

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.

RdF51 Participating Laboratories

Lab Code	Lab Name	Matrix Code
ADEM01	Alabama Department of Environmental Management	RdF
ADFC99	Abu Dhabi Quality and Conformity Council-Central Testing Lab	RdF
AFOH01	USAFSAM/OEA	RdF
AMEC99	Jacobs Clean Energy Limited - Analytical Services	RdF
ANLB01	Argonne National Laboratory	RdF
ARPL01	Analytical Support Operations - Radiochemical Processing Lab	RdF
ARSL01	ARS	RdF
ASUK99	AWE (Aldermaston)	RdF
CESL01	Lawrence Livermore National Laboratory - EMRL	RdF
CMRC01	Carlsbad Environmental Monitoring and Research Center	RdF
COPS99	Health Canada Radiation Protection Bureau	RdF
DEHS01	Department of Environmental Health & Safety	RdF
DINL99	Departamento Ingeniería Energética	RdF
ERCL01	Washington State Public Health Laboratories	RdF
ERHD99	National Monitoring Section, Radiation Protection Bureau, Health Canada	RdF
FDHE01	Florida Dept of Health Environmental Laboratory	RdF
FDOH01	Florida Dept. of Health, Mobile Environmental Radiological Lab	RdF
FNAL01	Fermi National Accelerator Laboratory (FermiLab)	RdF
GENE01	GEL Laboratories, LLC	RdF
GPCL01	Georgia Power Company Environmental Laboratory	RdF
HECR01	SC Dept. Health and Environmental Control Radiological Laboratory	RdF
HPAC99	UKHSA, RCE Glasgow	RdF
HPAL01	Los Alamos National Laboratory	RdF
IEMA01	Illinois Emergency Management Agency Radiochemistry Laboratory	RdF
ISUE01	ISU Environmental Monitoring Laboratory	RdF
JLNN01	Jefferson Laboratory	RdF
KINE99	Kinectrics Inc	RdF
LAWR01	LAWRENCE BERKELEY NATIONAL LABORATORY	RdF
LOCK03	Advanced Test Reactor (ATR) Complex Radioanalytical Laboratory	RdF
MART01	Fluor-BWXT Portsmouth LLC, Analytical Laboratory	RdF
MART03	Radioactive Material Analysis Laboratory	RdF
MNDH01	Minnesota Department of Health, Public Health Lab. Division	RdF
NARL01	National Analytical Radiation Environmental Laboratory	RdF
NESI01	BWXT-Radioisotope & Analytical Chemistry Laboratory	RdF
NJDH01	New Jersey Dept. of Health, ECLS	RdF
NOCS99	National Oceanography Centre, Southampton	RdF
NRL99	Environmental Radioactivity - National Centre for Radiation Science	RdF
ODHL01	Ohio Department of Health Laboratory	RdF
RAVR99	Radiactividad Ambiental y Vigilancia Radiologica	RdF
SANC99	RadioAnalysis, South Africa Nuclear Energy Corp.	RdF
SEML01	SRS Environmental Monitoring Laboratory	RdF
SMER01	State of Michigan EGLE Radiological Lab	RdF
SOUT01	Southwest Research Institute	RdF

RdF51 Participating Laboratories

SRPD01	Sandia National Laboratories, Radiation Protection Sample Diagnostics	RdF
TDHL01	Texas Department of State Health Services Laboratory	RdF
TELE02	Microbac Laboratories Inc. - Northbrook	RdF
TMAO01	EBERLINE Analytical Corporation	RdF
WIPH01	WI, DPH, Radiation Protection Section	RdF
WIPP01	WIPP Laboratories	RdF
WSHL01	Wisconsin State Laboratory of Hygiene	RdF
WVDP01	WVDP Environmental Laboratory	RdF
YPGA01	US Army Yuma Proving Ground / Material Analysis Lab	RdF

Laboratories Not Reporting

Lab Code	Lab Name	Matrix Code
ARGO01	Idaho National Laboratory	RdF
IAEA20	IAEA Marine Environment Laboratories, Radiometrics Laboratory	RdF
IAEA99	International Atomic Energy Agency	RdF
ISUP01	ISU - Department of Physics/Health Physics/EAL	RdF
MDPH01	MDPH-Radiation Control Program	RdF
MSDH01	Mississippi State Dept of Health	RdF
RPSC01	Radiation Protection Service	RdF
STRL01	South Texas Project Radiological Laboratory	RdF

Study Reference Values

MAPEP-24-RdF51: Radiological air filter

Radiological Reference Date: 08/01/2024

Inorganic		Units: (ug/sample)	
Analyte	Reference Value	Reference Uncertainty	
Uranium-235	0.056	0.003	
Uranium-238	7.8	0.2	
Uranium-Total	7.8	0.2	

Radiological		Units: (Bq/sample)	
Analyte	Reference Value	Reference Uncertainty	
Americium-241	0.0211	0.0008	
Cesium-134	0.334	0.008	
Cesium-137	0.269	0.005	
Cobalt-60	0.361	0.008	
Plutonium-238	0.0157	0.0003	
Plutonium-239/240	0.0215	0.0004	
Strontium-90	0.91	0.02	
Uranium-234	0.093	0.003	
Uranium-238	0.096	0.003	

Sample Statistical Summary

MAPEP-24-RdF51: Radiological air filter

Radiological Reference Date: 08/01/2024

Inorganic							Units: (ug/sample)
Analyte	T(1)	A(2)	Grand ⁽³⁾ Mean	Standard Deviation	Reference Value	Reference Uncertainty	Acceptance Range
Uranium-235	6	5			0.056	0.003	0.039 - 0.073
Uranium-238	6	5			7.8	0.2	5.5 - 10.1
Uranium-Total	5	4			7.8	0.2	5.5 - 10.1

Radiological							Units: (Bq/sample)
Analyte	T(1)	A(2)	Grand ⁽³⁾ Mean	Standard Deviation	Reference Value	Reference Uncertainty	Acceptance Range
Americium-241	33	23	0.0200	0.0032	0.0211	0.0008	0.0148 - 0.0274
Cesium-134	47	42	0.304	0.035	0.334	0.008	0.234 - 0.434
Cesium-137	48	45	0.267	0.029	0.269	0.005	0.188 - 0.350
Cobalt-57	45	44					False Positive Test
Cobalt-60	48	46	0.345	0.040	0.361	0.008	0.253 - 0.469
Manganese-54	45	45					False Positive Test
Plutonium-238	27	22	0.0165	0.0020	0.0157	0.0003	0.0110 - 0.0204
Plutonium-239/240	27	25	0.0211	0.0027	0.0215	0.0004	0.0151 - 0.0280
Strontium-90	24	21	0.85	0.11	0.91	0.02	0.64 - 1.18
Uranium-234	29	27	0.091	0.009	0.093	0.003	0.065 - 0.121
Uranium-238	30	28	0.093	0.008	0.096	0.003	0.067 - 0.125
Zinc-65	44	43					False Positive Test

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

Results Flags:

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

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

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

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

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

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

NOT ACCEPTABLE.....RP > 30%

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

Flag Summary Report

MAPEP-24-RdF51: Radiological air filter

Radiological Reference Date: 08/01/2024

Inorganic				
Analyte	A	W	RW	N
Uranium-Total	4			1
Uranium-235	4	1		1
Uranium-238	4	1		1

Radiological				
Analyte	A	W	RW	N
Americium-241	16	7		9
Cesium-134	35	7		5
Cesium-137	41	4		3
Cobalt-57	44			2
Cobalt-60	41	5		2
Manganese-54	45			1
Plutonium-238	19	3		5
Plutonium-239/240	21	4		2
Strontium-90	17	4		3
Uranium-234	25	2		2
Uranium-238	27	1		2
Zinc-65	43			2



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

Laboratory Results For MAPEP Series 51
 (ADEM01) Alabama Department of Environmental Management
 1350 Coliseum Blvd.
 Montgomery, AL 36110

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.1	0.0211	N		373.9	0.0148 - 0.0274	0.05	N	
Cesium-134	0.31	0.334	A		-7.2	0.234 - 0.434	0.0316	A	
Cesium-137	0.378	0.269	N		40.5	0.188 - 0.350	0.0329	A	
Cobalt-57	0.1		A			False Positive Test	0.05		
Cobalt-60	0.449	0.361	W		24.4	0.253 - 0.469	0.0303	A	
Manganese-54	0.1		A			False Positive Test	0.05		
Plutonium-238	0.1	0.0157	N		536.9	0.0110 - 0.0204	0.05	N	
Plutonium-239/240	0.1	0.0215	N		365.1	0.0151 - 0.0280	0.05	N	
Strontium-90	0.1	0.91	N		-89.0	0.64 - 1.18	0.05	N	
Uranium-234	0.1	0.093	A		7.5	0.065 - 0.121	0.05	N	
Uranium-238	0.1	0.096	A		4.2	0.067 - 0.125	0.05	N	
Zinc-65	0.1		A			False Positive Test	0.05		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
 - ACCEPTABLE.....2% <= RP <= 15%
 - ACCEPTABLE WITH WARNING.....15% < RP <= 30%
 - NOT ACCEPTABLE.....RP > 30%
- Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (ADFC99) Abu Dhabi Quality and Conformity Council-Central Testing Lab
 Radiation Lab
 Abu Dhabi, Abu Dhabi 853

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	0.24	0.334	W		-28.1	0.234 - 0.434	0.02	A	
Cesium-137	0.24	0.269	A		-10.8	0.188 - 0.350	0.03	A	
Cobalt-57	NR					False Positive Test			
Cobalt-60	0.30	0.361	A		-16.9	0.253 - 0.469	0.03	A	
Manganese-54	NR					False Positive Test			
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	0.95	0.91	A		4.4	0.64 - 1.18	0.10	A	
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	NR					False Positive Test			

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (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 Series 51
 (AFOH01) USAFSAM/OEA
 2510 Fifth Street, Area B
 Wright-Patterson AFB, OH 45433-7913

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0179	0.0211	A		-15.2	0.0148 - 0.0274	0.0016	A	
Cesium-134	0.283	0.334	A		-15.3	0.234 - 0.434	0.028	A	
Cesium-137	0.209	0.269	W		-22.3	0.188 - 0.350	0.022	A	
Cobalt-57	-0.01		A			False Positive Test	0.02		
Cobalt-60	0.394	0.361	A		9.1	0.253 - 0.469	0.031	A	
Manganese-54	0.01		A			False Positive Test	0.02		
Plutonium-238	0.022	0.0157	N		40.1	0.0110 - 0.0204	0.002	A	
Plutonium-239/240	0.024	0.0215	A		11.6	0.0151 - 0.0280	0.002	A	
Strontium-90	0.68	0.91	W		-25.3	0.64 - 1.18	0.03	A	
Uranium-234	0.093	0.093	A		0.0	0.065 - 0.121	0.005	A	
Uranium-238	0.080	0.096	A		-16.7	0.067 - 0.125	0.005	A	
Zinc-65	-0.1		A			False Positive Test	0.1		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
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- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (AMEC99) Jacobs Clean Energy Limited - Analytical Services
 612 Faraday Street
 Birchwood Park, Warrington WA3 6GN

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0153	0.0211	W		-27.5	0.0148 - 0.0274	0.0026	W	
Cesium-134	0.321	0.334	A		-3.9	0.234 - 0.434	0.029	A	
Cesium-137	0.302	0.269	A		12.3	0.188 - 0.350	0.027	A	
Cobalt-57	0.00105		A			False Positive Test	0.00094		
Cobalt-60	0.436	0.361	W		20.8	0.253 - 0.469	0.031	A	
Manganese-54	0.052		A			False Positive Test	0.030		
Plutonium-238	0.0198	0.0157	W		26.1	0.0110 - 0.0204	0.0018	A	
Plutonium-239/240	0.0232	0.0215	A		7.9	0.0151 - 0.0280	0.0020	A	
Strontium-90	0.823	0.91	A		-9.6	0.64 - 1.18	0.075	A	
Uranium-234	0.1016	0.093	A		9.2	0.065 - 0.121	0.0048	A	
Uranium-238	0.0983	0.096	A		2.4	0.067 - 0.125	0.0047	A	
Zinc-65	0.079		A			False Positive Test	0.051		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
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- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (ANLB01) Argonne National Laboratory
 9700 S. Cass Ave
 Argonne, IL 60439

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0206	0.0211	A		-2.4	0.0148 - 0.0274	0.002	A	
Cesium-134	0.351	0.334	A		5.1	0.234 - 0.434	0.035	A	
Cesium-137	0.295	0.269	A		9.7	0.188 - 0.350	0.032	A	
Cobalt-57	0.005		A			False Positive Test	0.010		
Cobalt-60	0.376	0.361	A		4.2	0.253 - 0.469	0.03	A	
Manganese-54	0.014		A			False Positive Test	0.016		
Plutonium-238	0.018	0.0157	A		14.7	0.0110 - 0.0204	0.002	A	
Plutonium-239/240	0.018	0.0215	A		-16.3	0.0151 - 0.0280	0.002	A	
Strontium-90	0.858	0.91	A		-5.7	0.64 - 1.18	0.025	A	
Uranium-234	0.083	0.093	A		-10.8	0.065 - 0.121	0.007	A	
Uranium-238	0.083	0.096	A		-13.5	0.067 - 0.125	0.007	A	
Zinc-65	0.017		A			False Positive Test	0.033		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (ARPL01) Analytical Support Operations - Radiochemical Processing Lab
 PO Box 999
 Richland, WA 99354

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.030	0.0211	N		42.2	0.0148 - 0.0274	0.006	W	
Cesium-134	0.320	0.334	A		-4.2	0.234 - 0.434	0.013	A	
Cesium-137	0.26	0.269	A		-3.3	0.188 - 0.350	0.01	A	
Cobalt-57	0.004		A			False Positive Test	0.015		
Cobalt-60	0.352	0.361	A		-2.5	0.253 - 0.469	0.030	A	
Manganese-54	0.013		A			False Positive Test	0.019		
Plutonium-238	0.017	0.0157	A		8.3	0.0110 - 0.0204	0.002	A	
Plutonium-239/240	0.027	0.0215	W		25.6	0.0151 - 0.0280	0.005	W	
Strontium-90	0.714	0.91	W		-21.5	0.64 - 1.18	0.048	A	
Uranium-234	0.090	0.093	A		-3.2	0.065 - 0.121	0.029	N	
Uranium-238	0.088	0.096	A		-8.3	0.067 - 0.125	0.006	A	
Zinc-65	-0.007		A			False Positive Test	0.024		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (ARSL01) ARS
 2609 North River Road
 Port Allen, LA 70767

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	.007	0.0211	N		-66.8	0.0148 - 0.0274	.002	W	
Cesium-134	.372	0.334	A		11.4	0.234 - 0.434	0.02	A	
Cesium-137	.353	0.269	N		31.2	0.188 - 0.350	.026	A	
Cobalt-57	-0.007483		A			False Positive Test	.032		
Cobalt-60	.473	0.361	N		31.0	0.253 - 0.469	.029	A	
Manganese-54	.009		A			False Positive Test	.032		
Plutonium-238	.013	0.0157	A		-17.2	0.0110 - 0.0204	.002	W	
Plutonium-239/240	.022	0.0215	A		2.3	0.0151 - 0.0280	.003	A	
Strontium-90	.954	0.91	A		4.8	0.64 - 1.18	0.085	A	
Uranium-234	.09	0.093	A		-3.2	0.065 - 0.121	.007	A	
Uranium-238	.089	0.096	A		-7.3	0.067 - 0.125	.007	A	
Zinc-65	-0.092		A			False Positive Test	.066		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (ASUK99) AWE (Aldermaston)
 A38.1 AWE
 Reading, Berkshire RG7 4PR

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	NR	0.334				0.234 - 0.434			
Cesium-137	NR	0.269				0.188 - 0.350			
Cobalt-57	NR					False Positive Test			
Cobalt-60	NR	0.361				0.253 - 0.469			
Manganese-54	NR					False Positive Test			
Plutonium-238	0.0145	0.0157	A		-7.6	0.0110 - 0.0204	0.00222	W	
Plutonium-239/240	0.0179	0.0215	A		-16.7	0.0151 - 0.0280	0.0027	W	
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	0.11093	0.093	A		19.3	0.065 - 0.121	0.01938	W	
Uranium-238	0.11272	0.096	A		17.4	0.067 - 0.125	0.01968	W	
Zinc-65	NR					False Positive Test			

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (CESL01) Lawrence Livermore National Laboratory - EMRL
 7000 East Avenue
 Livermore, CA 94551

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	2.86E-01	0.334	A		-14.4	0.234 - 0.434	1.97E-02	A	
Cesium-137	2.66E-01	0.269	A		-1.1	0.188 - 0.350	3.10E-02	A	
Cobalt-57	2.40E-02		A			False Positive Test	4.89E-02		
Cobalt-60	3.50E-01	0.361	A		-3.0	0.253 - 0.469	8.93E-03	A	
Manganese-54	3.10E-03		A			False Positive Test	1.86E-02		
Plutonium-238	1.64E-02	0.0157	A		4.5	0.0110 - 0.0204	6.93E-04	A	
Plutonium-239/240	2.03E-02	0.0215	A		-5.6	0.0151 - 0.0280	7.83E-04	A	
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	-1.07E-02		A			False Positive Test	3.64E-02		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (CMRC01) Carlsbad Environmental Monitoring and Research Center
 1400 University Dr.
 Carlsbad, NM 88220

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	1.63E-02	0.0211	W		-22.7	0.0148 - 0.0274	1.02E-03	A	
Cesium-134	NR	0.334				0.234 - 0.434			
Cesium-137	2.57E-01	0.269	A		-4.5	0.188 - 0.350	2.48E-02	A	
Cobalt-57	NR					False Positive Test			
Cobalt-60	3.22E-01	0.361	A		-10.8	0.253 - 0.469	2.42E-02	A	
Manganese-54	NR					False Positive Test			
Plutonium-238	1.85E-02	0.0157	A		17.8	0.0110 - 0.0204	1.36E-03	A	
Plutonium-239/240	2.37E-02	0.0215	A		10.2	0.0151 - 0.0280	1.62E-03	A	
Strontium-90	9.30E-01	0.91	A		2.2	0.64 - 1.18	1.26E-02	N	
Uranium-234	1.23E-01	0.093	N		32.3	0.065 - 0.121	1.83E-02	A	
Uranium-238	1.27E-01	0.096	N		32.3	0.067 - 0.125	1.89E-02	A	
Zinc-65	NR					False Positive Test			

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (COPS99) Health Canada Radiation Protection Bureau
 775 Brookfield Road
 Ottawa, Ontario K1A 1C1

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	0.329	0.334	A		-1.5	0.234 - 0.434	0.0245	A	
Cesium-137	0.245	0.269	A		-8.9	0.188 - 0.350	0.0245	A	
Cobalt-57	0.0036		A			False Positive Test	0.0129		
Cobalt-60	0.322	0.361	A		-10.8	0.253 - 0.469	0.0185	A	
Manganese-54	0.030		A			False Positive Test	0.016		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	0.030		A			False Positive Test	0.036		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (DEHS01) Department of Environmental Health & Safety
 North Carolina State Univ.
 Raleigh, NC 27695-8007

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	0.2157	0.334	N		-35.4	0.234 - 0.434	0.0189	A	
Cesium-137	0.263	0.269	A		-2.2	0.188 - 0.350	0.0185	A	
Cobalt-57	0.001		A			False Positive Test	0.001		
Cobalt-60	0.3523	0.361	A		-2.4	0.253 - 0.469	0.0246	A	
Manganese-54	-0.004		A			False Positive Test	0.004		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	-0.004		A			False Positive Test	0.004		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (DINL99) Departamento Ingeniería Energética
 Escuela de Ingeniería de Bilbao
 Bilbao, Vizcaya 48013

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.01584	0.0211	W		-24.9	0.0148 - 0.0274	0.002146	A	
Cesium-134	0.3076	0.334	A		-7.9	0.234 - 0.434	0.02029	A	
Cesium-137	0.2480	0.269	A		-7.8	0.188 - 0.350	0.01911	A	
Cobalt-57	0.01168		A			False Positive Test	0.01168		
Cobalt-60	0.3317	0.361	A		-8.1	0.253 - 0.469	0.02037	A	
Manganese-54	0.02901		A			False Positive Test	0.02901		
Plutonium-238	0.01604	0.0157	A		2.2	0.0110 - 0.0204	0.001660	A	
Plutonium-239/240	0.02279	0.0215	A		6.0	0.0151 - 0.0280	0.001965	A	
Strontium-90	0.7033	0.91	W		-22.7	0.64 - 1.18	0.0455	A	
Uranium-234	0.09622	0.093	A		3.5	0.065 - 0.121	0.005431	A	
Uranium-238	0.08965	0.096	A		-6.6	0.067 - 0.125	0.005163	A	
Zinc-65	0.05154		A			False Positive Test	0.05154		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (ERCL01) Washington State Public Health Laboratories
 1610 N.E. 150th Street
 Shoreline, WA 98155-9701

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	0.0570	0.056	A		1.8	0.039 - 0.073	0.0061	A	
Uranium-238	7.90	7.8	A		1.3	5.5 - 10.1	0.82	A	
Uranium-Total	8.00	7.8	A		2.6	5.5 - 10.1	0.82	A	

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0228	0.0211	A		8.1	0.0148 - 0.0274	0.0017	A	
Cesium-134	0.317	0.334	A		-5.1	0.234 - 0.434	0.012	A	
Cesium-137	0.259	0.269	A		-3.7	0.188 - 0.350	0.014	A	
Cobalt-57	0.0070		A			False Positive Test	0.0036		
Cobalt-60	0.355	0.361	A		-1.7	0.253 - 0.469	0.023	A	
Manganese-54	0.0037		A			False Positive Test	0.0049		
Plutonium-238	0.0166	0.0157	A		5.7	0.0110 - 0.0204	0.0014	A	
Plutonium-239/240	0.0252	0.0215	A		17.2	0.0151 - 0.0280	0.0016	A	
Strontium-90	0.903	0.91	A		-0.8	0.64 - 1.18	0.051	A	
Uranium-234	0.0895	0.093	A		-3.8	0.065 - 0.121	0.0038	A	
Uranium-238	0.0925	0.096	A		-3.6	0.067 - 0.125	0.0040	A	
Zinc-65	-0.028		A			False Positive Test	0.012		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (ERHD99) National Monitoring Section, Radiation Protection Bureau, Health Canada
 775 Brookfield Road AL6302D1
 Ottawa, Ontario K1A 1C1

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	0.0444	0.056	W		-20.7	0.039 - 0.073	0.0009	A	
Uranium-238	6.039	7.8	W		-22.6	5.5 - 10.1	.09	N	
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0196	0.0211	A		-7.1	0.0148 - 0.0274	0.0050	W	
Cesium-134	0.335	0.334	A		0.3	0.234 - 0.434	0.017	A	
Cesium-137	0.257	0.269	A		-4.5	0.188 - 0.350	0.017	A	
Cobalt-57	0.014		A			False Positive Test	0.028		
Cobalt-60	0.368	0.361	A		1.9	0.253 - 0.469	0.018	A	
Manganese-54	0.025		A			False Positive Test	0.050		
Plutonium-238	0.0142	0.0157	A		-9.6	0.0110 - 0.0204	0.0010	A	
Plutonium-239/240	0.0168	0.0215	W		-21.9	0.0151 - 0.0280	0.0011	A	
Strontium-90	0.821	0.91	A		-9.8	0.64 - 1.18	0.025	A	
Uranium-234	0.0715	0.093	W		-23.1	0.065 - 0.121	0.0029	A	
Uranium-238	0.0754	0.096	W		-21.5	0.067 - 0.125	0.0029	A	
Zinc-65	0.030		A			False Positive Test	0.060		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (FDHE01) Florida Dept of Health Environmental Laboratory
 2100 All Childrens Way
 Orlando, FL 32818-5271

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.025	0.0211	A		18.5	0.0148 - 0.0274	0.025	N	
Cesium-134	0.3	0.334	A		-10.2	0.234 - 0.434	0.08	W	
Cesium-137	0.272	0.269	A		1.1	0.188 - 0.350	0.04	A	
Cobalt-57	0.011		A			False Positive Test	0.019		
Cobalt-60	0.352	0.361	A		-2.5	0.253 - 0.469	0.04	A	
Manganese-54	0.013		A			False Positive Test	0.04		
Plutonium-238	0.029	0.0157	N		84.7	0.0110 - 0.0204	0.029	N	
Plutonium-239/240	0.02	0.0215	A		-7.0	0.0151 - 0.0280	0.02	N	
Strontium-90	1.06	0.91	A		16.5	0.64 - 1.18	0.1	A	
Uranium-234	0.0936	0.093	A		0.6	0.065 - 0.121	0.04	N	
Uranium-238	0.0952	0.096	A		-0.8	0.067 - 0.125	0.04	N	
Zinc-65	0.024		A			False Positive Test	0.099		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (FDOH01) Florida Dept. of Health, Mobile Environmental Radiological Lab
 2100 All Childrens Way
 Orlando, FL 32818-5271

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.018	0.0211	A		-14.7	0.0148 - 0.0274	0.03	N	
Cesium-134	0.337	0.334	A		0.9	0.234 - 0.434	0.01	A	
Cesium-137	0.27	0.269	A		0.4	0.188 - 0.350	0.01	A	
Cobalt-57	0.008		A			False Positive Test	0.008		
Cobalt-60	0.331	0.361	A		-8.3	0.253 - 0.469	0.01	A	
Manganese-54	0.02		A			False Positive Test	0.02		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	0.098	0.096	A		2.1	0.067 - 0.125	0.0877	N	
Zinc-65	0.005		A			False Positive Test	0.005		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (FNAL01) Fermi National Accelerator Laboratory (FermiLab)
 PO Box 500, MS325
 Batavia, IL 60510

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	0.283	0.334	A		-15.3	0.234 - 0.434	0.036	A	
Cesium-137	0.271	0.269	A		0.7	0.188 - 0.350	0.039	A	
Cobalt-57	0.025		A			False Positive Test	0.044		
Cobalt-60	0.349	0.361	A		-3.3	0.253 - 0.469	0.042	A	
Manganese-54	0.025		A			False Positive Test	0.028		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	0.035		A			False Positive Test	0.053		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (GENE01) GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	0.0601	0.056	A		7.3	0.039 - 0.073	0.00499	A	
Uranium-238	8.25	7.8	A		5.8	5.5 - 10.1	0.639	A	
Uranium-Total	8.31	7.8	A		6.5	5.5 - 10.1	0.639	A	

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0258	0.0211	W		22.3	0.0148 - 0.0274	0.00178	A	
Cesium-134	0.279	0.334	A		-16.5	0.234 - 0.434	0.0466	W	
Cesium-137	0.335	0.269	W		24.5	0.188 - 0.350	0.0382	A	
Cobalt-57	0.0109		A			False Positive Test	0.0132		
Cobalt-60	0.394	0.361	A		9.1	0.253 - 0.469	0.0540	A	
Manganese-54	-0.0194		A			False Positive Test	0.0190		
Plutonium-238	0.0152	0.0157	A		-3.2	0.0110 - 0.0204	0.00104	A	
Plutonium-239/240	0.0206	0.0215	A		-4.2	0.0151 - 0.0280	0.00128	A	
Strontium-90	0.865	0.91	A		-4.9	0.64 - 1.18	0.118	A	
Uranium-234	0.093	0.093	A		0.0	0.065 - 0.121	0.00479	A	
Uranium-238	0.0967	0.096	A		0.7	0.067 - 0.125	0.00495	A	
Zinc-65	0.0686		A			False Positive Test	0.0463		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (GPCL01) Georgia Power Company Environmental Laboratory
 2480 Maner Road
 Atlanta, GA 30339

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	0.3532	0.334	A		5.7	0.234 - 0.434	0.077	W	
Cesium-137	0.3127	0.269	A		16.2	0.188 - 0.350	0.1056	N	
Cobalt-57	0.0239		A			False Positive Test	0.0999		
Cobalt-60	0.3299	0.361	A		-8.6	0.253 - 0.469	.0873	W	
Manganese-54	0.0101		A			False Positive Test	0.1212		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	-0.1515		A			False Positive Test	0.2938		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (HECR01) SC Dept. Health and Environmental Control Radiological Laboratory
 8231 Parklane Road
 Columbia, SC 29223

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	0.1261	0.334	N		-62.2	0.234 - 0.434	0.2313	N	
Cesium-137	0.2847	0.269	A		5.8	0.188 - 0.350	0.1736	N	
Cobalt-57	0.05877		A			False Positive Test	0.1401		
Cobalt-60	0.3886	0.361	A		7.6	0.253 - 0.469	0.1921	N	
Manganese-54	-0.1214		A			False Positive Test	0.3031		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	0.2897		A			False Positive Test	0.5839		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (HPAC99) UKHSA, RCE Glasgow
 155 Hardgate Road
 Glasgow, Scotland G51 4LS

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.02	0.0211	A		-5.2	0.0148 - 0.0274	0.01	N	
Cesium-134	0.29	0.334	A		-13.2	0.234 - 0.434	0.02	A	
Cesium-137	0.25	0.269	A		-7.1	0.188 - 0.350	0.02	A	
Cobalt-57	0.01		A			False Positive Test	0.01		
Cobalt-60	0.35	0.361	A		-3.0	0.253 - 0.469	0.03	A	
Manganese-54	0.03		A			False Positive Test	0.03		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	0.095	0.093	A		2.2	0.065 - 0.121	0.005	A	
Uranium-238	0.100	0.096	A		4.2	0.067 - 0.125	0.006	A	
Zinc-65	NR		N	(11)		False Positive Test			

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (HPAL01) Los Alamos National Laboratory
 Josh Chandler, z338219 MS G761
 Los Alamos, NM 87545-1663

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211	N	(28)		0.0148 - 0.0274			
Cesium-134	0.36	0.334	A		7.8	0.234 - 0.434	0.04	A	
Cesium-137	0.29	0.269	A		7.8	0.188 - 0.350	0.07	W	
Cobalt-57	NR		N	(11)		False Positive Test			
Cobalt-60	0.55	0.361	N		52.4	0.253 - 0.469	0.07	A	
Manganese-54	NR		N	(11)		False Positive Test			
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	NR					False Positive Test			

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (IEMA01) Illinois Emergency Management Agency Radiochemistry Laboratory
 1301 Knotts St.
 Springfield, IL 62703

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0203	0.0211	A		-3.8	0.0148 - 0.0274	0.00139	A	
Cesium-134	0.32	0.334	A		-4.2	0.234 - 0.434	0.02	A	
Cesium-137	0.24	0.269	A		-10.8	0.188 - 0.350	0.04	W	
Cobalt-57	0.01		A			False Positive Test	0.01		
Cobalt-60	0.36	0.361	A		-0.3	0.253 - 0.469	0.03	A	
Manganese-54	-0.01		A			False Positive Test	0.03		
Plutonium-238	0.0176	0.0157	A		12.1	0.0110 - 0.0204	0.00127	A	
Plutonium-239/240	0.0214	0.0215	A		-0.5	0.0151 - 0.0280	0.00142	A	
Strontium-90	0.888	0.91	A		-2.4	0.64 - 1.18	0.028	A	
Uranium-234	0.08733	0.093	A		-6.1	0.065 - 0.121	0.003395	A	
Uranium-238	0.08707	0.096	A		-9.3	0.067 - 0.125	0.003386	A	
Zinc-65	-0.13		A			False Positive Test	0.08		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (ISUE01) ISU Environmental Monitoring Laboratory
 785 5th 8th Ave Rm B107
 Pocatello, Idaho 83209

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	0.27	0.334	A		-19.2	0.234 - 0.434	0.01	A	
Cesium-137	0.28	0.269	A		4.1	0.188 - 0.350	0.02	A	
Cobalt-57	0.01		A			False Positive Test	0.04		
Cobalt-60	0.37	0.361	A		2.5	0.253 - 0.469	0.02	A	
Manganese-54	0.01		A			False Positive Test	0.01		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	0.01		A			False Positive Test	0.02		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (JLNN01) Jefferson Laboratory
 111 Hadron Drive
 Newport News, VA 23606

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.01815	0.0211	A		-14.0	0.0148 - 0.0274	0.01772	N	
Cesium-134	0.304	0.334	A		-9.0	0.234 - 0.434	0.85009	N	
Cesium-137	0.2735	0.269	A		1.7	0.188 - 0.350	0.02284	A	
Cobalt-57	0.03835		N	(1)		False Positive Test	0.01021		
Cobalt-60	.3485	0.361	A		-3.5	0.253 - 0.469	0.03011	A	
Manganese-54	0.0318		A			False Positive Test	.42147		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	0.01025		A			False Positive Test	0.03447		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (KINE99) Kinectrics Inc
 800 Kipling Ave
 Toronto, Ontario M8Z5G5

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0153	0.0211	W		-27.5	0.0148 - 0.0274	0.033	N	
Cesium-134	0.216	0.334	N		-35.3	0.234 - 0.434	0.030	A	
Cesium-137	0.224	0.269	A		-16.7	0.188 - 0.350	0.030	A	
Cobalt-57	0.008		A			False Positive Test	0.010		
Cobalt-60	0.257	0.361	W		-28.8	0.253 - 0.469	0.104	N	
Manganese-54	-0.012		A			False Positive Test	0.241		
Plutonium-238	0.0172	0.0157	A		9.6	0.0110 - 0.0204	0.0042	W	
Plutonium-239/240	0.0200	0.0215	A		-7.0	0.0151 - 0.0280	0.0040	W	
Strontium-90	0.785	0.91	A		-13.7	0.64 - 1.18	0.160	W	
Uranium-234	0.0839	0.093	A		-9.8	0.065 - 0.121	0.013	W	
Uranium-238	0.0805	0.096	A		-16.1	0.067 - 0.125	0.012	A	
Zinc-65	0.043		A			False Positive Test	0.050		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (LAWR01) LAWRENCE BERKELEY NATIONAL LABORATORY
 1 CYCLOTRON RD.
 BERKELEY, CA 94720

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	2.77E-01	0.334	A		-17.1	0.234 - 0.434	3.87E-02	A	
Cesium-137	2.50E-01	0.269	A		-7.1	0.188 - 0.350	3.41E-02	A	
Cobalt-57	4.73E-03		A			False Positive Test	1.62E-02		
Cobalt-60	3.35E-01	0.361	A		-7.2	0.253 - 0.469	3.78E-02	A	
Manganese-54	-3.84E-03		A			False Positive Test	1.78E-02		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	-1.20E-01		A			False Positive Test	6.02E-02		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (LOCK03) Advanced Test Reactor (ATR) Complex Radioanalytical Laboratory
 INL/Battelle Energy Alliance, LLC
 Idaho Falls, ID 83415-7111

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	0.25	0.334	W		-25.2	0.234 - 0.434	0.02	A	
Cesium-137	0.32	0.269	A		19.0	0.188 - 0.350	0.03	A	
Cobalt-57	0.0048		A			False Positive Test	0.0028		
Cobalt-60	0.37	0.361	A		2.5	0.253 - 0.469	0.03	A	
Manganese-54	0.01		A			False Positive Test	0.01		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	0.03		A			False Positive Test	0.02		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (MART01) Fluor-BWXT Portsmouth LLC, Analytical Laboratory
 COC, Bldg. X-705, Rm 106
 Piketon, OH 45661

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.02297	0.0211	A		8.9	0.0148 - 0.0274	0.002923	A	
Cesium-134	NR	0.334				0.234 - 0.434			
Cesium-137	NR	0.269				0.188 - 0.350			
Cobalt-57	NR					False Positive Test			
Cobalt-60	NR	0.361				0.253 - 0.469			
Manganese-54	NR					False Positive Test			
Plutonium-238	0.01752	0.0157	A		11.6	0.0110 - 0.0204	0.002401	A	
Plutonium-239/240	0.02244	0.0215	A		4.4	0.0151 - 0.0280	0.002762	A	
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	0.08656	0.093	A		-6.9	0.065 - 0.121	0.008042	A	
Uranium-238	0.09934	0.096	A		3.5	0.067 - 0.125	0.008594	A	
Zinc-65	NR					False Positive Test			

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (MART03) Radioactive Material Analysis Laboratory
 ORNL
 Oak Ridge, TN 37830

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.016	0.0211	W		-24.2	0.0148 - 0.0274	0.002	A	
Cesium-134	0.325	0.334	A		-2.7	0.234 - 0.434	0.015	A	
Cesium-137	0.277	0.269	A		3.0	0.188 - 0.350	0.022	A	
Cobalt-57	0.059		A			False Positive Test	0.059		
Cobalt-60	0.353	0.361	A		-2.2	0.253 - 0.469	0.020	A	
Manganese-54	0.066		A			False Positive Test	0.066		
Plutonium-238	0.016	0.0157	A		1.9	0.0110 - 0.0204	0.002	A	
Plutonium-239/240	0.020	0.0215	A		-7.0	0.0151 - 0.0280	0.002	A	
Strontium-90	0.860	0.91	A		-5.5	0.64 - 1.18	0.036	A	
Uranium-234	0.093	0.093	A		0.0	0.065 - 0.121	0.006	A	
Uranium-238	0.092	0.096	A		-4.2	0.067 - 0.125	0.006	A	
Zinc-65	0.17		A			False Positive Test	0.17		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (MNDH01) Minnesota Department of Health, Public Health Lab. Division
 601 Robert St. N.
 St. Paul, MN 55155

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211		(6)		0.0148 - 0.0274			
Cesium-134	0.228	0.334	N		-31.7	0.234 - 0.434	0.00897	A	
Cesium-137	0.265	0.269	A		-1.5	0.188 - 0.350	0.0119	A	
Cobalt-57	-0.00437		A			False Positive Test	0.0202		
Cobalt-60	0.265	0.361	W		-26.6	0.253 - 0.469	0.0111	A	
Manganese-54	-0.000698		A			False Positive Test	0.00829		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	-0.0371		A			False Positive Test	0.0275		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (NARL01) National Analytical Radiation Environmental Laboratory
 540 S. Morris Ave.
 Montgomery, AL 36115-2601

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0206	0.0211	A		-2.4	0.0148 - 0.0274	0.00191	A	
Cesium-134	0.318	0.334	A		-4.8	0.234 - 0.434	0.0221	A	
Cesium-137	0.279	0.269	A		3.7	0.188 - 0.350	0.022	A	
Cobalt-57	0.00302		A			False Positive Test	0.00696		
Cobalt-60	0.305	0.361	A		-15.5	0.253 - 0.469	0.0211	A	
Manganese-54	0.0158		A			False Positive Test	0.0119		
Plutonium-238	0.0193	0.0157	W		22.9	0.0110 - 0.0204	0.00178	A	
Plutonium-239/240	0.0208	0.0215	A		-3.3	0.0151 - 0.0280	0.00185	A	
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	0.0736	0.093	W		-20.9	0.065 - 0.121	0.00587	A	
Uranium-238	0.0942	0.096	A		-1.9	0.067 - 0.125	0.00686	A	
Zinc-65	-0.000188		A			False Positive Test	0.027		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (NESI01) BWXT-Radioisotope & Analytical Chemistry Laboratory
 Lynchburg Technology Center
 Lynchburg, VA 24504-5447

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.023	0.0211	A		9.0	0.0148 - 0.0274	0.005	W	
Cesium-134	0.252	0.334	W		-24.6	0.234 - 0.434	0.050	W	
Cesium-137	0.329	0.269	W		22.3	0.188 - 0.350	0.049	A	
Cobalt-57	-0.007		A			False Positive Test	0.033		
Cobalt-60	0.363	0.361	A		0.6	0.253 - 0.469	0.062	W	
Manganese-54	-0.011		A			False Positive Test	0.064		
Plutonium-238	0.017	0.0157	A		8.3	0.0110 - 0.0204	0.003	W	
Plutonium-239/240	0.017	0.0215	W		-20.9	0.0151 - 0.0280	0.003	W	
Strontium-90	2.24	0.91	N		146.2	0.64 - 1.18	0.164	A	
Uranium-234	0.093	0.093	A		0.0	0.065 - 0.121	0.007	A	
Uranium-238	0.090	0.096	A		-6.3	0.067 - 0.125	0.006	A	
Zinc-65	0.134		A			False Positive Test	0.151		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (NJDH01) New Jersey Dept. of Health, ECLS
 3 Schwarzkopf Drive
 Ewing, NJ 08628

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	0.31	0.334	A		-7.2	0.234 - 0.434	0.022	A	
Cesium-137	0.257	0.269	A		-4.5	0.188 - 0.350	0.020	A	
Cobalt-57	-0.004		A			False Positive Test	0.083		
Cobalt-60	0.316	0.361	A		-12.5	0.253 - 0.469	0.022	A	
Manganese-54	0.02		A			False Positive Test	0.011		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	-0.038		A			False Positive Test	0.029		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (NOCS99) National Oceanography Centre, Southampton
 GAU-Radioanalytical
 Southampton, Hampshire SO14 3ZH

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	0.055	0.056	A		-1.8	0.039 - 0.073	0.006	A	
Uranium-238	7.8	7.8	A		0.0	5.5 - 10.1	0.7	A	
Uranium-Total	7.8	7.8	A		0.0	5.5 - 10.1	0.7	A	

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.019	0.0211	A		-10.0	0.0148 - 0.0274	0.002	A	
Cesium-134	0.30	0.334	A		-10.2	0.234 - 0.434	0.02	A	
Cesium-137	0.25	0.269	A		-7.1	0.188 - 0.350	0.01	A	
Cobalt-57	0.01		A			False Positive Test	0.1		
Cobalt-60	0.32	0.361	A		-11.4	0.253 - 0.469	0.01	A	
Manganese-54	0.03		A			False Positive Test	0.3		
Plutonium-238	0.045	0.0157	N		186.6	0.0110 - 0.0204	0.003	A	
Plutonium-239/240	0.129	0.0215	N		500.0	0.0151 - 0.0280	0.007	A	
Strontium-90	0.09	0.91	N		-90.1	0.64 - 1.18	0.9	N	
Uranium-234	0.087	0.093	A		-6.5	0.065 - 0.121	0.005	A	
Uranium-238	0.087	0.096	A		-9.4	0.067 - 0.125	0.005	A	
Zinc-65	0.08		A			False Positive Test	0.8		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (NRLL99) Environmental Radioactivity - National Centre for Radiation Science
 PO Box 29181
 Christchurch, Christchurch 8540

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0254	0.0211	W		20.4	0.0148 - 0.0274	0.0030	A	
Cesium-134	0.300	0.334	A		-10.2	0.234 - 0.434	0.017	A	
Cesium-137	0.244	0.269	A		-9.3	0.188 - 0.350	0.014	A	
Cobalt-57	0.0064		A			False Positive Test	0.0031		
Cobalt-60	0.345	0.361	A		-4.4	0.253 - 0.469	0.022	A	
Manganese-54	0.023		A			False Positive Test	0.011		
Plutonium-238	0.0180	0.0157	A		14.7	0.0110 - 0.0204	0.0013	A	
Plutonium-239/240	0.0210	0.0215	A		-2.3	0.0151 - 0.0280	0.0014	A	
Strontium-90	0.704	0.91	W		-22.6	0.64 - 1.18	0.037	A	
Uranium-234	0.0893	0.093	A		-4.0	0.065 - 0.121	0.0034	A	
Uranium-238	0.0897	0.096	A		-6.6	0.067 - 0.125	0.0034	A	
Zinc-65	0.054		A			False Positive Test	0.026		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (ODHL01) Ohio Department of Health Laboratory
 8995 E Main Street
 Reynoldsburg, OH 43068

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	0.308	0.334	A		-7.8	0.234 - 0.434	0.0141	A	
Cesium-137	0.248	0.269	A		-7.8	0.188 - 0.350	0.0192	A	
Cobalt-57	0.00252		A			False Positive Test	0.00366		
Cobalt-60	0.323	0.361	A		-10.5	0.253 - 0.469	0.0149	A	
Manganese-54	0.00209		A			False Positive Test	0.00796		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	0.000965		A			False Positive Test	0.0114		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (RAVR99) Radiactividad Ambiental y Vigilancia Radiologica
 CIEMAT (Ed 70 P2 D11)
 Madrid, Madrid 28040

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	0.295	0.334	A		-11.7	0.234 - 0.434	0.014	A	
Cesium-137	0.239	0.269	A		-11.2	0.188 - 0.350	0.015	A	
Cobalt-57	0.022		A			False Positive Test	1		
Cobalt-60	0.303	0.361	A		-16.1	0.253 - 0.469	0.016	A	
Manganese-54	0.060		A			False Positive Test	1		
Plutonium-238	0.0136	0.0157	A		-13.4	0.0110 - 0.0204	0.0022	W	
Plutonium-239/240	0.0182	0.0215	A		-15.3	0.0151 - 0.0280	0.0025	A	
Strontium-90	0.75	0.91	A		-17.6	0.64 - 1.18	0.03	A	
Uranium-234	0.0919	0.093	A		-1.2	0.065 - 0.121	0.0047	A	
Uranium-238	0.0976	0.096	A		1.7	0.067 - 0.125	0.0048	A	
Zinc-65	0.132		A			False Positive Test	1		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (SANC99) RadioAnalysis, South Africa Nuclear Energy Corp.
 Sample Receipt Gate 1
 Pretoria, Gauteng 0001

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.04	0.0211	N		89.6	0.0148 - 0.0274	0.04	N	
Cesium-134	0.394	0.334	A		18.0	0.234 - 0.434	0.019	A	
Cesium-137	0.333	0.269	W		23.8	0.188 - 0.350	0.023	A	
Cobalt-57	0.015		A			False Positive Test	0.015		
Cobalt-60	0.415	0.361	A		15.0	0.253 - 0.469	0.040	A	
Manganese-54	0.039		A			False Positive Test	0.039		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	0.110		A			False Positive Test	0.110		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (SEML01) SRS Environmental Monitoring Laboratory
 Bldg 735-B
 Aiken, SC 29808

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0213	0.0211	A		0.9	0.0148 - 0.0274	0.0015	A	
Cesium-134	0.34	0.334	A		1.8	0.234 - 0.434	0.057	W	
Cesium-137	0.182	0.269	A	(4)	-32.3	0.188 - 0.350	0.067	N	
Cobalt-57	0.029		A			False Positive Test	0.079		
Cobalt-60	0.320	0.361	A		-11.4	0.253 - 0.469	0.060	W	
Manganese-54	0.034		A			False Positive Test	0.115		
Plutonium-238	0.0165	0.0157	A		5.1	0.0110 - 0.0204	0.0013	A	
Plutonium-239/240	0.0219	0.0215	A		1.9	0.0151 - 0.0280	0.0015	A	
Strontium-90	0.882	0.91	A		-3.1	0.64 - 1.18	0.051	A	
Uranium-234	0.0873	0.093	A		-6.1	0.065 - 0.121	0.0043	A	
Uranium-238	0.0929	0.096	A		-3.2	0.067 - 0.125	0.0045	A	
Zinc-65	0.38		A			False Positive Test	0.261		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (SMER01) State of Michigan EGLE Radiological Lab
 815 Filley St.
 Lansing, MI 48906

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.007	0.0211	N		-66.8	0.0148 - 0.0274	0.09	N	
Cesium-134	0.24	0.334	W		-28.1	0.234 - 0.434	0.06	W	
Cesium-137	0.22	0.269	A		-18.2	0.188 - 0.350	0.08	N	
Cobalt-57	0.0009		A			False Positive Test	0.03		
Cobalt-60	0.27	0.361	W		-25.2	0.253 - 0.469	0.06	W	
Manganese-54	-0.002		A			False Positive Test	0.04		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	-0.5	0.093	N		-637.6	0.065 - 0.121	0.8	N	
Uranium-238	-1.4	0.096	N		-1558.3	0.067 - 0.125	.7	N	
Zinc-65	-0.04		A			False Positive Test	0.1		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (SOUT01) Southwest Research Institute
 6220 Culebra Rd.
 San Antonio, TX 78238-5166

Inorganic							Units: (ug/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	0.0610	0.056	A		8.9	0.039 - 0.073	0.0102	W	
Uranium-238	8.09	7.8	A		3.7	5.5 - 10.1	1.29	W	
Uranium-Total	8.16	7.8	A		4.6	5.5 - 10.1	1.31	W	

Radiological							Units: (Bq/sample)		
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	NR	0.334				0.234 - 0.434			
Cesium-137	NR	0.269				0.188 - 0.350			
Cobalt-57	NR					False Positive Test			
Cobalt-60	NR	0.361				0.253 - 0.469			
Manganese-54	NR					False Positive Test			
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	NR					False Positive Test			

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (SRPD01) Sandia National Laboratories, Radiation Protection Sample Diagnostics
 PO Box 5800, MS1103
 Albuquerque, NM 87185-1103

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	2.61E-01	0.334	W		-21.9	0.234 - 0.434	7.35E-02	W	
Cesium-137	2.59E-01	0.269	A		-3.7	0.188 - 0.350	2.90E-02	A	
Cobalt-57	4.46E-03		A			False Positive Test	1.66E-02		
Cobalt-60	3.10E-01	0.361	A		-14.1	0.253 - 0.469	3.21E-02	A	
Manganese-54	1.92E-02		A			False Positive Test	2.34E-02		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	-6.07E-02		A			False Positive Test	5.40E-02		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (TDHL01) Texas Department of State Health Services Laboratory
 1100 W 49th Street
 Austin, TX 78756

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0182	0.0211	A		-13.7	0.0148 - 0.0274	0.0039	W	
Cesium-134	0.256	0.334	W		-23.4	0.234 - 0.434	0.013	A	
Cesium-137	0.251	0.269	A		-6.7	0.188 - 0.350	0.020	A	
Cobalt-57	0.001		A			False Positive Test	0.029		
Cobalt-60	0.315	0.361	A		-12.7	0.253 - 0.469	0.017	A	
Manganese-54	-0.007		A			False Positive Test	0.023		
Plutonium-238	0.0121	0.0157	W		-22.9	0.0110 - 0.0204	0.0031	W	
Plutonium-239/240	0.0171	0.0215	W		-20.5	0.0151 - 0.0280	0.0038	W	
Strontium-90	0.737	0.91	A		-19.0	0.64 - 1.18	0.025	A	
Uranium-234	0.0862	0.093	A		-7.3	0.065 - 0.121	0.0096	A	
Uranium-238	0.101	0.096	A		5.2	0.067 - 0.125	0.011	A	
Zinc-65	-0.195		N	(29)		False Positive Test	0.062		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (TELE02) Microbac Laboratories Inc. - Northbrook
 700 Landwehr Road
 Northbrook, IL 60062-

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	0.254	0.334	W		-24.0	0.234 - 0.434	0.030	A	
Cesium-137	0.260	0.269	A		-3.3	0.188 - 0.350	0.046	W	
Cobalt-57	-0.0003		A			False Positive Test	0.0126		
Cobalt-60	0.333	0.361	A		-7.8	0.253 - 0.469	0.045	A	
Manganese-54	-0.003		A			False Positive Test	0.022		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	-0.002		A			False Positive Test	0.054		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
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- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (TMAO01) EBERLINE Analytical Corporation
 601 A SCARBORO RD
 OAK RIDGE, TN 37830-

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	.041	0.0211	N		94.3	0.0148 - 0.0274	.028	N	
Cesium-134	.229	0.334	N		-31.4	0.234 - 0.434	.090	N	
Cesium-137	.409	0.269	N		52.0	0.188 - 0.350	.146	N	
Cobalt-57	.014		A			False Positive Test	.136		
Cobalt-60	.385	0.361	A		6.6	0.253 - 0.469	.107	W	
Manganese-54	.009		A			False Positive Test	.087		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	1.019	0.91	A		12.0	0.64 - 1.18	.064	A	
Uranium-234	.106	0.093	A		14.0	0.065 - 0.121	.022	W	
Uranium-238	.097	0.096	A		1.0	0.067 - 0.125	.021	W	
Zinc-65	.045		A			False Positive Test	.160		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (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 Series 51
 (WIPH01) WI, DPH, Radiation Protection Section
 1 West Wilson Street
 Madison, WI 53703

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	-.008	0.0211	N		-137.9	0.0148 - 0.0274	.054	N	
Cesium-134	.308	0.334	A		-7.8	0.234 - 0.434	.017	A	
Cesium-137	.240	0.269	A		-10.8	0.188 - 0.350	.022	A	
Cobalt-57	.014		A			False Positive Test	.01		
Cobalt-60	.310	0.361	A		-14.1	0.253 - 0.469	.019	A	
Manganese-54	.023		A			False Positive Test	.014		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	.024		A			False Positive Test	.027		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (WIPP01) WIPP Laboratories
 1400 University Drive
 Carlsbad, NM 88220

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	2.15E-002	0.0211	A		1.9	0.0148 - 0.0274	1.99E-003	A	
Cesium-134	3.20E-001	0.334	A		-4.2	0.234 - 0.434	1.32E-002	A	
Cesium-137	2.80E-001	0.269	A		4.1	0.188 - 0.350	1.48E-002	A	
Cobalt-57	-5.24E-004		A			False Positive Test	3.47E-003		
Cobalt-60	3.94E-001	0.361	A		9.1	0.253 - 0.469	1.96E-002	A	
Manganese-54	3.77E-003		A			False Positive Test	7.24E-003		
Plutonium-238	1.88E-002	0.0157	A		19.7	0.0110 - 0.0204	1.75E-003	A	
Plutonium-239/240	2.37E-002	0.0215	A		10.2	0.0151 - 0.0280	2.12E-003	A	
Strontium-90	9.12E-001	0.91	A		0.2	0.64 - 1.18	3.58E-002	A	
Uranium-234	9.06E-002	0.093	A		-2.6	0.065 - 0.121	1.33E-002	A	
Uranium-238	9.69E-002	0.096	A		0.9	0.067 - 0.125	1.42E-002	A	
Zinc-65	3.24E-002		A			False Positive Test	1.43E-002		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
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- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

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

Laboratory Results For MAPEP Series 51
 (WSHL01) Wisconsin State Laboratory of Hygiene
 2601 Agriculture Drive
 Madison, WI 53718

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	0.0147	0.0211	N		-30.3	0.0148 - 0.0274	0.00549	N	
Cesium-134	0.297	0.334	A		-11.1	0.234 - 0.434	0.0117	A	
Cesium-137	0.276	0.269	A		2.6	0.188 - 0.350	0.0135	A	
Cobalt-57	-0.0123		A			False Positive Test	0.01010		
Cobalt-60	0.351	0.361	A		-2.8	0.253 - 0.469	0.0219	A	
Manganese-54	0.0107		A			False Positive Test	0.0220		
Plutonium-238	0.0083	0.0157	N		-47.1	0.0110 - 0.0204	0.0067	N	
Plutonium-239/240	0.0224	0.0215	A		4.2	0.0151 - 0.0280	0.0064	W	
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	0.1071	0.093	A		15.2	0.065 - 0.121	0.0104	A	
Uranium-238	0.1011	0.096	A		5.3	0.067 - 0.125	0.0098	A	
Zinc-65	0.0161		A			False Positive Test	0.0324		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
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- (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 Series 51
 (WVDP01) WVDP Environmental Laboratory
 10282 Rock Springs Road
 West Valley, NY 14171

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	NR	0.056				0.039 - 0.073			
Uranium-238	NR	7.8				5.5 - 10.1			
Uranium-Total	NR	7.8				5.5 - 10.1			

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	0.280	0.334	A		-16.2	0.234 - 0.434	0.0255	A	
Cesium-137	0.261	0.269	A		-3.0	0.188 - 0.350	0.0227	A	
Cobalt-57	-0.00133		A			False Positive Test	0.00425		
Cobalt-60	0.328	0.361	A		-9.1	0.253 - 0.469	0.0190	A	
Manganese-54	0.00438		A			False Positive Test	0.0123		
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	0.0158		A			False Positive Test	0.0464		

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

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

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

Notes:

- (1) = False Positive
- (4) = Sensitivity Evaluation
- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
- (29) = Statistically significant negative value at 3 standard deviations



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

Laboratory Results For MAPEP Series 51
 (YPGA01) US Army Yuma Proving Ground / Material Analysis Lab
 301 C. Street
 Yuma, AZ 85365

Inorganic								Units: (ug/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Uranium-235	0.037	0.056	N		-33.9	0.039 - 0.073	0.007	W	
Uranium-238	4.81	7.8	N		-38.3	5.5 - 10.1	0.73	W	
Uranium-Total	4.85	7.8	N		-37.8	5.5 - 10.1	0.73	W	

Radiological								Units: (Bq/sample)	
Analyte	Result	Ref Value	Flag	Notes	Bias (%)	Acceptance Range	Unc Value	Unc Flag	
Americium-241	NR	0.0211				0.0148 - 0.0274			
Cesium-134	NR	0.334				0.234 - 0.434			
Cesium-137	NR	0.269				0.188 - 0.350			
Cobalt-57	NR					False Positive Test			
Cobalt-60	NR	0.361				0.253 - 0.469			
Manganese-54	NR					False Positive Test			
Plutonium-238	NR	0.0157				0.0110 - 0.0204			
Plutonium-239/240	NR	0.0215				0.0151 - 0.0280			
Strontium-90	NR	0.91				0.64 - 1.18			
Uranium-234	NR	0.093				0.065 - 0.121			
Uranium-238	NR	0.096				0.067 - 0.125			
Zinc-65	NR					False Positive Test			

Results Flags:

Radiological Reference Date: August 1, 2024

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

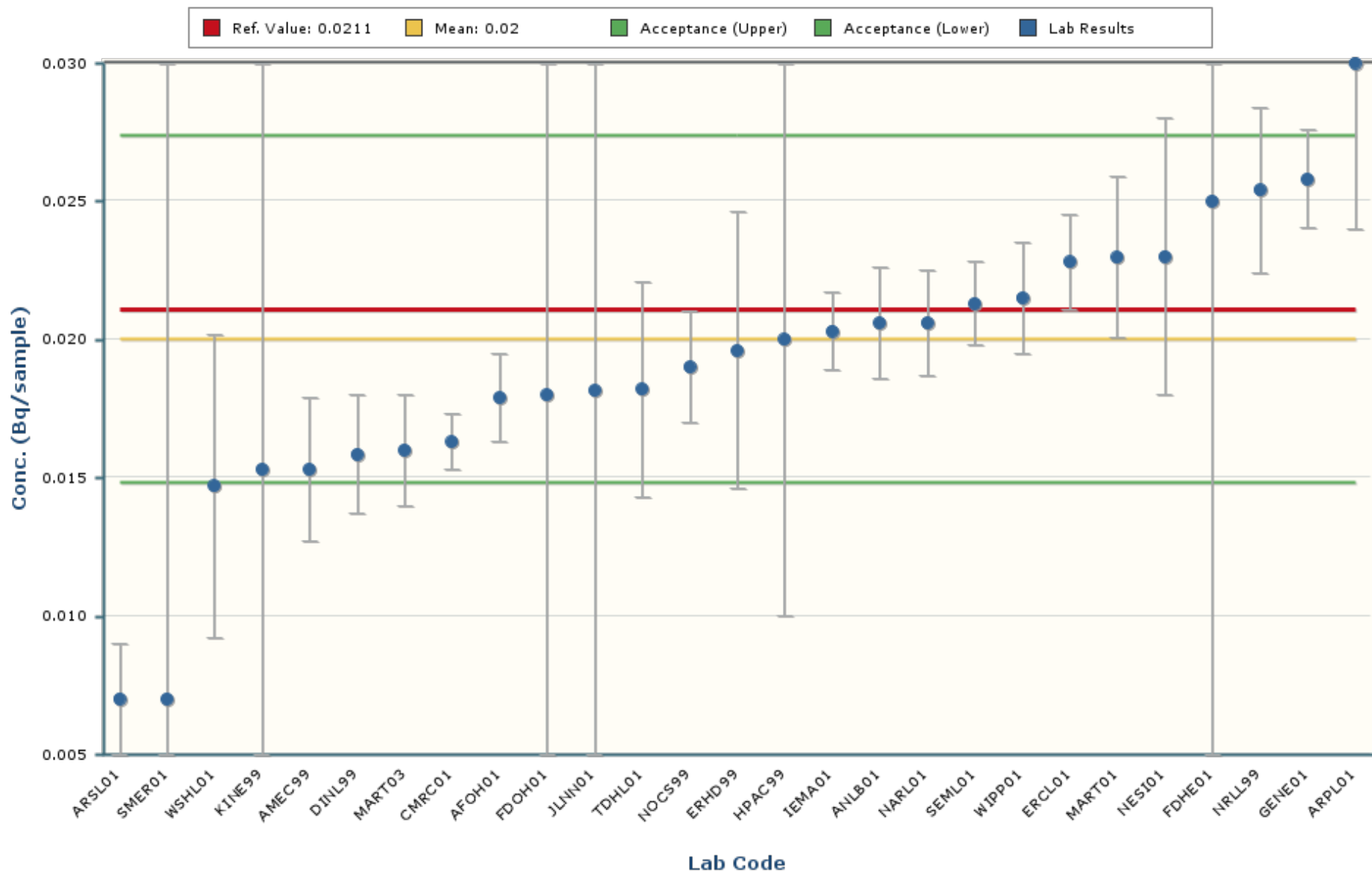
- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%

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

Notes:

- (1) = False Positive
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- (6) = Not Evaluated
- (11) = False Positive Test, Result Not Reported
- (28) = Not Reporting Previously Reported Analyte
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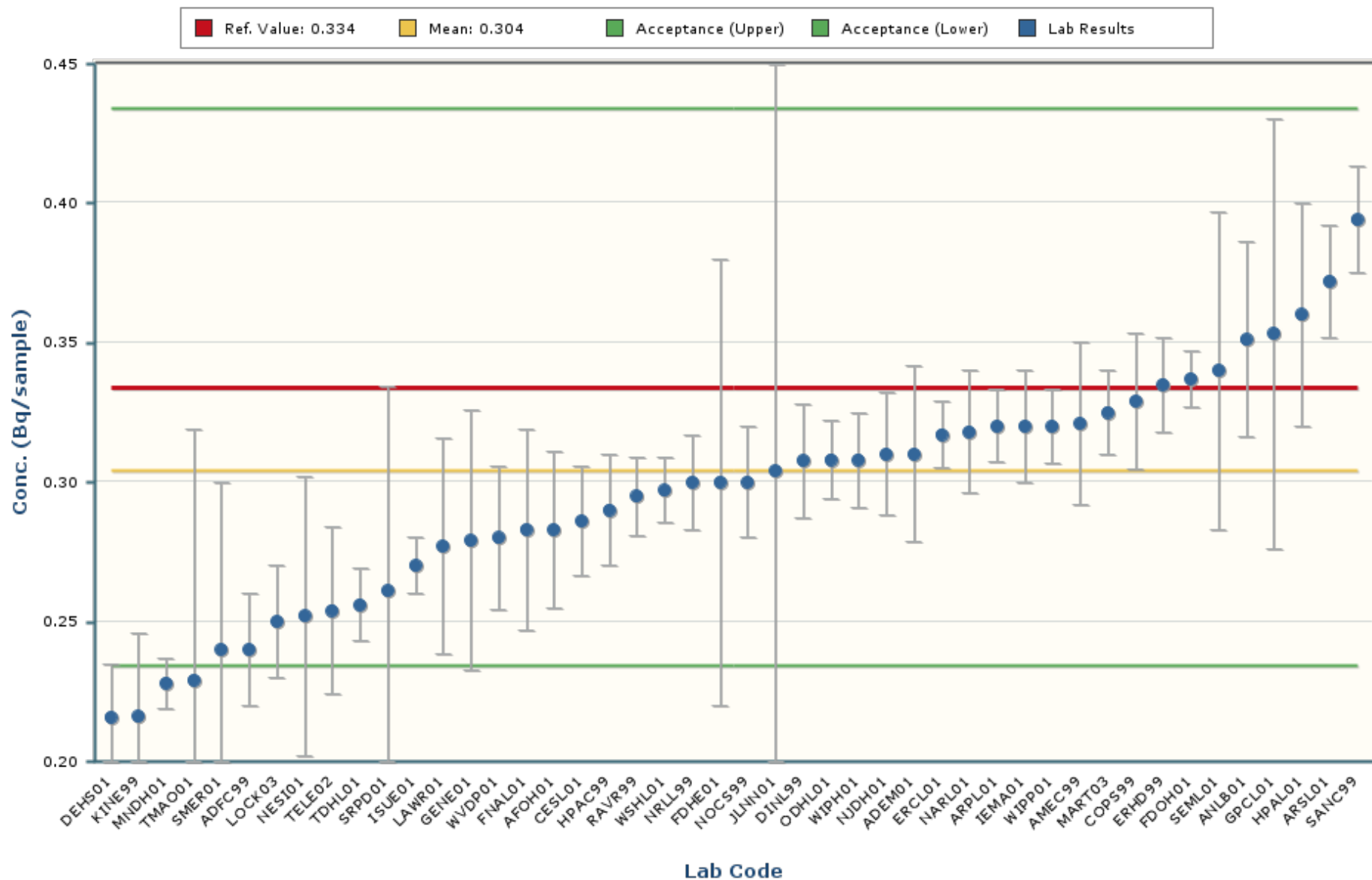
Americium-241
MAPEP-24-RdF51



Notes:

The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 0.0039 and 0.0360 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at \pm one standard deviation.

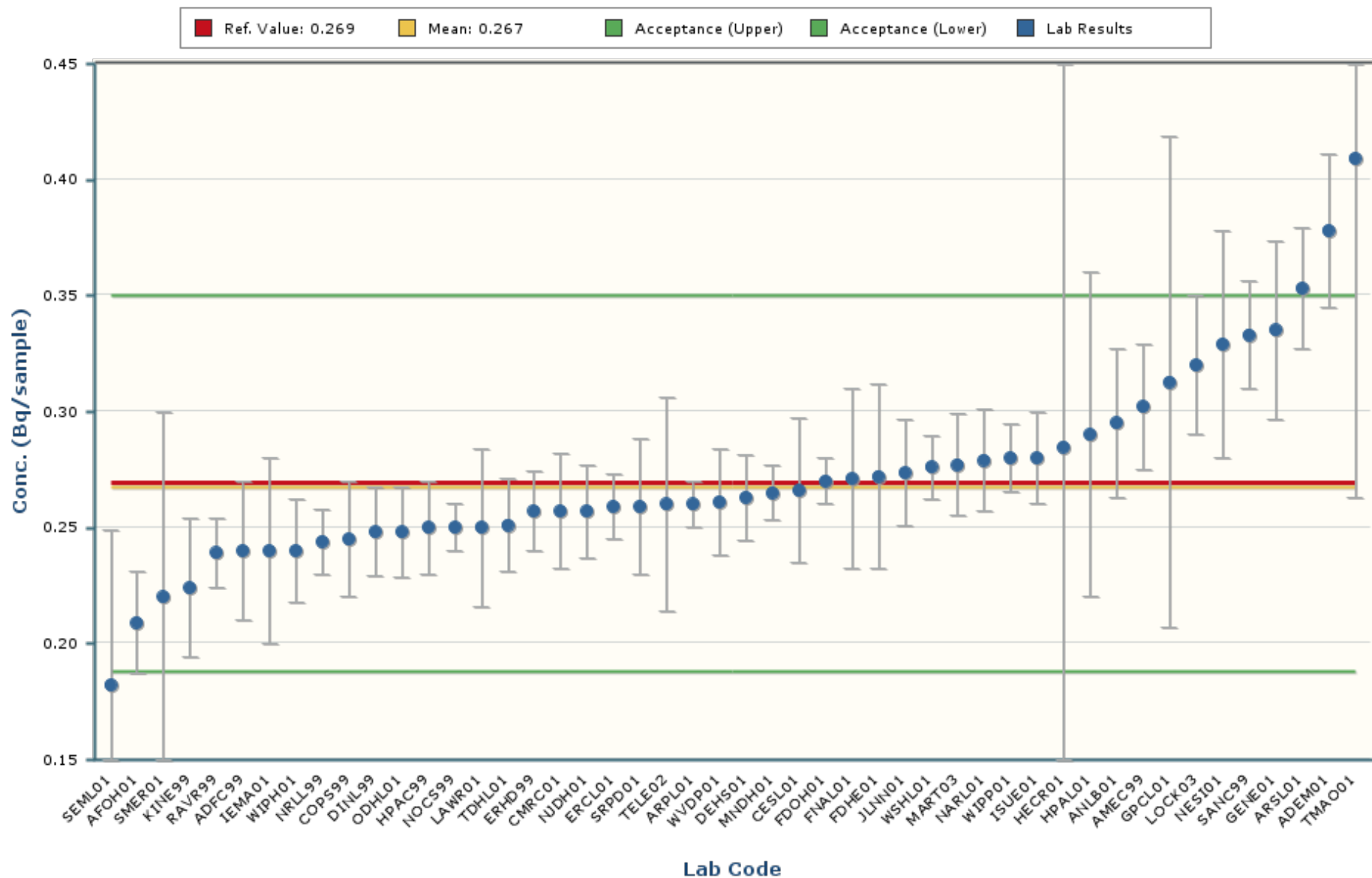
Cesium-134
MAPEP-24-RdF51



Notes:

The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 0.126 and 0.481 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at \pm one standard deviation.

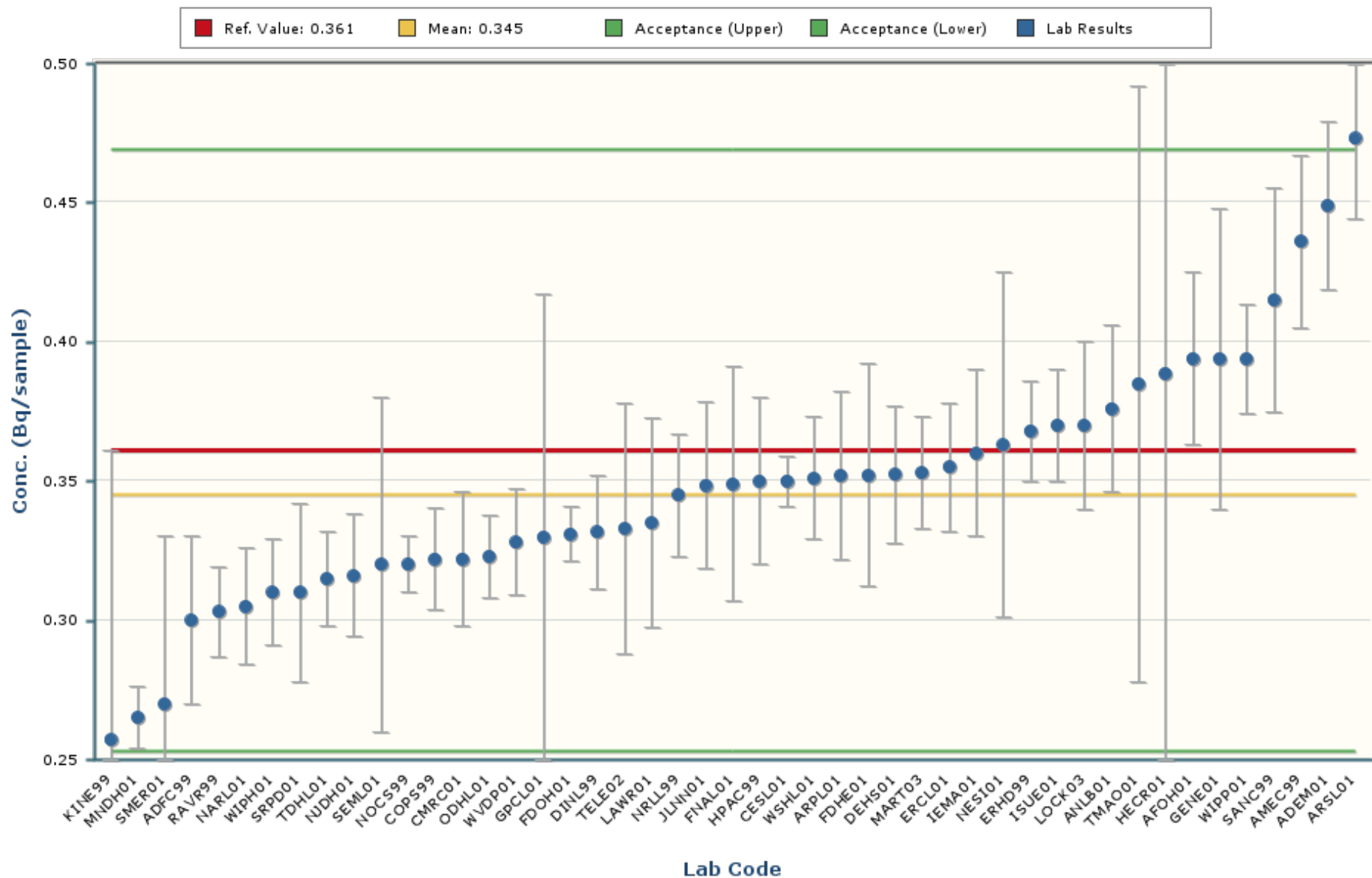
Cesium-137
MAPEP-24-RdF51



Notes:

The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 0.124 and 0.410 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at \pm one standard deviation.

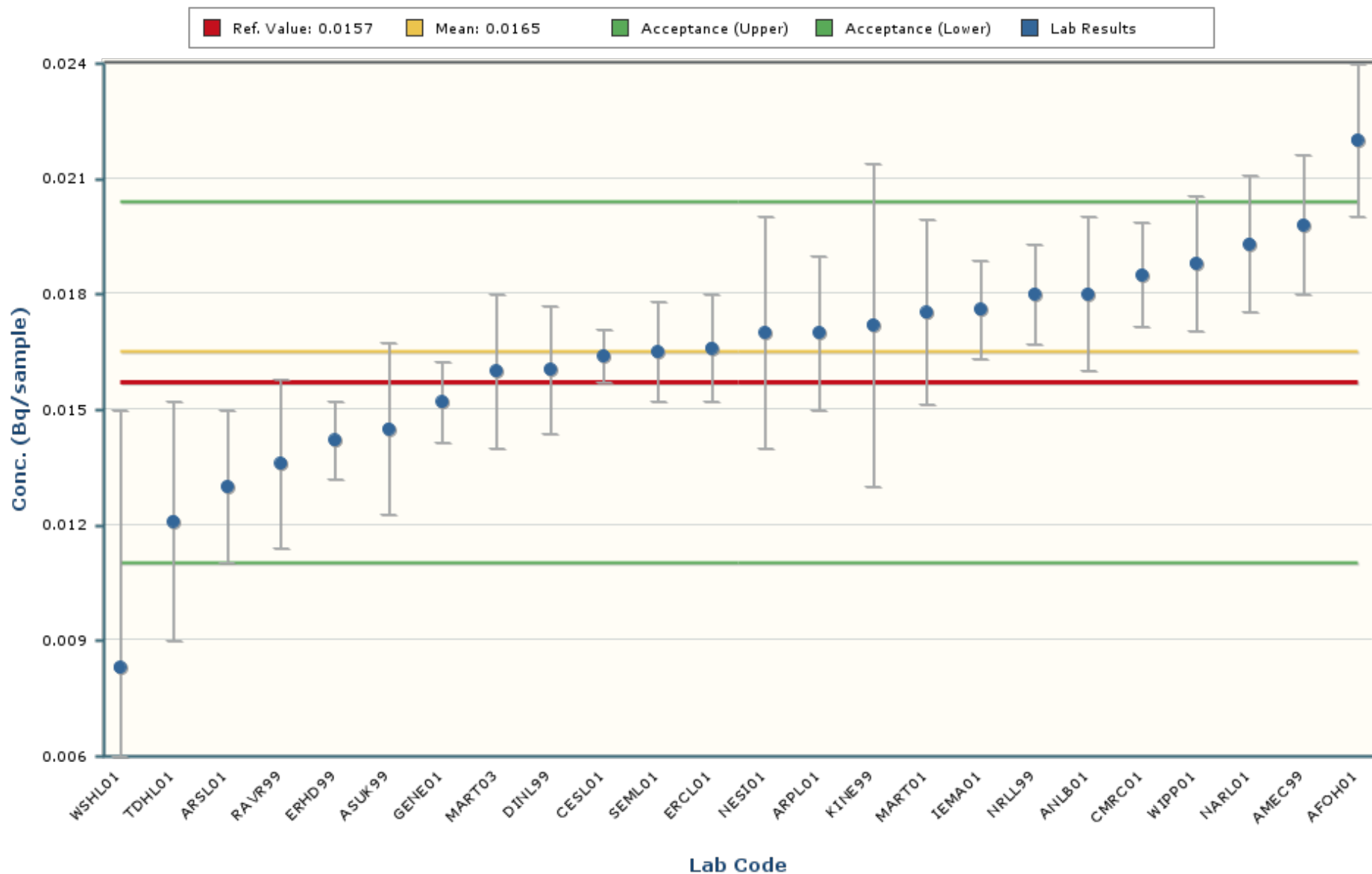
Cobalt-60
MAPEP-24-RdF51



Notes:

The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 0.145 and 0.545 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at ± 1 standard deviation.

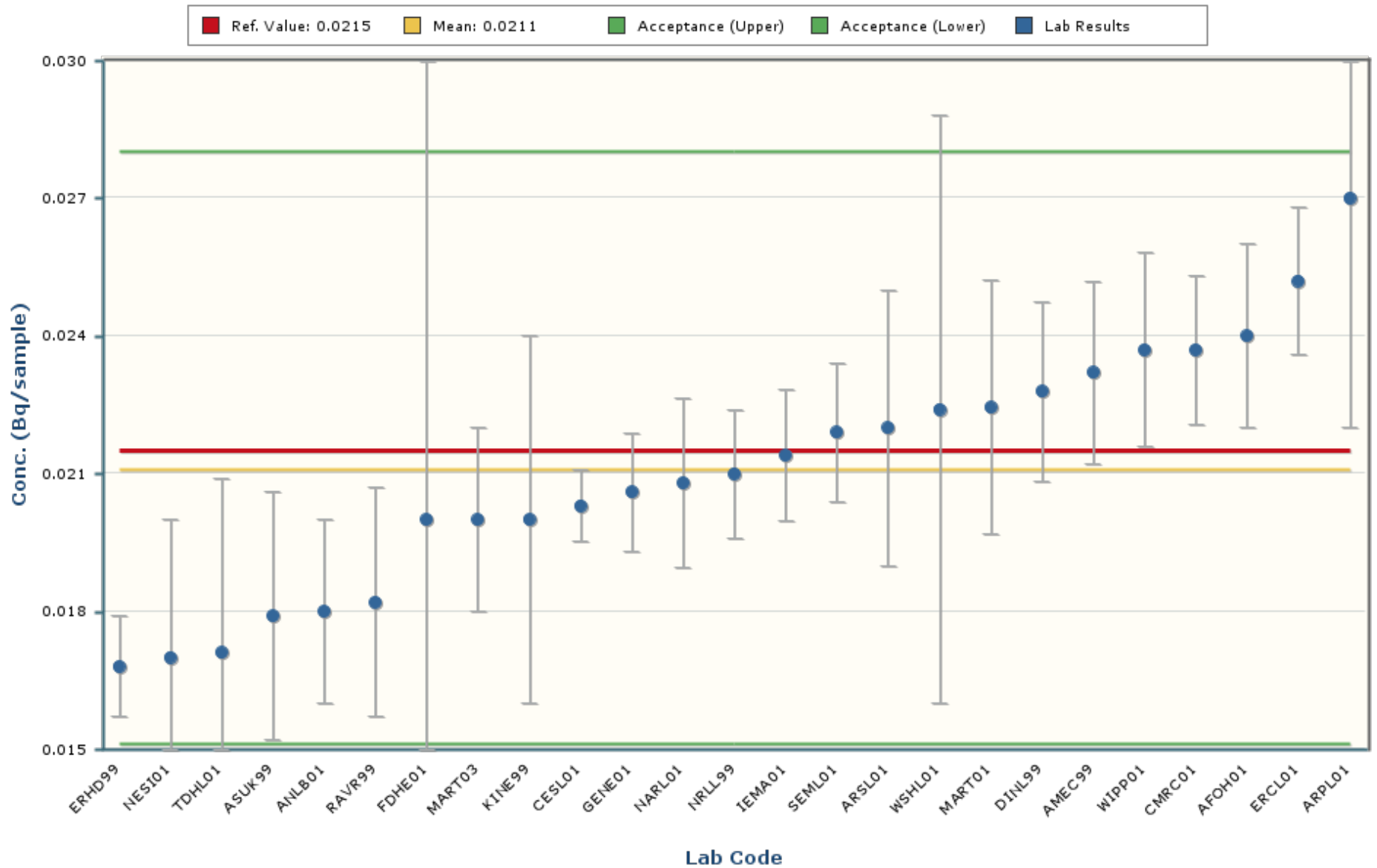
Plutonium-238
MAPEP-24-RdF51



Notes:

The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 0.0063 and 0.0267 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at \pm one standard deviation.

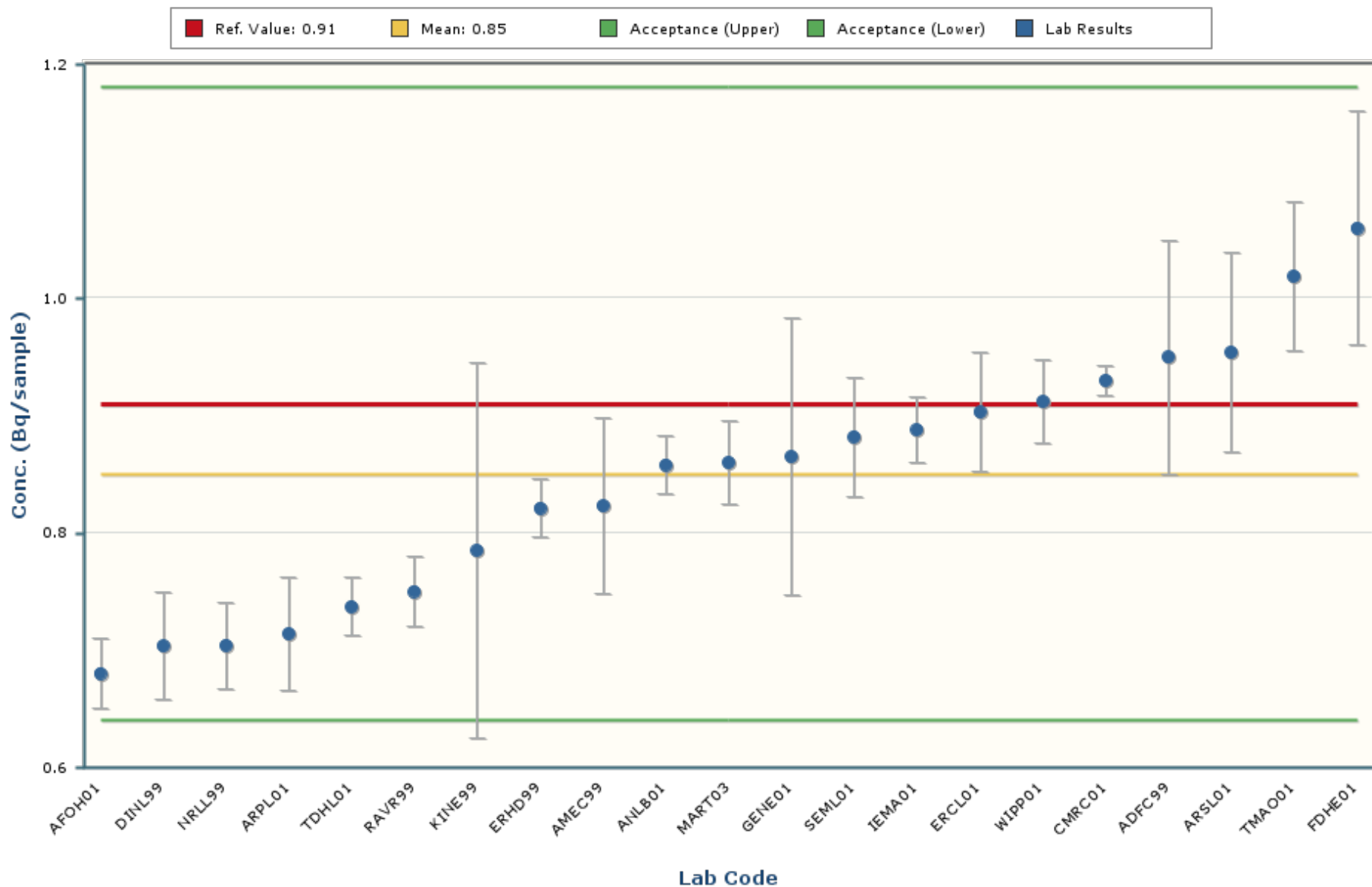
Plutonium-239/240
MAPEP-24-RdF51



Notes:

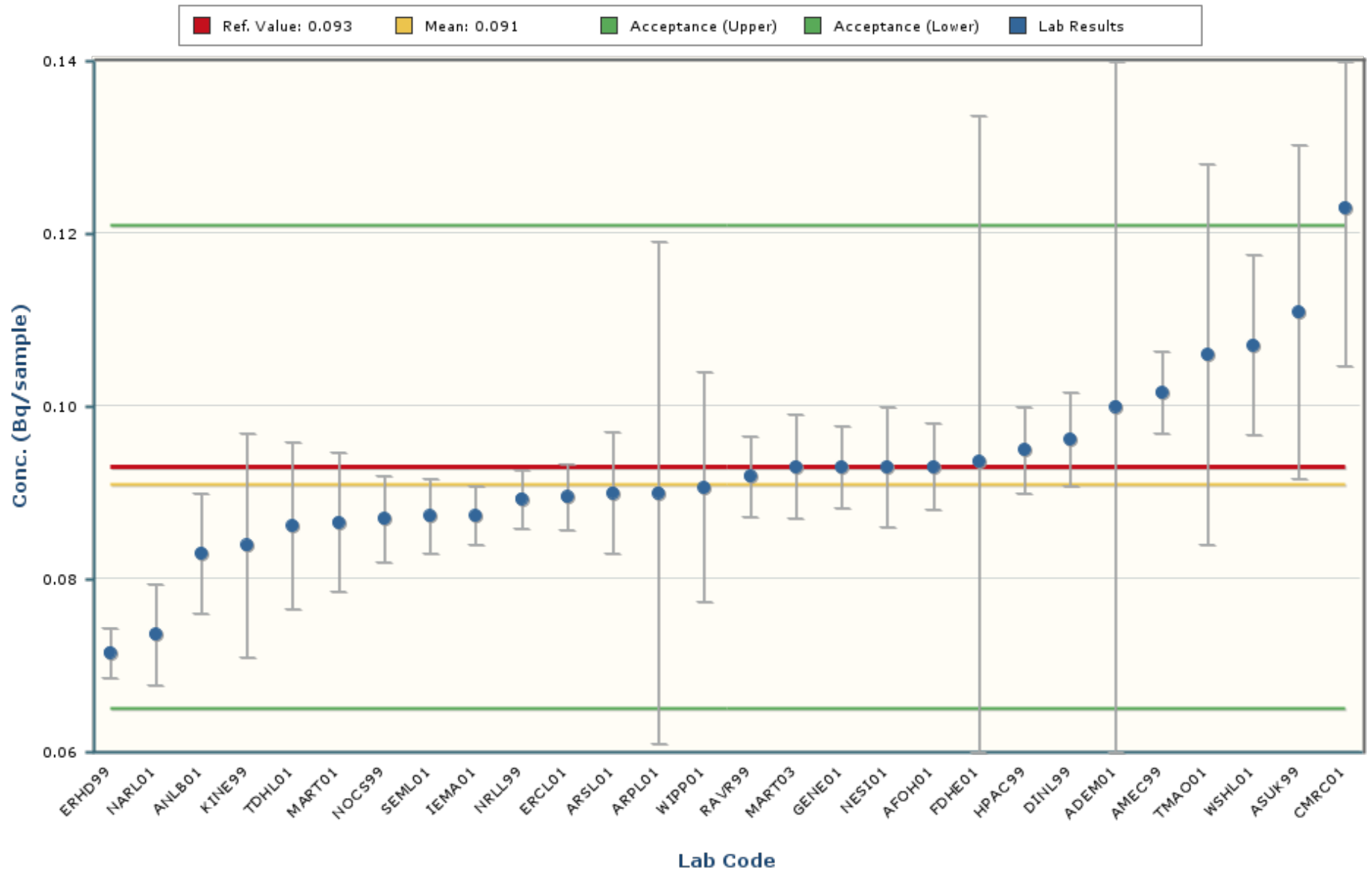
The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 0.0078 and 0.0344 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at ± 1 standard deviation.

Strontium-90
MAPEP-24-RdF51



Notes:
 The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 0.31 and 1.38 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at \pm one standard deviation.

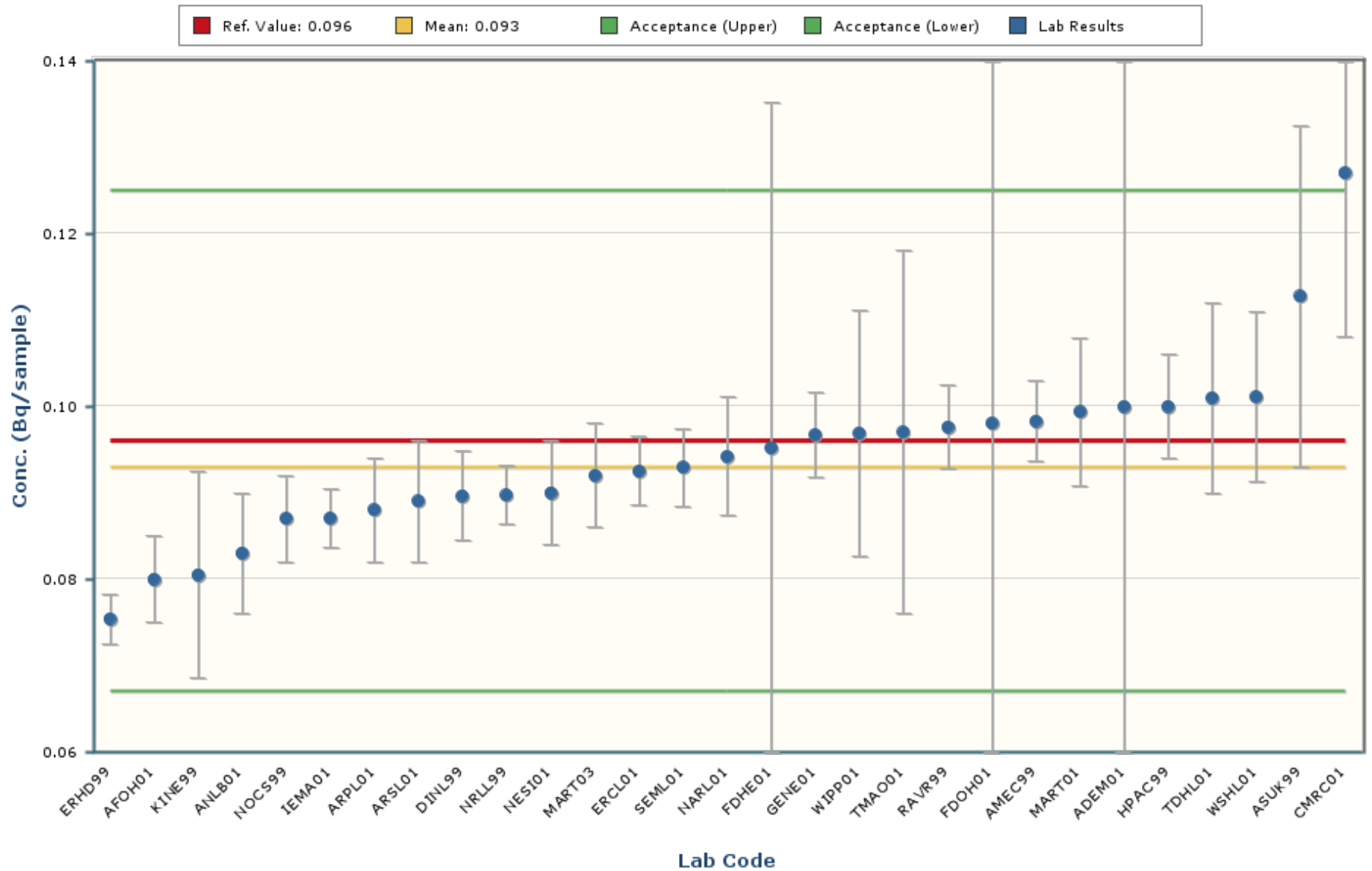
Uranium-234
MAPEP-24-RdF51



Notes:

The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 0.047 and 0.136 (± 5 Standard Deviations).
 The error bars encompassing each result are plotted at ± 1 standard deviation.

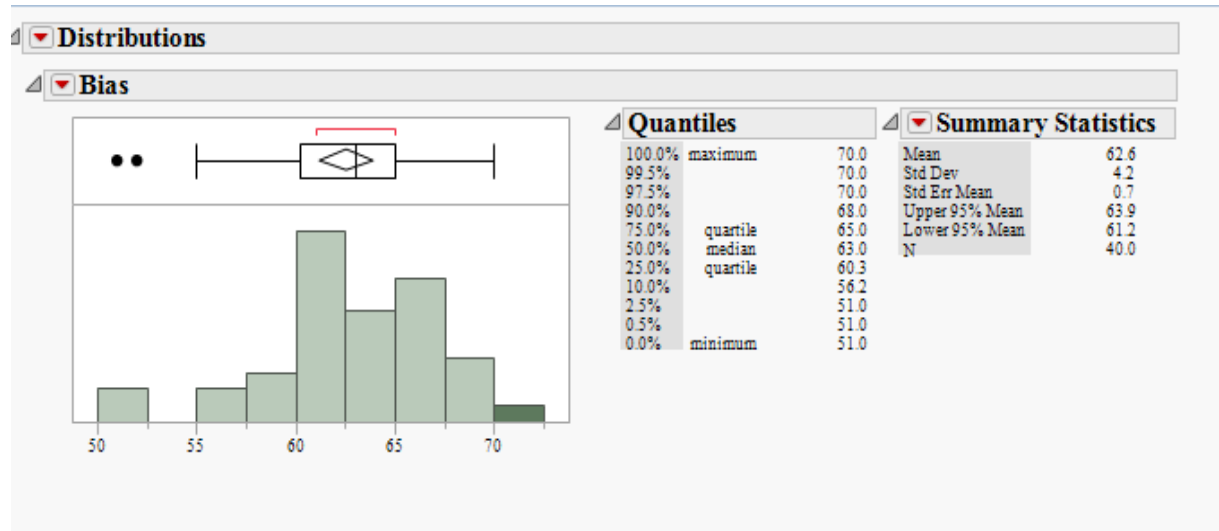
Uranium-238
MAPEP-24-RdF51



Notes:

The chart mean excludes values outside of a bias range of $\pm 30\%$.
 The chart shows only data points with values between 0.054 and 0.132 (± 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.

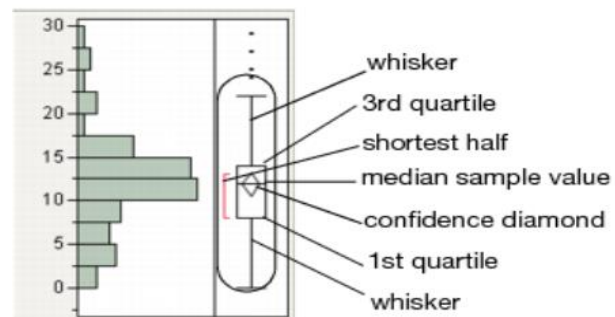


Outlier Box Plot

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)

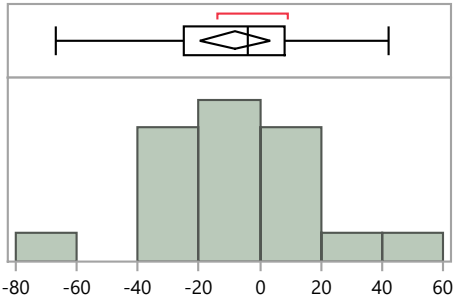


If the data points do not reach the computed ranges, then the whiskers are determined by the upper and lower data point values (not including outliers). The bracket outside of the box identifies the *shortest half*, which is the most dense 50% of the observations (Rousseuw and Leroy 1987).

RdF51 Distribution by Detection Method

Distributions Analyte_Detection=Americium-241 Alpha Spectrometry

Bias

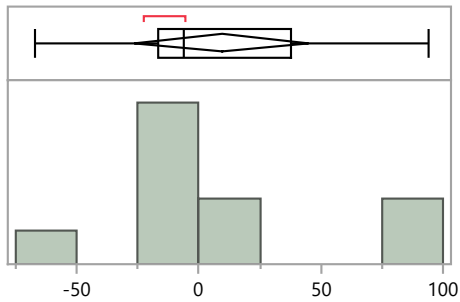


Quantiles	
100.0%	maximum 42.2
99.5%	42.2
97.5%	42.2
90.0%	22.3
75.0%	quartile 8.1
50.0%	median -3.8
25.0%	quartile -24.9
10.0%	-30.3
2.5%	-66.8
0.5%	-66.8
0.0%	minimum -66.8

Summary Statistics	
Mean	-8.2
Std Dev	23.4
Std Err Mean	5.4
Upper 95% Mean	3.1
Lower 95% Mean	-19.5
N	19.0

Distributions Analyte_Detection=Americium-241 Gamma Spectrometry

Bias

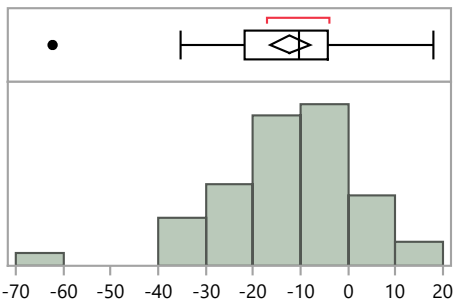


Quantiles	
100.0%	maximum 94.3
99.5%	94.3
97.5%	94.3
90.0%	93.8
75.0%	quartile 37.7
50.0%	median -6.2
25.0%	quartile -16.7
10.0%	-62.4
2.5%	-66.8
0.5%	-66.8
0.0%	minimum -66.8

Summary Statistics	
Mean	9.2
Std Dev	49.8
Std Err Mean	15.7
Upper 95% Mean	44.8
Lower 95% Mean	-26.4
N	10.0

Distributions Analyte_Detection=Cesium-134 Gamma Spectrometry

Bias



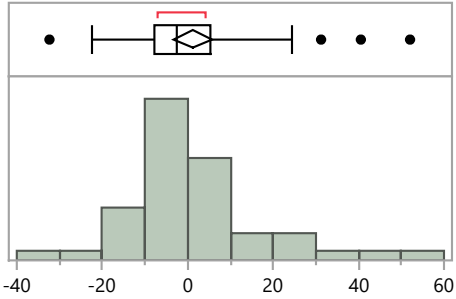
Quantiles	
100.0%	maximum 18.0
99.5%	18.0
97.5%	16.7
90.0%	5.2
75.0%	quartile -4.2
50.0%	median -10.2
25.0%	quartile -21.9
10.0%	-31.5
2.5%	-56.8
0.5%	-62.2
0.0%	minimum -62.2

Summary Statistics	
Mean	-12.3
Std Dev	14.3
Std Err Mean	2.1
Upper 95% Mean	-8.1
Lower 95% Mean	-16.5
N	47.0

RdF51 Distribution by Detection Method

Distributions Analyte_Detection=Cesium-137 Gamma Spectrometry

Bias



Quantiles

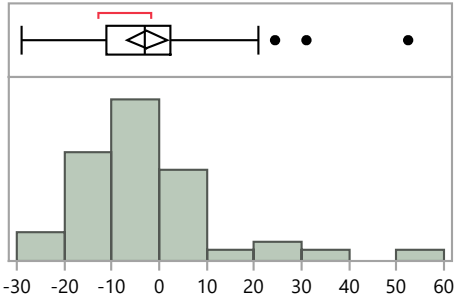
100.0%	maximum	52.0
99.5%		52.0
97.5%		49.4
90.0%		23.9
75.0%	quartile	5.4
50.0%	median	-2.6
25.0%	quartile	-7.6
10.0%		-11.8
2.5%		-30.1
0.5%		-32.3
0.0%	minimum	-32.3

Summary Statistics

Mean	1.2
Std Dev	15.4
Std Err Mean	2.2
Upper 95% Mean	5.7
Lower 95% Mean	-3.3
N	48.0

Distributions Analyte_Detection=Cobalt-60 Gamma Spectrometry

Bias



Quantiles

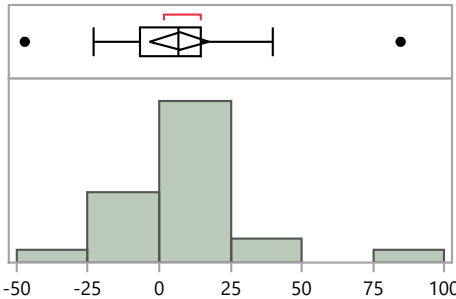
100.0%	maximum	52.4
99.5%		52.4
97.5%		47.6
90.0%		15.6
75.0%	quartile	2.5
50.0%	median	-3.2
25.0%	quartile	-11.3
10.0%		-16.2
2.5%		-28.3
0.5%		-28.8
0.0%	minimum	-28.8

Summary Statistics

Mean	-2.5
Std Dev	14.4
Std Err Mean	2.1
Upper 95% Mean	1.7
Lower 95% Mean	-6.7
N	48.0

Distributions Analyte_Detection=Plutonium-238 Alpha Spectrometry

Bias



Quantiles

100.0%	maximum	84.7
99.5%		84.7
97.5%		84.7
90.0%		33.1
75.0%	quartile	14.7
50.0%	median	7.0
25.0%	quartile	-6.5
10.0%		-20.1
2.5%		-47.1
0.5%		-47.1
0.0%	minimum	-47.1

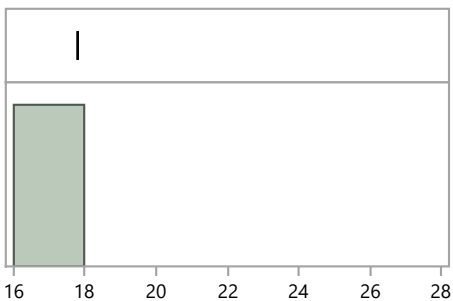
Summary Statistics

Mean	7.1
Std Dev	24.3
Std Err Mean	5.0
Upper 95% Mean	17.4
Lower 95% Mean	-3.1
N	24.0

RdF51 Distribution by Detection Method

Distributions Analyte_Detection=Plutonium-238 Gamma Spectrometry

Bias



Quantiles

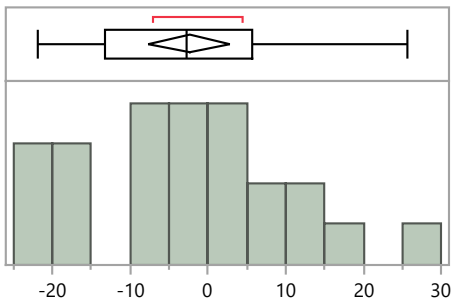
100.0%	maximum	17.8
99.5%		17.8
97.5%		17.8
90.0%		17.8
75.0%	quartile	17.8
50.0%	median	17.8
25.0%	quartile	17.8
10.0%		17.8
2.5%		17.8
0.5%		17.8
0.0%	minimum	17.8

Summary Statistics

Mean	17.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Detection=Plutonium-239/240 Alpha Spectrometry

Bias



Quantiles

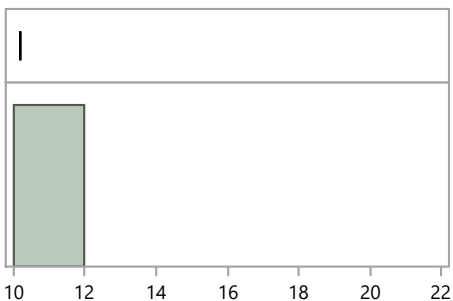
100.0%	maximum	25.6
99.5%		25.6
97.5%		25.6
90.0%		14.4
75.0%	quartile	5.6
50.0%	median	-2.8
25.0%	quartile	-13.2
10.0%		-20.7
2.5%		-21.9
0.5%		-21.9
0.0%	minimum	-21.9

Summary Statistics

Mean	-2.4
Std Dev	12.4
Std Err Mean	2.5
Upper 95% Mean	2.8
Lower 95% Mean	-7.6
N	24.0

Distributions Analyte_Detection=Plutonium-239/240 Gamma Spectrometry

Bias



Quantiles

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

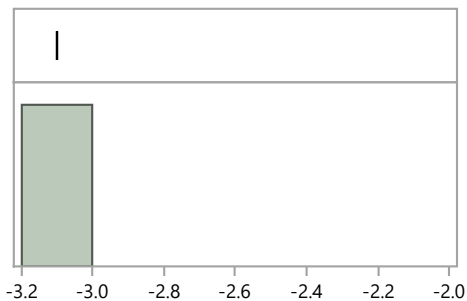
Summary Statistics

Mean	10.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdF51 Distribution by Detection Method

Distributions Analyte_Detection=Strontium-90 Alpha Spectrometry

Bias



Quantiles

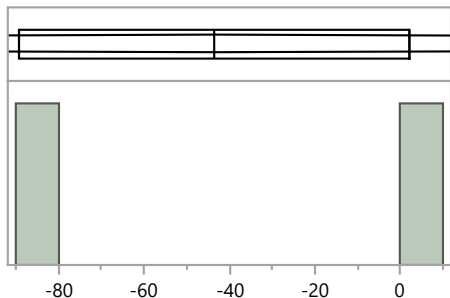
100.0%	maximum	-3.1
99.5%		-3.1
97.5%		-3.1
90.0%		-3.1
75.0%	quartile	-3.1
50.0%	median	-3.1
25.0%	quartile	-3.1
10.0%		-3.1
2.5%		-3.1
0.5%		-3.1
0.0%	minimum	-3.1

Summary Statistics

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

Distributions Analyte_Detection=Strontium-90 Gamma Spectrometry

Bias



Quantiles

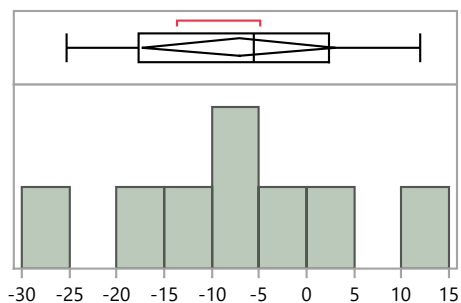
100.0%	maximum	2.2
99.5%		2.2
97.5%		2.2
90.0%		2.2
75.0%	quartile	2.2
50.0%	median	-43.4
25.0%	quartile	-89.0
10.0%		-89.0
2.5%		-89.0
0.5%		-89.0
0.0%	minimum	-89.0

Summary Statistics

Mean	-43.4
Std Dev	64.5
Std Err Mean	45.6
Upper 95% Mean	536.0
Lower 95% Mean	-622.8
N	2.0

Distributions Analyte_Detection=Strontium-90 Gas Flow Proportional Counter

Bias



Quantiles

100.0%	maximum	12.0
99.5%		12.0
97.5%		12.0
90.0%		12.0
75.0%	quartile	2.4
50.0%	median	-5.6
25.0%	quartile	-17.7
10.0%		-25.3
2.5%		-25.3
0.5%		-25.3
0.0%	minimum	-25.3

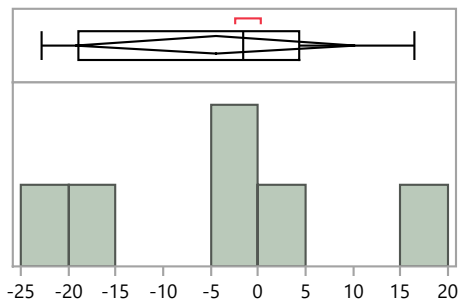
Summary Statistics

Mean	-7.2
Std Dev	12.1
Std Err Mean	4.3
Upper 95% Mean	3.0
Lower 95% Mean	-17.3
N	8.0

RdF51 Distribution by Detection Method

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

Bias



Quantiles

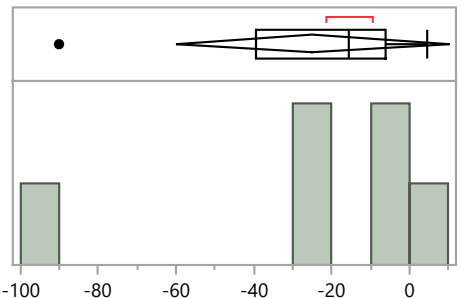
100.0%	maximum	16.5
99.5%		16.5
97.5%		16.5
90.0%		16.5
75.0%	quartile	4.3
50.0%	median	-1.6
25.0%	quartile	-18.9
10.0%		-22.7
2.5%		-22.7
0.5%		-22.7
0.0%	minimum	-22.7

Summary Statistics

Mean	-4.5
Std Dev	14.0
Std Err Mean	5.7
Upper 95% Mean	10.3
Lower 95% Mean	-19.2
N	6.0

Distributions Analyte_Detection=Strontium-90 Liquid Scintillation Counter

Bias



Quantiles

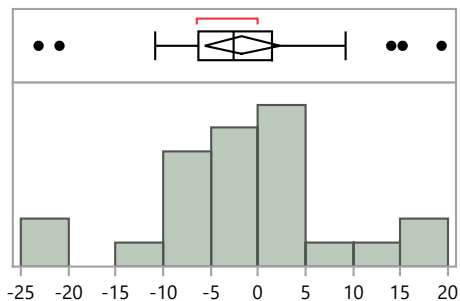
100.0%	maximum	4.4
99.5%		4.4
97.5%		4.4
90.0%		4.4
75.0%	quartile	-6.1
50.0%	median	-15.7
25.0%	quartile	-39.5
10.0%		-90.1
2.5%		-90.1
0.5%		-90.1
0.0%	minimum	-90.1

Summary Statistics

Mean	-24.9
Std Dev	33.4
Std Err Mean	13.6
Upper 95% Mean	10.2
Lower 95% Mean	-60.0
N	6.0

Distributions Analyte_Detection=Uranium-234 Alpha Spectrometry

Bias



Quantiles

100.0%	maximum	19.3
99.5%		19.3
97.5%		19.3
90.0%		14.5
75.0%	quartile	1.4
50.0%	median	-2.6
25.0%	quartile	-6.3
10.0%		-14.8
2.5%		-23.1
0.5%		-23.1
0.0%	minimum	-23.1

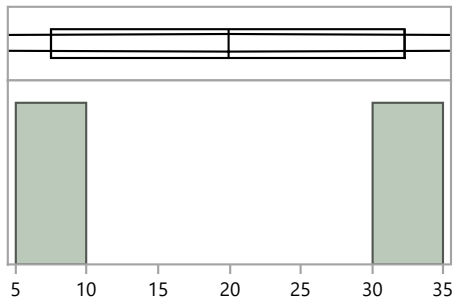
Summary Statistics

Mean	-1.7
Std Dev	9.6
Std Err Mean	1.9
Upper 95% Mean	2.3
Lower 95% Mean	-5.6
N	25.0

RdF51 Distribution by Detection Method

Distributions Analyte_Detection=Uranium-234 Gamma Spectrometry

Bias



Quantiles

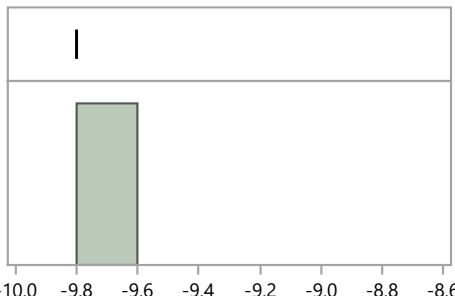
100.0%	maximum	32.3
99.5%		32.3
97.5%		32.3
90.0%		32.3
75.0%	quartile	32.3
50.0%	median	19.9
25.0%	quartile	7.5
10.0%		7.5
2.5%		7.5
0.5%		7.5
0.0%	minimum	7.5

Summary Statistics

Mean	19.9
Std Dev	17.5
Std Err Mean	12.4
Upper 95% Mean	177.5
Lower 95% Mean	-137.7
N	2.0

Distributions Analyte_Detection=Uranium-234 Inductively Coupled Plasma Mass Spectrometry

Bias



Quantiles

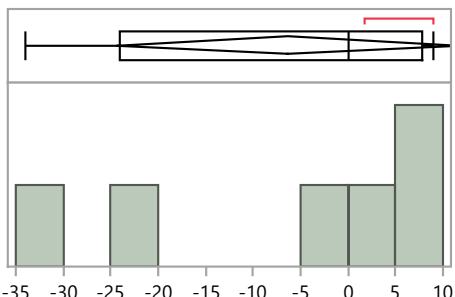
100.0%	maximum	-9.8
99.5%		-9.8
97.5%		-9.8
90.0%		-9.8
75.0%	quartile	-9.8
50.0%	median	-9.8
25.0%	quartile	-9.8
10.0%		-9.8
2.5%		-9.8
0.5%		-9.8
0.0%	minimum	-9.8

Summary Statistics

Mean	-9.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Detection=Uranium-235 Inductively Coupled Plasma Mass Spectrometry

Bias



Quantiles

100.0%	maximum	8.9
99.5%		8.9
97.5%		8.9
90.0%		8.9
75.0%	quartile	7.7
50.0%	median	0.0
25.0%	quartile	-24.0
10.0%		-33.9
2.5%		-33.9
0.5%		-33.9
0.0%	minimum	-33.9

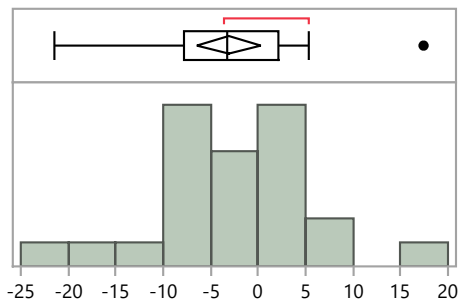
Summary Statistics

Mean	-6.4
Std Dev	17.2
Std Err Mean	7.0
Upper 95% Mean	11.6
Lower 95% Mean	-24.4
N	6.0

RdF51 Distribution by Detection Method

Distributions Analyte_Detection=Uranium-238 Alpha Spectrometry

Bias



Quantiles

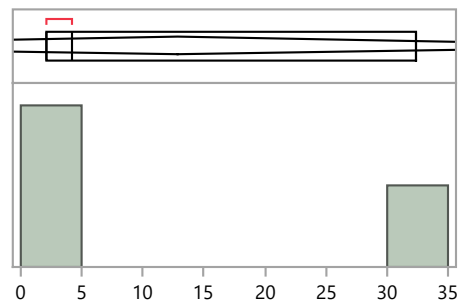
100.0%	maximum	17.4
99.5%		17.4
97.5%		17.4
90.0%		5.2
75.0%	quartile	2.1
50.0%	median	-3.2
25.0%	quartile	-7.8
10.0%		-14.8
2.5%		-21.5
0.5%		-21.5
0.0%	minimum	-21.5

Summary Statistics

Mean	-3.1
Std Dev	8.0
Std Err Mean	1.6
Upper 95% Mean	0.2
Lower 95% Mean	-6.4
N	25.0

Distributions Analyte_Detection=Uranium-238 Gamma Spectrometry

Bias



Quantiles

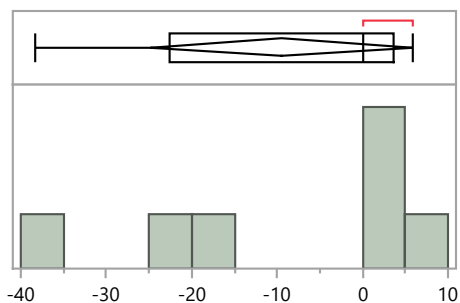
100.0%	maximum	32.3
99.5%		32.3
97.5%		32.3
90.0%		32.3
75.0%	quartile	32.3
50.0%	median	4.2
25.0%	quartile	2.1
10.0%		2.1
2.5%		2.1
0.5%		2.1
0.0%	minimum	2.1

Summary Statistics

Mean	12.9
Std Dev	16.9
Std Err Mean	9.7
Upper 95% Mean	54.8
Lower 95% Mean	-29.0
N	3.0

Distributions Analyte_Detection=Uranium-238 Inductively Coupled Plasma Mass Spectrometry

Bias



Quantiles

100.0%	maximum	5.8
99.5%		5.8
97.5%		5.8
90.0%		5.8
75.0%	quartile	3.7
50.0%	median	0.0
25.0%	quartile	-22.6
10.0%		-38.3
2.5%		-38.3
0.5%		-38.3
0.0%	minimum	-38.3

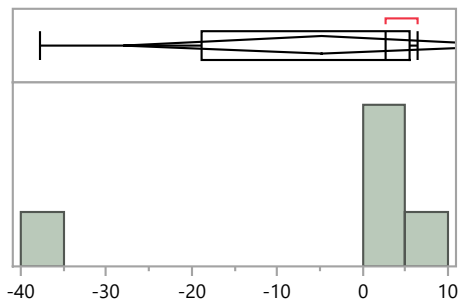
Summary Statistics

Mean	-9.5
Std Dev	16.6
Std Err Mean	6.3
Upper 95% Mean	5.9
Lower 95% Mean	-24.8
N	7.0

RdF51 Distribution by Detection Method

Distributions Analyte_Detection=Uranium-Total Inductively Coupled Plasma Mass Spectrometry

Bias



Quantiles

100.0%	maximum	6.5
99.5%		6.5
97.5%		6.5
90.0%		6.5
75.0%	quartile	5.6
50.0%	median	2.6
25.0%	quartile	-18.9
10.0%		-37.8
2.5%		-37.8
0.5%		-37.8
0.0%	minimum	-37.8

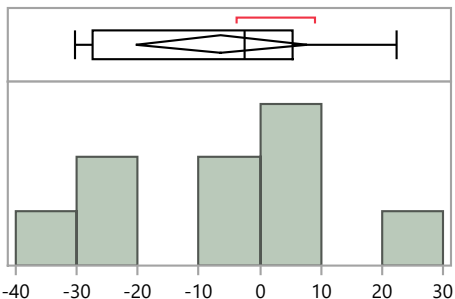
Summary Statistics

Mean	-4.8
Std Dev	18.6
Std Err Mean	8.3
Upper 95% Mean	18.3
Lower 95% Mean	-27.9
N	5.0

RdF51 Distribution by Preparation Method

Distributions Analyte_Method=Americium-241 Acid dissolution with hydrofluoric acid

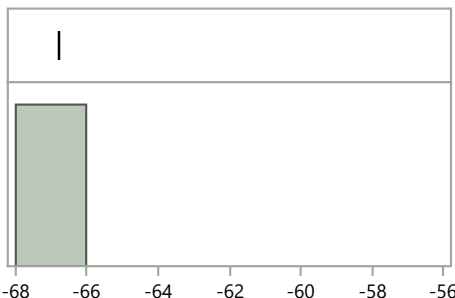
Bias



Quantiles			Summary Statistics	
100.0%	maximum	22.3	Mean	-6.4
99.5%		22.3	Std Dev	18.3
97.5%		22.3	Std Err Mean	6.1
90.0%		22.3	Upper 95% Mean	7.7
75.0%	quartile	5.5	Lower 95% Mean	-20.4
50.0%	median	-2.4	N	9.0
25.0%	quartile	-27.5		
10.0%		-30.3		
2.5%		-30.3		
0.5%		-30.3		
0.0%	minimum	-30.3		

Distributions Analyte_Method=Americium-241 Acid leaching without hydrofluoric acid

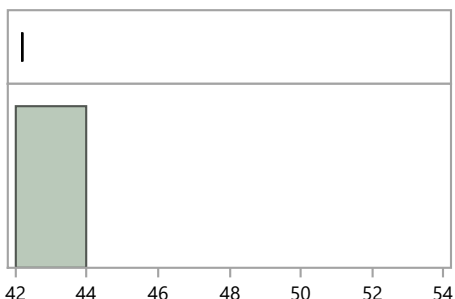
Bias



Quantiles			Summary Statistics	
100.0%	maximum	-66.8	Mean	-66.8
99.5%		-66.8	Std Dev	.
97.5%		-66.8	Std Err Mean	.
90.0%		-66.8	Upper 95% Mean	.
75.0%	quartile	-66.8	Lower 95% Mean	.
50.0%	median	-66.8	N	1.0
25.0%	quartile	-66.8		
10.0%		-66.8		
2.5%		-66.8		
0.5%		-66.8		
0.0%	minimum	-66.8		

Distributions Analyte_Method=Americium-241 Coprecipitation, acidified

Bias

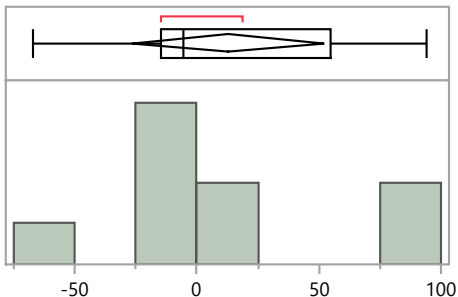


Quantiles			Summary Statistics	
100.0%	maximum	42.2	Mean	42.2
99.5%		42.2	Std Dev	.
97.5%		42.2	Std Err Mean	.
90.0%		42.2	Upper 95% Mean	.
75.0%	quartile	42.2	Lower 95% Mean	.
50.0%	median	42.2	N	1.0
25.0%	quartile	42.2		
10.0%		42.2		
2.5%		42.2		
0.5%		42.2		
0.0%	minimum	42.2		

RdF51 Distribution by Preparation Method

Distributions Analyte_Method=Americium-241 No preparation - analyzed as received

Bias



Quantiles

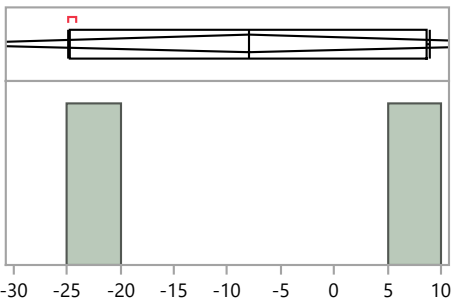
100.0%	maximum	94.3
99.5%		94.3
97.5%		94.3
90.0%		94.3
75.0%	quartile	55.0
50.0%	median	-5.2
25.0%	quartile	-14.4
10.0%		-66.8
2.5%		-66.8
0.5%		-66.8
0.0%	minimum	-66.8

Summary Statistics

Mean	12.8
Std Dev	51.4
Std Err Mean	17.1
Upper 95% Mean	52.3
Lower 95% Mean	-26.8
N	9.0

Distributions Analyte_Method=Americium-241 Other

Bias



Quantiles

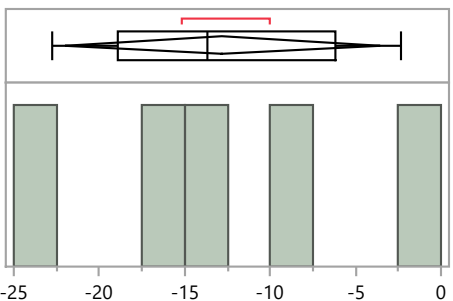
100.0%	maximum	8.9
99.5%		8.9
97.5%		8.9
90.0%		8.9
75.0%	quartile	8.7
50.0%	median	-8.1
25.0%	quartile	-24.7
10.0%		-24.9
2.5%		-24.9
0.5%		-24.9
0.0%	minimum	-24.9

Summary Statistics

Mean	-8.0
Std Dev	19.1
Std Err Mean	9.5
Upper 95% Mean	22.3
Lower 95% Mean	-38.4
N	4.0

Distributions Analyte_Method=Americium-241 Total dissolution by fusion

Bias



Quantiles

100.0%	maximum	-2.4
99.5%		-2.4
97.5%		-2.4
90.0%		-2.4
75.0%	quartile	-6.2
50.0%	median	-13.7
25.0%	quartile	-19.0
10.0%		-22.7
2.5%		-22.7
0.5%		-22.7
0.0%	minimum	-22.7

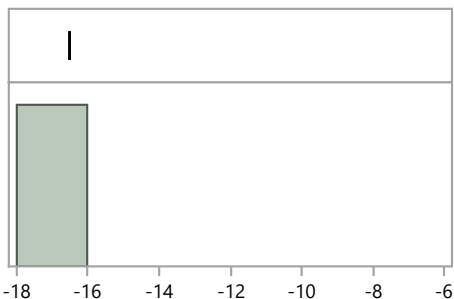
Summary Statistics

Mean	-12.8
Std Dev	7.4
Std Err Mean	3.3
Upper 95% Mean	-3.6
Lower 95% Mean	-22.0
N	5.0

RdF51 Distribution by Preparation Method

Distributions Analyte_Method=Cesium-134 Acid dissolution with hydrofluoric acid

Bias



Quantiles

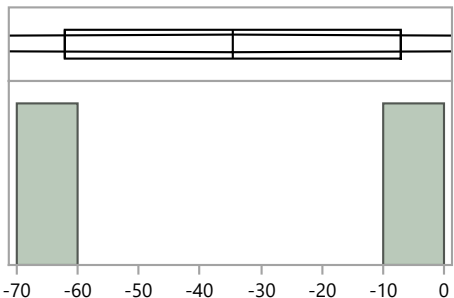
100.0%	maximum	-16.5
99.5%		-16.5
97.5%		-16.5
90.0%		-16.5
75.0%	quartile	-16.5
50.0%	median	-16.5
25.0%	quartile	-16.5
10.0%		-16.5
2.5%		-16.5
0.5%		-16.5
0.0%	minimum	-16.5

Summary Statistics

Mean	-16.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

Bias



Quantiles

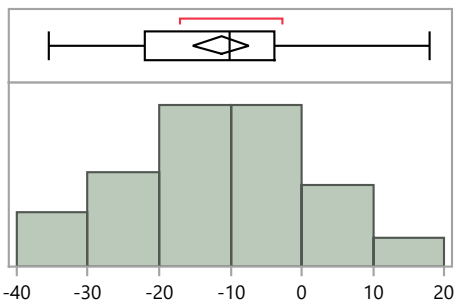
100.0%	maximum	-7.2
99.5%		-7.2
97.5%		-7.2
90.0%		-7.2
75.0%	quartile	-7.2
50.0%	median	-34.7
25.0%	quartile	-62.2
10.0%		-62.2
2.5%		-62.2
0.5%		-62.2
0.0%	minimum	-62.2

Summary Statistics

Mean	-34.7
Std Dev	38.9
Std Err Mean	27.5
Upper 95% Mean	314.7
Lower 95% Mean	-384.1
N	2.0

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

Bias



Quantiles

100.0%	maximum	18.0
99.5%		18.0
97.5%		17.3
90.0%		5.5
75.0%	quartile	-3.9
50.0%	median	-10.2
25.0%	quartile	-21.9
10.0%		-30.1
2.5%		-35.4
0.5%		-35.4
0.0%	minimum	-35.4

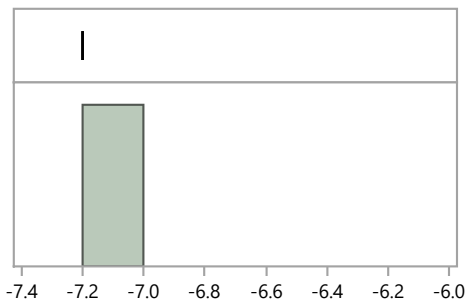
Summary Statistics

Mean	-11.3
Std Dev	12.7
Std Err Mean	1.9
Upper 95% Mean	-7.4
Lower 95% Mean	-15.2
N	43.0

RdF51 Distribution by Preparation Method

Distributions Analyte_Method=Cesium-134 Other

Bias



Quantiles

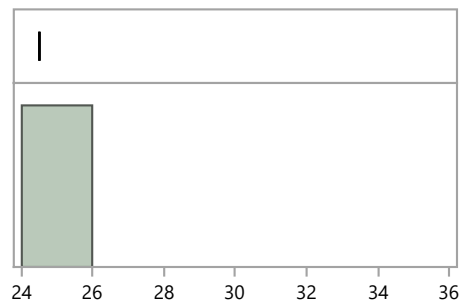
100.0%	maximum	-7.2
99.5%		-7.2
97.5%		-7.2
90.0%		-7.2
75.0%	quartile	-7.2
50.0%	median	-7.2
25.0%	quartile	-7.2
10.0%		-7.2
2.5%		-7.2
0.5%		-7.2
0.0%	minimum	-7.2

Summary Statistics

Mean	-7.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Cesium-137 Acid dissolution with hydrofluoric acid

Bias



Quantiles

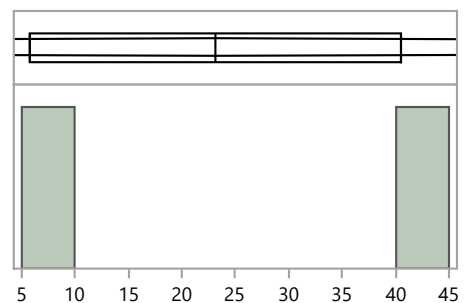
100.0%	maximum	24.5
99.5%		24.5
97.5%		24.5
90.0%		24.5
75.0%	quartile	24.5
50.0%	median	24.5
25.0%	quartile	24.5
10.0%		24.5
2.5%		24.5
0.5%		24.5
0.0%	minimum	24.5

Summary Statistics

Mean	24.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

Bias



Quantiles

100.0%	maximum	40.5
99.5%		40.5
97.5%		40.5
90.0%		40.5
75.0%	quartile	40.5
50.0%	median	23.2
25.0%	quartile	5.8
10.0%		5.8
2.5%		5.8
0.5%		5.8
0.0%	minimum	5.8

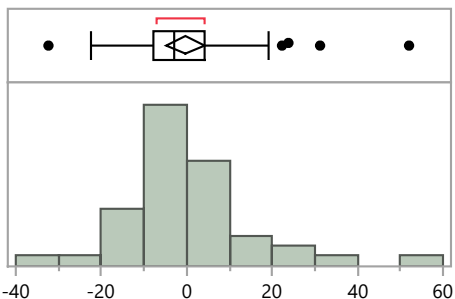
Summary Statistics

Mean	23.2
Std Dev	24.5
Std Err Mean	17.4
Upper 95% Mean	243.6
Lower 95% Mean	-197.3
N	2.0

RdF51 Distribution by Preparation Method

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

Bias



Quantiles

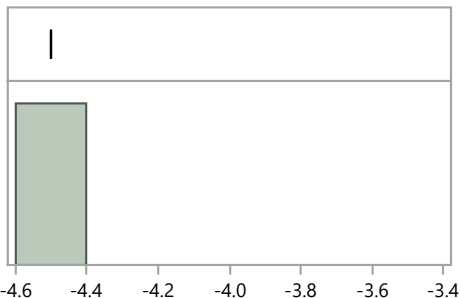
100.0%	maximum	52.0
99.5%		52.0
97.5%		49.9
90.0%		21.0
75.0%	quartile	4.1
50.0%	median	-3.0
25.0%	quartile	-7.8
10.0%		-14.5
2.5%		-31.3
0.5%		-32.3
0.0%	minimum	-32.3

Summary Statistics

Mean	-0.1
Std Dev	14.6
Std Err Mean	2.2
Upper 95% Mean	4.4
Lower 95% Mean	-4.6
N	43.0

Distributions Analyte_Method=Cesium-137 Other

Bias



Quantiles

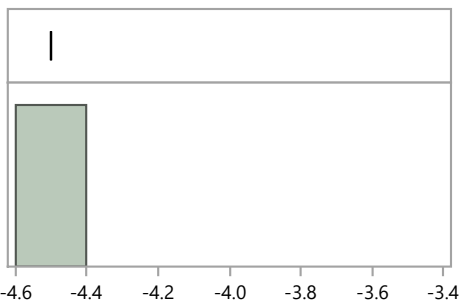
100.0%	maximum	-4.5
99.5%		-4.5
97.5%		-4.5
90.0%		-4.5
75.0%	quartile	-4.5
50.0%	median	-4.5
25.0%	quartile	-4.5
10.0%		-4.5
2.5%		-4.5
0.5%		-4.5
0.0%	minimum	-4.5

Summary Statistics

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

Distributions Analyte_Method=Cesium-137 Total dissolution by fusion

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

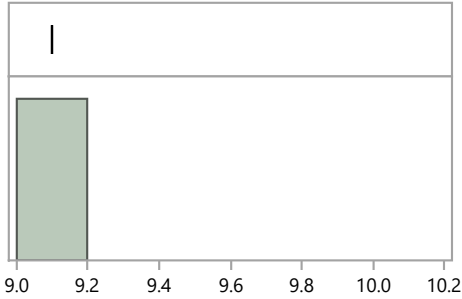
Summary Statistics

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

RdF51 Distribution by Preparation Method

Distributions Analyte_Method=Cobalt-60 Acid dissolution with hydrofluoric acid

Bias



Quantiles

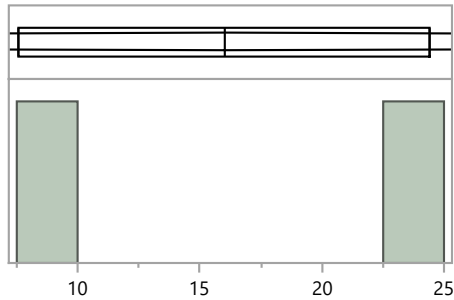
100.0%	maximum	9.1
99.5%		9.1
97.5%		9.1
90.0%		9.1
75.0%	quartile	9.1
50.0%	median	9.1
25.0%	quartile	9.1
10.0%		9.1
2.5%		9.1
0.5%		9.1
0.0%	minimum	9.1

Summary Statistics

Mean	9.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

Bias



Quantiles

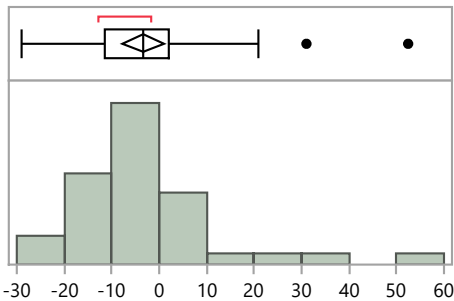
100.0%	maximum	24.4
99.5%		24.4
97.5%		24.4
90.0%		24.4
75.0%	quartile	24.4
50.0%	median	16.0
25.0%	quartile	7.6
10.0%		7.6
2.5%		7.6
0.5%		7.6
0.0%	minimum	7.6

Summary Statistics

Mean	16.0
Std Dev	11.9
Std Err Mean	8.4
Upper 95% Mean	122.7
Lower 95% Mean	-90.7
N	2.0

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

Bias



Quantiles

100.0%	maximum	52.4
99.5%		52.4
97.5%		50.3
90.0%		12.6
75.0%	quartile	1.9
50.0%	median	-3.3
25.0%	quartile	-11.4
10.0%		-16.6
2.5%		-28.6
0.5%		-28.8
0.0%	minimum	-28.8

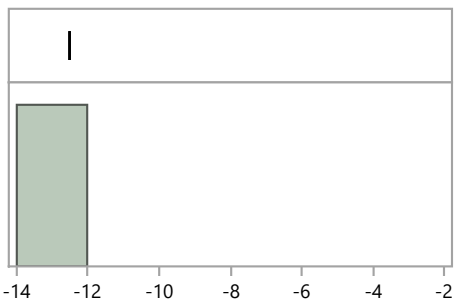
Summary Statistics

Mean	-3.2
Std Dev	14.4
Std Err Mean	2.2
Upper 95% Mean	1.2
Lower 95% Mean	-7.7
N	43.0

RdF51 Distribution by Preparation Method

Distributions Analyte_Method=Cobalt-60 Other

Bias



Quantiles

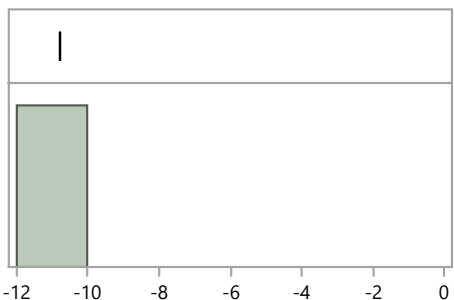
100.0%	maximum	-12.5
99.5%		-12.5
97.5%		-12.5
90.0%		-12.5
75.0%	quartile	-12.5
50.0%	median	-12.5
25.0%	quartile	-12.5
10.0%		-12.5
2.5%		-12.5
0.5%		-12.5
0.0%	minimum	-12.5

Summary Statistics

Mean	-12.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Cobalt-60 Total dissolution by fusion

Bias



Quantiles

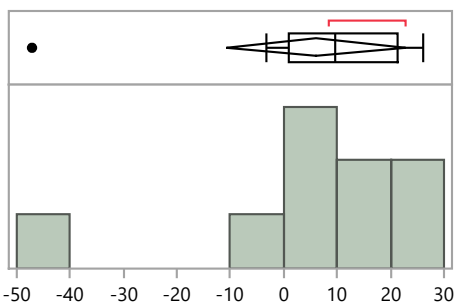
100.0%	maximum	-10.8
99.5%		-10.8
97.5%		-10.8
90.0%		-10.8
75.0%	quartile	-10.8
50.0%	median	-10.8
25.0%	quartile	-10.8
10.0%		-10.8
2.5%		-10.8
0.5%		-10.8
0.0%	minimum	-10.8

Summary Statistics

Mean	-10.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Plutonium-238 Acid dissolution with hydrofluoric acid

Bias



Quantiles

100.0%	maximum	26.1
99.5%		26.1
97.5%		26.1
90.0%		26.1
75.0%	quartile	21.3
50.0%	median	9.6
25.0%	quartile	0.9
10.0%		-47.1
2.5%		-47.1
0.5%		-47.1
0.0%	minimum	-47.1

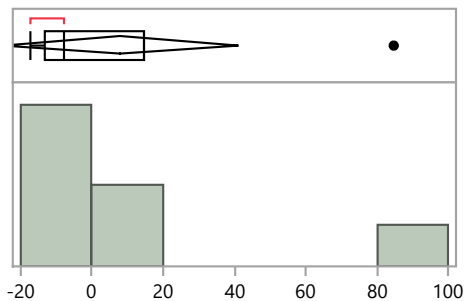
Summary Statistics

Mean	5.9
Std Dev	21.9
Std Err Mean	7.3
Upper 95% Mean	22.8
Lower 95% Mean	-10.9
N	9.0

RdF51 Distribution by Preparation Method

Distributions Analyte_Method=Plutonium-238 Acid leaching without hydrofluoric acid

Bias



Quantiles

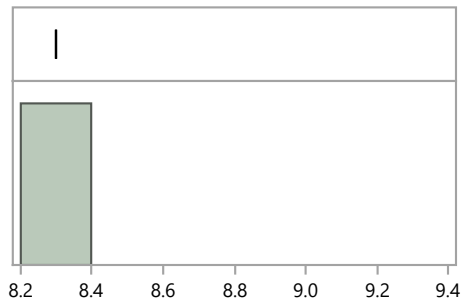
100.0%	maximum	84.7
99.5%		84.7
97.5%		84.7
90.0%		84.7
75.0%	quartile	14.7
50.0%	median	-7.6
25.0%	quartile	-13.4
10.0%		-17.2
2.5%		-17.2
0.5%		-17.2
0.0%	minimum	-17.2

Summary Statistics

Mean	8.0
Std Dev	35.6
Std Err Mean	13.4
Upper 95% Mean	40.9
Lower 95% Mean	-24.9
N	7.0

Distributions Analyte_Method=Plutonium-238 Coprecipitation, acidified

Bias



Quantiles

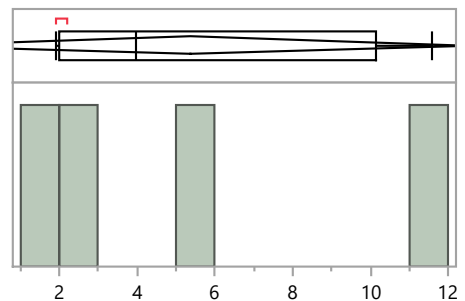
100.0%	maximum	8.3
99.5%		8.3
97.5%		8.3
90.0%		8.3
75.0%	quartile	8.3
50.0%	median	8.3
25.0%	quartile	8.3
10.0%		8.3
2.5%		8.3
0.5%		8.3
0.0%	minimum	8.3

Summary Statistics

Mean	8.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Plutonium-238 Other

Bias



Quantiles

100.0%	maximum	11.6
99.5%		11.6
97.5%		11.6
90.0%		11.6
75.0%	quartile	10.1
50.0%	median	4.0
25.0%	quartile	2.0
10.0%		1.9
2.5%		1.9
0.5%		1.9
0.0%	minimum	1.9

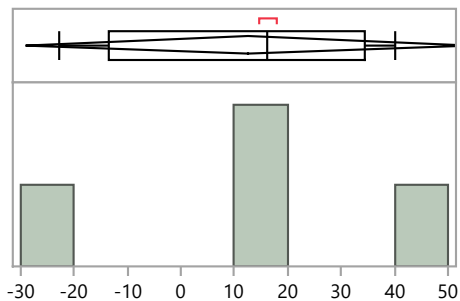
Summary Statistics

Mean	5.4
Std Dev	4.5
Std Err Mean	2.3
Upper 95% Mean	12.5
Lower 95% Mean	-1.8
N	4.0

RdF51 Distribution by Preparation Method

Distributions Analyte_Method=Plutonium-238 Total dissolution by fusion

Bias



Quantiles

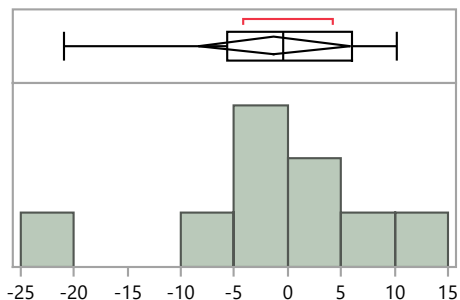
100.0%	maximum	40.1
99.5%		40.1
97.5%		40.1
90.0%		40.1
75.0%	quartile	34.5
50.0%	median	16.3
25.0%	quartile	-13.5
10.0%		-22.9
2.5%		-22.9
0.5%		-22.9
0.0%	minimum	-22.9

Summary Statistics

Mean	12.4
Std Dev	26.1
Std Err Mean	13.1
Upper 95% Mean	54.0
Lower 95% Mean	-29.1
N	4.0

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

Bias



Quantiles

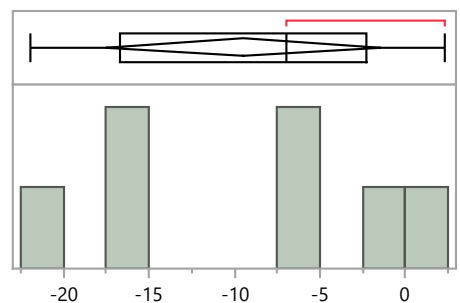
100.0%	maximum	10.2
99.5%		10.2
97.5%		10.2
90.0%		10.2
75.0%	quartile	6.1
50.0%	median	-0.5
25.0%	quartile	-5.6
10.0%		-20.9
2.5%		-20.9
0.5%		-20.9
0.0%	minimum	-20.9

Summary Statistics

Mean	-1.3
Std Dev	9.3
Std Err Mean	3.1
Upper 95% Mean	5.8
Lower 95% Mean	-8.4
N	9.0

Distributions Analyte_Method=Plutonium-239/240 Acid leaching without hydrofluoric acid

Bias



Quantiles

100.0%	maximum	2.3
99.5%		2.3
97.5%		2.3
90.0%		2.3
75.0%	quartile	-2.3
50.0%	median	-7.0
25.0%	quartile	-16.7
10.0%		-21.9
2.5%		-21.9
0.5%		-21.9
0.0%	minimum	-21.9

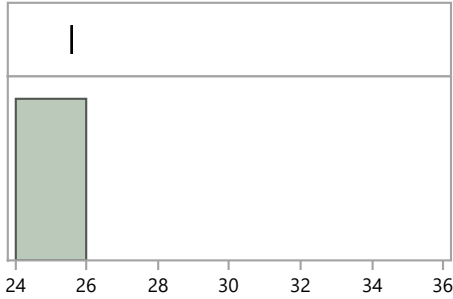
Summary Statistics

Mean	-9.5
Std Dev	8.7
Std Err Mean	3.3
Upper 95% Mean	-1.5
Lower 95% Mean	-17.5
N	7.0

RdF51 Distribution by Preparation Method

Distributions Analyte_Method=Plutonium-239/240 Coprecipitation, acidified

Bias



Quantiles

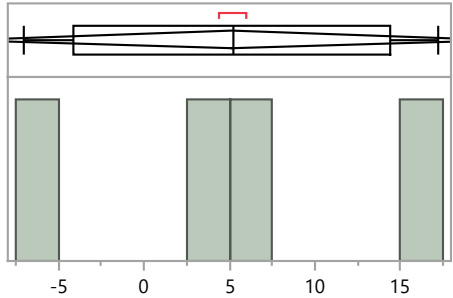
100.0%	maximum	25.6
99.5%		25.6
97.5%		25.6
90.0%		25.6
75.0%	quartile	25.6
50.0%	median	25.6
25.0%	quartile	25.6
10.0%		25.6
2.5%		25.6
0.5%		25.6
0.0%	minimum	25.6

Summary Statistics

Mean	25.6
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Plutonium-239/240 Other

Bias



Quantiles

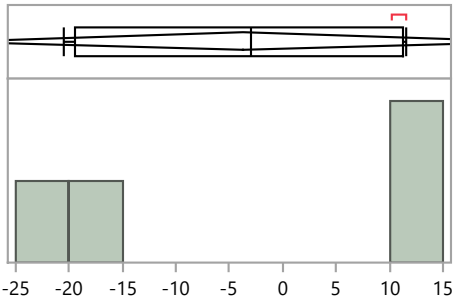
100.0%	maximum	17.2
99.5%		17.2
97.5%		17.2
90.0%		17.2
75.0%	quartile	14.4
50.0%	median	5.2
25.0%	quartile	-4.2
10.0%		-7.0
2.5%		-7.0
0.5%		-7.0
0.0%	minimum	-7.0

Summary Statistics

Mean	5.2
Std Dev	9.9
Std Err Mean	5.0
Upper 95% Mean	20.9
Lower 95% Mean	-10.6
N	4.0

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

Bias



Quantiles

100.0%	maximum	11.6
99.5%		11.6
97.5%		11.6
90.0%		11.6
75.0%	quartile	11.3
50.0%	median	-3.1
25.0%	quartile	-19.5
10.0%		-20.5
2.5%		-20.5
0.5%		-20.5
0.0%	minimum	-20.5

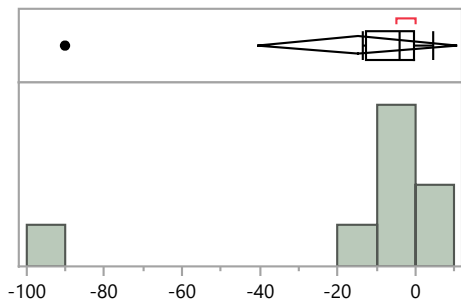
Summary Statistics

Mean	-3.8
Std Dev	17.0
Std Err Mean	8.5
Upper 95% Mean	23.3
Lower 95% Mean	-30.8
N	4.0

RdF51 Distribution by Preparation Method

Distributions Analyte_Method=Strontium-90 Acid dissolution with hydrofluoric acid

Bias



Quantiles

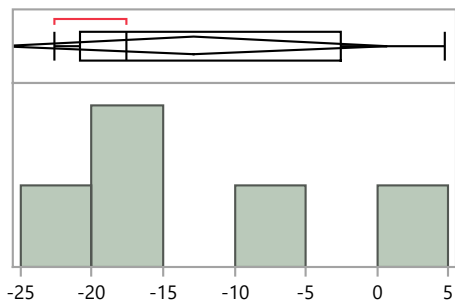
100.0%	maximum	4.4
99.5%		4.4
97.5%		4.4
90.0%		4.4
75.0%	quartile	-0.5
50.0%	median	-4.0
25.0%	quartile	-12.7
10.0%		-90.1
2.5%		-90.1
0.5%		-90.1
0.0%	minimum	-90.1

Summary Statistics

Mean	-14.9
Std Dev	30.9
Std Err Mean	10.9
Upper 95% Mean	10.9
Lower 95% Mean	-40.7
N	8.0

Distributions Analyte_Method=Strontium-90 Acid leaching without hydrofluoric acid

Bias



Quantiles

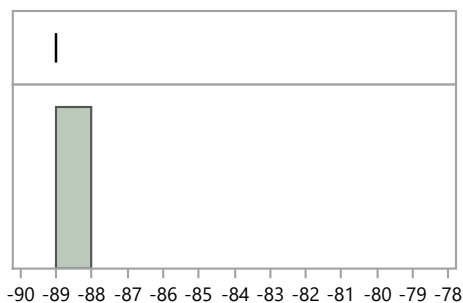
100.0%	maximum	4.8
99.5%		4.8
97.5%		4.8
90.0%		4.8
75.0%	quartile	-2.5
50.0%	median	-17.6
25.0%	quartile	-20.8
10.0%		-22.6
2.5%		-22.6
0.5%		-22.6
0.0%	minimum	-22.6

Summary Statistics

Mean	-12.8
Std Dev	10.9
Std Err Mean	4.9
Upper 95% Mean	0.7
Lower 95% Mean	-26.4
N	5.0

Distributions Analyte_Method=Strontium-90 EPA 901.1, Gamma Emitting, 600/4-80-032

Bias



Quantiles

100.0%	maximum	-89.0
99.5%		-89.0
97.5%		-89.0
90.0%		-89.0
75.0%	quartile	-89.0
50.0%	median	-89.0
25.0%	quartile	-89.0
10.0%		-89.0
2.5%		-89.0
0.5%		-89.0
0.0%	minimum	-89.0

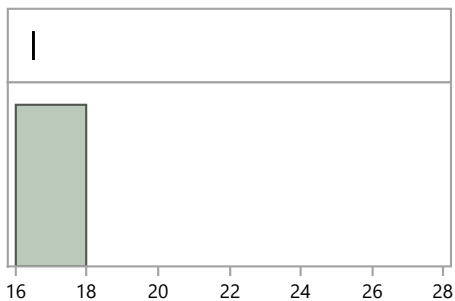
Summary Statistics

Mean	-89.0
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdF51 Distribution by Preparation Method

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

Bias



Quantiles

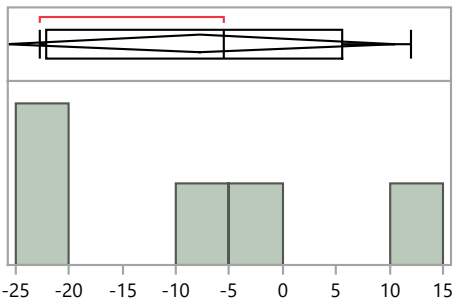
100.0%	maximum	16.5
99.5%		16.5
97.5%		16.5
90.0%		16.5
75.0%	quartile	16.5
50.0%	median	16.5
25.0%	quartile	16.5
10.0%		16.5
2.5%		16.5
0.5%		16.5
0.0%	minimum	16.5

Summary Statistics

Mean	16.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Strontium-90 Other

Bias



Quantiles

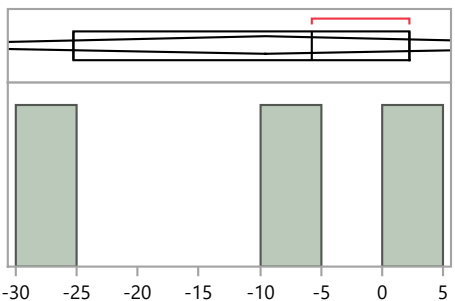
100.0%	maximum	12.0
99.5%		12.0
97.5%		12.0
90.0%		12.0
75.0%	quartile	5.6
50.0%	median	-5.5
25.0%	quartile	-22.1
10.0%		-22.7
2.5%		-22.7
0.5%		-22.7
0.0%	minimum	-22.7

Summary Statistics

Mean	-7.7
Std Dev	14.6
Std Err Mean	6.5
Upper 95% Mean	10.5
Lower 95% Mean	-25.9
N	5.0

Distributions Analyte_Method=Strontium-90 Total dissolution by fusion

Bias



Quantiles

100.0%	maximum	2.2
99.5%		2.2
97.5%		2.2
90.0%		2.2
75.0%	quartile	2.2
50.0%	median	-5.7
25.0%	quartile	-25.3
10.0%		-25.3
2.5%		-25.3
0.5%		-25.3
0.0%	minimum	-25.3

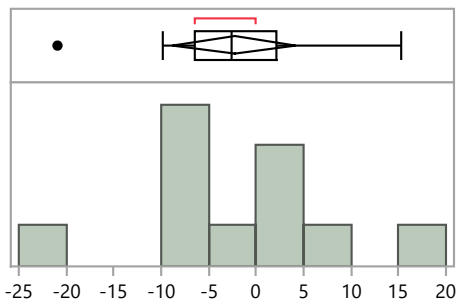
Summary Statistics

Mean	-9.6
Std Dev	14.2
Std Err Mean	8.2
Upper 95% Mean	25.6
Lower 95% Mean	-44.8
N	3.0

RdF51 Distribution by Preparation Method

Distributions Analyte_Method=Uranium-234 Acid dissolution with hydrofluoric acid

Bias



Quantiles

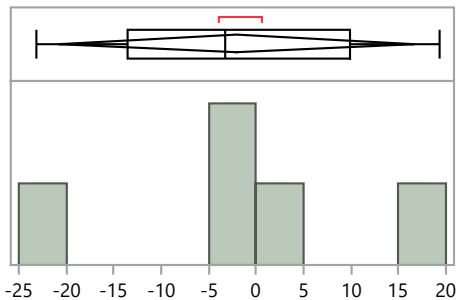
100.0%	maximum	15.2
99.5%		15.2
97.5%		15.2
90.0%		14.0
75.0%	quartile	2.2
50.0%	median	-2.6
25.0%	quartile	-6.5
10.0%		-18.7
2.5%		-20.9
0.5%		-20.9
0.0%	minimum	-20.9

Summary Statistics

Mean	-2.3
Std Dev	9.6
Std Err Mean	2.9
Upper 95% Mean	4.1
Lower 95% Mean	-8.7
N	11.0

Distributions Analyte_Method=Uranium-234 Acid leaching without hydrofluoric acid

Bias



Quantiles

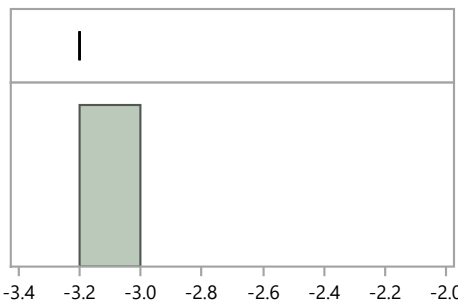
100.0%	maximum	19.3
99.5%		19.3
97.5%		19.3
90.0%		19.3
75.0%	quartile	10.0
50.0%	median	-3.2
25.0%	quartile	-13.6
10.0%		-23.1
2.5%		-23.1
0.5%		-23.1
0.0%	minimum	-23.1

Summary Statistics

Mean	-2.1
Std Dev	15.1
Std Err Mean	6.7
Upper 95% Mean	16.7
Lower 95% Mean	-20.8
N	5.0

Distributions Analyte_Method=Uranium-234 Coprecipitation, acidified

Bias



Quantiles

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

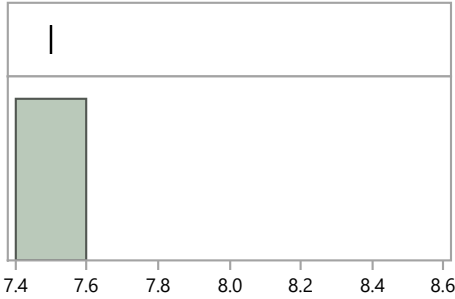
Summary Statistics

Mean	-3.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdF51 Distribution by Preparation Method

Distributions Analyte_Method=Uranium-234 EPA 901.1, Gamma Emitting, 600/4-80-032

Bias



Quantiles

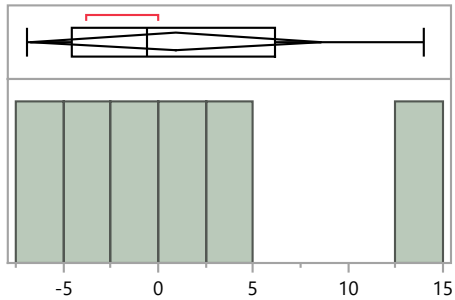
100.0%	maximum	7.5
99.5%		7.5
97.5%		7.5
90.0%		7.5
75.0%	quartile	7.5
50.0%	median	7.5
25.0%	quartile	7.5
10.0%		7.5
2.5%		7.5
0.5%		7.5
0.0%	minimum	7.5

Summary Statistics

Mean	7.5
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-234 Other

Bias



Quantiles

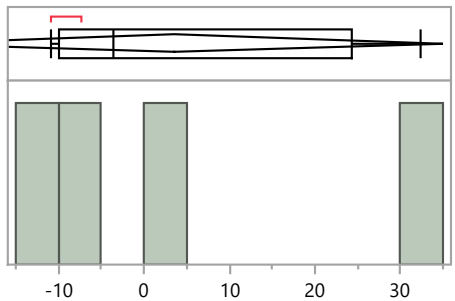
100.0%	maximum	14.0
99.5%		14.0
97.5%		14.0
90.0%		14.0
75.0%	quartile	6.1
50.0%	median	-0.6
25.0%	quartile	-4.6
10.0%		-6.9
2.5%		-6.9
0.5%		-6.9
0.0%	minimum	-6.9

Summary Statistics

Mean	0.9
Std Dev	7.3
Std Err Mean	3.0
Upper 95% Mean	8.6
Lower 95% Mean	-6.7
N	6.0

Distributions Analyte_Method=Uranium-234 Total dissolution by fusion

Bias



Quantiles

100.0%	maximum	32.3
99.5%		32.3
97.5%		32.3
90.0%		32.3
75.0%	quartile	24.2
50.0%	median	-3.7
25.0%	quartile	-9.9
10.0%		-10.8
2.5%		-10.8
0.5%		-10.8
0.0%	minimum	-10.8

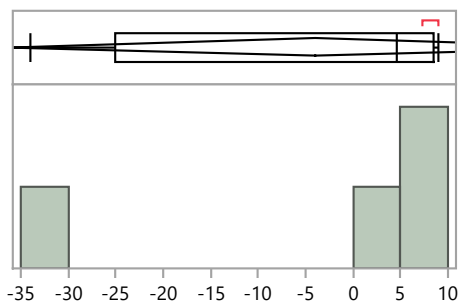
Summary Statistics

Mean	3.5
Std Dev	19.7
Std Err Mean	9.8
Upper 95% Mean	34.9
Lower 95% Mean	-27.8
N	4.0

RdF51 Distribution by Preparation Method

Distributions Analyte_Method=Uranium-235 Other

Bias



Quantiles

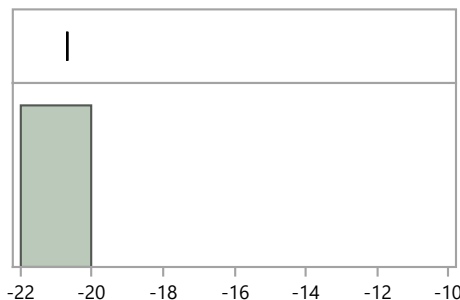
100.0%	maximum	8.9
99.5%		8.9
97.5%		8.9
90.0%		8.9
75.0%	quartile	8.5
50.0%	median	4.6
25.0%	quartile	-25.0
10.0%		-33.9
2.5%		-33.9
0.5%		-33.9
0.0%	minimum	-33.9

Summary Statistics

Mean	-4.0
Std Dev	20.2
Std Err Mean	10.1
Upper 95% Mean	28.1
Lower 95% Mean	-36.1
N	4.0

Distributions Analyte_Method=Uranium-235 SW846 Methods 3052 (Microwave assisted Total Decomposition)

Bias



Quantiles

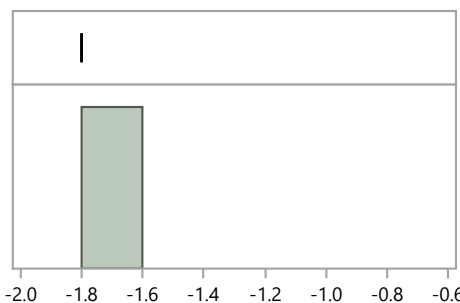
100.0%	maximum	-20.7
99.5%		-20.7
97.5%		-20.7
90.0%		-20.7
75.0%	quartile	-20.7
50.0%	median	-20.7
25.0%	quartile	-20.7
10.0%		-20.7
2.5%		-20.7
0.5%		-20.7
0.0%	minimum	-20.7

Summary Statistics

Mean	-20.7
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-235 Total Metals Analysis (i.e. XRF, Fusion, neutron activation)

Bias



Quantiles

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

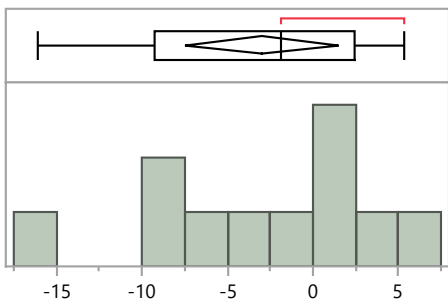
Summary Statistics

Mean	-1.8
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdF51 Distribution by Preparation Method

Distributions Analyte_Method=Uranium-238 Acid dissolution with hydrofluoric acid

Bias



Quantiles

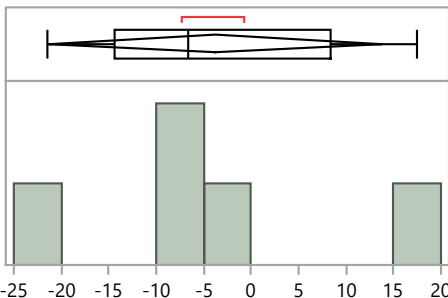
100.0%	maximum	5.3
99.5%		5.3
97.5%		5.3
90.0%		5.1
75.0%	quartile	2.4
50.0%	median	-1.9
25.0%	quartile	-9.3
10.0%		-14.8
2.5%		-16.1
0.5%		-16.1
0.0%	minimum	-16.1

Summary Statistics

Mean	-3.0
Std Dev	6.7
Std Err Mean	2.0
Upper 95% Mean	1.5
Lower 95% Mean	-7.4
N	11.0

Distributions Analyte_Method=Uranium-238 Acid leaching without hydrofluoric acid

Bias



Quantiles

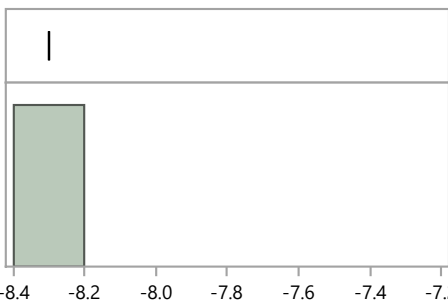
100.0%	maximum	17.4
99.5%		17.4
97.5%		17.4
90.0%		17.4
75.0%	quartile	8.3
50.0%	median	-6.6
25.0%	quartile	-14.4
10.0%		-21.5
2.5%		-21.5
0.5%		-21.5
0.0%	minimum	-21.5

Summary Statistics

Mean	-3.8
Std Dev	14.1
Std Err Mean	6.3
Upper 95% Mean	13.7
Lower 95% Mean	-21.2
N	5.0

Distributions Analyte_Method=Uranium-238 Coprecipitation, acidified

Bias



Quantiles

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

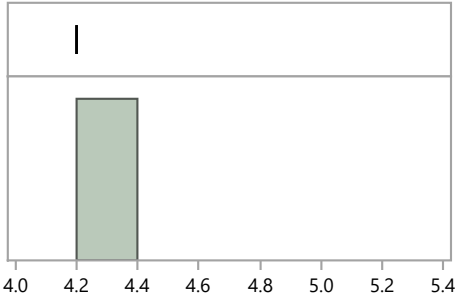
Summary Statistics

Mean	-8.3
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdF51 Distribution by Preparation Method

Distributions Analyte_Method=Uranium-238 EPA 901.1, Gamma Emitting, 600/4-80-032

Bias



Quantiles

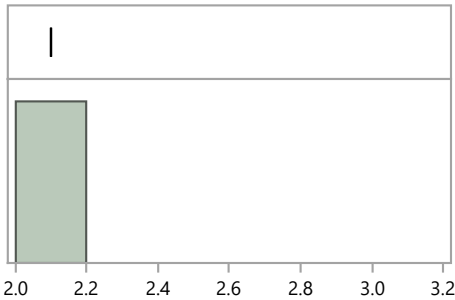
100.0%	maximum	4.2
99.5%		4.2
97.5%		4.2
90.0%		4.2
75.0%	quartile	4.2
50.0%	median	4.2
25.0%	quartile	4.2
10.0%		4.2
2.5%		4.2
0.5%		4.2
0.0%	minimum	4.2

Summary Statistics

Mean	4.2
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

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

Bias



Quantiles

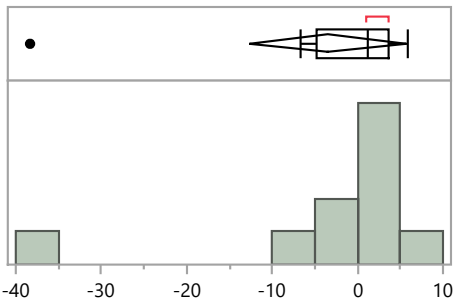
100.0%	maximum	2.1
99.5%		2.1
97.5%		2.1
90.0%		2.1
75.0%	quartile	2.1
50.0%	median	2.1
25.0%	quartile	2.1
10.0%		2.1
2.5%		2.1
0.5%		2.1
0.0%	minimum	2.1

Summary Statistics

Mean	2.1
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

Distributions Analyte_Method=Uranium-238 Other

Bias



Quantiles

100.0%	maximum	5.8
99.5%		5.8
97.5%		5.8
90.0%		5.6
75.0%	quartile	3.6
50.0%	median	1.2
25.0%	quartile	-4.8
10.0%		-35.1
2.5%		-38.3
0.5%		-38.3
0.0%	minimum	-38.3

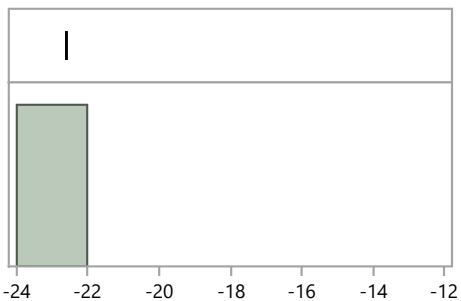
Summary Statistics

Mean	-3.6
Std Dev	12.8
Std Err Mean	4.1
Upper 95% Mean	5.6
Lower 95% Mean	-12.7
N	10.0

RdF51 Distribution by Preparation Method

Distributions Analyte_Method=Uranium-238 SW846 Methods 3052 (Microwave assisted Total Decomposition)

Bias



Quantiles

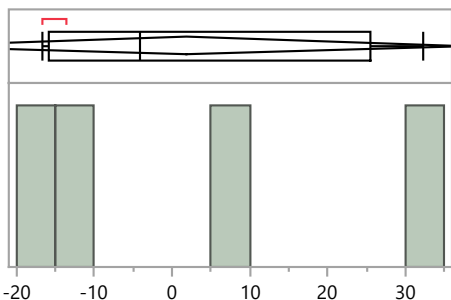
100.0%	maximum	-22.6
99.5%		-22.6
97.5%		-22.6
90.0%		-22.6
75.0%	quartile	-22.6
50.0%	median	-22.6
25.0%	quartile	-22.6
10.0%		-22.6
2.5%		-22.6
0.5%		-22.6
0.0%	minimum	-22.6

Summary Statistics

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

Distributions Analyte_Method=Uranium-238 Total dissolution by fusion

Bias



Quantiles

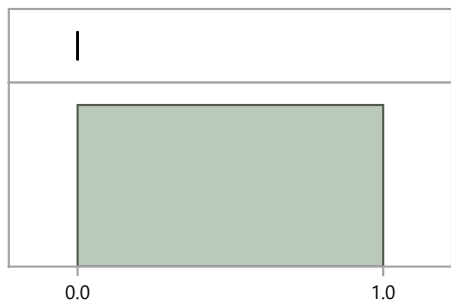
100.0%	maximum	32.3
99.5%		32.3
97.5%		32.3
90.0%		32.3
75.0%	quartile	25.5
50.0%	median	-4.2
25.0%	quartile	-15.9
10.0%		-16.7
2.5%		-16.7
0.5%		-16.7
0.0%	minimum	-16.7

Summary Statistics

Mean	1.8
Std Dev	22.5
Std Err Mean	11.2
Upper 95% Mean	37.6
Lower 95% Mean	-34.0
N	4.0

Distributions Analyte_Method=Uranium-238 Total Metals Analysis (i.e. XRF, Fusion, neutron activation)

Bias



Quantiles

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

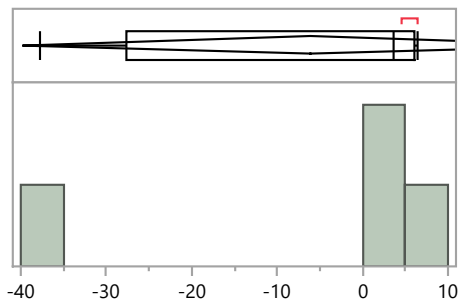
Summary Statistics

Mean	0.0
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0

RdF51 Distribution by Preparation Method

Distributions Analyte_Method=Uranium-Total Other

Bias



Quantiles

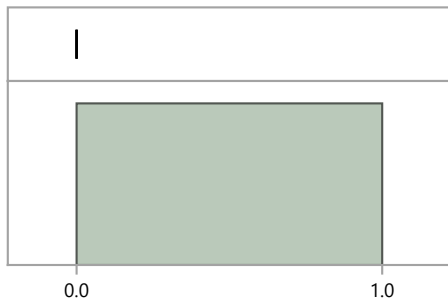
100.0%	maximum	6.5
99.5%		6.5
97.5%		6.5
90.0%		6.5
75.0%	quartile	6.0
50.0%	median	3.6
25.0%	quartile	-27.7
10.0%		-37.8
2.5%		-37.8
0.5%		-37.8
0.0%	minimum	-37.8

Summary Statistics

Mean	-6.0
Std Dev	21.2
Std Err Mean	10.6
Upper 95% Mean	27.8
Lower 95% Mean	-39.8
N	4.0

Distributions Analyte_Method=Uranium-Total Total Metals Analysis (i.e. XRF, Fusion, neutron activation)

Bias



Quantiles

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

Summary Statistics

Mean	0.0
Std Dev	.
Std Err Mean	.
Upper 95% Mean	.
Lower 95% Mean	.
N	1.0