

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.

MaW44 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
ANLB01	Argonne National Laboratory	MaW
ANTE01	ALS Environmental - Fort Collins, CO	MaW
AREV01	Framatome - CMC	MaW
ARGO01	Idaho National Laboratory	MaW
ARPL01	Analytical Support Operations - Radiochemical Processing Lab	MaW
ASUK99	AWE (Aldermaston)	MaW
AY1201	Consolidated Nuclear Security, LLC, ACO Laboratory	MaW
BRLL01	Brooks Applied Labs, LLC	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
CORE02	Eurofins TestAmerica Denver	MaW
DEHS01	Department of Environmental Health & Safety	MaW
ELIW01	Energy Laboratories, Inc.	MaW
EMAX01	EMAX Laboratories, Inc	MaW
ERAD01	Lawrence Livermore National Laboratory ERAD	MaW
ERCL01	Washington State Public Health Laboratories	MaW
ERHD99	Radiation Protection Bureau Health Canada RSD NMS	MaW
ESDE01	Region 5 EQC Tritium Lab	MaW
ETTP01	MCLinc	MaW
EULC01	EnergySolutions, LLC	MaW
FDHE01	Florida Dept of Health Environmental Laboratory	MaW
FDOH01	Florida Dept. of Health, Mobile Environmental Radiological Lab	MaW
FERM01	Fernald Project	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 Dept. Health and Environmental Control Radiological Laboratory	MaW
HPAC99	PHE, CRCE Glasgow	MaW
IAEA20	IAEA Radiometrics Laboratory	MaW
IAEA99	International Atomic Energy Agency	MaW
IEMA01	Illinois Emergency Management Agency Radiochemistry Laboratory	MaW
ISUE01	ISU Environmental Monitoring Laboratory	MaW
ISUP01	ISU - Department of Physics/Health Physics/EAL	MaW
JLNN01	Jefferson Laboratory	MaW
LOCK03	Advanced Test Reactor (ATR) Complex Radioanalytical Laboratory	MaW
LZCA01	ACZ Laboratories, Inc	MaW

MART03	Radioactive Material Analysis Laboratory	MaW
MDPH01	MDPH-Radiation Control Program	MaW
MNDH01	Minnesota Department of Health, Public Health Lab. Division	MaW
MSDH01	Mississippi State Dept of Health	MaW
NARL01	National Analytical Radiation Environmental Laboratory	MaW
NARL02	USEPA - NAREL - MERL	MaW
NESI01	BWXT-Radioisotope & Analytical Chemistry Laboratory	MaW
NJDH01	New Jersey Dept. of Health, PHEL, ECLS	MaW
ODHL01	Ohio Department of Health Laboratory	MaW
ORIS01	ORISE/IEAV	MaW
OTLI01	Pace Analytical National Center for Testing & Innovation	MaW
QUAN02	Eurofins TestAmerica Knoxville	MaW
RJLG01	RJ Lee Group - Columbia Basin Analytical Laboratories (CBAL)	MaW
RPSC01	Radiation Protection Service	MaW
SAVA01	SAVANNAH RIVER NUCLEAR SOLUTIONS (SRNS)	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
TDHL01	Texas Department of State Health Services Laboratory	MaW
TELE01	Teledyne Brown Engineering - Environmental Services	MaW
TELE02	ATI Environmental, Inc., Midwest Lab	MaW
TMAO01	EBERLINE SERVICES OAK RIDGE LABORATORY	MaW
TNUT01	St. Louis USACE FUSRAP Laboratory	MaW
UNTE01	UniTech-235	MaW
WEST04	PACE ANALYTICAL SERVICES, PITTSBURGH	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
ARSL01	ARS Aleut Analytical, LLC	MaW
EFGS01	Eurofins Frontier Global Sciences, LLC.	MaW
LANL01	Los Alamos National Laboratory	MaW
LAWR01	LAWRENCE BERKELEY NATIONAL LABORATORY	MaW
MART01	Fluor B&W Ports Analytical Laboratory	MaW

Study Reference Values

MAPEP-21-MaW44

Radiological Reference Date: 02/01/2021

Analyte	Ref Value	Ref Unc
Inorganic Units: (mg/L)		
Antimony	8.63	0.09
Arsenic	2.06	0.04
Barium	7.58	0.15
Beryllium	3.15	0.06
Cadmium	0.748	0.015
Chromium	4.01	0.08
Cobalt	10.3	0.2
Copper	5.53	0.11
Lead	2.52	0.05
Mercury	0.106	0.002
Nickel	5.05	0.10
Selenium	0.676	0.014
Technetium-99	6.35E-6	1.6E-7
Thallium	2.46	0.05
Uranium-235	4.99E-4	1.20E-5
Uranium-238	0.069	0.002
Uranium-Total	0.070	0.002
Vanadium	17.4	0.3
Zinc	15.5	0.3

Analyte	Ref Value	Ref Unc
Radiological Units: (Bq/L)		
Cesium-134	11.5	0.3
Cesium-137	7.9	0.2
Cobalt-57	11.4	0.3
Iron-55	26.9	0.7
Manganese-54	15.5	0.4
Nickel-63	8.2	0.3
Plutonium-238	0.577	0.013
Plutonium-239/240	0.649	0.014
Radium-226	0.632	0.016
Strontium-90	4.47	0.11
Technetium-99	4.01	0.10
Uranium-234	0.85	0.03
Uranium-238	0.86	0.03
Zinc-65	10.5	0.3

Sample Statistical Summary

MAPEP-21-MaW44

Radiological Reference Date: 02/01/2021

Analyte	T(1)	A(2)	Grand(3) Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range
							Units: (mg/L)
Inorganic							
Antimony	19	19	8.58	0.51	8.63	0.09	6.04 - 11.22
Arsenic	20	20	2.00	0.13	2.06	0.04	1.44 - 2.68
Barium	20	20	7.63	0.39	7.58	0.15	5.31 - 9.85
Beryllium	20	20	3.15	0.12	3.15	0.06	2.21 - 4.10
Cadmium	20	20	0.732	0.025	0.748	0.015	0.524 - 0.972
Chromium	20	20	4.04	0.26	4.01	0.08	2.81 - 5.21
Cobalt	20	20	10.2	0.4	10.3	0.2	7.2 - 13.4
Copper	20	20	5.51	0.32	5.53	0.11	3.87 - 7.19
Lead	20	20	2.50	0.09	2.52	0.05	1.76 - 3.28
Mercury	17	16	0.103	0.008	0.106	0.002	0.074 - 0.138
Nickel	20	20	5.00	0.25	5.05	0.10	3.54 - 6.57
Selenium	19	19	0.655	0.033	0.676	0.014	0.473 - 0.879
Technetium-99	3	3			6.35E-6	1.6E-7	4.45E-6 - 8.26E-6
Thallium	20	20	2.43	0.10	2.46	0.05	1.72 - 3.20
Uranium-235	13	13	5.11E-4	2.10E-5	4.99E-4	1.20E-5	3.49E-4 - 6.49E-4
Uranium-238	15	15	0.070	0.002	0.069	0.002	0.048 - 0.090
Uranium-Total	19	19	0.072	0.005	0.070	0.002	0.049 - 0.091
Vanadium	20	20	17.4	1.0	17.4	0.3	12.2 - 22.6
Zinc	20	20	15.4	0.7	15.5	0.3	10.9 - 20.2

Analyte	T(1)	A(2)	Grand(3) Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range
							Units: (Bq/L)
Radiological							
Americium-241	33	30					False Positive Test
Cesium-134	60	56	10.8	0.8	11.5	0.3	8.1 - 15.0
Cesium-137	60	59	8.1	0.5	7.9	0.2	5.5 - 10.3
Cobalt-57	60	58	11.4	0.7	11.4	0.3	8.0 - 14.8
Cobalt-60	53	53					False Positive Test
Hydrogen-3	42	39					False Positive Test
Iron-55	8	5			26.9	0.7	18.8 - 35.0
Manganese-54	60	59	15.6	1.1	15.5	0.4	10.9 - 20.2
Nickel-63	11	9	8.9	1.1	8.2	0.3	5.7 - 10.7
Plutonium-238	29	28	0.560	0.041	0.577	0.013	0.404 - 0.750
Plutonium-239/240	29	28	0.613	0.046	0.649	0.014	0.454 - 0.844
Potassium-40	52	44					False Positive Test
Radium-226	20	17	0.611	0.082	0.632	0.016	0.442 - 0.822
Strontium-90	29	28	4.34	0.49	4.47	0.11	3.13 - 5.81
Technetium-99	18	14	3.84	0.43	4.01	0.10	2.81 - 5.21
Uranium-234	30	27	0.87	0.06	0.85	0.03	0.60 - 1.11
Uranium-238	31	28	0.86	0.06	0.86	0.03	0.60 - 1.12
Zinc-65	60	58	10.8	0.9	10.5	0.3	7.4 - 13.7

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".

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%
ACCEPTABLE.....2%<=RP<=15%
ACCEPTABLE WITH WARNING.....15%<RP<=30%
NOT ACCEPTABLE.....RP>30%
RP = Relative Precision

Flag Summary Report

MAPEP-21-MaW44

Inorganic				
Analyte	A	W	RW	N
Antimony	19			
Arsenic	19	1		
Barium	20			
Beryllium	20			
Cadmium	20			
Chromium	19	1		
Cobalt	20			
Copper	20			
Lead	20			
Mercury	16			1
Nickel	20			
Selenium	19			
Thallium	20			
Uranium-Total	17	2		
Uranium-235	13			
Uranium-238	15			
Vanadium	20			
Zinc	20			
Technetium-99	3			
Radiological				
Analyte	A	W	RW	N
Americium-241	30			5
Cesium-134	56			2
Cesium-137	57	2		1
Cobalt-57	57	1		2
Cobalt-60	53			7
Hydrogen-3	39			5
Iron-55	4	1		3
Manganese-54	58	1		1
Nickel-63	7	2		2
Plutonium-238	28			1
Plutonium-239/240	28			1
Potassium-40	44			15
Radium-226	15	2		3
Strontium-90	27	1		1
Technetium-99	13	1		4
Uranium-234	26	1		3
Uranium-238	28			3
Zinc-65	55	3		2



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

Laboratory Results For MAPEP-21-MaW44

(ADEM01) Alabama Department of Environmental Management
 1350 Coliseum Blvd.
 Montgomery, Alabama 36110

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	10.397	11.5	A		-9.6	8.1 - 15.0	0.36186	A
Cesium-137	8.251	7.9	A		4.4	5.5 - 10.3	0.27787	A
Cobalt-57	10.619	11.4	A		-6.9	8.0 - 14.8	0.26048	A
Cobalt-60	NR		N	(11)		False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	14.652	15.5	A		-5.5	10.9 - 20.2	0.3996	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR		N	(11)		False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	9.768	10.5	A		-7.0	7.4 - 13.7	0.33781	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44

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

Radiation Lab

Abu Dhabi, - -

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR		N	(11)		False Positive Test		
Cesium-134	10.83	11.5	A		-5.8	8.1 - 15.0	0.32	A
Cesium-137	7.63	7.9	A		-3.4	5.5 - 10.3	0.18	A
Cobalt-57	10.94	11.4	A		-4.0	8.0 - 14.8	0.38	A
Cobalt-60	0.01		A			False Positive Test	0.01	
Hydrogen-3	0.1		A			False Positive Test	0.1	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	14.56	15.5	A		-6.1	10.9 - 20.2	0.55	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	0.1		A			False Positive Test	0.1	
Radium-226	NR	0.632	N	(28)		0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.13	4.47	A		-7.6	3.13 - 5.81	0.10	A
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85	N	(28)		0.60 - 1.11		
Uranium-238	NR	0.86	N	(28)		0.60 - 1.12		
Zinc-65	10.41	10.5	A		-0.9	7.4 - 13.7	0.31	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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- (11) = False Positive Test, Result 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-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.00118		A			False Positive Test	0.00089	
Cesium-134	10.53	11.5	A		-8.4	8.1 - 15.0	0.32	A
Cesium-137	7.60	7.9	A		-3.8	5.5 - 10.3	0.27	A
Cobalt-57	10.69	11.4	A		-6.2	8.0 - 14.8	0.46	A
Cobalt-60	-0.021		A			False Positive Test	0.035	
Hydrogen-3	-0.9		A			False Positive Test	4.2	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	14.16	15.5	A		-8.6	10.9 - 20.2	0.42	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	0.541	0.577	A		-6.2	0.404 - 0.750	0.020	A
Plutonium-239/240	0.590	0.649	A		-9.1	0.454 - 0.844	0.022	A
Potassium-40	-0.64		A			False Positive Test	0.43	
Radium-226	0.590	0.632	A		-6.6	0.442 - 0.822	0.046	A

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.12	4.47	A		-7.8	3.13 - 5.81	0.19	A
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	0.874	0.85	A		2.8	0.60 - 1.11	0.030	A
Uranium-238	0.869	0.86	A		1.0	0.60 - 1.12	0.029	A
Zinc-65	9.96	10.5	A		-5.1	7.4 - 13.7	0.39	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.004		A			False Positive Test	0.002	
Cesium-134	11.26	11.5	A		-2.1	8.1 - 15.0	0.79	A
Cesium-137	8.44	7.9	A		6.8	5.5 - 10.3	0.80	A
Cobalt-57	12.00	11.4	A		5.3	8.0 - 14.8	0.78	A
Cobalt-60	0.08		A			False Positive Test	0.12	
Hydrogen-3	-0.27		A			False Positive Test	1.46	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.8	15.5	A		8.4	10.9 - 20.2	1.14	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	0.589	0.577	A		2.1	0.404 - 0.750	0.063	A
Plutonium-239/240	0.612	0.649	A		-5.7	0.454 - 0.844	0.05	A
Potassium-40	NR			(6)		False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.22	4.47	A		-5.6	3.13 - 5.81	0.123	A
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	0.859	0.85	A		1.1	0.60 - 1.11	0.059	A
Uranium-238	0.864	0.86	A		0.5	0.60 - 1.12	0.058	A
Zinc-65	11.71	10.5	A		11.5	7.4 - 13.7	0.82	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

- (1) = False Positive
- (6) = Not Evaluated
- (11) = False Positive Test, Result 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-21-MaW44
 (ANTE01) ALS Environmental - Fort Collins, CO
 225 Commerce Drive
 Fort Collins, CO 80524-1416

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	8.4	8.63	A		-2.7	6.04 - 11.22	0.43932	A
Arsenic	1.82	2.06	A		-11.7	1.44 - 2.68	0.125034	A
Barium	7.42	7.58	A		-2.1	5.31 - 9.85	0.299026	A
Beryllium	3.08	3.15	A		-2.2	2.21 - 4.10	0.170016	A
Cadmium	0.682	0.748	A		-8.8	0.524 - 0.972	0.054764	A
Chromium	3.99	4.01	A		-0.5	2.81 - 5.21	0.192318	A
Cobalt	10.5	10.3	A		1.9	7.2 - 13.4	0.4452	A
Copper	5.69	5.53	A		2.9	3.87 - 7.19	0.266292	A
Lead	2.35	2.52	A		-6.7	1.76 - 3.28	0.099405	A
Mercury	0.143	0.106	N		34.9	0.074 - 0.138	0.009638	A
Nickel	4.78	5.05	A		-5.3	3.54 - 6.57	0.261446	A
Selenium	0.595	0.676	A		-12.0	0.473 - 0.879	0.051884	A
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	2.44	2.46	A		-0.8	1.72 - 3.20	0.23546	A
Uranium-235	0.00053	0.000499	A		6.2	3.49E-4 - 6.49E-4	4.57920	A
Uranium-238	0.0698	0.069	A		1.2	0.048 - 0.090	0.006030	A
Uranium-Total	0.0703	0.070	A		0.4	0.049 - 0.091	0.005926	A
Vanadium	17	17.4	A		-2.3	12.2 - 22.6	0.828584	A
Zinc	15.4	15.5	A		-0.6	10.9 - 20.2	0.89936	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.007		A			False Positive Test	0.007	
Cesium-134	10.4	11.5	A		-9.6	8.1 - 15.0	0.6	A
Cesium-137	8.20	7.9	A		3.8	5.5 - 10.3	0.50	A
Cobalt-57	10.8	11.4	A		-5.3	8.0 - 14.8	0.6	A
Cobalt-60	0.185		A			False Positive Test	0.185	
Hydrogen-3	1.73		A			False Positive Test	1.73	
Iron-55	35.9	26.9	N		33.5	18.8 - 35.0	4.1	A
Manganese-54	15.4	15.5	A		-0.6	10.9 - 20.2	0.9	A
Nickel-63	8.65	8.2	A		5.5	5.7 - 10.7	1.10	A
Plutonium-238	0.540	0.577	A		-6.4	0.404 - 0.750	0.047	A
Plutonium-239/240	0.569	0.649	A		-12.3	0.454 - 0.844	0.49	N
Potassium-40	4.60		A			False Positive Test	4.60	
Radium-226	0.740	0.632	A		17.1	0.442 - 0.822	0.240	N

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.66	4.47	A		4.3	3.13 - 5.81	0.55	A
Technetium-99	3.46	4.01	A		-13.7	2.81 - 5.21	0.33	A
Uranium-234	0.809	0.85	A		-4.8	0.60 - 1.11	0.068	A
Uranium-238	0.842	0.86	A		-2.1	0.60 - 1.12	0.071	A
Zinc-65	10.8	10.5	A		2.9	7.4 - 13.7	0.7	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

- (1) = False Positive
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- (11) = False Positive Test, Result Not Reported
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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-21-MaW44

(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	8.15	8.63	A		-5.6	6.04 - 11.22	0.82	A
Arsenic	1.88	2.06	A		-8.7	1.44 - 2.68	0.19	A
Barium	6.84	7.58	A		-9.8	5.31 - 9.85	.68	A
Beryllium	3.11	3.15	A		-1.3	2.21 - 4.10	0.31	A
Cadmium	0.72	0.748	A		-3.7	0.524 - 0.972	0.07	A
Chromium	3.93	4.01	A		-2.0	2.81 - 5.21	.39	A
Cobalt	10.01	10.3	A		-2.8	7.2 - 13.4	1.00	A
Copper	5.25	5.53	A		-5.1	3.87 - 7.19	0.53	A
Lead	2.44	2.52	A		-3.2	1.76 - 3.28	0.24	A
Mercury	0.10	0.106	A		-5.7	0.074 - 0.138	0.01	A
Nickel	4.90	5.05	A		-3.0	3.54 - 6.57	0.49	A
Selenium	0.65	0.676	A		-3.8	0.473 - 0.879	0.07	A
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	2.45	2.46	A		-0.4	1.72 - 3.20	0.25	A
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	16.61	17.4	A		-4.5	12.2 - 22.6	1.66	A
Zinc	14.61	15.5	A		-5.7	10.9 - 20.2	1.46	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	NR	11.5	N	(28)		8.1 - 15.0		
Cesium-137	NR	7.9	N	(28)		5.5 - 10.3		
Cobalt-57	NR	11.4	N	(25)		8.0 - 14.8		
Cobalt-60	NR		N	(11)		False Positive Test		
Hydrogen-3	NR		N	(11)		False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	NR	15.5	N	(25)		10.9 - 20.2		
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR		N	(11)		False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	NR	10.5	N	(28)		7.4 - 13.7		

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

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

Laboratory Results For MAPEP-21-MaW44

(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	7.58	8.63	A		-12.2	6.04 - 11.22	0.38	A
Arsenic	2.03	2.06	A		-1.5	1.44 - 2.68	0.10	A
Barium	7.27	7.58	A		-4.1	5.31 - 9.85	0.36	A
Beryllium	3.06	3.15	A		-2.9	2.21 - 4.10	0.15	A
Cadmium	0.732	0.748	A		-2.1	0.524 - 0.972	0.037	A
Chromium	3.86	4.01	A		-3.7	2.81 - 5.21	0.19	A
Cobalt	9.97	10.3	A		-3.2	7.2 - 13.4	0.50	A
Copper	5.27	5.53	A		-4.7	3.87 - 7.19	0.26	A
Lead	2.37	2.52	A		-6.0	1.76 - 3.28	0.59	W
Mercury	0.0857	0.106	A		-19.2	0.074 - 0.138	0.0043	A
Nickel	4.78	5.05	A		-5.3	3.54 - 6.57	0.24	A
Selenium	0.661	0.676	A		-2.2	0.473 - 0.879	0.033	A
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	2.33	2.46	A		-5.3	1.72 - 3.20	0.12	A
Uranium-235	0.000542	0.000499	A		8.6	3.49E-4 - 6.49E-4	0.000027	A
Uranium-238	0.0719	0.069	A		4.2	0.048 - 0.090	0.0036	A
Uranium-Total	0.0724	0.070	A		3.4	0.049 - 0.091	0.0036	A
Vanadium	16.1	17.4	A		-7.5	12.2 - 22.6	0.8	A
Zinc	16.1	15.5	A		3.9	10.9 - 20.2	0.8	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	11.1	11.5	A		-3.5	8.1 - 15.0	0.6	A
Cesium-137	7.68	7.9	A		-2.8	5.5 - 10.3	0.47	A
Cobalt-57	10.9	11.4	A		-4.4	8.0 - 14.8	0.4	A
Cobalt-60	0.421		A			False Positive Test	0.421	
Hydrogen-3	101		N	(1)		False Positive Test	21	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	14.9	15.5	A		-3.9	10.9 - 20.2	0.5	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577	N	(28)		0.404 - 0.750		
Plutonium-239/240	NR	0.649	N	(28)		0.454 - 0.844		
Potassium-40	5.27		A			False Positive Test	5.27	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.60	4.47	A		2.9	3.13 - 5.81	0.48	A
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85	N	(28)		0.60 - 1.11		
Uranium-238	NR	0.86	N	(28)		0.60 - 1.12		
Zinc-65	9.09	10.5	A		-13.4	7.4 - 13.7	0.57	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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- (11) = False Positive Test, Result Not Reported
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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	11.3	11.5	A		-1.7	8.1 - 15.0	0.41	A
Cesium-137	8.39	7.9	A		6.2	5.5 - 10.3	0.25	A
Cobalt-57	11.4	11.4	A		0.0	8.0 - 14.8	0.46	A
Cobalt-60	0.32		A			False Positive Test	0.42	
Hydrogen-3	-3.0		A			False Positive Test	8.0	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.2	15.5	A		4.5	10.9 - 20.2	0.38	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	2.86		A			False Positive Test	3.12	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.40	4.47	A		-1.6	3.13 - 5.81	0.09	A
Technetium-99	3.60	4.01	A		-10.2	2.81 - 5.21	0.18	A
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	11.5	10.5	A		9.5	7.4 - 13.7	0.61	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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- (11) = False Positive Test, Result Not Reported
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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-21-MaW44

(ASUK99) AWE (Aldermaston)

A38.1 AWE,

Reading, Berkshire RG7 4PR

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	NR	11.5				8.1 - 15.0		
Cesium-137	NR	7.9				5.5 - 10.3		
Cobalt-57	NR	11.4				8.0 - 14.8		
Cobalt-60	NR					False Positive Test		
Hydrogen-3	1.85		A			False Positive Test	2.29	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	NR	15.5				10.9 - 20.2		
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	0.478	0.577	A		-17.2	0.404 - 0.750	0.011	A
Plutonium-239/240	0.52	0.649	A		-19.9	0.454 - 0.844	0.011	A
Potassium-40	NR					False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	0.858	0.85	A		0.9	0.60 - 1.11	0.022	A
Uranium-238	0.880	0.86	A		2.3	0.60 - 1.12	0.023	A
Zinc-65	NR	10.5				7.4 - 13.7		

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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- (11) = False Positive Test, Result 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-21-MaW44

(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	8.34	8.63	A		-3.4	6.04 - 11.22	0.440	A
Arsenic	2.01	2.06	A		-2.4	1.44 - 2.68	0.113	A
Barium	7.66	7.58	A		1.1	5.31 - 9.85	0.312	A
Beryllium	3.17	3.15	A		0.6	2.21 - 4.10	0.197	A
Cadmium	0.733	0.748	A		-2.0	0.524 - 0.972	0.044	A
Chromium	4.05	4.01	A		1.0	2.81 - 5.21	0.128	A
Cobalt	10.3	10.3	A		0.0	7.2 - 13.4	0.515	A
Copper	5.58	5.53	A		0.9	3.87 - 7.19	0.230	A
Lead	2.43	2.52	A		-3.6	1.76 - 3.28	0.158	A
Mercury	0.114	0.106	A		7.5	0.074 - 0.138	0.0087	A
Nickel	5.07	5.05	A		0.4	3.54 - 6.57	0.250	A
Selenium	0.693	0.676	A		2.5	0.473 - 0.879	0.112	W
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	2.39	2.46	A		-2.8	1.72 - 3.20	0.163	A
Uranium-235	0.00049	0.000499	A		-1.8	3.49E-4 - 6.49E-4	0.000049	A
Uranium-238	0.070	0.069	A		1.4	0.048 - 0.090	0.007	A
Uranium-Total	0.070	0.070	A		0.0	0.049 - 0.091	0.007	A
Vanadium	16.7	17.4	A		-4.0	12.2 - 22.6	0.635	A
Zinc	15.3	15.5	A		-1.3	10.9 - 20.2	0.958	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	-0.00298		A			False Positive Test	0.13	
Cesium-134	NR	11.5		(6)		8.1 - 15.0		
Cesium-137	8.12	7.9	A		2.8	5.5 - 10.3	0.81	A
Cobalt-57	12.1	11.4	A		6.1	8.0 - 14.8	0.54	A
Cobalt-60	-0.013		A			False Positive Test	0.14	
Hydrogen-3	40		A			False Positive Test	370	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.7	15.5	A		7.7	10.9 - 20.2	3.6	W
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	0.520	0.577	A		-9.9	0.404 - 0.750	0.085	W
Plutonium-239/240	0.603	0.649	A		-7.1	0.454 - 0.844	0.096	W
Potassium-40	0.56		A			False Positive Test	4.4	
Radium-226	0.953	0.632	N		50.8	0.442 - 0.822	0.36	N

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	5.01	4.47	A		12.1	3.13 - 5.81	0.43	A
Technetium-99	3.47	4.01	A		-13.5	2.81 - 5.21	0.91	W
Uranium-234	0.825	0.85	A		-2.9	0.60 - 1.11	0.087	A
Uranium-238	0.810	0.86	A		-5.8	0.60 - 1.12	0.085	A
Zinc-65	11.7	10.5	A		11.4	7.4 - 13.7	2.2	W

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44

(BRL01) Brooks Applied Labs, LLC

18804 North Creek Parkway

Bothell, WA 98011

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	8.79	8.63	A		1.9	6.04 - 11.22	0.27	A
Arsenic	2.01	2.06	A		-2.4	1.44 - 2.68	0.05	A
Barium	7.8	7.58	A		2.9	5.31 - 9.85	0.11	N
Beryllium	3.16	3.15	A		0.3	2.21 - 4.10	0.16	A
Cadmium	0.756	0.748	A		1.1	0.524 - 0.972	0.002	N
Chromium	3.86	4.01	A		-3.7	2.81 - 5.21	0.39	A
Cobalt	10.4	10.3	A		1.0	7.2 - 13.4	0.3	A
Copper	5.78	5.53	A		4.5	3.87 - 7.19	0.05	N
Lead	2.57	2.52	A		2.0	1.76 - 3.28	0.08	A
Mercury	0.109	0.106	A		2.8	0.074 - 0.138	0.002	N
Nickel	5.07	5.05	A		0.4	3.54 - 6.57	0.17	A
Selenium	0.695	0.676	A		2.8	0.473 - 0.879	0.017	A
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	2.49	2.46	A		1.2	1.72 - 3.20	.06	A
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	0.067	0.070	A		-4.3	0.049 - 0.091	0.004	A
Vanadium	18.0	17.4	A		3.4	12.2 - 22.6	0.6	A
Zinc	14.9	15.5	A		-3.9	10.9 - 20.2	1.1	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	NR	11.5				8.1 - 15.0		
Cesium-137	NR	7.9				5.5 - 10.3		
Cobalt-57	NR	11.4				8.0 - 14.8		
Cobalt-60	NR					False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	NR	15.5				10.9 - 20.2		
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR					False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	NR	10.5				7.4 - 13.7		

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.005		A			False Positive Test	0.0134	
Cesium-134	NR	11.5		(6)		8.1 - 15.0		
Cesium-137	8.75	7.9	A		10.8	5.5 - 10.3	0.232	A
Cobalt-57	12.45	11.4	A		9.2	8.0 - 14.8	0.202	N
Cobalt-60	0.04		A			False Positive Test	0.033	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.93	15.5	A		9.2	10.9 - 20.2	0.378	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	0.481	0.577	A		-16.6	0.404 - 0.750	0.0454	A
Plutonium-239/240	0.537	0.649	A		-17.3	0.454 - 0.844	0.0491	A
Potassium-40	-1.13		A			False Positive Test	1.09	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	3.62	4.47	A		-19.0	3.13 - 5.81	0.407	A
Technetium-99	3.87	4.01	A		-3.5	2.81 - 5.21	0.206	A
Uranium-234	0.999	0.85	A		17.5	0.60 - 1.11	0.091	A
Uranium-238	0.796	0.86	A		-7.4	0.60 - 1.12	0.078	A
Zinc-65	11.35	10.5	A		8.1	7.4 - 13.7	0.441	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-21-MaW44
 (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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	-0.00281			A		False Positive Test	0.00530	
Cesium-134	11.6	11.5	A		0.9	8.1 - 15.0	0.240	A
Cesium-137	8.38	7.9	A		6.1	5.5 - 10.3	0.182	A
Cobalt-57	11.6	11.4	A		1.8	8.0 - 14.8	0.174	N
Cobalt-60	0.0503			A		False Positive Test	0.0255	
Hydrogen-3	0.141			A		False Positive Test	2.53	
Iron-55	22.5	26.9	A		-16.4	18.8 - 35.0	0.906	A
Manganese-54	16.5	15.5	A		6.5	10.9 - 20.2	0.300	N
Nickel-63	9.88	8.2	W		20.5	5.7 - 10.7	0.878	A
Plutonium-238	0.559	0.577	A		-3.1	0.404 - 0.750	0.0244	A
Plutonium-239/240	0.623	0.649	A		-4.0	0.454 - 0.844	0.0260	A
Potassium-40	-0.251			A		False Positive Test	0.818	
Radium-226	0.665	0.632	A		5.2	0.442 - 0.822	0.0764	A

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	3.70	4.47	A		-17.2	3.13 - 5.81	0.465	A
Technetium-99	3.83	4.01	A		-4.5	2.81 - 5.21	0.389	A
Uranium-234	0.787	0.85	A		-7.4	0.60 - 1.11	0.0319	A
Uranium-238	0.778	0.86	A		-9.5	0.60 - 1.12	0.0310	A
Zinc-65	11.2	10.5	A		6.7	7.4 - 13.7	0.211	N

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	9.55E+00	11.5	A		-17.0	8.1 - 15.0	1.05	A
Cesium-137	8.63E+00	7.9	A		9.2	5.5 - 10.3	1.47	W
Cobalt-57	1.16E+01	11.4	A		1.8	8.0 - 14.8	1.09	A
Cobalt-60	-4.21E-01			A		False Positive Test	2.73	
Hydrogen-3	-9.34E-01			A		False Positive Test	6.14E-01	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	1.41E+01	15.5	A		-9.0	10.9 - 20.2	2.03	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	5.46E-01	0.577	A		-5.4	0.404 - 0.750	1.30E-02	A
Plutonium-239/240	5.87E-01	0.649	A		-9.6	0.454 - 0.844	1.36E-02	A
Potassium-40	9.45E-01			A		False Positive Test	2.78	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	1.08E+01	10.5	A		2.9	7.4 - 13.7	3.18	W

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	2.00E-3		A			False Positive Test	8.46E-04	
Cesium-134	9.28E+00	11.5	A		-19.3	8.1 - 15.0	4.44E-01	A
Cesium-137	8.22E+00	7.9	A		4.1	5.5 - 10.3	5.31E-01	A
Cobalt-57	1.18E+01	11.4	A		3.5	8.0 - 14.8	4.03E-01	A
Cobalt-60	5.65E-02		A			False Positive Test	1.75E-01	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	1.57E+01	15.5	A		1.3	10.9 - 20.2	7.80E-01	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	5.40E-01	0.577	A		-6.4	0.404 - 0.750	3.86E-02	A
Plutonium-239/240	6.07E-01	0.649	A		-6.5	0.454 - 0.844	4.32E-02	A
Potassium-40	-2.22E+00		A			False Positive Test	3.48	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	8.84E-01	0.85	A		4.0	0.60 - 1.11	6.37E-02	A
Uranium-238	8.82E-01	0.86	A		2.6	0.60 - 1.12	6.37E-02	A
Zinc-65	1.11E+01	10.5	A		5.7	7.4 - 13.7	1.14	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44
 (COPS99) Health Canada Radiation Protection Bureau
 2720 Riverside drive
 Ottawa, Ontario K1A0K9

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	11.91	11.5	A		3.6	8.1 - 15.0	0.3755	A
Cesium-137	8.265	7.9	A		4.6	5.5 - 10.3	0.5185	A
Cobalt-57	10.75	11.4	A		-5.7	8.0 - 14.8	0.8613	A
Cobalt-60	0.03			A		False Positive Test	0.027	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	15.85	15.5	A		2.3	10.9 - 20.2	0.9731	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	4.763			A		False Positive Test	6.192	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	10.64	10.5	A		1.3	7.4 - 13.7	0.585	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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(11) = False Positive Test, Result 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-21-MaW44

(CORE02) Eurofins TestAmerica Denver

4955 Yarrow St

Arvada, CO 80002

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	7.85	8.63	A		-9.0	6.04 - 11.22	0.393	A
Arsenic	2.00	2.06	A		-2.9	1.44 - 2.68	0.107	A
Barium	7.64	7.58	A		0.8	5.31 - 9.85	0.420	A
Beryllium	3.10	3.15	A		-1.6	2.21 - 4.10	0.233	A
Cadmium	0.707	0.748	A		-5.5	0.524 - 0.972	0.035	A
Chromium	3.98	4.01	A		-0.7	2.81 - 5.21	0.245	A
Cobalt	10.2	10.3	A		-1.0	7.2 - 13.4	0.595	A
Copper	5.35	5.53	A		-3.3	3.87 - 7.19	0.303	A
Lead	2.59	2.52	A		2.8	1.76 - 3.28	0.142	A
Mercury	0.103	0.106	A		-2.8	0.074 - 0.138	0.00618	A
Nickel	4.74	5.05	A		-6.1	3.54 - 6.57	0.269	A
Selenium	0.638	0.676	A		-5.6	0.473 - 0.879	0.048	A
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	2.45	2.46	A		-0.4	1.72 - 3.20	0.135	A
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	0.0697	0.070	A		-0.4	0.049 - 0.091	0.00395	A
Vanadium	16.7	17.4	A		-4.0	12.2 - 22.6	0.974	A
Zinc	15.5	15.5	A		0.0	10.9 - 20.2	1.01	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	NR	11.5				8.1 - 15.0		
Cesium-137	NR	7.9				5.5 - 10.3		
Cobalt-57	NR	11.4				8.0 - 14.8		
Cobalt-60	NR					False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	NR	15.5				10.9 - 20.2		
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR					False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	NR	10.5				7.4 - 13.7		

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	11.58	11.5	A		0.7	8.1 - 15.0	0.81	A
Cesium-137	7.59	7.9	A		-3.9	5.5 - 10.3	0.45	A
Cobalt-57	11.48	11.4	A		0.7	8.0 - 14.8	0.51	A
Cobalt-60	0.9			A		False Positive Test	0.6	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.15	15.5	A		4.2	10.9 - 20.2	0.58	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	-7			A		False Positive Test	4	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	14.61	10.5	N		39.1	7.4 - 13.7	1.05	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	NR	11.5				8.1 - 15.0		
Cesium-137	NR	7.9				5.5 - 10.3		
Cobalt-57	NR	11.4				8.0 - 14.8		
Cobalt-60	NR					False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	NR	15.5				10.9 - 20.2		
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR					False Positive Test		
Radium-226	0.5	0.632	W		-20.9	0.442 - 0.822	0.05	A

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	0.9	0.85	A		5.9	0.60 - 1.11	0.1	A
Uranium-238	0.9	0.86	A		4.7	0.60 - 1.12	0.1	A
Zinc-65	NR	10.5				7.4 - 13.7		

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

(EMAX01) EMAX Laboratories, Inc

1835 W. 205th St.

Torrance, CA 90501

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	8.72	8.63	A		1.0	6.04 - 11.22	0.0081	N
Arsenic	1.97	2.06	A		-4.4	1.44 - 2.68	0.0455	A
Barium	8.02	7.58	A		5.8	5.31 - 9.85	0.008	N
Beryllium	3.28	3.15	A		4.1	2.21 - 4.10	0.0012	N
Cadmium	0.724	0.748	A		-3.2	0.524 - 0.972	0.00249	N
Chromium	3.94	4.01	A		-1.7	2.81 - 5.21	0.0016	N
Cobalt	10.4	10.3	A		1.0	7.2 - 13.4	0.0034	N
Copper	5.92	5.53	A		7.1	3.87 - 7.19	0.0585	N
Lead	2.48	2.52	A		-1.6	1.76 - 3.28	0.0100	N
Mercury	0.109	0.106	A		2.8	0.074 - 0.138	0.000141	N
Nickel	5.34	5.05	A		5.7	3.54 - 6.57	0.0155	N
Selenium	0.650	0.676	A		-3.8	0.473 - 0.879	0.0043	N
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	2.42	2.46	A		-1.6	1.72 - 3.20	0.0106	N
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	0.0671	0.069	A		-2.8	0.048 - 0.090	0.000435	N
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	17.6	17.4	A		1.1	12.2 - 22.6	0.104	N
Zinc	15.6	15.5	A		0.6	10.9 - 20.2	0.040	N

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	NR	11.5				8.1 - 15.0		
Cesium-137	NR	7.9				5.5 - 10.3		
Cobalt-57	NR	11.4				8.0 - 14.8		
Cobalt-60	NR					False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	NR	15.5				10.9 - 20.2		
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR					False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	NR	10.5				7.4 - 13.7		

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44

(ERAD01) Lawrence Livermore National Laboratory ERAD

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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	0.0004968	0.000499	A		-0.4	3.49E-4 - 6.49E-4	0.000004	N
Uranium-238	0.06868	0.069	A		-0.5	0.048 - 0.090	0.00029	N
Uranium-Total	0.06918	0.070	A		-1.2	0.049 - 0.091	0.00035	N
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	NR	11.5				8.1 - 15.0		
Cesium-137	NR	7.9				5.5 - 10.3		
Cobalt-57	NR	11.4				8.0 - 14.8		
Cobalt-60	NR					False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	NR	15.5				10.9 - 20.2		
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR					False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	NR	10.5				7.4 - 13.7		

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

(25) = Result not reported with other gamma results

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

Laboratory Results For MAPEP-21-MaW44
 (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	8.54	8.63	A		-1.0	6.04 - 11.22	0.26	A
Arsenic	1.95	2.06	A		-5.3	1.44 - 2.68	0.07	A
Barium	7.25	7.58	A		-4.4	5.31 - 9.85	0.26	A
Beryllium	3.30	3.15	A		4.8	2.21 - 4.10	0.17	A
Cadmium	0.725	0.748	A		-3.1	0.524 - 0.972	0.022	A
Chromium	4.91	4.01	W		22.4	2.81 - 5.21	0.17	A
Cobalt	10.1	10.3	A		-1.9	7.2 - 13.4	0.3	A
Copper	5.43	5.53	A		-1.8	3.87 - 7.19	0.16	A
Lead	2.45	2.52	A		-2.8	1.76 - 3.28	0.08	A
Mercury	NR	0.106				0.074 - 0.138		
Nickel	4.91	5.05	A		-2.8	3.54 - 6.57	0.16	A
Selenium	0.690	0.676	A		2.1	0.473 - 0.879	0.024	A
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	2.41	2.46	A		-2.0	1.72 - 3.20	0.08	A
Uranium-235	0.000481	0.000499	A		-3.6	3.49E-4 - 6.49E-4	0.000024	A
Uranium-238	0.0658	0.069	A		-4.6	0.048 - 0.090	0.0017	A
Uranium-Total	0.0663	0.070	A		-5.3	0.049 - 0.091	0.0017	A
Vanadium	18.4	17.4	A		5.7	12.2 - 22.6	0.6	A
Zinc	15.3	15.5	A		-1.3	10.9 - 20.2	0.5	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.0007		A			False Positive Test	0.0032	
Cesium-134	9.66	11.5	A		-16.0	8.1 - 15.0	0.19	N
Cesium-137	8.33	7.9	A		5.4	5.5 - 10.3	0.21	A
Cobalt-57	11.1	11.4	A		-2.6	8.0 - 14.8	0.2	N
Cobalt-60	0.026		A			False Positive Test	0.081	
Hydrogen-3	0.41		A			False Positive Test	0.87	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	15.0	15.5	A		-3.2	10.9 - 20.2	0.2	N
Nickel-63	8.1	8.2	A		-1.2	5.7 - 10.7	1.2	A
Plutonium-238	0.577	0.577	A		0.0	0.404 - 0.750	0.028	A
Plutonium-239/240	0.651	0.649	A		0.3	0.454 - 0.844	0.030	A
Potassium-40	1.6		A			False Positive Test	1.7	
Radium-226	0.718	0.632	A		13.6	0.442 - 0.822	0.070	A

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.11	4.47	A		-8.1	3.13 - 5.81	0.24	A
Technetium-99	3.52	4.01	A		-12.2	2.81 - 5.21	0.57	W
Uranium-234	0.858	0.85	A		0.9	0.60 - 1.11	0.040	A
Uranium-238	0.914	0.86	A		6.3	0.60 - 1.12	0.042	A
Zinc-65	11.0	10.5	A		4.8	7.4 - 13.7	0.4	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-21-MaW44

(ERHD99) Radiation Protection Bureau Health Canada RSD NMS

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	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.002		N	(1)		False Positive Test	0.0002	
Cesium-134	12.12	11.5	A		5.4	8.1 - 15.0	0.46	A
Cesium-137	8.08	7.9	A		2.3	5.5 - 10.3	0.31	A
Cobalt-57	11.13	11.4	A		-2.4	8.0 - 14.8	0.42	A
Cobalt-60	0.11		A			False Positive Test	0.12	
Hydrogen-3	3.93		A			False Positive Test	1.54	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	14.47	15.5	A		-6.6	10.9 - 20.2	0.52	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	0.594	0.577	A		2.9	0.404 - 0.750	0.016	A
Plutonium-239/240	0.637	0.649	A		-1.8	0.454 - 0.844	0.019	A
Potassium-40	0.0148		A			False Positive Test	0.28	
Radium-226	2.28	0.632	N		260.8	0.442 - 0.822	0.27	A

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.67	4.47	A		4.5	3.13 - 5.81	0.11	A
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	0.819	0.85	A		-3.6	0.60 - 1.11	0.024	A
Uranium-238	0.823	0.86	A		-4.3	0.60 - 1.12	0.024	A
Zinc-65	10.06	10.5	A		-4.2	7.4 - 13.7	0.37	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	NR	11.5				8.1 - 15.0		
Cesium-137	NR	7.9				5.5 - 10.3		
Cobalt-57	NR	11.4				8.0 - 14.8		
Cobalt-60	NR					False Positive Test		
Hydrogen-3	0.85		A			False Positive Test	3.13	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	NR	15.5				10.9 - 20.2		
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR					False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	NR	10.5				7.4 - 13.7		

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

(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	8.444	8.63	A		-2.2	6.04 - 11.22	0.42	A
Arsenic	2.477	2.06	W		20.2	1.44 - 2.68	0.121	A
Barium	7.353	7.58	A		-3.0	5.31 - 9.85	0.193	A
Beryllium	3.020	3.15	A		-4.1	2.21 - 4.10	0.214	A
Cadmium	0.691	0.748	A		-7.6	0.524 - 0.972	0.018	A
Chromium	3.843	4.01	A		-4.2	2.81 - 5.21	0.388	A
Cobalt	9.402	10.3	A		-8.7	7.2 - 13.4	0.78	A
Copper	4.849	5.53	A		-12.3	3.87 - 7.19	0.38	A
Lead	2.428	2.52	A		-3.7	1.76 - 3.28	0.165	A
Mercury	0.1050	0.106	A		-0.9	0.074 - 0.138	0.0016	N
Nickel	4.520	5.05	A		-10.5	3.54 - 6.57	0.090	N
Selenium	0.638	0.676	A		-5.6	0.473 - 0.879	0.080	A
Technetium-99	0.0000062	6.35E-6	A		-1.2	4.45E-6 - 8.26E-6	0.000000	A
Thallium	2.252	2.46	A		-8.5	1.72 - 3.20	0.257	A
Uranium-235	0.00053	0.000499	A		6.2	3.49E-4 - 6.49E-4	0.000012	A
Uranium-238	0.06975	0.069	A		1.1	0.048 - 0.090	0.00094	N
Uranium-Total	0.07028	0.070	A		0.4	0.049 - 0.091	0.000941	N
Vanadium	15.81	17.4	A		-9.1	12.2 - 22.6	0.91	A
Zinc	14.38	15.5	A		-7.2	10.9 - 20.2	0.705	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	NR	11.5				8.1 - 15.0		
Cesium-137	NR	7.9				5.5 - 10.3		
Cobalt-57	NR	11.4				8.0 - 14.8		
Cobalt-60	NR					False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	NR	15.5				10.9 - 20.2		
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR					False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	3.92	4.01	A		-2.2	2.81 - 5.21	0.35	A
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	NR	10.5				7.4 - 13.7		

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

(EULC01) EnergySolutions, LLC

I-80, Exit 49

Clive, UT 84029

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	-.312		A			False Positive Test	.21	
Cesium-134	9.657	11.5	A		-16.0	8.1 - 15.0	.577	A
Cesium-137	7.415	7.9	A		-6.1	5.5 - 10.3	.925	A
Cobalt-57	10.582	11.4	A		-7.2	8.0 - 14.8	1.547	A
Cobalt-60	.02		A			False Positive Test	.012	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	14.178	15.5	A		-8.5	10.9 - 20.2	1.495	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR		N	(11)		False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	9.524	10.5	A		-9.3	7.4 - 13.7	.92	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

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

Laboratory Results For MAPEP-21-MaW44

(FDHE01) Florida Dept of Health Environmental Laboratory

PO Box 680069

Orlando, FL 32868-0069

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.036		A			False Positive Test	0.265	
Cesium-134	10.908	11.5	A		-5.1	8.1 - 15.0	0.186	N
Cesium-137	8.270	7.9	A		4.7	5.5 - 10.3	0.223	A
Cobalt-57	11.700	11.4	A		2.6	8.0 - 14.8	0.265	A
Cobalt-60	0.100		A			False Positive Test	0.129	
Hydrogen-3	1.098		A			False Positive Test	0.723	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.200	15.5	A		4.5	10.9 - 20.2	0.360	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	0.54275	0.577	A		-5.9	0.404 - 0.750	0.03695	A
Plutonium-239/240	0.6003	0.649	A		-7.5	0.454 - 0.844	0.039	A
Potassium-40	0.795		A			False Positive Test	1.232	
Radium-226	0.574	0.632	A		-9.2	0.442 - 0.822	0.073	A

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.003	4.47	A		-10.4	3.13 - 5.81	0.406	A
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	0.840	0.85	A		-1.2	0.60 - 1.11	0.098	A
Uranium-238	0.780	0.86	A		-9.3	0.60 - 1.12	0.094	A
Zinc-65	11.500	10.5	A		9.5	7.4 - 13.7	0.369	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

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

PO Box 680069

Orlando, FL 32868-0069

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	-0.033		A			False Positive Test	0.282	
Cesium-134	10.702	11.5	A		-6.9	8.1 - 15.0	0.165	N
Cesium-137	8.016	7.9	A		1.5	5.5 - 10.3	0.214	A
Cobalt-57	11.104	11.4	A		-2.6	8.0 - 14.8	0.285	A
Cobalt-60	0.072		A			False Positive Test	0.125	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	15.342	15.5	A		-1.0	10.9 - 20.2	0.349	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	0.626		A			False Positive Test	1.366	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	0.796	0.86	A		-7.4	0.60 - 1.12	2.629	N
Zinc-65	10.764	10.5	A		2.5	7.4 - 13.7	0.331	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

- (1) = False Positive
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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-21-MaW44

(FERM01) Fernald Project
10995 Hamilton-Cleves Highway
Harrison, OH 45030-9728

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	0.08442	0.070	W		20.6	0.049 - 0.091	0.010	A
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	NR	11.5				8.1 - 15.0		
Cesium-137	NR	7.9				5.5 - 10.3		
Cobalt-57	NR	11.4				8.0 - 14.8		
Cobalt-60	NR					False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	NR	15.5				10.9 - 20.2		
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR					False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	NR	10.5				7.4 - 13.7		

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	NR	11.5				8.1 - 15.0		
Cesium-137	NR	7.9				5.5 - 10.3		
Cobalt-57	NR	11.4				8.0 - 14.8		
Cobalt-60	NR					False Positive Test		
Hydrogen-3	-1.11		A			False Positive Test	4.63	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	NR	15.5				10.9 - 20.2		
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR					False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	NR	10.5				7.4 - 13.7		

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

(FSCLO1) 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	8.667	8.63	A		0.4	6.04 - 11.22	0.022	N
Arsenic	2.019	2.06	A		-2.0	1.44 - 2.68	0.026	N
Barium	7.669	7.58	A		1.2	5.31 - 9.85	0.019	N
Beryllium	3.215	3.15	A		2.1	2.21 - 4.10	0.085	A
Cadmium	0.7480	0.748	A		0.0	0.524 - 0.972	0.003	N
Chromium	4.015	4.01	A		0.1	2.81 - 5.21	0.013	N
Cobalt	10.331	10.3	A		0.3	7.2 - 13.4	0.04	N
Copper	5.646	5.53	A		2.1	3.87 - 7.19	0.01	N
Lead	2.544	2.52	A		1.0	1.76 - 3.28	0.014	N
Mercury	NR	0.106				0.074 - 0.138		
Nickel	5.053	5.05	A		0.1	3.54 - 6.57	0.020	N
Selenium	0.667	0.676	A		-1.3	0.473 - 0.879	0.036	A
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	2.460	2.46	A		0.0	1.72 - 3.20	0.017	N
Uranium-235	0.0004968	0.000499	A		-0.4	3.49E-4 - 6.49E-4	0.000004	N
Uranium-238	0.06868	0.069	A		-0.5	0.048 - 0.090	0.00029	N
Uranium-Total	0.06918	0.070	A		-1.2	0.049 - 0.091	0.00035	N
Vanadium	17.270	17.4	A		-0.7	12.2 - 22.6	0.056	N
Zinc	15.557	15.5	A		0.4	10.9 - 20.2	0.080	N

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	12.4	11.5	A		7.8	8.1 - 15.0	0.6	A
Cesium-137	9.5	7.9	W		20.3	5.5 - 10.3	0.5	A
Cobalt-57	18.7	11.4	N		64.0	8.0 - 14.8	1.0	A
Cobalt-60	-0.001		A			False Positive Test	0.029	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	17.0	15.5	A		9.7	10.9 - 20.2	0.9	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	-0.59		A			False Positive Test	0.62	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	11.6	10.5	A		10.5	7.4 - 13.7	0.6	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

(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	9.08	8.63	A		5.2	6.04 - 11.22	1.82	W
Arsenic	2.06	2.06	A		0.0	1.44 - 2.68	0.412	W
Barium	7.83	7.58	A		3.3	5.31 - 9.85	1.57	W
Beryllium	3.24	3.15	A		2.9	2.21 - 4.10	0.649	W
Cadmium	0.759	0.748	A		1.5	0.524 - 0.972	0.152	W
Chromium	4.09	4.01	A		2.0	2.81 - 5.21	0.818	W
Cobalt	10.6	10.3	A		2.9	7.2 - 13.4	2.13	W
Copper	5.67	5.53	A		2.5	3.87 - 7.19	1.13	W
Lead	2.67	2.52	A		6.0	1.76 - 3.28	0.534	W
Mercury	0.0982	0.106	A		-7.4	0.074 - 0.138	0.0196	W
Nickel	5.25	5.05	A		4.0	3.54 - 6.57	1.05	W
Selenium	0.708	0.676	A		4.7	0.473 - 0.879	0.142	W
Technetium-99	6.05E-6	6.35E-6	A		-4.7	4.45E-6 - 8.26E-6	1.03E-7	N
Thallium	2.65	2.46	A		7.7	1.72 - 3.20	0.530	W
Uranium-235	0.000526	0.000499	A		5.4	3.49E-4 - 6.49E-4	0.000105	W
Uranium-238	0.0724	0.069	A		4.9	0.048 - 0.090	0.0145	W
Uranium-Total	0.0730	0.070	A		4.3	0.049 - 0.091	0.0145	W
Vanadium	18.3	17.4	A		5.2	12.2 - 22.6	3.66	W
Zinc	15.7	15.5	A		1.3	10.9 - 20.2	3.14	W

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.0145		A			False Positive Test	0.00678	
Cesium-134	10.6	11.5	A		-7.8	8.1 - 15.0	0.519	A
Cesium-137	8.54	7.9	A		8.1	5.5 - 10.3	0.433	A
Cobalt-57	12.2	11.4	A		7.0	8.0 - 14.8	0.538	A
Cobalt-60	0.146		A			False Positive Test	0.0719	
Hydrogen-3	2.27		A			False Positive Test	2.16	
Iron-55	27.1	26.9	A		0.7	18.8 - 35.0	3.52	A
Manganese-54	16.7	15.5	A		7.7	10.9 - 20.2	0.777	A
Nickel-63	10.4	8.2	W		26.8	5.7 - 10.7	1.2	A
Plutonium-238	0.515	0.577	A		-10.7	0.404 - 0.750	0.0347	A
Plutonium-239/240	0.564	0.649	A		-13.1	0.454 - 0.844	0.0369	A
Potassium-40	-0.886		A			False Positive Test	0.895	
Radium-226	0.538	0.632	A		-14.9	0.442 - 0.822	0.0799	A

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.95	4.47	A		10.7	3.13 - 5.81	4.07	N
Technetium-99	3.69	4.01	A		-8.0	2.81 - 5.21	0.314	A
Uranium-234	0.884	0.85	A		4.0	0.60 - 1.11	0.0547	A
Uranium-238	0.913	0.86	A		6.2	0.60 - 1.12	0.0558	A
Zinc-65	11.6	10.5	A		10.5	7.4 - 13.7	0.58	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

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

Laboratory Results For MAPEP-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	11.5	11.5	A		0.0	8.1 - 15.0	0.87	A
Cesium-137	8.67	7.9	A		9.7	5.5 - 10.3	0.79	A
Cobalt-57	11.8	11.4	A		3.5	8.0 - 14.8	1.10	A
Cobalt-60	0.22			A		False Positive Test	0.17	
Hydrogen-3	-2.42			A		False Positive Test	4.15	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.4	15.5	A		5.8	10.9 - 20.2	1.35	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	-0.29			A		False Positive Test	2.24	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.16	4.47	A		-6.9	3.13 - 5.81	0.193	A
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	11.7	10.5	A		11.4	7.4 - 13.7	1.22	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

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

Laboratory Results For MAPEP-21-MaW44
 (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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	NR	11.5				8.1 - 15.0		
Cesium-137	NR	7.9				5.5 - 10.3		
Cobalt-57	NR	11.4				8.0 - 14.8		
Cobalt-60	NR					False Positive Test		
Hydrogen-3	2		A			False Positive Test	1	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	NR	15.5				10.9 - 20.2		
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR					False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	NR	10.5				7.4 - 13.7		

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44

(HECR01) SC Dept. Health and Environmental Control Radiological Laboratory

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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	11.19	11.5	A		-2.7	8.1 - 15.0	0.5461	A
Cesium-137	8.155	7.9	A		3.2	5.5 - 10.3	0.7425	A
Cobalt-57	11.85	11.4	A		3.9	8.0 - 14.8	0.9294	A
Cobalt-60	-0.00675			A		False Positive Test	0.18457	
Hydrogen-3	3.58			A		False Positive Test	3.60	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.58	15.5	A		7.0	10.9 - 20.2	1.532	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	7.322			N (1)		False Positive Test	1.261	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	11.56	10.5	A		10.1	7.4 - 13.7	1.076	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44

(HPAC99) PHE, CRCE 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	8.63				6.04 - 11.22		
Arsenic	1.995	2.06	A		-3.2	1.44 - 2.68	0.08	A
Barium	7.58	7.58	A		0.0	5.31 - 9.85	0.76	A
Beryllium	3.00	3.15	A		-4.8	2.21 - 4.10	0.26	A
Cadmium	0.735	0.748	A		-1.7	0.524 - 0.972	0.033	A
Chromium	3.86	4.01	A		-3.7	2.81 - 5.21	0.25	A
Cobalt	9.99	10.3	A		-3.0	7.2 - 13.4	0.65	A
Copper	5.45	5.53	A		-1.4	3.87 - 7.19	0.33	A
Lead	2.5	2.52	A		-0.8	1.76 - 3.28	0.14	A
Mercury	0.1	0.106	A		-5.7	0.074 - 0.138	0.0065	A
Nickel	4.88	5.05	A		-3.4	3.54 - 6.57	0.27	A
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	0.0000064	6.35E-6	A		1.4	4.45E-6 - 8.26E-6	0.000000	A
Thallium	2.54	2.46	A		3.3	1.72 - 3.20	0.16	A
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	0.07	0.069	A		1.4	0.048 - 0.090	0.0067	A
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	16.62	17.4	A		-4.5	12.2 - 22.6	0.83	A
Zinc	14.96	15.5	A		-3.5	10.9 - 20.2	0.97	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.094		N	(1)		False Positive Test	0.019	
Cesium-134	11.00	11.5	A		-4.3	8.1 - 15.0	0.58	A
Cesium-137	8.14	7.9	A		3.0	5.5 - 10.3	0.52	A
Cobalt-57	11.4	11.4	A		0.0	8.0 - 14.8	0.61	A
Cobalt-60	NR		N	(11)		False Positive Test		
Hydrogen-3	NR		N	(11)		False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	15.25	15.5	A		-1.6	10.9 - 20.2	0.86	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	0.602	0.577	A		4.3	0.404 - 0.750	0.043	A
Plutonium-239/240	0.695	0.649	A		7.1	0.454 - 0.844	0.047	A
Potassium-40	NR		N	(11)		False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	1.79	4.01	N		-55.4	2.81 - 5.21	0.52	W
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	10.6	10.5	A		1.0	7.4 - 13.7	0.81	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

- (1) = False Positive
- (6) = Not Evaluated
- (11) = False Positive Test, Result 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-21-MaW44

(IAEA20) IAEA Radiometrics Laboratory

4a, Quai Antoine 1er

Monaco, Monaco 98000

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	11.94	11.5	A		3.8	8.1 - 15.0	0.48	A
Cesium-137	7.86	7.9	A		-0.5	5.5 - 10.3	0.34	A
Cobalt-57	11.05	11.4	A		-3.1	8.0 - 14.8	0.46	A
Cobalt-60	NR		N	(11)		False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	15.0	15.5	A		-3.2	10.9 - 20.2	0.61	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR		N	(11)		False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	10.51	10.5	A		0.1	7.4 - 13.7	0.83	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44
 (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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.2		A			False Positive Test	0.1	
Cesium-134	11.7	11.5	A		1.7	8.1 - 15.0	0.4	A
Cesium-137	8.2	7.9	A		3.8	5.5 - 10.3	0.3	A
Cobalt-57	12.3	11.4	A		7.9	8.0 - 14.8	0.3	A
Cobalt-60	-0.03		A			False Positive Test	0.05	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.6	15.5	A		7.1	10.9 - 20.2	0.5	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	0.3		A			False Positive Test	0.7	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	11.9	10.5	A		13.3	7.4 - 13.7	0.3	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.005		A			False Positive Test	0.012	
Cesium-134	11.45	11.5	A		-0.4	8.1 - 15.0	0.13	N
Cesium-137	8.14	7.9	A		3.0	5.5 - 10.3	0.18	A
Cobalt-57	11.25	11.4	A		-1.3	8.0 - 14.8	0.17	N
Cobalt-60	-0.01		A			False Positive Test	0.04	
Hydrogen-3	1.02		A			False Positive Test	1.52	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	15.70	15.5	A		1.3	10.9 - 20.2	0.25	N
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	0.552	0.577	A		-4.3	0.404 - 0.750	0.026	A
Plutonium-239/240	0.624	0.649	A		-3.9	0.454 - 0.844	0.028	A
Potassium-40	0.06		A			False Positive Test	0.58	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	3.80	4.47	A		-15.0	3.13 - 5.81	0.32	A
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	0.794	0.85	A		-6.6	0.60 - 1.11	0.032	A
Uranium-238	0.768	0.86	A		-10.7	0.60 - 1.12	0.031	A
Zinc-65	11.00	10.5	A		4.8	7.4 - 13.7	0.29	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

- (1) = False Positive
- (6) = Not Evaluated
- (11) = False Positive Test, Result 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-21-MaW44
 (ISUE01) ISU Environmental Monitoring Laboratory
 785 5th 8th Ave Rm B107
 Pocatello, Idaho 83209

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	11.8	11.5	A		2.6	8.1 - 15.0	0.2	N
Cesium-137	8.6	7.9	A		8.9	5.5 - 10.3	0.2	A
Cobalt-57	11.3	11.4	A		-0.9	8.0 - 14.8	0.3	A
Cobalt-60	0.04			A		False Positive Test	0.02	
Hydrogen-3	1.54			A		False Positive Test	1.82	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.4	15.5	A		5.8	10.9 - 20.2	0.5	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	-0.1			A		False Positive Test	0.7	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	11.5	10.5	A		9.5	7.4 - 13.7	0.4	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

- (1) = False Positive
- (6) = Not Evaluated
- (11) = False Positive Test, Result 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-21-MaW44

(ISUP01) ISU - Department of Physics/Health Physics/EAL

785 S. 8th Ave, Rm 120

Pocatello, ID 83209-8106

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	10.68	11.5	A		-7.1	8.1 - 15.0	0.54	A
Cesium-137	8.47	7.9	A		7.2	5.5 - 10.3	.53	A
Cobalt-57	11.32	11.4	A		-0.7	8.0 - 14.8	0.62	A
Cobalt-60	NR		N	(11)		False Positive Test		
Hydrogen-3	74.78		N	(1)		False Positive Test	1.40	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.05	15.5	A		3.5	10.9 - 20.2	0.9	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	6.09		N	(1)		False Positive Test	1.2	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	11.25	10.5	A		7.1	7.4 - 13.7	0.85	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.097		N	(1)		False Positive Test	0.004808	
Cesium-134	10.72	11.5	A		-6.8	8.1 - 15.0	0.2315	A
Cesium-137	8.405	7.9	A		6.4	5.5 - 10.3	0.3139	A
Cobalt-57	11.77	11.4	A		3.2	8.0 - 14.8	0.3025	A
Cobalt-60	0.0373		A			False Positive Test	0.02467	
Hydrogen-3	-23.69		A			False Positive Test	23.90	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.02	15.5	A		3.4	10.9 - 20.2	0.4868	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	-0.5221		A			False Positive Test	1.036	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	10.33	10.5	A		-1.6	7.4 - 13.7	0.4472	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

(25) = Result not reported with other gamma results

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

Laboratory Results For MAPEP-21-MaW44

(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	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	9.81	11.5	A		-14.7	8.1 - 15.0	0.51	A
Cesium-137	7.62	7.9	A		-3.5	5.5 - 10.3	0.41	A
Cobalt-57	10.73	11.4	A		-5.9	8.0 - 14.8	0.60	A
Cobalt-60	-0.01			A		False Positive Test	0.04	
Hydrogen-3	9.3			A		False Positive Test	9.39	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	14.73	15.5	A		-5.0	10.9 - 20.2	0.80	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	-0.38			A		False Positive Test	0.43	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	10.13	10.5	A		-3.5	7.4 - 13.7	0.59	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

- (1) = False Positive
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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-21-MaW44

(LZCA01) ACZ Laboratories, Inc
2273 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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	NR	11.5				8.1 - 15.0		
Cesium-137	NR	7.9				5.5 - 10.3		
Cobalt-57	NR	11.4				8.0 - 14.8		
Cobalt-60	NR					False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	NR	15.5				10.9 - 20.2		
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR					False Positive Test		
Radium-226	0.687	0.632	A		8.7	0.442 - 0.822	0.057	A

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	NR	10.5				7.4 - 13.7		

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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- (11) = False Positive Test, Result 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-21-MaW44
 (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	9.80	8.63	A		13.6	6.04 - 11.22	0.98	A
Arsenic	2.13	2.06	A		3.4	1.44 - 2.68	0.21	A
Barium	8.75	7.58	A		15.4	5.31 - 9.85	0.88	A
Beryllium	3.19	3.15	A		1.3	2.21 - 4.10	0.32	A
Cadmium	0.762	0.748	A		1.9	0.524 - 0.972	0.076	A
Chromium	4.49	4.01	A		12.0	2.81 - 5.21	0.45	A
Cobalt	11.2	10.3	A		8.7	7.2 - 13.4	1.1	A
Copper	6.10	5.53	A		10.3	3.87 - 7.19	0.61	A
Lead	2.62	2.52	A		4.0	1.76 - 3.28	0.26	A
Mercury	0.110	0.106	A		3.8	0.074 - 0.138	0.011	A
Nickel	5.56	5.05	A		10.1	3.54 - 6.57	0.56	A
Selenium	0.687	0.676	A		1.6	0.473 - 0.879	0.069	A
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	2.57	2.46	A		4.5	1.72 - 3.20	0.26	A
Uranium-235	0.00053	0.000499	A		6.2	3.49E-4 - 6.49E-4	0.00005	A
Uranium-238	0.0735	0.069	A		6.5	0.048 - 0.090	0.0074	A
Uranium-Total	0.0740	0.070	A		5.7	0.049 - 0.091	0.0074	A
Vanadium	20.1	17.4	A		15.5	12.2 - 22.6	2.0	A
Zinc	17.5	15.5	A		12.9	10.9 - 20.2	1.8	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.0003		A			False Positive Test	0.0096	
Cesium-134	9.91	11.5	A		-13.8	8.1 - 15.0	0.16	N
Cesium-137	8.09	7.9	A		2.4	5.5 - 10.3	0.23	A
Cobalt-57	11.20	11.4	A		-1.8	8.0 - 14.8	0.25	A
Cobalt-60	-0.08		A			False Positive Test	0.11	
Hydrogen-3	-5.9		A			False Positive Test	3.1	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	15.60	15.5	A		0.6	10.9 - 20.2	0.35	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	0.563	0.577	A		-2.4	0.404 - 0.750	0.051	A
Plutonium-239/240	0.618	0.649	A		-4.8	0.454 - 0.844	0.054	A
Potassium-40	2.8		A			False Positive Test	2.8	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	3.84	4.47	A		-14.1	3.13 - 5.81	0.22	A
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	0.864	0.85	A		1.6	0.60 - 1.11	0.069	A
Uranium-238	0.894	0.86	A		4.0	0.60 - 1.12	0.069	A
Zinc-65	10.92	10.5	A		4.0	7.4 - 13.7	0.38	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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- (11) = False Positive Test, Result Not Reported
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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-21-MaW44
 (MDPH01) MDPH-Radiation Control Program
 MERL-Room 002
 Jamaica Plain, MA 02130-3597

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR		N	(11)		False Positive Test		
Cesium-134	10.11	11.5	A		-12.1	8.1 - 15.0	0.28	A
Cesium-137	7.94	7.9	A		0.5	5.5 - 10.3	0.25	A
Cobalt-57	11.54	11.4	A		1.2	8.0 - 14.8	0.45	A
Cobalt-60	NR		N	(11)		False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	15.65	15.5	A		1.0	10.9 - 20.2	0.46	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR		N	(11)		False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	11.22	10.5	A		6.9	7.4 - 13.7	0.35	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

- (1) = False Positive
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- (11) = False Positive Test, Result Not Reported
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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	-0.24653		A			False Positive Test	.3000	
Cesium-134	10.484	11.5	A		-8.8	8.1 - 15.0	0.2531	A
Cesium-137	8.4690	7.9	A		7.2	5.5 - 10.3	0.2702	A
Cobalt-57	11.910	11.4	A		4.5	8.0 - 14.8	0.2107	N
Cobalt-60	0.040801		A			False Positive Test	0.09792	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.645	15.5	A		7.4	10.9 - 20.2	0.3662	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	-0.16413		A			False Positive Test	1.614	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	11.828	10.5	A		12.6	7.4 - 13.7	0.5230	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

- (1) = False Positive
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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-21-MaW44
 (MSDH01) Mississippi State Dept of Health
 Radiological Environmental Laboratory
 Jackson, MS 39216

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	12.4	11.5	A		7.8	8.1 - 15.0	.7	A
Cesium-137	9.1	7.9	A		15.2	5.5 - 10.3	1	A
Cobalt-57	12.3	11.4	A		7.9	8.0 - 14.8	.7	A
Cobalt-60	NR		N	(11)		False Positive Test		
Hydrogen-3	0.1		A			False Positive Test	10	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	17.5	15.5	A		12.9	10.9 - 20.2	1.3	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR		N	(11)		False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	13.4	10.5	W		27.6	7.4 - 13.7	2	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.000446		A			False Positive Test	0.000998	
Cesium-134	11.4	11.5	A		-0.9	8.1 - 15.0	0.623	A
Cesium-137	8.59	7.9	A		8.7	5.5 - 10.3	0.481	A
Cobalt-57	11.8	11.4	A		3.5	8.0 - 14.8	0.646	A
Cobalt-60	0.0202		A			False Positive Test	0.0327	
Hydrogen-3	-0.545		A			False Positive Test	1.91	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.3	15.5	A		5.2	10.9 - 20.2	0.892	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	0.584	0.577	A		1.2	0.404 - 0.750	0.0362	A
Plutonium-239/240	0.609	0.649	A		-6.2	0.454 - 0.844	0.0373	A
Potassium-40	NR		N	(11)		False Positive Test		
Radium-226	0.657	0.632	A		4.0	0.442 - 0.822	0.0319	A

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	0.818	0.85	A		-3.8	0.60 - 1.11	0.0423	A
Uranium-238	0.831	0.86	A		-3.4	0.60 - 1.12	0.0428	A
Zinc-65	10.6	10.5	A		1.0	7.4 - 13.7	0.602	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

(NARL02) USEPA - NAREL - MERL

540 S Morris Ave

Montgomery, AL 36115

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	10.4	11.5	A		-9.6	8.1 - 15.0	0.220	A
Cesium-137	7.77	7.9	A		-1.6	5.5 - 10.3	0.260	A
Cobalt-57	11.0	11.4	A		-3.5	8.0 - 14.8	0.230	A
Cobalt-60	0.0145			A		False Positive Test	0.0340	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	14.8	15.5	A		-4.5	10.9 - 20.2	0.430	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	0.140			A		False Positive Test	0.370	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	10.1	10.5	A		-3.8	7.4 - 13.7	0.420	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

(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	8.70	8.63	A		0.8	6.04 - 11.22	0.356	A
Arsenic	1.99	2.06	A		-3.4	1.44 - 2.68	0.032	N
Barium	7.55	7.58	A		-0.4	5.31 - 9.85	0.334	A
Beryllium	3.23	3.15	A		2.5	2.21 - 4.10	0.142	A
Cadmium	0.741	0.748	A		-0.9	0.524 - 0.972	0.032	A
Chromium	4.10	4.01	A		2.2	2.81 - 5.21	0.196	A
Cobalt	10.6	10.3	A		2.9	7.2 - 13.4	0.474	A
Copper	5.53	5.53	A		0.0	3.87 - 7.19	0.235	A
Lead	2.48	2.52	A		-1.6	1.76 - 3.28	0.108	A
Mercury	0.119	0.106	A		12.3	0.074 - 0.138	0.006	A
Nickel	5.06	5.05	A		0.2	3.54 - 6.57	0.227	A
Selenium	0.633	0.676	A		-6.4	0.473 - 0.879	0.010	N
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	2.335	2.46	A		-5.1	1.72 - 3.20	0.094	A
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	18.1	17.4	A		4.0	12.2 - 22.6	0.797	A
Zinc	15.3	15.5	A		-1.3	10.9 - 20.2	0.681	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.005		A			False Positive Test	0.005	
Cesium-134	9.7	11.5	A		-15.7	8.1 - 15.0	0.404	A
Cesium-137	8.2	7.9	A		3.8	5.5 - 10.3	0.321	A
Cobalt-57	11.711	11.4	A		2.7	8.0 - 14.8	0.308	A
Cobalt-60	0.078		A			False Positive Test	0.126	
Hydrogen-3	-1.40		A			False Positive Test	4.37	
Iron-55	19.4	26.9	W		-27.9	18.8 - 35.0	1.47	A
Manganese-54	16.040	15.5	A		3.5	10.9 - 20.2	0.587	A
Nickel-63	9.55	8.2	A		16.5	5.7 - 10.7	0.80	A
Plutonium-238	0.579	0.577	A		0.3	0.404 - 0.750	0.028	A
Plutonium-239/240	0.606	0.649	A		-6.6	0.454 - 0.844	0.029	A
Potassium-40	7.66		N	(1)		False Positive Test	1.363	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	5.08	4.47	A		13.6	3.13 - 5.81	0.362	A
Technetium-99	6.02	4.01	N		50.1	2.81 - 5.21	0.21	A
Uranium-234	1.059	0.85	W		24.6	0.60 - 1.11	0.045	A
Uranium-238	0.887	0.86	A		3.1	0.60 - 1.12	0.039	A
Zinc-65	10.8	10.5	A		2.9	7.4 - 13.7	0.469	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44
 (NJDH01) New Jersey Dept. of Health, PHEL, ECLS
 3 Schwarzkopf Drive
 West Trenton, NJ 08628

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	9.88	11.5	A		-14.1	8.1 - 15.0	0.43	A
Cesium-137	8.14	7.9	A		3.0	5.5 - 10.3	0.38	A
Cobalt-57	11.20	11.4	A		-1.8	8.0 - 14.8	0.38	A
Cobalt-60	-0.02			A		False Positive Test	0.18	
Hydrogen-3	8.14			A		False Positive Test	7.4	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	14.40	15.5	A		-7.1	10.9 - 20.2	0.50	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	-3.0			A		False Positive Test	2.0	
Radium-226	0.530	0.632	A		-16.1	0.442 - 0.822	0.083	W

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.10	4.47	A		-8.3	3.13 - 5.81	0.22	A
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	10.10	10.5	A		-3.8	7.4 - 13.7	0.50	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

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

Laboratory Results For MAPEP-21-MaW44
 (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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	11.2	11.5	A		-2.6	8.1 - 15.0	0.377	A
Cesium-137	7.87	7.9	A		-0.4	5.5 - 10.3	0.497	A
Cobalt-57	10.7	11.4	A		-6.1	8.0 - 14.8	0.766	A
Cobalt-60	0.0301			A		False Positive Test	0.0166	
Hydrogen-3	0.001			A		False Positive Test	0.01	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	15.2	15.5	A		-1.9	10.9 - 20.2	0.931	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	0.528			A		False Positive Test	0.547	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	10.2	10.5	A		-2.9	7.4 - 13.7	0.522	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44

(ORIS01) ORISE/IEAV

PO Box 117

Oak Ridge, TN 37831-0117

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	8.64	8.63	A		0.1	6.04 - 11.22	0.37	A
Arsenic	1.862	2.06	A		-9.6	1.44 - 2.68	0.083	A
Barium	7.72	7.58	A		1.8	5.31 - 9.85	0.27	A
Beryllium	3.24	3.15	A		2.9	2.21 - 4.10	0.16	A
Cadmium	0.716	0.748	A		-4.3	0.524 - 0.972	0.030	A
Chromium	4.14	4.01	A		3.2	2.81 - 5.21	0.20	A
Cobalt	10.52	10.3	A		2.1	7.2 - 13.4	0.46	A
Copper	5.71	5.53	A		3.3	3.87 - 7.19	0.27	A
Lead	2.519	2.52	A		0.0	1.76 - 3.28	0.089	A
Mercury	NR	0.106				0.074 - 0.138		
Nickel	5.21	5.05	A		3.2	3.54 - 6.57	0.23	A
Selenium	0.656	0.676	A		-3.0	0.473 - 0.879	0.031	A
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	2.320	2.46	A		-5.7	1.72 - 3.20	0.093	A
Uranium-235	0.00049	0.000499	A		-1.8	3.49E-4 - 6.49E-4	0.00003	A
Uranium-238	0.070	0.069	A		1.4	0.048 - 0.090	0.004	A
Uranium-Total	0.071	0.070	A		1.4	0.049 - 0.091	0.004	A
Vanadium	18.0	17.4	A		3.4	12.2 - 22.6	1.1	A
Zinc	15.33	15.5	A		-1.1	10.9 - 20.2	0.72	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.0049		A			False Positive Test	0.0022	
Cesium-134	11.65	11.5	A		1.3	8.1 - 15.0	0.42	A
Cesium-137	8.46	7.9	A		7.1	5.5 - 10.3	0.35	A
Cobalt-57	11.96	11.4	A		4.9	8.0 - 14.8	0.25	A
Cobalt-60	-0.042		A			False Positive Test	0.053	
Hydrogen-3	6.1		A			False Positive Test	2.6	
Iron-55	26.0	26.9	A		-3.3	18.8 - 35.0	1.2	A
Manganese-54	16.26	15.5	A		4.9	10.9 - 20.2	0.55	A
Nickel-63	9.28	8.2	A		13.2	5.7 - 10.7	0.49	A
Plutonium-238	0.578	0.577	A		0.2	0.404 - 0.750	0.036	A
Plutonium-239/240	0.646	0.649	A		-0.5	0.454 - 0.844	0.040	A
Potassium-40	0.4		A			False Positive Test	1.0	
Radium-226	0.538	0.632	A		-14.9	0.442 - 0.822	0.040	A

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.24	4.47	A		-5.1	3.13 - 5.81	0.18	A
Technetium-99	4.48	4.01	A		11.7	2.81 - 5.21	0.43	A
Uranium-234	0.908	0.85	A		6.8	0.60 - 1.11	0.049	A
Uranium-238	0.905	0.86	A		5.2	0.60 - 1.12	0.049	A
Zinc-65	11.06	10.5	A		5.3	7.4 - 13.7	0.38	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44

(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	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	0.00053	0.000499	A		6.2	3.49E-4 - 6.49E-4	0.00005	A
Uranium-238	0.0745	0.069	A		8.0	0.048 - 0.090	0.002	A
Uranium-Total	0.0676	0.070	A		-3.4	0.049 - 0.091	0.003	A
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.008		A			False Positive Test	0.013	
Cesium-134	11.1	11.5	A		-3.5	8.1 - 15.0	0.77	A
Cesium-137	8.67	7.9	A		9.7	5.5 - 10.3	0.71	A
Cobalt-57	11.1	11.4	A		-2.6	8.0 - 14.8	0.77	A
Cobalt-60	-0.029		A			False Positive Test	0.12	
Hydrogen-3	-7.2		A			False Positive Test	9.8	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.5	15.5	A		6.5	10.9 - 20.2	1.17	A
Nickel-63	12.5	8.2	N		52.4	5.7 - 10.7	1.3	A
Plutonium-238	0.529	0.577	A		-8.3	0.404 - 0.750	.058	A
Plutonium-239/240	0.636	0.649	A		-2.0	0.454 - 0.844	0.062	A
Potassium-40	0.42		A			False Positive Test	1.65	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	25.4	4.47	N		468.2	3.13 - 5.81	0.315	N
Technetium-99	3.71	4.01	A		-7.5	2.81 - 5.21	0.32	A
Uranium-234	0.849	0.85	A		-0.1	0.60 - 1.11	0.128	W
Uranium-238	0.880	0.86	A		2.3	0.60 - 1.12	0.124	A
Zinc-65	11.5	10.5	A		9.5	7.4 - 13.7	1.15	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44
 (QUAN02) Eurofins TestAmerica Knoxville
 5815 Middlebrook Pike
 Knoxville, TN 37921-

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	9.18	8.63	A		6.4	6.04 - 11.22	0.30600	A
Arsenic	2.01	2.06	A		-2.4	1.44 - 2.68	0.07035	A
Barium	7.67	7.58	A		1.2	5.31 - 9.85	0.25567	A
Beryllium	3.24	3.15	A		2.9	2.21 - 4.10	0.10800	A
Cadmium	0.780	0.748	A		4.3	0.524 - 0.972	0.02600	A
Chromium	4.13	4.01	A		3.0	2.81 - 5.21	0.13767	A
Cobalt	10.7	10.3	A		3.9	7.2 - 13.4	0.35667	A
Copper	5.69	5.53	A		2.9	3.87 - 7.19	0.18967	A
Lead	2.64	2.52	A		4.8	1.76 - 3.28	0.088000	A
Mercury	0.106	0.106	A		0.0	0.074 - 0.138	0.00353	A
Nickel	5.2	5.05	A		3.0	3.54 - 6.57	0.17333	A
Selenium	0.683	0.676	A		1.0	0.473 - 0.879	0.02277	A
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	2.57	2.46	A		4.5	1.72 - 3.20	0.08567	A
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	17.8	17.4	A		2.3	12.2 - 22.6	0.59333	A
Zinc	15.6	15.5	A		0.6	10.9 - 20.2	0.67600	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	NR	11.5				8.1 - 15.0		
Cesium-137	NR	7.9				5.5 - 10.3		
Cobalt-57	NR	11.4				8.0 - 14.8		
Cobalt-60	NR					False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	NR	15.5				10.9 - 20.2		
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR					False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	NR	10.5				7.4 - 13.7		

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

- (1) = False Positive
- (6) = Not Evaluated
- (11) = False Positive Test, Result 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-21-MaW44

(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	7.85	8.63	A		-9.0	6.04 - 11.22	0.751	A
Arsenic	2.06	2.06	A		0.0	1.44 - 2.68	0.182	A
Barium	7.44	7.58	A		-1.8	5.31 - 9.85	1.000	A
Beryllium	3.22	3.15	A		2.2	2.21 - 4.10	0.477	A
Cadmium	0.710	0.748	A		-5.1	0.524 - 0.972	0.061	A
Chromium	4.01	4.01	A		0.0	2.81 - 5.21	0.409	A
Cobalt	10.1	10.3	A		-1.9	7.2 - 13.4	1.31	A
Copper	4.99	5.53	A		-9.8	3.87 - 7.19	0.557	A
Lead	2.45	2.52	A		-2.8	1.76 - 3.28	0.229	A
Mercury	0.102	0.106	A		-3.8	0.074 - 0.138	0.005	A
Nickel	4.91	5.05	A		-2.8	3.54 - 6.57	0.539	A
Selenium	0.622	0.676	A		-8.0	0.473 - 0.879	0.060	A
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	2.47	2.46	A		0.4	1.72 - 3.20	0.177	A
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	0.086	0.070	W		22.9	0.049 - 0.091	0.007	A
Vanadium	18.5	17.4	A		6.3	12.2 - 22.6	2.49	A
Zinc	14.6	15.5	A		-5.8	10.9 - 20.2	1.58	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	NR	11.5				8.1 - 15.0		
Cesium-137	NR	7.9				5.5 - 10.3		
Cobalt-57	NR	11.4				8.0 - 14.8		
Cobalt-60	NR					False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	NR	15.5				10.9 - 20.2		
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR					False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	NR	10.5				7.4 - 13.7		

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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(28) = Not Reporting Previously Reported Analyte



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

Laboratory Results For MAPEP-21-MaW44

(RPSC01) Radiation Protection Service

Ontario Ministry of Labour, Training And Skills Development

Toronto, Ontario M9P 3T1

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	11.426	11.5	A		-0.6	8.1 - 15.0	0.006	N
Cesium-137	8.297	7.9	A		5.0	5.5 - 10.3	0.145	N
Cobalt-57	11.015	11.4	A		-3.4	8.0 - 14.8	0.81	A
Cobalt-60	0.136			A		False Positive Test	0.105	
Hydrogen-3	9.64		N	(1)		False Positive Test	1.749	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	15.65	15.5	A		1.0	10.9 - 20.2	0.957	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	3.757		N	(1)		False Positive Test	0.0121	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	10.22	10.5	A		-2.7	7.4 - 13.7	0.0135	N

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

(SAVA01) SAVANNAH RIVER NUCLEAR SOLUTIONS (SRNS)

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	8.75	8.63	A		1.4	6.04 - 11.22	0.88	A
Arsenic	2.02	2.06	A		-1.9	1.44 - 2.68	0.20	A
Barium	7.67	7.58	A		1.2	5.31 - 9.85	0.77	A
Beryllium	2.95	3.15	A		-6.3	2.21 - 4.10	0.30	A
Cadmium	0.734	0.748	A		-1.9	0.524 - 0.972	0.073	A
Chromium	3.77	4.01	A		-6.0	2.81 - 5.21	0.38	A
Cobalt	9.60	10.3	A		-6.8	7.2 - 13.4	0.96	A
Copper	5.04	5.53	A		-8.9	3.87 - 7.19	0.50	A
Lead	2.49	2.52	A		-1.2	1.76 - 3.28	0.25	A
Mercury	0.0913	0.106	A		-13.9	0.074 - 0.138	0.0091	A
Nickel	4.67	5.05	A		-7.5	3.54 - 6.57	0.47	A
Selenium	0.672	0.676	A		-0.6	0.473 - 0.879	0.067	A
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	2.40	2.46	A		-2.4	1.72 - 3.20	0.24	A
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	0.074	0.070	A		5.7	0.049 - 0.091	0.007	A
Vanadium	16.6	17.4	A		-4.6	12.2 - 22.6	1.7	A
Zinc	15.0	15.5	A		-3.2	10.9 - 20.2	1.50	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	10.9	11.5	A		-5.2	8.1 - 15.0	0.396	A
Cesium-137	7.39	7.9	A		-6.5	5.5 - 10.3	0.588	A
Cobalt-57	10.6	11.4	A		-7.0	8.0 - 14.8	0.572	A
Cobalt-60	1.79		A			False Positive Test	1.12	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	14.8	15.5	A		-4.5	10.9 - 20.2	0.762	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	16.3		A			False Positive Test	10.2	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	10.1	10.5	A		-3.8	7.4 - 13.7	0.908	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44
 (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	8.7	8.63	A		0.8	6.04 - 11.22	1.0	A
Arsenic	1.88	2.06	A		-8.7	1.44 - 2.68	0.19	A
Barium	7.35	7.58	A		-3.0	5.31 - 9.85	0.66	A
Beryllium	2.89	3.15	A		-8.3	2.21 - 4.10	0.23	A
Cadmium	0.72	0.748	A		-3.7	0.524 - 0.972	0.08	A
Chromium	3.82	4.01	A		-4.7	2.81 - 5.21	0.38	A
Cobalt	9.77	10.3	A		-5.1	7.2 - 13.4	0.88	A
Copper	5.41	5.53	A		-2.2	3.87 - 7.19	0.54	A
Lead	2.45	2.52	A		-2.8	1.76 - 3.28	0.25	A
Mercury	0.102	0.106	A		-3.8	0.074 - 0.138	0.010	A
Nickel	4.92	5.05	A		-2.6	3.54 - 6.57	0.49	A
Selenium	0.60	0.676	A		-11.2	0.473 - 0.879	0.07	A
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	2.40	2.46	A		-2.4	1.72 - 3.20	0.24	A
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	16.8	17.4	A		-3.4	12.2 - 22.6	1.5	A
Zinc	14.7	15.5	A		-5.2	10.9 - 20.2	1.5	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.0063		A			False Positive Test	0.0051	
Cesium-134	12.08	11.5	A		5.0	8.1 - 15.0	0.35	A
Cesium-137	8.53	7.9	A		8.0	5.5 - 10.3	0.30	A
Cobalt-57	11.60	11.4	A		1.8	8.0 - 14.8	0.36	A
Cobalt-60	0.008		A			False Positive Test	0.029	
Hydrogen-3	4		A			False Positive Test	13	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.25	15.5	A		4.8	10.9 - 20.2	0.56	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	0.561	0.577	A		-2.8	0.404 - 0.750	0.088	W
Plutonium-239/240	0.607	0.649	A		-6.5	0.454 - 0.844	0.094	W
Potassium-40	-0.66		A			False Positive Test	0.46	
Radium-226	0.644	0.632	A		1.9	0.442 - 0.822	0.086	A

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.28	4.47	A		-4.3	3.13 - 5.81	0.35	A
Technetium-99	5.43	4.01	N		35.4	2.81 - 5.21	0.63	A
Uranium-234	0.87	0.85	A		2.4	0.60 - 1.11	0.12	A
Uranium-238	0.84	0.86	A		-2.3	0.60 - 1.12	0.11	A
Zinc-65	11.90	10.5	A		13.3	7.4 - 13.7	0.42	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

- (1) = False Positive
- (6) = Not Evaluated
- (11) = False Positive Test, Result 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-21-MaW44
 (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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	10.2	11.5	A		-11.3	8.1 - 15.0	1	A
Cesium-137	7.7	7.9	A		-2.5	5.5 - 10.3	.8	A
Cobalt-57	10.3	11.4	A		-9.6	8.0 - 14.8	1	A
Cobalt-60	.2			A		False Positive Test	.2	
Hydrogen-3	6			A		False Positive Test	2	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	15.5	15.5	A		0.0	10.9 - 20.2	1.5	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	5			A		False Positive Test	5	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	11.1	10.5	A		5.7	7.4 - 13.7	1.1	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

- (1) = False Positive
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- (11) = False Positive Test, Result Not Reported
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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-21-MaW44

(SOUT01) Southwest Research Institute

6220 Culebra Rd.

San Antonio, TX 78228-0510

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	8.86	8.63	A		2.7	6.04 - 11.22	0.601	A
Arsenic	1.92	2.06	A		-6.8	1.44 - 2.68	0.132	A
Barium	8.11	7.58	A		7.0	5.31 - 9.85	0.548	A
Beryllium	3.29	3.15	A		4.4	2.21 - 4.10	0.222	A
Cadmium	0.769	0.748	A		2.8	0.524 - 0.972	0.0534	A
Chromium	4.10	4.01	A		2.2	2.81 - 5.21	0.277	A
Cobalt	10.3	10.3	A		0.0	7.2 - 13.4	0.695	A
Copper	5.75	5.53	A		4.0	3.87 - 7.19	0.388	A
Lead	2.57	2.52	A		2.0	1.76 - 3.28	0.174	A
Mercury	0.101	0.106	A		-4.7	0.074 - 0.138	0.00689	A
Nickel	5.23	5.05	A		3.6	3.54 - 6.57	0.353	A
Selenium	0.616	0.676	A		-8.9	0.473 - 0.879	0.0419	A
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	2.27	2.46	A		-7.7	1.72 - 3.20	0.155	A
Uranium-235	0.000510	0.000499	A		2.2	3.49E-4 - 6.49E-4	0.000042	A
Uranium-238	0.0715	0.069	A		3.6	0.048 - 0.090	0.00483	A
Uranium-Total	0.0720	0.070	A		2.9	0.049 - 0.091	0.00486	A
Vanadium	17.8	17.4	A		2.3	12.2 - 22.6	1.20	A
Zinc	15.7	15.5	A		1.3	10.9 - 20.2	1.06	A

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.00641		A			False Positive Test	0.00264	
Cesium-134	9.85	11.5	A		-14.3	8.1 - 15.0	0.360	A
Cesium-137	8.19	7.9	A		3.7	5.5 - 10.3	0.441	A
Cobalt-57	11.4	11.4	A		0.0	8.0 - 14.8	0.407	A
Cobalt-60	-0.110		A			False Positive Test	0.150	
Hydrogen-3	-4.89		A			False Positive Test	2.64	
Iron-55	24.3	26.9	A		-9.7	18.8 - 35.0	2.12	A
Manganese-54	15.7	15.5	A		1.3	10.9 - 20.2	0.759	A
Nickel-63	8.56	8.2	A		4.4	5.7 - 10.7	0.544	A
Plutonium-238	0.581	0.577	A		0.7	0.404 - 0.750	0.0444	A
Plutonium-239/240	0.678	0.649	A		4.5	0.454 - 0.844	0.0507	A
Potassium-40	1.76		A			False Positive Test	1.45	
Radium-226	0.563	0.632	A		-10.9	0.442 - 0.822	0.0570	A

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.41	4.47	A		-1.3	3.13 - 5.81	0.300	A
Technetium-99	3.30	4.01	A		-17.7	2.81 - 5.21	0.303	A
Uranium-234	0.900	0.85	A		5.9	0.60 - 1.11	0.0656	A
Uranium-238	0.893	0.86	A		3.8	0.60 - 1.12	0.0652	A
Zinc-65	11.2	10.5	A		6.7	7.4 - 13.7	0.752	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	1.08E+01	11.5	A		-6.1	8.1 - 15.0	6.15E-01	A
Cesium-137	8.25E+00	7.9	A		4.4	5.5 - 10.3	3.33E-01	A
Cobalt-57	1.16E+01	11.4	A		1.8	8.0 - 14.8	3.71E-01	A
Cobalt-60	1.89E-01			A		False Positive Test	1.14E-01	
Hydrogen-3	4.53E+00			A		False Positive Test	5.01	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	1.58E+01	15.5	A		1.9	10.9 - 20.2	4.95E-01	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	1.52E+01		N	(1)		False Positive Test	1.74	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	1.05E+01	10.5	A		0.0	7.4 - 13.7	1.10	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result 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-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.0093		A			False Positive Test	0.0073	
Cesium-134	10.13	11.5	A		-11.9	8.1 - 15.0	0.20	N
Cesium-137	7.46	7.9	A		-5.6	5.5 - 10.3	0.26	A
Cobalt-57	10.43	11.4	A		-8.5	8.0 - 14.8	0.26	A
Cobalt-60	0.158		A			False Positive Test	0.073	
Hydrogen-3	-2.5		A			False Positive Test	7.9	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	14.06	15.5	A		-9.3	10.9 - 20.2	0.38	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	0.686	0.577	A		18.9	0.404 - 0.750	0.080	A
Plutonium-239/240	0.626	0.649	A		-3.5	0.454 - 0.844	0.075	A
Potassium-40	1.24		A			False Positive Test	0.69	
Radium-226	0.454	0.632	W		-28.2	0.442 - 0.822	0.019	A

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	3.73	4.47	A		-16.6	3.13 - 5.81	0.14	A
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	0.818	0.85	A		-3.8	0.60 - 1.11	0.076	A
Uranium-238	0.786	0.86	A		-8.6	0.60 - 1.12	0.074	A
Zinc-65	9.90	10.5	A		-5.7	7.4 - 13.7	0.35	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

- (1) = False Positive
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- (11) = False Positive Test, Result Not Reported
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Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	NR	11.5				8.1 - 15.0		
Cesium-137	NR	7.9				5.5 - 10.3		
Cobalt-57	NR	11.4				8.0 - 14.8		
Cobalt-60	NR					False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	NR	15.5				10.9 - 20.2		
Nickel-63	6.7	8.2	A		-18.3	5.7 - 10.7	.765	A
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR					False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	3.85	4.01	A		-4.0	2.81 - 5.21	1.32	N
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	NR	10.5				7.4 - 13.7		

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

- (1) = False Positive
- (6) = Not Evaluated
- (11) = False Positive Test, Result 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-21-MaW44
 (TELE02) ATI Environmental, Inc., Midwest Lab
 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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	10.5	11.5	A		-8.7	8.1 - 15.0	0.3	A
Cesium-137	8.53	7.9	A		8.0	5.5 - 10.3	0.32	A
Cobalt-57	12.2	11.4	A		7.0	8.0 - 14.8	0.3	A
Cobalt-60	0.03			A		False Positive Test	0.05	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.5	15.5	A		6.5	10.9 - 20.2	0.4	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	9.93			N (1)		False Positive Test	1.42	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	11.5	10.5	A		9.5	7.4 - 13.7	0.5	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

(TMAO01) EBERLINE SERVICES OAK RIDGE LABORATORY
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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.002		A			False Positive Test	0.018	
Cesium-134	10.707	11.5	A		-6.9	8.1 - 15.0	1.216	A
Cesium-137	7.196	7.9	A		-8.9	5.5 - 10.3	1.651	W
Cobalt-57	11.786	11.4	A		3.4	8.0 - 14.8	1.159	A
Cobalt-60	0.021		A			False Positive Test	0.516	
Hydrogen-3	-0.232		A			False Positive Test	5.998	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	13.867	15.5	A		-10.5	10.9 - 20.2	2.155	W
Nickel-63	8.873	8.2	A		8.2	5.7 - 10.7	4.015	N
Plutonium-238	0.572	0.577	A		-0.9	0.404 - 0.750	0.111	W
Plutonium-239/240	0.695	0.649	A		7.1	0.454 - 0.844	0.124	W
Potassium-40	4.801		A			False Positive Test	4.945	
Radium-226	0.660	0.632	A		4.4	0.442 - 0.822	0.181	W

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	5.211	4.47	A		16.6	3.13 - 5.81	0.239	A
Technetium-99	6.467	4.01	N		61.3	2.81 - 5.21	0.238	A
Uranium-234	0.922	0.85	A		8.5	0.60 - 1.11	0.116	A
Uranium-238	0.988	0.86	A		14.9	0.60 - 1.12	0.121	A
Zinc-65	10.412	10.5	A		-0.8	7.4 - 13.7	2.510	W

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44
 (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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	.034		A			False Positive Test	.055	
Cesium-134	9.457	11.5	A		-17.8	8.1 - 15.0	.171	N
Cesium-137	8.092	7.9	A		2.4	5.5 - 10.3	.250	A
Cobalt-57	11.581	11.4	A		1.6	8.0 - 14.8	.240	A
Cobalt-60	.042		A			False Positive Test	.027	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	15.857	15.5	A		2.3	10.9 - 20.2	.406	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	1.331		A			False Positive Test	.456	
Radium-226	.685	0.632	A		8.4	0.442 - 0.822	.047	A

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	.916	0.85	A		7.8	0.60 - 1.11	0.054	A
Uranium-238	0.991	0.86	A		15.2	0.60 - 1.12	0.057	A
Zinc-65	11.249	10.5	A		7.1	7.4 - 13.7	.368	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	10.3	11.5	A		-10.4	8.1 - 15.0	0.9	A
Cesium-137	8.7	7.9	A		10.1	5.5 - 10.3	1.1	A
Cobalt-57	11.2	11.4	A		-1.8	8.0 - 14.8	1.0	A
Cobalt-60	0.005			A		False Positive Test	0.7	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	15.5	15.5	A		0.0	10.9 - 20.2	1.6	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	0.01			A		False Positive Test	0.6	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	12.2	10.5	A		16.2	7.4 - 13.7	2.2	W

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

(WEST04) PACE ANALYTICAL SERVICES, PITTSBURGH

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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.0012		A			False Positive Test	0.0046	
Cesium-134	9.929	11.5	A		-13.7	8.1 - 15.0	1.079	A
Cesium-137	7.867	7.9	A		-0.4	5.5 - 10.3	0.862	A
Cobalt-57	11.406	11.4	A		0.1	8.0 - 14.8	1.482	A
Cobalt-60	0.081		A			False Positive Test	0.136	
Hydrogen-3	8.695		A			False Positive Test	5.402	
Iron-55	NR	26.9	N	(28)		18.8 - 35.0		
Manganese-54	16.398	15.5	A		5.8	10.9 - 20.2	1.767	A
Nickel-63	NR	8.2	N	(28)		5.7 - 10.7		
Plutonium-238	0.5291	0.577	A		-8.3	0.404 - 0.750	0.0818	W
Plutonium-239/240	0.5439	0.649	A		-16.2	0.454 - 0.844	0.084	W
Potassium-40	0.147		A			False Positive Test	1.388	
Radium-226	0.638	0.632	A		0.9	0.442 - 0.822	0.0856	A

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	3.63	4.47	A		-18.8	3.13 - 5.81	0.585	W
Technetium-99	4.201	4.01	A		4.8	2.81 - 5.21	0.628	A
Uranium-234	0.777	0.85	A		-8.6	0.60 - 1.11	0.1158	A
Uranium-238	0.7918	0.86	A		-7.9	0.60 - 1.12	0.1177	A
Zinc-65	10.511	10.5	A		0.1	7.4 - 13.7	1.168	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

(1) = False Positive

(6) = Not Evaluated

(11) = False Positive Test, Result Not Reported

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

Laboratory Results For MAPEP-21-MaW44
 (WIPH01) WI, DPH, Radiation Protection Section
 1 West Wilson Street
 Madison, WI 53701

Inorganic							Units: (mg/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Antimony	NR	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.117		A			False Positive Test	0.362	
Cesium-134	11.213	11.5	A		-2.5	8.1 - 15.0	0.210	N
Cesium-137	8.642	7.9	A		9.4	5.5 - 10.3	0.291	A
Cobalt-57	12.492	11.4	A		9.6	8.0 - 14.8	0.365	A
Cobalt-60	0.015		A			False Positive Test	0.0344	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	16.520	15.5	A		6.6	10.9 - 20.2	0.458	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	2.592		N	(1)		False Positive Test	0.663	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	12.246	10.5	A		16.6	7.4 - 13.7	0.506	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

- (1) = False Positive
- (6) = Not Evaluated
- (11) = False Positive Test, Result 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-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	.00541		A			False Positive Test	.00349	
Cesium-134	7.23	11.5	N		-37.1	8.1 - 15.0	.136	N
Cesium-137	5.73	7.9	W		-27.5	5.5 - 10.3	.135	A
Cobalt-57	8.3	11.4	W		-27.2	8.0 - 14.8	.211	A
Cobalt-60	.0214		A			False Positive Test	.0276	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	11	15.5	W		-29.0	10.9 - 20.2	.190	N
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	.548	0.577	A		-5.0	0.404 - 0.750	.1	W
Plutonium-239/240	.666	0.649	A		2.6	0.454 - 0.844	.121	W
Potassium-40	.0535		A			False Positive Test	.637	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.32	4.47	A		-3.4	3.13 - 5.81	.340	A
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	.898	0.85	A		5.6	0.60 - 1.11	.0832	A
Uranium-238	.886	0.86	A		3.0	0.60 - 1.12	.0821	A
Zinc-65	7.83	10.5	W		-25.4	7.4 - 13.7	.232	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44
 (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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.02837		A			False Positive Test	0.01234	
Cesium-134	11.6	11.5	A		0.9	8.1 - 15.0	0.261	A
Cesium-137	8.29	7.9	A		4.9	5.5 - 10.3	0.268	A
Cobalt-57	12.1	11.4	A		6.1	8.0 - 14.8	0.306	A
Cobalt-60	0.0745		A			False Positive Test	0.0711	
Hydrogen-3	4.995		A			False Positive Test	2.30	
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	15.8	15.5	A		1.9	10.9 - 20.2	0.694	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	0.622	0.577	A		7.8	0.404 - 0.750	0.05639	A
Plutonium-239/240	0.6738	0.649	A		3.8	0.454 - 0.844	0.05722	A
Potassium-40	-0.541		A			False Positive Test	0.978	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	5.52	4.47	W		23.5	3.13 - 5.81	1.21	W
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	0.9714	0.85	A		14.3	0.60 - 1.11	0.08162	A
Uranium-238	0.9202	0.86	A		7.0	0.60 - 1.12	0.07638	A
Zinc-65	11.2	10.5	A		6.7	7.4 - 13.7	0.862	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	0.0732	0.070	A		4.6	0.049 - 0.091	0.0026	A
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	0.0044		A			False Positive Test	0.0032	
Cesium-134	11.02	11.5	A		-4.2	8.1 - 15.0	0.50	A
Cesium-137	7.60	7.9	A		-3.8	5.5 - 10.3	0.46	A
Cobalt-57	11.43	11.4	A		0.3	8.0 - 14.8	0.57	A
Cobalt-60	-0.01		A			False Positive Test	0.17	
Hydrogen-3	0.2		A			False Positive Test	1.3	
Iron-55	NR	26.9	N	(28)		18.8 - 35.0		
Manganese-54	14.91	15.5	A		-3.8	10.9 - 20.2	0.54	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	0.574	0.577	A		-0.5	0.404 - 0.750	0.0052	N
Plutonium-239/240	0.553	0.649	A		-14.8	0.454 - 0.844	0.049	A
Potassium-40	-5.3		A			False Positive Test	3.6	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.49	4.47	A		0.4	3.13 - 5.81	0.29	A
Technetium-99	4.9	4.01	W		22.2	2.81 - 5.21	1.4	W
Uranium-234	NR	0.85	N	(28)		0.60 - 1.11		
Uranium-238	NR	0.86	N	(28)		0.60 - 1.12		
Zinc-65	8.19	10.5	W		-22.0	7.4 - 13.7	0.59	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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(11) = False Positive Test, Result Not Reported

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

Laboratory Results For MAPEP-21-MaW44
 (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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	NR	0.000499				3.49E-4 - 6.49E-4		
Uranium-238	NR	0.069				0.048 - 0.090		
Uranium-Total	NR	0.070				0.049 - 0.091		
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	9.81	11.5	A		-14.7	8.1 - 15.0	0.296	A
Cesium-137	7.64	7.9	A		-3.3	5.5 - 10.3	0.278	A
Cobalt-57	11.5	11.4	A		0.9	8.0 - 14.8	0.336	A
Cobalt-60	-0.000574			A		False Positive Test	0.0373	
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	15.7	15.5	A		1.3	10.9 - 20.2	0.450	A
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	0.73			A		False Positive Test	1.042	
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	4.44	4.47	A		-0.7	3.13 - 5.81	0.182	A
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	10.0	10.5	A		-4.8	7.4 - 13.7	0.488	A

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

RP = Relative Precision

Notes:

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

Laboratory Results For MAPEP-21-MaW44

(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	8.63				6.04 - 11.22		
Arsenic	NR	2.06				1.44 - 2.68		
Barium	NR	7.58				5.31 - 9.85		
Beryllium	NR	3.15				2.21 - 4.10		
Cadmium	NR	0.748				0.524 - 0.972		
Chromium	NR	4.01				2.81 - 5.21		
Cobalt	NR	10.3				7.2 - 13.4		
Copper	NR	5.53				3.87 - 7.19		
Lead	NR	2.52				1.76 - 3.28		
Mercury	NR	0.106				0.074 - 0.138		
Nickel	NR	5.05				3.54 - 6.57		
Selenium	NR	0.676				0.473 - 0.879		
Technetium-99	NR	6.35E-6				4.45E-6 - 8.26E-6		
Thallium	NR	2.46				1.72 - 3.20		
Uranium-235	0.00049	0.000499	A		-1.8	3.49E-4 - 6.49E-4	0.00004	A
Uranium-238	0.0691	0.069	A		0.1	0.048 - 0.090	0.004	A
Uranium-Total	0.070	0.070	A		0.0	0.049 - 0.091	0.004	A
Vanadium	NR	17.4				12.2 - 22.6		
Zinc	NR	15.5				10.9 - 20.2		

Radiological							Units: (Bq/L)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Americium-241	NR					False Positive Test		
Cesium-134	NR	11.5				8.1 - 15.0		
Cesium-137	NR	7.9				5.5 - 10.3		
Cobalt-57	NR	11.4				8.0 - 14.8		
Cobalt-60	NR					False Positive Test		
Hydrogen-3	NR					False Positive Test		
Iron-55	NR	26.9				18.8 - 35.0		
Manganese-54	NR	15.5				10.9 - 20.2		
Nickel-63	NR	8.2				5.7 - 10.7		
Plutonium-238	NR	0.577				0.404 - 0.750		
Plutonium-239/240	NR	0.649				0.454 - 0.844		
Potassium-40	NR					False Positive Test		
Radium-226	NR	0.632				0.442 - 0.822		

Radiological						Units: (Bq/L)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag
Strontium-90	NR	4.47				3.13 - 5.81		
Technetium-99	NR	4.01				2.81 - 5.21		
Uranium-234	NR	0.85				0.60 - 1.11		
Uranium-238	NR	0.86				0.60 - 1.12		
Zinc-65	NR	10.5				7.4 - 13.7		

Radiological Reference Date: February 1, 2021

Uncertainty Flags:

NOT ACCEPTABLE.....RP<2%

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

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

NOT ACCEPTABLE.....RP>30%

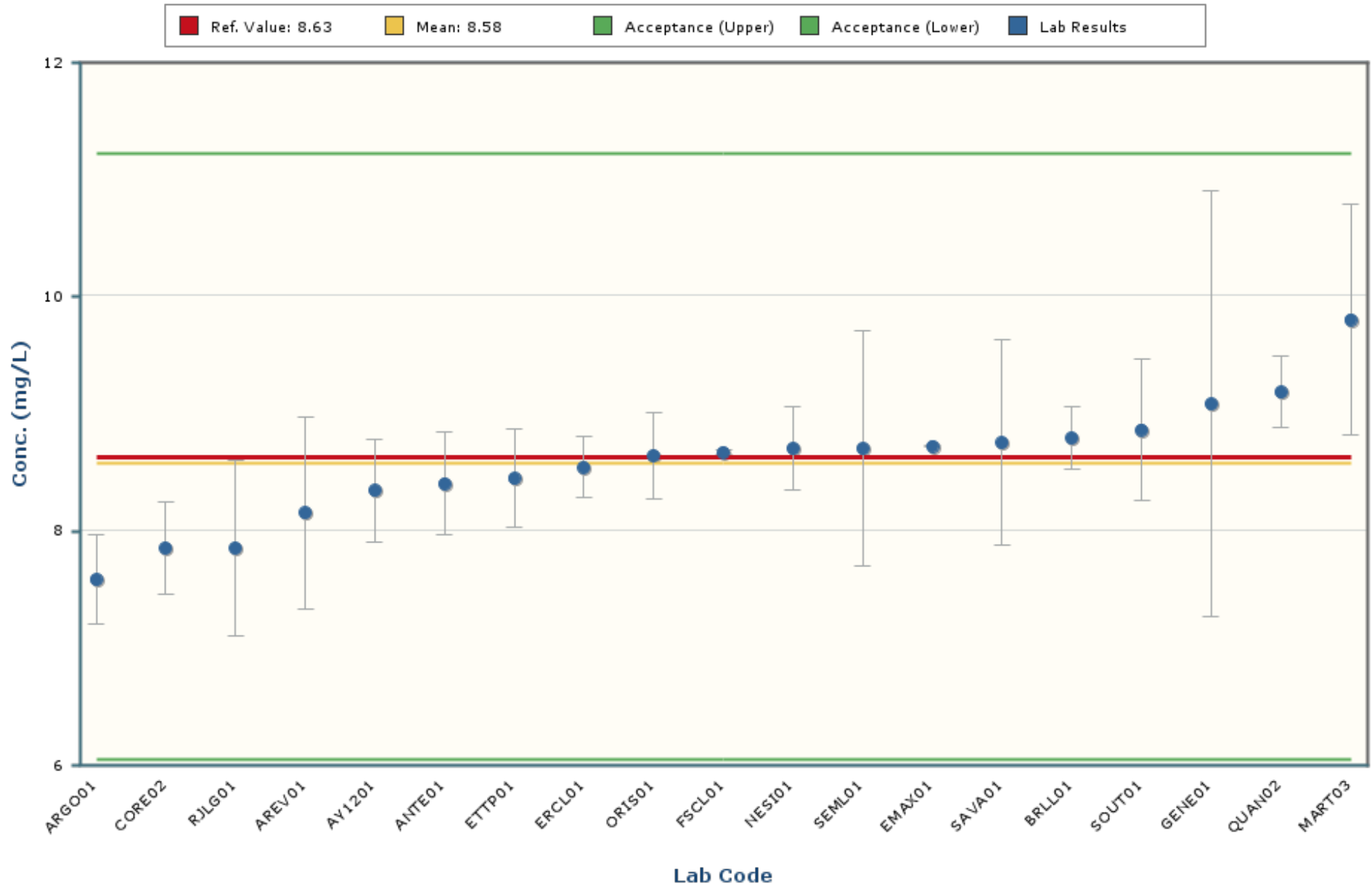
RP = Relative Precision

Notes:

- (1) = False Positive
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Antimony

MAPEP-21-MaW44



Notes:

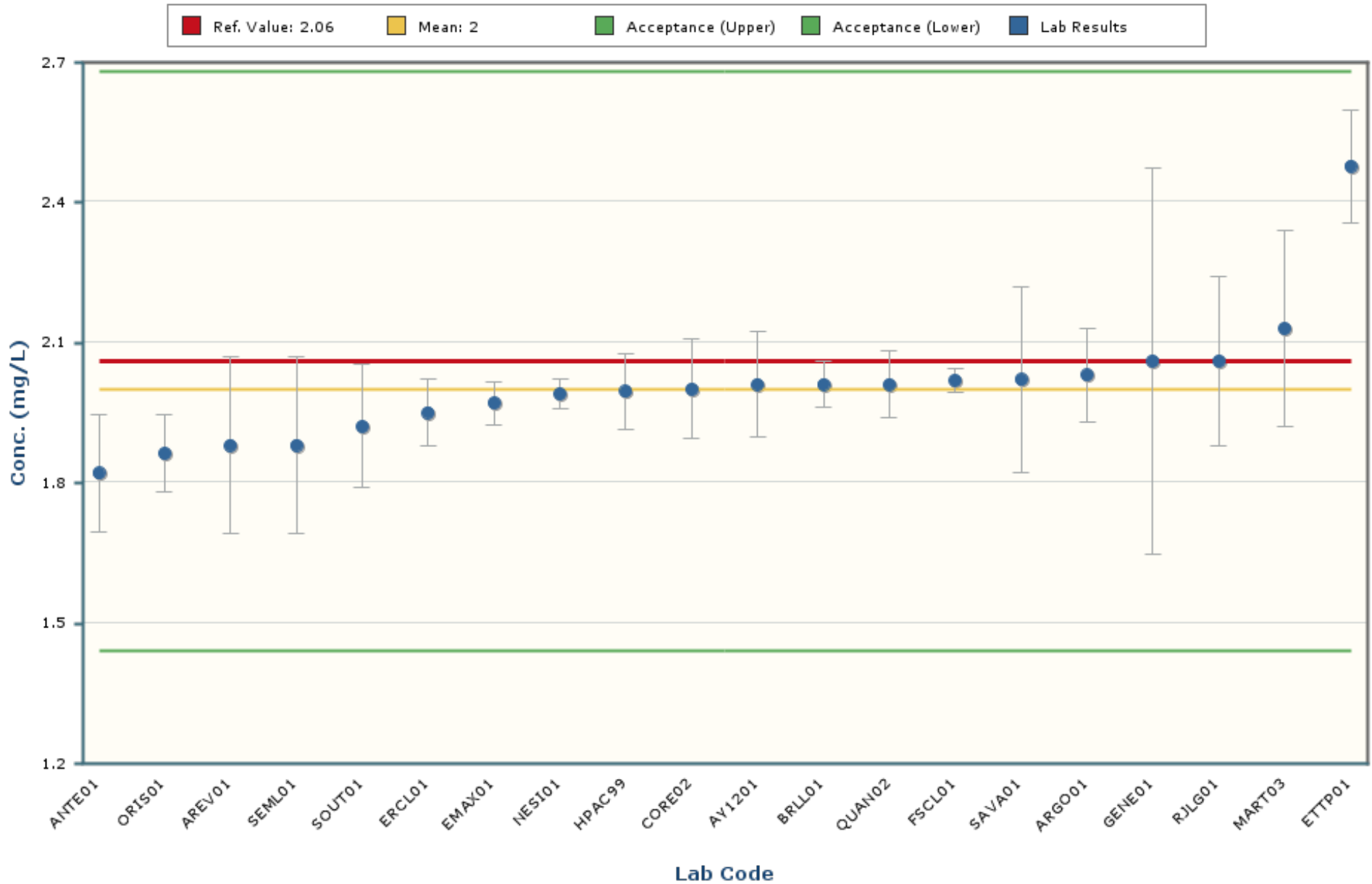
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 6.03 and 11.13 (± 5 Standard Deviations).

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

Arsenic

MAPEP-21-MaW44



Notes:

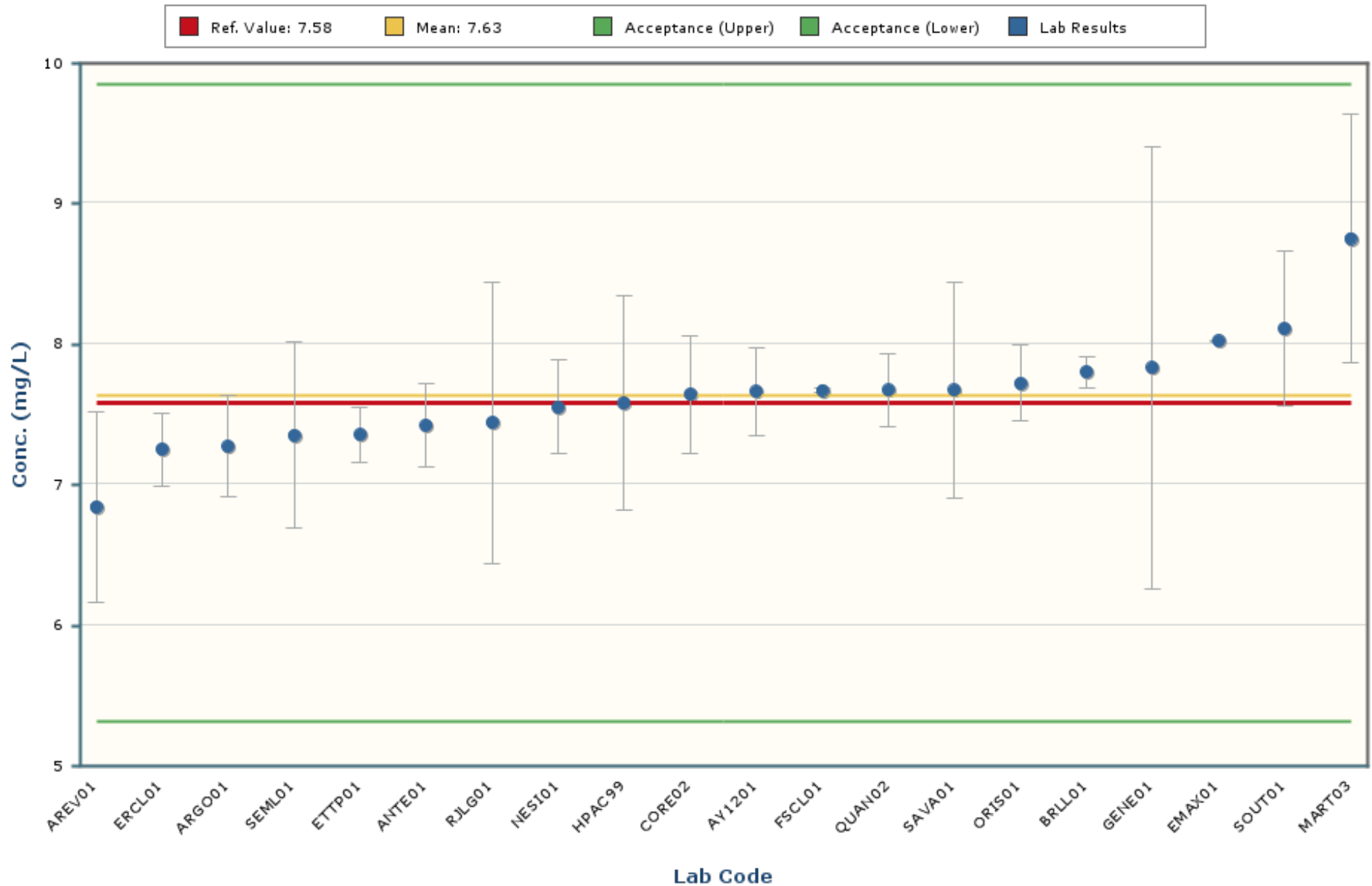
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 1.33 and 2.68 (± 5 Standard Deviations).

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

Barium

MAPEP-21-MaW44



Notes:

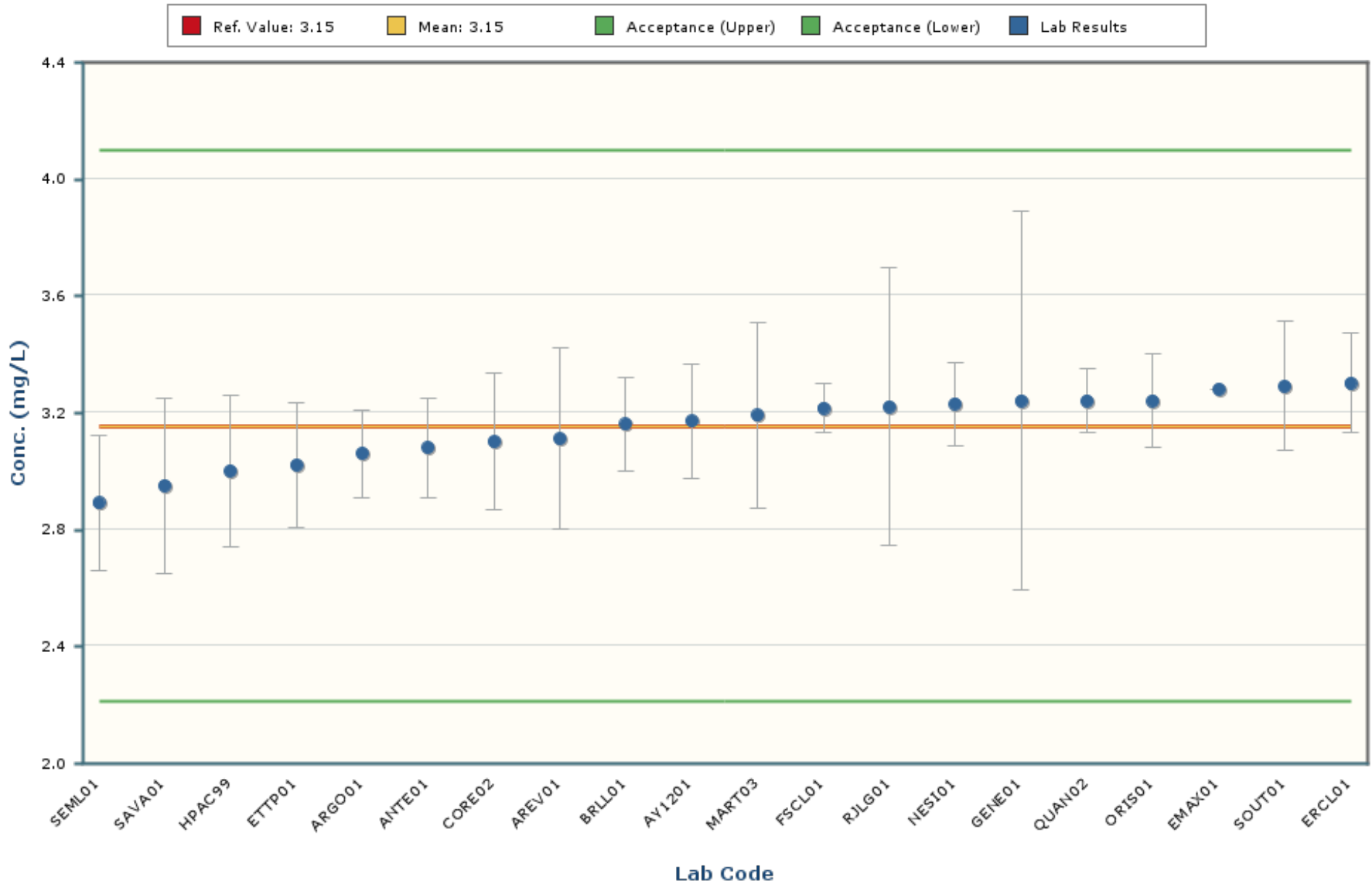
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 5.69 and 9.57 (± 5 Standard Deviations).

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

Beryllium

MAPEP-21-MaW44



Notes:

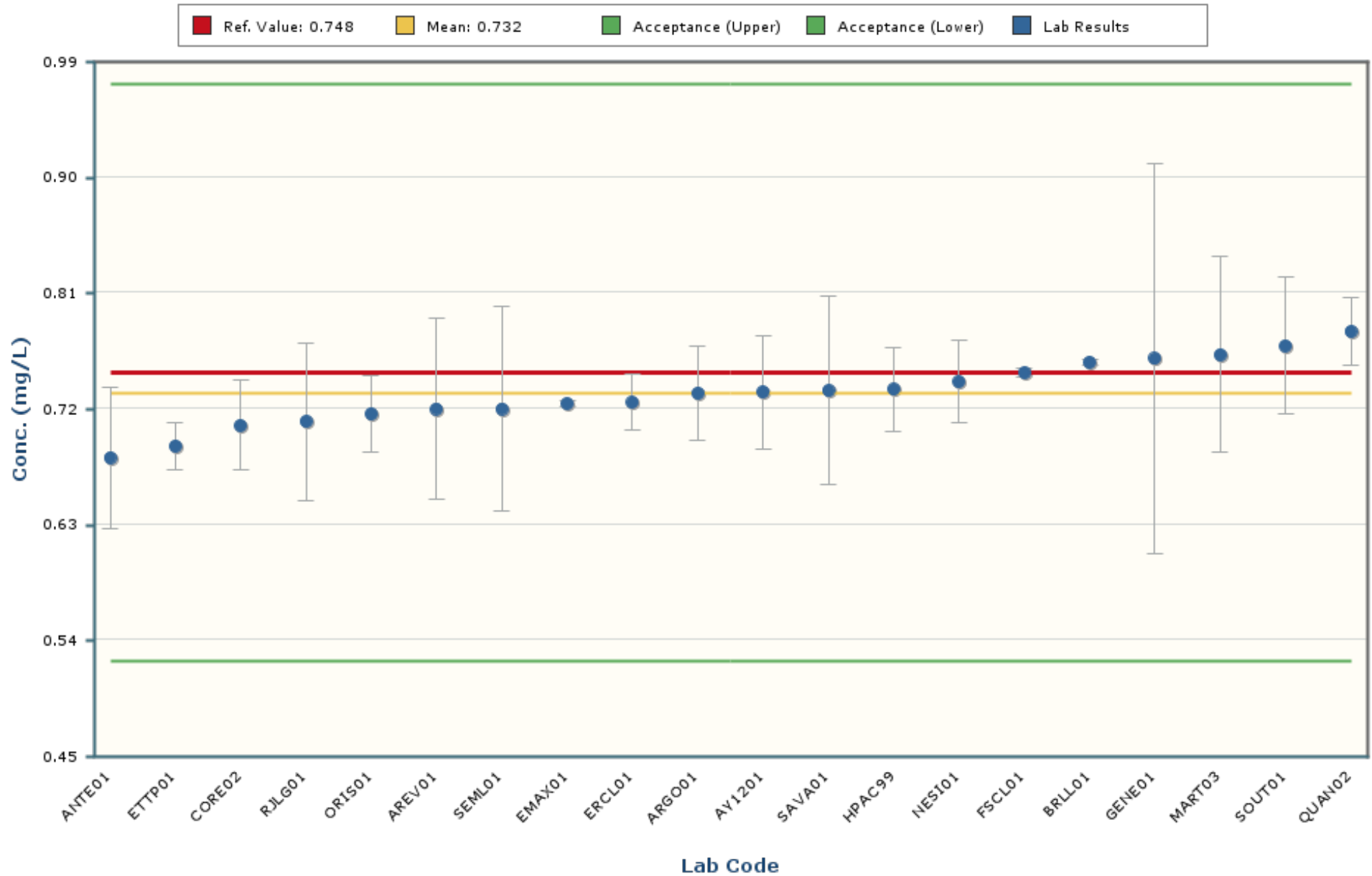
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 2.56 and 3.74 (± 5 Standard Deviations).

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

Cadmium

MAPEP-21-MaW44



Notes:

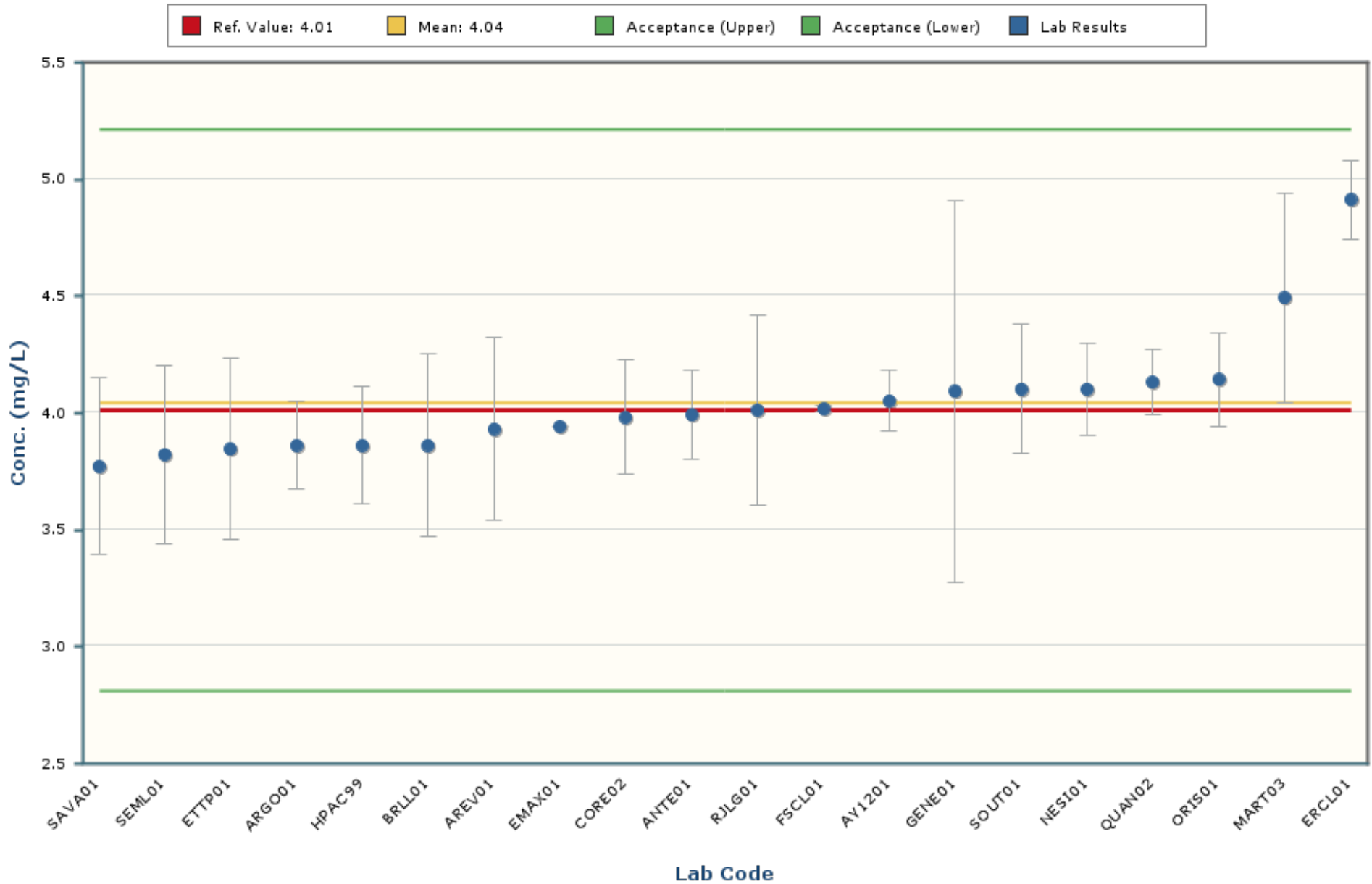
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.606 and 0.859 (± 5 Standard Deviations).

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

Chromium

MAPEP-21-MaW44



Notes:

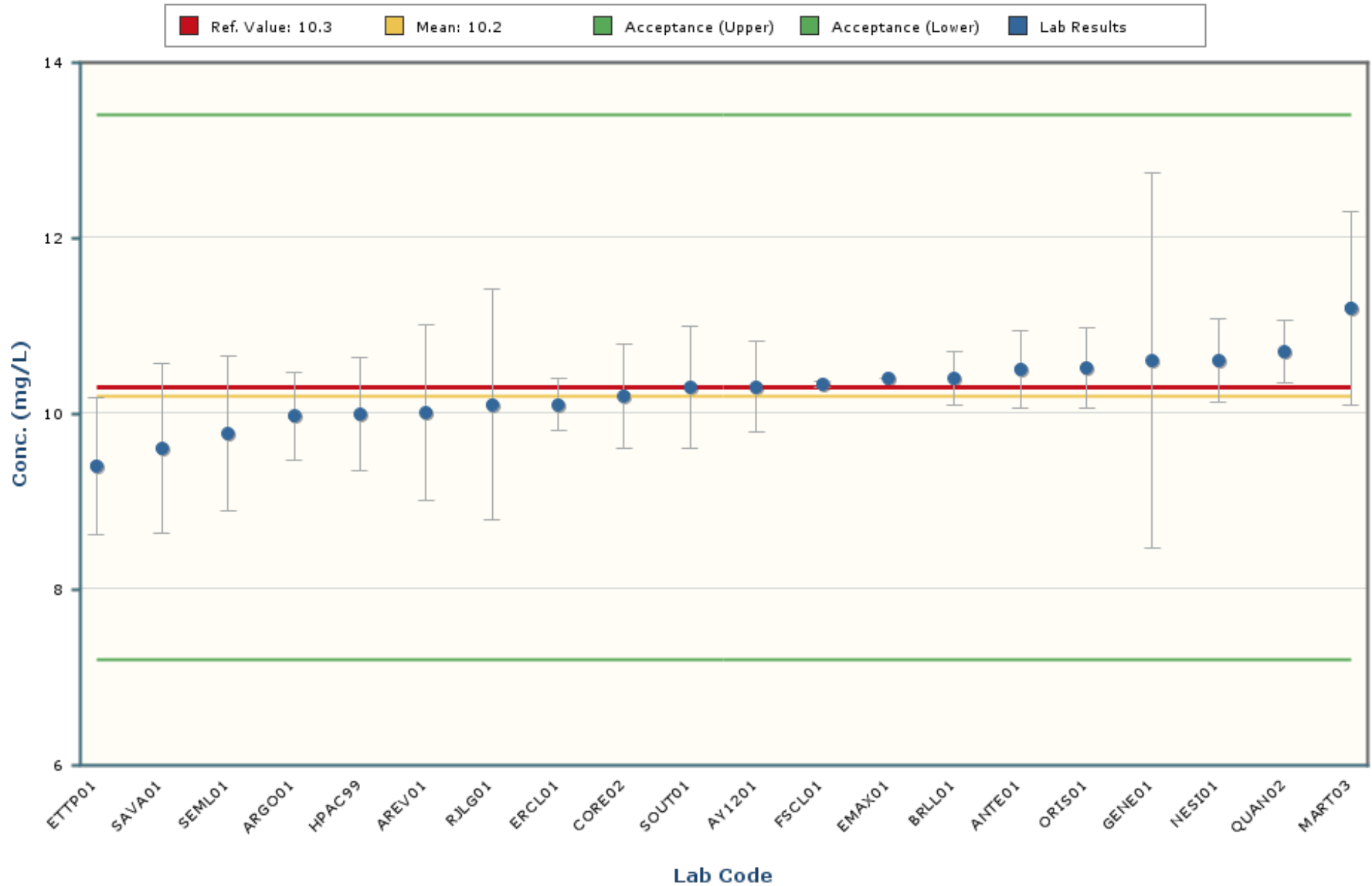
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 2.75 and 5.34 (± 5 Standard Deviations).

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

Cobalt

MAPEP-21-MaW44



Notes:

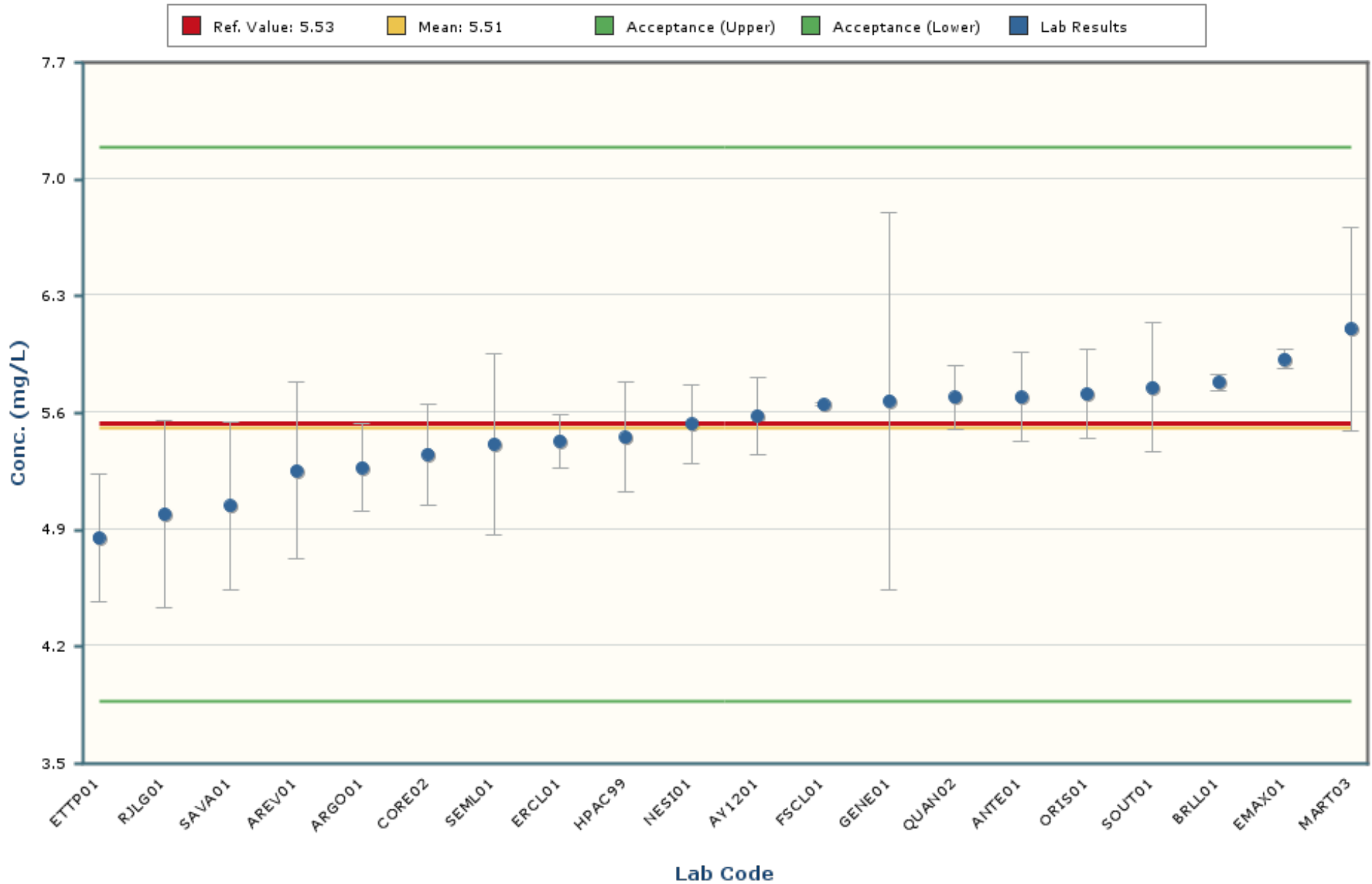
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 8.2 and 12.3 (± 5 Standard Deviations).

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

Copper

MAPEP-21-MaW44



Notes:

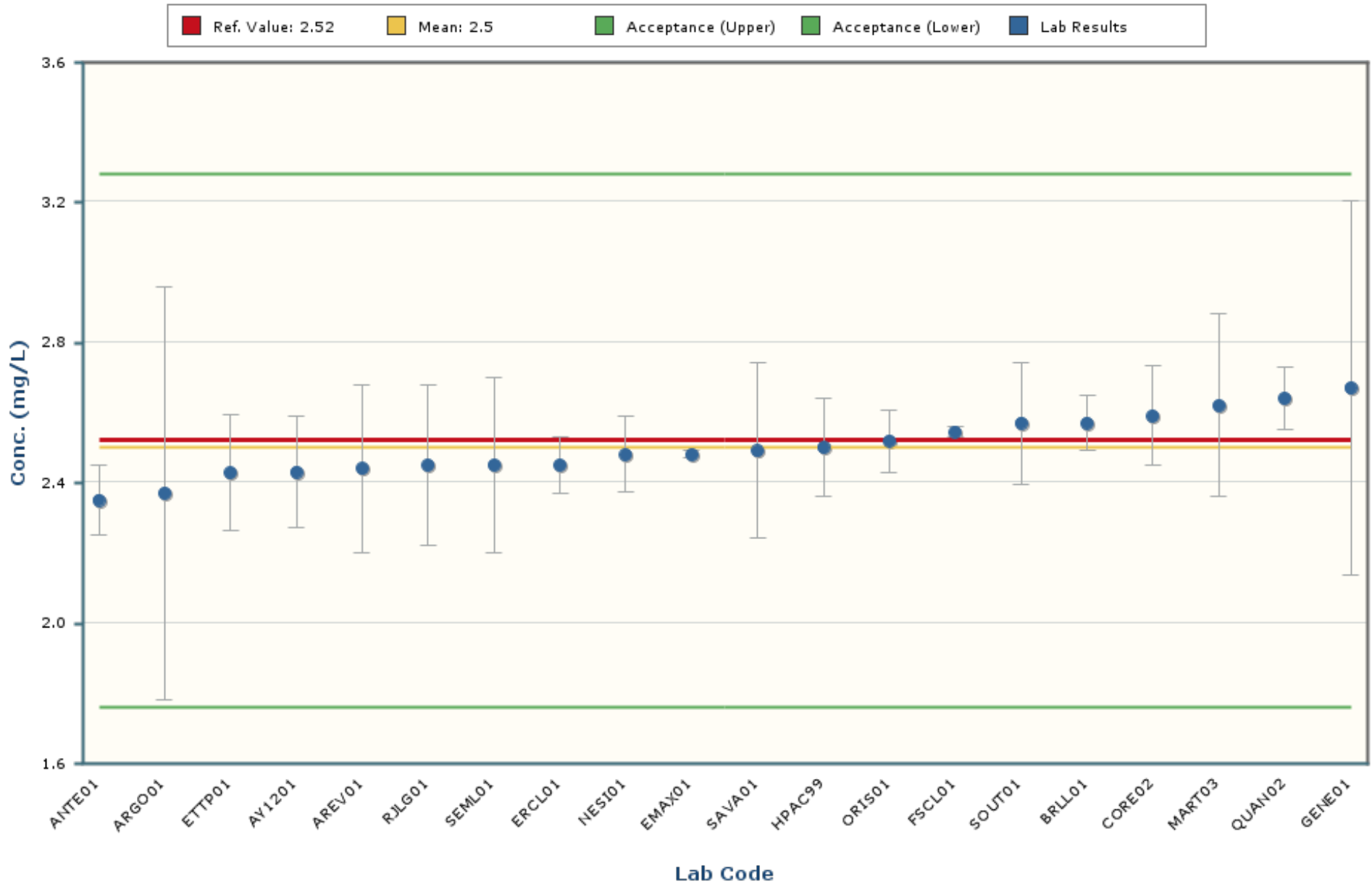
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 3.92 and 7.09 (± 5 Standard Deviations).

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

Lead

MAPEP-21-MaW44



Notes:

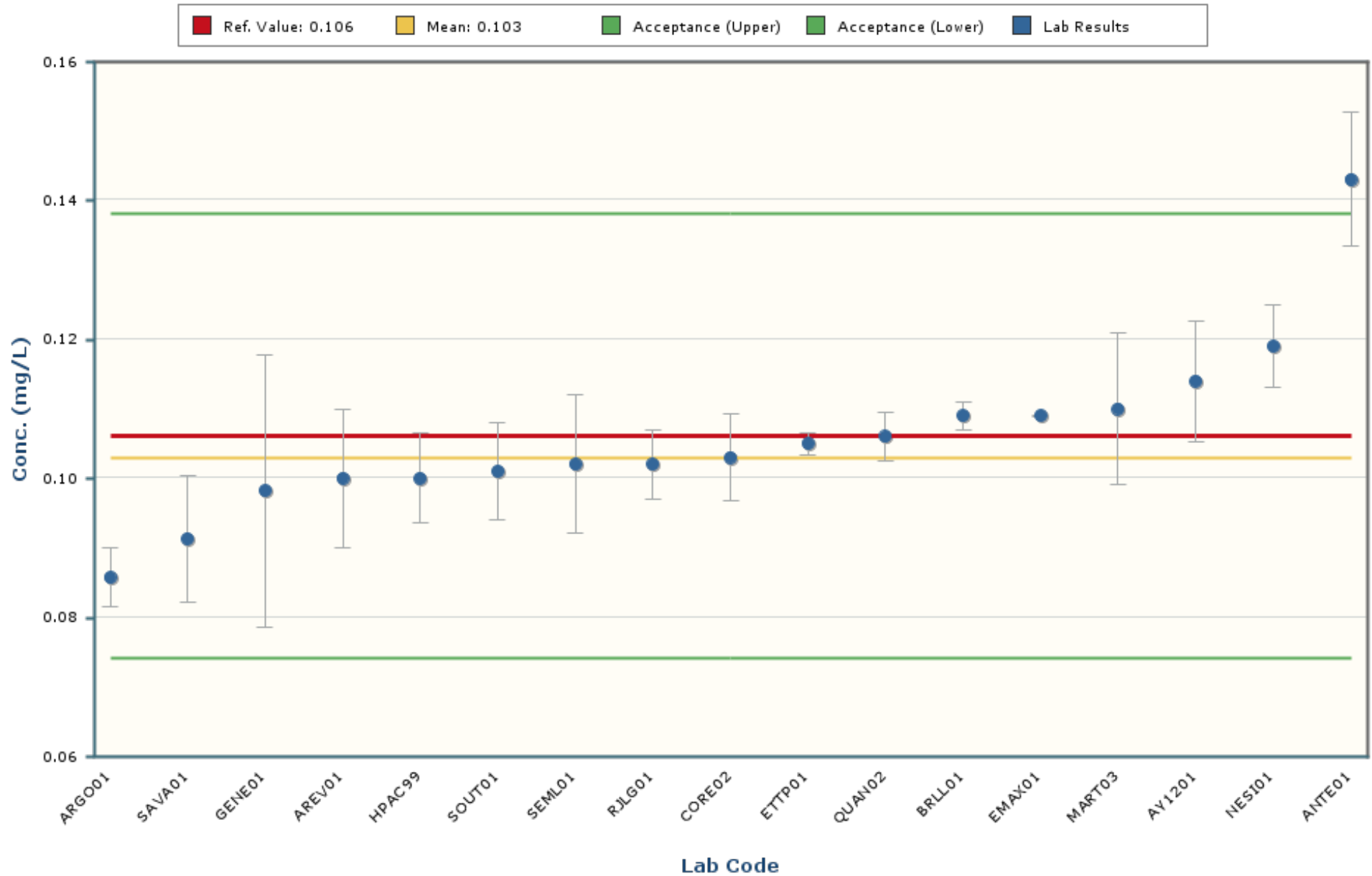
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 2.07 and 2.94 (± 5 Standard Deviations).

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

Mercury

MAPEP-21-MaW44



Notes:

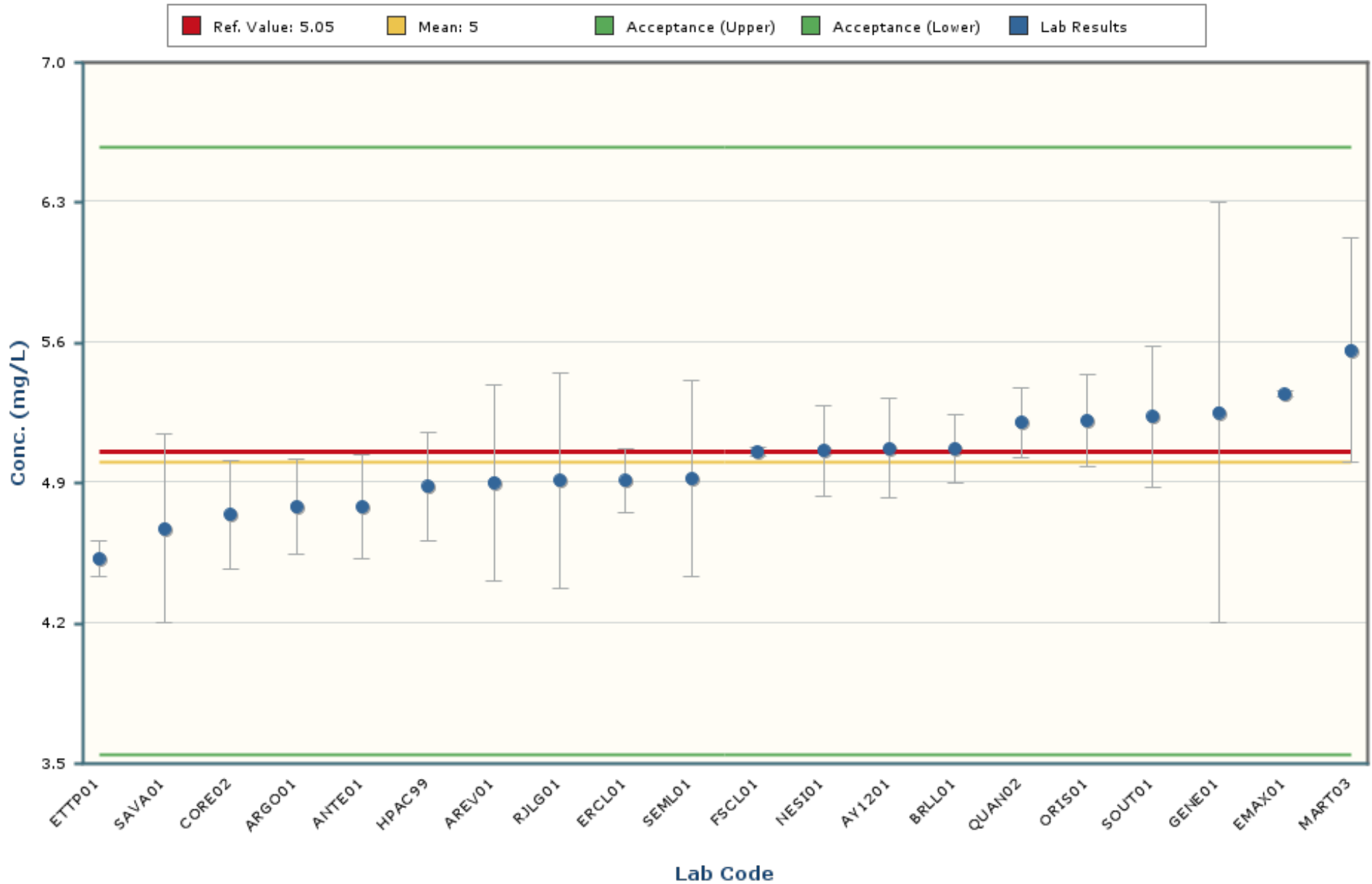
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.063 and 0.144 (± 5 Standard Deviations).

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

Nickel

MAPEP-21-MaW44



Notes:

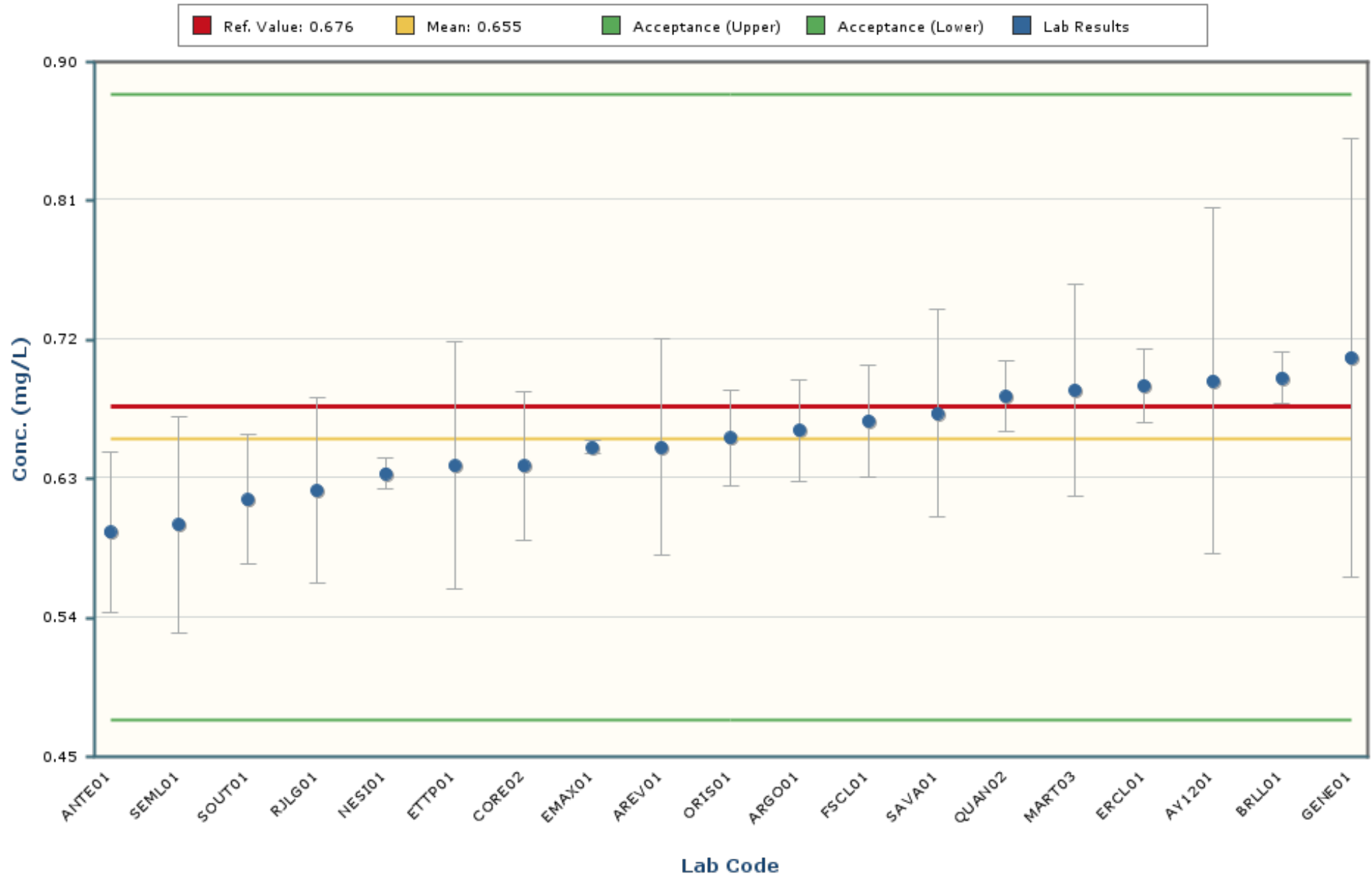
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 3.75 and 6.26 (± 5 Standard Deviations).

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

Selenium

MAPEP-21-MaW44



Notes:

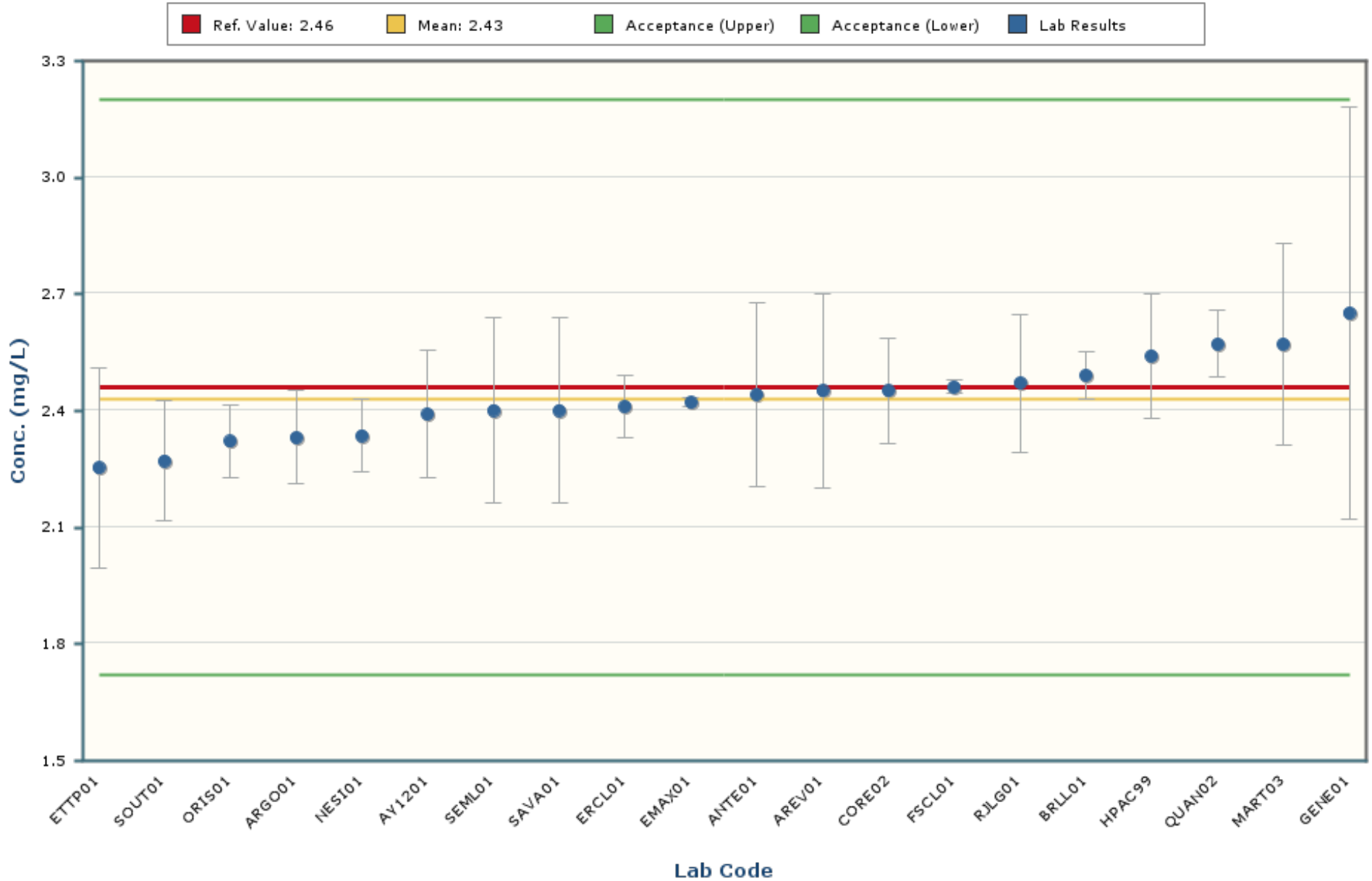
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.490 and 0.821 (± 5 Standard Deviations).

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

Thallium

MAPEP-21-MaW44



Notes:

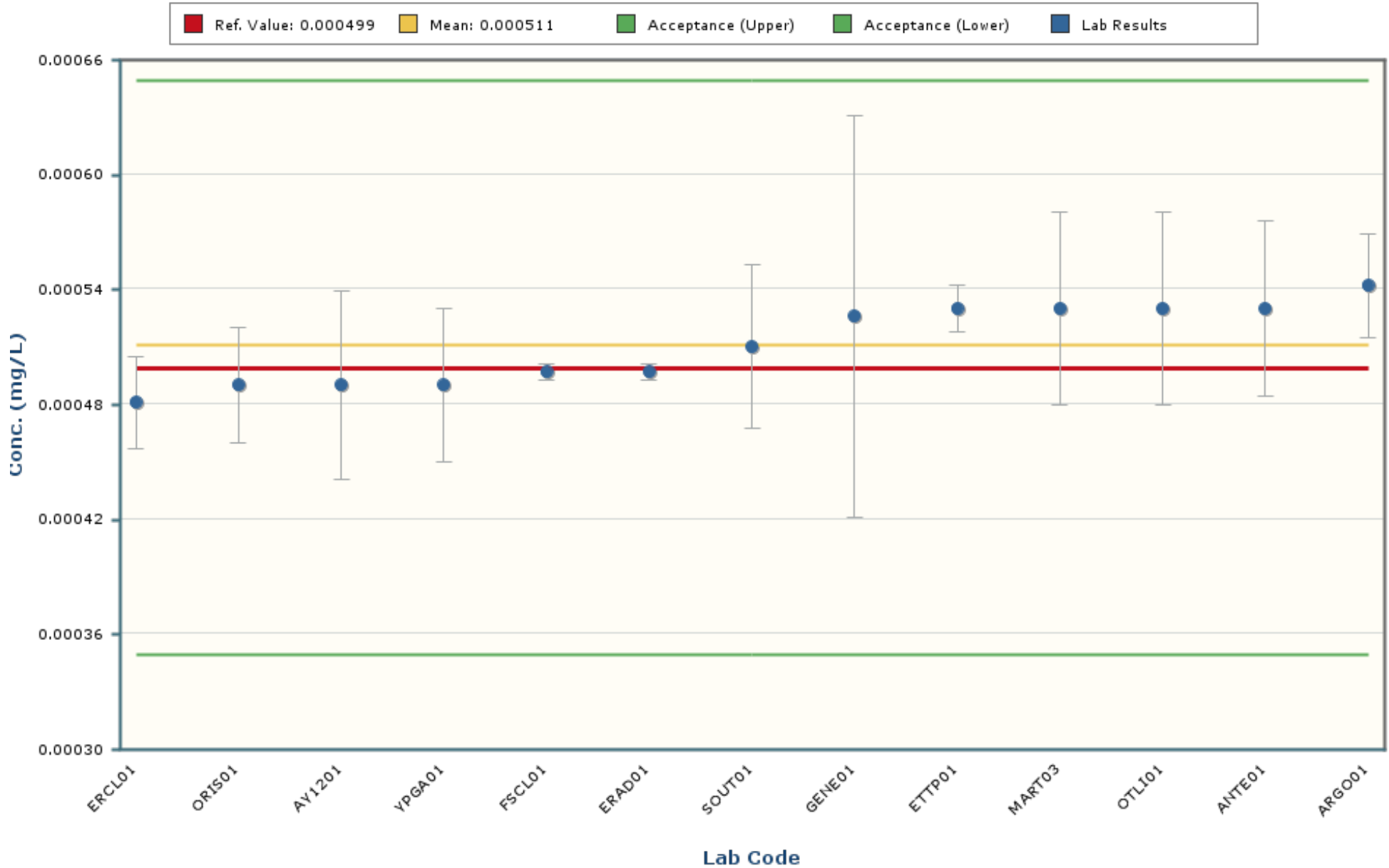
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 1.92 and 2.94 (± 5 Standard Deviations).

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

Uranium-235

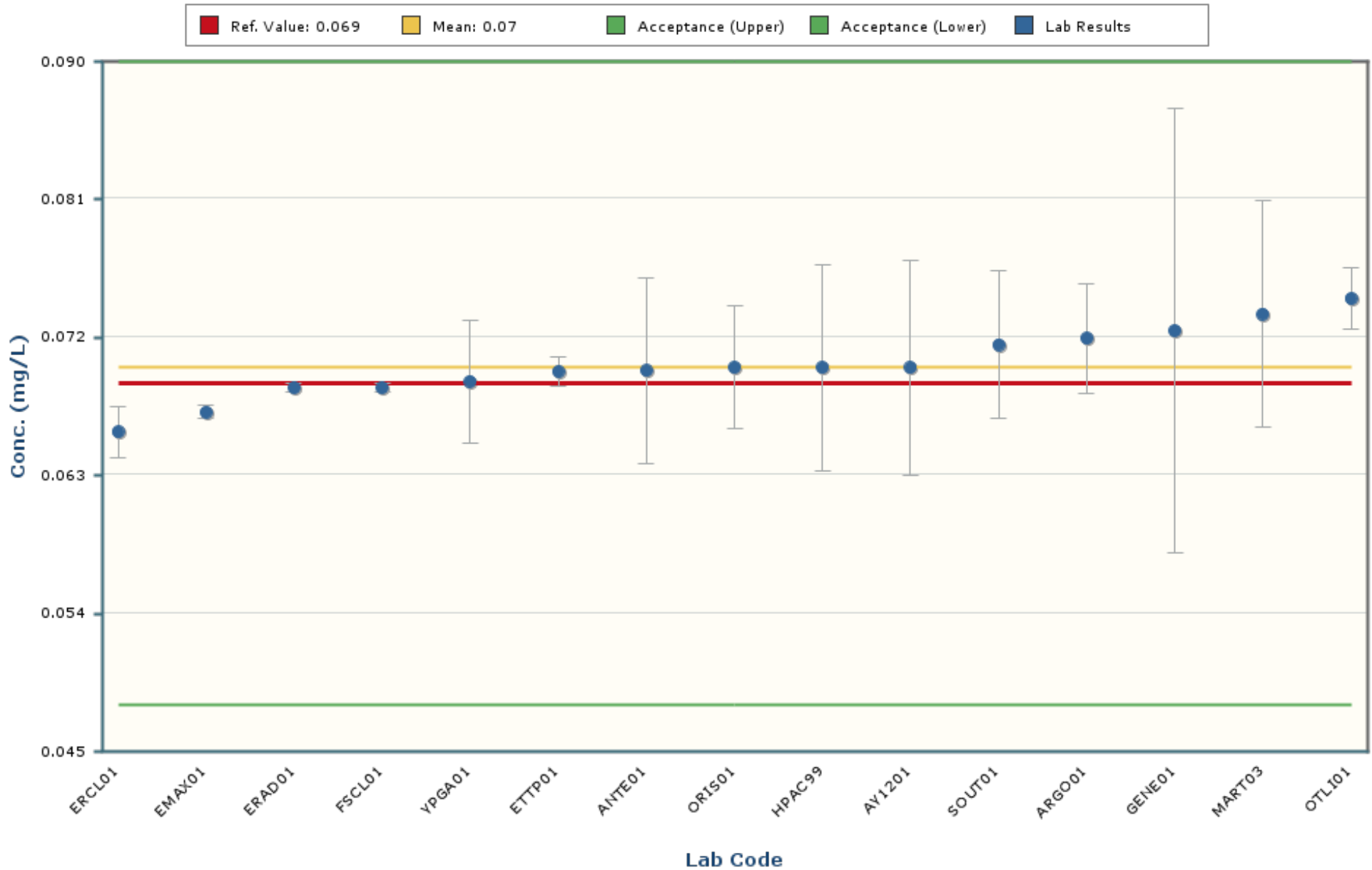
MAPEP-21-MaW44



Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 0.000406 and 0.000616 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at \pm one standard deviation.

Uranium-238

MAPEP-21-MaW44



Notes:

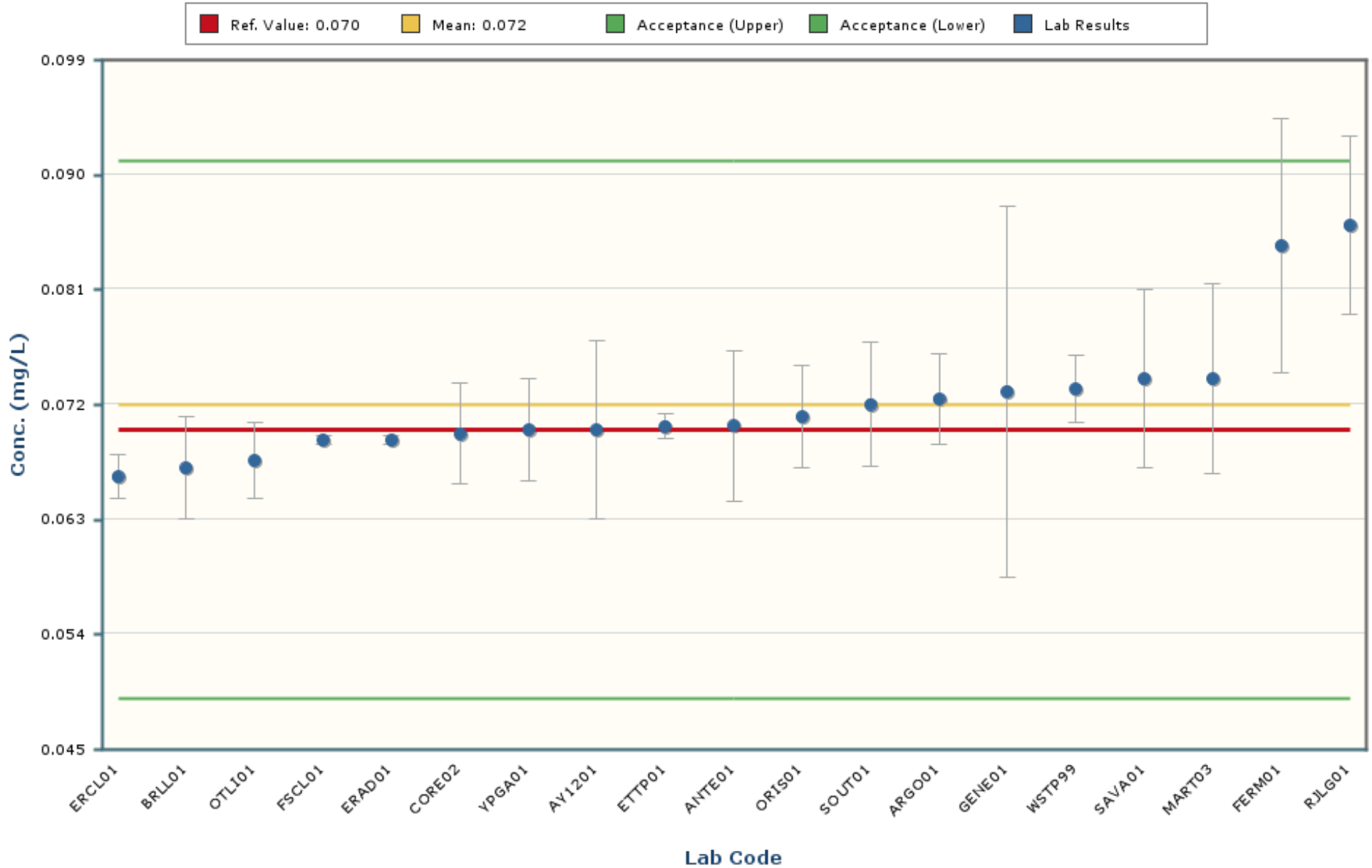
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.059 and 0.082 (± 5 Standard Deviations).

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

Uranium-Total

MAPEP-21-MaW44



Notes:

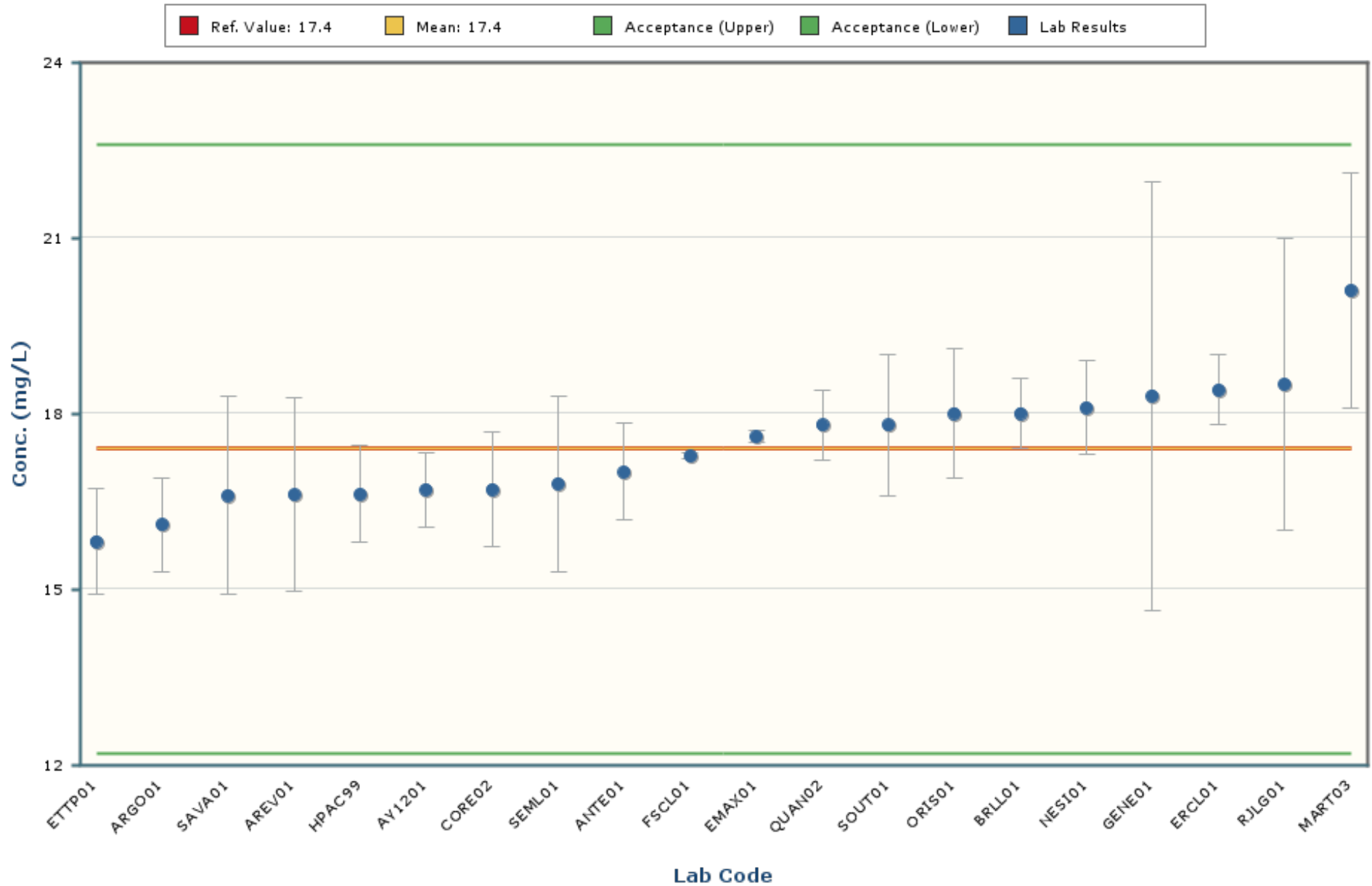
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.046 and 0.098 (± 5 Standard Deviations).

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

Vanadium

MAPEP-21-MaW44



Notes:

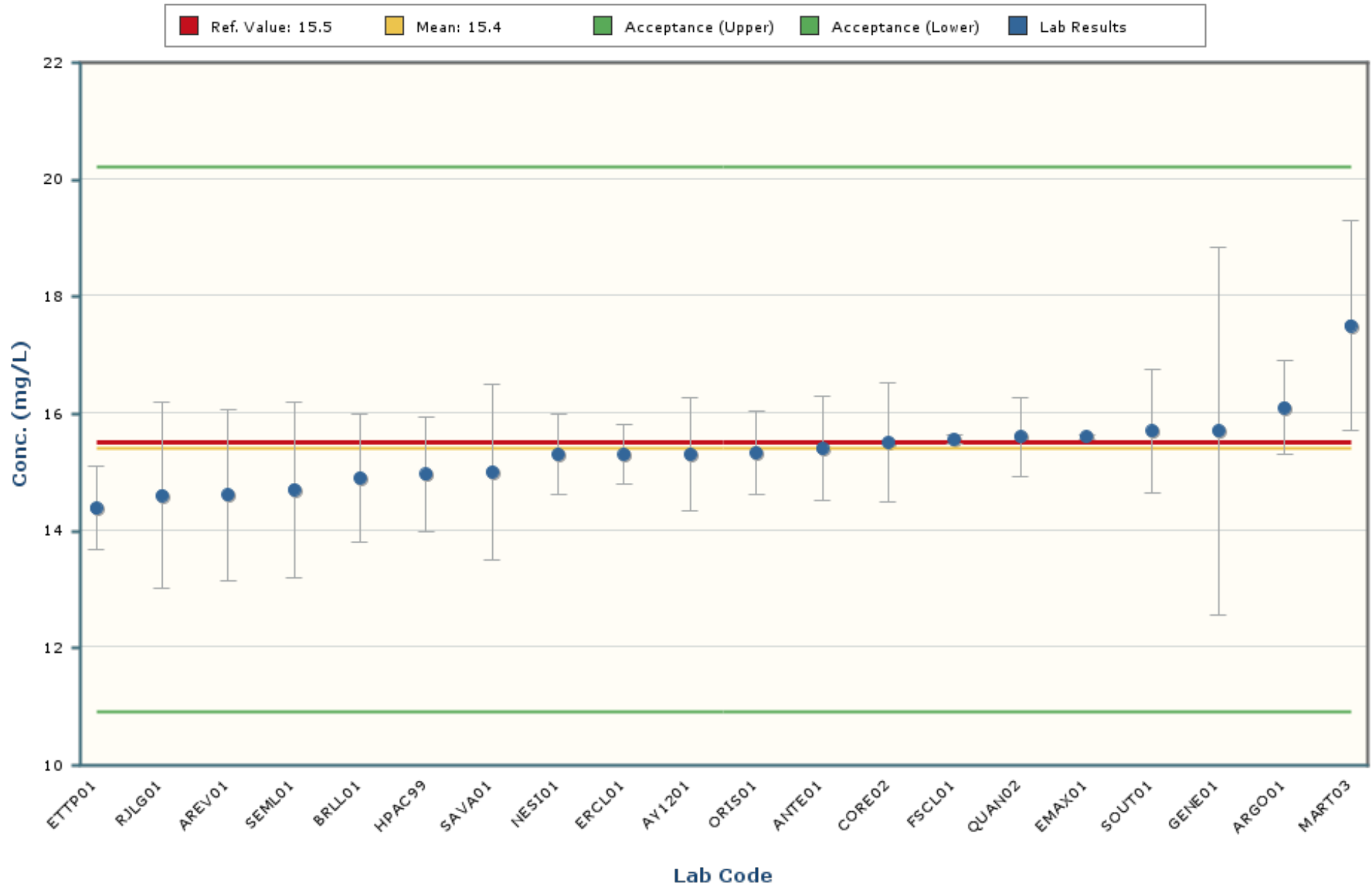
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 12.4 and 22.5 (± 5 Standard Deviations).

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

Zinc

MAPEP-21-MaW44



Notes:

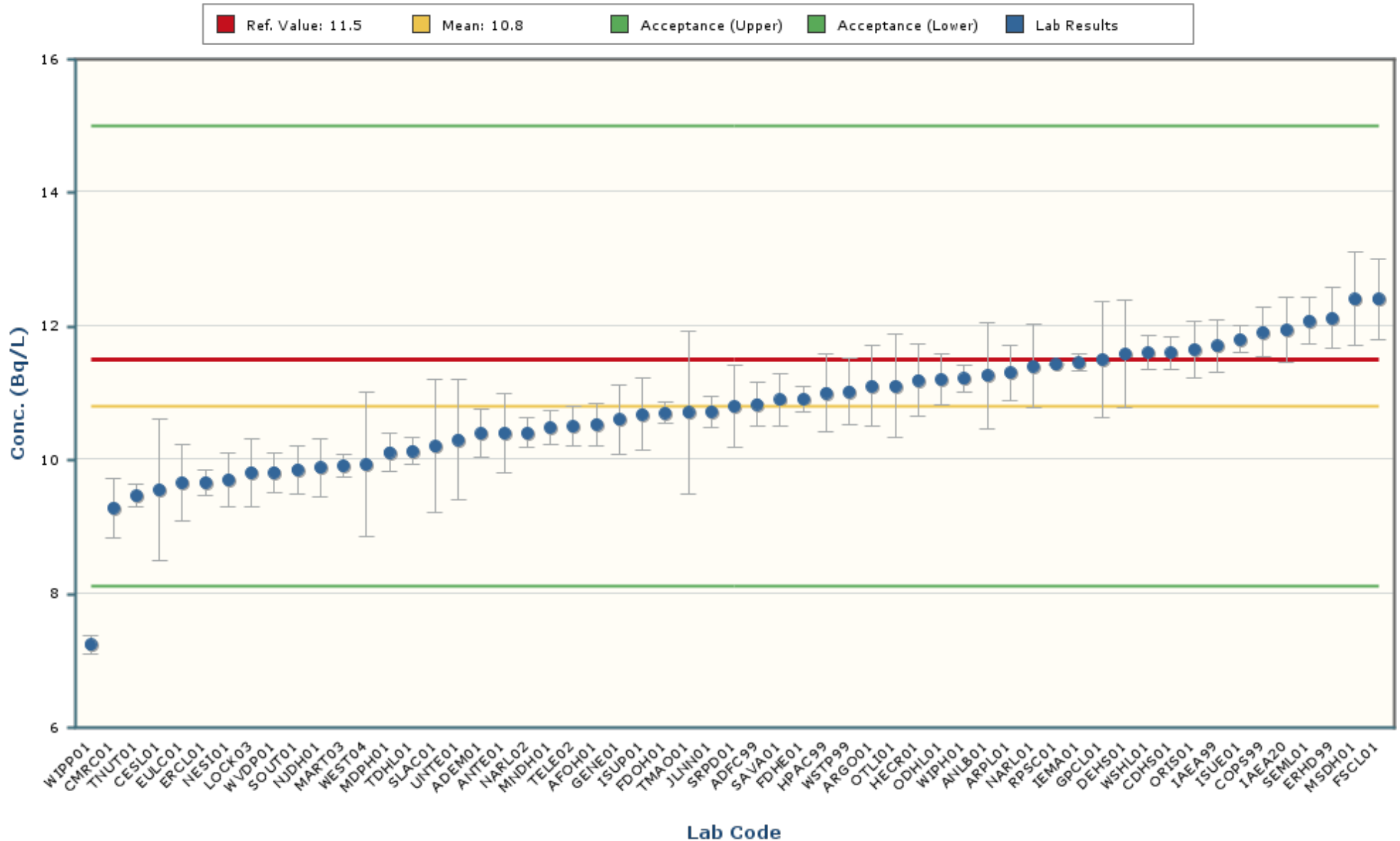
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 12.0 and 18.7 (± 5 Standard Deviations).

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

Cesium-134

MAPEP-21-MaW44



Notes:

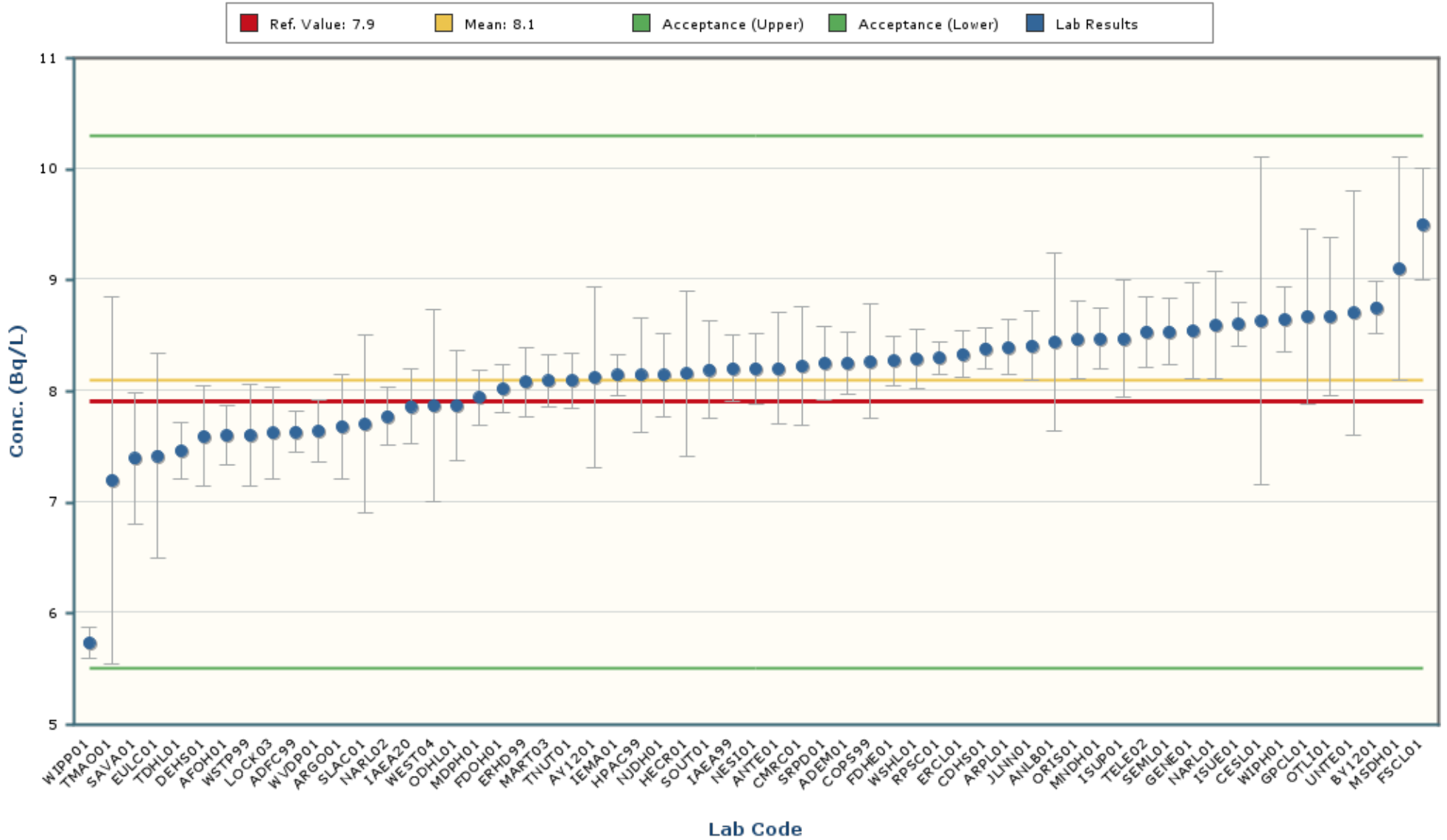
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 6.8 and 14.8 (± 5 Standard Deviations).

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

Cesium-137

MAPEP-21-MaW44



Notes:

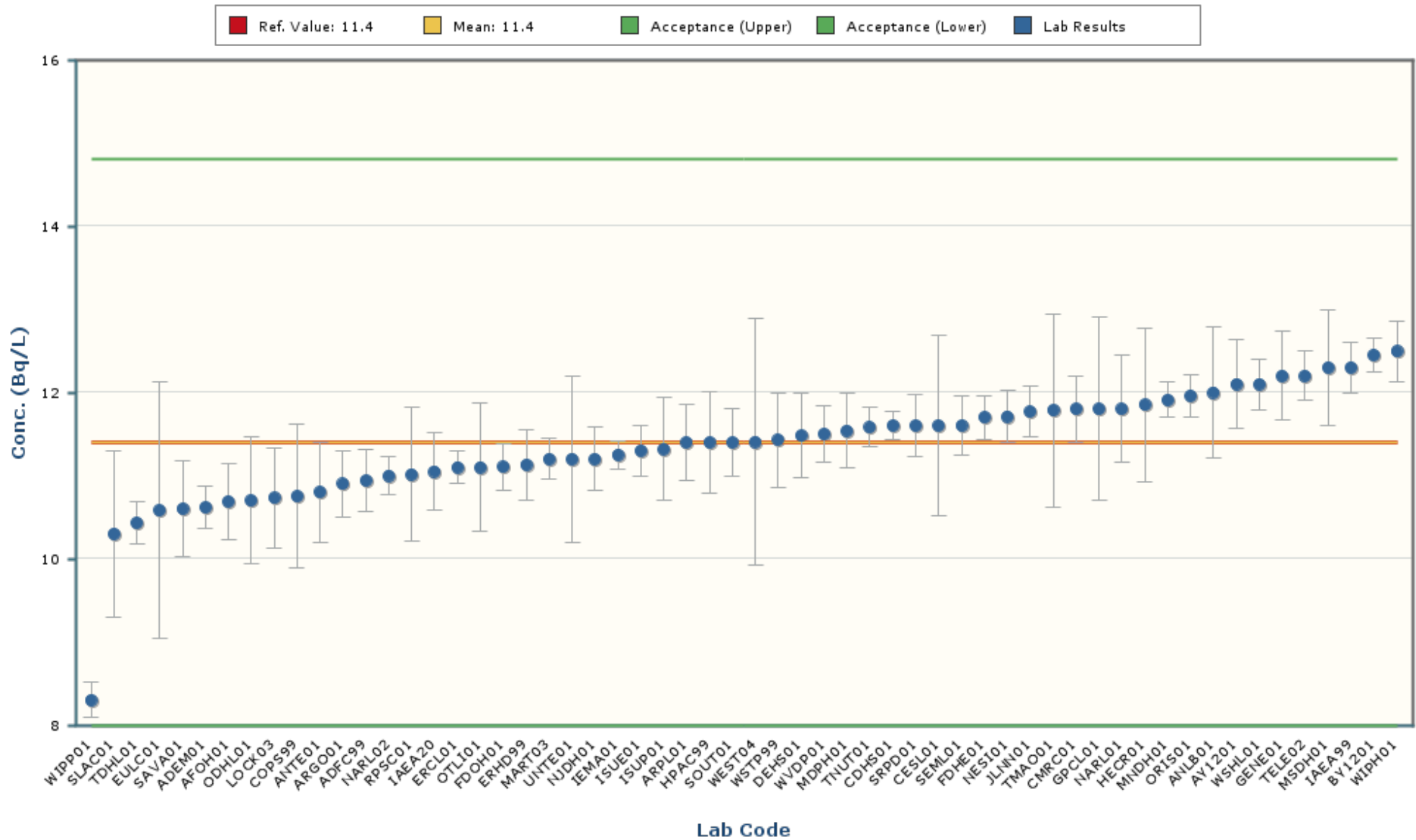
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 5.4 and 10.8 (± 5 Standard Deviations).

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

Cobalt-57

MAPEP-21-MaW44



Notes:

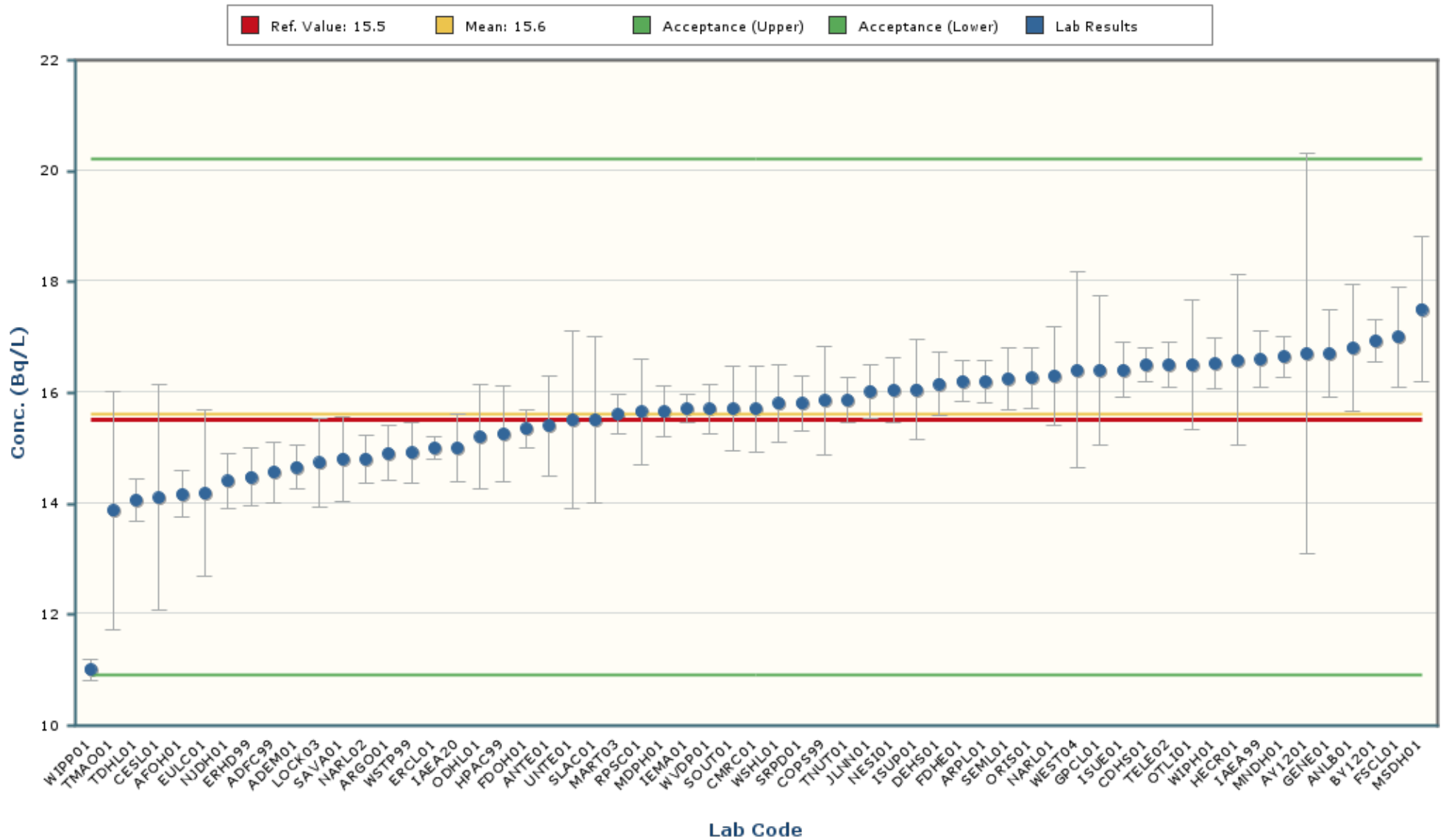
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 8.0 and 14.7 (± 5 Standard Deviations).

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

Manganese-54

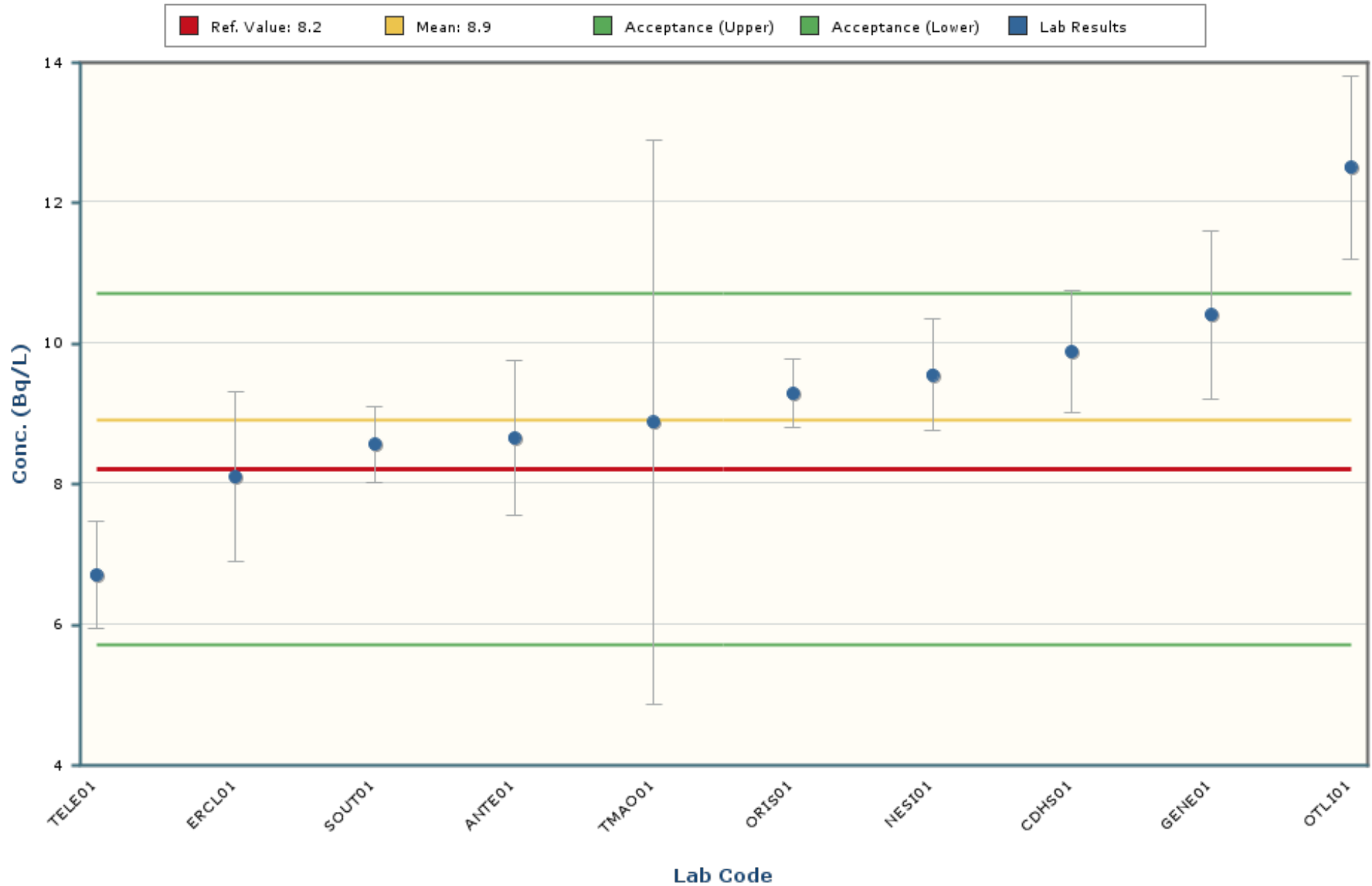
MAPEP-21-MaW44



Notes:
The chart mean excludes values outside of a bias range of $\pm 30\%$.
The chart shows only data points with values between 10.3 and 20.9 (± 5 Standard Deviations).
The error bars encompassing each result are plotted at \pm one standard deviation.

Nickel-63

MAPEP-21-MaW44



Notes:

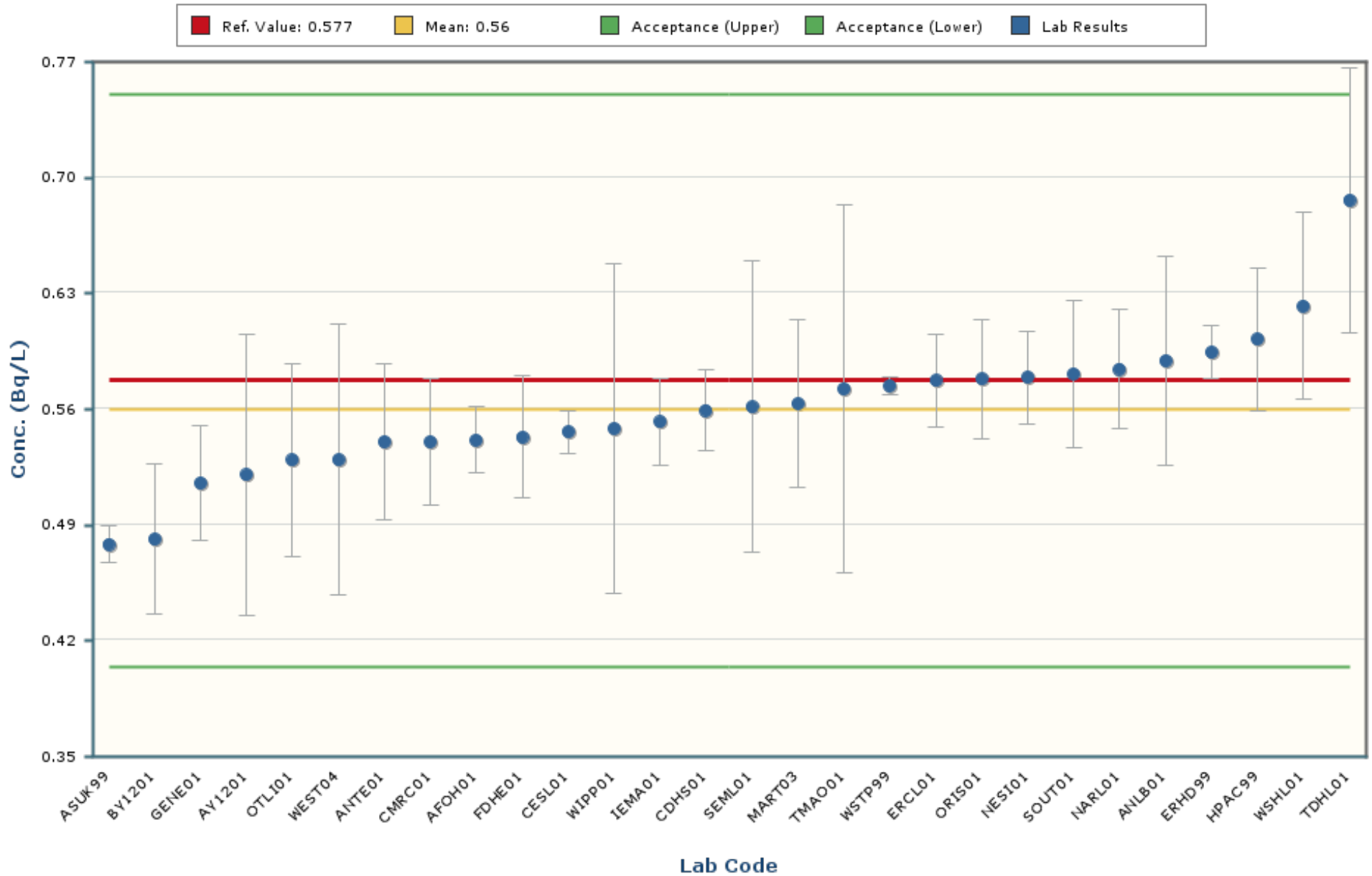
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 3.5 and 14.3 (± 5 Standard Deviations).

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

Plutonium-238

MAPEP-21-MaW44



Notes:

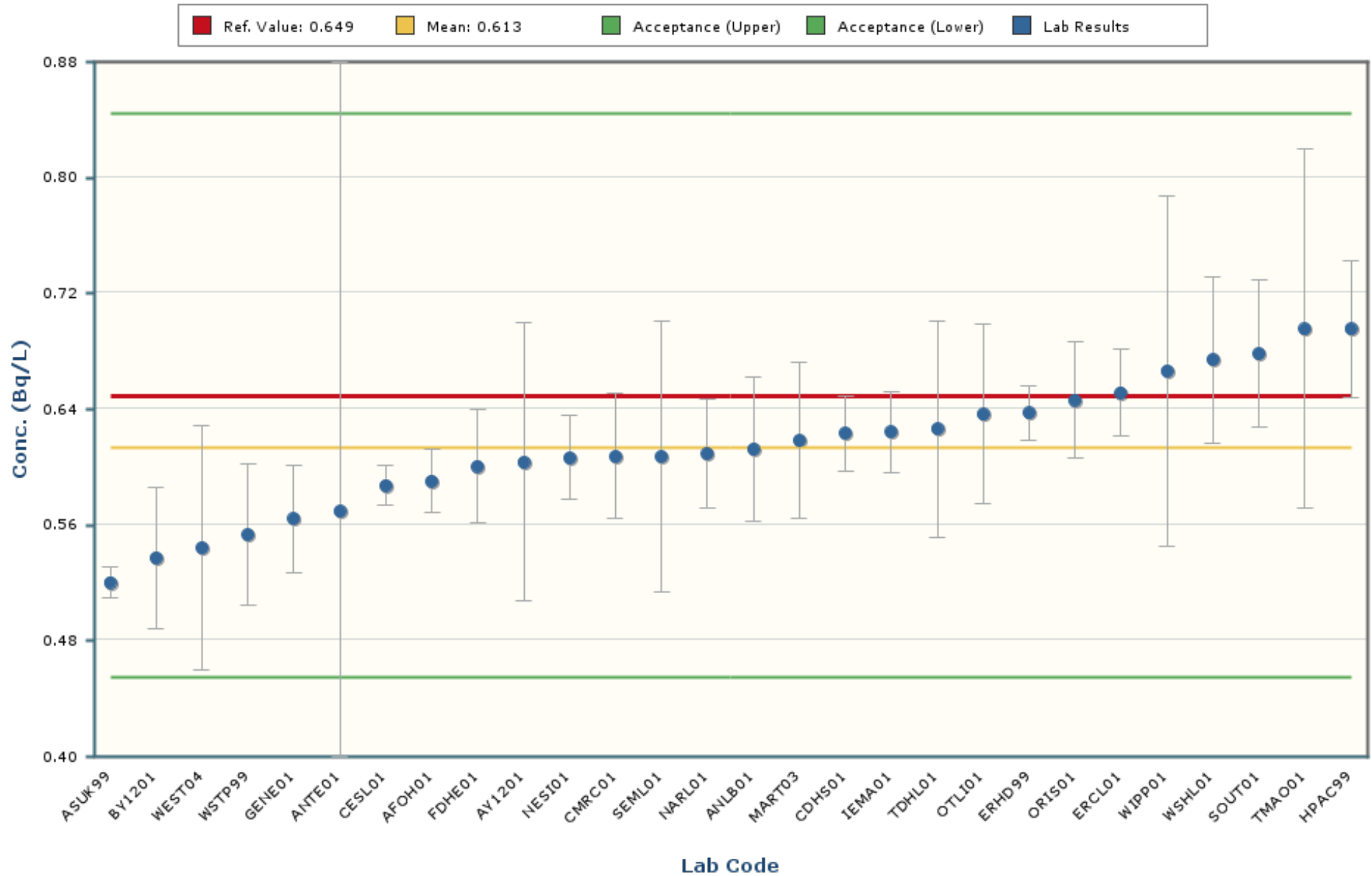
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.353 and 0.767 (± 5 Standard Deviations).

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

Plutonium-239/240

MAPEP-21-MaW44



Notes:

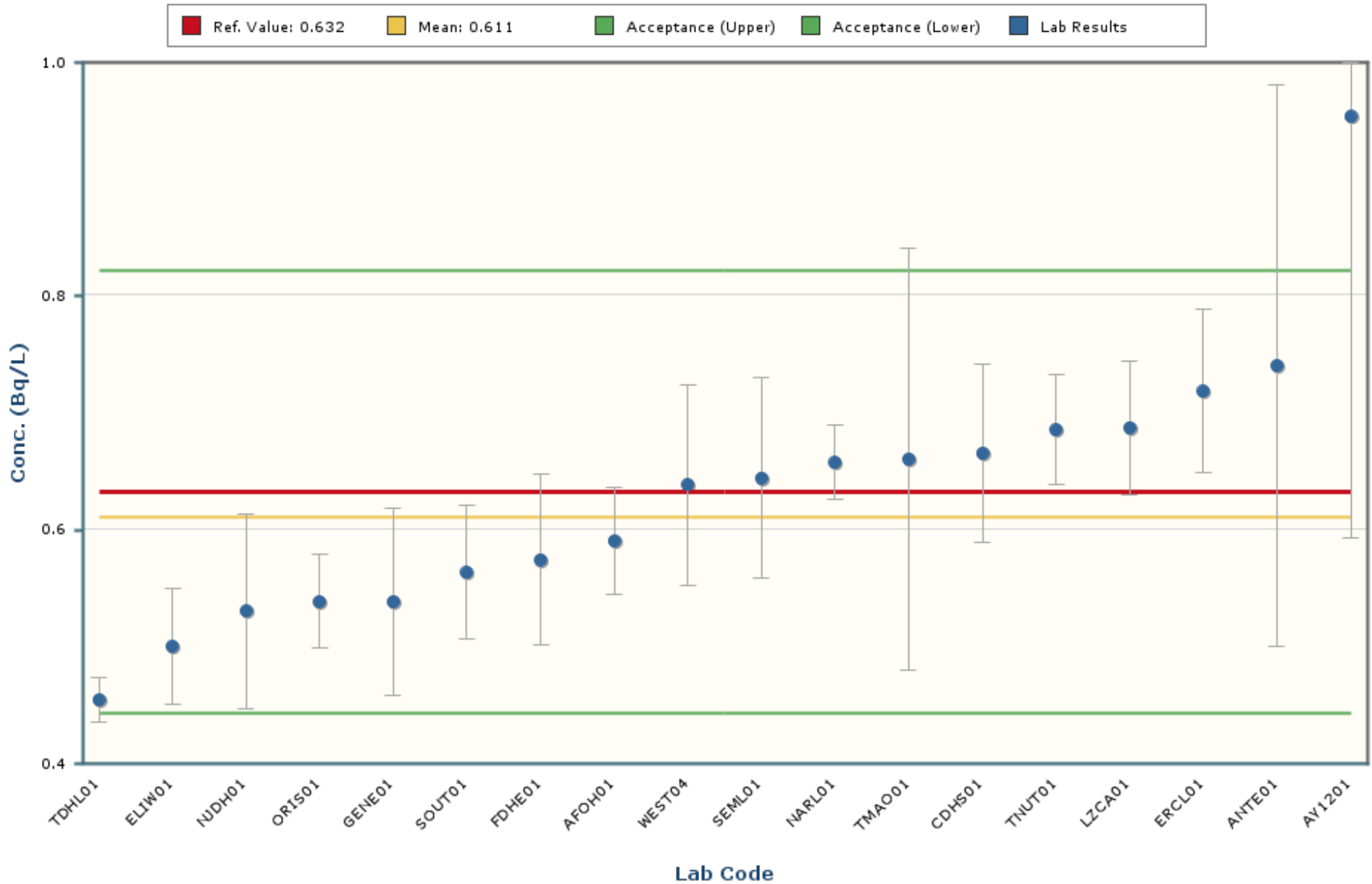
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.384 and 0.843 (± 5 Standard Deviations).

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

Radium-226

MAPEP-21-MaW44



Notes:

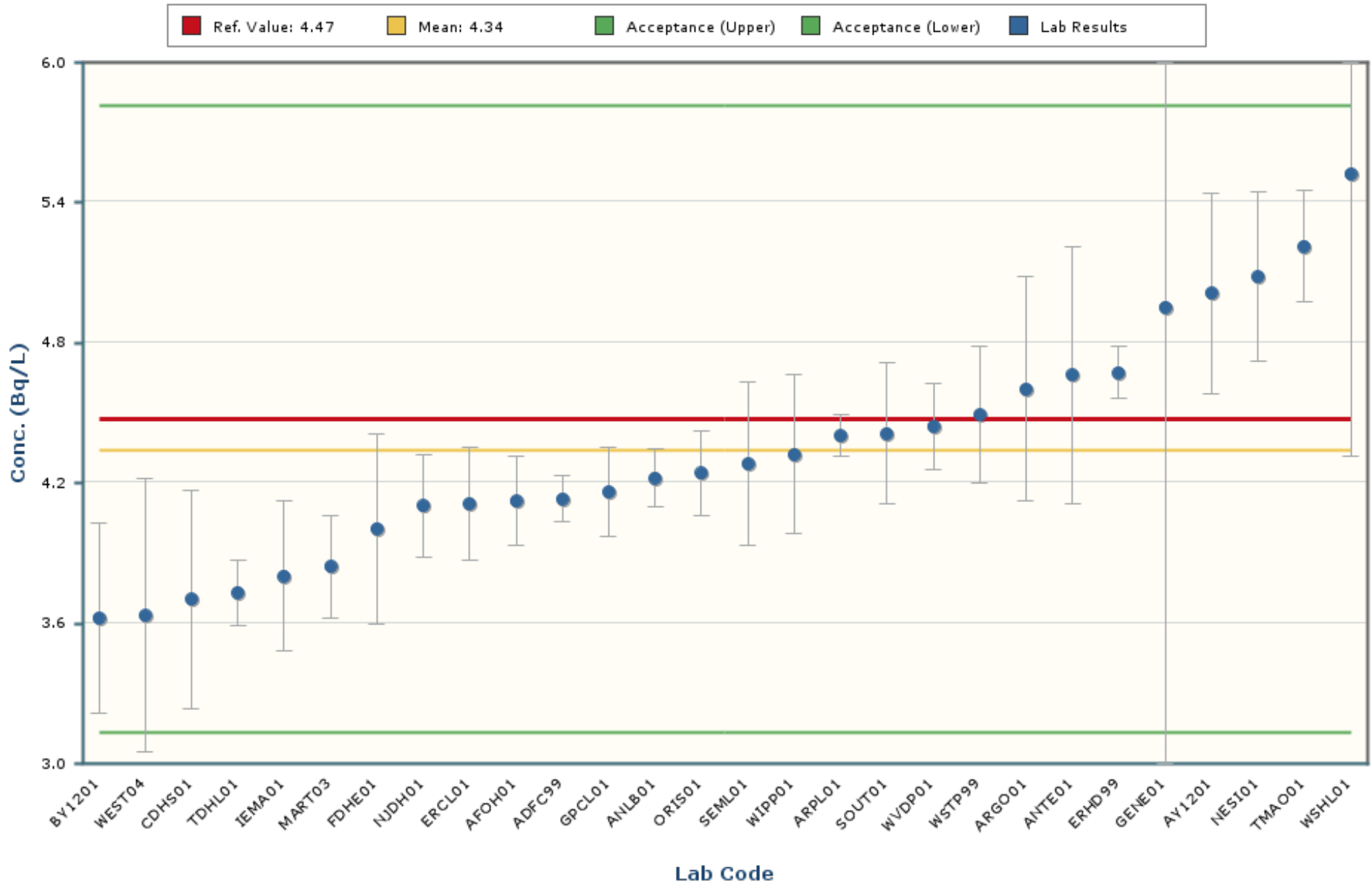
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.202 and 1.019 (± 5 Standard Deviations).

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

Strontium-90

MAPEP-21-MaW44



Notes:

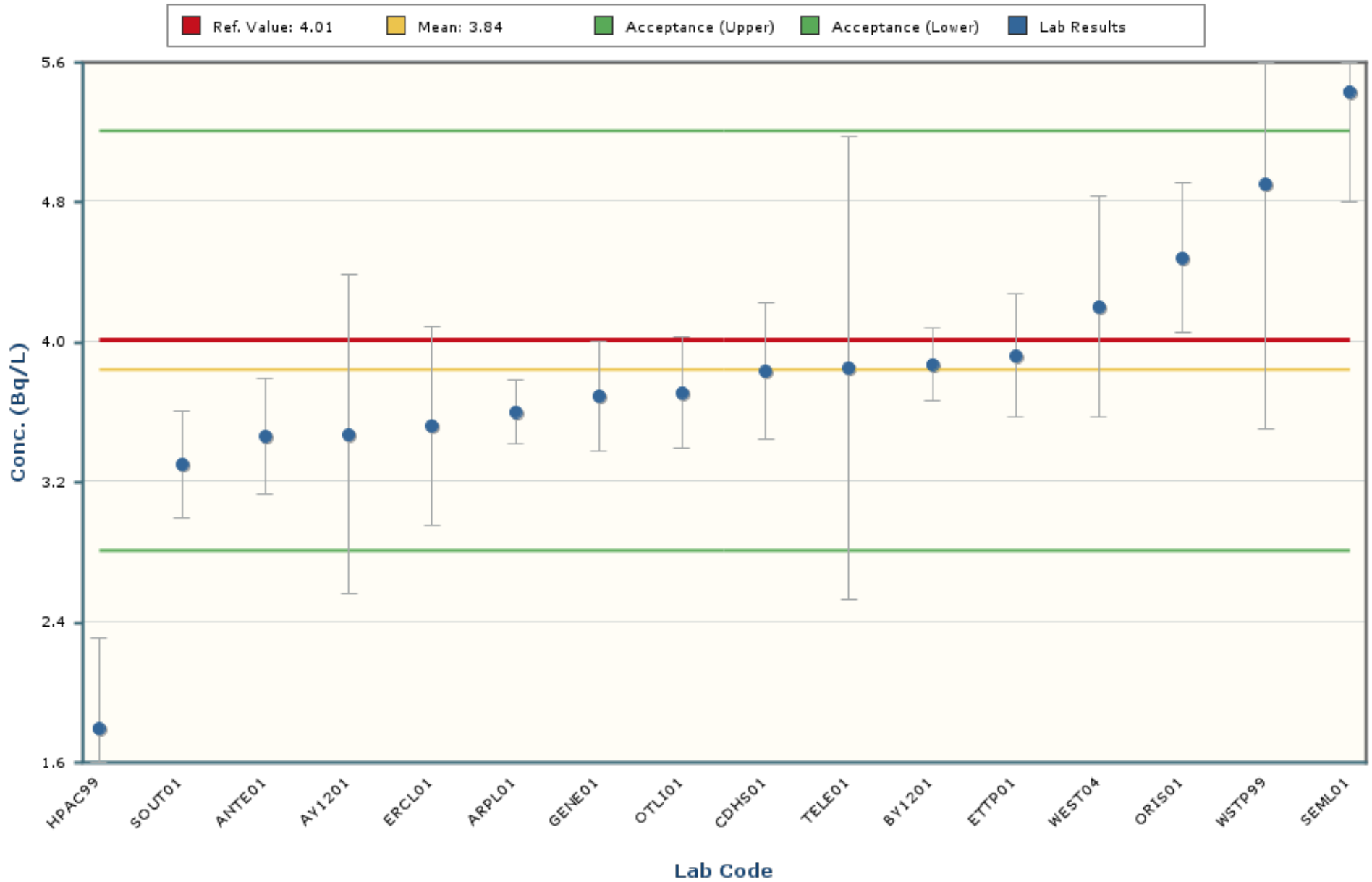
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 1.87 and 6.80 (± 5 Standard Deviations).

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

Technetium-99

MAPEP-21-MaW44



Notes:

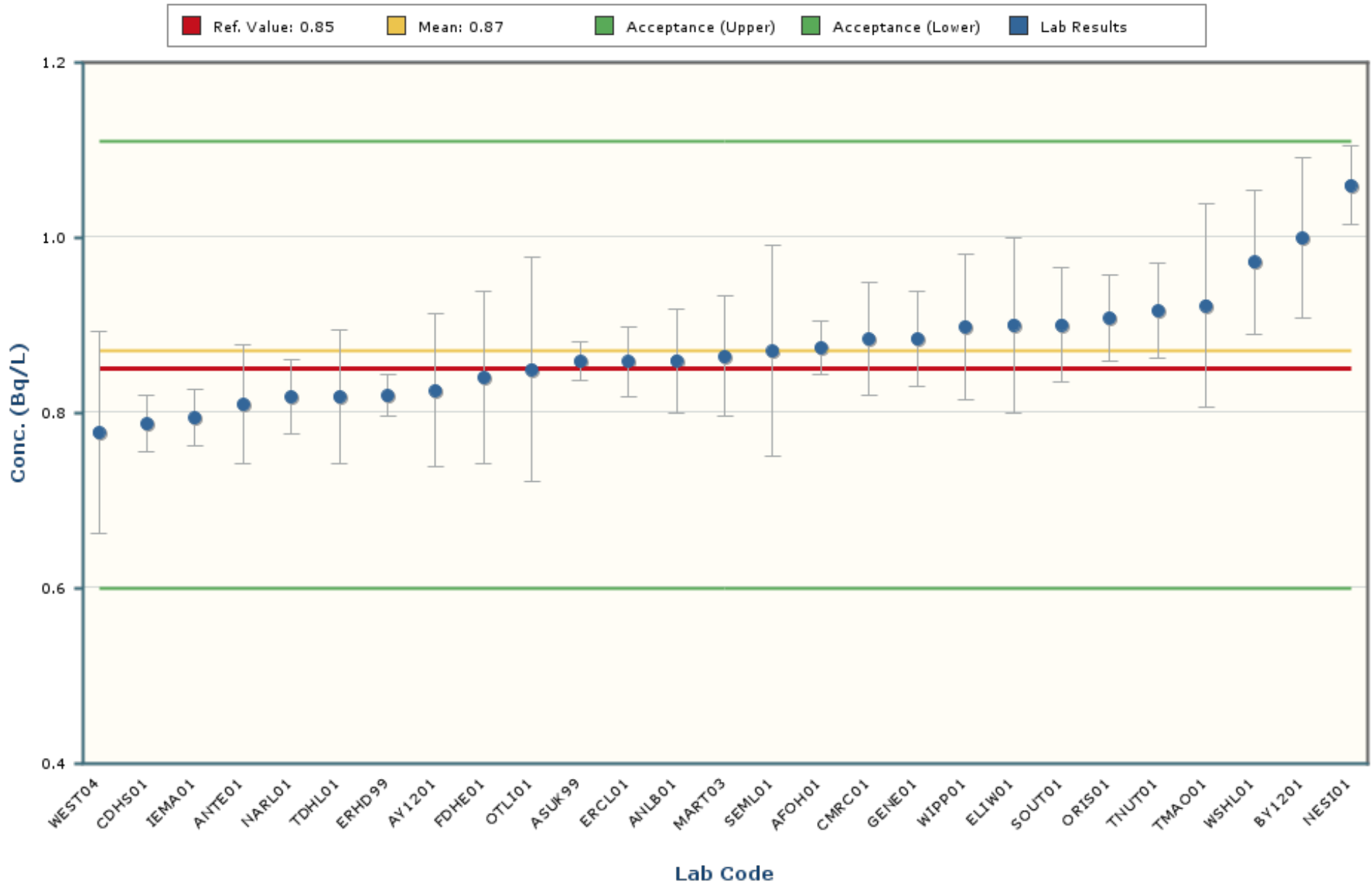
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 1.68 and 6.01 (± 5 Standard Deviations).

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

Uranium-234

MAPEP-21-MaW44



Notes:

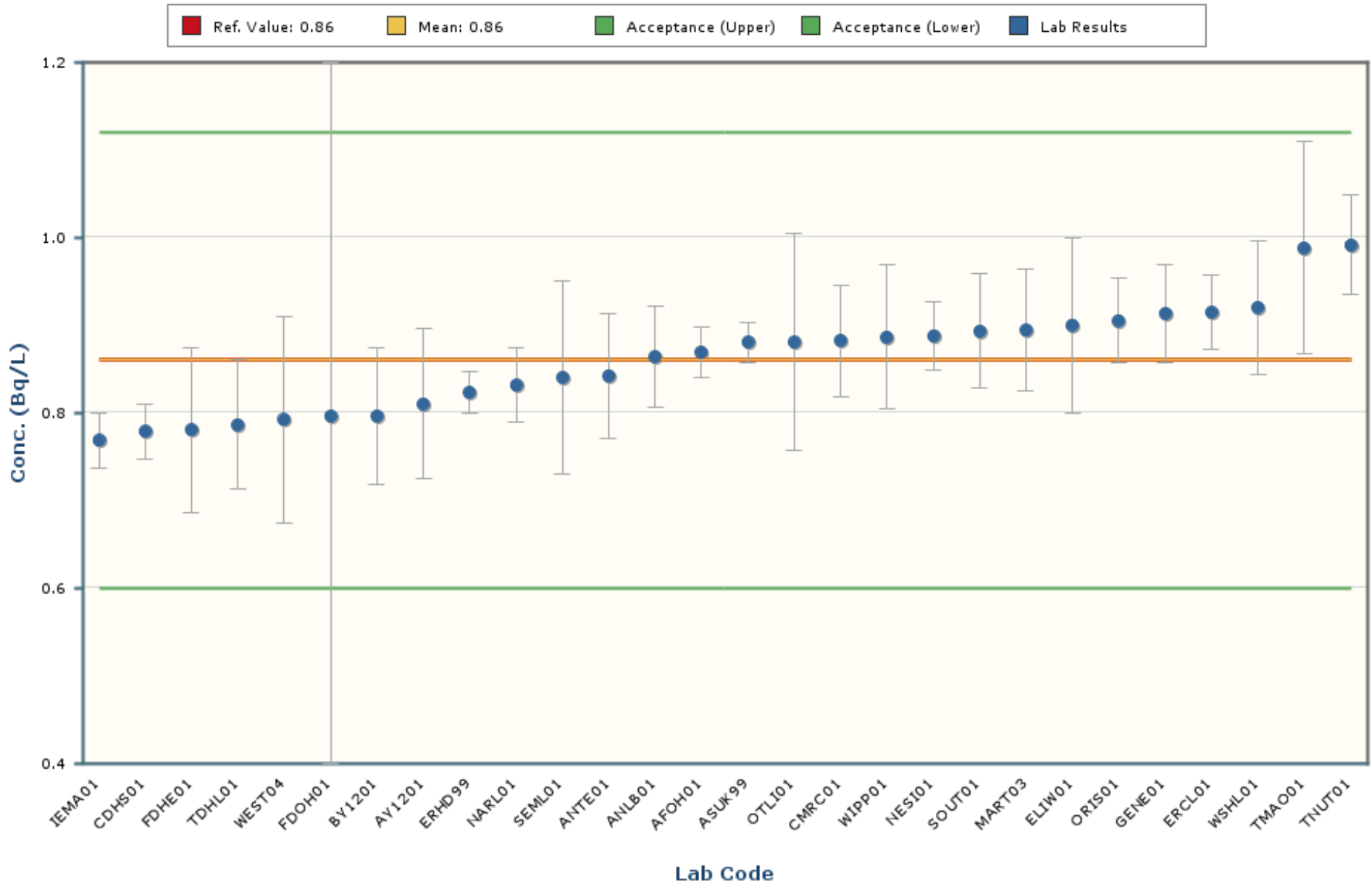
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.55 and 1.20 (± 5 Standard Deviations).

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

Uranium-238

MAPEP-21-MaW44



Notes:

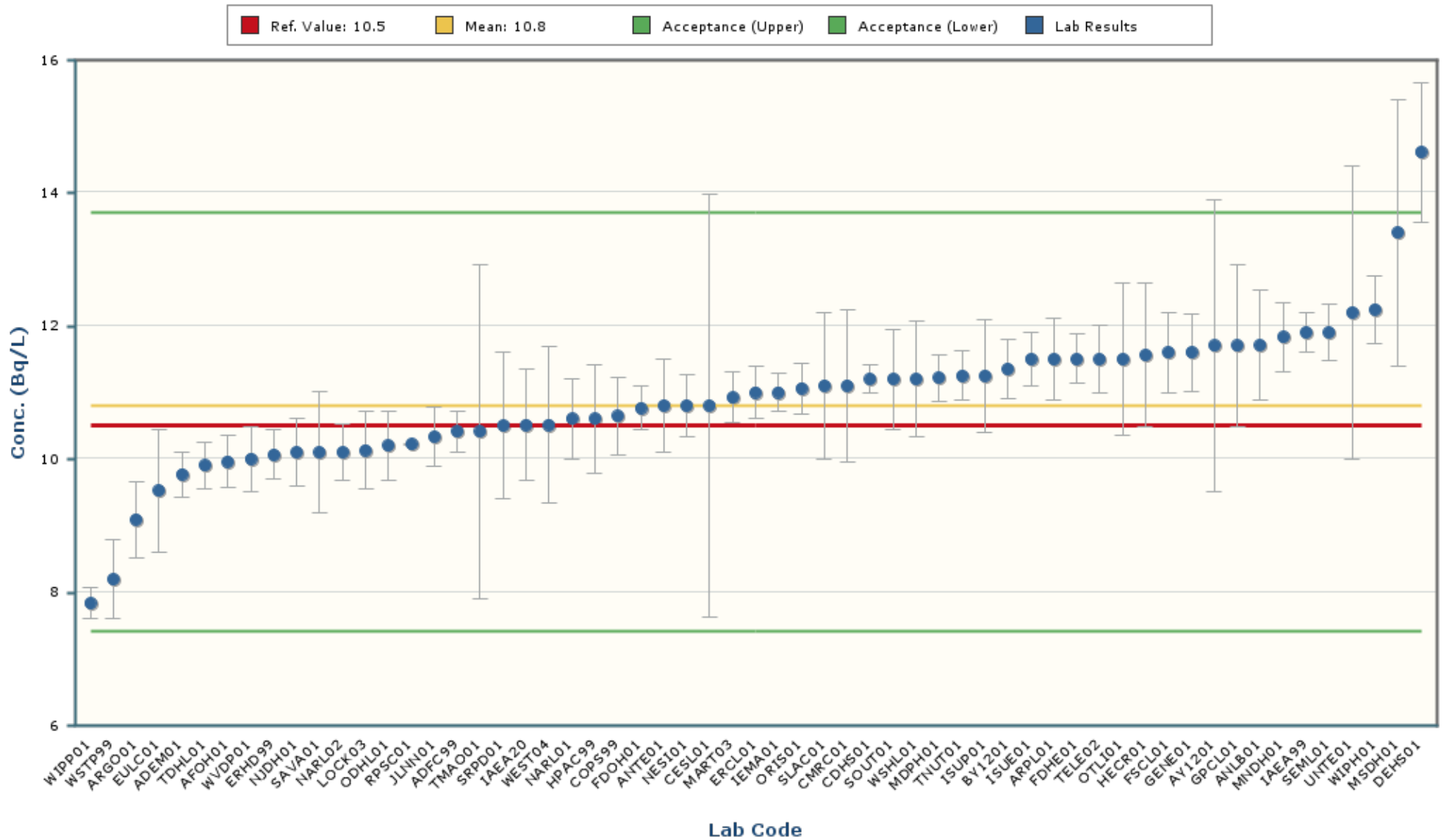
The chart mean excludes values outside of a bias range of $\pm 30\%$.

The chart shows only data points with values between 0.56 and 1.16 (± 5 Standard Deviations).

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

Zinc-65

MAPEP-21-MaW44



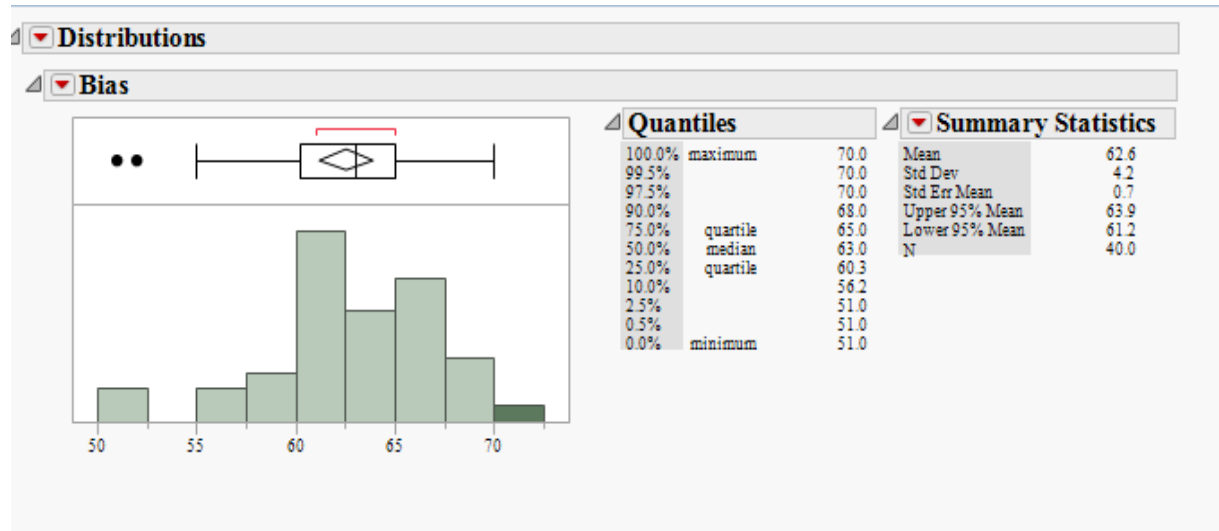
Notes:

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

The chart shows only data points with values between 6.1 and 15.5 (± 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.

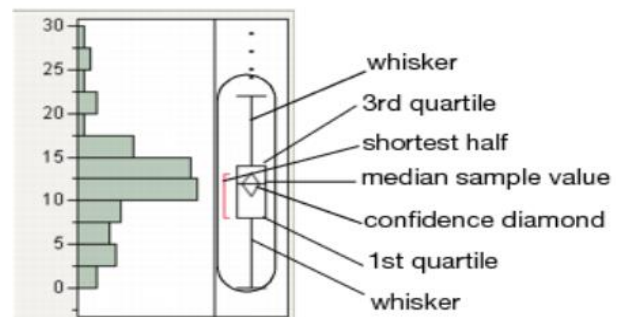


Outlier Box Plot

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)



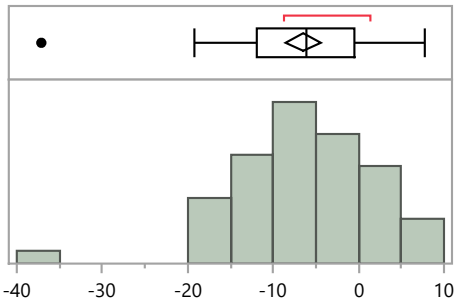
If the data points do not reach the computed ranges, then the whiskers are determined by the upper and lower data point values (not including outliers). The bracket outside of the box identifies the *shortest half*, which is the most dense 50% of the observations (Rousseuw and Leroy 1987).

MaW44 Distribution by Detection Method

MaW Distribution by Detection Method

Distributions Analyte_Detection=Cesium-134 Gamma Spectrometry

Bias



Quantiles

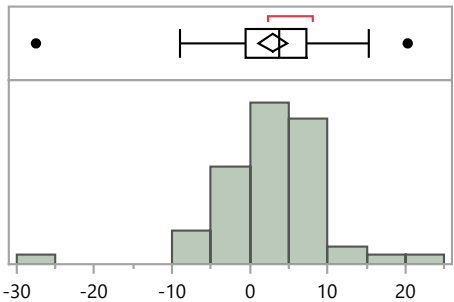
100.0%	maximum	7.8
99.5%		7.8
97.5%		7.8
90.0%		3.6
75.0%	quartile	-0.5
50.0%	median	-6.1
25.0%	quartile	-12.0
10.0%		-16.0
2.5%		-29.1
0.5%		-37.1
0.0%	minimum	-37.1

Summary Statistics

Mean	-6.5
Std Dev	8.1
Std Err Mean	1.1
Upper 95% Mean	-4.4
Lower 95% Mean	-8.6
N	57.0

Distributions Analyte_Detection=Cesium-137 Gamma Spectrometry

Bias



Quantiles

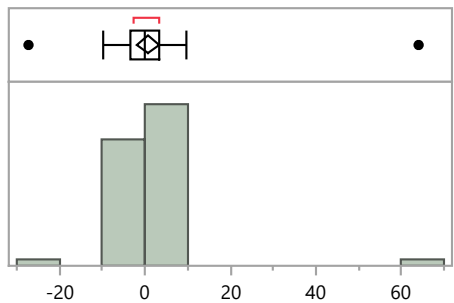
100.0%	maximum	20.3
99.5%		20.3
97.5%		17.8
90.0%		9.7
75.0%	quartile	7.2
50.0%	median	3.8
25.0%	quartile	-0.5
10.0%		-3.9
2.5%		-18.2
0.5%		-27.5
0.0%	minimum	-27.5

Summary Statistics

Mean	3.0
Std Dev	6.8
Std Err Mean	0.9
Upper 95% Mean	4.8
Lower 95% Mean	1.2
N	59.0

Distributions Analyte_Detection=Cobalt-57 Gamma Spectrometry

Bias



Quantiles

100.0%	maximum	64.0
99.5%		64.0
97.5%		36.8
90.0%		7.0
75.0%	quartile	3.5
50.0%	median	0.1
25.0%	quartile	-3.4
10.0%		-6.9
2.5%		-18.4
0.5%		-27.2
0.0%	minimum	-27.2

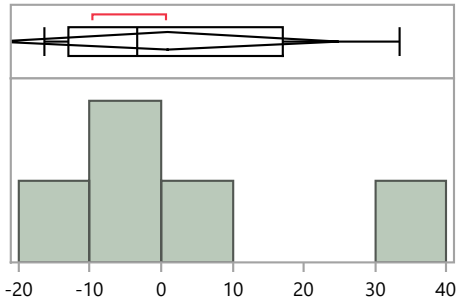
Summary Statistics

Mean	0.8
Std Dev	10.2
Std Err Mean	1.3
Upper 95% Mean	3.4
Lower 95% Mean	-1.9
N	59.0

MaW Distribution by Detection Method

Distributions Analyte_Detection=Iron-55 Liquid Scintillation Counter

Bias



Quantiles

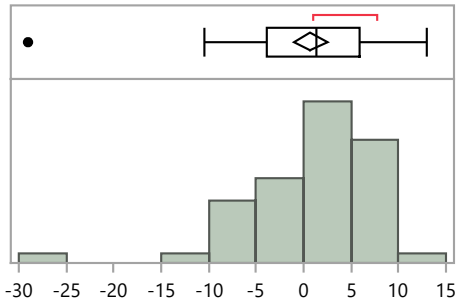
100.0%	maximum	33.5
99.5%		33.5
97.5%		33.5
90.0%		33.5
75.0%	quartile	17.1
50.0%	median	-3.3
25.0%	quartile	-13.1
10.0%		-16.4
2.5%		-16.4
0.5%		-16.4
0.0%	minimum	-16.4

Summary Statistics

Mean	1.0
Std Dev	19.3
Std Err Mean	8.6
Upper 95% Mean	24.9
Lower 95% Mean	-23.0
N	5.0

Distributions Analyte_Detection=Manganese-54 Gamma Spectrometry

Bias



Quantiles

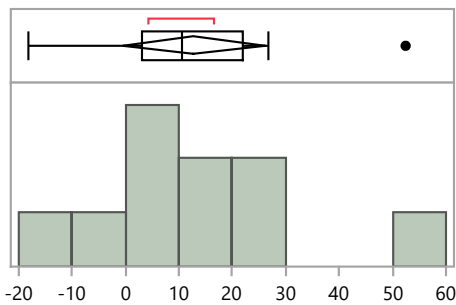
100.0%	maximum	12.9
99.5%		12.9
97.5%		11.3
90.0%		7.7
75.0%	quartile	5.8
50.0%	median	1.3
25.0%	quartile	-3.8
10.0%		-8.5
2.5%		-19.8
0.5%		-29.0
0.0%	minimum	-29.0

Summary Statistics

Mean	0.7
Std Dev	6.8
Std Err Mean	0.9
Upper 95% Mean	2.5
Lower 95% Mean	-1.1
N	59.0

Distributions Analyte_Detection=Nickel-63 Liquid Scintillation Counter

Bias



Quantiles

100.0%	maximum	52.4
99.5%		52.4
97.5%		52.4
90.0%		49.8
75.0%	quartile	22.1
50.0%	median	10.7
25.0%	quartile	3.0
10.0%		-16.6
2.5%		-18.3
0.5%		-18.3
0.0%	minimum	-18.3

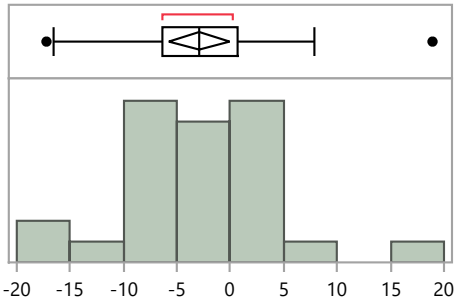
Summary Statistics

Mean	12.8
Std Dev	18.7
Std Err Mean	5.9
Upper 95% Mean	26.2
Lower 95% Mean	-0.6
N	10.0

MaW Distribution by Detection Method

Distributions Analyte_Detection=Plutonium-238 Alpha Spectrometry

Bias



Quantiles

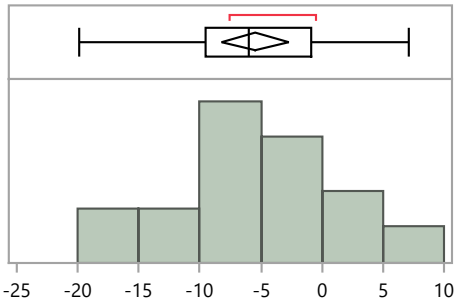
100.0%	maximum	18.9
99.5%		18.9
97.5%		18.9
90.0%		4.7
75.0%	quartile	0.6
50.0%	median	-3.0
25.0%	quartile	-6.4
10.0%		-11.3
2.5%		-17.2
0.5%		-17.2
0.0%	minimum	-17.2

Summary Statistics

Mean	-2.9
Std Dev	7.2
Std Err Mean	1.4
Upper 95% Mean	-0.1
Lower 95% Mean	-5.7
N	28.0

Distributions Analyte_Detection=Plutonium-239/240 Alpha Spectrometry

Bias



Quantiles

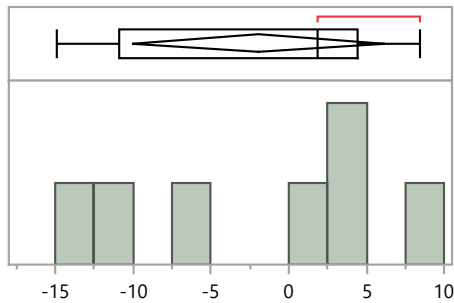
100.0%	maximum	7.1
99.5%		7.1
97.5%		7.1
90.0%		4.8
75.0%	quartile	-0.8
50.0%	median	-6.0
25.0%	quartile	-9.5
10.0%		-16.3
2.5%		-19.9
0.5%		-19.9
0.0%	minimum	-19.9

Summary Statistics

Mean	-5.5
Std Dev	7.1
Std Err Mean	1.3
Upper 95% Mean	-2.7
Lower 95% Mean	-8.2
N	28.0

Distributions Analyte_Detection=Radium-226 Alpha Spectrometry

Bias



Quantiles

100.0%	maximum	8.4
99.5%		8.4
97.5%		8.4
90.0%		8.4
75.0%	quartile	4.4
50.0%	median	1.9
25.0%	quartile	-10.9
10.0%		-14.9
2.5%		-14.9
0.5%		-14.9
0.0%	minimum	-14.9

Summary Statistics

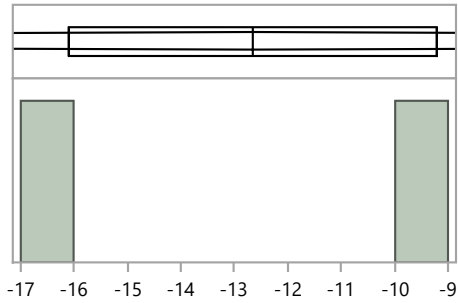
Mean	-2.0
Std Dev	8.8
Std Err Mean	3.3
Upper 95% Mean	6.2
Lower 95% Mean	-10.1
N	7.0

MaW44 Distribution by Detection Method

MaW Distribution by Detection Method

Distributions Analyte_Detection=Radium-226 Gamma Spectrometry

Bias



Quantiles

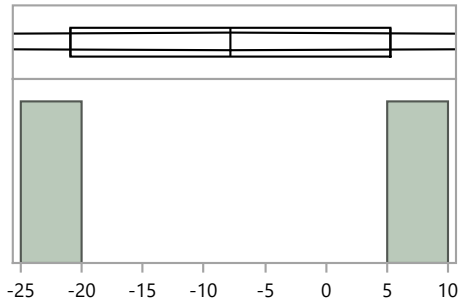
100.0%	maximum	-9.2
99.5%		-9.2
97.5%		-9.2
90.0%		-9.2
75.0%	quartile	-9.2
50.0%	median	-12.7
25.0%	quartile	-16.1
10.0%		-16.1
2.5%		-16.1
0.5%		-16.1
0.0%	minimum	-16.1

Summary Statistics

Mean	-12.7
Std Dev	4.9
Std Err Mean	3.5
Upper 95% Mean	31.2
Lower 95% Mean	-56.5
N	2.0

Distributions Analyte_Detection=Radium-226 Gas Flow Proportional Counter

Bias



Quantiles

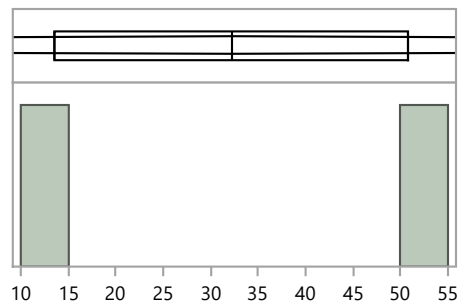
100.0%	maximum	5.2
99.5%		5.2
97.5%		5.2
90.0%		5.2
75.0%	quartile	5.2
50.0%	median	-7.9
25.0%	quartile	-20.9
10.0%		-20.9
2.5%		-20.9
0.5%		-20.9
0.0%	minimum	-20.9

Summary Statistics

Mean	-7.9
Std Dev	18.5
Std Err Mean	13.1
Upper 95% Mean	158.0
Lower 95% Mean	-173.7
N	2.0

Distributions Analyte_Detection=Radium-226 Gross Alpha/Beta - 2 pi gas flow proportional counter

Bias



Quantiles

100.0%	maximum	50.8
99.5%		50.8
97.5%		50.8
90.0%		50.8
75.0%	quartile	50.8
50.0%	median	32.2
25.0%	quartile	13.6
10.0%		13.6
2.5%		13.6
0.5%		13.6
0.0%	minimum	13.6

Summary Statistics

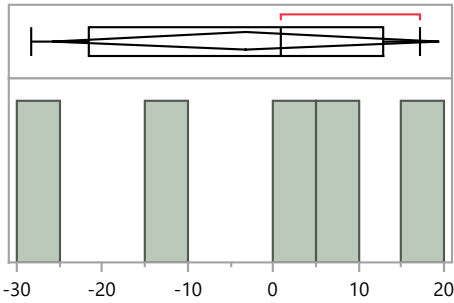
Mean	32.2
Std Dev	26.3
Std Err Mean	18.6
Upper 95% Mean	268.5
Lower 95% Mean	-204.1
N	2.0

MaW44 Distribution by Detection Method

MaW Distribution by Detection Method

Distributions Analyte_Detection=Radium-226 Other

Bias



Quantiles

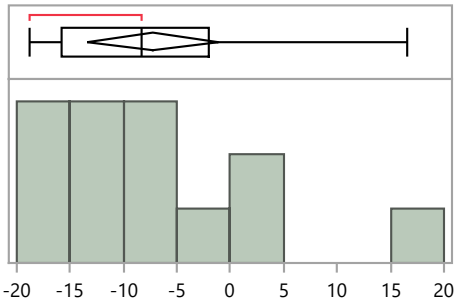
100.0%	maximum	17.1
99.5%		17.1
97.5%		17.1
90.0%		17.1
75.0%	quartile	12.9
50.0%	median	0.9
25.0%	quartile	-21.6
10.0%		-28.2
2.5%		-28.2
0.5%		-28.2
0.0%	minimum	-28.2

Summary Statistics

Mean	-3.3
Std Dev	18.3
Std Err Mean	8.2
Upper 95% Mean	19.4
Lower 95% Mean	-25.9
N	5.0

Distributions Analyte_Detection=Strontium-90 Gas Flow Proportional Counter

Bias



Quantiles

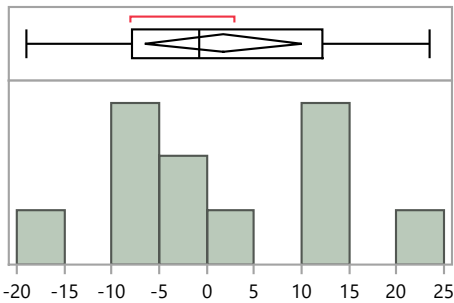
100.0%	maximum	16.6
99.5%		16.6
97.5%		16.6
90.0%		11.7
75.0%	quartile	-2.0
50.0%	median	-8.3
25.0%	quartile	-15.8
10.0%		-18.2
2.5%		-18.8
0.5%		-18.8
0.0%	minimum	-18.8

Summary Statistics

Mean	-7.2
Std Dev	10.1
Std Err Mean	2.8
Upper 95% Mean	-1.2
Lower 95% Mean	-13.3
N	13.0

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

Bias



Quantiles

100.0%	maximum	23.5
99.5%		23.5
97.5%		23.5
90.0%		21.5
75.0%	quartile	12.1
50.0%	median	-0.7
25.0%	quartile	-7.8
10.0%		-16.8
2.5%		-19.0
0.5%		-19.0
0.0%	minimum	-19.0

Summary Statistics

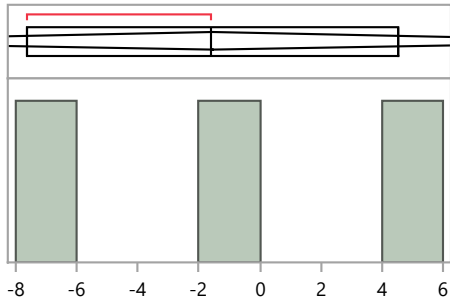
Mean	1.7
Std Dev	12.3
Std Err Mean	3.7
Upper 95% Mean	10.0
Lower 95% Mean	-6.5
N	11.0

MaW44 Distribution by Detection Method

MaW Distribution by Detection Method

Distributions Analyte_Detection=Strontium-90 Liquid Scintillation Counter

Bias



Quantiles

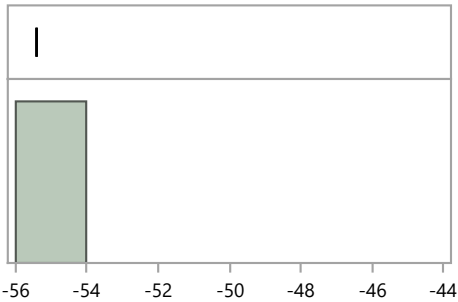
100.0%	maximum	4.5
99.5%		4.5
97.5%		4.5
90.0%		4.5
75.0%	quartile	4.5
50.0%	median	-1.6
25.0%	quartile	-7.6
10.0%		-7.6
2.5%		-7.6
0.5%		-7.6
0.0%	minimum	-7.6

Summary Statistics

Mean	-1.6
Std Dev	6.1
Std Err Mean	3.5
Upper 95% Mean	13.5
Lower 95% Mean	-16.6
N	3.0

Distributions Analyte_Detection=Technetium-99 Gas Flow Proportional Counter

Bias



Quantiles

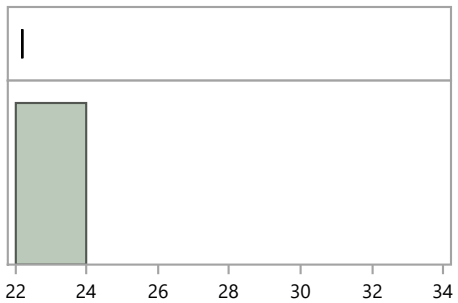
100.0%	maximum	-55.4
99.5%		-55.4
97.5%		-55.4
90.0%		-55.4
75.0%	quartile	-55.4
50.0%	median	-55.4
25.0%	quartile	-55.4
10.0%		-55.4
2.5%		-55.4
0.5%		-55.4
0.0%	minimum	-55.4

Summary Statistics

Mean	-55.4
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Detection=Technetium-99 Inductively Coupled Plasma Mass Spectrometry

Bias



Quantiles

100.0%	maximum	22.2
99.5%		22.2
97.5%		22.2
90.0%		22.2
75.0%	quartile	22.2
50.0%	median	22.2
25.0%	quartile	22.2
10.0%		22.2
2.5%		22.2
0.5%		22.2
0.0%	minimum	22.2

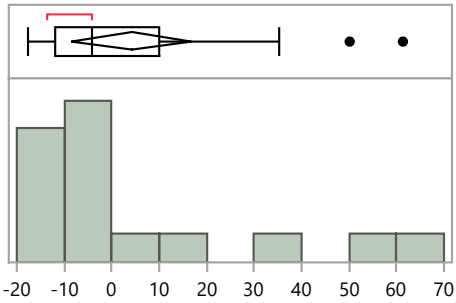
Summary Statistics

Mean	22.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaW Distribution by Detection Method

Distributions Analyte_Detection=Technetium-99 Liquid Scintillation Counter

Bias



Quantiles

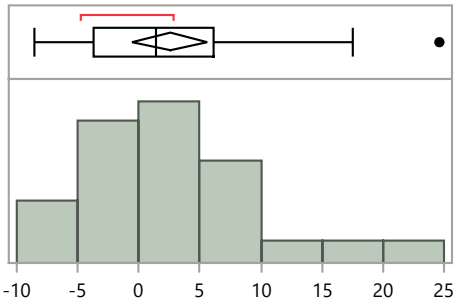
100.0%	maximum	61.3
99.5%		61.3
97.5%		61.3
90.0%		53.5
75.0%	quartile	10.0
50.0%	median	-4.3
25.0%	quartile	-11.7
10.0%		-14.9
2.5%		-17.7
0.5%		-17.7
0.0%	minimum	-17.7

Summary Statistics

Mean	4.1
Std Dev	23.8
Std Err Mean	6.0
Upper 95% Mean	16.8
Lower 95% Mean	-8.6
N	16.0

Distributions Analyte_Detection=Uranium-234 Alpha Spectrometry

Bias



Quantiles

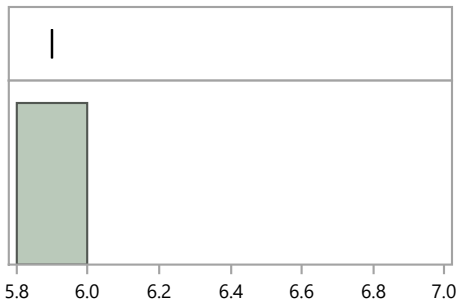
100.0%	maximum	24.6
99.5%		24.6
97.5%		24.6
90.0%		15.3
75.0%	quartile	6.1
50.0%	median	1.4
25.0%	quartile	-3.7
10.0%		-6.8
2.5%		-8.6
0.5%		-8.6
0.0%	minimum	-8.6

Summary Statistics

Mean	2.5
Std Dev	7.7
Std Err Mean	1.5
Upper 95% Mean	5.7
Lower 95% Mean	-0.6
N	26.0

Distributions Analyte_Detection=Uranium-234 Gas Flow Proportional Counter

Bias



Quantiles

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

Summary Statistics

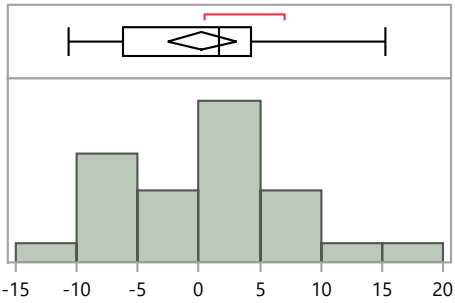
Mean	5.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaW44 Distribution by Detection Method

MaW Distribution by Detection Method

Distributions Analyte_Detection=Uranium-238 Alpha Spectrometry

Bias



Quantiles

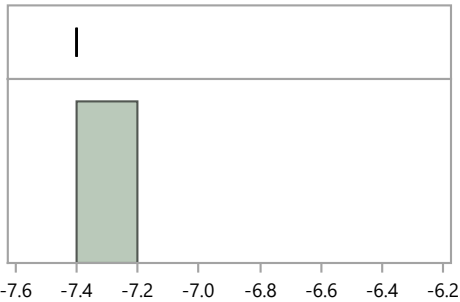
100.0%	maximum	15.2
99.5%		15.2
97.5%		15.2
90.0%		9.4
75.0%	quartile	4.3
50.0%	median	1.7
25.0%	quartile	-6.2
10.0%		-9.4
2.5%		-10.7
0.5%		-10.7
0.0%	minimum	-10.7

Summary Statistics

Mean	0.2
Std Dev	7.0
Std Err Mean	1.4
Upper 95% Mean	3.1
Lower 95% Mean	-2.6
N	26.0

Distributions Analyte_Detection=Uranium-238 Gamma Spectrometry

Bias



Quantiles

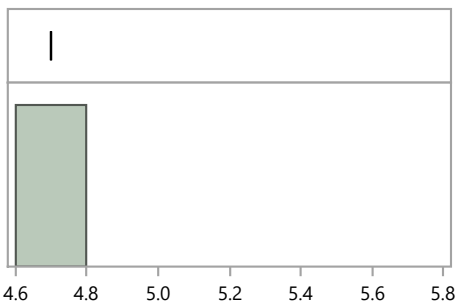
100.0%	maximum	-7.4
99.5%		-7.4
97.5%		-7.4
90.0%		-7.4
75.0%	quartile	-7.4
50.0%	median	-7.4
25.0%	quartile	-7.4
10.0%		-7.4
2.5%		-7.4
0.5%		-7.4
0.0%	minimum	-7.4

Summary Statistics

Mean	-7.4
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	4.7
99.5%		4.7
97.5%		4.7
90.0%		4.7
75.0%	quartile	4.7
50.0%	median	4.7
25.0%	quartile	4.7
10.0%		4.7
2.5%		4.7
0.5%		4.7
0.0%	minimum	4.7

Summary Statistics

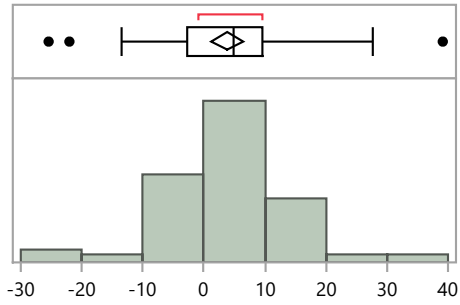
Mean	4.7
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaW44 Distribution by Detection Method

MaW Distribution by Detection Method

Distributions Analyte_Detection=Zinc-65 Gamma Spectrometry

Bias



Quantiles

100.0%	maximum	39.1
99.5%		39.1
97.5%		33.4
90.0%		13.3
75.0%	quartile	9.5
50.0%	median	4.8
25.0%	quartile	-2.7
10.0%		-5.7
2.5%		-23.7
0.5%		-25.4
0.0%	minimum	-25.4

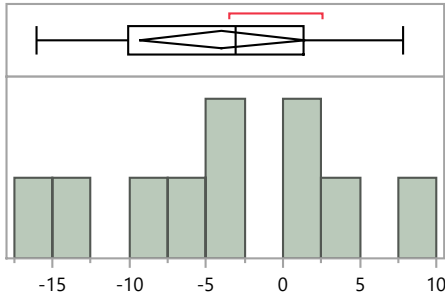
Summary Statistics

Mean	3.8
Std Dev	10.0
Std Err Mean	1.3
Upper 95% Mean	6.4
Lower 95% Mean	1.2
N	59.0

MaW Distribution by Prep Method

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

Bias



Quantiles

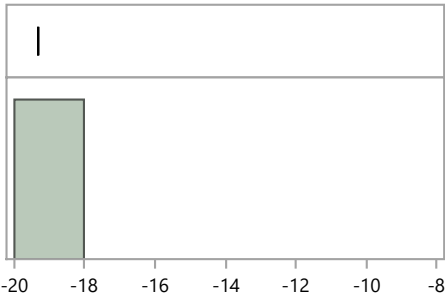
100.0%	maximum	7.8
99.5%		7.8
97.5%		7.8
90.0%		7.3
75.0%	quartile	1.3
50.0%	median	-3.1
25.0%	quartile	-10.1
10.0%		-15.8
2.5%		-16.0
0.5%		-16.0
0.0%	minimum	-16.0

Summary Statistics

Mean	-4.0
Std Dev	7.5
Std Err Mean	2.4
Upper 95% Mean	1.4
Lower 95% Mean	-9.4
N	10.0

Distributions Analyte_Method=Cesium-134 Evaporation, acidified

Bias



Quantiles

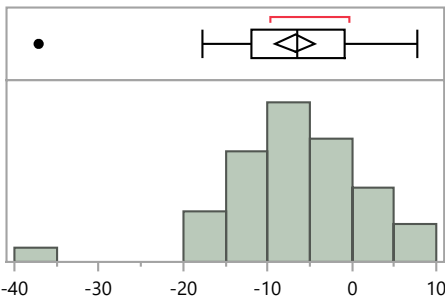
100.0%	maximum	-19.3
99.5%		-19.3
97.5%		-19.3
90.0%		-19.3
75.0%	quartile	-19.3
50.0%	median	-19.3
25.0%	quartile	-19.3
10.0%		-19.3
2.5%		-19.3
0.5%		-19.3
0.0%	minimum	-19.3

Summary Statistics

Mean	-19.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

Bias



Quantiles

100.0%	maximum	7.8
99.5%		7.8
97.5%		7.4
90.0%		3.7
75.0%	quartile	-0.8
50.0%	median	-6.5
25.0%	quartile	-12.0
10.0%		-15.8
2.5%		-33.7
0.5%		-37.1
0.0%	minimum	-37.1

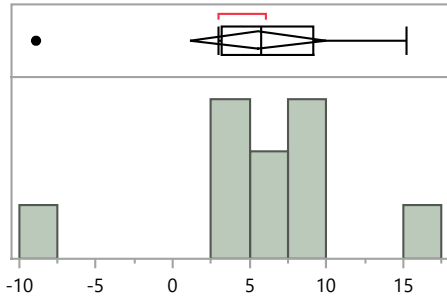
Summary Statistics

Mean	-6.8
Std Dev	8.0
Std Err Mean	1.2
Upper 95% Mean	-4.4
Lower 95% Mean	-9.1
N	46.0

MaW Distribution by Prep Method

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

Bias



Quantiles

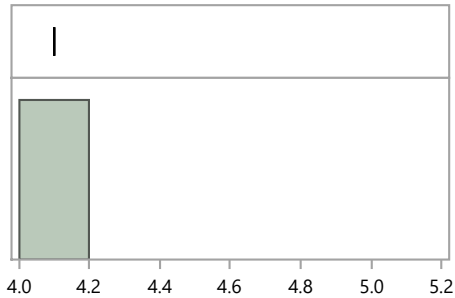
100.0%	maximum	15.2
99.5%		15.2
97.5%		15.2
90.0%		14.7
75.0%	quartile	9.1
50.0%	median	5.8
25.0%	quartile	3.2
10.0%		-7.7
2.5%		-8.9
0.5%		-8.9
0.0%	minimum	-8.9

Summary Statistics

Mean	5.6
Std Dev	6.2
Std Err Mean	2.0
Upper 95% Mean	10.0
Lower 95% Mean	1.1
N	10.0

Distributions Analyte_Method=Cesium-137 Evaporation, acidified

Bias



Quantiles

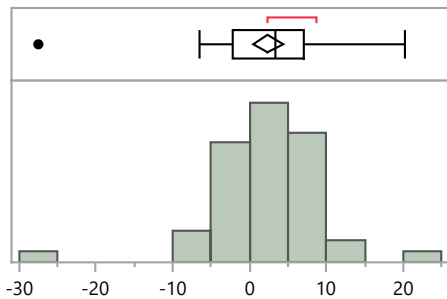
100.0%	maximum	4.1
99.5%		4.1
97.5%		4.1
90.0%		4.1
75.0%	quartile	4.1
50.0%	median	4.1
25.0%	quartile	4.1
10.0%		4.1
2.5%		4.1
0.5%		4.1
0.0%	minimum	4.1

Summary Statistics

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

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

Bias



Quantiles

100.0%	maximum	20.3
99.5%		20.3
97.5%		18.2
90.0%		9.4
75.0%	quartile	7.0
50.0%	median	3.4
25.0%	quartile	-2.3
10.0%		-4.1
2.5%		-22.8
0.5%		-27.5
0.0%	minimum	-27.5

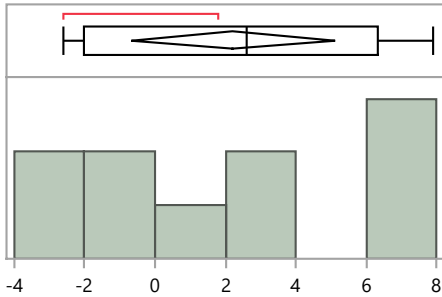
Summary Statistics

Mean	2.4
Std Dev	7.0
Std Err Mean	1.0
Upper 95% Mean	4.4
Lower 95% Mean	0.4
N	48.0

MaW Distribution by Prep Method

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

Bias



Quantiles

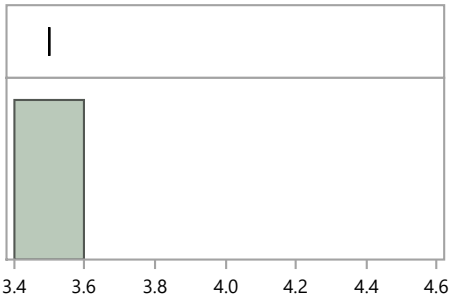
100.0%	maximum	7.9
99.5%		7.9
97.5%		7.9
90.0%		7.8
75.0%	quartile	6.3
50.0%	median	2.6
25.0%	quartile	-2.0
10.0%		-2.6
2.5%		-2.6
0.5%		-2.6
0.0%	minimum	-2.6

Summary Statistics

Mean	2.2
Std Dev	4.0
Std Err Mean	1.3
Upper 95% Mean	5.1
Lower 95% Mean	-0.7
N	10.0

Distributions Analyte_Method=Cobalt-57 Evaporation, acidified

Bias



Quantiles

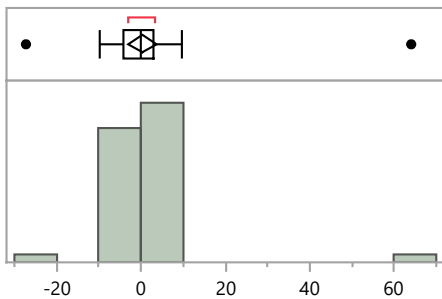
100.0%	maximum	3.5
99.5%		3.5
97.5%		3.5
90.0%		3.5
75.0%	quartile	3.5
50.0%	median	3.5
25.0%	quartile	3.5
10.0%		3.5
2.5%		3.5
0.5%		3.5
0.0%	minimum	3.5

Summary Statistics

Mean	3.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

Bias



Quantiles

100.0%	maximum	64.0
99.5%		64.0
97.5%		51.8
90.0%		7.1
75.0%	quartile	3.1
50.0%	median	0.0
25.0%	quartile	-4.3
10.0%		-7.0
2.5%		-23.2
0.5%		-27.2
0.0%	minimum	-27.2

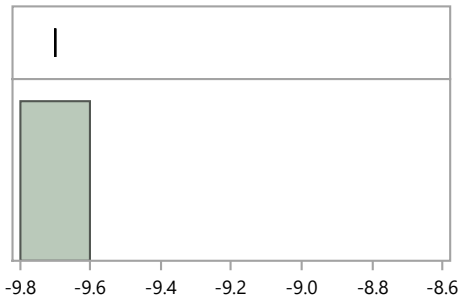
Summary Statistics

Mean	0.4
Std Dev	11.2
Std Err Mean	1.6
Upper 95% Mean	3.7
Lower 95% Mean	-2.8
N	48.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Iron-55 Acid dissolution with hydrofluoric acid

Bias



Quantiles

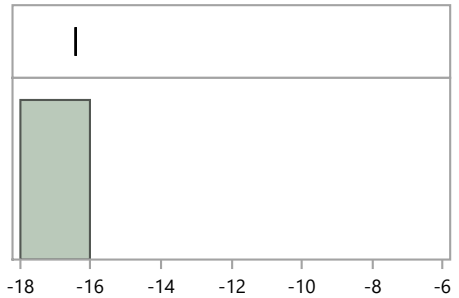
100.0%	maximum	-9.7
99.5%		-9.7
97.5%		-9.7
90.0%		-9.7
75.0%	quartile	-9.7
50.0%	median	-9.7
25.0%	quartile	-9.7
10.0%		-9.7
2.5%		-9.7
0.5%		-9.7
0.0%	minimum	-9.7

Summary Statistics

Mean	-9.7
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Iron-55 Coprecipitation, acidified

Bias



Quantiles

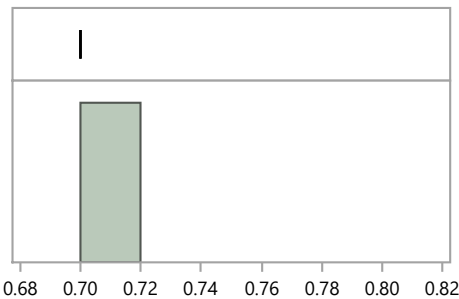
100.0%	maximum	-16.4
99.5%		-16.4
97.5%		-16.4
90.0%		-16.4
75.0%	quartile	-16.4
50.0%	median	-16.4
25.0%	quartile	-16.4
10.0%		-16.4
2.5%		-16.4
0.5%		-16.4
0.0%	minimum	-16.4

Summary Statistics

Mean	-16.4
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	0.7
99.5%		0.7
97.5%		0.7
90.0%		0.7
75.0%	quartile	0.7
50.0%	median	0.7
25.0%	quartile	0.7
10.0%		0.7
2.5%		0.7
0.5%		0.7
0.0%	minimum	0.7

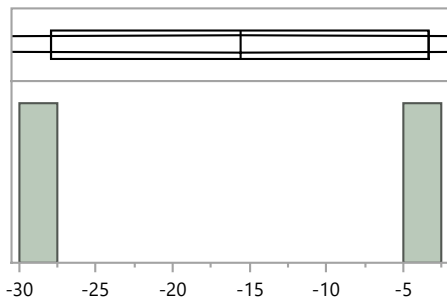
Summary Statistics

Mean	0.7
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Iron-55 Ion Exchange Chromatography / Ion Chromatography

Bias



Quantiles

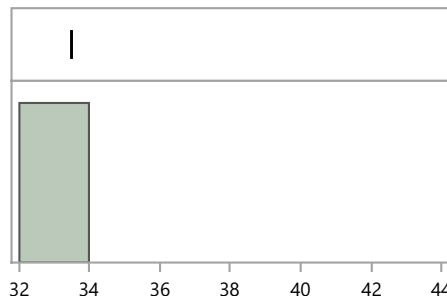
100.0%	maximum	-3.3
99.5%		-3.3
97.5%		-3.3
90.0%		-3.3
75.0%	quartile	-3.3
50.0%	median	-15.6
25.0%	quartile	-27.9
10.0%		-27.9
2.5%		-27.9
0.5%		-27.9
0.0%	minimum	-27.9

Summary Statistics

Mean	-15.6
Std Dev	17.4
Std Err Mean	12.3
Upper 95% Mean	140.7
Lower 95% Mean	-171.9
N	2.0

Distributions Analyte_Method=Iron-55 Other

Bias



Quantiles

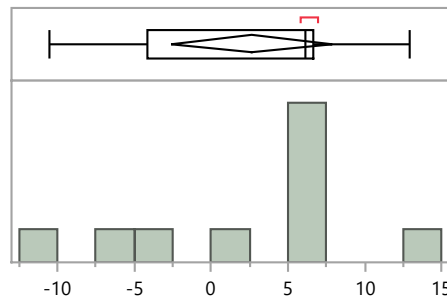
100.0%	maximum	33.5
99.5%		33.5
97.5%		33.5
90.0%		33.5
75.0%	quartile	33.5
50.0%	median	33.5
25.0%	quartile	33.5
10.0%		33.5
2.5%		33.5
0.5%		33.5
0.0%	minimum	33.5

Summary Statistics

Mean	33.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

Bias



Quantiles

100.0%	maximum	12.9
99.5%		12.9
97.5%		12.9
90.0%		12.3
75.0%	quartile	6.6
50.0%	median	6.2
25.0%	quartile	-4.2
10.0%		-10.2
2.5%		-10.5
0.5%		-10.5
0.0%	minimum	-10.5

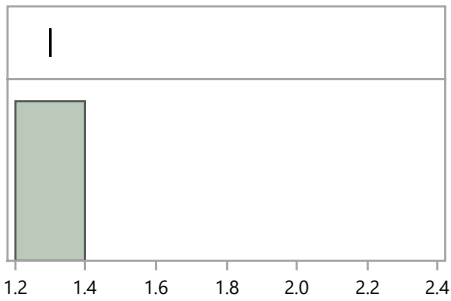
Summary Statistics

Mean	2.6
Std Dev	7.3
Std Err Mean	2.3
Upper 95% Mean	7.9
Lower 95% Mean	-2.6
N	10.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Manganese-54 Evaporation, acidified

Bias



Quantiles

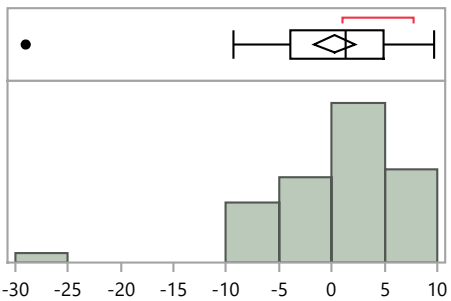
100.0%	maximum	1.3
99.5%		1.3
97.5%		1.3
90.0%		1.3
75.0%	quartile	1.3
50.0%	median	1.3
25.0%	quartile	1.3
10.0%		1.3
2.5%		1.3
0.5%		1.3
0.0%	minimum	1.3

Summary Statistics

Mean	1.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

Bias



Quantiles

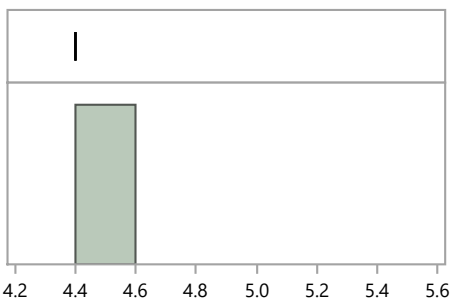
100.0%	maximum	9.7
99.5%		9.7
97.5%		9.6
90.0%		7.7
75.0%	quartile	4.9
50.0%	median	1.3
25.0%	quartile	-3.9
10.0%		-8.5
2.5%		-24.6
0.5%		-29.0
0.0%	minimum	-29.0

Summary Statistics

Mean	0.3
Std Dev	6.8
Std Err Mean	1.0
Upper 95% Mean	2.3
Lower 95% Mean	-1.7
N	48.0

Distributions Analyte_Method=Nickel-63 Acid dissolution with hydrofluoric acid

Bias



Quantiles

100.0%	maximum	4.4
99.5%		4.4
97.5%		4.4
90.0%		4.4
75.0%	quartile	4.4
50.0%	median	4.4
25.0%	quartile	4.4
10.0%		4.4
2.5%		4.4
0.5%		4.4
0.0%	minimum	4.4

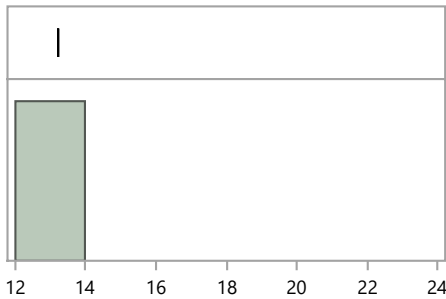
Summary Statistics

Mean	4.4
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Nickel-63 Acid leaching without hydrofluoric acid

Bias



Quantiles

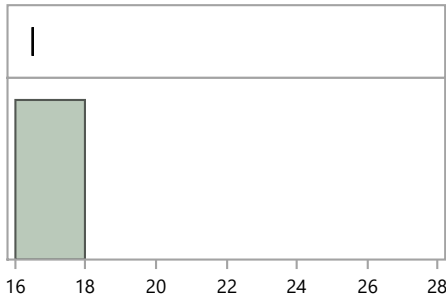
100.0%	maximum	13.2
99.5%		13.2
97.5%		13.2
90.0%		13.2
75.0%	quartile	13.2
50.0%	median	13.2
25.0%	quartile	13.2
10.0%		13.2
2.5%		13.2
0.5%		13.2
0.0%	minimum	13.2

Summary Statistics

Mean	13.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Nickel-63 Coprecipitation, acidified

Bias



Quantiles

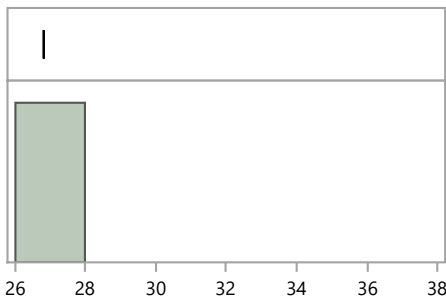
100.0%	maximum	16.5
99.5%		16.5
97.5%		16.5
90.0%		16.5
75.0%	quartile	16.5
50.0%	median	16.5
25.0%	quartile	16.5
10.0%		16.5
2.5%		16.5
0.5%		16.5
0.0%	minimum	16.5

Summary Statistics

Mean	16.5
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	26.8
99.5%		26.8
97.5%		26.8
90.0%		26.8
75.0%	quartile	26.8
50.0%	median	26.8
25.0%	quartile	26.8
10.0%		26.8
2.5%		26.8
0.5%		26.8
0.0%	minimum	26.8

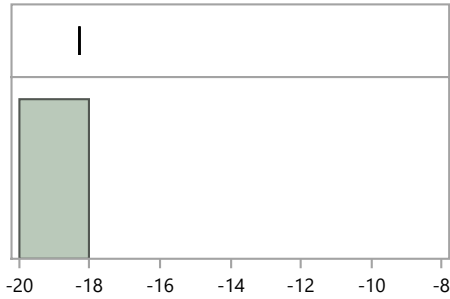
Summary Statistics

Mean	26.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Nickel-63 Evaporation, acidified

Bias



Quantiles

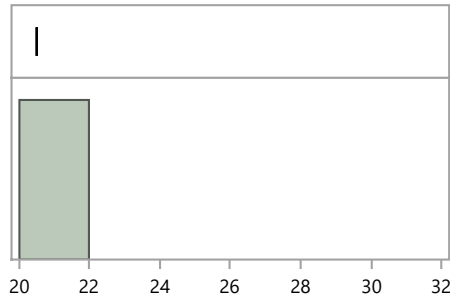
100.0%	maximum	-18.3
99.5%		-18.3
97.5%		-18.3
90.0%		-18.3
75.0%	quartile	-18.3
50.0%	median	-18.3
25.0%	quartile	-18.3
10.0%		-18.3
2.5%		-18.3
0.5%		-18.3
0.0%	minimum	-18.3

Summary Statistics

Mean	-18.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Nickel-63 Ion Exchange Chromatography / Ion Chromatography

Bias



Quantiles

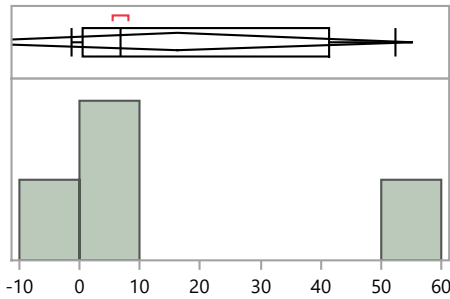
100.0%	maximum	20.5
99.5%		20.5
97.5%		20.5
90.0%		20.5
75.0%	quartile	20.5
50.0%	median	20.5
25.0%	quartile	20.5
10.0%		20.5
2.5%		20.5
0.5%		20.5
0.0%	minimum	20.5

Summary Statistics

Mean	20.5
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	52.4
99.5%		52.4
97.5%		52.4
90.0%		52.4
75.0%	quartile	41.4
50.0%	median	6.9
25.0%	quartile	0.5
10.0%		-1.2
2.5%		-1.2
0.5%		-1.2
0.0%	minimum	-1.2

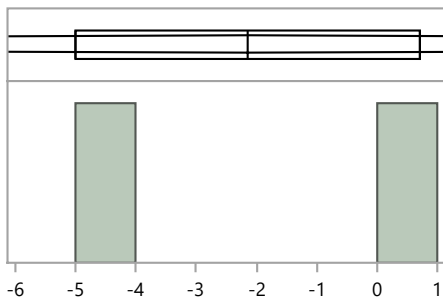
Summary Statistics

Mean	16.2
Std Dev	24.4
Std Err Mean	12.2
Upper 95% Mean	55.1
Lower 95% Mean	-22.7
N	4.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Plutonium-238 Acid dissolution with hydrofluoric acid

Bias



Quantiles

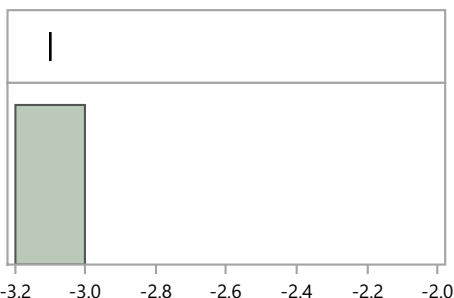
100.0%	maximum	0.7
99.5%		0.7
97.5%		0.7
90.0%		0.7
75.0%	quartile	0.7
50.0%	median	-2.2
25.0%	quartile	-5.0
10.0%		-5.0
2.5%		-5.0
0.5%		-5.0
0.0%	minimum	-5.0

Summary Statistics

Mean	-2.2
Std Dev	4.0
Std Err Mean	2.9
Upper 95% Mean	34.1
Lower 95% Mean	-38.4
N	2.0

Distributions Analyte_Method=Plutonium-238 Coprecipitation, acidified

Bias



Quantiles

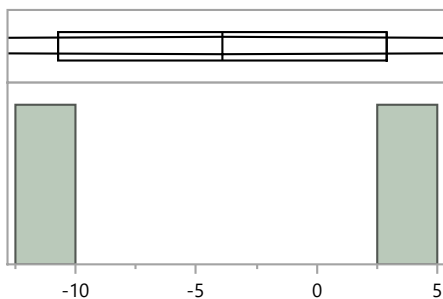
100.0%	maximum	-3.1
99.5%		-3.1
97.5%		-3.1
90.0%		-3.1
75.0%	quartile	-3.1
50.0%	median	-3.1
25.0%	quartile	-3.1
10.0%		-3.1
2.5%		-3.1
0.5%		-3.1
0.0%	minimum	-3.1

Summary Statistics

Mean	-3.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Plutonium-238 Coprecipitation, straight

Bias



Quantiles

100.0%	maximum	2.9
99.5%		2.9
97.5%		2.9
90.0%		2.9
75.0%	quartile	2.9
50.0%	median	-3.9
25.0%	quartile	-10.7
10.0%		-10.7
2.5%		-10.7
0.5%		-10.7
0.0%	minimum	-10.7

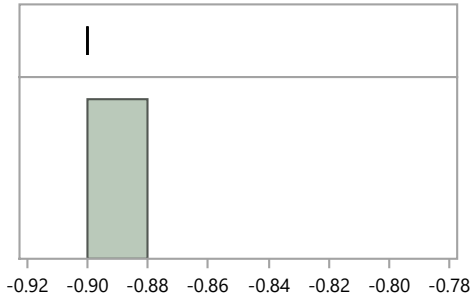
Summary Statistics

Mean	-3.9
Std Dev	9.6
Std Err Mean	6.8
Upper 95% Mean	82.5
Lower 95% Mean	-90.3
N	2.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Plutonium-238 EPA 907, Actinide Elements, 600/4/80-032

Bias



Quantiles

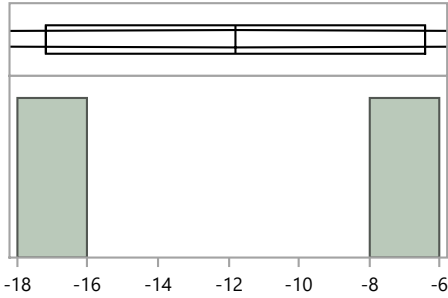
100.0%	maximum	-0.9
99.5%		-0.9
97.5%		-0.9
90.0%		-0.9
75.0%	quartile	-0.9
50.0%	median	-0.9
25.0%	quartile	-0.9
10.0%		-0.9
2.5%		-0.9
0.5%		-0.9
0.0%	minimum	-0.9

Summary Statistics

Mean	-0.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Plutonium-238 Evaporation, acidified

Bias



Quantiles

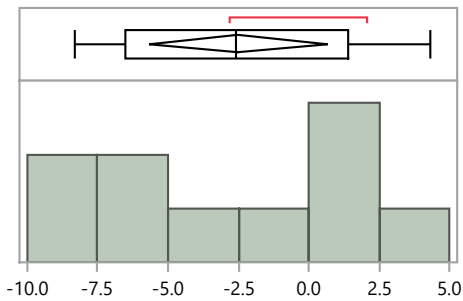
100.0%	maximum	-6.4
99.5%		-6.4
97.5%		-6.4
90.0%		-6.4
75.0%	quartile	-6.4
50.0%	median	-11.8
25.0%	quartile	-17.2
10.0%		-17.2
2.5%		-17.2
0.5%		-17.2
0.0%	minimum	-17.2

Summary Statistics

Mean	-11.8
Std Dev	7.6
Std Err Mean	5.4
Upper 95% Mean	56.8
Lower 95% Mean	-80.4
N	2.0

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

Bias



Quantiles

100.0%	maximum	4.3
99.5%		4.3
97.5%		4.3
90.0%		4.1
75.0%	quartile	1.4
50.0%	median	-2.6
25.0%	quartile	-6.5
10.0%		-8.3
2.5%		-8.3
0.5%		-8.3
0.0%	minimum	-8.3

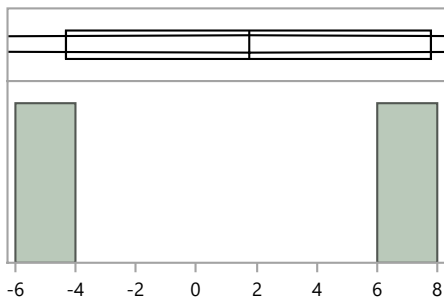
Summary Statistics

Mean	-2.5
Std Dev	4.4
Std Err Mean	1.4
Upper 95% Mean	0.6
Lower 95% Mean	-5.7
N	10.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Plutonium-238 No preparation - analyzed as received

Bias



Quantiles

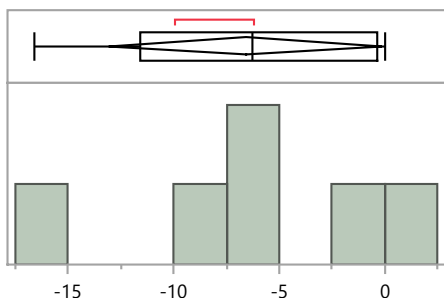
100.0%	maximum	7.8
99.5%		7.8
97.5%		7.8
90.0%		7.8
75.0%	quartile	7.8
50.0%	median	1.8
25.0%	quartile	-4.3
10.0%		-4.3
2.5%		-4.3
0.5%		-4.3
0.0%	minimum	-4.3

Summary Statistics

Mean	1.8
Std Dev	8.6
Std Err Mean	6.0
Upper 95% Mean	78.6
Lower 95% Mean	-75.1
N	2.0

Distributions Analyte_Method=Plutonium-238 Other

Bias



Quantiles

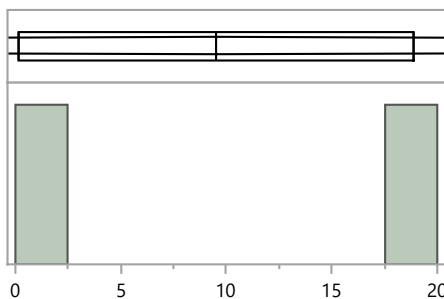
100.0%	maximum	0.0
99.5%		0.0
97.5%		0.0
90.0%		0.0
75.0%	quartile	-0.4
50.0%	median	-6.3
25.0%	quartile	-11.6
10.0%		-16.6
2.5%		-16.6
0.5%		-16.6
0.0%	minimum	-16.6

Summary Statistics

Mean	-6.6
Std Dev	6.2
Std Err Mean	2.5
Upper 95% Mean	-0.1
Lower 95% Mean	-13.1
N	6.0

Distributions Analyte_Method=Plutonium-238 Total dissolution by fusion

Bias



Quantiles

100.0%	maximum	18.9
99.5%		18.9
97.5%		18.9
90.0%		18.9
75.0%	quartile	18.9
50.0%	median	9.6
25.0%	quartile	0.2
10.0%		0.2
2.5%		0.2
0.5%		0.2
0.0%	minimum	0.2

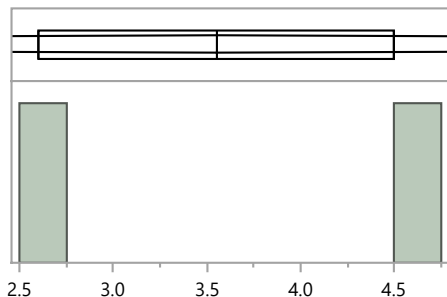
Summary Statistics

Mean	9.6
Std Dev	13.2
Std Err Mean	9.4
Upper 95% Mean	128.4
Lower 95% Mean	-109.3
N	2.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Plutonium-239/240 Acid dissolution with hydrofluoric acid

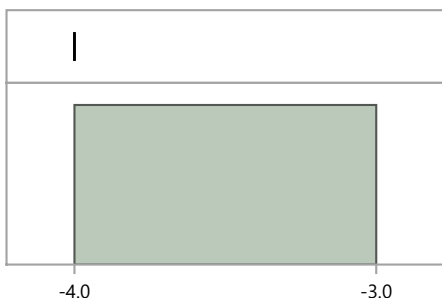
Bias



Quantiles			Summary Statistics	
100.0%	maximum	4.5	Mean	3.6
99.5%		4.5	Std Dev	1.3
97.5%		4.5	Std Err Mean	0.9
90.0%		4.5	Upper 95% Mean	15.6
75.0%	quartile	4.5	Lower 95% Mean	-8.5
50.0%	median	3.6	N	2.0
25.0%	quartile	2.6		
10.0%		2.6		
2.5%		2.6		
0.5%		2.6		
0.0%	minimum	2.6		

Distributions Analyte_Method=Plutonium-239/240 Coprecipitation, acidified

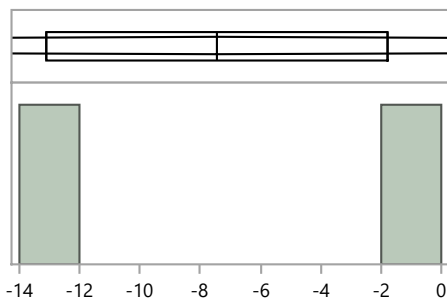
Bias



Quantiles			Summary Statistics	
100.0%	maximum	-4.0	Mean	-4.0
99.5%		-4.0	Std Dev	.
97.5%		-4.0	Std Err Mean	.
90.0%		-4.0	Upper 95% Mean	.
75.0%	quartile	-4.0	Lower 95% Mean	.
50.0%	median	-4.0	N	1.0
25.0%	quartile	-4.0		
10.0%		-4.0		
2.5%		-4.0		
0.5%		-4.0		
0.0%	minimum	-4.0		

Distributions Analyte_Method=Plutonium-239/240 Coprecipitation, straight

Bias



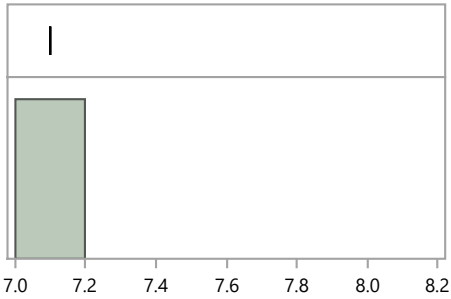
Quantiles			Summary Statistics	
100.0%	maximum	-1.8	Mean	-7.5
99.5%		-1.8	Std Dev	8.0
97.5%		-1.8	Std Err Mean	5.7
90.0%		-1.8	Upper 95% Mean	64.3
75.0%	quartile	-1.8	Lower 95% Mean	-79.2
50.0%	median	-7.5	N	2.0
25.0%	quartile	-13.1		
10.0%		-13.1		
2.5%		-13.1		
0.5%		-13.1		
0.0%	minimum	-13.1		

MaW44 Distribution by Prep Method

MaW Distribution by Prep Method

Distributions Analyte_Method=Plutonium-239/240 EPA 907, Actinide Elements, 600/4/80-032

Bias



Quantiles

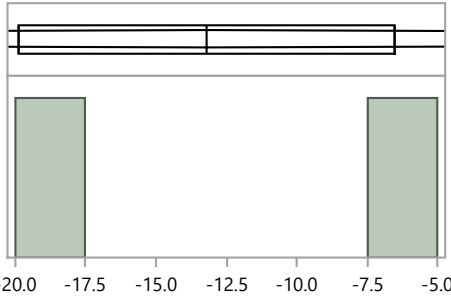
100.0%	maximum	7.1
99.5%		7.1
97.5%		7.1
90.0%		7.1
75.0%	quartile	7.1
50.0%	median	7.1
25.0%	quartile	7.1
10.0%		7.1
2.5%		7.1
0.5%		7.1
0.0%	minimum	7.1

Summary Statistics

Mean	7.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Plutonium-239/240 Evaporation, acidified

Bias



Quantiles

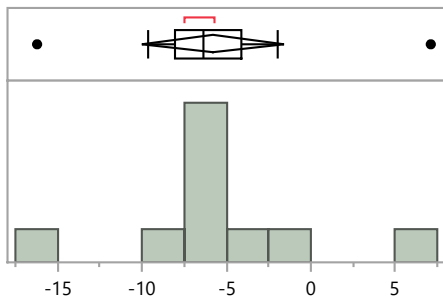
100.0%	maximum	-6.5
99.5%		-6.5
97.5%		-6.5
90.0%		-6.5
75.0%	quartile	-6.5
50.0%	median	-13.2
25.0%	quartile	-19.9
10.0%		-19.9
2.5%		-19.9
0.5%		-19.9
0.0%	minimum	-19.9

Summary Statistics

Mean	-13.2
Std Dev	9.5
Std Err Mean	6.7
Upper 95% Mean	71.9
Lower 95% Mean	-98.3
N	2.0

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

Bias



Quantiles

100.0%	maximum	7.1
99.5%		7.1
97.5%		7.1
90.0%		6.2
75.0%	quartile	-4.1
50.0%	median	-6.4
25.0%	quartile	-8.0
10.0%		-15.5
2.5%		-16.2
0.5%		-16.2
0.0%	minimum	-16.2

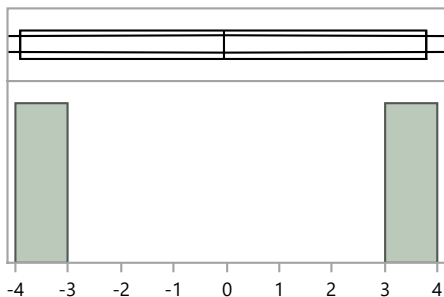
Summary Statistics

Mean	-5.8
Std Dev	5.9
Std Err Mean	1.9
Upper 95% Mean	-1.6
Lower 95% Mean	-10.0
N	10.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Plutonium-239/240 No preparation - analyzed as received

Bias



Quantiles

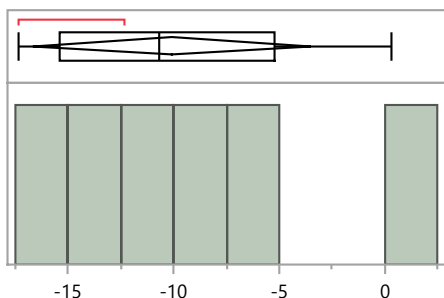
100.0%	maximum	3.8
99.5%		3.8
97.5%		3.8
90.0%		3.8
75.0%	quartile	3.8
50.0%	median	-0.1
25.0%	quartile	-3.9
10.0%		-3.9
2.5%		-3.9
0.5%		-3.9
0.0%	minimum	-3.9

Summary Statistics

Mean	-0.1
Std Dev	5.4
Std Err Mean	3.9
Upper 95% Mean	48.9
Lower 95% Mean	-49.0
N	2.0

Distributions Analyte_Method=Plutonium-239/240 Other

Bias



Quantiles

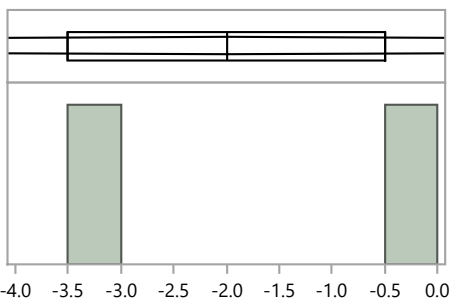
100.0%	maximum	0.3
99.5%		0.3
97.5%		0.3
90.0%		0.3
75.0%	quartile	-5.3
50.0%	median	-10.7
25.0%	quartile	-15.4
10.0%		-17.3
2.5%		-17.3
0.5%		-17.3
0.0%	minimum	-17.3

Summary Statistics

Mean	-10.1
Std Dev	6.3
Std Err Mean	2.6
Upper 95% Mean	-3.5
Lower 95% Mean	-16.6
N	6.0

Distributions Analyte_Method=Plutonium-239/240 Total dissolution by fusion

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	-2.0
25.0%	quartile	-3.5
10.0%		-3.5
2.5%		-3.5
0.5%		-3.5
0.0%	minimum	-3.5

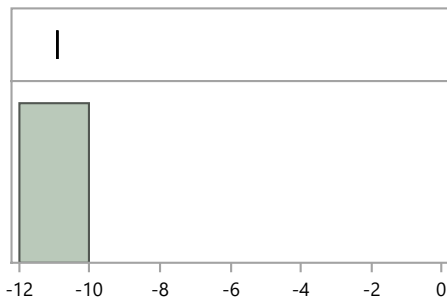
Summary Statistics

Mean	-2.0
Std Dev	2.1
Std Err Mean	1.5
Upper 95% Mean	17.1
Lower 95% Mean	-21.1
N	2.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Radium-226 Acid leaching without hydrofluoric acid

Bias



Quantiles

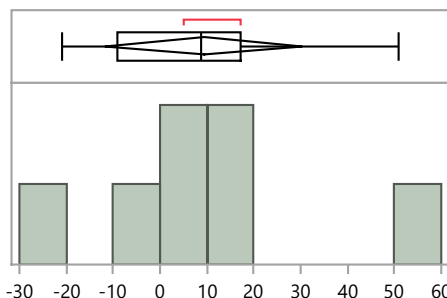
100.0%	maximum	-10.9
99.5%		-10.9
97.5%		-10.9
90.0%		-10.9
75.0%	quartile	-10.9
50.0%	median	-10.9
25.0%	quartile	-10.9
10.0%		-10.9
2.5%		-10.9
0.5%		-10.9
0.0%	minimum	-10.9

Summary Statistics

Mean	-10.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Radium-226 Coprecipitation, acidified

Bias



Quantiles

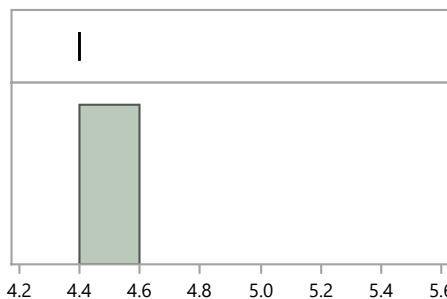
100.0%	maximum	50.8
99.5%		50.8
97.5%		50.8
90.0%		50.8
75.0%	quartile	17.1
50.0%	median	8.7
25.0%	quartile	-9.2
10.0%		-20.9
2.5%		-20.9
0.5%		-20.9
0.0%	minimum	-20.9

Summary Statistics

Mean	9.3
Std Dev	22.6
Std Err Mean	8.6
Upper 95% Mean	30.3
Lower 95% Mean	-11.6
N	7.0

Distributions Analyte_Method=Radium-226 Coprecipitation, straight

Bias



Quantiles

100.0%	maximum	4.4
99.5%		4.4
97.5%		4.4
90.0%		4.4
75.0%	quartile	4.4
50.0%	median	4.4
25.0%	quartile	4.4
10.0%		4.4
2.5%		4.4
0.5%		4.4
0.0%	minimum	4.4

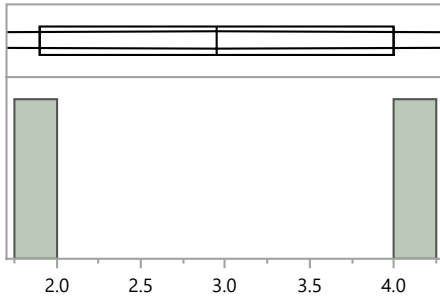
Summary Statistics

Mean	4.4
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Radium-226 Ion Exchange Chromatography / Ion Chromatography

Bias



Quantiles

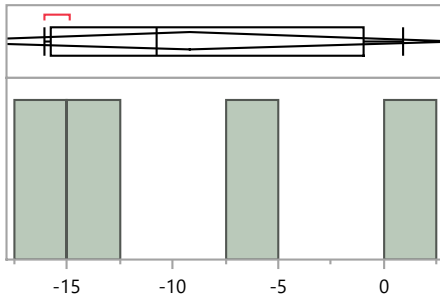
100.0%	maximum	4.0
99.5%		4.0
97.5%		4.0
90.0%		4.0
75.0%	quartile	4.0
50.0%	median	3.0
25.0%	quartile	1.9
10.0%		1.9
2.5%		1.9
0.5%		1.9
0.0%	minimum	1.9

Summary Statistics

Mean	3.0
Std Dev	1.5
Std Err Mean	1.1
Upper 95% Mean	16.3
Lower 95% Mean	-10.4
N	2.0

Distributions Analyte_Method=Radium-226 Other

Bias



Quantiles

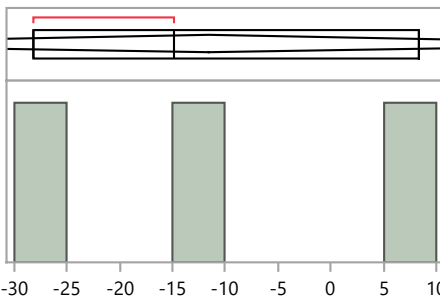
100.0%	maximum	0.9
99.5%		0.9
97.5%		0.9
90.0%		0.9
75.0%	quartile	-1.0
50.0%	median	-10.8
25.0%	quartile	-15.8
10.0%		-16.1
2.5%		-16.1
0.5%		-16.1
0.0%	minimum	-16.1

Summary Statistics

Mean	-9.2
Std Dev	7.9
Std Err Mean	4.0
Upper 95% Mean	3.5
Lower 95% Mean	-21.8
N	4.0

Distributions Analyte_Method=Radium-226 Total dissolution by fusion

Bias



Quantiles

100.0%	maximum	8.4
99.5%		8.4
97.5%		8.4
90.0%		8.4
75.0%	quartile	8.4
50.0%	median	-14.9
25.0%	quartile	-28.2
10.0%		-28.2
2.5%		-28.2
0.5%		-28.2
0.0%	minimum	-28.2

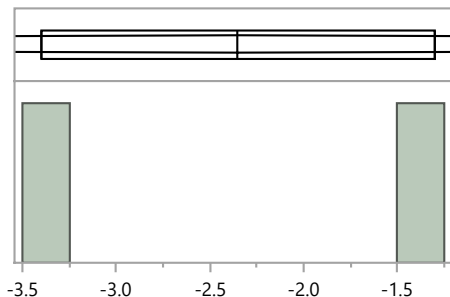
Summary Statistics

Mean	-11.6
Std Dev	18.5
Std Err Mean	10.7
Upper 95% Mean	34.5
Lower 95% Mean	-57.6
N	3.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Strontium-90 Acid dissolution with hydrofluoric acid

Bias



Quantiles

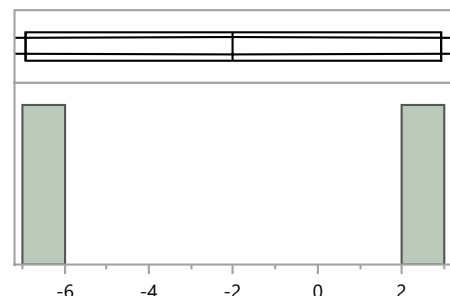
100.0%	maximum	-1.3
99.5%		-1.3
97.5%		-1.3
90.0%		-1.3
75.0%	quartile	-1.3
50.0%	median	-2.4
25.0%	quartile	-3.4
10.0%		-3.4
2.5%		-3.4
0.5%		-3.4
0.0%	minimum	-3.4

Summary Statistics

Mean	-2.4
Std Dev	1.5
Std Err Mean	1.1
Upper 95% Mean	11.0
Lower 95% Mean	-15.7
N	2.0

Distributions Analyte_Method=Strontium-90 Coprecipitation, acidified

Bias



Quantiles

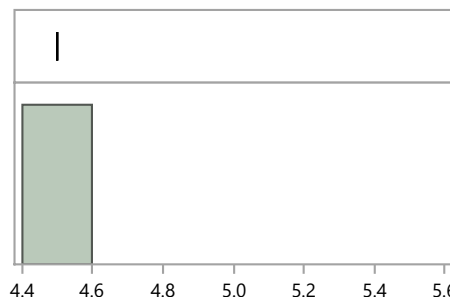
100.0%	maximum	2.9
99.5%		2.9
97.5%		2.9
90.0%		2.9
75.0%	quartile	2.9
50.0%	median	-2.0
25.0%	quartile	-6.9
10.0%		-6.9
2.5%		-6.9
0.5%		-6.9
0.0%	minimum	-6.9

Summary Statistics

Mean	-2.0
Std Dev	6.9
Std Err Mean	4.9
Upper 95% Mean	60.3
Lower 95% Mean	-64.3
N	2.0

Distributions Analyte_Method=Strontium-90 Coprecipitation, straight

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	4.5
25.0%	quartile	4.5
10.0%		4.5
2.5%		4.5
0.5%		4.5
0.0%	minimum	4.5

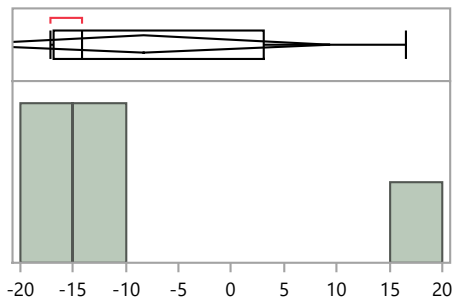
Summary Statistics

Mean	4.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaW Distribution by Prep Method

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

Bias



Quantiles

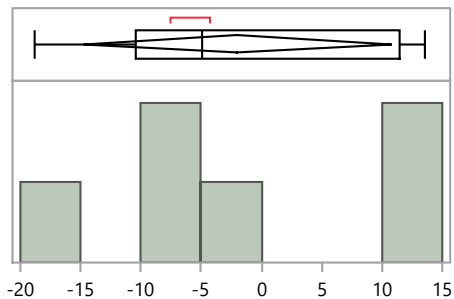
100.0%	maximum	16.6
99.5%		16.6
97.5%		16.6
90.0%		16.6
75.0%	quartile	3.1
50.0%	median	-14.1
25.0%	quartile	-16.9
10.0%		-17.2
2.5%		-17.2
0.5%		-17.2
0.0%	minimum	-17.2

Summary Statistics

Mean	-8.3
Std Dev	14.2
Std Err Mean	6.3
Upper 95% Mean	9.3
Lower 95% Mean	-26.0
N	5.0

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

Bias



Quantiles

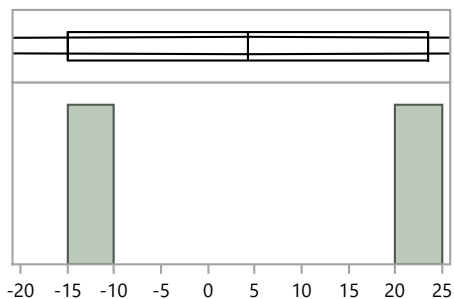
100.0%	maximum	13.6
99.5%		13.6
97.5%		13.6
90.0%		13.6
75.0%	quartile	11.4
50.0%	median	-5.0
25.0%	quartile	-10.4
10.0%		-18.8
2.5%		-18.8
0.5%		-18.8
0.0%	minimum	-18.8

Summary Statistics

Mean	-2.0
Std Dev	12.1
Std Err Mean	5.0
Upper 95% Mean	10.7
Lower 95% Mean	-14.7
N	6.0

Distributions Analyte_Method=Strontium-90 No preparation - analyzed as received

Bias



Quantiles

100.0%	maximum	23.5
99.5%		23.5
97.5%		23.5
90.0%		23.5
75.0%	quartile	23.5
50.0%	median	4.3
25.0%	quartile	-15.0
10.0%		-15.0
2.5%		-15.0
0.5%		-15.0
0.0%	minimum	-15.0

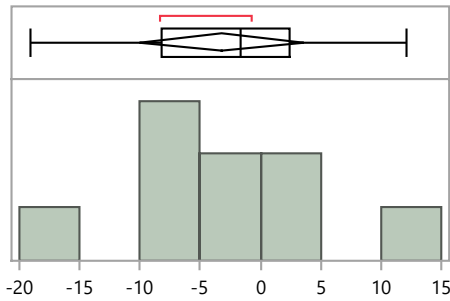
Summary Statistics

Mean	4.3
Std Dev	27.2
Std Err Mean	19.3
Upper 95% Mean	248.8
Lower 95% Mean	-240.3
N	2.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Strontium-90 Other

Bias



Quantiles

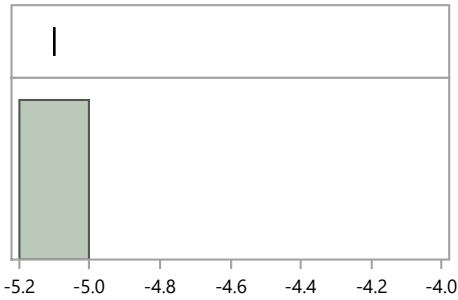
100.0%	maximum	12.1
99.5%		12.1
97.5%		12.1
90.0%		12.1
75.0%	quartile	2.4
50.0%	median	-1.6
25.0%	quartile	-8.2
10.0%		-19.0
2.5%		-19.0
0.5%		-19.0
0.0%	minimum	-19.0

Summary Statistics

Mean	-3.2
Std Dev	8.9
Std Err Mean	3.0
Upper 95% Mean	3.6
Lower 95% Mean	-10.0
N	9.0

Distributions Analyte_Method=Strontium-90 Total dissolution by fusion

Bias



Quantiles

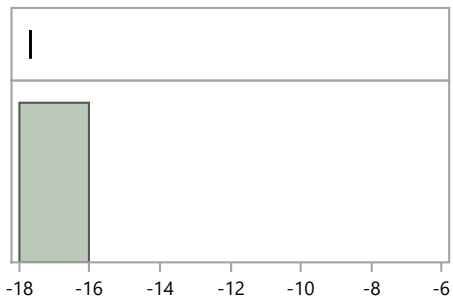
100.0%	maximum	-5.1
99.5%		-5.1
97.5%		-5.1
90.0%		-5.1
75.0%	quartile	-5.1
50.0%	median	-5.1
25.0%	quartile	-5.1
10.0%		-5.1
2.5%		-5.1
0.5%		-5.1
0.0%	minimum	-5.1

Summary Statistics

Mean	-5.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Technetium-99 Acid leaching without hydrofluoric acid

Bias



Quantiles

100.0%	maximum	-17.7
99.5%		-17.7
97.5%		-17.7
90.0%		-17.7
75.0%	quartile	-17.7
50.0%	median	-17.7
25.0%	quartile	-17.7
10.0%		-17.7
2.5%		-17.7
0.5%		-17.7
0.0%	minimum	-17.7

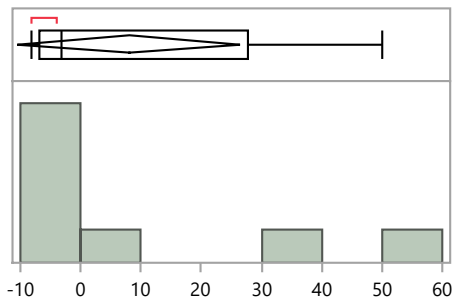
Summary Statistics

Mean	-17.7
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Technetium-99 Ion Exchange Chromatography / Ion Chromatography

Bias



Quantiles

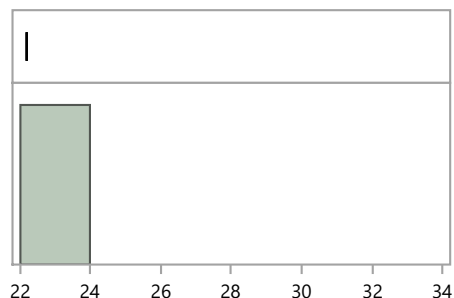
100.0%	maximum	50.1
99.5%		50.1
97.5%		50.1
90.0%		50.1
75.0%	quartile	27.8
50.0%	median	-3.1
25.0%	quartile	-6.8
10.0%		-8.0
2.5%		-8.0
0.5%		-8.0
0.0%	minimum	-8.0

Summary Statistics

Mean	8.0
Std Dev	22.1
Std Err Mean	7.8
Upper 95% Mean	26.5
Lower 95% Mean	-10.5
N	8.0

Distributions Analyte_Method=Technetium-99 No preparation - analyzed as received

Bias



Quantiles

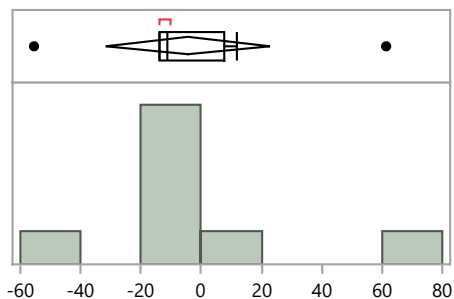
100.0%	maximum	22.2
99.5%		22.2
97.5%		22.2
90.0%		22.2
75.0%	quartile	22.2
50.0%	median	22.2
25.0%	quartile	22.2
10.0%		22.2
2.5%		22.2
0.5%		22.2
0.0%	minimum	22.2

Summary Statistics

Mean	22.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Technetium-99 Other

Bias



Quantiles

100.0%	maximum	61.3
99.5%		61.3
97.5%		61.3
90.0%		61.3
75.0%	quartile	7.9
50.0%	median	-11.2
25.0%	quartile	-13.7
10.0%		-55.4
2.5%		-55.4
0.5%		-55.4
0.0%	minimum	-55.4

Summary Statistics

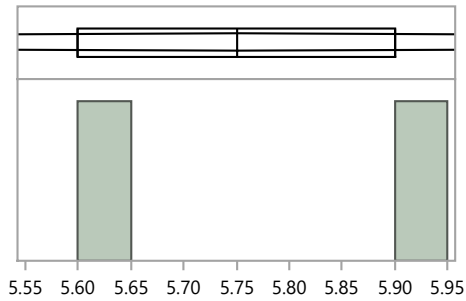
Mean	-4.4
Std Dev	32.6
Std Err Mean	11.5
Upper 95% Mean	22.8
Lower 95% Mean	-31.7
N	8.0

MaW44 Distribution by Prep Method

MaW Distribution by Prep Method

Distributions Analyte_Method=Uranium-234 Acid dissolution with hydrofluoric acid

Bias



Quantiles

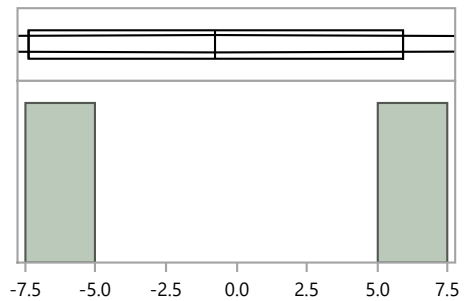
100.0%	maximum	5.9
99.5%		5.9
97.5%		5.9
90.0%		5.9
75.0%	quartile	5.9
50.0%	median	5.8
25.0%	quartile	5.6
10.0%		5.6
2.5%		5.6
0.5%		5.6
0.0%	minimum	5.6

Summary Statistics

Mean	5.8
Std Dev	0.2
Std Err Mean	0.2
Upper 95% Mean	7.7
Lower 95% Mean	3.8
N	2.0

Distributions Analyte_Method=Uranium-234 Coprecipitation, acidified

Bias



Quantiles

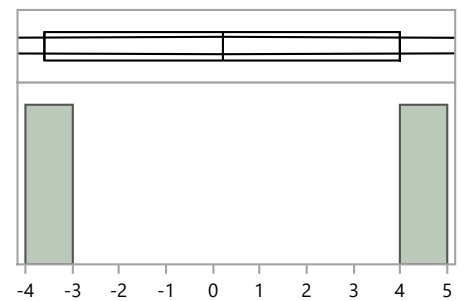
100.0%	maximum	5.9
99.5%		5.9
97.5%		5.9
90.0%		5.9
75.0%	quartile	5.9
50.0%	median	-0.8
25.0%	quartile	-7.4
10.0%		-7.4
2.5%		-7.4
0.5%		-7.4
0.0%	minimum	-7.4

Summary Statistics

Mean	-0.8
Std Dev	9.4
Std Err Mean	6.7
Upper 95% Mean	83.7
Lower 95% Mean	-85.2
N	2.0

Distributions Analyte_Method=Uranium-234 Coprecipitation, straight

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	0.2
25.0%	quartile	-3.6
10.0%		-3.6
2.5%		-3.6
0.5%		-3.6
0.0%	minimum	-3.6

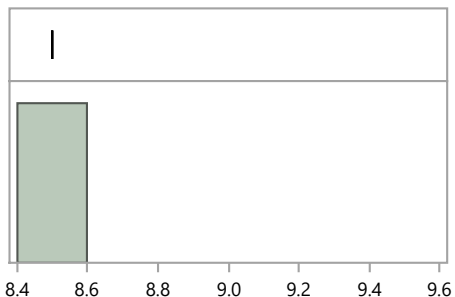
Summary Statistics

Mean	0.2
Std Dev	5.4
Std Err Mean	3.8
Upper 95% Mean	48.5
Lower 95% Mean	-48.1
N	2.0

MaW Distribution by Prep Method

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

Bias



Quantiles

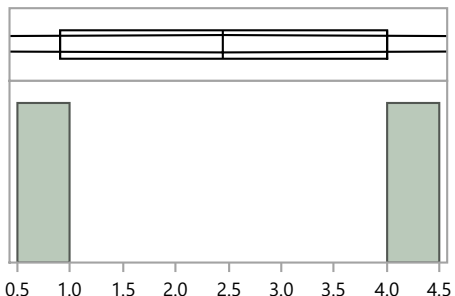
100.0%	maximum	8.5
99.5%		8.5
97.5%		8.5
90.0%		8.5
75.0%	quartile	8.5
50.0%	median	8.5
25.0%	quartile	8.5
10.0%		8.5
2.5%		8.5
0.5%		8.5
0.0%	minimum	8.5

Summary Statistics

Mean	8.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-234 Evaporation, acidified

Bias



Quantiles

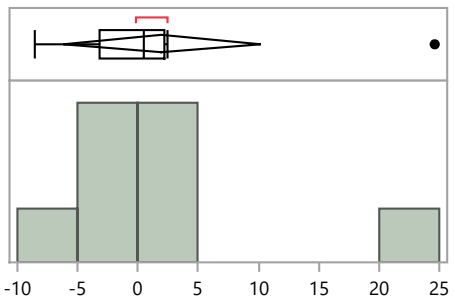
100.0%	maximum	4.0
99.5%		4.0
97.5%		4.0
90.0%		4.0
75.0%	quartile	4.0
50.0%	median	2.5
25.0%	quartile	0.9
10.0%		0.9
2.5%		0.9
0.5%		0.9
0.0%	minimum	0.9

Summary Statistics

Mean	2.5
Std Dev	2.2
Std Err Mean	1.6
Upper 95% Mean	22.1
Lower 95% Mean	-17.2
N	2.0

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

Bias



Quantiles

100.0%	maximum	24.6
99.5%		24.6
97.5%		24.6
90.0%		24.6
75.0%	quartile	2.2
50.0%	median	0.5
25.0%	quartile	-3.1
10.0%		-8.6
2.5%		-8.6
0.5%		-8.6
0.0%	minimum	-8.6

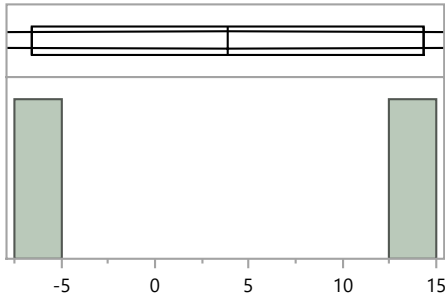
Summary Statistics

Mean	2.0
Std Dev	9.8
Std Err Mean	3.5
Upper 95% Mean	10.2
Lower 95% Mean	-6.2
N	8.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Uranium-234 No preparation - analyzed as received

Bias



Quantiles

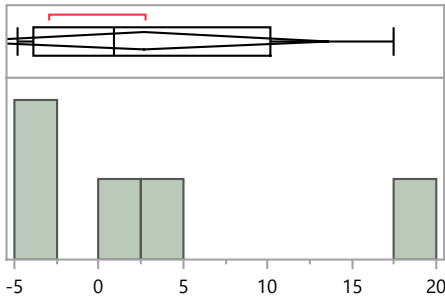
100.0%	maximum	14.3
99.5%		14.3
97.5%		14.3
90.0%		14.3
75.0%	quartile	14.3
50.0%	median	3.9
25.0%	quartile	-6.6
10.0%		-6.6
2.5%		-6.6
0.5%		-6.6
0.0%	minimum	-6.6

Summary Statistics

Mean	3.9
Std Dev	14.8
Std Err Mean	10.5
Upper 95% Mean	136.6
Lower 95% Mean	-128.9
N	2.0

Distributions Analyte_Method=Uranium-234 Other

Bias



Quantiles

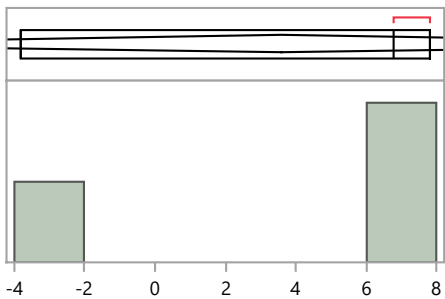
100.0%	maximum	17.5
99.5%		17.5
97.5%		17.5
90.0%		17.5
75.0%	quartile	10.2
50.0%	median	0.9
25.0%	quartile	-3.9
10.0%		-4.8
2.5%		-4.8
0.5%		-4.8
0.0%	minimum	-4.8

Summary Statistics

Mean	2.7
Std Dev	8.8
Std Err Mean	3.9
Upper 95% Mean	13.6
Lower 95% Mean	-8.2
N	5.0

Distributions Analyte_Method=Uranium-234 Total dissolution by fusion

Bias



Quantiles

100.0%	maximum	7.8
99.5%		7.8
97.5%		7.8
90.0%		7.8
75.0%	quartile	7.8
50.0%	median	6.8
25.0%	quartile	-3.8
10.0%		-3.8
2.5%		-3.8
0.5%		-3.8
0.0%	minimum	-3.8

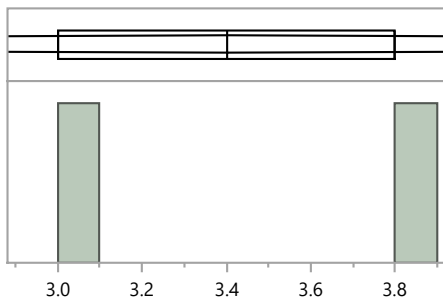
Summary Statistics

Mean	3.6
Std Dev	6.4
Std Err Mean	3.7
Upper 95% Mean	19.6
Lower 95% Mean	-12.4
N	3.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Uranium-238 Acid dissolution with hydrofluoric acid

Bias



Quantiles

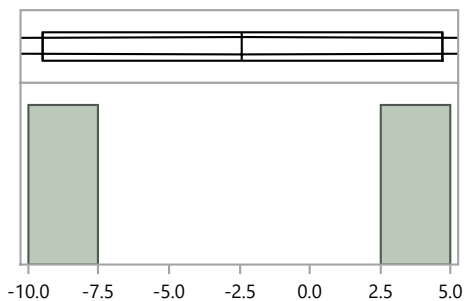
100.0%	maximum	3.8
99.5%		3.8
97.5%		3.8
90.0%		3.8
75.0%	quartile	3.8
50.0%	median	3.4
25.0%	quartile	3.0
10.0%		3.0
2.5%		3.0
0.5%		3.0
0.0%	minimum	3.0

Summary Statistics

Mean	3.4
Std Dev	0.6
Std Err Mean	0.4
Upper 95% Mean	8.5
Lower 95% Mean	-1.7
N	2.0

Distributions Analyte_Method=Uranium-238 Coprecipitation, acidified

Bias



Quantiles

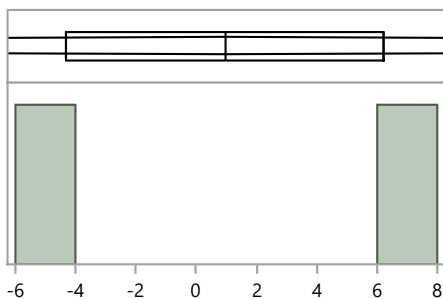
100.0%	maximum	4.7
99.5%		4.7
97.5%		4.7
90.0%		4.7
75.0%	quartile	4.7
50.0%	median	-2.4
25.0%	quartile	-9.5
10.0%		-9.5
2.5%		-9.5
0.5%		-9.5
0.0%	minimum	-9.5

Summary Statistics

Mean	-2.4
Std Dev	10.0
Std Err Mean	7.1
Upper 95% Mean	87.8
Lower 95% Mean	-92.6
N	2.0

Distributions Analyte_Method=Uranium-238 Coprecipitation, straight

Bias



Quantiles

100.0%	maximum	6.2
99.5%		6.2
97.5%		6.2
90.0%		6.2
75.0%	quartile	6.2
50.0%	median	1.0
25.0%	quartile	-4.3
10.0%		-4.3
2.5%		-4.3
0.5%		-4.3
0.0%	minimum	-4.3

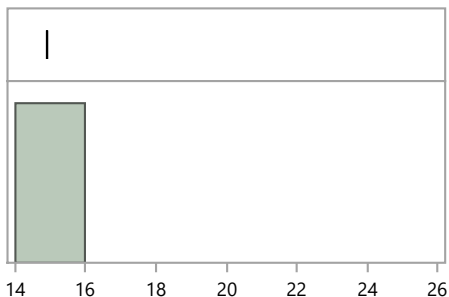
Summary Statistics

Mean	1.0
Std Dev	7.4
Std Err Mean	5.3
Upper 95% Mean	67.7
Lower 95% Mean	-65.8
N	2.0

MaW Distribution by Prep Method

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

Bias



Quantiles

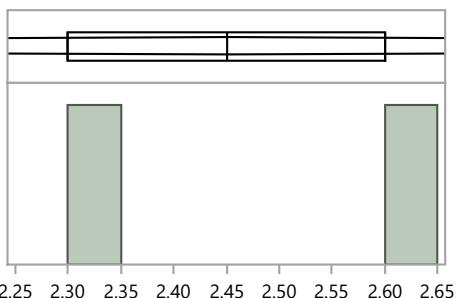
100.0%	maximum	14.9
99.5%		14.9
97.5%		14.9
90.0%		14.9
75.0%	quartile	14.9
50.0%	median	14.9
25.0%	quartile	14.9
10.0%		14.9
2.5%		14.9
0.5%		14.9
0.0%	minimum	14.9

Summary Statistics

Mean	14.9
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-238 Evaporation, acidified

Bias



Quantiles

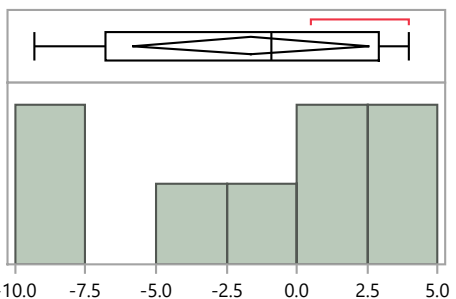
100.0%	maximum	2.6
99.5%		2.6
97.5%		2.6
90.0%		2.6
75.0%	quartile	2.6
50.0%	median	2.5
25.0%	quartile	2.3
10.0%		2.3
2.5%		2.3
0.5%		2.3
0.0%	minimum	2.3

Summary Statistics

Mean	2.5
Std Dev	0.2
Std Err Mean	0.2
Upper 95% Mean	4.4
Lower 95% Mean	0.5
N	2.0

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

Bias



Quantiles

100.0%	maximum	4.0
99.5%		4.0
97.5%		4.0
90.0%		4.0
75.0%	quartile	2.9
50.0%	median	-0.9
25.0%	quartile	-6.8
10.0%		-9.3
2.5%		-9.3
0.5%		-9.3
0.0%	minimum	-9.3

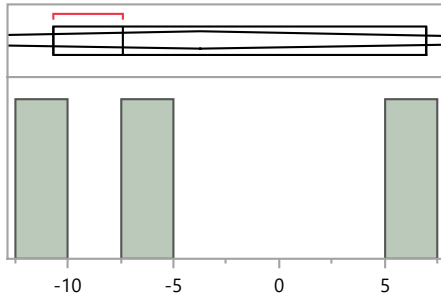
Summary Statistics

Mean	-1.6
Std Dev	5.0
Std Err Mean	1.8
Upper 95% Mean	2.6
Lower 95% Mean	-5.8
N	8.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Uranium-238 No preparation - analyzed as received

Bias



Quantiles

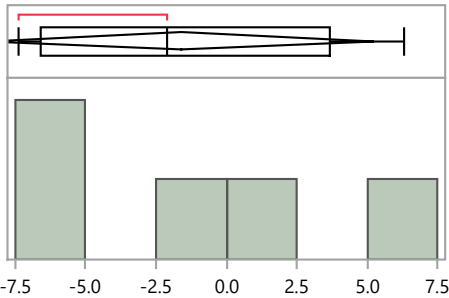
100.0%	maximum	7.0
99.5%		7.0
97.5%		7.0
90.0%		7.0
75.0%	quartile	7.0
50.0%	median	-7.4
25.0%	quartile	-10.7
10.0%		-10.7
2.5%		-10.7
0.5%		-10.7
0.0%	minimum	-10.7

Summary Statistics

Mean	-3.7
Std Dev	9.4
Std Err Mean	5.4
Upper 95% Mean	19.7
Lower 95% Mean	-27.1
N	3.0

Distributions Analyte_Method=Uranium-238 Other

Bias



Quantiles

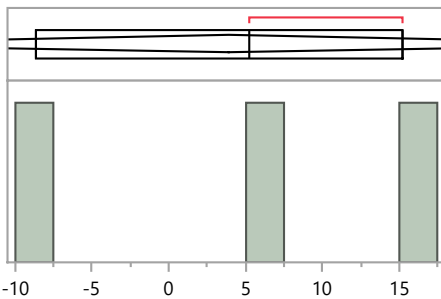
100.0%	maximum	6.3
99.5%		6.3
97.5%		6.3
90.0%		6.3
75.0%	quartile	3.7
50.0%	median	-2.1
25.0%	quartile	-6.6
10.0%		-7.4
2.5%		-7.4
0.5%		-7.4
0.0%	minimum	-7.4

Summary Statistics

Mean	-1.6
Std Dev	5.5
Std Err Mean	2.5
Upper 95% Mean	5.2
Lower 95% Mean	-8.4
N	5.0

Distributions Analyte_Method=Uranium-238 Total dissolution by fusion

Bias



Quantiles

100.0%	maximum	15.2
99.5%		15.2
97.5%		15.2
90.0%		15.2
75.0%	quartile	15.2
50.0%	median	5.2
25.0%	quartile	-8.6
10.0%		-8.6
2.5%		-8.6
0.5%		-8.6
0.0%	minimum	-8.6

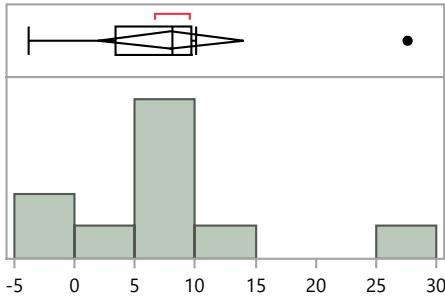
Summary Statistics

Mean	3.9
Std Dev	12.0
Std Err Mean	6.9
Upper 95% Mean	33.6
Lower 95% Mean	-25.8
N	3.0

MaW Distribution by Prep Method

Distributions Analyte_Method=Zinc-65 EPA 901.1, Gamma Emitting, 600/4-80-032

Bias



Quantiles

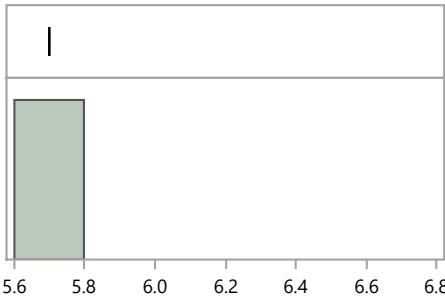
100.0%	maximum	27.6
99.5%		27.6
97.5%		27.6
90.0%		25.9
75.0%	quartile	9.7
50.0%	median	8.1
25.0%	quartile	3.4
10.0%		-3.5
2.5%		-3.8
0.5%		-3.8
0.0%	minimum	-3.8

Summary Statistics

Mean	8.0
Std Dev	8.3
Std Err Mean	2.6
Upper 95% Mean	13.9
Lower 95% Mean	2.0
N	10.0

Distributions Analyte_Method=Zinc-65 Evaporation, acidified

Bias



Quantiles

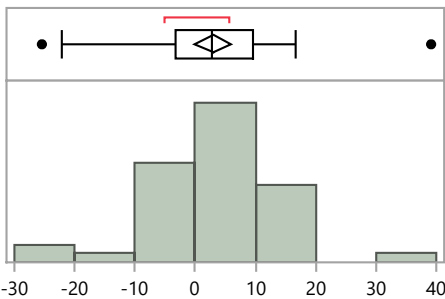
100.0%	maximum	5.7
99.5%		5.7
97.5%		5.7
90.0%		5.7
75.0%	quartile	5.7
50.0%	median	5.7
25.0%	quartile	5.7
10.0%		5.7
2.5%		5.7
0.5%		5.7
0.0%	minimum	5.7

Summary Statistics

Mean	5.7
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

Bias



Quantiles

100.0%	maximum	39.1
99.5%		39.1
97.5%		34.0
90.0%		13.3
75.0%	quartile	9.5
50.0%	median	2.9
25.0%	quartile	-3.4
10.0%		-7.2
2.5%		-24.6
0.5%		-25.4
0.0%	minimum	-25.4

Summary Statistics

Mean	2.9
Std Dev	10.3
Std Err Mean	1.5
Upper 95% Mean	5.9
Lower 95% Mean	-0.1
N	48.0