

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.

MaW52 Participating Laboratories

Lab Code	Lab Name	Matrix Code
ADEM01	Alabama Department of Environmental Management	MaW
ADFC99	Abu Dhabi Quality and Conformity Council-Central Testing Lab	MaW
AFOH01	USAFSAM/OEA	MaW
ALIN01	Anatek Labs Inc.	MaW
AMEC99	Amentum Clean Energy Ltd	MaW
ANLB01	Argonne National Laboratory	MaW
AREV01	Framatome - CMC	MaW
ARGO01	Idaho National Laboratory	MaW
ARPL01	Analytical Support Operations - Radiochemical Processing Lab	MaW
ARSL01	ARS	MaW
AY1201	Consolidated Nuclear Security, LLC, ACO Laboratory	MaW
BY1201	Consolidated Nuclear Security, LLC, ACO, Production Laboratory	MaW
CDHS01	California Department of Public Health	MaW
CESL01	Lawrence Livermore National Laboratory - EMRL	MaW
CMRC01	Carlsbad Environmental Monitoring and Research Center	MaW
COPS99	Health Canada Radiation Protection Bureau	MaW
DEHS01	Department of Environmental Health & Safety	MaW
DLEA01	DLE Associates	MaW
EFGS01	Eurofins Frontier Global Sciences, LLC.	MaW
ELIW01	Energy Laboratories, Inc.	MaW
ERAD01	Lawrence Livermore National Laboratory	MaW
ERCL01	Washington State Public Health Laboratories	MaW
ERHD99	National Monitoring Section, Radiation Protection Bureau, Health Canada	MaW
ESDE01	Region 5 EQC Tritium Lab	MaW
ETTP01	MCLinc	MaW
FDHE01	Florida Dept of Health Environmental Laboratory	MaW
FDOH01	Florida Dept. of Health, Mobile Environmental Radiological Lab	MaW
FNAL01	Fermi National Accelerator Laboratory (FermiLab)	MaW
FSCL01	Forensic Science Center Lawrence Livermore Laboratory	MaW
GENE01	GEL Laboratories, LLC	MaW
GPCL01	Georgia Power Company Environmental Laboratory	MaW
HCAL01	Lawrence Livermore National Laboratory	MaW
HECR01	SC Department of Environmental Services	MaW
HPAC99	UKHSA, RCE Glasgow	MaW
IAEA99	International Atomic Energy Agency	MaW
IEMA01	Illinois Emergency Management Agency Radiochemistry Laboratory	MaW
JAEC99	Research Laboratories and Information Directorate	MaW
JLNN01	Jefferson Laboratory	MaW
LOCK03	Advanced Test Reactor (ATR) Complex Radioanalytical Laboratory	MaW
LZCA01	ACZ Laboratories, Inc	MaW
MART01	Fluor-BWXT Portsmouth LLC, Analytical Laboratory	MaW
MART03	Radioactive Material Analysis Laboratory	MaW
MDPH01	MDPH-Division of Radiation Control	MaW
MNDH01	Minnesota Department of Health, Public Health Lab. Division	MaW

NARL01	National Analytical Radiation Environmental Laboratory	MaW
NESI01	BWXT-Radioisotope & Analytical Chemistry Laboratory	MaW
NJDH01	New Jersey Dept. of Health, ECLS	MaW
NRLL99	Environmental Radioactivity - National Centre for Radiation Science	MaW
ODHL01	Ohio Department of Health Laboratory	MaW
OTLI01	Pace Analytical National Center for Testing & Innovation	MaW
QUAN01	Eurofins St. Louis	MaW
RJLG01	RJ Lee Group - Columbia Basin Analytical Laboratories (CBAL)	MaW
RPSC01	Radiation Protection Service	MaW
SAVA01	Battelle Savannah River Alliance	MaW
SEML01	SRS Environmental Monitoring Laboratory	MaW
SLAC01	SLAC DOE National Accelerator Laboratory	MaW
SOUT01	Southwest Research Institute	MaW
SRPD01	Sandia National Laboratories, Radiation Protection Sample Diagnostics	MaW
STRL01	South Texas Project Radiological Laboratory	MaW
TDHL01	Texas Department of State Health Services Laboratory	MaW
TELE01	Teledyne Brown Engineering - Environmental Services	MaW
TELE02	Microbac Laboratories Inc. - Northbrook	MaW
TMAO01	EBERLINE Analytical Corporation	MaW
TNUT01	St. Louis USACE FUSRAP Laboratory	MaW
UNTE01	UniTech-235	MaW
WEST04	PACE ANALYTICAL SERVICES, GREENSBURG	MaW
WIPH01	WI, DPH, Radiation Protection Section	MaW
WIPP01	WIPP Laboratories	MaW
WSHL01	Wisconsin State Laboratory of Hygiene	MaW
WSTP99	Cavendish Nuclear Limited	MaW
WVDP01	WVDP Environmental Laboratory	MaW
YPGA01	US Army Yuma Proving Ground / Material Analysis Lab	MaW

Laboratories Not Reporting

Lab Code	Lab Name	Matrix Code
ASUK99	AWE (Aldermaston)	MaW
BSCE99	Supreme Council for Environment	MaW
ISUE01	ISU Environmental Monitoring Laboratory	MaW

Study Reference Values

MAPEP-25-MaW52: Radiological and inorganic combined water standard

Radiological Reference Date: 02/01/2025

Inorganic		Units: (mg/L)
Analyte	Reference Value	Reference Uncertainty
Antimony	0.383	0.008
Arsenic	0.228	0.005
Barium	0.0604	0.0012
Beryllium	0.449	0.009
Cadmium	0.301	0.006
Chromium	0.324	0.006
Cobalt	0.319	0.006
Copper	0.510	0.010
Lead	0.192	0.004
Mercury	0.0636	0.0013
Nickel	0.193	0.004
Selenium	0.390	0.008
Technetium-99	1.01E-5	2.00E-7
Thallium	0.254	0.005
Uranium-235	3.17E-4	6.00E-6
Uranium-238	0.0441	0.0014
Uranium-Total	0.0444	0.0014
Vanadium	0.445	0.009
Zinc	0.592	0.011

Radiological		Units: (Bq/L)
Analyte	Reference Value	Reference Uncertainty
Americium-241	0.559	0.009
Cesium-137	6.9	0.2
Cobalt-57	30.9	0.6
Cobalt-58	37.7	0.6
Cobalt-60	0.29	0.06
Hydrogen-3	191	4
Iron-55	25.5	0.5
Nickel-63	38.9	0.8
Plutonium-238	0.0081	0.0011
Plutonium-239/240	0.569	0.009
Potassium-40	30.3	0.5
Radium-226	0.437	0.009
Strontium-90	2.82	0.06
Technetium-99	6.34	0.13
Uranium-234	0.535	0.017
Uranium-238	0.548	0.017
Zinc-65	26.7	0.5

Sample Statistical Summary

MAPEP-25-MaW52: Radiological and inorganic combined water standard

Radiological Reference Date: 02/01/2025

Inorganic							Units: (mg/L)
Analyte	T(1)	A(2)	Grand ⁽³⁾ Mean	Standard Deviation	Reference Value	Reference Uncertainty	Acceptance Range
Antimony	14	14	0.381	0.026	0.383	0.008	0.268 - 0.498
Arsenic	14	14	0.226	0.013	0.228	0.005	0.160 - 0.296
Barium	14	14	0.0618	0.0027	0.0604	0.0012	0.0423 - 0.0785
Beryllium	14	14	0.446	0.027	0.449	0.009	0.314 - 0.584
Cadmium	15	15	0.292	0.014	0.301	0.006	0.211 - 0.391
Chromium	14	14	0.312	0.025	0.324	0.006	0.227 - 0.421
Cobalt	15	15	0.306	0.015	0.319	0.006	0.223 - 0.415
Copper	15	14	0.486	0.028	0.510	0.010	0.357 - 0.663
Lead	15	14	0.189	0.011	0.192	0.004	0.134 - 0.250
Mercury	14	14	0.0648	0.0078	0.0636	0.0013	0.0445 - 0.0827
Nickel	14	13	0.185	0.010	0.193	0.004	0.135 - 0.251
Selenium	13	13	0.380	0.019	0.390	0.008	0.273 - 0.507
Technetium-99	3	3			1.01E-5	2.00E-7	7.10E-6 - 1.31E-5
Thallium	15	15	0.249	0.011	0.254	0.005	0.178 - 0.330
Uranium-235	16	16	3.08E-4	1.10E-5	3.17E-4	6.00E-6	2.22E-4 - 4.12E-4
Uranium-238	17	17	0.0430	0.0023	0.0441	0.0014	0.0309 - 0.0573
Uranium-Total	17	17	0.0431	0.0023	0.0444	0.0014	0.0311 - 0.0577
Vanadium	14	14	0.451	0.026	0.445	0.009	0.312 - 0.579
Zinc	14	13	0.569	0.032	0.592	0.011	0.414 - 0.770

Radiological							Units: (Bq/L)
Analyte	T(1)	A(2)	Grand ⁽³⁾ Mean	Standard Deviation	Reference Value	Reference Uncertainty	Acceptance Range
Americium-241	34	31	0.527	0.042	0.559	0.009	0.391 - 0.727
Cesium-134	50	48					False Positive Test
Cesium-137	56	54	6.9	0.5	6.9	0.2	4.8 - 9.0
Cobalt-57	56	54	30.4	2.0	30.9	0.6	21.6 - 40.2
Cobalt-58	27	26	36.3	2.3	37.7	0.6	26.4 - 49.0
Cobalt-60	56	53	0.27	0.21	0.29	0.06	Sensitivity Evaluation
Hydrogen-3	40	38	193	18	191	4	134 - 248
Iron-55	8	4			25.5	0.5	17.9 - 33.2
Manganese-54	50	50					False Positive Test
Nickel-63	11	8	37.6	4.4	38.9	0.8	27.2 - 50.6
Plutonium-238	30	27	0.0090	0.0080	0.0081	0.0011	Sensitivity Evaluation
Plutonium-239/240	30	27	0.552	0.035	0.569	0.009	0.398 - 0.740
Potassium-40	56	46	30.5	3.5	30.3	0.5	21.2 - 39.4
Radium-226	22	18	0.406	0.038	0.437	0.009	0.306 - 0.568
Strontium-90	34	28	2.73	0.29	2.82	0.06	1.97 - 3.67
Technetium-99	18	16	6.24	0.57	6.34	0.13	4.44 - 8.24
Uranium-234	32	30	0.522	0.039	0.535	0.017	0.375 - 0.696
Uranium-238	33	32	0.525	0.045	0.548	0.017	0.384 - 0.712
Zinc-65	56	52	26.9	2.0	26.7	0.5	18.7 - 34.7

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

Results Flags:

A = Result acceptable.....|Bias| ≤ 20%

W = Result acceptable with warning.....20% < |Bias| ≤ 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% ≤ RP ≤ 15%

ACCEPTABLE WITH WARNING.....15% < RP ≤ 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Flag Summary Report

MAPEP-25-MaW52: Radiological and inorganic
combined water standard

Radiological Reference Date: 02/01/2025

Inorganic				
Analyte	A	W	RW	N
Antimony	14			
Arsenic	14			
Barium	14			
Beryllium	14			
Cadmium	15			
Chromium	13	1		
Cobalt	15			
Copper	14			1
Lead	14			1
Mercury	12	2		
Nickel	13			1
Selenium	13			
Thallium	15			
Uranium-Total	17			
Uranium-235	16			
Uranium-238	17			
Vanadium	14			
Zinc	13			1
Technetium-99	3			

Radiological				
Analyte	A	W	RW	N
Americium-241	29	2		3
Cesium-134	48			6
Cesium-137	54			2
Cobalt-57	54			2
Cobalt-58	25	1		1
Cobalt-60	53			3
Hydrogen-3	36	2		2
Iron-55	4			4
Manganese-54	50			6
Nickel-63	7	1		3
Plutonium-238	27			3
Plutonium-239/240	27			3
Potassium-40	43	3		9
Radium-226	17	1		4
Strontium-90	28			6
Technetium-99	16			2
Uranium-234	30			2
Uranium-238	31	1		1
Zinc-65	52			4



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

Laboratory Results For MAPEP Series 52

(ADEM01) Alabama Department of Environmental Management

1350 Coliseum Blvd.

Montgomery, AL 36110

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR		N	(11)		False Positive Test		
Cesium-137	6.930	6.9	A		0.4	4.8 - 9.0	0.331	A
Cobalt-57	33.600	30.9	A		8.7	21.6 - 40.2	1.510	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.285	0.29	A			Sensitivity Evaluation	0.034	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR		N	(11)		False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	33.100	30.3	A		9.2	21.2 - 39.4	2.330	A
Radium-226	NR	0.437	N	(28)		0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	28.900	26.7	A		8.2	18.7 - 34.7	1.190	A

Radiological Reference Date: February 1, 2025

Results Flags:

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52

(ADFC99) Abu Dhabi Quality and Conformity Council-Central Testing Lab

Radiation Lab

Abu Dhabi, Abu Dhabi 853

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	0.01		A			False Positive Test	0.01	
Cesium-137	6.36	6.9	A		-7.8	4.8 - 9.0	0.80	A
Cobalt-57	27.80	30.9	A		-10.0	21.6 - 40.2	4.0	A
Cobalt-58	34.57	37.7	A		-8.3	26.4 - 49.0	3.73	A
Cobalt-60	0.24	0.29	A			Sensitivity Evaluation	0.06	
Hydrogen-3	195	191	A		2.1	134 - 248	24	A
Iron-55	NR	25.5	N	(28)		17.9 - 33.2		
Manganese-54	0.01		A			False Positive Test	0.01	
Nickel-63	37.3	38.9	A		-4.1	27.2 - 50.6	2.3	A
Plutonium-238	- 0.01	0.0081	A	(17)		Sensitivity Evaluation	0.01	
Plutonium-239/240	0.744	0.569	N		30.8	0.398 - 0.740	0.10	A
Potassium-40	28.27	30.3	A		-6.7	21.2 - 39.4	3	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	3.24	2.82	A		14.9	1.97 - 3.67	0.26	A
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	0.482	0.535	A		-9.9	0.375 - 0.696	0.057	A
Uranium-238	0.565	0.548	A		3.1	0.384 - 0.712	0.068	A
Zinc-65	24.83	26.7	A		-7.0	18.7 - 34.7	2.10	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52

(AFOH01) USAFSAM/OEA

2510 Fifth Street, Area B

Wright-Patterson AFB, OH 45433-7913

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	0.00031	3.17E-04	A		-2.2	2.22E-4 - 4.12E-4	0.00001	A
Uranium-238	0.042	0.0441	A		-4.8	0.0309 - 0.0573	0.001	A
Uranium-Total	0.0423	0.0444	A		-4.7	0.0311 - 0.0577	0.0010	A
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.494	0.559	A		-11.6	0.391 - 0.727	0.026	A
Cesium-134	-0.004		A			False Positive Test	0.06	
Cesium-137	6.34	6.9	A		-8.1	4.8 - 9.0	0.26	A
Cobalt-57	27.0	30.9	A		-12.6	21.6 - 40.2	1.2	A
Cobalt-58	30.00	37.7	W		-20.4	26.4 - 49.0	0.84	A
Cobalt-60	0.266	0.29	A			Sensitivity Evaluation	0.024	
Hydrogen-3	195	191	A		2.1	134 - 248	19	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.03		A			False Positive Test	0.04	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	0.0073	0.0081	A			Sensitivity Evaluation	0.0016	
Plutonium-239/240	0.537	0.569	A		-5.6	0.398 - 0.740	0.027	A
Potassium-40	26.80	30.3	A		-11.6	21.2 - 39.4	1.30	A
Radium-226	0.463	0.437	A		6.0	0.306 - 0.568	0.048	A
Strontium-90	2.55	2.82	A		-9.6	1.97 - 3.67	0.12	A
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	0.539	0.535	A		0.7	0.375 - 0.696	0.025	A
Uranium-238	0.534	0.548	A		-2.6	0.384 - 0.712	0.024	A
Zinc-65	27.38	26.7	A		2.5	18.7 - 34.7	0.41	N

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52

(ALIN01) Anatek Labs Inc.

504 E. Sprague Ave Ste D

Spokane, WA 99202

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR					False Positive Test		
Cesium-137	NR	6.9				4.8 - 9.0		
Cobalt-57	NR	30.9				21.6 - 40.2		
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	NR	0.29				Sensitivity Evaluation		
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR					False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	NR	30.3				21.2 - 39.4		
Radium-226	.411	0.437	A		-6.0	0.306 - 0.568	.0219	A
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	NR	26.7				18.7 - 34.7		

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52

(AMEC99) Amentum Clean Energy Ltd

612 Faraday Street

Birchwood Park, Warrington WA3 6GN

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.547	0.559	A		-2.1	0.391 - 0.727	0.075	A
Cesium-134	0.22		A			False Positive Test	0.11	
Cesium-137	6.28	6.9	A		-9.0	4.8 - 9.0	0.24	A
Cobalt-57	27.78	30.9	A		-10.1	21.6 - 40.2	0.76	A
Cobalt-58	34.7	37.7	A		-8.0	26.4 - 49.0	1.1	A
Cobalt-60	0.468	0.29	A			Sensitivity Evaluation	0.092	
Hydrogen-3	190.3	191	A		-0.4	134 - 248	8.2	A
Iron-55	25.6	25.5	A		0.4	17.9 - 33.2	1.7	A
Manganese-54	0.011		A			False Positive Test	0.042	
Nickel-63	NR	38.9	N	(28)		27.2 - 50.6		
Plutonium-238	0.0055	0.0081	A	(17)		Sensitivity Evaluation	0.0055	
Plutonium-239/240	0.513	0.569	A		-9.8	0.398 - 0.740	0.028	A
Potassium-40	42.9	30.3	N		41.6	21.2 - 39.4	1.6	A
Radium-226	0.360	0.437	A		-17.6	0.306 - 0.568	0.042	A
Strontium-90	NR	2.82	N	(28)		1.97 - 3.67		
Technetium-99	NR	6.34	N	(28)		4.44 - 8.24		
Uranium-234	0.530	0.535	A		-0.9	0.375 - 0.696	0.024	A
Uranium-238	0.490	0.548	A		-10.6	0.384 - 0.712	0.023	A
Zinc-65	25.09	26.7	A		-6.0	18.7 - 34.7	0.83	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(ANLB01) Argonne National Laboratory
9700 S. Cass Ave
Argonne, IL 60439

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.486	0.559	A		-13.1	0.391 - 0.727	0.035	A
Cesium-134	0.22		A			False Positive Test	0.284	
Cesium-137	6.99	6.9	A		1.3	4.8 - 9.0	0.37	A
Cobalt-57	29.87	30.9	A		-3.3	21.6 - 40.2	2.1	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.45	0.29	A	(17)		Sensitivity Evaluation	0.19	
Hydrogen-3	197.3	191	A		3.3	134 - 248	4.19	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.17		A			False Positive Test	0.198	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	0.021	0.0081	A			Sensitivity Evaluation	0.006	
Plutonium-239/240	0.550	0.569	A		-3.3	0.398 - 0.740	0.049	A
Potassium-40	NR	30.3		(6)		21.2 - 39.4		
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	2.65	2.82	A		-6.0	1.97 - 3.67	0.094	A
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	0.452	0.535	A		-15.5	0.375 - 0.696	0.033	A
Uranium-238	0.472	0.548	A		-13.9	0.384 - 0.712	0.035	A
Zinc-65	27.60	26.7	A		3.4	18.7 - 34.7	1.053	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(AREV01) Framatome - CMC
1724 Mount Athos Road
Lynchburg, VA 24504

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	0.37	0.383	A		-3.4	0.268 - 0.498	0.04	A
Arsenic	0.20	0.228	A		-12.3	0.160 - 0.296	0.02	A
Barium	0.06	0.0604	A		-0.7	0.0423 - 0.0785	0.01	W
Beryllium	0.47	0.449	A		4.7	0.314 - 0.584	0.05	A
Cadmium	0.28	0.301	A		-7.0	0.211 - 0.391	0.03	A
Chromium	0.32	0.324	A		-1.2	0.227 - 0.421	0.03	A
Cobalt	0.30	0.319	A		-6.0	0.223 - 0.415	0.03	A
Copper	0.45	0.510	A		-11.8	0.357 - 0.663	0.05	A
Lead	0.19	0.192	A		-1.0	0.134 - 0.250	0.02	A
Mercury	0.06	0.0636	A		-5.7	0.0445 - 0.0827	0.01	W
Nickel	0.17	0.193	A		-11.9	0.135 - 0.251	0.02	A
Selenium	0.36	0.390	A		-7.7	0.273 - 0.507	0.04	A
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	0.25	0.254	A		-1.6	0.178 - 0.330	0.03	A
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	0.44	0.445	A		-1.1	0.312 - 0.579	0.04	A
Zinc	0.54	0.592	A		-8.8	0.414 - 0.770	0.05	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	-0.065		A			False Positive Test	0.065	
Cesium-137	2.22	6.9	N		-67.8	4.8 - 9.0	0.09	A
Cobalt-57	8.88	30.9	N		-71.3	21.6 - 40.2	0.22	A
Cobalt-58	12.40	37.7	N		-67.1	26.4 - 49.0	0.59	A
Cobalt-60	0.16	0.29	A			Sensitivity Evaluation	0.02	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.049		A			False Positive Test	0.049	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	15.40	30.3	N		-49.2	21.2 - 39.4	0.73	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	9.61	26.7	N		-64.0	18.7 - 34.7	0.38	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(ARGO01) Idaho National Laboratory
INL, Materials and Fuels Complex
Idaho Falls, ID 83415

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	0.387	0.383	A		1.0	0.268 - 0.498	0.0097	A
Arsenic	0.231	0.228	A		1.3	0.160 - 0.296	0.0058	A
Barium	0.058	0.0604	A		-4.0	0.0423 - 0.0785	0.0015	A
Beryllium	0.471	0.449	A		4.9	0.314 - 0.584	0.012	A
Cadmium	0.305	0.301	A		1.3	0.211 - 0.391	0.0076	A
Chromium	0.312	0.324	A		-3.7	0.227 - 0.421	0.0078	A
Cobalt	0.314	0.319	A		-1.6	0.223 - 0.415	0.0078	A
Copper	0.490	0.510	A		-3.9	0.357 - 0.663	0.012	A
Lead	0.181	0.192	A		-5.7	0.134 - 0.250	0.0045	A
Mercury	0.063	0.0636	A		-0.9	0.0445 - 0.0827	0.0016	A
Nickel	0.191	0.193	A		-1.0	0.135 - 0.251	0.0048	A
Selenium	0.382	0.390	A		-2.1	0.273 - 0.507	0.0095	A
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	0.233	0.254	A		-8.3	0.178 - 0.330	0.0058	A
Uranium-235	0.000324	3.17E-04	A		2.2	2.22E-4 - 4.12E-4	0.0000081	A
Uranium-238	0.0447	0.0441	A		1.4	0.0309 - 0.0573	0.0011	A
Uranium-Total	0.0450	0.0444	A		1.4	0.0311 - 0.0577	0.0011	A
Vanadium	0.438	0.445	A		-1.6	0.312 - 0.579	0.011	A
Zinc	0.581	0.592	A		-1.9	0.414 - 0.770	0.015	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.602	0.559	A		7.7	0.391 - 0.727	0.044	A
Cesium-134	1.85		A			False Positive Test	1.85	
Cesium-137	7.52	6.9	A		9.0	4.8 - 9.0	0.60	A
Cobalt-57	28.5	30.9	A		-7.8	21.6 - 40.2	3.7	A
Cobalt-58	35.6	37.7	A		-5.6	26.4 - 49.0	1.4	A
Cobalt-60	1.48	0.29	A	(17)		Sensitivity Evaluation	1.48	
Hydrogen-3	177	191	A		-7.3	134 - 248	11	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	1.85		A			False Positive Test	1.85	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	0.006	0.0081	A	(17)		Sensitivity Evaluation	0.006	
Plutonium-239/240	0.670	0.569	A		17.8	0.398 - 0.740	0.076	A
Potassium-40	29.8	30.3	A		-1.7	21.2 - 39.4	4.2	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	3.07	2.82	A		8.9	1.97 - 3.67	0.9	W
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	0.509	0.535	A		-4.9	0.375 - 0.696	0.017	A
Uranium-238	0.473	0.548	A		-13.7	0.384 - 0.712	0.017	A
Zinc-65	28.40	26.7	A		6.4	18.7 - 34.7	1.99	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52

(ARPL01) Analytical Support Operations - Radiochemical Processing Lab

PO Box 999

Richland, WA 99354

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	-0.74		A			False Positive Test	0.94	
Cesium-137	6.20	6.9	A		-10.1	4.8 - 9.0	0.51	A
Cobalt-57	28.4	30.9	A		-8.1	21.6 - 40.2	0.8	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.27	0.29	A	(17)		Sensitivity Evaluation	0.56	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.31		A			False Positive Test	0.48	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	28.2	30.3	A		-6.9	21.2 - 39.4	5.1	W
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	24.64	26.7	A		-7.7	18.7 - 34.7	0.70	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52

(ARSL01) ARS

2609 North River Road

Port Allen, LA 70767

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559	N	(28)		0.391 - 0.727		
Cesium-134	-0.091		A			False Positive Test	0.083	
Cesium-137	6.659	6.9	A		-3.5	4.8 - 9.0	0.179	A
Cobalt-57	30.047	30.9	A		-2.8	21.6 - 40.2	1.154	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.254	0.29	A			Sensitivity Evaluation	0.031	
Hydrogen-3	NR	191	N	(28)		134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	-0.004		A			False Positive Test	0.075	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081	N	(18)		Sensitivity Evaluation		
Plutonium-239/240	NR	0.569	N	(28)		0.398 - 0.740		
Potassium-40	31.93	30.3	A		5.4	21.2 - 39.4	1.486	A
Radium-226	NR	0.437	N	(28)		0.306 - 0.568		
Strontium-90	NR	2.82	N	(28)		1.97 - 3.67		
Technetium-99	6.366	6.34	A		0.4	4.44 - 8.24	0.788	A
Uranium-234	NR	0.535	N	(28)		0.375 - 0.696		
Uranium-238	NR	0.548	N	(28)		0.384 - 0.712		
Zinc-65	26.565	26.7	A		-0.5	18.7 - 34.7	0.911	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(AY1201) Consolidated Nuclear Security, LLC, ACO Laboratory
Y12, NSC, Bldg. 9995, Rm 142
Oak Ridge, TN 37831-8189

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	0.380	0.383	A		-0.8	0.268 - 0.498	0.051	A
Arsenic	0.226	0.228	A		-0.9	0.160 - 0.296	.030	A
Barium	.0617	0.0604	A		2.2	0.0423 - 0.0785	.003	A
Beryllium	0.454	0.449	A		1.1	0.314 - 0.584	0.028	A
Cadmium	0.275	0.301	A		-8.6	0.211 - 0.391	0.017	A
Chromium	0.303	0.324	A		-6.5	0.227 - 0.421	0.010	A
Cobalt	0.300	0.319	A		-6.0	0.223 - 0.415	0.015	A
Copper	0.506	0.510	A		-0.8	0.357 - 0.663	0.021	A
Lead	0.202	0.192	A		5.2	0.134 - 0.250	0.020	A
Mercury	.0625	0.0636	A		-1.7	0.0445 - 0.0827	.0047	A
Nickel	0.183	0.193	A		-5.2	0.135 - 0.251	0.018	A
Selenium	0.350	0.390	A		-10.3	0.273 - 0.507	0.057	W
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	0.265	0.254	A		4.3	0.178 - 0.330	0.033	A
Uranium-235	0.0003106	3.17E-04	A		-2.0	2.22E-4 - 4.12E-4	0.00003	A
Uranium-238	0.042	0.0441	A		-4.8	0.0309 - 0.0573	0.004	A
Uranium-Total	0.042	0.0444	A		-5.4	0.0311 - 0.0577	0.0042	A
Vanadium	0.447	0.445	A		0.4	0.312 - 0.579	0.017	A
Zinc	0.565	0.592	A		-4.6	0.414 - 0.770	0.035	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.529	0.559	A		-5.4	0.391 - 0.727	0.038	A
Cesium-134	NR			(6)		False Positive Test		
Cesium-137	7.96	6.9	A		15.4	4.8 - 9.0	0.32	A
Cobalt-57	36.0	30.9	A		16.5	21.6 - 40.2	0.67	N
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.285	0.29	A			Sensitivity Evaluation	0.069	
Hydrogen-3	172	191	A		-9.9	134 - 248	8.8	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	-0.0250		A			False Positive Test	0.056	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	0.0130	0.0081	A	(17)		Sensitivity Evaluation	0.0050	
Plutonium-239/240	0.524	0.569	A		-7.9	0.398 - 0.740	0.040	A
Potassium-40	37.7	30.3	W		24.4	21.2 - 39.4	2.4	A
Radium-226	0.351	0.437	A		-19.7	0.306 - 0.568	0.080	W
Strontium-90	2.31	2.82	A		-18.1	1.97 - 3.67	0.11	A
Technetium-99	6.85	6.34	A		8.0	4.44 - 8.24	0.37	A
Uranium-234	0.519	0.535	A		-3.0	0.375 - 0.696	0.028	A
Uranium-238	0.520	0.548	A		-5.1	0.384 - 0.712	0.028	A
Zinc-65	29.0	26.7	A		8.6	18.7 - 34.7	2.8	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(BY1201) Consolidated Nuclear Security, LLC, ACO, Production Laboratory
Y12, NSC, Bldg. 9995, Rm 142
Oak Ridge, TN 37831-8189

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.53	0.559	A		-5.2	0.391 - 0.727	.035	A
Cesium-134	NR			(6)		False Positive Test		
Cesium-137	8.28	6.9	A		20.0	4.8 - 9.0	.323	A
Cobalt-57	34.97	30.9	A		13.2	21.6 - 40.2	.5487	N
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.25	0.29	A			Sensitivity Evaluation	.035	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	-.06		A			False Positive Test	.161	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	-.0008	0.0081	A	(17)		Sensitivity Evaluation	.0074	
Plutonium-239/240	0.617	0.569	A		8.4	0.398 - 0.740	.050	A
Potassium-40	37.33	30.3	W		23.2	21.2 - 39.4	2.463	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	1.954	2.82	N		-30.7	1.97 - 3.67	.169	A
Technetium-99	6.11	6.34	A		-3.6	4.44 - 8.24	.20	A
Uranium-234	0.555	0.535	A		3.7	0.375 - 0.696	.057	A
Uranium-238	0.530	0.548	A		-3.3	0.384 - 0.712	.053	A
Zinc-65	29.63	26.7	A		11.0	18.7 - 34.7	1.253	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(CDHS01) California Department of Public Health
Drinking Water & Radiation Lab.
Richmond, CA 94804-6403

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.534	0.559	A		-4.5	0.391 - 0.727	0.0254	A
Cesium-134	0.0135		A			False Positive Test	0.0976	
Cesium-137	7.00	6.9	A		1.4	4.8 - 9.0	0.209	A
Cobalt-57	31.7	30.9	A		2.6	21.6 - 40.2	0.565	N
Cobalt-58	39.0	37.7	A		3.4	26.4 - 49.0	0.818	A
Cobalt-60	0.289	0.29	A			Sensitivity Evaluation	0.0438	
Hydrogen-3	159	191	A		-16.8	134 - 248	3.96	A
Iron-55	28.7	25.5	A		12.5	17.9 - 33.2	1.35	A
Manganese-54	0.0214		A			False Positive Test	0.0424	
Nickel-63	41.6	38.9	A		6.9	27.2 - 50.6	1.02	A
Plutonium-238	0.00677	0.0081	A	(17)		Sensitivity Evaluation	0.00280	
Plutonium-239/240	0.562	0.569	A		-1.2	0.398 - 0.740	0.0209	A
Potassium-40	35.4	30.3	A		16.8	21.2 - 39.4	1.66	A
Radium-226	0.451	0.437	A		3.2	0.306 - 0.568	0.0651	A
Strontium-90	2.75	2.82	A		-2.5	1.97 - 3.67	0.272	A
Technetium-99	6.06	6.34	A		-4.4	4.44 - 8.24	0.487	A
Uranium-234	0.478	0.535	A		-10.7	0.375 - 0.696	0.0290	A
Uranium-238	0.454	0.548	A		-17.2	0.384 - 0.712	0.0272	A
Zinc-65	27.0	26.7	A		1.1	18.7 - 34.7	0.616	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(CESL01) Lawrence Livermore National Laboratory - EMRL
7000 East Avenue
Livermore, CA 94551

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	1.27E+01		A			False Positive Test	1.36E+01	
Cesium-137	7.93E+00	6.9	A		14.9	4.8 - 9.0	9.53E-01	A
Cobalt-57	3.22E+01	30.9	A		4.2	21.6 - 40.2	1.26E+00	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	9.35E-02	0.29	A	(17)		Sensitivity Evaluation	4.94E-01	
Hydrogen-3	2.09E+02	191	A		9.4	134 - 248	3.59E+00	N
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	2.53E-01		A			False Positive Test	7.29E-01	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	7.58E-03	0.0081	A			Sensitivity Evaluation	1.96E-03	
Plutonium-239/240	5.47E-01	0.569	A		-3.9	0.398 - 0.740	1.92E-02	A
Potassium-40	4.80E+01	30.3	N		58.4	21.2 - 39.4	8.76E+00	W
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	2.49E+01	26.7	A		-6.7	18.7 - 34.7	2.47E+00	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(CMRC01) Carlsbad Environmental Monitoring and Research Center
1400 University Dr.
Carlsbad, NM 88220

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	5.51E-01	0.559	A		-1.4	0.391 - 0.727	2.53E-02	A
Cesium-134	NR		N	(11)		False Positive Test		
Cesium-137	6.87E+00	6.9	A		-0.4	4.8 - 9.0	1.41E-01	A
Cobalt-57	NR	30.9	N	(25)		21.6 - 40.2		
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	2.72E-01	0.29	A			Sensitivity Evaluation	1.17E-02	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR		N	(11)		False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	3.46E-03	0.0081	A	(17)		Sensitivity Evaluation	1.81E-03	
Plutonium-239/240	5.78E-01	0.569	A		1.6	0.398 - 0.740	3.40E-02	A
Potassium-40	3.19E+01	30.3	A		5.3	21.2 - 39.4	7.49E-01	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	2.49E+00	2.82	A		-11.7	1.97 - 3.67	3.27E-02	N
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	4.98E-01	0.535	A		-6.9	0.375 - 0.696	3.53E-02	A
Uranium-238	5.29E-01	0.548	A		-3.5	0.384 - 0.712	3.74E-02	A
Zinc-65	NR	26.7	N	(25)		18.7 - 34.7		

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(COPS99) Health Canada Radiation Protection Bureau
775 Brookfield Road
Ottawa, Ontario K1A 1C1

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	0.071		A			False Positive Test	0.032	
Cesium-137	7.06	6.9	A		2.3	4.8 - 9.0	0.62	A
Cobalt-57	30.78	30.9	A		-0.4	21.6 - 40.2	2.49	A
Cobalt-58	37.01	37.7	A		-1.8	26.4 - 49.0	2.51	A
Cobalt-60	0.0028	0.29	N	(2)		Sensitivity Evaluation	0.0017	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.00006		A			False Positive Test	0.00003	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	48.41	30.3	N		59.8	21.2 - 39.4	23.52	N
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	24.31	26.7	A		-9.0	18.7 - 34.7	1.65	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(DEHS01) Department of Environmental Health & Safety
North Carolina State Univ.
Raleigh, NC 27695-8007

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	-0.70		A			False Positive Test	0.61	
Cesium-137	4.65	6.9	N		-32.6	4.8 - 9.0	0.62	A
Cobalt-57	29.93	30.9	A		-3.1	21.6 - 40.2	1.84	A
Cobalt-58	36.54	37.7	A		-3.1	26.4 - 49.0	2.21	A
Cobalt-60	0.01	0.29	A	(17)		Sensitivity Evaluation	0.39	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.02		A			False Positive Test	0.79	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	48.60	30.3	N		60.4	21.2 - 39.4	11.22	W
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	12.80	26.7	N		-52.1	18.7 - 34.7	0.91	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| ≤ 20%

W = Result acceptable with warning.....20% < |Bias| ≤ 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52

(DLEA01) DLE Associates

730 Alfred Nobel Drive

Hercules, CA 94547

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR					False Positive Test		
Cesium-137	NR	6.9				4.8 - 9.0		
Cobalt-57	NR	30.9				21.6 - 40.2		
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	NR	0.29				Sensitivity Evaluation		
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR					False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	NR	30.3				21.2 - 39.4		
Radium-226	0.37	0.437	A		-15.3	0.306 - 0.568	0.05	A
Strontium-90	3.23	2.82	A		14.5	1.97 - 3.67	0.22	A
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	NR	26.7				18.7 - 34.7		

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(EFGS01) Eurofins Frontier Global Sciences, LLC.
5755 8th St. E
Tacoma, WA 98424

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	0.055	0.0636	A		-13.5	0.0445 - 0.0827	0.003	A
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR					False Positive Test		
Cesium-137	NR	6.9				4.8 - 9.0		
Cobalt-57	NR	30.9				21.6 - 40.2		
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	NR	0.29				Sensitivity Evaluation		
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR					False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	NR	30.3				21.2 - 39.4		
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	NR	26.7				18.7 - 34.7		

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| ≤ 20%

W = Result acceptable with warning.....20% < |Bias| ≤ 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(ELIW01) Energy Laboratories, Inc.
2393 Salt Creek HWY
Casper, Wy 82601

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR					False Positive Test		
Cesium-137	NR	6.9				4.8 - 9.0		
Cobalt-57	NR	30.9				21.6 - 40.2		
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	NR	0.29				Sensitivity Evaluation		
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR					False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	NR	30.3				21.2 - 39.4		
Radium-226	0.4292	0.437	A		-1.8	0.306 - 0.568	0.037	A
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	0.4366	0.535	A		-18.4	0.375 - 0.696	0.0407	A
Uranium-238	0.4588	0.548	A		-16.3	0.384 - 0.712	0.0426	A
Zinc-65	NR	26.7				18.7 - 34.7		

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(ERAD01) Lawrence Livermore National Laboratory
7000 East Ave., L-231
Livermore, CA 94551

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	0.0002986	3.17E-04	A		-5.8	2.22E-4 - 4.12E-4	0.0000078	A
Uranium-238	0.04125	0.0441	A		-6.5	0.0309 - 0.0573	0.00090	A
Uranium-Total	0.04155	0.0444	A		-6.4	0.0311 - 0.0577	0.00095	A
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR					False Positive Test		
Cesium-137	NR	6.9				4.8 - 9.0		
Cobalt-57	NR	30.9				21.6 - 40.2		
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	NR	0.29				Sensitivity Evaluation		
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR					False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	NR	30.3				21.2 - 39.4		
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	NR	26.7				18.7 - 34.7		

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(ERCL01) Washington State Public Health Laboratories
1610 N.E. 150th Street
Shoreline, WA 98155-9701

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	0.000292	3.17E-04	A		-7.9	2.22E-4 - 4.12E-4	0.000039	A
Uranium-238	0.0410	0.0441	A		-7.0	0.0309 - 0.0573	0.0056	A
Uranium-Total	0.0410	0.0444	A		-7.7	0.0311 - 0.0577	0.0056	A
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.518	0.559	A		-7.3	0.391 - 0.727	0.055	A
Cesium-134	-0.133		A			False Positive Test	0.096	
Cesium-137	6.62	6.9	A		-4.1	4.8 - 9.0	0.26	A
Cobalt-57	31.1	30.9	A		0.6	21.6 - 40.2	0.5	N
Cobalt-58	36.5	37.7	A		-3.2	26.4 - 49.0	0.6	N
Cobalt-60	0.163	0.29	A	(17)		Sensitivity Evaluation	0.079	
Hydrogen-3	192	191	A		0.5	134 - 248	5	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.081		A			False Positive Test	0.096	
Nickel-63	42.9	38.9	A		10.3	27.2 - 50.6	6.2	A
Plutonium-238	0.0044	0.0081	A	(17)		Sensitivity Evaluation	0.0049	
Plutonium-239/240	0.533	0.569	A		-6.3	0.398 - 0.740	0.030	A
Potassium-40	22.2	30.3	W		-26.7	21.2 - 39.4	1.9	A
Radium-226	0.411	0.437	A		-6.0	0.306 - 0.568	0.051	A
Strontium-90	2.65	2.82	A		-6.0	1.97 - 3.67	0.18	A
Technetium-99	5.44	6.34	A		-14.2	4.44 - 8.24	0.83	W
Uranium-234	0.529	0.535	A		-1.1	0.375 - 0.696	0.030	A
Uranium-238	0.548	0.548	A		0.0	0.384 - 0.712	0.030	A
Zinc-65	26.5	26.7	A		-0.7	18.7 - 34.7	0.6	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(ERHD99) National Monitoring Section, Radiation Protection Bureau, Health Canada
775 Brookfield Road AL6302D1
Ottawa, Ontario K1A 1C1

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	0.353	0.383	A		-7.8	0.268 - 0.498	0.011	A
Arsenic	0.244	0.228	A		7.0	0.160 - 0.296	0.002	N
Barium	0.063	0.0604	A		4.3	0.0423 - 0.0785	0.0005	N
Beryllium	0.49	0.449	A		9.1	0.314 - 0.584	0.018	A
Cadmium	0.293	0.301	A		-2.7	0.211 - 0.391	0.125	N
Chromium	0.25	0.324	W		-22.8	0.227 - 0.421	0.01	A
Cobalt	0.306	0.319	A		-4.1	0.223 - 0.415	0.006	N
Copper	0.453	0.510	A		-11.2	0.357 - 0.663	0.015	A
Lead	0.165	0.192	A		-14.1	0.134 - 0.250	0.003	N
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	0.188	0.193	A		-2.6	0.135 - 0.251	0.073	N
Selenium	0.398	0.390	A		2.1	0.273 - 0.507	0.002	N
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	0.254	0.254	A		0.0	0.178 - 0.330	0.002	N
Uranium-235	0.0003	3.17E-04	A		-5.4	2.22E-4 - 4.12E-4	0.00005	W
Uranium-238	0.0481	0.0441	A		9.1	0.0309 - 0.0573	0.0002	N
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	0.393	0.445	A		-11.7	0.312 - 0.579	0.018	A
Zinc	0.599	0.592	A		1.2	0.414 - 0.770	0.024	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.530	0.559	A		-5.2	0.391 - 0.727	0.02	A
Cesium-134	0.1		A			False Positive Test	0.2	
Cesium-137	5.96	6.9	A		-13.6	4.8 - 9.0	0.30	A
Cobalt-57	29.7	30.9	A		-3.9	21.6 - 40.2	1.5	A
Cobalt-58	32.5	37.7	A		-13.8	26.4 - 49.0	1.6	A
Cobalt-60	0.23	0.29	A	(17)		Sensitivity Evaluation	0.46	
Hydrogen-3	197	191	A		3.1	134 - 248	4	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.72		A			False Positive Test	1.4	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	-0.0004	0.0081	A	(17)		Sensitivity Evaluation	0.008	
Plutonium-239/240	0.549	0.569	A		-3.5	0.398 - 0.740	0.017	A
Potassium-40	26.1	30.3	A		-13.9	21.2 - 39.4	1.4	A
Radium-226	0.332	0.437	W		-24.0	0.306 - 0.568	0.019	A
Strontium-90	3.00	2.82	A		6.4	1.97 - 3.67	0.2	A
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	0.522	0.535	A		-2.4	0.375 - 0.696	0.02	A
Uranium-238	0.527	0.548	A		-3.8	0.384 - 0.712	0.02	A
Zinc-65	24.5	26.7	A		-8.2	18.7 - 34.7	1.7	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(ESDE01) Region 5 EQC Tritium Lab
206 Beaufort NE
Aiken, SC 29801

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR					False Positive Test		
Cesium-137	NR	6.9				4.8 - 9.0		
Cobalt-57	NR	30.9				21.6 - 40.2		
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	NR	0.29				Sensitivity Evaluation		
Hydrogen-3	199.82	191	A		4.6	134 - 248	8.37	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR					False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	NR	30.3				21.2 - 39.4		
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	NR	26.7				18.7 - 34.7		

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52

(ETTP01) MCLinc

161 Mitchell Road

Oak Ridge, Tennessee 37830

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	0.4059	0.383	A		6.0	0.268 - 0.498	0.0395	A
Arsenic	0.2266	0.228	A		-0.6	0.160 - 0.296	0.0173	A
Barium	0.0576	0.0604	A		-4.6	0.0423 - 0.0785	0.0041	A
Beryllium	0.4529	0.449	A		0.9	0.314 - 0.584	0.0453	A
Cadmium	0.3016	0.301	A		0.2	0.211 - 0.391	0.0125	A
Chromium	0.3161	0.324	A		-2.4	0.227 - 0.421	0.018	A
Cobalt	0.2926	0.319	A		-8.3	0.223 - 0.415	0.0182	A
Copper	0.4695	0.510	A		-7.9	0.357 - 0.663	0.0345	A
Lead	0.1936	0.192	A		0.8	0.134 - 0.250	0.0118	A
Mercury	0.065	0.0636	A		2.2	0.0445 - 0.0827	0.0031	A
Nickel	0.1781	0.193	A		-7.7	0.135 - 0.251	0.0215	A
Selenium	0.4064	0.390	A		4.2	0.273 - 0.507	0.0365	A
Technetium-99	0.00000833	1.01E-05	A		-17.5	7.10E-6 - 1.31E-5	0.000000833	A
Thallium	0.2309	0.254	A		-9.1	0.178 - 0.330	0.0223	A
Uranium-235	0.000299	3.17E-04	A		-5.7	2.22E-4 - 4.12E-4	0.0000299	A
Uranium-238	0.040	0.0441	A		-9.3	0.0309 - 0.0573	0.00400	A
Uranium-Total	0.040	0.0444	A		-9.9	0.0311 - 0.0577	0.00403	A
Vanadium	0.4492	0.445	A		0.9	0.312 - 0.579	0.0301	A
Zinc	0.6298	0.592	A		6.4	0.414 - 0.770	0.0772	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR					False Positive Test		
Cesium-137	NR	6.9				4.8 - 9.0		
Cobalt-57	NR	30.9				21.6 - 40.2		
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	NR	0.29				Sensitivity Evaluation		
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR					False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	NR	30.3				21.2 - 39.4		
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	5.28	6.34	A		-16.7	4.44 - 8.24	0.53	A
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	NR	26.7				18.7 - 34.7		

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(FDHE01) Florida Dept of Health Environmental Laboratory
2100 All Childrens Way
Orlando, FL 32818-5271

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.543	0.559	A		-2.9	0.391 - 0.727	0.1	W
Cesium-134	-0.034		A			False Positive Test	0.204	
Cesium-137	7.15	6.9	A		3.6	4.8 - 9.0	0.159	A
Cobalt-57	29.953	30.9	A		-3.1	21.6 - 40.2	0.906	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.242	0.29	A	(17)		Sensitivity Evaluation	0.22	
Hydrogen-3	183.3	191	A		-4.0	134 - 248	18	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.028		A			False Positive Test	0.209	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	0.602	0.0081	N	(4)		Sensitivity Evaluation	0.06	
Plutonium-239/240	0.58	0.569	A		1.9	0.398 - 0.740	0.06	A
Potassium-40	34.6	30.3	A		14.2	21.2 - 39.4	1.2	A
Radium-226	0.38	0.437	A		-13.0	0.306 - 0.568	0.04	A
Strontium-90	3.75	2.82	N		33.0	1.97 - 3.67	0.6	W
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	0.53	0.535	A		-0.9	0.375 - 0.696	0.1	W
Uranium-238	0.55	0.548	A		0.4	0.384 - 0.712	0.1	W
Zinc-65	29.55	26.7	A		10.7	18.7 - 34.7	0.752	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52

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

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.593	0.559	A		6.1	0.391 - 0.727	0.066	A
Cesium-134	0.005		A			False Positive Test	0.054	
Cesium-137	6.875	6.9	A		-0.4	4.8 - 9.0	0.139	A
Cobalt-57	29.917	30.9	A		-3.2	21.6 - 40.2	0.461	N
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.27	0.29	A			Sensitivity Evaluation	0.03	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	-0.006		A			False Positive Test	0.137	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	33.605	30.3	A		10.9	21.2 - 39.4	0.885	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	0.60	0.548	A		9.5	0.384 - 0.712	1.81	N
Zinc-65	28.21	26.7	A		5.7	18.7 - 34.7	0.573	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| ≤ 20%

W = Result acceptable with warning.....20% < |Bias| ≤ 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(FNAL01) Fermi National Accelerator Laboratory (FermiLab)
PO Box 500, MS325
Batavia, IL 60510

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	0.072		A			False Positive Test	0.072	
Cesium-137	6.54	6.9	A		-5.2	4.8 - 9.0	0.25	A
Cobalt-57	30.58	30.9	A		-1.0	21.6 - 40.2	0.81	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.266	0.29	A			Sensitivity Evaluation	0.052	
Hydrogen-3	200	191	A		4.7	134 - 248	12	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.080		A			False Positive Test	0.068	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	32.9	30.3	A		8.6	21.2 - 39.4	2.9	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	26.74	26.7	A		0.2	18.7 - 34.7	0.93	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| ≤ 20%

W = Result acceptable with warning.....20% < |Bias| ≤ 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
 (FSCL01) Forensic Science Center Lawrence Livermore Laboratory
 7000 East Ave.
 Livermore, CA 94550

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	0.3710	0.383	A		-3.1	0.268 - 0.498	0.0023	N
Arsenic	0.2302	0.228	A		1.0	0.160 - 0.296	0.0030	N
Barium	0.0614	0.0604	A		1.7	0.0423 - 0.0785	0.0016	A
Beryllium	0.4810	0.449	A		7.1	0.314 - 0.584	0.0085	N
Cadmium	0.2933	0.301	A		-2.6	0.211 - 0.391	0.0016	N
Chromium	0.3322	0.324	A		2.5	0.227 - 0.421	0.0041	N
Cobalt	0.3232	0.319	A		1.3	0.223 - 0.415	0.0038	N
Copper	0.5170	0.510	A		1.4	0.357 - 0.663	0.0075	N
Lead	0.1880	0.192	A		-2.1	0.134 - 0.250	0.0055	A
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	0.1947	0.193	A		0.9	0.135 - 0.251	0.0024	N
Selenium	0.3966	0.390	A		1.7	0.273 - 0.507	0.0042	N
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	0.2470	0.254	A		-2.8	0.178 - 0.330	0.0065	A
Uranium-235	0.000306	3.17E-04	A		-3.5	2.22E-4 - 4.12E-4	0.000016	A
Uranium-238	0.0421	0.0441	A		-4.5	0.0309 - 0.0573	0.0014	A
Uranium-Total	0.0424	0.0444	A		-4.5	0.0311 - 0.0577	0.0014	A
Vanadium	0.4620	0.445	A		3.8	0.312 - 0.579	0.0075	N
Zinc	0.620	0.592	A		4.7	0.414 - 0.770	0.020	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR					False Positive Test		
Cesium-137	NR	6.9				4.8 - 9.0		
Cobalt-57	NR	30.9				21.6 - 40.2		
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	NR	0.29				Sensitivity Evaluation		
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR					False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	NR	30.3				21.2 - 39.4		
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	NR	26.7				18.7 - 34.7		

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(GENE01) GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	0.343	0.383	A		-10.4	0.268 - 0.498	0.0685	W
Arsenic	0.232	0.228	A		1.8	0.160 - 0.296	0.0464	W
Barium	0.0623	0.0604	A		3.1	0.0423 - 0.0785	0.0125	W
Beryllium	0.422	0.449	A		-6.0	0.314 - 0.584	0.0845	W
Cadmium	0.291	0.301	A		-3.3	0.211 - 0.391	0.0581	W
Chromium	0.318	0.324	A		-1.9	0.227 - 0.421	0.0635	W
Cobalt	0.302	0.319	A		-5.3	0.223 - 0.415	0.0604	W
Copper	51.1	0.510	N		9919.6	0.357 - 0.663	10.2	W
Lead	3.05	0.192	N		1488.5	0.134 - 0.250	0.610	W
Mercury	0.0498	0.0636	W		-21.7	0.0445 - 0.0827	0.00997	W
Nickel	0.305	0.193	N		58.0	0.135 - 0.251	0.0610	W
Selenium	0.361	0.390	A		-7.4	0.273 - 0.507	0.0722	W
Technetium-99	9.73E-6	1.01E-05	A		-3.7	7.10E-6 - 1.31E-5	1.38E-6	A
Thallium	0.239	0.254	A		-5.9	0.178 - 0.330	0.0478	W
Uranium-235	0.000286	3.17E-04	A		-9.8	2.22E-4 - 4.12E-4	0.0000574	W
Uranium-238	0.0403	0.0441	A		-8.6	0.0309 - 0.0573	0.00805	W
Uranium-Total	0.0406	0.0444	A		-8.6	0.0311 - 0.0577	0.00805	W
Vanadium	0.449	0.445	A		0.9	0.312 - 0.579	0.0899	W
Zinc	44.7	0.592	N		7450.7	0.414 - 0.770	8.93	W

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.555	0.559	A		-0.7	0.391 - 0.727	0.0343	A
Cesium-134	0.0271		A			False Positive Test	0.0497	
Cesium-137	6.67	6.9	A		-3.3	4.8 - 9.0	0.339	A
Cobalt-57	30.0	30.9	A		-2.9	21.6 - 40.2	1.26	A
Cobalt-58	37.5	37.7	A		-0.5	26.4 - 49.0	1.83	A
Cobalt-60	0.322	0.29	A			Sensitivity Evaluation	0.0614	
Hydrogen-3	164	191	A		-14.1	134 - 248	19.4	A
Iron-55	35.2	25.5	N		38.0	17.9 - 33.2	5.11	A
Manganese-54	-0.0059		A			False Positive Test	0.046	
Nickel-63	30.8	38.9	W		-20.8	27.2 - 50.6	3.10	A
Plutonium-238	0.00764	0.0081	A	(17)		Sensitivity Evaluation	0.00381	
Plutonium-239/240	0.536	0.569	A		-5.8	0.398 - 0.740	0.0305	A
Potassium-40	35.1	30.3	A		15.8	21.2 - 39.4	2.13	A
Radium-226	0.386	0.437	A		-11.7	0.306 - 0.568	0.0425	A
Strontium-90	2.46	2.82	A		-12.8	1.97 - 3.67	0.201	A
Technetium-99	7.40	6.34	A		16.7	4.44 - 8.24	1.44	W
Uranium-234	0.526	0.535	A		-1.7	0.375 - 0.696	0.0367	A
Uranium-238	0.528	0.548	A		-3.7	0.384 - 0.712	0.0364	A
Zinc-65	29.0	26.7	A		8.6	18.7 - 34.7	1.34	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(GPCL01) Georgia Power Company Environmental Laboratory
2480 Maner Road
Atlanta, GA 30339

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	-0.13		A			False Positive Test	0.34	
Cesium-137	6.97	6.9	A		1.0	4.8 - 9.0	0.62	A
Cobalt-57	30.59	30.9	A		-1.0	21.6 - 40.2	2.41	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.28	0.29	A	(17)		Sensitivity Evaluation	0.13	
Hydrogen-3	188.58	191	A		-1.3	134 - 248	6.66	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	-0.06		A			False Positive Test	0.25	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	32.58	30.3	A		7.5	21.2 - 39.4	4.04	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	3.1117	2.82	A		10.3	1.97 - 3.67	0.2838	A
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	27.81	26.7	A		4.2	18.7 - 34.7	2.21	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(HCAL01) Lawrence Livermore National Laboratory
Analytical Services and Instrumentation Analytical Lab
Livermore, CA 94550

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR					False Positive Test		
Cesium-137	NR	6.9				4.8 - 9.0		
Cobalt-57	NR	30.9				21.6 - 40.2		
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	NR	0.29				Sensitivity Evaluation		
Hydrogen-3	206	191	A		7.9	134 - 248	12	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR					False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	NR	30.3				21.2 - 39.4		
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	NR	26.7				18.7 - 34.7		

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(HECR01) SC Department of Environmental Services
8231 Parklane Road
Columbia, SC 29223

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	-0.1075		A			False Positive Test	0.1447	
Cesium-137	6.730	6.9	A		-2.5	4.8 - 9.0	0.8350	A
Cobalt-57	28.00	30.9	A		-9.4	21.6 - 40.2	2.456	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.2453	0.29	A	(17)		Sensitivity Evaluation	0.08418	
Hydrogen-3	193	191	A		1.0	134 - 248	7.58	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.06187		A			False Positive Test	0.1685	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	41.02	30.3	N		35.4	21.2 - 39.4	4.011	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	0.4572	26.7	N		-98.3	18.7 - 34.7	5.182	N

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(HPAC99) UKHSA, RCE Glasgow
155 Hardgate Road
Glasgow, Scotland G51 4LS

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	.2298	0.228	A		0.8	0.160 - 0.296	.00919	A
Barium	.06275	0.0604	A		3.9	0.0423 - 0.0785	.00627	A
Beryllium	.45201	0.449	A		0.7	0.314 - 0.584	.03842	A
Cadmium	.29812	0.301	A		-1.0	0.211 - 0.391	.01342	A
Chromium	.32062	0.324	A		-1.0	0.227 - 0.421	.02084	A
Cobalt	.31136	0.319	A		-2.4	0.223 - 0.415	.02024	A
Copper	.50054	0.510	A		-1.9	0.357 - 0.663	.03003	A
Lead	.188	0.192	A		-2.1	0.134 - 0.250	.01034	A
Mercury	.06262	0.0636	A		-1.5	0.0445 - 0.0827	.00438	A
Nickel	.19214	0.193	A		-0.4	0.135 - 0.251	.01057	A
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	.0000103136	1.01E-05	A		2.1	7.10E-6 - 1.31E-5	.000000773522	A
Thallium	.24168	0.254	A		-4.9	0.178 - 0.330	.01571	A
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	.03939	0.0441	A		-10.7	0.0309 - 0.0573	.00374	A
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	.44369	0.445	A		-0.3	0.312 - 0.579	.02218	A
Zinc	.56452	0.592	A		-4.6	0.414 - 0.770	.03669	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	.5725	0.559	A		2.4	0.391 - 0.727	.0588	A
Cesium-134	NR		N	(11)		False Positive Test		
Cesium-137	6.68	6.9	A		-3.2	4.8 - 9.0	.36	A
Cobalt-57	29.8	30.9	A		-3.6	21.6 - 40.2	1.43	A
Cobalt-58	36	37.7	A		-4.5	26.4 - 49.0	1.72	A
Cobalt-60	NR	0.29	N	(18)		Sensitivity Evaluation		
Hydrogen-3	202.8	191	A		6.2	134 - 248	9.1	A
Iron-55	NR	25.5	N	(28)		17.9 - 33.2		
Manganese-54	NR		N	(11)		False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081	N	(18)		Sensitivity Evaluation		
Plutonium-239/240	.582	0.569	A		2.3	0.398 - 0.740	.04	A
Potassium-40	31	30.3	A		2.3	21.2 - 39.4	2.56	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	6.7	6.34	A		5.7	4.44 - 8.24	.41	A
Uranium-234	.565	0.535	A		5.6	0.375 - 0.696	.061	A
Uranium-238	.592	0.548	A		8.0	0.384 - 0.712	.06	A
Zinc-65	27.1	26.7	A		1.5	18.7 - 34.7	1.33	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(IAEA99) International Atomic Energy Agency
Agency's Laboratories Seibersdorf
Seibersdorf, Austria A-2444

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.569	0.559	A		1.8	0.391 - 0.727	0.022	A
Cesium-134	0.102		A			False Positive Test	0.069	
Cesium-137	6.78	6.9	A		-1.7	4.8 - 9.0	0.18	A
Cobalt-57	30.5	30.9	A		-1.3	21.6 - 40.2	0.8	A
Cobalt-58	37.5	37.7	A		-0.5	26.4 - 49.0	1.2	A
Cobalt-60	0.274	0.29	A			Sensitivity Evaluation	0.032	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	-0.0249		A			False Positive Test	0.0597	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	30.7	30.3	A		1.3	21.2 - 39.4	1.6	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	26.9	26.7	A		0.7	18.7 - 34.7	0.7	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(IEMA01) Illinois Emergency Management Agency Radiochemistry Laboratory
1301 Knotts St.
Springfield, IL 62703

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.5141	0.559	A		-8.0	0.391 - 0.727	0.02586	A
Cesium-134	-0.167		A			False Positive Test	0.097	
Cesium-137	6.83	6.9	A		-1.0	4.8 - 9.0	0.180	A
Cobalt-57	30.1	30.9	A		-2.6	21.6 - 40.2	0.388	N
Cobalt-58	36.2	37.7	A		-4.0	26.4 - 49.0	0.587	N
Cobalt-60	0.284	0.29	A			Sensitivity Evaluation	0.064	
Hydrogen-3	197	191	A		3.1	134 - 248	3.5	N
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	-0.0237		A			False Positive Test	0.073	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	0.0165	0.0081	A			Sensitivity Evaluation	0.0044	
Plutonium-239/240	0.5482	0.569	A		-3.7	0.398 - 0.740	0.0283	A
Potassium-40	29.6	30.3	A		-2.3	21.2 - 39.4	1.240	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	2.58	2.82	A		-8.5	1.97 - 3.67	0.115	A
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	0.5531	0.535	A		3.4	0.375 - 0.696	0.0277	A
Uranium-238	0.5267	0.548	A		-3.9	0.384 - 0.712	0.0268	A
Zinc-65	25.0	26.7	A		-6.4	18.7 - 34.7	0.536	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(JAE99) Research Laboratories and Information Directorate
Jordan Atomic Energy Commission
Amman, Jordan 70 (11934)

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	0.36	0.383	A		-6.0	0.268 - 0.498	0.012	A
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	0.27	0.301	A		-10.3	0.211 - 0.391	0.009	A
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	0.31	0.319	A		-2.8	0.223 - 0.415	0.014	A
Copper	0.48	0.510	A		-5.9	0.357 - 0.663	0.025	A
Lead	0.18	0.192	A		-6.3	0.134 - 0.250	0.004	A
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	0.24	0.254	A		-5.5	0.178 - 0.330	0.007	A
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR		N	(11)		False Positive Test		
Cesium-137	7.19	6.9	A		4.2	4.8 - 9.0	0.34	A
Cobalt-57	32.93	30.9	A		6.6	21.6 - 40.2	1.59	A
Cobalt-58	36.58	37.7	A		-3.0	26.4 - 49.0	1.67	A
Cobalt-60	0.20	0.29	A	(17)		Sensitivity Evaluation	0.07	
Hydrogen-3	202	191	A		5.8	134 - 248	7.29	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR		N	(11)		False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	35.07	30.3	A		15.7	21.2 - 39.4	1.59	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	0.63	0.535	A		17.8	0.375 - 0.696	0.03	A
Uranium-238	0.61	0.548	A		11.3	0.384 - 0.712	0.03	A
Zinc-65	26.48	26.7	A		-0.8	18.7 - 34.7	1.14	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52

(JLNN01) Jefferson Laboratory

111 Hadron Drive

Newport News, VA 23606

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	.387	0.559	N		-30.8	0.391 - 0.727	.0693	W
Cesium-134	.167		A			False Positive Test	.109	
Cesium-137	6.47	6.9	A		-6.2	4.8 - 9.0	.171	A
Cobalt-57	30.1	30.9	A		-2.6	21.6 - 40.2	.642	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	.23	0.29	A	(17)		Sensitivity Evaluation	.129	
Hydrogen-3	NR	191	N	(28)		134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.0616		A			False Positive Test	0.145	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	30.4	30.3	A		0.3	21.2 - 39.4	1.7	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	27.2	26.7	A		1.9	18.7 - 34.7	.575	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
 (LOCK03) Advanced Test Reactor (ATR) Complex Radioanalytical Laboratory
 INL/Battelle Energy Alliance, LLC
 Idaho Falls, ID 83415-7111

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	0.413	0.383	A		7.8	0.268 - 0.498	0.034	A
Arsenic	0.225	0.228	A		-1.3	0.160 - 0.296	0.014	A
Barium	0.060	0.0604	A		-0.7	0.0423 - 0.0785	0.004	A
Beryllium	0.422	0.449	A		-6.0	0.314 - 0.584	0.034	A
Cadmium	0.295	0.301	A		-2.0	0.211 - 0.391	0.013	A
Chromium	0.308	0.324	A		-4.9	0.227 - 0.421	0.028	A
Cobalt	0.296	0.319	A		-7.2	0.223 - 0.415	0.014	A
Copper	0.477	0.510	A		-6.5	0.357 - 0.663	0.011	A
Lead	0.199	0.192	A		3.6	0.134 - 0.250	0.009	A
Mercury	0.071	0.0636	A		11.6	0.0445 - 0.0827	0.006	A
Nickel	0.168	0.193	A		-13.0	0.135 - 0.251	0.031	W
Selenium	0.371	0.390	A		-4.9	0.273 - 0.507	0.013	A
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	0.259	0.254	A		2.0	0.178 - 0.330	0.022	A
Uranium-235	0.000314	3.17E-04	A		-0.9	2.22E-4 - 4.12E-4	0.000049	W
Uranium-238	0.0454	0.0441	A		2.9	0.0309 - 0.0573	0.0071	W
Uranium-Total	0.0457	0.0444	A		2.9	0.0311 - 0.0577	0.0072	W
Vanadium	0.430	0.445	A		-3.4	0.312 - 0.579	0.015	A
Zinc	0.541	0.592	A		-8.6	0.414 - 0.770	0.072	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	0.12		A			False Positive Test	0.08	
Cesium-137	7.65	6.9	A		10.9	4.8 - 9.0	0.71	A
Cobalt-57	33.43	30.9	A		8.2	21.6 - 40.2	0.54	N
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.34	0.29	A	(17)		Sensitivity Evaluation	0.2	
Hydrogen-3	173	191	A		-9.4	134 - 248	12.3	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.06		A			False Positive Test	0.07	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	28.38	30.3	A		-6.3	21.2 - 39.4	1.92	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	28.75	26.7	A		7.7	18.7 - 34.7	0.56	N

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| ≤ 20%

W = Result acceptable with warning.....20% < |Bias| ≤ 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(LZCA01) ACZ Laboratories, Inc
2773 Downhill Drive
Steamboat Springs, CO 80487

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR					False Positive Test		
Cesium-137	NR	6.9				4.8 - 9.0		
Cobalt-57	NR	30.9				21.6 - 40.2		
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	NR	0.29				Sensitivity Evaluation		
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR					False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	NR	30.3				21.2 - 39.4		
Radium-226	0.457	0.437	A		4.6	0.306 - 0.568	0.045	A
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	NR	26.7				18.7 - 34.7		

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(MART01) Fluor-BWXT Portsmouth LLC, Analytical Laboratory
COC, Bldg. X-705, Rm 106
Piketon, OH 45661

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	0.00032	3.17E-04	A		0.9	2.22E-4 - 4.12E-4	0.0000330	A
Uranium-238	0.0450	0.0441	A		2.0	0.0309 - 0.0573	0.00464	A
Uranium-Total	0.0454	0.0444	A		2.3	0.0311 - 0.0577	0.00468	A
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.5084	0.559	A		-9.1	0.391 - 0.727	0.02559	A
Cesium-134	NR					False Positive Test		
Cesium-137	NR	6.9				4.8 - 9.0		
Cobalt-57	NR	30.9				21.6 - 40.2		
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	NR	0.29				Sensitivity Evaluation		
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR					False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	0.0130	0.0081	A	(17)		Sensitivity Evaluation	0.005027	
Plutonium-239/240	0.885	0.569	N		55.5	0.398 - 0.740	0.05917	A
Potassium-40	NR	30.3				21.2 - 39.4		
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	6.48	6.34	A		2.2	4.44 - 8.24	0.281	A
Uranium-234	0.4553	0.535	A		-14.9	0.375 - 0.696	0.02835	A
Uranium-238	0.4889	0.548	A		-10.8	0.384 - 0.712	0.02998	A
Zinc-65	NR	26.7				18.7 - 34.7		

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| ≤ 20%

W = Result acceptable with warning.....20% < |Bias| ≤ 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(MART03) Radioactive Material Analysis Laboratory
ORNL
Oak Ridge, TN 37830

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	0.381	0.383	A		-0.5	0.268 - 0.498	0.038	A
Arsenic	0.240	0.228	A		5.3	0.160 - 0.296	0.024	A
Barium	0.0636	0.0604	A		5.3	0.0423 - 0.0785	0.0064	A
Beryllium	0.404	0.449	A		-10.0	0.314 - 0.584	0.040	A
Cadmium	0.283	0.301	A		-6.0	0.211 - 0.391	0.028	A
Chromium	0.301	0.324	A		-7.1	0.227 - 0.421	0.030	A
Cobalt	0.294	0.319	A		-7.8	0.223 - 0.415	0.029	A
Copper	0.475	0.510	A		-6.9	0.357 - 0.663	0.048	A
Lead	0.205	0.192	A		6.8	0.134 - 0.250	0.021	A
Mercury	0.0640	0.0636	A		0.6	0.0445 - 0.0827	0.0064	A
Nickel	0.180	0.193	A		-6.7	0.135 - 0.251	0.036	W
Selenium	0.388	0.390	A		-0.5	0.273 - 0.507	0.039	A
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	0.256	0.254	A		0.8	0.178 - 0.330	0.026	A
Uranium-235	0.000315	3.17E-04	A		-0.6	2.22E-4 - 4.12E-4	0.000063	W
Uranium-238	0.0442	0.0441	A		0.2	0.0309 - 0.0573	0.0044	A
Uranium-Total	0.0445	0.0444	A		0.2	0.0311 - 0.0577	0.0045	A
Vanadium	0.499	0.445	A		12.1	0.312 - 0.579	0.050	A
Zinc	0.568	0.592	A		-4.1	0.414 - 0.770	0.057	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.455	0.559	A		-18.6	0.391 - 0.727	0.032	A
Cesium-134	0.31		A			False Positive Test	0.31	
Cesium-137	6.69	6.9	A		-3.0	4.8 - 9.0	0.20	A
Cobalt-57	29.65	30.9	A		-4.0	21.6 - 40.2	0.56	N
Cobalt-58	36.50	37.7	A		-3.2	26.4 - 49.0	0.79	A
Cobalt-60	0.18	0.29	A			Sensitivity Evaluation	0.05	
Hydrogen-3	196	191	A		2.6	134 - 248	12	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.28		A			False Positive Test	0.28	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	0.012	0.0081	A	(17)		Sensitivity Evaluation	0.006	
Plutonium-239/240	0.557	0.569	A		-2.1	0.398 - 0.740	0.032	A
Potassium-40	31.7	30.3	A		4.6	21.2 - 39.4	1.5	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	2.44	2.82	A		-13.5	1.97 - 3.67	0.19	A
Technetium-99	6.50	6.34	A		2.5	4.44 - 8.24	0.48	A
Uranium-234	0.492	0.535	A		-8.0	0.375 - 0.696	0.030	A
Uranium-238	0.525	0.548	A		-4.2	0.384 - 0.712	0.031	A
Zinc-65	27.45	26.7	A		2.8	18.7 - 34.7	0.66	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(MDPH01) MDPH-Division of Radiation Control
MERL-Room 0066
Jamaica Plain, MA 02130-3597

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.53	0.559	A		-5.2	0.391 - 0.727	0.06	A
Cesium-134	NR		N	(11)		False Positive Test		
Cesium-137	6.89	6.9	A		-0.1	4.8 - 9.0	0.22	A
Cobalt-57	30.91	30.9	A		0.0	21.6 - 40.2	1.18	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.24	0.29	A			Sensitivity Evaluation	0.05	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR		N	(11)		False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	NR	30.3	N	(25)		21.2 - 39.4		
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	28.42	26.7	A		6.4	18.7 - 34.7	0.79	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52

(MNDH01) Minnesota Department of Health, Public Health Lab. Division

601 Robert St. N.

St. Paul, MN 55155

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	-0.105		A			False Positive Test	0.084	
Cesium-137	7.103	6.9	A		2.9	4.8 - 9.0	0.131	N
Cobalt-57	32.25	30.9	A		4.4	21.6 - 40.2	0.168	N
Cobalt-58	40.265	37.7	A		6.8	26.4 - 49.0	0.364	N
Cobalt-60	0.300	0.29	A			Sensitivity Evaluation	0.042	
Hydrogen-3	178.21	191	A		-6.7	134 - 248	14.08	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	-0.006		A			False Positive Test	0.076	
Nickel-63	NR	38.9	N	(28)		27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	34.648	30.3	A		14.4	21.2 - 39.4	1.363	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	2.41	2.82	A		-14.5	1.97 - 3.67	0.069	A
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	30.437	26.7	A		14.0	18.7 - 34.7	0.413	N

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| ≤ 20%

W = Result acceptable with warning.....20% < |Bias| ≤ 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(NARL01) National Analytical Radiation Environmental Laboratory
540 S. Morris Ave.
Montgomery, AL 36115-2601

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.438	0.559	W		-21.6	0.391 - 0.727	0.0323	A
Cesium-134	-0.107		A			False Positive Test	0.0997	
Cesium-137	6.99	6.9	A		1.3	4.8 - 9.0	0.407	A
Cobalt-57	31.5	30.9	A		1.9	21.6 - 40.2	1.76	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.334	0.29	A			Sensitivity Evaluation	0.0398	
Hydrogen-3	189	191	A		-1.0	134 - 248	5.77	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	-0.0874		A			False Positive Test	0.0856	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	0.0026	0.0081	A	(17)		Sensitivity Evaluation	0.00274	
Plutonium-239/240	0.532	0.569	A		-6.5	0.398 - 0.740	0.0342	A
Potassium-40	29.8	30.3	A		-1.7	21.2 - 39.4	1.95	A
Radium-226	0.442	0.437	A		1.1	0.306 - 0.568	0.0263	A
Strontium-90	2.56	2.82	A		-9.2	1.97 - 3.67	0.0735	A
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	0.516	0.535	A		-3.6	0.375 - 0.696	0.0349	A
Uranium-238	0.509	0.548	A		-7.1	0.384 - 0.712	0.0345	A
Zinc-65	27.1	26.7	A		1.5	18.7 - 34.7	1.53	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(NESI01) BWXT-Radioisotope & Analytical Chemistry Laboratory
Lynchburg Technology Center
Lynchburg, VA 24504-5447

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	0.0612	0.0636	A		-3.8	0.0445 - 0.0827	0.004	A
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.510	0.559	A		-8.8	0.391 - 0.727	0.027	A
Cesium-134	-0.183		A			False Positive Test	0.245	
Cesium-137	7.01	6.9	A		1.6	4.8 - 9.0	0.293	A
Cobalt-57	32.1	30.9	A		3.9	21.6 - 40.2	0.763	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.478	0.29	A			Sensitivity Evaluation	0.144	
Hydrogen-3	246	191	W		28.8	134 - 248	14.2	A
Iron-55	23.7	25.5	A		-7.1	17.9 - 33.2	1.78	A
Manganese-54	-0.203		A			False Positive Test	0.218	
Nickel-63	31.6	38.9	A		-18.8	27.2 - 50.6	2.79	A
Plutonium-238	0.010	0.0081	A	(17)		Sensitivity Evaluation	0.004	
Plutonium-239/240	0.503	0.569	A		-11.6	0.398 - 0.740	0.026	A
Potassium-40	32.2	30.3	A		6.3	21.2 - 39.4	3.27	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	2.65	2.82	A		-6.0	1.97 - 3.67	0.195	A
Technetium-99	5.73	6.34	A		-9.6	4.44 - 8.24	0.206	A
Uranium-234	0.524	0.535	A		-2.1	0.375 - 0.696	0.027	A
Uranium-238	0.506	0.548	A		-7.7	0.384 - 0.712	0.027	A
Zinc-65	27.3	26.7	A		2.2	18.7 - 34.7	1.05	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(NJDH01) New Jersey Dept. of Health, ECLS
3 Schwarzkopf Drive
Ewing, NJ 08628

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	-0.099		A			False Positive Test	0.25	
Cesium-137	6.12	6.9	A		-11.3	4.8 - 9.0	0.53	A
Cobalt-57	30.1	30.9	A		-2.6	21.6 - 40.2	1.07	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	-0.231	0.29	A	(17)		Sensitivity Evaluation	0.31	
Hydrogen-3	219	191	A		14.7	134 - 248	17	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.11		A			False Positive Test	0.23	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	27.4	30.3	A		-9.6	21.2 - 39.4	5.79	W
Radium-226	0.439	0.437	A		0.5	0.306 - 0.568	0.13	W
Strontium-90	3.17	2.82	A		12.4	1.97 - 3.67	0.28	A
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	27.1	26.7	A		1.5	18.7 - 34.7	1.6	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% ≤ RP ≤ 15%

ACCEPTABLE WITH WARNING.....15% < RP ≤ 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(NRLL99) Environmental Radioactivity - National Centre for Radiation Science
PO Box 29181
Christchurch, Christchurch 8540

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.566	0.559	A		1.3	0.391 - 0.727	0.040	A
Cesium-134	0.161		A			False Positive Test	0.080	
Cesium-137	6.41	6.9	A		-7.1	4.8 - 9.0	0.27	A
Cobalt-57	30.2	30.9	A		-2.3	21.6 - 40.2	1.4	A
Cobalt-58	35.0	37.7	A		-7.2	26.4 - 49.0	1.5	A
Cobalt-60	0.310	0.29	A			Sensitivity Evaluation	0.031	
Hydrogen-3	208.6	191	A		9.2	134 - 248	4.8	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.125		A			False Positive Test	0.061	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	0.0070	0.0081	A	(17)		Sensitivity Evaluation	0.0025	
Plutonium-239/240	0.546	0.569	A		-4.0	0.398 - 0.740	0.025	A
Potassium-40	27.5	30.3	A		-9.2	21.2 - 39.4	1.4	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	2.96	2.82	A		5.0	1.97 - 3.67	0.18	A
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	0.544	0.535	A		1.7	0.375 - 0.696	0.025	A
Uranium-238	0.553	0.548	A		0.9	0.384 - 0.712	0.025	A
Zinc-65	25.3	26.7	A		-5.2	18.7 - 34.7	1.1	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| ≤ 20%

W = Result acceptable with warning.....20% < |Bias| ≤ 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(ODHL01) Ohio Department of Health Laboratory
8995 E Main Street
Reynoldsburg, OH 43068

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	-0.0297		A			False Positive Test	0.0499	
Cesium-137	7.18	6.9	A		4.1	4.8 - 9.0	0.533	A
Cobalt-57	31.3	30.9	A		1.3	21.6 - 40.2	2.27	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.245	0.29	A			Sensitivity Evaluation	0.0797	
Hydrogen-3	167.63	191	A		-12.2	134 - 248	6.24	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	-0.0745		A			False Positive Test	0.121	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	31.6	30.3	A		4.3	21.2 - 39.4	2.67	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	26.7	26.7	A		0.0	18.7 - 34.7	1.49	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(OTLI01) Pace Analytical National Center for Testing & Innovation
12065 Lebanon Road
Mt. Juliet, TN 37122

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	0.426	0.383	A		11.2	0.268 - 0.498	.005	N
Arsenic	.236	0.228	A		3.5	0.160 - 0.296	.001	N
Barium	.064	0.0604	A		6.0	0.0423 - 0.0785	.005	A
Beryllium	0.418	0.449	A		-6.9	0.314 - 0.584	.005	N
Cadmium	.304	0.301	A		1.0	0.211 - 0.391	.001	N
Chromium	0.322	0.324	A		-0.6	0.227 - 0.421	.02	A
Cobalt	0.318	0.319	A		-0.3	0.223 - 0.415	.002	N
Copper	.485	0.510	A		-4.9	0.357 - 0.663	.001	N
Lead	.186	0.192	A		-3.1	0.134 - 0.250	.002	N
Mercury	.082	0.0636	W		28.9	0.0445 - 0.0827	.002	A
Nickel	.193	0.193	A		0.0	0.135 - 0.251	.002	N
Selenium	.403	0.390	A		3.3	0.273 - 0.507	.002	N
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	.252	0.254	A		-0.8	0.178 - 0.330	.001	N
Uranium-235	.00032	3.17E-04	A		0.9	2.22E-4 - 4.12E-4	.00001	A
Uranium-238	.044	0.0441	A		-0.2	0.0309 - 0.0573	.001	A
Uranium-Total	.041	0.0444	A		-7.7	0.0311 - 0.0577	.001	A
Vanadium	.454	0.445	A		2.0	0.312 - 0.579	.005	N
Zinc	.549	0.592	A		-7.3	0.414 - 0.770	.02	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.419	0.559	W		-25.0	0.391 - 0.727	0.060	A
Cesium-134	-.1		A			False Positive Test	0.15	
Cesium-137	7.4	6.9	A		7.2	4.8 - 9.0	0.63	A
Cobalt-57	31.1	30.9	A		0.6	21.6 - 40.2	2.03	A
Cobalt-58	39.9	37.7	A		5.8	26.4 - 49.0	2.77	A
Cobalt-60	0.2	0.29	A	(17)		Sensitivity Evaluation	0.14	
Hydrogen-3	181	191	A		-5.2	134 - 248	12.1	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.023		A			False Positive Test	0.2	
Nickel-63	39.5	38.9	A		1.5	27.2 - 50.6	1.02	A
Plutonium-238	0.03	0.0081	A	(17)		Sensitivity Evaluation	0.018	
Plutonium-239/240	0.552	0.569	A		-3.0	0.398 - 0.740	0.062	A
Potassium-40	29.5	30.3	A		-2.6	21.2 - 39.4	3.85	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	2.67	2.82	A		-5.3	1.97 - 3.67	0.099	A
Technetium-99	6.05	6.34	A		-4.6	4.44 - 8.24	0.439	A
Uranium-234	.528	0.535	A		-1.3	0.375 - 0.696	.061	A
Uranium-238	.509	0.548	A		-7.1	0.384 - 0.712	.060	A
Zinc-65	29.3	26.7	A		9.7	18.7 - 34.7	2.17	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(QUAN01) Eurofins St. Louis
13715 Rider Trail North
Earth City, MO 63045-1205

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR					False Positive Test		
Cesium-137	NR	6.9				4.8 - 9.0		
Cobalt-57	NR	30.9				21.6 - 40.2		
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	NR	0.29				Sensitivity Evaluation		
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR					False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	NR	30.3				21.2 - 39.4		
Radium-226	0.407	0.437	A		-6.9	0.306 - 0.568	0.0254	A
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	NR	26.7				18.7 - 34.7		

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| ≤ 20%

W = Result acceptable with warning.....20% < |Bias| ≤ 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52

(RJLG01) RJ Lee Group - Columbia Basin Analytical Laboratories (CBAL)

2710 North 20th Avenue

Pasco, WA 99301

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	0.398	0.383	A		3.9	0.268 - 0.498	0.128	N
Arsenic	0.214	0.228	A		-6.1	0.160 - 0.296	0.249	N
Barium	0.066	0.0604	A		9.3	0.0423 - 0.0785	0.590	N
Beryllium	0.433	0.449	A		-3.6	0.314 - 0.584	0.072	W
Cadmium	0.296	0.301	A		-1.7	0.211 - 0.391	0.771	N
Chromium	0.318	0.324	A		-1.9	0.227 - 0.421	0.184	N
Cobalt	0.313	0.319	A		-1.9	0.223 - 0.415	0.16	N
Copper	0.479	0.510	A		-6.1	0.357 - 0.663	0.487	N
Lead	0.193	0.192	A		0.5	0.134 - 0.250	2.28	N
Mercury	0.070	0.0636	A		10.1	0.0445 - 0.0827	0.032	N
Nickel	0.185	0.193	A		-4.1	0.135 - 0.251	0.217	N
Selenium	0.365	0.390	A		-6.4	0.273 - 0.507	0.703	N
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	0.258	0.254	A		1.6	0.178 - 0.330	1.51	N
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	0.046	0.0444	A		3.6	0.0311 - 0.0577	0.089	N
Vanadium	0.458	0.445	A		2.9	0.312 - 0.579	0.616	N
Zinc	0.531	0.592	A		-10.3	0.414 - 0.770	0.667	N

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR					False Positive Test		
Cesium-137	NR	6.9				4.8 - 9.0		
Cobalt-57	NR	30.9				21.6 - 40.2		
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	NR	0.29				Sensitivity Evaluation		
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR					False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	NR	30.3				21.2 - 39.4		
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	NR	26.7				18.7 - 34.7		

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(RPSC01) Radiation Protection Service

O. Ministry of Labour, Immigration, Training & Skills Development
Mississauga, Ontario L4V 1W8

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	-0.149		A			False Positive Test	0.234	
Cesium-137	6.61	6.9	A		-4.2	4.8 - 9.0	0.296	A
Cobalt-57	31.2	30.9	A		1.0	21.6 - 40.2	0.957	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.258	0.29	A			Sensitivity Evaluation	0.0464	
Hydrogen-3	212.2	191	A		11.1	134 - 248	43.1	W
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.055		A			False Positive Test	0.194	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	28.7	30.3	A		-5.3	21.2 - 39.4	1.86	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	26.2	26.7	A		-1.9	18.7 - 34.7	1.02	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(SAVA01) Battelle Savannah River Alliance
SRNL (non-purchased material receipt)
AIKEN, SC 29808-0000

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	0.344	0.383	A		-10.2	0.268 - 0.498	0.034	A
Arsenic	0.225	0.228	A		-1.3	0.160 - 0.296	0.023	A
Barium	0.0591	0.0604	A		-2.2	0.0423 - 0.0785	0.0059	A
Beryllium	0.419	0.449	A		-6.7	0.314 - 0.584	0.021	A
Cadmium	0.275	0.301	A		-8.6	0.211 - 0.391	0.028	A
Chromium	0.290	0.324	A		-10.5	0.227 - 0.421	0.015	A
Cobalt	0.272	0.319	A		-14.7	0.223 - 0.415	0.014	A
Copper	0.467	0.510	A		-8.4	0.357 - 0.663	0.023	A
Lead	0.178	0.192	A		-7.3	0.134 - 0.250	0.018	A
Mercury	0.0716	0.0636	A		12.6	0.0445 - 0.0827	0.00716	A
Nickel	0.175	0.193	A		-9.3	0.135 - 0.251	0.009	A
Selenium	0.389	0.390	A		-0.3	0.273 - 0.507	0.039	A
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	0.244	0.254	A		-3.9	0.178 - 0.330	0.024	A
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	0.0398	0.0444	A		-10.4	0.0311 - 0.0577	0.0039	A
Vanadium	0.451	0.445	A		1.3	0.312 - 0.579	0.023	A
Zinc	0.529	0.592	A		-10.6	0.414 - 0.770	0.026	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	1.26		A			False Positive Test	0.467	
Cesium-137	6.74	6.9	A		-2.3	4.8 - 9.0	0.495	A
Cobalt-57	29.7	30.9	A		-3.9	21.6 - 40.2	0.912	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.630	0.29	A	(17)		Sensitivity Evaluation	0.265	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.182		A			False Positive Test	0.0785	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	24.3	30.3	A		-19.8	21.2 - 39.4	12.3	N
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	24.1	26.7	A		-9.7	18.7 - 34.7	1.32	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(SEML01) SRS Environmental Monitoring Laboratory
Bldg 735-B
Aiken, SC 29808

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	0.406	0.383	A		6.0	0.268 - 0.498	0.049	A
Arsenic	0.199	0.228	A		-12.7	0.160 - 0.296	0.020	A
Barium	0.0660	0.0604	A		9.3	0.0423 - 0.0785	0.0060	A
Beryllium	0.461	0.449	A		2.7	0.314 - 0.584	0.037	A
Cadmium	0.323	0.301	A		7.3	0.211 - 0.391	0.036	A
Chromium	0.364	0.324	A		12.3	0.227 - 0.421	0.036	A
Cobalt	0.339	0.319	A		6.3	0.223 - 0.415	0.030	A
Copper	0.559	0.510	A		9.6	0.357 - 0.663	0.056	A
Lead	0.201	0.192	A		4.7	0.134 - 0.250	0.019	A
Mercury	0.0691	0.0636	A		8.6	0.0445 - 0.0827	0.0069	A
Nickel	0.203	0.193	A		5.2	0.135 - 0.251	0.020	A
Selenium	0.364	0.390	A		-6.7	0.273 - 0.507	0.047	A
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	0.268	0.254	A		5.5	0.178 - 0.330	0.027	A
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	0.498	0.445	A		11.9	0.312 - 0.579	0.045	A
Zinc	0.577	0.592	A		-2.5	0.414 - 0.770	0.058	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.535	0.559	A		-4.3	0.391 - 0.727	0.03	A
Cesium-134	-0.08		A			False Positive Test	0.13	
Cesium-137	6.89	6.9	A		-0.1	4.8 - 9.0	0.62	A
Cobalt-57	31.2	30.9	A		1.0	21.6 - 40.2	2.2	A
Cobalt-58	37.6	37.7	A		-0.3	26.4 - 49.0	3.4	A
Cobalt-60	0.28	0.29	A	(17)		Sensitivity Evaluation	0.13	
Hydrogen-3	196	191	A		2.6	134 - 248	29	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.29		A			False Positive Test	0.19	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	0.0146	0.0081	A	(17)		Sensitivity Evaluation	0.0052	
Plutonium-239/240	0.560	0.569	A		-1.6	0.398 - 0.740	0.033	A
Potassium-40	31.3	30.3	A		3.3	21.2 - 39.4	3.4	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	2.94	2.82	A		4.3	1.97 - 3.67	0.24	A
Technetium-99	6.48	6.34	A		2.2	4.44 - 8.24	0.34	A
Uranium-234	0.570	0.535	A		6.5	0.375 - 0.696	0.036	A
Uranium-238	0.619	0.548	A		13.0	0.384 - 0.712	0.037	A
Zinc-65	27.4	26.7	A		2.6	18.7 - 34.7	2.3	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(SLAC01) SLAC DOE National Accelerator Laboratory
2575 Sand Hill Road
Menlo Park, CA 94025

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	0.33		A			False Positive Test	0.33	
Cesium-137	6.41	6.9	A		-7.1	4.8 - 9.0	0.64	A
Cobalt-57	27.12	30.9	A		-12.2	21.6 - 40.2	2.71	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.23	0.29	A	(17)		Sensitivity Evaluation	0.23	
Hydrogen-3	187	191	A		-2.1	134 - 248	18.73	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.24		A			False Positive Test	0.24	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	25.27	30.3	A		-16.6	21.2 - 39.4	2.53	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	24.87	26.7	A		-6.9	18.7 - 34.7	2.49	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| ≤ 20%

W = Result acceptable with warning.....20% < |Bias| ≤ 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(SOUT01) Southwest Research Institute
6220 Culebra Rd.
San Antonio, TX 78238-5166

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	0.000294	3.17E-04	A		-7.3	2.22E-4 - 4.12E-4	0.0000743	W
Uranium-238	0.0440	0.0441	A		-0.2	0.0309 - 0.0573	0.00706	W
Uranium-Total	0.0443	0.0444	A		-0.2	0.0311 - 0.0577	0.00710	W
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.578	0.559	A		3.4	0.391 - 0.727	0.0504	A
Cesium-134	0.411		A			False Positive Test	0.287	
Cesium-137	6.89	6.9	A		-0.1	4.8 - 9.0	0.328	A
Cobalt-57	29.8	30.9	A		-3.6	21.6 - 40.2	0.600	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.181	0.29	A	(17)		Sensitivity Evaluation	0.216	
Hydrogen-3	174	191	A		-8.9	134 - 248	11.2	A
Iron-55	26.5	25.5	A		3.9	17.9 - 33.2	2.27	A
Manganese-54	-0.0246		A			False Positive Test	0.296	
Nickel-63	40.0	38.9	A		2.8	27.2 - 50.6	2.35	A
Plutonium-238	0.0111	0.0081	A			Sensitivity Evaluation	0.00324	
Plutonium-239/240	0.556	0.569	A		-2.3	0.398 - 0.740	0.0404	A
Potassium-40	33.0	30.3	A		8.9	21.2 - 39.4	0.273	N
Radium-226	0.280	0.437	N		-35.9	0.306 - 0.568	0.0254	A
Strontium-90	2.42	2.82	A		-14.2	1.97 - 3.67	0.202	A
Technetium-99	5.44	6.34	A		-14.2	4.44 - 8.24	0.335	A
Uranium-234	0.541	0.535	A		1.1	0.375 - 0.696	0.0407	A
Uranium-238	0.581	0.548	A		6.0	0.384 - 0.712	0.0433	A
Zinc-65	27.0	26.7	A		1.1	18.7 - 34.7	1.13	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52

(SRPD01) Sandia National Laboratories, Radiation Protection Sample Diagnostics

PO Box 5800, MS1103

Albuquerque, NM 87185-1103

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	-4.68E-01		A			False Positive Test	2.93E-01	
Cesium-137	6.41E+00	6.9	A		-7.1	4.8 - 9.0	4.83E-01	A
Cobalt-57	2.57E+01	30.9	A		-16.8	21.6 - 40.2	2.60E+00	A
Cobalt-58	3.17E+01	37.7	A		-15.9	26.4 - 49.0	1.82E+00	A
Cobalt-60	-4.22E-02	0.29	A	(17)		Sensitivity Evaluation	1.74E-01	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	2.10E-02		A			False Positive Test	2.08E-01	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	2.44E+01	30.3	A		-19.5	21.2 - 39.4	2.40E+00	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	2.15E+01	26.7	A		-19.5	18.7 - 34.7	1.14E+00	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(STRL01) South Texas Project Radiological Laboratory
12090 FM 521
Wadsworth, Texas 77483

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR		N	(11)		False Positive Test		
Cesium-137	7.42	6.9	A		7.5	4.8 - 9.0	0.50	A
Cobalt-57	31.2	30.9	A		1.0	21.6 - 40.2	0.75	A
Cobalt-58	37.06	37.7	A		-1.7	26.4 - 49.0	1.1	A
Cobalt-60	NR	0.29	N	(18)		Sensitivity Evaluation		
Hydrogen-3	198	191	A		3.7	134 - 248	4.3	A
Iron-55	NR	25.5	N	(28)		17.9 - 33.2		
Manganese-54	NR		N	(11)		False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	NR	30.3	N	(25)		21.2 - 39.4		
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	2.705	2.82	A		-4.1	1.97 - 3.67	0.15	A
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	28.8	26.7	A		7.9	18.7 - 34.7	1.5	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(TDHL01) Texas Department of State Health Services Laboratory
1100 W 49th Street
Austin, TX 78756

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.491	0.559	A		-12.2	0.391 - 0.727	0.025	A
Cesium-134	-0.27		A			False Positive Test	0.36	
Cesium-137	7.02	6.9	A		1.7	4.8 - 9.0	0.26	A
Cobalt-57	30.53	30.9	A		-1.2	21.6 - 40.2	0.61	N
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.37	0.29	A	(17)		Sensitivity Evaluation	0.53	
Hydrogen-3	191	191	A		0.0	134 - 248	12	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.13		A			False Positive Test	0.11	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	0.0040	0.0081	A	(17)		Sensitivity Evaluation	0.0043	
Plutonium-239/240	0.490	0.569	A		-13.9	0.398 - 0.740	0.063	A
Potassium-40	30.2	30.3	A		-0.3	21.2 - 39.4	1.5	A
Radium-226	0.403	0.437	A		-7.8	0.306 - 0.568	0.018	A
Strontium-90	NR	2.82	N	(28)		1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	0.091	0.535	N		-83.0	0.375 - 0.696	0.016	W
Uranium-238	0.429	0.548	W		-21.7	0.384 - 0.712	0.046	A
Zinc-65	28.69	26.7	A		7.5	18.7 - 34.7	0.81	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(TELE01) Teledyne Brown Engineering - Environmental Services
2508 Quality Lane
Knoxville, TN 37931-6819

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR					False Positive Test		
Cesium-137	NR	6.9				4.8 - 9.0		
Cobalt-57	NR	30.9				21.6 - 40.2		
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	NR	0.29				Sensitivity Evaluation		
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR					False Positive Test		
Nickel-63	37.3	38.9	A		-4.1	27.2 - 50.6	5.49	A
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	NR	30.3				21.2 - 39.4		
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	6.64	6.34	A		4.7	4.44 - 8.24	0.61	A
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	NR	26.7				18.7 - 34.7		

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(TELE02) Microbac Laboratories Inc. - Northbrook
700 Landwehr Road
Northbrook, IL 60062-

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	-0.023		A			False Positive Test	0.098	
Cesium-137	7.3	6.9	A		5.8	4.8 - 9.0	0.3	A
Cobalt-57	32.1	30.9	A		3.9	21.6 - 40.2	0.4	N
Cobalt-58	38.6	37.7	A		2.4	26.4 - 49.0	0.7	N
Cobalt-60	0.31	0.29	A			Sensitivity Evaluation	0.07	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.02		A			False Positive Test	0.07	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	32.4	30.3	A		6.9	21.2 - 39.4	2.3	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	26.3	26.7	A		-1.5	18.7 - 34.7	0.8	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| ≤ 20%

W = Result acceptable with warning.....20% < |Bias| ≤ 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(TMAO01) EBERLINE Analytical Corporation
601 A SCARBORO RD
OAK RIDGE, TN 37830-

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.55	0.559	A		-1.6	0.391 - 0.727	0.11	W
Cesium-134	-0.10		A			False Positive Test	0.58	
Cesium-137	5.79	6.9	A		-16.1	4.8 - 9.0	1.04	W
Cobalt-57	28.33	30.9	A		-8.3	21.6 - 40.2	2.36	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.40	0.29	A	(17)		Sensitivity Evaluation	0.42	
Hydrogen-3	237.32	191	W		24.3	134 - 248	16.28	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	-0.055		A			False Positive Test	0.46	
Nickel-63	11.73	38.9	N		-69.8	27.2 - 50.6	0.37	A
Plutonium-238	0.023	0.0081	A	(17)		Sensitivity Evaluation	0.018	
Plutonium-239/240	0.54	0.569	A		-5.1	0.398 - 0.740	0.11	W
Potassium-40	27.65	30.3	A		-8.7	21.2 - 39.4	7.49	W
Radium-226	0.39	0.437	A		-10.8	0.306 - 0.568	0.088	W
Strontium-90	0.32	2.82	N		-88.7	1.97 - 3.67	0.059	W
Technetium-99	4.23	6.34	N		-33.3	4.44 - 8.24	0.87	W
Uranium-234	0.53	0.535	A		-0.9	0.375 - 0.696	0.10	W
Uranium-238	0.53	0.548	A		-3.3	0.384 - 0.712	0.10	W
Zinc-65	24.37	26.7	A		-8.7	18.7 - 34.7	3.78	W

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(TNUT01) St. Louis USACE FUSRAP Laboratory
112 James S McDonnell Blvd
HAZELWOOD, MO 63042

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.512	0.559	A		-8.4	0.391 - 0.727	0.101	W
Cesium-134	-0.103		A			False Positive Test	0.063	
Cesium-137	7.02	6.9	A		1.7	4.8 - 9.0	0.218	A
Cobalt-57	31.3	30.9	A		1.3	21.6 - 40.2	0.565	N
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.241	0.29	A			Sensitivity Evaluation	0.027	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	-0.025		A			False Positive Test	0.057	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	34.0	30.3	A		12.2	21.2 - 39.4	1.37	A
Radium-226	0.420	0.437	A		-3.9	0.306 - 0.568	0.049	A
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	0.548	0.535	A		2.4	0.375 - 0.696	0.048	A
Uranium-238	0.504	0.548	A		-8.0	0.384 - 0.712	0.045	A
Zinc-65	29.9	26.7	A		12.0	18.7 - 34.7	0.973	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52

(UNTE01) UniTech-235
178 Aldo Drive
Barnwell, SC 29812

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	0.2		A			False Positive Test	0.32	
Cesium-137	7.75	6.9	A		12.3	4.8 - 9.0	1.10	A
Cobalt-57	30.67	30.9	A		-0.7	21.6 - 40.2	2.05	A
Cobalt-58	37.85	37.7	A		0.4	26.4 - 49.0	3.05	A
Cobalt-60	0.1	0.29	A	(17)		Sensitivity Evaluation	0.37	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.02		A			False Positive Test	0.03	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	40.66	30.3	N		34.2	21.2 - 39.4	4.08	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	31.60	26.7	A		18.4	18.7 - 34.7	3.38	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(WEST04) PACE ANALYTICAL SERVICES, GREENSBURG
1638 Roseytown Road
Greensburg, PA 15601

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR					False Positive Test		
Cesium-137	NR	6.9				4.8 - 9.0		
Cobalt-57	NR	30.9				21.6 - 40.2		
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	NR	0.29				Sensitivity Evaluation		
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR					False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	NR	30.3				21.2 - 39.4		
Radium-226	0.2731	0.437	N		-37.5	0.306 - 0.568	0.0455	W
Strontium-90	2.3495	2.82	A		-16.7	1.97 - 3.67	0.3959	W
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	NR	26.7				18.7 - 34.7		

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(WIP01) WI, DPH, Radiation Protection Section
1 West Wilson Street
Madison, WI 53703

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.2868	0.559	N		-48.7	0.391 - 0.727	0.37179	N
Cesium-134	6.0623		A			False Positive Test	4.3383	
Cesium-137	6.7367	6.9	A		-2.4	4.8 - 9.0	0.4359	A
Cobalt-57	30.4757	30.9	A		-1.4	21.6 - 40.2	2.2132	A
Cobalt-58	35.5540	37.7	A		-5.7	26.4 - 49.0	1.9605	A
Cobalt-60	0.2588	0.29	A			Sensitivity Evaluation	0.0689	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.1198		A			False Positive Test	0.1053	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	30.8100	30.3	A		1.7	21.2 - 39.4	1.8559	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	24.9967	26.7	A		-6.4	18.7 - 34.7	1.1309	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| ≤ 20%

W = Result acceptable with warning.....20% < |Bias| ≤ 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(WIPP01) WIPP Laboratories
1400 University Drive
Carlsbad, NM 88220

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	5.33E-01	0.559	A		-4.7	0.391 - 0.727	3.92E-02	A
Cesium-134	2.06E-02		A			False Positive Test	4.20E-02	
Cesium-137	5.63E+00	6.9	A		-18.4	4.8 - 9.0	1.33E-01	A
Cobalt-57	2.52E+01	30.9	A		-18.4	21.6 - 40.2	5.91E-01	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	2.52E-01	0.29	A			Sensitivity Evaluation	5.25E-02	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	-6.32E-03		A			False Positive Test	4.67E-02	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	9.04E-03	0.0081	A			Sensitivity Evaluation	2.49E-03	
Plutonium-239/240	5.23E-01	0.569	A		-8.1	0.398 - 0.740	4.17E-02	A
Potassium-40	2.47E+01	30.3	A		-18.5	21.2 - 39.4	1.17E+00	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	2.44E+00	2.82	A		-13.5	1.97 - 3.67	1.37E-01	A
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	4.82E-01	0.535	A		-9.9	0.375 - 0.696	5.26E-02	A
Uranium-238	4.98E-01	0.548	A		-9.1	0.384 - 0.712	5.43E-02	A
Zinc-65	2.16E+01	26.7	A		-19.1	18.7 - 34.7	4.12E-01	N

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(WSHL01) Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive
Madison, WI 53718

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.4847	0.559	A		-13.3	0.391 - 0.727	0.0443	A
Cesium-134	-0.153		A			False Positive Test	0.080	
Cesium-137	6.75	6.9	A		-2.2	4.8 - 9.0	0.223	A
Cobalt-57	29.3	30.9	A		-5.2	21.6 - 40.2	0.658	A
Cobalt-58	36.8	37.7	A		-2.4	26.4 - 49.0	1.46	A
Cobalt-60	0.251	0.29	A			Sensitivity Evaluation	0.026	
Hydrogen-3	197.58	191	A		3.4	134 - 248	3.87	N
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	0.0476		A			False Positive Test	0.060	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	0.01305	0.0081	A	(17)		Sensitivity Evaluation	0.0125	
Plutonium-239/240	0.572	0.569	A		0.5	0.398 - 0.740	0.0484	A
Potassium-40	30.5	30.3	A		0.7	21.2 - 39.4	2.75	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	2.53	2.82	A		-10.3	1.97 - 3.67	0.0487	N
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	0.5400	0.535	A		0.9	0.375 - 0.696	0.0432	A
Uranium-238	0.4909	0.548	A		-10.4	0.384 - 0.712	0.0399	A
Zinc-65	27.7	26.7	A		3.7	18.7 - 34.7	2.24	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(WSTP99) Cavendish Nuclear Limited
Greson Court
Cumbria, UK CA24 3HZ

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	0.0003120	3.17E-04	A		-1.6	2.22E-4 - 4.12E-4	0.0000097	A
Uranium-238	0.0441	0.0441	A		0.0	0.0309 - 0.0573	0.0014	A
Uranium-Total	0.0466	0.0444	A		5.0	0.0311 - 0.0577	0.0015	A
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.554	0.559	A		-0.9	0.391 - 0.727	0.059	A
Cesium-134	0.09		A			False Positive Test	0.21	
Cesium-137	6.99	6.9	A		1.3	4.8 - 9.0	0.45	A
Cobalt-57	31.4	30.9	A		1.6	21.6 - 40.2	2.8	A
Cobalt-58	37.0	37.7	A		-1.9	26.4 - 49.0	1.6	A
Cobalt-60	0.05	0.29	A	(17)		Sensitivity Evaluation	0.19	
Hydrogen-3	166.1	191	A		-13.0	134 - 248	5.3	A
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	-0.07		A			False Positive Test	0.23	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	0.0054	0.0081	A	(17)		Sensitivity Evaluation	0.0047	
Plutonium-239/240	0.535	0.569	A		-6.0	0.398 - 0.740	0.051	A
Potassium-40	26.9	30.3	A		-11.2	21.2 - 39.4	4.8	W
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	2.82	2.82	A		0.0	1.97 - 3.67	0.22	A
Technetium-99	6.384	6.34	A		0.7	4.44 - 8.24	0.075	N
Uranium-234	0.534	0.535	A		-0.2	0.375 - 0.696	0.044	A
Uranium-238	0.549	0.548	A		0.2	0.384 - 0.712	0.017	A
Zinc-65	27.9	26.7	A		4.5	18.7 - 34.7	1.3	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (2) = False Negative
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (17) = NOT DETECTED - reported a statistically zero result
- (18) = Sensitivity Evaluation, Value Not Reported
- (25) = Result not reported with other gamma results
- (28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(WVDP01) WVDP Environmental Laboratory
10282 Rock Springs Road
West Valley, NY 14171

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	NR	3.17E-04				2.22E-4 - 4.12E-4		
Uranium-238	NR	0.0441				0.0309 - 0.0573		
Uranium-Total	NR	0.0444				0.0311 - 0.0577		
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	-0.0451		A			False Positive Test	0.0615	
Cesium-137	6.70	6.9	A		-2.9	4.8 - 9.0	0.252	A
Cobalt-57	29.6	30.9	A		-4.2	21.6 - 40.2	0.711	A
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	0.216	0.29	A			Sensitivity Evaluation	0.0667	
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	-0.0123		A			False Positive Test	0.0748	
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	31.1	30.3	A		2.6	21.2 - 39.4	1.95	A
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	3.21	2.82	A		13.8	1.97 - 3.67	0.266	A
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	27.1	26.7	A		1.5	18.7 - 34.7	0.917	A

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP Series 52
(YPGA01) US Army Yuma Proving Ground / Material Analysis Lab
301 C. Street
Yuma, AZ 85365

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	0.383				0.268 - 0.498		
Arsenic	NR	0.228				0.160 - 0.296		
Barium	NR	0.0604				0.0423 - 0.0785		
Beryllium	NR	0.449				0.314 - 0.584		
Cadmium	NR	0.301				0.211 - 0.391		
Chromium	NR	0.324				0.227 - 0.421		
Cobalt	NR	0.319				0.223 - 0.415		
Copper	NR	0.510				0.357 - 0.663		
Lead	NR	0.192				0.134 - 0.250		
Mercury	NR	0.0636				0.0445 - 0.0827		
Nickel	NR	0.193				0.135 - 0.251		
Selenium	NR	0.390				0.273 - 0.507		
Technetium-99	NR	1.01E-05				7.10E-6 - 1.31E-5		
Thallium	NR	0.254				0.178 - 0.330		
Uranium-235	0.00032	3.17E-04	A		0.9	2.22E-4 - 4.12E-4	0.00004	A
Uranium-238	0.0438	0.0441	A		-0.7	0.0309 - 0.0573	0.0004	N
Uranium-Total	0.0442	0.0444	A		-0.5	0.0311 - 0.0577	.0004	N
Vanadium	NR	0.445				0.312 - 0.579		
Zinc	NR	0.592				0.414 - 0.770		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR	0.559				0.391 - 0.727		
Cesium-134	NR					False Positive Test		
Cesium-137	NR	6.9				4.8 - 9.0		
Cobalt-57	NR	30.9				21.6 - 40.2		
Cobalt-58	NR	37.7				26.4 - 49.0		
Cobalt-60	NR	0.29				Sensitivity Evaluation		
Hydrogen-3	NR	191				134 - 248		
Iron-55	NR	25.5				17.9 - 33.2		
Manganese-54	NR					False Positive Test		
Nickel-63	NR	38.9				27.2 - 50.6		
Plutonium-238	NR	0.0081				Sensitivity Evaluation		
Plutonium-239/240	NR	0.569				0.398 - 0.740		
Potassium-40	NR	30.3				21.2 - 39.4		
Radium-226	NR	0.437				0.306 - 0.568		
Strontium-90	NR	2.82				1.97 - 3.67		
Technetium-99	NR	6.34				4.44 - 8.24		
Uranium-234	NR	0.535				0.375 - 0.696		
Uranium-238	NR	0.548				0.384 - 0.712		
Zinc-65	NR	26.7				18.7 - 34.7		

Results Flags:

Radiological Reference Date: February 1, 2025

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

(2) = False Negative

(4) = Sensitivity Evaluation

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

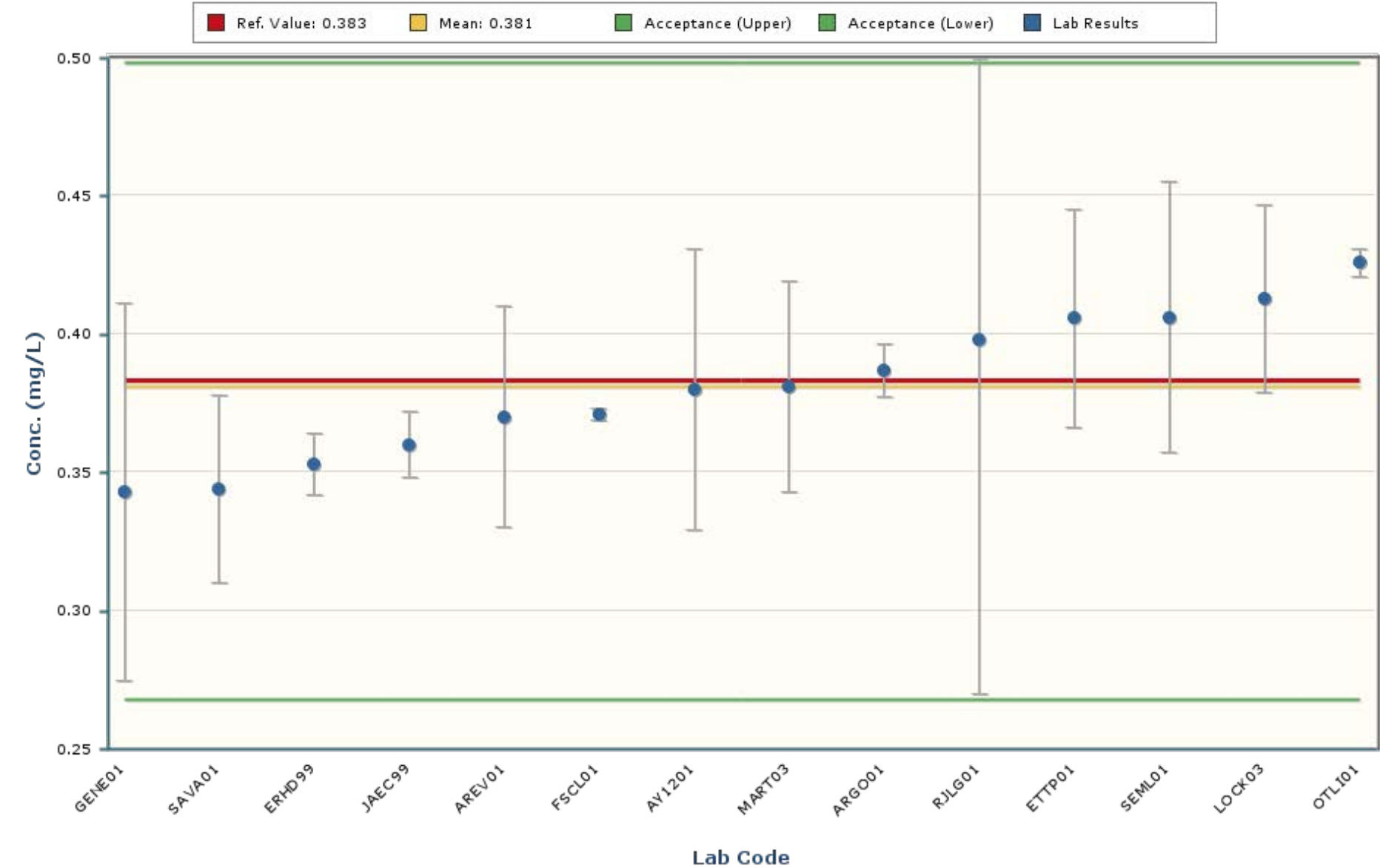
(17) = NOT DETECTED - reported a statistically zero result

(18) = Sensitivity Evaluation, Value Not Reported

(25) = Result not reported with other gamma results

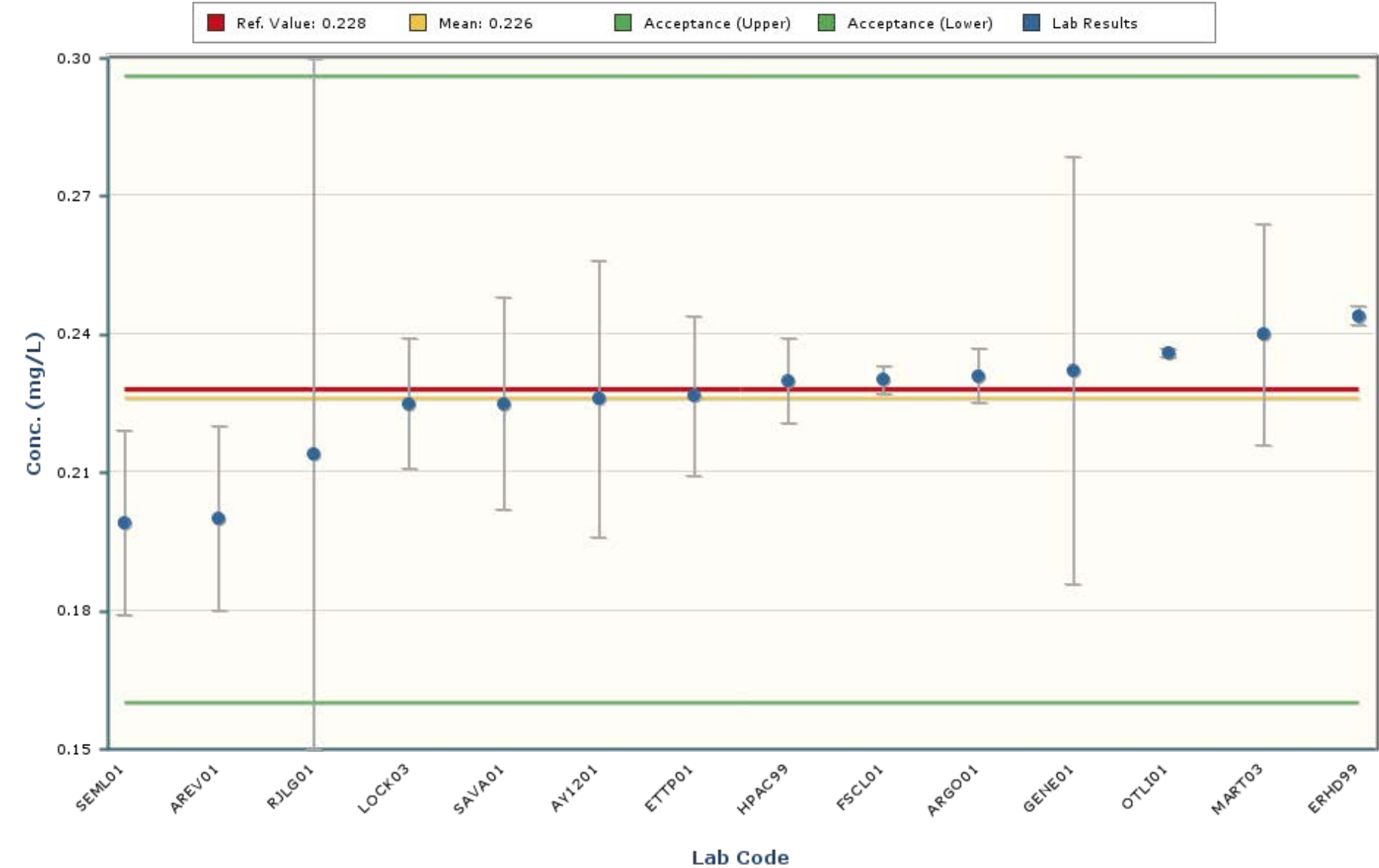
(28) = Not Reporting Previously Reported Analyte

Antimony
MAPEP-25-MaW52



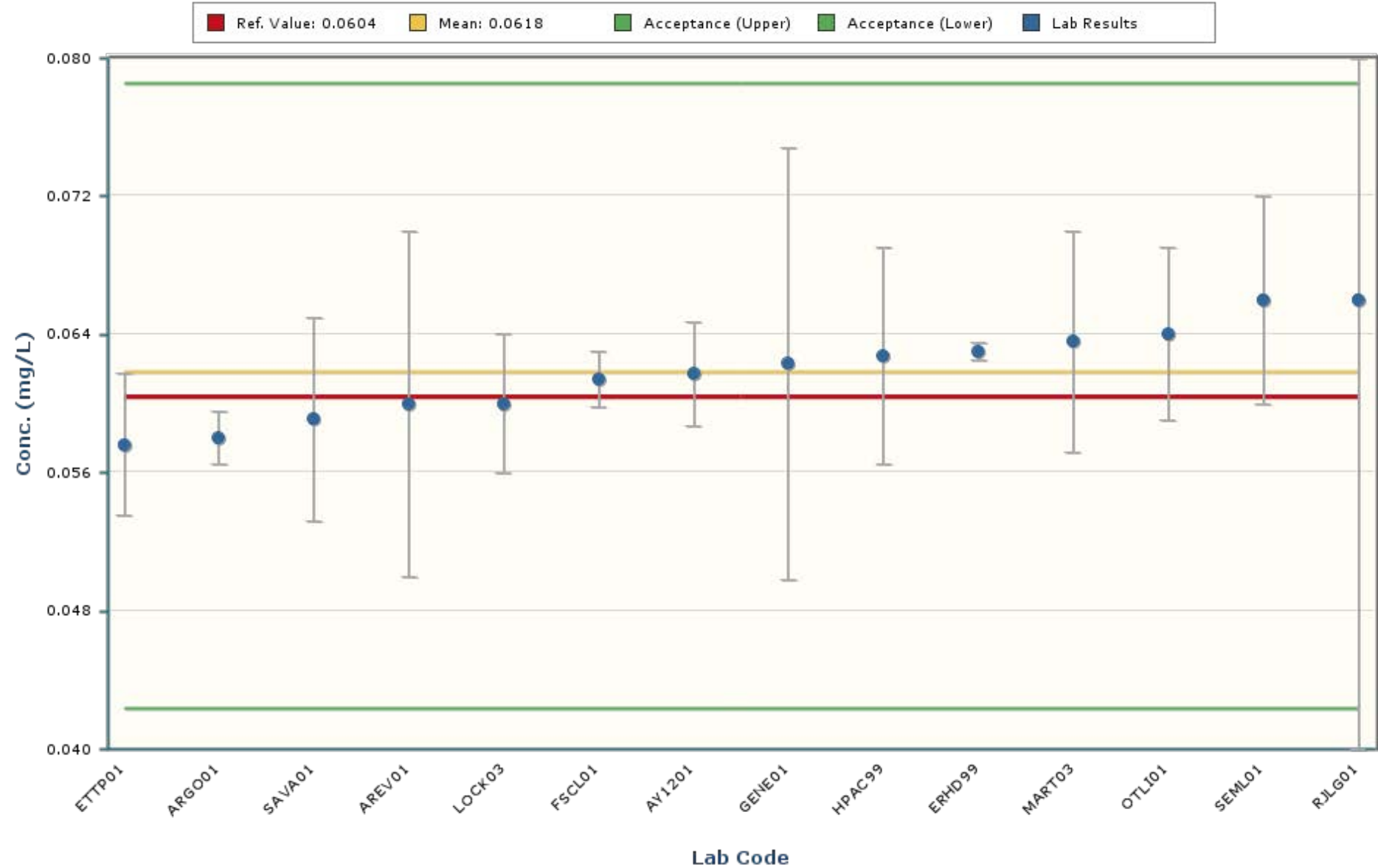
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.251 and 0.512 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Arsenic
MAPEP-25-MaW52



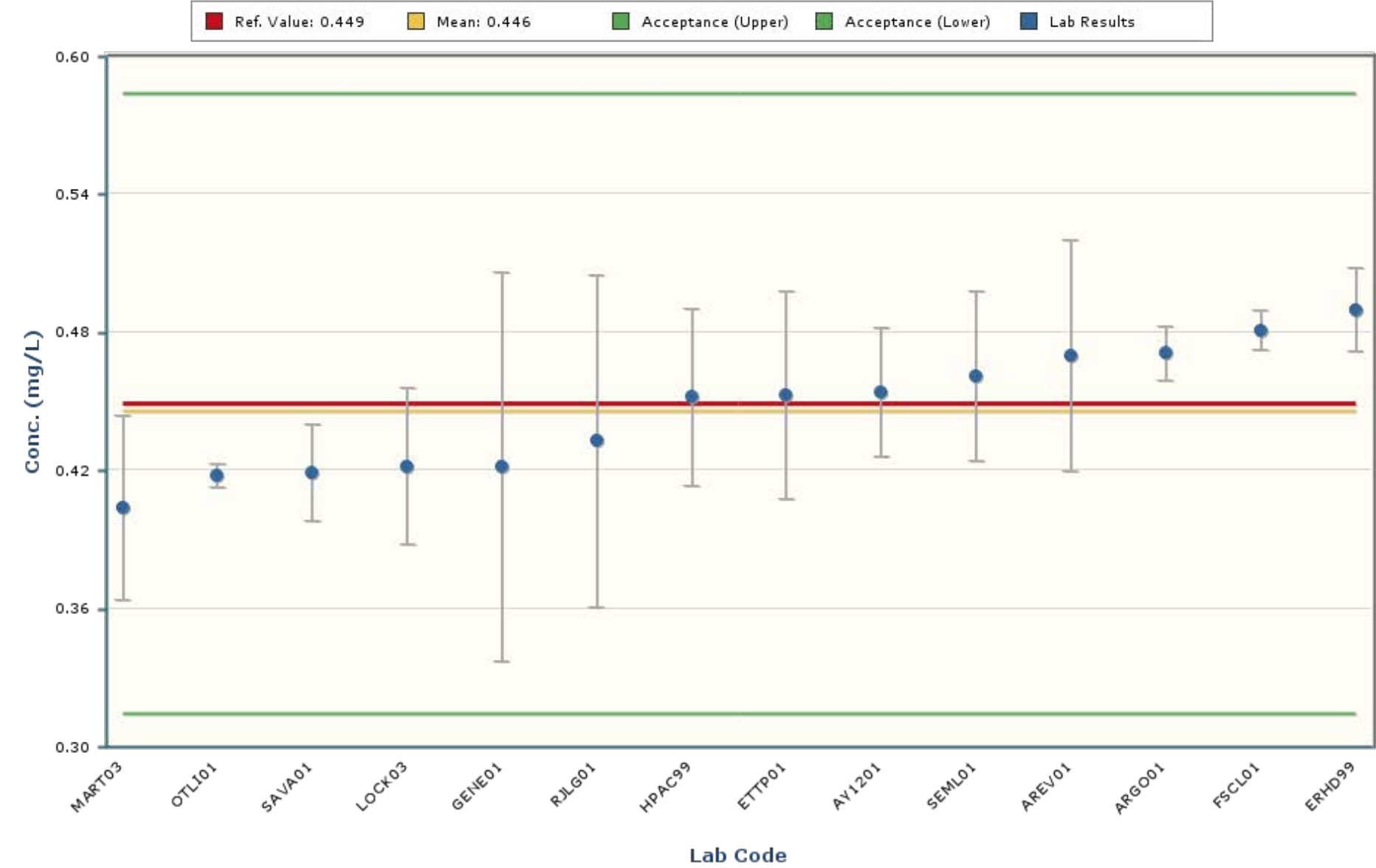
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.160 and 0.292 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Barium
MAPEP-25-MaW52



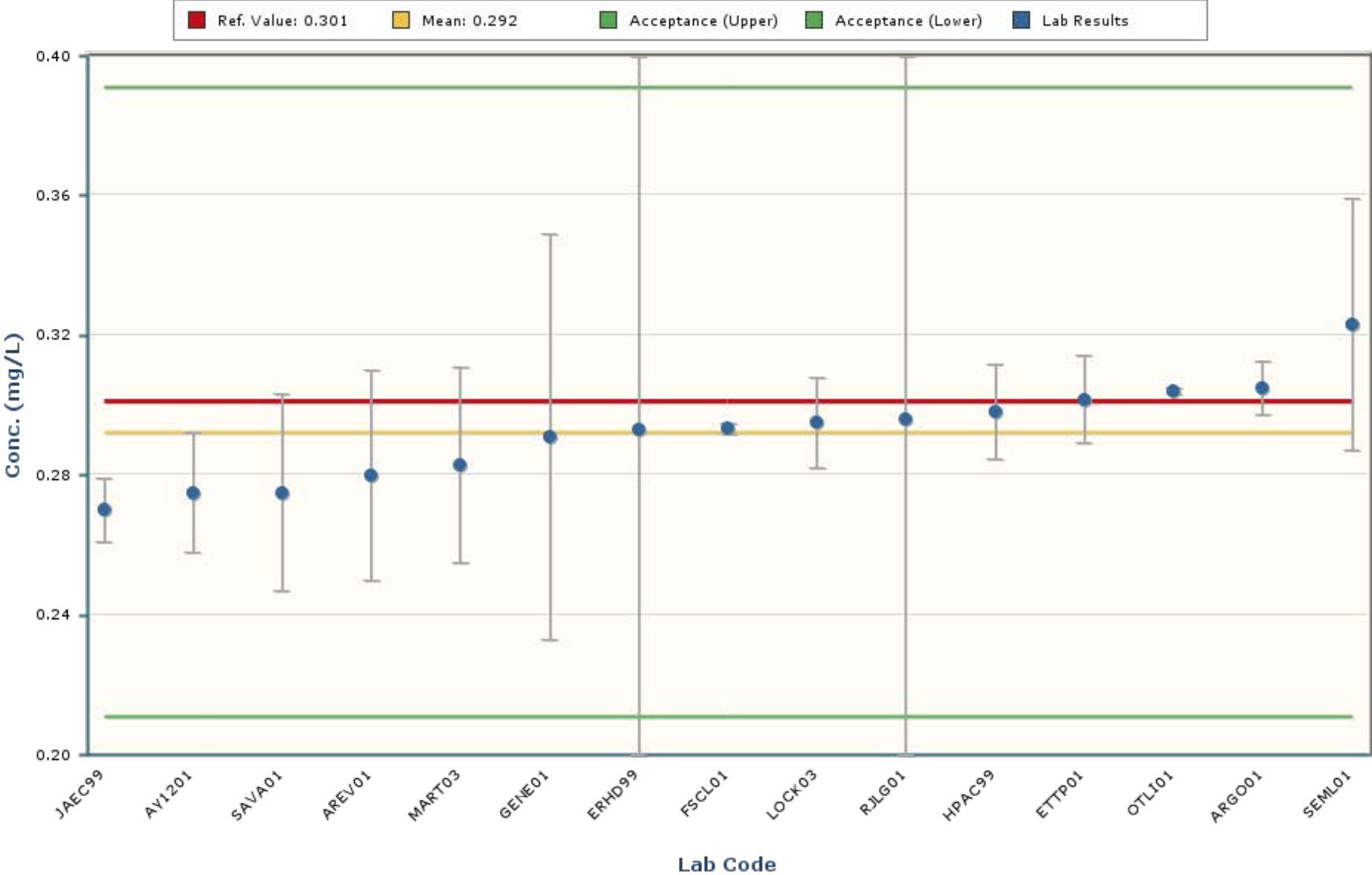
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.0485 and 0.0751 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Beryllium
MAPEP-25-MaW52



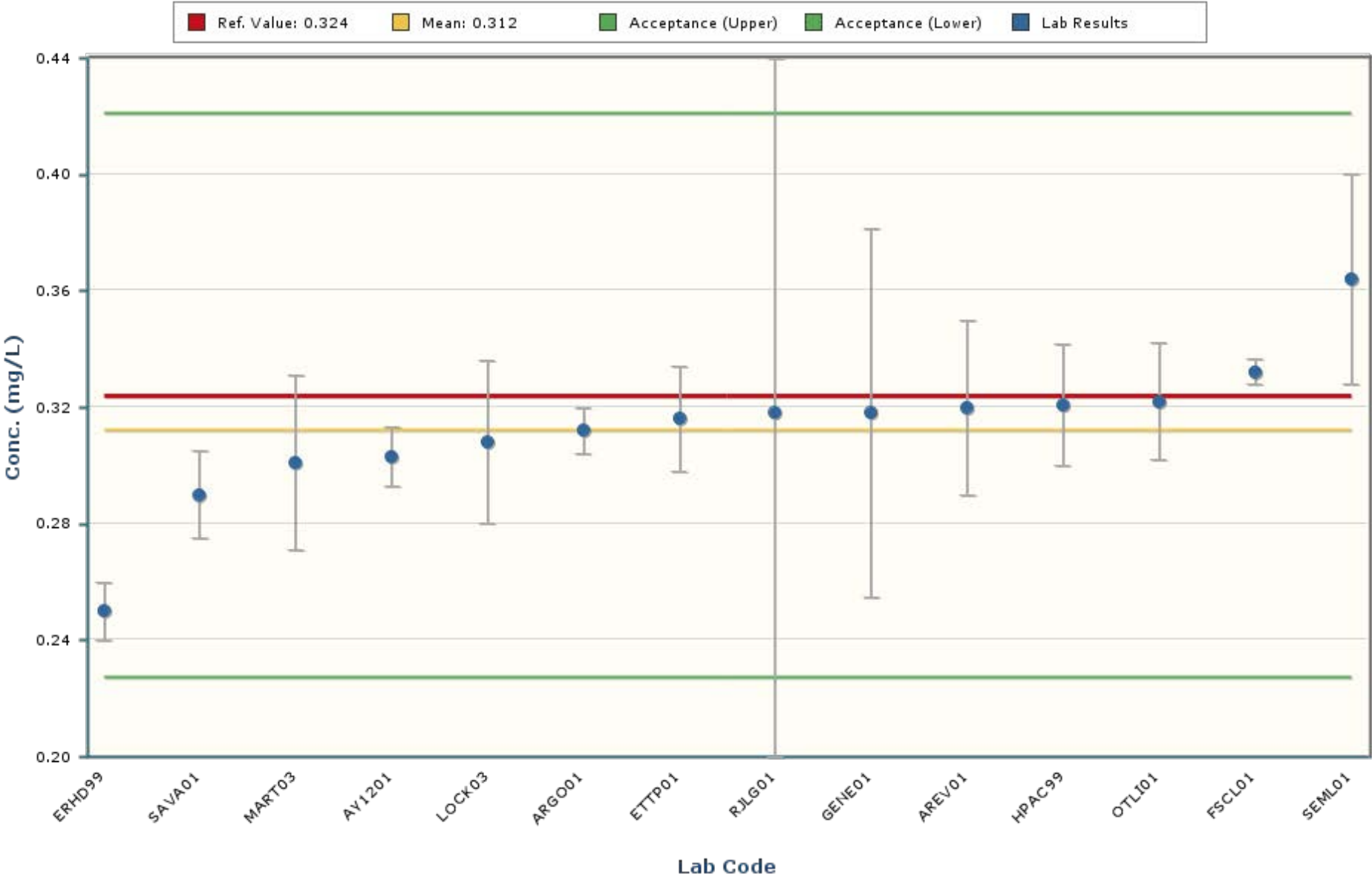
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.312 and 0.580 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Cadmium
MAPEP-25-MaW52



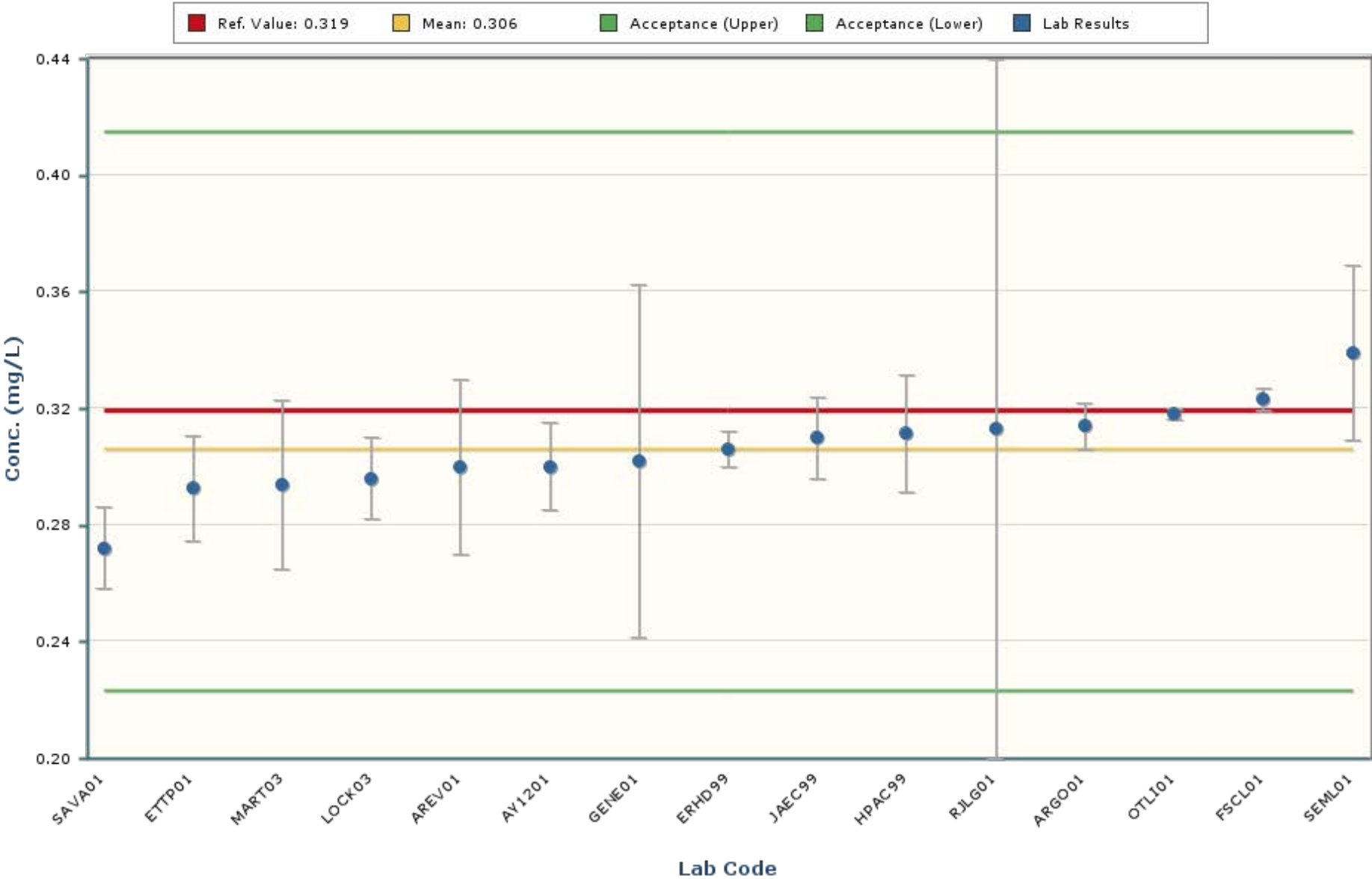
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.223 and 0.362 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Chromium
MAPEP-25-MaW52



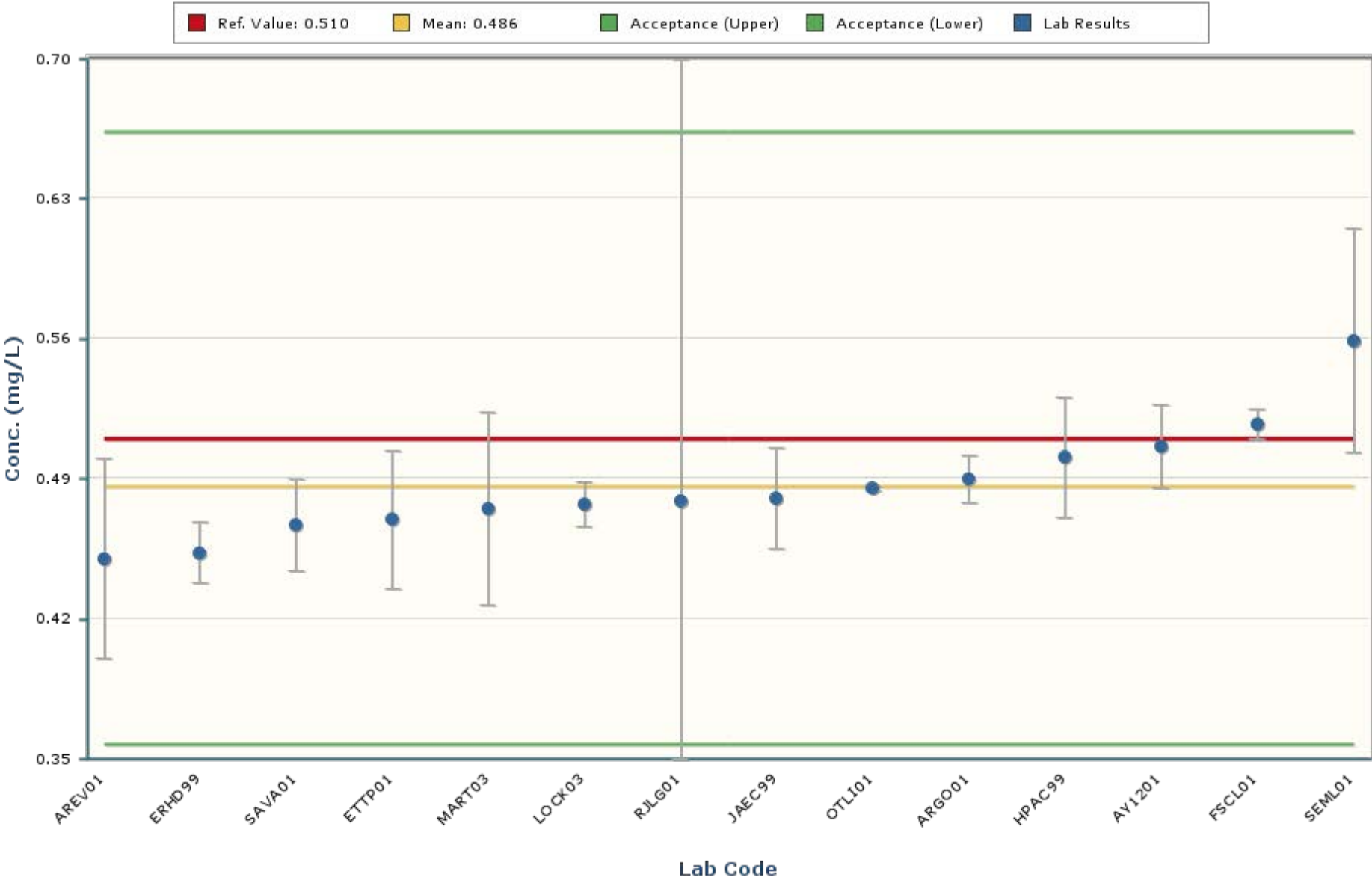
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.189 and 0.436 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Cobalt
MAPEP-25-MaW52



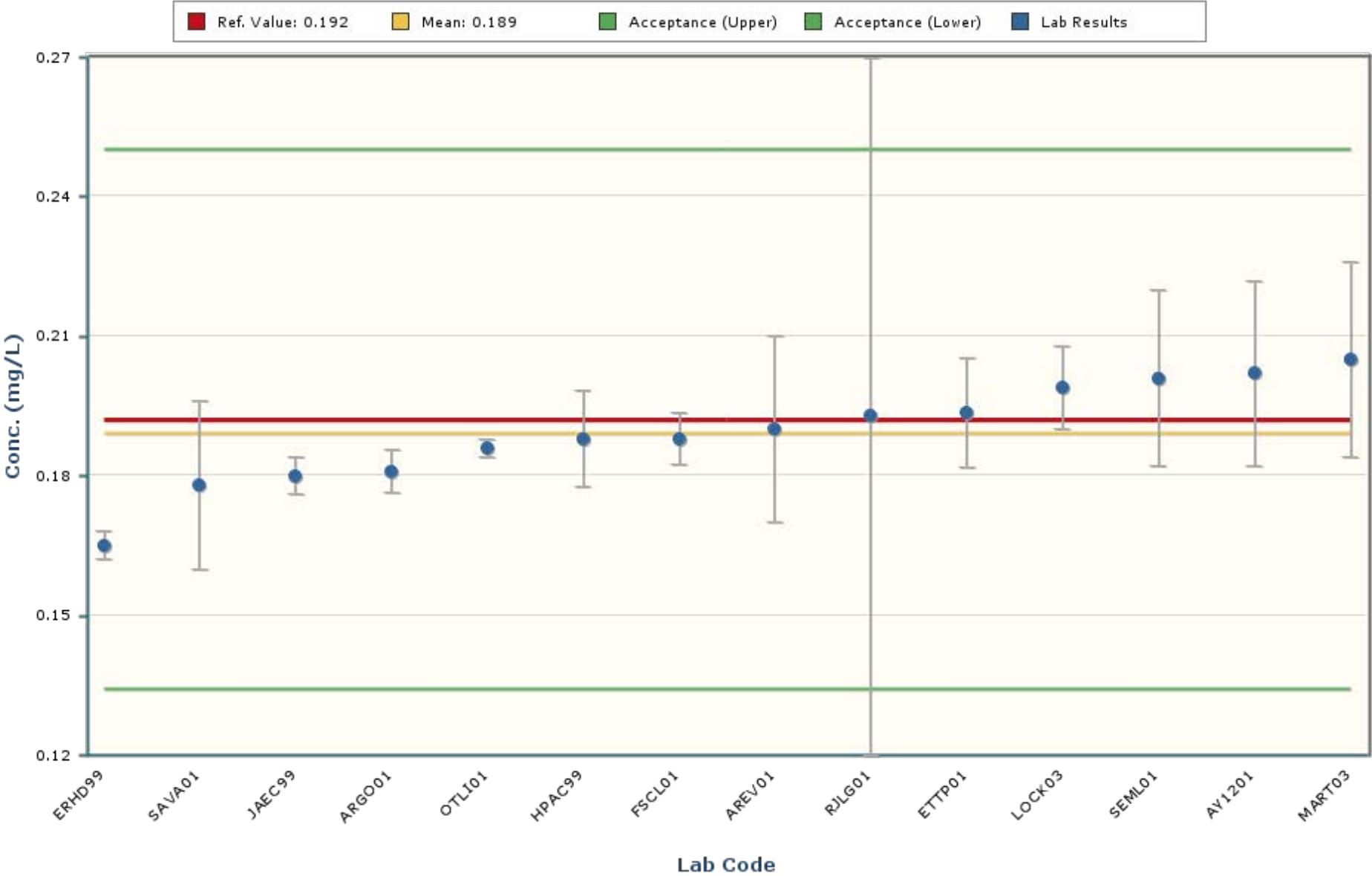
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.229 and 0.383 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Copper
MAPEP-25-MaW52



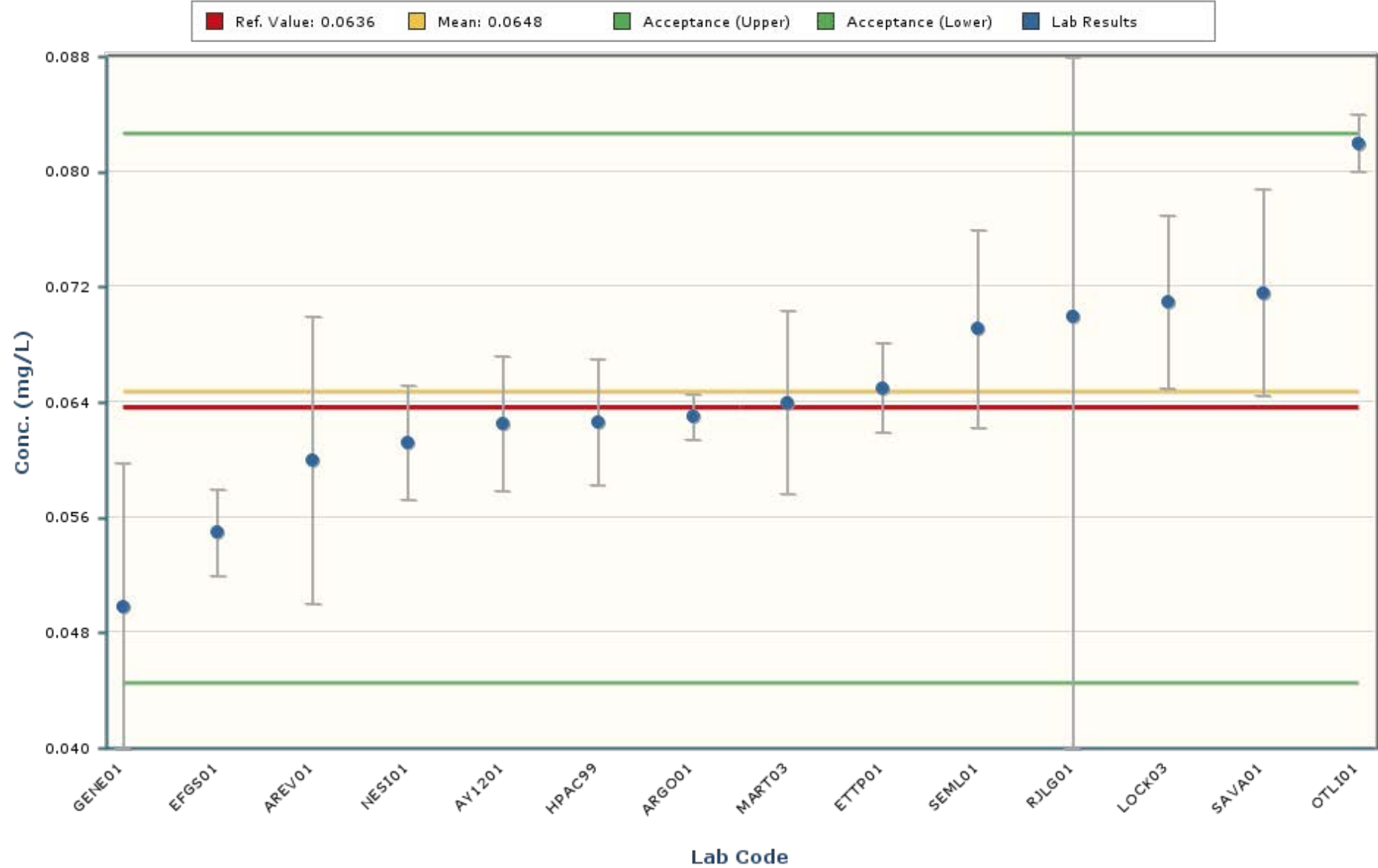
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.346 and 0.626 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Lead
MAPEP-25-MaW52



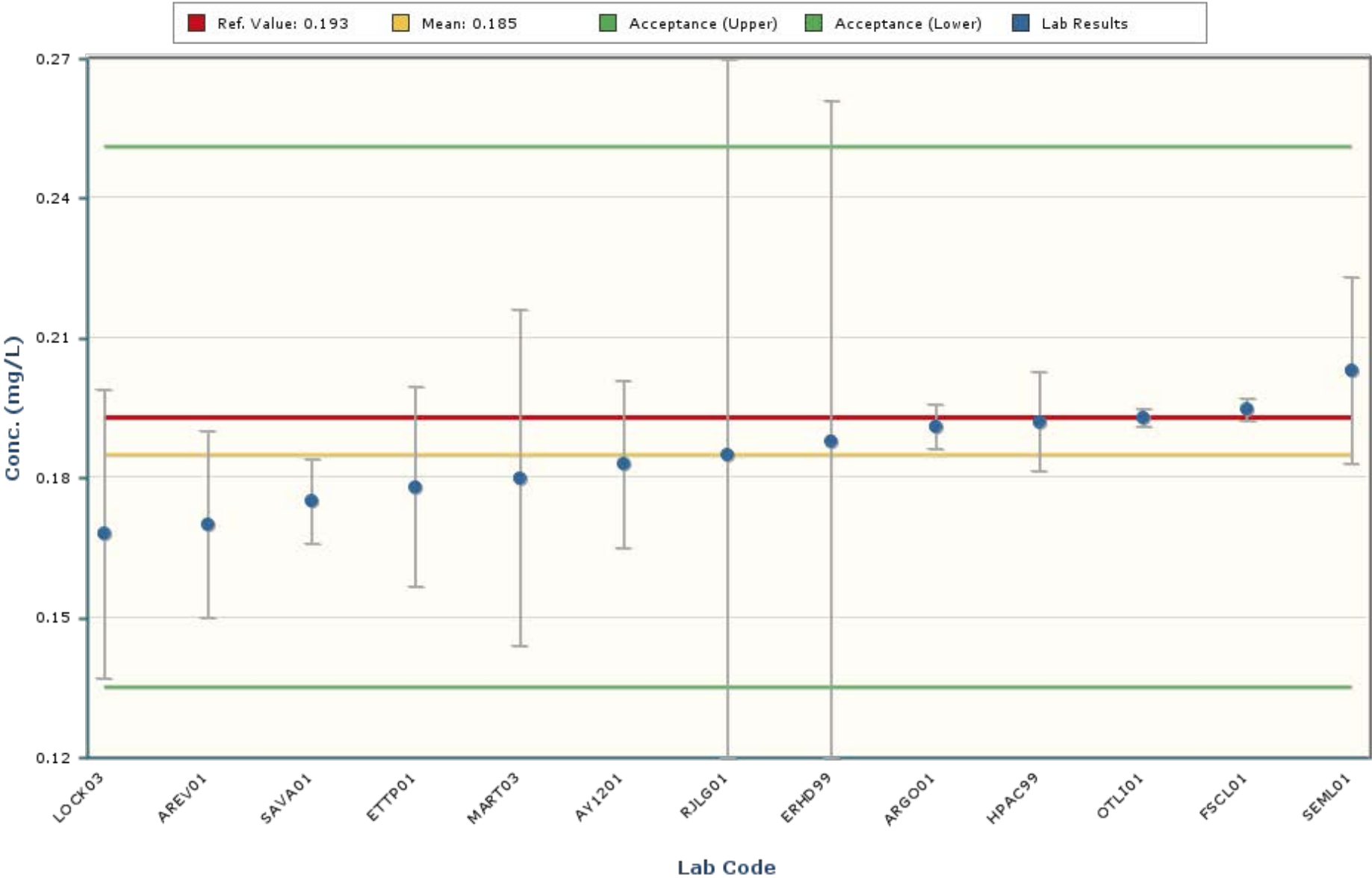
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.134 and 0.244 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Mercury
MAPEP-25-MaW52



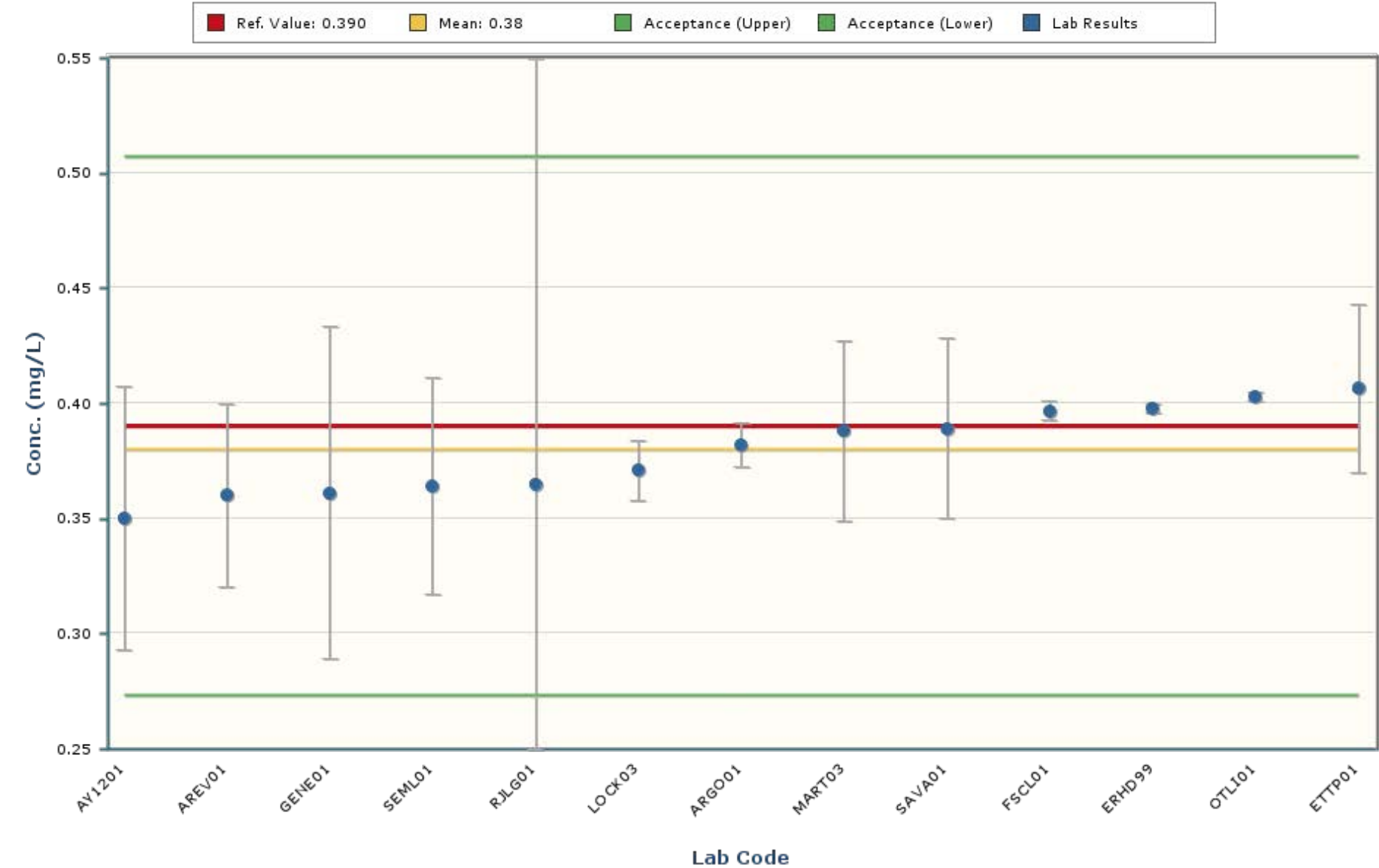
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.0256 and 0.1039 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Nickel
MAPEP-25-MaW52



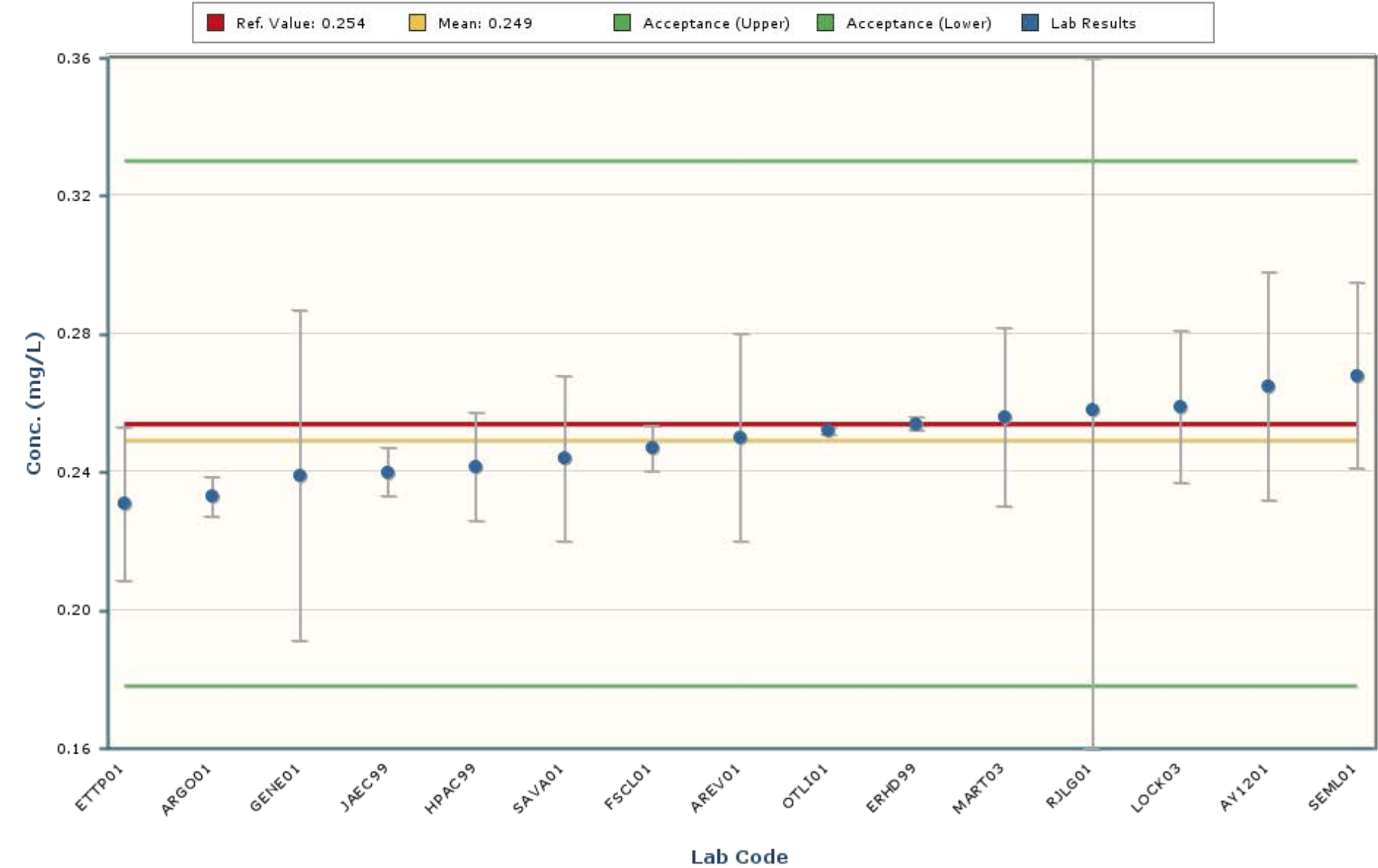
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.133 and 0.236 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Selenium
MAPEP-25-MaW52



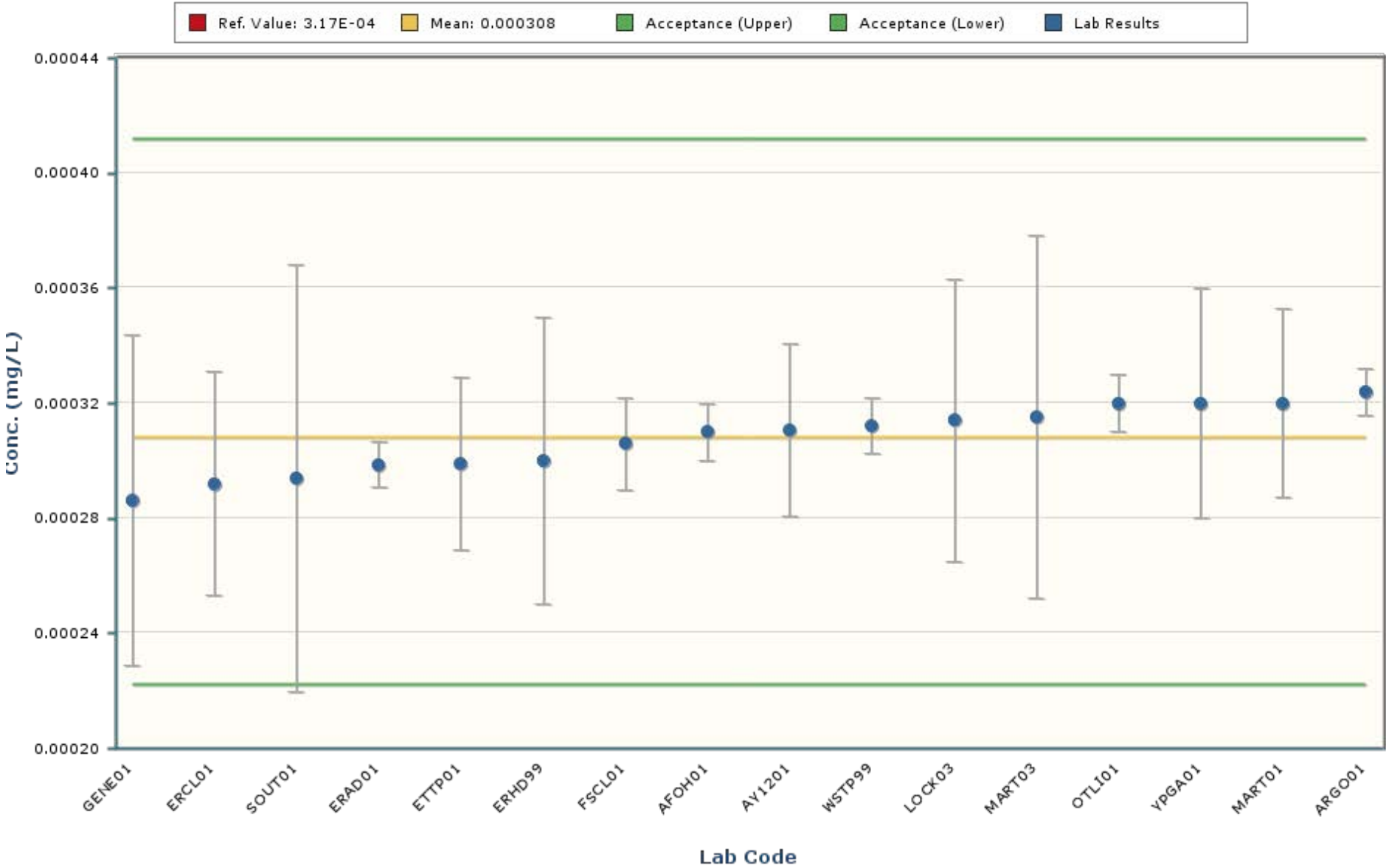
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.286 and 0.473 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Thallium
MAPEP-25-MaW52



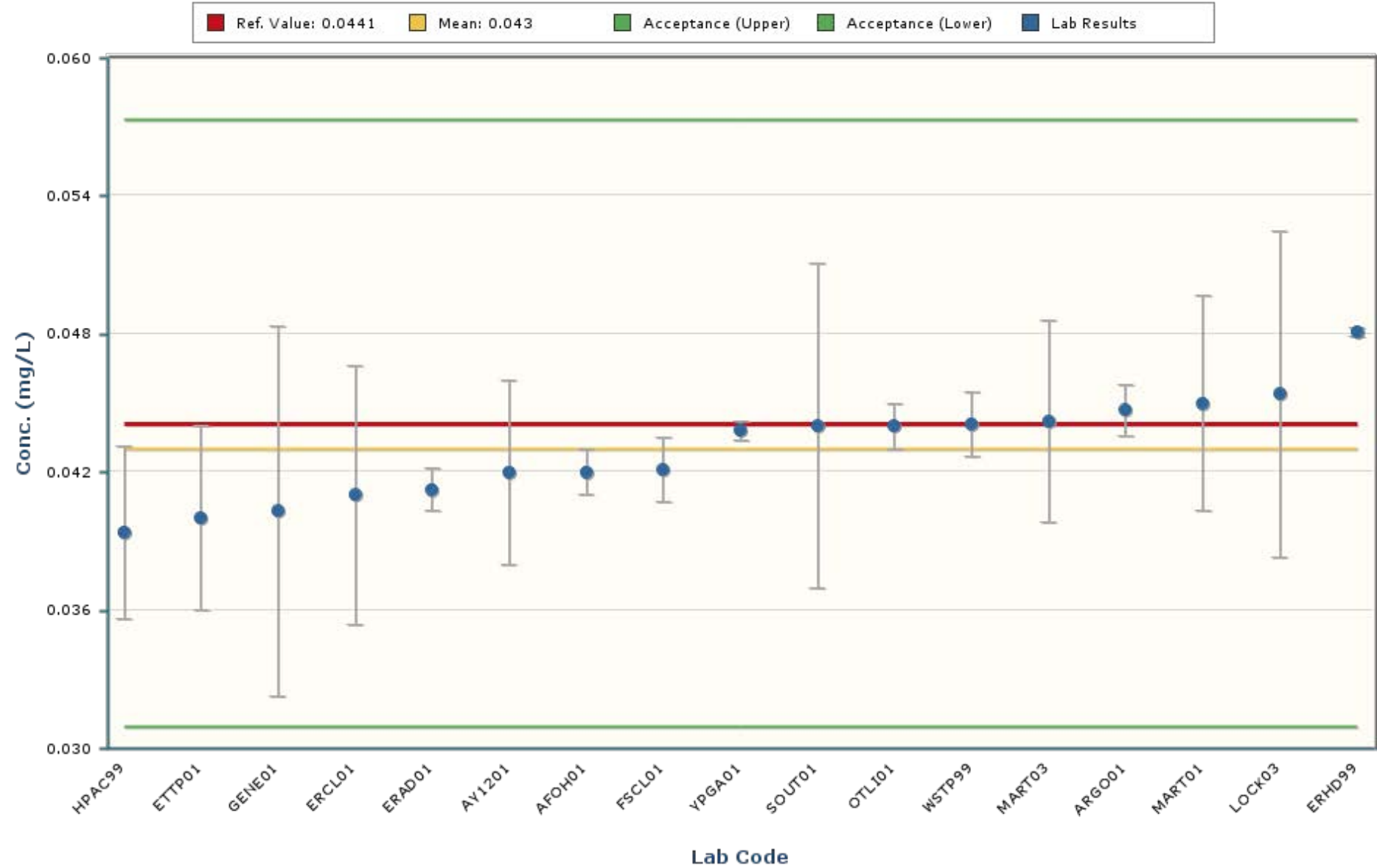
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.194 and 0.305 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Uranium-235
MAPEP-25-MaW52



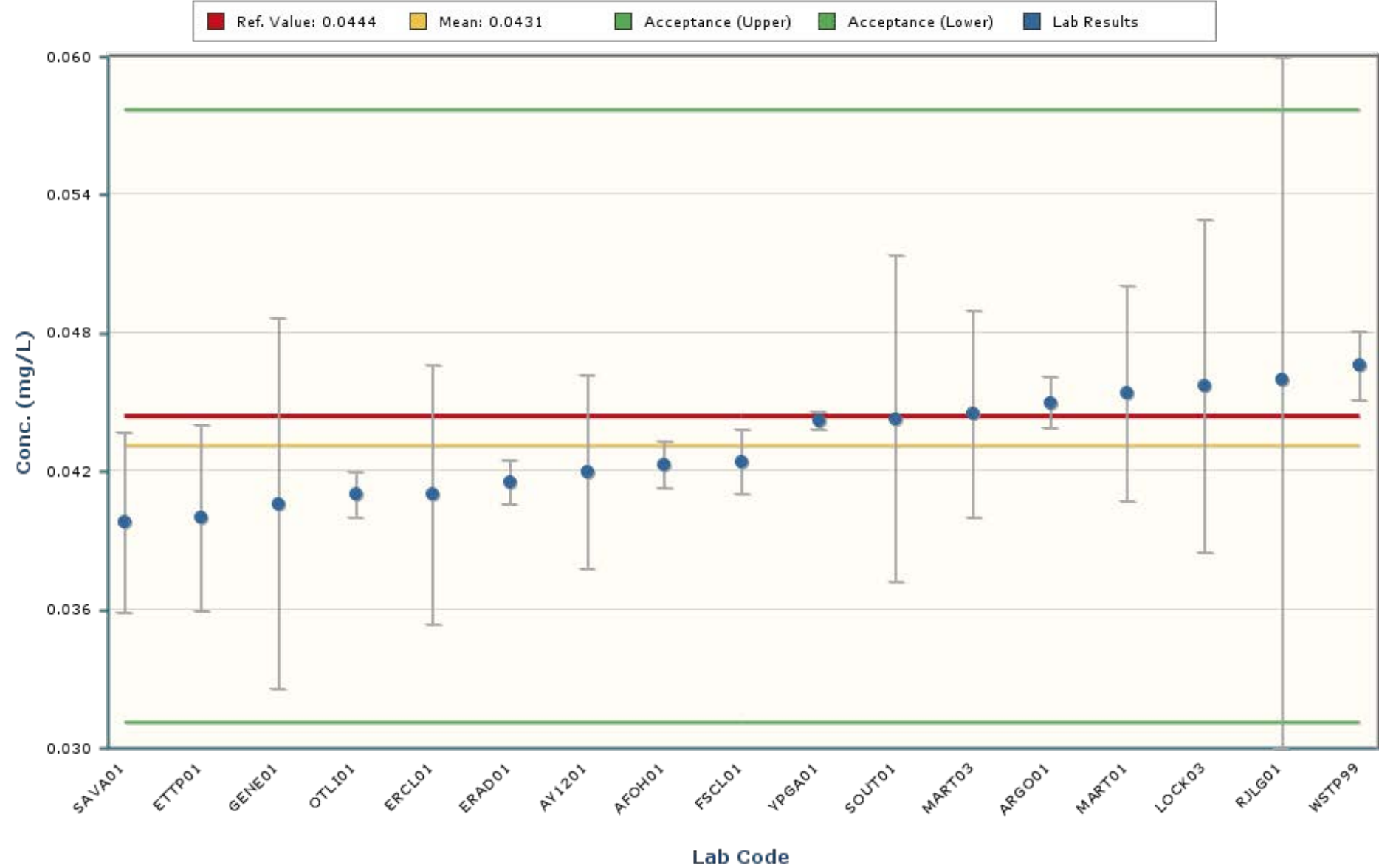
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.000250 and 0.000365 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Uranium-238
MAPEP-25-MaW52



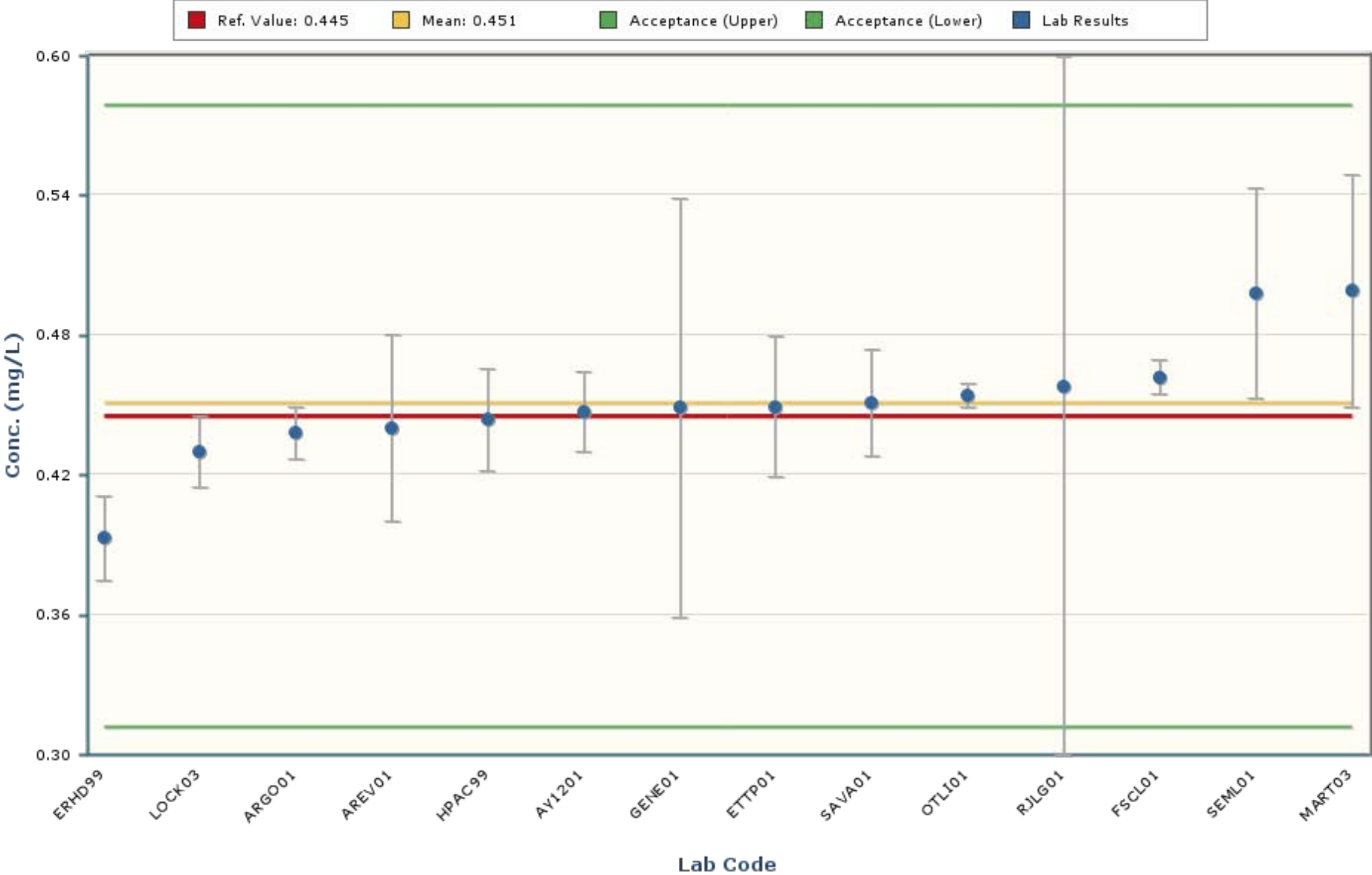
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.0316 and 0.0544 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Uranium-Total
MAPEP-25-MaW52



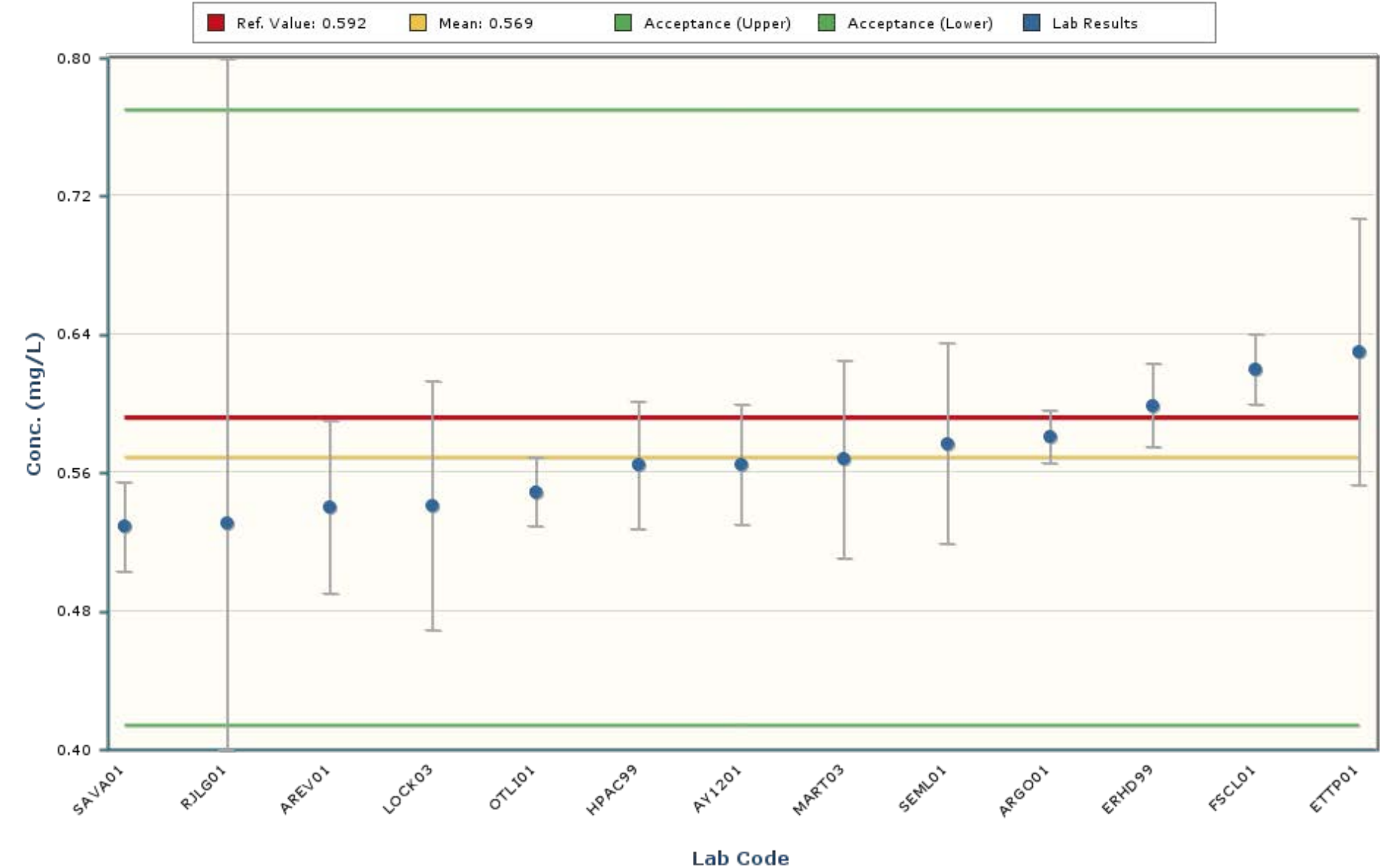
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.0318 and 0.0543 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Vanadium
MAPEP-25-MaW52



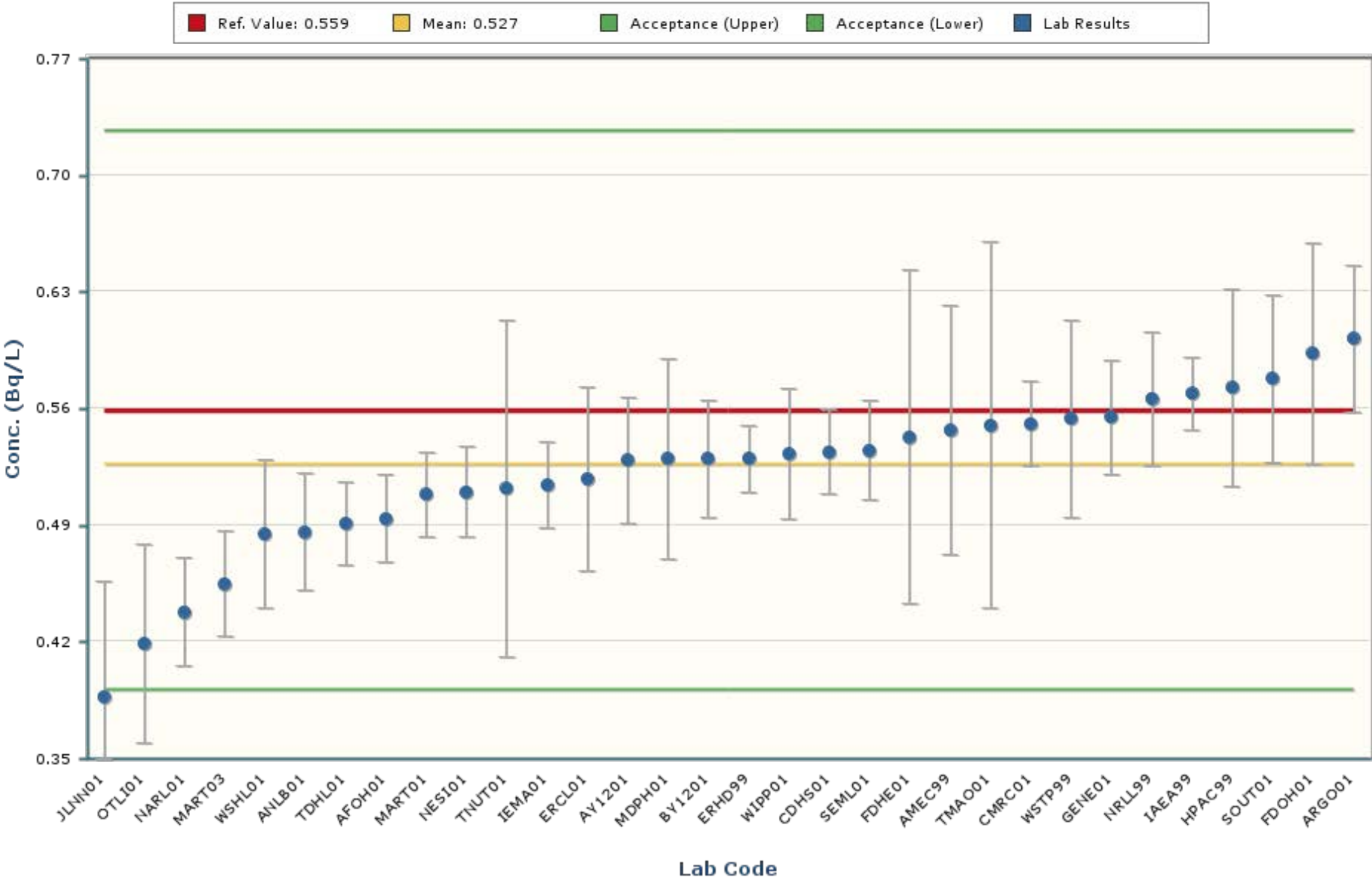
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.320 and 0.581 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Zinc
MAPEP-25-MaW52



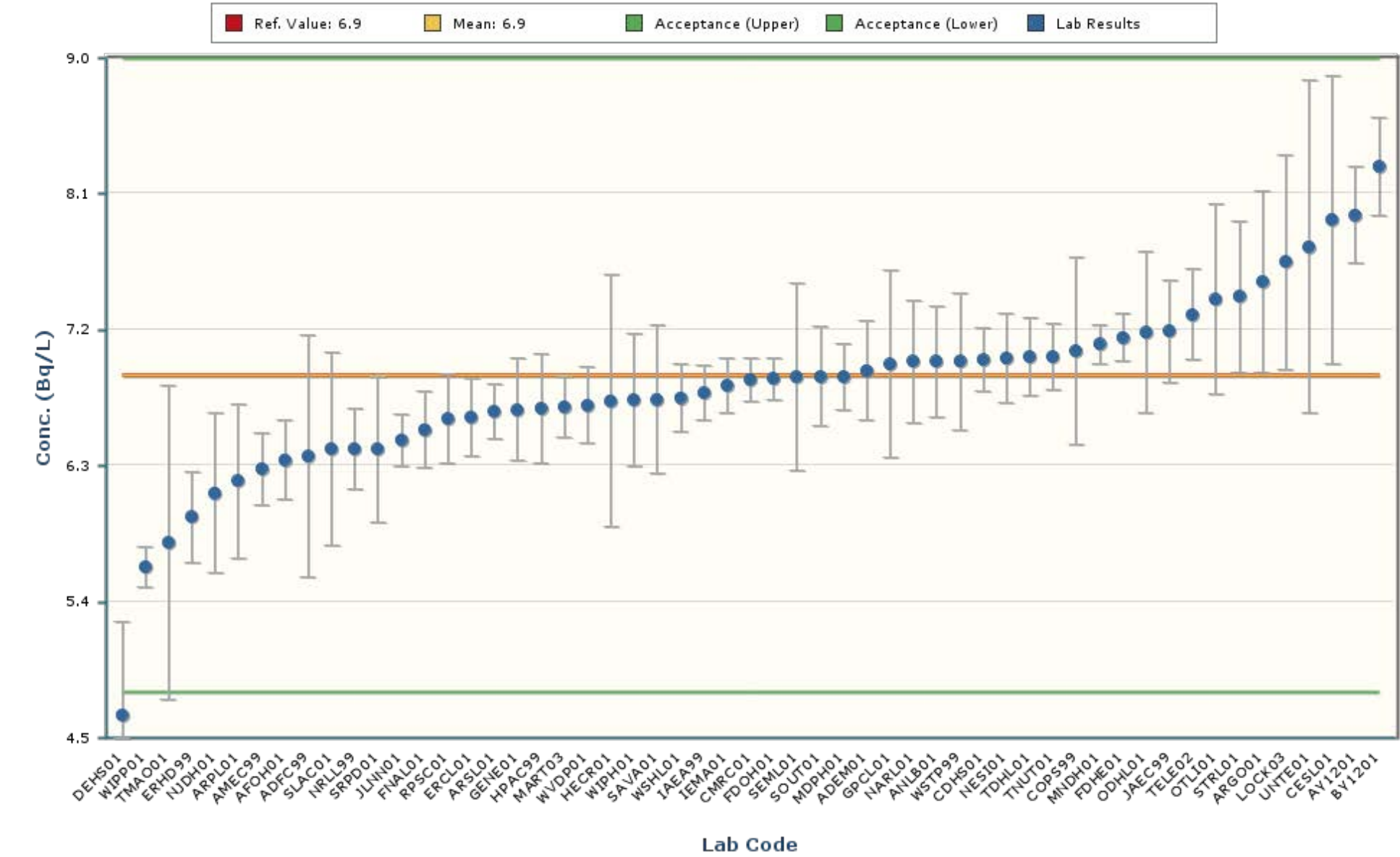
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.407 and 0.730 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Americium-241
MAPEP-25-MaW52



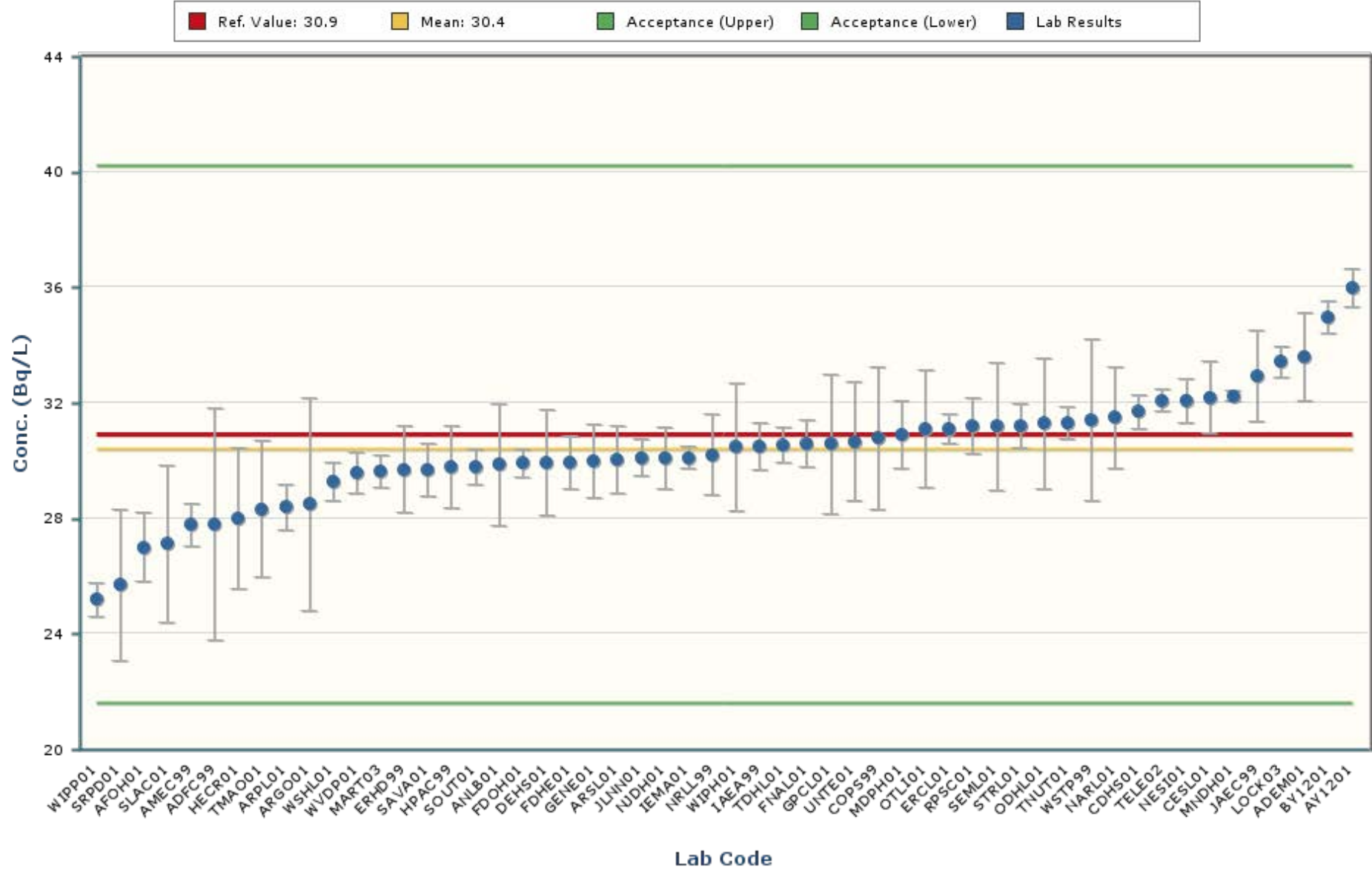
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.316 and 0.737 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Cesium-137
MAPEP-25-MaW52



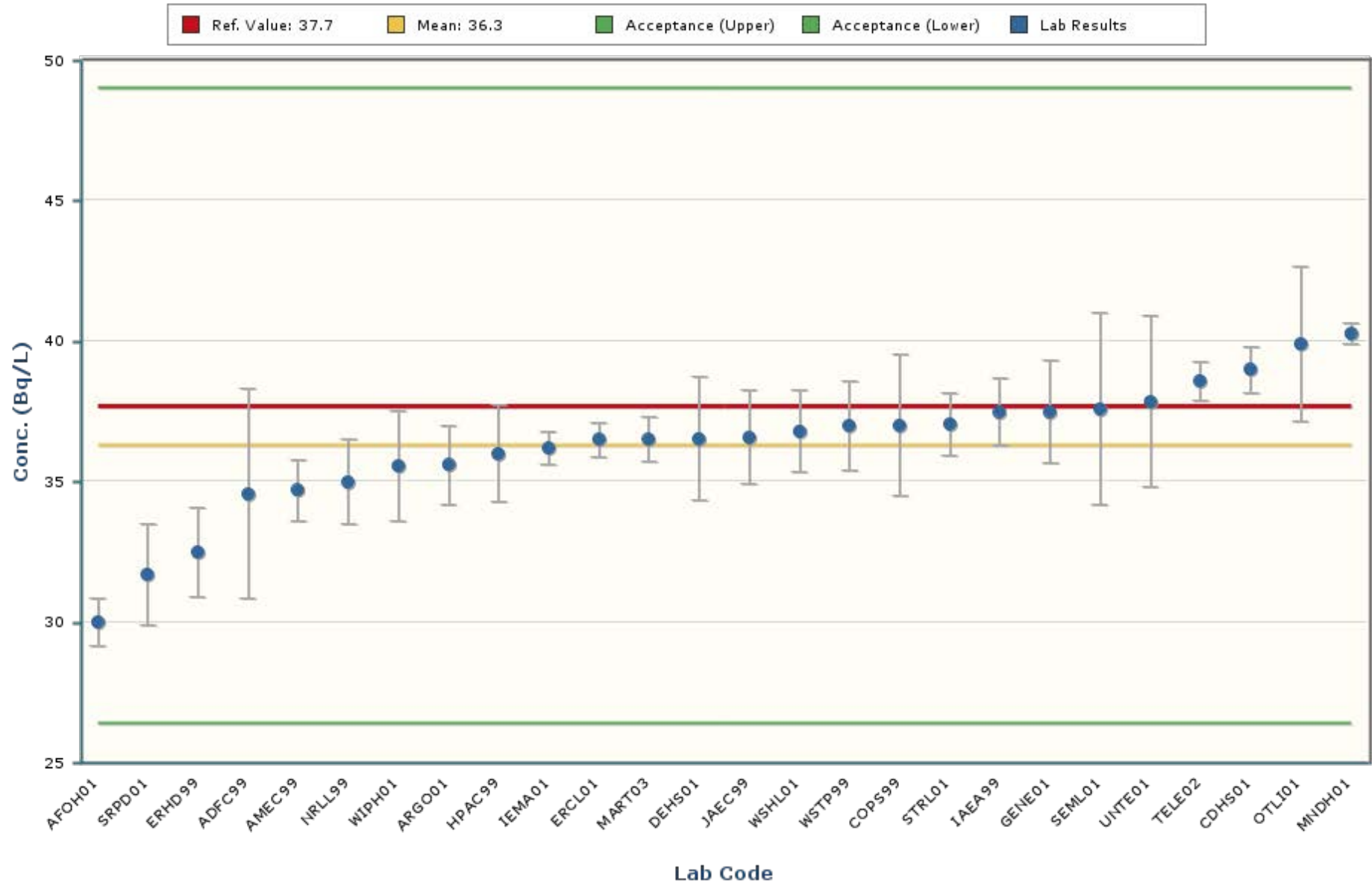
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 4.3 and 9.4 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Cobalt-57
MAPEP-25-MaW52



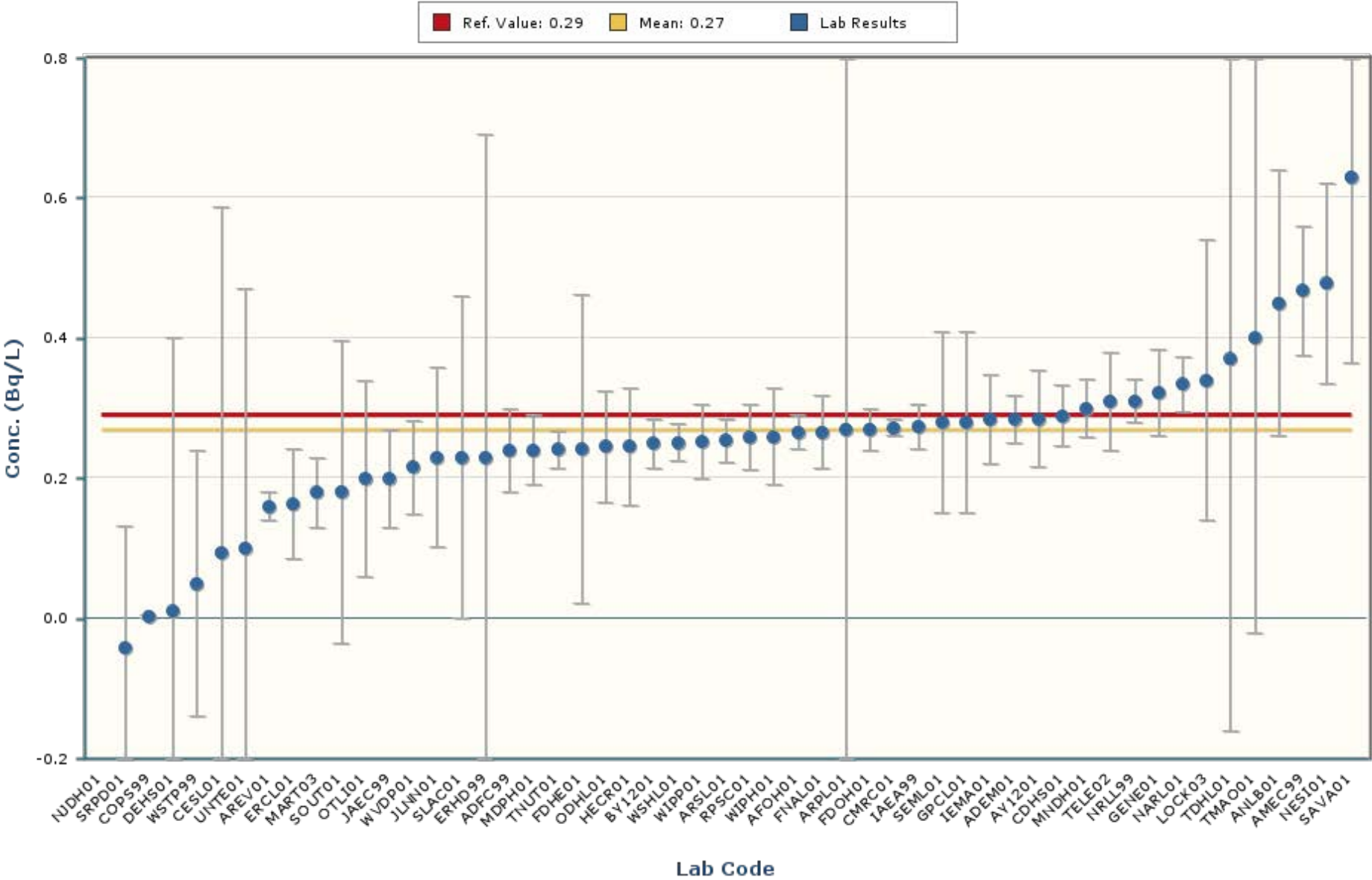
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 20.5 and 40.3 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Cobalt-58
MAPEP-25-MaW52



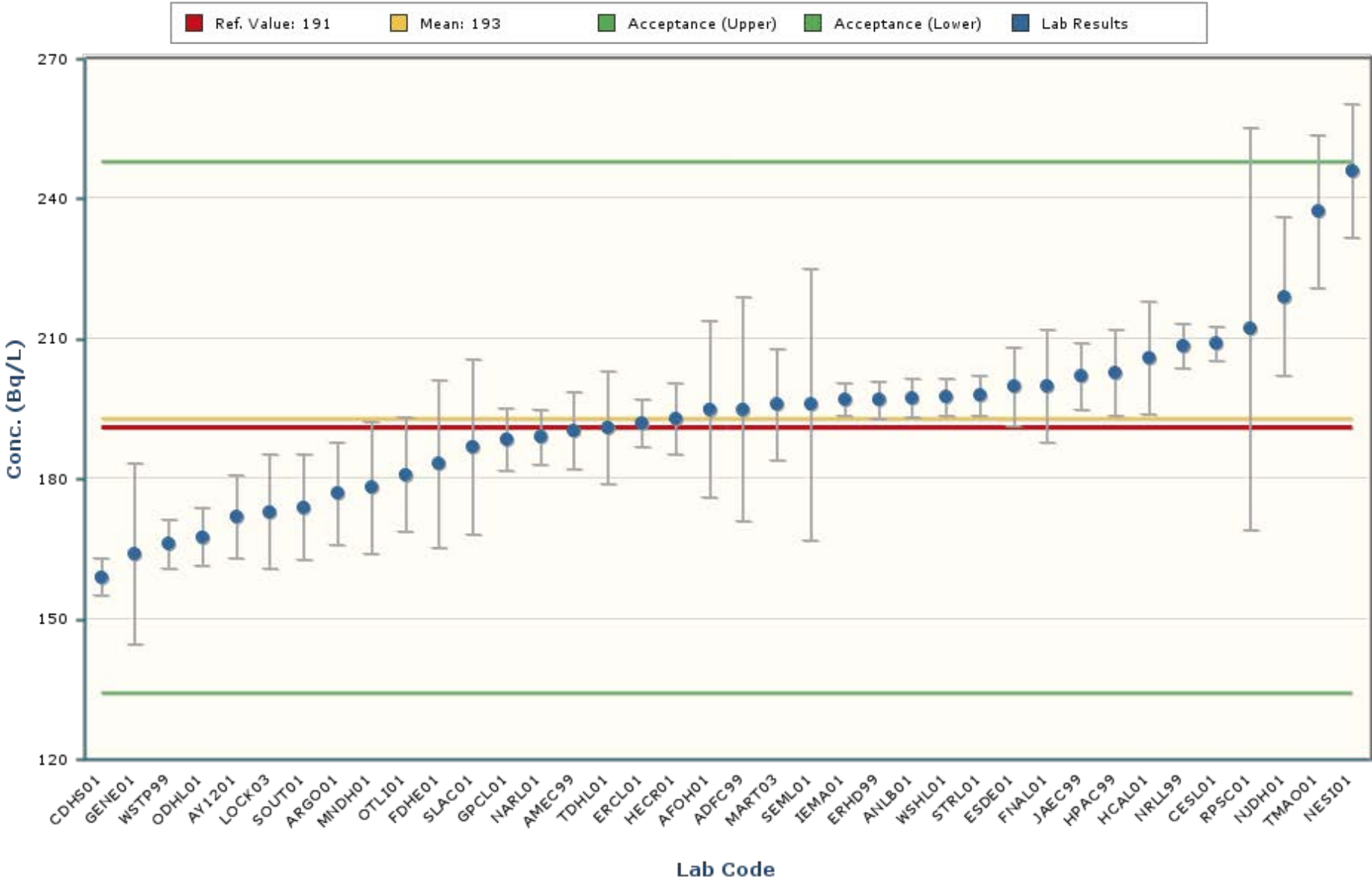
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 24.7 and 47.9 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Cobalt-60
MAPEP-25-MaW52



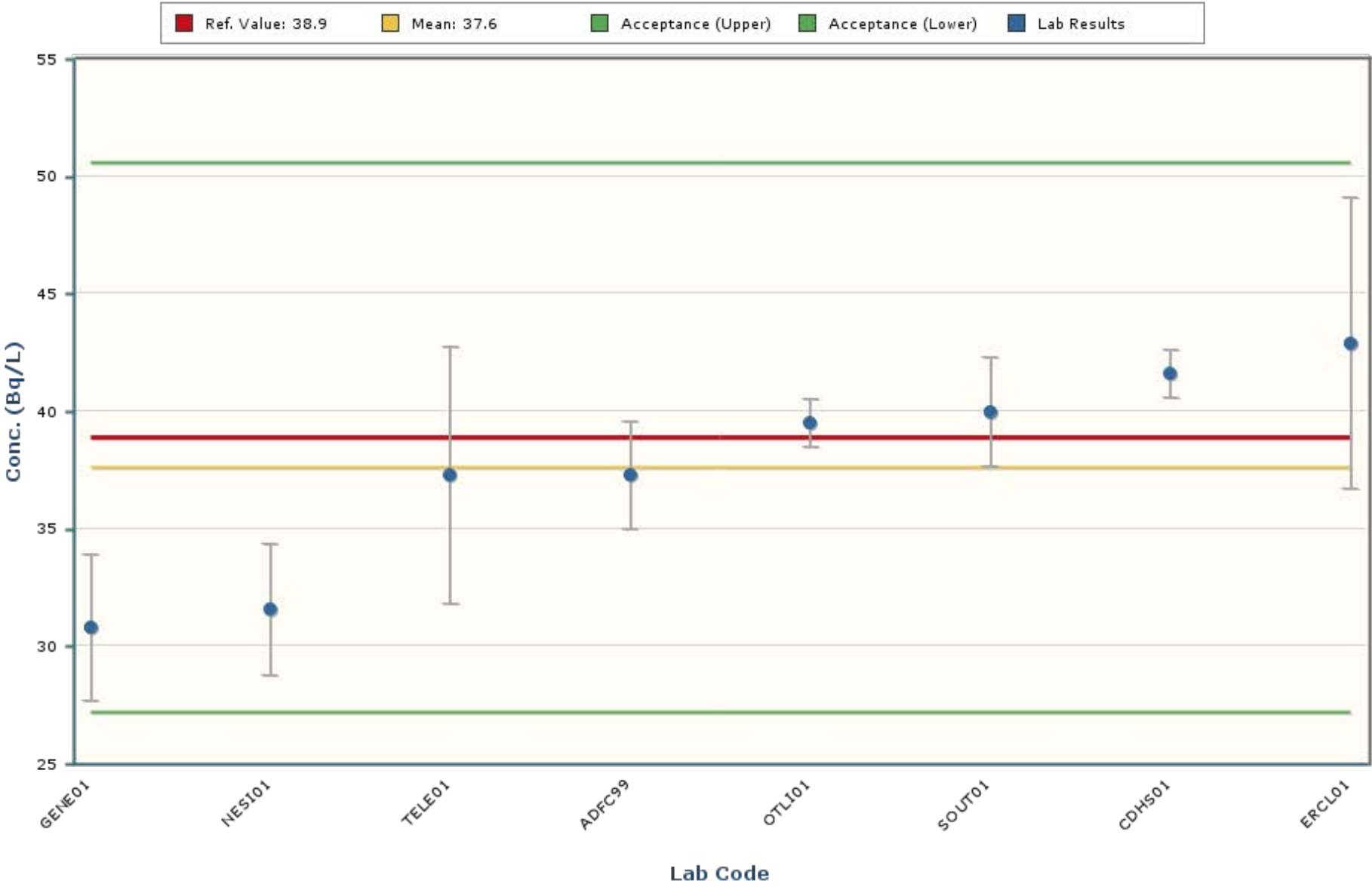
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between -0.79 and 1.33 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Hydrogen-3
MAPEP-25-MaW52



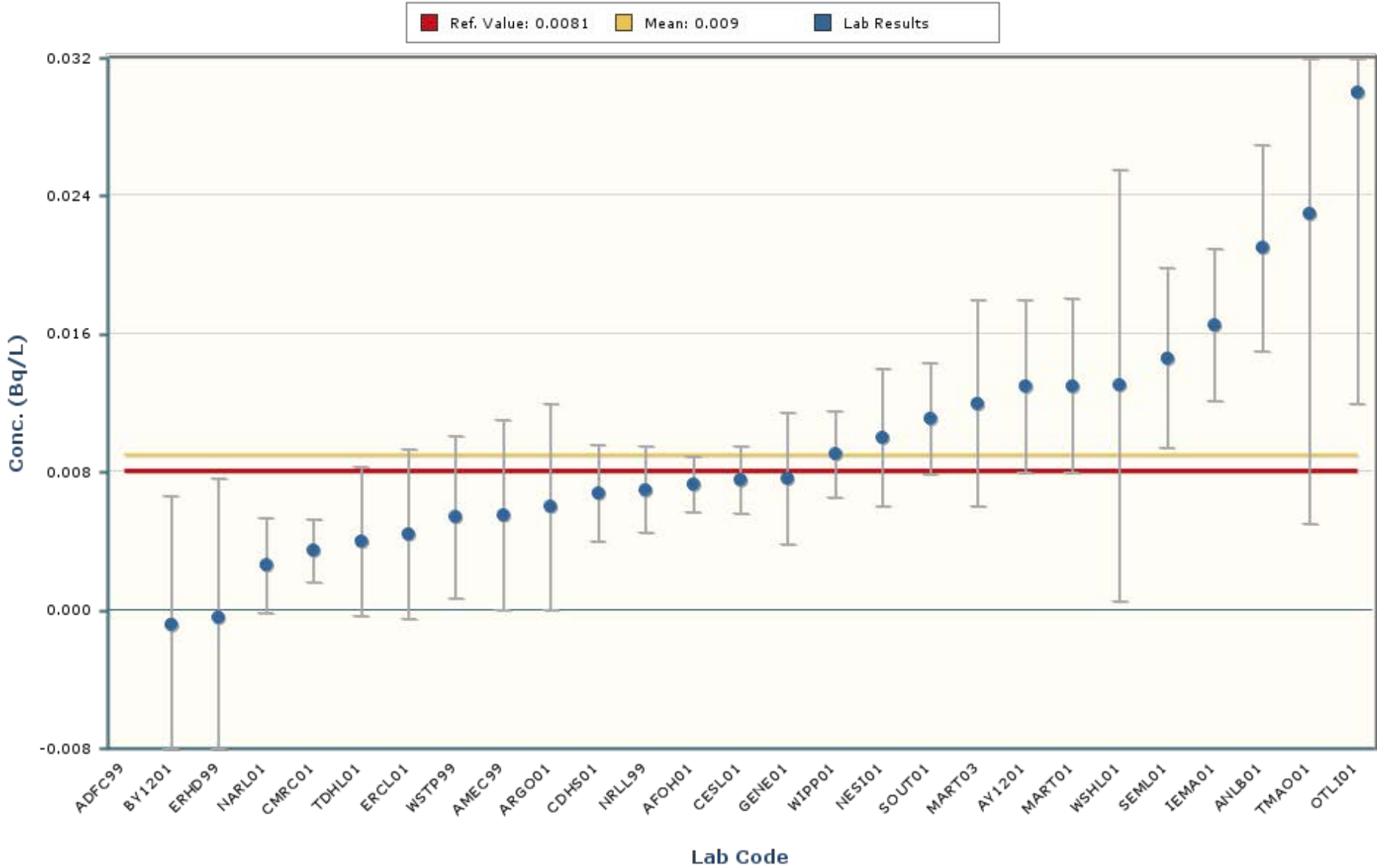
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 102 and 284 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Nickel-63
MAPEP-25-MaW52



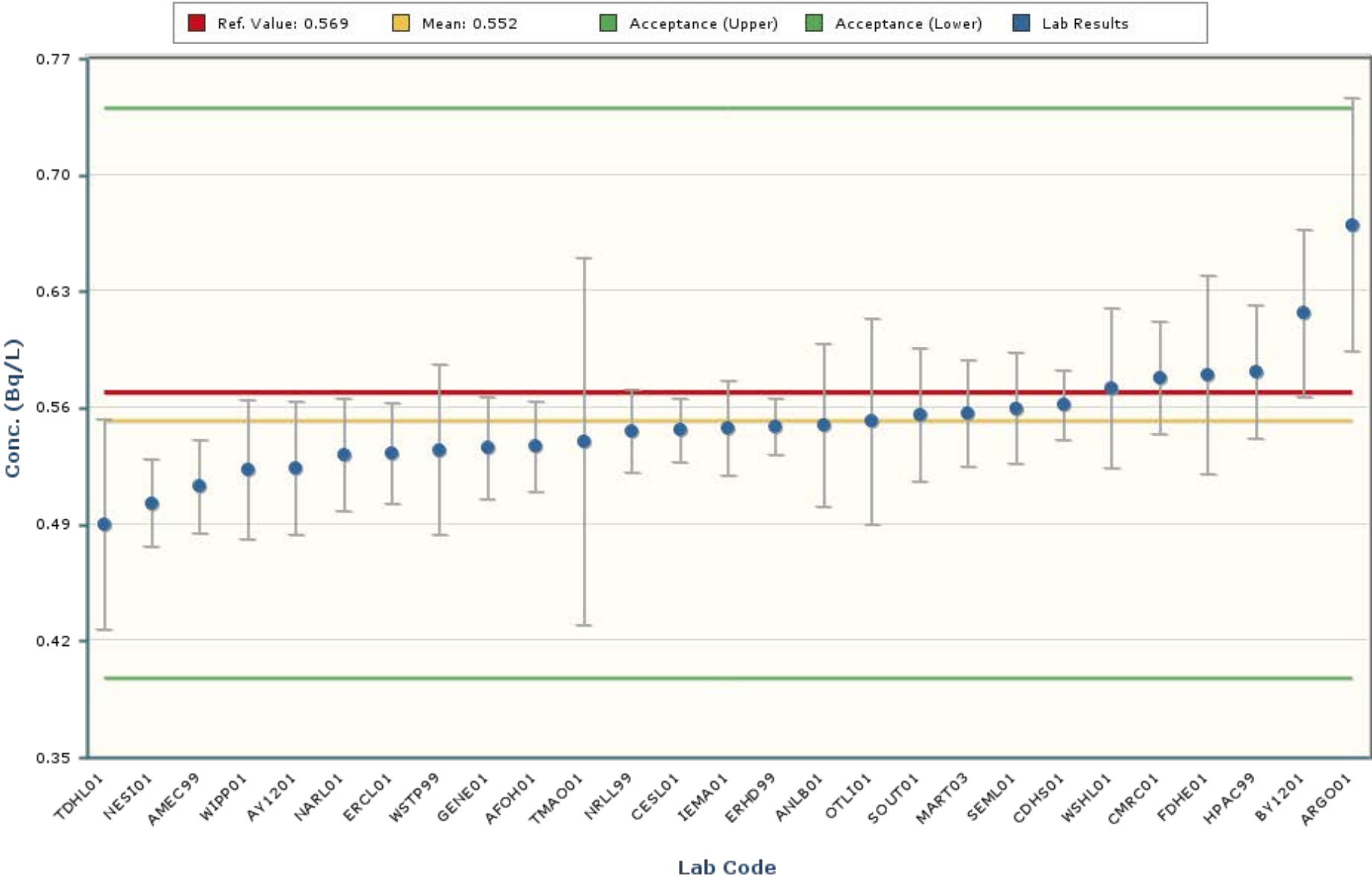
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 15.6 and 59.7 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Plutonium-238
MAPEP-25-MaW52



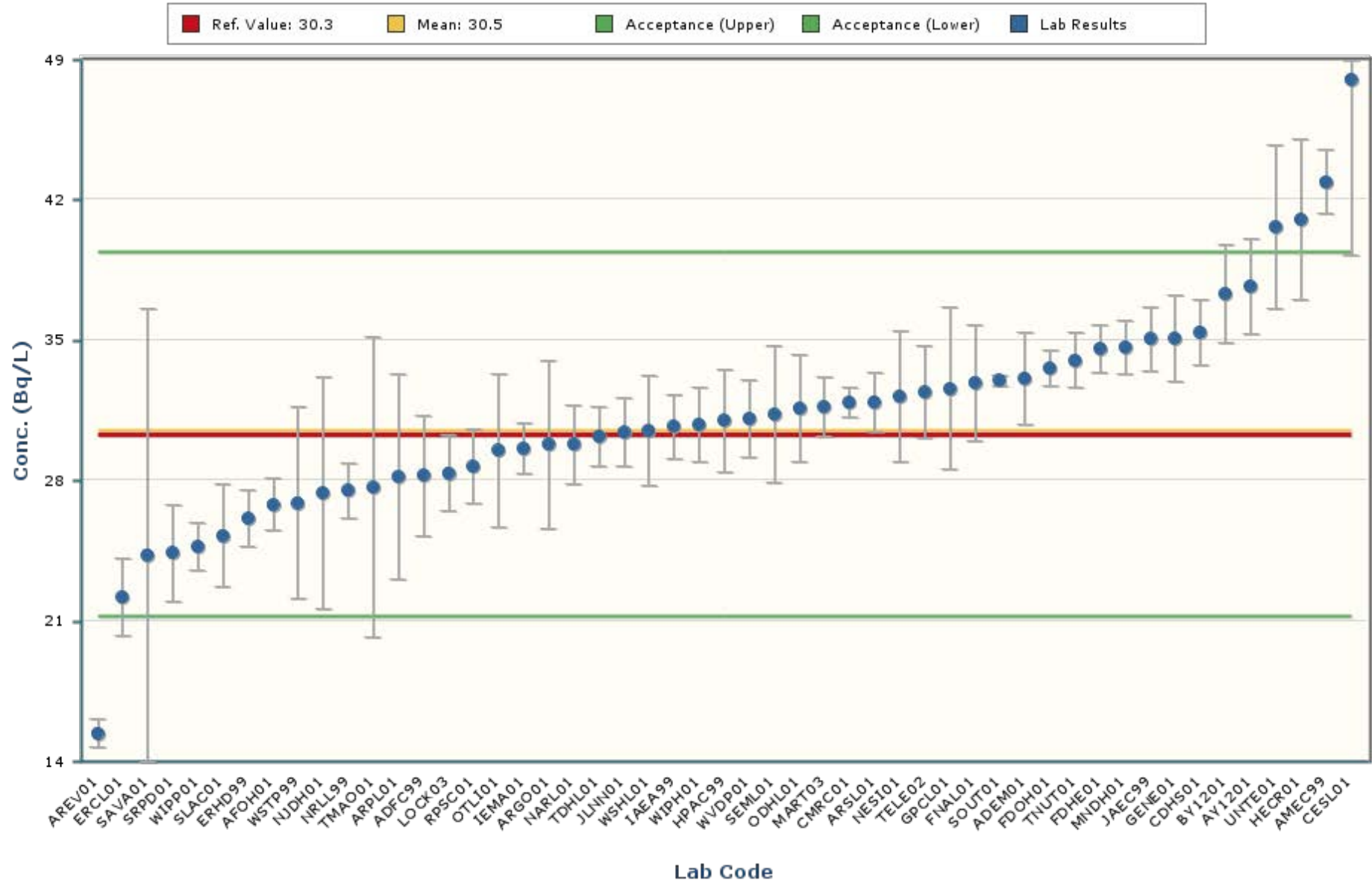
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between -0.0308 and 0.0488 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Plutonium-239/240
MAPEP-25-MaW52



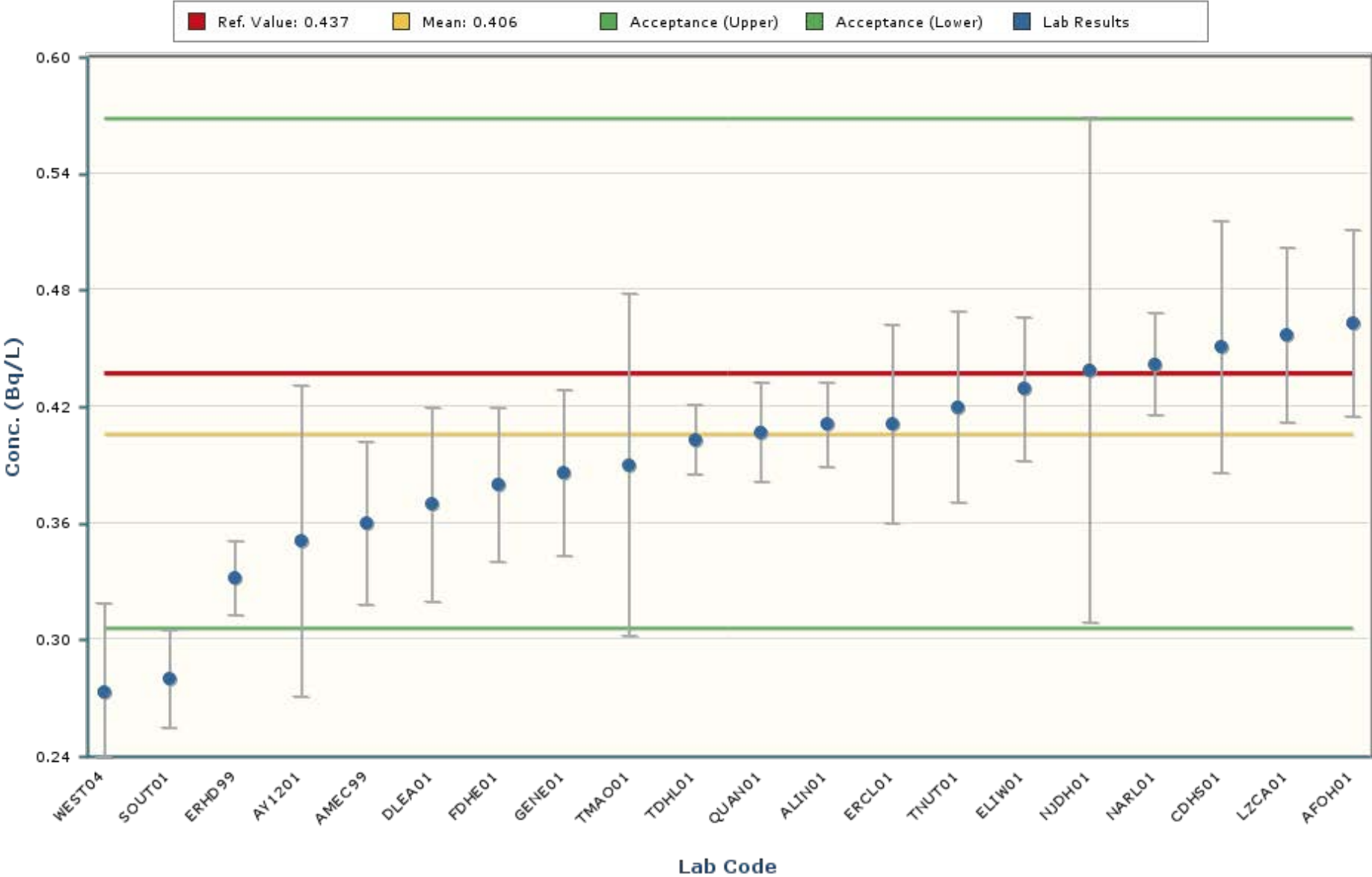
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.375 and 0.728 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Potassium-40
MAPEP-25-MaW52



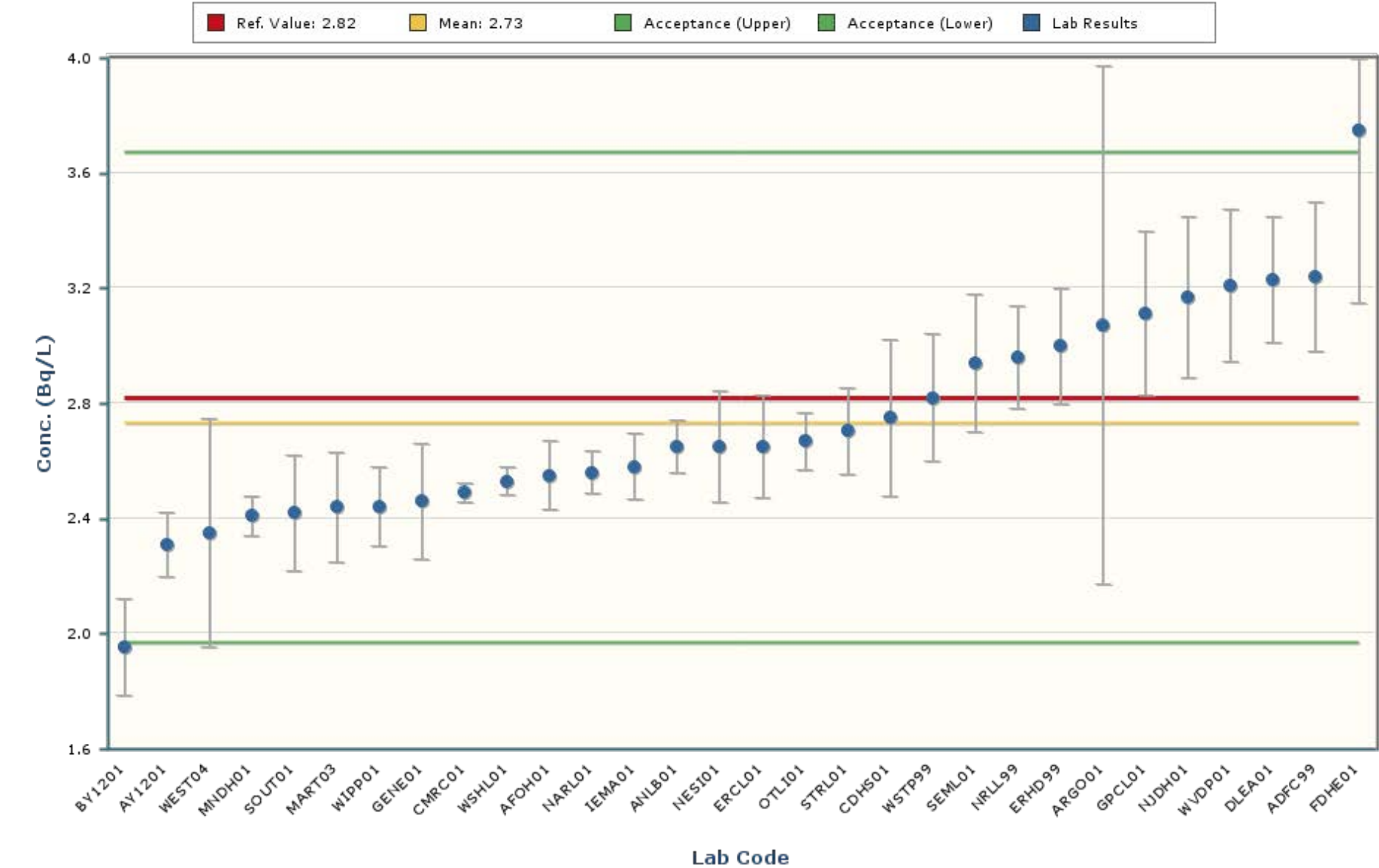
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 12.9 and 48.1 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Radium-226
MAPEP-25-MaW52



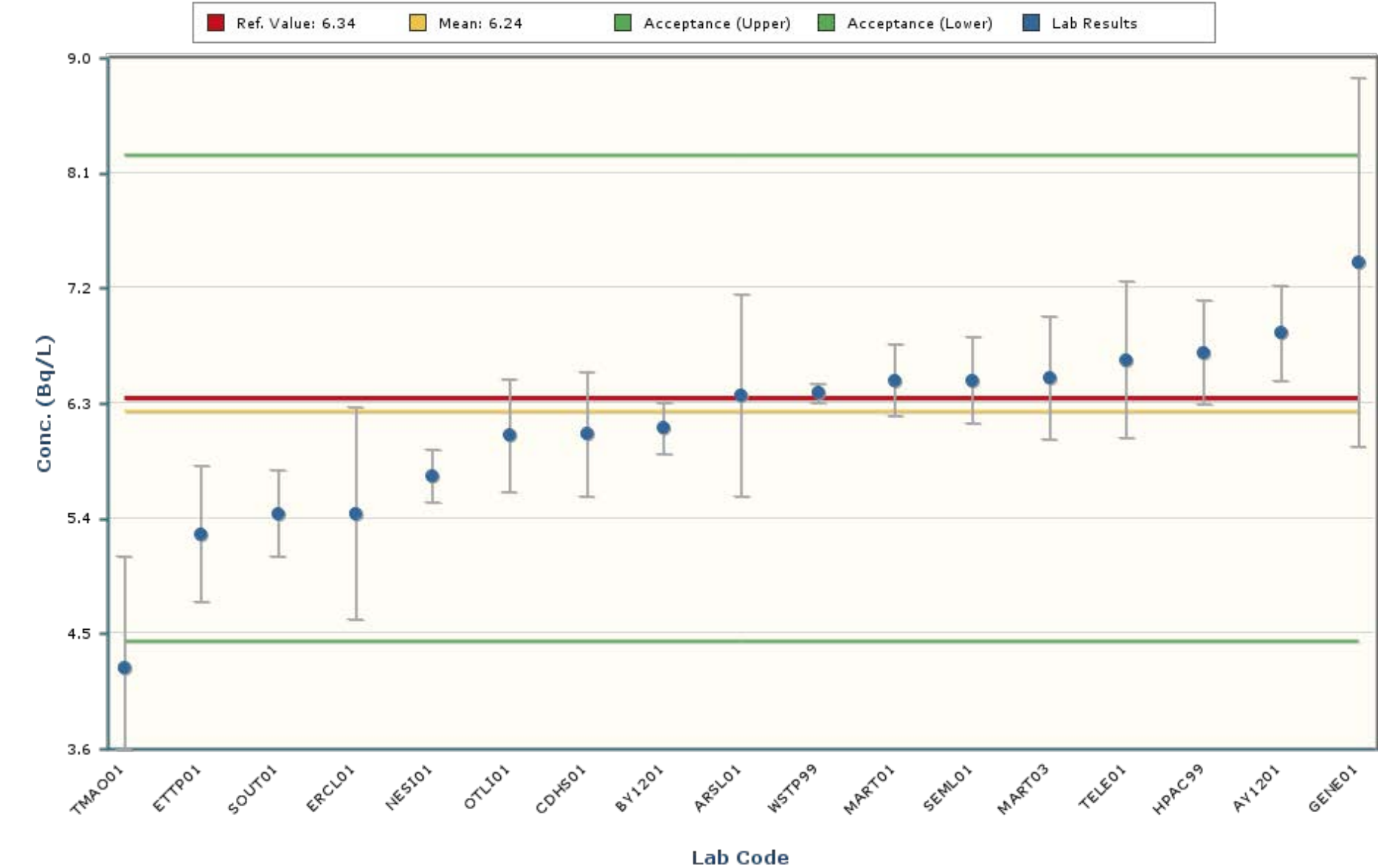
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.217 and 0.595 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Strontium-90
MAPEP-25-MaW52



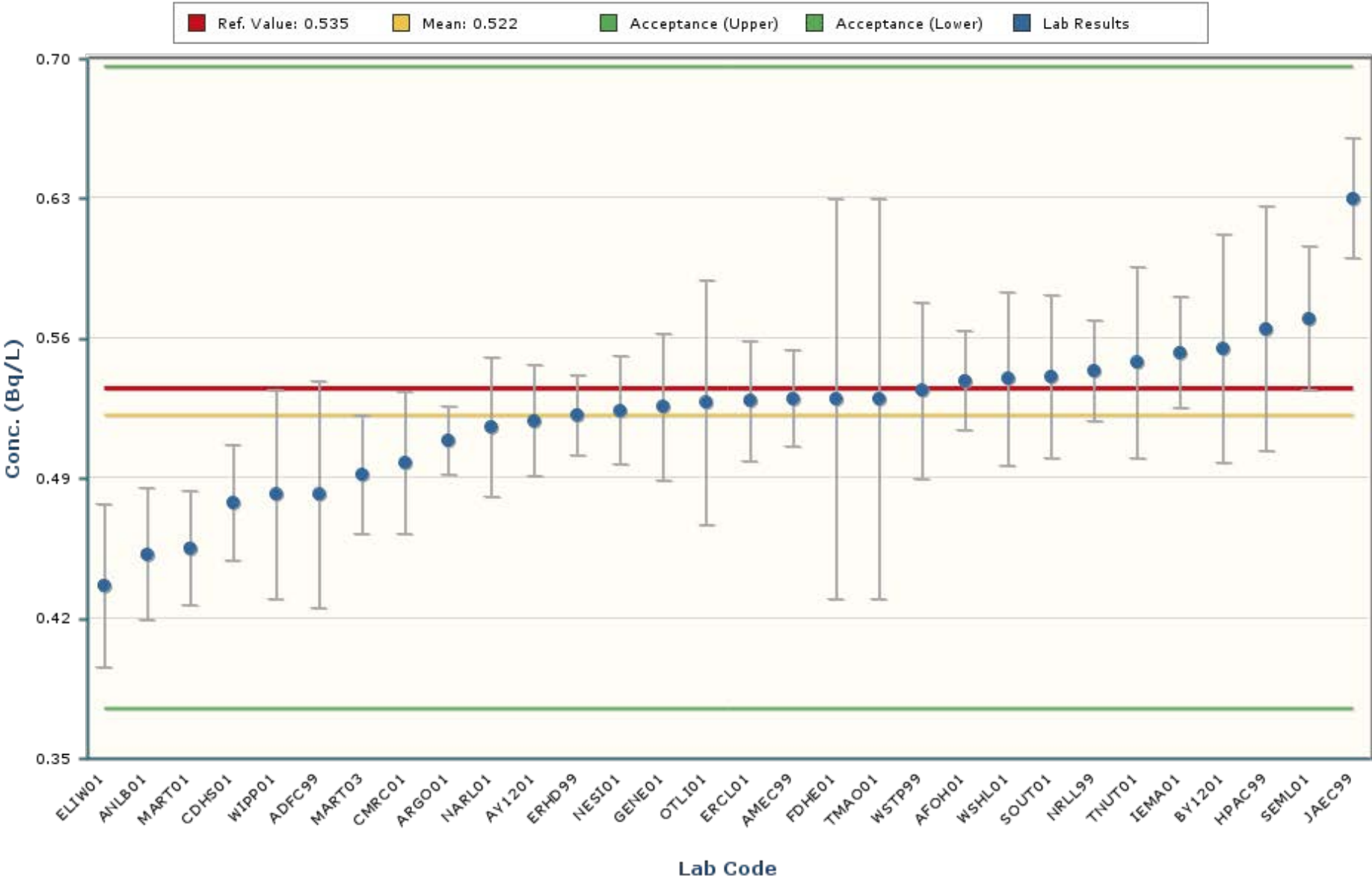
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 1.26 and 4.20 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Technetium-99
MAPEP-25-MaW52



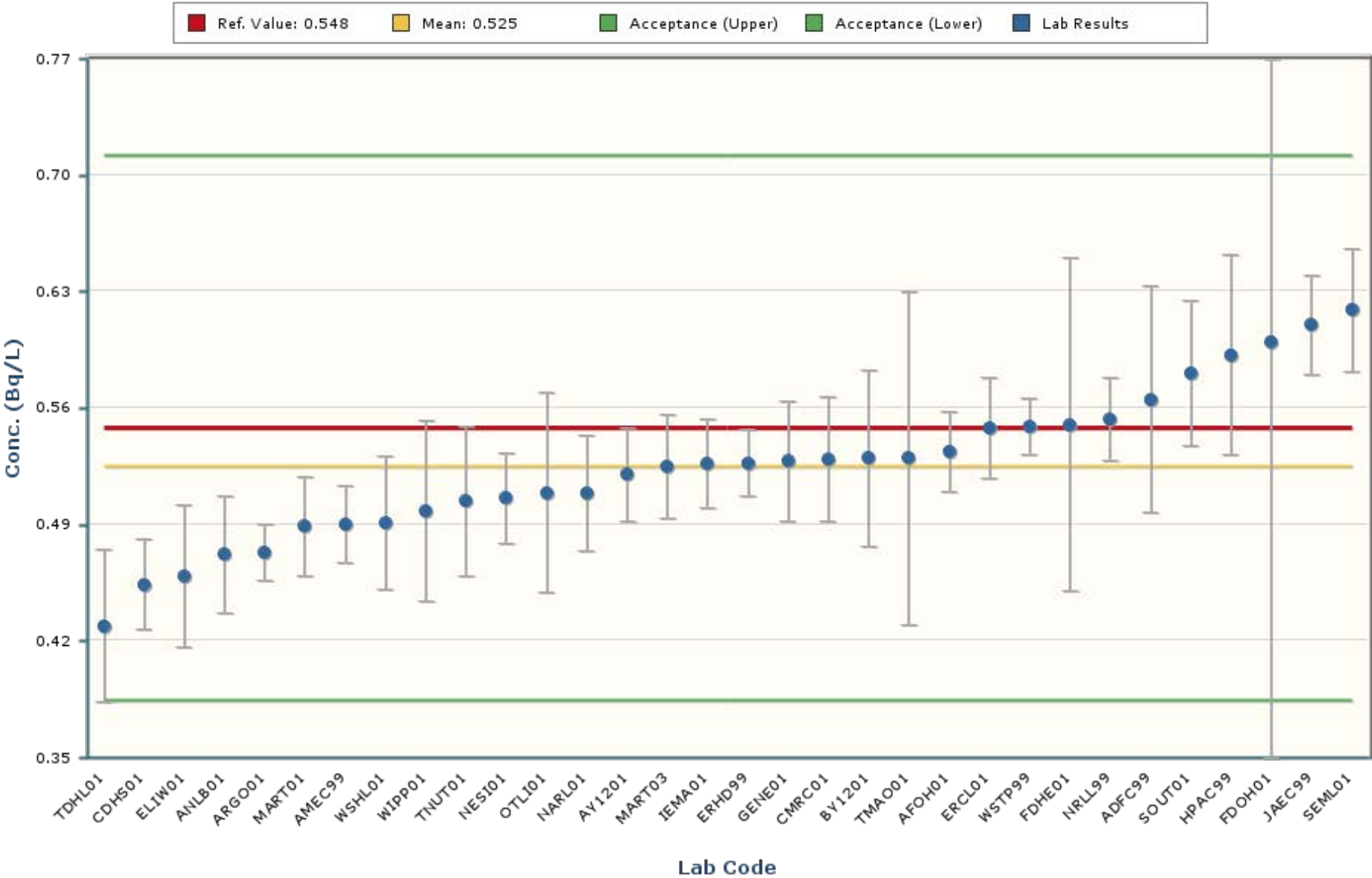
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 3.40 and 9.09 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Uranium-234
MAPEP-25-MaW52



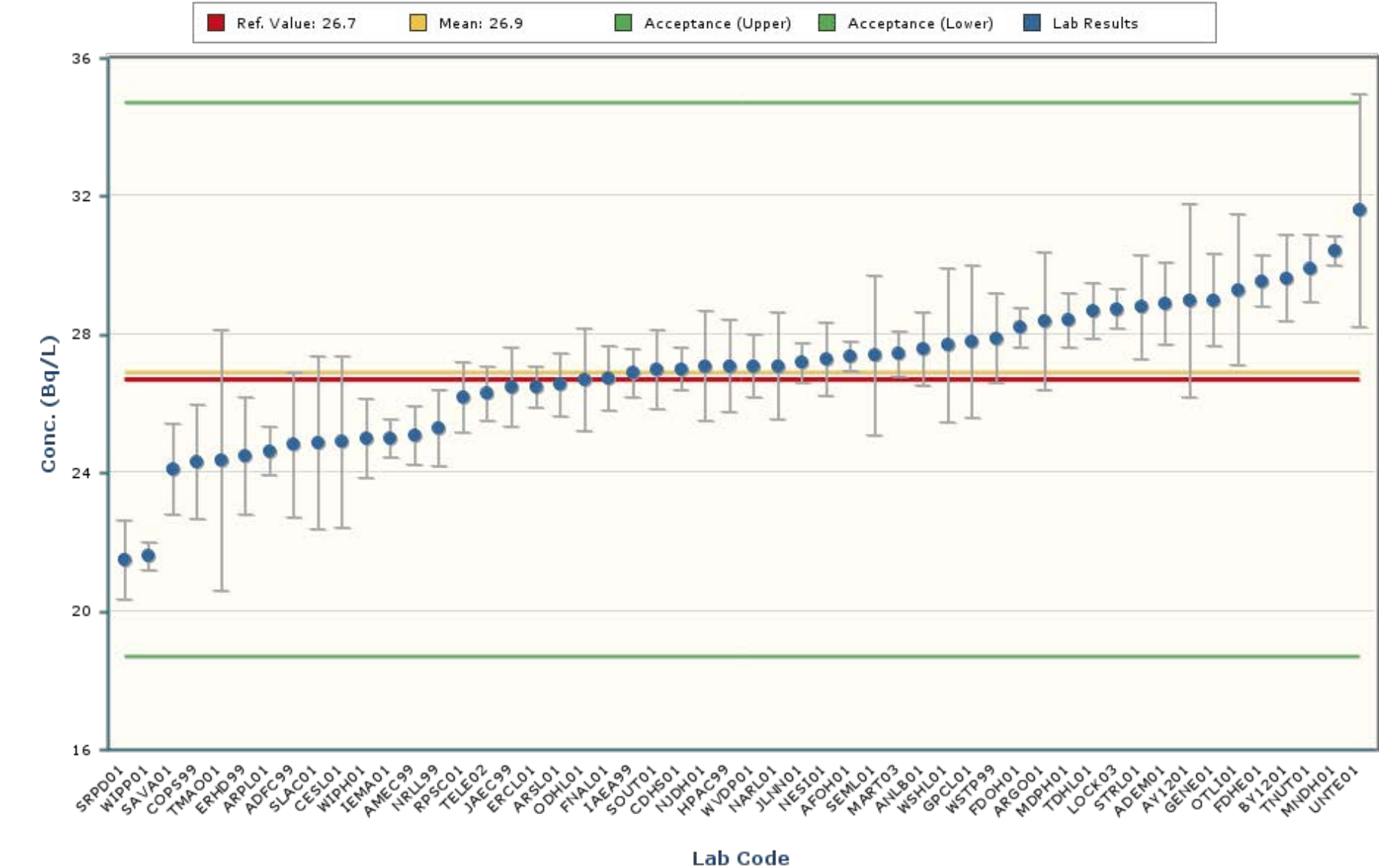
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.327 and 0.717 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Uranium-238
MAPEP-25-MaW52



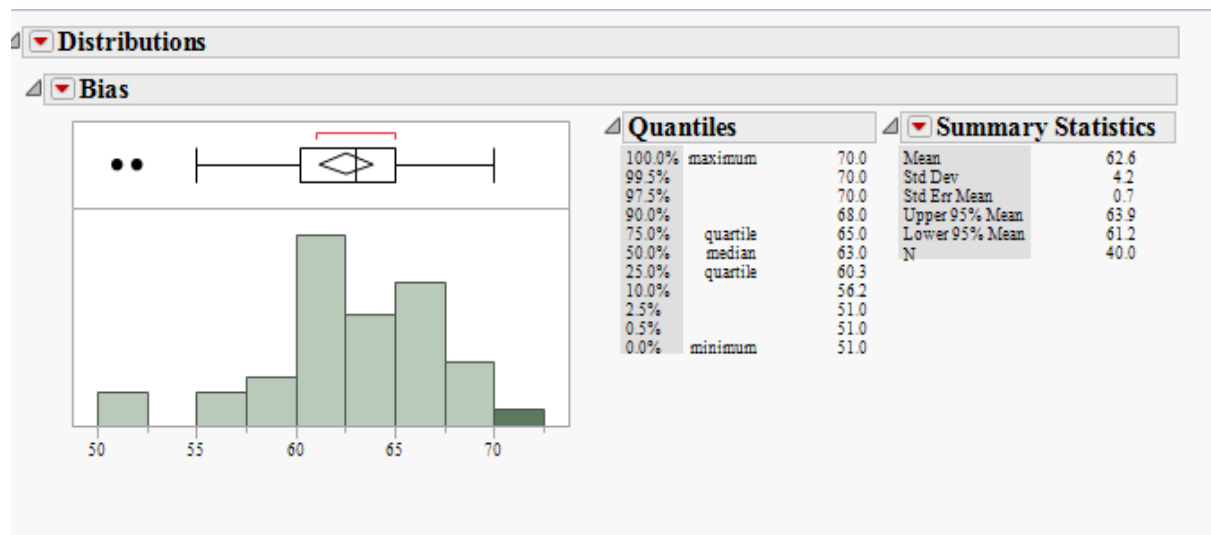
Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.299 and 0.751 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at $\pm$ one standard deviation.

Zinc-65
MAPEP-25-MaW52



Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 16.7 and 37.2 (± 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.

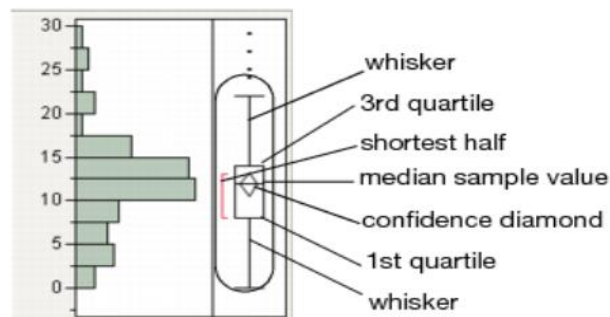


Outlier Box Plot

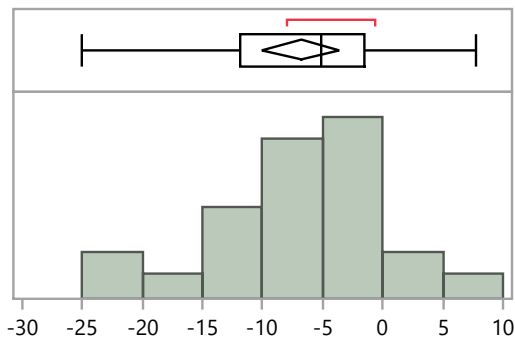
The BLACK small vertical line inside the small rectangle at the top of the data distribution graph is the median of the population of the bias shown for that analyte in the matrix. The confidence diamond contains the mean and the upper and lower 95% of the mean. If you drew a line through the middle 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)



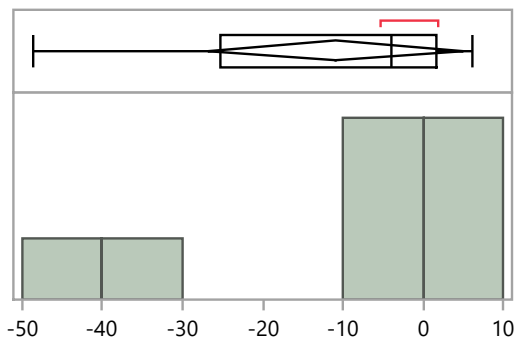
If the data points do not reach the computed ranges, then the whiskers are determined by the upper and lower data point values (not including outliers). The bracket outside of the box identifies the *shortest half*, which is the most dense 50% of the observations (Rousseuw and Leroy 1987).

MaW52 Distribution by Detection Method**Distributions Analyte_Detection=Americium-241 Alpha Spectrometry****Bias****Quantiles**

100.0%	maximum	7.7
99.5%		7.7
97.5%		7.7
90.0%		2.8
75.0%	quartile	-1.5
50.0%	median	-5.2
25.0%	quartile	-11.9
10.0%		-19.8
2.5%		-25.0
0.5%		-25.0
0.0%	minimum	-25.0

Summary Statistics

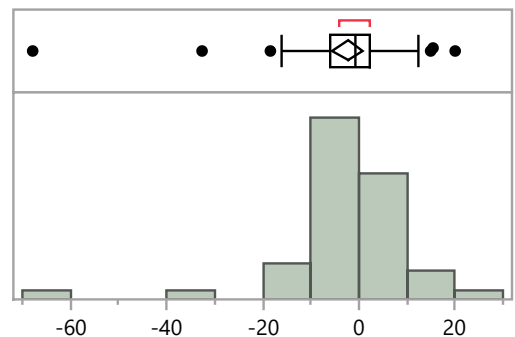
Mean	-6.8
Std Dev	7.7
Std Err Mean	1.5
Upper 95% Mean	-3.7
Lower 95% Mean	-10.0
N	25.0

Distributions Analyte_Detection=Americium-241 Gamma Spectrometry**Bias****Quantiles**

100.0%	maximum	6.1
99.5%		6.1
97.5%		6.1
90.0%		6.1
75.0%	quartile	1.7
50.0%	median	-4.1
25.0%	quartile	-25.2
10.0%		-48.7
2.5%		-48.7
0.5%		-48.7
0.0%	minimum	-48.7

Summary Statistics

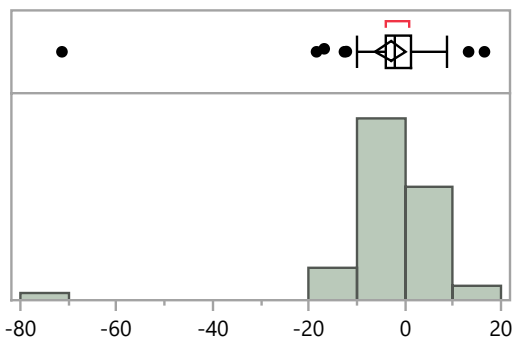
Mean	-10.9
Std Dev	19.0
Std Err Mean	6.7
Upper 95% Mean	5.0
Lower 95% Mean	-26.7
N	8.0

Distributions Analyte_Detection=Cesium-137 Gamma Spectrometry**Bias****Quantiles**

100.0%	maximum	20.0
99.5%		20.0
97.5%		18.0
90.0%		9.6
75.0%	quartile	2.2
50.0%	median	-0.7
25.0%	quartile	-6.0
10.0%		-12.0
2.5%		-52.8
0.5%		-67.8
0.0%	minimum	-67.8

Summary Statistics

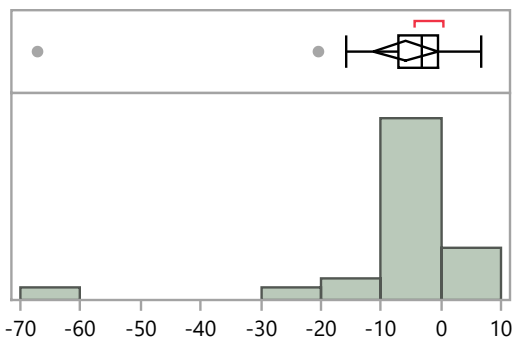
Mean	-2.4
Std Dev	12.3
Std Err Mean	1.6
Upper 95% Mean	0.9
Lower 95% Mean	-5.7
N	56.0

MaW52 Distribution by Detection Method**Distributions Analyte_Detection=Cobalt-57 Gamma Spectrometry****Bias****Quantiles**

100.0%	maximum	16.5
99.5%		16.5
97.5%		15.2
90.0%		5.3
75.0%	quartile	1.3
50.0%	median	-2.3
25.0%	quartile	-4.0
10.0%		-10.9
2.5%		-50.1
0.5%		-71.3
0.0%	minimum	-71.3

Summary Statistics

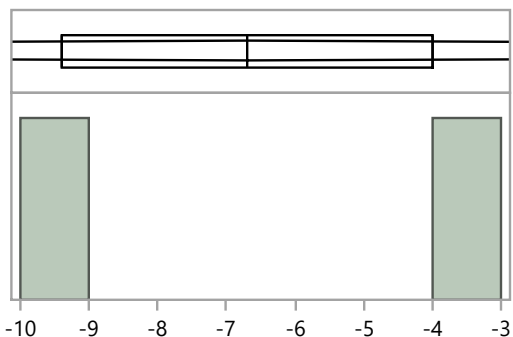
Mean	-3.0
Std Dev	11.3
Std Err Mean	1.5
Upper 95% Mean	0.0
Lower 95% Mean	-6.1
N	55.0

Distributions Analyte_Detection=Cobalt-58 Gamma Spectrometry**Bias****Quantiles**

100.0%	maximum	6.8
99.5%		6.8
97.5%		6.8
90.0%		3.9
75.0%	quartile	-0.5
50.0%	median	-3.1
25.0%	quartile	-7.2
10.0%		-16.8
2.5%		-67.1
0.5%		-67.1
0.0%	minimum	-67.1

Summary Statistics

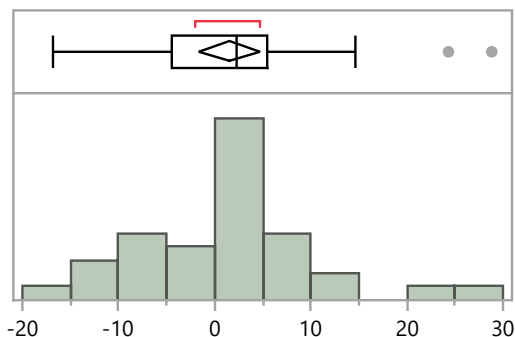
Mean	-6.0
Std Dev	13.6
Std Err Mean	2.6
Upper 95% Mean	-0.7
Lower 95% Mean	-11.4
N	27.0

Distributions Analyte_Detection=Hydrogen-3 Gamma Spectrometry**Bias****Quantiles**

100.0%	maximum	-4.0
99.5%		-4.0
97.5%		-4.0
90.0%		-4.0
75.0%	quartile	-4.0
50.0%	median	-6.7
25.0%	quartile	-9.4
10.0%		-9.4
2.5%		-9.4
0.5%		-9.4
0.0%	minimum	-9.4

Summary Statistics

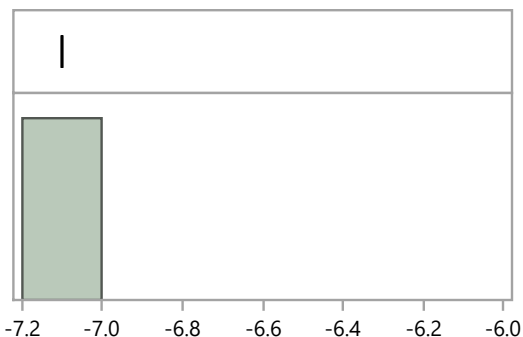
Mean	-6.7
Std Dev	3.8
Std Err Mean	2.7
Upper 95% Mean	27.6
Lower 95% Mean	-41.0
N	2.0

MaW52 Distribution by Detection Method**Distributions Analyte_Detection=Hydrogen-3 Liquid Scintillation Counter****Bias****Quantiles**

100.0%	maximum	28.8
99.5%		28.8
97.5%		28.8
90.0%		12.2
75.0%	quartile	5.5
50.0%	median	2.4
25.0%	quartile	-4.4
10.0%		-12.4
2.5%		-16.8
0.5%		-16.8
0.0%	minimum	-16.8

Summary Statistics

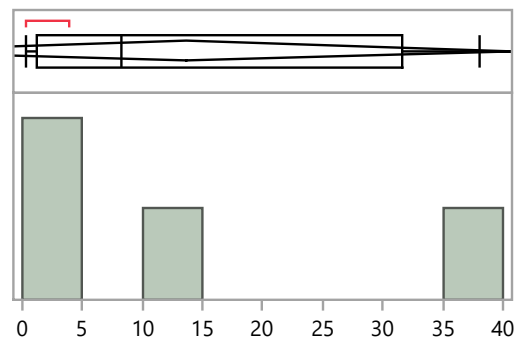
Mean	1.5
Std Dev	9.6
Std Err Mean	1.6
Upper 95% Mean	4.8
Lower 95% Mean	-1.7
N	36.0

Distributions Analyte_Detection=Iron-55 Gamma Spectrometry**Bias****Quantiles**

100.0%	maximum	-7.1
99.5%		-7.1
97.5%		-7.1
90.0%		-7.1
75.0%	quartile	-7.1
50.0%	median	-7.1
25.0%	quartile	-7.1
10.0%		-7.1
2.5%		-7.1
0.5%		-7.1
0.0%	minimum	-7.1

Summary Statistics

Mean	-7.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Detection=Iron-55 Liquid Scintillation Counter**Bias****Quantiles**

100.0%	maximum	38.0
99.5%		38.0
97.5%		38.0
90.0%		38.0
75.0%	quartile	31.6
50.0%	median	8.2
25.0%	quartile	1.3
10.0%		0.4
2.5%		0.4
0.5%		0.4
0.0%	minimum	0.4

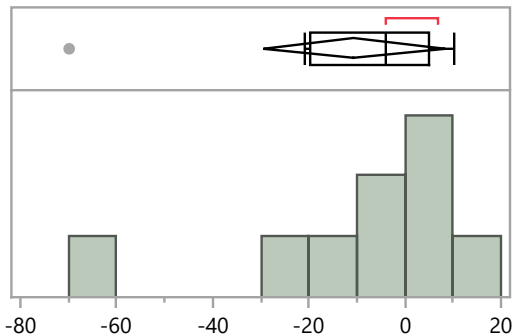
Summary Statistics

Mean	13.7
Std Dev	17.0
Std Err Mean	8.5
Upper 95% Mean	40.7
Lower 95% Mean	-13.3
N	4.0

MaW52 Distribution by Detection Method

Distributions Analyte_Detection=Nickel-63 Liquid Scintillation Counter

Bias



Quantiles

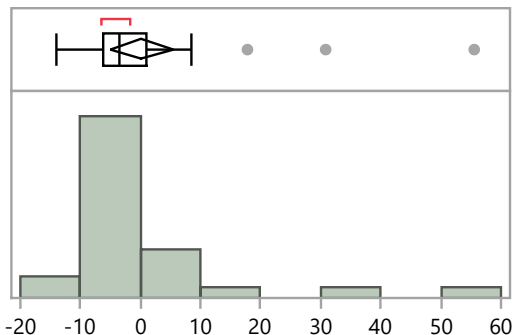
100.0%	maximum	10.3
99.5%		10.3
97.5%		10.3
90.0%		10.3
75.0%	quartile	4.9
50.0%	median	-4.1
25.0%	quartile	-19.8
10.0%		-69.8
2.5%		-69.8
0.5%		-69.8
0.0%	minimum	-69.8

Summary Statistics

Mean	-10.7
Std Dev	24.6
Std Err Mean	8.2
Upper 95% Mean	8.2
Lower 95% Mean	-29.6
N	9.0

Distributions Analyte_Detection=Plutonium-239/240 Alpha Spectrometry

Bias



Quantiles

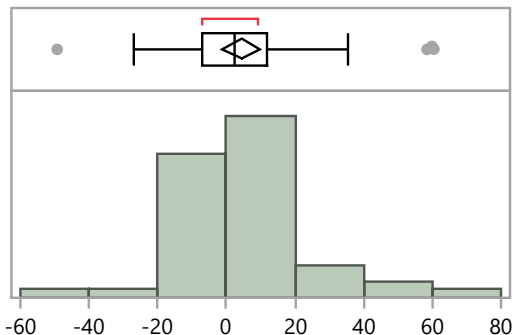
100.0%	maximum	55.5
99.5%		55.5
97.5%		55.5
90.0%		17.8
75.0%	quartile	1.1
50.0%	median	-3.5
25.0%	quartile	-6.2
10.0%		-9.8
2.5%		-13.9
0.5%		-13.9
0.0%	minimum	-13.9

Summary Statistics

Mean	0.1
Std Dev	13.7
Std Err Mean	2.5
Upper 95% Mean	5.3
Lower 95% Mean	-5.1
N	29.0

Distributions Analyte_Detection=Potassium-40 Gamma Spectrometry

Bias

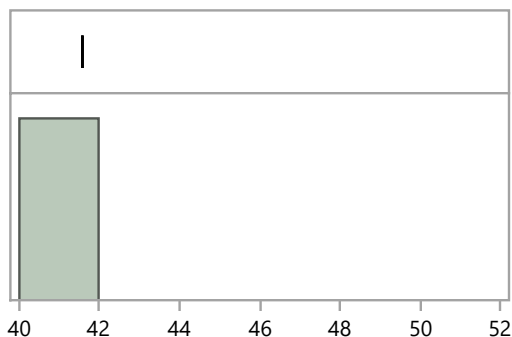


Quantiles

100.0%	maximum	60.4
99.5%		60.4
97.5%		60.2
90.0%		31.3
75.0%	quartile	11.9
50.0%	median	2.5
25.0%	quartile	-6.9
10.0%		-17.9
2.5%		-41.9
0.5%		-49.2
0.0%	minimum	-49.2

Summary Statistics

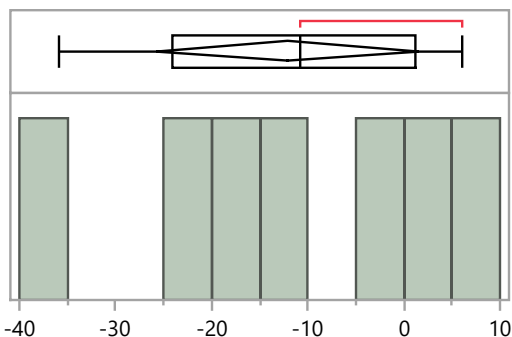
Mean	4.4
Std Dev	20.1
Std Err Mean	2.8
Upper 95% Mean	10.0
Lower 95% Mean	-1.2
N	52.0

MaW52 Distribution by Detection Method**Distributions Analyte_Detection=Potassium-40 Gas Flow Proportional Counter****Bias****Quantiles**

100.0%	maximum	41.6
99.5%		41.6
97.5%		41.6
90.0%		41.6
75.0%	quartile	41.6
50.0%	median	41.6
25.0%	quartile	41.6
10.0%		41.6
2.5%		41.6
0.5%		41.6
0.0%	minimum	41.6

Summary Statistics

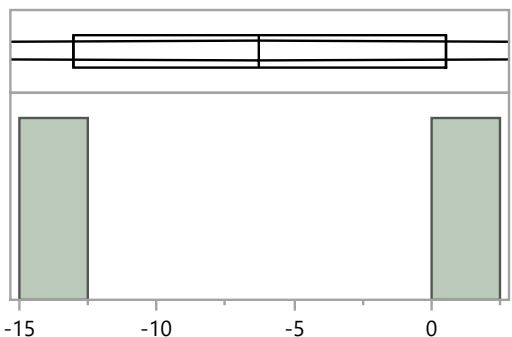
Mean	41.6
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Detection=Radium-226 Alpha Spectrometry**Bias****Quantiles**

100.0%	maximum	6.0
99.5%		6.0
97.5%		6.0
90.0%		6.0
75.0%	quartile	1.1
50.0%	median	-10.8
25.0%	quartile	-24.0
10.0%		-35.9
2.5%		-35.9
0.5%		-35.9
0.0%	minimum	-35.9

Summary Statistics

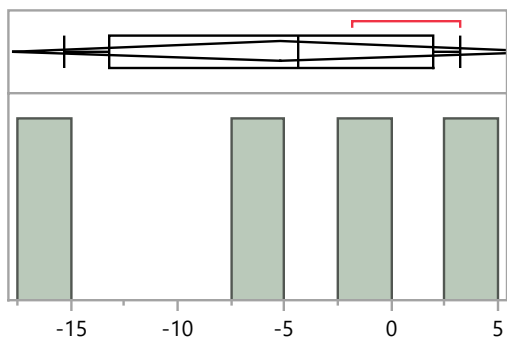
Mean	-12.2
Std Dev	14.8
Std Err Mean	5.6
Upper 95% Mean	1.5
Lower 95% Mean	-25.8
N	7.0

Distributions Analyte_Detection=Radium-226 Gamma Spectrometry**Bias****Quantiles**

100.0%	maximum	0.5
99.5%		0.5
97.5%		0.5
90.0%		0.5
75.0%	quartile	0.5
50.0%	median	-6.3
25.0%	quartile	-13.0
10.0%		-13.0
2.5%		-13.0
0.5%		-13.0
0.0%	minimum	-13.0

Summary Statistics

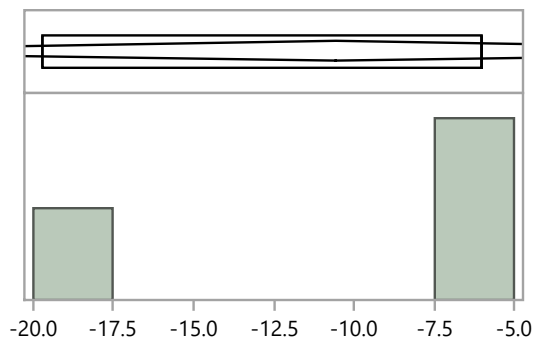
Mean	-6.3
Std Dev	9.5
Std Err Mean	6.8
Upper 95% Mean	79.5
Lower 95% Mean	-92.0
N	2.0

MaW52 Distribution by Detection Method**Distributions Analyte_Detection=Radium-226 Gas Flow Proportional Counter****Bias****Quantiles**

100.0%	maximum	3.2
99.5%		3.2
97.5%		3.2
90.0%		3.2
75.0%	quartile	2.0
50.0%	median	-4.4
25.0%	quartile	-13.2
10.0%		-15.3
2.5%		-15.3
0.5%		-15.3
0.0%	minimum	-15.3

Summary Statistics

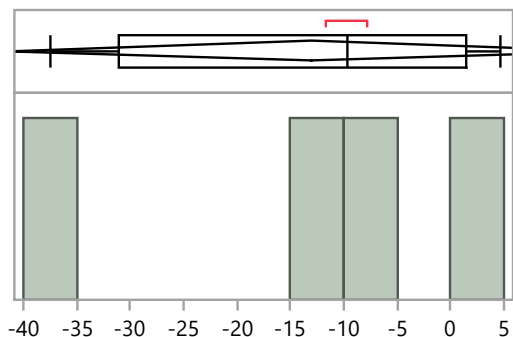
Mean	-5.2
Std Dev	7.9
Std Err Mean	3.9
Upper 95% Mean	7.4
Lower 95% Mean	-17.8
N	4.0

Distributions Analyte_Detection=Radium-226 Gross Alpha/Beta - 2 pi gas flow proportional counter**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	-6.0
25.0%	quartile	-19.7
10.0%		-19.7
2.5%		-19.7
0.5%		-19.7
0.0%	minimum	-19.7

Summary Statistics

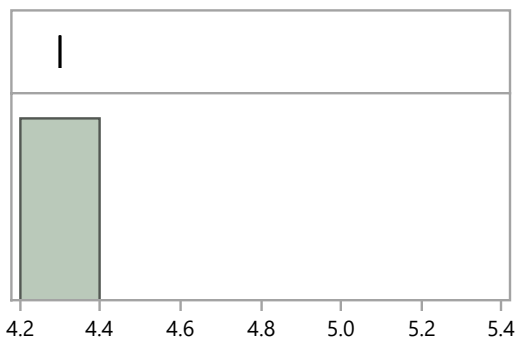
Mean	-10.6
Std Dev	7.9
Std Err Mean	4.6
Upper 95% Mean	9.1
Lower 95% Mean	-30.2
N	3.0

Distributions Analyte_Detection=Radium-226 Other**Bias****Quantiles**

100.0%	maximum	4.6
99.5%		4.6
97.5%		4.6
90.0%		4.6
75.0%	quartile	1.5
50.0%	median	-9.8
25.0%	quartile	-31.1
10.0%		-37.5
2.5%		-37.5
0.5%		-37.5
0.0%	minimum	-37.5

Summary Statistics

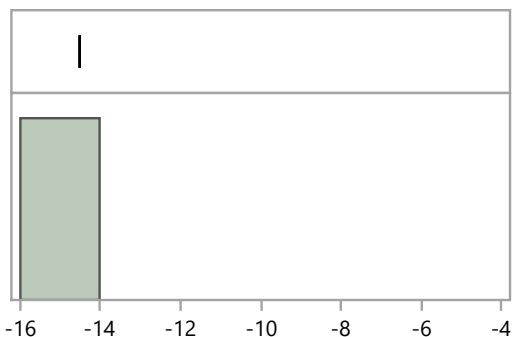
Mean	-13.1
Std Dev	17.7
Std Err Mean	8.8
Upper 95% Mean	15.0
Lower 95% Mean	-41.2
N	4.0

MaW52 Distribution by Detection Method**Distributions Analyte_Detection=Strontium-90 Alpha Spectrometry****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

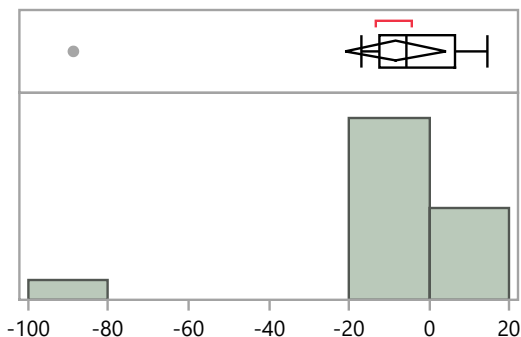
Mean	4.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Detection=Strontium-90 Gamma Spectrometry**Bias****Quantiles**

100.0%	maximum	-14.5
99.5%		-14.5
97.5%		-14.5
90.0%		-14.5
75.0%	quartile	-14.5
50.0%	median	-14.5
25.0%	quartile	-14.5
10.0%		-14.5
2.5%		-14.5
0.5%		-14.5
0.0%	minimum	-14.5

Summary Statistics

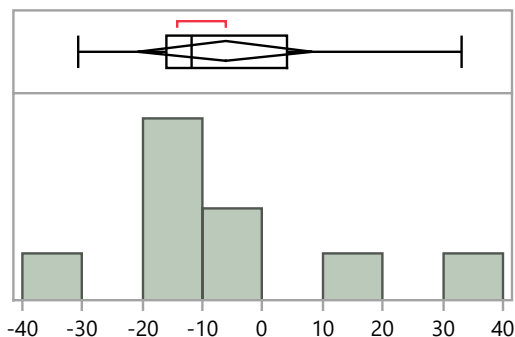
Mean	-14.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Detection=Strontium-90 Gas Flow Proportional Counter**Bias****Quantiles**

100.0%	maximum	14.5
99.5%		14.5
97.5%		14.5
90.0%		13.0
75.0%	quartile	6.7
50.0%	median	-5.7
25.0%	quartile	-12.2
10.0%		-38.3
2.5%		-88.7
0.5%		-88.7
0.0%	minimum	-88.7

Summary Statistics

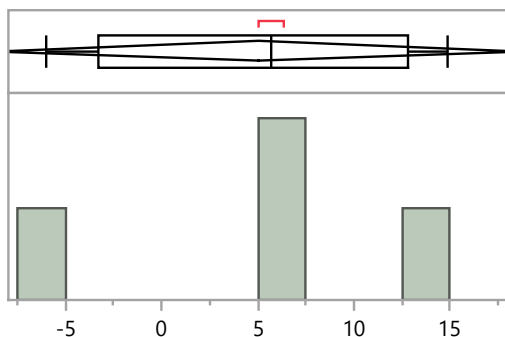
Mean	-8.3
Std Dev	23.5
Std Err Mean	5.9
Upper 95% Mean	4.3
Lower 95% Mean	-20.8
N	16.0

MaW52 Distribution by Detection Method**Distributions Analyte_Detection=Strontium-90 Gross Alpha/Beta - 2 pi gas flow proportional counter****Bias****Quantiles**

100.0%	maximum	33.0
99.5%		33.0
97.5%		33.0
90.0%		33.0
75.0%	quartile	3.9
50.0%	median	-11.7
25.0%	quartile	-16.2
10.0%		-30.7
2.5%		-30.7
0.5%		-30.7
0.0%	minimum	-30.7

Summary Statistics

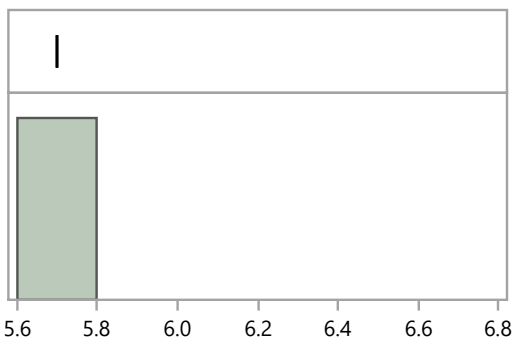
Mean	-6.2
Std Dev	18.8
Std Err Mean	6.3
Upper 95% Mean	8.2
Lower 95% Mean	-20.7
N	9.0

Distributions Analyte_Detection=Strontium-90 Liquid Scintillation Counter**Bias****Quantiles**

100.0%	maximum	14.9
99.5%		14.9
97.5%		14.9
90.0%		14.9
75.0%	quartile	12.8
50.0%	median	5.7
25.0%	quartile	-3.3
10.0%		-6.0
2.5%		-6.0
0.5%		-6.0
0.0%	minimum	-6.0

Summary Statistics

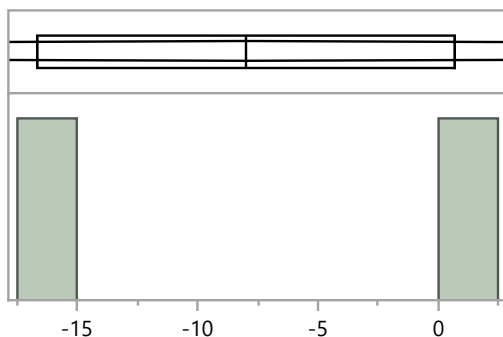
Mean	5.1
Std Dev	8.6
Std Err Mean	4.3
Upper 95% Mean	18.7
Lower 95% Mean	-8.6
N	4.0

Distributions Analyte_Detection=Technetium-99 Gas Flow Proportional Counter**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	5.7
25.0%	quartile	5.7
10.0%		5.7
2.5%		5.7
0.5%		5.7
0.0%	minimum	5.7

Summary Statistics

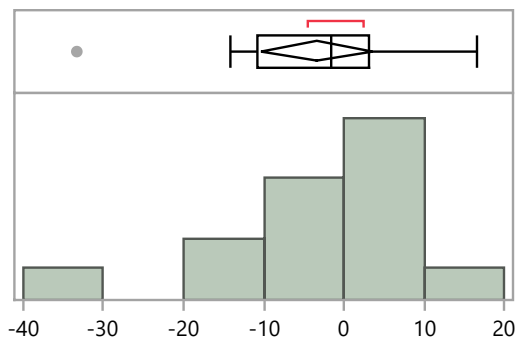
Mean	5.7
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaW52 Distribution by Detection Method**Distributions Analyte_Detection=Technetium-99 Inductively Coupled Plasma Mass Spectrometry****Bias****Quantiles**

100.0%	maximum	0.7
99.5%		0.7
97.5%		0.7
90.0%		0.7
75.0%	quartile	0.7
50.0%	median	-8.0
25.0%	quartile	-16.7
10.0%		-16.7
2.5%		-16.7
0.5%		-16.7
0.0%	minimum	-16.7

Summary Statistics

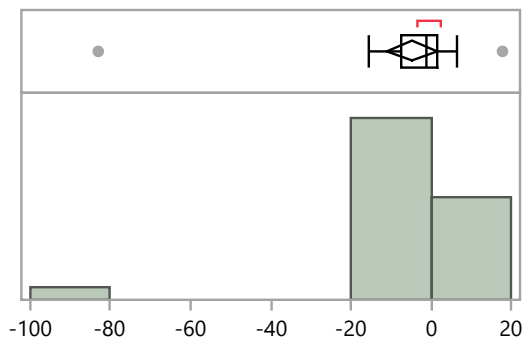
Mean	-8.0
Std Dev	12.3
Std Err Mean	8.7
Upper 95% Mean	102.5
Lower 95% Mean	-118.5
N	2.0

Distributions Analyte_Detection=Technetium-99 Liquid Scintillation Counter**Bias****Quantiles**

100.0%	maximum	16.7
99.5%		16.7
97.5%		16.7
90.0%		12.4
75.0%	quartile	3.1
50.0%	median	-1.6
25.0%	quartile	-10.8
10.0%		-23.8
2.5%		-33.3
0.5%		-33.3
0.0%	minimum	-33.3

Summary Statistics

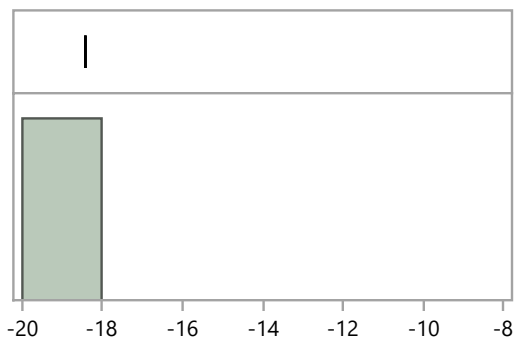
Mean	-3.4
Std Dev	12.0
Std Err Mean	3.2
Upper 95% Mean	3.6
Lower 95% Mean	-10.3
N	14.0

Distributions Analyte_Detection=Uranium-234 Alpha Spectrometry**Bias****Quantiles**

100.0%	maximum	17.8
99.5%		17.8
97.5%		17.8
90.0%		5.6
75.0%	quartile	1.4
50.0%	median	-1.3
25.0%	quartile	-7.5
10.0%		-14.9
2.5%		-83.0
0.5%		-83.0
0.0%	minimum	-83.0

Summary Statistics

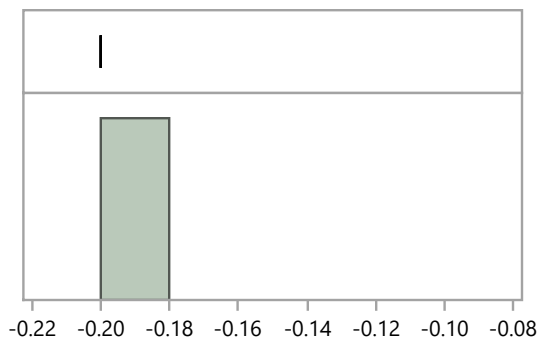
Mean	-4.8
Std Dev	16.5
Std Err Mean	3.1
Upper 95% Mean	1.5
Lower 95% Mean	-11.0
N	29.0

MaW52 Distribution by Detection Method**Distributions Analyte_Detection=Uranium-234 Gas Flow Proportional Counter****Bias****Quantiles**

100.0%	maximum	-18.4
99.5%		-18.4
97.5%		-18.4
90.0%		-18.4
75.0%	quartile	-18.4
50.0%	median	-18.4
25.0%	quartile	-18.4
10.0%		-18.4
2.5%		-18.4
0.5%		-18.4
0.0%	minimum	-18.4

Summary Statistics

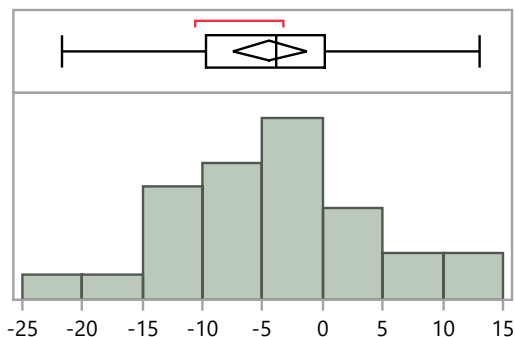
Mean	-18.4
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Detection=Uranium-234 Inductively Coupled Plasma Mass Spectrometry**Bias****Quantiles**

100.0%	maximum	-0.2
99.5%		-0.2
97.5%		-0.2
90.0%		-0.2
75.0%	quartile	-0.2
50.0%	median	-0.2
25.0%	quartile	-0.2
10.0%		-0.2
2.5%		-0.2
0.5%		-0.2
0.0%	minimum	-0.2

Summary Statistics

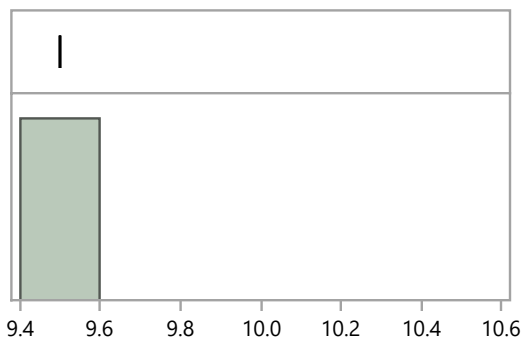
Mean	-0.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Detection=Uranium-238 Alpha Spectrometry**Bias****Quantiles**

100.0%	maximum	13.0
99.5%		13.0
97.5%		13.0
90.0%		8.0
75.0%	quartile	0.2
50.0%	median	-3.9
25.0%	quartile	-9.8
10.0%		-13.9
2.5%		-21.7
0.5%		-21.7
0.0%	minimum	-21.7

Summary Statistics

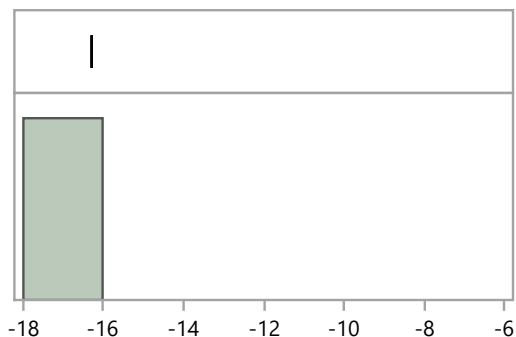
Mean	-4.4
Std Dev	7.9
Std Err Mean	1.5
Upper 95% Mean	-1.4
Lower 95% Mean	-7.4
N	29.0

MaW52 Distribution by Detection Method**Distributions Analyte_Detection=Uranium-238 Gamma Spectrometry****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	9.5
25.0%	quartile	9.5
10.0%		9.5
2.5%		9.5
0.5%		9.5
0.0%	minimum	9.5

Summary Statistics

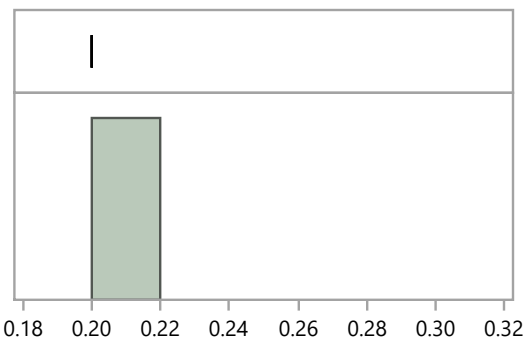
Mean	9.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Detection=Uranium-238 Gas Flow Proportional Counter**Bias****Quantiles**

100.0%	maximum	-16.3
99.5%		-16.3
97.5%		-16.3
90.0%		-16.3
75.0%	quartile	-16.3
50.0%	median	-16.3
25.0%	quartile	-16.3
10.0%		-16.3
2.5%		-16.3
0.5%		-16.3
0.0%	minimum	-16.3

Summary Statistics

Mean	-16.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Detection=Uranium-238 Inductively Coupled Plasma Mass Spectrometry**Bias****Quantiles**

100.0%	maximum	0.2
99.5%		0.2
97.5%		0.2
90.0%		0.2
75.0%	quartile	0.2
50.0%	median	0.2
25.0%	quartile	0.2
10.0%		0.2
2.5%		0.2
0.5%		0.2
0.0%	minimum	0.2

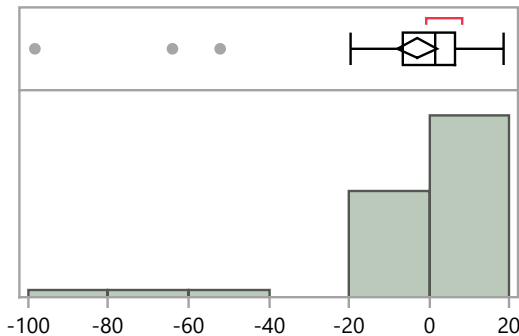
Summary Statistics

Mean	0.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaW52 Distribution by Detection Method

Distributions Analyte_Detection=Zinc-65 Gamma Spectrometry

Bias

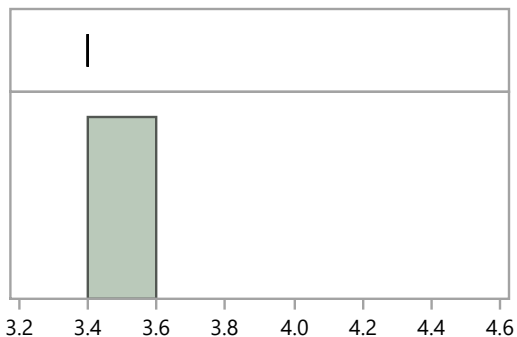


Quantiles			Summary Statistics	
100.0%	maximum	18.4	Mean	-3.0
99.5%		18.4	Std Dev	18.8
97.5%		16.6	Std Err Mean	2.5
90.0%		10.1	Upper 95% Mean	2.0
75.0%	quartile	6.4	Lower 95% Mean	-8.1
50.0%	median	1.5	N	55.0
25.0%	quartile	-6.4		
10.0%		-13.5		
2.5%		-84.6		
0.5%		-98.3		
0.0%	minimum	-98.3		

MaW52 Distribution by Preparation Method

Distributions Analyte_Method=Americium-241 Acid dissolution with hydrofluoric acid

Bias



Quantiles

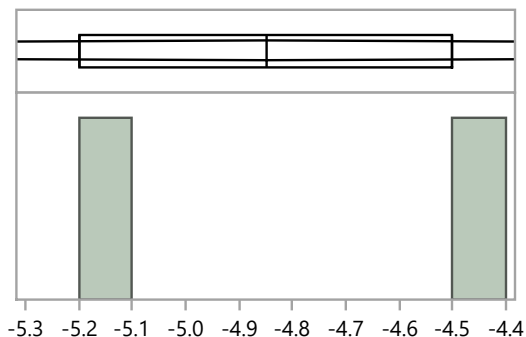
100.0%	maximum	3.4
99.5%		3.4
97.5%		3.4
90.0%		3.4
75.0%	quartile	3.4
50.0%	median	3.4
25.0%	quartile	3.4
10.0%		3.4
2.5%		3.4
0.5%		3.4
0.0%	minimum	3.4

Summary Statistics

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

Distributions Analyte_Method=Americium-241 Coprecipitation, acidified

Bias



Quantiles

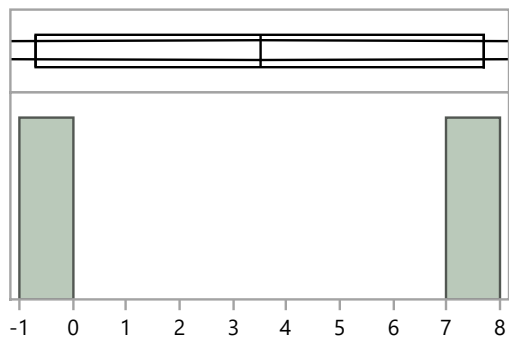
100.0%	maximum	-4.5
99.5%		-4.5
97.5%		-4.5
90.0%		-4.5
75.0%	quartile	-4.5
50.0%	median	-4.9
25.0%	quartile	-5.2
10.0%		-5.2
2.5%		-5.2
0.5%		-5.2
0.0%	minimum	-5.2

Summary Statistics

Mean	-4.9
Std Dev	0.5
Std Err Mean	0.4
Upper 95% Mean	-0.4
Lower 95% Mean	-9.3
N	2.0

Distributions Analyte_Method=Americium-241 Coprecipitation, straight

Bias

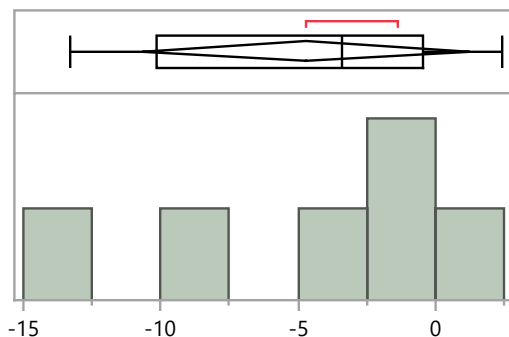


Quantiles

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	3.5
25.0%	quartile	-0.7
10.0%		-0.7
2.5%		-0.7
0.5%		-0.7
0.0%	minimum	-0.7

Summary Statistics

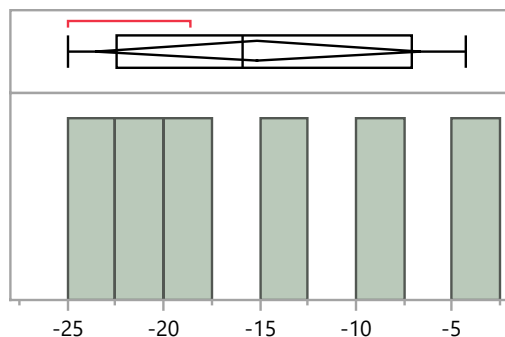
Mean	3.5
Std Dev	5.9
Std Err Mean	4.2
Upper 95% Mean	56.9
Lower 95% Mean	-49.9
N	2.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Americium-241 Evaporation, acidified****Bias****Quantiles**

100.0%	maximum	2.4
99.5%		2.4
97.5%		2.4
90.0%		2.4
75.0%	quartile	-0.4
50.0%	median	-3.4
25.0%	quartile	-10.2
10.0%		-13.3
2.5%		-13.3
0.5%		-13.3
0.0%	minimum	-13.3

Summary Statistics

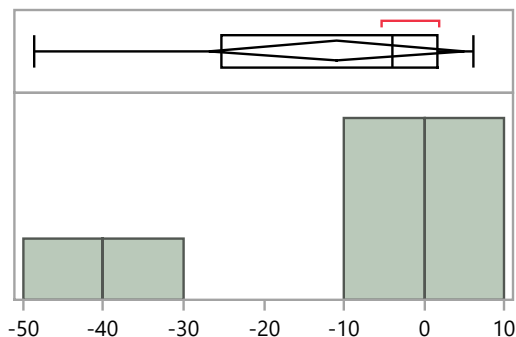
Mean	-4.7
Std Dev	5.7
Std Err Mean	2.3
Upper 95% Mean	1.3
Lower 95% Mean	-10.7
N	6.0

Distributions Analyte_Method=Americium-241 Ion Exchange Chromatography / Ion Chromatography**Bias****Quantiles**

100.0%	maximum	-4.3
99.5%		-4.3
97.5%		-4.3
90.0%		-4.3
75.0%	quartile	-7.1
50.0%	median	-15.9
25.0%	quartile	-22.5
10.0%		-25.0
2.5%		-25.0
0.5%		-25.0
0.0%	minimum	-25.0

Summary Statistics

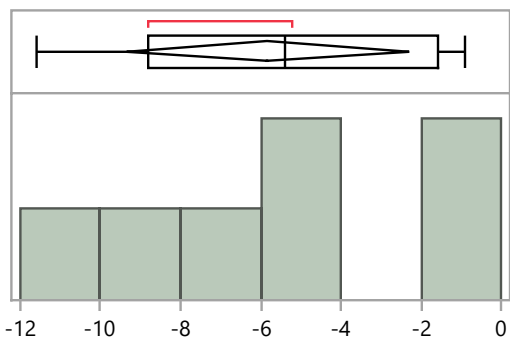
Mean	-15.1
Std Dev	8.0
Std Err Mean	3.3
Upper 95% Mean	-6.7
Lower 95% Mean	-23.5
N	6.0

Distributions Analyte_Method=Americium-241 No preparation - analyzed as received**Bias****Quantiles**

100.0%	maximum	6.1
99.5%		6.1
97.5%		6.1
90.0%		6.1
75.0%	quartile	1.7
50.0%	median	-4.1
25.0%	quartile	-25.2
10.0%		-48.7
2.5%		-48.7
0.5%		-48.7
0.0%	minimum	-48.7

Summary Statistics

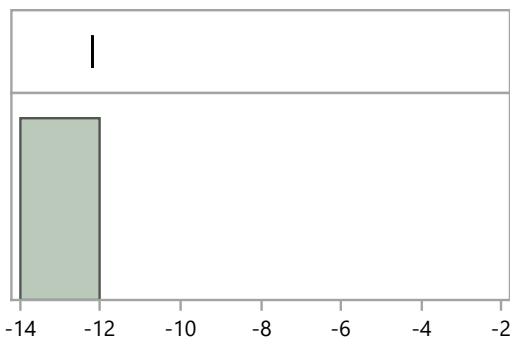
Mean	-10.9
Std Dev	19.0
Std Err Mean	6.7
Upper 95% Mean	5.0
Lower 95% Mean	-26.7
N	8.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Americium-241 Other****Bias****Quantiles**

100.0%	maximum	-0.9
99.5%		-0.9
97.5%		-0.9
90.0%		-0.9
75.0%	quartile	-1.6
50.0%	median	-5.4
25.0%	quartile	-8.8
10.0%		-11.6
2.5%		-11.6
0.5%		-11.6
0.0%	minimum	-11.6

Summary Statistics

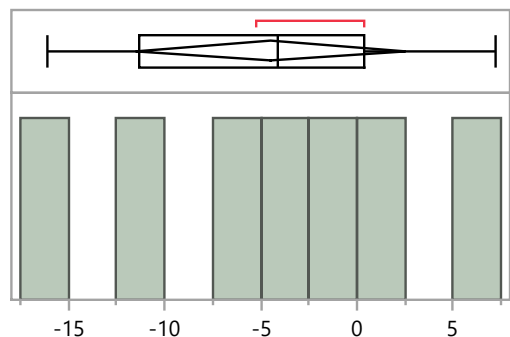
Mean	-5.8
Std Dev	3.8
Std Err Mean	1.4
Upper 95% Mean	-2.3
Lower 95% Mean	-9.4
N	7.0

Distributions Analyte_Method=Americium-241 Total dissolution by fusion**Bias****Quantiles**

100.0%	maximum	-12.2
99.5%		-12.2
97.5%		-12.2
90.0%		-12.2
75.0%	quartile	-12.2
50.0%	median	-12.2
25.0%	quartile	-12.2
10.0%		-12.2
2.5%		-12.2
0.5%		-12.2
0.0%	minimum	-12.2

Summary Statistics

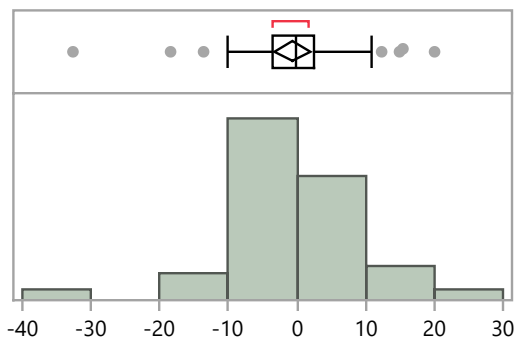
Mean	-12.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

100.0%	maximum	7.2
99.5%		7.2
97.5%		7.2
90.0%		7.2
75.0%	quartile	0.4
50.0%	median	-4.1
25.0%	quartile	-11.3
10.0%		-16.1
2.5%		-16.1
0.5%		-16.1
0.0%	minimum	-16.1

Summary Statistics

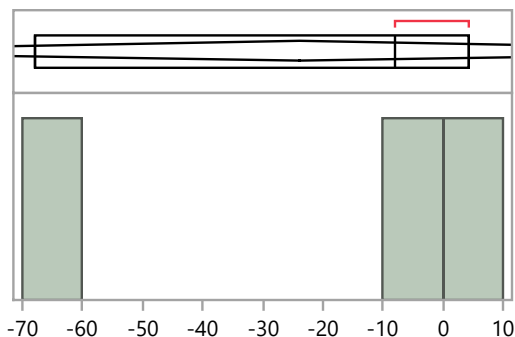
Mean	-4.5
Std Dev	7.6
Std Err Mean	2.9
Upper 95% Mean	2.5
Lower 95% Mean	-11.5
N	7.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Cesium-137 No preparation - analyzed as received****Bias****Quantiles**

100.0%	maximum	20.0
99.5%		20.0
97.5%		19.2
90.0%		11.3
75.0%	quartile	2.5
50.0%	median	-0.3
25.0%	quartile	-3.7
10.0%		-9.3
2.5%		-30.1
0.5%		-32.6
0.0%	minimum	-32.6

Summary Statistics

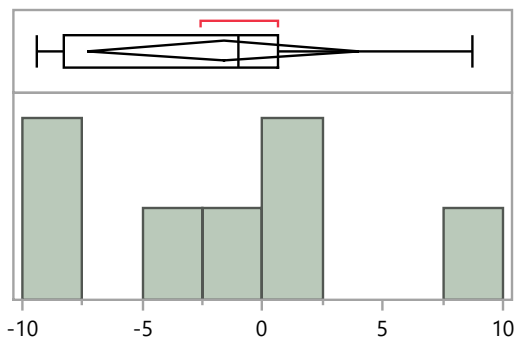
Mean	-0.6
Std Dev	8.8
Std Err Mean	1.3
Upper 95% Mean	2.0
Lower 95% Mean	-3.2
N	46.0

Distributions Analyte_Method=Cesium-137 Other**Bias****Quantiles**

100.0%	maximum	4.2
99.5%		4.2
97.5%		4.2
90.0%		4.2
75.0%	quartile	4.2
50.0%	median	-8.1
25.0%	quartile	-67.8
10.0%		-67.8
2.5%		-67.8
0.5%		-67.8
0.0%	minimum	-67.8

Summary Statistics

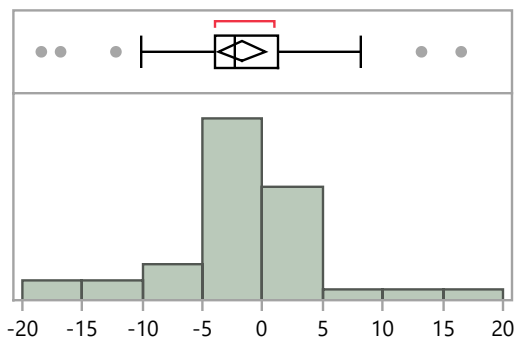
Mean	-23.9
Std Dev	38.5
Std Err Mean	22.2
Upper 95% Mean	71.8
Lower 95% Mean	-119.6
N	3.0

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

100.0%	maximum	8.7
99.5%		8.7
97.5%		8.7
90.0%		8.7
75.0%	quartile	0.6
50.0%	median	-1.0
25.0%	quartile	-8.3
10.0%		-9.4
2.5%		-9.4
0.5%		-9.4
0.0%	minimum	-9.4

Summary Statistics

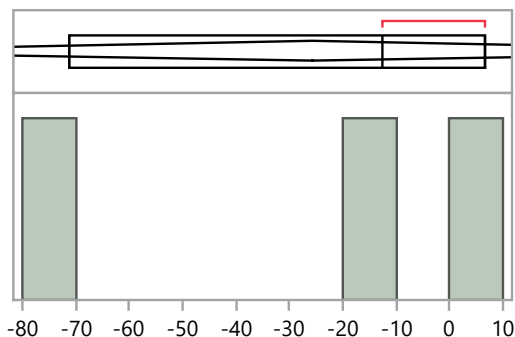
Mean	-1.6
Std Dev	6.1
Std Err Mean	2.3
Upper 95% Mean	4.0
Lower 95% Mean	-7.3
N	7.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Cobalt-57 No preparation - analyzed as received****Bias****Quantiles**

100.0%	maximum	16.5
99.5%		16.5
97.5%		16.0
90.0%		4.3
75.0%	quartile	1.3
50.0%	median	-2.3
25.0%	quartile	-3.9
10.0%		-10.0
2.5%		-18.2
0.5%		-18.4
0.0%	minimum	-18.4

Summary Statistics

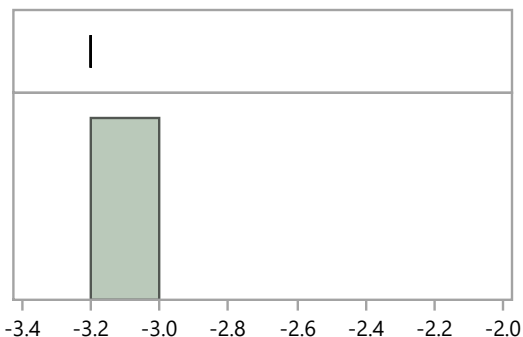
Mean	-1.7
Std Dev	6.3
Std Err Mean	0.9
Upper 95% Mean	0.2
Lower 95% Mean	-3.6
N	45.0

Distributions Analyte_Method=Cobalt-57 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	-12.6
25.0%	quartile	-71.3
10.0%		-71.3
2.5%		-71.3
0.5%		-71.3
0.0%	minimum	-71.3

Summary Statistics

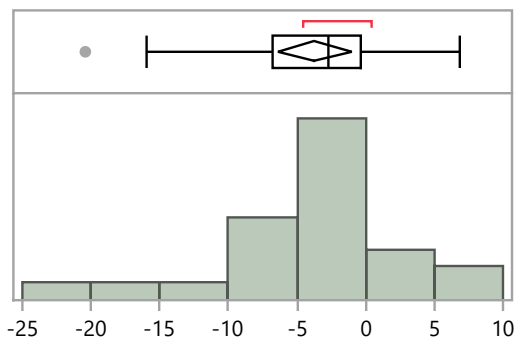
Mean	-25.8
Std Dev	40.6
Std Err Mean	23.4
Upper 95% Mean	75.1
Lower 95% Mean	-126.6
N	3.0

Distributions Analyte_Method=Cobalt-58 EPA 901.1, Gamma Emitting, 600/4-80-032**Bias****Quantiles**

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

Summary Statistics

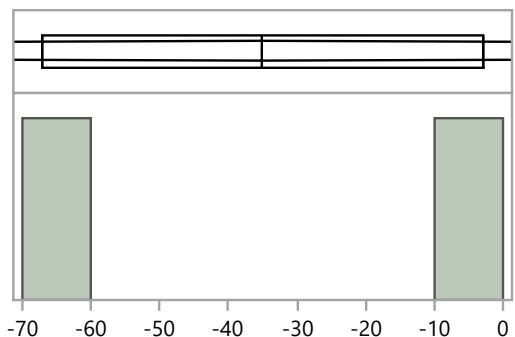
Mean	-3.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Cobalt-58 No preparation - analyzed as received****Bias****Quantiles**

100.0%	maximum	6.8
99.5%		6.8
97.5%		6.8
90.0%		4.6
75.0%	quartile	-0.4
50.0%	median	-2.8
25.0%	quartile	-6.8
10.0%		-14.9
2.5%		-20.4
0.5%		-20.4
0.0%	minimum	-20.4

Summary Statistics

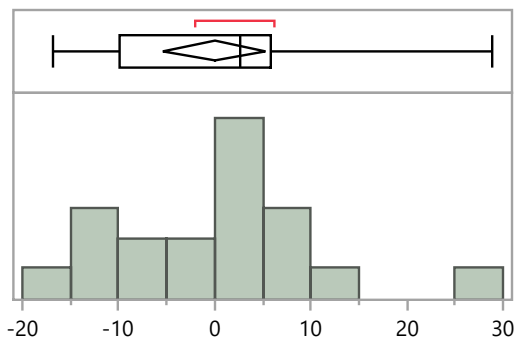
Mean	-3.8
Std Dev	6.4
Std Err Mean	1.3
Upper 95% Mean	-1.1
Lower 95% Mean	-6.4
N	24.0

Distributions Analyte_Method=Cobalt-58 Other**Bias****Quantiles**

100.0%	maximum	-3.0
99.5%		-3.0
97.5%		-3.0
90.0%		-3.0
75.0%	quartile	-3.0
50.0%	median	-35.1
25.0%	quartile	-67.1
10.0%		-67.1
2.5%		-67.1
0.5%		-67.1
0.0%	minimum	-67.1

Summary Statistics

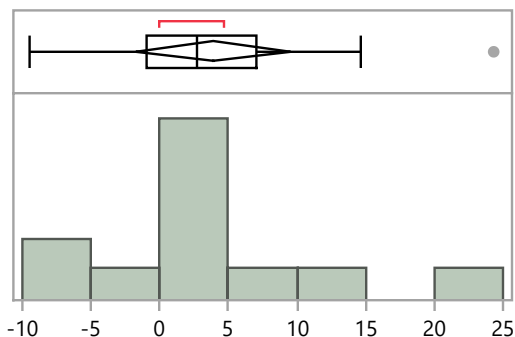
Mean	-35.1
Std Dev	45.3
Std Err Mean	32.1
Upper 95% Mean	372.2
Lower 95% Mean	-442.3
N	2.0

Distributions Analyte_Method=Hydrogen-3 Distillation**Bias****Quantiles**

100.0%	maximum	28.8
99.5%		28.8
97.5%		28.8
90.0%		11.1
75.0%	quartile	5.8
50.0%	median	2.6
25.0%	quartile	-9.9
10.0%		-14.1
2.5%		-16.8
0.5%		-16.8
0.0%	minimum	-16.8

Summary Statistics

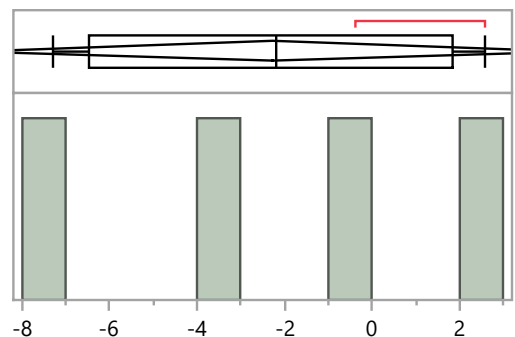
Mean	-0.0
Std Dev	10.9
Std Err Mean	2.5
Upper 95% Mean	5.2
Lower 95% Mean	-5.3
N	19.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Hydrogen-3 EPA 906, Tritium, 600/4/80-032****Bias****Quantiles**

100.0%	maximum	24.3
99.5%		24.3
97.5%		24.3
90.0%		21.4
75.0%	quartile	7.1
50.0%	median	2.8
25.0%	quartile	-1.0
10.0%		-8.1
2.5%		-9.4
0.5%		-9.4
0.0%	minimum	-9.4

Summary Statistics

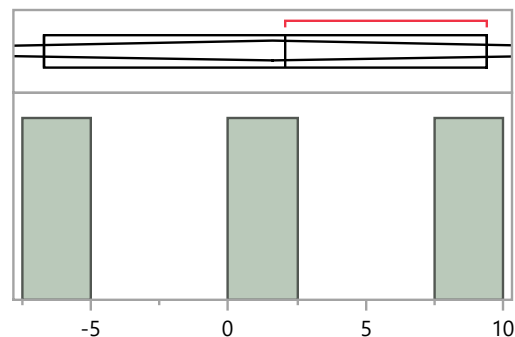
Mean	3.9
Std Dev	8.9
Std Err Mean	2.6
Upper 95% Mean	9.5
Lower 95% Mean	-1.7
N	12.0

Distributions Analyte_Method=Hydrogen-3 No preparation - analyzed as received**Bias****Quantiles**

100.0%	maximum	2.6
99.5%		2.6
97.5%		2.6
90.0%		2.6
75.0%	quartile	1.9
50.0%	median	-2.2
25.0%	quartile	-6.5
10.0%		-7.3
2.5%		-7.3
0.5%		-7.3
0.0%	minimum	-7.3

Summary Statistics

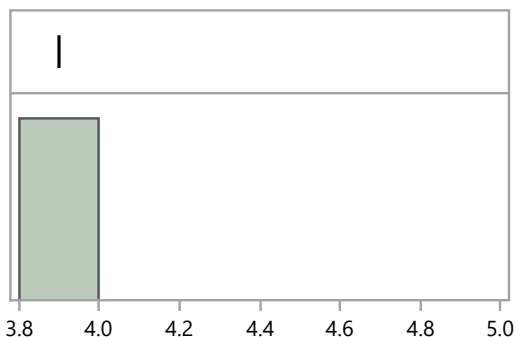
Mean	-2.3
Std Dev	4.3
Std Err Mean	2.2
Upper 95% Mean	4.6
Lower 95% Mean	-9.1
N	4.0

Distributions Analyte_Method=Hydrogen-3 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	2.1
25.0%	quartile	-6.7
10.0%		-6.7
2.5%		-6.7
0.5%		-6.7
0.0%	minimum	-6.7

Summary Statistics

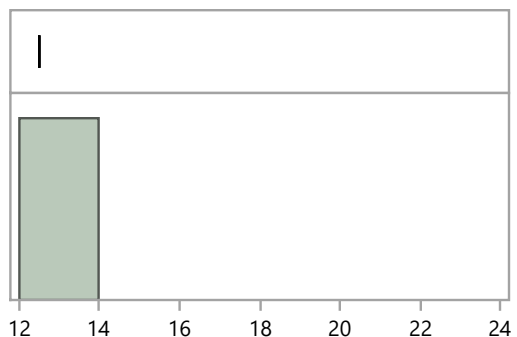
Mean	1.6
Std Dev	8.1
Std Err Mean	4.7
Upper 95% Mean	21.6
Lower 95% Mean	-18.4
N	3.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Iron-55 Acid dissolution with hydrofluoric acid****Bias****Quantiles**

100.0%	maximum	3.9
99.5%		3.9
97.5%		3.9
90.0%		3.9
75.0%	quartile	3.9
50.0%	median	3.9
25.0%	quartile	3.9
10.0%		3.9
2.5%		3.9
0.5%		3.9
0.0%	minimum	3.9

Summary Statistics

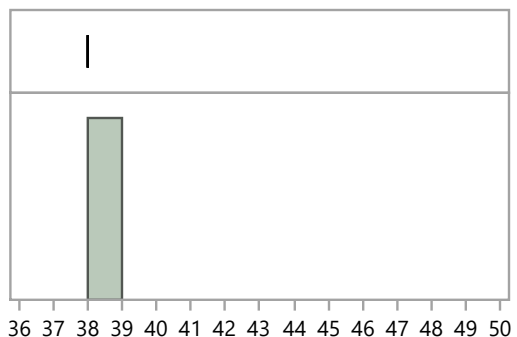
Mean	3.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Iron-55 Coprecipitation, acidified**Bias****Quantiles**

100.0%	maximum	12.5
99.5%		12.5
97.5%		12.5
90.0%		12.5
75.0%	quartile	12.5
50.0%	median	12.5
25.0%	quartile	12.5
10.0%		12.5
2.5%		12.5
0.5%		12.5
0.0%	minimum	12.5

Summary Statistics

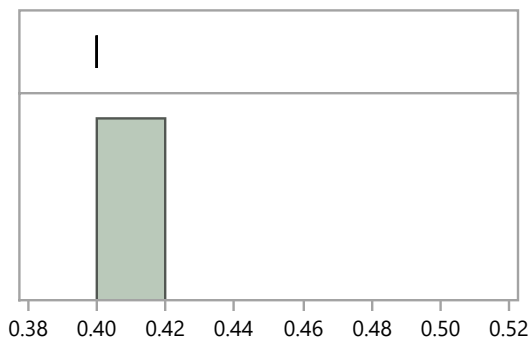
Mean	12.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Iron-55 Coprecipitation, straight**Bias****Quantiles**

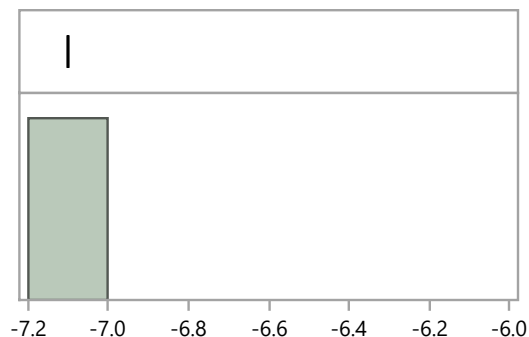
100.0%	maximum	38.0
99.5%		38.0
97.5%		38.0
90.0%		38.0
75.0%	quartile	38.0
50.0%	median	38.0
25.0%	quartile	38.0
10.0%		38.0
2.5%		38.0
0.5%		38.0
0.0%	minimum	38.0

Summary Statistics

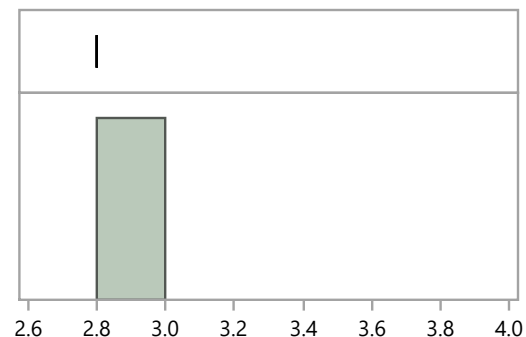
Mean	38.0
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Iron-55 Evaporation, acidified****Bias**

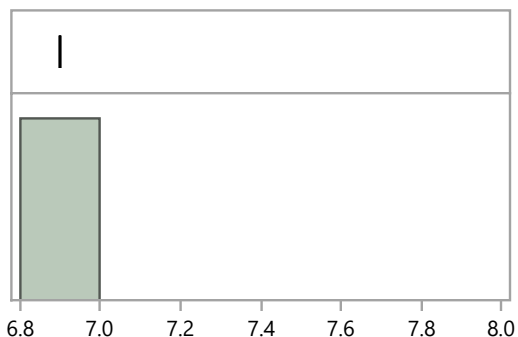
Quantiles			Summary Statistics	
100.0%	maximum	0.4	Mean	0.4
99.5%		0.4	Std Dev	.
97.5%		0.4	Std Err Mean	.
90.0%		0.4	Upper 95% Mean	.
75.0%	quartile	0.4	Lower 95% Mean	.
50.0%	median	0.4	N	1.0
25.0%	quartile	0.4		
10.0%		0.4		
2.5%		0.4		
0.5%		0.4		
0.0%	minimum	0.4		

Distributions Analyte_Method=Iron-55 Other**Bias**

Quantiles			Summary Statistics	
100.0%	maximum	-7.1	Mean	-7.1
99.5%		-7.1	Std Dev	.
97.5%		-7.1	Std Err Mean	.
90.0%		-7.1	Upper 95% Mean	.
75.0%	quartile	-7.1	Lower 95% Mean	.
50.0%	median	-7.1	N	1.0
25.0%	quartile	-7.1		
10.0%		-7.1		
2.5%		-7.1		
0.5%		-7.1		
0.0%	minimum	-7.1		

Distributions Analyte_Method=Nickel-63 Acid dissolution with hydrofluoric acid**Bias**

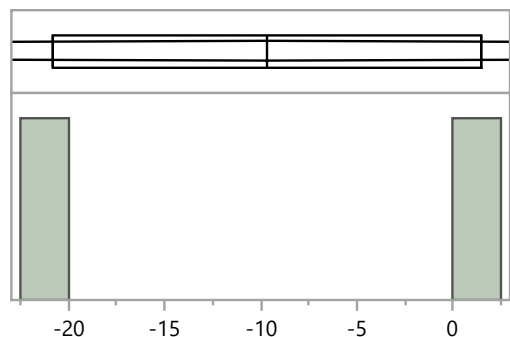
Quantiles			Summary Statistics	
100.0%	maximum	2.8	Mean	2.8
99.5%		2.8	Std Dev	.
97.5%		2.8	Std Err Mean	.
90.0%		2.8	Upper 95% Mean	.
75.0%	quartile	2.8	Lower 95% Mean	.
50.0%	median	2.8	N	1.0
25.0%	quartile	2.8		
10.0%		2.8		
2.5%		2.8		
0.5%		2.8		
0.0%	minimum	2.8		

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Nickel-63 Coprecipitation, acidified****Bias****Quantiles**

100.0%	maximum	6.9
99.5%		6.9
97.5%		6.9
90.0%		6.9
75.0%	quartile	6.9
50.0%	median	6.9
25.0%	quartile	6.9
10.0%		6.9
2.5%		6.9
0.5%		6.9
0.0%	minimum	6.9

Summary Statistics

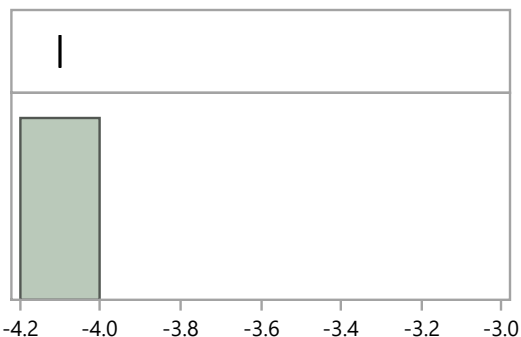
Mean	6.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Nickel-63 Coprecipitation, straight**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	-9.7
25.0%	quartile	-20.8
10.0%		-20.8
2.5%		-20.8
0.5%		-20.8
0.0%	minimum	-20.8

Summary Statistics

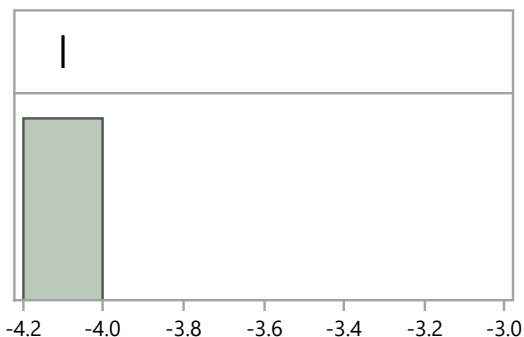
Mean	-9.7
Std Dev	15.8
Std Err Mean	11.2
Upper 95% Mean	132.0
Lower 95% Mean	-151.3
N	2.0

Distributions Analyte_Method=Nickel-63 Evaporation, acidified**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

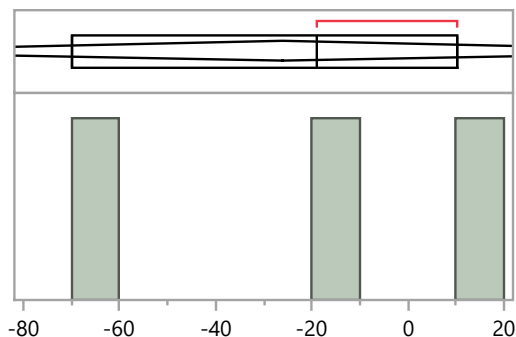
Mean	-4.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Nickel-63 Ion Exchange Chromatography / Ion Chromatography****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

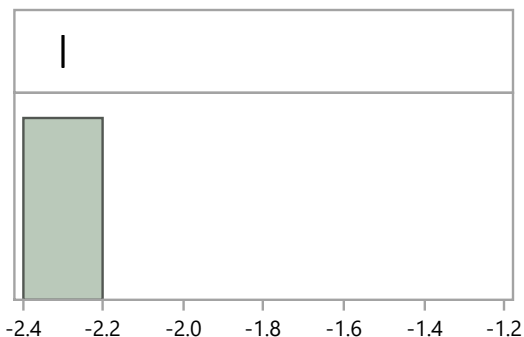
Mean	-4.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Nickel-63 Other**Bias****Quantiles**

100.0%	maximum	10.3
99.5%		10.3
97.5%		10.3
90.0%		10.3
75.0%	quartile	10.3
50.0%	median	-18.8
25.0%	quartile	-69.8
10.0%		-69.8
2.5%		-69.8
0.5%		-69.8
0.0%	minimum	-69.8

Summary Statistics

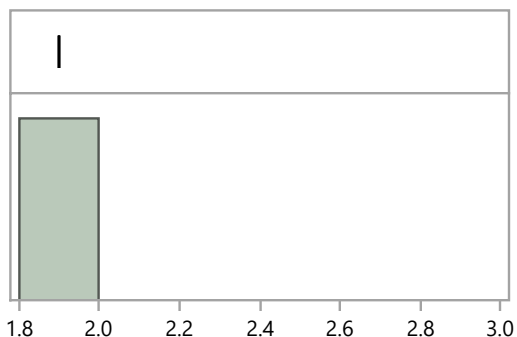
Mean	-26.1
Std Dev	40.5
Std Err Mean	23.4
Upper 95% Mean	74.6
Lower 95% Mean	-126.8
N	3.0

Distributions Analyte_Method=Plutonium-239/240 Acid dissolution with hydrofluoric acid**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	-2.3
25.0%	quartile	-2.3
10.0%		-2.3
2.5%		-2.3
0.5%		-2.3
0.0%	minimum	-2.3

Summary Statistics

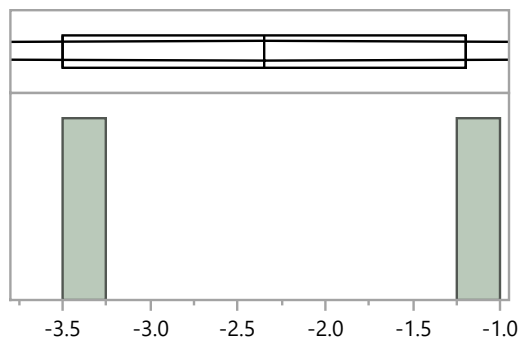
Mean	-2.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Plutonium-239/240 Acid leaching without hydrofluoric acid****Bias****Quantiles**

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

Summary Statistics

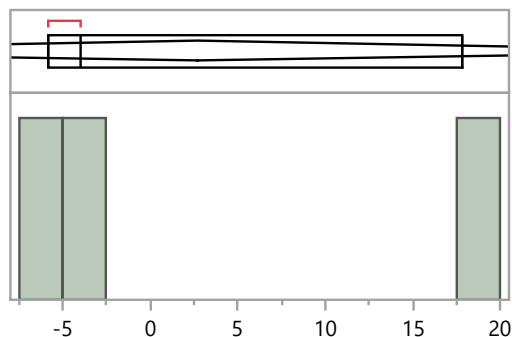
Mean	1.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Plutonium-239/240 Coprecipitation, acidified**Bias****Quantiles**

100.0%	maximum	-1.2
99.5%		-1.2
97.5%		-1.2
90.0%		-1.2
75.0%	quartile	-1.2
50.0%	median	-2.4
25.0%	quartile	-3.5
10.0%		-3.5
2.5%		-3.5
0.5%		-3.5
0.0%	minimum	-3.5

Summary Statistics

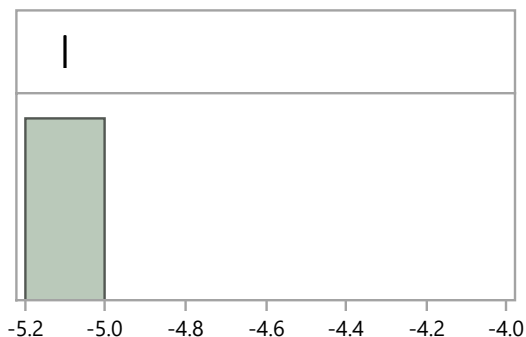
Mean	-2.4
Std Dev	1.6
Std Err Mean	1.2
Upper 95% Mean	12.3
Lower 95% Mean	-17.0
N	2.0

Distributions Analyte_Method=Plutonium-239/240 Coprecipitation, straight**Bias****Quantiles**

100.0%	maximum	17.8
99.5%		17.8
97.5%		17.8
90.0%		17.8
75.0%	quartile	17.8
50.0%	median	-4.0
25.0%	quartile	-5.8
10.0%		-5.8
2.5%		-5.8
0.5%		-5.8
0.0%	minimum	-5.8

Summary Statistics

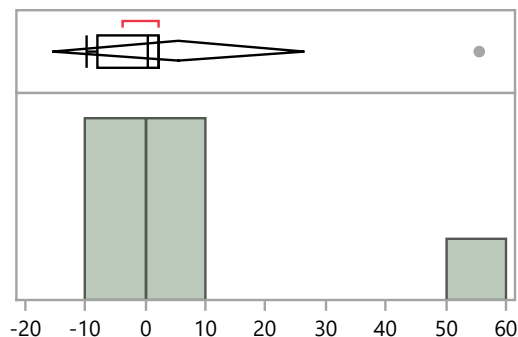
Mean	2.7
Std Dev	13.1
Std Err Mean	7.6
Upper 95% Mean	35.3
Lower 95% Mean	-30.0
N	3.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Plutonium-239/240 EPA 907, Actinide Elements, 600/4/80-032****Bias****Quantiles**

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

Summary Statistics

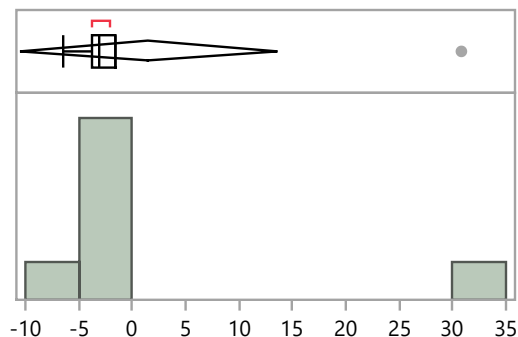
Mean	-5.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Plutonium-239/240 Evaporation, acidified**Bias****Quantiles**

100.0%	maximum	55.5
99.5%		55.5
97.5%		55.5
90.0%		55.5
75.0%	quartile	2.3
50.0%	median	0.5
25.0%	quartile	-8.1
10.0%		-9.8
2.5%		-9.8
0.5%		-9.8
0.0%	minimum	-9.8

Summary Statistics

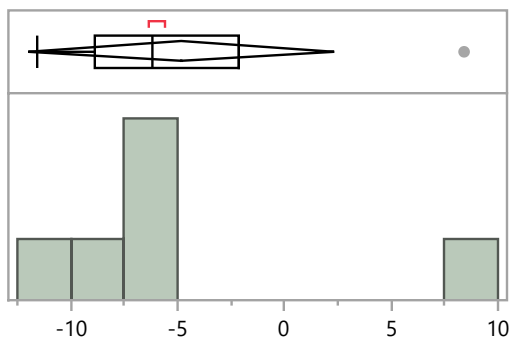
Mean	5.4
Std Dev	22.6
Std Err Mean	8.5
Upper 95% Mean	26.3
Lower 95% Mean	-15.4
N	7.0

Distributions Analyte_Method=Plutonium-239/240 Ion Exchange Chromatography / Ion Chromatograph**Bias****Quantiles**

100.0%	maximum	30.8
99.5%		30.8
97.5%		30.8
90.0%		30.8
75.0%	quartile	-1.6
50.0%	median	-3.0
25.0%	quartile	-3.7
10.0%		-6.5
2.5%		-6.5
0.5%		-6.5
0.0%	minimum	-6.5

Summary Statistics

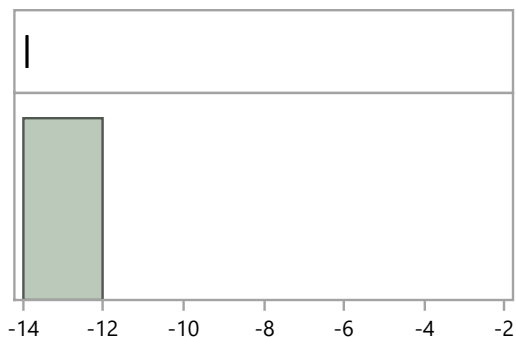
Mean	1.5
Std Dev	13.0
Std Err Mean	4.9
Upper 95% Mean	13.5
Lower 95% Mean	-10.5
N	7.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Plutonium-239/240 Other****Bias****Quantiles**

100.0%	maximum	8.4
99.5%		8.4
97.5%		8.4
90.0%		8.4
75.0%	quartile	-2.1
50.0%	median	-6.2
25.0%	quartile	-8.8
10.0%		-11.6
2.5%		-11.6
0.5%		-11.6
0.0%	minimum	-11.6

Summary Statistics

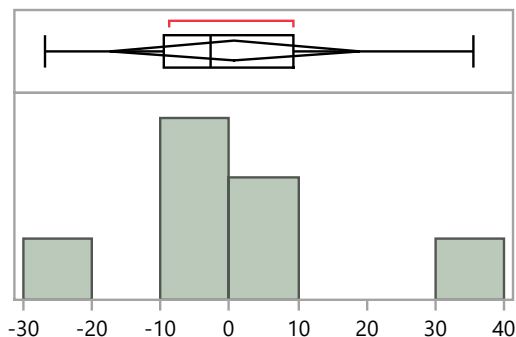
Mean	-4.8
Std Dev	6.8
Std Err Mean	2.8
Upper 95% Mean	2.4
Lower 95% Mean	-12.0
N	6.0

Distributions Analyte_Method=Plutonium-239/240 Total dissolution by fusion**Bias****Quantiles**

100.0%	maximum	-13.9
99.5%		-13.9
97.5%		-13.9
90.0%		-13.9
75.0%	quartile	-13.9
50.0%	median	-13.9
25.0%	quartile	-13.9
10.0%		-13.9
2.5%		-13.9
0.5%		-13.9
0.0%	minimum	-13.9

Summary Statistics

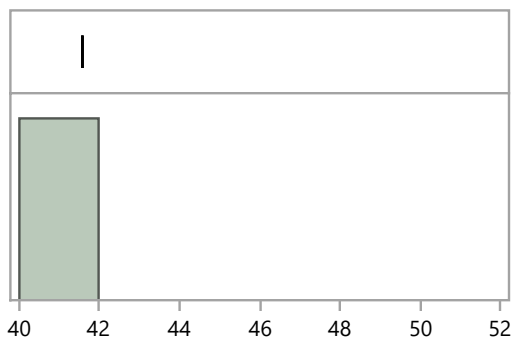
Mean	-13.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

100.0%	maximum	35.4
99.5%		35.4
97.5%		35.4
90.0%		35.4
75.0%	quartile	9.2
50.0%	median	-2.6
25.0%	quartile	-9.6
10.0%		-26.7
2.5%		-26.7
0.5%		-26.7
0.0%	minimum	-26.7

Summary Statistics

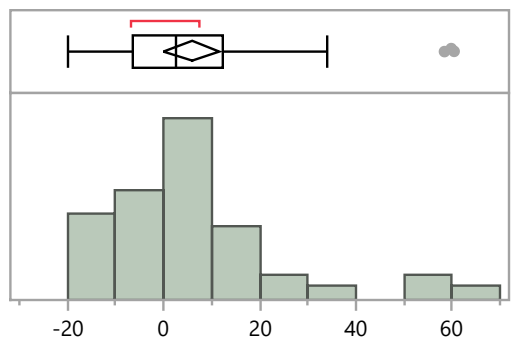
Mean	0.8
Std Dev	19.6
Std Err Mean	7.4
Upper 95% Mean	18.9
Lower 95% Mean	-17.3
N	7.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Potassium-40 Evaporation, acidified****Bias****Quantiles**

100.0%	maximum	41.6
99.5%		41.6
97.5%		41.6
90.0%		41.6
75.0%	quartile	41.6
50.0%	median	41.6
25.0%	quartile	41.6
10.0%		41.6
2.5%		41.6
0.5%		41.6
0.0%	minimum	41.6

Summary Statistics

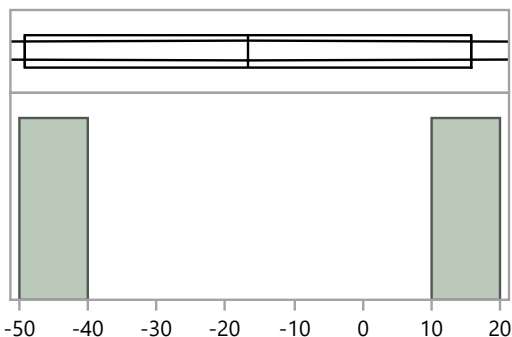
Mean	41.6
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Potassium-40 No preparation - analyzed as received**Bias****Quantiles**

100.0%	maximum	60.4
99.5%		60.4
97.5%		60.3
90.0%		30.3
75.0%	quartile	12.2
50.0%	median	2.6
25.0%	quartile	-6.3
10.0%		-15.5
2.5%		-19.8
0.5%		-19.8
0.0%	minimum	-19.8

Summary Statistics

Mean	5.9
Std Dev	19.0
Std Err Mean	2.9
Upper 95% Mean	11.8
Lower 95% Mean	0.1
N	43.0

Distributions Analyte_Method=Potassium-40 Other**Bias****Quantiles**

100.0%	maximum	15.7
99.5%		15.7
97.5%		15.7
90.0%		15.7
75.0%	quartile	15.7
50.0%	median	-16.8
25.0%	quartile	-49.2
10.0%		-49.2
2.5%		-49.2
0.5%		-49.2
0.0%	minimum	-49.2

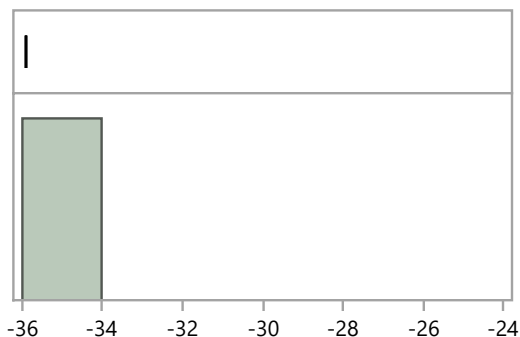
Summary Statistics

Mean	-16.8
Std Dev	45.9
Std Err Mean	32.5
Upper 95% Mean	395.6
Lower 95% Mean	-429.1
N	2.0

MaW52 Distribution by Preparation Method

Distributions Analyte_Method=Radium-226 Acid leaching without hydrofluoric acid

Bias



Quantiles

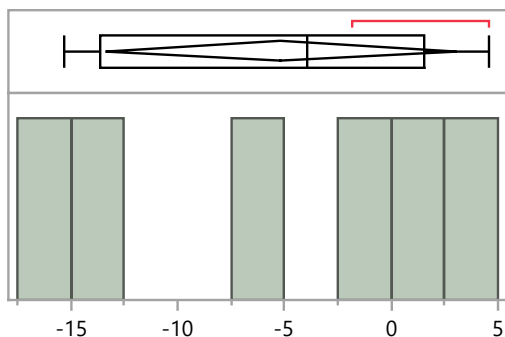
100.0%	maximum	-35.9
99.5%		-35.9
97.5%		-35.9
90.0%		-35.9
75.0%	quartile	-35.9
50.0%	median	-35.9
25.0%	quartile	-35.9
10.0%		-35.9
2.5%		-35.9
0.5%		-35.9
0.0%	minimum	-35.9

Summary Statistics

Mean	-35.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Radium-226 Coprecipitation, acidified

Bias



Quantiles

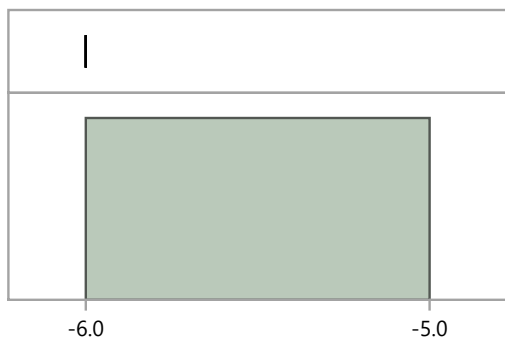
100.0%	maximum	4.6
99.5%		4.6
97.5%		4.6
90.0%		4.6
75.0%	quartile	1.5
50.0%	median	-3.9
25.0%	quartile	-13.6
10.0%		-15.3
2.5%		-15.3
0.5%		-15.3
0.0%	minimum	-15.3

Summary Statistics

Mean	-5.2
Std Dev	7.8
Std Err Mean	3.2
Upper 95% Mean	3.0
Lower 95% Mean	-13.3
N	6.0

Distributions Analyte_Method=Radium-226 Evaporation, straight

Bias

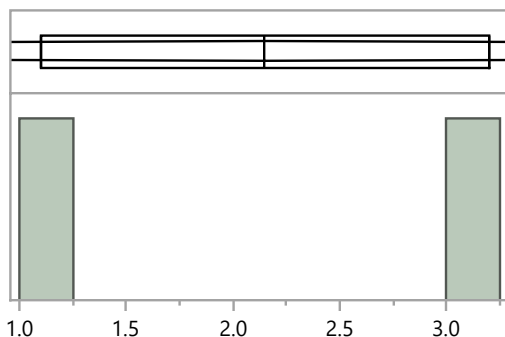


Quantiles

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	-6.0
25.0%	quartile	-6.0
10.0%		-6.0
2.5%		-6.0
0.5%		-6.0
0.0%	minimum	-6.0

Summary Statistics

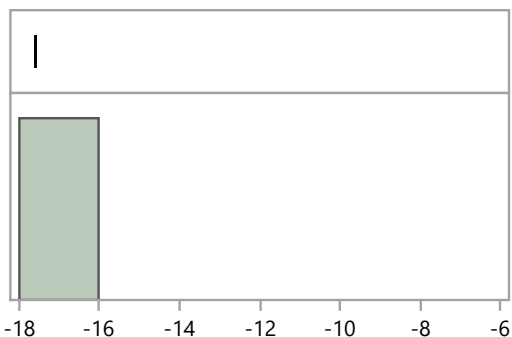
Mean	-6.0
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Radium-226 Ion Exchange Chromatography / Ion Chromatography****Bias****Quantiles**

100.0%	maximum	3.2
99.5%		3.2
97.5%		3.2
90.0%		3.2
75.0%	quartile	3.2
50.0%	median	2.2
25.0%	quartile	1.1
10.0%		1.1
2.5%		1.1
0.5%		1.1
0.0%	minimum	1.1

Summary Statistics

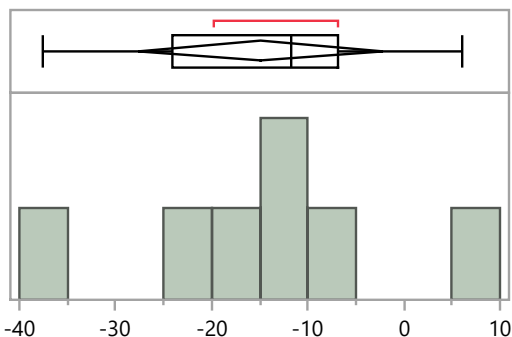
Mean	2.2
Std Dev	1.5
Std Err Mean	1.1
Upper 95% Mean	15.5
Lower 95% Mean	-11.2
N	2.0

Distributions Analyte_Method=Radium-226 No preparation - analyzed as received**Bias****Quantiles**

100.0%	maximum	-17.6
99.5%		-17.6
97.5%		-17.6
90.0%		-17.6
75.0%	quartile	-17.6
50.0%	median	-17.6
25.0%	quartile	-17.6
10.0%		-17.6
2.5%		-17.6
0.5%		-17.6
0.0%	minimum	-17.6

Summary Statistics

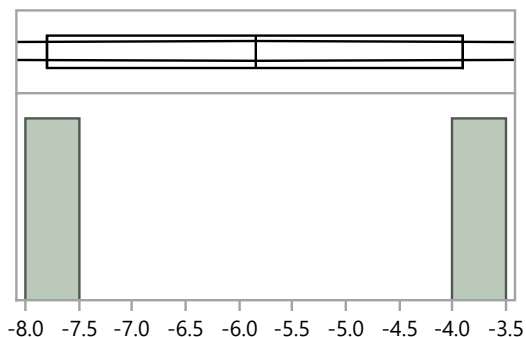
Mean	-17.6
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Radium-226 Other**Bias****Quantiles**

100.0%	maximum	6.0
99.5%		6.0
97.5%		6.0
90.0%		6.0
75.0%	quartile	-6.9
50.0%	median	-11.7
25.0%	quartile	-24.0
10.0%		-37.5
2.5%		-37.5
0.5%		-37.5
0.0%	minimum	-37.5

Summary Statistics

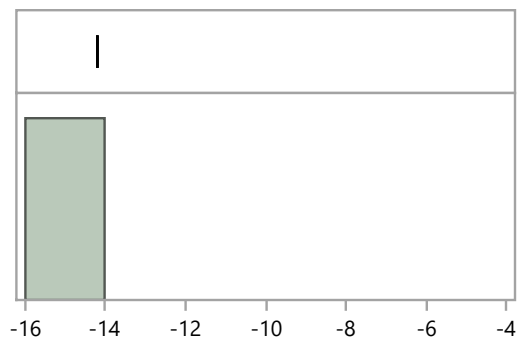
Mean	-14.9
Std Dev	13.8
Std Err Mean	5.2
Upper 95% Mean	-2.2
Lower 95% Mean	-27.7
N	7.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Radium-226 Total dissolution by fusion****Bias****Quantiles**

100.0%	maximum	-3.9
99.5%		-3.9
97.5%		-3.9
90.0%		-3.9
75.0%	quartile	-3.9
50.0%	median	-5.9
25.0%	quartile	-7.8
10.0%		-7.8
2.5%		-7.8
0.5%		-7.8
0.0%	minimum	-7.8

Summary Statistics

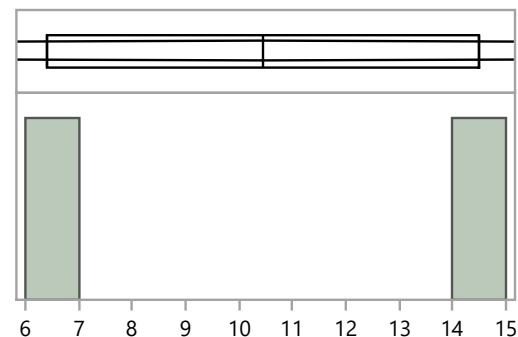
Mean	-5.9
Std Dev	2.8
Std Err Mean	2.0
Upper 95% Mean	18.9
Lower 95% Mean	-30.6
N	2.0

Distributions Analyte_Method=Strontium-90 Acid dissolution with hydrofluoric acid**Bias****Quantiles**

100.0%	maximum	-14.2
99.5%		-14.2
97.5%		-14.2
90.0%		-14.2
75.0%	quartile	-14.2
50.0%	median	-14.2
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	-14.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Strontium-90 Coprecipitation, acidified**Bias****Quantiles**

100.0%	maximum	14.5
99.5%		14.5
97.5%		14.5
90.0%		14.5
75.0%	quartile	14.5
50.0%	median	10.5
25.0%	quartile	6.4
10.0%		6.4
2.5%		6.4
0.5%		6.4
0.0%	minimum	6.4

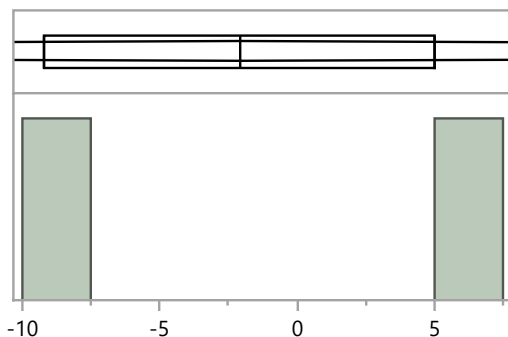
Summary Statistics

Mean	10.5
Std Dev	5.7
Std Err Mean	4.1
Upper 95% Mean	61.9
Lower 95% Mean	-41.0
N	2.0

MaW52 Distribution by Preparation Method

Distributions Analyte_Method=Strontium-90 Coprecipitation, straight

Bias



Quantiles

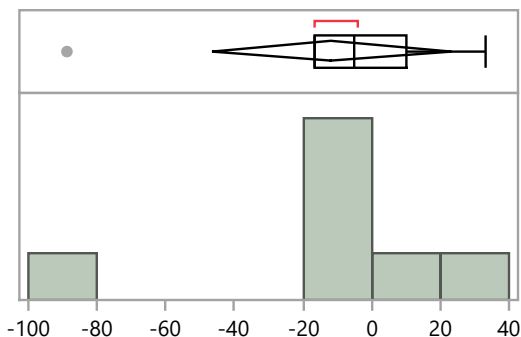
100.0%	maximum	5.0
99.5%		5.0
97.5%		5.0
90.0%		5.0
75.0%	quartile	5.0
50.0%	median	-2.1
25.0%	quartile	-9.2
10.0%		-9.2
2.5%		-9.2
0.5%		-9.2
0.0%	minimum	-9.2

Summary Statistics

Mean	-2.1
Std Dev	10.0
Std Err Mean	7.1
Upper 95% Mean	88.1
Lower 95% Mean	-92.3
N	2.0

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

Bias



Quantiles

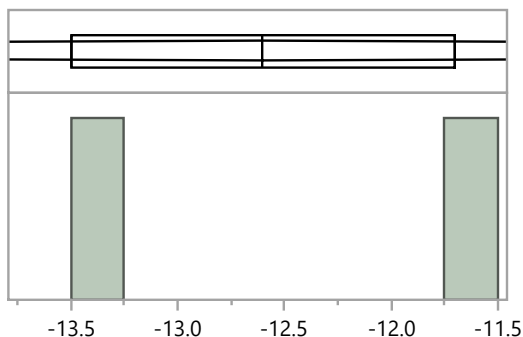
100.0%	maximum	33.0
99.5%		33.0
97.5%		33.0
90.0%		33.0
75.0%	quartile	10.3
50.0%	median	-5.3
25.0%	quartile	-16.7
10.0%		-88.7
2.5%		-88.7
0.5%		-88.7
0.0%	minimum	-88.7

Summary Statistics

Mean	-11.7
Std Dev	37.7
Std Err Mean	14.3
Upper 95% Mean	23.2
Lower 95% Mean	-46.6
N	7.0

Distributions Analyte_Method=Strontium-90 Evaporation, acidified

Bias

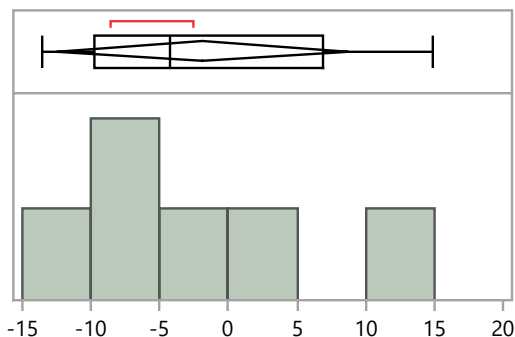


Quantiles

100.0%	maximum	-11.7
99.5%		-11.7
97.5%		-11.7
90.0%		-11.7
75.0%	quartile	-11.7
50.0%	median	-12.6
25.0%	quartile	-13.5
10.0%		-13.5
2.5%		-13.5
0.5%		-13.5
0.0%	minimum	-13.5

Summary Statistics

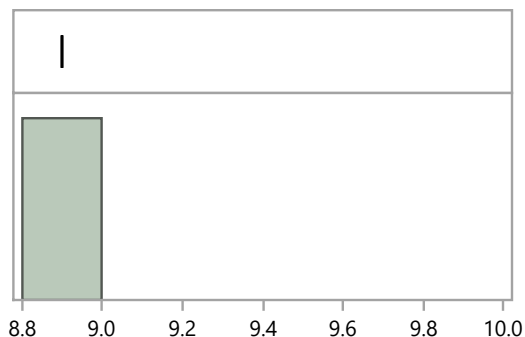
Mean	-12.6
Std Dev	1.3
Std Err Mean	0.9
Upper 95% Mean	-1.2
Lower 95% Mean	-24.0
N	2.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Strontium-90 Ion Exchange Chromatography / Ion Chromatography****Bias****Quantiles**

100.0%	maximum	14.9
99.5%		14.9
97.5%		14.9
90.0%		14.9
75.0%	quartile	7.0
50.0%	median	-4.3
25.0%	quartile	-9.8
10.0%		-13.5
2.5%		-13.5
0.5%		-13.5
0.0%	minimum	-13.5

Summary Statistics

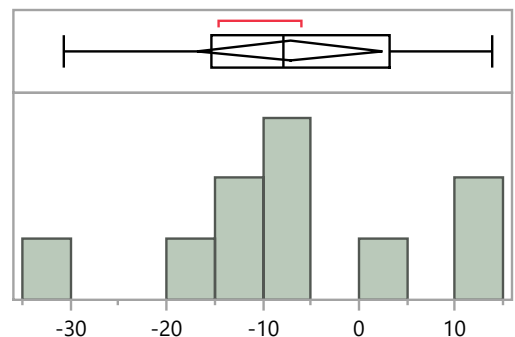
Mean	-1.9
Std Dev	10.2
Std Err Mean	4.1
Upper 95% Mean	8.8
Lower 95% Mean	-12.5
N	6.0

Distributions Analyte_Method=Strontium-90 No preparation - analyzed as received**Bias****Quantiles**

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

Summary Statistics

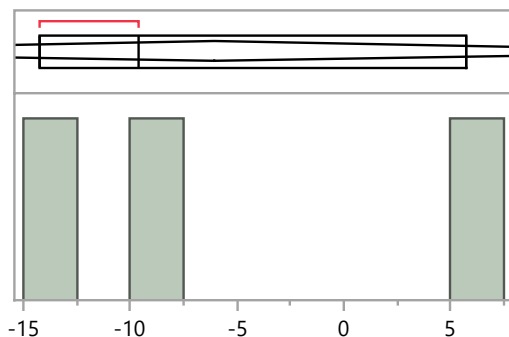
Mean	8.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Strontium-90 Other**Bias****Quantiles**

100.0%	maximum	13.8
99.5%		13.8
97.5%		13.8
90.0%		13.7
75.0%	quartile	3.1
50.0%	median	-7.8
25.0%	quartile	-15.4
10.0%		-29.4
2.5%		-30.7
0.5%		-30.7
0.0%	minimum	-30.7

Summary Statistics

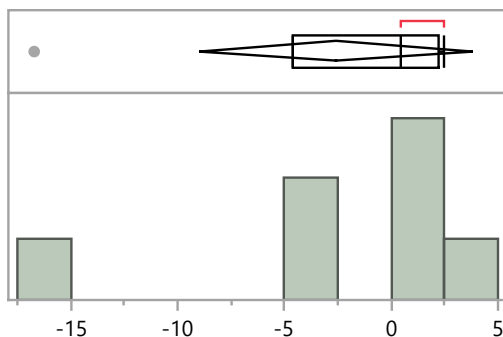
Mean	-7.2
Std Dev	13.5
Std Err Mean	4.3
Upper 95% Mean	2.5
Lower 95% Mean	-16.8
N	10.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Technetium-99 Acid leaching without hydrofluoric acid****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	-9.6
25.0%	quartile	-14.2
10.0%		-14.2
2.5%		-14.2
0.5%		-14.2
0.0%	minimum	-14.2

Summary Statistics

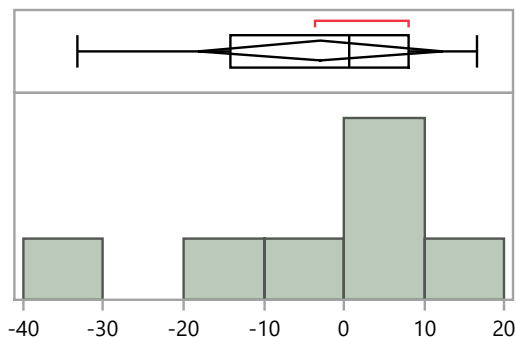
Mean	-6.0
Std Dev	10.4
Std Err Mean	6.0
Upper 95% Mean	19.8
Lower 95% Mean	-31.9
N	3.0

Distributions Analyte_Method=Technetium-99 Ion Exchange Chromatography / Ion Chromatography**Bias****Quantiles**

100.0%	maximum	2.5
99.5%		2.5
97.5%		2.5
90.0%		2.5
75.0%	quartile	2.2
50.0%	median	0.4
25.0%	quartile	-4.6
10.0%		-16.7
2.5%		-16.7
0.5%		-16.7
0.0%	minimum	-16.7

Summary Statistics

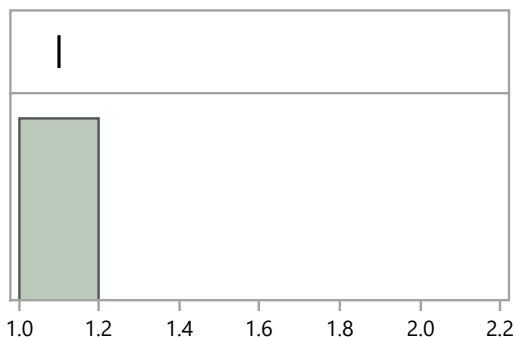
Mean	-2.6
Std Dev	6.9
Std Err Mean	2.6
Upper 95% Mean	3.8
Lower 95% Mean	-9.0
N	7.0

Distributions Analyte_Method=Technetium-99 Other**Bias****Quantiles**

100.0%	maximum	16.7
99.5%		16.7
97.5%		16.7
90.0%		16.7
75.0%	quartile	8.0
50.0%	median	0.7
25.0%	quartile	-14.2
10.0%		-33.3
2.5%		-33.3
0.5%		-33.3
0.0%	minimum	-33.3

Summary Statistics

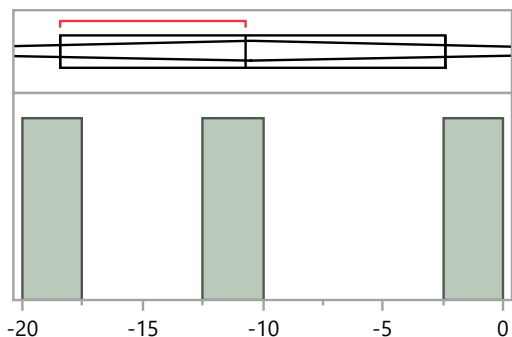
Mean	-3.0
Std Dev	16.5
Std Err Mean	6.2
Upper 95% Mean	12.2
Lower 95% Mean	-18.2
N	7.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Uranium-234 Acid dissolution with hydrofluoric acid****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	1.1
25.0%	quartile	1.1
10.0%		1.1
2.5%		1.1
0.5%		1.1
0.0%	minimum	1.1

Summary Statistics

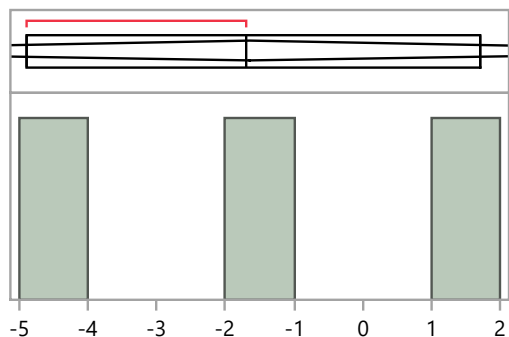
Mean	1.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-234 Coprecipitation, acidified**Bias****Quantiles**

100.0%	maximum	-2.4
99.5%		-2.4
97.5%		-2.4
90.0%		-2.4
75.0%	quartile	-2.4
50.0%	median	-10.7
25.0%	quartile	-18.4
10.0%		-18.4
2.5%		-18.4
0.5%		-18.4
0.0%	minimum	-18.4

Summary Statistics

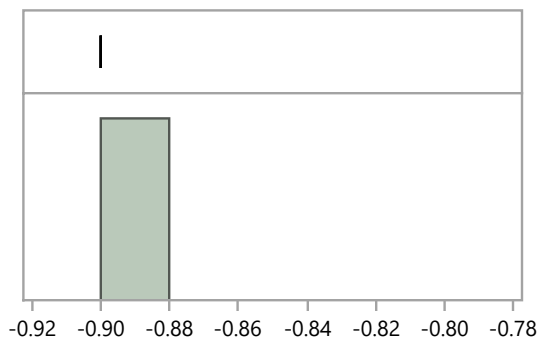
Mean	-10.5
Std Dev	8.0
Std Err Mean	4.6
Upper 95% Mean	9.4
Lower 95% Mean	-30.4
N	3.0

Distributions Analyte_Method=Uranium-234 Coprecipitation, straight**Bias****Quantiles**

100.0%	maximum	1.7
99.5%		1.7
97.5%		1.7
90.0%		1.7
75.0%	quartile	1.7
50.0%	median	-1.7
25.0%	quartile	-4.9
10.0%		-4.9
2.5%		-4.9
0.5%		-4.9
0.0%	minimum	-4.9

Summary Statistics

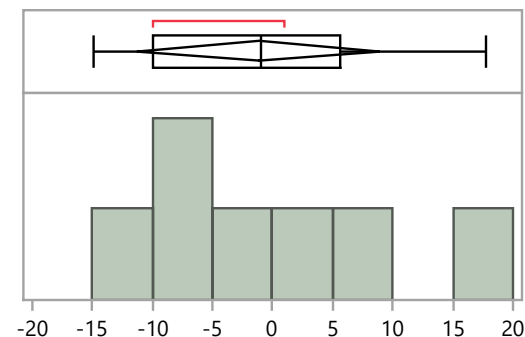
Mean	-1.6
Std Dev	3.3
Std Err Mean	1.9
Upper 95% Mean	6.6
Lower 95% Mean	-9.8
N	3.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Uranium-234 EPA 908, Uranium-Radiochemical Method, 600/4/80-032****Bias****Quantiles**

100.0%	maximum	-0.9
99.5%		-0.9
97.5%		-0.9
90.0%		-0.9
75.0%	quartile	-0.9
50.0%	median	-0.9
25.0%	quartile	-0.9
10.0%		-0.9
2.5%		-0.9
0.5%		-0.9
0.0%	minimum	-0.9

Summary Statistics

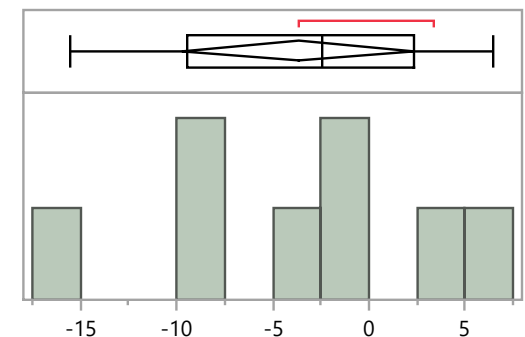
Mean	-0.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-234 Evaporation, acidified**Bias****Quantiles**

100.0%	maximum	17.8
99.5%		17.8
97.5%		17.8
90.0%		17.8
75.0%	quartile	5.6
50.0%	median	-0.9
25.0%	quartile	-9.9
10.0%		-14.9
2.5%		-14.9
0.5%		-14.9
0.0%	minimum	-14.9

Summary Statistics

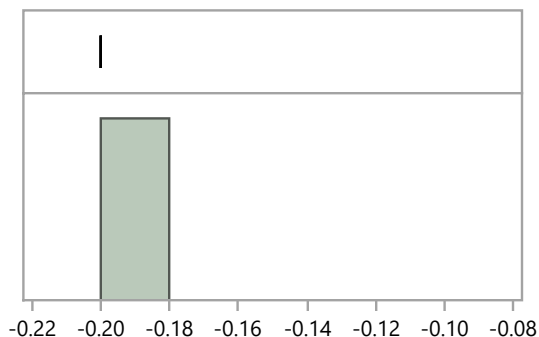
Mean	-1.2
Std Dev	10.9
Std Err Mean	4.1
Upper 95% Mean	8.9
Lower 95% Mean	-11.2
N	7.0

Distributions Analyte_Method=Uranium-234 Ion Exchange Chromatography / Ion Chromatography**Bias****Quantiles**

100.0%	maximum	6.5
99.5%		6.5
97.5%		6.5
90.0%		6.5
75.0%	quartile	2.3
50.0%	median	-2.5
25.0%	quartile	-9.4
10.0%		-15.5
2.5%		-15.5
0.5%		-15.5
0.0%	minimum	-15.5

Summary Statistics

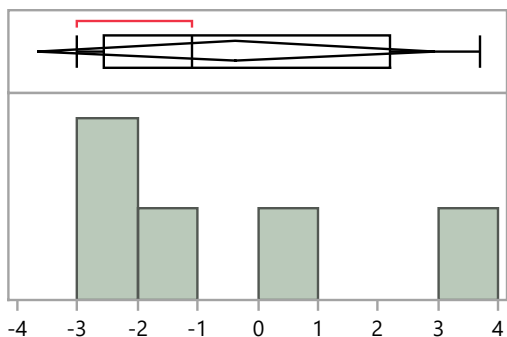
Mean	-3.7
Std Dev	7.2
Std Err Mean	2.6
Upper 95% Mean	2.4
Lower 95% Mean	-9.7
N	8.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Uranium-234 No preparation - analyzed as received****Bias****Quantiles**

100.0%	maximum	-0.2
99.5%		-0.2
97.5%		-0.2
90.0%		-0.2
75.0%	quartile	-0.2
50.0%	median	-0.2
25.0%	quartile	-0.2
10.0%		-0.2
2.5%		-0.2
0.5%		-0.2
0.0%	minimum	-0.2

Summary Statistics

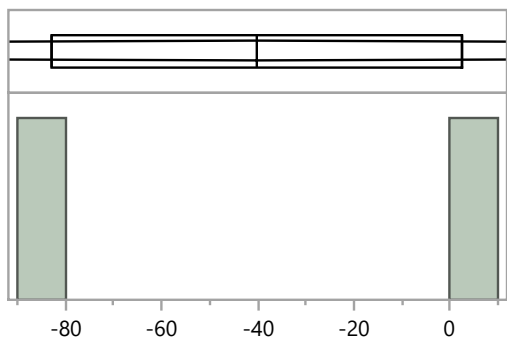
Mean	-0.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-234 Other**Bias****Quantiles**

100.0%	maximum	3.7
99.5%		3.7
97.5%		3.7
90.0%		3.7
75.0%	quartile	2.2
50.0%	median	-1.1
25.0%	quartile	-2.6
10.0%		-3.0
2.5%		-3.0
0.5%		-3.0
0.0%	minimum	-3.0

Summary Statistics

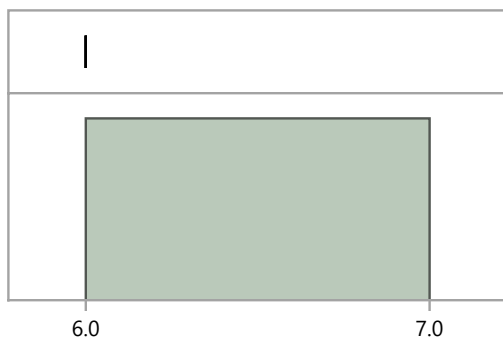
Mean	-0.4
Std Dev	2.7
Std Err Mean	1.2
Upper 95% Mean	2.9
Lower 95% Mean	-3.7
N	5.0

Distributions Analyte_Method=Uranium-234 Total dissolution by fusion**Bias****Quantiles**

100.0%	maximum	2.4
99.5%		2.4
97.5%		2.4
90.0%		2.4
75.0%	quartile	2.4
50.0%	median	-40.3
25.0%	quartile	-83.0
10.0%		-83.0
2.5%		-83.0
0.5%		-83.0
0.0%	minimum	-83.0

Summary Statistics

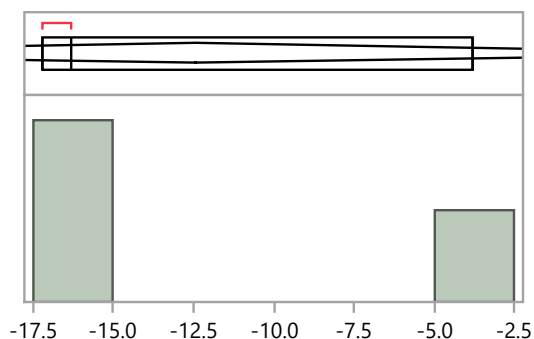
Mean	-40.3
Std Dev	60.4
Std Err Mean	42.7
Upper 95% Mean	502.3
Lower 95% Mean	-582.9
N	2.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Uranium-238 Acid dissolution with hydrofluoric acid****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	6.0
25.0%	quartile	6.0
10.0%		6.0
2.5%		6.0
0.5%		6.0
0.0%	minimum	6.0

Summary Statistics

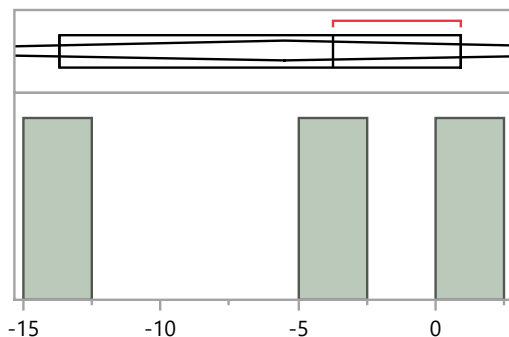
Mean	6.0
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-238 Coprecipitation, acidified**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	-16.3
25.0%	quartile	-17.2
10.0%		-17.2
2.5%		-17.2
0.5%		-17.2
0.0%	minimum	-17.2

Summary Statistics

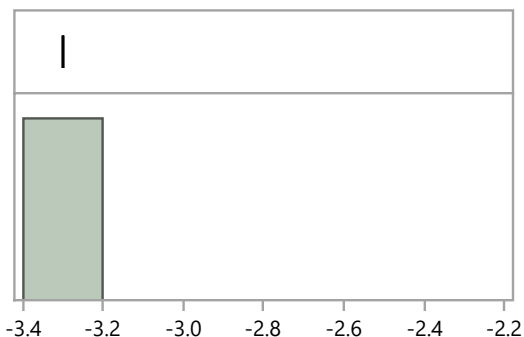
Mean	-12.4
Std Dev	7.5
Std Err Mean	4.3
Upper 95% Mean	6.2
Lower 95% Mean	-31.0
N	3.0

Distributions Analyte_Method=Uranium-238 Coprecipitation, straight**Bias****Quantiles**

100.0%	maximum	0.9
99.5%		0.9
97.5%		0.9
90.0%		0.9
75.0%	quartile	0.9
50.0%	median	-3.7
25.0%	quartile	-13.7
10.0%		-13.7
2.5%		-13.7
0.5%		-13.7
0.0%	minimum	-13.7

Summary Statistics

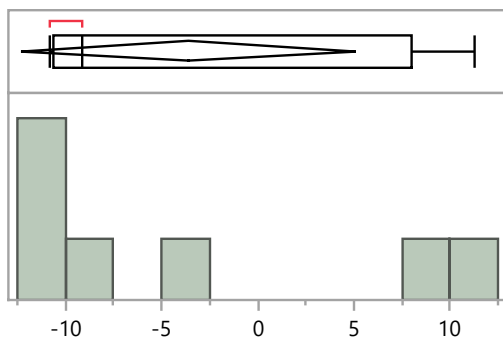
Mean	-5.5
Std Dev	7.5
Std Err Mean	4.3
Upper 95% Mean	13.0
Lower 95% Mean	-24.0
N	3.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Uranium-238 EPA 908, Uranium-Radiochemical Method, 600/4/80-032****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

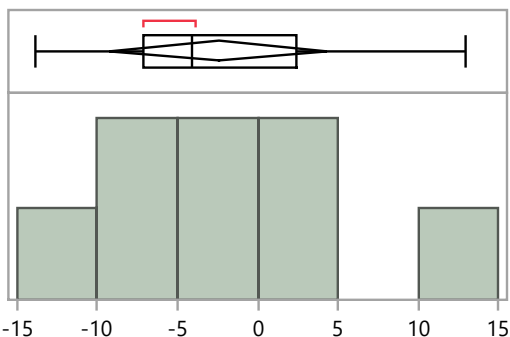
Mean	-3.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-238 Evaporation, acidified**Bias****Quantiles**

100.0%	maximum	11.3
99.5%		11.3
97.5%		11.3
90.0%		11.3
75.0%	quartile	8.0
50.0%	median	-9.1
25.0%	quartile	-10.6
10.0%		-10.8
2.5%		-10.8
0.5%		-10.8
0.0%	minimum	-10.8

Summary Statistics

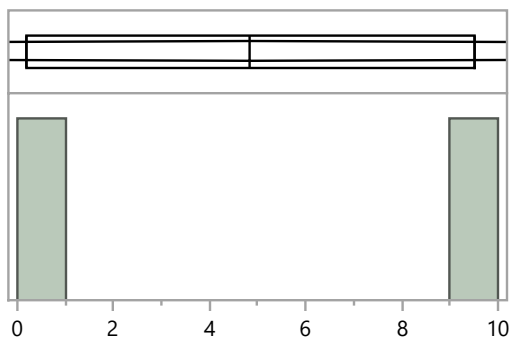
Mean	-3.6
Std Dev	9.4
Std Err Mean	3.6
Upper 95% Mean	5.1
Lower 95% Mean	-12.3
N	7.0

Distributions Analyte_Method=Uranium-238 Ion Exchange Chromatography / Ion Chromatography**Bias****Quantiles**

100.0%	maximum	13.0
99.5%		13.0
97.5%		13.0
90.0%		13.0
75.0%	quartile	2.4
50.0%	median	-4.1
25.0%	quartile	-7.1
10.0%		-13.9
2.5%		-13.9
0.5%		-13.9
0.0%	minimum	-13.9

Summary Statistics

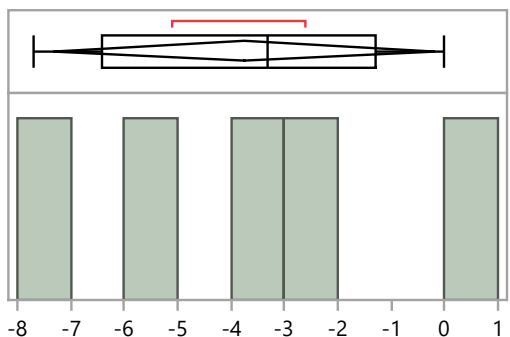
Mean	-2.5
Std Dev	8.1
Std Err Mean	2.9
Upper 95% Mean	4.3
Lower 95% Mean	-9.2
N	8.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Uranium-238 No preparation - analyzed as received****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	4.9
25.0%	quartile	0.2
10.0%		0.2
2.5%		0.2
0.5%		0.2
0.0%	minimum	0.2

Summary Statistics

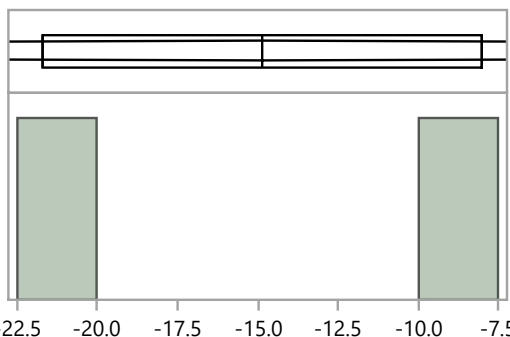
Mean	4.9
Std Dev	6.6
Std Err Mean	4.7
Upper 95% Mean	63.9
Lower 95% Mean	-54.2
N	2.0

Distributions Analyte_Method=Uranium-238 Other**Bias****Quantiles**

100.0%	maximum	0.0
99.5%		0.0
97.5%		0.0
90.0%		0.0
75.0%	quartile	-1.3
50.0%	median	-3.3
25.0%	quartile	-6.4
10.0%		-7.7
2.5%		-7.7
0.5%		-7.7
0.0%	minimum	-7.7

Summary Statistics

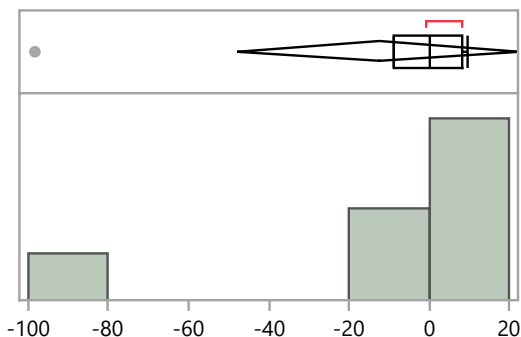
Mean	-3.7
Std Dev	2.9
Std Err Mean	1.3
Upper 95% Mean	-0.2
Lower 95% Mean	-7.3
N	5.0

Distributions Analyte_Method=Uranium-238 Total dissolution by fusion**Bias****Quantiles**

100.0%	maximum	-8.0
99.5%		-8.0
97.5%		-8.0
90.0%		-8.0
75.0%	quartile	-8.0
50.0%	median	-14.9
25.0%	quartile	-21.7
10.0%		-21.7
2.5%		-21.7
0.5%		-21.7
0.0%	minimum	-21.7

Summary Statistics

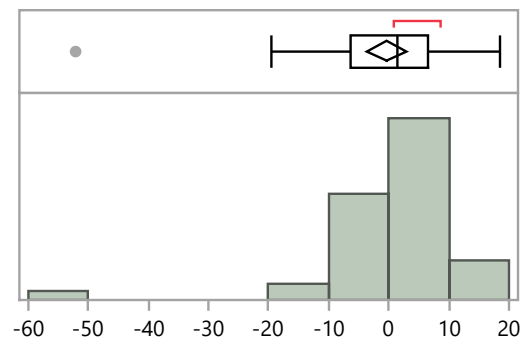
Mean	-14.9
Std Dev	9.7
Std Err Mean	6.9
Upper 95% Mean	72.2
Lower 95% Mean	-101.9
N	2.0

MaW52 Distribution by Preparation Method**Distributions Analyte_Method=Zinc-65 EPA 901.1, Gamma Emitting, 600/4-80-032****Bias****Quantiles**

100.0%	maximum	9.7
99.5%		9.7
97.5%		9.7
90.0%		9.7
75.0%	quartile	8.2
50.0%	median	0.2
25.0%	quartile	-8.7
10.0%		-98.3
2.5%		-98.3
0.5%		-98.3
0.0%	minimum	-98.3

Summary Statistics

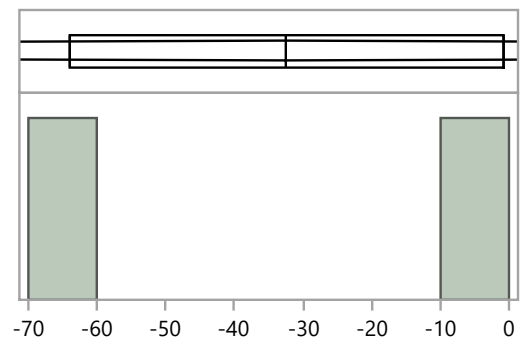
Mean	-12.6
Std Dev	38.3
Std Err Mean	14.5
Upper 95% Mean	22.8
Lower 95% Mean	-48.0
N	7.0

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

100.0%	maximum	18.4
99.5%		18.4
97.5%		17.6
90.0%		10.8
75.0%	quartile	6.4
50.0%	median	1.5
25.0%	quartile	-6.4
10.0%		-9.2
2.5%		-46.4
0.5%		-52.1
0.0%	minimum	-52.1

Summary Statistics

Mean	-0.3
Std Dev	11.1
Std Err Mean	1.6
Upper 95% Mean	3.0
Lower 95% Mean	-3.6
N	46.0

Distributions Analyte_Method=Zinc-65 Other**Bias****Quantiles**

100.0%	maximum	-0.8
99.5%		-0.8
97.5%		-0.8
90.0%		-0.8
75.0%	quartile	-0.8
50.0%	median	-32.4
25.0%	quartile	-64.0
10.0%		-64.0
2.5%		-64.0
0.5%		-64.0
0.0%	minimum	-64.0

Summary Statistics

Mean	-32.4
Std Dev	44.7
Std Err Mean	31.6
Upper 95% Mean	369.1
Lower 95% Mean	-433.9
N	2.0