APPENDIX

A

Participating Laboratories and Associated Laboratory Code Index for MAPEP-03-S10

MAPEP-03-S10 Reporting Participants

Lab Code	*Laboratory Name*
ANLA01	Argonne National Laboratory Analytical Chemistry Lab.
ANTE01	Paragon Analytics, Inc.
ARGO01	Argonne National Laboratory West
ARSL01	American Radiation Laboratory
AY1201	Y-12 Analytical Services Organization
BNEL01	BINAX / NEL
CCEN99	Comision Chilean de Energia Nuclear, Santiago de Chile
CDHS01	California State Department of Health Services
CEEA99	Comision Ecuatoriana de Energia Atomica, Quito, Equador
CESL01	Lawrence Livermore National Laboratory
CORE02	Core Laboratories
CNEA99	Comision Nacional de Energia Atomica, Asuncion, Paraguay – soil only
CSTL01	CST-9, Los Alamos National Laboratory
DINL99	Departamento Ingenieria Nuclear
EMBW01	B&W Of Ohio, Inc.
ERCL01	Environmental & Radiation Chemistry, PHL
ERMI01	RMI Environmental Services
GENE01	General Engineering Laboratories
GROW01	Fruit Growers Laboratory
HWRL01	Lawrence Livermore National Laboratory
IBTN99	Instituto Boliviana De Ciencia y Technologia Nuclear, La Paz, Bolivia
IHPH99	Radiation Hygiene Laboratory, Institute of Public Health
IPEN99	Instituto Peruano de Energia Nuclear, Lima, Peru – soil only
IPHT99	Inst. Of Public Health Timisoara
LAWR02	University of California-LLNL
LEPD99	National Institute for Physics and Nuclear Engineering
LOCK01	Lockheed Analytical Chemistry – ICPP
LOCK03	Radiation Measurements Laboratory
LPTO99	SPA Typhoon, Obninsk, Russia
MART01	Lockheed Martin Utility Services
MART02	Lockheed Martin Utility Services Inc.
MART03	Radioactive Materials Analysis Laboratory
MDPH01	MDPH-Radiation Control Program
MOUN01	Mountain States Analytical, Inc.
NARL01	National Air and Radiation Environmental Laboratory
NESI01	B&W NESI – Nuclear Environmental Laboratory
NMLA01	Assaiggi Analytical Laboratories
NRLL99	National Radiation Laboratory, Christchurch, New Zealand
OBGL01	O'Brien & Gere Laboratories, Inc.
ORIS01	ORISE/ESSAP
OTLI01	Outreach Technologies Laboratory, Inc.
PRAP01	IT WPRAP Laboratory

MAPEP-03-S10 Reporting Participants (cont.)

Lab Code	*Laboratory Name*
QUAN01	Quanterra Incorporated
QUAN02	Quanterra Incorporated, Knoxville Laboratory
QUAN03	Quanterra Environmental Services
RECC01	Environmental Chemical Corp.
RSIR99	Instituto de Radioprotecao e Dosimetria, Rio de Janeiro
SCAL01	Sanford Cohen and Associates
SIHA01	Sandia National Laboratories – Industrial Hygiene Analytical
SNEC01	Saxton Nuclear Experimental Corp.
SOUT01	Southwest Research Institute
SWOL01	Southwest Laboratory of Oklahoma
TELE01	Teledyne Brown Engineering – Environmental Services
TELE02	Teledyne Isotopes Midwest Lab
TMAE01	Thermo Nutech
TMAO01	Thermo Nutech
TMAR01	Thermo Nutech
TNUT01	Thermo-Nutech
UPVL99	Universidad Politechnica de Valencia, Valencia, Spain
WEST01	R.F. Weston
WEST03	Waste Sampling and Characterization Facility
WEST04	Westinghouse Electric Corporation
YAEC01	Yankee Atomic Electric Company

MAPEP-03-S10 Non-Reporting Participants

Lab Code	*Laboratory Name*
ADEM01	Alabama Department of Environmental Management
AK2501	Lockheed Martin Energy Systems, K-25 Site, ASO
EPAL01	Office of Radiation and Indoor Air – Radlab
FERM01	FERMCO
HISL99	Hydrometeorological Institute of Slovenia
LAWR01	Lawrence Berkeley Laboratory
NFSI01	Nuclear Fuel Services, Inc.
ROCK01	Kaiser-Hill Co., Inc.
RSAL01	RSA Laboratories
SAVA01	Savannah River Technology Center/ ADS.
WSRP01	Welsbach/GGM Superfund Remediation Project
WVNS01	West Valley Nuclear Services

Changes in Laboratory Status

Lab Code	***Laboratory Name***
AK2501	Lockheed Martin Energy Systems, K-25 Site, ASO ***Has not reported last three MAPEP Standards – Dropped from Program***
DPAL01	Direct Push Analytical – new 2003 – no rad license at present
FERM01	FERMCO ***Has not reported last three MAPEP Standards – Dropped from Program***
UINP99	University of Istanbul/Nuclear Physics, Istanbul, Turkey *Has not been reporting results – Dropped from program*

Other MAPEP Participants

Lab Code	***Laboratory Name***
CIRP99	LOW BACKGROUND RADIOACTIVITY LABORATORY – water only
IDGR01	Internal Dosimetry Group-Rad. Lab. – water only
ERHD99	Fallout and Reactors Section, Ottawa, Canada – water only
WRRI99	Water Resources Research Center – water only

Mixed Analyte Performance Evaluation Program

Statistical Summary

Sample ID: MAPEP-03-S10

Analyte	T(1)	A(2)	Grand Mean	Std. Dev.	Reference Value	Analyte Text	Acceptance Limits	Units
Antimony	24	3	20.72	0.80	19.9		13.93 - 25.87	(mg/kg)
Arsenic	30	24	7.24	1.01	7.4		5.18 - 9.62	(mg/kg)
Barium	31	28	442.56	34.62	448		313.60 - 582.40	(mg/kg)
Beryllium	28	27	4.11	0.54	4.36		3.05 - 5.67	(mg/kg)
Cadmium	31	22	1.99	0.29	2.14		1.50 - 2.78	(mg/kg)
Chromium	33	27	26.10	3.75	27		18.90 - 35.10	(mg/kg)
Copper	7							(mg/kg)
Lead	31	27	13.84	1.71	14.4		10.08 - 18.72	(mg/kg)
Manganese	4							(mg/kg)
Nickel	31	31	101.61	10.25	109		76.30 - 141.70	(mg/kg)
Potassium	4							(mg/kg)
Selenium	24	13	1.57	0.31	1.69		1.18 - 2.20	(mg/kg)
Silver	29	25	10.62	1.08	11.7		8.19 - 15.21	(mg/kg)
Thallium	11	8				False Positive Test		(mg/kg)
Uranium-Total	7	7	31.51	1.78	34		23.80 - 44.20	(mg/kg)
Uranium-235	5	5	0.07	0.01	0.088		0.06 - 0.11	(mg/kg)
Uranium-238	4	4	32.65	1.04	33.9		23.73 - 44.07	(mg/kg)
Vanadium	30	29	91.41	9.83	92		64.40 - 119.60	(mg/kg)
Zinc	32	31	134.26	12.10	142		99.40 - 184.60	(mg/kg)
Americium-241	23	16				False Postive Test		
Cesium-134	48	48	218.86	26.08	238		166.60 - 309.40	(Bq/kg)
Cesium-137	48	44	828.05	56.89	832		582.40 - 1081.60	(Bq/kg)
Cobalt-57	47	45	527.05	46.67	530		371.00 - 689.00	(Bq/kg)
Cobalt-60	49	47	431.81	34.02	420		294.00 - 546.00	(Bq/kg)
Iron-55	8	6	902.03	107.96	1020		714.00 - 1326.00	(Bq/kg)
Manganese-54	47	44	143.56	10.42	137		95.90 - 178.10	(Bq/kg)
Nickel-63	14	14	749.97	130.15	770		539.00 - 1001.00	(Bq/kg)
Plutonium-238	35	33	62.54	6.43	66.9		46.83 - 86.97	(Bq/kg)
Plutonium-239/240	36	36	50.39	3.95	52.7		36.89 - 68.51	(Bq/kg)
Potassium-40	48	44	672.20	55.74	652		456.40 - 847.60	(Bq/kg)
Strontium-90	33	28	631.69	64.87	714		499.80 - 928.20	(Bq/kg)
Uranium-234/233	34	30	82.42	7.40	89		62.30 - 115.70	(Bq/kg)
Uranium-238	36	36	399.73	39.05	421		294.70 - 547.30	(Bq/kg)
Zinc-65	47	45	526.08	41.65	490		343.00 - 637.00	(Bq/kg)

Note:

Outliers are excluded from the statistical summary.
Outliers are defied as laboratory data with a bias greater than 30 percent.
(1) T = Total Number of Laboratories Reporting Analyte.
(2) A = Number of Laboratories with 'Acceptable' Performance.
1. For organic components with absoute value of Z-score < 3
2. Acceptance range minimum labeled as "QL" means from the Quantitation Limit to the upper range.

Analyte	T(1)	A(2)	Grand Mean	Std. Dev.	Reference Value	Analyte Text	Acceptance Limits	Units
Cumene	10	10	66.56	22.15	66.4		QL - 142.84	(ug/kg)
1,2,4-Trimethylbenzene	11	11	65.95	28.80	65.1		QL - 167.80	(ug/kg)
Chloroform	14	14	142.13	38.95	154.3		89.89 - 218.63	(ug/kg)
1,2-Dichloroethane	14	14	114.51	25.69	122		70.89 - 173.08	(ug/kg)
Trichloroethene	14	14	122.97	35.40	132.9		79.29 - 186.43	(ug/kg)
t-butylbenzene	11	11	62.78	25.83	62.5		QL - 151.39	(ug/kg)
Toluene	14	14	77.20	24.00	84.9		42.96 - 126.80	(ug/kg)
1,1,2-Trichloroethane	14	14	127.16	30.18	133.1		55.86 - 210.38	(ug/kg)
Tetrachloroethene	14	14	116.36	39.98	124.6		26.78 - 222.37	(ug/kg)
n-butylbenzene	11	11	45.24	22.97	45.2		QL - 119.37	(ug/kg)
Ethylbenzene	14	14	68.31	23.36	71.7		5.98 - 137.34	(ug/kg)
m & p-Xylene	14	14	68.91	23.38	71.3		QL - 142.69	(ug/kg)
1,1,2,2-Tetrachloroethane	14	14	130.23	38.08	131		4.49 - 257.49	(ug/kg)
1,3-Dichlorobenzene	20	20	900.18	428.10	900.2		QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	16	16	484.51	221.11	484.5		QL - 1147.62	(ug/kg)
1,2,4-Trichlorobenzene	20	20	623.21	169.58	623.2		114.65 - 1131.78	(ug/kg)
Naphthalene	20	20	643.56	191.84	643.6		68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	20	20	770.64	238.61	770.6		55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	12	12	330.38	98.83	330.4		33.98 - 626.77	(ug/kg)
2-Chloronaphthalene	20	20	723.74	200.75	723.7		121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	20	20	911.92	242.48	911.9		184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	19	19	788.03	181.82	788		242.75 - 1333.32	(ug/kg)
Fluorene	20	20	664.06	207.42	664		41.99 - 1286.12	(ug/kg)
Diethylphthalate	19	19	824.65	204.45	824.6		211.49 - 1437.81	(ug/kg)
Anthracene	18	18	421.47	117.96	421.5		67.71 - 775.24	(ug/kg)
Pentachlorobenzene	10	10	705.09	199.95	705.1		105.43 - 1304.75	(ug/kg)
Pyrene	20	20	739.11	175.44	739.1		212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	20	20	680.59	170.32	680.6		169.80 - 1191.38	(ug/kg)
Chrysene	20	20	977.15	237.99	977.1		263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	19	18	1497.68	392.96	1498		319.21 - 2676.15	(ug/kg)

Note:

Outliers are excluded from the statistical summary.
Outliers are defied as laboratory data with a bias greater than 30 percent.
(1) T = Total Number of Laboratories Reporting Analyte.
(2) A = Number of Laboratories with 'Acceptable' Performance.
1. For organic components with absoute value of Z-score < 3
2. Acceptance range minimum labeled as "QL" means from the Quantitation Limit to the upper range.

Mixed Analyte Performance Evaluation Program

Laboratory Results

ANLA01

Argonne National Laboratory/Analytical Chemistry Lab.
9700 S. Cass Avenue
Argonne IL 60439

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	<8.0	7.4	A			5.18 - 9.62			(mg/kg)
Barium	436	448	A		-2.7	313.60 - 582.40			(mg/kg)
Beryllium	4.03	4.36	A		-7.6	3.05 - 5.67			(mg/kg)
Cadmium	1.89	2.14	A		-11.7	1.50 - 2.78			(mg/kg)
Chromium	31.2	27	A		15.6	18.90 - 35.10			(mg/kg)
Lead	14.1	14.4	A		-2.1	10.08 - 18.72			(mg/kg)
Nickel	102	109	A		-6.4	76.30 - 141.70			(mg/kg)
Selenium	<9.0	1.69	A			1.18 - 2.20			(mg/kg)
Silver	9.23	11.7	W		-21.1	8.19 - 15.21			(mg/kg)
Vanadium	100	92	A		8.7	64.40 - 119.60			(mg/kg)
Zinc	138	142	A		-2.8	99.40 - 184.60			(mg/kg)
Americium-241	NR								
Cesium-134	236	238	A		-0.8	166.60 - 309.40	10		(Bq/kg)
Cesium-137	938	832	A		12.7	582.40 - 1081.60	88		(Bq/kg)
Cobalt-57	576	530	A		8.7	371.00 - 689.00	23		(Bq/kg)
Cobalt-60	433	420	A		3.1	294.00 - 546.00	21		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	158	137	A		15.3	95.90 - 178.10	12		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	673	652	A		3.2	456.40 - 847.60	37		(Bq/kg)
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	535	490	A		9.2	343.00 - 637.00	57		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

ANLA01

Argonne National Laboratory/Analytical Chemistry Lab.
9700 S. Cass Avenue
Argonne IL 60439

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

ANTE01

Paragon Analytics, Inc.
225 Commerce Drive
Fort Collins CO 80524

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	6.79	19.9	N		-65.9	13.93 - 25.87			(mg/kg)
Arsenic	8.10	7.4	A		9.5	5.18 - 9.62			(mg/kg)
Barium	408	448	A		-8.9	313.60 - 582.40			(mg/kg)
Beryllium	3.98	4.36	A		-8.7	3.05 - 5.67			(mg/kg)
Cadmium	1.64	2.14	W		-23.4	1.50 - 2.78			(mg/kg)
Chromium	22.0	27	A		-18.5	18.90 - 35.10			(mg/kg)
Lead	13.0	14.4	A		-9.7	10.08 - 18.72			(mg/kg)
Nickel	94.6	109	A		-13.2	76.30 - 141.70			(mg/kg)
Selenium	2.44	1.69	N		44.4	1.18 - 2.20			(mg/kg)
Silver	10.5	11.7	A		-10.3	8.19 - 15.21			(mg/kg)
Thallium	<1		A						(mg/kg)
Vanadium	85.8	92	A		-6.7	64.40 - 119.60			(mg/kg)
Zinc	120	142	A		-15.5	99.40 - 184.60			(mg/kg)
Americium-241	0.528		N	False Positive			0.149		(Bq/kg)
Cesium-134	220	238	A		-7.6	166.60 - 309.40	36.4		(Bq/kg)
Cesium-137	831	832	A		-0.1	582.40 - 1081.60	137		(Bq/kg)
Cobalt-57	526	530	A		-0.8	371.00 - 689.00	86.8		(Bq/kg)
Cobalt-60	412	420	A		-1.9	294.00 - 546.00	68.2		(Bq/kg)
Iron-55	1086	1020	A		6.5	714.00 - 1326.00	488	H	(Bq/kg)
Manganese-54	146	137	A		6.6	95.90 - 178.10	24.6		(Bq/kg)
Nickel-63	958	770	W		24.4	539.00 - 1001.00	242	H	(Bq/kg)
Plutonium-238	64.2	66.9	A		-4.0	46.83 - 86.97	4.55		(Bq/kg)
Plutonium-239/240	48.5	52.7	A		-8.0	36.89 - 68.51	3.51		(Bq/kg)
Potassium-40	647	652	A		-0.8	456.40 - 847.60	112		(Bq/kg)
Strontium-90	670	714	A		-6.2	499.80 - 928.20	160	H	(Bq/kg)
Uranium-234/233	80.4	89	A		-9.7	62.30 - 115.70	5.73		(Bq/kg)
Uranium-238	397	421	A		-5.7	294.70 - 547.30	27.1		(Bq/kg)
Zinc-65	566	490	A		15.5	343.00 - 637.00	94.6		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

ANTE01

Paragon Analytics, Inc.
225 Commerce Drive
Fort Collins CO 80524

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	60.8	66.4	A		-0.2	QL - 142.84	(ug/kg)
1,2,4-Trimethylbenzene	61.1	65.1	A		-0.1	QL - 167.80	(ug/kg)
Chloroform	143	154.3	A		-0.5	89.89 - 218.63	(ug/kg)
1,2-Dichloroethane	118	122	A		-0.2	70.89 - 173.08	(ug/kg)
Trichloroethene	116	132.9	A		-0.9	79.29 - 186.43	(ug/kg)
t-butylbenzene	58.4	62.5	A		-0.1	QL - 151.39	(ug/kg)
Toluene	73.6	84.9	A		-0.8	42.96 - 126.80	(ug/kg)
1,1,2-Trichloroethane	119	133.1	A		-0.5	55.86 - 210.38	(ug/kg)
Tetrachloroethene	106	124.6	A		-0.6	26.78 - 222.37	(ug/kg)
n-butylbenzene	43.5	45.2	A		-0.1	QL - 119.37	(ug/kg)
Ethylbenzene	69.1	71.7	A		-0.1	5.98 - 137.34	(ug/kg)
m & p-Xylene	68.3	71.3	A		-0.1	QL - 142.69	(ug/kg)
1,1,2,2-Tetrachloroethane	125	131	A		-0.1	4.49 - 257.49	(ug/kg)
1,3-Dichlorobenzene	795	900.2	A		-0.2	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	377	484.5	A		-0.5	QL - 1147.62	(ug/kg)
1,2,4-Trichlorobenzene	616	623.2	A		0.0	114.65 - 1131.78	(ug/kg)
Naphthalene	580	643.6	A		-0.3	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	685	770.6	A		-0.4	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	726	723.7	A		0.0	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	978	911.9	A		0.3	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	825	788	A		0.2	242.75 - 1333.32	(ug/kg)
Fluorene	663	664	A		0.0	41.99 - 1286.12	(ug/kg)
Diethylphthalate	757	824.6	A		-0.3	211.49 - 1437.81	(ug/kg)
Anthracene	382	421.5	A		-0.3	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	773	739.1	A		0.2	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	706	680.6	A		0.1	169.80 - 1191.38	(ug/kg)
Chrysene	1000	977.1	A		0.1	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	1490	1498	A		0.0	319.21 - 2676.15	(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

ARGO01

Argonne National Laboratory West
EBRII-Site
Idaho Falls ID 83403

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	20.15	19.9	A		1.3	13.93 - 25.87	2.02		(mg/kg)
Arsenic	7.49	7.4	A		1.2	5.18 - 9.62	1.12		(mg/kg)
Barium	471.5	448	A		5.2	313.60 - 582.40	47.2		(mg/kg)
Beryllium	4.69	4.36	A		7.6	3.05 - 5.67	0.70		(mg/kg)
Cadmium	1.73	2.14	A		-19.2	1.50 - 2.78	0.26		(mg/kg)
Chromium	32.46	27	W		20.2	18.90 - 35.10	3.25		(mg/kg)
Lead	14.37	14.4	A		-0.2	10.08 - 18.72	1.44		(mg/kg)
Nickel	109.2	109	A		0.2	76.30 - 141.70	10.9		(mg/kg)
Selenium	2.09	1.69	W		23.7	1.18 - 2.20	0.31		(mg/kg)
Silver	10.85	11.7	A		-7.3	8.19 - 15.21	1.09		(mg/kg)
Thallium	<1.00		A						(mg/kg)
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	NR	238				166.60 - 309.40			
Cesium-137	NR	832				582.40 - 1081.60			
Cobalt-57	NR	530				371.00 - 689.00			
Cobalt-60	NR	420				294.00 - 546.00			
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	NR	137				95.90 - 178.10			
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	NR	652				456.40 - 847.60			
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	NR	490				343.00 - 637.00			

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

ARGO01

Argonne National Laboratory West
EBRII-Site
Idaho Falls ID 83403

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

ARSL01

American Radiation Laboratory
1726 Wooddale Court
Baton Rouge LA 70806

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Actinium-228	797.57						2.30		(Bq/kg)
Americium-241	.41		A				.65		(Bq/kg)
Cesium-134	196.51	238	A		-17.4	166.60 - 309.40	1.23	L	(Bq/kg)
Cesium-137	NR	832				582.40 - 1081.60			
Cobalt-57	526.21	530	A		-0.7	371.00 - 689.00	1.46	L	(Bq/kg)
Cobalt-60	408.75	420	A		-2.7	294.00 - 546.00	1.4844	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	143.63	137	A		4.8	95.90 - 178.10	1.82	L	(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	71.18	66.9	A		6.4	46.83 - 86.97	7.03		(Bq/kg)
Plutonium-239/240	54.28	52.7	A		3.0	36.89 - 68.51	6.38		(Bq/kg)
Potassium-40	689.66	652	A		5.8	456.40 - 847.60	10.468	L	(Bq/kg)
Strontium-90	524.97	714	W		-26.5	499.80 - 928.20	8.14	L	(Bq/kg)
Uranium-234/233	87.68	89	A		-1.5	62.30 - 115.70	6.66		(Bq/kg)
Uranium-238	389.57	421	A		-7.5	294.70 - 547.30	13.28		(Bq/kg)
Zinc-65	504.96	490	A		3.1	343.00 - 637.00	4.8766	L	(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

ARSL01

American Radiation Laboratory
1726 Wooddale Court
Baton Rouge LA 70806

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

AY1201

LMES ACO Y-12 Building 9995 Laboratory
Y12, Building 9995, Rm 142
Oak Ridge TN 37831

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	6.41	19.9	N		-67.8	13.93 - 25.87			(mg/kg)
Arsenic	5.23	7.4	W		-29.3	5.18 - 9.62			(mg/kg)
Barium	467	448	A		4.2	313.60 - 582.40			(mg/kg)
Beryllium	4.14	4.36	A		-5.0	3.05 - 5.67			(mg/kg)
Cadmium	1.66	2.14	W		-22.4	1.50 - 2.78			(mg/kg)
Chromium	28.1	27	A		4.1	18.90 - 35.10			(mg/kg)
Lead	15.2	14.4	A		5.6	10.08 - 18.72			(mg/kg)
Nickel	101	109	A		-7.3	76.30 - 141.70			(mg/kg)
Selenium	<2.3	1.69	A			1.18 - 2.20			(mg/kg)
Silver	10.1	11.7	A		-13.7	8.19 - 15.21			(mg/kg)
Uranium-Total	33.4	34	A		-1.8	23.80 - 44.20	3.3		(mg/kg)
Uranium-235	0.0820	0.088	A		-6.8	0.06 - 0.11	0.008		(mg/kg)
Uranium-238	33.3	33.9	A		-1.8	23.73 - 44.07	3.3		(mg/kg)
Vanadium	93.2	92	A		1.3	64.40 - 119.60			(mg/kg)
Zinc	137	142	A		-3.5	99.40 - 184.60			(mg/kg)
Americium-241	18.3		N	False Positive			3.6		(Bq/kg)
Cesium-134	225	238	A		-5.5	166.60 - 309.40	15		(Bq/kg)
Cesium-137	790	832	A		-5.0	582.40 - 1081.60	81		(Bq/kg)
Cobalt-57	491	530	A		-7.4	371.00 - 689.00	39		(Bq/kg)
Cobalt-60	420	420	A		0.0	294.00 - 546.00	31		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	141	137	A		2.9	95.90 - 178.10	17		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	64.6	66.9	A		-3.4	46.83 - 86.97	7.6		(Bq/kg)
Plutonium-239/240	50.8	52.7	A		-3.6	36.89 - 68.51	6.6		(Bq/kg)
Potassium-40	647	652	A		-0.8	456.40 - 847.60	81		(Bq/kg)
Strontium-90	625	714	A		-12.5	499.80 - 928.20	54		(Bq/kg)
Uranium-234/233	61	89	N		-31.5	62.30 - 115.70	7.8		(Bq/kg)
Uranium-238	356	421	A		-15.4	294.70 - 547.30	35		(Bq/kg)
Zinc-65	521	490	A		6.3	343.00 - 637.00	58		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

AY1201

LMES ACO Y-12 Building 9995 Laboratory
Y12, Building 9995, Rm 142
Oak Ridge TN 37831

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	1400	900.2	A		1.2	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	740	484.5	A		1.2	QL - 1147.62	(ug/kg)
1,2,4-Trichlorobenzene	740	623.2	A		0.7	114.65 - 1131.78	(ug/kg)
Naphthalene	810	643.6	A		0.9	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	1000	770.6	A		1.0	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	340	330.4	A		0.1	33.98 - 626.77	(ug/kg)
2-Chloronaphthalene	540	723.7	A		-0.9	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	930	911.9	A		0.1	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	740	788	A		-0.3	242.75 - 1333.32	(ug/kg)
Fluorene	660	664	A		0.0	41.99 - 1286.12	(ug/kg)
Diethylphthalate	820	824.6	A		0.0	211.49 - 1437.81	(ug/kg)
Anthracene	330	421.5	A		-0.8	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	860	705.1	A		0.8	105.43 - 1304.75	(ug/kg)
Pyrene	710	739.1	A		-0.2	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	700	680.6	A		0.1	169.80 - 1191.38	(ug/kg)
Chrysene	1100	977.1	A		0.5	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	1800	1498	A		0.8	319.21 - 2676.15	(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

BNEL01

Northeast Laboratory Services, Inc.
PO Box 788
Waterville ME 04903

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	5.91	7.4	W		-20.1	5.18 - 9.62			(mg/kg)
Barium	450	448	A		0.4	313.60 - 582.40			(mg/kg)
Beryllium	4.23	4.36	A		-3.0	3.05 - 5.67			(mg/kg)
Cadmium	2.31	2.14	A		7.9	1.50 - 2.78			(mg/kg)
Chromium	24.3	27	A		-10.0	18.90 - 35.10			(mg/kg)
Lead	16.7	14.4	A		16.0	10.08 - 18.72			(mg/kg)
Nickel	106	109	A		-2.8	76.30 - 141.70			(mg/kg)
Selenium	NR	1.69				1.18 - 2.20			
Silver	8.80	11.7	W		-24.8	8.19 - 15.21			(mg/kg)
Vanadium	79.8	92	A		-13.3	64.40 - 119.60			(mg/kg)
Zinc	138	142	A		-2.8	99.40 - 184.60			(mg/kg)
Americium-241	NR								
Cesium-134	NR	238				166.60 - 309.40			
Cesium-137	NR	832				582.40 - 1081.60			
Cobalt-57	NR	530				371.00 - 689.00			
Cobalt-60	NR	420				294.00 - 546.00			
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	NR	137				95.90 - 178.10			
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	NR	652				456.40 - 847.60			
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	NR	490				343.00 - 637.00			

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

BNEL01

Northeast Laboratory Services, Inc.
PO Box 788
Waterville ME 04903

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	67.51	66.4	A		0.0	QL - 142.84	(ug/kg)
1,2,4-Trimethylbenzene	50.07	65.1	A		-0.4	QL - 167.80	(ug/kg)
Chloroform	175.17	154.3	A		1.0	89.89 - 218.63	(ug/kg)
1,2-Dichloroethane	139.34	122	A		1.0	70.89 - 173.08	(ug/kg)
Trichloroethene	142.31	132.9	A		0.5	79.29 - 186.43	(ug/kg)
t-butylbenzene	46.47	62.5	A		-0.5	QL - 151.39	(ug/kg)
Toluene	90.06	84.9	A		0.4	42.96 - 126.80	(ug/kg)
1,1,2-Trichloroethane	159.74	133.1	A		1.0	55.86 - 210.38	(ug/kg)
Tetrachloroethene	106.54	124.6	A		-0.6	26.78 - 222.37	(ug/kg)
n-butylbenzene	32.43	45.2	A		-0.5	QL - 119.37	(ug/kg)
Ethylbenzene	68.66	71.7	A		-0.1	5.98 - 137.34	(ug/kg)
m & p-Xylene	69.30	71.3	A		-0.1	QL - 142.69	(ug/kg)
1,1,2,2-Tetrachloroethane	152.88	131	A		0.5	4.49 - 257.49	(ug/kg)
1,3-Dichlorobenzene	1480	900.2	A		1.4	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	716	484.5	A		1.0	QL - 1147.62	(ug/kg)
1,2,4-Trichlorobenzene	781	623.2	A		0.9	114.65 - 1131.78	(ug/kg)
Naphthalene	843	643.6	A		1.0	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	979	770.6	A		0.9	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	455	330.4	A		1.3	33.98 - 626.77	(ug/kg)
2-Chloronaphthalene	877	723.7	A		0.8	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	726	911.9	A		-0.8	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	677	788	A		-0.6	242.75 - 1333.32	(ug/kg)
Fluorene	954	664	A		1.4	41.99 - 1286.12	(ug/kg)
Diethylphthalate	941	824.6	A		0.6	211.49 - 1437.81	(ug/kg)
Anthracene	603	421.5	A		1.5	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	680	705.1	A		-0.1	105.43 - 1304.75	(ug/kg)
Pyrene	940	739.1	A		1.1	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	854	680.6	A		1.0	169.80 - 1191.38	(ug/kg)
Chrysene	1190	977.1	A		0.9	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	2680	1498	N		3.0	319.21 - 2676.15	(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

CCEN99

Comisión Chilena de Energía Nuclear-LAAN
AMUNATEGUI 95
SANTIAGO SANTIA 65006

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	20.5	19.9	A	Total Metal	3.0	13.93 - 25.87	1.3		(mg/kg)
Arsenic	9.35	10.1	A	Total Metal	-7.4	7.07 - 13.13	0.44		(mg/kg)
Barium	1050	1065	A	Total Metal	-1.4	745.50 - 1384.50	100		(mg/kg)
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	69.1	75.5	A	Total Metal	-8.5	52.85 - 98.15	2.8		(mg/kg)
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	2.28	1.69	N	Total Metal	34.9	1.18 - 2.20	0.23		(mg/kg)
Silver	10.5	11.7	A	Total Metal	-10.3	8.19 - 15.21	0.59		(mg/kg)
Vanadium	NR	92				64.40 - 119.60			
Zinc	160	158	A	Total Metal	1.3	110.60 - 205.40	6.3		(mg/kg)
Americium-241	NR								
Cesium-134	NR	238				166.60 - 309.40			
Cesium-137	NR	832				582.40 - 1081.60			
Cobalt-57	NR	530				371.00 - 689.00			
Cobalt-60	NR	420				294.00 - 546.00			
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	NR	137				95.90 - 178.10			
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	NR	652				456.40 - 847.60			
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	NR	490				343.00 - 637.00			

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

CCEN99

Comisión Chilena de Energía Nuclear-LAAN
AMUNATEGUI 95
SANTIAGO SANTIA 65006

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

CDHS01

California Department of Health Services
Sanitation & Radiation Lab.
Richmond CA 94804

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	0.5768		A				0.4531		(Bq/kg)
Cesium-134	279.4	238	A		17.4	166.60 - 309.40	3.85	L	(Bq/kg)
Cesium-137	977.1	832	A		17.4	582.40 - 1081.60	6.4	L	(Bq/kg)
Cobalt-57	646.8	530	W		22.0	371.00 - 689.00	4.8	L	(Bq/kg)
Cobalt-60	506.4	420	W		20.6	294.00 - 546.00	5.1	L	(Bq/kg)
Iron-55	916.3	1020	A		-10.2	714.00 - 1326.00	78.15		(Bq/kg)
Manganese-54	168.6	137	W		23.1	95.90 - 178.10	4.86	L	(Bq/kg)
Nickel-63	947.16	770	W		23.0	539.00 - 1001.00	50.74		(Bq/kg)
Plutonium-238	64.27	66.9	A		-3.9	46.83 - 86.97	5.64		(Bq/kg)
Plutonium-239/240	52.37	52.7	A		-0.6	36.89 - 68.51	4.84		(Bq/kg)
Potassium-40	810.0	652	W		24.2	456.40 - 847.60	22.9	L	(Bq/kg)
Strontium-90	608.5	714	A		-14.8	499.80 - 928.20	22.9		(Bq/kg)
Uranium-234/233	78.77	89	A		-11.5	62.30 - 115.70	5.54		(Bq/kg)
Uranium-235	7.53						0.94		(Bq/kg)
Uranium-238	400.6	421	A		-4.8	294.70 - 547.30	25.9		(Bq/kg)
Zinc-65	626.7	490	W		27.9	343.00 - 637.00	11.7	L	(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
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QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

CDHS01

California Department of Health Services
Sanitation & Radiation Lab.
Richmond CA 94804

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
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NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

CEEA99

Comision Ecuatoriana de Energia Atomica/U.Q.A.
JUAN LARREA 534 Y RIOFRIO
QUITO Pichinch 1

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	106.38	448	N		-76.3	313.60 - 582.40	4.28		(mg/kg)
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	2.38	2.14	A		11.2	1.50 - 2.78	0.33		(mg/kg)
Chromium	14.38	27	N		-46.7	18.90 - 35.10	1.86		(mg/kg)
Copper	19.86						0.93		(mg/kg)
Lead	12.33	14.4	A		-14.4	10.08 - 18.72	0.69		(mg/kg)
Nickel	118.04	109	A		8.3	76.30 - 141.70	9.35		(mg/kg)
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	94.46	92	A		2.7	64.40 - 119.60	5.75		(mg/kg)
Zinc	123.38	142	A		-13.1	99.40 - 184.60	7.91		(mg/kg)
Americium-241	NR								
Cesium-134	NR	238				166.60 - 309.40			
Cesium-137	NR	832				582.40 - 1081.60			
Cobalt-57	NR	530				371.00 - 689.00			
Cobalt-60	NR	420				294.00 - 546.00			
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	NR	137				95.90 - 178.10			
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	NR	652				456.40 - 847.60			
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	NR	490				343.00 - 637.00			

Flags:

A = Result acceptable Bias <= 20%
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N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

CEEA99

Comision Ecuatoriana de Energia Atomica/U.Q.A.
JUAN LARREA 534 Y RIOFRIO
QUITO Pichinch 1

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

CESL01

Lawrence Livermore National Laboratory - CES
7000 East Avenue
Livermore CA 94550

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	188.	238	W		-21.0	166.60 - 309.40	7.10		(Bq/kg)
Cesium-137	812.	832	A		-2.4	582.40 - 1081.60	55.0		(Bq/kg)
Cobalt-57	541.	530	A		2.1	371.00 - 689.00	26.0		(Bq/kg)
Cobalt-60	424.	420	A		1.0	294.00 - 546.00	14.5		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	145.	137	A		5.8	95.90 - 178.10	11.1		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	65.2	66.9	A		-2.5	46.83 - 86.97	1.55	L	(Bq/kg)
Plutonium-239/240	50.4	52.7	A		-4.4	36.89 - 68.51	1.23	L	(Bq/kg)
Potassium-40	725.	652	A		11.2	456.40 - 847.60	51.5		(Bq/kg)
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	562.	490	A		14.7	343.00 - 637.00	33.7		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

CESL01

Lawrence Livermore National Laboratory - CES
7000 East Avenue
Livermore CA 94550

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
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N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

CNEA99

Comision Nacional de Energia Atomica
Campus Universitario
San Lorenzo Dpto. Ce 3023

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Calcium	42738.33						2928.33		(mg/kg)
Chromium	213.00	75.5	N	Total Metal	182.1	52.85 - 98.15	23.57		(mg/kg)
Copper	50.38						4.66		(mg/kg)
Iron	25866.67						1740.00		(mg/kg)
Lead	32.18	19.3	N	Total Metal	66.7	13.51 - 25.09	8.02	H	(mg/kg)
Manganese	451.50						34.68		(mg/kg)
Nickel	101.13	116	A	Total Metal	-12.8	81.20 - 150.80	8.41		(mg/kg)
Potassium	17100.00						1228.33		(mg/kg)
Selenium	5.18	1.69	N	Total Metal	206.5	1.18 - 2.20	0.86		(mg/kg)
Silver	NR	11.7				8.19 - 15.21			
Vanadium	195.50	157	W	Total Metal	24.5	109.90 - 204.10	34.83		(mg/kg)
Zinc	136.83	158	A	Total Metal	-13.4	110.60 - 205.40	9.84		(mg/kg)
Americium-241	NR								
Cesium-134	NR	238				166.60 - 309.40			
Cesium-137	NR	832				582.40 - 1081.60			
Cobalt-57	NR	530				371.00 - 689.00			
Cobalt-60	NR	420				294.00 - 546.00			
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	NR	137				95.90 - 178.10			
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	NR	652				456.40 - 847.60			
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	NR	490				343.00 - 637.00			

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

CNEA99

Comision Nacional de Energia Atomica
Campus Universitario
San Lorenzo Dpto. Ce 3023

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

CORE02

STL Denver
4955 Yarrow St
Arvada CO 80002

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	7.6	7.4	A		2.7	5.18 - 9.62			(mg/kg)
Barium	450	448	A		0.4	313.60 - 582.40			(mg/kg)
Beryllium	3.9	4.36	A		-10.6	3.05 - 5.67			(mg/kg)
Cadmium	1.4	2.14	N		-34.6	1.50 - 2.78			(mg/kg)
Chromium	26	27	A		-3.7	18.90 - 35.10			(mg/kg)
Lead	14	14.4	A		-2.8	10.08 - 18.72			(mg/kg)
Nickel	100	109	A		-8.3	76.30 - 141.70			(mg/kg)
Selenium	1.4	1.69	A		-17.2	1.18 - 2.20			(mg/kg)
Silver	11	11.7	A		-6.0	8.19 - 15.21			(mg/kg)
Vanadium	89	92	A		-3.3	64.40 - 119.60			(mg/kg)
Zinc	130	142	A		-8.5	99.40 - 184.60			(mg/kg)
Americium-241	NR								
Cesium-134	287	238	W		20.6	166.60 - 309.40	10		(Bq/kg)
Cesium-137	1090	832	N		31.0	582.40 - 1081.60	40		(Bq/kg)
Cobalt-57	746	530	N		40.8	371.00 - 689.00	46		(Bq/kg)
Cobalt-60	545	420	W		29.8	294.00 - 546.00	13	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	187	137	N		36.5	95.90 - 178.10	5	L	(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	825	652	W		26.5	456.40 - 847.60	30		(Bq/kg)
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	77.7	89	A		-12.7	62.30 - 115.70	13.6		(Bq/kg)
Uranium-238	314	421	W		-25.4	294.70 - 547.30	40		(Bq/kg)
Zinc-65	664	490	N		35.5	343.00 - 637.00	14	L	(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

CORE02

STL Denver
4955 Yarrow St
Arvada CO 80002

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	83	66.4	A		0.7	QL - 142.84	(ug/kg)
1,2,4-Trimethylbenzene	98	65.1	A		1.0	QL - 167.80	(ug/kg)
Chloroform	160	154.3	A		0.3	89.89 - 218.63	(ug/kg)
1,2-Dichloroethane	140	122	A		1.1	70.89 - 173.08	(ug/kg)
Trichloroethene	130	132.9	A		-0.2	79.29 - 186.43	(ug/kg)
t-butylbenzene	86	62.5	A		0.8	QL - 151.39	(ug/kg)
Toluene	92	84.9	A		0.5	42.96 - 126.80	(ug/kg)
1,1,2-Trichloroethane	160	133.1	A		1.0	55.86 - 210.38	(ug/kg)
Tetrachloroethene	140	124.6	A		0.5	26.78 - 222.37	(ug/kg)
n-butylbenzene	69	45.2	A		1.0	QL - 119.37	(ug/kg)
Ethylbenzene	85	71.7	A		0.6	5.98 - 137.34	(ug/kg)
m & p-Xylene	87	71.3	A		0.7	QL - 142.69	(ug/kg)
1,1,2,2-Tetrachloroethane	190	131	A		1.4	4.49 - 257.49	(ug/kg)
1,3-Dichlorobenzene	390	900.2	A		-1.2	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	190	484.5	A		-1.3	QL - 1147.62	(ug/kg)
1,2,4-Trichlorobenzene	410	623.2	A		-1.3	114.65 - 1131.78	(ug/kg)
Naphthalene	390	643.6	A		-1.3	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	540	770.6	A		-1.0	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	210	330.4	A		-1.2	33.98 - 626.77	(ug/kg)
2-Chloronaphthalene	480	723.7	A		-1.2	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	610	911.9	A		-1.2	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	470	664	A		-0.9	41.99 - 1286.12	(ug/kg)
Diethylphthalate	540	824.6	A		-1.4	211.49 - 1437.81	(ug/kg)
Phenanthrene	250		N	False Postitive			(ug/kg)
Anthracene	NR	421.5	N	False Negative		67.71 - 775.24	
Pentachlorobenzene	450	705.1	A		-1.3	105.43 - 1304.75	(ug/kg)
Pyrene	480	739.1	A		-1.5	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	430	680.6	A		-1.5	169.80 - 1191.38	(ug/kg)
Chrysene	630	977.1	A		-1.5	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	1200	1498	A		-0.8	319.21 - 2676.15	(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

CSTL01

LOS ALAMOS NATIONAL LABORATORY
BIKINI ATOLL ROAD MS K484
LOS ALAMOS NM 87545

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	184	238	W		-22.7	166.60 - 309.40	21		(Bq/kg)
Cesium-137	691	832	A		-16.9	582.40 - 1081.60	77		(Bq/kg)
Cobalt-57	437	530	A		-17.5	371.00 - 689.00	49		(Bq/kg)
Cobalt-60	355	420	A		-15.5	294.00 - 546.00	40		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	120	137	A		-12.4	95.90 - 178.10	14		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	56.31	66.9	A		-15.8	46.83 - 86.97	7.72		(Bq/kg)
Plutonium-239/240	43.96	52.7	A		-16.6	36.89 - 68.51	6.01		(Bq/kg)
Potassium-40	540	652	A		-17.2	456.40 - 847.60	62		(Bq/kg)
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	85.44	89	A		-4.0	62.30 - 115.70	12.83		(Bq/kg)
Uranium-238	422.73	421	A		0.4	294.70 - 547.30	63.38		(Bq/kg)
Zinc-65	424	490	A		-13.5	343.00 - 637.00	48		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

CSTL01

LOS ALAMOS NATIONAL LABORATORY
BIKINI ATOLL ROAD MS K484
LOS ALAMOS NM 87545

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

DINL99

Departamento Ingenieria Nuclear
alda de Urquijo s/n-48013
Bilbao

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	240	238	A		0.8	166.60 - 309.40	5.40	L	(Bq/kg)
Cesium-137	863	832	A		3.7	582.40 - 1081.60	14.3	L	(Bq/kg)
Cobalt-57	557	530	A		5.1	371.00 - 689.00	9.63	L	(Bq/kg)
Cobalt-60	456	420	A		8.6	294.00 - 546.00	7.30	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	149	137	A		8.8	95.90 - 178.10	7.66		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	58.4	66.9	A		-12.7	46.83 - 86.97	0.73	L	(Bq/kg)
Plutonium-239/240	52.5	52.7	A		-0.4	36.89 - 68.51	0.66	L	(Bq/kg)
Potassium-40	718	652	A		10.1	456.40 - 847.60	13.0	L	(Bq/kg)
Strontium-90	539	714	W		-24.5	499.80 - 928.20	13.59	L	(Bq/kg)
Uranium-234/233	75.9	89	A		-14.7	62.30 - 115.70	2.49		(Bq/kg)
Uranium-238	429	421	A		1.9	294.70 - 547.30	12.4	L	(Bq/kg)
Zinc-65	504	490	A		2.9	343.00 - 637.00	12.9	L	(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

DINL99

Departamento Ingenieria Nuclear
alda de Urquijo s/n-48013
Bilbao

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

EMBW01

CH2MHILL, Mound, Environmental Monitoring
CH2MHILL
Miamisburg OH 45343

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	NR	238				166.60 - 309.40			
Cesium-137	NR	832				582.40 - 1081.60			
Cobalt-57	NR	530				371.00 - 689.00			
Cobalt-60	NR	420				294.00 - 546.00			
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	NR	137				95.90 - 178.10			
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	75.7365	66.9	A		13.2	46.83 - 86.97	6.7879		(Bq/kg)
Plutonium-239/240	54.5148	52.7	A		3.4	36.89 - 68.51	5.1281		(Bq/kg)
Potassium-40	NR	652				456.40 - 847.60			
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	94.1735	89	A		5.8	62.30 - 115.70	7.6998		(Bq/kg)
Uranium-238	458.0599	421	A		8.8	294.70 - 547.30	33.8308		(Bq/kg)
Zinc-65	NR	490				343.00 - 637.00			

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

EMBW01

CH2MHILL, Mound, Environmental Monitoring
CH2MHILL
Miamisburg OH 45343

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

ERCL01

Public Health Laboratories
1610 N.E. 150 th Srteet
Shoreline WA 98155

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	<1	19.9	N			13.93 - 25.87			(mg/kg)
Arsenic	6.7	7.4	A		-9.5	5.18 - 9.62	0.7		(mg/kg)
Barium	507.7	448	A		13.3	313.60 - 582.40	50.1		(mg/kg)
Beryllium	5.4	4.36	W		23.9	3.05 - 5.67	0.5		(mg/kg)
Cadmium	2.1	2.14	A		-1.9	1.50 - 2.78	0.2		(mg/kg)
Chromium	25.5	27	A		-5.6	18.90 - 35.10	2.6		(mg/kg)
Lead	15.5	14.4	A		7.6	10.08 - 18.72	1.6		(mg/kg)
Nickel	123.5	109	A		13.3	76.30 - 141.70	12.3		(mg/kg)
Selenium	4.3	1.69	N		154.4	1.18 - 2.20	0.4		(mg/kg)
Silver	12.1	11.7	A		3.4	8.19 - 15.21	1.2		(mg/kg)
Thallium	<1		A						(mg/kg)
Vanadium	85.2	92	A		-7.4	64.40 - 119.60	8.5		(mg/kg)
Zinc	139.8	142	A		-1.5	99.40 - 184.60	14.0		(mg/kg)
Americium-241	0.25		N	False Positive			0.06		(Bq/kg)
Cesium-134	209	238	A		-12.2	166.60 - 309.40	4	L	(Bq/kg)
Cesium-137	851	832	A		2.3	582.40 - 1081.60	59		(Bq/kg)
Cobalt-57	557	530	A		5.1	371.00 - 689.00	6	L	(Bq/kg)
Cobalt-60	448	420	A		6.7	294.00 - 546.00	3	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	152	137	A		10.9	95.90 - 178.10	5		(Bq/kg)
Nickel-63	646	770	A		-16.1	539.00 - 1001.00	62		(Bq/kg)
Plutonium-238	17.1	66.9	N		-74.4	46.83 - 86.97	0.4	L	(Bq/kg)
Plutonium-239/240	41.1	52.7	W		-22.0	36.89 - 68.51	0.6	L	(Bq/kg)
Potassium-40	733	652	A		12.4	456.40 - 847.60	13	L	(Bq/kg)
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	85	89	A		-4.5	62.30 - 115.70	2	L	(Bq/kg)
Uranium-238	392	421	A		-6.9	294.70 - 547.30	6	L	(Bq/kg)
Zinc-65	561	490	A		14.5	343.00 - 637.00	10	L	(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

ERCL01

Public Health Laboratories
1610 N.E. 150 th Srteet
Shoreline WA 98155

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

ERMI01

RMI Environmental Services
1601 East 21st Street
Ashtabula OH 44004

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	189	238	W		-20.6	166.60 - 309.40	7		(Bq/kg)
Cesium-137	750	832	A		-9.9	582.40 - 1081.60	13	L	(Bq/kg)
Cobalt-57	439	530	A		-17.2	371.00 - 689.00	9	L	(Bq/kg)
Cobalt-60	386	420	A		-8.1	294.00 - 546.00	8	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	134	137	A		-2.2	95.90 - 178.10	7		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	639	652	A		-2.0	456.40 - 847.60	18	L	(Bq/kg)
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	466	490	A		-4.9	343.00 - 637.00	16		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

ERMI01

RMI Environmental Services
1601 East 21st Street
Ashtabula OH 44004

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

GENE01

General Engineering Laboratories Inc.
2040 Savage Road
Charleston SC 29407

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	3.48	19.9	N		-82.5	13.93 - 25.87			(mg/kg)
Arsenic	8.16	7.4	A		10.3	5.18 - 9.62			(mg/kg)
Barium	463	448	A		3.3	313.60 - 582.40			(mg/kg)
Beryllium	4.36	4.36	A		0.0	3.05 - 5.67			(mg/kg)
Cadmium	1.66	2.14	W		-22.4	1.50 - 2.78			(mg/kg)
Chromium	29.1	27	A		7.8	18.90 - 35.10			(mg/kg)
Lead	12.9	14.4	A		-10.4	10.08 - 18.72			(mg/kg)
Nickel	105	109	A		-3.7	76.30 - 141.70			(mg/kg)
Selenium	1.3	1.69	W		-23.1	1.18 - 2.20			(mg/kg)
Silver	11.2	11.7	A		-4.3	8.19 - 15.21			(mg/kg)
Thallium	<1.0		A						(mg/kg)
Vanadium	98.6	92	A		7.2	64.40 - 119.60			(mg/kg)
Zinc	139	142	A		-2.1	99.40 - 184.60			(mg/kg)
Americium-241	0.820		A				0.355		(Bq/kg)
Cesium-134	200.9	238	A		-15.6	166.60 - 309.40	10.97		(Bq/kg)
Cesium-137	818.9	832	A		-1.6	582.40 - 1081.60	39.8		(Bq/kg)
Cobalt-57	578.1	530	A		9.1	371.00 - 689.00	19.8		(Bq/kg)
Cobalt-60	412.4	420	A		-1.8	294.00 - 546.00	15.3		(Bq/kg)
Iron-55	891.3	1020	A		-12.6	714.00 - 1326.00	61.9		(Bq/kg)
Manganese-54	140.99	137	A		2.9	95.90 - 178.10	8.08		(Bq/kg)
Neptunium-237	617.16						22.632		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	61.8	66.9	A		-7.6	46.83 - 86.97	3.36		(Bq/kg)
Plutonium-239/240	51.8	52.7	A		-1.7	36.89 - 68.51	2.95		(Bq/kg)
Potassium-40	679.9	652	A		4.3	456.40 - 847.60	27.4		(Bq/kg)
Strontium-90	646.06	714	A		-9.5	499.80 - 928.20	5.217	L	(Bq/kg)
Uranium-234/233	85.47	89	A		-4.0	62.30 - 115.70	5.414		(Bq/kg)
Uranium-238	397.1	421	A		-5.7	294.70 - 547.30	20.97		(Bq/kg)
Zinc-65	533.4	490	A		8.9	343.00 - 637.00	23.05		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

GENE01

General Engineering Laboratories Inc.
2040 Savage Road
Charleston SC 29407

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	102	66.4	A		1.4	QL - 142.84	(ug/kg)
1,2,4-Trimethylbenzene	104	65.1	A		1.1	QL - 167.80	(ug/kg)
Chloroform	172	154.3	A		0.8	89.89 - 218.63	(ug/kg)
1,2-Dichloroethane	131	122	A		0.5	70.89 - 173.08	(ug/kg)
Trichloroethene	140	132.9	A		0.4	79.29 - 186.43	(ug/kg)
t-butylbenzene	98.7	62.5	A		1.2	QL - 151.39	(ug/kg)
Toluene	84.8	84.9	A		0.0	42.96 - 126.80	(ug/kg)
1,1,2-Trichloroethane	150	133.1	A		0.7	55.86 - 210.38	(ug/kg)
Tetrachloroethene	142	124.6	A		0.5	26.78 - 222.37	(ug/kg)
n-butylbenzene	71.2	45.2	A		1.1	QL - 119.37	(ug/kg)
Ethylbenzene	87.1	71.7	A		0.7	5.98 - 137.34	(ug/kg)
m & p-Xylene	82.5	71.3	A		0.5	QL - 142.69	(ug/kg)
1,1,2,2-Tetrachloroethane	191	131	A		1.4	4.49 - 257.49	(ug/kg)
o-Xylene	2.13						(ug/kg)
1,3-Dichlorobenzene	1080	900.2	A		0.4	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	494	484.5	A		0.0	QL - 1147.62	(ug/kg)
1,2,4-Trichlorobenzene	661	623.2	A		0.2	114.65 - 1131.78	(ug/kg)
Naphthalene	618	643.6	A		-0.1	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	857	770.6	A		0.4	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	350	330.4	A		0.2	33.98 - 626.77	(ug/kg)
2-Chloronaphthalene	679	723.7	A		-0.2	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	842	911.9	A		-0.3	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	759	788	A		-0.2	242.75 - 1333.32	(ug/kg)
Fluorene	650	664	A		-0.1	41.99 - 1286.12	(ug/kg)
Diethylphthalate	795	824.6	A		-0.1	211.49 - 1437.81	(ug/kg)
Anthracene	393	421.5	A		-0.2	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	688	705.1	A		-0.1	105.43 - 1304.75	(ug/kg)
Pyrene	708	739.1	A		-0.2	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	628	680.6	A		-0.3	169.80 - 1191.38	(ug/kg)
Chrysene	899	977.1	A		-0.3	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	1440	1498	A		-0.1	319.21 - 2676.15	(ug/kg)
Endrin Ketone	13.3						(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

GROW01

FGL Environmental
853 Corporation St.
Santa Paula CA 93060

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	2.09	19.9	N		-89.5	13.93 - 25.87			(mg/kg)
Arsenic	6.37	7.4	A		-13.9	5.18 - 9.62			(mg/kg)
Barium	383	448	A		-14.5	313.60 - 582.40			(mg/kg)
Beryllium	5.04	4.36	A		15.6	3.05 - 5.67			(mg/kg)
Cadmium	1.79	2.14	A		-16.4	1.50 - 2.78			(mg/kg)
Chromium	22.41	27	A		-17.0	18.90 - 35.10			(mg/kg)
Lead	11.03	14.4	W		-23.4	10.08 - 18.72			(mg/kg)
Nickel	84.41	109	W		-22.6	76.30 - 141.70			(mg/kg)
Selenium	1.30	1.69	W		-23.1	1.18 - 2.20			(mg/kg)
Silver	9.40	11.7	A		-19.7	8.19 - 15.21			(mg/kg)
Thallium	1.38		N						(mg/kg)
Vanadium	78.32	92	A		-14.9	64.40 - 119.60			(mg/kg)
Zinc	110.92	142	W		-21.9	99.40 - 184.60			(mg/kg)
Americium-241	NR								
Cesium-134	219	238	A		-8.0	166.60 - 309.40	30		(Bq/kg)
Cesium-137	756	832	A		-9.1	582.40 - 1081.60	105		(Bq/kg)
Cobalt-57	474	530	A		-10.6	371.00 - 689.00	13	L	(Bq/kg)
Cobalt-60	412	420	A		-1.9	294.00 - 546.00	76		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	126	137	A		-8.0	95.90 - 178.10	21		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	653	652	A		0.2	456.40 - 847.60	125		(Bq/kg)
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	494	490	A		0.8	343.00 - 637.00	90		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

GROW01

FGL Environmental
853 Corporation St.
Santa Paula CA 93060

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

HWRL01

Lawrence Livermore National Laboratory - CES
7000 East Avenue
Livermore CA 94550

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	6.0	19.9	N		-69.8	13.93 - 25.87			(mg/kg)
Arsenic	5.9	7.4	W		-20.3	5.18 - 9.62			(mg/kg)
Barium	459.	448	A		2.5	313.60 - 582.40			(mg/kg)
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	2.6	2.14	W		21.5	1.50 - 2.78			(mg/kg)
Chromium	30.4	27	A		12.6	18.90 - 35.10			(mg/kg)
Cobalt	9.3								(mg/kg)
Copper	20.6								(mg/kg)
Lead	12.0	14.4	A		-16.7	10.08 - 18.72			(mg/kg)
Manganese	381.								(mg/kg)
Mercury	0.16								(mg/kg)
Nickel	107.	109	A		-1.8	76.30 - 141.70			(mg/kg)
Potassium	3910.								(mg/kg)
Selenium	NR	1.69				1.18 - 2.20			
Silver	11.1	11.7	A		-5.1	8.19 - 15.21			(mg/kg)
Vanadium	93.8	92	A		2.0	64.40 - 119.60			(mg/kg)
Zinc	139.	142	A		-2.1	99.40 - 184.60			(mg/kg)
Americium-241	NR								
Cesium-134	177.98	238	W		-25.2	166.60 - 309.40	1.37	L	(Bq/kg)
Cesium-137	781.90	832	A		-6.0	582.40 - 1081.60	11.33	L	(Bq/kg)
Cobalt-57	499.36	530	A		-5.8	371.00 - 689.00	7.61	L	(Bq/kg)
Cobalt-60	401.42	420	A		-4.4	294.00 - 546.00	3.71	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	141.76	137	A		3.5	95.90 - 178.10	2.03	L	(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	67.5	66.9	A		0.9	46.83 - 86.97	5.64		(Bq/kg)
Plutonium-239/240	49.0	52.7	A		-7.0	36.89 - 68.51	4.35		(Bq/kg)
Potassium-40	656.14	652	A		0.6	456.40 - 847.60	11.12	L	(Bq/kg)
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	89.6	89	A		0.7	62.30 - 115.70	5.95		(Bq/kg)
Uranium-238	417.	421	A		-0.9	294.70 - 547.30	24.7		(Bq/kg)
Zinc-65	516.85	490	A		5.5	343.00 - 637.00	6.91	L	(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

HWRL01

Lawrence Livermore National Laboratory - CES
7000 East Avenue
Livermore CA 94550

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

IBTN99

Instituto Boliviano de Ciencia y Tecnología Nuclear
Avenida 6 de Agosto 2905
La Paz Pvcia. M Cas.

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	70.02	7.4	N		846.2	5.18 - 9.62	0.15	L	(mg/kg)
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	17.30	2.14	N		708.4	1.50 - 2.78	0.04	L	(mg/kg)
Chromium	77.14	27	N		185.7	18.90 - 35.10	0.05	L	(mg/kg)
Copper	26.35						0.03		(mg/kg)
Lead	38.10	14.4	N		164.6	10.08 - 18.72	0.06	L	(mg/kg)
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	71.42	142	N		-49.7	99.40 - 184.60	0.08	L	(mg/kg)
Americium-241	NR								
Cesium-134	NR	238				166.60 - 309.40			
Cesium-137	NR	832				582.40 - 1081.60			
Cobalt-57	NR	530				371.00 - 689.00			
Cobalt-60	NR	420				294.00 - 546.00			
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	NR	137				95.90 - 178.10			
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	NR	652				456.40 - 847.60			
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	NR	490				343.00 - 637.00			

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

IBTN99

Instituto Boliviano de Ciencia y Tecnología Nuclear
Avenida 6 de Agosto 2905
La Paz Pvcia. M Cas.

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

IHPH99

Radiation Hygiene Laboratory, Inst. of Public Health
Str. Dr. Leonte nr. 1-3
Bucharest sector 5 76256

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	240.4	238	A		1.0	166.60 - 309.40	9.0		(Bq/kg)
Cesium-137	834.6	832	A		0.3	582.40 - 1081.60	28.4		(Bq/kg)
Cobalt-57	509.4	530	A		-3.9	371.00 - 689.00	27.0		(Bq/kg)
Cobalt-60	420.2	420	A		0.0	294.00 - 546.00	14.7		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	143.0	137	A		4.4	95.90 - 178.10	9.1		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	645.0	652	A		-1.1	456.40 - 847.60	49.7		(Bq/kg)
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	494.2	490	A		0.9	343.00 - 637.00	28.6		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

IHPH99

Radiation Hygiene Laboratory, Inst. of Public Health
Str. Dr. Leonte nr. 1-3
Bucharest sector 5 76256

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

IPEN99

Instituto Peruano de Energia Nuclear
Av. Canada # 1470
Lima - 41 Lima -

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	249.1	238	A		4.7	166.60 - 309.40	30		(Bq/kg)
Cesium-137	882.7	832	A		6.1	582.40 - 1081.60	63.4		(Bq/kg)
Cobalt-57	NR	530				371.00 - 689.00			
Cobalt-60	449.4	420	A		7.0	294.00 - 546.00	43.4		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	NR	137				95.90 - 178.10			
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	709.3	652	A		8.8	456.40 - 847.60	58.6		(Bq/kg)
Strontium-90	401.3	714	N		-43.8	499.80 - 928.20	40		(Bq/kg)
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	NR	490				343.00 - 637.00			

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

IPEN99

Instituto Peruano de Energia Nuclear
Av. Canada # 1470
Lima - 41 Lima -

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

IPHT99

Inst. Of Public Health Timisoara
Bd. V. Babes nr. 16-18
Timisoara Timis RO 1

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	199.5	238	A		-16.2	166.60 - 309.40	22.3		(Bq/kg)
Cesium-137	814.3	832	A		-2.1	582.40 - 1081.60	46.4		(Bq/kg)
Cobalt-57	452.6	530	A		-14.6	371.00 - 689.00	38.9		(Bq/kg)
Cobalt-60	357.4	420	A		-14.9	294.00 - 546.00	25.7		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	130.0	137	A		-5.1	95.90 - 178.10	9.75		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	554.7	652	A		-14.9	456.40 - 847.60	56		(Bq/kg)
Strontium-90	554.7	714	W		-22.3	499.80 - 928.20	27.1		(Bq/kg)
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	368.5	421	A		-12.5	294.70 - 547.30	27.6		(Bq/kg)
Zinc-65	438.77	490	A		-10.5	343.00 - 637.00	41.2		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

IPHT99

Inst. Of Public Health Timisoara
Bd. V. Babes nr. 16-18
Timisoara Timis RO 1

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

LAWR02

Lawrence Livermore National Laboratory
7000 East Avenue
Livermore CA 94550

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	204	238	A		-14.3	166.60 - 309.40	6.43		(Bq/kg)
Cesium-137	762	832	A		-8.4	582.40 - 1081.60	23.8		(Bq/kg)
Cobalt-57	497	530	A		-6.2	371.00 - 689.00	15.6		(Bq/kg)
Cobalt-60	397	420	A		-5.5	294.00 - 546.00	12.4		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	131	137	A		-4.4	95.90 - 178.10	4.44		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	51.5	66.9	W		-23.0	46.83 - 86.97	1.81		(Bq/kg)
Plutonium-239/240	51.5	52.7	A		-2.3	36.89 - 68.51	1.89		(Bq/kg)
Potassium-40	603	652	A		-7.5	456.40 - 847.60	20.6		(Bq/kg)
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	472	490	A		-3.7	343.00 - 637.00	15.3		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

LAWR02

Lawrence Livermore National Laboratory
7000 East Avenue
Livermore CA 94550

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

LEPD99

National Institute for Physics and Nuclear Engineering
Life and Environmental Physics Departmen
Bucharest Magurele R-769

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	NR	238				166.60 - 309.40			
Cesium-137	NR	832				582.40 - 1081.60			
Cobalt-57	NR	530				371.00 - 689.00			
Cobalt-60	NR	420				294.00 - 546.00			
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	NR	137				95.90 - 178.10			
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	NR	652				456.40 - 847.60			
Strontium-90	620	714	A		-13.2	499.80 - 928.20	118		(Bq/kg)
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	NR	490				343.00 - 637.00			

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

LEPD99

National Institute for Physics and Nuclear Engineering
Life and Environmental Physics Departmen
Bucharest Magurele R-769

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

LOCK01

BBWI Analytical Laboratories Department
P.O. Box 1625
Idaho Falls ID 83415

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	3.77	19.9	N		-81.1	13.93 - 25.87	0.75		(mg/kg)
Arsenic	7.16	7.4	A		-3.2	5.18 - 9.62	1.43		(mg/kg)
Barium	403	448	A		-10.0	313.60 - 582.40	81	H	(mg/kg)
Beryllium	4.36	4.36	A		0.0	3.05 - 5.67	0.87		(mg/kg)
Cadmium	1.27	2.14	N		-40.7	1.50 - 2.78	0.25		(mg/kg)
Chromium	23.2	27	A		-14.1	18.90 - 35.10	4.6		(mg/kg)
Lead	13.4	14.4	A		-6.9	10.08 - 18.72	2.7	H	(mg/kg)
Nickel	100	109	A		-8.3	76.30 - 141.70	20		(mg/kg)
Selenium	1.71	1.69	A		1.2	1.18 - 2.20	0.34		(mg/kg)
Silver	10.5	11.7	A		-10.3	8.19 - 15.21	2.1		(mg/kg)
Vanadium	83.3	92	A		-9.5	64.40 - 119.60	17	H	(mg/kg)
Zinc	134	142	A		-5.6	99.40 - 184.60	27	H	(mg/kg)
Americium-241	NR								
Cesium-134	213	238	A		-10.5	166.60 - 309.40	19		(Bq/kg)
Cesium-137	808	832	A		-2.9	582.40 - 1081.60	48		(Bq/kg)
Cobalt-57	516	530	A		-2.6	371.00 - 689.00	32		(Bq/kg)
Cobalt-60	425	420	A		1.2	294.00 - 546.00	27		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	134	137	A		-2.2	95.90 - 178.10	13		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	60.8	66.9	A		-9.1	46.83 - 86.97	14.8	H	(Bq/kg)
Plutonium-239/240	51.2	52.7	A		-2.8	36.89 - 68.51	10.9	H	(Bq/kg)
Potassium-40	48	652	N		-92.6	456.40 - 847.60	25	H	(Bq/kg)
Strontium-90	539	714	W		-24.5	499.80 - 928.20	45		(Bq/kg)
Uranium-234/233	81.6	89	A		-8.3	62.30 - 115.70	16.1		(Bq/kg)
Uranium-238	395	421	A		-6.2	294.70 - 547.30	64		(Bq/kg)
Zinc-65	483	490	A		-1.4	343.00 - 637.00	41		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

LOCK01

BBWI Analytical Laboratories Department
P.O. Box 1625
Idaho Falls ID 83415

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	30.6	154.3	A		-5.8	89.89 - 218.63	(ug/kg)
1,2-Dichloroethane	46.1	122	A		-4.5	70.89 - 173.08	(ug/kg)
Trichloroethene	12.6	132.9	A		-6.7	79.29 - 186.43	(ug/kg)
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	12.4	84.9	A		-5.2	42.96 - 126.80	(ug/kg)
1,1,2-Trichloroethane	48.9	133.1	A		-3.3	55.86 - 210.38	(ug/kg)
Tetrachloroethene	8.76	124.6	A		-3.6	26.78 - 222.37	(ug/kg)
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	10.2	71.7	A		-2.8	5.98 - 137.34	(ug/kg)
m & p-Xylene	14.4	71.3	A		-2.4	QL - 142.69	(ug/kg)
1,1,2,2-Tetrachloroethane	51.7	131	A		-1.9	4.49 - 257.49	(ug/kg)
1,3-Dichlorobenzene	480	900.2	A		-1.0	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
2,4-Dichlorophenol	202		N	False Positive			(ug/kg)
1,2,4-Trichlorobenzene	426	623.2	A		-1.2	114.65 - 1131.78	(ug/kg)
Naphthalene	432	643.6	A		-1.1	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	538	770.6	A		-1.0	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	NR	330.4	N	False Negative		33.98 - 626.77	
2-Chloronaphthalene	500	723.7	A		-1.1	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	620	911.9	A		-1.2	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	510	788	A		-1.5	242.75 - 1333.32	(ug/kg)
Fluorene	482	664	A		-0.9	41.99 - 1286.12	(ug/kg)
Diethylphthalate	606	824.6	A		-1.1	211.49 - 1437.81	(ug/kg)
Anthracene	286	421.5	A		-1.1	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	578	739.1	A		-0.9	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	504	680.6	A		-1.0	169.80 - 1191.38	(ug/kg)
Chrysene	742	977.1	A		-1.0	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	1110	1498	A		-1.0	319.21 - 2676.15	(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

LOCK03

RADIATION MEASUREMENTS LABORATORY/AEDL
INEEL
Idaho Falls ID 83415

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	0.3		A				0.5		(Bq/kg)
Cesium-134	252	238	A		5.9	166.60 - 309.40	20		(Bq/kg)
Cesium-137	920	832	A		10.6	582.40 - 1081.60	70		(Bq/kg)
Cobalt-57	630	530	A		18.9	371.00 - 689.00	50		(Bq/kg)
Cobalt-60	480	420	A		14.3	294.00 - 546.00	30		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	151	137	A		10.2	95.90 - 178.10	13		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	62.3	66.9	A		-6.9	46.83 - 86.97	3.9		(Bq/kg)
Plutonium-239/240	50.3	52.7	A		-4.6	36.89 - 68.51	3.2		(Bq/kg)
Potassium-40	700	652	A		7.4	456.40 - 847.60	60		(Bq/kg)
Strontium-90	706	714	A		-1.1	499.80 - 928.20	27		(Bq/kg)
Uranium-234/233	87.8	89	A		-1.3	62.30 - 115.70	6.3		(Bq/kg)
Uranium-238	388	421	A		-7.8	294.70 - 547.30	26		(Bq/kg)
Zinc-65	560	490	A		14.3	343.00 - 637.00	40		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

LOCK03

RADIATION MEASUREMENTS LABORATORY/AEDL
INEEL
Idaho Falls ID 83415

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

LPTO99

Center for Environmental Chemistry SPA
82 Lenin av.
Obninsk Kaluga re 24903

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	12.5	19.9	N		-37.2	13.93 - 25.87	1.5		(mg/kg)
Arsenic	5.10	7.4	N		-31.1	5.18 - 9.62	0.5		(mg/kg)
Barium	700	448	N		56.3	313.60 - 582.40	70		(mg/kg)
Beryllium	3.69	4.36	A		-15.4	3.05 - 5.67	0.4		(mg/kg)
Cadmium	2.00	2.14	A		-6.5	1.50 - 2.78	0.2		(mg/kg)
Chromium	22.6	27	A		-16.3	18.90 - 35.10	2.0		(mg/kg)
Lead	14.2	14.4	A		-1.4	10.08 - 18.72	1.5		(mg/kg)
Nickel	111	109	A		1.8	76.30 - 141.70	10		(mg/kg)
Selenium	1.87	1.69	A		10.7	1.18 - 2.20	0.2		(mg/kg)
Silver	5.35	11.7	N		-54.3	8.19 - 15.21	0.5		(mg/kg)
Vanadium	87.9	92	A		-4.5	64.40 - 119.60	9.0		(mg/kg)
Zinc	145	142	A		2.1	99.40 - 184.60	15.0		(mg/kg)
Americium-241	NR								
Cesium-134	NR	238				166.60 - 309.40			
Cesium-137	NR	832				582.40 - 1081.60			
Cobalt-57	NR	530				371.00 - 689.00			
Cobalt-60	NR	420				294.00 - 546.00			
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	NR	137				95.90 - 178.10			
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	NR	652				456.40 - 847.60			
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	NR	490				343.00 - 637.00			

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

LPTO99

Center for Environmental Chemistry SPA
82 Lenin av.
Obninsk Kaluga re 24903

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	764	900.2	A		-0.3	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	512	484.5	A		0.1	QL - 1147.62	(ug/kg)
1,2,4-Trichlorobenzene	675	623.2	A		0.3	114.65 - 1131.78	(ug/kg)
Naphthalene	890	643.6	A		1.3	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	730	770.6	A		-0.2	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	253	330.4	A		-0.8	33.98 - 626.77	(ug/kg)
2-Chloronaphthalene	910	723.7	A		0.9	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	887	911.9	A		-0.1	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	763	788	A		-0.1	242.75 - 1333.32	(ug/kg)
Fluorene	310	664	A		-1.7	41.99 - 1286.12	(ug/kg)
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	156	421.5	W		-2.3	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	953	705.1	A		1.2	105.43 - 1304.75	(ug/kg)
Pyrene	348	739.1	W		-2.2	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	421	680.6	A		-1.5	169.80 - 1191.38	(ug/kg)
Chrysene	783	977.1	A		-0.8	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

MART01

USEC, Inc.
Lab COC, Bldg. X-710, Rm 222
Piketon OH 45661

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	8.76	7.4	A		18.4	5.18 - 9.62			(mg/kg)
Barium	362	448	A		-19.2	313.60 - 582.40			(mg/kg)
Beryllium	3.67	4.36	A		-15.8	3.05 - 5.67			(mg/kg)
Cadmium	3.25	2.14	N		51.9	1.50 - 2.78			(mg/kg)
Chromium	21.0	27	W		-22.2	18.90 - 35.10			(mg/kg)
Lead	11.2	14.4	W		-22.2	10.08 - 18.72			(mg/kg)
Nickel	87.4	109	A		-19.8	76.30 - 141.70			(mg/kg)
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Uranium-Total	30.8	34	A		-9.4	23.80 - 44.20			(mg/kg)
Uranium-235	0.082	0.088	A		-6.8	0.06 - 0.11			(mg/kg)
Vanadium	77.0	92	A		-16.3	64.40 - 119.60			(mg/kg)
Zinc	123	142	A		-13.4	99.40 - 184.60			(mg/kg)
Americium-241	0.308		A				.377		(Bq/kg)
Cesium-134	206	238	A		-13.4	166.60 - 309.40	17.6		(Bq/kg)
Cesium-137	825	832	A		-0.8	582.40 - 1081.60	25.9		(Bq/kg)
Cobalt-57	510	530	A		-3.8	371.00 - 689.00	13.5	L	(Bq/kg)
Cobalt-60	439	420	A		4.5	294.00 - 546.00	8.2	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	143	137	A		4.4	95.90 - 178.10	5.8		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	44.63	66.9	N		-33.3	46.83 - 86.97	4.469		(Bq/kg)
Plutonium-239/240	51.66	52.7	A		-2.0	36.89 - 68.51	5.072		(Bq/kg)
Potassium-40	671	652	A		2.9	456.40 - 847.60	38.5		(Bq/kg)
Strontium-90	650	714	A		-9.0	499.80 - 928.20	18	L	(Bq/kg)
Uranium-234/233	73.22	89	A		-17.7	62.30 - 115.70	6.235		(Bq/kg)
Uranium-238	388.23	421	A		-7.8	294.70 - 547.30	28.85		(Bq/kg)
Zinc-65	530	490	A		8.2	343.00 - 637.00	14.4	L	(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

MART01

USEC, Inc.
Lab COC, Bldg. X-710, Rm 222
Piketon OH 45661

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

MART02

United States Enrichment Corporation
5600 Hobbs Road
Paducah KY 42001

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	466	448	A		4.0	313.60 - 582.40			(mg/kg)
Beryllium	3.2	4.36	W		-26.6	3.05 - 5.67			(mg/kg)
Cadmium	2.8	2.14	N		30.8	1.50 - 2.78			(mg/kg)
Chromium	34.8	27	W		28.9	18.90 - 35.10			(mg/kg)
Lead	NR	14.4				10.08 - 18.72			
Nickel	86.1	109	W		-21.0	76.30 - 141.70			(mg/kg)
Selenium	NR	1.69				1.18 - 2.20			
Silver	9.11	11.7	W		-22.1	8.19 - 15.21			(mg/kg)
Vanadium	110	92	A		19.6	64.40 - 119.60			(mg/kg)
Zinc	146	142	A		2.8	99.40 - 184.60			(mg/kg)
Americium-241	NR								
Cesium-134	NR	238				166.60 - 309.40			
Cesium-137	1370.	832	N		64.7	582.40 - 1081.60	11.1	L	(Bq/kg)
Cobalt-57	NR	530				371.00 - 689.00			
Cobalt-60	703	420	N		67.4	294.00 - 546.00	6.75	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	NR	137				95.90 - 178.10			
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	48.85	52.7	A		-7.3	36.89 - 68.51	5.048		(Bq/kg)
Potassium-40	1100	652	N		68.7	456.40 - 847.60	41.3		(Bq/kg)
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	NR	490				343.00 - 637.00			

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

MART02

United States Enrichment Corporation
5600 Hobbs Road
Paducah KY 42001

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	160	154.3	A		0.3	89.89 - 218.63	(ug/kg)
1,2-Dichloroethane	120	122	A		-0.1	70.89 - 173.08	(ug/kg)
Trichloroethene	150	132.9	A		1.0	79.29 - 186.43	(ug/kg)
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	96	84.9	A		0.8	42.96 - 126.80	(ug/kg)
1,1,2-Trichloroethane	140	133.1	A		0.3	55.86 - 210.38	(ug/kg)
Tetrachloroethene	160	124.6	A		1.1	26.78 - 222.37	(ug/kg)
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	89	71.7	A		0.8	5.98 - 137.34	(ug/kg)
m & p-Xylene	96	71.3	A		1.0	QL - 142.69	(ug/kg)
1,1,2,2-Tetrachloroethane	140	131	A		0.2	4.49 - 257.49	(ug/kg)
1,3-Dichlorobenzene	950	900.2	A		0.1	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	NR	484.5	N	False Negative		QL - 1147.62	
1,2,4-Trichlorobenzene	760	623.2	A		0.8	114.65 - 1131.78	(ug/kg)
Naphthalene	770	643.6	A		0.7	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	980	770.6	A		0.9	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	280	330.4	A		-0.5	33.98 - 626.77	(ug/kg)
2-Chloronaphthalene	930	723.7	A		1.0	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	1200	911.9	A		1.2	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	960	788	A		0.9	242.75 - 1333.32	(ug/kg)
Fluorene	580	664	A		-0.4	41.99 - 1286.12	(ug/kg)
Diethylphthalate	1100	824.6	A		1.3	211.49 - 1437.81	(ug/kg)
Anthracene	380	421.5	A		-0.4	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	900	739.1	A		0.9	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	780	680.6	A		0.6	169.80 - 1191.38	(ug/kg)
Chrysene	1200	977.1	A		0.9	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	1600	1498	A		0.3	319.21 - 2676.15	(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

MART03

Radioactive Material Analysis Laboratory
ORNL
Oak Ridge TN 37831

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	0.58		A				0.53		(Bq/kg)
Cesium-134	206	238	A		-13.4	166.60 - 309.40	10		(Bq/kg)
Cesium-137	828	832	A		-0.5	582.40 - 1081.60	10	L	(Bq/kg)
Cobalt-57	539	530	A		1.7	371.00 - 689.00	10	L	(Bq/kg)
Cobalt-60	442	420	A		5.2	294.00 - 546.00	10	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	146	137	A		6.6	95.90 - 178.10	10		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	66	66.9	A		-1.3	46.83 - 86.97	6		(Bq/kg)
Plutonium-239/240	52	52.7	A		-1.3	36.89 - 68.51	5		(Bq/kg)
Potassium-40	690	652	A		5.8	456.40 - 847.60	30		(Bq/kg)
Strontium-90	613	714	A		-14.1	499.80 - 928.20	20		(Bq/kg)
Uranium-234/233	90	89	A		1.1	62.30 - 115.70	6		(Bq/kg)
Uranium-238	400	421	A		-5.0	294.70 - 547.30	10	L	(Bq/kg)
Zinc-65	539	490	A		10.0	343.00 - 637.00	20		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

MART03

Radioactive Material Analysis Laboratory
ORNL
Oak Ridge TN 37831

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

MDPH01

MDPH-Radiation Control Program
MERL-Room 002
Jamaica Plain MA 02130

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	211	238	A		-11.3	166.60 - 309.40	4	L	(Bq/kg)
Cesium-137	781	832	A		-6.1	582.40 - 1081.60	19	L	(Bq/kg)
Cobalt-57	485	530	A		-8.5	371.00 - 689.00	10	L	(Bq/kg)
Cobalt-60	422	420	A		0.5	294.00 - 546.00	7	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	133	137	A		-2.9	95.90 - 178.10	3	L	(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	633	652	A		-2.9	456.40 - 847.60	27		(Bq/kg)
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	503	490	A		2.7	343.00 - 637.00	15	L	(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

MDPH01

MDPH-Radiation Control Program
MERL-Room 002
Jamaica Plain MA 02130

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

MOUN01

Mountain States Analytical, LLC
1645 West 2200 South
Salt Lake City UT 84119

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	<3	7.4	N			5.18 - 9.62			(mg/kg)
Barium	433	448	A		-3.3	313.60 - 582.40	2	L	(mg/kg)
Beryllium	3.95	4.36	A		-9.4	3.05 - 5.67	0.05	L	(mg/kg)
Cadmium	1.1	2.14	N		-48.6	1.50 - 2.78	0.4	H	(mg/kg)
Chromium	28	27	A		3.7	18.90 - 35.10	1		(mg/kg)
Lead	16	14.4	A		11.1	10.08 - 18.72	3		(mg/kg)
Nickel	93	109	A		-14.7	76.30 - 141.70	2	L	(mg/kg)
Selenium	<10	1.69	Q			1.18 - 2.20			(mg/kg)
Silver	9.3	11.7	W		-20.5	8.19 - 15.21	1.0		(mg/kg)
Thallium	26		N				8		(mg/kg)
Uranium-Total	33.3	34	A		-2.1	23.80 - 44.20	0.2		(mg/kg)
Uranium-235	0.07	0.088	W		-20.5	0.06 - 0.11	0.01		(mg/kg)
Uranium-238	33.2	33.9	A		-2.1	23.73 - 44.07	0.2		(mg/kg)
Vanadium	94.0	92	A		2.2	64.40 - 119.60	0.7	L	(mg/kg)
Zinc	136	142	A		-4.2	99.40 - 184.60	5		(mg/kg)
Americium-241	NR								
Cesium-134	NR	238				166.60 - 309.40			
Cesium-137	NR	832				582.40 - 1081.60			
Cobalt-57	NR	530				371.00 - 689.00			
Cobalt-60	NR	420				294.00 - 546.00			
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	NR	137				95.90 - 178.10			
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	NR	652				456.40 - 847.60			
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	NR	490				343.00 - 637.00			

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

MOUN01

Mountain States Analytical, LLC
1645 West 2200 South
Salt Lake City UT 84119

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	41.6	66.4	A		-1.0	QL - 142.84	(ug/kg)
1,2,4-Trimethylbenzene	41.0	65.1	A		-0.7	QL - 167.80	(ug/kg)
Chloroform	100	154.3	W		-2.5	89.89 - 218.63	(ug/kg)
1,2-Dichloroethane	77.7	122	W		-2.6	70.89 - 173.08	(ug/kg)
Trichloroethene	117	132.9	A		-0.9	79.29 - 186.43	(ug/kg)
t-butylbenzene	36.8	62.5	A		-0.9	QL - 151.39	(ug/kg)
Toluene	46.4	84.9	W		-2.8	42.96 - 126.80	(ug/kg)
1,1,2-Trichloroethane	97.6	133.1	A		-1.4	55.86 - 210.38	(ug/kg)
Tetrachloroethene	93.9	124.6	A		-0.9	26.78 - 222.37	(ug/kg)
n-butylbenzene	17.5	45.2	A		-1.1	QL - 119.37	(ug/kg)
Ethylbenzene	48.3	71.7	A		-1.1	5.98 - 137.34	(ug/kg)
m & p-Xylene	44.8	71.3	A		-1.1	QL - 142.69	(ug/kg)
1,1,2,2-Tetrachloroethane	89.7	131	A		-1.0	4.49 - 257.49	(ug/kg)
1,3-Dichlorobenzene	980	900.2	A		0.2	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	470	484.5	A		-0.1	QL - 1147.62	(ug/kg)
1,2,4-Trichlorobenzene	620	623.2	A		0.0	114.65 - 1131.78	(ug/kg)
Naphthalene	650	643.6	A		0.0	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	820	770.6	A		0.2	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	360	330.4	A		0.3	33.98 - 626.77	(ug/kg)
2-Chloronaphthalene	790	723.7	A		0.3	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	1060	911.9	A		0.6	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	910	788	A		0.7	242.75 - 1333.32	(ug/kg)
Fluorene	830	664	A		0.8	41.99 - 1286.12	(ug/kg)
Diethylphthalate	920	824.6	A		0.5	211.49 - 1437.81	(ug/kg)
Anthracene	570	421.5	A		1.3	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	780	705.1	A		0.4	105.43 - 1304.75	(ug/kg)
Pyrene	910	739.1	A		1.0	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	810	680.6	A		0.8	169.80 - 1191.38	(ug/kg)
Chrysene	1170	977.1	A		0.8	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	1960	1498	A		1.2	319.21 - 2676.15	(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

NARL01

National Air and Radiation Environmental Laboratory
540 S. Morris Ave.
Montgomery AL 36115

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	10.2	19.9	N		-48.7	13.93 - 25.87			(mg/kg)
Arsenic	8.27	7.4	A		11.8	5.18 - 9.62			(mg/kg)
Barium	486	448	A		8.5	313.60 - 582.40			(mg/kg)
Beryllium	4.56	4.36	A		4.6	3.05 - 5.67			(mg/kg)
Cadmium	1.89	2.14	A		-11.7	1.50 - 2.78			(mg/kg)
Chromium	39.2	27	N		45.2	18.90 - 35.10			(mg/kg)
Copper	23								(mg/kg)
Lead	16.2	14.4	A		12.5	10.08 - 18.72			(mg/kg)
Nickel	116	109	A		6.4	76.30 - 141.70			(mg/kg)
Selenium	4.10	1.69	N		142.6	1.18 - 2.20			(mg/kg)
Silver	10.6	11.7	A		-9.4	8.19 - 15.21			(mg/kg)
Thallium	0.314		A						(mg/kg)
Vanadium	112	92	W		21.7	64.40 - 119.60			(mg/kg)
Zinc	146	142	A		2.8	99.40 - 184.60			(mg/kg)
Americium-241	NR								
Cesium-134	214.1	238	A		-10.0	166.60 - 309.40	6.1	L	(Bq/kg)
Cesium-137	896	832	A		7.7	582.40 - 1081.60	25	L	(Bq/kg)
Cobalt-57	538	530	A		1.5	371.00 - 689.00	15	L	(Bq/kg)
Cobalt-60	436	420	A		3.8	294.00 - 546.00	13	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	153.1	137	A		11.8	95.90 - 178.10	4.6		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	65.0	66.9	A		-2.8	46.83 - 86.97	5.7		(Bq/kg)
Plutonium-239/240	44.1	52.7	A		-16.3	36.89 - 68.51	3.9		(Bq/kg)
Potassium-40	717	652	A		10.0	456.40 - 847.60	22		(Bq/kg)
Strontium-90	629	714	A		-11.9	499.80 - 928.20	48		(Bq/kg)
Uranium-234/233	82.6	89	A		-7.2	62.30 - 115.70	6.9		(Bq/kg)
Uranium-238	400	421	A		-5.0	294.70 - 547.30	26		(Bq/kg)
Zinc-65	566	490	A		15.5	343.00 - 637.00	17		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

NARL01

National Air and Radiation Environmental Laboratory
540 S. Morris Ave.
Montgomery AL 36115

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	670	900.2	A		-0.5	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	NR	484.5	N	False Negative		QL - 1147.62	
1,2,4-Trichlorobenzene	400	623.2	A		-1.3	114.65 - 1131.78	(ug/kg)
Naphthalene	400	643.6	A		-1.3	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	540	770.6	A		-1.0	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	380	723.7	A		-1.7	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	520	911.9	A		-1.6	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	430	788	A		-2.0	242.75 - 1333.32	(ug/kg)
Fluorene	440	664	A		-1.1	41.99 - 1286.12	(ug/kg)
Diethylphthalate	430	824.6	A		-1.9	211.49 - 1437.81	(ug/kg)
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	470	705.1	A		-1.2	105.43 - 1304.75	(ug/kg)
Pyrene	410	739.1	A		-1.9	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	380	680.6	A		-1.8	169.80 - 1191.38	(ug/kg)
Chrysene	600	977.1	A		-1.6	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	800	1498	A		-1.8	319.21 - 2676.15	(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

NESI01

BWXT Services-Nuclear Environmental Laboratory Servi
Lynchburg Technology Center
Lynchburg VA 24504

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	11.9	19.9	N		-40.2	13.93 - 25.87			(mg/kg)
Arsenic	17.5	7.4	N		136.5	5.18 - 9.62			(mg/kg)
Barium	431	448	A		-3.8	313.60 - 582.40			(mg/kg)
Beryllium	4.09	4.36	A		-6.2	3.05 - 5.67			(mg/kg)
Cadmium	2.06	2.14	A		-3.7	1.50 - 2.78			(mg/kg)
Chromium	27.8	27	A		3.0	18.90 - 35.10			(mg/kg)
Lead	17.3	14.4	W		20.1	10.08 - 18.72			(mg/kg)
Nickel	101	109	A		-7.3	76.30 - 141.70			(mg/kg)
Selenium	< 6.01	1.69	Q			1.18 - 2.20			(mg/kg)
Silver	30.6	11.7	N		161.5	8.19 - 15.21			(mg/kg)
Thallium	11.5		N						(mg/kg)
Vanadium	89.6	92	A		-2.6	64.40 - 119.60			(mg/kg)
Zinc	139	142	A		-2.1	99.40 - 184.60			(mg/kg)
Americium-241	0.740		A				0.666		(Bq/kg)
Cesium-134	215	238	A		-9.7	166.60 - 309.40	22		(Bq/kg)
Cesium-137	814	832	A		-2.2	582.40 - 1081.60	81		(Bq/kg)
Cobalt-57	540	530	A		1.9	371.00 - 689.00	48		(Bq/kg)
Cobalt-60	429	420	A		2.1	294.00 - 546.00	41		(Bq/kg)
Iron-55	629	1020	N		-38.3	714.00 - 1326.00	137	H	(Bq/kg)
Manganese-54	139	137	A		1.5	95.90 - 178.10	15		(Bq/kg)
Nickel-63	758	770	A		-1.6	539.00 - 1001.00	155	H	(Bq/kg)
Plutonium-238	65.5	66.9	A		-2.1	46.83 - 86.97	6.7		(Bq/kg)
Plutonium-239/240	51.8	52.7	A		-1.7	36.89 - 68.51	5.6		(Bq/kg)
Potassium-40	610	652	A		-6.4	456.40 - 847.60	62		(Bq/kg)
Strontium-90	457	714	N		-36.0	499.80 - 928.20	18		(Bq/kg)
Uranium-234/233	121	89	N		36.0	62.30 - 115.70	13		(Bq/kg)
Uranium-238	522	421	W		24.0	294.70 - 547.30	46		(Bq/kg)
Zinc-65	511	490	A		4.3	343.00 - 637.00	49		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

NESI01

BWXT Services-Nuclear Environmental Laboratory Servi
Lynchburg Technology Center
Lynchburg VA 24504

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	56.6	66.4	A		-0.4	QL - 142.84	(ug/kg)
1,2,4-Trimethylbenzene	48.5	65.1	A		-0.5	QL - 167.80	(ug/kg)
Chloroform	173	154.3	A		0.9	89.89 - 218.63	(ug/kg)
1,2-Dichloroethane	122	122	A		0.0	70.89 - 173.08	(ug/kg)
Trichloroethene	147	132.9	A		0.8	79.29 - 186.43	(ug/kg)
t-butylbenzene	48.1	62.5	A		-0.5	QL - 151.39	(ug/kg)
Toluene	87.1	84.9	A		0.2	42.96 - 126.80	(ug/kg)
1,1,2-Trichloroethane	146	133.1	A		0.5	55.86 - 210.38	(ug/kg)
Tetrachloroethene	136	124.6	A		0.3	26.78 - 222.37	(ug/kg)
n-butylbenzene	30.4	45.2	A		-0.6	QL - 119.37	(ug/kg)
Ethylbenzene	64.2	71.7	A		-0.3	5.98 - 137.34	(ug/kg)
m & p-Xylene	62.2	71.3	A		-0.4	QL - 142.69	(ug/kg)
1,1,2,2-Tetrachloroethane	113	131	A		-0.4	4.49 - 257.49	(ug/kg)
1,3-Dichlorobenzene	391	900.2	A		-1.2	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	191	484.5	A		-1.3	QL - 1147.62	(ug/kg)
1,2,4-Trichlorobenzene	449	623.2	A		-1.0	114.65 - 1131.78	(ug/kg)
Naphthalene	426	643.6	A		-1.1	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	469	770.6	A		-1.3	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	135	330.4	A		-2.0	33.98 - 626.77	(ug/kg)
2-Chloronaphthalene	610	723.7	A		-0.6	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	957	911.9	A		0.2	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	788	788	A		0.0	242.75 - 1333.32	(ug/kg)
Fluorene	375	664	A		-1.4	41.99 - 1286.12	(ug/kg)
Diethylphthalate	832	824.6	A		0.0	211.49 - 1437.81	(ug/kg)
Anthracene	170	421.5	W		-2.1	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	826	739.1	A		0.5	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	649	680.6	A		-0.2	169.80 - 1191.38	(ug/kg)
Chrysene	969	977.1	A		0.0	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	1460	1498	A		-0.1	319.21 - 2676.15	(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

NMLA01

Assaiggi Analytical Laboratories
4301 Masthead NE
Albuquerque NM 87109

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Aluminum	19700								(mg/kg)
Antimony	9.7	19.9	N		-51.3	13.93 - 25.87			(mg/kg)
Arsenic	11.3	7.4	N		52.7	5.18 - 9.62			(mg/kg)
Barium	406	448	A		-9.4	313.60 - 582.40			(mg/kg)
Beryllium	2.72	4.36	N		-37.6	3.05 - 5.67			(mg/kg)
Cadmium	2.12	2.14	A		-0.9	1.50 - 2.78			(mg/kg)
Calcium	41400								(mg/kg)
Chromium	24.5	27	A		-9.3	18.90 - 35.10			(mg/kg)
Cobalt	6.1								(mg/kg)
Copper	17.1								(mg/kg)
Iron	26200								(mg/kg)
Lead	16.0	14.4	A		11.1	10.08 - 18.72			(mg/kg)
Magnesium	10600								(mg/kg)
Manganese	352								(mg/kg)
Nickel	87.4	109	A		-19.8	76.30 - 141.70			(mg/kg)
Potassium	8440								(mg/kg)
Selenium	10.1	1.69	N		497.6	1.18 - 2.20			(mg/kg)
Silver	9.6	11.7	A		-17.9	8.19 - 15.21			(mg/kg)
Sodium	1420								(mg/kg)
Vanadium	93.2	92	A		1.3	64.40 - 119.60			(mg/kg)
Zinc	131	142	A		-7.7	99.40 - 184.60			(mg/kg)
Americium-241	NR								
Cesium-134	NR	238				166.60 - 309.40			
Cesium-137	NR	832				582.40 - 1081.60			
Cobalt-57	NR	530				371.00 - 689.00			
Cobalt-60	NR	420				294.00 - 546.00			
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	NR	137				95.90 - 178.10			
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	NR	652				456.40 - 847.60			
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	NR	490				343.00 - 637.00			

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

NMLA01

Assaiggi Analytical Laboratories
4301 Masthead NE
Albuquerque NM 87109

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	79.3	65.1	A		0.4	QL - 167.80	(ug/kg)
Chloroform	161	154.3	A		0.3	89.89 - 218.63	(ug/kg)
Benzene	7.23						(ug/kg)
1,2-Dichloroethane	134	122	A		0.7	70.89 - 173.08	(ug/kg)
Trichloroethene	134	132.9	A		0.1	79.29 - 186.43	(ug/kg)
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	86.0	84.9	A		0.1	42.96 - 126.80	(ug/kg)
1,1,2-Trichloroethane	139	133.1	A		0.2	55.86 - 210.38	(ug/kg)
Tetrachloroethene	122	124.6	A		-0.1	26.78 - 222.37	(ug/kg)
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	76.8	71.7	A		0.2	5.98 - 137.34	(ug/kg)
m & p-Xylene	77.1	71.3	A		0.2	QL - 142.69	(ug/kg)
1,1,2,2-Tetrachloroethane	137	131	A		0.1	4.49 - 257.49	(ug/kg)
o-Xylene	3.86						(ug/kg)
1,3-Dichlorobenzene	961	900.2	A		0.1	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	467	484.5	A		-0.1	QL - 1147.62	(ug/kg)
1,2,4-Trichlorobenzene	721	623.2	A		0.6	114.65 - 1131.78	(ug/kg)
Naphthalene	720	643.6	A		0.4	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	773	770.6	A		0.0	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	845	723.7	A		0.6	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	1110	911.9	A		0.8	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	811	788	A		0.1	242.75 - 1333.32	(ug/kg)
Fluorene	715	664	A		0.2	41.99 - 1286.12	(ug/kg)
Diethylphthalate	864	824.6	A		0.2	211.49 - 1437.81	(ug/kg)
Anthracene	387	421.5	A		-0.3	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	771	739.1	A		0.2	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	738	680.6	A		0.3	169.80 - 1191.38	(ug/kg)
Chrysene	1250	977.1	A		1.1	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	1430	1498	A		-0.2	319.21 - 2676.15	(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

NRLL99

National Radiation Laboratory
108 Victoria St
Christchurch Christchu 8001

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	1.23		N	False Positive			0.17		(Bq/kg)
Cesium-134	217.1	238	A		-8.8	166.60 - 309.40	3.4	L	(Bq/kg)
Cesium-137	808	832	A		-2.9	582.40 - 1081.60	26		(Bq/kg)
Cobalt-57	508	530	A		-4.2	371.00 - 689.00	18		(Bq/kg)
Cobalt-60	413	420	A		-1.7	294.00 - 546.00	8.3	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	137.3	137	A		0.2	95.90 - 178.10	4.4		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	609	652	A		-6.6	456.40 - 847.60	20		(Bq/kg)
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	489	490	A		-0.2	343.00 - 637.00	15		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

NRLL99

National Radiation Laboratory
108 Victoria St
Christchurch Christchu 8001

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

OBGL01

O'Brien & Gere Laboratories, Inc.
PO Box 4942
East Syracuse NY 13221

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	5.92	19.9	N		-70.3	13.93 - 25.87	0.6		(mg/kg)
Arsenic	8.29	7.4	A		12.0	5.18 - 9.62	0.6		(mg/kg)
Barium	440	448	A		-1.8	313.60 - 582.40	0.6	L	(mg/kg)
Beryllium	4.10	4.36	A		-6.0	3.05 - 5.67	0.6		(mg/kg)
Cadmium	1.87	2.14	A		-12.6	1.50 - 2.78	0.6	H	(mg/kg)
Chromium	24.6	27	A		-8.9	18.90 - 35.10	0.6	L	(mg/kg)
Lead	13.9	14.4	A		-3.5	10.08 - 18.72	0.6		(mg/kg)
Nickel	103	109	A		-5.5	76.30 - 141.70	0.6	L	(mg/kg)
Selenium	1.33	1.69	W		-21.3	1.18 - 2.20	0.8	H	(mg/kg)
Silver	10.8	11.7	A		-7.7	8.19 - 15.21	0.1	L	(mg/kg)
Thallium	<1		A				0.6		(mg/kg)
Vanadium	89.3	92	A		-2.9	64.40 - 119.60	0.6	L	(mg/kg)
Zinc	133	142	A		-6.3	99.40 - 184.60	0.6	L	(mg/kg)
Americium-241	8.77E+00		N	False Positive			2.5E+00		(Bq/kg)
Cesium-134	2.12E+02	238	A		-10.9	166.60 - 309.40	6.5E+00		(Bq/kg)
Cesium-137	8.43E+02	832	A		1.3	582.40 - 1081.60	2.5E+01	L	(Bq/kg)
Cobalt-57	5.23E+02	530	A		-1.3	371.00 - 689.00	1.6E+01		(Bq/kg)
Cobalt-60	4.65E+02	420	A		10.7	294.00 - 546.00	4.5E+01		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	1.71E+02	137	W		24.8	95.90 - 178.10	2.0E+01		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	5.72E+01	66.9	A		-14.5	46.83 - 86.97	1.2E+00	L	(Bq/kg)
Plutonium-239/240	4.46E+01	52.7	A		-15.4	36.89 - 68.51	2.2E+00		(Bq/kg)
Potassium-40	9.18E+02	652	N		40.8	456.40 - 847.60	6.8E+01		(Bq/kg)
Strontium-90	7.07E+02	714	A		-1.0	499.80 - 928.20	2.4E+02	H	(Bq/kg)
Uranium-234/233	8.57E+01	89	A		-3.7	62.30 - 115.70	6.0E+00		(Bq/kg)
Uranium-238	3.86E+02	421	A		-8.3	294.70 - 547.30	1.7E+01		(Bq/kg)
Zinc-65	5.60E+02	490	A		14.3	343.00 - 637.00	3.8E+01		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

OBGL01

O'Brien & Gere Laboratories, Inc.
PO Box 4942
East Syracuse NY 13221

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	160	154.3	A		0.3	89.89 - 218.63	(ug/kg)
1,2-Dichloroethane	120	122	A		-0.1	70.89 - 173.08	(ug/kg)
Trichloroethene	140	132.9	A		0.4	79.29 - 186.43	(ug/kg)
t-butylbenzene	90	62.5	A		0.9	QL - 151.39	(ug/kg)
Toluene	91	84.9	A		0.4	42.96 - 126.80	(ug/kg)
1,1,2-Trichloroethane	140	133.1	A		0.3	55.86 - 210.38	(ug/kg)
Tetrachloroethene	160	124.6	A		1.1	26.78 - 222.37	(ug/kg)
n-butylbenzene	69	45.2	A		1.0	QL - 119.37	(ug/kg)
Ethylbenzene	99	71.7	A		1.2	5.98 - 137.34	(ug/kg)
m & p-Xylene	98	71.3	A		1.1	QL - 142.69	(ug/kg)
1,1,2,2-Tetrachloroethane	160	131	A		0.7	4.49 - 257.49	(ug/kg)
1,3-Dichlorobenzene	670	900.2	A		-0.5	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	340	484.5	A		-0.7	QL - 1147.62	(ug/kg)
1,2,4-Trichlorobenzene	610	623.2	A		-0.1	114.65 - 1131.78	(ug/kg)
Naphthalene	630	643.6	A		-0.1	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	710	770.6	A		-0.3	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	750	723.7	A		0.1	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	980	911.9	A		0.3	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	860	788	A		0.4	242.75 - 1333.32	(ug/kg)
Fluorene	780	664	A		0.6	41.99 - 1286.12	(ug/kg)
Diethylphthalate	850	824.6	A		0.1	211.49 - 1437.81	(ug/kg)
Anthracene	440	421.5	A		0.2	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	830	739.1	A		0.5	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	730	680.6	A		0.3	169.80 - 1191.38	(ug/kg)
Chrysene	1100	977.1	A		0.5	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	1700	1498	A		0.5	319.21 - 2676.15	(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

ORIS01

ORISE/ESSAP
PO Box 117
Oak Ridge TN 37831

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	0.37		A				0.86		(Bq/kg)
Cesium-134	227.7	238	A		-4.3	166.60 - 309.40	9.1		(Bq/kg)
Cesium-137	835	832	A		0.4	582.40 - 1081.60	35		(Bq/kg)
Cobalt-57	550	530	A		3.8	371.00 - 689.00	19		(Bq/kg)
Cobalt-60	448	420	A		6.7	294.00 - 546.00	15		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	145.2	137	A		6.0	95.90 - 178.10	5.9		(Bq/kg)
Nickel-63	879	770	A		14.2	539.00 - 1001.00	87		(Bq/kg)
Plutonium-238	65.2	66.9	A		-2.5	46.83 - 86.97	6.5		(Bq/kg)
Plutonium-239/240	49.5	52.7	A		-6.1	36.89 - 68.51	5.2		(Bq/kg)
Potassium-40	636	652	A		-2.5	456.40 - 847.60	27		(Bq/kg)
Strontium-90	613	714	A		-14.1	499.80 - 928.20	25		(Bq/kg)
Uranium-234/233	89.4	89	A		0.4	62.30 - 115.70	8.6		(Bq/kg)
Uranium-238	416	421	A		-1.2	294.70 - 547.30	33		(Bq/kg)
Zinc-65	503	490	A		2.7	343.00 - 637.00	18		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

ORIS01

ORISE/ESSAP
PO Box 117
Oak Ridge TN 37831

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

OTLI01

Outreach Technologies, Inc.
311 N. Aspen
Broken Arrow OK 74012

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	3.83	19.9	N		-80.8	13.93 - 25.87			(mg/kg)
Arsenic	5.89	7.4	W		-20.4	5.18 - 9.62			(mg/kg)
Barium	422	448	A		-5.8	313.60 - 582.40			(mg/kg)
Beryllium	3.46	4.36	W		-20.6	3.05 - 5.67			(mg/kg)
Cadmium	3.27	2.14	N		52.8	1.50 - 2.78			(mg/kg)
Chromium	23.0	27	A		-14.8	18.90 - 35.10			(mg/kg)
Lead	5.70	14.4	N		-60.4	10.08 - 18.72			(mg/kg)
Nickel	100	109	A		-8.3	76.30 - 141.70			(mg/kg)
Selenium	-0.935	1.69	N		-155.3	1.18 - 2.20			(mg/kg)
Silver	5.05	11.7	N		-56.8	8.19 - 15.21			(mg/kg)
Vanadium	117	92	W		27.2	64.40 - 119.60			(mg/kg)
Zinc	148	142	A		4.2	99.40 - 184.60			(mg/kg)
Americium-241	-0.051		A				1.46		(Bq/kg)
Cesium-134	208	238	A		-12.6	166.60 - 309.40	5.5	L	(Bq/kg)
Cesium-137	796	832	A		-4.3	582.40 - 1081.60	24.5		(Bq/kg)
Cobalt-57	536	530	A		1.1	371.00 - 689.00	13.0	L	(Bq/kg)
Cobalt-60	447	420	A		6.4	294.00 - 546.00	9.3	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	183	137	N		33.6	95.90 - 178.10	7.9		(Bq/kg)
Nickel-63	745	770	A		-3.2	539.00 - 1001.00	112		(Bq/kg)
Plutonium-238	53.8	66.9	A		-19.6	46.83 - 86.97	7.88		(Bq/kg)
Plutonium-239/240	60.6	52.7	A		15.0	36.89 - 68.51	8.49		(Bq/kg)
Potassium-40	707	652	A		8.4	456.40 - 847.60	40.1		(Bq/kg)
Strontium-90	405	714	N		-43.3	499.80 - 928.20	60.8		(Bq/kg)
Uranium-234/233	85.1	89	A		-4.4	62.30 - 115.70	8.13		(Bq/kg)
Uranium-238	392	421	A		-6.9	294.70 - 547.30	17.4		(Bq/kg)
Zinc-65	613	490	W		25.1	343.00 - 637.00	31.2		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

OTLI01

Outreach Technologies, Inc.
311 N. Aspen
Broken Arrow OK 74012

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

PRAP01

WPRAP Laboratory
Shaw E&I, Inc.
Ross Ohio 45061

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	230.51	238	A		-3.1	166.60 - 309.40	13.012		(Bq/kg)
Cesium-137	881.217	832	A		5.9	582.40 - 1081.60	55.932		(Bq/kg)
Cobalt-57	633.933	530	A		19.6	371.00 - 689.00	35.52		(Bq/kg)
Cobalt-60	456.333	420	A		8.7	294.00 - 546.00	26.023		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	161.505	137	A		17.9	95.90 - 178.10	11.902		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	648.117	652	A		-0.6	456.40 - 847.60	47.884		(Bq/kg)
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	580.283	490	A		18.4	343.00 - 637.00	41.748		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

PRAP01

WPRAP Laboratory
Shaw E&I, Inc.
Ross Ohio 45061

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

QUAN01

Severn Trent Laboratories St. Louis
13715 Rider Trail North
Earth City MO 63045

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	7.30	19.9	N		-63.3	13.93 - 25.87			(mg/kg)
Arsenic	7.40	7.4	A		0.0	5.18 - 9.62			(mg/kg)
Barium	458	448	A		2.2	313.60 - 582.40			(mg/kg)
Beryllium	3.40	4.36	W		-22.0	3.05 - 5.67			(mg/kg)
Cadmium	1.80	2.14	A		-15.9	1.50 - 2.78			(mg/kg)
Chromium	24.1	27	A		-10.7	18.90 - 35.10			(mg/kg)
Lead	13.7	14.4	A		-4.9	10.08 - 18.72			(mg/kg)
Nickel	89.6	109	A		-17.8	76.30 - 141.70			(mg/kg)
Selenium	1.70	1.69	A		0.6	1.18 - 2.20			(mg/kg)
Silver	10.7	11.7	A		-8.5	8.19 - 15.21			(mg/kg)
Vanadium	85.8	92	A		-6.7	64.40 - 119.60			(mg/kg)
Zinc	113	142	W		-20.4	99.40 - 184.60			(mg/kg)
Americium-241	0.462		A				0.529		(Bq/kg)
Cesium-134	199	238	A		-16.4	166.60 - 309.40	24		(Bq/kg)
Cesium-137	769	832	A		-7.6	582.40 - 1081.60	89		(Bq/kg)
Cobalt-57	503	530	A		-5.1	371.00 - 689.00	60		(Bq/kg)
Cobalt-60	406	420	A		-3.3	294.00 - 546.00	44		(Bq/kg)
Iron-55	749	1020	W		-26.6	714.00 - 1326.00	123		(Bq/kg)
Manganese-54	132	137	A		-3.7	95.90 - 178.10	17		(Bq/kg)
Nickel-63	823	770	A		6.9	539.00 - 1001.00	118		(Bq/kg)
Plutonium-238	66.0	66.9	A		-1.3	46.83 - 86.97	7.4		(Bq/kg)
Plutonium-239/240	51.1	52.7	A		-3.0	36.89 - 68.51	6.3		(Bq/kg)
Potassium-40	621	652	A		-4.8	456.40 - 847.60	76		(Bq/kg)
Strontium-90	609	714	A		-14.7	499.80 - 928.20	127	H	(Bq/kg)
Uranium-234/233	72.6	89	A		-18.4	62.30 - 115.70	7.3		(Bq/kg)
Uranium-238	358	421	A		-15.0	294.70 - 547.30	26		(Bq/kg)
Zinc-65	501	490	A		2.2	343.00 - 637.00	57		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

QUAN01

Severn Trent Laboratories St. Louis
13715 Rider Trail North
Earth City MO 63045

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	436	900.2	A		-1.1	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	218	484.5	A		-1.2	QL - 1147.62	(ug/kg)
1,2,4-Trichlorobenzene	459	623.2	A		-1.0	114.65 - 1131.78	(ug/kg)
Naphthalene	459	643.6	A		-1.0	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	556	770.6	A		-0.9	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	345	330.4	A		0.1	33.98 - 626.77	(ug/kg)
2-Chloronaphthalene	616	723.7	A		-0.5	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	774	911.9	A		-0.6	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	680	788	A		-0.6	242.75 - 1333.32	(ug/kg)
Fluorene	681	664	A		0.1	41.99 - 1286.12	(ug/kg)
Diethylphthalate	715	824.6	A		-0.5	211.49 - 1437.81	(ug/kg)
Anthracene	420	421.5	A		0.0	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	661	705.1	A		-0.2	105.43 - 1304.75	(ug/kg)
Pyrene	653	739.1	A		-0.5	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	586	680.6	A		-0.6	169.80 - 1191.38	(ug/kg)
Chrysene	841	977.1	A		-0.6	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	1180	1498	A		-0.8	319.21 - 2676.15	(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

QUAN02

STL Knoxville
5815 Middlebrook Pike
Knoxville TN 37921

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	5.70	19.9	N		-71.4	13.93 - 25.87			(mg/kg)
Arsenic	7.45	7.4	A		0.7	5.18 - 9.62			(mg/kg)
Barium	416	448	A		-7.1	313.60 - 582.40			(mg/kg)
Beryllium	3.81	4.36	A		-12.6	3.05 - 5.67			(mg/kg)
Cadmium	1.39	2.14	N		-35.0	1.50 - 2.78			(mg/kg)
Chromium	23.6	27	A		-12.6	18.90 - 35.10			(mg/kg)
Lead	11.4	14.4	W		-20.8	10.08 - 18.72			(mg/kg)
Nickel	93.7	109	A		-14.0	76.30 - 141.70			(mg/kg)
Selenium	1.30	1.69	W		-23.1	1.18 - 2.20			(mg/kg)
Silver	9.72	11.7	A		-16.9	8.19 - 15.21			(mg/kg)
Vanadium	84.3	92	A		-8.4	64.40 - 119.60			(mg/kg)
Zinc	128	142	A		-9.9	99.40 - 184.60			(mg/kg)
Americium-241	NR								
Cesium-134	NR	238				166.60 - 309.40			
Cesium-137	NR	832				582.40 - 1081.60			
Cobalt-57	NR	530				371.00 - 689.00			
Cobalt-60	NR	420				294.00 - 546.00			
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	NR	137				95.90 - 178.10			
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	NR	652				456.40 - 847.60			
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	NR	490				343.00 - 637.00			

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

QUAN02

STL Knoxville
5815 Middlebrook Pike
Knoxville TN 37921

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	497	900.2	A		-0.9	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	NR	484.5	N	False Negative		QL - 1147.62	
1,2,4-Trichlorobenzene	469	623.2	A		-0.9	114.65 - 1131.78	(ug/kg)
Naphthalene	475	643.6	A		-0.9	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	540	770.6	A		-1.0	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	342	330.4	A		0.1	33.98 - 626.77	(ug/kg)
2-Chloronaphthalene	615	723.7	A		-0.5	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	698	911.9	A		-0.9	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	542	788	A		-1.4	242.75 - 1333.32	(ug/kg)
Fluorene	594	664	A		-0.3	41.99 - 1286.12	(ug/kg)
Diethylphthalate	633	824.6	A		-0.9	211.49 - 1437.81	(ug/kg)
Anthracene	445	421.5	A		0.2	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	719	705.1	A		0.1	105.43 - 1304.75	(ug/kg)
Pyrene	668	739.1	A		-0.4	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	594	680.6	A		-0.5	169.80 - 1191.38	(ug/kg)
Chrysene	870	977.1	A		-0.4	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	2780	1498	N		3.3	319.21 - 2676.15	(ug/kg)
beta-BHC	3.90						(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

QUAN03

SEVERN TRENT LABORATORIES - RICHLAND
2800 GEORGE WASHINGTON WAY
RICHLAND WA 99352

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	8.5		N	False Positive			0.88		(Bq/kg)
Cesium-134	223.3	238	A		-6.2	166.60 - 309.40	13.6		(Bq/kg)
Cesium-137	82.0	832	N		-90.1	582.40 - 1081.60	48.2	H	(Bq/kg)
Cobalt-57	558.3	530	A		5.3	371.00 - 689.00	44.0		(Bq/kg)
Cobalt-60	435.7	420	A		3.7	294.00 - 546.00	25.9		(Bq/kg)
Iron-55	2045.4	1020	N		100.5	714.00 - 1326.00	378.3		(Bq/kg)
Manganese-54	143.2	137	A		4.5	95.90 - 178.10	8.9		(Bq/kg)
Nickel-63	843.2	770	A		9.5	539.00 - 1001.00	113.0		(Bq/kg)
Plutonium-238	63.3	66.9	A		-5.4	46.83 - 86.97	5.0		(Bq/kg)
Plutonium-239/240	48.7	52.7	A		-7.6	36.89 - 68.51	3.9		(Bq/kg)
Potassium-40	654.4	652	A		0.4	456.40 - 847.60	40.0		(Bq/kg)
Strontium-90	764.0	714	A		7.0	499.80 - 928.20	78.3		(Bq/kg)
Uranium-234/233	84.1	89	A		-5.5	62.30 - 115.70	8.8		(Bq/kg)
Uranium-238	403.0	421	A		-4.3	294.70 - 547.30	38.2		(Bq/kg)
Zinc-65	527.8	490	A		7.7	343.00 - 637.00	32.0		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

QUAN03

SEVERN TRENT LABORATORIES - RICHLAND
2800 GEORGE WASHINGTON WAY
RICHLAND WA 99352

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

RECC01

GEL Laboratories of Ohio, LLC
6954 Cornell Rd. Suite 300
Cincinnati OH 45242

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	3.49	19.9	N		-82.5	13.93 - 25.87			(mg/kg)
Arsenic	7.78	7.4	A		5.1	5.18 - 9.62			(mg/kg)
Barium	410	448	A		-8.5	313.60 - 582.40			(mg/kg)
Beryllium	3.72	4.36	A		-14.7	3.05 - 5.67			(mg/kg)
Cadmium	1.42	2.14	N		-33.6	1.50 - 2.78			(mg/kg)
Chromium	27.0	27	A		0.0	18.90 - 35.10			(mg/kg)
Lead	11.3	14.4	W		-21.5	10.08 - 18.72			(mg/kg)
Nickel	89.5	109	A		-17.9	76.30 - 141.70			(mg/kg)
Selenium	NR	1.69				1.18 - 2.20			
Silver	13.1	11.7	A		12.0	8.19 - 15.21			(mg/kg)
Vanadium	88.1	92	A		-4.2	64.40 - 119.60			(mg/kg)
Zinc	124	142	A		-12.7	99.40 - 184.60			(mg/kg)
Americium-241	NR								
Cesium-134	204	238	A		-14.3	166.60 - 309.40	7.42		(Bq/kg)
Cesium-137	881	832	A		5.9	582.40 - 1081.60	54.3		(Bq/kg)
Cobalt-57	564	530	A		6.4	371.00 - 689.00	25.8		(Bq/kg)
Cobalt-60	462	420	A		10.0	294.00 - 546.00	20.3		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	150	137	A		9.5	95.90 - 178.10	11.5		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	68.2	66.9	A		1.9	46.83 - 86.97	8.96		(Bq/kg)
Plutonium-239/240	53.3	52.7	A		1.1	36.89 - 68.51	7.27		(Bq/kg)
Potassium-40	725	652	A		11.2	456.40 - 847.60	50.4		(Bq/kg)
Strontium-90	703	714	A		-1.5	499.80 - 928.20	110		(Bq/kg)
Uranium-234/233	84.2	89	A		-5.4	62.30 - 115.70	8.27		(Bq/kg)
Uranium-238	405	421	A		-3.8	294.70 - 547.30	38.1		(Bq/kg)
Zinc-65	589	490	W		20.2	343.00 - 637.00	39.8		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

RECC01

GEL Laboratories of Ohio, LLC
6954 Cornell Rd. Suite 300
Cincinnati OH 45242

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	77.5	66.4	A		0.4	QL - 142.84	(ug/kg)
1,2,4-Trimethylbenzene	65.2	65.1	A		0.0	QL - 167.80	(ug/kg)
Chloroform	149	154.3	A		-0.2	89.89 - 218.63	(ug/kg)
1,2-Dichloroethane	111	122	A		-0.6	70.89 - 173.08	(ug/kg)
Trichloroethene	139	132.9	A		0.3	79.29 - 186.43	(ug/kg)
t-butylbenzene	66.6	62.5	A		0.1	QL - 151.39	(ug/kg)
Toluene	85.6	84.9	A		0.1	42.96 - 126.80	(ug/kg)
1,1,2-Trichloroethane	124	133.1	A		-0.4	55.86 - 210.38	(ug/kg)
Tetrachloroethene	128	124.6	A		0.1	26.78 - 222.37	(ug/kg)
n-butylbenzene	48.8	45.2	A		0.1	QL - 119.37	(ug/kg)
Ethylbenzene	73.3	71.7	A		0.1	5.98 - 137.34	(ug/kg)
m & p-Xylene	73.6	71.3	A		0.1	QL - 142.69	(ug/kg)
1,1,2,2-Tetrachloroethane	128	131	A		-0.1	4.49 - 257.49	(ug/kg)
1,3-Dichlorobenzene	1050	900.2	A		0.3	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	474	484.5	A		0.0	QL - 1147.62	(ug/kg)
1,2,4-Trichlorobenzene	576	623.2	A		-0.3	114.65 - 1131.78	(ug/kg)
Naphthalene	596	643.6	A		-0.2	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	765	770.6	A		0.0	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	661	723.7	A		-0.3	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	835	911.9	A		-0.3	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	749	788	A		-0.2	242.75 - 1333.32	(ug/kg)
Fluorene	683	664	A		0.1	41.99 - 1286.12	(ug/kg)
Diethylphthalate	764	824.6	A		-0.3	211.49 - 1437.81	(ug/kg)
Anthracene	416	421.5	A		0.0	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	808	739.1	A		0.4	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	741	680.6	A		0.4	169.80 - 1191.38	(ug/kg)
Chrysene	1100	977.1	A		0.5	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	1780	1498	A		0.7	319.21 - 2676.15	(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

RSIR99

Instituto de Radioprotecao e Dosimetria
Avenida Salvador Allende S/no.
Rio de Janeiro Rio de Ja 22780

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	21.284	19.9	A	Total Metal	7.0	13.93 - 25.87	0.087	L	(mg/kg)
Arsenic	11.633	10.1	A	Total Metal	15.2	7.07 - 13.13	0.180	L	(mg/kg)
Barium	1129.00	1065	A	Total Metal	6.0	745.50 - 1384.50	10.333	L	(mg/kg)
Beryllium	4.787	4.36	A	Total Metal	9.8	3.05 - 5.67	0.107	L	(mg/kg)
Cadmium	1.887	2.14	A	Total Metal	-11.8	1.50 - 2.78	0.031	L	(mg/kg)
Chromium	77.267	75.5	A	Total Metal	2.3	52.85 - 98.15	1.267	L	(mg/kg)
Lead	19.867	19.3	A	Total Metal	2.9	13.51 - 25.09	0.177	L	(mg/kg)
Nickel	119.93	116	A	Total Metal	3.4	81.20 - 150.80	0.333	L	(mg/kg)
Selenium	NR	1.69				1.18 - 2.20			
Silver	12.18	11.7	A	Total Metal	4.1	8.19 - 15.21	0.137	L	(mg/kg)
Uranium-Total	30.353	34	A		-10.7	23.80 - 44.20	0.243		(mg/kg)
Vanadium	167.07	157	A	Total Metal	6.4	109.90 - 204.10	2.467	L	(mg/kg)
Zinc	169.527	158	A	Total Metal	7.3	110.60 - 205.40	1.470	L	(mg/kg)
Americium-241	NR								
Cesium-134	217.000	238	A		-8.8	166.60 - 309.40	6.693		(Bq/kg)
Cesium-137	836.067	832	A		0.5	582.40 - 1081.60	25.880		(Bq/kg)
Cobalt-57	463.200	530	A		-12.6	371.00 - 689.00	14.797		(Bq/kg)
Cobalt-60	400.467	420	A		-4.7	294.00 - 546.00	12.237		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	137.200	137	A		0.1	95.90 - 178.10	4.600		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	51.773	66.9	W		-22.6	46.83 - 86.97	1.757		(Bq/kg)
Plutonium-239/240	47.657	52.7	A		-9.6	36.89 - 68.51	1.660		(Bq/kg)
Potassium-40	637.800	652	A		-2.2	456.40 - 847.60	25.067		(Bq/kg)
Strontium-90	509.500	714	W		-28.6	499.80 - 928.20	21.300		(Bq/kg)
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	497.267	490	A		1.5	343.00 - 637.00	16.307		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

RSIR99

Instituto de Radioprotecao e Dosimetria
Avenida Salvador Allende S/no.
Rio de Janeiro Rio de Ja 22780

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

SCAL01

Sanford Cohen and Associates, Inc.
1000 Monticello Court
Montgomery AL 36117

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	1.18		A				0.495		(Bq/kg)
Cesium-134	214	238	A		-10.1	166.60 - 309.40	16.4		(Bq/kg)
Cesium-137	762	832	A		-8.4	582.40 - 1081.60	59.0		(Bq/kg)
Cobalt-57	512	530	A		-3.4	371.00 - 689.00	34.2		(Bq/kg)
Cobalt-60	426	420	A		1.4	294.00 - 546.00	29.5		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	142	137	A		3.7	95.90 - 178.10	12.0		(Bq/kg)
Nickel-63	603	770	W		-21.7	539.00 - 1001.00	74.7		(Bq/kg)
Plutonium-238	63.0	66.9	A		-5.8	46.83 - 86.97	8.59		(Bq/kg)
Plutonium-239/240	48.0	52.7	A		-8.9	36.89 - 68.51	6.80		(Bq/kg)
Potassium-40	708	652	A		8.6	456.40 - 847.60	51.5		(Bq/kg)
Strontium-90	305	714	N		-57.3	499.80 - 928.20	31.7		(Bq/kg)
Uranium-234/233	81.4	89	A		-8.5	62.30 - 115.70	10.5		(Bq/kg)
Uranium-238	423	421	A		0.5	294.70 - 547.30	48.7		(Bq/kg)
Zinc-65	538	490	A		9.8	343.00 - 637.00	40.2		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
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N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

SCAL01

Sanford Cohen and Associates, Inc.
1000 Monticello Court
Montgomery AL 36117

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
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NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

SIHA01

Sandia National Lab - Industrial Hygiene Analytical
PO Box 5800 MS0305
Albuquerque NM 87185

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Aluminum	19000						1500		(mg/kg)
Antimony	< 3.1	19.9	N		-92.5	13.93 - 25.87	0.2		(mg/kg)
Arsenic	7.2	7.4	A		-2.7	5.18 - 9.62	0.6		(mg/kg)
Barium	490	448	A		9.4	313.60 - 582.40	40		(mg/kg)
Beryllium	3.2	4.36	W		-26.6	3.05 - 5.67	0.2		(mg/kg)
Cadmium	2.7	2.14	W		26.2	1.50 - 2.78	0.2		(mg/kg)
Calcium	33000						2600		(mg/kg)
Chromium	29	27	A		7.4	18.90 - 35.10	2		(mg/kg)
Cobalt	7.6						0.6		(mg/kg)
Copper	20						2		(mg/kg)
Iron	21000						1600		(mg/kg)
Lead	14	14.4	A		-2.8	10.08 - 18.72	1		(mg/kg)
Magnesium	9400						700		(mg/kg)
Manganese	350						30		(mg/kg)
Nickel	100	109	A		-8.3	76.30 - 141.70	8		(mg/kg)
Potassium	3800						300		(mg/kg)
Selenium	1.2	1.69	W		-29.0	1.18 - 2.20	0.1		(mg/kg)
Silver	< 27	11.7	N		-60.7	8.19 - 15.21	2	H	(mg/kg)
Sodium	1200						90		(mg/kg)
Uranium-Total	33	34	A		-2.9	23.80 - 44.20	3		(mg/kg)
Uranium-235	0.067	0.088	W		-23.9	0.06 - 0.11	0.005		(mg/kg)
Uranium-238	33	33.9	A		-2.7	23.73 - 44.07	3		(mg/kg)
Vanadium	90	92	A		-2.2	64.40 - 119.60	4		(mg/kg)
Zinc	130	142	A		-8.5	99.40 - 184.60	10		(mg/kg)
Americium-241	NR								
Cesium-134	NR	238				166.60 - 309.40			
Cesium-137	NR	832				582.40 - 1081.60			
Cobalt-57	NR	530				371.00 - 689.00			
Cobalt-60	NR	420				294.00 - 546.00			
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	NR	137				95.90 - 178.10			
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	NR	652				456.40 - 847.60			
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-235	6.64						0.37		(Bq/kg)
Uranium-238	418	421	A		-0.7	294.70 - 547.30	23.6		(Bq/kg)
Zinc-65	NR	490				343.00 - 637.00			

Mixed Analyte Performance Evaluation Program

Laboratory Results

SIHA01

Sandia National Lab - Industrial Hygiene Analytical
PO Box 5800 MS0305
Albuquerque NM 87185

Sample ID: MAPEP-03-S10

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

SIHA01

Sandia National Lab - Industrial Hygiene Analytical
PO Box 5800 MS0305
Albuquerque NM 87185

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

SNEC01

Saxton Nuclear Experimental Corp
165 Power Plant Road
Saxton PA 16678

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	197.691	238	A		-16.9	166.60 - 309.40	4.482	L	(Bq/kg)
Cesium-137	794.538	832	A		-4.5	582.40 - 1081.60	38.607		(Bq/kg)
Cobalt-57	504.477	530	A		-4.8	371.00 - 689.00	17.323		(Bq/kg)
Cobalt-60	421.93	420	A		0.5	294.00 - 546.00	13.154		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	139.953	137	A		2.2	95.90 - 178.10	7.511		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	675.805	652	A		3.7	456.40 - 847.60	31.699		(Bq/kg)
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	512.413	490	A		4.6	343.00 - 637.00	25.128		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

SNEC01

Saxton Nuclear Experimental Corp
165 Power Plant Road
Saxton PA 16678

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

SOUT01

Southwest Research Institute
6220 Culebra Rd.
San Antonio TX 78228

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	2.14	19.9	N		-89.2	13.93 - 25.87	0.11		(mg/kg)
Arsenic	5.74	7.4	W		-22.4	5.18 - 9.62	0.30		(mg/kg)
Barium	478	448	A		6.7	313.60 - 582.40	25		(mg/kg)
Beryllium	4.47	4.36	A		2.5	3.05 - 5.67	0.23		(mg/kg)
Cadmium	1.91	2.14	A		-10.7	1.50 - 2.78	0.10		(mg/kg)
Chromium	18.1	27	N		-33.0	18.90 - 35.10	0.9		(mg/kg)
Lead	13.1	14.4	A		-9.0	10.08 - 18.72	0.7		(mg/kg)
Nickel	103	109	A		-5.5	76.30 - 141.70	5		(mg/kg)
Selenium	1.68	1.69	A		-0.6	1.18 - 2.20	0.09		(mg/kg)
Silver	11.0	11.7	A		-6.0	8.19 - 15.21	0.6		(mg/kg)
Uranium-Total	31.0	34	A		-8.8	23.80 - 44.20	1.6		(mg/kg)
Uranium-235	0.0688	0.088	W		-21.8	0.06 - 0.11	0.0036		(mg/kg)
Uranium-238	31.1	33.9	A		-2.4	23.73 - 44.07	1.6		(mg/kg)
Vanadium	83.0	92	A		-9.8	64.40 - 119.60	4.3		(mg/kg)
Zinc	117	142	A		-17.6	99.40 - 184.60	6		(mg/kg)
Americium-241	7.922E-01		A				3.737E-01		(Bq/kg)
Cesium-134	3.064E+02	238	W		28.7	166.60 - 309.40	1.236E+01		(Bq/kg)
Cesium-137	1.200E+03	832	N		44.2	582.40 - 1081.60	6.845E+01		(Bq/kg)
Cobalt-57	8.540E+02	530	N		61.1	371.00 - 689.00	5.328E+01		(Bq/kg)
Cobalt-60	6.190E+02	420	N		47.4	294.00 - 546.00	1.480E+01	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	2.084E+02	137	N		52.1	95.90 - 178.10	1.136E+01		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	5.384E+01	66.9	A		-19.5	46.83 - 86.97	4.473E+00		(Bq/kg)
Plutonium-239/240	5.402E+01	52.7	A		2.5	36.89 - 68.51	4.477E+00		(Bq/kg)
Potassium-40	9.635E+02	652	N		47.8	456.40 - 847.60	5.328E+01		(Bq/kg)
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	5.839E+01	89	N		-34.4	62.30 - 115.70	6.209E+00		(Bq/kg)
Uranium-238	3.694E+02	421	A		-12.3	294.70 - 547.30	3.011E+01		(Bq/kg)
Zinc-65	7.626E+02	490	N		55.6	343.00 - 637.00	2.960E+01		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

SOUT01

Southwest Research Institute
6220 Culebra Rd.
San Antonio TX 78228

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	51.4	66.4	A		-0.6	QL - 142.84	(ug/kg)
1,2,4-Trimethylbenzene	42.3	65.1	A		-0.7	QL - 167.80	(ug/kg)
Chloroform	124	154.3	A		-1.4	89.89 - 218.63	(ug/kg)
1,2-Dichloroethane	113	122	A		-0.5	70.89 - 173.08	(ug/kg)
Trichloroethene	97.7	132.9	A		-2.0	79.29 - 186.43	(ug/kg)
t-butylbenzene	41.7	62.5	A		-0.7	QL - 151.39	(ug/kg)
Toluene	73.9	84.9	A		-0.8	42.96 - 126.80	(ug/kg)
1,1,2-Trichloroethane	113	133.1	A		-0.8	55.86 - 210.38	(ug/kg)
Tetrachloroethene	96.8	124.6	A		-0.9	26.78 - 222.37	(ug/kg)
n-butylbenzene	29.7	45.2	A		-0.6	QL - 119.37	(ug/kg)
Ethylbenzene	54.9	71.7	A		-0.8	5.98 - 137.34	(ug/kg)
m & p-Xylene	58.4	71.3	A		-0.5	QL - 142.69	(ug/kg)
1,1,2,2-Tetrachloroethane	112	131	A		-0.4	4.49 - 257.49	(ug/kg)
1,3-Dichlorobenzene	1080	900.2	A		0.4	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	524	484.5	A		0.2	QL - 1147.62	(ug/kg)
1,2,4-Trichlorobenzene	697	623.2	A		0.4	114.65 - 1131.78	(ug/kg)
Naphthalene	728	643.6	A		0.4	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	859	770.6	A		0.4	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	896	723.7	A		0.9	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	1163	911.9	A		1.0	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	1043	788	A		1.4	242.75 - 1333.32	(ug/kg)
Fluorene	841	664	A		0.9	41.99 - 1286.12	(ug/kg)
Diethylphthalate	1013	824.6	A		0.9	211.49 - 1437.81	(ug/kg)
Anthracene	594	421.5	A		1.5	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	725	739.1	A		-0.1	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	817	680.6	A		0.8	169.80 - 1191.38	(ug/kg)
Chrysene	769	977.1	A		-0.9	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	1420	1498	A		-0.2	319.21 - 2676.15	(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

SWOL01

SOUTHWEST LABORATORY OF OKLAHOMA, INC.
1700 WEST ALBANY
BROKEN ARROW OK 74012

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	4.30	19.9	N		-78.4	13.93 - 25.87			(mg/kg)
Arsenic	7.64	7.4	A		3.2	5.18 - 9.62			(mg/kg)
Barium	440	448	A		-1.8	313.60 - 582.40			(mg/kg)
Beryllium	3.85	4.36	A		-11.7	3.05 - 5.67			(mg/kg)
Cadmium	1.87	2.14	A		-12.6	1.50 - 2.78			(mg/kg)
Chromium	20.2	27	W		-25.2	18.90 - 35.10			(mg/kg)
Lead	13.8	14.4	A		-4.2	10.08 - 18.72			(mg/kg)
Nickel	98.8	109	A		-9.4	76.30 - 141.70			(mg/kg)
Selenium	NR	1.69				1.18 - 2.20			
Silver	11.0	11.7	A		-6.0	8.19 - 15.21			(mg/kg)
Vanadium	84.2	92	A		-8.5	64.40 - 119.60			(mg/kg)
Zinc	129	142	A		-9.2	99.40 - 184.60			(mg/kg)
Americium-241	NR								
Cesium-134	239.8	238	A		0.8	166.60 - 309.40	27.8		(Bq/kg)
Cesium-137	943.5	832	A		13.4	582.40 - 1081.60	106.6		(Bq/kg)
Cobalt-57	599.4	530	A		13.1	371.00 - 689.00	73.3		(Bq/kg)
Cobalt-60	492.1	420	A		17.2	294.00 - 546.00	23.3		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	160.6	137	A		17.2	95.90 - 178.10	16.7		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	NR	652				456.40 - 847.60			
Strontium-90	481.0	714	N		-32.6	499.80 - 928.20	31.1		(Bq/kg)
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	580.9	490	A		18.6	343.00 - 637.00	48.1		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

SWOL01

SOUTHWEST LABORATORY OF OKLAHOMA, INC.
1700 WEST ALBANY
BROKEN ARROW OK 74012

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	92.2	66.4	A		1.0	QL - 142.84	(ug/kg)
1,2,4-Trimethylbenzene	112	65.1	A		1.4	QL - 167.80	(ug/kg)
Chloroform	162	154.3	A		0.4	89.89 - 218.63	(ug/kg)
1,2-Dichloroethane	131	122	A		0.5	70.89 - 173.08	(ug/kg)
Trichloroethene	146	132.9	A		0.7	79.29 - 186.43	(ug/kg)
t-butylbenzene	93.8	62.5	A		1.1	QL - 151.39	(ug/kg)
Toluene	104	84.9	A		1.4	42.96 - 126.80	(ug/kg)
1,1,2-Trichloroethane	144	133.1	A		0.4	55.86 - 210.38	(ug/kg)
Tetrachloroethene	150	124.6	A		0.8	26.78 - 222.37	(ug/kg)
n-butylbenzene	75.1	45.2	A		1.2	QL - 119.37	(ug/kg)
Ethylbenzene	87.8	71.7	A		0.7	5.98 - 137.34	(ug/kg)
m & p-Xylene	91.1	71.3	A		0.8	QL - 142.69	(ug/kg)
1,1,2,2-Tetrachloroethane	141	131	A		0.2	4.49 - 257.49	(ug/kg)
1,3-Dichlorobenzene	1590	900.2	A		1.6	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	822	484.5	A		1.5	QL - 1147.62	(ug/kg)
1,2,4-Trichlorobenzene	936	623.2	A		1.8	114.65 - 1131.78	(ug/kg)
Naphthalene	964	643.6	A		1.7	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	1260	770.6	W		2.1	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	1210	723.7	W		2.4	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	1400	911.9	W		2.0	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	1230	788	W		2.4	242.75 - 1333.32	(ug/kg)
Fluorene	1130	664	W		2.2	41.99 - 1286.12	(ug/kg)
Diethylphthalate	1240	824.6	W		2.0	211.49 - 1437.81	(ug/kg)
Anthracene	734	421.5	W		2.6	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	1150	739.1	W		2.3	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	1100	680.6	W		2.5	169.80 - 1191.38	(ug/kg)
Chrysene	1440	977.1	A		1.9	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	7020	1498	N		14.1	319.21 - 2676.15	(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

TELE01

TELEDYNE BROWN ENGINEERING - ENVIRONMENT
2508 Quality Lane
Knoxville TN 37931

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	204	238	A		-14.3	166.60 - 309.40	5.3	L	(Bq/kg)
Cesium-137	803	832	A		-3.5	582.40 - 1081.60	8.9	L	(Bq/kg)
Cobalt-57	499	530	A		-5.8	371.00 - 689.00	3.1	L	(Bq/kg)
Cobalt-60	427	420	A		1.7	294.00 - 546.00	5.5	L	(Bq/kg)
Iron-55	892	1020	A		-12.5	714.00 - 1326.00	242	H	(Bq/kg)
Manganese-54	136	137	A		-0.7	95.90 - 178.10	6.8		(Bq/kg)
Nickel-63	803	770	A		4.3	539.00 - 1001.00	58		(Bq/kg)
Plutonium-238	69	66.9	A		3.1	46.83 - 86.97	13		(Bq/kg)
Plutonium-239/240	57.7	52.7	A		9.5	36.89 - 68.51	12	H	(Bq/kg)
Potassium-40	686	652	A		5.2	456.40 - 847.60	34		(Bq/kg)
Strontium-90	651	714	A		-8.8	499.80 - 928.20	19.3	L	(Bq/kg)
Uranium-234/233	70.2	89	W		-21.1	62.30 - 115.70	7.5		(Bq/kg)
Uranium-238	394	421	A		-6.4	294.70 - 547.30	37		(Bq/kg)
Zinc-65	528	490	A		7.8	343.00 - 637.00	19.2		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

TELE01

TELEDYNE BROWN ENGINEERING - ENVIRONMENT
2508 Quality Lane
Knoxville TN 37931

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

TELE02

Environmental, Inc., Midwest Lab
700 Landwehr Road
Northbrook IL 60062

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	211.0	238	A		-11.3	166.60 - 309.40	2.3	L	(Bq/kg)
Cesium-137	849.5	832	A		2.1	582.40 - 1081.60	3.3	L	(Bq/kg)
Cobalt-57	534.4	530	A		0.8	371.00 - 689.00	2.6	L	(Bq/kg)
Cobalt-60	442.2	420	A		5.3	294.00 - 546.00	2.3	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	148.8	137	A		8.6	95.90 - 178.10	2.8	L	(Bq/kg)
Nickel-63	597.1	770	W		-22.5	539.00 - 1001.00	23.5		(Bq/kg)
Plutonium-238	67.0	66.9	A		0.1	46.83 - 86.97	3.1		(Bq/kg)
Plutonium-239/240	52.8	52.7	A		0.2	36.89 - 68.51	3.6		(Bq/kg)
Potassium-40	716.5	652	A		9.9	456.40 - 847.60	12.8	L	(Bq/kg)
Strontium-90	609.5	714	A		-14.6	499.80 - 928.20	9.8	L	(Bq/kg)
Uranium-234/233	99.5	89	A		11.8	62.30 - 115.70	7.6		(Bq/kg)
Uranium-238	508.6	421	W		20.8	294.70 - 547.30	42.2		(Bq/kg)
Zinc-65	492.7	490	A		0.6	343.00 - 637.00	28.1		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

TELE02

Environmental, Inc., Midwest Lab
700 Landwehr Road
Northbrook IL 60062

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

TMAE01

Eberline Services
7021 Pan American NE
Albuquerque NM 87109

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	0.182		A				0.314		(Bq/kg)
Cesium-134	198	238	A		-16.8	166.60 - 309.40	30.4		(Bq/kg)
Cesium-137	817	832	A		-1.8	582.40 - 1081.60	125		(Bq/kg)
Cobalt-57	501	530	A		-5.5	371.00 - 689.00	76.6		(Bq/kg)
Cobalt-60	410	420	A		-2.4	294.00 - 546.00	62.4		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	131	137	A		-4.4	95.90 - 178.10	21.1		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	70.9	66.9	A		6.0	46.83 - 86.97	6.77		(Bq/kg)
Plutonium-239/240	52.0	52.7	A		-1.3	36.89 - 68.51	5.35		(Bq/kg)
Potassium-40	610	652	A		-6.4	456.40 - 847.60	102		(Bq/kg)
Strontium-90	780	714	A		9.2	499.80 - 928.20	64.9		(Bq/kg)
Uranium-234/233	83.8	89	A		-5.8	62.30 - 115.70	7.98		(Bq/kg)
Uranium-238	410	421	A		-2.6	294.70 - 547.30	28.5		(Bq/kg)
Zinc-65	493	490	A		0.6	343.00 - 637.00	78.1		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

TMAE01

Eberline Services
7021 Pan American NE
Albuquerque NM 87109

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

TMAO01

EBERLINE SERVICES OAK RIDGE LABORATORY
601 SCARBORO RD
OAK RIDGE TN 37830

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	0.00		A				0.27		(Bq/kg)
Cesium-134	211.33	238	A		-11.2	166.60 - 309.40	7.46		(Bq/kg)
Cesium-137	811.88	832	A		-2.4	582.40 - 1081.60	45.75		(Bq/kg)
Cobalt-57	540.69	530	A		2.0	371.00 - 689.00	25.73		(Bq/kg)
Cobalt-60	432.39	420	A		3.0	294.00 - 546.00	15.06		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	146.19	137	A		6.7	95.90 - 178.10	9.78		(Bq/kg)
Nickel-63	681.3	770	A		-11.5	539.00 - 1001.00	23.36		(Bq/kg)
Plutonium-238	69.28	66.9	A		3.6	46.83 - 86.97	6.19		(Bq/kg)
Plutonium-239/240	53.46	52.7	A		1.4	36.89 - 68.51	4.98		(Bq/kg)
Potassium-40	671.48	652	A		3.0	456.40 - 847.60	41.19		(Bq/kg)
Strontium-90	658.89	714	A		-7.7	499.80 - 928.20	6.12	L	(Bq/kg)
Uranium-234/233	77.40	89	A		-13.0	62.30 - 115.70	8.44		(Bq/kg)
Uranium-238	388.16	421	A		-7.8	294.70 - 547.30	35.40		(Bq/kg)
Zinc-65	528.43	490	A		7.8	343.00 - 637.00	31.79		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

TMAO01

EBERLINE SERVICES OAK RIDGE LABORATORY
601 SCARBORO RD
OAK RIDGE TN 37830

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

TMAR01

Eberline Services
2030 Wright Ave
Richmond CA 94804

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	1.225		A				0.645		(Bq/kg)
Cesium-134	242.3	238	A		1.8	166.60 - 309.40	5.7	L	(Bq/kg)
Cesium-137	772.4	832	A		-7.2	582.40 - 1081.60	3.4	L	(Bq/kg)
Cobalt-57	494.8	530	A		-6.6	371.00 - 689.00	2.1	L	(Bq/kg)
Cobalt-60	406.3	420	A		-3.3	294.00 - 546.00	3.1	L	(Bq/kg)
Iron-55	877.6	1020	A		-14.0	714.00 - 1326.00	150.2		(Bq/kg)
Manganese-54	137.0	137	A		0.0	95.90 - 178.10	3.0	L	(Bq/kg)
Nickel-63	650.52	770	A		-15.5	539.00 - 1001.00	33.21		(Bq/kg)
Plutonium-238	55.74	66.9	A		-16.7	46.83 - 86.97	2.31		(Bq/kg)
Plutonium-239/240	43.41	52.7	A		-17.6	36.89 - 68.51	1.94		(Bq/kg)
Potassium-40	609.3	652	A		-6.5	456.40 - 847.60	29.0		(Bq/kg)
Strontium-90	599.95	714	A		-16.0	499.80 - 928.20	6.03	L	(Bq/kg)
Uranium-234/233	69.75	89	W		-21.6	62.30 - 115.70	1.82	L	(Bq/kg)
Uranium-235	7.575						0.576		(Bq/kg)
Uranium-238	339.0	421	A		-19.5	294.70 - 547.30	5.9	L	(Bq/kg)
Zinc-65	517.3	490	A		5.6	343.00 - 637.00	9.5	L	(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

TMAR01

Eberline Services
2030 Wright Ave
Richmond CA 94804

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

TNUT01

FUSRAP
8945 LATTY AVE
BERKELEY MO 63134

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	205.28	238	A		-13.7	166.60 - 309.40	4.08	L	(Bq/kg)
Cesium-137	845.08	832	A		1.6	582.40 - 1081.60	26.64		(Bq/kg)
Cobalt-57	545.32	530	A		2.9	371.00 - 689.00	12.99	L	(Bq/kg)
Cobalt-60	445.07	420	A		6.0	294.00 - 546.00	8.84	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	149.77	137	A		9.3	95.90 - 178.10	5.05		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	724.03	652	A		11.0	456.40 - 847.60	25.43		(Bq/kg)
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	86.25	89	A		-3.1	62.30 - 115.70	11.87		(Bq/kg)
Uranium-238	410.90	421	A		-2.4	294.70 - 547.30	40.18		(Bq/kg)
Zinc-65	563.73	490	A		15.0	343.00 - 637.00	17.37		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

TNUT01

FUSRAP
8945 LATTY AVE
BERKELEY MO 63134

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

UPVL99

LAB.RADIACTIVIDAD AMBIENTAL. UNIV. POLITECNIC
CAMINO DE VERA, s/n
VALENCIA VALENCI 46022

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	NR								
Cesium-134	235	238	A		-1.3	166.60 - 309.40	3	L	(Bq/kg)
Cesium-137	907	832	A		9.0	582.40 - 1081.60	11.6	L	(Bq/kg)
Cobalt-57	562.5	530	A		6.1	371.00 - 689.00	6.6	L	(Bq/kg)
Cobalt-60	473.9	420	A		12.8	294.00 - 546.00	5.9	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	150.7	137	A		10.0	95.90 - 178.10	2.3	L	(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	52	66.9	W		-22.3	46.83 - 86.97	2		(Bq/kg)
Plutonium-239/240	46	52.7	A		-12.7	36.89 - 68.51	2		(Bq/kg)
Potassium-40	727.2	652	A		11.5	456.40 - 847.60	12.0	L	(Bq/kg)
Strontium-90	673	714	A		-5.7	499.80 - 928.20	24		(Bq/kg)
Uranium-234/233	58	89	N		-34.8	62.30 - 115.70	2		(Bq/kg)
Uranium-238	350	421	A		-16.9	294.70 - 547.30	10	L	(Bq/kg)
Zinc-65	575.5	490	A		17.4	343.00 - 637.00	7.8	L	(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

UPVL99

LAB.RADIACTIVIDAD AMBIENTAL. UNIV. POLITECNIC
CAMINO DE VERA, s/n
VALENCIA VALENCI 46022

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

WEST01

Lionville Laboratory Incorporated
208 Welsh Pool Road
Lionville PA 19341

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	8.8	19.9	N		-55.8	13.93 - 25.87			(mg/kg)
Arsenic	8.6	7.4	A		16.2	5.18 - 9.62			(mg/kg)
Barium	484	448	A		8.0	313.60 - 582.40			(mg/kg)
Beryllium	4.5	4.36	A		3.2	3.05 - 5.67			(mg/kg)
Cadmium	1.9	2.14	A		-11.2	1.50 - 2.78			(mg/kg)
Chromium	30.1	27	A		11.5	18.90 - 35.10			(mg/kg)
Lead	13.7	14.4	A		-4.9	10.08 - 18.72			(mg/kg)
Nickel	110	109	A		0.9	76.30 - 141.70			(mg/kg)
Selenium	2.0	1.69	A		18.3	1.18 - 2.20			(mg/kg)
Silver	12.1	11.7	A		3.4	8.19 - 15.21			(mg/kg)
Thallium	<0.53		A						(mg/kg)
Vanadium	103	92	A		12.0	64.40 - 119.60			(mg/kg)
Zinc	145	142	A		2.1	99.40 - 184.60			(mg/kg)
Americium-241	NR								
Cesium-134	NR	238				166.60 - 309.40			
Cesium-137	NR	832				582.40 - 1081.60			
Cobalt-57	NR	530				371.00 - 689.00			
Cobalt-60	NR	420				294.00 - 546.00			
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	NR	137				95.90 - 178.10			
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	NR	652				456.40 - 847.60			
Strontium-90	NR	714				499.80 - 928.20			
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	NR	490				343.00 - 637.00			

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

WEST01

Lionville Laboratory Incorporated
208 Welsh Pool Road
Lionville PA 19341

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	33	66.4	A		-1.3	QL - 142.84	(ug/kg)
1,2,4-Trimethylbenzene	24	65.1	A		-1.2	QL - 167.80	(ug/kg)
Chloroform	120	154.3	A		-1.6	89.89 - 218.63	(ug/kg)
1,2-Dichloroethane	100	122	A		-1.3	70.89 - 173.08	(ug/kg)
Trichloroethene	110	132.9	A		-1.3	79.29 - 186.43	(ug/kg)
t-butylbenzene	24	62.5	A		-1.3	QL - 151.39	(ug/kg)
Toluene	58	84.9	A		-1.9	42.96 - 126.80	(ug/kg)
1,1,2-Trichloroethane	99	133.1	A		-1.3	55.86 - 210.38	(ug/kg)
Tetrachloroethene	79	124.6	A		-1.4	26.78 - 222.37	(ug/kg)
n-butylbenzene	11	45.2	A		-1.4	QL - 119.37	(ug/kg)
Ethylbenzene	43	71.7	A		-1.3	5.98 - 137.34	(ug/kg)
m & p-Xylene	42	71.3	A		-1.2	QL - 142.69	(ug/kg)
1,1,2,2-Tetrachloroethane	92	131	A		-0.9	4.49 - 257.49	(ug/kg)
1,3-Dichlorobenzene	1100	900.2	A		0.5	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	530	484.5	A		0.2	QL - 1147.62	(ug/kg)
1,2,4-Trichlorobenzene	630	623.2	A		0.0	114.65 - 1131.78	(ug/kg)
Naphthalene	660	643.6	A		0.1	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	890	770.6	A		0.5	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	380	330.4	A		0.5	33.98 - 626.77	(ug/kg)
2-Chloronaphthalene	720	723.7	A		0.0	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	970	911.9	A		0.2	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	910	788	A		0.7	242.75 - 1333.32	(ug/kg)
Fluorene	740	664	A		0.4	41.99 - 1286.12	(ug/kg)
Diethylphthalate	860	824.6	A		0.2	211.49 - 1437.81	(ug/kg)
Anthracene	450	421.5	A		0.2	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	760	705.1	A		0.3	105.43 - 1304.75	(ug/kg)
Pyrene	700	739.1	A		-0.2	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	810	680.6	A		0.8	169.80 - 1191.38	(ug/kg)
Chrysene	910	977.1	A		-0.3	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	1600	1498	A		0.3	319.21 - 2676.15	(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

WEST03

Waste Sampling and Characterization Facility
PO Box 1000, S3-30
Richland WA 99352

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	11.6	19.9	N		-41.7	13.93 - 25.87	0.7		(mg/kg)
Arsenic	7.58	7.4	A		2.4	5.18 - 9.62	0.29		(mg/kg)
Barium	429	448	A		-4.2	313.60 - 582.40	60		(mg/kg)
Beryllium	4.49	4.36	A		3.0	3.05 - 5.67	0.24		(mg/kg)
Cadmium	1.95	2.14	A		-8.9	1.50 - 2.78	0.06		(mg/kg)
Chromium	23.6	27	A		-12.6	18.90 - 35.10	0.7	L	(mg/kg)
Lead	13.3	14.4	A		-7.6	10.08 - 18.72	0.4		(mg/kg)
Nickel	108	109	A		-0.9	76.30 - 141.70	4		(mg/kg)
Selenium	2.96	1.69	N		75.1	1.18 - 2.20	0.14		(mg/kg)
Silver	10.9	11.7	A		-6.8	8.19 - 15.21	0.6		(mg/kg)
Thallium	<0.98		A				0.1		(mg/kg)
Uranium-Total	28.7	34	A		-15.6	23.80 - 44.20	1.4		(mg/kg)
Vanadium	89.6	92	A		-2.6	64.40 - 119.60	2.7		(mg/kg)
Zinc	142	142	A		0.0	99.40 - 184.60	9		(mg/kg)
Americium-241	0.899		N	False Positive			0.261		(Bq/kg)
Cesium-134	182	238	W		-23.5	166.60 - 309.40	15.8		(Bq/kg)
Cesium-137	763	832	A		-8.3	582.40 - 1081.60	66.8		(Bq/kg)
Cobalt-57	470	530	A		-11.3	371.00 - 689.00	25.7		(Bq/kg)
Cobalt-60	397	420	A		-5.5	294.00 - 546.00	18.8		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	140	137	A		2.2	95.90 - 178.10	12.1		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	51.1	66.9	W		-23.6	46.83 - 86.97	6.7		(Bq/kg)
Plutonium-239/240	49.1	52.7	A		-6.8	36.89 - 68.51	6.4		(Bq/kg)
Potassium-40	710	652	A		8.9	456.40 - 847.60	49.9		(Bq/kg)
Strontium-90	636	714	A		-10.9	499.80 - 928.20	54.3		(Bq/kg)
Uranium-234/233	65.8	89	W		-26.1	62.30 - 115.70	8.9		(Bq/kg)
Uranium-238	394	421	A		-6.4	294.70 - 547.30	51.6		(Bq/kg)
Zinc-65	537	490	A		9.6	343.00 - 637.00	38.1		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

WEST03

Waste Sampling and Characterization Facility
PO Box 1000, S3-30
Richland WA 99352

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	1400	900.2	A		1.2	QL - 2184.06	(ug/kg)
1,4-Dichlorobenzene	693	484.5	A		0.9	QL - 1147.62	(ug/kg)
1,2,4-Trichlorobenzene	888	623.2	A		1.6	114.65 - 1131.78	(ug/kg)
Naphthalene	867	643.6	A		1.2	68.23 - 1218.89	(ug/kg)
Hexachlorobutadiene	1280	770.6	W		2.1	55.04 - 1486.24	(ug/kg)
2,6-Dichlorophenol	447	330.4	A		1.2	33.98 - 626.77	(ug/kg)
2-Chloronaphthalene	905	723.7	A		0.9	121.68 - 1325.80	(ug/kg)
2,6-Dinitrotoluene	1040	911.9	A		0.5	184.71 - 1639.12	(ug/kg)
2,4-Dinitrotoluene	854	788	A		0.4	242.75 - 1333.32	(ug/kg)
Fluorene	805	664	A		0.7	41.99 - 1286.12	(ug/kg)
Diethylphthalate	991	824.6	A		0.8	211.49 - 1437.81	(ug/kg)
Anthracene	473	421.5	A		0.4	67.71 - 775.24	(ug/kg)
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	782	739.1	A		0.2	212.97 - 1265.26	(ug/kg)
Benzo(a)anthracene	680	680.6	A		0.0	169.80 - 1191.38	(ug/kg)
Chrysene	1020	977.1	A		0.2	263.41 - 1690.88	(ug/kg)
Bis(2-ethylhexyl)phthalat	1410	1498	A		-0.2	319.21 - 2676.15	(ug/kg)

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

WEST04

Pace Analytical Services, Inc - WALTZ MILL SITE
P.O. BOX 158
MADISON PA 15663

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Americium-241	0.00		A				0.70		(Bq/kg)
Cesium-134	209.3	238	A		-12.1	166.60 - 309.40	7.08		(Bq/kg)
Cesium-137	841.7	832	A		1.2	582.40 - 1081.60	40.67		(Bq/kg)
Cobalt-57	504.4	530	A		-4.8	371.00 - 689.00	32.19		(Bq/kg)
Cobalt-60	431.6	420	A		2.8	294.00 - 546.00	8.62	L	(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	144.6	137	A		5.5	95.90 - 178.10	9.67		(Bq/kg)
Nickel-63	565.3	770	W		-26.6	539.00 - 1001.00	81.7		(Bq/kg)
Plutonium-238	66.1	66.9	A		-1.2	46.83 - 86.97	11.4		(Bq/kg)
Plutonium-239/240	51.6	52.7	A		-2.1	36.89 - 68.51	9.09		(Bq/kg)
Potassium-40	657.9	652	A		0.9	456.40 - 847.60	27.52		(Bq/kg)
Strontium-90	621.6	714	A		-12.9	499.80 - 928.20	59.2		(Bq/kg)
Uranium-234/233	81.97	89	A		-7.9	62.30 - 115.70	14.08		(Bq/kg)
Uranium-238	390.4	421	A		-7.3	294.70 - 547.30	61.6		(Bq/kg)
Zinc-65	517.8	490	A		5.7	343.00 - 637.00	19.82		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

WEST04

Pace Analytical Services, Inc - WALTZ MILL SITE
P.O. BOX 158
MADISON PA 15663

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

Flags:

A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

YAEC01

FRAMATOME ANP ENVIRONMENTAL LABORATORY
29 Research Drive
Marlborough MA 01581

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Bias (%)	Acceptance Range	Unc Value	Unc. Flag	Units
Antimony	NR	19.9				13.93 - 25.87			
Arsenic	NR	7.4				5.18 - 9.62			
Barium	NR	448				313.60 - 582.40			
Beryllium	NR	4.36				3.05 - 5.67			
Cadmium	NR	2.14				1.50 - 2.78			
Chromium	NR	27				18.90 - 35.10			
Lead	NR	14.4				10.08 - 18.72			
Nickel	NR	109				76.30 - 141.70			
Selenium	NR	1.69				1.18 - 2.20			
Silver	NR	11.7				8.19 - 15.21			
Vanadium	NR	92				64.40 - 119.60			
Zinc	NR	142				99.40 - 184.60			
Actinium-228	50.2						3.6		(Bq/kg)
Americium-241	NR								
Cesium-134	248.6	238	A		4.5	166.60 - 309.40	13		(Bq/kg)
Cesium-137	848.8	832	A		2.0	582.40 - 1081.60	43		(Bq/kg)
Cobalt-57	544.4	530	A		2.7	371.00 - 689.00	27		(Bq/kg)
Cobalt-60	439.2	420	A		4.6	294.00 - 546.00	22		(Bq/kg)
Iron-55	NR	1020				714.00 - 1326.00			
Manganese-54	143.7	137	A		4.9	95.90 - 178.10	8.0		(Bq/kg)
Nickel-63	NR	770				539.00 - 1001.00			
Plutonium-238	NR	66.9				46.83 - 86.97			
Plutonium-239/240	NR	52.7				36.89 - 68.51			
Potassium-40	673.7	652	A		3.3	456.40 - 847.60	35		(Bq/kg)
Strontium-90	626.6	714	A		-12.2	499.80 - 928.20	39		(Bq/kg)
Uranium-234/233	NR	89				62.30 - 115.70			
Uranium-238	NR	421				294.70 - 547.30			
Zinc-65	516.5	490	A		5.4	343.00 - 637.00	27		(Bq/kg)

Flags:

A = Result acceptable Bias <= 20%
W = Result acceptable with warning 20% < Bias <= 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
Q = Reported detection limit in question
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported
NOTE 1: False Positive Test, Value Not Reported

Mixed Analyte Performance Evaluation Program

Laboratory Results

YAEC01

FRAMATOME ANP ENVIRONMENTAL LABORATORY
29 Research Drive
Marlborough MA 01581

Sample ID: MAPEP-03-S10

Analyte	Result	Ref Value	Flag	Flag Text	Z Score	Acceptance Range	Units
Cumene	NR	66.4				QL - 142.84	
1,2,4-Trimethylbenzene	NR	65.1				QL - 167.80	
Chloroform	NR	154.3				89.89 - 218.63	
1,2-Dichloroethane	NR	122				70.89 - 173.08	
Trichloroethene	NR	132.9				79.29 - 186.43	
t-butylbenzene	NR	62.5				QL - 151.39	
Toluene	NR	84.9				42.96 - 126.80	
1,1,2-Trichloroethane	NR	133.1				55.86 - 210.38	
Tetrachloroethene	NR	124.6				26.78 - 222.37	
n-butylbenzene	NR	45.2				QL - 119.37	
Ethylbenzene	NR	71.7				5.98 - 137.34	
m & p-Xylene	NR	71.3				QL - 142.69	
1,1,2,2-Tetrachloroethane	NR	131				4.49 - 257.49	
1,3-Dichlorobenzene	NR	900.2				QL - 2184.06	
1,4-Dichlorobenzene	NR	484.5				QL - 1147.62	
1,2,4-Trichlorobenzene	NR	623.2				114.65 - 1131.78	
Naphthalene	NR	643.6				68.23 - 1218.89	
Hexachlorobutadiene	NR	770.6				55.04 - 1486.24	
2,6-Dichlorophenol	NR	330.4				33.98 - 626.77	
2-Chloronaphthalene	NR	723.7				121.68 - 1325.80	
2,6-Dinitrotoluene	NR	911.9				184.71 - 1639.12	
2,4-Dinitrotoluene	NR	788				242.75 - 1333.32	
Fluorene	NR	664				41.99 - 1286.12	
Diethylphthalate	NR	824.6				211.49 - 1437.81	
Anthracene	NR	421.5				67.71 - 775.24	
Pentachlorobenzene	NR	705.1				105.43 - 1304.75	
Pyrene	NR	739.1				212.97 - 1265.26	
Benzo(a)anthracene	NR	680.6				169.80 - 1191.38	
Chrysene	NR	977.1				263.41 - 1690.88	
Bis(2-ethylhexyl)phthalat	NR	1498				319.21 - 2676.15	

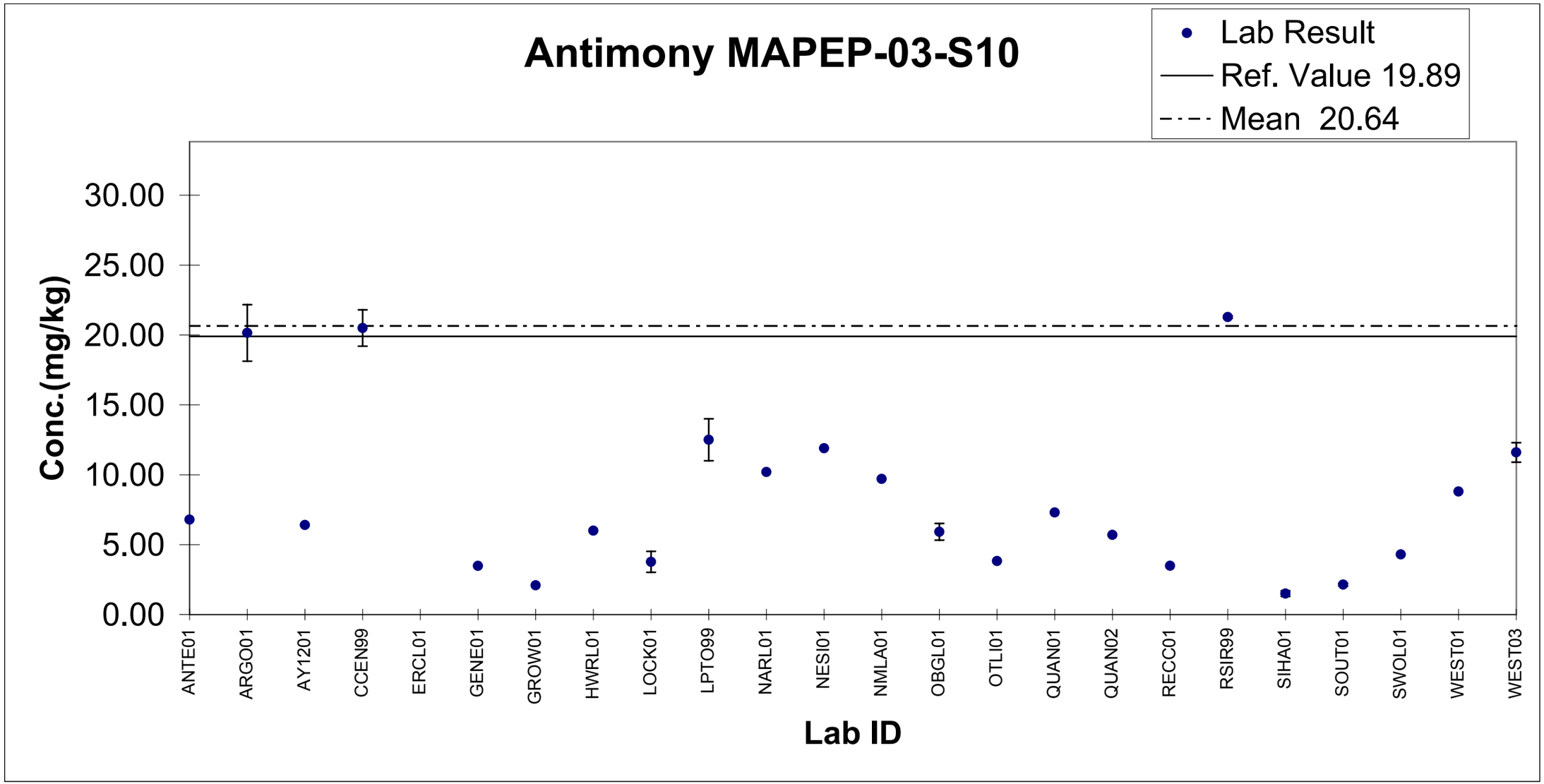
Flags:

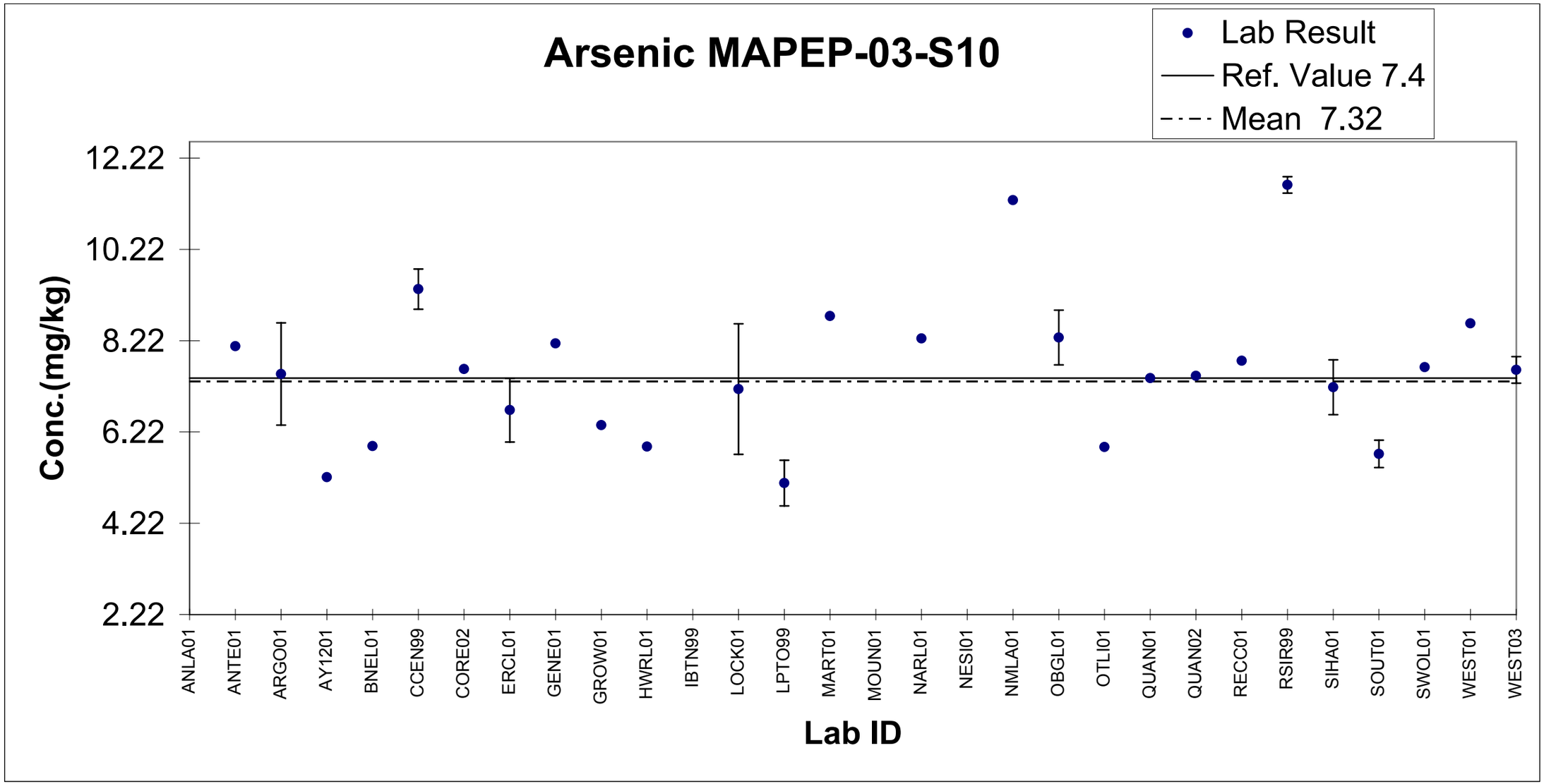
A = Result acceptable Z-score <=2.0)
W = Result acceptable with warning 2.0 < Z-score <=3.0)
N = Result not acceptable Z-score > 3.0)
L = Uncertainty potentially too low (for infomation purposes only)
H = Uncertainty potentially too high (for information purposes only)
QL = Quantitation Limit
RW = Report Warning
NR = Not Reported

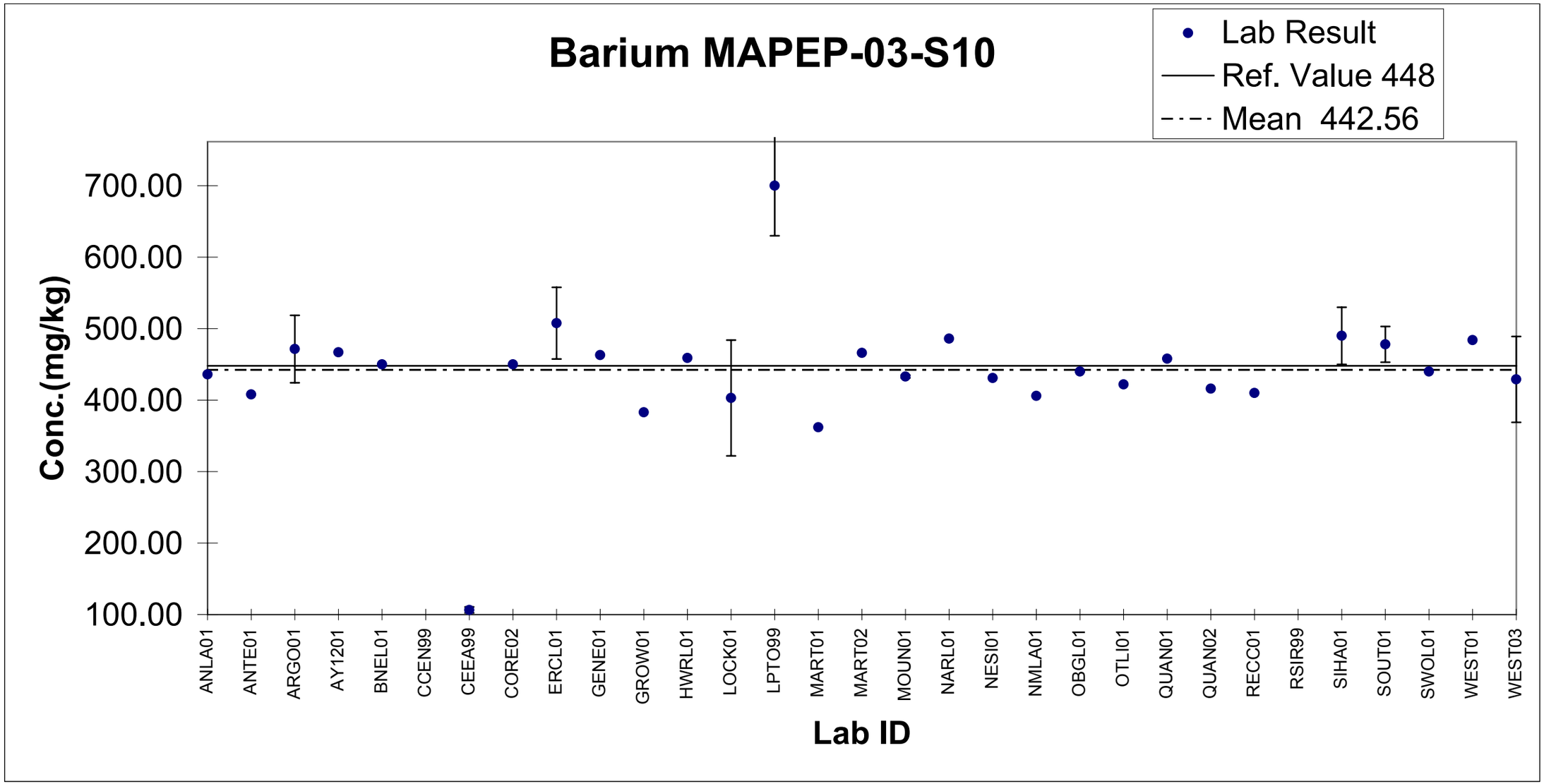
APPENDIX

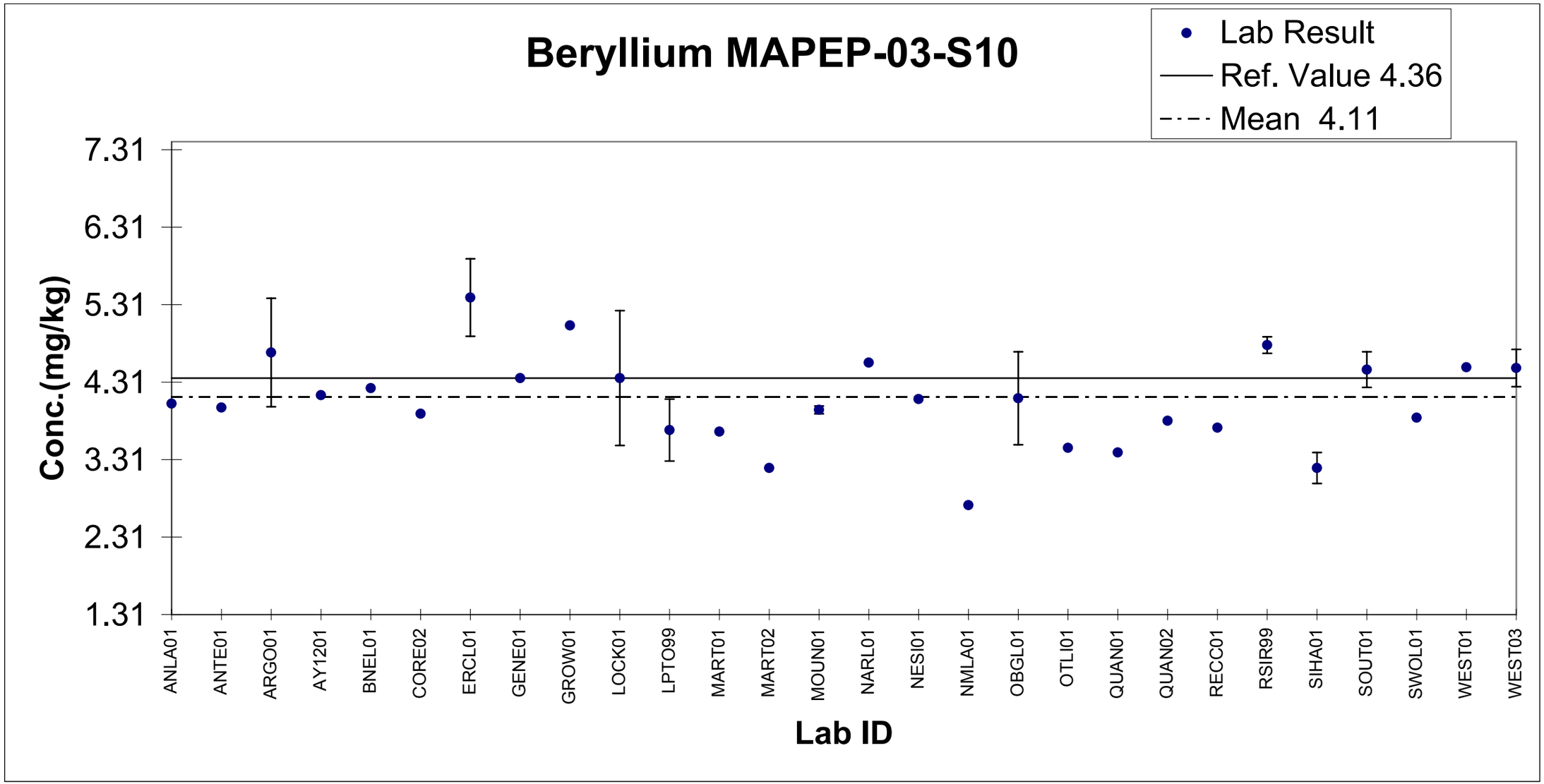
C

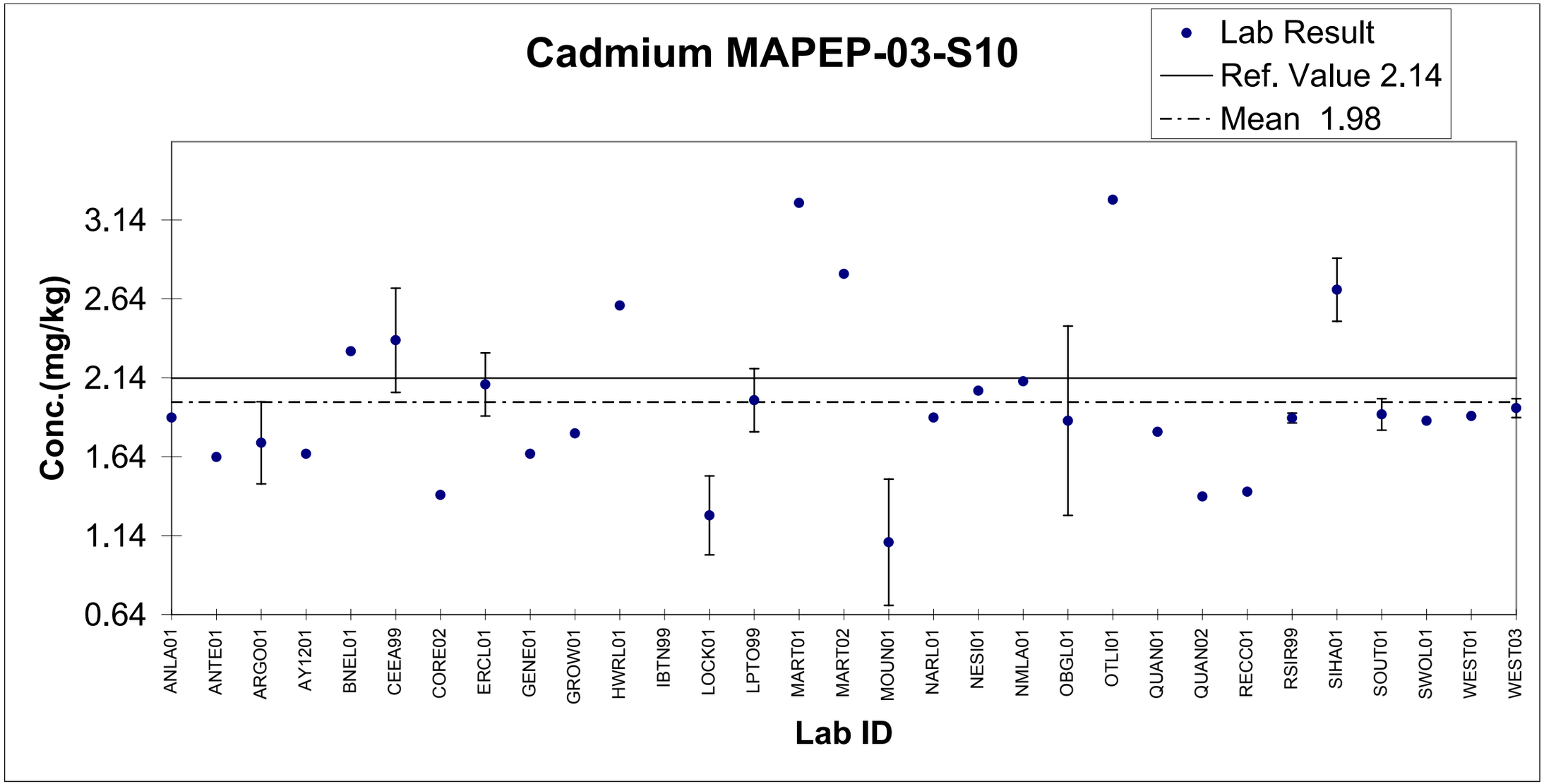
Graphics of Data Gathered from Soil Sample MAPEP-03-S10

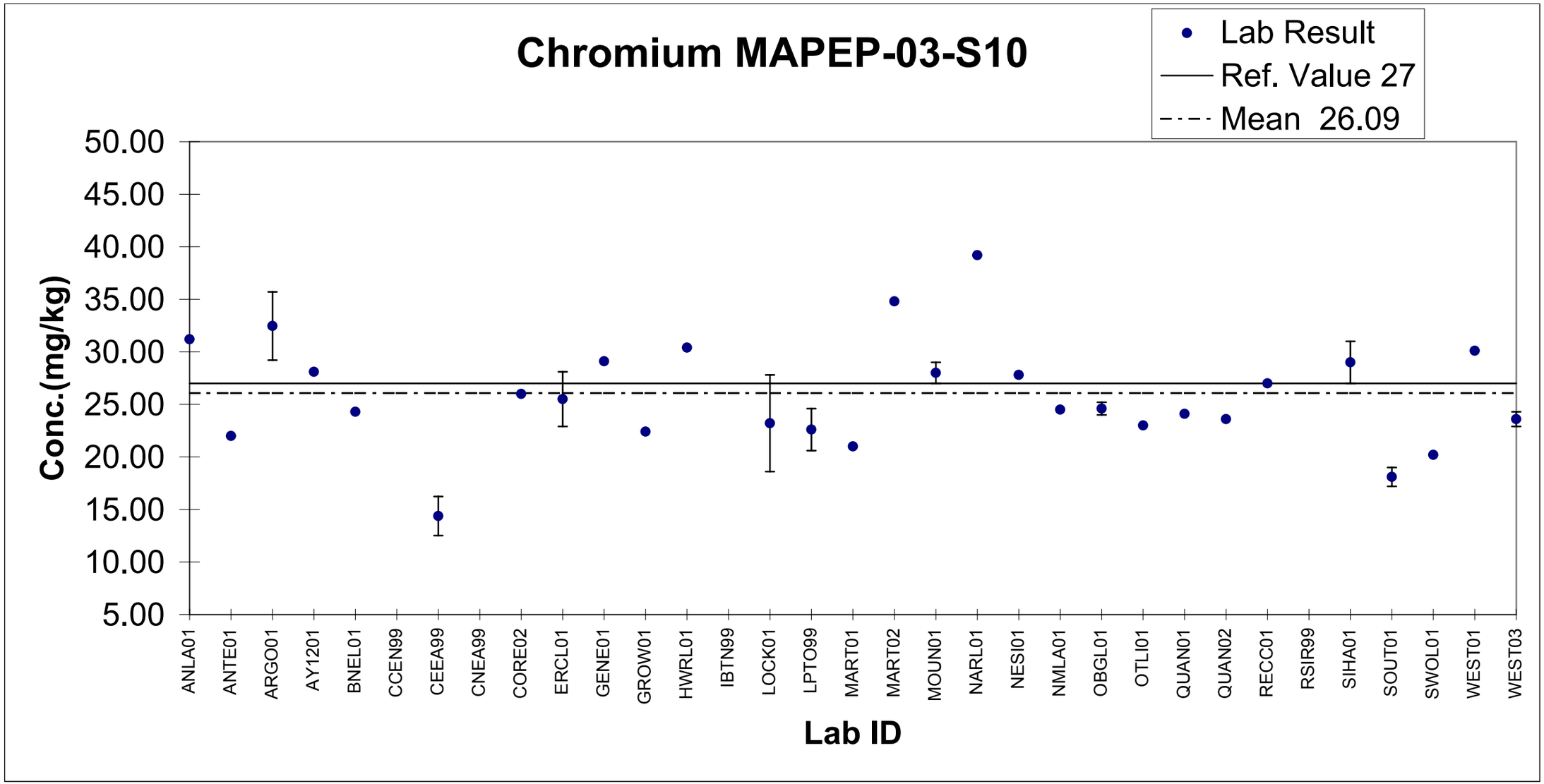

Antimony MAPEP-03-S10
Lab Result
Ref. Value 19.89
Mean 20.64
Conc.(mg/kg)
30.00
25.00
20.00
15.00
10.00
5.00
0.00
ANTE01
ARGO01
AY1201
CCEN99
ERCL01
GENE01
GROW01
HWRL01
LOCK01
LPTO99
NARL01
NESI01
NMLA01
OBGL01
OTLI01
QUAN01
QUAN02
RECC01
RSIR99
SIHA01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

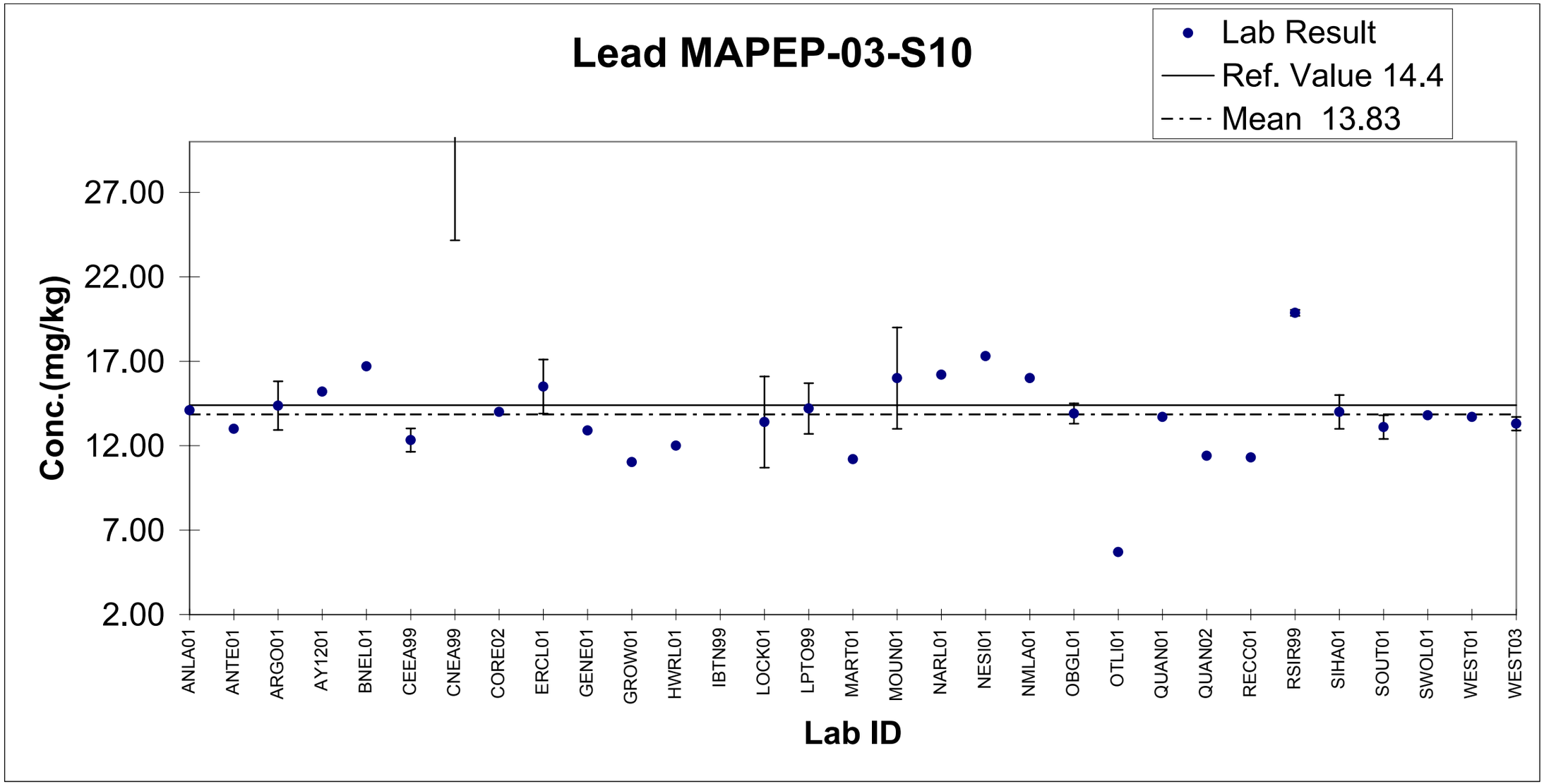

Arsenic MAPEP-03-S10
Lab Result
Ref. Value 7.4
Mean 7.32
Conc.(mg/kg)
12.22
10.22
8.22
6.22
4.22
2.22
ANLA01
ANTE01
ARGO01
AY1201
BNEL01
CCEN99
CORE02
ERCL01
GENE01
GROW01
HWRL01
IBTN99
LOCK01
LPTO99
MART01
MOUN01
NARL01
NESI01
NMLA01
OBGL01
OTLI01
QUAN01
QUAN02
RECC01
RSIR99
SIHA01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

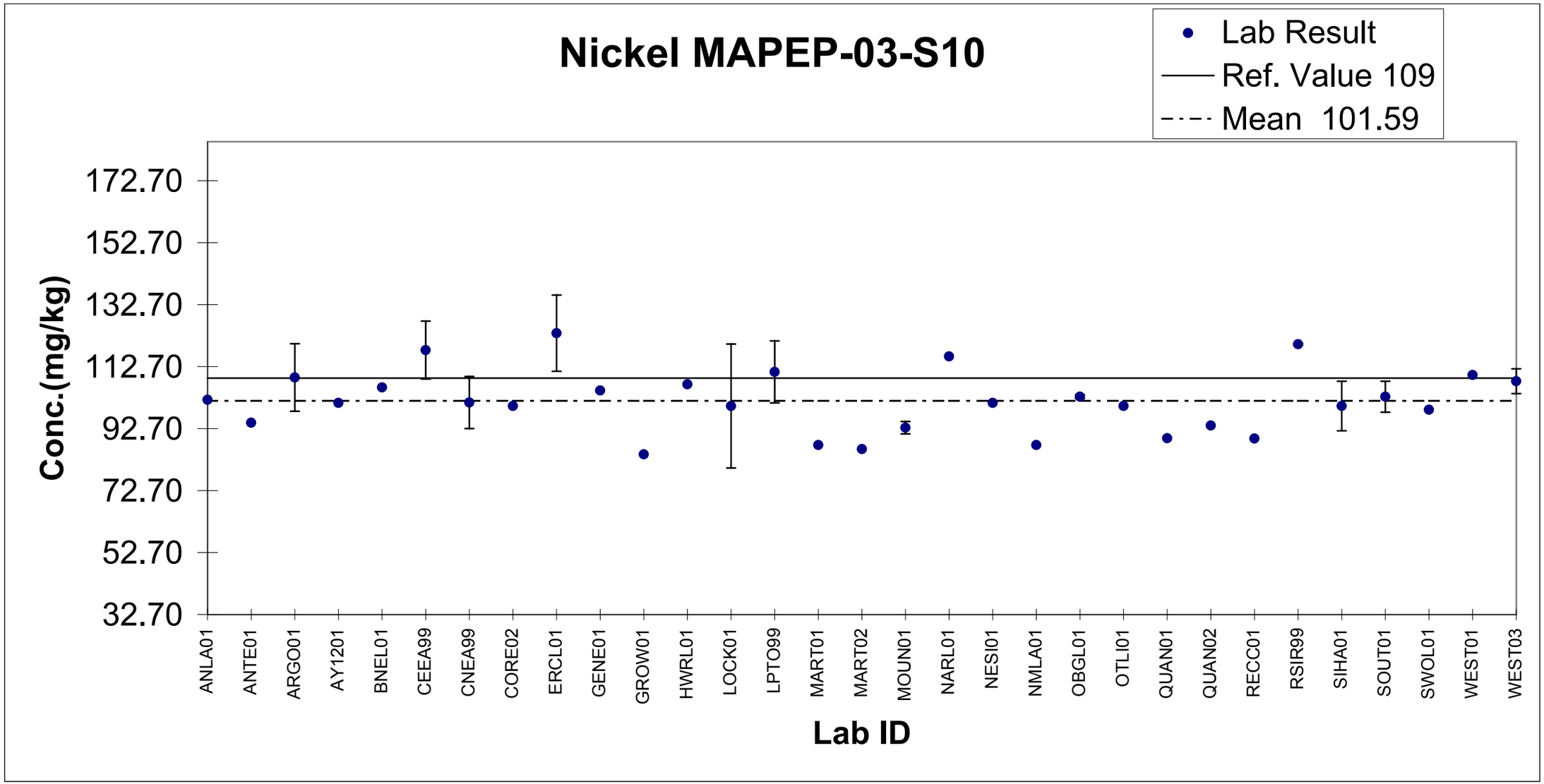

Barium MAPEP-03-S10
Lab Result
Ref. Value 448
Mean 442.56
Conc.(mg/kg)
700.00
600.00
500.00
400.00
300.00
200.00
100.00
ANLA01
ANTE01
ARGO01
AY1201
BNEL01
CCEN99
CEEA99
CORE02
ERCL01
GENE01
GROW01
HWRL01
LOCK01
LPTO99
MART01
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
OTLI01
QUAN01
QUAN02
RECC01
RSIR99
SIHA01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

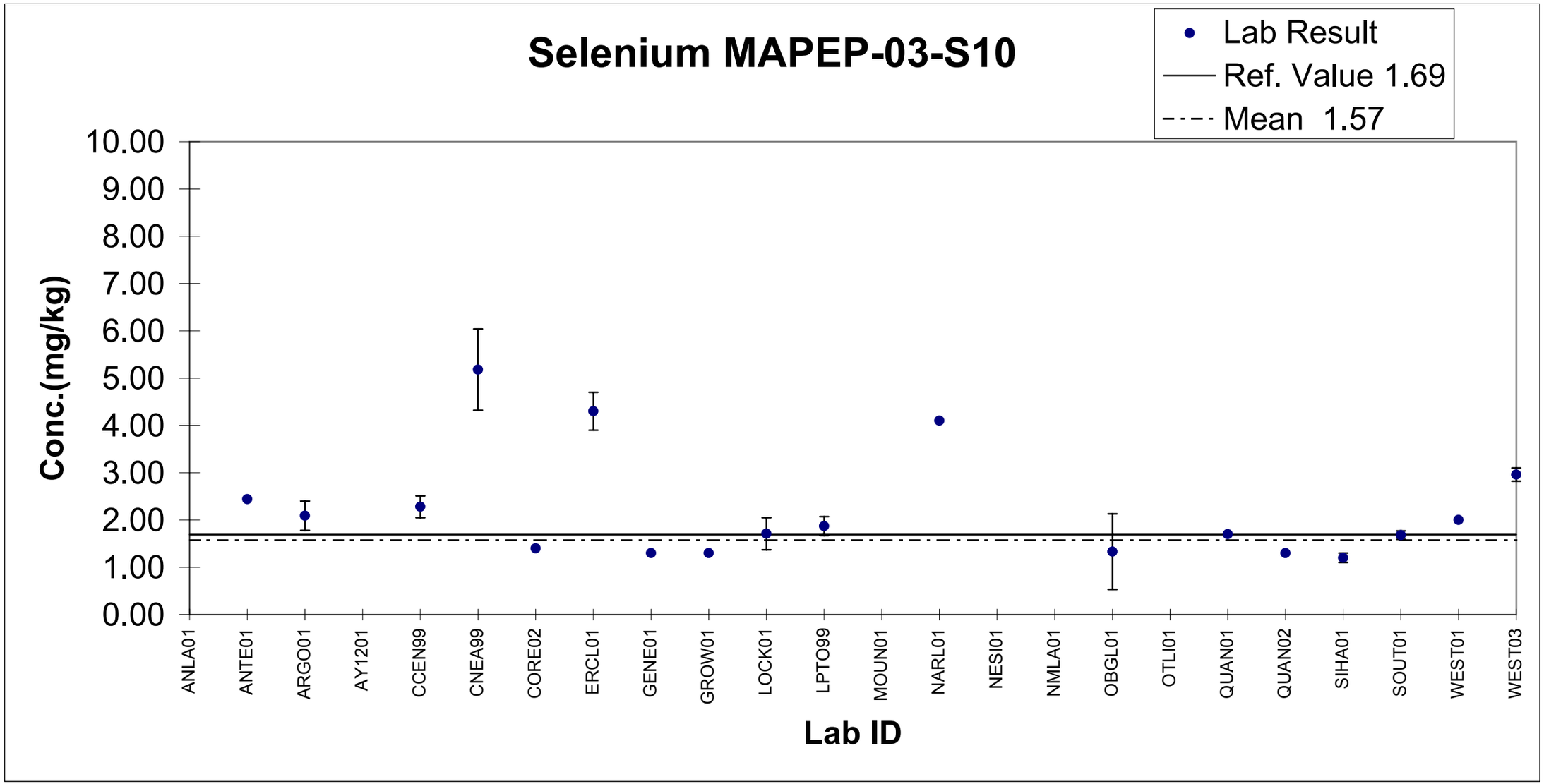

Beryllium MAPEP-03-S10
Lab Result
Ref. Value 4.36
Mean 4.11
Conc.(mg/kg)
7.31
6.31
5.31
4.31
3.31
2.31
1.31
ANLA01
ANTE01
ARGO01
AY1201
BNEL01
CORE02
ERCL01
GENE01
GROW01
LOCK01
LPTO99
MART01
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
OTLI01
QUAN01
QUAN02
RECC01
RSIR99
SIHA01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

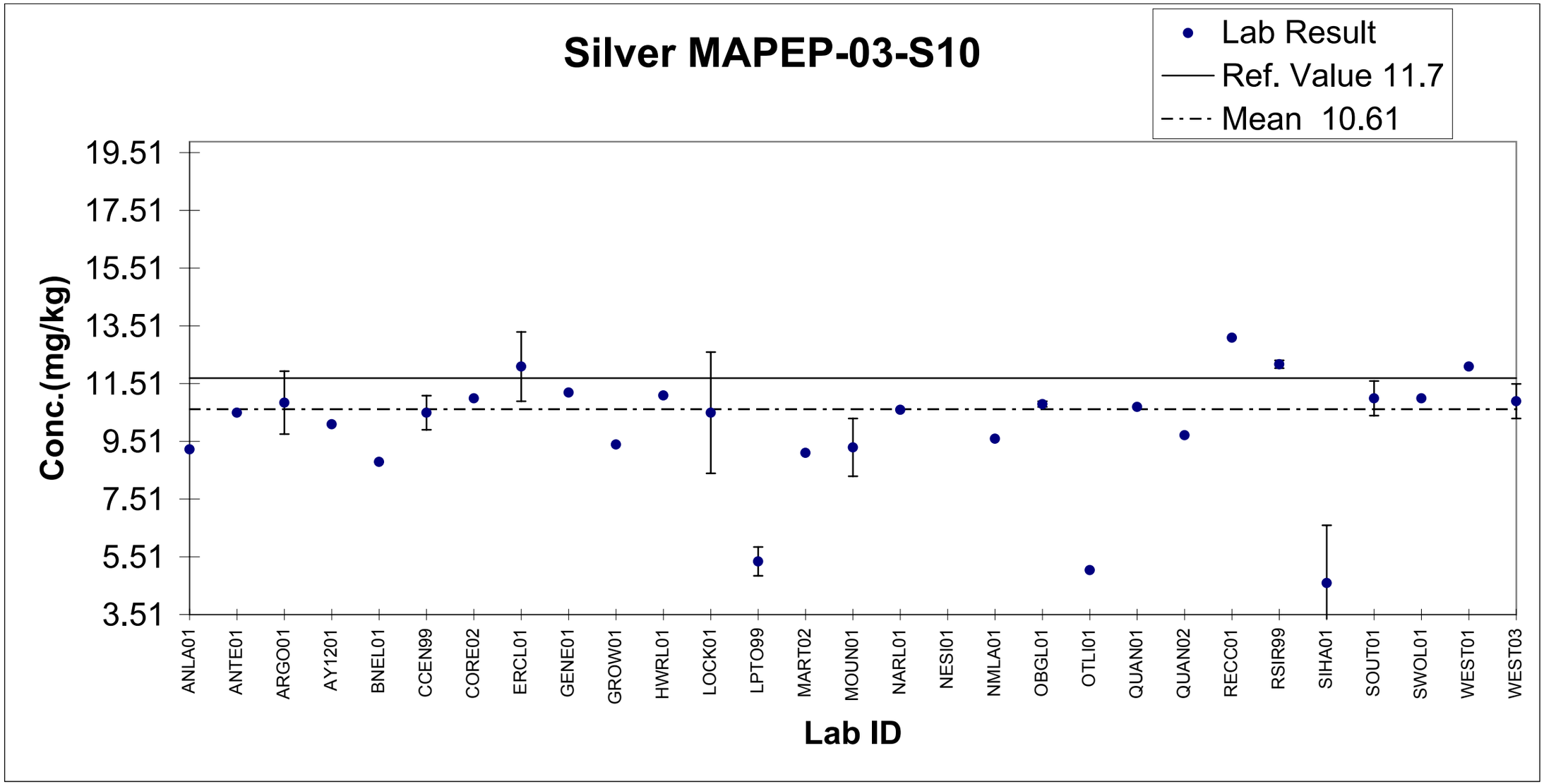

Cadmium MAPEP-03-S10
Lab Result
Ref. Value 2.14
Mean 1.98
Conc.(mg/kg)
3.14
2.64
2.14
1.64
1.14
0.64
ANLA01
ANTE01
ARGO01
AY1201
BNEL01
CEEA99
CORE02
ERCL01
GENE01
GROW01
HWRL01
IBTN99
LOCK01
LPTO99
MART01
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
OTLI01
QUAN01
QUAN02
RECC01
RSIR99
SIHA01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

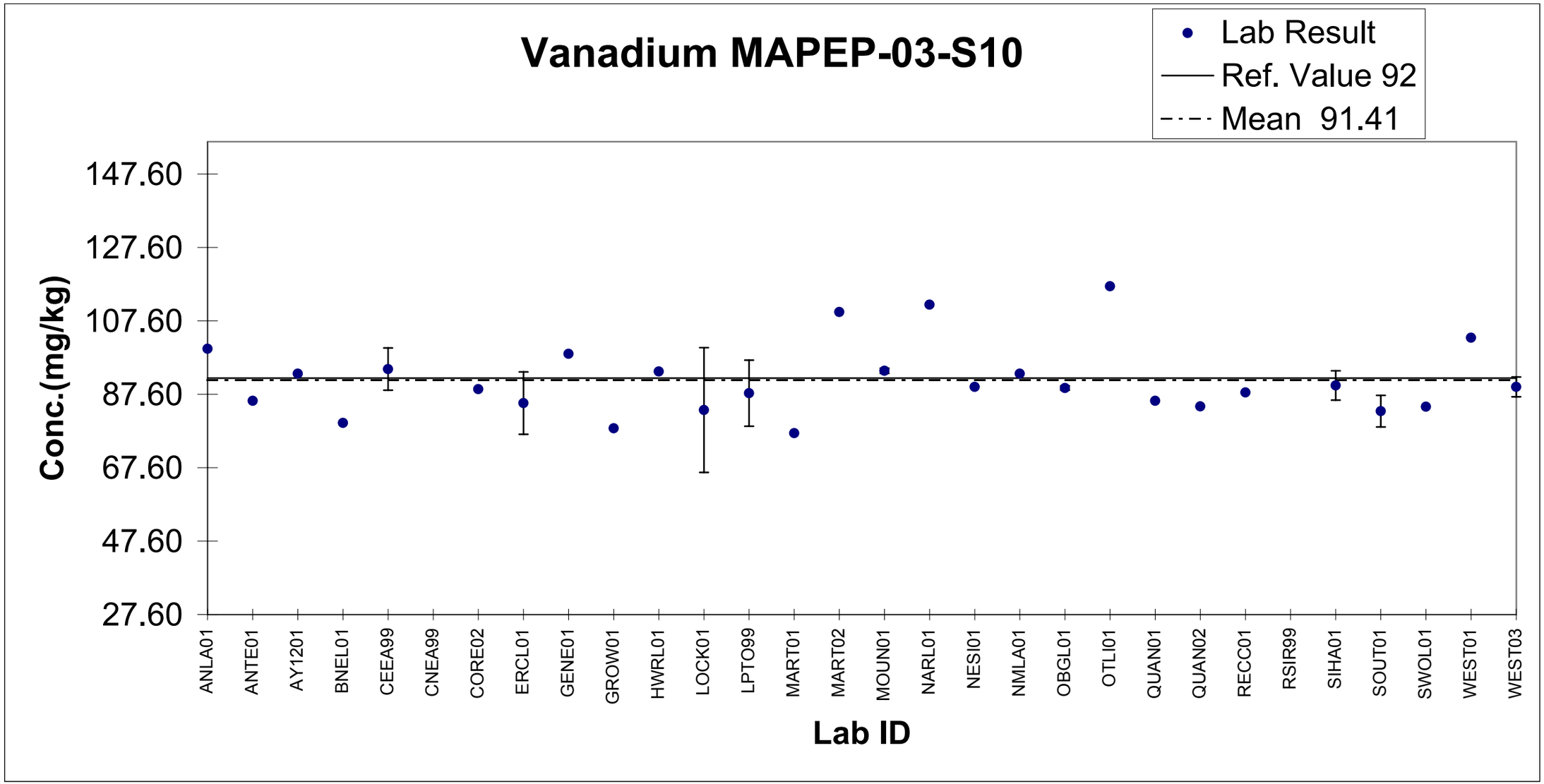

Chromium MAPEP-03-S10
Lab Result
Ref. Value 27
Mean 26.09
Conc.(mg/kg)
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
ANLA01
ANTE01
ARGO01
AY1201
BNEL01
CCEN99
CEEA99
CNEA99
CORE02
ERCL01
GENE01
GROW01
HWRL01
IBTN99
LOCK01
LPTO99
MART01
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
OTLI01
QUAN01
QUAN02
RECC01
RSIR99
SIHA01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

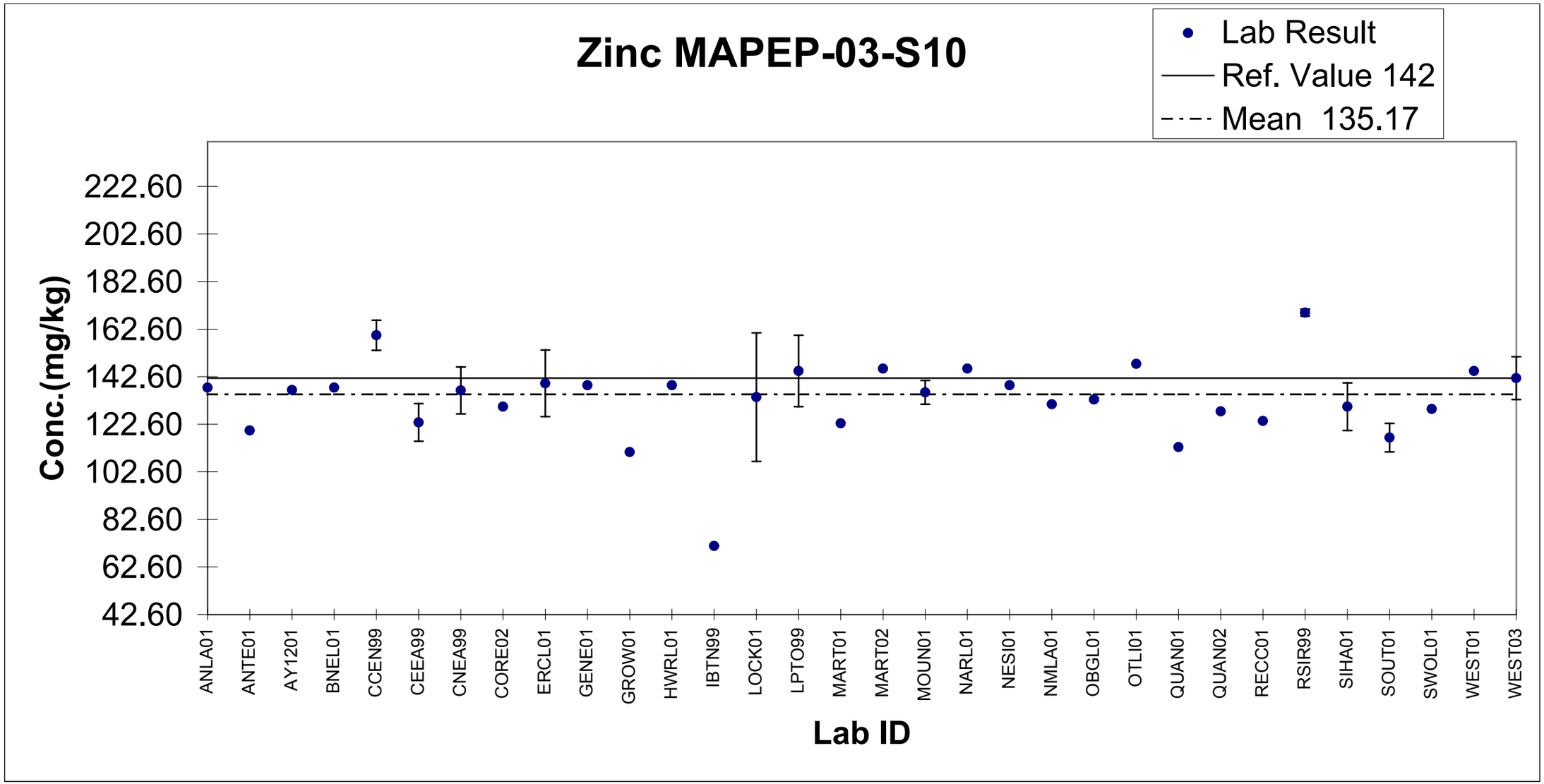

Lead MAPEP-03-S10
Lab Result
Ref. Value 14.4
Mean 13.83
Conc.(mg/kg)
27.00
22.00
17.00
12.00
7.00
2.00
ANLA01
ANTE01
ARGO01
AY1201
BNEL01
CEEA99
CNEA99
CORE02
ERCL01
GENE01
GROW01
HWRL01
IBTN99
LOCK01
LPTO99
MART01
MOUN01
NARL01
NESI01
NMLA01
OBGL01
OTLI01
QUAN01
QUAN02
RECC01
RSIR99
SIHA01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

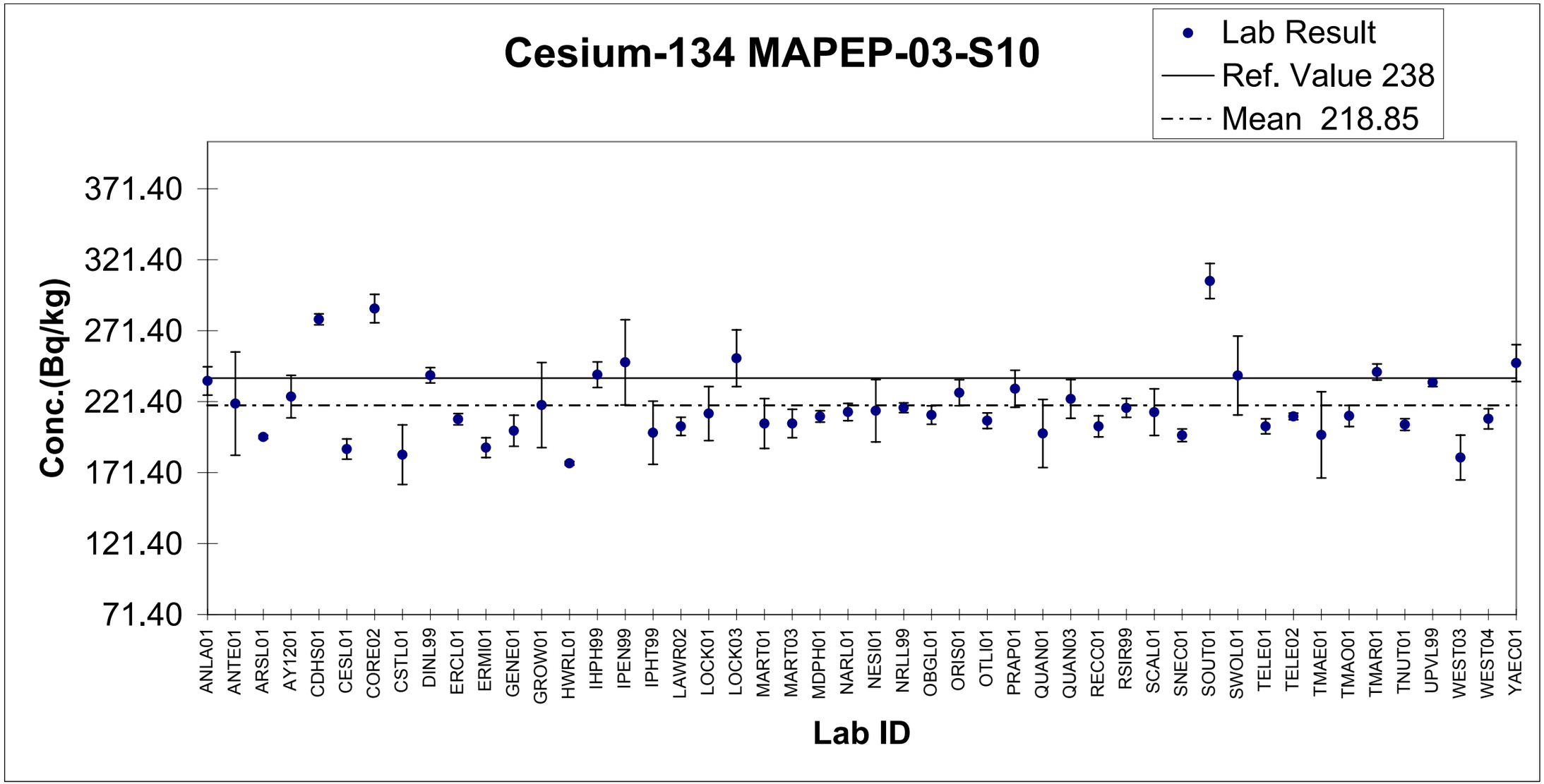

Nickel MAPEP-03-S10
Lab Result
Ref. Value 109
Mean 101.59
Conc.(mg/kg)
172.70
152.70
132.70
112.70
92.70
72.70
52.70
32.70
ANLA01
ANTE01
ARGO01
AY1201
BNEL01
CEEA99
CNEA99
CORE02
ERCL01
GENE01
GROW01
HWRL01
LOCK01
LPTO99
MART01
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
OTLI01
QUAN01
QUAN02
RECC01
RSIR99
SIHA01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

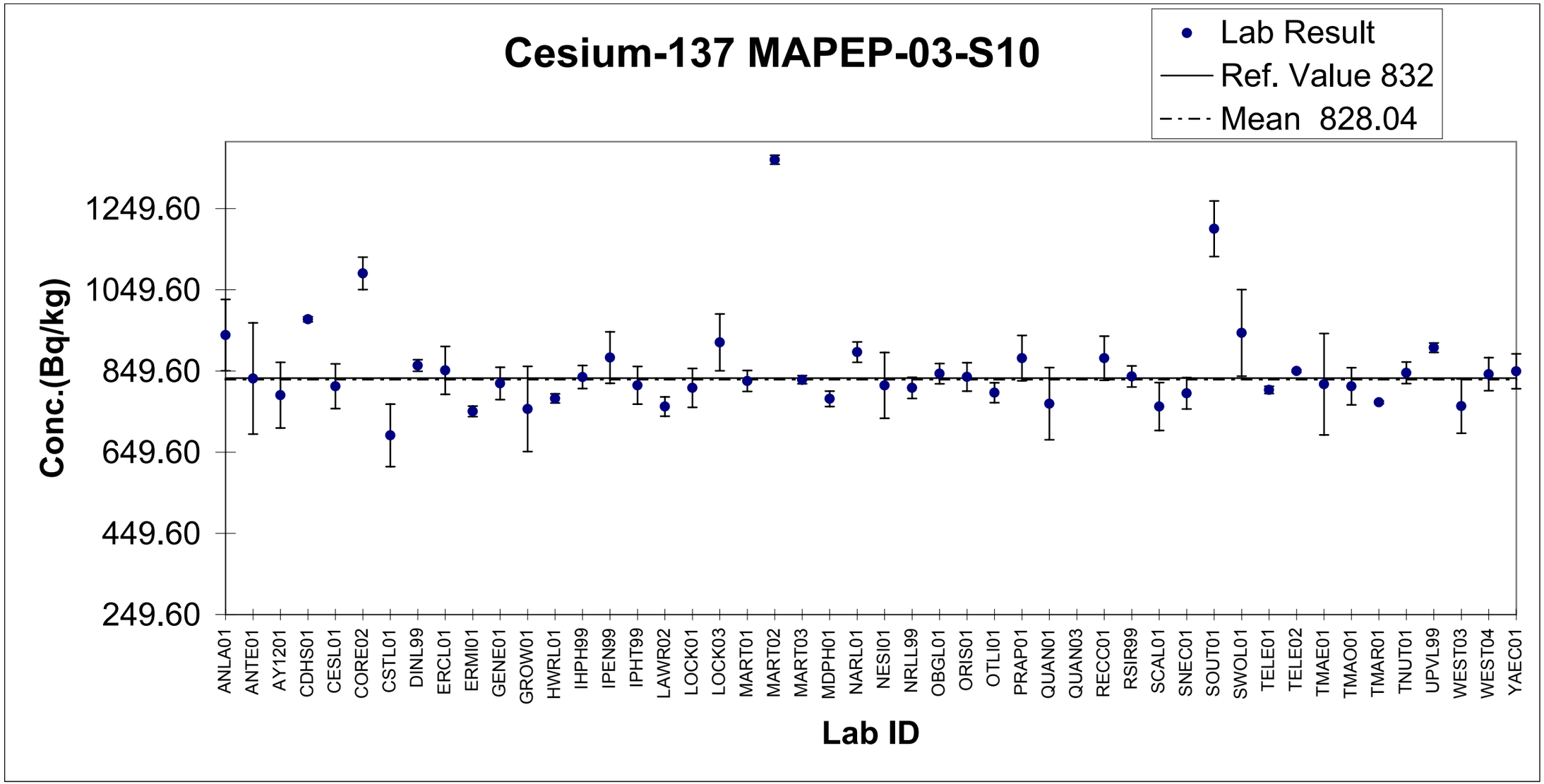

Selenium MAPEP-03-S10
Lab Result
Ref. Value 1.69
Mean 1.57
Conc.(mg/kg)
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
ANLA01
ANTE01
ARGO01
AY1201
CCEN99
CNEA99
CORE02
ERCL01
GENE01
GROW01
LOCK01
LPTO99
MOUN01
NARL01
NESI01
NMLA01
OBGL01
OTLI01
QUAN01
QUAN02
SIHA01
SOUT01
WEST01
WEST03
Lab ID

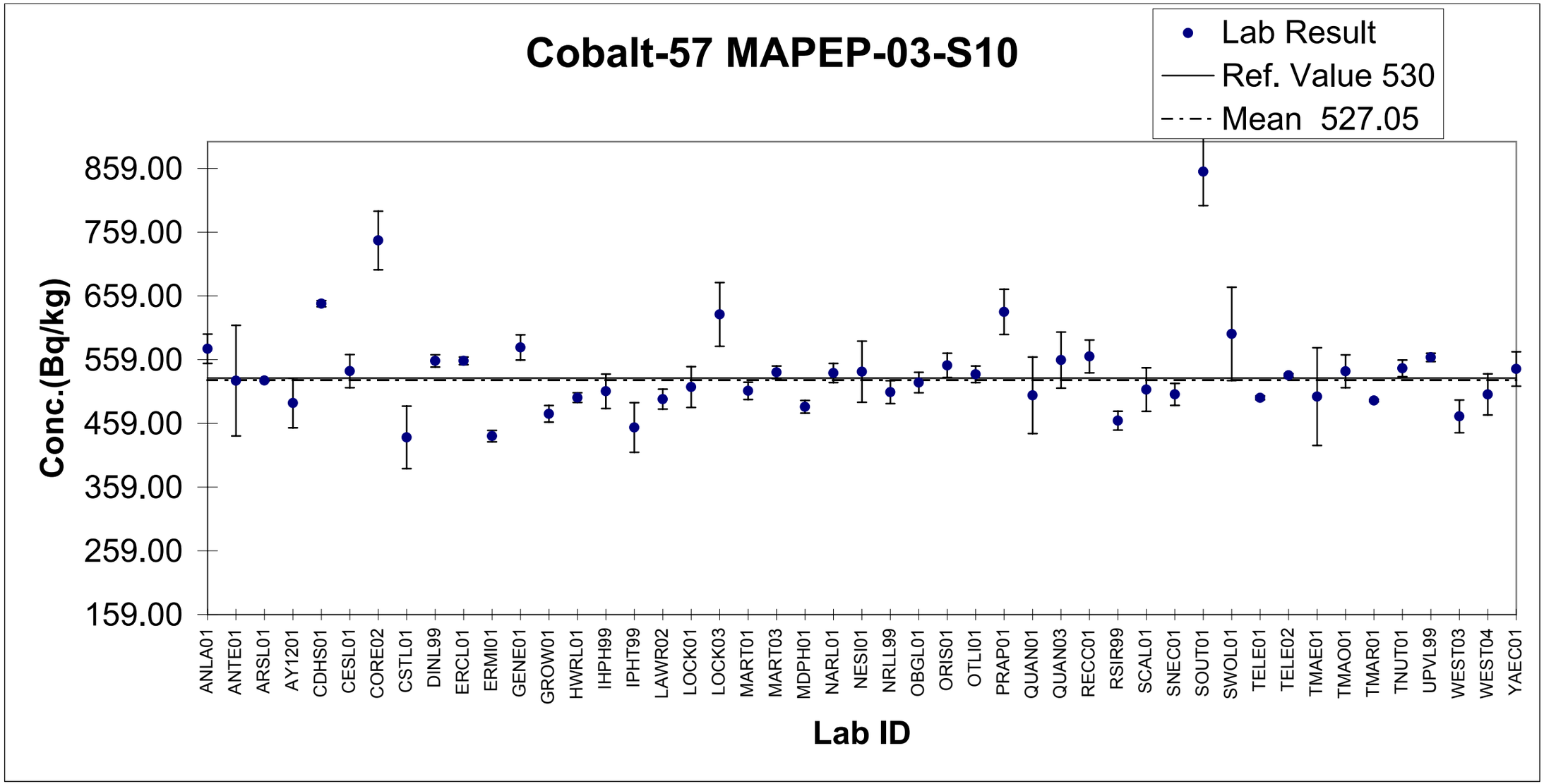

Silver MAPEP-03-S10
Lab Result
Ref. Value 11.7
Mean 10.61
Conc.(mg/kg)
19.51
17.51
15.51
13.51
11.51
9.51
7.51
5.51
3.51
ANLA01
ANTE01
ARGO01
AY1201
BNEL01
CCEN99
CORE02
ERCL01
GENE01
GROW01
HWRL01
LOCK01
LPTO99
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
OTLI01
QUAN01
QUAN02
RECC01
RSIR99
SIHA01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

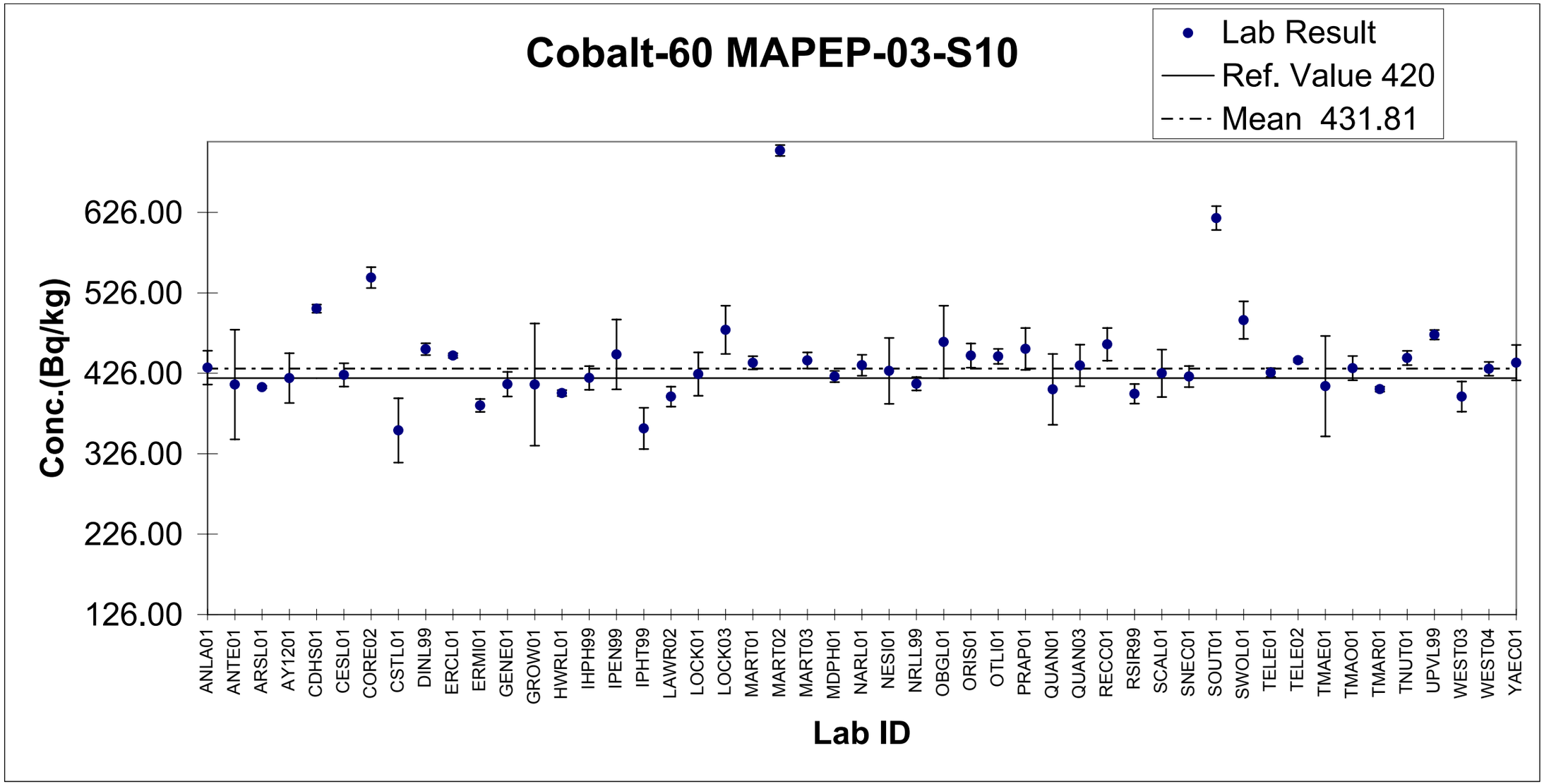

Vanadium MAPEP-03-S10
Lab Result
Ref. Value 92
Mean 91.41
Conc.(mg/kg)
147.60
127.60
107.60
87.60
67.60
47.60
27.60
ANLA01
ANTE01
AY1201
BNEL01
CEEA99
CNEA99
CORE02
ERCL01
GENE01
GROW01
HWRL01
LOCK01
LPTO99
MART01
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
OTLI01
QUAN01
QUAN02
RECC01
RSIR99
SIHA01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

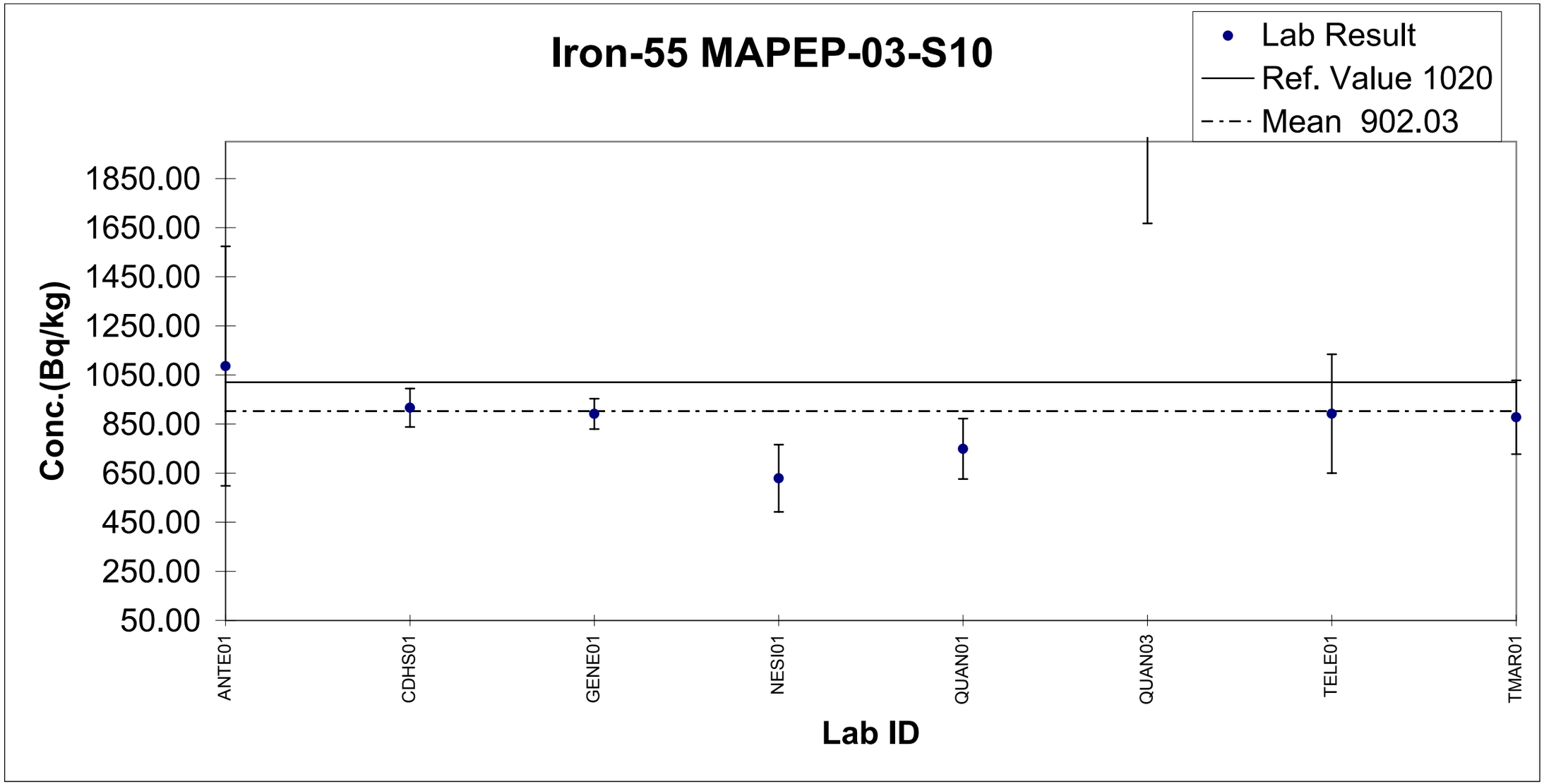

Zinc MAPEP-03-S10
Lab Result
Ref. Value 142
Mean 135.17
Conc.(mg/kg)
222.60
202.60
182.60
162.60
142.60
122.60
102.60
82.60
62.60
42.60
ANLA01
ANTE01
AY1201
BNEL01
CCEN99
CEEA99
CNEA99
CORE02
ERCL01
GENE01
GROW01
HWRL01
IBTN99
LOCK01
LPTO99
MART01
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
OTLI01
QUAN01
QUAN02
RECC01
RSIR99
SIHA01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

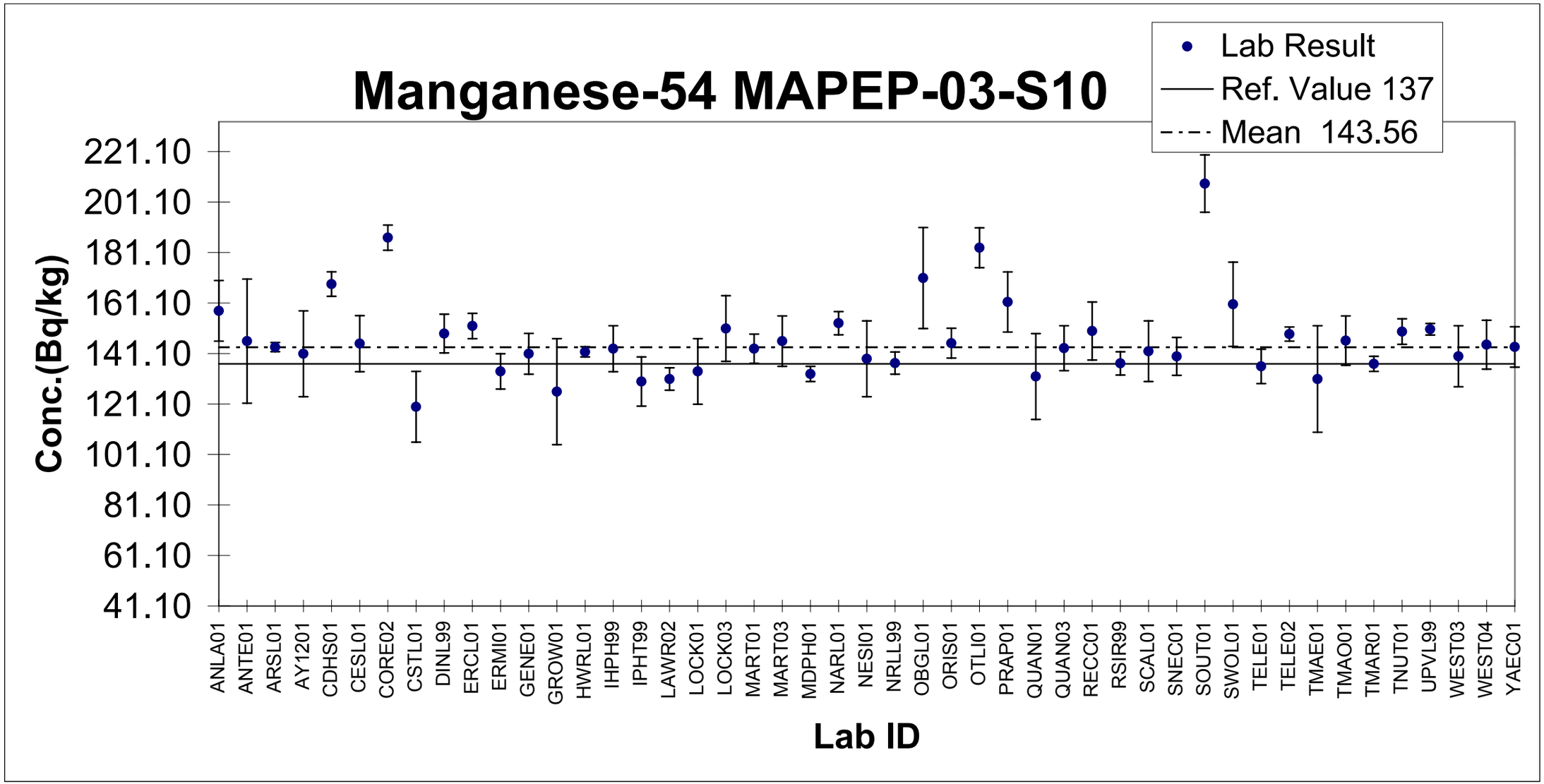

Cesium-134 MAPEP-03-S10
Lab Result
Ref. Value 238
Mean 218.85
Conc.(Bq/kg)
371.40
321.40
271.40
221.40
171.40
121.40
71.40
ANLA01
ANTE01
ARSL01
AY1201
CDHS01
CESL01
CORE02
CSTL01
DINL99
ERCL01
ERMI01
GENE01
GROW01
HWRL01
IHPH99
IPEN99
IPHT99
LAWR02
LOCK01
LOCK03
MART01
MART03
MDPH01
NARL01
NESI01
NRLL99
OBGL01
ORIS01
OTLI01
PRAP01
QUAN01
QUAN03
RECC01
RSIR99
SCAL01
SNEC01
SOUT01
SWOL01
TELE01
TELE02
TMAE01
TMAO01
TMAR01
TNUT01
UPVL99
WEST03
WEST04
YAEC01
Lab ID

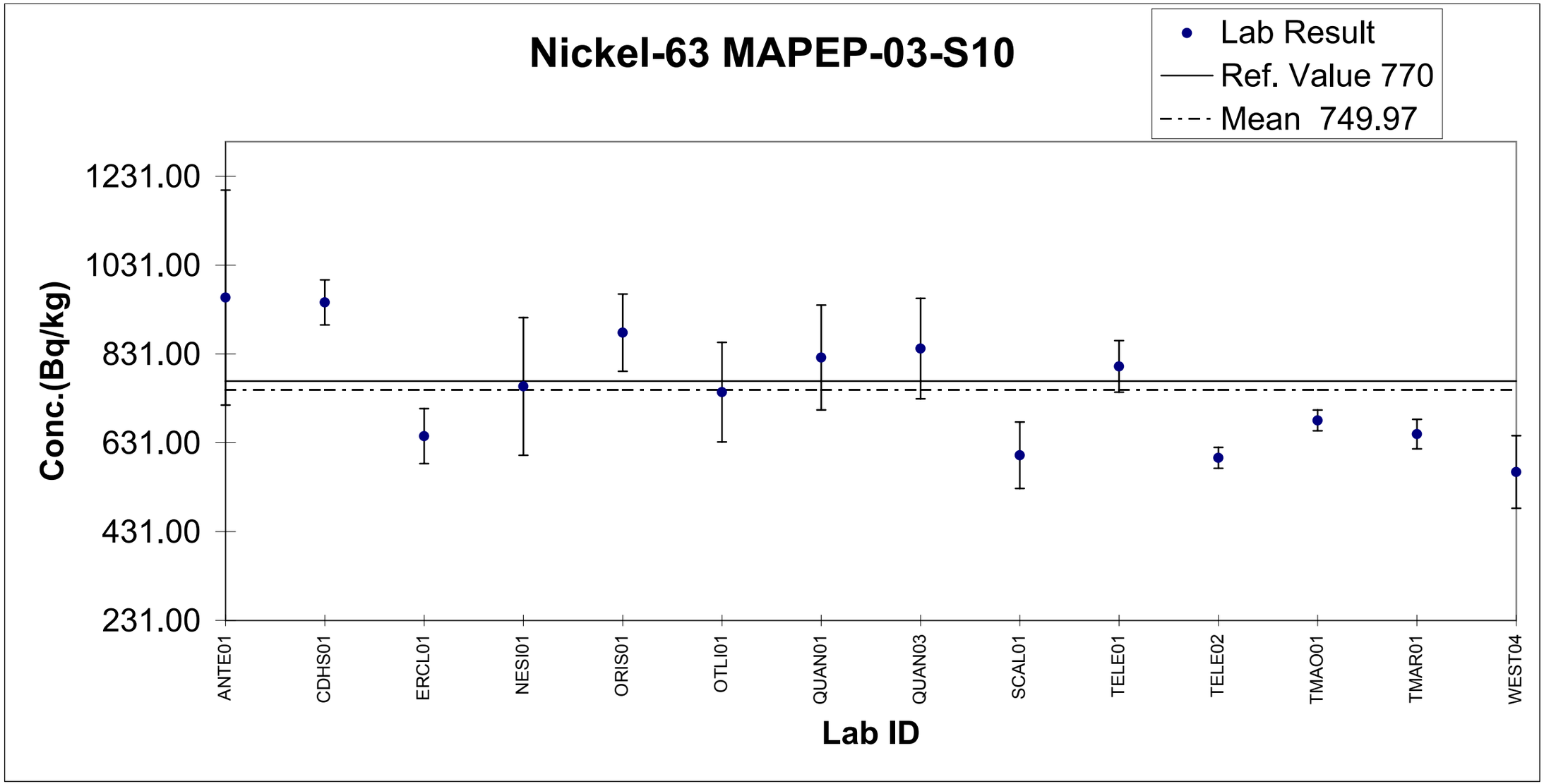

Cesium-137 MAPEP-03-S10
Lab Result
Ref. Value 832
Mean 828.04
Conc.(Bq/kg)
1249.60
1049.60
849.60
649.60
449.60
249.60
ANLA01
ANTE01
AY1201
CDHS01
CESL01
CORE02
CSTL01
DINL99
ERCL01
ERMI01
GENE01
GROW01
HWRL01
IHPH99
IPEN99
IPHT99
LAWR02
LOCK01
LOCK03
MART01
MART02
MART03
MDPH01
NARL01
NESI01
NRLL99
OBGL01
ORIS01
OTLI01
PRAP01
QUAN01
QUAN03
RECC01
RSIR99
SCAL01
SNEC01
SOUT01
SWOL01
TELE01
TELE02
TMAE01
TMAO01
TMAR01
TNUT01
UPVL99
WEST03
WEST04
YAEC01
Lab ID

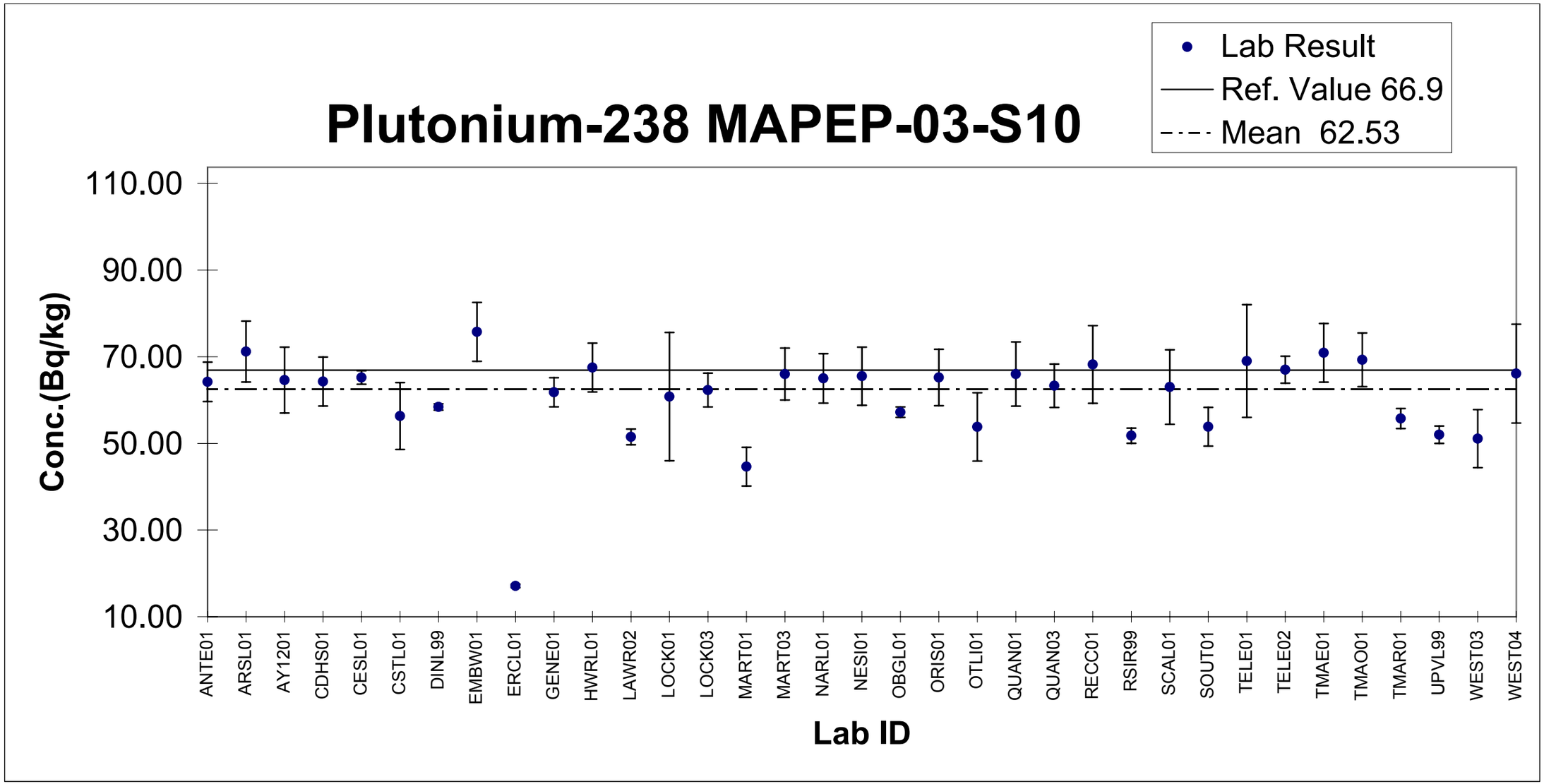

Cobalt-57 MAPEP-03-S10
Lab Result
Ref. Value 530
Mean 527.05
Conc.(Bq/kg)
859.00
759.00
659.00
559.00
459.00
359.00
259.00
159.00
ANLA01
ANTE01
ARSL01
AY1201
CDHS01
CESL01
CORE02
CSTL01
DINL99
ERCL01
ERMI01
GENE01
GROW01
HWRL01
IHPH99
IPHT99
LAWR02
LOCK01
LOCK03
MART01
MART03
MDPH01
NARL01
NESI01
NRLL99
OBGL01
ORIS01
OTLI01
PRAP01
QUAN01
QUAN03
RECC01
RSIR99
SCAL01
SNEC01
SOUT01
SWOL01
TELE01
TELE02
TMAE01
TMAO01
TMAR01
TNUT01
UPVL99
WEST03
WEST04
YAEC01
Lab ID

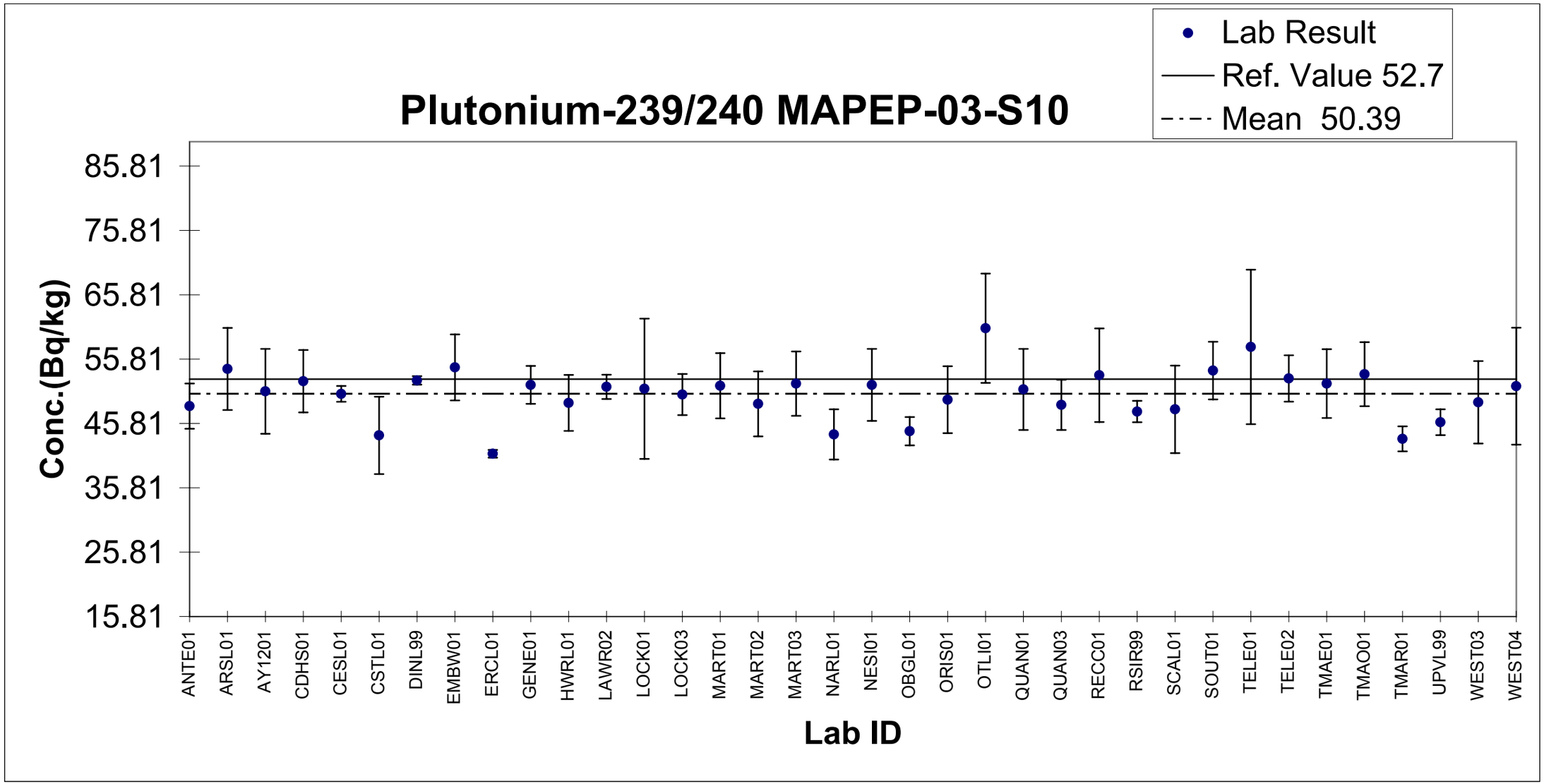

Cobalt-60 MAPEP-03-S10
Lab Result
Ref. Value 420
Mean 431.81
Conc.(Bq/kg)
626.00
526.00
426.00
326.00
226.00
126.00
ANLA01
ANTE01
ARSL01
AY1201
CDHS01
CESL01
CORE02
CSTL01
DINL99
ERCL01
ERMI01
GENE01
GROW01
HWRL01
IHPH99
IPEN99
IPHT99
LAWR02
LOCK01
LOCK03
MART01
MART02
MART03
MDPH01
NARL01
NESI01
NRLL99
OBGL01
ORIS01
OTLI01
PRAP01
QUAN01
QUAN03
RECC01
RSIR99
SCAL01
SNEC01
SOUT01
SWOL01
TELE01
TELE02
TMAE01
TMAO01
TMAR01
TNUT01
UPVL99
WEST03
WEST04
YAEC01
Lab ID

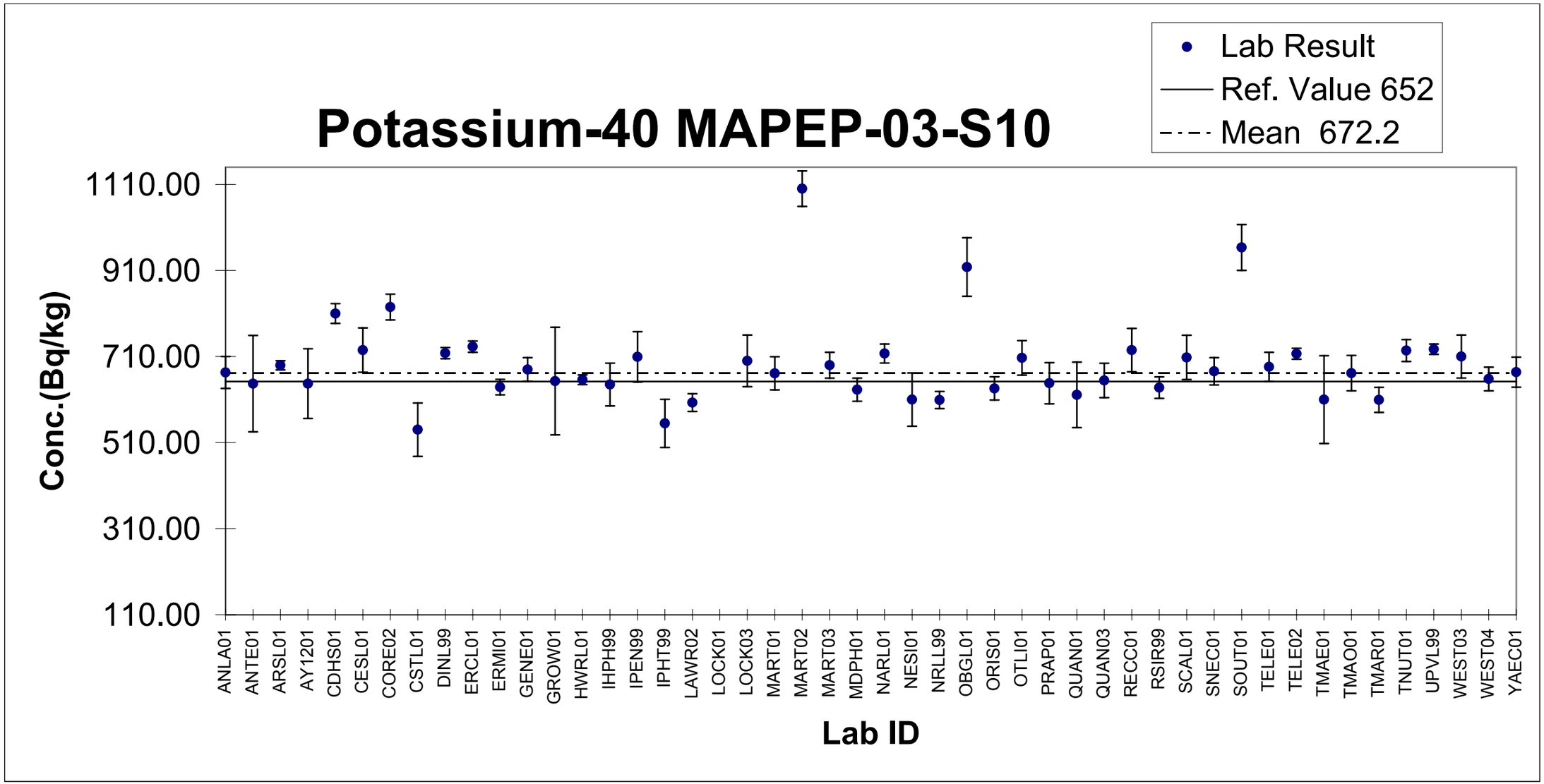

Iron-55 MAPEP-03-S10
Lab Result
Ref. Value 1020
Mean 902.03
Conc.(Bq/kg)
1850.00
1650.00
1450.00
1250.00
1050.00
850.00
650.00
450.00
250.00
50.00
ANTE01
CDHS01
GENE01
NESI01
QUAN01
QUAN03
TELE01
TMAR01
Lab ID

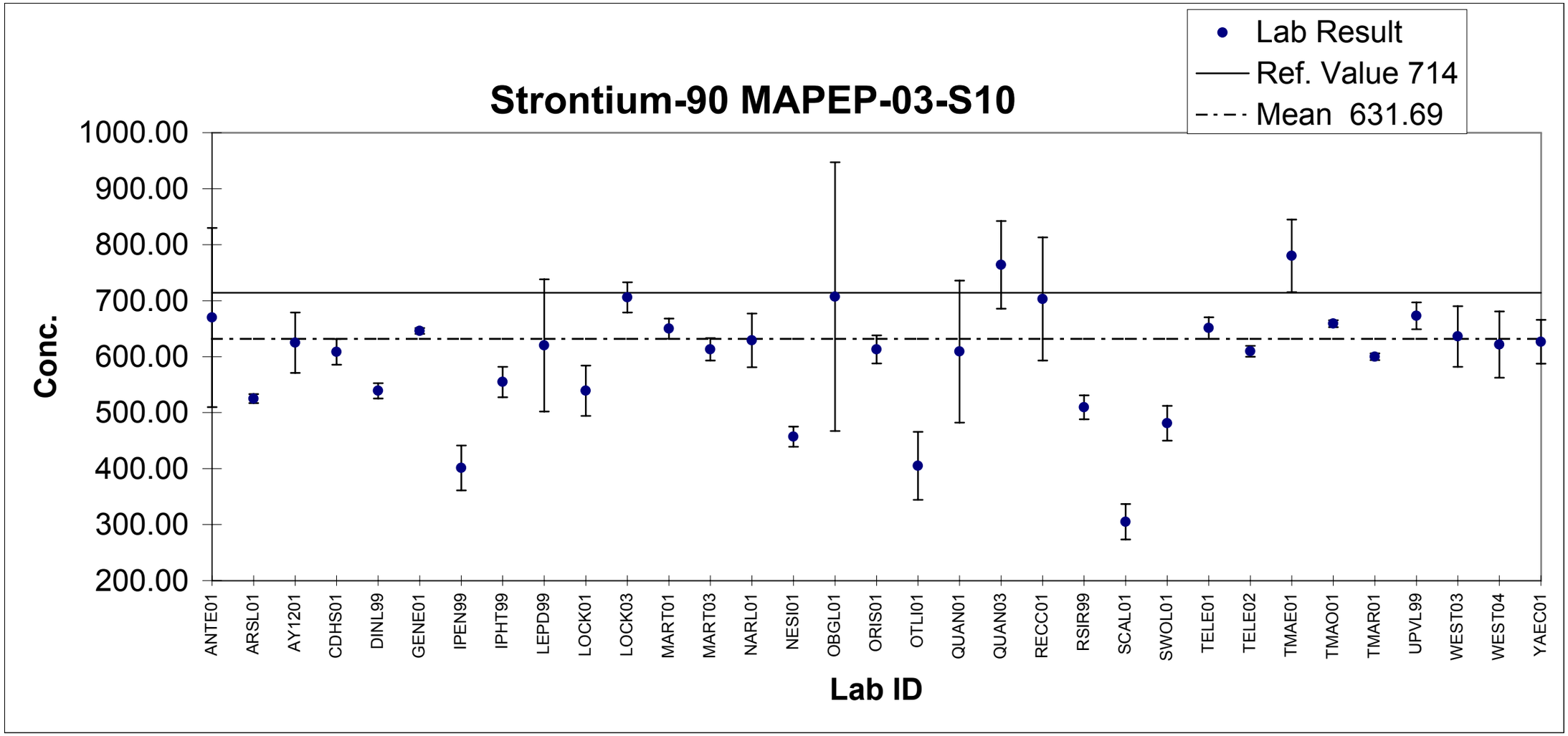

Manganese-54 MAPEP-03-S10
Lab Result
Ref. Value 137
Mean 143.56
Conc.(Bq/kg)
221.10
201.10
181.10
161.10
141.10
121.10
101.10
81.10
61.10
41.10
ANLA01
ANTE01
ARSL01
AY1201
CDHS01
CESL01
CORE02
CSTL01
DINL99
ERCL01
ERMI01
GENE01
GROW01
HWRL01
IHPH99
IPHT99
LAWR02
LOCK01
LOCK03
MART01
MART03
MDPH01
NARL01
NESI01
NRLL99
OBGL01
ORIS01
OTLI01
PRAP01
QUAN01
QUAN03
RECC01
RSIR99
SCAL01
SNEC01
SOUT01
SWOL01
TELE01
TELE02
TMAE01
TMAO01
TMAR01
TNUT01
UPVL99
WEST03
WEST04
YAEC01
Lab ID

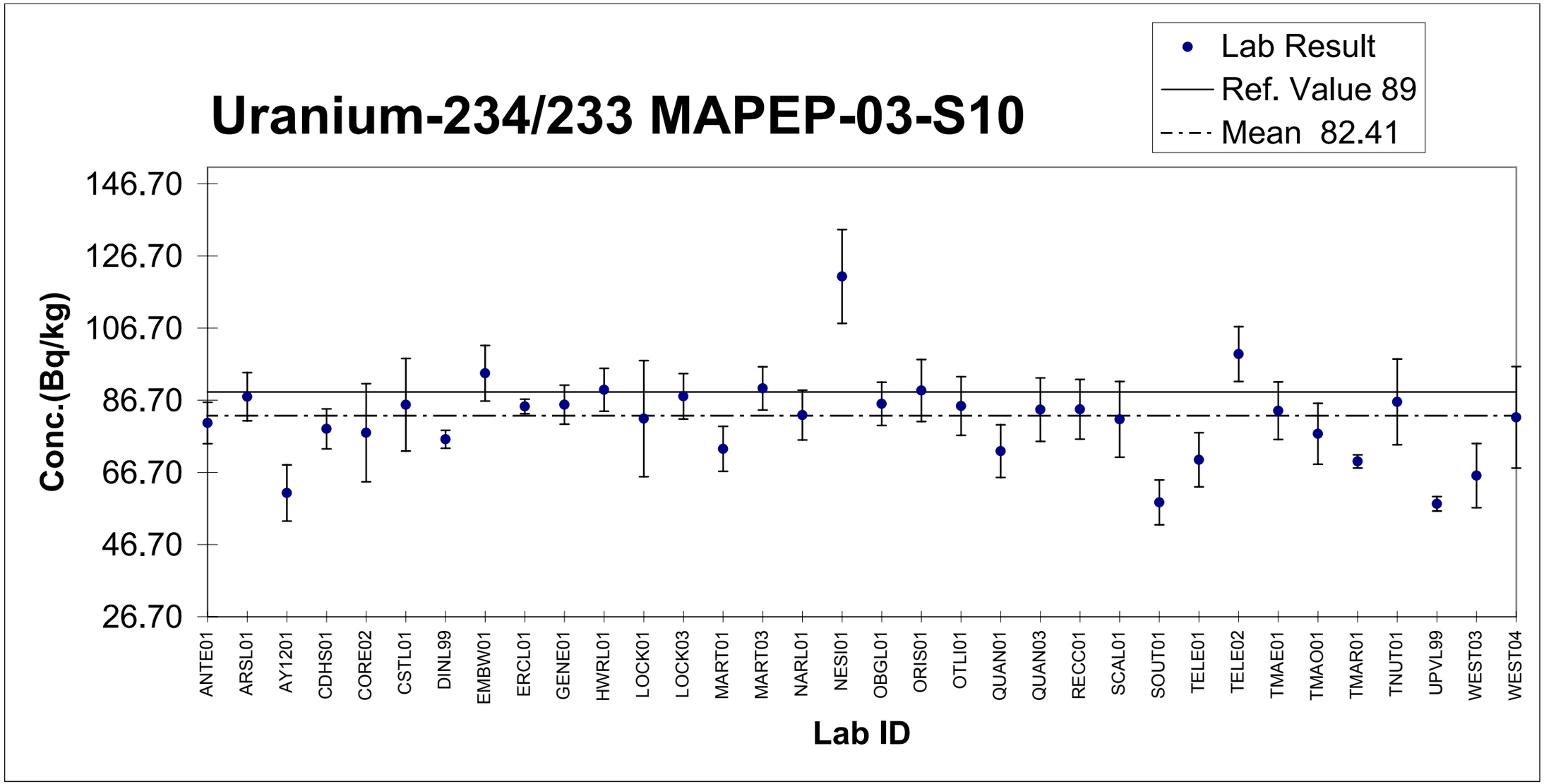

Nickel-63 MAPEP-03-S10
Lab Result
Ref. Value 770
Mean 749.97
Conc.(Bq/kg)
1231.00
1031.00
831.00
631.00
431.00
231.00
ANTE01
CDHS01
ERCL01
NESI01
ORIS01
OTLI01
QUAN01
QUAN03
SCAL01
TELE01
TELE02
TMAO01
TMAR01
WEST04
Lab ID

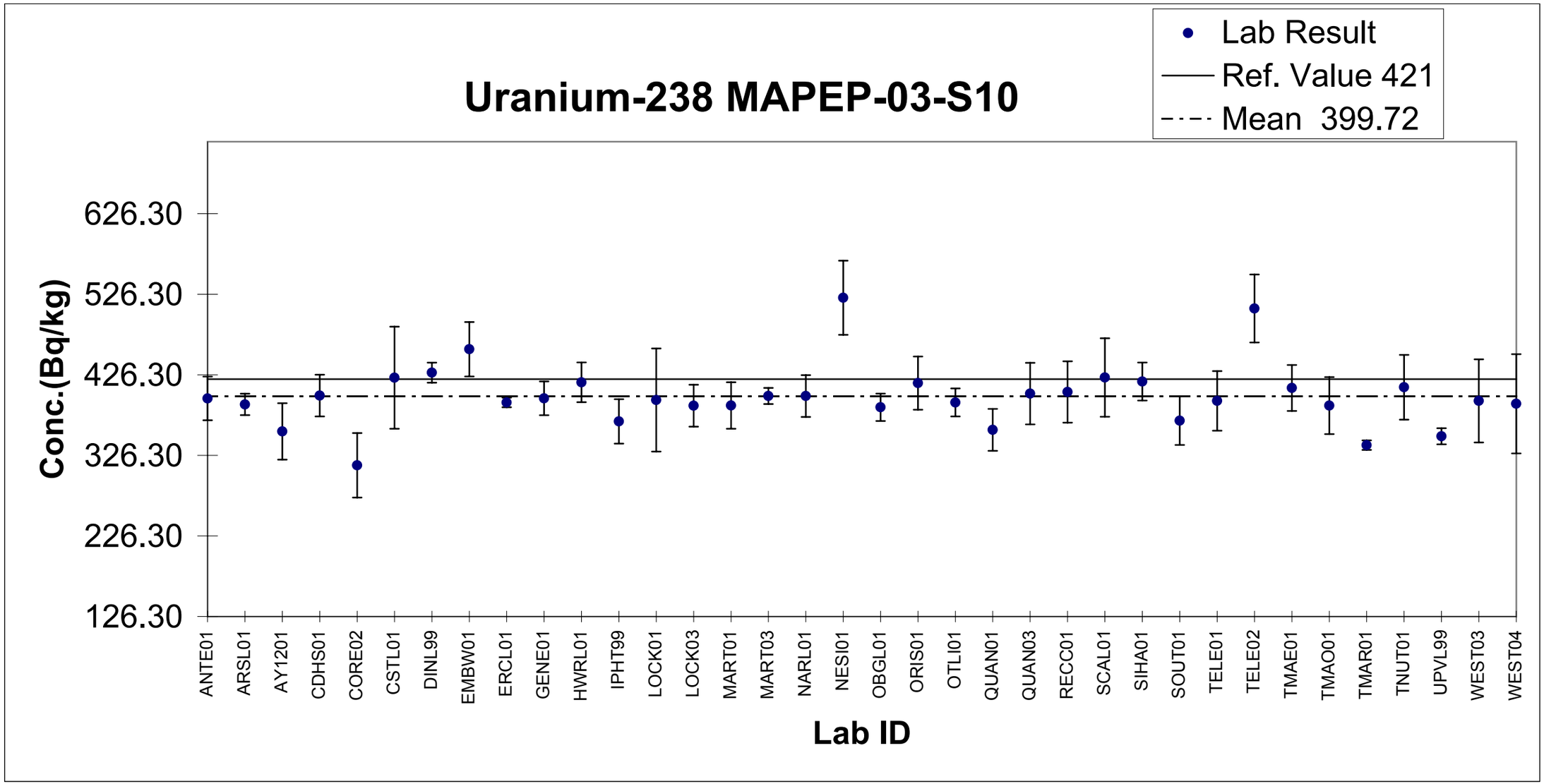

Plutonium-238 MAPEP-03-S10
Lab Result
Ref. Value 66.9
Mean 62.53
Conc.(Bq/kg)
110.00
90.00
70.00
50.00
30.00
10.00
ANTE01
ARSL01
AY1201
CDHS01
CESL01
CSTL01
DINL99
EMBW01
ERCL01
GENE01
HWRL01
LAWR02
LOCK01
LOCK03
MART01
MART03
NARL01
NESI01
OBGL01
ORIS01
OTLI01
QUAN01
QUAN03
RECC01
RSIR99
SCAL01
SOUT01
TELE01
TELE02
TMAE01
TMAO01
TMAR01
UPVL99
WEST03
WEST04
Lab ID

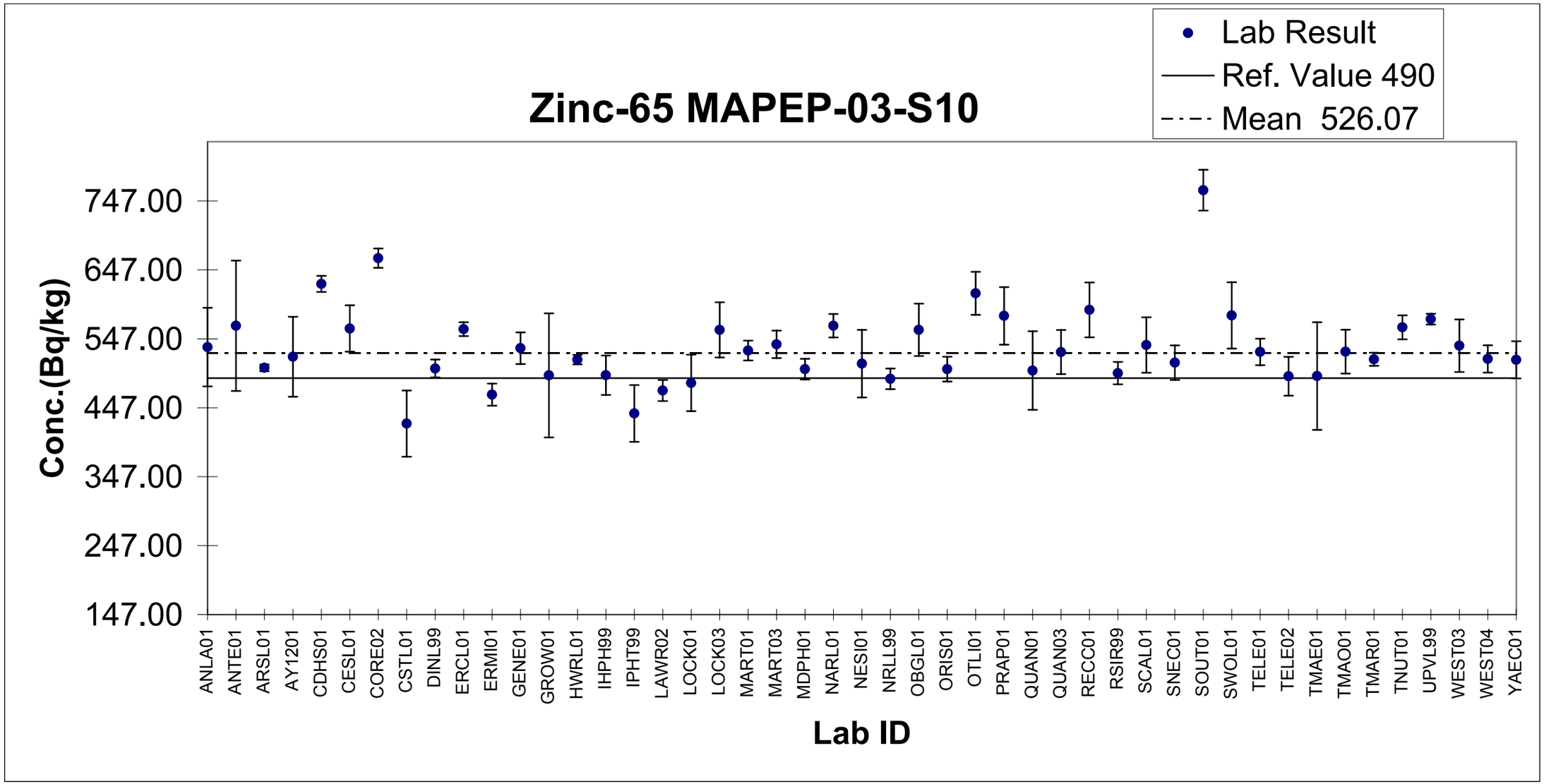

Plutonium-239/240 MAPEP-03-S10
Lab Result
Ref. Value 52.7
Mean 50.39
Conc.(Bq/kg)
85.81
75.81
65.81
55.81
45.81
35.81
25.81
15.81
ANTE01
ARSL01
AY1201
CDHS01
CESL01
CSTL01
DINL99
EMBW01
ERCL01
GENE01
HWRL01
LAWR02
LOCK01
LOCK03
MART01
MART02
MART03
NARL01
NESI01
OBGL01
ORIS01
OTLI01
QUAN01
QUAN03
RECC01
RSIR99
SCAL01
SOUT01
TELE01
TELE02
TMAE01
TMAO01
TMAR01
UPVL99
WEST03
WEST04
Lab ID

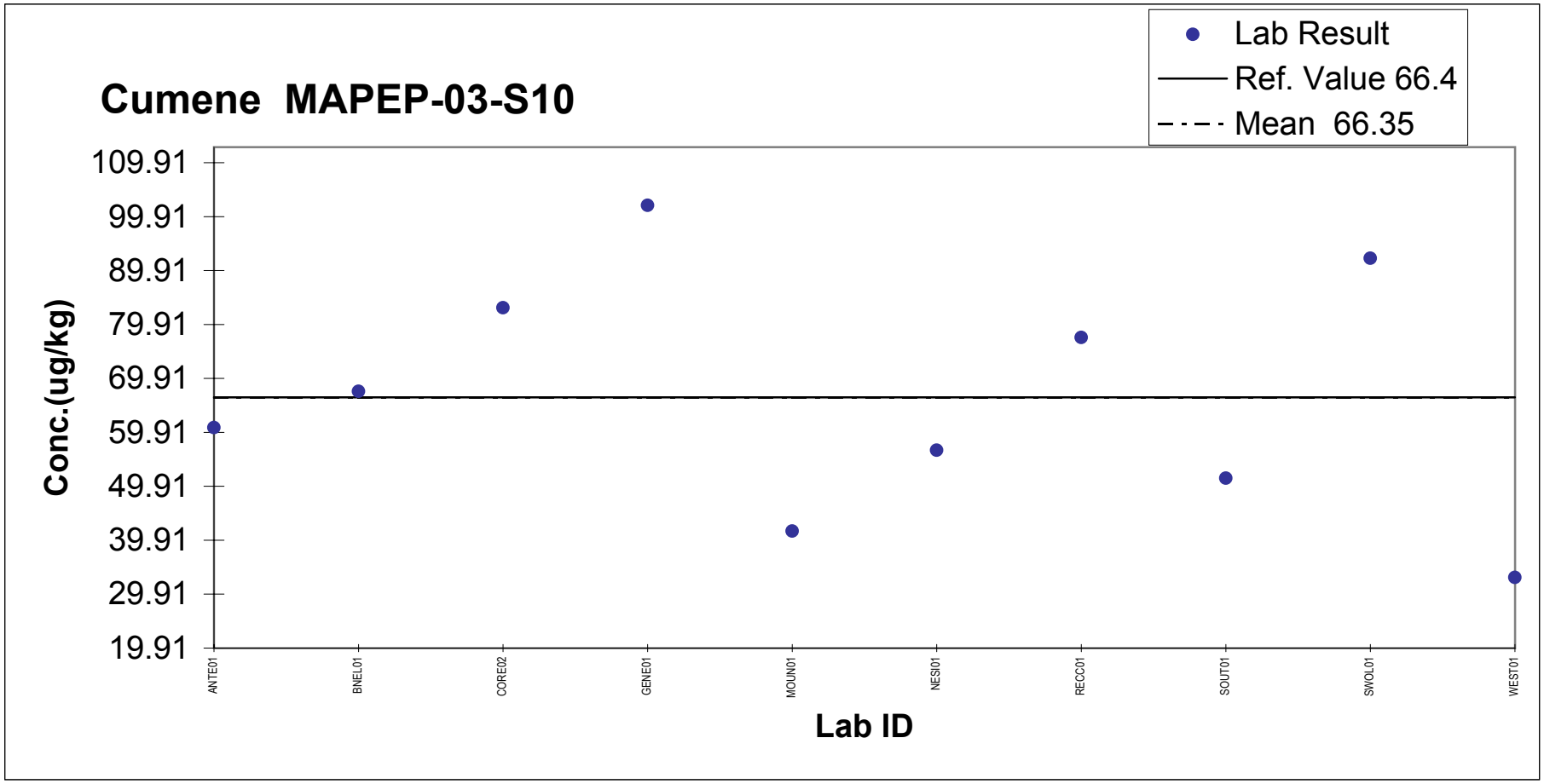

Potassium-40 MAPEP-03-S10
Lab Result
Ref. Value 652
Mean 672.2
Conc.(Bq/kg)
1110.00
910.00
710.00
510.00
310.00
110.00
ANLA01
ANTE01
ARSL01
AY1201
CDHS01
CESL01
CORE02
CSTL01
DINL99
ERCL01
ERMI01
GENE01
GROW01
HWRL01
IHPH99
IPEN99
IPHT99
LAWR02
LOCK01
LOCK03
MART01
MART02
MART03
MDPH01
NARL01
NESI01
NRLL99
OBGL01
ORIS01
OTLI01
PRAP01
QUAN01
QUAN03
RECC01
RSIR99
SCAL01
SNEC01
SOUT01
TELE01
TELE02
TMAE01
TMAO01
TMAR01
TNUT01
UPVL99
WEST03
WEST04
YAEC01
Lab ID

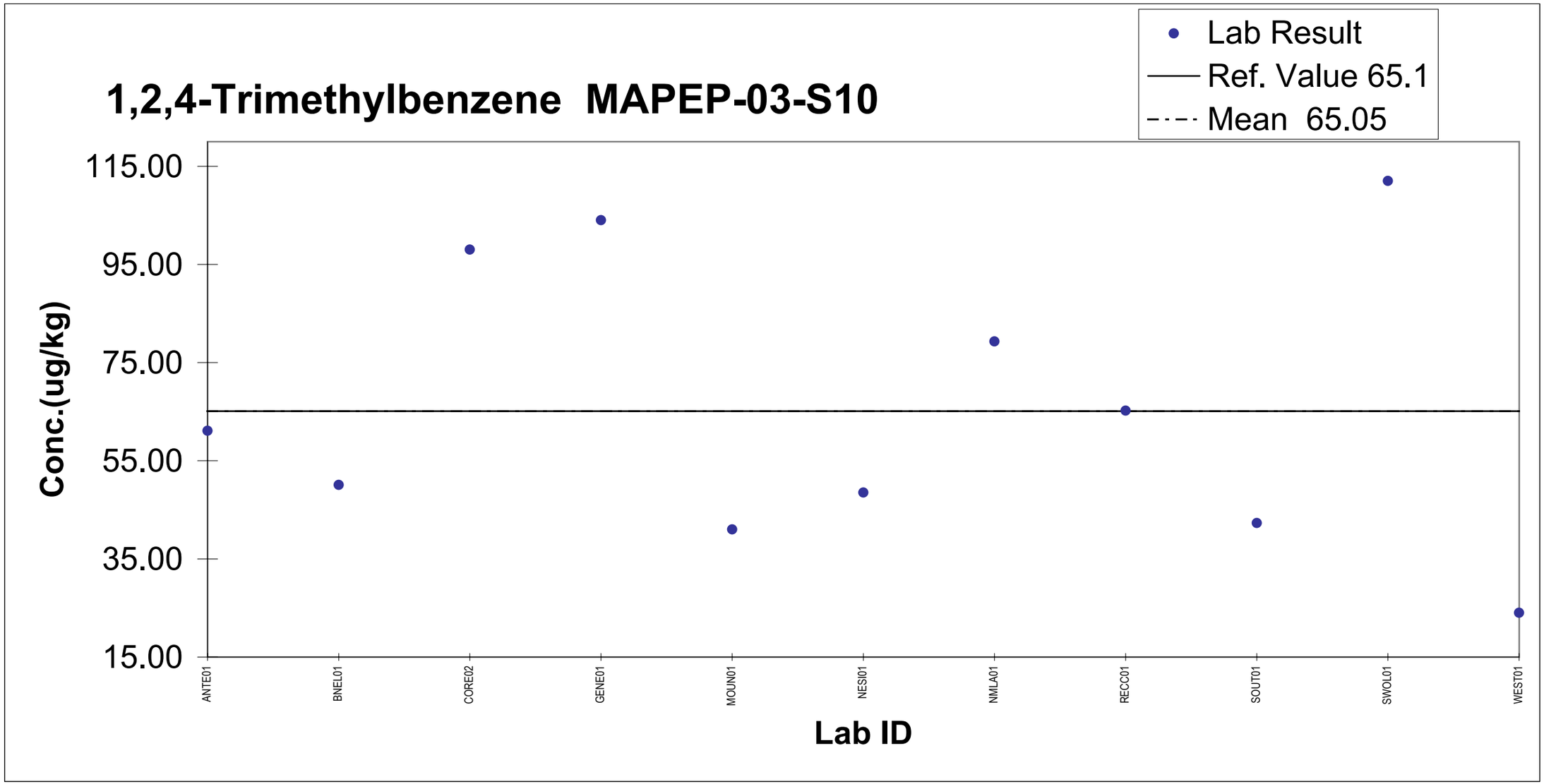

Strontium-90 MAPEP-03-S10
Lab Result
Ref. Value 714
Mean 631.69
Conc.
1000.00
900.00
800.00
700.00
600.00
500.00
400.00
300.00
200.00
ANTE01
ARSL01
AY1201
CDHS01
DINL99
GENE01
IPEN99
IPHT99
LEPD99
LOCK01
LOCK03
MART01
MART03
NARL01
NESI01
OBGL01
ORIS01
OTLI01
QUAN01
QUAN03
RECC01
RSIR99
SCAL01
SWOL01
TELE01
TELE02
TMAE01
TMAO01
TMAR01
UPVL99
WEST03
WEST04
YAEC01
Lab ID

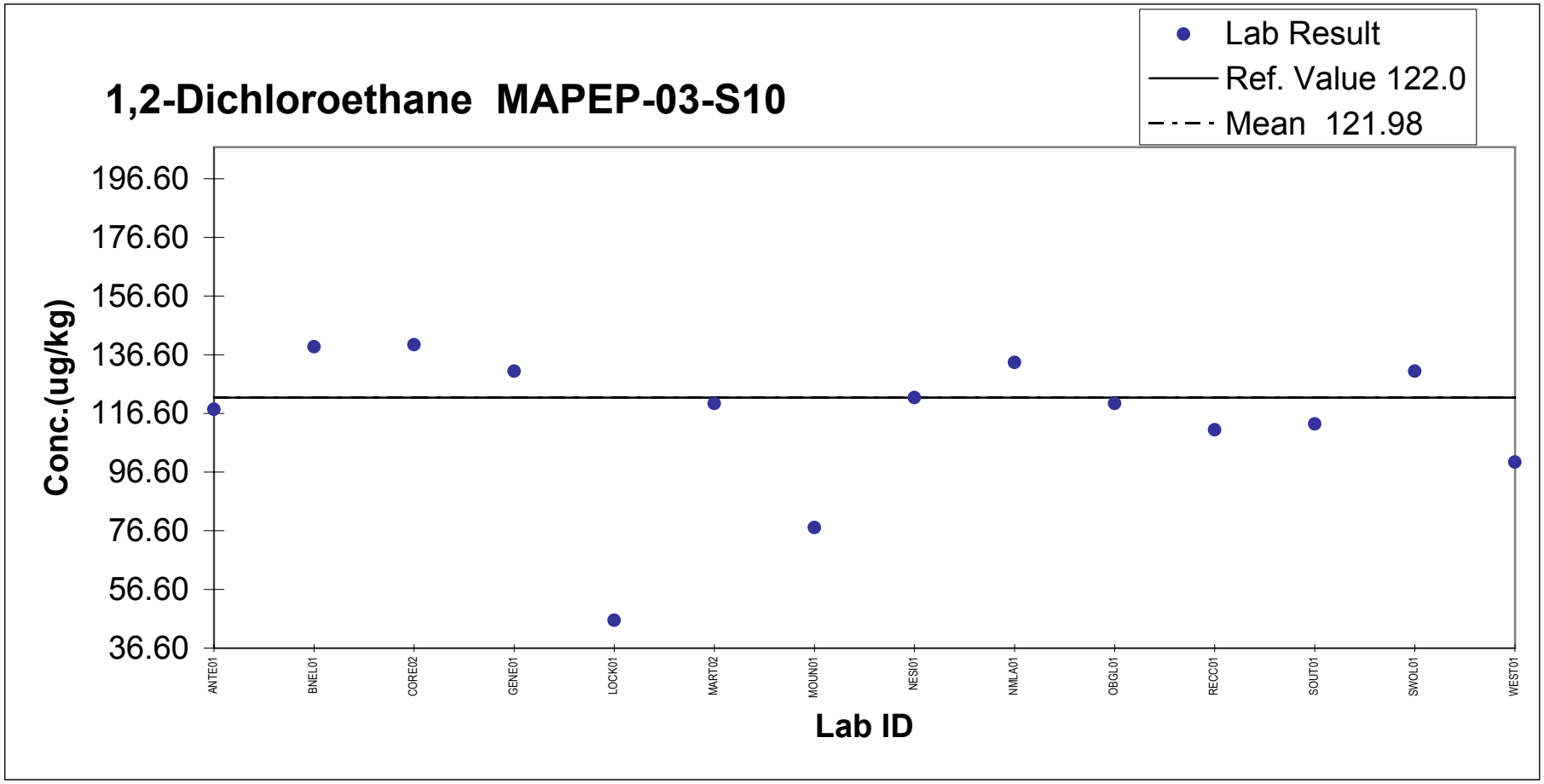

Uranium-234/233 MAPEP-03-S10
Lab Result
Ref. Value 89
Mean 82.41
Conc.(Bq/kg)
146.70
126.70
106.70
86.70
66.70
46.70
26.70
ANTE01
ARSL01
AY1201
CDHS01
CORE02
CSTL01
DINL99
EMBW01
ERCL01
GENE01
HWRL01
LOCK01
LOCK03
MART01
MART03
NARL01
NESI01
OBGL01
ORIS01
OTLI01
QUAN01
QUAN03
RECC01
SCAL01
SOUT01
TELE01
TELE02
TMAE01
TMAO01
TMAR01
TNUT01
UPVL99
WEST03
WEST04
Lab ID

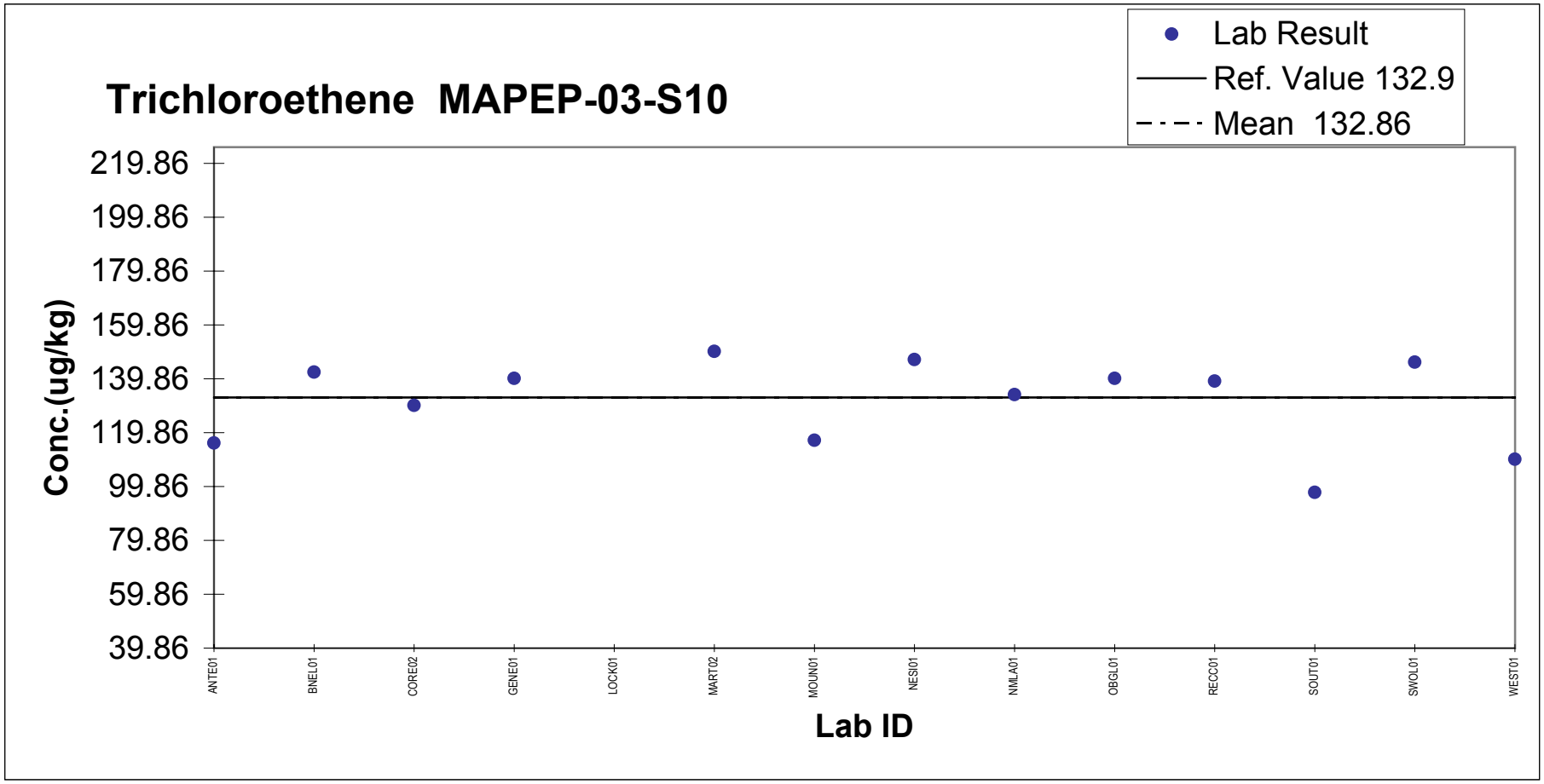

Uranium-238 MAPEP-03-S10
Lab Result
Ref. Value 421
Mean 399.72
Conc.(Bq/kg)
626.30
526.30
426.30
326.30
226.30
126.30
ANTE01
ARSL01
AY1201
CDHS01
CORE02
CSTL01
DINL99
EMBW01
ERCL01
GENE01
HWRL01
IPHT99
LOCK01
LOCK03
MART01
MART03
NARL01
NESI01
OBGL01
ORIS01
OTLI01
QUAN01
QUAN03
RECC01
SCAL01
SIHA01
SOUT01
TELE01
TELE02
TMAE01
TMAO01
TMAR01
TNUT01
UPVL99
WEST03
WEST04
Lab ID

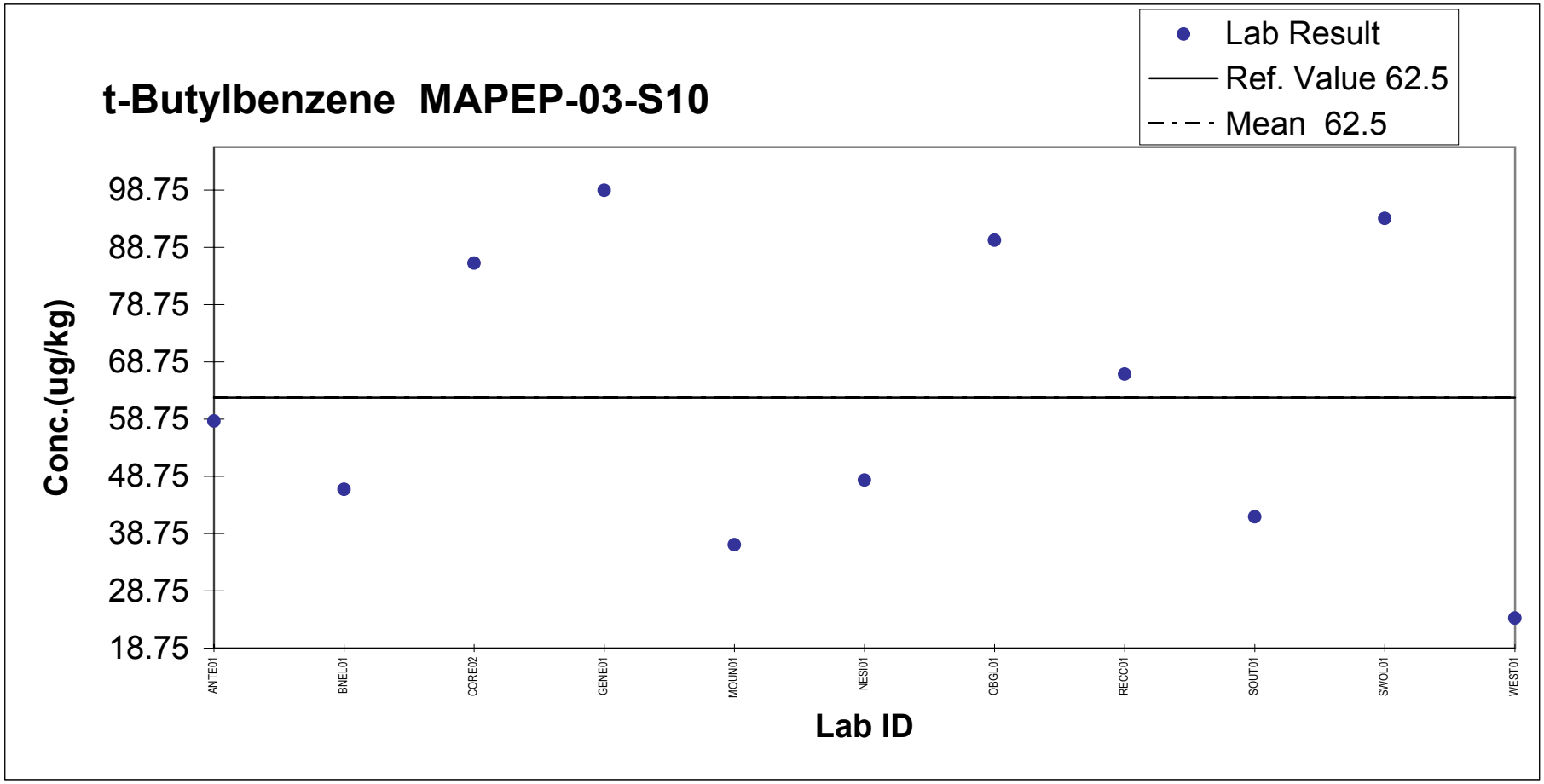

Zinc-65 MAPEP-03-S10
Lab Result
Ref. Value 490
Mean 526.07
Conc.(Bq/kg)
747.00
647.00
547.00
447.00
347.00
247.00
147.00
ANLA01
ANTE01
ARSL01
AY1201
CDHS01
CESL01
CORE02
CSTL01
DINL99
ERCL01
ERMI01
GENE01
GROW01
HWRL01
IHPH99
IPHT99
LAWR02
LOCK01
LOCK03
MART01
MART03
MDPH01
NARL01
NESI01
NRLL99
OBGL01
ORIS01
OTLI01
PRAP01
QUAN01
QUAN03
RECC01
RSIR99
SCAL01
SNEC01
SOUT01
SWOL01
TELE01
TELE02
TMAE01
TMAO01
TMAR01
TNUT01
UPVL99
WEST03
WEST04
YAEC01
Lab ID

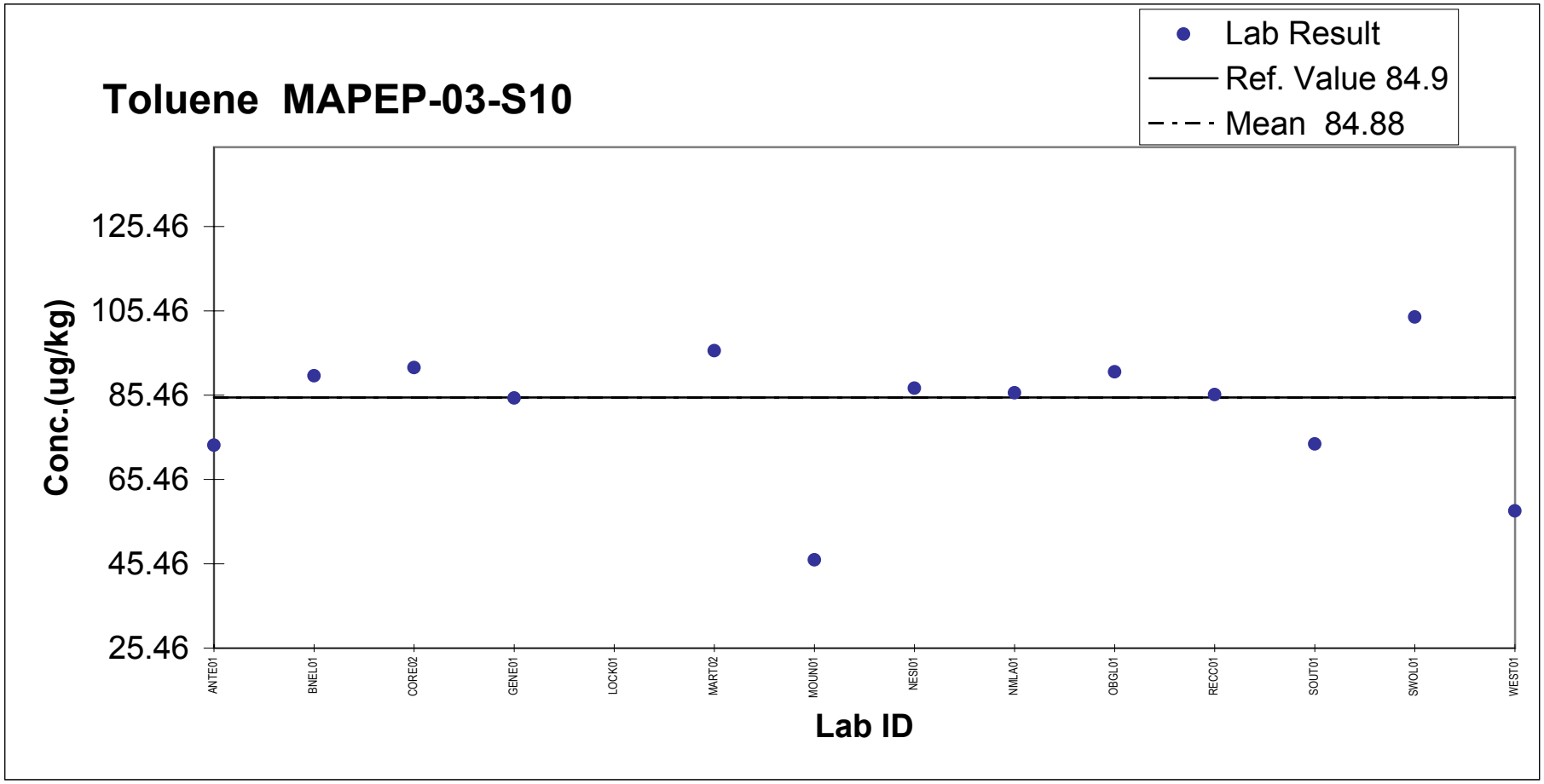

Cumene MAPEP-03-S10
Lab Result
Ref. Value 66.4
Mean 66.35
Conc.(ug/kg)
109.91
99.91
89.91
79.91
69.91
59.91
49.91
39.91
29.91
19.91
ANTE01
BNEL01
CORE02
GENE01
MOUN01
NESI01
RECO01
SOUT01
SWOL01
WEST01
Lab ID

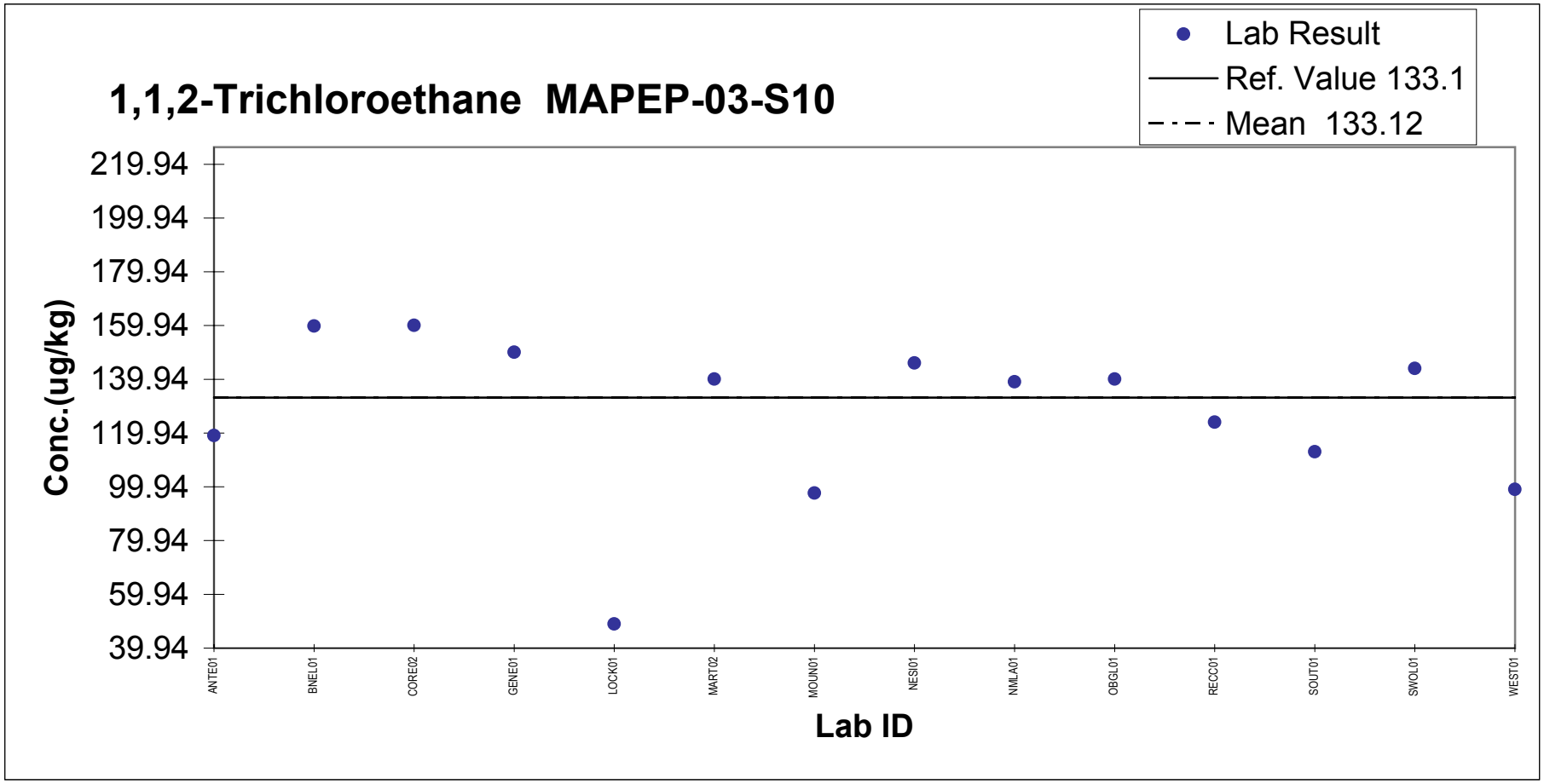

1,2,4-Trimethylbenzene MAPEP-03-S10
Lab Result
Ref. Value 65.1
Mean 65.05
Conc.(ug/kg)
115.00
95.00
75.00
55.00
35.00
15.00
ANTE01
BNEL01
CORE02
GENE01
MOUN01
NESI01
NMLA01
RECC01
SOUT01
SWOL01
WEST01
Lab ID

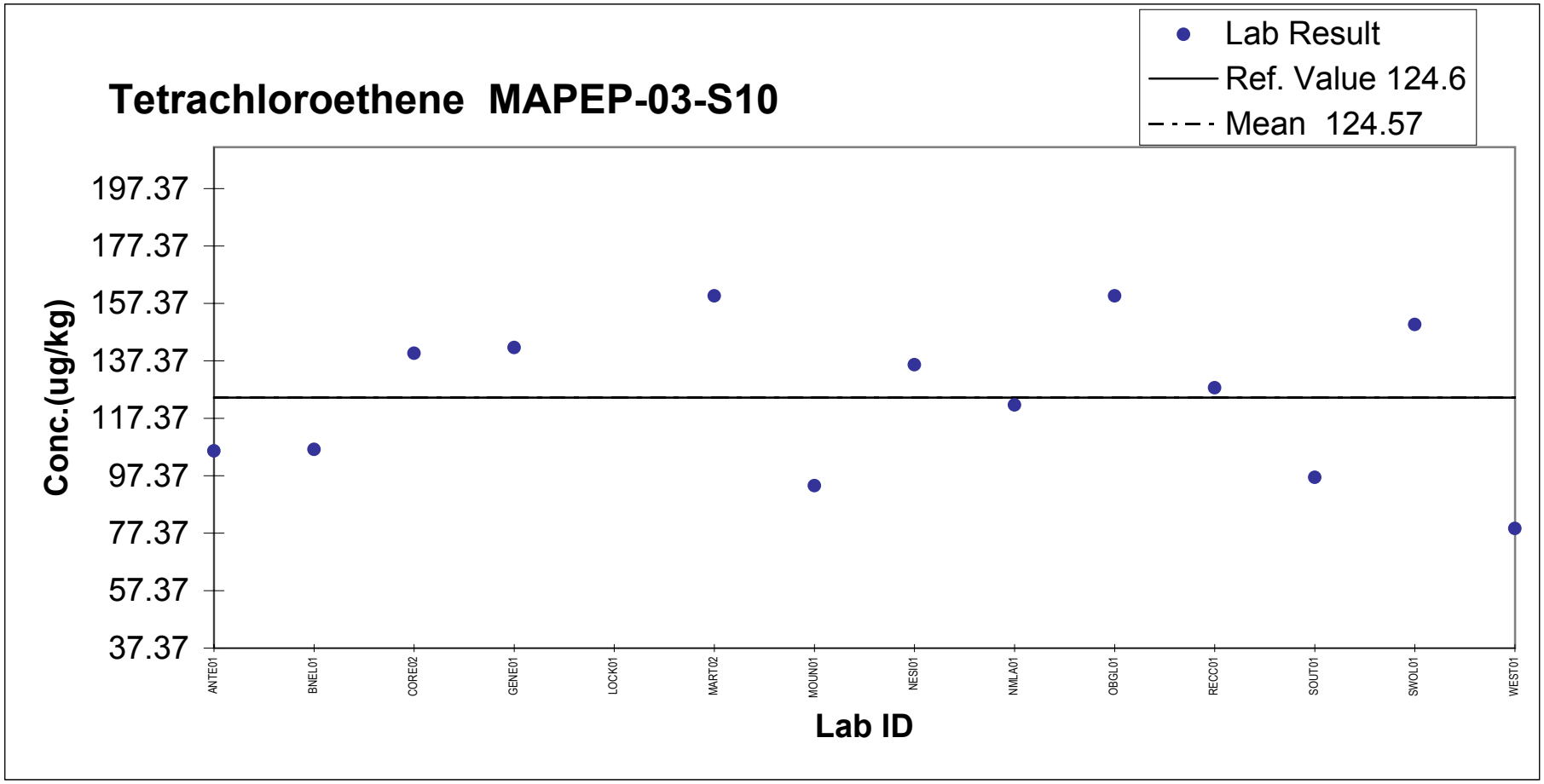

1,2-Dichloroethane MAPEP-03-S10
Lab Result
Ref. Value 122.0
Mean 121.98
Conc.(ug/kg)
196.60
176.60
156.60
136.60
116.60
96.60
76.60
56.60
36.60
ANTE01
BNEL01
CORE02
GENE01
LOCK01
MART02
MOUN01
NESI01
NMLA01
OBGL01
RECC01
SOUT01
SWOL01
WEST01
Lab ID

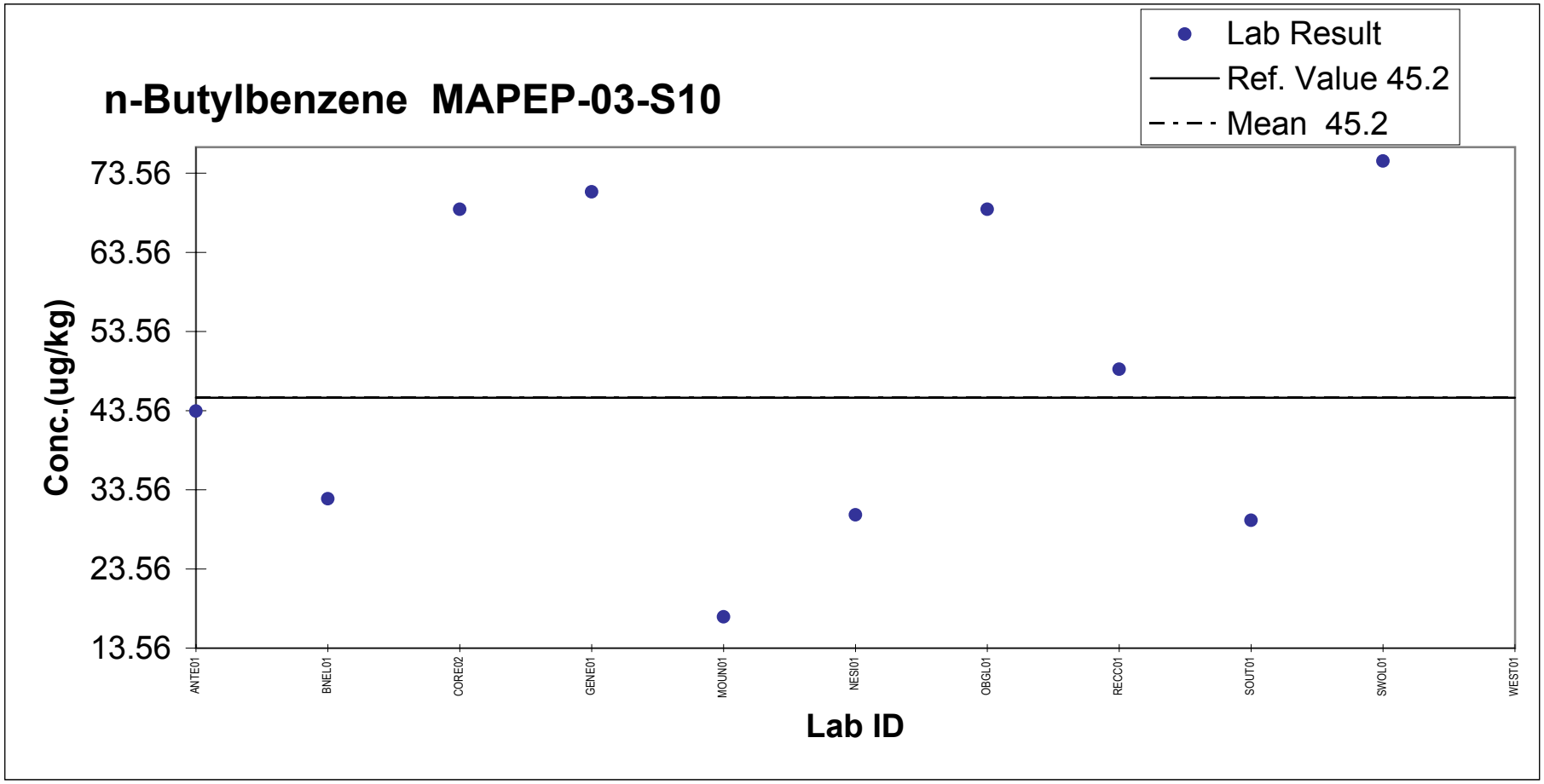

Trichloroethene MAPEP-03-S10
Lab Result
Ref. Value 132.9
Mean 132.86
219.86
199.86
179.86
159.86
139.86
119.86
99.86
79.86
59.86
39.86
Conc.(ug/kg)
ANTE01
BNEL01
CORE02
GENE01
LOCK01
MART02
MOUN01
NESI01
NMLA01
OBGL01
RECC01
SOUT01
SWOL01
WEST01
Lab ID

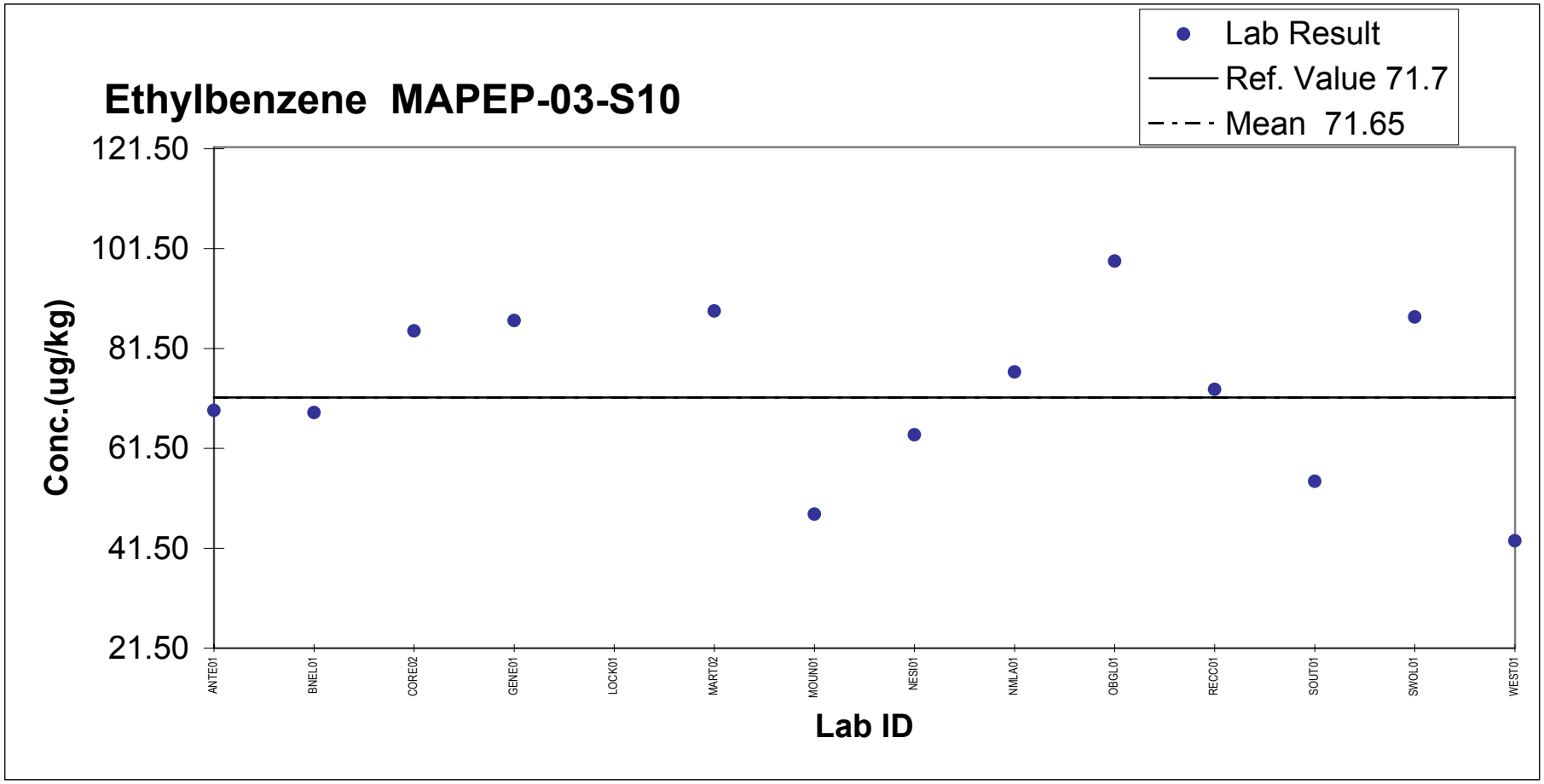

t-Butylbenzene MAPEP-03-S10
Lab Result
Ref. Value 62.5
Mean 62.5
Conc.(ug/kg)
98.75
88.75
78.75
68.75
58.75
48.75
38.75
28.75
18.75
ANTE01
BNEL01
CORE02
GENE01
MOUN01
NESI01
OBGL01
RECC01
SOUT01
SWOL01
WEST01
Lab ID

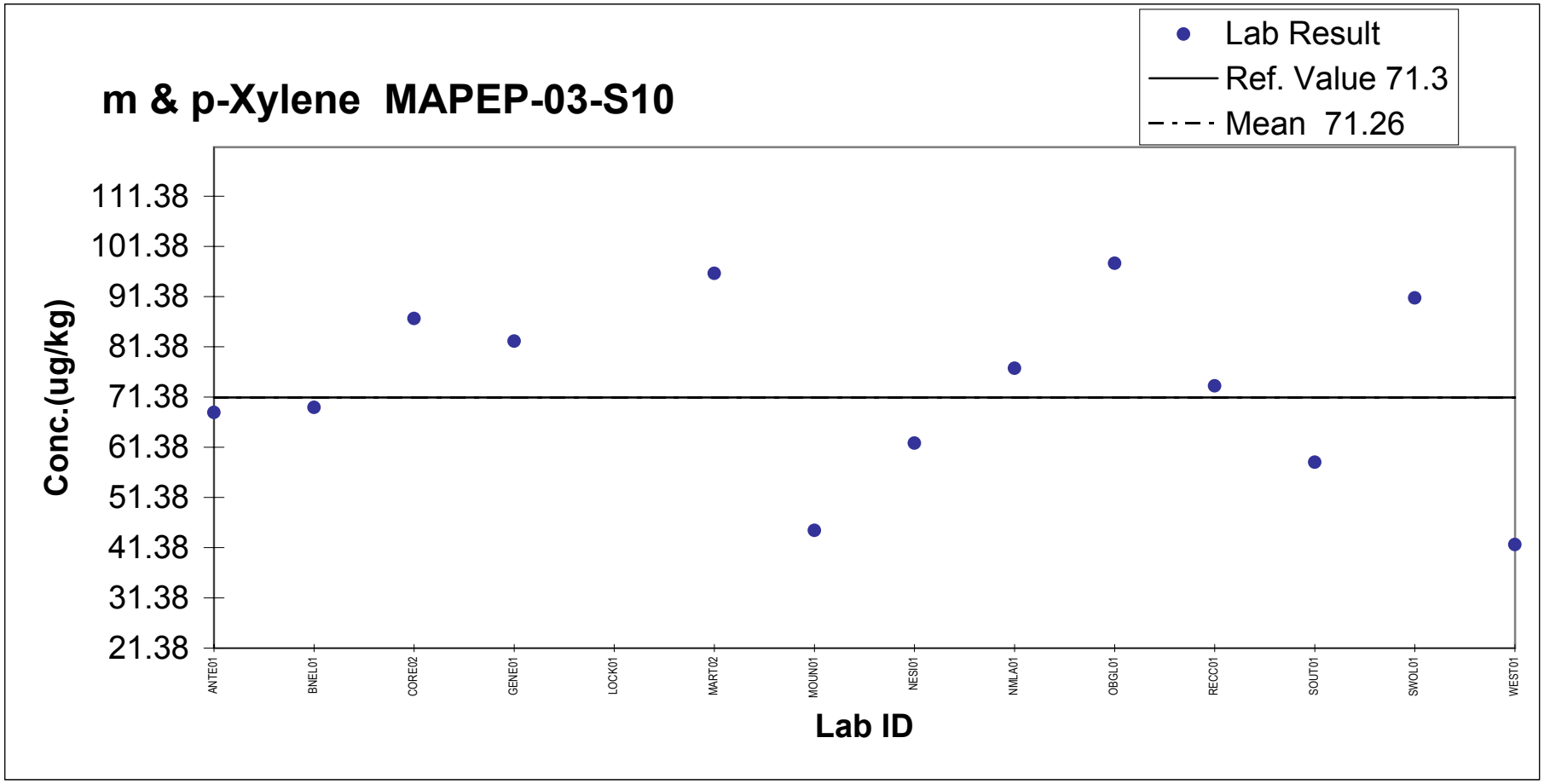

Toluene MAPEP-03-S10
Lab Result
Ref. Value 84.9
Mean 84.88
Conc.(ug/kg)
125.46
105.46
85.46
65.46
45.46
25.46
ANTE01
BNEL01
CORE02
GENE01
LOCK01
MART02
MOUN01
NESI01
NMLA01
OBGL01
RECC01
SOUT01
SWOL01
WEST01
Lab ID

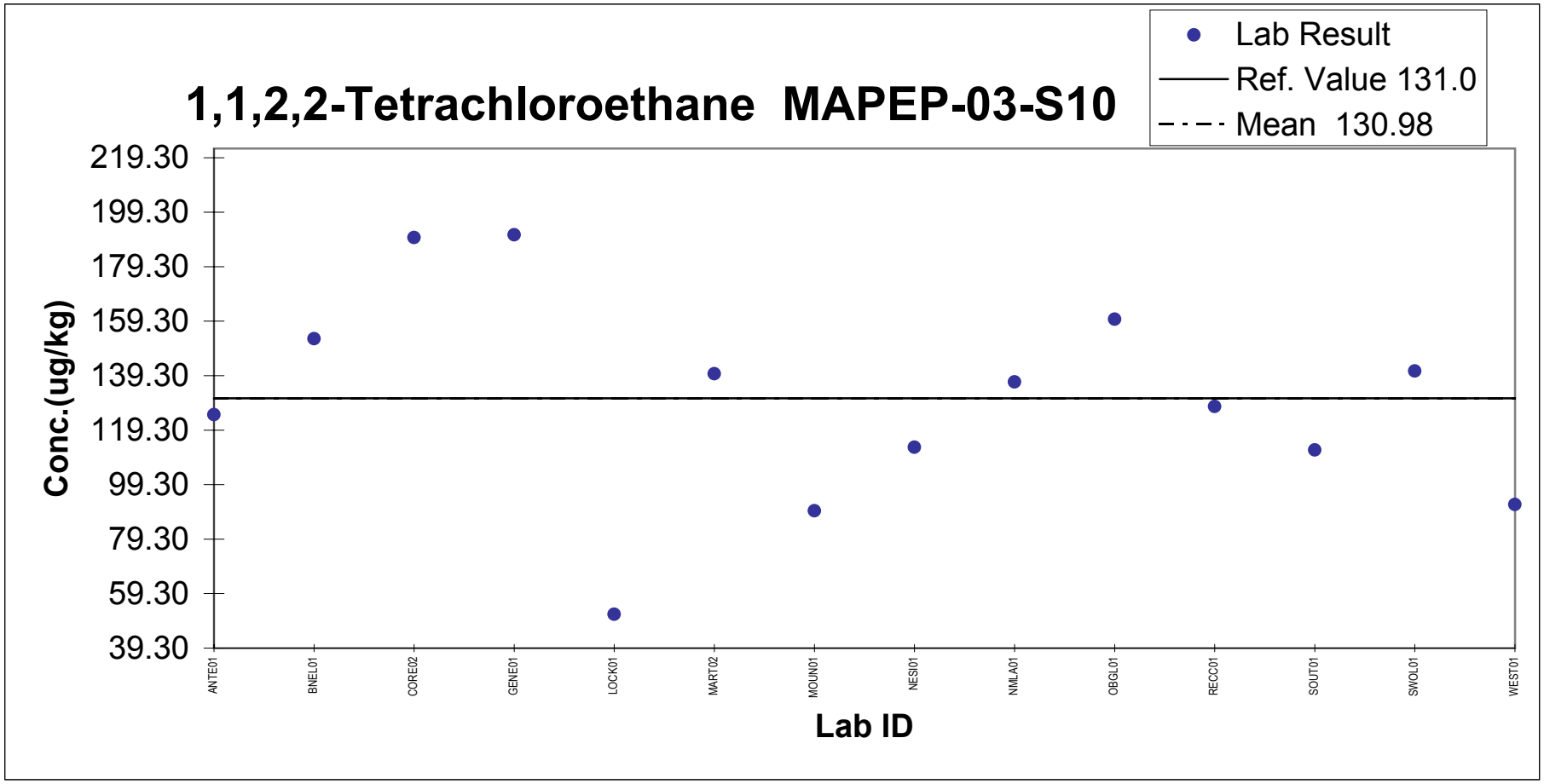

1,1,2-Trichloroethane MAPEP-03-S10
Lab Result
Ref. Value 133.1
Mean 133.12
Conc.(ug/kg)
219.94
199.94
179.94
159.94
139.94
119.94
99.94
79.94
59.94
39.94
ANTE01
BNEL01
CORE02
GENE01
LOCK01
MART02
MOUN01
NESI01
NMLA01
OBGL01
RECC01
SOUT01
SWOL01
WEST01
Lab ID

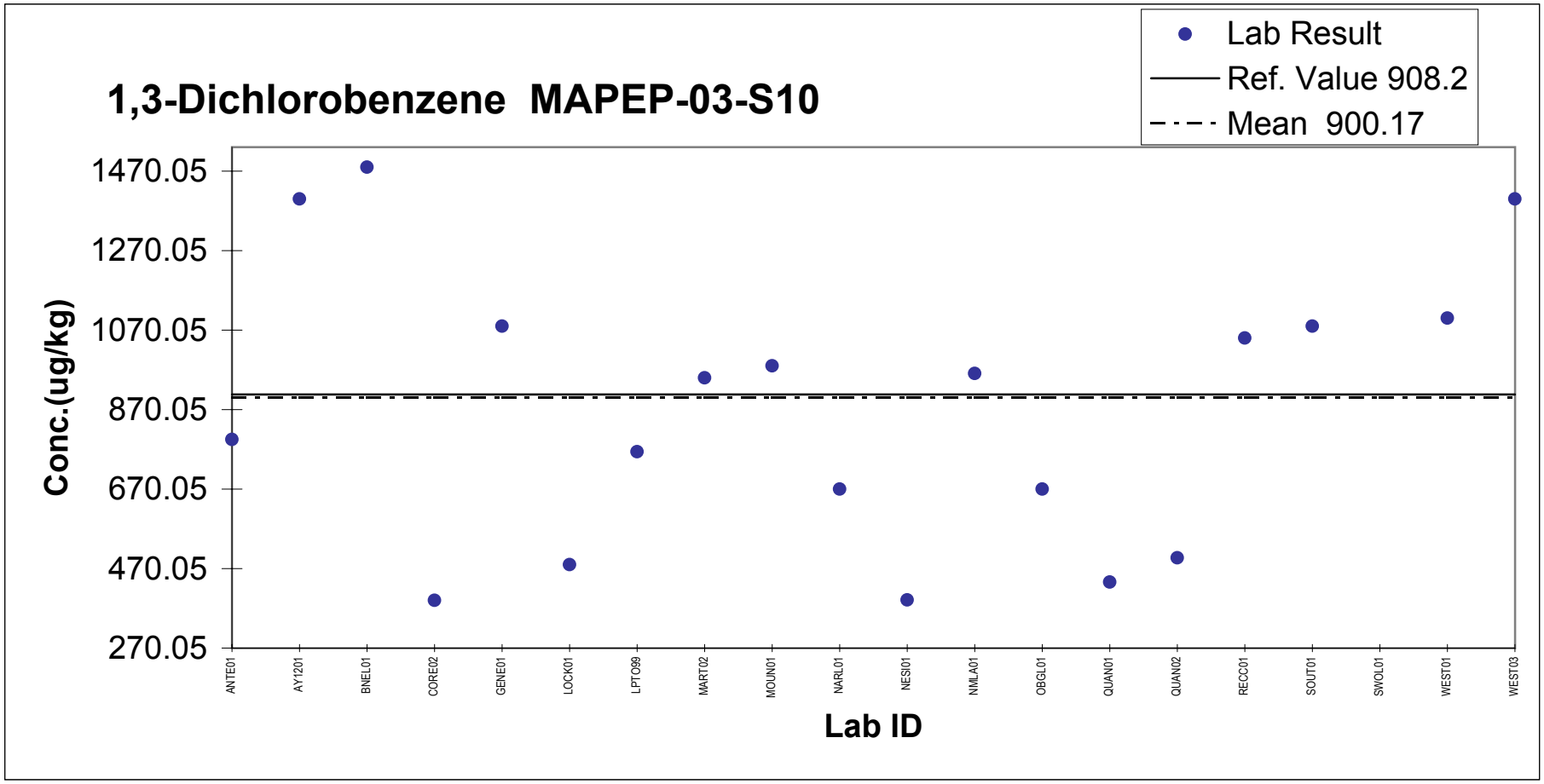

Tetrachloroethene MAPEP-03-S10
Lab Result
Ref. Value 124.6
Mean 124.57
Conc.(ug/kg)
197.37
177.37
157.37
137.37
117.37
97.37
77.37
57.37
37.37
ANTE01
BNEL01
CORE02
GENE01
LOCK01
MART02
MOUN01
NESI01
NMLA01
OBGL01
RECC01
SOUT01
SWOL01
WEST01
Lab ID

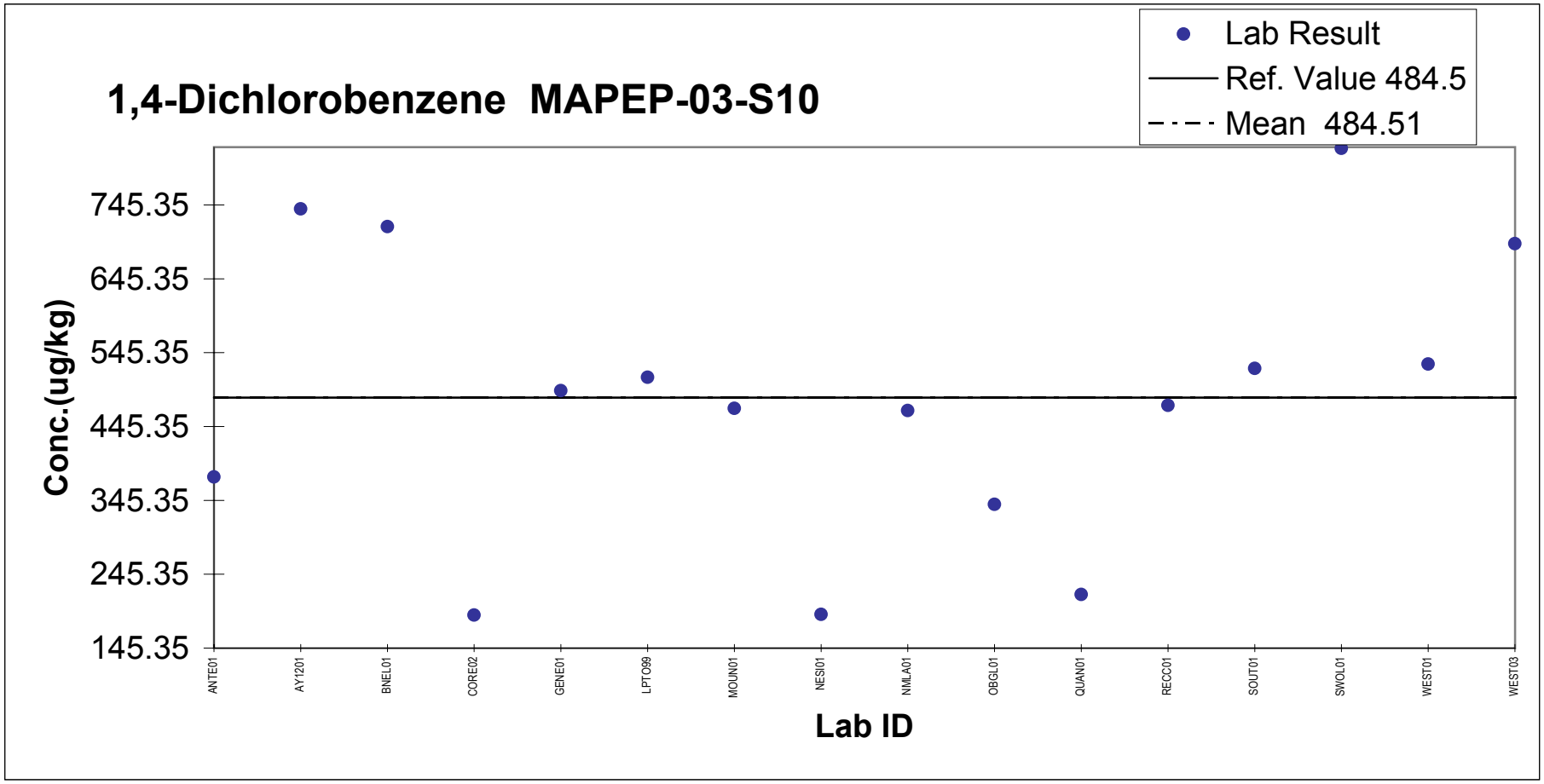

n-Butylbenzene MAPEP-03-S10
Lab Result
Ref. Value 45.2
Mean 45.2
Conc.(ug/kg)
73.56
63.56
53.56
43.56
33.56
23.56
13.56
ANTE01
BNEL01
CORE02
GENE01
MOUN01
NESI01
OBGL01
RECO01
SOUT01
SWOL01
WEST01
Lab ID

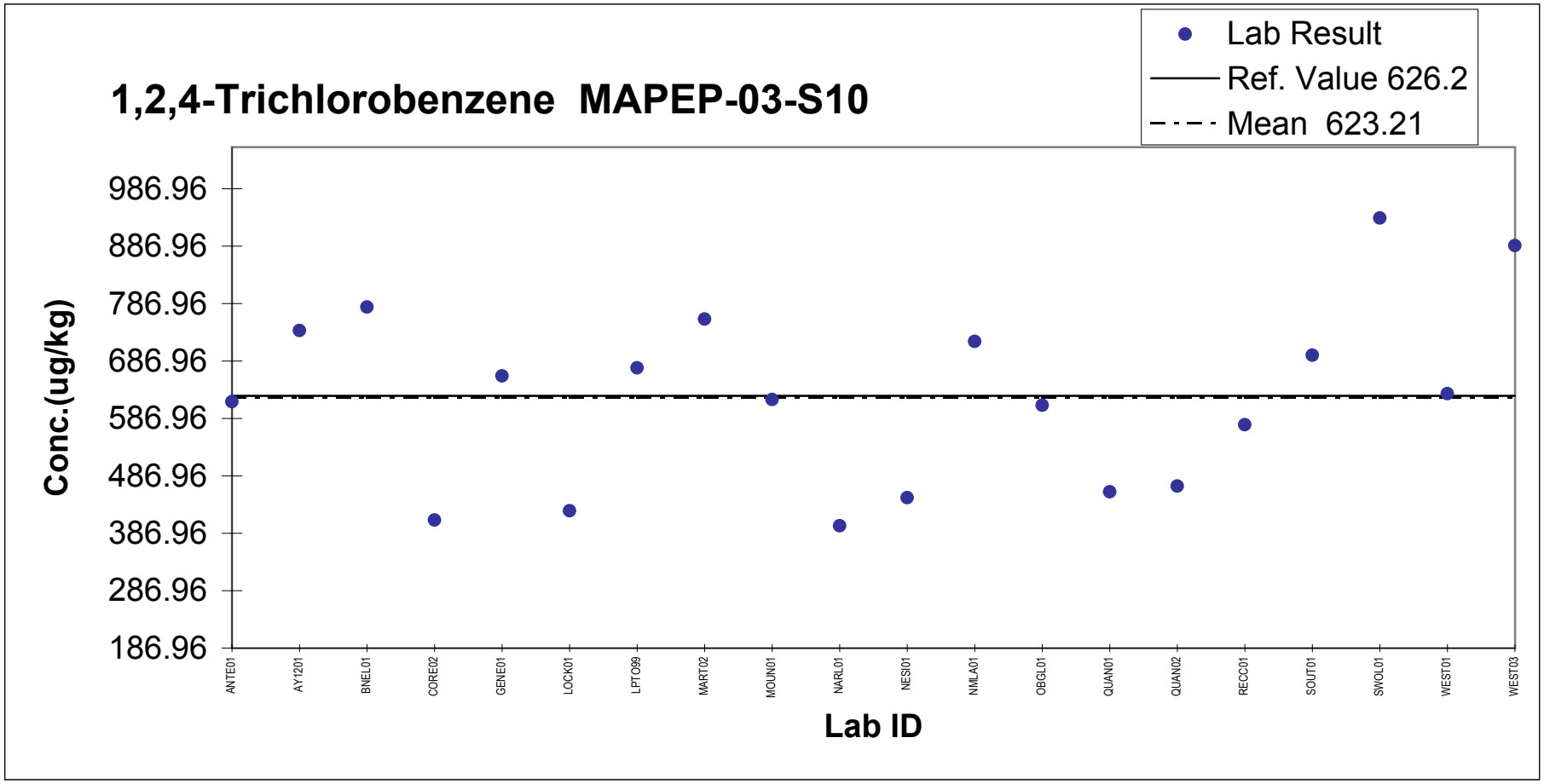

Ethylbenzene MAPEP-03-S10
Lab Result
Ref. Value 71.7
Mean 71.65
121.50
101.50
81.50
61.50
41.50
21.50
Conc.(ug/kg)
ANTE01
BNEL01
CORE02
GENE01
LOCK01
MART02
MOUN01
NESI01
NMLA01
OBGL01
RECC01
SOUT01
SWOL01
WEST01
Lab ID

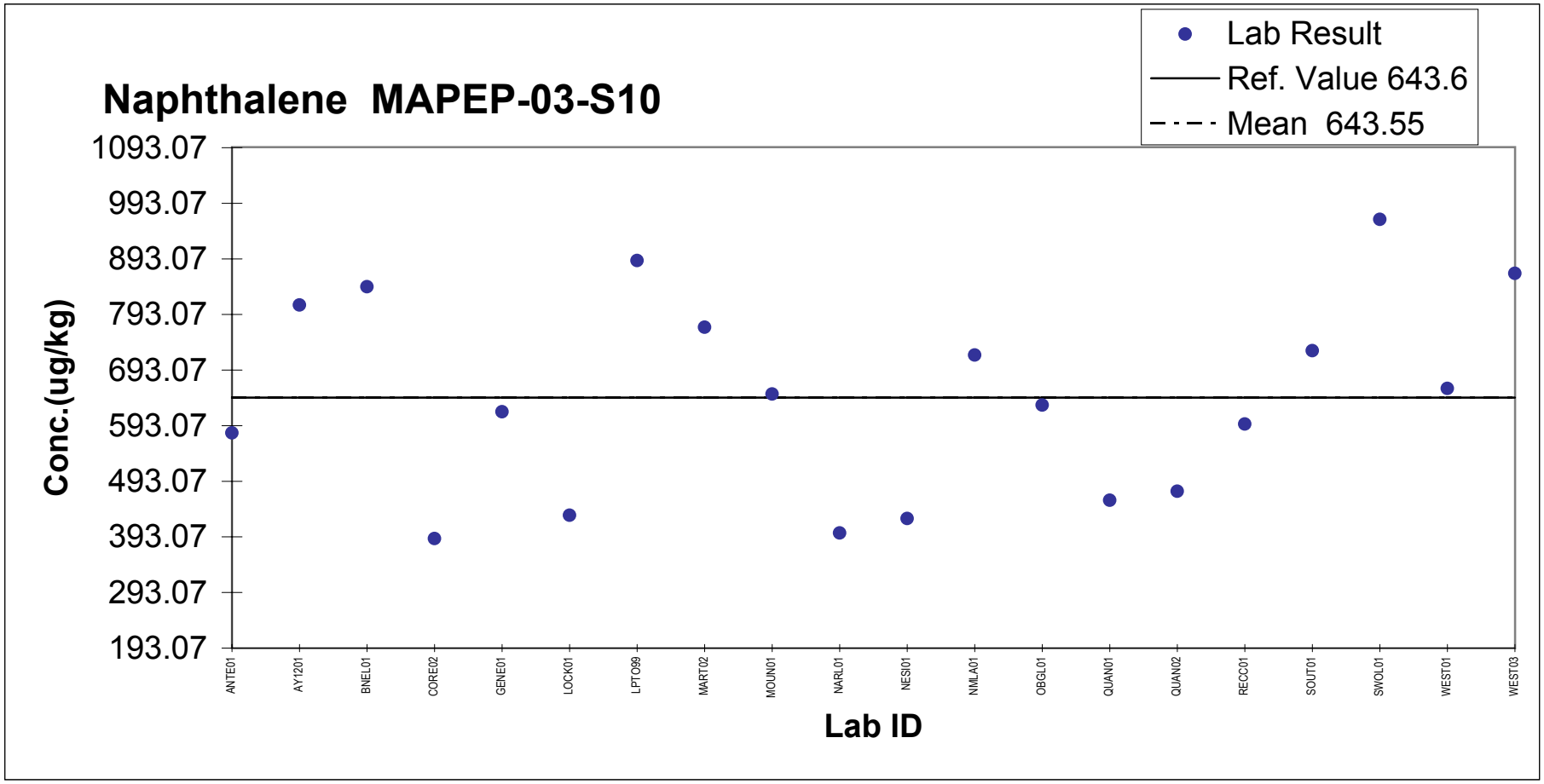

m & p-Xylene MAPEP-03-S10
Lab Result
Ref. Value 71.3
Mean 71.26
Conc.(ug/kg)
111.38
101.38
91.38
81.38
71.38
61.38
51.38
41.38
31.38
21.38
ANTE01
BNEL01
CORE02
GENE01
LOCK01
MART02
MOUN01
NESI01
NMLA01
OBGL01
RECC01
SOUT01
SWOL01
WEST01
Lab ID

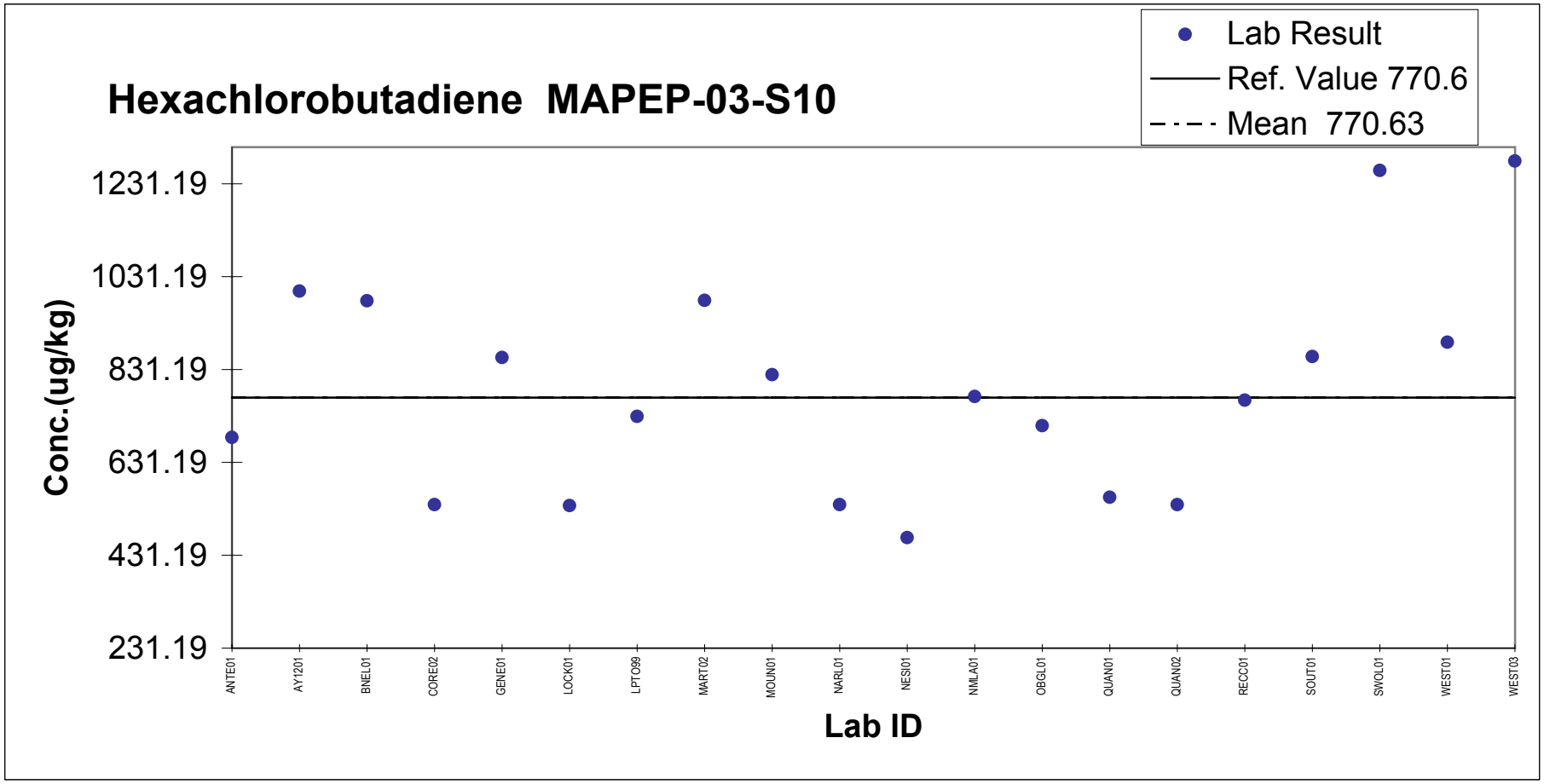

1,1,2,2-Tetrachloroethane MAPEP-03-S10
Lab Result
Ref. Value 131.0
Mean 130.98
Conc.(ug/kg)
219.30
199.30
179.30
159.30
139.30
119.30
99.30
79.30
59.30
39.30
ANTE01
BNEL01
CORE02
GENE01
LOCK01
MART02
MOUN01
NESI01
NMLA01
OBGL01
RECC01
SOUT01
SWOL01
WEST01
Lab ID

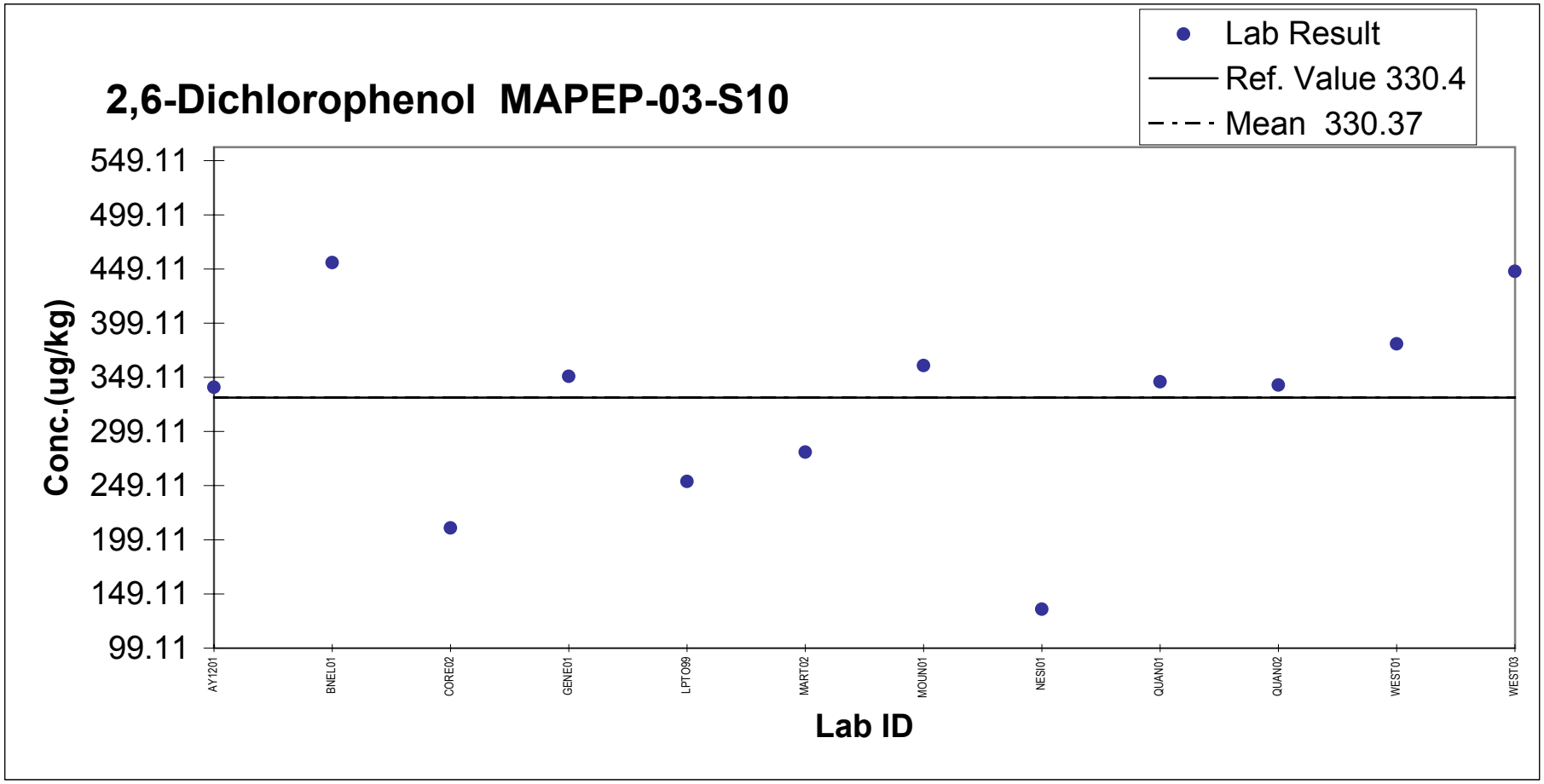

1,3-Dichlorobenzene MAPEP-03-S10
Lab Result
Ref. Value 908.2
Mean 900.17
Conc.(ug/kg)
1470.05
1270.05
1070.05
870.05
670.05
470.05
270.05
ANTE01
AY1201
BNEL01
CORE02
GENE01
LOCK01
LPTO99
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
QUAN01
QUAN02
RECC01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

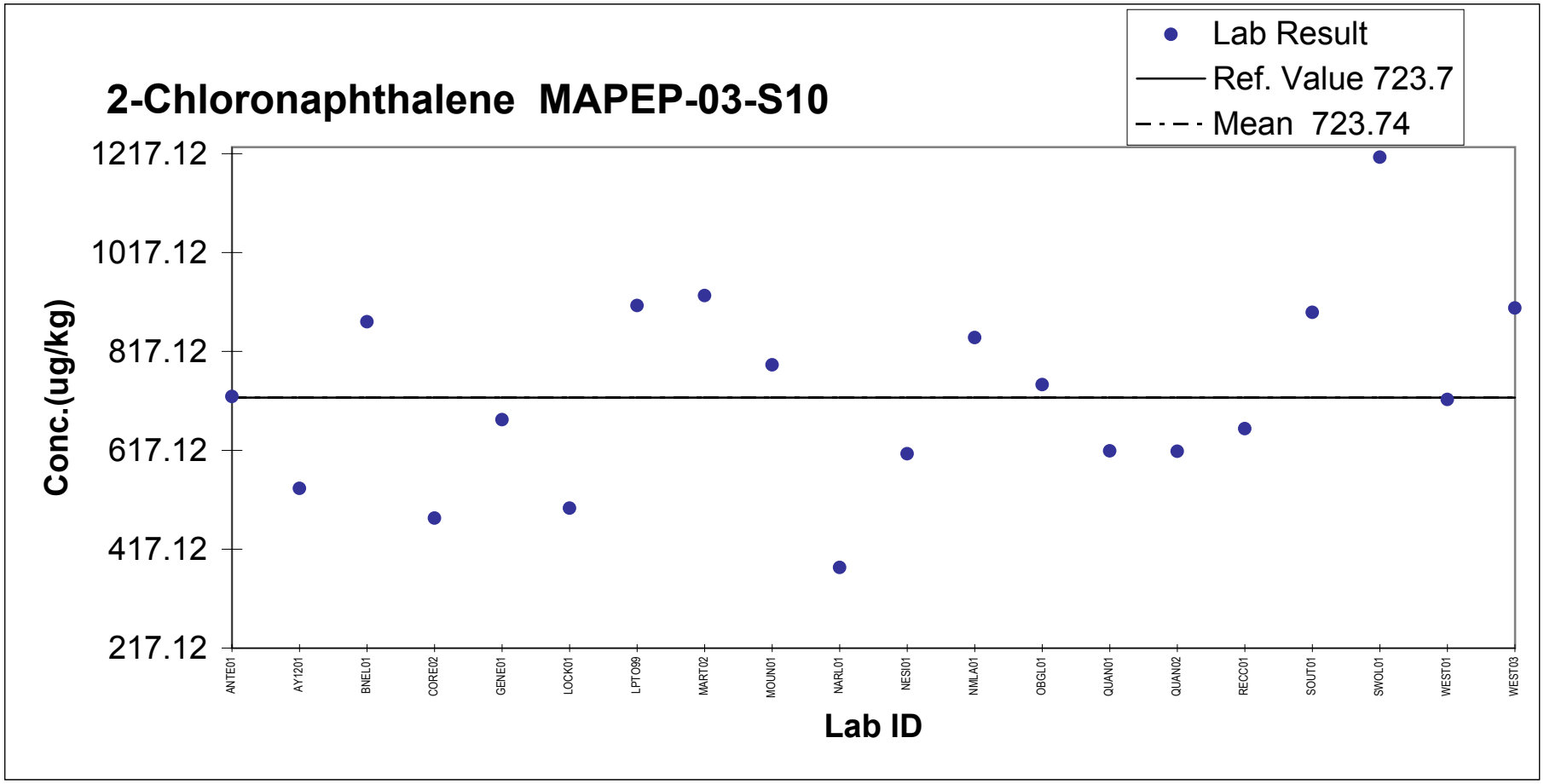

1,4-Dichlorobenzene MAPEP-03-S10
Lab Result
Ref. Value 484.5
Mean 484.51
Conc.(ug/kg)
745.35
645.35
545.35
445.35
345.35
245.35
145.35
ANTE01
AY1201
BNEL01
CORE02
GENE01
LPTO89
MOUN01
NESI01
NMLA01
OBGL01
QUAN01
RECO01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

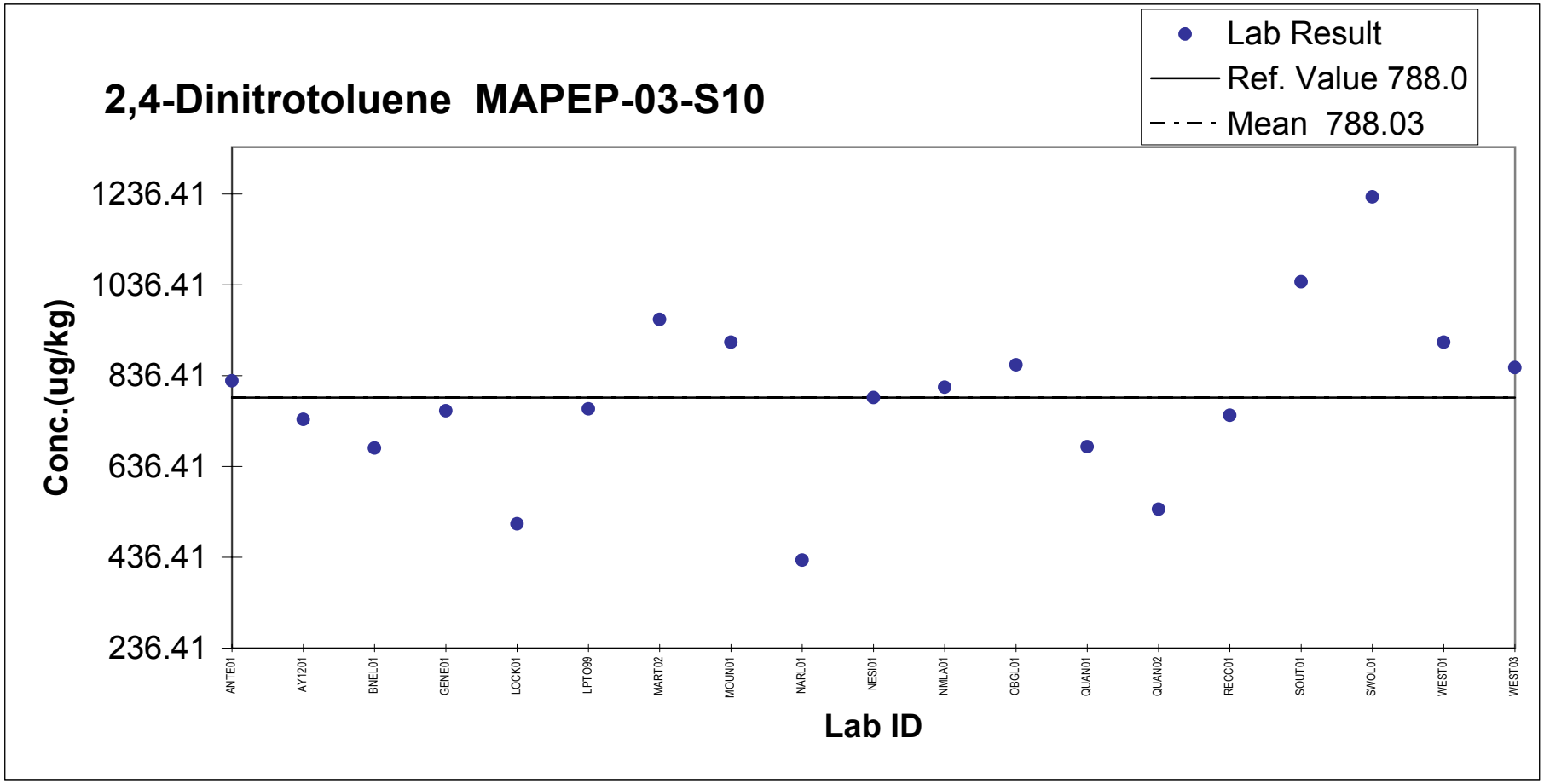

1,2,4-Trichlorobenzene MAPEP-03-S10
Lab Result
Ref. Value 626.2
Mean 623.21
Conc.(ug/kg)
986.96
886.96
786.96
686.96
586.96
486.96
386.96
286.96
186.96
ANTE01
AY1201
BNEL01
CORE02
GENE01
LOCK01
LPTO99
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
QUAN01
QUAN02
RECC01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

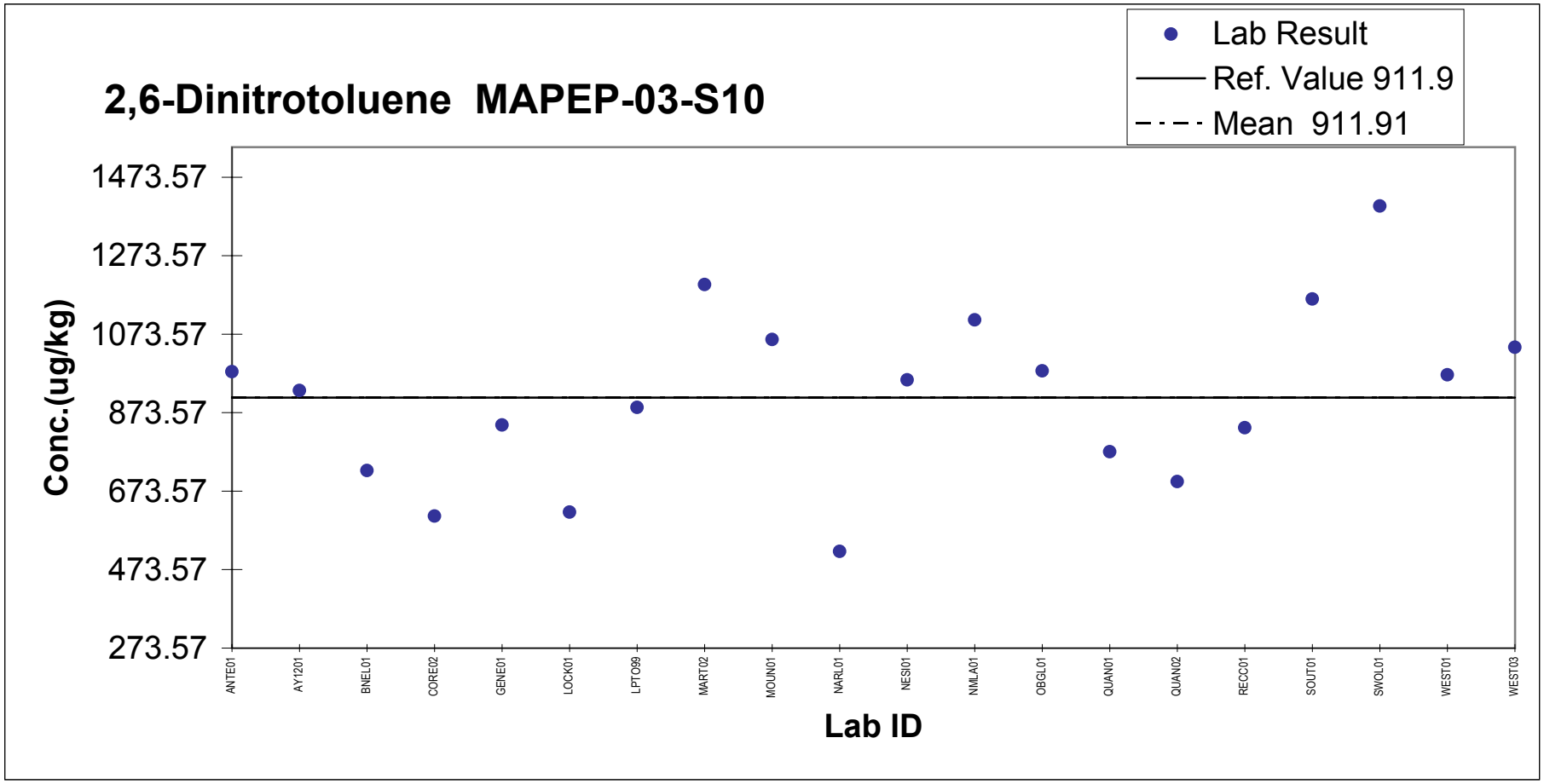

Naphthalene MAPEP-03-S10
Lab Result
Ref. Value 643.6
Mean 643.55
Conc.(ug/kg)
1093.07
993.07
893.07
793.07
693.07
593.07
493.07
393.07
293.07
193.07
ANTE01
AY1201
BNEL01
CORE02
GENE01
LOCK01
LPTO99
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
QUAN01
QUAN02
RECC01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

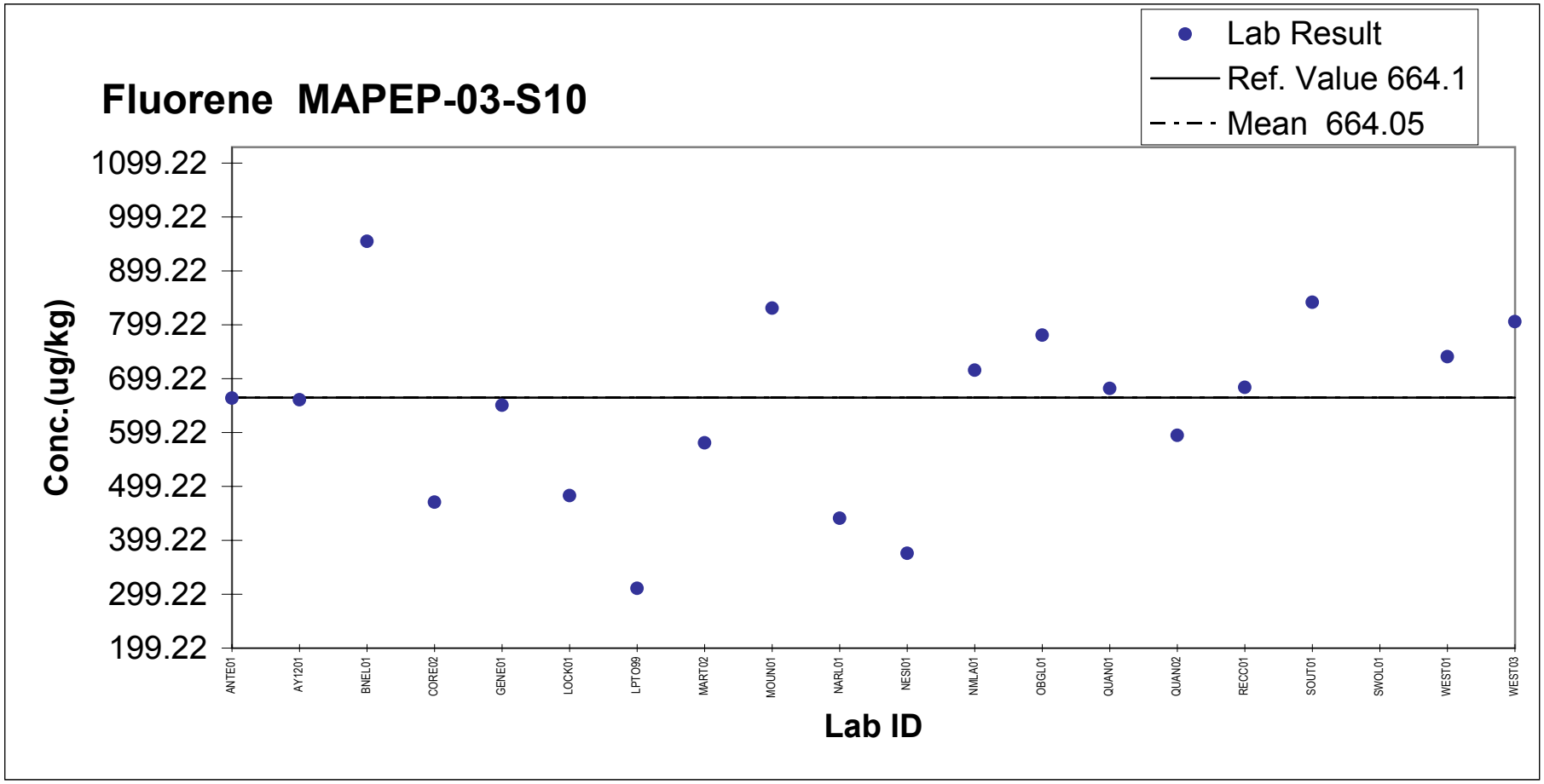

Hexachlorobutadiene MAPEP-03-S10
Lab Result
Ref. Value 770.6
Mean 770.63
Conc.(ug/kg)
1231.19
1031.19
831.19
631.19
431.19
231.19
ANTE01
AY1201
BNEL01
CORE02
GENE01
LOCK01
LPTO99
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
QUAN01
QUAN02
RECC01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

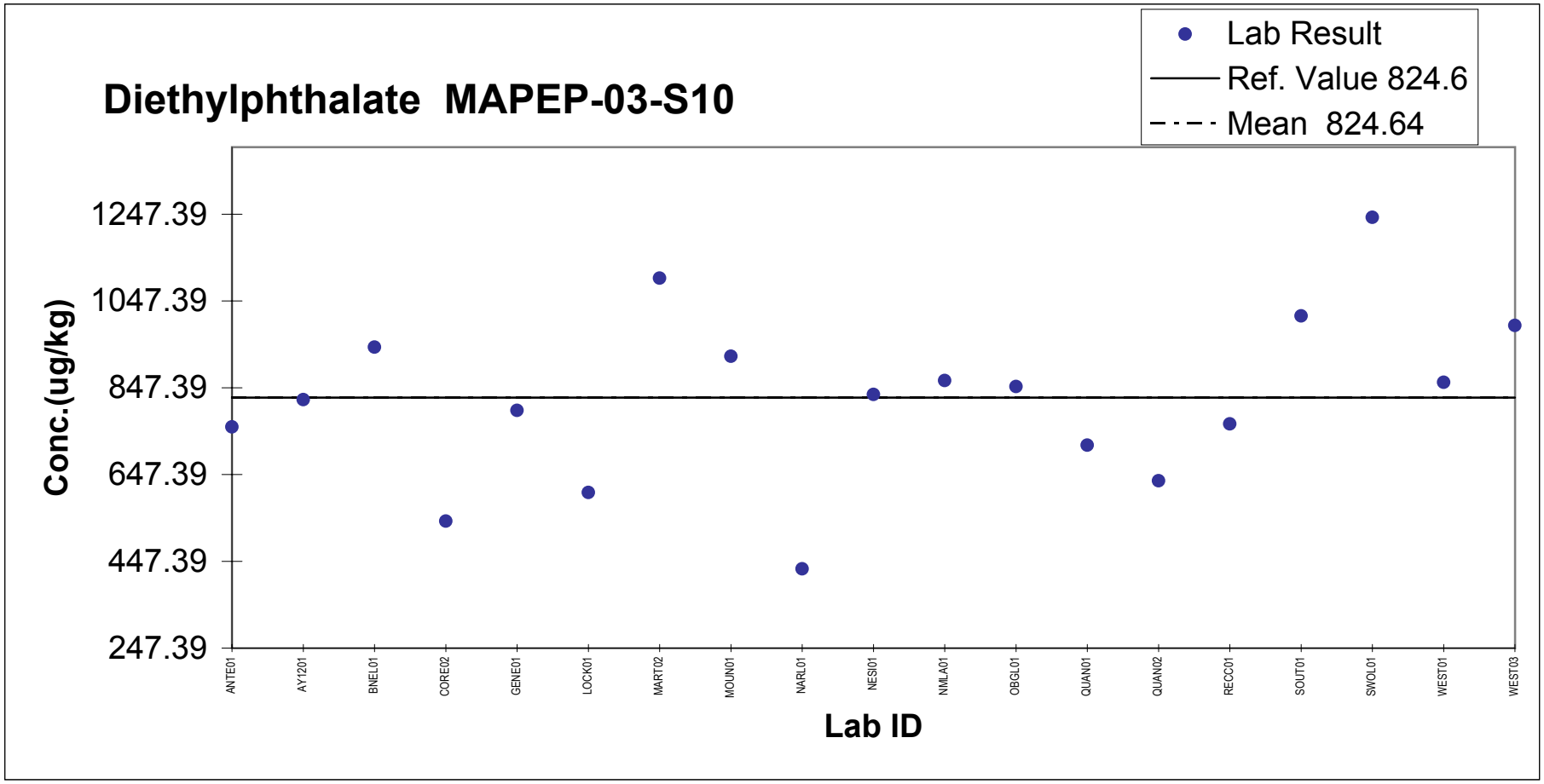

2,6-Dichlorophenol MAPEP-03-S10
Lab Result
Ref. Value 330.4
Mean 330.37
549.11
499.11
449.11
399.11
349.11
299.11
249.11
199.11
149.11
99.11
Conc.(ug/kg)
AY1201
BNEL01
CORE02
GENE01
LPTO99
MART02
MOUN01
NESI01
QUAN01
QUAN02
WEST01
WEST03
Lab ID

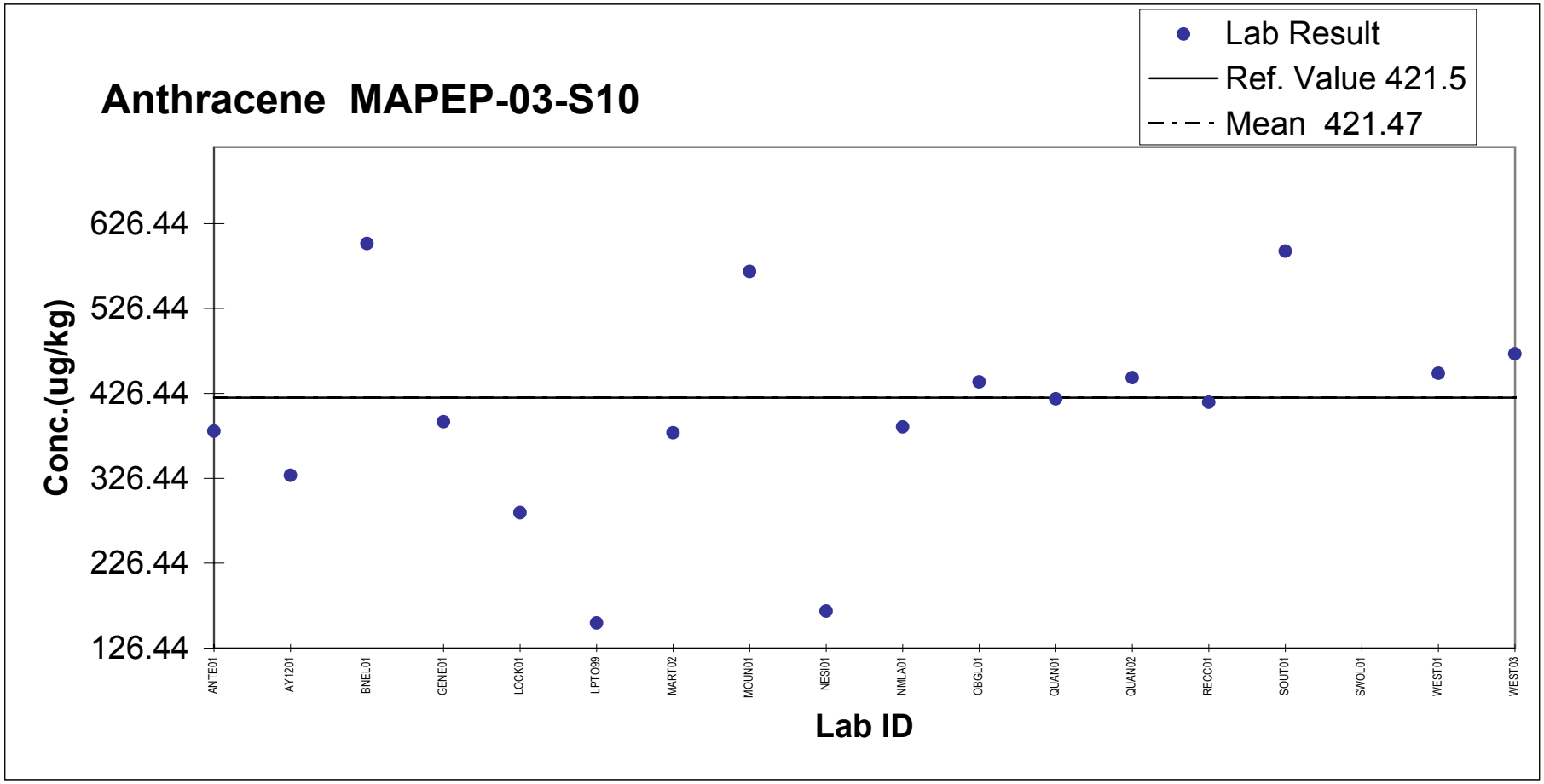

2-Chloronaphthalene MAPEP-03-S10
Lab Result
Ref. Value 723.7
Mean 723.74
1217.12
1017.12
817.12
617.12
417.12
217.12
Conc.(ug/kg)
ANTE01
AY1201
BNEL01
CORE02
GENE01
LOCK01
LPTO99
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
QUAN01
QUAN02
RECC01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

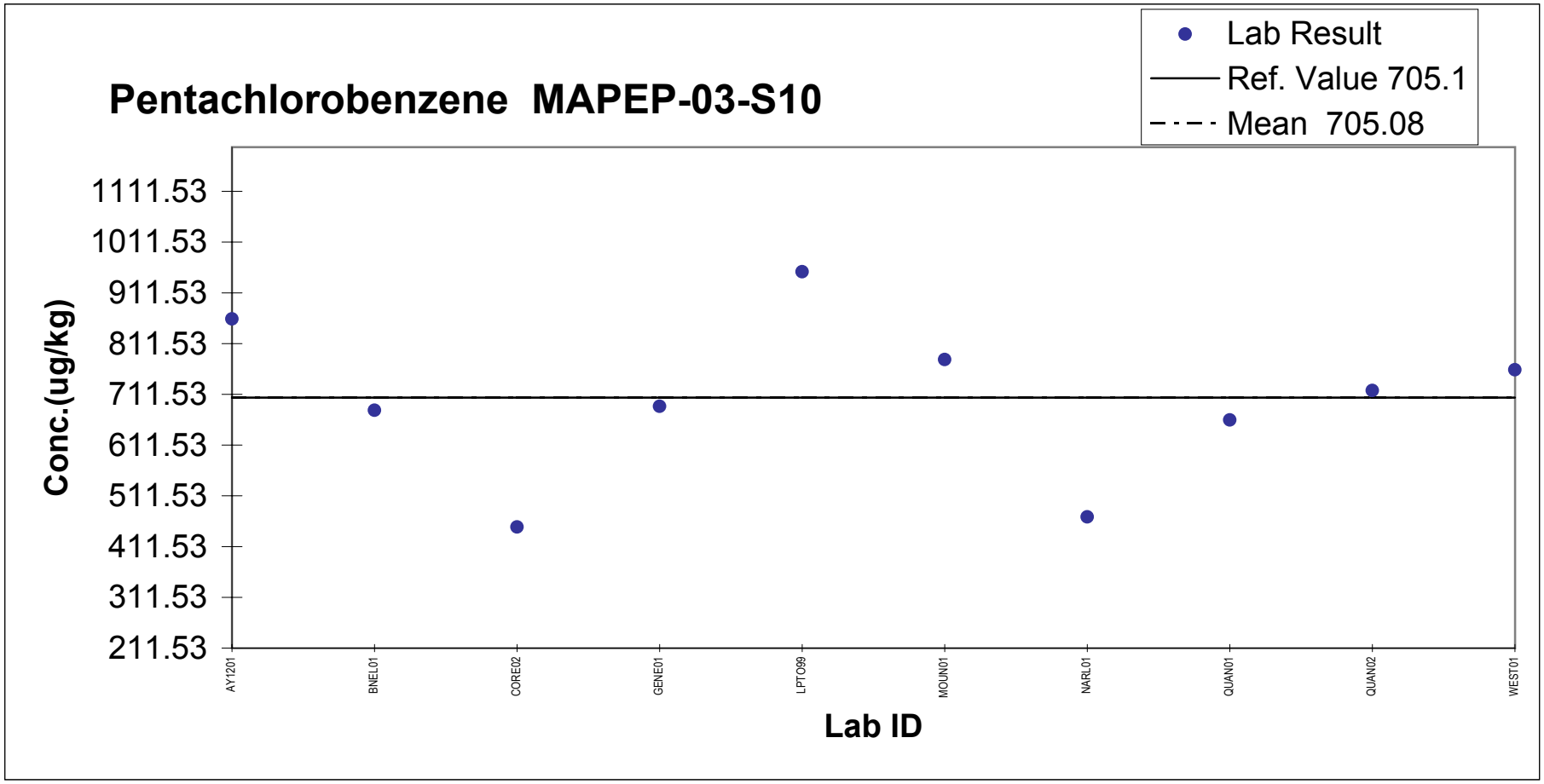

2,4-Dinitrotoluene MAPEP-03-S10
Lab Result
Ref. Value 788.0
Mean 788.03
Conc.(ug/kg)
1236.41
1036.41
836.41
636.41
436.41
236.41
ANTE01
AY1201
BNEL01
GENE01
LOCK01
LPTO89
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
QUAN01
QUAN02
RECC01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

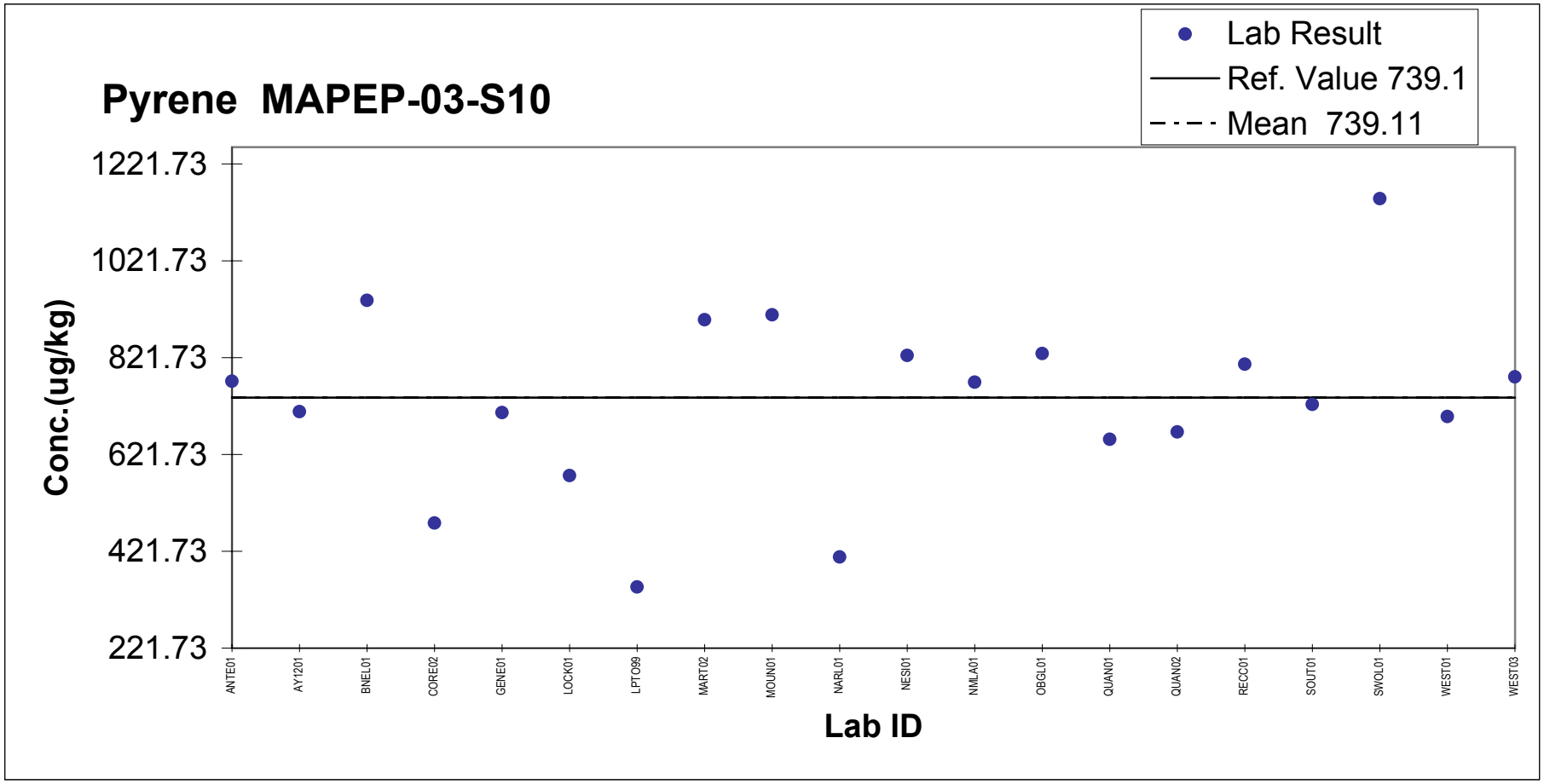

2,6-Dinitrotoluene MAPEP-03-S10
Lab Result
Ref. Value 911.9
Mean 911.91
Conc.(ug/kg)
1473.57
1273.57
1073.57
873.57
673.57
473.57
273.57
ANTE01
AY1201
BNEL01
CORE02
GENE01
LOCK01
LPTO99
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
QUAN01
QUAN02
RECC01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

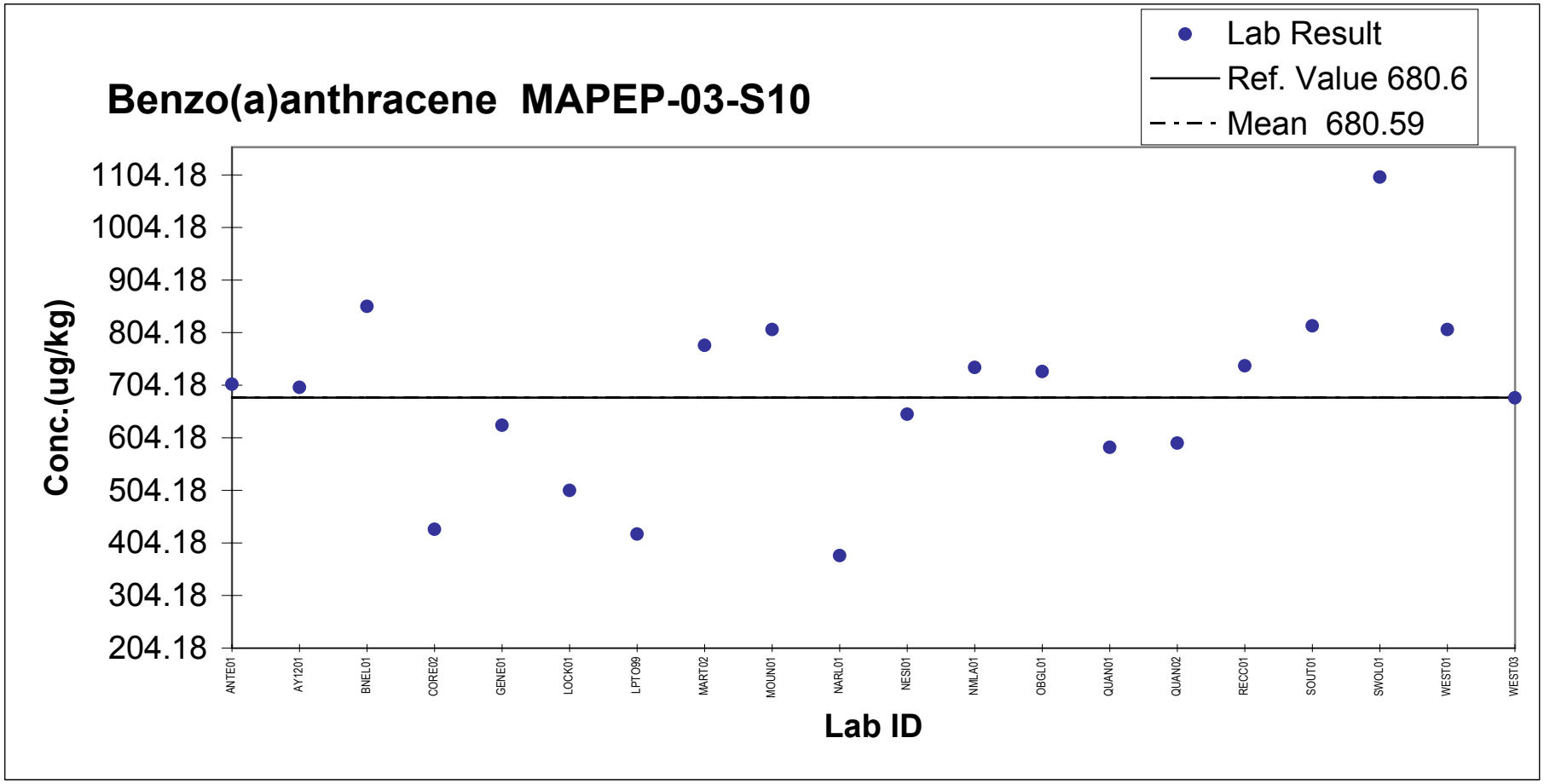

Fluorene MAPEP-03-S10
Lab Result
Ref. Value 664.1
Mean 664.05
Conc.(ug/kg)
1099.22
999.22
899.22
799.22
699.22
599.22
499.22
399.22
299.22
199.22
ANTE01
AY1201
BNEL01
CORE02
GENE01
LOCK01
LPTO99
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
QUAN01
QUAN02
RECC01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

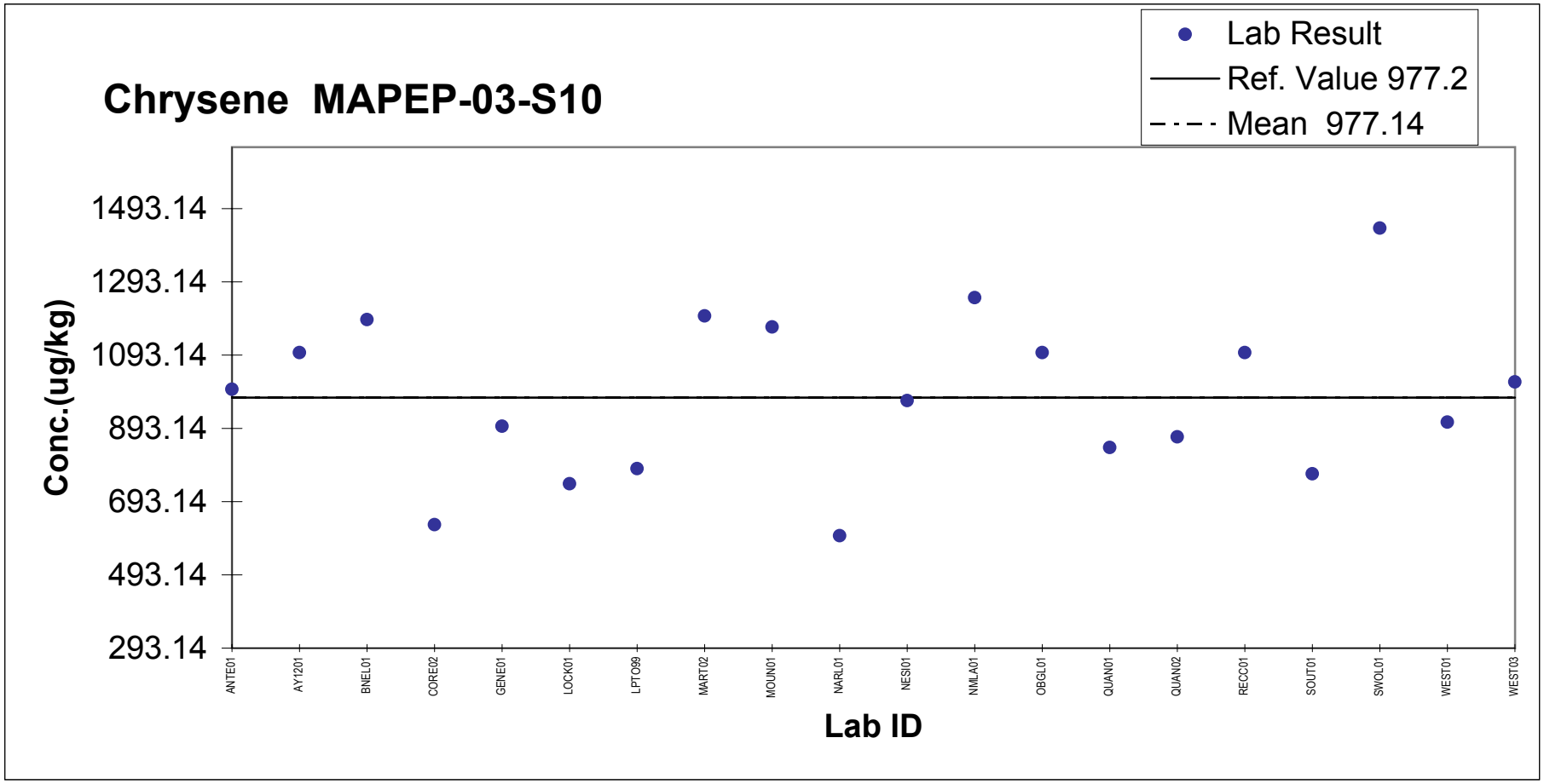

Diethylphthalate MAPEP-03-S10
Lab Result
Ref. Value 824.6
Mean 824.64
Conc.(ug/kg)
1247.39
1047.39
847.39
647.39
447.39
247.39
ANTE01
AY1201
BNEL01
CORE02
GENE01
LOCK01
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
QUAN01
QUAN02
RECC01
SOUT01
SWOL01
WEST01
WEST03
Lab ID

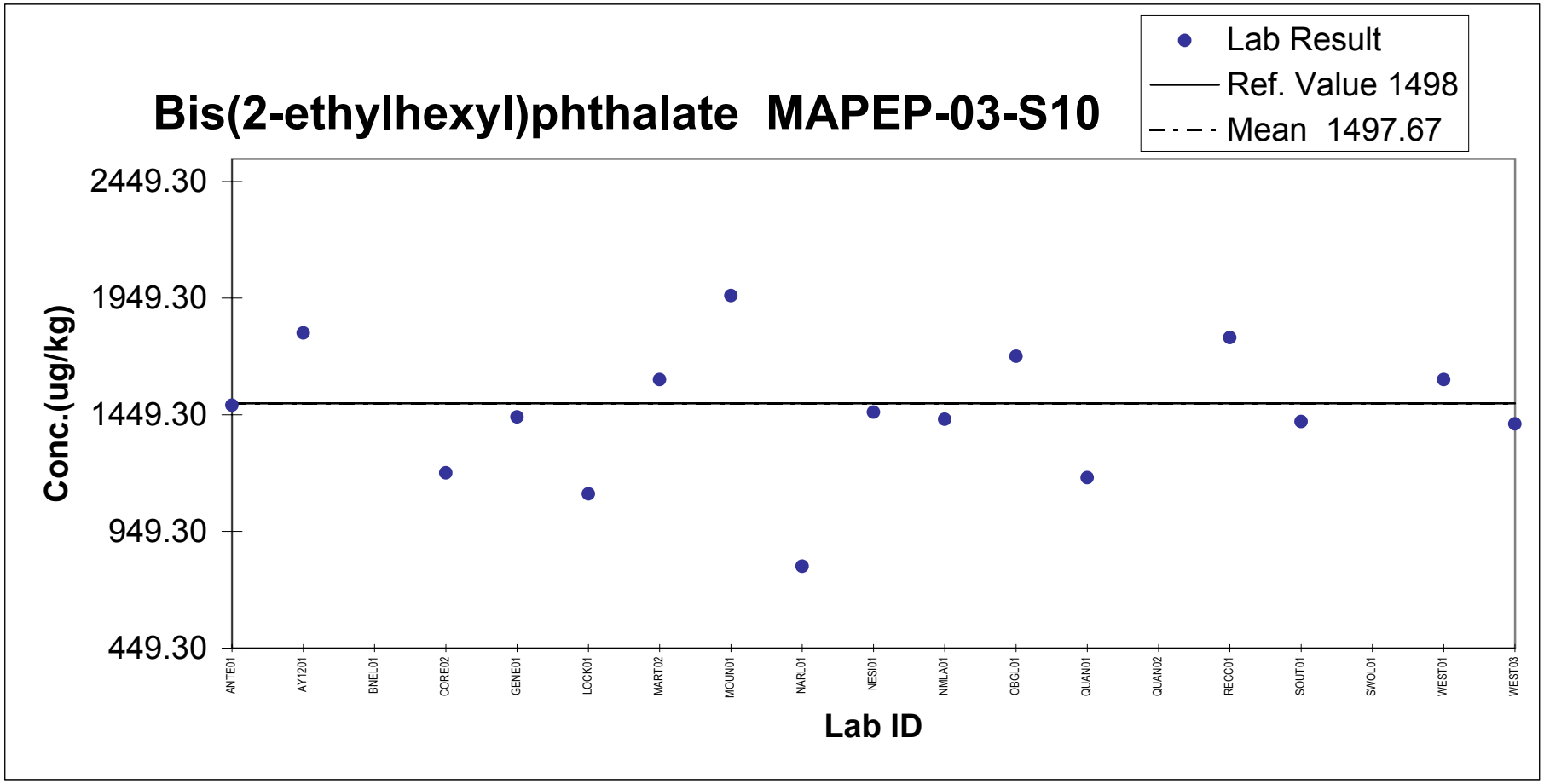

Anthracene MAPEP-03-S10
Lab Result
Ref. Value 421.5
Mean 421.47
Conc.(ug/kg)
626.44
526.44
426.44
326.44
226.44
126.44
ANTE01
AY1201
BNEL01
GENE01
LOCK01
LPTO99
MART02
MOUN01
NESI01
NMLA01
OBGL01
QUAN01
QUAN02
RECC01
SOUT01
SWOL01
WEST01
WEST03
Lab ID


Pentachlorobenzene MAPEP-03-S10
Lab Result
Ref. Value 705.1
Mean 705.08
Conc.(ug/kg)
1111.53
1011.53
911.53
811.53
711.53
611.53
511.53
411.53
311.53
211.53
AY1201
BNEL01
CORE02
GENE01
LPTO99
MOUN01
NARL01
QUAN01
QUAN02
WEST01
Lab ID


Pyrene MAPEP-03-S10
Lab Result
Ref. Value 739.1
Mean 739.11
Conc.(ug/kg)
1221.73
1021.73
821.73
621.73
421.73
221.73
ANTE01
AY1201
BNEL01
CORE02
GENE01
LOCK01
LPTO99
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
QUAN01
QUAN02
RECC01
SOUT01
SWOL01
WEST01
WEST03
Lab ID


Benzo(a)anthracene MAPEP-03-S10
Lab Result
Ref. Value 680.6
Mean 680.59
Conc.(ug/kg)
1104.18
1004.18
904.18
804.18
704.18
604.18
504.18
404.18
304.18
204.18
ANTE01
AY1201
BNEL01
CORE02
GENE01
LOCK01
LPTO99
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
QUAN01
QUAN02
RECC01
SOUT01
SWOL01
WEST01
WEST03
Lab ID


Chrysene MAPEP-03-S10
Lab Result
Ref. Value 977.2
Mean 977.14
Conc.(ug/kg)
1493.14
1293.14
1093.14
893.14
693.14
493.14
293.14
ANTE01
AY1201
BNEL01
CORE02
GENE01
LOCK01
LPTO99
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
QUAN01
QUAN02
RECC01
SOUT01
SWOL01
WEST01
WEST03
Lab ID


Bis(2-ethylhexyl)phthalate MAPEP-03-S10
Lab Result
Ref. Value 1498
Mean 1497.67
Conc.(ug/kg)
2449.30
1949.30
1449.30
949.30
449.30
ANTE01
AY1201
BNEL01
CORE02
GENE01
LOCK01
MART02
MOUN01
NARL01
NESI01
NMLA01
OBGL01
QUAN01
QUAN02
RECC01
SOUT01
SWOL01
WEST01
WEST03
Lab ID