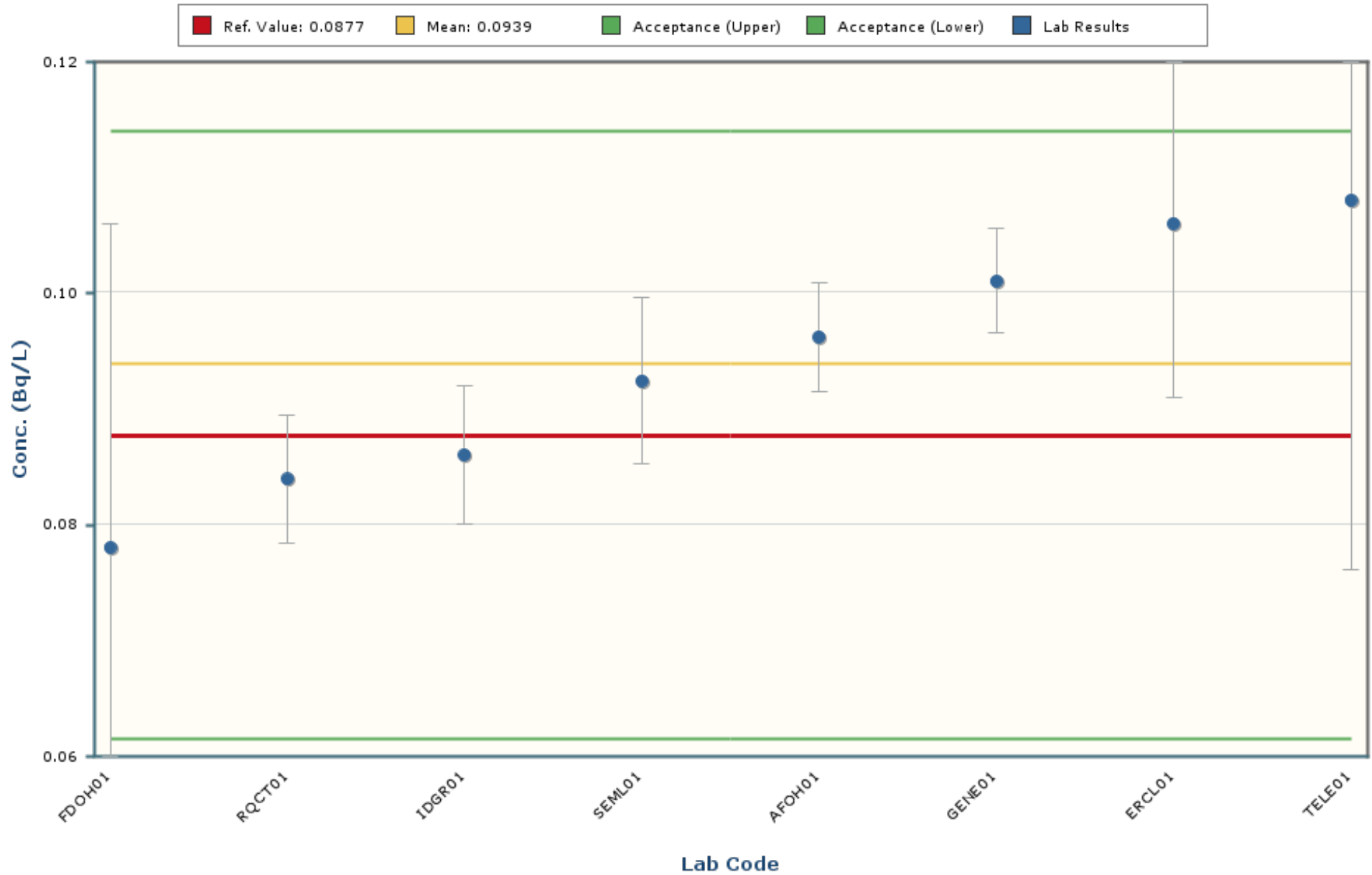
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.13 and 0.71 (± 5 Standard Deviations).

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

Uranium-234

MAPEP-21-MaSU44



Notes:

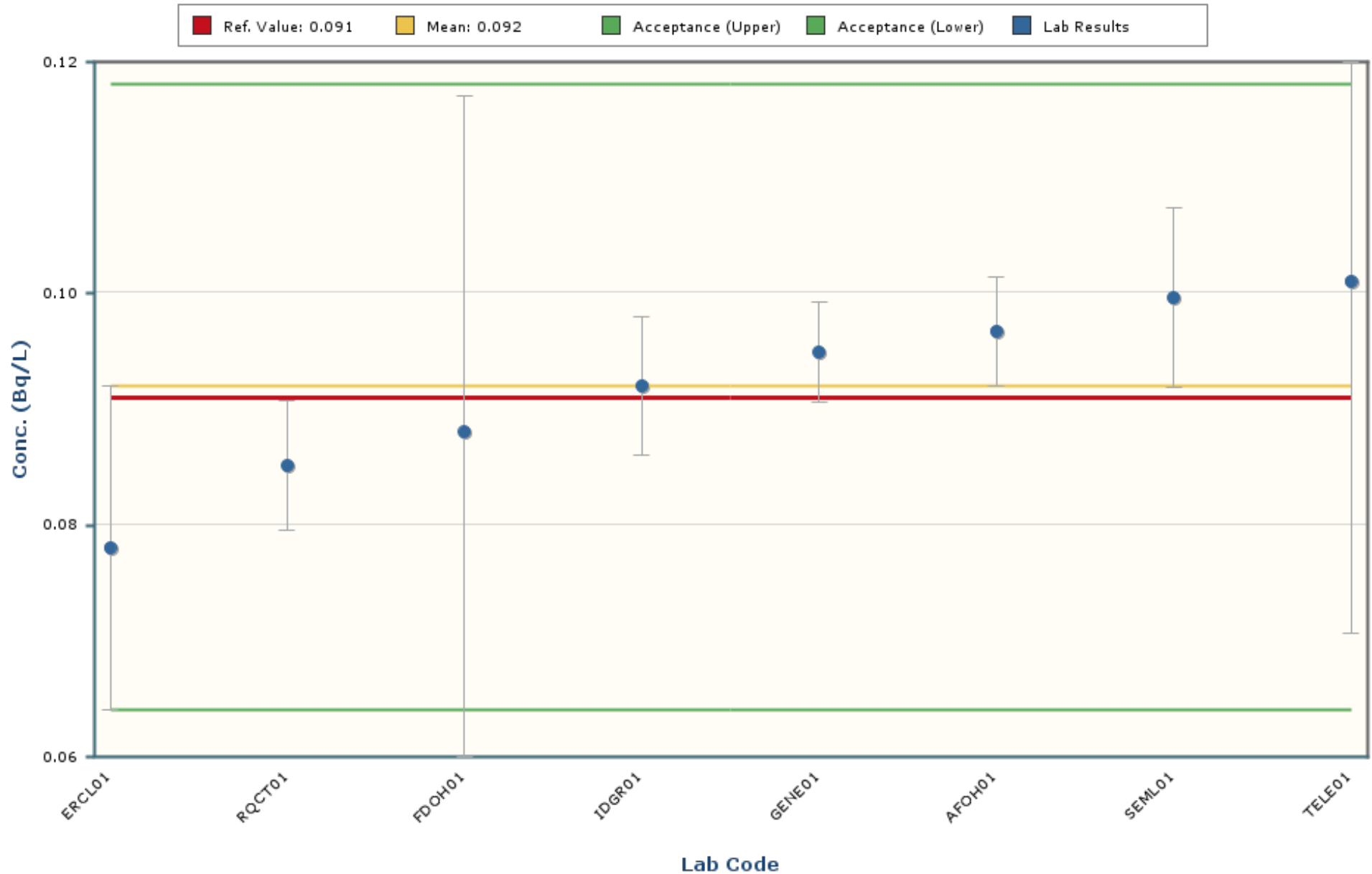
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.0399 and 0.1480 (± 5 Standard Deviations).

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

Uranium-238

MAPEP-21-MaSU44



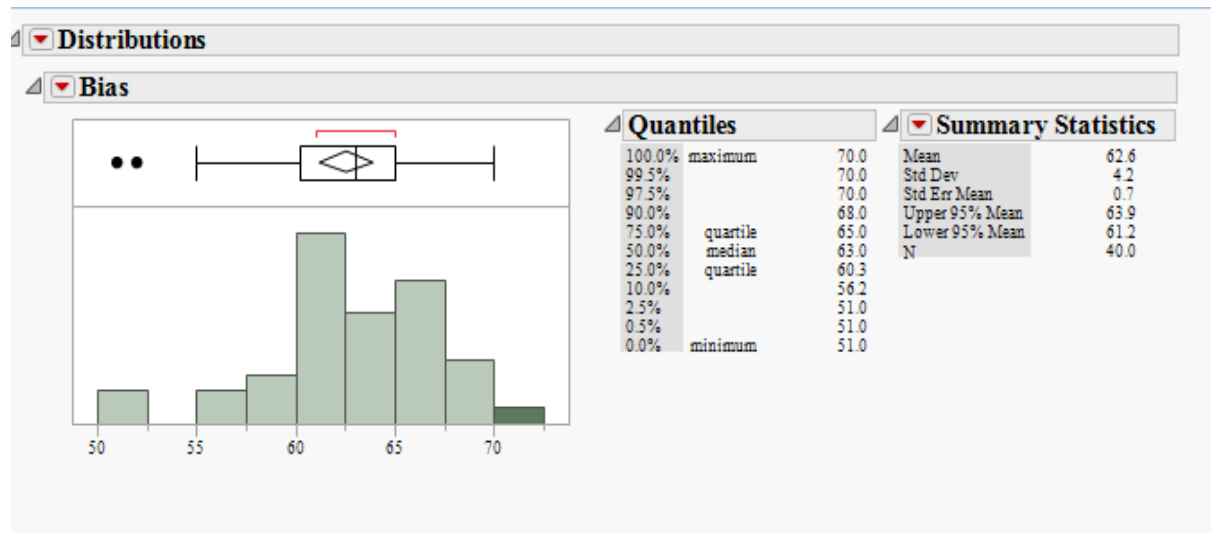
Notes:

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

The chart shows only data points with values between 0.053 and 0.131 (± 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.

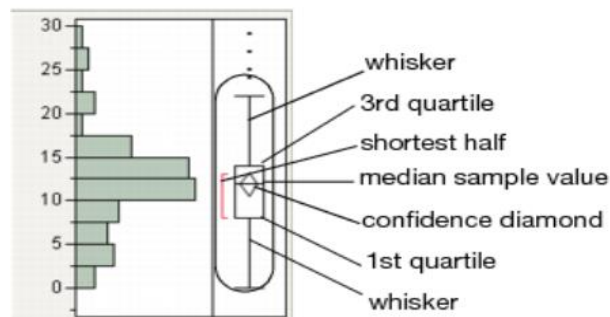


Outlier Box Plot

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)

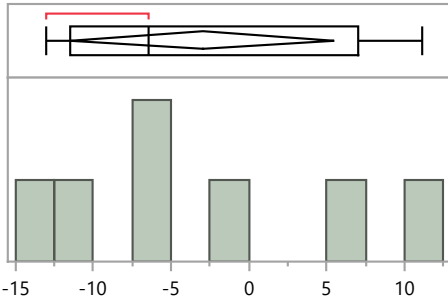


If the data points do not reach the computed ranges, then the whiskers are determined by the upper and lower data point values (not including outliers). The bracket outside of the box identifies the *shortest half*, which is the most dense 50% of the observations (Rousseuw and Leroy 1987).

MaU Distribution by Detection Method

Distributions Analyte_Detection=Americium-241 Alpha Spectrometry

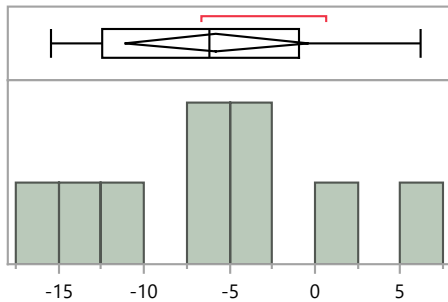
Bias



Quantiles		Summary Statistics		
100.0%	maximum	11.1	Mean	-3.0
99.5%		11.1	Std Dev	9.1
97.5%		11.1	Std Err Mean	3.5
90.0%		11.1	Upper 95% Mean	5.5
75.0%	quartile	7.0	Lower 95% Mean	-11.4
50.0%	median	-6.4	N	7.0
25.0%	quartile	-11.5		
10.0%		-13.0		
2.5%		-13.0		
0.5%		-13.0		
0.0%	minimum	-13.0		

Distributions Analyte_Detection=Cesium-134 Gamma Spectrometry

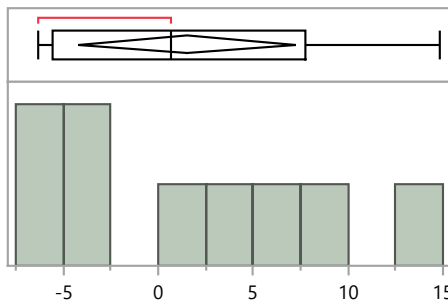
Bias



Quantiles		Summary Statistics		
100.0%	maximum	6.2	Mean	-5.8
99.5%		6.2	Std Dev	7.0
97.5%		6.2	Std Err Mean	2.3
90.0%		6.2	Upper 95% Mean	-0.4
75.0%	quartile	-1.0	Lower 95% Mean	-11.2
50.0%	median	-6.2	N	9.0
25.0%	quartile	-12.5		
10.0%		-15.4		
2.5%		-15.4		
0.5%		-15.4		
0.0%	minimum	-15.4		

Distributions Analyte_Detection=Cesium-137 Gamma Spectrometry

Bias

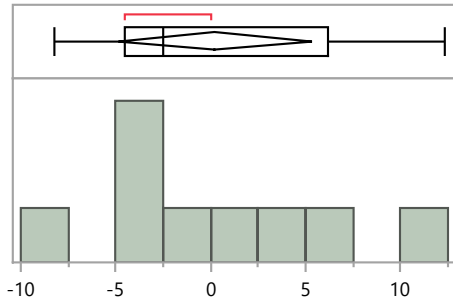


Quantiles		Summary Statistics		
100.0%	maximum	14.8	Mean	1.5
99.5%		14.8	Std Dev	7.4
97.5%		14.8	Std Err Mean	2.5
90.0%		14.8	Upper 95% Mean	7.3
75.0%	quartile	7.8	Lower 95% Mean	-4.2
50.0%	median	0.7	N	9.0
25.0%	quartile	-5.6		
10.0%		-6.3		
2.5%		-6.3		
0.5%		-6.3		
0.0%	minimum	-6.3		

MaU Distribution by Detection Method

Distributions Analyte_Detection=Cobalt-60 Gamma Spectrometry

Bias



Quantiles

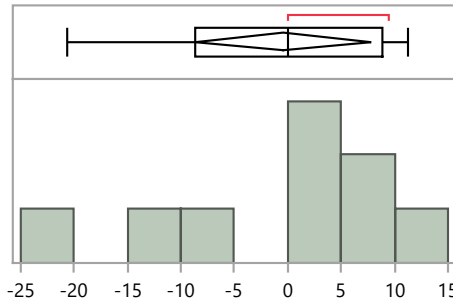
100.0%	maximum	12.3
99.5%		12.3
97.5%		12.3
90.0%		12.3
75.0%	quartile	6.2
50.0%	median	-2.5
25.0%	quartile	-4.5
10.0%		-8.2
2.5%		-8.2
0.5%		-8.2
0.0%	minimum	-8.2

Summary Statistics

Mean	0.2
Std Dev	6.6
Std Err Mean	2.2
Upper 95% Mean	5.3
Lower 95% Mean	-4.9
N	9.0

Distributions Analyte_Detection=Manganese-54 Gamma Spectrometry

Bias



Quantiles

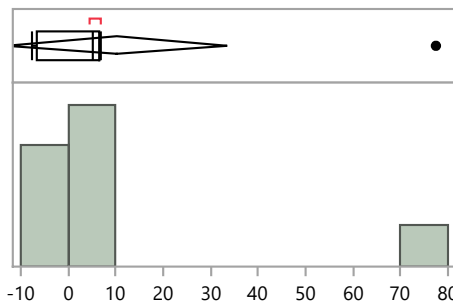
100.0%	maximum	11.3
99.5%		11.3
97.5%		11.3
90.0%		11.3
75.0%	quartile	8.9
50.0%	median	0.0
25.0%	quartile	-8.7
10.0%		-20.7
2.5%		-20.7
0.5%		-20.7
0.0%	minimum	-20.7

Summary Statistics

Mean	-0.4
Std Dev	10.7
Std Err Mean	3.6
Upper 95% Mean	7.7
Lower 95% Mean	-8.6
N	9.0

Distributions Analyte_Detection=Plutonium-238 Alpha Spectrometry

Bias



Quantiles

100.0%	maximum	77.4
99.5%		77.4
97.5%		77.4
90.0%		77.4
75.0%	quartile	6.7
50.0%	median	5.4
25.0%	quartile	-6.6
10.0%		-7.5
2.5%		-7.5
0.5%		-7.5
0.0%	minimum	-7.5

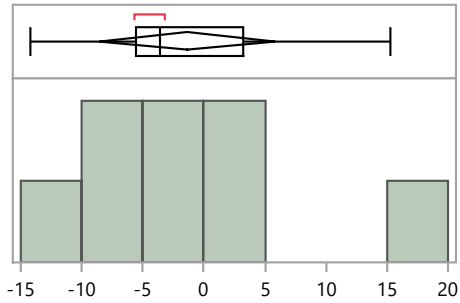
Summary Statistics

Mean	10.3
Std Dev	27.8
Std Err Mean	9.8
Upper 95% Mean	33.6
Lower 95% Mean	-12.9
N	8.0

MaU Distribution by Detection Method

Distributions Analyte_Detection=Plutonium-239/240 Alpha Spectrometry

Bias



Quantiles

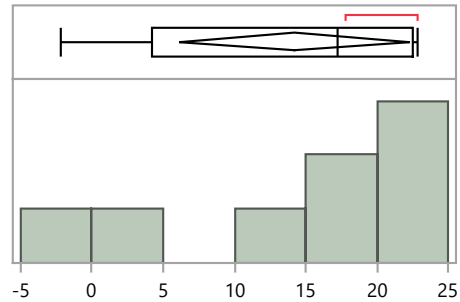
100.0%	maximum	15.3
99.5%		15.3
97.5%		15.3
90.0%		15.3
75.0%	quartile	3.3
50.0%	median	-3.7
25.0%	quartile	-5.6
10.0%		-14.2
2.5%		-14.2
0.5%		-14.2
0.0%	minimum	-14.2

Summary Statistics

Mean	-1.4
Std Dev	8.7
Std Err Mean	3.1
Upper 95% Mean	5.8
Lower 95% Mean	-8.6
N	8.0

Distributions Analyte_Detection=Potassium-40 Gamma Spectrometry

Bias



Quantiles

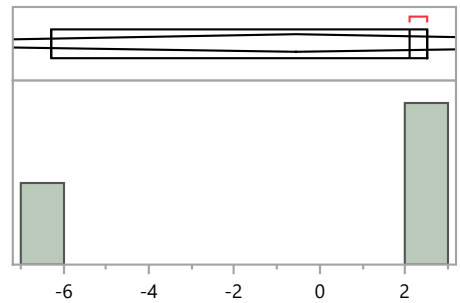
100.0%	maximum	22.8
99.5%		22.8
97.5%		22.8
90.0%		22.8
75.0%	quartile	22.5
50.0%	median	17.3
25.0%	quartile	4.2
10.0%		-2.2
2.5%		-2.2
0.5%		-2.2
0.0%	minimum	-2.2

Summary Statistics

Mean	14.2
Std Dev	9.7
Std Err Mean	3.4
Upper 95% Mean	22.3
Lower 95% Mean	6.1
N	8.0

Distributions Analyte_Detection=Strontium-90 Gas Flow Proportional Counter

Bias



Quantiles

100.0%	maximum	2.5
99.5%		2.5
97.5%		2.5
90.0%		2.5
75.0%	quartile	2.5
50.0%	median	2.1
25.0%	quartile	-6.3
10.0%		-6.3
2.5%		-6.3
0.5%		-6.3
0.0%	minimum	-6.3

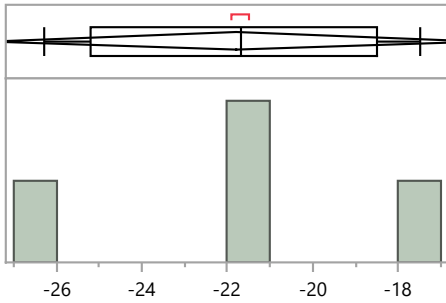
Summary Statistics

Mean	-0.6
Std Dev	5.0
Std Err Mean	2.9
Upper 95% Mean	11.8
Lower 95% Mean	-12.9
N	3.0

MaU Distribution by Detection Method

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

Bias



Quantiles

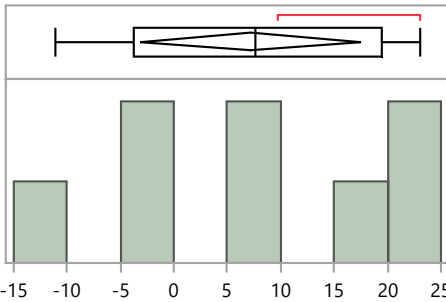
100.0%	maximum	-17.5
99.5%		-17.5
97.5%		-17.5
90.0%		-17.5
75.0%	quartile	-18.5
50.0%	median	-21.7
25.0%	quartile	-25.2
10.0%		-26.3
2.5%		-26.3
0.5%		-26.3
0.0%	minimum	-26.3

Summary Statistics

Mean	-21.8
Std Dev	3.6
Std Err Mean	1.8
Upper 95% Mean	-16.1
Lower 95% Mean	-27.5
N	4.0

Distributions Analyte_Detection=Uranium-234 Alpha Spectrometry

Bias



Quantiles

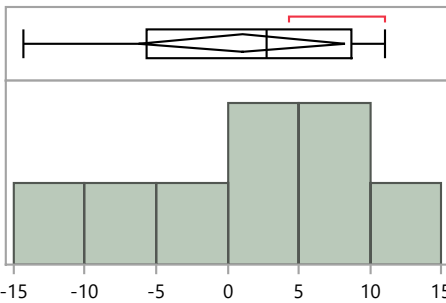
100.0%	maximum	23.1
99.5%		23.1
97.5%		23.1
90.0%		23.1
75.0%	quartile	19.5
50.0%	median	7.6
25.0%	quartile	-3.7
10.0%		-11.1
2.5%		-11.1
0.5%		-11.1
0.0%	minimum	-11.1

Summary Statistics

Mean	7.1
Std Dev	12.3
Std Err Mean	4.4
Upper 95% Mean	17.4
Lower 95% Mean	-3.2
N	8.0

Distributions Analyte_Detection=Uranium-238 Alpha Spectrometry

Bias



Quantiles

100.0%	maximum	11.0
99.5%		11.0
97.5%		11.0
90.0%		11.0
75.0%	quartile	8.7
50.0%	median	2.7
25.0%	quartile	-5.7
10.0%		-14.3
2.5%		-14.3
0.5%		-14.3
0.0%	minimum	-14.3

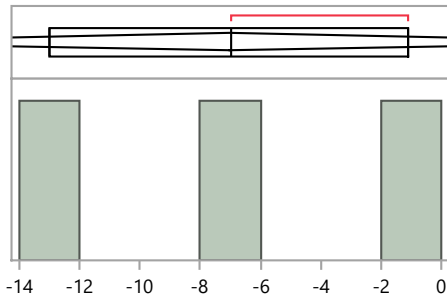
Summary Statistics

Mean	1.0
Std Dev	8.6
Std Err Mean	3.0
Upper 95% Mean	8.2
Lower 95% Mean	-6.2
N	8.0

MaU Distribution by Prep Method

Distributions Analyte_Method=Americium-241 Coprecipitation, acidified

Bias



Quantiles

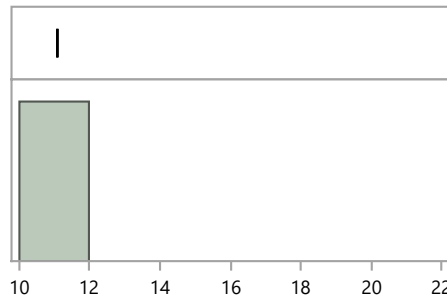
100.0%	maximum	-1.1
99.5%		-1.1
97.5%		-1.1
90.0%		-1.1
75.0%	quartile	-1.1
50.0%	median	-7.0
25.0%	quartile	-13.0
10.0%		-13.0
2.5%		-13.0
0.5%		-13.0
0.0%	minimum	-13.0

Summary Statistics

Mean	-7.0
Std Dev	6.0
Std Err Mean	3.4
Upper 95% Mean	7.7
Lower 95% Mean	-21.8
N	3.0

Distributions Analyte_Method=Americium-241 Coprecipitation, straight

Bias



Quantiles

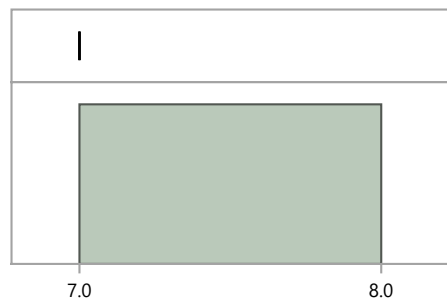
100.0%	maximum	11.1
99.5%		11.1
97.5%		11.1
90.0%		11.1
75.0%	quartile	11.1
50.0%	median	11.1
25.0%	quartile	11.1
10.0%		11.1
2.5%		11.1
0.5%		11.1
0.0%	minimum	11.1

Summary Statistics

Mean	11.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Americium-241 Ion Exchange Chromatography / Ion Chromatography

Bias



Quantiles

100.0%	maximum	7.0
99.5%		7.0
97.5%		7.0
90.0%		7.0
75.0%	quartile	7.0
50.0%	median	7.0
25.0%	quartile	7.0
10.0%		7.0
2.5%		7.0
0.5%		7.0
0.0%	minimum	7.0

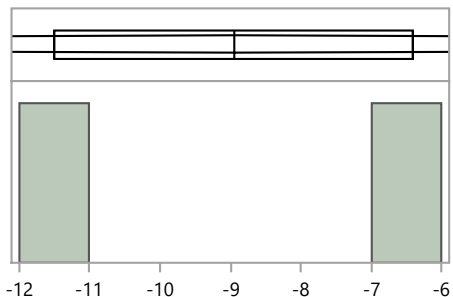
Summary Statistics

Mean	7.0
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaU Distribution by Prep Method

Distributions Analyte_Method=Americium-241 Other

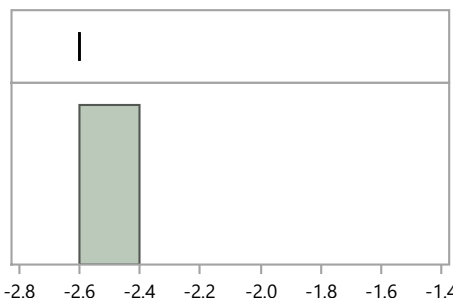
Bias



Quantiles			Summary Statistics	
100.0%	maximum	-6.4	Mean	-9.0
99.5%		-6.4	Std Dev	3.6
97.5%		-6.4	Std Err Mean	2.6
90.0%		-6.4	Upper 95% Mean	23.5
75.0%	quartile	-6.4	Lower 95% Mean	-41.4
50.0%	median	-9.0	N	2.0
25.0%	quartile	-11.5		
10.0%		-11.5		
2.5%		-11.5		
0.5%		-11.5		
0.0%	minimum	-11.5		

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

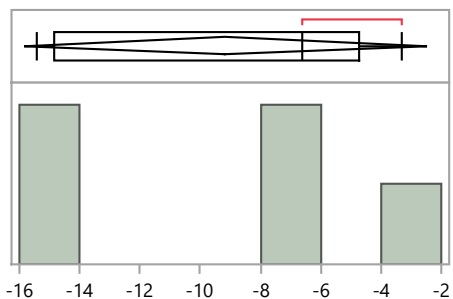
Bias



Quantiles			Summary Statistics	
100.0%	maximum	-2.6	Mean	-2.6
99.5%		-2.6	Std Dev	.
97.5%		-2.6	Std Err Mean	.
90.0%		-2.6	Upper 95% Mean	.
75.0%	quartile	-2.6	Lower 95% Mean	.
50.0%	median	-2.6	N	1.0
25.0%	quartile	-2.6		
10.0%		-2.6		
2.5%		-2.6		
0.5%		-2.6		
0.0%	minimum	-2.6		

Distributions Analyte_Method=Cesium-134 No preparation - analyzed as received

Bias

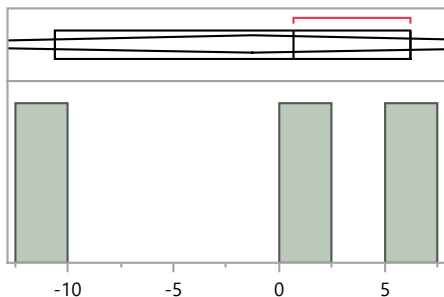


Quantiles			Summary Statistics	
100.0%	maximum	-3.3	Mean	-9.2
99.5%		-3.3	Std Dev	5.4
97.5%		-3.3	Std Err Mean	2.4
90.0%		-3.3	Upper 95% Mean	-2.5
75.0%	quartile	-4.8	Lower 95% Mean	-15.8
50.0%	median	-6.6	N	5.0
25.0%	quartile	-14.9		
10.0%		-15.4		
2.5%		-15.4		
0.5%		-15.4		
0.0%	minimum	-15.4		

MaU Distribution by Prep Method

Distributions Analyte_Method=Cesium-134 Other

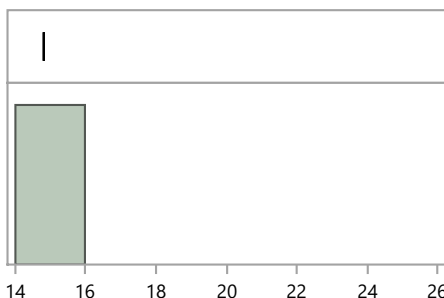
Bias



Quantiles			Summary Statistics	
100.0%	maximum	6.2	Mean	-1.2
99.5%		6.2	Std Dev	8.6
97.5%		6.2	Std Err Mean	4.9
90.0%		6.2	Upper 95% Mean	20.0
75.0%	quartile	6.2	Lower 95% Mean	-22.5
50.0%	median	0.7	N	3.0
25.0%	quartile	-10.6		
10.0%		-10.6		
2.5%		-10.6		
0.5%		-10.6		
0.0%	minimum	-10.6		

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

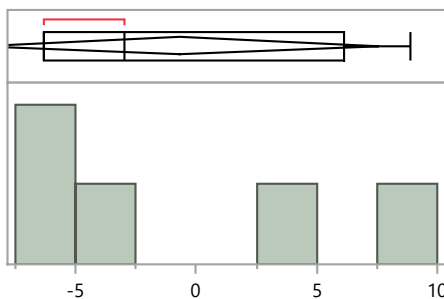
Bias



Quantiles			Summary Statistics	
100.0%	maximum	14.8	Mean	14.8
99.5%		14.8	Std Dev	.
97.5%		14.8	Std Err Mean	.
90.0%		14.8	Upper 95% Mean	.
75.0%	quartile	14.8	Lower 95% Mean	.
50.0%	median	14.8	N	1.0
25.0%	quartile	14.8		
10.0%		14.8		
2.5%		14.8		
0.5%		14.8		
0.0%	minimum	14.8		

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

Bias



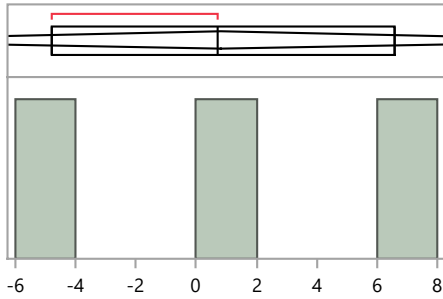
Quantiles			Summary Statistics	
100.0%	maximum	8.9	Mean	-0.7
99.5%		8.9	Std Dev	6.6
97.5%		8.9	Std Err Mean	3.0
90.0%		8.9	Upper 95% Mean	7.6
75.0%	quartile	6.1	Lower 95% Mean	-8.9
50.0%	median	-3.0	N	5.0
25.0%	quartile	-6.3		
10.0%		-6.3		
2.5%		-6.3		
0.5%		-6.3		
0.0%	minimum	-6.3		

MaU44 Distribution by Preparation Method

MaU Distribution by Prep Method

Distributions Analyte_Method=Cesium-137 Other

Bias



Quantiles

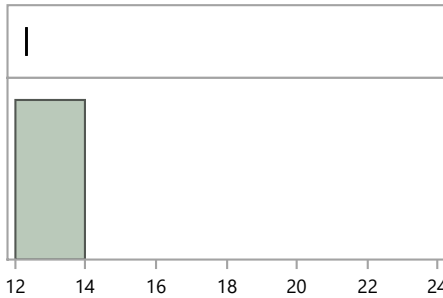
100.0%	maximum	6.6
99.5%		6.6
97.5%		6.6
90.0%		6.6
75.0%	quartile	6.6
50.0%	median	0.7
25.0%	quartile	-4.8
10.0%		-4.8
2.5%		-4.8
0.5%		-4.8
0.0%	minimum	-4.8

Summary Statistics

Mean	0.8
Std Dev	5.7
Std Err Mean	3.3
Upper 95% Mean	15.0
Lower 95% Mean	-13.3
N	3.0

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

Bias



Quantiles

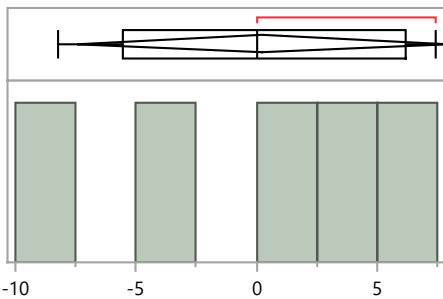
100.0%	maximum	12.3
99.5%		12.3
97.5%		12.3
90.0%		12.3
75.0%	quartile	12.3
50.0%	median	12.3
25.0%	quartile	12.3
10.0%		12.3
2.5%		12.3
0.5%		12.3
0.0%	minimum	12.3

Summary Statistics

Mean	12.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

Bias



Quantiles

100.0%	maximum	7.4
99.5%		7.4
97.5%		7.4
90.0%		7.4
75.0%	quartile	6.2
50.0%	median	0.0
25.0%	quartile	-5.6
10.0%		-8.2
2.5%		-8.2
0.5%		-8.2
0.0%	minimum	-8.2

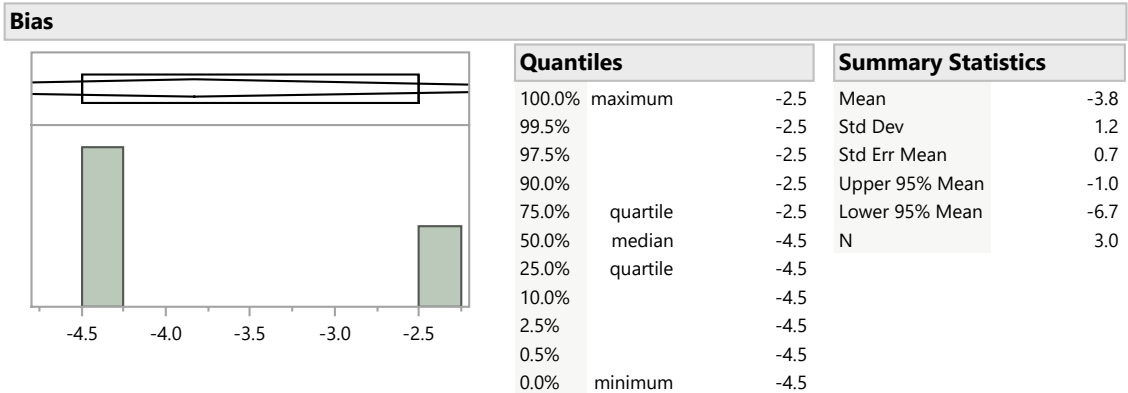
Summary Statistics

Mean	0.2
Std Dev	6.2
Std Err Mean	2.8
Upper 95% Mean	7.9
Lower 95% Mean	-7.5
N	5.0

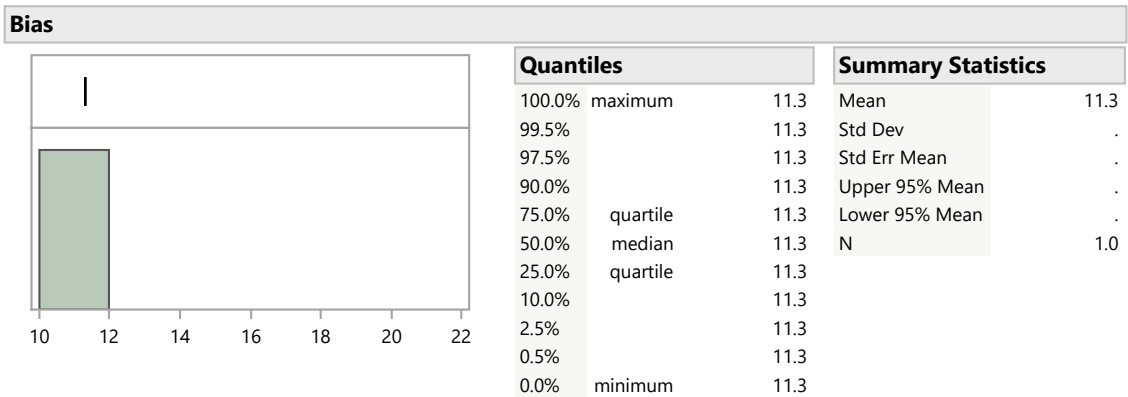
MaU44 Distribution by Preparation Method

MaU Distribution by Prep Method

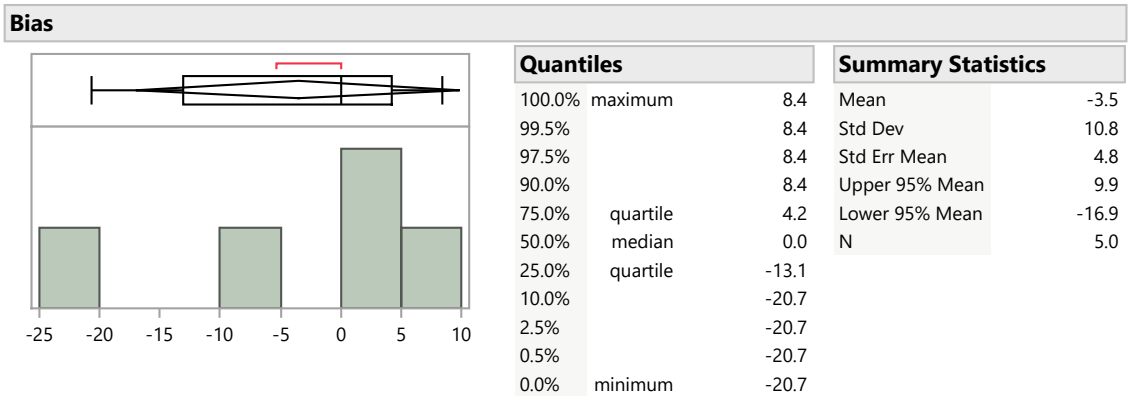
Distributions Analyte_Method=Cobalt-60 Other



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



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

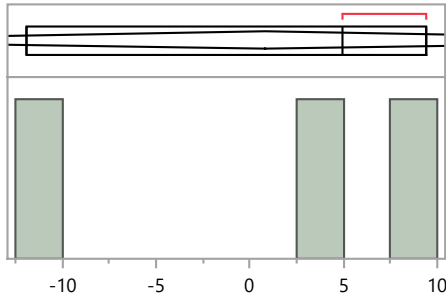


MaU44 Distribution by Preparation Method

MaU Distribution by Prep Method

Distributions Analyte_Method=Manganese-54 Other

Bias



Quantiles

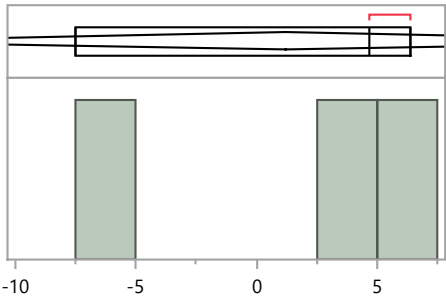
100.0%	maximum	9.4
99.5%		9.4
97.5%		9.4
90.0%		9.4
75.0%	quartile	9.4
50.0%	median	4.9
25.0%	quartile	-11.9
10.0%		-11.9
2.5%		-11.9
0.5%		-11.9
0.0%	minimum	-11.9

Summary Statistics

Mean	0.8
Std Dev	11.2
Std Err Mean	6.5
Upper 95% Mean	28.7
Lower 95% Mean	-27.1
N	3.0

Distributions Analyte_Method=Plutonium-238 Coprecipitation, acidified

Bias



Quantiles

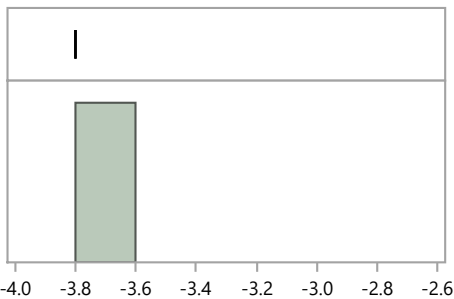
100.0%	maximum	6.4
99.5%		6.4
97.5%		6.4
90.0%		6.4
75.0%	quartile	6.4
50.0%	median	4.7
25.0%	quartile	-7.5
10.0%		-7.5
2.5%		-7.5
0.5%		-7.5
0.0%	minimum	-7.5

Summary Statistics

Mean	1.2
Std Dev	7.6
Std Err Mean	4.4
Upper 95% Mean	20.0
Lower 95% Mean	-17.6
N	3.0

Distributions Analyte_Method=Plutonium-238 Coprecipitation, straight

Bias



Quantiles

100.0%	maximum	-3.8
99.5%		-3.8
97.5%		-3.8
90.0%		-3.8
75.0%	quartile	-3.8
50.0%	median	-3.8
25.0%	quartile	-3.8
10.0%		-3.8
2.5%		-3.8
0.5%		-3.8
0.0%	minimum	-3.8

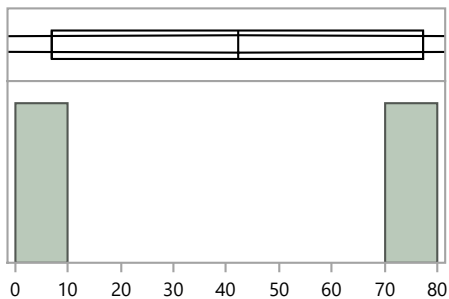
Summary Statistics

Mean	-3.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaU Distribution by Prep Method

Distributions Analyte_Method=Plutonium-238 Ion Exchange Chromatography / Ion Chromatography

Bias



Quantiles

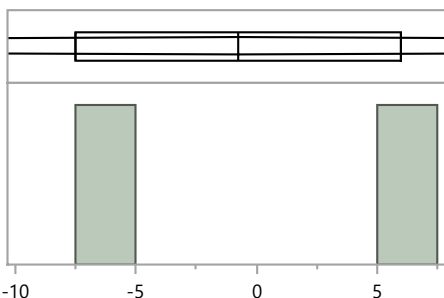
100.0%	maximum	77.4
99.5%		77.4
97.5%		77.4
90.0%		77.4
75.0%	quartile	77.4
50.0%	median	42.1
25.0%	quartile	6.8
10.0%		6.8
2.5%		6.8
0.5%		6.8
0.0%	minimum	6.8

Summary Statistics

Mean	42.1
Std Dev	49.9
Std Err Mean	35.3
Upper 95% Mean	490.6
Lower 95% Mean	-406.4
N	2.0

Distributions Analyte_Method=Plutonium-238 Other

Bias



Quantiles

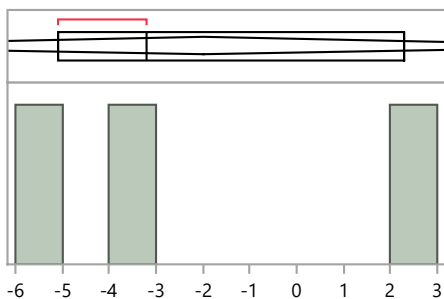
100.0%	maximum	6.0
99.5%		6.0
97.5%		6.0
90.0%		6.0
75.0%	quartile	6.0
50.0%	median	-0.8
25.0%	quartile	-7.5
10.0%		-7.5
2.5%		-7.5
0.5%		-7.5
0.0%	minimum	-7.5

Summary Statistics

Mean	-0.8
Std Dev	9.5
Std Err Mean	6.8
Upper 95% Mean	85.0
Lower 95% Mean	-86.5
N	2.0

Distributions Analyte_Method=Plutonium-239/240 Coprecipitation, acidified

Bias



Quantiles

100.0%	maximum	2.3
99.5%		2.3
97.5%		2.3
90.0%		2.3
75.0%	quartile	2.3
50.0%	median	-3.2
25.0%	quartile	-5.1
10.0%		-5.1
2.5%		-5.1
0.5%		-5.1
0.0%	minimum	-5.1

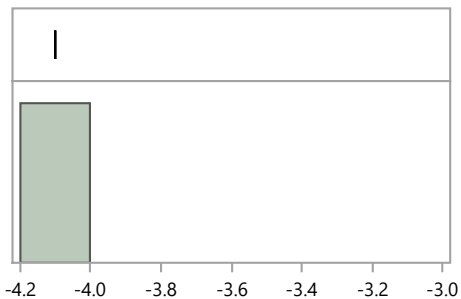
Summary Statistics

Mean	-2.0
Std Dev	3.8
Std Err Mean	2.2
Upper 95% Mean	7.5
Lower 95% Mean	-11.5
N	3.0

MaU Distribution by Prep Method

Distributions Analyte_Method=Plutonium-239/240 Coprecipitation, straight

Bias



Quantiles

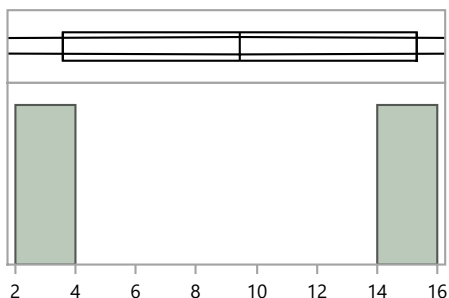
100.0%	maximum	-4.1
99.5%		-4.1
97.5%		-4.1
90.0%		-4.1
75.0%	quartile	-4.1
50.0%	median	-4.1
25.0%	quartile	-4.1
10.0%		-4.1
2.5%		-4.1
0.5%		-4.1
0.0%	minimum	-4.1

Summary Statistics

Mean	-4.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Plutonium-239/240 Ion Exchange Chromatography / Ion Chromatography

Bias



Quantiles

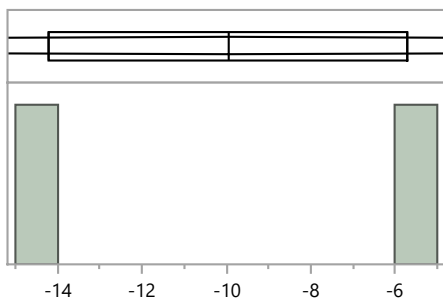
100.0%	maximum	15.3
99.5%		15.3
97.5%		15.3
90.0%		15.3
75.0%	quartile	15.3
50.0%	median	9.5
25.0%	quartile	3.6
10.0%		3.6
2.5%		3.6
0.5%		3.6
0.0%	minimum	3.6

Summary Statistics

Mean	9.5
Std Dev	8.3
Std Err Mean	5.9
Upper 95% Mean	83.8
Lower 95% Mean	-64.9
N	2.0

Distributions Analyte_Method=Plutonium-239/240 Other

Bias



Quantiles

100.0%	maximum	-5.7
99.5%		-5.7
97.5%		-5.7
90.0%		-5.7
75.0%	quartile	-5.7
50.0%	median	-10.0
25.0%	quartile	-14.2
10.0%		-14.2
2.5%		-14.2
0.5%		-14.2
0.0%	minimum	-14.2

Summary Statistics

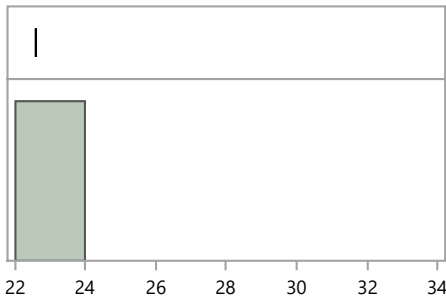
Mean	-10.0
Std Dev	6.0
Std Err Mean	4.3
Upper 95% Mean	44.1
Lower 95% Mean	-64.0
N	2.0

MaU44 Distribution by Preparation Method

MaU Distribution by Prep Method

Distributions Analyte_Method=Potassium-40 EPA 901.1, Gamma Emitting, 600/4-80-032

Bias



Quantiles

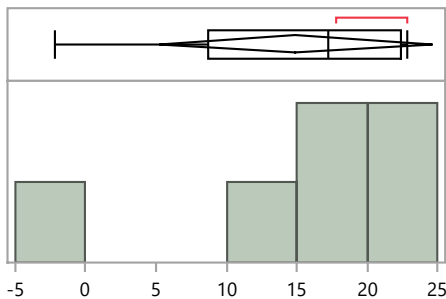
100.0%	maximum	22.6
99.5%		22.6
97.5%		22.6
90.0%		22.6
75.0%	quartile	22.6
50.0%	median	22.6
25.0%	quartile	22.6
10.0%		22.6
2.5%		22.6
0.5%		22.6
0.0%	minimum	22.6

Summary Statistics

Mean	22.6
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Potassium-40 No preparation - analyzed as received

Bias



Quantiles

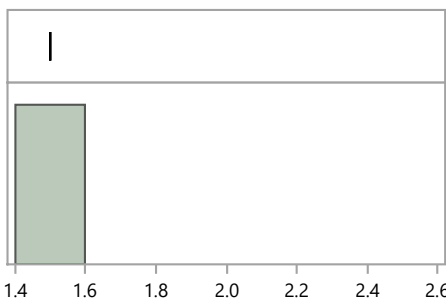
100.0%	maximum	22.8
99.5%		22.8
97.5%		22.8
90.0%		22.8
75.0%	quartile	22.4
50.0%	median	17.3
25.0%	quartile	8.7
10.0%		-2.2
2.5%		-2.2
0.5%		-2.2
0.0%	minimum	-2.2

Summary Statistics

Mean	14.9
Std Dev	9.2
Std Err Mean	3.8
Upper 95% Mean	24.6
Lower 95% Mean	5.2
N	6.0

Distributions Analyte_Method=Potassium-40 Other

Bias



Quantiles

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

Summary Statistics

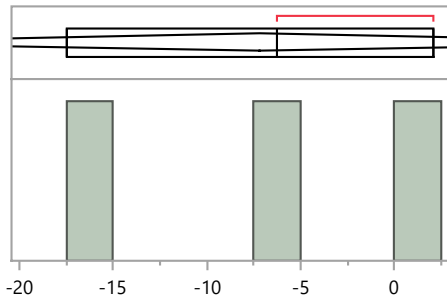
Mean	1.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaU44 Distribution by Preparation Method

MaU Distribution by Prep Method

Distributions Analyte_Method=Strontium-90 Coprecipitation, acidified

Bias



Quantiles

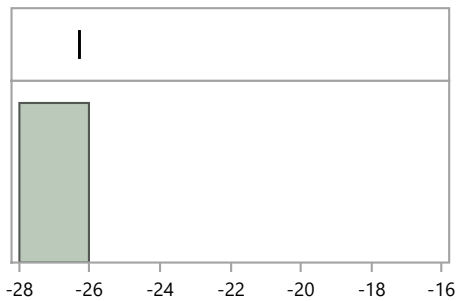
100.0%	maximum	2.1
99.5%		2.1
97.5%		2.1
90.0%		2.1
75.0%	quartile	2.1
50.0%	median	-6.3
25.0%	quartile	-17.5
10.0%		-17.5
2.5%		-17.5
0.5%		-17.5
0.0%	minimum	-17.5

Summary Statistics

Mean	-7.2
Std Dev	9.8
Std Err Mean	5.7
Upper 95% Mean	17.2
Lower 95% Mean	-31.7
N	3.0

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

Bias



Quantiles

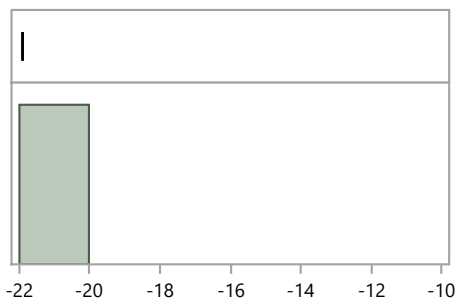
100.0%	maximum	-26.3
99.5%		-26.3
97.5%		-26.3
90.0%		-26.3
75.0%	quartile	-26.3
50.0%	median	-26.3
25.0%	quartile	-26.3
10.0%		-26.3
2.5%		-26.3
0.5%		-26.3
0.0%	minimum	-26.3

Summary Statistics

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

Distributions Analyte_Method=Strontium-90 Ion Exchange Chromatography / Ion Chromatography

Bias



Quantiles

100.0%	maximum	-21.9
99.5%		-21.9
97.5%		-21.9
90.0%		-21.9
75.0%	quartile	-21.9
50.0%	median	-21.9
25.0%	quartile	-21.9
10.0%		-21.9
2.5%		-21.9
0.5%		-21.9
0.0%	minimum	-21.9

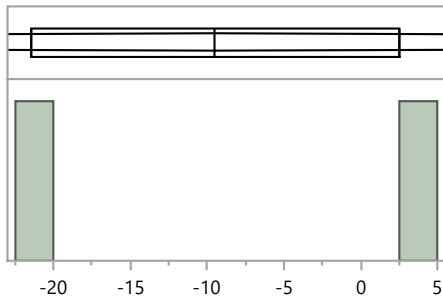
Summary Statistics

Mean	-21.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaU Distribution by Prep Method

Distributions Analyte_Method=Strontium-90 Other

Bias



Quantiles

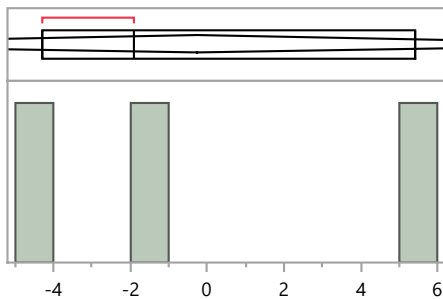
100.0%	maximum	2.5
99.5%		2.5
97.5%		2.5
90.0%		2.5
75.0%	quartile	2.5
50.0%	median	-9.5
25.0%	quartile	-21.5
10.0%		-21.5
2.5%		-21.5
0.5%		-21.5
0.0%	minimum	-21.5

Summary Statistics

Mean	-9.5
Std Dev	17.0
Std Err Mean	12.0
Upper 95% Mean	143.0
Lower 95% Mean	-162.0
N	2.0

Distributions Analyte_Method=Uranium-234 Coprecipitation, acidified

Bias



Quantiles

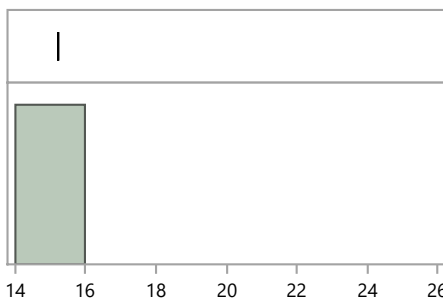
100.0%	maximum	5.4
99.5%		5.4
97.5%		5.4
90.0%		5.4
75.0%	quartile	5.4
50.0%	median	-1.9
25.0%	quartile	-4.3
10.0%		-4.3
2.5%		-4.3
0.5%		-4.3
0.0%	minimum	-4.3

Summary Statistics

Mean	-0.3
Std Dev	5.1
Std Err Mean	2.9
Upper 95% Mean	12.3
Lower 95% Mean	-12.8
N	3.0

Distributions Analyte_Method=Uranium-234 Coprecipitation, straight

Bias



Quantiles

100.0%	maximum	15.2
99.5%		15.2
97.5%		15.2
90.0%		15.2
75.0%	quartile	15.2
50.0%	median	15.2
25.0%	quartile	15.2
10.0%		15.2
2.5%		15.2
0.5%		15.2
0.0%	minimum	15.2

Summary Statistics

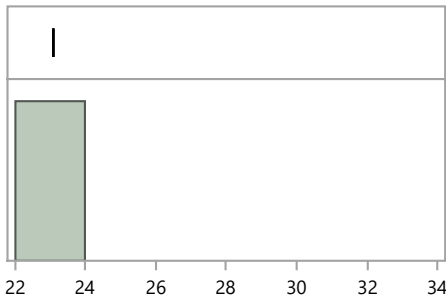
Mean	15.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaU44 Distribution by Preparation Method

MaU Distribution by Prep Method

Distributions Analyte_Method=Uranium-234 EPA 908, Uranium-Radiochemical Method, 600/4/80-032

Bias



Quantiles

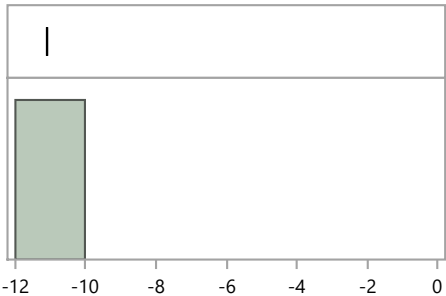
100.0%	maximum	23.1
99.5%		23.1
97.5%		23.1
90.0%		23.1
75.0%	quartile	23.1
50.0%	median	23.1
25.0%	quartile	23.1
10.0%		23.1
2.5%		23.1
0.5%		23.1
0.0%	minimum	23.1

Summary Statistics

Mean	23.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-234 Ion Exchange Chromatography / Ion Chromatography

Bias



Quantiles

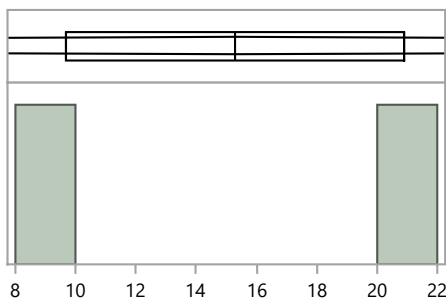
100.0%	maximum	-11.1
99.5%		-11.1
97.5%		-11.1
90.0%		-11.1
75.0%	quartile	-11.1
50.0%	median	-11.1
25.0%	quartile	-11.1
10.0%		-11.1
2.5%		-11.1
0.5%		-11.1
0.0%	minimum	-11.1

Summary Statistics

Mean	-11.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-234 Other

Bias



Quantiles

100.0%	maximum	20.9
99.5%		20.9
97.5%		20.9
90.0%		20.9
75.0%	quartile	20.9
50.0%	median	15.3
25.0%	quartile	9.7
10.0%		9.7
2.5%		9.7
0.5%		9.7
0.0%	minimum	9.7

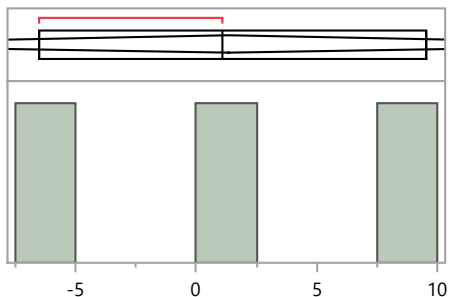
Summary Statistics

Mean	15.3
Std Dev	7.9
Std Err Mean	5.6
Upper 95% Mean	86.5
Lower 95% Mean	-55.9
N	2.0

MaU Distribution by Prep Method

Distributions Analyte_Method=Uranium-238 Coprecipitation, acidified

Bias



Quantiles

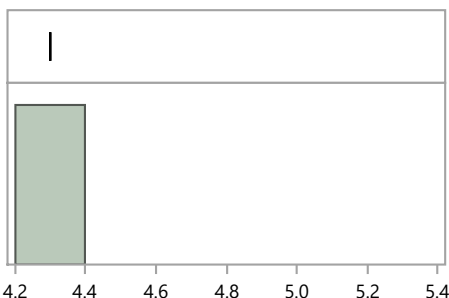
100.0%	maximum	9.5
99.5%		9.5
97.5%		9.5
90.0%		9.5
75.0%	quartile	9.5
50.0%	median	1.1
25.0%	quartile	-6.5
10.0%		-6.5
2.5%		-6.5
0.5%		-6.5
0.0%	minimum	-6.5

Summary Statistics

Mean	1.4
Std Dev	8.0
Std Err Mean	4.6
Upper 95% Mean	21.2
Lower 95% Mean	-18.5
N	3.0

Distributions Analyte_Method=Uranium-238 Coprecipitation, straight

Bias



Quantiles

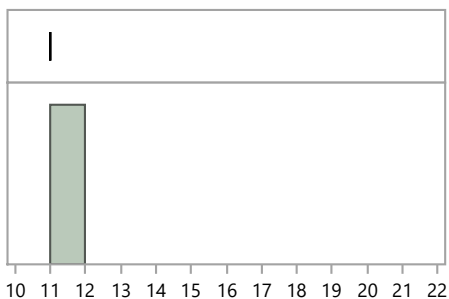
100.0%	maximum	4.3
99.5%		4.3
97.5%		4.3
90.0%		4.3
75.0%	quartile	4.3
50.0%	median	4.3
25.0%	quartile	4.3
10.0%		4.3
2.5%		4.3
0.5%		4.3
0.0%	minimum	4.3

Summary Statistics

Mean	4.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-238 EPA 908, Uranium-Radiochemical Method, 600/4/80-032

Bias



Quantiles

100.0%	maximum	11.0
99.5%		11.0
97.5%		11.0
90.0%		11.0
75.0%	quartile	11.0
50.0%	median	11.0
25.0%	quartile	11.0
10.0%		11.0
2.5%		11.0
0.5%		11.0
0.0%	minimum	11.0

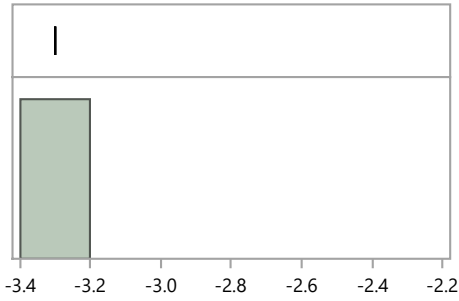
Summary Statistics

Mean	11.0
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaU Distribution by Prep Method

Distributions Analyte_Method=Uranium-238 Ion Exchange Chromatography / Ion Chromatography

Bias



Quantiles

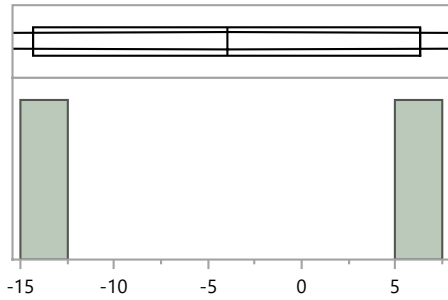
100.0%	maximum	-3.3
99.5%		-3.3
97.5%		-3.3
90.0%		-3.3
75.0%	quartile	-3.3
50.0%	median	-3.3
25.0%	quartile	-3.3
10.0%		-3.3
2.5%		-3.3
0.5%		-3.3
0.0%	minimum	-3.3

Summary Statistics

Mean	-3.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-238 Other

Bias



Quantiles

100.0%	maximum	6.3
99.5%		6.3
97.5%		6.3
90.0%		6.3
75.0%	quartile	6.3
50.0%	median	-4.0
25.0%	quartile	-14.3
10.0%		-14.3
2.5%		-14.3
0.5%		-14.3
0.0%	minimum	-14.3

Summary Statistics

Mean	-4.0
Std Dev	14.6
Std Err Mean	10.3
Upper 95% Mean	126.9
Lower 95% Mean	-134.9
N	2.0